ASSESSMENT REPORT – 2006 EXPLORATION PROGRAM

KEMESS PROPERTY:
KEMESS EAST DIAMOND DRILL PROGRAM AND FIELDWORK

CLAIMS:
243440, 241960, 241959

OMINECA MINING DIVISION
BRITISH COLUMBIA

CENTERED ON:
LATITUDE 57° 03' North
LONGITUDE 126° 43' West

NTS 094D/15 and 094E/02

Owned and Operated By:

Northgate Minerals Corporation
815 Hornby Street, Suite 406
Vancouver, British Columbia
V6Z 2E6, Canada

K.Lucas
R.Konst
B.Kay, P.Geo.

January 2007

1.0 Executive Summary

This report outlines exploration work completed on the Kemess property in the Kemess East area from May 1 2006 to November 30 2006. The Kemess property is located in the Toodoggone mining camp, to the north of the McConnell Ranges approximately 430 kilometers northwest of Prince George. The work described in this report was completed on claims 243440, 241960, 310078 Drill hole KH-06-07 lies within mining lease 410732 and is included for completeness but no costs are claimed. Expenditures allowable for assessment credit are $1 207 829.

Exploration during 2006 encompassed two main focuses. A combination skid and helicopter supported drill program was completed from May 1 to November 30, 2006. The drill program comprised a total of 3812.3m of NQ, BTW and NTW diameter diamond drilling in 8 drill holes. A total of 2846 prepared samples and 114 quality control samples were submitted for analysis. The Kemess East exploration drill program focused on determining the east extent of the already defined Kemess North deposit and testing geophysical results. The targeted Kemess East area is bounded by north northwest trending structures that have offset the deposit to the south east. Significant intersections of Au-Cu porphyry style mineralization were intercepted in several holes. Notable intersections are: KH-06-03 returning 226m of 0.18g/tAu, 0.21%Cu and KH-06-14 returning 32m of 0.19g/tAu, 0.26%Cu. The Kemess East zone is still open to the north and at depth. Exploration in 2007 will focus on re-entering some of the shallow holes in the area, as well as completing more diamond drill holes to further define the offset system.

The second focus was a regional fieldwork program that included mapping, soil sampling, trenching and geophysical work. The mapping program covered the area encompassing the defined Kemess North Deposit, the adjacent Nugget region to the west, and the Kemess East area. The goal of the program was to gain a better understanding of the structural controls on the property. The mapping discovered two new showings with visible Ag-Cu mineralization and anomalous Ag-Cu values in the southern reaches of Kemess East. 25-30m of trenching was completed over the mineralized area, with 61 chip samples and 25 grab samples taken. 195 soil samples were collected in a 500x1000m area around the original showing. A total of 9.6 km of geophysical work was completed on the Kemess property, 6.8 km of which was within the Kemess East area. The work consisted of a Titan 24 geophysical survey and was completed in July 2006. This survey indicated previously unknown mineral potential at depth in Kemess East.

Table of Contents

1.0 Executive Summary 2
2.0 Introduction 5
3.0 Location and Access 5
4.0 Claim Data 7
5.0 District Exploration and Mining History 12
6.0 Regional Geology 13
7.0 Structural Setting 16
8.0 Property Geology 16
8.1 Introduction 16
8.2 Lithology 17
8.3 Structure 19
8.4 Alteration, Veining and Mineralization 20
9.0 Exploration Work 21
9.1 Drilling 21
9.2 Drill Core Processing 22
9.3 Drilling Results 23
9.4 QAQC Program 23
9.5 Geophysical Work 24
9.6 Mapping 25
9.7 Trenching and Soil Sampling 25
9.8 Soil, Grab and Chip Sample Analysis 27
10.0 Conclusions and Recommendations 28
11.0 Statement of Costs 29
12.0 Statement of Qualifications 30
13.0 References 33
14.0 List of Appendices 35

List of Figures

Figure 1 – Kemess property location map 6
Figure 2 – Summary claim map 10
Figure 3 – Detailed claim map 11
Figure 4 – Regional geology 15
Figure 5 – Property geology 17
Figure 6 – Drill hole locations 22
Figure 7 – Location of geophysical survey 25
Figure 8 – Showing, soil grid, trenching location 26
Figure 9 – Detailed trench sample locations 27

List of Tables

Table 1 – Claim information for Kemess property …….. 8
Table 2 – Summary of exploration work …….. 12
Table 3 – Regional stratigraphy …….. 13
Table 4 – Pluton age dates …….. 14
Table 5 – Drill hole summary data …….. 21
Table 6 – Significant drill hole intersections …….. 23
Table 7 – 2006 Expenditures …….. 29

List of Appendices

Appendix 1 – Diamond Drill Logs/Geotechnical Information
Appendix 2 – Kemess East drill hole cross-sections
Appendix 3 – Assay Certificates
Appendix 4 – 2006 QAQC program
Appendix 5 – 2006 Geophysical Program
Appendix 6 – Geochemical Program - Soils Rocks
Appendix 7 – Geologic Map
Appendix 8 – Archeological Impact Assessment

2.0 Introduction

The Kemess Property is located in the mountains of north-central British Columbia, 430 kilometres northwest of Prince George, British Columbia at 57° 02' north longitude and 126° 47' west latitude. The property comprises four mining leases, and 75 claims which together cover nearly 35,000 hectares. The Kemess South deposit currently supplies mill-feed to a 52,000 tonnes per day mill. In 2001, Northgate announced the discovery of a significant deposit at Kemess North. The Kemess North Project is currently undergoing an environmental assessment and permitting process.

The Kemess Property is owned and operated by Northgate Minerals Corporation. The property was previously owned by Kemess Mines Ltd, a 100% owned subsidiary of Northgate Minerals Corporation. On August 1, 2006, Kemess Mines Ltd. as a corporate entity ceased to exist, being amalgamated with Northgate Minerals Corporation. All assets transferred to the newly amalgamated company, including tenures and permits. Infrastructure consists of an office and maintenance building, a 400-person camp, a mill building, access and service roads and an airstrip. Most supplies are trucked into the property via all-season road access from Mackenzie, British Columbia, while power is available directly from BC Hydro over a 380 km power line.

Kemess occurs at the southern end of the Toodoggone Mining camp, which describes a collection of occurrences and deposits found in Mesozoic volcanic rocks of the eastern Stikine Arch. Large-scale structures are present in the area, with a major terrain boundary present just 25 km east of the project area. The area is known for its Cu-Au porphyry deposits and low sulphidation epithermal Au-Ag vein deposits. Potential also exists for mesothermal vein deposits, skarn deposits, volcanic-associated massive sulphide deposits and red-bed Cu deposits.

The 2006 exploration season included two main programs; exploration diamond drilling in the Kemess East area and regional fieldwork. The exploration season extended from May 1-November 30 2006. The Kemess East drill program was undertaken in order to delineate the eastern extent of the Kemess North mineralizing system. This area has not been a focus within previous exploration programs on the Kemess Property, and thus is poorly understood. The program comprises a total of 3812.3m of NQ, BTW and NTW diameter core diamond drilling in 8 drill holes. A total of 2846 prepared samples and 114 quality control samples were submitted to ASL Chemex's North Vancouver laboratory for ICP analysis, and copper and gold fire assays.

3.0 Location and Access

The Kemess Property is located in the mountainous area east of the Spatsizi Plateau and west of the Swannell Ranges near Thutade Lake, approximately 250 kilometres north of Smithers and 430 kilometres northwest of Prince George at 57°02' north latitude and 126°47' west longitude. The property, shown in Figure 1, spans the boundary between the 94E and 94D NTS sheets and lies within the Omineca Mining Division.

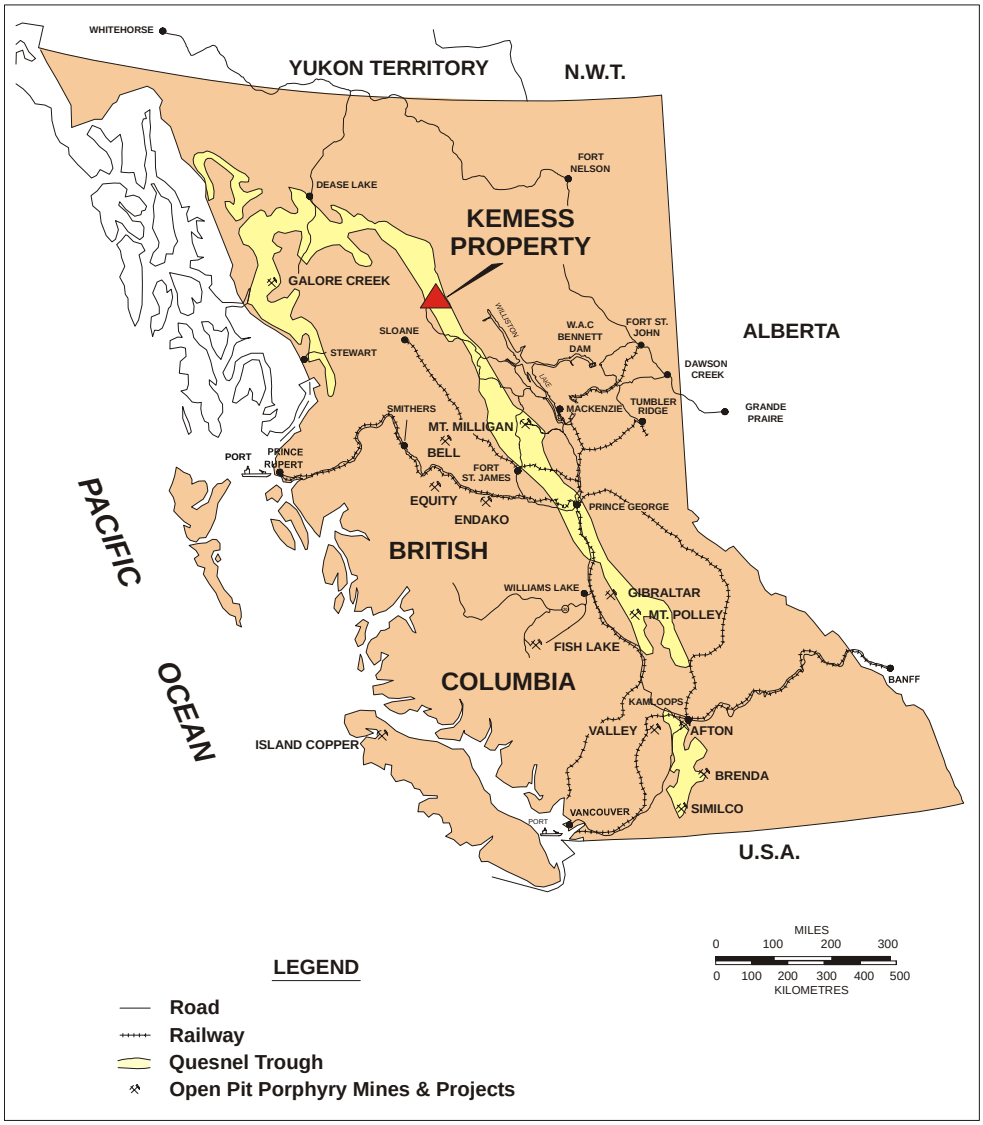

Figure 1 – Kemess property location map. North to top of page.

Access to the project is provided by both air and road, with regularly scheduled year-round flights from Vancouver, Smithers, and Prince George to Kemess. All season road access is available from the town of Mackenzie or Ft. St. James via the Omineca Resources access road.

The area is characterized by broad, open, drift and moraine covered valleys, yielding to sub-alpine plateaus and rugged incised peaks and cirques. Elevations range from 1200m to 2000m, with the tree line occurring at 1500m. The Kemess area climate is generally moderate, although snow can occur during any month. Temperatures range from -40°C to 30^{oC} and average annual precipitation amounts to 890mm.

The 2006 Kemess East Drill Program occurred mostly above the tree line, with one drill hole falling below. The drill holes were located in the east half of the property, in the eastern-most of four east-west trending cirques, which open to the north forming a common southern headwall. Access for the program was by drill road and helicopter in the summer months, and by helicopter and snowcat/snowmachine roads and during the winter months.

4.0 Claim Data

The Kemess property is comprised of four mining leases (354991, 410732, 410741, 524240) and 65 surrounding and contiguous mineral claims which together cover 33,883 hectares. All property mineral tenures are held by Northgate Minerals Corporation. The property falls under the jurisdiction of the Omineca Mining Division of British Columbia located on NTS map sheets 094D and 094E. The work described in this report was completed on claims 243440, 241960, 310078.

Table 1 outlines the relevant claim information for the property as listed with Ministry of Energy, Mines and Petroleum Resources as of January 10, 2007. Figure 2 shows a summary map of the claims relative to the local infrastructure and Figure 3 details the claims and mining leases comprising the Kemess Property. The report covers the work was performed on mineral tenures 241960, 243440 and 310078 between May 1, 2006 and November 30, 2006 under BC Ministry of Energy, Mines and Petroleum Resources mine permit MX-13-69.

The work expenditures totaled $1,207,829. On December 21, 2006 under event numbers 4117157 and 4117163, assessment work totaling $440,769.33 was applied to most of the claims listed in Table 1. The excess potion of assessment work was credited to the Northgate portable assessment credit account.

In October 2004, Kemess Mines Ltd., now Northgate Minerals Corporation entered into an option agreement with David L. Cooke to earn 100% interest in the NOR 1 (242993) mineral claim. In June 2005, the NOR 1 claim was converted to cell claim (515683). The area of the optioned property is defined by the NOR 1 legacy claim, held at the time of the agreement.

Mining Leases

Tenure No.	Tenure Type	District Lot	Owner	Map No.	Good To Date	Area (ha.)
354991	Mining Lease	L.7198, L.7199, L.7200 L.7201, L.7204, L.7207	Northgate Minerals Corp.	094E007	2007/sep/15	862.33
410732	Mining Lease	L.7032, L.7328	Northgate Minerals Corp.	094E007	2007/sep/29	950
410741	Mining Lease	L.7329	Northgate Minerals Corp.	094E007	2007/sep/29	106
524240	Mining Lease	L.7342	Northgate Minerals Corp.	094E	2007/dec/22	1565
						3,483.33

Legacy and Cell Claims

Tenure No.	Tenure Type	Claim Name	Owner	Map No.	Good To Date	Area (ha.)
241014	Mineral	SEM #1	Northgate Minerals Corp.	094E007	2017/dec/14	400
241959	Mineral	NEK 3	Northgate Minerals Corp.	094E007	2017/dec/14	500
241960	Mineral	NEW KEMESS 3	Northgate Minerals Corp.	094E007	2017/dec/14	375
242573	Mineral	DU 2	Northgate Minerals Corp.	094E007	2017/dec/14	500
242574	Mineral	NEK 4	Northgate Minerals Corp.	094E007	2017/dec/14	350
243063	Mineral	CAN 1	Northgate Minerals Corp.	094E007	2017/dec/14	500
243064	Mineral	DUNC 1	Northgate Minerals Corp.	094E007	2017/dec/14	100
243065	Mineral	DUNC 2	Northgate Minerals Corp.	094E007	2017/dec/14	100
243066	Mineral	DUNC 3	Northgate Minerals Corp.	094E007	2017/dec/14	150
243067	Mineral	CREEK	Northgate Minerals Corp.	094E007	2017/dec/14	300
243440	Mineral	ALISON 1	Northgate Minerals Corp.	094E007	2017/dec/14	500
304706	Mineral	GOZ 1	Northgate Minerals Corp.	094E007	2017/dec/14	25
304707	Mineral	GOZ 2	Northgate Minerals Corp.	094E007	2017/dec/14	25
310076	Mineral	DUN 1	Northgate Minerals Corp.	094E007	2017/dec/14	225
310077	Mineral	DUN 2	Northgate Minerals Corp.	094E007	2017/dec/14	225
310078	Mineral	DUN 3	Northgate Minerals Corp.	094E007	2017/dec/14	225
343149	Mineral	ATTY 7	Northgate Minerals Corp.	094E017	2017/dec/14	500
343150	Mineral	ATTY 8	Northgate Minerals Corp.	094E007	2017/dec/14	500
355408	Mineral	MILL CREEK 4	Northgate Minerals Corp.	094E007	2017/dec/14	25
401957	Mineral	UN 1	Northgate Minerals Corp.	094E007	2017/dec/14	50
403620	Mineral	BEAR 1	Northgate Minerals Corp.	094D097	2017/dec/14	500
403621	Mineral	BEAR 2	Northgate Minerals Corp.	094D097	2017/dec/14	500
403622	Mineral	BEAR 3	Northgate Minerals Corp.	094D097	2017/dec/14	500
403623	Mineral	BEAR 4	Northgate Minerals Corp.	094D097	2017/dec/14	500
403624	Mineral	BEAR 9	Northgate Minerals Corp.	094D097	2017/dec/14	500
403625	Mineral	BEAR 10	Northgate Minerals Corp.	094D097	2017/dec/14	500
403626	Mineral	BEAR 13	Northgate Minerals Corp.	094D097	2017/dec/14	250
403627	Mineral	BEAR 14	Northgate Minerals Corp.	094D097	2017/dec/14	250
403628	Mineral	BEAR 5	Northgate Minerals Corp.	094D097	2017/dec/14	500
403629	Mineral	BEAR 6	Northgate Minerals Corp.	094D097	2017/dec/14	500
403630	Mineral	BEAR 7	Northgate Minerals Corp.	094D097	2017/dec/14	500
403631	Mineral	BEAR 8	Northgate Minerals Corp.	094D097	2017/dec/14	500
403632	Mineral	BEAR 11	Northgate Minerals Corp.	094D097	2017/dec/14	500
403633	Mineral	BEAR 12	Northgate Minerals Corp.	094D097	2017/dec/14	500
403634	Mineral	BEAR 15	Northgate Minerals Corp.	094D097	2017/dec/14	375

403635	Mineral	BEAR 16	Northgate Minerals Corp.	094D097	2017/dec/14	375
405949	Mineral	LAT 1	Northgate Minerals Corp.	094E007	2017/dec/14	25
414229	Mineral	DUNC 4	Northgate Minerals Corp.	094E007	2017/dec/14	25
414230	Mineral	DUNC 5	Northgate Minerals Corp.	094E007	2017/dec/14	25
414231	Mineral	UN 2	Northgate Minerals Corp.	094E007	2017/dec/14	25
414232	Mineral	UN 3	Northgate Minerals Corp.	094E007	2017/dec/14	25
506817	Mineral	TLK 1	Northgate Minerals Corp.	094D	2016/feb/11	423.346
506822	Mineral	TLK 2	Northgate Minerals Corp.	094D	2016/feb/11	423.244
506824	Mineral	TLK 3	Northgate Minerals Corp.	094D	2016/feb/11	387.724
506825	Mineral	TLK 4	Northgate Minerals Corp.	094E	2016/feb/11	281.83
515677	Mineral		Northgate Minerals Corp.	094E	2017/dec/14	1108.035
515678	Mineral		Northgate Minerals Corp.	094E	2017/dec/14	1443.31
515686	Mineral		Northgate Minerals Corp.	094D	2017/dec/14	1427.856
515693	Mineral		Northgate Minerals Corp.	094D	2017/dec/14	1534.1
515694	Mineral		Northgate Minerals Corp.	094E	2017/dec/14	1353.164
516786	Mineral		Northgate Minerals Corp.	094E	2017/dec/14	1391.637
516814	Mineral		Northgate Minerals Corp.	094D	2017/dec/14	863.906
516817	Mineral		Northgate Minerals Corp.	094D	2017/dec/14	440.555
516848	Mineral		Northgate Minerals Corp.	094E	2017/dec/14	105.661
516854	Mineral		Northgate Minerals Corp.	094E	2017/dec/14	1197.161
516860	Mineral		Northgate Minerals Corp.	094D	2017/dec/14	1075.379
543635	Mineral		Northgate Minerals Corp.	094E	2015/dec/14	897.5519
543638	Mineral		Northgate Minerals Corp.	094E	2015/dec/14	861.6243
543646	Mineral		Northgate Minerals Corp.	094E	2017/dec/14	439.5708
543648	Mineral		Northgate Minerals Corp.	094E	2017/dec/14	105.5009
543654	Mineral		Northgate Minerals Corp.	094E	2017/dec/14	175.891
543659	Mineral		Northgate Minerals Corp.	094E	2017/dec/14	421.784
543660	Mineral		Northgate Minerals Corp.	094E	2017/dec/14	351.4827
544419	Mineral		Northgate Minerals Corp.	094E	2017/dec/14	70.3507
64 Claims						**29,730.66**

NOR 1 Property held under Option Agreement with D. L. Cooke

Tenure No.	Tenure Type	Claim Name	Owner	Map No.	Good To Date	Area (ha.)
515683	Mineral		Northgate Minerals Corp.	094E	2017/dec/11	**669.335**
			Kemess Property Area		**Hectares:**	**33,883.33**

Table 1 - Claim information for the Kemess property as listed with Ministry of Energy, Mines and Petroleum Resources as of January 10, 2007. Good to dates are subject to government approval of this 2006 assessment report.

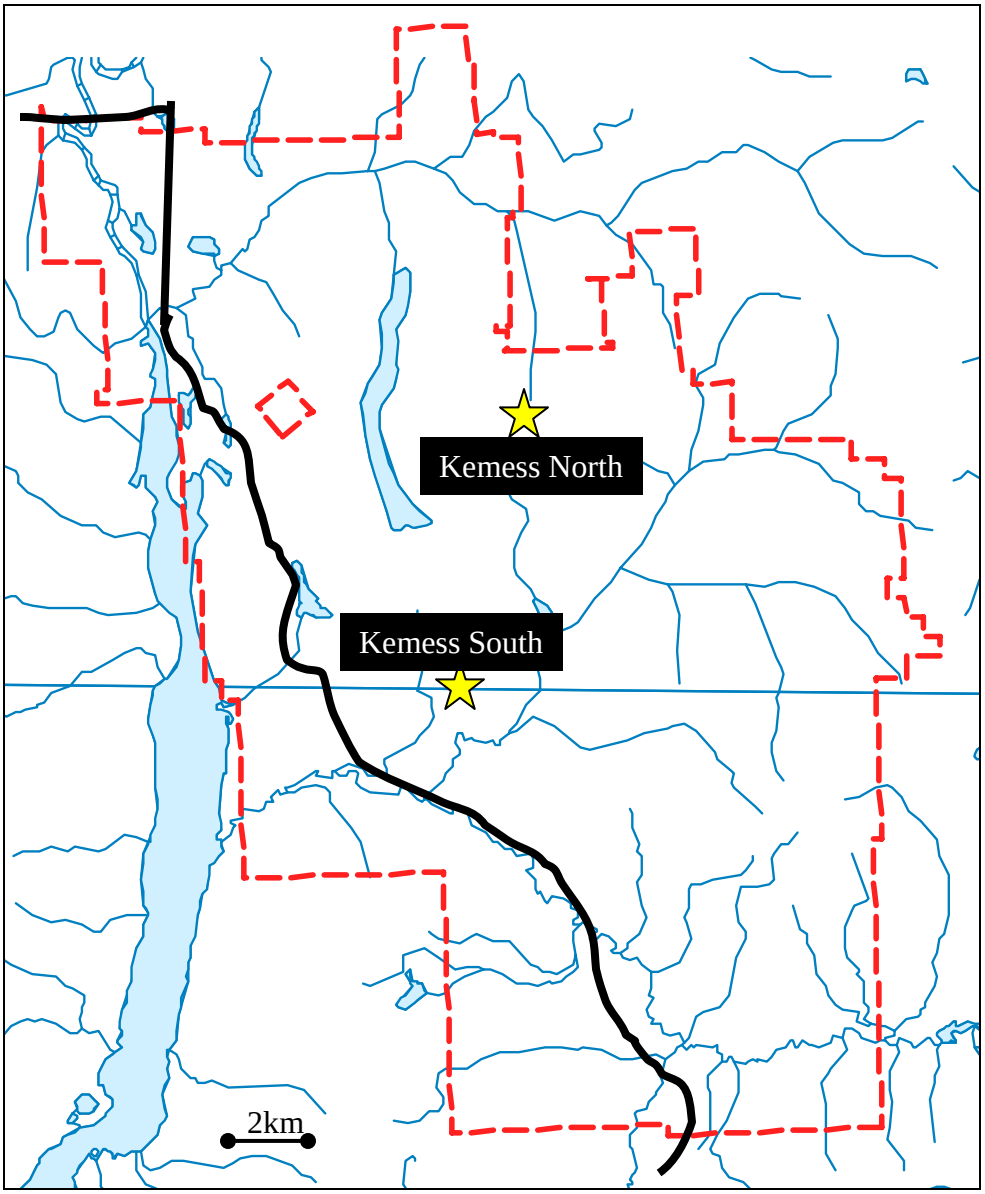

Figure 2 – General claim outline with Omineca access road and deposits. North to top of page.

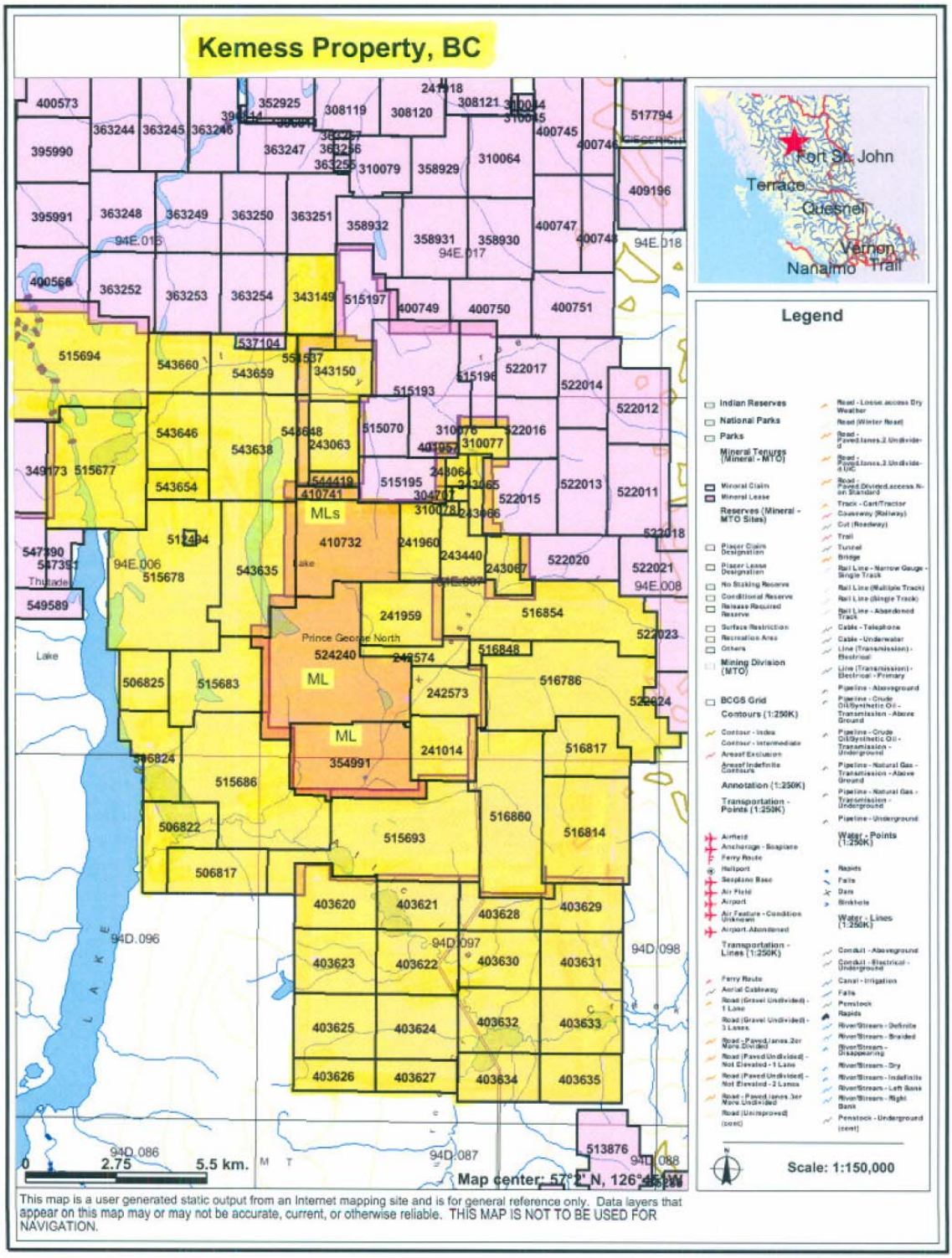

Figure 3 – Detailed Kemess Claim Map – Yellow Outlines Northgate Tenures

5.0 District Exploration and Mining History

The earliest reports of exploration activity in the area date back to the discovery of placer gold at the mouth of McConnell Creek in 1889. There was a brief staking rush in 1907 and prospecting remained active in the area through the early 1920's resulting in a placer discovery at McClair Creek. Cominco Ltd. was active in the area in the 1930's exploring for base metals. During this period Emile Bronlund discovered and staked several skarn showings; the Cairn showing is a nearby occurrence from this era that is located on Duncan Ridge, 4 kms west of Kemess North.

In 1966 Kennecott focused on the area searching for Cu-porphyry systems using stream geochemical techniques and prospecting; this work resulted in claim staking and field work on several prospects including Kemess North, Pine, Fin, Chapelle (aka Baker), Shasta and Lawyers. The latter three deposits are gold-silver epithermal vein systems that eventually produced during the early 1980's. Exploration in the Kemess East area follows that of Kemess North, as summarized in Table 2.

Period	Company	Work Completed
1966-1971	Kenneco Exploration Ltd.	Regional stream and soil geochemistry, staked 100 two post mineral claims; completed soil silt and rock geochemical surveys, mapping at 1 : 9600 scale and completed 232m of x-ray core drilling in 8 holes.
1975-1976	Getty Mines Ltd. and Shell Oil	Optioned property from Kennco and completed 1:4800 scale mapping, ortho-mapping, re-staking, geochemical surveying and 2065 m of diamond drilling in 13 holes (75-18 to 76-30). Option dropped in 1977.
1986-1992	ElCondor Resources Ltd.	Optioned the property from Kennco and commenced sustained exploration that resulted in the discovery at Kemess South. Over a 6 year period at Kemess North, El Condor collected 1025 rock samples and 5402 geochemical samples; completed 76.85 km of ground EM, 14.1 km of ground magnetic surveying, 161.4 km of IP, and drilled 14328 m of core in 69 holes. Additional work included 167 km of line cutting, 54.5 km of roads, and 475m of cat trenching. An inferred resource of 157Mt @ 0.37g/t Au and 0.1 8% Cu resulted at Kemess North.
2000-2003	Northgate Exploration	2000 - 4104.45m of diamond drilling in 12 holes identified a new, higher grade, porphyry zone located east of El Condor's discovery. This work increased the inferred resource at Kemess North to 360 Mt at 0.299 g/t Au and 0.154% Cu 2001 - 8220.48m of diamond drilling in 16 holes which increased Inferred resources to 442Mt @ 0.40 g/t Au and 0.23% Cu 2002 - 27068m of diamond drilling in 47 holes. Mid-2003 pre-feasibility study shows in-pit resource of 369Mt @ 0.34 g/t Au and 0 18% Cu. 2003 - 7449.41m of diamond drilling in 19 holes of infill and geotechnical work. Revised reserve: 414 million tonnes grading 0.31 g/t gold and 0.16% copper
2004-2005	Northgate Minerals Corporation	2004 – 4198.0m of diamond drilling in 15 holes in the Nugget and Hilda areas, and for waste characterization in the Kemess North deposit. The Nugget Zone intercepts were significant enough to carry a 9.4 million tonne pittable resource grading 0.36 g/t Au and 0.07% Cu.

		2005 – Exploratory diamond drill hole KN-05-24 to the east of the defined Kemess North deposit intersected the Kemess North Offset, opening potential for continuing mineralization along strike to the east. The 2006 Kemess East drill program is the follow up to the Kemess North Offset discovery that occurred towards the end of the 2005 Exploration program.

Table 2 – Summary of Exploration Work in the Kemess East Area

6.0 Regional Geology

Mesozoic arc-related volcanic rocks that comprise the eastern margin of the Intermontane Belt underlie the district over an area measuring 100 by 40 kms. The oldest rocks in the belt are Permian Asitka Group, which are disconformably overlain by upper Triassic Takla Group, which are in turn unconformably overlain by lower-middle Jurassic Hazelton Group; overlapping all these assemblages to the west are upper Cretaceous Sustut Group sediments. The lithologic units comprising the stratigraphic succession are described in Table 3 below. Regional geology is depicted in Figure 4.

Age	Lithostratigraphic Unit	Description
Cretaceous	Sustut Group	Sustut rocks grade from Brothers Peak Formation conglomerate, sandstone, mudstone with minor tuffaceous units down to the basal Tango Creek Formation polymictic conglomerate, sandstone, mudstone with minor lignite seams.
L-M Jurassic	Hazelton Group	Uppermost unit, Smithers Formation is dominated by greywacke, lithic sandstone, siltstone, tuffaceous shale, volcanic breccia, conglomerate and limestone. Below lies the Nilkitkwa Formation, which is mainly shale, greywacke, andesitic-rhyolitic tuff with minor limestone. In the Kemess area the quartz phyric volcaniclastic rocks of the Toodoggone Formation are believed to be correlative to the Nilkitkwa. The basal assemblage, Telkwa Formation comprises basaltic to rhyolitic pyroclastic and flow rocks.
U. Triassic	Takla Group	Highest units are Moosevale Formation augite porphyry, breccia, sandstone and mudstone. Central assemblage is Savage Mtn. Formation comprised of flows and pyroclastic augite porphyritic volcanic rocks. Base of the exposed sequence is Dewar Formation argillite, limestone and siltstone.
Mid Pennsylvanian - Permian	Asitka Group	Uppermost units are dominated by limestone and tuff, which give way to a middle assemblage of basaltic flows and rhyolite. The lowermost units are basalt, argillite,chert and limestone.

Table 3 – Regional Stratigraphy after Cope, 1992.

Intrusive rocks are prevalent in the area and have been categorized as late Triassic Alaskan-type ultramafics such as pyroxene diorite, hornblende gabbro and pyroxenite. Economically more significant are the early Jurassic intrusives of the Black Lake suite, which are granodiorite, hornblende diorite, pyroxene quartz-diorite, quartz-monzonite and quartz monzodiorite. Age dates of important plutonic masses are shown in Table 4.

UTM (E)	**UTM (N)**	**Pluton**	**U-Pb (zircon)**	**Notes**
639009	6327545	Atty	205.1+/-0.7(z)	Sample from Northgate; pluton adjacent to Cu-Au mineralization on Atty property; intrusion probable sinistral offset of ca 194.5 granodiorite (96LDi25.1)
		Sovereign	202.7+1.9/-1.6(z)	Porphyritic quartz monzonite (Reference Mortensen et.al., 1995; CIM Special Vol. 46, pg154-156.)
		Maple Leaf	199.6 +/- 0.6(z)	Hosts The Kemess South Cu-Au Deposit
		Kemess North Monzonite	202 +/-?(z)	Hosts The Kemess North Cu-Au Deposit
636408	6326349	Kemess North Syenite	198.3+/-0.8(z)	Corresponds with Northgate DDH KN02-03, 508-514m; post-mineral dike cutting porphyry Cu-Au mineralization
		Duncan Lake	197.3 +1.7/-0.9(z)	
634445	6321726	Kemess Centre	196.3+1.3/-2.9(z)	Sample from drill core DDH KC03-01 346 to 352m
631152	6325806	Cairn	190.3+0.6/-1.8(z)	Sample from Northgate; pluton on Duncan Ridge, spatially associated with Cu-Magnetite skarn

Table 4 - Pluton Age Dates (Diakow 2001- 2004)

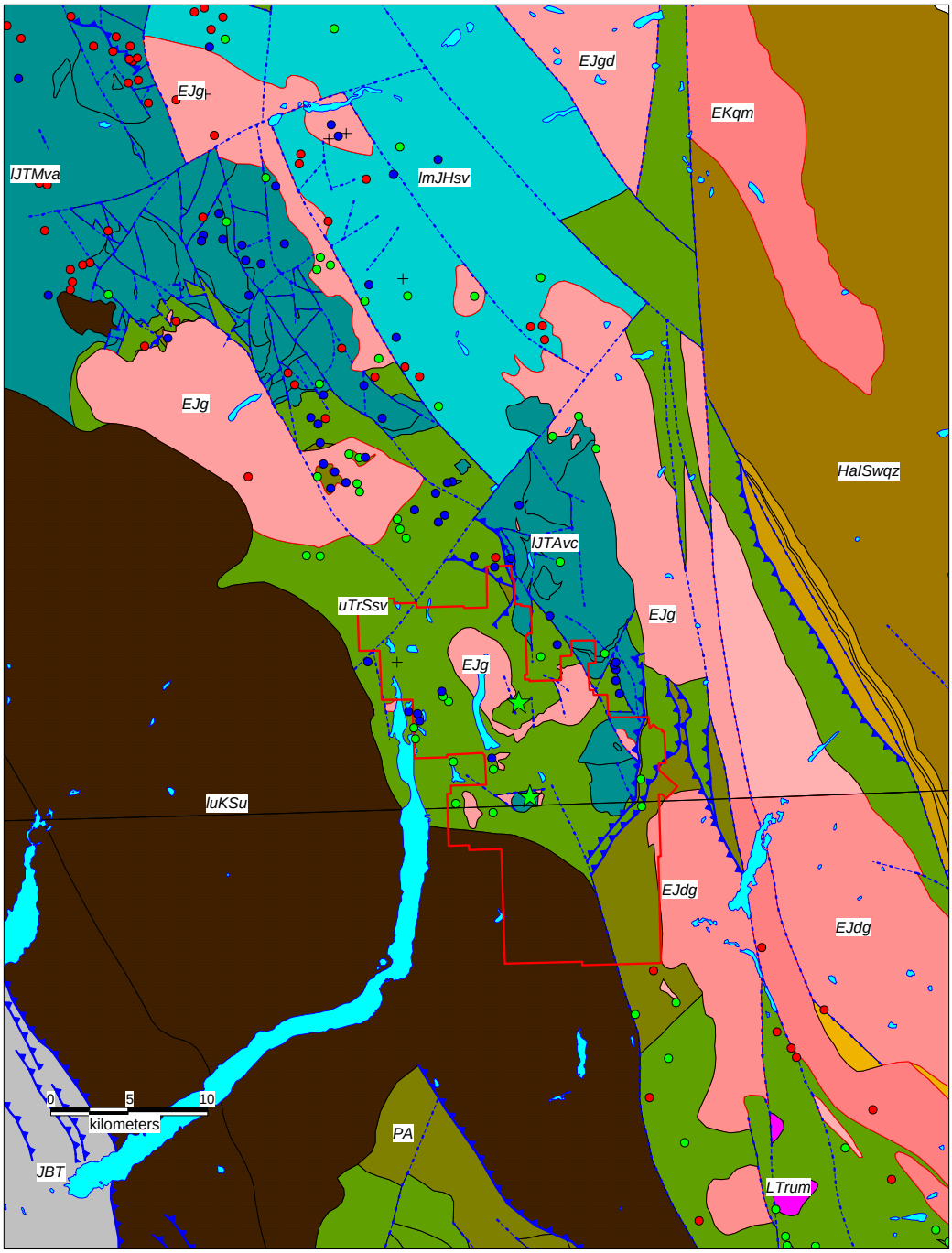

Figure 4 - Regional geology of the Kemess Area, north to top of page. Minfile Occurrences plotted by colour showing principal commodities as follows: gold – red, silver – blue, and copper – green. Geologic units as follows: PA – Late Pennsylvanian - Permian Asitka Group, LTum – Late Triassic Ultra mafic intrusions, uTrSsv – Upper Triassic Takla Group, lJT – Lower Jurassic Hazleton Group, luKSu – Upper Cretaceous Sustut Group, EJ – Early Jurassic Black Lake Intrusives.

7.0 Structural Setting

Generally, the regional volcanic Mesozoic assemblages are upright shallowly dipping flat-lying sequences crosscut by high angle north to northwest trending faults. Significant structures are the Finlay-Ingenika and Moosevale fault systems, which bound the eastern margin of the belt. These structures are dextral strike-slip features that are related to the terrain bounding faults between the Intermontane and Omineca belts.

Local to the Kemess area are the Duncan and Saunders Faults, which are north-northwest normal block fault structures. Thrust faulting is present in the district and is interpreted as Eocene or younger; displacement believed to be towards the northeast and effects rocks from the Takla up to Sustut sediments.

The district represents the results of three superimposed volcanic arc building stages that began in the upper Paleozoic. Marine volcanic and sedimentary successions dominated until the lower-middle Jurassic, when continental, quartz- normative volcanism began with the deposition of the Hazelton Group-Toodoggone Formation sequences. The plutonic rocks of the Black Lake suite are coeval with the Toodoggone sequence and are likely co-magmatic. Block faulting has juxtaposed and exposed panels of varying depth from the magmatic and volcanic systems. The structures and intrusives likely had a strong influence on the eventual positioning of volcanic centers.

8.0 Property Geology

8.1 Introduction

Kemess East is mainly underlain by andesitic to basaltic volcanics of the Upper Triassic Takla Group, with the exception of the eastern regions, which are underlain by fragmental tuffs of the lower Jurassic Toodoggone Formation. Lower Jurassic stocks, dykes, and possible sills of quartz monzonite to quartz diorite composition have intruded the Takla succession. Structurally, the deposit area is transected by steeply dipping north to northwest trending dextral, oblique-slip faults. Porphyry style Cu-Au mineralization occurs mainly within the Takla volcanic rocks, and to a lesser extent the lowermost Jurassic Toodoggone formation rocks and intrusives. Alteration ranges from fresh to weak propylitic and potassic. Figure 5 shows Kemess property geology.

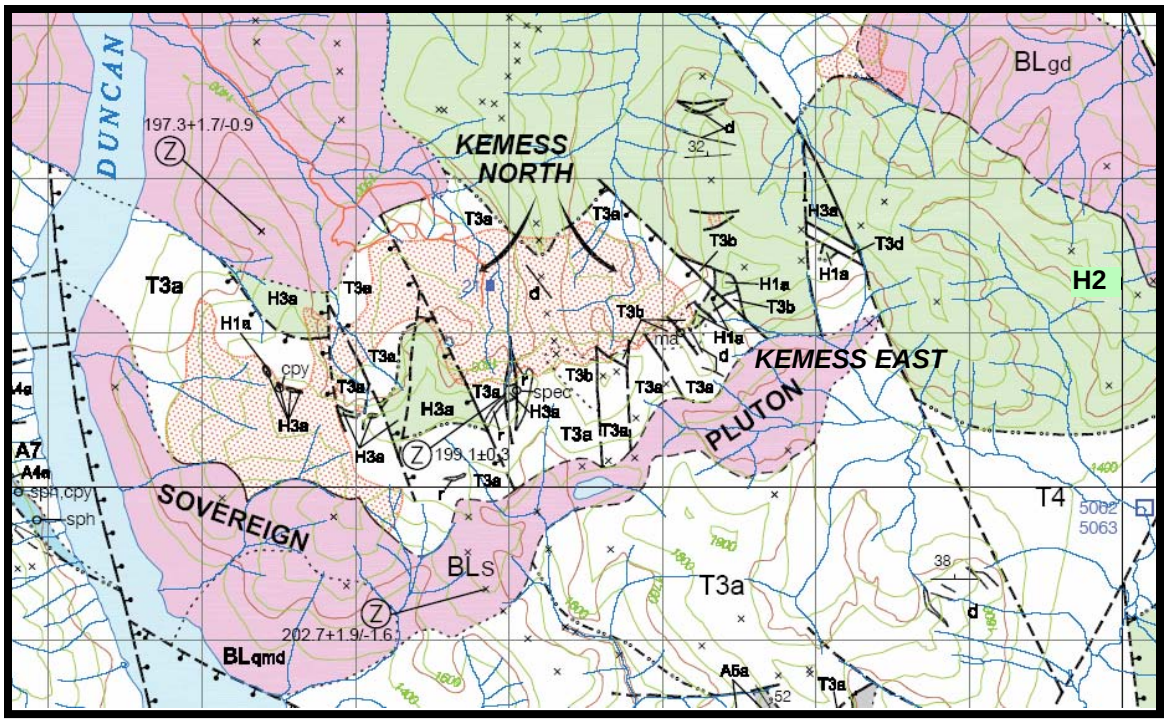

Figure 5 – Property geology after Diakow, 2001. North to top of page, grid is 1km x 1km. A5, A7 – Asitka Group; T3, T4 – Takla Group; H1, H2, H3 – Hazelton Group; BL – Black Lake Intrusives. Lithologies as coded discussed below.

8.2 Lithology

<u>Andesitic Volcanics (Takla Group -T3)</u>

The property is predominantly underlain by a thick (>1000m) succession of andesitic flows and volcanic breccias. Takla volcanics host a significant portion of the Au-Cu mineralization in the Kemess North deposit and the Kemess East area. The andesite and basalt flows exhibit textures ranging from fine-grained and massive, to porphyritic with medium-grained and mostly phyric, subhedral augite phenocrysts. Less common are phenocrysts of plagioclase. The fine-grained matrix is mostly comprised of plagioclase, quartz, and chlorite. The plagioclase is usually sericitized. Less common intersections of auto-brecciated flows occur as coarse sub-rounded andesitic clasts within both phyric and finer-grained flows. On surface, exposed in the North Kemess cirque headwalls and some upper intersections of drill intercepts is a bladed feldspar porphyritic unit. It exhibits a very well developed porphyritic texture with bladed laths of plagioclase up to 1.5 cm long within a finer-grained dark gray matrix. Its texture suggests a hypabyssal origin or possibly an extrusive dome type emplacement.

Dacitic Polylithic Fragmental (Hazelton Group – H1: Toodoggone Formation)

Sub-rounded angular coarse fragments of Takla Group basalts (unit T3) including bladed feldspar porphyry and andesite, monzonite, and rare quartz-feldspar porphyry or chert occur within a siliceous, dacitic matrix. Lithic proportion to matrix is inconsistent ranging from 1-30% volumetrically, with clast size varying from lapilli to blocks. The matrix is fine-grained, dark gray and comprised of 10-30% medium-grained feldspar and 5% diagnostic quartz phenocrysts. Magnetite is common as an accessory mineral occurring as very fine-grained disseminations as are distinctive zeolite-calcite veinlets. Propylitic (epidote-calcite-pyrite) alteration is dominant within the fragmental.

Fragmental Tuffs with Volcaniclastic-Epiclastic Interbeds (Hazelton Group – H2: Toodoggone Formation)

Thick, medium grained, monotonous sequences of fragmental tuffacious material. Medium grained with pink-orange colouration. Matrix is siliceous, and supports sparse (1-5%) but widespread fragments of Takla Group basalts (unit T3) and pink granitoid material. Rare quartz eyes (1-2%), diagnostic of the Hazelton Group, are present throughout the unit as well as fine, dispersed magnetite. Alteration dominated by silicification and hematite staining, with weak epidote overprinting. Zeolite-calcite veinlets, representative of a regional event are common. Volcaniclastic-epiclastic sections of siltstone, sandstone, mudstone and fine grained tuffs break up the unit and act as marker horizons. These sections are planar bedded and often show internal grading.

Dacitic Tuffs – (Hazelton Group – H3: Toodoggone Formation)

Very widespread unit in Kemess North and East, with abundant variation in composition. Overall, the unit is a fine to medium grained dacitic tuff with grey-green colouration. Matrix is fine grained, silicifed (dacitic), with varying amounts of late epidote. May contain some or all of: quartz eyes up to 0.5mm, 1-3mm white feldspar grains, black elongated lapilli of varying sizes (0.3-2.0cm) with a welded texture and occasional broken fragments of Takla Group basalts (unit T3), and less commonly, chert and granitoid. Zeolite-calcite veinlets representative of a regional event are widespread.

Quartz Monzonite / Quartz Diorite (Black Lake Intrusive Suite)

Intermediate intrusive units comprised of subhedral phenocrysts of 50% plagioclase and 40% quartz set in a groundmass of quartz-feldspar chlorite +/- biotite with accessory minerals including; magnetite, apatite, carbonate, rutile, ilmenite, sphene. The main quartz monzonite mass in Kemess North hosts the bulk of the Au-Cu mineralization. The intrusive body in the Kemess East area is the Sovereign Pluton dated at 202.7 +1.9/-1.6 Ma. Unlike the Kemess North quartz-monzonite, the Soverign does not host the bulk of the mineralization in Kemess East, although Au-Cu mineralization does occur along its edges. To remain consistent with earlier work the field-term monzodiorite and quartz monzonite has been retained, however previous petrographic work showed that the

mineralized granitoid underlying the Kemess North deposit is more correctly classified as a quartz diorite due to the paucity (< 5% to absent) of alkali feldspars.

Post-Mineral Dykes

Post-mineral dykes, including feldspar porphyry and minor mafic varieties cross cut Takla volcanics. The feldspar porphyry dykes also cross cut the Jurassic-Toodoggone fragmental unit. The feldspar dykes commonly exhibit pervasive dark pink hematite within the matrix and as staining of the medium grained feldspar phenocrysts. Due to the pink colour of the feldspars, these dykes take the field term syenite and are generally barren and unaltered. The relationship of the feldspar dykes with the larger quartz diorite stocks is not clear, however they appear temporally late in the sequence of events.

Mafic dykes are generally thin at < 1 to 4 metres wide, dark green, commonly amygdaloidal, and barren of sulphides and veining. Observations from regional mapping suggest they are related to the volcanic strata interbedded within Sustut Group sedimentary rocks and are interpreted as Cretaceous.

Also found on the property, cross-cutting Takla volcanics but not encountered cross-cutting porphyry mineralization, are megacrystic quartz rhyolite porphyry dykes. These dykes have conspicuous quartz phenocryst up to 2 centimeters in an off white to pale green groundmass.

8.3 Structure

Due to the lack of bedding and/or marker horizons, the inclination of the massive thick succession of Takla volcanics is difficult to ascertain but probably reflects the regional trend of flat lying Mesozoic assemblages. The oldest structures in the immediate area are east-west trending features that are exposed in the Takla group rocks of the cirque headwalls. These are the only observed features that do not also occur in the Hazelton group rocks within the deposit area. These structures are large, and are exposed over a kilometer of strike length. They appear to be pre-mineralization as no distinct structure appears within the Kemess North intrusive in cross-section that corresponds to the mapped surface exposure.

The oldest features that affect both the Takla and Hazelton groups are large northeast faults that transect Kemess East, but the degree to which they affect the property is poorly understood. Abundant northwest structures dissect the cirque headwalls, but these features are small and closely spaced. This orientation occurs on a much larger scale in regional Hazelton rocks that have been emplaced into the immediate area by younger events. Evidence suggests that the small scale features in the headwalls are the consequence of a larger regional event.

Kemess North is bounded at the northern extent by a near vertical normal fault, and at depth by a low angle reverse fault. These features are inferred to be an artifact of a large

south dipping, ENE trending thrust fault. This feature does not surface in Kemess East but has been intersected at depth in two locations by diamond drilling. A second thrust feature of a similar orientation comes to surface in the south-eastern reaches of the Kemess claim group.

The youngest controlling structure in the area is a large north-northwest trending, normal, east side down structure present along the eastern margin of Kemess East, placing unmineralized Toodoggone Formation tuffs against mineralized Takla Group Basalts. Strike slip movement occurs along this feature, but the distance is great and extends out of the immediate area. This structure also creates the eastern boundary of the mineralization in Kemess East.

At least three related, steeply dipping, dextral, oblique-slip faults have been inferred from surface mapping and drilling. These structures transect the Kemess North and East areas, and are responsible for the offset of the Kemess North deposit. The strike-slip and dip-slip components of each structure vary, but overall decrease to the west, away from the largest of these structures that creates the eastern boundary. Younger features with a similar orientation show evidence of being a controlling factor in the mineralization at the new Molehill showing discovered in the summer of 2006.

8.4 Alteration, Veining and Mineralization

In the North Kemess area alteration and mineralization are associated with, and zoned both vertically and laterally from the quartz diorite / quartz monzonite intrusive intersected at depth. The highest-grade Au-Cu zones occur focused on the quartz monzonite – Takla volcanic contact associated with quartz-magnetite veining and overprinting pyrite-chalcopyrite veining. The zone comprises 50-60% fine-grained quartz, 20-30% magnetite, 5-10% pyrite, 1 % chalcopyrite, with accessory hematite and anhydrite occurring over widths of < 10 to 150 metres. This zone occurs mostly within the quartz monzonite stock and to a lesser extent within the andesite adjacent to the intrusive stock.

Grading outwards from the quartz monzonite into the Takla volcanics, silicification decreases gradually to fine-grained assemblages of chlorite-biotite- sericite. This pattern is a broad generalization and there are areas of either potassic (biotitic) or propylitic (chloritic) alteration that occurs sporadically. Sericitization, commonly from the destruction of matrix and phenocryst plagioclase, is pervasive in the Takla volcanic rocks. Accompanying sericitization are assemblages of quartz-anhydrite-ankerite-magnetite veinlets with disseminated pyrite-chalcopyrite mineralization. Present over the entire area in all rock units except the late mafic dykes are barren pinkish zeolite-carbonate veins, which post-date and crosscut the above vein types and rock units.

Evidence indicates that the bulk of the mineralization in the Kemess East area is a distal part of the Kemess North system, with grading outwards model of mineralization and alteration as described above. Towards the eastern edge of the known mineralization,

there is a higher grade zone associated with the Sovereign Pluton-Takla volcanic contact, which appears to have similar mineralizing patterns to those in the Kemess North system, but is of a much younger age. It is possible that this represents a second phase of mineralization, or may just be the result of remobilizing event driven by the later intrusion of the Sovereign Pluton. The discovery of the Molehill Ag-Cu showing within the Sovereign Pluton indicates the potential for yet another, younger, structurally controlled mineralizing system.

Overall, sulphide mineralization throughout the Kemess North area consists of 2-3% pyrite, with lesser amounts of chalcopyrite and traces of molybdenum. Pyrite occurs as disseminations, fracture fillings, and veins up to a few centimeters wide generally associated with quartz-anhydrite-magnetite veins and zones of quartz-magnetite replacement. The mode of occurrence of chalcopyrite is similar except that veinlets are rare and significant disseminations occur in zones of stronger quartz-magnetite stockwork and quartz-magnetite replacements.

9.0 Exploration Work

9.1 Drilling

The Kemess East exploration drill program totaled 3812.3m in 8 drill holes, and was carried out from May 1 to November 30, 2006. Drilling was completed by Suisse Diamond Drilling of Smithers B.C. The drill program was accessed by both preexisting drill road and helicopter support.

The 2006 drill program focused on determining the eastern extent of the offset Kemess North deposit. Other targets in the area were the geophysical anomalies determined from the Titan 24 survey carried out early in the 2006 program. Locating the position of the major controlling structures at depth was also taken into consideration when planning drill hole targets.

All drill hole collar locations were surveyed by hand held GPS. Holes KH-06-01 through 05, -07, -11, -13, -14 were surveyed with a FlexIT downhole survey instrument at 10 foot (3.3m) intervals. The validity of the survey data was determined based on magnetic variation measurements provided by the Flexit tool.

Hole ID	UTM E	UTM N	Elevation (m)	Azimuth	Dip	Depth (m)
KH-06-01	637796	6326439	1880	0	-90	642.2
KH-06-02	638920	6325940	1846	0	-90	495.3
KH-06-03	638159	6326544	1859	0	-90	544.7
KH-06-04	637703	6326863	1704	0	-90	556.9
KH-06-05	639600	6326003	1568	0	-90	442.1
KH-06-07	637437	6326322	1932	0	-90	623.9
KH-06-11	639067	6326878	1742	0	-90	538.6
KH-06-13	639000	6326503	1650	0	-90	337.4
KH-06-14	638212	6326329	1800	0	-90	255.1

Table 5 – 2006 Kemess East Drill Collar Location and Orientation Data

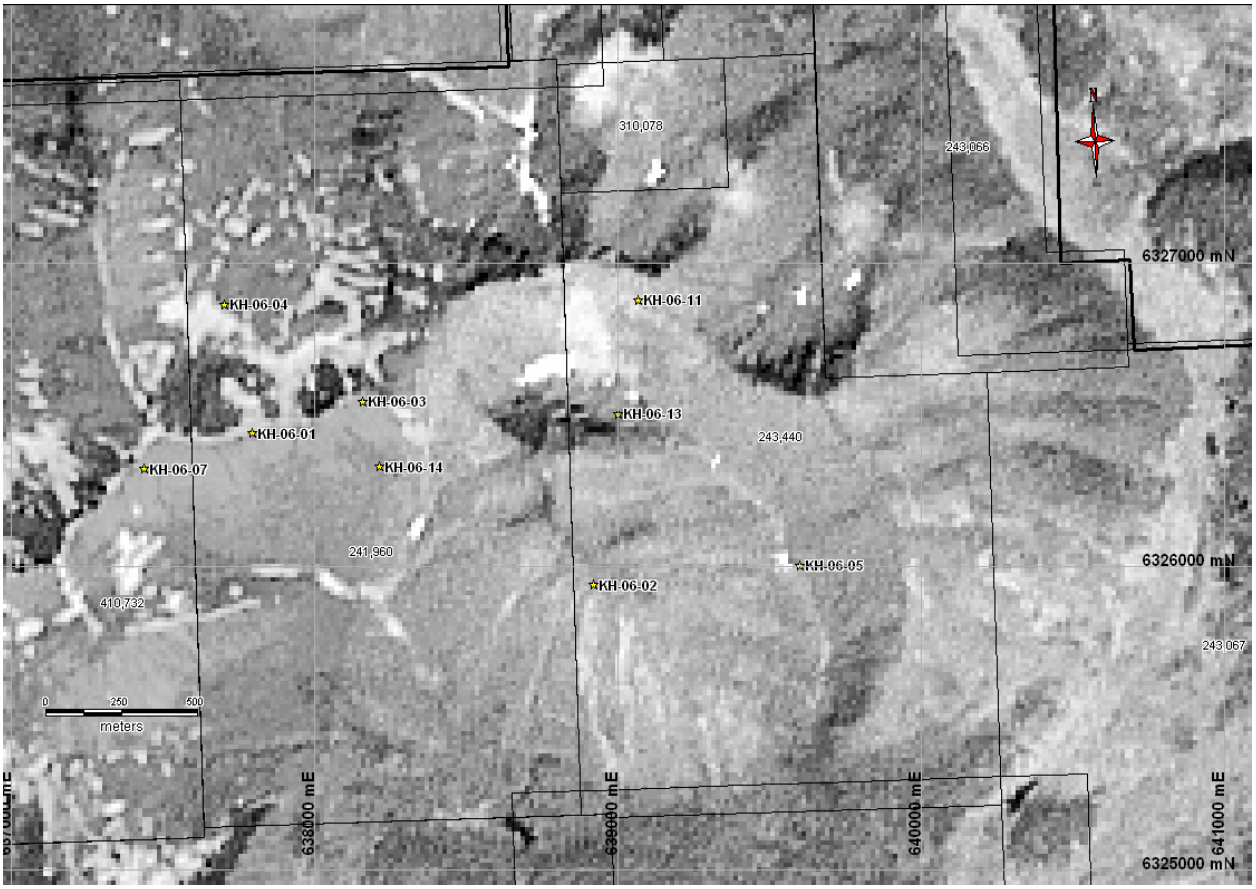

Figure 6 – Location of 2006 Kemess East Drill Holes.

9.2 Drill Core Processing

Contiguous core samples were logged by geologists, then split or sawn, and crushed and pulverized on site. Half core is retained at site in core racks. A total of 2846 prepared samples and 114 quality control samples were submitted for analysis.

All drill holes were logged for geologic and geotechnical properties. All drill core was digitally photographed and the magnetic susceptibility of each sample was measured. Sample intervals were determined by a geologist and ranged from 0.3 to 2.0 meters for all sizes of core. Sample intervals do not cross lithologic boundaries.

An on-site sample preparation laboratory was established to complete the primary crushing (80% minus 10-mesh) of cut or split diamond drill core. When time and machinery permitted, the samples were further pulverized to better than 85 % minus 150-mesh (-75 microns). Operation of the sample preparation laboratory and the quality control procedures were implemented under the supervision of Bill Smith, Chief Assayer at Kemess Mine.

The prepared samples, weighing approximately 250 grams, were submitted to ALS Chemex's North Vancouver laboratory during the 2006 program. Quality control samples (blanks, duplicates, and standards) were inserted into the sample stream at regular intervals such that 1 in 25 samples were submitted for quality control purposes. A total of 114 quality control samples were submitted during the 2006 program. Of the 114, 39 were duplicate samples, 37 were standards, and 38 were blanks. This amounted to 4% of the entire population of samples submitted to ALS Chemex.

At ALS Chemex the samples were pulverized where required, and submitted for 34 element analysis, by aqua-regia acid digestion and ICP-AES. This process quantitatively dissolves base metals for the majority of geological materials. Major rock forming elements and more resistive metals are only partially dissolved. Copper assay was done by triple acid digestion, HCl - HNO3 - HBr, 2 gram, digestion in Teflon beakers, with an atomic absorption finish. Samples were also submitted to a one assay-tonne gold fire assay, 30 gram nominal sample weight fire assay fusion by lead flux with Ag collector, with an atomic absorption finish.

9.3 Drilling Results

Diamond drilling in Kemess East increased the geologic understanding of the area, as well as proving the potential for continuing mineralization to the east of the Kemess North deposit. A greater comprehension of the structural setting of Kemess East now exists, including the position of several large NNW trending structures that control the boundaries of the mineralization. The mineralization in Kemess East remains open to the north and at depth.

Cu-Au porphyry-style mineralization was encountered in holes KH-06-01, -03, -07 and -14 with significant material occurring in KH-06-03. All significant results are outlined in Table 6. Detailed and summary diamond drill logs, as well as complete geotechnical information are in Appendix 1. Cross sections of all Kemess East holes are in Appendix 2.

Hole ID	Interval	Au g/t	Cu %
KH-06-03	226.0m	0.18	0.21
KH-06-14	32.0m	0.19	0.26

Table 6 – Significant drill hole intersections.

9.4 QAQC Program

The following is a summary of the complete QAQC program outlined in Appendix 4.

A total of 114 sample preparation and analytical quality control samples were submitted, at a frequency of 1 in 26, along with 2846 prepared mainstream samples, to ALS Chemex during the Kemess Property 2006 Drilling program. This amounted to 4 % of the entire

population of samples submitted to ALS Chemex. Evaluation of the gold and copper analyses of blanks indicates that no significant or systematic contamination or laboratory error occurred during the course of the 2006 program in Kemess East. Laboratory investigations of one blank oultier revealed minor weighing errors that were later rectified by the lab.

Results for the quality control standards, analyzed throughout the program, reported within industry accepted +/- 3 standard deviation error limits. The outliers were found to be due to less than optimal fusion related to the fluxing of the standard material alone and therefore did not affect the results of the mainstream samples.

Evaluation of reject duplicate matched-pair analyses indicates that, for the vast majority of samples, results are precise at grades of interest. The precision levels are comparable to results of the 2002 through 2005 programs. Good levels of precision, 7 % precision for gold and 3 % for copper, are demonstrated at grades of 0.4 g/t and 0.2 % respectively.

Evaluation of the quality control results indicates that the preparatory work performed by Northgate/Kemess staff and the analytical work performed by ALS Chemex provided sound and accurate gold and copper results for the Kemess Property 2006 Drilling program. Therefore gold and copper results from this program are suitable for use in any subsequent resource/reserve estimation for Kemess Property Copper-Gold deposits.

9.5 Geophysical Work

9.6 km of geophysical work, on three different lines, was carried out over the Kemess North deposit and in the Kemess East area. 6.8 km of this work was completed in the Kemess East area and is recorded for assessment credit. The geophysical work was conducted by Quantec Geophysics Inc. in July 2006 and consisted of a Titan 24 survey, measuring resistivity (DC), chargeability (IP) to depths up to 750m and magnetotelluric resistivity (MP) to depths up to 1.5 km. The intent was to gather deep subsurface information to help resolve the structural setting and to define potential mineralized areas in Kemess East. Results were positive, indicating a previously unknown potential for a new mineralized zone at depth in Kemess East. Full details of the survey are included in Appendix 5.

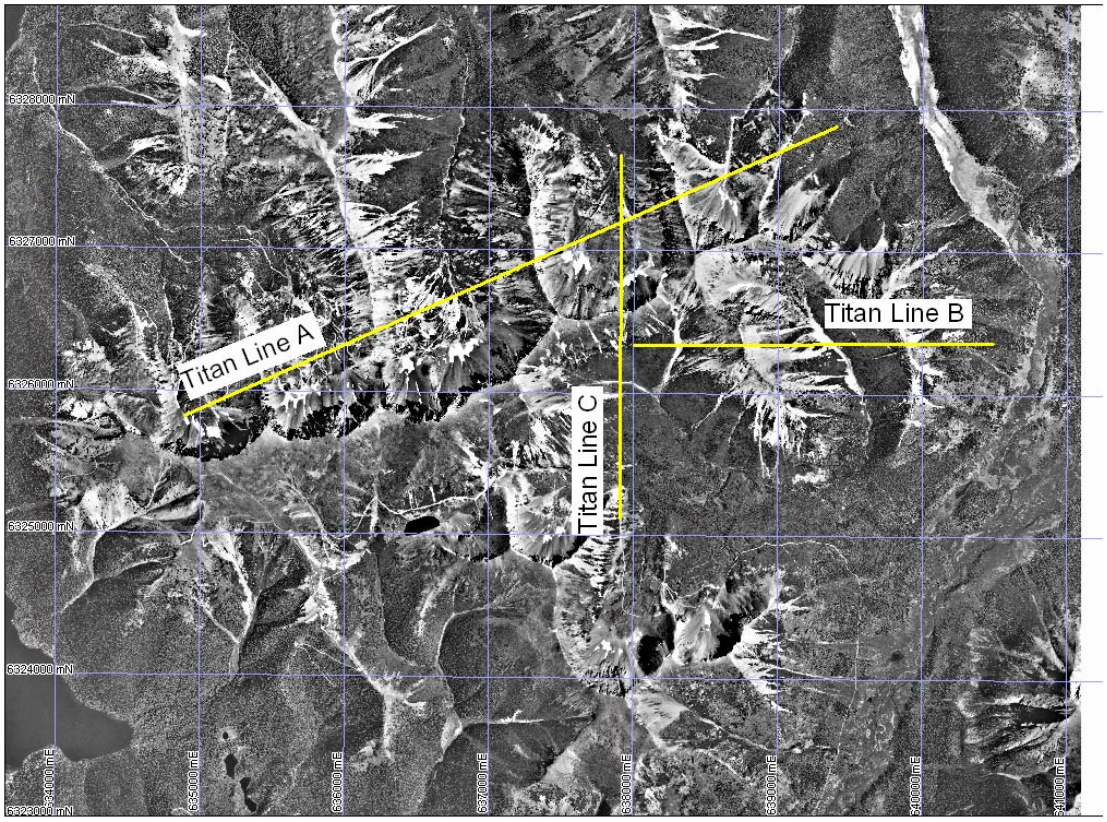

Figure 7 – Location of geophysical survey

9.6 Mapping

A mapping program was completed from late July to early October 2006, with a two to four person team carrying out the project. Helicopter support was required for parts of the region, while the remainder was accessed by pre existing drill roads. The mapping program encompassed the defined Kemess North Deposit, the adjacent Nugget region to the west and the Kemess East area. Only the portion of the fieldwork that was carried out in the Kemess East area is reported for assessment credit. The goal of the program was to gain a better understanding of the structural controls over the entire property with a focus on the Kemess North and East regions.

9.7 Trenching and Soil Sampling

The regional mapping led to the discovery of the Ag-Cu Molehill showing in the southern reaches of Kemess East. Two outcrops of chlorite-sericite altered Sovereign Intrusive containing visible Ag-Cu mineralization and anomalous Ag-Cu values were sited. The outcrops are localized within a structural zone striking NNW. Trenching was conducted over the original showing, with 25-30m of outcrop being uncovered. Eight separate grids were set up and mapped for both geology and structure. The resulting data was incorporated into the larger regional map. 61 30cm chip samples across fractures and 25

grab samples were collected from the trenched area. Figure 7 shows the location of trenching with respect to the Molehill showing. Figure 8 outlines detailed sample locations within the trench. See Appendix 6 for sample locations and full assay results.

A soil sample program was carried out around the original showing in a 1000x500m area. This ground had not previously been sampled in past regional soil programs. Figure 7 depicts soil sample locations with respect to the Molehill showings. The soils collected were taken from the B horizon at 10-30cm depth, every 50m along pre-determined north-south and east-west grid lines that followed local UTM grid lines. UTM coordinates are used as station names. Eg. 6325300N equals line 300N, 637600E equals 7600E. In total, 195 soil samples were collected, with 193 returned assays.

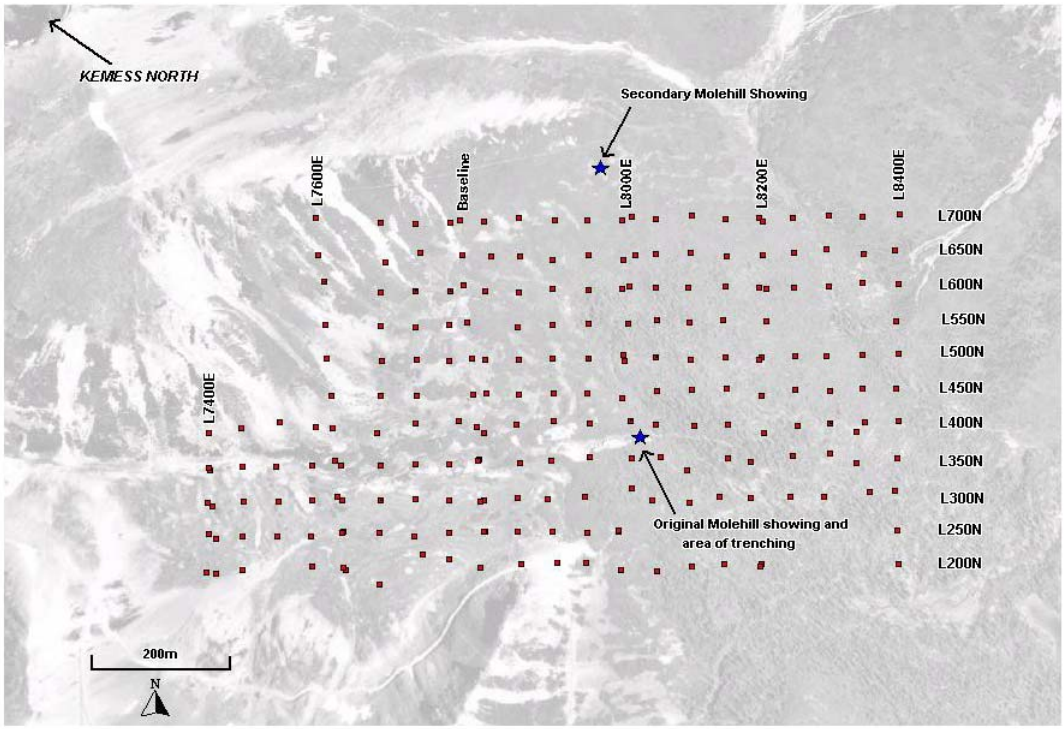

Figure 8 – Squares represent soil sample locations surrounding the original Molehill Ag-Cu showing in Kemess East. Program area wholly within claim 241960.

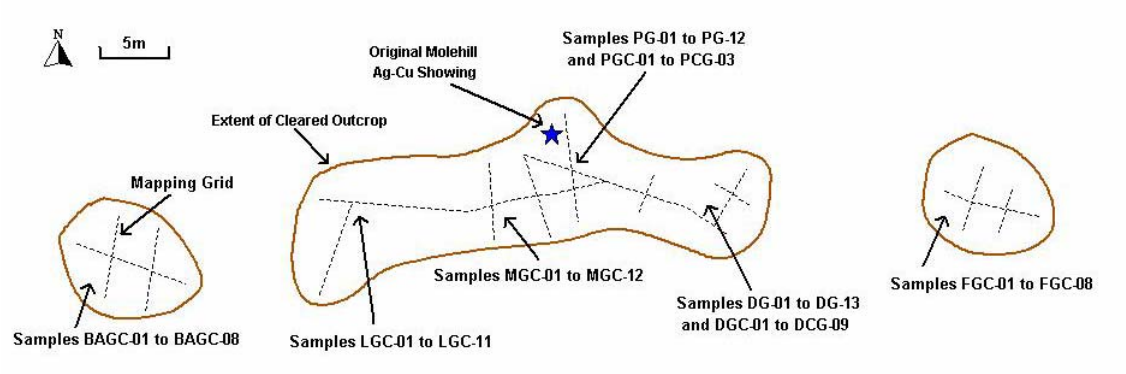

Figure 9 – Detailed trench sample locations with respect to initial Ag-Cu showing. See Figure 7 for regional trench location. Program area wholly within claim 241960.

9.8 Soil, Grab and Chip Sample Analysis

All soil, grab and chip samples were sent to Eco Tech Laboratories in Kamloops B.C. The soils samples were catalogued and dried on site prior to shipping. Grab and chip samples were sent as whole rock.

The soils are then prepared by the lab by sieving through an 80 mesh screen to obtain a minus 80 mesh fraction. Samples unable to produce adequate minus 80 mesh material are screened at a coarser fraction. These samples are flagged with the relevant mesh. Rock samples are two stage crushed to minus 10 mesh and a 250 gram sun sample is pulverized on a ring mill pulverizer to -140 mesh. The sub sample is rolled, homogenized and bagged in a pre numbered bag.

Multi-element ICP analysis was performed on all samples. A 0.5 gram sample is digested with 3ml of a 3:1:2 (HCl:HN03:H20) solution for 90 minutes in a water bath at 95°C. The sample is then diluted to 10ml with water. Samples are analyzed by a Jarrel Ash 61E ICP.

10.0 Conclusions and Recommendations

The 2006 Kemess East exploration drill program focused on testing the potential for mineralization to the east of the Kemess North deposit, as discovered late in the 2005 exploration drill program. Cu-Au porphyry-style mineralization was encountered in holes KH-06-01, -03, -07, and 14 with significant material occurring in KH-06-03. These results indicate the presence of an eastward continuing mineralized system at depth and along strike, that has been offset from the already defined Kemess North deposit. The Kemess East area is still open to the north and at depth, and will undergo further exploration work planned in the 2007 season.

The regional fieldwork supported the presence of continuing mineralization in the Kemess East area. The mapping in conjunction with the drilling results, more accurately determined the presence and location of several large dextral features that cross cut the property and control the position of the mineralized body. The discovery of the Molehill Ag-Cu showing indicates the potential for a second, younger mineralizing system as well as another significant target in Kemess East. Trenching indicated that the showing occurs as small pods within an intrusive body, and is structurally controlled by small but widespread NW features. The lack of anomalous assays from soil samples in the immediate area of the showing indicate abundant till cover and very localized pods of mineralization.

The geophysical work was aimed at gathering deep subsurface information to help resolve structures and to determine potential for undiscovered mineralized areas in Kemess East. Results were positive, indicating a previously unknown and untested anomaly at depth.

Compilation of structural, stratigraphic, and geophysical data for the Kemess East area should continue. The 2007 exploration drill program should see the completion of drill holes KN-06-16 and -17, as well as additional follow up drilling targeting the Kemess East mineralizing system. Additional groundwork, including a second Titan geophysical survey and follow up on the Molehill showing will be required to better assess the remainder of the Kemess East area.

11.0 Statement of Costs

Exploration costs for the 2006 Kemess East project (excluding hole KH-06-07) totaled $1 207 829 as outlined in Table 7. Expenditures were incurred between May 1 and November 30, 2006 with the exception of report writing.

Payroll & benefits		$93 646
Analysis - external		$46 886
Sample preparation and shipping		$22 500
Helicopter		$297 975
Helicopter - fuel		$45 536
Contractor costs		
Geologists	$22 374	
Antiquus Archeological Consultants Ltd	$14 985	
Quantec Geoscience Ltd. (Geophysical)	$93 614	
Johnny Line Cutting	$5 500	$136 473
Drilling		$464 858
Trucks		$9 126
Diesel		$8 005
Camp cost allocation		$24 815
Flights to/from Kemess		$11 723
Rentals		$9 563
Operating supplies		$27 530
Miscellaneous		$5 892
Report Writing		$3 300
Total		**$1 207 829**

Table 7 – Outline of expenditures for Kemess East 2006 drill program.

12.0 Statement of Qualifications

I, Katie Lucas, of 640 Thornloe Drive, Thunder Bay, ON, do herby certify that:

1. I have co-supervised the 2006 exploration program completed at Kemess, reviewed all the data contained herein and have contributed to the preparation of the report.

2. I graduated in 2002 from Lakehead University with a HBSc. in geology.

3. I graduated in 2004 from Queen's University with a MSc. in geology.

4. I am a Geoscientist-In-Training registered with the Association of Professional Geoscientists of Ontario.

5. From 2005 until present I have been continually employed as a geologist in mineral exploration.

Dated at Thunder Bay, February 17, 2007

Katie Lucas

12.0 Statement of Qualifications

STATEMENT OF QUALIFICATIONS

I, Ronnald A. Konst, of 1691 Broadlands Road, Errington, British Columbia, Canada, do hereby certify that:

1. I have co-supervised the 2006 exploration program completed at Kemess and contributed to the preparation of this report.

2. I have studied Geology at the University British Columbia in Vancouver, British Columbia and have received a Bachelor of Sciences degree in 1984.

3. I have continuously practiced my profession as an exploration geologist since graduation until 1998 in Canada, U.S.A., and Mexico. For the period of 1998 through 2002 I was employed as a Quality Assurance Specialist and Database Analyst in the Information Technologies sector. I resumed practice of my profession as an exploration geologist in 2003. Since then I have been continuously employed as a Geologist in mineral exploration.

Dated at Errington, British Columbia, the 18th day of February 2007.

Ronnald A. Konst, B.Sc.

12.0 Statement of Qualifications

I, Brian George Kay, of 1983 Dominion Street, Smithers, British Columbia Canada do hereby certify that:

1. I have supervised the 2006 exploration program completed on the Kemess property, reviewed all the data contained herein, and prepared this report.
2. I graduated from Simon Fraser University in December of 2000 with a B.Sc. in Geology.
3. I am a Professional Geoscientist (P.Geo.) registered with the Association of Professional Engineers and Geoscientists of British Columbia, member # 29684, and have been a member of good standing since June 2005.
4. From 2000 until present I have been continuously employed as a geologist in mineral exploration.

Dated at Vancouver B.C. the 16th day of February 2007.

Brian George Kay

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14.0 List of Appendices

Appendix 1 – Diamond Drill Logs/Geotechnical Information
Appendix 2 – Kemess East drill hole cross-sections
Appendix 3 – Assay Certificates
Appendix 4 – 2006 QAQC program
Appendix 5 – 2006 Geophysical Program
Appendix 6 – Geochemical Program - Soils Rocks
Appendix 7 – Geologic Map
Appendix 8 – Archeological Impact Assessment

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-01

Northing: 16072.9 **Total Depth:** 642.2 **m**

Easting: 11852.1 **Azimuth** 0.0 °

Drilled: 6/16/2006

Elevation: 1888.6 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
	3.0						0
0.0	3.0	3.0	0.7	23%	0.0	0	3
3.0	5.2	2.1	1.1	50%	0.0	0	3
3.0	5.2	2.1	1.1	50%	0.0	0	3
3.0	5.2	2.1	1.1	50%	0.0	0	3
3.0	5.2	2.1	1.1	50%	0.0	0	3
5.2	8.2	3.0	2.6	85%	0.3	0	3
5.2	8.2	3.0	2.6	85%	0.3	0	3
5.2	8.2	3.0	2.6	85%	0.3	0	3
5.2	8.2	3.0	2.6	85%	0.3	0	3
8.2	11.3	3.0	3.0	98%	0.3	0	3
8.2	11.3	3.0	3.0	98%	0.3	0	3
8.2	11.3	3.0	3.0	98%	0.3	0	3
8.2	11.3	3.0	3.0	98%	0.3	0	3
11.3	14.3	3.0	3.0	98%	1.1	0	3
11.3	14.3	3.0	3.0	98%	1.1	0	3
11.3	14.3	3.0	3.0	98%	1.1	0	3
11.3	14.3	3.0	3.0	98%	1.1	0	3
14.3	17.4	3.0	3.0	98%	1.3	0	3
14.3	17.4	3.0	3.0	98%	1.3	0	3
14.3	17.4	3.0	3.0	98%	1.3	0	3
14.3	17.4	3.0	3.0	98%	1.3	0	3
17.4	20.4	3.0	2.3	75%	0.4	0	3
17.4	20.4	3.0	2.3	75%	0.4	0	3
17.4	20.4	3.0	2.3	75%	0.4	0	3
17.4	20.4	3.0	2.3	75%	0.4	0	3
20.4	23.5	3.0	3.0	98%	1.2	0	3
20.4	23.5	3.0	3.0	98%	1.2	0	3
20.4	23.5	3.0	3.0	98%	1.2	0	3
20.4	23.5	3.0	3.0	98%	1.2	0	3
23.5	26.5	3.0	3.0	98%	1.1	0	3
23.5	26.5	3.0	3.0	98%	1.1	0	3
23.5	26.5	3.0	3.0	98%	1.1	0	3
23.5	26.5	3.0	3.0	98%	1.1	0	3

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-01

Northing: 16072.9 **Total Depth:** 642.2 **m**

Easting: 11852.1 **Azimuth** 0.0 °

Drilled: 6/16/2006

Elevation: 1888.6 **Dip** -90 °

From (m)	To (m)	Run (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness
26.5	29.6	3.0	2.9	95%	1.7	1	3
26.5	29.6	3.0	2.9	95%	1.7	1	3
26.5	29.6	3.0	2.9	95%	1.7	1	3
26.5	29.6	3.0	2.9	95%	1.7	1	3
29.6	32.6	3.0	2.9	95%	1.3	0	3
29.6	32.6	3.0	2.9	95%	1.3	0	3
29.6	32.6	3.0	2.9	95%	1.3	0	3
29.6	32.6	3.0	2.9	95%	1.3	0	3
32.6	35.7	3.0	2.8	92%	0.9	0	3
32.6	35.7	3.0	2.8	92%	0.9	0	3
32.6	35.7	3.0	2.8	92%	0.9	0	3
32.6	35.7	3.0	2.8	92%	0.9	0	3
35.7	38.7	3.0	2.8	92%	0.5	0	3
35.7	38.7	3.0	2.8	92%	0.5	0	3
35.7	38.7	3.0	2.8	92%	0.5	0	3
35.7	38.7	3.0	2.8	92%	0.5	0	3
38.7	41.8	3.0	3.0	98%	2.0	1	3
38.7	41.8	3.0	3.0	98%	2.0	1	3
38.7	41.8	3.0	3.0	98%	2.0	1	3
38.7	41.8	3.0	3.0	98%	2.0	1	3
41.8	44.8	3.0	2.5	82%	1.4	0	3
41.8	44.8	3.0	2.5	82%	1.4	0	3
41.8	44.8	3.0	2.5	82%	1.4	0	3
41.8	44.8	3.0	2.5	82%	1.4	0	3
44.8	47.9	3.0	2.8	92%	2.1	1	3
44.8	47.9	3.0	2.8	92%	2.1	1	3
44.8	47.9	3.0	2.8	92%	2.1	1	3
44.8	47.9	3.0	2.8	92%	2.1	1	3
47.9	50.9	3.0	2.7	89%	1.9	1	3
47.9	50.9	3.0	2.7	89%	1.9	1	3
47.9	50.9	3.0	2.7	89%	1.9	1	3
47.9	50.9	3.0	2.7	89%	1.9	1	3
50.9	53.9	3.0	2.6	85%	0.8	0	3
50.9	53.9	3.0	2.6	85%	0.8	0	3

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-01

Northing: 16072.9 **Total Depth:** 642.2 **m**

Easting: 11852.1 **Azimuth** 0.0 °

Drilled: 6/16/2006

Elevation: 1888.6 **Dip** -90 °

From (m)	To (m)	Run (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness
50.9	53.9	3.0	2.6	85%	0.8	0	3
50.9	53.9	3.0	2.6	85%	0.8	0	3
53.9	57.0	3.0	2.8	92%	2.0	1	3
53.9	57.0	3.0	2.8	92%	2.0	1	3
53.9	57.0	3.0	2.8	92%	2.0	1	3
53.9	57.0	3.0	2.8	92%	2.0	1	3
57.0	60.0	3.0	2.8	92%	2.1	1	3
57.0	60.0	3.0	2.8	92%	2.1	1	3
57.0	60.0	3.0	2.8	92%	2.1	1	3
57.0	60.0	3.0	2.8	92%	2.1	1	3
60.0	63.1	3.0	2.7	89%	1.2	0	3
60.0	63.1	3.0	2.7	89%	1.2	0	3
60.0	63.1	3.0	2.7	89%	1.2	0	3
60.0	63.1	3.0	2.7	89%	1.2	0	3
63.1	66.1	3.0	2.7	89%	1.3	0	3
63.1	66.1	3.0	2.7	89%	1.3	0	3
63.1	66.1	3.0	2.7	89%	1.3	0	3
63.1	66.1	3.0	2.7	89%	1.3	0	3
66.1	69.2	3.0	2.6	85%	1.4	0	3
66.1	69.2	3.0	2.6	85%	1.4	0	3
66.1	69.2	3.0	2.6	85%	1.4	0	3
66.1	69.2	3.0	2.6	85%	1.4	0	3
69.2	72.2	3.0	2.9	95%	2.5	1	3
69.2	72.2	3.0	2.9	95%	2.5	1	3
69.2	72.2	3.0	2.9	95%	2.5	1	3
69.2	72.2	3.0	2.9	95%	2.5	1	3
72.2	75.3	3.0	2.8	92%	1.1	0	3
72.2	75.3	3.0	2.8	92%	1.1	0	3
72.2	75.3	3.0	2.8	92%	1.1	0	3
72.2	75.3	3.0	2.8	92%	1.1	0	3
75.3	78.3	3.0	2.7	89%	2.0	1	3
75.3	78.3	3.0	2.7	89%	2.0	1	3
75.3	78.3	3.0	2.7	89%	2.0	1	3
75.3	78.3	3.0	2.7	89%	2.0	1	3

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-01

Northing: 16072.9 **Total Depth:** 642.2 **m**

Easting: 11852.1 **Azimuth** 0.0 °

Drilled: 6/16/2006

Elevation: 1888.6 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
78.3	81.4	3.0	2.6	85%	1.4	0	3
78.3	81.4	3.0	2.6	85%	1.4	0	3
78.3	81.4	3.0	2.6	85%	1.4	0	3
78.3	81.4	3.0	2.6	85%	1.4	0	3
81.4	84.4	3.0	2.8	92%	1.7	1	3
81.4	84.4	3.0	2.8	92%	1.7	1	3
81.4	84.4	3.0	2.8	92%	1.7	1	3
81.4	84.4	3.0	2.8	92%	1.7	1	3
84.4	87.5	3.0	2.8	92%	1.4	0	3
84.4	87.5	3.0	2.8	92%	1.4	0	3
84.4	87.5	3.0	2.8	92%	1.4	0	3
84.4	87.5	3.0	2.8	92%	1.4	0	3
87.5	90.5	3.0	2.8	92%	2.3	1	3
87.5	90.5	3.0	2.8	92%	2.3	1	3
87.5	90.5	3.0	2.8	92%	2.3	1	3
87.5	90.5	3.0	2.8	92%	2.3	1	3
90.5	93.6	3.0	3.0	98%	2.7	1	3
90.5	93.6	3.0	3.0	98%	2.7	1	3
90.5	93.6	3.0	3.0	98%	2.7	1	3
90.5	93.6	3.0	3.0	98%	2.7	1	3
93.6	96.6	3.0	2.8	92%	2.1	1	3
93.6	96.6	3.0	2.8	92%	2.1	1	3
93.6	96.6	3.0	2.8	92%	2.1	1	3
93.6	96.6	3.0	2.8	92%	2.1	1	3
96.6	99.7	3.0	2.9	95%	2.2	1	3
96.6	99.7	3.0	2.9	95%	2.2	1	3
96.6	99.7	3.0	2.9	95%	2.2	1	3
96.6	99.7	3.0	2.9	95%	2.2	1	3
99.7	102.7	3.0	3.0	98%	2.0	1	3
99.7	102.7	3.0	3.0	98%	2.0	1	3
99.7	102.7	3.0	3.0	98%	2.0	1	3
99.7	102.7	3.0	3.0	98%	2.0	1	3
102.7	105.8	3.0	2.9	95%	1.8	1	3
102.7	105.8	3.0	2.9	95%	1.8	1	3

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-01

Northing: 16072.9 **Total Depth:** 642.2 **m**

Easting: 11852.1 **Azimuth** 0.0 °

Drilled: 6/16/2006

Elevation: 1888.6 **Dip** -90 °

From (m)	To (m)	Run (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness
102.7	105.8	3.0	2.9	95%	1.8	1	3
102.7	105.8	3.0	2.9	95%	1.8	1	3
105.8	108.8	3.0	2.9	95%	1.9	1	3
105.8	108.8	3.0	2.9	95%	1.9	1	3
105.8	108.8	3.0	2.9	95%	1.9	1	3
105.8	108.8	3.0	2.9	95%	1.9	1	3
108.8	111.9	3.0	2.8	92%	2.1	1	3
108.8	111.9	3.0	2.8	92%	2.1	1	3
108.8	111.9	3.0	2.8	92%	2.1	1	3
108.8	111.9	3.0	2.8	92%	2.1	1	3
111.9	114.9	3.0	2.9	95%	2.3	1	3
111.9	114.9	3.0	2.9	95%	2.3	1	3
111.9	114.9	3.0	2.9	95%	2.3	1	3
111.9	114.9	3.0	2.9	95%	2.3	1	3
114.9	118.0	3.0	3.0	98%	2.0	1	3
114.9	118.0	3.0	3.0	98%	2.0	1	3
114.9	118.0	3.0	3.0	98%	2.0	1	3
114.9	118.0	3.0	3.0	98%	2.0	1	3
118.0	121.0	3.0	2.9	95%	1.4	0	3
118.0	121.0	3.0	2.9	95%	1.4	0	3
118.0	121.0	3.0	2.9	95%	1.4	0	3
118.0	121.0	3.0	2.9	95%	1.4	0	3
121.0	124.1	3.0	3.0	98%	1.8	1	3
121.0	124.1	3.0	3.0	98%	1.8	1	3
121.0	124.1	3.0	3.0	98%	1.8	1	3
121.0	124.1	3.0	3.0	98%	1.8	1	3
124.1	127.1	3.0	3.0	98%	0.8	0	3
124.1	127.1	3.0	3.0	98%	0.8	0	3
124.1	127.1	3.0	3.0	98%	0.8	0	3
124.1	127.1	3.0	3.0	98%	0.8	0	3
127.1	130.1	3.0	3.0	98%	1.5	0	3
127.1	130.1	3.0	3.0	98%	1.5	0	3
127.1	130.1	3.0	3.0	98%	1.5	0	3
127.1	130.1	3.0	3.0	98%	1.5	0	3

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-01

Northing: 16072.9 **Total Depth:** 642.2 **m**

Easting: 11852.1 **Azimuth** 0.0 °

Drilled: 6/16/2006

Elevation: 1888.6 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
130.1	133.2	3.0	3.0	98%	2.3	1	3
130.1	133.2	3.0	3.0	98%	2.3	1	3
130.1	133.2	3.0	3.0	98%	2.3	1	3
130.1	133.2	3.0	3.0	98%	2.3	1	3
133.2	136.2	3.0	2.8	92%	1.8	1	3
133.2	136.2	3.0	2.8	92%	1.8	1	3
133.2	136.2	3.0	2.8	92%	1.8	1	3
133.2	136.2	3.0	2.8	92%	1.8	1	3
136.2	139.3	3.0	2.9	95%	1.8	1	3
136.2	139.3	3.0	2.9	95%	1.8	1	3
136.2	139.3	3.0	2.9	95%	1.8	1	3
136.2	139.3	3.0	2.9	95%	1.8	1	3
139.3	142.3	3.0	2.9	95%	1.9	1	3
139.3	142.3	3.0	2.9	95%	1.9	1	3
139.3	142.3	3.0	2.9	95%	1.9	1	3
139.3	142.3	3.0	2.9	95%	1.9	1	3
142.3	145.4	3.0	2.7	89%	1.5	0	3
142.3	145.4	3.0	2.7	89%	1.5	0	3
142.3	145.4	3.0	2.7	89%	1.5	0	3
142.3	145.4	3.0	2.7	89%	1.5	0	3
145.4	148.4	3.0	3.0	98%	1.5	0	3
145.4	148.4	3.0	3.0	98%	1.5	0	3
145.4	148.4	3.0	3.0	98%	1.5	0	3
145.4	148.4	3.0	3.0	98%	1.5	0	3
148.4	151.5	3.0	3.0	98%	1.9	1	3
148.4	151.5	3.0	3.0	98%	1.9	1	3
148.4	151.5	3.0	3.0	98%	1.9	1	3
148.4	151.5	3.0	3.0	98%	1.9	1	3
151.5	154.5	3.0	3.0	98%	1.6	1	3
151.5	154.5	3.0	3.0	98%	1.6	1	3
151.5	154.5	3.0	3.0	98%	1.6	1	3
151.5	154.5	3.0	3.0	98%	1.6	1	3
154.5	157.6	3.0	2.9	95%	1.5	0	3
154.5	157.6	3.0	2.9	95%	1.5	0	3

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-01

Northing: 16072.9 **Total Depth:** 642.2 **m**

Easting: 11852.1 **Azimuth** 0.0 °

Drilled: 6/16/2006

Elevation: 1888.6 **Dip** -90 °

From (m)	To (m)	Run (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness
154.5	157.6	3.0	2.9	95%	1.5	0	3
154.5	157.6	3.0	2.9	95%	1.5	0	3
157.6	160.6	3.0	2.8	92%	0.9	0	3
157.6	160.6	3.0	2.8	92%	0.9	0	3
157.6	160.6	3.0	2.8	92%	0.9	0	3
157.6	160.6	3.0	2.8	92%	0.9	0	3
160.6	163.7	3.0	2.9	95%	1.5	0	3
160.6	163.7	3.0	2.9	95%	1.5	0	3
160.6	163.7	3.0	2.9	95%	1.5	0	3
160.6	163.7	3.0	2.9	95%	1.5	0	3
163.7	166.7	3.0	3.0	98%	1.5	0	3
163.7	166.7	3.0	3.0	98%	1.5	0	3
163.7	166.7	3.0	3.0	98%	1.5	0	3
163.7	166.7	3.0	3.0	98%	1.5	0	3
166.7	169.8	3.0	3.1	102%	1.6	1	3
166.7	169.8	3.0	3.1	102%	1.6	1	3
166.7	169.8	3.0	3.1	102%	1.6	1	3
166.7	169.8	3.0	3.1	102%	1.6	1	3
169.8	172.8	3.0	2.8	92%	1.5	0	3
169.8	172.8	3.0	2.8	92%	1.5	0	3
169.8	172.8	3.0	2.8	92%	1.5	0	3
169.8	172.8	3.0	2.8	92%	1.5	0	3
172.8	175.9	3.0	2.7	89%	0.9	0	3
172.8	175.9	3.0	2.7	89%	0.9	0	3
172.8	175.9	3.0	2.7	89%	0.9	0	3
172.8	175.9	3.0	2.7	89%	0.9	0	3
175.9	178.9	3.0	3.0	99%	0.9	0	3
175.9	178.9	3.0	3.0	99%	0.9	0	3
175.9	178.9	3.0	3.0	99%	0.9	0	3
175.9	178.9	3.0	3.0	99%	0.9	0	3
178.9	182.0	3.0	2.9	95%	0.7	0	3
178.9	182.0	3.0	2.9	95%	0.7	0	3
178.9	182.0	3.0	2.9	95%	0.7	0	3
178.9	182.0	3.0	2.9	95%	0.7	0	3

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-01

Northing: 16072.9 **Total Depth:** 642.2 **m**

Easting: 11852.1 **Azimuth** 0.0 °

Drilled: 6/16/2006

Elevation: 1888.6 **Dip** -90 °

From (m)	To (m)	Run (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness
182.0	185.0	3.0	2.9	95%	1.8	1	3
182.0	185.0	3.0	2.9	95%	1.8	1	3
182.0	185.0	3.0	2.9	95%	1.8	1	3
182.0	185.0	3.0	2.9	95%	1.8	1	3
185.0	188.1	3.0	3.0	98%	1.3	0	3
185.0	188.1	3.0	3.0	98%	1.3	0	3
185.0	188.1	3.0	3.0	98%	1.3	0	3
185.0	188.1	3.0	3.0	98%	1.3	0	3
188.1	191.1	3.0	3.0	98%	1.6	1	3
188.1	191.1	3.0	3.0	98%	1.6	1	3
188.1	191.1	3.0	3.0	98%	1.6	1	3
188.1	191.1	3.0	3.0	98%	1.6	1	3
191.1	194.2	3.0	3.0	98%	1.6	1	3
191.1	194.2	3.0	3.0	98%	1.6	1	3
191.1	194.2	3.0	3.0	98%	1.6	1	3
191.1	194.2	3.0	3.0	98%	1.6	1	3
194.2	197.2	3.0	2.8	92%	0.9	0	3
194.2	197.2	3.0	2.8	92%	0.9	0	3
194.2	197.2	3.0	2.8	92%	0.9	0	3
194.2	197.2	3.0	2.8	92%	0.9	0	3
197.2	200.3	3.0	3.0	98%	1.3	0	3
197.2	200.3	3.0	3.0	98%	1.3	0	3
197.2	200.3	3.0	3.0	98%	1.3	0	3
197.2	200.3	3.0	3.0	98%	1.3	0	3
200.3	203.3	3.0	3.0	98%	1.5	0	3
200.3	203.3	3.0	3.0	98%	1.5	0	3
200.3	203.3	3.0	3.0	98%	1.5	0	3
200.3	203.3	3.0	3.0	98%	1.5	0	3
203.3	206.3	3.0	3.0	98%	2.1	1	3
203.3	206.3	3.0	3.0	98%	2.1	1	3
203.3	206.3	3.0	3.0	98%	2.1	1	3
203.3	206.3	3.0	3.0	98%	2.1	1	3
206.3	209.4	3.0	3.0	98%	1.6	1	3
206.3	209.4	3.0	3.0	98%	1.6	1	3

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-01

Northing: 16072.9 **Total Depth:** 642.2 **m**

Easting: 11852.1 **Azimuth** 0.0 °

Drilled: 6/16/2006

Elevation: 1888.6 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
206.3	209.4	3.0	3.0	98%	1.6	1	3
206.3	209.4	3.0	3.0	98%	1.6	1	3
209.4	212.4	3.0	3.0	98%	1.7	1	3
209.4	212.4	3.0	3.0	98%	1.7	1	3
209.4	212.4	3.0	3.0	98%	1.7	1	3
209.4	212.4	3.0	3.0	98%	1.7	1	3
212.4	215.5	3.0	3.0	98%	2.0	1	3
212.4	215.5	3.0	3.0	98%	2.0	1	3
212.4	215.5	3.0	3.0	98%	2.0	1	3
212.4	215.5	3.0	3.0	98%	2.0	1	3
215.5	218.5	3.0	3.0	98%	1.5	0	3
215.5	218.5	3.0	3.0	98%	1.5	0	3
215.5	218.5	3.0	3.0	98%	1.5	0	3
215.5	218.5	3.0	3.0	98%	1.5	0	3
218.5	221.6	3.0	3.0	98%	2.2	1	3
218.5	221.6	3.0	3.0	98%	2.2	1	3
218.5	221.6	3.0	3.0	98%	2.2	1	3
218.5	221.6	3.0	3.0	98%	2.2	1	3
221.6	224.6	3.0	3.0	98%	1.1	0	3
221.6	224.6	3.0	3.0	98%	1.1	0	3
221.6	224.6	3.0	3.0	98%	1.1	0	3
221.6	224.6	3.0	3.0	98%	1.1	0	3
224.6	227.7	3.0	3.0	98%	1.8	1	3
224.6	227.7	3.0	3.0	98%	1.8	1	3
224.6	227.7	3.0	3.0	98%	1.8	1	3
224.6	227.7	3.0	3.0	98%	1.8	1	3
227.7	230.7	3.0	3.0	98%	1.7	1	3
227.7	230.7	3.0	3.0	98%	1.7	1	3
227.7	230.7	3.0	3.0	98%	1.7	1	3
227.7	230.7	3.0	3.0	98%	1.7	1	3
230.7	233.8	3.0	3.0	98%	1.6	1	3
230.7	233.8	3.0	3.0	98%	1.6	1	3
230.7	233.8	3.0	3.0	98%	1.6	1	3
230.7	233.8	3.0	3.0	98%	1.6	1	3

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-01

Northing: 16072.9 **Total Depth:** 642.2 **m**

Easting: 11852.1 **Azimuth** 0.0 °

Drilled: 6/16/2006

Elevation: 1888.6 **Dip** -90 °

From (m)	To (m)	Run (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness
233.8	236.8	3.0	3.0	98%	1.3	0	3
233.8	236.8	3.0	3.0	98%	1.3	0	3
233.8	236.8	3.0	3.0	98%	1.3	0	3
233.8	236.8	3.0	3.0	98%	1.3	0	3
236.8	239.9	3.1	2.9	95%	1.6	1	3
236.8	239.9	3.1	2.9	95%	1.6	1	3
236.8	239.9	3.1	2.9	95%	1.6	1	3
236.8	239.9	3.1	2.9	95%	1.6	1	3
239.9	242.9	3.0	3.0	98%	1.9	1	3
239.9	242.9	3.0	3.0	98%	1.9	1	3
239.9	242.9	3.0	3.0	98%	1.9	1	3
239.9	242.9	3.0	3.0	98%	1.9	1	3
242.9	246.0	3.0	3.0	98%	2.4	1	3
242.9	246.0	3.0	3.0	98%	2.4	1	3
242.9	246.0	3.0	3.0	98%	2.4	1	3
242.9	246.0	3.0	3.0	98%	2.4	1	3
246.0	249.0	3.0	3.0	98%	2.0	1	3
246.0	249.0	3.0	3.0	98%	2.0	1	3
246.0	249.0	3.0	3.0	98%	2.0	1	3
246.0	249.0	3.0	3.0	98%	2.0	1	3
249.0	252.1	3.0	3.0	98%	1.8	1	3
249.0	252.1	3.0	3.0	98%	1.8	1	3
249.0	252.1	3.0	3.0	98%	1.8	1	3
249.0	252.1	3.0	3.0	98%	1.8	1	3
252.1	255.1	3.0	2.9	95%	2.0	1	3
252.1	255.1	3.0	2.9	95%	2.0	1	3
252.1	255.1	3.0	2.9	95%	2.0	1	3
252.1	255.1	3.0	2.9	95%	2.0	1	3
255.1	258.2	3.0	3.0	98%	1.4	0	3
255.1	258.2	3.0	3.0	98%	1.4	0	3
255.1	258.2	3.0	3.0	98%	1.4	0	3
255.1	258.2	3.0	3.0	98%	1.4	0	3
258.2	261.2	3.0	3.0	98%	2.1	1	3
258.2	261.2	3.0	3.0	98%	2.1	1	3

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-01

Northing: 16072.9 **Total Depth:** 642.2 **m**

Easting: 11852.1 **Azimuth** 0.0 °

Drilled: 6/16/2006

Elevation: 1888.6 **Dip** -90 °

From (m)	To (m)	Run (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness
258.2	261.2	3.0	3.0	98%	2.1	1	3
258.2	261.2	3.0	3.0	98%	2.1	1	3
261.2	264.3	3.0	3.0	98%	2.3	1	3
261.2	264.3	3.0	3.0	98%	2.3	1	3
261.2	264.3	3.0	3.0	98%	2.3	1	3
261.2	264.3	3.0	3.0	98%	2.3	1	3
264.3	267.3	3.0	3.0	98%	2.4	1	3
264.3	267.3	3.0	3.0	98%	2.4	1	3
264.3	267.3	3.0	3.0	98%	2.4	1	3
264.3	267.3	3.0	3.0	98%	2.4	1	3
267.3	270.4	3.0	2.9	95%	2.5	1	3
267.3	270.4	3.0	2.9	95%	2.5	1	3
267.3	270.4	3.0	2.9	95%	2.5	1	3
267.3	270.4	3.0	2.9	95%	2.5	1	3
270.4	273.4	3.0	3.1	102%	1.9	1	3
270.4	273.4	3.0	3.1	102%	1.9	1	3
270.4	273.4	3.0	3.1	102%	1.9	1	3
270.4	273.4	3.0	3.1	102%	1.9	1	3
273.4	276.5	3.0	3.0	98%	2.2	1	3
273.4	276.5	3.0	3.0	98%	2.2	1	3
273.4	276.5	3.0	3.0	98%	2.2	1	3
273.4	276.5	3.0	3.0	98%	2.2	1	3
276.5	279.5	3.0	3.0	98%	1.0	0	3
276.5	279.5	3.0	3.0	98%	1.0	0	3
276.5	279.5	3.0	3.0	98%	1.0	0	3
276.5	279.5	3.0	3.0	98%	1.0	0	3
279.5	282.5	3.0	3.0	98%	2.6	1	3
279.5	282.5	3.0	3.0	98%	2.6	1	3
279.5	282.5	3.0	3.0	98%	2.6	1	3
279.5	282.5	3.0	3.0	98%	2.6	1	3
282.5	285.6	3.0	3.0	98%	1.9	1	3
282.5	285.6	3.0	3.0	98%	1.9	1	3
282.5	285.6	3.0	3.0	98%	1.9	1	3
282.5	285.6	3.0	3.0	98%	1.9	1	3

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-01

Northing: 16072.9 **Total Depth:** 642.2 **m**

Easting: 11852.1 **Azimuth** 0.0 °

Drilled: 6/16/2006

Elevation: 1888.6 **Dip** -90 °

From (m)	To (m)	Run (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness
285.6	288.6	3.0	3.0	98%	2.1	1	3
285.6	288.6	3.0	3.0	98%	2.1	1	3
285.6	288.6	3.0	3.0	98%	2.1	1	3
285.6	288.6	3.0	3.0	98%	2.1	1	3
288.6	291.7	3.0	3.0	98%	2.2	1	3
288.6	291.7	3.0	3.0	98%	2.2	1	3
288.6	291.7	3.0	3.0	98%	2.2	1	3
288.6	291.7	3.0	3.0	98%	2.2	1	3
291.7	294.7	3.0	3.0	98%	1.2	0	3
291.7	294.7	3.0	3.0	98%	1.2	0	3
291.7	294.7	3.0	3.0	98%	1.2	0	3
291.7	294.7	3.0	3.0	98%	1.2	0	3
294.7	297.8	3.0	3.0	98%	2.2	1	3
294.7	297.8	3.0	3.0	98%	2.2	1	3
294.7	297.8	3.0	3.0	98%	2.2	1	3
294.7	297.8	3.0	3.0	98%	2.2	1	3
297.8	300.8	3.0	3.0	98%	2.3	1	3
297.8	300.8	3.0	3.0	98%	2.3	1	3
297.8	300.8	3.0	3.0	98%	2.3	1	3
297.8	300.8	3.0	3.0	98%	2.3	1	3
300.8	303.9	3.0	3.0	98%	1.8	1	3
300.8	303.9	3.0	3.0	98%	1.8	1	3
300.8	303.9	3.0	3.0	98%	1.8	1	3
300.8	303.9	3.0	3.0	98%	1.8	1	3
303.9	306.9	3.0	2.8	92%	1.0	0	3
303.9	306.9	3.0	2.8	92%	1.0	0	3
303.9	306.9	3.0	2.8	92%	1.0	0	3
303.9	306.9	3.0	2.8	92%	1.0	0	3
306.9	310.0	3.0	3.1	102%	0.9	0	3
306.9	310.0	3.0	3.1	102%	0.9	0	3
306.9	310.0	3.0	3.1	102%	0.9	0	3
306.9	310.0	3.0	3.1	102%	0.9	0	3
310.0	313.0	3.0	2.9	95%	1.7	1	3
310.0	313.0	3.0	2.9	95%	1.7	1	3

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-01

Northing: 16072.9 **Total Depth:** 642.2 **m**

Easting: 11852.1 **Azimuth** 0.0 °

Drilled: 6/16/2006

Elevation: 1888.6 **Dip** -90 °

From (m)	To (m)	Run (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness
310.0	313.0	3.0	2.9	95%	1.7	1	3
310.0	313.0	3.0	2.9	95%	1.7	1	3
313.0	316.1	3.0	3.1	102%	1.0	0	3
313.0	316.1	3.0	3.1	102%	1.0	0	3
313.0	316.1	3.0	3.1	102%	1.0	0	3
313.0	316.1	3.0	3.1	102%	1.0	0	3
316.1	319.1	3.0	3.1	102%	1.1	0	3
316.1	319.1	3.0	3.1	102%	1.1	0	3
316.1	319.1	3.0	3.1	102%	1.1	0	3
316.1	319.1	3.0	3.1	102%	1.1	0	3
319.1	322.2	3.0	3.1	102%	1.8	1	3
319.1	322.2	3.0	3.1	102%	1.8	1	3
319.1	322.2	3.0	3.1	102%	1.8	1	3
319.1	322.2	3.0	3.1	102%	1.8	1	3
322.2	325.2	3.0	2.8	92%	0.5	0	3
322.2	325.2	3.0	2.8	92%	0.5	0	3
322.2	325.2	3.0	2.8	92%	0.5	0	3
322.2	325.2	3.0	2.8	92%	0.5	0	3
325.2	328.3	3.0	2.9	95%	1.2	0	3
325.2	328.3	3.0	2.9	95%	1.2	0	3
325.2	328.3	3.0	2.9	95%	1.2	0	3
325.2	328.3	3.0	2.9	95%	1.2	0	3
328.3	331.3	3.0	2.9	95%	0.3	0	3
328.3	331.3	3.0	2.9	95%	0.3	0	3
328.3	331.3	3.0	2.9	95%	0.3	0	3
328.3	331.3	3.0	2.9	95%	0.3	0	3
331.3	334.4	3.0	2.9	95%	0.6	0	3
331.3	334.4	3.0	2.9	95%	0.6	0	3
331.3	334.4	3.0	2.9	95%	0.6	0	3
331.3	334.4	3.0	2.9	95%	0.6	0	3
334.4	337.4	3.0	2.9	95%	1.8	1	3
334.4	337.4	3.0	2.9	95%	1.8	1	3
334.4	337.4	3.0	2.9	95%	1.8	1	3
334.4	337.4	3.0	2.9	95%	1.8	1	3

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-01

Northing: 16072.9 **Total Depth:** 642.2 **m**

Easting: 11852.1 **Azimuth** 0.0 °

Drilled: 6/16/2006

Elevation: 1888.6 **Dip** -90 °

From (m)	To (m)	Run (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness
337.4	340.5	3.0	2.9	95%	0.8	0	3
337.4	340.5	3.0	2.9	95%	0.8	0	3
337.4	340.5	3.0	2.9	95%	0.8	0	3
337.4	340.5	3.0	2.9	95%	0.8	0	3
340.5	343.5	3.0	2.9	95%	2.1	1	3
340.5	343.5	3.0	2.9	95%	2.1	1	3
340.5	343.5	3.0	2.9	95%	2.1	1	3
340.5	343.5	3.0	2.9	95%	2.1	1	3
343.5	346.6	3.0	3.1	102%	2.8	1	3
343.5	346.6	3.0	3.1	102%	2.8	1	3
343.5	346.6	3.0	3.1	102%	2.8	1	3
343.5	346.6	3.0	3.1	102%	2.8	1	3
346.6	349.6	3.0	3.0	98%	2.5	1	3
346.6	349.6	3.0	3.0	98%	2.5	1	3
346.6	349.6	3.0	3.0	98%	2.5	1	3
346.6	349.6	3.0	3.0	98%	2.5	1	3
349.6	352.7	3.0	3.1	102%	2.2	1	3
349.6	352.7	3.0	3.1	102%	2.2	1	3
349.6	352.7	3.0	3.1	102%	2.2	1	3
349.6	352.7	3.0	3.1	102%	2.2	1	3
352.7	355.7	3.0	3.0	98%	1.5	0	3
352.7	355.7	3.0	3.0	98%	1.5	0	3
352.7	355.7	3.0	3.0	98%	1.5	0	3
352.7	355.7	3.0	3.0	98%	1.5	0	3
355.7	358.7	3.0	3.0	98%	1.9	1	3
355.7	358.7	3.0	3.0	98%	1.9	1	3
355.7	358.7	3.0	3.0	98%	1.9	1	3
355.7	358.7	3.0	3.0	98%	1.9	1	3
358.7	361.8	3.0	3.0	98%	1.4	0	3
358.7	361.8	3.0	3.0	98%	1.4	0	3
358.7	361.8	3.0	3.0	98%	1.4	0	3
358.7	361.8	3.0	3.0	98%	1.4	0	3
361.8	364.8	3.0	3.0	98%	0.7	0	3
361.8	364.8	3.0	3.0	98%	0.7	0	3

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-01

Northing: 16072.9 **Total Depth:** 642.2 **m**

Easting: 11852.1 **Azimuth** 0.0 °

Drilled: 6/16/2006

Elevation: 1888.6 **Dip** -90 °

From (m)	To (m)	Run (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness
361.8	364.8	3.0	3.0	98%	0.7	0	3
361.8	364.8	3.0	3.0	98%	0.7	0	3
364.8	367.9	3.0	3.1	102%	1.8	1	3
364.8	367.9	3.0	3.1	102%	1.8	1	3
364.8	367.9	3.0	3.1	102%	1.8	1	3
364.8	367.9	3.0	3.1	102%	1.8	1	3
367.9	370.9	3.0	3.0	98%	1.9	1	3
367.9	370.9	3.0	3.0	98%	1.9	1	3
367.9	370.9	3.0	3.0	98%	1.9	1	3
367.9	370.9	3.0	3.0	98%	1.9	1	3
370.9	374.0	3.0	3.1	102%	2.0	1	3
370.9	374.0	3.0	3.1	102%	2.0	1	3
370.9	374.0	3.0	3.1	102%	2.0	1	3
370.9	374.0	3.0	3.1	102%	2.0	1	3
374.0	377.0	3.0	3.0	98%	2.3	1	3
374.0	377.0	3.0	3.0	98%	2.3	1	3
374.0	377.0	3.0	3.0	98%	2.3	1	3
374.0	377.0	3.0	3.0	98%	2.3	1	3
377.0	380.1	3.0	3.1	102%	2.1	1	3
377.0	380.1	3.0	3.1	102%	2.1	1	3
377.0	380.1	3.0	3.1	102%	2.1	1	3
377.0	380.1	3.0	3.1	102%	2.1	1	3
380.1	383.1	3.0	3.0	98%	2.0	1	3
380.1	383.1	3.0	3.0	98%	2.0	1	3
380.1	383.1	3.0	3.0	98%	2.0	1	3
380.1	383.1	3.0	3.0	98%	2.0	1	3
383.1	386.2	3.0	3.1	102%	1.8	1	3
383.1	386.2	3.0	3.1	102%	1.8	1	3
383.1	386.2	3.0	3.1	102%	1.8	1	3
383.1	386.2	3.0	3.1	102%	1.8	1	3
386.2	389.2	3.0	3.0	98%	1.6	1	3
386.2	389.2	3.0	3.0	98%	1.6	1	3
386.2	389.2	3.0	3.0	98%	1.6	1	3
386.2	389.2	3.0	3.0	98%	1.6	1	3

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-01

Northing: 16072.9 **Total Depth:** 642.2 **m**

Easting: 11852.1 **Azimuth** 0.0 °

Drilled: 6/16/2006

Elevation: 1888.6 **Dip** -90 °

From (m)	To (m)	Run (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness
389.2	392.3	3.0	3.1	102%	1.8	1	3
389.2	392.3	3.0	3.1	102%	1.8	1	3
389.2	392.3	3.0	3.1	102%	1.8	1	3
389.2	392.3	3.0	3.1	102%	1.8	1	3
392.3	395.3	3.0	3.0	98%	1.0	0	3
392.3	395.3	3.0	3.0	98%	1.0	0	3
392.3	395.3	3.0	3.0	98%	1.0	0	3
392.3	395.3	3.0	3.0	98%	1.0	0	3
395.3	398.4	3.0	2.9	95%	2.5	1	3
395.3	398.4	3.0	2.9	95%	2.5	1	3
395.3	398.4	3.0	2.9	95%	2.5	1	3
395.3	398.4	3.0	2.9	95%	2.5	1	3
398.4	401.4	3.0	3.0	98%	1.8	1	3
398.4	401.4	3.0	3.0	98%	1.8	1	3
398.4	401.4	3.0	3.0	98%	1.8	1	3
398.4	401.4	3.0	3.0	98%	1.8	1	3
401.4	404.5	3.0	2.8	92%	2.4	1	3
401.4	404.5	3.0	2.8	92%	2.4	1	3
401.4	404.5	3.0	2.8	92%	2.4	1	3
401.4	404.5	3.0	2.8	92%	2.4	1	3
404.5	407.5	3.0	3.0	98%	1.9	1	3
404.5	407.5	3.0	3.0	98%	1.9	1	3
404.5	407.5	3.0	3.0	98%	1.9	1	3
404.5	407.5	3.0	3.0	98%	1.9	1	3
407.5	410.6	3.0	2.9	95%	1.9	1	3
407.5	410.6	3.0	2.9	95%	1.9	1	3
407.5	410.6	3.0	2.9	95%	1.9	1	3
407.5	410.6	3.0	2.9	95%	1.9	1	3
410.6	413.6	3.0	2.9	95%	2.1	1	3
410.6	413.6	3.0	2.9	95%	2.1	1	3
410.6	413.6	3.0	2.9	95%	2.1	1	3
410.6	413.6	3.0	2.9	95%	2.1	1	3
413.6	416.7	3.0	2.8	92%	2.0	1	3
413.6	416.7	3.0	2.8	92%	2.0	1	3

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-01

Northing: 16072.9 **Total Depth:** 642.2 **m**

Easting: 11852.1 **Azimuth** 0.0 °

Drilled: 6/16/2006

Elevation: 1888.6 **Dip** -90 °

From (m)	To (m)	Run (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness
413.6	416.7	3.0	2.8	92%	2.0	1	3
413.6	416.7	3.0	2.8	92%	2.0	1	3
416.7	419.7	3.0	3.0	98%	2.0	1	3
416.7	419.7	3.0	3.0	98%	2.0	1	3
416.7	419.7	3.0	3.0	98%	2.0	1	3
416.7	419.7	3.0	3.0	98%	2.0	1	3
419.7	422.8	3.0	2.9	95%	2.4	1	3
419.7	422.8	3.0	2.9	95%	2.4	1	3
419.7	422.8	3.0	2.9	95%	2.4	1	3
419.7	422.8	3.0	2.9	95%	2.4	1	3
422.8	425.8	3.0	2.9	95%	2.3	1	3
422.8	425.8	3.0	2.9	95%	2.3	1	3
422.8	425.8	3.0	2.9	95%	2.3	1	3
422.8	425.8	3.0	2.9	95%	2.3	1	3
425.8	428.9	3.0	2.8	92%	1.7	1	3
425.8	428.9	3.0	2.8	92%	1.7	1	3
425.8	428.9	3.0	2.8	92%	1.7	1	3
425.8	428.9	3.0	2.8	92%	1.7	1	3
428.9	431.9	3.0	3.0	98%	2.0	1	3
428.9	431.9	3.0	3.0	98%	2.0	1	3
428.9	431.9	3.0	3.0	98%	2.0	1	3
428.9	431.9	3.0	3.0	98%	2.0	1	3
431.9	434.9	3.0	2.8	92%	1.9	1	3
431.9	434.9	3.0	2.8	92%	1.9	1	3
431.9	434.9	3.0	2.8	92%	1.9	1	3
431.9	434.9	3.0	2.8	92%	1.9	1	3
434.9	438.0	3.0	3.0	98%	2.6	1	3
434.9	438.0	3.0	3.0	98%	2.6	1	3
434.9	438.0	3.0	3.0	98%	2.6	1	3
434.9	438.0	3.0	3.0	98%	2.6	1	3
438.0	441.0	3.0	2.8	92%	1.7	1	3
438.0	441.0	3.0	2.8	92%	1.7	1	3
438.0	441.0	3.0	2.8	92%	1.7	1	3
438.0	441.0	3.0	2.8	92%	1.7	1	3

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-01

Northing: 16072.9 **Total Depth:** 642.2 **m**

Easting: 11852.1 **Azimuth** 0.0 °

Drilled: 6/16/2006

Elevation: 1888.6 **Dip** -90 °

From (m)	To (m)	Run (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness
441.0	444.1	3.0	3.0	98%	1.6	1	3
441.0	444.1	3.0	3.0	98%	1.6	1	3
441.0	444.1	3.0	3.0	98%	1.6	1	3
441.0	444.1	3.0	3.0	98%	1.6	1	3
444.1	447.1	3.0	3.0	98%	1.8	1	3
444.1	447.1	3.0	3.0	98%	1.8	1	3
444.1	447.1	3.0	3.0	98%	1.8	1	3
444.1	447.1	3.0	3.0	98%	1.8	1	3
447.1	450.2	3.0	3.0	98%	2.3	1	3
447.1	450.2	3.0	3.0	98%	2.3	1	3
447.1	450.2	3.0	3.0	98%	2.3	1	3
447.1	450.2	3.0	3.0	98%	2.3	1	3
450.2	453.2	3.0	3.0	98%	2.1	1	3
450.2	453.2	3.0	3.0	98%	2.1	1	3
450.2	453.2	3.0	3.0	98%	2.1	1	3
450.2	453.2	3.0	3.0	98%	2.1	1	3
453.2	456.3	3.0	3.0	98%	2.3	1	3
453.2	456.3	3.0	3.0	98%	2.3	1	3
453.2	456.3	3.0	3.0	98%	2.3	1	3
453.2	456.3	3.0	3.0	98%	2.3	1	3
456.3	459.3	3.0	3.0	98%	2.3	1	3
456.3	459.3	3.0	3.0	98%	2.3	1	3
456.3	459.3	3.0	3.0	98%	2.3	1	3
456.3	459.3	3.0	3.0	98%	2.3	1	3
459.3	462.4	3.0	3.0	98%	2.4	1	3
459.3	462.4	3.0	3.0	98%	2.4	1	3
459.3	462.4	3.0	3.0	98%	2.4	1	3
459.3	462.4	3.0	3.0	98%	2.4	1	3
462.4	465.4	3.0	3.0	98%	2.1	1	3
462.4	465.4	3.0	3.0	98%	2.1	1	3
462.4	465.4	3.0	3.0	98%	2.1	1	3
462.4	465.4	3.0	3.0	98%	2.1	1	3
465.4	468.5	3.0	3.0	98%	3.0	1	3
465.4	468.5	3.0	3.0	98%	3.0	1	3

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-01

Northing: 16072.9 **Total Depth:** 642.2 **m**

Easting: 11852.1 **Azimuth** 0.0 °

Drilled: 6/16/2006

Elevation: 1888.6 **Dip** -90 °

From (m)	To (m)	Run (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness
465.4	468.5	3.0	3.0	98%	3.0	1	3
465.4	468.5	3.0	3.0	98%	3.0	1	3
468.5	471.5	3.0	3.0	98%	1.0	0	3
468.5	471.5	3.0	3.0	98%	1.0	0	3
468.5	471.5	3.0	3.0	98%	1.0	0	3
468.5	471.5	3.0	3.0	98%	1.0	0	3
471.5	474.6	3.0	3.0	98%	2.2	1	3
471.5	474.6	3.0	3.0	98%	2.2	1	3
471.5	474.6	3.0	3.0	98%	2.2	1	3
471.5	474.6	3.0	3.0	98%	2.2	1	3
474.6	477.6	3.0	2.9	95%	2.2	1	3
474.6	477.6	3.0	2.9	95%	2.2	1	3
474.6	477.6	3.0	2.9	95%	2.2	1	3
474.6	477.6	3.0	2.9	95%	2.2	1	3
477.6	480.7	3.0	2.9	95%	1.4	0	3
477.6	480.7	3.0	2.9	95%	1.4	0	3
477.6	480.7	3.0	2.9	95%	1.4	0	3
477.6	480.7	3.0	2.9	95%	1.4	0	3
480.7	483.7	3.0	3.0	98%	1.9	1	3
480.7	483.7	3.0	3.0	98%	1.9	1	3
480.7	483.7	3.0	3.0	98%	1.9	1	3
480.7	483.7	3.0	3.0	98%	1.9	1	3
483.7	486.8	3.0	3.0	98%	1.8	1	3
483.7	486.8	3.0	3.0	98%	1.8	1	3
483.7	486.8	3.0	3.0	98%	1.8	1	3
483.7	486.8	3.0	3.0	98%	1.8	1	3
486.8	489.8	3.0	2.9	95%	0.8	0	3
486.8	489.8	3.0	2.9	95%	0.8	0	3
486.8	489.8	3.0	2.9	95%	0.8	0	3
486.8	489.8	3.0	2.9	95%	0.8	0	3
532.5	535.5	3.0	2.8	92%	1.3	0	3
532.5	535.5	3.0	2.8	92%	1.3	0	3
532.5	535.5	3.0	2.8	92%	1.3	0	3
532.5	535.5	3.0	2.8	92%	1.3	0	3

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-01

Northing: 16072.9 **Total Depth:** 642.2 **m**

Easting: 11852.1 **Azimuth** 0.0 °

Drilled: 6/16/2006

Elevation: 1888.6 **Dip** -90 °

From (m)	To (m)	Run (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness
535.5	538.6	3.0	2.9	95%	1.9	1	3
535.5	538.6	3.0	2.9	95%	1.9	1	3
535.5	538.6	3.0	2.9	95%	1.9	1	3
535.5	538.6	3.0	2.9	95%	1.9	1	3
538.6	541.6	3.0	3.0	98%	2.0	1	3
538.6	541.6	3.0	3.0	98%	2.0	1	3
538.6	541.6	3.0	3.0	98%	2.0	1	3
538.6	541.6	3.0	3.0	98%	2.0	1	3
541.6	544.7	3.0	3.0	98%	2.0	1	3
541.6	544.7	3.0	3.0	98%	2.0	1	3
541.6	544.7	3.0	3.0	98%	2.0	1	3
541.6	544.7	3.0	3.0	98%	2.0	1	3
544.7	547.7	3.0	3.0	98%	2.3	1	4
544.7	547.7	3.0	3.0	98%	2.3	1	4
544.7	547.7	3.0	3.0	98%	2.3	1	4
544.7	547.7	3.0	3.0	98%	2.3	1	4
547.7	550.8	3.0	3.0	98%	2.7	1	4
547.7	550.8	3.0	3.0	98%	2.7	1	4
547.7	550.8	3.0	3.0	98%	2.7	1	4
547.7	550.8	3.0	3.0	98%	2.7	1	4
550.8	553.8	3.0	3.0	98%	2.0	1	4
550.8	553.8	3.0	3.0	98%	2.0	1	4
550.8	553.8	3.0	3.0	98%	2.0	1	4
550.8	553.8	3.0	3.0	98%	2.0	1	4
553.8	556.9	3.0	3.0	98%	2.4	1	4
553.8	556.9	3.0	3.0	98%	2.4	1	4
553.8	556.9	3.0	3.0	98%	2.4	1	4
553.8	556.9	3.0	3.0	98%	2.4	1	4
556.9	559.9	3.0	3.0	98%	2.6	1	4
556.9	559.9	3.0	3.0	98%	2.6	1	4
556.9	559.9	3.0	3.0	98%	2.6	1	4
556.9	559.9	3.0	3.0	98%	2.6	1	4
559.9	563.0	3.0	3.0	98%	2.8	1	4
559.9	563.0	3.0	3.0	98%	2.8	1	4

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-01

Northing: 16072.9 **Total Depth:** 642.2 **m**

Easting: 11852.1 **Azimuth** 0.0 °

Drilled: 6/16/2006

Elevation: 1888.6 **Dip** -90 °

From (m)	To (m)	Run (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness
559.9	563.0	3.0	3.0	98%	2.8	1	4
559.9	563.0	3.0	3.0	98%	2.8	1	4
563.0	566.0	3.0	3.0	98%	2.2	1	4
563.0	566.0	3.0	3.0	98%	2.2	1	4
563.0	566.0	3.0	3.0	98%	2.2	1	4
563.0	566.0	3.0	3.0	98%	2.2	1	4
566.0	569.1	3.0	3.0	98%	1.7	1	4
566.0	569.1	3.0	3.0	98%	1.7	1	4
566.0	569.1	3.0	3.0	98%	1.7	1	4
566.0	569.1	3.0	3.0	98%	1.7	1	4
569.1	572.1	3.0	3.0	98%	2.0	1	4
569.1	572.1	3.0	3.0	98%	2.0	1	4
569.1	572.1	3.0	3.0	98%	2.0	1	4
569.1	572.1	3.0	3.0	98%	2.0	1	4
572.1	575.2	3.0	3.0	98%	1.6	1	4
572.1	575.2	3.0	3.0	98%	1.6	1	4
572.1	575.2	3.0	3.0	98%	1.6	1	4
572.1	575.2	3.0	3.0	98%	1.6	1	4
575.2	578.2	3.0	3.0	98%	2.5	1	4
575.2	578.2	3.0	3.0	98%	2.5	1	4
575.2	578.2	3.0	3.0	98%	2.5	1	4
575.2	578.2	3.0	3.0	98%	2.5	1	4
578.2	581.3	3.1	2.9	94%	1.8	1	4
578.2	581.3	3.1	2.9	94%	1.8	1	4
578.2	581.3	3.1	2.9	94%	1.8	1	4
578.2	581.3	3.1	2.9	94%	1.8	1	4
581.3	584.3	3.0	3.1	100%	2.2	1	4
581.3	584.3	3.0	3.1	100%	2.2	1	4
581.3	584.3	3.0	3.1	100%	2.2	1	4
581.3	584.3	3.0	3.1	100%	2.2	1	4
584.3	587.4	3.0	3.1	102%	1.8	1	4
584.3	587.4	3.0	3.1	102%	1.8	1	4
584.3	587.4	3.0	3.1	102%	1.8	1	4
584.3	587.4	3.0	3.1	102%	1.8	1	4

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-01

Northing: 16072.9 **Total Depth:** 642.2 **m**

Easting: 11852.1 **Azimuth** 0.0 °

Drilled: 6/16/2006

Elevation: 1888.6 **Dip** -90 °

From (m)	To (m)	Run (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness
587.4	590.4	3.0	3.0	98%	1.9	1	4
587.4	590.4	3.0	3.0	98%	1.9	1	4
587.4	590.4	3.0	3.0	98%	1.9	1	4
587.4	590.4	3.0	3.0	98%	1.9	1	4
590.4	593.4	3.0	3.1	105%	1.5	1	4
590.4	593.4	3.0	3.1	105%	1.5	1	4
590.4	593.4	3.0	3.1	105%	1.5	1	4
590.4	593.4	3.0	3.1	105%	1.5	1	4
593.4	596.5	3.1	3.1	100%	1.5	0	4
593.4	596.5	3.1	3.1	100%	1.5	0	4
593.4	596.5	3.1	3.1	100%	1.5	0	4
593.4	596.5	3.1	3.1	100%	1.5	0	4
596.5	599.5	3.0	3.0	98%	2.1	1	4
596.5	599.5	3.0	3.0	98%	2.1	1	4
596.5	599.5	3.0	3.0	98%	2.1	1	4
596.5	599.5	3.0	3.0	98%	2.1	1	4
599.5	602.6	3.0	3.0	98%	2.0	1	4
599.5	602.6	3.0	3.0	98%	2.0	1	4
599.5	602.6	3.0	3.0	98%	2.0	1	4
599.5	602.6	3.0	3.0	98%	2.0	1	4
602.6	605.6	3.0	2.9	94%	2.0	1	4
602.6	605.6	3.0	2.9	94%	2.0	1	4
602.6	605.6	3.0	2.9	94%	2.0	1	4
602.6	605.6	3.0	2.9	94%	2.0	1	4
605.6	608.7	3.0	3.1	100%	2.0	1	4
605.6	608.7	3.0	3.1	100%	2.0	1	4
605.6	608.7	3.0	3.1	100%	2.0	1	4
605.6	608.7	3.0	3.1	100%	2.0	1	4
608.7	611.7	3.0	3.1	102%	2.6	1	4
608.7	611.7	3.0	3.1	102%	2.6	1	4
608.7	611.7	3.0	3.1	102%	2.6	1	4
608.7	611.7	3.0	3.1	102%	2.6	1	4
611.7	614.8	3.0	3.1	100%	2.0	1	4
611.7	614.8	3.0	3.1	100%	2.0	1	4

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-01

Northing: 16072.9 **Total Depth:** 642.2 **m**

Easting: 11852.1 **Azimuth** 0.0 °

Drilled: 6/16/2006

Elevation: 1888.6 **Dip** -90 °

From (m)	To (m)	Run (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness
611.7	614.8	3.0	3.1	100%	2.0	1	4
611.7	614.8	3.0	3.1	100%	2.0	1	4
614.8	617.8	3.0	3.0	98%	2.0	1	4
614.8	617.8	3.0	3.0	98%	2.0	1	4
614.8	617.8	3.0	3.0	98%	2.0	1	4
614.8	617.8	3.0	3.0	98%	2.0	1	4
617.8	620.9	3.0	2.6	85%	2.1	1	4
617.8	620.9	3.0	2.6	85%	2.1	1	4
617.8	620.9	3.0	2.6	85%	2.1	1	4
617.8	620.9	3.0	2.6	85%	2.1	1	4
620.9	623.9	3.0	3.1	102%	2.4	1	4
620.9	623.9	3.0	3.1	102%	2.4	1	4
620.9	623.9	3.0	3.1	102%	2.4	1	4
620.9	623.9	3.0	3.1	102%	2.4	1	4
623.9	627.0	3.0	3.0	97%	2.3	1	4
623.9	627.0	3.0	3.0	97%	2.3	1	4
623.9	627.0	3.0	3.0	97%	2.3	1	4
623.9	627.0	3.0	3.0	97%	2.3	1	4
627.0	630.0	3.0	3.1	102%	2.1	1	4
627.0	630.0	3.0	3.1	102%	2.1	1	4
627.0	630.0	3.0	3.1	102%	2.1	1	4
627.0	630.0	3.0	3.1	102%	2.1	1	4
630.0	633.1	3.0	3.0	98%	1.6	1	4
630.0	633.1	3.0	3.0	98%	1.6	1	4
630.0	633.1	3.0	3.0	98%	1.6	1	4
630.0	633.1	3.0	3.0	98%	1.6	1	4
633.1	636.1	3.0	2.9	95%	1.6	1	4
633.1	636.1	3.0	2.9	95%	1.6	1	4
633.1	636.1	3.0	2.9	95%	1.6	1	4
633.1	636.1	3.0	2.9	95%	1.6	1	4
636.1	639.2	3.0	3.1	103%	2.1	1	4
636.1	639.2	3.0	3.1	103%	2.1	1	4
636.1	639.2	3.0	3.1	103%	2.1	1	4
636.1	639.2	3.0	3.1	103%	2.1	1	4

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-01

Northing: 16072.9 **Total Depth:** 642.2 **m**

Easting: 11852.1 **Azimuth** 0.0 °

Drilled: 6/16/2006

Elevation: 1888.6 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
639.2	642.2	3.0	3.0	98%	1.8	1	4
639.2	642.2	3.0	3.0	98%	1.8	1	4
639.2	642.2	3.0	3.0	98%	1.8	1	4
639.2	642.2	3.0	3.0	98%	1.8	1	4

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-02

Northing: 15541.6 **Total Depth:** 495.3 **m**

Easting: 12957.8 **Azimuth** 0.0 °

Drilled: 6/29/2006

Elevation: 1846 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
0.0	1.5	1.5	1.5	98%	0.0	0	4
0.0	3.0	-193.6					0
0.0	3.0	-193.6					0
0.0	3.0	-193.6					0
1.5	3.0	1.5	1.3	85%	0.3	0	4
1.5	3.0	1.5	1.3	85%	0.3	0	4
1.5	3.0	1.5	1.3	85%	0.3	0	4
1.5	3.0	1.5	1.3	85%	0.3	0	4
3.0	4.6	1.5	1.4	92%	0.2	0	4
3.0	4.6	1.5	1.4	92%	0.2	0	4
3.0	4.6	1.5	1.4	92%	0.2	0	4
3.0	4.6	1.5	1.4	92%	0.2	0	4
4.6	6.1	1.5	1.5	98%	0.3	0	4
4.6	6.1	1.5	1.5	98%	0.3	0	4
4.6	6.1	1.5	1.5	98%	0.3	0	4
4.6	6.1	1.5	1.5	98%	0.3	0	4
6.1	7.6	1.5	1.1	72%	0.6	0	4
6.1	7.6	1.5	1.1	72%	0.6	0	4
6.1	7.6	1.5	1.1	72%	0.6	0	4
6.1	7.6	1.5	1.1	72%	0.6	0	4
7.6	9.1	1.5	1.2	77%	0.2	0	4
7.6	9.1	1.5	1.2	77%	0.2	0	4
7.6	9.1	1.5	1.2	77%	0.2	0	4
7.6	9.1	1.5	1.2	77%	0.2	0	4
9.1	10.7	1.5	1.1	72%	0.5	0	4
9.1	10.7	1.5	1.1	72%	0.5	0	4
9.1	10.7	1.5	1.1	72%	0.5	0	4
9.1	10.7	1.5	1.1	72%	0.5	0	4
10.7	12.2	1.5	1.5	98%	0.7	0	4
10.7	12.2	1.5	1.5	98%	0.7	0	4
10.7	12.2	1.5	1.5	98%	0.7	0	4
10.7	12.2	1.5	1.5	98%	0.7	0	4
12.2	13.7	1.5	1.5	98%	0.8	1	4
12.2	13.7	1.5	1.5	98%	0.8	1	4

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-02

Northing: 15541.6 **Total Depth:** 495.3 **m**

Easting: 12957.8 **Azimuth** 0.0 °

Drilled: 6/29/2006

Elevation: 1846 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
12.2	13.7	1.5	1.5	98%	0.8	1	4
12.2	13.7	1.5	1.5	98%	0.8	1	4
13.7	15.2	1.5	1.5	98%	0.8	1	4
13.7	15.2	1.5	1.5	98%	0.8	1	4
13.7	15.2	1.5	1.5	98%	0.8	1	4
13.7	15.2	1.5	1.5	98%	0.8	1	4
15.2	16.8	1.5	1.5	98%	0.9	1	4
15.2	16.8	1.5	1.5	98%	0.9	1	4
15.2	16.8	1.5	1.5	98%	0.9	1	4
15.2	16.8	1.5	1.5	98%	0.9	1	4
16.8	18.3	1.5	1.5	98%	0.9	1	4
16.8	18.3	1.5	1.5	98%	0.9	1	4
16.8	18.3	1.5	1.5	98%	0.9	1	4
16.8	18.3	1.5	1.5	98%	0.9	1	4
18.3	19.8	1.5	1.5	98%	0.7	0	4
18.3	19.8	1.5	1.5	98%	0.7	0	4
18.3	19.8	1.5	1.5	98%	0.7	0	4
18.3	19.8	1.5	1.5	98%	0.7	0	4
19.8	21.3	1.5	1.5	98%	1.0	1	4
19.8	21.3	1.5	1.5	98%	1.0	1	4
19.8	21.3	1.5	1.5	98%	1.0	1	4
19.8	21.3	1.5	1.5	98%	1.0	1	4
21.3	22.9	1.5	1.5	98%	1.3	1	4
21.3	22.9	1.5	1.5	98%	1.3	1	4
21.3	22.9	1.5	1.5	98%	1.3	1	4
21.3	22.9	1.5	1.5	98%	1.3	1	4
22.9	24.4	1.5	1.5	98%	1.0	1	4
22.9	24.4	1.5	1.5	98%	1.0	1	4
22.9	24.4	1.5	1.5	98%	1.0	1	4
22.9	24.4	1.5	1.5	98%	1.0	1	4
24.4	25.9	1.5	1.5	98%	0.2	0	4
24.4	25.9	1.5	1.5	98%	0.2	0	4
24.4	25.9	1.5	1.5	98%	0.2	0	4
24.4	25.9	1.5	1.5	98%	0.2	0	4

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-02

Northing: 15541.6 **Total Depth:** 495.3 **m**

Easting: 12957.8 **Azimuth** 0.0 °

Drilled: 6/29/2006

Elevation: 1846 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
25.9	27.4	1.5	1.6	102%	0.3	0	4
25.9	27.4	1.5	1.6	102%	0.3	0	4
25.9	27.4	1.5	1.6	102%	0.3	0	4
25.9	27.4	1.5	1.6	102%	0.3	0	4
27.4	29.0	1.6	1.5	94%	0.7	0	4
27.4	29.0	1.6	1.5	94%	0.7	0	4
27.4	29.0	1.6	1.5	94%	0.7	0	4
27.4	29.0	1.6	1.5	94%	0.7	0	4
29.0	30.5	1.5	1.5	100%	0.9	1	4
29.0	30.5	1.5	1.5	100%	0.9	1	4
29.0	30.5	1.5	1.5	100%	0.9	1	4
29.0	30.5	1.5	1.5	100%	0.9	1	4
30.5	32.0	1.5	1.6	103%	0.4	0	4
30.5	32.0	1.5	1.6	103%	0.4	0	4
30.5	32.0	1.5	1.6	103%	0.4	0	4
30.5	32.0	1.5	1.6	103%	0.4	0	4
32.0	33.5	1.5	1.5	97%	1.1	1	4
32.0	33.5	1.5	1.5	97%	1.1	1	4
32.0	33.5	1.5	1.5	97%	1.1	1	4
32.0	33.5	1.5	1.5	97%	1.1	1	4
33.5	35.1	1.6	1.5	94%	0.9	1	4
33.5	35.1	1.6	1.5	94%	0.9	1	4
33.5	35.1	1.6	1.5	94%	0.9	1	4
33.5	35.1	1.6	1.5	94%	0.9	1	4
35.1	36.6	1.5	1.5	100%	0.9	1	4
35.1	36.6	1.5	1.5	100%	0.9	1	4
35.1	36.6	1.5	1.5	100%	0.9	1	4
35.1	36.6	1.5	1.5	100%	0.9	1	4
36.6	38.1	1.5	1.5	97%	0.5	0	4
36.6	38.1	1.5	1.5	97%	0.5	0	4
36.6	38.1	1.5	1.5	97%	0.5	0	4
36.6	38.1	1.5	1.5	97%	0.5	0	4
38.1	39.6	1.5	1.5	97%	0.5	0	4
39.6	41.1	1.5	1.4	93%	0.5	0	4

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-02

Northing: 15541.6 **Total Depth:** 495.3 **m**

Easting: 12957.8 **Azimuth** 0.0 °

Drilled: 6/29/2006

Elevation: 1846 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
39.6	41.1	1.5	1.4	93%	0.5	0	4
39.6	41.1	1.5	1.4	93%	0.5	0	4
39.6	41.1	1.5	1.4	93%	0.5	0	4
41.1	42.7	1.6	1.4	87%	0.8	0	4
41.1	42.7	1.6	1.4	87%	0.8	0	4
41.1	42.7	1.6	1.4	87%	0.8	0	4
41.1	42.7	1.6	1.4	87%	0.8	0	4
42.7	44.2	1.5	1.5	100%	0.7	0	4
42.7	44.2	1.5	1.5	100%	0.7	0	4
42.7	44.2	1.5	1.5	100%	0.7	0	4
42.7	44.2	1.5	1.5	100%	0.7	0	4
44.2	45.7	1.5	1.5	97%	0.7	0	4
44.2	45.7	1.5	1.5	97%	0.7	0	4
44.2	45.7	1.5	1.5	97%	0.7	0	4
44.2	45.7	1.5	1.5	97%	0.7	0	4
45.7	47.2	1.5	1.4	93%	0.5	0	4
45.7	47.2	1.5	1.4	93%	0.5	0	4
45.7	47.2	1.5	1.4	93%	0.5	0	4
45.7	47.2	1.5	1.4	93%	0.5	0	4
47.2	48.8	1.6	1.4	84%	0.5	0	4
47.2	48.8	1.6	1.4	84%	0.5	0	4
47.2	48.8	1.6	1.4	84%	0.5	0	4
47.2	48.8	1.6	1.4	84%	0.5	0	4
48.8	50.3	1.5	1.5	97%	0.1	0	4
48.8	50.3	1.5	1.5	97%	0.1	0	4
48.8	50.3	1.5	1.5	97%	0.1	0	4
48.8	50.3	1.5	1.5	97%	0.1	0	4
50.3	51.8	1.5	1.4	93%	0.4	0	4
50.3	51.8	1.5	1.4	93%	0.4	0	4
50.3	51.8	1.5	1.4	93%	0.4	0	4
50.3	51.8	1.5	1.4	93%	0.4	0	4
51.8	53.3	1.5	1.5	97%	0.8	1	4
51.8	53.3	1.5	1.5	97%	0.8	1	4
51.8	53.3	1.5	1.5	97%	0.8	1	4

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-02

Northing: 15541.6 **Total Depth:** 495.3 **m**

Easting: 12957.8 **Azimuth** 0.0 °

Drilled: 6/29/2006

Elevation: 1846 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
51.8	53.3	1.5	1.5	97%	0.8	1	4
53.3	54.9	1.6	1.4	87%	0.9	1	4
53.3	54.9	1.6	1.4	87%	0.9	1	4
53.3	54.9	1.6	1.4	87%	0.9	1	4
53.3	54.9	1.6	1.4	87%	0.9	1	4
54.9	56.4	1.5	1.5	97%	0.6	0	4
54.9	56.4	1.5	1.5	97%	0.6	0	4
54.9	56.4	1.5	1.5	97%	0.6	0	4
54.9	56.4	1.5	1.5	97%	0.6	0	4
56.4	57.9	1.5	1.5	97%	1.0	1	4
56.4	57.9	1.5	1.5	97%	1.0	1	4
56.4	57.9	1.5	1.5	97%	1.0	1	4
56.4	57.9	1.5	1.5	97%	1.0	1	4
57.9	59.4	1.5	1.4	93%	0.8	1	4
57.9	59.4	1.5	1.4	93%	0.8	1	4
57.9	59.4	1.5	1.4	93%	0.8	1	4
57.9	59.4	1.5	1.4	93%	0.8	1	4
59.4	61.0	1.6	1.5	94%	0.6	0	4
59.4	61.0	1.6	1.5	94%	0.6	0	4
59.4	61.0	1.6	1.5	94%	0.6	0	4
59.4	61.0	1.6	1.5	94%	0.6	0	4
61.0	62.5	1.5	1.6	103%	0.8	1	4
61.0	62.5	1.5	1.6	103%	0.8	1	4
61.0	62.5	1.5	1.6	103%	0.8	1	4
61.0	62.5	1.5	1.6	103%	0.8	1	4
62.5	64.0	1.5	1.5	100%	0.5	0	4
62.5	64.0	1.5	1.5	100%	0.5	0	4
62.5	64.0	1.5	1.5	100%	0.5	0	4
62.5	64.0	1.5	1.5	100%	0.5	0	4
64.0	65.5	1.5	1.5	97%	0.2	0	4
64.0	65.5	1.5	1.5	97%	0.2	0	4
64.0	65.5	1.5	1.5	97%	0.2	0	4
64.0	65.5	1.5	1.5	97%	0.2	0	4
65.5	67.1	1.6	1.5	91%	0.8	0	4

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-02

Northing: 15541.6 **Total Depth:** 495.3 **m**

Easting: 12957.8 **Azimuth** 0.0 °

Drilled: 6/29/2006

Elevation: 1846 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
65.5	67.1	1.6	1.5	91%	0.8	0	4
65.5	67.1	1.6	1.5	91%	0.8	0	4
65.5	67.1	1.6	1.5	91%	0.8	0	4
67.1	68.6	1.5	1.5	100%	0.9	1	4
67.1	68.6	1.5	1.5	100%	0.9	1	4
67.1	68.6	1.5	1.5	100%	0.9	1	4
67.1	68.6	1.5	1.5	100%	0.9	1	4
68.6	70.1	1.5	1.4	93%	1.0	1	4
68.6	70.1	1.5	1.4	93%	1.0	1	4
68.6	70.1	1.5	1.4	93%	1.0	1	4
68.6	70.1	1.5	1.4	93%	1.0	1	4
70.1	71.6	1.5	1.5	100%	0.8	1	4
70.1	71.6	1.5	1.5	100%	0.8	1	4
70.1	71.6	1.5	1.5	100%	0.8	1	4
70.1	71.6	1.5	1.5	100%	0.8	1	4
71.6	73.2	1.6	1.6	100%	0.9	1	4
71.6	73.2	1.6	1.6	100%	0.9	1	4
71.6	73.2	1.6	1.6	100%	0.9	1	4
71.6	73.2	1.6	1.6	100%	0.9	1	4
73.2	74.7	1.5	1.6	107%	0.5	0	4
73.2	74.7	1.5	1.6	107%	0.5	0	4
73.2	74.7	1.5	1.6	107%	0.5	0	4
73.2	74.7	1.5	1.6	107%	0.5	0	4
74.7	76.2	1.5	1.5	100%	1.0	1	4
74.7	76.2	1.5	1.5	100%	1.0	1	4
74.7	76.2	1.5	1.5	100%	1.0	1	4
74.7	76.2	1.5	1.5	100%	1.0	1	4
76.2	77.7	1.5	1.5	97%	0.6	0	4
76.2	77.7	1.5	1.5	97%	0.6	0	4
76.2	77.7	1.5	1.5	97%	0.6	0	4
76.2	77.7	1.5	1.5	97%	0.6	0	4
77.7	79.2	1.5	1.5	97%	1.0	1	4
77.7	79.2	1.5	1.5	97%	1.0	1	4
77.7	79.2	1.5	1.5	97%	1.0	1	4

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-02

Northing: 15541.6 **Total Depth:** 495.3 **m**

Easting: 12957.8 **Azimuth** 0.0 °

Drilled: 6/29/2006

Elevation: 1846 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
77.7	79.2	1.5	1.5	97%	1.0	1	4
79.2	80.8	1.6	1.5	91%	0.8	1	4
79.2	80.8	1.6	1.5	91%	0.8	1	4
79.2	80.8	1.6	1.5	91%	0.8	1	4
79.2	80.8	1.6	1.5	91%	0.8	1	4
80.8	82.3	1.5	1.4	90%	0.7	0	4
80.8	82.3	1.5	1.4	90%	0.7	0	4
80.8	82.3	1.5	1.4	90%	0.7	0	4
80.8	82.3	1.5	1.4	90%	0.7	0	4
82.3	83.8	1.5	1.4	93%	0.2	0	4
82.3	83.8	1.5	1.4	93%	0.2	0	4
82.3	83.8	1.5	1.4	93%	0.2	0	4
82.3	83.8	1.5	1.4	93%	0.2	0	4
83.8	85.3	1.5	1.3	87%	0.1	0	4
83.8	85.3	1.5	1.3	87%	0.1	0	4
83.8	85.3	1.5	1.3	87%	0.1	0	4
83.8	85.3	1.5	1.3	87%	0.1	0	4
85.3	86.9	1.6	1.5	94%	0.2	0	4
85.3	86.9	1.6	1.5	94%	0.2	0	4
85.3	86.9	1.6	1.5	94%	0.2	0	4
85.3	86.9	1.6	1.5	94%	0.2	0	4
86.9	88.4	1.5	1.4	90%	0.3	0	4
86.9	88.4	1.5	1.4	90%	0.3	0	4
86.9	88.4	1.5	1.4	90%	0.3	0	4
86.9	88.4	1.5	1.4	90%	0.3	0	4
88.4	89.9	1.5	1.3	87%	0.3	0	4
88.4	89.9	1.5	1.3	87%	0.3	0	4
88.4	89.9	1.5	1.3	87%	0.3	0	4
88.4	89.9	1.5	1.3	87%	0.3	0	4
89.9	91.4	1.5	1.4	90%	0.4	0	4
89.9	91.4	1.5	1.4	90%	0.4	0	4
89.9	91.4	1.5	1.4	90%	0.4	0	4
89.9	91.4	1.5	1.4	90%	0.4	0	4
91.4	93.0	1.6	1.5	94%	0.5	0	4

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-02

Northing: 15541.6 **Total Depth:** 495.3 **m**

Easting: 12957.8 **Azimuth** 0.0 °

Drilled: 6/29/2006

Elevation: 1846 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
91.4	93.0	1.6	1.5	94%	0.5	0	4
91.4	93.0	1.6	1.5	94%	0.5	0	4
91.4	93.0	1.6	1.5	94%	0.5	0	4
93.0	94.5	1.5	1.5	100%	0.6	0	4
93.0	94.5	1.5	1.5	100%	0.6	0	4
93.0	94.5	1.5	1.5	100%	0.6	0	4
93.0	94.5	1.5	1.5	100%	0.6	0	4
94.5	96.0	1.5	1.5	100%	1.0	1	4
94.5	96.0	1.5	1.5	100%	1.0	1	4
94.5	96.0	1.5	1.5	100%	1.0	1	4
94.5	96.0	1.5	1.5	100%	1.0	1	4
96.0	97.5	1.5	1.5	97%	1.0	1	4
96.0	97.5	1.5	1.5	97%	1.0	1	4
96.0	97.5	1.5	1.5	97%	1.0	1	4
96.0	97.5	1.5	1.5	97%	1.0	1	4
97.5	99.0	1.5	1.4	93%	0.6	0	4
97.5	99.0	1.5	1.4	93%	0.6	0	4
97.5	99.0	1.5	1.4	93%	0.6	0	4
97.5	99.0	1.5	1.4	93%	0.6	0	4
99.0	100.6	1.6	1.5	94%	0.4	0	4
99.0	100.6	1.6	1.5	94%	0.4	0	4
99.0	100.6	1.6	1.5	94%	0.4	0	4
99.0	100.6	1.6	1.5	94%	0.4	0	4
100.6	102.1	1.5	1.5	100%	0.7	0	4
100.6	102.1	1.5	1.5	100%	0.7	0	4
100.6	102.1	1.5	1.5	100%	0.7	0	4
100.6	102.1	1.5	1.5	100%	0.7	0	4
102.1	103.6	1.5	1.6	103%	0.2	0	4
102.1	103.6	1.5	1.6	103%	0.2	0	4
102.1	103.6	1.5	1.6	103%	0.2	0	4
102.1	103.6	1.5	1.6	103%	0.2	0	4
103.6	105.2	1.6	1.4	89%	0.2	0	4
103.6	105.2	1.6	1.4	89%	0.2	0	4
103.6	105.2	1.6	1.4	89%	0.2	0	4

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-02

Northing: 15541.6 **Total Depth:** 495.3 **m**

Easting: 12957.8 **Azimuth** 0.0 °

Drilled: 6/29/2006

Elevation: 1846 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
103.6	105.2	1.6	1.4	89%	0.2	0	4
105.2	106.7	1.5	1.5	97%	0.9	1	4
105.2	106.7	1.5	1.5	97%	0.9	1	4
105.2	106.7	1.5	1.5	97%	0.9	1	4
105.2	106.7	1.5	1.5	97%	0.9	1	4
106.7	108.2	1.5	1.5	100%	0.5	0	4
106.7	108.2	1.5	1.5	100%	0.5	0	4
106.7	108.2	1.5	1.5	100%	0.5	0	4
106.7	108.2	1.5	1.5	100%	0.5	0	4
108.2	109.7	1.5	1.5	97%	0.5	0	4
108.2	109.7	1.5	1.5	97%	0.5	0	4
108.2	109.7	1.5	1.5	97%	0.5	0	4
108.2	109.7	1.5	1.5	97%	0.5	0	4
109.7	111.3	1.6	1.5	94%	0.8	0	4
109.7	111.3	1.6	1.5	94%	0.8	0	4
109.7	111.3	1.6	1.5	94%	0.8	0	4
109.7	111.3	1.6	1.5	94%	0.8	0	4
111.3	112.8	1.5	1.5	97%	1.1	1	4
111.3	112.8	1.5	1.5	97%	1.1	1	4
111.3	112.8	1.5	1.5	97%	1.1	1	4
111.3	112.8	1.5	1.5	97%	1.1	1	4
112.8	114.3	1.5	1.5	100%	0.8	1	4
112.8	114.3	1.5	1.5	100%	0.8	1	4
112.8	114.3	1.5	1.5	100%	0.8	1	4
112.8	114.3	1.5	1.5	100%	0.8	1	4
114.3	115.8	1.5	1.5	97%	1.1	1	4
114.3	115.8	1.5	1.5	97%	1.1	1	4
114.3	115.8	1.5	1.5	97%	1.1	1	4
114.3	115.8	1.5	1.5	97%	1.1	1	4
115.8	117.4	1.6	1.5	91%	0.8	0	4
115.8	117.4	1.6	1.5	91%	0.8	0	4
115.8	117.4	1.6	1.5	91%	0.8	0	4
115.8	117.4	1.6	1.5	91%	0.8	0	4
117.4	118.9	1.5	1.3	87%	0.5	0	4

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-02

Northing: 15541.6 **Total Depth:** 495.3 **m**

Easting: 12957.8 **Azimuth** 0.0 °

Drilled: 6/29/2006

Elevation: 1846 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
117.4	118.9	1.5	1.3	87%	0.5	0	4
117.4	118.9	1.5	1.3	87%	0.5	0	4
117.4	118.9	1.5	1.3	87%	0.5	0	4
118.9	120.4	1.5	1.6	107%	0.5	0	4
118.9	120.4	1.5	1.6	107%	0.5	0	4
118.9	120.4	1.5	1.6	107%	0.5	0	4
118.9	120.4	1.5	1.6	107%	0.5	0	4
120.4	121.9	1.5	1.5	100%	0.5	0	4
120.4	121.9	1.5	1.5	100%	0.5	0	4
120.4	121.9	1.5	1.5	100%	0.5	0	4
120.4	121.9	1.5	1.5	100%	0.5	0	4
121.9	123.4	1.5	1.5	100%	1.3	1	4
121.9	123.4	1.5	1.5	100%	1.3	1	4
121.9	123.4	1.5	1.5	100%	1.3	1	4
121.9	123.4	1.5	1.5	100%	1.3	1	4
123.4	125.0	1.6	1.6	97%	1.1	1	4
123.4	125.0	1.6	1.6	97%	1.1	1	4
123.4	125.0	1.6	1.6	97%	1.1	1	4
123.4	125.0	1.6	1.6	97%	1.1	1	4
125.0	126.5	1.5	1.5	101%	0.5	0	4
125.0	126.5	1.5	1.5	101%	0.5	0	4
125.0	126.5	1.5	1.5	101%	0.5	0	4
125.0	126.5	1.5	1.5	101%	0.5	0	4
126.5	128.0	1.5	1.4	93%	0.5	0	4
126.5	128.0	1.5	1.4	93%	0.5	0	4
126.5	128.0	1.5	1.4	93%	0.5	0	4
126.5	128.0	1.5	1.4	93%	0.5	0	4
128.0	129.5	1.5	1.5	100%	0.9	1	4
128.0	129.5	1.5	1.5	100%	0.9	1	4
128.0	129.5	1.5	1.5	100%	0.9	1	4
128.0	129.5	1.5	1.5	100%	0.9	1	4
129.5	131.0	1.5	1.4	93%	0.3	0	4
129.5	131.0	1.5	1.4	93%	0.3	0	4
129.5	131.0	1.5	1.4	93%	0.3	0	4

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-02

Northing: 15541.6 **Total Depth:** 495.3 **m**

Easting: 12957.8 **Azimuth** 0.0 °

Drilled: 6/29/2006

Elevation: 1846 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
129.5	131.0	1.5	1.4	93%	0.3	0	4
131.0	132.6	1.6	1.5	91%	0.6	0	4
131.0	132.6	1.6	1.5	91%	0.6	0	4
131.0	132.6	1.6	1.5	91%	0.6	0	4
131.0	132.6	1.6	1.5	91%	0.6	0	4
132.6	134.1	1.5	1.5	100%	0.7	0	4
132.6	134.1	1.5	1.5	100%	0.7	0	4
132.6	134.1	1.5	1.5	100%	0.7	0	4
132.6	134.1	1.5	1.5	100%	0.7	0	4
134.1	135.6	1.5	1.6	103%	0.9	1	4
134.1	135.6	1.5	1.6	103%	0.9	1	4
134.1	135.6	1.5	1.6	103%	0.9	1	4
134.1	135.6	1.5	1.6	103%	0.9	1	4
135.6	137.0	1.4	1.5	107%	1.0	1	4
135.6	137.0	1.4	1.5	107%	1.0	1	4
135.6	137.0	1.4	1.5	107%	1.0	1	4
135.6	137.0	1.4	1.5	107%	1.0	1	4
137.0	138.7	1.7	1.5	88%	1.1	1	4
137.0	138.7	1.7	1.5	88%	1.1	1	4
137.0	138.7	1.7	1.5	88%	1.1	1	4
137.0	138.7	1.7	1.5	88%	1.1	1	4
138.7	140.2	1.5	1.5	100%	0.7	0	4
138.7	140.2	1.5	1.5	100%	0.7	0	4
138.7	140.2	1.5	1.5	100%	0.7	0	4
138.7	140.2	1.5	1.5	100%	0.7	0	4
140.2	141.7	1.5	1.5	100%	0.4	0	4
140.2	141.7	1.5	1.5	100%	0.4	0	4
140.2	141.7	1.5	1.5	100%	0.4	0	4
140.2	141.7	1.5	1.5	100%	0.4	0	4
141.7	143.3	1.6	1.5	91%	0.8	0	4
141.7	143.3	1.6	1.5	91%	0.8	0	4
141.7	143.3	1.6	1.5	91%	0.8	0	4
141.7	143.3	1.6	1.5	91%	0.8	0	4
143.3	144.8	1.5	1.5	100%	0.5	0	4

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-02

Northing: 15541.6 **Total Depth:** 495.3 **m**

Easting: 12957.8 **Azimuth** 0.0 °

Drilled: 6/29/2006

Elevation: 1846 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
143.3	144.8	1.5	1.5	100%	0.5	0	4
143.3	144.8	1.5	1.5	100%	0.5	0	4
143.3	144.8	1.5	1.5	100%	0.5	0	4
144.8	146.3	1.5	1.6	103%	0.5	0	4
144.8	146.3	1.5	1.6	103%	0.5	0	4
144.8	146.3	1.5	1.6	103%	0.5	0	4
144.8	146.3	1.5	1.6	103%	0.5	0	4
146.3	147.8	1.5	1.5	100%	0.8	1	4
146.3	147.8	1.5	1.5	100%	0.8	1	4
146.3	147.8	1.5	1.5	100%	0.8	1	4
146.3	147.8	1.5	1.5	100%	0.8	1	4
147.8	149.4	1.6	1.6	97%	1.0	1	4
147.8	149.4	1.6	1.6	97%	1.0	1	4
147.8	149.4	1.6	1.6	97%	1.0	1	4
147.8	149.4	1.6	1.6	97%	1.0	1	4
149.4	150.9	1.5	1.5	97%	0.7	0	4
149.4	150.9	1.5	1.5	97%	0.7	0	4
149.4	150.9	1.5	1.5	97%	0.7	0	4
149.4	150.9	1.5	1.5	97%	0.7	0	4
150.9	152.4	1.5	1.5	100%	0.8	1	4
150.9	152.4	1.5	1.5	100%	0.8	1	4
150.9	152.4	1.5	1.5	100%	0.8	1	4
150.9	152.4	1.5	1.5	100%	0.8	1	4
152.4	153.9	1.5	1.5	100%	0.9	1	4
152.4	153.9	1.5	1.5	100%	0.9	1	4
152.4	153.9	1.5	1.5	100%	0.9	1	4
152.4	153.9	1.5	1.5	100%	0.9	1	4
153.9	155.5	1.6	1.5	94%	0.9	1	4
153.9	155.5	1.6	1.5	94%	0.9	1	4
153.9	155.5	1.6	1.5	94%	0.9	1	4
153.9	155.5	1.6	1.5	94%	0.9	1	4
155.5	157.0	1.5	1.6	103%	0.7	0	4
155.5	157.0	1.5	1.6	103%	0.7	0	4
155.5	157.0	1.5	1.6	103%	0.7	0	4

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-02

Northing: 15541.6 **Total Depth:** 495.3 **m**

Easting: 12957.8 **Azimuth** 0.0 °

Drilled: 6/29/2006

Elevation: 1846 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
155.5	157.0	1.5	1.6	103%	0.7	0	4
157.0	158.5	1.5	1.5	100%	1.0	1	4
157.0	158.5	1.5	1.5	100%	1.0	1	4
157.0	158.5	1.5	1.5	100%	1.0	1	4
157.0	158.5	1.5	1.5	100%	1.0	1	4
158.5	160.0	1.5	1.5	100%	1.2	1	4
158.5	160.0	1.5	1.5	100%	1.2	1	4
158.5	160.0	1.5	1.5	100%	1.2	1	4
158.5	160.0	1.5	1.5	100%	1.2	1	4
160.0	161.5	1.5	1.5	97%	0.5	0	4
160.0	161.5	1.5	1.5	97%	0.5	0	4
160.0	161.5	1.5	1.5	97%	0.5	0	4
160.0	161.5	1.5	1.5	97%	0.5	0	4
161.5	163.1	1.6	1.5	94%	0.3	0	4
161.5	163.1	1.6	1.5	94%	0.3	0	4
161.5	163.1	1.6	1.5	94%	0.3	0	4
161.5	163.1	1.6	1.5	94%	0.3	0	4
163.1	164.6	1.5	1.4	93%	0.4	0	4
163.1	164.6	1.5	1.4	93%	0.4	0	4
163.1	164.6	1.5	1.4	93%	0.4	0	4
163.1	164.6	1.5	1.4	93%	0.4	0	4
164.6	166.1	1.5	1.5	100%	0.7	0	4
164.6	166.1	1.5	1.5	100%	0.7	0	4
164.6	166.1	1.5	1.5	100%	0.7	0	4
164.6	166.1	1.5	1.5	100%	0.7	0	4
166.1	167.6	1.5	1.6	103%	0.4	0	4
166.1	167.6	1.5	1.6	103%	0.4	0	4
166.1	167.6	1.5	1.6	103%	0.4	0	4
166.1	167.6	1.5	1.6	103%	0.4	0	4
167.6	169.1	1.5	1.5	100%	0.6	0	4
167.6	169.1	1.5	1.5	100%	0.6	0	4
167.6	169.1	1.5	1.5	100%	0.6	0	4
167.6	169.1	1.5	1.5	100%	0.6	0	4
169.1	170.7	1.6	1.6	100%	1.4	1	4

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-02

Northing: 15541.6 **Total Depth:** 495.3 **m**

Easting: 12957.8 **Azimuth** 0.0 °

Drilled: 6/29/2006

Elevation: 1846 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
169.1	170.7	1.6	1.6	100%	1.4	1	4
169.1	170.7	1.6	1.6	100%	1.4	1	4
169.1	170.7	1.6	1.6	100%	1.4	1	4
170.7	172.2	1.5	1.4	93%	1.0	1	4
170.7	172.2	1.5	1.4	93%	1.0	1	4
170.7	172.2	1.5	1.4	93%	1.0	1	4
170.7	172.2	1.5	1.4	93%	1.0	1	4
172.2	173.7	1.5	1.6	103%	0.9	1	4
172.2	173.7	1.5	1.6	103%	0.9	1	4
172.2	173.7	1.5	1.6	103%	0.9	1	4
172.2	173.7	1.5	1.6	103%	0.9	1	4
173.7	175.3	1.6	1.5	94%	0.1	0	4
173.7	175.3	1.6	1.5	94%	0.1	0	4
173.7	175.3	1.6	1.5	94%	0.1	0	4
173.7	175.3	1.6	1.5	94%	0.1	0	4
175.3	176.8	1.5	1.5	100%	0.3	0	4
175.3	176.8	1.5	1.5	100%	0.3	0	4
175.3	176.8	1.5	1.5	100%	0.3	0	4
175.3	176.8	1.5	1.5	100%	0.3	0	4
176.8	178.3	1.5	1.5	100%	0.5	0	4
176.8	178.3	1.5	1.5	100%	0.5	0	4
176.8	178.3	1.5	1.5	100%	0.5	0	4
176.8	178.3	1.5	1.5	100%	0.5	0	4
178.3	179.8	1.5	1.2	80%	0.6	0	4
178.3	179.8	1.5	1.2	80%	0.6	0	4
178.3	179.8	1.5	1.2	80%	0.6	0	4
178.3	179.8	1.5	1.2	80%	0.6	0	4
179.8	181.4	1.6	1.6	100%	0.9	1	4
179.8	181.4	1.6	1.6	100%	0.9	1	4
179.8	181.4	1.6	1.6	100%	0.9	1	4
179.8	181.4	1.6	1.6	100%	0.9	1	4
181.4	182.9	1.5	1.5	100%	0.2	0	4
181.4	182.9	1.5	1.5	100%	0.2	0	4
181.4	182.9	1.5	1.5	100%	0.2	0	4

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-02

Northing: 15541.6 **Total Depth:** 495.3 **m**

Easting: 12957.8 **Azimuth** 0.0 °

Drilled: 6/29/2006

Elevation: 1846 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
181.4	182.9	1.5	1.5	100%	0.2	0	4
182.9	184.4	1.5	1.5	100%	0.5	0	4
182.9	184.4	1.5	1.5	100%	0.5	0	4
182.9	184.4	1.5	1.5	100%	0.5	0	4
182.9	184.4	1.5	1.5	100%	0.5	0	4
184.4	185.9	1.5	1.5	100%	0.6	0	4
184.4	185.9	1.5	1.5	100%	0.6	0	4
184.4	185.9	1.5	1.5	100%	0.6	0	4
184.4	185.9	1.5	1.5	100%	0.6	0	4
185.9	187.5	1.6	1.5	94%	0.5	0	4
185.9	187.5	1.6	1.5	94%	0.5	0	4
185.9	187.5	1.6	1.5	94%	0.5	0	4
185.9	187.5	1.6	1.5	94%	0.5	0	4
187.5	189.0	1.5	1.5	100%	0.8	1	4
187.5	189.0	1.5	1.5	100%	0.8	1	4
187.5	189.0	1.5	1.5	100%	0.8	1	4
187.5	189.0	1.5	1.5	100%	0.8	1	4
189.0	190.5	1.5	1.5	100%	0.9	1	4
189.0	190.5	1.5	1.5	100%	0.9	1	4
189.0	190.5	1.5	1.5	100%	0.9	1	4
189.0	190.5	1.5	1.5	100%	0.9	1	4
190.5	192.0	1.5	1.6	103%	1.1	1	4
190.5	192.0	1.5	1.6	103%	1.1	1	4
190.5	192.0	1.5	1.6	103%	1.1	1	4
190.5	192.0	1.5	1.6	103%	1.1	1	4
192.0	193.6	1.6	1.5	91%	0.9	1	4
192.0	193.6	1.6	1.5	91%	0.9	1	4
192.0	193.6	1.6	1.5	91%	0.9	1	4
192.0	193.6	1.6	1.5	91%	0.9	1	4
193.6	195.1	1.5	1.5	100%	0.8	1	4
193.6	195.1	1.5	1.5	100%	0.8	1	4
193.6	195.1	1.5	1.5	100%	0.8	1	4
193.6	195.1	1.5	1.5	100%	0.8	1	4
195.1	196.6	1.5	1.5	100%	1.0	1	4

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-02

Northing: 15541.6 **Total Depth:** 495.3 **m**

Easting: 12957.8 **Azimuth** 0.0 °

Drilled: 6/29/2006

Elevation: 1846 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
195.1	196.6	1.5	1.5	100%	1.0	1	4
195.1	196.6	1.5	1.5	100%	1.0	1	4
195.1	196.6	1.5	1.5	100%	1.0	1	4
196.6	198.1	1.5	1.5	100%	1.2	1	5
196.6	198.1	1.5	1.5	100%	1.2	1	5
196.6	198.1	1.5	1.5	100%	1.2	1	5
196.6	198.1	1.5	1.5	100%	1.2	1	5
198.1	199.6	1.5	1.5	100%	0.8	1	5
198.1	199.6	1.5	1.5	100%	0.8	1	5
198.1	199.6	1.5	1.5	100%	0.8	1	5
198.1	199.6	1.5	1.5	100%	0.8	1	5
199.6	201.2	1.6	1.5	94%	1.1	1	5
199.6	201.2	1.6	1.5	94%	1.1	1	5
199.6	201.2	1.6	1.5	94%	1.1	1	5
199.6	201.2	1.6	1.5	94%	1.1	1	5
201.2	202.7	1.5	1.5	100%	1.1	1	5
201.2	202.7	1.5	1.5	100%	1.1	1	5
201.2	202.7	1.5	1.5	100%	1.1	1	5
201.2	202.7	1.5	1.5	100%	1.1	1	5
202.7	204.2	1.5	1.5	100%	0.5	0	5
202.7	204.2	1.5	1.5	100%	0.5	0	5
202.7	204.2	1.5	1.5	100%	0.5	0	5
202.7	204.2	1.5	1.5	100%	0.5	0	5
204.2	205.7	1.5	1.5	100%	1.3	1	5
204.2	205.7	1.5	1.5	100%	1.3	1	5
204.2	205.7	1.5	1.5	100%	1.3	1	5
204.2	205.7	1.5	1.5	100%	1.3	1	5
205.7	207.3	1.6	1.6	100%	0.9	1	5
205.7	207.3	1.6	1.6	100%	0.9	1	5
205.7	207.3	1.6	1.6	100%	0.9	1	5
205.7	207.3	1.6	1.6	100%	0.9	1	5
207.3	208.8	1.5	1.5	100%	1.2	1	5
207.3	208.8	1.5	1.5	100%	1.2	1	5
207.3	208.8	1.5	1.5	100%	1.2	1	5

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-02

Northing: 15541.6 **Total Depth:** 495.3 **m**

Easting: 12957.8 **Azimuth** 0.0 °

Drilled: 6/29/2006

Elevation: 1846 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
207.3	208.8	1.5	1.5	100%	1.2	1	5
208.8	210.3	1.5	1.5	100%	0.8	1	5
208.8	210.3	1.5	1.5	100%	0.8	1	5
208.8	210.3	1.5	1.5	100%	0.8	1	5
208.8	210.3	1.5	1.5	100%	0.8	1	5
210.3	211.8	1.5	1.5	100%	1.1	1	5
210.3	211.8	1.5	1.5	100%	1.1	1	5
210.3	211.8	1.5	1.5	100%	1.1	1	5
210.3	211.8	1.5	1.5	100%	1.1	1	5
211.8	213.4	1.6	1.5	94%	1.1	1	5
211.8	213.4	1.6	1.5	94%	1.1	1	5
211.8	213.4	1.6	1.5	94%	1.1	1	5
211.8	213.4	1.6	1.5	94%	1.1	1	5
213.4	214.9	1.5	1.5	100%	1.1	1	5
213.4	214.9	1.5	1.5	100%	1.1	1	5
213.4	214.9	1.5	1.5	100%	1.1	1	5
213.4	214.9	1.5	1.5	100%	1.1	1	5
214.9	216.4	1.5	1.4	93%	1.0	1	5
214.9	216.4	1.5	1.4	93%	1.0	1	5
214.9	216.4	1.5	1.4	93%	1.0	1	5
214.9	216.4	1.5	1.4	93%	1.0	1	5
216.4	217.9	1.5	1.5	100%	1.2	1	5
216.4	217.9	1.5	1.5	100%	1.2	1	5
216.4	217.9	1.5	1.5	100%	1.2	1	5
216.4	217.9	1.5	1.5	100%	1.2	1	5
217.9	219.5	1.6	1.5	94%	1.1	1	5
217.9	219.5	1.6	1.5	94%	1.1	1	5
217.9	219.5	1.6	1.5	94%	1.1	1	5
217.9	219.5	1.6	1.5	94%	1.1	1	5
219.5	221.0	1.5	1.5	100%	1.0	1	5
219.5	221.0	1.5	1.5	100%	1.0	1	5
219.5	221.0	1.5	1.5	100%	1.0	1	5
219.5	221.0	1.5	1.5	100%	1.0	1	5
221.0	222.5	1.5	1.4	93%	1.2	1	5

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-02

Northing: 15541.6 **Total Depth:** 495.3 **m**

Easting: 12957.8 **Azimuth** 0.0 °

Drilled: 6/29/2006

Elevation: 1846 **Dip** -90 °

From (m)	To (m)	Run (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness
221.0	222.5	1.5	1.4	93%	1.2	1	5
221.0	222.5	1.5	1.4	93%	1.2	1	5
221.0	222.5	1.5	1.4	93%	1.2	1	5
222.5	224.0	1.5	1.5	100%	1.4	1	5
222.5	224.0	1.5	1.5	100%	1.4	1	5
222.5	224.0	1.5	1.5	100%	1.4	1	5
222.5	224.0	1.5	1.5	100%	1.4	1	5
224.0	225.6	1.6	1.4	88%	1.1	1	5
224.0	225.6	1.6	1.4	88%	1.1	1	5
224.0	225.6	1.6	1.4	88%	1.1	1	5
224.0	225.6	1.6	1.4	88%	1.1	1	5
225.6	227.1	1.5	1.5	100%	0.9	1	5
225.6	227.1	1.5	1.5	100%	0.9	1	5
225.6	227.1	1.5	1.5	100%	0.9	1	5
225.6	227.1	1.5	1.5	100%	0.9	1	5
227.1	228.6	1.5	1.3	87%	0.8	1	5
227.1	228.6	1.5	1.3	87%	0.8	1	5
227.1	228.6	1.5	1.3	87%	0.8	1	5
227.1	228.6	1.5	1.3	87%	0.8	1	5
228.6	230.1	1.5	1.5	100%	0.6	0	5
228.6	230.1	1.5	1.5	100%	0.6	0	5
228.6	230.1	1.5	1.5	100%	0.6	0	5
228.6	230.1	1.5	1.5	100%	0.6	0	5
230.1	231.6	1.5	1.5	98%	1.1	1	5
230.1	231.6	1.5	1.5	98%	1.1	1	5
230.1	231.6	1.5	1.5	98%	1.1	1	5
230.1	231.6	1.5	1.5	98%	1.1	1	5
231.6	233.2	1.5	1.5	100%	1.2	1	5
231.6	233.2	1.5	1.5	100%	1.2	1	5
231.6	233.2	1.5	1.5	100%	1.2	1	5
231.6	233.2	1.5	1.5	100%	1.2	1	5
233.2	234.7	1.5	1.5	100%	1.2	1	5
233.2	234.7	1.5	1.5	100%	1.2	1	5
233.2	234.7	1.5	1.5	100%	1.2	1	5

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-02

Northing: 15541.6 **Total Depth:** 495.3 **m**

Easting: 12957.8 **Azimuth** 0.0 °

Drilled: 6/29/2006

Elevation: 1846 **Dip** -90 °

From (m)	To (m)	Run (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness
233.2	234.7	1.5	1.5	100%	1.2	1	5
234.7	236.2	1.5	1.5	98%	1.2	1	5
234.7	236.2	1.5	1.5	98%	1.2	1	5
234.7	236.2	1.5	1.5	98%	1.2	1	5
234.7	236.2	1.5	1.5	98%	1.2	1	5
236.2	237.7	1.5	1.5	98%	1.2	1	5
236.2	237.7	1.5	1.5	98%	1.2	1	5
236.2	237.7	1.5	1.5	98%	1.2	1	5
236.2	237.7	1.5	1.5	98%	1.2	1	5
237.7	239.3	1.5	1.5	98%	0.9	1	5
237.7	239.3	1.5	1.5	98%	0.9	1	5
237.7	239.3	1.5	1.5	98%	0.9	1	5
237.7	239.3	1.5	1.5	98%	0.9	1	5
239.3	240.8	1.5	1.5	98%	1.3	1	5
239.3	240.8	1.5	1.5	98%	1.3	1	5
239.3	240.8	1.5	1.5	98%	1.3	1	5
239.3	240.8	1.5	1.5	98%	1.3	1	5
240.8	242.3	1.5	1.5	98%	0.8	1	5
240.8	242.3	1.5	1.5	98%	0.8	1	5
240.8	242.3	1.5	1.5	98%	0.8	1	5
240.8	242.3	1.5	1.5	98%	0.8	1	5
242.3	243.8	1.5	1.5	98%	0.7	0	5
242.3	243.8	1.5	1.5	98%	0.7	0	5
242.3	243.8	1.5	1.5	98%	0.7	0	5
242.3	243.8	1.5	1.5	98%	0.7	0	5
243.8	245.4	1.5	1.4	92%	1.0	1	5
243.8	245.4	1.5	1.4	92%	1.0	1	5
243.8	245.4	1.5	1.4	92%	1.0	1	5
243.8	245.4	1.5	1.4	92%	1.0	1	5
245.4	246.9	1.5	1.5	98%	0.5	0	5
245.4	246.9	1.5	1.5	98%	0.5	0	5
245.4	246.9	1.5	1.5	98%	0.5	0	5
245.4	246.9	1.5	1.5	98%	0.5	0	5
246.9	248.4	1.5	1.3	85%	0.9	1	5

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-02

Northing: 15541.6 **Total Depth:** 495.3 **m**

Easting: 12957.8 **Azimuth** 0.0 °

Drilled: 6/29/2006

Elevation: 1846 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
246.9	248.4	1.5	1.3	85%	0.9	1	5
246.9	248.4	1.5	1.3	85%	0.9	1	5
246.9	248.4	1.5	1.3	85%	0.9	1	5
248.4	249.9	1.5	1.3	85%	0.7	0	5
248.4	249.9	1.5	1.3	85%	0.7	0	5
248.4	249.9	1.5	1.3	85%	0.7	0	5
248.4	249.9	1.5	1.3	85%	0.7	0	5
249.9	251.5	1.5	1.4	92%	1.1	1	5
249.9	251.5	1.5	1.4	92%	1.1	1	5
249.9	251.5	1.5	1.4	92%	1.1	1	5
249.9	251.5	1.5	1.4	92%	1.1	1	5
251.5	253.0	1.5	1.4	92%	1.1	1	5
251.5	253.0	1.5	1.4	92%	1.1	1	5
251.5	253.0	1.5	1.4	92%	1.1	1	5
251.5	253.0	1.5	1.4	92%	1.1	1	5
252.1	255.1	3.0	3.1	103%	2.3	1	4
252.1	255.1	3.0	3.1	103%	2.3	1	4
252.1	255.1	3.0	3.1	103%	2.3	1	4
252.1	255.1	3.0	3.1	103%	2.3	1	4
253.0	254.5	1.5	1.5	98%	0.9	1	5
253.0	254.5	1.5	1.5	98%	0.9	1	5
253.0	254.5	1.5	1.5	98%	0.9	1	5
253.0	254.5	1.5	1.5	98%	0.9	1	5
254.5	256.0	1.5	1.4	92%	0.9	1	5
254.5	256.0	1.5	1.4	92%	0.9	1	5
254.5	256.0	1.5	1.4	92%	0.9	1	5
254.5	256.0	1.5	1.4	92%	0.9	1	5
255.1	258.2	3.1	3.0	97%	1.5	0	4
255.1	258.2	3.1	3.0	97%	1.5	0	4
255.1	258.2	3.1	3.0	97%	1.5	0	4
255.1	258.2	3.1	3.0	97%	1.5	0	4
256.0	257.6	1.5	1.5	98%	0.9	1	5
256.0	257.6	1.5	1.5	98%	0.9	1	5
256.0	257.6	1.5	1.5	98%	0.9	1	5

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-02

Northing: 15541.6 **Total Depth:** 495.3 **m**

Easting: 12957.8 **Azimuth** 0.0 °

Drilled: 6/29/2006

Elevation: 1846 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
256.0	257.6	1.5	1.5	98%	0.9	1	5
257.6	259.1	1.5	1.5	98%	0.9	1	5
257.6	259.1	1.5	1.5	98%	0.9	1	5
257.6	259.1	1.5	1.5	98%	0.9	1	5
257.6	259.1	1.5	1.5	98%	0.9	1	5
258.2	261.2	3.0	3.0	98%	2.3	1	4
258.2	261.2	3.0	3.0	98%	2.3	1	4
258.2	261.2	3.0	3.0	98%	2.3	1	4
258.2	261.2	3.0	3.0	98%	2.3	1	4
259.1	260.6	1.5	1.3	85%	0.9	1	5
259.1	260.6	1.5	1.3	85%	0.9	1	5
259.1	260.6	1.5	1.3	85%	0.9	1	5
259.1	260.6	1.5	1.3	85%	0.9	1	5
260.6	262.1	1.5	1.5	98%	0.7	0	5
260.6	262.1	1.5	1.5	98%	0.7	0	5
260.6	262.1	1.5	1.5	98%	0.7	0	5
260.6	262.1	1.5	1.5	98%	0.7	0	5
261.2	264.3	3.0	3.0	98%	2.5	1	4
261.2	264.3	3.0	3.0	98%	2.5	1	4
261.2	264.3	3.0	3.0	98%	2.5	1	4
261.2	264.3	3.0	3.0	98%	2.5	1	4
262.1	263.7	1.6	1.5	94%	1.3	1	5
262.1	263.7	1.6	1.5	94%	1.3	1	5
262.1	263.7	1.6	1.5	94%	1.3	1	5
262.1	263.7	1.6	1.5	94%	1.3	1	5
263.7	265.2	1.5	1.5	100%	1.1	1	5
263.7	265.2	1.5	1.5	100%	1.1	1	5
263.7	265.2	1.5	1.5	100%	1.1	1	5
263.7	265.2	1.5	1.5	100%	1.1	1	5
264.3	267.3	3.0	3.0	97%	2.0	1	4
264.3	267.3	3.0	3.0	97%	2.0	1	4
264.3	267.3	3.0	3.0	97%	2.0	1	4
264.3	267.3	3.0	3.0	97%	2.0	1	4
265.2	266.7	1.5	1.5	100%	1.1	1	5

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-02

Northing: 15541.6 **Total Depth:** 495.3 **m**

Easting: 12957.8 **Azimuth** 0.0 °

Drilled: 6/29/2006

Elevation: 1846 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
265.2	266.7	1.5	1.5	100%	1.1	1	5
265.2	266.7	1.5	1.5	100%	1.1	1	5
265.2	266.7	1.5	1.5	100%	1.1	1	5
266.7	268.2	1.5	1.5	100%	0.7	0	5
266.7	268.2	1.5	1.5	100%	0.7	0	5
266.7	268.2	1.5	1.5	100%	0.7	0	5
266.7	268.2	1.5	1.5	100%	0.7	0	5
267.3	270.4	3.0	3.1	102%	2.0	1	4
267.3	270.4	3.0	3.1	102%	2.0	1	4
267.3	270.4	3.0	3.1	102%	2.0	1	4
267.3	270.4	3.0	3.1	102%	2.0	1	4
268.2	269.8	1.6	1.5	94%	0.9	1	5
268.2	269.8	1.6	1.5	94%	0.9	1	5
268.2	269.8	1.6	1.5	94%	0.9	1	5
268.2	269.8	1.6	1.5	94%	0.9	1	5
269.8	271.3	1.5	1.4	93%	0.5	0	5
269.8	271.3	1.5	1.4	93%	0.5	0	5
269.8	271.3	1.5	1.4	93%	0.5	0	5
269.8	271.3	1.5	1.4	93%	0.5	0	5
270.4	273.4	3.0	3.0	98%	2.0	1	4
270.4	273.4	3.0	3.0	98%	2.0	1	4
270.4	273.4	3.0	3.0	98%	2.0	1	4
270.4	273.4	3.0	3.0	98%	2.0	1	4
271.3	272.8	1.5	1.5	100%	0.9	1	5
271.3	272.8	1.5	1.5	100%	0.9	1	5
271.3	272.8	1.5	1.5	100%	0.9	1	5
271.3	272.8	1.5	1.5	100%	0.9	1	5
272.8	274.3	1.5	1.5	100%	0.8	1	5
272.8	274.3	1.5	1.5	100%	0.8	1	5
272.8	274.3	1.5	1.5	100%	0.8	1	5
272.8	274.3	1.5	1.5	100%	0.8	1	5
273.4	276.5	3.0	3.0	98%	2.2	1	4
273.4	276.5	3.0	3.0	98%	2.2	1	4
273.4	276.5	3.0	3.0	98%	2.2	1	4

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-02

Northing: 15541.6 **Total Depth:** 495.3 **m**

Easting: 12957.8 **Azimuth** 0.0 °

Drilled: 6/29/2006

Elevation: 1846 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
273.4	276.5	3.0	3.0	98%	2.2	1	4
274.3	275.8	1.5	1.5	100%	0.9	1	5
274.3	275.8	1.5	1.5	100%	0.9	1	5
274.3	275.8	1.5	1.5	100%	0.9	1	5
274.3	275.8	1.5	1.5	100%	0.9	1	5
275.8	277.4	1.6	1.5	94%	0.8	1	5
275.8	277.4	1.6	1.5	94%	0.8	1	5
275.8	277.4	1.6	1.5	94%	0.8	1	5
275.8	277.4	1.6	1.5	94%	0.8	1	5
276.5	279.5	3.0	3.1	102%	2.4	1	4
276.5	279.5	3.0	3.1	102%	2.4	1	4
276.5	279.5	3.0	3.1	102%	2.4	1	4
276.5	279.5	3.0	3.1	102%	2.4	1	4
277.4	278.9	1.5	1.5	100%	0.7	0	5
277.4	278.9	1.5	1.5	100%	0.7	0	5
277.4	278.9	1.5	1.5	100%	0.7	0	5
277.4	278.9	1.5	1.5	100%	0.7	0	5
278.9	280.4	1.5	1.5	100%	0.8	1	5
278.9	280.4	1.5	1.5	100%	0.8	1	5
278.9	280.4	1.5	1.5	100%	0.8	1	5
278.9	280.4	1.5	1.5	100%	0.8	1	5
279.5	282.6	3.0	3.0	98%	2.6	1	4
279.5	282.6	3.0	3.0	98%	2.6	1	4
279.5	282.6	3.0	3.0	98%	2.6	1	4
279.5	282.6	3.0	3.0	98%	2.6	1	4
280.4	281.9	1.5	1.5	100%	0.5	0	5
280.4	281.9	1.5	1.5	100%	0.5	0	5
280.4	281.9	1.5	1.5	100%	0.5	0	5
280.4	281.9	1.5	1.5	100%	0.5	0	5
281.9	283.5	1.6	1.5	94%	0.9	1	5
281.9	283.5	1.6	1.5	94%	0.9	1	5
281.9	283.5	1.6	1.5	94%	0.9	1	5
281.9	283.5	1.6	1.5	94%	0.9	1	5
282.6	285.6	3.0	3.0	98%	2.7	1	4

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-02

Northing: 15541.6 **Total Depth:** 495.3 **m**

Easting: 12957.8 **Azimuth** 0.0 °

Drilled: 6/29/2006

Elevation: 1846 **Dip** -90 °

From (m)	To (m)	Run (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness
282.6	285.6	3.0	3.0	98%	2.7	1	4
282.6	285.6	3.0	3.0	98%	2.7	1	4
282.6	285.6	3.0	3.0	98%	2.7	1	4
283.5	285.0	1.5	1.5	100%	1.0	1	5
283.5	285.0	1.5	1.5	100%	1.0	1	5
283.5	285.0	1.5	1.5	100%	1.0	1	5
283.5	285.0	1.5	1.5	100%	1.0	1	5
285.0	286.5	1.5	1.5	100%	1.0	1	5
285.0	286.5	1.5	1.5	100%	1.0	1	5
285.0	286.5	1.5	1.5	100%	1.0	1	5
285.0	286.5	1.5	1.5	100%	1.0	1	5
285.6	288.7	3.0	3.1	102%	2.4	1	4
285.6	288.7	3.0	3.1	102%	2.4	1	4
285.6	288.7	3.0	3.1	102%	2.4	1	4
285.6	288.7	3.0	3.1	102%	2.4	1	4
286.5	288.0	1.5	1.6	103%	0.8	1	5
286.5	288.0	1.5	1.6	103%	0.8	1	5
286.5	288.0	1.5	1.6	103%	0.8	1	5
286.5	288.0	1.5	1.6	103%	0.8	1	5
288.0	289.6	1.6	1.5	94%	0.7	0	5
288.0	289.6	1.6	1.5	94%	0.7	0	5
288.0	289.6	1.6	1.5	94%	0.7	0	5
288.0	289.6	1.6	1.5	94%	0.7	0	5
289.6	291.1	1.5	1.5	100%	0.6	0	4
289.6	291.1	1.5	1.5	100%	0.6	0	4
289.6	291.1	1.5	1.5	100%	0.6	0	4
289.6	291.1	1.5	1.5	100%	0.6	0	4
291.1	292.6	1.5	1.5	49%	0.6	0	5
291.1	292.6	1.5	1.5	49%	0.6	0	5
291.1	292.6	1.5	1.5	49%	0.6	0	5
291.1	292.6	1.5	1.5	49%	0.6	0	5
292.6	294.1	1.5	1.5	97%	0.5	0	5
292.6	294.1	1.5	1.5	97%	0.5	0	5
292.6	294.1	1.5	1.5	97%	0.5	0	5

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-02

Northing: 15541.6 **Total Depth:** 495.3 **m**

Easting: 12957.8 **Azimuth** 0.0 °

Drilled: 6/29/2006

Elevation: 1846 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
292.6	294.1	1.5	1.5	97%	0.5	0	5
294.1	295.7	1.6	1.5	33%	0.3	0	5
294.1	295.7	1.6	1.5	33%	0.3	0	5
294.1	295.7	1.6	1.5	33%	0.3	0	5
294.1	295.7	1.6	1.5	33%	0.3	0	5
295.7	297.2	1.5	1.5	100%	0.3	0	5
295.7	297.2	1.5	1.5	100%	0.3	0	5
295.7	297.2	1.5	1.5	100%	0.3	0	5
295.7	297.2	1.5	1.5	100%	0.3	0	5
297.2	298.7	1.5	1.5	100%	0.9	1	5
297.2	298.7	1.5	1.5	100%	0.9	1	5
297.2	298.7	1.5	1.5	100%	0.9	1	5
297.2	298.7	1.5	1.5	100%	0.9	1	5
298.7	300.2	1.5	1.5	97%	0.9	1	5
298.7	300.2	1.5	1.5	97%	0.9	1	5
298.7	300.2	1.5	1.5	97%	0.9	1	5
298.7	300.2	1.5	1.5	97%	0.9	1	5
300.2	301.8	1.6	1.5	94%	0.9	1	5
300.2	301.8	1.6	1.5	94%	0.9	1	5
300.2	301.8	1.6	1.5	94%	0.9	1	5
300.2	301.8	1.6	1.5	94%	0.9	1	5
301.8	303.3	1.5	1.5	100%	0.5	0	5
301.8	303.3	1.5	1.5	100%	0.5	0	5
301.8	303.3	1.5	1.5	100%	0.5	0	5
301.8	303.3	1.5	1.5	100%	0.5	0	5
303.3	304.8	1.5	1.5	100%	1.0	1	5
303.3	304.8	1.5	1.5	100%	1.0	1	5
303.3	304.8	1.5	1.5	100%	1.0	1	5
303.3	304.8	1.5	1.5	100%	1.0	1	5
304.8	306.3	1.5	1.5	100%	0.5	0	5
304.8	306.3	1.5	1.5	100%	0.5	0	5
304.8	306.3	1.5	1.5	100%	0.5	0	5
304.8	306.3	1.5	1.5	100%	0.5	0	5
306.3	307.9	1.6	1.5	94%	0.8	1	5

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-02

Northing: 15541.6 **Total Depth:** 495.3 **m**

Easting: 12957.8 **Azimuth** 0.0 °

Drilled: 6/29/2006

Elevation: 1846 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
306.3	307.9	1.6	1.5	94%	0.8	1	5
306.3	307.9	1.6	1.5	94%	0.8	1	5
306.3	307.9	1.6	1.5	94%	0.8	1	5
307.9	309.4	1.5	1.5	100%	0.8	1	5
307.9	309.4	1.5	1.5	100%	0.8	1	5
307.9	309.4	1.5	1.5	100%	0.8	1	5
307.9	309.4	1.5	1.5	100%	0.8	1	5
309.4	310.9	1.5	1.5	100%	0.6	0	5
309.4	310.9	1.5	1.5	100%	0.6	0	5
309.4	310.9	1.5	1.5	100%	0.6	0	5
309.4	310.9	1.5	1.5	100%	0.6	0	5
310.9	312.4	1.5	1.5	100%	0.1	0	5
310.9	312.4	1.5	1.5	100%	0.1	0	5
310.9	312.4	1.5	1.5	100%	0.1	0	5
310.9	312.4	1.5	1.5	100%	0.1	0	5
312.4	313.9	1.5	1.3	87%	0.7	0	5
312.4	313.9	1.5	1.3	87%	0.7	0	5
312.4	313.9	1.5	1.3	87%	0.7	0	5
312.4	313.9	1.5	1.3	87%	0.7	0	5
313.9	315.5	1.6	1.6	100%	0.7	0	5
313.9	315.5	1.6	1.6	100%	0.7	0	5
313.9	315.5	1.6	1.6	100%	0.7	0	5
313.9	315.5	1.6	1.6	100%	0.7	0	5
315.5	317.0	1.5	1.5	100%	0.4	0	5
315.5	317.0	1.5	1.5	100%	0.4	0	5
315.5	317.0	1.5	1.5	100%	0.4	0	5
315.5	317.0	1.5	1.5	100%	0.4	0	5
317.0	318.5	1.5	1.5	100%	0.8	1	5
317.0	318.5	1.5	1.5	100%	0.8	1	5
317.0	318.5	1.5	1.5	100%	0.8	1	5
317.0	318.5	1.5	1.5	100%	0.8	1	5
318.5	320.0	1.5	1.5	100%	0.7	0	5
318.5	320.0	1.5	1.5	100%	0.7	0	5
318.5	320.0	1.5	1.5	100%	0.7	0	5

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-02

Northing: 15541.6 **Total Depth:** 495.3 **m**

Easting: 12957.8 **Azimuth** 0.0 °

Drilled: 6/29/2006

Elevation: 1846 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
318.5	320.0	1.5	1.5	100%	0.7	0	5
320.0	321.6	1.6	1.5	94%	1.2	1	5
320.0	321.6	1.6	1.5	94%	1.2	1	5
320.0	321.6	1.6	1.5	94%	1.2	1	5
320.0	321.6	1.6	1.5	94%	1.2	1	5
321.6	323.1	1.5	1.5	97%	0.8	1	5
321.6	323.1	1.5	1.5	97%	0.8	1	5
321.6	323.1	1.5	1.5	97%	0.8	1	5
321.6	323.1	1.5	1.5	97%	0.8	1	5
323.1	324.6	1.5	1.5	100%	1.1	1	5
323.1	324.6	1.5	1.5	100%	1.1	1	5
323.1	324.6	1.5	1.5	100%	1.1	1	5
323.1	324.6	1.5	1.5	100%	1.1	1	5
324.6	326.1	1.5	1.5	100%	0.8	1	5
324.6	326.1	1.5	1.5	100%	0.8	1	5
324.6	326.1	1.5	1.5	100%	0.8	1	5
324.6	326.1	1.5	1.5	100%	0.8	1	5
326.1	327.7	1.6	1.5	94%	0.3	0	5
326.1	327.7	1.6	1.5	94%	0.3	0	5
326.1	327.7	1.6	1.5	94%	0.3	0	5
326.1	327.7	1.6	1.5	94%	0.3	0	5
327.7	329.2	1.5	1.5	100%	1.1	1	5
327.7	329.2	1.5	1.5	100%	1.1	1	5
327.7	329.2	1.5	1.5	100%	1.1	1	5
327.7	329.2	1.5	1.5	100%	1.1	1	5
329.2	330.7	1.5	1.5	100%	0.6	0	5
329.2	330.7	1.5	1.5	100%	0.6	0	5
329.2	330.7	1.5	1.5	100%	0.6	0	5
329.2	330.7	1.5	1.5	100%	0.6	0	5
330.7	332.2	1.5	1.5	100%	0.9	1	5
330.7	332.2	1.5	1.5	100%	0.9	1	5
330.7	332.2	1.5	1.5	100%	0.9	1	5
330.7	332.2	1.5	1.5	100%	0.9	1	5
332.2	333.8	1.6	1.4	87%	0.9	1	5

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-02

Northing: 15541.6 **Total Depth:** 495.3 **m**

Easting: 12957.8 **Azimuth** 0.0 °

Drilled: 6/29/2006

Elevation: 1846 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
332.2	333.8	1.6	1.4	87%	0.9	1	5
332.2	333.8	1.6	1.4	87%	0.9	1	5
332.2	333.8	1.6	1.4	87%	0.9	1	5
333.8	335.3	1.5	1.5	100%	0.3	0	5
333.8	335.3	1.5	1.5	100%	0.3	0	5
333.8	335.3	1.5	1.5	100%	0.3	0	5
333.8	335.3	1.5	1.5	100%	0.3	0	5
335.3	336.8	1.5	1.4	93%	0.4	0	5
335.3	336.8	1.5	1.4	93%	0.4	0	5
335.3	336.8	1.5	1.4	93%	0.4	0	5
335.3	336.8	1.5	1.4	93%	0.4	0	5
336.8	339.9	3.1	1.5	48%	0.4	0	5
336.8	339.9	3.1	1.5	48%	0.4	0	5
336.8	339.9	3.1	1.5	48%	0.4	0	5
336.8	339.9	3.1	1.5	48%	0.4	0	5
339.9	341.4	1.5	1.5	97%	0.6	0	5
339.9	341.4	1.5	1.5	97%	0.6	0	5
339.9	341.4	1.5	1.5	97%	0.6	0	5
339.9	341.4	1.5	1.5	97%	0.6	0	5
341.4	342.9	1.5	1.5	100%	0.3	0	5
341.4	342.9	1.5	1.5	100%	0.3	0	5
341.4	342.9	1.5	1.5	100%	0.3	0	5
341.4	342.9	1.5	1.5	100%	0.3	0	5
342.9	344.4	1.5	1.5	100%	0.3	0	5
342.9	344.4	1.5	1.5	100%	0.3	0	5
342.9	344.4	1.5	1.5	100%	0.3	0	5
342.9	344.4	1.5	1.5	100%	0.3	0	5
344.4	345.9	1.5	1.5	100%	0.5	0	5
344.4	345.9	1.5	1.5	100%	0.5	0	5
344.4	345.9	1.5	1.5	100%	0.5	0	5
344.4	345.9	1.5	1.5	100%	0.5	0	5
345.9	347.5	1.6	1.5	94%	0.3	0	5
345.9	347.5	1.6	1.5	94%	0.3	0	5
345.9	347.5	1.6	1.5	94%	0.3	0	5

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-02

Northing: 15541.6 **Total Depth:** 495.3 **m**

Easting: 12957.8 **Azimuth** 0.0 °

Drilled: 6/29/2006

Elevation: 1846 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
345.9	347.5	1.6	1.5	94%	0.3	0	5
347.5	349.0	1.5	1.5	100%	0.5	0	5
347.5	349.0	1.5	1.5	100%	0.5	0	5
347.5	349.0	1.5	1.5	100%	0.5	0	5
347.5	349.0	1.5	1.5	100%	0.5	0	5
349.0	350.5	1.5	1.5	100%	1.1	1	5
349.0	350.5	1.5	1.5	100%	1.1	1	5
349.0	350.5	1.5	1.5	100%	1.1	1	5
349.0	350.5	1.5	1.5	100%	1.1	1	5
350.5	352.0	1.5	1.5	99%	0.4	0	5
350.5	352.0	1.5	1.5	99%	0.4	0	5
350.5	352.0	1.5	1.5	99%	0.4	0	5
350.5	352.0	1.5	1.5	99%	0.4	0	5
352.0	353.6	1.6	1.5	94%	0.6	0	5
352.0	353.6	1.6	1.5	94%	0.6	0	5
352.0	353.6	1.6	1.5	94%	0.6	0	5
352.0	353.6	1.6	1.5	94%	0.6	0	5
353.6	355.1	1.5	1.5	100%	0.6	0	4
353.6	355.1	1.5	1.5	100%	0.6	0	4
353.6	355.1	1.5	1.5	100%	0.6	0	4
353.6	355.1	1.5	1.5	100%	0.6	0	4
355.1	356.6	1.5	1.5	100%	0.6	0	4
355.1	356.6	1.5	1.5	100%	0.6	0	4
355.1	356.6	1.5	1.5	100%	0.6	0	4
355.1	356.6	1.5	1.5	100%	0.6	0	4
356.6	358.1	1.5	1.5	100%	1.1	1	5
356.6	358.1	1.5	1.5	100%	1.1	1	5
356.6	358.1	1.5	1.5	100%	1.1	1	5
356.6	358.1	1.5	1.5	100%	1.1	1	5
358.1	359.7	1.6	1.5	93%	1.0	1	4
358.1	359.7	1.6	1.5	93%	1.0	1	4
358.1	359.7	1.6	1.5	93%	1.0	1	4
358.1	359.7	1.6	1.5	93%	1.0	1	4
359.7	361.2	1.5	1.5	100%	0.6	0	4

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-02

Northing: 15541.6 **Total Depth:** 495.3 **m**

Easting: 12957.8 **Azimuth** 0.0 °

Drilled: 6/29/2006

Elevation: 1846 **Dip** -90 °

From (m)	To (m)	Run (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness
359.7	361.2	1.5	1.5	100%	0.6	0	4
359.7	361.2	1.5	1.5	100%	0.6	0	4
359.7	361.2	1.5	1.5	100%	0.6	0	4
361.2	362.7	1.5	1.5	100%	1.1	1	4
361.2	362.7	1.5	1.5	100%	1.1	1	4
361.2	362.7	1.5	1.5	100%	1.1	1	4
361.2	362.7	1.5	1.5	100%	1.1	1	4
362.7	364.2	1.5	1.5	100%	0.1	0	4
362.7	364.2	1.5	1.5	100%	0.1	0	4
362.7	364.2	1.5	1.5	100%	0.1	0	4
362.7	364.2	1.5	1.5	100%	0.1	0	4
364.2	365.8	1.6	1.5	94%	0.3	0	4
364.2	365.8	1.6	1.5	94%	0.3	0	4
364.2	365.8	1.6	1.5	94%	0.3	0	4
364.2	365.8	1.6	1.5	94%	0.3	0	4
365.8	367.3	1.5	1.5	100%	1.5	1	4
365.8	367.3	1.5	1.5	100%	1.5	1	4
365.8	367.3	1.5	1.5	100%	1.5	1	4
365.8	367.3	1.5	1.5	100%	1.5	1	4
367.3	368.8	1.5	1.5	100%	0.0	0	4
367.3	368.8	1.5	1.5	100%	0.0	0	4
367.3	368.8	1.5	1.5	100%	0.0	0	4
367.3	368.8	1.5	1.5	100%	0.0	0	4
368.8	370.3	1.5	1.5	100%	0.4	0	4
368.8	370.3	1.5	1.5	100%	0.4	0	4
368.8	370.3	1.5	1.5	100%	0.4	0	4
368.8	370.3	1.5	1.5	100%	0.4	0	4
370.3	371.9	1.6	1.5	94%	0.0	0	5
370.3	371.9	1.6	1.5	94%	0.0	0	5
370.3	371.9	1.6	1.5	94%	0.0	0	5
370.3	371.9	1.6	1.5	94%	0.0	0	5
371.9	373.4	1.5	1.5	100%	0.7	0	5
371.9	373.4	1.5	1.5	100%	0.7	0	5
371.9	373.4	1.5	1.5	100%	0.7	0	5

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-02

Northing: 15541.6 **Total Depth:** 495.3 **m**

Easting: 12957.8 **Azimuth** 0.0 °

Drilled: 6/29/2006

Elevation: 1846 **Dip** -90 °

From (m)	To (m)	Run (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness
371.9	373.4	1.5	1.5	100%	0.7	0	5
373.4	374.9	1.5	1.5	100%	1.0	1	5
373.4	374.9	1.5	1.5	100%	1.0	1	5
373.4	374.9	1.5	1.5	100%	1.0	1	5
373.4	374.9	1.5	1.5	100%	1.0	1	5
374.9	376.4	1.5	1.5	100%	0.5	0	5
374.9	376.4	1.5	1.5	100%	0.5	0	5
374.9	376.4	1.5	1.5	100%	0.5	0	5
374.9	376.4	1.5	1.5	100%	0.5	0	5
376.4	378.0	1.6	1.5	96%	0.8	1	5
376.4	378.0	1.6	1.5	96%	0.8	1	5
376.4	378.0	1.6	1.5	96%	0.8	1	5
376.4	378.0	1.6	1.5	96%	0.8	1	5
378.0	379.5	1.5	1.4	94%	0.7	0	4
378.0	379.5	1.5	1.4	94%	0.7	0	4
378.0	379.5	1.5	1.4	94%	0.7	0	4
378.0	379.5	1.5	1.4	94%	0.7	0	4
379.5	381.0	1.5	1.5	98%	0.9	1	5
379.5	381.0	1.5	1.5	98%	0.9	1	5
379.5	381.0	1.5	1.5	98%	0.9	1	5
379.5	381.0	1.5	1.5	98%	0.9	1	5
381.0	382.5	1.5	1.4	96%	0.5	0	5
381.0	382.5	1.5	1.4	96%	0.5	0	5
381.0	382.5	1.5	1.4	96%	0.5	0	5
381.0	382.5	1.5	1.4	96%	0.5	0	5
382.5	384.0	1.5	1.5	100%	0.3	0	5
382.5	384.0	1.5	1.5	100%	0.3	0	5
382.5	384.0	1.5	1.5	100%	0.3	0	5
382.5	384.0	1.5	1.5	100%	0.3	0	5
384.0	385.6	1.6	1.5	91%	0.8	0	5
384.0	385.6	1.6	1.5	91%	0.8	0	5
384.0	385.6	1.6	1.5	91%	0.8	0	5
384.0	385.6	1.6	1.5	91%	0.8	0	5
385.6	387.1	1.5	1.5	99%	0.4	0	4

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-02

Northing: 15541.6 **Total Depth:** 495.3 **m**

Easting: 12957.8 **Azimuth** 0.0 °

Drilled: 6/29/2006

Elevation: 1846 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
385.6	387.1	1.5	1.5	99%	0.4	0	4
385.6	387.1	1.5	1.5	99%	0.4	0	4
385.6	387.1	1.5	1.5	99%	0.4	0	4
387.1	388.6	1.5	1.3	87%	0.2	0	4
387.1	388.6	1.5	1.3	87%	0.2	0	4
387.1	388.6	1.5	1.3	87%	0.2	0	4
387.1	388.6	1.5	1.3	87%	0.2	0	4
388.6	390.1	1.5	1.5	100%	0.8	1	4
388.6	390.1	1.5	1.5	100%	0.8	1	4
388.6	390.1	1.5	1.5	100%	0.8	1	4
388.6	390.1	1.5	1.5	100%	0.8	1	4
390.1	391.7	1.6	1.5	94%	0.6	0	4
390.1	391.7	1.6	1.5	94%	0.6	0	4
390.1	391.7	1.6	1.5	94%	0.6	0	4
390.1	391.7	1.6	1.5	94%	0.6	0	4
391.7	393.2	1.5	1.4	93%	0.3	0	4
391.7	393.2	1.5	1.4	93%	0.3	0	4
391.7	393.2	1.5	1.4	93%	0.3	0	4
391.7	393.2	1.5	1.4	93%	0.3	0	4
393.2	394.7	1.5	1.4	93%	0.5	0	5
393.2	394.7	1.5	1.4	93%	0.5	0	5
393.2	394.7	1.5	1.4	93%	0.5	0	5
393.2	394.7	1.5	1.4	93%	0.5	0	5
394.7	396.2	1.5	1.4	95%	0.5	0	5
394.7	396.2	1.5	1.4	95%	0.5	0	5
394.7	396.2	1.5	1.4	95%	0.5	0	5
394.7	396.2	1.5	1.4	95%	0.5	0	5
396.2	397.8	1.6	1.5	94%	1.2	1	5
396.2	397.8	1.6	1.5	94%	1.2	1	5
396.2	397.8	1.6	1.5	94%	1.2	1	5
396.2	397.8	1.6	1.5	94%	1.2	1	5
397.8	399.3	1.5	1.3	88%	0.2	0	5
397.8	399.3	1.5	1.3	88%	0.2	0	5
397.8	399.3	1.5	1.3	88%	0.2	0	5

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-02

Northing: 15541.6 **Total Depth:** 495.3 **m**

Easting: 12957.8 **Azimuth** 0.0 °

Drilled: 6/29/2006

Elevation: 1846 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
397.8	399.3	1.5	1.3	88%	0.2	0	5
399.3	400.8	1.5	1.6	107%	0.3	0	4
399.3	400.8	1.5	1.6	107%	0.3	0	4
399.3	400.8	1.5	1.6	107%	0.3	0	4
399.3	400.8	1.5	1.6	107%	0.3	0	4
400.8	403.9	3.1	2.6	84%	1.1	0	4
400.8	403.9	3.1	2.6	84%	1.1	0	4
400.8	403.9	3.1	2.6	84%	1.1	0	4
400.8	403.9	3.1	2.6	84%	1.1	0	4
403.9	406.9	3.0	2.2	72%	1.0	0	4
403.9	406.9	3.0	2.2	72%	1.0	0	4
403.9	406.9	3.0	2.2	72%	1.0	0	4
403.9	406.9	3.0	2.2	72%	1.0	0	4
406.9	410.0	3.0	3.0	98%	1.3	0	4
406.9	410.0	3.0	3.0	98%	1.3	0	4
406.9	410.0	3.0	3.0	98%	1.3	0	4
406.9	410.0	3.0	3.0	98%	1.3	0	4
410.0	413.0	3.0	3.0	98%	0.9	0	4
410.0	413.0	3.0	3.0	98%	0.9	0	4
410.0	413.0	3.0	3.0	98%	0.9	0	4
410.0	413.0	3.0	3.0	98%	0.9	0	4
413.0	416.1	3.0	2.2	72%	0.1	0	4
413.0	416.1	3.0	2.2	72%	0.1	0	4
413.0	416.1	3.0	2.2	72%	0.1	0	4
413.0	416.1	3.0	2.2	72%	0.1	0	4
416.1	419.1	3.0	3.1	102%	1.7	1	4
416.1	419.1	3.0	3.1	102%	1.7	1	4
416.1	419.1	3.0	3.1	102%	1.7	1	4
416.1	419.1	3.0	3.1	102%	1.7	1	4
419.1	422.2	3.0	2.9	95%	1.0	0	4
419.1	422.2	3.0	2.9	95%	1.0	0	4
419.1	422.2	3.0	2.9	95%	1.0	0	4
419.1	422.2	3.0	2.9	95%	1.0	0	4
422.2	425.2	3.0	2.9	95%	0.9	0	4

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-02

Northing: 15541.6 **Total Depth:** 495.3 **m**

Easting: 12957.8 **Azimuth** 0.0 °

Drilled: 6/29/2006

Elevation: 1846 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
422.2	425.2	3.0	2.9	95%	0.9	0	4
422.2	425.2	3.0	2.9	95%	0.9	0	4
422.2	425.2	3.0	2.9	95%	0.9	0	4
425.2	428.3	3.0	2.9	95%	0.8	0	4
425.2	428.3	3.0	2.9	95%	0.8	0	4
425.2	428.3	3.0	2.9	95%	0.8	0	4
425.2	428.3	3.0	2.9	95%	0.8	0	4
428.3	431.3	3.0	2.9	95%	1.2	0	4
428.3	431.3	3.0	2.9	95%	1.2	0	4
428.3	431.3	3.0	2.9	95%	1.2	0	4
428.3	431.3	3.0	2.9	95%	1.2	0	4
431.3	434.4	3.0	2.9	95%	1.2	0	4
431.3	434.4	3.0	2.9	95%	1.2	0	4
431.3	434.4	3.0	2.9	95%	1.2	0	4
431.3	434.4	3.0	2.9	95%	1.2	0	4
434.4	435.9	1.5	1.4	92%	0.3	0	4
434.4	435.9	1.5	1.4	92%	0.3	0	4
434.4	435.9	1.5	1.4	92%	0.3	0	4
434.4	435.9	1.5	1.4	92%	0.3	0	4
435.9	438.9	3.0	2.8	92%	0.9	0	4
435.9	438.9	3.0	2.8	92%	0.9	0	4
435.9	438.9	3.0	2.8	92%	0.9	0	4
435.9	438.9	3.0	2.8	92%	0.9	0	4
438.9	442.0	3.0	2.6	85%	0.4	0	4
438.9	442.0	3.0	2.6	85%	0.4	0	4
438.9	442.0	3.0	2.6	85%	0.4	0	4
438.9	442.0	3.0	2.6	85%	0.4	0	4
442.0	445.0	3.0	2.9	95%	0.7	0	4
442.0	445.0	3.0	2.9	95%	0.7	0	4
442.0	445.0	3.0	2.9	95%	0.7	0	4
442.0	445.0	3.0	2.9	95%	0.7	0	4
445.0	446.5	1.5	1.5	98%	0.8	1	4
445.0	446.5	1.5	1.5	98%	0.8	1	4
445.0	446.5	1.5	1.5	98%	0.8	1	4

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-02

Northing: 15541.6 **Total Depth:** 495.3 **m**

Easting: 12957.8 **Azimuth** 0.0 °

Drilled: 6/29/2006

Elevation: 1846 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
445.0	446.5	1.5	1.5	98%	0.8	1	4
446.5	449.6	3.0	2.9	95%	0.7	0	4
446.5	449.6	3.0	2.9	95%	0.7	0	4
446.5	449.6	3.0	2.9	95%	0.7	0	4
446.5	449.6	3.0	2.9	95%	0.7	0	4
449.6	452.6	3.0	3.0	98%	1.1	0	4
449.6	452.6	3.0	3.0	98%	1.1	0	4
449.6	452.6	3.0	3.0	98%	1.1	0	4
449.6	452.6	3.0	3.0	98%	1.1	0	4
452.6	455.7	3.0	2.9	95%	1.2	0	4
452.6	455.7	3.0	2.9	95%	1.2	0	4
452.6	455.7	3.0	2.9	95%	1.2	0	4
452.6	455.7	3.0	2.9	95%	1.2	0	4
455.7	458.7	3.0	3.0	98%	1.5	0	4
455.7	458.7	3.0	3.0	98%	1.5	0	4
455.7	458.7	3.0	3.0	98%	1.5	0	4
455.7	458.7	3.0	3.0	98%	1.5	0	4
458.7	461.8	3.0	3.0	98%	1.6	1	4
458.7	461.8	3.0	3.0	98%	1.6	1	4
458.7	461.8	3.0	3.0	98%	1.6	1	4
458.7	461.8	3.0	3.0	98%	1.6	1	4
461.8	464.8	3.0	3.0	98%	1.4	0	4
461.8	464.8	3.0	3.0	98%	1.4	0	4
461.8	464.8	3.0	3.0	98%	1.4	0	4
461.8	464.8	3.0	3.0	98%	1.4	0	4
464.8	467.9	3.0	2.8	92%	0.9	0	4
464.8	467.9	3.0	2.8	92%	0.9	0	4
464.8	467.9	3.0	2.8	92%	0.9	0	4
464.8	467.9	3.0	2.8	92%	0.9	0	4
467.9	470.9	3.0	3.0	98%	1.5	0	4
467.9	470.9	3.0	3.0	98%	1.5	0	4
467.9	470.9	3.0	3.0	98%	1.5	0	4
467.9	470.9	3.0	3.0	98%	1.5	0	4
470.9	474.0	3.0	3.0	98%	0.9	0	4

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-02

Northing: 15541.6 **Total Depth:** 495.3 **m**

Easting: 12957.8 **Azimuth** 0.0 °

Drilled: 6/29/2006

Elevation: 1846 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
470.9	474.0	3.0	3.0	98%	0.9	0	4
470.9	474.0	3.0	3.0	98%	0.9	0	4
470.9	474.0	3.0	3.0	98%	0.9	0	4
474.0	477.0	3.0	2.9	97%	0.3	0	4
474.0	477.0	3.0	2.9	97%	0.3	0	4
474.0	477.0	3.0	2.9	97%	0.3	0	4
474.0	477.0	3.0	2.9	97%	0.3	0	4
477.0	480.0	3.0	2.9	95%	1.3	0	4
477.0	480.0	3.0	2.9	95%	1.3	0	4
477.0	480.0	3.0	2.9	95%	1.3	0	4
477.0	480.0	3.0	2.9	95%	1.3	0	4
480.0	483.1	3.0	2.5	82%	0.4	0	4
480.0	483.1	3.0	2.5	82%	0.4	0	4
480.0	483.1	3.0	2.5	82%	0.4	0	4
480.0	483.1	3.0	2.5	82%	0.4	0	4
483.1	486.1	3.0	3.0	98%	1.0	0	4
483.1	486.1	3.0	3.0	98%	1.0	0	4
483.1	486.1	3.0	3.0	98%	1.0	0	4
483.1	486.1	3.0	3.0	98%	1.0	0	4
486.1	489.2	3.0	2.9	95%	0.5	0	4
486.1	489.2	3.0	2.9	95%	0.5	0	4
486.1	489.2	3.0	2.9	95%	0.5	0	4
486.1	489.2	3.0	2.9	95%	0.5	0	4
489.2	492.2	3.0	3.0	98%	0.7	0	4
489.2	492.2	3.0	3.0	98%	0.7	0	4
489.2	492.2	3.0	3.0	98%	0.7	0	4
489.2	492.2	3.0	3.0	98%	0.7	0	4
492.2	495.3	3.0	3.0	98%	1.5	0	4
492.2	495.3	3.0	3.0	98%	1.5	0	4
492.2	495.3	3.0	3.0	98%	1.5	0	4
492.2	495.3	3.0	3.0	98%	1.5	0	4
495.3	498.3	3.0					4
495.3	498.3	3.0					4
495.3	498.3	3.0					4

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-02

Northing:	15541.6	**Total Depth:**	495.3 **m**
Easting:	12957.8	**Azimuth**	0.0 °
Elevation:	1846	**Dip**	-90 °

Drilled: 6/29/2006

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
495.3	498.3	3.0					4

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-03

Northing: 16171.7 **Total Depth:** 544.7 **m**

Easting: 12219.5 **Azimuth** 0.0 °

Drilled: 6/23/2006

Elevation: 1858.9 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
8.2	11.3	3.0	2.5	82%	0.2	0	3
8.2	11.3	3.0	2.5	82%	0.2	0	3
8.2	11.3	3.0	2.5	82%	0.2	0	3
8.2	11.3	3.0	2.5	82%	0.2	0	3
11.3	14.3	3.0	2.6	85%	0.5	0	3
11.3	14.3	3.0	2.6	85%	0.5	0	3
11.3	14.3	3.0	2.6	85%	0.5	0	3
11.3	14.3	3.0	2.6	85%	0.5	0	3
14.3	17.4	3.0	3.0	98%	0.7	0	3
14.3	17.4	3.0	3.0	98%	0.7	0	3
14.3	17.4	3.0	3.0	98%	0.7	0	3
14.3	17.4	3.0	3.0	98%	0.7	0	3
17.4	20.4	3.0	2.4	79%	0.4	0	3
17.4	20.4	3.0	2.4	79%	0.4	0	3
17.4	20.4	3.0	2.4	79%	0.4	0	3
17.4	20.4	3.0	2.4	79%	0.4	0	3
20.4	23.5	3.0	2.5	82%	0.1	0	3
20.4	23.5	3.0	2.5	82%	0.1	0	3
20.4	23.5	3.0	2.5	82%	0.1	0	3
20.4	23.5	3.0	2.5	82%	0.1	0	3
23.5	26.5	3.0	2.9	95%	1.5	0	3
23.5	26.5	3.0	2.9	95%	1.5	0	3
23.5	26.5	3.0	2.9	95%	1.5	0	3
23.5	26.5	3.0	2.9	95%	1.5	0	3
26.5	29.6	3.0	2.9	95%	0.8	0	3
26.5	29.6	3.0	2.9	95%	0.8	0	3
26.5	29.6	3.0	2.9	95%	0.8	0	3
26.5	29.6	3.0	2.9	95%	0.8	0	3
29.6	32.6	3.0	2.9	95%	1.0	0	3
29.6	32.6	3.0	2.9	95%	1.0	0	3
29.6	32.6	3.0	2.9	95%	1.0	0	3
29.6	32.6	3.0	2.9	95%	1.0	0	3
32.6	35.7	3.0	2.8	92%	1.2	0	3
32.6	35.7	3.0	2.8	92%	1.2	0	3

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-03

Northing: 16171.7 **Total Depth:** 544.7 **m**

Easting: 12219.5 **Azimuth** 0.0 °

Drilled: 6/23/2006

Elevation: 1858.9 **Dip** -90 °

From (m)	To (m)	Run (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness
32.6	35.7	3.0	2.8	92%	1.2	0	3
32.6	35.7	3.0	2.8	92%	1.2	0	3
35.7	38.7	3.0	3.0	98%	2.5	1	3
35.7	38.7	3.0	3.0	98%	2.5	1	3
35.7	38.7	3.0	3.0	98%	2.5	1	3
35.7	38.7	3.0	3.0	98%	2.5	1	3
38.7	41.8	3.0	3.0	98%	2.1	1	3
38.7	41.8	3.0	3.0	98%	2.1	1	3
38.7	41.8	3.0	3.0	98%	2.1	1	3
38.7	41.8	3.0	3.0	98%	2.1	1	3
41.8	44.8	3.0	3.0	98%	1.7	1	3
41.8	44.8	3.0	3.0	98%	1.7	1	3
41.8	44.8	3.0	3.0	98%	1.7	1	3
41.8	44.8	3.0	3.0	98%	1.7	1	3
44.8	47.9	3.0	3.0	98%	0.5	0	3
44.8	47.9	3.0	3.0	98%	0.5	0	3
44.8	47.9	3.0	3.0	98%	0.5	0	3
44.8	47.9	3.0	3.0	98%	0.5	0	3
47.9	50.9	3.0	2.8	92%	1.1	0	3
47.9	50.9	3.0	2.8	92%	1.1	0	3
47.9	50.9	3.0	2.8	92%	1.1	0	3
47.9	50.9	3.0	2.8	92%	1.1	0	3
50.9	53.9	3.0	3.0	98%	1.3	0	3
50.9	53.9	3.0	3.0	98%	1.3	0	3
50.9	53.9	3.0	3.0	98%	1.3	0	3
50.9	53.9	3.0	3.0	98%	1.3	0	3
53.9	57.0	3.0	2.8	92%	0.9	0	3
53.9	57.0	3.0	2.8	92%	0.9	0	3
53.9	57.0	3.0	2.8	92%	0.9	0	3
53.9	57.0	3.0	2.8	92%	0.9	0	3
57.0	60.0	3.0	2.9	95%	0.8	0	3
57.0	60.0	3.0	2.9	95%	0.8	0	3
57.0	60.0	3.0	2.9	95%	0.8	0	3
57.0	60.0	3.0	2.9	95%	0.8	0	3

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-03

Northing: 16171.7 **Total Depth:** 544.7 **m**

Easting: 12219.5 **Azimuth** 0.0 °

Drilled: 6/23/2006

Elevation: 1858.9 **Dip** -90 °

From (m)	To (m)	Run (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness
60.0	63.1	3.0	3.0	98%	1.2	0	3
60.0	63.1	3.0	3.0	98%	1.2	0	3
60.0	63.1	3.0	3.0	98%	1.2	0	3
60.0	63.1	3.0	3.0	98%	1.2	0	3
63.1	66.1	3.0	2.9	95%	1.6	1	3
63.1	66.1	3.0	2.9	95%	1.6	1	3
63.1	66.1	3.0	2.9	95%	1.6	1	3
63.1	66.1	3.0	2.9	95%	1.6	1	3
66.1	69.2	3.0	3.0	98%	0.7	0	3
66.1	69.2	3.0	3.0	98%	0.7	0	3
66.1	69.2	3.0	3.0	98%	0.7	0	3
66.1	69.2	3.0	3.0	98%	0.7	0	3
69.2	72.2	3.0	2.9	95%	1.1	0	3
69.2	72.2	3.0	2.9	95%	1.1	0	3
69.2	72.2	3.0	2.9	95%	1.1	0	3
69.2	72.2	3.0	2.9	95%	1.1	0	3
72.2	75.3	3.0	2.9	95%	1.7	1	3
72.2	75.3	3.0	2.9	95%	1.7	1	3
72.2	75.3	3.0	2.9	95%	1.7	1	3
72.2	75.3	3.0	2.9	95%	1.7	1	3
75.3	78.3	3.0	2.9	95%	1.7	1	3
75.3	78.3	3.0	2.9	95%	1.7	1	3
75.3	78.3	3.0	2.9	95%	1.7	1	3
75.3	78.3	3.0	2.9	95%	1.7	1	3
78.3	81.4	3.0	3.0	98%	1.9	1	3
78.3	81.4	3.0	3.0	98%	1.9	1	3
78.3	81.4	3.0	3.0	98%	1.9	1	3
78.3	81.4	3.0	3.0	98%	1.9	1	3
81.4	84.4	3.0	3.0	98%	2.1	1	3
81.4	84.4	3.0	3.0	98%	2.1	1	3
81.4	84.4	3.0	3.0	98%	2.1	1	3
81.4	84.4	3.0	3.0	98%	2.1	1	3
84.4	87.5	3.0	3.0	98%	2.7	1	3
84.4	87.5	3.0	3.0	98%	2.7	1	3

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-03

Northing: 16171.7 **Total Depth:** 544.7 **m**

Easting: 12219.5 **Azimuth** 0.0 °

Drilled: 6/23/2006

Elevation: 1858.9 **Dip** -90 °

From (m)	To (m)	Run (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness
84.4	87.5	3.0	3.0	98%	2.7	1	3
84.4	87.5	3.0	3.0	98%	2.7	1	3
87.5	90.5	3.0	3.0	98%	2.0	1	3
87.5	90.5	3.0	3.0	98%	2.0	1	3
87.5	90.5	3.0	3.0	98%	2.0	1	3
87.5	90.5	3.0	3.0	98%	2.0	1	3
90.5	93.6	3.0	3.0	98%	2.4	1	3
90.5	93.6	3.0	3.0	98%	2.4	1	3
90.5	93.6	3.0	3.0	98%	2.4	1	3
90.5	93.6	3.0	3.0	98%	2.4	1	3
93.6	96.6	3.0	2.9	95%	1.8	1	3
93.6	96.6	3.0	2.9	95%	1.8	1	3
93.6	96.6	3.0	2.9	95%	1.8	1	3
93.6	96.6	3.0	2.9	95%	1.8	1	3
96.6	99.7	3.0	3.0	98%	2.3	1	3
96.6	99.7	3.0	3.0	98%	2.3	1	3
96.6	99.7	3.0	3.0	98%	2.3	1	3
96.6	99.7	3.0	3.0	98%	2.3	1	3
99.7	102.7	3.0	2.8	92%	1.2	0	3
99.7	102.7	3.0	2.8	92%	1.2	0	3
99.7	102.7	3.0	2.8	92%	1.2	0	3
99.7	102.7	3.0	2.8	92%	1.2	0	3
102.7	105.8	3.0	2.8	92%	0.4	0	3
102.7	105.8	3.0	2.8	92%	0.4	0	3
102.7	105.8	3.0	2.8	92%	0.4	0	3
102.7	105.8	3.0	2.8	92%	0.4	0	3
105.8	108.8	3.0	3.0	98%	1.2	0	3
105.8	108.8	3.0	3.0	98%	1.2	0	3
105.8	108.8	3.0	3.0	98%	1.2	0	3
105.8	108.8	3.0	3.0	98%	1.2	0	3
108.8	111.9	3.0	3.0	98%	2.5	1	3
108.8	111.9	3.0	3.0	98%	2.5	1	3
108.8	111.9	3.0	3.0	98%	2.5	1	3
108.8	111.9	3.0	3.0	98%	2.5	1	3

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-03

Northing: 16171.7 **Total Depth:** 544.7 **m**

Easting: 12219.5 **Azimuth** 0.0 °

Drilled: 6/23/2006

Elevation: 1858.9 **Dip** -90 °

From (m)	To (m)	Run (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness
111.9	114.9	3.0	2.8	92%	1.3	0	3
111.9	114.9	3.0	2.8	92%	1.3	0	3
111.9	114.9	3.0	2.8	92%	1.3	0	3
111.9	114.9	3.0	2.8	92%	1.3	0	3
114.9	118.0	3.0	2.9	95%	1.3	0	3
114.9	118.0	3.0	2.9	95%	1.3	0	3
114.9	118.0	3.0	2.9	95%	1.3	0	3
114.9	118.0	3.0	2.9	95%	1.3	0	3
118.0	121.0	3.0	3.0	98%	1.6	1	3
118.0	121.0	3.0	3.0	98%	1.6	1	3
118.0	121.0	3.0	3.0	98%	1.6	1	3
118.0	121.0	3.0	3.0	98%	1.6	1	3
121.0	124.1	3.0	2.7	89%	0.6	0	3
121.0	124.1	3.0	2.7	89%	0.6	0	3
121.0	124.1	3.0	2.7	89%	0.6	0	3
121.0	124.1	3.0	2.7	89%	0.6	0	3
124.1	127.1	3.0	3.0	98%	1.8	1	3
124.1	127.1	3.0	3.0	98%	1.8	1	3
124.1	127.1	3.0	3.0	98%	1.8	1	3
124.1	127.1	3.0	3.0	98%	1.8	1	3
127.1	130.1	3.0	2.9	95%	1.3	0	3
127.1	130.1	3.0	2.9	95%	1.3	0	3
127.1	130.1	3.0	2.9	95%	1.3	0	3
127.1	130.1	3.0	2.9	95%	1.3	0	3
130.1	133.2	3.0	2.9	95%	1.1	0	3
130.1	133.2	3.0	2.9	95%	1.1	0	3
130.1	133.2	3.0	2.9	95%	1.1	0	3
130.1	133.2	3.0	2.9	95%	1.1	0	3
133.2	136.2	3.0	2.8	92%	1.7	1	3
133.2	136.2	3.0	2.8	92%	1.7	1	3
133.2	136.2	3.0	2.8	92%	1.7	1	3
133.2	136.2	3.0	2.8	92%	1.7	1	3
136.2	139.3	3.0	2.8	92%	1.2	0	3
136.2	139.3	3.0	2.8	92%	1.2	0	3

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-03

Northing: 16171.7 **Total Depth:** 544.7 **m**

Easting: 12219.5 **Azimuth** 0.0 °

Drilled: 6/23/2006

Elevation: 1858.9 **Dip** -90 °

From (m)	To (m)	Run (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness
136.2	139.3	3.0	2.8	92%	1.2	0	3
136.2	139.3	3.0	2.8	92%	1.2	0	3
139.3	142.3	3.0	2.0	66%	2.4	1	3
139.3	142.3	3.0	2.0	66%	2.4	1	3
139.3	142.3	3.0	2.0	66%	2.4	1	3
139.3	142.3	3.0	2.0	66%	2.4	1	3
142.3	145.4	3.0	3.0	98%	1.3	0	3
142.3	145.4	3.0	3.0	98%	1.3	0	3
142.3	145.4	3.0	3.0	98%	1.3	0	3
142.3	145.4	3.0	3.0	98%	1.3	0	3
145.4	148.4	3.0	3.0	98%	1.8	1	3
145.4	148.4	3.0	3.0	98%	1.8	1	3
145.4	148.4	3.0	3.0	98%	1.8	1	3
145.4	148.4	3.0	3.0	98%	1.8	1	3
148.4	151.5	3.0	3.0	98%	1.4	0	3
148.4	151.5	3.0	3.0	98%	1.4	0	3
148.4	151.5	3.0	3.0	98%	1.4	0	3
148.4	151.5	3.0	3.0	98%	1.4	0	3
151.5	154.5	3.0	3.0	98%	1.6	1	2
151.5	154.5	3.0	3.0	98%	1.6	1	2
151.5	154.5	3.0	3.0	98%	1.6	1	2
151.5	154.5	3.0	3.0	98%	1.6	1	2
154.5	157.6	3.0	3.0	98%	1.7	1	3
154.5	157.6	3.0	3.0	98%	1.7	1	3
154.5	157.6	3.0	3.0	98%	1.7	1	3
154.5	157.6	3.0	3.0	98%	1.7	1	3
157.6	160.6	3.0	3.0	98%	1.4	0	2
157.6	160.6	3.0	3.0	98%	1.4	0	2
157.6	160.6	3.0	3.0	98%	1.4	0	2
157.6	160.6	3.0	3.0	98%	1.4	0	2
160.6	163.7	3.0	3.0	98%	1.7	1	3
160.6	163.7	3.0	3.0	98%	1.7	1	3
160.6	163.7	3.0	3.0	98%	1.7	1	3
160.6	163.7	3.0	3.0	98%	1.7	1	3

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-03

Northing: 16171.7 **Total Depth:** 544.7 **m**

Easting: 12219.5 **Azimuth** 0.0 °

Drilled: 6/23/2006

Elevation: 1858.9 **Dip** -90 °

From (m)	To (m)	Run (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness
163.7	166.7	3.0	3.0	98%	2.4	1	3
163.7	166.7	3.0	3.0	98%	2.4	1	3
163.7	166.7	3.0	3.0	98%	2.4	1	3
163.7	166.7	3.0	3.0	98%	2.4	1	3
166.7	169.8	3.0	3.0	98%	2.2	1	3
166.7	169.8	3.0	3.0	98%	2.2	1	3
166.7	169.8	3.0	3.0	98%	2.2	1	3
166.7	169.8	3.0	3.0	98%	2.2	1	3
169.8	172.8	3.0	3.0	98%	1.5	0	3
169.8	172.8	3.0	3.0	98%	1.5	0	3
169.8	172.8	3.0	3.0	98%	1.5	0	3
169.8	172.8	3.0	3.0	98%	1.5	0	3
172.8	175.9	3.0	3.0	98%	2.1	1	4
172.8	175.9	3.0	3.0	98%	2.1	1	4
172.8	175.9	3.0	3.0	98%	2.1	1	4
172.8	175.9	3.0	3.0	98%	2.1	1	4
175.9	178.9	3.0	3.0	98%	2.3	1	4
175.9	178.9	3.0	3.0	98%	2.3	1	4
175.9	178.9	3.0	3.0	98%	2.3	1	4
175.9	178.9	3.0	3.0	98%	2.3	1	4
178.9	182.0	3.0	2.8	92%	0.9	0	3
178.9	182.0	3.0	2.8	92%	0.9	0	3
178.9	182.0	3.0	2.8	92%	0.9	0	3
178.9	182.0	3.0	2.8	92%	0.9	0	3
182.0	185.0	3.0	3.0	98%	1.8	1	3
182.0	185.0	3.0	3.0	98%	1.8	1	3
182.0	185.0	3.0	3.0	98%	1.8	1	3
182.0	185.0	3.0	3.0	98%	1.8	1	3
185.0	188.1	3.0	3.0	98%	1.7	1	3
185.0	188.1	3.0	3.0	98%	1.7	1	3
185.0	188.1	3.0	3.0	98%	1.7	1	3
185.0	188.1	3.0	3.0	98%	1.7	1	3
188.1	191.1	3.0	3.0	98%	0.5	0	3
188.1	191.1	3.0	3.0	98%	0.5	0	3

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-03

Northing: 16171.7 **Total Depth:** 544.7 **m**

Easting: 12219.5 **Azimuth** 0.0 °

Drilled: 6/23/2006

Elevation: 1858.9 **Dip** -90 °

From (m)	To (m)	Run (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness
188.1	191.1	3.0	3.0	98%	0.5	0	3
188.1	191.1	3.0	3.0	98%	0.5	0	3
191.1	194.2	3.0	3.0	98%	2.7	1	3
191.1	194.2	3.0	3.0	98%	2.7	1	3
191.1	194.2	3.0	3.0	98%	2.7	1	3
191.1	194.2	3.0	3.0	98%	2.7	1	3
194.2	197.2	3.0	3.0	97%	2.0	1	3
194.2	197.2	3.0	3.0	97%	2.0	1	3
194.2	197.2	3.0	3.0	97%	2.0	1	3
194.2	197.2	3.0	3.0	97%	2.0	1	3
197.2	200.3	3.0	3.0	97%	2.8	1	4
197.2	200.3	3.0	3.0	97%	2.8	1	4
197.2	200.3	3.0	3.0	97%	2.8	1	4
197.2	200.3	3.0	3.0	97%	2.8	1	4
200.3	203.3	3.0	3.0	97%	2.0	1	4
200.3	203.3	3.0	3.0	97%	2.0	1	4
200.3	203.3	3.0	3.0	97%	2.0	1	4
200.3	203.3	3.0	3.0	97%	2.0	1	4
203.3	206.4	3.1	3.0	95%	2.1	1	4
203.3	206.4	3.1	3.0	95%	2.1	1	4
203.3	206.4	3.1	3.0	95%	2.1	1	4
203.3	206.4	3.1	3.0	95%	2.1	1	4
206.4	209.4	3.0	2.9	95%	0.9	0	3
206.4	209.4	3.0	2.9	95%	0.9	0	3
206.4	209.4	3.0	2.9	95%	0.9	0	3
206.4	209.4	3.0	2.9	95%	0.9	0	3
209.4	212.5	3.0	3.0	98%	2.7	1	4
209.4	212.5	3.0	3.0	98%	2.7	1	4
209.4	212.5	3.0	3.0	98%	2.7	1	4
209.4	212.5	3.0	3.0	98%	2.7	1	4
212.5	215.5	3.0	3.1	102%	2.4	1	4
212.5	215.5	3.0	3.1	102%	2.4	1	4
212.5	215.5	3.0	3.1	102%	2.4	1	4
212.5	215.5	3.0	3.1	102%	2.4	1	4

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-03

Northing: 16171.7 **Total Depth:** 544.7 **m**

Easting: 12219.5 **Azimuth** 0.0 °

Drilled: 6/23/2006

Elevation: 1858.9 **Dip** -90 °

From (m)	To (m)	Run (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness
215.5	218.5	3.0	3.0	101%	1.4	0	4
215.5	218.5	3.0	3.0	101%	1.4	0	4
215.5	218.5	3.0	3.0	101%	1.4	0	4
215.5	218.5	3.0	3.0	101%	1.4	0	4
218.5	221.6	3.1	3.1	100%	2.1	1	4
218.5	221.6	3.1	3.1	100%	2.1	1	4
218.5	221.6	3.1	3.1	100%	2.1	1	4
218.5	221.6	3.1	3.1	100%	2.1	1	4
221.6	224.6	3.0	3.1	102%	2.7	1	4
221.6	224.6	3.0	3.1	102%	2.7	1	4
221.6	224.6	3.0	3.1	102%	2.7	1	4
221.6	224.6	3.0	3.1	102%	2.7	1	4
224.6	227.7	3.0	3.1	102%	1.3	0	4
224.6	227.7	3.0	3.1	102%	1.3	0	4
224.6	227.7	3.0	3.1	102%	1.3	0	4
224.6	227.7	3.0	3.1	102%	1.3	0	4
227.7	230.7	3.0	3.0	98%	1.3	0	4
227.7	230.7	3.0	3.0	98%	1.3	0	4
227.7	230.7	3.0	3.0	98%	1.3	0	4
227.7	230.7	3.0	3.0	98%	1.3	0	4
230.7	233.8	3.0	2.8	92%	2.1	1	4
230.7	233.8	3.0	2.8	92%	2.1	1	4
230.7	233.8	3.0	2.8	92%	2.1	1	4
230.7	233.8	3.0	2.8	92%	2.1	1	4
233.8	236.8	3.0	3.0	98%	1.7	1	4
233.8	236.8	3.0	3.0	98%	1.7	1	4
233.8	236.8	3.0	3.0	98%	1.7	1	4
233.8	236.8	3.0	3.0	98%	1.7	1	4
236.8	239.9	3.0	3.0	98%	1.5	0	4
236.8	239.9	3.0	3.0	98%	1.5	0	4
236.8	239.9	3.0	3.0	98%	1.5	0	4
236.8	239.9	3.0	3.0	98%	1.5	0	4
239.9	242.9	3.0	3.0	98%	1.6	1	4
239.9	242.9	3.0	3.0	98%	1.6	1	4

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-03

Northing: 16171.7 **Total Depth:** 544.7 **m**

Easting: 12219.5 **Azimuth** 0.0 °

Drilled: 6/23/2006

Elevation: 1858.9 **Dip** -90 °

From (m)	To (m)	Run (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness
239.9	242.9	3.0	3.0	98%	1.6	1	4
239.9	242.9	3.0	3.0	98%	1.6	1	4
242.9	246.0	3.0	3.0	98%	1.8	1	4
242.9	246.0	3.0	3.0	98%	1.8	1	4
242.9	246.0	3.0	3.0	98%	1.8	1	4
242.9	246.0	3.0	3.0	98%	1.8	1	4
246.0	249.0	3.0	3.0	98%	2.2	1	4
246.0	249.0	3.0	3.0	98%	2.2	1	4
246.0	249.0	3.0	3.0	98%	2.2	1	4
246.0	249.0	3.0	3.0	98%	2.2	1	4
249.0	252.1	3.0	3.0	98%	2.6	1	4
249.0	252.1	3.0	3.0	98%	2.6	1	4
249.0	252.1	3.0	3.0	98%	2.6	1	4
249.0	252.1	3.0	3.0	98%	2.6	1	4
252.1	255.1	3.0	3.1	103%	2.3	1	4
252.1	255.1	3.0	3.1	103%	2.3	1	4
252.1	255.1	3.0	3.1	103%	2.3	1	4
252.1	255.1	3.0	3.1	103%	2.3	1	4
255.1	258.2	3.1	3.0	97%	1.5	0	4
255.1	258.2	3.1	3.0	97%	1.5	0	4
255.1	258.2	3.1	3.0	97%	1.5	0	4
255.1	258.2	3.1	3.0	97%	1.5	0	4
258.2	261.2	3.0	3.0	100%	2.3	1	4
258.2	261.2	3.0	3.0	100%	2.3	1	4
258.2	261.2	3.0	3.0	100%	2.3	1	4
258.2	261.2	3.0	3.0	100%	2.3	1	4
261.2	264.3	3.1	3.0	97%	2.5	1	4
261.2	264.3	3.1	3.0	97%	2.5	1	4
261.2	264.3	3.1	3.0	97%	2.5	1	4
261.2	264.3	3.1	3.0	97%	2.5	1	4
264.3	267.3	3.0	3.0	97%	2.0	1	4
264.3	267.3	3.0	3.0	97%	2.0	1	4
264.3	267.3	3.0	3.0	97%	2.0	1	4
264.3	267.3	3.0	3.0	97%	2.0	1	4

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-03

Northing: 16171.7 **Total Depth:** 544.7 **m**

Easting: 12219.5 **Azimuth** 0.0 °

Drilled: 6/23/2006

Elevation: 1858.9 **Dip** -90 °

From (m)	To (m)	Run (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness
267.3	270.4	3.0	3.1	102%	2.0	1	4
267.3	270.4	3.0	3.1	102%	2.0	1	4
267.3	270.4	3.0	3.1	102%	2.0	1	4
267.3	270.4	3.0	3.1	102%	2.0	1	4
270.4	273.4	3.0	3.0	98%	2.0	1	4
270.4	273.4	3.0	3.0	98%	2.0	1	4
270.4	273.4	3.0	3.0	98%	2.0	1	4
270.4	273.4	3.0	3.0	98%	2.0	1	4
273.4	276.5	3.0	3.0	98%	2.2	1	4
273.4	276.5	3.0	3.0	98%	2.2	1	4
273.4	276.5	3.0	3.0	98%	2.2	1	4
273.4	276.5	3.0	3.0	98%	2.2	1	4
276.5	279.5	3.0	3.1	102%	2.4	1	4
276.5	279.5	3.0	3.1	102%	2.4	1	4
276.5	279.5	3.0	3.1	102%	2.4	1	4
276.5	279.5	3.0	3.1	102%	2.4	1	4
279.5	282.6	3.0	3.0	98%	2.6	1	4
279.5	282.6	3.0	3.0	98%	2.6	1	4
279.5	282.6	3.0	3.0	98%	2.6	1	4
279.5	282.6	3.0	3.0	98%	2.6	1	4
282.6	285.6	3.0	3.0	98%	2.7	1	4
282.6	285.6	3.0	3.0	98%	2.7	1	4
282.6	285.6	3.0	3.0	98%	2.7	1	4
282.6	285.6	3.0	3.0	98%	2.7	1	4
285.6	288.7	3.0	3.1	102%	2.4	1	4
285.6	288.7	3.0	3.1	102%	2.4	1	4
285.6	288.7	3.0	3.1	102%	2.4	1	4
285.6	288.7	3.0	3.1	102%	2.4	1	4
288.7	291.7	3.0	3.0	98%	2.3	1	4
288.7	291.7	3.0	3.0	98%	2.3	1	4
288.7	291.7	3.0	3.0	98%	2.3	1	4
288.7	291.7	3.0	3.0	98%	2.3	1	4
291.7	294.7	3.0	2.9	98%	1.1	0	3
291.7	294.7	3.0	2.9	98%	1.1	0	3

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-03

Northing: 16171.7 **Total Depth:** 544.7 **m**

Easting: 12219.5 **Azimuth** 0.0 °

Drilled: 6/23/2006

Elevation: 1858.9 **Dip** -90 °

From (m)	To (m)	Run (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness
291.7	294.7	3.0	2.9	98%	1.1	0	3
291.7	294.7	3.0	2.9	98%	1.1	0	3
294.7	297.8	3.1	3.1	100%	2.1	1	3
294.7	297.8	3.1	3.1	100%	2.1	1	3
294.7	297.8	3.1	3.1	100%	2.1	1	3
294.7	297.8	3.1	3.1	100%	2.1	1	3
297.8	300.8	3.0	3.0	98%	1.1	0	3
297.8	300.8	3.0	3.0	98%	1.1	0	3
297.8	300.8	3.0	3.0	98%	1.1	0	3
297.8	300.8	3.0	3.0	98%	1.1	0	3
300.8	303.9	3.0	3.0	98%	2.3	1	3
300.8	303.9	3.0	3.0	98%	2.3	1	3
300.8	303.9	3.0	3.0	98%	2.3	1	3
300.8	303.9	3.0	3.0	98%	2.3	1	3
303.9	306.9	3.0	3.1	100%	1.0	0	3
303.9	306.9	3.0	3.1	100%	1.0	0	3
303.9	306.9	3.0	3.1	100%	1.0	0	3
303.9	306.9	3.0	3.1	100%	1.0	0	3
306.9	310.0	3.0	3.0	98%	1.1	0	3
306.9	310.0	3.0	3.0	98%	1.1	0	3
306.9	310.0	3.0	3.0	98%	1.1	0	3
306.9	310.0	3.0	3.0	98%	1.1	0	3
310.0	313.0	3.0	3.0	98%	1.3	0	3
310.0	313.0	3.0	3.0	98%	1.3	0	3
310.0	313.0	3.0	3.0	98%	1.3	0	3
310.0	313.0	3.0	3.0	98%	1.3	0	3
313.0	316.1	3.0	3.1	102%	2.7	1	3
313.0	316.1	3.0	3.1	102%	2.7	1	3
313.0	316.1	3.0	3.1	102%	2.7	1	3
313.0	316.1	3.0	3.1	102%	2.7	1	3
316.1	319.1	3.0	3.0	98%	2.1	1	3
316.1	319.1	3.0	3.0	98%	2.1	1	3
316.1	319.1	3.0	3.0	98%	2.1	1	3
316.1	319.1	3.0	3.0	98%	2.1	1	3

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-03

Northing: 16171.7 **Total Depth:** 544.7 **m**

Easting: 12219.5 **Azimuth** 0.0 °

Drilled: 6/23/2006

Elevation: 1858.9 **Dip** -90 °

From (m)	To (m)	Run (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness
319.1	322.2	3.0	3.1	102%	2.0	1	3
319.1	322.2	3.0	3.1	102%	2.0	1	3
319.1	322.2	3.0	3.1	102%	2.0	1	3
319.1	322.2	3.0	3.1	102%	2.0	1	3
322.2	325.2	3.0	3.0	99%	2.1	1	3
322.2	325.2	3.0	3.0	99%	2.1	1	3
322.2	325.2	3.0	3.0	99%	2.1	1	3
322.2	325.2	3.0	3.0	99%	2.1	1	3
325.2	328.3	3.1	3.0	97%	2.4	1	3
325.2	328.3	3.1	3.0	97%	2.4	1	3
325.2	328.3	3.1	3.0	97%	2.4	1	3
325.2	328.3	3.1	3.0	97%	2.4	1	3
328.3	331.3	3.0	3.0	98%	1.8	1	3
328.3	331.3	3.0	3.0	98%	1.8	1	3
328.3	331.3	3.0	3.0	98%	1.8	1	3
328.3	331.3	3.0	3.0	98%	1.8	1	3
331.3	334.4	3.1	3.0	98%	2.2	1	3
331.3	334.4	3.1	3.0	98%	2.2	1	3
331.3	334.4	3.1	3.0	98%	2.2	1	3
331.3	334.4	3.1	3.0	98%	2.2	1	3
334.4	337.4	3.0	3.0	98%	2.0	1	3
334.4	337.4	3.0	3.0	98%	2.0	1	3
334.4	337.4	3.0	3.0	98%	2.0	1	3
334.4	337.4	3.0	3.0	98%	2.0	1	3
337.4	340.5	3.0	3.0	98%	2.1	1	3
337.4	340.5	3.0	3.0	98%	2.1	1	3
337.4	340.5	3.0	3.0	98%	2.1	1	3
337.4	340.5	3.0	3.0	98%	2.1	1	3
340.5	343.5	3.0	3.0	98%	1.8	1	3
340.5	343.5	3.0	3.0	98%	1.8	1	3
340.5	343.5	3.0	3.0	98%	1.8	1	3
340.5	343.5	3.0	3.0	98%	1.8	1	3
343.5	346.6	3.0	3.0	98%	2.2	1	3
343.5	346.6	3.0	3.0	98%	2.2	1	3

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-03

Northing: 16171.7 **Total Depth:** 544.7 **m**

Easting: 12219.5 **Azimuth** 0.0 °

Drilled: 6/23/2006

Elevation: 1858.9 **Dip** -90 °

From (m)	To (m)	Run (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness
343.5	346.6	3.0	3.0	98%	2.2	1	3
343.5	346.6	3.0	3.0	98%	2.2	1	3
346.6	349.6	3.0	3.1	102%	2.0	1	3
346.6	349.6	3.0	3.1	102%	2.0	1	3
346.6	349.6	3.0	3.1	102%	2.0	1	3
346.6	349.6	3.0	3.1	102%	2.0	1	3
349.6	352.7	3.0	3.1	102%	2.0	1	3
349.6	352.7	3.0	3.1	102%	2.0	1	3
349.6	352.7	3.0	3.1	102%	2.0	1	3
349.6	352.7	3.0	3.1	102%	2.0	1	3
352.7	355.7	3.0	3.1	100%	1.1	0	3
352.7	355.7	3.0	3.1	100%	1.1	0	3
352.7	355.7	3.0	3.1	100%	1.1	0	3
352.7	355.7	3.0	3.1	100%	1.1	0	3
355.7	358.8	3.0	3.1	102%	1.3	0	3
355.7	358.8	3.0	3.1	102%	1.3	0	3
355.7	358.8	3.0	3.1	102%	1.3	0	3
355.7	358.8	3.0	3.1	102%	1.3	0	3
358.8	361.8	3.0	3.0	98%	1.5	0	3
358.8	361.8	3.0	3.0	98%	1.5	0	3
358.8	361.8	3.0	3.0	98%	1.5	0	3
358.8	361.8	3.0	3.0	98%	1.5	0	3
361.8	364.9	3.0	3.1	102%	1.5	0	3
361.8	364.9	3.0	3.1	102%	1.5	0	3
361.8	364.9	3.0	3.1	102%	1.5	0	3
361.8	364.9	3.0	3.1	102%	1.5	0	3
364.9	367.9	3.0	3.0	98%	1.9	1	3
364.9	367.9	3.0	3.0	98%	1.9	1	3
364.9	367.9	3.0	3.0	98%	1.9	1	3
364.9	367.9	3.0	3.0	98%	1.9	1	3
367.9	370.9	3.0	3.0	101%	1.5	1	3
367.9	370.9	3.0	3.0	101%	1.5	1	3
367.9	370.9	3.0	3.0	101%	1.5	1	3
367.9	370.9	3.0	3.0	101%	1.5	1	3

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-03

Northing: 16171.7 **Total Depth:** 544.7 **m**

Easting: 12219.5 **Azimuth** 0.0 °

Drilled: 6/23/2006

Elevation: 1858.9 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
370.9	374.0	3.1	3.0	97%	2.0	1	3
370.9	374.0	3.1	3.0	97%	2.0	1	3
370.9	374.0	3.1	3.0	97%	2.0	1	3
370.9	374.0	3.1	3.0	97%	2.0	1	3

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-04

Northing: 16504.1 **Total Depth:** 556.9 **m**

Easting: 11771.3 **Azimuth** 0.0 °

Drilled: 7/1/2006

Elevation: 1704 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
0.0	10.7	10.7	0.0	0%	0.0	0	0
10.7	12.2	1.5	2.0	131%	0.1	0	4
10.7	12.2	1.5	2.0	131%	0.1	0	4
10.7	12.2	1.5	2.0	131%	0.1	0	4
10.7	12.2	1.5	2.0	131%	0.1	0	4
12.2	15.2	3.0	2.1	69%	0.7	0	4
12.2	15.2	3.0	2.1	69%	0.7	0	4
12.2	15.2	3.0	2.1	69%	0.7	0	4
12.2	15.2	3.0	2.1	69%	0.7	0	4
15.2	18.3	3.0	2.9	95%	0.8	0	4
15.2	18.3	3.0	2.9	95%	0.8	0	4
15.2	18.3	3.0	2.9	95%	0.8	0	4
15.2	18.3	3.0	2.9	95%	0.8	0	4
18.3	21.3	3.0	2.8	92%	0.7	0	4
18.3	21.3	3.0	2.8	92%	0.7	0	4
18.3	21.3	3.0	2.8	92%	0.7	0	4
18.3	21.3	3.0	2.8	92%	0.7	0	4
21.3	24.4	3.0	2.9	95%	1.3	0	4
21.3	24.4	3.0	2.9	95%	1.3	0	4
21.3	24.4	3.0	2.9	95%	1.3	0	4
21.3	24.4	3.0	2.9	95%	1.3	0	4
24.4	27.4	3.0	3.0	98%	0.6	0	4
24.4	27.4	3.0	3.0	98%	0.6	0	4
24.4	27.4	3.0	3.0	98%	0.6	0	4
24.4	27.4	3.0	3.0	98%	0.6	0	4
27.4	30.5	3.0	2.9	95%	1.2	0	4
27.4	30.5	3.0	2.9	95%	1.2	0	4
27.4	30.5	3.0	2.9	95%	1.2	0	4
27.4	30.5	3.0	2.9	95%	1.2	0	4
30.5	33.5	3.0	3.0	98%	1.0	0	4
30.5	33.5	3.0	3.0	98%	1.0	0	4
30.5	33.5	3.0	3.0	98%	1.0	0	4
30.5	33.5	3.0	3.0	98%	1.0	0	4
33.5	36.6	3.0	3.0	98%	1.9	1	4

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-04

Northing: 16504.1 **Total Depth:** 556.9 **m**

Easting: 11771.3 **Azimuth** 0.0 °

Drilled: 7/1/2006

Elevation: 1704 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
33.5	36.6	3.0	3.0	98%	1.9	1	4
33.5	36.6	3.0	3.0	98%	1.9	1	4
33.5	36.6	3.0	3.0	98%	1.9	1	4
36.6	39.6	3.0	2.9	95%	0.3	0	4
36.6	39.6	3.0	2.9	95%	0.3	0	4
36.6	39.6	3.0	2.9	95%	0.3	0	4
36.6	39.6	3.0	2.9	95%	0.3	0	4
39.6	42.7	3.0	2.9	95%	2.5	1	4
39.6	42.7	3.0	2.9	95%	2.5	1	4
39.6	42.7	3.0	2.9	95%	2.5	1	4
39.6	42.7	3.0	2.9	95%	2.5	1	4
42.7	45.7	3.0	2.9	95%	1.2	0	4
42.7	45.7	3.0	2.9	95%	1.2	0	4
42.7	45.7	3.0	2.9	95%	1.2	0	4
42.7	45.7	3.0	2.9	95%	1.2	0	4
45.7	48.8	3.0	3.0	98%	1.1	0	4
45.7	48.8	3.0	3.0	98%	1.1	0	4
45.7	48.8	3.0	3.0	98%	1.1	0	4
45.7	48.8	3.0	3.0	98%	1.1	0	4
48.8	51.8	3.0	2.9	95%	0.9	0	4
48.8	51.8	3.0	2.9	95%	0.9	0	4
48.8	51.8	3.0	2.9	95%	0.9	0	4
48.8	51.8	3.0	2.9	95%	0.9	0	4
51.8	54.9	3.0	2.8	92%	1.0	0	4
51.8	54.9	3.0	2.8	92%	1.0	0	4
51.8	54.9	3.0	2.8	92%	1.0	0	4
51.8	54.9	3.0	2.8	92%	1.0	0	4
54.9	57.9	3.0	2.9	95%	0.2	0	4
54.9	57.9	3.0	2.9	95%	0.2	0	4
54.9	57.9	3.0	2.9	95%	0.2	0	4
54.9	57.9	3.0	2.9	95%	0.2	0	4
57.9	60.1	2.2	2.8	127%	0.7	0	4
57.9	60.1	2.2	2.8	127%	0.7	0	4
57.9	60.1	2.2	2.8	127%	0.7	0	4

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-04

Northing: 16504.1 **Total Depth:** 556.9 **m**

Easting: 11771.3 **Azimuth** 0.0 °

Drilled: 7/1/2006

Elevation: 1704 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
57.9	60.1	2.2	2.8	127%	0.7	0	4
60.1	63.1	3.0	3.0	98%	1.6	1	4
60.1	63.1	3.0	3.0	98%	1.6	1	4
60.1	63.1	3.0	3.0	98%	1.6	1	4
60.1	63.1	3.0	3.0	98%	1.6	1	4
63.1	66.2	3.0	3.1	102%	1.8	1	4
63.1	66.2	3.0	3.1	102%	1.8	1	4
63.1	66.2	3.0	3.1	102%	1.8	1	4
63.1	66.2	3.0	3.1	102%	1.8	1	4
66.2	69.2	3.0	2.9	95%	1.7	1	4
66.2	69.2	3.0	2.9	95%	1.7	1	4
66.2	69.2	3.0	2.9	95%	1.7	1	4
66.2	69.2	3.0	2.9	95%	1.7	1	4
69.2	72.3	3.0	3.0	98%	1.4	0	4
69.2	72.3	3.0	3.0	98%	1.4	0	4
69.2	72.3	3.0	3.0	98%	1.4	0	4
69.2	72.3	3.0	3.0	98%	1.4	0	4
72.3	75.3	3.0	3.0	98%	1.7	1	4
72.3	75.3	3.0	3.0	98%	1.7	1	4
72.3	75.3	3.0	3.0	98%	1.7	1	4
72.3	75.3	3.0	3.0	98%	1.7	1	4
75.3	78.4	3.0	2.9	95%	2.1	1	4
75.3	78.4	3.0	2.9	95%	2.1	1	4
75.3	78.4	3.0	2.9	95%	2.1	1	4
75.3	78.4	3.0	2.9	95%	2.1	1	4
78.4	81.4	3.0	2.9	95%	1.1	0	4
78.4	81.4	3.0	2.9	95%	1.1	0	4
78.4	81.4	3.0	2.9	95%	1.1	0	4
78.4	81.4	3.0	2.9	95%	1.1	0	4
81.4	84.5	3.0	3.0	98%	1.7	1	4
81.4	84.5	3.0	3.0	98%	1.7	1	4
81.4	84.5	3.0	3.0	98%	1.7	1	4
81.4	84.5	3.0	3.0	98%	1.7	1	4
84.5	87.5	3.0	2.9	95%	1.4	0	4

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-04

Northing: 16504.1 **Total Depth:** 556.9 **m**

Easting: 11771.3 **Azimuth** 0.0 °

Drilled: 7/1/2006

Elevation: 1704 **Dip** -90 °

From (m)	To (m)	Run (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness
84.5	87.5	3.0	2.9	95%	1.4	0	4
84.5	87.5	3.0	2.9	95%	1.4	0	4
84.5	87.5	3.0	2.9	95%	1.4	0	4
87.5	90.6	3.0	2.9	95%	1.4	0	4
87.5	90.6	3.0	2.9	95%	1.4	0	4
87.5	90.6	3.0	2.9	95%	1.4	0	4
87.5	90.6	3.0	2.9	95%	1.4	0	4
90.6	93.6	3.0	3.0	98%	1.4	0	4
90.6	93.6	3.0	3.0	98%	1.4	0	4
90.6	93.6	3.0	3.0	98%	1.4	0	4
90.6	93.6	3.0	3.0	98%	1.4	0	4
93.6	96.7	3.0	3.0	98%	1.4	0	4
93.6	96.7	3.0	3.0	98%	1.4	0	4
93.6	96.7	3.0	3.0	98%	1.4	0	4
93.6	96.7	3.0	3.0	98%	1.4	0	4
96.7	99.7	3.0	3.0	98%	1.3	0	4
96.7	99.7	3.0	3.0	98%	1.3	0	4
96.7	99.7	3.0	3.0	98%	1.3	0	4
96.7	99.7	3.0	3.0	98%	1.3	0	4
99.7	102.8	3.0	3.1	102%	2.0	1	4
99.7	102.8	3.0	3.1	102%	2.0	1	4
99.7	102.8	3.0	3.1	102%	2.0	1	4
99.7	102.8	3.0	3.1	102%	2.0	1	4
102.8	105.8	3.0	3.0	98%	2.2	1	4
102.8	105.8	3.0	3.0	98%	2.2	1	4
102.8	105.8	3.0	3.0	98%	2.2	1	4
102.8	105.8	3.0	3.0	98%	2.2	1	4
105.8	108.9	3.0	2.6	85%	1.7	1	4
105.8	108.9	3.0	2.6	85%	1.7	1	4
105.8	108.9	3.0	2.6	85%	1.7	1	4
105.8	108.9	3.0	2.6	85%	1.7	1	4
108.9	111.9	3.0	3.1	102%	1.6	1	4
108.9	111.9	3.0	3.1	102%	1.6	1	4
108.9	111.9	3.0	3.1	102%	1.6	1	4

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-04

Northing: 16504.1 **Total Depth:** 556.9 **m**

Easting: 11771.3 **Azimuth** 0.0 °

Drilled: 7/1/2006

Elevation: 1704 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
108.9	111.9	3.0	3.1	102%	1.6	1	4
111.9	115.0	3.0	2.9	95%	1.5	0	4
111.9	115.0	3.0	2.9	95%	1.5	0	4
111.9	115.0	3.0	2.9	95%	1.5	0	4
111.9	115.0	3.0	2.9	95%	1.5	0	4
115.0	118.0	3.0	3.1	102%	1.3	0	4
115.0	118.0	3.0	3.1	102%	1.3	0	4
115.0	118.0	3.0	3.1	102%	1.3	0	4
115.0	118.0	3.0	3.1	102%	1.3	0	4
118.0	121.1	3.0	3.0	98%	1.5	0	4
118.0	121.1	3.0	3.0	98%	1.5	0	4
118.0	121.1	3.0	3.0	98%	1.5	0	4
118.0	121.1	3.0	3.0	98%	1.5	0	4
121.1	124.1	3.0	3.0	98%	2.3	1	4
121.1	124.1	3.0	3.0	98%	2.3	1	4
121.1	124.1	3.0	3.0	98%	2.3	1	4
121.1	124.1	3.0	3.0	98%	2.3	1	4
124.1	127.2	3.0	2.9	95%	1.9	1	4
124.1	127.2	3.0	2.9	95%	1.9	1	4
124.1	127.2	3.0	2.9	95%	1.9	1	4
124.1	127.2	3.0	2.9	95%	1.9	1	4
127.2	130.2	3.0	3.0	98%	1.9	1	4
127.2	130.2	3.0	3.0	98%	1.9	1	4
127.2	130.2	3.0	3.0	98%	1.9	1	4
127.2	130.2	3.0	3.0	98%	1.9	1	4
130.2	133.3	3.0	3.0	98%	1.8	1	4
130.2	133.3	3.0	3.0	98%	1.8	1	4
130.2	133.3	3.0	3.0	98%	1.8	1	4
130.2	133.3	3.0	3.0	98%	1.8	1	4
133.3	136.3	3.0	3.0	98%	2.4	1	4
133.3	136.3	3.0	3.0	98%	2.4	1	4
133.3	136.3	3.0	3.0	98%	2.4	1	4
133.3	136.3	3.0	3.0	98%	2.4	1	4
136.3	139.3	3.0	3.0	98%	2.0	1	4

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-04

Northing: 16504.1 **Total Depth:** 556.9 **m**

Easting: 11771.3 **Azimuth** 0.0 °

Drilled: 7/1/2006

Elevation: 1704 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
136.3	139.3	3.0	3.0	98%	2.0	1	4
136.3	139.3	3.0	3.0	98%	2.0	1	4
136.3	139.3	3.0	3.0	98%	2.0	1	4
139.3	142.4	3.0	3.0	98%	1.8	1	4
139.3	142.4	3.0	3.0	98%	1.8	1	4
139.3	142.4	3.0	3.0	98%	1.8	1	4
139.3	142.4	3.0	3.0	98%	1.8	1	4
142.4	145.4	3.0	3.1	102%	1.4	0	4
142.4	145.4	3.0	3.1	102%	1.4	0	4
142.4	145.4	3.0	3.1	102%	1.4	0	4
142.4	145.4	3.0	3.1	102%	1.4	0	4
145.4	148.5	3.0	3.0	98%	1.2	0	4
145.4	148.5	3.0	3.0	98%	1.2	0	4
145.4	148.5	3.0	3.0	98%	1.2	0	4
145.4	148.5	3.0	3.0	98%	1.2	0	4
148.5	151.5	3.0	2.9	95%	1.8	1	4
148.5	151.5	3.0	2.9	95%	1.8	1	4
148.5	151.5	3.0	2.9	95%	1.8	1	4
148.5	151.5	3.0	2.9	95%	1.8	1	4
151.5	154.6	3.0	3.0	98%	1.6	1	4
151.5	154.6	3.0	3.0	98%	1.6	1	4
151.5	154.6	3.0	3.0	98%	1.6	1	4
151.5	154.6	3.0	3.0	98%	1.6	1	4
154.6	157.6	3.0	3.1	102%	1.7	1	4
154.6	157.6	3.0	3.1	102%	1.7	1	4
154.6	157.6	3.0	3.1	102%	1.7	1	4
154.6	157.6	3.0	3.1	102%	1.7	1	4
157.6	160.7	3.0	3.1	102%	1.7	1	4
157.6	160.7	3.0	3.1	102%	1.7	1	4
157.6	160.7	3.0	3.1	102%	1.7	1	4
157.6	160.7	3.0	3.1	102%	1.7	1	4
160.7	163.7	3.0	3.0	98%	1.5	0	4
160.7	163.7	3.0	3.0	98%	1.5	0	4
160.7	163.7	3.0	3.0	98%	1.5	0	4

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-04

Northing: 16504.1 **Total Depth:** 556.9 **m**

Easting: 11771.3 **Azimuth** 0.0 °

Drilled: 7/1/2006

Elevation: 1704 **Dip** -90 °

From (m)	To (m)	Run (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness
160.7	163.7	3.0	3.0	98%	1.5	0	4
163.7	166.8	3.0	3.0	98%	2.2	1	4
163.7	166.8	3.0	3.0	98%	2.2	1	4
163.7	166.8	3.0	3.0	98%	2.2	1	4
163.7	166.8	3.0	3.0	98%	2.2	1	4
166.8	169.8	3.0	3.0	98%	2.3	1	4
166.8	169.8	3.0	3.0	98%	2.3	1	4
166.8	169.8	3.0	3.0	98%	2.3	1	4
166.8	169.8	3.0	3.0	98%	2.3	1	4
169.8	172.9	3.0	3.0	98%	2.0	1	4
169.8	172.9	3.0	3.0	98%	2.0	1	4
169.8	172.9	3.0	3.0	98%	2.0	1	4
169.8	172.9	3.0	3.0	98%	2.0	1	4
172.9	175.9	3.0	3.1	102%	2.8	1	4
172.9	175.9	3.0	3.1	102%	2.8	1	4
172.9	175.9	3.0	3.1	102%	2.8	1	4
172.9	175.9	3.0	3.1	102%	2.8	1	4
175.9	179.0	3.0	3.0	98%	2.1	1	4
175.9	179.0	3.0	3.0	98%	2.1	1	4
175.9	179.0	3.0	3.0	98%	2.1	1	4
175.9	179.0	3.0	3.0	98%	2.1	1	4
179.0	182.0	3.0	2.9	95%	1.3	0	4
179.0	182.0	3.0	2.9	95%	1.3	0	4
179.0	182.0	3.0	2.9	95%	1.3	0	4
179.0	182.0	3.0	2.9	95%	1.3	0	4
182.0	185.1	3.0	3.0	98%	1.5	0	4
182.0	185.1	3.0	3.0	98%	1.5	0	4
182.0	185.1	3.0	3.0	98%	1.5	0	4
182.0	185.1	3.0	3.0	98%	1.5	0	4
185.1	188.1	3.0	3.0	98%	2.1	1	4
185.1	188.1	3.0	3.0	98%	2.1	1	4
185.1	188.1	3.0	3.0	98%	2.1	1	4
185.1	188.1	3.0	3.0	98%	2.1	1	4
188.1	191.2	3.0	3.0	98%	1.3	0	4

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-04

Northing: 16504.1 **Total Depth:** 556.9 **m**

Easting: 11771.3 **Azimuth** 0.0 °

Drilled: 7/1/2006

Elevation: 1704 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
188.1	191.2	3.0	3.0	98%	1.3	0	4
188.1	191.2	3.0	3.0	98%	1.3	0	4
188.1	191.2	3.0	3.0	98%	1.3	0	4
191.2	194.2	3.0	3.1	102%	1.3	0	4
191.2	194.2	3.0	3.1	102%	1.3	0	4
191.2	194.2	3.0	3.1	102%	1.3	0	4
191.2	194.2	3.0	3.1	102%	1.3	0	4
194.2	197.3	3.0	3.0	98%	1.8	1	4
194.2	197.3	3.0	3.0	98%	1.8	1	4
194.2	197.3	3.0	3.0	98%	1.8	1	4
194.2	197.3	3.0	3.0	98%	1.8	1	4
197.3	200.3	3.0	2.9	95%	2.0	1	4
197.3	200.3	3.0	2.9	95%	2.0	1	4
197.3	200.3	3.0	2.9	95%	2.0	1	4
197.3	200.3	3.0	2.9	95%	2.0	1	4
200.3	203.4	3.0	3.0	98%	1.6	1	4
200.3	203.4	3.0	3.0	98%	1.6	1	4
200.3	203.4	3.0	3.0	98%	1.6	1	4
200.3	203.4	3.0	3.0	98%	1.6	1	4
203.4	206.4	3.0	3.1	102%	1.8	1	4
203.4	206.4	3.0	3.1	102%	1.8	1	4
203.4	206.4	3.0	3.1	102%	1.8	1	4
203.4	206.4	3.0	3.1	102%	1.8	1	4
206.4	209.5	3.0	3.0	98%	2.2	1	4
206.4	209.5	3.0	3.0	98%	2.2	1	4
206.4	209.5	3.0	3.0	98%	2.2	1	4
206.4	209.5	3.0	3.0	98%	2.2	1	4
209.5	212.5	3.0	3.0	100%	2.0	1	4
209.5	212.5	3.0	3.0	100%	2.0	1	4
209.5	212.5	3.0	3.0	100%	2.0	1	4
209.5	212.5	3.0	3.0	100%	2.0	1	4
212.5	215.5	3.0	3.0	98%	2.1	1	4
212.5	215.5	3.0	3.0	98%	2.1	1	4
212.5	215.5	3.0	3.0	98%	2.1	1	4

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-04

Northing: 16504.1 **Total Depth:** 556.9 **m**

Easting: 11771.3 **Azimuth** 0.0 °

Drilled: 7/1/2006

Elevation: 1704 **Dip** -90 °

From (m)	To (m)	Run (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness
212.5	215.5	3.0	3.0	98%	2.1	1	4
215.5	218.6	3.0	3.0	98%	2.7	1	4
215.5	218.6	3.0	3.0	98%	2.7	1	4
215.5	218.6	3.0	3.0	98%	2.7	1	4
215.5	218.6	3.0	3.0	98%	2.7	1	4
218.6	221.6	3.0	2.9	95%	2.0	1	4
218.6	221.6	3.0	2.9	95%	2.0	1	4
218.6	221.6	3.0	2.9	95%	2.0	1	4
218.6	221.6	3.0	2.9	95%	2.0	1	4
221.6	224.7	3.0	2.7	89%	2.1	1	4
221.6	224.7	3.0	2.7	89%	2.1	1	4
221.6	224.7	3.0	2.7	89%	2.1	1	4
221.6	224.7	3.0	2.7	89%	2.1	1	4
224.7	227.7	3.0	3.1	102%	1.9	1	4
224.7	227.7	3.0	3.1	102%	1.9	1	4
224.7	227.7	3.0	3.1	102%	1.9	1	4
224.7	227.7	3.0	3.1	102%	1.9	1	4
227.7	230.8	3.0	3.0	98%	2.1	1	4
227.7	230.8	3.0	3.0	98%	2.1	1	4
227.7	230.8	3.0	3.0	98%	2.1	1	4
227.7	230.8	3.0	3.0	98%	2.1	1	4
230.8	233.8	3.0	3.0	98%	2.3	1	4
230.8	233.8	3.0	3.0	98%	2.3	1	4
230.8	233.8	3.0	3.0	98%	2.3	1	4
230.8	233.8	3.0	3.0	98%	2.3	1	4
233.8	236.9	3.0	3.0	98%	1.8	1	4
233.8	236.9	3.0	3.0	98%	1.8	1	4
233.8	236.9	3.0	3.0	98%	1.8	1	4
233.8	236.9	3.0	3.0	98%	1.8	1	4
236.9	239.9	3.0	2.9	95%	2.1	1	4
236.9	239.9	3.0	2.9	95%	2.1	1	4
236.9	239.9	3.0	2.9	95%	2.1	1	4
236.9	239.9	3.0	2.9	95%	2.1	1	4
239.9	243.0	3.0	3.0	98%	2.5	1	4

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-04

Northing: 16504.1 **Total Depth:** 556.9 **m**

Easting: 11771.3 **Azimuth** 0.0 °

Drilled: 7/1/2006

Elevation: 1704 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
239.9	243.0	3.0	3.0	98%	2.5	1	4
239.9	243.0	3.0	3.0	98%	2.5	1	4
239.9	243.0	3.0	3.0	98%	2.5	1	4
243.0	246.0	3.0	3.0	100%	2.0	1	4
243.0	246.0	3.0	3.0	100%	2.0	1	4
243.0	246.0	3.0	3.0	100%	2.0	1	4
243.0	246.0	3.0	3.0	100%	2.0	1	4
246.0	249.0	3.0	2.8	92%	1.9	1	4
246.0	249.0	3.0	2.8	92%	1.9	1	4
246.0	249.0	3.0	2.8	92%	1.9	1	4
246.0	249.0	3.0	2.8	92%	1.9	1	4
249.0	252.1	3.0	3.0	98%	2.3	1	4
249.0	252.1	3.0	3.0	98%	2.3	1	4
249.0	252.1	3.0	3.0	98%	2.3	1	4
249.0	252.1	3.0	3.0	98%	2.3	1	4
252.1	255.1	3.0	3.0	98%	2.4	1	4
252.1	255.1	3.0	3.0	98%	2.4	1	4
252.1	255.1	3.0	3.0	98%	2.4	1	4
252.1	255.1	3.0	3.0	98%	2.4	1	4
255.1	258.2	3.0	3.1	102%	2.6	1	4
255.1	258.2	3.0	3.1	102%	2.6	1	4
255.1	258.2	3.0	3.1	102%	2.6	1	4
255.1	258.2	3.0	3.1	102%	2.6	1	4
258.2	261.2	3.0	3.0	98%	3.0	1	4
258.2	261.2	3.0	3.0	98%	3.0	1	4
258.2	261.2	3.0	3.0	98%	3.0	1	4
258.2	261.2	3.0	3.0	98%	3.0	1	4
261.2	264.3	3.0	3.0	98%	2.8	1	4
261.2	264.3	3.0	3.0	98%	2.8	1	4
261.2	264.3	3.0	3.0	98%	2.8	1	4
261.2	264.3	3.0	3.0	98%	2.8	1	4
264.3	267.3	3.0	2.9	95%	2.8	1	4
264.3	267.3	3.0	2.9	95%	2.8	1	4
264.3	267.3	3.0	2.9	95%	2.8	1	4

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-04

Northing: 16504.1 **Total Depth:** 556.9 **m**

Easting: 11771.3 **Azimuth** 0.0 °

Drilled: 7/1/2006

Elevation: 1704 **Dip** -90 °

From (m)	To (m)	Run (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness
264.3	267.3	3.0	2.9	95%	2.8	1	4
267.3	270.4	3.0	3.0	98%	2.7	1	4
267.3	270.4	3.0	3.0	98%	2.7	1	4
267.3	270.4	3.0	3.0	98%	2.7	1	4
267.3	270.4	3.0	3.0	98%	2.7	1	4
270.4	273.4	3.0	3.0	98%	2.5	1	4
270.4	273.4	3.0	3.0	98%	2.5	1	4
270.4	273.4	3.0	3.0	98%	2.5	1	4
270.4	273.4	3.0	3.0	98%	2.5	1	4
273.4	276.5	3.0	2.9	95%	2.2	1	4
273.4	276.5	3.0	2.9	95%	2.2	1	4
273.4	276.5	3.0	2.9	95%	2.2	1	4
273.4	276.5	3.0	2.9	95%	2.2	1	4
276.5	279.5	3.0	3.0	98%	2.2	1	4
276.5	279.5	3.0	3.0	98%	2.2	1	4
276.5	279.5	3.0	3.0	98%	2.2	1	4
276.5	279.5	3.0	3.0	98%	2.2	1	4
279.5	282.6	3.0	3.0	98%	2.3	1	4
279.5	282.6	3.0	3.0	98%	2.3	1	4
279.5	282.6	3.0	3.0	98%	2.3	1	4
279.5	282.6	3.0	3.0	98%	2.3	1	4
282.6	285.6	3.0	3.0	98%	2.1	1	4
282.6	285.6	3.0	3.0	98%	2.1	1	4
282.6	285.6	3.0	3.0	98%	2.1	1	4
282.6	285.6	3.0	3.0	98%	2.1	1	4
285.6	288.7	3.0	3.1	102%	2.5	1	4
285.6	288.7	3.0	3.1	102%	2.5	1	4
285.6	288.7	3.0	3.1	102%	2.5	1	4
285.6	288.7	3.0	3.1	102%	2.5	1	4
288.7	291.7	3.0	3.0	98%	2.0	1	4
288.7	291.7	3.0	3.0	98%	2.0	1	4
288.7	291.7	3.0	3.0	98%	2.0	1	4
288.7	291.7	3.0	3.0	98%	2.0	1	4
291.8	294.8	3.0	3.0	100%	2.6	1	4

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-04

Northing: 16504.1 **Total Depth:** 556.9 **m**

Easting: 11771.3 **Azimuth** 0.0 °

Drilled: 7/1/2006

Elevation: 1704 **Dip** -90 °

From (m)	To (m)	Run (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness
291.8	294.8	3.0	3.0	100%	2.6	1	4
291.8	294.8	3.0	3.0	100%	2.6	1	4
291.8	294.8	3.0	3.0	100%	2.6	1	4
294.8	297.8	3.0	3.0	98%	2.5	1	4
294.8	297.8	3.0	3.0	98%	2.5	1	4
294.8	297.8	3.0	3.0	98%	2.5	1	4
294.8	297.8	3.0	3.0	98%	2.5	1	4
297.8	300.9	3.0	3.0	98%	2.4	1	4
297.8	300.9	3.0	3.0	98%	2.4	1	4
297.8	300.9	3.0	3.0	98%	2.4	1	4
297.8	300.9	3.0	3.0	98%	2.4	1	4
300.9	303.9	3.0	3.0	98%	2.4	1	4
300.9	303.9	3.0	3.0	98%	2.4	1	4
300.9	303.9	3.0	3.0	98%	2.4	1	4
300.9	303.9	3.0	3.0	98%	2.4	1	4
303.9	307.0	3.0	3.0	98%	2.3	1	4
303.9	307.0	3.0	3.0	98%	2.3	1	4
303.9	307.0	3.0	3.0	98%	2.3	1	4
303.9	307.0	3.0	3.0	98%	2.3	1	4
307.0	310.0	3.0	2.9	95%	2.3	1	4
307.0	310.0	3.0	2.9	95%	2.3	1	4
307.0	310.0	3.0	2.9	95%	2.3	1	4
307.0	310.0	3.0	2.9	95%	2.3	1	4
310.0	313.1	3.0	3.0	98%	2.5	1	4
310.0	313.1	3.0	3.0	98%	2.5	1	4
310.0	313.1	3.0	3.0	98%	2.5	1	4
310.0	313.1	3.0	3.0	98%	2.5	1	4
313.1	316.1	3.0	2.8	92%	1.4	0	4
313.1	316.1	3.0	2.8	92%	1.4	0	4
313.1	316.1	3.0	2.8	92%	1.4	0	4
313.1	316.1	3.0	2.8	92%	1.4	0	4
316.1	319.2	3.0	3.2	105%	2.6	1	4
316.1	319.2	3.0	3.2	105%	2.6	1	4
316.1	319.2	3.0	3.2	105%	2.6	1	4

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-04

Northing: 16504.1 **Total Depth:** 556.9 **m**

Easting: 11771.3 **Azimuth** 0.0 °

Drilled: 7/1/2006

Elevation: 1704 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
316.1	319.2	3.0	3.2	105%	2.6	1	4
319.2	322.2	3.0	2.7	89%	2.4	1	4
319.2	322.2	3.0	2.7	89%	2.4	1	4
319.2	322.2	3.0	2.7	89%	2.4	1	4
319.2	322.2	3.0	2.7	89%	2.4	1	4
322.2	325.3	3.0	3.1	102%	1.4	0	4
322.2	325.3	3.0	3.1	102%	1.4	0	4
322.2	325.3	3.0	3.1	102%	1.4	0	4
322.2	325.3	3.0	3.1	102%	1.4	0	4
325.3	328.3	3.0	3.0	98%	2.2	1	4
325.3	328.3	3.0	3.0	98%	2.2	1	4
325.3	328.3	3.0	3.0	98%	2.2	1	4
325.3	328.3	3.0	3.0	98%	2.2	1	4
328.3	331.3	3.0	3.0	99%	1.0	0	4
328.3	331.3	3.0	3.0	99%	1.0	0	4
328.3	331.3	3.0	3.0	99%	1.0	0	4
328.3	331.3	3.0	3.0	99%	1.0	0	4
331.3	334.4	3.0	3.0	98%	1.7	1	5
331.3	334.4	3.0	3.0	98%	1.7	1	5
331.3	334.4	3.0	3.0	98%	1.7	1	5
331.3	334.4	3.0	3.0	98%	1.7	1	5
334.4	337.4	3.0	3.0	98%	2.3	1	5
334.4	337.4	3.0	3.0	98%	2.3	1	5
334.4	337.4	3.0	3.0	98%	2.3	1	5
334.4	337.4	3.0	3.0	98%	2.3	1	5
337.4	340.5	3.0	2.9	95%	2.4	1	5
337.4	340.5	3.0	2.9	95%	2.4	1	5
337.4	340.5	3.0	2.9	95%	2.4	1	5
337.4	340.5	3.0	2.9	95%	2.4	1	5
340.5	343.5	3.0	3.0	98%	2.4	1	5
340.5	343.5	3.0	3.0	98%	2.4	1	5
340.5	343.5	3.0	3.0	98%	2.4	1	5
340.5	343.5	3.0	3.0	98%	2.4	1	5
343.5	346.6	3.0	3.0	98%	2.2	1	5

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-04

Northing: 16504.1 **Total Depth:** 556.9 **m**

Easting: 11771.3 **Azimuth** 0.0 °

Drilled: 7/1/2006

Elevation: 1704 **Dip** -90 °

From (m)	To (m)	Run (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness
343.5	346.6	3.0	3.0	98%	2.2	1	5
343.5	346.6	3.0	3.0	98%	2.2	1	5
343.5	346.6	3.0	3.0	98%	2.2	1	5
346.6	349.6	3.0	3.0	98%	2.4	1	5
346.6	349.6	3.0	3.0	98%	2.4	1	5
346.6	349.6	3.0	3.0	98%	2.4	1	5
346.6	349.6	3.0	3.0	98%	2.4	1	5
349.6	352.7	3.0	2.9	95%	1.8	1	5
349.6	352.7	3.0	2.9	95%	1.8	1	5
349.6	352.7	3.0	2.9	95%	1.8	1	5
349.6	352.7	3.0	2.9	95%	1.8	1	5
352.7	355.7	3.0	3.0	98%	2.5	1	5
352.7	355.7	3.0	3.0	98%	2.5	1	5
352.7	355.7	3.0	3.0	98%	2.5	1	5
352.7	355.7	3.0	3.0	98%	2.5	1	5
355.7	358.7	3.0	2.9	95%	1.8	1	5
355.7	358.7	3.0	2.9	95%	1.8	1	5
355.7	358.7	3.0	2.9	95%	1.8	1	5
355.7	358.7	3.0	2.9	95%	1.8	1	5
358.7	361.7	3.0	2.9	97%	1.7	1	4
358.7	361.7	3.0	2.9	97%	1.7	1	4
358.7	361.7	3.0	2.9	97%	1.7	1	4
358.7	361.7	3.0	2.9	97%	1.7	1	4
361.8	364.8	3.0	3.0	100%	1.5	1	4
361.8	364.8	3.0	3.0	100%	1.5	1	4
361.8	364.8	3.0	3.0	100%	1.5	1	4
361.8	364.8	3.0	3.0	100%	1.5	1	4
364.8	367.8	3.0	3.0	98%	1.8	1	4
364.8	367.8	3.0	3.0	98%	1.8	1	4
364.8	367.8	3.0	3.0	98%	1.8	1	4
364.8	367.8	3.0	3.0	98%	1.8	1	4
367.8	370.9	3.0	3.0	98%	2.3	1	4
367.8	370.9	3.0	3.0	98%	2.3	1	4
367.8	370.9	3.0	3.0	98%	2.3	1	4

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-04

Northing: 16504.1 **Total Depth:** 556.9 **m**

Easting: 11771.3 **Azimuth** 0.0 °

Drilled: 7/1/2006

Elevation: 1704 **Dip** -90 °

From (m)	To (m)	Run (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness
367.8	370.9	3.0	3.0	98%	2.3	1	4
370.9	373.9	3.0	2.9	95%	1.7	1	4
370.9	373.9	3.0	2.9	95%	1.7	1	4
370.9	373.9	3.0	2.9	95%	1.7	1	4
370.9	373.9	3.0	2.9	95%	1.7	1	4
373.9	377.0	3.0	3.1	102%	1.0	0	4
373.9	377.0	3.0	3.1	102%	1.0	0	4
373.9	377.0	3.0	3.1	102%	1.0	0	4
373.9	377.0	3.0	3.1	102%	1.0	0	4
377.0	380.0	3.0	2.9	95%	0.8	0	4
377.0	380.0	3.0	2.9	95%	0.8	0	4
377.0	380.0	3.0	2.9	95%	0.8	0	4
377.0	380.0	3.0	2.9	95%	0.8	0	4
380.0	383.1	3.0	3.0	98%	1.8	1	4
380.0	383.1	3.0	3.0	98%	1.8	1	4
380.0	383.1	3.0	3.0	98%	1.8	1	4
380.0	383.1	3.0	3.0	98%	1.8	1	4
383.1	386.1	3.0	2.9	95%	1.1	0	4
383.1	386.1	3.0	2.9	95%	1.1	0	4
383.1	386.1	3.0	2.9	95%	1.1	0	4
383.1	386.1	3.0	2.9	95%	1.1	0	4
386.1	389.2	3.0	3.1	102%	0.6	0	4
386.1	389.2	3.0	3.1	102%	0.6	0	4
386.1	389.2	3.0	3.1	102%	0.6	0	4
386.1	389.2	3.0	3.1	102%	0.6	0	4
389.2	392.2	3.0	3.0	98%	1.3	0	4
389.2	392.2	3.0	3.0	98%	1.3	0	4
389.2	392.2	3.0	3.0	98%	1.3	0	4
389.2	392.2	3.0	3.0	98%	1.3	0	4
392.2	395.3	3.0	3.0	98%	2.0	1	4
392.2	395.3	3.0	3.0	98%	2.0	1	4
392.2	395.3	3.0	3.0	98%	2.0	1	4
392.2	395.3	3.0	3.0	98%	2.0	1	4
395.3	398.3	3.0	3.0	98%	1.4	0	4

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-04

Northing: 16504.1 **Total Depth:** 556.9 **m**

Easting: 11771.3 **Azimuth** 0.0 °

Drilled: 7/1/2006

Elevation: 1704 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
395.3	398.3	3.0	3.0	98%	1.4	0	4
395.3	398.3	3.0	3.0	98%	1.4	0	4
395.3	398.3	3.0	3.0	98%	1.4	0	4
398.3	401.4	3.0	2.9	95%	1.4	0	4
398.3	401.4	3.0	2.9	95%	1.4	0	4
398.3	401.4	3.0	2.9	95%	1.4	0	4
398.3	401.4	3.0	2.9	95%	1.4	0	4
401.4	404.4	3.0	2.9	95%	1.2	0	4
401.4	404.4	3.0	2.9	95%	1.2	0	4
401.4	404.4	3.0	2.9	95%	1.2	0	4
401.4	404.4	3.0	2.9	95%	1.2	0	4
404.4	407.5	3.0	2.8	92%	1.2	0	4
404.4	407.5	3.0	2.8	92%	1.2	0	4
404.4	407.5	3.0	2.8	92%	1.2	0	4
404.4	407.5	3.0	2.8	92%	1.2	0	4
407.5	410.5	3.0	3.0	98%	1.7	1	4
407.5	410.5	3.0	3.0	98%	1.7	1	4
407.5	410.5	3.0	3.0	98%	1.7	1	4
407.5	410.5	3.0	3.0	98%	1.7	1	4
410.5	413.6	3.0	3.0	98%	0.9	0	4
410.5	413.6	3.0	3.0	98%	0.9	0	4
410.5	413.6	3.0	3.0	98%	0.9	0	4
410.5	413.6	3.0	3.0	98%	0.9	0	4
413.6	416.7	3.0	2.9	95%	0.8	0	4
413.6	416.7	3.0	2.9	95%	0.8	0	4
413.6	416.7	3.0	2.9	95%	0.8	0	4
413.6	416.7	3.0	2.9	95%	0.8	0	4
416.7	419.7	3.0	2.7	89%	0.6	0	4
416.7	419.7	3.0	2.7	89%	0.6	0	4
416.7	419.7	3.0	2.7	89%	0.6	0	4
416.7	419.7	3.0	2.7	89%	0.6	0	4
419.7	422.8	3.0	2.9	95%	1.1	0	4
419.7	422.8	3.0	2.9	95%	1.1	0	4
419.7	422.8	3.0	2.9	95%	1.1	0	4

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-04

Northing: 16504.1 **Total Depth:** 556.9 **m**

Easting: 11771.3 **Azimuth** 0.0 °

Drilled: 7/1/2006

Elevation: 1704 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
419.7	422.8	3.0	2.9	95%	1.1	0	4
422.8	425.8	3.0	2.6	85%	0.9	0	3
422.8	425.8	3.0	2.6	85%	0.9	0	3
422.8	425.8	3.0	2.6	85%	0.9	0	3
422.8	425.8	3.0	2.6	85%	0.9	0	3
425.8	428.9	3.0	2.8	92%	1.3	0	4
425.8	428.9	3.0	2.8	92%	1.3	0	4
425.8	428.9	3.0	2.8	92%	1.3	0	4
425.8	428.9	3.0	2.8	92%	1.3	0	4
428.9	431.9	3.0	2.9	95%	1.4	0	4
428.9	431.9	3.0	2.9	95%	1.4	0	4
428.9	431.9	3.0	2.9	95%	1.4	0	4
428.9	431.9	3.0	2.9	95%	1.4	0	4
431.9	434.9	3.0	2.7	89%	0.8	0	3
431.9	434.9	3.0	2.7	89%	0.8	0	3
431.9	434.9	3.0	2.7	89%	0.8	0	3
431.9	434.9	3.0	2.7	89%	0.8	0	3
434.9	438.0	3.0	2.9	95%	1.1	0	4
434.9	438.0	3.0	2.9	95%	1.1	0	4
434.9	438.0	3.0	2.9	95%	1.1	0	4
434.9	438.0	3.0	2.9	95%	1.1	0	4
438.0	441.0	3.0	2.8	92%	1.0	0	4
438.0	441.0	3.0	2.8	92%	1.0	0	4
438.0	441.0	3.0	2.8	92%	1.0	0	4
438.0	441.0	3.0	2.8	92%	1.0	0	4
441.0	444.1	3.0	2.8	92%	1.6	1	4
441.0	444.1	3.0	2.8	92%	1.6	1	4
441.0	444.1	3.0	2.8	92%	1.6	1	4
441.0	444.1	3.0	2.8	92%	1.6	1	4
444.1	447.1	3.0	2.7	89%	0.9	0	3
444.1	447.1	3.0	2.7	89%	0.9	0	3
444.1	447.1	3.0	2.7	89%	0.9	0	3
444.1	447.1	3.0	2.7	89%	0.9	0	3
447.1	450.2	3.0	2.2	72%	0.4	0	3

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-04

Northing: 16504.1 **Total Depth:** 556.9 **m**

Easting: 11771.3 **Azimuth** 0.0 °

Drilled: 7/1/2006

Elevation: 1704 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
447.1	450.2	3.0	2.2	72%	0.4	0	3
447.1	450.2	3.0	2.2	72%	0.4	0	3
447.1	450.2	3.0	2.2	72%	0.4	0	3
450.2	453.2	3.0	2.8	92%	1.4	0	3
450.2	453.2	3.0	2.8	92%	1.4	0	3
450.2	453.2	3.0	2.8	92%	1.4	0	3
450.2	453.2	3.0	2.8	92%	1.4	0	3
453.2	456.3	3.0	2.8	92%	0.5	0	3
453.2	456.3	3.0	2.8	92%	0.5	0	3
453.2	456.3	3.0	2.8	92%	0.5	0	3
453.2	456.3	3.0	2.8	92%	0.5	0	3
456.3	459.3	3.0	3.0	98%	1.3	0	4
456.3	459.3	3.0	3.0	98%	1.3	0	4
456.3	459.3	3.0	3.0	98%	1.3	0	4
456.3	459.3	3.0	3.0	98%	1.3	0	4
459.3	462.4	3.0	2.9	95%	0.9	0	4
459.3	462.4	3.0	2.9	95%	0.9	0	4
459.3	462.4	3.0	2.9	95%	0.9	0	4
459.3	462.4	3.0	2.9	95%	0.9	0	4
462.4	465.4	3.0	3.0	98%	0.9	0	4
462.4	465.4	3.0	3.0	98%	0.9	0	4
462.4	465.4	3.0	3.0	98%	0.9	0	4
462.4	465.4	3.0	3.0	98%	0.9	0	4
465.4	468.5	3.0	3.0	98%	1.2	0	4
465.4	468.5	3.0	3.0	98%	1.2	0	4
465.4	468.5	3.0	3.0	98%	1.2	0	4
465.4	468.5	3.0	3.0	98%	1.2	0	4
468.5	471.5	3.0	2.9	95%	0.8	0	4
468.5	471.5	3.0	2.9	95%	0.8	0	4
468.5	471.5	3.0	2.9	95%	0.8	0	4
468.5	471.5	3.0	2.9	95%	0.8	0	4
471.5	474.6	3.0	2.9	95%	1.1	0	4
471.5	474.6	3.0	2.9	95%	1.1	0	4
471.5	474.6	3.0	2.9	95%	1.1	0	4

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-04

Northing: 16504.1 **Total Depth:** 556.9 **m**

Easting: 11771.3 **Azimuth** 0.0 °

Drilled: 7/1/2006

Elevation: 1704 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
471.5	474.6	3.0	2.9	95%	1.1	0	4
474.6	477.6	3.0	2.9	95%	1.4	0	4
474.6	477.6	3.0	2.9	95%	1.4	0	4
474.6	477.6	3.0	2.9	95%	1.4	0	4
474.6	477.6	3.0	2.9	95%	1.4	0	4
477.6	480.7	3.0	3.0	98%	0.9	0	4
477.6	480.7	3.0	3.0	98%	0.9	0	4
477.6	480.7	3.0	3.0	98%	0.9	0	4
477.6	480.7	3.0	3.0	98%	0.9	0	4
480.7	483.7	3.0	3.0	98%	0.7	0	4
480.7	483.7	3.0	3.0	98%	0.7	0	4
480.7	483.7	3.0	3.0	98%	0.7	0	4
480.7	483.7	3.0	3.0	98%	0.7	0	4
483.7	486.8	3.0	3.0	98%	0.4	0	4
483.7	486.8	3.0	3.0	98%	0.4	0	4
483.7	486.8	3.0	3.0	98%	0.4	0	4
483.7	486.8	3.0	3.0	98%	0.4	0	4
486.8	489.8	3.0	3.0	98%	0.7	0	4
486.8	489.8	3.0	3.0	98%	0.7	0	4
486.8	489.8	3.0	3.0	98%	0.7	0	4
486.8	489.8	3.0	3.0	98%	0.7	0	4
489.8	492.9	3.1	2.9	95%	1.1	0	4
489.8	492.9	3.1	2.9	95%	1.1	0	4
489.8	492.9	3.1	2.9	95%	1.1	0	4
489.8	492.9	3.1	2.9	95%	1.1	0	4
492.9	495.9	3.0	2.9	95%	1.7	1	4
492.9	495.9	3.0	2.9	95%	1.7	1	4
492.9	495.9	3.0	2.9	95%	1.7	1	4
492.9	495.9	3.0	2.9	95%	1.7	1	4
495.9	499.0	3.0	3.0	98%	1.2	0	4
495.9	499.0	3.0	3.0	98%	1.2	0	4
495.9	499.0	3.0	3.0	98%	1.2	0	4
495.9	499.0	3.0	3.0	98%	1.2	0	4
499.0	502.0	3.0	3.0	98%	0.5	0	4

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-04

Northing: 16504.1 **Total Depth:** 556.9 **m**

Easting: 11771.3 **Azimuth** 0.0 °

Drilled: 7/1/2006

Elevation: 1704 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
499.0	502.0	3.0	3.0	98%	0.5	0	4
499.0	502.0	3.0	3.0	98%	0.5	0	4
499.0	502.0	3.0	3.0	98%	0.5	0	4
502.0	505.1	3.0	3.0	98%	1.6	1	4
502.0	505.1	3.0	3.0	98%	1.6	1	4
502.0	505.1	3.0	3.0	98%	1.6	1	4
502.0	505.1	3.0	3.0	98%	1.6	1	4
505.1	508.1	3.0	3.0	98%	1.7	1	4
505.1	508.1	3.0	3.0	98%	1.7	1	4
505.1	508.1	3.0	3.0	98%	1.7	1	4
505.1	508.1	3.0	3.0	98%	1.7	1	4
508.1	511.1	3.0	3.0	98%	1.1	0	4
508.1	511.1	3.0	3.0	98%	1.1	0	4
508.1	511.1	3.0	3.0	98%	1.1	0	4
508.1	511.1	3.0	3.0	98%	1.1	0	4
511.1	514.2	3.0	3.0	98%	1.4	0	4
511.1	514.2	3.0	3.0	98%	1.4	0	4
511.1	514.2	3.0	3.0	98%	1.4	0	4
511.1	514.2	3.0	3.0	98%	1.4	0	4
514.2	517.2	3.0	2.9	95%	1.4	0	4
514.2	517.2	3.0	2.9	95%	1.4	0	4
514.2	517.2	3.0	2.9	95%	1.4	0	4
514.2	517.2	3.0	2.9	95%	1.4	0	4
517.2	520.3	3.0	3.0	98%	0.5	0	4
517.2	520.3	3.0	3.0	98%	0.5	0	4
517.2	520.3	3.0	3.0	98%	0.5	0	4
517.2	520.3	3.0	3.0	98%	0.5	0	4
520.3	523.3	3.0	2.9	95%	1.6	1	4
520.3	523.3	3.0	2.9	95%	1.6	1	4
520.3	523.3	3.0	2.9	95%	1.6	1	4
520.3	523.3	3.0	2.9	95%	1.6	1	4
523.3	526.4	3.0	3.0	98%	1.9	1	4
523.3	526.4	3.0	3.0	98%	1.9	1	4
523.3	526.4	3.0	3.0	98%	1.9	1	4

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-04

Northing: 16504.1 **Total Depth:** 556.9 **m**

Easting: 11771.3 **Azimuth** 0.0 °

Drilled: 7/1/2006

Elevation: 1704 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
523.3	526.4	3.0	3.0	98%	1.9	1	4
526.4	529.4	3.0	3.0	98%	0.4	0	4
526.4	529.4	3.0	3.0	98%	0.4	0	4
526.4	529.4	3.0	3.0	98%	0.4	0	4
526.4	529.4	3.0	3.0	98%	0.4	0	4
529.4	532.5	3.0	2.9	95%	1.7	1	4
529.4	532.5	3.0	2.9	95%	1.7	1	4
529.4	532.5	3.0	2.9	95%	1.7	1	4
529.4	532.5	3.0	2.9	95%	1.7	1	4
532.5	535.5	3.0	3.0	98%	1.3	0	4
532.5	535.5	3.0	3.0	98%	1.3	0	4
532.5	535.5	3.0	3.0	98%	1.3	0	4
532.5	535.5	3.0	3.0	98%	1.3	0	4
535.5	538.6	3.0	3.0	98%	0.5	0	4
535.5	538.6	3.0	3.0	98%	0.5	0	4
535.5	538.6	3.0	3.0	98%	0.5	0	4
535.5	538.6	3.0	3.0	98%	0.5	0	4
538.6	541.6	3.0	3.0	98%	1.9	1	4
538.6	541.6	3.0	3.0	98%	1.9	1	4
538.6	541.6	3.0	3.0	98%	1.9	1	4
538.6	541.6	3.0	3.0	98%	1.9	1	4
541.6	544.7	3.0	3.0	98%	2.3	1	4
541.6	544.7	3.0	3.0	98%	2.3	1	4
541.6	544.7	3.0	3.0	98%	2.3	1	4
541.6	544.7	3.0	3.0	98%	2.3	1	4
544.7	547.7	3.0	3.0	98%	2.4	1	4
544.7	547.7	3.0	3.0	98%	2.4	1	4
544.7	547.7	3.0	3.0	98%	2.4	1	4
544.7	547.7	3.0	3.0	98%	2.4	1	4
547.7	550.8	3.0	3.1	102%	1.9	1	4
547.7	550.8	3.0	3.1	102%	1.9	1	4
547.7	550.8	3.0	3.1	102%	1.9	1	4
547.7	550.8	3.0	3.1	102%	1.9	1	4
550.8	553.8	3.0	3.0	98%	1.6	1	4

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-04

Northing: 16504.1 **Total Depth:** 556.9 **m**

Easting: 11771.3 **Azimuth** 0.0 °

Drilled: 7/1/2006

Elevation: 1704 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
550.8	553.8	3.0	3.0	98%	1.6	1	4
550.8	553.8	3.0	3.0	98%	1.6	1	4
550.8	553.8	3.0	3.0	98%	1.6	1	4
553.8	556.9	3.0	2.9	95%	1.8	1	4
553.8	556.9	3.0	2.9	95%	1.8	1	4
553.8	556.9	3.0	2.9	95%	1.8	1	4
553.8	556.9	3.0	2.9	95%	1.8	1	4
566.0	569.1	3.0					4
566.0	569.1	3.0					4
566.0	569.1	3.0					4
566.0	569.1	3.0					4

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-05

Northing: 15582.3 **Total Depth:** 442.1 **m**

Easting: 13639.6 **Azimuth** 0.0 °

Drilled: 7/9/2006

Elevation: 1568 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
0.0	7.6	7.6	2.2	29%	0.1	0	4
7.6	9.1	1.5	1.3	85%	0.2	0	4
7.6	9.1	1.5	1.3	85%	0.2	0	4
7.6	9.1	1.5	1.3	85%	0.2	0	4
7.6	9.1	1.5	1.3	85%	0.2	0	4
9.1	10.7	1.5	1.4	92%	0.8	1	4
9.1	10.7	1.5	1.4	92%	0.8	1	4
9.1	10.7	1.5	1.4	92%	0.8	1	4
9.1	10.7	1.5	1.4	92%	0.8	1	4
10.7	12.2	1.5	1.5	98%	0.6	0	4
10.7	12.2	1.5	1.5	98%	0.6	0	4
10.7	12.2	1.5	1.5	98%	0.6	0	4
10.7	12.2	1.5	1.5	98%	0.6	0	4
12.2	13.7	1.5	1.3	85%	0.1	0	4
12.2	13.7	1.5	1.3	85%	0.1	0	4
12.2	13.7	1.5	1.3	85%	0.1	0	4
12.2	13.7	1.5	1.3	85%	0.1	0	4
13.7	15.2	1.5	1.3	85%	0.0	0	4
13.7	15.2	1.5	1.3	85%	0.0	0	4
13.7	15.2	1.5	1.3	85%	0.0	0	4
13.7	15.2	1.5	1.3	85%	0.0	0	4
15.2	16.8	1.5	1.4	92%	0.2	0	4
15.2	16.8	1.5	1.4	92%	0.2	0	4
15.2	16.8	1.5	1.4	92%	0.2	0	4
15.2	16.8	1.5	1.4	92%	0.2	0	4
16.8	18.3	1.5	1.4	92%	0.1	0	4
16.8	18.3	1.5	1.4	92%	0.1	0	4
16.8	18.3	1.5	1.4	92%	0.1	0	4
16.8	18.3	1.5	1.4	92%	0.1	0	4
18.3	19.8	1.5	1.4	92%	0.4	0	4
18.3	19.8	1.5	1.4	92%	0.4	0	4
18.3	19.8	1.5	1.4	92%	0.4	0	4
18.3	19.8	1.5	1.4	92%	0.4	0	4
19.8	21.3	1.5	1.4	92%	0.3	0	4

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-05

Northing: 15582.3 **Total Depth:** 442.1 **m**

Easting: 13639.6 **Azimuth** 0.0 °

Drilled: 7/9/2006

Elevation: 1568 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
19.8	21.3	1.5	1.4	92%	0.3	0	4
19.8	21.3	1.5	1.4	92%	0.3	0	4
19.8	21.3	1.5	1.4	92%	0.3	0	4
21.3	22.9	1.5	1.4	92%	0.2	0	4
21.3	22.9	1.5	1.4	92%	0.2	0	4
21.3	22.9	1.5	1.4	92%	0.2	0	4
21.3	22.9	1.5	1.4	92%	0.2	0	4
22.9	24.4	1.5	1.5	98%	0.0	0	4
22.9	24.4	1.5	1.5	98%	0.0	0	4
22.9	24.4	1.5	1.5	98%	0.0	0	4
22.9	24.4	1.5	1.5	98%	0.0	0	4
24.4	25.9	1.5	1.5	98%	0.5	0	4
24.4	25.9	1.5	1.5	98%	0.5	0	4
24.4	25.9	1.5	1.5	98%	0.5	0	4
24.4	25.9	1.5	1.5	98%	0.5	0	4
25.9	27.4	1.5	1.4	92%	0.5	0	5
25.9	27.4	1.5	1.4	92%	0.5	0	5
25.9	27.4	1.5	1.4	92%	0.5	0	5
25.9	27.4	1.5	1.4	92%	0.5	0	5
27.4	29.0	1.5	1.5	98%	0.6	0	5
27.4	29.0	1.5	1.5	98%	0.6	0	5
27.4	29.0	1.5	1.5	98%	0.6	0	5
27.4	29.0	1.5	1.5	98%	0.6	0	5
29.0	30.5	1.5	1.4	92%	0.1	0	5
29.0	30.5	1.5	1.4	92%	0.1	0	5
29.0	30.5	1.5	1.4	92%	0.1	0	5
29.0	30.5	1.5	1.4	92%	0.1	0	5
30.5	32.0	1.5	1.4	92%	0.2	0	5
30.5	32.0	1.5	1.4	92%	0.2	0	5
30.5	32.0	1.5	1.4	92%	0.2	0	5
30.5	32.0	1.5	1.4	92%	0.2	0	5
32.0	33.5	1.5	1.4	92%	0.2	0	5
32.0	33.5	1.5	1.4	92%	0.2	0	5
32.0	33.5	1.5	1.4	92%	0.2	0	5

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-05

Northing: 15582.3 **Total Depth:** 442.1 **m**

Easting: 13639.6 **Azimuth** 0.0 °

Drilled: 7/9/2006

Elevation: 1568 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
32.0	33.5	1.5	1.4	92%	0.2	0	5
33.5	35.1	1.5	1.4	92%	0.9	1	5
33.5	35.1	1.5	1.4	92%	0.9	1	5
33.5	35.1	1.5	1.4	92%	0.9	1	5
33.5	35.1	1.5	1.4	92%	0.9	1	5
35.1	36.6	1.5	1.4	92%	0.7	0	5
35.1	36.6	1.5	1.4	92%	0.7	0	5
35.1	36.6	1.5	1.4	92%	0.7	0	5
35.1	36.6	1.5	1.4	92%	0.7	0	5
36.6	38.1	1.5	1.4	92%	0.7	0	5
36.6	38.1	1.5	1.4	92%	0.7	0	5
36.6	38.1	1.5	1.4	92%	0.7	0	5
36.6	38.1	1.5	1.4	92%	0.7	0	5
38.1	39.6	1.5	1.5	98%	1.1	1	5
38.1	39.6	1.5	1.5	98%	1.1	1	5
38.1	39.6	1.5	1.5	98%	1.1	1	5
38.1	39.6	1.5	1.5	98%	1.1	1	5
39.6	41.1	1.5	1.4	92%	0.2	0	5
39.6	41.1	1.5	1.4	92%	0.2	0	5
39.6	41.1	1.5	1.4	92%	0.2	0	5
39.6	41.1	1.5	1.4	92%	0.2	0	5
41.1	42.7	1.5	1.4	92%	0.8	1	5
41.1	42.7	1.5	1.4	92%	0.8	1	5
41.1	42.7	1.5	1.4	92%	0.8	1	5
41.1	42.7	1.5	1.4	92%	0.8	1	5
42.7	44.2	1.5	1.3	87%	0.6	0	5
42.7	44.2	1.5	1.3	87%	0.6	0	5
42.7	44.2	1.5	1.3	87%	0.6	0	5
42.7	44.2	1.5	1.3	87%	0.6	0	5
44.2	45.7	1.5	1.5	98%	1.2	1	5
44.2	45.7	1.5	1.5	98%	1.2	1	5
44.2	45.7	1.5	1.5	98%	1.2	1	5
44.2	45.7	1.5	1.5	98%	1.2	1	5
45.7	47.2	1.5	1.4	91%	0.3	0	5

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-05

Northing: 15582.3 **Total Depth:** 442.1 **m**

Easting: 13639.6 **Azimuth** 0.0 °

Drilled: 7/9/2006

Elevation: 1568 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
45.7	47.2	1.5	1.4	91%	0.3	0	5
45.7	47.2	1.5	1.4	91%	0.3	0	5
45.7	47.2	1.5	1.4	91%	0.3	0	5
47.2	48.8	1.5	1.4	92%	0.1	0	5
47.2	48.8	1.5	1.4	92%	0.1	0	5
47.2	48.8	1.5	1.4	92%	0.1	0	5
47.2	48.8	1.5	1.4	92%	0.1	0	5
48.8	50.3	1.5	1.4	92%	0.1	0	5
48.8	50.3	1.5	1.4	92%	0.1	0	5
48.8	50.3	1.5	1.4	92%	0.1	0	5
48.8	50.3	1.5	1.4	92%	0.1	0	5
50.3	51.8	1.5	1.4	92%	0.6	0	5
50.3	51.8	1.5	1.4	92%	0.6	0	5
50.3	51.8	1.5	1.4	92%	0.6	0	5
50.3	51.8	1.5	1.4	92%	0.6	0	5
51.8	53.3	1.5	1.5	98%	0.4	0	5
51.8	53.3	1.5	1.5	98%	0.4	0	5
51.8	53.3	1.5	1.5	98%	0.4	0	5
51.8	53.3	1.5	1.5	98%	0.4	0	5
53.3	54.9	1.5	1.4	92%	0.6	0	5
53.3	54.9	1.5	1.4	92%	0.6	0	5
53.3	54.9	1.5	1.4	92%	0.6	0	5
53.3	54.9	1.5	1.4	92%	0.6	0	5
54.9	56.4	1.5	1.4	46%	0.0	0	5
54.9	56.4	1.5	1.4	46%	0.0	0	5
54.9	56.4	1.5	1.4	46%	0.0	0	5
54.9	56.4	1.5	1.4	46%	0.0	0	5
56.4	57.9	1.5	1.4	92%	0.5	0	5
56.4	57.9	1.5	1.4	92%	0.5	0	5
56.4	57.9	1.5	1.4	92%	0.5	0	5
56.4	57.9	1.5	1.4	92%	0.5	0	5
57.9	59.4	1.5	1.5	98%	0.5	0	5
57.9	59.4	1.5	1.5	98%	0.5	0	5
57.9	59.4	1.5	1.5	98%	0.5	0	5

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-05

Northing: 15582.3 **Total Depth:** 442.1 **m**

Easting: 13639.6 **Azimuth** 0.0 °

Drilled: 7/9/2006

Elevation: 1568 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
57.9	59.4	1.5	1.5	98%	0.5	0	5
59.4	61.0	1.5	1.5	98%	0.4	0	5
59.4	61.0	1.5	1.5	98%	0.4	0	5
59.4	61.0	1.5	1.5	98%	0.4	0	5
59.4	61.0	1.5	1.5	98%	0.4	0	5
61.0	62.5	1.5	1.5	98%	0.6	0	5
61.0	62.5	1.5	1.5	98%	0.6	0	5
61.0	62.5	1.5	1.5	98%	0.6	0	5
61.0	62.5	1.5	1.5	98%	0.6	0	5
62.5	64.0	1.5	1.3	85%	0.6	0	5
62.5	64.0	1.5	1.3	85%	0.6	0	5
62.5	64.0	1.5	1.3	85%	0.6	0	5
62.5	64.0	1.5	1.3	85%	0.6	0	5
64.0	65.5	1.5	1.4	92%	0.7	0	5
64.0	65.5	1.5	1.4	92%	0.7	0	5
64.0	65.5	1.5	1.4	92%	0.7	0	5
64.0	65.5	1.5	1.4	92%	0.7	0	5
65.5	67.1	1.5	1.5	98%	0.8	1	5
65.5	67.1	1.5	1.5	98%	0.8	1	5
65.5	67.1	1.5	1.5	98%	0.8	1	5
65.5	67.1	1.5	1.5	98%	0.8	1	5
67.1	68.6	1.5	1.5	98%	0.3	0	5
67.1	68.6	1.5	1.5	98%	0.3	0	5
67.1	68.6	1.5	1.5	98%	0.3	0	5
67.1	68.6	1.5	1.5	98%	0.3	0	5
68.6	70.1	1.5	1.4	92%	0.7	0	5
68.6	70.1	1.5	1.4	92%	0.7	0	5
68.6	70.1	1.5	1.4	92%	0.7	0	5
68.6	70.1	1.5	1.4	92%	0.7	0	5
70.1	71.6	1.5	1.4	92%	0.7	0	5
70.1	71.6	1.5	1.4	92%	0.7	0	5
70.1	71.6	1.5	1.4	92%	0.7	0	5
70.1	71.6	1.5	1.4	92%	0.7	0	5
71.6	73.2	1.5	1.5	98%	0.4	0	5

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-05

Northing: 15582.3 **Total Depth:** 442.1 **m**

Easting: 13639.6 **Azimuth** 0.0 °

Drilled: 7/9/2006

Elevation: 1568 **Dip** -90 °

From (m)	To (m)	Run (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness
71.6	73.2	1.5	1.5	98%	0.4	0	5
71.6	73.2	1.5	1.5	98%	0.4	0	5
71.6	73.2	1.5	1.5	98%	0.4	0	5
73.2	74.7	1.5	1.4	92%	0.7	0	5
73.2	74.7	1.5	1.4	92%	0.7	0	5
73.2	74.7	1.5	1.4	92%	0.7	0	5
73.2	74.7	1.5	1.4	92%	0.7	0	5
74.7	76.2	1.5	1.5	98%	1.1	1	5
74.7	76.2	1.5	1.5	98%	1.1	1	5
74.7	76.2	1.5	1.5	98%	1.1	1	5
74.7	76.2	1.5	1.5	98%	1.1	1	5
76.2	77.7	1.5	1.5	98%	0.8	1	5
76.2	77.7	1.5	1.5	98%	0.8	1	5
76.2	77.7	1.5	1.5	98%	0.8	1	5
76.2	77.7	1.5	1.5	98%	0.8	1	5
77.7	79.2	1.5	1.3	85%	0.6	0	5
77.7	79.2	1.5	1.3	85%	0.6	0	5
77.7	79.2	1.5	1.3	85%	0.6	0	5
77.7	79.2	1.5	1.3	85%	0.6	0	5
79.2	80.8	1.5	1.4	92%	0.5	0	5
79.2	80.8	1.5	1.4	92%	0.5	0	5
79.2	80.8	1.5	1.4	92%	0.5	0	5
79.2	80.8	1.5	1.4	92%	0.5	0	5
80.8	82.3	1.5	1.3	85%	0.2	0	5
80.8	82.3	1.5	1.3	85%	0.2	0	5
80.8	82.3	1.5	1.3	85%	0.2	0	5
80.8	82.3	1.5	1.3	85%	0.2	0	5
82.3	83.8	1.5	1.4	92%	0.2	0	5
82.3	83.8	1.5	1.4	92%	0.2	0	5
82.3	83.8	1.5	1.4	92%	0.2	0	5
82.3	83.8	1.5	1.4	92%	0.2	0	5
83.8	85.3	1.5	1.3	85%	0.3	0	5
83.8	85.3	1.5	1.3	85%	0.3	0	5
83.8	85.3	1.5	1.3	85%	0.3	0	5

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-05

Northing: 15582.3 **Total Depth:** 442.1 **m**

Easting: 13639.6 **Azimuth** 0.0 °

Drilled: 7/9/2006

Elevation: 1568 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
83.8	85.3	1.5	1.3	85%	0.3	0	5
85.3	86.9	1.5	1.6	105%	0.8	1	5
85.3	86.9	1.5	1.6	105%	0.8	1	5
85.3	86.9	1.5	1.6	105%	0.8	1	5
85.3	86.9	1.5	1.6	105%	0.8	1	5
86.9	88.4	1.5	1.4	92%	0.6	0	5
86.9	88.4	1.5	1.4	92%	0.6	0	5
86.9	88.4	1.5	1.4	92%	0.6	0	5
86.9	88.4	1.5	1.4	92%	0.6	0	5
88.4	89.9	1.5	1.5	98%	0.9	1	5
88.4	89.9	1.5	1.5	98%	0.9	1	5
88.4	89.9	1.5	1.5	98%	0.9	1	5
88.4	89.9	1.5	1.5	98%	0.9	1	5
89.9	91.4	1.5	1.5	98%	0.4	0	5
89.9	91.4	1.5	1.5	98%	0.4	0	5
89.9	91.4	1.5	1.5	98%	0.4	0	5
89.9	91.4	1.5	1.5	98%	0.4	0	5
91.4	93.0	1.5	1.4	92%	0.4	0	5
91.4	93.0	1.5	1.4	92%	0.4	0	5
91.4	93.0	1.5	1.4	92%	0.4	0	5
91.4	93.0	1.5	1.4	92%	0.4	0	5
93.0	94.5	1.5	1.5	98%	0.7	0	5
93.0	94.5	1.5	1.5	98%	0.7	0	5
93.0	94.5	1.5	1.5	98%	0.7	0	5
93.0	94.5	1.5	1.5	98%	0.7	0	5
94.5	96.0	1.5	1.4	92%	1.1	1	5
94.5	96.0	1.5	1.4	92%	1.1	1	5
94.5	96.0	1.5	1.4	92%	1.1	1	5
94.5	96.0	1.5	1.4	92%	1.1	1	5
96.0	97.5	1.5	1.5	98%	0.9	1	5
96.0	97.5	1.5	1.5	98%	0.9	1	5
96.0	97.5	1.5	1.5	98%	0.9	1	5
96.0	97.5	1.5	1.5	98%	0.9	1	5
97.5	99.1	1.5	1.4	92%	0.7	0	5

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-05

Northing: 15582.3 **Total Depth:** 442.1 **m**

Easting: 13639.6 **Azimuth** 0.0 °

Drilled: 7/9/2006

Elevation: 1568 **Dip** -90 °

From (m)	To (m)	Run (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness
97.5	99.1	1.5	1.4	92%	0.7	0	5
97.5	99.1	1.5	1.4	92%	0.7	0	5
97.5	99.1	1.5	1.4	92%	0.7	0	5
99.1	100.6	1.5	1.4	92%	0.9	1	5
99.1	100.6	1.5	1.4	92%	0.9	1	5
99.1	100.6	1.5	1.4	92%	0.9	1	5
99.1	100.6	1.5	1.4	92%	0.9	1	5
100.6	102.1	1.5	1.4	92%	0.4	0	5
100.6	102.1	1.5	1.4	92%	0.4	0	5
100.6	102.1	1.5	1.4	92%	0.4	0	5
100.6	102.1	1.5	1.4	92%	0.4	0	5
102.1	103.6	1.5	1.4	92%	0.3	0	5
102.1	103.6	1.5	1.4	92%	0.3	0	5
102.1	103.6	1.5	1.4	92%	0.3	0	5
102.1	103.6	1.5	1.4	92%	0.3	0	5
103.6	105.2	1.5	1.3	85%	0.7	0	5
103.6	105.2	1.5	1.3	85%	0.7	0	5
103.6	105.2	1.5	1.3	85%	0.7	0	5
103.6	105.2	1.5	1.3	85%	0.7	0	5
105.2	106.7	1.5	1.3	85%	0.3	0	5
105.2	106.7	1.5	1.3	85%	0.3	0	5
105.2	106.7	1.5	1.3	85%	0.3	0	5
105.2	106.7	1.5	1.3	85%	0.3	0	5
106.7	108.2	1.5	1.5	98%	0.1	0	5
106.7	108.2	1.5	1.5	98%	0.1	0	5
106.7	108.2	1.5	1.5	98%	0.1	0	5
106.7	108.2	1.5	1.5	98%	0.1	0	5
108.2	109.7	1.5	1.4	92%	0.2	0	5
108.2	109.7	1.5	1.4	92%	0.2	0	5
108.2	109.7	1.5	1.4	92%	0.2	0	5
108.2	109.7	1.5	1.4	92%	0.2	0	5
109.7	111.3	1.5	1.5	98%	0.4	0	5
109.7	111.3	1.5	1.5	98%	0.4	0	5
109.7	111.3	1.5	1.5	98%	0.4	0	5

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-05

Northing: 15582.3 **Total Depth:** 442.1 **m**

Easting: 13639.6 **Azimuth** 0.0 °

Drilled: 7/9/2006

Elevation: 1568 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
109.7	111.3	1.5	1.5	98%	0.4	0	5
111.3	112.8	1.5	1.5	98%	0.5	0	5
111.3	112.8	1.5	1.5	98%	0.5	0	5
111.3	112.8	1.5	1.5	98%	0.5	0	5
111.3	112.8	1.5	1.5	98%	0.5	0	5
112.8	114.3	1.5	1.4	92%	0.4	0	5
112.8	114.3	1.5	1.4	92%	0.4	0	5
112.8	114.3	1.5	1.4	92%	0.4	0	5
112.8	114.3	1.5	1.4	92%	0.4	0	5
114.3	115.8	1.5	1.4	92%	0.4	0	5
114.3	115.8	1.5	1.4	92%	0.4	0	5
114.3	115.8	1.5	1.4	92%	0.4	0	5
114.3	115.8	1.5	1.4	92%	0.4	0	5
115.8	117.3	1.5	1.5	98%	0.7	0	5
115.8	117.3	1.5	1.5	98%	0.7	0	5
115.8	117.3	1.5	1.5	98%	0.7	0	5
115.8	117.3	1.5	1.5	98%	0.7	0	5
117.3	118.9	1.5	1.5	98%	0.9	1	5
117.3	118.9	1.5	1.5	98%	0.9	1	5
117.3	118.9	1.5	1.5	98%	0.9	1	5
117.3	118.9	1.5	1.5	98%	0.9	1	5
118.9	120.4	1.5	1.3	85%	0.7	0	5
118.9	120.4	1.5	1.3	85%	0.7	0	5
118.9	120.4	1.5	1.3	85%	0.7	0	5
118.9	120.4	1.5	1.3	85%	0.7	0	5
120.4	121.9	1.5	1.4	92%	0.8	1	5
120.4	121.9	1.5	1.4	92%	0.8	1	5
120.4	121.9	1.5	1.4	92%	0.8	1	5
120.4	121.9	1.5	1.4	92%	0.8	1	5
121.9	123.4	1.5	1.5	98%	0.9	1	5
121.9	123.4	1.5	1.5	98%	0.9	1	5
121.9	123.4	1.5	1.5	98%	0.9	1	5
121.9	123.4	1.5	1.5	98%	0.9	1	5
123.4	125.0	1.5	1.4	92%	0.4	0	5

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-05

Northing: 15582.3 **Total Depth:** 442.1 **m**

Easting: 13639.6 **Azimuth** 0.0 °

Drilled: 7/9/2006

Elevation: 1568 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
123.4	125.0	1.5	1.4	92%	0.4	0	5
123.4	125.0	1.5	1.4	92%	0.4	0	5
123.4	125.0	1.5	1.4	92%	0.4	0	5
125.0	126.5	1.5	1.4	92%	0.4	0	5
125.0	126.5	1.5	1.4	92%	0.4	0	5
125.0	126.5	1.5	1.4	92%	0.4	0	5
125.0	126.5	1.5	1.4	92%	0.4	0	5
126.5	128.0	1.5	1.5	98%	0.5	0	5
126.5	128.0	1.5	1.5	98%	0.5	0	5
126.5	128.0	1.5	1.5	98%	0.5	0	5
126.5	128.0	1.5	1.5	98%	0.5	0	5
128.0	129.5	1.5	1.4	92%	0.2	0	5
128.0	129.5	1.5	1.4	92%	0.2	0	5
128.0	129.5	1.5	1.4	92%	0.2	0	5
128.0	129.5	1.5	1.4	92%	0.2	0	5
129.5	131.1	1.5	1.5	98%	0.0	0	5
129.5	131.1	1.5	1.5	98%	0.0	0	5
129.5	131.1	1.5	1.5	98%	0.0	0	5
129.5	131.1	1.5	1.5	98%	0.0	0	5
131.1	132.6	1.5	1.4	92%	0.3	0	5
131.1	132.6	1.5	1.4	92%	0.3	0	5
131.1	132.6	1.5	1.4	92%	0.3	0	5
131.1	132.6	1.5	1.4	92%	0.3	0	5
132.6	134.1	1.5	1.5	100%	0.5	0	5
132.6	134.1	1.5	1.5	100%	0.5	0	5
132.6	134.1	1.5	1.5	100%	0.5	0	5
132.6	134.1	1.5	1.5	100%	0.5	0	5
134.1	135.6	1.5	1.4	93%	0.6	0	5
134.1	135.6	1.5	1.4	93%	0.6	0	5
134.1	135.6	1.5	1.4	93%	0.6	0	5
134.1	135.6	1.5	1.4	93%	0.6	0	5
135.6	137.2	1.5	1.4	92%	0.8	1	5
135.6	137.2	1.5	1.4	92%	0.8	1	5
135.6	137.2	1.5	1.4	92%	0.8	1	5

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-05

Northing: 15582.3 **Total Depth:** 442.1 **m**

Easting: 13639.6 **Azimuth** 0.0 °

Drilled: 7/9/2006

Elevation: 1568 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
135.6	137.2	1.5	1.4	92%	0.8	1	5
137.2	138.7	1.5	1.4	92%	0.7	0	5
137.2	138.7	1.5	1.4	92%	0.7	0	5
137.2	138.7	1.5	1.4	92%	0.7	0	5
137.2	138.7	1.5	1.4	92%	0.7	0	5
138.7	140.2	1.5	1.4	92%	0.5	0	5
138.7	140.2	1.5	1.4	92%	0.5	0	5
138.7	140.2	1.5	1.4	92%	0.5	0	5
138.7	140.2	1.5	1.4	92%	0.5	0	5
140.2	141.7	1.5	1.5	98%	0.6	0	5
140.2	141.7	1.5	1.5	98%	0.6	0	5
140.2	141.7	1.5	1.5	98%	0.6	0	5
140.2	141.7	1.5	1.5	98%	0.6	0	5
141.7	143.3	1.5	1.4	92%	0.5	0	5
141.7	143.3	1.5	1.4	92%	0.5	0	5
141.7	143.3	1.5	1.4	92%	0.5	0	5
141.7	143.3	1.5	1.4	92%	0.5	0	5
143.3	144.8	1.5	1.4	92%	0.3	0	5
143.3	144.8	1.5	1.4	92%	0.3	0	5
143.3	144.8	1.5	1.4	92%	0.3	0	5
143.3	144.8	1.5	1.4	92%	0.3	0	5
144.8	146.3	1.5	1.5	98%	0.7	0	5
144.8	146.3	1.5	1.5	98%	0.7	0	5
144.8	146.3	1.5	1.5	98%	0.7	0	5
144.8	146.3	1.5	1.5	98%	0.7	0	5
146.3	147.8	1.5	1.4	92%	0.3	0	5
146.3	147.8	1.5	1.4	92%	0.3	0	5
146.3	147.8	1.5	1.4	92%	0.3	0	5
146.3	147.8	1.5	1.4	92%	0.3	0	5
147.8	149.4	1.5	1.4	92%	0.2	0	5
147.8	149.4	1.5	1.4	92%	0.2	0	5
147.8	149.4	1.5	1.4	92%	0.2	0	5
147.8	149.4	1.5	1.4	92%	0.2	0	5
149.4	150.9	1.5	1.5	98%	0.3	0	5

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-05

Northing: 15582.3 **Total Depth:** 442.1 **m**

Easting: 13639.6 **Azimuth** 0.0 °

Drilled: 7/9/2006

Elevation: 1568 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
149.4	150.9	1.5	1.5	98%	0.3	0	5
149.4	150.9	1.5	1.5	98%	0.3	0	5
149.4	150.9	1.5	1.5	98%	0.3	0	5
150.9	152.4	1.5	1.5	98%	0.8	1	5
150.9	152.4	1.5	1.5	98%	0.8	1	5
150.9	152.4	1.5	1.5	98%	0.8	1	5
150.9	152.4	1.5	1.5	98%	0.8	1	5
152.4	153.9	1.5	1.2	79%	0.6	0	5
152.4	153.9	1.5	1.2	79%	0.6	0	5
152.4	153.9	1.5	1.2	79%	0.6	0	5
152.4	153.9	1.5	1.2	79%	0.6	0	5
153.9	155.4	1.5	1.8	118%	1.2	1	5
153.9	155.4	1.5	1.8	118%	1.2	1	5
153.9	155.4	1.5	1.8	118%	1.2	1	5
153.9	155.4	1.5	1.8	118%	1.2	1	5
155.4	157.0	1.5	1.5	96%	0.4	0	5
155.4	157.0	1.5	1.5	96%	0.4	0	5
155.4	157.0	1.5	1.5	96%	0.4	0	5
155.4	157.0	1.5	1.5	96%	0.4	0	5
157.0	158.5	1.5	1.5	97%	0.7	0	5
157.0	158.5	1.5	1.5	97%	0.7	0	5
157.0	158.5	1.5	1.5	97%	0.7	0	5
157.0	158.5	1.5	1.5	97%	0.7	0	5
158.5	160.0	1.5	1.5	98%	0.6	0	5
158.5	160.0	1.5	1.5	98%	0.6	0	5
158.5	160.0	1.5	1.5	98%	0.6	0	5
158.5	160.0	1.5	1.5	98%	0.6	0	5
160.0	161.5	1.5	1.5	98%	1.0	1	5
160.0	161.5	1.5	1.5	98%	1.0	1	5
160.0	161.5	1.5	1.5	98%	1.0	1	5
160.0	161.5	1.5	1.5	98%	1.0	1	5
161.5	163.1	1.5	1.5	98%	1.0	1	5
161.5	163.1	1.5	1.5	98%	1.0	1	5
161.5	163.1	1.5	1.5	98%	1.0	1	5

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-05

Northing: 15582.3 **Total Depth:** 442.1 **m**

Easting: 13639.6 **Azimuth** 0.0 °

Drilled: 7/9/2006

Elevation: 1568 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
161.5	163.1	1.5	1.5	98%	1.0	1	5
163.1	164.6	1.5	1.5	97%	1.2	1	5
163.1	164.6	1.5	1.5	97%	1.2	1	5
163.1	164.6	1.5	1.5	97%	1.2	1	5
163.1	164.6	1.5	1.5	97%	1.2	1	5
164.6	166.1	1.5	1.4	92%	0.4	0	5
164.6	166.1	1.5	1.4	92%	0.4	0	5
164.6	166.1	1.5	1.4	92%	0.4	0	5
164.6	166.1	1.5	1.4	92%	0.4	0	5
166.1	167.6	1.5	1.6	102%	1.0	1	5
166.1	167.6	1.5	1.6	102%	1.0	1	5
166.1	167.6	1.5	1.6	102%	1.0	1	5
166.1	167.6	1.5	1.6	102%	1.0	1	5
167.6	169.2	1.5	1.5	97%	1.0	1	5
167.6	169.2	1.5	1.5	97%	1.0	1	5
167.6	169.2	1.5	1.5	97%	1.0	1	5
167.6	169.2	1.5	1.5	97%	1.0	1	5
169.2	170.7	1.5	1.6	102%	1.5	1	5
169.2	170.7	1.5	1.6	102%	1.5	1	5
169.2	170.7	1.5	1.6	102%	1.5	1	5
169.2	170.7	1.5	1.6	102%	1.5	1	5
170.7	172.2	1.5	1.5	100%	1.0	1	5
170.7	172.2	1.5	1.5	100%	1.0	1	5
170.7	172.2	1.5	1.5	100%	1.0	1	5
170.7	172.2	1.5	1.5	100%	1.0	1	5
172.2	173.7	1.5	1.6	103%	0.9	1	5
172.2	173.7	1.5	1.6	103%	0.9	1	5
172.2	173.7	1.5	1.6	103%	0.9	1	5
172.2	173.7	1.5	1.6	103%	0.9	1	5
173.7	175.3	1.5	1.5	100%	0.7	0	5
173.7	175.3	1.5	1.5	100%	0.7	0	5
173.7	175.3	1.5	1.5	100%	0.7	0	5
173.7	175.3	1.5	1.5	100%	0.7	0	5
175.3	176.8	1.5	1.5	98%	1.0	1	5

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-05

Northing: 15582.3 **Total Depth:** 442.1 **m**

Easting: 13639.6 **Azimuth** 0.0 °

Drilled: 7/9/2006

Elevation: 1568 **Dip** -90 °

From (m)	To (m)	Run (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness
175.3	176.8	1.5	1.5	98%	1.0	1	5
175.3	176.8	1.5	1.5	98%	1.0	1	5
175.3	176.8	1.5	1.5	98%	1.0	1	5
176.8	178.3	1.5	1.6	104%	0.7	0	5
176.8	178.3	1.5	1.6	104%	0.7	0	5
176.8	178.3	1.5	1.6	104%	0.7	0	5
176.8	178.3	1.5	1.6	104%	0.7	0	5
178.3	179.8	1.5	1.5	100%	1.1	1	5
178.3	179.8	1.5	1.5	100%	1.1	1	5
178.3	179.8	1.5	1.5	100%	1.1	1	5
178.3	179.8	1.5	1.5	100%	1.1	1	5
179.8	181.4	1.5	1.5	100%	0.7	0	5
179.8	181.4	1.5	1.5	100%	0.7	0	5
179.8	181.4	1.5	1.5	100%	0.7	0	5
179.8	181.4	1.5	1.5	100%	0.7	0	5
181.4	182.9	1.5	1.5	98%	0.9	1	5
181.4	182.9	1.5	1.5	98%	0.9	1	5
181.4	182.9	1.5	1.5	98%	0.9	1	5
181.4	182.9	1.5	1.5	98%	0.9	1	5
182.9	184.4	1.5	1.4	93%	1.3	1	5
182.9	184.4	1.5	1.4	93%	1.3	1	5
182.9	184.4	1.5	1.4	93%	1.3	1	5
182.9	184.4	1.5	1.4	93%	1.3	1	5
184.4	185.9	1.5	1.6	105%	0.4	0	5
184.4	185.9	1.5	1.6	105%	0.4	0	5
184.4	185.9	1.5	1.6	105%	0.4	0	5
184.4	185.9	1.5	1.6	105%	0.4	0	5
185.9	187.5	1.5	1.5	97%	0.5	0	5
185.9	187.5	1.5	1.5	97%	0.5	0	5
185.9	187.5	1.5	1.5	97%	0.5	0	5
185.9	187.5	1.5	1.5	97%	0.5	0	5
187.5	189.0	1.5	1.4	94%	0.5	0	4
187.5	189.0	1.5	1.4	94%	0.5	0	4
187.5	189.0	1.5	1.4	94%	0.5	0	4

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-05

Northing: 15582.3 **Total Depth:** 442.1 **m**

Easting: 13639.6 **Azimuth** 0.0 °

Drilled: 7/9/2006

Elevation: 1568 **Dip** -90 °

From (m)	To (m)	Run (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness
187.5	189.0	1.5	1.4	94%	0.5	0	4
189.0	190.5	1.5	1.5	97%	0.4	0	4
189.0	190.5	1.5	1.5	97%	0.4	0	4
189.0	190.5	1.5	1.5	97%	0.4	0	4
189.0	190.5	1.5	1.5	97%	0.4	0	4
190.5	192.0	1.5	1.6	102%	0.3	0	4
190.5	192.0	1.5	1.6	102%	0.3	0	4
190.5	192.0	1.5	1.6	102%	0.3	0	4
190.5	192.0	1.5	1.6	102%	0.3	0	4
192.0	193.5	1.5	1.4	94%	0.3	0	4
192.0	193.5	1.5	1.4	94%	0.3	0	4
192.0	193.5	1.5	1.4	94%	0.3	0	4
192.0	193.5	1.5	1.4	94%	0.3	0	4
193.5	195.1	1.5	1.5	95%	0.3	0	4
193.5	195.1	1.5	1.5	95%	0.3	0	4
193.5	195.1	1.5	1.5	95%	0.3	0	4
193.5	195.1	1.5	1.5	95%	0.3	0	4
195.1	196.6	1.5	1.5	98%	0.7	0	4
195.1	196.6	1.5	1.5	98%	0.7	0	4
195.1	196.6	1.5	1.5	98%	0.7	0	4
195.1	196.6	1.5	1.5	98%	0.7	0	4
196.6	198.1	1.5	1.5	98%	1.3	1	5
196.6	198.1	1.5	1.5	98%	1.3	1	5
196.6	198.1	1.5	1.5	98%	1.3	1	5
196.6	198.1	1.5	1.5	98%	1.3	1	5
198.1	199.6	1.5	1.5	100%	0.7	0	5
198.1	199.6	1.5	1.5	100%	0.7	0	5
198.1	199.6	1.5	1.5	100%	0.7	0	5
198.1	199.6	1.5	1.5	100%	0.7	0	5
199.6	201.2	1.5	1.5	98%	1.0	1	5
199.6	201.2	1.5	1.5	98%	1.0	1	5
199.6	201.2	1.5	1.5	98%	1.0	1	5
199.6	201.2	1.5	1.5	98%	1.0	1	5
201.2	202.7	1.5	1.4	92%	0.8	1	5

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-05

Northing: 15582.3 **Total Depth:** 442.1 **m**

Easting: 13639.6 **Azimuth** 0.0 °

Drilled: 7/9/2006

Elevation: 1568 **Dip** -90 °

From (m)	To (m)	Run (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness
201.2	202.7	1.5	1.4	92%	0.8	1	5
201.2	202.7	1.5	1.4	92%	0.8	1	5
201.2	202.7	1.5	1.4	92%	0.8	1	5
202.7	204.2	1.5	1.5	98%	1.3	1	5
202.7	204.2	1.5	1.5	98%	1.3	1	5
202.7	204.2	1.5	1.5	98%	1.3	1	5
202.7	204.2	1.5	1.5	98%	1.3	1	5
204.2	205.7	1.5	1.6	105%	1.1	1	5
204.2	205.7	1.5	1.6	105%	1.1	1	5
204.2	205.7	1.5	1.6	105%	1.1	1	5
204.2	205.7	1.5	1.6	105%	1.1	1	5
205.7	207.3	1.5	1.3	85%	0.9	1	5
205.7	207.3	1.5	1.3	85%	0.9	1	5
205.7	207.3	1.5	1.3	85%	0.9	1	5
205.7	207.3	1.5	1.3	85%	0.9	1	5
207.3	208.8	1.5	1.5	98%	1.1	1	5
207.3	208.8	1.5	1.5	98%	1.1	1	5
207.3	208.8	1.5	1.5	98%	1.1	1	5
207.3	208.8	1.5	1.5	98%	1.1	1	5
208.8	210.3	1.5	1.4	92%	0.8	1	5
208.8	210.3	1.5	1.4	92%	0.8	1	5
208.8	210.3	1.5	1.4	92%	0.8	1	5
208.8	210.3	1.5	1.4	92%	0.8	1	5
210.3	211.8	1.5	1.5	98%	1.0	1	5
210.3	211.8	1.5	1.5	98%	1.0	1	5
210.3	211.8	1.5	1.5	98%	1.0	1	5
210.3	211.8	1.5	1.5	98%	1.0	1	5
211.8	213.4	1.5	1.4	92%	0.3	0	5
211.8	213.4	1.5	1.4	92%	0.3	0	5
211.8	213.4	1.5	1.4	92%	0.3	0	5
211.8	213.4	1.5	1.4	92%	0.3	0	5
213.4	214.9	1.5	1.5	98%	0.6	0	5
213.4	214.9	1.5	1.5	98%	0.6	0	5
213.4	214.9	1.5	1.5	98%	0.6	0	5

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-05

Northing: 15582.3 **Total Depth:** 442.1 **m**

Easting: 13639.6 **Azimuth** 0.0 °

Drilled: 7/9/2006

Elevation: 1568 **Dip** -90 °

From (m)	To (m)	Run (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness
213.4	214.9	1.5	1.5	98%	0.6	0	5
214.9	216.4	1.5	1.5	98%	0.9	1	5
214.9	216.4	1.5	1.5	98%	0.9	1	5
214.9	216.4	1.5	1.5	98%	0.9	1	5
214.9	216.4	1.5	1.5	98%	0.9	1	5
216.4	217.9	1.5	1.5	98%	0.9	1	5
216.4	217.9	1.5	1.5	98%	0.9	1	5
216.4	217.9	1.5	1.5	98%	0.9	1	5
216.4	217.9	1.5	1.5	98%	0.9	1	5
217.9	219.5	1.5	1.5	98%	0.9	1	5
217.9	219.5	1.5	1.5	98%	0.9	1	5
217.9	219.5	1.5	1.5	98%	0.9	1	5
217.9	219.5	1.5	1.5	98%	0.9	1	5
219.5	221.0	1.5	1.5	98%	0.9	1	5
219.5	221.0	1.5	1.5	98%	0.9	1	5
219.5	221.0	1.5	1.5	98%	0.9	1	5
219.5	221.0	1.5	1.5	98%	0.9	1	5
221.0	224.0	3.0					0
221.0	224.0	3.0					0
221.0	224.0	3.0					0
221.0	224.0	3.0					0
224.0	227.1	3.0					0
224.0	227.1	3.0					0
224.0	227.1	3.0					0
224.0	227.1	3.0					0
227.1	230.1	3.0	3.0	98%	2.3	1	0
227.1	230.1	3.0	3.0	98%	2.3	1	0
227.1	230.1	3.0	3.0	98%	2.3	1	0
227.1	230.1	3.0	3.0	98%	2.3	1	0
230.1	233.2	3.0	2.9	95%	2.1	1	0
230.1	233.2	3.0	2.9	95%	2.1	1	0
230.1	233.2	3.0	2.9	95%	2.1	1	0
230.1	233.2	3.0	2.9	95%	2.1	1	0
233.2	236.2	3.0	2.9	95%	2.1	1	0

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-05

Northing: 15582.3 **Total Depth:** 442.1 **m**

Easting: 13639.6 **Azimuth** 0.0 °

Drilled: 7/9/2006

Elevation: 1568 **Dip** -90 °

From (m)	To (m)	Run (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness
233.2	236.2	3.0	2.9	95%	2.1	1	0
233.2	236.2	3.0	2.9	95%	2.1	1	0
233.2	236.2	3.0	2.9	95%	2.1	1	0
236.2	239.3	3.0	2.9	95%	2.1	1	0
236.2	239.3	3.0	2.9	95%	2.1	1	0
236.2	239.3	3.0	2.9	95%	2.1	1	0
236.2	239.3	3.0	2.9	95%	2.1	1	0
239.3	242.3	3.0	3.0	98%	1.5	0	0
239.3	242.3	3.0	3.0	98%	1.5	0	0
239.3	242.3	3.0	3.0	98%	1.5	0	0
239.3	242.3	3.0	3.0	98%	1.5	0	0
242.3	245.4	3.0	3.0	98%	1.9	1	0
242.3	245.4	3.0	3.0	98%	1.9	1	0
242.3	245.4	3.0	3.0	98%	1.9	1	0
242.3	245.4	3.0	3.0	98%	1.9	1	0
245.4	248.4	3.0	2.9	95%	1.3	0	4
245.4	248.4	3.0	2.9	95%	1.3	0	4
245.4	248.4	3.0	2.9	95%	1.3	0	4
245.4	248.4	3.0	2.9	95%	1.3	0	4
248.4	251.5	3.0	2.7	89%	0.6	0	4
248.4	251.5	3.0	2.7	89%	0.6	0	4
248.4	251.5	3.0	2.7	89%	0.6	0	4
248.4	251.5	3.0	2.7	89%	0.6	0	4
251.5	254.5	3.0	3.0	98%	1.6	1	4
251.5	254.5	3.0	3.0	98%	1.6	1	4
251.5	254.5	3.0	3.0	98%	1.6	1	4
251.5	254.5	3.0	3.0	98%	1.6	1	4
254.5	257.6	3.0	3.0	98%	1.9	1	4
254.5	257.6	3.0	3.0	98%	1.9	1	4
254.5	257.6	3.0	3.0	98%	1.9	1	4
254.5	257.6	3.0	3.0	98%	1.9	1	4
257.6	260.6	3.0	3.2	105%	2.1	1	4
257.6	260.6	3.0	3.2	105%	2.1	1	4
257.6	260.6	3.0	3.2	105%	2.1	1	4

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-05

Northing: 15582.3 **Total Depth:** 442.1 **m**

Easting: 13639.6 **Azimuth** 0.0 °

Drilled: 7/9/2006

Elevation: 1568 **Dip** -90 °

From (m)	To (m)	Run (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness
257.6	260.6	3.0	3.2	105%	2.1	1	4
260.6	263.7	3.0	2.5	80%	2.0	1	4
260.6	263.7	3.0	2.5	80%	2.0	1	4
260.6	263.7	3.0	2.5	80%	2.0	1	4
260.6	263.7	3.0	2.5	80%	2.0	1	4
263.7	266.7	3.0	2.7	89%	1.6	1	4
263.7	266.7	3.0	2.7	89%	1.6	1	4
263.7	266.7	3.0	2.7	89%	1.6	1	4
263.7	266.7	3.0	2.7	89%	1.6	1	4
266.7	269.7	3.0	2.8	90%	0.8	0	4
266.7	269.7	3.0	2.8	90%	0.8	0	4
266.7	269.7	3.0	2.8	90%	0.8	0	4
266.7	269.7	3.0	2.8	90%	0.8	0	4
269.7	272.8	3.0	2.9	95%	1.2	0	4
269.7	272.8	3.0	2.9	95%	1.2	0	4
269.7	272.8	3.0	2.9	95%	1.2	0	4
269.7	272.8	3.0	2.9	95%	1.2	0	4
272.8	275.8	3.0	3.0	98%	1.1	0	4
272.8	275.8	3.0	3.0	98%	1.1	0	4
272.8	275.8	3.0	3.0	98%	1.1	0	4
272.8	275.8	3.0	3.0	98%	1.1	0	4
275.8	278.9	3.0	2.0	66%	0.3	0	3
275.8	278.9	3.0	2.0	66%	0.3	0	3
275.8	278.9	3.0	2.0	66%	0.3	0	3
275.8	278.9	3.0	2.0	66%	0.3	0	3
278.9	281.9	3.0	3.5	115%	0.3	0	3
278.9	281.9	3.0	3.5	115%	0.3	0	3
278.9	281.9	3.0	3.5	115%	0.3	0	3
278.9	281.9	3.0	3.5	115%	0.3	0	3
281.9	285.0	3.0	3.0	98%	0.5	0	3
281.9	285.0	3.0	3.0	98%	0.5	0	3
281.9	285.0	3.0	3.0	98%	0.5	0	3
281.9	285.0	3.0	3.0	98%	0.5	0	3
285.0	288.0	3.0	3.0	98%	0.5	0	3

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-05

Northing: 15582.3 **Total Depth:** 442.1 **m**

Easting: 13639.6 **Azimuth** 0.0 °

Drilled: 7/9/2006

Elevation: 1568 **Dip** -90 °

From (m)	To (m)	Run (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness
285.0	288.0	3.0	3.0	98%	0.5	0	3
285.0	288.0	3.0	3.0	98%	0.5	0	3
285.0	288.0	3.0	3.0	98%	0.5	0	3
288.0	291.1	3.0	2.9	95%	0.8	0	3
288.0	291.1	3.0	2.9	95%	0.8	0	3
288.0	291.1	3.0	2.9	95%	0.8	0	3
288.0	291.1	3.0	2.9	95%	0.8	0	3
291.1	294.1	3.0	3.0	98%	1.6	1	3
291.1	294.1	3.0	3.0	98%	1.6	1	3
291.1	294.1	3.0	3.0	98%	1.6	1	3
291.1	294.1	3.0	3.0	98%	1.6	1	3
294.1	297.2	3.0	3.0	98%	0.8	0	3
294.1	297.2	3.0	3.0	98%	0.8	0	3
294.1	297.2	3.0	3.0	98%	0.8	0	3
294.1	297.2	3.0	3.0	98%	0.8	0	3
297.2	300.2	3.0	3.0	98%	1.4	0	3
297.2	300.2	3.0	3.0	98%	1.4	0	3
297.2	300.2	3.0	3.0	98%	1.4	0	3
297.2	300.2	3.0	3.0	98%	1.4	0	3
300.2	303.3	3.0	3.0	98%	0.8	0	3
300.2	303.3	3.0	3.0	98%	0.8	0	3
300.2	303.3	3.0	3.0	98%	0.8	0	3
300.2	303.3	3.0	3.0	98%	0.8	0	3
303.3	306.3	3.0	3.0	98%	0.2	0	3
303.3	306.3	3.0	3.0	98%	0.2	0	3
303.3	306.3	3.0	3.0	98%	0.2	0	3
303.3	306.3	3.0	3.0	98%	0.2	0	3
306.3	309.4	3.0	3.0	98%	0.4	0	3
306.3	309.4	3.0	3.0	98%	0.4	0	3
306.3	309.4	3.0	3.0	98%	0.4	0	3
306.3	309.4	3.0	3.0	98%	0.4	0	3
309.4	310.9	1.5	1.5	96%	0.2	0	3
309.4	310.9	1.5	1.5	96%	0.2	0	3
309.4	310.9	1.5	1.5	96%	0.2	0	3

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-05

Northing: 15582.3 **Total Depth:** 442.1 **m**

Easting: 13639.6 **Azimuth** 0.0 °

Drilled: 7/9/2006

Elevation: 1568 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
309.4	310.9	1.5	1.5	96%	0.2	0	3
310.9	313.9	3.0	3.0	97%	0.6	0	3
310.9	313.9	3.0	3.0	97%	0.6	0	3
310.9	313.9	3.0	3.0	97%	0.6	0	3
310.9	313.9	3.0	3.0	97%	0.6	0	3
313.9	317.0	3.0	3.0	99%	0.9	0	3
313.9	317.0	3.0	3.0	99%	0.9	0	3
313.9	317.0	3.0	3.0	99%	0.9	0	3
313.9	317.0	3.0	3.0	99%	0.9	0	3
317.0	320.0	3.0	2.9	94%	0.5	0	3
317.0	320.0	3.0	2.9	94%	0.5	0	3
317.0	320.0	3.0	2.9	94%	0.5	0	3
317.0	320.0	3.0	2.9	94%	0.5	0	3
320.0	321.6	1.5	1.5	98%	0.1	0	3
320.0	321.6	1.5	1.5	98%	0.1	0	3
320.0	321.6	1.5	1.5	98%	0.1	0	3
320.0	321.6	1.5	1.5	98%	0.1	0	3
321.6	324.6	3.0	2.9	96%	1.1	0	4
321.6	324.6	3.0	2.9	96%	1.1	0	4
321.6	324.6	3.0	2.9	96%	1.1	0	4
321.6	324.6	3.0	2.9	96%	1.1	0	4
324.6	327.7	3.0	3.0	97%	0.3	0	4
324.6	327.7	3.0	3.0	97%	0.3	0	4
324.6	327.7	3.0	3.0	97%	0.3	0	4
324.6	327.7	3.0	3.0	97%	0.3	0	4
327.7	330.7	3.0	3.0	99%	1.0	0	4
327.7	330.7	3.0	3.0	99%	1.0	0	4
327.7	330.7	3.0	3.0	99%	1.0	0	4
327.7	330.7	3.0	3.0	99%	1.0	0	4
330.7	333.8	3.0	3.0	98%	0.6	0	4
330.7	333.8	3.0	3.0	98%	0.6	0	4
330.7	333.8	3.0	3.0	98%	0.6	0	4
330.7	333.8	3.0	3.0	98%	0.6	0	4
333.8	336.8	3.0	3.0	97%	0.7	0	4

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-05

Northing: 15582.3 **Total Depth:** 442.1 **m**

Easting: 13639.6 **Azimuth** 0.0 °

Drilled: 7/9/2006

Elevation: 1568 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
333.8	336.8	3.0	3.0	97%	0.7	0	4
333.8	336.8	3.0	3.0	97%	0.7	0	4
333.8	336.8	3.0	3.0	97%	0.7	0	4
336.8	339.9	3.0	3.0	97%	0.3	0	4
336.8	339.9	3.0	3.0	97%	0.3	0	4
336.8	339.9	3.0	3.0	97%	0.3	0	4
336.8	339.9	3.0	3.0	97%	0.3	0	4
339.9	342.9	3.0	3.0	97%	0.4	0	4
339.9	342.9	3.0	3.0	97%	0.4	0	4
339.9	342.9	3.0	3.0	97%	0.4	0	4
339.9	342.9	3.0	3.0	97%	0.4	0	4
342.9	345.9	3.0	2.8	93%	0.7	0	4
342.9	345.9	3.0	2.8	93%	0.7	0	4
342.9	345.9	3.0	2.8	93%	0.7	0	4
342.9	345.9	3.0	2.8	93%	0.7	0	4
345.9	349.0	3.0	3.0	97%	0.4	0	4
345.9	349.0	3.0	3.0	97%	0.4	0	4
345.9	349.0	3.0	3.0	97%	0.4	0	4
345.9	349.0	3.0	3.0	97%	0.4	0	4
349.0	352.0	3.0	3.0	97%	0.5	0	4
349.0	352.0	3.0	3.0	97%	0.5	0	4
349.0	352.0	3.0	3.0	97%	0.5	0	4
349.0	352.0	3.0	3.0	97%	0.5	0	4
352.0	355.1	3.0	3.0	98%	0.7	0	4
352.0	355.1	3.0	3.0	98%	0.7	0	4
352.0	355.1	3.0	3.0	98%	0.7	0	4
352.0	355.1	3.0	3.0	98%	0.7	0	4
355.1	356.6	1.5	1.5	98%	0.8	1	4
355.1	356.6	1.5	1.5	98%	0.8	1	4
355.1	356.6	1.5	1.5	98%	0.8	1	4
355.1	356.6	1.5	1.5	98%	0.8	1	4
356.6	359.7	3.0	3.0	98%	1.1	0	5
356.6	359.7	3.0	3.0	98%	1.1	0	5
356.6	359.7	3.0	3.0	98%	1.1	0	5

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-05

Northing: 15582.3 **Total Depth:** 442.1 **m**

Easting: 13639.6 **Azimuth** 0.0 °

Drilled: 7/9/2006

Elevation: 1568 **Dip** -90 °

From (m)	To (m)	Run (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness
356.6	359.7	3.0	3.0	98%	1.1	0	5
359.7	362.7	3.0	3.0	97%	0.9	0	4
359.7	362.7	3.0	3.0	97%	0.9	0	4
359.7	362.7	3.0	3.0	97%	0.9	0	4
359.7	362.7	3.0	3.0	97%	0.9	0	4
362.7	365.8	3.0	3.0	99%	1.3	0	4
362.7	365.8	3.0	3.0	99%	1.3	0	4
362.7	365.8	3.0	3.0	99%	1.3	0	4
362.7	365.8	3.0	3.0	99%	1.3	0	4
365.8	368.8	3.0	3.0	98%	0.9	0	5
365.8	368.8	3.0	3.0	98%	0.9	0	5
365.8	368.8	3.0	3.0	98%	0.9	0	5
365.8	368.8	3.0	3.0	98%	0.9	0	5
368.8	371.9	3.0	3.0	99%	0.6	0	5
368.8	371.9	3.0	3.0	99%	0.6	0	5
368.8	371.9	3.0	3.0	99%	0.6	0	5
368.8	371.9	3.0	3.0	99%	0.6	0	5
371.9	374.9	3.0	3.0	98%	1.1	0	4
371.9	374.9	3.0	3.0	98%	1.1	0	4
371.9	374.9	3.0	3.0	98%	1.1	0	4
371.9	374.9	3.0	3.0	98%	1.1	0	4
374.9	378.0	3.0	3.0	99%	0.4	0	4
374.9	378.0	3.0	3.0	99%	0.4	0	4
374.9	378.0	3.0	3.0	99%	0.4	0	4
374.9	378.0	3.0	3.0	99%	0.4	0	4
378.0	381.0	3.0	3.0	97%	0.8	0	4
378.0	381.0	3.0	3.0	97%	0.8	0	4
378.0	381.0	3.0	3.0	97%	0.8	0	4
378.0	381.0	3.0	3.0	97%	0.8	0	4
381.0	384.0	3.0	3.0	97%	0.0	0	4
381.0	384.0	3.0	3.0	97%	0.0	0	4
381.0	384.0	3.0	3.0	97%	0.0	0	4
381.0	384.0	3.0	3.0	97%	0.0	0	4
384.0	387.1	3.0	3.0	98%	0.6	0	4

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-05

Northing: 15582.3 **Total Depth:** 442.1 **m**

Easting: 13639.6 **Azimuth** 0.0 °

Drilled: 7/9/2006

Elevation: 1568 **Dip** -90 °

From (m)	To (m)	Run (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness
384.0	387.1	3.0	3.0	98%	0.6	0	4
384.0	387.1	3.0	3.0	98%	0.6	0	4
384.0	387.1	3.0	3.0	98%	0.6	0	4
387.1	390.1	3.0	2.9	94%	0.5	0	4
387.1	390.1	3.0	2.9	94%	0.5	0	4
387.1	390.1	3.0	2.9	94%	0.5	0	4
387.1	390.1	3.0	2.9	94%	0.5	0	4
390.1	393.2	3.0	3.0	97%	0.7	0	4
390.1	393.2	3.0	3.0	97%	0.7	0	4
390.1	393.2	3.0	3.0	97%	0.7	0	4
390.1	393.2	3.0	3.0	97%	0.7	0	4
393.2	396.2	3.0	3.0	98%	0.6	0	4
393.2	396.2	3.0	3.0	98%	0.6	0	4
393.2	396.2	3.0	3.0	98%	0.6	0	4
393.2	396.2	3.0	3.0	98%	0.6	0	4
396.2	399.3	3.0	2.9	96%	0.7	0	4
396.2	399.3	3.0	2.9	96%	0.7	0	4
396.2	399.3	3.0	2.9	96%	0.7	0	4
396.2	399.3	3.0	2.9	96%	0.7	0	4
399.3	402.3	3.0	3.0	98%	0.8	0	4
399.3	402.3	3.0	3.0	98%	0.8	0	4
399.3	402.3	3.0	3.0	98%	0.8	0	4
399.3	402.3	3.0	3.0	98%	0.8	0	4
402.3	405.4	3.0	3.0	98%	0.9	0	4
402.3	405.4	3.0	3.0	98%	0.9	0	4
402.3	405.4	3.0	3.0	98%	0.9	0	4
402.3	405.4	3.0	3.0	98%	0.9	0	4
405.4	408.4	3.0	3.0	98%	0.1	0	4
405.4	408.4	3.0	3.0	98%	0.1	0	4
405.4	408.4	3.0	3.0	98%	0.1	0	4
405.4	408.4	3.0	3.0	98%	0.1	0	4
408.4	411.5	3.0	2.8	92%	0.6	0	4
408.4	411.5	3.0	2.8	92%	0.6	0	4
408.4	411.5	3.0	2.8	92%	0.6	0	4

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-05

Northing: 15582.3 **Total Depth:** 442.1 **m**

Easting: 13639.6 **Azimuth** 0.0 °

Drilled: 7/9/2006

Elevation: 1568 **Dip** -90 °

From (m)	To (m)	Run (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness
408.4	411.5	3.0	2.8	92%	0.6	0	4
411.5	414.5	3.0	2.9	95%	0.1	0	4
411.5	414.5	3.0	2.9	95%	0.1	0	4
411.5	414.5	3.0	2.9	95%	0.1	0	4
411.5	414.5	3.0	2.9	95%	0.1	0	4
414.5	417.6	3.0	3.1	102%	0.9	0	4
414.5	417.6	3.0	3.1	102%	0.9	0	4
414.5	417.6	3.0	3.1	102%	0.9	0	4
414.5	417.6	3.0	3.1	102%	0.9	0	4
417.6	420.6	3.0	2.9	95%	1.4	0	5
417.6	420.6	3.0	2.9	95%	1.4	0	5
417.6	420.6	3.0	2.9	95%	1.4	0	5
417.6	420.6	3.0	2.9	95%	1.4	0	5
420.6	423.7	3.0	3.0	98%	1.3	0	5
420.6	423.7	3.0	3.0	98%	1.3	0	5
420.6	423.7	3.0	3.0	98%	1.3	0	5
420.6	423.7	3.0	3.0	98%	1.3	0	5
423.7	426.7	3.0	3.0	98%	1.3	0	5
423.7	426.7	3.0	3.0	98%	1.3	0	5
423.7	426.7	3.0	3.0	98%	1.3	0	5
423.7	426.7	3.0	3.0	98%	1.3	0	5
426.7	429.8	3.0	3.0	98%	1.8	1	5
426.7	429.8	3.0	3.0	98%	1.8	1	5
426.7	429.8	3.0	3.0	98%	1.8	1	5
426.7	429.8	3.0	3.0	98%	1.8	1	5
429.8	432.8	3.0	2.8	92%	1.4	0	5
429.8	432.8	3.0	2.8	92%	1.4	0	5
429.8	432.8	3.0	2.8	92%	1.4	0	5
429.8	432.8	3.0	2.8	92%	1.4	0	5
432.8	435.9	3.0	2.9	96%	1.1	0	5
432.8	435.9	3.0	2.9	96%	1.1	0	5
432.8	435.9	3.0	3.0	98%	1.9	1	5
432.8	435.9	3.0	3.0	98%	1.9	1	5
432.8	435.9	3.0	3.0	98%	1.9	1	5

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-05

Northing: 15582.3 **Total Depth:** 442.1 **m**

Easting: 13639.6 **Azimuth** 0.0 °

Drilled: 7/9/2006

Elevation: 1568 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
432.8	435.9	3.0	3.0	98%	1.9	1	5
432.8	435.9	3.0	2.9	96%	1.1	0	5
432.8	435.9	3.0	2.9	96%	1.1	0	5
435.9	438.9	3.0	2.9	94%	0.5	0	5
435.9	438.9	3.0	2.9	94%	0.5	0	5
435.9	438.9	3.0	2.9	94%	0.5	0	5
435.9	438.9	3.0	2.9	94%	0.5	0	5
438.9	440.4	1.5	1.4	92%	0.3	0	5
438.9	440.4	1.5	1.4	92%	0.3	0	5
438.9	440.4	1.5	1.4	92%	0.3	0	5
438.9	440.4	1.5	1.4	92%	0.3	0	5

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-07

Northing: 15972.6 **Total Depth:** 623.9 **m**

Easting: 11492.1 **Azimuth** 0.0 °

Drilled: 7/31/2006

Elevation: 1915.2 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
0.0	587.3	3.0	3.0	99%	1.3	0	4
0.0	230.7	3.0	3.0	98%	2.0	1	3
0.0	587.3	3.0	3.0	99%	1.3	0	4
0.0	230.7	3.0	3.0	98%	2.0	1	3
0.0	230.7	3.0	3.0	98%	2.0	1	3
0.0	587.3	3.0	3.0	99%	1.3	0	4
0.0	230.7	3.0	3.0	98%	2.0	1	3
0.0	5.2	5.2	1.9	37%	0.0	0	3
5.2	8.2	3.0	2.8	92%	0.1	0	3
5.2	8.2	3.0	2.8	92%	0.1	0	3
5.2	8.2	3.0	2.8	92%	0.1	0	3
5.2	8.2	3.0	2.8	92%	0.1	0	3
8.2	11.3	3.0	2.9	95%	0.2	0	3
8.2	11.3	3.0	2.9	95%	0.2	0	3
8.2	11.3	3.0	2.9	95%	0.2	0	3
8.2	11.3	3.0	2.9	95%	0.2	0	3
11.3	14.3	3.0	2.9	95%	1.1	0	3
11.3	14.3	3.0	2.9	95%	1.1	0	3
11.3	14.3	3.0	2.9	95%	1.1	0	3
11.3	14.3	3.0	2.9	95%	1.1	0	3
14.3	17.4	3.0	3.0	98%	0.4	0	3
14.3	17.4	3.0	3.0	98%	0.4	0	3
14.3	17.4	3.0	3.0	98%	0.4	0	3
14.3	17.4	3.0	3.0	98%	0.4	0	3
17.4	20.4	3.0	2.8	92%	0.4	0	3
17.4	20.4	3.0	2.8	92%	0.4	0	3
17.4	20.4	3.0	2.8	92%	0.4	0	3
17.4	20.4	3.0	2.8	92%	0.4	0	3
20.4	23.5	3.0	3.0	98%	1.3	0	3
20.4	23.5	3.0	3.0	98%	1.3	0	3
20.4	23.5	3.0	3.0	98%	1.3	0	3
20.4	23.5	3.0	3.0	98%	1.3	0	3
23.5	26.5	3.0	3.1	102%	1.4	0	3
23.5	26.5	3.0	3.1	102%	1.4	0	3

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-07

Northing: 15972.6 **Total Depth:** 623.9 **m**

Easting: 11492.1 **Azimuth** 0.0 °

Drilled: 7/31/2006

Elevation: 1915.2 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
23.5	26.5	3.0	3.1	102%	1.4	0	3
23.5	26.5	3.0	3.1	102%	1.4	0	3
26.5	29.6	3.0	3.1	102%	1.4	0	3
26.5	29.6	3.0	3.1	102%	1.4	0	3
26.5	29.6	3.0	3.1	102%	1.4	0	3
26.5	29.6	3.0	3.1	102%	1.4	0	3
29.6	32.6	3.0	3.0	98%	0.4	0	3
29.6	32.6	3.0	3.0	98%	0.4	0	3
29.6	32.6	3.0	3.0	98%	0.4	0	3
29.6	32.6	3.0	3.0	98%	0.4	0	3
32.6	35.7	3.0	3.0	98%	1.1	0	3
32.6	35.7	3.0	3.0	98%	1.1	0	3
32.6	35.7	3.0	3.0	98%	1.1	0	3
32.6	35.7	3.0	3.0	98%	1.1	0	3
35.7	38.7	3.0	3.0	98%	1.7	1	3
35.7	38.7	3.0	3.0	98%	1.7	1	3
35.7	38.7	3.0	3.0	98%	1.7	1	3
35.7	38.7	3.0	3.0	98%	1.7	1	3
38.7	41.8	3.0	3.0	98%	1.0	0	3
38.7	41.8	3.0	3.0	98%	1.0	0	3
38.7	41.8	3.0	3.0	98%	1.0	0	3
38.7	41.8	3.0	3.0	98%	1.0	0	3
41.8	44.8	3.0	3.1	102%	1.7	1	3
41.8	44.8	3.0	3.1	102%	1.7	1	3
41.8	44.8	3.0	3.1	102%	1.7	1	3
41.8	44.8	3.0	3.1	102%	1.7	1	3
44.8	47.9	3.0	2.9	95%	2.2	1	3
44.8	47.9	3.0	2.9	95%	2.2	1	3
44.8	47.9	3.0	2.9	95%	2.2	1	3
44.8	47.9	3.0	2.9	95%	2.2	1	3
47.9	50.9	3.0	3.1	102%	1.9	1	3
47.9	50.9	3.0	3.1	102%	1.9	1	3
47.9	50.9	3.0	3.1	102%	1.9	1	3
47.9	50.9	3.0	3.1	102%	1.9	1	3

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-07

Northing: 15972.6 **Total Depth:** 623.9 **m**

Easting: 11492.1 **Azimuth** 0.0 °

Drilled: 7/31/2006

Elevation: 1915.2 **Dip** -90 °

From (m)	To (m)	Run (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness
50.9	53.9	3.0	3.0	98%	1.2	0	3
50.9	53.9	3.0	3.0	98%	1.2	0	3
50.9	53.9	3.0	3.0	98%	1.2	0	3
50.9	53.9	3.0	3.0	98%	1.2	0	3
53.9	57.0	3.0	3.0	98%	2.1	1	3
53.9	57.0	3.0	3.0	98%	2.1	1	3
53.9	57.0	3.0	3.0	98%	2.1	1	3
53.9	57.0	3.0	3.0	98%	2.1	1	3
57.0	60.0	3.0	3.0	98%	2.0	1	3
57.0	60.0	3.0	3.0	98%	2.0	1	3
57.0	60.0	3.0	3.0	98%	2.0	1	3
57.0	60.0	3.0	3.0	98%	2.0	1	3
60.0	63.1	3.0	3.0	98%	2.0	1	3
60.0	63.1	3.0	3.0	98%	2.0	1	3
60.0	63.1	3.0	3.0	98%	2.0	1	3
60.0	63.1	3.0	3.0	98%	2.0	1	3
63.1	66.1	3.0	3.0	98%	1.4	0	3
63.1	66.1	3.0	3.0	98%	1.4	0	3
63.1	66.1	3.0	3.0	98%	1.4	0	3
63.1	66.1	3.0	3.0	98%	1.4	0	3
66.1	69.2	3.0	2.9	95%	1.7	1	3
66.1	69.2	3.0	2.9	95%	1.7	1	3
66.1	69.2	3.0	2.9	95%	1.7	1	3
66.1	69.2	3.0	2.9	95%	1.7	1	3
69.2	72.2	3.0	2.9	95%	1.7	1	3
69.2	72.2	3.0	2.9	95%	1.7	1	3
69.2	72.2	3.0	2.9	95%	1.7	1	3
69.2	72.2	3.0	2.9	95%	1.7	1	3
72.2	75.3	3.0	3.0	98%	0.6	0	1
72.2	75.3	3.0	3.0	98%	0.6	0	1
72.2	75.3	3.0	3.0	98%	0.6	0	1
72.2	75.3	3.0	3.0	98%	0.6	0	1
75.3	78.3	3.0	2.8	92%	0.3	0	1
75.3	78.3	3.0	2.8	92%	0.3	0	1

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-07

Northing: 15972.6 **Total Depth:** 623.9 **m**

Easting: 11492.1 **Azimuth** 0.0 °

Drilled: 7/31/2006

Elevation: 1915.2 **Dip** -90 °

From (m)	To (m)	Run (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness
75.3	78.3	3.0	2.8	92%	0.3	0	1
75.3	78.3	3.0	2.8	92%	0.3	0	1
78.3	81.4	3.0	3.0	98%	2.4	1	3
78.3	81.4	3.0	3.0	98%	2.4	1	3
78.3	81.4	3.0	3.0	98%	2.4	1	3
78.3	81.4	3.0	3.0	98%	2.4	1	3
81.4	84.4	3.0	3.0	98%	1.5	0	3
81.4	84.4	3.0	3.0	98%	1.5	0	3
81.4	84.4	3.0	3.0	98%	1.5	0	3
81.4	84.4	3.0	3.0	98%	1.5	0	3
84.4	87.5	3.0	3.0	98%	2.3	1	3
84.4	87.5	3.0	3.0	98%	2.3	1	3
84.4	87.5	3.0	3.0	98%	2.3	1	3
84.4	87.5	3.0	3.0	98%	2.3	1	3
87.5	90.5	3.0	3.0	98%	2.1	1	3
87.5	90.5	3.0	3.0	98%	2.1	1	3
87.5	90.5	3.0	3.0	98%	2.1	1	3
87.5	90.5	3.0	3.0	98%	2.1	1	3
90.5	93.6	3.0	3.0	98%	1.5	0	3
90.5	93.6	3.0	3.0	98%	1.5	0	3
90.5	93.6	3.0	3.0	98%	1.5	0	3
90.5	93.6	3.0	3.0	98%	1.5	0	3
93.6	96.6	3.0	3.0	98%	1.3	0	3
93.6	96.6	3.0	3.0	98%	1.3	0	3
93.6	96.6	3.0	3.0	98%	1.3	0	3
93.6	96.6	3.0	3.0	98%	1.3	0	3
96.6	99.7	3.0	3.0	98%	1.5	0	3
96.6	99.7	3.0	3.0	98%	1.5	0	3
96.6	99.7	3.0	3.0	98%	1.5	0	3
96.6	99.7	3.0	3.0	98%	1.5	0	3
99.7	102.7	3.0	3.0	98%	2.0	1	3
99.7	102.7	3.0	3.0	98%	2.0	1	3
99.7	102.7	3.0	3.0	98%	2.0	1	3
99.7	102.7	3.0	3.0	98%	2.0	1	3

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-07

Northing: 15972.6 **Total Depth:** 623.9 **m**

Easting: 11492.1 **Azimuth** 0.0 °

Drilled: 7/31/2006

Elevation: 1915.2 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
102.7	105.8	3.0	3.0	98%	2.3	1	3
102.7	105.8	3.0	3.0	98%	2.3	1	3
102.7	105.8	3.0	3.0	98%	2.3	1	3
102.7	105.8	3.0	3.0	98%	2.3	1	3
105.8	108.8	3.0	3.0	98%	1.5	0	3
105.8	108.8	3.0	3.0	98%	1.5	0	3
105.8	108.8	3.0	3.0	98%	1.5	0	3
105.8	108.8	3.0	3.0	98%	1.5	0	3
108.8	111.9	3.0	3.0	98%	2.3	1	3
108.8	111.9	3.0	3.0	98%	2.3	1	3
108.8	111.9	3.0	3.0	98%	2.3	1	3
108.8	111.9	3.0	3.0	98%	2.3	1	3
111.9	114.9	3.0	3.1	103%	0.8	0	3
111.9	114.9	3.0	3.1	103%	0.8	0	3
111.9	114.9	3.0	3.1	103%	0.8	0	3
111.9	114.9	3.0	3.1	103%	0.8	0	3
114.9	118.0	3.1	2.9	94%	1.3	0	3
114.9	118.0	3.1	2.9	94%	1.3	0	3
114.9	118.0	3.1	2.9	94%	1.3	0	3
114.9	118.0	3.1	2.9	94%	1.3	0	3
118.0	121.0	3.0	3.0	100%	1.3	0	3
118.0	121.0	3.0	3.0	100%	1.3	0	3
118.0	121.0	3.0	3.0	100%	1.3	0	3
118.0	121.0	3.0	3.0	100%	1.3	0	3
121.0	124.1	3.1	2.9	94%	1.4	0	3
121.0	124.1	3.1	2.9	94%	1.4	0	3
121.0	124.1	3.1	2.9	94%	1.4	0	3
121.0	124.1	3.1	2.9	94%	1.4	0	3
124.1	127.1	3.0	3.0	98%	1.4	0	3
124.1	127.1	3.0	3.0	98%	1.4	0	3
124.1	127.1	3.0	3.0	98%	1.4	0	3
124.1	127.1	3.0	3.0	98%	1.4	0	3
127.1	130.2	3.0	3.0	98%	2.3	1	4
127.1	130.2	3.0	3.0	98%	2.3	1	4

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-07

Northing: 15972.6 **Total Depth:** 623.9 **m**

Easting: 11492.1 **Azimuth** 0.0 °

Drilled: 7/31/2006

Elevation: 1915.2 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
127.1	130.2	3.0	3.0	98%	2.3	1	4
127.1	130.2	3.0	3.0	98%	2.3	1	4
130.2	133.2	3.0	2.9	95%	2.4	1	4
130.2	133.2	3.0	2.9	95%	2.4	1	4
130.2	133.2	3.0	2.9	95%	2.4	1	4
130.2	133.2	3.0	2.9	95%	2.4	1	4
133.2	136.3	3.0	3.0	98%	1.3	0	3
133.2	136.3	3.0	3.0	98%	1.3	0	3
133.2	136.3	3.0	3.0	98%	1.3	0	3
133.2	136.3	3.0	3.0	98%	1.3	0	3
136.3	139.3	3.0	3.1	103%	1.7	1	4
136.3	139.3	3.0	3.1	103%	1.7	1	4
136.3	139.3	3.0	3.1	103%	1.7	1	4
136.3	139.3	3.0	3.1	103%	1.7	1	4
139.3	142.3	3.0	3.0	98%	1.0	0	2
139.3	142.3	3.0	3.0	98%	1.0	0	2
139.3	142.3	3.0	3.0	98%	1.0	0	2
139.3	142.3	3.0	3.0	98%	1.0	0	2
142.3	145.4	3.0	3.0	98%	1.4	0	3
142.3	145.4	3.0	3.0	98%	1.4	0	3
142.3	145.4	3.0	3.0	98%	1.4	0	3
142.3	145.4	3.0	3.0	98%	1.4	0	3
145.4	148.4	3.0	3.0	98%	1.8	1	3
145.4	148.4	3.0	3.0	98%	1.8	1	3
145.4	148.4	3.0	3.0	98%	1.8	1	3
145.4	148.4	3.0	3.0	98%	1.8	1	3
148.4	151.5	3.0	3.1	102%	1.6	1	3
148.4	151.5	3.0	3.1	102%	1.6	1	3
148.4	151.5	3.0	3.1	102%	1.6	1	3
148.4	151.5	3.0	3.1	102%	1.6	1	3
151.5	154.5	3.0	2.9	95%	1.5	0	3
151.5	154.5	3.0	2.9	95%	1.5	0	3
151.5	154.5	3.0	2.9	95%	1.5	0	3
151.5	154.5	3.0	2.9	95%	1.5	0	3

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-07

Northing: 15972.6 **Total Depth:** 623.9 **m**

Easting: 11492.1 **Azimuth** 0.0 °

Drilled: 7/31/2006

Elevation: 1915.2 **Dip** -90 °

From (m)	To (m)	Run (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness
154.5	157.6	3.0	3.0	98%	1.0	0	3
154.5	157.6	3.0	3.0	98%	1.0	0	3
154.5	157.6	3.0	3.0	98%	1.0	0	3
154.5	157.6	3.0	3.0	98%	1.0	0	3
157.6	160.6	3.0	3.0	98%	0.7	0	3
157.6	160.6	3.0	3.0	98%	0.7	0	3
157.6	160.6	3.0	3.0	98%	0.7	0	3
157.6	160.6	3.0	3.0	98%	0.7	0	3
160.6	163.7	3.0	2.0	66%	0.2	0	2
160.6	163.7	3.0	2.0	66%	0.2	0	2
160.6	163.7	3.0	2.0	66%	0.2	0	2
160.6	163.7	3.0	2.0	66%	0.2	0	2
163.7	166.7	3.0	1.5	49%	0.1	0	2
163.7	166.7	3.0	1.5	49%	0.1	0	2
163.7	166.7	3.0	1.5	49%	0.1	0	2
163.7	166.7	3.0	1.5	49%	0.1	0	2
166.7	169.8	3.0	2.5	82%	0.7	0	2
166.7	169.8	3.0	2.5	82%	0.7	0	2
166.7	169.8	3.0	2.5	82%	0.7	0	2
166.7	169.8	3.0	2.5	82%	0.7	0	2
169.8	172.8	3.0	1.9	62%	0.2	0	3
169.8	172.8	3.0	1.9	62%	0.2	0	3
169.8	172.8	3.0	1.9	62%	0.2	0	3
169.8	172.8	3.0	1.9	62%	0.2	0	3
172.8	175.9	3.0	1.1	36%	0.3	0	3
172.8	175.9	3.0	1.1	36%	0.3	0	3
172.8	175.9	3.0	1.1	36%	0.3	0	3
172.8	175.9	3.0	1.1	36%	0.3	0	3
175.9	178.9	3.0	2.4	79%	1.5	0	3
175.9	178.9	3.0	2.4	79%	1.5	0	3
175.9	178.9	3.0	2.4	79%	1.5	0	3
175.9	178.9	3.0	2.4	79%	1.5	0	3
178.9	182.0	3.0	3.5	115%	0.8	0	3
178.9	182.0	3.0	3.5	115%	0.8	0	3

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-07

Northing: 15972.6 **Total Depth:** 623.9 **m**

Easting: 11492.1 **Azimuth** 0.0 °

Drilled: 7/31/2006

Elevation: 1915.2 **Dip** -90 °

From (m)	To (m)	Run (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness
178.9	182.0	3.0	3.5	115%	0.8	0	3
178.9	182.0	3.0	3.5	115%	0.8	0	3
182.0	185.0	3.0	3.1	100%	1.6	1	2
182.0	185.0	3.0	3.1	100%	1.6	1	2
182.0	185.0	3.0	3.1	100%	1.6	1	2
182.0	185.0	3.0	3.1	100%	1.6	1	2
185.0	188.1	3.0	3.3	108%	0.6	0	1
185.0	188.1	3.0	3.3	108%	0.6	0	1
185.0	188.1	3.0	3.3	108%	0.6	0	1
185.0	188.1	3.0	3.3	108%	0.6	0	1
188.1	191.1	3.0	3.2	105%	0.8	0	2
188.1	191.1	3.0	3.2	105%	0.8	0	2
188.1	191.1	3.0	3.2	105%	0.8	0	2
188.1	191.1	3.0	3.2	105%	0.8	0	2
191.1	194.2	3.0	3.3	108%	0.3	0	2
191.1	194.2	3.0	3.3	108%	0.3	0	2
191.1	194.2	3.0	3.3	108%	0.3	0	2
191.1	194.2	3.0	3.3	108%	0.3	0	2
194.2	197.2	3.0	3.5	115%	0.5	0	1
194.2	197.2	3.0	3.5	115%	0.5	0	1
194.2	197.2	3.0	3.5	115%	0.5	0	1
194.2	197.2	3.0	3.5	115%	0.5	0	1
197.2	200.3	3.0	3.0	98%	1.4	0	3
197.2	200.3	3.0	3.0	98%	1.4	0	3
197.2	200.3	3.0	3.0	98%	1.4	0	3
197.2	200.3	3.0	3.0	98%	1.4	0	3
200.3	203.3	3.0	3.0	98%	1.4	0	3
200.3	203.3	3.0	3.0	98%	1.4	0	3
200.3	203.3	3.0	3.0	98%	1.4	0	3
200.3	203.3	3.0	3.0	98%	1.4	0	3
203.3	206.3	3.0	3.2	103%	1.5	0	3
203.3	206.3	3.0	3.2	103%	1.5	0	3
203.3	206.3	3.0	3.2	103%	1.5	0	3
203.3	206.3	3.0	3.2	103%	1.5	0	3

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-07

Northing: 15972.6 **Total Depth:** 623.9 **m**

Easting: 11492.1 **Azimuth** 0.0 °

Drilled: 7/31/2006

Elevation: 1915.2 **Dip** -90 °

From (m)	To (m)	Run (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness
206.3	209.4	3.0	3.0	98%	1.4	0	4
206.3	209.4	3.0	3.0	98%	1.4	0	4
206.3	209.4	3.0	3.0	98%	1.4	0	4
206.3	209.4	3.0	3.0	98%	1.4	0	4
209.4	212.4	3.0	3.2	104%	1.1	0	2
209.4	212.4	3.0	3.2	104%	1.1	0	2
209.4	212.4	3.0	3.2	104%	1.1	0	2
209.4	212.4	3.0	3.2	104%	1.1	0	2
212.4	215.5	3.0	3.1	101%	1.3	0	3
212.4	215.5	3.0	3.1	101%	1.3	0	3
212.4	215.5	3.0	3.1	101%	1.3	0	3
212.4	215.5	3.0	3.1	101%	1.3	0	3
215.5	218.5	3.0	3.1	102%	0.7	0	2
215.5	218.5	3.0	3.1	102%	0.7	0	2
215.5	218.5	3.0	3.1	102%	0.7	0	2
215.5	218.5	3.0	3.1	102%	0.7	0	2
218.5	221.6	3.0	3.0	98%	0.8	0	2
218.5	221.6	3.0	3.0	98%	0.8	0	2
218.5	221.6	3.0	3.0	98%	0.8	0	2
218.5	221.6	3.0	3.0	98%	0.8	0	2
221.6	224.6	3.0	3.1	102%	1.2	0	2
221.6	224.6	3.0	3.1	102%	1.2	0	2
221.6	224.6	3.0	3.1	102%	1.2	0	2
221.6	224.6	3.0	3.1	102%	1.2	0	2
224.6	227.7	3.0	3.0	97%	0.4	0	1
224.6	227.7	3.0	3.0	97%	0.4	0	1
224.6	227.7	3.0	3.0	97%	0.4	0	1
224.6	227.7	3.0	3.0	97%	0.4	0	1
230.7	233.8	3.0	3.0	98%	2.2	1	3
230.7	233.8	3.0	3.0	98%	2.2	1	3
230.7	233.8	3.0	3.0	98%	2.2	1	3
230.7	233.8	3.0	3.0	98%	2.2	1	3
233.8	236.8	3.0	3.0	98%	1.7	1	3
233.8	236.8	3.0	3.0	98%	1.7	1	3

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-07

Northing: 15972.6 **Total Depth:** 623.9 **m**

Easting: 11492.1 **Azimuth** 0.0 °

Drilled: 7/31/2006

Elevation: 1915.2 **Dip** -90 °

From (m)	To (m)	Run (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness
233.8	236.8	3.0	3.0	98%	1.7	1	3
233.8	236.8	3.0	3.0	98%	1.7	1	3
236.8	239.9	3.0	3.0	98%	1.6	1	3
236.8	239.9	3.0	3.0	98%	1.6	1	3
236.8	239.9	3.0	3.0	98%	1.6	1	3
236.8	239.9	3.0	3.0	98%	1.6	1	3
239.9	242.9	3.0	3.0	98%	1.7	1	3
239.9	242.9	3.0	3.0	98%	1.7	1	3
239.9	242.9	3.0	3.0	98%	1.7	1	3
239.9	242.9	3.0	3.0	98%	1.7	1	3
242.9	246.0	3.0	3.0	98%	2.0	1	3
242.9	246.0	3.0	3.0	98%	2.0	1	3
242.9	246.0	3.0	3.0	98%	2.0	1	3
242.9	246.0	3.0	3.0	98%	2.0	1	3
246.0	249.0	3.0	3.0	98%	1.3	0	3
246.0	249.0	3.0	3.0	98%	1.3	0	3
246.0	249.0	3.0	3.0	98%	1.3	0	3
246.0	249.0	3.0	3.0	98%	1.3	0	3
249.0	252.1	3.0	3.0	98%	2.0	1	3
249.0	252.1	3.0	3.0	98%	2.0	1	3
249.0	252.1	3.0	3.0	98%	2.0	1	3
249.0	252.1	3.0	3.0	98%	2.0	1	3
252.1	255.1	3.0	3.0	98%	1.6	1	3
252.1	255.1	3.0	3.0	98%	1.6	1	3
252.1	255.1	3.0	3.0	98%	1.6	1	3
252.1	255.1	3.0	3.0	98%	1.6	1	3
255.1	258.2	3.0	2.9	95%	1.7	1	3
255.1	258.2	3.0	2.9	95%	1.7	1	3
255.1	258.2	3.0	2.9	95%	1.7	1	3
255.1	258.2	3.0	2.9	95%	1.7	1	3
258.2	261.2	3.0	2.9	95%	1.6	1	3
258.2	261.2	3.0	2.9	95%	1.6	1	3
258.2	261.2	3.0	2.9	95%	1.6	1	3
258.2	261.2	3.0	2.9	95%	1.6	1	3

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-07

Northing: 15972.6 **Total Depth:** 623.9 **m**

Easting: 11492.1 **Azimuth** 0.0 °

Drilled: 7/31/2006

Elevation: 1915.2 **Dip** -90 °

From (m)	To (m)	Run (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness
261.2	264.3	3.0	3.0	98%	1.9	1	3
261.2	264.3	3.0	3.0	98%	1.9	1	3
261.2	264.3	3.0	3.0	98%	1.9	1	3
261.2	264.3	3.0	3.0	98%	1.9	1	3
264.3	267.3	3.0	3.0	98%	1.3	0	3
264.3	267.3	3.0	3.0	98%	1.3	0	3
264.3	267.3	3.0	3.0	98%	1.3	0	3
264.3	267.3	3.0	3.0	98%	1.3	0	3
267.3	270.4	3.0	3.0	98%	1.8	1	3
267.3	270.4	3.0	3.0	98%	1.8	1	3
267.3	270.4	3.0	3.0	98%	1.8	1	3
267.3	270.4	3.0	3.0	98%	1.8	1	3
270.4	273.4	3.0	3.0	98%	2.1	1	3
270.4	273.4	3.0	3.0	98%	2.1	1	3
270.4	273.4	3.0	3.0	98%	2.1	1	3
270.4	273.4	3.0	3.0	98%	2.1	1	3
273.4	276.5	3.0	3.0	98%	0.8	0	3
273.4	276.5	3.0	3.0	98%	0.8	0	3
273.4	276.5	3.0	3.0	98%	0.8	0	3
273.4	276.5	3.0	3.0	98%	0.8	0	3
276.5	279.5	3.0	3.0	98%	1.5	0	3
276.5	279.5	3.0	3.0	98%	1.5	0	3
276.5	279.5	3.0	3.0	98%	1.5	0	3
276.5	279.5	3.0	3.0	98%	1.5	0	3
279.5	282.5	3.0	3.0	98%	2.7	1	3
279.5	282.5	3.0	3.0	98%	2.7	1	3
279.5	282.5	3.0	3.0	98%	2.7	1	3
279.5	282.5	3.0	3.0	98%	2.7	1	3
282.5	285.6	3.0	3.0	98%	2.4	1	3
282.5	285.6	3.0	3.0	98%	2.4	1	3
282.5	285.6	3.0	3.0	98%	2.4	1	3
282.5	285.6	3.0	3.0	98%	2.4	1	3
285.6	288.6	3.0	3.0	98%	2.6	1	3
285.6	288.6	3.0	3.0	98%	2.6	1	3

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-07

Northing: 15972.6 **Total Depth:** 623.9 **m**

Easting: 11492.1 **Azimuth** 0.0 °

Drilled: 7/31/2006

Elevation: 1915.2 **Dip** -90 °

From (m)	To (m)	Run (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness
285.6	288.6	3.0	3.0	98%	2.6	1	3
285.6	288.6	3.0	3.0	98%	2.6	1	3
288.6	291.7	3.0	3.0	98%	2.4	1	3
288.6	291.7	3.0	3.0	98%	2.4	1	3
288.6	291.7	3.0	3.0	98%	2.4	1	3
288.6	291.7	3.0	3.0	98%	2.4	1	3
291.7	294.7	3.0	3.0	98%	2.0	1	3
291.7	294.7	3.0	3.0	98%	2.0	1	3
291.7	294.7	3.0	3.0	98%	2.0	1	3
291.7	294.7	3.0	3.0	98%	2.0	1	3
294.7	296.9	2.1	1.9	89%	1.6	1	2
294.7	296.9	2.1	1.9	89%	1.6	1	2
294.7	296.9	2.1	1.9	89%	1.6	1	2
294.7	296.9	2.1	1.9	89%	1.6	1	2
296.9	297.8	0.9	0.3	33%	0.3	0	2
296.9	297.8	0.9	0.3	33%	0.3	0	2
296.9	297.8	0.9	0.3	33%	0.3	0	2
296.9	297.8	0.9	0.3	33%	0.3	0	2
297.8	300.8	3.0	2.7	89%	1.1	0	2
297.8	300.8	3.0	2.7	89%	1.1	0	2
297.8	300.8	3.0	2.7	89%	1.1	0	2
297.8	300.8	3.0	2.7	89%	1.1	0	2
300.8	303.9	3.0	3.2	105%	1.0	0	2
300.8	303.9	3.0	3.2	105%	1.0	0	2
300.8	303.9	3.0	3.2	105%	1.0	0	2
300.8	303.9	3.0	3.2	105%	1.0	0	2
303.9	306.9	3.0	2.9	95%	1.4	0	2
303.9	306.9	3.0	2.9	95%	1.4	0	2
303.9	306.9	3.0	2.9	95%	1.4	0	2
303.9	306.9	3.0	2.9	95%	1.4	0	2
306.9	310.0	3.0	3.0	98%	2.5	1	2
306.9	310.0	3.0	3.0	98%	2.5	1	2
306.9	310.0	3.0	3.0	98%	2.5	1	2
306.9	310.0	3.0	3.0	98%	2.5	1	2

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-07

Northing: 15972.6 **Total Depth:** 623.9 **m**

Easting: 11492.1 **Azimuth** 0.0 °

Drilled: 7/31/2006

Elevation: 1915.2 **Dip** -90 °

From (m)	To (m)	Run (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness
310.0	313.0	3.0	3.0	98%	2.1	1	2
310.0	313.0	3.0	3.0	98%	2.1	1	2
310.0	313.0	3.0	3.0	98%	2.1	1	2
310.0	313.0	3.0	3.0	98%	2.1	1	2
313.0	316.1	3.0	3.1	102%	2.1	1	3
313.0	316.1	3.0	3.1	102%	2.1	1	3
313.0	316.1	3.0	3.1	102%	2.1	1	3
313.0	316.1	3.0	3.1	102%	2.1	1	3
316.1	319.1	3.0	2.9	95%	2.5	1	3
316.1	319.1	3.0	2.9	95%	2.5	1	3
316.1	319.1	3.0	2.9	95%	2.5	1	3
316.1	319.1	3.0	2.9	95%	2.5	1	3
319.1	322.2	3.0	3.0	98%	2.3	1	3
319.1	322.2	3.0	3.0	98%	2.3	1	3
319.1	322.2	3.0	3.0	98%	2.3	1	3
319.1	322.2	3.0	3.0	98%	2.3	1	3
322.2	325.2	3.0	3.0	98%	2.1	1	3
322.2	325.2	3.0	3.0	98%	2.1	1	3
322.2	325.2	3.0	3.0	98%	2.1	1	3
322.2	325.2	3.0	3.0	98%	2.1	1	3
325.2	328.3	3.0	3.0	98%	2.2	1	3
325.2	328.3	3.0	3.0	98%	2.2	1	3
325.2	328.3	3.0	3.0	98%	2.2	1	3
325.2	328.3	3.0	3.0	98%	2.2	1	3
328.3	331.3	3.0	3.0	98%	1.9	1	3
328.3	331.3	3.0	3.0	98%	1.9	1	3
328.3	331.3	3.0	3.0	98%	1.9	1	3
328.3	331.3	3.0	3.0	98%	1.9	1	3
331.3	334.4	3.0	2.9	95%	1.9	1	2
331.3	334.4	3.0	2.9	95%	1.9	1	2
331.3	334.4	3.0	2.9	95%	1.9	1	2
331.3	334.4	3.0	2.9	95%	1.9	1	2
334.4	336.8	2.4	2.2	90%	0.8	0	2
334.4	336.8	2.4	2.2	90%	0.8	0	2

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-07

Northing: 15972.6 **Total Depth:** 623.9 **m**

Easting: 11492.1 **Azimuth** 0.0 °

Drilled: 7/31/2006

Elevation: 1915.2 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
334.4	336.8	2.4	2.2	90%	0.8	0	2
334.4	336.8	2.4	2.2	90%	0.8	0	2
336.8	339.9	3.0	3.0	98%	1.8	1	3
336.8	339.9	3.0	3.0	98%	1.8	1	3
336.8	339.9	3.0	3.0	98%	1.8	1	3
336.8	339.9	3.0	3.0	98%	1.8	1	3
339.9	342.9	3.0	3.0	98%	2.0	1	3
339.9	342.9	3.0	3.0	98%	2.0	1	3
339.9	342.9	3.0	3.0	98%	2.0	1	3
339.9	342.9	3.0	3.0	98%	2.0	1	3
342.9	345.9	3.0	3.1	102%	3.0	1	3
342.9	345.9	3.0	3.1	102%	3.0	1	3
342.9	345.9	3.0	3.1	102%	3.0	1	3
342.9	345.9	3.0	3.1	102%	3.0	1	3
345.9	349.0	3.0	3.1	102%	3.0	1	3
345.9	349.0	3.0	3.1	102%	3.0	1	3
345.9	349.0	3.0	3.1	102%	3.0	1	3
345.9	349.0	3.0	3.1	102%	3.0	1	3
349.0	352.7	3.7	2.9	95%	1.5	0	3
349.0	352.7	3.7	2.9	95%	1.5	0	3
349.0	352.7	3.7	2.9	95%	1.5	0	3
349.0	352.7	3.7	2.9	95%	1.5	0	3
352.7	355.7	3.0	3.0	98%	2.3	1	3
352.7	355.7	3.0	3.0	98%	2.3	1	3
352.7	355.7	3.0	3.0	98%	2.3	1	3
352.7	355.7	3.0	3.0	98%	2.3	1	3
355.7	358.7	3.0	3.0	98%	1.8	1	3
355.7	358.7	3.0	3.0	98%	1.8	1	3
355.7	358.7	3.0	3.0	98%	1.8	1	3
355.7	358.7	3.0	3.0	98%	1.8	1	3
358.7	361.8	3.0	2.3	75%	1.3	0	3
358.7	361.8	3.0	2.3	75%	1.3	0	3
358.7	361.8	3.0	2.3	75%	1.3	0	3
358.7	361.8	3.0	2.3	75%	1.3	0	3

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-07

Northing: 15972.6 **Total Depth:** 623.9 **m**

Easting: 11492.1 **Azimuth** 0.0 °

Drilled: 7/31/2006

Elevation: 1915.2 **Dip** -90 °

From (m)	To (m)	Run (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness
361.8	364.8	3.0	3.3	108%	1.3	0	3
361.8	364.8	3.0	3.3	108%	1.3	0	3
361.8	364.8	3.0	3.3	108%	1.3	0	3
361.8	364.8	3.0	3.3	108%	1.3	0	3
364.8	367.9	3.0	3.0	98%	1.8	1	3
364.8	367.9	3.0	3.0	98%	1.8	1	3
364.8	367.9	3.0	3.0	98%	1.8	1	3
364.8	367.9	3.0	3.0	98%	1.8	1	3
367.9	370.9	3.0	2.9	95%	2.0	1	3
367.9	370.9	3.0	2.9	95%	2.0	1	3
367.9	370.9	3.0	2.9	95%	2.0	1	3
367.9	370.9	3.0	2.9	95%	2.0	1	3
370.9	374.0	3.0	2.8	92%	1.9	1	2
370.9	374.0	3.0	2.8	92%	1.9	1	2
370.9	374.0	3.0	2.8	92%	1.9	1	2
370.9	374.0	3.0	2.8	92%	1.9	1	2
374.0	377.0	3.0	2.6	85%	1.2	0	2
374.0	377.0	3.0	2.6	85%	1.2	0	2
374.0	377.0	3.0	2.6	85%	1.2	0	2
374.0	377.0	3.0	2.6	85%	1.2	0	2
377.0	380.1	3.0	2.8	92%	1.4	0	3
377.0	380.1	3.0	2.8	92%	1.4	0	3
377.0	380.1	3.0	2.8	92%	1.4	0	3
377.0	380.1	3.0	2.8	92%	1.4	0	3
380.1	383.1	3.0	2.6	85%	1.0	0	3
380.1	383.1	3.0	2.6	85%	1.0	0	3
380.1	383.1	3.0	2.6	85%	1.0	0	3
380.1	383.1	3.0	2.6	85%	1.0	0	3
383.1	386.2	3.0	2.8	92%	1.7	1	3
383.1	386.2	3.0	2.8	92%	1.7	1	3
383.1	386.2	3.0	2.8	92%	1.7	1	3
383.1	386.2	3.0	2.8	92%	1.7	1	3
386.2	389.2	3.0	3.0	100%	0.3	0	3
386.2	389.2	3.0	3.0	100%	0.3	0	3

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-07

Northing: 15972.6 **Total Depth:** 623.9 **m**

Easting: 11492.1 **Azimuth** 0.0 °

Drilled: 7/31/2006

Elevation: 1915.2 **Dip** -90 °

From (m)	To (m)	Run (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness
386.2	389.2	3.0	3.0	100%	0.3	0	3
386.2	389.2	3.0	3.0	100%	0.3	0	3
389.2	392.3	3.0	3.0	98%	1.6	1	4
389.2	392.3	3.0	3.0	98%	1.6	1	4
389.2	392.3	3.0	3.0	98%	1.6	1	4
389.2	392.3	3.0	3.0	98%	1.6	1	4
392.3	395.3	3.0	3.0	98%	0.6	0	4
392.3	395.3	3.0	3.0	98%	0.6	0	4
392.3	395.3	3.0	3.0	98%	0.6	0	4
392.3	395.3	3.0	3.0	98%	0.6	0	4
395.3	398.4	3.0	3.0	99%	1.6	1	4
395.3	398.4	3.0	3.0	99%	1.6	1	4
395.3	398.4	3.0	3.0	99%	1.6	1	4
395.3	398.4	3.0	3.0	99%	1.6	1	4
398.4	401.4	3.0	3.0	97%	0.8	0	4
398.4	401.4	3.0	3.0	97%	0.8	0	4
398.4	401.4	3.0	3.0	97%	0.8	0	4
398.4	401.4	3.0	3.0	97%	0.8	0	4
401.4	404.5	3.0	3.0	98%	1.8	1	4
401.4	404.5	3.0	3.0	98%	1.8	1	4
401.4	404.5	3.0	3.0	98%	1.8	1	4
401.4	404.5	3.0	3.0	98%	1.8	1	4
404.5	407.5	3.0	2.9	95%	1.6	1	4
404.5	407.5	3.0	2.9	95%	1.6	1	4
404.5	407.5	3.0	2.9	95%	1.6	1	4
404.5	407.5	3.0	2.9	95%	1.6	1	4
407.5	410.6	3.0	2.8	91%	0.4	0	4
407.5	410.6	3.0	2.8	91%	0.4	0	4
407.5	410.6	3.0	2.8	91%	0.4	0	4
407.5	410.6	3.0	2.8	91%	0.4	0	4
410.6	413.6	3.0	3.1	101%	1.3	0	4
410.6	413.6	3.0	3.1	101%	1.3	0	4
410.6	413.6	3.0	3.1	101%	1.3	0	4
410.6	413.6	3.0	3.1	101%	1.3	0	4

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-07

Northing: 15972.6 **Total Depth:** 623.9 **m**

Easting: 11492.1 **Azimuth** 0.0 °

Drilled: 7/31/2006

Elevation: 1915.2 **Dip** -90 °

From (m)	To (m)	Run (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness
413.6	416.7	3.0	3.2	103%	0.8	0	3
413.6	416.7	3.0	3.2	103%	0.8	0	3
413.6	416.7	3.0	3.2	103%	0.8	0	3
413.6	416.7	3.0	3.2	103%	0.8	0	3
416.7	419.7	3.0	3.1	101%	0.4	0	3
416.7	419.7	3.0	3.1	101%	0.4	0	3
416.7	419.7	3.0	3.1	101%	0.4	0	3
416.7	419.7	3.0	3.1	101%	0.4	0	3
419.7	422.8	3.0	3.2	103%	1.0	0	4
419.7	422.8	3.0	3.2	103%	1.0	0	4
419.7	422.8	3.0	3.2	103%	1.0	0	4
419.7	422.8	3.0	3.2	103%	1.0	0	4
422.8	425.8	3.0	3.1	102%	2.1	1	4
422.8	425.8	3.0	3.1	102%	2.1	1	4
422.8	425.8	3.0	3.1	102%	2.1	1	4
422.8	425.8	3.0	3.1	102%	2.1	1	4
425.8	428.9	3.0	3.0	98%	1.7	1	3
425.8	428.9	3.0	3.0	98%	1.7	1	3
425.8	428.9	3.0	3.0	98%	1.7	1	3
425.8	428.9	3.0	3.0	98%	1.7	1	3
428.9	431.9	3.0	3.1	102%	1.9	1	3
428.9	431.9	3.0	3.1	102%	1.9	1	3
428.9	431.9	3.0	3.1	102%	1.9	1	3
428.9	431.9	3.0	3.1	102%	1.9	1	3
431.9	434.9	3.0	2.9	95%	1.9	1	3
431.9	434.9	3.0	2.9	95%	1.9	1	3
431.9	434.9	3.0	2.9	95%	1.9	1	3
431.9	434.9	3.0	2.9	95%	1.9	1	3
434.9	438.0	3.0	3.0	98%	0.6	0	3
434.9	438.0	3.0	3.0	98%	0.6	0	3
434.9	438.0	3.0	3.0	98%	0.6	0	3
434.9	438.0	3.0	3.0	98%	0.6	0	3
438.0	441.0	3.0	3.0	98%	1.8	1	3
438.0	441.0	3.0	3.0	98%	1.8	1	3

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-07

Northing: 15972.6 **Total Depth:** 623.9 **m**

Easting: 11492.1 **Azimuth** 0.0 °

Drilled: 7/31/2006

Elevation: 1915.2 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
438.0	441.0	3.0	3.0	98%	1.8	1	3
438.0	441.0	3.0	3.0	98%	1.8	1	3
441.0	444.1	3.0	3.1	102%	1.6	1	3
441.0	444.1	3.0	3.1	102%	1.6	1	3
441.0	444.1	3.0	3.1	102%	1.6	1	3
441.0	444.1	3.0	3.1	102%	1.6	1	3
444.1	447.1	3.0	3.1	102%	1.7	1	3
444.1	447.1	3.0	3.1	102%	1.7	1	3
444.1	447.1	3.0	3.1	102%	1.7	1	3
444.1	447.1	3.0	3.1	102%	1.7	1	3
447.1	450.2	3.0	2.8	92%	2.6	1	3
447.1	450.2	3.0	2.8	92%	2.6	1	3
447.1	450.2	3.0	2.8	92%	2.6	1	3
447.1	450.2	3.0	2.8	92%	2.6	1	3
450.2	453.2	3.0	3.1	102%	2.3	1	3
450.2	453.2	3.0	3.1	102%	2.3	1	3
450.2	453.2	3.0	3.1	102%	2.3	1	3
450.2	453.2	3.0	3.1	102%	2.3	1	3
453.2	456.3	3.0	3.1	102%	2.6	1	3
453.2	456.3	3.0	3.1	102%	2.6	1	3
453.2	456.3	3.0	3.1	102%	2.6	1	3
453.2	456.3	3.0	3.1	102%	2.6	1	3
456.3	459.3	3.0	3.1	102%	2.7	1	3
456.3	459.3	3.0	3.1	102%	2.7	1	3
456.3	459.3	3.0	3.1	102%	2.7	1	3
456.3	459.3	3.0	3.1	102%	2.7	1	3
459.3	462.4	3.0	3.0	98%	2.5	1	3
459.3	462.4	3.0	3.0	98%	2.5	1	3
459.3	462.4	3.0	3.0	98%	2.5	1	3
459.3	462.4	3.0	3.0	98%	2.5	1	3
462.4	465.4	3.0	3.0	98%	1.7	1	4
462.4	465.4	3.0	3.0	98%	1.7	1	4
462.4	465.4	3.0	3.0	98%	1.7	1	4
462.4	465.4	3.0	3.0	98%	1.7	1	4

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-07

Northing: 15972.6 **Total Depth:** 623.9 **m**

Easting: 11492.1 **Azimuth** 0.0 °

Drilled: 7/31/2006

Elevation: 1915.2 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
465.4	468.5	3.0	2.9	95%	2.5	1	4
465.4	468.5	3.0	2.9	95%	2.5	1	4
465.4	468.5	3.0	2.9	95%	2.5	1	4
465.4	468.5	3.0	2.9	95%	2.5	1	4
468.5	471.5	3.0	3.0	98%	2.5	1	4
468.5	471.5	3.0	3.0	98%	2.5	1	4
468.5	471.5	3.0	3.0	98%	2.5	1	4
468.5	471.5	3.0	3.0	98%	2.5	1	4
471.5	474.6	3.0	3.0	98%	2.5	1	4
471.5	474.6	3.0	3.0	98%	2.5	1	4
471.5	474.6	3.0	3.0	98%	2.5	1	4
471.5	474.6	3.0	3.0	98%	2.5	1	4
474.6	477.6	3.0	2.9	95%	2.5	1	4
474.6	477.6	3.0	2.9	95%	2.5	1	4
474.6	477.6	3.0	2.9	95%	2.5	1	4
474.6	477.6	3.0	2.9	95%	2.5	1	4
477.6	480.7	3.0	3.0	98%	1.4	0	4
477.6	480.7	3.0	3.0	98%	1.4	0	4
477.6	480.7	3.0	3.0	98%	1.4	0	4
477.6	480.7	3.0	3.0	98%	1.4	0	4
480.7	483.7	3.0	2.8	92%	1.3	0	4
480.7	483.7	3.0	2.8	92%	1.3	0	4
480.7	483.7	3.0	2.8	92%	1.3	0	4
480.7	483.7	3.0	2.8	92%	1.3	0	4
483.7	486.8	3.0	3.1	102%	2.0	1	4
483.7	486.8	3.0	3.1	102%	2.0	1	4
483.7	486.8	3.0	3.1	102%	2.0	1	4
483.7	486.8	3.0	3.1	102%	2.0	1	4
486.8	489.8	3.0	3.1	102%	2.0	1	4
486.8	489.8	3.0	3.1	102%	2.0	1	4
486.8	489.8	3.0	3.1	102%	2.0	1	4
486.8	489.8	3.0	3.1	102%	2.0	1	4
489.8	492.9	3.0	3.0	98%	1.5	0	4
489.8	492.9	3.0	3.0	98%	1.5	0	4

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-07

Northing: 15972.6 **Total Depth:** 623.9 **m**

Easting: 11492.1 **Azimuth** 0.0 °

Drilled: 7/31/2006

Elevation: 1915.2 **Dip** -90 °

From (m)	To (m)	Run (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness
489.8	492.9	3.0	3.0	98%	1.5	0	4
489.8	492.9	3.0	3.0	98%	1.5	0	4
492.9	495.9	3.0	2.9	95%	1.5	0	4
492.9	495.9	3.0	2.9	95%	1.5	0	4
492.9	495.9	3.0	2.9	95%	1.5	0	4
492.9	495.9	3.0	2.9	95%	1.5	0	4
495.9	499.0	3.0	2.9	95%	1.8	1	4
495.9	499.0	3.0	2.9	95%	1.8	1	4
495.9	499.0	3.0	2.9	95%	1.8	1	4
495.9	499.0	3.0	2.9	95%	1.8	1	4
499.0	502.0	3.0	3.0	98%	2.8	1	4
499.0	502.0	3.0	3.0	98%	2.8	1	4
499.0	502.0	3.0	3.0	98%	2.8	1	4
499.0	502.0	3.0	3.0	98%	2.8	1	4
502.0	505.1	3.0	3.0	98%	1.7	1	4
502.0	505.1	3.0	3.0	98%	1.7	1	4
502.0	505.1	3.0	3.0	98%	1.7	1	4
502.0	505.1	3.0	3.0	98%	1.7	1	4
505.1	508.1	3.0	3.0	98%	1.7	1	4
505.1	508.1	3.0	3.0	98%	1.7	1	4
505.1	508.1	3.0	3.0	98%	1.7	1	4
505.1	508.1	3.0	3.0	98%	1.7	1	4
508.1	511.1	3.0	3.1	102%	1.4	0	4
508.1	511.1	3.0	3.1	102%	1.4	0	4
508.1	511.1	3.0	3.1	102%	1.4	0	4
508.1	511.1	3.0	3.1	102%	1.4	0	4
511.1	514.2	3.0	3.0	98%	2.1	1	4
511.1	514.2	3.0	3.0	98%	2.1	1	4
511.1	514.2	3.0	3.0	98%	2.1	1	4
511.1	514.2	3.0	3.0	98%	2.1	1	4
514.2	517.2	3.0	3.1	102%	1.8	1	4
514.2	517.2	3.0	3.1	102%	1.8	1	4
514.2	517.2	3.0	3.1	102%	1.8	1	4
514.2	517.2	3.0	3.1	102%	1.8	1	4

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-07

Northing: 15972.6 **Total Depth:** 623.9 **m**

Easting: 11492.1 **Azimuth** 0.0 °

Drilled: 7/31/2006

Elevation: 1915.2 **Dip** -90 °

From (m)	To (m)	Run (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness
517.2	520.3	3.0	3.0	98%	1.7	1	4
517.2	520.3	3.0	3.0	98%	1.7	1	4
517.2	520.3	3.0	3.0	98%	1.7	1	4
517.2	520.3	3.0	3.0	98%	1.7	1	4
520.3	523.3	3.0	3.0	98%	1.9	1	4
520.3	523.3	3.0	3.0	98%	1.9	1	4
520.3	523.3	3.0	3.0	98%	1.9	1	4
520.3	523.3	3.0	3.0	98%	1.9	1	4
523.3	526.4	3.0	3.0	98%	1.8	1	4
523.3	526.4	3.0	3.0	98%	1.8	1	4
523.3	526.4	3.0	3.0	98%	1.8	1	4
523.3	526.4	3.0	3.0	98%	1.8	1	4
526.4	529.4	3.0	2.7	89%	1.9	1	4
526.4	529.4	3.0	2.7	89%	1.9	1	4
526.4	529.4	3.0	2.7	89%	1.9	1	4
526.4	529.4	3.0	2.7	89%	1.9	1	4
529.4	532.5	3.0	2.9	95%	1.8	1	4
529.4	532.5	3.0	2.9	95%	1.8	1	4
529.4	532.5	3.0	2.9	95%	1.8	1	4
529.4	532.5	3.0	2.9	95%	1.8	1	4
532.5	533.7	1.2	1.1	90%	0.4	0	4
532.5	533.7	1.2	1.1	90%	0.4	0	4
532.5	533.7	1.2	1.1	90%	0.4	0	4
532.5	533.7	1.2	1.1	90%	0.4	0	4
533.7	535.5	1.8	2.2	120%	1.2	1	4
533.7	535.5	1.8	2.2	120%	1.2	1	4
533.7	535.5	1.8	2.2	120%	1.2	1	4
533.7	535.5	1.8	2.2	120%	1.2	1	4
535.5	538.6	3.0	3.0	98%	0.7	0	4
535.5	538.6	3.0	3.0	98%	0.7	0	4
535.5	538.6	3.0	3.0	98%	0.7	0	4
535.5	538.6	3.0	3.0	98%	0.7	0	4
538.6	544.7	6.1	2.9	48%	1.1	0	4
538.6	544.7	6.1	2.9	48%	1.1	0	4

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-07

Northing: 15972.6 **Total Depth:** 623.9 **m**

Easting: 11492.1 **Azimuth** 0.0 °

Drilled: 7/31/2006

Elevation: 1915.2 **Dip** -90 °

From (m)	To (m)	Run (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness
538.6	544.7	6.1	2.9	48%	1.1	0	4
538.6	544.7	6.1	2.9	48%	1.1	0	4
541.6	544.7	3.0	2.8	92%	1.8	1	4
541.6	544.7	3.0	2.8	92%	1.8	1	4
541.6	544.7	3.0	2.8	92%	1.8	1	4
541.6	544.7	3.0	2.8	92%	1.8	1	4
544.7	547.7	3.0	3.0	98%	1.3	0	4
544.7	547.7	3.0	3.0	98%	1.3	0	4
544.7	547.7	3.0	3.0	98%	1.3	0	4
544.7	547.7	3.0	3.0	98%	1.3	0	4
547.7	550.8	3.0	3.0	98%	1.7	1	4
547.7	550.8	3.0	3.0	98%	1.7	1	4
547.7	550.8	3.0	3.0	98%	1.7	1	4
547.7	550.8	3.0	3.0	98%	1.7	1	4
550.8	553.8	3.0	2.7	89%	1.7	1	4
550.8	553.8	3.0	2.7	89%	1.7	1	4
550.8	553.8	3.0	2.7	89%	1.7	1	4
550.8	553.8	3.0	2.7	89%	1.7	1	4
553.8	556.9	3.0	3.0	98%	1.9	1	4
553.8	556.9	3.0	3.0	98%	1.9	1	4
553.8	556.9	3.0	3.0	98%	1.9	1	4
553.8	556.9	3.0	3.0	98%	1.9	1	4
556.9	559.9	3.0	3.0	98%	1.0	0	4
556.9	559.9	3.0	3.0	98%	1.0	0	4
556.9	559.9	3.0	3.0	98%	1.0	0	4
556.9	559.9	3.0	3.0	98%	1.0	0	4
559.9	563.0	3.0	3.0	98%	1.2	0	4
559.9	563.0	3.0	3.0	98%	1.2	0	4
559.9	563.0	3.0	3.0	98%	1.2	0	4
559.9	563.0	3.0	3.0	98%	1.2	0	4
563.0	566.0	3.0	3.0	98%	2.2	1	4
563.0	566.0	3.0	3.0	98%	2.2	1	4
563.0	566.0	3.0	3.0	98%	2.2	1	4
563.0	566.0	3.0	3.0	98%	2.2	1	4

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-07

Northing: 15972.6 **Total Depth:** 623.9 **m**

Easting: 11492.1 **Azimuth** 0.0 °

Drilled: 7/31/2006

Elevation: 1915.2 **Dip** -90 °

From (m)	To (m)	Run (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness
566.0	569.1	3.0	2.8	92%	0.8	0	4
566.0	569.1	3.0	2.8	92%	0.8	0	4
566.0	569.1	3.0	2.8	92%	0.8	0	4
566.0	569.1	3.0	2.8	92%	0.8	0	4
569.1	572.1	3.0	2.9	95%	2.0	1	4
569.1	572.1	3.0	2.9	95%	2.0	1	4
569.1	572.1	3.0	2.9	95%	2.0	1	4
569.1	572.1	3.0	2.9	95%	2.0	1	4
572.1	575.2	3.0	3.0	98%	1.3	0	4
572.1	575.2	3.0	3.0	98%	1.3	0	4
572.1	575.2	3.0	3.0	98%	1.3	0	4
572.1	575.2	3.0	3.0	98%	1.3	0	4
575.2	578.2	3.0	3.0	98%	2.1	1	4
575.2	578.2	3.0	3.0	98%	2.1	1	4
575.2	578.2	3.0	3.0	98%	2.1	1	4
575.2	578.2	3.0	3.0	98%	2.1	1	4
578.2	581.3	3.0	2.9	95%	2.1	1	4
578.2	581.3	3.0	2.9	95%	2.1	1	4
578.2	581.3	3.0	2.9	95%	2.1	1	4
578.2	581.3	3.0	2.9	95%	2.1	1	4
581.3	584.3	3.0	3.1	100%	1.7	1	4
581.3	584.3	3.0	3.1	100%	1.7	1	4
581.3	584.3	3.0	3.1	100%	1.7	1	4
581.3	584.3	3.0					0
587.3	590.4	3.0	3.0	97%	1.3	0	4
587.3	590.4	3.0	3.0	97%	1.3	0	4
587.3	590.4	3.0	3.0	97%	1.3	0	4
590.4	593.4	3.0	3.0	98%	0.7	0	4
590.4	593.4	3.0	3.0	98%	0.7	0	4
590.4	593.4	3.0	3.0	98%	0.7	0	4
593.4	596.5	3.0	3.1	100%	1.5	0	4
593.4	596.5	3.0	3.1	100%	1.5	0	4
593.4	596.5	3.0	3.1	100%	1.5	0	4
596.5	599.5	3.0	3.1	102%	0.3	0	3

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-07

Northing: 15972.6 **Total Depth:** 623.9 **m**

Easting: 11492.1 **Azimuth** 0.0 °

Drilled: 7/31/2006

Elevation: 1915.2 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
596.5	599.5	3.0	3.1	102%	0.3	0	3
596.5	599.5	3.0	3.1	102%	0.3	0	3
599.5	602.6	3.0	3.0	97%	1.0	0	4
599.5	602.6	3.0	3.0	97%	1.0	0	4
599.5	602.6	3.0	3.0	97%	1.0	0	4
602.6	605.6	3.0	3.1	102%	1.3	0	4
602.6	605.6	3.0	3.1	102%	1.3	0	4
602.6	605.6	3.0	3.1	102%	1.3	0	4
605.6	608.7	3.0	3.0	98%	1.5	0	4
605.6	608.7	3.0	3.0	98%	1.5	0	4
605.6	608.7	3.0	3.0	98%	1.5	0	4
608.7	611.7	3.0	3.0	99%	0.9	0	3
608.7	611.7	3.0	3.0	99%	0.9	0	3
608.7	611.7	3.0	3.0	99%	0.9	0	3
611.7	614.8	3.0	3.0	98%	1.3	0	3
611.7	614.8	3.0	3.0	98%	1.3	0	3
611.7	614.8	3.0	3.0	98%	1.3	0	3
614.8	617.8	3.0	3.0	100%	1.6	1	4
614.8	617.8	3.0	3.0	100%	1.6	1	4
614.8	617.8	3.0	3.0	100%	1.6	1	4
617.8	620.9	3.0	3.0	100%	1.5	0	4
617.8	620.9	3.0	3.0	100%	1.5	0	4
617.8	620.9	3.0	3.0	100%	1.5	0	4
620.9	623.9	3.0	2.7	90%	0.8	0	4
620.9	623.9	3.0	2.7	90%	0.8	0	4
620.9	623.9	3.0	2.7	90%	0.8	0	4

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-11

Northing: 16474.5 **Total Depth:** 538.6 **m**

Easting: 13135.4 **Azimuth** 0.0 °

Drilled: 8/12/2006

Elevation: 1742 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
0.0	7.3	7.3	0.0	0%	0.0	0	0
7.3	7.6	0.3	0.3	100%	0.0	0	3
7.3	7.6	0.3	0.3	100%	0.0	0	3
7.3	7.6	0.3	0.3	100%	0.0	0	3
7.6	11.3	3.7	3.0	82%	1.8	0	3
7.6	11.3	3.7	3.0	82%	1.8	0	3
7.6	11.3	3.7	3.0	82%	1.8	0	3
11.3	14.3	3.0	2.7	89%	1.5	0	3
11.3	14.3	3.0	2.7	89%	1.5	0	3
11.3	14.3	3.0	2.7	89%	1.5	0	3
14.3	17.4	3.0	3.0	98%	2.2	1	3
14.3	17.4	3.0	3.0	98%	2.2	1	3
14.3	17.4	3.0	3.0	98%	2.2	1	3
17.4	20.4	3.0	2.7	89%	1.1	0	3
17.4	20.4	3.0	2.7	89%	1.1	0	3
17.4	20.4	3.0	2.7	89%	1.1	0	3
20.4	23.5	3.0	2.0	66%	0.5	0	3
20.4	23.5	3.0	2.0	66%	0.5	0	3
20.4	23.5	3.0	2.0	66%	0.5	0	3
23.5	26.5	3.0	3.0	98%	0.4	0	3
23.5	26.5	3.0	3.0	98%	0.4	0	3
23.5	26.5	3.0	3.0	98%	0.4	0	3
26.5	29.6	3.0	2.9	95%	0.7	0	3
26.5	29.6	3.0	2.9	95%	0.7	0	3
26.5	29.6	3.0	2.9	95%	0.7	0	3
29.6	32.6	3.0	2.9	95%	0.8	0	3
29.6	32.6	3.0	2.9	95%	0.8	0	3
29.6	32.6	3.0	2.9	95%	0.8	0	3
32.6	35.7	3.0	3.0	98%	1.5	0	3
32.6	35.7	3.0	3.0	98%	1.5	0	3
32.6	35.7	3.0	3.0	98%	1.5	0	3
35.7	38.7	3.0	2.9	95%	1.0	0	3
35.7	38.7	3.0	2.9	95%	1.0	0	3
35.7	38.7	3.0	2.9	95%	1.0	0	3

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-11

Northing: 16474.5 **Total Depth:** 538.6 **m**

Easting: 13135.4 **Azimuth** 0.0 °

Drilled: 8/12/2006

Elevation: 1742 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
38.7	41.8	3.0	3.0	98%	2.0	1	3
38.7	41.8	3.0	3.0	98%	2.0	1	3
38.7	41.8	3.0	3.0	98%	2.0	1	3
41.8	44.8	3.0	2.9	95%	1.9	1	3
41.8	44.8	3.0	2.9	95%	1.9	1	3
41.8	44.8	3.0	2.9	95%	1.9	1	3
44.8	47.9	3.0	2.9	95%	1.7	1	3
44.8	47.9	3.0	2.9	95%	1.7	1	3
44.8	47.9	3.0	2.9	95%	1.7	1	3
47.9	50.9	3.0	2.9	95%	2.1	1	3
47.9	50.9	3.0	2.9	95%	2.1	1	3
47.9	50.9	3.0	2.9	95%	2.1	1	3
50.9	53.9	3.0	3.0	98%	0.9	0	3
50.9	53.9	3.0	3.0	98%	0.9	0	3
50.9	53.9	3.0	3.0	98%	0.9	0	3
53.9	57.0	3.0	2.9	95%	0.2	0	3
53.9	57.0	3.0	2.9	95%	0.2	0	3
53.9	57.0	3.0	2.9	95%	0.2	0	3
57.0	60.0	3.0	2.9	95%	0.9	0	3
57.0	60.0	3.0	2.9	95%	0.9	0	3
57.0	60.0	3.0	2.9	95%	0.9	0	3
60.0	63.1	3.0	2.8	92%	0.7	0	3
60.0	63.1	3.0	2.8	92%	0.7	0	3
60.0	63.1	3.0	2.8	92%	0.7	0	3
63.1	66.1	3.0	2.9	95%	1.7	1	3
63.1	66.1	3.0	2.9	95%	1.7	1	3
63.1	66.1	3.0	2.9	95%	1.7	1	3
66.1	69.2	3.0	3.0	98%	1.6	1	3
66.1	69.2	3.0	3.0	98%	1.6	1	3
66.1	69.2	3.0	3.0	98%	1.6	1	3
69.2	72.2	3.0	3.0	98%	1.6	1	3
69.2	72.2	3.0	3.0	98%	1.6	1	3
69.2	72.2	3.0	3.0	98%	1.6	1	3
72.2	75.3	3.0	3.0	98%	1.8	1	3

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-11

Northing: 16474.5 **Total Depth:** 538.6 **m**

Easting: 13135.4 **Azimuth** 0.0 °

Drilled: 8/12/2006

Elevation: 1742 **Dip** -90 °

From (m)	To (m)	Run (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness
72.2	75.3	3.0	3.0	98%	1.8	1	3
72.2	75.3	3.0	3.0	98%	1.8	1	3
75.3	78.3	3.0	3.0	98%	1.9	1	3
75.3	78.3	3.0	3.0	98%	1.9	1	3
75.3	78.3	3.0	3.0	98%	1.9	1	3
78.3	81.4	3.0	3.0	98%	1.8	1	3
78.3	81.4	3.0	3.0	98%	1.8	1	3
78.3	81.4	3.0	3.0	98%	1.8	1	3
81.4	84.4	3.0	3.0	98%	1.0	0	3
81.4	84.4	3.0	3.0	98%	1.0	0	3
81.4	84.4	3.0	3.0	98%	1.0	0	3
84.4	87.5	3.0	3.0	98%	1.9	1	3
84.4	87.5	3.0	3.0	98%	1.9	1	3
84.4	87.5	3.0	3.0	98%	1.9	1	3
87.5	90.5	3.0	2.9	95%	1.4	0	3
87.5	90.5	3.0	2.9	95%	1.4	0	3
87.5	90.5	3.0	2.9	95%	1.4	0	3
90.5	93.6	3.0	3.0	98%	2.1	1	3
90.5	93.6	3.0	3.0	98%	2.1	1	3
90.5	93.6	3.0	3.0	98%	2.1	1	3
93.6	96.6	3.0	3.0	98%	2.5	1	3
93.6	96.6	3.0	3.0	98%	2.5	1	3
93.6	96.6	3.0	3.0	98%	2.5	1	3
96.6	99.7	3.0	2.8	92%	1.5	0	3
96.6	99.7	3.0	2.8	92%	1.5	0	3
96.6	99.7	3.0	2.8	92%	1.5	0	3
99.7	102.7	3.0	2.9	95%	2.0	1	3
99.7	102.7	3.0	2.9	95%	2.0	1	3
99.7	102.7	3.0	2.9	95%	2.0	1	3
102.7	105.8	3.0	3.0	98%	1.7	1	3
102.7	105.8	3.0	3.0	98%	1.7	1	3
102.7	105.8	3.0	3.0	98%	1.7	1	3
105.8	108.8	3.0	3.0	98%	1.5	0	3
105.8	108.8	3.0	3.0	98%	1.5	0	3

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-11

Northing: 16474.5 **Total Depth:** 538.6 **m**

Easting: 13135.4 **Azimuth** 0.0 °

Drilled: 8/12/2006

Elevation: 1742 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
105.8	108.8	3.0	3.0	98%	1.5	0	3
108.8	111.9	3.0	3.0	98%	1.7	1	3
108.8	111.9	3.0	3.0	98%	1.7	1	3
108.8	111.9	3.0	3.0	98%	1.7	1	3
111.9	114.9	3.0	3.0	98%	1.5	0	3
111.9	114.9	3.0	3.0	98%	1.5	0	3
111.9	114.9	3.0	3.0	98%	1.5	0	3
114.9	118.0	3.0	2.9	95%	1.8	1	3
114.9	118.0	3.0	2.9	95%	1.8	1	3
114.9	118.0	3.0	2.9	95%	1.8	1	3
118.0	121.0	3.0	3.0	98%	1.2	0	4
118.0	121.0	3.0	3.0	98%	1.2	0	4
118.0	121.0	3.0	3.0	98%	1.2	0	4
121.0	124.1	3.0	3.0	98%	2.9	1	4
121.0	124.1	3.0	3.0	98%	2.9	1	4
121.0	124.1	3.0	3.0	98%	2.9	1	4
124.1	127.1	3.0	3.0	98%	2.4	1	4
124.1	127.1	3.0	3.0	98%	2.4	1	4
124.1	127.1	3.0	3.0	98%	2.4	1	4
127.1	130.1	3.0	3.0	98%	2.5	1	4
127.1	130.1	3.0	3.0	98%	2.5	1	4
127.1	130.1	3.0	3.0	98%	2.5	1	4
130.1	133.2	3.0	3.0	98%	1.7	1	4
130.1	133.2	3.0	3.0	98%	1.7	1	4
130.1	133.2	3.0	3.0	98%	1.7	1	4
133.2	136.2	3.0	3.0	98%	0.9	0	4
133.2	136.2	3.0	3.0	98%	0.9	0	4
133.2	136.2	3.0	3.0	98%	0.9	0	4
136.2	139.3	3.0	3.0	98%	1.8	1	4
136.2	139.3	3.0	3.0	98%	1.8	1	4
136.2	139.3	3.0	3.0	98%	1.8	1	4
139.3	142.3	3.0	2.7	89%	1.8	1	4
139.3	142.3	3.0	2.7	89%	1.8	1	4
139.3	142.3	3.0	2.7	89%	1.8	1	4

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-11

Northing: 16474.5 **Total Depth:** 538.6 **m**

Easting: 13135.4 **Azimuth** 0.0 °

Drilled: 8/12/2006

Elevation: 1742 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
142.3	145.4	3.0	2.5	82%	1.1	0	4
142.3	145.4	3.0	2.5	82%	1.1	0	4
142.3	145.4	3.0	2.5	82%	1.1	0	4
145.4	148.4	3.0	3.0	98%	1.3	0	4
145.4	148.4	3.0	3.0	98%	1.3	0	4
145.4	148.4	3.0	3.0	98%	1.3	0	4
148.4	151.5	3.0	2.9	95%	1.8	1	4
148.4	151.5	3.0	2.9	95%	1.8	1	4
148.4	151.5	3.0	2.9	95%	1.8	1	4
151.5	154.5	3.0	2.9	95%	1.9	1	4
151.5	154.5	3.0	2.9	95%	1.9	1	4
151.5	154.5	3.0	2.9	95%	1.9	1	4
154.5	157.6	3.0	2.7	89%	0.6	0	4
154.5	157.6	3.0	2.7	89%	0.6	0	4
154.5	157.6	3.0	2.7	89%	0.6	0	4
157.6	160.6	3.0	2.7	89%	2.0	1	4
157.6	160.6	3.0	2.7	89%	2.0	1	4
157.6	160.6	3.0	2.7	89%	2.0	1	4
160.6	163.7	3.0	3.0	98%	2.5	1	4
160.6	163.7	3.0	3.0	98%	2.5	1	4
160.6	163.7	3.0	3.0	98%	2.5	1	4
163.7	166.7	3.0	3.0	98%	1.8	1	4
163.7	166.7	3.0	3.0	98%	1.8	1	4
163.7	166.7	3.0	3.0	98%	1.8	1	4
166.7	169.8	3.0	2.8	92%	1.8	1	4
166.7	169.8	3.0	2.8	92%	1.8	1	4
166.7	169.8	3.0	2.8	92%	1.8	1	4
169.8	172.8	3.0	3.0	98%	2.7	1	4
169.8	172.8	3.0	3.0	98%	2.7	1	4
169.8	172.8	3.0	3.0	98%	2.7	1	4
172.8	175.9	3.0	2.4	79%	0.6	0	4
172.8	175.9	3.0	2.4	79%	0.6	0	4
172.8	175.9	3.0	2.4	79%	0.6	0	4
175.9	178.9	3.0	2.9	95%	2.2	1	4

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-11

Northing: 16474.5 **Total Depth:** 538.6 **m**

Easting: 13135.4 **Azimuth** 0.0 °

Drilled: 8/12/2006

Elevation: 1742 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
175.9	178.9	3.0	2.9	95%	2.2	1	4
175.9	178.9	3.0	2.9	95%	2.2	1	4
178.9	182.0	3.0	2.9	95%	1.7	1	4
178.9	182.0	3.0	2.9	95%	1.7	1	4
178.9	182.0	3.0	2.9	95%	1.7	1	4
182.0	185.0	3.0	3.0	98%	2.0	1	4
182.0	185.0	3.0	3.0	98%	2.0	1	4
182.0	185.0	3.0	3.0	98%	2.0	1	4
185.0	188.1	3.0	3.0	98%	2.4	1	3
185.0	188.1	3.0	3.0	98%	2.4	1	3
185.0	188.1	3.0	3.0	98%	2.4	1	3
188.1	191.1	3.0	3.0	98%	2.2	1	3
188.1	191.1	3.0	3.0	98%	2.2	1	3
188.1	191.1	3.0	3.0	98%	2.2	1	3
191.1	194.2	3.0	3.0	98%	2.0	1	3
191.1	194.2	3.0	3.0	98%	2.0	1	3
191.1	194.2	3.0	3.0	98%	2.0	1	3
194.2	197.2	3.0	3.0	98%	2.2	1	3
194.2	197.2	3.0	3.0	98%	2.2	1	3
194.2	197.2	3.0	3.0	98%	2.2	1	3
197.2	200.3	3.0	3.0	98%	2.0	1	3
197.2	200.3	3.0	3.0	98%	2.0	1	3
197.2	200.3	3.0	3.0	98%	2.0	1	3
200.3	203.3	3.0	3.0	98%	2.2	1	3
200.3	203.3	3.0	3.0	98%	2.2	1	3
200.3	203.3	3.0	3.0	98%	2.2	1	3
203.3	206.3	3.0	3.0	98%	2.7	1	3
203.3	206.3	3.0	3.0	98%	2.7	1	3
203.3	206.3	3.0	3.0	98%	2.7	1	3
206.3	209.4	3.0	3.0	98%	2.6	1	3
206.3	209.4	3.0	3.0	98%	2.6	1	3
206.3	209.4	3.0	3.0	98%	2.6	1	3
209.4	212.4	3.0	3.0	98%	2.4	1	3
209.4	212.4	3.0	3.0	98%	2.4	1	3

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-11

Northing: 16474.5 **Total Depth:** 538.6 **m**

Easting: 13135.4 **Azimuth** 0.0 °

Drilled: 8/12/2006

Elevation: 1742 **Dip** -90 °

From (m)	To (m)	Run (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness
209.4	212.4	3.0	3.0	98%	2.4	1	3
212.4	215.5	3.0	3.0	98%	1.8	1	3
212.4	215.5	3.0	3.0	98%	1.8	1	3
212.4	215.5	3.0	3.0	98%	1.8	1	3
215.5	218.5	3.0	3.0	98%	2.6	1	3
215.5	218.5	3.0	3.0	98%	2.6	1	3
215.5	218.5	3.0	3.0	98%	2.6	1	3
218.5	221.6	3.0	3.0	98%	2.4	1	3
218.5	221.6	3.0	3.0	98%	2.4	1	3
218.5	221.6	3.0	3.0	98%	2.4	1	3
221.6	224.6	3.0	2.4	79%	1.0	0	3
221.6	224.6	3.0	2.4	79%	1.0	0	3
221.6	224.6	3.0	2.4	79%	1.0	0	3
224.6	227.7	3.0	1.8	59%	0.5	0	3
224.6	227.7	3.0	1.8	59%	0.5	0	3
224.6	227.7	3.0	1.8	59%	0.5	0	3
227.7	230.7	3.0	2.8	92%	1.3	0	3
227.7	230.7	3.0	2.8	92%	1.3	0	3
227.7	230.7	3.0	2.8	92%	1.3	0	3
230.7	233.8	3.0	0.0	0%	0.0	0	3
230.7	233.8	3.0	0.0	0%	0.0	0	3
230.7	233.8	3.0	0.0	0%	0.0	0	3
233.8	236.8	3.0	2.6	85%	0.6	0	3
233.8	236.8	3.0	2.6	85%	0.6	0	3
233.8	236.8	3.0	2.6	85%	0.6	0	3
236.8	239.9	3.0	2.8	92%	0.9	0	3
236.8	239.9	3.0	2.8	92%	0.9	0	3
236.8	239.9	3.0	2.8	92%	0.9	0	3
239.9	242.9	3.0	2.8	92%	0.4	0	3
239.9	242.9	3.0	2.8	92%	0.4	0	3
239.9	242.9	3.0	2.8	92%	0.4	0	3
242.9	246.0	3.0	3.0	98%	1.1	0	3
242.9	246.0	3.0	3.0	98%	1.1	0	3
242.9	246.0	3.0	3.0	98%	1.1	0	3

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-11

Northing: 16474.5 **Total Depth:** 538.6 **m**

Easting: 13135.4 **Azimuth** 0.0 °

Drilled: 8/12/2006

Elevation: 1742 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
246.0	249.0	3.0	3.0	98%	0.4	0	3
246.0	249.0	3.0	3.0	98%	0.4	0	3
246.0	249.0	3.0	3.0	98%	0.4	0	3
249.0	252.1	3.0	3.0	98%	1.0	0	3
249.0	252.1	3.0	3.0	98%	1.0	0	3
249.0	252.1	3.0	3.0	98%	1.0	0	3
252.1	255.1	3.0	3.0	98%	0.3	0	3
252.1	255.1	3.0	3.0	98%	0.3	0	3
252.1	255.1	3.0	3.0	98%	0.3	0	3
255.1	258.2	3.0	3.0	98%	1.5	0	3
255.1	258.2	3.0	3.0	98%	1.5	0	3
255.1	258.2	3.0	3.0	98%	1.5	0	3
258.2	261.2	3.0	2.9	95%	1.0	0	3
258.2	261.2	3.0	2.9	95%	1.0	0	3
258.2	261.2	3.0	2.9	95%	1.0	0	3
261.2	264.3	3.0	3.0	98%	0.9	0	3
261.2	264.3	3.0	3.0	98%	0.9	0	3
261.2	264.3	3.0	3.0	98%	0.9	0	3
264.3	267.3	3.0	3.0	98%	1.1	0	3
264.3	267.3	3.0	3.0	98%	1.1	0	3
264.3	267.3	3.0	3.0	98%	1.1	0	3
267.3	270.4	3.0	2.8	92%	1.8	1	3
267.3	270.4	3.0	2.8	92%	1.8	1	3
267.3	270.4	3.0	2.8	92%	1.8	1	3
270.4	273.4	3.0	2.9	95%	0.7	0	3
270.4	273.4	3.0	2.9	95%	0.7	0	3
270.4	273.4	3.0	2.9	95%	0.7	0	3
273.4	276.5	3.0	2.7	89%	1.4	0	3
273.4	276.5	3.0	2.7	89%	1.4	0	3
273.4	276.5	3.0	2.7	89%	1.4	0	3
276.5	279.5	3.0	3.0	98%	1.3	0	3
276.5	279.5	3.0	3.0	98%	1.3	0	3
276.5	279.5	3.0	3.0	98%	1.3	0	3
279.5	282.5	3.0	2.9	95%	0.9	0	3

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-11

Northing: 16474.5 **Total Depth:** 538.6 **m**

Easting: 13135.4 **Azimuth** 0.0 °

Drilled: 8/12/2006

Elevation: 1742 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
279.5	282.5	3.0	2.9	95%	0.9	0	3
279.5	282.5	3.0	2.9	95%	0.9	0	3
282.5	285.6	3.0	2.8	92%	1.1	0	3
282.5	285.6	3.0	2.8	92%	1.1	0	3
282.5	285.6	3.0	2.8	92%	1.1	0	3
285.6	288.6	3.0	2.7	89%	0.6	0	3
285.6	288.6	3.0	2.7	89%	0.6	0	3
285.6	288.6	3.0	2.7	89%	0.6	0	3
288.6	291.7	3.0	2.8	92%	0.5	0	3
288.6	291.7	3.0	2.8	92%	0.5	0	3
288.6	291.7	3.0	2.8	92%	0.5	0	3
291.7	294.7	3.0	2.9	95%	1.8	1	3
291.7	294.7	3.0	2.9	95%	1.8	1	3
291.7	294.7	3.0	2.9	95%	1.8	1	3
294.7	297.8	3.0	3.0	98%	0.1	0	3
294.7	297.8	3.0	3.0	98%	0.1	0	3
294.7	297.8	3.0	3.0	98%	0.1	0	3
297.8	300.8	3.0	2.7	89%	0.7	0	3
297.8	300.8	3.0	2.7	89%	0.7	0	3
297.8	300.8	3.0	2.7	89%	0.7	0	3
300.8	303.9	3.0	2.9	95%	1.5	0	3
300.8	303.9	3.0	2.9	95%	1.5	0	3
300.8	303.9	3.0	2.9	95%	1.5	0	3
303.9	306.9	3.0	3.0	98%	0.5	0	3
303.9	306.9	3.0	3.0	98%	0.5	0	3
303.9	306.9	3.0	3.0	98%	0.5	0	3
306.9	310.0	3.0	2.8	92%	0.7	0	3
306.9	310.0	3.0	2.8	92%	0.7	0	3
306.9	310.0	3.0	2.8	92%	0.7	0	3
310.0	313.0	3.0	3.0	98%	0.9	0	3
310.0	313.0	3.0	3.0	98%	0.9	0	3
310.0	313.0	3.0	3.0	98%	0.9	0	3
313.0	316.1	3.0	2.9	95%	1.0	0	3
313.0	316.1	3.0	2.9	95%	1.0	0	3

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-11

Northing: 16474.5 **Total Depth:** 538.6 **m**

Easting: 13135.4 **Azimuth** 0.0 °

Drilled: 8/12/2006

Elevation: 1742 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
313.0	316.1	3.0	2.9	95%	1.0	0	3
316.1	319.1	3.0	2.9	95%	0.6	0	3
316.1	319.1	3.0	2.9	95%	0.6	0	3
316.1	319.1	3.0	2.9	95%	0.6	0	3
319.1	322.2	3.0	2.8	92%	0.5	0	3
319.1	322.2	3.0	2.8	92%	0.5	0	3
319.1	322.2	3.0	2.8	92%	0.5	0	3
322.2	325.2	3.0	2.9	95%	1.9	1	3
322.2	325.2	3.0	2.9	95%	1.9	1	3
322.2	325.2	3.0	2.9	95%	1.9	1	3
325.2	328.3	3.0	2.8	92%	0.9	0	3
325.2	328.3	3.0	2.8	92%	0.9	0	3
325.2	328.3	3.0	2.8	92%	0.9	0	3
328.3	331.3	3.0	3.0	98%	1.9	1	3
328.3	331.3	3.0	3.0	98%	1.9	1	3
328.3	331.3	3.0	3.0	98%	1.9	1	3
331.3	334.4	3.0	3.0	98%	2.0	1	3
331.3	334.4	3.0	3.0	98%	2.0	1	3
331.3	334.4	3.0	3.0	98%	2.0	1	3
334.4	337.4	3.0	3.0	98%	1.2	0	3
334.4	337.4	3.0	3.0	98%	1.2	0	3
334.4	337.4	3.0	3.0	98%	1.2	0	3
337.4	340.5	3.0	3.0	98%	0.6	0	3
337.4	340.5	3.0	3.0	98%	0.6	0	3
337.4	340.5	3.0	3.0	98%	0.6	0	3
340.5	343.5	3.0	3.0	98%	1.5	0	3
340.5	343.5	3.0	3.0	98%	1.5	0	3
340.5	343.5	3.0	3.0	98%	1.5	0	3
343.5	346.6	3.0	3.0	98%	2.4	1	3
343.5	346.6	3.0	3.0	98%	2.4	1	3
343.5	346.6	3.0	3.0	98%	2.4	1	3
346.6	349.6	3.0	2.7	89%	0.8	0	3
346.6	349.6	3.0	2.7	89%	0.8	0	3
346.6	349.6	3.0	2.7	89%	0.8	0	3

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-11

Northing: 16474.5 **Total Depth:** 538.6 **m**

Easting: 13135.4 **Azimuth** 0.0 °

Drilled: 8/12/2006

Elevation: 1742 **Dip** -90 °

From (m)	To (m)	Run (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness
349.6	352.7	3.0	3.0	98%	1.0	0	3
349.6	352.7	3.0	3.0	98%	1.0	0	3
349.6	352.7	3.0	3.0	98%	1.0	0	3
352.7	355.7	3.0	3.0	98%	1.3	0	3
352.7	355.7	3.0	3.0	98%	1.3	0	3
352.7	355.7	3.0	3.0	98%	1.3	0	3
355.7	358.7	3.0	2.9	95%	0.6	0	3
355.7	358.7	3.0	2.9	95%	0.6	0	3
355.7	358.7	3.0	2.9	95%	0.6	0	3
358.7	361.8	3.0	1.1	36%	0.2	0	3
358.7	361.8	3.0	1.1	36%	0.2	0	3
358.7	361.8	3.0	1.1	36%	0.2	0	3
361.8	364.8	3.0	3.0	98%	1.6	1	3
361.8	364.8	3.0	3.0	98%	1.6	1	3
361.8	364.8	3.0	3.0	98%	1.6	1	3
364.8	367.9	3.0	3.0	98%	0.5	0	3
364.8	367.9	3.0	3.0	98%	0.5	0	3
364.8	367.9	3.0	3.0	98%	0.5	0	3
367.9	370.9	3.0	3.0	98%	0.3	0	3
367.9	370.9	3.0	3.0	98%	0.3	0	3
367.9	370.9	3.0	3.0	98%	0.3	0	3
370.9	374.0	3.1	3.0	98%	0.9	0	3
370.9	374.0	3.1	3.0	98%	0.9	0	3
370.9	374.0	3.1	3.0	98%	0.9	0	3
374.0	377.0	3.0	2.8	92%	0.9	0	3
374.0	377.0	3.0	2.8	92%	0.9	0	3
374.0	377.0	3.0	2.8	92%	0.9	0	3
377.0	380.1	3.0	2.8	92%	0.4	0	3
377.0	380.1	3.0	2.8	92%	0.4	0	3
377.0	380.1	3.0	2.8	92%	0.4	0	3
380.1	383.1	3.0	2.9	95%	1.3	0	3
380.1	383.1	3.0	2.9	95%	1.3	0	3
380.1	383.1	3.0	2.9	95%	1.3	0	3
383.1	386.2	3.0	2.8	92%	0.4	0	3

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-11

Northing: 16474.5 **Total Depth:** 538.6 **m**

Easting: 13135.4 **Azimuth** 0.0 °

Drilled: 8/12/2006

Elevation: 1742 **Dip** -90 °

From (m)	To (m)	Run (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness
383.1	386.2	3.0	2.8	92%	0.4	0	3
383.1	386.2	3.0	2.8	92%	0.4	0	3
386.2	389.2	3.0	3.0	98%	1.7	1	3
386.2	389.2	3.0	3.0	98%	1.7	1	3
386.2	389.2	3.0	3.0	98%	1.7	1	3
389.2	392.3	3.0	3.0	98%	1.0	0	3
389.2	392.3	3.0	3.0	98%	1.0	0	3
389.2	392.3	3.0	3.0	98%	1.0	0	3
392.3	395.3	3.0	3.0	98%	1.6	1	3
392.3	395.3	3.0	3.0	98%	1.6	1	3
392.3	395.3	3.0	3.0	98%	1.6	1	3
395.3	398.4	3.0	3.0	98%	1.9	1	3
395.3	398.4	3.0	3.0	98%	1.9	1	3
395.3	398.4	3.0	3.0	98%	1.9	1	3
398.4	401.4	3.0	2.9	95%	1.9	1	3
398.4	401.4	3.0	2.9	95%	1.9	1	3
398.4	401.4	3.0	2.9	95%	1.9	1	3
401.4	404.5	3.0	3.0	98%	1.5	0	3
401.4	404.5	3.0	3.0	98%	1.5	0	3
401.4	404.5	3.0	3.0	98%	1.5	0	3
404.5	407.5	3.0	2.9	95%	1.0	0	3
404.5	407.5	3.0	2.9	95%	1.0	0	3
404.5	407.5	3.0	2.9	95%	1.0	0	3
407.5	410.6	3.0	3.0	98%	1.1	0	3
407.5	410.6	3.0	3.0	98%	1.1	0	3
407.5	410.6	3.0	3.0	98%	1.1	0	3
410.6	413.6	3.0	3.0	98%	2.4	1	3
410.6	413.6	3.0	3.0	98%	2.4	1	3
410.6	413.6	3.0	3.0	98%	2.4	1	3
413.6	416.7	3.0	2.8	92%	1.7	1	3
413.6	416.7	3.0	2.8	92%	1.7	1	3
413.6	416.7	3.0	2.8	92%	1.7	1	3
416.7	419.7	3.0	2.9	95%	1.2	0	3
416.7	419.7	3.0	2.9	95%	1.2	0	3

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-11

Northing: 16474.5 **Total Depth:** 538.6 **m**

Easting: 13135.4 **Azimuth** 0.0 °

Drilled: 8/12/2006

Elevation: 1742 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
416.7	419.7	3.0	2.9	95%	1.2	0	3
419.7	422.8	3.0	2.9	95%	1.2	0	3
419.7	422.8	3.0	2.9	95%	1.2	0	3
419.7	422.8	3.0	2.9	95%	1.2	0	3
422.8	425.8	3.0	3.0	98%	1.9	1	3
422.8	425.8	3.0	3.0	98%	1.9	1	3
422.8	425.8	3.0	3.0	98%	1.9	1	3
425.8	428.9	3.0	3.0	98%	1.3	0	3
425.8	428.9	3.0	3.0	98%	1.3	0	3
425.8	428.9	3.0	3.0	98%	1.3	0	3
428.9	431.9	3.0	3.0	98%	2.0	1	3
428.9	431.9	3.0	3.0	98%	2.0	1	3
428.9	431.9	3.0	3.0	98%	2.0	1	3
431.9	434.9	3.0	3.0	98%	0.8	0	3
431.9	434.9	3.0	3.0	98%	0.8	0	3
431.9	434.9	3.0	3.0	98%	0.8	0	3
434.9	438.0	3.0	3.0	98%	2.2	1	3
434.9	438.0	3.0	3.0	98%	2.2	1	3
434.9	438.0	3.0	3.0	98%	2.2	1	3
438.0	441.0	3.0	3.0	98%	1.6	1	3
438.0	441.0	3.0	3.0	98%	1.6	1	3
438.0	441.0	3.0	3.0	98%	1.6	1	3
441.0	444.1	3.0	3.0	98%	1.4	0	3
441.0	444.1	3.0	3.0	98%	1.4	0	3
441.0	444.1	3.0	3.0	98%	1.4	0	3
444.1	447.1	3.0	3.0	98%	0.7	0	3
444.1	447.1	3.0	3.0	98%	0.7	0	3
444.1	447.1	3.0	3.0	98%	0.7	0	3
447.1	450.2	3.0	3.0	98%	0.5	0	3
447.1	450.2	3.0	3.0	98%	0.5	0	3
447.1	450.2	3.0	3.0	98%	0.5	0	3
450.2	453.2	3.0	3.0	98%	0.6	0	3
450.2	453.2	3.0	3.0	98%	0.6	0	3
450.2	453.2	3.0	3.0	98%	0.6	0	3

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-11

Northing: 16474.5 **Total Depth:** 538.6 **m**

Easting: 13135.4 **Azimuth** 0.0 °

Drilled: 8/12/2006

Elevation: 1742 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
453.2	456.3	3.0	3.0	98%	1.7	1	3
453.2	456.3	3.0	3.0	98%	1.7	1	3
453.2	456.3	3.0	3.0	98%	1.7	1	3
456.3	459.3	3.0	2.7	89%	1.2	0	0
456.3	459.3	3.0	2.7	89%	1.2	0	0
456.3	459.3	3.0	2.7	89%	1.2	0	0
459.3	462.4	3.0	2.9	95%	0.5	0	3
459.3	462.4	3.0	2.9	95%	0.5	0	3
459.3	462.4	3.0	2.9	95%	0.5	0	3
462.4	465.4	3.0	3.0	98%	1.5	0	3
462.4	465.4	3.0	3.0	98%	1.5	0	3
462.4	465.4	3.0	3.0	98%	1.5	0	3
465.4	468.5	3.0	2.8	92%	0.7	0	3
465.4	468.5	3.0	2.8	92%	0.7	0	3
465.4	468.5	3.0	2.8	92%	0.7	0	3
468.5	471.5	3.0	3.0	98%	1.1	0	3
468.5	471.5	3.0	3.0	98%	1.1	0	3
468.5	471.5	3.0	3.0	98%	1.1	0	3
468.5	471.5	3.0					0
468.5	471.5	3.0					0
468.5	471.5	3.0					0
471.5	474.6	3.0	3.0	98%	1.6	1	3
471.5	474.6	3.0	3.0	98%	1.6	1	3
471.5	474.6	3.0	3.0	98%	1.6	1	3
474.6	477.6	3.0	2.8	92%	1.2	0	3
474.6	477.6	3.0	2.8	92%	1.2	0	3
474.6	477.6	3.0	2.8	92%	1.2	0	3
477.6	480.7	3.0	2.9	95%	1.0	0	3
477.6	480.7	3.0	2.9	95%	1.0	0	3
477.6	480.7	3.0	2.9	95%	1.0	0	3
480.7	483.7	3.0	3.0	98%	0.7	0	3
480.7	483.7	3.0	3.0	98%	0.7	0	3
480.7	483.7	3.0	3.0	98%	0.7	0	3
483.7	486.8	3.0	2.9	95%	1.3	0	3

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-11

Northing: 16474.5 **Total Depth:** 538.6 **m**

Easting: 13135.4 **Azimuth** 0.0 °

Drilled: 8/12/2006

Elevation: 1742 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
483.7	486.8	3.0	2.9	95%	1.3	0	3
483.7	486.8	3.0	2.9	95%	1.3	0	3
486.8	489.8	3.0	3.0	98%	0.7	0	3
486.8	489.8	3.0	3.0	98%	0.7	0	3
486.8	489.8	3.0	3.0	98%	0.7	0	3
489.8	492.9	3.0	2.9	95%	1.4	0	3
489.8	492.9	3.0	2.9	95%	1.4	0	3
489.8	492.9	3.0	2.9	95%	1.4	0	3
492.9	495.9	3.0	2.5	82%	0.3	0	3
492.9	495.9	3.0	2.5	82%	0.3	0	3
492.9	495.9	3.0	2.5	82%	0.3	0	3
495.9	499.0	3.0	3.0	98%	1.4	0	3
495.9	499.0	3.0	3.0	98%	1.4	0	3
495.9	499.0	3.0	3.0	98%	1.4	0	3
499.0	502.0	3.0	3.0	98%	0.2	0	3
499.0	502.0	3.0	3.0	98%	0.2	0	3
499.0	502.0	3.0	3.0	98%	0.2	0	3
502.0	505.1	3.0	3.0	98%	0.9	0	3
502.0	505.1	3.0	3.0	98%	0.9	0	3
502.0	505.1	3.0	3.0	98%	0.9	0	3
505.1	508.1	3.0	3.0	98%	1.3	0	3
505.1	508.1	3.0	3.0	98%	1.3	0	3
505.1	508.1	3.0	3.0	98%	1.3	0	3
508.1	511.1	3.0	3.0	98%	0.9	0	3
508.1	511.1	3.0	3.0	98%	0.9	0	3
508.1	511.1	3.0	3.0	98%	0.9	0	3
511.1	514.2	3.0	2.9	95%	1.0	0	3
511.1	514.2	3.0	2.9	95%	1.0	0	3
511.1	514.2	3.0	2.9	95%	1.0	0	3
514.2	517.2	3.0	3.0	98%	1.5	0	3
514.2	517.2	3.0	3.0	98%	1.5	0	3
514.2	517.2	3.0	3.0	98%	1.5	0	3
517.2	520.3	3.0	3.0	98%	0.2	0	3
517.2	520.3	3.0	3.0	98%	0.2	0	3

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-11

Northing: 16474.5 **Total Depth:** 538.6 **m**

Easting: 13135.4 **Azimuth** 0.0 °

Drilled: 8/12/2006

Elevation: 1742 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
517.2	520.3	3.0	3.0	98%	0.2	0	3
520.3	523.3	3.0	3.0	98%	1.6	1	3
520.3	523.3	3.0	3.0	98%	1.6	1	3
520.3	523.3	3.0	3.0	98%	1.6	1	3
523.3	526.4	3.0	2.9	95%	1.7	1	3
523.3	526.4	3.0	2.9	95%	1.7	1	3
523.3	526.4	3.0	2.9	95%	1.7	1	3
526.4	529.4	3.0	3.0	98%	1.0	0	3
526.4	529.4	3.0	3.0	98%	1.0	0	3
526.4	529.4	3.0	3.0	98%	1.0	0	3
529.4	532.5	3.0	3.0	98%	0.2	0	3
529.4	532.5	3.0	3.0	98%	0.2	0	3
529.4	532.5	3.0	3.0	98%	0.2	0	3
532.5	535.5	3.0	3.1	100%	1.0	0	4
532.5	535.5	3.0	3.1	100%	1.0	0	4
532.5	535.5	3.0	3.1	100%	1.0	0	4
535.5	538.6	3.0	2.9	95%	1.1	0	4
535.5	538.6	3.0	2.9	95%	1.1	0	4
535.5	538.6	3.0	2.9	95%	1.1	0	4

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-13

Northing: 16101.8 **Total Depth:** 337.4 **m**

Easting: 13056.1 **Azimuth** 0.0 °

Drilled: 8/18/2006

Elevation: 1650 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
0.0	11.2	11.2	0.0	0%	0.0	0	0
11.2	14.3	3.1	2.1	66%	0.2	0	5
11.2	14.3	3.1	2.1	66%	0.2	0	5
11.2	14.3	3.1	2.1	66%	0.2	0	5
14.3	17.4	3.0	2.0	64%	0.1	0	5
14.3	17.4	3.0	2.0	64%	0.1	0	5
14.3	17.4	3.0	2.0	64%	0.1	0	5
17.4	20.4	3.0	2.1	70%	0.5	0	5
17.4	20.4	3.0	2.1	70%	0.5	0	5
17.4	20.4	3.0	2.1	70%	0.5	0	5
20.4	23.5	3.0	1.0	32%	0.0	0	5
20.4	23.5	3.0	1.0	32%	0.0	0	5
20.4	23.5	3.0	1.0	32%	0.0	0	5
23.5	26.5	3.0	2.7	88%	0.6	0	5
23.5	26.5	3.0	2.7	88%	0.6	0	5
23.5	26.5	3.0	2.7	88%	0.6	0	5
26.5	29.6	3.0	3.0	98%	0.4	0	5
26.5	29.6	3.0	3.0	98%	0.4	0	5
26.5	29.6	3.0	3.0	98%	0.4	0	5
29.6	32.6	3.0	3.0	99%	0.8	0	5
29.6	32.6	3.0	3.0	99%	0.8	0	5
29.6	32.6	3.0	3.0	99%	0.8	0	5
32.6	35.7	3.0	3.1	100%	0.8	0	5
32.6	35.7	3.0	3.1	100%	0.8	0	5
32.6	35.7	3.0	3.1	100%	0.8	0	5
35.7	38.7	3.0	3.0	98%	1.0	0	5
35.7	38.7	3.0	3.0	98%	1.0	0	5
35.7	38.7	3.0	3.0	98%	1.0	0	5
38.7	41.8	3.0	3.0	97%	1.6	1	5
38.7	41.8	3.0	3.0	97%	1.6	1	5
38.7	41.8	3.0	3.0	97%	1.6	1	5
41.8	44.8	3.0	3.0	99%	0.9	0	5
41.8	44.8	3.0	3.0	99%	0.9	0	5
41.8	44.8	3.0	3.0	99%	0.9	0	5

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-13

Northing: 16101.8 **Total Depth:** 337.4 **m**

Easting: 13056.1 **Azimuth** 0.0 °

Drilled: 8/18/2006

Elevation: 1650 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
44.8	47.9	3.0	3.0	99%	1.6	1	5
44.8	47.9	3.0	3.0	99%	1.6	1	5
44.8	47.9	3.0	3.0	99%	1.6	1	5
47.9	50.9	3.0	3.0	100%	1.4	0	5
47.9	50.9	3.0	3.0	100%	1.4	0	5
47.9	50.9	3.0	3.0	100%	1.4	0	5
50.9	53.9	3.0	3.1	101%	1.1	0	5
50.9	53.9	3.0	3.1	101%	1.1	0	5
50.9	53.9	3.0	3.1	101%	1.1	0	5
53.9	57.0	3.0	3.1	100%	0.9	0	5
53.9	57.0	3.0	3.1	100%	0.9	0	5
53.9	57.0	3.0	3.1	100%	0.9	0	5
57.0	60.0	3.0	3.1	101%	1.1	0	5
57.0	60.0	3.0	3.1	101%	1.1	0	5
57.0	60.0	3.0	3.1	101%	1.1	0	5
60.0	63.1	3.0	2.8	92%	1.2	0	4
60.0	63.1	3.0	2.8	92%	1.2	0	4
60.0	63.1	3.0	2.8	92%	1.2	0	4
63.1	66.1	3.0	1.6	52%	0.7	0	5
63.1	66.1	3.0	1.6	52%	0.7	0	5
63.1	66.1	3.0	1.6	52%	0.7	0	5
66.1	69.2	3.0	3.0	98%	2.0	1	4
66.1	69.2	3.0	3.0	98%	2.0	1	4
66.1	69.2	3.0	3.0	98%	2.0	1	4
69.2	72.2	3.0	2.6	85%	1.1	0	4
69.2	72.2	3.0	2.6	85%	1.1	0	4
69.2	72.2	3.0	2.6	85%	1.1	0	4
72.2	75.3	3.0	3.0	98%	1.2	0	5
72.2	75.3	3.0	3.0	98%	1.2	0	5
72.2	75.3	3.0	3.0	98%	1.2	0	5
75.3	78.3	3.0	3.0	98%	1.7	1	5
75.3	78.3	3.0	3.0	98%	1.7	1	5
75.3	78.3	3.0	3.0	98%	1.7	1	5
78.3	81.4	3.0	2.9	95%	1.4	0	5

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-13

Northing: 16101.8 **Total Depth:** 337.4 **m**

Easting: 13056.1 **Azimuth** 0.0 °

Drilled: 8/18/2006

Elevation: 1650 **Dip** -90 °

From (m)	To (m)	Run (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness
78.3	81.4	3.0	2.9	95%	1.4	0	5
78.3	81.4	3.0	2.9	95%	1.4	0	5
81.4	84.4	3.0	3.0	98%	2.5	1	5
81.4	84.4	3.0	3.0	98%	2.5	1	5
81.4	84.4	3.0	3.0	98%	2.5	1	5
84.4	87.5	3.0	2.9	95%	1.6	1	4
84.4	87.5	3.0	2.9	95%	1.6	1	4
84.4	87.5	3.0	2.9	95%	1.6	1	4
87.5	90.5	3.0	3.0	98%	2.2	1	4
87.5	90.5	3.0	3.0	98%	2.2	1	4
87.5	90.5	3.0	3.0	98%	2.2	1	4
90.5	93.6	3.0	3.0	98%	2.2	1	4
90.5	93.6	3.0	3.0	98%	2.2	1	4
90.5	93.6	3.0	3.0	98%	2.2	1	4
93.6	96.6	3.0	2.9	95%	1.9	1	5
93.6	96.6	3.0	2.9	95%	1.9	1	5
93.6	96.6	3.0	2.9	95%	1.9	1	5
96.6	99.7	3.0	3.0	98%	2.2	1	4
96.6	99.7	3.0	3.0	98%	2.2	1	4
96.6	99.7	3.0	3.0	98%	2.2	1	4
99.7	102.7	3.0	2.9	95%	2.1	1	4
99.7	102.7	3.0	2.9	95%	2.1	1	4
99.7	102.7	3.0	2.9	95%	2.1	1	4
102.7	105.8	3.0	2.9	95%	1.5	0	4
102.7	105.8	3.0	2.9	95%	1.5	0	4
102.7	105.8	3.0	2.9	95%	1.5	0	4
105.8	108.8	3.0	2.9	95%	1.4	0	5
105.8	108.8	3.0	2.9	95%	1.4	0	5
105.8	108.8	3.0	2.9	95%	1.4	0	5
108.8	111.9	3.0	2.9	95%	1.8	1	5
108.8	111.9	3.0	2.9	95%	1.8	1	5
108.8	111.9	3.0	2.9	95%	1.8	1	5
111.9	114.9	3.0	2.8	92%	1.0	0	5
111.9	114.9	3.0	2.8	92%	1.0	0	5

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-13

Northing: 16101.8 **Total Depth:** 337.4 **m**

Easting: 13056.1 **Azimuth** 0.0 °

Drilled: 8/18/2006

Elevation: 1650 **Dip** -90 °

From (m)	To (m)	Run (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness
111.9	114.9	3.0	2.8	92%	1.0	0	5
114.9	118.0	3.0	3.0	98%	2.2	1	5
114.9	118.0	3.0	3.0	98%	2.2	1	5
114.9	118.0	3.0	3.0	98%	2.2	1	5
118.0	121.0	3.0	3.0	98%	1.6	1	5
118.0	121.0	3.0	3.0	98%	1.6	1	5
118.0	121.0	3.0	3.0	98%	1.6	1	5
121.0	124.1	3.0	2.8	92%	1.6	1	5
121.0	124.1	3.0	2.8	92%	1.6	1	5
121.0	124.1	3.0	2.8	92%	1.6	1	5
124.1	127.1	3.0	3.0	98%	1.5	0	5
124.1	127.1	3.0	3.0	98%	1.5	0	5
124.1	127.1	3.0	3.0	98%	1.5	0	5
127.1	130.1	3.0	3.1	102%	0.8	0	5
127.1	130.1	3.0	3.1	102%	0.8	0	5
127.1	130.1	3.0	3.1	102%	0.8	0	5
130.1	133.2	3.0	3.1	102%	0.7	0	4
130.1	133.2	3.0	3.1	102%	0.7	0	4
130.1	133.2	3.0	3.1	102%	0.7	0	4
133.2	136.2	3.0	3.1	102%	1.1	0	4
133.2	136.2	3.0	3.1	102%	1.1	0	4
133.2	136.2	3.0	3.1	102%	1.1	0	4
136.2	139.3	3.0	3.0	98%	1.3	0	4
136.2	139.3	3.0	3.0	98%	1.3	0	4
136.2	139.3	3.0	3.0	98%	1.3	0	4
139.3	142.3	3.0	3.0	98%	0.9	0	4
139.3	142.3	3.0	3.0	98%	0.9	0	4
139.3	142.3	3.0	3.0	98%	0.9	0	4
142.3	145.4	3.0	3.0	98%	1.7	1	4
142.3	145.4	3.0	3.0	98%	1.7	1	4
142.3	145.4	3.0	3.0	98%	1.7	1	4
145.4	148.4	3.0	2.9	95%	1.5	0	4
145.4	148.4	3.0	2.9	95%	1.5	0	4
145.4	148.4	3.0	2.9	95%	1.5	0	4

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-13

Northing: 16101.8 **Total Depth:** 337.4 **m**

Easting: 13056.1 **Azimuth** 0.0 °

Drilled: 8/18/2006

Elevation: 1650 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
148.4	151.5	3.0	3.0	98%	1.7	1	4
148.4	151.5	3.0	3.0	98%	1.7	1	4
148.4	151.5	3.0	3.0	98%	1.7	1	4
151.5	154.5	3.0	3.0	98%	1.0	0	4
151.5	154.5	3.0	3.0	98%	1.0	0	4
151.5	154.5	3.0	3.0	98%	1.0	0	4
154.5	157.6	3.0	3.0	98%	1.6	1	4
154.5	157.6	3.0	3.0	98%	1.6	1	4
154.5	157.6	3.0	3.0	98%	1.6	1	4
157.6	160.6	3.0	3.0	98%	1.8	1	4
157.6	160.6	3.0	3.0	98%	1.8	1	4
157.6	160.6	3.0	3.0	98%	1.8	1	4
160.6	163.7	3.0	2.9	95%	2.1	1	4
160.6	163.7	3.0	2.9	95%	2.1	1	4
160.6	163.7	3.0	2.9	95%	2.1	1	4
163.7	166.7	3.0	2.9	95%	1.2	0	4
163.7	166.7	3.0	2.9	95%	1.2	0	4
163.7	166.7	3.0	2.9	95%	1.2	0	4
166.7	169.8	3.0	2.8	92%	0.8	0	4
166.7	169.8	3.0	2.8	92%	0.8	0	4
166.7	169.8	3.0	2.8	92%	0.8	0	4
169.8	172.8	3.0	3.1	102%	1.5	0	4
169.8	172.8	3.0	3.1	102%	1.5	0	4
169.8	172.8	3.0	3.1	102%	1.5	0	4
172.8	175.9	3.0	3.0	98%	2.1	1	4
172.8	175.9	3.0	3.0	98%	2.1	1	4
172.8	175.9	3.0	3.0	98%	2.1	1	4
175.9	178.9	3.0	2.9	95%	1.6	1	4
175.9	178.9	3.0	2.9	95%	1.6	1	4
175.9	178.9	3.0	2.9	95%	1.6	1	4
178.9	182.0	3.0	3.1	102%	1.7	1	4
178.9	182.0	3.0	3.1	102%	1.7	1	4
178.9	182.0	3.0	3.1	102%	1.7	1	4
182.0	185.0	3.0	3.0	98%	1.8	1	4

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-13

Northing: 16101.8 **Total Depth:** 337.4 **m**

Easting: 13056.1 **Azimuth** 0.0 °

Drilled: 8/18/2006

Elevation: 1650 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
182.0	185.0	3.0	3.0	98%	1.8	1	4
182.0	185.0	3.0	3.0	98%	1.8	1	4
185.0	188.1	3.0	2.9	95%	1.6	1	4
185.0	188.1	3.0	2.9	95%	1.6	1	4
185.0	188.1	3.0	2.9	95%	1.6	1	4
188.1	191.1	3.0	3.0	98%	1.4	0	4
188.1	191.1	3.0	3.0	98%	1.4	0	4
188.1	191.1	3.0	3.0	98%	1.4	0	4
191.1	194.2	3.0	2.9	95%	1.3	0	4
191.1	194.2	3.0	2.9	95%	1.3	0	4
191.1	194.2	3.0	2.9	95%	1.3	0	4
194.2	197.2	3.0	3.0	98%	1.4	0	4
194.2	197.2	3.0	3.0	98%	1.4	0	4
194.2	197.2	3.0	3.0	98%	1.4	0	4
197.2	200.3	3.0	2.8	92%	1.3	0	4
197.2	200.3	3.0	2.8	92%	1.3	0	4
197.2	200.3	3.0	2.8	92%	1.3	0	4
200.3	203.3	3.0	3.0	98%	1.3	0	4
200.3	203.3	3.0	3.0	98%	1.3	0	4
200.3	203.3	3.0	3.0	98%	1.3	0	4
203.3	206.3	3.0	3.0	98%	0.8	0	4
203.3	206.3	3.0	3.0	98%	0.8	0	4
203.3	206.3	3.0	3.0	98%	0.8	0	4
206.3	209.4	3.0	3.0	98%	0.5	0	4
206.3	209.4	3.0	3.0	98%	0.5	0	4
206.3	209.4	3.0	3.0	98%	0.5	0	4
209.4	212.4	3.0	3.0	98%	0.8	0	4
209.4	212.4	3.0	3.0	98%	0.8	0	4
209.4	212.4	3.0	3.0	98%	0.8	0	4
212.4	215.5	3.0	3.0	98%	1.5	0	4
212.4	215.5	3.0	3.0	98%	1.5	0	4
212.4	215.5	3.0	3.0	98%	1.5	0	4
215.5	218.5	3.0	2.9	95%	0.4	0	4
215.5	218.5	3.0	2.9	95%	0.4	0	4

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-13

Northing: 16101.8 **Total Depth:** 337.4 **m**

Easting: 13056.1 **Azimuth** 0.0 °

Drilled: 8/18/2006

Elevation: 1650 **Dip** -90 °

From (m)	To (m)	Run (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness
215.5	218.5	3.0	2.9	95%	0.4	0	4
218.5	221.6	3.0	3.1	102%	1.1	0	4
218.5	221.6	3.0	3.1	102%	1.1	0	4
218.5	221.6	3.0	3.1	102%	1.1	0	4
221.6	224.6	3.0	3.0	98%	1.8	1	4
221.6	224.6	3.0	3.0	98%	1.8	1	4
221.6	224.6	3.0	3.0	98%	1.8	1	4
224.6	227.7	3.0	3.0	98%	1.6	1	4
224.6	227.7	3.0	3.0	98%	1.6	1	4
224.6	227.7	3.0	3.0	98%	1.6	1	4
227.7	230.7	3.0	3.0	98%	1.3	0	4
227.7	230.7	3.0	3.0	98%	1.3	0	4
227.7	230.7	3.0	3.0	98%	1.3	0	4
230.7	233.8	3.0	2.9	95%	1.4	0	4
230.7	233.8	3.0	2.9	95%	1.4	0	4
230.7	233.8	3.0	2.9	95%	1.4	0	4
233.8	236.8	3.0	3.0	98%	0.9	0	4
233.8	236.8	3.0	3.0	98%	0.9	0	4
233.8	236.8	3.0	3.0	98%	0.9	0	4
236.8	239.9	3.0	3.1	102%	0.4	0	4
236.8	239.9	3.0	3.1	102%	0.4	0	4
236.8	239.9	3.0	3.1	102%	0.4	0	4
239.9	242.9	3.0	3.1	102%	0.6	0	4
239.9	242.9	3.0	3.1	102%	0.6	0	4
239.9	242.9	3.0	3.1	102%	0.6	0	4
242.9	246.0	3.0	3.1	102%	0.8	0	4
242.9	246.0	3.0	3.1	102%	0.8	0	4
242.9	246.0	3.0	3.1	102%	0.8	0	4
246.0	249.0	3.0	3.0	98%	1.1	0	4
246.0	249.0	3.0	3.0	98%	1.1	0	4
246.0	249.0	3.0	3.0	98%	1.1	0	4
249.0	252.1	3.0	3.0	98%	1.8	1	4
249.0	252.1	3.0	3.0	98%	1.8	1	4
249.0	252.1	3.0	3.0	98%	1.8	1	4

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-13

Northing: 16101.8 **Total Depth:** 337.4 **m**

Easting: 13056.1 **Azimuth** 0.0 °

Drilled: 8/18/2006

Elevation: 1650 **Dip** -90 °

From (m)	To (m)	Run (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness
252.1	255.1	3.0	3.0	98%	2.2	1	4
252.1	255.1	3.0	3.0	98%	2.2	1	4
252.1	255.1	3.0	3.0	98%	2.2	1	4
255.1	258.2	3.0	3.0	98%	1.3	0	4
255.1	258.2	3.0	3.0	98%	1.3	0	4
255.1	258.2	3.0	3.0	98%	1.3	0	4
258.2	261.2	3.0	3.0	98%	1.7	1	4
258.2	261.2	3.0	3.0	98%	1.7	1	4
258.2	261.2	3.0	3.0	98%	1.7	1	4
261.2	264.3	3.0	3.0	98%	2.4	1	4
261.2	264.3	3.0	3.0	98%	2.4	1	4
261.2	264.3	3.0	3.0	98%	2.4	1	4
264.3	267.3	3.0	3.0	98%	0.3	0	4
264.3	267.3	3.0	3.0	98%	0.3	0	4
264.3	267.3	3.0	3.0	98%	0.3	0	4
267.3	270.4	3.0	3.0	98%	0.7	0	4
267.3	270.4	3.0	3.0	98%	0.7	0	4
267.3	270.4	3.0	3.0	98%	0.7	0	4
270.4	273.4	3.0	3.0	98%	0.9	0	4
270.4	273.4	3.0	3.0	98%	0.9	0	4
270.4	273.4	3.0	3.0	98%	0.9	0	4
273.4	276.5	3.0	3.0	98%	0.5	0	4
273.4	276.5	3.0	3.0	98%	0.5	0	4
273.4	276.5	3.0	3.0	98%	0.5	0	4
276.5	279.5	3.0	3.1	102%	1.4	0	4
276.5	279.5	3.0	3.1	102%	1.4	0	4
276.5	279.5	3.0	3.1	102%	1.4	0	4
279.5	282.5	3.0	3.1	102%	0.5	0	4
279.5	282.5	3.0	3.1	102%	0.5	0	4
279.5	282.5	3.0	3.1	102%	0.5	0	4
282.5	285.6	3.0	3.0	98%	1.0	0	4
282.5	285.6	3.0	3.0	98%	1.0	0	4
282.5	285.6	3.0	3.0	98%	1.0	0	4
285.6	288.6	3.0	3.0	98%	0.9	0	4

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-13

Northing: 16101.8 **Total Depth:** 337.4 **m**

Easting: 13056.1 **Azimuth** 0.0 °

Drilled: 8/18/2006

Elevation: 1650 **Dip** -90 °

From (m)	To (m)	Run (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness
285.6	288.6	3.0	3.0	98%	0.9	0	4
285.6	288.6	3.0	3.0	98%	0.9	0	4
288.6	291.7	3.0	3.0	98%	1.6	1	4
288.6	291.7	3.0	3.0	98%	1.6	1	4
288.6	291.7	3.0	3.0	98%	1.6	1	4
291.7	294.7	3.0	3.1	102%	0.5	0	4
291.7	294.7	3.0	3.1	102%	0.5	0	4
291.7	294.7	3.0	3.1	102%	0.5	0	4
294.7	297.8	3.0	3.0	98%	1.0	0	4
294.7	297.8	3.0	3.0	98%	1.0	0	4
294.7	297.8	3.0	3.0	98%	1.0	0	4
297.8	300.8	3.0	3.0	98%	0.7	0	4
297.8	300.8	3.0	3.0	98%	0.7	0	4
297.8	300.8	3.0	3.0	98%	0.7	0	4
300.8	303.9	3.0	3.0	98%	0.9	0	4
300.8	303.9	3.0	3.0	98%	0.9	0	4
300.8	303.9	3.0	3.0	98%	0.9	0	4
303.9	306.9	3.0	3.0	98%	0.5	0	4
303.9	306.9	3.0	3.0	98%	0.5	0	4
303.9	306.9	3.0	3.0	98%	0.5	0	4
306.9	310.0	3.0	3.0	98%	1.0	0	4
306.9	310.0	3.0	3.0	98%	1.0	0	4
306.9	310.0	3.0	3.0	98%	1.0	0	4
310.0	313.0	3.0	3.1	102%	0.8	0	4
310.0	313.0	3.0	3.1	102%	0.8	0	4
310.0	313.0	3.0	3.1	102%	0.8	0	4
313.0	316.1	3.0	3.0	98%	1.0	0	4
313.0	316.1	3.0	3.0	98%	1.0	0	4
313.0	316.1	3.0	3.0	98%	1.0	0	4
316.1	319.1	3.0	3.0	98%	0.5	0	4
316.1	319.1	3.0	3.0	98%	0.5	0	4
316.1	319.1	3.0	3.0	98%	0.5	0	4
319.1	322.2	3.0	3.1	102%	0.6	0	4
319.1	322.2	3.0	3.1	102%	0.6	0	4

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-13

Northing: 16101.8 **Total Depth:** 337.4 **m**

Easting: 13056.1 **Azimuth** 0.0 °

Drilled: 8/18/2006

Elevation: 1650 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
319.1	322.2	3.0	3.1	102%	0.6	0	4
322.2	325.2	3.0	3.0	98%	0.6	0	4
322.2	325.2	3.0	3.0	98%	0.6	0	4
322.2	325.2	3.0	3.0	98%	0.6	0	4
325.2	328.3	3.0	2.9	95%	0.4	0	4
325.2	328.3	3.0	2.9	95%	0.4	0	4
325.2	328.3	3.0	2.9	95%	0.4	0	4
328.3	331.3	3.0	3.0	98%	0.2	0	4
328.3	331.3	3.0	3.0	98%	0.2	0	4
328.3	331.3	3.0	3.0	98%	0.2	0	4
331.3	334.4	3.0	3.0	98%	0.7	0	4
331.3	334.4	3.0	3.0	98%	0.7	0	4
331.3	334.4	3.0	3.0	98%	0.7	0	4
334.4	337.4	3.0	2.9	95%	0.4	0	4
334.4	337.4	3.0	2.9	95%	0.4	0	4
334.4	337.4	3.0	2.9	95%	0.4	0	4

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-14

Northing: 15957.3 **Total Depth:** 255.1 **m**

Easting: 12265.0 **Azimuth** 0.0 °

Drilled: 8/25/2006

Elevation: 1752.4 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
0.0	14.3	3.0	0.2	7%	0.0	0	3
0.0	14.3	3.0	0.2	7%	0.0	0	3
0.0	14.3	3.0	0.2	7%	0.0	0	3
14.3	17.4	3.0	2.8	92%	0.4	0	3
14.3	17.4	3.0	2.8	92%	0.4	0	3
14.3	17.4	3.0	2.8	92%	0.4	0	3
17.4	20.4	3.0	2.8	92%	1.3	0	3
17.4	20.4	3.0	2.8	92%	1.3	0	3
17.4	20.4	3.0	2.8	92%	1.3	0	3
20.4	23.5	3.0	3.2	105%	1.5	0	3
20.4	23.5	3.0	3.2	105%	1.5	0	3
20.4	23.5	3.0	3.2	105%	1.5	0	3
23.5	26.5	3.0	3.0	98%	1.9	1	3
23.5	26.5	3.0	3.0	98%	1.9	1	3
23.5	26.5	3.0	3.0	98%	1.9	1	3
26.5	29.6	3.0	3.0	98%	2.2	1	3
26.5	29.6	3.0	3.0	98%	2.2	1	3
26.5	29.6	3.0	3.0	98%	2.2	1	3
29.6	32.6	3.0	3.1	102%	2.1	1	3
29.6	32.6	3.0	3.1	102%	2.1	1	3
29.6	32.6	3.0	3.1	102%	2.1	1	3
32.6	35.7	3.0	3.0	98%	2.6	1	3
32.6	35.7	3.0	3.0	98%	2.6	1	3
32.6	35.7	3.0	3.0	98%	2.6	1	3
35.7	38.7	3.0	3.0	98%	2.6	1	3
35.7	38.7	3.0	3.0	98%	2.6	1	3
35.7	38.7	3.0	3.0	98%	2.6	1	3
38.7	41.8	3.0	3.1	102%	2.7	1	3
38.7	41.8	3.0	3.1	102%	2.7	1	3
38.7	41.8	3.0	3.1	102%	2.7	1	3
41.8	44.8	3.0	3.0	98%	1.7	1	3
41.8	44.8	3.0	3.0	98%	1.7	1	3
41.8	44.8	3.0	3.0	98%	1.7	1	3
44.8	47.9	3.0	3.0	98%	1.9	1	3

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-14

Northing: 15957.3 **Total Depth:** 255.1 **m**

Easting: 12265.0 **Azimuth** 0.0 °

Drilled: 8/25/2006

Elevation: 1752.4 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
44.8	47.9	3.0	3.0	98%	1.9	1	3
44.8	47.9	3.0	3.0	98%	1.9	1	3
47.9	50.9	3.0	3.0	98%	2.7	1	3
47.9	50.9	3.0	3.0	98%	2.7	1	3
47.9	50.9	3.0	3.0	98%	2.7	1	3
50.9	53.9	3.0	3.1	102%	2.4	1	3
50.9	53.9	3.0	3.1	102%	2.4	1	3
50.9	53.9	3.0	3.1	102%	2.4	1	3
53.9	57.0	3.0	3.0	98%	2.9	1	3
53.9	57.0	3.0	3.0	98%	2.9	1	3
53.9	57.0	3.0	3.0	98%	2.9	1	3
57.0	60.0	3.0	2.9	95%	2.5	1	3
57.0	60.0	3.0	2.9	95%	2.5	1	3
57.0	60.0	3.0	2.9	95%	2.5	1	3
60.0	63.1	3.0	3.0	98%	2.9	1	3
60.0	63.1	3.0	3.0	98%	2.9	1	3
60.0	63.1	3.0	3.0	98%	2.9	1	3
63.1	66.1	3.0	2.8	92%	2.3	1	3
63.1	66.1	3.0	2.8	92%	2.3	1	3
63.1	66.1	3.0	2.8	92%	2.3	1	3
66.1	69.2	3.0	3.1	102%	2.5	1	3
66.1	69.2	3.0	3.1	102%	2.5	1	3
66.1	69.2	3.0	3.1	102%	2.5	1	3
69.2	72.2	3.0	3.1	102%	2.5	1	3
69.2	72.2	3.0	3.1	102%	2.5	1	3
69.2	72.2	3.0	3.1	102%	2.5	1	3
72.2	75.3	3.0	3.0	98%	2.9	1	3
72.2	75.3	3.0	3.0	98%	2.9	1	3
72.2	75.3	3.0	3.0	98%	2.9	1	3
75.3	78.3	3.0	2.9	95%	2.3	1	3
75.3	78.3	3.0	2.9	95%	2.3	1	3
75.3	78.3	3.0	2.9	95%	2.3	1	3
78.3	81.4	3.0	2.9	95%	2.1	1	3
78.3	81.4	3.0	2.9	95%	2.1	1	3

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-14

Northing: 15957.3 **Total Depth:** 255.1 **m**

Easting: 12265.0 **Azimuth** 0.0 °

Drilled: 8/25/2006

Elevation: 1752.4 **Dip** -90 °

From (m)	To (m)	Run (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness
78.3	81.4	3.0	2.9	95%	2.1	1	3
81.4	84.4	3.0	3.1	102%	2.2	1	3
81.4	84.4	3.0	3.1	102%	2.2	1	3
81.4	84.4	3.0	3.1	102%	2.2	1	3
84.4	87.5	3.0	3.1	102%	1.2	0	3
84.4	87.5	3.0	3.1	102%	1.2	0	3
84.4	87.5	3.0	3.1	102%	1.2	0	3
87.5	90.5	3.0	3.0	98%	2.3	1	3
87.5	90.5	3.0	3.0	98%	2.3	1	3
87.5	90.5	3.0	3.0	98%	2.3	1	3
90.5	93.6	3.0	3.0	98%	1.9	1	3
90.5	93.6	3.0	3.0	98%	1.9	1	3
90.5	93.6	3.0	3.0	98%	1.9	1	3
93.6	96.6	3.0	2.9	95%	1.6	1	3
93.6	96.6	3.0	2.9	95%	1.6	1	3
93.6	96.6	3.0	2.9	95%	1.6	1	3
99.7	102.7	3.0	3.0	98%	1.1	0	3
99.7	102.7	3.0	3.0	98%	1.1	0	3
99.7	102.7	3.0	3.0	98%	1.1	0	3
102.7	105.8	3.0	3.1	102%	2.0	1	3
102.7	105.8	3.0	3.1	102%	2.0	1	3
102.7	105.8	3.0	3.1	102%	2.0	1	3
105.8	108.8	3.0	3.0	98%	1.4	0	3
105.8	108.8	3.0	3.0	98%	1.4	0	3
105.8	108.8	3.0	3.0	98%	1.4	0	3
108.8	111.9	3.0	3.0	98%	1.6	1	3
108.8	111.9	3.0	3.0	98%	1.6	1	3
108.8	111.9	3.0	3.0	98%	1.6	1	3
111.9	114.9	3.0	3.0	98%	1.1	0	3
111.9	114.9	3.0	3.0	98%	1.1	0	3
111.9	114.9	3.0	3.0	98%	1.1	0	3
114.9	118.0	3.0	3.0	98%	0.8	0	3
114.9	118.0	3.0	3.0	98%	0.8	0	3
114.9	118.0	3.0	3.0	98%	0.8	0	3

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-14

Northing: 15957.3 **Total Depth:** 255.1 **m**

Easting: 12265.0 **Azimuth** 0.0 °

Drilled: 8/25/2006

Elevation: 1752.4 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
118.0	121.0	3.0	2.6	85%	0.5	0	3
118.0	121.0	3.0	2.6	85%	0.5	0	3
118.0	121.0	3.0	2.6	85%	0.5	0	3
121.0	124.1	3.0	3.0	98%	1.3	0	3
121.0	124.1	3.0	3.0	98%	1.3	0	3
121.0	124.1	3.0	3.0	98%	1.3	0	3
124.1	127.1	3.0	3.1	102%	1.9	1	3
124.1	127.1	3.0	3.1	102%	1.9	1	3
124.1	127.1	3.0	3.1	102%	1.9	1	3
127.1	130.1	3.0	3.0	98%	2.3	1	3
127.1	130.1	3.0	3.0	98%	2.3	1	3
127.1	130.1	3.0	3.0	98%	2.3	1	3
130.1	133.2	3.0	2.9	95%	1.4	0	3
130.1	133.2	3.0	2.9	95%	1.4	0	3
130.1	133.2	3.0	2.9	95%	1.4	0	3
133.2	136.2	3.0	3.0	98%	1.8	1	3
133.2	136.2	3.0	3.0	98%	1.8	1	3
133.2	136.2	3.0	3.0	98%	1.8	1	3
136.2	139.3	3.0	2.9	95%	2.2	1	3
136.2	139.3	3.0	2.9	95%	2.2	1	3
136.2	139.3	3.0	2.9	95%	2.2	1	3
139.3	142.3	3.0	3.0	98%	1.4	0	3
139.3	142.3	3.0	3.0	98%	1.4	0	3
139.3	142.3	3.0	3.0	98%	1.4	0	3
142.3	145.4	3.0	3.0	98%	2.2	1	3
142.3	145.4	3.0	3.0	98%	2.2	1	3
142.3	145.4	3.0	3.0	98%	2.2	1	3
145.4	148.4	3.0	3.0	98%	1.8	1	3
145.4	148.4	3.0	3.0	98%	1.8	1	3
145.4	148.4	3.0	3.0	98%	1.8	1	3
148.4	151.5	3.0	2.9	95%	1.8	1	3
148.4	151.5	3.0	2.9	95%	1.8	1	3
148.4	151.5	3.0	2.9	95%	1.8	1	3
151.5	154.5	3.0	3.0	98%	2.3	1	3

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-14

Northing: 15957.3 **Total Depth:** 255.1 **m**

Easting: 12265.0 **Azimuth** 0.0 °

Drilled: 8/25/2006

Elevation: 1752.4 **Dip** -90 °

From (m)	To (m)	Run (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness
151.5	154.5	3.0	3.0	98%	2.3	1	3
151.5	154.5	3.0	3.0	98%	2.3	1	3
154.5	157.6	3.0	2.4	79%	1.0	0	3
154.5	157.6	3.0	2.4	79%	1.0	0	3
154.5	157.6	3.0	2.4	79%	1.0	0	3
157.6	160.6	3.0	3.4	112%	1.3	0	3
157.6	160.6	3.0	3.4	112%	1.3	0	3
157.6	160.6	3.0	3.4	112%	1.3	0	3
160.6	163.7	3.0	3.0	98%	1.0	0	3
160.6	163.7	3.0	3.0	98%	1.0	0	3
160.6	163.7	3.0	3.0	98%	1.0	0	3
163.7	166.7	3.0	3.0	98%	2.1	1	3
163.7	166.7	3.0	3.0	98%	2.1	1	3
163.7	166.7	3.0	3.0	98%	2.1	1	3
169.8	172.8	3.0	2.9	95%	1.7	1	3
169.8	172.8	3.0	2.9	95%	1.7	1	3
169.8	172.8	3.0	2.9	95%	1.7	1	3
172.8	175.9	3.0	3.2	105%	1.4	0	3
172.8	175.9	3.0	3.2	105%	1.4	0	3
172.8	175.9	3.0	3.2	105%	1.4	0	3
175.9	178.9	3.0	2.7	89%	1.5	0	3
175.9	178.9	3.0	2.7	89%	1.5	0	3
175.9	178.9	3.0	2.7	89%	1.5	0	3
178.9	182.0	3.0	3.4	112%	2.5	1	3
178.9	182.0	3.0	3.4	112%	2.5	1	3
178.9	182.0	3.0	3.4	112%	2.5	1	3
182.0	185.0	3.0	2.9	95%	1.7	1	3
182.0	185.0	3.0	2.9	95%	1.7	1	3
182.0	185.0	3.0	2.9	95%	1.7	1	3
185.0	188.1	3.0	3.1	102%	1.5	0	3
185.0	188.1	3.0	3.1	102%	1.5	0	3
185.0	188.1	3.0	3.1	102%	1.5	0	3
188.1	191.1	3.0	2.8	92%	1.9	1	3
188.1	191.1	3.0	2.8	92%	1.9	1	3

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-14

Northing: 15957.3 **Total Depth:** 255.1 **m**

Easting: 12265.0 **Azimuth** 0.0 °

Drilled: 8/25/2006

Elevation: 1752.4 **Dip** -90 °

From (m)	*To (m)*	*Run (m)*	*Recovery (m)*	*Recovery (%)*	*RQD (m)*	*RQD (%)*	*Hardness*
188.1	191.1	3.0	2.8	92%	1.9	1	3
191.1	194.2	3.0	3.0	98%	0.8	0	3
191.1	194.2	3.0	3.0	98%	0.8	0	3
191.1	194.2	3.0	3.0	98%	0.8	0	3
194.2	197.2	3.0	3.0	98%	1.7	1	3
194.2	197.2	3.0	3.0	98%	1.7	1	3
194.2	197.2	3.0	3.0	98%	1.7	1	3
197.2	200.3	3.0	3.0	98%	1.8	1	3
197.2	200.3	3.0	3.0	98%	1.8	1	3
197.2	200.3	3.0	3.0	98%	1.8	1	3
200.3	203.3	3.0	3.0	98%	2.5	1	3
200.3	203.3	3.0	3.0	98%	2.5	1	3
200.3	203.3	3.0	3.0	98%	2.5	1	3
203.3	206.3	3.0	3.1	102%	2.2	1	3
203.3	206.3	3.0	3.1	102%	2.2	1	3
203.3	206.3	3.0	3.1	102%	2.2	1	3
206.3	209.4	3.0	3.1	102%	1.3	0	3
206.3	209.4	3.0	3.1	102%	1.3	0	3
206.3	209.4	3.0	3.1	102%	1.3	0	3
209.4	212.4	3.0	2.9	95%	2.1	1	3
209.4	212.4	3.0	2.9	95%	2.1	1	3
209.4	212.4	3.0	2.9	95%	2.1	1	3
212.4	215.5	3.0	3.0	98%	2.1	1	3
212.4	215.5	3.0	3.0	98%	2.1	1	3
212.4	215.5	3.0	3.0	98%	2.1	1	3
215.5	218.5	3.0	3.0	98%	2.0	1	3
215.5	218.5	3.0	3.0	98%	2.0	1	3
215.5	218.5	3.0	3.0	98%	2.0	1	3
218.5	221.6	3.0	2.9	95%	1.6	1	3
218.5	221.6	3.0	2.9	95%	1.6	1	3
218.5	221.6	3.0	2.9	95%	1.6	1	3
221.6	224.6	3.0	3.0	98%	1.7	1	3
221.6	224.6	3.0	3.0	98%	1.7	1	3
221.6	224.6	3.0	3.0	98%	1.7	1	3

Northgate Minerals Corp.

Kemess East 2006 Geotechnical Log

KH-06-14

Northing: 15957.3 **Total Depth:** 255.1 **m**

Easting: 12265.0 **Azimuth** 0.0 °

Drilled: 8/25/2006

Elevation: 1752.4 **Dip** -90 °

From (m)	To (m)	Run (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Hardness
224.6	227.7	3.0	3.0	98%	2.4	1	3
224.6	227.7	3.0	3.0	98%	2.4	1	3
224.6	227.7	3.0	3.0	98%	2.4	1	3
227.7	230.7	3.0	2.9	95%	2.4	1	3
227.7	230.7	3.0	2.9	95%	2.4	1	3
227.7	230.7	3.0	2.9	95%	2.4	1	3
230.7	233.8	3.0	2.9	95%	2.2	1	3
230.7	233.8	3.0	2.9	95%	2.2	1	3
230.7	233.8	3.0	2.9	95%	2.2	1	3
233.8	236.8	3.0	2.9	95%	2.4	1	3
233.8	236.8	3.0	2.9	95%	2.4	1	3
233.8	236.8	3.0	2.9	95%	2.4	1	3
236.8	239.9	3.0	2.8	92%	1.3	0	3
236.8	239.9	3.0	2.8	92%	1.3	0	3
236.8	239.9	3.0	2.8	92%	1.3	0	3
239.9	242.9	3.0	3.1	102%	1.9	1	3
239.9	242.9	3.0	3.1	102%	1.9	1	3
239.9	242.9	3.0	3.1	102%	1.9	1	3
242.9	246.0	3.0	2.9	95%	1.9	1	3
242.9	246.0	3.0	2.9	95%	1.9	1	3
242.9	246.0	3.0	2.9	95%	1.9	1	3
246.0	249.0	3.0	2.8	92%	2.0	1	3
246.0	249.0	3.0	2.8	92%	2.0	1	3
246.0	249.0	3.0	2.8	92%	2.0	1	3
249.0	252.1	3.0					3
249.0	252.1	3.0	3.1	102%	1.7	1	3
249.0	252.1	3.0	3.1	102%	1.7	1	3
252.1	255.1	3.0	3.2	105%	2.1	1	3
252.1	255.1	3.0	3.2	105%	2.1	1	3

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-01

From (m)	To (m)	Group*	Rock Type	Comments
3.0	11.0	H	TUFFACEOUS LAPILLI-TUFF	Dark grey, very homogeneous unit. 10% 3-10mm lapillis elongated to the foliation. 15% 1-2mm quartz eyes. 5-7% 2-4mm sub rounded white lapillis. Pervasive silicification. Occasional 2-3cm 'clasts' of porphyritic volcanics. Zeolite carbonate veining throughout at no particular orientation. Moderately magnetic. No apparent mineralization.
11.0	65.8	H	DACITE CRYSTAL-LITHIC TUFF	Grey-brown mottled tuffaceous unit. Unit has a welded texture. Magnetic due to magnetite speckled throughout the unit. Foliation generally at 80 º to core axis, but will vary. 15% 1-2mm quartz eyes. Sporadic relict hornblendes (?). Ghost-like feldspars throughout. Pervasive silicification, locally a light beige-brown alteration prior to the silicification. Rounded clasts of porphyritc volcanics. Sporadic clasts of pink granodioirite, from 10-50 cm. Towards the base, the % of volcanic clasts increases to approx. 15% and the mottled texture is not as apparent. Patchy carbonate alteration is associated with the increase in clasts. Dark maroon clasts also become abundant towards the base. 3-5% veinlets of pink zeolite/carboante. Veining increases towards the base of the unit. No apparent mineralization aside from very local, late pyrite.
65.8	270.9	H	HETEROLITHIC AGLOMERATE	Massive volcanoclastic unit, no apparent structures. No particular alteration scheme other than weak chlorite/silica and patchy carbonatization until approx 215m where epidote begins to become pervasive. Composed of 75% clasts ranging from rounded to angular, 5mm to 30cm. Matrix is fine grained, tuffaceous with local magnetite and quartz eyes. Sections throughout of up to 1m fine to coarse grained, homogeneous, tuffaceous material with sharp but undulatory contacts. Clast composition is BFP, various porphyritic volcanics, amygdaloidal volcanics, ash beds and fine grained basalts and monzodiorite (after 200m). Colour varies from grey, pink, white, maroon, green. Unit is magnetic. 1-2% quartz veining at 25-30 º to core axis. 5% bright pink zeolite veining. No apparent mineralization above 200m, below 200m 1-2% fine disseminate pyrite, often as halos around clasts.
270.9	286.1	H	DACITE TUFF	Light grey, homogeneous matrix, no visible quartz eyes. Mild pervasive silicification, local patchy chlorite alteration. 30-35% sub angular, 0.5-10 cm fragments. Fragment composition 90% black-white, granitic looking pieces with visible 1-2mm white feldspars, 5% off white quartz-eye rich pieces, 5% silicified maroon pieces. Weak foliation at 50-70 deg tca. Pyrite occurs as disseminated 1mm blebs. 3% pink zeolite/carbonate veining throughout, at no particular orientation. Unit is locally weakly magnetic. Not sharp, but distinct upper contact, sharp lower contact at 50 deg tca.

642.20 EOH

Groups: A=Asitka, B=Syn-Mineral Black Lake, C=Cretaceous Basalt Dykes, H=Hazelton(Toodoggone), L=Late Triassic Intrusives, P=Post-Mineral Black Lake, S=Sustut, T=Takla

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-01

From (m)	To (m)	Group*	Rock Type	Comments
286.1	333.0	H	HETEROLITHIC AGLOMERATE	Massive volcanoclastic unit. Propyllitic alteration, with a siliceous overprint. Composed of 75% clasts ranging from rounded to angular, 5mm to 30cm. Matrix is fine grained, tuffaceous with local magnetite and quartz eyes. Sections throughout of up to 1m fine to coarse grained, homogeneous, tuffaceous material with sharp but undulatory contacts. Clast composition is BFP, various porphyritic volcanics, amygdaloidal volcanics, ash beds and fine grained basalts and monzodiorite. Colour varies from grey, pink, white, maroon, green. Unit is magnetic. 5% bright pink zeolite veining. 1-2% fine disseminated pyrite,
333.0	357.8	H	TUFFACEOUS FAULT ZONE	Very sheared and disrupted unit. Slickensides throughout. Protolith similar to 286.1-333.0m, but less abundant clasts. Clasts that are visible are altered and 'ghost' like. No quartz eyes to be found. Weak propyllitiic alteration overprinted by silicia flooding. 20-25% bright pink zeolite and carbonate veining throughout. 2 sets of veining that appear to follow a fracture pattern at parallel to 25 º to core axis and 80-90 º to core axis. Larger veins also carry hematite around the edges. 1% pyrite as disseminated blebs throughout, locally up to 5%. Unit is magnetic. Gradational upper contact, distinct lower contact.
357.8	424.8	H	HETEROLITHIC TUFF	Massive volcanoclastic unit. Upper portion of the Takla Group. Propyllitic alteration, intense below 365m, with a siliceous overprint. Weak sericite alteration associated with the intense epidote. Patchy black chlorite throughout. Hematite present along clast margins. Composed of 75% clasts ranging from rounded to angular, 5mm to 30cm. Matrix is fine grained and altered. Sections throughout of up to 1m fine to coarse grained, homogeneous, material with sharp but undulatory contacts. Clast composition is BFP, various porphyritic volcanics, amygdaloidal volcanics, crystalline carboante, fine grained basalts and monzodiorite. Clast colour varies from grey, pink, white, maroon, green. Unit varies in magnetism. Sporadic quartz carbonate veining, with faint pink zeolite material associated. 1-2% fine to blebby disseminated pyrite, often as halos around clasts. Anhydrite veining with chalcopyrite after 390m. Pyrite veining, and increased QSP alteration occurs below 440m.
424.8	446.7	T	INTERMEDIATE FRAGMENTAL VOLCANIC BRECCIA	Inferred contact between Takla and Hazelton. Very gradational over minimum of 10m.
446.7	450.1	T	ANDESITIC AUGITE PORPHYRY FLOW	Massive AAP unit with distinct upper and lower contacts 35-40 deg to core axis. 20-25% 2-4mm augites with preserved crystal form. Pervasive propyllitc alteration, more confined to the fine grained matrix. Pyrite occurs as disseminated blebs and is locally fracture controlled. Weak, patchy chlorite alteration. 1% hairline carbonte stringers throughout.

642.20 EOH

Groups: A=Asitka, B=Syn-Mineral Black Lake, C=Cretaceous Basalt Dykes, H=Hazelton(Toodoggone), L=Late Triassic Intrusives, P=Post-Mineral Black Lake, S=Sustut, T=Takla

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-01

From (m)	To (m)	Group*	Rock Type	Comments
450.1	476.4	T	ANDESITE VOLCANIC BRECCIA	Massive volcanoclastic unit. Propyllitic alteration, with a weak siliceous overprint. Chlorite alteration is mild but pervasive. Local QSP alteration. Unit is 75% VBX texture, 25% massive. Where the VBX is apparent, the unit is composed of 60% clasts, and they have a 'ghost' appearance dur to the strong alteration. Matrix is fine grained and strongly altered. Clast composition difficult to determine. Unit varies in magnetism. Sporadic quartz carbonate veining, with faint pink zeolite material associated. 1-2% fine to blebby disseminated pyrite, occasional chalcopyrite. 1% pyrite veining.
476.4	483.0	T	BLADED FELDSPAR PORPHYRY FLOW	Massive BFP unit with 20-25% 3-4mm long feldspar laths. Upper contact is marked by a structure with slickensides and fault gouge, running at 15 deg to core axis. Strong epidote alteration at the upper contact. Feldspars are altered to quartz, epidote and chlorite throughout, with very few keeping their original colour and composition. Matrix is fine grained, with varying alteration. Barren 2-4mm wide anhydrite veins at 70-80 deg to core axis sporadic throughout. 2-3% hairline zeolite veining. Fine and blebby disseminated pyrite, as well as pyrite veinlets throughout.
483.0	486.4	T	ANDESITIC AUGITE PORPHYRY FLOW	Massive AAP unit with 20-25% 2-4mm augites with preserved crystal form. Pervasive propyllitc alteration, more confined to the fine grained matrix. Local QSP alteration. Pyrite occurs as disseminated blebs and is locally fracture controlled. Weak, patchy chlorite alteration. 1% hairline carbonte stringers throughout. Upper contact marked by a structure at 30 deg to core axis, with 1cm of fault gouge and a massive 20 cm pyrite vein at 30 deg to core axis. Pyrite vein also carrie a fine,sofe,vivid emerald green mineral. Associated quartz-carb-sericite.
486.4	490.9	T	BLADED FELDSPAR PORPHYRY FLOW	15-25% 3-4mm long feldspar laths. Upper and lower contacts masked due to intense alteration. Feldspars are altered mostly to epidote as wells as to quartz and chlorite, with very few keeping their original colour and composition. Matrix is very fine to fine grained. Alteration is strongly epidote with minor chlorite and a weak to moderate QSP overprint. Pyrite occurs as fine disseminations and small blebs. Veinlets of calcite running ~80 º to
490.9	532.3	T	ANDESITE FLOW	Unit is predominantly very fine to fine grained grey/green andesite. Some intervals have rare bladed feldspar phenocrysts. These phenocrysts are often altered to epitdote and, more rarely, chlorite. The first interval has blebby to locally massive pyrite with minor blebs and stringers of chalcopyrite. Pyrite also occurs as fine disseminations. Alteration is strongly epidote with a QSP overprint. Sporadically throughout the unit, calcite-chlorite-quartz veins carry pyrite and rare chalcopyrite.

642.20 EOH

Groups: A=Asitka, B=Syn-Mineral Black Lake, C=Cretaceous Basalt Dykes, H=Hazelton(Toodoggone), L=Late Triassic Intrusives, P=Post-Mineral Black Lake, S=Sustut, T=Takla

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-01

From (m)	To (m)	Group*	Rock Type	Comments
532.3	543.8	T	BLADED FELDSPAR PORPHYRY FLOW	3-10mm long feldspar laths in a fine to very fine grained, indistinguishable matrix. At the top of the unit, feldspar are altered to sericite and weakly chlorite. Alteration is strong to intense QSP, often obscuring primary textures. Where visible, feldspars make up ~20-25% of the unit. Alteration decreases in intensity towards the bottom of the unit. Pyrite in disseminations, flecks and stringers. Calcite and sericite veins run sub-parallel and
543.8	551.4	T	HETEROLITHIC FAULT ZONE	1mm-3cm angular to rounded clasts of quartz, anhydrite, andesite in a very fine grained ashy matrix. Upper contact is at 15 º to core axis; lower contact is at 45 º to core axis. Alteration is weak to moderate QSP. Calcite, sericite, zeolite, anhydrite veining. Pyrite in fine disseminations and infrequently associated with calcite veining. Rare blebs of chalcopyrite associated with calcite-anhydrite veining at ~20 º to core axis.
551.4	642.2	T	ANDESITE FLOW	Fine to very fine grained, angular clasts within a similar matrix, grading downhole to massive andesite. Clasts range in size from 3mm-2cm. Alteration often gives the unit a mottled appearance. Alteration is moderate QSP; quartz flooding with subordinate pyrite and sericite alteration. Calcite and sericite veining running ~65 º to core axis and 25 º to core axis. Veins are infrequently altered to chlorite. Pyrite is disseminated throughout and in blebs often associated with calcite veining.

642.20 EOH

Groups: A=Asitka, B=Syn-Mineral Black Lake, C=Cretaceous Basalt Dykes, H=Hazelton(Toodoggone), L=Late Triassic Intrusives, P=Post-Mineral Black Lake, S=Sustut, T=Takla

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-02

From (m)	To (m)	Group*	Rock Type	Comments
0.0	419.5	H	HETEROLITHIC CRYSTAL-LITHIC TUFF	Dominantly coarse grained crystals with approximately 5% lithic fragments. Crystals are dominantly subhedral to euhedral feldpsar as less frequent mafics and quartz; set in a grey to dark grey, aphanitic groundmass. Lithics comprise angular to rounded aphanitic to fine grained andesite, AAP and rare intrusive fragments. Unit is magnetic due to fine grained magnetite throughout. Rare quartz eyes present. Zeolite and carbonate veinlets running in various orientations. Epidote and hematite veins also in various directions. Unaltered to altered locally around veining and local weak patchy epidote and / or hematite sporadically throughout. Epidote also infrequently occurs surrounding clasts. Mineralization absent except for rare occurances within lithic fragments.
419.5	420.2	H	ANDESITE DYKE	Fine grained, grey-brown intrusive dike. Equigranular grains with local chlorite and epidote alteration. Moderaltely fractured with zeolite and calcite veinlets. Local hematite staining around veinlets. Local sericite alteration. Upper contact 40 degrees and lower contact 35
420.2	421.4	H	HETEROLITHIC CRYSTAL-LITHIC TUFF	Similar to the above Hazelton unit, but with more hematite and epidote alteration. Contains fragments of dyke material. Contains variable oriented zeolite and calcite veins.
421.4	425.1	H	ANDESITE DYKE	Similar to the dike above. Brecciated fine grained andesite dike with zeolite and calcite in the fractures. Epidote alteration is located around the fractures. Upper contact angle 40 degrees lower contact angle 50 degrees.
425.1	495.3	H	HETEROLITHIC CRYSTAL-LITHIC TUFF	Same as the hazelton unit above. Notice the clasts are getting smaller.

495.30 EOH

Groups: A=Asitka, B=Syn-Mineral Black Lake, C=Cretaceous Basalt Dykes, H=Hazelton(Toodoggone), L=Late Triassic Intrusives, P=Post-Mineral Black Lake, S=Sustut, T=Takla

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-03

From (m)	To (m)	Group*	Rock Type	Comments
7.0	26.0	H	TUFFACEOUS LAPILLI-TUFF	1mm-3cm long, dark grey lapillis in a fine grained ashy matrix. Lapillis are dominantly less than 5mm and make up roughly 10% of the rock. Infrequent subrounded to angular lithic fragments of andesite and intrusive. Weak welded appearance. Infrequent quartx eyes. Carbonate veins (rarely vuggy) throughout unit in various orientations, infrequently brecciating the unit. Rare zeolite veins. Alteration is non-existent to strong, dominantly epidote, carbonate and chlorite with subordinate QSP and infrequent subordinate hematite. Finely disseminated pyrite throughout unit. Alteration and mineralization increase with depth. Broken to rubbly with poor recovery until roughly 22m.
26.0	34.0	H	HETEROLITHIC CRYSTAL-LITHIC TUFF	Upper and lower contacts difficult to distinguish due to core being broken. Crystal lithic tuff with crystals of feldspar, magnetite and 3mm-10cm clasts of andesite and intrusives. Clasts make up roughly 25% of the rock. Calcite and zeolite veins oriented in various directions. Weakly altered to epidote, chlorite, quartz and pyrite. Rare specks of chalcopyrite assoicated with disseminated pyrite.
34.0	123.9	H	TUFFACEOUS LAPILLI-TUFF	1mm-3cm long, dark grey lapillis in a fine grained ashy matrix. Lapillis are dominantly less than 5mm and make up roughly 10% of the rock. Infrequent subrounded to angular lithic fragments of andesite and intrusive. Weak welded appearance. Infrequent quartz eyes. Carbonate veins (rarely vuggy) throughout unit in various orientations, infrequently brecciating the unit. Rare zeolite veins. Alteration is non-existent to strong, dominantly epidote and chlorite with subordinate QSP and infrequent subordinate hematite. Finely disseminated pyrite throughout unit. Alteration and mineralization increase with depth.
123.9	169.9	H	TUFFACEOUS CRYSTAL-LITHIC TUFF	Fine grained ashy layers interbedded with crystal lithic tuff layers. Clasts are quartz porphyritic and aphanitic volcanics. Tuffs also contain infrequent lapilli fragments roughly 5mm in diameter. Ghost like feldspars and quartz present in tuffs. Weathered clays gives the rock a "chewed out" appearance. Veins of calcite and zeolite oriented in various directions. Hematite infrequently associated with veining. Alteration minerals consist of epidote, chlorite, quartz, pyrite and weak carbonate and sericite. Pyrite occurs in fine disseminations, stringers and blebs.
169.9	175.2	T	BLADED FELDSPAR PORPHYRY FLOW	2mm-1cm long randomly oriented laths of plagioclase set in an aphanitic, grey/green matrix. Feldspars are often altered to epidote, but can also be found unaltered to moderately altered to sericite. Alteration ranges from moderate to intense and is dominated by quartz, sericite and pyrite. There are epidote rich sections. Intensely altered sections are often difficult to distinguish as primary textures are masked. Pyrite is disseminated throughout.

544.70 EOH

Groups: A=Asitka, B=Syn-Mineral Black Lake, C=Cretaceous Basalt Dykes, H=Hazelton(Toodoggone), L=Late Triassic Intrusives, P=Post-Mineral Black Lake, S=Sustut, T=Takla

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-03

From (m)	To (m)	Group*	Rock Type	Comments
175.2	182.5	T	HETEROLITHIC TUFF	Sub-angular to angular clasts of andesite and fragments of pink feldspar and quartz in a fine to very fine grained grey green ashy matrix. Contact with this unit and the previous unit is at 40 º to core axis. Alteration is dominated by quartz, sericite and pyrite and increases in intensity downhole until the rock looks bleached out and primary textures are obscured. Calcite and minor anhydrite veining, mostly at 35 º to core axis. Pyrite occurs as disseminations and small blebs.
182.5	187.6	T	BLADED FELDSPAR PORPHYRY FLOW	2mm-1cm long randomly oriented laths of plagioclase set in an aphanitic, grey/green matrix. Feldspars are often unaltered to altered to sericite, but can also be found altered to epidote. Alteration ranges from moderate to intense and is dominated by quartz, sericite and pyrite. Intensely altered sections are often difficult to distinguish as primary textures are masked. Pyrite is disseminated throughout.
187.6	190.8	H	TUFFACEOUS FAULT ZONE	Broken to rubbly. Fine grained, ashy matrix. Infrequent lapilli fragments. Strong clay alteration overprinting quartz, sericite, pyrite alteration. Rare epidote. Veining difficult to see due to core being so broken, but appears to be sericite-zeolite-calcite veining. Pyrite disseminated throughout.
190.8	222.2	H	TUFFACEOUS CRYSTAL-LITHIC TUFF	Crystal lithic tuff with crystals of feldspar and quartz and 1-10cm clasts of BFP and massive andesite. Clasts are infrequent. Matrix is fine to dominantly very fine grained. Magnetite speckled throughout. Primary textures difficult to determine due to intense alteration. Quartz, sericite and pyrite dominant alteration minerals. Rare patchy epdiote. Calcite-sericite veining at 20 and 60 º to core axis. Chlorite infrequently associated with veining. Pyrite is disseminated throughout
222.2	250.5	T	BLADED FELDSPAR PORPHYRY FLOW	5-25% 1-8mm long, randomly oriented plagioclase laths in a fine to very fine grained, dark grey/green matrix. Feldspars are pristine to sericite altered and, more rarely, epidote altered. Alteration is moderate to strong quartz, sericite, pyrite with local epidote rich sections. Calcite, zeolite and sericite veining, most often at 65 º to core axis. Contact with above unit is sharp but undulating, running at approximately 45 º to core axis.
250.5	333.5	T	ANDESITE FLOW	Fine to very fine grained, grey rock. Grains mostly to small to determine, but fine mafics are visible. Alteration is moderate to strong quartz, sericite, pyrite with local epidote rich sections grading downhole to QSP becoming subordinate to chlorite alterationr and secondary magnetite. Calcite, zeolite, sericite and infrequent magnetite and anhydrite veining, most often at 65 º to core axis. Calcite infrequently vuggy. Pyrite disseminated throughout and associated with calcite veining. Rare chalcopyrite in specks and associated with calcite-sericite-magnetite veining. Contact between andesite and BFP at 45 º to core

544.70 EOH

Groups: A=Asitka, B=Syn-Mineral Black Lake, C=Cretaceous Basalt Dykes, H=Hazelton(Toodoggone), L=Late Triassic Intrusives, P=Post-Mineral Black Lake, S=Sustut, T=Takla

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-03

From (m)	To (m)	Group*	Rock Type	Comments
333.5	343.0	B	GRANODIORITE DYKE	15% subhedral, coarse grained feldspar (dominantly plagioclase) phenocrysts and 5% medium grained mafic phenocrysts in a fine grained, quartz (35%) and plagioclase (35%) rich matrix with 10% fine grained mafics. Quartz-calcite veining, dominantly at 30 º to core axis and anhydrite veining dominantly at 50 º to core axis, but also in various directions. Alteration is strong to intense and often obscures primary textures. Alteration minerals are dominantly quartz and sericite with subordinate chlorite. Trace flecks of pyrite throughout and associated with quartz-calcite veining. Minor molybdenite associated with calcite-anhydrite veining. Contact with above unit difficult to see due to alteration.
343.0	344.7	T	ANDESITIC AUGITE PORPHYRY FLOW	5-10% coarse grained, euhedral augite phenocrysts in an aphanitic matrix. Quartz-calcite-magnetite veining, dominantly at 30 º to core axis and anhydrite veining dominantly at 50 º to core axis, but also in various directions. Alteration minerals are dominantly quartz and sericite with subordinate chlorite. Flecks of pyrite and chalcopyrite throughout and associated with quartz-calcite veining.
344.7	347.4	B	GRANODIORITE DYKE	15% subhedral, coarse grained feldspar (dominantly plagioclase) phenocrysts and 5% medium grained mafic phenocrysts in a fine grained, quartz (35%) and plagioclase (35%) rich matrix with 10% fine grained mafics. Quartz-calcite veining, dominantly at 30 º to core axis and anhydrite veining dominantly at 50 º to core axis, but also in various directions. Alteration is strong to intense and often obscures primary textures. Alteration minerals are dominantly quartz and sericite with subordinate chlorite. Trace flecks of pyrite throughout and associated with quartz-calcite veining. Minor molybdenite associated with calcite-anhydrite veining. Contact with above unit difficult to see due to alteration.
347.4	359.4	T	ANDESITE FLOW	Crystals mostly too small to determine; fine grained mafics and quartz infrequently visible. Calcite veining, dominantly at 55 º to core axis and zeolite veining in various directions. Alteration minerals are dominantly chlorite, quartz and sericite with subordinate magnetite. Clay overprint for the first two sample intervals. Finely disseminated pyrite throughout and associated with calcite veining. Infrequent specks of chalcopyrite. Contact with above unit difficult to distinguish due to intense alteration. Healed altered healed fracture from 347.7m to 347.9m.
359.4	360.4	B	GRANODIORITE DYKE	15% subhedral, coarse grained feldspar (dominantly plagioclase) phenocrysts and 5% medium grained mafic phenocrysts in a fine grained, quartz (35%) and plagioclase (35%) rich matrix with 10% fine grained mafics. Calcite-anhydrite veining (infrequently vuggy), dominantly at 65 º to core axis. Alteration is strong to intense and often obscures primary textures. Alteration minerals are dominantly quartz and sericite with subordinate chlorite. Trace flecks of pyrite throughout. Contact with above unit at 75 º to core axis. Contact with lower unit at 35 º to core axis.

544.70 EOH

Groups: A=Asitka, B=Syn-Mineral Black Lake, C=Cretaceous Basalt Dykes, H=Hazelton(Toodoggone), L=Late Triassic Intrusives, P=Post-Mineral Black Lake, S=Sustut, T=Takla

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-03

From (m)	To (m)	Group*	Rock Type	Comments
360.4	368.0	T	ANDESITIC AUGITE PORPHYRY FLOW	5-10% coarse grained, euhedral augite phenocrysts in an aphanitic matrix. Calcite-anhydrite-magnetite veining, dominantly at 20 º to core axis. Alteration minerals are dominantly chlorite, quartz and magnetite. Flecks of pyrite and chalcopyrite throughout and associated with calcite veining.
368.0	372.0	T	BASALT FLOW	Dark grey-black/green aphanitic rock. Calcite-anhydrite-magnetite veining, dominantly at 20 º to core axis. Alteration minerals are dominantly chlorite, quartz and magnetite. Flecks of pyrite and chalcopyrite throughout and associated with calcite veining. Contact with above unit gradational.
372.0	378.6	B	GRANODIORITE DYKE	15% subhedral, coarse grained feldspar (dominantly plagioclase) phenocrysts and 5% medium grained mafic phenocrysts in a fine grained, quartz (35%) and plagioclase (35%) rich matrix with 10% fine grained mafics. Calcite-anhydrite veining (infrequently vuggy), dominantly at 30 º to core axis. Alteration minerals are dominantly quartz and sericite with subordinate chlorite. Trace flecks of pyrite throughout. Blebby molybdenite (~0.5%) associated with quartz and with calcite veining.
378.6	380.2	T	ANDESITIC AUGITE PORPHYRY FLOW	10-15% coarse grained, euhedral augite phenocrysts in an aphanitic matrix. Quartz-calcite-anhydrite veining, dominantly at 30 º to core axis. Alteration minerals are dominantly chlorite, quartz and magnetite. Alteration is moderate to strong, pervasive. Flecks of pyrite and chalcopyrite associated with veining. Contact with above unit whispy and at roughly 70 º to core axis.
380.2	397.8	T	BASALT FLOW	Dark grey-black/green aphanitic rock. Quartz-calcite-anhydrite veining, dominantly at 40 º to core axis. Alteration minerals are dominantly chlorite, quartz and magnetite with weak, patchy biotite. Alteration is moderate to intense, pervasive. Blebs of pyrite and chalcopyrite throughout. Rare stringers of molybdenite (~0.1%) associated with quartz-calcite veining. Contact with above unit gradational. First sample interval is dominantly VBX: clasts of dark grey/green aphanitic rock within a similar matrix.
397.8	407.8	T	ANDESITIC AUGITE PORPHYRY FLOW	10-25% coarse grained, euhedral augite phenocrysts in an aphanitic matrix. Quartz-calcite veining and less frequent anhydrite veining which cuts the quartz-calcite veining. All vein types run dominantly at 35 º to core axis. Alteration minerals are dominantly chlorite, quartz and sericite with subordinate magnetite. Alteration is moderate to strong, pervasive. Flecks of pyrite and chalcopyrite associated with veining. Contact with above unit is gradational.

544.70 EOH

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Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-03

From (m)	To (m)	Group*	Rock Type	Comments
407.8	409.3	B	GRANODIORITE DYKE	15% subhedral, coarse grained feldspar (dominantly plagioclase) phenocrysts and 5% medium grained mafic phenocrysts in a fine grained, quartz (35%) and plagioclase (35%) rich matrix with 10% fine grained mafics. Quartz-calcite veining, dominantly at 70 º to core axis and anhydrite veining dominantly at 45 º to core axis. Alteration minerals are dominantly quartz and sericite. Alteration moderate and pervasive. Trace flecks of pyrite throughout. Flecks of molybdenite (~0.1%) associated with quartz and with calcite veining. Contact with above unit at 40 º to core axis. Clast of AAP at 408.8m.
409.3	413.3	T	ANDESITIC AUGITE PORPHYRY FLOW	10-25% coarse grained, euhedral augite phenocrysts in an aphanitic matrix. Quartz-calcite-anhydrite veining running dominantly at 50 º to core axis. Alteration minerals are dominantly chlorite, quartz and sericite with subordinate magnetite. Alteration is moderate to strong, pervasive. Pyrite disseminated throughout and in blebs associated with magnetite. Trace specks chalcopyrite. Contact with above unit is at 30 º to core axis and has associated quartz veining.
413.3	423.8	T	BASALT FLOW	Aphanitic with occasional fine grained mafics visible. Augite phenocrysts still present, but at only 2% or less. Quartz-calcite-anhydrite veining (infrequently vuggy) running dominantly at 40 º to core axis. Alteration minerals are dominantly chlorite, quartz and magnetite with subordinate sericite and weak, patchy biotite. Alteration is moderate to intense, pervasive. Pyrite specks throughout infrequently associated with magnetite. Trace specks chalcopyrite. Contact with above unit is gradational.
423.8	425.2	B	GRANODIORITE DYKE	15% subhedral, coarse grained feldspar (dominantly plagioclase) phenocrysts and 5% medium grained mafic phenocrysts in a fine grained, quartz (35%) and plagioclase (35%) rich matrix with 10% fine grained mafics. Quartz-calcite-anhydrite veining, dominantly at 55 º to core axis and quartz-calcite-pyrite veining dominantly at 30 º to core axis. Alteration minerals are dominantly quartz and sericite. Alteration moderate and pervasive. Trace flecks of pyrite throughout. Contact with above unit at 20 º to core axis.
425.2	436.0	T	BASALT FLOW	Aphanitic with occasional fine grained mafics visible. Augite phenocrysts still present, but at only 2% or less. Quartz-calcite veining running dominantly at 50 º to core axis. Alteration minerals are dominantly chlorite, quartz and magnetite with subordinate sericite and weak, patchy biotite. Alteration is moderate to intense, pervasive. Pyrite specks throughout infrequently associated with magnetite. Trace specks chalcopyrite. Contact with above unit at 20 º to core axis.

544.70 EOH

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Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-03

From (m)	To (m)	Group*	Rock Type	Comments
436.0	445.1	T	ANDESITIC AUGITE PORPHYRY FLOW	10-20% coarse grained subhedral to euhedral augite phenocrysts in an aphanitic matrix. Quartz-calcite veining running dominantly at 45 º to core axis. Alteration minerals are dominantly chlorite, quartz and magnetite with subordinate sericite and weak, patchy biotite. Alteration is moderate to intense, pervasive. Pyrite specks throughout and in stringers. Contact with above unit at 30 º to core axis. Healed clay altered fracture zone 437.3m.
445.1	455.9	B	QUARTZ MONZONITE BRECCIA	15-25%, 5mm-2cm clasts of quartz, basalt and quartz monzonite (25% subhedral, coarse grained feldspar (dominantly plagioclase) phenocrysts, %5 coarse grained quartz and 5% medium grained mafic phenocrysts in a fine grained, silicified matrix) in a heterogeneous matrix that ranges from dark green/grey, fine-very fine grained to quartz monzonite similar to clasts. Quartz-calcite-anhydrite veining, dominantly at 50 º to core axis. Veinlets of zeolite. Alteration minerals are dominantly quartz and sericite with subordinate chlorite. Alteration moderate and pervasive. Rare flecks of pyrite throughout. Contact with above
455.9	476.4	B	QUARTZ MONZONITE INTRUSIVE	Potentially the Sovereign intrusive. 30% euhedral, coarse grained feldspar (dominantly plagioclase) phenocrysts, 5% subhedral quartz pehnocrysts and 5% medium grained mafic phenocrysts in a very fine to fine grained, silicified matrix. Quartz-calcite-anhydrite veining, dominantly at 50 º to core axis and infrequently vuggy. Veinlets of zeolite. Alteration minerals are dominantly quartz with subordinate hematite staining and sericite. Alteration moderate and pervasive. Rare flecks of pyrite throughout and rare pyrite veins. Contact with above unit has a quartz-calcite vein along it at 25 º to core axis.
476.4	501.1	B	QUARTZ MONZONITE BRECCIA	15-25%, 5mm-3cm clasts of quartz, basalt and quartz monzonite (25% subhedral, coarse grained feldspar (dominantly plagioclase) phenocrysts, %5 coarse grained quartz and 5% medium grained mafic phenocrysts in a fine grained, silicified matrix) in a heterogeneous matrix that ranges from dark green/grey, fine-very fine grained to quartz monzonite similar to clasts. Quartz-calcite-anhydrite veining, dominantly at 50 º to core axis. Alteration minerals are dominantly quartz with subordinate sericite. Alteration moderate and pervasive. Rare flecks of pyrite throughout. Very rare specks of chalcopyrite. Contact with above unit at roughly 40 º to core axis.
501.1	544.7	P	QUARTZ MONZONITE INTRUSIVE	Potentially the Sovereign intrusive. 25% euhedral, coarse grained feldspar (dominantly plagioclase) phenocrysts, 10% subhedral quartz pehnocrysts and 10% medium grained mafic phenocrysts in a very fine grained matrix. Quartz-calcite (and minor anhydrite) veining, dominantly at 60 º to core axis and infrequently vuggy. Veinlets of zeolite. Alteration is dominantly hematitic with subordinate silicifaction. Alteration moderate and pervasive. Absent of mineralization. Contact with above unit at 50 º to core axis.

544.70 EOH

Groups: A=Asitka, B=Syn-Mineral Black Lake, C=Cretaceous Basalt Dykes, H=Hazelton(Toodoggone), L=Late Triassic Intrusives, P=Post-Mineral Black Lake, S=Sustut, T=Takla

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-04

From (m)	To (m)	Group*	Rock Type	Comments
0.0	10.7		CASING	Casing/Overburden
10.7	42.1	H	HETEROLITHIC AGLOMERATE	Massive volcanoclastic unit, no apparent structures. Very weak propyllitic alteration, with weak chlorite/silica and patchy carbonatization. Composed of 75% clasts ranging from rounded to angular, 5mm to 30cm. Matrix is grey-green, fine grained, tuffaceous, with local magnetite and quartz eyes. Sections throughout of fine to coarse grained, homogeneous, tuffaceous material with gradational contacts. Clast composition is BFP, various porphyritic volcanics, amygdaloidal volcanics, ash beds and fine grained basalts and monzodiorite. Clast colour varies from grey, pink, white, maroon, green. Unit is magnetic. Zoned anhydrite, calcite, quartz veining at 50-70 deg º to core axis, with anhydrite on the outside. Veining typically has 1% blebby pyrite within a 1cm halo around the veins. 3% bright pink zeolite veining. No apparent mineralization outside of the veining.
42.1	97.2	H	DACITE CRYSTAL-LITHIC TUFF	Gradational contact with overlying agglomerate over 50cm. Unit is fine to medium grained, magnetic and varies in colour from dark to light grey-green. Very weak propyllitic alteration, associated silicification. Bleached sections where silicification increases. 1mm quartz eyes visible on fresh broken surfaces. Small structures throughout, 30-70 º to core axis, with slickensides and hematite. 2% 1-2mm hematite specks throughout the unit. Local sections of granodiorite clasts, associated with hematite staining. Local in-situ brecciated sections. 1% quartz-calcite-anhydrite veining at 50-70 º to core axis. 1-2% bright pink zeolite veining throughout. No apparent mineralization aside from local cubic pyrite.
97.2	111.2	H	HETEROLITHIC AGLOMERATE	Agglomerate unit, with 65% clasts, 35% tuffaceous matrix. Unit has an overall 'washed out' appearance. Matrix is silicified, with weak epidote and chlorite. Primary magnetite specks throughout. Clast composition is amygdaloidal and porhyritic volcanics, granodiorite, motled/welded tuff. Clasts are rounded and range from 1-5 cm. 1-2% zeolite and carbonte veining. Local hematite alteration. Local sections that appear to have a flow texture. 1-2mm pyrite cubes throughout, often clustered. Note that this agglomerate unit is slightly different than than the agglomerate units higher up in the hole.
111.2	119.2	B	GRANODIORITE DYKE	Heterogeneous, eqigranular, medium grained, magnetic, intrusive dyke with strong hematite staining giving the unit a pink colour. 1-2% 1mm primary magnetite specks throughout. Silicious overprint. Carbonate-zeolite veinlets throughout at no particular orientation. Upper and lower contacts distinct but not sharp due to overprinting alteration.

556.90 EOH

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Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-04

From (m)	To (m)	Group*	Rock Type	Comments
119.2	155.4	H	HETEROLITHIC AGLOMERATE	Agglomerate unit, with 65% clasts, 35% tuffaceous matrix. Unit has an overall 'washed out' appearance. Overall weak propyllitic alteration. Matrix is silicified, with weak epidote and chlorite. Primary magnetite specks throughout. Clast composition is amygdaloidal and porhyritic volcanics, granodiorite, motled/welded tuff. No BFP present. Clasts are rounded and range from 1-5 cm. 1-2% zeolite and carbonte veining. Local hematite alteration. 1-2mm pyrite cubes throughout, often clustered. Note that this agglomerate unit is slightly different than than the agglomerate units at the top of the hole.
155.4	176.2	T	BLADED FELDSPAR PORPHYRY FLOW	BFP flow. Upper contact with Hazelton is broken, intensely veined and gradational over 50-100cm. Overall weak propyllitic and hematitic alteration. 40% 1-2cm feldspars in a fine grained, magnetic, dark grey matrix. Feldspars are oriented in a flow direction 70-85 º to core axis. Feldspars rarely are unaltered, typically chlorite, quartz or hemtite replaced. Base of the unit contains pink hematite stained mega-phenocrysts (up to 4cm), but the unit is fractured into large clasts. 1-2% 1-2mm sub rounded secondary hematite specks overprinting the entire unit. Upper 5m of the unit is intensely fractured with quartz-carbonte fill. No apparent mineralization with the exception of a spoardic fleck of pyrite. 1% carbonate-zeolite veining throughout. Lower contact with amygdaloidal flow is distinct but
176.2	213.3	T	ANDESITE FLOW	Andesite flow. Distinct but undulatory upper contact. Grey-green, magnetic, fine grained, massive. Weak propyllitic alteration throughout, with locally intense areas. 1-2% amygdules 2-3mm in diameter, with soft white carbonate fill. Amygdules do not appear to have any prefered orientations. 1-2% augite phenos, up to 4mm, preferentially epidote altered (with respect to the matrix). Augites are not consitently present. Occasional clasts of basalt with 3-4% carbonate filled amygdules, amygdules are elongated. Clasts have similar alteration to the host rock. Local hematite staining. No apparent mineralization
213.3	219.3	T	BLADED FELDSPAR PORPHYRY FLOW	BFP flow. Distinct but not sharp upper contact. Overall moderate propyllitic and hematitic alteration. 40% 1-2cm feldspars in a fine grained, magnetic, dark grey matrix. Feldspars do not have a particular orientation. Feldspars rarely are unaltered, typically chlorite, quartz or hemtite replaced. 1-2% 1-2mm sub rounded secondary hematite specks overprinting the entire unit. No apparent mineralization with the exception of a few spoardic flecks of pyrite. 1% carbonate-zeolite veining throughout. Lower contact with amygdaloidal flow is sharp at 30 º to core axis.

556.90 EOH

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Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-04

From (m)	To (m)	Group*	Rock Type	Comments
219.3	328.8	T	ANDESITE FLOW	Andesite flow. Sharp upper contact at 30 º to core axis. Grey-green, magnetic, fine to coarse grained massive. Unit is very hard. Moderate propyllitic alteration throughout, with locally intense areas. Hematitic alteration occurs as 1-3mm maroon specks throughout. 1-2% amygdules 2-3mm in diameter, with soft white carbonate fill, occasionally anhydrite. Amygdules do not appear to have any prefered orientations. 1-2% augite phenos, up to 4mm, preferentially epidote altered (with respect to the matrix). Augites are not consitently present. 1mm, tiny white, feldspars occur towards the base. Occasional clasts of basalt with 3-4% carbonate filled amygdules, amygdules are elongated. Clasts have similar alteration to the host rock. No apparent mineralization except for the occasional speck or cluster of pyrite. 1% hairline carbonte veining, with the odd quartz-anhydrite vein at 25 º to
328.8	329.9	T	BASALT DYKE	Massive fine grained mafic dyke. Distinct, but veined upper and lower contacts. Unit is very hard and weakly magnetic. Weak chlorite/epidote and hematite alteration throughout. Conatcts are marked by BFP clasts with 1-2mm white feldspars and quartz-carbonate-zeolite veining at 15-25 º to core axis. No apparent mineralization. NOTE: LOST SAMPLE - NO SUBMITTAL FOR ASSAY
329.9	330.9	T	BLADED FELDSPAR PORPHYRY FLOW	Very broken section of BFP. 2-3%, 1-2mm tiny white feldspars throughout. Weak epidote and hematite alteration throughout. Upper contact marked by 40cm of brecciated quartz-carbonate-zeolite veining at 20 º to core axis. Lower contact marked by 10cm of intense epidote alteration that obitlerates all primary features. Epidote section contains hematite alteration and clasts of the underlying AAP unit.
330.9	396.8	T	ANDESITIC AUGITE PORPHYRY FLOW	AAP flow. Sharp upper contact at 70 º to core axis with intense epidote alteration. Unit is very similar to the overlying amygdaloidal andesite flow, with the absence of the amygdules and the tiny white feldspars that appeared towards the base of the overlying unit. Grey-green, magnetic, fine to coarse grained massive. Unit is very hard. Moderate propyllitic alteration throughout, with locally intense areas. Hematitic alteration occurs as 1-3mm maroon specks, typically where the augite phenocrysts are the most dense. 1-2% augite phenos, up to 4mm, preferentially epidote altered (with respect to the matrix). No apparent mineralization except for the occasional speck or cluster of pyrite. 1% hairline carbonte veining with no particular orientation. Bright pink zeolite veining sporadic
396.8	399.3	T	ANDESITIC AUGITE PORPHYRY FAULT ZONE	Structure through AAP. Structure runs parallel to sub parallel to core axis. 10% quartz-caronate veining, very broken and folded. Fault gouge present along the movement surface, with slickensides that appear to parallel the fault surface. Chlorite and clay alteration abundant. 1% later zeolite veining. Intense hematite alteration at the bottom of the structure (that we see). No apparent increase in mineralization.

556.90 EOH

Groups: A=Asitka, B=Syn-Mineral Black Lake, C=Cretaceous Basalt Dykes, H=Hazelton(Toodoggone), L=Late Triassic Intrusives, P=Post-Mineral Black Lake, S=Sustut, T=Takla

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-04

From (m)	To (m)	Group*	Rock Type	Comments
399.3	412.8	T	ANDESITIC AUGITE PORPHYRY FLOW	
412.8	443.3	H	HETEROLITHIC TUFF	Polylithic volcanoclastic Hazelton unit. Light grey-green, magnetic, massive, hard. 25-30% clasts, 70-75% fine grained, quartz-eye bearing matrix. Unit is silicified, with very very weak chlorite/epidote alteration. Clasts are composed of felsic tuffs, mottled/welded textured tuffs, granitc intrusives and tiny quartz and mafic bits. Clasts are rounded, 3-15mm, some with strong epidote alteration. 1-2% 1mm primary magnetite specks throughout. 1-2% hairline zeolite veining at no particular orientation. Pyrite mineralization
443.3	451.4	H	FELSIC CRYSTAL-LITHIC TUFF	White, hard, non magnetic, massive. Sharp upper contact, undulatory but basically at 90 deg to core axis. Pervasive silicification. 2-3% hariline zeolite veining, 75-90 deg to core axis. Weak hematite stain within veining, but not host rock. Sporadic patches of epidote alteration. 2-3% rounded quartz eyes, up to 3mm. Occasional clasts of light grey tuffaceous material, rounded, up to 1.5cm. Unit contains 1-2% pyrite as coarse grained blebs 1-3mm, and 1-2% molybdinum, as small pods anf flakes. Moly occurs wihting the
451.4	459.9	H	HETEROLITHIC TUFF	
459.9	539.0	H	DACITE TUFF	Grey-biege, hard, magnetic, fine to medium grained, foliated at 50 deg to core axis. Sharp upper contact at 30 deg to core axis. Unit is consistent in composition and alteration. Overall has a mottled/welded and finely speckled texture. Pervaisve silicification, patchy weak chlorite alteration. 1% fine primary magnetite specks. 1-2% 1-2mm grey quartz eyes, visible on fresh broken surfaces. Zeolite veining up to 3% locally. Upper 1.5m consists of a massive, cherty beige unit with 2-3% distinct quartz eyes, a pitted surface and soft white sericite specks overprinting. This is gradational over 30 cm into the rest of the unit. The transition is marked by hematite staining. No apparent mineralization.
539.0	540.1	H	FELSIC TUFF	White, hard, non magnetic, weakly foliated at 40-45 º to core axis. 2-3% 1-2mm quartz eyes throughout. Interval is silicified with weak sericite overprinting. Upper contact not sharp but distinct at 40 º to core axis, lower contact broken (breakage human, not lithological). Material below contact is bleached. Unit is very homogeneous. No apparent
540.1	556.9	H	DACITE TUFF	Grey-biege, hard, magnetic, fine to coarse grained, foliated at 50 deg to core axis. Sharp upper contact at 30 deg to core axis. Unit is consistent in composition and alteration. Overall has a mottled/welded and finely speckled texture. Pervaisve silicification, patchy weak chlorite alteration. Up to 5% fine primary magnetite specks. 1-2% 1-2mm grey quartz eyes, visible on fresh broken surfaces. Zeolite veining up to 5% locally. Upper 1.2m consists of a massive, cherty beige unit with 2-3% distinct quartz eyes. No apparent

556.90 EOH

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Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-05

From (m)	To (m)	Group*	Rock Type	Comments
0.0	4.6		CASING	
4.6	241.8	H	HETEROLITHIC CRYSTAL-LITHIC TUFF	Dominantly coarse grained crystals with approximately 3% lithic fragments. Crystals are dominantly subhedral to euhedral feldpsar as less frequent mafics and quartz; set in a grey to dark grey, aphanitic groundmass. Lithics comprise angular to rounded aphanitic to fine grained andesite and rare intrusive fragments and porphyritic feldspar volcanic fragments. There is a trace of magnetism due to fine grained magnetite in places. Rare quartz eyes present. Zeolite and carbonate veinlets running in various orientations. Epidote and hematite veins also in various directions. Hematite alteration is rarely present in veins and on clasts. Trace of epidote alteration is present surrounding volcanic clasts and spotty on other crystal fragments. Chloritic alteration is spotty mainly found in the volcanic clasts and in the aphanitic matrix. Mineralization is absent.
241.8	247.7	H	HETEROLITHIC FAULT ZONE	Fault zone. Sharp upper contact at 35 º to core axis, sharp lower contact at 20 º to core axis. Unit is fairly competent, although very clay rich and foliated at 30-35 º to core axis. Green chlorite, maroon hematite throughout. Black chlorite on discreet slip planes, also showing slickensides. Quartz-carbonate-hematite veining, 2-4% throughout, typically folded. Trace, disseminated pyrite. Quartz and some volcanic clasts are present, are the same as those present in the surrounding heterolithic unit.
247.7	277.0	H	HETEROLITHIC CRYSTAL-LITHIC TUFF	Dominantly coarse grained crystals with approximately 3% lithic fragments. Crystals are dominantly subhedral to euhedral feldpsar as less frequent mafics and quartz; set in a grey to dark grey, aphanitic groundmass. Lithics comprise angular to rounded aphanitic to fine grained andesite and rare intrusive fragments and porphyritic feldspar volcanic fragments. There is a trace of magnetism due to fine grained magnetite in places. Rare quartz eyes present. Zeolite and carbonate veinlets running in various orientations. Epidote and hematite veins also in various directions. Hematite alteration is rarely present in veins and on clasts. Fine disseminate pyrite throughout. Porpyllitic alteration is pervaisve, but mild, and more intense than the alteration in the heterolithic unit above the fault.
277.0	280.0	H	HETEROLITHIC FAULT ZONE	Fault zone within the heterolithic tuff. Fault planes run at 30 º to core axis with 1-3cm of hematite stained fault gouge and black chlorite veinlets. 2-3% fine pyrite within the fault gouge. Between fault planes the unit is brecciated and broken, with carbonate fill in the fractures. No zeolite veining present. Pervaisve hematite alteration is absent outside of the fault planes. Moderate propyllitic alteration remains. Slickensides indicate vertical movement on the structure (run parall to core axis).

442.10 EOH

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Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-05

From (m)	To (m)	Group*	Rock Type	Comments
280.0	442.1	H	HETEROLITHIC CRYSTAL-LITHIC TUFF	Dominantly coarse grained crystals with approximately 3% lithic fragments. Crystals are dominantly subhedral to euhedral feldpsar as less frequent mafics and quartz; set in a grey to dark grey, aphanitic groundmass. Lithics comprise angular to rounded aphanitic to fine grained andesite and rare intrusive fragments and porphyritic feldspar volcanic fragments. There is a trace of magnetism due to fine grained magnetite in places. Rare quartz eyes present. Zeolite and carbonate veinlets running in various orientations. Epidote and hematite veins also in various directions. Hematite alteration is weakly pervaisive. Fine disseminate pyrite throughout. Porpyllitic alteration is moderate and pervaisve. Carbonte veinlets being to appear, no particular orientation.

442.10 EOH

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Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-07

From (m)	To (m)	Group*	Rock Type	Comments
0.0	3.0		CASING	Casing/Overburden.
3.0	71.2	H	HETEROLITHIC AGLOMERATE	Massive volcanoclastic unit. Small structures throughout, average 25 º to core axis with slickensides perpendicular to core axis indicating lateral movement. Structures often associated with carbonate and black chlorite veining. Alteration is very weak propyllitic, with patchy silicification and pervasive weak carbonate. Composed of 75% clasts ranging from rounded to angular, 5mm to 30cm. Matrix is fine grained, tuffaceous with local magnetite and 1mm grey quartz eyes. Sections throughout of up to 1m fine to coarse grained, homogeneous, tuffaceous material with sharp but undulatory contacts to the surrounding agglomerate. Possibly indicating grading within the unit. Clast composition is BFP, various porphyritic volcanics, amygdaloidal volcanics, ash beds, tuffaceous volcanics (typically with a welded texture) and fine grained basalts. One clast of banded iron formation within the structure at 77m. Unit colour varies from grey, white, maroon, green. Unit is magnetic. Local insitu brecciation with carbonate matrix. 1-2% late stage quartz carbonate veining at 25-30 º to core axis. 1% bright pink zeolite veining. 0.5% fine disseminated pyrite throughout, up to 1% locally where the pyrite is concentrated within the clast.
71.2	73.2	B	GRANODIORITE DYKE	Post mineral granodiorite dyke. Unit is intensely hematite altered giving it a strong pink colour. Very brken upper and lower contacts. 1-2% 2mm quartz grains, 3-4% 2mm off-white feldspars with no particular orientation. Matrix is fine grained and massive. Local
73.2	77.8	H	HETEROLITHIC FAULT ZONE	Fault zone within the heterolithic agglomerate unit. Very broken. Structure runs at 25 º to core axis. Entire unit is clay rich with fault gouge throught. Often there are rounded wall rock units embedded in the fault gouge. Upper 1m is brecciated with carbonate matrix and fracture fill. Veins (healed sections?) of massive mint green talc material. Fragments of the overlying dyke and clasts of fragmented banded iron formation are present. Broken upper and lower contacts. Firn disseminated pyrite throughout.

623.90 EOH

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Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-07

From (m)	To (m)	Group*	Rock Type	Comments
77.8	112.0	H	HETEROLITHIC AGLOMERATE	Massive volcanoclastic unit. Small structures throughout, average 25 º to core axis with slickensides perpendicular to core axis indicating lateral movement. Structures often associated with carbonate and black chlorite veining. Alteration is very weak propyllitic, with patchy silicification and pervasive weak carbonate. Composed of 75% clasts ranging from rounded to angular, 5mm to 30cm. Matrix is fine grained, tuffaceous with local magnetite and 1mm grey quartz eyes. Sections throughout of up to 1m fine to coarse grained, homogeneous, tuffaceous material with sharp but undulatory contacts to the surrounding agglomerate. Possibly indicating grading within the unit. Clast composition is BFP, various porphyritic volcanics, amygdaloidal volcanics, ash beds, tuffaceous volcanics (typically with a welded texture) and fine grained basalts. Unit colour varies from grey, white, maroon, green. Unit is magnetic. Local insitu brecciation with carbonate matrix. 1-2% late stage quartz carbonate veining at 25-30 º to core axis. 1% bright pink zeolite veining. 0.5% fine disseminated pyrite throughout, up to 1% locally where the pyrite is concentrated within the clasts.
112.0	115.6	B	GRANODIORITE DYKE	Altered Soverign dyke/block. Unsure of which, tectonic setting is mangled. 1-2% 2mm grey quartz eyes, 3-4% 2-3mm feldspars, 1-2% primary magnetite specks, all very altered to green talc/chlorite, preferentially within the feldspars. Matrix is very fine grained, altered to a brown colour. Distinct upper contact at the base of the structure, sharp lower contact at 20 º to core axis. Occasional black chlorite stringers running 15 º to core axis. Overall unit is very homogeneous and featureless. Trace pyrite specks throughout.
115.6	148.2	H	HETEROLITHIC FAULT ZONE	Fault zone through a heterolithic agglomerate unit. Fault planes run at 20-25 º to core axis with up to 2cm of clay/chlorite rich fault gouge. Slickensides, where present, indicate dip slip movement, with an emphasis on the lateral direction. Alteration is weakly propyllits, but varies to silicified and talc altered. Blocks of BFP, amygdaloidal volcanics, quartz, anhydrite, felsic tuffs and fien grained basalts are present in varying sizes, typiclaly rounded. 4-5% quartz carbonate veining throughout. Locally the unit is foliated to 50-55 deg. Overall texture is very distorted. Fine disseminated pyrite throughout, concentrated in
148.2	160.0	H	HETEROLITHIC AGLOMERATE	Massive volcanoclastic unit. Small structures throughout, average 25 º to core axis with slickensides oblique to core axis indicating lateral movement. Structures often associated with carbonate and black chlorite veining. Alteration is very weak propyllitic, with patchy silicification and pervasive weak carbonate. Composed of 75% clasts ranging from rounded to angular, 5mm to 30cm. Matrix is fine grained, tuffaceous with local magnetite and 1mm grey quartz eyes. Clast composition is BFP, various porphyritic volcanics, amygdaloidal volcanics, ash beds, tuffaceous volcanics (typically with a welded texture) and fine grained basalts. Unit colour varies from grey, white, maroon, green. Unit is magnetic. 1-2% late stage quartz carbonate veining at 25-30 º to core axis. 0.5% fine disseminated pyrite throughout, up to 1% locally where the pyrite is concentrated within the clasts. Overall the unit has a tectonized appearance.

623.90 EOH

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Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-07

From (m)	To (m)	Group*	Rock Type	Comments
160.0	171.3	H	HETEROLITHIC FAULT ZONE	Fault zone through a heterolithic agglomerate unit. Broken upper and lower contacts. Fault planes run at 20-25 º to core axis with minimal fault gouge, typically quartz-carbonate veining associated. Slickenside are present, but only on broken faces, nothing insitu. Alteration is weakly propyllits, but varies to silicified and talc altered. Clasts of amygdaloidal volcanics, quartz, anhydrite, felsic tuffs and fien grained basalts are present in varying sizes, always rounded, often embedded in a fault plane. 2-3% quartz carbonate veining throughout. Locally the unit is foliated at 30-40 deg. Overall texture is very distorted. Hematite staining occurs in some of the more structurally destroyed areas. Local brecciation with quartz-carbonate matrix. Fine disseminated pyrite throughout,
171.3	203.7	H	HETEROLITHIC AGLOMERATE	Missing core within interval. Massive volcanoclastic unit. Small structures throughout, average 25 º to core axis with slickensides oblique to core axis. Structures often associated with carbonate and black chlorite veining. Alteration is moderate propyllitic, with patchy silicification and pervasive weak carbonate. Silicified sections have a very cherty appearance. Composed of 75% clasts ranging from rounded to angular, 5mm to 30cm. Matrix is fine grained, tuffaceous with local magnetite and 1mm grey quartz eyes. Clast composition is BFP, various porphyritic volcanics, amygdaloidal volcanics, ash beds, tuffaceous volcanics (typically with a welded texture) and fine grained basalts. Unit colour varies from grey, white, maroon, green. Unit is magnetic. 1-2% late stage quartz carbonate veining at 25-30 º to core axis. 0.7% fine disseminated pyrite throughout, up to 3% locally where the pyrite is concentrated within clasts or silicified sections.
203.7	210.0	B	GRANODIORITE DYKE	Post mineral granodiorite dyke. Unit is intensely hematite altered giving it a strong pink/maroon colour. Very sharp upper contact at 35 deg to core axis, very broken fault bounded lower contact. 1-2% 2mm quartz grains, 3-4% 2mm off-white feldspars with no particular orientation. Matrix is fine grained and massive. Local chlorite alteration as parallel veinlets that give the appearance of bedding. No apparent mineralization.
210.0	315.6	H	HETEROLITHIC AGLOMERATE	Massive volcanoclastic unit. Small structures throughout, average 25 º to core axis with slickensides oblique to core axis. Structures often associated with carbonate and black chlorite veining. Alteration is moderate propyllitic, with patchy silicification and local pervasive carbonate. Silicified sections have a very cherty appearance. Composed of 75% clasts ranging from rounded to angular, 5mm to 30cm. Matrix is fine grained, tuffaceous with local magnetite and 1mm grey quartz eyes. Clast composition is BFP, various porphyritic volcanics, amygdaloidal volcanics, ash beds, tuffaceous volcanics (typically with a welded texture) and fine grained basalts. Clasts are not always distinct, being overprinted by the alteration. Unit colour varies from grey, white, maroon, green. Unit is magnetic. 1-2% late stage quartz carbonate veining at 25-30 º to core axis. 0.7% fine disseminated pyrite throughout, up to 3% locally where the pyrite is concentrated within clasts or silicified sections.

623.90 EOH

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Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-07

From (m)	To (m)	Group*	Rock Type	Comments
315.6	327.2	B	GRANODIORITE DYKE	Post mineral granodiorite dyke. Has a Soveriegn-ish appearance. Unit is weakly hematite altered giving it a weak maroon/grey colour. Very sharp but undulatory upper contact avererging 20 º to core axis, sharp lower contact at 25 º to core axis. Upper 30cm is very soft, with chlorite and talc alteration. 1-2% 2mm quartz grains, 1-2% 2mm off-white feldspars with no particular orientation, fine magnetite specks. Matrix is fine grained and massive. Local chlorite alteration as parallel veinlets that give the appearance of bedding. No apparent mineralization. 1-2% quartz carbonate veining at 45-60 º to core axis, with apparent sinistral offset.
327.2	330.6	H	AGLOMERATE	Short volcanoclastic unit. Sharp upper contact at 25 deg, lower contact appear broken, but missing core (driller error) so the contact is not well defined. 70% fine grained tuffaceous matrix, 30% clasts. Clast composition of quartz, anhydrite, fine grained basalts, porphyritic volcanic and tuffaceous fragments. Moderate propyllitic alteration throughout. Some of the clasts are preferentially epidote altered. Fine disseminated pyrite throughout, often concentrated around the edges of clasts. Fine fractures with carbonate fill.
330.6	339.6	T	BASALT FLOW	Massive, dark grey, magnetic, porphyritic basalt flow. 20% 2-3mm light green talc altered feldspars throughout weakly aligned into a foliation at 25-30 º to core axis. 1-2% carbonate veinlets at 25-30 º to core axis. Occasional anhydrite veining at 160 º to core axis. Veins shows small sinistral offsets. Local structures with slickensides indicate mostly lateral movement. All indications point towards sinistral movement. Unit is most likely a block within a very disrupted larger structural zone.
339.6	392.3	H	HETEROLITHIC AGLOMERATE	Heterolithic volcanoclastic unit. Another block within a larger disrupted structural zone that is shuffling Hazelton and Takla units. Broken upper and lower contacts. Unit is moderatly propyllitic altered, with patches of phyllic alteration. Upper 5m are 60% fine grained tuffaceous matrix, with 40% clasts. Towards the base the clast abundance increase to 80%. Clast composition is tuffaceous fragments and porphyritic volcanics, although are difficult to determine is sections due to overprinting alteration. Black chlorite veinlets anastomosing throughout. 1-2% carbonate veinlets and fracture fill. Small structures appear throughout. Fine disseminated pyrite, occasionally concentrated in areas with abundant veining. Interval 227401 contains a 1cm winde carbonte vein with 2-3% molybdenum, 1-2% sphalerite and trace pyrite, at 35 º to core axis. Generally two phases of ffractures/veining, approx at 50 and 155 º to core axis.
392.3	395.2	C	BASALT DYKE	Very fine grained, magnetic, dark grey, massive basalt dyke. 2-3% 2-7mm round amygdules with carbonate/anhydrite fill. Broken upper contact, sharp lower contact at 15 deg to core axis. 1-2% 1mm specks of magnetite throughout. Dyke appears to be fairly unaltered. 1% late zeolite veining at 60 deg to core axis. No apparent mineralization.

623.90 EOH

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Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-07

From (m)	To (m)	Group*	Rock Type	Comments
395.2	400.4	H	HETEROLITHIC AGLOMERATE	Heterolithic volcanoclastic unit. Within a disrupted structural zone. Sharp upper contact at 15 deg to core axis. Moderatly propyllitic altered. Clast composition is BFP, tuffaceous fragments and porphyritic volcanics, although are difficult to determine is sections due to overprinting alteration. Black chlorite veinlets anastomosing throughout. 1-2% carbonate-zeolite veinlets and fracture fill. Small structures appear throughout. Fine disseminated pyrite, occasionally concentrated in areas with abundant veining. Slickensides on the faults indicate dextral movement.
400.4	402.5	B	GRANODIORITE DYKE	Post mineral granodiorite dyke. Has a Soveriegn-ish appearance. Unit is moderatly hematite altered giving it a weak maroon/grey colour. Alteration is not consistent throughout, giving a local patchy appearance. Broken upper and lower contacts. 1-2% 2mm quartz grains, 1-2% 2mm off-white feldspars with no particular orientation, fine magnetite specks. Matrix is fine grained and massive. Local chlorite alteration as parallel veinlets that give the appearance of bedding. No apparent mineralization. Hairline zeolite veining
402.5	427.1	H	HETEROLITHIC AGLOMERATE	Heterolithic volcanoclastic unit. Much more consistent in appaearance than the few small overlying agglomerate units. Broken upper contact. Unit is moderatly propyllitic altered, with patches of phyllic alteration and silicification. Clast composition is tuffaceous fragments and porphyritic volcanics, although are difficult to determine is sections due to overprinting alteration. Black chlorite veinlets anastomosing throughout. 1-2% carbonate veinlets and fracture fill. Small structures appear throughout. Fine disseminated pyrite, occasionally cubic and massive. A soft, massive, bright emerald green alteration mineral is spotty throughout, possibly fuchsite.
427.1	430.7	B	GRANODIORITE DYKE	Massive dyke with a granodioritic texture that has been intenselt chlorite/sericite/talc altered. Fault bounded upper contact at 30 deg to core axis, very sharp and distinct lower contact at 70 deg to core axis. 80% fine grained, soft, altered matrix, with 20% 1-3mm altered feldspars that are now green in colour. 1% quartz-carbonate veining parallel to the core axis, and 1% late hairline carboante veinlets. Local anhydrite in the quartz rich veins, local hematite stringers. Hard, transluscent silicious halos around 2-3% of the altered feldspar grains. Banding in the lower 10cm parallel to the lower contact gives the indication of a
430.7	435.9	H	HETEROLITHIC AGLOMERATE	Heterolithic volcanoclastic unit. Much more consistent in appaearance than the few small overlying agglomerate units. Sharp upper contact at 70 deg to core axis. Unit is moderatly propyllitic altered, with patches of phyllic alteration and silicification. Clast composition is tuffaceous fragments and porphyritic volcanics, although are difficult to determine is sections due to overprinting alteration. Black chlorite veinlets anastomosing throughout. 1-2% carbonate veinlets and fracture fill. Frequent small structures. Fine disseminated pyrite, occasionally cubic and massive. Patchy epidote associated with an increase in the pyrite content.

623.90 EOH

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Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-07

From (m)	To (m)	Group*	Rock Type	Comments
435.9	462.7	T	ANDESITE FLOW	Massive andesitic flow, with alternating textures between massive and porphyritic. Distinct but not sharp upper contact marked by abundant quartz-carbonate veining, gradational lower contact over 30cm. Where the unit is porphyritic, there are 25-30% 2-4mm augites in a fine grained, weakly altered matrix. Locally the augites are clustered. Where the unit is massive, it s very fine grained and featureless. The unit is weakly propyllitic altered, with weak silicious overprinting. Local QSP alteration. Healed fault zone occurs at 445.5-446m. 1-2% late carbonate-zeolite veining. One quartz-pyrite-chalcopyrite-sphalerite vein at 40 deg occirs within the entire unit. Patchy, late epidote alteration occurs towards the base. 1-2% fine disseminated to massive pyrite throughout.
462.7	478.4	B	QUARTZ FELDSPAR PORPHYRY FLOW	Intensely QSP altered quartz feldspar porphyry. Unit is coarse grained, with 20-25% green, chlorite/sericite altered feldspars. The remainder of the unit is bleached and altered to a transluscent quartz-sericite. Weak foliation throughout at 45-50 deg to core axis. Locally there are unaltered white feldspars. 1-2% zeolite and gypsum veining. 5% black chlorite stringers parallel to the foliation. 1% carbonate veining parallel to the foliation. 1.5-2% fine disseminated pyrite with local massive sections. Overall, the unit has an apparent 'intrusive' texture, and is very homogeneous in appearance and composition.
478.4	480.6	C	FELDSPAR PORPHYRY DYKE	Massive feldspar porphyry dyke. 80-85% black, fine grained matrix with 15-20% 1-3mm lath feldspars with no particular orientation. Very tiny amygdules with hematite fill throughout. Matrix is locally epidote altered with pervasive carboante alteration, feldspars are preferentially sericite/epidogte altered. Trace anhydrite. Carbonate fracture fill throughout. Sharp upper and lower contacts at 60 deg to core axis. No apparent
480.6	481.5	B	QUARTZ FELDSPAR PORPHYRY FLOW	As per 462.7-478.4m.
481.5	484.7	C	BASALT DYKE	Amygdaloidal basalt dyke. Matrix is dark grey, magnetic and very fine grained. 7-10% 1-4mm carbonate filled amygdules. 2-3% quartz-carbonate veining at 20 deg to core axis. Unit is pervasively carbonate altered with weak silicification. Sharp upper contact at 15 deg to core axis, sharp lower contact at 40 deg to core axis. Fault at 483.5m at 30 deg to core
484.7	514.5	B	QUARTZ FELDSPAR PORPHYRY FLOW	Intensely QSP altered quartz feldspar porphyry. Unit is coarse grained, with 20-25% green, chlorite/sericite altered feldspars. The remainder of the unit is bleached and altered to a transluscent quartz-sericite. Weak foliation throughout at 45-50 deg to core axis. Locally there are unaltered white feldspars. 1-2% zeolite and gypsum veining. 5% black chlorite stringers parallel to the foliation. 1% carbonate veining parallel to the foliation. 1.5-2% fine disseminated pyrite with local massive sections. Overall, the unit has an apparent 'intrusive' texture, and is very homogeneous in appearance and composition.

623.90 EOH

Groups: A=Asitka, B=Syn-Mineral Black Lake, C=Cretaceous Basalt Dykes, H=Hazelton(Toodoggone), L=Late Triassic Intrusives, P=Post-Mineral Black Lake, S=Sustut, T=Takla

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-07

From (m)	To (m)	Group*	Rock Type	Comments
514.5	548.5	H	HETEROLITHIC AGLOMERATE	Massive volcanoclastic Hazelton unit. Sharp but undulatory upper contact, sharp lower contact at 50 deg to core axs. Alteration is moderate propyllitic, with patchy epidote. Composed of 75% clasts ranging from rounded to angular, 5mm to 30cm. Matrix is fine grained, tuffaceous with local magnetite specks. Clast composition is QFP, various porphyritic volcanics, amygdaloidal volcanics, ash beds, tuffaceous volcanics (typically with a welded texture), anhydrite/quartz and fine grained basalts (?). Unit colour varies from grey to green. Carboante veining with associated chlorite occur at 5-10 deg to core axis. Locally intensely fractured. Unit is magnetic. 1-1.5% coarse granular pyrite throughout, up to 3% locally where the pyrite is concentrated within clasts.
548.5	556.0	H	DACITE CRYSTAL-LITHIC TUFF	Light grey, hard, magnetic, dacite tuff. Sharp upper contact at 60 deg to core axis. Moderate foliation at 60 deg throughout. Unit is silicified, with patchy chlorite alteration. 15-20% 2-3mm black 'specks' that are elongated into the foliation, possible lapillis. Matrix is silicious, fine grained, with rare, but present tiny quartz eyes. Sporadic fragments of felsic material and other tuffaceous units present. These fragments typically have more abundant pyrite than the rest ofthe unit. Trace zeolite veining. Occasional small structures 80-90 deg to core axis. Fine pyrite throughout.
556.0	569.3	H	HETEROLITHIC CRYSTAL-LITHIC TUFF	
569.3	573.4	P	MONZONITE DYKE	Green coloured chloritic and sericitic altered monzonite dyke. Steeply dipping dyke and throughout the dyke interval it runs in out with some sections of the core being tuffaceous. Undulating contact within the interval. The upper contact is 30 degrees to the core axis and the lower contact is 20 deg to the core axis. Alteration has obliterated all remaining texture and most of the identifiable characteristics. Little black/dark green specks about 1-2mm are chlorite after hornblende or augite and feldspar. Highly fractured with veinlets randomly oriented and filled with calcite, zeolite, quartz and a trace of hematite. Tuffaceous parts contact pyrite and are similar to the above section. Slight carbonate alteration.
573.4	579.9	H	HETEROLITHIC CRYSTAL-LITHIC TUFF	Similar unit before the dyke. Pyrite mineralization is high and is disseminated and veined. Trace of chalcopyrite is seen within the veins. Mineralization high in proximity to the dyke.
579.9	584.8	P	MONZONITE DYKE	Similar green coloured chloritic and sericitic altered monzonite dyke encoutered earlier. Steep dipping dyke again with exposure of the tuffaceous units in sections. Both sections undulate in and out throughout the interval. Upper contact is 15 deg to the core axis and the lower contact is fault bounded at 20 deg to the core axis. Pyrite mainly disseminated and veined within the tuffaceous unit.

623.90 EOH

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Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-07

From (m)	To (m)	Group*	Rock Type	Comments
584.8	597.0	H	HETEROLITHIC AGLOMERATE	Similar altered tuffaceous unit as before where almost all distinguishable characteristics are obliterated, but is more of an aglomerate. Contains more fragments of intrusive, tuffaceous and volcanic rocks. Increased mineralization just after the dyke as before. Pyrite, chalcopyrite and sphalerite are seen within veins. Pyrite is also disseminated within the host rock. Epidote patches are also present.
597.0	609.4	H	HETEROLITHIC CRYSTAL-LITHIC TUFF	
609.4	623.9	P	MONZONITE DYKE	Pink/green post mineral dyke (monzonite ?) that grades into a hematite altered unit. Similar to the dykes encountered earlier just not as altered. Fine to coarse grain size with subhedral crystal shape. Quartz, feldspar and chlorite (after hornblende ?) dominate the composition. Fractured at a random orientation. Veins filled with zeolite, hematite, calcite, quartz and anhydrite. Trace amount of flourite is also present in the veining. Alteration is mostly chloritic with minor sericitic. Upper contact with tuffacepous unit marked by a fault at 30 deg to the core axis. Calcitic spots also present within the unit. Patchy brecciation at the top

623.90 EOH

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Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-11

From (m)	To (m)	Group*	Rock Type	Comments
7.3	538.6	H	HETEROLITHIC CRYSTAL-LITHIC TUFF	1-5% angular to sub-rounded clasts of dominantly basalt and subordinate plagioclase phyric volcanics, AAP, intrusives and crystal lithic tuff. Clasts are 3mm-3cm. Matrix is composed of feldspar crystal fragments in an ashy matrix. Infrequent (<1%) quartz eyes. Alteration is dominantly weak hematite and chlorite with a spotty overprint of epidote and carbonate stringers. Epidote alteration increases with depth. Mineralization is mostly absent except for rare pyrite within clasts. Minor calcite and zeolite veining at roughly 20 º to core axis and hematite veining at 35 º to core axis.

538.60 EOH

Groups: A=Asitka, B=Syn-Mineral Black Lake, C=Cretaceous Basalt Dykes, H=Hazelton(Toodoggone), L=Late Triassic Intrusives, P=Post-Mineral Black Lake, S=Sustut, T=Takla

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-13

From (m)	To (m)	Group*	Rock Type	Comments
11.2	337.4	H	HETEROLITHIC CRYSTAL-LITHIC TUFF	Extremely broken core at the beginning of the hole with a low core recovery. 1-3% angular to sub-rounded clasts of dominantly basalt and subordinate plagioclase phyric volcanics, intrusives and crystal lithic tuff. Clasts are 3mm-3cm. Matrix is composed of feldspar crystal fragments and fine magnetite grains in an ashy matrix. Infrequent (1-2%) quartz eyes. Alteration is dominantly weak hematite and chlorite with a spotty overprint of epidote and carbonate stringers. Epidote alteration increases with depth. Mineralization is mostly absent except for rare pyrite within clasts. Minor calcite and zeolite veining oriented 40-60 deg to the core axis. Minor hematite veining randomly oriented. Small black magnetite specks around 1-2 mm in shape.

337.40 EOH

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Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-14

From (m)	To (m)	Group*	Rock Type	Comments
10.9	19.7	H	HETEROLITHIC TUFF	Light grey, hard, non magnetic, massive tuffaceous unit. Lower contact fault bounded at 70 º to core axis. Unit contains 1mm tiny white feldspars, 1mm glassy quartz eyes, epidote altered fragments 2-3mm across and 1-2cm fragments of Sovereign intrusive. Matrix is very fine grained. Alteration is mainly silicification, with hematite in sections where the fragments of intrusive become more abundant. Epidote occurs as veinlets and preferentially within small fragments. 2-3% late stage carbonate veining with hematite stain. Veining shows no preferred orientation. Magnetite/quartz/pyrite veining occurs at 40 º to core axis, but is not abundant. Fine disseminated pyrite throughout. Local blebby chalcopyrite. Sample 225367 contains fine malachite along fracture surfaces.
19.7	83.9	P	QUARTZ MONZONITE INTRUSIVE	Massive, hard, non magnetic interval of Sovereign intrusive. Possibly a dyke. Upper contact fault bounded at 70 º to core axis, lower contact fault bounded at 75 º to core axis. Strongly hematite altered/stained, giving the maroon-pink colour. 3-4% 2-4mm biotite crystals, 3-4% 2-4mm subrounded and shattered quartz grains, 8-10% hematite stained feldspars, all within a fine grey matrix. 1% late stage carboante veining 10-20 º to core axis, local anhydrite/zeolite veining. Variations occur in the abundance of feldspar and the intensity of hematite staining, giving the appearance of a phase change. No apparent
83.9	94.4	T	ANDESITE FLOW	Grey, hard, non magnetic, andesite flow. Upper contact fault bounded at 75 º to core axis, lower contact is distinct but not sharp. Unit is silicified, with local weak epidote. Texture is variable throughout from massive, to the presence at 1-3mm augite phenocrysts, to a flow breccias texture. 1-2% quartz veining 10-15 º to core axis, occasionally with a magnetite/pyrite core. Fine pyrite throughout as hairline fracture fill and disseminated. 2-3mm quartz/pyrite/carbonate/chlorite +/- cpy veining at 40-50 º to core axis throughout. Occasional blebs of anhydrite. 2mm magnetite veining at 60 º to core axis occurs towards the base of the unit. Cpy also occurs as blebs throughout.
94.4	100.3	B	QUARTZ MONZONITE DYKE	Porphyritic intrusive with approximately 25% coarse grained plagioclase phenocrysts and 4% 2-4mm biotite crystals. Unit is massive to brecciated. Clasts and matrix are of similar composition. Upper contact is distinct but not sharp, lower contact is whispy. Quartz-anhydrite-magnetite veins infrequently carry molybdenite (rock is ~0.5% molybdenite); orientation is 40-45 º to core axis. Infrequent Weakly hematite altered/stained, giving slight pink colour; moderately silicified. Minor patchy magnetite. Infrequent chalcopyrite blebs. Finely disseminated pyrite.

255.10 EOH

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Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-14

From (m)	To (m)	Group*	Rock Type	Comments
100.3	118.0	T	ANDESITE FLOW	Fine grained andesite flow. Top of unit contains 5-10% coarse grained, subhedral to euhedral augite phenocrysts. Augite abundance decreases down hole to less than 1%. Upper contact is whispy and rare clasts of the above unit are contained in this unit close to the contact. The lower contact is faulted. Alteration consists of quartz, sericite and chlorite with patchy magnetite. Veining consists of minor quartz-sericite and zeolite veins in various orientations, rare anhydrite veins and quartz-sericite veins containing molybdenite close to the upper contact. Pyrite is finely disseminated and in stringers. Rare flecks of chalcopyrite.
118.0	120.3	T	ANDESITE FAULT ZONE	Core is broken to rubbly. Rock is dominantly a fine to very fine grained andesite flow, similar to previous unit, but some fragments appear to be tuffaceous. Alteration consists of quartz, chlorite and patchy epidote. Patchy magnetite. Zeolite veining in various orientations. Trace finely disseminated pyrite.
120.3	127.8	H	HETEROLITHIC TUFF	Light grey, hard, non magnetic, tuffaceous unit. Upper contact fault bounded. Unit contains 1mm white feldspars, rare 1mm glassy quartz eyes, epidote altered fragments 2-3mm across and 1-4cm fragments of Sovereign intrusive. Matrix is fine to very fine grained. Alteration is mainly silicification. Epidote occurs in stringers and veins and preferentially within small fragments. Carbonate veining in various orientations and infrequently stockworked. Infrequent flecks of pyrite throughout.
127.8	128.5	C	BASALT DYKE	Dark grey to black, magnetic, aphanitic basalt dyke with medium grained, pink feldspar fragments and infrequent calcite filled amygdules. Last 10cm of unit is heterolithic tuff of previous unit. Lower contact between the dyke and the tuff is sharp at 20 º to core axis. Contact between the tuff and the following unit is sharp at 30 º to core axis. Upper contact is sharp at 35 º to core axis. Alteration is weak to non-existent silicification. Minor calcite veining at roughly 45 º to core axis. Rare flecks of pyrite.
128.5	255.1	P	QUARTZ MONZONITE INTRUSIVE	Massive, hard, non magnetic interval of Sovereign intrusive. Possibly a dyke. Strongly hematite altered/stained, giving the maroon-pink colour. Rare epidote patches. 3-4% 2-4mm biotite crystals, 3-4% 2-4mm subrounded and shattered quartz grains, 8-10% hematite stained feldspars, all within a fine grained grey matrix. 1% late stage carboante veining 15-25 º to core axis, local anhydrite/zeolite veining. Variations occur in the abundance of feldspar and the intensity of hematite staining, giving the appearance of a phase change.

255.10 EOH

Groups: A=Asitka, B=Syn-Mineral Black Lake, C=Cretaceous Basalt Dykes, H=Hazelton(Toodoggone), L=Late Triassic Intrusives, P=Post-Mineral Black Lake, S=Sustut, T=Takla

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-01

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
3	11	**HOMOGENEOUS TUFFACEOUS LAPILLI-TUFF**							
3.00	5.00	Very fine to coarse grained grey moderately silicified (non-K)		FOL	30	Dark grey, very homogeneous unit. 10% 3-10mm lapillis elongated to the foliation. 15% 1-2mm quartz eyes. 5-7% 2-4mm sub rounded white lapillis. Pervasive silicification. Occasional 2-3cm 'clasts' of porphyritic volcanics. Zeolite carbonate veining throughout at no particular orientation. Moderately magnetic. No apparent mineralization.	223004	0.001	0.000
5.00	7.00			FOL	30		223005	0.000	0.000
7.00	9.00			FOL	30		223006	0.001	0.000
9.00	11.00			FOL	30		223007	0.000	0.000
11	65.8	**MOTTLED DACITE CRYSTAL-LITHIC TUFF**							
11.00	13.00	Very fine to coarse grained grey brown moderately silicified (non-K)		FOL	80	Grey-brown mottled tuffaceous unit. Unit has a welded texture. Magnetic due to magnetite speckled throughout the unit. Foliation generally at 80 º to core axis, but will vary. 15% 1-2mm quartz eyes. Sporadic relict hornblendes (?). Ghost-like feldspars throughout. Pervasive silicification, locally a light beige-brown alteration prior to the silicification. Rounded clasts of porphyritc volcanics. Sporadic clasts of pink granodioirite, from 10-50 cm. Towards the base, the % of volcanic clasts increases to approx. 15% and the mottled texture is not as apparent. Patchy carbonate alteration is associated with the increase in clasts. Dark maroon clasts also become abundant towards the base. 3-5% veinlets of pink zeolite/carboante. Veining increases towards the base of the unit. No apparent mineralization aside from very local, late pyrite.	223008	0.001	0.000
13.00	15.00			FOL	80	Has a slight fragmental texture, strong light brown colour due to alteration. Disrupted foliation.	223009	0.001	0.000
15.00	17.00			FOL	80		223010	0.000	0.000
17.00	19.00			FOL	80	Has a slight fragmental texture, strong light brown colour due to alteration. Very broken section.	223011	0.007	0.010
19.00	21.00			FOL	80		223012	0.001	0.011

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-01

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)		Comments	Sample#	Cu %	Au ppm
21.00	23.00	Very fine to coarse grained grey brown moderately silicified (non-K)			FOL	80		223013	0.001	0.006
23.00	25.00				FOL	80		223014	0.002	0.008
25.00	27.00				FOL	80		223015	0.001	0.008
27.00	29.00				FOL	80	Clast rich section, local maroon colouring. Less apparent mottled texture.	223016	0.002	0.005
29.00	31.00	Very fine to coarse grained grey moderately silicified (non-K)			FOL	80		223017	0.025	0.012
31.00	33.00				FOL	60		223018	0.004	0.016
33.00	35.00				FOL	60		223019	0.009	0.000
35.00	37.00	Very fine to coarse grained grey green moderately silicified (non-K)			FOL	60		223020	0.001	0.000
37.00	39.00				FOL	60	Very broken sample. 5-7% zeolite/carbonate veining.	223021	0.001	0.000
39.00	41.00	Fine to coarse grained grey moderately silicified (non-K)			FOL	60	Abundant zeolite veining, 3-7mm wide, with a carbonate core. Clasts of monzonite (granodiorite?). Angular fine grained dark grey volcanic clasts.	223022	0.001	0.000
41.00	43.00				FOL	60	20-25% 3-4mm clasts all elongated or oriented into the foliation. Very little mottled texture. Abundant clasts of granodiorite, some pink, some grey-white. Pink zeolite veining 3-5mm, 30-35 º to core axis.	223023	0.001	0.000
43.00	45.00				FOL	60		223024	0.000	0.000
45.00	47.00				FOL	60		223025	0.001	0.000
47.00	49.00				FOL	60		223026	0.000	0.000
49.00	50.30				FOL	60		223027	0.000	0.000
50.30	52.30				FOL	60	Distinctive mottled texture.	223028	0.000	0.000
52.30	54.30				FOL	60	Distinctive mottled texture. 3cm quartz-carbonate vein at 53m, 40 º to core axis. No apparent mineralization. Associated zeolite veining shows small offsets. Slickensides on the broken surfaces of the vein, running the short axis of the core.	223030	0.000	0.000
54.30	56.30				FOL	60	Increase in patchy carbonate alteration.	223031	0.001	0.000
56.30	57.00				FOL	60		223032	0.001	0.000

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-01

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins	(°tca-%)	Comments	Sample#	Cu %	Au ppm
57.00	59.00	Very fine to coarse grained grey moderately silicified (non-K)			FOL	60	Very fine grained, bleached section, very few features.	223033	0.006	0.000
59.00	61.00				FOL	60		223034	0.001	0.000
61.00	63.00				FOL	60		223035	0.001	0.000
63.00	65.00				FOL	60		223036	0.001	0.000
65.00	65.80				FOL	60		223037	0.002	0.000
65.8	270.9	**FRAGMENTAL HETEROLITHIC AGLOMERATE**								
65.80	67.80	Very fine to coarse grained dark grey green					Massive volcanoclastic unit, no apparent structures. No particular alteration scheme other than weak chlorite/silica and patchy carbonatization until approx 215m where epidote begins to become pervasive. Composed of 75% clasts ranging from rounded to angular, 5mm to 30cm. Matrix is fine grained, tuffaceous with local magnetite and quartz eyes. Sections throughout of up to 1m fine to coarse grained, homogeneous, tuffaceous material with sharp but undulatory contacts. Clast composition is BFP, various porphyritic volcanics, amygdaloidal volcanics, ash beds and fine grained basalts and monzodiorite (after 200m). Colour varies from grey, pink, white, maroon, green. Unit is magnetic. 1-2% quartz veining at 25-30 º to core axis. 5% bright pink zeolite veining. No apparent mineralization above 200m, below 200m 1-2% fine disseminate pyrite, often as halos around clasts.	223038	0.015	0.007
67.80	69.80							223039	0.003	0.000
69.80	71.80							223040	0.004	0.000
71.80	73.80							223041	0.007	0.000
73.80	75.80							223042	0.008	0.000
75.80	76.50							223043	0.006	0.000
76.50	77.20	Very fine to coarse grained white					Entire interval is a large block of white, featureless tuff/ash, with 5% 2-3mm rounded quartz eyes. Weak carboante alteration.	223044	0.000	0.000

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-01

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
77.20	79.20	Very fine to coarse grained dark grey green					223045	0.008	0.000
79.20	81.20						223046	0.006	0.000
81.20	83.20	Very fine to coarse grained grey green					223047	0.064	0.008
83.20	85.20						223048	0.002	0.000
85.20	87.20						223049	0.005	0.000
87.20	89.20						223050	0.003	0.000
89.20	91.00						223051	0.004	0.006
91.00	93.00						223052	0.003	0.000
93.00	95.00						223053	0.003	0.000
95.00	97.00						223054	0.004	0.000
97.00	99.00						223055	0.001	0.000
99.00	101.00						223056	0.001	0.000
101.00	103.00						223057	0.036	0.006
103.00	105.00						223058	0.016	0.000
105.00	107.00						223059	0.005	0.000
107.00	109.00						223060	0.004	0.014
109.00	111.00						223062	0.003	0.007
111.00	113.00					Zeolite veining parallel to core axis.	223063	0.027	0.000
113.00	115.00						223064	0.001	0.000
115.00	117.00					Matrix becoming coarser grained, has a 'sedimentary' appearance, although quartz eyes distinguishable within the matrix.	223065	0.007	0.000
117.00	118.70						223066	0.001	0.000
118.70	121.00					Fine grained, dark grey, homogeneous material (tuffaceous/matrix) from 118.2-118.5. Has sharp, distinguishable contacts at 60 º to core axis and an intrusive texture with 2-3mm feldspars. Possibly a large clast.	223067	0.001	0.000

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-01

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
121.00	123.00	Very fine to coarse grained grey green				'Amygdaloidal BFP' clasts present, first appearance in this unit. Very fine, secondary pyrite. Small structures with slickensides, typically associated with an increase in zeolite veining.	223068	0.001	0.006
123.00	125.00						223069	0.001	0.000
125.00	127.00					5% 3-5mm pink zeolite veins with a quartz-carbonate core, 35-45 º to core axis.	223070	0.001	0.000
127.00	129.00					Local strong epidote alteration.	223071	0.001	0.000
129.00	131.00					Two generations of quartz-carboante veining, crossing at 90 deg to each other. Increase in pink staining.	223072	0.001	0.000
131.00	133.00					BFP clasts are very bleached, sericite altered and silicified. Difficult to determinw edge of clasts, but can still see the feldspars. Clast abundance is decreasing, unit is taking on a more homogeneous appearance. Much harder and silcified.	223073	0.001	0.000
133.00	135.00						223074	0.001	0.000
135.00	137.00					Magnetite specks and quartz eyes througohut, very homogeneous. Pervasive carbonate alteration.	223075	0.000	0.000
137.00	139.00					Homogeneous matrix, with 'amygdaloidal BFP' clasts. Pervasive carbonate alteration.	223076	0.000	0.000
139.00	141.00					Decrease in clast abundance, matrix has a speckled appearance. Sericite alteration begins to be more apparent.	223077	0.001	0.000
141.00	143.00					Decrease in clast abundance, matrix has an 'intrusive' speckled appearance. Sericite alteration begins to be more apparent. 3-5% rusty red zeolite veining at no apparent orientation.	223078	0.000	0.000
143.00	145.00					Quartz carbonate veining parallel to core axis, abundant zeolite veining. Pervasive sericite alteration, but not intense. Weak green chlorite alteration within the	223079	0.001	0.000

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-01

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
145.00	147.00	Very fine to coarse grained grey green				Quartz carbonate veining parallel to core axis, abundant zeolite veining. Pervasive sericite alteration, but not intense. Weak green chlorite alteration within the matrix. Generally has a speckled, homogeneous, 'intrusive' appearance.	223080	0.001	0.000
147.00	149.00					Abundant fine grained, chlorite and quartz eye rich	223081	0.002	0.006
149.00	151.00					Abundant fine grained, chlorite and quartz eye rich matrix. 3-4cm angular clasts of purple flourite.	223082	0.001	0.000
151.00	153.00					Clasts are all 3-7mm, abundant reddish zeolite veining and pervasive reddish staining. Quartz fracture fill at 20-25 º to core axis. Sample appears to have a flow texture in the lower 50cm, at 30 º to core axis.	223083	0.001	0.000
153.00	155.00					Pervasive sericite alteration, patchy carboante	223084	0.003	0.006
155.00	157.00					Very few clasts, pervasive sericite alteration. Minimal zeolite veining.	223085	0.004	0.007
157.00	159.00					Large, white blocks of quartz-eye rich material, ash-like in appearance. Homogeneous matrix material present, but with sharp, undulatory contacts against the clasts in the sample.	223087	0.003	0.000
159.00	161.00					Local bleached and sericite altered clasts. Homogeneous matrix material present, but with sharp, undulatory contacts against the clasts in the sample.	223088	0.003	0.000
161.00	163.00					Abundant clasts within clasts. Homogeneous matrix material present, but with sharp, undulatory contacts against the clasts in the sample.	223089	0.001	0.000
163.00	165.00					Abundant clasts within clasts.	223090	0.001	0.000
165.00	167.00						223091	0.001	0.000
167.00	169.00					Decrease in clasts abundance. 75% fine grained homogeneous matrix material with reddish staining. Sample is lighter in colour due to pervasive sericite/silica alteration.	223092	0.001	0.000

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-01

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
169.00	171.00	Very fine to coarse grained grey green				Decrease in clasts abundance. 75% fine grained homogeneous matrix material with reddish staining. Sample is lighter in colour due to pervasive sericite/silica alteration.	223093	0.000	0.000
171.00	173.00					Abundant pink-maroon zeolite veining, up to 1cm in width. No particular orientation. Decrease in clasts abundance, most clasts present are BFP.	223094	0.000	0.000
173.00	174.50						223095	0.000	0.000
174.50	176.00						223096	0.000	0.000
176.00	178.00					Very mottled looking section, similar in appearance to unit this hole was collared in.	223097	0.000	0.000
178.00	180.00						223098	0.000	0.000
180.00	182.00						223099	0.001	0.000
182.00	184.00					Dark grey with 40% 2-3mm white tuffaceous material. 2mm smoky grey quartz eyes visible on the fresh broken surfaces. Unit is much harder than surrounding material. Weak foliation at 65-75 deg. Sharp upper and lower contacts 80 º to core axis. Unit is a coarse grained version of the homogeneous 'matrix' that has been mentioned earlier in this unit.	223100	0.001	0.000
184.00	186.00					Decrease in clast abundance.	223101	0.001	0.000
186.00	188.00						223102	0.002	0.000
188.00	190.00						223103	0.001	0.000
190.00	192.00					Very mottled looking section, similar in appearance to unit this hole was collared in.	223104	0.001	0.000
192.00	194.00					Dark grey, fine grained, homogeneous material. Unit is much harder than surrounding material. Distinct upper and lower contacts. Same as the 'matrix' material described earlier in the unit.	223105	0.001	0.000
194.00	196.00					Very mottled looking section, similar in appearance to unit this hole was collared in.	223106	0.012	0.000
196.00	198.00					Broken section of core. Angular clasts of purple flourite present.	223107	0.008	0.008

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-01

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
198.00	199.50	Very fine to coarse grained grey green				Broken section of core. Angular clasts of purple flourite present.	223108	0.006	0.010
199.50	201.00						223109	0.015	0.000
201.00	203.00					First appearance of intrusive, monzodiorite clasts. Clasts are well rounded, 2-4cm and sporadic. Beginning to see pervasive and consistent epidote alteration.	223110	0.011	0.007
203.00	205.00	Very fine to coarse grained grey green moderately propyllitic	1.0			Distinct pervasive epidote alteration begins. Fine pyrite begins to appear throughout. Clasts are smaller and much more distorted than in the upper portions of this unit.	223111	0.009	0.007
205.00	207.00		1.0				223112	0.011	0.009
207.00	209.00		1.0				223114	0.009	0.011
209.00	211.00		1.0				223115	0.010	0.014
211.00	213.00		1.0				223116	0.011	0.011
213.00	215.00		1.0				223117	0.016	0.015
215.00	217.00		1.0				223118	0.011	0.012
217.00	219.00		1.0				223119	0.008	0.006
219.00	221.00		1.0				223120	0.013	0.006
221.00	223.00		1.0				223121	0.012	0.006
223.00	225.00		1.0				223122	0.009	0.005
225.00	226.50		1.0				223123	0.011	0.010
226.50	228.00		1.0				223124	0.008	0.015
228.00	230.00		1.0				223125	0.010	0.017
230.00	232.00		1.0				223126	0.005	0.007
232.00	234.00		1.0				223127	0.011	0.006
234.00	236.00		1.0			Clasts are less abundant and not very distinct. Section is much more homogeneous than surrounding material.	223128	0.014	0.005

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-01

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
236.00	238.00	Very fine to coarse grained grey green moderately propyllitic	1.0			Clasts are less abundant and not very distinct. Section is much more homogeneous than surrounding material. Very mottled appearance, similar to the unit that this hole collared in.	223129	0.012	0.000
238.00	239.70		1.0			Clasts are less abundant and not very distinct. Section is much more homogeneous than surrounding material.	223130	0.004	0.000
239.70	241.00		1.0				223131	0.010	0.006
241.00	243.00		1.0				223132	0.008	0.009
243.00	245.00		1.0			Unit begins to show abundant fracturing with carbonate fill. Increase in the number of monzonite clasts present. Clasts with intense epidote alteration and up to 3% pyrite begin to appear.	223133	0.008	0.011
245.00	247.00		1.0			8cm healed shear zone, with quartz, carbonate, chlorite, zeolite. Pyrite begins to appears as blebs within the matrix, as well as disseminated.	223134	0.010	0.009
247.00	249.00		1.0			Clast of possible sedimentary origin, very obviously layered.	223135	0.006	0.007
249.00	251.00		1.0				223136	0.009	0.006
251.00	253.00		1.0			251.5-251.7 - Tectonized, sericite/chlorite altered section. Possible healed structure.	223137	0.008	0.012
253.00	255.00		1.0			Large porphyritic felsic clast, silicified. 50% of the sample is epidote altered.	223138	0.012	0.014
255.00	257.00		1.0				223140	0.016	0.010
257.00	259.00		1.0				223141	0.012	0.010
259.00	261.00		1.0				223142	0.006	0.012
261.00	263.00		1.0				223143	0.010	0.008
263.00	265.00		1.0				223144	0.001	0.000
265.00	267.00		1.0				223145	0.004	0.023
267.00	269.00		1.0				223146	0.008	0.009
269.00	270.90		1.0			269.5-269.7 - Light brown tectonized section, sharp contacts with bleached alteration halo. Cherty looking, but soft. Contains blebby pyrite.	223147	0.001	0.000

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-01

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
270.9	286.1	**FRAGMENTAL DACITE TUFF**							
270.90	273.00	Very fine to coarse grained grey black moderately silicified (non-K)	1.0			Light grey, homogeneous matrix, no visible quartz eyes. Mild pervasive silicification, local patchy chlorite alteration. 30-35% sub angular, 0.5-10 cm fragments. Fragment composition 90% black-white, granitic looking pieces with visible 1-2mm white feldspars, 5% off white quartz-eye rich pieces, 5% silicified maroon pieces. Weak foliation at 50-70 deg tca. Pyrite occurs as disseminated 1mm blebs. 3% pink zeolite/carbonate veining throughout, at no particular orientation. Unit is locally weakly magnetic. Not sharp, but distinct upper contact, sharp lower contact at 50 deg tca.	223148	0.001	0.000
273.00	275.00		1.0				223149	0.002	0.000
275.00	277.00		1.0				223150	0.002	0.000
277.00	278.50		1.0				223151	0.003	0.000
278.50	280.00		1.0				223152	0.004	0.000
280.00	282.00		1.0				223153	0.005	0.000
282.00	284.00		1.0				223154	0.003	0.011
284.00	286.10		1.0				223155	0.002	0.005
286.1	333	**FRAGMENTAL HETEROLITHIC AGLOMERATE**							
286.10	288.00	Very fine to coarse grained grey green weakly propyllitic	1.0			Massive volcanoclastic unit. Propyllitic alteration, with a siliceous overprint. Composed of 75% clasts ranging from rounded to angular, 5mm to 30cm. Matrix is fine grained, tuffaceous with local magnetite and quartz eyes. Sections throughout of up to 1m fine to coarse grained, homogeneous, tuffaceous material with sharp but undulatory contacts. Clast composition is BFP, various porphyritic volcanics, amygdaloidal volcanics, ash beds and fine grained basalts and monzodiorite. Colour varies from grey, pink, white, maroon, green. Unit is magnetic. 5% bright pink zeolite veining. 1-2% fine disseminated pyrite, often as halos around clasts.	223156	0.002	0.007
288.00	290.00	Very fine to coarse grained grey green strongly propyllitic	1.0			Strong propyllitic alteration.	223157	0.006	0.000

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-01

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)		Comments	Sample#	Cu %	Au ppm
290.00	292.00	Very fine to coarse grained grey green strongly propyllitic	1.0				Strong propyllitic alteration.	223158	0.013	0.007
292.00	294.00		1.0					223159	0.007	0.015
294.00	295.50		1.0					223160	0.014	0.055
295.50	297.00		1.0					223161	0.011	0.037
297.00	299.00	Very fine to coarse grained grey green weakly propyllitic	1.0				Decrease in clast size.	223162	0.004	0.028
299.00	301.00		1.0					223163	0.009	0.029
301.00	303.00		1.0					223164	0.004	0.032
303.00	305.00		1.0				Decrease in clast size down to 311.0m.	223166	0.008	0.041
305.00	307.00		1.0					223167	0.003	0.044
307.00	309.00		1.0					223168	0.004	0.035
309.00	311.00		1.0					223169	0.001	0.060
311.00	313.00		1.0				312.2m - quartz-epidote vein with blebby pyrite. 1cm wide, 55 deg tca.	223170	0.001	0.064
313.00	315.00		1.0					223171	0.001	0.096
315.00	317.00		1.0					223172	0.001	0.068
317.00	319.00		1.0				50cm long, 1cm wide quartz-carbonate-zeolite vein sub parallel to core axis.	223173	0.009	0.117
319.00	321.00		1.0					223174	0.004	0.226
321.00	323.00		1.0				Intense fracturing.	223175	0.007	0.118
323.00	325.00		1.0		SHR	25	323.0-323.4 - healed shear zone at 25-30 deg tca. Slickensides present.	223176	0.005	0.053
325.00	327.00		1.0					223177	0.075	0.016
327.00	329.00		1.0					223178	0.007	0.034
329.00	331.00		1.0					223179	0.003	0.039
331.00	333.00		1.0					223180	0.007	0.008
333	357.8	**SHEARED TUFFACEOUS FAULT ZONE**								

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-01

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
333.00	335.00	Very fine to coarse grained pink brown weakly propyllitic	1.0			Very sheared and disrupted unit. Slickensides throughout. Protolith similar to 286.1-333.0m, but less abundant clasts. Clasts that are visible are altered and 'ghost' like. No quartz eyes to be found. Weak propyllitiic alteration overprinted by silicia flooding. 20-25% bright pink zeolite and carbonate veining throughout. 2 sets of veining that appear to follow a fracture pattern at parallel to 25 º to core axis and 80-90 º to core axis. Larger veins also carry hematite around the edges. 1% pyrite as disseminated blebs throughout, locally up to 5%. Unit is magnetic. Gradational upper contact, distinct lower contact.	223181	0.007	0.046
335.00	337.00		1.0				223182	0.006	0.016
337.00	339.00		1.0				223183	0.004	0.009
339.00	341.00		1.0				223184	0.004	0.008
341.00	343.00		3.0			Strong silicification, up to 5% pyrite.	223185	0.007	0.000
343.00	345.00		1.0			Strong silicification.	223186	0.001	0.000
345.00	347.00		1.0				223187	0.006	0.063
347.00	348.20		1.0				223188	0.058	0.059
348.20	350.00		1.5			348.2-357.8m - Still part of the fault zone, but protolith is not of the agglomerate present at the top of the zone. Distinct contact between the units. Protolith is fairly homogeneous, with speckled black chlorite, that appears to be replacement. Decrease in the amount of veining. Increase in pyrite content.	223189	0.091	0.034
350.00	352.00		1.5				223190	0.017	0.064
352.00	354.00		1.5				223192	0.002	0.029
354.00	356.00		1.5				223193	0.001	0.031
356.00	357.80		1.5			Very fine grained section, little silicification, pervasive carbonate alteration.	223194	0.009	0.013
357.8	424.8	**FRAGMENTAL HETEROLITHIC TUFF**							

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-01

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
357.80	359.00	Very fine to coarse grained green grey weakly propyllitic	1.5			Massive volcanoclastic unit. Upper portion of the Takla Group. Propyllitic alteration, intense below 365m, with a siliceous overprint. Weak sericite alteration associated with the intense epidote. Patchy black chlorite throughout. Hematite present along clast margins. Composed of 75% clasts ranging from rounded to angular, 5mm to 30cm. Matrix is fine grained and altered. Sections throughout of up to 1m fine to coarse grained, homogeneous, material with sharp but undulatory contacts. Clast composition is BFP, various porphyritic volcanics, amygdaloidal volcanics, crystalline carboante, fine grained basalts and monzodiorite. Clast colour varies from grey, pink, white, maroon, green. Unit varies in magnetism. Sporadic quartz carbonate veining, with faint pink zeolite material associated. 1-2% fine to blebby disseminated pyrite, often as halos around clasts. Anhydrite veining with chalcopyrite after 390m. Pyrite veining, and increased QSP alteration occurs below 440m.	223195	0.010	0.047
359.00	361.00		1.5				223196	0.017	0.035
361.00	363.00		1.5			Contains a 30cm block of very intense epidote	223197	0.012	0.051
363.00	365.00		1.5				223198	0.007	0.030
365.00	367.00	Very fine to coarse grained green grey strongly propyllitic	1.5			Beginning of intense propyllitic alteration, with weak associated sericite and silicious overprint. Patchy carboante alteration. Textures often obliterated. Pyrite content increases to 5-7% where the quartz flooding has almost totally replaced the host. No apparent chalcopyrite. Quartz carbonate veins at 65-70 º to core axis, typically 0.5-0.7 cm wide.	223199	0.012	0.037
367.00	369.00		1.5				223200	0.019	0.059
369.00	371.00		1.5				223201	0.014	0.046
371.00	372.80		1.5				223202	0.023	0.079
372.80	375.00		1.5				223203	0.009	0.067
375.00	377.00		1.5			Increased silicification and bleaching.	223204	0.024	0.077

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-01

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
377.00	379.00	Very fine to coarse grained green grey strongly propyllitic	1.5			Pink-peach anhydrite vein at 378.7m. 35 º to core axis.	223205	0.011	0.064
379.00	381.00		1.5			379.5-379.9 - structure running parallel to core axis, slickensides perpendicular to core axis.	223206	0.013	0.107
381.00	383.00		1.5				223207	0.015	0.122
383.00	385.00		1.5			384.5 - flow texture in a section of very small rounded pebbles with 40% fine grained matrix. Sharp contacts. Local increase in pyrite content.	223208	0.017	0.051
385.00	386.50		1.5			Pink-peach anhydrite veining.	223209	0.010	0.030
386.50	388.00		1.5			Large block of BFP that runs from 386.5-391.1m. Feldspars are totally epidote altered, with local silica replacement of the feldspars. Distinct upper and lower contacts. Quartz-carbonte-magnetitie vein at 387m. Mt veining occurs along a small structure at 55 º to core	223210	0.019	0.011
388.00	390.00		1.5			Large block of altered BFP.	223211	0.028	0.010
390.00	391.10		1.5				223212	0.036	0.018
391.10	393.00		1.5			Quartz carbonte veining parallel to core axis, trace magnetite.	223213	0.018	0.025
393.00	395.00		1.5			Pink-peach anhydrite veining.	223214	0.027	0.026
395.00	395.50		1.5	**0.5**		5mm quartz-carbonate-anhydrite vein with massive cpy, 2-3% of vein.	223215	0.047	0.027
395.50	397.00		1.5	**0.1**		Small, 10 cm wide healed shear at 395.7m. Black chlorite occuring in carbonate veins.	223216	0.023	0.029
397.00	398.80		1.5	**0.1**		Speckled black chlorite alteration. Quartz-magnetite-anhydrite vein, 353 º to core axis at	223218	0.025	0.037
398.80	401.00		1.5	**0.1**			223219	0.025	0.035
401.00	403.00		1.5	**0.1**			223220	0.025	0.042
403.00	405.00		1.5	**0.2**		Very fine disseminate cpy at the top of the unit. Local brecciation due to late carbonte veining.	223221	0.023	0.035
405.00	407.00		1.5	**0.1**		Crystalline carbonte clasts with black chlorite. Poddy anhydrite. QSP alteration.	223222	0.026	0.039

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-01

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
407.00	409.00	Very fine to coarse grained green grey strongly propyllitic	1.5	**0.1**		Massive, late carbonate veining parallel to core axis. Associated chlorite and fine magnetite. Local 10cm patches of QSP alteration.	223223	0.024	0.057
409.00	411.00		1.5	**0.1**		Increase in the silica overprint. Sample has a bleached appearance.	223224	0.025	0.046
411.00	411.60		1.5	**0.5**		Quartz-carbonate-anhydrite vein, 5mm wide, 75 º to core axis with massive cpy. Cpy 2% of vein.	223225	0.027	0.036
411.60	413.00		1.5	**0.1**		Very fine grained and homogeneous.	223226	0.029	0.029
413.00	415.00		1.5	**0.1**			223227	0.021	0.103
415.00	417.00		1.5	**0.1**			223228	0.009	0.018
417.00	419.00		1.5	**0.1**		Hard, cherry red, 2mm blebs of material associated with patchy black chlorite, typically close to veining. Healed shear zone at 413m with abundant zeolite veining. Shear at 65 º to core axis.	223229	0.016	0.028
419.00	421.00		1.5	**0.1**			223230	0.023	0.039
421.00	423.00		1.5	**0.1**			223231	0.028	0.047
423.00	424.80		1.5	**0.1**		Local brecciation due to late carbonte veining.	223232	0.013	0.025
424.8	446.7	**FRAGMENTAL INTERMEDIATE FRAGMENTAL VOLCANIC BRECCIA**							
424.80	427.00	Very fine to coarse grained green grey strongly propyllitic	1.5	**0.1**		Inferred contact between Takla and Hazelton. Very gradational over minimum of 10m.	223233	0.031	0.043
427.00	429.00		1.5	**0.1**		The unit becomes more massive, with less heterolithic vbx texture.	223234	0.006	0.014
429.00	431.00		2.0	**0.1**		429.1-429.6m - Healed shear zone at 60 º to core axis carrying fine magnetite, quartz, carbonate, sericite, chlorite, massive pyrite up to 4% locally.	223235	0.024	0.021
431.00	433.00		1.5	**0.1**		Transluscent quartz veining with epidote halos at 40 º to core axis. Spotty epidote lateration as replacement of grains/phenos (?). Reused anhydrite vein by late stage pyrite.	223236	0.012	0.011
433.00	435.00		1.5	**0.1**			223237	0.020	0.015
435.00	437.00		1.5	**0.1**		Very apparent vbx texture, transluscent quartz veining at 65-70 º to core axis.	223238	0.014	0.014

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-01

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
437.00	439.00	Very fine to coarse grained green grey strongly propyllitic	1.5	**0.0**		Being to see an increase in the chlorite alteration, and a deacrease in the propyllitic alteration. Carboante-anhydrite veining parallel to core axis.	223239	0.013	0.011
439.00	441.00		1.7	**0.0**		Pyrite content of the unit increases, pyrite veining becoems more abundant.	223240	0.010	0.019
441.00	442.40		1.7	**0.0**			223241	0.007	0.009
442.40	443.00		1.7	**0.0**			223242	0.005	0.006
443.00	445.00		1.7	**0.0**		443.2m - Pyrtie vein, 1cm, with epidote halos, 50 deg to core axis.	223244	0.014	0.012
445.00	446.70		1.7	**0.0**		445.1-445.5m - Healed shear at 50 deg to core axis. Carries quartz, epidote, chlorite, anhydrite and pyrite up to 4% locally. 446m - anhydrite-carbonate-quartz vein at 35 deg to core axis.	223245	0.011	0.029
446.7	450.1	**MASSIVE ANDESITIC AUGITE PORPHYRY FLOW**							
446.70	448.50	Very fine to coarse grained green grey strongly propyllitic	1.7	**0.0**		Massive AAP unit with distinct upper and lower contacts 35-40 deg to core axis. 20-25% 2-4mm augites with preserved crystal form. Pervasive propyllitc alteration, more confined to the fine grained matrix. Pyrite occurs as disseminated blebs and is locally fracture controlled. Weak, patchy chlorite alteration. 1% hairline carbonte stringers throughout.	223246	0.027	0.015
448.50	450.10		1.7	**0.0**			223247	0.052	0.024
450.1	476.4	**FRAGMENTAL ANDESITE VOLCANIC BRECCIA**							
450.10	451.00	Very fine to coarse grained green grey strongly propyllitic	1.7	**0.0**		Massive volcanoclastic unit. Propyllitic alteration, with a weak siliceous overprint. Chlorite alteration is mild but pervasive. Local QSP alteration. Unit is 75% VBX texture, 25% massive. Where the VBX is apparent, the unit is composed of 60% clasts, and they have a 'ghost' appearance dur to the strong alteration. Matrix is fine grained and strongly altered. Clast composition difficult to determine. Unit varies in magnetism. Sporadic quartz carbonate veining, with faint pink zeolite material associated. 1-2% fine to blebby disseminated pyrite, occasional chalcopyrite. 1% pyrite veining.	223248	0.010	0.026

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-01

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
451.00	453.00	Very fine to coarse grained green grey strongly propyllitic	1.7	**0.0**		452.7 - quaqrtz-carbonate vein with chlorite, fine magnetite and up to 3% pyrite locally. 55 deg to core axis.	223249	0.027	0.023
453.00	455.00		1.7	**0.0**		30cm quartz-carbonte-pyrite vein sub-parallel º to core axis. Unit becomes more massive with respect to surrounding material.	223250	0.012	0.015
455.00	457.00		1.7	**0.0**			223251	0.006	0.018
457.00	459.00		1.7	**0.0**		Patchy pyrite and chlorite.	223252	0.020	0.030
459.00	461.00		1.7	**0.0**		459-459.5m - Healed shear, very undulatory, 10-30 deg to core axis. Carries black chlorite, anhydrite, quartz, carbonate and locally up to 3% pyrite. Local sections, up tp 15cm, of QSP alteration.	223253	0.020	0.029
461.00	463.00		1.7	**0.0**		Anhydrite veining at 75 deg to core axis. Local sections, up to 10cm, of QSP alteration.	223254	0.022	0.039
463.00	465.00		1.5	**0.0**			223255	0.054	0.066
465.00	467.00		1.5	**0.0**		466.8m - Small structure at 80 deg to core axis with slickensides. Magnetite bearing.	223256	0.028	0.046
467.00	469.00		1.5	**0.0**		Becomes fractured, weak QSP alteration. Quartz-carbonate-magnetite veining at 70 deg to core	223257	0.037	0.039
469.00	471.30		1.5	**0.0**			223258	0.023	0.036
471.30	473.30		2.0	**0.5**		Very apparent VBX texture. Increase in the pyrite content, concentrated around the clasts boundaries. 1mm blebs of chalcopyrite throughout.	223259	0.068	0.118
473.30	475.00		2.0	**0.5**			223260	0.025	0.054
475.00	476.40		2.0	**0.5**		1cm pods of soft bacl chlorite, associated with Patchy pink-peach anhydrite.	223261	0.017	0.071
476.4	483	**MASSIVE BLADED FELDSPAR PORPHYRY FLOW**							

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-01

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
476.40	478.00	Very fine to coarse grained green grey strongly propyllitic	1.5	**0.0**		Massive BFP unit with 20-25% 3-4mm long feldspar laths. Upper contact is marked by a structure with slickensides and fault gouge, running at 15 deg to core axis. Strong epidote alteration at the upper contact. Feldspars are altered to quartz, epidote and chlorite throughout, with very few keeping their original colour and composition. Matrix is fine grained, with varying alteration. Barren 2-4mm wide anhydrite veins at 70-80 deg to core axis sporadic throughout. 2-3% hairline zeolite veining. Fine and blebby disseminated pyrite, as well as pyrite veinlets throughout.	223262	0.025	0.039
478.00	479.00		1.5	**0.0**			223263	0.049	0.039
479.00	481.00		1.5	**0.0**			223264	0.036	0.044
481.00	483.00		1.5	**0.0**			223265	0.090	0.076
483	486.4	**MASSIVE ANDESITIC AUGITE PORPHYRY FLOW**							
483.00	483.60	Very fine to coarse grained green grey strongly propyllitic	1.5	**0.0**		Massive AAP unit with 20-25% 2-4mm augites with preserved crystal form. Pervasive propyllitc alteration, more confined to the fine grained matrix. Local QSP alteration. Pyrite occurs as disseminated blebs and is locally fracture controlled. Weak, patchy chlorite alteration. 1% hairline carbonte stringers throughout. Upper contact marked by a structure at 30 deg to core axis, with 1cm of fault gouge and a massive 20 cm pyrite vein at 30 deg to core axis. Pyrite vein also carrie a fine,sofe,vivid emerald green mineral. Associated quartz-carb-sericite.	223266	0.031	0.124
483.60	485.00		5.0	**0.0**		Increase in QSP alteration towards the base of the unit.	223267	0.011	0.049
485.00	486.40	Very fine to coarse grained green grey intensely propyllitic	7.0	**0.0**		More intensely altered than previous intervals with strong QSP overprint.	223268	0.065	0.053
486.4	490.9	**MASSIVE BLADED FELDSPAR PORPHYRY FLOW**							

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-01

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
486.40	488.40	Very fine to coarse grained green grey strongly propyllitic	4.0	**0.0**		15-25% 3-4mm long feldspar laths. Upper and lower contacts masked due to intense alteration. Feldspars are altered mostly to epidote as wells as to quartz and chlorite, with very few keeping their original colour and composition. Matrix is very fine to fine grained. Alteration is strongly epidote with minor chlorite and a weak to moderate QSP overprint. Pyrite occurs as fine disseminations and small blebs. Veinlets of calcite running ~80 º to core axis.	223270	0.027	0.035
488.40	490.40		4.0	**0.0**			223271	0.026	0.037
490.40	490.90		4.0	**0.0**			223272	0.023	0.025
490.9	532.3	**MASSIVE ANDESITE FLOW**							
490.90	491.60	Very fine to coarse grained green strongly propyllitic	50.0	**2.0**		Unit is predominantly very fine to fine grained grey/green andesite. Some intervals have rare bladed feldspar phenocrysts. These phenocrysts are often altered to epitdote and, more rarely, chlorite. The first interval has blebby to locally massive pyrite with minor blebs and stringers of chalcopyrite. Pyrite also occurs as fine disseminations. Alteration is strongly epidote with a QSP overprint. Sporadically throughout the unit, calcite- chlorite-quartz veins carry pyrite and rare	223273	1.570	0.532
491.60	493.60	Very fine to coarse grained green grey strongly propyllitic	2.0	**0.0**		2-3% phenocrysts of epidote altered bladed feldspar. Locally quartz flooed. Core is fractured to rubbly.	223274	0.017	0.066
493.60	495.60		2.0	**0.5**	CALQC 50	Rare phenocrysts of bladed feldspar. Calcite-chlorite-quartz veining carrying pyrite and	223275	0.122	0.071
495.60	497.60	Very fine to fine grained green grey strongly propyllitic	2.0	**0.5**		Rare phenocrysts of bladed feldspar. Calcite-chlorite-quartz veining carrying pyrite and chalcopyrite running at 50 º to core axis. Sericite-calcite-pyrite veins running roughly parallel to core axis; these do not carry chalcopyrite.	223276	0.039	0.055
497.60	499.60		1.0	**0.0**			223277	0.093	0.091
499.60	501.60		1.0	**0.0**		Local VBX at ~500.2m.	223278	0.059	0.082
501.60	503.60		2.0	**0.5**	CALCV 60	Rare bladed feldspar phenocrysts. Rare blebs of chalcopyrite.	223279	0.055	0.102

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-01

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins	(°tca-%)	Comments	Sample#	Cu %	Au ppm
503.60	505.60	Very fine to fine grained green grey strongly propyllitic	3.0	**0.5**	CALV	45	Increased QSP alteration, local quartz flooding. Calcopyrite blebs associated with calcite veining	223280	0.026	0.033
505.60	507.60	Very fine to coarse grained green intensely phyllic	3.0	**0.5**			Sample interval is mostly intense QSP altered with minor epidote alteration. Anhydrite sometimes associated with sericite veining. Rare BFP phenocrysts.	223281	0.031	0.050
507.60	509.60	Very fine to fine grained green intensely phyllic	7.0	**0.0**			Sample interval is mostly intense QSP altered with minor epidote alteration. Propylitic (epidote) alteration increases over last 60cm, but is still dominantly QSP.	223282	0.007	0.045
509.60	511.60	Very fine to fine grained grey green strongly phyllic	7.0	**0.5**	CALV	40	Chalcopyrite associated with calcite veins and	223283	0.085	0.040
511.60	513.60		7.0	**0.5**			Chalcopyrite blebs associated with calcite-sericite veining. Anhydrite infrequently with veins.	223284	0.041	0.053
513.60	515.60	Very fine to fine grained grey green strongly propyllitic	4.0	**0.1**	CALSA	10	Epidote and chlorite alteration increasing compared to QSP. Minor chalcopyrite blebs associated with calcite, sericite and anhydrite. Calcite vein broken at 514.4m	223285	0.043	0.062
515.60	517.60		4.0	**0.0**				223286	0.027	0.039
517.60	519.60		4.0	**0.0**			Broken to rubbly.	223287	0.032	0.052
519.60	521.60		3.0	**0.1**	CALV	35	Small blebs of cpy associated with calcite veining.	223288	0.025	0.076
521.60	523.60		3.0	**0.0**	AHCAL	70		223289	0.028	0.080
523.60	525.60		3.0	**0.1**	CALAH	45	Small blebs of chalcopyrite mostly associated with calcite-sericite-anhydrite veining.	223290	0.028	0.082
525.60	527.00	Very fine to fine grained grey green intensely propyllitic	3.0	**0.0**			Increase in anhydrite veining at roughly 60 º to core	223291	0.020	0.068
527.00	528.30	Very fine to fine grained pink grey intensely argillic	3.0	**0.0**			Alteration abruptly changes to anhydrite, sericite, kaolinite, quartz which intensely obscures the rock.	223292	0.011	0.031
528.30	530.30	Very fine to fine grained brown grey intensely phyllic	3.0	**0.0**			Broken to rubbly. Intensely quartz flooded; pyrite and sericite altered.	223293	0.035	0.060
530.30	532.30		3.0	**0.0**			Sericite-zeolite veining brecciates unit sporaddically throughout sample interval. Pyrite increases towards the end of the interval, becoming locally massive.	223294	0.086	0.106

532.3 543.8 **MASSIVE BLADED FELDSPAR PORPHYRY FLOW**

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-01

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)		Comments	Sample#	Cu %	Au ppm
532.30	534.30	Very fine to coarse grained grey white intensely phyllic	2.0	**0.0**			3-10mm long feldspar laths in a fine to very fine grained, indistinguishable matrix. At the top of the unit, feldspar are altered to sericite and weakly chlorite. Alteration is strong to intense QSP, often obscuring primary textures. Where visible, feldspars make up ~20-25% of the unit. Alteration decreases in intensity towards the bottom of the unit. Pyrite in disseminations, flecks and stringers. Calcite and sericite veins run sub-parallel and sub-perpendicular to core axis.	223296	0.052	0.041
534.30	536.30		2.0	**0.0**				223297	0.026	0.061
536.30	538.30		1.0	**0.0**			Alteration intense to strong.	223298	0.037	0.041
538.30	540.30	Very fine to coarse grained dark grey strongly phyllic	1.0				Weak epidote alteration.	223299	0.058	0.064
540.30	542.30		1.0				Alteration increases towards bottom of sample interval.	223300	0.026	0.063
542.30	543.80		2.0	**0.5**	QSV	30	Chalcopyrite blebs (1-5mm) associated with quartz-sericite veining.	223301	0.033	0.064
543.8	551.4	**FOLIATED HETEROLITHIC FAULT ZONE**								
543.80	545.80	Very fine to coarse grained grey green moderately phyllic	2.0	**0.1**			1mm-3cm angular to rounded clasts of quartz, anhydrite, andesite in a very fine grained ashy matrix. Upper contact is at 15 º to core axis; lower contact is at 45 º to core axis. Alteration is weak to moderate QSP. Calcite, sericite, zeolite, anhydrite veining. Pyrite in fine disseminations and infrequently associated with calcite veining. Rare blebs of chalcopyrite associated with calcite-anhydrite veining at ~20 º to core axis.	223302	0.027	0.105
545.80	547.80		2.0	**0.1**				223303	0.030	0.087
547.80	549.80		1.0	**0.1**				223304	0.044	0.079
549.80	551.40		1.0	**0.1**				223305	0.026	0.094
551.4	642.2	**BRECCIATED ANDESITE FLOW**								

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-01

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
551.40	553.40	Very fine to fine grained grey green moderately phyllic	1.0	**0.0**		Fine to very fine grained, angular clasts within a similar matrix, grading downhole to massive andesite. Clasts range in size from 3mm-2cm. Alteration often gives the unit a mottled appearance. Alteration is moderate QSP; quartz flooding with subordinate pyrite and sericite alteration. Calcite and sericite veining running ~65 º to core axis and 25 º to core axis. Veins are infrequently altered to chlorite. Pyrite is disseminated throughout and in blebs often associated with calcite veining.	223306	0.027	0.114
553.40	555.40		2.0	**0.1**		Weak chloritic alteration; possible potassic alteration overprint.	223307	0.026	0.143
555.40	557.40	Very fine to fine grained grey green strongly phyllic	2.0	**0.0**			223308	0.026	0.104
557.40	559.40	Very fine to fine grained grey green moderately phyllic	2.0	**0.1**		Slickensides present on several fracture surfaces; fracture at 60 º to core axis.	223309	0.018	0.098
559.40	561.40		2.0	**0.0**			223310	0.017	0.087
561.40	563.40		2.0	**0.0**			223311	0.008	0.083
563.40	565.40		0.5	**0.0**		Unit is more massive than previous intervals, but still contains infrequent clasts. Weak epidote alteration overprinting QSP. Pyrite disseminations decreased.	223312	0.058	0.097
565.40	567.40		0.5	**0.0**		Similar to previous interval. Weak, patchy epidote alteration.	223313	0.017	0.065
567.40	569.40	Very fine to fine grained grey green strongly phyllic	0.5	**0.0**			223314	0.027	0.080
569.40	571.40		0.5	**0.0**			223315	0.038	0.086
571.40	573.40		0.5	**0.1**			223316	0.062	0.110
573.40	575.40		0.5	**0.1**			223317	0.034	0.124
575.40	576.00	Very fine to fine grained grey white strongly phyllic	0.5	**0.0**		Increased calcite veining (30% of interval) frequently brecciating unit.	223318	0.019	0.081
576.00	576.60	Very fine grained white intensely carbonate altered	0.0	**0.0**		Sample interval is almost entirely calcite vein. Upper contact at 20 º to core axis and is characterized by a 5mm rim of breccia and associated chlorite veining. Lower contact does not have breccia rim; runs 15 º to core axis.	223319	0.004	0.009

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-01

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)		Comments	Sample#	Cu %	Au ppm
576.60	577.90	Very fine to fine grained grey moderately phyllic	0.5	**0.0**			Rare augite phenocrysts.	223321	0.067	0.062
577.90	578.50	Very fine grained grey white strongly carbonate altered	0.1	**0.0**			Calcite vein similar to that in interval 223319. Hairline chlorite veining variable around rim. Upper contact not visible due to core being broken. Lower contact at 15 º to core axis.	223322	0.054	0.034
578.50	580.50	Very fine grained grey white intensely phyllic	0.5	**0.0**			Strong to intense calcite veining close to contact with vein of previous sample. Alteration is strong to intense.	223323	0.027	0.046
580.50	582.50	Very fine grained grey strongly phyllic	1.0					223324	0.016	0.037
582.50	583.40		0.5					223325	0.011	0.032
583.40	584.60	Very fine grained white grey strongly phyllic	0.1		CALV	15	Sample interval is dominantly a calcite vein with subordinate veins running off of it in various directions	223326	0.010	0.020
584.60	586.60	Very fine grained grey white intensely phyllic	0.1				Very intense alteration gives unit a mottled, almost tuffaceous appearance.	223327	0.047	0.058
586.60	588.50		0.5				Similar to previous sample interval, grading to non mottled looking andesite around the end of the sample. Infrequent bladded feldspars indicate that this might be highly altered BFP.	223328	0.042	0.073
588.50	590.50	Very fine grained grey strongly phyllic	0.5					223329	0.021	0.104
590.50	592.50		0.5	**0.1**			Rare blebs of chalcopyrite associated with pyrite.	223330	0.008	0.065
592.50	594.50	Very fine grained grey intensely phyllic	0.5	**0.1**				223331	0.009	0.090
594.50	596.50		0.5	**0.1**			Chalcopyrite specks within calcite veins running 35 º to core axis. Slickensides on a fracture surface running 65 º to core axis. Weak, patchy epidote alteration.	223332	0.044	0.071
596.50	598.50		0.5	**0.1**			Chalcopyrite specks within calcite veins running 45 º to core axis. Slickensides on a fracture surface running 65 º to core axis. Weak, patchy epidote alteration.	223333	0.048	0.047
598.50	600.30	Very fine grained grey strongly phyllic	0.5					223334	0.017	0.042
600.30	601.50		0.5				Sample interval consists of volcanic breccias: angular clasts of andesite in a similar matrix.	223335	0.019	0.050
601.50	603.50	Very fine grained dark grey moderately phyllic	0.5				Weak epidote alteration overprinting QSP. Alteration intensity decreased.	223336	0.027	0.047

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-01

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
603.50	605.50	Very fine grained dark grey moderately phyllic	0.5			Weak patchy chlorite alteration overprinting QSP. Possibly entering potassic zone, but logged as phyllic because chlorite alteration is weak to non-existent.	223337	0.020	0.054
605.50	607.50	Very fine grained grey intensely phyllic	0.5			Alteration becomes increasingly intense downhole, and appearance of the core becomes mottled.	223338	0.019	0.053
607.50	609.50		1.0			Mottled appearance from previous interval continues into this sample, but decreases downhole.	223339	0.023	0.067
609.50	611.50	Very fine grained dark grey moderately phyllic	1.0	**0.1**		Rare specks of chalcopyrite.	223340	0.038	0.151
611.50	613.50	Very fine grained dark grey strongly phyllic	1.0	**0.0**		Rare specks of chalcopyrite. Slightly mottled texture.	223341	0.037	0.146
613.50	615.50		1.0	**0.0**		Slight vbx texture: rare clasts of andesite within a similar groundmass. Slickensides on fracture surface at 60 º to core axis.	223342	0.037	0.120
615.50	617.50	Very fine grained grey intensely phyllic	0.5	**0.0**		Mottled vbx texture.	223343	0.041	0.079
617.50	619.50		0.5	**0.0**		Similar to previous interval.	223344	0.038	0.078
619.50	621.10	Very fine grained dark grey strongly phyllic	0.5	**0.0**		Similar to previous interval. Weak, patchy chlorite alteration overprinting QSP.	223345	0.042	0.122
621.10	623.10	Very fine grained dark grey moderately phyllic	0.5	**0.1**		Rare flecks of chalcopyrite. Weak, patchy chlorite alteration overprinting QSP.	223346	0.039	0.084
623.10	625.10	Very fine grained dark grey green moderately potassic - chlorite-quartz	0.5	**0.1**		Chlorite alteration becoming less patchy, more intense; QSP becoming subordinate to chlorite; sericite mostly absent for rest of hole.	223348	0.032	0.081
625.10	627.10		0.5	**0.1**			223349	0.036	0.060
627.10	629.10		0.5	**0.1**			223350	0.039	0.089
629.10	631.10		0.5	**0.1**			223351	0.006	0.055
631.10	633.10	Very fine grained dark grey green strongly potassic - chlorite-quartz	0.5	**0.0**		Strong phyllic overprint towards the end of the sample interval.	223352	0.029	0.122
633.10	635.10		0.5	**0.0**			223353	0.028	0.065
635.10	637.10		0.5	**0.0**			223354	0.037	0.102
637.10	639.10		0.5	**0.0**			223355	0.037	0.141

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-01

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
639.10	641.10	Very fine grained dark grey green strongly potassic - chlorite-quartz	0.5	**0.1**		Rare blebs of chalcopyrite.	223356	0.017	0.066
641.10	642.20		0.5	**0.1**		End of hole.	223357	0.092	0.157

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-02

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
0	419.45	**HETEROLITHIC CRYSTAL-LITHIC TUFF**							
0.00	2.00	Very fine to coarse grained grey weakly epidote altered				Dominantly coarse grained crystals with approximately 5% lithic fragments. Crystals are dominantly subhedral to euhedral feldpsar as less frequent mafics and quartz; set in a grey to dark grey, aphanitic groundmass. Lithics comprise angular to rounded aphanitic to fine grained andesite, AAP and rare intrusive fragments. Unit is magnetic due to fine grained magnetite throughout. Rare quartz eyes present. Zeolite and carbonate veinlets running in various orientations. Epidote and hematite veins also in various directions. Unaltered to altered locally around veining and local weak patchy epidote and / or hematite sporadically throughout. Epidote also infrequently occurs surrounding clasts. Mineralization absent except for rare occurances within lithic fragments.	223751	0.002	0.033
2.00	4.00						223752	0.003	0.011
4.00	6.00	Very fine to coarse grained grey pink					223753	0.002	0.000
6.00	8.00						223754	0.002	0.000
8.00	10.00	Very fine to coarse grained grey weakly epidote altered					223755	0.001	0.000
10.00	12.00						223756	0.002	0.000
12.00	14.00						223757	0.002	0.000
14.00	16.00	Very fine to coarse grained grey green weakly epidote altered					223758	0.003	0.000
16.00	18.00	Very fine to coarse grained grey weakly epidote altered					223759	0.002	0.000
18.00	20.00	Very fine to coarse grained grey pink unaltered					223760	0.002	0.000
20.00	22.00	Very fine to coarse grained grey weakly epidote altered					223761	0.001	0.000
22.00	24.00						223762	0.002	0.000
24.00	26.00	Very fine to coarse grained grey brown unaltered					223763	0.002	0.000

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-02

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
26.00	28.00	Very fine to coarse grained grey weakly epidote altered					223764	0.002	0.000
28.00	30.00	Very fine to coarse grained grey green weakly epidote altered				Epidote veinlets and alteration associated with clasts.	223765	0.002	0.000
30.00	32.00	Very fine to coarse grained grey weakly silicified (non-K)				Weakly Silicified. Competent to fractured.	223766	0.002	0.000
32.00	34.00	Very fine to coarse grained grey green weakly epidote altered				Weak epidote alteration.	223767	0.002	0.000
34.00	36.00	Very fine to coarse grained grey tan weakly epidote altered					223768	0.002	0.000
36.00	38.00	Very fine to coarse grained grey green weakly epidote altered				Clay altered healed fracture at 36.5m.	223769	0.002	0.000
38.00	40.00	Very fine to coarse grained dark grey weakly epidote altered					223770	0.001	0.000
40.00	42.00	Very fine to coarse grained grey green weakly epidote altered					223771	0.002	0.000
42.00	44.00	Very fine to coarse grained grey green unaltered					223772	0.002	0.000
44.00	46.00	Very fine to coarse grained grey weakly epidote altered				Increase in zeolite veining in this sample. Clay altered healed fracture at 44.5m. Hematitic overprint.	223773	0.001	0.000
46.00	48.00	Very fine to coarse grained grey green weakly epidote altered					223774	0.002	0.000
48.00	50.00	Very fine to coarse grained dark grey green weakly epidote altered				Hematitic overprint.	223775	0.002	0.000
50.00	52.00						223777	0.002	0.000
52.00	54.00	Very fine to coarse grained pink grey weakly epidote altered				Abundant hematite staining gives pink colour.	223778	0.002	0.000
54.00	56.00	Very fine to coarse grained dark grey green weakly epidote altered					223779	0.002	0.007
56.00	58.00	Very fine to coarse grained grey weakly epidote altered				Clay altered, possible healed fracture (?) at 56.8m.	223780	0.002	0.005
58.00	60.00	Very fine to coarse grained dark grey green weakly epidote altered					223781	0.002	0.000

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-02

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
60.00	62.00	Very fine to coarse grained dark grey weakly epidote altered					223782	0.001	0.000
62.00	64.00	Very fine to coarse grained pink grey weakly hematitic				Hematite staining gives pink colour	223783	0.001	0.006
64.00	66.00	Very fine to coarse grained dark grey green weakly epidote altered				Epidote stringers.	223784	0.001	0.005
66.00	68.00	Very fine to coarse grained grey unaltered					223785	0.001	0.000
68.00	70.00	Very fine to coarse grained grey green weakly epidote altered					223786	0.001	0.000
70.00	72.00					Weak epidote alteration.	223787	0.002	0.000
72.00	74.00	Very fine to coarse grained grey pink weakly hematitic				Weak hematite staining.	223788	0.002	0.000
74.00	76.00	Very fine to coarse grained dark grey green weakly epidote altered					223789	0.002	0.000
76.00	78.00	Very fine to coarse grained dark grey pink weakly hematitic				Weak hematite staining.	223790	0.001	0.000
78.00	80.00	Very fine to coarse grained pink moderately hematitic				Hematite staining increased from previous interval. Secondary Epidote alteration.	223791	0.003	0.000
80.00	82.00	Very fine to coarse grained dark grey weakly hematitic				Hematite staining decreased from previous interval. Secondary Epidote alteration.	223792	0.002	0.000
82.00	84.00	Very fine to coarse grained dark grey green weakly epidote altered				Core is broken to rubbly to approximately 91.2m. Within this zone, there are clay altered, healed fractures at 86.6-86.8m, 89.2-89.8. Possible fault zone.	223793	0.004	0.007
84.00	86.00	Very fine to coarse grained dark grey green weakly hematitic				Secondary Epidote alteration.	223794	0.003	0.000
86.00	88.00						223795	0.003	0.000
88.00	90.00						223796	0.003	0.000
90.00	92.00						223797	0.003	0.000
92.00	94.00	Very fine to coarse grained grey green weakly hematitic				Secondary Epidote alteration.	223798	0.003	0.000
94.00	96.00	Very fine to coarse grained grey tan weakly epidote altered					223799	0.003	0.000

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-02

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
96.00	98.00	Very fine to coarse grained dark grey unaltered					223800	0.002	0.000
98.00	100.00						223801	0.002	0.000
100.00	102.00	Very fine to coarse grained grey weakly epidote altered					223803	0.002	0.000
102.00	104.00						223804	0.002	0.005
104.00	106.00	Very fine to coarse grained grey green weakly epidote altered					223805	0.002	0.000
106.00	108.00	Very fine to coarse grained grey unaltered					223806	0.002	0.000
108.00	110.00	Very fine to coarse grained grey weakly hematitic				Weak hematite alteration.	223807	0.002	0.000
110.00	112.00	Very fine to coarse grained grey green unaltered				One lithic fragment is from an intrusive.	223808	0.002	0.000
112.00	114.00					Increase in calcite stringers at the end of the sample interval.	223809	0.003	0.000
114.00	116.00	Very fine to coarse grained grey green weakly epidote altered					223810	0.002	0.000
116.00	118.00						223811	0.003	0.000
118.00	120.00	Very fine to coarse grained grey green unaltered					223812	0.002	0.000
120.00	122.00	Very fine to coarse grained grey weakly epidote altered					223813	0.002	0.000
122.00	124.00	Very fine to coarse grained grey weakly hematitic	0.0			Weak hematite alteration and very weak to non-existent carbonate alteration.	223814	0.002	0.000
124.00	126.00					Weak hematite alteration which continues into next sample.	223815	0.001	0.000
126.00	128.00					Secondary Epidote alteration.	223816	0.001	0.000
128.00	130.00	Very fine to coarse grained grey green unaltered				Clay altered, healed fracture at 128.5m.	223817	0.001	0.000
130.00	132.00	Very fine to coarse grained grey unaltered					223818	0.003	0.000
132.00	134.00						223819	0.003	0.005

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-02

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
134.00	136.00	Very fine to coarse grained grey weakly hematitic				Weak hematite alteration. Secondary Epidote alteration.	223820	0.002	0.000
136.00	138.00						223821	0.002	0.000
138.00	140.00					Very weak to non-existent carbonate alteration. Secondary Epidote alteration.	223822	0.002	0.007
140.00	142.00	Very fine to coarse grained grey weakly epidote altered					223823	0.001	0.000
142.00	144.00	Very fine to coarse grained grey weakly hematitic				Very weak hematite alteration. Secondary Epidote alteration.	223824	0.002	0.000
144.00	146.00					Secondary Epidote alteration.	223825	0.002	0.000
146.00	148.00	Very fine to coarse grained grey green weakly epidote altered					223826	0.003	0.000
148.00	150.00						223827	0.002	0.000
150.00	152.00	Very fine to coarse grained grey weakly epidote altered				Clay altered, possible healed fracture zone from 151.8-152.0m; hematite veining occurs through this	223829	0.002	0.144
152.00	154.00					Clay altered healed fractue at 153.1m. Carbonate vein brecciates unit at 153.9m.	223830	0.001	0.000
154.00	156.00	Very fine to coarse grained grey green weakly epidote altered					223831	0.002	0.005
156.00	158.00						223832	0.001	0.000
158.00	160.00	Very fine to coarse grained dark grey pink weakly epidote altered					223833	0.001	0.000
160.00	162.00						223834	0.001	0.000
162.00	164.00	Very fine to coarse grained dark grey pink weakly propyllitic				Minor epidote on fractures	223835	0.001	0.000
164.00	166.00					Black aphenitic fragments to 10cm, very magnetic, ringed by epidote halo.	223836	0.001	0.000
166.00	168.00						223837	0.002	0.000
168.00	170.00	Very fine to coarse grained dark grey pink unaltered					223838	0.002	0.000
170.00	172.00						223839	0.001	0.000
172.00	174.00	Very fine to coarse grained dark grey pink weakly epidote altered					223840	0.002	0.005

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-02

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)			Comments	Sample#	Cu %	Au ppm
174.00	176.00	Very fine to coarse grained dark grey pink weakly epidote altered							223841	0.002	0.000
176.00	178.00				FLT	35	2	Hemeatite staining of feldspars and minor silica flooding around structures	223842	0.002	0.009
178.00	180.00	Very fine to coarse grained dark grey pink unaltered						Iron carb on fractures begins	223843	0.002	0.005
180.00	182.00								223844	0.002	0.005
182.00	184.00								223845	0.002	0.005
184.00	186.00								223846	0.002	0.000
186.00	188.00	Very fine to coarse grained dark grey pink weakly epidote altered							223847	0.002	0.008
188.00	190.00								223848	0.001	0.007
190.00	192.00								223849	0.001	0.007
192.00	194.00								223850	0.002	0.007
194.00	196.00								223851	0.004	0.007
196.00	198.00				FLT	75	2		223852	0.001	0.000
198.00	200.00								223853	0.001	0.005
200.00	202.00								223855	0.003	0.006
202.00	204.00	Very fine to coarse grained dark grey pink unaltered						Possible weak propylitic overprint; minor epidote and carbonates.	223856	0.002	0.005
204.00	206.00	Very fine to coarse grained dark grey pink weakly epidote altered						Similar to previous interval.	223857	0.001	0.000
206.00	208.00	Very fine to coarse grained dark grey weakly propyllitic						Alteration seen in previous two intervals stronger and more definite.	223858	0.002	0.005
208.00	210.00								223859	0.003	0.014
210.00	212.00								223860	0.001	0.007
212.00	214.00							Very weak to non-existent alteration until 213.7m when alteration becomes strong with epidote and chlorite.	223861	0.002	0.000
214.00	216.00	Very fine to coarse grained dark grey green moderately propyllitic						Moderate to strong alteration of the end of previous intervalcontinues into the interval.	223862	0.002	0.005
216.00	218.00								223863	0.002	0.000

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-02

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
218.00	220.00	Very fine to coarse grained dark grey weakly propyllitic				Propylitic alteration decreased, but carbonate veinlets increased.	223864	0.002	0.007
220.00	222.00						223865	0.002	0.010
222.00	224.00					Clay altered, healed fracture at 222.8m.	223866	0.001	0.000
224.00	226.00	Very fine to coarse grained dark grey green weakly epidote altered					223867	0.004	0.005
226.00	228.00		0.0			Pyrite within basalt clast.	223868	0.002	0.005
228.00	230.00		0.0				223869	0.001	0.000
230.00	232.00	Very fine to coarse grained black unaltered					223870	0.002	0.005
232.00	234.00	Medium to coarse grained pink weakly epidote altered					223871	0.005	0.006
234.00	236.00	Medium to coarse grained black weakly epidote altered	0.0			Trace pyrite.	223872	0.004	0.000
236.00	238.00	Very fine to coarse grained green weakly epidote altered	0.0				223873	0.002	0.000
238.00	240.00						223874	0.003	0.007
240.00	242.00	Very fine to coarse grained black weakly epidote altered	0.1			Minor pyrite in volcanic fragments.	223875	0.003	0.005
242.00	244.00	Very fine to coarse grained grey weakly epidote altered	0.1			Pyrite blebs within altered volcanic clasts.	223876	0.004	0.000
244.00	246.00	Very fine to coarse grained grey green weakly epidote altered	0.0			Trace of pyrite within matrix.	223877	0.004	0.005
246.00	248.00						223878	0.002	0.005
248.00	250.00	Medium to coarse grained grey green weakly epidote altered	0.0			Trace of pyrite.	223879	0.002	0.011
250.00	252.00	Very fine to coarse grained grey black	0.0			Minor pyrite within volcanic clasts.	223881	0.003	0.005
252.00	254.00	Very fine to coarse grained green weakly epidote altered					223882	0.002	0.000
254.00	256.00						223883	0.002	0.006
256.00	258.00		0.0			Trace of pyrite within the matrix and quartz veins.	223884	0.005	0.009

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-02

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
258.00	260.00	Medium to coarse grained green weakly epidote altered					223885	0.002	0.000
260.00	262.00	Very fine to coarse grained green weakly epidote altered					223886	0.002	0.006
262.00	264.00						223887	0.001	0.005
264.00	266.00						223888	0.001	0.000
266.00	268.00					Fracturing between 266.74m and 266.96m contains quartz veining and voids.	223889	0.001	0.000
268.00	270.00	Very fine to coarse grained green black weakly epidote altered					223890	0.009	0.006
270.00	272.00	Very fine to coarse grained green weakly epidote altered					223891	0.001	0.006
272.00	274.00	Very fine to coarse grained black grey					223892	0.001	0.006
274.00	276.00	Very fine to coarse grained black weakly epidote altered				Minor voids within quartz veining.	223893	0.002	0.005
276.00	278.00						223894	0.003	0.007
278.00	280.00	Very fine to coarse grained grey weakly epidote altered					223895	0.001	0.008
280.00	282.00						223896	0.012	0.022
282.00	284.00	Very fine to coarse grained black green weakly epidote altered	0.0			Minor disseminated pyrite.	223897	0.006	0.022
284.00	286.00	Very fine to coarse grained black					223898	0.002	0.006
286.00	288.00	Medium to coarse grained black grey				Minor pyrite in altered volcanic clasts and disseminated in groundmass.	223899	0.001	0.000
288.00	290.00	Very fine to coarse grained grey pink					223900	0.002	0.000
290.00	292.00	Very fine to coarse grained grey weakly epidote altered	0.0			Trace of disseminated pyrite.	223901	0.003	0.000
292.00	294.00		0.0				223902	0.002	0.005
294.00	296.00						223903	0.001	0.006
296.00	298.00	Very fine to coarse grained green weakly epidote altered					223904	0.003	0.006

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-02

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins	(°tca-%)		Comments	Sample#	Cu %	Au ppm
298.00	300.00	Very fine to coarse grained green weakly epidote altered							223905	0.001	0.006
300.00	302.00	Very fine to coarse grained grey black	0.0					Trace of disseminated pyrite. Minor fracturing with calcite and iron carbonate infill.	223907	0.003	0.000
302.00	304.00	Very fine to coarse grained black weakly epidote altered	0.0		CALIV	25	10	Trace of disseminated pyrite.	223908	0.001	0.000
304.00	306.00	Very fine to coarse grained pink weakly epidote altered						There are a number of veins, veinlets, stockwork and fracture fill (7%). The veins are filled with calcite and iron carbonate.	223909	0.001	0.000
306.00	308.00	Very fine to coarse grained black pink	0.1		V	20	3	Minor disseminated pyrite.	223910	0.004	0.014
308.00	310.00	Very fine to coarse grained pink green weakly epidote altered	0.1		CALIV	15	5		223911	0.002	0.000
310.00	312.00	Very fine to coarse grained black weakly epidote altered	0.0					Trace of disseminated pyrite.	223912	0.001	0.000
312.00	314.00		0.0		CALIV	25	4		223913	0.001	0.000
314.00	316.00	Very fine to coarse grained black green weakly epidote altered	0.0		SHR	26	2	Trace of disseminated pyrite and variable oriented stringers and veinlets composed of calcite and iron carbonate.	223914	0.001	0.000
316.00	318.00	Very fine to coarse grained pink weakly epidote altered			CALIS	15	2		223915	0.001	0.000
318.00	320.00	Very fine to coarse grained grey weakly epidote altered	0.0					Minor variably oriented stringers filled with calcite, quartz and iron carbonate. Trace of disseminated pyrite.	223916	0.001	0.000
320.00	322.00	Very fine to coarse grained green weakly epidote altered	0.0		CALV	17	3	Trace of disseminated pyrite.	223917	0.002	0.000
322.00	324.00	Medium to coarse grained pink green weakly epidote altered						Minor veining.	223918	0.002	0.000
324.00	326.00	Medium to coarse grained green weakly epidote altered	0.0		ICALS	30	1	Trace of disseminated pyrite.	223919	0.001	0.000
326.00	328.00	Very fine to coarse grained grey weakly epidote altered						Large volcanic clasts.	223920	0.002	0.000
328.00	330.00	Medium to coarse grained grey weakly epidote altered							223921	0.003	0.000
330.00	332.00	Very fine to coarse grained grey black							223922	0.002	0.000

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-02

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)			Comments	Sample#	Cu %	Au ppm
332.00	334.00	Very fine to coarse grained black grey	0.0					Trace of disseminated pyrite.	223923	0.004	0.000
334.00	336.00	Very fine to coarse grained grey							223924	0.002	0.000
336.00	338.00	Very fine to coarse grained black grey	0.0					Trace of disseminated pyrite.	223925	0.004	0.000
338.00	340.00	Medium to coarse grained grey							223926	0.005	0.000
340.00	342.00	Very fine to coarse grained pink	0.0					Trace of disseminated pyrite.	223927	0.002	0.000
342.00	344.00	Very fine to coarse grained black weakly epidote altered							223928	0.003	0.000
344.00	346.00							Fracture fill with calcite, zeolite and iron carbonate, variable orientation.	223929	0.002	0.000
346.00	348.00	Very fine to coarse grained green weakly epidote altered			FRK	40	5		223930	0.003	0.000
348.00	350.00	Very fine to coarse grained pink weakly epidote altered						Randomly oriented veins and stringers (fracture fill) composed of calcite, quartz and dolomite.	223931	0.003	0.000
350.00	352.00	Very fine to coarse grained black weakly epidote altered	0.0					Trace of disseminated and blebby pyrite.	223933	0.002	0.007
352.00	354.00	Very fine to coarse grained pink grey						Increased random fracturing filled with calcite, quartz and zeolite.	223934	0.002	0.000
354.00	356.00	Very fine to coarse grained green weakly epidote altered	0.0					Trace of disseminated pyrite. Random oriented fractures, filled with calcite and zeolite.	223935	0.003	0.000
356.00	358.00	Very fine to coarse grained grey weakly epidote altered	0.0					Trace of disseminated pyrite. Random oriented veins and stringers filled with zeolite and calcite.	223936	0.002	0.000
358.00	360.00	Very fine to coarse grained grey pink			FRK	20	4	Fracture fill with calcite, quartz and zeolite.	223937	0.002	0.000
360.00	362.00	Very fine to coarse grained black							223938	0.003	0.000
362.00	364.00	Very fine to coarse grained grey pink						Randomly oriented veins and stingers filled with quartz, calcite and zeolite.	223939	0.004	0.000
364.00	366.00	Very fine to coarse grained black	0.0					Trace of disseminated pyrite. Randomly oriented veins and stringers filled with zeolite and calcite.	223940	0.006	0.000
366.00	368.00	Very fine to coarse grained grey						Randomly oriented veins and stringers (7%) composed primarily of zeolite with some calcite.	223941	0.003	0.000

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-02

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins	(°tca-%)		Comments	Sample#	Cu %	Au ppm
368.00	370.00	Very fine to coarse grained grey pink						Randomly oriented fractures and stringers. Stringers composed of zeolite, quartz and zeolite. Patchy broken section.	223942	0.003	0.007
370.00	372.00	Very fine to coarse grained grey			CALZQ	18	3	General orientation of the fractures and stringers is 18 degrees others are randomly oriented.	223943	0.003	0.016
372.00	374.00	Very fine to coarse grained grey weakly epidote altered			ZCALV	35	2		223944	0.002	0.000
374.00	376.00	Very fine to coarse grained grey pink	0.0					Trace of disseminated pyrite. Minor fracturing with infill of zeolite, calcite and quartz.	223945	0.002	0.000
376.00	378.00				ZCALQ	35	2		223946	0.002	0.011
378.00	380.00	Very fine to coarse grained grey weakly epidote altered	0.0					Random fracturing filled (3%) with zeolite, calcite and quartz. Trace of disseminated pyrite.	223947	0.001	0.000
380.00	382.00	Very fine to coarse grained black						Minor fracturing infilled with zeolite, calcite and quartz.	223948	0.002	0.000
382.00	384.00	Very fine to coarse grained grey pink			ZCALQ	30	4		223949	0.001	0.000
384.00	386.00	Very fine to coarse grained grey black						Random oriented fractures and stringers/veinlets. Stringers are filled with zeolite and calcite.	223950	0.002	0.000
386.00	388.00	Very fine to coarse grained green moderately propyllitic						Minor fracturing at 50 degrees.	223951	0.003	0.000
388.00	390.00	Very fine to coarse grained grey moderately propyllitic						Random oriented fracturing.	223952	0.001	0.000
390.00	392.00				ZCALQ	35	4	Fractures filled with zeolite and calcite.	223953	0.001	0.000
392.00	394.00	Very fine to coarse grained pink black moderately propyllitic							223954	0.001	0.012
394.00	396.00	Very fine to coarse grained pink moderately propyllitic						Patchy broken core.	223955	0.001	0.000
396.00	398.00	Very fine to coarse grained grey moderately propyllitic							223956	0.001	0.000
398.00	400.00	Very fine to coarse grained pink weakly epidote altered			ZCALQ	35	4	Fault at 399 m dipping 25 degrees tca. Local hematite and chlorite alteration.	223957	0.001	0.000
400.00	402.00	Medium to coarse grained pink green moderately hematitic						Minor epidote alteration around clasts. Variably oriented veins infilled with calcite and zeolite.	223959	0.001	0.000
402.00	404.00	Medium to coarse grained grey weakly propyllitic						Minor epidote and chlorite alteration on and around volcanic clasts. Local hematite alteration.	223960	0.001	0.000

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-02

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins	(°tca-%)		Comments	Sample#	Cu %	Au ppm
404.00	406.00	Very fine to coarse grained grey			ZCALV	40	2	Local epidote and chlorite alteration around volcanic clasts. Local hematite alteration.	223961	0.001	0.000
406.00	408.00	Very fine to coarse grained grey black			CALZV	40	1	Local epidote and hematite alteration.	223962	0.001	0.000
408.00	410.00	Very fine to coarse grained grey weakly propyllitic			ZCALV	40	2	Epidote-sericite alteration. Local hematite alteration.	223963	0.001	0.000
410.00	412.00	Medium to coarse grained grey weakly propyllitic			ZCALV	50	2	Contains small to large volcanic clasts. Epidote-chlorite alteration.	223964	0.000	0.000
412.00	414.00	Very fine to coarse grained dark grey weakly hematitic						Transitions from mostly hematite alteration to epidote an chloritic alteration.	223965	0.001	0.000
414.00	416.00	Very fine to coarse grained green pink moderately propyllitic						Local chlorite alteration. Secondary hematitic	223966	0.000	0.000
416.00	418.00	Very fine to coarse grained pink weakly epidote altered						Local chlorite and hematite alteration.	223967	0.000	0.000
418.00	419.45	Very fine to coarse grained pink green moderately epidote altered						Local hematite alteration.	223968	0.001	0.000
419.45	420.15	**FRACTURED ANDESITE DYKE**									
419.45	420.15	Fine grained grey brown			DYK	40		Fine grained, grey-brown intrusive dike. Equigranular grains with local chlorite and epidote alteration. Moderaltely fractured with zeolite and calcite veinlets. Local hematite staining around veinlets. Local sericite alteration. Upper contact 40 degrees and lower contact 35 degrees.	223969	0.000	0.000
420.15	421.36	**FRACTURED HETEROLITHIC CRYSTAL-LITHIC TUFF**									
420.15	421.36	Very fine to coarse grained pink moderately hematitic	0.0					Similar to the above Hazelton unit, but with more hematite and epidote alteration. Contains fragments of dyke material. Contains variable oriented zeolite and calcite veins.	223970	0.026	0.005
421.36	425.1	**BRECCIATED ANDESITE DYKE**									
421.36	423.00	Fine grained black weakly epidote altered	0.2		FLT	60	2	Similar to the dike above. Brecciated fine grained andesite dike with zeolite and calcite in the fractures. Epidote alteration is located around the fractures. Upper contact angle 40 degrees lower contact angle 50	223971	0.001	0.000
423.00	425.10		0.1						223972	0.006	0.000

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-02

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins	(°tca-%)		Comments	Sample#	Cu %	Au ppm
425.1	495.3	**FRAGMENTAL HETEROLITHIC CRYSTAL-LITHIC TUFF**									
425.10	427.00	Very fine to coarse grained green pink moderately epidote altered			FLT	50	6	Same as the hazelton unit above. Notice the clasts are getting smaller.	223973	0.001	0.000
427.00	429.00	Very fine to coarse grained pink weakly hematitic						Minor chloritic alteration of volacnic clasts. Veinlets orented in variable orientations and infilled with zeolite and calcite. Minor sericitic alteration.	223974	0.001	0.000
429.00	431.00				ZCALV	35	4	Minor epidote alteration surrounding volcanic clasts.	223975	0.002	0.000
431.00	433.00	Very fine to coarse grained pink black moderately hematitic						Minor epidote alteration around clasts and veinlets. Zeolite and calcite veinlets are randomly oriented.	223976	0.003	0.000
433.00	435.00	Very fine to coarse grained black weakly hematitic			FLT	22	10	Fault boundary from 433.48 to 433.78 with an upper boundary contact of 23 degrees and a lower boundart contact of 20 degrees.	223977	0.003	0.000
435.00	437.00				FLT	70	5	Patchy silicified sections. Randomly oriented veinlets filled with calcite and zeolite.	223978	0.001	0.000
437.00	439.00	Very fine to coarse grained black grey			CALZV	30	4	Faulting is present at an orientation of 30 degrees (tca) for 3% of the sample interval.	223979	0.002	0.000
439.00	441.00	Very fine to coarse grained pink weakly hematitic	0.0		FLT	60	3	Randomly oriented veins and veinlets filled with calcite and zeolite.	223980	0.002	0.000
441.00	443.00							Increased patchy silicification, fine grained biotite increasing in matrix.	223981	0.002	0.000
443.00	445.00							Randomly oriented veinlets filled with zeolite and	223982	0.002	0.000
445.00	447.00				ZCALV	20	4		223984	0.003	0.000
447.00	449.00							Patchy broken. Decrease in volcanic clast size (1 cm average diameter) and amount (5% of sample interval)	223985	0.002	0.000
449.00	451.00	Very fine to coarse grained black weakly hematitic			QCALZ	10	4		223986	0.003	0.000
451.00	453.00	Very fine to coarse grained black green weakly silicified (non-K)			FRK	60	2	Zeolite and quartz healed fractures. Sec	223987	0.002	0.000
453.00	455.00	Very fine to coarse grained black grey weakly silicified (non-K)						Epidote alteration surrounding volcanic clasts and chlorite alteration inside the clasts (possibly replacing chlorite). Secondary hematitic alteration.	223988	0.002	0.000

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-02

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins	(°tca-%)		Comments	Sample#	Cu %	Au ppm
455.00	457.00	Very fine to coarse grained black grey moderately silicified (non-K)						Amount of large volcanic clasts has decreased to less than 1%.Randomly oriented veins filled with zeolite, quartz and calcite.	223989	0.002	0.000
457.00	459.00				QAHCA	30	4		223990	0.002	0.000
459.00	461.00				ZCALA	60	2	Fault from 459.84 to 459.89 with and upper and lower boundary contact of 75 degrees.	223991	0.002	0.000
461.00	463.00		0.0					Randomly oriented veinlets infilled with quartz, anhydrite and calcite.	223992	0.002	0.000
463.00	465.00	Very fine to coarse grained black green moderately silicified (non-K)						Minor epidote alteration around some volcanic clasts.	223993	0.003	0.008
465.00	467.00	Very fine to coarse grained black moderately silicified (non-K)							223994	0.002	0.000
467.00	469.00				QCALA	35	3	Increase in the amount of volcanic clasts to 5% of the sample interval (size averages 1.5 cm in diameter. Trace of epidote around volcanic clasts. Secondary hematitic alteration.	223995	0.002	0.000
469.00	471.00								223996	0.002	0.000
471.00	473.00	Very fine to coarse grained black weakly propyllitic						Transitions from siliceous alteration to epidote, hematite, chlorite alteration with a little sericite alteration. Randomly orieneted veins filled with zeolite	223997	0.003	0.000
473.00	475.00	Very fine to coarse grained black			CALZV	35	3	The amount of volcanic amounts start decreasing to less than 2% per sample unit.	223998	0.002	0.000
475.00	477.00	Very fine to coarse grained black pink						Randomly oriented veins filled with zeolite and calcite.	223999	0.003	0.000
477.00	479.00	Very fine to coarse grained black weakly hematitic	0.0					Randomly oriented veins and healed fractures filled with zeolite, calcite and quartz. Secondary epidote	224000	0.018	0.019
479.00	481.00				ZCALV	35	2	Secondary silicification.	225001	0.002	0.000
481.00	483.00							Healed fractures filled with zeolite and calcite. Secondary epidote alteration.	225002	0.001	0.005
483.00	485.00							Secondary propyllitic alteration.	225003	0.002	0.005
485.00	487.00	Very fine to coarse grained black grey weakly silicified (non-K)						Trace of epidote alteration around volcanic clasts. Randomly oriented healed fractures and veinlets filled with zeolite, calcite and quartz. Becoming more	225004	0.007	0.000

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-02

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)			Comments	Sample#	Cu %	Au ppm
487.00	489.00	Very fine to coarse grained black weakly silicified (non-K)						Trace of epidote and chloritic alteration with volcanic clasts.	225005	0.001	0.000
489.00	491.00	Very fine to coarse grained black grey moderately silicified (non-K)							225006	0.002	0.006
491.00	493.00	Very fine to coarse grained black grey weakly silicified (non-K)			CALZV	35	4	Decreased amount of siliceous alteration. Healed fractures with calcite and zeolite.	225007	0.002	0.000
493.00	494.00	Very fine to coarse grained grey weakly hematitic						Randomly oriented healed fractures filled with zeolite and calcite. Secondary sericitic alteration.	225009	0.001	0.007
494.00	495.30	Very fine to coarse grained grey weakly chloritic						Chlorite-sericitic alteration. End of hole.	225010	0.005	0.017

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-03

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
7	26	**HETEROGENEOUS TUFFACEOUS LAPILLI-TUFF**							
7.00	10.00	Very fine to coarse grained grey green weakly propyllitic	0.1			1mm-3cm long, dark grey lapillis in a fine grained ashy matrix. Lapillis are dominantly less than 5mm and make up roughly 10% of the rock. Infrequent subrounded to angular lithic fragments of andesite and intrusive. Weak welded appearance. Infrequent quartx eyes. Carbonate veins (rarely vuggy) throughout unit in various orientations, infrequently brecciating the unit. Rare zeolite veins. Alteration is non-existent to strong, dominantly epidote, carbonate and chlorite with subordinate QSP and infrequent subordinate hematite. Finely disseminated pyrite throughout unit. Alteration and mineralization increase with depth. Broken to rubbly with poor recovery until roughly 22m.	223359	0.013	0.012
10.00	12.00		0.1			Sample interval contains lapillis and clasts of andesite and intrusions.	223360	0.010	0.015
12.00	14.00		0.1				223361	0.005	0.016
14.00	16.00		0.1			At 15.4m unit abruptly becomes dark grey green, very fine grained with no clasts or lapillis; possibly a large clast of an andesite flow.	223362	0.015	0.008
16.00	18.00		0.1			Fine grained clast(?) described in previous sample interval continues to 15.8m.	223363	0.003	0.025
18.00	20.00	Very fine to coarse grained grey green unaltered	0.1				223364	0.002	0.006
20.00	22.00		0.1				223365	0.005	0.007
22.00	24.00		0.1			Unit brecciated by calcite veining. Fragmental feldspar veisible in matrix.	223366	0.005	0.000
24.00	26.00	Very fine to coarse grained grey green weakly propyllitic	0.1			Unit is brecciated, possible flow breccia. Weak hematitc overprint, often associated with breccia clasts.	223367	0.001	0.000
26	34	**FRAGMENTAL HETEROLITHIC CRYSTAL-LITHIC TUFF**							

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-03

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
26.00	28.00	Very fine to coarse grained grey green weakly propyllitic	0.1 **0.1**			Upper and lower contacts difficult to distinguish due to core being broken. Crystal lithic tuff with crystals of feldspar, magnetite and 3mm-10cm clasts of andesite and intrusives. Clasts make up roughly 25% of the rock. Calcite and zeolite veins oriented in various directions. Weakly altered to epidote, chlorite, quartz and pyrite. Rare specks of chalcopyrite assoicated with disseminated pyrite.	223368	0.122	0.094
28.00	30.00		0.1 **0.1**				223369	0.111	0.080
30.00	32.00		0.1 **0.0**				223370	0.066	0.047
32.00	34.00	Very fine to coarse grained grey weakly propyllitic	0.1 **0.0**			Possible fault zone; core is rubbly and partially weakly clay altered.	223371	0.028	0.017
34	123.9	**HETEROGENEOUS TUFFACEOUS LAPILLI-TUFF**							
34.00	36.00	Very fine to coarse grained grey green weakly propyllitic	0.1 **0.0**			1mm-3cm long, dark grey lapillis in a fine grained ashy matrix. Lapillis are dominantly less than 5mm and make up roughly 10% of the rock. Infrequent subrounded to angular lithic fragments of andesite and intrusive. Weak welded appearance. Infrequent quartz eyes. Carbonate veins (rarely vuggy) throughout unit in various orientations, infrequently brecciating the unit. Rare zeolite veins. Alteration is non-existent to strong, dominantly epidote and chlorite with subordinate QSP and infrequent subordinate hematite. Finely disseminated pyrite throughout unit. Alteration and mineralization increase with depth.	223372	0.006	0.000
36.00	38.00		0.1 **0.0**				223373	0.007	0.000
38.00	40.00	Very fine to coarse grained grey green moderately propyllitic	0.1 **0.0**			Alteration intensity increased. Calcite veining brecciates unit.	223374	0.011	0.000
40.00	42.00		0.1 **0.0**			Similar to previous interval. Weak hematitic overprint from 41.6-42.0m	223375	0.001	0.000
42.00	44.00	Very fine to coarse grained grey strongly propyllitic	0.0 **0.0**			Alteration intensity increased. Weak hematitic overprint. Pyrite absent.	223376	0.009	0.000
44.00	46.00		0.0 **0.0**			Similar to previous interval.	223377	0.002	0.000

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-03

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
46.00	48.00	Very fine to coarse grained grey green strongly propyllitic	0.0	**0.0**		Vuggy, stockworked calcite veining. Primary textures difficult to see.	223378	0.010	0.000
48.00	50.00		0.0	**0.0**		Similar to previous interval.	223379	0.014	0.000
50.00	52.00		0.0	**0.0**			223380	0.013	0.000
52.00	54.00	Very fine to coarse grained grey green moderately propyllitic	0.0	**0.0**		Stockworked vuggy calcite veins. Alteration intensity slightly decreased.	223381	0.012	0.000
54.00	56.00		0.1	**0.0**		Finely disseminated pyrite. Rock has etched out texture, possibly weathered calcite veinlets, possibly weathered clay alteration; this continues until the end of	223382	0.008	0.000
56.00	58.00		0.1	**0.0**		Broken to rubbly.	223383	0.007	0.000
58.00	60.00		0.0	**0.0**		Pyrite absent.	223385	0.009	0.006
60.00	62.00		0.0	**0.0**			223386	0.018	0.009
62.00	64.00		0.0	**0.0**		Vuggy, stockworked calcite veins.	223387	0.030	0.000
64.00	66.00		0.0	**0.0**			223388	0.009	0.000
66.00	68.00		0.0	**0.0**			223389	0.009	0.000
68.00	70.00		0.0	**0.0**			223390	0.011	0.000
70.00	72.00		0.0	**0.0**		Minor stockworking by calcite veins.	223391	0.017	0.005
72.00	74.00		0.0	**0.0**			223392	0.003	0.000
74.00	76.00		0.0	**0.0**			223393	0.016	0.000
76.00	78.00		0.1	**0.0**		Infrequent quartz and intrusive clasts. Weakly disseminated pyrite.	223394	0.003	0.005
78.00	80.00		0.5	**0.0**		Pyrite blebs in a cluster.	223395	0.006	0.006
80.00	81.80		0.1	**0.0**		Clay altered healed fracture zone at 25 º to core axis at 80.1m. Minor stockworking by calcite veins.	223396	0.015	0.000
81.80	83.80	Very fine to coarse grained grey moderately propyllitic	0.0	**0.0**		Strong hematitc overprint over propylitic alteration.	223397	0.001	0.000
83.80	85.80		0.0	**0.0**		Similar to previous interval.	223398	0.001	0.000
85.80	86.50		0.0	**0.0**			223399	0.002	0.000
86.50	88.50	Very fine to coarse grained grey green moderately propyllitic	0.0	**0.0**		Very weak hematitic overprint.	223400	0.018	0.000

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-03

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
88.50	90.50	Very fine to coarse grained grey green moderately propyllitic	0.0	**0.0**			223401	0.017	0.000
90.50	92.50		0.0	**0.0**			223402	0.015	0.000
92.50	94.50		0.0	**0.0**			223403	0.016	0.000
94.50	96.50	Very fine to coarse grained grey green weakly propyllitic	0.1	**0.0**		Pyrite clusters associated with vuggy calcite veining. Alteration intensity decreased.	223404	0.009	0.000
96.50	98.50	Very fine to coarse grained grey green moderately propyllitic	0.0	**0.0**		Anhydrite associated with calcite veining.	223405	0.016	0.000
98.50	100.50		0.0	**0.0**		Vuggy, stockworked calcite veins. Anhydrite associated with caclcite veining.	223406	0.009	0.005
100.50	102.50		0.0	**0.0**			223407	0.012	0.000
102.50	104.50		0.0	**0.0**		Possible fault zone; core is rubbly. Vuggy calcite.	223408	0.012	0.000
104.50	106.50		0.0	**0.0**		Core rubbly to broken.	223409	0.014	0.000
106.50	108.50		0.0	**0.0**			223411	0.016	0.000
108.50	110.50	Very fine to coarse grained grey green weakly propyllitic	0.0	**0.0**		From 109.6-110.0m is a clast of crystal lithic tuff composed of lithics of andesite and crystals of feldspar in an ashy fine grained matrix. Disseminated pyrite throughout. Alteration decreased from previous	223412	0.025	0.012
110.50	112.50	Very fine to coarse grained grey pink unaltered	0.0	**0.0**		Sample interval appears to be a clast of crystal lithic tuff composed of fragments of feldspars and intrusives with crystals of feldspars, quartz and mafics. Alteration is weak to non-existent. Unmineralized.	223413	0.061	0.017
112.50	114.50	Very fine to coarse grained grey green moderately propyllitic	0.1			Small clusters of pyrite.	223414	0.013	0.000
114.50	116.50		0.0			Stockworked calcite veins.	223415	0.009	0.000
116.50	118.50		0.0			Trace pyrite. Stockworked calcite veins. Quartz fragments present.	223416	0.010	0.000
118.50	120.50		0.0			Similar to previous interval.	223417	0.012	0.000
120.50	122.50		0.0				223418	0.011	0.000
122.50	123.40		0.0				223419	0.011	0.000

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-03

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)		Comments	Sample#	Cu %	Au ppm
123.40	123.90	Very fine to coarse grained grey green moderately propyllitic	0.1				Broken to rubbly fault zone with overprinting clay alteration. Pyrite blebs associated with calcite. Separated out because rock type changes below fault.	223420	0.008	0.000
123.9	169.9	**BEDDED TUFFACEOUS CRYSTAL-LITHIC TUFF**								
123.90	125.90	Very fine to coarse grained grey green moderately propyllitic	1.0				Fine grained ashy layers interbedded with crystal lithic tuff layers. Clasts are quartz porphyritic and aphanitic volcanics. Tuffs also contain infrequent lapilli fragments roughly 5mm in diameter. Ghost like feldspars and quartz present in tuffs. Weathered clays gives the rock a "chewed out" appearance. Veins of calcite and zeolite oriented in various directions. Hematite infrequently associated with veining. Alteration minerals consist of epidote, chlorite, quartz, pyrite and weak carbonate and sericite. Pyrite occurs in fine disseminations, stringers and blebs.	223421	0.025	0.010
125.90	127.90		1.0					223422	0.023	0.017
127.90	129.90	Very fine to coarse grained grey green strongly propyllitic	1.0				Weakly bedded ashy material from 129.1-129.9m. Alteration intensity increased.	223423	0.011	0.006
129.90	131.90	Very fine to coarse grained grey green moderately propyllitic	1.0				Contact between ashy layer and XLT at 130.6m running at 40 º to core axis. Alteration intensity decreased from previous interval.	223424	0.025	0.022
131.90	133.90	Very fine to fine grained grey green moderately propyllitic	1.0				Fine ashy.	223425	0.003	0.007
133.90	135.90	Very fine to coarse grained grey green moderately propyllitic	1.5				Contact between ashy layer and crystal tuff at 134.0m	223426	0.005	0.000
135.90	137.90		1.5				Crystal tuff until 137.7m when it changes to ash.	223427	0.015	0.005
137.90	139.90	Very fine to fine grained grey green moderately propyllitic	1.5		PYV	30	Ashy layer for whole sample.	223428	0.005	0.000
139.90	141.90	Very fine to coarse grained grey green moderately propyllitic	1.5				Ashy layers no longer ocurring.	223429	0.007	0.008
141.90	143.90		1.5					223430	0.009	0.000
143.90	145.90		1.5					223431	0.011	0.010
145.90	147.90		1.5					223432	0.014	0.000

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-03

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
147.90	149.90	Very fine to coarse grained grey green moderately propyllitic	1.5			Alteration becoming dominated by quartz, sericite, pyrite. Epidote, chlorite and carbonate decreasing in	223433	0.016	0.006
149.90	151.90		1.5			Similar to previous interval.	223434	0.007	0.005
151.90	153.90	Very fine to coarse grained grey green moderately phyllic	1.5			Alteration dominated by quartz, sericite and pyrite with a clay overprint. Weak patchy epidote infrequently present. Ashy layer from 152.4-152.6m.	223435	0.004	0.000
153.90	155.90		1.5			Clay overprint still present.	223437	0.012	0.013
155.90	157.90		1.5	**0.1**		Rare specks of chalcopyrite. Lapilli rich section.	223438	0.010	0.014
157.90	159.90		1.5	**0.0**		Similar to previous interval. Weak clay overprint.	223439	0.009	0.020
159.90	160.50	Very fine to coarse grained grey green strongly clay altered	1.5	**0.0**		Rubbly to broken, clay altered fault zone.	223440	0.006	0.022
160.50	162.50	Very fine to coarse grained grey green strongly phyllic	1.5	**0.0**			223441	0.017	0.013
162.50	164.50		2.0	**0.0**		Increase in pyrite blebs.	223442	0.035	0.011
164.50	166.50		2.0	**0.0**		Weak propylitic overprint.	223443	0.051	0.035
166.50	168.50	Very fine to coarse grained grey green intensely phyllic	1.0	**0.0**		Strong clay overprint.	223444	0.023	0.019
168.50	169.90		1.0	**0.0**		Similar to previous interval. Clay altered healed fracture (fault?) at the endof the sample interval.	223445	0.018	0.015
169.9	175.2	**PORPHYRITIC BLADED FELDSPAR PORPHYRY FLOW**							
169.90	171.90	Very fine to coarse grained grey green strongly propyllitic	1.0	**0.0**		2mm-1cm long randomly oriented laths of plagioclase set in an aphanitic, grey/green matrix. Feldspars are often altered to epidote, but can also be found unaltered to moderately altered to sericite. Alteration ranges from moderate to intense and is dominated by quartz, sericite and pyrite. There are epidote rich sections. Intensely altered sections are often difficult to distinguish as primary textures are masked. Pyrite is disseminated throughout.	223446	0.027	0.036
171.90	173.90		1.0	**0.0**			223447	0.044	0.016
173.90	175.20		1.0	**0.0**			223448	0.035	0.020
175.2	182.5	**TUFFACEOUS HETEROLITHIC TUFF**							

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-03

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
175.20	177.20	Very fine to coarse grained grey strongly phyllic	1.0	**0.0**		Sub-angular to angular clasts of andesite and fragments of pink feldspar and quartz in a fine to very fine grained grey green ashy matrix. Contact with this unit and the previous unit is at 40 º to core axis. Alteration is dominated by quartz, sericite and pyrite and increases in intensity downhole until the rock looks bleached out and primary textures are obscured. Calcite and minor anhydrite veining, mostly at 35 º to core axis. Pyrite occurs as disseminations and small blebs.	223449	0.047	0.027
177.20	179.20	Very fine to coarse grained grey intensely phyllic	1.0	**0.0**			223450	0.017	0.006
179.20	181.20	Very fine to coarse grained intensely phyllic	1.0	**0.0**		Pyrite associated with calcite vugs.	223451	0.018	0.000
181.20	182.50		1.0	**0.0**			223452	0.026	0.009
182.5	187.6	**PORPHYRITIC BLADED FELDSPAR PORPHYRY FLOW**							
182.50	184.50	Very fine to coarse grained grey green intensely phyllic	1.0	**0.0**		2mm-1cm long randomly oriented laths of plagioclase set in an aphanitic, grey/green matrix. Feldspars are often unaltered to altered to sericite, but can also be found altered to epidote. Alteration ranges from moderate to intense and is dominated by quartz, sericite and pyrite. Intensely altered sections are often difficult to distinguish as primary textures are masked. Pyrite is disseminated throughout.	223453	0.022	0.009
184.50	186.50		1.0	**0.0**			223454	0.014	0.017
186.50	187.60		1.0	**0.0**			223455	0.009	0.010
187.6	190.8	**TUFFACEOUS FAULT ZONE**							
187.60	189.60	Very fine to coarse grained grey green strongly clay altered	1.0	**0.0**		Broken to rubbly. Fine grained, ashy matrix. Infrequent lapilli fragments. Strong clay alteration overprinting quartz, sericite, pyrite alteration. Rare epidote. Veining difficult to see due to core being so broken, but appears to be sericite-zeolite-calcite veining. Pyrite disseminated throughout.	223456	0.025	0.006
189.60	190.80		1.0	**0.0**			223457	0.061	0.014
190.8	222.2	**MOTTLED TUFFACEOUS CRYSTAL-LITHIC TUFF**							

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-03

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
190.80	192.80	Very fine to coarse grained grey green intensely phyllic	1.0	**0.0**		Crystal lithic tuff with crystals of feldspar and quartz and 1-10cm clasts of BFP and massive andesite. Clasts are infrequent. Matrix is fine to dominantly very fine grained. Magnetite speckled throughout. Primary textures difficult to determine due to intense alteration. Quartz, sericite and pyrite dominant alteration minerals. Rare patchy epdiote. Calcite-sericite veining at 20 and 60 º to core axis. Chlorite infrequently associated with veining. Pyrite is disseminated throughout	223458	0.050	0.012
192.80	194.80		1.0	**0.0**			223459	0.053	0.018
194.80	196.80		1.0	**0.0**			223460	0.015	0.031
196.80	198.80		2.0	**0.0**		Increased pyrite blebs.	223461	0.025	0.029
198.80	200.80		1.0	**0.0**			223463	0.024	0.036
200.80	202.80		1.0	**0.0**			223464	0.048	0.037
202.80	204.80		1.0	**0.0**			223465	0.046	0.040
204.80	206.80		1.0	**0.0**		Epidote alteration overprinting QSP.	223466	0.040	0.040
206.80	208.80		1.0	**0.0**			223467	0.031	0.036
208.80	210.80		1.0	**0.0**			223468	0.035	0.042
210.80	212.80		1.0	**0.0**			223469	0.042	0.054
212.80	214.80		1.0	**0.0**			223470	0.027	0.033
214.80	216.80		1.0	**0.0**			223471	0.033	0.021
216.80	218.80		1.0	**0.0**			223472	0.011	0.021
218.80	220.80		0.5	**0.0**			223473	0.018	0.031
220.80	222.20		0.5	**0.0**			223474	0.030	0.033
222.2	250.5	**MASSIVE BLADED FELDSPAR PORPHYRY FLOW**							

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-03

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
222.20	224.20	Very fine to coarse grained grey green moderately propyllitic	0.5	**0.0**		5-25% 1-8mm long, randomly oriented plagioclase laths in a fine to very fine grained, dark grey/green matrix. Feldspars are pristine to sericite altered and, more rarely, epidote altered. Alteration is moderate to strong quartz, sericite, pyrite with local epidote rich sections. Calcite, zeolite and sericite veining, most often at 65 º to core axis. Contact with above unit is sharp but undulating, running at approximately 45 º to core axis.	223475	0.019	0.027
224.20	226.20		0.5	**0.0**			223476	0.021	0.026
226.20	228.20		0.5	**0.0**			223477	0.020	0.027
228.20	230.20		0.5	**0.0**			223478	0.034	0.041
230.20	232.20	Very fine to coarse grained grey green strongly propyllitic	0.5	**0.0**		Minor vuggy calcite. Alteration intensity slightly	223479	0.032	0.034
232.20	234.20		0.5	**0.0**			223480	0.037	0.049
234.20	236.20		0.5	**0.0**			223481	0.020	0.038
236.20	238.20	Very fine to coarse grained grey green moderately propyllitic	0.5	**0.0**		Minor vuggy calcite and anhydrite. Alteration intensity decreased.	223482	0.020	0.022
238.20	240.20		0.5	**0.0**		Minor vuggy calcite.	223483	0.030	0.035
240.20	242.20		0.5	**0.0**			223484	0.029	0.026
242.20	242.70	Very fine to coarse grained grey green moderately phyllic	0.5	**0.0**		Epidote alteration mostly absent.	223485	0.026	0.031
242.70	243.00	Very fine to coarse grained grey green strongly phyllic	3.0	**0.0**		Sample interval separated out because it is dominantly vuggy calcite with associated pyrite.	223486	0.020	0.042
243.00	245.00	Very fine to coarse grained grey green moderately phyllic	1.0	**0.0**		Minor vuggy calcite.	223487	0.039	0.028
245.00	247.00		0.5	**0.0**			223489	0.035	0.027
247.00	249.00		0.5	**0.0**			223490	0.042	0.029
249.00	250.50		0.5	**0.1**		One speck of chalcopyrite.	223491	0.048	0.044
250.5	333.5	**MASSIVE ANDESITE FLOW**							

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-03

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)		Comments	Sample#	Cu %	Au ppm
250.50	252.50	Very fine to fine grained grey green strongly phyllic	0.5	**0.0**			Fine to very fine grained, grey rock. Grains mostly to small to determine, but fine mafics are visible. Alteration is moderate to strong quartz, sericite, pyrite with local epidote rich sections grading downhole to QSP becoming subordinate to chlorite alterationr and secondary magnetite. Calcite, zeolite, sericite and infrequent magnetite and anhydrite veining, most often at 65 º to core axis. Calcite infrequently vuggy. Pyrite disseminated throughout and associated with calcite veining. Rare chalcopyrite in specks and associated with calcite-sericite-magnetite veining. Contact between andesite and BFP at 45 º to core axis.	223492	0.041	0.035
252.50	254.50		0.5	**0.0**			Magnetite stringers. Healed clay altered fracture at 254.3m.	223493	0.077	0.043
254.50	256.50	Very fine to fine grained grey green strongly potassic - chlorite-sericite-quartz	0.5	**0.0**			Alteration has become dominated by chlorite.	223494	0.082	0.050
256.50	258.50	Very fine to fine grained grey green strongly potassic - chlorite-sericite	0.5	**0.1**			Rare spacks of chalcopyrite.	223495	0.128	0.080
258.50	260.50		0.5	**0.1**			Chalcopyrite stringers.	223496	0.149	0.101
260.50	262.50		0.5	**0.0**	CALMV	40	Rare calcite vugs.	223497	0.147	0.091
262.50	264.50	Very fine to fine grained grey green strongly potassic - chlorite-quartz-sericite	0.5	**0.0**			Vuggy calcite veins.	223498	0.165	0.086
264.50	266.50	Very fine to fine grained grey green strongly potassic - chlorite-quartz	0.5	**0.1**	CPYV	15	Vuggy anhydrite.	223499	0.172	0.105
266.50	268.50		0.5	**0.1**			Vuggy calcite. Chalcopyrite in specks and associated with sericite-magnetite-calcite veining running 50 º to core axis.	223500	0.303	0.146
268.50	270.50		0.5	**0.1**				224001	0.140	0.080
270.50	272.50		0.5	**0.1**	CALMP	45	Weak biotite alteration.	224002	0.118	0.069
272.50	274.50		0.5	**0.1**	CALMC	50		224003	0.113	0.065
274.50	276.00		0.5	**0.1**				224004	0.102	0.064

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-03

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins	(°tca-%)	Comments	Sample#	Cu %	Au ppm
276.00	276.40	Very fine to fine grained grey green strongly potassic - chlorite-quartz	0.5	**0.1**			Sample interval separated out because of alteration change. Weathered clays. Vuggy calcite.	224005	0.364	0.216
276.40	278.40		0.5	**0.1**				224006	0.086	0.061
278.40	280.40		1.0	**0.1**			Weak biotite alteration.	224007	0.119	0.091
280.40	282.40		1.0	**0.1**				224008	0.202	0.181
282.40	284.40		1.0	**0.1**			Weak biotite alteration.	224009	0.155	0.114
284.40	286.40		1.0	**0.1**			Vuggy calcite.	224010	0.129	0.087
286.40	288.40		1.0	**0.1**				224011	0.234	0.150
288.40	290.40	Very fine to fine grained grey green strongly potassic - chlorite-quartz-biotite	1.0	**0.1**			Biotite alteration increased.	224012	0.227	0.114
290.40	292.40		1.0	**0.1**				224013	0.192	0.099
292.40	294.40		0.5	**0.1**				224015	0.257	0.167
294.40	296.40	Very fine to fine grained grey green strongly potassic - chlorite-quartz-sericite	0.5	**0.1**			Volcanic breccias: clasts of aphanitic, sub-rounded to sub-angular andesite in a similar matrix. Biotite alteration decreased.	224016	0.255	0.172
296.40	298.40		0.5	**0.1**	MCPYV	5		224017	0.273	0.128
298.40	299.20	Very fine to fine grained grey green strongly potassic - chlorite-biotite-sericite	0.5	**0.1**	CALSC	50	Biotite alteration increased.	224018	0.154	0.114
299.20	300.20		0.5	**0.1**			Volcanic breccias: clasts of aphanitic, sub-rounded to sub-angular andesite in a similar matrix.	224019	0.062	0.040
300.20	302.20		0.5	**0.1**				224020	0.191	0.150
302.20	304.20		0.5	**0.1**			Minor vuggy calcite.	224021	0.349	0.185
304.20	306.20	Very fine to fine grained grey green strongly potassic - chlorite-quartz	0.5	**0.1**				224022	0.248	0.287
306.20	308.20	Very fine to fine grained grey green strongly potassic - chlorite-quartz-sericite	0.5	**0.1**	MV	50	Chalcopyrite specks within a magnetite vein.	224023	0.262	0.143
308.20	310.20		0.5	**0.1**			Weak epidote overprint.	224024	0.195	0.113

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-03

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)		Comments	Sample#	Cu %	Au ppm
310.20	312.20	Very fine to fine grained grey green strongly potassic - quartz-sericite-chlorite	0.5 **0.1**				1% subhedral to euhedral augite phenocrysts.	224025	0.190	0.105
312.20	314.20		0.5 **0.1**				1% subhedral to euhedral augite phenocrysts. Weak epidote overprint.	224026	0.185	0.095
314.20	316.20		0.5 **0.1**					224027	0.222	0.154
316.20	318.20		0.5 **0.1**					224028	0.268	0.255
318.20	320.20		0.5 **0.1**				1-2% subhedral to euhedral augite phenocrysts.	224029	0.159	0.097
320.20	322.20		0.5 **0.1**					224030	0.240	0.146
322.20	324.20		0.5 **0.1**		QSV	60	Chalcopyrite associated with quartz-sericite vein.	224031	0.271	0.146
324.20	326.20		0.5 **0.5**				Increase in chalcopyrite specks. Weak biotite alteration.	224032	0.321	0.253
326.20	328.20	Very fine to fine grained grey green strongly potassic - chlorite-quartz	0.5 **0.1**					224033	0.188	0.113
328.20	330.20	Very fine to fine grained grey green strongly potassic - chlorite-quartz-sericite	0.5 **0.1**				1-2% subhedral to euhedral augite phenocrysts.	224034	0.157	0.112
330.20	332.20		0.5 **0.1**					224035	0.142	0.080
332.20	333.50		0.5 **0.1**					224036	0.150	0.168
333.5	343	**PORPHYRITIC GRANODIORITE DYKE**								
333.50	335.50	Very fine to coarse grained grey strongly potassic - quartz-sericite-chlorite	0.1 **0.0**				15% subhedral, coarse grained feldspar (dominantly plagioclase) phenocrysts and 5% medium grained mafic phenocrysts in a fine grained, quartz (35%) and plagioclase (35%) rich matrix with 10% fine grained mafics. Quartz-calcite veining, dominantly at 30 º to core axis and anhydrite veining dominantly at 50 º to core axis, but also in various directions. Alteration is strong to intense and often obscures primary textures. Alteration minerals are dominantly quartz and sericite with subordinate chlorite. Trace flecks of pyrite throughout and associated with quartz-calcite veining. Minor molybdenite associated with calcite-anhydrite veining. Contact with above unit difficult to see due to alteration.	224037	0.195	0.091
335.50	337.50		0.1 **0.0**					224038	0.168	0.108

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-03

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
337.50	339.50	Very fine to coarse grained grey strongly potassic - quartz-sericite-chlorite	0.1	**0.0**			224039	0.194	0.073
339.50	341.50		0.1	**0.0**			224041	0.210	0.134
341.50	343.00		0.1	**0.0**			224042	0.226	0.145
343	344.7	**MASSIVE ANDESITIC AUGITE PORPHYRY FLOW**							
343.00	344.70	Very fine to coarse grained grey green strongly potassic - quartz-sericite-chlorite	0.1	**0.1**		5-10% coarse grained, euhedral augite phenocrysts in an aphanitic matrix. Quartz-calcite-magnetite veining, dominantly at 30 º to core axis and anhydrite veining dominantly at 50 º to core axis, but also in various directions. Alteration minerals are dominantly quartz and sericite with subordinate chlorite. Flecks of pyrite and chalcopyrite throughout and associated with quartz-calcite veining.	224043	0.226	0.196
344.7	347.4	**PORPHYRITIC GRANODIORITE DYKE**							
344.70	346.70	Very fine to coarse grained grey strongly potassic - quartz-sericite-chlorite	0.1	**0.0**		15% subhedral, coarse grained feldspar (dominantly plagioclase) phenocrysts and 5% medium grained mafic phenocrysts in a fine grained, quartz (35%) and plagioclase (35%) rich matrix with 10% fine grained mafics. Quartz-calcite veining, dominantly at 30 º to core axis and anhydrite veining dominantly at 50 º to core axis, but also in various directions. Alteration is strong to intense and often obscures primary textures. Alteration minerals are dominantly quartz and sericite with subordinate chlorite. Trace flecks of pyrite throughout and associated with quartz-calcite veining. Minor molybdenite associated with calcite-anhydrite veining. Contact with above unit difficult to see due to alteration.	224044	0.224	0.113
346.70	347.40		0.1	**0.0**			224045	0.322	0.152
347.4	359.4	**MASSIVE ANDESITE FLOW**							

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-03

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
347.40	349.40	Very fine to fine grained grey green intensely potassic - chlorite-quartz-sericite	0.1	**0.0**		Crystals mostly too small to determine; fine grained mafics and quartz infrequently visible. Calcite veining, dominantly at 55 º to core axis and zeolite veining in various directions. Alteration minerals are dominantly chlorite, quartz and sericite with subordinate magnetite. Clay overprint for the first two sample intervals. Finely disseminated pyrite throughout and associated with calcite veining. Infrequent specks of chalcopyrite. Contact with above unit difficult to distinguish due to intense alteration. Healed altered healed fracture from 347.7m to 347.9m.	224046	0.352	0.204
349.40	351.40	Very fine to fine grained grey green strongly potassic - chlorite-quartz-sericite	0.1	**0.0**			224047	0.422	0.264
351.40	353.40		0.1	**0.1**			224048	0.217	0.144
353.40	355.40		0.1	**0.1**			224049	0.245	0.191
355.40	357.40		0.5	**0.1**			224050	0.240	0.162
357.40	359.40		0.5	**0.1**			224051	0.186	0.186
359.4	360.4	**PORPHYRITIC GRANODIORITE DYKE**							
359.40	360.40	Very fine to coarse grained grey strongly potassic - quartz-sericite-chlorite	1.0	**0.1**		15% subhedral, coarse grained feldspar (dominantly plagioclase) phenocrysts and 5% medium grained mafic phenocrysts in a fine grained, quartz (35%) and plagioclase (35%) rich matrix with 10% fine grained mafics. Calcite-anhydrite veining (infrequently vuggy), dominantly at 65 º to core axis. Alteration is strong to intense and often obscures primary textures. Alteration minerals are dominantly quartz and sericite with subordinate chlorite. Trace flecks of pyrite throughout. Contact with above unit at 75 º to core axis. Contact with lower unit at 35 º to core axis.	224052	0.450	0.343
360.4	368	**MASSIVE ANDESITIC AUGITE PORPHYRY FLOW**							

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-03

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
360.40	362.40	Very fine to coarse grained grey green moderately potassic - chlorite-quartz	0.1 **0.1**			5-10% coarse grained, euhedral augite phenocrysts in an aphanitic matrix. Calcite-anhydrite-magnetite veining, dominantly at 20 º to core axis. Alteration minerals are dominantly chlorite, quartz and magnetite. Flecks of pyrite and chalcopyrite throughout and associated with calcite veining.	224053	0.457	0.336
362.40	364.40		0.1 **0.1**				224054	0.200	0.167
364.40	366.40		0.5 **0.1**				224055	0.351	0.268
366.40	368.00		0.5 **0.1**				224056	0.153	0.099
368	372	**MASSIVE BASALT FLOW**							
368.00	370.00	Very fine to coarse grained grey green moderately potassic - chlorite-quartz	0.1 **0.1**			Dark grey-black/green aphanitic rock. Calcite-anhydrite-magnetite veining, dominantly at 20 º to core axis. Alteration minerals are dominantly chlorite, quartz and magnetite. Flecks of pyrite and chalcopyrite throughout and associated with calcite veining. Contact with above unit gradational.	224057	0.196	0.160
370.00	372.00		0.1 **0.1**			Weak epidote overprint.	224058	0.293	0.328
372	378.6	**PORPHYRITIC GRANODIORITE DYKE**							
372.00	374.00	Very fine to coarse grained grey moderately potassic - chlorite-quartz	0.1 **0.1**			15% subhedral, coarse grained feldspar (dominantly plagioclase) phenocrysts and 5% medium grained mafic phenocrysts in a fine grained, quartz (35%) and plagioclase (35%) rich matrix with 10% fine grained mafics. Calcite-anhydrite veining (infrequently vuggy), dominantly at 30 º to core axis. Alteration minerals are dominantly quartz and sericite with subordinate chlorite. Trace flecks of pyrite throughout. Blebby molybdenite (~0.5%) associated with quartz and with calcite veining.	224059	0.136	0.122
374.00	376.00		0.1 **0.1**				224060	0.195	0.136
376.00	378.00		0.1 **0.1**				224061	0.280	0.162
378.00	378.60		0.1 **0.1**				224062	0.234	0.225
378.6	380.2	**MASSIVE ANDESITIC AUGITE PORPHYRY FLOW**							

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-03

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
378.60	380.20	Very fine to coarse grained grey green moderately potassic - quartz-chlorite	0.1	**0.1**		10-15% coarse grained, euhedral augite phenocrysts in an aphanitic matrix. Quartz-calcite-anhydrite veining, dominantly at 30 º to core axis. Alteration minerals are dominantly chlorite, quartz and magnetite. Alteration is moderate to strong, pervasive. Flecks of pyrite and chalcopyrite associated with veining. Contact with above unit whispy and at roughly 70 º to core axis.	224063	0.075	0.063
380.2	397.8	**MASSIVE BASALT FLOW**							
380.20	382.20	Very fine to fine grained grey green moderately potassic - quartz-chlorite	0.1	**0.1**		Dark grey-black/green aphanitic rock. Quartz-calcite-anhydrite veining, dominantly at 40 º to core axis. Alteration minerals are dominantly chlorite, quartz and magnetite with weak, patchy biotite. Alteration is moderate to intense, pervasive. Blebs of pyrite and chalcopyrite throughout. Rare stringers of molybdenite (~0.1%) associated with quartz-calcite veining. Contact with above unit gradational. First sample interval is dominantly VBX: clasts of dark grey/green aphanitic rock within a similar matrix.	224064	0.342	0.270
382.20	384.20		0.5	**0.1**			224065	0.113	0.101
384.20	386.20		0.5	**0.1**			224067	0.304	0.229
386.20	388.20		0.5	**0.1**		Highly silicified from 368.7-369.0m. Molybdenite stringers associated with veining.	224068	0.230	0.198
388.20	390.20	Very fine to fine grained grey green weakly potassic - quartz-chlorite	0.5	**0.1**		Alteration intensity decreased. Pod of AAP from 388.9-389.3m: 10% coarse grained subhedral to euhedral augite phenocrysts.	224069	0.149	0.112
390.20	392.20	Very fine to fine grained grey green moderately potassic - quartz-chlorite	0.5	**0.1**		Rare augite phenocrysts, locally up to 2%. Chalcopyrite specks associated with quartz-calcite stringers running in various directions.	224070	0.164	0.420
392.20	394.20		0.5	**0.1**		Similar to previous interval.	224071	0.163	0.271
394.20	396.20	Very fine to fine grained grey green strongly potassic - quartz-chlorite	0.5	**0.1**		Alteration intensity increased, especially quartz flooding. Molybdenite stringers.	224072	0.239	0.160
396.20	397.80		0.5	**0.1**		1-2% coarse grained subhedral to euhedral augite phenocrysts. Rare ghost-like, coarse grained feldspar phenocrysts.	224073	0.067	0.048

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-03

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)		Comments	Sample#	Cu %	Au ppm
397.80	399.80	Very fine to coarse grained grey green strongly potassic - quartz-chlorite-sericite	0.5 **0.1**				10-25% coarse grained, euhedral augite phenocrysts in an aphanitic matrix. Quartz-calcite veining and less frequent anhydrite veining which cuts the quartz-calcite veining. All vein types run dominantly at 35 º to core axis. Alteration minerals are dominantly chlorite, quartz and sericite with subordinate magnetite. Alteration is moderate to strong, pervasive. Flecks of pyrite and chalcopyrite associated with veining. Contact with above unit is gradational.	224074	0.116	0.093
399.80	401.80	Very fine to coarse grained grey green strongly potassic - chlorite-quartz-sericite	0.5 **0.1**				Specks of molybdenite associated with quartz-calcite veining.	224075	0.222	0.180
401.80	403.80		0.5 **0.1**					224076	0.149	0.117
403.80	405.80		0.5 **0.1**		PYV	65		224077	0.143	0.091
405.80	407.80		0.5 **0.1**				Augite phenocrysts locally absent.	224078	0.209	0.144
407.8	409.3	**PORPHYRITIC GRANODIORITE DYKE**								
407.80	409.30	Very fine to coarse grained grey pink moderately potassic -	0.1 **0.1**				15% subhedral, coarse grained feldspar (dominantly plagioclase) phenocrysts and 5% medium grained mafic phenocrysts in a fine grained, quartz (35%) and plagioclase (35%) rich matrix with 10% fine grained mafics. Quartz-calcite veining, dominantly at 70 º to core axis and anhydrite veining dominantly at 45 º to core axis. Alteration minerals are dominantly quartz and sericite. Alteration moderate and pervasive. Trace flecks of pyrite throughout. Flecks of molybdenite (~0.1%) associated with quartz and with calcite veining. Contact with above unit at 40 º to core axis. Clast of AAP at 408.8m.	224079	0.369	0.264
409.3	413.3	**MASSIVE ANDESITIC AUGITE PORPHYRY FLOW**								

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-03

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)		Comments	Sample#	Cu %	Au ppm
409.30	411.30	Very fine to coarse grained grey green strongly potassic - chlorite-quartz-sericite	1.0	**0.1**			10-25% coarse grained, euhedral augite phenocrysts in an aphanitic matrix. Quartz-calcite-anhydrite veining running dominantly at 50 º to core axis. Alteration minerals are dominantly chlorite, quartz and sericite with subordinate magnetite. Alteration is moderate to strong, pervasive. Pyrite disseminated throughout and in blebs associated with magnetite. Trace specks chalcopyrite. Contact with above unit is at 30 º to core axis and has associated quartz veining.	224080	0.149	0.143
411.30	413.30		1.0	**0.1**				224081	0.293	0.184
413.3	423.8	**MASSIVE BASALT FLOW**								
413.30	415.30	Very fine to fine grained grey green strongly potassic - chlorite-quartz	1.0	**0.0**			Aphanitic with occasional fine grained mafics visible. Augite phenocrysts still present, but at only 2% or less. Quartz-calcite-anhydrite veining (infrequently vuggy) running dominantly at 40 º to core axis. Alteration minerals are dominantly chlorite, quartz and magnetite with subordinate sericite and weak, patchy biotite. Alteration is moderate to intense, pervasive. Pyrite specks throughout infrequently associated with magnetite. Trace specks chalcopyrite. Contact with above unit is gradational.	224082	0.144	0.091
415.30	417.30		1.0	**0.1**			Clast (dykelet?) of granodiorite intrusive at 416.0m.	224083	0.124	0.080
417.30	419.30		1.0	**0.1**				224084	0.306	0.209
419.30	421.30		1.0	**0.1**			Molybdenite stringers associated with quartz-calcite veining. 3-5% augite phenocrysts.	224085	0.262	0.215
421.30	423.30		1.0	**0.1**	PYV	35	Molybdenite stringers associated with quartz-calcite veining.	224086	0.313	0.227
423.30	423.80		1.0	**0.1**				224087	0.207	0.135
423.8	425.2	**PORPHYRITIC GRANODIORITE DYKE**								

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-03

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
423.80	425.20	Very fine to coarse grained grey pink moderately potassic -	0.5 **0.0**			15% subhedral, coarse grained feldspar (dominantly plagioclase) phenocrysts and 5% medium grained mafic phenocrysts in a fine grained, quartz (35%) and plagioclase (35%) rich matrix with 10% fine grained mafics. Quartz-calcite-anhydrite veining, dominantly at 55 º to core axis and quartz-calcite-pyrite veining dominantly at 30 º to core axis. Alteration minerals are dominantly quartz and sericite. Alteration moderate and pervasive. Trace flecks of pyrite throughout. Contact with above unit at 20 º to core axis.	224088	0.271	0.224
425.2	436	**MASSIVE BASALT FLOW**							
425.20	427.20	Very fine to fine grained grey green strongly potassic - chlorite-quartz	1.0 **0.1**			Aphanitic with occasional fine grained mafics visible. Augite phenocrysts still present, but at only 2% or less. Quartz-calcite veining running dominantly at 50 º to core axis. Alteration minerals are dominantly chlorite, quartz and magnetite with subordinate sericite and weak, patchy biotite. Alteration is moderate to intense, pervasive. Pyrite specks throughout infrequently associated with magnetite. Trace specks chalcopyrite. Contact with above unit at 20 º to core axis.	224089	0.232	0.160
427.20	429.20		1.0 **0.1**		MPYCP 60		224090	0.126	0.091
429.20	431.20		0.5 **0.1**				224091	0.156	0.098
431.20	433.20		0.5 **0.0**				224093	0.167	0.122
433.20	435.20		0.5 **0.0**			Clast (dykelet?) of granodiorite intrusive at 435.1	224094	0.194	0.268
435.20	436.00		0.5 **0.0**			Clast (dykelet?) of granodiorite at 435.6m.	224095	0.291	0.223
436.00	438.00	Very fine to coarse grained grey green strongly potassic - chlorite-quartz	0.5 **0.0**			10-20% coarse grained subhedral to euhedral augite phenocrysts in an aphanitic matrix. Quartz-calcite veining running dominantly at 45 º to core axis. Alteration minerals are dominantly chlorite, quartz and magnetite with subordinate sericite and weak, patchy biotite. Alteration is moderate to intense, pervasive. Pyrite specks throughout and in stringers. Contact with above unit at 30 º to core axis. Healed clay altered fracture zone 437.3m.	224096	0.227	0.229

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-03

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
438.00	440.00	Very fine to coarse grained grey green moderately potassic - chlorite-quartz	0.5	**0.0**			224097	0.183	0.155
440.00	442.00		0.5	**0.1**		Trace specks chalcopyrite.	224098	0.130	0.142
442.00	444.00		0.5	**0.1**		Trace specks of chalcopyrite.	224099	0.158	0.154
444.00	445.10		0.5	**0.1**			224100	0.249	0.240
445.1	455.9	**HETEROGENEOUS QUARTZ MONZONITE BRECCIA**							
445.10	447.10	Very fine to coarse grained grey moderately potassic - quartz-sericite-chlorite	0.1	**0.0**		15-25%, 5mm-2cm clasts of quartz, basalt and quartz monzonite (25% subhedral, coarse grained feldspar (dominantly plagioclase) phenocrysts, %5 coarse grained quartz and 5% medium grained mafic phenocrysts in a fine grained, silicified matrix) in a heterogeneous matrix that ranges from dark green/grey, fine-very fine grained to quartz monzonite similar to clasts. Quartz-calcite-anhydrite veining, dominantly at 50 º to core axis. Veinlets of zeolite. Alteration minerals are dominantly quartz and sericite with subordinate chlorite. Alteration moderate and pervasive. Rare flecks of pyrite throughout. Contact with above unit vague/whispy.	224101	0.133	0.141
447.10	449.10		0.1	**0.0**			224102	0.046	0.061
449.10	451.10		0.1	**0.0**			224103	0.051	0.056
451.10	453.10		0.1	**0.0**			224104	0.057	0.047
453.10	455.10		0.1	**0.0**			224105	0.059	0.054
455.10	455.90		0.1	**0.0**			224106	0.061	0.079
455.9	476.4	**PORPHYRITIC QUARTZ MONZONITE INTRUSIVE**							

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-03

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)		Comments	Sample#	Cu %	Au ppm
455.90	457.90	Very fine to coarse grained grey moderately silicified (non-K)	0.1	**0.0**			Potentially the Sovereign intrusive. 30% euhedral, coarse grained feldspar (dominantly plagioclase) phenocrysts, 5% subhedral quartz pehnocrysts and 5% medium grained mafic phenocrysts in a very fine to fine grained, silicified matrix. Quartz-calcite-anhydrite veining, dominantly at 50 º to core axis and infrequently vuggy. Veinlets of zeolite. Alteration minerals are dominantly quartz with subordinate hematite staining and sericite. Alteration moderate and pervasive. Rare flecks of pyrite throughout and rare pyrite veins. Contact with above unit has a quartz-calcite vein along it at 25 º to core axis.	224107	0.360	0.381
457.90	459.90		0.5	**0.0**	PYV	45		224108	0.246	0.314
459.90	461.90		0.5	**0.0**				224109	0.304	0.436
461.90	463.90		0.1	**0.0**				224110	0.220	0.282
463.90	465.90		0.1	**0.0**			Trace molybdenite associated with quartz-calcite	224111	0.249	0.295
465.90	467.90		0.5	**0.0**			Increase in pyrite dissemination.	224112	0.163	0.234
467.90	469.90	Very fine to coarse grained grey strongly silicified (non-K)	0.1	**0.0**			Increase in alteration intensity.	224113	0.126	0.337
469.90	471.90	Very fine to coarse grained grey moderately silicified (non-K)	0.1	**0.0**			Trace molybdenite associated with quartz veining.	224114	0.203	0.255
471.90	473.90	Very fine to coarse grained grey strongly silicified (non-K)	0.1	**0.0**			Alteration intensity increased.	224115	0.268	0.309
473.90	475.90		0.1	**0.1**			Trace small specks of chalcopyrite.	224116	0.280	0.338
475.90	476.40	Very fine to coarse grained grey moderately silicified (non-K)	0.1	**0.0**				224117	0.210	0.336
476.4	501.1	**HETEROGENEOUS QUARTZ MONZONITE BRECCIA**								

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-03

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
476.40	478.40	Very fine to coarse grained grey moderately silicified (non-K)	0.1 **0.1**			15-25%, 5mm-3cm clasts of quartz, basalt and quartz monzonite (25% subhedral, coarse grained feldspar (dominantly plagioclase) phenocrysts, %5 coarse grained quartz and 5% medium grained mafic phenocrysts in a fine grained, silicified matrix) in a heterogeneous matrix that ranges from dark green/grey, fine-very fine grained to quartz monzonite similar to clasts. Quartz-calcite-anhydrite veining, dominantly at 50 º to core axis. Alteration minerals are dominantly quartz with subordinate sericite. Alteration moderate and pervasive. Rare flecks of pyrite throughout. Very rare specks of chalcopyrite. Contact with above unit at roughly 40 º to core axis.	224119	0.240	0.321
478.40	480.40		0.1 **0.0**				224120	0.213	0.211
480.40	482.40		0.1 **0.1**				224121	0.283	0.421
482.40	484.40		0.1 **0.1**				224122	0.225	0.365
484.40	486.40		0.1 **0.1**			Clasts up to 10cm.	224123	0.253	0.245
486.40	488.40		0.1 **0.1**				224124	0.230	0.213
488.40	490.40		0.1 **0.1**				224125	0.273	0.326
490.40	492.40		0.1 **0.1**			Clasts up to 7cm.	224126	0.377	0.608
492.40	494.40		0.1 **0.1**			Increase in hematite staining. Possible specks of molybdenite.	224127	0.118	0.127
494.40	496.40		0.1 **0.0**			Clasts 3-5%. Hematite staining as in previous sample interval.	224128	0.075	0.059
496.40	498.40		0.1 **0.1**				224129	0.042	0.029
498.40	500.40		0.1 **0.0**				224130	0.034	0.020
500.40	501.10		0.1 **0.0**				224131	0.039	0.015
501.1	544.7	**PORPHYRITIC QUARTZ MONZONITE INTRUSIVE**							

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-03

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)		Comments	Sample#	Cu %	Au ppm
501.10	503.10	Very fine to coarse grained pink grey moderately hematitic	0.0 **0.0**				Potentially the Sovereign intrusive. 25% euhedral, coarse grained feldspar (dominantly plagioclase) phenocrysts, 10% subhedral quartz pehnocrysts and 10% medium grained mafic phenocrysts in a very fine grained matrix. Quartz-calcite (and minor anhydrite) veining, dominantly at 60 º to core axis and infrequently vuggy. Veinlets of zeolite. Alteration is dominantly hematitic with subordinate silicifaction. Alteration moderate and pervasive. Absent of mineralization. Contact with above unit at 50 º to core axis.	224132	0.002	0.000
503.10	505.10	Very fine to coarse grained pink grey strongly hematitic	0.0 **0.0**					224133	0.001	0.000
505.10	507.10	Very fine to coarse grained pink grey moderately hematitic	0.0 **0.0**					224134	0.000	0.000
507.10	509.10		0.0 **0.0**		QCALV	55	Quartz-calcite veining weakly brecciating unit.	224135	0.000	0.000
509.10	511.10	Very fine to coarse grained pink grey moderately silicified (non-K)	0.0 **0.0**				Quartz alteration more dominant than hematite.	224136	0.001	0.000
511.10	513.10		0.0 **0.0**					224137	0.003	0.000
513.10	515.10	Very fine to coarse grained pink grey intensely epidote altered	0.1 **0.0**				Alteration is strong to intense and includes epidote and chlorite in addition to quartz and hematite. Pyrite veining at 20 º to core axis. Stockworked calcite veining.	224138	0.076	0.276
515.10	517.10	Very fine to coarse grained pink grey moderately hematitic	0.0 **0.0**					224139	0.002	0.000
517.10	519.10		0.0 **0.0**					224140	0.001	0.000
519.10	521.10		0.1 **0.0**				Pyrite blebs associated with quartz veining.	224141	0.016	0.014
521.10	523.10		0.0 **0.0**					224142	0.024	0.027
523.10	525.10							224144	0.013	0.018
525.10	527.10							224145	0.001	0.016
527.10	529.10							224146	0.001	0.005
529.10	531.10							224147	0.001	0.006
531.10	533.10							224148	0.001	0.000
533.10	535.10							224149	0.000	0.000

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-03

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
535.10	537.10	Very fine to coarse grained pink grey moderately hematitic					224150	0.001	0.000
537.10	539.10						224151	0.001	0.006
539.10	541.10						224152	0.000	0.000
541.10	543.10						224153	0.001	0.000
543.10	544.70					End of hole.	224154	0.006	0.000

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-04

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
0	10.7	**CASING**							
0.00	10.70					Casing/Overburden			
10.7	42.1	**FRAGMENTAL HETEROLITHIC AGLOMERATE**							
10.70	12.00	Fine to coarse grained grey green weakly propyllitic	0.1			Massive volcanoclastic unit, no apparent structures. Very weak propyllitic alteration, with weak chlorite/silica and patchy carbonatization. Composed of 75% clasts ranging from rounded to angular, 5mm to 30cm. Matrix is grey-green, fine grained, tuffaceous, with local magnetite and quartz eyes. Sections throughout of fine to coarse grained, homogeneous, tuffaceous material with gradational contacts. Clast composition is BFP, various porphyritic volcanics, amygdaloidal volcanics, ash beds and fine grained basalts and monzodiorite. Clast colour varies from grey, pink, white, maroon, green. Unit is magnetic. Zoned anhydrite, calcite, quartz veining at 50-70 deg º to core axis, with anhydrite on the outside. Veining typically has 1% blebby pyrite within a 1cm halo around the veins. 3% bright pink zeolite veining. No apparent mineralization outside of the veining.	224156	0.009	0.000
12.00	14.00		0.1				224157	0.006	0.000
14.00	16.00		0.1				224158	0.008	0.000
16.00	18.00		0.1				224159	0.011	0.000
18.00	20.00		0.1				224160	0.016	0.000
20.00	22.00		0.1				224161	0.017	0.000
22.00	24.00		0.1			Lower 50cm is a fine grained, homogeneous tuffaceous unit, with gradational upper contact. Interval continues to 26.5m. Hematite staining along some of the hairline zeolite veinlets.	224162	0.006	0.000
24.00	26.00	Fine grained grey weakly propyllitic	0.1			Ffine grained, homogeneous tuffaceous unit. Interval continues to 26.5m	224163	0.003	0.000
26.00	27.80		0.1			Fine grained, homogeneous tuffaceous unit, with gradational lower contact. Interval continues to 26.5m	224164	0.017	0.011
27.80	30.00	Fine to coarse grained grey weakly propyllitic	0.1				224165	0.016	0.000

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-04

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
30.00	32.00	Fine to coarse grained grey weakly propyllitic	0.1			Increased zeolite veining and pink staining.	224166	0.008	0.000
32.00	34.00		0.1				224167	0.006	0.000
34.00	36.00		0.1			Bleachd portions, up to 30 cm throughout.	224168	0.005	0.000
36.00	36.90		0.1			Bleached, stained, influx of granodiorite clasts.	224169	0.004	0.000
36.90	38.00		0.0				224170	0.002	0.000
38.00	40.00		0.0				224171	0.001	0.000
40.00	42.10		0.0			Distinct, but gradational lower contact over 30cm.	224172	0.006	0.000
42.1	97.2	**HOMOGENEOUS DACITE CRYSTAL-LITHIC TUFF**							
42.10	44.00	Fine to medium grained grey weakly propyllitic	0.0			Gradational contact with overlying agglomerate over 50cm. Unit is fine to medium grained, magnetic and varies in colour from dark to light grey-green. Very weak propyllitic alteration, associated silicification. Bleached sections where silicification increases. 1mm quartz eyes visible on fresh broken surfaces. Small structures throughout, 30-70 º to core axis, with slickensides and hematite. 2% 1-2mm hematite specks throughout the unit. Local sections of granodiorite clasts, associated with hematite staining. Local in-situ brecciated sections. 1% quartz-calcite-anhydrite veining at 50-70 º to core axis. 1-2% bright pink zeolite veining throughout. No apparent mineralization aside from local cubic pyrite.	224173	0.001	0.000
44.00	46.00		0.0				224174	0.001	0.000
46.00	48.00		0.0			Local in-situ brecciation with calcite matrix.	224175	0.004	0.000
48.00	50.00		0.0				224176	0.004	0.000
50.00	52.00		0.0			Influx of hematite stained clasts. Angular, 1-1.5cm. Sporadic other volcanic clasts.	224177	0.006	0.000
52.00	54.00		0.0			52.4-55.1m - Granodiorite dyke. Sharp upper contact at 60 º to core axis, sharp lower contact at 35 º to core axis. Bleached halo.	224178	0.001	0.000
54.00	56.00		0.0				224179	0.001	0.000
56.00	58.00		0.0				224180	0.009	0.000

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-04

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
58.00	59.00	Fine to medium grained grey weakly propyllitic	0.0			Faint mottled texture, welded texture to the tuff.	224182	0.001	0.000
59.00	60.00	Fine to medium grained grey weakly silicified (non-K)	0.0			The weak propyllitic alteration gives way to pervasive silicification.	224183	0.002	0.000
60.00	61.40	Fine to medium grained grey brown weakly silicified (non-K)	0.0				224184	0.001	0.000
61.40	63.00		0.0			Unit has an in-situ brecciated texture. Silicification throughout. Some of the brecciated pieces have a mottled/welded texture. Upper and lower contacts are gradational over 20cm. Overprint of 1mm fine white sericite specks.	224185	0.001	0.000
63.00	64.00		0.0			As per 224185	224186	0.001	0.006
64.00	65.40		0.0				224187	0.001	0.006
65.40	67.00		0.0				224188	0.003	0.000
67.00	69.00		0.0				224189	0.003	0.000
69.00	70.80		0.0			Quartz-calcite-epidote veining at 15 º to core axis. Very bleached out interval.	224190	0.022	0.000
70.80	72.00		0.0				224191	0.002	0.000
72.00	74.00		0.7			Appearance of pyrite. Typically as clusters of 1-2mm cubes. No apparent association.	224192	0.003	0.008
74.00	76.00		0.7			75.2-75.4m - Post mineral granodiorite dyke. Altered contacts, but still distinct. Contacts at 70 º to core	224193	0.002	0.000
76.00	78.00		0.7				224194	0.001	0.000
78.00	80.00		0.7			From here to base of unit, primary magentite specks, 0.5-1mm, 1-2%.	224195	0.001	0.000
80.00	82.00		0.7			From here to base of unit, clasts become more abundant. Clasts are typically very silicified or hematized. 1-2mm hematite specks, 1-2% also abundant to bas of unit.	224196	0.001	0.000
82.00	84.00		0.7				224197	0.001	0.000
84.00	86.00		0.7				224198	0.003	0.000
86.00	88.00		0.7				224199	0.002	0.000

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-04

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
88.00	90.00	Fine to medium grained grey brown weakly silicified (non-K)	0.7				224200	0.001	0.000
90.00	91.50		0.7			Contains clasts of intrusive, hematite stained material.	224201	0.003	0.000
91.50	93.00		0.7			Very dark grey, homogeneous unit, with 2-3% 1mm, distinct quartz eyes. Featureless. Upper contact distinct at 75 º to core axis, lower contact with Agglomerate broken and intensly veined with pink	224202	0.000	0.000
93.00	95.00		0.7				224203	0.000	0.000
95.00	97.20		0.7				224204	0.001	0.000
97.2	111.2	**FRAGMENTAL HETEROLITHIC AGLOMERATE**							
97.20	99.00	Fine to medium grained grey brown weakly silicified (non-K)	0.7			Agglomerate unit, with 65% clasts, 35% tuffaceous matrix. Unit has an overall 'washed out' appearance. Matrix is silicified, with weak epidote and chlorite. Primary magnetite specks throughout. Clast composition is amygdaloidal and porhyritic volcanics, granodiorite, motled/welded tuff. Clasts are rounded and range from 1-5 cm. 1-2% zeolite and carbonte veining. Local hematite alteration. Local sections that appear to have a flow texture. 1-2mm pyrite cubes throughout, often clustered. Note that this agglomerate unit is slightly different than than the agglomerate units higher up in the hole.	224206	0.003	0.000
99.00	101.00		0.7				224207	0.003	0.000
101.00	103.00		0.7				224208	0.001	0.000
103.00	105.00		0.7				224209	0.008	0.010
105.00	107.00		0.7			Very glassy looking interval. All primary features have been obliterated. 2-3% 1mm spoft, white sericite specks overprinting everything else.	224210	0.001	0.011
107.00	109.00		0.7				224211	0.001	0.000
109.00	111.20		0.7			Abundant quartz-carbonte-zeolite veining at 15-20 º to core axis.	224212	0.005	0.000
111.2	119.2	**PORPHYRITIC GRANODIORITE DYKE**							

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-04

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
111.20	113.00	Fine to medium grained pink white weakly silicified (non-K)	0.0			Heterogeneous, eqigranular, medium grained, magnetic, intrusive dyke with strong hematite staining giving the unit a pink colour. 1-2% 1mm primary magnetite specks throughout. Silicious overprint. Carbonate-zeolite veinlets throughout at no particular orientation. Upper and lower contacts distinct but not sharp due to overprinting alteration.	224213	0.005	0.000
113.00	115.00		0.0				224214	0.002	0.000
115.00	117.00		0.0				224215	0.001	0.000
117.00	119.20		0.0				224216	0.000	0.000
119.2	155.4	**FRAGMENTAL HETEROLITHIC AGLOMERATE**							
119.20	121.00	Fine to coarse grained grey green weakly silicified (non-K)	0.0			Agglomerate unit, with 65% clasts, 35% tuffaceous matrix. Unit has an overall 'washed out' appearance. Overall weak propyllitic alteration. Matrix is silicified, with weak epidote and chlorite. Primary magnetite specks throughout. Clast composition is amygdaloidal and porhyritic volcanics, granodiorite, motled/welded tuff. No BFP present. Clasts are rounded and range from 1-5 cm. 1-2% zeolite and carbonte veining. Local hematite alteration. 1-2mm pyrite cubes throughout, often clustered. Note that this agglomerate unit is slightly different than than the agglomerate units at the top of the hole.	224217	0.001	0.000
121.00	123.00	Fine to coarse grained grey green weakly propyllitic	0.7			Bleached and chalky feeling interval. Clasts of intrusive material.	224218	0.002	0.000
123.00	125.00		0.7			Contains 30cm of white crystal-tuff material. Contacts are sharp but very undulatory. Posible clast, possible unit (?).	224219	0.005	0.000
125.00	127.00		0.7				224220	0.004	0.000
127.00	129.00		0.7			Strong chlorite atleration. 2-3% pink zeolite veining parallel to 25 º to core axis. Sections with dense veining are pitted.	224221	0.004	0.000
129.00	131.00		0.7				224222	0.007	0.000
131.00	133.00		0.7				224223	0.008	0.000

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-04

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
133.00	135.00	Fine to coarse grained grey green weakly propyllitic	0.7				224224	0.005	0.000
135.00	137.00		0.7			136-136.5m - 4cm wide carbonate-zeolite vein at 15 º to core axis. Vein contains angular brecciated pieces, 1-3cm, of the wall rock. Blebs of very fine, grey clay material also within the vein.	224225	0.003	0.000
137.00	139.00		0.7			Zeolite veining with fine, grey, clay centers.	224226	0.005	0.000
139.00	141.00		0.7				224227	0.008	0.000
141.00	143.00		0.7				224228	0.007	0.007
143.00	145.00		0.7				224229	0.003	0.000
145.00	147.00		0.7				224230	0.005	0.000
147.00	149.00		0.7				224232	0.005	0.000
149.00	151.00		0.7			From here to base of unit there is an increase in the hematite (secondary) content, typically as 1-2mm specks, clast alteration and fracture fill.	224233	0.007	0.000
151.00	153.00		0.7			Abundant quartz-carbonate fracture fill.	224234	0.011	0.000
153.00	154.00		0.7				224235	0.013	0.000
154.00	155.40		0.7				224236	0.040	0.040
155.4	176.2	**PORPHYRITIC BLADED FELDSPAR PORPHYRY FLOW**							

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-04

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
155.40	157.00	Fine to coarse grained grey weakly propyllitic	0.2			BFP flow. Upper contact with Hazelton is broken, intensely veined and gradational over 50-100cm. Overall weak propyllitic and hematitic alteration. 40% 1-2cm feldspars in a fine grained, magnetic, dark grey matrix. Feldspars are oriented in a flow direction 70-85 º to core axis. Feldspars rarely are unaltered, typically chlorite, quartz or hemtite replaced. Base of the unit contains pink hematite stained mega-phenocrysts (up to 4cm), but the unit is fractured into large clasts. 1-2% 1-2mm sub rounded secondary hematite specks overprinting the entire unit. Upper 5m of the unit is intensely fractured with quartz-carbonte fill. No apparent mineralization with the exception of a spoardic fleck of pyrite. 1% carbonate-zeolite veining throughout. Lower contact with amygdaloidal flow is distinct but undulatory.	224237	0.001	0.000
157.00	159.00		0.2			Feldspars quartz and chlorite altered.	224238	0.059	0.006
159.00	161.00		0.2				224239	0.002	0.000
161.00	163.00		0.2				224240	0.054	0.000
163.00	165.00	Fine to coarse grained grey weakly hematitic	0.2			Feldspars are very well aligned at 75-80 º to core axis. All are hematite altered. Abundance of overprinting hematite specks.	224241	0.021	0.000
165.00	167.00		0.2				224242	0.024	0.000
167.00	169.00		0.2				224243	0.035	0.000
169.00	171.00		0.2				224244	0.036	0.005
171.00	172.80		0.2				224245	0.047	0.000
172.80	175.00		0.2			Increase in feldspar size, hematite stained. Sporadic amygdules present. 50% flooded with fine grained, hematite altered material, giving the interval a broken up appearance.	224246	0.049	0.000
175.00	176.20		0.2			Increase in feldspar size, up to 4cm. Patchy, strong epidote alteration overprinting the hematite.	224247	0.002	0.000
176.2	213.3	**AMYGDULAR ANDESITE FLOW**							

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-04

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
176.20	178.00	Fine to coarse grained grey green weakly propyllitic	0.1			Andesite flow. Distinct but undulatory upper contact. Grey-green, magnetic, fine grained, massive. Weak propyllitic alteration throughout, with locally intense areas. 1-2% amygdules 2-3mm in diameter, with soft white carbonate fill. Amygdules do not appear to have any prefered orientations. 1-2% augite phenos, up to 4mm, preferentially epidote altered (with respect to the matrix). Augites are not consitently present. Occasional clasts of basalt with 3-4% carbonate filled amygdules, amygdules are elongated. Clasts have similar alteration to the host rock. Local hematite staining. No apparent mineralization except for the occasional speck of pyrite.	224248	0.030	0.006
178.00	180.00		0.1				224249	0.027	0.005
180.00	182.00		0.1				224250	0.027	0.000
182.00	184.00		0.1				224251	0.019	0.000
184.00	186.00	Fine to coarse grained grey green moderately propyllitic	0.1			Porpyllitic alteration becomes more intense.	224252	0.019	0.000
186.00	188.00		0.1				224253	0.014	0.000
188.00	190.00		0.1				224254	0.047	0.014
190.00	192.00		0.1				224255	0.038	0.005
192.00	194.00		0.1				224257	0.017	0.039
194.00	196.00		0.1				224258	0.024	0.009
196.00	198.00		0.1				224259	0.011	0.000
198.00	200.00		0.1				224260	0.111	0.000
200.00	202.00		0.1				224261	0.006	0.000
202.00	204.00		0.1				224262	0.020	0.000
204.00	206.00		0.1				224263	0.008	0.000
206.00	208.00		0.1			Brecciated section, clasts of BFP, pervasive hematite staining.	224264	0.044	0.000
208.00	210.00		0.1			60-65% augute phenocrysts that are very epidote	224265	0.004	0.000
210.00	212.00		0.1				224266	0.004	0.000

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-04

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
212.00	213.30	Fine to coarse grained grey green moderately propyllitic	0.1			60-65% augute phenocrysts that are very epidote altererd. Becomes brecciated. Distinct but not sharp lower contact with the BFP unit.	224267	0.005	0.043
213.3	219.3	**PORPHYRITIC BLADED FELDSPAR PORPHYRY FLOW**							
213.30	215.00	Fine to coarse grained grey green moderately propyllitic	0.1			BFP flow. Distinct but not sharp upper contact. Overall moderate propyllitic and hematitic alteration. 40% 1-2cm feldspars in a fine grained, magnetic, dark grey matrix. Feldspars do not have a particular orientation. Feldspars rarely are unaltered, typically chlorite, quartz or hemtite replaced. 1-2% 1-2mm sub rounded secondary hematite specks overprinting the entire unit. No apparent mineralization with the exception of a few spoardic flecks of pyrite. 1% carbonate-zeolite veining throughout. Lower contact with amygdaloidal flow is sharp at 30 º to core axis.	224268	0.008	0.000
215.00	217.00		0.1			10-15 cm patches of intense propyllitic alteration that obiterates all primary features. No apparent associated mineralization.	224269	0.004	0.006
217.00	218.50		0.1				224270	0.033	0.006
218.50	219.30		0.1			Lower contact sharp at 30 º to core axis. Lower 40cm is intensly veined with quartz-carbonate.	224271	0.061	0.000
219.3	328.8	**AMYGDULAR ANDESITE FLOW**							

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-04

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
219.30	221.00	Fine to coarse grained grey green moderately propyllitic	0.1			Andesite flow. Sharp upper contact at 30 º to core axis. Grey-green, magnetic, fine to coarse grained massive. Unit is very hard. Moderate propyllitic alteration throughout, with locally intense areas. Hematitic alteration occurs as 1-3mm maroon specks throughout. 1-2% amygdules 2-3mm in diameter, with soft white carbonate fill, occasionally anhydrite. Amygdules do not appear to have any prefered orientations. 1-2% augite phenos, up to 4mm, preferentially epidote altered (with respect to the matrix). Augites are not consitently present. 1mm, tiny white, feldspars occur towards the base. Occasional clasts of basalt with 3-4% carbonate filled amygdules, amygdules are elongated. Clasts have similar alteration to the host rock. No apparent mineralization except for the occasional speck or cluster of pyrite. 1% hairline carbonte veining, with the odd quartz-anhydrite vein at 25 º to core axis.	224272	0.023	0.000
221.00	223.00		0.1				224273	0.073	0.000
223.00	225.00		0.1				224274	0.016	0.000
225.00	227.00		0.1			Patchy intense epidote alteration.	224275	0.025	0.000
227.00	229.00		0.1				224276	0.005	0.000
229.00	231.00		0.1			Onset of hemtite specks.	224277	0.053	0.000
231.00	233.00		0.1				224278	0.001	0.000
233.00	235.00		0.1			Quartz flooding with associated chlorite.	224279	0.002	0.000
235.00	237.00		0.1			Interval is brecciated with quartz fill/matrix.	224280	0.001	0.000
237.00	239.00		0.1				224282	0.001	0.000
239.00	241.00		0.1				224283	0.001	0.000
241.00	243.00		0.1				224284	0.001	0.000
243.00	245.00		0.1			Abundant amygdules.	224285	0.001	0.000
245.00	247.00		0.1			Abundant aguite phenocrysts, up to 65%.	224286	0.001	0.000
247.00	249.00		0.1				224287	0.001	0.000
249.00	251.00		0.1				224288	0.001	0.000

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-04

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
251.00	253.00	Fine to coarse grained grey green moderately propyllitic	0.1			Local brecciation with quartz fill/matrix.	224289	0.028	0.000
253.00	255.00		0.1				224290	0.007	0.000
255.00	257.00		0.1			Abundant aguite phenocrysts, up to 65%.	224291	0.001	0.000
257.00	259.00	Fine to coarse grained grey green strongly propyllitic	0.1			Increase in propyllitic alteration. Abundant aguite phenocrysts, up to 65%.	224292	0.001	0.000
259.00	261.00		0.1				224293	0.000	0.000
261.00	263.00		0.1				224294	0.001	0.000
263.00	265.00		0.1				224295	0.001	0.000
265.00	267.00		0.1				224296	0.001	0.000
267.00	269.00	Fine to coarse grained grey green moderately propyllitic	0.1			Local brecciation, with quartz fill/matrix.	224297	0.021	0.000
269.00	271.00		0.1			Abundant aguite phenocrysts, up to 65%.	224298	0.007	0.000
271.00	273.00		0.1				224299	0.001	0.000
273.00	275.00		0.1			Sections 10-15cm of intense propyllitc alteration that obliterate all primary features. No apparent associated mineralization.	224300	0.000	0.000
275.00	277.00		0.1				224301	0.000	0.000
277.00	279.00		0.1				224302	0.000	0.000
279.00	281.00		0.1				224303	0.012	0.000
281.00	283.00		0.1				224304	0.003	0.000
283.00	285.00		0.1			Onset of tiny, white feldspars with no preferred orientation.	224306	0.004	0.000
285.00	287.00		0.1			Interval has the appearance of BFP and APP combined.	224307	0.002	0.000
287.00	289.00		0.1				224308	0.001	0.000
289.00	291.00		0.1			Interval has the appearance of BFP and AAP combined.	224309	0.008	0.000
291.00	293.00	Fine to coarse grained grey green strongly propyllitic	0.1			Strong propyllitic alteration.	224310	0.002	0.000
293.00	295.00		0.1				224311	0.002	0.000
295.00	297.00		0.1				224312	0.003	0.000

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-04

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
297.00	299.00	Fine to coarse grained grey green strongly propyllitic	0.1				224313	0.002	0.005
299.00	301.00		0.1			2-3% massive quartz veining, 3-5cm wide, at 15-25 º to core axis. Veins are barren with respect to mineralization, but carry anhydrite ans chlorite at the cores.	224314	0.004	0.000
301.00	303.00		0.1				224315	0.001	0.000
303.00	305.00		0.1			Quartz-anhydrite veining at 65 º to core axis with 2-4cm epidote alteration halos. Interval has the appearance of BFP and AAP combined.	224316	0.002	0.000
305.00	307.00		0.1			Interval has the appearance of BFP and AAP combined.	224317	0.001	0.000
307.00	309.00		0.1				224318	0.005	0.009
309.00	311.00		0.1				224319	0.001	0.021
311.00	313.00		0.1			Interval has the appearance of BFP and AAP combined. Very big amygdules, up to 1.5cm	224320	0.001	0.006
313.00	315.00		0.1				224321	0.005	0.006
315.00	317.00		0.1				224322	0.003	0.007
317.00	319.00		0.1				224323	0.006	0.011
319.00	321.00		0.1				224324	0.014	0.007
321.00	323.00		0.1				224325	0.005	0.000
323.00	325.00		0.1			3-4% quartz-carbonate-anhydrite veining at 15-20 º to core axis. Veining appears to follow a small structure at the same orientation. Slickensides are visible on all structure surfaces. Structure surfaces are hematite stained.	224326	0.001	0.011
325.00	327.00		0.1				224327	0.001	0.007
327.00	328.80		0.1				224328	0.000	0.000
328.8	329.9	**MASSIVE BASALT DYKE**							

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-04

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
328.80	329.90	Fine grained dark grey	0.0			Massive fine grained mafic dyke. Distinct, but veined upper and lower contacts. Unit is very hard and weakly magnetic. Weak chlorite/epidote and hematite alteration throughout. Conatcts are marked by BFP clasts with 1-2mm white feldspars and quartz-carbonate-zeolite veining at 15-25 º to core axis. No apparent mineralization. NOTE: LOST SAMPLE - NO SUBMITTAL FOR ASSAY	224330	0.000	0.000
329.9	330.9	**PORPHYRITIC BLADED FELDSPAR PORPHYRY FLOW**							
329.90	330.90	Fine to coarse grained dark grey	0.0			Very broken section of BFP. 2-3%, 1-2mm tiny white feldspars throughout. Weak epidote and hematite alteration throughout. Upper contact marked by 40cm of brecciated quartz-carbonate-zeolite veining at 20 º to core axis. Lower contact marked by 10cm of intense epidote alteration that obitlerates all primary features. Epidote section contains hematite alteration and clasts of the underlying AAP unit.	224331	0.001	0.000
330.9	396.8	**MASSIVE ANDESITIC AUGITE PORPHYRY FLOW**							
330.90	333.00	Fine to coarse grained dark grey green moderately propyllitic	0.1			AAP flow. Sharp upper contact at 70 º to core axis with intense epidote alteration. Unit is very similar to the overlying amygdaloidal andesite flow, with the absence of the amygdules and the tiny white feldspars that appeared towards the base of the overlying unit. Grey-green, magnetic, fine to coarse grained massive. Unit is very hard. Moderate propyllitic alteration throughout, with locally intense areas. Hematitic alteration occurs as 1-3mm maroon specks, typically where the augite phenocrysts are the most dense. 1-2% augite phenos, up to 4mm, preferentially epidote altered (with respect to the matrix). No apparent mineralization except for the occasional speck or cluster of pyrite. 1% hairline carbonte veining with no particular orientation. Bright pink zeolite veining sporadic throughout.	224332	0.002	0.000
333.00	334.80		0.1			Volcanic breccia texture.	224333	0.002	0.000

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-04

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
334.80	337.00	Fine to coarse grained dark grey green moderately propyllitic	0.1			Volcanic breccia texture, with clasts of amygdaloidal basalt and hematite specks.	224334	0.002	0.000
337.00	339.00		0.1				224335	0.001	0.000
339.00	341.00		0.1				224336	0.002	0.000
341.00	343.00		0.1			Upper 50cm shows a VBX texture, with massive, barren quartz veining at 65 º to core axis.	224337	0.001	0.000
343.00	345.00		0.1			2-3% quartz-carbonate veining at 75-80 º to core axis.	224338	0.000	0.000
345.00	347.00		0.1				224339	0.002	0.000
347.00	349.00		0.1				224340	0.000	0.000
349.00	351.00		0.1				224341	0.002	0.000
351.00	353.00		0.1				224342	0.003	0.000
353.00	355.00		0.1				224343	0.000	0.000
355.00	357.00	Fine to coarse grained light grey green moderately propyllitic	0.1			Interval is bleached to a light grey colour.	224344	0.000	0.000
357.00	359.00		0.1				224345	0.003	0.000
359.00	361.00	Fine to coarse grained dark grey green moderately propyllitic	0.1				224346	0.010	0.000
361.00	363.00		0.1				224347	0.001	0.000
363.00	365.00		0.1				224348	0.001	0.000
365.00	367.00		0.1				224349	0.001	0.000
367.00	369.00		0.1			Epidote veining at 15-25 º to core axis.	224350	0.001	0.000
369.00	371.00		0.1				224351	0.001	0.000
371.00	373.00		0.1				224352	0.004	0.000
373.00	375.00		0.1				224353	0.000	0.000
375.00	377.00		0.1				224355	0.001	0.000
377.00	379.00		0.1			1-2% quartz-carbonate veining.	224356	0.012	0.000
379.00	381.00		0.1				224357	0.001	0.000
381.00	383.00		0.1				224358	0.001	0.000
383.00	385.00		0.1				224359	0.002	0.000

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-04

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)		Comments	Sample#	Cu %	Au ppm
385.00	387.00	Fine to coarse grained dark grey green moderately propyllitic	0.1				1-2% quartz-carbonate veining.	224360	0.001	0.000
387.00	389.00		0.1				1-2% quartz-carbonate veining. Epidote veining.	224361	0.003	0.009
389.00	391.00		0.1					224362	0.001	0.000
391.00	393.00		0.1					224363	0.031	0.000
393.00	395.00		0.1				Apparent brecciated texture, with quartz /anhydrite 'matrix'.	224364	0.050	0.000
395.00	396.80		0.1				90% very fine grained, dark grey matrix.	224365	0.057	0.000
396.8	399.3	**SHEARED ANDESITIC AUGITE PORPHYRY FAULT ZONE**								
396.80	398.00	Fine to coarse grained dark grey green moderately propyllitic	0.1		FLT	5	Structure through AAP. Structure runs parallel to sub parallel to core axis. 10% quartz-caronate veining, very broken and folded. Fault gouge present along the movement surface, with slickensides that appear to parallel the fault surface. Chlorite and clay alteration abundant. 1% later zeolite veining. Intense hematite alteration at the bottom of the structure (that we see). No apparent increase in mineralization.	224366	0.003	0.000
398.00	399.30		0.1					224367	0.033	0.000
399.3	412.8	**MASSIVE ANDESITIC AUGITE PORPHYRY FLOW**								
399.30	401.00	Fine to coarse grained dark grey green moderately propyllitic	0.1					224368	0.001	0.000
401.00	403.00		0.1					224369	0.003	0.000
403.00	405.00		0.1				Quartz veining at 20 º to core axis with brecciated fragments of wall rock. Veining is barren of	224370	0.032	0.019
405.00	407.00		0.1				Hematite veining at the base of the interval.	224371	0.001	0.000
407.00	409.00		0.1					224372	0.001	0.000
409.00	411.00		0.1					224373	0.025	0.000
411.00	412.80		0.1		CNT	90	Sharp lower contact with Hazelton, perpendicular to core axis.	224374	0.007	0.008
412.8	443.3	**FRAGMENTAL HETEROLITHIC TUFF**								

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-04

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
412.80	415.00	Fine to coarse grained light grey green weakly silicified (non-K)	0.1			Polylithic volcanoclastic Hazelton unit. Light grey-green, magnetic, massive, hard. 25-30% clasts, 70-75% fine grained, quartz-eye bearing matrix. Unit is silicified, with very very weak chlorite/epidote alteration. Clasts are composed of felsic tuffs, mottled/welded textured tuffs, granitc intrusives and tiny quartz and mafic bits. Clasts are rounded, 3-15mm, some with strong epidote alteration. 1-2% 1mm primary magnetite specks throughout. 1-2% hairline zeolite veining at no particular orientation. Pyrite mineralization occurs, but is very localized.	224375	0.003	0.005
415.00	417.00		0.1				224376	0.002	0.000
417.00	419.00		0.1				224377	0.003	0.008
419.00	421.00		0.1			@ 420m - Quartz-calcite-hematite vein carrying 3-4% pyrite. Vein is 1-3cm wide, and is s-folded.	224378	0.002	0.000
421.00	423.00		0.1				224380	0.012	0.012
423.00	425.00		0.1				224381	0.003	0.000
425.00	427.00		1.0			Lower 50cm contains three 5mm wide magnetite-quartz-carbonte veins carrying 2-3% pyrite. Pyrite occurs as coarse grained crystals. Veins run at	224382	0.002	0.000
427.00	429.00		0.1				224383	0.001	0.000
429.00	431.00		0.1			Patchy intense epidote alteration. Massive carbonate-zeolite vugs that are etched, 8cm wide.	224384	0.001	0.000
431.00	433.00		0.1			Patchy epidote alteration.	224385	0.000	0.000
433.00	435.00		0.1				224386	0.000	0.000
435.00	437.00		0.1				224387	0.000	0.000
437.00	439.00		1.5			Poddy, coarse grained pyrite. Chery-quartz vein with 3-4% pyrite at 40 deg to core axis.	224388	0.000	0.006
439.00	441.00		0.1			Strong epidote alteration preferentially along zeolite veining.	224389	0.000	0.000
441.00	443.30		0.1			3-4% bright pink zeolite veining, weak hematite staining.	224390	0.000	0.000
443.3	451.4	**HOMOGENEOUS FELSIC CRYSTAL-LITHIC TUFF**							

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-04

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
443.30	445.00	Fine to coarse grained white moderately silicified (non-K)	1.5			White, hard, non magnetic, massive. Sharp upper contact, undulatory but basically at 90 deg to core axis. Pervasive silicification. 2-3% hariline zeolite veining, 75-90 deg to core axis. Weak hematite stain within veining, but not host rock. Sporadic patches of epidote alteration. 2-3% rounded quartz eyes, up to 3mm. Occasional clasts of light grey tuffaceous material, rounded, up to 1.5cm. Unit contains 1-2% pyrite as coarse grained blebs 1-3mm, and 1-2% molybdinum, as small pods anf flakes. Moly occurs wihting the tuff and within veins.	224391	0.001	0.000
445.00	447.00	Fine to coarse grained white weakly silicified (non-K)	0.1				224392	0.000	0.000
447.00	449.00		0.1			Contains a large clast of the surrounding Hazelton unit.	224393	0.000	0.000
449.00	450.00		0.1				224394	0.000	0.006
450.00	451.40		0.1			Sharp lower contact at 75 deg to core axis.	224395	0.001	0.000
451.4	459.9	**FRAGMENTAL HETEROLITHIC TUFF**							
451.40	453.00	Fine to coarse grained light grey green weakly silicified (non-K)	0.1				224396	0.000	0.005
453.00	455.00		0.1				224397	0.001	0.000
455.00	457.00		0.1				224398	0.001	0.000
457.00	459.00		0.1				224399	0.000	0.000
459.00	459.90		0.1				224400	0.001	0.000
459.9	539	**MASSIVE DACITE TUFF**							

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-04

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins	(°tca-%)	Comments	Sample#	Cu %	Au ppm
459.90	461.00	Fine to coarse grained grey weakly silicified (non-K)	0.1		FOL	50	Grey-biege, hard, magnetic, fine to medium grained, foliated at 50 deg to core axis. Sharp upper contact at 30 deg to core axis. Unit is consistent in composition and alteration. Overall has a mottled/welded and finely speckled texture. Pervaisve silicification, patchy weak chlorite alteration. 1% fine primary magnetite specks. 1-2% 1-2mm grey quartz eyes, visible on fresh broken surfaces. Zeolite veining up to 3% locally. Upper 1.5m consists of a massive, cherty beige unit with 2-3% distinct quartz eyes, a pitted surface and soft white sericite specks overprinting. This is gradational over 30 cm into the rest of the unit. The transition is marked by hematite staining. No apparent mineralization.	224401	0.000	0.000
461.00	463.00		0.1		FOL	50		224402	0.012	0.000
463.00	465.00		0.1		FOL	50		224403	0.000	0.000
465.00	467.00		0.1		FOL	50		224404	0.000	0.000
467.00	469.00		0.1		FOL	50		224406	0.000	0.000
469.00	471.00		0.1					224407	0.001	0.000
471.00	473.00		0.1					224408	0.000	0.000
473.00	475.00		0.1				473-489m - 3-4% zeolite veining, up to 5-6% locally. Becomes vuggy where there is an abundance.	224409	0.000	0.000
475.00	477.00		0.1					224410	0.001	0.000
477.00	479.00		0.1				Epidote alteration associated with the zeolite veining.	224411	0.001	0.000
479.00	481.00		0.1					224412	0.000	0.000
481.00	483.00		0.1				Epidote vein at 45 deg to core axis.	224413	0.000	0.000
483.00	485.00		0.1					224414	0.000	0.000
485.00	487.00		0.1					224415	0.000	0.000
487.00	489.00		0.1					224416	0.000	0.000
489.00	491.00		0.1					224417	0.000	0.000
491.00	493.00		0.1					224418	0.001	0.000
493.00	495.00		0.1					224419	0.000	0.000

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-04

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
495.00	497.00	Fine to coarse grained grey weakly silicified (non-K)	0.1			Upper 20cm removed for "bookshelf" rock. Was very vuggy with pink anhydrite and zeolite crystals.	224420	0.000	0.000
497.00	499.00		0.1				224421	0.000	0.000
499.00	501.00		0.1			Quartz-carbonte-epidote stained vein at 30 º to core axis with primary magnetite specks.	224422	0.000	0.000
501.00	503.00		0.1				224423	0.000	0.000
503.00	505.00		0.1			Zeolite veining takes on a fairly consistent orientation of 30-40 º to core axis.	224424	0.000	0.000
505.00	507.00		0.1				224425	0.001	0.005
507.00	509.00		0.1			Patchy epidote alteration, with local hematite staining.	224426	0.001	0.000
509.00	511.00		0.1				224427	0.003	0.000
511.00	513.00		0.1				224428	0.001	0.000
513.00	515.00		0.1				224429	0.005	0.000
515.00	517.00		0.1			Patchy epidote alteration, that is so distinct that it has a clast like appearance.	224431	0.001	0.000
517.00	519.00		0.1				224432	0.001	0.000
519.00	521.00		0.1			The surrounding material around the patchy epidote alteration is pitted.	224433	0.007	0.000
521.00	523.00		0.1			Abundant 5-10mm fine grained, dark grey, angular	224434	0.001	0.000
523.00	525.00		0.1				224435	0.005	0.000
525.00	527.00		0.1			20cm clay carbonate chlorite vein, at 30 º to core axis. Vein contains small pieces of host rock. 30cm halo on each side of the vein of very pitted host rock. No apparent mineralization within the vein.	224436	0.002	0.000
527.00	529.00		0.1			From here to the base of the unit, the zeolite veining increases to 4-5%.	224437	0.001	0.000
529.00	531.00		0.1				224438	0.001	0.000
531.00	533.00		0.1				224439	0.002	0.000
533.00	535.00		0.1				224440	0.002	0.000
535.00	537.00		0.1				224441	0.002	0.000

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-04

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
537.00	539.00	Fine to coarse grained grey weakly silicified (non-K)	0.1				224442	0.002	0.000
539	540.1	**MASSIVE FELSIC TUFF**							
539.00	539.60	Fine to medium grained white weakly silicified (non-K)	0.0			White, hard, non magnetic, weakly foliated at 40-45 º to core axis. 2-3% 1-2mm quartz eyes throughout. Interval is silicified with weak sericite overprinting. Upper contact not sharp but distinct at 40 º to core axis, lower contact broken (breakage human, not lithological). Material below contact is bleached. Unit is very homogeneous. No apparent mineralization.	224443	0.001	0.008
539.60	540.10		0.0				224444	0.001	0.000
540.1	556.9	**MASSIVE DACITE TUFF**							
540.10	542.00	Fine to coarse grained grey weakly silicified (non-K)	0.1			Grey-biege, hard, magnetic, fine to coarse grained, foliated at 50 deg to core axis. Sharp upper contact at 30 deg to core axis. Unit is consistent in composition and alteration. Overall has a mottled/welded and finely speckled texture. Pervaisve silicification, patchy weak chlorite alteration. Up to 5% fine primary magnetite specks. 1-2% 1-2mm grey quartz eyes, visible on fresh broken surfaces. Zeolite veining up to 5% locally. Upper 1.2m consists of a massive, cherty beige unit with 2-3% distinct quartz eyes. No apparent	224445	0.004	0.000
542.00	544.00		0.1				224446	0.004	0.000
544.00	546.00		0.1				224447	0.001	0.000
546.00	548.00		0.1			Healed shear zone, 35 º to core axis, 50cm long. Veining very disrupted and folded. Strong hematite	224448	0.001	0.000
548.00	550.00		0.1				224449	0.003	0.000
550.00	552.00		0.1				224450	0.002	0.000
552.00	554.00		0.1				224451	0.001	0.000
554.00	555.00		0.1				224452	0.000	0.000
555.00	556.90		0.1			E.O.H.	224453	0.001	0.000

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-05

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
0	4.6	**CASING**							
0.00	4.60								
4.6	241.8	**FRAGMENTAL HETEROLITHIC CRYSTAL-LITHIC TUFF**							
4.60	6.60	Very fine to coarse grained grey black weakly propyllitic				Dominantly coarse grained crystals with approximately 3% lithic fragments. Crystals are dominantly subhedral to euhedral feldpsar as less frequent mafics and quartz; set in a grey to dark grey, aphanitic groundmass. Lithics comprise angular to rounded aphanitic to fine grained andesite and rare intrusive fragments and porphyritic feldspar volcanic fragments. There is a trace of magnetism due to fine grained magnetite in places. Rare quartz eyes present. Zeolite and carbonate veinlets running in various orientations. Epidote and hematite veins also in various directions. Hematite alteration is rarely present in veins and on clasts. Trace of epidote alteration is present surrounding volcanic clasts and spotty on other crystal fragments. Chloritic alteration is spotty mainly found in the volcanic clasts and in the aphanitic matrix. Mineralization is absent.	225011	0.002	0.000
6.60	8.60	Very fine to coarse grained grey moderately propyllitic				Increase in the amount in hematite and epidote alteration. Quartz eyes present.	225012	0.002	0.000
8.60	10.60	Very fine to coarse grained grey strongly propyllitic				No magnetic fragments in this sample unit. Randomly oriented calcite and zeolite veining has increased to about 7% of the sample unit. Hematite and epidote alteration still increasing. Quartz eyes not present.	225013	0.001	0.000
10.60	12.60	Very fine to coarse grained pink strongly propyllitic		HECAL	30	4 Broken core for the last 65cm of the sample interval. Minor anhydrite in randomly oriented veinlets.	225014	0.001	0.000
12.60	14.60	Medium to coarse grained grey weakly propyllitic				Amount of epidote and hematite alteration has decreased as well as with the zeolite and calcitic veining	225015	0.002	0.000
14.60	16.60	Medium to coarse grained grey				Amount of volcanic and intrusive fragments has increased to about of 5% of the sample interval and the size average is 2 cm in diameter.	225016	0.002	0.000
16.60	18.60	Medium to coarse grained grey weakly propyllitic				Weakly magnetic. Randomly oriented calcite and zeolite veins has increased to about 3% of the sample	225017	0.003	0.000

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-05

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins	(°tca-%)		Comments	Sample#	Cu %	Au ppm
18.60	20.60	Very fine to coarse grained grey weakly propyllitic						Hematite and epidote alteration has increased.	225018	0.001	0.000
20.60	22.60	Very fine to coarse grained grey pink weakly propyllitic						Amount of aphanitic groundmass has increased. Size and amount of clasts has decreased to about 2% of the sample unit. Randomly oriented veins has decreased.	225019	0.003	0.000
22.60	24.60	Very fine to coarse grained grey weakly propyllitic			ZCALV	25	1	Hematite veining has slightly increased and no anhydrite is present.	225020	0.001	0.007
24.60	26.60							Patchy brecciation with epidote, hematite, calcite, quartz and clay between the fragments.	225021	0.001	0.000
26.60	28.60							Clasts of porphyritic volcanics (BFP?) have increased in size and amount to 4%.	225022	0.002	0.000
28.60	30.60								225023	0.002	0.000
30.60	32.60	Very fine to coarse grained grey pink weakly propyllitic						Randomly oriented healed fractures filled with hematite, calcite and zeolite. No felspar porphyritic fragments are present.	225024	0.002	0.000
32.60	34.60	Very fine to coarse grained grey black						Porphyritic feldspar fragments are present along with other intrusive fragments (5% of interval). Hematite and epidote alteration has decreased to a trace.	225025	0.002	0.000
34.60	36.60							Trace of hematite alteration. Trace quartz, calcite and zeolite veining.	225026	0.001	0.000
36.60	38.60	Very fine to coarse grained grey black weakly propyllitic							225027	0.002	0.000
38.60	40.60	Very fine to coarse grained grey black			HCALV	15	2	Trace of hematite and epidote alteration.	225028	0.002	0.000
40.60	42.60							Quartz eyes present. Trace of hematite and chlorite alteration associated with volcanic fragments. Randomly oriented fractures filled with calcite.	225029	0.003	0.000
42.60	44.60							Becoming more siliceous. Trace of hematite and epidote alteration.	225030	0.002	0.000
44.60	46.60	Very fine to coarse grained dark grey black weakly silicified (non-K)						Calcitic and zeolitic veins running with the core axis and 35 degrees to the core axis locally.	225031	0.002	0.000
46.60	48.60	Very fine to coarse grained grey green weakly silicified (non-K)			ZHCAL	30	3	Slight increase in epidote alteration.	225032	0.003	0.000

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-05

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)			Comments	Sample#	Cu %	Au ppm
48.60	50.60	Very fine to coarse grained grey weakly propyllitic	0.0					Decrease in silicic alteration. Trace of pyrite present with volcanic fragments.	225034	0.002	0.000
50.60	52.60	Very fine to coarse grained grey pink weakly hematitic						Randomly oriented veinlets filled with calcite, zeolite and hematite.	225035	0.001	0.000
52.60	54.60	Very fine to coarse grained grey black weakly silicified (non-K)	0.0					Becoming more siliceous. Subordinate epidote	225036	0.001	0.000
54.60	56.60	Very fine to coarse grained grey pink weakly silicified (non-K)						Hematite alteration increasing towards the end of the interval. Randomly oriented zeolite and calcite veinlets increasing. Subordinate epidote alteration.	225037	0.001	0.000
56.60	58.60							Subordinate epidote alteration.	225038	0.001	0.000
58.60	60.60	Very fine to coarse grained grey weakly silicified (non-K)			HECAL	30	4	Hematite and epidote alteration has decreased.	225039	0.001	0.000
60.60	62.60							Randomly oriented fractures.	225040	0.002	0.000
62.60	64.60	Very fine to coarse grained grey pink weakly silicified (non-K)			CALV	45	2	Local weak hematite alteration.	225041	0.002	0.000
64.60	66.60	Very fine to coarse grained grey black moderately silicified (non-K)						Increased siliceous alteration.	225042	0.003	0.000
66.60	68.60		0.0		CALV	35	2	Local epidote and hematite alteration.	225043	0.002	0.000
68.60	70.60							Randomly oriented fractures filled with calcite, zeolite and epidote.	225044	0.001	0.000
70.60	72.60	Very fine to coarse grained grey moderately silicified (non-K)	0.1					Local hematite and epidote alteration and a trace of blebby pyrite within volcanic clasts.	225045	0.002	0.000
72.60	74.60		0.0					Hematite alteration has increased slightly.	225046	0.001	0.000
74.60	76.60	Very fine to coarse grained grey black moderately silicified (non-K)						Subordinate hematite alteration.	225047	0.002	0.000
76.60	78.60	Very fine to coarse grained grey black weakly propyllitic						Amount of siliceous alteration has decreased with and increase in hematite and epidote alteration.	225048	0.001	0.000
78.60	80.60	Very fine to coarse grained grey black weakly silicified (non-K)	0.1					Local blebby pyrite within volcanic clasts.	225049	0.002	0.000
80.60	82.60								225050	0.002	0.000
82.60	84.60		0.0					Epidote alteration has increased. Trace of pyrite within volcanic clasts. Subordinate epidote alteration.	225051	0.003	0.000

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-05

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)			Comments	Sample#	Cu %	Au ppm
84.60	86.60	Very fine to coarse grained grey weakly propyllitic	0.0		CALZV	30	2	Siliceous alteration has decreased.	225052	0.001	0.000
86.60	88.60	Very fine to coarse grained dark grey black weakly silicified (non-K)			CALZV	40	4	Weak epidote and hematite alteration within volcanic clasts. Siliceous alteration increased.	225053	0.001	0.000
88.60	90.60	Very fine to coarse grained dark grey weakly silicified (non-K)						Trace of epidote alteration surrounding volcanic clasts. Randomly oriented calcite and zeolite veinlets (2%). Subordinate hematite alteration.	225054	0.002	0.000
90.60	92.60	Very fine to coarse grained dark grey moderately silicified (non-K)						Local weak hematite and epidote alteration mainly around volcanic clasts..	225055	0.002	0.000
92.60	94.60	Very fine to coarse grained grey pink moderately silicified (non-K)						Hematite alteration has increased with weak epidote alteration surrounding volcanic clasts. Subordinate hematite alteration.	225056	0.002	0.000
94.60	96.60	Very fine to coarse grained dark grey moderately silicified (non-K)						Subordinate hematite-epidote alteration.	225057	0.001	0.000
96.60	98.60							Locally random oriented fractures. Subordinate hematite-epidote alteration.	225059	0.001	0.000
98.60	100.60	Very fine to coarse grained pink green moderately propyllitic	0.0					Trace of disseminated and blebby pyrite within the matrix and within volcanic fragments. Siliceous alteration has decreased.	225060	0.001	0.005
100.60	102.60		0.0		CALV	55	7		225061	0.001	0.000
102.60	104.60		0.0					Fractures healed with zeolite and calcite. Local stockwork veining oriented randomly (6% of unit).	225062	0.001	0.000
104.60	106.60		0.0						225063	0.001	0.000
106.60	108.60	Very fine to coarse grained dark grey black weakly silicified (non-K)	0.0					Amount of of propylitic alteration has decreased. Now local weak hematite and epidote alteration. The amount of veinlets and fractures has decreased to about 2% of the unit.	225064	0.002	0.000
108.60	110.60		0.0		ZCALV	30	1		225065	0.001	0.000
110.60	112.60	Very fine to coarse grained grey weakly propyllitic	0.0					Transitions from a siliceous unit into a moderately propylitic altered unit simliar to the above propylitic unit. Randomly oriented veinlets filled with calcite and zeolite increased to 4%.	225066	0.001	0.000

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-05

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)			Comments	Sample#	Cu %	Au ppm
112.60	114.60	Very fine to coarse grained grey weakly silicified (non-K)	0.0					The unit has decreased the amount of propylitic alteration to local epidote and hematite alteration with an increase in silicification similar to the above silicified	225067	0.001	0.000
114.60	116.60		0.0						225068	0.002	0.000
116.60	118.60				CALZH	20	5		225069	0.002	0.000
118.60	120.60							The volcanic fragments and intrusive fragments has remained the same in size from 1cm to block size and amount (5-7%).	225070	0.003	0.000
120.60	122.60	Very fine to coarse grained grey black weakly silicified (non-K)							225071	0.002	0.000
122.60	124.60				CALZV	20	2	The amount of epidote and hematite local alteration has decreased.	225072	0.003	0.000
124.60	126.60	Very fine to coarse grained grey black moderately silicified (non-K)						Almost no hematite alteration, local epidote alteration is still present.	225073	0.003	0.000
126.60	128.60								225074	0.002	0.000
128.60	130.60							Broken portions due to fractures (4% of section) with zeolite and calcite infill.	225075	0.001	0.000
130.60	132.60								225076	0.002	0.000
132.60	134.60							Amount of fractures has decreased.	225077	0.003	0.000
134.60	136.60		0.0						225078	0.002	0.000
136.60	138.60								225079	0.003	0.000
138.60	140.60				FLT	35	4	A fault located from 140.53 to 140.50 with a lower and upper contact of 35 degrees is filled with gouge, hematite, calcite and zeolite.	225080	0.002	0.000
140.60	142.60	Very fine to coarse grained grey weakly silicified (non-K)						The amount of local epidote and hematite alteration has increased. Epidote more that hematite.	225081	0.002	0.000
142.60	144.60	Very fine to coarse grained grey weakly epidote altered						The amount of siliceous alteration has decreased.	225082	0.007	0.000
144.60	146.60	Very fine to coarse grained grey green weakly propyllitic	0.1					The amount of epidote and hematite alteration has increased. Pyrite dissemited and located in a vein with epidote and chlorite.	225084	0.001	0.000
146.60	148.60		0.0					Trace of disseminated pyrite. Siliceous patches.	225085	0.001	0.000

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-05

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)			Comments	Sample#	Cu %	Au ppm
148.60	150.60	Very fine to coarse grained grey weakly silicified (non-K)						Amount of siliceous alteration has increased with the amount of epidote and hematite alteration being local and decreased as before.	225086	0.002	0.000
150.60	152.60	Very fine to coarse grained grey weakly phyllic						Patchy siliceous and seicitic unit and local epidote and hematite alteration. The section contains some clast unsopported sections with an aphanitic grey matrix.	225087	0.003	0.000
152.60	154.60								225088	0.003	0.000
154.60	156.60	Very fine to coarse grained grey weakly propyllitic	0.1		QPYV	45	3	Pyrite is located in a quartz vein and disseminated. Subordinate silicification.	225089	0.002	0.000
156.60	158.60	Very fine to coarse grained green weakly propyllitic						Locally silicified.	225090	0.004	0.000
158.60	160.60	Very fine to coarse grained grey black moderately silicified (non-K)						The amount of epidote alteration has decreased located mainly around volcanic clasts. The amount of volcanic clasts has increased to about 7-10% of the section.	225091	0.001	0.000
160.60	162.60		0.1					Propylitic alteration is found locally. Trace of pyrite found disseminated and locally around altered volcanic	225092	0.002	0.000
162.60	164.60		0.0					Trace of disseminated pyrite.	225093	0.001	0.000
164.60	166.60	Very fine to coarse grained grey green moderately silicified (non-K)						Weak epidote alteration has increased a little.	225094	0.001	0.000
166.60	168.60	Very fine to coarse grained grey moderately silicified (non-K)	0.1					Trace of pyrite is located disseminated mainly near epidote alteration. Magnetic material has increased.	225095	0.002	0.000
168.60	170.60	Very fine to coarse grained pink weakly propyllitic	0.0					Silicification has decreased with an increase in the amount of epidote and hematite alteration. Trace of disseminated pyrite.	225096	0.001	0.008
170.60	172.60	Very fine to coarse grained dark grey black moderately silicified	0.0					Silicification has increased with the epidote and hematite alteration being decreased to local areas.	225097	0.001	0.000
172.60	174.60	Very fine to coarse grained grey moderately silicified (non-K)	0.0					Weak epidote and hematite alteration near fractures and around volcanic clasts.	225098	0.001	0.005
174.60	176.60	Very fine to coarse grained grey black moderately silicified (non-K)	0.1					Pyrite is located in trace amount of quartz veins and disseminated and within volcanic clasts.	225099	0.001	0.012
176.60	178.60	Very fine to coarse grained dark grey black moderately silicified						Trace amount of epidote and hematite alteration mainly associated with volcanic clasts.	225100	0.001	0.000
178.60	180.60								225101	0.001	0.000

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-05

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)			Comments	Sample#	Cu %	Au ppm
180.60	182.60	Very fine to coarse grained dark grey black moderately silicified			QCALV	45	3		225102	0.002	0.000
182.60	184.60	Very fine to coarse grained grey black moderately silicified (non-K)	0.0					Trace of disseminated pyrite.	225104	0.003	0.000
184.60	186.60		0.0		CALEZ	30	4	Increased hematite and epidote alteration near the end of the sample interval. Increased aphanitic groundmass near the end of the sample interval.	225105	0.001	0.000
186.60	188.60		0.1		QPYV	25	2	Pyrite disseminated trhoughout and found in one quartz vein. Aphanitic groundmass decreases towards the end of the sample interval.	225106	0.003	0.000
188.60	190.60		0.0					Weak local epidote and hematite alteration. Healed fractures filled with calcite, zeolite and quartz.	225107	0.003	0.000
190.60	192.60								225108	0.002	0.000
192.60	194.60		0.0		CALAN	15	4		225109	0.005	0.000
194.60	196.60	Very fine to coarse grained grey moderately silicified (non-K)	0.0						225110	0.003	0.000
196.60	198.60		0.0						225111	0.002	0.000
198.60	200.60		0.0						225112	0.003	0.000
200.60	202.00	Very fine to coarse grained grey weakly propyllitic	0.3					Begin to see Fine grained basaltic fragments that contain 3-4% 2-3mm sub-rounded olivines. Porpyllitic alteration becomes pervasive, but remains weak. Olivie crystals visible withing the matrix. Pyrite is very fine, trace but well disseminated. Speck of	225113	0.002	0.000
202.00	204.00		0.3						225114	0.002	0.000
204.00	206.00		0.3						225115	0.003	0.000
206.00	208.00		0.3					2-3% distinct olivine crystals present withing the matrix.	225116	0.002	0.000
208.00	210.00		0.3						225117	0.002	0.000
210.00	212.00		0.3						225118	0.002	0.000
212.00	214.00		0.3						225119	0.003	0.000
214.00	216.00		0.3					BFP fragmnets present.	225120	0.003	0.000
216.00	218.00		0.3					Large clasts start to become more abundant, up to	225121	0.003	0.000

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-05

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins	(°tca-%)	Comments	Sample#	Cu %	Au ppm
218.00	220.00	Very fine to coarse grained grey weakly propyllitic	0.3					225122	0.003	0.000
220.00	222.00		0.3					225123	0.003	0.000
222.00	224.00		0.3				Approx 2 feet of lost core due to driller error. Reduce to BQ (BTW) core.	225124	0.002	0.000
224.00	226.00		0.3					225125	0.004	0.020
226.00	228.00		0.3					225126	0.002	0.000
228.00	230.00		0.3					225128	0.003	0.005
230.00	232.00		0.3					225129	0.004	0.009
232.00	234.00		0.3					225130	0.006	0.008
234.00	236.00		0.3					225131	0.002	0.000
236.00	238.00		0.3					225132	0.002	0.006
238.00	240.00		0.3					225133	0.003	0.000
240.00	241.80		0.3					225134	0.002	0.006
241.8	247.7	**SHEARED HETEROLITHIC FAULT ZONE**								
241.80	243.00	Very fine to coarse grained maroon green weakly hematitic	0.5		FLT	35	Fault zone. Sharp upper contact at 35 º to core axis, sharp lower contact at 20 º to core axis. Unit is fairly competent, although very clay rich and foliated at 30-35 º to core axis. Green chlorite, maroon hematite throughout. Black chlorite on discreet slip planes, also showing slickensides. Quartz-carbonate-hematite veining, 2-4% throughout, typically folded. Trace, disseminated pyrite. Quartz and some volcanic clasts are present, are the same as those present in the surrounding heterolithic unit.	225135	0.001	0.000
243.00	245.00		0.5					225136	0.002	0.006
245.00	247.00		0.5					225137	0.003	0.006
247.00	247.70		0.5		FLT	20		225138	0.001	0.006
247.7	277	**FRAGMENTAL HETEROLITHIC CRYSTAL-LITHIC TUFF**								

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-05

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
247.70	249.00	Very fine to coarse grained grey moderately propyllitic	0.5			Dominantly coarse grained crystals with approximately 3% lithic fragments. Crystals are dominantly subhedral to euhedral feldpsar as less frequent mafics and quartz; set in a grey to dark grey, aphanitic groundmass. Lithics comprise angular to rounded aphanitic to fine grained andesite and rare intrusive fragments and porphyritic feldspar volcanic fragments. There is a trace of magnetism due to fine grained magnetite in places. Rare quartz eyes present. Zeolite and carbonate veinlets running in various orientations. Epidote and hematite veins also in various directions. Hematite alteration is rarely present in veins and on clasts. Fine disseminate pyrite throughout. Porpyllitic alteration is pervaisve, but mild, and more intense than the alteration in the heterolithic unit above the fault.	225139	0.004	0.000
249.00	251.00		0.5				225140	0.003	0.005
251.00	253.00		0.5				225141	0.004	0.007
253.00	255.00		0.5				225142	0.003	0.000
255.00	257.00		0.5				225143	0.003	0.005
257.00	259.00		0.5				225144	0.001	0.005
259.00	261.00		0.5				225145	0.006	0.008
261.00	263.00		0.5				225146	0.002	0.000
263.00	265.00		0.5				225147	0.004	0.007
265.00	267.00		0.5				225148	0.005	0.011
267.00	269.00		0.5				225149	0.004	0.005
269.00	271.00		0.5				225150	0.003	0.006
271.00	273.00		0.5			Intense patchy epidote alteration, with associated epidote veining.	225151	0.005	0.010
273.00	275.00		0.5				225153	0.002	0.019
275.00	277.00		0.5				225154	0.002	0.005
277	280	**FRAGMENTAL HETEROLITHIC FAULT ZONE**							

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-05

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins	(°tca-%)	Comments	Sample#	Cu %	Au ppm
277.00	279.00	Very fine to coarse grained grey moderately propyllitic	0.5		FLT	30	Fault zone within the heterolithic tuff. Fault planes run at 30 º to core axis with 1-3cm of hematite stained fault gouge and black chlorite veinlets. 2-3% fine pyrite within the fault gouge. Between fault planes the unit is brecciated and broken, with carbonate fill in the fractures. No zeolite veining present. Pervaisve hematite alteration is absent outside of the fault planes. Moderate propyllitic alteration remains. Slickensides indicate vertical movement on the structure (run parall to core axis).	225155	0.001	0.005
279.00	280.00		0.5					225156	0.001	0.006
280	442.1	**FRAGMENTAL HETEROLITHIC CRYSTAL-LITHIC TUFF**								
280.00	282.00	Very fine to coarse grained grey moderately propyllitic	0.5				Dominantly coarse grained crystals with approximately 3% lithic fragments. Crystals are dominantly subhedral to euhedral feldpsar as less frequent mafics and quartz; set in a grey to dark grey, aphanitic groundmass. Lithics comprise angular to rounded aphanitic to fine grained andesite and rare intrusive fragments and porphyritic feldspar volcanic fragments. There is a trace of magnetism due to fine grained magnetite in places. Rare quartz eyes present. Zeolite and carbonate veinlets running in various orientations. Epidote and hematite veins also in various directions. Hematite alteration is weakly pervaisive. Fine disseminate pyrite throughout. Porpyllitic alteration is moderate and pervaisve. Carbonte veinlets being to appear, no particular orientation.	225157	0.002	0.000
282.00	284.00		0.5					225158	0.001	0.000
284.00	286.00		0.5					225159	0.007	0.000
286.00	288.00		0.5					225160	0.001	0.000
288.00	290.00		0.5					225161	0.002	0.000
290.00	292.00		0.5					225162	0.004	0.000
292.00	294.00		0.5					225163	0.001	0.000
294.00	296.00		0.5					225164	0.001	0.000

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-05

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)			Comments	Sample#	Cu %	Au ppm
296.00	298.00	Very fine to coarse grained grey moderately propyllitic	0.5						225165	0.001	0.000
298.00	300.00		0.5						225166	0.002	0.000
300.00	302.00		0.5						225167	0.003	0.000
302.00	304.00		0.5						225168	0.003	0.000
304.00	306.00		0.5						225169	0.002	0.000
306.00	308.00		0.5						225170	0.002	0.000
308.00	310.00	Very fine to coarse grained black weakly propyllitic	0.0						225171	0.002	0.000
310.00	312.00		0.0					Patchy siliceous alteration.	225172	0.002	0.000
312.00	314.00	Very fine to coarse grained black moderately propyllitic	0.0						225173	0.002	0.000
314.00	316.00		0.1						225174	0.002	0.000
316.00	318.00	Very fine to coarse grained grey moderately propyllitic	0.0						225175	0.002	0.000
318.00	320.00	Very fine to coarse grained black moderately propyllitic	0.0		ZCALF	35	2		225176	0.002	0.000
320.00	322.00	Very fine to coarse grained black pink weakly propyllitic	0.0					Decrease in the amount of epidote alteration.	225178	0.002	0.006
322.00	324.00	Very fine to coarse grained black grey moderately silicified (non-K)	0.0		CALV	50	3	Trace of epidote and hematite alteration	225179	0.003	0.000
324.00	326.00	Very fine to coarse grained black weakly propyllitic	0.0		CALZS	25	7		225180	0.002	0.011
326.00	328.00	Very fine to coarse grained pink moderately propyllitic	0.0						225181	0.002	0.000
328.00	330.00	Very fine to coarse grained black moderately propyllitic	0.0		CALZV	20	3	Increase in the amount of epidote alteration.	225182	0.002	0.006
330.00	332.00	Very fine to coarse grained pink moderately propyllitic	0.0					Contains randomly oriented veinlets and healed fractures filled with calcite, zeolite and minor quartz (about 5% of the sample interval).	225183	0.002	0.000
332.00	334.00		0.0						225184	0.003	0.009
334.00	336.00				ZCALV	30	3		225185	0.003	0.000

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-05

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)			Comments	Sample#	Cu %	Au ppm
336.00	338.00	Very fine to coarse grained grey moderately propyllitic	0.0						225186	0.002	0.007
338.00	340.00								225187	0.003	0.009
340.00	342.00								225188	0.002	0.007
342.00	344.00	Very fine to coarse grained pink moderately propyllitic	0.0					Contains randomly oriented fractures and veinlets filled with calcite, zeolite, clay and quartz (about 8% of sample interval).	225189	0.001	0.000
344.00	346.00		0.0						225190	0.002	0.000
346.00	348.00	Very fine to coarse grained black moderately propyllitic							225191	0.001	0.005
348.00	350.00	Very fine to coarse grained pink moderately propyllitic	0.1					Randomly oriented veins and veinlets filled with calcite and epidote.	225192	0.001	0.008
350.00	352.00		0.0		SHR	40	3		225193	0.001	0.007
352.00	354.00		0.0		SHR	45	2	Becoming more siliceous.	225194	0.001	0.007
354.00	356.00		0.0						225195	0.004	0.009
356.00	358.00	Very fine to coarse grained black moderately silicified (non-K)	0.0					Trace of epidote and hematite alteration.	225196	0.002	0.005
358.00	360.00		0.0						225197	0.004	0.014
360.00	362.00								225198	0.004	0.008
362.00	364.00	Very fine to coarse grained pink moderately propyllitic						Hematite and epidote alteration has increased, still siliceous.	225199	0.004	0.000
364.00	366.00	Very fine to coarse grained black weakly propyllitic	0.0						225200	0.003	0.008
366.00	368.00		0.1					Hematite and epidote alteration has decreased slightly, stll siliceous.	225201	0.003	0.009
368.00	370.00		0.0		CALZV	40	4		225203	0.001	0.008
370.00	372.00							Randomly oriented healed fractures filled with calcite and zeolite. The amount of epidote and hematite alteration has decreased to a trace.	225204	0.008	0.006
372.00	374.00		0.0		CALZV	20	8		225205	0.004	0.007
374.00	376.00		0.0						225206	0.002	0.006

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-05

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)			Comments	Sample#	Cu %	Au ppm
376.00	378.00	Very fine to coarse grained black weakly propyllitic	0.0						225207	0.001	0.008
378.00	380.00	Very fine to coarse grained pink weakly propyllitic	0.0						225208	0.002	0.007
380.00	382.00	Very fine to coarse grained moderately propyllitic	0.0						225209	0.001	0.000
382.00	384.00	Very fine to coarse grained pink weakly propyllitic							225210	0.000	0.005
384.00	386.00				ZCALV	45	2		225211	0.003	0.000
386.00	388.00				ZCALA	40	5		225212	0.001	0.000
388.00	390.00							Randomly oriented healed fractures and veinlets filled with zeolite and calcite. Amount of siliceous alteration has decreased.	225213	0.002	0.005
390.00	392.00	Very fine to coarse grained black weakly propyllitic							225214	0.002	0.000
392.00	394.00	Very fine to coarse grained black weakly silicified (non-K)			ZCALV	35	2	Trace amount of epidote and hematite alteration mainly around volcanic clasts.	225215	0.002	0.005
394.00	396.00	Very fine to coarse grained pink weakly propyllitic						Amount of hematite alteration has increased with local epidote alteration around volcanic clasts. Still siliceous.	225216	0.002	0.000
396.00	398.00	Very fine to coarse grained black weakly silicified (non-K)						Trace amount of epidote and hematite alteration mainly around volcanic clasts.	225217	0.001	0.005
398.00	400.00								225218	0.002	0.000
400.00	402.00	Very fine to coarse grained pink weakly propyllitic						Amount of hematite alteration has increased with the epidote alteration mainly around the volcanic clasts. Siliceous alteration has decreased.	225219	0.001	0.005
402.00	404.00	Very fine to coarse grained pink moderately propyllitic							225220	0.001	0.000
404.00	406.00	Very fine to coarse grained pink weakly propyllitic						Randomly oriented healed fractures filled zeolite and calcite.	225221	0.002	0.000
406.00	408.00	Very fine to coarse grained weakly propyllitic			CALV	25	5	Hematite alteration has decreased.	225222	0.001	0.000
408.00	410.00	Very fine to coarse grained black weakly propyllitic							225223	0.001	0.000

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-05

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)			Comments	Sample#	Cu %	Au ppm
410.00	412.00	Very fine to coarse grained grey pink weakly propyllitic						Randomly oriented stockwork veining filled with calcite, zeolite and minor epidote.	225224	0.001	0.000
412.00	414.00	Very fine to coarse grained grey weakly propyllitic			QV	30	3	Siliceous alteration increasing towards the end of the sample interval.	225225	0.001	0.000
414.00	416.00	Very fine to coarse grained grey weakly silicified (non-K)						Epidote and hematite alteration has decreased significantly, mainly around volcanic clasts, siliceous alteration has increased.	225226	0.002	0.000
416.00	418.00	Very fine to coarse grained grey moderately silicified (non-K)							225227	0.001	0.000
418.00	420.00								225229	0.002	0.000
420.00	422.00							Local hematite alteration increased.	225230	0.002	0.000
422.00	424.00								225231	0.002	0.000
424.00	426.00								225232	0.002	0.000
426.00	428.00							Hematite alteration decreased.	225233	0.002	0.000
428.00	430.00								225234	0.002	0.000
430.00	432.00								225235	0.002	0.000
432.00	434.00								225236	0.002	0.000
434.00	436.00								225237	0.002	0.000
436.00	438.00								225238	0.003	0.000
438.00	440.00								225239	0.002	0.000
440.00	442.10							EOH	225240	0.002	0.000

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-07

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
0	3	**CASING**							
0.00	3.00					Casing/Overburden.			
3	71.2	**FRAGMENTAL HETEROLITHIC AGLOMERATE**							
3.00	5.00	Fine to coarse grained grey green weakly propyllitic	0.5			Massive volcanoclastic unit. Small structures throughout, average 25 º to core axis with slickensides perpendicular to core axis indicating lateral movement. Structures often associated with carbonate and black chlorite veining. Alteration is very weak propyllitic, with patchy silicification and pervasive weak carbonate. Composed of 75% clasts ranging from rounded to angular, 5mm to 30cm. Matrix is fine grained, tuffaceous with local magnetite and 1mm grey quartz eyes. Sections throughout of up to 1m fine to coarse grained, homogeneous, tuffaceous material with sharp but undulatory contacts to the surrounding agglomerate. Possibly indicating grading within the unit. Clast composition is BFP, various porphyritic volcanics, amygdaloidal volcanics, ash beds, tuffaceous volcanics (typically with a welded texture) and fine grained basalts. One clast of banded iron formation within the structure at 77m. Unit colour varies from grey, white, maroon, green. Unit is magnetic. Local insitu brecciation with carbonate matrix. 1-2% late stage quartz carbonate veining at 25-30 º to core axis. 1% bright pink zeolite veining. 0.5% fine disseminated pyrite throughout, up to 1% locally where the pyrite is concentrated within the clast.	227220	0.022	0.000
5.00	7.00		0.5			Abundant bright pink zeolite veining.	227221	0.019	0.000
7.00	9.00		0.5			Small structure at 40 º to core axis with 7cm of clay rich fault gouge mized with rounded wall rock pebbles.	227222	0.010	0.009
9.00	11.00		0.5			Structure at 20 º to core axis with slickensides, abundant insitu brecciation with carbonate fracture fill.	227223	0.007	0.014
11.00	13.00		0.5				227224	0.016	0.020
13.00	15.00		0.5				227225	0.008	0.019
15.00	17.00	Fine to coarse grained brown grey weakly propyllitic	0.5			Abundant tuffaceous volcanic clasts, beige in colour with a mottled/welded texture.	227226	0.001	0.000

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-07

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
17.00	19.00	Fine to coarse grained white brown weakly propyllitic	0.5			Abundant tuffaceous volcanic clasts, beige in colour with a mottled/welded texture. Interval is bleached.	227227	0.001	0.000
19.00	21.00	Fine to coarse grained grey green weakly propyllitic	0.5			Very broken interval.	227228	0.011	0.013
21.00	23.00		0.5			Patchy epidote, up to 1cm pods. 1-2%.	227229	0.015	0.012
23.00	25.00		0.5				227230	0.013	0.011
25.00	27.00		0.5			Feldsaprs within the BFP clasts are epidote altered. Two small structures at 25 º to core axis.	227231	0.005	0.007
27.00	29.00		0.5			60% fine grained, homogeneous, tuffaceous material, 1-2% 1mm grey quartz eyes. Same as the matrix throughout the agglomerate.	227232	0.003	0.000
29.00	31.00		0.5				227233	0.008	0.000
31.00	33.00		0.5			Very broken, abundant small faults throughout with slickensides visible on the broken surfaces. Feldspars within the BFP are epidote altered. Local insitu brecciation has epidote fracture fill.	227234	0.013	0.010
33.00	35.00		1.0			Equigranular, 10-15mm rounded clasts, most of which are epidote Andesiteor hematite altered. Pyrite content increases.	227235	0.018	0.013
35.00	37.00		1.0			Equigranular, 10-15mm rounded clasts, most of which are epidote Andesiteor hematite altered. Pyrite content increases. One, 10cm, very bleached and altered AAP clast.	227236	0.006	0.000
37.00	39.00		1.0			Equigranular, 10-15mm rounded clasts, most of which are epidote Andesiteor hematite altered. Pyrite content increases. Appearance of amygdaloidal BFP clasts.	227237	0.006	0.000
39.00	41.00		0.5			Structure at 20 º to core axis with 1cm of clay rich fault gouge.	227238	0.009	0.008
41.00	43.00		0.5			50% fine grained, homogeneous, tuffaceous material, 1-2% 1mm grey quartz eyes. Same as the matrix throughout the agglomerate. Local hematite staining.	227239	0.005	0.000
43.00	45.00		0.5			Abundant felsic clasts.	227240	0.005	0.000
45.00	47.00		0.5				227241	0.002	0.000

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-07

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
47.00	49.00	Fine to coarse grained grey green weakly propyllitic	0.5			Patches of bright apple green epidote alteration.	227242	0.009	0.010
49.00	51.00		1.0			40% fine grained, homogeneous, tuffaceous material, 1-2% 1mm grey quartz eyes. Same as the matrix throughout the agglomerate. 0.5-1% tiny off-white sericite specks overprinting the interval. Coarse grained pyrite throughout.	227243	0.008	0.000
51.00	53.00		0.5			Clasts that appear to be clasts of an agglomerate with a felsic matrix.	227244	0.008	0.010
53.00	55.00		0.5				227246	0.012	0.015
55.00	57.00		0.5				227247	0.007	0.010
57.00	59.00		0.5			60% fine grained, homogeneous, tuffaceous material, 1-2% 1mm grey quartz eyes. Same as the matrix throughout the agglomerate. Appearance of quartz-carbonte veining at 50 º to core axis with needles of hematite perpendicular to the vein orientation. Typically the veins carry 1% pyrite.	227248	0.017	0.168
59.00	61.00		0.5			Abundant hematite altered clasts. BFP clasts with both hematite and epidote altered feldspars.	227249	0.011	0.006
61.00	63.00		0.5				227250	0.015	0.017
63.00	65.00		1.0			Hairline quartz-carbonte veining with 1% pyrite at 50 º to core axis.	227251	0.006	0.519
65.00	67.00		1.0			Three hairline quartz-carbonate veins, 50 º to core axis with trace anhydrite, carrying up to 2% pyrite.	227252	0.002	0.033
67.00	69.00		0.5				227253	0.010	0.015
69.00	71.20		0.5			Lower 70 cm of the interval is very brecciated with massive carbonte matrix and fracture fill. Pervasive light green chlorite alteration.	227254	0.006	0.013
71.2	73.2	**MASSIVE GRANODIORITE DYKE**							

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-07

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)		Comments	Sample#	Cu %	Au ppm
	71.20	73.20 Fine to medium grained pink weakly propyllitic	0.0				Post mineral granodiorite dyke. Unit is intensely hematite altered giving it a strong pink colour. Very brken upper and lower contacts. 1-2% 2mm quartz grains, 3-4% 2mm off-white feldspars with no particular orientation. Matrix is fine grained and massive. Local chlorite alteration.	227255	0.000	0.000
73.2	77.8	**SHEARED HETEROLITHIC FAULT ZONE**								
	73.20	75.00 Fine to coarse grained grey green weakly propyllitic	1.0		FLT	25	Fault zone within the heterolithic agglomerate unit. Very broken. Structure runs at 25 º to core axis. Entire unit is clay rich with fault gouge throught. Often there are rounded wall rock units embedded in the fault gouge. Upper 1m is brecciated with carbonate matrix and fracture fill. Veins (healed sections?) of massive mint green talc material. Fragments of the overlying dyke and clasts of fragmented banded iron formation are present. Broken upper and lower contacts. Firn disseminated pyrite throughout.	227256	0.001	0.017
	75.00	77.00	1.0					227257	0.002	0.047
	77.00	77.80	1.0					227258	0.002	0.015
77.8	112	**FRAGMENTAL HETEROLITHIC AGLOMERATE**								

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-07

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
77.80	79.00	Fine to coarse grained grey green weakly propyllitic	0.5			Massive volcanoclastic unit. Small structures throughout, average 25 º to core axis with slickensides perpendicular to core axis indicating lateral movement. Structures often associated with carbonate and black chlorite veining. Alteration is very weak propyllitic, with patchy silicification and pervasive weak carbonate. Composed of 75% clasts ranging from rounded to angular, 5mm to 30cm. Matrix is fine grained, tuffaceous with local magnetite and 1mm grey quartz eyes. Sections throughout of up to 1m fine to coarse grained, homogeneous, tuffaceous material with sharp but undulatory contacts to the surrounding agglomerate. Possibly indicating grading within the unit. Clast composition is BFP, various porphyritic volcanics, amygdaloidal volcanics, ash beds, tuffaceous volcanics (typically with a welded texture) and fine grained basalts. Unit colour varies from grey, white, maroon, green. Unit is magnetic. Local insitu brecciation with carbonate matrix. 1-2% late stage quartz carbonate veining at 25-30 º to core axis. 1% bright pink zeolite veining. 0.5% fine disseminated pyrite throughout, up to 1% locally where the pyrite is	227259	0.000	0.005
79.00	81.00		0.5				227260	0.000	0.000
81.00	83.00		0.1			Very fine grained, dark, crystal tuff with 1-2% 1mm quartz eyes, 2-3% 2mm white feldspars. Patchy chlorite alteration. Occasional clast, but generally homogeneous. No apparent mineralization.	227261	0.000	0.000
83.00	85.00		0.1				227262	0.000	0.000
85.00	87.00		0.5			The next 15m of the unit are very soft, with a soapy-talc like feel/texture. Clast and matrix composition remain the same.	227263	0.003	0.107
87.00	89.00		0.5				227264	0.001	0.005
89.00	91.00		0.5				227265	0.001	0.000
91.00	93.00		0.5				227266	0.001	0.000
93.00	95.00		0.5				227267	0.000	0.000
95.00	97.00		0.5				227268	0.004	0.007

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-07

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
97.00	99.00	Fine to coarse grained grey green weakly propyllitic	0.5			Anhydrite appears as spots within the quartz-carbonate veinlets.	227269	0.002	0.000
99.00	101.00		0.5				227271	0.001	0.006
101.00	103.00		0.5				227272	0.001	0.000
103.00	105.00		0.5			Healed structure with rounded wall rock fragments embedded in clays and carbonate.	227273	0.004	0.013
105.00	107.00		0.5			Small structure at 15 º to core axis.	227274	0.006	0.016
107.00	109.00		0.5			Unit begins to take on a cherty, bleached appearance, clast abundance decreases.	227275	0.003	0.009
109.00	110.00		0.5			Healed fault zone over 1m. Mint green, massive talc material within clays, carbonte and wall rock fragments.	227276	0.004	0.000
110.00	111.00		0.1				227277	0.011	0.006
111.00	112.00		0.1			Structure at 15 º to core axis with 1cm of fault gouge.	227278	0.006	0.007
112	115.6	**MASSIVE GRANODIORITE DYKE**							
112.00	114.00	Fine to coarse grained brown green	0.3			Altered Soverign dyke/block. Unsure of which, tectonic setting is mangled. 1-2% 2mm grey quartz eyes, 3-4% 2-3mm feldspars, 1-2% primary magnetite specks, all very altered to green talc/chlorite, preferentially within the feldspars. Matrix is very fine grained, altered to a brown colour. Distinct upper contact at the base of the structure, sharp lower contact at 20 º to core axis. Occasional black chlorite stringers running 15 º to core axis. Overall unit is very homogeneous and featureless. Trace pyrite specks throughout.	227279	0.001	0.000
114.00	115.60		0.3				227280	0.001	0.005
115.6	148.2	**FRAGMENTAL HETEROLITHIC FAULT ZONE**							

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-07

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
115.60	117.00	Fine to coarse grained green grey weakly propyllitic	0.7			Fault zone through a heterolithic agglomerate unit. Fault planes run at 20-25 º to core axis with up to 2cm of clay/chlorite rich fault gouge. Slickensides, where present, indicate dip slip movement, with an emphasis on the lateral direction. Alteration is weakly propyllits, but varies to silicified and talc altered. Blocks of BFP, amygdaloidal volcanics, quartz, anhydrite, felsic tuffs and fien grained basalts are present in varying sizes, typiclaly rounded. 4-5% quartz carbonate veining throughout. Locally the unit is foliated to 50-55 deg. Overall texture is very distorted. Fine disseminated pyrite throughout, concentrated in ares of clay rich fault gouge.	227281	0.012	0.013
117.00	119.00		0.7			Very incompetent interval, 40% fault gouge with hematite staining.	227282	0.013	0.011
119.00	121.00		0.7			Very distorted and altered unit. Veining shows small folds and offsets.	227283	0.024	0.009
121.00	123.00		0.7			Upper 1m of the interval is a massive, day grey, very fine grained, block of what appears to be massive basalt. Lower 1m of interval is well foliated at 50-55 º	227284	0.005	0.008
123.00	125.00		1.0			Bleached appearance, increase in the disseminated pyrite content.	227285	0.021	0.066
125.00	127.00		1.0				227286	0.054	0.012
127.00	129.00		0.7			127-139m - Increase in the comptency of the unit. Interval is made up of various blocks of BFP with differing alteration from hematite to chlorite to epidote to quartz. Some blocks are amygdaloidal BFP. Feldspars are consistent in size, 2-6mm. Quartz carbonate veining carries trace anhydrite.	227287	0.005	0.007
129.00	131.00		0.7				227288	0.003	0.007
131.00	133.00		0.7				227289	0.002	0.007
133.00	135.00		0.7				227290	0.022	0.008
135.00	137.00		0.7				227291	0.021	0.008
137.00	139.00		0.7				227292	0.009	0.007

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-07

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
139.00	141.00	Fine to coarse grained green grey weakly propyllitic	0.7			Unit becomes broken again. Very incompetent, up to 50% fault gouge. Distinct fault planes at 20 º to core axis with 1cm of olive green foult gouge. Hematite altered clasts present.	227293	0.012	0.000
141.00	143.00		0.7			Very incompetent, up to 50% fault gouge. Distinct fault planes at 20 º to core axis with 1cm of olive green foult gouge. Hematite altered clasts present.	227294	0.001	0.000
143.00	145.00		0.7			Unit becomes more competent, with a distorted, veined appearance.	227296	0.025	0.000
145.00	147.00		0.7			Abundant rounded quartz clasts up to 1cm.	227297	0.029	0.005
147.00	148.20		0.7			Upper 1m of the interval is a massive, dark grey, very fine grained, block of what appears to be massive basalt. Very veined.	227298	0.021	0.005
148.2	160	**FRAGMENTAL HETEROLITHIC AGLOMERATE**							
148.20	150.00	Fine to coarse grained green grey weakly propyllitic	0.7			Massive volcanoclastic unit. Small structures throughout, average 25 º to core axis with slickensides oblique to core axis indicating lateral movement. Structures often associated with carbonate and black chlorite veining. Alteration is very weak propyllitic, with patchy silicification and pervasive weak carbonate. Composed of 75% clasts ranging from rounded to angular, 5mm to 30cm. Matrix is fine grained, tuffaceous with local magnetite and 1mm grey quartz eyes. Clast composition is BFP, various porphyritic volcanics, amygdaloidal volcanics, ash beds, tuffaceous volcanics (typically with a welded texture) and fine grained basalts. Unit colour varies from grey, white, maroon, green. Unit is magnetic. 1-2% late stage quartz carbonate veining at 25-30 º to core axis. 0.5% fine disseminated pyrite throughout, up to 1% locally where the pyrite is concentrated within the clasts. Overall the unit has a tectonized appearance.	227299	0.002	0.008
150.00	152.00		0.7			Interval is bleached, with an abundance of felsic clasts.	227300	0.002	0.029
152.00	154.00		0.7			Poddy coarse grained pyrite associated with hematite altered clasts.	227301	0.001	0.007
154.00	156.00		0.7				227302	0.004	0.012

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-07

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
156.00	158.00	Fine to coarse grained green grey weakly propyllitic	0.7			Local to the interval, but pervaisve hematite alteration.	227303	0.001	0.000
158.00	160.00		0.7			Patchy epidote alteration.	227304	0.009	0.006
160	171.3	**FRAGMENTAL HETEROLITHIC FAULT ZONE**							
160.00	162.00	Fine to coarse grained green grey weakly propyllitic	1.0			Fault zone through a heterolithic agglomerate unit. Broken upper and lower contacts. Fault planes run at 20-25 º to core axis with minimal fault gouge, typically quartz-carbonate veining associated. Slickenside are present, but only on broken faces, nothing insitu. Alteration is weakly propyllits, but varies to silicified and talc altered. Clasts of amygdaloidal volcanics, quartz, anhydrite, felsic tuffs and fien grained basalts are present in varying sizes, always rounded, often embedded in a fault plane. 2-3% quartz carbonate veining throughout. Locally the unit is foliated at 30-40 deg. Overall texture is very distorted. Hematite staining occurs in some of the more structurally destroyed areas. Local brecciation with quartz-carbonate matrix. Fine disseminated pyrite throughout, concentrated in ares of clay rich fault	227305	0.002	0.000
162.00	164.00		1.0			Missing core within interval.	227306	0.001	0.015
164.00	166.00		1.0				227307	0.015	0.010
166.00	168.00		1.0				227308	0.006	0.006
168.00	171.30		1.0				227309	0.002	0.006
171.3	203.7	**FRAGMENTAL HETEROLITHIC AGLOMERATE**							

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-07

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
171.30	173.00	Fine to coarse grained dark green grey moderately propyllitic	0.7			Missing core within interval.	227310	0.002	0.018
						Massive volcanoclastic unit. Small structures throughout, average 25 º to core axis with slickensides oblique to core axis. Structures often associated with carbonate and black chlorite veining. Alteration is moderate propyllitic, with patchy silicification and pervasive weak carbonate. Silicified sections have a very cherty appearance. Composed of 75% clasts ranging from rounded to angular, 5mm to 30cm. Matrix is fine grained, tuffaceous with local magnetite and 1mm grey quartz eyes. Clast composition is BFP, various porphyritic volcanics, amygdaloidal volcanics, ash beds, tuffaceous volcanics (typically with a welded texture) and fine grained basalts. Unit colour varies from grey, white, maroon, green. Unit is magnetic. 1-2% late stage quartz carbonate veining at 25-30 º to core axis. 0.7% fine disseminated pyrite throughout, up to 3% locally where the pyrite is concentrated within clasts or silicified sections.			
173.00	176.00		0.7				227311	0.001	0.013
176.00	178.00		0.7				227312	0.014	0.007
178.00	180.00		1.5			Increase in fine disseminated pyrite. Vuggy carbonate veining at 30 deg.	227313	0.010	0.006
180.00	182.00		0.7			Structures, 5cm, at 20 deg.	227314	0.014	0.006
182.00	184.00		0.7			Vuggy carbonate veining, very silicified and chlorite altered BFP clasts.	227315	0.013	0.000
184.00	186.00		0.7			Very broken, structures at 35 deg with 1cm of fault gouge. 1-2% quartz carbonte veining at random orientations.	227316	0.010	0.010
186.00	188.00		0.7			Local brecciation with quartz-carbonte matrix.	227317	0.001	0.006
188.00	190.00		0.7			50cm, well preserved structure with slickensides, very undulatory movement plane.	227318	0.002	0.007
190.00	192.00		0.7			Appearance of white, quartz-bearing, angular ash clasts.	227319	0.005	0.000

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-07

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
192.00	194.00	Fine to coarse grained dark green grey moderately propyllitic	0.7			Vuggy, hematite stained, quartz-carbonate veins at 55 deg to core axis. Very broken interval.	227321	0.003	0.000
194.00	196.00		0.7			Very broken interval.	227322	0.002	0.000
196.00	198.00		2.0			60 cm structure with 1cm of fault gouge. Structure runs parallel to the core axis. Surrounding material is very fine grained and full of fine disseminated pyrite.	227323	0.011	0.009
198.00	200.00		0.7			Pervasive hematite alteration.	227324	0.007	0.008
200.00	202.00		1.5			Increase in fine disseminated pyrite. Strucutre at 20 deg to core axis with 1.5cm of pyrite rich fault gouge.	227325	0.002	0.017
202.00	203.70		1.5			Increase in fine disseminated pyrite.	227326	0.000	0.005
203.7	210	**MASSIVE GRANODIORITE DYKE**							
203.70	205.00	Fine to coarse grained maroon moderately hematitic	0.1			Post mineral granodiorite dyke. Unit is intensely hematite altered giving it a strong pink/maroon colour. Very sharp upper contact at 35 deg to core axis, very broken fault bounded lower contact. 1-2% 2mm quartz grains, 3-4% 2mm off-white feldspars with no particular orientation. Matrix is fine grained and massive. Local chlorite alteration as parallel veinlets that give the appearance of bedding. No apparent mineralization.	227327	0.001	0.011
205.00	207.00		0.1			Upper 1m of the interval contains a structure at 20 deg. Clay rich fault gouge present along the fault boundaries. Fault is filled with light green-grey, talc material mixed in with clasts similar to those in the surrounding agglomerate unit. Minimal carbonate veining associated. Slickensides indicated mostly lateral movement.	227328	0.000	0.000
207.00	209.00		0.1				227329	0.000	0.000
209.00	210.00		0.1			Lower contact marked by a 10cm of rubble and fault gouge.	227330	0.000	0.005
210	315.6	**FRAGMENTAL HETEROLITHIC AGLOMERATE**							

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-07

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
210.00	212.00	Fine to coarse grained green grey moderately propyllitic	0.7			Massive volcanoclastic unit. Small structures throughout, average 25 º to core axis with slickensides oblique to core axis. Structures often associated with carbonate and black chlorite veining. Alteration is moderate propyllitic, with patchy silicification and local pervasive carbonate. Silicified sections have a very cherty appearance. Composed of 75% clasts ranging from rounded to angular, 5mm to 30cm. Matrix is fine grained, tuffaceous with local magnetite and 1mm grey quartz eyes. Clast composition is BFP, various porphyritic volcanics, amygdaloidal volcanics, ash beds, tuffaceous volcanics (typically with a welded texture) and fine grained basalts. Clasts are not always distinct, being overprinted by the alteration. Unit colour varies from grey, white, maroon, green. Unit is magnetic. 1-2% late stage quartz carbonate veining at 25-30 º to core axis. 0.7% fine disseminated pyrite throughout, up to 3% locally where the pyrite is concentrated within clasts or silicified sections.	227331	0.003	0.007
212.00	214.00		0.7	**0.5**		A single quartz carbonate vein at 55 deg to core axis carrying 2-3% chalcopyrite and 1-2% pyrite.	227332	0.005	0.013
214.00	216.00		0.7			Structure at 25 deg to core axis. 3-4cm of fault gouge with clasts from the wall rock embedded.	227333	0.003	0.014
216.00	218.00		0.7				227334	0.006	0.007
218.00	220.00		0.7				227335	0.001	0.012
220.00	222.00		0.7				227336	0.001	0.020
222.00	224.00		0.7			Bleached interval. Appearance of a healed fault zone. Abundant mint green talc-like material. Chlorite veinlets throughout.	227337	0.001	0.011
224.00	225.00		1.5			Bleached interval, increse in pyrite content. Local breccia texture. Pervasive hematite alteration.	227338	0.001	0.012
225.00	227.00		2.0			Decrease in clast abundance, increase in fine disseminated pyrite content. 85% grey, fine grained matrix, interval is much more homogeneous than the overlying agglomerate.	227339	0.001	0.009

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-07

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
227.00	229.00	Fine to coarse grained green grey moderately propyllitic	1.5			Clast abundance increases again, pyrite becomes	227340	0.002	0.010
229.00	231.00		1.5			Interval is bleached, overall beige colour. Pervasive carbonate alteration.	227341	0.002	0.008
231.00	233.00		1.5				227342	0.003	0.011
233.00	235.00		1.5			Interval is bleached, overall beige colour. Pervasive carbonate alteration. 7cm wide fault at 25 º to core axis with 2cm of fault gouge.	227343	0.002	0.006
235.00	237.00		2.0			4cm wide fault at 25 º to core axis with little fault gouge. Pods of pyrite up to 1cm. From here to the botom of the unit, fractures with carbonate fill become abundant. Increase in the chlorite and talc alteration.	227344	0.002	0.008
237.00	239.00		1.5			Very broken interval, blocks of fault gouge present. Quartz carbonate veining at 15 º to core axis.	227346	0.003	0.009
239.00	241.00		1.5			Unit becomes darker in colour, clasts become less distinguishable (but not less abundant). Quartz-carbonate-hematite-chlorite veining at 15 º to	227347	0.001	0.019
241.00	243.00		1.5				227348	0.001	0.013
243.00	245.00		1.5				227349	0.001	0.022
245.00	247.00		1.5			Begin to see anhydrite in the quartz-carbonate veining. Pervasive carbonate alteration.	227350	0.001	0.019
247.00	249.00		1.5			Interval is very broken up, fault planes contain slickensides and hematite staining. Pervasive carbonate alteration.	227351	0.000	0.005
249.00	251.00		1.5				227352	0.001	0.006
251.00	253.00		1.5				227353	0.001	0.005
253.00	255.00		1.5			Abundant small faults within this interval, 30-35 º to core axis, with up to 1cm fault gouge and 3mm of hematite along movement planes. Slickensides indicate mostly lateral movement. Some are healed with quartz	227354	0.001	0.000
255.00	257.00		1.5				227355	0.001	0.000
257.00	259.00		1.5				227356	0.001	0.000

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-07

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
259.00	261.00	Fine to coarse grained green grey moderately propyllitic	1.5			Decrease in clast abundance, increase in fine grained matrix.	227357	0.000	0.000
261.00	263.00		1.5				227358	0.000	0.000
263.00	265.00		1.5			10cm wide structure at 45 º to core axis, abundant fault gouge with embedded rounded wall rock fragments.	227359	0.013	0.009
265.00	267.00		1.5			Fractureing parallel to core axis with quartz-anhydrite	227360	0.005	0.006
267.00	269.00		1.5			Interval is very fractured and brecciated, generally parallel to core axis, with quartz-carbonate fill and	227361	0.010	0.007
269.00	271.00		1.5				227362	0.013	0.010
271.00	273.00		1.5			Decrease in clast abundance.	227363	0.005	0.008
273.00	275.00		1.5			Abundant small faults at 15-25 º to core axis throughout. Typically with hematite.	227364	0.012	0.011
275.00	277.00		1.5				227365	0.018	0.012
277.00	279.00		1.5				227366	0.006	0.005
279.00	281.00		1.5			Pods of epidote, up to 1.5 cm.	227367	0.009	0.006
281.00	283.00		1.5			Interval is very fractured, parallel to core axis, and 15-20 º to core axis, typically with hemtite.	227368	0.007	0.005
283.00	285.00		1.5				227369	0.013	0.008
285.00	287.00		1.5			Very disrupted structural interval, hematite rich, abundant carboante filled fractures.	227371	0.016	0.000
287.00	289.00		1.5				227372	0.010	0.000
289.00	291.00		1.5				227373	0.002	0.000
291.00	293.00		1.5			Quartz-carboante veining begins to take on a pinkish	227374	0.001	0.014
293.00	295.00		1.5			Lower 50cm is a fault, 15 º to core axis with 1cm of hematite stained fault gouge.	227375	0.002	0.000
295.00	297.00		0.5			Pyrite content begins to decrease. The abundance of low angle, undulatory, hematite rich structures with fautl gouge increases. Structures are typically 0-15 º to core axis and often appear to be healed. Clasts composition changes to fine basalts and tuffaceous material. Carbonate filled tensio fractures are abundant.	227376	0.007	0.000

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-07

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
297.00	299.00	Fine to coarse grained green grey moderately propyllitic	0.5			Small fault at 20 º to core axis. Bright orange anhydrite begins to appear in quartz stringers.	227377	0.000	0.000
299.00	301.00		0.5			40 cm structural zone, with partially lithified fault gouge.	227378	0.000	0.000
301.00	303.00		0.5			Very rubbly, broken and disrupted. Wisps of sericite alteration.	227379	0.000	0.000
303.00	305.00		0.5			Very rubbly, broken and disrupted. Structured parallel to core axis, with perpendicular late stage quartz-anhydrite veining.	227380	0.000	0.000
305.00	307.00		0.5			Very rubbly, broken and disrupted.	227381	0.000	0.000
307.00	309.00		0.5			Structural zone ends, unit begins to become more competent. Apparent sinistral offsets locally.	227382	0.000	0.000
309.00	311.00		1.0			Pyrite content begins to increase. The quartz-anhydrite veining is folded, with sinistral offsets. (note that the sinistral offsets may just be apparent)	227383	0.000	0.000
311.00	313.00		1.0				227384	0.001	0.000
313.00	315.00		1.0				227385	0.015	0.011
315.00	315.60		1.0			Increase in disseminated pyrite. BFP clasts present. Lower 40 cm is an intensely epidote altered porphyritic basalt. 3-4cm angluar clasts of the underlying dyke present.	227386	0.008	0.006
315.6	327.2	**MASSIVE GRANODIORITE DYKE**							
315.60	317.00	Fine to coarse grained pink grey weakly hematitic	0.1			Post mineral granodiorite dyke. Has a Soveriegn-ish appearance. Unit is weakly hematite altered giving it a weak maroon/grey colour. Very sharp but undulatory upper contact avererging 20 º to core axis, sharp lower contact at 25 º to core axis. Upper 30cm is very soft, with chlorite and talc alteration. 1-2% 2mm quartz grains, 1-2% 2mm off-white feldspars with no particular orientation, fine magnetite specks. Matrix is fine grained and massive. Local chlorite alteration as parallel veinlets that give the appearance of bedding. No apparent mineralization. 1-2% quartz carbonate veining at 45-60 º to core axis, with apparent sinistral offset.	227387	0.001	0.000

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-07

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
317.00	319.00	Fine to coarse grained green grey weakly hematitic	0.1				227388	0.000	0.000
319.00	321.00		0.1			Very distorted and tectonized interval, with anhydrite pods and veining.	227389	0.000	0.000
321.00	323.00	Fine to coarse grained pink grey weakly hematitic	0.1				227390	0.000	0.000
323.00	325.00		0.1				227391	0.000	0.000
325.00	327.20		0.1				227392	0.000	0.000
327.2	330.6	**FRAGMENTAL AGLOMERATE**							
327.20	329.00	Fine to coarse grained green grey strongly propyllitic	1.5			Short volcanoclastic unit. Sharp upper contact at 25 deg, lower contact appear broken, but missing core (driller error) so the contact is not well defined. 70% fine grained tuffaceous matrix, 30% clasts. Clast composition of quartz, anhydrite, fine grained basalts, porphyritic volcanic and tuffaceous fragments. Moderate propyllitic alteration throughout. Some of the clasts are preferentially epidote altered. Fine disseminated pyrite throughout, often concentrated around the edges of clasts. Fine fractures with	227393	0.009	0.005
329.00	330.60		1.5				227394	0.012	0.014
330.6	339.6	**PORPHYRITIC BASALT FLOW**							
330.60	332.00	Fine to coarse grained dark grey weakly propyllitic	0.1			Massive, dark grey, magnetic, porphyritic basalt flow. 20% 2-3mm light green talc altered feldspars throughout weakly aligned into a foliation at 25-30 º to core axis. 1-2% carbonate veinlets at 25-30 º to core axis. Occasional anhydrite veining at 160 º to core axis. Veins shows small sinistral offsets. Local structures with slickensides indicate mostly lateral movement. All indications point towards sinistral movement. Unit is most likely a block within a very disrupted larger structural zone.	227396	0.002	0.000
332.00	334.00		0.1			1cm wide pink/orange anhydrite veining perpendicular to the weak foliation and the carbonate veining.	227397	0.001	0.000

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-07

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
334.00	336.00	Fine to coarse grained dark grey weakly propyllitic	0.1			Structural zone. Low angle, 0-20 º to core axis features with fault gouge and slickensides. All indications point towards sinistral movement. Blocks, up to 20 cm, of fragmental, propyllitic altered hazelton within the	227398	0.005	0.000
336.00	338.00		0.1				227399	0.001	0.000
338.00	339.60		0.1			Broken lower contact.	227400	0.005	0.000
339.6	392.3	**FRAGMENTAL HETEROLITHIC AGLOMERATE**							
339.60	341.00	Fine to coarse grained green grey moderately propyllitic	1.2			Heterolithic volcanoclastic unit. Another block within a larger disrupted structural zone that is shuffling Hazelton and Takla units. Broken upper and lower contacts. Unit is moderatly propyllitic altered, with patches of phyllic alteration. Upper 5m are 60% fine grained tuffaceous matrix, with 40% clasts. Towards the base the clast abundance increase to 80%. Clast composition is tuffaceous fragments and porphyritic volcanics, although are difficult to determine is sections due to overprinting alteration. Black chlorite veinlets anastomosing throughout. 1-2% carbonate veinlets and fracture fill. Small structures appear throughout. Fine disseminated pyrite, occasionally concentrated in areas with abundant veining. Interval 227401 contains a 1cm winde carbonte vein with 2-3% molybdenum, 1-2% sphalerite and trace pyrite, at 35 º to core axis. Generally two phases of ffractures/veining, approx at 50 and 155 º to core axis.	227401	0.019	0.000
341.00	343.00		1.2				227402	0.011	0.000
343.00	345.00		1.5			Barren, transluscent quartz veining at 10 º to core axis, associated with an increase in pyrite. Local small pods of anhydrite/calcite.	227403	0.025	0.005
345.00	347.00		1.2				227404	0.013	0.006
347.00	349.00		1.2			Abundant carbonate filled fractures.	227405	0.019	0.013
349.00	351.00		1.2			Very rubbly interval. Fault zone, with preserved fault gouge at the bottom contact. No slickensides visible. Apparent healed shear a the top of the interval.	227406	0.014	0.019
351.00	353.00	Fine to coarse grained green grey strongly propyllitic	1.5			Clast abundance increases, as does the concentration of fine disseminated pyrite and the intensity of the	227407	0.012	0.020

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-07

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
353.00	355.00	Fine to coarse grained green grey strongly phyllic	1.5			Begin to see very sporadic zeolite. Interval is phyllic altered. Quartz and anhydrite are abundant. Inerval is very disrupted.	227408	0.024	0.092
355.00	357.00		1.5			Phyllic and porpyllitic alteration present. Small structure at 30 º to core axis with black chlorite along the slip planes.	227409	0.072	0.129
357.00	359.00		1.5			Phyllic and porpyllitic alteration present.	227410	0.018	0.038
359.00	360.60	Fine to coarse grained green grey strongly propyllitic	1.5			Just propyllitic alteration present. Broken lower contact.	227411	0.015	0.037
360.60	362.00	Fine to coarse grained green grey moderately propyllitic	1.5			From here to the base of the unit, the agglomerate consists of very large blocks of differing porphyritic volcanics, amygdaloidal volcanics, and finer grained agglomerates. Alteration, veining and strucutre vary from lithology to lithology. This interval is a very fine grained, propyllitic altered tuffaceous unit with 1-2% 1mm smoky grey quartz eyes.	227412	0.018	0.000
362.00	364.00		1.5			Coarse grained version of 339.6-360.6m.	227413	0.017	0.000
364.00	366.00		1.5			Large blocks of maygdaloidal volcanics, with 4-5% amugdules with quartz-carbonate-chlorite fill. Hematite stained slip planes at 30 º to core axis. Massive, poddy bright pink/orange anhydrite.	227414	0.021	0.011
366.00	368.00		1.5			Porphyritic volcanics with calcite/anhydrite fill.	227415	0.003	0.000
368.00	370.00		1.5				227416	0.008	0.000
370.00	372.00	Fine to coarse grained green grey intensely propyllitic	1.5			Very intense porpyllitic alteration, very fragmental	227417	0.015	0.000
372.00	374.00		1.5				227418	0.013	0.039
374.00	376.00		1.5				227419	0.011	0.056
376.00	377.40	Fine to coarse grained green grey moderately propyllitic	1.5			Very broken and rubbly, occasional quartz-carbonate veining, no apparent fault gouge.	227421	0.011	0.009
377.40	379.00		1.5	**0.3**		Blocks become more massive, mostly fine grained volcanics with 1-2mm fine white feldspars. Occasional 10-40 cm intervals of fragmental material as per 339.6-360.6m. Interval 227422 contains one carbonate vein 1cm wide with 1-2% chalcopyrite blebs throughout.	227422	0.021	0.006

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-07

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
379.00	381.00	Fine to coarse grained green grey moderately propyllitic	1.5				227423	0.018	0.011
381.00	383.00		1.5				227424	0.017	0.005
383.00	385.00		1.5				227425	0.014	0.033
385.00	387.00		1.5	**0.2**		Quartz-carbonate vein with magnetite, pyrite and poddy chalcopyrite. Occurs next to a small fault.	227426	0.017	0.036
387.00	389.00		1.5			Strong foliation at 35 deg to core axis. Structure running at 10 deg to core axis with fault gouge. Cubic pyrite present.	227427	0.011	0.056
389.00	391.00		1.5			Brecciated texture with quartz-carboante fill. Structure at 35 deg to core axis. Becomes more silicified than propyllitic altered.	227428	0.005	0.041
391.00	392.30	Fine to coarse grained green grey moderately silicified (non-K)	1.5			Silicified and bleached interval.	227429	0.015	0.036
392.3	395.2	**AMYGDULAR BASALT DYKE**							
392.30	394.00	Fine to coarse grained dark grey				Very fine grained, magnetic, dark grey, massive basalt dyke. 2-3% 2-7mm round amygdules with carbonate/anhydrite fill. Broken upper contact, sharp lower contact at 15 deg to core axis. 1-2% 1mm specks of magnetite throughout. Dyke appears to be fairly unaltered. 1% late zeolite veining at 60 deg to core axis. No apparent mineralization.	227430	0.005	0.005
394.00	395.20						227431	0.005	0.005
395.2	400.4	**FRAGMENTAL HETEROLITHIC AGLOMERATE**							
395.20	397.00	Fine to coarse grained dark grey green moderately propyllitic	1.5			Heterolithic volcanoclastic unit. Within a disrupted structural zone. Sharp upper contact at 15 deg to core axis. Moderatly propyllitic altered. Clast composition is BFP, tuffaceous fragments and porphyritic volcanics, although are difficult to determine is sections due to overprinting alteration. Black chlorite veinlets anastomosing throughout. 1-2% carbonate-zeolite veinlets and fracture fill. Small structures appear throughout. Fine disseminated pyrite, occasionally concentrated in areas with abundant veining. Slickensides on the faults indicate dextral movement.	227432	0.009	0.073

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-07

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
397.00	399.00	Fine to coarse grained dark grey green moderately propyllitic	1.5			50cm block of post-mineral dyke material. The feldspars within the BFP clasts show epidote and hematite alteration.	227433	0.013	0.015
399.00	400.40		1.5			1cm wide anhydrite vein at 10 deg to core axis. Runs for 30 cm.	227434	0.024	0.013
400.4	402.5	**MASSIVE GRANODIORITE DYKE**							
400.40	402.00	Fine to coarse grained maroon weakly hematitic	0.1			Post mineral granodiorite dyke. Has a Soveriegn-ish appearance. Unit is moderatly hematite altered giving it a weak maroon/grey colour. Alteration is not consistent throughout, giving a local patchy appearance. Broken upper and lower contacts. 1-2% 2mm quartz grains, 1-2% 2mm off-white feldspars with no particular orientation, fine magnetite specks. Matrix is fine grained and massive. Local chlorite alteration as parallel veinlets that give the appearance of bedding. No apparent mineralization. Hairline zeolite veining	227435	0.001	0.000
402.00	402.50		0.1				227436	0.000	0.000
402.5	427.1	**FRAGMENTAL HETEROLITHIC AGLOMERATE**							
402.50	404.00	Fine to coarse grained grey green moderately propyllitic	1.5			Heterolithic volcanoclastic unit. Much more consistent in appaearance than the few small overlying agglomerate units. Broken upper contact. Unit is moderatly propyllitic altered, with patches of phyllic alteration and silicification. Clast composition is tuffaceous fragments and porphyritic volcanics, although are difficult to determine is sections due to overprinting alteration. Black chlorite veinlets anastomosing throughout. 1-2% carbonate veinlets and fracture fill. Small structures appear throughout. Fine disseminated pyrite, occasionally cubic and massive. A soft, massive, bright emerald green alteration mineral is spotty throughout, possibly fuchsite.	227437	0.010	0.024
404.00	406.00		1.5			Interval is bleached, more silicified than propyllitic altered, with poddy epidote.	227438	0.008	0.030
406.00	408.00		1.5			50cm os rubble and brokenmaterial with fault gouge.	227439	0.036	0.031

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-07

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
408.00	410.00	Fine to coarse grained grey green moderately propyllitic	1.5			Abundant carbonate veining, in two orientations, 15 and 80 deg to core axis.	227440	0.007	0.029
410.00	412.00		1.5				227441	0.010	0.019
412.00	414.00		1.5				227442	0.008	0.019
414.00	416.00		1.5				227443	0.014	0.028
416.00	418.00		1.5			Silicification is more prominant than the propyllitic alteration.	227444	0.017	0.060
418.00	420.00		1.5				227446	0.024	0.077
420.00	422.00		1.5				227447	0.024	0.080
422.00	424.00		1.5			10cm of massive pyrite veining.	227448	0.038	0.164
424.00	426.00		1.5				227449	0.036	0.158
426.00	427.10		1.5				227450	0.032	0.102
427.1	430.7	**MASSIVE GRANODIORITE DYKE**							
427.10	429.00	Fine to coarse grained grey brown weakly silicified (non-K)	0.1			Massive dyke with a granodioritic texture that has been intenselt chlorite/sericite/talc altered. Fault bounded upper contact at 30 deg to core axis, very sharp and distinct lower contact at 70 deg to core axis. 80% fine grained, soft, altered matrix, with 20% 1-3mm altered feldspars that are now green in colour. 1% quartz-carbonate veining parallel to the core axis, and 1% late hairline carboante veinlets. Local anhydrite in the quartz rich veins, local hematite stringers. Hard, transluscent silicious halos around 2-3% of the altered feldspar grains. Banding in the lower 10cm parallel to the lower contact gives the indication of a possible sill.	227451	0.002	0.000
429.00	430.70		0.1				227452	0.000	0.000
430.7	435.9	**FRAGMENTAL HETEROLITHIC AGLOMERATE**							

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-07

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
430.70	432.00	Fine to coarse grained green grey moderately propyllitic	1.5			Heterolithic volcanoclastic unit. Much more consistent in appaearance than the few small overlying agglomerate units. Sharp upper contact at 70 deg to core axis. Unit is moderatly propyllitic altered, with patches of phyllic alteration and silicification. Clast composition is tuffaceous fragments and porphyritic volcanics, although are difficult to determine is sections due to overprinting alteration. Black chlorite veinlets anastomosing throughout. 1-2% carbonate veinlets and fracture fill. Frequent small structures. Fine disseminated pyrite, occasionally cubic and massive. Patchy epidote associated with an increase in the pyrite content.	227453	0.037	0.141
432.00	434.00		1.5				227454	0.016	0.082
434.00	435.90		1.5				227455	0.008	0.104
435.9	462.7	**PORPHYRITIC ANDESITE FLOW**							
435.90	438.00	Fine to coarse grained green grey weakly propyllitic	1.0			Massive andesitic flow, with alternating textures between massive and porphyritic. Distinct but not sharp upper contact marked by abundant quartz-carbonate veining, gradational lower contact over 30cm. Where the unit is porphyritic, there are 25-30% 2-4mm augites in a fine grained, weakly altered matrix. Locally the augites are clustered. Where the unit is massive, it s very fine grained and featureless. The unit is weakly propyllitic altered, with weak silicious overprinting. Local QSP alteration. Healed fault zone occurs at 445.5-446m. 1-2% late carbonate-zeolite veining. One quartz-pyrite-chalcopyrite-sphalerite vein at 40 deg occirs within the entire unit. Patchy, late epidote alteration occurs towards the base. 1-2% fine disseminated to massive pyrite throughout.	227456	0.034	0.127
438.00	440.00		1.0				227457	0.040	0.143
440.00	442.00		1.0	**0.5**		Quartz-chalcopyrite-sphalerite vein at 40 deg to core	227458	0.027	0.155
442.00	444.00		1.0				227459	0.013	0.099
444.00	446.00		1.0			Lower 50 cm of the unit is a healed structure, with strong QSP alteration.	227460	0.013	0.049

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-07

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)		Comments	Sample#	Cu %	Au ppm
446.00	448.00	Fine to coarse grained green grey weakly propyllitic	1.0					227461	0.020	0.054
448.00	450.00	Fine to coarse grained green grey moderately phyllic	1.5				Quartz-pyrite veining at 20 deg to core axis.	227462	0.005	0.046
450.00	452.00		1.5					227463	0.004	0.064
452.00	454.00	Fine to coarse grained green grey weakly propyllitic	1.0				Unit loses the porphyritic texture and becomes	227464	0.015	0.161
454.00	456.00		1.0				Unit loses its porphyritic texture and becomes more massive. Quartz veinlets become more abundant, patchy epidote occurs. 1-2% purite veining at 20 deg to core axis.	227465	0.037	0.112
456.00	458.00		1.0					227466	0.037	0.166
458.00	460.00		1.0					227467	0.020	0.112
460.00	462.00		1.0	**0.5**			Blebby chalcopyrite on broken surfaces, not apparent on the core surface.	227468	0.056	0.246
462.00	462.70		1.5				Increase in the pyrite content.	227469	0.007	0.161
462.7	478.4	**MASSIVE QUARTZ FELDSPAR PORPHYRY FLOW**								
462.70	464.00	Medium to coarse grained white grey strongly phyllic	1.7		FOL	45	Intensely QSP altered quartz feldspar porphyry. Unit is coarse grained, with 20-25% green, chlorite/sericite altered feldspars. The remainder of the unit is bleached and altered to a transluscent quartz-sericite. Weak foliation throughout at 45-50 deg to core axis. Locally there are unaltered white feldspars. 1-2% zeolite and gypsum veining. 5% black chlorite stringers parallel to the foliation. 1% carbonate veining parallel to the foliation. 1.5-2% fine disseminated pyrite with local massive sections. Overall, the unit has an apparent 'intrusive' texture, and is very homogeneous in appearance and composition.	227471	0.007	0.087
464.00	466.00		1.7					227472	0.008	0.034
466.00	468.00		1.7					227473	0.010	0.071
468.00	470.00		1.7					227474	0.009	0.039
470.00	472.00		1.7					227475	0.008	0.024

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-07

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
472.00	474.00	Medium to coarse grained white grey strongly phyllic	1.7				227476	0.009	0.030
474.00	476.00		1.7			Several small structures throughout the interval.	227477	0.009	0.035
476.00	477.00	Fine to medium grained grey weakly phyllic	1.0			Becomes less altered, finer grained, more masssive and less mineralized.	227478	0.020	0.105
477.00	478.40		1.0				227479	0.030	0.110
478.4	480.6	**MASSIVE FELDSPAR PORPHYRY DYKE**							
478.40	479.60	Fine to medium grained grey weakly silicified (non-K)	0.1			Massive feldspar porphyry dyke. 80-85% black, fine grained matrix with 15-20% 1-3mm lath feldspars with no particular orientation. Very tiny amygdules with hematite fill throughout. Matrix is locally epidote altered with pervasive carboante alteration, feldspars are preferentially sericite/epidogte altered. Trace anhydrite. Carbonate fracture fill throughout. Sharp upper and lower contacts at 60 deg to core axis. No apparent mineralization.	227480	0.001	0.000
479.60	480.60		0.1			Upper 30cm is a block of the QSP altered quartz feldspar porphyry.	227481	0.005	0.015
480.6	481.5	**MASSIVE QUARTZ FELDSPAR PORPHYRY FLOW**							
480.60	481.50	Fine to medium grained white grey strongly phyllic	1.7			As per 462.7-478.4m.	227482	0.005	0.029
481.5	484.7	**AMYGDULAR BASALT DYKE**							
481.50	483.00	Fine to medium grained black weakly silicified (non-K)	0.1			Amygdaloidal basalt dyke. Matrix is dark grey, magnetic and very fine grained. 7-10% 1-4mm carbonate filled amygdules. 2-3% quartz-carbonate veining at 20 deg to core axis. Unit is pervasively carbonate altered with weak silicification. Sharp upper contact at 15 deg to core axis, sharp lower contact at 40 deg to core axis. Fault at 483.5m at 30 deg to core	227483	0.005	0.000
483.00	484.70		0.1				227484	0.005	0.000
484.7	514.5	**MASSIVE QUARTZ FELDSPAR PORPHYRY FLOW**							

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-07

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
484.70	486.00	Medium to coarse grained white grey strongly phyllic	1.7			Intensely QSP altered quartz feldspar porphyry. Unit is coarse grained, with 20-25% green, chlorite/sericite altered feldspars. The remainder of the unit is bleached and altered to a transluscent quartz-sericite. Weak foliation throughout at 45-50 deg to core axis. Locally there are unaltered white feldspars. 1-2% zeolite and gypsum veining. 5% black chlorite stringers parallel to the foliation. 1% carbonate veining parallel to the foliation. 1.5-2% fine disseminated pyrite with local massive sections. Overall, the unit has an apparent 'intrusive' texture, and is very homogeneous in appearance and composition.	227485	0.006	0.036
486.00	488.00		1.7				227486	0.007	0.058
488.00	490.00		1.7				227487	0.008	0.063
490.00	492.00		1.7			Bright green alteration mica present	227488	0.014	0.050
492.00	494.00		2.0			Patchy epidote alteration, associated with massive	227489	0.012	0.081
494.00	496.00		1.7				227490	0.010	0.037
496.00	498.00		1.7				227491	0.011	0.045
498.00	500.00		1.7				227492	0.011	0.026
500.00	502.00		2.0			Very strong foliation at 45 deg to core axis. Abundant pyrite veining at 20 deg to core axis.	227493	0.007	0.015
502.00	504.00		1.7				227494	0.006	0.019
504.00	506.00		1.7				227496	0.005	0.009
506.00	508.00		1.7			2-3% zeolite veining with no particular orientation.	227497	0.003	0.015
508.00	510.00		1.7			Pyrite becomes blebby, less disseminated. Very rubbly upper 30 cm of the unit.	227498	0.006	0.028
510.00	512.00		1.7			3cm vein at 50 cm carrying py-qtz-chlorite-anhydrite and trace magnetite.	227499	0.009	0.029
512.00	513.00		1.7				227500	0.003	0.023
513.00	514.50		1.7			Begin to see ghosts of clasts, associated with granular looking pyrite.	227501	0.004	0.073
514.5	548.5	**FRAGMENTAL HETEROLITHIC AGLOMERATE**							

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-07

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
514.50	516.00	Fine to coarse grained green grey weakly propyllitic	1.2			Massive volcanoclastic Hazelton unit. Sharp but undulatory upper contact, sharp lower contact at 50 deg to core axs. Alteration is moderate propyllitic, with patchy epidote. Composed of 75% clasts ranging from rounded to angular, 5mm to 30cm. Matrix is fine grained, tuffaceous with local magnetite specks. Clast composition is QFP, various porphyritic volcanics, amygdaloidal volcanics, ash beds, tuffaceous volcanics (typically with a welded texture), anhydrite/quartz and fine grained basalts (?). Unit colour varies from grey to green. Carboante veining with associated chlorite occur at 5-10 deg to core axis. Locally intensely fractured. Unit is magnetic. 1-1.5% coarse granular pyrite throughout, up to 3% locally where the pyrite is concentrated within clasts.	227502	0.021	0.117
516.00	518.00		1.2			2-3% zeolite veining.	227503	0.023	0.080
518.00	520.00		1.2				227504	0.018	0.060
520.00	522.00		1.2			Pyrite veining at 15 and 45 deg to core axis, associated with carbonate, anhydrite and black chlorite.	227505	0.019	0.105
522.00	524.00		1.2			Anhydrite pods, up to 3cm, associated with coarse pyrite. Very fine balck chlorite stringersparallel to core axis. At 523/5m there is a 10cm sections of soft, light green talc-chlorite-sericite altered material. Fine magnetite specks throughout. Sharp upper and lower contacts at 50 deg to core axis.	227506	0.020	0.089
524.00	526.00		1.2			Chlorite alteration increases.	227507	0.022	0.071
526.00	528.00		1.2			Carboante/chlorite veining patallel to core axis.	227508	0.027	0.129
528.00	530.00		1.2			20cm interval with 20% coarse pyrite	227509	0.037	0.203
530.00	532.00		1.2			Beging to see patchy epidote.	227510	0.020	0.074
532.00	534.00		1.2				227511	0.024	0.046
534.00	536.00		1.2			Increase in fine disseminated pyrite. Lower 50 cm of the interval becomes bleached out with a brecciated	227512	0.009	0.058
536.00	538.00		1.2				227513	0.021	0.092
538.00	540.00		1.2			first appearance of intrusive fragments.	227514	0.023	0.100

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-07

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)		Comments	Sample#	Cu %	Au ppm
540.00	542.00	Fine to coarse grained green grey weakly propyllitic	1.2				Large quartz-feldspar porphyry clasts.	227515	0.025	0.135
542.00	544.00		1.2				4cm fragment with magnetite, massive pyrite and a 1cm quartz vein with a pyrite core.	227516	0.015	0.075
544.00	546.00		1.2				Structure at 545m with carbonate/zeolite marking the boundaries. Fualt gouge that is present contains abundant fine pyrite.	227517	0.008	0.024
546.00	547.00		1.2				Unit becomes increasingly silicified, less propyllitic, with an increase in zeolite veining.	227518	0.008	0.020
547.00	548.50		1.2					227519	0.005	0.029
548.5	556	**FRAGMENTAL DACITE CRYSTAL-LITHIC TUFF**								
548.50	550.00	Fine to medium grained grey weakly propyllitic	1.2		FOL	60	Light grey, hard, magnetic, dacite tuff. Sharp upper contact at 60 deg to core axis. Moderate foliation at 60 deg throughout. Unit is silicified, with patchy chlorite alteration. 15-20% 2-3mm black 'specks' that are elongated into the foliation, possible lapillis. Matrix is silicious, fine grained, with rare, but present tiny quartz eyes. Sporadic fragments of felsic material and other tuffaceous units present. These fragments typically have more abundant pyrite than the rest ofthe unit. Trace zeolite veining. Occasional small structures 80-90 deg to core axis. Fine pyrite throughout.	227521	0.008	0.025
550.00	552.00	Fine to coarse grained green grey weakly silicified (non-K)	0.5					227522	0.010	0.041
552.00	554.00	Fine to medium grained grey weakly silicified (non-K)	0.5					227523	0.014	0.059
554.00	556.00	Fine to medium grained grey green weakly sericitic	1.0				Trace if galena and sphalerite within the veins.	227524	0.013	0.085
556	569.3	**FRAGMENTAL HETEROLITHIC CRYSTAL-LITHIC TUFF**								
556.00	558.00	Fine to medium grained grey green weakly sericitic	1.0					227525	0.008	0.062

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-07

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
558.00	560.00	Fine to medium grained grey green weakly sericitic	1.0			Becoming more of a heterolithic unit. Gradational contact with the dacitic unit above. Light grey, hard, magnetic, heterolithic tuff. Unit is sericitic with patchy chloritic and siliceous sections. Slight foliation at 70 deg throughout. Black/dark green chloritic fragments follow the rough foliation. Pyrite is associated with the chloritic fragments. Trace of volcanic, intrusive and tuffaceous fragments. Trace of zeolite and calcite veining at 30 deg to the core axis. Trace of hematite with the veining. Matrix is composed of feldspar, quartz and chlorite. Trace of sphalerite and galena with the veining. Minor faults at 70-80 deg to the core axis throughout the unit.	227526	0.012	0.077
560.00	562.00	Fine to coarse grained grey moderately sericitic	0.5				227527	0.008	0.035
562.00	564.00	Fine to coarse grained light grey moderately phyllic	0.5				227528	0.015	0.044
564.00	566.00		1.5	**0.1**		Chalcopyrite present within veins.	227529	0.020	0.053
566.00	568.00	Fine to coarse grained green moderately phyllic	2.0	**0.0**		Contains large clasts of intrusive (monzonite?).	227530	0.021	0.065
568.00	569.30		1.0				227531	0.021	0.055
569.3	573.4	**MOTTLED MONZONITE DYKE**							
569.30	571.00	Fine to coarse grained green moderately phyllic	1.0			Green coloured chloritic and sericitic altered monzonite dyke. Steeply dipping dyke and throughout the dyke interval it runs in out with some sections of the core being tuffaceous. Undulating contact within the interval. The upper contact is 30 degrees to the core axis and the lower contact is 20 deg to the core axis. Alteration has obliterated all remaining texture and most of the identifiable characteristics. Little black/dark green specks about 1-2mm are chlorite after hornblende or augite and feldspar. Highly fractured with veinlets randomly oriented and filled with calcite, zeolite, quartz and a trace of hematite. Tuffaceous parts contact pyrite and are similar to the above section. Slight carbonate alteration.	227532	0.003	0.000
571.00	573.40		1.0				227533	0.008	0.018

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-07

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
573.4	579.9	**FRAGMENTAL HETEROLITHIC CRYSTAL-LITHIC TUFF**							
573.40	575.00	Fine to coarse grained green moderately phyllic	4.0	**0.1**		Similar unit before the dyke. Pyrite mineralization is high and is disseminated and veined. Trace of chalcopyrite is seen within the veins. Mineralization high in proximity to the dyke.	227534	0.014	0.064
575.00	577.00		5.0	**1.0**		Massive pyrite and chalcopyrite within a quartz vein from 575.3 m to 575.5 m.	227535	0.154	0.048
577.00	579.00	Fine to coarse grained grey moderately phyllic	2.0	**0.0**		Amount of mineralization has decreased. Magnetite seems to decrease.	227536	0.022	0.043
579.00	579.90	Fine to coarse grained green moderately phyllic	2.0	**0.0**			227537	0.013	0.044
579.9	584.8	**MOTTLED MONZONITE DYKE**							
579.90	581.00	Fine to coarse grained green moderately phyllic	1.0			Similar green coloured chloritic and sericitic altered monzonite dyke encoutered earlier. Steep dipping dyke again with exposure of the tuffaceous units in sections. Both sections undulate in and out throughout the interval. Upper contact is 15 deg to the core axis and the lower contact is fault bounded at 20 deg to the core axis. Pyrite mainly disseminated and veined within the tuffaceous unit.	227538	0.005	0.025
581.00	583.00		0.2				227539	0.003	0.013
583.00	584.80		0.2				227540	0.003	0.000
584.8	597	**MOTTLED HETEROLITHIC AGLOMERATE**							
584.80	587.00	Fine to coarse grained grey green moderately phyllic	2.5	**0.3**		Similar altered tuffaceous unit as before where almost all distinguishable characteristics are obliterated, but is more of an aglomerate. Contains more fragments of intrusive, tuffaceous and volcanic rocks. Increased mineralization just after the dyke as before. Pyrite, chalcopyrite and sphalerite are seen within veins. Pyrite is also disseminated within the host rock. Epidote patches are also present.	227541	0.043	0.078
587.00	589.00		2.0				227542	0.013	0.085
589.00	591.00	Fine to coarse grained grey green weakly phyllic	2.0	**0.0**		Trace of chalcopyrite within a vein.	227543	0.015	0.087

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-07

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)			Comments	Sample#	Cu %	Au ppm
591.00	593.00	Fine to coarse grained grey green weakly phyllic	3.0					Siliceous overprint in sections.	227544	0.036	0.097
593.00	595.00	Fine to coarse grained grey green moderately phyllic	1.5	**0.0**					227546	0.025	0.061
595.00	597.00		3.0		FLT	25	3	Clast sizes is becoming smaller. Section contains an increased amount of veinlets (10%) in a random orientation. Pyrite amount has increased with the	227547	0.006	0.042
597	609.4	**FRAGMENTAL HETEROLITHIC CRYSTAL-LITHIC TUFF**									
597.00	599.00	Fine to coarse grained grey green moderately phyllic	2.0						227548	0.018	0.047
599.00	601.00	Fine to coarse grained grey moderately phyllic	1.5		FLT	20	1	Siliceous overprint in patches.	227549	0.010	0.028
601.00	603.00	Fine to coarse grained grey green moderately phyllic	2.5	**0.0**	FLT	40	1	Siliceous overprint in patches. Trace of chalcopyrite within the veins.	227550	0.016	0.038
603.00	605.00		2.5	**0.0**				Trace of sphalerite within the veins.	227551	0.006	0.024
605.00	607.00		1.5					Faulting is going in two orientations at 45 deg and 85 deg to the core axis.	227552	0.007	0.034
607.00	609.40		1.5	**0.1**				From 608.9 m to 609.2 m is a quartz and minor calcite veins with large crystals of pyrite and with minor chalcopyrite.	227553	0.027	0.033
609.4	623.9	**MOTTLED MONZONITE DYKE**									
609.40	611.00	Medium to coarse grained pink green weakly						Pink/green post mineral dyke (monzonite ?) that grades into a hematite altered unit. Similar to the dykes encountered earlier just not as altered. Fine to coarse grain size with subhedral crystal shape. Quartz, feldspar and chlorite (after hornblende ?) dominate the composition. Fractured at a random orientation. Veins filled with zeolite, hematite, calcite, quartz and anhydrite. Trace amount of flourite is also present in the veining. Alteration is mostly chloritic with minor sericitic. Upper contact with tuffacepous unit marked by a fault at 30 deg to the core axis. Calcitic spots also present within the unit. Patchy brecciation at the top of the unit.	227554	0.001	0.000
611.00	613.00							Calcitic spots have diminished.	227555	0.000	0.000

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-07

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
613.00	615.00	Medium to coarse grained pink green weakly sericitic				At 614.8 m alteration changes to predominatly hematitic. Alteration noted with a contact at 20 deg to the core axis. Siliceous overprint in sections.	227556	0.001	0.000
615.00	617.00	Medium to coarse grained red strongly hematitic					227557	0.000	0.000
617.00	619.00	Medium to coarse grained maroon strongly hematitic					227558	0.000	0.000
619.00	621.00						227559	0.000	0.000
621.00	623.00						227560	0.005	0.000
623.00	623.90						227561	0.000	0.000

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-11

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
7.3	538.6	**FRAGMENTAL HETEROLITHIC CRYSTAL-LITHIC TUFF**							
7.30	9.00	Very fine to coarse grained grey pink weakly propyllitic				1-5% angular to sub-rounded clasts of dominantly basalt and subordinate plagioclase phyric volcanics, AAP, intrusives and crystal lithic tuff. Clasts are 3mm-3cm. Matrix is composed of feldspar crystal fragments in an ashy matrix. Infrequent (<1%) quartz eyes. Alteration is dominantly weak hematite and chlorite with a spotty overprint of epidote and carbonate stringers. Epidote alteration increases with depth. Mineralization is mostly absent except for rare pyrite within clasts. Minor calcite and zeolite veining at roughly 20 º to core axis and hematite veining at 35 º to core axis.	229851	0.001	0.000
9.00	11.00						229852	0.003	0.000
11.00	13.00						229853	0.003	0.000
13.00	15.00	Very fine to coarse grained grey weakly propyllitic					229854	0.002	0.000
15.00	17.00						229855	0.002	0.000
17.00	19.00						229856	0.002	0.000
19.00	21.00						229857	0.001	0.000
21.00	23.00					Rubbly to broken.	229858	0.001	0.000
23.00	25.00						229859	0.002	0.000
25.00	27.00						229860	0.001	0.000
27.00	29.00						229861	0.001	0.000
29.00	31.00						229862	0.001	0.000
31.00	33.00						229863	0.001	0.000
33.00	35.00	Very fine to coarse grained grey pink weakly propyllitic					229864	0.000	0.000
35.00	37.00					Alteration is weak to non-existent.	229865	0.001	0.000
37.00	39.00						229866	0.002	0.000
39.00	41.00						229867	0.001	0.000

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-11

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
41.00	43.00	Very fine to coarse grained grey pink weakly propyllitic				Unit is brecciated from 41.3-41.7m with clasts of crystal lithic tuff within a similar matrix.	229868	0.001	0.000
43.00	45.00						229869	0.001	0.000
45.00	47.00						229870	0.001	0.000
47.00	49.00						229871	0.004	0.005
49.00	51.00						229872	0.002	0.000
51.00	53.00					Minor vuggy calcite veining.	229873	0.001	0.000
53.00	55.00	Very fine to coarse grained grey weakly propyllitic					229874	0.001	0.000
55.00	57.00						229875	0.001	0.000
57.00	59.00						229877	0.003	0.000
59.00	61.00						229878	0.001	0.000
61.00	63.00						229879	0.002	0.000
63.00	65.00						229880	0.001	0.000
65.00	67.00						229881	0.002	0.000
67.00	69.00						229882	0.002	0.000
69.00	71.00						229883	0.002	0.000
71.00	73.00						229884	0.002	0.000
73.00	75.00						229885	0.002	0.000
75.00	77.00		0.0			Trace flecks of pyrite within the matrix.	229886	0.002	0.000
77.00	79.00		0.0				229887	0.002	0.000
79.00	81.00		0.0				229888	0.002	0.000
81.00	83.00		0.0				229889	0.001	0.000
83.00	85.00		0.0			Minor fault zone marked by fault gouge and rubble. Drillers mixed up core over this interval, around the	229890	0.002	0.000
85.00	87.00		0.0				229891	0.002	0.000
87.00	89.00		0.0				229892	0.002	0.000
89.00	91.00		0.0				229893	0.001	0.000

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-11

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
91.00	93.00	Very fine to coarse grained grey weakly propyllitic	0.0				229894	0.001	0.000
93.00	95.00		0.0			Trace pyrite specks within clasts.	229895	0.004	0.000
95.00	97.00		0.0				229896	0.001	0.000
97.00	99.00		0.0				229897	0.001	0.000
99.00	101.00		0.0			Fault zone marked by gouge from 99.0-99.9m.	229898	0.002	0.000
101.00	103.00		0.0				229899	0.002	0.000
103.00	105.00		0.0				229900	0.002	0.000
105.00	107.00		0.0				229901	0.003	0.000
107.00	109.00		0.0				229903	0.002	0.000
109.00	111.00		0.0				229904	0.002	0.000
111.00	113.00		0.1			Trace pyrite within clasts.	229905	0.002	0.000
113.00	115.00		0.1			Trace pyrite within basalt clast.	229906	0.002	0.000
115.00	117.00		0.0				229907	0.002	0.000
117.00	119.00		0.0				229908	0.002	0.000
119.00	121.00		0.0				229909	0.002	0.000
121.00	123.00		0.0				229910	0.002	0.000
123.00	125.00		0.0				229911	0.003	0.000
125.00	127.00		0.1			Trace pyrite within basalt clast.	229912	0.003	0.000
127.00	129.00		0.0				229913	0.003	0.000
129.00	131.00		0.0				229914	0.001	0.000
131.00	133.00		0.0				229915	0.003	0.000
133.00	135.00		0.0				229916	0.001	0.000
135.00	137.00	Very fine to coarse grained grey moderately propyllitic	0.0			Increase in alteration intensity and veining.	229917	0.001	0.000
137.00	139.00		0.0			Similar to previous interval.	229918	0.001	0.000
139.00	141.00	Very fine to coarse grained grey weakly propyllitic	0.0				229919	0.000	0.000

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-11

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
141.00	143.00	Very fine to coarse grained grey weakly propyllitic	0.0				229920	0.001	0.007
143.00	145.00		0.0				229921	0.001	0.000
145.00	147.00		0.0				229922	0.002	0.000
147.00	149.00		0.0				229923	0.001	0.000
149.00	151.00		0.0				229924	0.003	0.000
151.00	153.00		0.0				229925	0.014	0.000
153.00	155.00		0.0				229926	0.005	0.000
155.00	157.00		0.0				229927	0.001	0.000
157.00	159.00		0.0				229929	0.005	0.000
159.00	161.00	Very fine to coarse grained grey moderately propyllitic	0.0			Alteration intensity increased.	229930	0.003	0.000
161.00	163.00		0.0				229931	0.007	0.000
163.00	165.00	Very fine to coarse grained grey weakly propyllitic	0.0				229932	0.005	0.000
165.00	167.00		0.0				229933	0.002	0.000
167.00	169.00		0.0				229934	0.003	0.000
169.00	171.00		0.0				229935	0.001	0.000
171.00	173.00		0.0				229936	0.001	0.000
173.00	175.00		0.0				229937	0.001	0.000
175.00	177.00		0.0			Clasts at rounghly 10% of rock over this interval.	229938	0.001	0.000
177.00	179.00		0.0				229939	0.002	0.000
179.00	181.00	Very fine to coarse grained grey moderately propyllitic	0.0			Alteration intensity incereased from previous intervals.	229940	0.004	0.000
181.00	183.00	Very fine to coarse grained grey weakly propyllitic					229941	0.001	0.000
183.00	185.00					Increase in quartz-calcite stringers.	229942	0.002	0.000
185.00	187.00					Similar to previous interval.	229943	0.003	0.000
187.00	189.00					Intrusive clasts dominate over other clast types through this interval. Alteration has become very weak.	229944	0.005	0.000

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-11

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
189.00	191.00	Very fine to coarse grained grey weakly propyllitic				Intrusive and basalt clasts become roughly equal in abundance beginning in this interval. Intrusive clast size increases; clasts range in size from 0.5-6cm.	229945	0.003	0.000
191.00	193.00						229946	0.003	0.000
193.00	195.00						229947	0.003	0.000
195.00	197.00						229948	0.002	0.000
197.00	199.00						229949	0.001	0.000
199.00	201.00					Alteration increased but still weak.	229950	0.002	0.000
201.00	203.00						229951	0.001	0.000
203.00	205.00					Basalt clasts dominate over other clast types beginning in this interval.	229952	0.000	0.000
205.00	207.00						229953	0.002	0.000
207.00	209.00						229955	0.000	0.000
209.00	211.00						229956	0.004	0.000
211.00	213.00	Very fine to coarse grained grey green unaltered				Alteration very weak to non-existent.	229957	0.002	0.000
213.00	215.00	Very fine to coarse grained grey weakly propyllitic				Alteration intensity increased from previous interval.	229958	0.001	0.000
215.00	217.00						229959	0.003	0.007
217.00	219.00						229960	0.002	0.000
219.00	221.00		0.0			Trace pyrite specks within matrix.	229961	0.002	0.005
221.00	223.00		0.0			Trace pyrite within basalt clasts.	229962	0.002	0.000
223.00	225.00		0.0				229963	0.005	0.000
225.00	227.00		0.0				229964	0.001	0.000
227.00	229.00		0.0				229965	0.006	0.007
229.00	234.00		0.0			5cm of recovery from 230.7-233.8m.	229966	0.005	0.000
234.00	236.00		0.0				229967	0.002	0.010
236.00	238.00		0.0				229968	0.001	0.000
238.00	240.00		0.0				229969	0.002	0.000

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-11

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
240.00	242.00	Very fine to coarse grained grey weakly propyllitic	0.0				229970	0.001	0.000
242.00	244.00		0.0			Broken to rubbly. Intrusive clasts increased in	229971	0.003	0.005
244.00	246.00		0.0				229972	0.004	0.000
246.00	248.00		0.0			Broken to rubbly.	229973	0.008	0.007
248.00	250.00		0.0				229974	0.007	0.000
250.00	252.00		0.0			Stockworked calcite vein at 250.2m.	229975	0.004	0.000
252.00	254.00		0.0				229976	0.001	0.000
254.00	256.00		0.0				229977	0.002	0.000
256.00	258.00		0.0				229978	0.004	0.000
258.00	260.00		0.0				229979	0.010	0.000
260.00	262.00		0.0				229981	0.004	0.000
262.00	264.00		0.0				229982	0.001	0.005
264.00	266.00		0.0				229983	0.001	0.000
266.00	268.00		0.0				229984	0.001	0.005
268.00	270.00	Very fine to coarse grained grey moderately propyllitic	0.0			Epidote more pervasive than previous intervals.	229985	0.001	0.008
270.00	272.00	Very fine to coarse grained grey weakly propyllitic	0.0			Epidote alteration decreased from previous interval, hematite alteration increased.	229986	0.001	0.000
272.00	274.00		0.0			Hmeatite alteration slightly decreased from previous interval.	229987	0.001	0.005
274.00	276.00		0.0				229988	0.002	0.000
276.00	278.00		0.0			Hematite alteration decreased.	229989	0.002	0.000
278.00	280.00		0.0				229990	0.002	0.005
280.00	282.00		0.0				229991	0.001	0.000
282.00	284.00		0.0			Calcite and zeolite veins now running dominantly at 45 º to core axis.	229992	0.002	0.000
284.00	286.00		0.0				229993	0.001	0.000
286.00	288.00		0.0				229994	0.002	0.000

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-11

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
288.00	290.00	Very fine to coarse grained grey weakly propyllitic	0.0				229995	0.002	0.000
290.00	292.00		0.0				229996	0.002	0.000
292.00	294.00		0.0			Broken to rubbly.	229997	0.001	0.005
294.00	296.00						229998	0.001	0.000
296.00	298.00					Core is rubbly, possibly indicating a fault zone.	229999	0.002	0.000
298.00	300.00		**0.0**			Trace chalcopyrite specks within a quartz vein within a basalt clast at 298.6m. Clast is 8cm across. Vein is only within the clast and does not cross into the host rock. Vein also has specks of epidote. At 298.7m clast of quartz with magnetite sepckled throughout has specks of chalcopyrite.	230000	0.005	0.010
300.00	302.00		**0.0**				225241	0.002	0.000
302.00	304.00		**0.0**			In addition to propylitic alteration, rock is now also silicified.	225242	0.002	0.008
304.00	306.00		**0.0**				225243	0.004	0.005
306.00	308.00		**0.0**				225244	0.002	0.000
308.00	310.00		**0.0**				225245	0.001	0.000
310.00	312.00		**0.0**				225247	0.001	0.008
312.00	314.00		**0.0**				225248	0.001	0.008
314.00	316.00		**0.0**				225249	0.001	0.000
316.00	318.00		**0.0**				225250	0.001	0.005
318.00	320.00		**0.0**				225251	0.001	0.007
320.00	322.00		**0.0**				225252	0.000	0.000
322.00	324.00		**0.0**				225253	0.001	0.000
324.00	326.00		**0.0**				225254	0.001	0.000
326.00	328.00		**0.0**			Epidote alteration is more intense/pervasive at the top of the interval, grading back to weak/patchy towards the bottom of the interval.	225255	0.001	0.000

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-11

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
328.00	330.00	Very fine to coarse grained grey moderately propyllitic				Increase in hematite alteration intensity, partially obscuring primary textures. Clast abundance decreased to <l%.	225256	0.001	0.000
330.00	332.00					Similar to previous interval.	225257	0.002	0.000
332.00	334.00						225258	0.002	0.000
334.00	336.00					Alteration intensity decreasing, but still moderate.	225259	0.002	0.000
336.00	338.00	Very fine to coarse grained grey weakly propyllitic				Alteration intensity decreased to weak. Clast abundance increased to 1-5%.	225260	0.003	0.008
338.00	340.00						225261	0.002	0.005
340.00	342.00						225262	0.001	0.000
342.00	344.00						225263	0.001	0.000
344.00	346.00						225264	0.002	0.000
346.00	348.00					Competent to broken.	225265	0.002	0.000
348.00	350.00						225266	0.001	0.000
350.00	352.00		0.0			Pyrite speck within basalt clast.	225267	0.002	0.005
352.00	354.00		0.0				225268	0.002	0.000
354.00	356.00		0.0			Minor stockworked calcite veining. Clast size increased; size ranges from 0.5-7cm across. Pyrite specks within basalt clasts.	225269	0.003	0.000
356.00	358.00		0.0				225270	0.003	0.005
358.00	360.00		0.0				225271	0.002	0.010
360.00	362.00		0.0			Poor recovery. Fault zone marked by rubble and gouge.	225273	0.005	0.000
362.00	364.00		0.0			Fractured to broken.	225274	0.002	0.000
364.00	366.00		0.0			Pyrite specks within highly epidote altered clast.	225275	0.002	0.000
366.00	368.00		0.0				225276	0.001	0.000
368.00	370.00		0.0				225277	0.001	0.005
370.00	372.00		0.0				225278	0.001	0.011
372.00	374.00		0.0				225279	0.002	0.000
374.00	376.00		0.0				225280	0.001	0.000

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-11

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)		Comments	Sample#	Cu %	Au ppm
376.00	378.00	Very fine to coarse grained grey weakly propyllitic	0.0				Fractured to broken.	225281	0.003	0.000
378.00	380.00		0.0				Pyrite speck within a highly epidote altered clast.	225282	0.002	0.000
380.00	382.00		0.0				Pyrite flecks within a basalt clast.	225283	0.002	0.000
382.00	384.00		0.0					225284	0.002	0.000
384.00	386.00		0.0				Broken to rubbly. Calcite-zeolite-hematite-epidote vein with pyrite blebs and specks (within matrix).	225285	0.002	0.000
386.00	388.00		0.0					225286	0.002	0.000
388.00	390.00		0.0					225287	0.003	0.000
390.00	392.00		0.0					225288	0.005	0.000
392.00	394.00		0.0				Trace pyrite flecks within basalt clasts.	225289	0.002	0.000
394.00	396.00		0.0					225290	0.002	0.005
396.00	398.00		0.0					225291	0.001	0.000
398.00	400.00		0.0				Clast size decreased to 3mm-3cm and abundace decreased to 1-3%.	225292	0.002	0.000
400.00	402.00							225293	0.001	0.000
402.00	404.00							225294	0.002	0.000
404.00	406.00				FLT	25	Minor fault marked by gouge at 405.1m.	225295	0.002	0.000
406.00	408.00							225296	0.002	0.000
408.00	410.00							225297	0.002	0.000
410.00	412.00							225299	0.002	0.000
412.00	414.00							225300	0.002	0.000
414.00	416.00							225301	0.002	0.005
416.00	418.00							225302	0.002	0.000
418.00	420.00							225303	0.002	0.007
420.00	422.00							225304	0.002	0.000
422.00	424.00							225305	0.001	0.000
424.00	426.00							225306	0.002	0.006

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-11

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
426.00	428.00	Very fine to coarse grained grey weakly propyllitic					225307	0.001	0.007
428.00	430.00						225308	0.002	0.005
430.00	432.00		0.0			Specks of pyrite around the edge of an intrusive clast, both within the clast and the matrix.	225309	0.003	0.000
432.00	434.00		0.0				225310	0.002	0.005
434.00	436.00		0.0			Specks of pyrite around the edges of an basalt clasts, both within the clasts and the matrix.	225311	0.002	0.000
436.00	438.00		0.0			Trace specks of pyrite within a highly epidote altered basalt clast.	225312	0.002	0.000
438.00	440.00		0.0				225313	0.002	0.013
440.00	442.00		0.0			Speck of pyrite within a patch of epidote. Minor stockworked calcite veining.	225314	0.001	0.000
442.00	444.00		0.0				225315	0.002	0.005
444.00	446.00		0.0				225316	0.003	0.000
446.00	448.00		0.0				225317	0.002	0.000
448.00	450.00		0.0			Fleck of pyrite within the matrix.	225318	0.003	0.000
450.00	452.00		0.0				225319	0.002	0.000
452.00	454.00		0.0				225320	0.002	0.000
454.00	456.00		0.0				225321	0.002	0.000
456.00	458.00		0.0				225322	0.002	0.000
458.00	460.00		0.0			Pyrite fleck within an epidote altered basalt clast.	225323	0.001	0.000
460.00	462.00		0.0			Broken to rubbly.	225325	0.002	0.000
462.00	464.00		0.0				225326	0.003	0.000
464.00	466.00		0.0				225327	0.002	0.000
466.00	468.00		0.0				225328	0.001	0.000
468.00	470.00		0.0				225329	0.001	0.000
470.00	472.00						225330	0.001	0.000
472.00	474.00						225331	0.002	0.000

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-11

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
474.00	476.00	Very fine to coarse grained grey weakly propyllitic					225332	0.002	0.000
476.00	478.00						225333	0.002	0.000
478.00	480.00						225334	0.002	0.000
480.00	482.00						225335	0.002	0.000
482.00	484.00						225336	0.002	0.000
484.00	486.00						225337	0.002	0.000
486.00	488.00					Pyrite bleb within an epidote patch.	225338	0.001	0.000
488.00	490.00		0.0			Alteration is weak to non-existent.	225339	0.002	0.000
490.00	492.00		0.0			Pyrite specks within epidote patches.	225340	0.002	0.000
492.00	494.00		0.0				225341	0.002	0.000
494.00	496.00		0.0				225342	0.001	0.000
496.00	498.00		0.0				225343	0.002	0.000
498.00	500.00		0.0				225344	0.001	0.000
500.00	502.00		0.0				225345	0.000	0.000
502.00	504.00		0.0				225346	0.001	0.000
504.00	506.00		0.0			Alteration slightly increased.	225347	0.002	0.000
506.00	508.00		0.0				225348	0.001	0.000
508.00	510.00		0.0				225349	0.003	0.000
510.00	512.00		0.0			Disseminated pyrite in and around fault from 511.2-511.5m. Fault is marked by broken core and	225351	0.003	0.000
512.00	514.00		0.0				225352	0.003	0.000
514.00	516.00		0.0			Pyrite bleb within epidote patch.	225353	0.001	0.000
516.00	518.00		0.0				225354	0.001	0.000
518.00	520.00		0.0			Broken to rubbly. Rubble in this and next interval possibly indicate a fault zone.	225355	0.001	0.000
520.00	522.00		0.0			Rubbly to competent.	225356	0.001	0.000
522.00	524.00		0.0				225357	0.001	0.000

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-11

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
524.00	526.00	Very fine to coarse grained grey weakly propyllitic	0.0			Moderate to intense alteration which decreases back to weak beginning at 525.8m.	225358	0.001	0.000
526.00	528.00	Very fine to coarse grained grey moderately propyllitic	0.0				225359	0.001	0.000
528.00	530.00	Very fine to coarse grained grey weakly propyllitic	0.0				225360	0.002	0.000
530.00	532.00		0.0				225361	0.002	0.000
532.00	534.00		0.0			Broken to rubbly.	225362	0.001	0.000
534.00	536.00		0.0				225363	0.001	0.000
536.00	538.00		0.0				225364	0.001	0.000
538.00	538.60					End of hole.	225365	0.001	0.000

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-13

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
11.2	337.4	**FRAGMENTAL HETEROLITHIC CRYSTAL-LITHIC TUFF**							
11.20	14.00	Fine to coarse grained grey weakly hematitic				Extremely broken core at the beginning of the hole with a low core recovery. 1-3% angular to sub-rounded clasts of dominantly basalt and subordinate plagioclase phyric volcanics, intrusives and crystal lithic tuff. Clasts are 3mm-3cm. Matrix is composed of feldspar crystal fragments and fine magnetite grains in an ashy matrix. Infrequent (1-2%) quartz eyes. Alteration is dominantly weak hematite and chlorite with a spotty overprint of epidote and carbonate stringers. Epidote alteration increases with depth. Mineralization is mostly absent except for rare pyrite within clasts. Minor calcite and zeolite veining oriented 40-60 deg to the core axis. Minor hematite veining randomly oriented. Small black magnetite specks around 1-2 mm in shape.	227562	0.002	0.000
14.00	17.00						227563	0.001	0.000
17.00	20.00	Fine to coarse grained grey pink weakly hematitic					227564	0.001	0.000
20.00	24.00	Fine to coarse grained grey weakly hematitic				Low core recovery.	227565	0.001	0.000
24.00	26.00						227566	0.004	0.000
26.00	28.00	Fine to coarse grained grey pink weakly hematitic					227567	0.001	0.000
28.00	30.00						227568	0.001	0.000
30.00	32.00					Epidote alteration within volcanic clasts has increased.	227569	0.002	0.000
32.00	34.00						227570	0.001	0.000
34.00	36.00						227571	0.001	0.000
36.00	38.00					Epidote within the matrix has increased slightly.	227572	0.001	0.000
38.00	40.00					Patchy siliceous alteration.	227573	0.001	0.000
40.00	42.00	Fine to coarse grained grey weakly silicified (non-K)				Siliceous alteration has increased with a decrease in hematite alteration.	227574	0.004	0.000
42.00	44.00						227576	0.001	0.000
44.00	46.00		0.0				227577	0.003	0.000

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-13

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
46.00	48.00	Fine to coarse grained grey weakly silicified (non-K)	0.0			Hematite alteration has increased, but the siliceous alteration is dominant.	227578	0.002	0.000
48.00	50.00	Fine to coarse grained grey weakly propyllitic	0.0			Epidote and hematite alteration have become dominant.	227579	0.001	0.000
50.00	52.00		0.0			Epidote and hematite alteration decrease towards the end of the interval.	227580	0.002	0.000
52.00	54.00	Fine to coarse grained grey maroon moderately hematitic				Hematite alteration has increased with patchy epidote and siliceous alteration.	227581	0.002	0.000
54.00	56.00						227582	0.002	0.000
56.00	58.00					Hematite alteration decreases towards the end of the interval and becomes more siliceous.	227583	0.004	0.000
58.00	60.00	Fine to coarse grained grey black weakly silicified (non-K)					227584	0.002	0.000
60.00	62.00	Fine to coarse grained grey weakly silicified (non-K)					227585	0.003	0.000
62.00	64.00	Fine to coarse grained tan weakly silicified (non-K)				Poor recovery at end of interval.	227586	0.002	0.000
64.00	66.00	Fine to coarse grained grey pink weakly hematitic				Poor recovery at beginning of interval. Hematite alteration increased relative to siliceous alteration.	227587	0.001	0.000
66.00	68.00						227588	0.002	0.000
68.00	70.00					Hematite alteration decreases towards bottom of	227589	0.002	0.005
70.00	72.00	Fine to coarse grained grey weakly silicified (non-K)				Silica alteration increased, hematite alteration	227590	0.003	0.000
72.00	74.00						227591	0.003	0.000
74.00	76.00	Fine to coarse grained grey weakly propyllitic				Increased hematite alteration with patchy epidote.	227592	0.002	0.000
76.00	78.00						227593	0.002	0.000
78.00	80.00	Fine to coarse grained grey weakly silicified (non-K)				Epidote and hematite alteration decreased.	227594	0.001	0.000
80.00	82.00						227595	0.002	0.000
82.00	84.00						227596	0.002	0.000
84.00	86.00						227597	0.002	0.000

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-13

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
86.00	88.00	Fine to coarse grained grey weakly propyllitic				Increased hematite alteration and patchy epidote alteration.	227598	0.003	0.000
88.00	90.00	Fine to coarse grained grey weakly hematitic				Patchy epidote alteration decreased.	227599	0.001	0.000
90.00	92.00						227601	0.002	0.000
92.00	94.00	Fine to coarse grained grey weakly silicified (non-K)				Hematite alteration decreased.	227602	0.002	0.006
94.00	96.00						227603	0.002	0.000
96.00	98.00						227604	0.001	0.000
98.00	100.00		0.0			Speck of pyrite within the matrix.	227605	0.003	0.008
100.00	102.00		0.0				227606	0.002	0.000
102.00	104.00		0.0				227607	0.002	0.000
104.00	106.00		0.0				227608	0.002	0.000
106.00	108.00		0.0				227609	0.002	0.000
108.00	110.00	Fine to coarse grained grey weakly propyllitic	0.0			Epidote alteration increases down interval. Alteration has become propylitic: epidote, chlorite, calcite stringers, hematite, silica.	227610	0.001	0.000
110.00	112.00		0.0			Epidote alteration decreased from previous interval.	227611	0.002	0.000
112.00	114.00		0.0			Increased hematite alteration and patchy epidote alteration. Core is competent to broken.	227612	0.001	0.000
114.00	116.00		0.0				227613	0.002	0.000
116.00	118.00		0.0			Specks of pyrite within a basalt clast.	227614	0.001	0.000
118.00	120.00		0.0			Epidote alteration increased, but still patchy.	227615	0.003	0.000
120.00	122.00		0.0				227616	0.001	0.000
122.00	124.00	Fine to coarse grained pink green weakly propyllitic	0.0				227617	0.004	0.000
124.00	126.00	Fine to coarse grained pink green moderately propyllitic	0.0			Epidote alteration changes from patchy to pervasive down interval.	227618	0.002	0.000
126.00	128.00		0.0			Epidote alteration changes from pervasive to patchy down interval. Specks of pyrite within and around epidote altered basalt clasts.	227619	0.002	0.000

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-13

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
128.00	130.00	Fine to coarse grained grey weakly propyllitic	0.0			Pyrite specks within an epidote altered basalt clast.	227620	0.002	0.000
130.00	132.00		0.0				227621	0.003	0.000
132.00	134.00		0.0				227622	0.002	0.000
134.00	136.00		0.0				227623	0.001	0.005
136.00	138.00	Fine to coarse grained grey moderately propyllitic	0.0			Alteration increases down interval from weak to moderate to strong. Strong alteration partially obscures primary textures.	227624	0.002	0.000
138.00	140.00		0.0			Alteration decreases down interval from strong and pervasive to patchy and weak.	227625	0.002	0.000
140.00	142.00	Fine to coarse grained grey weakly propyllitic	0.0			Patchy and weak to pervasive and moderate alteration.	227627	0.001	0.000
142.00	144.00	Fine to coarse grained green moderately propyllitic	0.0			Alteration increases down to interval to strong and pervasive, partially obscuring primary textures.	227628	0.001	0.000
144.00	146.00		0.0			Alteration decreases down interval to moderate and then increases to strong again at end of interval.	227629	0.001	0.000
146.00	148.00		0.0			Alteration decreased to moderate.	227630	0.003	0.000
148.00	150.00		0.0				227631	0.002	0.000
150.00	152.00		0.0				227632	0.002	0.000
152.00	154.00		0.0				227633	0.003	0.000
154.00	156.00	Fine to coarse grained green strongly propyllitic	0.0			Alteration increased to strong, partially obscuring primary textures.	227634	0.002	0.000
156.00	158.00		0.0				227635	0.003	0.000
158.00	160.00		0.0				227636	0.003	0.000
160.00	162.00		0.0				227637	0.002	0.000
162.00	164.00		0.0				227638	0.001	0.000
164.00	166.00		0.0			Surface of core has pitted texture from beginning of interval until 164.8m.	227639	0.001	0.000
166.00	168.00		0.0				227640	0.000	0.000
168.00	170.00	Fine to coarse grained moderately propyllitic	0.0			Alteration has decreased from strong to moderate.	227641	0.000	0.005

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-13

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)		Comments	Sample#	Cu %	Au ppm
170.00	172.00	Fine to coarse grained grey moderately propyllitic	0.0					227642	0.000	0.000
172.00	174.00		0.0		FLT	65	Minor fault marked by gouge at 173.7m.	227643	0.001	0.000
174.00	176.00		0.0					227644	0.001	0.000
176.00	178.00	Fine to coarse grained moderately propyllitic	0.0					227645	0.001	0.000
178.00	180.00	Fine to coarse grained grey moderately propyllitic	0.0					227646	0.002	0.000
180.00	182.00	Fine to coarse grained grey weakly propyllitic	0.0				Alteration has become weak and epidote patchy to non-existent.	227647	0.003	0.000
182.00	184.00		0.0					227648	0.003	0.000
184.00	186.00	Fine to coarse grained grey weakly silicified (non-K)	0.0				Alteration is dominated by silica with subordinate hematite. Epidote is absent except infrequently within clasts.	227649	0.003	0.000
186.00	188.00		0.0					227650	0.002	0.000
188.00	190.00		0.0					227651	0.002	0.000
190.00	192.00		0.0					227653	0.001	0.000
192.00	194.00		0.0					227654	0.002	0.000
194.00	196.00		0.0					227655	0.001	0.000
196.00	198.00		0.0					227656	0.001	0.000
198.00	200.00		0.0					227657	0.002	0.000
200.00	202.00		0.0					227658	0.002	0.000
202.00	204.00		0.0					227659	0.002	0.000
204.00	206.00		0.0					227660	0.002	0.000
206.00	208.00	Fine to coarse grained pink weakly hematitic	0.0				Hematitic alteration increased.	227661	0.002	0.000
208.00	210.00		0.0					227662	0.002	0.000
210.00	212.00		0.0					227663	0.001	0.000
212.00	214.00		0.0				Pyrite specks within basalt clast.	227664	0.001	0.000
214.00	216.00		0.0					227665	0.002	0.000

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-13

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
216.00	218.00	Fine to coarse grained pink weakly hematitic	0.0				227666	0.002	0.000
218.00	220.00		0.0				227667	0.001	0.000
220.00	222.00	Fine to coarse grained grey weakly silicified (non-K)				Hematite alteration decreased.	227668	0.002	0.000
222.00	224.00						227669	0.001	0.000
224.00	226.00						227670	0.001	0.000
226.00	228.00						227671	0.002	0.000
228.00	230.00	Fine to coarse grained green weakly propyllitic				Patchy epidote; chlorite alteration increased.	227672	0.001	0.000
230.00	232.00						227673	0.001	0.000
232.00	234.00						227674	0.002	0.000
234.00	236.00						227675	0.001	0.000
236.00	238.00						227676	0.002	0.000
238.00	240.00	Fine to coarse grained green weakly silicified (non-K)				Epidote alteration very weak to non-existent; chlorite alteration decreased.	227677	0.001	0.000
240.00	242.00						227679	0.002	0.000
242.00	244.00						227680	0.002	0.000
244.00	246.00						227681	0.003	0.000
246.00	248.00						227682	0.003	0.000
248.00	250.00						227683	0.003	0.000
250.00	252.00	Fine to coarse grained grey weakly silicified (non-K)					227684	0.002	0.000
252.00	254.00						227685	0.002	0.000
254.00	256.00						227686	0.001	0.000
256.00	258.00						227687	0.001	0.000
258.00	260.00						227688	0.002	0.000
260.00	262.00					261.7-262.0m is moderately to intensely propylitic marked by an increase in epidote (continues into following interval).	227689	0.002	0.000

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-13

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
262.00	264.00	Fine to coarse grained pink weakly hematitic				Moderate propylitic alteration until 262.2m followed by intense hematitc alteration which grades quickly into weak hematitic alteration down interval.	227690	0.002	0.000
264.00	266.00		0.0			Bleb of pyrite within an intensely epidote altered clast.	227691	0.002	0.000
266.00	268.00	Fine to coarse grained grey weakly silicified (non-K)	0.0			Hematitic alteration decreased.	227692	0.003	0.000
268.00	270.00		0.0			Core is broken to rubbly from 268.0-268.3m.	227693	0.002	0.000
270.00	272.00		0.0				227694	0.001	0.000
272.00	274.00		0.0				227695	0.001	0.000
274.00	276.00	Fine to coarse grained grey weakly propyllitic	0.0			Patchy epidote. Specks of pyrite within and around a zeolite-epidote-calcite vein.	227696	0.002	0.000
276.00	278.00		0.0			Pyrite bleb within a basalt clast.	227697	0.004	0.000
278.00	280.00		0.0				227698	0.001	0.000
280.00	282.00		0.0				227699	0.001	0.007
282.00	284.00		0.0				227700	0.002	0.000
284.00	286.00		0.0				227701	0.001	0.000
286.00	288.00		0.0			Rare pyrite specks within a basalt clast and within the matrix.	227702	0.002	0.000
288.00	290.00		0.0				227703	0.003	0.000
290.00	292.00		0.0				227705	0.002	0.000
292.00	294.00		0.0			Pyrite specks within a basalt clast.	227706	0.002	0.000
294.00	296.00		0.0			Pyrite specks within a clast.	227707	0.002	0.000
296.00	298.00		0.0			Pyrite specks within epidote patches.	227708	0.002	0.000
298.00	300.00		0.0			Pyrite specks within epidote patches and basalt clasts.	227709	0.003	0.000
300.00	302.00		0.0			Hematite alteration increased.	227710	0.002	0.000
302.00	304.00		0.0			Rare pyrite specks associated with calcite veining.	227711	0.002	0.000
304.00	306.00		0.0			Pyrite specks and stringers within a basalt clast.	227712	0.002	0.000
306.00	308.00		0.0			Pyrite specks within basalt clasts.	227713	0.002	0.000
308.00	310.00		0.0				227714	0.002	0.000

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-13

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
310.00	312.00	Fine to coarse grained grey weakly propyllitic	0.0			Pyrite specks within an epidote patch.	227715	0.001	0.000
312.00	314.00		0.0				227716	0.002	0.005
314.00	316.00		0.0			Pyrite specks within epidote altered basalt clasts.	227717	0.002	0.000
316.00	318.00		0.0				227718	0.001	0.000
318.00	320.00		0.0				227719	0.003	0.000
320.00	322.00		0.0			Pyrite specks within epidote altered basalt clasts.	227720	0.001	0.000
322.00	324.00		0.0				227721	0.002	0.000
324.00	326.00		0.0				227722	0.002	0.000
326.00	328.00		0.0				227723	0.002	0.000
328.00	330.00		0.0			Pyrite specks within basalt clasts.	227724	0.001	0.000
330.00	332.00		0.0				227725	0.002	0.000
332.00	334.00		0.0				227726	0.002	0.000
334.00	336.00		0.0				227727	0.002	0.000
336.00	337.40		0.0			End of hole.	227728	0.002	0.000

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-14

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
10.9	19.7	**FRAGMENTAL HETEROLITHIC TUFF**							
10.90	14.30	Fine to coarse grained grey weakly silicified (non-K)	1.0 **0.1**			Light grey, hard, non magnetic, massive tuffaceous unit. Lower contact fault bounded at 70 º to core axis. Unit contains 1mm tiny white feldspars, 1mm glassy quartz eyes, epidote altered fragments 2-3mm across and 1-2cm fragments of Sovereign intrusive. Matrix is very fine grained. Alteration is mainly silicification, with hematite in sections where the fragments of intrusive become more abundant. Epidote occurs as veinlets and preferentially within small fragments. 2-3% late stage carbonate veining with hematite stain. Veining shows no preferred orientation. Magnetite/quartz/pyrite veining occurs at 40 º to core axis, but is not abundant. Fine disseminated pyrite throughout. Local blebby chalcopyrite. Sample 225367 contains fine malachite along fracture surfaces.	225367	0.045	0.006
14.30	16.00	Fine to coarse grained pink strongly hematitic				Mostly fragments of Sovereign intrusive, very hematite altered. Evidence of weathering and 'rusting'. Very broken. No apparent mineralization.	225368	0.042	0.016
16.00	18.00						225369	0.029	0.021
18.00	19.70	Fine to coarse grained grey weakly silicified (non-K)	1.0 **0.1**			Very few intrusive fragments, agmentite/quartz/pyrite veining at 40 º to core axis, local blebby chalcopyrite. Epidote veinlets throughout.	225370	0.121	0.053
19.7	83.9	**PORPHYRITIC QUARTZ MONZONITE INTRUSIVE**							
19.70	22.00	Medium to coarse grained pink strongly hematitic	0.0 **0.0**			Massive, hard, non magnetic interval of Sovereign intrusive. Possibly a dyke. Upper contact fault bounded at 70 º to core axis, lower contact fault bounded at 75 º to core axis. Strongly hematite altered/stained, giving the maroon-pink colour. 3-4% 2-4mm biotite crystals, 3-4% 2-4mm subrounded and shattered quartz grains, 8-10% hematite stained feldspars, all within a fine grey matrix. 1% late stage carboante veining 10-20 º to core axis, local anhydrite/zeolite veining. Variations occur in the abundance of feldspar and the intensity of hematite staining, giving the appearance of a phase change. No apparent mineralization.	225371	0.075	0.010
22.00	24.00		0.0 **0.0**				225372	0.026	0.000

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-14

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
24.00	26.00	Medium to coarse grained pink strongly hematitic	0.0	**0.0**			225373	0.003	0.000
26.00	28.00		0.0	**0.0**			225374	0.010	0.000
28.00	30.00		0.0	**0.0**			225376	0.013	0.000
30.00	32.00		0.0	**0.0**			225377	0.001	0.000
32.00	34.00		0.0	**0.0**			225378	0.001	0.000
34.00	36.00		0.0	**0.0**			225379	0.001	0.000
36.00	38.00		0.0	**0.0**			225380	0.001	0.000
38.00	40.00		0.0	**0.0**			225381	0.002	0.000
40.00	42.00		0.0	**0.0**			225382	0.001	0.000
42.00	44.00		0.0	**0.0**			225383	0.002	0.000
44.00	46.00		0.0	**0.0**			225384	0.002	0.000
46.00	48.00		0.0	**0.0**			225385	0.001	0.005
48.00	50.00		0.0	**0.0**			225386	0.001	0.000
50.00	52.00		0.0	**0.0**			225387	0.001	0.000
52.00	54.00		0.0	**0.0**			225388	0.000	0.000
54.00	56.00		0.0	**0.0**			225389	0.001	0.005
56.00	58.00		0.0	**0.0**			225390	0.001	0.005
58.00	60.00		0.0	**0.0**			225391	0.001	0.000
60.00	62.00		0.0	**0.0**			225392	0.000	0.000
62.00	64.00		0.0	**0.0**			225393	0.001	0.000
64.00	66.00		0.0	**0.0**			225394	0.000	0.000
66.00	68.00		0.0	**0.0**			225395	0.000	0.009
68.00	70.00		0.0	**0.0**			225396	0.001	0.005
70.00	72.00		0.0	**0.0**			225397	0.001	0.000
72.00	74.00		0.0	**0.0**			225398	0.002	0.006
74.00	76.00		0.0	**0.0**			225399	0.001	0.000

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-14

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
76.00	78.00	Medium to coarse grained pink strongly hematitic	0.0 **0.0**				225401	0.001	0.000
78.00	80.00		0.0 **0.0**				225402	0.002	0.009
80.00	82.00		0.0 **0.0**				225403	0.002	0.011
82.00	83.90		0.0 **0.0**				225404	0.003	0.012
83.9	94.4	**MASSIVE ANDESITE FLOW**							
83.90	86.00	Fine to medium grained grey moderately silicified (non-K)	1.2 **0.3**			Grey, hard, non magnetic, andesite flow. Upper contact fault bounded at 75 º to core axis, lower contact is distinct but not sharp. Unit is silicified, with local weak epidote. Texture is variable throughout from massive, to the presence at 1-3mm augite phenocrysts, to a flow breccias texture. 1-2% quartz veining 10-15 º to core axis, occasionally with a magnetite/pyrite core. Fine pyrite throughout as hairline fracture fill and disseminated. 2-3mm quartz/pyrite/carbonate/chlorite +/- cpy veining at 40-50 º to core axis throughout. Occasional blebs of anhydrite. 2mm magnetite veining at 60 º to core axis occurs towards the base of the unit. Cpy also occurs as blebs throughout.	225405	0.240	0.202
86.00	88.00		1.2 **0.4**			2-3% 1-3mm augites present. Very blebby (locally massive) chalcopyrite.	225406	0.140	0.117
88.00	90.00		1.2 **0.2**			Massive interval, blebby chalcopyrite withing the magnetite/carboante/quartz veins.	225407	0.338	0.250
90.00	92.00		1.2 **0.1**			Flow breccias texture, occasional blebs of cpy, hairline magnetite/pyrite veinlets.	225408	0.259	0.189
92.00	93.00		1.2 **0.0**			2-3% 1-3mm augites present. No visible cpy.	225409	0.084	0.048
93.00	94.40		1.2 **0.0**			2-3mm magneite/pyrite veins present at 60 º to core axis. No visible chalcopyrite.	225410	0.257	0.154
94.4	100.3	**BRECCIATED QUARTZ MONZONITE DYKE**							

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-14

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
94.40	96.00	Fine to coarse grained grey pink moderately silicified (non-K)	0.5	**0.1**		Porphyritic intrusive with approximately 25% coarse grained plagioclase phenocrysts and 4% 2-4mm biotite crystals. Unit is massive to brecciated. Clasts and matrix are of similar composition. Upper contact is distinct but not sharp, lower contact is whispy. Quartz-anhydrite-magnetite veins infrequently carry molybdenite (rock is ~0.5% molybdenite); orientation is 40-45 º to core axis. Infrequent Weakly hematite altered/stained, giving slight pink colour; moderately silicified. Minor patchy magnetite. Infrequent	225411	0.258	0.142
96.00	98.00		0.5	**0.1**			225412	0.320	0.213
98.00	100.30	Fine to coarse grained grey pink strongly silicified (non-K)	0.5	**0.1**		Increase in silica alteration.	225413	0.349	0.245
100.3	118	**MASSIVE ANDESITE FLOW**							
100.30	102.00	Fine to coarse grained grey green moderately potassic - quartz-sericite-chlorite	0.1	**0.0**		Fine grained andesite flow. Top of unit contains 5-10% coarse grained, subhedral to euhedral augite phenocrysts. Augite abundance decreases down hole to less than 1%. Upper contact is whispy and rare clasts of the above unit are contained in this unit close to the contact. The lower contact is faulted. Alteration consists of quartz, sericite and chlorite with patchy magnetite. Veining consists of minor quartz-sericite and zeolite veins in various orientations, rare anhydrite veins and quartz-sericite veins containing molybdenite close to the upper contact. Pyrite is finely disseminated and in stringers. Rare flecks of chalcopyrite.	225414	0.269	0.203
102.00	104.00		0.1	**0.0**		~0.5% molybdenite.	225415	0.155	0.114
104.00	106.00		0.1	**0.0**		Stockworked quartz-sericite vein.	225416	0.399	0.370
106.00	108.00	Fine to coarse grained grey green moderately potassic - chlorite-quartz-sericite	0.1	**0.1**		Decrease in augite abundance to 1%. Increase in chalcopyrite flecks. Chlorite alteration dominate over quartz and sericite; minor biotite alteration. ~0.1% molybdenite.	225417	0.260	0.202
108.00	110.00	Fine to coarse grained grey green strongly potassic - chlorite-quartz-sericite	0.5	**0.1**		Minor biotite alteration still present. Alteration intensity increased. Increase in disseminated pyrite.	225418	0.350	0.274

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-14

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
110.00	112.00	Fine to coarse grained grey green strongly potassic - chlorite-quartz-biotite	0.5	**0.1**		Biotite alteration increased. Volcanic breccia texture: fine grained-aphanitic clasts in a similar matrix. Augite phenocrysts not present.	225419	0.223	0.164
112.00	114.00	Fine to coarse grained grey green strongly potassic - chlorite-quartz	0.5	**0.1**		Biotite alteration decreased.	225420	0.201	0.125
114.00	116.00		0.5	**0.1**			225421	0.262	0.174
116.00	118.00		0.5	**0.1**		Minor patchy epidote.	225422	0.105	0.054
118	120.3	**BRECCIATED ANDESITE FAULT ZONE**							
118.00	120.30	Fine to coarse grained grey green strongly potassic - chlorite-quartz	0.0	**0.0**		Core is broken to rubbly. Rock is dominantly a fine to very fine grained andesite flow, similar to previous unit, but some fragments appear to be tuffaceous. Alteration consists of quartz, chlorite and patchy epidote. Patchy magnetite. Zeolite veining in various orientations. Trace finely disseminated pyrite.	225423	0.092	0.069
120.3	127.8	**FRAGMENTAL HETEROLITHIC TUFF**							
120.30	122.00	Fine to coarse grained grey moderately silicified (non-K)	0.1	**0.0**		Light grey, hard, non magnetic, tuffaceous unit. Upper contact fault bounded. Unit contains 1mm white feldspars, rare 1mm glassy quartz eyes, epidote altered fragments 2-3mm across and 1-4cm fragments of Sovereign intrusive. Matrix is fine to very fine grained. Alteration is mainly silicification. Epidote occurs in stringers and veins and preferentially within small fragments. Carbonate veining in various orientations and infrequently stockworked. Infrequent flecks of pyrite throughout.	225424	0.161	0.063
122.00	124.00		0.1	**0.0**			225426	0.163	0.090
124.00	126.00		0.5	**0.0**		Increase in pyrite.	225427	0.072	0.070
126.00	127.80		0.1	**0.0**		Decrease in pyrite from previous interval.	225428	0.003	0.008
127.8	128.5	**MASSIVE BASALT DYKE**							

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-14

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
127.80	128.50	Fine to medium grained dark grey moderately silicified (non-K)	0.0 **0.0**			Dark grey to black, magnetic, aphanitic basalt dyke with medium grained, pink feldspar fragments and infrequent calcite filled amygdules. Last 10cm of unit is heterolithic tuff of previous unit. Lower contact between the dyke and the tuff is sharp at 20 º to core axis. Contact between the tuff and the following unit is sharp at 30 º to core axis. Upper contact is sharp at 35 º to core axis. Alteration is weak to non-existent silicification. Minor calcite veining at roughly 45 º to	225429	0.008	0.000
128.5	255.1	**PORPHYRITIC QUARTZ MONZONITE INTRUSIVE**							
128.50	130.50	Medium to coarse grained pink grey strongly hematitic	0.0 **0.0**			Massive, hard, non magnetic interval of Sovereign intrusive. Possibly a dyke. Strongly hematite altered/stained, giving the maroon-pink colour. Rare epidote patches. 3-4% 2-4mm biotite crystals, 3-4% 2-4mm subrounded and shattered quartz grains, 8-10% hematite stained feldspars, all within a fine grained grey matrix. 1% late stage carboante veining 15-25 º to core axis, local anhydrite/zeolite veining. Variations occur in the abundance of feldspar and the intensity of hematite staining, giving the appearance of a phase change. Rare pyrite flecks.	225430	0.005	0.006
130.50	132.50		0.0 **0.0**				225431	0.002	0.009
132.50	134.50		0.0 **0.0**				225432	0.005	0.006
134.50	136.50		0.0 **0.0**				225433	0.005	0.008
136.50	138.50		0.0 **0.0**			Rare flecks of pyrite.	225434	0.009	0.024
138.50	140.50		0.0 **0.0**				225435	0.042	0.047
140.50	142.50		0.0 **0.0**				225436	0.003	0.103
142.50	144.50		0.0 **0.0**			Rare flecks of pyrite.	225437	0.004	0.006
144.50	146.50		0.0 **0.0**				225438	0.018	0.009
146.50	148.50		0.0 **0.0**			Rare flecks of pyrite.	225439	0.003	0.007
148.50	150.50		0.1 **0.0**			Pyrite in flecks and stringers.	225440	0.018	0.034
150.50	152.50		0.1 **0.0**				225441	0.003	0.000

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-14

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
152.50	154.50	Medium to coarse grained pink grey strongly hematitic	0.0	**0.0**			225442	0.001	0.000
154.50	156.50		0.0	**0.0**			225443	0.003	0.008
156.50	158.50		0.0	**0.0**			225444	0.010	0.020
158.50	160.50	Medium to coarse grained dark grey black moderately chloritic	0.1			Hematite alteration decreased with a slight increase in chlorite and sericite alteration.	225445	0.028	0.047
160.50	162.50	Coarse grained dark grey black moderately chloritic	0.1			Patchy siliceous sections. Hematite alteration increased towards the end of the section along with minor epidote in the veins.	225446	0.009	0.015
162.50	164.50	Coarse grained pink grey moderately hematitic	0.1			Hematite alteration has become dominant.	225447	0.021	0.011
164.50	166.50	Coarse grained pink grey strongly hematitic	0.0			Magnetite present within the veins as fine grained black specks. Moderate sericite alteration within the matrix and moderate epidote within the veins. Veining has increased to about 3-5% of the unit and is composed of calcite, hematite and zeolite with minor anhydrite present. The vein orientation is 30-40 deg to the core	225448	0.032	0.017
166.50	168.50		0.2	**0.0**		Trace of chalcopyrite present within the veins.	225450	0.073	0.209
168.50	170.50	Coarse grained pink grey moderately hematitic	0.1				225451	0.057	0.063
170.50	172.50		0.0				225452	0.010	0.014
172.50	174.50		0.0				225453	0.009	0.018
174.50	176.50	Coarse grained pink grey strongly hematitic	0.0				225454	0.019	0.078
176.50	178.50	Coarse grained pink intensely hematitic	0.0				225455	0.031	0.264
178.50	180.50		0.0				225456	0.062	0.108
180.50	182.50		0.1			Pyrite associated with epidote sections. Veining decreased to 1-2% of the unit.	225457	0.006	0.005
182.50	184.50		0.0				225458	0.004	0.007
184.50	186.50		0.0			Trace of magnetite is becoming more abundant within the unit as small black specks 1-3mm in size.	225459	0.003	0.006

Kemess East 2006 Diamond Drill Log

Northgate Minerals Corp.

KH-06-14

From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)			Comments	Sample#	Cu %	Au ppm
186.50	188.50	Coarse grained pink grey strongly hematitic	0.0					Patchy siliceous sections.	225460	0.006	0.008
188.50	190.50		0.1						225461	0.006	0.008
190.50	192.50	Coarse grained pink grey intensely hematitic						Pyrite amount has become non-existant.	225462	0.001	0.000
192.50	194.50								225463	0.003	0.007
194.50	196.50	Coarse grained pink intensely hematitic							225464	0.006	0.008
196.50	198.50								225465	0.002	0.000
198.50	200.50		0.0					Pyrite present with epidote alteration within veins.	225466	0.001	0.000
200.50	202.50	Coarse grained pink grey strongly hematitic	0.0						225467	0.001	0.000
202.50	204.50		0.0						225468	0.001	0.000
204.50	206.50		0.0					Siliceous patches.	225469	0.001	0.000
206.50	208.50	Coarse grained grey moderately silicified (non-K)						Siliceous alteration has becoming more prominent. Patchy hematite sections present.	225470	0.002	0.000
208.50	210.50	Coarse grained pink grey moderately hematitic	0.0					Hematite alteration has become more dominant.	225471	0.001	0.017
210.50	212.50		0.0						225472	0.003	0.007
212.50	214.50		0.0						225473	0.003	0.078
214.50	216.50	Coarse grained pink grey strongly hematitic	0.0						225475	0.003	0.000
216.50	218.50		0.0						225476	0.003	0.012
218.50	220.50	Coarse grained pink strongly hematitic	0.0						225477	0.010	0.086
220.50	222.50		0.0						225478	0.005	0.024
222.50	224.50	Coarse grained pink grey strongly hematitic	0.0		FLT	20	5	Minor faults marked by gouge.	225479	0.002	0.007
224.50	226.50	Coarse grained pink strongly hematitic	0.0						225480	0.003	0.000
226.50	228.50	Coarse grained pink intensely hematitic	0.0						225481	0.001	0.007

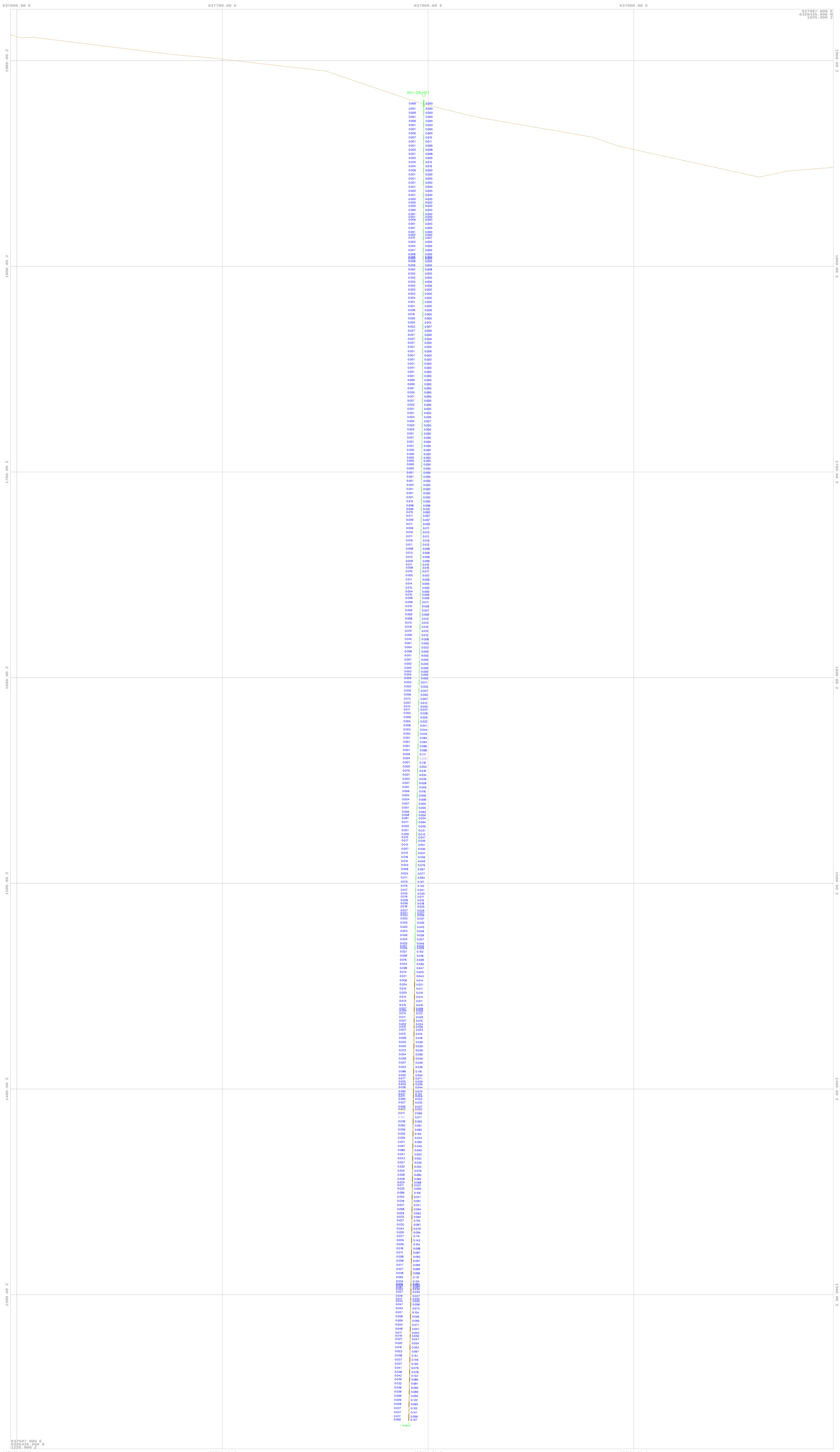
Kemess East 2006 Diamond Drill Log

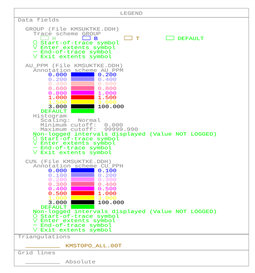
Northgate Minerals Corp.

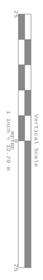
KH-06-14

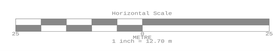
From	To	Rock Type	Py-Cpy-Mt	Ms	Veins (°tca-%)	Comments	Sample#	Cu %	Au ppm
228.50	230.50	Coarse grained pink intensely hematitic	0.0				225482	0.002	0.011
230.50	232.50	Coarse grained pink grey strongly hematitic	0.0			Patchy siliceous sections.	225483	0.002	0.000
232.50	234.50	Coarse grained pink grey moderately hematitic	0.0			Patchy siliceous alteration.	225484	0.004	0.000
234.50	236.50	Coarse grained pink strongly hematitic					225485	0.003	0.000
236.50	238.50		0.0				225486	0.004	0.010
238.50	240.50						225487	0.003	0.000
240.50	242.50	Coarse grained pink green strongly hematitic				Moderate epidote alteration.	225488	0.002	0.017
242.50	244.50	Coarse grained pink strongly hematitic					225489	0.002	0.000
244.50	246.50					Siliceous patches.	225490	0.001	0.029
246.50	248.50						225491	0.001	0.000
248.50	250.50						225492	0.002	0.000
250.50	253.00		0.0				225493	0.003	0.000
253.00	255.10		0.0				225494	0.003	0.000

255.1 EOH









Northgate Minerals Corp

Kemess Property

Kemess East

DDH KH-06-01 Viewing North

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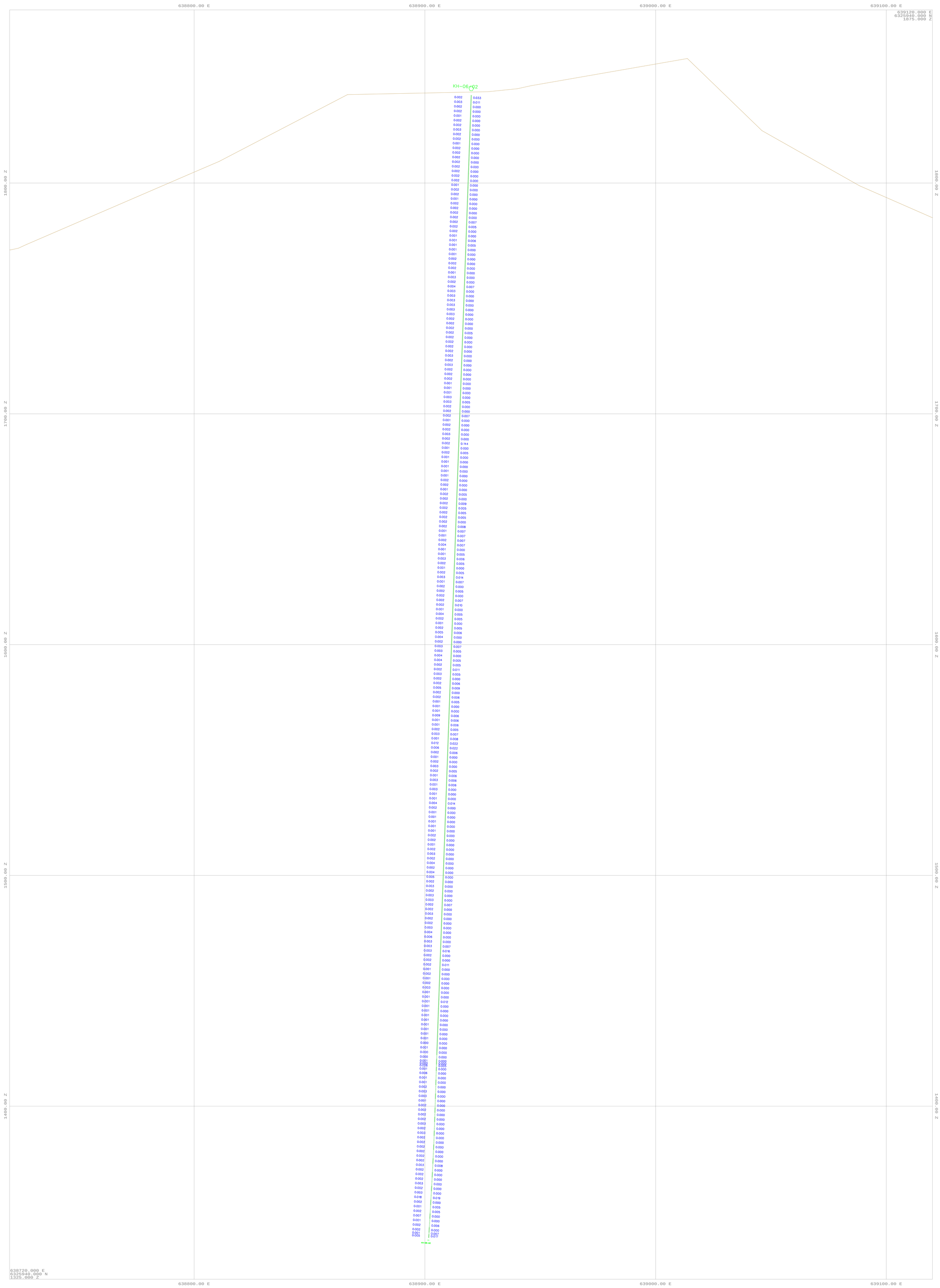
Project:	KMSU
Drawn by:	KL
Checked:	
Approved:	
Drawing No.	0



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Annotation scheme AU_PPM

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0.400	0.600
0.600	0.800
0.800	1.000
1.000	1.500
1.500	3.000
3.000	100.000

DEFAULT
Histogram Normal 0.000
Minimum Cutoff 0.000
Maximum Cutoff 5,000.000
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V Enter-extents symbol
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Annotation scheme CU_PPM

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0.200	0.300
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0.400	0.500
0.500	1.000
1.000	3.000
3.000	100.000

DEFAULT
Non-logged intervals displayed (Value NOT LOGGED)
O Start-of-trace symbol
V Enter-extents symbol
O Leave-trace symbol
V Exit extents symbol

Triangulations
KMSTOPO_ALL.00T

Grid lines
Absolute

Vertical Scale
Horizontal Scale
METRES
1 inch = 12.70 m

Northgate Minerals Corp

Kemess Property

Kemess East

DDH KH-06-02 Viewing North

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Drawn By:	KL
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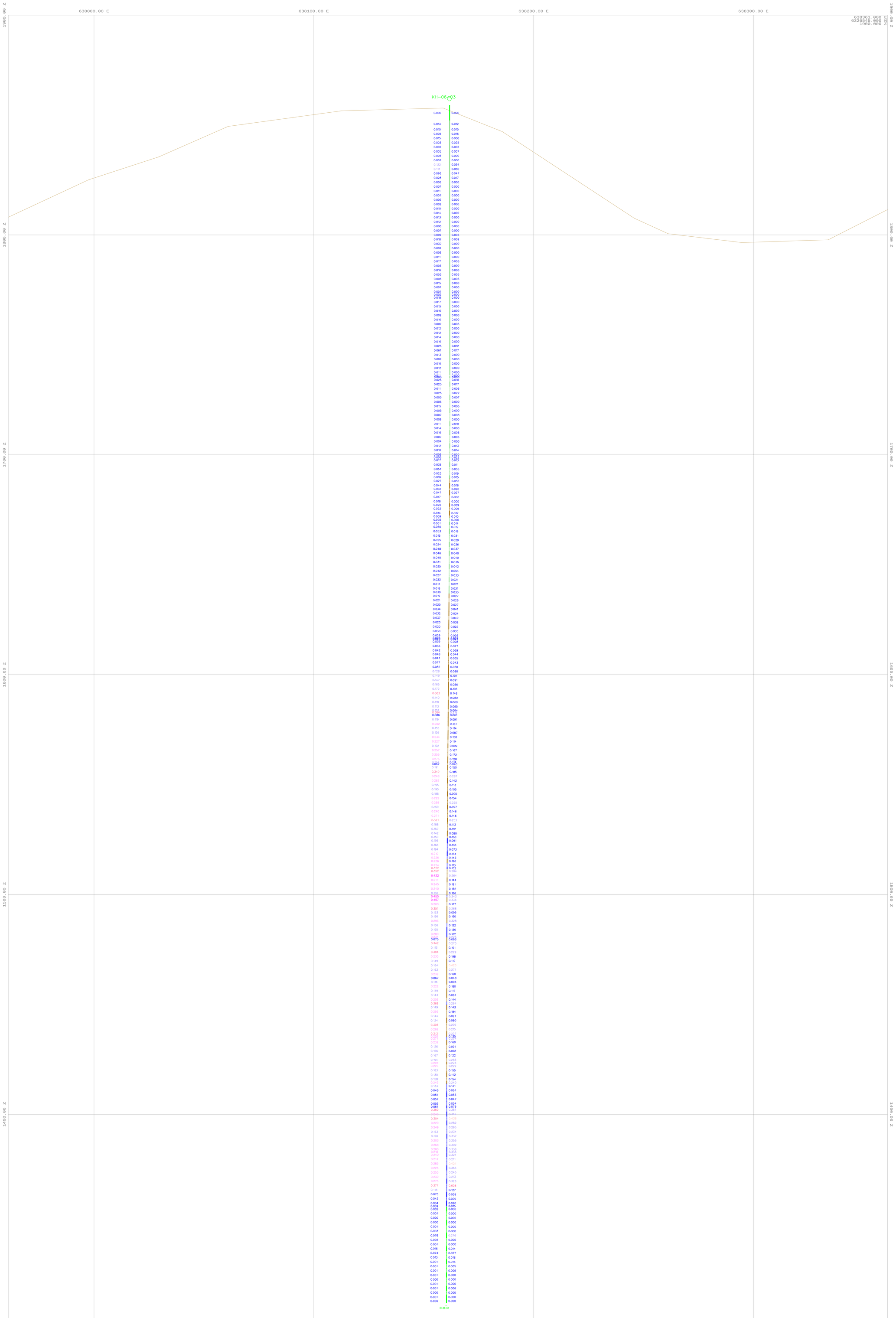

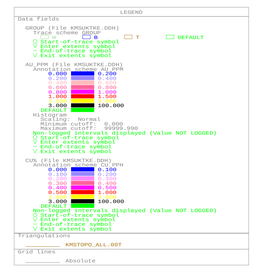

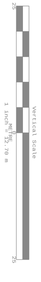

Northgate Minerals Corp

Kemess Property

Kemess East

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Approved:	
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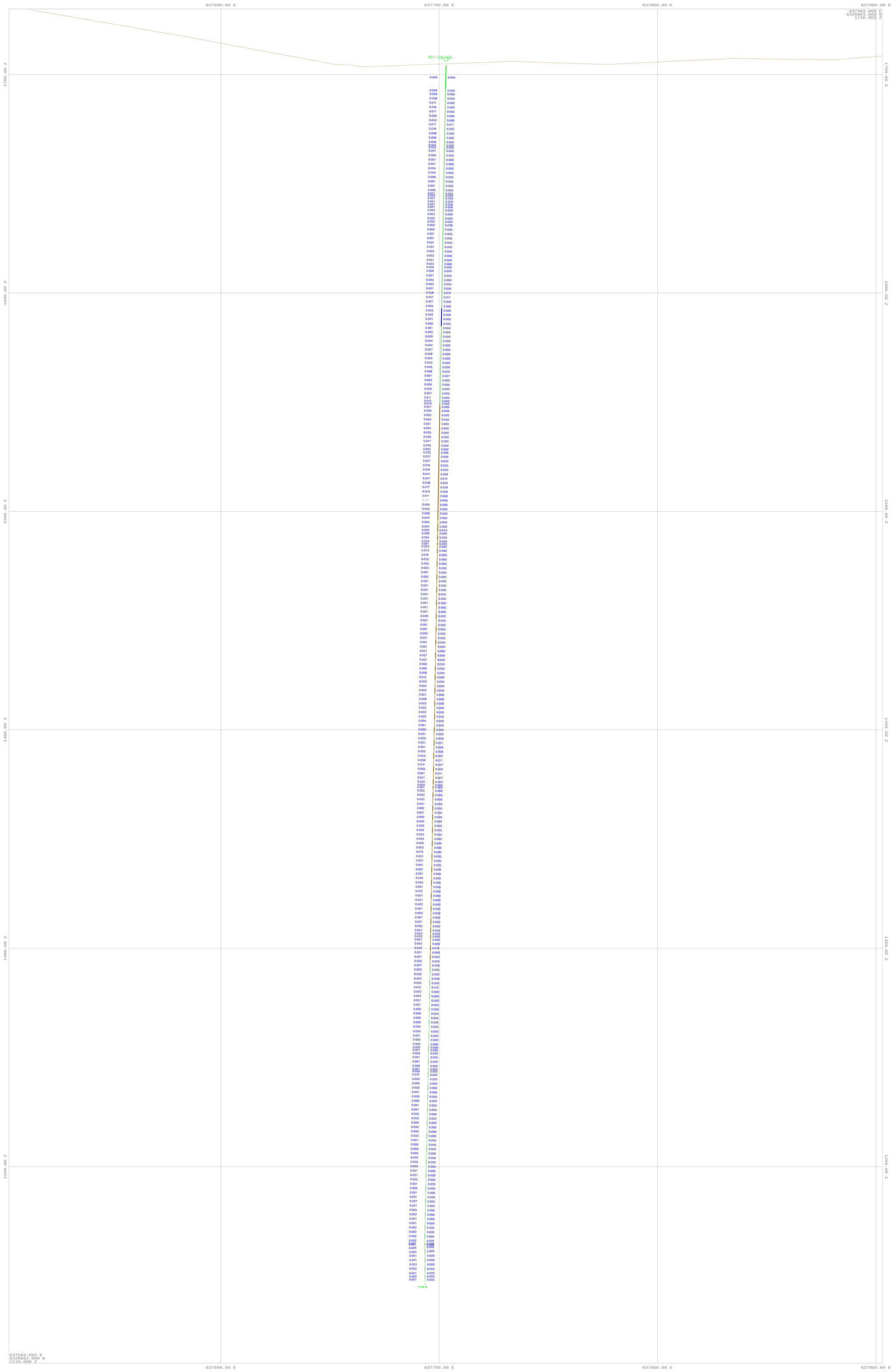

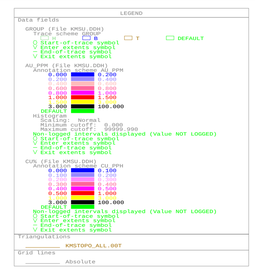

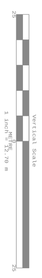

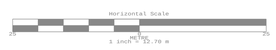

Northgate Minerals Corp

Kemess Property

Kemess East

DDH KH-06-04 Viewing North

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Date:	26-Nov-2006
Project:	KMSU
Drawn By:	KL
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Approved:	
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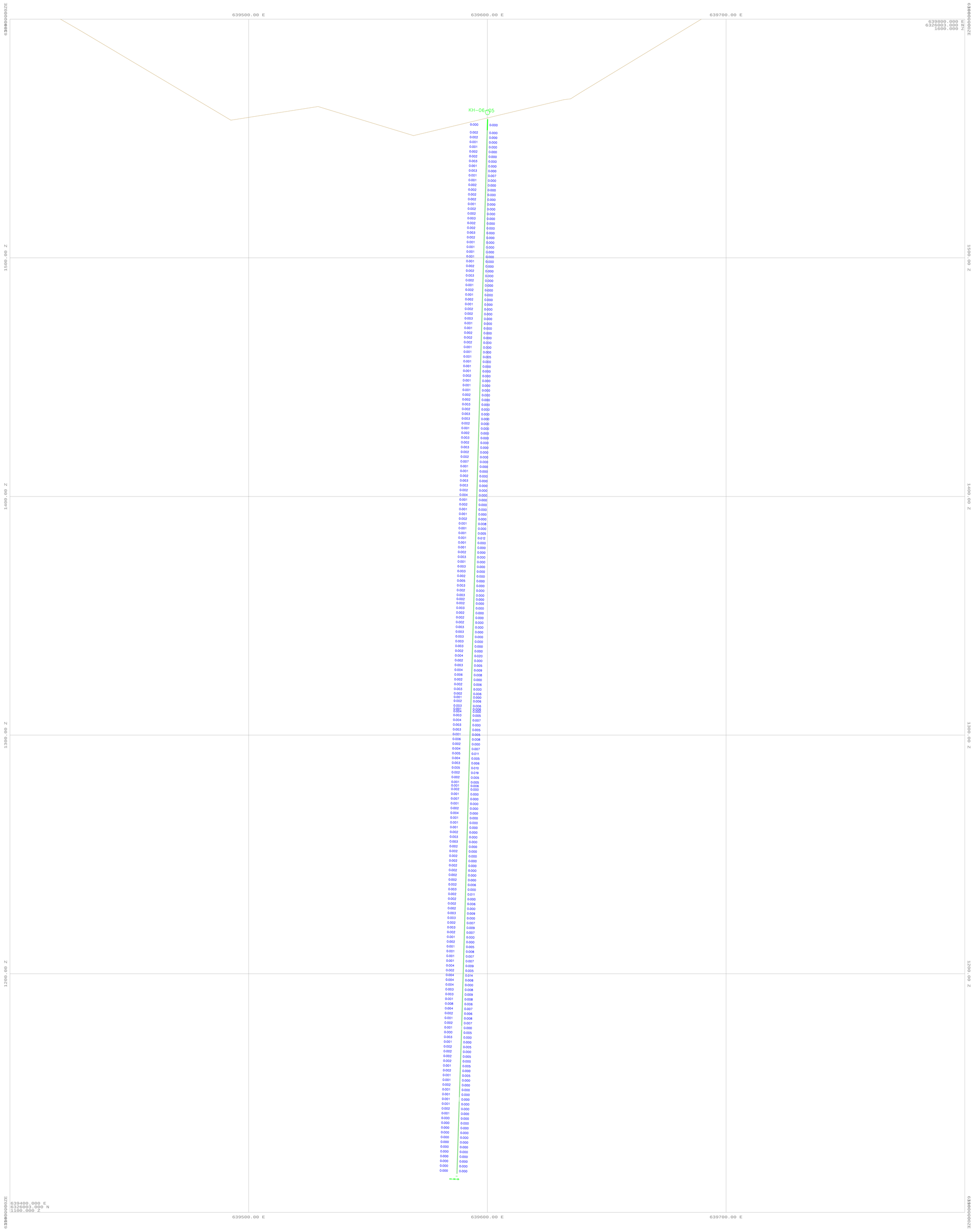

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V Enter-extents symbol
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V Exit extents symbol

AU_PPM (File KMSU.DDH)
Annotation scheme AU_PPM

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0.200	0.400
0.400	0.600
0.600	0.800
0.800	1.000
1.000	1.500
3.000	100.000

DEFAULT
Histogram Normal 0.000
Minimum Cutoff 0.000
Maximum Cutoff 0.000 PPM
Nonlogged intervals displayed (Value NOT LOGGED)
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V Enter-extents symbol
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V Exit extents symbol

CUS (File KMSU.DDH)
Annotation scheme CU_PPM

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0.100	0.200
0.200	0.300
0.300	0.400
0.400	0.500
0.500	1.000
3.000	100.000

DEFAULT
Histogram Normal 0.000
Nonlogged intervals displayed (Value NOT LOGGED)
○ Start-of-trace symbol
V Enter-extents symbol
○ Start-of-trace symbol
V Exit extents symbol

Transpositions
KMSTOPO_ALL.00T

Grid lines
Absolute

Horizontal Scale
METRES
1 inch = 52.70 m

Vertical Scale
1 inch = 52.70 m

Northgate Minerals Corp

Kemess Property

Kemess East

DDH KH-06-05 Viewing North

Scale:	1:500
Date:	26-Nov-2006
Project:	KMSU
Drawn By:	KL
Checked:	
Approved:	
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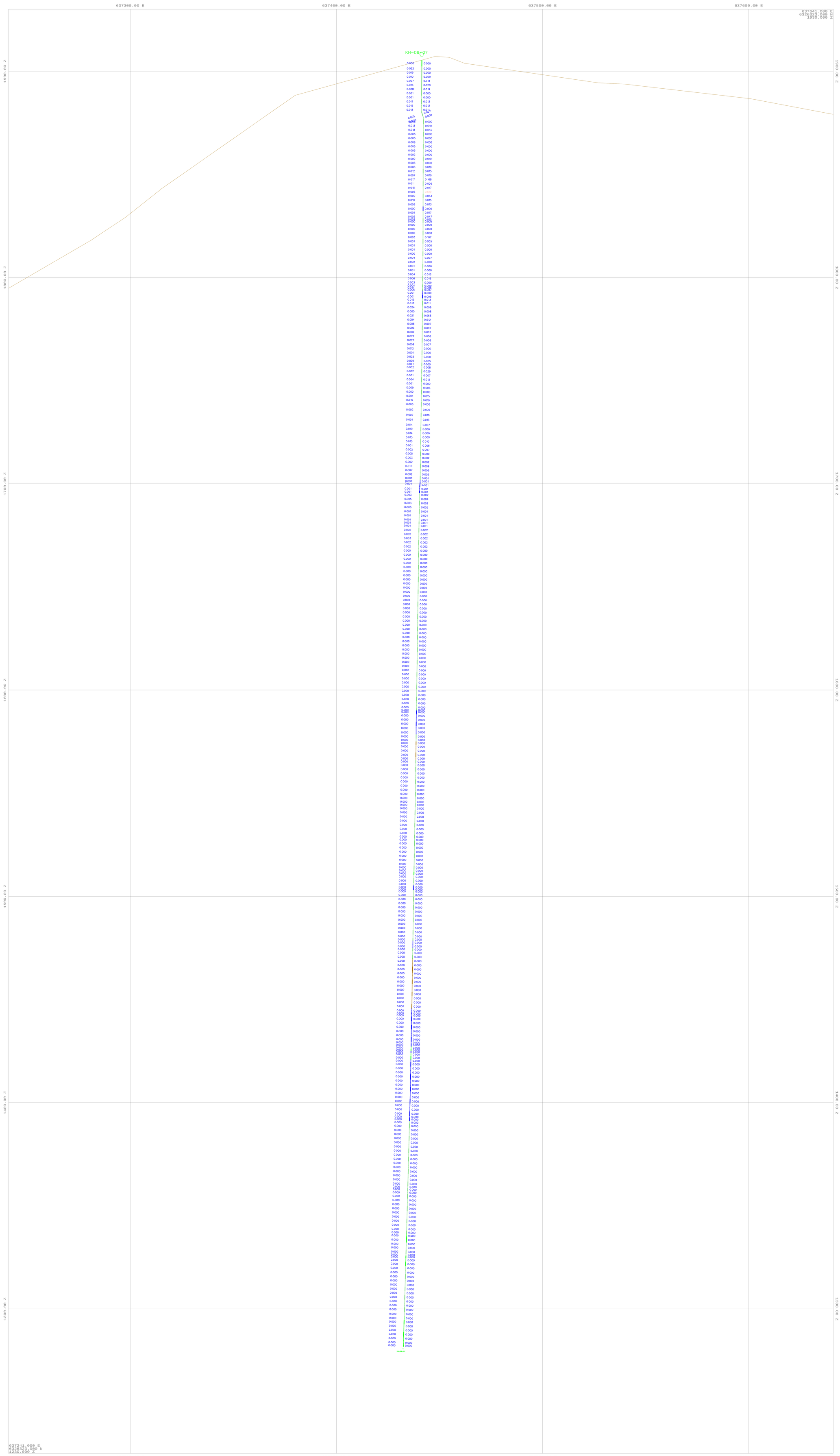
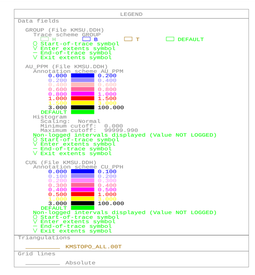
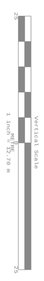
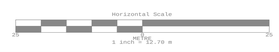








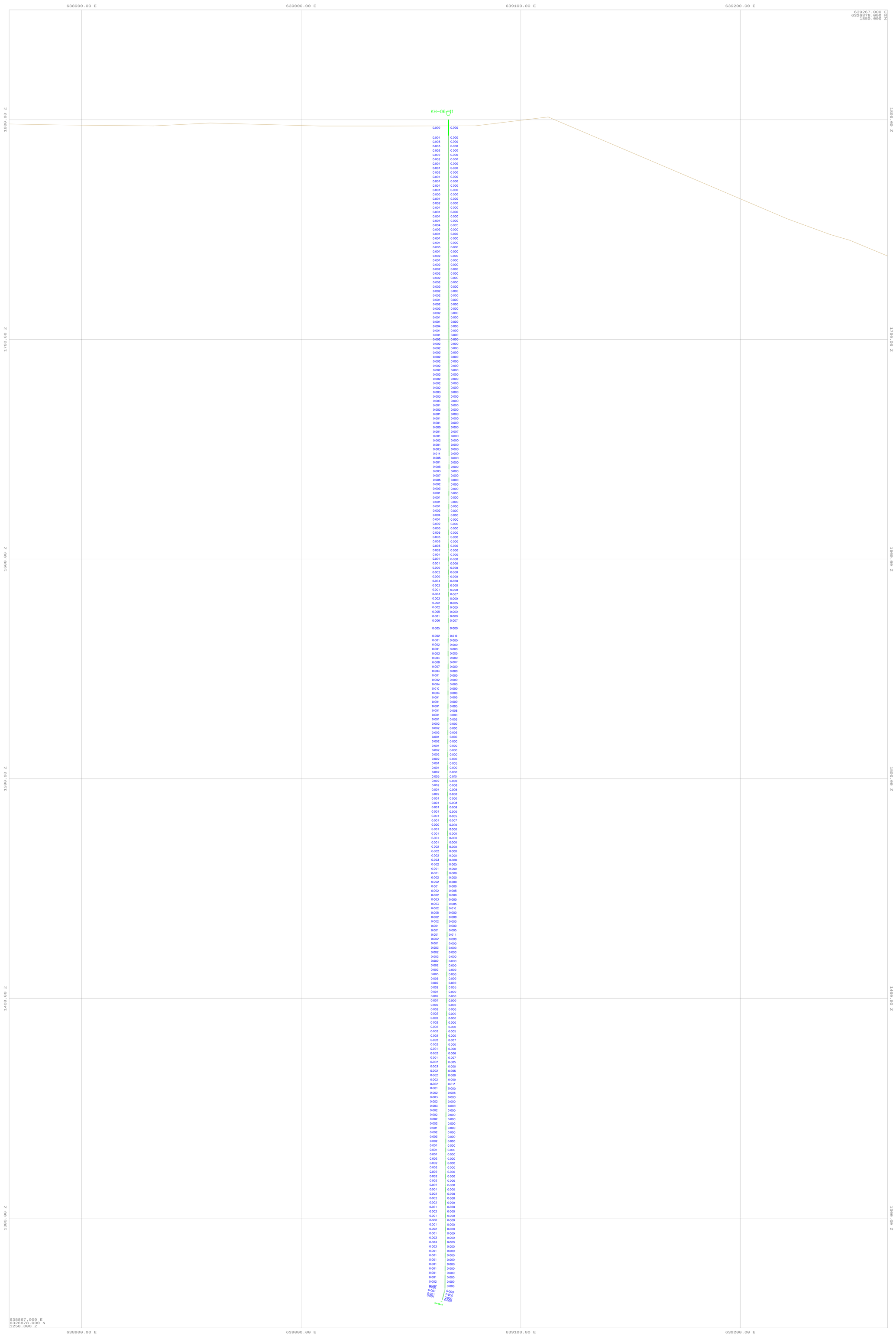
Northgate Minerals Corp

Kemess Property

Kemess East

DDH KH-06-07 Viewing North

Scale:	1:500
Date:	26-Nov-2006
Project:	KMSU
Drawn By:	KL
Checked:	
Approved:	
Drawing No.	0



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V Enter-extents symbol
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V Exit extents symbol

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Annotation scheme AU_PPM

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0.200	0.400
0.400	0.600
0.600	0.800
0.800	1.000
1.000	1.500
1.500	3.000
3.000	100.000
DEFAULT	

Histogram
Scale Normal
Minimum Cutoff 0.000
Maximum Cutoff 0.000,999
Non-logged intervals displayed (Value NOT LOGGED)
O Start-of-trace symbol
V Enter-extents symbol
O Enter-of-trace symbol
V Exit extents symbol

CU% (File KMSUKTKE.DDH)
Annotation scheme CU%PPM

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0.200	0.300
0.300	0.400
0.400	0.500
0.500	1.000
1.000	3.000
3.000	100.000
DEFAULT	

Histogram
Non-logged intervals displayed (Value NOT LOGGED)
O Start-of-trace symbol
V Enter-extents symbol
O Enter-of-trace symbol
V Exit extents symbol

Triangulations
KMSTOPO_ALL.00T

Grid lines
Absolute

Vertical Scale
Horizontal Scale
1 inch = 12.70 m

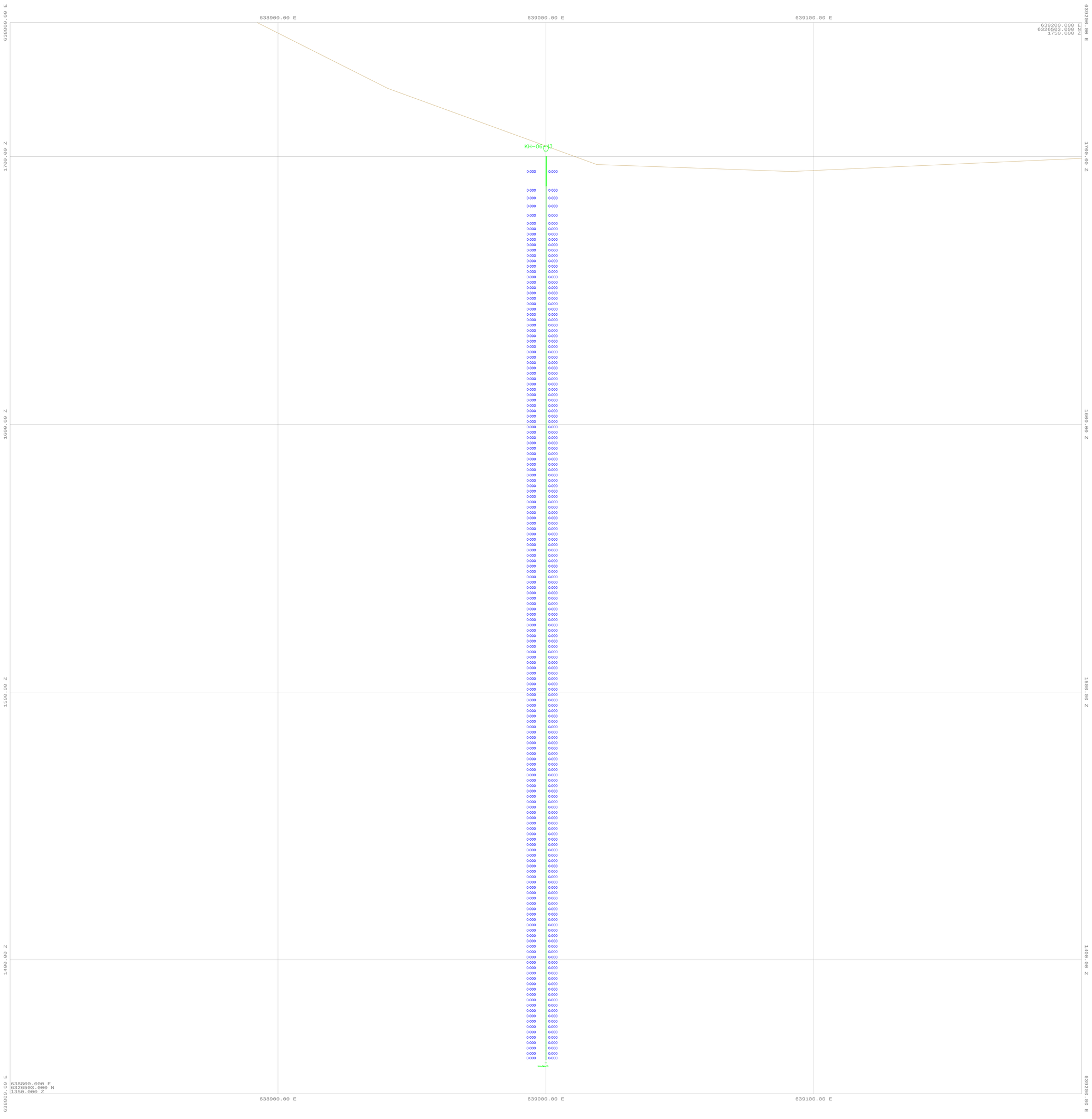
Northgate Minerals Corp

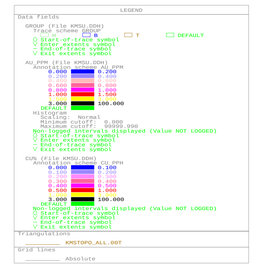
Kemess Property

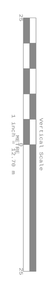
Kemess East

DDH KH-06-11 Viewing North

Scale:	1:500
Date:	28-Nov-2006
Project:	KMSU
Drawn By:	KL
Checked:	
Approved:	
Drawing No.	0







Northgate Minerals Corp

Kemess Property

Kemess East

DDH KH-06-13 Viewing North

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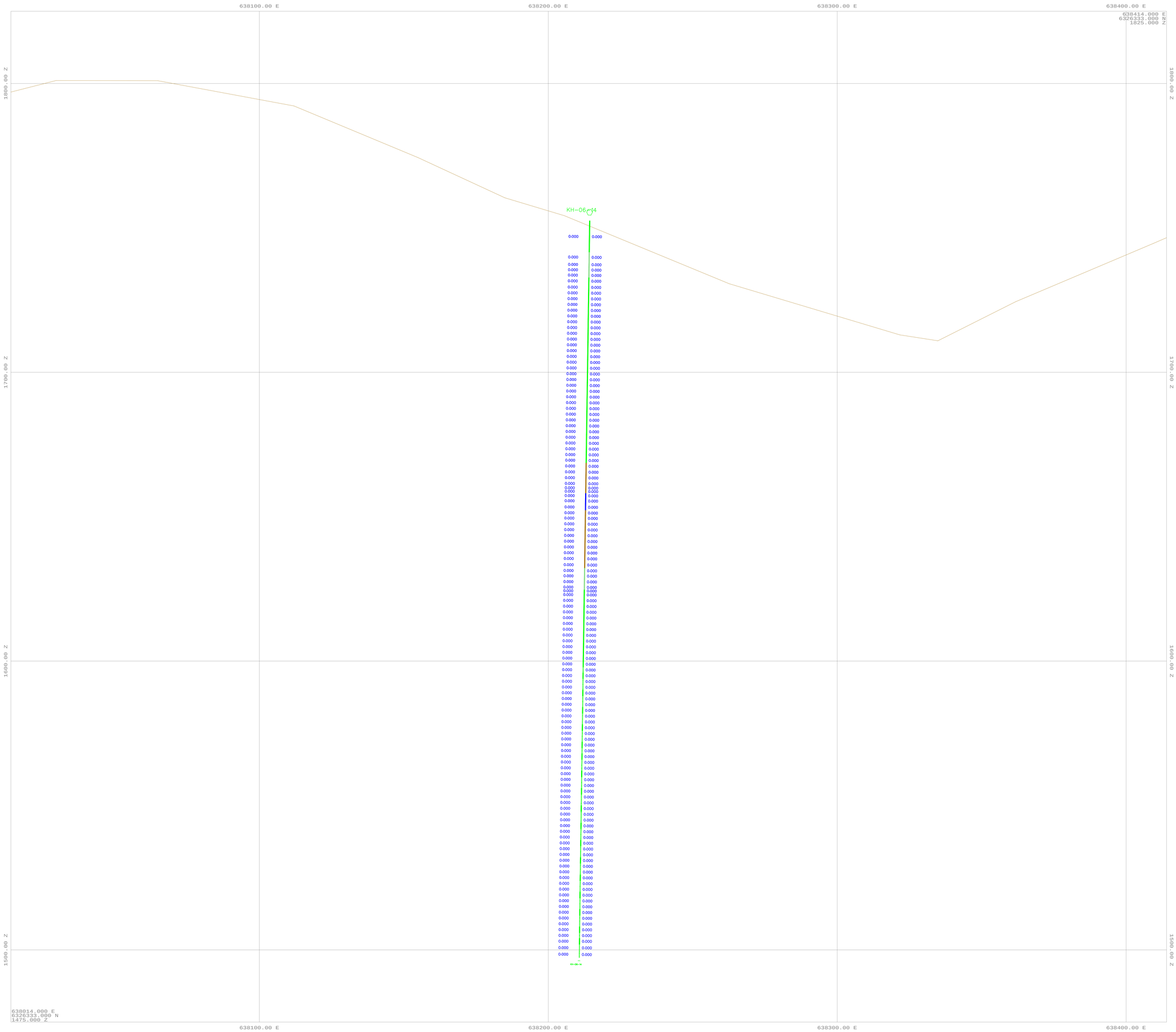

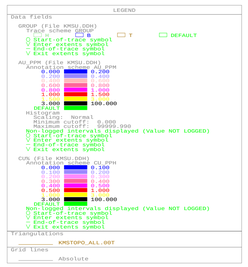

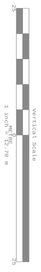

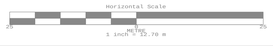

Northgate Minerals Corp

Kemess Property

Kemess East

DDH KH-06-14 Viewing North

Scale:	1:500
Date:	26-Nov-2006
Project:	KMSU
Drawn By:	KL
Checked:	
Approved:	
Drawing No.	0

ECO TECH LABORATORY LTD.
10041 Dallas Drive
KAMLOOPS, B.C.
V2C 6T4

Phone: 250-573-5700
Fax : 250-573-4557

ICP CERTIFICATE OF ANALYSIS AK 2006-939

KEMESS NORTHGATE EXPLORATION
Box 3519
Smithers, BC
V0J 2N0

No. of samples received: 79
Sample Type: Soil
Project: 4013
Submitted by: Daphne Hall

Values in ppm unless otherwise reported

Et #.	Tag #	Au(ppb)	Ag	Al %	As	Ba	Bi	Ca %	Cd	Co	Cr	Cu	Fe %	La	Mg %	Mn	Mo	Na %	Ni	P	Pb	Sb	Sn	Sr	Ti %	U	V	W	Y	Zn
1	L400-637450	35	0.4	3.00	<5	310	<5	1.73	<1	9	10	87	3.17	<10	0.67	1124	2	0.01	4	470	36	<5	<20	116	0.03	<10	47	<10	9	75
2	L400-637500	115	0.5	4.08	5	210	<5	2.26	<1	6	8	89	2.57	<10	0.72	615	1	0.02	6	540	48	<5	<20	179	0.03	<10	47	<10	10	95
3	L400-637550	75	0.6	3.87	10	130	<5	1.90	<1	14	23	113	3.14	<10	0.86	961	1	0.01	9	640	40	<5	<20	144	0.03	<10	56	<10	8	110
4	L400-637650	55	0.4	2.41	10	65	<5	0.21	<1	12	33	80	4.42	<10	0.63	395	3	0.01	12	500	28	<5	<20	29	0.09	<10	101	<10	4	58
5	L400-637700	25	0.3	0.70	<5	50	<5	0.13	<1	5	25	19	2.64	<10	0.07	79	1	0.01	3	390	14	<5	<20	23	0.05	<10	77	<10	1	13
6	L400-637750	25	0.3	5.04	<5	85	<5	0.88	<1	10	18	174	3.90	<10	0.51	384	3	0.01	8	680	36	<5	<20	67	0.07	<10	68	<10	7	55
7	L400-637800	40	0.9	2.22	<5	100	<5	0.08	<1	3	7	35	1.82	<10	0.13	260	3	0.02	3	700	22	<5	<20	32	<0.01	<10	39	<10	3	17
8	L400-637850	30	0.2	0.74	<5	65	<5	0.05	<1	3	5	15	2.93	<10	0.05	125	2	0.01	<1	330	10	<5	<20	26	0.02	<10	68	<10	<1	11
9	L400-637900	105	0.4	2.43	<5	130	<5	1.22	<1	15	23	203	3.37	<10	0.82	595	2	0.02	15	540	24	<5	<20	89	0.06	<10	62	<10	8	58
10	L400-637950	50	0.4	2.90	<5	115	<5	1.94	<1	10	9	135	2.74	<10	0.64	612	6	0.01	7	460	28	<5	<20	125	0.05	<10	45	<10	9	58
11	L400-638050	15	0.6	2.63	<5	115	<5	1.55	<1	9	8	236	3.10	<10	0.59	441	2	0.01	4	760	30	<5	<20	131	0.04	<10	43	<10	8	32
12	L400-638100	25	0.5	2.38	<5	130	<5	1.31	<1	12	10	136	3.41	<10	0.64	519	4	0.01	7	690	30	<5	<20	80	0.06	<10	63	<10	8	50
13	L400-638150	25	0.8	2.54	<5	135	<5	1.66	<1	12	12	223	3.43	10	0.69	651	4	0.02	8	460	44	<5	<20	103	0.07	<10	63	<10	10	56
14	L400-638250	15	0.3	2.06	<5	120	<5	1.18	<1	11	12	161	3.00	<10	0.66	612	5	0.02	8	440	28	<5	<20	77	0.06	<10	57	<10	10	55
15	L400-638300	35	0.3	2.26	<5	135	<5	1.44	<1	8	11	152	3.14	<10	0.66	442	12	0.02	8	540	32	<5	<20	85	0.06	<10	64	<10	9	54
16	L400-638350	50	0.5	3.19	<5	195	<5	1.67	<1	7	10	267	1.94	20	0.78	380	8	0.03	14	890	42	<5	<20	113	0.04	<10	58	<10	17	66
17	L350-637400	75	0.2	3.45	<5	70	<5	0.69	<1	12	15	142	5.17	10	0.55	497	4	0.01	6	780	34	<5	<20	53	0.06	<10	86	<10	8	44
18	L350-637450	30	0.4	3.79	5	75	<5	0.81	<1	11	12	126	3.93	<10	0.45	1196	3	0.01	5	940	34	<5	<20	65	0.05	<10	68	<10	8	40
19	L350-637500	60	0.6	4.22	<5	90	<5	0.72	<1	11	15	193	3.96	<10	0.38	843	4	0.01	6	820	36	<5	<20	67	0.06	<10	72	<10	6	39
20	L350-637550	30	0.2	1.58	<5	105	<5	0.19	<1	5	6	35	2.57	<10	0.21	660	2	0.02	3	600	22	<5	<20	65	0.05	<10	57	<10	3	25
21	L350-637600	40	0.3	3.15	<5	135	<5	0.85	<1	7	13	164	3.43	10	0.47	481	14	0.02	8	590	36	<5	<20	60	0.02	<10	59	<10	8	56
22	L350-637650	80	0.3	3.28	5	115	<5	1.34	<1	12	14	213	3.29	<10	0.52	594	3	0.01	8	800	32	<5	<20	105	0.04	<10	55	<10	6	52
23	L350-637700	20	1.1	3.88	<5	65	<5	0.30	<1	4	14	124	3.33	<10	0.25	281	3	0.02	5	560	40	<5	<20	40	0.03	<10	54	<10	5	34
24	L350-637750	25	1.0	4.80	<5	70	<5	0.43	<1	7	22	187	3.77	<10	0.33	289	6	0.02	9	870	38	<5	<20	37	0.07	<10	51	<10	6	37
25	L350-637800	15	0.2	2.39	<5	95	<5	0.23	<1	7	9	85	5.57	<10	0.49	533	5	0.02	4	720	30	<5	<20	39	0.06	<10	123	<10	4	45
26	L350-637900	20	0.2	0.92	<5	60	<5	0.05	<1	3	<1	9	1.32	<10	0.06	64	<1	0.01	1	120	12	<5	<20	29	0.05	<10	40	<10	1	7
27	L350-637950	10	0.4	0.53	<5	65	<5	0.11	<1	1	3	11	1.14	<10	0.04	62	1	0.02	1	250	6	<5	<20	29	0.01	<10	30	<10	<1	10
28	L350-638050	20	0.3	0.68	<5	60	<5	0.55	<1	2	5	15	1.58	<10	0.05	105	6	0.02	2	590	8	<5	<20	32	0.01	<10	40	<10	2	9
29	L350-638100	15	1.6	3.92	10	290	<5	0.37	<1	10	29	211	4.29	<10	0.57	1398	36	0.02	20	2310	46	<5	<20	30	<0.01	<10	91	<10	6	82
30	L350-638150	10	0.3	2.67	<5	135	<5	1.37	<1	11	11	107	2.83	<10	0.61	726	7	0.02	6	530	32	<5	<20	95	0.04	<10	51	<10	7	55

Et #.	Tag #	Au(ppb)	Ag	Al %	As	Ba	Bi	Ca %	Cd	Co	Cr	Cu	Fe %	La	Mg %	Mn	Mo	Na %	Ni	P	Pb	Sb	Sn	Sr	Ti %	U	V	W	Y	Zn
31	L350-638250	25	0.7	1.95	<5	125	<5	0.41	<1	4	6	84	1.51	<10	0.38	196	11	0.02	5	300	18	<5	<20	50	0.01	<10	39	<10	4	31
32	L350-638300	40	0.2	2.59	<5	110	<5	0.70	<1	12	30	109	3.26	<10	0.88	372	11	0.02	21	410	24	<5	<20	60	0.07	<10	73	<10	8	52
33	L350-638350	35	0.9	3.97	5	245	<5	0.74	<1	14	31	237	3.78	10	0.81	683	26	0.02	24	1150	38	<5	<20	60	0.02	<10	78	<10	13	61
34	L300-637400	45	0.4	3.20	5	110	<5	1.45	<1	12	15	229	3.16	<10	0.59	522	4	0.01	8	750	30	<5	<20	105	0.04	<10	51	<10	6	50
35	L300-637450	30	0.3	3.11	5	60	<5	0.34	<1	9	17	102	3.29	<10	0.43	417	3	0.02	6	840	26	<5	<20	36	0.05	<10	60	<10	5	35
36	L300-637500	15	0.4	4.96	<5	80	<5	0.52	<1	4	12	72	2.84	<10	0.29	497	3	0.02	5	790	36	<5	<20	47	0.04	<10	46	<10	6	34
37	L300-637550	35	0.4	2.03	<5	60	<5	0.17	<1	5	9	63	2.98	<10	0.31	311	3	0.01	4	650	24	<5	<20	32	0.04	<10	65	<10	3	29
38	L300-637600	50	1.3	3.00	<5	125	<5	0.24	<1	5	13	85	2.51	<10	0.21	527	3	0.02	6	600	28	<5	<20	59	0.04	<10	49	<10	4	30
39	L300-637650	240	0.7	3.12	<5	70	<5	0.21	<1	6	15	779	3.70	<10	0.31	248	6	0.02	7	620	34	<5	<20	30	0.04	<10	75	<10	5	34
40	L300-637700	30	0.5	2.50	<5	85	<5	0.77	<1	6	9	100	2.25	<10	0.43	290	4	0.02	5	670	20	<5	<20	61	0.03	<10	47	<10	5	32
41	L300-637750	35	0.3	2.35	<5	65	<5	0.15	<1	10	18	68	5.13	<10	0.43	404	4	0.01	8	530	30	<5	<20	30	0.10	<10	112	<10	4	35
42	L300-637800	25	0.2	3.72	25	80	<5	1.17	<1	17	25	94	3.51	<10	0.68	476	5	0.02	18	700	30	<5	<20	81	0.07	<10	67	<10	7	52
43	L300-637900	45	1.2	2.66	5	80	<5	0.29	<1	8	19	80	4.24	<10	0.41	475	5	0.02	7	830	26	<5	<20	37	0.06	<10	83	<10	4	36
44	L300-637950	180	0.2	0.82	<5	60	<5	0.08	<1	4	<1	13	1.35	<10	0.09	110	2	0.01	2	170	14	<5	<20	27	0.07	<10	61	<10	1	11
45	L300-638050	45	0.2	3.22	10	65	<5	1.54	<1	24	44	194	2.97	<10	0.91	646	22	0.02	37	630	30	<5	<20	99	0.04	<10	68	<10	12	34
46	L300-638100	15	1.5	5.80	5	55	<5	0.17	<1	5	31	87	3.20	10	0.25	300	3	0.03	9	1050	36	<5	<20	20	0.04	<10	47	<10	8	27
47	L300-638150	<5	0.5	0.48	<5	55	<5	1.86	<1	1	4	26	0.34	<10	0.05	39	6	0.04	3	900	6	<5	<20	57	<0.01	<10	5	<10	5	12
48	L300-638250	15	0.3	2.73	<5	155	<5	1.94	<1	7	7	46	2.40	<10	0.55	642	7	0.02	5	470	24	<5	<20	114	0.03	<10	47	<10	7	43
49	L300-638300	20	0.6	1.42	10	95	<5	0.09	<1	6	3	23	2.07	<10	0.13	405	32	0.01	7	360	28	<5	<20	27	0.03	<10	90	<10	2	21
50	L300-638350	30	1.2	2.52	10	170	<5	0.79	<1	11	16	143	2.83	10	0.68	813	20	0.02	13	710	30	<5	<20	64	0.02	<10	65	<10	9	57
51	L250-637400	55	0.6	3.65	<5	65	<5	0.91	<1	10	18	205	3.38	<10	0.66	520	3	0.01	8	550	32	<5	<20	66	0.07	<10	59	<10	9	53
52	L250-637450	35	0.6	4.27	<5	50	<5	0.37	<1	7	26	125	3.63	<10	0.40	282	3	0.01	7	970	32	<5	<20	34	0.05	<10	59	<10	6	32
53	L250-637500	40	0.3	2.48	<5	80	<5	0.14	<1	6	13	98	2.79	<10	0.36	399	3	0.02	6	710	24	<5	<20	31	0.03	<10	56	<10	5	36
54	L250-637550	40	0.3	3.12	<5	70	<5	0.16	<1	6	15	101	3.61	<10	0.41	466	5	0.02	6	620	30	<5	<20	29	0.03	<10	59	<10	6	51
55	L250-637600	20	<0.2	5.72	10	90	<5	2.30	<1	17	42	156	3.11	<10	0.96	454	13	0.02	28	630	32	<5	<20	197	0.11	<10	73	<10	7	29
56	L250-637650	30	0.2	2.09	<5	190	<5	1.15	<1	10	16	76	3.41	<10	0.54	918	34	0.02	10	770	22	<5	<20	72	0.04	<10	73	<10	10	47
57	L250-637700	15	0.4	2.49	<5	65	<5	0.30	<1	7	16	87	3.11	<10	0.40	237	3	0.02	8	770	24	<5	<20	37	0.04	<10	67	<10	4	28
58	L250-637750	20	0.3	4.52	5	65	<5	0.51	<1	9	22	146	3.84	<10	0.45	550	4	0.02	7	1020	34	<5	<20	42	0.06	<10	62	<10	6	40
59	L250-637800	45	0.5	5.96	20	80	<5	2.30	<1	38	62	337	4.26	10	1.50	778	22	0.05	56	720	48	<5	<20	143	0.10	<10	96	<10	22	52
60	L250-637850	190	0.6	3.03	<5	90	<5	0.24	<1	12	31	81	4.47	<10	0.67	298	3	0.02	18	380	30	<5	<20	41	0.06	<10	108	<10	5	36
61	L250-637900	50	0.5	4.29	25	100	<5	1.62	<1	23	51	212	4.18	<10	0.74	457	13	0.02	46	550	66	<5	<20	122	0.04	<10	61	<10	6	58
62	L250-637950	20	0.3	4.78	15	90	<5	1.29	<1	19	43	159	4.98	<10	0.71	473	10	0.02	29	580	38	<5	<20	85	0.06	<10	85	<10	8	45
63	L250-638000	35	0.3	2.14	<5	65	<5	0.10	<1	6	17	40	4.40	<10	0.31	432	3	0.01	6	510	24	<5	<20	27	0.06	<10	97	<10	3	27
64	L200-637400	70	0.3	2.93	<5	100	<5	1.65	<1	13	11	341	2.97	<10	0.52	354	4	0.01	8	590	22	<5	<20	125	0.04	<10	42	<10	9	21
65	L200-637450	60	0.2	2.28	<5	110	<5	1.09	<1	13	6	473	2.83	<10	0.57	304	4	0.01	8	500	18	<5	<20	106	0.05	<10	48	<10	9	22
66	L200-637500	45	0.2	4.24	10	95	<5	1.31	<1	20	9	600	3.09	10	0.55	447	16	0.02	11	510	34	<5	<20	79	0.01	<10	55	<10	9	29
67	L200-637550	30	0.3	1.85	<5	70	<5	0.12	<1	6	8	51	2.29	<10	0.26	255	3	0.01	4	360	24	<5	<20	29	0.04	<10	58	<10	3	25
68	L200-637600	30	0.2	4.16	10	75	<5	2.14	<1	17	29	204	2.99	<10	0.97	416	8	0.02	21	390	28	<5	<20	172	0.09	<10	69	<10	8	30
69	L200-637650	30	0.4	2.11	<5	55	<5	0.17	<1	9	19	72	4.74	<10	0.46	374	4	0.02	7	550	26	<5	<20	32	0.08	<10	99	<10	4	34
70	L200-637700	50	0.8	2.71	<5	65	<5	0.16	<1	9	18	78	3.63	<10	0.56	328	3	0.02	9	360	24	<5	<20	30	0.05	<10	83	<10	4	39

Et #.	Tag #	Au(ppb)	Ag	Al %	As	Ba	Bi	Ca %	Cd	Co	Cr	Cu	Fe %	La	Mg %	Mn	Mo	Na %	Ni	P	Pb	Sb	Sn	Sr	Ti %	U	V	W	Y	Zn

71	L200-637750	50	1.3	5.42	5	60	<5	0.54	<1	9	23	159	3.54	<10	0.41	362	5	0.01	8	750	38	<5	<20	43	0.07	<10	58	<10	7	31
72	L200-637800	30	0.5	3.96	5	60	<5	1.56	<1	32	76	323	4.47	<10	1.40	509	12	0.02	55	380	32	<5	<20	120	0.10	<10	83	<10	8	40
73	L200-637850	55	0.5	4.84	25	40	<5	2.06	<1	36	87	262	4.72	<10	1.20	723	17	0.02	69	610	32	<5	<20	132	0.07	<10	75	<10	8	35
74	L200-637900	25	0.5	5.25	45	55	<5	1.80	<1	28	44	173	5.32	<10	0.59	319	20	0.02	38	460	50	<5	<20	117	0.03	<10	70	<10	8	44
75	L200-637950	25	0.3	2.10	15	60	<5	0.16	<1	13	38	87	3.95	<10	0.41	511	11	0.02	20	830	20	<5	<20	42	0.04	<10	108	<10	4	21
76	L200-638050	45	0.3	2.41	35	80	<5	0.22	<1	9	26	68	4.24	<10	0.63	334	4	0.01	13	350	28	<5	<20	34	0.05	<10	92	<10	4	48
77	L200-638100	120	<0.2	2.78	15	145	<5	0.18	<1	17	44	63	5.61	<10	0.76	2030	29	0.02	26	360	32	<5	<20	37	0.06	<10	134	<10	5	60
78	L200-638150	15	0.3	3.33	20	145	<5	1.10	<1	18	48	71	4.92	<10	0.93	716	16	0.02	30	550	28	<5	<20	79	0.05	<10	115	<10	9	62
79	L200-638200	20	0.5	3.37	10	205	<5	0.97	<1	13	23	115	3.01	10	0.57	1842	47	0.02	26	890	32	<5	<20	73	0.02	<10	83	<10	15	44

QC DATA:

Repeat:

1	L400-637450	40	0.4	2.92	<5	280	<5	1.69	<1	9	10	89	3.11	<10	0.66	1067	2	0.01	4	480	36	<5	<20	121	0.03	<10	45	<10	8	76
10	L400-637950	15	0.4	2.78	<5	115	<5	1.84	<1	10	9	135	2.68	<10	0.63	599	5	0.01	6	470	26	<5	<20	123	0.04	<10	42	<10	8	56
19	L350-637500	55	0.5	4.10	<5	100	<5	0.72	<1	12	14	202	3.87	<10	0.41	835	3	0.01	6	800	36	<5	<20	65	0.06	<10	69	<10	6	40
28	L350-638050	20	0.4	0.66	<5	60	<5	0.59	<1	3	5	15	1.51	<10	0.05	106	6	0.02	2	540	8	<5	<20	33	0.01	<10	38	<10	2	9
36	L300-637500	90	0.5	5.04	<5	80	<5	0.56	<1	5	11	75	2.87	<10	0.30	522	2	0.02	5	790	38	<5	<20	50	0.04	<10	46	<10	6	38
45	L300-638050	40	0.3	3.12	15	70	<5	1.57	<1	27	50	198	2.99	<10	1.06	667	26	0.03	42	630	34	<5	<20	102	0.05	<10	77	<10	14	39
54	L250-637550	30	0.3	3.08	<5	70	<5	0.16	<1	6	16	102	3.77	<10	0.39	447	4	0.02	6	640	32	<5	<20	32	0.03	<10	61	<10	6	53
63	L250-638000		0.5	2.17	<5	65	<5	0.10	<1	6	16	42	4.38	<10	0.31	434	3	0.01	6	500	26	<5	<20	26	0.06	<10	95	<10	3	27
64	L200-637400	65																												
71	L200-637750		1.3	5.46	5	60	<5	0.58	<1	9	24	164	3.68	<10	0.46	379	5	0.02	9	750	38	<5	<20	50	0.08	<10	67	<10	8	34
72	L200-637800	30																												

Standard:

Till3			1.4	1.07	80	35	<5	0.52	<1	12	60	19	1.99	10	0.54	304	<1	0.02	29	450	30	<5	<20	10	0.06	<10	40	<10	9	37
Till3			1.5	1.06	75	35	<5	0.55	<1	11	59	20	2.01	10	0.57	300	<1	0.03	31	460	27	<5	<20	11	0.07	<10	39	<10	8	34
OXF41		820																												
OXF41		810																												
OXF41		800																												

ECO TECH LABORATORY LTD.
Jutta Jealouse
B.C. Certified Assayer

JJ/bp
df/n908a
XLS/06

17-Aug-06

ECO TECH LABORATORY LTD.
10041 Dallas Drive
KAMLOOPS, B.C.
V2C 6T4

Phone: 250-573-5700
Fax : 250-573-4557

ICP CERTIFICATE OF ANALYSIS AK 2006-1035

Values in ppm unless otherwise reported

KEMESS NORTHGATE EXPLORATION
Box 3519
Smithers, BC
V0J 2N0

No. of samples received: 14
Sample Type: Rock
Project: 4013
Submitted by: Dahpne Hall

Et #.	Tag #	Au(ppb)	Ag	Al %	As	Ba	Bi	Ca %	Cd	Co	Cr	Cu	Fe %	La	Mg %	Mn	Mo	Na %	Ni	P	Pb	Sb	Sn	Sr	Ti %	U	V	W	Y	Zn
1	24914	20	3.3	1.71	10	675	<5	3.25	2	4	101	366	3.22	<10	0.60	4317	7	0.01	3	750	258	<5	<20	52	<0.01	<10	48	<10	21	180
2	24915	50	0.6	1.78	15	460	<5	0.69	1	5	99	1373	3.80	<10	0.83	1044	7	0.04	3	820	22	<5	<20	38	<0.01	<10	55	<10	21	59
3	64839	215	2.4	0.77	20	55	335	0.29	<1	35	197	23	4.58	10	0.05	216	5	0.01	6	800	14	<5	<20	45	<0.01	<10	36	<10	16	21
4	64840	10	0.2	1.44	15	580	<5	0.89	<1	5	90	282	3.42	<10	0.90	455	3	0.11	4	810	14	5	<20	46	0.04	<10	83	<10	13	24
5	64841	5	0.2	1.60	10	570	<5	0.94	<1	4	99	197	3.45	<10	0.85	624	4	0.08	3	810	18	<5	<20	37	<0.01	<10	68	<10	18	40
6	64842	10	<0.2	1.65	15	845	<5	0.84	<1	2	93	245	3.61	<10	0.88	622	3	0.10	3	820	18	<5	<20	52	0.03	<10	77	<10	22	36
7	64843	5	0.2	1.50	15	365	<5	1.60	<1	5	85	165	3.12	<10	0.81	820	3	0.06	3	750	18	5	<20	33	<0.01	<10	64	<10	19	34
8	64844	5	<0.2	1.46	15	290	<5	1.46	<1	5	93	139	3.29	<10	0.80	609	4	0.10	4	770	16	<5	<20	60	0.02	<10	72	<10	19	21
9	64845	5	0.2	1.35	10	275	<5	1.62	<1	6	110	183	3.02	<10	0.67	691	5	0.08	4	770	18	<5	<20	28	0.02	<10	69	<10	18	41
10	64846	<5	<0.2	1.44	10	415	<5	1.24	<1	5	117	90	3.05	<10	0.63	594	3	0.07	4	790	22	<5	<20	42	<0.01	<10	63	<10	22	29
11	64847	<5	<0.2	1.39	10	560	<5	1.94	<1	5	100	68	3.19	<10	0.76	648	6	0.06	4	810	18	<5	<20	38	0.01	<10	63	<10	20	43
12	64848	<5	<0.2	1.31	10	200	<5	1.08	<1	9	106	135	3.58	<10	0.80	622	5	0.11	5	790	14	<5	<20	43	0.04	<10	81	<10	15	22
13	64849	5	0.3	1.78	10	1255	<5	0.47	<1	<1	95	152	3.35	<10	0.83	916	4	0.06	5	750	20	5	<20	46	0.02	<10	72	<10	11	35
14	64850	10	0.4	1.31	10	330	<5	1.15	1	4	105	457	3.52	<10	0.78	616	6	0.10	4	780	12	<5	<20	53	0.03	<10	75	<10	16	20
QC DATA:																														
Resplit:																														
1	24914	15	3.0	1.60	15	700	<5	3.26	2	4	101	366	3.22	<10	0.60	4320	7	0.01	3	760	264	<5	<20	56	<0.01	<10	48	<10	23	180
Repeat:																														
1	24914	<5	3.0	1.64	15	700	<5	3.28	2	3	102	369	3.24	<10	0.60	4353	7	0.01	2	780	264	<5	<20	51	<0.01	<10	48	<10	22	180
Standard:																														
GEO'06			1.6	1.56	60	135	<5	1.30	<1	19	59	85	3.59	<10	0.73	568	1	0.02	26	620	24	<5	<20	53	0.10	<10	63	<10	10	73
OXF41		820																												

ECO TECH LABORATORY LTD.
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V2C 6T4

Phone: 250-573-5700
Fax : 250-573-4557

ICP CERTIFICATE OF ANALYSIS AK 2006-1087

KEMESS NORTHGATE EXPLORATION
Box 3519
Smithers, BC
V0J 2N0

No. of samples received: 119
Sample Type: Soil
Project: 4013
Submitted by: D. Hall

Values in ppm unless otherwise reported

Et #.	Tag #	Au(ppb)	Ag	Al %	As	Ba	Bi	Ca %	Cd	Co	Cr	Cu	Fe %	La	Mg %	Mn	Mo	Na %	Ni	P	Pb	Sb	Sn	Sr	Ti %	U	V	W	Y	Zn
1	637600E 200N	45	0.3	4.31	15	65	<5	2.28	<1	20	31	213	2.92	<10	0.94	443	8	0.02	24	720	26	<5	<20	174	0.07	<10	62	<10	9	32
2	637600E 250N	15	<0.2	5.28	5	100	<5	2.49	<1	18	44	153	3.17	<10	1.15	458	10	0.02	33	840	28	<5	<20	223	0.14	<10	75	<10	8	31
3	637600E 300N	20	0.8	3.10	<5	70	<5	0.21	<1	6	17	97	4.10	<10	0.40	380	4	0.02	6	710	26	<5	<20	30	0.06	<10	74	<10	6	42
4	637600E 350N	10	0.4	2.87	<5	110	<5	0.47	<1	11	10	89	3.66	<10	0.44	1801	9	0.02	4	890	32	<5	<20	62	0.05	<10	70	<10	6	52
5	637600E 400N	25	0.2	2.32	<5	80	<5	0.97	<1	15	13	153	2.57	<10	0.65	651	<1	0.01	6	760	20	<5	<20	75	0.04	<10	43	<10	6	52
6	637600E 450N	55	0.4	4.25	10	155	<5	2.06	<1	24	40	105	4.36	<10	1.11	1664	2	0.02	14	1040	46	<5	<20	160	0.06	<10	78	<10	11	135
7	637600E 500N	75	0.5	2.87	5	85	<5	2.00	2	20	25	94	2.69	<10	0.74	1007	1	0.01	9	630	32	<5	<20	119	0.03	<10	41	<10	7	162
8	637600E 550N	30	0.5	2.75	10	325	<5	1.02	1	18	37	85	3.90	<10	0.78	2149	1	0.02	12	2160	36	<5	<20	94	0.01	<10	67	<10	11	106
9	637600E 600N	5	0.2	3.21	<5	460	<5	0.65	1	14	17	50	3.86	10	0.56	3517	1	0.01	6	1830	66	<5	<20	60	0.01	<10	43	<10	15	112
10	637600E 650N	15	0.2	2.70	<5	585	<5	0.50	<1	16	11	26	3.73	<10	0.51	3464	3	0.01	4	1090	118	<5	<20	73	<0.01	<10	55	<10	9	142
11	637600E 700N	15	0.2	2.67	<5	190	<5	1.37	<1	5	6	26	1.76	<10	0.39	608	<1	0.01	2	510	24	<5	<20	130	0.01	<10	26	<10	6	42
12	637400E 250N	35	0.3	3.32	<5	85	<5	0.58	<1	8	12	163	2.81	<10	0.40	470	3	0.02	6	970	24	<5	<20	57	0.05	<10	55	<10	5	32
13	637400E 300N	20	0.3	3.94	5	70	<5	0.27	<1	9	27	98	4.33	<10	0.51	554	3	0.02	8	1020	30	<5	<20	30	0.07	<10	74	<10	7	47
14	637400E 350N	30	<0.2	3.10	<5	55	<5	0.46	<1	9	14	88	3.99	<10	0.46	441	3	0.01	4	760	26	<5	<20	44	0.06	<10	74	<10	6	42
15	Baseline 250N	40	0.3	6.58	20	85	<5	2.84	<1	41	69	326	4.49	10	1.57	872	31	0.04	61	1230	46	<5	<20	177	0.10	<10	99	<10	22	52
16	Baseline 300N	50	1.5	2.42	<5	70	<5	0.11	<1	4	16	51	2.60	<10	0.30	187	2	0.01	6	770	18	<5	<20	26	0.04	<10	62	<10	4	19
17	Baseline 350N	25	0.6	3.98	<5	100	<5	0.46	<1	11	17	126	3.52	<10	0.41	1639	4	<0.01	5	1700	32	<5	<20	46	0.04	<10	58	<10	7	45
18	Baseline 400N	30	0.4	3.80	5	165	<5	1.00	<1	9	6	854	2.98	40	0.57	587	20	0.02	23	2270	44	<5	<20	67	0.02	<10	95	<10	25	45
19	Baseline 450N	30	0.3	3.32	<5	55	<5	0.15	<1	7	21	58	4.00	<10	0.48	357	3	0.01	7	800	26	<5	<20	21	0.08	<10	81	<10	5	46
20	Baseline 500N	20	0.5	0.90	<5	45	<5	0.15	<1	5	15	29	1.09	<10	0.19	99	<1	0.01	6	780	16	<5	<20	14	0.11	<10	59	<10	2	14
21	Baseline 550N	20	0.4	2.03	5	85	<5	0.11	<1	11	19	35	4.58	<10	0.35	1542	3	0.01	5	1190	44	<5	<20	22	0.08	<10	101	<10	3	56
22	Baseline 600N	<5	0.7	1.32	<5	70	<5	0.15	<1	5	14	20	2.43	<10	0.29	404	1	0.01	5	580	20	<5	<20	29	0.07	<10	73	<10	2	35
23	Baseline 650N	25	0.7	3.61	10	65	<5	0.24	<1	20	52	103	5.47	<10	1.07	682	3	0.02	19	710	36	<5	<20	27	0.12	<10	103	<10	6	116
24	Baseline 700N	10	0.4	2.88	<5	635	<5	1.13	<1	7	9	43	2.78	10	0.62	1690	1	<0.01	5	780	34	<5	<20	100	<0.01	<10	37	<10	15	65
25	638000E 250N	15	0.3	2.03	<5	50	<5	0.15	<1	8	20	41	4.31	<10	0.52	427	3	0.02	7	650	24	<5	<20	25	0.07	<10	105	<10	4	37
26	638000E 300N	35	0.4	1.82	<5	45	<5	0.10	<1	6	17	32	3.56	<10	0.41	291	2	0.01	6	350	18	<5	<20	22	0.05	<10	85	<10	3	32
27	638000E 350N	5	0.3	0.47	<5	45	<5	0.07	<1	2	10	6	1.86	<10	0.06	104	<1	0.01	1	230	6	<5	<20	17	0.03	<10	47	<10	1	8
28	638000E 400N	30	0.5	1.78	<5	55	<5	0.16	<1	5	16	44	3.74	<10	0.31	231	2	0.01	4	530	18	<5	<20	24	0.07	<10	77	<10	4	25
29	638000E 450N	25	0.2	1.68	<5	65	<5	0.31	<1	5	12	48	3.11	<10	0.39	274	1	0.01	4	520	20	<5	<20	32	0.06	<10	66	<10	4	34
30	638000E 500N	25	0.3	2.30	<5	70	<5	0.92	<1	14	21	74	3.24	<10	0.72	542	2	0.01	10	980	22	<5	<20	63	0.08	<10	65	<10	7	76

Et #.	Tag #	Au(ppb)	Ag	Al %	As	Ba	Bi	Ca %	Cd	Co	Cr	Cu	Fe %	La	Mg %	Mn	Mo	Na %	Ni	P	Pb	Sb	Sn	Sr	Ti %	U	V	W	Y	Zn
31	638000E 550N	15	0.3	1.92	5	150	<5	1.51	<1	10	18	150	3.02	10	0.68	498	4	0.02	11	970	16	<5	<20	79	0.08	<10	71	<10	11	42
32	638000E 600N	20	0.7	2.60	5	310	<5	1.43	1	11	21	108	2.81	<10	0.64	1106	6	0.02	13	1150	46	<5	<20	74	0.04	<10	60	<10	10	99
33	638000E 650N	120	1.1	1.94	5	370	<5	0.39	1	13	19	46	3.25	10	0.43	5983	5	0.01	11	390	30	<5	<20	33	0.08	<10	102	<10	10	40
34	638000E 700N	20	0.6	2.16	10	55	<5	0.15	<1	15	28	39	4.52	<10	0.74	1344	2	0.01	10	960	28	<5	<20	22	0.13	<10	116	<10	3	61
35	638200E 300N	25	0.8	1.67	<5	55	<5	0.32	<1	6	12	37	2.26	<10	0.47	172	8	0.01	7	410	16	<5	<20	30	0.06	<10	80	<10	4	32
36	638200E 350N	10	0.2	1.25	<5	125	<5	0.25	<1	6	2	33	2.04	<10	0.35	382	6	0.01	4	310	18	<5	<20	41	0.06	<10	65	<10	4	34
37	638200E 400N	20	0.6	3.31	<5	165	<5	1.65	<1	13	16	212	3.37	10	0.77	751	7	0.02	10	970	40	<5	<20	114	0.04	<10	63	<10	11	61
38	638200E 450N	15	0.4	0.24	<5	180	<5	4.57	<1	<1	2	34	0.24	<10	0.06	14	4	0.01	2	590	2	<5	<20	124	<0.01	<10	5	<10	2	4
39	638200E 500N	30	0.9	2.72	5	470	<5	2.30	1	11	31	185	3.14	20	0.70	676	8	0.02	20	1280	28	<5	<20	99	0.03	<10	64	<10	26	70
40	638200E 550N	10	0.8	0.63	<5	90	<5	2.30	1	2	5	36	0.47	<10	0.07	33	2	0.01	4	1320	4	<5	<20	78	<0.01	<10	7	<10	5	16
41	638200E 600N	610	0.3	2.36	5	125	<5	0.86	<1	12	30	91	3.26	<10	0.89	468	3	0.02	16	900	22	<5	<20	63	0.07	<10	78	<10	8	68
42	638200E 650N	35	0.4	1.79	5	105	<5	0.27	<1	9	32	56	3.11	<10	0.67	297	3	0.01	11	720	22	<5	<20	38	0.10	<10	86	<10	4	47
43	638200E 700N	60	0.9	1.74	5	65	<5	0.19	<1	10	24	34	3.48	<10	0.55	650	1	0.01	9	730	18	<5	<20	27	0.06	<10	80	<10	3	50
44	8400E 200N	25	1.2	1.33	<5	115	<5	0.82	<1	9	13	33	1.70	<10	0.40	376	7	0.02	10	1800	12	<5	<20	55	0.01	<10	42	<10	6	22
45	8400E 250N	15	2.0	3.00	15	155	<5	0.13	<1	7	30	72	2.88	<10	0.53	222	7	0.01	20	1100	28	<5	<20	27	0.02	<10	71	<10	4	48
46	8400E 300N	20	0.5	3.65	10	160	<5	0.74	<1	22	43	258	5.09	20	1.02	1198	48	0.02	30	1120	38	<5	<20	54	0.04	<10	103	<10	20	65
47	8400E 350N	25	0.5	2.91	<5	165	<5	0.89	<1	6	10	185	2.21	<10	0.58	266	20	0.02	10	950	28	<5	<20	86	0.02	<10	70	<10	6	62
48	8400E 400N	10	0.2	2.53	5	115	<5	0.97	<1	23	46	93	3.66	<10	1.06	689	3	0.02	35	720	22	<5	<20	93	0.07	<10	71	<10	8	68
49	8400E 450N	10	0.6	2.55	5	115	<5	0.41	<1	8	30	65	3.43	<10	0.75	395	2	0.01	13	1030	22	<5	<20	41	0.05	<10	64	<10	6	61
50	8400E 500N	750	0.5	2.07	<5	100	<5	0.74	3	8	19	80	2.81	<10	0.74	396	3	0.02	11	910	26	<5	<20	75	0.04	<10	60	<10	7	121
51	8400E 550N	15	<0.2	2.73	<5	110	<5	0.61	<1	12	20	98	3.41	<10	0.83	719	2	0.01	12	840	34	<5	<20	63	0.08	<10	65	<10	12	92
52	8400E 600N	25	0.3	2.46	<5	240	<5	1.88	<1	9	10	36	2.32	<10	0.83	687	2	0.01	6	910	20	<5	<20	124	0.05	<10	51	<10	7	53
53	8400E 650N	25	0.2	1.13	<5	50	<5	0.23	<1	7	12	37	2.94	<10	0.31	293	2	0.01	5	400	16	<5	<20	33	0.06	<10	78	<10	3	33
54	8400E 700N	20	<0.2	2.45	5	170	<5	0.47	<1	12	35	69	4.58	<10	1.00	691	2	0.01	20	880	26	<5	<20	45	0.06	<10	85	<10	6	88
55	8200E 200N	10	0.5	3.35	85	140	<5	0.50	<1	16	46	117	5.31	<10	1.34	610	22	0.02	28	730	30	<5	<20	50	0.06	<10	104	<10	10	90
56	450N 7650	370	0.5	3.62	10	140	<5	1.86	<1	16	30	63	3.66	<10	0.97	1252	2	0.02	9	810	40	<5	<20	128	0.05	<10	63	<10	10	123
57	450N 7700	55	0.9	4.60	10	150	<5	1.94	<1	12	21	78	2.95	<10	0.75	775	2	0.02	7	800	48	<5	<20	140	0.02	<10	49	<10	10	111
58	450N 7800	25	1.0	2.87	10	50	<5	0.25	<1	13	55	74	4.98	<10	0.97	538	1	0.02	15	650	26	<5	<20	28	0.09	<10	103	<10	4	70
59	450N 7850	15	0.4	1.41	<5	75	<5	0.15	<1	6	12	21	2.64	<10	0.36	328	2	0.02	5	530	18	<5	<20	26	0.08	<10	74	<10	3	29
60	450N 7900	5	0.5	1.69	<5	60	<5	0.07	<1	5	9	30	2.39	<10	0.21	212	2	0.02	4	390	20	<5	<20	26	0.03	<10	48	<10	3	25
61	450N 7950	35	0.5	2.59	<5	120	<5	0.98	<1	11	15	185	3.31	<10	0.68	691	2	0.01	8	850	24	<5	<20	67	0.05	<10	60	<10	8	56
62	450N 8050	30	<0.2	1.45	5	55	<5	0.11	<1	8	9	40	4.19	<10	0.53	346	2	0.02	6	300	22	<5	<20	22	0.13	<10	124	<10	3	39
63	450N 8100	20	0.2	0.77	<5	125	<5	0.12	<1	4	8	22	1.92	<10	0.26	124	3	0.01	3	210	8	<5	<20	49	0.03	<10	48	<10	2	19
64	450N 8150	35	4.1	2.23	10	205	<5	1.56	<1	7	32	442	1.80	90	0.22	397	12	0.02	44	2760	42	<5	<20	73	0.02	<10	49	<10	114	27
65	450N 8250	10	0.7	1.57	<5	250	<5	1.59	<1	3	13	45	1.22	<10	0.26	111	6	0.03	8	1220	14	<5	<20	69	0.01	10	39	<10	4	35
66	450N 8300	15	1.1	3.69	<5	215	<5	1.12	<1	9	35	127	3.72	10	0.71	301	6	0.03	21	1110	28	<5	<20	68	0.02	<10	79	<10	7	61
67	450N 8350	15	0.4	2.30	5	95	<5	0.41	<1	10	28	103	3.89	<10	0.75	387	5	0.02	14	670	24	<5	<20	41	0.06	<10	92	<10	6	58
68	500N 7750	20	0.3	2.18	10	40	<5	0.24	<1	13	36	77	3.88	<10	0.94	542	1	0.02	13	530	28	<5	<20	26	0.15	<10	101	<10	4	67
69	500N 7800	15	0.4	3.35	5	95	<5	0.42	<1	13	39	83	3.98	<10	0.80	595	2	0.02	18	700	28	<5	<20	43	0.09	<10	82	<10	6	84
70	500N 7850	20	0.3	2.82	20	50	<5	0.23	<1	19	53	83	5.40	<10	1.10	790	1	0.01	19	900	26	<5	<20	22	0.09	<10	106	<10	5	86

Et #.	Tag #	Au(ppb)	Ag	Al %	As	Ba	Bi	Ca %	Cd	Co	Cr	Cu	Fe %	La	Mg %	Mn	Mo	Na %	Ni	P	Pb	Sb	Sn	Sr	Ti %	U	V	W	Y	Zn

71	500N 7900	15	0.9	3.20	10	55	<5	0.20	<1	14	54	80	4.78	<10	1.03	702	2	0.02	18	570	26	<5	<20	25	0.11	<10	99	<10	5	84
72	500N 8100	10	0.2	1.27	<5	65	<5	0.11	<1	3	10	21	1.70	<10	0.25	128	5	0.02	6	360	12	<5	<20	23	0.05	<10	49	<10	3	18
73	500N 8150	30	1.0	3.92	15	290	<5	1.73	<1	15	34	176	4.13	20	0.91	1110	17	0.03	22	1630	32	<5	<20	91	0.04	<10	95	<10	22	77
74	500N 8250	20	0.6	3.20	10	300	<5	1.14	<1	15	30	129	4.28	10	0.80	920	13	0.03	20	1050	30	<5	<20	79	0.04	<10	92	<10	16	74
75	500N 8300	15	0.4	2.40	5	145	<5	1.01	<1	12	26	102	3.64	<10	0.76	462	7	0.02	17	920	20	<5	<20	70	0.07	<10	82	<10	9	63
76	550N 7650	55	0.9	4.05	15	195	<5	1.16	<1	14	21	66	3.73	<10	0.86	1410	4	0.03	7	700	138	<5	<20	85	0.02	<10	65	<10	11	207
77	550N 7700	50	0.3	3.96	10	80	<5	0.78	<1	11	32	72	3.93	10	0.87	560	2	0.02	13	810	30	<5	<20	63	0.08	<10	80	<10	8	68
78	550N 7750	70	0.2	2.32	10	50	<5	0.18	<1	15	48	53	4.64	<10	0.84	1013	2	0.02	12	650	24	<5	<20	23	0.13	<10	118	<10	4	68
79	550N 8050	35	0.5	1.91	5	180	<5	1.52	<1	7	18	113	2.18	<10	0.44	334	6	0.02	10	1040	16	<5	<20	70	0.04	<10	51	<10	9	43
80	550N 8100	20	0.5	2.46	5	185	<5	1.03	<1	12	24	100	3.40	10	0.73	422	10	0.02	18	1010	24	<5	<20	69	0.05	<10	76	<10	11	62
81	550N 7850	55	0.4	2.74	15	45	<5	0.21	<1	18	43	82	5.62	<10	1.10	891	2	0.02	15	750	30	<5	<20	28	0.16	<10	134	<10	5	93
82	550N 7900	15	0.3	2.44	<5	65	<5	0.08	<1	8	19	30	3.96	<10	0.50	1099	2	0.02	6	600	28	<5	<20	16	0.03	<10	86	<10	3	56
83	600N 7650	15	0.3	1.49	<5	135	<5	0.26	<1	4	4	21	2.35	<10	0.36	708	1	0.02	2	810	26	<5	<20	44	0.02	<10	49	<10	4	53
84	600N 7700	5	0.4	2.16	<5	105	<5	0.24	<1	5	6	27	2.15	<10	0.34	1277	2	0.01	3	950	24	<5	<20	40	<0.01	<10	41	<10	4	43
85	600N 7750	5	0.2	3.09	<5	155	<5	0.29	<1	9	16	80	3.94	<10	0.65	992	2	0.02	7	360	44	<5	<20	40	0.01	<10	57	<10	7	103
86	600N 8050	20	0.5	2.30	5	250	<5	1.38	<1	11	22	84	2.89	10	0.82	460	5	0.02	15	570	32	<5	<20	74	0.05	<10	63	<10	17	88
87	600N 8100	10	0.5	0.59	<5	345	<5	2.25	<1	2	5	42	0.49	<10	0.07	41	6	0.04	5	660	6	<5	<20	68	<0.01	<10	11	<10	8	29
88	600N 8350	25	0.2	2.57	<5	165	<5	1.17	2	10	21	126	3.16	10	0.94	760	3	0.02	14	650	30	<5	<20	79	0.03	<10	66	<10	15	173
89	650N 7650	10	0.3	2.58	<5	470	<5	0.58	2	10	11	23	2.99	<10	0.49	3724	2	0.02	5	960	50	<5	<20	66	<0.01	<10	46	<10	8	105
90	650N 7700	5	0.4	3.02	<5	70	<5	1.06	<1	5	5	52	2.32	<10	0.44	1059	2	0.02	3	600	22	<5	<20	91	0.02	<10	46	<10	5	37
91	650N 7800	40	0.5	1.29	<5	60	<5	0.12	<1	3	8	15	1.73	<10	0.20	195	1	0.02	4	320	14	<5	<20	20	0.05	<10	66	<10	2	19
92	650N 7900	15	0.2	1.99	5	65	<5	0.17	<1	10	21	44	3.94	<10	0.63	698	1	0.02	8	500	30	<5	<20	25	0.09	<10	107	<10	3	51
93	650N 7950	20	0.2	2.76	<5	180	<5	0.99	<1	10	14	67	3.21	10	0.73	939	2	0.02	10	480	26	<5	<20	74	0.04	<10	56	<10	9	86
94	650N 8050	25	0.6	2.86	5	365	<5	1.16	<1	15	38	138	3.99	10	1.10	1003	3	0.02	20	360	30	<5	<20	61	0.07	<10	86	<10	15	132
95	650N 8100	20	<0.2	2.44	5	175	<5	0.34	<1	15	22	75	3.24	<10	0.39	911	4	0.03	11	550	28	<5	<20	34	0.02	<10	81	<10	5	62
96	650N 8150	20	0.3	2.59	5	150	<5	0.83	<1	19	31	133	4.04	10	0.97	1137	3	0.02	20	520	26	<5	<20	57	0.09	<10	81	<10	11	107
97	650N 8250	30	0.2	1.70	<5	125	<5	0.87	<1	10	18	89	3.49	10	0.72	547	2	0.02	12	470	22	<5	<20	68	0.10	<10	76	<10	10	52
98	650N 8300	20	0.3	2.46	5	140	<5	0.96	<1	9	20	67	3.38	<10	1.11	647	3	0.02	12	700	32	<5	<20	80	0.05	<10	80	<10	8	162
99	650N 8350	70	0.8	2.57	<5	220	<5	0.75	<1	12	22	100	3.12	<10	0.60	986	6	0.02	16	710	26	<5	<20	66	0.02	<10	75	<10	5	68
100	700N 7700	25	0.5	3.74	<5	115	<5	1.29	<1	6	6	55	2.93	<10	0.56	607	2	0.02	4	510	28	<5	<20	110	0.04	<10	58	<10	7	43
101	700N 7750	5	0.3	2.19	<5	460	<5	0.83	<1	7	7	28	3.00	<10	0.74	1367	<1	0.01	4	640	28	<5	<20	64	0.02	<10	43	<10	12	70
102	700N 7800	30	0.6	1.90	<5	65	<5	0.16	<1	4	14	24	2.14	<10	0.30	329	1	0.02	6	510	20	<5	<20	27	0.04	<10	64	<10	3	27
103	700N 7850	25	0.7	3.75	5	80	<5	0.34	<1	8	24	49	4.32	<10	0.75	488	2	0.02	10	640	32	<5	<20	34	0.04	<10	79	<10	6	64
104	700N 7900	30	0.2	1.09	<5	85	<5	0.08	<1	2	5	8	1.15	<10	0.08	278	<1	0.02	2	690	8	<5	<20	20	<0.01	<10	27	<10	2	16
105	700N 7950	20	<0.2	3.54	20	90	<5	0.30	<1	12	32	77	4.56	<10	0.92	592	2	0.02	14	590	26	<5	<20	37	0.08	<10	82	<10	6	95
106	700N 8100	45	0.4	2.10	10	70	<5	0.19	<1	17	42	64	4.78	<10	1.06	930	2	0.02	16	550	24	<5	<20	30	0.13	<10	113	<10	3	74
107	700N 8150	180	0.5	1.74	5	85	<5	0.19	<1	14	30	43	4.43	<10	0.71	931	2	0.02	11	820	20	<5	<20	23	0.12	<10	106	<10	3	57
108	700N 8250	20	0.3	2.45	<5	70	<5	0.17	<1	10	23	46	4.30	<10	0.76	404	3	0.02	15	460	24	<5	<20	24	0.08	<10	96	<10	4	57
109	700N 8300	25	1.0	3.41	<5	270	<5	1.58	<1	6	15	68	2.09	<10	0.47	292	3	0.03	10	1010	32	<5	<20	123	0.02	<10	47	<10	8	56
110	637950 L600N	15	0.6	3.06	10	635	<5	1.86	<1	12	30	149	3.34	10	0.74	1474	3	0.02	16	980	30	<5	<20	77	0.03	<10	70	<10	15	69

Et #.	Tag #	Au(ppb)	Ag	Al %	As	Ba	Bi	Ca %	Cd	Co	Cr	Cu	Fe %	La	Mg %	Mn	Mo	Na %	Ni	P	Pb	Sb	Sn	Sr	Ti %	U	V	W	Y	Zn
111	637950 L500N	20	0.4	2.33	5	60	<5	0.17	<1	12	24	48	4.06	<10	0.58	705	2	0.02	10	650	26	<5	<20	29	0.09	<10	118	<10	4	44
112	637650 L500N	35	0.3	4.00	10	130	<5	1.87	<1	12	27	56	3.81	<10	1.10	843	2	0.02	10	890	36	<5	<20	131	0.06	<10	79	<10	8	132

113	638350 L700N	10	0.6	1.76	<5	65	<5	0.14	<1	10	52	18	2.27	<10	0.61	235	2	0.02	30	410	22	<5	<20	26	0.11	<10	71	<10	2	24
114	638350 L800N	10	0.3	2.40	<5	235	<5	0.66	<1	9	20	82	2.85	10	0.59	789	5	0.02	15	840	22	<5	<20	59	0.02	<10	70	<10	8	60
115	638050 L500N	40	0.8	2.56	5	60	<5	0.18	<1	10	32	47	3.56	<10	0.74	342	4	0.02	13	400	22	<5	<20	25	0.09	<10	87	<10	4	47
116	638050 L600N	15	0.7	3.39	<5	105	<5	0.12	<1	6	16	34	4.53	<10	0.48	366	4	0.02	7	430	30	<5	<20	26	0.05	<10	104	<10	5	44
117	637800 L600N	65	0.5	2.05	<5	120	<5	0.08	<1	5	10	20	3.17	<10	0.18	406	1	0.01	2	480	24	<5	<20	25	0.01	<10	66	<10	3	26
118	838250 L600N	10	0.6	1.00	<5	50	<5	0.09	<1	2	11	18	1.49	<10	0.13	94	1	0.02	3	780	8	<5	<20	18	0.02	<10	36	<10	2	13
119	7950E 350N	25	0.3	2.44	<5	80	<5	0.09	<1	6	16	24	3.94	<10	0.50	594	2	0.02	6	280	30	<5	<20	15	0.02	<10	89	<10	4	52

QC DATA:

Repeat:

1	637600E 200N		0.3	4.32	10	70	<5	2.23	<1	21	31	209	3.04	<10	1.01	443	9	0.02	27	770	28	<5	<20	177	0.09	<10	75	<10	10	34
5	637600E 400N	20																												
10	637600E 650N		0.2	2.65	<5	565	<5	0.50	<1	16	12	30	3.76	<10	0.49	3483	3	0.01	4	1100	128	<5	<20	69	<0.01	<10	56	<10	9	140
11	637600E 700N	35																												
19	Baseline 450N		0.2	3.21	<5	55	<5	0.15	<1	6	21	56	3.75	<10	0.48	335	3	0.01	6	780	26	<5	<20	20	0.07	<10	79	<10	5	43
26	638000E 300N	25																												
28	638000E 400N		0.5	1.73	<5	50	<5	0.17	<1	5	15	41	3.76	<10	0.28	222	2	0.01	4	510	18	<5	<20	23	0.06	<10	73	<10	4	23
30	638000E 500N	20																												
36	638200E 350N	15	0.2	1.20	<5	110	<5	0.26	<1	6	3	31	2.13	<10	0.39	377	6	0.01	4	310	16	<5	<20	41	0.06	<10	64	<10	4	37
45	8400E 250N		2.0	3.05	15	165	<5	0.14	<1	7	32	79	3.00	<10	0.57	221	8	0.02	21	1170	30	<5	<20	29	0.02	<10	75	<10	5	51
48	8400E 400N	10																												
54	8400E 700N		0.2	2.35	5	160	<5	0.48	<1	12	32	63	4.48	<10	1.01	702	2	0.02	18	840	26	<5	<20	42	0.07	<10	81	<10	6	84
55	8200E 200N	10																												
63	450N 8100		0.2	0.80	<5	120	<5	0.13	<1	4	9	23	1.99	<10	0.28	120	3	0.02	3	240	6	<5	<20	49	0.04	<10	50	<10	3	21
69	500N 7800	25																												
71	500N 7900		0.9	3.16	5	55	<5	0.21	<1	13	46	81	4.74	<10	0.94	698	2	0.02	17	550	30	<5	<20	29	0.10	<10	96	<10	5	79
76	550N 7650	35																												
80	550N 8100		0.4	2.59	5	195	<5	1.13	<1	11	23	107	3.48	10	0.76	434	11	0.02	18	1090	26	<5	<20	72	0.06	<10	81	<10	12	62
85	600N 7750	5																												
89	650N 7650		0.3	2.54	<5	475	<5	0.55	2	10	10	21	2.93	<10	0.50	3706	2	0.02	5	960	48	<5	<20	66	<0.01	<10	44	<10	8	107
92	650N 7900	70																												
98	650N 8300		0.2	2.50	<5	130	<5	0.98	<1	10	21	64	3.42	<10	1.11	651	3	0.02	11	670	32	<5	<20	76	0.05	<10	78	<10	8	161
101	700N 7750	10																												
106	700N 8100		0.4	2.18	5	65	<5	0.19	<1	16	42	57	4.71	<10	0.92	944	1	0.02	15	540	22	<5	<20	29	0.10	<10	117	<10	3	69
108	700N 8250	285																												
116	638050 L600N	15																												

Standard:

Till 3			1.4	1.12	80	40	<5	0.57	<1	12	61	20	2.10	10	0.61	317	1	0.03	31	460	28	<5	<20	10	0.07	<10	38	<10	9	34
Till 3			1.4	1.10	80	35	<5	0.50	<1	11	62	21	2.06	10	0.55	317	<1	0.02	34	430	30	<5	<20	13	0.06	<10	30	<10	7	39
Till 3			1.5	1.09	85	35	<5	0.53	<1	11	64	21	2.01	10	0.55	325	<1	0.02	34	500	30	<5	<20	14	0.07	<10	32	<10	8	40
Till 3			1.4	1.10	90	35	<5	0.56	<1	13	60	19	1.98	10	0.50	301	1	0.01	36	460	28	<5	<20	12	0.08	<10	29	<10	7	43
OxH52		1285																												
OxH52		1290																												
OxH52		1305																												
OxH52		1285																												

JJ/kc
df/n1087
XLS/06

ECO TECH LABORATORY LTD.
Jutta Jealouse
B.C. Certified Assayer

CERTIFICATE OF ASSAY AK 2006-1200

Northgate Minerals Corp.
Box 3519
Smithers, BC
V0J 2N0

18-Sep-06

ATTENTION: Carl Edmunds

No. of samples received: 73
Sample type: Core
Project #: 4013
Samples submitted by: N. Aubichon

ET #.	Tag #	Au (g/t)	Au (oz/t)	Cu (%)
1	24916	<0.03	<0.001	0.02
2	24917	0.09	0.003	0.28
3	24918	0.04	0.001	0.01
4	24919	0.06	0.002	0.18
5	24920	0.06	0.002	0.01
6	24921	<0.03	<0.001	0.02
7	24922	0.04	0.001	0.07
8	24923	0.04	0.001	0.02
9	24924	0.04	0.001	0.03
10	24925	0.03	0.001	0.04
11	24926	0.03	0.001	0.05
12	24927	<0.03	<0.001	0.01
13	24928	<0.03	<0.001	0.02
14	24929	0.05	0.001	0.05
15	24930	0.11	0.003	0.04
16	24931	<0.03	<0.001	0.06
17	24932	<0.03	<0.001	0.05
18	24933	<0.03	<0.001	0.05
19	24934	<0.03	<0.001	0.04
20	24935	<0.03	<0.001	0.02
21	24936	<0.03	<0.001	0.03
22	24937	<0.03	<0.001	0.03

ECO TECH LABORATORY LTD.
Jutta Jealouse
B.C. Certified Assayer

Northgate Minerals Corp. 18-Sep-06

ET #.	Tag #	Au (g/t)	Au (oz/t)	Cu (%)
23	24938	0.03	0.001	0.06
24	24939	<0.03	<0.001	0.06
25	24940	0.03	0.001	0.05
26	24941	<0.03	<0.001	0.04
27	24942	0.03	0.001	0.05
28	24943	<0.03	<0.001	0.04
29	24944	0.03	0.001	0.04
30	24945	0.03	0.001	0.06
31	24946	0.03	0.001	0.05
32	24947	<0.03	<0.001	0.04
33	24948	<0.03	<0.001	0.05
34	24949	0.03	0.001	0.07
35	24950	<0.03	<0.001	0.02
36	24951	0.04	0.001	0.05
37	24952	0.04	0.001	0.03
38	24953	<0.03	<0.001	0.03
39	24954	<0.03	<0.001	0.01
40	24955	<0.03	<0.001	0.01
41	24956	<0.03	<0.001	0.01
42	24957	<0.03	<0.001	0.04
43	24958	<0.03	<0.001	<0.01
44	24959	<0.03	<0.001	0.02
45	24960	<0.03	<0.001	<0.01
46	24961	<0.03	<0.001	<0.01
47	24962	<0.03	<0.001	0.01
48	24963	<0.03	<0.001	<0.01
49	24964	<0.03	<0.001	<0.01
50	24965	<0.03	<0.001	<0.01
51	24966	<0.03	<0.001	<0.01
52	24967	<0.03	<0.001	<0.01
53	24968	0.08	<0.001	0.01
54	24969	<0.03	<0.001	<0.01
55	24970	<0.03	<0.001	<0.01
56	24971	<0.03	<0.001	<0.01
57	24972	<0.03	<0.001	<0.01
58	24973	0.05	0.001	<0.01
59	24974	<0.03	<0.001	<0.01

ECO TECH LABORATORY LTD.
Jutta Jealouse
B.C. Certified Assayer

Northgate Minerals Corp. 18-Sep-06

ET #.	Tag #	Au (g/t)	Au (oz/t)	Cu (%)
60	24975	<0.03	<0.001	<0.01
61	24976	<0.03	<0.001	0.02
62	24977	<0.03	<0.001	0.02
63	24978	<0.03	<0.001	0.02
64	24979	0.03	0.001	0.03
65	24980	0.08	0.002	0.04
66	24981	0.05	0.001	0.02
67	24982	0.03	0.001	0.04
68	24983	0.04	0.001	0.03
69	24984	<0.03	<0.001	0.03
70	24985	0.03	0.001	0.03
71	24986	0.12	0.003	0.07
72	24987	<0.03	<0.001	0.03
73	24988	0.03	0.001	0.08

QC DATA:

Repeat:

1	24916	<0.03	<0.001	0.02
10	24925	0.03	0.001	0.04
19	24934	<0.03	<0.001	0.03
28	24943	<0.03	<0.001	0.04
36	24951	0.03	0.001	0.05
45	24960	<0.03	<0.001	<0.01
54	24969	<0.03	<0.001	<0.01
63	24978	<0.03	<0.001	0.02
71	24986	0.09	0.003	0.07

Standard:

Cu120			1.50
Cu120			1.53
Cu120			1.53
Sh13	1.30	0.038	
Sh13	1.32	0.038	
Sh13	1.30	0.038	

ECO TECH LABORATORY LTD.
Jutta Jealouse
B.C. Certified Assayer

JJ/sa/bp
XLS/06

ECO TECH LABORATORY LTD.
10041 Dallas Drive
KAMLOOPS, B.C.
V2C 6T4

Phone: 250-573-5700
Fax : 250-573-4557

ICP CERTIFICATE OF ANALYSIS AK 2006-1200

Northgate Minerals Corp.
Box 3519
Smithers, BC
V0J 2N0

ATTENTION: Carl Edmunds

No. of samples received: 73
Sample type: Core
Project #: 4013
Samples submitted by: N. Aubichon

Values in ppm unless otherwise reported

Et #.	Tag #	Ag	Al %	As	Ba	Bi	Ca %	Cd	Co	Cr	Cu	Fe %	La	Mg %	Mn	Mo	Na %	Ni	P	Pb	Sb	Sn	Sr	Ti %	U	V	W	Y	Zn
1	24916	0.3	1.20	<5	185	<5	2.32	<1	6	88	200	2.61	<10	0.61	2708	6	<0.01	2	690	20	<5	<20	46	<0.01	<10	32	<10	15	83
2	24917	25.4	0.93	95	220	<5	2.88	11	5	73	2681	1.84	<10	0.56	2571	4	<0.01	3	380	920	200	<20	27	<0.01	<10	24	<10	13	671
3	24918	0.4	1.01	5	430	<5	3.34	1	3	75	114	2.28	<10	0.34	2353	4	<0.01	2	670	20	5	<20	39	<0.01	<10	30	<10	15	173
4	24919	11.3	0.80	35	90	<5	2.86	12	5	96	1823	1.31	<10	0.43	1790	4	<0.01	2	530	358	90	<20	23	<0.01	<10	17	<10	14	706
5	24920	<0.2	1.42	5	280	<5	2.21	<1	5	64	81	2.80	10	0.79	845	4	0.02	4	710	24	5	<20	29	<0.01	<10	49	<10	15	61
6	24921	<0.2	2.04	<5	235	<5	2.03	<1	8	62	191	2.89	10	0.75	539	<1	0.04	2	700	28	5	<20	103	0.09	<10	67	<10	17	32
7	24922	0.6	1.71	<5	390	<5	1.69	<1	7	78	647	3.32	<10	0.74	1339	6	0.01	2	740	34	10	<20	34	<0.01	<10	34	<10	13	144
8	24923	1.7	0.77	10	215	<5	2.49	4	5	78	203	1.38	<10	0.40	1669	4	<0.01	2	640	92	10	<20	27	<0.01	<10	20	<10	14	318
9	24924	0.4	1.95	<5	90	<5	2.12	1	8	83	243	3.83	<10	0.70	2022	8	<0.01	3	730	32	5	<20	24	<0.01	<10	32	<10	11	281
10	24925	4.1	1.20	<5	140	<5	2.00	2	7	71	359	2.43	<10	0.71	1339	5	0.02	3	670	26	10	<20	23	<0.01	<10	36	<10	14	175
11	24926	1.1	1.27	<5	175	<5	2.09	1	6	81	442	2.72	20	0.78	1303	6	0.02	4	700	24	15	<20	26	<0.01	<10	47	<10	21	85
12	24927	<0.2	1.24	<5	510	<5	2.10	<1	4	70	44	2.88	10	0.70	857	4	0.03	2	730	18	5	<20	33	<0.01	<10	49	<10	19	45
13	24928	0.3	1.35	<5	150	<5	1.56	2	11	70	211	2.90	10	0.73	848	5	0.02	2	720	30	<5	<20	23	<0.01	<10	43	<10	15	194
14	24929	2.4	1.27	5	190	<5	1.45	4	9	64	447	2.50	<10	0.69	2327	5	<0.01	3	700	72	5	<20	24	<0.01	<10	29	<10	16	337
15	24930	5.7	1.33	25	55	<5	1.93	3	37	102	396	2.95	<10	0.64	1753	10	0.01	4	580	134	10	<20	22	<0.01	<10	27	<10	13	219
16	24931	1.6	1.14	10	205	<5	3.73	1	9	70	576	2.17	<10	0.52	3109	4	<0.01	2	590	44	5	<20	46	<0.01	<10	20	<10	18	174
17	24932	0.5	2.03	5	135	<5	1.10	<1	8	72	465	3.36	<10	0.78	613	9	0.03	3	730	34	10	<20	62	0.05	<10	62	<10	19	56
18	24933	0.4	1.24	<5	345	<5	0.92	<1	6	74	495	3.09	10	0.79	594	4	0.05	4	740	20	5	<20	95	0.05	<10	69	<10	17	43
19	24934	<0.2	1.45	<5	225	<5	0.73	<1	8	80	319	3.23	10	0.69	626	3	0.05	4	760	24	<5	<20	75	0.08	<10	71	<10	20	46
20	24935	<0.2	0.95	<5	180	<5	0.73	<1	6	57	242	2.80	10	0.57	304	2	0.06	2	720	16	5	<20	58	0.09	<10	68	<10	16	23
21	24936	0.2	1.16	<5	240	<5	0.64	<1	6	71	258	3.00	10	0.69	421	2	0.06	3	720	20	<5	<20	87	0.10	<10	72	<10	18	29
22	24937	<0.2	1.14	<5	145	<5	0.78	<1	7	65	275	3.04	10	0.59	350	3	0.06	5	720	20	10	<20	51	0.09	<10	72	<10	18	23
23	24938	1.5	2.71	5	130	<5	1.70	2	8	69	578	2.98	10	0.76	812	3	0.03	4	700	134	10	<20	110	0.07	<10	64	<10	20	174
24	24939	<0.2	1.43	5	130	<5	0.76	1	6	53	572	3.23	10	0.74	491	4	0.04	2	720	24	<5	<20	43	0.05	<10	68	<10	19	80
25	24940	2.9	1.43	<5	90	<5	2.39	<1	9	67	460	3.30	<10	0.70	1706	6	0.01	3	730	82	<5	<20	45	<0.01	<10	38	<10	15	72
26	24941	0.5	1.53	<5	490	<5	2.07	<1	4	51	350	3.33	10	0.68	971	6	0.01	3	760	28	5	<20	45	<0.01	<10	38	<10	15	107
27	24942	1.3	1.34	<5	110	<5	2.96	<1	9	66	445	3.22	<10	0.66	1733	7	0.01	2	740	40	5	<20	53	<0.01	<10	34	<10	20	53
28	24943	0.7	1.45	<5	970	<5	3.25	<1	2	55	394	3.25	10	0.79	2272	6	0.02	4	710	32	5	<20	72	<0.01	<10	41	<10	15	94
29	24944	1.3	1.44	5	555	<5	2.84	<1	5	65	409	3.09	10	0.77	2206	6	0.01	3	690	116	<5	<20	52	<0.01	<10	40	<10	19	136
30	24945	0.7	1.38	5	260	<5	0.62	<1	8	60	530	3.48	<10	0.82	1272	7	0.03	3	750	28	5	<20	36	0.01	<10	54	<10	14	68

Et #.	Tag #	Ag	Al %	As	Ba	Bi	Ca %	Cd	Co	Cr	Cu	Fe %	La	Mg %	Mn	Mo	Na %	Ni	P	Pb	Sb	Sn	Sr	Ti %	U	V	W	Y	Zn
31	24946	0.5	1.25	5	365	<5	0.82	<1	6	66	477	3.27	10	0.59	1220	9	0.02	3	770	22	<5	<20	23	<0.01	<10	49	<10	24	30
32	24947	0.3	1.23	<5	215	<5	1.59	<1	6	58	397	3.00	10	0.56	1008	7	0.02	3	740	26	10	<20	31	<0.01	<10	46	<10	17	39
33	24948	0.9	1.35	5	640	<5	3.47	1	5	77	511	2.99	10	0.72	2192	7	0.01	4	640	36	10	<20	62	<0.01	<10	35	<10	15	72
34	24949	0.7	1.37	5	215	<5	0.47	<1	7	66	640	3.41	<10	0.85	1055	10	0.03	3	720	26	<5	<20	33	<0.01	<10	55	<10	13	52
35	24950	0.3	1.35	<5	255	<5	0.57	<1	6	76	172	3.46	10	0.82	1074	7	0.04	4	780	26	<5	<20	30	0.03	<10	70	<10	14	45
36	24951	0.9	1.33	<5	265	<5	0.83	1	6	58	442	3.36	10	0.80	1335	9	0.03	4	800	58	<5	<20	24	<0.01	<10	61	<10	18	81
37	24952	0.4	1.35	<5	295	<5	0.86	<1	8	93	331	3.28	<10	0.88	659	4	0.06	7	800	22	<5	<20	42	0.07	<10	78	<10	13	43
38	24953	0.3	1.38	<5	330	<5	0.82	<1	6	64	239	3.21	10	0.82	1004	6	0.03	3	810	24	<5	<20	35	<0.01	<10	57	<10	24	52
39	24954	<0.2	1.22	<5	370	<5	1.74	<1	5	69	131	3.18	<10	0.74	817	6	0.04	3	770	20	10	<20	46	0.02	<10	65	<10	20	41
40	24955	0.3	1.06	<5	375	<5	4.13	1	6	59	93	2.81	10	0.76	2440	6	0.02	3	720	24	10	<20	57	<0.01	<10	47	<10	21	64
41	24956	0.4	1.31	<5	525	<5	0.84	1	5	65	84	3.16	<10	0.75	782	5	0.03	2	830	24	<5	<20	26	<0.01	<10	55	<10	21	46
42	24957	0.6	1.48	5	360	<5	0.54	<1	5	61	390	3.24	10	0.78	935	6	0.03	3	810	28	5	<20	26	<0.01	<10	57	<10	20	58
43	24958	<0.2	1.86	<5	385	10	2.32	1	6	59	15	2.98	10	0.74	745	5	0.03	4	750	26	15	<20	99	0.03	<10	57	<10	15	56
44	24959	0.2	1.75	5	70	<5	2.00	<1	10	69	138	2.32	10	0.81	757	2	0.03	3	750	28	5	<20	48	0.04	<10	53	<10	22	52
45	24960	<0.2	2.73	10	110	15	2.43	<1	12	50	30	3.14	<10	0.93	1069	<1	0.04	4	630	38	10	<20	103	0.11	<10	64	<10	17	59
46	24961	0.2	2.03	5	95	<5	2.10	<1	10	58	25	2.43	<10	0.78	1190	2	0.02	3	770	34	10	<20	65	0.05	<10	50	<10	15	61
47	24962	0.2	2.91	10	90	5	2.43	<1	10	46	84	2.78	<10	1.02	1887	<1	0.03	3	660	40	15	<20	87	0.12	<10	55	<10	13	86
48	24963	<0.2	2.46	10	100	10	2.75	<1	8	64	9	2.83	<10	0.74	684	<1	0.03	3	750	32	<5	<20	100	0.08	<10	58	<10	17	51
49	24964	<0.2	2.57	10	130	<5	3.43	<1	10	57	21	2.56	<10	0.76	1243	<1	0.03	3	650	38	10	<20	104	0.11	<10	57	<10	17	68
50	24965	<0.2	1.93	10	85	15	1.75	<1	14	46	24	3.01	<10	1.08	1043	<1	0.06	3	480	28	10	<20	77	0.15	<10	80	<10	18	44
51	24966	<0.2	1.58	<5	210	5	3.72	<1	8	91	24	2.69	<10	0.51	1272	3	0.02	3	770	24	5	<20	65	0.04	<10	54	<10	18	57
52	24967	0.4	1.23	10	105	<5	2.99	2	10	101	28	2.13	<10	0.48	1325	3	<0.01	4	590	30	10	<20	27	0.02	<10	30	<10	13	170
53	24968	1.8	1.36	10	95	<5	5.04	6	29	95	85	2.45	<10	0.60	2100	12	<0.01	3	480	142	<5	<20	47	0.02	<10	27	<10	15	360
54	24969	<0.2	2.39	5	185	5	3.87	<1	7	54	30	2.49	10	0.55	1184	3	0.02	2	730	34	5	<20	112	0.03	<10	49	<10	19	37
55	24970	<0.2	1.58	5	210	<5	2.41	<1	8	96	19	2.31	<10	0.56	1060	4	0.03	3	700	24	5	<20	61	0.01	<10	43	<10	15	69
56	24971	1.3	1.68	5	140	10	4.15	<1	16	107	10	2.16	<10	0.57	1762	4	0.01	5	580	34	10	<20	69	<0.01	<10	28	<10	15	113
57	24972	0.8	1.34	10	85	5	4.24	1	17	114	10	2.01	<10	0.51	1964	4	<0.01	3	530	24	5	<20	45	<0.01	<10	22	<10	12	139
58	24973	0.2	1.84	5	365	5	3.50	1	11	71	31	3.05	<10	0.80	1545	3	0.02	3	740	30	<5	<20	60	0.03	<10	50	<10	18	97
59	24974	<0.2	3.53	10	145	15	3.35	<1	8	51	12	2.67	<10	0.72	729	<1	0.04	2	710	44	5	<20	167	0.09	<10	60	<10	14	20
60	24975	<0.2	3.68	10	140	10	3.39	<1	9	62	11	2.93	<10	0.85	689	<1	0.03	3	770	48	10	<20	160	0.10	<10	64	<10	18	31
61	24976	0.3	2.04	5	1455	<5	3.57	<1	1	66	206	2.61	10	0.71	923	3	0.02	2	740	36	10	<20	95	0.02	<10	48	<10	20	54
62	24977	0.6	1.31	<5	195	<5	1.57	1	10	78	197	2.96	<10	0.74	877	5	0.03	3	740	36	<5	<20	26	<0.01	<10	49	<10	14	148
63	24978	0.3	2.47	5	175	<5	2.17	<1	11	51	188	3.13	10	0.81	710	2	0.04	2	720	36	5	<20	94	0.06	<10	60	<10	20	48
64	24979	0.4	2.33	5	200	<5	1.98	1	7	57	293	3.05	10	0.72	698	6	0.03	4	740	34	15	<20	81	0.02	<10	52	<10	18	47
65	24980	0.3	2.01	5	510	<5	2.15	<1	5	56	389	3.29	10	0.72	555	5	0.03	2	780	30	5	<20	63	<0.01	<10	49	<10	15	43
66	24981	0.3	1.54	<5	180	<5	0.69	<1	10	62	163	3.10	10	0.80	529	3	0.04	3	760	26	5	<20	41	0.05	<10	62	<10	17	29
67	24982	0.3	2.66	5	545	<5	2.16	<1	5	48	386	3.10	<10	0.67	706	4	0.03	1	740	38	<5	<20	106	0.02	<10	51	<10	18	45
68	24983	0.9	2.38	10	290	<5	1.21	<1	6	47	328	2.64	<10	0.64	477	4	0.02	2	770	40	<5	<20	87	0.02	<10	42	<10	13	34
69	24984	0.2	3.76	10	250	<5	2.33	1	8	47	226	2.67	10	0.78	565	3	0.02	2	750	52	10	<20	159	0.03	<10	47	<10	20	58
70	24985	0.6	2.62	10	500	<5	2.20	<1	6	44	296	2.69	10	0.62	626	4	0.02	3	720	40	10	<20	112	0.02	<10	42	<10	17	47
71	24986	0.8	4.94	10	220	<5	3.54	<1	6	40	641	1.97	<10	0.65	385	1	0.03	2	700	66	15	<20	237	0.08	<10	53	<10	14	28
72	24987	<0.2	5.63	15	260	<5	4.08	<1	9	34	331	2.42	10	0.75	544	2	0.04	2	720	74	15	<20	283	0.07	<10	66	<10	15	34
73	24988	3.4	4.04	15	205	<5	3.10	<1	11	42	712	2.80	10	0.76	693	2	0.02	1	680	96	10	<20	183	0.07	<10	61	<10	19	48

Et #.	Tag #	Ag	Al %	As	Ba	Bi	Ca %	Cd	Co	Cr	Cu	Fe %	La	Mg %	Mn	Mo	Na %	Ni	P	Pb	Sb	Sn	Sr	Ti %	U	V	W	Y	Zn

QC DATA:

Repeat:

1	24916	0.4	1.24	<5	190	<5	2.33	<1	6	91	203	2.65	<10	0.62	2722	6	<0.01	3	700	24	10	<20	48	<0.01	<10	32	<10	16	83
10	24925	4.2	1.24	<5	150	<5	2.00	2	7	75	364	2.46	<10	0.71	1355	5	0.02	3	690	26	5	<20	24	<0.01	<10	37	<10	15	178
19	24934	<0.2	1.42	<5	220	<5	0.72	<1	8	80	309	3.13	10	0.67	608	3	0.05	3	730	22	<5	<20	70	0.08	<10	69	<10	19	45
28	24943	0.7	1.54	5	965	<5	3.30	<1	2	59	405	3.40	10	0.82	2302	6	0.01	4	730	36	10	<20	85	<0.01	<10	44	<10	18	94
36	24951	0.9	1.30	<5	250	<5	0.82	1	6	58	434	3.32	10	0.80	1323	9	0.03	3	800	58	<5	<20	24	<0.01	<10	60	<10	19	81
45	24960	<0.2	2.77	10	110	10	2.47	<1	12	50	30	3.19	<10	0.94	1070	<1	0.04	5	640	40	15	<20	104	0.11	<10	65	<10	16	61
54	24969	<0.2	2.36	10	185	10	3.85	<1	7	53	30	2.48	10	0.55	1183	4	0.02	3	710	34	5	<20	108	0.03	<10	49	<10	20	39
63	24978	0.3	2.47	5	180	<5	2.18	<1	11	51	187	3.14	10	0.81	714	3	0.03	2	730	38	5	<20	97	0.05	<10	60	<10	20	48
71	24986	0.8	5.02	15	230	<5	3.62	<1	7	42	655	2.05	<10	0.67	396	4	0.03	3	710	68	20	<20	243	0.08	<10	57	<10	16	28

Standard:

Pb106		>30	0.51	285	75	<5	1.68	40	4	41	6215	1.34	<10	0.24	590	27	0.02	7	270	5216	60	<20	136	<0.01	<10	14	10	<1	8354
Pb106		>30	0.51	285	70	<5	1.71	37	4	41	6293	1.36	<10	0.24	598	26	0.02	7	280	5308	60	<20	137	<0.01	<10	14	10	<1	8412
Pb106		>30	0.51	285	70	<5	1.72	40	3	42	6176	1.37	<10	0.26	563	30	0.02	7	280	5336	60	<20	135	<0.01	<10	13	10	<1	8373

ECO TECH LABORATORY LTD.
Jutta Jealouse
B.C. Certified Assayer

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North Vancouver BC V7J 2C1
Phone: 604 984 0221 Fax: 604 984 0218 www.alschemex.com

To: NORTHGATE MINERALS CORPORATION
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 26-JUN-2006
This copy reported on 10-JUL-2006
Account: PIL

CERTIFICATE VA06051428

Project: 4013
P.O. No.:
This report is for 110 Pulp samples submitted to our lab in Vancouver, BC, Canada on 9-JUN-2006.
The following have access to data associated with this certificate:

CARL EDMUNDS	B. KAY	RON KONST

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
LOG-QC	QC Test on Received Samples

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au-AA23	Au 30g FA-AA finish	AAS
Cu-AA49	Assay Cu - HBr Digestion	AAS
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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CERTIFICATE OF ANALYSIS VA06051428

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
223004		0.22	<0.005	0.001	<0.2	2.03	7	<10	260	<0.5	<2	2.04	<0.5	7	83	4
223005		0.26	<0.005	<0.001	<0.2	2.19	<2	<10	250	<0.5	<2	2.47	<0.5	9	70	2
223006		0.24	<0.005	0.001	<0.2	2.24	2	<10	320	<0.5	<2	2.22	<0.5	9	55	9
223007		0.24	<0.005	<0.001	<0.2	1.92	3	<10	210	<0.5	<2	2.97	<0.5	6	72	4
223008		0.26	<0.005	0.001	<0.2	2.34	<2	<10	340	<0.5	<2	1.50	<0.5	7	36	5
223009		0.22	<0.005	0.001	<0.2	1.78	3	<10	320	<0.5	<2	1.18	<0.5	7	67	6
223010		0.26	<0.005	<0.001	<0.2	1.77	<2	<10	330	<0.5	<2	0.72	<0.5	7	58	4
223011		0.26	0.010	0.007	<0.2	2.55	<2	<10	250	<0.5	<2	1.70	<0.5	16	63	70
223012		0.24	0.011	0.001	0.2	1.92	4	<10	240	<0.5	<2	1.96	<0.5	19	76	13
223013		0.26	0.006	0.001	<0.2	2.13	5	<10	280	<0.5	<2	2.69	<0.5	11	58	11
223014		0.26	0.008	0.002	<0.2	1.88	<2	<10	280	<0.5	<2	2.23	<0.5	12	46	19
223015		0.24	0.008	0.001	<0.2	1.78	<2	<10	250	<0.5	<2	2.41	<0.5	9	81	9
223016		0.26	0.005	0.002	<0.2	1.86	<2	<10	250	<0.5	<2	2.27	<0.5	8	99	24
223017		0.26	0.012	0.025	0.3	2.12	<2	<10	300	<0.5	<2	2.26	<0.5	12	66	250
223018		0.22	0.016	0.004	0.3	1.98	5	<10	330	<0.5	<2	1.96	<0.5	24	75	37
223019		0.24	<0.005	0.009	<0.2	2.43	4	<10	310	<0.5	<2	3.03	<0.5	10	67	85
223020		0.26	<0.005	0.001	<0.2	2.95	4	<10	330	<0.5	<2	3.60	<0.5	8	87	4
223021		0.24	<0.005	0.001	<0.2	2.63	<2	<10	280	<0.5	<2	3.21	<0.5	8	83	3
223022		0.24	<0.005	0.001	<0.2	2.81	<2	<10	350	<0.5	<2	3.62	<0.5	8	78	3
223023		0.26	<0.005	0.001	<0.2	2.38	5	<10	360	<0.5	<2	3.34	<0.5	8	87	5
223024		0.28	<0.005	<0.001	<0.2	2.81	2	<10	270	<0.5	<2	3.82	<0.5	9	98	4
223025		0.24	<0.005	0.001	<0.2	3.66	6	<10	290	0.5	<2	4.54	<0.5	9	63	5
223026		0.26	<0.005	<0.001	<0.2	3.50	<2	<10	440	0.5	<2	4.27	<0.5	9	76	2
223027		0.24	<0.005	<0.001	<0.2	3.64	2	<10	260	0.6	<2	4.35	<0.5	7	46	2
223028		0.26	<0.005	<0.001	<0.2	2.42	<2	<10	310	<0.5	<2	3.36	<0.5	8	67	2
223029		0.24	<0.005	<0.001	<0.2	2.40	<2	<10	300	<0.5	<2	3.36	<0.5	8	64	2
223030		0.24	<0.005	<0.001	<0.2	3.06	3	<10	210	0.5	<2	5.14	<0.5	9	64	2
223031		0.26	<0.005	0.001	<0.2	3.01	<2	<10	290	0.5	<2	4.14	0.7	8	58	3
223032		0.24	<0.005	0.001	<0.2	4.91	2	<10	190	0.8	<2	6.61	<0.5	8	39	2
223033		0.26	<0.005	0.006	0.2	3.51	2	<10	340	0.5	<2	3.93	<0.5	9	71	63
223034		0.26	<0.005	0.001	<0.2	2.38	7	<10	410	<0.5	<2	1.81	<0.5	7	62	5
223035		0.24	<0.005	0.001	<0.2	2.29	3	<10	330	<0.5	<2	3.25	<0.5	10	57	6
223036		0.24	<0.005	0.001	<0.2	2.42	<2	<10	390	0.5	<2	2.82	<0.5	6	66	5
223037		0.24	<0.005	0.002	<0.2	1.88	<2	<10	340	<0.5	<2	2.60	0.5	6	69	23
223038		0.24	0.007	0.015	0.2	2.47	22	<10	380	<0.5	<2	2.11	<0.5	11	78	150
223039		0.24	<0.005	0.003	<0.2	4.08	8	<10	290	0.5	<2	4.88	<0.5	17	52	25
223040		0.26	<0.005	0.004	0.2	3.85	2	<10	210	0.5	<2	4.50	<0.5	18	59	39
223041		0.24	<0.005	0.007	<0.2	3.10	4	<10	250	<0.5	<2	4.66	<0.5	15	54	71
223042		0.24	<0.005	0.008	<0.2	3.10	<2	<10	150	<0.5	<2	4.79	<0.5	16	53	75
223043		0.24	<0.005	0.006	0.2	3.29	3	<10	130	<0.5	<2	4.21	<0.5	14	66	58

Comments: ALL SEAL ARE INTACT

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North Vancouver BC V7J 2C1
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Finalized Date: 26-JUN-2006
Account: PIL

Project: 4013

CERTIFICATE OF ANALYSIS VA06051428

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
223004		3.43	10	1	0.27	<10	0.69	793	1	0.10	4	1170	3	0.02	<2	4
223005		3.68	10	1	0.23	10	0.73	911	<1	0.11	4	1070	3	0.01	<2	4
223006		3.65	10	1	0.40	10	0.62	839	<1	0.10	3	940	6	0.02	<2	4
223007		2.97	<10	<1	0.32	<10	0.43	730	<1	0.08	3	970	4	0.01	<2	3
223008		3.52	10	<1	0.48	<10	0.42	518	<1	0.09	2	1350	4	0.01	<2	3
223009		3.38	<10	1	0.38	<10	0.36	459	<1	0.08	1	1440	3	0.02	<2	3
223010		3.41	<10	<1	0.40	<10	0.32	394	1	0.09	2	1160	2	0.04	<2	2
223011		3.84	10	<1	0.35	10	0.49	708	1	0.10	1	1290	4	0.74	<2	3
223012		4.01	10	<1	0.39	10	0.38	715	3	0.12	4	1250	8	1.19	<2	3
223013		3.62	10	<1	0.36	10	0.35	727	1	0.11	3	1040	5	0.42	<2	3
223014		3.71	10	1	0.34	10	0.36	764	1	0.12	2	980	5	0.37	<2	3
223015		3.87	10	<1	0.31	10	0.46	950	1	0.10	3	1020	3	0.20	<2	3
223016		3.69	<10	1	0.29	10	0.53	1015	2	0.10	3	880	5	0.08	<2	3
223017		3.82	10	<1	0.36	10	0.49	1080	1	0.08	2	870	4	0.08	2	2
223018		4.29	<10	<1	0.42	10	0.47	1105	2	0.07	4	780	4	0.45	<2	3
223019		3.74	10	<1	0.33	10	0.90	1220	2	0.07	5	870	5	0.02	<2	3
223020		3.71	10	<1	0.29	10	1.01	1020	1	0.09	6	950	7	0.01	<2	4
223021		3.66	10	<1	0.36	10	0.96	910	<1	0.08	3	910	5	0.01	<2	4
223022		3.60	10	1	0.37	10	0.98	932	<1	0.08	6	930	6	0.01	<2	3
223023		3.61	10	<1	0.33	10	1.01	967	<1	0.08	4	920	8	0.01	<2	3
223024		3.77	10	<1	0.30	10	1.12	994	1	0.07	5	920	5	0.01	<2	4
223025		3.84	10	1	0.38	10	1.04	880	<1	0.08	4	930	11	0.02	2	4
223026		3.89	10	2	0.31	10	1.10	942	<1	0.09	3	930	10	0.01	<2	4
223027		3.80	10	1	0.36	10	1.05	826	<1	0.08	4	960	10	0.01	<2	4
223028		3.64	10	<1	0.38	10	1.01	905	<1	0.07	5	910	6	0.01	<2	3
223029		3.60	10	2	0.37	10	0.99	893	<1	0.07	5	900	4	0.01	<2	3
223030		3.54	10	<1	0.36	10	1.17	1155	<1	0.05	4	880	6	0.01	<2	3
223031		3.71	10	1	0.36	10	1.11	997	<1	0.06	6	880	7	0.01	<2	3
223032		3.59	10	2	0.28	10	0.98	895	<1	0.08	4	860	8	0.01	<2	4
223033		3.89	10	1	0.26	10	1.18	1030	<1	0.08	5	950	7	0.05	<2	3
223034		3.35	10	<1	0.39	10	0.56	520	<1	0.08	2	1050	6	0.03	<2	3
223035		3.93	10	<1	0.38	10	0.73	921	<1	0.09	2	950	7	0.03	<2	3
223036		3.62	10	<1	0.39	10	0.49	591	<1	0.09	2	1020	10	0.02	<2	2
223037		3.36	10	<1	0.47	10	0.45	624	<1	0.07	3	850	7	0.03	<2	2
223038		3.97	10	1	0.47	10	0.77	627	1	0.06	5	1300	11	0.34	2	4
223039		4.98	10	<1	0.21	10	1.88	1135	<1	0.10	15	1220	7	0.01	4	8
223040		5.39	10	1	0.27	10	1.84	1125	<1	0.08	16	1350	8	0.02	2	7
223041		4.65	10	<1	0.34	10	1.40	964	<1	0.07	9	1200	6	0.02	<2	5
223042		4.67	10	1	0.27	10	1.70	1085	<1	0.07	12	1370	5	0.02	3	7
223043		3.93	10	1	0.27	10	1.47	887	<1	0.06	12	1460	5	0.02	<2	5

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CERTIFICATE OF ANALYSIS VA06051428

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
223004		73	0.02	<10	<10	45	<10	88
223005		94	0.02	<10	<10	53	<10	96
223006		92	0.01	<10	<10	55	<10	87
223007		79	0.02	<10	<10	49	<10	66
223008		111	0.01	<10	<10	37	<10	66
223009		111	<0.01	<10	<10	33	<10	58
223010		82	<0.01	<10	<10	34	<10	52
223011		99	0.02	<10	<10	36	<10	82
223012		94	0.01	<10	<10	39	<10	64
223013		101	0.03	<10	<10	47	<10	60
223014		104	0.01	<10	<10	43	<10	69
223015		90	0.01	<10	<10	41	<10	76
223016		103	0.01	<10	<10	43	<10	90
223017		119	0.01	<10	<10	42	<10	92
223018		114	0.01	<10	<10	43	<10	88
223019		121	0.01	<10	<10	47	<10	120
223020		193	0.01	<10	<10	45	<10	99
223021		138	0.01	<10	<10	47	<10	95
223022		207	0.01	<10	<10	45	<10	93
223023		217	0.01	<10	<10	45	<10	98
223024		186	0.01	<10	<10	46	<10	100
223025		232	0.02	<10	<10	44	<10	90
223026		382	0.01	<10	<10	46	<10	92
223027		189	0.02	<10	<10	46	<10	86
223028		146	0.01	<10	<10	42	<10	79
223029		141	0.01	<10	<10	42	<10	78
223030		128	0.01	<10	<10	36	<10	97
223031		192	0.01	<10	<10	39	<10	104
223032		265	0.01	<10	<10	40	<10	86
223033		284	0.01	<10	<10	38	<10	102
223034		212	0.01	<10	<10	44	<10	59
223035		172	0.01	<10	<10	41	<10	72
223036		227	0.01	<10	<10	39	<10	50
223037		116	0.01	<10	<10	34	<10	46
223038		143	0.01	<10	<10	56	<10	65
223039		303	0.10	<10	<10	137	<10	135
223040		182	0.03	<10	<10	113	<10	126
223041		150	0.02	<10	<10	76	<10	93
223042		114	0.05	<10	<10	119	<10	118
223043		107	0.03	<10	<10	68	<10	108

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CERTIFICATE OF ANALYSIS VA06051428

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
223044		0.26	<0.005	<0.001	<0.2	0.95	2	<10	150	<0.5	<2	2.08	<0.5	1	98	2
223045		0.26	<0.005	0.008	0.5	3.24	<2	<10	180	<0.5	<2	4.64	<0.5	17	70	83
223046		0.24	<0.005	0.006	0.2	2.50	4	<10	180	<0.5	<2	3.74	<0.5	14	77	65
223047		0.28	0.008	0.064	1.9	2.86	<2	<10	240	<0.5	<2	4.64	0.5	14	55	674
223048		0.28	<0.005	0.002	<0.2	2.66	6	<10	170	<0.5	<2	4.28	<0.5	15	61	22
223049		0.24	<0.005	0.005	0.2	2.50	2	<10	200	<0.5	<2	3.59	<0.5	15	85	45
223050		0.24	<0.005	0.003	<0.2	3.06	6	<10	130	<0.5	<2	3.76	<0.5	18	63	22
223051		0.24	0.006	0.004	<0.2	3.20	4	<10	170	<0.5	<2	4.14	<0.5	16	58	34
223052		0.28	<0.005	0.003	0.2	2.79	3	<10	190	<0.5	<2	3.65	<0.5	15	63	31
223053		0.26	<0.005	0.003	0.2	3.11	6	<10	180	<0.5	<2	4.30	<0.5	17	65	30
223054		0.24	<0.005	0.004	0.3	2.87	<2	<10	150	<0.5	<2	4.60	<0.5	16	65	42
223055		0.26	<0.005	0.001	<0.2	2.72	<2	<10	210	<0.5	<2	3.74	<0.5	15	71	10
223056		0.26	<0.005	0.001	<0.2	3.11	<2	<10	150	<0.5	<2	4.63	<0.5	15	70	7
223057		0.28	0.006	0.036	0.8	3.62	9	<10	150	0.5	<2	4.53	<0.5	15	84	385
223058		0.26	<0.005	0.016	0.3	2.49	3	<10	240	<0.5	<2	3.96	<0.5	9	67	164
223059		0.26	<0.005	0.005	<0.2	2.89	4	<10	300	<0.5	<2	2.93	<0.5	10	86	51
223060		0.28	0.014	0.004	0.3	2.80	2	<10	270	<0.5	<2	3.21	<0.5	15	71	46
223061		0.26	<0.005	0.003	<0.2	2.22	<2	<10	120	<0.5	<2	2.02	<0.5	10	80	29
223062		0.26	0.007	0.003	0.2	2.21	5	<10	320	<0.5	<2	2.45	<0.5	13	58	25
223063		0.28	<0.005	0.027	0.4	2.87	<2	<10	300	<0.5	<2	2.59	<0.5	12	60	269
223064		0.26	<0.005	0.001	<0.2	3.11	<2	<10	200	<0.5	<2	3.67	<0.5	13	55	10
223065		0.26	<0.005	0.007	0.3	2.77	5	<10	250	<0.5	<2	3.71	<0.5	11	55	66
223066		0.24	<0.005	0.001	<0.2	2.95	5	<10	330	<0.5	<2	3.20	<0.5	13	41	6
223067		0.26	<0.005	0.001	<0.2	3.21	3	<10	200	<0.5	<2	3.71	<0.5	16	48	10
223068		0.26	0.006	0.001	<0.2	3.06	3	<10	240	<0.5	<2	3.85	<0.5	16	52	10
223069		0.24	<0.005	0.001	<0.2	2.92	5	<10	210	<0.5	<2	3.82	<0.5	14	51	8
223070		0.26	<0.005	0.001	<0.2	3.11	7	<10	200	0.5	<2	4.09	<0.5	13	43	9
223071		0.24	<0.005	0.001	<0.2	3.29	2	<10	200	0.5	<2	3.98	<0.5	17	52	8
223072		0.26	<0.005	0.001	<0.2	3.53	10	<10	230	0.5	<2	3.90	<0.5	17	43	8
223073		0.26	<0.005	0.001	<0.2	2.82	<2	<10	290	0.5	<2	3.98	<0.5	12	32	8
223074		0.28	<0.005	0.001	<0.2	2.22	3	<10	380	<0.5	<2	2.99	<0.5	8	36	7
223075		0.24	<0.005	<0.001	<0.2	2.38	3	<10	380	0.5	<2	3.19	<0.5	9	43	3
223076		0.24	<0.005	<0.001	<0.2	2.74	7	<10	450	<0.5	<2	2.68	<0.5	12	31	3
223077		0.28	<0.005	0.001	<0.2	2.46	9	<10	290	0.5	<2	3.19	<0.5	9	31	4
223078		0.26	<0.005	<0.001	0.2	2.81	<2	<10	270	0.5	<2	3.54	<0.5	8	20	2
223079		0.26	<0.005	0.001	<0.2	3.98	4	<10	230	0.7	<2	5.35	<0.5	8	23	3
223080		0.26	<0.005	0.001	<0.2	2.61	<2	<10	280	0.5	<2	3.14	<0.5	10	28	7
223081		0.24	0.006	0.002	<0.2	3.12	6	<10	250	<0.5	<2	3.60	<0.5	12	41	16
223082		0.24	<0.005	0.001	<0.2	3.60	<2	<10	230	0.5	<2	3.80	<0.5	14	38	8
223083		0.24	<0.005	0.001	<0.2	5.38	6	<10	170	0.8	<2	5.60	<0.5	16	49	8

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ALS Chemex
EXCELLENCE IN ANALYTICAL CHEMISTRY
ALS Canada Ltd.
212 Brooksbank Avenue
North Vancouver BC V7J 2C1
Phone: 604 984 0221 Fax: 604 984 0218 www.alschemex.com

To: NORTHGATE MINERALS CORPORATION
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 26-JUN-2006
Account: PIL

Project: 4013

CERTIFICATE OF ANALYSIS VA06051428

Sample Description	Method	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Fe	Ga	Hg	K	La	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Sc
	Units	%	ppm	ppm	%	ppm	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm
	LOR	0.01	10	1	0.01	10	0.01	5	1	0.01	1	10	2	0.01	2	1
223044		0.59	<10	1	0.37	10	0.15	234	<1	0.03	2	370	<2	0.01	<2	1
223045		4.96	10	<1	0.30	10	1.74	1080	<1	0.06	13	1370	6	0.02	2	5
223046		4.08	10	1	0.33	10	1.38	934	<1	0.06	9	1020	7	0.02	<2	5
223047		4.41	10	<1	0.41	10	1.50	1230	1	0.06	11	1130	9	0.07	3	6
223048		4.51	10	<1	0.29	10	1.56	1060	<1	0.07	11	1090	5	0.01	2	6
223049		4.21	10	1	0.31	<10	1.43	979	<1	0.07	11	960	5	0.01	<2	5
223050		5.00	10	1	0.23	10	1.92	1300	<1	0.06	11	1370	4	0.01	2	5
223051		4.86	10	1	0.31	10	1.69	1360	<1	0.05	12	1170	9	0.04	<2	6
223052		4.77	10	<1	0.23	10	1.57	1145	<1	0.06	14	1320	8	0.01	<2	5
223053		4.61	10	<1	0.25	10	1.66	1155	<1	0.08	14	1270	8	0.01	<2	6
223054		4.56	10	1	0.26	10	1.59	1145	<1	0.07	14	1350	6	0.01	2	6
223055		4.60	10	<1	0.31	10	1.36	1055	<1	0.06	9	1140	9	0.01	<2	5
223056		4.89	10	<1	0.28	10	1.48	1095	<1	0.06	13	1250	5	0.01	<2	5
223057		4.80	10	1	0.23	10	1.53	1140	<1	0.06	11	1100	8	0.05	2	6
223058		3.56	10	1	0.34	10	0.91	962	<1	0.05	5	960	4	0.13	2	4
223059		3.92	10	1	0.30	10	1.01	886	<1	0.07	3	920	5	0.32	2	4
223060		4.40	10	<1	0.29	<10	1.17	1050	<1	0.06	9	860	8	0.59	2	5
223061		3.38	<10	<1	0.28	10	0.91	620	1	0.06	7	890	5	0.87	2	5
223062		3.58	10	<1	0.37	10	0.76	792	4	0.04	3	880	2	0.91	<2	3
223063		4.18	10	1	0.26	10	1.28	1055	2	0.06	8	900	<2	0.06	<2	6
223064		4.48	10	<1	0.19	10	1.50	1195	<1	0.07	10	1110	2	0.04	3	6
223065		4.00	10	<1	0.25	10	1.18	1000	1	0.08	9	1000	2	0.06	<2	5
223066		4.17	10	<1	0.33	10	1.28	1035	<1	0.08	8	990	3	0.03	<2	5
223067		4.88	10	<1	0.24	10	1.62	1190	1	0.08	11	1290	2	0.04	2	7
223068		4.61	10	<1	0.26	10	1.57	1230	<1	0.08	13	1340	<2	0.04	<2	7
223069		4.22	10	<1	0.31	10	1.39	1100	<1	0.07	10	1100	8	0.03	2	5
223070		4.23	10	<1	0.27	10	1.43	1095	<1	0.08	11	1120	8	0.03	3	5
223071		4.76	10	<1	0.29	10	1.58	1155	<1	0.08	11	1220	7	0.03	3	6
223072		5.02	10	<1	0.29	10	1.71	1270	<1	0.09	12	1300	9	0.03	4	6
223073		4.04	10	1	0.41	10	1.19	1120	<1	0.07	7	1140	6	0.03	2	5
223074		3.28	10	1	0.46	10	0.81	884	<1	0.07	4	1090	6	0.03	<2	3
223075		3.58	10	1	0.50	10	0.82	887	<1	0.07	4	910	5	0.02	<2	3
223076		4.07	10	<1	0.42	10	1.07	943	<1	0.09	5	1130	9	0.03	<2	4
223077		3.64	10	1	0.43	<10	0.84	896	<1	0.07	3	890	7	0.03	<2	3
223078		3.55	10	1	0.45	10	0.78	818	<1	0.07	3	940	7	0.04	2	3
223079		3.55	10	<1	0.39	10	0.70	781	<1	0.09	2	870	5	0.03	<2	3
223080		3.61	10	1	0.49	10	0.82	858	<1	0.07	4	880	6	0.04	<2	3
223081		3.62	10	<1	0.46	10	1.09	1135	<1	0.07	5	930	5	0.04	<2	4
223082		4.71	10	1	0.32	10	1.41	1315	<1	0.11	6	1130	7	0.05	2	7
223083		5.54	10	2	0.22	10	1.84	1490	<1	0.10	14	1350	8	0.06	2	9

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EXCELLENCE IN ANALYTICAL CHEMISTRY
ALS Canada Ltd.
212 Brooksbank Avenue
North Vancouver BC V7J 2C1
Phone: 604 984 0221 Fax: 604 984 0218 www.alschemex.com

To: NORTHGATE MINERALS CORPORATION
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 26-JUN-2006
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Project: 4013

CERTIFICATE OF ANALYSIS VA06051428

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
223044		36	0.01	<10	<10	14	<10	12
223045		77	0.02	<10	<10	91	<10	128
223046		80	0.06	<10	<10	72	<10	95
223047		80	0.11	<10	<10	95	<10	113
223048		69	0.09	<10	<10	88	<10	127
223049		115	0.04	<10	<10	79	<10	123
223050		74	0.03	10	<10	102	<10	169
223051		82	0.02	<10	<10	87	<10	168
223052		144	0.02	<10	<10	99	<10	158
223053		154	0.03	<10	<10	119	<10	171
223054		94	0.03	<10	<10	109	<10	165
223055		115	0.01	<10	<10	71	<10	145
223056		89	0.01	<10	<10	85	<10	156
223057		121	0.03	<10	<10	87	<10	169
223058		109	0.01	<10	<10	38	<10	106
223059		152	0.02	<10	<10	40	<10	110
223060		146	0.02	<10	<10	56	<10	136
223061		91	0.15	<10	<10	82	<10	68
223062		135	0.01	<10	<10	30	<10	90
223063		159	0.04	<10	<10	75	<10	151
223064		146	0.06	<10	<10	93	<10	162
223065		173	0.07	<10	<10	68	<10	121
223066		193	0.04	<10	<10	77	<10	130
223067		137	0.07	<10	<10	111	<10	164
223068		154	0.06	<10	<10	118	<10	156
223069		89	0.06	<10	<10	89	<10	144
223070		127	0.05	<10	<10	91	<10	144
223071		124	0.06	<10	<10	108	<10	163
223072		136	0.06	<10	<10	108	<10	167
223073		111	0.03	<10	<10	69	<10	124
223074		146	0.01	<10	<10	46	<10	84
223075		150	0.02	<10	<10	44	<10	86
223076		251	0.02	<10	<10	64	<10	104
223077		128	0.02	<10	<10	46	<10	83
223078		123	0.02	<10	<10	39	<10	81
223079		231	0.01	<10	<10	41	<10	77
223080		78	0.01	<10	<10	43	<10	82
223081		85	0.02	<10	<10	52	<10	114
223082		163	0.05	<10	<10	102	<10	131
223083		260	0.12	<10	<10	145	<10	166

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EXCELLENCE IN ANALYTICAL CHEMISTRY
ALS Canada Ltd.
212 Brooksbank Avenue
North Vancouver BC V7J 2C1
Phone: 604 984 0221 Fax: 604 984 0218 www.alschemex.com

To: NORTHGATE MINERALS CORPORATION
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

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CERTIFICATE OF ANALYSIS VA06051428

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
223084		0.24	0.006	0.003	<0.2	3.63	<2	<10	220	0.6	<2	4.65	<0.5	15	43	31
223085		0.26	0.007	0.004	<0.2	2.78	<2	<10	390	<0.5	<2	3.03	<0.5	14	41	43
223086		0.06	0.819	0.001	0.7	0.22	2	10	30	<0.5	<2	0.17	<0.5	2	4	11
223087		0.26	<0.005	0.003	<0.2	2.14	4	<10	360	<0.5	<2	3.12	<0.5	9	92	23
223088		0.24	<0.005	0.003	<0.2	2.79	5	<10	300	<0.5	<2	2.54	<0.5	17	54	29
223089		0.28	<0.005	0.001	<0.2	2.95	6	<10	200	<0.5	<2	3.56	<0.5	12	49	12
223090		0.26	<0.005	0.001	<0.2	3.27	4	<10	210	<0.5	<2	3.52	<0.5	15	44	7
223091		0.24	<0.005	0.001	<0.2	2.99	4	<10	270	<0.5	<2	3.57	<0.5	14	47	9
223092		0.26	<0.005	0.001	<0.2	2.89	4	<10	310	<0.5	<2	3.18	<0.5	13	39	5
223093		0.28	<0.005	<0.001	<0.2	2.40	5	<10	320	0.5	<2	3.23	<0.5	7	32	2
223094		0.26	<0.005	<0.001	<0.2	3.70	2	<10	220	0.6	<2	3.90	<0.5	8	26	2
223095		0.26	<0.005	<0.001	<0.2	2.48	5	<10	240	0.5	<2	3.06	<0.5	8	56	2
223096		0.24	<0.005	<0.001	<0.2	2.65	5	<10	330	0.5	<2	3.80	<0.5	7	28	1
223097		0.26	<0.005	<0.001	<0.2	2.15	<2	<10	300	<0.5	<2	2.82	<0.5	8	47	1
223098		0.26	<0.005	<0.001	<0.2	2.19	<2	<10	260	<0.5	<2	3.00	<0.5	9	65	1
223099		0.24	<0.005	0.001	<0.2	2.44	<2	<10	230	<0.5	<2	3.30	<0.5	7	44	1
223100		0.26	<0.005	0.001	<0.2	2.12	<2	<10	360	<0.5	<2	2.97	<0.5	10	93	3
223101		0.28	<0.005	0.001	<0.2	2.18	<2	<10	260	<0.5	<2	2.90	<0.5	10	61	4
223102		0.26	<0.005	0.002	<0.2	2.28	<2	<10	280	<0.5	<2	3.94	<0.5	7	50	19
223103		0.26	<0.005	0.001	<0.2	3.06	2	<10	290	0.5	<2	4.10	<0.5	10	57	12
223104		0.26	<0.005	0.001	<0.2	1.74	2	<10	250	<0.5	<2	2.53	<0.5	8	57	10
223105		0.24	<0.005	0.001	<0.2	2.32	6	<10	180	<0.5	<2	3.14	<0.5	8	55	5
223106		0.24	<0.005	0.012	<0.2	2.72	<2	<10	160	<0.5	<2	3.65	<0.5	11	58	118
223107		0.24	0.008	0.008	<0.2	2.90	5	<10	310	<0.5	<2	3.09	<0.5	15	74	84
223108		0.26	0.010	0.006	<0.2	3.02	8	<10	360	<0.5	<2	2.66	<0.5	14	72	54
223109		0.26	<0.005	0.015	<0.2	2.65	7	<10	250	<0.5	<2	3.18	<0.5	15	80	152
223110		0.26	0.007	0.011	<0.2	3.14	12	<10	160	<0.5	<2	3.69	<0.5	16	108	112
223111		0.26	0.007	0.009	0.4	3.32	19	<10	220	<0.5	<2	3.45	0.8	18	87	94
223112		0.26	0.009	0.011	0.6	3.03	18	<10	210	<0.5	<2	3.13	3.5	16	92	105
223113		0.24	0.010	0.011	0.6	3.02	13	<10	110	<0.5	<2	3.11	3.2	17	81	106

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CERTIFICATE OF ANALYSIS VA06051428

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
223084		4.18	10	1	0.37	10	1.19	1260	<1	0.08	9	1000	9	0.07	3	6
223085		4.17	10	<1	0.45	10	0.98	1195	2	0.08	4	980	7	0.06	<2	4
223086		3.04	<10	<1	0.04	<10	0.04	30	1	0.12	2	550	107	2.80	<2	<1
223087		3.07	10	1	0.34	10	0.69	933	<1	0.07	6	780	7	0.06	<2	3
223088		4.28	10	1	0.35	10	1.13	1110	<1	0.07	6	940	11	0.03	<2	4
223089		4.46	10	2	0.25	10	1.20	1195	<1	0.08	8	1030	6	0.02	2	6
223090		4.84	10	<1	0.24	10	1.57	1290	<1	0.09	12	1130	8	0.01	<2	7
223091		4.78	10	<1	0.27	10	1.47	1260	<1	0.09	11	1190	5	0.02	<2	7
223092		4.19	10	1	0.40	10	1.11	994	<1	0.08	7	1040	6	0.05	2	5
223093		3.87	10	1	0.48	10	0.65	738	<1	0.06	1	900	6	0.08	<2	3
223094		3.75	10	1	0.35	10	0.82	842	<1	0.09	2	860	6	0.08	<2	4
223095		4.15	10	1	0.31	10	0.96	952	<1	0.07	4	960	7	0.07	<2	3
223096		3.84	10	<1	0.49	10	0.93	1070	<1	0.08	2	930	6	0.06	3	4
223097		3.92	10	<1	0.35	10	0.85	905	<1	0.08	2	950	4	<0.01	<2	3
223098		4.33	10	<1	0.30	<10	0.86	929	<1	0.08	1	720	5	<0.01	<2	2
223099		3.77	10	<1	0.23	10	0.76	837	<1	0.10	1	900	5	<0.01	2	3
223100		4.18	10	<1	0.24	10	0.88	959	<1	0.13	1	990	3	<0.01	<2	4
223101		3.66	10	1	0.28	<10	0.95	939	<1	0.08	1	870	6	<0.01	<2	4
223102		3.72	<10	<1	0.32	10	0.70	870	<1	0.05	1	940	3	<0.01	<2	2
223103		5.09	10	<1	0.28	10	1.26	1255	<1	0.08	6	1250	6	0.01	<2	4
223104		3.63	<10	1	0.34	<10	0.70	786	<1	0.05	<1	900	4	<0.01	<2	2
223105		3.41	10	<1	0.27	<10	0.85	889	<1	0.06	3	820	6	<0.01	<2	3
223106		3.97	10	<1	0.23	<10	1.16	1125	<1	0.06	8	1030	4	0.02	<2	5
223107		4.69	10	<1	0.24	<10	1.38	1150	1	0.09	10	1160	3	0.31	<2	5
223108		4.97	10	1	0.27	<10	1.41	1105	1	0.09	7	1220	10	0.87	2	5
223109		4.32	10	1	0.23	<10	1.41	1180	<1	0.09	15	1040	4	0.24	<2	6
223110		4.62	10	1	0.15	<10	1.95	1535	2	0.10	18	1050	12	0.99	<2	6
223111		4.62	10	<1	0.19	<10	1.87	1495	1	0.08	15	1060	80	1.22	<2	5
223112		4.57	10	<1	0.22	<10	1.87	1525	1	0.08	13	1030	184	1.36	<2	5
223113		4.52	10	<1	0.25	<10	1.85	1510	<1	0.08	14	1020	184	1.35	<2	5

Comments: ALL SEAL ARE INTACT

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ALS Canada Ltd.
212 Brooksbank Avenue
North Vancouver BC V7J 2C1
Phone: 604 984 0221 Fax: 604 984 0218 www.alschemex.com

To: NORTHGATE MINERALS CORPORATION
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 26-JUN-2006
Account: PIL

Project: 4013

CERTIFICATE OF ANALYSIS VA06051428

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
223084		132	0.05	<10	<10	77	<10	126
223085		163	0.02	<10	<10	51	<10	102
223086		4	<0.01	<10	<10	1	<10	21
223087		169	0.02	<10	<10	37	<10	70
223088		118	0.02	<10	<10	60	<10	112
223089		116	0.04	<10	<10	90	<10	114
223090		114	0.06	<10	<10	107	<10	145
223091		133	0.05	<10	<10	109	<10	139
223092		108	0.04	<10	<10	80	<10	110
223093		80	0.02	<10	<10	44	<10	67
223094		169	0.05	<10	<10	55	<10	82
223095		112	0.02	<10	<10	45	<10	93
223096		116	0.02	<10	<10	47	<10	90
223097		120	0.01	<10	<10	48	<10	80
223098		119	0.02	<10	<10	48	<10	78
223099		137	0.03	<10	<10	47	<10	66
223100		171	0.02	<10	<10	57	<10	80
223101		135	0.02	<10	<10	51	<10	87
223102		135	0.02	<10	<10	37	<10	69
223103		149	0.04	<10	<10	63	<10	108
223104		82	0.01	<10	<10	37	<10	75
223105		91	0.04	<10	<10	47	<10	94
223106		83	0.06	<10	<10	69	<10	126
223107		143	0.13	<10	<10	79	<10	150
223108		144	0.10	<10	<10	59	<10	133
223109		113	0.18	<10	<10	102	<10	158
223110		243	0.21	<10	<10	107	<10	256
223111		157	0.22	<10	<10	98	<10	298
223112		193	0.20	<10	<10	88	<10	303
223113		192	0.21	<10	<10	91	<10	309

Comments: ALL SEAL ARE INTACT

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ALS Canada Ltd.
212 Brooksbank Avenue
North Vancouver BC V7J 2C1
Phone: 604 984 0221 Fax: 604 984 0218 www.alschemex.com

To: NORTHGATE MINERALS CORPORATION
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 6-JUL-2006
This copy reported on 10-JUL-2006
Account: PIL

CERTIFICATE VA06054328

Project: 4013
P.O. No.:
This report is for 78 Pulp samples submitted to our lab in Vancouver, BC, Canada on 16-JUN-2006.
The following have access to data associated with this certificate:

CARL EDMUNDS	B. KAY	RON KONST

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-QC	QC Test on Received Samples
LOG-24	Pulp Login - Rcd w/o Barcode

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au-AA23	Au 30g FA-AA finish	AAS
Cu-AA49	Assay Cu - HBr Digestion	AAS
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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Finalized Date: 6-JUL-2006
Account: PIL

Project: 4013

CERTIFICATE OF ANALYSIS VA06054328

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
223114		0.26	0.011	0.009	0.6	3.57	20	<10	160	0.5	2	3.86	0.9	16	72	97
223115		0.26	0.014	0.010	0.6	3.82	24	<10	150	0.5	2	4.15	1.3	15	62	102
223116		0.24	0.011	0.011	0.7	4.10	15	<10	110	<0.5	2	5.08	3.5	15	75	118
223117		0.26	0.015	0.016	0.9	3.52	15	<10	130	<0.5	<2	3.93	3.6	17	63	160
223118		0.28	0.012	0.011	1.2	4.00	16	<10	90	<0.5	<2	4.14	6.9	16	62	116
223119		0.28	0.006	0.008	0.8	3.61	11	<10	360	<0.5	<2	3.23	4.6	16	63	79
223120		0.28	0.006	0.013	0.8	3.97	16	<10	100	0.5	<2	3.87	10.3	19	63	122
223121		0.28	0.006	0.012	0.8	3.27	20	<10	220	<0.5	<2	3.49	6.6	16	58	110
223122		0.28	0.005	0.009	0.7	3.61	10	<10	100	<0.5	<2	3.29	2.6	18	71	91
223123		0.26	0.010	0.011	0.9	3.72	12	<10	120	<0.5	<2	4.12	4.3	17	62	110
223124		0.26	0.015	0.008	0.6	3.31	12	<10	90	<0.5	<2	3.06	1.8	17	70	78
223125		0.26	0.017	0.010	0.7	3.76	16	<10	270	0.5	<2	3.58	4.4	17	57	92
223126		0.26	0.007	0.005	0.9	3.83	15	<10	300	<0.5	<2	3.37	8.1	18	67	53
223127		0.26	0.006	0.011	0.5	3.27	8	<10	290	<0.5	<2	3.54	1.0	17	68	110
223128		0.28	0.005	0.014	0.7	3.22	14	<10	370	<0.5	<2	3.84	<0.5	17	74	135
223129		0.26	<0.005	0.012	0.4	2.14	<2	<10	290	<0.5	<2	2.76	<0.5	9	63	113
223130		0.26	<0.005	0.004	0.2	2.80	3	<10	380	<0.5	<2	3.29	<0.5	15	52	40
223131		0.26	0.006	0.010	0.3	3.49	9	<10	300	<0.5	<2	4.33	0.5	13	83	91
223132		0.28	0.009	0.008	0.3	3.14	16	<10	350	<0.5	<2	3.85	<0.5	16	97	82
223133		0.28	0.011	0.008	0.4	3.38	15	<10	240	<0.5	<2	4.07	<0.5	16	92	79
223134		0.28	0.009	0.010	0.3	3.23	12	<10	180	<0.5	<2	3.86	<0.5	14	100	93
223135		0.24	0.007	0.006	0.2	3.13	10	<10	230	<0.5	<2	3.90	<0.5	14	87	62
223136		0.26	0.006	0.009	0.2	2.92	10	<10	320	<0.5	<2	3.45	<0.5	14	84	86
223137		0.24	0.012	0.008	0.3	3.21	14	<10	90	<0.5	<2	2.63	<0.5	16	101	71
223138		0.26	0.014	0.012	0.4	3.46	9	<10	150	<0.5	<2	3.29	<0.5	19	111	119
223139		0.26	0.005	0.003	<0.2	3.01	3	<10	100	0.5	<2	2.46	<0.5	13	91	28
223140		0.22	0.010	0.016	0.3	3.67	14	<10	170	<0.5	<2	4.27	0.5	14	83	156
223141		0.22	0.010	0.012	0.3	2.78	11	<10	180	<0.5	<2	3.87	<0.5	13	88	117
223142		0.22	0.012	0.006	0.2	2.79	5	<10	220	<0.5	<2	3.47	<0.5	12	81	60
223143		0.28	0.008	0.010	0.2	2.81	2	<10	280	<0.5	<2	3.68	<0.5	13	69	93
223144		0.16	<0.005	0.001	<0.2	3.17	7	<10	210	0.5	<2	4.18	<0.5	17	64	11
223145		0.18	0.023	0.004	<0.2	2.90	11	<10	310	<0.5	<2	3.24	<0.5	14	101	36
223146		0.18	0.009	0.008	<0.2	2.51	4	<10	270	<0.5	<2	2.79	<0.5	9	90	66
223147		0.26	<0.005	0.001	<0.2	2.36	5	<10	300	<0.5	<2	2.25	<0.5	11	19	18
223148		0.26	<0.005	0.001	<0.2	3.10	4	<10	300	0.5	<2	3.81	<0.5	16	40	5
223149		0.24	<0.005	0.002	<0.2	3.27	4	<10	300	0.6	<2	4.49	<0.5	12	27	14
223150		0.26	<0.005	0.002	<0.2	3.24	6	<10	330	0.5	<2	3.32	<0.5	11	34	12
223151		0.26	<0.005	0.003	<0.2	3.28	12	<10	300	0.6	<2	3.25	<0.5	15	32	22
223152		0.26	<0.005	0.004	<0.2	3.30	2	<10	360	0.6	<2	3.37	<0.5	18	28	25
223153		0.26	<0.005	0.005	<0.2	3.38	<2	<10	280	0.6	<2	4.36	<0.5	12	42	39

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North Vancouver BC V7J 2C1
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To: NORTHGATE MINERALS CORPORATION
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 6-JUL-2006
Account: PIL

Project: 4013

CERTIFICATE OF ANALYSIS VA06054328

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
223114		4.68	10	2	0.24	<10	1.92	1565	1	0.06	16	1170	64	1.36	<2	5
223115		4.50	10	2	0.31	<10	1.94	1615	<1	0.06	15	1090	60	1.44	<2	5
223116		4.33	10	1	0.24	<10	1.92	1630	<1	0.06	16	1120	116	1.38	<2	5
223117		4.64	10	3	0.25	<10	2.10	1720	<1	0.06	16	1130	106	1.46	<2	5
223118		5.03	10	3	0.23	<10	2.18	1795	<1	0.06	18	1190	186	1.92	<2	5
223119		4.91	10	<1	0.23	<10	2.12	1795	<1	0.07	10	1060	159	1.58	<2	5
223120		4.46	10	2	0.24	<10	2.10	1640	<1	0.10	11	1080	142	1.66	2	6
223121		4.46	10	2	0.23	<10	2.04	1620	<1	0.09	11	1070	160	1.64	<2	7
223122		4.47	10	1	0.26	<10	2.12	1675	<1	0.10	12	1080	87	1.55	<2	6
223123		4.31	10	2	0.27	<10	1.97	1600	<1	0.07	11	1040	141	1.42	<2	6
223124		4.69	10	1	0.25	10	2.27	1785	<1	0.07	14	1150	78	1.52	<2	7
223125		4.63	10	1	0.25	10	2.13	1675	<1	0.09	12	1250	106	1.48	<2	7
223126		4.97	10	1	0.23	10	2.45	1760	<1	0.09	14	1220	164	1.68	<2	7
223127		4.55	10	2	0.26	10	2.15	1620	<1	0.10	12	1190	99	1.31	<2	7
223128		4.51	10	1	0.21	10	1.99	1520	<1	0.11	11	1090	87	1.26	3	6
223129		2.92	10	2	0.49	10	0.83	827	<1	0.06	4	950	12	0.31	<2	3
223130		4.24	10	1	0.47	10	1.22	1120	2	0.10	6	1190	12	0.62	2	5
223131		4.39	10	<1	0.23	10	1.81	1410	1	0.12	9	1240	16	0.90	<2	5
223132		4.66	10	1	0.25	10	1.90	1470	<1	0.09	11	1240	12	1.11	<2	5
223133		4.74	10	<1	0.22	10	2.08	1505	1	0.08	12	1240	18	1.30	2	5
223134		4.25	10	1	0.24	10	1.77	1345	<1	0.07	11	1150	10	1.03	<2	5
223135		4.31	10	<1	0.26	10	1.69	1350	4	0.07	10	1160	13	0.92	4	4
223136		4.23	10	1	0.22	<10	1.72	1345	<1	0.08	9	1150	11	0.83	<2	4
223137		4.72	10	1	0.22	<10	1.78	1160	<1	0.09	13	1150	12	2.02	<2	5
223138		4.39	10	<1	0.14	<10	1.59	1055	<1	0.11	15	1070	14	2.01	<2	5
223139		4.44	10	1	0.25	10	1.36	939	<1	0.17	5	1010	8	0.44	3	8
223140		4.43	10	1	0.19	<10	1.83	1350	<1	0.09	11	1140	14	1.00	5	5
223141		3.86	10	<1	0.27	10	1.38	1225	1	0.06	7	1110	14	0.46	<2	4
223142		3.94	10	<1	0.32	10	1.35	1195	<1	0.08	7	1080	9	0.56	<2	5
223143		4.20	10	<1	0.31	10	1.47	1275	<1	0.07	5	1150	7	0.96	<2	5
223144		4.61	10	1	0.55	10	1.58	1245	<1	0.08	1	1030	10	2.20	<2	8
223145		4.23	10	1	0.29	10	1.52	1290	2	0.09	6	1050	5	0.87	2	5
223146		3.39	10	<1	0.32	10	1.15	998	<1	0.08	6	960	8	0.60	<2	4
223147		3.43	10	<1	0.29	<10	1.11	824	<1	0.08	7	1100	6	0.34	<2	4
223148		4.42	10	1	0.42	10	1.74	1200	2	0.05	<1	1050	11	0.94	2	6
223149		4.44	10	<1	0.46	10	1.78	1215	<1	0.06	1	1060	7	<0.01	3	6
223150		4.52	10	<1	0.39	10	1.83	1090	<1	0.07	<1	1090	5	<0.01	<2	5
223151		4.57	10	2	0.37	10	1.81	1145	<1	0.06	<1	1130	11	0.36	2	5
223152		4.79	10	<1	0.53	10	1.59	1130	<1	0.06	1	1100	9	0.24	3	6
223153		4.23	10	1	0.36	10	1.66	1320	<1	0.05	<1	1010	15	0.81	<2	5

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Finalized Date: 6-JUL-2006
Account: PIL

Project: 4013

CERTIFICATE OF ANALYSIS VA06054328

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
223114		138	0.23	<10	<10	94	<10	288
223115		132	0.24	<10	<10	89	<10	301
223116		166	0.24	<10	<10	90	<10	324
223117		136	0.26	<10	<10	96	<10	339
223118		154	0.27	10	<10	107	<10	395
223119		373	0.24	10	<10	102	<10	371
223120		355	0.23	<10	<10	95	<10	451
223121		279	0.27	<10	<10	106	<10	401
223122		326	0.26	<10	<10	102	<10	336
223123		145	0.25	<10	<10	94	<10	335
223124		97	0.28	<10	<10	103	<10	340
223125		269	0.27	<10	<10	106	<10	331
223126		249	0.29	<10	<10	109	<10	411
223127		235	0.25	<10	<10	98	<10	298
223128		447	0.24	<10	<10	103	<10	268
223129		144	0.13	<10	<10	50	<10	117
223130		210	0.16	<10	<10	67	<10	144
223131		334	0.21	<10	<10	80	<10	209
223132		416	0.22	<10	<10	74	<10	210
223133		285	0.22	<10	<10	79	<10	232
223134		172	0.16	<10	<10	65	<10	192
223135		222	0.18	<10	<10	67	<10	182
223136		259	0.16	<10	<10	71	<10	182
223137		271	0.21	<10	<10	91	<10	174
223138		209	0.26	<10	<10	99	<10	143
223139		136	0.22	<10	<10	127	<10	92
223140		172	0.19	<10	<10	88	<10	168
223141		92	0.13	<10	<10	61	<10	118
223142		105	0.11	<10	<10	62	<10	110
223143		244	0.13	<10	<10	66	<10	110
223144		170	0.13	<10	<10	79	<10	107
223145		292	0.11	<10	<10	64	<10	112
223146		194	0.10	<10	<10	54	<10	89
223147		227	0.10	<10	<10	61	<10	82
223148		210	0.11	<10	<10	71	<10	122
223149		173	0.13	<10	<10	80	<10	122
223150		188	0.12	<10	<10	77	<10	136
223151		176	0.11	<10	<10	74	<10	138
223152		124	0.10	<10	<10	87	<10	124
223153		159	0.08	<10	<10	62	<10	140

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To: NORTHGATE MINERALS CORPORATION
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 6-JUL-2006
Account: PIL

Project: 4013

CERTIFICATE OF ANALYSIS VA06054328

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
223154		0.26	0.011	0.003	<0.2	3.07	8	<10	90	0.5	<2	4.09	<0.5	12	45	21
223155		0.24	0.005	0.002	<0.2	3.57	8	<10	100	0.6	<2	4.48	<0.5	12	43	19
223156		0.24	0.007	0.002	0.5	2.88	12	<10	240	0.5	<2	4.16	<0.5	11	44	51
223157		0.28	<0.005	0.006	<0.2	3.26	5	<10	240	<0.5	<2	3.28	<0.5	13	46	53
223158		0.24	0.007	0.013	0.2	3.42	5	<10	300	<0.5	<2	3.62	<0.5	15	46	123
223159		0.26	0.015	0.007	0.3	3.31	15	<10	180	<0.5	<2	3.08	0.6	20	57	67
223160		0.28	0.055	0.014	0.7	3.63	24	<10	50	<0.5	<2	2.99	1.0	24	68	135
223161		0.26	0.037	0.011	0.4	3.18	8	<10	350	<0.5	<2	3.05	<0.5	16	50	106
223162		0.28	0.028	0.004	0.3	2.60	3	<10	290	<0.5	<2	3.45	<0.5	12	66	41
223163		0.26	0.029	0.009	<0.2	2.71	5	<10	250	<0.5	<2	3.30	<0.5	10	84	86
223164		0.26	0.032	0.004	0.2	3.26	6	<10	240	<0.5	2	4.01	<0.5	10	56	34
223165		0.06	0.414	<0.001	<0.2	0.22	<2	<10	20	<0.5	4	0.07	<0.5	1	2	3
223166		0.26	0.041	0.008	0.3	3.30	6	<10	360	<0.5	2	4.25	<0.5	12	58	75
223167		0.26	0.044	0.003	<0.2	3.41	3	<10	260	0.5	<2	4.05	<0.5	14	59	27
223168		0.26	0.035	0.004	0.2	2.81	2	<10	490	<0.5	<2	3.56	<0.5	13	64	37
223169		0.30	0.060	0.001	0.2	2.76	3	<10	290	<0.5	<2	3.60	<0.5	19	66	12
223170		0.28	0.064	0.001	0.2	3.06	5	<10	370	<0.5	<2	3.90	<0.5	15	63	6
223171		0.26	0.096	0.001	<0.2	3.05	7	<10	210	<0.5	<2	3.40	<0.5	17	63	7
223172		0.26	0.068	0.001	<0.2	2.79	3	<10	320	<0.5	<2	3.40	<0.5	12	60	8
223173		0.28	0.117	0.009	0.4	3.08	9	<10	200	<0.5	<2	3.76	<0.5	22	40	81
223174		0.26	0.226	0.004	0.9	3.10	8	<10	180	<0.5	<2	3.65	<0.5	13	45	36
223175		0.24	0.118	0.007	0.6	3.31	5	<10	220	0.5	2	3.87	<0.5	14	53	62
223176		0.28	0.053	0.005	0.3	2.87	<2	<10	770	0.5	<2	3.49	<0.5	7	42	49
223177		0.26	0.016	0.075	0.6	2.53	<2	<10	270	<0.5	<2	3.60	<0.5	8	62	769
223178		0.24	0.034	0.007	0.4	3.26	4	<10	180	0.7	<2	5.62	<0.5	12	81	70
223179		0.28	0.039	0.003	0.2	3.15	4	<10	300	0.5	<2	3.45	<0.5	13	43	33
223180		0.28	0.008	0.007	0.2	2.60	3	<10	250	<0.5	<2	3.87	<0.5	7	78	67
223181		0.24	0.046	0.007	0.3	3.20	11	<10	170	<0.5	<2	3.87	<0.5	23	69	68
223182		0.28	0.016	0.006	0.2	3.07	6	<10	200	<0.5	<2	3.62	<0.5	5	59	61
223183		0.26	0.009	0.004	0.2	4.74	<2	<10	180	0.6	<2	4.20	<0.5	9	36	33
223184		0.26	0.008	0.004	0.2	2.50	<2	<10	190	<0.5	<2	3.15	<0.5	7	41	33
223185		0.26	<0.005	0.007	<0.2	2.55	2	<10	150	<0.5	<2	3.74	<0.5	3	30	55
223186		0.26	<0.005	0.001	<0.2	2.93	<2	<10	200	0.5	<2	4.20	<0.5	2	43	9
223187		0.26	0.063	0.006	0.4	2.22	<2	<10	170	<0.5	2	4.01	<0.5	11	79	56
223188		0.28	0.059	0.058	1.0	3.07	2	<10	150	<0.5	9	4.27	<0.5	3	44	542
223189		0.26	0.034	0.091	1.6	2.09	3	<10	200	<0.5	3	3.61	<0.5	9	71	925
223190		0.24	0.064	0.017	0.3	1.87	6	<10	180	<0.5	2	3.57	<0.5	7	90	170
223191		0.26	0.066	0.018	0.4	1.81	5	<10	240	<0.5	3	3.53	<0.5	7	88	170

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KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 6-JUL-2006
Account: PIL

Project: 4013

CERTIFICATE OF ANALYSIS VA06054328

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
223154		4.58	10	<1	0.43	10	1.68	1460	<1	0.06	<1	1060	22	2.45	3	5
223155		4.73	10	1	0.36	10	1.90	1510	1	0.07	<1	1100	14	2.01	3	6
223156		3.90	10	1	0.42	10	1.32	1115	<1	0.06	4	950	13	1.84	<2	5
223157		4.32	10	1	0.31	<10	1.82	1385	<1	0.05	3	1020	8	0.95	<2	5
223158		3.96	10	<1	0.35	<10	1.73	1445	<1	0.08	7	1160	10	0.63	<2	6
223159		4.83	10	<1	0.24	<10	2.25	1635	<1	0.06	8	1030	14	2.06	2	6
223160		5.14	10	<1	0.09	<10	2.82	1810	<1	0.07	21	1090	22	2.50	2	6
223161		4.54	10	<1	0.29	<10	1.75	1530	<1	0.07	11	1030	8	0.93	<2	4
223162		3.96	10	<1	0.27	10	1.26	1255	<1	0.07	7	1060	6	0.38	<2	3
223163		4.00	10	<1	0.25	10	1.25	1240	<1	0.08	7	1040	7	0.29	2	3
223164		3.67	10	<1	0.25	<10	1.17	1125	<1	0.08	7	970	7	0.33	<2	3
223165		0.41	<10	<1	0.10	<10	0.04	69	<1	0.06	1	70	<2	<0.01	<2	<1
223166		4.46	10	<1	0.30	10	1.27	1305	<1	0.11	8	1180	9	0.60	<2	4
223167		4.01	10	2	0.34	10	1.16	1255	1	0.08	7	1000	7	0.67	<2	4
223168		3.99	10	<1	0.34	10	1.16	1285	<1	0.08	7	1010	7	0.36	<2	3
223169		3.82	10	<1	0.33	10	1.16	1300	<1	0.06	8	990	7	0.86	<2	3
223170		3.72	10	<1	0.34	10	1.25	1435	<1	0.08	7	1050	7	0.81	<2	4
223171		4.82	10	<1	0.26	10	1.49	1545	<1	0.09	9	1320	8	1.20	<2	4
223172		4.00	10	<1	0.38	10	1.24	1380	<1	0.08	7	1060	7	0.52	2	3
223173		4.52	10	<1	0.28	<10	1.25	1205	<1	0.07	8	1080	7	1.46	<2	3
223174		3.49	10	<1	0.26	<10	1.00	997	<1	0.06	5	850	9	0.74	<2	3
223175		4.07	10	2	0.34	10	1.20	1195	<1	0.06	7	970	7	1.07	<2	4
223176		4.64	10	<1	0.41	10	0.84	1055	<1	0.06	4	1050	8	0.38	2	4
223177		3.75	10	<1	0.33	10	0.94	1155	<1	0.05	3	930	6	0.29	<2	3
223178		4.19	10	<1	0.33	10	0.97	1475	<1	0.07	7	1080	12	0.39	<2	5
223179		4.10	10	1	0.39	10	1.23	1250	<1	0.07	8	1080	6	0.39	<2	4
223180		3.80	10	<1	0.36	10	0.91	1160	<1	0.06	6	1030	7	0.17	<2	4
223181		4.48	10	<1	0.32	10	1.42	1420	<1	0.08	11	1190	9	0.71	<2	5
223182		2.62	10	1	0.36	10	0.43	759	1	0.05	5	770	10	0.23	<2	4
223183		3.85	10	<1	0.34	10	0.67	1070	<1	0.06	4	1050	18	0.21	<2	6
223184		3.24	10	<1	0.36	10	0.52	789	<1	0.04	3	950	9	0.17	<2	4
223185		3.26	10	<1	0.30	10	0.46	791	2	0.04	1	1000	2	0.01	<2	3
223186		3.32	10	1	0.39	10	0.47	806	<1	0.05	2	1080	3	<0.01	<2	3
223187		2.95	10	<1	0.33	10	0.52	847	<1	0.06	3	1070	13	1.41	<2	3
223188		2.12	10	<1	0.28	10	0.43	736	<1	0.05	2	970	12	1.22	<2	4
223189		2.74	<10	<1	0.34	10	0.55	792	<1	0.08	3	1070	10	1.46	2	4
223190		2.87	10	<1	0.33	10	0.54	834	1	0.08	3	1010	9	1.36	<2	4
223191		2.88	10	<1	0.32	10	0.53	821	1	0.08	3	990	7	1.39	<2	4

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KEMESS MINE
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SMITHERS BC V0J 2N0

Finalized Date: 6-JUL-2006
Account: PIL

Project: 4013

CERTIFICATE OF ANALYSIS VA06054328

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
223154		329	0.07	<10	<10	57	<10	138
223155		207	0.11	<10	<10	64	<10	149
223156		119	0.13	<10	<10	61	<10	128
223157		140	0.14	<10	<10	72	<10	176
223158		128	0.19	<10	<10	91	<10	182
223159		146	0.21	<10	<10	93	<10	269
223160		300	0.34	<10	<10	127	<10	367
223161		207	0.17	<10	<10	82	<10	170
223162		118	0.11	<10	<10	61	<10	108
223163		123	0.13	<10	<10	66	<10	106
223164		146	0.11	<10	<10	58	<10	105
223165		4	<0.01	<10	<10	1	<10	4
223166		212	0.11	<10	<10	64	<10	102
223167		128	0.10	<10	<10	62	<10	104
223168		275	0.08	<10	<10	59	<10	102
223169		126	0.08	<10	<10	55	<10	106
223170		218	0.08	<10	<10	58	<10	114
223171		102	0.14	<10	<10	84	<10	126
223172		84	0.10	<10	<10	62	<10	108
223173		98	0.10	<10	<10	65	<10	112
223174		98	0.10	<10	<10	58	<10	93
223175		98	0.10	<10	<10	64	<10	112
223176		118	0.04	<10	<10	55	<10	80
223177		90	0.03	<10	<10	42	<10	84
223178		141	0.05	10	<10	70	<10	113
223179		150	0.10	<10	<10	73	<10	100
223180		86	0.03	<10	<10	57	<10	88
223181		105	0.10	<10	<10	85	<10	118
223182		114	0.05	<10	<10	36	<10	51
223183		174	0.11	<10	<10	62	<10	87
223184		87	0.07	<10	<10	45	<10	61
223185		104	0.06	<10	<10	37	<10	49
223186		110	0.04	<10	<10	41	<10	55
223187		105	0.01	<10	<10	38	<10	52
223188		143	0.06	<10	<10	39	<10	43
223189		106	0.01	<10	<10	41	<10	53
223190		117	0.01	<10	<10	46	<10	50
223191		117	0.01	<10	<10	45	<10	49

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PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 7-JUL-2006
This copy reported on 10-JUL-2006
Account: PIL

CERTIFICATE VA06054329

Project: 4013
P.O. No.:
This report is for 78 Pulp samples submitted to our lab in Vancouver, BC, Canada on 16-JUN-2006.
The following have access to data associated with this certificate:

CARL EDMUNDS	B. KAY	RON KONST

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-QC	QC Test on Received Samples
LOG-24	Pulp Login - Rcd w/o Barcode

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au-AA23	Au 30g FA-AA finish	AAS
Cu-AA49	Assay Cu - HBr Digestion	AAS
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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CERTIFICATE OF ANALYSIS VA06054329

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Au-AA23 Au Check ppm 0.005	Au-AA23 Au Check ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1
223192		0.28	0.029			0.002	0.2	3.09	4	<10	240	<0.5	<2	4.37	<0.5	8
223193		0.28	0.031			0.001	<0.2	3.17	3	<10	320	<0.5	<2	4.00	<0.5	8
223194		0.26	0.013			0.009	0.3	3.82	7	<10	110	0.5	<2	4.80	<0.5	19
223195		0.26	0.047			0.010	0.7	3.09	14	<10	80	<0.5	<2	2.97	0.6	19
223196		0.30	0.035			0.017	0.8	3.15	12	<10	100	<0.5	<2	3.39	<0.5	16
223197		0.28	0.051			0.012	0.6	2.93	11	<10	60	<0.5	<2	3.40	<0.5	17
223198		0.26	0.030			0.007	0.4	2.12	5	<10	120	<0.5	<2	2.46	<0.5	16
223199		0.26	0.037			0.012	2.3	2.67	27	<10	30	<0.5	<2	2.00	12.8	17
223200		0.28	0.059			0.019	2.9	2.81	26	<10	80	<0.5	<2	4.23	76.6	21
223201		0.28	0.046			0.014	1.7	2.74	26	<10	30	<0.5	<2	4.42	68.5	20
223202		0.26	0.079			0.023	4.8	3.20	34	<10	20	<0.5	<2	2.90	28.0	21
223203		0.26	0.067			0.009	2.6	2.87	21	<10	50	<0.5	<2	2.88	21.4	19
223204		0.26	0.077			0.024	8.6	3.34	42	<10	70	<0.5	<2	3.99	135.5	21
223205		0.26	0.064			0.011	1.4	2.75	22	<10	30	<0.5	<2	4.42	0.5	20
223206		0.26	0.107			0.013	1.1	2.56	17	<10	20	<0.5	<2	4.23	0.8	17
223207		0.28	0.122			0.015	1.7	2.89	32	<10	30	<0.5	<2	4.43	5.8	25
223208		0.26	0.051			0.017	3.1	2.93	16	<10	30	<0.5	<2	4.66	69.2	17
223209		0.26	0.030			0.010	3.1	2.66	30	<10	50	<0.5	<2	5.25	85.0	15
223210		0.24	0.011			0.019	1.2	2.84	29	<10	60	<0.5	<2	2.31	9.0	16
223211		0.28	0.010			0.028	1.0	2.74	21	<10	50	<0.5	<2	2.07	<0.5	19
223212		0.26	0.018			0.036	1.7	2.15	19	<10	80	<0.5	<2	2.32	1.3	18
223213		0.26	0.025			0.018	1.8	2.73	31	<10	30	<0.5	<2	3.50	18.6	20
223214		0.26	0.026			0.027	2.0	3.41	32	<10	30	<0.5	2	3.28	15.3	23
223215		0.28	0.027			0.047	3.1	3.04	32	<10	40	<0.5	<2	2.74	18.5	22
223216		0.24	0.029			0.023	2.6	3.39	43	<10	30	<0.5	3	3.39	14.8	22
223217		0.26	<0.005			0.003	<0.2	2.82	6	<10	210	0.5	<2	1.96	<0.5	7
223218		0.28	0.037			0.025	2.5	3.31	52	<10	40	<0.5	<2	2.70	12.2	22
223219		0.32	0.035			0.025	2.3	2.84	46	<10	80	<0.5	<2	2.40	12.4	23
223220		0.32	0.042			0.025	3.0	3.31	53	<10	70	<0.5	3	2.54	8.4	26
223221		0.30	0.035			0.023	2.2	3.27	39	<10	60	<0.5	4	3.41	7.6	22
223222		0.28	0.039			0.026	2.9	3.23	66	<10	70	<0.5	4	2.85	7.6	26
223223		0.28	0.057			0.024	3.3	3.53	79	<10	70	<0.5	3	3.18	7.4	28
223224		0.32	0.046			0.025	4.1	3.21	58	<10	50	<0.5	5	3.44	11.9	28
223225		0.28	0.030	0.041		0.027	1.8	2.87	30	<10	100	<0.5	2	3.14	25.8	22
223226		0.28	0.028	0.030		0.029	1.8	3.31	29	<10	50	<0.5	<2	2.49	8.8	26
223227		0.28	0.253	0.028	0.029	0.021	1.6	3.00	29	<10	10	<0.5	2	3.74	26.3	26
223228		0.26	0.019	0.017		0.009	1.2	3.46	15	<10	10	<0.5	<2	3.07	11.7	23
223229		0.28	0.028			0.016	1.2	3.62	30	<10	20	<0.5	<2	4.03	6.5	23
223230		0.26	0.039			0.023	1.8	3.31	37	<10	50	<0.5	4	3.06	7.6	25
223231		0.30	0.047			0.028	2.2	3.46	40	<10	30	<0.5	3	2.91	4.7	25

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ALS Canada Ltd.
212 Brooksbank Avenue
North Vancouver BC V7J 2C1
Phone: 604 984 0221 Fax: 604 984 0218 www.alschemex.com

To: NORTHGATE MINERALS CORPORATION
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 7-JUL-2006
Account: PIL

Project: 4013

CERTIFICATE OF ANALYSIS VA06054329

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01
223192		51	15	3.83	10	<1	0.35	10	0.97	1130	<1	0.07	3	1160	14	0.71
223193		54	11	4.51	10	1	0.42	10	0.70	916	<1	0.07	3	1150	10	0.38
223194		102	95	5.36	10	<1	0.31	<10	2.15	1970	<1	0.05	32	1060	8	0.65
223195		56	102	5.01	<10	<1	0.29	10	2.10	1845	<1	0.06	14	1590	31	2.33
223196		67	180	4.76	10	<1	0.28	<10	2.02	1835	<1	0.06	13	1200	21	1.66
223197		80	130	4.83	10	<1	0.29	<10	1.88	1740	<1	0.09	15	1410	15	1.21
223198		49	69	4.41	10	<1	0.43	<10	1.07	1355	2	0.05	6	1110	9	1.21
223199		80	118	4.07	<10	<1	0.22	<10	2.16	2150	<1	0.06	16	1170	158	2.42
223200		95	201	4.44	<10	<1	0.11	<10	2.29	2550	<1	0.04	21	1950	321	3.27
223201		68	152	4.45	<10	1	0.13	<10	1.99	2560	<1	0.04	16	1680	137	3.20
223202		123	264	6.35	<10	1	0.33	<10	2.35	2630	1	0.03	16	1610	290	4.22
223203		104	94	5.25	10	1	0.26	<10	1.79	2290	<1	0.03	15	1110	92	3.28
223204		119	264	5.37	<10	<1	0.12	<10	2.51	2860	1	0.04	17	1500	2470	4.18
223205		60	117	3.81	<10	<1	0.12	<10	2.10	2730	<1	0.05	14	1770	31	2.06
223206		72	128	3.68	<10	<1	0.11	<10	1.91	2590	<1	0.06	11	1700	43	1.92
223207		63	162	4.20	<10	<1	0.10	<10	2.09	2820	<1	0.06	15	1810	31	2.52
223208		92	182	4.37	<10	<1	0.16	<10	2.02	2730	<1	0.04	16	1570	97	3.15
223209		91	94	3.91	<10	<1	0.12	<10	1.84	3320	<1	0.02	12	1520	37	2.70
223210		79	193	3.46	10	<1	0.20	<10	2.01	1960	<1	0.08	18	2100	26	2.20
223211		75	275	3.66	<10	<1	0.17	<10	2.17	2010	<1	0.07	18	2260	18	2.36
223212		84	353	3.48	<10	<1	0.22	<10	1.44	1470	<1	0.07	14	2320	30	2.66
223213		88	183	4.57	<10	<1	0.10	<10	2.22	2360	<1	0.06	13	1820	96	3.72
223214		78	274	4.94	10	<1	0.12	<10	2.79	2640	<1	0.05	19	1530	61	3.84
223215		76	482	5.13	<10	<1	0.13	<10	2.68	2540	<1	0.05	17	1590	102	4.28
223216		81	239	5.26	10	<1	0.12	<10	2.68	2540	<1	0.06	17	1630	97	4.45
223217		51	23	2.87	10	<1	0.47	<10	0.81	493	<1	0.06	5	990	9	0.75
223218		66	254	5.07	10	<1	0.14	<10	2.70	2500	<1	0.06	17	1660	85	4.26
223219		64	248	5.01	<10	<1	0.15	<10	2.67	2480	<1	0.06	18	1720	76	4.21
223220		59	258	5.80	10	<1	0.17	<10	2.91	2560	1	0.09	17	1460	116	5.16
223221		50	242	5.42	10	<1	0.16	<10	2.70	2410	<1	0.06	16	1500	89	4.77
223222		54	268	6.30	10	<1	0.14	<10	3.03	2600	<1	0.09	16	1260	91	5.79
223223		48	256	6.81	10	<1	0.15	<10	3.19	2670	<1	0.09	17	1180	113	6.52
223224		57	264	6.33	10	<1	0.16	<10	3.06	2630	<1	0.07	16	1310	90	5.97
223225		75	271	5.12	10	<1	0.14	<10	2.61	2370	<1	0.05	17	1620	53	4.31
223226		75	289	5.16	<10	<1	0.19	<10	3.12	2410	<1	0.05	16	1560	54	3.96
223227		52	210	5.00	<10	<1	0.13	<10	2.66	2350	<1	0.04	16	1380	47	4.05
223228		62	95	4.48	<10	1	0.13	<10	3.17	2510	<1	0.06	16	1370	45	2.77
223229		60	178	5.32	10	1	0.35	<10	3.15	2590	<1	0.05	15	1230	41	3.53
223230		73	253	5.57	<10	1	0.18	<10	2.89	2400	<1	0.10	16	1310	64	4.64
223231		59	318	6.43	<10	<1	0.25	<10	2.95	2190	<1	0.08	16	1020	78	5.84

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SMITHERS BC V0J 2N0

Finalized Date: 7-JUL-2006
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Project: 4013

CERTIFICATE OF ANALYSIS VA06054329

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
223192		<2	5	121	0.03	<10	<10	47	<10	81
223193		<2	4	124	0.03	<10	<10	50	<10	71
223194		<2	10	138	0.08	<10	<10	129	<10	231
223195		<2	6	122	0.15	<10	<10	102	<10	297
223196		<2	6	125	0.19	<10	<10	108	<10	246
223197		<2	5	126	0.21	<10	<10	124	<10	174
223198		<2	3	97	0.09	<10	<10	62	<10	134
223199		<2	4	180	0.21	<10	<10	81	<10	1080
223200		<2	5	130	0.31	<10	<10	103	<10	4630
223201		<2	5	136	0.30	<10	<10	80	<10	3940
223202		<2	5	99	0.16	<10	<10	86	<10	1845
223203		<2	3	109	0.19	<10	<10	72	<10	1490
223204		<2	4	156	0.31	<10	<10	107	<10	7900
223205		<2	5	142	0.36	<10	<10	91	<10	241
223206		<2	5	125	0.34	<10	<10	84	<10	262
223207		<2	4	134	0.35	<10	<10	86	<10	606
223208		<2	4	142	0.30	<10	<10	81	<10	4450
223209		<2	4	164	0.31	<10	<10	71	10	5660
223210		<2	3	113	0.32	<10	<10	90	<10	816
223211		<2	3	100	0.35	<10	<10	103	<10	203
223212		<2	3	99	0.39	<10	<10	98	<10	239
223213		3	4	123	0.35	10	<10	97	<10	1820
223214		<2	5	124	0.33	<10	<10	108	<10	1600
223215		<2	5	122	0.32	<10	<10	114	<10	1900
223216		<2	5	128	0.33	<10	<10	112	<10	1530
223217		2	5	150	0.11	<10	<10	62	<10	64
223218		2	5	125	0.33	<10	<10	117	<10	1335
223219		4	4	183	0.32	<10	<10	116	<10	1360
223220		<2	6	302	0.29	<10	<10	135	10	992
223221		<2	6	270	0.32	<10	<10	127	<10	875
223222		<2	7	263	0.31	10	<10	158	<10	912
223223		<2	8	226	0.30	<10	<10	175	<10	815
223224		<2	8	171	0.29	<10	<10	158	<10	1360
223225		<2	5	334	0.31	<10	<10	102	<10	2600
223226		<2	6	149	0.28	<10	<10	114	<10	1140
223227		<2	5	110	0.31	<10	<10	95	<10	2730
223228		<2	5	107	0.28	10	<10	88	<10	1535
223229		<2	7	110	0.15	<10	<10	102	<10	925
223230		<2	6	274	0.29	<10	<10	113	<10	983
223231		<2	5	347	0.22	<10	<10	98	<10	690

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ALS Canada Ltd.
212 Brooksbank Avenue
North Vancouver BC V7J 2C1
Phone: 604 984 0221 Fax: 604 984 0218 www.alschemex.com

To: NORTHGATE MINERALS CORPORATION
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 7-JUL-2006
Account: PIL

Project: 4013

CERTIFICATE OF ANALYSIS VA06054329

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Au-AA23 Au Check ppm 0.005	Au-AA23 Au Check ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1
223232		0.28	0.025			0.013	1.6	3.80	21	<10	10	<0.5	2	3.70	12.3	24
223233		0.24	0.043			0.031	2.1	3.72	23	<10	80	<0.5	4	2.42	8.8	31
223234		0.24	0.014			0.006	0.7	3.80	15	<10	20	<0.5	<2	1.84	1.0	31
223235		0.24	0.021			0.024	1.4	3.60	20	<10	20	<0.5	2	1.68	8.1	24
223236		0.26	0.011			0.012	0.6	3.44	16	<10	20	<0.5	<2	1.46	<0.5	22
223237		0.24	0.015			0.020	1.0	3.34	8	<10	10	<0.5	<2	1.51	4.8	26
223238		0.24	0.014			0.014	0.8	3.30	15	<10	20	<0.5	2	1.35	1.1	29
223239		0.26	0.011			0.013	1.1	3.26	10	<10	10	<0.5	2	1.77	5.4	27
223240		0.26	0.019			0.010	0.8	3.26	16	<10	20	<0.5	3	1.36	2.7	31
223241		0.24	0.009			0.007	0.4	3.25	6	<10	10	<0.5	2	1.18	0.9	25
223242		0.26	0.006			0.005	0.5	3.52	6	<10	10	<0.5	2	2.05	<0.5	14
223243		0.06	0.744			0.001	0.5	0.20	6	10	30	<0.5	2	0.15	<0.5	2
223244		0.28	0.012			0.014	0.9	2.97	7	<10	10	<0.5	4	1.40	2.1	23
223245		0.26	0.029			0.011	2.1	3.14	22	<10	10	<0.5	7	1.83	9.4	36
223246		0.26	0.015			0.027	1.0	3.04	13	<10	20	<0.5	<2	2.22	1.4	24
223247		0.26	0.024			0.052	1.4	3.22	12	<10	20	<0.5	<2	2.41	3.0	24
223248		0.28	0.026			0.010	1.3	3.27	20	<10	20	<0.5	4	1.76	2.6	32
223249		0.26	0.023			0.027	1.2	3.30	14	<10	20	<0.5	3	1.78	3.7	27
223250		0.26	0.015			0.012	0.8	3.66	23	<10	40	<0.5	4	1.32	<0.5	38
223251		0.26	0.018			0.006	0.6	3.63	18	<10	20	<0.5	3	2.05	1.1	32
223252		0.28	0.030			0.020	1.0	3.32	17	<10	20	<0.5	4	1.91	1.0	29
223253		0.28	0.029			0.020	1.0	2.64	21	<10	30	<0.5	5	1.53	5.9	26
223254		0.28	0.039			0.022	1.0	2.59	18	<10	10	<0.5	5	1.63	2.8	26
223255		0.26	0.066			0.054	2.1	2.56	13	<10	20	<0.5	6	1.48	2.1	26
223256		0.28	0.046			0.028	1.4	2.56	32	<10	20	<0.5	7	1.63	0.7	29
223257		0.26	0.039			0.037	1.1	2.99	18	<10	10	<0.5	4	1.75	0.5	26
223258		0.30	0.036			0.023	0.8	2.89	28	<10	20	<0.5	7	1.43	<0.5	26
223259		0.28	0.118			0.068	2.6	2.65	19	<10	20	<0.5	23	1.94	1.4	14
223260		0.28	0.054			0.025	1.6	3.00	24	<10	40	<0.5	12	1.62	3.4	19
223261		0.30	0.071			0.017	2.0	2.67	29	<10	20	<0.5	30	1.90	1.0	18
223262		0.26	0.039			0.025	1.2	3.06	41	<10	40	<0.5	16	1.85	<0.5	29
223263		0.28	0.039			0.049	1.1	3.08	26	<10	30	0.5	24	1.95	<0.5	22
223264		0.26	0.044			0.036	1.0	3.54	30	<10	60	<0.5	19	1.88	<0.5	22
223265		0.28	0.076			0.090	1.9	2.76	27	<10	60	<0.5	3	1.44	<0.5	17
223266		0.30	0.124			0.031	2.2	2.36	25	<10	20	<0.5	11	0.66	5.7	31
223267		0.28	0.049			0.011	1.5	3.01	44	<10	10	0.5	13	1.44	<0.5	37
223268		0.28	0.053			0.065	2.1	2.94	45	<10	30	<0.5	18	2.49	<0.5	26
223269		Not Recvd														

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CERTIFICATE OF ANALYSIS VA06054329

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01
223232		62	148	4.66	10	1	0.06	<10	3.35	2390	<1	0.04	21	1170	76	3.28
223233		93	342	6.21	<10	1	0.13	<10	3.25	2340	<1	0.09	22	1350	60	5.01
223234		51	70	5.95	10	<1	0.13	<10	3.55	2250	<1	0.08	14	880	27	3.79
223235		58	260	5.17	10	<1	0.11	<10	3.07	1685	<1	0.07	10	970	59	3.03
223236		37	128	4.51	10	<1	0.06	<10	3.19	1795	<1	0.08	10	970	18	2.01
223237		36	204	4.22	10	<1	0.07	<10	3.20	1790	<1	0.07	12	930	37	1.80
223238		88	149	4.46	10	1	0.02	<10	3.05	1830	<1	0.04	17	990	24	1.65
223239		56	132	4.33	10	1	0.04	<10	2.98	1890	<1	0.05	15	950	51	1.74
223240		61	106	4.74	10	<1	0.04	<10	3.06	1660	<1	0.03	16	940	28	2.15
223241		51	71	4.38	10	1	0.03	<10	3.14	1505	<1	0.04	15	790	14	1.54
223242		45	56	3.92	10	<1	0.03	<10	3.07	1475	<1	0.05	12	830	18	1.16
223243		4	11	2.87	<10	<1	0.03	<10	0.04	31	1	0.10	5	560	100	2.93
223244		86	144	4.18	10	<1	0.04	<10	2.85	1545	<1	0.05	12	990	29	1.74
223245		86	120	5.43	10	2	0.06	<10	2.55	1500	<1	0.06	14	980	61	3.73
223246		62	291	4.23	10	1	0.11	<10	2.10	1670	1	0.15	18	1000	16	1.39
223247		51	567	3.68	10	1	0.09	<10	2.37	1675	<1	0.11	14	960	18	1.24
223248		71	107	4.99	10	<1	0.07	<10	2.64	1460	<1	0.07	12	1060	32	2.97
223249		50	296	4.68	10	1	0.11	<10	2.59	1275	<1	0.06	12	930	24	2.71
223250		63	126	6.98	10	1	0.10	<10	3.16	1310	<1	0.07	17	910	24	5.21
223251		64	63	5.68	10	1	0.07	<10	2.90	1555	<1	0.07	16	890	18	3.51
223252		78	215	6.34	10	1	0.07	<10	2.67	1620	<1	0.07	17	1010	19	4.56
223253		72	214	6.19	10	2	0.13	<10	2.06	1320	<1	0.08	15	1740	18	5.16
223254		67	232	5.73	10	<1	0.07	<10	2.06	1340	1	0.08	13	1810	21	4.64
223255		73	587	6.52	10	<1	0.11	<10	2.13	1420	<1	0.10	12	1660	17	5.24
223256		76	308	6.69	10	3	0.07	<10	2.27	1360	1	0.06	12	1660	24	5.45
223257		86	405	5.90	10	<1	0.08	<10	2.28	1270	1	0.07	17	1730	19	4.25
223258		78	252	6.79	10	1	0.10	<10	2.41	1220	1	0.07	19	1670	19	5.24
223259		112	768	10.05	10	1	0.11	<10	1.61	1080	<1	0.02	16	1590	27	9.24
223260		120	280	7.62	10	1	0.14	<10	2.22	1305	1	0.04	15	1780	18	6.00
223261		93	190	9.60	10	<1	0.14	<10	1.74	990	1	0.02	20	2180	26	8.84
223262		110	274	7.78	10	1	0.24	<10	1.94	951	2	0.06	21	2430	22	6.92
223263		88	535	5.41	10	<1	0.22	<10	1.97	935	2	0.08	22	2340	14	4.24
223264		84	381	7.10	10	<1	0.33	<10	2.28	977	1	0.11	22	2620	19	5.85
223265		80	942	6.00	10	<1	0.27	<10	2.44	781	1	0.11	17	3040	16	5.47
223266		420	361	19.9	10	1	0.26	<10	2.13	636	1	0.03	106	1010	39	>10.0
223267		400	110	7.77	10	<1	0.02	<10	3.35	1730	1	0.03	137	910	12	6.16
223268		155	685	8.58	10	2	0.07	<10	1.99	961	1	0.06	28	1710	28	8.23
223269																

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KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 7-JUL-2006
Account: PIL

Project: 4013

CERTIFICATE OF ANALYSIS VA06054329

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
223232		<2	5	155	0.29	<10	<10	89	<10	1360
223233		<2	5	243	0.31	<10	<10	112	<10	1010
223234		<2	5	127	0.34	<10	<10	126	<10	367
223235		<2	5	109	0.34	<10	<10	124	<10	988
223236		<2	5	101	0.33	<10	<10	115	<10	282
223237		<2	5	104	0.32	<10	<10	119	<10	781
223238		2	4	113	0.34	<10	<10	118	<10	402
223239		<2	5	109	0.34	<10	<10	126	<10	658
223240		<2	5	125	0.34	<10	<10	120	<10	457
223241		<2	4	77	0.35	<10	<10	119	<10	353
223242		<2	3	96	0.31	<10	<10	105	<10	314
223243		<2	<1	4	<0.01	<10	<10	1	<10	22
223244		<2	3	82	0.29	10	<10	106	<10	389
223245		<2	4	111	0.28	<10	<10	112	<10	782
223246		<2	5	139	0.34	<10	<10	136	<10	299
223247		<2	4	124	0.34	<10	<10	124	<10	405
223248		<2	4	160	0.35	<10	<10	126	<10	380
223249		<2	4	134	0.32	<10	<10	127	<10	439
223250		<2	5	343	0.27	<10	<10	139	<10	298
223251		<2	4	135	0.32	<10	<10	136	<10	371
223252		2	4	148	0.33	<10	<10	128	<10	337
223253		<2	4	170	0.34	<10	<10	117	<10	537
223254		2	3	78	0.34	<10	<10	107	<10	364
223255		<2	4	70	0.35	<10	<10	125	<10	348
223256		<2	4	72	0.38	<10	<10	120	<10	260
223257		<2	4	100	0.38	<10	<10	119	10	238
223258		2	4	80	0.38	<10	<10	124	<10	228
223259		<2	4	144	0.33	<10	<10	89	<10	281
223260		<2	4	132	0.33	<10	<10	108	<10	489
223261		<2	3	132	0.32	<10	<10	91	<10	227
223262		<2	3	105	0.29	10	<10	110	<10	202
223263		<2	3	99	0.30	<10	<10	119	<10	197
223264		<2	6	85	0.29	<10	<10	138	<10	128
223265		<2	6	52	0.22	<10	<10	150	<10	146
223266		<2	9	28	0.12	<10	<10	90	<10	351
223267		<2	8	84	0.25	<10	<10	114	<10	193
223268		<2	3	142	0.28	<10	<10	90	<10	138
223269										

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KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 14-JUL-2006
Account: PIL

CERTIFICATE VA06057568

Project: 4013
P.O. No.:
This report is for 78 Crushed Rock samples submitted to our lab in Vancouver, BC, Canada on 23-JUN-2006.

The following have access to data associated with this certificate:

CARL EDMUNDS	B. KAY	RON KONST

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
PUL-QC	Pulverizing QC Test
PUL-31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au-AA23	Au 30g FA-AA finish	AAS
Cu-AA49	Assay Cu - HBr Digestion	AAS
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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Finalized Date: 14-JUL-2006
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Project: 4013

CERTIFICATE OF ANALYSIS VA06057568

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
223751		0.26	0.033	0.002	<0.2	2.00	9	10	100	0.6	<2	1.64	<0.5	6	63	22
223752		0.22	0.011	0.003	<0.2	1.94	7	10	90	0.5	2	1.64	<0.5	7	72	24
223753		0.26	<0.005	0.002	<0.2	2.21	12	10	90	0.6	<2	1.84	<0.5	7	67	19
223754		0.26	<0.005	0.002	<0.2	2.07	8	10	80	0.6	<2	1.80	<0.5	6	70	17
223755		0.24	<0.005	0.001	<0.2	2.04	10	10	90	0.5	<2	1.56	<0.5	6	68	13
223756		0.20	<0.005	0.002	<0.2	2.05	9	10	110	0.5	<2	1.66	<0.5	6	82	18
223757		0.20	<0.005	0.002	<0.2	2.24	7	10	110	0.5	<2	1.74	<0.5	6	73	20
223758		0.24	<0.005	0.003	<0.2	1.93	11	10	90	<0.5	<2	1.54	<0.5	6	84	27
223759		0.26	<0.005	0.002	<0.2	1.76	6	10	70	0.5	<2	1.62	<0.5	6	62	16
223760		0.24	<0.005	0.002	<0.2	1.90	9	10	80	0.5	<2	1.54	<0.5	7	65	16
223761		0.24	<0.005	0.001	<0.2	2.08	12	10	80	0.5	<2	1.84	<0.5	6	79	12
223762		0.24	<0.005	0.002	<0.2	2.09	13	10	80	0.5	<2	1.80	<0.5	7	80	19
223763		0.24	<0.005	0.002	<0.2	2.08	11	10	90	0.5	<2	1.61	<0.5	7	84	19
223764		0.26	<0.005	0.002	<0.2	2.17	9	10	80	0.6	<2	2.15	<0.5	7	82	20
223765		0.24	<0.005	0.002	<0.2	2.06	11	10	80	0.5	<2	1.79	<0.5	7	100	19
223766		0.24	<0.005	0.002	<0.2	2.10	9	10	90	0.5	<2	1.93	<0.5	6	89	19
223767		0.22	<0.005	0.002	<0.2	2.00	10	10	80	<0.5	<2	1.74	<0.5	6	95	16
223768		0.24	<0.005	0.002	<0.2	2.23	6	10	90	<0.5	<2	1.82	<0.5	6	87	20
223769		0.28	<0.005	0.002	<0.2	2.06	4	<10	90	<0.5	<2	1.92	<0.5	6	78	14
223770		0.18	<0.005	0.001	<0.2	2.31	9	10	90	0.5	<2	2.37	<0.5	7	68	13
223771		0.26	<0.005	0.002	<0.2	2.05	11	10	90	<0.5	<2	1.71	<0.5	6	74	15
223772		0.26	<0.005	0.002	<0.2	2.31	10	10	100	<0.5	<2	2.03	<0.5	7	95	18
223773		0.28	<0.005	0.001	<0.2	2.05	3	<10	100	<0.5	<2	2.70	<0.5	6	73	13
223774		0.24	<0.005	0.002	<0.2	2.20	10	10	110	<0.5	<2	2.31	<0.5	6	85	19
223775		0.28	<0.005	0.002	<0.2	2.23	8	10	100	0.5	<2	1.90	<0.5	6	82	21
223776		0.24	<0.005	0.002	<0.2	2.27	11	10	100	0.5	<2	1.92	<0.5	6	84	21
223777		0.24	<0.005	0.002	<0.2	2.16	6	10	100	<0.5	<2	1.76	<0.5	6	79	21
223778		0.26	<0.005	0.002	<0.2	2.19	7	<10	90	0.6	<2	2.00	<0.5	6	60	18
223779		0.26	0.007	0.002	0.2	2.10	4	<10	140	<0.5	<2	1.86	<0.5	6	76	20
223780		0.20	0.005	0.002	<0.2	2.16	4	<10	130	<0.5	<2	2.00	<0.5	7	81	22
223781		0.24	<0.005	0.002	<0.2	1.88	3	<10	120	<0.5	<2	1.66	<0.5	6	80	19
223782		0.24	<0.005	0.001	<0.2	2.06	4	<10	120	0.5	<2	2.21	<0.5	6	77	14
223783		0.22	0.006	0.001	<0.2	2.04	8	<10	110	0.5	<2	1.81	<0.5	6	63	12
223784		0.20	0.005	0.001	<0.2	2.05	7	10	190	<0.5	<2	1.70	<0.5	7	88	12
223785		0.20	<0.005	0.001	<0.2	2.07	4	10	140	<0.5	<2	1.76	<0.5	6	82	10
223786		0.26	<0.005	0.001	<0.2	1.88	5	<10	120	<0.5	<2	1.40	<0.5	7	75	10
223787		0.26	<0.005	0.002	0.3	2.05	3	<10	90	0.5	<2	1.89	<0.5	6	67	8
223788		0.26	<0.005	0.002	<0.2	1.72	5	<10	90	<0.5	<2	1.28	<0.5	6	81	11
223789		0.26	<0.005	0.002	<0.2	1.80	6	<10	100	<0.5	<2	1.43	<0.5	5	79	9
223790		0.22	<0.005	0.001	<0.2	2.00	3	<10	90	<0.5	<2	1.75	<0.5	6	75	19

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KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 14-JUL-2006
Account: PIL

Project: 4013

CERTIFICATE OF ANALYSIS VA06057568

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
223751		3.38	10	<1	0.21	10	0.97	598	<1	0.12	5	900	5	0.01	2	5
223752		3.31	10	<1	0.21	10	1.04	698	<1	0.11	3	900	6	0.01	<2	6
223753		3.22	10	<1	0.19	10	0.99	706	<1	0.11	4	910	6	0.01	2	5
223754		3.12	10	1	0.18	10	0.95	674	<1	0.11	4	890	<2	0.01	<2	5
223755		3.00	10	<1	0.20	10	0.99	685	<1	0.13	4	860	5	0.01	<2	5
223756		3.27	10	<1	0.22	10	0.93	645	1	0.13	5	860	4	0.01	<2	5
223757		3.30	10	1	0.23	10	0.93	664	<1	0.14	3	890	3	0.01	<2	5
223758		3.21	10	1	0.22	10	0.90	669	1	0.14	4	860	6	0.02	2	5
223759		3.00	10	<1	0.16	10	0.87	617	1	0.11	3	860	4	0.01	<2	4
223760		3.21	10	<1	0.17	10	0.99	697	<1	0.11	4	890	5	0.01	<2	5
223761		3.13	10	<1	0.17	10	0.96	705	<1	0.12	3	910	4	0.01	<2	5
223762		3.31	10	<1	0.18	10	0.98	714	1	0.13	5	910	6	0.01	<2	5
223763		3.42	10	1	0.19	10	1.02	744	<1	0.12	5	910	7	0.01	<2	6
223764		3.25	10	1	0.17	10	0.97	705	<1	0.12	3	890	6	0.01	<2	5
223765		3.39	10	<1	0.18	10	0.99	710	1	0.13	6	900	7	0.02	<2	5
223766		3.33	10	1	0.20	10	1.03	762	<1	0.12	5	900	6	0.01	<2	5
223767		3.10	10	<1	0.18	10	0.90	607	1	0.13	4	890	5	0.01	<2	5
223768		3.35	10	<1	0.21	10	0.96	664	<1	0.13	5	870	4	0.01	<2	5
223769		3.21	10	<1	0.27	10	0.93	652	<1	0.10	4	850	10	0.01	<2	5
223770		3.25	10	<1	0.20	10	0.92	661	<1	0.13	5	870	6	0.02	<2	5
223771		3.27	10	<1	0.19	10	0.96	672	1	0.13	4	900	5	0.01	<2	5
223772		3.28	10	1	0.22	10	0.98	738	1	0.12	4	900	5	0.01	<2	5
223773		3.18	10	<1	0.35	10	0.89	991	<1	0.07	4	850	13	0.01	<2	5
223774		3.39	10	1	0.27	10	0.99	1000	<1	0.09	6	910	16	0.01	<2	6
223775		3.37	10	<1	0.21	10	0.99	775	1	0.13	5	920	6	0.01	<2	5
223776		3.37	10	<1	0.22	10	0.99	775	1	0.14	4	910	9	0.01	2	5
223777		3.27	10	<1	0.22	10	0.96	765	<1	0.14	4	880	5	0.01	<2	5
223778		3.15	10	1	0.17	10	0.86	686	<1	0.11	5	850	6	<0.01	<2	5
223779		3.26	<10	<1	0.17	10	0.89	658	<1	0.13	3	840	6	<0.01	<2	6
223780		3.35	10	<1	0.27	10	0.90	790	<1	0.09	3	870	8	<0.01	<2	6
223781		3.37	<10	<1	0.30	10	0.92	790	<1	0.13	5	880	6	0.01	<2	5
223782		3.34	10	<1	0.23	10	0.86	745	<1	0.12	4	880	6	<0.01	<2	5
223783		3.38	10	<1	0.21	10	0.87	715	<1	0.13	4	880	9	0.01	<2	5
223784		3.44	<10	1	0.21	10	0.84	700	<1	0.16	4	880	8	0.01	<2	5
223785		3.42	10	2	0.23	10	0.83	690	<1	0.18	5	860	8	0.01	3	5
223786		3.37	<10	<1	0.22	10	0.87	671	1	0.17	4	870	6	0.01	<2	5
223787		3.11	10	<1	0.17	10	0.90	659	<1	0.10	4	830	4	<0.01	<2	5
223788		3.24	<10	<1	0.17	10	0.95	660	<1	0.12	4	840	5	<0.01	<2	5
223789		3.11	10	<1	0.20	10	0.81	619	1	0.13	4	820	6	0.01	<2	4
223790		3.29	<10	<1	0.18	10	0.91	660	1	0.11	6	840	4	<0.01	<2	5

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Finalized Date: 14-JUL-2006
Account: PIL

Project: 4013

CERTIFICATE OF ANALYSIS VA06057568

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
223751		79	0.20	<10	<10	75	<10	41
223752		80	0.21	<10	<10	73	<10	55
223753		99	0.21	<10	<10	68	<10	63
223754		85	0.20	<10	<10	69	<10	64
223755		103	0.20	<10	<10	64	<10	62
223756		97	0.20	<10	<10	72	<10	64
223757		110	0.20	<10	<10	73	<10	69
223758		82	0.20	<10	<10	71	<10	69
223759		77	0.18	<10	<10	65	<10	64
223760		84	0.20	<10	<10	69	<10	72
223761		107	0.20	<10	<10	65	<10	67
223762		88	0.21	<10	<10	71	<10	81
223763		92	0.21	<10	<10	72	<10	66
223764		94	0.21	<10	<10	69	<10	69
223765		86	0.20	<10	<10	72	<10	65
223766		98	0.21	<10	<10	70	<10	62
223767		95	0.20	<10	<10	66	<10	51
223768		106	0.20	<10	<10	72	<10	53
223769		104	0.18	<10	<10	72	<10	55
223770		123	0.19	<10	<10	74	<10	56
223771		94	0.20	<10	<10	71	<10	63
223772		133	0.20	<10	<10	71	<10	70
223773		97	0.14	<10	<10	67	<10	93
223774		126	0.18	<10	<10	73	<10	90
223775		110	0.21	<10	<10	72	<10	77
223776		113	0.21	<10	<10	73	<10	76
223777		111	0.21	<10	<10	75	<10	73
223778		110	0.21	<10	<10	83	<10	65
223779		181	0.19	<10	<10	88	<10	54
223780		144	0.15	<10	<10	79	<10	70
223781		110	0.18	<10	<10	78	<10	71
223782		129	0.19	<10	<10	81	<10	66
223783		117	0.21	<10	<10	84	<10	71
223784		202	0.20	<10	<10	85	<10	65
223785		121	0.21	<10	<10	86	<10	63
223786		101	0.20	<10	<10	87	<10	62
223787		119	0.17	<10	<10	76	<10	69
223788		78	0.18	<10	<10	82	<10	70
223789		94	0.17	<10	<10	74	<10	68
223790		102	0.18	<10	<10	79	<10	69

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To: NORTHGATE MINERALS CORPORATION
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 14-JUL-2006
Account: PIL

Project: 4013

CERTIFICATE OF ANALYSIS VA06057568

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
223791		0.28	<0.005	0.003	<0.2	2.24	9	10	80	0.6	<2	2.66	<0.5	6	68	24
223792		0.24	<0.005	0.002	<0.2	3.39	8	<10	100	0.5	<2	2.36	<0.5	6	60	14
223793		0.22	0.007	0.004	0.2	1.96	4	<10	100	<0.5	<2	1.29	<0.5	7	84	32
223794		0.22	<0.005	0.003	<0.2	2.14	7	<10	90	0.5	<2	1.48	<0.5	6	71	19
223795		0.22	<0.005	0.003	<0.2	2.33	5	<10	80	0.6	<2	1.93	<0.5	6	63	21
223796		0.24	<0.005	0.003	<0.2	2.32	9	<10	110	0.5	<2	1.84	<0.5	6	73	21
223797		0.24	<0.005	0.003	<0.2	2.13	6	10	100	0.5	<2	1.84	<0.5	6	72	23
223798		0.26	<0.005	0.003	<0.2	2.37	2	10	100	0.5	<2	1.87	<0.5	6	70	22
223799		0.26	<0.005	0.003	<0.2	1.92	7	10	100	<0.5	<2	1.66	<0.5	6	76	21
223800		0.26	<0.005	0.002	<0.2	2.10	5	<10	100	<0.5	<2	1.71	<0.5	6	65	15
223801		0.26	<0.005	0.002	<0.2	2.43	6	10	110	0.5	<2	2.01	<0.5	7	62	16
223802		0.24	0.012	0.004	<0.2	2.39	<2	<10	120	<0.5	<2	1.92	<0.5	10	55	29
223803		0.26	<0.005	0.002	<0.2	2.27	5	10	100	0.5	2	1.93	<0.5	6	56	16
223804		0.28	0.005	0.002	<0.2	1.84	7	<10	90	0.5	<2	1.86	<0.5	6	55	18
223805		0.20	<0.005	0.002	<0.2	2.00	9	10	100	0.5	<2	2.08	<0.5	7	66	18
223806		0.20	<0.005	0.002	<0.2	1.96	8	10	90	0.5	<2	1.98	<0.5	6	74	19
223807		0.24	<0.005	0.002	<0.2	1.92	8	10	90	0.5	<2	1.84	<0.5	6	48	17
223808		0.18	<0.005	0.002	<0.2	1.82	9	10	100	<0.5	<2	1.58	<0.5	6	86	13
223809		0.22	<0.005	0.003	<0.2	1.84	11	10	90	<0.5	<2	1.78	<0.5	6	70	23
223810		0.24	<0.005	0.002	<0.2	2.25	12	10	100	<0.5	<2	2.16	<0.5	6	64	19
223811		0.20	<0.005	0.003	<0.2	1.97	13	10	100	0.5	<2	1.80	<0.5	6	70	23
223812		0.22	<0.005	0.002	<0.2	1.88	8	10	100	0.5	<2	1.88	<0.5	6	63	17
223813		0.24	<0.005	0.002	<0.2	2.19	8	10	100	0.6	<2	2.13	<0.5	6	63	19
223814		0.24	<0.005	0.002	<0.2	2.12	6	<10	90	0.6	<2	2.06	<0.5	6	54	13
223815		0.24	<0.005	0.001	<0.2	2.29	9	<10	90	0.6	<2	2.12	<0.5	7	59	9
223816		0.26	<0.005	0.001	<0.2	2.35	8	<10	80	0.5	<2	2.22	<0.5	7	57	6
223817		0.24	<0.005	0.001	<0.2	2.26	2	<10	170	<0.5	<2	3.63	<0.5	5	64	10
223818		0.24	<0.005	0.003	<0.2	2.09	6	10	90	0.5	<2	1.79	<0.5	7	55	28
223819		0.26	0.005	0.003	<0.2	2.55	4	<10	80	0.7	<2	2.50	<0.5	7	43	27
223820		0.24	<0.005	0.002	<0.2	2.46	6	<10	100	0.6	<2	2.26	<0.5	6	46	15
223821		0.26	<0.005	0.002	<0.2	2.55	8	<10	80	0.6	<2	2.51	<0.5	7	46	17
223822		0.24	0.007	0.002	<0.2	2.12	8	<10	80	0.5	<2	1.83	<0.5	7	48	19
223823		0.26	<0.005	0.001	<0.2	2.07	4	<10	90	0.6	<2	2.01	<0.5	7	47	17
223824		0.24	<0.005	0.002	<0.2	2.06	5	10	100	0.6	<2	1.87	<0.5	8	58	15
223825		0.26	<0.005	0.002	<0.2	2.25	7	<10	110	0.6	<2	1.83	<0.5	7	47	15
223826		0.24	<0.005	0.003	0.2	1.99	2	<10	110	0.5	<2	1.86	<0.5	7	65	28
223827		0.24	<0.005	0.002	0.2	2.08	5	<10	100	0.5	<2	1.86	<0.5	11	52	13
223828		0.28	<0.005	0.002	0.2	2.05	3	<10	90	0.5	<2	1.86	<0.5	11	49	13

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PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 14-JUL-2006
Account: PIL

Project: 4013

CERTIFICATE OF ANALYSIS VA06057568

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
223791		2.82	10	<1	0.14	<10	0.99	716	<1	0.09	5	860	5	0.01	<2	6
223792		3.18	10	<1	0.20	10	0.88	672	<1	0.08	3	860	4	<0.01	<2	5
223793		3.27	<10	1	0.21	10	0.95	715	1	0.11	7	860	5	<0.01	<2	5
223794		3.11	10	1	0.18	10	0.98	710	<1	0.09	4	860	7	<0.01	<2	5
223795		3.13	10	<1	0.17	10	0.98	715	<1	0.08	4	820	7	<0.01	<2	5
223796		3.31	10	1	0.20	10	0.97	743	<1	0.10	4	880	5	<0.01	<2	5
223797		3.30	10	<1	0.19	10	0.98	761	<1	0.12	3	900	8	0.01	<2	5
223798		3.21	10	1	0.19	10	0.97	698	<1	0.12	2	900	5	0.02	<2	5
223799		3.13	10	<1	0.19	10	0.89	666	1	0.13	5	860	5	0.01	<2	4
223800		3.07	10	<1	0.20	10	0.86	622	1	0.13	3	840	3	0.01	<2	4
223801		3.37	10	1	0.20	10	0.94	658	1	0.13	4	940	5	0.01	<2	5
223802		4.06	10	<1	0.26	<10	0.90	636	1	0.10	8	850	10	0.98	<2	4
223803		3.02	10	<1	0.17	10	0.87	631	<1	0.12	4	840	5	0.01	<2	5
223804		2.97	10	<1	0.17	10	0.86	649	<1	0.11	3	820	6	0.01	<2	4
223805		3.23	10	1	0.20	10	0.90	697	<1	0.14	3	860	4	0.01	2	5
223806		3.32	10	<1	0.19	10	0.94	719	1	0.13	4	880	5	0.01	<2	6
223807		3.01	10	<1	0.19	10	0.85	651	<1	0.13	3	850	6	0.01	<2	4
223808		3.15	10	1	0.21	10	0.87	660	<1	0.15	3	850	4	0.01	<2	5
223809		3.16	10	<1	0.25	10	0.88	701	<1	0.12	3	840	5	0.01	<2	5
223810		3.27	10	<1	0.26	10	0.91	774	1	0.12	3	910	8	0.01	<2	6
223811		3.21	10	1	0.19	10	0.88	684	<1	0.12	5	870	7	0.01	<2	5
223812		3.06	10	<1	0.18	10	0.86	675	1	0.11	3	840	6	0.01	<2	5
223813		3.29	10	1	0.19	10	0.91	716	<1	0.12	4	910	6	0.01	<2	5
223814		3.08	10	1	0.17	10	0.83	643	<1	0.10	3	810	3	<0.01	<2	5
223815		3.30	10	<1	0.18	10	1.02	713	<1	0.10	3	890	5	0.01	2	6
223816		3.60	10	<1	0.23	10	1.06	779	1	0.11	4	910	5	0.02	<2	7
223817		2.81	<10	<1	0.40	10	1.11	1320	<1	0.06	4	900	6	0.01	<2	5
223818		3.18	10	<1	0.19	10	1.00	697	<1	0.12	5	870	6	0.01	<2	5
223819		3.38	10	<1	0.18	10	1.04	761	<1	0.11	5	920	6	0.01	<2	6
223820		3.43	10	<1	0.21	10	1.01	718	<1	0.12	5	900	4	0.01	2	6
223821		3.41	10	<1	0.19	10	1.06	738	1	0.11	5	900	5	0.02	2	7
223822		3.34	10	1	0.19	10	1.12	766	<1	0.11	5	900	5	0.01	<2	7
223823		3.21	10	<1	0.19	10	1.01	722	<1	0.11	5	890	5	0.01	2	6
223824		3.04	10	<1	0.20	10	0.94	662	<1	0.13	5	870	4	<0.01	<2	5
223825		3.26	10	<1	0.21	10	0.97	712	1	0.13	4	880	3	0.01	2	5
223826		3.26	10	<1	0.22	10	1.00	810	1	0.14	6	870	3	0.02	2	5
223827		3.54	10	<1	0.22	10	1.14	803	2	0.12	4	880	4	0.19	<2	6
223828		3.56	10	<1	0.20	10	1.14	805	2	0.11	5	890	4	0.19	2	6

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PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 14-JUL-2006
Account: PIL

Project: 4013

CERTIFICATE OF ANALYSIS VA06057568

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
223791		154	0.18	<10	<10	67	<10	78
223792		169	0.16	<10	<10	73	<10	65
223793		87	0.18	<10	<10	72	<10	69
223794		102	0.18	<10	<10	60	<10	72
223795		108	0.17	<10	<10	63	<10	73
223796		116	0.18	<10	<10	74	<10	75
223797		96	0.19	<10	<10	70	<10	77
223798		116	0.19	<10	<10	64	<10	74
223799		84	0.19	<10	<10	67	<10	71
223800		111	0.18	<10	<10	68	<10	69
223801		131	0.18	<10	<10	69	<10	67
223802		104	0.11	<10	<10	79	<10	72
223803		137	0.18	<10	<10	64	<10	66
223804		94	0.17	<10	<10	61	<10	65
223805		90	0.19	<10	<10	68	<10	69
223806		92	0.20	<10	<10	73	<10	73
223807		94	0.18	<10	<10	66	<10	63
223808		95	0.19	<10	<10	71	<10	65
223809		96	0.18	<10	<10	68	<10	69
223810		154	0.19	<10	<10	69	<10	75
223811		113	0.18	<10	<10	67	<10	68
223812		111	0.17	<10	<10	64	<10	66
223813		128	0.19	<10	<10	70	<10	68
223814		116	0.17	<10	<10	70	<10	57
223815		142	0.19	<10	<10	77	<10	59
223816		134	0.19	<10	<10	84	<10	58
223817		104	0.11	<10	<10	58	<10	79
223818		112	0.19	<10	<10	72	<10	48
223819		133	0.20	<10	<10	78	<10	60
223820		144	0.20	<10	<10	85	<10	54
223821		163	0.20	<10	<10	83	<10	55
223822		122	0.19	<10	<10	73	<10	58
223823		116	0.20	<10	<10	77	<10	58
223824		118	0.20	<10	<10	76	<10	50
223825		147	0.20	<10	<10	81	<10	49
223826		124	0.20	<10	<10	82	<10	58
223827		125	0.21	<10	<10	91	<10	56
223828		123	0.20	<10	<10	89	<10	55

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KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 16-JUL-2006
This copy reported on 19-JUL-2006
Account: PIL

CERTIFICATE VA06057569

Project: 4012
P.O. No.:
This report is for 63 Crushed Rock samples submitted to our lab in Vancouver, BC, Canada on 23-JUN-2006.
The following have access to data associated with this certificate:

CARL EDMUNDS	B. KAY	RON KONST

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
PUL-31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au-AA23	Au 30g FA-AA finish	AAS
Cu-AA49	Assay Cu - HBr Digestion	AAS
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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North Vancouver BC V7J 2C1
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Finalized Date: 16-JUL-2006
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Project: 4012

CERTIFICATE OF ANALYSIS VA06057569

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
223348		0.26	0.081	0.032	0.8	4.49	9	<10	40	0.5	4	2.16	<0.5	26	27	351
223349		0.28	0.060	0.036	0.8	5.93	15	<10	30	<0.5	4	2.52	<0.5	30	24	403
223350		0.26	0.089	0.039	0.9	6.01	19	<10	30	<0.5	5	2.33	<0.5	25	50	422
223351		0.26	0.055	0.006	0.7	5.60	64	<10	20	<0.5	7	2.43	<0.5	35	45	64
223352		0.26	0.122	0.029	0.9	6.14	23	<10	20	<0.5	7	2.86	<0.5	38	62	331
223353		0.26	0.065	0.028	0.9	5.47	17	<10	20	<0.5	5	2.68	<0.5	30	43	310
223354		0.28	0.102	0.037	1.1	4.65	2	<10	20	<0.5	7	1.85	<0.5	28	33	425
223355		0.26	0.141	0.037	1.0	5.38	12	<10	20	<0.5	8	2.26	<0.5	35	24	445
223356		0.18	0.066	0.017	0.5	5.88	8	<10	30	<0.5	7	2.38	<0.5	22	30	192
223357		0.20	0.157	0.092	2.2	5.64	13	<10	40	<0.5	6	2.33	1.2	25	20	1050
223358		0.06	0.358	0.001	<0.2	0.88	9	<10	20	<0.5	4	0.14	<0.5	1	10	10
223359		0.24	0.012	0.013	0.2	2.10	34	<10	150	<0.5	<2	2.28	<0.5	8	15	130
223360		0.26	0.015	0.010	0.2	2.66	24	<10	160	<0.5	<2	4.00	<0.5	14	50	104
223361		0.28	0.016	0.005	0.2	2.56	8	<10	180	<0.5	2	4.01	<0.5	13	27	52
223362		0.24	0.008	0.015	0.2	2.66	7	<10	150	<0.5	2	3.12	<0.5	21	31	166
223363		0.24	0.025	0.003	0.8	2.51	3	<10	200	<0.5	2	3.43	<0.5	12	41	34
223364		0.24	0.006	0.002	<0.2	1.94	17	10	170	<0.5	<2	3.61	<0.5	10	10	12
223365		0.26	0.007	0.005	0.5	3.14	41	<10	80	0.5	2	5.30	<0.5	24	141	48
223366		0.24	<0.005	0.005	0.3	2.18	23	<10	150	0.5	<2	3.61	<0.5	12	28	48
223367		0.28	<0.005	0.001	<0.2	1.96	26	<10	150	<0.5	<2	3.94	<0.5	9	9	10
223368		0.26	0.094	0.122	1.3	2.54	<2	<10	120	<0.5	2	2.22	<0.5	17	49	1370
223369		0.26	0.080	0.111	1.0	2.78	10	<10	90	<0.5	<2	2.39	<0.5	18	53	1265
223370		0.22	0.047	0.066	0.9	2.47	5	<10	200	<0.5	2	3.20	<0.5	17	48	746
223371		0.26	0.017	0.028	0.8	2.77	9	<10	80	0.5	3	4.26	<0.5	22	81	328
223372		0.26	<0.005	0.006	<0.2	4.80	<2	<10	50	<0.5	3	7.67	<0.5	44	536	63
223373		0.26	<0.005	0.007	<0.2	4.71	4	<10	70	<0.5	<2	7.68	<0.5	44	559	79
223374		0.24	<0.005	0.011	0.4	4.50	6	<10	130	<0.5	3	7.80	<0.5	44	554	131
223375		0.26	<0.005	0.001	<0.2	3.76	8	<10	70	<0.5	2	7.19	<0.5	42	476	13
223376		0.24	<0.005	0.009	<0.2	4.48	<2	<10	140	<0.5	3	7.44	<0.5	45	493	102
223377		0.22	<0.005	0.002	<0.2	4.25	10	<10	80	<0.5	2	6.80	<0.5	44	415	15
223378		0.26	<0.005	0.010	0.4	4.51	<2	<10	60	<0.5	2	7.63	<0.5	44	440	112
223379		0.24	<0.005	0.014	0.7	4.69	<2	<10	110	<0.5	3	7.47	<0.5	51	575	174
223380		0.26	<0.005	0.013	0.2	5.13	12	<10	120	<0.5	3	7.88	<0.5	48	547	144
223381		0.26	<0.005	0.012	0.2	5.20	3	<10	50	<0.5	4	8.35	<0.5	47	508	138
223382		0.26	<0.005	0.008	0.3	4.57	19	<10	80	<0.5	3	8.99	<0.5	45	486	91
223383		0.30	<0.005	0.007	<0.2	4.73	9	<10	40	<0.5	3	7.19	<0.5	48	532	81
223384		0.06	0.725	0.001	0.7	0.62	<2	10	30	<0.5	2	0.23	<0.5	2	19	11
223385		0.26	0.006	0.009	<0.2	5.34	<2	<10	60	<0.5	4	7.44	<0.5	48	550	99
223386		0.24	0.009	0.018	0.3	4.77	3	<10	70	<0.5	2	6.83	<0.5	47	497	198
223387		0.26	<0.005	0.030	0.3	4.51	4	<10	70	<0.5	4	7.14	<0.5	43	418	341

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ALS Canada Ltd.
212 Brooksbank Avenue
North Vancouver BC V7J 2C1
Phone: 604 984 0221 Fax: 604 984 0218 www.alschemex.com

To: NORTHGATE MINERALS CORPORATION
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 16-JUL-2006
Account: PIL

Project: 4012

CERTIFICATE OF ANALYSIS VA06057569

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
223348		8.23	10	1	0.30	<10	2.71	973	<1	0.15	15	1160	27	5.99	2	13
223349		6.97	10	<1	0.46	<10	3.35	940	<1	0.40	24	570	29	5.23	<2	11
223350		7.02	10	2	0.32	<10	3.95	999	<1	0.29	35	700	23	5.30	5	15
223351		7.23	10	2	0.21	<10	3.87	688	<1	0.24	40	580	45	7.09	4	14
223352		7.59	10	1	0.20	<10	3.91	749	<1	0.26	45	600	36	7.11	2	17
223353		7.96	10	<1	0.19	<10	3.46	617	<1	0.27	36	700	28	8.17	4	12
223354		10.30	10	<1	0.21	<10	2.97	519	<1	0.22	32	720	33	>10.0	3	9
223355		9.11	10	1	0.21	<10	3.30	551	<1	0.23	29	690	30	9.76	3	9
223356		7.59	10	2	0.22	<10	3.58	605	<1	0.30	26	660	36	7.69	3	11
223357		7.38	10	<1	0.24	<10	3.58	596	<1	0.29	28	700	32	7.53	3	9
223358		0.72	<10	<1	0.42	<10	0.18	100	<1	0.24	3	120	<2	0.15	2	1
223359		3.85	10	<1	0.28	<10	1.18	698	1	0.03	9	950	7	1.27	<2	3
223360		4.17	10	2	0.24	<10	1.76	1035	1	0.03	17	920	6	0.78	<2	5
223361		3.76	10	2	0.26	<10	1.64	990	1	0.03	16	950	4	0.57	2	4
223362		4.13	10	<1	0.28	<10	1.50	909	5	0.03	14	880	5	0.64	3	4
223363		3.79	10	<1	0.27	<10	1.56	935	<1	0.03	13	910	7	0.44	2	5
223364		3.80	10	<1	0.31	<10	0.88	787	1	0.04	2	880	6	0.55	<2	5
223365		5.19	10	<1	0.25	<10	2.91	1515	<1	0.01	49	910	15	2.93	<2	7
223366		3.81	10	<1	0.36	10	1.53	1115	<1	0.02	13	920	5	1.05	<2	3
223367		3.38	<10	<1	0.36	10	1.06	1030	<1	0.02	7	920	6	0.88	<2	3
223368		4.43	10	1	0.26	<10	1.92	909	33	0.03	21	950	13	1.58	2	8
223369		4.58	10	<1	0.25	<10	1.90	880	29	0.04	22	1030	5	1.37	<2	8
223370		4.17	10	<1	0.29	10	1.68	1110	17	0.03	16	960	8	0.93	5	6
223371		4.73	10	<1	0.26	<10	2.72	1360	18	0.01	32	890	22	2.81	<2	7
223372		6.28	10	1	0.03	<10	5.70	1590	1	<0.01	154	780	2	0.23	3	24
223373		6.46	10	1	0.01	<10	5.84	1540	<1	<0.01	155	730	2	0.01	5	25
223374		6.85	10	<1	0.01	<10	5.86	1575	<1	0.01	149	830	5	0.01	<2	27
223375		6.24	10	3	0.02	<10	5.31	1170	<1	0.01	140	770	2	0.01	3	20
223376		6.75	10	1	0.01	<10	6.23	1280	<1	0.01	147	810	3	0.01	2	24
223377		6.40	10	1	0.02	<10	5.82	1300	<1	0.01	144	750	<2	0.01	2	21
223378		6.43	10	1	0.01	<10	5.92	1475	<1	0.01	130	750	3	0.01	<2	25
223379		6.90	10	2	0.01	<10	5.87	1480	<1	0.01	168	840	6	0.02	<2	27
223380		6.90	10	<1	0.01	<10	6.54	1460	<1	<0.01	170	830	7	0.03	<2	27
223381		6.69	10	2	0.01	<10	6.52	1495	<1	<0.01	160	850	3	0.02	3	25
223382		6.32	10	<1	0.01	<10	5.55	1370	<1	0.01	156	750	7	0.20	4	24
223383		6.60	10	<1	0.01	<10	6.37	1320	<1	<0.01	170	740	5	0.07	3	25
223384		2.98	<10	<1	0.13	<10	0.09	53	1	0.38	6	560	99	2.75	2	1
223385		7.36	10	<1	<0.01	<10	7.25	1425	<1	0.01	179	860	9	0.06	4	24
223386		6.68	10	<1	0.01	<10	6.80	1375	<1	0.01	169	790	6	0.05	<2	12
223387		6.50	10	<1	0.01	<10	6.06	1320	<1	0.01	141	740	2	0.08	<2	18

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CERTIFICATE OF ANALYSIS VA06057569

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
223348		393	0.26	<10	<10	200	<10	224
223349		325	0.19	<10	<10	142	<10	239
223350		234	0.15	<10	<10	176	<10	247
223351		151	0.14	<10	<10	172	<10	202
223352		278	0.19	<10	<10	186	<10	220
223353		211	0.08	<10	<10	150	<10	192
223354		178	0.04	<10	<10	110	<10	166
223355		243	0.06	<10	<10	110	<10	171
223356		316	0.08	<10	<10	131	10	179
223357		343	0.07	<10	<10	119	<10	187
223358		15	<0.01	<10	<10	6	<10	11
223359		45	0.08	<10	<10	36	<10	66
223360		99	0.14	<10	<10	54	<10	92
223361		54	0.12	<10	<10	45	<10	85
223362		63	0.15	<10	<10	46	<10	90
223363		62	0.12	<10	<10	45	<10	91
223364		98	0.17	<10	<10	62	<10	59
223365		80	0.11	<10	<10	71	<10	110
223366		66	0.09	<10	<10	35	<10	63
223367		66	0.08	<10	<10	30	<10	60
223368		70	0.18	<10	<10	103	<10	81
223369		164	0.16	<10	<10	100	<10	77
223370		65	0.14	<10	<10	76	<10	93
223371		53	0.10	<10	<10	77	<10	148
223372		121	0.10	<10	<10	204	<10	102
223373		125	0.14	<10	<10	224	<10	117
223374		146	0.26	<10	<10	232	<10	125
223375		140	0.26	<10	<10	210	<10	84
223376		157	0.29	<10	<10	231	<10	79
223377		152	0.25	<10	<10	185	<10	76
223378		147	0.23	<10	<10	221	<10	87
223379		156	0.18	<10	<10	257	<10	119
223380		172	0.26	<10	<10	216	<10	99
223381		192	0.16	<10	<10	213	<10	115
223382		182	0.25	<10	<10	197	<10	91
223383		144	0.28	<10	<10	200	<10	88
223384		6	<0.01	<10	<10	3	<10	24
223385		142	0.27	<10	<10	225	<10	89
223386		143	0.28	<10	<10	204	<10	81
223387		132	0.29	<10	<10	227	<10	74

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CERTIFICATE OF ANALYSIS VA06057569

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
223388		0.28	<0.005	0.009	0.3	4.40	<2	<10	100	<0.5	<2	6.71	<0.5	48	431	95
223389		0.26	<0.005	0.009	<0.2	4.28	2	<10	70	<0.5	<2	6.64	<0.5	42	413	92
223390		0.26	<0.005	0.011	0.2	3.61	<2	<10	50	<0.5	2	5.25	<0.5	42	368	116
223391		0.26	0.005	0.017	0.3	4.15	12	<10	70	<0.5	3	6.54	<0.5	41	386	184
223392		0.22	<0.005	0.003	<0.2	4.71	<2	<10	40	<0.5	4	6.40	<0.5	43	374	30
223393		0.28	<0.005	0.016	<0.2	4.57	6	<10	20	<0.5	5	6.41	<0.5	39	400	173
223394		0.28	0.005	0.003	<0.2	2.69	12	<10	130	<0.5	2	3.56	<0.5	17	87	39
223395		0.26	0.006	0.006	0.2	2.62	15	<10	80	<0.5	<2	4.52	<0.5	24	136	68
223396		0.26	<0.005	0.015	0.2	4.23	<2	<10	20	<0.5	3	7.15	<0.5	42	383	168
223397		0.26	<0.005	0.001	<0.2	2.97	12	<10	20	<0.5	<2	5.52	<0.5	40	322	8
223398		0.24	<0.005	0.001	<0.2	2.77	36	<10	10	<0.5	<2	4.73	<0.5	38	273	13
223399		0.26	<0.005	0.002	<0.2	3.39	2	<10	10	<0.5	<2	4.41	<0.5	38	247	13
223400		0.26	<0.005	0.018	<0.2	2.42	2	<10	10	<0.5	<2	2.72	<0.5	33	137	186
223401		0.28	<0.005	0.017	0.2	2.44	7	<10	10	<0.5	<2	2.47	<0.5	32	119	173
223402		0.26	<0.005	0.015	<0.2	2.71	<2	<10	10	<0.5	3	3.35	<0.5	36	158	162
223403		0.26	<0.005	0.016	<0.2	2.65	9	<10	10	<0.5	4	3.00	<0.5	35	173	173
223404		0.26	<0.005	0.009	<0.2	3.41	10	<10	<10	<0.5	<2	4.20	<0.5	41	307	96
223405		0.28	<0.005	0.016	<0.2	3.00	8	<10	<10	<0.5	3	3.29	<0.5	33	241	173
223406		0.26	0.005	0.009	0.4	3.11	<2	<10	10	<0.5	3	2.52	<0.5	35	190	90
223407		0.26	<0.005	0.012	<0.2	3.08	<2	<10	<10	<0.5	<2	4.98	<0.5	33	241	138
223408		0.26	<0.005	0.012	<0.2	3.04	3	<10	10	<0.5	<2	3.38	<0.5	37	286	142
223409		0.26	<0.005	0.014	0.2	3.35	5	<10	10	<0.5	2	4.28	<0.5	37	297	155
223410		0.26	<0.005	0.014	0.2	3.25	5	<10	10	<0.5	2	4.15	<0.5	37	289	155

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Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
223388		6.38	10	<1	0.01	<10	5.97	1285	<1	0.01	136	740	7	0.07	<2	21
223389		6.41	10	<1	0.01	<10	5.70	1315	<1	0.01	116	740	5	0.06	<2	15
223390		5.82	10	<1	0.01	<10	4.93	1055	<1	0.01	123	730	10	0.04	<2	7
223391		6.03	10	<1	0.01	<10	5.68	1220	<1	0.01	132	800	6	0.01	2	9
223392		6.33	10	1	0.01	<10	6.33	1270	<1	0.01	126	800	9	0.01	<2	16
223393		6.11	10	2	0.02	<10	5.36	1280	<1	0.01	128	780	7	0.01	<2	23
223394		4.12	10	2	0.26	<10	1.98	1210	1	0.03	30	840	9	0.69	2	7
223395		4.26	10	2	0.26	<10	2.30	1205	<1	0.02	43	780	9	0.52	<2	9
223396		6.71	10	2	0.07	<10	5.34	1290	<1	0.02	119	970	2	0.02	2	20
223397		6.16	10	<1	0.04	<10	5.14	1280	<1	0.02	112	860	2	<0.01	2	9
223398		6.05	10	2	0.03	<10	4.83	1175	<1	0.02	112	830	10	<0.01	<2	6
223399		5.67	10	<1	0.02	<10	5.22	1175	<1	0.01	104	810	9	<0.01	<2	5
223400		5.21	10	1	0.03	<10	3.32	890	<1	0.02	86	760	<2	<0.01	<2	2
223401		5.34	10	1	0.05	<10	2.99	799	<1	0.04	87	790	4	<0.01	3	3
223402		5.42	10	<1	0.02	<10	3.42	891	<1	0.02	91	780	<2	0.01	<2	5
223403		5.26	10	<1	0.03	<10	3.55	851	<1	0.02	102	720	<2	0.01	3	3
223404		5.52	10	1	0.02	<10	4.76	1050	<1	0.01	121	670	7	1.72	2	6
223405		4.47	10	<1	0.02	<10	4.16	869	<1	0.01	107	570	<2	0.01	3	2
223406		4.71	10	1	0.02	<10	4.31	866	<1	0.01	110	660	<2	0.02	<2	2
223407		4.57	10	<1	0.01	<10	4.19	1070	<1	0.01	106	570	<2	0.01	<2	3
223408		5.20	10	<1	0.02	<10	4.03	1055	<1	0.02	115	710	6	0.01	<2	3
223409		5.89	10	1	0.02	<10	4.37	1135	<1	0.02	97	750	<2	0.04	<2	6
223410		5.71	10	<1	0.02	<10	4.23	1100	<1	0.01	100	740	3	0.04	<2	5

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PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 16-JUL-2006
Account: PIL

Project: 4012

CERTIFICATE OF ANALYSIS VA06057569

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
223388		132	0.30	<10	<10	229	<10	92
223389		115	0.29	<10	<10	210	<10	73
223390		93	0.30	<10	<10	202	<10	67
223391		112	0.28	<10	<10	197	<10	72
223392		118	0.29	<10	<10	209	<10	73
223393		108	0.22	<10	<10	202	<10	83
223394		75	0.10	<10	<10	75	<10	94
223395		66	0.11	<10	<10	92	<10	87
223396		174	0.30	<10	<10	243	<10	76
223397		153	0.30	<10	<10	186	<10	69
223398		102	0.32	<10	<10	172	<10	69
223399		118	0.34	<10	<10	256	<10	71
223400		45	0.27	<10	<10	170	<10	60
223401		56	0.24	<10	<10	167	<10	57
223402		55	0.29	<10	<10	181	<10	62
223403		67	0.27	<10	<10	165	<10	60
223404		77	0.22	<10	<10	150	<10	63
223405		73	0.26	<10	<10	130	<10	59
223406		48	0.27	<10	<10	141	<10	60
223407		61	0.27	<10	<10	147	<10	59
223408		51	0.31	<10	<10	176	<10	69
223409		62	0.32	<10	<10	205	<10	76
223410		58	0.30	<10	<10	198	<10	75

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PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 12-JUL-2006
Account: PIL

CERTIFICATE VA06057680

Project: 4013
P.O. No.:
This report is for 27 Crushed Rock samples submitted to our lab in Vancouver, BC, Canada on 23-JUN-2006.
The following have access to data associated with this certificate:

CARL EDMUNDS	B. KAY	RON KONST

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
PUL-31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au-AA23	Au 30g FA-AA finish	AAS
Cu-AA49	Assay Cu - HBr Digestion	AAS
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES
Cu-AA46	Ore grade Cu - aqua regia/AA	AAS

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 12-JUL-2006
Account: PIL

Project: 4013

CERTIFICATE OF ANALYSIS VA06057680

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
223269		0.26	0.046	0.064	2.3	3.40	57	<10	30	<0.5	20	2.72	<0.5	22	117	685
223270		0.26	0.035	0.027	0.8	3.48	38	<10	80	<0.5	5	2.06	<0.5	18	78	270
223271		0.28	0.037	0.026	0.8	3.35	24	<10	50	<0.5	9	2.39	<0.5	18	77	266
223272		0.28	0.025	0.023	1.0	2.73	32	<10	30	<0.5	10	1.78	<0.5	17	93	231
223273		0.24	0.532	1.570	27.7	2.05	60	<10	20	<0.5	275	1.82	5.8	33	161	>10000
223274		0.28	0.066	0.017	1.3	3.26	39	<10	40	<0.5	20	2.10	<0.5	31	75	180
223275		0.26	0.071	0.122	1.9	3.26	13	<10	40	<0.5	15	3.28	<0.5	25	75	1300
223276		0.26	0.055	0.039	0.9	3.08	19	<10	70	<0.5	9	2.40	<0.5	30	90	409
223277		0.28	0.091	0.093	1.5	3.66	32	<10	40	<0.5	15	2.13	<0.5	27	81	1070
223278		0.28	0.082	0.059	1.2	3.41	23	<10	50	<0.5	6	2.03	<0.5	25	89	629
223279		0.26	0.102	0.055	1.3	3.22	23	<10	20	<0.5	16	2.07	<0.5	27	103	589
223280		0.26	0.033	0.026	0.8	3.44	28	<10	30	<0.5	12	1.98	0.5	23	98	270
223281		0.24	0.050	0.031	0.8	3.45	61	<10	20	<0.5	9	1.84	<0.5	26	130	328
223282		0.22	0.045	0.007	0.6	3.36	85	<10	20	<0.5	7	1.84	<0.5	25	112	59
223283		0.26	0.040	0.085	2.0	3.58	18	<10	30	<0.5	13	2.03	<0.5	21	87	897
223284		0.26	0.053	0.041	1.3	3.91	66	<10	40	<0.5	10	2.24	<0.5	28	105	431
223285		0.26	0.062	0.043	1.2	4.32	13	<10	60	<0.5	7	2.23	<0.5	34	105	459
223286		0.24	0.039	0.027	0.9	5.04	12	<10	130	<0.5	2	2.21	<0.5	16	94	283
223287		0.28	0.052	0.032	0.9	4.77	14	<10	30	<0.5	3	3.01	<0.5	19	68	329
223288		0.26	0.076	0.025	0.6	4.06	6	<10	50	<0.5	4	1.64	<0.5	27	83	266
223289		0.26	0.080	0.028	0.8	4.61	23	<10	50	<0.5	4	1.93	<0.5	30	88	295
223290		0.28	0.082	0.028	0.8	4.77	13	<10	60	<0.5	4	1.90	<0.5	35	92	292
223291		0.24	0.068	0.020	0.7	5.98	40	<10	50	0.5	4	2.78	<0.5	32	83	217
223292		0.26	0.031	0.011	0.6	4.04	<2	<10	50	<0.5	4	3.25	1.3	10	151	117
223293		0.24	0.060	0.035	1.1	3.40	38	<10	20	<0.5	10	1.19	2.0	20	95	371
223294		0.26	0.106	0.086	3.3	2.81	48	<10	20	<0.5	20	1.54	28.2	21	161	939
223295		0.26	0.006	0.004	0.3	2.95	<2	<10	280	0.5	<2	2.24	<0.5	7	76	37

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Finalized Date: 12-JUL-2006
Account: PIL

Project: 4013

CERTIFICATE OF ANALYSIS VA06057680

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
223269		9.13	10	<1	0.12	<10	2.14	1025	<1	0.08	30	1780	42	8.58	2	4
223270		5.05	10	1	0.21	<10	2.43	964	1	0.18	20	2520	26	3.44	<2	4
223271		5.19	10	<1	0.23	10	2.08	863	1	0.16	18	3180	19	3.75	<2	4
223272		5.67	10	<1	0.16	<10	2.08	781	1	0.14	17	2390	19	4.78	<2	4
223273		24.3	10	4	0.32	<10	0.35	301	2	0.04	5	1320	92	>10.0	<2	3
223274		7.43	10	<1	0.15	<10	2.61	1120	1	0.13	18	1810	16	5.88	<2	8
223275		6.85	10	1	0.17	<10	2.04	1200	1	0.09	19	1660	16	4.10	<2	8
223276		6.84	10	<1	0.16	<10	2.37	1190	1	0.11	17	1870	14	4.86	<2	8
223277		9.16	10	1	0.16	<10	2.96	1095	1	0.08	20	1690	21	7.81	<2	9
223278		6.54	10	1	0.13	<10	2.58	1035	1	0.08	15	1710	14	4.99	<2	8
223279		9.05	10	<1	0.22	<10	2.13	834	1	0.15	15	1720	20	8.44	<2	8
223280		8.87	10	<1	0.34	<10	2.46	692	1	0.14	17	1720	18	8.90	<2	11
223281		11.05	10	<1	0.42	<10	2.21	617	1	0.06	17	1560	20	>10.0	<2	7
223282		11.35	10	<1	0.39	<10	2.45	688	2	0.04	15	1370	18	>10.0	<2	7
223283		6.87	10	<1	0.35	<10	2.37	784	<1	0.10	16	1640	19	7.33	<2	9
223284		8.89	10	1	0.35	<10	2.38	851	1	0.07	17	1680	22	9.48	<2	9
223285		7.36	10	1	0.38	<10	2.69	1130	1	0.13	20	1510	21	5.87	<2	9
223286		6.56	10	1	0.23	<10	3.20	1485	1	0.32	18	1430	13	2.25	<2	9
223287		6.59	10	<1	0.22	<10	2.65	1190	1	0.13	16	1320	12	2.81	<2	10
223288		7.15	10	1	0.20	<10	3.00	1240	1	0.17	16	1380	12	4.62	<2	9
223289		7.40	10	1	0.18	<10	3.15	1335	1	0.17	20	1400	16	4.65	<2	10
223290		7.12	10	<1	0.11	<10	2.89	1250	<1	0.30	20	1290	14	4.80	<2	9
223291		7.72	20	<1	0.18	<10	3.44	1395	1	0.17	20	1350	13	5.39	<2	9
223292		5.58	10	2	0.38	<10	0.68	326	2	0.04	10	1230	18	5.82	<2	3
223293		9.90	10	<1	0.68	<10	1.85	495	1	0.03	16	1390	25	>10.0	<2	4
223294		18.2	10	<1	0.47	<10	1.62	394	2	0.02	20	1530	79	>10.0	<2	5
223295		3.14	10	1	0.64	10	0.85	633	<1	0.12	3	820	6	0.68	<2	6

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Finalized Date: 12-JUL-2006
Account: PIL

Project: 4013

CERTIFICATE OF ANALYSIS VA06057680

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2	Cu-AA46 Cu % 0.01
223269		160	0.33	<10	<10	96	<10	144	
223270		122	0.34	<10	<10	131	<10	130	
223271		126	0.33	<10	<10	130	<10	107	
223272		89	0.30	<10	<10	117	<10	104	
223273		142	0.23	10	<10	73	<10	208	1.68
223274		98	0.51	10	<10	245	<10	123	
223275		104	0.55	10	<10	263	10	117	
223276		110	0.55	<10	<10	264	<10	119	
223277		117	0.47	<10	<10	250	<10	116	
223278		119	0.49	<10	<10	239	<10	108	
223279		142	0.47	10	<10	254	10	100	
223280		97	0.39	10	<10	270	<10	138	
223281		70	0.26	10	<10	190	<10	167	
223282		59	0.25	10	<10	173	<10	134	
223283		91	0.36	10	<10	237	<10	141	
223284		90	0.31	<10	<10	230	<10	140	
223285		119	0.33	<10	<10	203	<10	172	
223286		302	0.40	<10	<10	197	<10	253	
223287		156	0.40	10	<10	171	<10	203	
223288		246	0.33	<10	<10	166	<10	212	
223289		283	0.35	<10	<10	183	<10	230	
223290		436	0.30	<10	<10	168	<10	223	
223291		257	0.29	<10	<10	172	<10	254	
223292		99	0.14	<10	<10	56	<10	152	
223293		35	0.17	10	<10	89	<10	224	
223294		30	0.21	<10	<10	108	<10	2820	
223295		130	0.12	<10	<10	77	<10	58	

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KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 12-JUL-2006
This copy reported on 19-JUL-2006
Account: PIL

CERTIFICATE VA06057681

Project: 4012
P.O. No.:
This report is for 52 Crushed Rock samples submitted to our lab in Vancouver, BC, Canada on 23-JUN-2006.

The following have access to data associated with this certificate:

CARL EDMUNDS	B. KAY	RON KONST

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
PUL-31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au-AA23	Au 30g FA-AA finish	AAS
Cu-AA49	Assay Cu - HBr Digestion	AAS
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
KEMESS MINE
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This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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PO BOX 3519
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Finalized Date: 12-JUL-2006
Account: PIL

Project: 4012

CERTIFICATE OF ANALYSIS VA06057681

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
223296		0.20	0.041	0.052	1.5	2.11	19	<10	50	<0.5	10	0.75	4.4	21	110	542
223297		0.24	0.061	0.026	1.6	2.53	88	<10	20	<0.5	8	0.97	7.6	19	69	264
223298		0.26	0.041	0.037	1.3	4.00	30	<10	30	<0.5	5	2.46	2.4	19	67	424
223299		0.28	0.064	0.058	1.2	5.24	7	<10	60	<0.5	6	3.02	<0.5	18	75	647
223300		0.24	0.063	0.026	0.8	5.71	4	<10	50	0.5	11	3.67	<0.5	17	75	276
223301		0.26	0.064	0.033	0.9	5.32	10	<10	70	<0.5	6	2.98	<0.5	20	70	342
223302		0.26	0.105	0.027	1.0	3.85	20	<10	60	<0.5	6	2.65	<0.5	24	93	279
223303		0.24	0.087	0.030	1.1	3.83	22	<10	40	<0.5	5	2.48	0.7	24	104	311
223304		0.24	0.079	0.044	1.5	4.04	26	<10	60	0.5	6	2.67	1.8	24	99	450
223305		0.26	0.094	0.026	0.9	3.96	28	<10	60	0.5	7	2.29	4.5	23	96	263
223306		0.24	0.114	0.027	1.0	4.89	40	<10	20	<0.5	5	2.66	30.3	29	102	279
223307		0.22	0.143	0.026	0.8	4.86	40	<10	20	<0.5	4	2.46	<0.5	26	93	270
223308		0.26	0.104	0.026	1.0	4.44	22	<10	30	<0.5	4	2.20	<0.5	14	102	282
223309		0.26	0.098	0.018	0.7	5.31	44	<10	40	0.5	5	2.57	7.6	25	87	190
223310		0.26	0.087	0.017	0.5	4.88	37	<10	30	<0.5	5	2.57	<0.5	24	106	168
223311		0.26	0.083	0.008	0.5	3.62	31	<10	30	<0.5	4	1.78	0.9	31	105	80
223312		0.26	0.097	0.058	1.5	4.48	12	<10	40	<0.5	4	2.33	1.6	42	113	609
223313		0.22	0.065	0.017	0.8	5.12	20	<10	60	<0.5	3	2.57	<0.5	23	90	173
223314		0.26	0.080	0.027	1.0	4.18	24	<10	30	<0.5	2	2.56	5.3	31	91	291
223315		0.22	0.086	0.038	1.2	4.23	16	<10	30	<0.5	4	2.23	<0.5	30	86	394
223316		0.20	0.110	0.062	1.2	4.83	8	<10	20	0.5	3	2.81	<0.5	22	79	656
223317		0.20	0.124	0.034	0.9	4.73	11	<10	10	<0.5	8	3.17	<0.5	22	83	264
223318		0.24	0.081	0.019	0.6	6.09	15	<10	<10	0.6	2	11.60	<0.5	23	64	203
223319		0.22	0.009	0.004	0.2	2.86	<2	<10	<10	<0.5	<2	>25.0	<0.5	3	7	38
223320		0.06	0.420	<0.001	<0.2	0.21	<2	<10	10	<0.5	3	0.09	<0.5	<1	2	3
223321		0.26	0.062	0.067	1.3	5.51	17	<10	20	<0.5	3	6.19	0.7	22	56	706
223322		0.26	0.034	0.054	0.8	4.70	11	<10	<10	<0.5	<2	15.2	1.0	19	37	567
223323		0.26	0.046	0.027	0.6	5.59	35	<10	20	<0.5	3	4.85	<0.5	27	69	274
223324		0.28	0.037	0.016	0.5	5.19	31	<10	20	<0.5	2	9.21	<0.5	18	38	169
223325		0.26	0.032	0.011	0.5	4.91	25	<10	30	<0.5	2	2.23	<0.5	26	87	104
223326		0.24	0.020	0.010	0.3	2.77	10	<10	10	<0.5	<2	24.5	<0.5	8	31	103
223327		0.26	0.058	0.047	0.7	3.89	16	<10	10	<0.5	2	12.35	<0.5	18	174	504
223328		0.26	0.073	0.042	0.9	4.14	23	<10	30	<0.5	7	2.63	1.1	20	71	427
223329		0.28	0.104	0.021	1.5	5.27	30	<10	30	<0.5	18	2.87	4.7	24	108	218
223330		0.24	0.065	0.008	0.4	5.34	21	<10	20	<0.5	21	2.36	<0.5	21	101	86
223331		0.24	0.090	0.009	0.4	5.85	13	<10	30	0.5	5	2.82	<0.5	22	93	102
223332		0.26	0.071	0.044	1.0	5.60	19	<10	30	<0.5	4	3.11	20.0	23	70	473
223333		0.24	0.047	0.048	0.9	5.65	14	<10	30	<0.5	3	2.48	0.5	26	83	515
223334		0.24	0.042	0.017	0.4	5.19	21	<10	40	<0.5	2	2.38	<0.5	27	73	176
223335		0.22	0.050	0.019	0.6	4.96	10	<10	40	<0.5	2	1.75	<0.5	26	63	207

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To: NORTHGATE MINERALS CORPORATION
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 12-JUL-2006
Account: PIL

Project: 4012

CERTIFICATE OF ANALYSIS VA06057681

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
223296		7.06	<10	<1	0.49	<10	1.61	391	1	0.02	19	1620	28	7.58	<2	2
223297		9.79	<10	<1	0.45	<10	1.69	401	2	0.02	16	1390	31	>10.0	<2	2
223298		7.20	10	<1	0.39	<10	1.63	422	2	0.14	17	1500	28	7.72	<2	4
223299		5.76	10	1	0.23	<10	1.95	600	<1	0.38	17	1560	15	5.22	<2	6
223300		7.45	10	<1	0.21	<10	1.90	607	<1	0.38	14	1560	19	7.73	<2	6
223301		6.33	10	<1	0.20	<10	1.99	775	<1	0.62	20	1640	20	6.09	<2	6
223302		7.51	10	<1	0.36	<10	2.10	762	<1	0.14	19	1560	22	7.54	<2	5
223303		7.26	10	<1	0.32	<10	2.74	920	<1	0.05	20	1220	25	7.16	<2	7
223304		7.75	10	<1	0.31	10	2.44	845	<1	0.12	17	1270	23	8.00	2	6
223305		7.46	10	<1	0.33	<10	2.25	785	<1	0.18	21	1260	24	7.69	<2	5
223306		7.63	10	<1	0.13	<10	2.99	1160	<1	0.30	20	1320	28	7.18	<2	10
223307		7.88	10	<1	0.10	<10	2.81	1235	<1	0.39	18	1400	17	6.75	3	11
223308		7.97	10	<1	0.15	<10	2.83	1180	<1	0.29	17	1320	21	7.06	<2	10
223309		6.94	10	<1	0.21	<10	3.34	1230	<1	0.33	19	1420	21	5.78	<2	12
223310		7.60	20	1	0.21	<10	3.08	1080	<1	0.42	17	1320	18	7.02	<2	13
223311		8.67	10	<1	0.23	<10	2.19	757	<1	0.21	18	1290	26	8.87	<2	9
223312		8.04	10	<1	0.24	<10	2.48	967	<1	0.24	18	1100	25	7.07	<2	10
223313		7.80	10	<1	0.24	<10	2.68	1075	1	0.35	17	1240	26	5.81	<2	13
223314		8.20	10	<1	0.19	<10	2.59	1035	<1	0.10	19	1110	31	7.60	<2	10
223315		7.59	10	<1	0.19	<10	2.63	1345	<1	0.27	16	1310	28	6.26	<2	10
223316		7.07	10	<1	0.16	<10	2.96	1420	<1	0.25	17	1340	19	4.78	<2	12
223317		8.47	10	<1	0.20	<10	2.77	1245	<1	0.09	19	1270	23	6.98	<2	12
223318		5.42	10	<1	0.11	10	1.96	848	<1	0.07	16	830	12	4.53	<2	9
223319		0.97	10	<1	0.04	10	0.38	245	<1	0.05	3	140	9	1.1	<2	2
223320		0.37	<10	<1	0.10	<10	0.04	64	<1	0.05	3	50	4	0.01	<2	<1
223321		5.15	10	<1	0.09	<10	3.08	1125	<1	0.29	9	830	24	4.76	<2	9
223322		3.77	10	<1	0.07	10	2.43	992	<1	0.08	9	640	25	3.33	<2	8
223323		7.27	10	<1	0.14	<10	2.60	925	<1	0.18	15	900	37	7.61	<2	9
223324		5.81	10	<1	0.14	<10	2.00	642	<1	0.11	9	720	30	6.58	<2	7
223325		6.47	10	<1	0.10	<10	2.91	1030	<1	0.31	11	880	33	6.07	<2	11
223326		2.06	10	<1	0.04	10	0.88	434	<1	0.06	10	310	11	2.4	<2	3
223327		5.08	10	<1	0.17	10	2.75	953	<1	0.04	57	970	20	4.83	2	8
223328		7.47	10	<1	0.28	<10	2.04	567	<1	0.09	17	1280	35	8.18	<2	5
223329		11.60	10	<1	0.19	<10	2.45	657	<1	0.32	17	870	59	>10.0	<2	11
223330		10.30	10	2	0.24	<10	2.96	792	<1	0.23	15	890	28	>10.0	<2	9
223331		11.00	20	1	0.21	<10	2.91	852	<1	0.27	17	760	28	>10.0	<2	10
223332		7.15	10	<1	0.19	<10	2.99	1000	<1	0.31	18	920	38	6.74	<2	12
223333		6.15	10	<1	0.23	<10	3.37	1100	<1	0.55	14	900	31	5.03	<2	14
223334		6.92	10	<1	0.22	<10	2.97	1025	<1	0.44	14	900	26	5.99	<2	14
223335		7.29	10	<1	0.38	<10	3.14	1280	<1	0.36	14	870	25	4.84	<2	14

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KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 12-JUL-2006
Account: PIL

Project: 4012

CERTIFICATE OF ANALYSIS VA06057681

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
223296		24	0.13	10	<10	54	<10	358
223297		23	0.11	10	<10	54	<10	536
223298		95	0.17	<10	<10	111	<10	206
223299		264	0.28	<10	<10	166	<10	128
223300		251	0.20	<10	<10	160	<10	127
223301		383	0.24	<10	<10	167	<10	158
223302		174	0.24	<10	<10	91	<10	176
223303		192	0.25	<10	<10	107	<10	229
223304		325	0.27	<10	<10	101	<10	247
223305		283	0.22	<10	<10	93	<10	302
223306		188	0.26	<10	<10	163	<10	1160
223307		158	0.32	<10	<10	203	<10	275
223308		168	0.30	<10	<10	165	<10	270
223309		214	0.28	<10	<10	181	<10	515
223310		293	0.27	<10	<10	179	<10	278
223311		192	0.24	<10	<10	137	<10	216
223312		141	0.23	<10	<10	159	<10	258
223313		398	0.28	<10	<10	187	<10	270
223314		118	0.26	<10	<10	154	<10	399
223315		150	0.30	<10	<10	169	<10	279
223316		133	0.32	<10	<10	186	<10	287
223317		83	0.20	<10	<10	116	<10	173
223318		98	0.24	<10	<10	128	<10	156
223319		83	0.04	<10	<10	26	<10	37
223320		5	<0.01	<10	<10	1	<10	3
223321		144	0.16	<10	<10	162	<10	244
223322		84	0.16	<10	<10	136	<10	200
223323		95	0.20	<10	<10	162	<10	197
223324		89	0.14	<10	<10	117	<10	139
223325		119	0.17	<10	<10	186	<10	196
223326		117	0.06	<10	10	51	<10	65
223327		54	0.13	<10	<10	98	<10	190
223328		98	0.15	<10	<10	97	<10	148
223329		163	0.15	<10	<10	159	<10	283
223330		449	0.13	<10	<10	153	<10	181
223331		407	0.15	<10	<10	163	<10	213
223332		158	0.22	<10	<10	188	<10	689
223333		210	0.23	<10	<10	217	<10	231
223334		368	0.21	<10	<10	212	<10	179
223335		326	0.23	<10	<10	218	<10	223

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CERTIFICATE OF ANALYSIS VA06057681

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
223336		0.24	0.047	0.027	0.8	4.93	11	<10	50	<0.5	7	1.90	0.7	25	80	310
223337		0.22	0.054	0.020	0.6	4.37	8	<10	20	<0.5	5	3.11	0.7	26	81	222
223338		0.26	0.053	0.019	0.5	4.74	9	<10	40	<0.5	5	1.97	<0.5	18	93	197
223339		0.24	0.067	0.023	0.5	3.67	2	<10	50	<0.5	4	1.30	<0.5	18	132	233
223340		0.24	0.151	0.038	0.9	4.81	6	<10	30	<0.5	5	2.00	<0.5	21	100	400
223341		0.26	0.146	0.037	0.8	4.98	12	<10	50	<0.5	5	1.91	0.5	17	87	381
223342		0.24	0.120	0.037	0.9	6.20	11	<10	30	<0.5	6	2.83	<0.5	25	104	408
223343		0.22	0.079	0.041	0.8	5.98	3	<10	20	<0.5	5	3.24	0.5	22	71	451
223344		0.26	0.078	0.038	0.9	4.91	20	<10	10	<0.5	2	6.70	0.5	23	90	412
223345		0.26	0.122	0.042	0.9	6.11	15	<10	30	<0.5	5	2.53	<0.5	23	174	442
223346		0.24	0.084	0.039	0.8	5.37	13	<10	40	<0.5	6	2.99	0.7	16	95	402
223347		0.06	0.796	0.001	0.6	0.24	12	10	30	<0.5	3	0.17	<0.5	<1	4	11

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KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

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CERTIFICATE OF ANALYSIS VA06057681

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
223336		8.14	10	1	0.34	<10	3.28	1280	<1	0.26	19	1040	25	6.70	<2	10
223337		7.59	10	<1	0.27	<10	3.00	1355	<1	0.24	18	970	31	7.37	2	8
223338		7.03	10	<1	0.26	<10	2.80	1070	<1	0.31	23	960	27	6.34	<2	8
223339		6.52	10	<1	0.40	<10	2.57	787	<1	0.15	29	1220	19	5.90	<2	7
223340		8.39	10	1	0.40	<10	3.01	1045	1	0.29	20	1340	15	6.19	<2	13
223341		8.17	10	1	0.36	<10	3.04	1040	<1	0.26	22	1180	22	6.68	3	11
223342		7.29	10	1	0.24	<10	3.21	911	<1	0.41	31	680	31	6.90	<2	12
223343		7.47	10	3	0.26	<10	3.36	955	<1	0.10	23	660	26	6.71	<2	9
223344		6.81	10	2	0.23	<10	3.16	902	<1	0.09	24	640	28	6.42	4	9
223345		8.54	10	<1	0.31	<10	3.84	1205	<1	0.28	44	950	29	6.97	2	16
223346		8.49	10	<1	0.52	<10	3.20	1275	<1	0.27	19	1200	18	4.57	<2	19
223347		3.08	<10	<1	0.04	<10	0.05	33	<1	0.12	4	560	108	3.08	<2	1

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CERTIFICATE OF ANALYSIS VA06057681

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
223336		296	0.20	<10	<10	180	10	236
223337		110	0.23	<10	<10	171	10	250
223338		333	0.20	<10	<10	142	<10	202
223339		403	0.13	<10	<10	88	<10	170
223340		194	0.25	<10	<10	178	<10	221
223341		328	0.20	<10	<10	149	<10	212
223342		271	0.17	<10	<10	143	10	230
223343		182	0.22	<10	<10	121	<10	236
223344		99	0.14	<10	<10	117	<10	224
223345		222	0.21	<10	<10	187	10	276
223346		222	0.32	<10	<10	254	<10	249
223347		5	<0.01	<10	<10	1	<10	21

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North Vancouver BC V7J 2C1
Phone: 604 984 0221 Fax: 604 984 0218 www.alschemex.com

To: NORTHGATE MINERALS CORPORATION
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 22-JUL-2006
Account: PIL

CERTIFICATE VA06060521

Project: 4013
P.O. No.:
This report is for 78 Crushed Core samples submitted to our lab in Vancouver, BC, Canada on 30-JUN-2006.

The following have access to data associated with this certificate:

CARL EDMUNDS RON KONST	BRIAN KAY	B. KAY

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
PUL-31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au-AA23	Au 30g FA-AA finish	AAS
Cu-AA49	Assay Cu - HBr Digestion	AAS
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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North Vancouver BC V7J 2C1
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To: NORTHGATE MINERALS CORPORATION
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 22-JUL-2006
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Project: 4013

CERTIFICATE OF ANALYSIS VA06060521

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
223829		0.24	0.144	0.002	<0.2	2.10	2	<10	50	0.5	<2	2.20	<0.5	9	10	15
223830		0.30	<0.005	0.001	<0.2	2.32	8	<10	50	0.5	<2	2.57	<0.5	6	9	10
223831		0.28	0.005	0.002	<0.2	1.80	6	<10	60	0.5	<2	1.64	<0.5	11	11	27
223832		0.28	<0.005	0.001	<0.2	1.94	2	<10	50	<0.5	<2	1.74	<0.5	9	9	10
223833		0.26	<0.005	<0.001	<0.2	1.50	9	<10	60	<0.5	<2	1.56	<0.5	9	10	6
223834		0.26	<0.005	0.001	0.3	1.76	11	<10	60	<0.5	<2	1.75	<0.5	11	12	10
223835		0.26	<0.005	0.001	0.2	1.56	10	<10	60	<0.5	<2	1.48	<0.5	8	10	8
223836		0.26	<0.005	0.001	<0.2	1.58	8	<10	60	<0.5	<2	1.90	<0.5	7	9	8
223837		0.28	<0.005	0.002	<0.2	1.65	7	<10	70	<0.5	<2	1.76	<0.5	8	9	22
223838		0.26	<0.005	0.002	<0.2	1.76	10	<10	60	0.5	<2	2.23	<0.5	9	11	37
223839		0.26	<0.005	0.001	<0.2	1.54	10	<10	80	<0.5	<2	2.32	<0.5	8	11	19
223840		0.26	0.005	0.002	<0.2	1.60	7	<10	70	<0.5	<2	1.87	<0.5	8	10	16
223841		0.26	<0.005	0.002	<0.2	1.86	8	<10	60	0.5	<2	1.85	<0.5	9	9	23
223842		0.26	0.009	0.002	0.2	1.77	5	<10	50	0.5	<2	2.45	<0.5	8	7	17
223843		0.28	0.005	0.002	<0.2	1.83	<2	<10	50	<0.5	<2	2.36	<0.5	7	9	22
223844		0.26	0.005	0.002	<0.2	2.00	5	<10	50	0.5	<2	2.26	<0.5	8	9	18
223845		0.24	0.005	0.002	<0.2	1.56	7	<10	50	<0.5	<2	2.01	<0.5	9	9	16
223846		0.28	<0.005	0.002	<0.2	1.94	7	<10	50	<0.5	<2	2.11	<0.5	7	8	19
223847		0.28	0.008	0.002	<0.2	1.79	8	<10	40	<0.5	<2	2.04	<0.5	8	11	15
223848		0.26	0.007	0.001	<0.2	1.55	8	<10	40	<0.5	<2	1.57	<0.5	9	12	12
223849		0.28	0.007	0.001	<0.2	1.86	6	<10	50	<0.5	<2	1.92	<0.5	8	11	11
223850		0.24	0.007	0.002	<0.2	2.07	6	<10	50	<0.5	<2	2.17	<0.5	8	10	19
223851		0.28	0.007	0.004	<0.2	1.60	8	<10	40	<0.5	<2	1.79	<0.5	7	10	33
223852		0.26	<0.005	0.001	<0.2	1.89	4	<10	60	<0.5	<2	2.18	<0.5	7	8	9
223853		0.24	0.005	0.001	<0.2	1.46	5	<10	60	<0.5	<2	1.33	<0.5	6	11	12
223854		0.26	0.015	0.005	<0.2	3.02	5	<10	100	0.5	<2	2.90	1.4	13	11	45
223855		0.26	0.006	0.003	<0.2	1.82	8	<10	50	0.5	<2	2.50	<0.5	8	9	21
223856		0.26	0.005	0.002	<0.2	1.98	7	<10	50	0.5	<2	2.36	<0.5	8	11	18
223857		0.26	<0.005	0.001	<0.2	1.72	4	<10	50	<0.5	<2	1.78	<0.5	8	11	9
223858		0.26	0.005	0.002	<0.2	1.74	9	<10	50	<0.5	<2	1.54	<0.5	8	15	18
223859		0.28	0.014	0.003	<0.2	1.48	9	<10	60	<0.5	<2	1.46	<0.5	8	10	26
223860		0.26	0.007	0.001	<0.2	1.43	6	<10	40	<0.5	<2	1.46	<0.5	7	11	12
223861		0.26	<0.005	0.002	<0.2	1.50	11	10	50	<0.5	<2	1.59	<0.5	7	9	20
223862		0.26	0.005	0.002	<0.2	1.70	12	10	40	<0.5	<2	1.69	<0.5	9	10	20
223863		0.26	<0.005	0.002	<0.2	1.70	11	10	40	<0.5	<2	2.03	<0.5	8	8	20
223864		0.26	0.007	0.002	0.2	1.74	11	10	40	<0.5	<2	2.02	<0.5	8	8	22
223865		0.24	0.010	0.002	<0.2	1.63	16	10	50	<0.5	<2	1.60	<0.5	8	10	23
223866		0.26	<0.005	<0.001	<0.2	1.74	10	<10	40	<0.5	<2	2.23	<0.5	8	10	7
223867		0.26	0.005	0.004	<0.2	1.96	12	10	30	0.5	<2	2.00	<0.5	8	11	41
223868		0.24	0.005	0.002	<0.2	1.84	20	10	40	0.5	<2	1.37	<0.5	9	10	26

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ALS Canada Ltd.
212 Brooksbank Avenue
North Vancouver BC V7J 2C1
Phone: 604 984 0221 Fax: 604 984 0218 www.alschemex.com

To: NORTHGATE MINERALS CORPORATION
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 22-JUL-2006
Account: PIL

Project: 4013

CERTIFICATE OF ANALYSIS VA06060521

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
223829		3.21	10	1	0.14	10	1.12	745	2	0.05	2	910	7	0.04	2	4
223830		3.06	10	1	0.14	10	1.06	781	1	0.07	4	870	4	0.01	<2	5
223831		3.31	10	<1	0.12	10	1.06	625	2	0.08	3	910	6	0.24	2	4
223832		3.27	10	<1	0.17	10	1.10	752	<1	0.07	6	930	5	0.02	2	6
223833		3.29	10	<1	0.12	10	1.08	726	1	0.08	1	910	3	0.08	<2	5
223834		3.50	10	<1	0.11	<10	1.26	773	<1	0.07	4	910	2	0.36	<2	5
223835		3.38	10	1	0.15	<10	1.19	817	1	0.07	4	900	<2	0.26	<2	6
223836		3.19	10	1	0.15	<10	1.03	757	2	0.06	4	860	5	0.11	<2	6
223837		3.12	10	1	0.14	10	1.08	784	2	0.07	3	900	<2	0.02	<2	6
223838		3.27	10	<1	0.13	10	1.09	771	1	0.07	4	950	21	0.02	<2	6
223839		3.25	10	<1	0.15	10	1.04	729	<1	0.08	4	940	9	0.01	<2	6
223840		3.19	10	1	0.14	10	1.06	720	2	0.08	4	910	4	0.02	2	5
223841		3.20	10	<1	0.12	10	1.10	740	1	0.07	3	920	2	0.04	<2	6
223842		2.97	10	1	0.22	10	0.96	680	1	0.05	5	940	2	0.03	2	5
223843		3.25	10	<1	0.21	10	1.04	754	1	0.07	4	980	<2	0.04	<2	6
223844		3.38	10	<1	0.12	10	1.19	790	1	0.07	4	990	<2	0.04	<2	8
223845		3.33	10	1	0.12	10	1.13	737	1	0.06	3	940	<2	0.14	2	7
223846		3.37	10	<1	0.11	10	1.12	781	1	0.07	4	980	3	0.06	<2	7
223847		3.40	10	<1	0.13	10	1.14	726	1	0.07	4	970	2	0.20	<2	7
223848		3.41	10	<1	0.11	10	1.11	672	1	0.08	3	980	3	0.24	<2	6
223849		3.26	10	<1	0.11	10	1.03	612	1	0.08	4	980	2	0.18	2	5
223850		3.27	10	<1	0.18	10	0.95	678	1	0.09	4	980	2	0.08	<2	6
223851		3.20	10	<1	0.20	10	0.92	623	1	0.08	3	940	3	0.02	2	5
223852		3.18	10	<1	0.14	10	1.08	815	1	0.07	2	940	3	0.01	2	6
223853		3.36	<10	<1	0.12	10	0.97	608	1	0.09	3	990	<2	0.02	<2	5
223854		3.48	10	<1	0.17	<10	0.85	613	1	0.06	7	880	19	1.06	<2	4
223855		3.06	10	<1	0.10	10	0.91	602	1	0.08	3	920	2	0.04	<2	5
223856		3.34	10	<1	0.13	10	1.05	662	1	0.08	3	960	2	0.02	<2	6
223857		3.24	10	<1	0.10	10	1.01	591	1	0.09	5	950	2	0.01	<2	5
223858		3.31	10	<1	0.10	10	1.09	606	1	0.09	4	1010	3	0.04	2	4
223859		3.15	10	<1	0.11	10	0.94	581	1	0.09	4	960	<2	0.03	<2	3
223860		3.08	10	<1	0.09	10	1.04	543	1	0.07	4	960	2	0.01	<2	4
223861		2.91	10	<1	0.14	10	0.94	578	1	0.08	4	900	<2	0.02	<2	4
223862		2.96	10	<1	0.18	10	1.08	683	1	0.06	4	960	2	0.06	<2	4
223863		3.15	10	<1	0.30	10	0.97	608	2	0.06	2	970	3	0.02	<2	5
223864		3.09	10	<1	0.20	10	1.07	697	2	0.08	3	990	<2	0.03	<2	5
223865		3.18	10	<1	0.20	10	1.09	658	2	0.08	3	1010	2	0.05	<2	5
223866		3.44	10	1	0.14	10	1.27	724	1	0.06	3	1030	3	0.01	2	7
223867		2.92	10	<1	0.12	10	1.17	692	1	0.05	6	960	5	0.04	<2	5
223868		3.08	10	1	0.19	10	1.06	546	1	0.05	3	950	5	0.05	<2	5

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North Vancouver BC V7J 2C1
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KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 22-JUL-2006
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Project: 4013

CERTIFICATE OF ANALYSIS VA06060521

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
223829		133	0.18	<10	<10	77	<10	56
223830		162	0.17	10	<10	76	<10	55
223831		103	0.19	<10	<10	91	<10	44
223832		102	0.18	10	<10	78	<10	56
223833		88	0.17	<10	<10	85	<10	51
223834		102	0.16	<10	<10	87	<10	55
223835		77	0.16	<10	<10	78	<10	53
223836		84	0.18	<10	<10	83	<10	59
223837		95	0.19	<10	<10	78	<10	60
223838		97	0.20	<10	<10	84	<10	83
223839		85	0.18	10	<10	84	<10	70
223840		92	0.18	<10	<10	79	<10	54
223841		96	0.19	<10	<10	81	<10	55
223842		119	0.12	<10	<10	69	<10	55
223843		122	0.14	<10	<10	83	<10	55
223844		119	0.18	<10	<10	87	<10	57
223845		103	0.17	<10	<10	89	<10	55
223846		142	0.18	<10	<10	88	<10	60
223847		112	0.17	<10	<10	86	<10	55
223848		106	0.17	<10	<10	92	<10	52
223849		138	0.16	<10	<10	89	<10	47
223850		187	0.16	<10	<10	82	<10	55
223851		98	0.13	<10	<10	82	<10	48
223852		143	0.14	<10	<10	80	<10	53
223853		83	0.16	<10	<10	85	<10	39
223854		135	0.13	<10	<10	79	<10	113
223855		120	0.16	<10	<10	83	<10	44
223856		125	0.16	<10	<10	86	<10	42
223857		119	0.16	<10	<10	89	<10	42
223858		110	0.17	<10	<10	91	<10	43
223859		101	0.18	<10	<10	85	<10	40
223860		82	0.17	<10	<10	84	<10	41
223861		98	0.16	<10	<10	75	<10	42
223862		113	0.16	<10	<10	67	<10	50
223863		105	0.10	<10	<10	66	<10	44
223864		119	0.18	<10	<10	73	<10	50
223865		121	0.18	<10	<10	75	<10	45
223866		129	0.16	<10	<10	87	<10	44
223867		118	0.17	<10	<10	65	<10	49
223868		124	0.17	<10	<10	70	<10	42

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CERTIFICATE OF ANALYSIS VA06060521

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
223869		0.26	<0.005	0.001	<0.2	1.64	14	<10	50	<0.5	<2	1.62	<0.5	8	13	10
223870		0.26	0.005	0.002	<0.2	1.90	19	10	40	0.7	<2	1.96	<0.5	8	9	25
223871		0.26	0.006	0.005	<0.2	2.35	16	10	30	0.7	<2	2.29	<0.5	8	12	32
223872		0.26	<0.005	0.004	<0.2	1.94	11	<10	50	0.5	<2	1.77	<0.5	7	10	43
223873		0.26	<0.005	0.002	<0.2	1.86	20	10	50	0.5	<2	1.62	<0.5	9	11	23
223874		0.26	0.007	0.003	<0.2	1.82	20	10	40	0.5	<2	1.59	<0.5	8	11	30
223875		0.24	0.005	0.003	<0.2	1.54	24	10	50	<0.5	<2	1.31	<0.5	8	11	28
223876		0.28	<0.005	0.004	<0.2	1.87	18	<10	40	0.5	<2	1.83	<0.5	11	12	39
223877		0.26	0.005	0.004	<0.2	2.10	25	<10	40	0.6	<2	1.94	<0.5	8	11	44
223878		0.26	0.005	0.002	<0.2	1.88	26	10	30	0.5	<2	1.41	<0.5	8	9	18
223879		0.24	0.011	0.002	<0.2	1.74	15	10	40	<0.5	<2	1.42	<0.5	11	10	22
223880		0.26	0.041	0.005	<0.2	2.18	8	<10	290	<0.5	<2	1.95	<0.5	13	16	49
223881		0.22	0.005	0.003	0.2	1.83	20	10	40	0.5	<2	1.81	<0.5	10	10	34
223882		0.22	<0.005	0.002	<0.2	1.78	17	10	40	0.5	<2	1.46	<0.5	9	10	17
223883		0.24	0.006	0.002	<0.2	1.73	17	10	40	0.5	<2	1.40	<0.5	8	10	20
223884		0.26	0.009	0.005	<0.2	2.00	13	<10	40	0.5	<2	1.95	<0.5	12	11	48
223885		0.24	<0.005	0.002	<0.2	2.00	19	<10	50	0.6	<2	2.02	<0.5	8	10	21
223886		0.26	0.006	0.002	<0.2	1.78	16	<10	40	0.5	<2	1.82	<0.5	7	11	22
223887		0.24	0.005	0.001	0.7	2.46	19	<10	40	0.6	<2	2.79	<0.5	11	9	18
223888		0.24	<0.005	0.001	<0.2	1.52	16	<10	60	<0.5	<2	1.52	<0.5	9	11	4
223889		0.28	<0.005	0.001	<0.2	2.45	18	<10	40	0.6	<2	2.48	<0.5	8	10	11
223890		0.26	0.006	0.009	<0.2	1.56	17	<10	50	<0.5	<2	1.60	<0.5	8	10	13
223891		0.14	0.006	0.001	0.3	1.60	17	<10	40	<0.5	<2	1.45	<0.5	11	9	11
223892		0.18	0.006	0.001	<0.2	1.65	23	<10	40	<0.5	<2	2.32	<0.5	8	9	9
223893		0.20	0.005	0.002	<0.2	1.93	18	<10	50	0.5	<2	2.06	<0.5	11	11	17
223894		0.18	0.007	0.003	<0.2	2.25	18	<10	40	0.5	<2	2.32	<0.5	7	12	29
223895		0.26	0.008	0.001	0.2	2.17	14	<10	40	0.7	<2	2.28	<0.5	15	10	6
223896		0.28	0.022	0.012	0.2	2.48	16	<10	50	0.5	<2	2.13	<0.5	19	9	128
223897		0.26	0.022	0.006	<0.2	1.86	17	<10	50	<0.5	<2	1.46	<0.5	19	11	61
223898		0.26	0.006	0.002	<0.2	1.67	16	<10	40	<0.5	<2	1.59	<0.5	9	11	24
223899		0.26	<0.005	0.001	<0.2	1.66	15	<10	60	<0.5	<2	1.32	<0.5	8	10	17
223900		0.28	<0.005	0.002	2.8	1.96	10	<10	40	0.5	<2	2.27	<0.5	7	10	18
223901		0.28	<0.005	0.003	0.5	1.50	9	<10	40	<0.5	<2	1.23	<0.5	9	11	28
223902		0.28	0.005	0.002	<0.2	1.72	14	<10	50	<0.5	<2	1.83	<0.5	10	12	17
223903		0.26	0.006	0.001	<0.2	1.80	10	<10	40	0.5	<2	1.76	<0.5	8	10	16
223904		0.26	0.006	0.003	<0.2	1.59	12	10	30	<0.5	<2	1.16	<0.5	9	12	35
223905		0.26	0.006	0.001	<0.2	1.72	11	<10	40	<0.5	<2	1.44	<0.5	10	9	10
223906		0.06	0.619	0.001	0.6	0.46	8	10	40	<0.5	2	0.20	<0.5	2	5	11

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Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
223869		3.35	10	<1	0.11	10	1.19	557	1	0.07	4	950	<2	0.01	<2	6
223870		3.20	10	<1	0.09	10	1.06	567	1	0.07	4	980	<2	0.04	<2	5
223871		3.12	10	<1	0.09	10	1.13	480	4	0.06	3	920	<2	0.02	2	5
223872		3.21	10	<1	0.11	10	0.99	458	1	0.08	4	980	<2	0.03	<2	4
223873		3.12	10	<1	0.09	10	1.12	621	1	0.08	3	1010	3	0.08	2	4
223874		3.04	10	<1	0.08	10	1.04	522	2	0.06	4	970	2	0.07	<2	3
223875		3.15	10	<1	0.13	10	0.99	466	2	0.08	4	1010	<2	0.06	<2	3
223876		3.43	10	<1	0.10	10	1.26	499	3	0.07	4	1000	<2	0.06	2	5
223877		2.97	10	<1	0.08	10	1.10	591	2	0.07	4	960	<2	0.08	<2	4
223878		2.77	10	<1	0.08	10	1.20	633	1	0.05	4	930	<2	0.07	2	4
223879		2.94	10	1	0.07	10	1.29	655	1	0.06	5	960	<2	0.12	2	4
223880		4.24	10	<1	0.13	<10	1.22	771	1	0.12	10	1370	2	0.60	<2	4
223881		3.02	10	<1	0.09	10	1.19	672	1	0.06	4	970	<2	0.07	<2	4
223882		2.91	10	1	0.07	10	1.22	637	1	0.06	3	980	<2	0.06	2	4
223883		3.04	10	1	0.09	10	1.23	605	2	0.06	5	980	<2	0.04	<2	5
223884		3.24	10	<1	0.09	10	1.16	490	1	0.07	4	990	<2	0.15	<2	5
223885		3.10	10	<1	0.09	10	1.07	534	1	0.07	2	960	<2	0.05	3	5
223886		2.96	10	1	0.07	10	1.06	525	2	0.06	5	970	<2	0.06	<2	5
223887		2.94	10	<1	0.09	10	1.05	475	1	0.07	4	960	2	0.14	<2	5
223888		3.09	10	<1	0.10	10	0.98	477	2	0.07	2	950	<2	0.05	<2	4
223889		2.93	10	<1	0.07	10	0.87	418	1	0.07	4	930	<2	0.06	2	4
223890		3.07	10	<1	0.09	10	1.05	487	1	0.06	4	940	2	0.10	<2	5
223891		3.00	10	<1	0.08	10	1.14	498	1	0.06	3	960	3	0.22	2	4
223892		3.10	10	<1	0.19	10	0.96	469	1	0.06	3	960	2	0.10	2	5
223893		3.21	10	<1	0.12	10	1.01	490	1	0.08	5	960	<2	0.16	<2	5
223894		3.40	10	<1	0.11	10	1.10	509	1	0.08	4	990	<2	0.08	<2	5
223895		3.08	10	<1	0.08	10	1.12	412	1	0.06	5	940	<2	0.34	<2	4
223896		3.45	10	<1	0.10	10	1.19	514	2	0.07	4	990	<2	0.73	<2	4
223897		3.52	10	<1	0.11	10	1.18	519	2	0.08	4	970	<2	0.71	<2	4
223898		3.31	10	<1	0.09	10	0.94	548	1	0.08	4	1020	4	0.21	<2	4
223899		3.24	10	<1	0.10	10	0.92	536	1	0.10	2	1000	2	0.09	<2	3
223900		3.29	10	<1	0.11	10	1.04	587	2	0.07	3	990	4	0.06	<2	5
223901		3.14	10	<1	0.08	10	1.05	496	1	0.06	3	1010	2	0.13	<2	4
223902		3.27	10	<1	0.10	10	1.03	543	1	0.08	3	1000	2	0.15	<2	4
223903		3.01	10	<1	0.10	10	1.15	636	1	0.06	3	1030	3	0.04	3	4
223904		3.04	10	<1	0.07	10	1.30	674	1	0.05	5	1020	<2	0.23	<2	4
223905		3.10	10	<1	0.11	10	1.24	653	1	0.06	4	990	<2	0.29	<2	5
223906		3.03	<10	<1	0.09	<10	0.06	54	1	0.26	4	570	97	2.77	2	1

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ALS Canada Ltd.
212 Brooksbank Avenue
North Vancouver BC V7J 2C1
Phone: 604 984 0221 Fax: 604 984 0218 www.alschemex.com

To: NORTHGATE MINERALS CORPORATION
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 22-JUL-2006
Account: PIL

Project: 4013

CERTIFICATE OF ANALYSIS VA06060521

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
223869		106	0.17	<10	<10	90	<10	34
223870		95	0.18	<10	<10	80	<10	38
223871		141	0.17	<10	<10	83	<10	33
223872		118	0.16	<10	<10	84	<10	29
223873		111	0.19	<10	<10	76	<10	43
223874		92	0.17	<10	<10	72	<10	38
223875		80	0.18	<10	<10	79	<10	33
223876		119	0.18	<10	<10	86	<10	29
223877		115	0.18	<10	<10	72	<10	38
223878		108	0.18	<10	<10	62	<10	41
223879		98	0.18	<10	<10	64	<10	42
223880		117	0.16	<10	<10	125	<10	80
223881		97	0.17	<10	<10	67	<10	41
223882		98	0.18	<10	<10	64	<10	40
223883		97	0.18	<10	<10	69	<10	41
223884		117	0.17	<10	<10	80	<10	30
223885		114	0.17	<10	<10	79	<10	39
223886		110	0.15	<10	<10	73	<10	41
223887		159	0.18	<10	<10	81	<10	37
223888		117	0.17	<10	<10	90	<10	31
223889		143	0.14	<10	<10	76	<10	30
223890		101	0.17	<10	<10	78	<10	38
223891		103	0.17	<10	<10	70	<10	37
223892		100	0.13	<10	<10	67	<10	41
223893		132	0.16	<10	<10	81	<10	32
223894		147	0.16	<10	<10	86	<10	39
223895		137	0.17	<10	<10	89	<10	31
223896		164	0.16	<10	<10	85	<10	37
223897		98	0.17	<10	<10	87	<10	40
223898		94	0.16	<10	<10	85	<10	44
223899		134	0.16	<10	<10	84	<10	41
223900		123	0.17	<10	<10	86	<10	44
223901		83	0.16	<10	<10	80	<10	40
223902		123	0.18	<10	<10	84	<10	43
223903		135	0.19	<10	<10	73	<10	53
223904		97	0.18	<10	<10	66	<10	48
223905		106	0.18	<10	<10	71	<10	42
223906		8	0.01	<10	<10	2	<10	22

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KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 21-JUL-2006
Account: PIL

CERTIFICATE VA06060522

Project: 4013
P.O. No.:
This report is for 78 Crushed Core samples submitted to our lab in Vancouver, BC, Canada on 30-JUN-2006.
The following have access to data associated with this certificate:

CARL EDMUNDS RON KONST	BRIAN KAY	B. KAY

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
PUL-31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au-AA23	Au 30g FA-AA finish	AAS
Cu-AA49	Assay Cu - HBr Digestion	AAS
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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Finalized Date: 21-JUL-2006
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Project: 4013

CERTIFICATE OF ANALYSIS VA06060522

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
223437		0.28	0.013	0.012	1.4	3.67	73	<10	20	<0.5	2	0.64	1.4	32	182	121
223438		0.26	0.014	0.010	0.7	3.86	66	<10	20	<0.5	<2	0.49	<0.5	38	178	103
223439		0.28	0.020	0.009	1.3	3.53	90	<10	20	<0.5	<2	0.47	<0.5	40	163	93
223440		0.28	0.022	0.006	0.6	4.01	89	<10	10	0.5	<2	0.77	0.6	35	190	66
223441		0.26	0.013	0.017	1.9	3.32	62	<10	10	<0.5	<2	3.30	4.9	31	124	174
223442		0.28	0.011	0.035	2.0	3.17	54	<10	40	<0.5	<2	3.75	<0.5	33	107	360
223443		0.26	0.035	0.051	0.7	3.22	49	<10	30	<0.5	<2	3.39	<0.5	29	59	532
223444		0.26	0.019	0.023	0.9	2.66	58	<10	40	<0.5	<2	2.85	2.3	26	32	241
223445		0.26	0.015	0.018	1.7	3.36	92	<10	30	<0.5	3	3.70	1.0	32	54	181
223446		0.26	0.036	0.027	2.5	2.28	5	<10	40	<0.5	<2	2.04	4.5	20	21	288
223447		0.28	0.016	0.044	4.3	2.27	8	<10	20	<0.5	<2	2.04	22.2	23	22	466
223448		0.28	0.020	0.035	3.1	2.69	15	<10	20	<0.5	5	1.62	30.4	24	21	370
223449		0.28	0.027	0.047	1.5	4.22	22	<10	50	0.5	<2	3.37	3.5	14	28	486
223450		0.28	0.006	0.017	1.3	2.98	3	<10	10	<0.5	2	2.17	2.0	20	22	174
223451		0.28	<0.005	0.018	1.1	2.24	8	<10	10	<0.5	2	2.39	5.6	19	20	186
223452		0.24	0.009	0.026	1.9	1.74	7	<10	10	<0.5	3	2.32	3.5	19	20	276
223453		0.26	0.009	0.022	0.9	2.49	6	<10	10	<0.5	2	1.80	<0.5	25	24	230
223454		0.28	0.017	0.014	0.8	3.58	8	<10	10	<0.5	<2	3.13	<0.5	22	23	145
223455		0.26	0.010	0.009	0.7	2.84	7	<10	20	<0.5	2	2.20	<0.5	20	23	96
223456		0.24	0.006	0.025	0.7	2.78	14	<10	20	<0.5	<2	2.03	2.9	27	51	258
223457		0.26	0.014	0.061	1.3	2.53	11	<10	30	<0.5	3	1.26	<0.5	25	14	612
223458		0.24	0.012	0.050	1.2	2.82	9	<10	50	<0.5	3	1.95	<0.5	25	14	523
223459		0.24	0.018	0.053	1.5	2.40	2	<10	30	<0.5	3	2.05	0.6	24	31	542
223460		0.26	0.031	0.015	0.7	3.37	2	<10	10	<0.5	4	2.77	5.5	20	34	142
223461		0.24	0.029	0.025	1.4	2.81	2	<10	20	<0.5	5	1.90	14.0	19	13	259
223462		0.06	0.744	0.003	0.7	0.47	6	<10	30	<0.5	3	0.25	<0.5	2	5	27
223463		0.28	0.036	0.024	1.7	3.28	5	<10	30	<0.5	6	1.98	3.0	25	13	242
223464		0.26	0.037	0.048	1.6	3.48	13	<10	30	<0.5	4	2.92	4.6	27	20	520
223465		0.28	0.040	0.046	2.5	3.43	12	<10	40	<0.5	7	2.18	19.4	24	26	474
223466		0.24	0.040	0.040	1.8	3.58	11	<10	40	<0.5	4	1.92	9.8	28	42	406
223467		0.24	0.036	0.031	1.6	3.87	6	<10	30	<0.5	5	2.48	4.2	21	42	331
223468		0.28	0.042	0.035	1.0	3.84	11	<10	30	<0.5	3	2.40	2.8	25	42	359
223469		0.26	0.054	0.042	1.1	4.71	14	<10	40	<0.5	4	3.17	4.6	21	35	424
223470		0.24	0.033	0.027	0.7	3.54	2	<10	20	<0.5	3	2.46	4.0	23	57	280
223471		0.24	0.021	0.033	0.7	3.11	<2	<10	20	<0.5	3	2.41	<0.5	28	60	339
223472		0.26	0.021	0.011	0.4	2.94	<2	<10	20	<0.5	2	2.05	<0.5	29	57	104
223473		0.26	0.031	0.018	0.7	3.63	<2	<10	40	<0.5	4	1.98	<0.5	30	55	188
223474		0.26	0.033	0.030	0.9	3.30	3	<10	10	<0.5	3	3.44	<0.5	19	26	317
223475		0.26	0.027	0.019	0.5	3.48	2	<10	<10	<0.5	2	2.90	<0.5	18	27	195
223476		0.26	0.026	0.021	0.5	3.35	3	<10	10	<0.5	2	3.82	<0.5	13	27	208

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To: NORTHGATE MINERALS CORPORATION
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 21-JUL-2006
Account: PIL

Project: 4013

CERTIFICATE OF ANALYSIS VA06060522

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
223437		6.47	10	<1	0.15	<10	5.05	3750	<1	0.01	91	1000	51	6.48	3	8
223438		7.56	10	<1	0.12	<10	5.56	3410	1	0.01	91	960	15	7.61	3	7
223439		9.10	10	<1	0.15	<10	4.95	3010	2	0.01	102	1150	58	9.65	4	8
223440		8.69	10	<1	0.11	<10	5.92	3300	1	0.01	94	1000	19	9.16	4	8
223441		6.46	10	2	0.12	<10	4.64	2960	<1	0.01	69	940	113	7.05	4	7
223442		6.56	10	1	0.15	<10	3.98	2270	3	0.02	52	1090	18	6.54	3	8
223443		6.44	10	<1	0.13	<10	3.44	1620	6	0.04	34	1120	17	5.99	4	11
223444		6.16	10	<1	0.19	<10	3.01	2190	<1	0.02	27	1250	34	6.66	2	4
223445		6.79	10	1	0.12	<10	3.24	3070	<1	0.03	28	1200	102	6.91	2	7
223446		4.44	10	<1	0.06	<10	2.08	1345	<1	0.04	21	1490	21	3.87	2	3
223447		4.66	10	<1	0.07	<10	2.13	1420	<1	0.03	22	2050	265	4.52	4	3
223448		5.86	10	<1	0.14	<10	2.31	1355	<1	0.03	22	1580	726	6.10	<2	4
223449		4.17	10	<1	0.08	<10	1.88	1265	15	0.04	14	1030	146	3.20	4	5
223450		5.23	10	<1	0.06	<10	2.30	1330	<1	0.04	20	1470	164	5.42	<2	4
223451		5.36	10	<1	0.08	<10	1.65	1065	<1	0.06	19	1680	70	5.76	4	4
223452		4.57	<10	<1	0.09	<10	1.36	914	<1	0.04	20	1560	67	4.93	3	4
223453		4.97	10	<1	0.05	<10	2.44	1405	<1	0.06	20	1650	10	4.59	5	4
223454		4.49	10	<1	0.05	<10	2.41	1270	<1	0.04	20	1580	22	4.35	<2	4
223455		3.97	10	<1	0.07	<10	2.28	1270	<1	0.09	20	1520	42	3.60	4	5
223456		4.92	10	1	0.05	<10	2.51	1610	<1	0.08	30	1210	12	3.35	4	4
223457		5.45	10	1	0.11	<10	2.02	891	<1	0.15	15	1900	22	5.63	3	6
223458		5.47	10	<1	0.13	<10	2.11	1060	<1	0.15	13	2000	15	5.90	3	5
223459		5.58	10	<1	0.13	<10	1.95	1250	<1	0.05	24	1490	25	5.15	2	5
223460		5.06	10	<1	0.05	<10	2.24	1475	<1	0.05	24	1390	23	3.49	4	5
223461		5.56	10	<1	0.12	<10	1.89	949	<1	0.06	23	1740	76	6.03	<2	4
223462		3.00	<10	<1	0.09	<10	0.11	85	1	0.23	3	550	101	2.79	<2	1
223463		6.97	10	1	0.10	<10	2.02	749	<1	0.06	24	1720	102	7.83	3	5
223464		6.72	10	1	0.10	<10	2.39	1255	<1	0.06	26	1720	80	7.45	4	5
223465		6.77	10	<1	0.14	<10	2.16	982	<1	0.13	24	1850	238	7.71	3	5
223466		6.42	10	<1	0.10	<10	2.32	1160	<1	0.13	28	1650	136	6.89	3	5
223467		6.93	10	1	0.13	<10	2.23	1115	<1	0.14	27	1910	131	7.73	3	6
223468		6.32	10	<1	0.10	<10	2.14	944	<1	0.13	27	1610	40	6.84	4	5
223469		6.26	10	1	0.09	<10	1.71	742	<1	0.08	27	1470	30	7.06	3	5
223470		5.95	10	1	0.06	<10	2.34	1335	<1	0.08	30	1080	17	3.21	<2	6
223471		5.49	10	2	0.06	<10	2.34	1435	<1	0.07	30	1120	15	2.00	4	7
223472		5.78	10	<1	0.06	<10	2.20	1180	<1	0.10	29	1110	20	3.10	2	4
223473		6.21	10	1	0.07	<10	2.53	1230	<1	0.11	31	1120	23	3.55	3	6
223474		5.08	10	<1	0.09	<10	2.04	841	<1	0.07	16	1520	17	3.79	3	8
223475		5.22	10	<1	0.04	<10	2.11	694	<1	0.04	16	1610	17	4.09	2	7
223476		4.84	10	1	0.07	<10	2.00	995	<1	0.06	15	1350	10	1.82	4	7

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KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 21-JUL-2006
Account: PIL

Project: 4013

CERTIFICATE OF ANALYSIS VA06060522

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
223437		23	0.07	<10	<10	152	<10	267
223438		13	0.05	<10	<10	150	<10	170
223439		16	0.07	<10	<10	140	<10	188
223440		16	0.07	<10	<10	160	<10	215
223441		30	0.12	<10	<10	118	<10	241
223442		51	0.21	<10	<10	135	<10	122
223443		108	0.21	<10	<10	157	<10	116
223444		54	0.18	<10	<10	101	<10	215
223445		91	0.22	<10	<10	143	<10	262
223446		73	0.28	<10	<10	98	<10	473
223447		68	0.26	<10	<10	102	<10	1610
223448		72	0.30	<10	<10	165	<10	1645
223449		156	0.17	<10	<10	104	<10	318
223450		87	0.25	<10	<10	131	<10	227
223451		69	0.26	<10	<10	121	<10	313
223452		57	0.29	<10	<10	110	<10	229
223453		71	0.28	<10	<10	141	<10	143
223454		125	0.28	<10	<10	131	<10	138
223455		180	0.33	<10	<10	154	<10	150
223456		172	0.34	<10	<10	144	<10	388
223457		106	0.20	<10	<10	144	<10	133
223458		277	0.18	<10	<10	145	<10	155
223459		96	0.24	<10	<10	134	<10	174
223460		101	0.20	<10	<10	144	<10	632
223461		92	0.13	<10	<10	85	<10	1355
223462		9	0.01	<10	<10	7	<10	27
223463		88	0.12	<10	<10	121	<10	311
223464		132	0.16	<10	<10	128	<10	434
223465		222	0.10	<10	<10	112	<10	1485
223466		251	0.10	<10	<10	111	<10	860
223467		214	0.11	<10	<10	120	<10	434
223468		163	0.12	<10	<10	124	<10	315
223469		198	0.11	<10	<10	116	<10	448
223470		140	0.24	<10	<10	215	<10	359
223471		104	0.27	<10	<10	216	<10	183
223472		186	0.25	<10	<10	199	<10	198
223473		310	0.27	<10	<10	215	<10	196
223474		121	0.26	<10	<10	176	<10	132
223475		78	0.21	<10	<10	178	<10	131
223476		87	0.29	<10	<10	196	<10	134

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Project: 4013

CERTIFICATE OF ANALYSIS VA06060522

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
223477		0.26	0.027	0.020	0.5	3.35	2	<10	10	<0.5	2	3.31	<0.5	12	27	200
223478		0.28	0.041	0.034	1.0	2.94	<2	<10	10	<0.5	2	2.73	2.3	17	24	350
223479		0.26	0.034	0.032	0.9	3.50	4	<10	10	<0.5	2	2.72	2.3	13	25	326
223480		0.28	0.049	0.037	1.2	3.43	<2	<10	10	<0.5	2	2.13	9.1	21	27	383
223481		0.28	0.038	0.020	0.6	2.75	3	<10	10	<0.5	2	1.84	<0.5	19	24	204
223482		0.28	0.022	0.020	0.5	3.17	<2	<10	10	<0.5	<2	2.21	<0.5	11	22	192
223483		0.28	0.035	0.030	0.7	3.01	2	<10	20	<0.5	3	1.98	<0.5	23	20	301
223484		0.26	0.026	0.029	1.0	2.90	<2	<10	10	<0.5	4	2.22	2.4	20	21	306
223485		0.26	0.031	0.026	1.0	4.81	5	<10	<10	0.5	2	4.14	0.5	24	21	273
223486		0.26	0.042	0.020	1.4	5.75	5	<10	<10	<0.5	4	4.62	<0.5	48	15	200
223487		0.28	0.028	0.039	0.9	3.68	5	<10	10	<0.5	2	2.78	2.0	15	20	395
223488		0.22	0.028	0.039	0.9	3.68	4	<10	10	<0.5	3	2.84	1.7	14	20	393
223489		0.26	0.027	0.035	1.0	3.71	4	<10	10	<0.5	3	2.87	1.5	15	21	363
223490		0.24	0.029	0.042	0.9	3.25	<2	<10	30	<0.5	<2	1.84	3.5	24	23	430
223491		0.26	0.044	0.048	0.9	3.81	<2	<10	10	<0.5	2	3.02	<0.5	25	22	499
223492		0.26	0.035	0.041	0.9	3.36	4	<10	10	<0.5	2	2.34	<0.5	21	24	430
223493		0.24	0.043	0.077	0.7	5.03	2	<10	10	0.5	2	3.16	<0.5	27	54	795
223494		0.24	0.050	0.082	0.9	3.83	<2	<10	10	0.6	<2	2.52	<0.5	21	50	836
223495		0.26	0.080	0.128	1.0	2.99	<2	<10	20	0.5	<2	1.72	<0.5	22	41	1270
223496		0.26	0.101	0.149	1.0	3.55	10	<10	10	0.6	<2	2.23	0.5	24	52	1665
223497		0.26	0.091	0.147	1.3	4.10	5	<10	10	0.5	<2	2.47	0.6	27	59	1695
223498		0.28	0.086	0.165	1.3	4.28	4	<10	<10	0.7	<2	2.57	<0.5	39	49	1850
223499		0.26	0.105	0.172	1.4	3.97	8	<10	20	0.5	<2	2.36	<0.5	33	52	1995
223500		0.26	0.146	0.303	2.0	4.18	<2	<10	10	0.5	<2	2.42	0.5	28	54	3580
224001		0.28	0.080	0.140	1.3	3.93	2	<10	10	0.5	<2	2.50	<0.5	22	54	1605
224002		0.28	0.069	0.118	1.2	3.91	<2	<10	10	<0.5	<2	2.27	<0.5	23	46	1315
224003		0.24	0.065	0.113	0.8	4.34	<2	<10	20	<0.5	<2	2.53	<0.5	16	50	1360
224004		0.28	0.064	0.102	0.7	3.91	7	<10	10	<0.5	<2	2.11	<0.5	20	51	1150
224005		0.28	0.216	0.364	3.1	7.84	<2	10	<10	0.7	<2	6.63	0.6	29	43	4660
224006		0.24	0.061	0.086	0.7	3.38	2	<10	10	<0.5	<2	2.03	<0.5	20	49	964
224007		0.28	0.091	0.119	1.1	3.96	3	<10	10	0.5	<2	2.73	<0.5	23	48	1380
224008		0.28	0.181	0.202	1.7	3.99	10	<10	20	<0.5	<2	2.47	<0.5	17	44	2340
224009		0.26	0.114	0.155	1.0	3.60	<2	<10	20	<0.5	<2	2.29	<0.5	18	42	1755
224010		0.28	0.087	0.129	0.9	3.88	7	<10	10	0.5	<2	2.54	<0.5	16	47	1445
224011		0.28	0.150	0.234	1.8	3.79	6	<10	10	<0.5	2	2.04	<0.5	44	53	2670
224012		0.26	0.114	0.227	1.7	3.90	2	<10	<10	0.5	2	2.23	<0.5	38	63	2670
224013		0.28	0.099	0.192	1.4	3.98	<2	<10	10	0.5	3	2.22	<0.5	37	55	2240
224014		0.26	<0.005	0.003	<0.2	2.15	2	<10	60	<0.5	<2	2.57	<0.5	3	7	35

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KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 21-JUL-2006
Account: PIL

Project: 4013

CERTIFICATE OF ANALYSIS VA06060522

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
223477		5.18	10	<1	0.09	<10	1.99	1045	<1	0.06	16	1360	15	1.60	4	9
223478		4.58	10	<1	0.07	<10	1.89	1180	<1	0.07	16	1350	86	3.14	5	6
223479		5.02	10	1	0.08	<10	1.87	1060	<1	0.06	15	1300	57	3.07	4	6
223480		5.70	10	1	0.07	<10	2.28	1020	<1	0.06	16	1400	99	4.50	3	6
223481		4.87	10	1	0.06	<10	2.01	865	<1	0.05	15	1240	22	3.38	4	5
223482		4.99	10	<1	0.09	<10	1.99	857	<1	0.10	21	1000	13	1.64	2	4
223483		5.54	10	<1	0.07	<10	2.20	891	<1	0.08	23	1070	18	3.69	2	4
223484		5.18	10	<1	0.07	<10	2.18	896	<1	0.05	26	960	86	4.67	2	6
223485		5.46	10	<1	0.07	<10	2.33	938	<1	0.05	22	960	30	4.67	2	9
223486		9.49	10	2	0.08	<10	1.15	405	1	0.04	18	890	84	>10.0	5	5
223487		5.02	10	<1	0.08	<10	2.13	877	<1	0.05	25	970	37	3.93	3	5
223488		4.96	10	<1	0.09	<10	2.12	882	<1	0.06	23	950	37	3.81	<2	6
223489		4.79	10	<1	0.08	<10	2.26	781	<1	0.07	26	990	42	4.22	2	7
223490		5.52	10	1	0.08	<10	2.48	839	<1	0.08	28	1030	36	4.81	<2	7
223491		5.71	10	<1	0.08	<10	2.24	725	<1	0.06	25	990	19	5.05	3	8
223492		5.98	10	<1	0.07	<10	2.23	679	<1	0.06	31	980	20	5.31	2	7
223493		5.88	10	<1	0.08	<10	2.49	454	11	0.05	20	1060	12	3.67	4	13
223494		4.86	10	<1	0.08	<10	2.86	605	44	0.05	22	1120	12	1.36	3	18
223495		5.34	10	1	0.09	<10	2.22	515	42	0.06	23	1040	8	1.10	4	13
223496		6.02	10	<1	0.10	<10	2.62	614	30	0.04	27	1230	14	1.18	<2	15
223497		5.53	10	<1	0.10	<10	3.07	607	79	0.05	26	1170	17	1.78	<2	18
223498		6.02	10	<1	0.09	<10	3.18	574	38	0.04	27	1320	16	2.85	2	18
223499		5.89	10	1	0.10	<10	2.91	511	20	0.09	28	1260	11	2.03	<2	16
223500		5.01	10	<1	0.10	<10	2.96	448	30	0.07	31	1290	9	1.40	<2	17
224001		5.44	10	<1	0.11	<10	2.53	426	20	0.10	18	1290	10	1.14	<2	15
224002		4.74	10	1	0.11	<10	2.53	447	17	0.12	21	1160	14	1.28	2	12
224003		5.79	10	1	0.19	<10	2.92	486	62	0.13	18	1450	8	0.83	<2	16
224004		5.73	10	<1	0.16	<10	2.89	449	8	0.09	21	1290	7	0.88	<2	17
224005		4.70	30	<1	0.08	10	3.46	468	100	0.04	20	1840	16	1.43	<2	20
224006		5.58	10	1	0.10	<10	2.41	438	49	0.08	17	1300	9	1.03	<2	15
224007		5.96	10	<1	0.13	<10	2.51	614	9	0.10	16	1300	26	1.66	<2	16
224008		4.98	10	<1	0.14	<10	2.30	516	26	0.17	17	1260	9	0.82	<2	15
224009		5.21	10	1	0.14	<10	2.07	361	21	0.14	16	1220	6	1.11	<2	12
224010		4.77	10	1	0.10	<10	2.33	460	19	0.10	20	1320	9	0.81	<2	14
224011		6.22	10	<1	0.08	<10	2.60	711	27	0.10	33	1180	13	3.55	<2	13
224012		5.58	10	<1	0.08	<10	2.70	576	42	0.10	27	1230	12	3.19	<2	14
224013		5.99	10	<1	0.11	<10	2.74	499	42	0.09	24	1140	13	2.74	<2	17
224014		3.84	10	<1	0.10	<10	0.85	622	<1	0.12	4	1040	6	0.04	<2	3

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Finalized Date: 21-JUL-2006
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Project: 4013

CERTIFICATE OF ANALYSIS VA06060522

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
223477		89	0.29	<10	<10	211	<10	142
223478		142	0.26	<10	<10	168	<10	255
223479		142	0.22	<10	<10	180	<10	263
223480		100	0.21	<10	<10	168	<10	561
223481		86	0.21	<10	<10	177	<10	166
223482		175	0.23	<10	<10	209	<10	167
223483		196	0.21	<10	<10	192	<10	166
223484		71	0.22	<10	<10	188	<10	245
223485		128	0.24	<10	<10	205	<10	170
223486		156	0.11	<10	<10	136	<10	100
223487		108	0.18	<10	<10	186	<10	241
223488		108	0.20	<10	<10	189	<10	230
223489		128	0.21	<10	<10	202	<10	217
223490		206	0.20	<10	<10	203	<10	267
223491		91	0.24	<10	<10	216	<10	132
223492		97	0.22	<10	<10	176	<10	137
223493		148	0.22	<10	<10	178	<10	67
223494		81	0.40	<10	<10	209	<10	96
223495		154	0.33	<10	<10	194	<10	71
223496		60	0.39	<10	<10	218	10	110
223497		220	0.42	<10	<10	226	10	118
223498		44	0.40	<10	<10	215	<10	102
223499		323	0.37	<10	<10	222	<10	92
223500		95	0.39	<10	<10	228	<10	73
224001		257	0.36	<10	<10	232	<10	68
224002		296	0.30	<10	<10	202	<10	69
224003		225	0.37	<10	<10	249	<10	88
224004		225	0.38	<10	<10	246	<10	70
224005		40	0.43	<10	<10	245	<10	79
224006		153	0.34	<10	<10	233	<10	65
224007		180	0.34	<10	<10	237	<10	84
224008		324	0.33	<10	<10	229	<10	67
224009		240	0.31	<10	<10	222	<10	58
224010		241	0.35	<10	<10	238	<10	75
224011		266	0.27	<10	<10	205	<10	105
224012		204	0.26	<10	<10	207	<10	71
224013		180	0.31	<10	<10	221	<10	86
224014		118	0.13	<10	<10	85	<10	55

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To: NORTHGATE MINERALS CORPORATION
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 24-JUL-2006
Account: PIL

CERTIFICATE VA06060523

Project: 4013
P.O. No.:
This report is for 78 Crushed Core samples submitted to our lab in Vancouver, BC, Canada on 30-JUN-2006.

The following have access to data associated with this certificate:

CARL EDMUNDS RON KONST	BRIAN KAY	B. KAY

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
PUL-QC	Pulverizing QC Test
PUL-31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au-AA23	Au 30g FA-AA finish	AAS
Cu-AA49	Assay Cu - HBr Digestion	AAS
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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CERTIFICATE OF ANALYSIS VA06060523

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
224015		0.24	0.167	0.257	1.0	4.24	2	<10	10	0.5	<2	2.29	<0.5	26	49	2570
224016		0.28	0.172	0.255	1.0	4.65	<2	<10	10	0.5	<2	2.60	<0.5	25	62	2900
224017		0.26	0.128	0.273	1.0	4.41	10	<10	20	0.5	<2	2.40	<0.5	25	79	3070
224018		0.26	0.114	0.154	0.5	3.82	<2	<10	10	0.5	<2	1.89	<0.5	31	62	1680
224019		0.28	0.040	0.062	<0.2	3.80	<2	<10	40	<0.5	<2	1.81	<0.5	15	59	661
224020		0.28	0.150	0.191	0.5	4.36	5	<10	20	0.5	<2	2.74	<0.5	20	49	2100
224021		0.28	0.185	0.349	2.1	4.24	5	<10	10	0.6	<2	2.64	0.8	24	61	3790
224022		0.28	0.287	0.248	1.4	3.03	3	<10	10	<0.5	<2	1.93	<0.5	19	66	2700
224023		0.26	0.143	0.262	0.8	3.97	3	<10	10	0.5	2	2.45	<0.5	39	64	2950
224024		0.28	0.113	0.195	0.6	3.25	6	<10	10	0.5	<2	2.22	0.5	29	45	2210
224025		0.28	0.105	0.190	0.6	4.10	3	<10	10	0.6	<2	2.95	0.7	23	65	2150
224026		0.28	0.095	0.185	0.5	4.81	3	<10	10	0.6	<2	2.78	<0.5	30	87	2190
224027		0.26	0.154	0.222	0.4	5.58	<2	<10	20	0.5	<2	2.82	<0.5	32	88	2680
224028		0.24	0.255	0.268	1.0	4.29	7	<10	10	0.5	2	2.54	0.7	33	88	3160
224029		0.28	0.097	0.159	0.7	3.36	4	<10	10	<0.5	<2	2.31	<0.5	24	87	1760
224030		0.28	0.146	0.240	0.9	4.83	<2	<10	10	0.5	<2	2.69	<0.5	14	99	2780
224031		0.28	0.146	0.271	1.0	4.07	<2	<10	20	<0.5	<2	2.21	<0.5	21	122	3120
224032		0.28	0.253	0.321	1.2	4.82	<2	<10	20	0.5	<2	2.46	<0.5	25	103	3760
224033		0.28	0.113	0.188	0.6	3.81	4	<10	20	<0.5	<2	2.22	<0.5	22	59	2180
224034		0.28	0.112	0.157	0.7	3.41	6	<10	30	0.5	<2	1.78	<0.5	24	174	1765
224035		0.28	0.080	0.142	0.7	3.51	<2	<10	10	0.5	<2	2.31	0.8	24	93	1635
224036		0.24	0.168	0.150	0.9	4.74	2	<10	20	0.7	<2	2.12	<0.5	29	327	1760
224037		0.26	0.091	0.195	1.0	3.00	7	<10	30	0.6	<2	1.73	0.6	12	28	2220
224038		0.26	0.108	0.168	1.1	2.66	2	<10	20	0.5	<2	1.64	0.6	13	26	1845
224039		0.26	0.073	0.194	0.9	3.36	2	<10	20	0.6	<2	1.93	0.8	11	23	2110
224040		0.06	0.393	0.005	<0.2	0.91	<2	10	20	<0.5	5	0.12	<0.5	<1	10	49
224041		0.28	0.134	0.210	1.2	3.21	2	<10	20	0.6	<2	1.86	0.7	13	21	2270
224042		0.24	0.145	0.226	1.1	2.94	<2	<10	20	0.6	<2	1.74	<0.5	11	26	2380
224043		0.26	0.196	0.226	2.0	4.36	<2	<10	10	0.6	<2	3.91	<0.5	17	67	2760
224044		0.28	0.113	0.224	1.6	2.97	4	<10	20	<0.5	<2	2.05	0.6	11	23	2500
224045		0.24	0.152	0.322	2.2	6.87	4	<10	20	0.7	<2	4.28	0.8	14	34	3830
224046		0.26	0.204	0.352	2.1	7.45	<2	<10	10	0.9	<2	4.55	<0.5	22	80	4200
224047		0.28	0.264	0.422	2.9	6.18	3	<10	10	0.6	11	3.78	<0.5	27	115	5170
224048		0.28	0.144	0.217	1.1	3.76	<2	<10	20	<0.5	<2	2.41	<0.5	19	123	2530
224049		0.26	0.191	0.245	1.3	3.58	6	<10	20	<0.5	<2	2.36	<0.5	26	87	2750
224050		0.26	0.162	0.240	1.2	4.90	4	<10	10	0.6	<2	3.86	<0.5	16	112	2940
224051		0.28	0.186	0.186	0.7	3.41	<2	<10	40	0.6	<2	2.17	<0.5	18	46	2110
224052		0.26	0.343	0.450	2.2	3.87	2	<10	40	0.7	8	3.02	<0.5	12	22	5300
224053		0.28	0.336	0.457	2.4	3.52	5	<10	40	0.5	<2	2.42	<0.5	31	111	5220
224054		0.26	0.167	0.200	1.2	4.34	4	<10	10	0.5	<2	6.13	<0.5	17	157	2420

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ALS Canada Ltd.
212 Brooksbank Avenue
North Vancouver BC V7J 2C1
Phone: 604 984 0221 Fax: 604 984 0218 www.alschemex.com

To: NORTHGATE MINERALS CORPORATION
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 24-JUL-2006
Account: PIL

Project: 4013

CERTIFICATE OF ANALYSIS VA06060523

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
224015		4.70	10	<1	0.13	10	2.72	489	115	0.17	21	1210	10	1.88	<2	20
224016		5.10	10	1	0.16	10	2.82	460	60	0.17	22	1230	10	1.47	<2	23
224017		4.26	10	<1	0.17	10	3.27	372	73	0.14	27	1360	9	1.33	<2	26
224018		6.00	10	1	0.19	<10	2.93	608	20	0.13	27	1390	8	1.72	<2	23
224019		5.70	10	<1	0.37	<10	2.80	487	6	0.18	16	1440	9	0.89	<2	21
224020		5.31	10	<1	0.16	<10	2.42	451	47	0.21	21	1350	12	1.12	<2	17
224021		5.26	10	<1	0.13	10	2.78	680	48	0.12	25	1350	21	1.82	<2	21
224022		5.20	10	<1	0.10	<10	2.07	535	14	0.12	20	1350	15	1.46	<2	11
224023		7.03	10	<1	0.12	<10	2.36	519	23	0.15	34	1390	13	2.64	<2	17
224024		5.59	10	<1	0.10	<10	1.74	463	25	0.12	28	1480	15	2.71	<2	9
224025		4.62	10	<1	0.11	<10	2.48	582	33	0.14	23	1460	30	2.08	<2	18
224026		5.69	10	<1	0.10	<10	2.77	530	50	0.15	23	1300	8	2.94	<2	21
224027		5.90	10	<1	0.14	<10	3.21	572	30	0.20	29	1140	7	2.19	<2	22
224028		5.34	10	<1	0.11	<10	2.42	598	23	0.16	35	1310	6	2.85	<2	13
224029		4.27	10	<1	0.12	<10	1.68	402	15	0.16	28	910	4	1.87	<2	9
224030		5.06	10	<1	0.13	<10	2.88	485	94	0.09	25	960	<2	0.87	2	16
224031		4.52	10	<1	0.23	<10	2.68	463	52	0.16	32	770	2	1.38	<2	15
224032		5.08	10	1	0.15	<10	3.20	493	53	0.12	30	950	2	1.68	<2	20
224033		4.86	10	<1	0.14	<10	2.45	511	18	0.12	28	1110	8	1.72	<2	14
224034		4.76	10	<1	0.14	<10	2.86	562	23	0.09	69	1160	7	1.44	2	12
224035		4.53	10	<1	0.12	<10	2.38	557	23	0.07	45	1110	18	2.30	3	12
224036		5.01	10	<1	0.22	10	3.95	591	151	0.06	114	950	12	1.84	3	14
224037		2.68	10	<1	0.26	10	1.78	393	140	0.08	12	1030	19	0.76	2	8
224038		2.92	10	<1	0.20	10	1.79	431	59	0.07	12	1110	18	0.89	<2	8
224039		2.79	10	<1	0.21	<10	1.77	385	114	0.08	12	1070	19	0.74	2	8
224040		0.57	<10	<1	0.49	<10	0.11	84	2	0.30	2	120	3	0.02	2	1
224041		3.60	10	<1	0.17	<10	1.65	388	152	0.07	15	1030	20	1.90	<2	8
224042		2.70	10	<1	0.14	<10	1.69	403	99	0.07	12	1050	11	0.69	2	9
224043		4.79	10	<1	0.36	10	2.92	567	116	0.03	23	1060	14	0.70	<2	15
224044		2.72	10	<1	0.22	10	1.75	415	78	0.06	14	1180	14	0.55	<2	8
224045		3.67	20	2	0.24	10	2.27	493	124	0.06	19	1810	14	0.94	2	13
224046		4.33	20	1	0.15	<10	2.52	500	51	0.06	29	1100	5	1.86	<2	17
224047		5.30	20	<1	0.15	<10	2.51	570	108	0.07	36	1300	2	2.96	<2	15
224048		5.42	10	1	0.14	<10	1.94	508	68	0.08	35	1170	<2	1.46	<2	10
224049		5.01	10	1	0.13	<10	1.82	502	26	0.09	36	1190	<2	2.78	<2	8
224050		5.19	10	<1	0.10	<10	2.01	602	168	0.07	32	1230	<2	1.30	4	11
224051		3.55	10	<1	0.16	<10	1.78	608	63	0.10	23	1140	2	1.02	2	10
224052		3.62	10	<1	0.16	10	1.68	491	372	0.07	18	940	7	1.59	<2	11
224053		4.77	10	<1	0.15	<10	2.47	861	68	0.10	44	1160	2	1.80	2	13
224054		5.15	10	1	0.11	<10	2.98	1025	81	0.06	36	1130	<2	0.57	<2	19

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CERTIFICATE OF ANALYSIS VA06060523

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
224015		339	0.34	<10	<10	205	<10	64
224016		395	0.42	<10	<10	243	<10	61
224017		313	0.45	<10	<10	262	<10	68
224018		264	0.43	<10	<10	271	<10	75
224019		250	0.41	<10	<10	284	<10	73
224020		357	0.37	<10	<10	259	<10	80
224021		145	0.41	<10	<10	256	<10	139
224022		307	0.34	<10	<10	230	<10	65
224023		370	0.33	<10	<10	213	<10	84
224024		360	0.23	<10	<10	153	<10	78
224025		516	0.31	<10	<10	205	<10	125
224026		430	0.31	<10	<10	257	<10	78
224027		635	0.35	<10	<10	247	<10	93
224028		593	0.25	<10	<10	159	<10	120
224029		214	0.23	<10	<10	139	<10	74
224030		242	0.34	<10	<10	213	<10	83
224031		502	0.30	<10	<10	179	<10	78
224032		524	0.36	<10	<10	222	<10	92
224033		405	0.32	<10	<10	215	<10	83
224034		214	0.29	<10	<10	168	<10	110
224035		77	0.30	<10	<10	172	<10	129
224036		88	0.25	<10	<10	123	<10	140
224037		67	0.21	<10	<10	83	<10	99
224038		45	0.22	<10	<10	88	<10	100
224039		65	0.24	<10	<10	91	<10	124
224040		12	0.01	<10	<10	4	<10	7
224041		63	0.22	<10	<10	89	<10	119
224042		55	0.22	<10	<10	93	<10	119
224043		58	0.26	<10	<10	152	<10	116
224044		52	0.21	<10	<10	88	<10	95
224045		143	0.28	<10	<10	127	<10	117
224046		176	0.31	<10	<10	178	<10	86
224047		156	0.31	<10	<10	186	<10	86
224048		166	0.26	<10	<10	175	<10	61
224049		101	0.25	<10	<10	146	<10	56
224050		94	0.29	<10	<10	209	<10	63
224051		182	0.31	<10	<10	182	<10	80
224052		170	0.25	<10	<10	124	<10	64
224053		238	0.30	<10	<10	181	<10	92
224054		83	0.32	<10	<10	208	<10	111

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Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
224055		0.26	0.268	0.351	2.8	4.02	6	<10	20	0.5	<2	3.22	<0.5	24	184	4050
224056		0.26	0.099	0.153	0.4	3.73	3	<10	50	0.5	<2	2.78	<0.5	14	120	1755
224057		0.26	0.160	0.196	0.7	3.51	<2	<10	20	0.6	<2	3.04	<0.5	17	115	2310
224058		0.26	0.328	0.293	0.9	3.72	8	<10	10	0.6	<2	2.76	<0.5	23	128	3400
224059		0.28	0.122	0.136	0.5	3.55	<2	<10	20	0.5	<2	2.90	<0.5	10	22	1520
224060		0.26	0.136	0.195	0.9	2.42	7	<10	20	0.5	<2	1.94	<0.5	10	27	1985
224061		0.24	0.162	0.280	1.8	2.19	4	10	30	0.5	<2	1.32	<0.5	9	24	2870
224062		0.28	0.225	0.234	1.2	2.72	<2	<10	20	0.7	<2	1.80	<0.5	11	43	2430
224063		0.24	0.063	0.075	<0.2	3.03	<2	<10	50	<0.5	<2	1.67	<0.5	17	340	814
224064		0.26	0.270	0.342	0.6	3.57	7	<10	120	<0.5	<2	2.03	<0.5	23	113	3640
224065		0.28	0.101	0.113	<0.2	2.16	6	<10	40	<0.5	<2	2.05	<0.5	13	86	1215
224066		0.24	0.115	0.116	<0.2	2.20	4	<10	40	<0.5	<2	2.06	<0.5	12	84	1215
224156		0.24	<0.005	0.009	<0.2	2.53	<2	<10	170	<0.5	<2	3.12	<0.5	12	14	99
224157		0.28	<0.005	0.006	<0.2	3.47	<2	<10	140	<0.5	<2	3.80	<0.5	18	33	65
224158		0.28	<0.005	0.008	<0.2	3.13	4	<10	110	<0.5	<2	3.39	<0.5	18	31	75
224159		0.28	<0.005	0.011	<0.2	3.35	12	<10	40	0.5	<2	3.89	<0.5	15	33	119
224160		0.26	<0.005	0.016	<0.2	2.89	5	<10	60	<0.5	<2	3.47	<0.5	17	25	164
224161		0.28	<0.005	0.017	<0.2	3.10	3	<10	60	<0.5	<2	3.43	<0.5	16	26	174
224162		0.26	<0.005	0.006	<0.2	3.04	2	<10	100	<0.5	<2	2.97	<0.5	15	28	66
224163		0.26	<0.005	0.003	<0.2	2.71	6	<10	120	<0.5	<2	2.89	<0.5	13	13	32
224164		0.26	0.011	0.017	<0.2	2.58	2	<10	160	<0.5	<2	2.99	<0.5	10	11	181
224165		0.26	<0.005	0.016	<0.2	3.47	5	<10	130	<0.5	<2	4.29	<0.5	19	44	173
224166		0.26	<0.005	0.008	<0.2	2.77	5	<10	150	<0.5	<2	3.04	<0.5	16	27	80
224167		0.28	<0.005	0.006	<0.2	2.61	11	<10	120	<0.5	<2	3.28	<0.5	13	26	65
224168		0.28	<0.005	0.005	0.2	2.66	<2	<10	140	<0.5	<2	3.36	<0.5	12	47	51
224169		0.26	<0.005	0.004	<0.2	2.71	4	<10	160	<0.5	<2	2.63	1.2	18	44	42
224170		0.26	<0.005	0.002	<0.2	2.46	8	<10	140	<0.5	<2	3.25	<0.5	8	18	15
224171		0.26	<0.005	0.001	<0.2	1.92	2	<10	140	<0.5	<2	2.72	<0.5	7	15	11
224172		0.26	<0.005	0.006	<0.2	2.19	3	<10	220	<0.5	<2	2.92	<0.5	8	29	68
224173		0.28	<0.005	<0.001	<0.2	3.06	2	<10	110	<0.5	<2	2.97	<0.5	16	141	6
224174		0.28	<0.005	0.001	<0.2	3.84	6	<10	100	0.5	<2	4.73	<0.5	24	264	14
224175		0.28	<0.005	0.004	<0.2	4.62	<2	<10	90	0.5	<2	5.36	<0.5	25	303	43
224176		0.28	<0.005	0.004	<0.2	4.12	3	<10	70	0.5	<2	4.62	<0.5	24	276	41
224177		0.26	<0.005	0.006	<0.2	3.74	7	<10	70	<0.5	<2	4.32	<0.5	23	207	59
224178		0.30	<0.005	0.001	<0.2	2.35	6	<10	190	<0.5	<2	1.99	<0.5	14	70	12
224179		0.26	<0.005	0.001	<0.2	2.35	8	<10	140	0.7	<2	2.22	<0.5	10	14	8
224180		0.28	<0.005	0.009	<0.2	2.23	2	<10	250	0.6	<2	1.36	1.5	21	8	88
224181		0.26	<0.005	0.009	<0.2	2.18	7	<10	240	0.6	<2	1.35	1.4	21	10	93

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CERTIFICATE OF ANALYSIS VA06060523

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
224055		6.30	10	<1	0.14	<10	3.67	1115	45	0.09	52	1200	2	0.92	2	23
224056		3.86	10	1	0.13	<10	1.37	523	22	0.18	33	1120	2	0.42	<2	6
224057		5.25	10	1	0.15	<10	2.74	943	38	0.08	38	1180	<2	0.25	2	16
224058		5.74	10	<1	0.14	<10	3.40	1140	39	0.05	43	1260	<2	0.33	<2	18
224059		2.88	10	<1	0.14	10	1.57	517	365	0.06	12	970	3	0.23	2	9
224060		2.41	10	<1	0.11	10	1.43	456	337	0.06	11	890	6	0.23	<2	9
224061		2.56	10	<1	0.13	10	1.47	440	1685	0.08	13	840	6	0.42	<2	10
224062		3.22	10	<1	0.08	10	2.00	485	449	0.07	20	1010	5	0.30	<2	12
224063		6.78	10	<1	0.10	<10	2.95	708	46	0.09	39	950	<2	0.57	<2	16
224064		4.47	10	<1	0.09	10	2.37	610	166	0.14	32	1100	<2	1.24	<2	12
224065		3.89	10	<1	0.09	10	1.44	407	26	0.12	19	1170	4	0.83	2	6
224066		3.99	10	<1	0.08	10	1.46	404	27	0.12	19	1220	<2	0.86	<2	6
224156		3.90	10	1	0.30	<10	1.24	941	1	0.08	6	940	4	0.02	<2	4
224157		5.35	10	<1	0.21	<10	1.99	1320	<1	0.19	16	1550	2	0.01	3	10
224158		5.08	10	<1	0.16	<10	1.89	1245	1	0.14	16	1210	<2	0.02	<2	9
224159		4.79	10	<1	0.12	<10	1.78	1105	<1	0.07	14	1290	2	0.01	<2	8
224160		5.05	10	<1	0.15	<10	1.83	1180	1	0.10	13	1340	<2	0.05	<2	9
224161		4.86	10	1	0.13	<10	1.85	1220	<1	0.15	13	1140	<2	0.03	<2	9
224162		5.00	10	<1	0.18	<10	1.69	1120	1	0.23	13	1080	2	0.03	2	12
224163		4.58	10	<1	0.18	10	0.98	891	1	0.25	3	830	<2	<0.01	2	14
224164		3.91	10	<1	0.26	<10	1.17	959	1	0.11	5	850	4	0.03	<2	7
224165		5.19	10	<1	0.13	<10	2.20	1390	<1	0.14	21	1430	<2	0.05	<2	9
224166		4.40	10	<1	0.22	<10	1.52	1140	1	0.12	12	980	5	0.27	<2	7
224167		3.77	10	<1	0.20	<10	1.32	1070	1	0.06	10	930	6	0.07	<2	5
224168		4.31	10	1	0.24	<10	1.47	1190	1	0.08	13	960	4	0.04	<2	6
224169		4.50	10	<1	0.20	<10	1.51	1195	1	0.07	13	970	12	0.20	<2	6
224170		3.38	10	<1	0.27	10	1.05	998	1	0.06	7	850	4	<0.01	<2	4
224171		3.37	10	<1	0.28	10	0.96	1005	<1	0.06	4	860	4	<0.01	2	4
224172		3.68	10	<1	0.31	10	1.04	1045	3	0.09	8	920	4	0.02	2	5
224173		4.76	10	<1	0.14	<10	2.04	1455	<1	0.15	42	980	<2	0.02	<2	13
224174		5.07	10	<1	0.11	<10	3.02	1575	<1	0.08	118	1110	<2	<0.01	<2	16
224175		4.82	10	1	0.29	<10	4.84	1085	<1	0.11	163	960	<2	<0.01	<2	11
224176		4.42	10	<1	0.18	<10	4.40	965	<1	0.06	151	950	<2	<0.01	<2	5
224177		4.83	10	<1	0.11	<10	3.54	1250	<1	0.08	105	1030	<2	<0.01	2	16
224178		3.78	10	<1	0.25	10	1.38	963	<1	0.09	38	990	<2	<0.01	<2	7
224179		3.51	10	1	0.20	10	0.75	596	1	0.07	6	1120	4	0.01	<2	4
224180		3.62	10	<1	0.16	10	0.85	636	<1	0.12	2	1060	24	0.33	<2	5
224181		3.62	10	<1	0.14	10	0.85	632	<1	0.11	4	1070	27	0.34	<2	5

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To: NORTHGATE MINERALS CORPORATION
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 24-JUL-2006
Account: PIL

Project: 4013

CERTIFICATE OF ANALYSIS VA06060523

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
224055		114	0.38	<10	<10	261	<10	109
224056		337	0.25	<10	<10	169	<10	65
224057		113	0.33	<10	<10	187	<10	98
224058		65	0.34	<10	<10	214	<10	126
224059		68	0.23	<10	<10	92	<10	77
224060		41	0.23	<10	<10	85	<10	76
224061		26	0.24	<10	<10	94	<10	70
224062		73	0.27	<10	<10	122	<10	90
224063		301	0.35	<10	<10	223	<10	100
224064		1175	0.31	<10	<10	177	<10	88
224065		434	0.27	<10	<10	160	<10	65
224066		448	0.26	<10	<10	156	<10	62
224156		115	0.18	<10	<10	76	<10	72
224157		295	0.28	<10	<10	182	<10	109
224158		197	0.27	<10	<10	159	<10	105
224159		154	0.28	<10	<10	161	<10	98
224160		187	0.27	<10	<10	156	<10	106
224161		214	0.28	<10	<10	172	<10	125
224162		240	0.25	<10	<10	167	<10	121
224163		273	0.18	<10	<10	176	<10	89
224164		153	0.16	<10	<10	98	<10	112
224165		319	0.29	<10	<10	190	<10	223
224166		177	0.18	<10	<10	108	<10	164
224167		141	0.14	<10	<10	84	<10	186
224168		151	0.16	<10	<10	92	<10	193
224169		253	0.15	<10	<10	94	<10	309
224170		122	0.12	<10	<10	61	<10	142
224171		98	0.11	<10	<10	54	<10	137
224172		193	0.12	<10	<10	68	<10	155
224173		130	0.16	<10	<10	114	<10	228
224174		154	0.17	<10	<10	122	<10	203
224175		279	0.19	<10	<10	143	<10	55
224176		277	0.20	<10	<10	130	<10	51
224177		170	0.16	<10	<10	138	<10	155
224178		113	0.14	<10	<10	78	<10	181
224179		119	0.13	<10	<10	78	<10	122
224180		87	0.13	<10	<10	75	<10	176
224181		84	0.13	<10	<10	73	<10	173

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To: NORTHGATE MINERALS CORPORATION
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 25-JUL-2006
Account: PIL

CERTIFICATE VA06060524

Project: 4013
P.O. No.:
This report is for 77 Crushed Core samples submitted to our lab in Vancouver, BC, Canada on 30-JUN-2006.
The following have access to data associated with this certificate:

CARL EDMUNDS RON KONST	BRIAN KAY	B. KAY

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
PUL-31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au-AA23	Au 30g FA-AA finish	AAS
Cu-AA49	Assay Cu - HBr Digestion	AAS
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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Finalized Date: 25-JUL-2006
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Project: 4013

CERTIFICATE OF ANALYSIS VA06060524

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
223411		0.26	<0.005	0.016	<0.2	3.93	5	<10	10	<0.5	<2	6.09	<0.5	33	271	175
223412		0.28	0.012	0.025	0.2	3.85	5	<10	10	<0.5	<2	6.33	<0.5	32	223	286
223413		0.26	0.017	0.061	0.6	2.31	6	<10	30	<0.5	<2	3.23	<0.5	13	65	642
223414		0.26	<0.005	0.013	0.2	3.32	5	<10	10	<0.5	<2	6.07	<0.5	31	203	142
223415		0.26	<0.005	0.009	<0.2	3.79	<2	<10	20	<0.5	<2	7.32	<0.5	29	246	103
223416		0.26	<0.005	0.010	<0.2	3.78	9	<10	10	<0.5	<2	7.57	<0.5	35	281	108
223417		0.26	<0.005	0.012	<0.2	3.60	4	<10	10	<0.5	<2	7.97	<0.5	32	260	124
223418		0.24	<0.005	0.011	<0.2	3.92	12	<10	10	<0.5	<2	8.12	<0.5	34	288	118
223419		0.28	<0.005	0.011	<0.2	4.05	<2	<10	<10	<0.5	<2	8.70	<0.5	34	312	115
223420		0.26	<0.005	0.008	<0.2	3.87	24	<10	10	<0.5	<2	7.85	<0.5	41	255	87
223421		0.24	0.010	0.025	0.4	3.45	26	<10	10	<0.5	2	4.38	<0.5	31	120	277
223422		0.28	0.017	0.023	0.8	2.61	31	<10	20	<0.5	2	2.31	<0.5	28	45	239
223423		0.28	0.006	0.011	0.5	2.57	97	<10	20	<0.5	<2	3.85	<0.5	25	48	113
223424		0.28	0.022	0.025	<0.2	3.84	19	<10	30	<0.5	<2	3.27	3.2	42	60	274
223425		0.28	0.007	0.003	0.2	4.08	16	<10	20	<0.5	2	3.32	<0.5	27	50	28
223426		0.26	<0.005	0.005	<0.2	4.43	9	<10	<10	<0.5	2	4.85	<0.5	30	200	54
223427		0.28	0.005	0.015	0.3	4.36	13	<10	20	<0.5	<2	4.47	<0.5	40	189	175
223428		0.26	<0.005	0.005	<0.2	3.66	9	<10	<10	<0.5	<2	5.78	<0.5	23	185	51
223429		0.28	0.008	0.007	0.4	3.38	13	<10	20	<0.5	<2	3.53	<0.5	30	65	75
223430		0.26	<0.005	0.009	0.3	4.65	9	<10	20	<0.5	2	4.80	<0.5	32	183	108
223431		0.28	0.010	0.011	0.2	4.56	9	<10	30	<0.5	2	5.10	<0.5	34	195	129
223432		0.28	<0.005	0.014	0.2	3.81	9	<10	20	<0.5	<2	3.86	<0.5	25	173	113
223433		0.26	0.006	0.016	0.3	4.45	21	<10	10	<0.5	<2	5.29	<0.5	34	181	177
223434		0.28	0.005	0.007	0.2	4.21	20	<10	70	<0.5	<2	4.29	<0.5	24	88	77
223435		0.26	<0.005	0.004	0.4	3.35	35	<10	20	<0.5	2	4.42	<0.5	30	125	48
223436		0.28	0.009	0.007	<0.2	3.18	3	<10	160	0.5	<2	3.73	<0.5	7	11	69
223907		0.24	<0.005	0.003	<0.2	1.96	8	<10	60	<0.5	<2	1.93	<0.5	8	28	34
223908		0.28	<0.005	0.001	0.3	2.14	11	<10	60	<0.5	<2	1.91	<0.5	10	13	11
223909		0.26	<0.005	0.001	0.4	2.55	12	<10	40	0.5	<2	2.72	<0.5	11	15	14
223910		0.28	0.014	0.004	0.4	2.19	8	<10	70	<0.5	<2	1.83	<0.5	16	11	41
223911		0.26	<0.005	0.002	0.2	2.43	9	<10	50	0.6	2	2.13	<0.5	12	15	21
223912		0.28	<0.005	0.001	0.2	1.89	9	<10	60	<0.5	<2	2.26	<0.5	10	12	7
223913		0.26	<0.005	0.001	0.2	2.40	8	<10	60	0.5	<2	2.80	<0.5	14	16	7
223914		0.28	<0.005	0.001	0.2	2.25	6	<10	60	0.5	<2	2.62	<0.5	10	11	9
223915		0.28	<0.005	0.001	<0.2	2.09	5	<10	70	0.5	<2	1.94	<0.5	8	17	7
223916		0.26	<0.005	0.001	<0.2	2.15	12	<10	80	0.6	<2	2.20	<0.5	10	14	12
223917		0.28	<0.005	0.002	0.2	2.05	14	<10	60	0.6	<2	2.07	<0.5	11	16	18
223918		0.28	<0.005	0.002	0.2	2.46	11	<10	50	0.9	<2	2.93	<0.5	8	12	20
223919		0.28	<0.005	0.001	0.3	2.19	25	<10	50	0.6	<2	2.05	<0.5	13	17	12
223920		0.28	<0.005	0.002	0.2	2.31	21	<10	60	0.7	<2	2.14	<0.5	10	12	23

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CERTIFICATE OF ANALYSIS VA06060524

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
223411		6.34	10	1	0.02	<10	4.51	1405	<1	0.03	92	790	5	0.10	<2	14
223412		6.48	10	<1	0.03	<10	4.59	1575	5	0.04	78	860	8	0.73	<2	15
223413		3.68	10	1	0.14	<10	1.85	863	18	0.05	27	720	18	0.55	<2	7
223414		5.74	10	1	0.03	<10	3.82	1570	1	0.04	83	780	7	0.34	<2	11
223415		6.32	10	<1	0.02	<10	4.69	1600	<1	0.03	84	790	5	0.09	<2	14
223416		6.46	10	2	0.01	<10	5.13	1560	<1	0.02	91	810	<2	0.61	<2	17
223417		5.97	10	2	0.01	<10	4.82	1430	<1	0.02	83	780	<2	0.09	<2	18
223418		6.63	10	1	0.02	<10	5.00	1545	<1	0.03	96	840	5	0.39	<2	24
223419		6.09	10	1	0.01	<10	5.17	1605	<1	0.02	94	800	6	0.27	<2	27
223420		6.85	10	1	0.03	<10	4.55	1765	<1	0.01	92	790	5	3.02	<2	24
223421		5.74	10	1	0.11	<10	3.87	1580	8	0.02	61	1110	8	4.01	<2	9
223422		5.77	10	<1	0.16	<10	2.44	1455	3	0.01	36	1050	29	5.52	<2	6
223423		6.19	10	<1	0.28	<10	2.53	1295	1	0.01	44	1250	17	5.39	<2	6
223424		7.44	10	1	0.19	<10	3.39	1235	5	0.04	32	1210	9	4.75	<2	10
223425		6.19	10	<1	0.20	<10	3.71	1405	1	0.03	28	1160	2	2.23	<2	7
223426		6.55	20	<1	0.03	<10	5.00	1685	<1	0.04	63	1010	<2	1.61	<2	24
223427		6.36	10	<1	0.07	<10	3.56	1305	2	0.10	82	1000	5	2.35	<2	15
223428		5.03	20	<1	0.03	<10	4.05	1395	<1	0.03	64	1000	<2	1.70	<2	18
223429		6.15	10	<1	0.06	<10	2.95	1045	2	0.03	30	1080	5	3.97	<2	11
223430		6.32	10	<1	0.06	<10	3.65	1355	<1	0.11	74	1030	4	1.38	<2	14
223431		6.37	10	<1	0.05	<10	3.73	1385	<1	0.16	81	1040	3	1.54	2	14
223432		5.60	10	<1	0.04	<10	3.23	1185	<1	0.16	72	740	<2	1.26	<2	13
223433		6.92	10	<1	0.09	<10	4.21	1600	2	0.08	82	1070	5	3.55	2	19
223434		6.61	10	<1	0.17	<10	4.29	1830	<1	0.02	42	990	<2	3.41	3	12
223435		7.18	10	<1	0.16	<10	4.24	1615	1	0.03	50	1110	3	6.62	2	11
223436		3.57	10	1	0.26	<10	0.94	612	<1	0.07	4	900	5	0.69	<2	5
223907		3.36	10	<1	0.17	10	1.23	653	2	0.09	5	1020	2	0.15	2	6
223908		3.38	10	<1	0.14	10	1.24	668	2	0.10	3	960	5	0.29	2	7
223909		3.47	10	<1	0.11	10	1.30	689	2	0.07	3	960	6	0.23	<2	8
223910		3.69	10	<1	0.19	10	1.32	623	1	0.09	3	1000	3	0.48	<2	6
223911		3.46	10	<1	0.11	10	1.26	640	1	0.07	4	960	5	0.22	<2	5
223912		3.48	10	<1	0.21	10	1.19	671	1	0.08	3	970	3	0.15	<2	7
223913		3.56	10	<1	0.20	10	1.24	696	1	0.09	3	1020	4	0.22	<2	7
223914		3.22	10	<1	0.23	10	1.07	612	2	0.07	4	970	9	0.10	<2	7
223915		3.56	10	<1	0.14	10	1.33	732	1	0.08	3	1040	7	0.06	<2	8
223916		3.38	10	<1	0.14	10	1.28	725	1	0.10	2	1040	6	0.10	<2	7
223917		3.43	10	<1	0.13	10	1.21	743	1	0.09	3	1060	7	0.11	<2	6
223918		3.54	10	<1	0.10	<10	1.31	829	1	0.09	3	1040	4	0.10	<2	8
223919		3.42	10	<1	0.10	<10	1.38	875	1	0.08	4	1060	4	0.19	<2	7
223920		3.52	10	<1	0.12	10	1.32	825	2	0.09	2	1050	5	0.13	2	8

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To: NORTHGATE MINERALS CORPORATION
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 25-JUL-2006
Account: PIL

Project: 4013

CERTIFICATE OF ANALYSIS VA06060524

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
223411		81	0.33	<10	<10	191	<10	90
223412		93	0.30	<10	<10	188	<10	84
223413		136	0.18	<10	<10	82	<10	77
223414		114	0.29	<10	<10	157	<10	81
223415		111	0.27	<10	<10	181	<10	78
223416		92	0.33	<10	<10	210	<10	79
223417		99	0.32	<10	<10	204	<10	72
223418		97	0.34	<10	<10	223	<10	86
223419		94	0.33	<10	<10	222	<10	91
223420		83	0.26	<10	<10	262	<10	79
223421		110	0.27	<10	<10	151	<10	110
223422		103	0.23	<10	<10	111	<10	116
223423		50	0.24	<10	<10	90	<10	67
223424		156	0.36	<10	<10	182	<10	166
223425		63	0.31	<10	<10	151	<10	106
223426		56	0.32	<10	<10	269	<10	109
223427		182	0.40	<10	<10	243	<10	72
223428		68	0.40	<10	<10	260	<10	95
223429		94	0.41	<10	<10	204	<10	76
223430		144	0.36	<10	<10	222	<10	82
223431		229	0.36	<10	<10	234	<10	82
223432		159	0.30	<10	<10	202	<10	61
223433		116	0.31	<10	<10	237	<10	91
223434		60	0.31	<10	<10	172	<10	110
223435		52	0.23	<10	<10	163	<10	60
223436		157	0.13	<10	<10	84	<10	65
223907		114	0.21	<10	<10	86	<10	43
223908		134	0.20	<10	<10	94	<10	46
223909		164	0.20	<10	<10	93	<10	51
223910		132	0.20	<10	<10	92	<10	44
223911		159	0.20	<10	<10	90	<10	46
223912		116	0.18	<10	<10	91	<10	50
223913		165	0.19	<10	<10	91	<10	49
223914		164	0.18	<10	<10	85	<10	46
223915		133	0.22	<10	<10	103	<10	57
223916		136	0.23	<10	<10	90	<10	57
223917		116	0.22	<10	<10	88	<10	59
223918		120	0.23	<10	<10	87	<10	55
223919		128	0.23	<10	<10	80	<10	58
223920		126	0.23	<10	<10	86	<10	54

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Finalized Date: 25-JUL-2006
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Project: 4013

CERTIFICATE OF ANALYSIS VA06060524

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
223921		0.28	<0.005	0.003	0.2	2.22	20	<10	50	0.7	<2	2.07	<0.5	9	18	25
223922		0.26	<0.005	0.002	0.3	2.10	31	<10	80	0.6	2	1.84	<0.5	10	15	23
223923		0.26	<0.005	0.004	0.2	1.98	22	10	60	<0.5	3	1.66	<0.5	9	19	36
223924		0.28	<0.005	0.002	0.2	2.06	17	10	60	0.6	2	1.72	<0.5	10	12	21
223925		0.28	<0.005	0.004	<0.2	2.05	20	10	60	0.5	2	1.76	<0.5	10	18	40
223926		0.28	<0.005	0.005	0.4	2.06	14	10	70	0.5	4	1.71	<0.5	8	12	42
223927		0.28	<0.005	0.002	0.2	2.13	25	<10	60	0.6	3	1.90	<0.5	8	17	17
223928		0.28	<0.005	0.003	0.2	2.14	8	<10	70	0.6	2	1.82	<0.5	7	12	34
223929		0.28	<0.005	0.002	0.2	2.70	8	<10	60	0.7	3	2.26	<0.5	8	13	21
223930		0.26	<0.005	0.003	0.3	1.93	6	<10	70	0.5	<2	1.69	<0.5	9	12	26
223931		0.24	<0.005	0.003	0.4	2.00	8	<10	40	0.6	2	3.12	<0.5	9	14	29
223932		0.28	<0.005	0.003	0.3	2.08	7	<10	50	0.6	2	3.22	<0.5	10	11	30
224119		0.26	0.321	0.240	1.8	2.72	<2	<10	170	0.6	4	1.63	<0.5	7	8	2670
224120		0.28	0.211	0.213	1.5	2.88	<2	<10	180	0.6	4	1.78	<0.5	8	4	2360
224121		0.26	0.421	0.283	1.8	2.56	<2	<10	110	0.7	4	1.74	<0.5	7	9	3140
224122		0.26	0.365	0.225	1.4	2.95	<2	<10	230	0.6	5	1.74	<0.5	6	4	2430
224123		0.28	0.245	0.253	1.5	3.06	<2	<10	130	0.6	4	2.10	<0.5	7	9	2850
224124		0.28	0.213	0.230	1.4	2.58	<2	<10	220	0.5	3	1.52	<0.5	5	4	2410
224125		0.28	0.326	0.273	1.4	2.77	2	<10	120	0.6	2	1.94	<0.5	6	8	2950
224126		0.24	0.608	0.377	1.9	2.96	<2	<10	110	0.7	4	2.07	<0.5	7	4	4500
224127		0.26	0.127	0.118	0.9	2.99	2	<10	140	0.6	3	2.15	<0.5	9	10	1335
224128		0.28	0.059	0.075	0.8	3.25	3	<10	200	0.6	3	2.33	<0.5	7	4	850
224129		0.28	0.029	0.042	0.6	2.72	2	<10	140	0.6	4	2.18	<0.5	10	8	491
224130		0.26	0.020	0.034	0.6	3.30	<2	<10	90	0.6	4	2.35	<0.5	11	4	398
224131		0.24	0.015	0.039	0.5	4.72	4	<10	40	0.5	4	3.41	<0.5	8	7	477
224132		0.26	<0.005	<0.001	<0.2	3.39	<2	<10	50	0.6	<2	2.58	<0.5	8	3	19
224133		0.28	<0.005	<0.001	<0.2	3.74	2	<10	80	0.5	2	3.17	<0.5	6	9	7
224134		0.24	<0.005	<0.001	0.2	3.37	3	<10	130	0.6	3	3.23	<0.5	6	7	3
224135		0.26	<0.005	<0.001	<0.2	5.00	<2	<10	60	0.5	4	4.58	<0.5	6	3	4
224136		0.28	<0.005	<0.001	<0.2	3.76	<2	<10	30	0.7	3	3.83	<0.5	7	5	7
224137		0.26	<0.005	0.003	0.5	2.84	2	<10	60	<0.5	4	2.36	<0.5	4	3	55
224138		0.26	0.276	0.076	13.9	4.57	9	<10	50	0.7	27	4.69	<0.5	14	6	878
224139		0.26	<0.005	<0.001	0.3	3.85	5	<10	50	0.7	3	4.45	<0.5	5	3	19
224140		0.26	<0.005	<0.001	<0.2	2.73	<2	<10	90	0.7	<2	2.77	<0.5	4	8	5
224141		0.26	0.014	0.016	1.1	4.23	<2	<10	250	0.8	5	3.90	<0.5	11	3	191
224142		0.26	0.027	0.024	0.9	2.28	3	<10	120	0.6	15	2.10	<0.5	7	9	271
224143		0.26	0.025	0.024	0.8	2.16	2	<10	120	0.7	12	1.96	<0.5	8	4	277

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KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 25-JUL-2006
Account: PIL

Project: 4013

CERTIFICATE OF ANALYSIS VA06060524

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
223921		3.36	10	<1	0.09	<10	1.30	773	1	0.07	3	1000	<2	0.09	<2	7
223922		3.42	10	1	0.13	<10	1.22	752	2	0.10	2	1050	3	0.24	2	6
223923		3.26	10	<1	0.11	<10	1.22	738	2	0.08	4	1060	3	0.14	3	6
223924		3.01	10	<1	0.11	<10	1.14	683	2	0.08	3	960	2	0.08	3	5
223925		3.18	10	<1	0.10	<10	1.17	702	2	0.08	2	1040	3	0.11	<2	5
223926		3.35	10	<1	0.11	<10	1.17	742	1	0.10	3	1070	2	0.10	<2	6
223927		3.27	10	1	0.11	<10	1.13	671	2	0.08	3	1050	<2	0.22	<2	6
223928		3.19	10	<1	0.13	<10	1.10	680	1	0.10	3	1030	3	0.05	<2	6
223929		3.25	10	<1	0.11	<10	1.12	696	2	0.08	1	1060	3	0.05	<2	6
223930		3.27	10	1	0.14	<10	1.16	728	2	0.09	3	1000	2	0.04	3	7
223931		3.13	10	<1	0.11	<10	1.17	778	1	0.07	2	970	2	0.07	2	7
223932		3.27	10	<1	0.12	<10	1.20	808	1	0.08	2	990	3	0.08	2	7
224119		3.46	10	<1	0.31	10	1.13	246	10	0.12	<1	910	5	1.05	2	9
224120		3.88	10	<1	0.30	10	1.03	219	14	0.15	<1	890	5	1.26	3	8
224121		3.45	10	<1	0.27	10	1.09	208	22	0.09	<1	910	8	1.40	<2	9
224122		3.13	10	<1	0.32	10	1.06	207	31	0.17	<1	1080	5	1.10	<2	8
224123		2.93	10	1	0.30	10	0.91	181	34	0.09	<1	880	7	1.32	<2	7
224124		2.72	10	<1	0.34	10	0.90	156	44	0.15	<1	850	5	1.18	<2	7
224125		2.59	10	1	0.26	10	0.90	153	29	0.08	<1	840	6	1.06	2	7
224126		3.66	10	<1	0.26	10	1.06	172	30	0.08	<1	1000	7	1.54	<2	9
224127		3.67	10	<1	0.17	10	0.81	298	20	0.07	<1	880	8	1.28	2	7
224128		4.13	10	<1	0.18	<10	0.89	363	10	0.07	<1	860	7	0.95	2	8
224129		4.24	10	<1	0.18	<10	0.90	441	9	0.08	1	880	6	0.88	<2	8
224130		4.33	10	<1	0.18	<10	0.97	507	7	0.08	<1	900	8	0.77	2	8
224131		3.45	10	1	0.14	<10	0.97	642	9	0.06	1	840	7	0.82	2	6
224132		2.59	10	3	0.09	10	0.67	546	<1	0.11	3	650	9	0.01	4	4
224133		2.88	10	<1	0.09	10	0.74	672	1	0.12	<1	760	11	0.03	<2	5
224134		3.02	10	1	0.11	<10	0.81	762	<1	0.09	<1	800	12	0.02	2	6
224135		2.42	10	<1	0.09	<10	0.76	647	<1	0.06	<1	560	6	0.01	<2	4
224136		3.13	10	<1	0.08	<10	0.89	758	<1	0.07	<1	830	5	0.03	<2	5
224137		3.53	10	1	0.15	<10	0.91	759	<1	0.07	<1	880	4	0.02	<2	5
224138		3.48	10	<1	0.16	<10	0.92	950	2	0.05	<1	810	53	0.75	<2	4
224139		3.14	10	<1	0.20	10	0.87	1050	<1	0.06	<1	900	8	0.09	3	5
224140		3.07	10	3	0.21	10	0.79	1165	<1	0.06	2	810	11	<0.01	3	4
224141		3.24	10	1	0.23	10	0.84	967	<1	0.07	<1	880	12	0.22	<2	5
224142		3.33	10	<1	0.12	10	0.90	648	1	0.07	<1	900	7	0.23	2	5
224143		3.17	10	<1	0.13	10	0.84	604	<1	0.06	<1	860	6	0.26	<2	5

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Finalized Date: 25-JUL-2006
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CERTIFICATE OF ANALYSIS VA06060524

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
223921		121	0.22	<10	<10	81	<10	43
223922		101	0.19	<10	<10	79	<10	42
223923		88	0.20	<10	<10	77	<10	41
223924		106	0.19	<10	<10	73	<10	40
223925		104	0.19	<10	<10	74	<10	39
223926		102	0.17	<10	<10	69	<10	37
223927		99	0.19	<10	<10	75	<10	39
223928		104	0.19	<10	<10	77	<10	38
223929		133	0.18	<10	<10	77	<10	42
223930		102	0.19	<10	<10	79	<10	45
223931		113	0.19	<10	<10	82	<10	48
223932		121	0.20	<10	<10	84	<10	48
224119		687	0.19	<10	<10	73	<10	33
224120		938	0.18	<10	<10	77	<10	32
224121		326	0.20	<10	<10	73	<10	28
224122		964	0.18	<10	<10	68	<10	30
224123		305	0.17	<10	<10	63	<10	26
224124		594	0.16	<10	<10	60	<10	26
224125		276	0.19	<10	<10	67	<10	24
224126		288	0.20	<10	<10	75	<10	24
224127		127	0.15	<10	<10	66	<10	33
224128		131	0.17	<10	<10	78	<10	34
224129		140	0.16	<10	<10	81	<10	38
224130		142	0.17	<10	<10	84	<10	42
224131		203	0.15	<10	<10	63	<10	51
224132		163	0.16	<10	<10	57	<10	37
224133		183	0.14	<10	<10	59	<10	41
224134		134	0.15	<10	<10	63	<10	51
224135		236	0.12	<10	<10	47	<10	41
224136		147	0.15	<10	<10	65	<10	48
224137		136	0.12	<10	<10	60	<10	57
224138		284	0.12	<10	<10	55	<10	70
224139		207	0.13	<10	<10	57	<10	84
224140		136	0.11	10	<10	54	<10	86
224141		197	0.13	<10	<10	57	<10	67
224142		90	0.14	<10	<10	69	<10	50
224143		85	0.14	<10	<10	68	<10	50

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To: NORTHGATE MINERALS CORPORATION
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 24-JUL-2006
Account: PIL

CERTIFICATE VA06061619

Project: 4013
P.O. No.:
This report is for 64 Crushed Rock samples submitted to our lab in Vancouver, BC, Canada on 4-JUL-2006.

The following have access to data associated with this certificate:

CARL EDMUNDS	B. KAY	RON KONST

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
PUL-31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au-AA23	Au 30g FA-AA finish	AAS
Cu-AA49	Assay Cu - HBr Digestion	AAS
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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CERTIFICATE OF ANALYSIS VA06061619

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
224067		0.24	0.229	0.304	1.6	2.07	5	<10	10	<0.5	2	2.78	<0.5	23	74	3290
224068		0.26	0.198	0.230	1.0	2.74	2	<10	50	<0.5	<2	3.02	<0.5	18	48	2520
224069		0.28	0.112	0.149	0.5	2.81	<2	<10	40	<0.5	<2	3.07	<0.5	19	136	1630
224070		0.26	0.420	0.164	1.1	2.96	6	<10	20	<0.5	<2	4.03	<0.5	21	264	1860
224071		0.24	0.271	0.163	0.8	2.94	5	<10	50	<0.5	<2	3.49	<0.5	25	124	1825
224072		0.26	0.160	0.239	1.0	2.58	6	<10	100	<0.5	<2	2.90	<0.5	19	116	2590
224073		0.26	0.048	0.067	<0.2	2.67	8	<10	40	<0.5	<2	2.05	<0.5	13	196	737
224074		0.26	0.093	0.116	<0.2	2.56	8	<10	30	<0.5	<2	2.67	<0.5	16	185	1240
224075		0.28	0.180	0.222	0.8	3.19	5	<10	30	<0.5	<2	4.12	<0.5	25	290	2560
224076		0.28	0.117	0.149	0.7	2.29	5	<10	20	<0.5	<2	2.23	<0.5	15	215	1605
224077		0.26	0.091	0.143	0.7	2.29	5	<10	10	<0.5	<2	3.81	<0.5	19	216	1580
224078		0.28	0.144	0.209	0.9	2.56	6	<10	20	<0.5	<2	2.15	<0.5	29	183	2120
224079		0.28	0.264	0.369	1.5	2.90	<2	<10	20	0.7	<2	2.46	<0.5	10	27	3870
224080		0.28	0.143	0.149	0.8	2.51	8	<10	10	<0.5	<2	2.68	<0.5	29	77	1680
224081		0.28	0.184	0.293	1.3	3.96	9	<10	10	0.5	<2	3.29	<0.5	24	116	3080
224082		0.26	0.091	0.144	0.4	2.73	10	<10	20	<0.5	<2	2.11	<0.5	23	89	1560
224083		0.28	0.080	0.124	0.3	3.63	2	<10	10	0.6	<2	2.48	<0.5	17	99	1325
224084		0.26	0.209	0.306	0.6	3.72	7	<10	30	0.5	<2	2.25	<0.5	32	117	3240
224085		0.26	0.215	0.262	0.5	4.14	8	<10	30	<0.5	<2	2.88	<0.5	28	126	3010
224086		0.28	0.227	0.313	1.0	3.75	4	<10	20	0.5	<2	2.57	<0.5	27	95	3430
224087		0.24	0.135	0.207	<0.2	2.96	7	<10	30	<0.5	<2	2.02	<0.5	23	90	2240
224088		0.26	0.224	0.271	1.2	4.43	8	<10	10	0.8	<2	3.67	<0.5	14	23	3040
224089		0.26	0.160	0.232	0.8	3.47	5	<10	20	<0.5	<2	2.28	<0.5	25	122	2440
224090		0.24	0.091	0.126	<0.2	3.00	9	<10	20	<0.5	<2	1.93	<0.5	21	99	1355
224091		0.26	0.098	0.156	0.4	3.15	5	<10	20	<0.5	<2	1.94	<0.5	27	132	1735
224092		0.26	0.017	0.004	<0.2	1.94	4	<10	180	<0.5	<2	1.58	<0.5	7	16	35
224093		0.26	0.122	0.167	0.3	2.32	4	<10	20	<0.5	<2	1.75	<0.5	26	150	1790
224094		0.26	0.268	0.194	0.2	3.00	5	<10	20	<0.5	<2	3.19	<0.5	14	130	2070
224095		0.26	0.223	0.291	0.4	4.13	5	<10	30	0.5	<2	2.34	<0.5	24	135	3180
224096		0.28	0.229	0.227	0.8	4.11	10	<10	20	<0.5	<2	4.64	<0.5	30	145	2660
224097		0.26	0.155	0.183	<0.2	3.41	7	<10	60	<0.5	<2	5.29	<0.5	20	149	2090
224098		0.26	0.142	0.130	<0.2	2.78	5	<10	60	<0.5	<2	4.28	<0.5	14	168	1420
224099		0.28	0.154	0.158	0.3	3.02	9	<10	80	<0.5	<2	4.14	<0.5	20	158	1685
224100		0.26	0.240	0.249	0.2	3.48	4	<10	100	<0.5	<2	4.20	<0.5	27	161	2820
224101		0.26	0.141	0.133	0.5	2.41	5	<10	50	0.5	<2	2.20	<0.5	8	6	1355
224102		0.24	0.061	0.046	0.2	2.27	4	<10	60	0.5	<2	1.90	<0.5	6	7	457
224103		0.28	0.056	0.051	0.2	1.94	4	<10	50	<0.5	<2	1.66	<0.5	8	5	510
224104		0.28	0.047	0.057	<0.2	1.52	2	<10	60	<0.5	<2	1.32	<0.5	7	7	568
224105		0.24	0.054	0.059	0.2	1.72	2	<10	60	<0.5	<2	1.58	<0.5	7	6	587
224106		0.26	0.079	0.061	0.4	1.60	5	<10	40	<0.5	<2	1.75	<0.5	7	7	717

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ALS Canada Ltd.
212 Brooksbank Avenue
North Vancouver BC V7J 2C1
Phone: 604 984 0221 Fax: 604 984 0218 www.alschemex.com

To: NORTHGATE MINERALS CORPORATION
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 24-JUL-2006
Account: PIL

Project: 4013

CERTIFICATE OF ANALYSIS VA06061619

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
224067		4.22	10	<1	0.10	<10	1.48	398	55	0.08	31	1030	<2	2.06	2	5
224068		5.11	10	<1	0.27	<10	2.19	523	55	0.09	23	1190	<2	1.82	<2	13
224069		4.19	10	<1	0.21	<10	2.02	405	41	0.18	34	930	<2	2.12	<2	7
224070		4.25	10	<1	0.27	<10	2.42	467	14	0.15	55	880	5	2.85	<2	9
224071		4.17	10	<1	0.36	<10	2.07	436	17	0.24	47	950	4	2.55	<2	8
224072		3.54	10	1	0.36	<10	1.84	352	50	0.19	36	990	7	2.46	<2	9
224073		3.07	10	2	0.12	<10	1.96	406	7	0.17	38	850	4	0.53	<2	8
224074		2.97	10	<1	0.11	<10	1.56	370	61	0.14	40	890	8	0.99	<2	7
224075		4.38	10	1	0.11	<10	3.22	747	100	0.08	71	840	7	1.25	3	16
224076		3.32	10	<1	0.13	<10	1.76	430	10	0.10	44	910	6	0.88	<2	7
224077		3.40	10	1	0.10	<10	2.18	406	40	0.09	47	840	6	2.81	2	9
224078		4.54	10	1	0.10	<10	2.40	422	20	0.08	61	960	6	1.95	<2	9
224079		2.67	10	1	0.16	10	1.40	257	71	0.07	17	750	8	1.24	<2	11
224080		4.66	10	1	0.13	<10	1.32	349	105	0.10	31	1180	6	2.47	2	7
224081		4.42	10	1	0.12	<10	2.35	366	100	0.07	31	1040	6	3.08	<2	15
224082		4.16	10	1	0.12	<10	2.06	380	22	0.10	31	1200	3	1.62	<2	8
224083		4.69	10	1	0.11	<10	2.22	392	20	0.09	35	1020	3	0.98	<2	11
224084		5.46	10	2	0.13	<10	2.44	395	47	0.16	54	1080	4	1.72	<2	14
224085		5.01	10	<1	0.15	<10	2.17	378	93	0.18	40	1020	6	1.54	<2	12
224086		5.28	10	<1	0.12	<10	2.02	347	66	0.16	36	1020	7	2.36	<2	11
224087		4.06	10	<1	0.13	<10	1.54	315	30	0.17	30	1000	7	1.84	<2	10
224088		3.14	10	1	0.14	10	1.18	212	37	0.12	16	690	12	1.76	2	10
224089		6.01	10	1	0.13	<10	2.42	422	26	0.10	34	980	6	1.50	<2	15
224090		5.22	10	2	0.12	<10	1.92	355	15	0.17	28	990	6	0.79	<2	11
224091		6.29	10	1	0.19	<10	2.70	534	19	0.12	42	940	6	1.44	<2	12
224092		3.83	10	1	0.30	<10	0.65	525	1	0.08	5	550	10	0.56	2	3
224093		5.78	10	1	0.21	<10	2.25	450	25	0.12	42	930	5	1.62	<2	11
224094		4.88	10	2	0.17	10	2.68	540	28	0.08	39	910	7	0.55	<2	16
224095		4.88	10	1	0.23	<10	3.72	521	65	0.09	38	890	6	1.34	<2	21
224096		5.12	10	2	0.19	<10	3.20	664	21	0.08	42	1080	9	2.03	<2	14
224097		5.07	10	1	0.46	<10	2.62	744	24	0.13	42	1120	6	0.91	2	15
224098		4.61	10	1	0.50	<10	2.46	448	77	0.21	36	1120	9	2.57	<2	11
224099		5.01	10	2	0.43	<10	2.75	534	440	0.19	37	1060	5	2.70	<2	12
224100		5.73	10	1	0.48	<10	2.86	706	25	0.14	43	1080	7	2.54	<2	15
224101		2.76	10	1	0.28	10	0.88	306	53	0.08	1	760	7	0.73	<2	5
224102		3.18	10	1	0.22	10	0.86	348	18	0.09	2	770	6	0.40	<2	5
224103		3.04	10	1	0.26	10	0.81	312	24	0.08	<1	750	6	0.42	<2	5
224104		3.27	10	<1	0.15	10	0.79	334	18	0.09	3	750	8	0.42	2	5
224105		3.27	10	<1	0.15	10	0.80	334	21	0.11	1	740	8	0.56	<2	5
224106		2.85	10	<1	0.15	10	0.74	324	18	0.08	3	740	3	0.73	<2	5

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SMITHERS BC V0J 2N0

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CERTIFICATE OF ANALYSIS VA06061619

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
224067		60	0.27	<10	<10	141	<10	71
224068		252	0.41	<10	<10	254	<10	88
224069		320	0.33	<10	<10	179	<10	69
224070		122	0.36	<10	<10	151	<10	82
224071		170	0.37	<10	<10	169	<10	78
224072		338	0.26	<10	<10	120	<10	69
224073		532	0.31	<10	<10	119	<10	60
224074		561	0.29	<10	<10	108	<10	59
224075		396	0.39	<10	<10	172	<10	84
224076		134	0.30	<10	<10	119	<10	55
224077		124	0.32	<10	<10	122	<10	62
224078		177	0.34	<10	<10	152	<10	57
224079		43	0.24	<10	<10	105	<10	45
224080		108	0.24	<10	<10	165	<10	36
224081		148	0.30	<10	<10	195	<10	45
224082		241	0.37	<10	<10	169	<10	42
224083		242	0.37	<10	<10	202	<10	46
224084		540	0.36	<10	<10	212	<10	45
224085		689	0.33	<10	<10	205	<10	50
224086		557	0.31	<10	<10	168	<10	46
224087		822	0.29	<10	<10	147	<10	41
224088		170	0.21	<10	<10	93	<10	32
224089		301	0.40	<10	<10	264	<10	55
224090		656	0.35	<10	<10	236	<10	42
224091		293	0.43	<10	<10	256	<10	48
224092		118	0.15	<10	<10	79	<10	62
224093		261	0.37	<10	<10	247	<10	50
224094		295	0.32	<10	<10	199	<10	68
224095		617	0.41	<10	<10	208	<10	66
224096		242	0.28	<10	<10	188	<10	57
224097		669	0.26	<10	<10	198	<10	67
224098		333	0.28	<10	<10	215	<10	52
224099		346	0.31	<10	<10	211	<10	51
224100		739	0.30	<10	<10	210	<10	64
224101		170	0.10	<10	<10	53	<10	35
224102		107	0.12	<10	<10	57	<10	42
224103		94	0.14	<10	<10	57	<10	42
224104		128	0.16	<10	<10	65	<10	42
224105		131	0.14	<10	<10	65	<10	40
224106		110	0.13	<10	<10	66	<10	45

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CERTIFICATE OF ANALYSIS VA06061619

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
224107		0.28	0.381	0.360	1.2	2.25	3	<10	120	0.5	<2	2.42	<0.5	6	3	3660
224108		0.26	0.314	0.246	0.8	3.37	5	<10	50	0.7	<2	2.42	<0.5	7	2	2450
224109		0.26	0.436	0.304	1.2	3.35	4	<10	40	0.5	<2	2.81	<0.5	10	3	3130
224110		0.26	0.282	0.220	0.8	3.06	2	<10	110	0.6	<2	2.02	<0.5	7	3	2210
224111		0.26	0.295	0.249	0.9	2.71	2	<10	150	0.6	<2	1.57	<0.5	7	4	2620
224112		0.28	0.234	0.163	0.7	2.43	<2	<10	150	0.6	<2	1.57	<0.5	6	4	1695
224113		0.26	0.337	0.126	0.5	2.35	3	<10	120	0.5	<2	1.56	<0.5	6	5	1285
224114		0.26	0.255	0.203	0.8	2.53	<2	<10	100	0.7	<2	1.60	<0.5	7	3	2070
224115		0.26	0.309	0.268	1.1	2.77	5	<10	110	0.6	<2	1.51	<0.5	6	3	2740
224116		0.26	0.338	0.280	1.4	2.54	3	<10	80	0.6	<2	1.51	<0.5	8	3	2930
224117		0.28	0.336	0.210	1.0	3.38	6	<10	120	0.6	<2	2.03	<0.5	8	3	2120
224118		0.06	0.845	0.001	0.9	0.22	4	<10	30	<0.5	<2	0.16	<0.5	2	4	13
224144		0.26	0.018	0.013	0.2	2.12	3	<10	80	0.6	<2	2.01	<0.5	5	4	125
224145		0.26	0.016	0.001	<0.2	2.03	4	<10	50	0.6	<2	2.13	<0.5	4	5	12
224146		0.24	0.005	0.001	<0.2	1.60	<2	<10	70	0.5	<2	1.65	<0.5	4	5	4
224147		0.28	0.006	0.001	<0.2	2.63	7	<10	50	0.5	<2	2.39	<0.5	4	5	5
224148		0.26	<0.005	0.001	<0.2	1.66	2	<10	80	<0.5	<2	1.64	<0.5	5	4	2
224149		0.24	<0.005	<0.001	<0.2	1.88	5	<10	90	0.6	<2	1.93	<0.5	4	6	4
224150		0.28	<0.005	0.001	<0.2	2.81	3	<10	140	0.7	<2	2.74	<0.5	4	4	5
224151		0.24	0.006	0.001	<0.2	3.18	6	<10	80	0.8	<2	3.13	<0.5	3	4	4
224152		0.24	<0.005	<0.001	<0.2	2.00	3	<10	60	0.6	<2	1.95	<0.5	3	4	4
224153		0.26	<0.005	0.001	<0.2	1.80	2	<10	60	0.6	<2	1.83	<0.5	4	5	6
224154		0.26	<0.005	0.006	<0.2	2.25	6	<10	60	0.7	<2	2.16	<0.5	3	5	60
224155		0.26	0.039	0.006	0.3	2.49	5	<10	180	<0.5	<2	2.17	<0.5	18	25	65

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Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
224107		2.29	<10	<1	0.30	10	0.81	148	39	0.07	2	770	3	2.27	<2	6
224108		2.24	<10	<1	0.24	10	0.66	128	96	0.05	<1	710	4	1.64	<2	5
224109		2.15	10	<1	0.27	10	0.65	182	143	0.04	1	720	9	1.24	<2	4
224110		2.50	10	<1	0.34	10	0.89	160	49	0.06	1	870	5	1.26	<2	6
224111		2.56	10	<1	0.40	10	0.84	125	200	0.06	2	870	4	1.53	<2	6
224112		3.11	10	<1	0.24	10	0.95	147	18	0.10	<1	880	7	0.98	<2	8
224113		3.13	10	<1	0.20	10	0.93	146	11	0.10	1	840	3	0.82	<2	9
224114		3.12	10	1	0.28	10	0.94	145	72	0.06	1	820	6	1.56	<2	7
224115		2.84	10	<1	0.41	10	0.96	166	24	0.06	1	970	4	1.68	<2	6
224116		3.28	10	<1	0.36	10	0.88	194	34	0.06	<1	780	3	1.63	<2	6
224117		2.80	10	1	0.29	10	0.84	173	14	0.09	1	780	2	1.53	<2	6
224118		2.80	<10	<1	0.04	<10	0.04	28	<1	0.12	3	560	102	2.77	<2	<1
224144		3.25	10	<1	0.14	10	0.85	578	<1	0.08	2	870	3	0.07	<2	6
224145		3.07	10	<1	0.12	10	0.81	558	<1	0.08	<1	870	<2	0.01	<2	6
224146		2.96	10	<1	0.14	10	0.56	388	<1	0.10	<1	810	4	0.02	<2	3
224147		3.04	10	<1	0.11	10	0.80	649	<1	0.08	1	840	5	0.05	<2	5
224148		2.94	<10	<1	0.13	10	0.78	743	<1	0.07	1	820	3	0.01	<2	5
224149		2.97	10	<1	0.15	10	0.72	539	3	0.08	1	810	6	0.01	<2	5
224150		3.01	10	<1	0.14	10	0.74	551	<1	0.09	<1	880	2	0.01	3	5
224151		2.76	10	<1	0.12	10	0.66	433	<1	0.08	2	750	6	0.01	<2	4
224152		2.65	<10	<1	0.13	10	0.64	398	1	0.07	<1	700	7	0.01	<2	4
224153		2.80	<10	<1	0.14	10	0.63	398	2	0.08	1	760	3	0.01	<2	4
224154		3.19	10	<1	0.14	10	0.83	456	<1	0.07	1	860	8	0.02	<2	4
224155		4.51	10	<1	0.20	<10	1.33	902	<1	0.08	9	1100	5	1.15	2	7

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To: NORTHGATE MINERALS CORPORATION
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 24-JUL-2006
Account: PIL

Project: 4013

CERTIFICATE OF ANALYSIS VA06061619

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
224107		258	0.12	<10	<10	49	<10	23
224108		117	0.11	<10	<10	39	<10	21
224109		110	0.11	<10	<10	30	<10	29
224110		105	0.15	<10	<10	51	<10	21
224111		163	0.14	<10	<10	46	<10	18
224112		494	0.17	<10	<10	66	<10	23
224113		465	0.17	<10	<10	72	<10	24
224114		171	0.16	<10	<10	55	<10	26
224115		130	0.13	<10	<10	43	<10	29
224116		137	0.16	<10	<10	53	<10	31
224117		580	0.15	<10	<10	49	<10	29
224118		4	<0.01	<10	<10	1	<10	20
224144		82	0.15	<10	<10	68	<10	45
224145		71	0.16	<10	<10	69	<10	44
224146		68	0.14	<10	<10	63	<10	30
224147		121	0.15	<10	<10	63	<10	43
224148		82	0.13	<10	<10	63	<10	48
224149		78	0.15	<10	<10	66	<10	44
224150		125	0.15	<10	<10	64	<10	40
224151		164	0.13	<10	<10	58	<10	35
224152		87	0.14	<10	<10	55	<10	41
224153		77	0.14	<10	<10	58	<10	35
224154		86	0.14	<10	<10	63	<10	47
224155		113	0.21	<10	<10	122	<10	98

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CERTIFICATE VA06062020

Project: 4013
P.O. No.:
This report is for 75 Crushed Rock samples submitted to our lab in Vancouver, BC, Canada on 4-JUL-2006.

The following have access to data associated with this certificate:

CARL EDMUNDS	B. KAY	RON KONST

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
PUL-31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au-AA23	Au 30g FA-AA finish	AAS
Cu-AA49	Assay Cu - HBr Digestion	AAS
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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CERTIFICATE OF ANALYSIS VA06062020

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
223933		0.26	0.007	0.002	<0.2	1.92	157	<10	60	0.5	<2	1.69	<0.5	9	13	22
223934		0.24	<0.005	0.002	<0.2	2.51	15	<10	50	0.8	<2	2.58	<0.5	9	11	21
223935		0.26	<0.005	0.003	<0.2	2.26	31	<10	60	0.6	<2	2.22	<0.5	9	12	26
223936		0.26	<0.005	0.002	<0.2	2.43	6	<10	60	0.7	<2	2.27	<0.5	8	14	25
223937		0.28	<0.005	0.002	<0.2	2.11	15	<10	60	0.5	<2	2.20	<0.5	10	14	26
223938		0.24	<0.005	0.003	<0.2	1.90	8	<10	60	0.5	<2	1.94	<0.5	9	14	38
223939		0.26	<0.005	0.004	<0.2	2.04	13	<10	50	0.5	<2	2.30	<0.5	12	16	45
223940		0.24	<0.005	0.006	0.6	2.36	3	<10	50	0.5	<2	2.19	<0.5	10	14	65
223941		0.24	<0.005	0.003	0.2	2.46	10	<10	50	0.5	<2	2.17	<0.5	10	15	32
223942		0.26	0.007	0.003	<0.2	2.12	7	<10	50	0.6	<2	2.00	<0.5	8	15	28
223943		0.26	0.016	0.003	<0.2	2.11	9	<10	60	<0.5	<2	2.44	<0.5	7	14	26
223944		0.26	<0.005	0.002	<0.2	2.01	8	<10	60	<0.5	<2	2.12	<0.5	7	15	23
223945		0.28	<0.005	0.002	<0.2	2.32	10	<10	60	0.5	<2	2.50	<0.5	8	13	19
223946		0.26	0.011	0.002	<0.2	2.77	11	<10	50	0.8	<2	3.01	<0.5	9	15	22
223947		0.28	<0.005	0.001	<0.2	2.21	7	<10	50	0.5	<2	2.44	<0.5	8	13	9
223948		0.28	<0.005	0.002	<0.2	2.21	6	<10	60	0.6	<2	2.48	<0.5	9	16	15
223949		0.26	<0.005	0.001	<0.2	2.14	8	<10	60	0.5	<2	2.42	<0.5	8	16	13
223950		0.24	<0.005	0.002	<0.2	2.37	9	<10	50	0.6	<2	2.90	<0.5	8	15	19
223951		0.24	<0.005	0.003	<0.2	2.21	4	<10	60	0.6	<2	2.42	<0.5	8	15	26
223952		0.26	<0.005	0.001	<0.2	2.29	8	<10	60	0.7	<2	2.42	<0.5	8	14	7
223953		0.26	<0.005	0.001	<0.2	2.29	<2	<10	60	0.6	<2	2.28	<0.5	8	14	9
223954		0.28	0.012	0.001	<0.2	2.01	<2	<10	60	<0.5	<2	2.49	<0.5	8	16	9
223955		0.28	<0.005	0.001	<0.2	2.37	<2	<10	60	0.7	<2	2.19	<0.5	8	14	7
223956		0.26	<0.005	0.001	<0.2	2.36	<2	<10	50	0.5	<2	2.19	<0.5	10	17	7
223957		0.24	<0.005	0.001	<0.2	2.42	6	<10	60	0.5	<2	1.74	<0.5	10	15	6
223958		0.26	0.011	0.003	<0.2	2.89	2	<10	90	0.5	<2	2.52	<0.5	9	15	29
224257		0.24	0.039	0.017	<0.2	1.40	5	<10	20	<0.5	<2	3.47	<0.5	18	207	180
224258		0.26	0.009	0.024	<0.2	1.25	6	<10	10	<0.5	<2	3.43	<0.5	20	190	256
224259		0.26	<0.005	0.011	0.2	1.16	12	<10	10	<0.5	<2	3.50	<0.5	18	209	112
224260		0.26	<0.005	0.111	0.5	1.26	4	<10	10	<0.5	<2	3.33	<0.5	20	154	1170
224261		0.24	<0.005	0.006	<0.2	1.44	11	<10	20	<0.5	<2	4.56	<0.5	27	115	54
224262		0.26	<0.005	0.020	<0.2	1.38	6	<10	10	<0.5	<2	4.07	<0.5	21	98	216
224263		0.26	<0.005	0.008	<0.2	1.70	8	<10	20	<0.5	<2	4.83	<0.5	26	98	84
224264		0.26	<0.005	0.044	0.2	2.29	10	<10	30	<0.5	<2	4.21	<0.5	30	97	458
224265		0.24	<0.005	0.004	0.2	1.59	9	<10	20	<0.5	<2	5.25	<0.5	24	99	34
224266		0.24	<0.005	0.004	<0.2	1.12	6	<10	10	<0.5	<2	3.41	<0.5	14	169	36
224267		0.26	0.043	0.005	0.2	1.58	10	<10	20	<0.5	<2	5.53	<0.5	23	101	45
224268		0.28	<0.005	0.008	0.3	2.17	13	<10	20	<0.5	<2	4.26	<0.5	26	26	76
224269		0.28	0.006	0.004	<0.2	2.30	10	<10	20	<0.5	<2	3.90	<0.5	25	19	38
224270		0.26	0.006	0.033	0.3	2.37	11	<10	30	<0.5	<2	3.05	<0.5	23	22	383

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KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 24-JUL-2006
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Project: 4013

CERTIFICATE OF ANALYSIS VA06062020

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
223933		3.85	10	<1	0.12	10	1.21	832	1	0.08	5	1030	<2	0.06	<2	7
223934		3.75	10	<1	0.10	10	1.20	818	1	0.07	3	1030	2	0.08	2	7
223935		3.97	10	<1	0.12	10	1.25	836	1	0.07	4	1090	<2	0.09	<2	8
223936		3.84	10	<1	0.11	10	1.16	771	1	0.06	3	1060	<2	0.07	2	9
223937		3.97	10	<1	0.14	10	1.21	766	1	0.07	4	1090	3	0.07	<2	8
223938		3.98	10	<1	0.12	10	1.26	814	1	0.07	5	1060	3	0.07	2	8
223939		4.16	10	<1	0.12	10	1.31	806	1	0.07	6	1100	3	0.10	<2	8
223940		3.94	<10	<1	0.17	10	1.23	717	1	0.07	4	1060	4	0.08	<2	8
223941		4.03	10	<1	0.18	10	1.28	728	1	0.07	4	1110	3	0.05	<2	7
223942		3.82	10	<1	0.22	10	1.22	669	1	0.06	5	1080	3	0.05	<2	7
223943		3.88	10	<1	0.12	10	1.31	767	1	0.07	5	1050	2	0.07	<2	7
223944		3.95	10	<1	0.14	10	1.31	749	2	0.09	4	1080	4	0.06	<2	7
223945		4.14	10	<1	0.11	10	1.32	772	1	0.08	4	1110	<2	0.04	2	7
223946		3.81	10	<1	0.10	10	1.14	641	1	0.06	5	1030	4	0.02	<2	7
223947		3.88	10	<1	0.12	10	1.22	666	1	0.07	4	1050	<2	0.01	2	7
223948		3.92	10	<1	0.12	10	1.30	684	1	0.07	5	1050	<2	0.01	<2	7
223949		3.99	10	<1	0.15	10	1.30	661	1	0.07	5	1060	3	0.01	<2	7
223950		3.56	<10	<1	0.20	10	1.20	701	<1	0.06	4	1080	5	0.01	<2	6
223951		3.39	10	<1	0.12	10	1.23	769	<1	0.06	6	1030	<2	0.02	2	6
223952		3.48	10	<1	0.11	10	1.19	672	<1	0.06	3	1020	2	<0.01	2	7
223953		3.69	10	<1	0.12	10	1.27	718	<1	0.07	4	1070	2	0.01	2	6
223954		3.46	<10	<1	0.20	10	1.24	733	<1	0.06	5	1040	4	<0.01	<2	6
223955		3.78	10	<1	0.15	10	1.38	674	<1	0.07	6	1140	<2	0.01	<2	7
223956		3.81	10	<1	0.13	10	1.40	624	<1	0.06	4	1100	<2	0.01	3	7
223957		3.82	10	<1	0.14	10	1.40	668	<1	0.07	5	1090	4	<0.01	<2	7
223958		4.13	10	<1	0.22	<10	1.12	774	<1	0.07	7	1010	3	0.62	<2	6
224257		5.10	<10	<1	0.07	<10	1.32	464	<1	0.09	25	820	<2	0.02	<2	5
224258		4.74	<10	<1	0.05	<10	1.19	420	<1	0.05	26	740	<2	0.02	<2	4
224259		4.61	<10	<1	0.05	<10	0.93	396	<1	0.06	23	800	<2	0.01	<2	5
224260		5.91	<10	<1	0.03	<10	1.58	577	<1	0.05	25	930	<2	0.05	<2	6
224261		6.54	<10	<1	0.08	<10	1.60	750	<1	0.07	24	980	<2	0.01	<2	5
224262		6.00	<10	<1	0.03	<10	1.42	671	<1	0.05	22	960	<2	0.02	2	6
224263		6.66	<10	<1	0.08	<10	1.75	776	<1	0.10	22	1080	<2	0.01	<2	5
224264		6.88	10	<1	0.08	<10	2.29	878	<1	0.09	26	1150	<2	0.02	<2	7
224265		5.40	<10	1	0.06	<10	1.55	751	<1	0.05	24	940	3	<0.01	<2	6
224266		4.68	<10	<1	0.04	<10	1.09	439	<1	0.06	22	750	2	<0.01	3	4
224267		5.50	10	<1	0.07	<10	1.45	674	<1	0.07	26	890	<2	<0.01	<2	5
224268		5.62	10	<1	0.13	<10	1.59	709	<1	0.12	16	1170	7	<0.01	<2	4
224269		4.40	<10	<1	0.08	<10	1.54	659	<1	0.10	17	1140	2	<0.01	<2	4
224270		5.54	<10	1	0.14	<10	1.36	616	<1	0.19	15	1280	8	<0.01	<2	3

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CERTIFICATE OF ANALYSIS VA06062020

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
223933		103	0.19	<10	<10	80	<10	53
223934		128	0.18	<10	<10	85	<10	51
223935		125	0.18	<10	<10	87	<10	50
223936		163	0.19	<10	<10	92	<10	49
223937		130	0.20	<10	<10	94	<10	50
223938		108	0.19	<10	<10	96	<10	51
223939		127	0.20	<10	<10	99	<10	50
223940		150	0.19	<10	<10	92	<10	50
223941		152	0.19	<10	<10	92	<10	51
223942		132	0.19	<10	<10	93	<10	49
223943		143	0.19	<10	<10	95	<10	45
223944		138	0.18	<10	<10	91	<10	40
223945		154	0.18	<10	<10	97	<10	43
223946		212	0.18	<10	<10	94	<10	39
223947		160	0.18	<10	<10	90	<10	42
223948		151	0.20	<10	<10	95	<10	40
223949		136	0.18	<10	<10	93	<10	39
223950		150	0.16	<10	<10	79	<10	48
223951		162	0.17	<10	<10	85	<10	66
223952		163	0.17	<10	<10	90	<10	54
223953		166	0.18	<10	<10	91	<10	56
223954		129	0.16	<10	<10	83	<10	60
223955		166	0.20	<10	<10	90	<10	47
223956		157	0.20	<10	<10	99	<10	37
223957		166	0.18	<10	<10	92	<10	47
223958		152	0.14	<10	<10	97	<10	74
224257		94	0.24	<10	<10	134	<10	33
224258		77	0.25	<10	<10	128	<10	30
224259		118	0.28	<10	<10	131	<10	27
224260		94	0.29	<10	<10	131	<10	40
224261		72	0.28	<10	<10	177	<10	46
224262		114	0.30	<10	<10	163	<10	38
224263		92	0.31	<10	<10	188	<10	51
224264		169	0.32	<10	<10	200	<10	76
224265		141	0.29	<10	<10	168	<10	58
224266		96	0.25	<10	<10	106	<10	33
224267		131	0.30	<10	<10	188	<10	51
224268		130	0.33	<10	<10	212	<10	88
224269		237	0.30	<10	<10	184	<10	83
224270		132	0.28	<10	<10	220	<10	69

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Project: 4013

CERTIFICATE OF ANALYSIS VA06062020

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
224271		0.24	<0.005	0.061	0.5	2.49	17	<10	10	<0.5	<2	3.84	<0.5	22	20	776
224272		0.24	<0.005	0.023	0.2	1.73	13	<10	10	<0.5	<2	5.06	<0.5	26	109	284
224273		0.26	<0.005	0.073	0.5	1.83	16	<10	10	<0.5	<2	4.29	<0.5	26	128	808
224274		0.28	<0.005	0.016	<0.2	1.41	10	<10	10	<0.5	<2	3.28	<0.5	24	145	156
224275		0.26	<0.005	0.025	0.2	1.62	11	<10	10	<0.5	<2	3.93	<0.5	22	90	276
224276		0.26	<0.005	0.005	<0.2	1.57	17	<10	10	<0.5	<2	3.53	<0.5	21	97	44
224277		0.26	<0.005	0.053	0.2	1.88	6	<10	30	<0.5	<2	3.56	<0.5	16	215	558
224278		0.26	<0.005	0.001	<0.2	1.29	23	<10	20	<0.5	<2	3.75	<0.5	13	227	4
224279		0.26	<0.005	0.002	<0.2	1.20	15	<10	10	<0.5	<2	4.43	<0.5	13	223	15
224280		0.26	<0.005	0.001	<0.2	1.12	11	<10	10	<0.5	<2	7.26	<0.5	9	187	3
224281		0.06	0.424	0.001	<0.2	0.20	<2	<10	20	<0.5	3	0.07	<0.5	<1	3	3
224282		0.28	<0.005	0.001	<0.2	1.28	22	<10	10	<0.5	2	4.45	<0.5	12	154	6
224283		0.26	<0.005	0.001	<0.2	1.06	21	<10	10	<0.5	2	3.80	<0.5	12	140	3
224284		0.24	<0.005	0.001	<0.2	1.62	29	<10	10	<0.5	<2	4.35	<0.5	14	153	6
224285		0.26	<0.005	0.001	<0.2	1.19	16	<10	10	<0.5	<2	3.82	<0.5	16	183	3
224286		0.26	<0.005	0.001	<0.2	1.36	6	<10	10	<0.5	<2	3.75	<0.5	14	161	16
224287		0.28	<0.005	<0.001	<0.2	1.48	19	<10	20	<0.5	3	3.46	<0.5	16	163	7
224288		0.24	<0.005	0.001	<0.2	1.66	18	<10	10	<0.5	<2	3.39	<0.5	18	127	16
224289		0.24	<0.005	0.028	<0.2	1.48	19	<10	10	<0.5	3	3.62	<0.5	19	115	301
224290		0.28	<0.005	0.007	<0.2	1.28	16	<10	10	<0.5	<2	3.08	<0.5	16	120	82
224291		0.28	<0.005	<0.001	<0.2	1.54	20	<10	10	<0.5	<2	3.25	<0.5	22	115	7
224292		0.28	<0.005	<0.001	<0.2	1.28	24	<10	10	<0.5	<2	3.09	<0.5	18	106	10
224293		0.26	<0.005	<0.001	<0.2	1.32	25	<10	10	<0.5	<2	3.42	<0.5	19	98	3
224294		0.26	<0.005	<0.001	<0.2	1.36	17	<10	<10	<0.5	<2	3.43	<0.5	15	91	5
224295		0.26	<0.005	0.001	<0.2	1.46	16	<10	10	<0.5	2	3.57	<0.5	20	111	18
224296		0.28	<0.005	<0.001	<0.2	1.41	14	<10	10	<0.5	<2	2.82	<0.5	15	100	6
224297		0.24	<0.005	0.021	<0.2	1.54	18	<10	20	<0.5	2	3.73	<0.5	14	117	226
224298		0.26	<0.005	0.007	<0.2	1.47	12	<10	20	<0.5	<2	4.44	<0.5	14	107	82
224299		0.24	<0.005	0.001	<0.2	1.42	15	<10	10	<0.5	<2	3.20	<0.5	18	107	22
224300		0.28	<0.005	<0.001	<0.2	1.73	28	<10	10	<0.5	<2	2.99	<0.5	22	98	1
224301		0.26	<0.005	<0.001	<0.2	1.80	34	<10	10	<0.5	2	3.64	<0.5	24	101	1
224302		0.26	<0.005	<0.001	<0.2	1.47	26	<10	10	<0.5	3	6.30	<0.5	17	88	2
224303		0.26	<0.005	0.012	<0.2	2.58	9	<10	30	<0.5	3	3.22	<0.5	19	102	133
224304		0.26	<0.005	0.003	<0.2	2.28	5	<10	20	<0.5	<2	3.63	<0.5	19	102	37
224305		0.26	<0.005	0.003	0.3	2.53	9	<10	20	<0.5	3	3.95	<0.5	19	106	37

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ALS Canada Ltd.
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North Vancouver BC V7J 2C1
Phone: 604 984 0221 Fax: 604 984 0218 www.alschemex.com

To: NORTHGATE MINERALS CORPORATION
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 24-JUL-2006
Account: PIL

Project: 4013

CERTIFICATE OF ANALYSIS VA06062020

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
224271		5.02	10	<1	0.12	<10	1.47	590	<1	0.06	14	1200	4	0.04	<2	5
224272		5.40	<10	1	0.06	<10	1.74	733	<1	0.06	24	860	5	<0.01	<2	5
224273		5.62	<10	<1	0.08	<10	1.67	639	<1	0.06	24	910	5	0.02	<2	6
224274		5.27	<10	<1	0.04	<10	1.62	550	<1	0.05	29	810	<2	<0.01	<2	5
224275		5.08	<10	1	0.03	<10	1.48	606	<1	0.04	27	940	6	<0.01	<2	5
224276		5.02	10	<1	0.04	<10	1.44	522	<1	0.04	26	960	4	<0.01	<2	5
224277		4.28	<10	<1	0.10	<10	1.41	404	<1	0.16	57	720	<2	0.01	<2	2
224278		5.03	<10	2	0.05	<10	1.29	463	<1	0.08	52	730	<2	0.01	3	2
224279		4.92	<10	1	0.04	<10	1.23	550	1	0.08	52	630	3	0.01	<2	3
224280		4.41	<10	<1	0.04	<10	0.95	675	<1	0.07	36	680	2	0.01	<2	2
224281		0.39	<10	1	0.10	<10	0.04	66	<1	0.05	<1	70	3	0.01	<2	<1
224282		4.56	<10	3	0.04	<10	1.08	561	<1	0.05	32	800	5	0.01	2	3
224283		4.87	<10	1	0.05	<10	0.95	608	1	0.06	26	920	4	0.01	3	3
224284		4.92	<10	1	0.05	<10	1.24	655	<1	0.06	32	890	4	0.01	3	4
224285		4.66	<10	1	0.04	<10	1.34	612	<1	0.05	34	860	<2	0.01	<2	3
224286		4.66	<10	1	0.06	<10	1.17	440	<1	0.09	34	870	<2	0.01	3	2
224287		4.92	<10	1	0.07	<10	1.34	463	<1	0.12	38	840	2	0.01	<2	2
224288		5.04	10	<1	0.06	<10	1.43	426	1	0.06	31	920	<2	0.01	<2	3
224289		4.98	10	1	0.08	<10	1.61	665	<1	0.06	29	960	<2	0.02	2	3
224290		5.25	<10	2	0.05	<10	1.44	468	1	0.06	29	970	6	0.02	<2	3
224291		5.73	<10	2	0.03	<10	2.03	653	<1	0.06	35	1030	<2	0.01	<2	5
224292		5.56	<10	<1	0.03	<10	1.51	538	<1	0.05	32	1080	<2	0.02	2	5
224293		4.86	<10	3	0.05	<10	1.43	629	<1	0.04	31	910	<2	0.01	2	4
224294		3.96	<10	<1	0.03	<10	1.21	544	1	0.04	26	770	2	0.01	<2	3
224295		4.75	<10	1	0.06	<10	1.56	689	<1	0.05	30	890	2	0.01	<2	3
224296		4.45	<10	<1	0.03	<10	1.32	545	<1	0.04	29	800	<2	0.01	<2	4
224297		4.67	<10	2	0.07	<10	1.04	571	1	0.11	27	790	2	0.02	<2	2
224298		4.67	<10	2	0.10	<10	1.00	539	1	0.11	23	720	2	0.01	<2	4
224299		5.02	<10	<1	0.06	<10	1.50	541	1	0.08	29	770	<2	0.01	2	3
224300		4.99	10	1	0.03	<10	1.82	675	1	0.04	31	870	4	0.01	<2	4
224301		6.09	10	<1	0.04	<10	2.08	792	<1	0.06	32	1000	<2	0.01	<2	5
224302		5.48	<10	1	0.06	<10	1.45	1165	<1	0.07	25	870	3	0.01	3	4
224303		6.09	10	1	0.10	<10	1.19	483	<1	0.32	28	890	3	0.01	<2	2
224304		5.72	10	<1	0.10	<10	1.22	504	<1	0.22	25	910	<2	0.01	<2	2
224305		6.18	10	1	0.11	<10	1.35	550	1	0.25	27	940	2	0.02	<2	2

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Finalized Date: 24-JUL-2006
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Project: 4013

CERTIFICATE OF ANALYSIS VA06062020

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
224271		117	0.33	<10	<10	217	<10	68
224272		116	0.27	<10	<10	166	<10	55
224273		117	0.33	<10	<10	173	<10	65
224274		89	0.27	<10	<10	144	<10	56
224275		160	0.30	<10	<10	156	<10	61
224276		194	0.31	<10	<10	156	<10	55
224277		128	0.21	<10	<10	122	<10	28
224278		91	0.26	<10	<10	103	<10	28
224279		92	0.27	<10	<10	104	<10	27
224280		97	0.24	<10	<10	100	<10	20
224281		4	<0.01	<10	<10	1	<10	4
224282		106	0.27	<10	<10	111	<10	30
224283		92	0.28	<10	<10	118	<10	29
224284		110	0.29	<10	<10	128	<10	28
224285		96	0.27	<10	<10	120	<10	26
224286		102	0.25	<10	<10	133	<10	22
224287		104	0.27	<10	<10	138	<10	27
224288		111	0.30	<10	<10	136	<10	30
224289		83	0.30	<10	<10	147	<10	40
224290		98	0.31	<10	<10	144	<10	39
224291		88	0.33	<10	<10	147	<10	66
224292		97	0.33	<10	<10	150	<10	54
224293		108	0.31	<10	<10	137	<10	51
224294		134	0.34	<10	<10	135	<10	40
224295		106	0.32	<10	<10	150	<10	58
224296		134	0.35	<10	<10	129	<10	46
224297		126	0.31	<10	<10	139	<10	32
224298		112	0.32	<10	<10	150	<10	33
224299		78	0.35	<10	<10	158	<10	55
224300		156	0.35	<10	<10	138	<10	76
224301		91	0.34	<10	<10	141	<10	89
224302		99	0.30	<10	<10	149	<10	66
224303		132	0.29	<10	<10	180	<10	36
224304		103	0.26	<10	<10	148	<10	45
224305		116	0.28	<10	<10	157	<10	45

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To: NORTHGATE MINERALS CORPORATION
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 24-JUL-2006
Account: PIL

CERTIFICATE VA06062021

Project: 4013
P.O. No.:
This report is for 76 Crushed Rock samples submitted to our lab in Vancouver, BC, Canada on 4-JUL-2006.

The following have access to data associated with this certificate:

CARL EDMUNDS	B. KAY	RON KONST

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
PUL-QC	Pulverizing QC Test
PUL-31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au-AA23	Au 30g FA-AA finish	AAS
Cu-AA49	Assay Cu - HBr Digestion	AAS
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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North Vancouver BC V7J 2C1
Phone: 604 984 0221 Fax: 604 984 0218 www.alschemex.com

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KEMESS MINE
PO BOX 3519
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Finalized Date: 24-JUL-2006
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CERTIFICATE OF ANALYSIS VA06062021

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
223959		0.28	<0.005	<0.001	<0.2	2.35	5	<10	60	0.5	<2	2.16	<0.5	9	16	8
223960		0.28	<0.005	<0.001	<0.2	2.27	6	<10	60	0.6	<2	2.65	<0.5	11	11	8
223961		0.24	<0.005	<0.001	<0.2	2.00	4	<10	70	0.5	<2	2.21	<0.5	10	12	7
223962		0.28	<0.005	<0.001	<0.2	2.43	6	<10	60	0.5	<2	2.90	<0.5	9	13	6
223963		0.26	<0.005	<0.001	<0.2	3.21	7	<10	70	0.7	<2	3.16	<0.5	7	12	5
223964		0.24	<0.005	<0.001	<0.2	2.02	3	<10	80	0.5	<2	1.93	<0.5	7	13	4
223965		0.24	<0.005	<0.001	<0.2	2.30	7	<10	60	0.8	<2	2.03	<0.5	10	13	5
223966		0.28	<0.005	<0.001	<0.2	2.93	3	<10	50	0.7	<2	2.30	<0.5	11	22	2
223967		0.26	<0.005	<0.001	<0.2	2.36	3	<10	50	0.6	<2	1.23	<0.5	10	14	3
223968		0.24	<0.005	0.001	<0.2	3.17	3	<10	40	0.6	<2	2.04	<0.5	13	23	28
223969		0.28	<0.005	<0.001	<0.2	2.49	6	<10	40	0.6	<2	2.48	<0.5	11	5	2
223970		0.26	0.005	0.026	0.4	2.72	6	<10	60	0.6	<2	1.96	<0.5	11	7	276
223971		0.28	<0.005	0.001	<0.2	2.78	8	<10	50	0.6	<2	1.91	<0.5	11	6	16
223972		0.26	<0.005	0.006	<0.2	1.86	3	<10	40	0.6	<2	1.98	<0.5	13	6	66
223973		0.26	<0.005	0.001	<0.2	1.90	6	<10	40	0.5	<2	2.67	<0.5	10	12	15
223974		0.26	<0.005	<0.001	<0.2	2.01	2	<10	60	0.5	<2	2.62	<0.5	9	12	13
223975		0.26	<0.005	0.002	<0.2	2.33	14	<10	70	0.5	<2	2.17	<0.5	9	17	17
223976		0.26	<0.005	0.003	<0.2	3.54	4	<10	50	0.7	<2	3.51	<0.5	9	11	27
223977		0.26	<0.005	0.003	<0.2	2.76	<2	<10	60	0.7	<2	2.48	<0.5	9	11	22
223978		0.26	<0.005	0.001	<0.2	2.40	<2	<10	60	0.5	<2	2.78	<0.5	10	10	6
223979		0.26	<0.005	0.002	<0.2	2.34	<2	<10	60	0.5	<2	2.65	<0.5	10	12	21
223980		0.26	<0.005	0.002	<0.2	2.56	6	<10	50	0.5	<2	2.49	<0.5	11	12	15
223981		0.26	<0.005	0.002	<0.2	3.52	7	<10	50	0.7	<2	3.18	<0.5	10	10	15
223982		0.24	<0.005	0.002	<0.2	2.75	5	<10	50	0.7	<2	2.34	<0.5	9	12	18
223983		0.06	0.833	0.001	0.7	0.22	<2	10	30	<0.5	2	0.16	<0.5	2	4	11
223984		0.24	<0.005	0.003	<0.2	2.31	<2	<10	50	0.6	<2	2.25	<0.5	10	12	27
223985		0.24	<0.005	0.002	<0.2	2.14	13	<10	60	0.7	<2	2.52	<0.5	9	12	21
223986		0.28	<0.005	0.003	<0.2	1.88	7	<10	70	0.5	<2	1.95	<0.5	10	11	30
223987		0.28	<0.005	0.002	<0.2	1.77	<2	<10	70	<0.5	<2	1.73	<0.5	9	11	17
223988		0.26	<0.005	0.002	<0.2	1.96	5	<10	70	<0.5	<2	1.96	<0.5	9	13	20
223989		0.24	<0.005	0.002	<0.2	2.22	7	<10	50	0.5	<2	2.39	<0.5	8	12	13
223990		0.26	<0.005	0.002	<0.2	2.27	10	<10	70	0.5	<2	1.97	<0.5	9	11	15
223991		0.28	<0.005	0.002	<0.2	1.90	<2	<10	60	0.5	<2	1.88	<0.5	8	13	17
223992		0.26	<0.005	0.002	<0.2	1.64	5	<10	70	<0.5	<2	1.57	<0.5	7	10	14
223993		0.26	0.008	0.003	<0.2	1.61	8	<10	60	<0.5	<2	1.62	<0.5	9	11	28
223994		0.26	<0.005	0.002	<0.2	1.61	8	<10	80	<0.5	<2	1.58	<0.5	9	10	16
223995		0.26	<0.005	0.002	<0.2	1.73	6	<10	70	<0.5	<2	1.64	<0.5	8	11	17
223996		0.28	<0.005	0.002	<0.2	1.58	<2	<10	50	<0.5	<2	1.48	<0.5	8	17	13
223997		0.26	<0.005	0.003	<0.2	2.24	3	<10	50	0.5	<2	1.96	<0.5	8	9	25
223998		0.26	<0.005	0.002	<0.2	2.49	4	<10	70	0.6	<2	2.40	<0.5	8	11	19

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North Vancouver BC V7J 2C1
Phone: 604 984 0221 Fax: 604 984 0218 www.alschemex.com

To: NORTHGATE MINERALS CORPORATION
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 24-JUL-2006
Account: PIL

Project: 4013

CERTIFICATE OF ANALYSIS VA06062021

Sample Description	Method	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Fe	Ga	Hg	K	La	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Sc
	Units	%	ppm	ppm	%	ppm	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm
	LOR	0.01	10	1	0.01	10	0.01	5	1	0.01	1	10	2	0.01	2	1
223959		3.66	10	1	0.14	10	1.37	706	1	0.07	6	1060	7	<0.01	<2	7
223960		3.75	10	<1	0.16	10	1.29	739	1	0.07	7	1020	2	<0.01	2	7
223961		3.47	10	<1	0.15	10	1.26	655	1	0.08	4	1020	4	<0.01	2	6
223962		3.31	10	<1	0.17	10	1.25	639	<1	0.07	7	1000	2	0.01	<2	6
223963		3.20	10	2	0.14	10	1.22	597	1	0.07	6	940	5	0.02	<2	6
223964		3.22	10	1	0.17	10	1.20	563	1	0.08	6	940	3	<0.01	<2	6
223965		3.33	10	1	0.36	10	1.05	548	<1	0.06	8	1100	6	0.04	4	6
223966		3.34	10	3	0.23	10	1.56	706	<1	0.05	12	1130	4	<0.01	<2	4
223967		3.13	10	1	0.18	10	1.32	573	<1	0.06	5	1070	4	<0.01	4	4
223968		3.42	10	1	0.25	<10	1.63	798	<1	0.04	14	950	10	0.03	<2	4
223969		2.76	10	1	0.35	10	1.33	778	<1	0.05	4	940	7	0.01	5	3
223970		2.50	10	2	0.22	<10	1.08	584	<1	0.04	6	940	6	0.37	5	3
223971		2.59	10	2	0.22	<10	1.18	679	<1	0.04	4	870	5	0.12	2	3
223972		2.56	10	1	0.28	<10	1.01	530	1	0.05	6	900	6	0.29	<2	3
223973		3.24	10	1	0.28	10	1.21	714	<1	0.05	6	1010	3	0.01	<2	5
223974		3.57	10	2	0.21	10	1.22	854	<1	0.07	4	1020	7	0.01	5	7
223975		3.62	10	1	0.14	10	1.12	734	<1	0.08	7	1050	8	0.01	<2	7
223976		3.04	10	1	0.14	10	0.98	677	<1	0.05	7	910	6	<0.01	4	6
223977		3.47	10	1	0.28	10	1.00	671	<1	0.06	5	1050	4	0.08	2	7
223978		3.34	10	2	0.25	10	1.04	685	1	0.06	6	1000	6	0.02	3	6
223979		3.28	10	1	0.24	10	1.05	753	1	0.06	8	950	4	0.01	2	6
223980		3.12	10	3	0.17	10	1.05	708	<1	0.06	6	950	6	0.05	<2	6
223981		3.25	10	1	0.17	10	1.19	636	<1	0.07	8	1000	4	0.03	4	7
223982		3.24	10	1	0.12	10	1.02	560	<1	0.07	6	950	4	<0.01	3	6
223983		2.96	<10	2	0.04	<10	0.04	31	1	0.12	4	610	111	3.15	<2	<1
223984		3.47	10	2	0.13	10	1.08	662	<1	0.09	3	1040	6	0.01	<2	7
223985		3.44	10	1	0.15	10	1.07	703	<1	0.10	7	1000	8	0.01	<2	7
223986		3.33	10	2	0.15	10	0.98	657	1	0.10	5	990	6	0.01	2	5
223987		3.45	10	2	0.15	10	0.99	676	<1	0.10	6	1020	5	0.01	<2	5
223988		3.39	10	2	0.16	10	0.98	631	<1	0.13	7	990	<2	0.01	4	5
223989		3.22	10	3	0.17	10	0.92	558	1	0.09	6	960	5	0.01	<2	5
223990		3.13	10	2	0.13	10	0.82	501	<1	0.11	3	950	4	<0.01	<2	4
223991		3.19	10	1	0.16	10	0.81	543	1	0.10	2	980	4	<0.01	<2	4
223992		3.07	10	<1	0.14	10	0.75	520	1	0.12	4	980	2	<0.01	2	4
223993		3.14	10	2	0.15	10	0.81	530	1	0.11	5	930	3	<0.01	<2	5
223994		3.24	10	2	0.15	10	0.84	559	1	0.12	5	970	5	<0.01	3	5
223995		3.26	10	1	0.12	10	0.80	540	<1	0.13	3	970	3	<0.01	2	4
223996		3.33	10	<1	0.12	10	0.85	588	1	0.13	7	1010	4	<0.01	<2	4
223997		3.31	10	3	0.12	10	0.89	626	1	0.11	4	1030	5	0.01	2	5
223998		3.74	10	2	0.15	10	1.09	795	1	0.12	6	1100	9	0.02	<2	7

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CERTIFICATE OF ANALYSIS VA06062021

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
223959		158	0.20	10	<10	96	<10	53
223960		126	0.20	<10	<10	96	<10	61
223961		132	0.19	10	<10	93	<10	49
223962		168	0.17	<10	<10	89	<10	51
223963		226	0.17	10	<10	90	<10	47
223964		154	0.17	<10	<10	85	<10	44
223965		140	0.16	<10	<10	82	<10	45
223966		222	0.22	<10	<10	80	<10	48
223967		147	0.20	<10	<10	81	<10	45
223968		226	0.22	<10	<10	85	<10	78
223969		119	0.18	<10	<10	68	<10	97
223970		186	0.17	<10	<10	67	<10	55
223971		187	0.21	<10	<10	80	<10	69
223972		100	0.19	<10	<10	82	<10	52
223973		101	0.17	<10	<10	76	<10	63
223974		119	0.19	<10	<10	94	<10	65
223975		147	0.19	<10	<10	98	<10	59
223976		249	0.17	<10	<10	91	<10	60
223977		189	0.17	<10	<10	87	<10	55
223978		155	0.17	<10	<10	83	10	54
223979		158	0.17	<10	<10	83	<10	61
223980		173	0.17	<10	<10	86	<10	60
223981		234	0.15	<10	<10	84	<10	49
223982		181	0.18	<10	<10	89	<10	45
223983		5	<0.01	<10	<10	1	<10	22
223984		138	0.21	10	<10	97	<10	56
223985		128	0.21	<10	<10	98	10	59
223986		130	0.20	<10	<10	92	<10	58
223987		116	0.20	<10	<10	94	<10	55
223988		151	0.19	<10	<10	90	<10	50
223989		152	0.18	<10	<10	82	<10	46
223990		160	0.17	10	<10	86	<10	44
223991		136	0.17	<10	<10	85	<10	47
223992		119	0.18	<10	<10	85	<10	47
223993		108	0.18	<10	<10	89	<10	50
223994		153	0.18	<10	<10	89	<10	48
223995		127	0.19	<10	<10	90	<10	51
223996		90	0.20	<10	<10	93	<10	50
223997		135	0.19	<10	<10	91	<10	54
223998		165	0.20	<10	<10	95	<10	62

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CERTIFICATE OF ANALYSIS VA06062021

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
223999		0.28	<0.005	0.003	<0.2	2.49	6	<10	60	0.6	<2	1.97	<0.5	9	10	28
224000		0.26	0.019	0.018	0.4	2.19	8	<10	80	0.6	<2	1.96	<0.5	8	9	174
224306		0.24	<0.005	0.004	<0.2	1.96	11	<10	30	<0.5	<2	3.22	<0.5	20	89	34
224307		0.26	<0.005	0.002	<0.2	1.79	15	<10	10	<0.5	<2	2.98	<0.5	21	70	13
224308		0.26	<0.005	0.001	<0.2	1.57	19	<10	10	<0.5	<2	3.51	<0.5	20	65	4
224309		0.26	<0.005	0.008	<0.2	1.88	9	<10	30	<0.5	<2	3.86	<0.5	17	79	78
224310		0.24	<0.005	0.002	<0.2	1.92	17	<10	20	<0.5	<2	3.36	<0.5	22	56	20
224311		0.26	<0.005	0.002	<0.2	1.82	20	<10	20	<0.5	<2	4.04	<0.5	24	59	13
224312		0.24	<0.005	0.003	<0.2	2.18	12	<10	30	<0.5	<2	4.14	<0.5	25	59	23
224313		0.28	0.005	0.002	<0.2	1.94	13	<10	20	<0.5	<2	4.08	<0.5	24	60	20
224314		0.24	<0.005	0.004	<0.2	2.78	22	<10	10	<0.5	<2	6.48	<0.5	25	76	39
224315		0.28	<0.005	0.001	<0.2	1.79	12	<10	10	<0.5	<2	3.05	<0.5	23	69	6
224316		0.28	<0.005	<0.001	<0.2	1.86	12	<10	10	<0.5	<2	5.36	<0.5	20	81	19
224317		0.26	<0.005	<0.001	<0.2	1.64	20	<10	10	<0.5	<2	3.54	<0.5	23	73	12
224318		0.26	0.009	0.005	0.4	1.84	14	<10	10	<0.5	<2	2.40	<0.5	24	65	75
224319		0.26	0.021	<0.001	<0.2	1.64	9	<10	10	<0.5	<2	3.85	<0.5	19	51	5
224320		0.24	0.006	<0.001	<0.2	1.74	13	<10	20	<0.5	<2	3.89	<0.5	18	57	10
224321		0.28	0.006	0.005	<0.2	1.96	17	<10	10	<0.5	<2	3.57	<0.5	26	62	73
224322		0.26	0.007	0.003	0.2	2.14	9	<10	10	<0.5	<2	3.65	<0.5	26	61	52
224323		0.26	0.011	0.006	0.2	1.50	12	<10	10	<0.5	<2	3.16	<0.5	21	57	82
224324		0.28	0.007	0.014	<0.2	2.30	13	<10	<10	<0.5	<2	4.67	<0.5	26	58	164
224325		0.26	<0.005	0.005	0.2	2.26	7	<10	10	<0.5	<2	5.17	<0.5	26	67	76
224326		0.28	0.011	<0.001	<0.2	3.41	16	<10	<10	<0.5	<2	7.22	<0.5	33	73	14
224327		0.26	0.007	<0.001	<0.2	1.70	13	<10	10	<0.5	<2	3.27	<0.5	19	55	7
224328		0.26	<0.005	<0.001	<0.2	1.62	12	<10	20	<0.5	<2	2.82	<0.5	23	58	3
224329		0.26	0.005	<0.001	<0.2	1.47	4	<10	110	<0.5	<2	1.61	<0.5	7	9	14
225001		0.26	<0.005	<0.001	<0.2	2.68	6	<10	60	0.6	<2	2.26	<0.5	8	9	20
225002		0.24	0.005	<0.001	<0.2	1.95	3	<10	80	0.5	<2	1.87	<0.5	10	9	14
225003		0.24	0.005	0.002	<0.2	2.36	9	<10	60	0.7	<2	2.31	<0.5	8	8	43
225004		0.26	<0.005	0.007	<0.2	1.92	7	<10	70	0.5	<2	1.82	<0.5	7	8	84
225005		0.26	<0.005	0.001	<0.2	1.72	5	<10	60	<0.5	<2	1.83	<0.5	7	10	26
225006		0.26	0.006	<0.001	<0.2	1.69	<2	<10	70	<0.5	<2	1.71	<0.5	7	8	21
225007		0.28	<0.005	<0.001	<0.2	2.11	4	<10	70	0.5	<2	2.12	<0.5	8	9	21
225008		0.26	0.006	<0.001	<0.2	3.16	2	<10	120	0.5	<2	6.59	<0.5	5	6	22
225009		0.26	0.007	0.001	0.2	2.24	<2	<10	70	0.6	<2	1.88	<0.5	9	10	33
225010		0.24	0.017	0.005	0.3	2.60	10	<10	60	0.7	<2	2.16	<0.5	13	9	73

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Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
223999		3.34	10	3	0.15	10	0.94	634	1	0.10	3	980	4	<0.01	<2	5
224000		3.16	10	1	0.14	10	0.82	543	<1	0.11	4	970	<2	0.03	2	4
224306		5.31	<10	<1	0.09	<10	1.44	593	<1	0.17	24	850	4	<0.01	3	4
224307		5.07	10	<1	0.08	<10	1.69	615	<1	0.08	22	970	3	0.01	4	5
224308		4.95	10	1	0.06	<10	1.48	672	<1	0.08	21	960	4	0.01	3	5
224309		4.78	<10	<1	0.10	<10	1.10	483	<1	0.13	18	1000	4	0.01	4	3
224310		4.85	10	<1	0.07	<10	1.58	604	<1	0.08	18	960	5	0.01	2	6
224311		5.76	<10	3	0.09	<10	1.53	750	<1	0.10	24	970	<2	<0.01	<2	5
224312		5.61	10	<1	0.11	<10	1.56	688	<1	0.11	19	970	5	<0.01	4	5
224313		5.39	<10	1	0.10	<10	1.63	786	1	0.07	17	970	6	<0.01	2	6
224314		6.23	10	1	0.09	<10	1.78	756	<1	0.08	24	1080	11	0.01	6	9
224315		4.57	<10	<1	0.04	<10	1.59	604	<1	0.06	22	940	7	<0.01	3	5
224316		5.61	<10	<1	0.08	<10	1.54	740	1	0.08	24	1040	3	0.01	<2	8
224317		5.80	10	<1	0.04	<10	1.64	765	<1	0.09	23	1040	5	0.01	2	6
224318		5.15	10	<1	0.03	<10	1.76	613	<1	0.06	19	990	2	0.01	2	7
224319		5.30	<10	<1	0.05	<10	1.35	670	<1	0.07	15	950	3	0.01	3	6
224320		5.39	<10	<1	0.10	<10	1.10	536	<1	0.09	15	980	4	<0.01	3	5
224321		6.14	10	<1	0.10	<10	1.74	721	1	0.07	18	1020	3	0.01	3	6
224322		5.45	10	<1	0.05	<10	2.00	719	1	0.05	19	1020	5	0.01	3	8
224323		5.38	<10	<1	0.07	<10	1.34	588	<1	0.07	16	1000	4	0.01	<2	6
224324		4.47	10	1	<0.01	<10	1.64	639	<1	0.04	21	830	4	0.02	3	8
224325		5.78	10	<1	0.05	<10	1.72	700	1	0.06	22	1000	6	0.01	4	9
224326		5.24	10	<1	0.03	<10	2.12	774	<1	0.05	27	990	11	<0.01	4	9
224327		5.20	10	<1	0.04	<10	1.18	520	<1	0.05	15	980	9	<0.01	3	6
224328		6.06	<10	<1	0.08	<10	1.38	519	<1	0.08	16	990	4	<0.01	3	5
224329		2.50	<10	<1	0.22	<10	0.65	451	<1	0.06	4	1240	7	0.27	<2	3
225001		3.28	10	<1	0.12	10	0.90	556	1	0.09	4	940	6	<0.01	<2	6
225002		3.55	10	1	0.13	10	1.00	623	1	0.10	3	1020	7	0.18	3	6
225003		3.29	10	<1	0.12	10	0.99	611	1	0.09	3	940	10	0.01	2	6
225004		3.04	10	1	0.10	10	0.89	560	3	0.09	3	930	10	0.01	3	5
225005		3.35	10	<1	0.11	10	0.98	591	1	0.11	3	970	6	0.01	4	6
225006		3.21	10	<1	0.11	10	0.89	552	1	0.10	3	970	7	0.01	4	5
225007		3.30	10	1	0.13	10	0.97	613	1	0.10	3	970	6	0.03	3	6
225008		2.39	10	1	0.20	<10	0.47	427	<1	0.07	3	640	5	0.25	<2	3
225009		3.48	10	<1	0.12	10	1.04	616	1	0.09	3	1000	6	0.13	4	6
225010		3.52	10	<1	0.11	10	1.21	680	1	0.07	3	980	7	0.54	5	6

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212 Brooksbank Avenue
North Vancouver BC V7J 2C1
Phone: 604 984 0221 Fax: 604 984 0218 www.alschemex.com

To: NORTHGATE MINERALS CORPORATION
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 24-JUL-2006
Account: PIL

Project: 4013

CERTIFICATE OF ANALYSIS VA06062021

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
223999		160	0.18	<10	<10	91	<10	57
224000		160	0.18	<10	<10	85	<10	42
224306		97	0.32	<10	<10	168	<10	62
224307		94	0.37	<10	<10	174	<10	79
224308		104	0.35	<10	<10	152	<10	66
224309		116	0.34	<10	<10	174	<10	43
224310		167	0.38	<10	<10	165	<10	62
224311		93	0.33	<10	<10	196	<10	62
224312		106	0.35	<10	<10	186	<10	63
224313		120	0.40	<10	<10	184	<10	73
224314		186	0.37	<10	<10	192	<10	77
224315		186	0.39	<10	<10	154	<10	78
224316		106	0.39	<10	<10	205	<10	68
224317		85	0.37	<10	<10	171	<10	93
224318		132	0.39	<10	<10	168	<10	82
224319		157	0.37	<10	<10	156	<10	52
224320		117	0.34	<10	<10	178	<10	45
224321		116	0.37	<10	<10	207	<10	73
224322		206	0.38	<10	<10	181	<10	80
224323		126	0.35	<10	<10	168	<10	56
224324		384	0.41	<10	<10	148	<10	67
224325		279	0.36	<10	<10	194	<10	69
224326		366	0.35	<10	<10	156	<10	100
224327		222	0.34	<10	<10	167	<10	56
224328		76	0.32	<10	<10	188	<10	64
224329		83	0.10	<10	<10	59	<10	45
225001		162	0.16	<10	<10	82	<10	46
225002		146	0.18	<10	<10	87	<10	54
225003		151	0.17	<10	<10	87	<10	55
225004		176	0.16	<10	<10	82	<10	54
225005		134	0.18	<10	<10	91	<10	55
225006		159	0.17	<10	<10	87	<10	51
225007		160	0.17	<10	<10	85	<10	53
225008		216	0.11	<10	<10	49	<10	40
225009		138	0.18	<10	<10	88	<10	51
225010		148	0.18	<10	<10	89	<10	60

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Finalized Date: 24-JUL-2006
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CERTIFICATE VA06062022

Project: 4013
P.O. No.:
This report is for 75 Pulp samples submitted to our lab in Vancouver, BC, Canada on 4-JUL-2006.
The following have access to data associated with this certificate:

CARL EDMUNDS	B. KAY	RON KONST

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
LOG-QC	QC Test on Received Samples

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au-AA23	Au 30g FA-AA finish	AAS
Cu-AA49	Assay Cu - HBr Digestion	AAS
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
KEMESS MINE
PO BOX 3519
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This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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CERTIFICATE OF ANALYSIS VA06062022

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
224182		0.24	<0.005	0.001	<0.2	1.60	4	<10	350	<0.5	<2	1.01	<0.5	5	65	9
224183		0.24	<0.005	0.002	<0.2	1.48	<2	<10	450	<0.5	2	1.17	0.6	3	83	17
224184		0.20	<0.005	0.001	<0.2	2.19	6	<10	270	0.7	2	1.23	<0.5	12	70	2
224185		0.26	<0.005	0.001	<0.2	1.78	<2	<10	470	<0.5	<2	0.79	<0.5	3	57	5
224186		0.26	0.006	0.001	<0.2	1.84	4	<10	540	<0.5	2	0.80	<0.5	5	43	3
224187		0.26	0.006	0.001	<0.2	1.78	5	<10	430	<0.5	<2	0.61	<0.5	5	53	3
224188		0.24	<0.005	0.003	<0.2	3.84	5	<10	70	<0.5	<2	4.11	<0.5	22	225	27
224189		0.26	<0.005	0.003	<0.2	3.75	6	<10	50	<0.5	<2	4.24	<0.5	22	210	30
224190		0.26	<0.005	0.022	0.3	2.81	16	<10	160	0.5	<2	2.79	1.7	15	43	222
224191		0.26	<0.005	0.002	<0.2	2.48	6	<10	280	<0.5	2	1.84	<0.5	7	53	16
224192		0.26	0.008	0.003	<0.2	2.98	6	<10	280	<0.5	<2	1.90	<0.5	8	41	32
224193		0.26	<0.005	0.002	<0.2	2.51	6	<10	260	<0.5	2	1.32	<0.5	8	50	16
224194		0.26	<0.005	0.001	<0.2	2.54	2	<10	170	<0.5	<2	2.99	0.8	14	89	9
224195		0.26	<0.005	0.001	<0.2	2.55	3	<10	240	<0.5	<2	2.31	<0.5	9	43	6
224196		0.26	<0.005	0.001	<0.2	3.10	2	<10	170	0.5	2	3.49	<0.5	13	82	8
224197		0.24	<0.005	0.001	<0.2	3.45	2	<10	200	0.5	2	3.54	<0.5	10	71	7
224198		0.26	<0.005	0.003	<0.2	3.21	4	<10	150	0.5	2	3.45	1.1	13	69	23
224199		0.24	<0.005	0.002	<0.2	3.11	7	<10	200	0.5	<2	2.65	<0.5	10	55	13
224200		0.26	<0.005	0.001	<0.2	3.79	5	<10	150	<0.5	<2	3.15	<0.5	16	123	6
224201		0.26	<0.005	0.003	<0.2	3.08	4	<10	110	0.5	<2	3.89	<0.5	14	107	23
224202		0.26	<0.005	<0.001	<0.2	4.12	<2	<10	130	<0.5	<2	1.68	<0.5	16	36	2
224203		0.24	<0.005	<0.001	<0.2	4.58	9	<10	110	<0.5	<2	2.01	<0.5	16	34	1
224204		0.24	<0.005	0.001	<0.2	3.79	8	<10	40	<0.5	<2	2.77	<0.5	15	35	3
224205		0.26	<0.005	0.001	<0.2	3.04	6	<10	420	0.5	<2	2.06	<0.5	7	39	10
224206		0.20	<0.005	0.003	<0.2	2.07	4	<10	160	<0.5	<2	2.47	<0.5	9	50	25
224207		0.22	<0.005	0.003	<0.2	2.29	11	<10	210	<0.5	<2	1.48	<0.5	11	63	26
224208		0.18	<0.005	0.001	<0.2	2.29	4	<10	210	<0.5	<2	1.76	<0.5	7	78	7
224209		0.26	0.010	0.008	<0.2	2.71	8	<10	230	<0.5	<2	1.66	<0.5	8	81	79
224210		0.22	0.011	0.001	<0.2	3.13	7	<10	170	<0.5	<2	2.10	<0.5	9	93	9
224211		0.24	<0.005	0.001	<0.2	2.47	8	<10	230	<0.5	<2	1.60	<0.5	7	54	4
224212		0.26	<0.005	0.005	<0.2	2.99	8	<10	340	<0.5	<2	1.90	<0.5	6	39	54
224213		0.26	<0.005	0.005	<0.2	2.48	7	<10	70	<0.5	<2	2.29	0.6	13	53	56
224214		0.26	<0.005	0.002	<0.2	2.06	<2	<10	60	<0.5	<2	1.78	<0.5	9	42	16
224215		0.24	<0.005	0.001	<0.2	2.49	8	<10	50	<0.5	<2	2.06	<0.5	6	42	5
224216		0.24	<0.005	<0.001	<0.2	2.05	7	<10	80	<0.5	<2	1.95	<0.5	7	45	2
224217		0.24	<0.005	0.001	<0.2	1.38	4	<10	320	<0.5	<2	0.85	<0.5	3	33	11
224218		0.26	<0.005	0.002	<0.2	1.60	3	<10	250	<0.5	<2	1.16	<0.5	6	62	14
224219		0.24	<0.005	0.005	<0.2	2.29	6	<10	130	<0.5	<2	1.72	0.5	13	90	51
224220		0.26	<0.005	0.004	<0.2	2.46	8	<10	140	<0.5	<2	1.43	0.7	20	73	37
224221		0.24	<0.005	0.004	<0.2	3.80	5	<10	70	<0.5	<2	3.46	<0.5	16	107	36

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CERTIFICATE OF ANALYSIS VA06062022

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
224182		2.11	<10	<1	0.41	<10	0.30	336	<1	0.08	5	1100	2	<0.01	<2	4
224183		1.59	10	<1	0.48	<10	0.21	222	<1	0.09	3	1250	12	<0.01	<2	4
224184		3.65	10	<1	0.29	10	0.80	596	<1	0.13	3	1200	2	<0.01	<2	5
224185		2.66	<10	<1	0.55	<10	0.18	292	<1	0.10	1	980	2	<0.01	<2	3
224186		3.15	10	1	0.62	10	0.31	288	<1	0.12	3	990	<2	<0.01	<2	4
224187		2.47	<10	<1	0.56	<10	0.47	373	<1	0.08	5	670	<2	<0.01	<2	3
224188		5.11	10	<1	0.10	<10	3.53	1395	<1	0.08	96	940	<2	<0.01	<2	12
224189		4.85	10	<1	0.10	<10	3.56	1025	<1	0.09	98	1090	<2	<0.01	<2	13
224190		4.42	10	1	0.34	<10	1.11	923	2	0.14	10	1270	12	0.64	<2	7
224191		3.57	10	<1	0.51	10	0.66	814	2	0.17	4	920	<2	0.21	<2	4
224192		3.76	10	<1	0.52	10	0.73	882	2	0.28	3	980	<2	0.35	<2	4
224193		3.65	10	1	0.45	10	0.71	714	1	0.17	4	940	<2	0.14	<2	4
224194		4.18	10	<1	0.39	<10	1.22	1160	<1	0.10	8	490	<2	0.08	<2	7
224195		3.56	10	<1	0.53	<10	0.78	806	<1	0.14	3	840	<2	0.03	<2	5
224196		4.35	10	<1	0.48	<10	1.37	1165	<1	0.14	14	920	2	0.02	<2	9
224197		3.95	10	<1	0.48	<10	1.17	1010	<1	0.27	12	820	<2	0.04	<2	7
224198		4.03	10	<1	0.37	<10	1.39	1155	<1	0.16	16	910	18	0.14	<2	9
224199		3.97	10	<1	0.42	<10	1.18	872	<1	0.20	9	830	<2	<0.01	<2	8
224200		4.67	10	1	0.24	<10	1.97	1265	<1	0.26	30	840	<2	0.01	<2	13
224201		4.32	10	<1	0.28	<10	1.55	1060	<1	0.12	38	940	2	0.01	<2	12
224202		4.32	10	<1	0.14	<10	3.09	1045	<1	0.17	6	1170	<2	0.01	<2	11
224203		4.50	10	<1	0.14	<10	3.44	1010	<1	0.15	8	1220	<2	<0.01	<2	12
224204		4.33	10	1	0.21	<10	2.64	1110	<1	0.10	5	1240	6	0.02	<2	10
224205		3.44	10	<1	0.34	10	0.75	595	1	0.11	4	790	7	0.59	<2	5
224206		3.54	10	1	0.36	<10	1.04	957	<1	0.08	3	1000	2	0.04	<2	4
224207		3.53	<10	<1	0.38	<10	0.64	774	2	0.17	4	900	4	0.29	<2	3
224208		3.11	10	1	0.40	<10	0.56	808	2	0.17	1	790	3	0.07	<2	3
224209		3.36	10	<1	0.40	<10	0.65	761	1	0.21	2	920	5	0.98	<2	3
224210		4.20	10	1	0.31	<10	0.90	1035	1	0.29	8	940	6	1.62	<2	4
224211		3.88	10	1	0.38	<10	0.69	1010	1	0.17	1	1000	2	0.05	<2	4
224212		3.52	10	<1	0.45	<10	0.60	725	<1	0.10	1	890	2	0.21	<2	3
224213		3.78	10	1	0.25	<10	0.98	1190	<1	0.09	1	830	20	0.53	<2	4
224214		3.87	10	1	0.21	<10	1.02	1200	<1	0.09	<1	880	13	0.21	<2	4
224215		3.76	10	1	0.21	<10	1.04	1165	<1	0.09	<1	900	6	0.01	3	4
224216		3.59	10	<1	0.22	<10	1.02	1150	1	0.10	1	920	6	0.03	<2	4
224217		1.60	<10	<1	0.39	<10	0.13	166	1	0.04	<1	1040	<2	0.04	<2	2
224218		2.50	<10	<1	0.38	<10	0.52	474	<1	0.05	2	1160	7	0.09	<2	3
224219		3.91	10	1	0.23	<10	1.36	1220	1	0.06	7	580	8	0.22	<2	4
224220		4.71	10	1	0.28	<10	1.37	1100	2	0.08	9	880	15	0.83	2	5
224221		4.35	10	<1	0.13	<10	1.94	1135	2	0.06	18	890	8	0.05	<2	8

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Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
224182		80	0.12	<10	<10	49	<10	59
224183		72	0.12	<10	<10	50	<10	48
224184		74	0.15	<10	<10	69	<10	134
224185		119	0.12	<10	<10	43	<10	33
224186		78	0.12	<10	<10	51	<10	48
224187		58	0.10	<10	<10	45	<10	65
224188		134	0.19	<10	<10	128	<10	188
224189		130	0.22	<10	<10	150	<10	85
224190		112	0.25	<10	<10	125	<10	110
224191		117	0.15	<10	<10	53	<10	67
224192		150	0.15	<10	<10	55	<10	76
224193		173	0.13	<10	<10	52	<10	79
224194		128	0.17	<10	<10	79	<10	111
224195		130	0.15	<10	<10	61	<10	71
224196		109	0.19	<10	<10	92	<10	107
224197		151	0.18	<10	<10	82	<10	90
224198		125	0.19	<10	<10	85	<10	104
224199		191	0.20	<10	<10	89	<10	84
224200		315	0.18	<10	<10	117	<10	115
224201		139	0.19	<10	<10	112	<10	86
224202		229	0.21	<10	<10	102	<10	120
224203		170	0.21	<10	<10	104	<10	108
224204		113	0.22	<10	<10	94	<10	132
224205		176	0.15	<10	<10	84	<10	50
224206		85	0.13	<10	<10	54	<10	93
224207		110	0.09	<10	<10	40	<10	71
224208		109	0.11	<10	<10	41	<10	58
224209		112	0.12	<10	<10	49	<10	71
224210		186	0.13	<10	<10	53	<10	96
224211		147	0.13	<10	<10	56	<10	90
224212		183	0.12	<10	<10	50	<10	72
224213		92	0.12	<10	<10	61	<10	185
224214		59	0.12	<10	<10	54	<10	158
224215		75	0.12	<10	<10	49	<10	153
224216		91	0.12	<10	<10	49	<10	142
224217		176	0.03	<10	<10	22	<10	26
224218		63	0.08	<10	<10	37	<10	67
224219		88	0.16	<10	<10	84	<10	238
224220		79	0.18	<10	<10	78	<10	284
224221		129	0.16	<10	<10	100	<10	165

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Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
224222		0.22	<0.005	0.007	<0.2	3.05	8	<10	70	<0.5	<2	3.15	<0.5	19	149	68
224223		0.26	<0.005	0.008	<0.2	3.80	7	<10	120	<0.5	<2	3.49	<0.5	18	156	73
224224		0.22	<0.005	0.005	<0.2	3.70	2	<10	100	0.5	<2	4.46	<0.5	20	217	45
224225		0.26	<0.005	0.003	<0.2	4.56	3	<10	130	<0.5	<2	4.97	<0.5	21	187	37
224226		0.20	<0.005	0.005	<0.2	4.36	6	<10	150	<0.5	<2	5.65	<0.5	22	247	49
224227		0.24	<0.005	0.008	<0.2	5.36	9	<10	310	0.5	<2	4.99	<0.5	24	249	84
224228		0.26	0.007	0.007	<0.2	4.92	7	<10	170	0.5	<2	5.02	<0.5	20	215	79
224229		0.28	<0.005	0.003	<0.2	3.51	2	<10	120	<0.5	<2	3.26	<0.5	19	158	26
224230		0.16	<0.005	0.005	<0.2	2.76	4	<10	70	<0.5	<2	3.75	<0.5	19	128	46
224231		0.06	0.806	0.001	0.7	0.22	9	10	30	<0.5	2	0.16	<0.5	2	4	11
224232		0.26	<0.005	0.005	<0.2	3.45	4	<10	90	<0.5	<2	4.64	<0.5	19	196	51
224233		0.26	<0.005	0.007	<0.2	4.14	5	<10	100	<0.5	<2	5.13	<0.5	24	258	69
224234		0.24	<0.005	0.011	0.2	2.92	<2	<10	40	0.5	<2	4.31	<0.5	21	111	117
224235		0.26	<0.005	0.013	0.4	2.42	9	<10	30	0.5	<2	7.02	<0.5	20	38	143
224236		0.26	0.040	0.040	0.7	2.89	9	10	40	0.5	<2	4.70	1.0	20	48	427
224237		0.26	<0.005	0.001	<0.2	2.70	9	<10	40	0.5	3	4.90	<0.5	21	108	6
224238		0.24	0.006	0.059	0.6	2.67	19	10	40	0.5	2	5.37	<0.5	22	110	645
224239		0.26	<0.005	0.002	<0.2	2.62	13	<10	20	0.6	2	4.26	<0.5	23	106	22
224240		0.26	<0.005	0.054	0.2	2.68	<2	<10	30	<0.5	<2	5.26	<0.5	18	113	561
224241		0.26	<0.005	0.021	<0.2	3.11	7	<10	30	<0.5	5	3.96	<0.5	17	110	179
224242		0.26	<0.005	0.024	0.2	2.56	7	<10	20	<0.5	<2	3.92	<0.5	19	118	236
224243		0.28	<0.005	0.035	<0.2	2.60	2	<10	30	<0.5	2	3.17	<0.5	18	128	354
224244		0.24	0.005	0.036	0.3	2.55	<2	<10	20	0.5	<2	3.81	0.6	20	131	473
224245		0.26	<0.005	0.047	0.2	2.99	6	<10	30	0.5	<2	4.13	<0.5	18	116	510
224246		0.24	<0.005	0.049	0.3	3.09	24	<10	20	<0.5	<2	3.68	<0.5	21	83	530
224247		0.26	<0.005	0.002	<0.2	2.64	12	<10	10	<0.5	<2	3.89	<0.5	19	63	14
224248		0.26	0.006	0.030	0.2	2.42	17	<10	20	<0.5	<2	3.86	<0.5	27	62	311
224249		0.24	0.005	0.027	<0.2	1.76	13	<10	10	<0.5	<2	3.26	<0.5	26	58	287
224250		0.22	<0.005	0.027	<0.2	2.26	18	<10	20	<0.5	3	3.59	<0.5	25	64	294
224251		0.26	<0.005	0.019	0.2	2.19	10	<10	10	<0.5	<2	3.43	<0.5	26	108	211
224252		0.24	<0.005	0.019	<0.2	2.36	4	<10	10	<0.5	<2	3.81	<0.5	25	129	191
224253		0.24	<0.005	0.014	<0.2	2.26	10	<10	<10	<0.5	<2	4.43	<0.5	28	160	148
224254		0.22	0.014	0.047	0.3	1.66	9	<10	10	<0.5	<2	3.82	<0.5	24	221	521
224255		0.20	0.005	0.038	0.2	1.48	<2	<10	<10	<0.5	<2	3.91	<0.5	18	211	395
224256		0.20	0.005	0.037	<0.2	1.54	8	<10	<10	<0.5	<2	3.98	<0.5	18	209	389

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To: NORTHGATE MINERALS CORPORATION
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 24-JUL-2006
Account: PIL

Project: 4013

CERTIFICATE OF ANALYSIS VA06062022

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
224222		5.29	10	1	0.14	<10	2.18	1305	1	0.07	29	1080	7	0.10	<2	12
224223		4.63	10	<1	0.14	<10	2.37	1150	<1	0.20	31	960	7	0.04	<2	13
224224		4.88	10	1	0.11	<10	2.63	1160	<1	0.07	50	960	4	0.02	<2	14
224225		4.93	10	<1	0.13	<10	2.91	1330	<1	0.14	52	960	4	0.02	<2	14
224226		4.95	10	1	0.21	<10	3.11	1310	1	0.19	86	1040	<2	0.03	<2	15
224227		5.09	10	1	0.27	<10	3.01	1325	1	0.30	33	990	4	0.04	<2	18
224228		5.08	10	<1	0.23	<10	2.88	1310	1	0.26	52	1040	7	0.08	<2	17
224229		4.39	10	<1	0.28	<10	2.34	1005	<1	0.12	61	970	3	0.02	<2	12
224230		4.66	10	1	0.47	<10	1.72	941	2	0.04	26	1150	3	0.02	<2	9
224231		3.07	<10	<1	0.04	<10	0.04	33	1	0.11	3	550	111	3.07	<2	<1
224232		4.31	10	1	0.35	<10	2.57	1175	1	0.07	104	950	3	0.01	<2	9
224233		5.09	10	<1	0.26	<10	3.23	1550	<1	0.10	108	1090	3	0.01	<2	13
224234		5.40	10	1	0.39	<10	2.11	1300	<1	0.05	46	1480	4	0.02	<2	9
224235		5.48	10	1	0.42	10	1.67	1215	1	0.04	17	1860	2	0.01	<2	9
224236		6.34	10	2	0.53	10	1.86	1335	<1	0.09	20	2160	39	0.03	2	10
224237		5.74	10	1	0.55	10	1.86	1190	1	0.10	36	3020	5	0.01	<2	7
224238		5.11	10	<1	0.52	10	2.09	1200	1	0.08	37	2970	7	0.03	<2	7
224239		5.14	10	1	0.52	10	1.98	1035	1	0.06	36	2750	2	<0.01	<2	8
224240		4.69	10	<1	0.27	10	2.03	1170	<1	0.10	33	2800	<2	0.03	<2	10
224241		5.24	10	1	0.11	10	2.45	1385	<1	0.16	30	3000	2	0.02	<2	9
224242		4.77	10	<1	0.14	10	1.99	1055	<1	0.14	33	2830	<2	0.02	<2	8
224243		5.13	10	<1	0.13	10	1.84	1020	<1	0.23	31	2960	<2	0.02	<2	4
224244		4.65	10	<1	0.17	10	1.54	829	<1	0.17	37	2740	61	0.03	<2	5
224245		4.99	10	<1	0.17	10	1.80	1005	<1	0.18	30	2950	<2	0.03	<2	6
224246		5.34	10	<1	0.14	10	2.28	1105	<1	0.12	28	1720	<2	0.03	<2	8
224247		4.41	10	<1	0.09	<10	2.04	822	<1	0.06	21	1370	<2	0.01	<2	6
224248		6.04	10	<1	0.11	<10	2.18	916	<1	0.06	12	1140	3	0.02	<2	7
224249		5.81	10	<1	0.08	<10	1.54	725	<1	0.07	11	1180	<2	0.01	<2	6
224250		6.96	10	<1	0.15	<10	1.88	836	<1	0.11	12	1240	<2	0.02	<2	7
224251		6.11	10	<1	0.08	<10	2.05	806	<1	0.06	20	950	5	0.02	<2	6
224252		5.17	10	<1	0.03	<10	1.89	816	<1	0.04	20	870	<2	0.02	<2	7
224253		5.10	10	<1	0.02	<10	2.06	833	<1	0.04	28	880	2	0.01	<2	8
224254		5.13	<10	<1	0.02	<10	1.56	544	<1	0.05	28	900	<2	0.03	<2	8
224255		5.05	10	<1	0.01	<10	1.37	510	<1	0.06	23	850	<2	0.04	<2	8
224256		5.14	10	<1	0.01	<10	1.40	517	<1	0.06	22	860	<2	0.04	<2	9

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KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 24-JUL-2006
Account: PIL

Project: 4013

CERTIFICATE OF ANALYSIS VA06062022

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
224222		112	0.20	<10	<10	142	<10	172
224223		143	0.19	<10	<10	128	<10	132
224224		99	0.18	<10	<10	130	<10	95
224225		201	0.18	<10	<10	127	<10	87
224226		299	0.19	<10	<10	137	<10	81
224227		465	0.20	<10	<10	165	<10	81
224228		242	0.22	<10	<10	151	<10	83
224229		145	0.20	<10	<10	116	<10	76
224230		68	0.16	<10	<10	98	<10	80
224231		4	<0.01	<10	<10	1	<10	21
224232		152	0.14	<10	<10	87	<10	90
224233		128	0.20	<10	<10	127	<10	85
224234		91	0.22	<10	<10	110	<10	85
224235		92	0.27	<10	<10	135	<10	92
224236		94	0.33	<10	<10	157	<10	84
224237		92	0.31	<10	<10	179	<10	83
224238		106	0.29	10	<10	168	<10	84
224239		71	0.28	<10	<10	175	<10	96
224240		116	0.31	<10	<10	180	<10	80
224241		111	0.28	<10	<10	166	<10	70
224242		116	0.34	<10	<10	198	<10	77
224243		134	0.33	<10	<10	186	<10	75
224244		128	0.39	<10	<10	200	<10	159
224245		148	0.36	<10	<10	186	<10	68
224246		148	0.46	<10	<10	180	<10	72
224247		211	0.38	<10	<10	179	<10	74
224248		160	0.37	<10	<10	197	<10	72
224249		138	0.35	<10	<10	201	<10	56
224250		120	0.38	<10	<10	226	<10	58
224251		188	0.42	<10	<10	203	<10	76
224252		306	0.37	<10	<10	162	<10	67
224253		229	0.36	<10	<10	165	<10	76
224254		164	0.32	<10	<10	150	<10	46
224255		152	0.29	<10	10	129	<10	37
224256		160	0.29	<10	10	130	<10	37

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To: NORTHGATE MINERALS CORPORATION
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 4-AUG-2006
Account: PIL

CERTIFICATE VA06064730

Project: 4013
P.O. No.:
This report is for 25 Pulp samples submitted to our lab in Vancouver, BC, Canada on 11-JUL-2006.
The following have access to data associated with this certificate:

CARL EDMUNDS RON KONST	BRIAN KAY	B. KAY

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
LOG-QC	QC Test on Received Samples

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au-AA23	Au 30g FA-AA finish	AAS
Cu-AA49	Assay Cu - HBr Digestion	AAS
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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CERTIFICATE OF ANALYSIS VA06064730

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
224330		0.24	<0.005	<0.001	<0.2	3.21	28	<10	30	<0.5	2	2.38	<0.5	23	56	2
224331		0.26	<0.005	0.001	<0.2	3.30	32	<10	10	<0.5	<2	5.23	<0.5	25	142	4
224332		0.24	<0.005	0.002	<0.2	2.67	2	<10	10	<0.5	<2	4.04	<0.5	28	251	24
224333		0.26	<0.005	0.002	<0.2	1.98	7	<10	10	<0.5	<2	3.93	<0.5	21	221	24
224334		0.26	<0.005	0.002	<0.2	1.62	15	<10	20	<0.5	<2	3.11	<0.5	20	190	16
224335		0.24	<0.005	0.001	<0.2	1.68	8	<10	20	<0.5	<2	2.50	<0.5	19	198	4
224336		0.26	<0.005	0.002	<0.2	1.50	4	<10	20	<0.5	<2	2.23	<0.5	18	207	20
224337		0.26	<0.005	0.001	<0.2	2.43	12	<10	10	<0.5	<2	3.91	<0.5	29	252	11
224338		0.24	<0.005	<0.001	<0.2	2.14	13	<10	20	<0.5	2	2.01	<0.5	25	239	4
224339		0.26	<0.005	0.002	<0.2	2.08	12	<10	30	<0.5	2	2.61	<0.5	20	244	12
224340		0.24	<0.005	<0.001	<0.2	1.88	14	<10	10	<0.5	2	2.31	<0.5	24	240	3
224341		0.24	<0.005	0.002	<0.2	1.00	9	<10	10	<0.5	<2	6.27	<0.5	15	245	15
224342		0.26	<0.005	0.003	<0.2	1.76	8	<10	20	<0.5	<2	4.57	<0.5	19	252	26
224343		0.26	<0.005	<0.001	<0.2	2.34	9	<10	20	<0.5	<2	2.76	<0.5	24	301	1
224344		0.26	<0.005	<0.001	<0.2	2.08	4	<10	10	<0.5	<2	2.18	<0.5	21	263	1
224345		0.26	<0.005	0.003	<0.2	2.33	10	<10	10	<0.5	<2	2.36	<0.5	24	309	27
224346		0.28	<0.005	0.010	0.2	2.49	8	<10	20	<0.5	<2	2.63	<0.5	24	330	98
224347		0.24	<0.005	0.001	<0.2	1.72	11	<10	10	<0.5	<2	3.17	<0.5	19	246	3
224348		0.24	<0.005	0.001	<0.2	2.02	9	<10	20	<0.5	<2	2.81	<0.5	22	260	1
224349		0.28	<0.005	0.001	<0.2	1.77	10	<10	20	<0.5	<2	3.44	<0.5	19	264	11
224350		0.26	<0.005	0.001	<0.2	1.63	8	<10	10	<0.5	<2	3.09	<0.5	18	250	10
224351		0.26	<0.005	0.001	<0.2	1.78	7	<10	20	<0.5	<2	2.59	<0.5	20	285	10
224352		0.28	<0.005	0.004	<0.2	2.03	3	<10	30	<0.5	<2	2.58	<0.5	22	302	34
224353		0.24	<0.005	<0.001	<0.2	1.98	7	<10	10	<0.5	<2	2.21	<0.5	26	393	2
224354		0.06	0.417	0.001	<0.2	0.20	<2	<10	10	<0.5	2	0.07	<0.5	<1	3	3

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CERTIFICATE OF ANALYSIS VA06064730

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
224330		5.62	10	1	0.06	<10	2.59	591	<1	0.17	20	1060	<2	0.01	<2	5
224331		5.08	10	2	0.10	<10	1.96	495	<1	0.08	67	940	5	0.02	<2	5
224332		5.85	10	<1	0.04	<10	2.81	697	<1	0.07	65	860	<2	0.01	<2	7
224333		5.26	10	<1	0.04	<10	2.05	634	<1	0.09	54	900	4	0.02	<2	6
224334		4.92	<10	<1	0.07	<10	1.61	534	<1	0.08	39	820	<2	0.01	<2	4
224335		4.96	<10	1	0.07	<10	1.76	425	<1	0.13	39	830	<2	0.01	<2	5
224336		4.66	<10	<1	0.07	<10	1.48	377	<1	0.11	40	840	<2	0.01	<2	4
224337		5.19	10	2	0.02	<10	2.72	829	<1	0.04	58	750	4	0.01	<2	7
224338		5.53	10	2	0.06	<10	2.53	592	<1	0.08	50	790	<2	0.01	<2	5
224339		5.12	<10	1	0.12	<10	1.50	398	<1	0.13	45	750	<2	0.01	<2	4
224340		4.26	<10	1	0.06	<10	2.06	590	<1	0.06	50	720	2	0.01	<2	5
224341		5.56	<10	<1	0.10	<10	0.95	629	<1	0.08	41	790	<2	0.01	<2	7
224342		5.69	<10	<1	0.10	<10	1.80	662	<1	0.13	55	790	<2	0.01	<2	7
224343		4.91	10	2	0.07	<10	2.40	535	<1	0.12	75	730	<2	0.01	<2	4
224344		4.31	<10	1	0.02	<10	2.35	524	<1	0.04	71	720	3	0.01	<2	4
224345		5.12	<10	3	0.07	<10	2.39	504	<1	0.10	81	760	<2	0.01	<2	4
224346		5.02	10	1	0.08	<10	2.47	507	<1	0.12	76	800	<2	0.01	<2	4
224347		5.02	<10	<1	0.04	<10	1.90	502	<1	0.08	57	820	5	<0.01	<2	4
224348		5.19	<10	<1	0.07	<10	2.16	477	<1	0.10	61	880	<2	<0.01	<2	4
224349		4.74	<10	<1	0.07	<10	1.78	489	<1	0.10	53	850	4	<0.01	<2	4
224350		4.61	<10	<1	0.04	<10	1.74	463	<1	0.07	54	790	7	<0.01	<2	4
224351		5.34	<10	<1	0.06	<10	2.35	541	<1	0.09	60	840	2	<0.01	<2	4
224352		5.21	<10	<1	0.09	<10	2.24	508	<1	0.11	59	930	5	<0.01	<2	4
224353		5.30	<10	<1	0.05	<10	2.82	563	<1	0.06	97	920	7	<0.01	<2	3
224354		0.38	<10	<1	0.10	<10	0.04	63	<1	0.05	1	60	2	<0.01	3	<1

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To: NORTHGATE MINERALS CORPORATION
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 4-AUG-2006
Account: PIL

Project: 4013

CERTIFICATE OF ANALYSIS VA06064730

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
224330		144	0.44	<10	<10	134	<10	57
224331		139	0.36	<10	<10	155	<10	72
224332		96	0.32	<10	<10	166	<10	78
224333		115	0.32	<10	<10	137	<10	66
224334		75	0.29	<10	<10	131	<10	65
224335		84	0.28	<10	<10	139	<10	50
224336		101	0.24	<10	<10	110	<10	43
224337		129	0.28	<10	<10	130	<10	141
224338		78	0.28	<10	<10	137	<10	90
224339		86	0.23	<10	<10	117	<10	49
224340		100	0.29	<10	<10	120	<10	92
224341		70	0.30	<10	<10	137	<10	34
224342		93	0.30	<10	<10	143	<10	61
224343		81	0.30	<10	<10	146	<10	75
224344		123	0.31	<10	<10	117	<10	87
224345		82	0.30	<10	<10	129	<10	71
224346		70	0.28	<10	<10	132	<10	56
224347		102	0.35	<10	<10	149	<10	61
224348		62	0.33	<10	<10	153	<10	62
224349		101	0.33	<10	<10	137	10	41
224350		90	0.33	<10	<10	153	<10	43
224351		64	0.35	<10	<10	160	<10	47
224352		96	0.37	<10	<10	173	<10	48
224353		74	0.32	<10	<10	149	<10	53
224354		4	<0.01	<10	<10	1	<10	3

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To: NORTHGATE MINERALS CORPORATION
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 5-AUG-2006
Account: PIL

CERTIFICATE VA06064731

Project: 4013
P.O. No.:
This report is for 25 Pulp samples submitted to our lab in Vancouver, BC, Canada on 11-JUL-2006.
The following have access to data associated with this certificate:

CARL EDMUNDS RON KONST	BRIAN KAY	B. KAY

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
LOG-QC	QC Test on Received Samples

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au-AA23	Au 30g FA-AA finish	AAS
Cu-AA49	Assay Cu - HBr Digestion	AAS
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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Phone: 604 984 0221 Fax: 604 984 0218 www.alschemex.com

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KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 5-AUG-2006
Account: PIL

Project: 4013

CERTIFICATE OF ANALYSIS VA06064731

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
224355		0.26	<0.005	0.001	<0.2	2.10	<2	<10	10	<0.5	<2	2.25	<0.5	23	407	6
224356		0.26	<0.005	0.012	<0.2	2.48	11	<10	10	<0.5	<2	2.87	<0.5	27	436	108
224357		0.26	<0.005	0.001	0.2	2.51	13	<10	<10	<0.5	<2	4.23	<0.5	26	334	8
224358		0.28	<0.005	0.001	<0.2	2.72	11	<10	<10	<0.5	<2	3.92	<0.5	29	384	8
224359		0.28	<0.005	0.002	<0.2	2.18	3	<10	10	<0.5	2	1.82	<0.5	25	393	20
224360		0.26	<0.005	0.001	<0.2	1.70	13	<10	10	<0.5	<2	2.12	<0.5	22	374	4
224361		0.24	0.009	0.003	<0.2	2.57	<2	<10	10	<0.5	<2	3.05	<0.5	29	415	25
224362		0.26	<0.005	0.001	<0.2	2.24	4	<10	10	<0.5	2	2.60	<0.5	27	395	3
224363		0.24	<0.005	0.031	<0.2	2.39	2	<10	40	<0.5	<2	2.39	<0.5	30	226	310
224364		0.28	<0.005	0.050	0.2	2.98	10	<10	10	<0.5	<2	3.75	<0.5	32	89	510
224365		0.24	<0.005	0.057	0.2	3.41	13	<10	<10	<0.5	<2	5.46	<0.5	33	244	593
224366		0.26	<0.005	0.003	<0.2	5.92	<2	<10	<10	<0.5	<2	5.70	<0.5	43	403	28
224367		0.28	<0.005	0.033	<0.2	6.88	16	<10	<10	0.6	<2	7.79	<0.5	56	626	348
224368		0.26	<0.005	0.001	0.2	2.73	7	<10	<10	<0.5	<2	4.29	<0.5	32	508	4
224369		0.26	<0.005	0.003	<0.2	3.64	5	<10	10	<0.5	<2	3.87	<0.5	32	473	27
224370		0.28	0.019	0.032	0.8	2.81	4	<10	10	<0.5	2	2.75	<0.5	27	421	310
224371		0.26	<0.005	0.001	<0.2	2.91	7	<10	<10	<0.5	<2	4.31	<0.5	28	418	2
224372		0.28	<0.005	0.001	<0.2	2.77	9	<10	10	<0.5	<2	4.31	<0.5	30	419	3
224373		0.26	<0.005	0.025	0.3	3.01	12	<10	30	<0.5	<2	3.11	<0.5	23	324	247
224374		0.26	0.008	0.007	0.6	2.92	<2	<10	50	<0.5	2	2.61	1.2	58	370	73
224375		0.28	0.005	0.003	0.2	2.95	2	<10	270	<0.5	3	1.93	1.1	10	71	26
224376		0.26	<0.005	0.002	<0.2	2.94	<2	<10	180	<0.5	3	1.94	<0.5	9	61	15
224377		0.26	0.008	0.003	<0.2	2.37	2	<10	280	<0.5	2	1.30	0.5	13	79	23
224378		0.26	<0.005	0.002	<0.2	3.74	4	<10	290	0.5	3	2.91	0.5	13	54	18
224379		0.24	<0.005	0.002	<0.2	3.70	<2	<10	290	0.5	3	2.90	0.5	12	56	18

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To: NORTHGATE MINERALS CORPORATION
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 5-AUG-2006
Account: PIL

Project: 4013

CERTIFICATE OF ANALYSIS VA06064731

Sample Description	Method	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Fe	Ga	Hg	K	La	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Sc
	Units	%	ppm	ppm	%	ppm	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm
	LOR	0.01	10	1	0.01	10	0.01	5	1	0.01	1	10	2	0.01	2	1
224355		4.94	<10	<1	0.05	<10	2.80	588	<1	0.08	98	940	7	<0.01	<2	4
224356		5.21	10	2	0.05	<10	3.13	730	<1	0.08	110	970	8	0.01	2	5
224357		4.66	10	<1	0.02	<10	2.73	561	<1	0.05	104	870	10	<0.01	7	4
224358		5.02	10	1	0.02	<10	3.26	635	<1	0.05	110	860	12	<0.01	4	4
224359		4.64	10	1	0.04	<10	3.12	547	<1	0.05	103	880	4	<0.01	<2	3
224360		4.56	<10	<1	0.03	<10	2.37	495	<1	0.07	89	760	5	<0.01	5	3
224361		5.28	<10	<1	0.03	<10	3.13	703	<1	0.07	116	860	7	<0.01	<2	5
224362		5.18	<10	<1	0.03	<10	3.08	708	<1	0.08	104	840	6	<0.01	2	4
224363		6.28	<10	1	0.06	<10	2.80	734	<1	0.10	67	1080	6	0.03	2	4
224364		6.57	10	<1	0.05	<10	2.60	872	<1	0.08	37	1310	11	0.06	<2	7
224365		5.76	10	1	0.03	<10	3.32	1020	1	0.06	71	1090	5	0.06	4	9
224366		6.11	10	1	0.03	<10	5.80	1235	1	0.04	122	960	9	<0.01	2	10
224367		7.50	10	<1	0.02	<10	6.27	1780	1	0.04	177	1020	20	0.03	2	21
224368		5.77	10	<1	0.01	<10	3.75	712	1	0.06	131	830	5	<0.01	3	6
224369		4.39	10	2	0.03	<10	3.85	807	<1	0.05	124	850	6	0.01	<2	6
224370		4.15	10	<1	0.03	<10	3.37	670	<1	0.05	115	830	6	0.03	2	4
224371		4.81	10	2	0.02	<10	3.66	686	1	0.07	114	900	7	0.01	4	4
224372		4.69	10	1	0.03	<10	3.70	810	1	0.07	110	860	4	0.01	<2	5
224373		4.47	10	1	0.06	<10	3.19	705	<1	0.09	81	780	7	0.02	2	5
224374		4.13	10	1	0.07	<10	2.67	793	1	0.10	99	820	24	1.78	3	6
224375		3.76	10	1	0.34	<10	1.01	956	2	0.24	7	960	25	0.39	<2	5
224376		3.40	10	1	0.36	10	0.74	862	1	0.12	4	940	9	0.11	4	4
224377		3.64	10	1	0.33	<10	0.75	752	7	0.19	6	940	10	0.80	2	4
224378		3.40	10	1	0.27	<10	0.70	645	1	0.10	4	890	11	0.44	2	3
224379		3.44	10	2	0.26	<10	0.70	648	<1	0.10	4	900	14	0.44	3	3

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KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 5-AUG-2006
Account: PIL

Project: 4013

CERTIFICATE OF ANALYSIS VA06064731

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
224355		66	0.31	<10	<10	139	<10	54
224356		65	0.30	<10	<10	143	<10	70
224357		120	0.28	<10	<10	134	<10	56
224358		114	0.32	<10	<10	154	<10	64
224359		61	0.27	<10	<10	123	<10	48
224360		75	0.27	<10	<10	118	<10	35
224361		81	0.29	<10	<10	136	<10	71
224362		65	0.28	<10	<10	127	<10	77
224363		112	0.33	<10	<10	171	<10	100
224364		97	0.37	<10	<10	199	<10	118
224365		70	0.33	<10	<10	196	<10	138
224366		162	0.35	<10	<10	161	<10	153
224367		214	0.34	<10	<10	171	<10	242
224368		52	0.31	<10	<10	152	<10	83
224369		94	0.27	<10	<10	125	<10	101
224370		68	0.25	<10	<10	97	<10	78
224371		76	0.26	<10	<10	132	<10	62
224372		68	0.26	<10	<10	128	<10	85
224373		59	0.26	<10	<10	117	<10	81
224374		120	0.20	<10	<10	95	<10	102
224375		160	0.15	<10	<10	74	<10	125
224376		118	0.15	<10	<10	57	<10	83
224377		100	0.16	<10	<10	58	<10	63
224378		140	0.13	<10	<10	63	<10	52
224379		140	0.13	<10	<10	62	<10	51

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To: NORTHGATE MINERALS CORPORATION
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 6-AUG-2006
Account: PIL

CERTIFICATE VA06064732

Project: 4013
P.O. No.:
This report is for 50 Pulp samples submitted to our lab in Vancouver, BC, Canada on 11-JUL-2006.
The following have access to data associated with this certificate:

CARL EDMUNDS RON KONST	BRIAN KAY	B. KAY

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
LOG-QC	QC Test on Received Samples

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au-AA23	Au 30g FA-AA finish	AAS
Cu-AA49	Assay Cu - HBr Digestion	AAS
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
KEMESS MINE
PO BOX 3519
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This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 6-AUG-2006
Account: PIL

Project: 4013

CERTIFICATE OF ANALYSIS VA06064732

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
224380		0.22	0.012	0.012	<0.2	2.61	<2	<10	240	<0.5	2	1.75	<0.5	8	72	121
224381		0.26	<0.005	0.003	<0.2	2.78	5	<10	130	<0.5	4	2.07	<0.5	9	64	25
224382		0.24	<0.005	0.002	<0.2	2.81	5	<10	100	0.5	3	1.73	<0.5	8	64	13
224383		0.24	<0.005	0.001	<0.2	2.94	2	<10	80	<0.5	4	2.07	<0.5	9	69	3
224384		0.28	<0.005	0.001	<0.2	3.15	2	<10	70	0.5	2	2.22	<0.5	8	52	1
224385		0.28	<0.005	<0.001	<0.2	2.50	<2	<10	110	<0.5	3	1.87	<0.5	9	60	1
224386		0.26	<0.005	<0.001	<0.2	2.53	3	<10	160	<0.5	3	1.72	<0.5	8	63	1
224387		0.28	<0.005	<0.001	<0.2	2.97	6	<10	120	0.5	3	2.04	<0.5	8	52	1
224388		0.24	0.006	<0.001	<0.2	3.15	4	<10	160	0.6	<2	2.79	<0.5	10	70	3
224389		0.24	<0.005	<0.001	<0.2	2.90	5	<10	170	0.6	<2	2.31	<0.5	9	58	1
224390		0.26	<0.005	<0.001	<0.2	2.82	4	<10	420	0.5	<2	2.01	<0.5	4	37	1
224391		0.20	<0.005	0.001	<0.2	0.67	<2	<10	80	<0.5	<2	1.88	2.3	<1	194	2
224392		0.24	<0.005	<0.001	<0.2	1.68	4	<10	220	<0.5	<2	1.49	<0.5	<1	100	2
224393		0.22	<0.005	<0.001	<0.2	2.34	<2	<10	510	<0.5	<2	2.25	<0.5	5	53	2
224394		0.24	0.006	<0.001	<0.2	2.58	2	<10	80	0.5	<2	1.94	<0.5	8	49	1
224395		0.18	<0.005	0.001	<0.2	1.00	<2	<10	100	<0.5	<2	1.63	<0.5	<1	150	2
224396		0.20	0.005	<0.001	<0.2	2.71	<2	<10	190	0.5	<2	1.75	<0.5	13	54	2
224397		0.20	<0.005	0.001	<0.2	2.71	5	<10	250	<0.5	<2	2.02	1.0	11	61	3
224398		0.24	<0.005	0.001	<0.2	1.70	<2	<10	380	<0.5	<2	2.03	2.5	12	62	2
224399		0.20	<0.005	<0.001	<0.2	2.74	2	<10	310	<0.5	<2	1.88	0.5	9	73	2
224400		0.26	<0.005	0.001	<0.2	2.08	3	<10	200	<0.5	<2	1.20	<0.5	10	87	2
224401		0.20	<0.005	<0.001	<0.2	1.32	10	<10	350	<0.5	<2	0.67	<0.5	<1	35	<1
224402		0.24	<0.005	<0.001	<0.2	2.14	6	<10	370	<0.5	<2	1.17	<0.5	7	44	120
224403		0.24	<0.005	<0.001	<0.2	1.50	3	<10	300	<0.5	<2	0.79	<0.5	6	56	1
224404		0.24	<0.005	<0.001	<0.2	1.82	<2	<10	230	<0.5	<2	1.20	0.5	8	56	2
224405		0.20	0.017	0.003	0.3	2.67	<2	<10	200	<0.5	<2	3.61	<0.5	10	83	26
224431		0.22	<0.005	0.001	<0.2	2.47	3	<10	90	<0.5	<2	2.23	<0.5	7	68	6
224432		0.20	<0.005	0.001	<0.2	2.52	3	<10	100	0.5	<2	2.45	<0.5	7	79	12
224433		0.24	<0.005	0.007	<0.2	3.41	4	<10	80	0.7	<2	2.97	<0.5	8	62	66
224434		0.18	<0.005	0.001	<0.2	2.58	<2	<10	110	<0.5	<2	2.51	<0.5	7	77	3
224435		0.24	<0.005	0.005	0.2	2.41	<2	<10	100	<0.5	<2	1.82	<0.5	8	91	46
224436		0.18	<0.005	0.002	<0.2	4.38	<2	<10	100	0.7	<2	3.51	<0.5	8	65	13
224437		0.24	<0.005	0.001	<0.2	3.37	3	<10	90	0.6	<2	2.76	<0.5	9	68	11
224438		0.22	<0.005	0.001	<0.2	3.19	8	<10	70	0.5	<2	2.79	<0.5	8	55	6
224439		0.22	<0.005	0.002	<0.2	3.24	<2	<10	110	0.5	<2	3.10	<0.5	7	61	13
224440		0.08	<0.005	0.002	<0.2	3.94	3	<10	170	0.7	<2	3.09	<0.5	8	93	13
224441		0.22	<0.005	0.002	<0.2	3.68	2	<10	100	0.6	<2	2.72	<0.5	9	52	17
224442		0.24	<0.005	0.002	<0.2	2.81	<2	<10	160	0.5	<2	2.09	<0.5	8	56	16
224443		0.20	0.008	0.001	<0.2	2.71	<2	<10	210	0.5	<2	1.72	<0.5	4	39	6
224444		0.24	<0.005	0.001	<0.2	1.59	<2	<10	130	<0.5	<2	1.03	2.6	1	38	4

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To: NORTHGATE MINERALS CORPORATION
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 6-AUG-2006
Account: PIL

Project: 4013

CERTIFICATE OF ANALYSIS VA06064732

Sample Description	Method	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Fe	Ga	Hg	K	La	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Sc
	Units	%	ppm	ppm	%	ppm	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm
	LOR	0.01	10	1	0.01	10	0.01	5	1	0.01	1	10	2	0.01	2	1
224380		3.51	10	<1	0.33	10	0.71	758	1	0.16	5	900	8	0.21	<2	4
224381		3.92	10	1	0.23	10	1.16	978	1	0.10	6	850	17	0.37	<2	4
224382		3.88	10	1	0.20	10	1.16	1015	<1	0.12	4	910	13	0.21	<2	4
224383		4.69	10	1	0.18	10	1.26	1090	1	0.16	4	990	7	0.01	3	5
224384		3.95	10	<1	0.22	10	1.10	1080	<1	0.10	3	990	11	0.01	4	4
224385		3.63	10	1	0.23	10	1.00	1065	1	0.11	3	890	9	0.01	3	4
224386		3.95	10	<1	0.24	10	1.08	1040	<1	0.14	3	980	8	0.01	<2	5
224387		4.29	10	1	0.20	10	1.06	971	<1	0.16	3	980	7	0.01	3	5
224388		3.75	10	<1	0.17	<10	1.01	997	<1	0.11	2	900	6	0.37	2	4
224389		3.26	10	<1	0.13	<10	0.90	906	<1	0.09	1	900	7	0.15	4	3
224390		2.13	10	<1	0.27	<10	0.44	564	<1	0.08	2	640	4	0.04	<2	4
224391		0.26	<10	<1	0.17	<10	0.01	71	1	0.01	3	1740	36	0.02	<2	2
224392		0.65	<10	<1	0.33	<10	0.09	171	<1	0.06	2	740	6	0.01	2	4
224393		1.90	10	<1	0.25	<10	0.46	674	<1	0.11	2	480	10	0.36	3	6
224394		2.59	10	<1	0.17	<10	0.45	533	<1	0.12	1	600	9	1.20	2	7
224395		0.26	<10	<1	0.18	<10	0.03	94	1	0.02	3	770	10	0.01	<2	3
224396		3.31	10	<1	0.19	10	1.03	1070	<1	0.10	3	860	18	0.73	2	6
224397		3.60	10	<1	0.21	<10	0.87	936	<1	0.10	2	660	15	0.97	<2	4
224398		3.26	10	<1	0.25	10	0.70	1055	<1	0.11	1	810	47	0.81	<2	6
224399		4.09	10	<1	0.14	10	1.02	857	<1	0.19	4	870	13	0.06	3	6
224400		4.10	10	<1	0.11	10	1.03	815	<1	0.19	3	930	6	0.06	<2	6
224401		0.23	<10	<1	0.48	<10	0.04	49	<1	0.05	2	1500	<2	0.01	3	4
224402		1.69	<10	<1	0.35	<10	0.35	420	<1	0.12	2	1130	4	0.02	<2	5
224403		2.56	<10	<1	0.38	<10	0.20	445	<1	0.10	2	920	4	0.01	2	3
224404		2.33	<10	<1	0.35	10	0.42	495	<1	0.10	2	1110	4	0.02	<2	4
224405		3.21	10	<1	0.29	<10	0.69	540	1	0.08	3	840	7	1.22	2	5
224431		3.49	10	<1	0.24	10	0.60	826	<1	0.18	2	920	2	0.01	<2	5
224432		3.66	10	<1	0.21	10	0.66	953	1	0.21	4	910	2	0.01	<2	5
224433		3.86	10	<1	0.20	10	0.74	928	1	0.17	2	970	2	0.02	2	5
224434		3.64	10	<1	0.23	10	0.65	916	<1	0.25	2	910	2	0.01	<2	5
224435		3.80	10	<1	0.24	10	0.90	971	1	0.20	1	940	<2	0.01	4	5
224436		3.51	10	1	0.23	10	0.79	883	<1	0.16	2	930	2	0.01	2	5
224437		3.92	10	<1	0.19	10	0.82	916	1	0.14	2	970	3	0.01	<2	5
224438		3.78	10	<1	0.21	10	0.74	954	1	0.13	3	990	5	0.01	2	5
224439		3.69	10	<1	0.18	10	0.75	972	<1	0.18	2	920	2	0.01	<2	4
224440		3.81	10	<1	0.42	10	0.77	1020	1	0.33	2	900	3	0.01	4	7
224441		3.73	10	<1	0.27	10	0.70	916	1	0.12	3	1000	6	0.07	2	5
224442		3.88	10	<1	0.22	10	0.72	1030	<1	0.22	2	970	4	0.03	2	5
224443		2.04	10	<1	0.47	<10	0.29	555	2	0.10	1	810	6	0.04	2	3
224444		0.20	<10	<1	0.41	<10	0.02	45	<1	0.04	1	410	<2	0.05	<2	1

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KEMESS MINE
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Project: 4013

CERTIFICATE OF ANALYSIS VA06064732

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
224380		125	0.15	<10	<10	60	<10	56
224381		124	0.17	<10	<10	76	<10	81
224382		122	0.17	<10	<10	74	<10	83
224383		141	0.20	<10	<10	91	<10	80
224384		137	0.16	<10	<10	76	<10	100
224385		112	0.16	<10	<10	70	<10	84
224386		106	0.17	<10	<10	82	<10	80
224387		160	0.17	<10	<10	81	<10	75
224388		169	0.16	<10	<10	73	<10	78
224389		141	0.15	<10	<10	59	<10	67
224390		138	0.14	<10	<10	56	<10	39
224391		29	0.15	<10	<10	9	<10	102
224392		80	0.14	<10	<10	21	<10	18
224393		149	0.15	<10	<10	67	<10	41
224394		177	0.13	<10	<10	67	<10	34
224395		44	0.13	<10	<10	15	<10	13
224396		149	0.14	<10	<10	79	<10	87
224397		96	0.11	<10	<10	75	<10	108
224398		121	0.08	<10	<10	70	<10	160
224399		426	0.12	<10	<10	90	<10	80
224400		231	0.10	<10	<10	85	<10	59
224401		149	0.01	<10	<10	7	<10	2
224402		274	0.07	<10	<10	33	<10	30
224403		193	0.08	<10	<10	33	<10	25
224404		109	0.08	<10	<10	29	<10	38
224405		147	0.12	<10	<10	75	<10	52
224431		121	0.19	<10	<10	83	<10	37
224432		127	0.19	<10	<10	89	<10	44
224433		149	0.19	<10	<10	86	<10	51
224434		137	0.19	<10	<10	88	<10	51
224435		114	0.19	<10	<10	84	<10	81
224436		196	0.19	<10	<10	89	<10	79
224437		162	0.19	<10	<10	90	<10	78
224438		148	0.19	<10	<10	82	<10	77
224439		195	0.18	<10	<10	85	<10	77
224440		213	0.23	<10	<10	98	<10	79
224441		172	0.19	<10	<10	80	<10	72
224442		174	0.21	<10	<10	91	<10	97
224443		106	0.18	<10	<10	45	<10	53
224444		45	0.05	<10	<10	8	<10	168

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CERTIFICATE OF ANALYSIS VA06064732

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
224445		0.24	<0.005	0.004	<0.2	4.43	<2	<10	160	0.7	<2	3.36	0.6	7	36	42
224446		0.24	<0.005	0.004	<0.2	4.29	5	<10	150	0.8	<2	3.37	<0.5	8	31	45
224447		0.28	<0.005	0.001	<0.2	3.92	<2	<10	160	0.7	<2	3.08	<0.5	6	40	3
224448		0.22	<0.005	0.001	<0.2	6.52	<2	<10	40	1.0	<2	4.72	<0.5	8	29	5
224449		0.26	<0.005	0.003	0.2	5.54	<2	<10	70	0.7	<2	4.05	<0.5	7	35	25
224450		0.24	<0.005	0.002	<0.2	4.43	4	<10	80	0.5	<2	3.15	<0.5	7	48	16
224451		0.28	<0.005	0.001	<0.2	4.87	<2	<10	40	0.6	<2	3.65	<0.5	7	37	4
224452		0.26	<0.005	<0.001	<0.2	4.78	<2	<10	70	0.5	<2	3.33	<0.5	6	35	2
224453		0.26	<0.005	0.001	<0.2	4.52	<2	<10	370	0.6	<2	3.45	<0.5	6	30	4
224454		0.28	<0.005	0.001	<0.2	4.62	3	<10	370	0.6	<2	3.52	<0.5	6	32	4

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CERTIFICATE OF ANALYSIS VA06064732

Sample Description	Method	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Fe	Ga	Hg	K	La	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Sc
	Units	%	ppm	ppm	%	ppm	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm
	LOR	0.01	10	1	0.01	10	0.01	5	1	0.01	1	10	2	0.01	2	1
224445		3.61	10	<1	0.25	10	0.64	819	1	0.15	2	990	4	0.03	<2	5
224446		3.75	10	1	0.24	10	0.74	893	1	0.12	2	1000	3	0.01	2	5
224447		3.36	10	<1	0.28	10	0.62	909	<1	0.12	1	1010	5	0.01	<2	4
224448		3.72	20	1	0.12	<10	0.95	851	<1	0.08	3	1000	2	0.01	<2	5
224449		3.92	10	<1	0.12	<10	1.01	917	<1	0.08	1	1020	2	<0.01	<2	4
224450		3.69	10	<1	0.19	<10	0.93	914	<1	0.13	1	940	9	<0.01	<2	4
224451		3.48	10	1	0.15	<10	0.86	847	<1	0.07	<1	930	2	<0.01	<2	3
224452		3.57	10	1	0.20	<10	0.80	853	<1	0.08	1	960	2	<0.01	<2	3
224453		3.51	10	1	0.23	<10	0.73	853	<1	0.09	<1	970	2	0.01	<2	3
224454		3.59	10	1	0.22	<10	0.74	873	<1	0.09	<1	1020	<2	0.01	<2	4

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CERTIFICATE OF ANALYSIS VA06064732

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
224445		221	0.20	<10	<10	84	<10	121
224446		195	0.20	<10	<10	86	<10	99
224447		190	0.20	<10	<10	78	<10	79
224448		298	0.19	<10	<10	85	<10	106
224449		253	0.20	<10	<10	80	<10	105
224450		189	0.18	<10	<10	75	<10	100
224451		182	0.16	<10	<10	71	<10	97
224452		211	0.18	<10	<10	66	<10	83
224453		204	0.18	<10	<10	69	<10	73
224454		210	0.18	<10	<10	69	<10	73

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SMITHERS BC V0J 2N0

Finalized Date: 5-AUG-2006
Account: PIL

CERTIFICATE VA06064733

Project: 4012
P.O. No.:
This report is for 45 Pulp samples submitted to our lab in Vancouver, BC, Canada on 11-JUL-2006.
The following have access to data associated with this certificate:

CARL EDMUNDS RON KONST	BRIAN KAY	B. KAY

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
LOG-QC	QC Test on Received Samples

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au-AA23	Au 30g FA-AA finish	AAS
Cu-AA49	Assay Cu - HBr Digestion	AAS
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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North Vancouver BC V7J 2C1
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KEMESS MINE
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CERTIFICATE OF ANALYSIS VA06064733

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
225084		0.26	<0.005	0.001	<0.2	2.00	8	10	70	<0.5	<2	1.44	<0.5	11	77	12
225085		0.16	<0.005	0.001	<0.2	2.38	22	10	120	0.6	<2	1.77	0.6	12	93	8
225086		0.20	<0.005	0.002	<0.2	2.05	13	10	100	0.5	<2	1.55	<0.5	10	96	20
225087		0.22	<0.005	0.003	<0.2	2.25	17	10	100	0.6	<2	1.93	<0.5	10	84	24
225088		0.24	<0.005	0.003	0.2	2.16	16	10	100	0.7	<2	1.84	<0.5	10	84	26
225089		0.24	<0.005	0.002	<0.2	2.05	11	10	90	0.6	<2	1.72	<0.5	13	78	18
225090		0.18	<0.005	0.004	0.3	2.01	16	10	100	0.6	<2	1.76	<0.5	11	105	45
225091		0.18	<0.005	0.001	<0.2	2.05	16	10	100	0.5	<2	1.56	<0.5	11	104	7
225092		0.22	<0.005	0.002	<0.2	2.22	9	10	90	0.7	<2	1.84	<0.5	10	88	12
225093		0.06	<0.005	0.001	0.3	3.08	16	20	220	0.6	<2	2.20	<0.5	12	169	5
225094		0.24	<0.005	0.001	<0.2	1.98	15	10	70	0.5	<2	1.52	<0.5	10	74	9
225095		0.26	<0.005	0.002	0.2	1.82	18	10	80	0.5	<2	1.54	<0.5	11	77	16
225096		0.08	0.008	0.001	<0.2	3.14	14	20	190	0.8	<2	2.47	<0.5	12	141	7
225097		0.22	<0.005	0.001	<0.2	1.92	10	10	80	0.5	<2	1.64	<0.5	8	87	4
225098		0.24	0.005	0.001	0.3	2.00	16	10	50	0.5	<2	1.89	<0.5	11	86	4
225099		0.26	0.012	0.001	0.4	2.10	17	10	80	0.6	<2	1.61	<0.5	14	87	5
225100		0.18	<0.005	0.001	<0.2	2.13	14	10	100	0.6	<2	1.89	<0.5	9	99	5
225101		0.22	<0.005	0.001	<0.2	2.00	14	10	80	0.6	<2	1.81	<0.5	11	73	4
225102		0.14	<0.005	0.002	<0.2	2.15	13	10	90	0.5	<2	1.81	<0.5	10	98	16
225103		0.14	<0.005	0.002	<0.2	2.08	12	10	90	0.5	<2	1.75	<0.5	10	101	17
227006		0.22	<0.005	0.002	<0.2	4.57	10	<10	20	0.7	<2	2.53	<0.5	14	79	17
227007		0.20	0.005	0.006	<0.2	4.07	<2	<10	30	0.6	<2	2.84	<0.5	13	59	65
227008		0.22	0.005	0.006	0.2	4.44	11	<10	30	0.6	<2	3.06	<0.5	13	66	65
227009		0.24	0.013	0.009	0.3	4.67	8	<10	90	0.7	<2	3.12	<0.5	18	82	98
227010		0.20	0.018	0.003	<0.2	3.49	3	<10	40	0.6	<2	2.84	<0.5	13	84	32
227011		0.12	0.016	0.009	0.2	5.61	11	<10	30	0.8	<2	3.91	<0.5	13	123	32
227012		0.14	0.022	0.001	<0.2	4.82	9	<10	40	0.6	<2	4.32	<0.5	9	80	6
227013		0.20	0.020	0.009	0.3	6.06	8	<10	30	0.8	<2	4.36	<0.5	14	87	102
227014		0.16	0.064	0.006	0.3	4.02	5	<10	110	0.6	<2	3.19	<0.5	14	106	61
227015		0.14	0.111	0.005	0.8	4.31	8	<10	110	0.6	<2	3.50	<0.5	14	89	54
227016		0.16	0.019	0.006	<0.2	4.14	6	<10	180	0.6	<2	3.15	<0.5	15	64	59
227017		0.16	0.006	0.009	0.2	2.96	4	<10	220	<0.5	<2	2.19	<0.5	9	75	84
227018		0.16	0.014	0.004	<0.2	2.55	2	<10	230	0.5	<2	1.90	<0.5	9	92	37
227019		0.20	<0.005	0.002	<0.2	3.27	2	<10	270	0.6	<2	2.50	<0.5	9	63	20
227020		0.24	0.007	0.006	<0.2	5.12	8	<10	130	0.7	<2	3.84	<0.5	9	40	56
227021		0.20	<0.005	0.001	<0.2	3.03	7	<10	90	0.6	<2	2.62	<0.5	4	52	8
227022		0.22	<0.005	0.002	<0.2	3.53	5	<10	140	0.6	<2	2.48	<0.5	6	68	15
227023		0.26	0.023	0.001	<0.2	3.07	5	<10	180	0.5	<2	2.00	<0.5	11	65	3
227024		0.16	0.016	0.001	<0.2	3.16	6	<10	220	0.5	<2	3.30	<0.5	8	88	6
227025		0.16	0.025	0.003	<0.2	4.06	2	<10	80	0.6	<2	2.38	<0.5	14	104	24

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ALS Canada Ltd.
212 Brooksbank Avenue
North Vancouver BC V7J 2C1
Phone: 604 984 0221 Fax: 604 984 0218 www.alschemex.com

To: NORTHGATE MINERALS CORPORATION
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 5-AUG-2006
Account: PIL

Project: 4012

CERTIFICATE OF ANALYSIS VA06064733

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
225084		3.08	10	<1	0.12	10	1.33	700	2	0.09	4	1020	5	0.14	<2	3
225085		4.03	10	<1	0.19	10	1.36	735	2	0.16	2	1120	9	0.31	<2	5
225086		3.30	10	<1	0.18	10	1.15	573	2	0.14	4	1000	5	0.08	<2	4
225087		3.55	10	<1	0.17	10	1.21	632	2	0.14	4	1060	4	0.08	<2	5
225088		3.35	10	<1	0.19	10	1.10	582	2	0.12	3	1010	5	0.07	<2	5
225089		3.61	10	1	0.17	10	1.18	642	2	0.11	3	1000	4	0.16	<2	5
225090		3.36	10	<1	0.20	10	1.05	564	2	0.15	4	970	7	0.12	2	5
225091		3.28	10	1	0.18	10	1.15	546	1	0.14	3	930	6	0.15	<2	5
225092		3.45	10	<1	0.18	10	1.14	562	1	0.13	4	990	6	0.07	<2	5
225093		3.93	10	<1	0.45	10	1.29	730	2	0.36	6	980	9	0.19	2	8
225094		3.46	10	<1	0.14	10	1.27	575	2	0.11	5	1000	4	0.14	<2	5
225095		3.49	10	<1	0.17	10	1.08	626	1	0.11	3	990	7	0.13	<2	5
225096		3.78	10	<1	0.48	10	1.22	670	1	0.33	4	950	5	0.12	<2	8
225097		3.65	10	<1	0.19	10	1.22	581	1	0.10	3	980	4	0.01	<2	5
225098		2.96	10	<1	0.13	<10	1.11	527	3	0.09	4	940	3	0.28	<2	4
225099		3.87	10	<1	0.17	10	1.39	610	1	0.10	4	1050	5	0.33	<2	5
225100		3.80	10	1	0.22	10	1.18	561	2	0.13	4	990	5	0.05	<2	6
225101		3.46	10	<1	0.18	10	1.27	590	2	0.10	4	970	4	0.07	2	5
225102		3.40	10	<1	0.21	10	1.36	666	1	0.13	2	990	4	0.06	<2	7
225103		3.34	10	<1	0.19	10	1.35	647	1	0.12	4	980	3	0.06	<2	6
227006		5.18	10	<1	0.27	<10	1.59	798	1	0.42	1	780	8	5.33	<2	9
227007		4.88	10	1	0.25	<10	1.55	866	<1	0.15	1	540	7	4.50	<2	8
227008		4.93	10	1	0.18	<10	1.31	1095	1	0.27	3	960	9	3.12	<2	10
227009		4.80	10	<1	0.23	<10	1.43	1015	<1	0.38	8	1160	11	2.41	<2	9
227010		4.59	10	<1	0.28	<10	1.09	782	<1	0.19	5	960	9	3.19	<2	8
227011		4.84	10	<1	0.40	<10	1.28	715	<1	0.20	4	910	6	3.98	<2	10
227012		4.20	10	<1	0.36	<10	0.82	335	1	0.07	1	770	5	4.22	<2	4
227013		4.80	20	1	0.23	<10	1.51	1025	<1	0.36	7	1100	7	3.40	4	9
227014		4.74	10	<1	0.23	<10	1.49	1115	1	0.21	7	1070	7	2.51	<2	8
227015		4.99	10	<1	0.25	<10	1.79	1270	1	0.09	11	1250	7	2.40	<2	9
227016		3.82	10	<1	0.29	<10	1.10	841	<1	0.17	6	1050	5	1.32	2	5
227017		3.57	10	<1	0.42	<10	1.06	737	<1	0.10	5	810	8	0.46	<2	3
227018		3.63	10	<1	0.48	<10	0.82	664	1	0.11	5	790	6	0.58	<2	4
227019		3.70	10	<1	0.38	<10	1.05	844	<1	0.18	3	790	5	1.08	<2	6
227020		4.25	10	<1	0.18	<10	1.24	947	<1	0.20	6	990	4	0.13	<2	4
227021		3.62	10	1	0.29	<10	0.78	683	<1	0.13	2	840	5	0.07	<2	4
227022		3.89	10	<1	0.21	<10	1.09	746	<1	0.23	3	860	4	0.03	<2	5
227023		3.59	10	<1	0.24	<10	0.86	519	<1	0.31	3	930	4	0.62	<2	5
227024		3.55	10	<1	0.33	<10	0.73	530	1	0.26	3	840	6	1.08	<2	5
227025		4.38	10	<1	0.36	<10	0.87	595	2	0.38	6	870	7	2.52	<2	5

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To: NORTHGATE MINERALS CORPORATION
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PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 5-AUG-2006
Account: PIL

Project: 4012

CERTIFICATE OF ANALYSIS VA06064733

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
225084		114	0.21	<10	<10	63	<10	63
225085		124	0.22	<10	<10	83	<10	71
225086		115	0.22	<10	<10	78	<10	45
225087		124	0.23	<10	<10	83	<10	45
225088		105	0.22	<10	<10	84	<10	45
225089		117	0.23	<10	<10	87	<10	47
225090		122	0.23	<10	<10	85	<10	44
225091		124	0.22	<10	<10	80	<10	44
225092		127	0.22	<10	<10	84	<10	45
225093		208	0.26	<10	<10	97	<10	56
225094		101	0.21	<10	<10	82	<10	48
225095		81	0.22	<10	<10	89	<10	69
225096		174	0.26	<10	<10	100	<10	52
225097		102	0.22	<10	<10	95	<10	62
225098		155	0.21	<10	<10	73	<10	40
225099		93	0.22	<10	<10	90	<10	50
225100		97	0.23	<10	<10	95	10	43
225101		110	0.23	<10	<10	86	<10	50
225102		124	0.24	<10	<10	84	<10	46
225103		117	0.23	<10	<10	81	<10	45
227006		281	0.12	<10	<10	95	<10	59
227007		185	0.17	<10	<10	92	<10	72
227008		280	0.26	<10	<10	141	<10	103
227009		290	0.27	<10	<10	153	<10	94
227010		207	0.24	<10	<10	108	<10	59
227011		275	0.23	<10	<10	107	<10	55
227012		220	0.16	<10	<10	49	<10	30
227013		375	0.23	<10	<10	135	<10	79
227014		197	0.27	<10	<10	134	<10	85
227015		180	0.30	<10	<10	131	<10	87
227016		191	0.21	<10	<10	85	<10	62
227017		124	0.11	<10	<10	55	<10	66
227018		157	0.19	<10	<10	63	<10	46
227019		172	0.19	<10	<10	70	<10	65
227020		282	0.20	<10	<10	109	<10	73
227021		154	0.16	<10	<10	77	<10	54
227022		207	0.18	<10	<10	90	<10	63
227023		168	0.19	<10	<10	93	<10	46
227024		168	0.21	<10	<10	80	<10	37
227025		241	0.21	<10	<10	93	<10	50

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CERTIFICATE OF ANALYSIS VA06064733

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
227026		0.16	0.007	0.004	<0.2	4.69	4	<10	300	0.7	<2	2.77	<0.5	10	69	35
227027		0.22	0.005	0.002	<0.2	4.50	2	<10	350	0.6	<2	2.33	<0.5	6	76	16
227028		0.22	0.045	0.004	0.2	3.92	7	10	150	0.6	<2	3.17	<0.5	16	89	35
227029		0.12	<0.005	0.001	<0.2	4.30	8	<10	180	0.5	<2	3.79	<0.5	6	75	9
227030		0.06	0.421	<0.001	<0.2	0.19	2	<10	20	<0.5	4	0.06	<0.5	<1	2	3

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CERTIFICATE OF ANALYSIS VA06064733

Sample Description	Method	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Fe	Ga	Hg	K	La	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Sc
	Units	%	ppm	ppm	%	ppm	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm
	LOR	0.01	10	1	0.01	10	0.01	5	1	0.01	1	10	2	0.01	2	1
227026		3.68	10	<1	0.40	<10	1.24	1025	<1	0.36	6	920	3	0.20	<2	4
227027		3.75	10	<1	0.44	<10	1.15	1015	<1	0.43	4	830	3	0.13	<2	4
227028		5.02	10	<1	0.39	<10	1.19	809	1	0.25	6	990	8	2.74	<2	5
227029		3.11	10	1	0.36	10	0.96	886	<1	0.10	3	770	4	0.06	<2	8
227030		0.37	<10	<1	0.10	<10	0.04	62	<1	0.05	1	60	2	<0.01	<2	<1

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CERTIFICATE OF ANALYSIS VA06064733

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
227026		297	0.23	<10	<10	71	<10	61
227027		292	0.22	<10	<10	66	<10	58
227028		173	0.17	<10	<10	79	<10	74
227029		199	0.16	<10	<10	67	<10	66
227030		4	<0.01	<10	<10	1	<10	4

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To: NORTHGATE MINERALS CORPORATION
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 14-AUG-2006
Account: PIL

CERTIFICATE VA06065344

Project: 4012
P.O. No.:
This report is for 63 Pulp samples submitted to our lab in Vancouver, BC, Canada on 18-JUL-2006.
The following have access to data associated with this certificate:

CARL EDMUNDS	BRIAN KAY	RON KONST

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
LOG-QC	QC Test on Received Samples

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au-AA23	Au 30g FA-AA finish	AAS
Cu-AA49	Assay Cu - HBr Digestion	AAS
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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CERTIFICATE OF ANALYSIS VA06065344

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
225104		0.28	<0.005	0.003	<0.2	1.94	20	10	80	0.6	<2	1.71	<0.5	11	87	27
225105		0.26	<0.005	0.001	<0.2	2.08	21	10	70	0.5	<2	1.95	<0.5	12	90	11
225106		0.26	<0.005	0.003	<0.2	2.10	23	10	80	0.5	<2	1.54	<0.5	11	80	23
225107		0.28	<0.005	0.003	<0.2	1.98	33	10	90	0.5	<2	1.53	<0.5	11	55	25
225108		0.24	<0.005	0.002	<0.2	2.11	21	10	80	0.5	<2	1.82	<0.5	11	65	21
225109		0.28	<0.005	0.005	<0.2	2.19	25	10	80	0.6	<2	1.80	<0.5	10	45	53
225110		0.32	<0.005	0.003	<0.2	1.70	24	10	80	<0.5	<2	1.20	<0.5	9	67	25
225111		0.26	<0.005	0.002	<0.2	1.98	26	10	70	0.5	<2	1.50	<0.5	10	58	12
225112		0.28	<0.005	0.003	<0.2	1.76	32	10	90	0.5	<2	1.36	<0.5	10	66	23
225113		0.28	<0.005	0.002	0.3	1.80	13	20	80	0.5	<2	1.49	<0.5	8	73	20
225114		0.30	<0.005	0.002	<0.2	1.78	14	20	90	<0.5	<2	1.38	<0.5	9	89	25
225115		0.28	<0.005	0.003	<0.2	1.94	15	20	80	0.5	<2	1.55	<0.5	9	76	28
225116		0.30	<0.005	0.002	<0.2	2.01	20	10	70	0.5	<2	1.54	<0.5	10	77	17
225117		0.26	<0.005	0.002	0.2	1.96	24	10	100	0.6	<2	1.58	<0.5	10	73	22
225118		0.30	<0.005	0.002	<0.2	1.98	56	20	100	0.6	<2	1.54	<0.5	9	64	21
225119		0.26	<0.005	0.003	<0.2	2.08	13	10	90	0.6	<2	1.56	<0.5	9	68	23
225120		0.26	<0.005	0.003	<0.2	2.16	63	20	90	0.6	<2	1.63	<0.5	9	58	30
225121		0.26	<0.005	0.003	<0.2	1.94	56	20	90	0.6	<2	1.50	<0.5	10	69	25
225122		0.28	<0.005	0.003	<0.2	1.92	54	20	70	0.5	<2	1.59	<0.5	10	69	31
225123		0.26	<0.005	0.003	<0.2	1.86	59	30	90	<0.5	<2	1.48	<0.5	9	76	27
225124		0.26	<0.005	0.002	<0.2	1.84	56	20	90	<0.5	<2	1.36	<0.5	9	81	22
225125		0.28	0.020	0.004	<0.2	2.13	39	20	80	<0.5	<2	1.48	<0.5	10	69	34
225126		0.22	<0.005	0.002	<0.2	2.11	20	20	80	<0.5	<2	1.62	<0.5	9	95	19
225127		0.26	0.009	0.003	<0.2	3.59	2	<10	110	0.6	<2	3.25	<0.5	10	10	46
227181		0.26	0.095	0.109	0.9	1.14	3	<10	20	<0.5	<2	0.37	<0.5	35	121	1055
227182		0.24	0.080	0.066	0.5	0.95	<2	<10	50	<0.5	<2	0.31	<0.5	19	140	601
227183		0.24	0.149	0.151	1.1	3.28	4	<10	20	<0.5	2	0.68	<0.5	51	245	1550
227184		0.24	0.141	0.121	1.4	2.52	5	<10	30	<0.5	3	0.57	<0.5	45	174	1250
227185		0.26	0.185	0.202	1.4	4.07	7	<10	40	<0.5	3	0.31	<0.5	29	152	2140
227186		0.26	0.173	0.185	1.7	4.02	4	<10	20	<0.5	2	0.35	<0.5	38	146	1945
227187		0.26	0.334	0.368	3.4	2.89	2	<10	40	<0.5	2	0.40	<0.5	35	168	3790
227188		0.20	0.173	0.180	1.8	4.19	4	<10	20	0.5	2	0.43	<0.5	43	171	1880
227189		0.32	0.285	0.250	2.0	3.11	6	<10	30	0.5	3	0.45	<0.5	58	126	2600
227190		0.24	0.268	0.256	2.2	3.53	4	<10	30	<0.5	2	0.43	0.7	40	167	2660
227191		0.08	0.302	0.349	2.3	4.34	3	<10	30	0.5	3	0.46	0.6	37	214	3580
227192		0.24	0.128	0.174	1.5	5.04	2	<10	30	0.5	3	0.70	<0.5	36	141	1870
227193		0.24	0.180	0.184	1.2	4.26	<2	<10	30	0.6	3	0.67	<0.5	30	157	1930
227194		0.24	0.169	0.181	1.2	3.67	3	<10	30	0.7	2	0.41	0.6	40	156	1880
227195		0.24	0.190	0.175	1.3	3.36	5	<10	40	0.6	2	0.44	0.8	33	155	1840
227196		0.22	0.173	0.156	1.3	3.18	3	<10	30	<0.5	2	0.41	0.6	35	168	1585

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North Vancouver BC V7J 2C1
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SMITHERS BC V0J 2N0

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Account: PIL

Project: 4012

CERTIFICATE OF ANALYSIS VA06065344

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
225104		3.33	10	<1	0.17	10	1.30	604	2	0.09	4	1010	7	0.10	<2	6
225105		3.36	10	<1	0.17	10	1.38	653	1	0.08	5	970	6	0.13	<2	5
225106		3.64	10	<1	0.18	10	1.47	656	1	0.08	4	1000	7	0.12	<2	6
225107		3.42	10	<1	0.19	10	1.32	592	1	0.10	3	1000	6	0.14	<2	6
225108		3.29	10	<1	0.20	10	1.40	667	1	0.09	6	980	4	0.12	<2	6
225109		3.27	10	<1	0.17	10	1.34	590	1	0.09	3	990	4	0.15	<2	5
225110		2.98	10	<1	0.16	10	1.10	442	1	0.10	4	960	5	0.11	<2	3
225111		3.12	10	<1	0.13	10	1.19	480	1	0.08	3	960	5	0.29	<2	4
225112		3.21	10	<1	0.15	10	1.11	477	1	0.10	3	970	5	0.14	<2	4
225113		3.13	10	<1	0.14	10	1.12	508	1	0.11	3	990	3	0.12	<2	5
225114		3.24	10	<1	0.16	10	1.10	499	1	0.12	3	1020	12	0.13	<2	4
225115		3.19	10	<1	0.15	10	1.24	566	1	0.10	5	1010	8	0.12	<2	5
225116		3.19	10	<1	0.14	10	1.36	556	1	0.07	5	1010	9	0.11	<2	4
225117		3.33	10	<1	0.18	10	1.19	583	1	0.12	5	1010	6	0.17	<2	5
225118		3.36	10	<1	0.16	10	1.09	541	1	0.11	4	990	6	0.32	<2	4
225119		3.13	10	<1	0.17	10	1.10	595	1	0.10	5	990	7	0.16	<2	4
225120		3.34	10	<1	0.17	10	1.20	641	1	0.10	4	1020	8	0.45	<2	5
225121		3.35	10	<1	0.18	10	1.12	596	1	0.11	4	1000	7	0.37	<2	5
225122		3.17	10	<1	0.13	10	1.28	641	1	0.08	6	980	5	0.31	<2	4
225123		3.31	10	<1	0.16	10	1.32	665	1	0.09	3	970	9	0.31	<2	5
225124		3.22	10	<1	0.15	10	1.30	629	1	0.09	4	960	3	0.31	<2	4
225125		3.01	10	<1	0.12	10	1.38	660	1	0.10	3	1030	8	0.27	<2	3
225126		2.79	10	<1	0.17	10	1.24	669	1	0.10	4	960	7	0.21	<2	4
225127		3.30	10	<1	0.08	<10	0.94	639	<1	0.04	4	910	11	1.04	<2	5
227181		3.96	<10	<1	0.33	<10	0.16	28	124	0.01	14	720	8	4.19	<2	1
227182		3.16	<10	<1	0.34	<10	0.11	27	61	0.01	11	640	5	3.28	<2	1
227183		7.07	<10	1	0.21	<10	2.61	303	342	0.02	63	1050	5	5.57	<2	8
227184		7.33	10	1	0.24	<10	1.65	243	96	0.02	23	1130	12	6.70	<2	4
227185		6.94	10	1	0.18	<10	3.35	504	91	0.02	28	1180	12	4.08	<2	8
227186		7.80	10	1	0.18	<10	3.07	571	260	0.03	30	1140	10	5.02	<2	7
227187		6.96	10	<1	0.24	10	2.06	399	351	0.02	28	1240	13	5.07	<2	5
227188		7.82	10	2	0.21	<10	3.24	489	97	0.03	30	1120	14	5.41	2	8
227189		7.36	10	1	0.23	<10	2.19	301	122	0.03	30	980	12	6.25	<2	6
227190		7.18	10	1	0.22	10	2.76	401	244	0.02	29	1130	14	5.31	<2	8
227191		6.90	10	2	0.79	10	2.39	403	251	0.06	29	1040	16	4.88	<2	12
227192		7.94	10	1	0.18	<10	3.96	610	100	0.02	31	1220	31	4.18	<2	14
227193		7.49	10	1	0.26	<10	3.22	576	92	0.03	26	1110	25	4.68	<2	11
227194		7.45	10	1	0.30	<10	2.44	478	189	0.03	26	1160	14	5.55	<2	9
227195		7.15	10	<1	0.31	10	2.27	560	266	0.03	26	890	13	5.28	<2	8
227196		7.64	10	<1	0.25	10	2.27	487	147	0.03	24	930	16	5.56	<2	7

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CERTIFICATE OF ANALYSIS VA06065344

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
225104		97	0.22	<10	<10	78	<10	42
225105		122	0.22	<10	<10	76	<10	52
225106		107	0.23	<10	<10	84	<10	46
225107		91	0.21	<10	<10	79	<10	38
225108		112	0.22	<10	<10	76	<10	52
225109		111	0.21	<10	<10	75	<10	41
225110		75	0.19	<10	<10	68	<10	34
225111		98	0.21	<10	<10	71	<10	36
225112		82	0.20	<10	<10	74	<10	33
225113		89	0.21	<10	<10	73	<10	32
225114		85	0.21	<10	<10	74	<10	38
225115		106	0.22	<10	<10	73	<10	37
225116		115	0.23	<10	<10	74	<10	46
225117		107	0.22	<10	<10	81	<10	42
225118		128	0.21	<10	<10	81	<10	45
225119		103	0.20	<10	<10	71	<10	51
225120		110	0.22	<10	<10	77	<10	58
225121		90	0.22	<10	<10	79	<10	60
225122		113	0.21	<10	<10	69	<10	62
225123		99	0.22	<10	<10	72	<10	59
225124		100	0.22	<10	<10	70	<10	57
225125		121	0.22	<10	<10	60	<10	60
225126		140	0.22	<10	<10	55	<10	57
225127		176	0.15	<10	<10	80	<10	68
227181		39	<0.01	<10	<10	11	<10	7
227182		27	<0.01	<10	<10	8	<10	6
227183		16	<0.01	<10	<10	89	<10	87
227184		20	<0.01	<10	<10	54	<10	93
227185		19	<0.01	<10	<10	103	<10	198
227186		24	<0.01	<10	<10	101	<10	203
227187		21	<0.01	<10	<10	74	<10	164
227188		26	<0.01	<10	<10	111	<10	223
227189		28	<0.01	<10	<10	81	<10	134
227190		22	0.01	<10	<10	104	<10	180
227191		29	0.01	<10	<10	127	<10	156
227192		20	0.01	<10	<10	146	<10	258
227193		27	0.01	<10	<10	134	<10	178
227194		30	0.01	<10	<10	113	<10	138
227195		26	0.02	<10	<10	106	<10	132
227196		19	0.01	<10	<10	92	<10	136

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Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
227197		0.28	0.198	0.194	1.2	2.99	4	<10	40	0.5	2	0.28	0.5	32	139	1995
227198		0.26	0.156	0.147	1.2	3.81	<2	<10	30	0.6	4	0.47	0.6	34	150	1565
227199		0.26	0.168	0.147	1.2	3.48	16	<10	30	0.7	3	0.92	<0.5	32	147	1555
227200		0.22	0.300	0.310	2.5	3.45	10	<10	40	0.7	4	0.96	0.7	34	149	3270
227201		0.20	0.139	0.143	1.5	2.93	8	<10	40	0.6	2	1.90	1.4	31	143	1490
227202		0.26	0.114	0.126	1.2	3.89	12	<10	30	0.6	<2	1.90	0.7	24	128	1355
227203		0.26	0.210	0.191	1.8	3.85	5	<10	20	0.5	2	1.94	<0.5	35	147	2090
227204		0.24	0.236	0.192	1.8	3.23	7	<10	20	<0.5	3	1.70	0.6	43	129	2060
227205		0.06	0.429	<0.001	<0.2	0.20	<2	<10	20	<0.5	4	0.07	<0.5	<1	2	4
227206		0.22	0.393	0.388	3.7	4.71	7	<10	30	0.6	2	1.82	1.5	32	143	4200
227207		0.28	0.159	0.176	1.3	5.15	3	<10	70	0.5	2	1.64	0.9	30	114	1830
227208		0.24	0.340	0.365	3.2	3.36	12	<10	40	0.5	4	1.68	0.6	48	145	3820
227209		0.28	0.217	0.192	1.8	4.21	15	<10	40	0.6	2	1.60	<0.5	32	130	2040
227210		0.32	0.295	0.212	2.2	4.02	2	<10	20	0.6	3	1.86	1.6	40	122	2250
227211		0.30	0.372	0.257	2.1	4.35	7	<10	20	0.8	3	1.96	0.8	32	126	2900
227212		0.20	0.221	0.211	1.4	5.42	3	<10	30	0.7	2	2.18	0.9	29	136	2270
227213		0.24	0.211	0.176	1.6	4.25	10	<10	50	0.6	2	1.34	<0.5	31	171	1860
227214		0.24	0.202	0.188	1.7	2.86	12	<10	20	<0.5	2	1.23	<0.5	36	154	1995
227215		0.28	0.274	0.246	2.3	3.41	8	<10	40	<0.5	3	1.42	8.7	42	133	2630
227216		0.28	0.178	0.127	1.2	3.82	18	<10	20	0.5	3	2.06	0.6	24	127	1360
227217		0.24	0.186	0.179	2.0	3.91	18	<10	20	<0.5	3	1.82	<0.5	35	142	1920
227218		0.24	0.279	0.210	4.1	3.63	9	<10	30	0.5	3	3.29	7.7	43	179	2340
227219		0.26	0.153	0.187	1.9	3.68	12	<10	20	0.6	2	2.12	1.1	28	148	1995

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Sample Description	Method	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Fe	Ga	Hg	K	La	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Sc
	Units	%	ppm	ppm	%	ppm	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm
	LOR	0.01	10	1	0.01	10	0.01	5	1	0.01	1	10	2	0.01	2	1
227197		7.22	<10	1	0.29	10	2.20	468	125	0.02	23	830	14	5.10	2	6
227198		7.30	10	1	0.28	10	2.88	679	113	0.03	23	1090	9	4.58	<2	9
227199		7.23	10	<1	0.29	<10	2.46	560	99	0.03	26	1090	13	5.48	<2	9
227200		7.50	10	1	0.34	10	2.39	669	136	0.03	25	1010	11	5.79	<2	9
227201		6.08	10	1	0.31	<10	1.45	457	128	0.03	21	1060	21	4.87	<2	7
227202		6.72	10	<1	0.24	<10	2.41	699	41	0.03	20	1150	28	4.98	<2	13
227203		7.71	10	1	0.25	<10	2.26	694	90	0.03	23	1120	16	5.42	<2	12
227204		7.37	10	1	0.28	<10	1.69	498	146	0.03	25	1080	12	5.48	<2	8
227205		0.38	<10	<1	0.10	<10	0.04	65	<1	0.06	<1	60	<2	0.01	2	<1
227206		6.81	10	2	0.32	10	3.16	832	252	0.03	26	1090	18	3.31	<2	14
227207		6.60	10	<1	0.28	<10	3.22	820	45	0.07	20	1060	17	3.38	<2	16
227208		7.60	10	<1	0.34	<10	1.94	863	176	0.04	28	1020	6	6.53	<2	7
227209		7.49	10	1	0.36	<10	2.78	1210	75	0.04	21	1040	12	5.31	<2	13
227210		7.33	10	1	0.36	10	2.52	1145	188	0.05	21	940	14	5.22	2	11
227211		7.14	10	1	0.35	<10	2.64	1150	149	0.08	25	1080	17	5.11	<2	13
227212		6.67	10	1	0.32	10	3.02	973	147	0.15	25	1080	22	4.03	<2	16
227213		7.08	10	1	0.34	<10	2.89	1250	78	0.04	25	1070	15	4.40	<2	15
227214		6.50	10	1	0.38	<10	1.76	586	133	0.03	22	990	17	5.33	<2	8
227215		7.26	10	<1	0.30	<10	2.41	873	154	0.03	29	980	187	5.42	<2	10
227216		6.06	10	1	0.30	<10	2.57	875	74	0.03	23	980	25	4.49	<2	12
227217		8.01	10	1	0.30	10	2.88	1155	47	0.03	26	1030	43	5.91	<2	13
227218		9.40	10	<1	0.31	<10	2.18	1160	92	0.03	31	1130	531	7.59	<2	12
227219		6.65	10	1	0.32	<10	2.09	972	55	0.03	27	1150	49	4.98	<2	12

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Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
227197		15	0.02	<10	<10	92	<10	142
227198		20	0.03	<10	<10	126	<10	170
227199		31	0.02	<10	<10	120	<10	148
227200		29	0.02	<10	<10	120	<10	146
227201		31	<0.01	<10	<10	74	<10	150
227202		40	<0.01	<10	<10	124	<10	191
227203		28	<0.01	<10	<10	111	<10	205
227204		27	<0.01	<10	<10	97	<10	155
227205		4	<0.01	<10	<10	1	<10	4
227206		61	0.02	<10	<10	158	<10	159
227207		262	0.01	<10	<10	189	<10	150
227208		64	0.02	<10	<10	97	<10	93
227209		92	0.03	<10	<10	151	<10	120
227210		145	0.03	<10	<10	135	<10	124
227211		406	0.05	<10	<10	156	<10	110
227212		692	0.04	<10	<10	177	<10	165
227213		112	0.01	<10	<10	172	<10	147
227214		26	0.01	<10	<10	93	<10	95
227215		21	0.01	<10	<10	113	<10	627
227216		32	<0.01	<10	<10	124	<10	122
227217		25	0.01	<10	<10	145	<10	189
227218		33	<0.01	<10	<10	119	<10	541
227219		42	<0.01	<10	<10	105	<10	209

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KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 13-AUG-2006
Account: PIL

CERTIFICATE VA06065345

Project: 4013
P.O. No.:
This report is for 48 Pulp samples submitted to our lab in Vancouver, BC, Canada on 18-JUL-2006.
The following have access to data associated with this certificate:

CARL EDMUNDS	B. KAY	RON KONST

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
LOG-QC	QC Test on Received Samples

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au-AA23	Au 30g FA-AA finish	AAS
Cu-AA49	Assay Cu - HBr Digestion	AAS
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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Project: 4013

CERTIFICATE OF ANALYSIS VA06065345

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
225128		0.24	0.005	0.003	<0.2	2.18	37	20	90	<0.5	<2	1.60	<0.5	8	73	25
225129		0.26	0.009	0.004	<0.2	2.05	102	20	90	0.5	2	1.62	<0.5	11	80	37
225130		0.26	0.008	0.006	<0.2	2.11	73	20	70	<0.5	<2	1.35	<0.5	10	89	57
225131		0.28	<0.005	0.002	<0.2	1.94	54	20	110	<0.5	<2	1.30	<0.5	9	73	22
225132		0.26	0.006	0.002	<0.2	2.27	63	20	100	<0.5	<2	1.69	<0.5	8	75	18
225133		0.26	<0.005	0.003	<0.2	2.24	76	10	90	<0.5	<2	1.76	<0.5	7	68	29
225134		0.28	0.006	0.002	<0.2	2.12	66	10	120	<0.5	<2	1.82	<0.5	8	65	11
225135		0.26	<0.005	0.001	<0.2	2.86	24	<10	410	0.7	<2	5.02	<0.5	6	45	12
225136		0.26	0.006	0.002	<0.2	2.68	37	10	200	0.7	<2	5.44	<0.5	8	52	19
225137		0.26	0.006	0.003	<0.2	2.71	56	10	120	0.7	<2	3.43	<0.5	10	49	28
225138		0.26	0.006	0.001	<0.2	2.54	74	10	110	0.7	<2	2.26	<0.5	9	55	16
225139		0.26	<0.005	0.004	<0.2	2.55	28	10	140	0.7	<2	3.40	<0.5	7	59	37
225140		0.26	0.005	0.003	<0.2	2.60	44	10	130	0.7	<2	2.93	<0.5	9	61	23
225141		0.26	0.007	0.004	<0.2	3.23	44	10	170	0.9	<2	3.05	<0.5	9	52	36
225142		0.28	<0.005	0.003	<0.2	2.40	49	10	110	0.6	<2	3.03	<0.5	9	60	31
225143		0.28	0.005	0.003	<0.2	2.11	42	10	100	0.5	<2	2.77	<0.5	8	58	26
225144		0.26	0.005	0.001	<0.2	2.15	54	10	150	0.5	<2	2.77	<0.5	9	72	13
225145		0.24	0.008	0.006	<0.2	2.49	57	10	870	0.6	<2	3.12	<0.5	12	95	56
225146		0.28	<0.005	0.002	<0.2	2.13	53	10	220	<0.5	<2	2.39	<0.5	10	69	21
225147		0.26	0.007	0.004	0.2	2.40	74	10	760	0.5	<2	2.65	<0.5	11	75	38
225148		0.30	0.011	0.005	<0.2	2.29	87	10	750	0.5	2	2.94	<0.5	10	65	55
225149		0.26	0.005	0.004	<0.2	2.18	95	10	400	<0.5	<2	2.83	<0.5	9	75	38
225150		0.26	0.006	0.003	<0.2	2.26	113	10	220	0.5	<2	2.94	<0.5	9	66	27
225151		0.28	0.010	0.005	<0.2	1.64	47	<10	520	<0.5	<2	2.95	<0.5	10	16	55
225152		0.06	0.776	0.001	0.7	0.22	5	10	30	<0.5	2	0.18	<0.5	1	4	10
225011		0.30	<0.005	0.002	0.2	2.02	8	10	70	0.5	<2	2.23	<0.5	7	69	19
225012		0.24	<0.005	0.002	<0.2	2.26	9	10	90	0.6	<2	1.74	<0.5	7	75	24
225013		0.24	<0.005	0.001	<0.2	3.82	8	<10	70	0.9	<2	3.52	<0.5	6	63	7
225014		0.28	<0.005	0.001	<0.2	3.08	7	10	70	0.8	2	2.86	<0.5	7	56	9
225015		0.26	<0.005	0.002	<0.2	2.26	7	10	80	0.5	<2	1.27	<0.5	7	73	19
225016		0.24	<0.005	0.002	<0.2	2.44	9	10	80	0.6	<2	1.63	<0.5	8	67	21
225017		0.28	<0.005	0.003	<0.2	2.41	9	<10	80	0.6	<2	2.71	<0.5	7	58	24
225018		0.28	<0.005	0.001	<0.2	2.66	9	<10	70	0.8	<2	2.32	<0.5	8	51	6
225019		0.26	<0.005	0.003	<0.2	1.97	8	10	70	0.7	<2	1.85	<0.5	6	47	24
225020		0.30	0.007	0.001	<0.2	2.16	14	<10	80	0.7	<2	2.02	<0.5	7	52	12
225021		0.26	<0.005	0.001	0.2	2.16	7	<10	70	0.7	<2	2.34	0.5	7	63	12
225022		0.26	<0.005	0.002	0.3	2.06	10	<10	80	0.6	<2	2.02	<0.5	9	57	15
225023		0.26	<0.005	0.002	0.2	2.17	6	<10	80	0.6	<2	1.44	<0.5	7	61	23
225024		0.28	<0.005	0.002	<0.2	1.96	8	<10	90	0.6	<2	1.67	<0.5	9	54	18
225025		0.28	<0.005	0.002	<0.2	1.94	7	<10	80	0.5	<2	1.71	<0.5	8	60	21

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SMITHERS BC V0J 2N0

Finalized Date: 13-AUG-2006
Account: PIL

Project: 4013

CERTIFICATE OF ANALYSIS VA06065345

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
225128		3.02	10	1	0.15	10	1.24	639	2	0.11	3	970	5	0.21	<2	3
225129		3.38	10	<1	0.13	10	1.28	619	2	0.12	8	1010	8	0.44	<2	4
225130		3.21	10	<1	0.09	10	1.56	716	1	0.11	9	1000	7	0.35	<2	4
225131		3.08	10	<1	0.14	10	1.24	598	1	0.11	5	950	5	0.23	<2	3
225132		3.21	10	1	0.17	10	1.32	713	2	0.10	3	980	7	0.39	2	4
225133		3.12	10	<1	0.22	10	1.33	740	2	0.09	5	980	6	0.28	2	4
225134		2.94	10	<1	0.23	10	1.22	615	1	0.08	4	890	7	0.27	<2	4
225135		3.05	10	<1	0.52	10	0.83	559	1	0.04	4	930	7	0.11	<2	5
225136		3.14	10	1	0.47	10	1.21	897	1	0.04	4	920	9	0.21	<2	5
225137		3.45	10	1	0.48	10	1.31	801	1	0.05	3	990	6	0.36	<2	5
225138		3.37	10	<1	0.44	10	1.32	796	1	0.05	5	990	13	0.33	<2	6
225139		2.97	10	1	0.46	10	0.97	570	2	0.06	5	980	6	0.12	<2	5
225140		3.11	10	1	0.40	10	1.11	607	1	0.06	6	980	9	0.22	<2	6
225141		3.09	10	<1	0.41	10	1.16	651	2	0.07	5	1010	8	0.19	<2	6
225142		3.14	10	1	0.35	10	1.22	679	1	0.07	6	940	5	0.17	<2	5
225143		2.91	10	1	0.35	10	1.16	648	1	0.06	3	920	7	0.17	<2	5
225144		3.01	10	1	0.33	10	1.13	647	1	0.07	4	930	9	0.22	<2	6
225145		3.42	10	1	0.44	10	1.31	735	2	0.06	12	1110	6	0.32	2	7
225146		3.17	10	1	0.31	10	1.29	681	2	0.08	6	980	6	0.31	<2	5
225147		3.11	10	<1	0.46	10	1.10	623	1	0.04	6	1020	6	0.32	<2	5
225148		3.45	10	1	0.44	10	1.01	644	1	0.05	3	990	7	0.33	<2	6
225149		3.50	10	1	0.37	10	1.14	654	2	0.07	3	970	7	0.36	<2	5
225150		3.43	10	<1	0.38	10	1.27	706	1	0.06	5	960	10	0.41	<2	5
225151		3.16	10	<1	0.13	10	1.30	706	1	0.03	3	1030	8	0.25	<2	4
225152		3.20	<10	<1	0.04	<10	0.04	32	1	0.12	2	580	120	3.17	2	<1
225011		3.18	10	<1	0.18	10	1.12	872	<1	0.08	3	920	4	0.01	<2	7
225012		3.47	10	1	0.21	10	1.13	878	<1	0.09	2	930	3	0.01	<2	8
225013		3.49	10	1	0.19	10	1.20	873	<1	0.06	2	950	6	<0.01	2	8
225014		3.33	10	<1	0.16	10	1.30	947	<1	0.06	4	970	5	0.01	<2	8
225015		3.43	10	<1	0.19	10	1.26	854	<1	0.09	1	970	2	<0.01	<2	7
225016		3.47	10	<1	0.18	10	1.29	896	<1	0.09	4	980	5	<0.01	<2	7
225017		3.34	10	1	0.20	10	1.15	885	<1	0.08	4	950	3	0.01	<2	8
225018		3.27	10	<1	0.18	10	1.13	785	<1	0.08	2	970	6	<0.01	2	8
225019		2.83	10	<1	0.15	10	0.97	674	<1	0.08	2	830	6	0.01	<2	6
225020		3.28	10	1	0.18	10	1.06	769	<1	0.09	2	950	2	0.01	<2	7
225021		3.07	10	<1	0.18	<10	1.05	804	1	0.10	3	960	8	<0.01	<2	7
225022		3.30	10	1	0.18	10	1.12	790	1	0.11	3	990	7	0.01	2	8
225023		3.15	10	<1	0.19	10	1.06	693	<1	0.10	4	990	6	<0.01	2	6
225024		3.30	10	<1	0.21	10	1.09	717	1	0.11	3	1020	5	0.01	<2	6
225025		3.29	10	<1	0.20	10	1.14	770	1	0.10	3	1020	5	0.01	<2	7

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Finalized Date: 13-AUG-2006
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Project: 4013

CERTIFICATE OF ANALYSIS VA06065345

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
225128		136	0.22	<10	<10	66	<10	67
225129		134	0.22	<10	<10	78	<10	83
225130		114	0.22	<10	<10	62	<10	85
225131		110	0.21	<10	<10	62	<10	64
225132		164	0.21	<10	<10	68	<10	71
225133		128	0.20	<10	<10	62	<10	74
225134		108	0.11	<10	<10	59	<10	62
225135		165	<0.01	<10	<10	53	<10	44
225136		138	0.06	<10	<10	50	<10	60
225137		97	0.11	<10	<10	59	<10	69
225138		94	0.06	<10	<10	55	<10	78
225139		120	0.05	<10	<10	54	<10	52
225140		134	0.11	<10	<10	61	<10	53
225141		177	0.17	<10	<10	64	<10	55
225142		127	0.14	<10	<10	67	<10	59
225143		95	0.07	<10	<10	54	<10	50
225144		116	0.05	<10	<10	57	<10	50
225145		132	0.02	<10	<10	66	<10	59
225146		96	0.07	<10	<10	60	<10	55
225147		130	0.01	<10	<10	49	<10	52
225148		145	<0.01	<10	<10	55	<10	52
225149		153	0.02	<10	<10	64	<10	51
225150		128	0.01	<10	<10	63	<10	56
225151		102	0.02	<10	<10	52	<10	55
225152		5	<0.01	<10	<10	1	<10	23
225011		99	0.19	<10	<10	71	<10	64
225012		110	0.21	<10	<10	79	<10	66
225013		265	0.20	<10	<10	86	<10	74
225014		206	0.22	<10	<10	75	<10	70
225015		90	0.20	<10	<10	70	<10	65
225016		129	0.21	<10	<10	74	<10	67
225017		123	0.20	<10	<10	80	<10	65
225018		170	0.20	<10	<10	77	<10	65
225019		104	0.18	<10	<10	62	<10	55
225020		122	0.21	<10	<10	78	<10	67
225021		200	0.21	<10	<10	80	<10	86
225022		108	0.21	<10	<10	80	<10	64
225023		101	0.20	<10	<10	69	<10	59
225024		86	0.20	<10	<10	69	<10	58
225025		94	0.21	<10	<10	71	<10	57

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CERTIFICATE OF ANALYSIS VA06065345

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
225026		0.24	<0.005	0.001	<0.2	2.00	7	<10	70	0.5	<2	2.59	<0.5	8	51	13
225027		0.22	<0.005	0.002	<0.2	2.05	9	<10	80	0.5	<2	2.13	<0.5	9	40	22
225028		0.36	<0.005	0.002	<0.2	1.99	8	<10	60	0.5	<2	3.01	<0.5	9	50	15
225029		0.22	<0.005	0.003	<0.2	1.83	8	<10	80	0.5	<2	2.18	<0.5	9	80	25
225030		0.28	<0.005	0.002	<0.2	1.89	10	10	60	0.5	<2	2.60	<0.5	8	64	14
225031		0.26	<0.005	0.002	<0.2	2.00	7	<10	70	0.5	<2	2.46	<0.5	7	62	15
225032		0.18	<0.005	0.003	<0.2	2.52	12	10	90	0.6	2	2.42	<0.5	9	72	27
225033		0.20	<0.005	0.003	<0.2	2.46	9	10	90	0.6	<2	2.32	<0.5	9	57	29

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CERTIFICATE OF ANALYSIS VA06065345

Sample Description	Method	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Fe	Ga	Hg	K	La	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Sc
	Units	%	ppm	ppm	%	ppm	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm
	LOR	0.01	10	1	0.01	10	0.01	5	1	0.01	1	10	2	0.01	2	1
225026		3.20	10	<1	0.20	10	1.11	839	1	0.10	3	990	2	0.01	<2	7
225027		3.40	10	<1	0.25	10	1.16	841	1	0.11	2	1050	2	0.02	2	7
225028		3.16	10	<1	0.18	<10	1.08	839	1	0.08	3	990	3	0.04	<2	7
225029		3.27	10	<1	0.23	10	1.12	848	1	0.10	4	1000	3	0.02	<2	7
225030		3.15	10	<1	0.20	<10	1.10	854	1	0.09	4	1010	3	0.01	<2	6
225031		3.15	10	<1	0.23	10	1.10	832	1	0.09	4	1020	2	0.01	2	7
225032		3.39	10	<1	0.22	10	1.22	915	<1	0.12	3	1030	4	0.01	2	8
225033		3.34	10	<1	0.21	10	1.22	904	1	0.11	3	1040	4	0.01	<2	7

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To: NORTHGATE MINERALS CORPORATION
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 13-AUG-2006
Account: PIL

Project: 4013

CERTIFICATE OF ANALYSIS VA06065345

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
225026		106	0.21	<10	<10	66	<10	61
225027		89	0.22	<10	<10	70	<10	66
225028		101	0.20	<10	<10	66	<10	64
225029		81	0.21	<10	<10	68	<10	64
225030		100	0.21	<10	<10	65	<10	72
225031		99	0.20	<10	<10	68	<10	70
225032		138	0.23	<10	<10	73	<10	77
225033		132	0.23	<10	<10	71	<10	76

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KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 14-AUG-2006
Account: PIL

CERTIFICATE VA06065346

Project: 4012
P.O. No.:
This report is for 25 Pulp samples submitted to our lab in Vancouver, BC, Canada on 18-JUL-2006.
The following have access to data associated with this certificate:

CARL EDMUNDS	BRIAN KAY	RON KONST

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
LOG-QC	QC Test on Received Samples

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au-AA23	Au 30g FA-AA finish	AAS
Cu-AA49	Assay Cu - HBr Digestion	AAS
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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Finalized Date: 14-AUG-2006
Account: PIL

Project: 4012

CERTIFICATE OF ANALYSIS VA06065346

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
227246		0.26	0.015	0.012	0.5	2.85	25	<10	200	0.5	<2	4.41	<0.5	16	68	121
227247		0.26	0.010	0.007	0.4	2.95	8	<10	100	0.5	<2	3.35	<0.5	17	75	71
227248		0.26	0.168	0.017	0.4	2.94	<2	<10	140	<0.5	<2	3.50	<0.5	14	64	182
227249		0.24	0.006	0.011	0.2	2.66	4	<10	420	<0.5	<2	4.37	<0.5	13	76	106
227250		0.26	0.017	0.015	0.2	2.68	6	<10	360	<0.5	<2	3.95	<0.5	15	60	146
227251		0.24	0.519	0.006	0.5	2.92	6	<10	440	0.5	<2	3.60	<0.5	18	66	60
227252		0.28	0.033	0.002	0.3	2.80	5	<10	330	0.6	<2	3.18	<0.5	12	42	23
227253		0.26	0.015	0.010	0.2	2.99	7	<10	170	0.5	<2	3.21	<0.5	11	63	106
227254		0.28	0.013	0.006	0.4	3.56	8	<10	260	0.6	<2	6.62	0.8	11	58	59
227255		0.28	<0.005	<0.001	<0.2	2.10	<2	<10	490	<0.5	<2	2.26	<0.5	1	35	1
227256		0.26	0.017	0.001	0.4	3.11	4	<10	2590	0.6	<2	6.98	0.6	9	50	10
227257		0.26	0.047	0.002	0.4	2.56	<2	<10	1830	0.6	<2	2.98	<0.5	6	43	13
227258		0.26	0.015	0.002	0.3	2.70	10	<10	2710	0.5	<2	5.48	0.6	11	65	17
227259		0.26	0.005	<0.001	0.3	2.71	10	<10	570	0.5	<2	3.09	<0.5	7	44	2
227260		0.28	<0.005	<0.001	<0.2	2.77	5	<10	160	0.5	2	2.03	<0.5	7	39	2
227261		0.26	<0.005	<0.001	<0.2	2.69	<2	<10	200	0.5	<2	2.82	<0.5	8	41	1
227262		0.26	<0.005	<0.001	<0.2	2.75	<2	<10	220	0.5	<2	2.77	<0.5	7	40	1
227263		0.26	0.107	0.003	0.3	2.69	4	<10	340	0.6	2	2.64	<0.5	12	70	32
227264		0.26	0.005	0.001	<0.2	3.18	3	<10	400	0.6	<2	2.86	<0.5	9	77	3
227265		0.26	<0.005	0.001	<0.2	2.83	2	<10	160	<0.5	<2	4.29	<0.5	9	62	3
227266		0.26	<0.005	0.001	<0.2	2.77	5	<10	290	0.7	<2	2.43	<0.5	8	64	6
227267		0.26	<0.005	<0.001	<0.2	2.94	<2	<10	1750	0.5	<2	2.52	<0.5	6	65	1
227268		0.26	0.007	0.004	<0.2	3.33	2	<10	140	0.6	<2	3.49	<0.5	9	62	42
227269		0.26	<0.005	0.002	<0.2	3.54	2	<10	130	0.5	<2	4.29	<0.5	7	62	15
227270		0.26	0.009	0.004	<0.2	3.22	4	<10	140	0.7	<2	3.53	<0.5	10	61	43

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PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 14-AUG-2006
Account: PIL

Project: 4012

CERTIFICATE OF ANALYSIS VA06065346

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
227246		4.56	10	<1	0.28	10	1.78	1450	1	0.07	12	1110	23	1.69	<2	7
227247		4.67	10	<1	0.29	10	1.78	1305	1	0.06	12	1130	8	0.98	<2	6
227248		4.55	10	<1	0.27	10	1.68	1540	1	0.07	15	1360	5	0.32	2	6
227249		4.12	10	<1	0.25	10	1.48	1450	1	0.08	12	1190	6	0.16	<2	6
227250		3.96	10	1	0.28	10	1.30	1430	<1	0.07	10	1180	4	0.26	<2	5
227251		4.53	10	1	0.28	10	1.38	1465	1	0.06	11	1200	7	0.69	<2	5
227252		4.00	10	<1	0.26	10	1.04	1165	2	0.05	6	1150	9	0.50	<2	3
227253		4.02	10	1	0.29	10	1.35	1270	1	0.06	9	1360	5	0.51	<2	4
227254		3.70	<10	1	0.23	<10	1.32	1740	1	0.05	7	960	39	0.33	<2	5
227255		1.10	<10	<1	0.29	10	0.42	616	1	0.09	<1	330	3	0.03	<2	1
227256		4.59	10	<1	0.25	<10	1.22	2240	4	0.08	5	670	24	0.16	<2	3
227257		2.86	<10	1	0.31	10	0.60	942	1	0.08	2	720	13	0.17	<2	2
227258		8.28	<10	<1	0.24	<10	0.84	1885	9	0.08	4	1650	39	0.15	2	3
227259		3.69	<10	<1	0.28	<10	0.77	1165	<1	0.04	3	1170	36	0.07	<2	3
227260		3.69	<10	<1	0.27	<10	0.82	839	1	0.04	1	940	12	0.02	2	2
227261		3.78	<10	<1	0.30	10	0.88	1120	1	0.05	2	950	7	0.02	<2	2
227262		4.58	<10	<1	0.26	10	0.86	1025	1	0.04	2	910	7	0.02	<2	2
227263		4.04	<10	<1	0.27	10	0.78	960	1	0.04	3	1020	10	0.19	<2	2
227264		4.74	<10	1	0.23	<10	1.07	1210	1	0.04	4	890	10	0.04	<2	3
227265		3.07	<10	1	0.29	10	1.02	1710	1	0.03	3	960	9	0.03	<2	3
227266		3.35	<10	<1	0.28	<10	0.83	1010	<1	0.04	4	990	18	0.04	<2	3
227267		2.80	<10	<1	0.24	<10	0.90	914	1	0.06	2	940	7	0.08	<2	2
227268		3.43	<10	1	0.25	10	1.14	1375	1	0.04	4	1070	5	0.07	2	4
227269		3.51	10	<1	0.26	10	1.41	1505	<1	0.02	<1	990	5	0.01	<2	4
227270		3.67	10	<1	0.39	<10	1.10	701	<1	0.06	6	1020	14	1.04	<2	5

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KEMESS MINE
PO BOX 3519
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Finalized Date: 14-AUG-2006
Account: PIL

Project: 4012

CERTIFICATE OF ANALYSIS VA06065346

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
227246		109	0.02	<10	<10	81	<10	158
227247		113	0.02	<10	<10	77	<10	160
227248		74	0.01	<10	<10	91	<10	139
227249		92	0.01	<10	<10	87	<10	124
227250		125	0.01	<10	<10	65	<10	102
227251		113	<0.01	<10	<10	63	<10	113
227252		103	<0.01	<10	<10	45	<10	103
227253		99	<0.01	<10	<10	59	<10	110
227254		171	<0.01	<10	<10	55	<10	158
227255		131	<0.01	<10	<10	7	<10	32
227256		218	<0.01	<10	<10	43	<10	175
227257		160	<0.01	<10	<10	20	<10	76
227258		166	0.01	<10	<10	52	<10	127
227259		96	<0.01	<10	<10	31	<10	99
227260		69	0.01	<10	<10	36	<10	85
227261		91	0.02	<10	<10	38	<10	80
227262		77	0.04	<10	<10	48	<10	75
227263		89	0.01	<10	<10	36	<10	82
227264		98	0.02	<10	<10	33	<10	112
227265		115	<0.01	<10	<10	27	<10	106
227266		83	<0.01	<10	<10	28	<10	90
227267		106	<0.01	<10	<10	21	<10	69
227268		102	<0.01	<10	<10	33	<10	95
227269		107	<0.01	<10	<10	32	<10	102
227270		156	0.13	<10	<10	95	<10	77

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To: NORTHGATE MINERALS CORPORATION
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 23-AUG-2006
Account: PIL

CERTIFICATE VA06067503

Project: 4013
P.O. No.:
This report is for 75 Pulp samples submitted to our lab in Vancouver, BC, Canada on 21-JUL-2006.
The following have access to data associated with this certificate:

CARL EDMUNDS	B. KAY	RON KONST

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-24	Pulp Login - Rcd w/o Barcode
LOG-QC	QC Test on Received Samples

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au-AA23	Au 30g FA-AA finish	AAS
Cu-AA49	Assay Cu - HBr Digestion	AAS
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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KEMESS MINE
PO BOX 3519
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Finalized Date: 23-AUG-2006
Account: PIL

Project: 4013

CERTIFICATE OF ANALYSIS VA06067503

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
225153		0.28	0.019	0.002	0.2	2.60	101	10	310	0.5	<2	3.42	<0.5	12	66	19
225154		0.24	0.005	0.002	0.2	2.48	78	10	170	<0.5	<2	2.28	<0.5	9	80	11
225155		0.24	0.005	0.001	<0.2	2.64	55	10	260	<0.5	<2	4.38	<0.5	12	73	12
225156		0.26	0.006	0.001	0.2	2.82	86	10	550	<0.5	<2	4.36	0.6	15	75	10
225157		0.24	<0.005	0.002	<0.2	3.00	26	10	390	0.6	<2	3.30	<0.5	8	69	14
225158		0.28	<0.005	0.001	<0.2	3.26	13	10	160	0.7	<2	3.32	<0.5	7	54	8
225159		0.26	<0.005	0.007	0.3	2.64	8	10	130	0.7	<2	3.52	<0.5	8	77	79
225160		0.26	<0.005	0.001	<0.2	2.33	9	10	150	0.7	<2	2.00	<0.5	6	53	11
225161		0.28	<0.005	0.002	<0.2	2.87	5	10	100	0.8	<2	2.94	<0.5	8	54	17
225162		0.24	<0.005	0.004	0.2	3.02	9	10	100	0.8	<2	2.79	<0.5	7	54	40
225163		0.28	<0.005	0.001	<0.2	2.35	10	10	130	0.7	<2	1.95	<0.5	8	59	5
225164		0.24	<0.005	0.001	<0.2	2.15	12	10	110	0.6	<2	2.56	<0.5	7	59	10
225165		0.26	<0.005	0.001	<0.2	2.44	9	10	70	0.6	<2	2.36	<0.5	10	60	6
225166		0.24	<0.005	0.002	<0.2	2.89	7	10	80	0.6	<2	2.73	<0.5	8	44	18
225167		0.22	<0.005	0.003	<0.2	2.11	10	20	110	0.6	<2	2.49	<0.5	8	60	30
225168		0.28	<0.005	0.003	0.8	1.86	11	10	90	0.5	<2	2.02	<0.5	8	50	28
225169		0.24	<0.005	0.002	0.2	1.91	13	<10	100	0.5	<2	2.07	<0.5	9	64	15
225170		0.24	<0.005	0.002	<0.2	2.38	9	<10	80	0.5	<2	2.42	<0.5	9	42	22
225171		0.20	<0.005	0.002	0.3	2.29	12	10	120	0.5	<2	1.86	<0.5	8	74	16
225172		0.24	<0.005	0.002	0.3	2.07	13	10	120	0.5	<2	1.75	<0.5	8	77	15
225173		0.24	<0.005	0.002	<0.2	2.56	16	<10	80	0.8	<2	2.64	<0.5	10	50	11
225174		0.24	<0.005	0.002	<0.2	2.01	11	<10	100	0.5	<2	1.70	<0.5	8	67	12
225175		0.26	<0.005	0.002	<0.2	3.82	14	<10	60	0.7	<2	2.70	<0.5	9	37	9
225176		0.26	<0.005	0.002	<0.2	2.12	12	<10	90	0.5	<2	1.67	<0.5	11	60	17
225177		0.22	0.008	0.002	<0.2	2.13	13	<10	90	0.5	<2	1.68	<0.5	11	79	17
225178		0.28	0.006	0.002	<0.2	2.04	8	<10	130	0.5	<2	1.79	<0.5	8	65	18
225179		0.26	<0.005	0.003	<0.2	1.75	13	<10	90	<0.5	<2	1.76	<0.5	8	71	19
225180		0.28	0.011	0.002	<0.2	2.80	7	<10	60	0.6	<2	2.72	<0.5	8	69	15
225181		0.24	<0.005	0.002	<0.2	2.11	12	<10	110	0.6	<2	1.91	<0.5	8	68	17
225182		0.26	0.006	0.002	0.2	2.53	10	<10	70	0.7	<2	2.55	<0.5	8	50	16
225183		0.28	<0.005	0.002	0.2	2.70	12	<10	70	0.7	<2	2.43	<0.5	8	63	18
225184		0.24	0.009	0.003	<0.2	2.59	18	<10	80	0.6	<2	2.11	<0.5	10	62	22
225185		0.24	<0.005	0.003	<0.2	2.53	15	10	60	0.6	<2	2.01	<0.5	9	74	22
225186		0.28	0.007	0.002	<0.2	2.57	21	10	80	0.6	<2	2.13	<0.5	8	69	18
225187		0.26	0.009	0.003	<0.2	2.16	16	10	90	0.5	<2	1.79	<0.5	8	88	24
225188		0.26	0.007	0.002	<0.2	2.33	15	10	80	0.6	<2	2.45	<0.5	8	70	16
225189		0.26	<0.005	0.001	<0.2	3.23	16	<10	50	0.7	<2	3.55	<0.5	8	63	7
225190		0.26	<0.005	0.002	<0.2	3.56	19	10	60	1.2	<2	3.14	<0.5	10	56	10
225191		0.28	0.005	0.001	<0.2	2.12	18	10	60	0.5	<2	1.98	<0.5	7	76	10
225192		0.26	0.008	0.001	<0.2	2.52	16	10	50	0.6	<2	3.04	<0.5	6	78	7

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212 Brooksbank Avenue
North Vancouver BC V7J 2C1
Phone: 604 984 0221 Fax: 604 984 0218 www.alschemex.com

To: NORTHGATE MINERALS CORPORATION
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 23-AUG-2006
Account: PIL

Project: 4013

CERTIFICATE OF ANALYSIS VA06067503

Sample Description	Method	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Fe	Ga	Hg	K	La	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Sc
	Units	%	ppm	ppm	%	ppm	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm
	LOR	0.01	10	1	0.01	10	0.01	5	1	0.01	1	10	2	0.01	2	1
225153		3.50	10	<1	0.42	10	1.18	746	1	0.04	8	1000	7	0.36	<2	6
225154		3.41	10	1	0.39	10	1.21	661	1	0.06	7	1000	7	0.21	<2	7
225155		3.24	<10	1	0.48	10	1.10	734	1	0.02	4	870	8	0.21	<2	4
225156		3.78	<10	1	0.49	10	1.31	771	1	0.01	7	940	7	0.32	<2	4
225157		3.47	10	<1	0.29	10	1.14	742	1	0.08	7	950	6	0.09	<2	8
225158		3.28	10	1	0.22	10	1.10	670	1	0.09	3	980	4	0.02	<2	9
225159		3.67	10	1	0.38	10	1.14	756	1	0.08	4	1060	3	0.01	<2	8
225160		3.13	10	1	0.24	10	0.82	485	1	0.11	5	930	2	0.03	<2	6
225161		3.51	10	<1	0.18	10	1.22	673	1	0.11	3	1040	3	0.02	<2	9
225162		3.57	10	1	0.17	10	1.22	657	2	0.10	4	1010	4	0.01	<2	9
225163		3.54	10	1	0.22	10	1.11	573	<1	0.11	4	1060	4	0.02	<2	8
225164		3.78	10	1	0.21	10	1.28	725	1	0.11	6	1050	<2	0.01	<2	10
225165		3.72	10	1	0.17	10	1.40	727	<1	0.11	4	1020	3	0.05	<2	10
225166		3.85	10	<1	0.17	10	1.51	799	1	0.10	5	1070	3	0.01	<2	10
225167		3.43	10	<1	0.24	10	1.17	628	1	0.13	4	1000	<2	0.01	<2	9
225168		3.52	10	<1	0.20	10	1.23	661	2	0.12	4	1010	7	0.03	2	9
225169		3.55	10	<1	0.19	10	1.25	689	1	0.12	4	990	5	0.02	3	10
225170		3.49	10	1	0.17	10	1.24	707	1	0.10	4	960	12	0.04	<2	10
225171		3.41	10	1	0.30	10	1.01	575	1	0.14	3	970	7	0.03	3	7
225172		3.33	10	<1	0.28	10	1.03	567	2	0.14	3	990	9	0.02	<2	7
225173		3.70	10	<1	0.22	10	1.40	785	3	0.11	3	1010	3	0.04	<2	8
225174		3.47	10	<1	0.22	10	1.18	610	1	0.14	3	970	6	0.02	2	9
225175		3.79	10	1	0.13	10	1.36	738	1	0.09	2	1010	5	0.03	<2	10
225176		3.43	10	<1	0.18	10	1.23	606	2	0.13	3	990	6	0.11	<2	9
225177		3.47	10	1	0.19	10	1.20	604	2	0.14	5	970	7	0.10	2	9
225178		3.56	10	1	0.23	10	1.10	586	1	0.14	3	1050	6	0.03	<2	7
225179		3.14	10	<1	0.24	10	0.93	478	2	0.12	3	930	7	0.02	<2	6
225180		3.54	10	1	0.24	10	1.18	598	1	0.09	4	1010	8	0.03	2	10
225181		3.37	10	<1	0.23	10	0.94	476	2	0.17	4	1000	5	0.03	<2	6
225182		3.32	10	1	0.18	10	1.03	533	1	0.12	3	980	6	0.02	<2	7
225183		3.44	10	1	0.16	10	1.14	544	2	0.11	4	1000	8	0.01	<2	8
225184		3.45	10	1	0.19	10	1.15	561	1	0.12	4	1010	6	0.04	<2	7
225185		3.28	10	<1	0.14	10	1.24	611	2	0.10	4	1000	5	0.03	2	8
225186		3.25	10	1	0.18	10	1.22	573	1	0.11	5	1000	4	0.04	<2	7
225187		3.38	10	1	0.20	10	1.19	562	1	0.13	5	1060	3	0.04	<2	7
225188		3.50	10	1	0.22	10	1.39	627	1	0.11	5	1040	2	0.03	<2	9
225189		3.76	10	<1	0.13	10	1.78	827	1	0.09	5	1010	<2	0.03	<2	9
225190		4.24	10	1	0.14	10	1.91	933	1	0.09	3	1080	4	0.06	<2	10
225191		3.55	10	1	0.16	10	1.46	669	1	0.15	5	1030	4	0.04	<2	9
225192		3.52	10	2	0.14	10	1.50	746	1	0.11	6	1010	2	0.04	<2	10

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Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
225153		98	<0.01	<10	<10	59	<10	59
225154		100	0.02	<10	<10	68	<10	74
225155		128	<0.01	<10	<10	43	<10	69
225156		99	<0.01	<10	<10	43	<10	101
225157		264	0.11	<10	<10	77	<10	60
225158		223	0.16	<10	<10	80	<10	45
225159		174	0.11	<10	<10	80	<10	61
225160		142	0.16	<10	<10	83	<10	40
225161		174	0.19	<10	<10	87	<10	44
225162		184	0.17	<10	<10	87	<10	43
225163		161	0.18	<10	<10	90	<10	40
225164		124	0.19	<10	<10	96	<10	47
225165		133	0.20	<10	<10	96	<10	47
225166		174	0.21	<10	<10	100	<10	51
225167		129	0.22	<10	<10	86	<10	41
225168		91	0.21	<10	<10	90	<10	44
225169		99	0.21	<10	<10	97	<10	44
225170		123	0.20	<10	<10	90	<10	52
225171		124	0.19	<10	<10	88	<10	40
225172		124	0.18	<10	<10	87	<10	41
225173		143	0.20	<10	<10	102	<10	49
225174		126	0.19	<10	<10	94	<10	39
225175		220	0.20	<10	<10	99	<10	50
225176		122	0.19	<10	<10	90	<10	42
225177		125	0.20	<10	<10	91	<10	41
225178		151	0.19	<10	<10	96	<10	37
225179		104	0.16	<10	<10	87	<10	34
225180		163	0.18	<10	<10	90	<10	42
225181		115	0.19	<10	<10	92	<10	32
225182		140	0.19	<10	<10	91	<10	36
225183		154	0.20	<10	<10	97	<10	42
225184		154	0.20	<10	<10	94	<10	37
225185		159	0.21	<10	<10	84	<10	39
225186		162	0.21	<10	<10	83	<10	43
225187		138	0.22	<10	<10	88	<10	40
225188		153	0.21	<10	<10	94	<10	43
225189		193	0.20	<10	<10	98	<10	52
225190		196	0.20	<10	<10	110	<10	56
225191		110	0.21	<10	<10	94	<10	42
225192		161	0.21	<10	<10	94	<10	49

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Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
225193		0.28	0.007	0.001	<0.2	2.10	13	<10	50	0.5	<2	2.11	<0.5	7	66	5
225194		0.26	0.007	0.001	<0.2	1.93	14	<10	70	0.5	<2	1.80	<0.5	7	82	9
225195		0.26	0.009	0.004	<0.2	2.52	19	10	70	0.7	<2	2.46	<0.5	8	63	35
225196		0.26	0.005	0.002	<0.2	1.93	16	10	150	0.5	<2	1.69	<0.5	8	89	15
225197		0.26	0.014	0.004	<0.2	1.81	21	10	110	0.5	<2	1.78	<0.5	9	83	30
225198		0.26	0.008	0.004	<0.2	2.02	29	10	130	0.5	<2	1.97	<0.5	9	86	35
225199		0.26	<0.005	0.004	<0.2	2.38	13	10	80	0.8	<2	2.41	<0.5	8	67	38
225200		0.28	0.008	0.003	<0.2	2.37	16	10	90	0.6	<2	2.32	<0.5	10	78	25
225201		0.26	0.009	0.003	<0.2	2.13	20	<10	110	0.5	<2	1.98	<0.5	8	88	20
225202		0.28	0.006	0.002	<0.2	1.96	5	<10	140	<0.5	<2	1.88	<0.5	7	80	15
227271		0.26	0.006	0.001	<0.2	3.59	4	<10	180	0.5	<2	4.41	<0.5	7	65	3
227272		0.24	<0.005	0.001	<0.2	3.50	4	<10	170	0.6	<2	4.79	<0.5	6	67	6
227273		0.28	0.013	0.004	0.2	3.10	11	<10	400	0.6	<2	3.75	<0.5	10	74	37
227274		0.28	0.016	0.006	0.4	3.39	17	<10	280	0.6	<2	4.39	0.6	12	81	61
227275		0.26	0.009	0.003	<0.2	3.02	12	<10	470	0.5	<2	3.07	<0.5	9	69	29
227276		0.24	<0.005	0.004	<0.2	1.46	5	<10	1030	<0.5	<2	2.81	<0.5	1	63	33
227277		0.20	0.006	0.011	<0.2	1.86	9	<10	330	<0.5	<2	4.39	<0.5	3	85	109
227278		0.24	0.007	0.006	0.3	2.21	5	<10	310	0.6	<2	4.92	<0.5	7	83	58
227279		0.26	<0.005	0.001	<0.2	3.84	5	<10	190	<0.5	<2	3.38	<0.5	4	45	2
227280		0.26	0.005	0.001	<0.2	4.11	5	<10	640	<0.5	<2	3.29	<0.5	5	41	1
227281		0.24	0.013	0.012	0.5	4.06	19	<10	330	0.6	<2	5.25	<0.5	14	74	125
227282		0.26	0.011	0.013	0.3	4.03	11	<10	370	0.6	<2	4.96	<0.5	13	62	132
227283		0.26	0.009	0.024	0.3	4.12	4	<10	930	0.7	<2	7.06	<0.5	13	35	269
227284		0.24	0.008	0.005	<0.2	4.36	6	<10	830	0.7	<2	6.11	<0.5	16	47	57
227285		0.24	0.066	0.021	0.8	3.93	20	<10	180	0.6	<2	8.17	0.5	19	55	227
227286		0.26	0.012	0.054	0.6	3.97	14	<10	170	0.5	<2	7.73	<0.5	18	45	590
227287		0.26	0.007	0.005	<0.2	4.18	8	<10	530	0.6	<2	7.68	<0.5	19	38	50
227288		0.26	0.007	0.003	<0.2	3.44	10	<10	330	0.6	<2	8.40	<0.5	16	44	23
227289		0.24	0.007	0.002	<0.2	3.82	6	<10	170	0.5	<2	8.42	<0.5	16	42	18
227290		0.26	0.008	0.022	<0.2	4.22	9	<10	290	0.6	<2	7.37	<0.5	22	41	250
227291		0.24	0.008	0.021	0.2	4.83	6	<10	300	0.7	<2	7.03	<0.5	20	46	242
227292		0.28	0.007	0.009	<0.2	5.27	7	<10	340	0.6	<2	5.31	<0.5	21	54	98
227293		0.26	<0.005	0.012	0.2	5.22	5	<10	810	0.7	<2	5.20	0.9	14	43	139
227294		0.26	<0.005	0.001	<0.2	4.12	3	<10	250	0.5	2	2.95	<0.5	6	42	10
227295		0.06	0.844	0.001	0.6	0.23	2	10	30	<0.5	3	0.17	<0.5	1	4	11

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Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
225193		3.64	10	1	0.17	10	1.47	657	1	0.14	5	1080	6	0.02	<2	9
225194		3.39	10	<1	0.18	10	1.27	540	1	0.15	5	1020	5	0.03	<2	8
225195		3.79	10	1	0.17	10	1.39	621	1	0.12	4	1080	7	0.04	<2	9
225196		3.48	10	<1	0.25	10	0.96	451	1	0.17	4	1020	6	0.06	2	6
225197		3.33	10	1	0.21	10	0.93	455	1	0.15	4	990	5	0.08	<2	5
225198		3.49	<10	1	0.24	10	0.96	467	1	0.15	5	1000	7	0.09	<2	4
225199		3.69	10	1	0.19	10	1.20	613	1	0.11	4	1030	4	0.03	<2	8
225200		3.94	10	1	0.27	10	1.33	651	1	0.11	4	1080	7	0.14	<2	7
225201		3.47	10	1	0.22	10	1.06	478	1	0.13	5	990	4	0.11	<2	7
225202		3.81	10	1	0.22	10	0.73	547	<1	0.21	2	1120	5	0.01	<2	6
227271		3.58	<10	1	0.32	10	1.28	1540	<1	0.03	3	990	5	0.02	<2	4
227272		3.69	<10	1	0.34	10	1.19	1675	<1	0.03	3	960	7	0.02	<2	4
227273		3.69	<10	2	0.32	10	1.00	1280	1	0.03	4	1000	44	0.96	<2	3
227274		3.87	<10	2	0.32	10	1.04	1450	<1	0.04	6	1400	44	1.00	<2	4
227275		3.95	<10	1	0.37	10	0.86	1005	1	0.03	6	1140	9	0.44	<2	4
227276		1.40	<10	1	0.42	10	0.26	719	1	0.02	1	1650	3	0.06	<2	3
227277		3.15	<10	1	0.42	10	0.52	1350	<1	0.02	2	950	8	0.06	2	3
227278		2.52	<10	1	0.41	10	0.57	1345	1	0.03	3	960	16	0.31	<2	4
227279		2.54	10	1	0.26	10	1.10	917	<1	0.04	1	660	6	0.09	<2	4
227280		2.23	10	2	0.25	10	1.17	850	<1	0.04	1	650	7	0.14	<2	3
227281		4.86	10	1	0.31	10	1.80	1890	<1	0.04	15	1290	14	0.85	<2	6
227282		4.36	10	1	0.33	10	1.40	1535	1	0.04	8	1480	13	0.93	<2	6
227283		5.35	10	2	0.41	<10	1.18	2240	<1	0.03	6	2320	11	0.28	<2	8
227284		7.10	10	2	0.36	<10	1.34	2020	<1	0.02	10	2280	15	0.42	<2	8
227285		5.17	<10	1	0.34	<10	1.23	2360	1	0.02	13	1500	35	1.16	<2	6
227286		4.56	<10	1	0.37	<10	1.40	2100	<1	0.02	15	1570	11	0.63	<2	7
227287		5.60	10	2	0.24	10	1.29	2050	<1	0.03	19	1650	9	0.04	<2	11
227288		4.92	<10	2	0.25	10	1.22	2110	<1	0.03	18	1540	12	0.03	<2	10
227289		5.02	10	2	0.29	10	1.21	2060	<1	0.04	17	1540	10	0.04	<2	10
227290		5.28	10	1	0.29	10	1.61	2140	<1	0.04	21	1470	8	0.04	<2	11
227291		5.25	10	1	0.30	10	1.73	2190	<1	0.04	18	1700	8	0.08	<2	10
227292		5.46	10	1	0.24	10	2.24	2120	<1	0.03	17	1710	10	0.09	<2	10
227293		4.32	10	1	0.29	10	1.91	1790	<1	0.03	13	1440	7	0.07	2	8
227294		2.35	10	<1	0.21	10	1.30	863	1	0.03	2	730	3	0.03	<2	4
227295		3.21	<10	<1	0.04	<10	0.04	32	1	0.12	2	610	116	3.14	<2	<1

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Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
225193		111	0.22	<10	<10	102	<10	50
225194		112	0.20	<10	<10	99	<10	42
225195		142	0.21	<10	<10	102	<10	46
225196		155	0.19	<10	<10	91	<10	33
225197		117	0.18	<10	<10	87	<10	37
225198		146	0.18	<10	<10	87	<10	45
225199		142	0.20	<10	<10	95	<10	50
225200		159	0.18	<10	<10	94	<10	54
225201		167	0.18	<10	<10	92	<10	42
225202		90	0.20	<10	<10	126	<10	43
227271		134	<0.01	<10	<10	29	<10	92
227272		160	<0.01	<10	<10	31	<10	89
227273		120	<0.01	<10	<10	23	<10	134
227274		150	<0.01	<10	<10	43	<10	122
227275		104	<0.01	<10	<10	41	<10	113
227276		86	<0.01	<10	<10	13	<10	41
227277		117	0.01	<10	<10	22	<10	80
227278		153	<0.01	<10	<10	30	<10	69
227279		146	<0.01	<10	<10	25	<10	69
227280		178	<0.01	<10	<10	25	<10	61
227281		170	<0.01	<10	<10	76	<10	171
227282		190	<0.01	<10	<10	70	<10	141
227283		212	<0.01	<10	<10	98	<10	233
227284		211	0.01	<10	<10	112	<10	311
227285		178	<0.01	<10	<10	83	<10	263
227286		169	<0.01	<10	<10	93	<10	162
227287		156	<0.01	<10	<10	150	<10	127
227288		175	<0.01	<10	<10	141	<10	112
227289		150	<0.01	<10	<10	154	<10	117
227290		136	<0.01	<10	<10	153	<10	118
227291		170	<0.01	<10	<10	152	<10	110
227292		164	<0.01	<10	<10	155	<10	131
227293		165	<0.01	<10	<10	103	<10	141
227294		159	<0.01	<10	<10	29	<10	69
227295		4	<0.01	<10	<10	1	<10	21

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To: NORTHGATE MINERALS CORPORATION
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 23-AUG-2006
Account: PIL

CERTIFICATE VA06067504

Project: 4012
P.O. No.:
This report is for 76 Pulp samples submitted to our lab in Vancouver, BC, Canada on 21-JUL-2006.
The following have access to data associated with this certificate:

CARL EDMUNDS	B. KAY	RON KONST

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
LOG-QC	QC Test on Received Samples

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au-AA23	Au 30g FA-AA finish	AAS
Cu-AA49	Assay Cu - HBr Digestion	AAS
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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Project: 4012

CERTIFICATE OF ANALYSIS VA06067504

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
224481		0.28	<0.005	0.002	<0.2	2.59	<2	<10	290	<0.5	2	2.27	<0.5	8	48	23
224482		0.24	0.007	0.001	<0.2	2.52	5	<10	220	<0.5	3	2.82	<0.5	7	56	16
224483		0.24	0.006	0.002	<0.2	4.92	<2	<10	50	0.5	<2	4.15	<0.5	7	31	25
224484		0.24	<0.005	<0.001	<0.2	4.11	<2	<10	140	<0.5	2	3.45	<0.5	2	48	2
224485		0.28	<0.005	0.001	<0.2	5.24	<2	<10	70	0.6	<2	5.21	<0.5	3	29	14
224486		0.26	<0.005	0.001	<0.2	4.40	<2	10	100	<0.5	2	3.25	<0.5	1	39	1
224487		0.24	<0.005	<0.001	<0.2	4.87	<2	10	590	<0.5	<2	3.80	<0.5	1	41	3
224488		0.28	0.006	0.002	<0.2	3.65	9	<10	140	0.8	<2	3.89	<0.5	6	43	21
224489		0.26	0.006	0.003	<0.2	4.06	2	<10	80	0.6	<2	4.00	<0.5	7	28	34
224490		0.22	0.014	0.003	<0.2	4.71	6	<10	100	0.7	<2	4.66	<0.5	6	28	32
224491		0.30	0.005	0.001	<0.2	4.52	3	<10	60	0.6	<2	5.22	<0.5	7	36	12
224492		0.22	<0.005	0.001	<0.2	3.35	5	<10	270	0.6	<2	3.85	<0.5	7	51	12
224493		0.26	0.007	0.002	0.3	2.75	6	<10	120	0.6	<2	4.68	0.8	7	51	25
224494		0.24	0.008	0.008	1.0	3.61	12	<10	90	0.7	<2	6.27	0.6	13	52	91
224495		0.24	0.026	0.022	0.5	3.60	10	<10	130	<0.5	<2	3.43	0.5	16	49	248
224496		0.24	<0.005	0.002	<0.2	4.04	6	<10	200	0.6	<2	3.12	<0.5	10	61	27
224497		0.26	<0.005	0.001	<0.2	3.99	<2	<10	190	0.6	<2	2.61	<0.5	8	61	17
224498		0.26	<0.005	0.001	<0.2	4.22	2	<10	200	0.7	<2	2.71	<0.5	8	55	15
224499		0.24	<0.005	0.004	<0.2	4.95	6	<10	180	0.7	<2	3.18	<0.5	11	72	39
224500		0.20	0.007	0.004	<0.2	4.00	7	<10	180	0.6	<2	2.88	<0.5	10	63	40
225203		0.26	0.008	0.001	<0.2	2.37	24	<10	100	0.6	<2	2.08	<0.5	9	48	15
225204		0.28	0.006	0.008	0.3	2.74	29	10	70	0.5	<2	2.94	<0.5	10	54	92
225205		0.30	0.007	0.004	0.2	2.73	21	<10	80	0.8	<2	4.03	<0.5	8	40	45
225206		0.28	0.006	0.002	<0.2	2.42	25	<10	70	0.5	<2	2.18	<0.5	8	45	25
225207		0.26	0.008	0.001	<0.2	2.29	12	<10	120	0.5	<2	1.82	<0.5	6	52	15
225208		0.28	0.007	0.002	<0.2	2.35	17	<10	80	0.6	<2	2.02	<0.5	9	42	19
225209		0.28	<0.005	0.001	<0.2	2.33	18	<10	70	0.5	<2	1.88	<0.5	7	43	12
225210		0.28	0.005	<0.001	<0.2	2.37	20	<10	60	0.5	<2	2.04	<0.5	7	44	4
225211		0.26	<0.005	0.003	<0.2	3.05	20	<10	80	0.7	<2	2.32	<0.5	7	38	35
225212		0.26	<0.005	0.001	<0.2	2.88	25	<10	100	0.7	<2	2.23	<0.5	8	46	16
225213		0.26	0.005	0.002	<0.2	3.28	22	<10	110	0.8	<2	2.57	<0.5	8	37	19
225214		0.28	<0.005	0.002	<0.2	2.51	15	<10	110	0.6	<2	1.93	<0.5	7	55	19
225215		0.26	0.005	0.002	<0.2	2.22	12	<10	130	0.5	<2	1.80	<0.5	7	69	24
225216		0.28	<0.005	0.002	<0.2	2.47	12	<10	90	0.6	<2	2.02	<0.5	7	65	20
225217		0.26	0.005	0.001	<0.2	2.25	15	<10	130	0.5	<2	1.83	<0.5	6	71	16
225218		0.26	<0.005	0.002	0.2	2.15	11	<10	140	<0.5	<2	1.75	<0.5	6	81	27
225219		0.26	0.005	0.001	0.2	2.20	13	<10	90	0.6	<2	2.12	<0.5	9	48	12
225220		0.28	<0.005	0.001	0.2	2.00	9	<10	70	0.5	<2	2.71	<0.5	7	36	13
225221		0.26	<0.005	0.002	0.2	2.46	10	<10	110	0.5	<2	1.86	<0.5	8	63	24
225222		0.26	<0.005	0.001	<0.2	2.60	9	<10	80	0.5	<2	2.74	<0.5	7	78	8

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KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 23-AUG-2006
Account: PIL

Project: 4012

CERTIFICATE OF ANALYSIS VA06067504

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
224481		4.31	10	2	0.39	10	0.59	1435	1	0.16	1	920	7	<0.01	<2	4
224482		3.62	10	1	0.39	10	0.46	1165	1	0.11	3	860	8	0.02	<2	4
224483		3.06	10	1	0.30	10	1.01	936	1	0.07	3	830	12	0.18	<2	6
224484		0.87	10	1	0.30	10	0.21	302	<1	0.07	1	240	10	0.02	<2	1
224485		2.49	10	<1	0.34	10	0.72	859	2	0.09	3	710	14	0.17	<2	4
224486		0.97	10	<1	0.28	10	0.24	344	1	0.08	<1	270	10	0.03	<2	1
224487		0.97	10	<1	0.28	10	0.24	362	6	0.08	2	260	16	0.08	2	1
224488		3.40	10	1	0.52	10	0.63	939	1	0.04	4	840	23	0.37	<2	4
224489		4.07	10	2	0.50	10	0.63	931	<1	0.06	2	1020	8	0.01	<2	4
224490		3.92	10	2	0.56	10	0.54	762	<1	0.07	2	1000	11	0.02	<2	4
224491		3.96	10	2	0.37	10	0.76	972	<1	0.09	3	960	8	<0.01	<2	5
224492		4.25	10	2	0.55	10	0.81	897	<1	0.11	4	1020	7	0.01	<2	6
224493		3.61	<10	1	0.65	10	0.60	831	<1	0.04	4	950	39	0.34	<2	4
224494		4.36	<10	2	0.52	10	1.28	1325	1	0.04	7	1340	25	0.90	<2	9
224495		5.10	10	1	0.30	<10	1.38	1115	<1	0.28	12	1440	16	1.25	<2	8
224496		4.19	10	<1	0.37	<10	0.89	650	<1	0.36	6	1040	9	2.27	<2	5
224497		3.80	10	1	0.38	<10	0.56	536	<1	0.40	1	850	9	2.89	<2	3
224498		3.88	10	2	0.41	<10	0.61	643	<1	0.38	3	850	9	2.83	<2	4
224499		4.45	10	1	0.38	<10	0.84	799	<1	0.55	7	990	9	2.50	<2	6
224500		3.98	10	2	0.41	<10	0.90	930	<1	0.24	5	900	10	2.42	<2	6
225203		3.45	10	2	0.25	10	1.03	483	1	0.15	4	1020	5	0.11	<2	6
225204		3.57	10	1	0.50	10	1.18	673	1	0.07	5	1120	13	0.17	<2	8
225205		3.44	10	1	0.29	10	1.23	647	1	0.08	4	980	8	0.08	<2	8
225206		3.29	10	1	0.25	10	1.25	582	1	0.12	4	1020	7	0.12	<2	8
225207		3.42	10	1	0.26	10	0.98	412	1	0.17	4	1000	5	0.07	<2	6
225208		3.59	10	1	0.21	10	1.18	522	1	0.13	3	1020	7	0.24	2	8
225209		3.34	10	2	0.19	10	1.24	524	1	0.13	3	1000	6	0.06	<2	8
225210		3.09	10	<1	0.17	10	1.24	490	1	0.13	3	1040	6	0.20	<2	7
225211		3.46	10	2	0.21	10	1.19	513	1	0.11	2	1030	4	0.07	<2	7
225212		3.34	10	<1	0.23	10	1.10	466	1	0.12	4	1020	6	0.18	<2	6
225213		3.31	10	1	0.23	10	0.93	425	1	0.12	4	990	5	0.17	<2	5
225214		3.45	10	1	0.25	10	0.99	532	1	0.14	5	1020	6	0.10	<2	5
225215		3.67	10	1	0.29	10	1.05	598	1	0.17	6	1070	6	0.11	<2	5
225216		3.41	10	<1	0.22	10	0.98	492	1	0.13	4	1020	6	0.07	2	5
225217		3.41	10	<1	0.22	10	0.99	529	1	0.17	5	1020	7	0.08	2	5
225218		3.50	10	1	0.21	10	0.99	583	1	0.18	5	1040	6	0.04	<2	5
225219		3.71	10	<1	0.20	10	1.55	893	1	0.12	3	1050	5	0.12	<2	9
225220		3.51	10	<1	0.17	10	1.53	910	1	0.10	4	1020	4	0.05	<2	10
225221		3.46	10	1	0.22	10	1.20	717	2	0.14	4	1040	4	0.10	<2	7
225222		3.50	10	<1	0.32	10	1.30	745	1	0.10	5	1030	4	0.01	<2	8

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SMITHERS BC V0J 2N0

Finalized Date: 23-AUG-2006
Account: PIL

Project: 4012

CERTIFICATE OF ANALYSIS VA06067504

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
224481		173	0.07	<10	<10	76	<10	139
224482		174	0.04	<10	<10	67	<10	79
224483		175	0.13	<10	<10	63	<10	82
224484		177	0.04	<10	<10	11	<10	34
224485		216	0.10	<10	<10	42	<10	69
224486		196	0.04	<10	<10	12	<10	37
224487		234	0.05	<10	<10	11	<10	45
224488		142	0.13	<10	<10	50	<10	117
224489		159	0.11	<10	<10	67	<10	136
224490		211	0.09	<10	<10	64	<10	109
224491		213	0.13	<10	<10	73	<10	98
224492		145	0.08	<10	<10	81	<10	97
224493		154	0.02	<10	<10	49	<10	118
224494		152	0.02	<10	<10	79	<10	180
224495		185	0.25	<10	<10	180	<10	147
224496		217	0.21	<10	<10	97	<10	68
224497		235	0.17	<10	<10	39	<10	63
224498		272	0.17	<10	<10	43	<10	64
224499		334	0.21	<10	<10	94	<10	74
224500		202	0.20	<10	<10	77	<10	81
225203		139	0.19	<10	<10	93	<10	40
225204		146	0.17	<10	<10	88	<10	74
225205		161	0.17	<10	<10	91	<10	57
225206		151	0.18	<10	<10	93	<10	57
225207		148	0.18	<10	<10	92	<10	31
225208		123	0.19	<10	<10	94	<10	36
225209		134	0.19	<10	<10	93	<10	42
225210		153	0.20	<10	<10	89	<10	42
225211		191	0.18	<10	<10	92	<10	37
225212		189	0.18	<10	<10	91	<10	38
225213		220	0.16	<10	<10	87	<10	34
225214		154	0.18	<10	<10	92	<10	38
225215		156	0.20	<10	<10	97	<10	42
225216		149	0.19	<10	<10	89	<10	35
225217		171	0.19	<10	<10	93	<10	40
225218		157	0.20	<10	<10	96	<10	41
225219		105	0.21	<10	<10	100	<10	56
225220		86	0.20	<10	<10	93	<10	54
225221		192	0.19	<10	<10	94	<10	45
225222		181	0.18	<10	<10	91	<10	49

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CERTIFICATE OF ANALYSIS VA06067504

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
225223		0.30	<0.005	0.001	0.4	2.76	12	<10	60	0.6	<2	2.62	<0.5	8	61	17
225224		0.26	<0.005	0.001	0.3	4.18	18	<10	50	0.9	<2	3.72	<0.5	7	46	15
225225		0.26	<0.005	0.001	<0.2	3.23	12	<10	80	0.7	<2	2.37	<0.5	10	59	16
225226		0.28	<0.005	0.002	0.2	1.90	13	<10	100	0.5	<2	1.55	<0.5	7	73	27
225227		0.28	<0.005	0.001	0.2	2.00	13	<10	100	0.5	<2	1.54	<0.5	7	76	16
225228		0.28	<0.005	0.001	<0.2	2.04	9	<10	150	<0.5	<2	1.81	<0.5	7	72	16
227001		0.28	0.005	0.008	<0.2	5.08	13	<10	140	0.7	<2	3.50	<0.5	11	44	95
227002		0.26	0.010	0.002	<0.2	5.39	9	<10	50	0.8	<2	3.81	<0.5	13	55	19
227003		0.28	0.010	0.007	<0.2	6.12	6	<10	40	0.8	<2	3.10	<0.5	14	69	78
227004		0.24	0.009	0.002	<0.2	4.60	16	<10	40	0.7	<2	3.45	<0.5	15	60	28
227005		0.26	0.015	0.003	<0.2	3.03	5	<10	110	0.5	<2	2.61	<0.5	11	61	30
227031		0.28	0.032	0.003	0.6	2.29	10	<10	120	0.7	<2	2.63	<0.5	10	47	28
227032		0.24	<0.005	<0.001	<0.2	2.16	2	<10	90	<0.5	<2	2.49	<0.5	1	89	3
227033		0.24	<0.005	<0.001	<0.2	1.47	5	<10	100	<0.5	<2	1.66	<0.5	1	124	2
227034		0.30	<0.005	<0.001	<0.2	1.68	6	<10	70	<0.5	<2	1.95	<0.5	1	92	1
227035		0.28	<0.005	<0.001	<0.2	2.52	8	<10	60	<0.5	<2	2.18	<0.5	1	73	2
227036		0.20	0.005	0.001	0.2	5.15	11	<10	80	0.5	<2	4.47	<0.5	6	54	10
227037		0.22	0.006	0.001	0.2	4.47	9	<10	140	0.7	<2	3.17	<0.5	10	43	11
227038		0.26	0.010	0.007	0.2	4.30	14	<10	120	0.7	<2	3.77	<0.5	14	36	100
227039		0.22	0.017	0.013	0.2	4.28	13	<10	40	0.7	<2	4.09	<0.5	15	57	140
227040		0.26	0.016	0.011	0.3	4.94	15	<10	30	0.7	<2	6.93	<0.5	15	37	124
227041		0.26	0.011	0.009	<0.2	4.06	19	<10	50	0.6	<2	3.63	<0.5	14	41	103
227042		0.24	0.006	0.003	<0.2	2.76	7	<10	140	0.5	<2	1.95	<0.5	9	46	37
227043		0.26	0.015	0.008	0.3	3.99	12	<10	50	0.6	<2	7.27	<0.5	19	41	96
227044		0.26	0.034	0.022	0.5	3.36	11	<10	40	0.5	<2	4.34	<0.5	16	59	252
227045		0.22	0.031	0.017	0.5	3.40	21	<10	50	<0.5	<2	4.24	<0.5	16	26	188
227046		0.28	0.035	0.023	0.3	3.52	12	<10	40	<0.5	<2	3.86	<0.5	20	38	267
227047		0.22	0.020	0.013	0.5	3.23	11	<10	150	<0.5	<2	4.79	<0.5	14	42	147
227048		0.24	0.021	0.017	0.5	3.49	12	<10	280	<0.5	<2	4.03	<0.5	16	47	195
227049		0.22	0.011	0.011	0.5	4.20	16	<10	270	0.5	<2	5.08	2.5	12	51	131
227050		0.28	<0.005	<0.001	<0.2	2.75	<2	<10	80	<0.5	<2	2.26	<0.5	1	69	2
227051		0.26	<0.005	<0.001	<0.2	2.34	4	<10	610	<0.5	<2	1.99	<0.5	<1	64	1
227052		0.26	<0.005	<0.001	0.2	2.06	<2	<10	300	0.5	<2	1.93	<0.5	1	65	2
227053		0.26	<0.005	<0.001	<0.2	2.83	<2	<10	160	<0.5	<2	2.28	<0.5	1	69	3
227054		0.26	0.035	0.012	0.5	3.30	7	<10	110	0.6	<2	3.76	<0.5	13	52	142
227055		0.28	0.043	0.013	0.5	3.27	4	<10	110	0.6	<2	3.88	<0.5	14	52	146

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To: NORTHGATE MINERALS CORPORATION
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 23-AUG-2006
Account: PIL

Project: 4012

CERTIFICATE OF ANALYSIS VA06067504

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
225223		3.55	10	<1	0.19	10	1.50	801	1	0.09	4	1010	10	0.07	<2	9
225224		3.19	10	<1	0.13	10	1.45	841	1	0.09	3	940	6	0.06	<2	8
225225		3.33	10	1	0.21	10	1.03	649	1	0.10	4	1020	5	0.14	<2	5
225226		3.37	10	<1	0.23	10	0.94	661	1	0.15	4	1010	11	0.04	2	4
225227		3.55	10	<1	0.24	10	1.01	697	1	0.15	5	1060	6	0.08	<2	5
225228		3.72	10	<1	0.23	10	0.73	543	1	0.24	3	1130	4	0.01	<2	6
227001		4.28	10	1	0.25	<10	1.62	1255	<1	0.30	7	1070	8	1.68	2	6
227002		5.32	10	1	0.21	<10	1.58	865	<1	0.31	2	910	11	5.30	<2	14
227003		5.78	20	1	0.17	<10	2.05	1155	<1	0.58	2	960	7	5.64	<2	17
227004		5.05	10	<1	0.35	<10	1.43	739	<1	0.24	4	990	10	5.34	2	10
227005		3.99	10	1	0.45	<10	1.04	652	<1	0.07	6	1030	8	1.05	<2	6
227031		3.62	<10	<1	0.49	10	0.73	799	1	0.03	4	860	12	2.21	<2	4
227032		1.04	<10	<1	0.36	10	0.20	459	<1	0.10	1	260	10	0.15	<2	1
227033		0.96	<10	<1	0.35	10	0.19	518	<1	0.12	1	240	10	0.01	<2	1
227034		0.86	<10	<1	0.41	10	0.20	454	<1	0.07	1	250	10	0.01	<2	1
227035		0.90	<10	<1	0.39	10	0.20	395	<1	0.08	<1	270	9	0.01	<2	1
227036		2.68	10	<1	0.45	10	0.79	710	<1	0.05	1	680	9	0.38	4	4
227037		3.85	10	1	0.37	<10	1.39	987	<1	0.13	3	950	9	0.41	<2	6
227038		5.27	10	1	0.14	<10	2.04	1310	<1	0.15	8	1090	5	0.15	<2	12
227039		4.51	10	1	0.11	<10	1.48	993	<1	0.11	11	1130	6	0.22	<2	9
227040		4.44	20	1	0.07	<10	1.76	1215	<1	0.08	13	1230	8	0.14	2	8
227041		4.55	10	<1	0.24	<10	1.47	1190	<1	0.09	8	1100	21	0.13	3	9
227042		4.16	10	1	0.40	10	0.94	855	<1	0.18	3	910	9	0.04	<2	7
227043		4.52	10	1	0.08	<10	1.93	1610	<1	0.09	17	1620	11	0.22	<2	7
227044		5.35	10	<1	0.11	<10	1.96	1580	<1	0.12	18	1340	13	0.09	2	10
227045		5.16	10	2	0.20	<10	1.86	1505	<1	0.17	15	1380	17	0.12	<2	10
227046		5.30	10	2	0.11	<10	2.10	1635	<1	0.11	17	1690	7	0.10	<2	9
227047		4.30	10	1	0.15	<10	1.60	1385	<1	0.20	16	1460	7	0.12	3	8
227048		4.71	10	1	0.17	<10	1.81	1510	<1	0.26	12	1280	11	0.39	<2	9
227049		4.22	10	1	0.42	10	1.45	1395	<1	0.12	11	1060	51	0.62	<2	7
227050		0.97	10	<1	0.36	10	0.32	490	<1	0.05	1	260	2	<0.01	<2	1
227051		0.90	10	<1	0.38	10	0.25	436	<1	0.07	1	240	5	0.02	2	1
227052		1.20	<10	<1	0.43	10	0.29	492	<1	0.07	2	360	2	0.02	<2	1
227053		1.22	10	<1	0.38	10	0.35	443	<1	0.06	2	350	4	0.01	<2	1
227054		4.29	10	1	0.44	10	1.18	939	1	0.03	10	1080	25	0.57	<2	6
227055		4.23	10	<1	0.42	10	1.15	936	1	0.03	9	1050	26	0.56	<2	5

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SMITHERS BC V0J 2N0

Finalized Date: 23-AUG-2006
Account: PIL

Project: 4012

CERTIFICATE OF ANALYSIS VA06067504

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
225223		169	0.18	<10	<10	92	<10	52
225224		283	0.17	<10	<10	85	<10	55
225225		188	0.16	<10	<10	84	<10	48
225226		109	0.20	<10	<10	92	<10	60
225227		109	0.20	<10	<10	96	<10	54
225228		96	0.21	<10	<10	129	<10	41
227001		278	0.22	<10	<10	110	<10	125
227002		301	0.19	<10	<10	146	<10	83
227003		407	0.20	<10	<10	164	<10	92
227004		212	0.19	<10	<10	98	<10	62
227005		112	0.14	<10	<10	82	<10	79
227031		97	0.13	<10	<10	35	<10	64
227032		99	0.05	<10	<10	10	<10	52
227033		57	0.05	<10	<10	8	<10	37
227034		71	0.04	<10	<10	8	<10	30
227035		117	0.04	<10	<10	11	<10	28
227036		242	0.13	<10	<10	51	<10	61
227037		207	0.23	<10	<10	92	<10	80
227038		217	0.27	<10	<10	170	<10	97
227039		228	0.27	<10	<10	158	<10	87
227040		278	0.26	<10	<10	174	<10	108
227041		205	0.26	<10	<10	134	<10	104
227042		126	0.23	<10	<10	101	<10	70
227043		293	0.30	<10	<10	184	<10	135
227044		192	0.34	<10	<10	206	<10	144
227045		162	0.35	<10	<10	230	<10	150
227046		230	0.35	<10	<10	202	<10	170
227047		243	0.34	<10	<10	181	<10	135
227048		198	0.26	<10	<10	173	<10	151
227049		224	0.14	<10	<10	115	<10	266
227050		149	0.03	<10	<10	10	<10	53
227051		128	0.02	<10	<10	9	<10	40
227052		118	0.01	<10	<10	6	<10	41
227053		160	0.03	<10	<10	8	<10	52
227054		117	0.01	<10	<10	78	<10	225
227055		120	0.01	<10	<10	76	<10	220

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To: NORTHGATE MINERALS CORPORATION
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 25-AUG-2006
Account: PIL

CERTIFICATE VA06072014

Project: 4013
P.O. No.:
This report is for 75 Crushed Rock samples submitted to our lab in Vancouver, BC, Canada on 24-JUL-2006.

The following have access to data associated with this certificate:

CARL EDMUNDS	BRIAN KAY	RON KONST

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
PUL-QC	Pulverizing QC Test
PUL-31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au-AA23	Au 30g FA-AA finish	AAS
Cu-AA49	Assay Cu - HBr Digestion	AAS
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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Finalized Date: 25-AUG-2006
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Project: 4013

CERTIFICATE OF ANALYSIS VA06072014

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
225034		0.24	<0.005	0.002	<0.2	1.89	9	10	70	<0.5	<2	1.81	<0.5	7	10	23
225035		0.28	<0.005	0.001	<0.2	2.02	7	<10	60	0.5	<2	2.08	<0.5	7	9	15
225036		0.26	<0.005	0.001	<0.2	2.07	11	<10	70	0.5	<2	1.99	<0.5	8	8	15
225037		0.28	<0.005	0.001	<0.2	2.12	10	<10	80	0.5	<2	1.75	<0.5	9	11	15
225038		0.26	<0.005	0.001	<0.2	2.52	8	<10	60	0.6	<2	2.42	<0.5	9	10	21
225039		0.24	<0.005	0.001	<0.2	2.43	10	<10	70	0.5	<2	2.16	<0.5	8	10	16
225040		0.24	<0.005	0.002	<0.2	1.90	9	<10	80	0.5	<2	1.53	<0.5	10	9	24
225041		0.30	<0.005	0.002	<0.2	1.94	9	<10	70	0.5	<2	1.90	<0.5	7	8	20
225042		0.24	<0.005	0.003	<0.2	1.67	12	10	70	<0.5	<2	1.38	<0.5	10	12	29
225043		0.20	<0.005	0.002	<0.2	1.99	9	10	70	<0.5	<2	1.84	<0.5	8	8	21
225044		0.26	<0.005	0.001	<0.2	2.20	9	<10	60	0.5	<2	2.25	<0.5	7	8	10
225045		0.22	<0.005	0.002	<0.2	2.13	15	10	80	<0.5	<2	1.99	<0.5	8	9	20
225046		0.28	<0.005	0.001	<0.2	2.10	10	<10	70	0.5	<2	1.99	<0.5	8	8	15
225047		0.24	<0.005	0.002	0.2	2.29	11	<10	70	0.5	<2	2.01	<0.5	9	8	23
225048		0.30	<0.005	0.001	<0.2	2.61	10	<10	60	0.6	<2	2.76	<0.5	7	9	17
225049		0.30	<0.005	0.002	<0.2	1.97	8	<10	70	0.5	<2	1.78	<0.5	7	8	18
225050		0.26	<0.005	0.002	<0.2	2.18	9	<10	60	0.5	<2	2.10	<0.5	9	8	24
225051		0.22	<0.005	0.003	0.2	2.23	11	<10	80	0.5	<2	2.03	<0.5	9	10	29
225052		0.20	<0.005	0.001	<0.2	2.36	7	<10	70	0.6	<2	2.40	<0.5	9	9	8
225053		0.24	<0.005	0.001	<0.2	2.07	9	<10	70	<0.5	<2	2.09	<0.5	8	10	15
225054		0.22	<0.005	0.002	<0.2	2.01	8	<10	70	0.5	<2	2.00	<0.5	9	9	18
225055		0.24	<0.005	0.002	<0.2	2.15	7	<10	80	<0.5	<2	1.78	<0.5	9	11	26
225056		0.30	<0.005	0.002	<0.2	2.10	8	<10	60	<0.5	<2	1.79	<0.5	8	11	20
225057		0.28	<0.005	0.001	<0.2	2.16	10	<10	70	0.5	<2	2.06	<0.5	8	11	18
225058		0.06	0.418	<0.001	<0.2	0.24	3	<10	20	<0.5	4	0.07	<0.5	1	2	3
225059		0.28	<0.005	0.001	<0.2	2.16	11	<10	70	<0.5	<2	2.23	<0.5	8	10	10
225060		0.24	0.005	0.001	0.2	2.42	23	<10	70	0.5	<2	2.37	<0.5	11	8	8
225061		0.30	<0.005	<0.001	<0.2	2.15	10	<10	60	<0.5	<2	3.88	<0.5	7	9	6
225062		0.30	<0.005	0.001	<0.2	2.29	10	<10	60	0.5	<2	2.33	<0.5	7	11	10
225063		0.28	<0.005	0.001	<0.2	2.07	8	<10	60	<0.5	<2	2.13	<0.5	9	9	13
225064		0.28	<0.005	0.002	<0.2	2.03	12	<10	70	<0.5	<2	2.00	<0.5	7	10	26
225065		0.28	<0.005	0.001	<0.2	2.05	10	<10	80	<0.5	<2	1.83	<0.5	7	9	13
225066		0.26	<0.005	0.001	<0.2	2.69	8	<10	60	0.5	<2	2.88	<0.5	8	9	9
225067		0.26	<0.005	<0.001	<0.2	1.94	12	<10	80	0.5	<2	1.74	<0.5	8	12	6
225068		0.30	<0.005	0.002	<0.2	2.02	9	<10	80	0.5	<2	1.84	<0.5	8	10	24
225069		0.26	<0.005	0.002	<0.2	2.54	11	<10	60	0.6	<2	2.85	<0.5	9	8	18
225070		0.28	<0.005	0.003	<0.2	2.09	11	<10	80	0.5	<2	1.56	<0.5	7	11	25
225071		0.26	<0.005	0.002	<0.2	1.82	12	10	80	<0.5	<2	1.33	<0.5	9	9	16
225072		0.30	<0.005	0.003	<0.2	2.02	12	10	80	<0.5	<2	1.51	<0.5	8	9	27
225073		0.32	<0.005	0.003	<0.2	1.84	9	10	70	<0.5	<2	1.40	<0.5	7	14	26

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CERTIFICATE OF ANALYSIS VA06072014

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
225034		3.35	10	1	0.13	10	1.20	893	<1	0.07	4	980	2	0.01	<2	6
225035		3.29	10	<1	0.12	10	1.23	911	<1	0.07	4	980	3	0.01	<2	7
225036		3.21	10	<1	0.13	10	1.25	896	<1	0.07	3	1020	2	<0.01	2	7
225037		3.32	10	<1	0.14	10	1.23	853	<1	0.08	2	1000	2	<0.01	2	7
225038		3.42	10	<1	0.13	10	1.34	949	<1	0.07	3	1010	6	<0.01	<2	7
225039		3.42	10	<1	0.16	10	1.32	922	1	0.08	2	1030	4	<0.01	2	6
225040		3.25	10	1	0.15	10	1.11	769	<1	0.10	2	1040	3	0.03	2	5
225041		3.21	10	<1	0.12	10	1.23	846	1	0.08	2	970	3	0.01	2	6
225042		3.15	10	1	0.13	10	1.09	737	1	0.09	3	980	3	0.01	<2	5
225043		3.23	10	<1	0.17	10	1.22	833	<1	0.09	3	990	2	<0.01	<2	6
225044		3.24	10	<1	0.16	10	1.31	901	<1	0.07	2	1010	2	<0.01	<2	7
225045		3.30	10	<1	0.16	10	1.28	831	<1	0.10	2	1040	<2	<0.01	<2	7
225046		3.40	10	<1	0.13	10	1.36	835	<1	0.08	3	1070	<2	<0.01	<2	7
225047		3.50	10	<1	0.18	10	1.42	876	<1	0.08	3	1050	<2	0.02	3	8
225048		3.59	10	<1	0.15	10	1.53	1010	<1	0.07	3	1110	<2	<0.01	3	8
225049		3.34	10	<1	0.14	10	1.29	835	<1	0.09	2	1020	2	0.01	2	8
225050		3.48	10	<1	0.13	10	1.32	866	2	0.08	2	1010	2	0.01	2	8
225051		3.58	10	<1	0.15	10	1.40	923	<1	0.10	4	1060	5	0.01	2	9
225052		3.55	10	<1	0.15	10	1.26	879	1	0.09	3	1020	3	0.01	<2	9
225053		3.55	10	<1	0.15	10	1.29	920	1	0.09	2	990	3	0.01	<2	8
225054		3.62	10	<1	0.17	10	1.31	937	1	0.09	3	1000	2	0.01	<2	8
225055		3.89	10	<1	0.16	10	1.41	1045	1	0.09	3	1050	4	0.02	2	9
225056		3.63	10	<1	0.15	10	1.40	992	1	0.07	3	1030	3	0.01	3	8
225057		3.73	10	<1	0.18	10	1.39	1005	1	0.08	3	1040	4	<0.01	<2	9
225058		0.40	<10	<1	0.11	<10	0.05	70	<1	0.06	1	70	<2	<0.01	<2	1
225059		3.50	10	1	0.17	10	1.39	966	1	0.09	3	1050	3	0.05	2	8
225060		3.55	10	<1	0.17	10	1.51	1055	1	0.08	3	1090	2	0.15	<2	7
225061		3.48	10	<1	0.14	10	1.40	989	<1	0.06	3	1110	<2	0.02	2	8
225062		3.34	10	<1	0.13	10	1.36	850	<1	0.07	2	1030	<2	<0.01	<2	8
225063		3.10	10	<1	0.12	10	1.32	824	1	0.07	2	990	3	0.03	<2	7
225064		3.49	10	<1	0.14	10	1.21	877	1	0.09	2	1010	5	<0.01	2	7
225065		3.52	10	<1	0.15	10	1.16	815	1	0.09	2	1020	3	0.01	2	7
225066		3.45	10	<1	0.12	10	1.29	902	1	0.09	2	1020	4	0.01	<2	8
225067		3.32	10	<1	0.14	10	1.04	713	1	0.11	3	1050	3	0.01	2	5
225068		3.47	10	1	0.13	10	1.22	801	1	0.10	3	1110	3	0.02	<2	6
225069		3.22	10	<1	0.12	10	1.14	798	1	0.08	2	1010	4	0.03	<2	6
225070		3.14	10	<1	0.14	10	1.07	722	1	0.11	2	1020	2	0.03	2	4
225071		3.15	10	<1	0.13	10	1.08	694	1	0.11	2	1060	3	0.02	2	4
225072		3.07	10	<1	0.13	10	1.13	701	1	0.10	3	1030	<2	0.02	<2	4
225073		2.87	10	<1	0.11	10	1.09	664	1	0.09	2	1000	2	0.01	<2	4

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ALS Canada Ltd.
212 Brooksbank Avenue
North Vancouver BC V7J 2C1
Phone: 604 984 0221 Fax: 604 984 0218 www.alschemex.com

To: NORTHGATE MINERALS CORPORATION
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 25-AUG-2006
Account: PIL

Project: 4013

CERTIFICATE OF ANALYSIS VA06072014

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
225034		83	0.19	<10	<10	65	<10	73
225035		89	0.19	<10	<10	62	<10	72
225036		127	0.21	<10	<10	64	<10	73
225037		100	0.20	<10	<10	65	<10	68
225038		132	0.21	<10	<10	69	<10	81
225039		135	0.21	<10	<10	70	<10	73
225040		89	0.21	<10	<10	66	<10	62
225041		94	0.20	<10	<10	66	<10	65
225042		71	0.20	<10	<10	66	<10	60
225043		91	0.21	<10	<10	66	<10	66
225044		115	0.21	<10	<10	66	<10	80
225045		104	0.22	<10	<10	68	<10	58
225046		118	0.22	<10	<10	71	<10	58
225047		130	0.22	<10	<10	73	<10	66
225048		191	0.22	<10	<10	74	<10	74
225049		89	0.20	<10	<10	70	<10	54
225050		100	0.20	<10	<10	75	<10	55
225051		113	0.22	<10	<10	79	<10	60
225052		130	0.21	<10	<10	89	<10	59
225053		103	0.18	<10	<10	87	<10	82
225054		101	0.19	<10	<10	90	<10	77
225055		114	0.20	<10	<10	98	<10	85
225056		116	0.19	<10	<10	92	<10	117
225057		117	0.20	<10	<10	95	<10	93
225058		4	<0.01	<10	<10	1	<10	4
225059		127	0.20	<10	<10	88	<10	79
225060		159	0.21	<10	<10	85	<10	83
225061		160	0.22	<10	<10	89	<10	82
225062		152	0.20	<10	<10	86	<10	80
225063		121	0.18	<10	<10	79	<10	79
225064		115	0.19	<10	<10	89	<10	72
225065		114	0.20	<10	<10	91	<10	56
225066		167	0.20	<10	<10	91	<10	63
225067		109	0.19	<10	<10	86	<10	54
225068		120	0.20	<10	<10	87	<10	60
225069		162	0.20	<10	<10	79	<10	74
225070		115	0.20	<10	<10	75	<10	69
225071		91	0.20	<10	<10	74	<10	58
225072		110	0.20	<10	<10	71	<10	56
225073		99	0.20	<10	<10	64	<10	56

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CERTIFICATE OF ANALYSIS VA06072014

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
225074		0.30	<0.005	0.002	<0.2	1.89	13	10	70	<0.5	<2	1.42	<0.5	9	11	22
225075		0.28	<0.005	0.001	<0.2	2.16	12	<10	60	0.5	<2	2.08	<0.5	8	11	12
225076		0.24	<0.005	0.002	<0.2	1.99	14	10	80	<0.5	<2	1.41	<0.5	8	11	20
225077		0.28	<0.005	0.003	<0.2	1.95	13	10	80	<0.5	<2	1.37	<0.5	9	14	31
225078		0.28	<0.005	0.002	<0.2	1.73	13	10	70	<0.5	<2	1.17	<0.5	11	26	15
225079		0.28	<0.005	0.003	<0.2	1.96	10	10	70	<0.5	<2	1.36	<0.5	6	13	30
225080		0.26	<0.005	0.002	<0.2	1.59	9	10	70	<0.5	<2	1.13	<0.5	7	12	16
225081		0.26	<0.005	0.002	<0.2	2.17	15	10	60	<0.5	<2	1.97	<0.5	12	12	22
225082		0.22	<0.005	0.007	0.4	2.12	8	10	70	0.5	<2	2.34	<0.5	9	12	72
225083		0.26	0.005	0.002	<0.2	3.15	2	<10	380	<0.5	<2	2.56	<0.5	6	7	19
227081		0.24	0.046	0.009	0.2	0.91	10	<10	10	<0.5	<2	0.22	<0.5	11	2	84
227082		0.28	0.025	0.008	0.2	1.18	13	<10	20	<0.5	<2	0.29	<0.5	10	7	75
227083		0.28	0.031	0.006	<0.2	1.25	8	<10	10	<0.5	<2	0.29	<0.5	13	12	60
227084		0.24	0.022	0.006	<0.2	1.33	5	<10	10	<0.5	<2	0.25	<0.5	11	7	58
227085		0.26	0.029	0.006	0.2	1.24	11	<10	10	<0.5	<2	0.25	<0.5	10	5	64
227086		0.26	0.039	0.009	0.2	1.32	10	<10	10	<0.5	<2	0.22	<0.5	10	2	92
227087		0.26	0.253	0.154	1.0	1.10	13	<10	<10	<0.5	<2	0.26	<0.5	40	4	1475
227088		0.22	0.084	0.015	0.3	1.49	8	<10	20	<0.5	<2	0.29	0.5	20	6	150
227089		0.28	0.049	0.023	0.2	1.11	7	<10	10	<0.5	<2	0.30	<0.5	15	4	233
227090		0.24	0.090	0.051	0.2	1.21	4	<10	20	<0.5	<2	0.24	<0.5	10	4	532
227091		0.28	0.120	0.067	0.3	1.03	7	<10	20	<0.5	<2	0.24	<0.5	14	3	669
227092		0.28	0.104	0.022	0.3	1.33	5	<10	10	<0.5	<2	0.32	<0.5	19	6	227
227093		0.28	0.060	0.009	0.2	1.16	9	<10	10	<0.5	<2	0.26	<0.5	14	4	92
227094		0.22	0.097	0.021	0.3	1.29	9	<10	10	<0.5	<2	0.26	<0.5	12	3	213
227095		0.30	0.100	0.047	0.3	1.31	6	<10	20	<0.5	<2	0.34	<0.5	15	8	480
227096		0.24	0.110	0.058	0.4	1.07	6	<10	10	<0.5	<2	0.21	<0.5	14	2	577
227097		0.26	0.055	0.012	0.2	1.10	4	<10	10	<0.5	<2	0.25	<0.5	12	2	122
227098		0.30	0.060	0.011	0.2	1.22	5	<10	10	<0.5	<2	0.36	<0.5	7	2	113
227099		0.20	0.047	0.011	0.2	1.29	2	<10	10	<0.5	<2	0.31	<0.5	6	4	107
227100		0.24	0.095	0.041	0.3	1.18	5	<10	10	<0.5	<2	0.23	<0.5	18	2	402
227101		0.28	0.223	0.099	0.8	0.98	10	<10	<10	<0.5	<2	0.15	<0.5	40	<1	1020
227102		0.22	0.066	0.023	0.3	1.29	7	<10	10	<0.5	<2	0.28	<0.5	13	2	230
227103		0.26	0.083	0.069	0.3	1.10	7	<10	10	<0.5	<2	0.19	<0.5	24	4	716
227104		0.28	0.041	0.008	0.2	1.10	6	<10	10	<0.5	<2	0.20	<0.5	14	3	82
227105		0.06	0.775	0.001	0.8	0.23	7	10	30	<0.5	<2	0.17	<0.5	2	4	11

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212 Brooksbank Avenue
North Vancouver BC V7J 2C1
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KEMESS MINE
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SMITHERS BC V0J 2N0

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CERTIFICATE OF ANALYSIS VA06072014

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
225074		3.11	10	<1	0.11	10	1.13	688	2	0.09	2	1050	<2	0.04	<2	4
225075		2.96	10	<1	0.10	10	1.14	672	1	0.08	3	980	3	0.05	<2	4
225076		3.17	10	<1	0.12	10	1.20	721	1	0.10	3	1040	2	0.05	<2	4
225077		3.19	10	<1	0.12	10	1.21	720	1	0.10	2	1080	3	0.06	<2	4
225078		3.29	10	<1	0.11	10	1.15	657	1	0.09	4	1060	<2	0.04	<2	4
225079		2.75	10	<1	0.12	<10	1.21	603	2	0.08	4	960	6	0.04	2	3
225080		2.82	10	<1	0.09	<10	0.97	594	2	0.08	3	920	3	0.02	2	3
225081		2.84	10	<1	0.16	10	1.34	654	1	0.08	4	1040	6	0.12	2	4
225082		3.18	10	<1	0.18	10	1.15	775	1	0.07	5	1000	8	0.04	2	4
225083		3.09	10	<1	0.25	<10	0.49	416	<1	0.06	4	610	7	0.87	3	3
227081		7.73	<10	<1	0.01	<10	0.01	21	1	0.01	6	360	29	8.23	<2	1
227082		6.82	<10	<1	0.02	<10	0.01	20	5	0.01	4	700	27	7.73	<2	1
227083		6.43	<10	<1	0.01	<10	<0.01	18	3	0.01	6	600	38	7.34	<2	1
227084		6.38	<10	<1	0.04	<10	<0.01	15	2	0.01	5	630	49	7.10	<2	1
227085		7.74	<10	<1	0.02	<10	<0.01	15	2	0.01	2	740	83	8.80	<2	1
227086		8.46	<10	<1	0.02	<10	<0.01	12	8	0.01	1	710	82	9.60	<2	1
227087		14.9	<10	<1	0.07	<10	<0.01	12	23	0.01	8	860	60	>10.0	<2	1
227088		8.70	<10	1	0.07	<10	<0.01	17	5	0.01	6	910	68	9.89	<2	1
227089		8.07	<10	<1	0.09	<10	<0.01	17	11	0.01	3	920	82	9.13	<2	1
227090		5.05	<10	<1	0.15	<10	0.01	18	7	0.01	1	470	53	5.58	<2	1
227091		5.36	<10	<1	0.16	<10	0.02	51	21	0.01	3	470	54	5.22	<2	1
227092		8.75	<10	<1	0.08	<10	0.02	38	5	0.01	8	510	62	9.71	<2	4
227093		8.16	<10	<1	0.09	<10	0.01	26	4	0.01	6	460	59	9.19	<2	2
227094		8.52	<10	1	0.15	<10	0.01	24	7	0.01	4	510	58	9.58	<2	2
227095		6.96	<10	1	0.12	<10	0.07	127	5	0.01	8	440	53	6.08	<2	2
227096		7.52	<10	<1	0.17	<10	0.02	31	8	0.01	6	280	45	8.17	<2	3
227097		7.46	<10	<1	0.06	<10	0.01	20	8	0.01	3	350	92	8.42	<2	1
227098		8.03	<10	<1	0.06	<10	0.01	22	12	0.01	1	840	57	9.11	<2	1
227099		4.81	<10	<1	0.05	<10	<0.01	20	9	0.01	1	760	99	5.35	<2	1
227100		9.48	<10	<1	0.10	<10	0.01	21	15	0.01	3	390	42	>10.0	<2	1
227101		20.1	<10	<1	0.09	<10	0.01	14	25	0.01	<1	250	30	>10.0	<2	1
227102		7.16	<10	<1	0.10	<10	0.01	20	19	0.01	3	450	51	8.10	<2	1
227103		7.44	<10	<1	0.11	<10	0.02	19	54	0.01	4	400	36	8.39	<2	1
227104		9.45	<10	<1	0.05	<10	0.01	16	6	0.01	4	450	44	>10.0	<2	1
227105		2.94	<10	<1	0.04	<10	0.04	31	1	0.12	3	580	110	2.96	<2	<1

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Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
225074		90	0.20	<10	<10	69	<10	57
225075		112	0.19	<10	<10	66	<10	54
225076		97	0.20	<10	<10	72	<10	57
225077		94	0.21	<10	<10	71	<10	57
225078		78	0.19	<10	<10	71	<10	56
225079		106	0.19	<10	<10	57	<10	58
225080		76	0.18	<10	<10	64	<10	51
225081		155	0.20	<10	<10	59	<10	53
225082		110	0.17	<10	<10	66	<10	69
225083		160	0.09	<10	<10	57	<10	64
227081		43	<0.01	<10	<10	6	<10	11
227082		47	<0.01	<10	<10	7	<10	12
227083		49	<0.01	<10	<10	10	<10	9
227084		44	<0.01	<10	<10	11	<10	10
227085		36	<0.01	<10	<10	9	<10	9
227086		34	<0.01	<10	<10	10	<10	9
227087		30	<0.01	<10	<10	11	<10	9
227088		32	<0.01	<10	<10	12	<10	9
227089		36	<0.01	<10	<10	9	<10	7
227090		48	<0.01	<10	<10	8	<10	10
227091		48	0.01	<10	<10	22	<10	12
227092		66	<0.01	<10	<10	17	<10	10
227093		53	<0.01	<10	<10	11	<10	11
227094		55	<0.01	<10	<10	9	<10	12
227095		98	0.01	<10	<10	35	<10	12
227096		65	<0.01	<10	<10	15	<10	7
227097		69	<0.01	<10	<10	8	<10	6
227098		64	<0.01	<10	<10	8	<10	6
227099		83	<0.01	<10	<10	8	<10	6
227100		50	<0.01	<10	<10	8	<10	4
227101		33	<0.01	<10	<10	8	<10	4
227102		75	<0.01	<10	<10	9	<10	5
227103		53	<0.01	<10	<10	9	<10	7
227104		42	<0.01	<10	<10	10	<10	7
227105		4	<0.01	<10	<10	1	<10	22

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To: NORTHGATE MINERALS CORPORATION
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 24-AUG-2006
This copy reported on 19-FEB-2007
Account: PIL

CERTIFICATE VA06072015

Project: 4012
P.O. No.:
This report is for 75 Crushed Rock samples submitted to our lab in Vancouver, BC, Canada on 24-JUL-2006.

The following have access to data associated with this certificate:

CARL EDMUNDS	BRIAN KAY	RON KONST

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
PUL-QC	Pulverizing QC Test
PUL-31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au-AA23	Au 30g FA-AA finish	AAS
Cu-AA49	Assay Cu - HBr Digestion	AAS
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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Finalized Date: 24-AUG-2006
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Project: 4012

CERTIFICATE OF ANALYSIS VA06072015

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
226001		0.28	0.010	0.009	0.3	2.79	7	<10	90	<0.5	<2	2.57	<0.5	14	14	90
226002		0.26	0.007	0.004	<0.2	2.74	4	<10	110	<0.5	<2	1.69	<0.5	10	10	34
226003		0.26	<0.005	0.004	0.2	2.67	5	<10	110	0.5	<2	1.83	<0.5	9	9	48
226004		0.26	0.008	0.005	<0.2	3.08	4	<10	120	0.5	<2	1.83	<0.5	9	11	54
226005		0.26	0.005	0.005	<0.2	2.42	6	<10	100	<0.5	<2	1.96	<0.5	9	4	48
226006		0.26	0.006	0.003	<0.2	2.17	4	<10	120	<0.5	<2	1.35	<0.5	8	7	29
226007		0.26	0.009	0.003	<0.2	2.43	3	<10	120	0.5	<2	1.67	<0.5	8	6	28
226008		0.26	0.005	0.002	<0.2	2.57	8	<10	130	<0.5	<2	1.67	<0.5	14	13	18
226009		0.24	<0.005	0.005	<0.2	1.52	<2	<10	160	<0.5	<2	0.91	<0.5	7	13	43
226010		0.26	<0.005	0.002	<0.2	1.19	4	<10	170	<0.5	<2	0.82	<0.5	6	3	19
226011		0.28	<0.005	0.002	<0.2	1.52	<2	<10	120	<0.5	<2	2.09	<0.5	3	3	21
226012		0.26	0.013	0.001	<0.2	1.52	2	<10	120	<0.5	<2	1.81	<0.5	5	3	15
226013		0.26	0.005	<0.001	<0.2	2.30	<2	<10	100	0.5	<2	2.41	<0.5	6	4	4
226014		0.26	0.034	0.001	<0.2	1.80	5	<10	130	<0.5	<2	1.74	<0.5	8	4	11
226015		0.28	<0.005	<0.001	<0.2	2.61	5	<10	210	0.5	<2	2.58	<0.5	7	4	9
226016		0.26	0.006	<0.001	<0.2	4.24	3	<10	130	0.7	<2	4.22	<0.5	6	3	4
226017		0.24	0.011	0.006	<0.2	2.64	4	<10	170	0.5	<2	2.56	<0.5	10	12	54
226018		0.26	0.017	0.002	<0.2	2.70	6	<10	240	0.5	<2	2.44	<0.5	10	7	24
226019		0.26	0.018	0.003	<0.2	3.26	4	<10	180	0.5	<2	3.13	<0.5	7	5	32
226020		0.26	0.017	0.004	0.2	2.84	4	<10	180	<0.5	<2	2.17	<0.5	10	7	43
226021		0.28	0.010	0.005	<0.2	2.46	7	<10	110	<0.5	<2	1.87	<0.5	9	5	54
226022		0.28	0.007	0.003	<0.2	2.55	4	<10	130	<0.5	<2	2.54	<0.5	10	19	35
226023		0.26	<0.005	0.001	<0.2	2.08	7	<10	120	<0.5	<2	2.24	<0.5	9	19	10
226024		0.26	<0.005	0.002	<0.2	1.72	2	<10	140	<0.5	<2	1.41	<0.5	8	8	20
226025		0.26	0.005	0.002	<0.2	1.63	<2	<10	130	<0.5	<2	1.35	<0.5	8	8	23
226026		0.24	0.012	0.008	<0.2	4.36	9	<10	80	0.6	<2	3.85	<0.5	12	11	84
226027		0.28	0.007	0.001	<0.2	1.82	5	<10	300	<0.5	<2	1.59	<0.5	6	5	8
226028		0.26	0.005	0.002	<0.2	1.77	3	<10	240	<0.5	<2	1.62	<0.5	6	5	22
226029		0.26	0.023	0.013	0.3	2.62	4	<10	210	<0.5	2	2.22	<0.5	13	10	132
226030		0.26	0.021	0.011	0.3	2.80	5	<10	190	<0.5	<2	2.52	<0.5	12	12	114
226031		0.26	0.012	0.003	<0.2	2.45	3	<10	170	<0.5	<2	2.33	<0.5	8	6	28
226032		0.26	0.010	0.003	<0.2	3.21	2	<10	120	<0.5	<2	2.85	<0.5	11	18	28
226033		0.24	0.200	0.007	0.5	3.00	6	<10	130	<0.5	2	2.51	<0.5	19	11	72
226034		0.28	0.068	0.004	0.2	3.13	3	<10	130	0.5	<2	2.53	<0.5	15	13	47
226035		0.24	0.014	<0.001	<0.2	2.32	3	<10	190	<0.5	<2	1.71	<0.5	6	3	5
226036		0.26	0.119	0.003	0.2	2.32	3	<10	220	<0.5	<2	1.83	0.6	24	3	36
226037		0.24	<0.005	0.001	<0.2	1.94	4	<10	370	<0.5	<2	1.42	<0.5	6	3	10
226038		0.26	<0.005	0.001	<0.2	2.38	5	<10	830	0.5	<2	2.03	<0.5	7	4	7
226039		0.26	0.006	0.002	<0.2	4.28	7	<10	210	0.7	<2	3.84	<0.5	6	3	17
226040		0.28	<0.005	0.001	<0.2	2.17	<2	<10	140	<0.5	<2	2.24	<0.5	8	3	5

Comments: **CORRECTED COPY FOR Au-AA23 ON SAMPLES 226049, 226050, AND 226051**

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SMITHERS BC V0J 2N0

Finalized Date: 24-AUG-2006
Account: PIL

Project: 4012

CERTIFICATE OF ANALYSIS VA06072015

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
226001		4.60	10	1	0.14	<10	1.35	1080	<1	0.20	6	1480	5	0.52	<2	7
226002		3.98	10	<1	0.18	<10	0.99	1010	<1	0.23	4	970	3	0.12	<2	6
226003		4.20	10	1	0.19	<10	0.91	966	<1	0.18	4	1070	5	0.14	<2	6
226004		4.11	10	<1	0.16	<10	0.92	930	<1	0.23	4	1010	5	0.15	<2	6
226005		4.05	10	<1	0.17	<10	0.75	966	<1	0.20	2	1320	3	0.01	<2	6
226006		3.86	10	1	0.20	<10	0.68	796	<1	0.15	3	960	3	0.03	2	4
226007		3.93	10	<1	0.17	<10	0.67	756	<1	0.14	3	940	4	0.06	<2	4
226008		4.26	10	1	0.16	<10	1.06	1080	4	0.16	5	950	6	0.36	2	7
226009		3.75	<10	<1	0.22	<10	0.57	685	1	0.09	5	790	2	0.01	<2	3
226010		4.17	<10	<1	0.27	10	0.27	730	1	0.07	2	890	2	<0.01	<2	2
226011		2.12	<10	<1	0.28	<10	0.14	310	<1	0.03	1	780	6	0.01	<2	1
226012		2.96	<10	1	0.21	10	0.24	492	<1	0.04	1	840	5	0.01	<2	1
226013		4.62	10	<1	0.10	10	0.32	832	<1	0.10	1	990	7	<0.01	<2	4
226014		4.60	10	<1	0.10	10	0.36	1195	1	0.15	2	990	3	<0.01	<2	5
226015		4.52	10	<1	0.10	10	0.36	1010	<1	0.09	2	990	9	<0.01	<2	4
226016		4.10	10	<1	0.13	10	0.28	759	<1	0.06	1	980	6	<0.01	<2	3
226017		3.65	10	<1	0.18	10	0.66	915	<1	0.10	4	920	5	0.05	<2	4
226018		3.89	10	<1	0.16	<10	0.86	1000	1	0.13	2	960	11	0.14	<2	5
226019		4.00	10	<1	0.15	<10	0.96	1000	<1	0.14	3	1020	5	0.20	<2	5
226020		4.13	10	<1	0.21	<10	1.02	1040	1	0.20	4	970	3	0.44	<2	6
226021		4.21	10	<1	0.12	<10	0.90	1055	<1	0.18	2	990	3	0.01	<2	5
226022		4.54	10	<1	0.14	<10	1.08	1420	<1	0.21	6	980	4	0.08	<2	7
226023		4.59	10	<1	0.15	<10	0.86	1435	<1	0.17	6	990	3	<0.01	<2	5
226024		4.29	10	<1	0.17	<10	0.54	978	<1	0.13	3	1040	5	0.01	<2	4
226025		4.15	10	<1	0.15	<10	0.52	884	<1	0.12	3	1030	3	0.01	<2	3
226026		4.27	10	1	0.14	<10	1.21	1110	<1	0.13	6	1120	6	0.10	2	6
226027		3.08	10	1	0.27	10	0.43	521	2	0.10	2	950	2	0.16	<2	3
226028		3.05	<10	<1	0.29	10	0.52	613	<1	0.09	3	1030	4	0.05	<2	3
226029		4.21	10	<1	0.14	<10	1.20	1130	<1	0.16	6	990	7	0.08	2	5
226030		4.22	10	<1	0.23	10	1.14	1090	1	0.13	6	1040	3	0.07	<2	5
226031		3.96	10	<1	0.26	10	0.72	826	<1	0.17	3	1090	4	0.07	<2	4
226032		4.54	10	<1	0.25	10	1.30	1130	1	0.17	8	1260	4	0.04	2	6
226033		4.63	10	<1	0.24	<10	1.33	1195	2	0.18	7	1120	8	0.67	<2	6
226034		4.27	10	<1	0.13	<10	0.90	924	2	0.12	5	1060	10	0.56	2	4
226035		4.47	10	<1	0.20	<10	0.51	856	<1	0.17	1	1000	5	0.03	<2	4
226036		4.85	10	<1	0.19	<10	0.70	796	<1	0.14	2	1100	18	0.97	<2	4
226037		4.02	<10	1	0.23	<10	0.54	928	<1	0.11	1	1170	<2	0.01	<2	3
226038		4.39	<10	2	0.19	<10	0.36	1270	<1	0.10	1	1000	8	0.02	<2	2
226039		4.01	10	1	0.13	<10	0.43	1025	<1	0.08	<1	870	10	0.02	<2	3
226040		3.82	10	2	0.14	<10	0.46	1095	<1	0.08	1	830	7	0.01	<2	3

Comments: **CORRECTED COPY FOR Au-AA23 ON SAMPLES 226049, 226050, AND 226051**

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Project: 4012

CERTIFICATE OF ANALYSIS VA06072015

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
226001		106	0.20	<10	<10	143	<10	117
226002		108	0.19	<10	<10	94	<10	113
226003		93	0.20	<10	<10	102	<10	126
226004		129	0.18	<10	<10	95	<10	116
226005		108	0.17	<10	<10	91	<10	109
226006		86	0.17	<10	<10	84	<10	86
226007		96	0.18	<10	<10	82	<10	73
226008		113	0.19	<10	<10	100	<10	154
226009		118	0.14	<10	<10	77	<10	130
226010		57	0.13	<10	<10	68	<10	96
226011		55	0.08	<10	<10	42	<10	35
226012		69	0.11	<10	<10	43	<10	40
226013		108	0.16	<10	<10	83	<10	54
226014		107	0.17	<10	<10	90	<10	78
226015		125	0.16	<10	<10	84	<10	71
226016		181	0.11	<10	<10	71	<10	58
226017		142	0.13	<10	<10	76	<10	69
226018		153	0.16	<10	<10	84	<10	84
226019		203	0.17	<10	<10	89	<10	78
226020		244	0.18	<10	<10	92	<10	83
226021		155	0.15	<10	<10	90	<10	97
226022		241	0.17	<10	<10	106	<10	121
226023		162	0.18	<10	<10	94	<10	114
226024		111	0.18	<10	<10	88	<10	85
226025		106	0.15	<10	<10	83	<10	82
226026		179	0.19	<10	<10	119	<10	123
226027		157	0.11	<10	<10	50	<10	35
226028		117	0.10	<10	<10	57	<10	38
226029		170	0.18	<10	<10	104	<10	84
226030		158	0.20	<10	<10	102	<10	78
226031		222	0.15	<10	<10	76	<10	53
226032		199	0.21	<10	<10	107	<10	95
226033		248	0.18	<10	<10	107	<10	136
226034		190	0.16	<10	<10	94	<10	94
226035		199	0.17	<10	<10	75	<10	45
226036		239	0.13	<10	<10	73	<10	82
226037		246	0.14	<10	<10	69	<10	48
226038		269	0.13	<10	<10	65	<10	45
226039		219	0.12	<10	<10	71	<10	52
226040		177	0.11	<10	<10	80	<10	54

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CERTIFICATE OF ANALYSIS VA06072015

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
226041		0.26	0.006	0.001	<0.2	4.25	2	<10	320	0.6	<2	3.73	<0.5	7	3	7
226042		0.26	0.015	0.001	<0.2	4.19	9	<10	130	0.5	<2	2.79	<0.5	5	3	12
226043		0.28	0.023	0.012	0.7	1.73	14	<10	50	0.5	2	1.11	2.5	11	3	119
226044		0.26	0.005	0.003	<0.2	2.48	6	<10	60	<0.5	<2	3.12	<0.5	3	4	21
226045		0.28	<0.005	0.001	<0.2	1.99	5	<10	800	<0.5	<2	2.31	<0.5	1	1	5
226046		0.26	<0.005	<0.001	<0.2	1.84	9	<10	70	<0.5	<2	2.09	<0.5	1	3	2
226047		0.28	<0.005	<0.001	0.3	1.82	2	<10	40	<0.5	<2	2.30	<0.5	1	1	<1
226048		0.26	0.005	0.001	<0.2	2.19	7	<10	30	<0.5	<2	2.41	<0.5	1	2	5
226049		0.26	0.005	0.014	0.3	3.86	8	<10	50	0.6	<2	6.73	0.5	17	25	143
226050		0.26	<0.005	0.001	<0.2	2.18	6	<10	90	<0.5	<2	1.93	<0.5	6	3	13
226051		0.26	<0.005	0.015	0.3	3.26	12	<10	40	0.5	<2	5.26	<0.5	17	34	143
226052		0.26	0.022	0.079	0.5	4.05	6	<10	70	0.6	<2	5.61	<0.5	18	31	835
226053		0.28	0.007	0.023	0.3	4.06	11	<10	30	0.5	<2	5.10	<0.5	22	29	236
226054		0.28	0.008	0.021	0.5	3.35	6	<10	30	<0.5	<2	5.00	<0.5	21	34	225
226055		0.26	0.006	0.018	0.3	3.47	16	<10	100	<0.5	<2	3.90	<0.5	22	50	193
226056		0.26	0.011	0.023	0.4	3.42	12	<10	50	<0.5	<2	4.99	2.2	19	41	250
226057		0.28	0.010	0.004	0.2	2.47	8	<10	270	<0.5	<2	4.76	1.1	10	10	37
226058		0.28	<0.005	0.001	<0.2	1.91	6	<10	50	<0.5	<2	2.80	<0.5	4	3	7
226059		0.26	<0.005	0.002	<0.2	1.60	10	<10	50	<0.5	<2	2.20	0.7	5	1	20
226060		0.26	0.008	0.006	0.2	2.03	9	<10	70	<0.5	<2	2.98	0.7	11	12	54
226061		0.24	0.007	0.008	<0.2	2.17	4	<10	100	<0.5	<2	3.32	<0.5	10	13	75
226062		0.26	0.014	0.016	0.3	2.04	10	<10	90	0.5	<2	3.27	<0.5	14	8	164
226063		0.26	0.007	0.002	0.3	1.66	5	<10	180	<0.5	<2	1.93	<0.5	12	2	16
226064		0.28	0.009	0.009	<0.2	2.48	6	<10	760	<0.5	<2	3.40	<0.5	10	10	85
226065		0.28	0.012	0.019	0.2	2.65	10	<10	170	<0.5	<2	3.25	0.5	15	20	188
226066		0.26	0.006	0.002	0.2	1.72	3	<10	260	<0.5	<2	2.10	<0.5	5	4	23
226067		0.26	0.011	0.008	<0.2	2.21	11	<10	850	0.5	<2	2.53	<0.5	10	11	83
226068		0.28	<0.005	0.001	<0.2	1.65	7	<10	400	<0.5	<2	1.98	<0.5	5	3	10
226069		0.28	0.005	0.001	<0.2	1.89	3	<10	100	0.5	<2	2.11	<0.5	6	2	12
226070		0.26	0.017	0.003	0.5	2.51	6	<10	340	0.5	<2	5.82	1.9	5	4	33
226071		0.26	0.006	0.003	<0.2	2.29	9	<10	1190	<0.5	<2	1.68	<0.5	10	9	28
226072		0.28	0.030	<0.001	0.2	1.99	<2	<10	210	<0.5	<2	1.95	<0.5	10	3	5
226073		0.26	<0.005	0.001	<0.2	2.41	2	<10	190	0.5	<2	2.48	<0.5	5	3	12
226074		0.26	0.035	0.003	0.8	2.92	9	<10	110	0.6	<2	5.99	1.0	9	3	32
226075		0.06	0.784	0.001	0.7	0.50	9	10	40	<0.5	<2	0.22	<0.5	2	4	12

Comments: **CORRECTED COPY FOR Au-AA23 ON SAMPLES 226049, 226050, AND 226051**

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North Vancouver BC V7J 2C1
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To: NORTHGATE MINERALS CORPORATION
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 24-AUG-2006
Account: PIL

Project: 4012

CERTIFICATE OF ANALYSIS VA06072015

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
226041		3.67	10	1	0.11	<10	0.40	939	<1	0.07	1	770	8	0.01	<2	3
226042		4.26	10	<1	0.19	10	0.43	678	<1	0.06	4	900	12	0.03	<2	2
226043		4.32	<10	<1	0.25	10	0.41	507	1	0.02	5	960	115	3.16	<2	3
226044		1.30	<10	1	0.18	10	0.38	478	<1	0.04	3	380	15	0.09	<2	2
226045		0.77	<10	<1	0.15	10	0.22	300	<1	0.05	<1	240	8	0.05	<2	1
226046		0.82	<10	1	0.18	10	0.22	311	<1	0.05	<1	230	2	0.01	<2	1
226047		0.77	<10	1	0.17	10	0.22	343	<1	0.05	1	220	5	0.01	<2	1
226048		0.89	<10	1	0.17	10	0.28	372	<1	0.05	2	230	7	0.02	<2	1
226049		4.57	10	2	0.25	10	1.54	1360	<1	0.05	17	1320	28	0.13	<2	8
226050		2.92	10	1	0.10	10	0.43	344	1	0.11	<1	960	3	0.01	<2	2
226051		4.37	10	<1	0.21	10	1.64	1250	<1	0.04	22	1340	12	0.02	3	8
226052		4.46	10	2	0.14	<10	1.89	1175	<1	0.06	20	1770	21	0.08	<2	6
226053		5.33	10	2	0.11	<10	2.63	1405	<1	0.06	20	1600	7	0.03	<2	10
226054		5.49	10	2	0.05	<10	2.69	1495	<1	0.05	22	1370	38	0.04	<2	9
226055		5.23	10	2	0.05	<10	2.75	1500	<1	0.06	25	1420	13	0.02	3	7
226056		4.93	10	3	0.08	<10	2.45	1970	<1	0.05	25	1640	96	0.08	<2	8
226057		2.87	<10	2	0.25	10	0.92	1205	<1	0.04	7	820	52	0.09	<2	3
226058		2.14	<10	1	0.25	10	0.64	777	<1	0.05	<1	640	9	0.02	<2	3
226059		1.75	<10	1	0.28	10	0.30	494	<1	0.05	2	630	8	0.38	<2	1
226060		3.85	10	<1	0.27	10	1.04	795	<1	0.05	9	890	11	1.66	<2	4
226061		4.05	10	1	0.23	10	1.08	931	<1	0.07	7	1050	6	0.15	<2	4
226062		4.13	<10	<1	0.29	10	0.95	881	<1	0.05	10	1190	14	1.73	<2	4
226063		3.53	10	<1	0.28	<10	0.70	625	<1	0.06	4	910	8	1.86	<2	3
226064		3.89	10	1	0.20	<10	1.22	1035	<1	0.06	7	1130	7	0.38	<2	4
226065		4.28	10	2	0.17	<10	1.48	1220	<1	0.09	12	1080	10	0.85	<2	6
226066		3.58	<10	1	0.31	10	0.49	577	<1	0.05	1	880	<2	0.02	<2	2
226067		4.02	10	2	0.31	10	1.02	1030	<1	0.08	6	1000	<2	0.05	<2	3
226068		3.23	<10	1	0.31	10	0.50	529	<1	0.04	1	750	2	0.02	<2	2
226069		3.54	<10	2	0.28	10	0.70	613	<1	0.03	1	870	3	0.01	<2	2
226070		2.43	<10	2	0.19	10	0.54	1085	32	0.08	3	660	72	0.52	<2	2
226071		4.15	10	<1	0.22	10	1.08	950	<1	0.11	7	900	<2	0.05	<2	4
226072		3.61	<10	<1	0.24	10	0.76	712	<1	0.05	1	640	7	0.54	<2	4
226073		3.61	<10	1	0.30	10	0.77	695	<1	0.04	2	690	<2	0.03	2	4
226074		3.35	<10	2	0.27	10	0.99	1185	<1	0.03	4	890	6	0.37	<2	6
226075		3.22	<10	1	0.10	<10	0.06	53	1	0.25	2	570	114	2.92	<2	1

Comments: **CORRECTED COPY FOR Au-AA23 ON SAMPLES 226049, 226050, AND 226051**

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To: NORTHGATE MINERALS CORPORATION
KEMESS MINE
PO BOX 3519
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Finalized Date: 24-AUG-2006
Account: PIL

Project: 4012

CERTIFICATE OF ANALYSIS VA06072015

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
226041		217	0.11	<10	<10	68	<10	50
226042		198	0.06	<10	<10	57	<10	87
226043		110	<0.01	<10	<10	29	<10	193
226044		133	0.04	<10	<10	18	<10	53
226045		132	0.02	<10	<10	7	<10	30
226046		109	0.02	<10	<10	7	<10	27
226047		109	0.02	<10	<10	7	<10	24
226048		119	0.01	10	<10	8	<10	30
226049		158	0.11	<10	<10	134	<10	168
226050		149	0.12	<10	<10	97	<10	32
226051		120	0.11	<10	<10	126	<10	187
226052		174	0.20	<10	<10	135	<10	150
226053		131	0.29	<10	<10	211	<10	160
226054		115	0.32	<10	<10	198	<10	136
226055		146	0.33	<10	<10	189	<10	166
226056		109	0.18	<10	<10	164	<10	389
226057		119	0.07	<10	<10	45	<10	192
226058		83	0.07	<10	<10	31	<10	65
226059		84	0.02	10	<10	15	<10	51
226060		58	0.07	<10	<10	67	<10	80
226061		83	0.09	10	<10	96	<10	85
226062		76	0.04	<10	<10	61	<10	93
226063		54	0.05	<10	<10	46	<10	76
226064		105	0.10	<10	<10	91	<10	95
226065		116	0.13	<10	<10	120	<10	109
226066		69	0.02	<10	<10	48	<10	44
226067		124	0.03	<10	<10	81	<10	93
226068		75	0.01	<10	<10	45	<10	66
226069		71	<0.01	<10	<10	45	<10	95
226070		1390	<0.01	10	<10	25	<10	156
226071		145	0.04	<10	<10	83	<10	79
226072		75	0.02	<10	<10	71	<10	46
226073		88	0.01	10	<10	67	<10	63
226074		108	<0.01	<10	<10	53	<10	113
226075		7	<0.01	<10	<10	2	<10	23

Comments: **CORRECTED COPY FOR Au-AA23 ON SAMPLES 226049, 226050, AND 226051**

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KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 25-AUG-2006
Account: PIL

CERTIFICATE VA06072018

Project: 4012
P.O. No.:
This report is for 48 Crushed Rock samples submitted to our lab in Vancouver, BC, Canada on 24-JUL-2006.

The following have access to data associated with this certificate:

CARL EDMUNDS RON KONST	BRIAN KAY R KONST	B. KAY

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
PUL-31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au-AA23	Au 30g FA-AA finish	AAS
Cu-AA49	Assay Cu - HBr Digestion	AAS
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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Finalized Date: 25-AUG-2006
Account: PIL

Project: 4012

CERTIFICATE OF ANALYSIS VA06072018

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
226153		0.26	0.016	0.004	0.2	0.48	<2	<10	20	<0.5	<2	0.21	2.3	11	1	35
226154		0.26	0.021	0.004	0.4	0.55	<2	<10	10	<0.5	<2	0.15	2.1	11	2	43
226155		0.26	0.027	0.006	0.6	0.52	<2	<10	10	<0.5	2	0.21	2.1	13	2	62
226156		0.26	0.020	0.004	0.4	0.62	<2	<10	10	<0.5	<2	0.21	3.6	10	1	39
226157		0.26	0.028	0.008	0.8	0.51	<2	<10	10	<0.5	<2	0.20	4.0	9	6	83
226158		0.26	0.031	0.005	0.9	0.66	<2	<10	10	<0.5	<2	0.28	3.6	12	2	48
226159		0.28	0.030	0.005	0.8	0.54	<2	<10	30	<0.5	<2	0.25	4.3	9	2	46
226160		0.26	0.028	0.005	0.5	0.63	<2	<10	20	<0.5	<2	0.27	1.6	10	2	49
226161		0.28	0.081	0.010	0.7	0.50	2	<10	50	<0.5	<2	0.27	1.5	13	3	111
226162		0.28	0.041	0.006	0.8	0.62	<2	<10	30	<0.5	<2	0.27	6.4	12	2	62
226163		0.26	0.043	0.011	1.5	0.48	<2	<10	40	<0.5	<2	0.24	3.9	11	2	104
226164		0.28	0.026	0.008	1.1	0.58	3	<10	60	<0.5	<2	0.24	10.0	11	2	74
226165		0.26	0.044	0.009	1.2	0.54	6	<10	20	<0.5	<2	0.30	14.2	12	2	99
226166		0.26	0.057	0.023	1.3	1.06	14	<10	50	0.5	<2	0.57	3.2	15	4	239
226167		0.28	0.046	0.015	0.9	2.72	4	<10	90	0.6	<2	1.21	0.8	13	9	170
226168		0.28	0.048	0.028	1.4	3.57	<2	<10	120	0.6	4	4.15	<0.5	16	22	310
226169		0.28	0.019	0.016	0.6	2.90	<2	<10	1310	0.6	<2	3.02	0.5	10	13	163
226170		0.26	0.048	0.024	0.6	1.47	7	<10	30	<0.5	<2	1.68	2.2	13	3	265
226171		0.26	0.051	0.021	0.9	0.65	8	<10	10	<0.5	2	0.34	4.2	12	2	216
226172		0.26	0.040	0.018	0.5	1.02	11	<10	70	<0.5	<2	0.51	2.1	11	4	190
226173		0.28	0.043	0.015	0.5	0.83	16	<10	20	<0.5	<2	0.27	1.1	12	2	160
226174		0.28	0.050	0.025	0.8	1.24	17	<10	30	<0.5	<2	0.26	4.6	10	3	271
226175		0.26	0.005	0.003	<0.2	1.30	<2	<10	60	<0.5	<2	1.58	0.5	8	6	30
227296		0.26	<0.005	0.025	0.7	3.46	2	<10	130	0.7	<2	8.28	<0.5	17	6	278
227297		0.26	0.005	0.029	0.6	3.88	<2	<10	270	0.6	<2	6.85	<0.5	15	5	329
227298		0.28	0.005	0.021	<0.2	4.29	<2	<10	480	0.8	<2	6.36	<0.5	13	6	242
227299		0.30	0.008	0.002	<0.2	1.98	<2	<10	490	0.5	<2	3.44	0.7	7	6	24
227300		0.28	0.029	0.002	0.3	1.63	<2	<10	470	<0.5	<2	4.01	<0.5	9	5	21
227301		0.26	0.007	0.001	<0.2	1.79	<2	<10	250	0.5	<2	4.92	<0.5	9	14	13
227302		0.28	0.012	0.004	<0.2	1.94	<2	<10	220	0.5	<2	6.17	<0.5	8	5	37
227303		0.26	<0.005	0.001	<0.2	1.87	4	<10	80	0.6	<2	4.81	<0.5	7	3	7
227304		0.30	0.006	0.009	<0.2	2.52	<2	<10	960	0.5	<2	6.30	<0.5	17	19	93
227305		0.28	<0.005	0.002	<0.2	3.44	<2	<10	2000	0.7	<2	5.46	<0.5	17	13	17
227306		0.28	0.015	0.001	<0.2	2.30	<2	<10	1530	0.5	<2	4.65	0.7	11	6	3
227307		0.26	0.010	0.015	0.3	2.60	30	<10	620	0.6	<2	6.43	0.8	14	12	156
227308		0.28	0.006	0.006	0.2	1.51	20	<10	510	<0.5	<2	14.6	0.9	10	5	63
227309		0.26	0.006	0.002	0.2	1.20	18	<10	270	<0.5	<2	13.40	1.6	8	4	21
227310		0.28	0.018	0.002	0.2	1.23	20	<10	60	<0.5	<2	4.29	1.5	11	<1	23
227311		0.28	0.013	0.001	0.3	0.98	5	<10	70	<0.5	<2	6.84	<0.5	13	<1	12
227312		0.28	0.007	0.014	0.2	2.89	11	<10	180	<0.5	<2	6.24	<0.5	18	33	153

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CERTIFICATE OF ANALYSIS VA06072018

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
226153		5.76	<10	<1	0.10	<10	0.01	17	2	<0.01	2	590	134	6.35	<2	1
226154		6.00	<10	<1	0.13	<10	0.01	21	1	0.01	4	340	111	6.58	<2	1
226155		6.70	<10	<1	0.09	<10	0.01	17	2	0.01	6	640	143	7.41	<2	1
226156		5.61	<10	<1	0.12	<10	0.01	20	1	0.01	1	570	144	6.18	<2	1
226157		6.44	<10	<1	0.09	<10	<0.01	18	2	<0.01	1	540	146	7.09	<2	1
226158		6.10	<10	<1	0.11	<10	<0.01	21	3	<0.01	<1	860	173	6.78	<2	1
226159		5.58	<10	<1	0.08	<10	0.01	19	3	0.01	5	690	136	6.21	<2	1
226160		6.28	<10	<1	0.13	<10	0.01	26	1	0.01	1	740	127	6.95	<2	1
226161		5.82	<10	<1	0.12	<10	<0.01	17	9	0.01	2	800	128	6.45	2	1
226162		7.92	<10	<1	0.13	<10	<0.01	22	2	<0.01	3	870	166	8.74	<2	1
226163		6.32	<10	<1	0.11	<10	<0.01	18	5	0.01	3	720	203	6.97	<2	1
226164		5.53	<10	<1	0.13	<10	0.01	21	1	0.01	2	670	253	6.21	2	2
226165		6.77	<10	<1	0.10	<10	<0.01	21	2	0.01	3	880	295	7.56	2	1
226166		5.99	<10	<1	0.23	10	0.24	162	2	0.01	2	980	172	6.34	<2	2
226167		5.35	10	<1	0.22	10	1.20	667	5	0.02	7	1160	61	3.44	<2	4
226168		4.60	10	<1	0.17	10	2.12	1655	1	0.03	11	1200	26	0.79	<2	4
226169		3.82	10	1	0.20	10	1.55	1245	1	0.03	5	940	37	0.27	2	4
226170		5.79	<10	<1	0.25	<10	0.55	541	4	0.02	1	810	68	5.20	3	2
226171		7.69	<10	<1	0.14	<10	0.20	49	3	0.01	3	850	99	8.55	2	1
226172		6.36	<10	1	0.17	<10	0.41	137	2	0.02	5	1120	47	6.84	<2	2
226173		6.40	<10	<1	0.15	<10	0.45	95	2	0.01	2	920	34	7.07	<2	1
226174		6.53	<10	<1	0.16	<10	0.79	191	3	0.01	2	890	54	7.17	2	1
226175		3.63	10	<1	0.08	10	0.97	681	1	0.07	<1	1070	4	0.03	<2	8
227296		4.23	10	<1	0.18	10	1.30	2050	2	0.02	8	1660	48	1.29	3	6
227297		5.18	10	<1	0.18	10	1.72	1890	1	0.02	9	2590	24	1.00	2	8
227298		5.59	10	<1	0.22	20	1.90	1765	<1	0.02	8	2620	9	0.15	3	9
227299		3.23	10	<1	0.17	10	0.64	859	2	0.02	5	930	14	0.22	<2	3
227300		2.91	10	<1	0.21	10	0.44	951	2	0.01	3	870	12	0.29	<2	2
227301		2.98	10	1	0.16	10	0.61	1165	1	0.01	4	850	7	0.09	<2	3
227302		3.45	10	<1	0.17	10	0.62	1435	<1	0.01	4	960	9	0.07	<2	3
227303		3.54	10	<1	0.18	10	0.56	1260	1	0.01	<1	970	6	0.01	2	3
227304		3.10	10	<1	0.17	10	0.80	1830	<1	0.01	11	930	5	0.05	<2	6
227305		5.03	10	<1	0.20	10	1.55	1450	<1	0.02	7	900	6	0.08	<2	10
227306		3.82	10	<1	0.23	10	0.67	1165	<1	0.02	2	930	10	0.07	<2	5
227307		4.49	10	<1	0.20	10	0.81	1330	<1	0.02	6	1640	13	0.53	2	8
227308		4.83	<10	<1	0.17	10	1.75	3340	<1	0.01	2	710	20	0.54	3	4
227309		4.53	10	<1	0.17	10	1.41	3210	<1	0.01	1	470	29	1.29	2	3
227310		4.47	<10	<1	0.26	10	0.34	947	<1	0.01	<1	900	27	3.49	<2	3
227311		4.24	<10	<1	0.19	10	0.33	1290	<1	0.02	3	820	23	4.00	2	5
227312		4.92	10	<1	0.19	10	1.57	1620	<1	0.03	16	1230	10	1.73	2	8

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ALS Canada Ltd.
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To: NORTHGATE MINERALS CORPORATION
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 25-AUG-2006
Account: PIL

Project: 4012

CERTIFICATE OF ANALYSIS VA06072018

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
226153		23	<0.01	<10	<10	4	<10	102
226154		27	<0.01	<10	<10	6	<10	45
226155		25	<0.01	<10	<10	5	<10	54
226156		26	<0.01	<10	<10	5	<10	128
226157		23	<0.01	<10	<10	4	<10	146
226158		27	<0.01	<10	<10	6	<10	89
226159		27	<0.01	<10	<10	4	<10	148
226160		26	<0.01	<10	<10	5	<10	36
226161		23	<0.01	<10	<10	4	<10	37
226162		19	<0.01	<10	<10	5	<10	148
226163		22	<0.01	<10	<10	5	<10	145
226164		25	<0.01	<10	<10	5	<10	387
226165		23	<0.01	<10	<10	4	<10	791
226166		52	0.01	<10	<10	12	<10	121
226167		82	0.03	<10	<10	54	<10	180
226168		282	0.07	<10	<10	114	<10	261
226169		236	0.05	<10	<10	78	10	219
226170		97	0.01	<10	<10	25	<10	132
226171		67	<0.01	<10	<10	7	<10	179
226172		29	<0.01	<10	<10	14	<10	111
226173		31	<0.01	<10	<10	7	<10	83
226174		25	<0.01	<10	<10	12	<10	265
226175		64	0.19	<10	<10	115	<10	47
227296		242	<0.01	<10	<10	67	<10	119
227297		206	<0.01	<10	<10	101	<10	130
227298		190	<0.01	<10	<10	121	10	109
227299		120	<0.01	<10	<10	29	<10	86
227300		101	<0.01	<10	<10	21	<10	62
227301		105	<0.01	<10	<10	26	<10	61
227302		114	<0.01	<10	<10	33	<10	64
227303		92	<0.01	<10	<10	27	<10	60
227304		135	<0.01	<10	<10	40	<10	82
227305		208	0.01	<10	<10	98	<10	113
227306		131	<0.01	<10	<10	42	<10	105
227307		172	<0.01	<10	<10	78	<10	166
227308		204	<0.01	<10	<10	62	<10	250
227309		161	<0.01	<10	10	51	<10	250
227310		90	<0.01	<10	<10	15	<10	193
227311		131	<0.01	<10	<10	16	10	80
227312		127	<0.01	<10	<10	97	<10	160

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CERTIFICATE OF ANALYSIS VA06072018

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
227313		0.28	0.006	0.010	<0.2	3.28	8	<10	160	<0.5	<2	4.68	<0.5	17	24	107
227314		0.26	0.006	0.014	0.3	4.22	17	<10	490	0.5	<2	6.85	<0.5	16	27	150
227315		0.28	<0.005	0.013	0.2	2.50	14	<10	350	<0.5	<2	7.00	<0.5	14	5	137
227316		0.34	0.010	0.010	0.2	3.05	12	<10	330	0.5	<2	5.47	<0.5	12	13	105
227317		0.28	0.006	0.001	<0.2	2.00	7	<10	460	<0.5	<2	2.90	<0.5	8	2	7
227318		0.26	0.007	0.002	<0.2	2.77	8	<10	390	0.5	<2	4.53	<0.5	9	3	18
227319		0.28	<0.005	0.005	<0.2	2.86	7	<10	130	<0.5	<2	4.33	<0.5	12	11	49
227320		0.24	0.005	0.004	0.2	3.00	10	<10	140	0.5	<2	4.29	<0.5	13	12	43

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CERTIFICATE OF ANALYSIS VA06072018

Sample Description	Method	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Fe	Ga	Hg	K	La	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Sc
	Units	%	ppm	ppm	%	ppm	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm
	LOR	0.01	10	1	0.01	10	0.01	5	1	0.01	1	10	2	0.01	2	1
227313		5.01	10	<1	0.15	10	1.74	1400	<1	0.02	12	1290	9	1.78	3	7
227314		5.11	<10	<1	0.19	10	1.88	1960	<1	0.02	16	1240	7	0.84	3	8
227315		4.20	<10	<1	0.22	10	0.94	1660	<1	0.02	8	1320	9	0.81	4	5
227316		4.29	<10	<1	0.22	10	1.37	1650	<1	0.02	8	1230	4	0.34	4	5
227317		3.06	<10	<1	0.18	10	1.06	1090	<1	0.01	1	850	4	0.41	<2	4
227318		3.65	<10	1	0.21	10	1.61	1600	<1	0.02	3	870	5	0.45	3	6
227319		3.81	<10	<1	0.15	10	1.49	1350	<1	0.02	7	1070	5	0.21	3	7
227320		3.89	<10	<1	0.19	10	1.49	1350	<1	0.02	7	1060	6	0.20	<2	7

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CERTIFICATE OF ANALYSIS VA06072018

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
227313		115	<0.01	<10	<10	94	<10	159
227314		157	<0.01	<10	<10	103	<10	178
227315		155	<0.01	<10	<10	68	<10	132
227316		125	<0.01	<10	<10	65	<10	134
227317		94	<0.01	<10	<10	26	<10	94
227318		144	<0.01	<10	<10	38	<10	107
227319		102	<0.01	<10	<10	71	<10	113
227320		101	<0.01	<10	<10	73	<10	107

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To: NORTHGATE MINERALS CORPORATION
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SMITHERS BC V0J 2N0

Finalized Date: 25-AUG-2006
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CERTIFICATE VA06072019

Project: 4013
P.O. No.:
This report is for 25 Pulp samples submitted to our lab in Vancouver, BC, Canada on 24-JUL-2006.
The following have access to data associated with this certificate:

CARL EDMUNDS RON KONST	BRIAN KAY	B. KAY

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au-AA23	Au 30g FA-AA finish	AAS
Cu-AA49	Assay Cu - HBr Digestion	AAS
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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KEMESS MINE
PO BOX 3519
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CERTIFICATE OF ANALYSIS VA06072019

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
224406		0.26	<0.005	<0.001	<0.2	1.91	5	<10	340	<0.5	<2	0.71	<0.5	15	26	1
224407		0.26	<0.005	<0.001	<0.2	1.96	<2	<10	320	<0.5	<2	0.69	<0.5	14	40	5
224408		0.26	<0.005	<0.001	<0.2	2.58	6	<10	370	<0.5	<2	1.50	<0.5	9	27	3
224409		0.24	<0.005	<0.001	<0.2	4.03	<2	<10	590	0.7	<2	3.48	<0.5	8	29	4
224410		0.32	<0.005	<0.001	<0.2	3.35	<2	<10	240	0.5	<2	3.13	<0.5	7	27	5
224411		0.26	<0.005	0.001	<0.2	3.32	2	<10	290	0.6	<2	3.01	<0.5	7	30	9
224412		0.24	<0.005	<0.001	<0.2	3.80	<2	<10	120	0.7	<2	3.69	<0.5	7	27	2
224413		0.30	<0.005	<0.001	<0.2	3.36	2	<10	110	0.5	<2	3.20	<0.5	7	33	2
224414		0.28	<0.005	<0.001	<0.2	2.78	<2	<10	140	<0.5	<2	2.93	<0.5	7	32	3
224415		0.24	<0.005	<0.001	<0.2	3.30	6	<10	140	0.7	<2	3.20	<0.5	8	43	3
224416		0.24	<0.005	<0.001	<0.2	2.75	<2	<10	160	<0.5	<2	2.84	<0.5	6	31	2
224417		0.26	<0.005	<0.001	<0.2	2.84	5	<10	130	0.5	<2	3.22	<0.5	8	37	4
224418		0.28	<0.005	0.001	<0.2	2.56	<2	<10	130	<0.5	<2	2.76	<0.5	6	43	9
224419		0.28	<0.005	<0.001	<0.2	2.59	<2	<10	100	<0.5	<2	2.88	<0.5	5	45	4
224420		0.26	<0.005	<0.001	<0.2	3.59	<2	<10	90	0.7	<2	3.36	<0.5	5	38	2
224421		0.24	<0.005	<0.001	<0.2	3.46	<2	<10	90	0.7	<2	2.86	<0.5	6	41	2
224422		0.26	<0.005	<0.001	<0.2	3.39	7	<10	60	0.6	<2	2.68	<0.5	7	30	2
224423		0.24	<0.005	<0.001	<0.2	3.47	<2	<10	60	0.6	<2	2.78	<0.5	6	30	4
224424		0.28	<0.005	<0.001	<0.2	2.57	<2	<10	70	<0.5	<2	2.51	<0.5	7	13	2
224425		0.26	0.005	0.001	<0.2	3.34	3	<10	70	0.5	<2	2.81	<0.5	7	46	10
224426		0.26	<0.005	0.001	<0.2	3.32	8	<10	90	0.5	<2	3.03	<0.5	8	36	4
224427		0.24	<0.005	0.003	<0.2	2.70	<2	<10	60	0.5	<2	2.65	<0.5	6	62	23
224428		0.26	<0.005	0.001	<0.2	2.77	<2	<10	90	<0.5	<2	2.47	<0.5	8	63	4
224429		0.24	<0.005	0.005	<0.2	2.30	4	<10	90	<0.5	<2	2.22	<0.5	7	89	43
224430		0.04	0.817	0.001	0.6	0.22	5	<10	30	<0.5	<2	0.19	<0.5	2	5	11

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CERTIFICATE OF ANALYSIS VA06072019

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
224406		2.62	<10	1	0.57	10	0.30	432	<1	0.10	3	910	4	<0.01	<2	5
224407		2.86	<10	<1	0.51	10	0.41	453	<1	0.12	2	870	2	0.01	3	6
224408		2.73	10	<1	0.55	10	0.34	402	<1	0.12	1	1480	<2	0.01	<2	6
224409		3.47	10	<1	0.32	10	0.72	787	1	0.10	1	1060	6	0.03	<2	7
224410		3.02	10	<1	0.38	10	0.80	894	<1	0.13	1	960	5	<0.01	<2	9
224411		3.37	10	<1	0.36	10	0.84	915	<1	0.10	1	970	4	<0.01	<2	6
224412		3.92	10	<1	0.20	10	1.07	934	<1	0.11	<1	960	<2	<0.01	<2	7
224413		4.16	10	1	0.21	10	1.09	997	<1	0.13	<1	1000	3	<0.01	4	7
224414		4.11	10	<1	0.25	10	1.06	865	<1	0.14	<1	960	<2	<0.01	<2	7
224415		4.01	10	<1	0.27	10	1.06	987	1	0.13	<1	970	12	<0.01	2	7
224416		4.21	10	<1	0.27	10	1.06	914	1	0.16	<1	1020	4	<0.01	3	7
224417		4.30	10	1	0.25	10	1.01	868	<1	0.17	3	1000	<2	0.01	2	8
224418		4.26	10	1	0.27	10	0.82	815	<1	0.20	1	970	4	<0.01	2	7
224419		3.75	10	<1	0.28	10	0.73	810	1	0.12	1	990	5	<0.01	<2	5
224420		3.47	10	<1	0.20	10	0.79	817	<1	0.11	2	930	2	0.03	<2	5
224421		3.73	10	<1	0.18	10	1.01	789	<1	0.09	2	960	4	<0.01	<2	5
224422		3.90	10	1	0.18	10	1.06	735	<1	0.10	<1	970	2	<0.01	<2	6
224423		3.85	10	<1	0.16	10	1.05	676	1	0.09	<1	940	<2	0.01	<2	6
224424		3.81	10	<1	0.06	10	0.98	779	<1	0.05	<1	970	4	<0.01	<2	4
224425		3.90	10	<1	0.20	10	0.94	775	1	0.11	<1	1030	<2	<0.01	<2	4
224426		3.77	10	<1	0.18	10	0.86	805	<1	0.10	1	960	2	<0.01	3	4
224427		3.84	10	<1	0.17	10	0.74	820	1	0.12	<1	940	<2	<0.01	2	4
224428		3.99	10	<1	0.17	10	0.86	845	<1	0.17	1	930	2	<0.01	2	5
224429		3.98	10	<1	0.23	10	0.67	941	2	0.16	3	990	3	<0.01	<2	4
224430		3.00	<10	<1	0.04	<10	0.04	37	1	0.10	2	560	105	2.91	<2	<1

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KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 25-AUG-2006
Account: PIL

Project: 4013

CERTIFICATE OF ANALYSIS VA06072019

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
224406		129	0.09	<10	<10	40	<10	39
224407		114	0.10	<10	<10	46	<10	46
224408		103	0.12	<10	<10	46	<10	49
224409		146	0.17	<10	<10	71	<10	67
224410		191	0.16	<10	<10	70	<10	70
224411		135	0.17	<10	<10	74	<10	61
224412		171	0.17	<10	<10	90	<10	55
224413		145	0.18	<10	<10	96	<10	50
224414		124	0.18	<10	<10	93	<10	50
224415		153	0.18	<10	<10	93	<10	71
224416		121	0.17	<10	<10	95	<10	47
224417		126	0.19	<10	<10	96	<10	40
224418		128	0.19	<10	<10	94	<10	35
224419		155	0.18	<10	<10	79	<10	41
224420		165	0.17	<10	<10	84	<10	55
224421		127	0.16	<10	<10	82	<10	55
224422		128	0.16	<10	<10	87	<10	48
224423		125	0.16	<10	<10	82	<10	44
224424		131	0.12	<10	<10	79	<10	41
224425		148	0.17	<10	<10	82	<10	42
224426		188	0.17	<10	<10	82	<10	46
224427		113	0.16	<10	<10	81	<10	49
224428		122	0.18	<10	<10	88	<10	45
224429		116	0.18	<10	<10	83	<10	36
224430		4	<0.01	<10	<10	1	<10	20

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To: NORTHGATE MINERALS CORPORATION
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 24-AUG-2006
Account: PIL

CERTIFICATE VA06072101

Project: 4013
P.O. No.:
This report is for 26 Pulp samples submitted to our lab in Vancouver, BC, Canada on 24-JUL-2006.
The following have access to data associated with this certificate:

CARL EDMUNDS RON KONST	BRIAN KAY	B. KAY

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au-AA23	Au 30g FA-AA finish	AAS
Cu-AA49	Assay Cu - HBr Digestion	AAS
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 24-AUG-2006
Account: PIL

Project: 4013

CERTIFICATE OF ANALYSIS VA06072101

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
227220		0.28	<0.005	0.022	0.2	3.36	7	<10	80	<0.5	<2	5.08	<0.5	19	58	196
227221		0.24	<0.005	0.019	0.3	3.15	12	<10	290	0.5	<2	4.15	<0.5	14	53	114
227222		0.24	0.009	0.010	0.2	2.99	34	<10	280	<0.5	<2	4.98	<0.5	12	30	79
227223		0.24	0.014	0.007	1.0	3.71	23	<10	110	<0.5	<2	4.54	<0.5	19	60	171
227224		0.26	0.020	0.016	0.9	3.55	23	<10	100	<0.5	<2	4.39	<0.5	19	59	167
227225		0.26	0.019	0.008	1.0	2.88	18	<10	170	<0.5	<2	2.73	<0.5	14	47	83
227226		0.26	<0.005	0.001	<0.2	1.92	<2	<10	290	0.5	<2	1.65	<0.5	3	35	9
227227		0.24	<0.005	0.001	<0.2	2.02	2	<10	270	0.5	<2	2.48	0.8	3	46	12
227228		0.28	0.013	0.011	0.5	3.72	18	<10	350	<0.5	<2	3.61	<0.5	18	68	112
227229		0.26	0.012	0.015	0.6	3.95	15	<10	340	<0.5	2	4.06	<0.5	20	74	172
227230		0.26	0.011	0.013	0.4	3.79	16	<10	280	<0.5	<2	4.46	<0.5	18	68	140
227231		0.26	0.007	0.005	<0.2	2.81	7	<10	590	<0.5	<2	3.60	<0.5	13	56	49
227232		0.28	<0.005	0.003	<0.2	2.38	5	<10	440	0.6	<2	3.88	<0.5	9	48	25
227233		0.28	<0.005	0.008	<0.2	2.61	6	<10	490	0.6	<2	4.80	0.7	8	45	81
227234		0.28	0.010	0.013	0.4	4.55	8	<10	70	0.5	<2	4.64	<0.5	22	63	184
227235		0.26	0.013	0.018	0.6	4.41	22	<10	80	0.5	<2	6.93	<0.5	26	193	151
227236		0.28	<0.005	0.006	<0.2	3.27	14	<10	240	<0.5	<2	5.14	<0.5	17	125	66
227237		0.26	<0.005	0.006	<0.2	2.97	8	<10	820	0.5	<2	4.53	<0.5	10	68	66
227238		0.26	0.008	0.009	0.6	4.14	19	<10	150	0.5	<2	5.35	<0.5	21	63	100
227239		0.28	<0.005	0.005	0.2	2.50	7	<10	150	<0.5	<2	3.67	<0.5	12	47	47
227240		0.30	<0.005	0.005	<0.2	2.06	3	<10	270	<0.5	<2	2.91	0.6	7	44	46
227241		0.30	<0.005	0.002	<0.2	2.41	7	<10	290	<0.5	<2	3.52	<0.5	7	53	20
227242		0.28	0.010	0.009	0.4	3.03	14	<10	260	0.5	<2	3.95	<0.5	14	57	98
227243		0.26	<0.005	0.008	0.3	2.69	19	<10	260	<0.5	<2	3.84	<0.5	13	60	87
227244		0.28	0.010	0.008	0.4	2.87	21	<10	300	0.5	2	4.41	<0.5	15	48	90
227245		0.24	0.009	0.008	0.4	2.83	19	<10	260	0.5	<2	4.27	<0.5	15	53	92

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KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 24-AUG-2006
Account: PIL

Project: 4013

CERTIFICATE OF ANALYSIS VA06072101

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
227220		5.27	10	1	0.14	<10	2.52	1330	<1	0.11	23	1370	10	0.08	<2	12
227221		4.66	10	1	0.54	10	1.46	1270	1	0.06	10	1280	11	0.52	<2	6
227222		5.00	10	1	0.59	10	1.68	1475	<1	0.04	8	1380	15	1.89	<2	8
227223		5.18	10	<1	0.31	10	2.25	1500	<1	0.05	21	1380	26	1.59	2	9
227224		5.04	10	1	0.30	<10	2.18	1455	<1	0.04	20	1310	26	1.55	<2	9
227225		4.48	10	1	0.49	10	1.72	1220	1	0.05	13	1210	41	1.34	<2	5
227226		2.76	<10	<1	0.64	10	0.46	544	<1	0.05	2	1380	6	0.04	<2	3
227227		3.58	<10	1	0.66	10	0.45	706	<1	0.06	3	1390	7	0.01	<2	3
227228		4.79	10	1	0.28	<10	2.42	1645	<1	0.05	20	1200	40	1.27	<2	7
227229		5.37	10	1	0.27	<10	2.60	1760	<1	0.06	25	1270	28	1.52	<2	8
227230		4.77	10	1	0.31	10	2.46	1675	<1	0.04	17	1170	50	1.43	<2	8
227231		3.78	10	1	0.41	10	1.65	1195	<1	0.03	8	880	11	0.51	<2	6
227232		3.50	<10	1	0.51	10	1.10	1130	<1	0.03	4	890	7	0.03	<2	5
227233		3.55	<10	<1	0.50	10	1.09	1545	<1	0.03	6	930	43	0.17	2	5
227234		5.85	10	<1	0.19	10	2.99	1995	<1	0.04	21	1410	14	0.77	<2	16
227235		5.39	10	<1	0.24	10	3.04	2020	<1	0.03	58	1190	56	1.46	<2	15
227236		4.02	10	1	0.34	<10	2.33	1510	<1	0.04	34	730	10	0.47	<2	12
227237		4.36	10	1	0.44	10	1.74	1490	<1	0.05	10	1120	12	0.57	<2	6
227238		4.93	10	2	0.29	10	2.45	1535	1	0.03	19	1110	34	1.24	<2	10
227239		3.83	10	<1	0.33	10	1.26	1110	<1	0.05	7	970	8	0.49	<2	4
227240		3.22	<10	<1	0.53	10	0.82	867	<1	0.05	3	960	17	0.03	<2	4
227241		3.76	<10	1	0.42	10	1.08	1055	<1	0.04	4	980	6	0.15	<2	4
227242		4.29	10	1	0.37	10	1.69	1330	<1	0.05	11	1110	20	1.03	<2	6
227243		4.02	10	1	0.45	10	1.48	1295	<1	0.05	10	1010	15	1.01	<2	6
227244		4.64	10	<1	0.51	10	1.45	1380	1	0.05	9	1210	12	2.09	<2	7
227245		4.54	10	1	0.52	10	1.40	1330	<1	0.05	10	1180	15	2.03	<2	7

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KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 24-AUG-2006
Account: PIL

Project: 4013

CERTIFICATE OF ANALYSIS VA06072101

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
227220		114	0.31	<10	<10	202	<10	142
227221		120	0.10	<10	<10	82	<10	114
227222		88	0.07	<10	<10	85	<10	133
227223		84	0.23	<10	<10	120	<10	230
227224		80	0.22	<10	<10	117	<10	224
227225		54	0.11	<10	<10	71	<10	206
227226		54	0.01	<10	<10	44	<10	58
227227		72	0.01	<10	<10	50	<10	60
227228		96	0.14	<10	<10	112	<10	277
227229		119	0.15	<10	<10	121	<10	293
227230		91	0.03	<10	<10	101	<10	252
227231		82	0.01	<10	<10	68	<10	143
227232		89	0.01	<10	<10	39	<10	96
227233		106	<0.01	<10	<10	49	<10	189
227234		119	0.02	<10	<10	161	<10	239
227235		136	<0.01	<10	<10	120	<10	224
227236		113	0.01	<10	<10	99	<10	168
227237		157	0.01	<10	<10	64	<10	149
227238		103	0.01	<10	<10	110	<10	219
227239		110	0.01	<10	<10	55	<10	113
227240		67	0.01	<10	<10	35	<10	77
227241		93	0.01	<10	<10	41	<10	92
227242		105	0.01	<10	<10	62	<10	152
227243		98	0.01	<10	<10	52	<10	142
227244		108	0.01	<10	<10	67	<10	130
227245		105	0.01	<10	<10	67	<10	127

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KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 5-SEP-2006
Account: PIL

CERTIFICATE VA06074576

Project: 4013
P.O. No.:
This report is for 25 Pulp samples submitted to our lab in Vancouver, BC, Canada on 4-AUG-2006.
The following have access to data associated with this certificate:

CARL EDMUNDS RON KONST	BRIAN KAY	B. KAY

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-QC	QC Test on Received Samples
LOG-22	Sample login - Rcd w/o BarCode

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au-AA23	Au 30g FA-AA finish	AAS
Cu-AA49	Assay Cu - HBr Digestion	AAS
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
KEMESS MINE
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This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 5-SEP-2006
Account: PIL

Project: 4013

CERTIFICATE OF ANALYSIS VA06074576

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
227321		0.44	<0.005	0.003	<0.2	3.31	4	<10	420	<0.5	<2	3.05	<0.5	7	68	27
227322		0.24	<0.005	0.002	<0.2	3.41	6	<10	550	<0.5	<2	3.35	<0.5	10	68	14
227323		0.26	0.009	0.011	0.2	3.34	12	<10	650	0.5	2	5.64	<0.5	13	61	119
227324		0.26	0.008	0.007	<0.2	3.68	5	<10	550	0.5	<2	5.17	<0.5	13	61	74
227325		0.26	0.017	0.002	<0.2	3.94	6	<10	120	0.6	<2	4.59	<0.5	10	58	14
227326		0.26	0.005	<0.001	<0.2	2.51	5	<10	620	0.5	<2	2.57	<0.5	1	42	1
227327		0.26	0.011	0.001	<0.2	3.14	9	10	140	0.6	2	4.25	<0.5	8	57	12
227328		0.26	<0.005	<0.001	<0.2	2.27	2	<10	1400	0.5	<2	2.89	<0.5	1	54	1
227329		0.26	<0.005	<0.001	<0.2	2.46	2	<10	1190	0.5	<2	2.63	<0.5	1	69	2
227330		0.26	0.005	<0.001	<0.2	2.20	<2	<10	1660	0.5	<2	2.49	<0.5	1	64	1
227331		0.24	0.007	0.003	<0.2	3.30	6	<10	930	<0.5	<2	4.02	<0.5	10	66	26
227332		0.28	0.013	0.005	0.2	3.28	6	<10	480	<0.5	<2	3.46	<0.5	11	61	48
227333		0.26	0.014	0.003	<0.2	3.32	6	<10	170	0.6	<2	3.99	<0.5	13	74	30
227334		0.26	0.007	0.006	<0.2	4.04	11	<10	310	0.6	<2	6.17	<0.5	9	67	66
227335		0.26	0.012	0.001	<0.2	3.65	7	<10	270	0.5	<2	3.96	<0.5	10	69	12
227336		0.26	0.020	0.001	0.5	3.14	17	<10	200	0.5	<2	2.68	0.7	12	78	11
227337		0.26	0.011	0.001	0.2	2.59	5	<10	550	0.5	<2	1.88	0.6	5	44	5
227338		0.28	0.012	0.001	<0.2	2.63	4	<10	390	<0.5	<2	2.19	0.5	7	69	10
227339		0.26	0.009	0.001	<0.2	3.48	8	<10	110	0.6	<2	3.34	<0.5	8	68	9
227340		0.26	0.010	0.002	<0.2	3.59	5	<10	180	0.6	<2	3.60	<0.5	9	55	19
227341		0.26	0.008	0.002	<0.2	2.77	7	<10	110	0.5	<2	5.00	<0.5	10	66	22
227342		0.26	0.011	0.003	0.2	2.80	5	<10	120	0.6	<2	4.23	<0.5	10	60	23
227343		0.28	0.006	0.002	<0.2	3.08	5	<10	140	0.6	<2	3.95	<0.5	10	65	19
227344		0.26	0.008	0.002	<0.2	3.44	6	<10	130	0.6	<2	3.24	<0.5	10	85	18
227345		0.28	<0.005	0.003	<0.2	2.15	4	<10	180	<0.5	<2	1.90	<0.5	8	90	27

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North Vancouver BC V7J 2C1
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KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 5-SEP-2006
Account: PIL

Project: 4013

CERTIFICATE OF ANALYSIS VA06074576

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
227321		3.60	10	<1	0.51	10	1.10	1060	<1	0.07	4	840	5	0.07	<2	8
227322		3.72	10	<1	0.48	10	1.18	1020	<1	0.05	5	790	7	0.22	<2	9
227323		4.10	10	<1	0.57	10	0.93	1330	1	0.05	6	940	7	0.82	<2	8
227324		4.13	10	<1	0.39	10	1.31	1250	<1	0.07	8	900	6	0.68	<2	9
227325		4.73	10	<1	0.40	10	1.34	1180	2	0.07	2	970	15	3.61	2	7
227326		1.23	10	<1	0.43	20	0.35	580	5	0.10	1	320	10	0.11	<2	1
227327		3.98	10	<1	0.49	10	0.78	1060	14	0.09	2	860	14	2.84	<2	6
227328		1.14	10	1	0.47	10	0.30	654	<1	0.09	2	380	3	0.05	<2	1
227329		1.31	10	<1	0.42	20	0.36	567	<1	0.11	2	330	3	0.04	<2	1
227330		1.17	10	<1	0.39	20	0.30	551	<1	0.11	1	310	5	0.05	<2	1
227331		3.24	10	<1	0.44	10	1.14	1225	1	0.07	3	710	4	0.58	<2	6
227332		4.14	10	1	0.45	10	1.14	1175	<1	0.09	2	850	5	0.76	<2	7
227333		4.14	10	<1	0.43	10	0.78	1055	1	0.04	5	810	13	2.42	<2	8
227334		4.02	10	<1	0.28	10	0.85	1390	<1	0.04	10	1110	6	0.44	3	9
227335		3.74	10	<1	0.35	10	1.11	1170	1	0.05	2	790	13	1.75	2	7
227336		4.19	10	<1	0.55	10	0.74	873	2	0.03	3	840	20	2.44	2	6
227337		1.80	<10	<1	0.89	10	0.27	401	3	0.03	2	720	4	0.99	<2	5
227338		2.93	<10	<1	0.61	10	0.62	642	1	0.05	3	770	6	1.40	<2	5
227339		4.41	10	1	0.39	10	1.07	905	2	0.07	3	860	7	3.02	2	7
227340		4.12	10	<1	0.40	10	1.22	1025	1	0.06	4	930	6	2.75	<2	7
227341		3.93	<10	1	0.48	10	0.61	1015	1	0.05	3	770	8	3.28	2	6
227342		3.98	<10	<1	0.44	10	0.49	794	1	0.04	1	820	8	3.24	<2	7
227343		4.00	10	<1	0.52	10	0.88	933	1	0.04	2	840	6	3.05	2	6
227344		4.29	10	1	0.42	10	1.27	1030	1	0.09	4	830	6	2.50	<2	6
227345		3.96	10	<1	0.29	10	1.07	749	1	0.29	3	1050	4	0.02	<2	9

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KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 5-SEP-2006
Account: PIL

Project: 4013

CERTIFICATE OF ANALYSIS VA06074576

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
227321		82	0.01	<10	<10	54	10	103
227322		100	0.01	<10	10	70	10	78
227323		145	0.01	<10	<10	76	<10	108
227324		157	0.01	<10	<10	94	<10	108
227325		148	0.01	<10	<10	50	<10	126
227326		122	<0.01	<10	<10	8	<10	32
227327		132	0.01	<10	<10	41	<10	93
227328		148	0.01	<10	10	9	<10	32
227329		184	0.01	<10	<10	9	<10	30
227330		247	0.01	<10	<10	8	<10	27
227331		169	0.01	<10	<10	43	<10	93
227332		104	0.01	<10	10	54	<10	98
227333		128	0.01	<10	10	50	<10	76
227334		142	0.01	<10	<10	93	<10	104
227335		128	0.01	<10	<10	48	<10	101
227336		92	0.01	<10	<10	43	<10	100
227337		71	0.02	<10	<10	24	<10	36
227338		63	0.02	<10	<10	34	<10	55
227339		98	0.01	<10	<10	46	<10	77
227340		89	0.01	<10	<10	53	<10	91
227341		92	0.01	<10	<10	37	<10	64
227342		92	0.01	<10	<10	44	<10	58
227343		88	0.01	<10	<10	42	<10	68
227344		98	0.01	<10	<10	50	<10	84
227345		118	0.23	<10	<10	126	<10	53

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CERTIFICATE VA06077388

Project: 4013
P.O. No.:
This report is for 50 Crushed Rock samples submitted to our lab in Vancouver, BC, Canada on 9-AUG-2006.

The following have access to data associated with this certificate:

CARL EDMUNDS RON KONST	BRIAN KAY	B. KAY

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
PUL-31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au-AA23	Au 30g FA-AA finish	AAS
Cu-AA49	Assay Cu - HBr Digestion	AAS
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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CERTIFICATE OF ANALYSIS VA06077388

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
227346		0.24	0.009	0.003	<0.2	2.17	39	<10	160	0.6	<2	3.44	<0.5	11	3	27
227347		0.24	0.019	0.001	<0.2	2.31	44	<10	40	0.5	8	4.02	<0.5	13	29	13
227348		0.28	0.013	0.001	<0.2	2.66	22	<10	590	<0.5	<2	3.55	<0.5	16	22	7
227349		0.30	0.022	<0.001	<0.2	2.64	19	<10	740	<0.5	2	3.56	<0.5	16	23	5
227350		0.24	0.019	0.001	<0.2	2.44	20	<10	1120	<0.5	<2	3.57	<0.5	17	22	5
227351		0.30	0.005	<0.001	<0.2	2.28	14	<10	980	<0.5	3	3.57	<0.5	11	18	3
227352		0.28	0.006	0.001	<0.2	2.55	13	<10	700	<0.5	<2	3.37	<0.5	11	18	5
227353		0.30	0.005	0.001	<0.2	2.65	11	<10	870	<0.5	2	4.23	<0.5	8	15	2
227354		0.26	<0.005	0.001	<0.2	2.42	10	<10	540	<0.5	<2	3.66	<0.5	10	15	4
227355		0.28	<0.005	0.001	<0.2	2.04	9	<10	840	<0.5	<2	3.99	<0.5	10	6	8
227356		0.26	<0.005	0.001	<0.2	2.31	10	<10	610	<0.5	<2	2.81	<0.5	13	11	4
227357		0.18	<0.005	<0.001	<0.2	2.18	10	<10	1060	<0.5	<2	3.09	<0.5	11	5	3
227358		0.26	<0.005	<0.001	<0.2	2.17	11	<10	920	<0.5	<2	3.01	<0.5	10	3	2
227359		0.28	0.009	0.013	<0.2	2.81	9	<10	590	<0.5	<2	3.04	<0.5	14	6	136
227360		0.26	0.006	0.005	<0.2	2.43	6	<10	790	<0.5	<2	3.58	<0.5	12	12	51
227361		0.22	0.007	0.010	0.2	2.57	11	<10	1550	<0.5	<2	4.89	<0.5	12	18	102
227362		0.28	0.010	0.013	0.2	3.06	6	<10	550	0.6	<2	4.85	<0.5	18	35	137
227363		0.26	0.008	0.005	<0.2	2.55	10	<10	2690	<0.5	<2	4.86	<0.5	13	24	55
227364		0.26	0.011	0.012	<0.2	2.82	8	<10	490	<0.5	<2	3.49	<0.5	15	24	119
227365		0.26	0.012	0.018	0.2	2.73	11	<10	790	<0.5	<2	3.92	<0.5	15	40	186
227366		0.28	0.005	0.006	<0.2	2.50	7	<10	1360	<0.5	<2	3.49	<0.5	12	15	67
227367		0.26	0.006	0.009	<0.2	3.23	7	<10	940	<0.5	<2	4.40	<0.5	20	57	88
227368		0.26	0.005	0.007	<0.2	2.78	5	<10	750	0.5	<2	3.87	<0.5	15	19	73
227369		0.26	0.008	0.013	0.2	3.39	6	<10	3260	0.5	<2	5.89	<0.5	17	30	145
227370		0.04	0.772	0.001	0.7	0.23	4	10	30	<0.5	<2	0.18	<0.5	1	4	12
227421		0.24	0.009	0.011	0.2	4.29	24	<10	150	<0.5	<2	4.91	<0.5	23	58	117
227422		0.24	0.006	0.021	0.3	3.87	16	<10	90	<0.5	2	5.24	<0.5	26	109	218
227423		0.24	0.011	0.018	0.2	3.39	16	<10	70	<0.5	<2	4.49	0.9	25	97	183
227424		0.26	0.005	0.017	0.7	3.67	13	<10	50	<0.5	2	4.33	0.5	24	114	176
227425		0.28	0.033	0.014	1.0	3.76	14	<10	50	<0.5	3	5.97	<0.5	22	85	146
227426		0.24	0.036	0.017	1.4	3.68	24	<10	50	<0.5	3	3.67	4.6	25	142	181
227427		0.30	0.056	0.011	3.7	3.97	21	<10	60	<0.5	2	3.18	23.5	35	454	123
227428		0.24	0.041	0.005	1.0	2.24	21	<10	70	<0.5	3	2.54	2.2	13	45	48
227429		0.26	0.036	0.015	3.9	3.42	12	<10	50	<0.5	3	3.73	14.0	33	471	162
227430		0.24	0.005	0.005	<0.2	3.87	6	<10	100	0.6	2	2.06	<0.5	30	38	52
227431		0.26	0.005	0.005	<0.2	3.33	6	<10	140	0.5	<2	1.90	<0.5	29	31	53
227432		0.20	0.073	0.009	1.5	4.11	27	<10	80	<0.5	3	3.73	1.0	33	243	96
227433		0.30	0.015	0.013	0.5	2.67	9	<10	140	<0.5	<2	3.84	<0.5	18	29	140
227434		0.30	0.013	0.024	0.7	3.38	12	<10	120	<0.5	<2	4.53	<0.5	21	33	254
227435		0.24	<0.005	0.001	<0.2	1.13	5	<10	130	<0.5	<2	1.77	<0.5	2	3	5

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CERTIFICATE OF ANALYSIS VA06077388

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
227346		3.66	<10	<1	0.30	10	0.71	814	<1	0.02	2	880	7	1.24	<2	6
227347		4.36	<10	1	0.43	10	0.89	1045	2	0.01	5	890	13	2.07	4	5
227348		4.35	10	<1	0.26	10	1.71	1300	<1	0.04	9	1050	5	0.06	<2	6
227349		4.42	10	1	0.26	10	1.68	1320	<1	0.05	10	1080	6	0.05	<2	6
227350		4.39	10	1	0.27	10	1.52	1335	<1	0.04	7	1060	4	0.07	<2	6
227351		4.37	10	1	0.33	10	1.33	1275	<1	0.04	7	1060	6	0.05	<2	6
227352		4.97	10	1	0.29	10	1.59	1750	<1	0.05	8	1090	6	0.04	<2	6
227353		4.26	10	1	0.33	10	1.72	1640	<1	0.03	5	940	4	0.04	<2	7
227354		4.30	10	1	0.33	10	1.42	1445	<1	0.03	5	870	10	0.03	<2	6
227355		3.62	<10	<1	0.34	10	1.06	1110	<1	0.03	2	790	6	0.04	<2	5
227356		4.10	10	1	0.30	10	1.32	1120	<1	0.04	3	870	4	0.04	<2	5
227357		3.98	10	1	0.29	10	1.27	1200	<1	0.05	2	820	5	0.05	<2	6
227358		3.81	10	<1	0.26	10	1.20	1060	<1	0.05	2	770	3	0.04	<2	5
227359		4.30	10	<1	0.34	10	1.82	1380	2	0.03	5	1180	7	0.04	<2	6
227360		4.10	10	1	0.31	10	1.43	1335	<1	0.04	5	910	3	0.04	<2	5
227361		4.32	10	1	0.36	10	1.49	1490	1	0.04	8	1120	5	0.07	<2	6
227362		5.33	10	<1	0.44	10	2.01	1545	<1	0.04	17	1590	5	0.04	<2	8
227363		4.17	10	1	0.32	10	1.43	1340	<1	0.05	9	1020	4	0.09	<2	6
227364		4.87	10	<1	0.26	10	1.78	1355	<1	0.06	11	1210	5	0.03	<2	6
227365		4.70	10	1	0.22	10	1.79	1360	2	0.06	14	1160	4	0.05	<2	7
227366		4.00	10	<1	0.27	10	1.39	1170	<1	0.06	9	1000	2	0.05	<2	6
227367		5.49	10	1	0.31	10	2.08	1590	<1	0.06	24	1270	6	0.04	<2	9
227368		4.47	10	<1	0.33	10	1.57	1235	<1	0.04	10	1130	5	0.04	<2	6
227369		4.67	10	1	0.33	10	1.80	1335	<1	0.03	17	1370	3	0.12	<2	9
227370		3.03	<10	<1	0.04	<10	0.04	31	1	0.11	2	580	112	2.98	<2	<1
227421		5.39	10	1	0.20	<10	3.60	2080	<1	0.04	26	990	16	2.34	<2	8
227422		5.73	10	<1	0.24	10	3.51	1680	<1	0.05	45	1330	9	1.14	<2	10
227423		5.61	10	1	0.20	<10	3.18	1540	<1	0.05	43	1300	31	2.41	<2	11
227424		5.67	10	1	0.09	<10	3.57	1740	<1	0.04	47	1340	17	1.15	<2	13
227425		4.88	10	<1	0.10	<10	2.92	2450	<1	0.05	39	1320	15	2.77	<2	7
227426		5.50	10	<1	0.16	<10	3.76	2560	1	0.08	52	1120	114	3.78	2	12
227427		6.24	10	<1	0.09	<10	5.37	2630	<1	0.01	123	680	787	5.92	<2	16
227428		3.33	10	<1	0.17	<10	1.66	1135	<1	0.05	20	650	58	2.69	<2	5
227429		5.26	10	<1	0.08	<10	4.81	1935	<1	0.02	124	550	896	5.18	<2	18
227430		6.60	10	1	0.09	10	3.75	2080	<1	0.11	22	790	24	0.22	3	15
227431		6.17	10	<1	0.07	10	3.36	1920	1	0.07	17	760	11	0.07	4	14
227432		6.08	10	<1	0.14	<10	3.38	1985	1	0.05	66	1590	62	3.23	<2	13
227433		3.98	10	1	0.20	10	1.94	1690	1	0.08	15	1900	13	1.13	<2	6
227434		4.47	10	<1	0.14	<10	1.89	1690	<1	0.09	16	1860	9	0.51	2	5
227435		1.17	<10	1	0.33	10	0.28	526	1	0.08	<1	360	6	0.03	<2	1

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Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
227346		81	<0.01	<10	<10	38	<10	76
227347		89	<0.01	<10	<10	52	<10	73
227348		89	0.01	<10	<10	95	<10	96
227349		102	<0.01	<10	<10	99	<10	94
227350		99	0.01	<10	<10	95	<10	94
227351		87	<0.01	<10	<10	88	<10	91
227352		92	0.01	<10	<10	95	<10	118
227353		79	0.01	<10	<10	76	<10	122
227354		77	<0.01	<10	<10	65	<10	100
227355		96	<0.01	<10	<10	59	<10	67
227356		77	<0.01	<10	<10	74	<10	85
227357		101	<0.01	<10	<10	72	<10	92
227358		110	<0.01	<10	<10	68	<10	75
227359		90	<0.01	<10	<10	92	<10	110
227360		92	<0.01	<10	<10	73	<10	94
227361		136	<0.01	<10	<10	90	<10	91
227362		105	0.01	<10	<10	158	<10	108
227363		170	<0.01	<10	<10	95	<10	90
227364		87	0.01	<10	<10	122	<10	105
227365		120	0.01	<10	<10	120	<10	96
227366		245	<0.01	<10	<10	99	<10	84
227367		295	0.01	<10	<10	140	<10	135
227368		161	<0.01	<10	<10	99	<10	95
227369		179	0.01	<10	<10	136	<10	98
227370		4	<0.01	<10	10	1	<10	22
227421		101	0.14	<10	<10	130	<10	154
227422		103	0.10	<10	<10	154	<10	107
227423		105	0.19	<10	<10	151	<10	205
227424		110	0.32	<10	<10	192	<10	194
227425		122	0.26	<10	<10	153	<10	223
227426		154	0.25	<10	<10	158	<10	462
227427		82	0.14	<10	<10	136	<10	1330
227428		63	0.10	<10	<10	61	<10	212
227429		107	0.14	<10	<10	117	<10	822
227430		125	0.44	<10	<10	278	<10	114
227431		91	0.44	<10	<10	268	<10	103
227432		112	0.22	<10	<10	181	<10	275
227433		91	0.20	<10	<10	153	<10	178
227434		121	0.34	<10	<10	174	<10	177
227435		79	0.02	<10	<10	10	<10	41

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KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 14-SEP-2006
Account: PIL

Project: 4013

CERTIFICATE OF ANALYSIS VA06077388

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
227436		0.30	<0.005	<0.001	<0.2	1.17	4	<10	560	<0.5	<2	1.76	<0.5	2	2	3
227437		0.22	0.024	0.010	1.4	3.03	23	<10	40	0.5	<2	3.07	8.9	30	108	124
227438		0.26	0.030	0.008	0.8	3.37	35	<10	30	<0.5	2	1.46	4.9	29	98	80
227439		0.24	0.031	0.036	2.2	2.69	47	<10	20	<0.5	2	1.36	13.7	34	80	394
227440		0.26	0.029	0.007	1.2	3.62	21	<10	20	<0.5	3	2.34	6.2	28	97	69
227441		0.26	0.019	0.010	1.8	2.64	24	<10	30	<0.5	<2	2.30	2.0	30	72	104
227442		0.26	0.019	0.008	2.3	3.28	23	<10	50	<0.5	2	2.80	10.0	29	82	82
227443		0.28	0.028	0.014	2.0	3.65	17	<10	40	0.5	3	2.76	8.8	29	81	147
227444		0.26	0.060	0.017	7.5	2.49	22	<10	20	0.5	2	1.95	10.5	27	28	180
227445		0.06	0.430	<0.001	<0.2	0.20	<2	<10	10	<0.5	4	0.07	<0.5	<1	2	5

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Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
227436		1.27	<10	<1	0.34	10	0.40	580	1	0.07	<1	380	6	0.04	<2	1
227437		6.35	10	<1	0.17	10	3.17	2020	1	0.08	40	910	229	6.36	<2	12
227438		6.29	10	1	0.20	10	3.69	2190	1	0.04	38	930	24	5.80	2	9
227439		6.76	10	<1	0.21	10	2.92	1870	1	0.03	41	800	283	7.20	2	9
227440		5.59	10	1	0.15	10	3.94	2980	1	0.03	35	840	83	4.84	<2	11
227441		5.18	10	1	0.07	<10	2.93	2550	1	0.06	27	950	52	4.30	3	11
227442		5.34	10	1	0.12	<10	3.39	2900	1	0.05	28	960	62	4.03	<2	12
227443		5.60	10	<1	0.16	10	3.60	2820	1	0.04	30	870	160	3.69	2	11
227444		6.04	<10	<1	0.32	<10	1.04	1160	5	0.03	24	880	508	5.71	4	9
227445		0.36	<10	<1	0.10	<10	0.04	64	<1	0.05	1	60	2	<0.01	<2	<1

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CERTIFICATE OF ANALYSIS VA06077388

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
227436		224	<0.01	<10	<10	8	<10	58
227437		373	0.08	<10	<10	137	<10	604
227438		80	0.10	<10	<10	115	<10	452
227439		113	0.07	<10	<10	96	<10	848
227440		100	0.21	<10	<10	119	<10	624
227441		228	0.30	<10	<10	139	<10	325
227442		138	0.24	<10	<10	138	<10	938
227443		125	0.11	<10	<10	121	<10	853
227444		75	<0.01	<10	<10	64	<10	883
227445		4	<0.01	<10	<10	1	<10	4

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CERTIFICATE VA06078571

Project: 4013
P.O. No.:
This report is for 53 Pulp samples submitted to our lab in Vancouver, BC, Canada on 9-AUG-2006.
The following have access to data associated with this certificate:

CARL EDMUNDS R KONST	B. KAY RON KONST	BRIAN KAY

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-QC	QC Test on Received Samples
LOG-22	Sample login - Rcd w/o BarCode

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au-AA23	Au 30g FA-AA finish	AAS
Cu-AA49	Assay Cu - HBr Digestion	AAS
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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CERTIFICATE OF ANALYSIS VA06078571

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
225229		0.26	<0.005	0.002	<0.2	1.88	8	<10	80	0.5	<2	1.98	<0.5	6	60	17
225230		0.22	<0.005	0.002	<0.2	1.90	7	<10	100	0.5	<2	1.79	<0.5	7	78	17
225231		0.26	<0.005	0.002	<0.2	2.28	8	<10	70	0.5	<2	2.10	<0.5	7	68	23
225232		0.26	<0.005	0.002	<0.2	1.90	7	<10	110	<0.5	<2	1.97	<0.5	8	80	13
225233		0.26	<0.005	0.002	<0.2	1.80	8	<10	110	<0.5	<2	1.52	<0.5	8	79	14
225234		0.24	<0.005	0.002	<0.2	1.98	6	<10	90	0.5	<2	1.62	<0.5	8	80	19
225235		0.26	<0.005	0.002	<0.2	2.03	7	<10	100	0.5	<2	1.94	<0.5	6	70	17
225236		0.26	<0.005	0.002	<0.2	1.89	4	<10	100	<0.5	<2	1.71	<0.5	8	83	20
225237		0.24	<0.005	0.002	<0.2	1.63	7	<10	90	<0.5	<2	1.52	<0.5	7	89	20
225238		0.26	<0.005	0.003	<0.2	1.65	6	<10	90	<0.5	<2	1.56	<0.5	8	92	21
225239		0.24	<0.005	0.002	<0.2	1.69	7	<10	70	<0.5	<2	1.91	<0.5	7	109	17
225240		0.24	<0.005	0.002	<0.2	2.09	7	<10	80	<0.5	<2	2.48	<0.5	7	94	16
227371		0.28	<0.005	0.016	<0.2	3.47	5	<10	310	0.7	<2	5.81	<0.5	16	92	158
227372		0.26	<0.005	0.010	<0.2	3.25	4	<10	920	0.6	<2	3.23	<0.5	12	58	97
227373		0.26	<0.005	0.002	<0.2	2.66	2	<10	2200	0.6	<2	4.82	<0.5	10	65	19
227374		0.24	0.014	0.001	<0.2	2.55	3	<10	1110	0.5	<2	3.15	<0.5	10	64	4
227375		0.26	<0.005	0.002	<0.2	2.25	2	<10	1030	<0.5	<2	3.17	<0.5	11	59	18
227376		0.26	<0.005	0.007	<0.2	2.28	<2	<10	250	<0.5	<2	3.63	<0.5	9	57	65
227377		0.26	<0.005	<0.001	<0.2	1.95	2	<10	2010	<0.5	<2	3.71	<0.5	9	61	1
227378		0.26	<0.005	<0.001	<0.2	2.38	2	<10	1440	<0.5	<2	3.77	<0.5	10	56	1
227379		0.24	<0.005	<0.001	<0.2	2.73	4	<10	1230	<0.5	<2	3.15	<0.5	13	62	1
227380		0.26	<0.005	<0.001	<0.2	2.60	4	<10	1180	<0.5	<2	3.91	<0.5	12	65	3
227381		0.26	<0.005	<0.001	<0.2	2.15	3	<10	1540	<0.5	<2	4.58	<0.5	8	84	2
227382		0.26	<0.005	<0.001	<0.2	2.10	2	<10	130	0.5	<2	4.29	<0.5	9	76	3
227383		0.26	<0.005	<0.001	<0.2	2.17	4	<10	80	0.6	<2	6.34	<0.5	13	67	3
227384		0.26	<0.005	0.001	<0.2	2.65	4	<10	220	0.5	<2	4.44	<0.5	11	59	5
227385		0.26	0.011	0.015	0.4	3.67	10	<10	60	<0.5	<2	4.32	<0.5	19	77	152
227386		0.24	0.006	0.008	0.5	3.60	13	<10	40	<0.5	<2	4.45	<0.5	31	150	80
227387		0.22	<0.005	0.001	<0.2	1.48	<2	<10	140	<0.5	<2	3.13	<0.5	3	51	7
227388		0.26	<0.005	<0.001	<0.2	1.20	<2	<10	110	<0.5	<2	2.86	<0.5	1	71	1
227389		0.24	<0.005	<0.001	<0.2	1.25	2	<10	520	<0.5	<2	2.63	<0.5	1	78	1
227390		0.28	<0.005	<0.001	<0.2	1.65	3	<10	400	<0.5	<2	2.45	<0.5	1	68	1
227391		0.26	<0.005	<0.001	0.2	1.82	2	<10	150	<0.5	<2	2.32	<0.5	1	68	1
227392		0.26	<0.005	<0.001	<0.2	1.48	2	<10	540	<0.5	<2	2.51	<0.5	2	66	3
227393		0.26	0.005	0.009	0.7	3.60	5	<10	90	<0.5	<2	4.24	1.6	25	81	90
227394		0.24	0.014	0.012	1.6	3.75	24	<10	60	<0.5	<2	3.88	16.3	25	86	118
227395		0.24	0.015	0.012	1.6	3.82	24	<10	50	<0.5	<2	3.82	16.8	25	84	120
227546		0.22	0.061	0.025	0.4	3.27	7	<10	60	0.7	2	1.52	1.2	14	106	262
227547		0.26	0.042	0.006	0.4	3.00	9	<10	30	0.6	2	2.02	0.7	16	105	59
227548		0.22	0.047	0.018	0.9	3.05	14	<10	60	0.5	6	1.40	0.9	14	137	189

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CERTIFICATE OF ANALYSIS VA06078571

Sample Description	Method	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Fe	Ga	Hg	K	La	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Sc
	Units	%	ppm	ppm	%	ppm	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm
	LOR	0.01	10	1	0.01	10	0.01	5	1	0.01	1	10	2	0.01	2	1
225229		3.27	10	<1	0.19	10	0.89	601	1	0.15	2	950	5	0.03	<2	4
225230		3.32	10	<1	0.20	10	0.91	614	2	0.15	3	960	6	0.03	<2	4
225231		3.40	10	<1	0.15	10	1.14	725	1	0.11	3	970	4	0.03	<2	6
225232		3.34	10	<1	0.20	10	1.02	630	1	0.15	4	940	6	0.12	<2	5
225233		3.30	10	<1	0.19	10	0.91	575	1	0.16	3	960	6	0.09	<2	4
225234		3.50	10	<1	0.17	10	1.12	673	2	0.15	3	990	4	0.05	<2	5
225235		3.31	10	<1	0.19	10	0.92	566	2	0.16	2	960	4	0.02	<2	4
225236		3.35	10	<1	0.18	10	0.86	533	1	0.17	3	960	4	0.02	<2	4
225237		3.39	10	<1	0.15	10	0.87	511	2	0.17	4	970	3	0.03	<2	4
225238		3.33	10	<1	0.16	10	0.86	491	1	0.16	3	970	7	0.05	<2	4
225239		3.42	10	<1	0.19	10	0.94	566	2	0.13	3	990	5	0.03	<2	5
225240		3.36	10	<1	0.23	10	0.92	560	2	0.12	3	950	4	0.05	<2	4
227371		4.98	10	<1	0.30	10	1.76	1350	1	0.04	19	1310	4	0.03	<2	9
227372		4.25	10	<1	0.30	10	1.49	982	<1	0.05	5	950	7	0.04	<2	8
227373		3.85	<10	<1	0.31	10	1.09	1080	<1	0.05	2	850	5	0.08	<2	7
227374		3.83	10	<1	0.28	10	1.19	993	<1	0.05	1	780	3	0.04	<2	6
227375		3.92	10	<1	0.29	10	1.11	1015	<1	0.05	<1	810	3	0.03	<2	5
227376		3.77	10	<1	0.30	10	1.09	1030	2	0.05	<1	800	11	0.02	<2	5
227377		3.35	10	<1	0.30	10	0.91	894	<1	0.05	<1	750	4	0.06	<2	5
227378		4.02	10	<1	0.31	10	1.14	1005	<1	0.05	<1	790	3	0.05	<2	5
227379		4.86	10	<1	0.28	10	1.50	1085	<1	0.06	4	1020	5	0.04	<2	6
227380		4.68	10	<1	0.31	10	1.37	1240	<1	0.06	3	1020	3	0.04	<2	5
227381		3.47	10	<1	0.30	10	0.82	939	<1	0.06	1	740	8	0.05	<2	6
227382		3.46	<10	<1	0.32	10	0.72	929	<1	0.05	1	880	5	0.01	<2	7
227383		3.27	<10	<1	0.34	10	0.68	1270	<1	0.04	6	900	7	0.02	<2	7
227384		3.52	10	<1	0.36	10	1.03	1195	<1	0.05	6	970	5	0.02	<2	6
227385		5.37	10	1	0.28	10	2.54	2170	1	0.05	19	1210	13	1.14	<2	10
227386		5.42	10	1	0.19	20	3.01	2100	<1	0.03	28	950	15	2.44	<2	12
227387		1.29	<10	<1	0.29	10	0.41	682	<1	0.05	1	350	5	0.18	<2	1
227388		1.02	<10	<1	0.30	10	0.24	586	<1	0.05	1	300	6	0.04	<2	1
227389		1.09	<10	<1	0.30	10	0.26	598	<1	0.05	1	290	5	0.04	<2	1
227390		1.10	<10	<1	0.37	10	0.23	540	<1	0.08	1	320	6	0.03	<2	1
227391		1.09	<10	<1	0.33	10	0.22	521	<1	0.09	1	310	6	0.02	<2	1
227392		1.10	<10	<1	0.32	10	0.25	639	<1	0.07	1	310	11	0.07	<2	1
227393		5.59	10	1	0.26	10	2.77	1920	<1	0.07	20	840	66	3.01	<2	14
227394		5.89	10	<1	0.28	10	3.16	2810	1	0.05	19	880	476	3.74	<2	12
227395		5.88	10	<1	0.28	10	3.21	2770	<1	0.05	19	890	497	3.76	<2	13
227546		6.00	10	1	0.37	10	2.13	1200	<1	0.10	10	1250	27	6.11	<2	7
227547		6.57	<10	<1	0.29	<10	1.61	857	1	0.05	11	1160	35	7.21	<2	6
227548		6.41	10	<1	0.33	10	2.09	1110	<1	0.10	12	1200	43	6.65	<2	8

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CERTIFICATE OF ANALYSIS VA06078571

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
225229		89	0.18	<10	<10	87	<10	52
225230		112	0.19	<10	<10	91	<10	51
225231		134	0.20	<10	<10	92	<10	55
225232		115	0.19	<10	<10	88	<10	49
225233		126	0.19	<10	<10	88	<10	46
225234		118	0.19	<10	<10	93	<10	50
225235		114	0.18	<10	<10	90	<10	43
225236		113	0.18	<10	<10	88	<10	46
225237		99	0.19	<10	<10	89	<10	42
225238		79	0.18	<10	<10	88	<10	39
225239		127	0.18	<10	<10	87	<10	43
225240		127	0.16	<10	<10	82	<10	41
227371		108	<0.01	<10	<10	139	<10	100
227372		100	<0.01	<10	<10	85	<10	86
227373		169	<0.01	<10	<10	66	<10	78
227374		97	<0.01	<10	<10	61	<10	77
227375		93	<0.01	<10	<10	56	<10	76
227376		84	<0.01	<10	<10	57	<10	74
227377		141	<0.01	<10	10	53	<10	59
227378		122	<0.01	<10	<10	62	<10	72
227379		135	<0.01	<10	<10	88	<10	93
227380		109	<0.01	<10	<10	80	<10	96
227381		147	<0.01	<10	<10	56	<10	67
227382		68	<0.01	<10	<10	55	<10	82
227383		114	<0.01	<10	<10	63	<10	83
227384		107	<0.01	<10	<10	67	<10	92
227385		178	0.01	<10	<10	132	<10	193
227386		141	0.04	<10	<10	120	<10	250
227387		122	<0.01	<10	<10	12	<10	90
227388		97	<0.01	<10	<10	6	<10	36
227389		136	<0.01	<10	<10	6	<10	55
227390		209	<0.01	<10	<10	7	<10	32
227391		673	<0.01	<10	<10	7	<10	33
227392		179	<0.01	<10	<10	9	<10	38
227393		322	0.02	<10	<10	133	<10	305
227394		343	0.02	<10	<10	126	<10	926
227395		331	0.02	<10	<10	129	<10	975
227546		169	0.02	<10	<10	67	<10	229
227547		150	0.02	<10	<10	49	<10	167
227548		104	0.04	<10	<10	83	<10	193

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To: NORTHGATE MINERALS CORPORATION
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 6-SEP-2006
Account: PIL

Project: 4013

CERTIFICATE OF ANALYSIS VA06078571

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
227549		0.24	0.028	0.010	0.5	2.93	8	<10	50	0.5	<2	1.73	1.0	12	133	105
227550		0.24	0.038	0.016	1.2	2.78	5	<10	50	0.6	2	1.47	1.0	15	101	160
227551		0.26	0.024	0.006	0.2	2.65	6	<10	50	0.6	2	1.34	<0.5	24	121	65
227552		0.24	0.034	0.007	0.3	2.00	18	<10	110	<0.5	<2	1.06	3.8	13	91	69
227553		0.26	0.033	0.027	0.6	2.03	12	<10	70	<0.5	2	0.86	23.3	11	98	271
227554		0.20	<0.005	0.001	<0.2	2.00	3	<10	680	<0.5	<2	2.55	<0.5	1	77	8
227555		0.26	<0.005	<0.001	<0.2	1.28	2	<10	750	0.5	<2	2.03	<0.5	1	55	2
227556		0.26	<0.005	0.001	<0.2	1.70	2	<10	460	<0.5	<2	2.40	<0.5	1	65	8
227557		0.26	<0.005	<0.001	<0.2	1.03	<2	<10	2560	<0.5	<2	1.85	<0.5	1	113	2
227558		0.26	<0.005	<0.001	<0.2	1.01	2	<10	920	<0.5	<2	1.67	<0.5	1	92	1
227559		0.26	<0.005	<0.001	<0.2	0.96	2	<10	1060	<0.5	<2	1.61	<0.5	1	91	1
227560		0.22	<0.005	<0.001	<0.2	1.46	4	<10	2380	0.5	<2	2.41	<0.5	2	98	52
227561		0.22	<0.005	<0.001	<0.2	1.46	<2	<10	1510	<0.5	<2	1.80	<0.5	1	71	1

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CERTIFICATE OF ANALYSIS VA06078571

Sample Description	Method	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Fe	Ga	Hg	K	La	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Sc
	Units	%	ppm	ppm	%	ppm	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm
	LOR	0.01	10	1	0.01	10	0.01	5	1	0.01	1	10	2	0.01	2	1
227549		5.47	10	<1	0.24	10	1.83	1090	1	0.10	10	1110	62	5.70	<2	9
227550		4.93	<10	<1	0.29	10	1.56	868	<1	0.13	9	1160	94	5.23	<2	6
227551		6.20	10	1	0.28	10	1.79	1025	1	0.08	11	1220	24	6.58	<2	6
227552		5.42	<10	<1	0.40	10	1.15	730	2	0.03	5	1000	19	5.85	<2	2
227553		5.10	<10	1	0.34	10	1.04	707	1	0.03	4	880	29	5.49	<2	2
227554		1.06	10	<1	0.30	10	0.39	884	<1	0.08	1	320	7	0.10	<2	1
227555		1.12	<10	<1	0.32	20	0.31	792	<1	0.06	1	350	6	0.06	<2	1
227556		1.09	<10	<1	0.37	20	0.29	887	<1	0.07	1	360	4	0.06	<2	1
227557		0.87	<10	<1	0.32	20	0.18	691	<1	0.07	1	230	13	0.11	<2	1
227558		0.85	<10	<1	0.32	20	0.17	596	<1	0.08	2	230	9	0.04	<2	1
227559		0.82	<10	<1	0.32	20	0.17	576	<1	0.07	1	250	4	0.04	<2	1
227560		1.23	<10	<1	0.39	20	0.26	781	1	0.10	2	310	11	0.20	<2	1
227561		0.80	<10	<1	0.31	20	0.18	554	<1	0.08	1	230	12	0.05	<2	1

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CERTIFICATE OF ANALYSIS VA06078571

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
227549		123	0.02	<10	<10	80	<10	183
227550		198	0.01	<10	<10	54	<10	162
227551		170	<0.01	<10	<10	60	<10	160
227552		17	0.01	<10	<10	23	<10	335
227553		25	<0.01	<10	<10	17	<10	1335
227554		91	<0.01	<10	<10	7	<10	55
227555		76	<0.01	<10	<10	6	<10	48
227556		97	0.01	<10	<10	7	<10	47
227557		135	<0.01	<10	<10	6	<10	35
227558		72	<0.01	<10	<10	7	<10	24
227559		72	<0.01	<10	<10	7	<10	21
227560		147	0.01	<10	<10	11	<10	38
227561		93	0.01	<10	<10	7	<10	24

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CERTIFICATE VA06078572

Project: 4013
P.O. No.:
This report is for 50 Pulp samples submitted to our lab in Vancouver, BC, Canada on 9-AUG-2006.
The following have access to data associated with this certificate:

CARL EDMUNDS R KONST	B. KAY RON KONST	BRIAN KAY

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-QC	QC Test on Received Samples
LOG-22	Sample login - Rcd w/o BarCode

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au-AA23	Au 30g FA-AA finish	AAS
Cu-AA49	Assay Cu - HBr Digestion	AAS
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
227471		0.28	0.087	0.007	1.1	2.03	5	<10	150	<0.5	2	1.01	8.8	3	93	70
227472		0.22	0.034	0.008	1.1	1.79	5	<10	190	0.5	<2	0.57	8.5	1	154	83
227473		0.22	0.071	0.010	2.1	1.75	5	<10	120	0.5	2	1.23	3.5	2	122	106
227474		0.24	0.039	0.009	1.5	1.76	5	<10	170	0.6	3	0.79	7.6	2	134	94
227475		0.30	0.024	0.008	1.1	1.65	4	<10	210	0.5	2	1.15	5.6	1	117	82
227476		0.28	0.030	0.009	1.5	1.45	5	<10	170	0.5	2	0.71	6.9	2	102	87
227477		0.28	0.035	0.009	1.2	1.90	8	<10	150	0.6	2	1.39	7.6	3	101	90
227478		0.30	0.105	0.020	1.3	3.17	9	<10	70	0.7	3	1.41	24.0	10	78	210
227479		0.20	0.110	0.030	2.0	3.34	12	<10	60	0.7	2	1.33	12.8	10	112	318
227480		0.28	<0.005	0.001	<0.2	5.05	7	<10	390	0.9	<2	4.43	<0.5	11	20	14
227481		0.30	0.015	0.005	0.9	2.89	35	<10	290	0.6	2	3.68	1.8	8	59	53
227482		0.26	0.029	0.005	1.3	1.35	8	<10	80	<0.5	2	3.20	2.4	5	93	52
227483		0.26	<0.005	0.005	<0.2	6.04	7	<10	710	0.8	<2	5.24	<0.5	31	44	50
227484		0.30	<0.005	0.005	<0.2	5.68	6	<10	310	0.7	2	4.35	<0.5	31	38	51
227485		0.30	0.036	0.006	1.0	1.70	16	<10	200	0.5	2	1.54	2.6	4	77	59
227486		0.26	0.058	0.007	0.9	1.54	15	<10	180	<0.5	<2	0.47	3.1	3	116	73
227487		0.26	0.063	0.008	1.2	1.83	7	<10	180	0.6	<2	1.19	4.7	3	115	75
227488		0.24	0.050	0.014	1.0	1.87	4	<10	150	0.6	<2	0.77	6.2	3	116	136
227489		0.28	0.081	0.012	1.2	2.18	10	<10	120	0.6	<2	0.79	9.4	7	125	133
227490		0.26	0.037	0.010	0.9	3.36	10	<10	110	0.5	<2	1.60	7.3	15	111	110
227491		0.28	0.045	0.011	1.0	3.18	8	<10	60	0.6	2	1.37	14.8	13	95	111
227492		0.30	0.026	0.011	0.8	1.77	4	<10	170	<0.5	<2	0.55	6.6	2	105	115
227493		0.24	0.015	0.007	0.8	1.80	3	<10	180	0.5	2	0.75	5.8	2	113	71
227494		0.26	0.019	0.006	0.8	1.87	5	<10	170	0.5	<2	0.88	6.8	5	125	59
227495		0.26	<0.005	0.002	<0.2	3.34	6	<10	80	0.6	<2	3.20	<0.5	6	48	17
227496		0.24	0.009	0.005	0.6	2.59	<2	<10	150	0.7	<2	1.11	8.9	3	175	75
227497		0.26	0.015	0.003	0.4	1.95	2	<10	100	0.5	<2	1.00	0.9	3	109	32
227498		0.24	0.028	0.006	0.5	2.23	9	<10	100	<0.5	<2	0.66	0.7	9	126	67
227499		0.26	0.029	0.009	0.7	1.93	8	<10	80	<0.5	<2	0.73	8.8	9	136	99
227500		0.26	0.023	0.003	0.4	2.04	4	<10	120	0.5	<2	0.73	1.1	6	125	31
227501		0.24	0.073	0.004	0.3	2.70	10	<10	60	0.5	<2	1.31	1.5	10	150	40
227502		0.24	0.117	0.021	0.8	5.69	10	<10	60	0.5	3	2.58	3.0	29	126	236
227503		0.28	0.080	0.023	0.8	6.07	11	<10	100	0.5	3	2.41	4.9	28	100	258
227504		0.30	0.060	0.018	0.7	5.31	8	<10	120	<0.5	<2	2.28	2.4	12	84	198
227505		0.28	0.105	0.019	0.8	4.84	8	<10	50	0.5	2	2.73	4.8	38	92	217
227506		0.28	0.089	0.020	0.6	4.65	11	<10	80	0.5	3	2.88	1.2	26	108	213
227507		0.26	0.071	0.022	0.5	5.55	7	<10	70	0.6	<2	2.80	0.7	19	105	246
227508		0.24	0.129	0.027	0.7	5.84	8	<10	40	0.5	2	2.45	<0.5	30	105	301
227509		0.26	0.203	0.037	1.1	4.85	10	<10	70	0.5	<2	2.36	0.7	25	113	423
227510		0.26	0.074	0.020	0.9	4.38	12	<10	60	<0.5	2	1.44	1.0	23	109	222

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Sample Description	Method	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Fe	Ga	Hg	K	La	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Sc
	Units	%	ppm	ppm	%	ppm	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm
	LOR	0.01	10	1	0.01	10	0.01	5	1	0.01	1	10	2	0.01	2	1
227471		1.86	10	1	0.35	<10	0.62	748	1	0.11	4	210	46	1.89	<2	1
227472		2.07	10	<1	0.49	<10	0.49	714	1	0.08	3	170	40	2.06	<2	<1
227473		3.10	10	<1	0.50	<10	0.43	762	1	0.06	2	150	47	3.42	<2	<1
227474		1.73	<10	<1	0.34	<10	0.60	1070	1	0.07	4	170	57	1.70	4	<1
227475		1.67	<10	<1	0.36	<10	0.40	660	4	0.05	3	150	42	1.60	<2	<1
227476		2.00	<10	<1	0.39	<10	0.23	294	1	0.04	2	150	80	2.01	<2	<1
227477		2.62	<10	<1	0.42	<10	0.33	557	3	0.05	3	240	65	2.70	<2	1
227478		5.15	10	<1	0.40	10	1.84	2250	1	0.10	3	820	29	5.14	<2	4
227479		5.46	10	1	0.43	10	2.02	2120	1	0.08	4	820	36	5.48	<2	4
227480		4.70	10	<1	0.29	10	2.02	1920	<1	0.07	2	1440	5	0.09	<2	12
227481		3.48	10	1	0.37	10	0.93	1095	1	0.07	2	760	30	1.52	<2	6
227482		3.17	<10	<1	0.47	<10	0.24	787	1	0.05	2	380	42	3.21	<2	1
227483		7.05	20	<1	0.09	10	3.83	3860	<1	0.27	17	800	5	0.22	2	28
227484		6.92	10	1	0.08	10	3.77	3480	<1	0.25	18	800	4	0.09	2	24
227485		2.70	<10	1	0.44	<10	0.36	492	2	0.06	2	190	34	2.39	<2	2
227486		2.40	<10	<1	0.42	<10	0.47	484	1	0.05	3	190	28	2.31	<2	<1
227487		2.42	<10	<1	0.36	<10	0.45	491	1	0.06	4	150	43	2.47	<2	<1
227488		2.33	<10	1	0.33	<10	0.57	586	1	0.08	5	190	30	2.35	<2	<1
227489		3.27	10	<1	0.33	<10	1.04	969	1	0.07	13	400	27	3.29	<2	1
227490		4.56	10	<1	0.26	10	2.02	2030	1	0.10	11	1160	53	4.05	<2	5
227491		4.45	10	1	0.33	10	1.84	1450	1	0.09	12	1030	29	4.18	<2	4
227492		2.02	<10	<1	0.37	<10	0.58	466	1	0.08	3	200	28	1.97	<2	<1
227493		1.50	<10	<1	0.35	<10	0.55	571	2	0.13	3	160	36	1.39	<2	<1
227494		2.21	10	1	0.40	<10	0.57	563	1	0.09	6	220	33	2.19	<2	1
227495		3.39	10	<1	0.17	10	0.66	520	3	0.14	1	1060	5	0.02	<2	5
227496		1.97	10	1	0.59	<10	0.78	634	1	0.11	5	270	39	1.81	<2	1
227497		2.28	10	<1	0.37	<10	0.60	448	1	0.07	6	170	18	2.22	<2	1
227498		4.52	10	<1	0.50	<10	1.14	870	1	0.05	12	310	23	4.69	<2	2
227499		3.99	<10	<1	0.46	<10	0.77	559	2	0.07	8	290	28	4.29	<2	1
227500		2.99	10	<1	0.45	<10	0.77	493	1	0.09	5	230	16	2.88	<2	1
227501		4.42	10	<1	0.37	<10	1.18	799	1	0.12	12	420	20	4.38	<2	3
227502		7.85	20	1	0.13	<10	3.23	2190	1	0.31	26	1080	16	6.16	<2	15
227503		7.32	10	1	0.10	<10	3.62	1790	1	0.38	23	1130	17	4.59	<2	16
227504		7.01	10	1	0.09	<10	3.42	1720	1	0.25	22	1030	16	2.38	2	13
227505		8.45	10	1	0.27	<10	2.80	1410	4	0.16	23	1100	47	7.03	<2	15
227506		7.25	10	1	0.25	<10	2.76	1090	1	0.10	23	1010	17	6.73	<2	14
227507		7.75	10	<1	0.29	10	3.54	1440	1	0.06	23	1080	11	5.03	<2	16
227508		8.40	10	<1	0.20	<10	3.60	1400	1	0.22	23	1100	13	7.39	<2	14
227509		8.65	10	<1	0.28	<10	2.73	1065	2	0.19	23	1150	15	8.18	<2	12
227510		6.91	10	1	0.28	<10	2.86	1595	1	0.19	20	1000	20	5.91	<2	9

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To: NORTHGATE MINERALS CORPORATION
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 7-SEP-2006
Account: PIL

Project: 4013

CERTIFICATE OF ANALYSIS VA06078572

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
227471		72	<0.01	<10	<10	8	<10	602
227472		79	<0.01	<10	<10	4	<10	635
227473		81	<0.01	<10	<10	3	<10	297
227474		161	<0.01	<10	<10	4	<10	706
227475		100	<0.01	<10	<10	3	<10	470
227476		47	<0.01	<10	<10	2	<10	558
227477		138	<0.01	<10	<10	6	<10	606
227478		134	<0.01	<10	<10	42	<10	1905
227479		147	<0.01	<10	<10	40	<10	1070
227480		177	0.01	<10	<10	104	<10	128
227481		118	<0.01	<10	<10	48	<10	192
227482		65	<0.01	<10	<10	12	<10	197
227483		288	0.41	<10	<10	316	<10	116
227484		300	0.46	<10	<10	313	<10	93
227485		48	0.02	<10	<10	22	<10	194
227486		29	<0.01	<10	<10	4	<10	264
227487		101	<0.01	<10	<10	3	<10	374
227488		61	<0.01	<10	<10	4	<10	488
227489		80	<0.01	<10	<10	11	<10	705
227490		140	<0.01	<10	<10	59	<10	664
227491		133	<0.01	<10	<10	41	<10	1125
227492		158	<0.01	<10	<10	4	<10	470
227493		188	<0.01	<10	<10	4	<10	435
227494		196	<0.01	<10	<10	9	<10	507
227495		166	0.17	<10	<10	118	<10	43
227496		76	<0.01	<10	<10	6	<10	655
227497		114	<0.01	<10	<10	6	<10	101
227498		32	0.01	<10	<10	21	<10	138
227499		60	<0.01	<10	<10	11	<10	670
227500		244	<0.01	<10	<10	9	<10	127
227501		425	0.01	<10	<10	35	<10	195
227502		291	0.21	<10	<10	213	<10	462
227503		451	0.23	<10	<10	218	<10	589
227504		598	0.25	<10	<10	218	<10	463
227505		435	0.03	<10	<10	152	<10	561
227506		257	0.01	<10	<10	134	<10	275
227507		209	0.01	<10	<10	162	<10	278
227508		361	0.06	<10	<10	167	<10	312
227509		169	0.02	<10	<10	137	<10	252
227510		305	0.10	<10	<10	136	<10	314

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CERTIFICATE OF ANALYSIS VA06078572

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
227511		0.24	0.046	0.024	1.5	4.54	26	<10	60	<0.5	4	1.72	12.3	29	75	275
227512		0.26	0.058	0.009	0.8	3.69	22	<10	150	<0.5	9	1.02	1.9	22	71	95
227513		0.22	0.092	0.021	0.8	4.08	11	<10	80	0.5	2	2.56	0.7	20	106	228
227514		0.30	0.100	0.023	0.7	3.55	9	<10	70	<0.5	3	1.95	3.0	18	112	246
227515		0.24	0.135	0.025	1.0	4.18	12	<10	100	0.7	3	2.73	1.6	18	124	265
227516		0.24	0.075	0.015	1.1	3.91	12	<10	150	0.5	4	2.55	2.8	16	100	162
227517		0.30	0.024	0.008	1.7	3.91	9	<10	60	0.6	4	2.37	9.0	14	97	188
227518		0.26	0.020	0.008	1.7	3.54	18	<10	70	0.6	4	2.20	13.6	15	78	85
227519		0.22	0.029	0.005	1.1	3.69	14	<10	150	0.6	<2	2.01	1.9	16	83	50
227520		0.06	0.805	0.001	0.6	0.30	4	10	30	<0.5	<2	0.17	<0.5	1	4	10

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CERTIFICATE OF ANALYSIS VA06078572

Sample Description	Method	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Fe	Ga	Hg	K	La	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Sc
	Units	%	ppm	ppm	%	ppm	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm
	LOR	0.01	10	1	0.01	10	0.01	5	1	0.01	1	10	2	0.01	2	1
227511		8.40	10	1	0.11	<10	3.04	2370	<1	0.17	14	980	30	6.24	<2	9
227512		8.02	10	<1	0.54	<10	2.06	1410	1	0.13	14	1090	25	6.83	<2	7
227513		7.61	10	<1	0.33	<10	2.30	1280	2	0.04	17	1190	14	6.43	3	9
227514		6.01	10	<1	0.26	<10	2.31	1270	1	0.06	19	770	20	5.04	<2	8
227515		5.94	10	<1	0.34	<10	2.35	1685	1	0.08	17	800	23	4.76	<2	8
227516		6.21	10	<1	0.43	<10	2.15	1790	1	0.13	15	1010	34	5.19	2	8
227517		6.57	10	<1	0.23	<10	2.09	2220	<1	0.08	10	1380	102	5.64	<2	8
227518		6.17	10	<1	0.30	10	1.96	2140	<1	0.08	8	1000	315	5.76	<2	6
227519		6.24	10	<1	0.47	10	2.00	2040	1	0.09	9	1220	85	5.71	<2	7
227520		2.89	<10	<1	0.05	<10	0.04	28	1	0.19	2	540	106	2.93	2	<1

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CERTIFICATE OF ANALYSIS VA06078572

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
227511		183	0.19	<10	<10	181	<10	882
227512		54	0.04	<10	10	116	<10	330
227513		72	0.01	<10	20	100	<10	263
227514		159	0.05	<10	10	90	<10	353
227515		168	0.06	<10	20	98	<10	338
227516		195	0.06	<10	20	97	<10	388
227517		148	0.12	<10	20	100	<10	745
227518		233	0.05	<10	20	70	<10	934
227519		92	0.03	<10	20	75	<10	340
227520		3	<0.01	<10	<10	1	<10	21

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Finalized Date: 7-SEP-2006
Account: PIL

CERTIFICATE VA06078573

Project: 4013
P.O. No.:
This report is for 50 Pulp samples submitted to our lab in Vancouver, BC, Canada on 9-AUG-2006.
The following have access to data associated with this certificate:

CARL EDMUNDS R KONST	B. KAY RON KONST	BRIAN KAY

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-QC	QC Test on Received Samples
LOG-22	Sample login - Rcd w/o BarCode

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au-AA23	Au 30g FA-AA finish	AAS
Cu-AA49	Assay Cu - HBr Digestion	AAS
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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CERTIFICATE OF ANALYSIS VA06078573

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
227446		0.34	0.077	0.024	5.6	2.46	50	<10	140	<0.5	2	1.21	7.4	31	129	249
227447		0.28	0.080	0.024	4.1	3.18	24	<10	120	0.5	4	2.11	5.4	29	133	251
227448		0.30	0.164	0.038	5.8	3.88	26	<10	100	0.6	7	1.91	30.0	32	141	413
227449		0.28	0.158	0.036	11.5	2.26	48	<10	120	0.5	8	2.73	30.6	40	122	394
227450		0.26	0.102	0.032	7.0	3.43	20	<10	80	0.8	5	4.55	33.8	29	122	353
227451		0.28	<0.005	0.002	2.1	2.15	4	<10	1440	<0.5	<2	2.89	<0.5	2	66	16
227452		0.22	<0.005	<0.001	<0.2	2.13	3	<10	180	0.5	<2	3.21	<0.5	1	58	2
227453		0.22	0.141	0.037	4.3	4.18	16	<10	70	0.7	7	4.75	11.8	24	152	388
227454		0.28	0.082	0.016	2.7	4.69	5	<10	50	0.6	8	3.02	15.1	19	161	158
227455		0.24	0.104	0.008	2.4	4.97	6	<10	50	0.5	5	1.88	14.7	30	161	80
227456		0.26	0.127	0.034	2.2	3.85	7	<10	60	<0.5	4	4.71	2.0	15	168	354
227457		0.26	0.143	0.040	3.1	4.20	9	<10	70	0.6	7	2.81	31.2	32	174	419
227458		0.26	0.155	0.027	3.0	4.66	15	<10	80	0.7	11	3.42	22.9	24	145	291
227459		0.28	0.099	0.013	1.2	4.81	12	<10	70	0.5	10	3.73	4.2	20	101	141
227460		0.22	0.049	0.013	2.4	2.82	22	<10	90	0.7	5	2.58	13.9	18	104	131
227461		0.24	0.054	0.020	0.6	3.97	6	<10	120	0.8	4	2.49	<0.5	19	97	203
227462		0.28	0.046	0.005	1.2	2.23	9	<10	120	0.7	2	1.97	18.5	6	124	44
227463		0.28	0.064	0.004	0.8	3.04	12	<10	110	0.6	3	1.55	1.8	7	118	42
227464		0.24	0.161	0.015	2.2	5.58	15	<10	30	0.6	11	3.11	2.9	16	124	146
227465		0.26	0.112	0.037	3.8	6.57	19	<10	70	0.7	12	3.60	23.7	13	108	376
227466		0.28	0.166	0.037	2.6	5.63	16	<10	40	0.5	14	4.03	14.0	18	103	377
227467		0.26	0.112	0.020	1.2	5.00	17	<10	40	0.5	8	2.40	3.1	18	108	202
227468		0.24	0.246	0.056	2.3	5.36	33	<10	40	0.6	9	2.75	20.4	27	155	600
227469		0.22	0.161	0.007	1.9	3.47	38	<10	120	0.5	6	1.10	15.9	25	167	72
227470		0.20	0.166	0.007	2.1	3.38	39	<10	130	<0.5	6	1.10	15.1	23	188	73
227521		0.26	0.025	0.008	0.6	3.49	20	<10	150	0.7	4	1.53	0.7	14	88	77
227522		0.30	0.041	0.010	1.1	3.13	14	<10	180	0.6	3	1.36	8.7	8	79	91
227523		0.24	0.059	0.014	2.0	2.57	22	<10	150	0.5	2	1.01	7.7	8	124	135
227524		0.22	0.085	0.013	2.3	2.94	11	<10	160	0.5	6	1.16	8.9	8	105	107
227525		0.26	0.062	0.008	1.4	3.14	12	<10	170	0.5	5	1.28	1.9	11	114	81
227526		0.24	0.077	0.012	1.2	2.72	12	<10	100	<0.5	5	1.29	3.9	9	142	115
227527		0.22	0.035	0.008	0.9	2.57	15	<10	140	<0.5	<2	1.17	11.8	6	127	91
227528		0.22	0.044	0.015	1.6	2.51	16	<10	110	<0.5	6	1.38	4.1	8	125	151
227529		0.24	0.053	0.020	1.9	2.47	14	<10	270	<0.5	7	0.88	5.8	9	158	199
227530		0.18	0.065	0.021	1.6	3.17	9	<10	190	0.5	5	1.35	6.7	9	164	216
227531		0.20	0.055	0.021	0.8	3.19	9	<10	180	0.5	3	1.23	1.3	8	144	205
227532		0.18	<0.005	0.003	<0.2	2.51	3	<10	660	0.6	<2	2.84	<0.5	2	115	26
227533		0.22	0.018	0.008	0.7	3.28	5	<10	90	0.5	5	2.67	<0.5	4	92	70
227534		0.22	0.064	0.014	1.1	3.00	19	<10	50	0.5	2	1.61	4.6	8	118	140
227535		0.24	0.048	0.154	2.1	2.62	13	<10	110	0.5	3	1.77	2.6	13	135	1690

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CERTIFICATE OF ANALYSIS VA06078573

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
227446		8.00	<10	<1	0.73	<10	0.55	443	3	0.02	39	980	97	8.47	4	9
227447		8.09	10	<1	0.58	<10	1.63	1320	2	0.02	34	960	63	8.21	<2	10
227448		9.38	10	<1	0.54	<10	2.89	2310	1	0.03	36	970	175	9.45	4	12
227449		9.71	<10	<1	0.65	<10	0.48	787	4	0.03	35	830	496	>10.0	5	8
227450		7.15	10	<1	0.57	<10	1.32	1835	1	0.04	48	1500	451	6.48	9	10
227451		1.36	10	<1	0.39	10	0.54	910	2	0.10	3	360	9	0.36	<2	1
227452		1.11	10	<1	0.41	10	0.48	923	1	0.08	1	330	4	0.06	<2	1
227453		7.77	10	<1	0.40	10	2.72	2920	5	0.04	33	750	125	6.69	5	17
227454		6.03	10	<1	0.19	<10	3.76	3650	1	0.22	36	1090	468	5.18	<2	13
227455		7.60	10	<1	0.28	<10	4.41	3830	<1	0.12	36	1030	139	6.86	<2	15
227456		6.17	10	<1	0.06	<10	3.06	3240	<1	0.25	39	800	28	6.14	<2	18
227457		6.67	10	<1	0.08	<10	3.22	3330	1	0.27	40	840	156	6.46	<2	16
227458		8.45	10	1	0.13	<10	2.73	2950	<1	0.33	32	1080	141	9.01	3	13
227459		8.21	10	<1	0.11	<10	2.33	3160	<1	0.33	28	1000	56	8.84	2	10
227460		5.53	10	<1	0.47	<10	0.82	1095	2	0.07	18	610	466	6.17	2	5
227461		5.54	10	<1	0.43	10	2.69	2670	1	0.16	16	790	24	5.31	<2	8
227462		3.17	10	<1	0.34	<10	0.85	1185	<1	0.06	8	300	92	3.45	<2	2
227463		6.03	10	<1	0.36	<10	1.39	1365	1	0.24	11	1250	50	6.63	<2	5
227464		9.86	10	<1	0.10	<10	2.57	1775	<1	0.29	22	820	90	>10.0	3	11
227465		6.91	10	<1	0.06	<10	2.85	2270	<1	0.72	22	920	228	7.63	<2	10
227466		9.06	10	<1	0.07	<10	1.27	1650	<1	0.27	24	910	95	>10.0	<2	5
227467		7.72	10	<1	0.08	<10	3.34	2250	1	0.26	22	980	37	8.05	<2	11
227468		11.10	10	<1	0.13	<10	3.36	2040	<1	0.22	31	970	50	>10.0	<2	13
227469		8.90	10	<1	0.53	<10	2.50	1730	2	0.15	26	860	120	9.80	2	7
227470		8.79	10	<1	0.53	<10	2.38	1670	2	0.16	24	830	115	9.59	<2	7
227521		5.92	10	<1	0.40	10	1.83	1975	1	0.11	7	1210	38	5.16	<2	6
227522		4.62	<10	<1	0.41	10	1.28	1955	1	0.15	6	950	81	4.32	<2	3
227523		5.30	10	<1	0.40	<10	1.17	2020	2	0.07	7	920	102	5.35	<2	2
227524		4.69	10	<1	0.36	<10	1.18	1815	1	0.16	6	800	129	4.60	<2	2
227525		5.40	10	<1	0.42	10	1.45	1820	1	0.12	5	980	108	5.04	<2	2
227526		6.05	<10	<1	0.37	10	1.42	1680	2	0.07	7	1000	134	6.23	<2	3
227527		4.99	10	<1	0.41	10	1.25	1610	1	0.08	6	970	69	4.98	<2	3
227528		5.61	<10	<1	0.44	10	1.12	1095	3	0.05	4	930	149	6.08	<2	2
227529		6.72	<10	<1	0.59	10	1.02	893	1	0.05	8	940	119	7.15	<2	3
227530		5.35	10	<1	0.45	10	1.43	1560	1	0.25	9	950	100	5.35	<2	4
227531		5.64	10	<1	0.47	10	1.56	1690	1	0.25	7	990	60	5.52	<2	5
227532		1.71	10	<1	0.36	10	0.45	1155	1	0.11	2	350	7	0.51	<2	1
227533		2.90	10	<1	0.25	10	0.66	1140	2	0.08	3	580	37	2.36	<2	2
227534		5.52	10	<1	0.37	10	1.54	1550	1	0.11	5	1020	85	5.63	<2	3
227535		7.71	10	<1	0.46	10	1.33	1325	<1	0.10	9	980	68	8.19	<2	3

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To: NORTHGATE MINERALS CORPORATION
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 7-SEP-2006
Account: PIL

Project: 4013

CERTIFICATE OF ANALYSIS VA06078573

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
227446		31	0.05	<10	10	80	<10	711
227447		41	0.05	<10	10	97	<10	641
227448		31	0.04	<10	10	125	<10	2440
227449		55	0.03	<10	10	71	<10	2580
227450		87	0.02	<10	30	104	<10	2520
227451		123	0.01	<10	20	10	<10	71
227452		136	<0.01	<10	20	7	<10	49
227453		103	0.02	<10	20	146	<10	1180
227454		166	0.11	<10	20	145	<10	1190
227455		115	0.09	<10	10	178	<10	1210
227456		364	0.29	<10	20	186	<10	309
227457		899	0.28	<10	10	183	<10	2390
227458		864	0.29	<10	10	175	<10	1835
227459		1010	0.25	<10	10	131	<10	482
227460		176	0.03	<10	20	49	<10	1185
227461		228	0.05	<10	20	98	<10	232
227462		155	0.01	<10	20	24	<10	1365
227463		621	0.04	<10	10	57	<10	215
227464		478	0.14	<10	10	151	<10	356
227465		578	0.17	<10	10	142	<10	1740
227466		442	0.19	<10	20	88	<10	1080
227467		518	0.21	<10	20	161	<10	423
227468		1650	0.17	<10	20	162	<10	1350
227469		837	0.05	<10	10	73	<10	1145
227470		856	0.04	<10	10	71	<10	1090
227521		177	0.01	<10	10	66	<10	272
227522		218	0.01	<10	10	31	<10	709
227523		205	0.03	<10	10	24	<10	682
227524		254	0.01	<10	10	30	<10	706
227525		411	0.01	<10	10	30	<10	315
227526		366	0.01	<10	10	31	<10	392
227527		115	0.01	<10	10	29	<10	879
227528		126	0.01	<10	10	24	<10	367
227529		221	0.01	<10	10	28	<10	426
227530		241	0.02	<10	10	54	<10	570
227531		168	0.02	<10	10	57	<10	232
227532		116	0.01	<10	20	9	<10	71
227533		97	0.05	<10	20	22	<10	113
227534		100	0.01	<10	10	41	<10	417
227535		174	0.01	<10	10	38	<10	286

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CERTIFICATE OF ANALYSIS VA06078573

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
227536		0.14	0.043	0.022	1.0	2.75	12	<10	210	0.5	6	1.29	1.3	8	151	220
227537		0.28	0.044	0.013	0.3	2.70	22	<10	230	<0.5	5	0.68	<0.5	10	159	130
227538		0.18	0.025	0.005	1.1	2.47	16	<10	100	0.6	3	3.65	1.3	7	120	53
227539		0.22	0.013	0.003	0.7	2.35	9	<10	180	0.5	<2	2.56	0.6	5	107	31
227540		0.26	<0.005	0.003	0.3	2.33	2	<10	330	0.6	2	2.68	0.5	3	84	25
227541		0.24	0.078	0.043	1.5	4.43	10	<10	110	0.7	5	2.53	2.6	9	146	463
227542		0.20	0.085	0.013	0.5	4.14	16	<10	120	0.7	4	2.18	<0.5	13	176	140
227543		0.24	0.087	0.015	0.8	4.46	15	<10	90	0.8	6	2.13	1.8	8	193	160
227544		0.20	0.097	0.036	0.8	4.13	15	<10	110	0.8	3	2.56	<0.5	8	178	393
227545		0.10	0.093	0.037	0.6	4.62	14	<10	120	0.9	2	2.67	0.5	8	301	383

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CERTIFICATE OF ANALYSIS VA06078573

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
227536		5.31	<10	<1	0.64	10	1.17	1110	1	0.07	4	980	30	5.48	<2	3
227537		6.29	10	<1	0.60	10	1.59	955	1	0.04	12	910	26	6.56	<2	3
227538		3.98	<10	<1	0.45	10	0.70	886	1	0.05	4	710	49	3.99	<2	2
227539		2.75	10	<1	0.53	10	0.42	740	1	0.09	3	560	31	2.40	<2	1
227540		1.75	10	<1	0.41	10	0.43	883	2	0.10	3	390	16	0.68	<2	1
227541		6.52	<10	<1	0.35	10	2.26	1430	1	0.26	14	1310	116	6.59	2	12
227542		6.84	10	<1	0.42	<10	2.30	1120	1	0.24	15	1310	42	6.88	<2	12
227543		6.60	10	<1	0.38	<10	2.25	1170	1	0.31	12	1160	37	6.31	<2	10
227544		5.90	10	<1	0.41	<10	2.22	1270	1	0.22	12	1170	32	5.53	<2	11
227545		5.65	10	<1	0.60	10	2.18	1275	1	0.26	13	1140	29	5.04	3	13

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CERTIFICATE OF ANALYSIS VA06078573

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
227536		88	0.01	<10	10	29	<10	213
227537		99	0.01	<10	10	30	<10	136
227538		85	<0.01	<10	20	15	<10	173
227539		155	0.01	<10	20	13	<10	95
227540		103	0.01	<10	20	10	<10	90
227541		622	0.09	<10	10	118	<10	324
227542		340	0.16	<10	20	114	<10	206
227543		280	0.16	<10	20	111	<10	282
227544		287	0.14	<10	10	106	<10	226
227545		293	0.15	<10	20	123	<10	223

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PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 6-SEP-2006
Account: PIL

CERTIFICATE VA06078574

Project: 4013
P.O. No.:
This report is for 25 Pulp samples submitted to our lab in Vancouver, BC, Canada on 9-AUG-2006.
The following have access to data associated with this certificate:

CARL EDMUNDS RON KONST	BRIAN KAY R KONST	B. KAY

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-QC	QC Test on Received Samples
LOG-22	Sample login - Rcd w/o BarCode

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au-AA23	Au 30g FA-AA finish	AAS
Cu-AA49	Assay Cu - HBr Digestion	AAS
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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CERTIFICATE OF ANALYSIS VA06078574

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
227396		0.32	<0.005	0.002	<0.2	3.74	5	<10	1520	0.5	<2	6.03	<0.5	10	39	15
227397		0.26	<0.005	0.001	<0.2	4.10	17	<10	310	0.6	<2	4.25	<0.5	12	28	14
227398		0.24	<0.005	0.005	0.4	3.80	17	<10	190	0.6	<2	5.65	1.4	14	44	50
227399		0.24	<0.005	0.001	<0.2	4.32	5	<10	490	0.5	<2	4.11	<0.5	11	25	15
227400		0.22	<0.005	0.005	0.7	3.76	14	<10	180	0.5	<2	4.49	1.8	13	71	55
227401		0.28	<0.005	0.019	3.8	3.58	12	<10	70	<0.5	6	3.41	23.2	34	102	201
227402		0.24	<0.005	0.011	1.2	3.51	8	<10	60	<0.5	<2	3.51	2.8	31	99	125
227403		0.30	0.005	0.025	1.3	3.46	9	<10	60	<0.5	4	3.71	2.8	29	99	277
227404		0.24	0.006	0.013	1.6	3.53	12	<10	60	<0.5	3	3.45	12.5	29	102	148
227405		0.28	0.013	0.019	4.2	3.51	23	<10	70	<0.5	6	4.88	23.4	27	105	203
227406		0.26	0.019	0.014	3.5	3.33	43	<10	90	<0.5	4	3.60	27.1	27	133	153
227407		0.28	0.020	0.012	4.0	3.06	18	<10	180	0.6	2	1.35	28.4	12	114	120
227408		0.24	0.092	0.024	8.1	2.35	21	<10	120	0.6	3	1.31	31.0	10	124	252
227409		0.22	0.129	0.072	11.7	2.14	17	<10	150	<0.5	4	1.90	5.4	9	151	801
227410		0.22	0.038	0.018	7.2	3.28	14	<10	100	0.5	7	3.04	123.5	16	174	196
227411		0.24	0.037	0.015	4.4	3.36	15	<10	160	<0.5	2	2.87	109.5	16	174	160
227412		0.26	<0.005	0.018	0.4	4.23	22	<10	90	<0.5	3	3.80	0.8	26	67	187
227413		0.28	<0.005	0.017	0.7	3.98	15	<10	180	<0.5	<2	5.06	<0.5	26	114	184
227414		0.30	0.011	0.021	1.7	4.02	15	<10	250	<0.5	<2	3.90	9.3	25	196	222
227415		0.28	<0.005	0.003	<0.2	3.86	8	<10	80	<0.5	<2	5.29	<0.5	28	182	32
227416		0.28	<0.005	0.008	<0.2	3.48	5	<10	40	<0.5	<2	3.84	<0.5	26	141	84
227417		0.30	<0.005	0.015	0.2	3.81	6	<10	80	<0.5	<2	3.66	<0.5	23	115	158
227418		0.32	0.039	0.013	1.9	3.12	19	<10	150	<0.5	<2	2.47	36.5	18	88	133
227419		0.26	0.056	0.011	2.5	5.42	34	<10	50	0.7	<2	4.49	15.1	21	85	125
227420		0.28	<0.005	0.001	<0.2	2.66	2	<10	140	0.6	<2	2.72	<0.5	6	74	12

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CERTIFICATE OF ANALYSIS VA06078574

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
227396		4.61	10	<1	0.37	10	1.30	1950	<1	0.14	3	1350	17	0.18	<2	9
227397		5.12	10	<1	0.33	10	1.87	1610	1	0.15	3	1470	9	0.17	<2	9
227398		5.12	10	<1	0.40	10	1.88	1780	1	0.09	9	1230	31	1.43	3	10
227399		5.18	10	<1	0.33	10	2.08	1585	<1	0.17	3	1470	9	0.15	<2	10
227400		5.38	10	<1	0.40	10	2.03	1705	2	0.15	10	1220	37	1.88	<2	10
227401		7.35	10	<1	0.27	<10	3.18	2090	<1	0.09	23	1040	1230	7.61	2	10
227402		6.90	10	<1	0.24	<10	3.42	2350	1	0.08	20	1010	83	7.65	<2	12
227403		6.91	10	<1	0.06	<10	3.51	2700	1	0.06	21	990	56	6.77	<2	10
227404		6.52	10	<1	0.08	<10	3.66	3130	<1	0.10	23	900	162	6.96	<2	12
227405		6.27	10	<1	0.14	<10	3.75	3440	<1	0.10	25	820	662	9.21	5	12
227406		6.75	10	<1	0.35	<10	3.08	2900	1	0.09	32	880	658	9.02	<2	10
227407		4.33	10	<1	0.55	10	1.82	2230	1	0.10	13	670	765	4.40	2	5
227408		4.25	<10	<1	0.50	10	1.20	1335	1	0.05	18	690	298	4.67	4	2
227409		5.53	<10	<1	0.66	<10	0.67	991	4	0.02	17	570	150	6.07	3	3
227410		5.01	10	<1	0.32	<10	2.15	3020	1	0.05	34	720	1490	5.10	<2	5
227411		4.97	10	<1	0.50	<10	2.33	2730	4	0.08	29	830	279	4.39	2	7
227412		5.60	10	<1	0.15	<10	3.57	2210	1	0.11	22	1110	16	1.92	<2	8
227413		5.96	10	<1	0.15	<10	3.40	1770	1	0.11	35	1350	19	1.27	4	9
227414		5.44	10	<1	0.25	<10	3.39	1745	1	0.10	58	1130	93	1.76	<2	10
227415		6.11	10	<1	0.24	<10	3.69	1305	1	0.16	79	1390	5	0.02	2	11
227416		5.05	10	<1	0.14	<10	3.17	1015	<1	0.13	52	1350	10	0.02	<2	8
227417		4.49	10	<1	0.10	<10	3.00	1070	1	0.09	38	1430	19	0.17	<2	7
227418		4.74	10	<1	0.44	<10	2.20	1855	1	0.08	22	920	368	3.59	<2	6
227419		5.45	10	<1	0.26	<10	2.81	2980	1	0.07	20	850	390	4.78	4	9
227420		3.58	10	<1	0.19	10	0.67	532	1	0.17	3	1060	4	0.02	<2	5

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KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 6-SEP-2006
Account: PIL

Project: 4013

CERTIFICATE OF ANALYSIS VA06078574

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
227396		474	0.02	<10	30	113	<10	131
227397		292	0.02	<10	20	126	<10	118
227398		500	0.02	<10	20	116	<10	182
227399		522	0.03	<10	30	130	<10	102
227400		687	0.02	<10	20	120	<10	210
227401		613	0.13	<10	20	144	<10	1410
227402		207	0.31	<10	20	172	<10	356
227403		170	0.41	<10	20	199	<10	350
227404		319	0.36	<10	20	187	<10	953
227405		388	0.31	<10	30	189	<10	1560
227406		256	0.13	<10	20	116	<10	1760
227407		515	0.08	<10	10	52	<10	1880
227408		208	0.05	<10	10	21	<10	2140
227409		38	0.04	<10	20	27	<10	457
227410		90	0.08	<10	20	59	<10	7600
227411		235	0.12	<10	20	68	<10	6270
227412		145	0.47	<10	20	151	<10	237
227413		169	0.43	<10	20	215	<10	159
227414		370	0.34	<10	30	164	<10	739
227415		160	0.42	<10	20	242	<10	89
227416		190	0.42	<10	20	191	<10	86
227417		224	0.39	<10	20	152	<10	135
227418		77	0.18	<10	20	94	<10	2300
227419		169	0.21	<10	20	109	<10	1065
227420		167	0.20	<10	20	122	<10	43

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Finalized Date: 16-SEP-2006
Account: PIL

CERTIFICATE VA06080158

Project: 4013
P.O. No.:
This report is for 52 Crushed Rock samples submitted to our lab in Vancouver, BC, Canada on 11-AUG-2006.

The following have access to data associated with this certificate:

CARL EDMUNDS RON KONST	BRIAN KAY R KONST	B. KAY

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
PUL-31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au-AA23	Au 30g FA-AA finish	AAS
Cu-AA49	Assay Cu - HBr Digestion	AAS
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 16-SEP-2006
Account: PIL

Project: 4013

CERTIFICATE OF ANALYSIS VA06080158

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Au-AA23 Au Check ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1
229877		0.22	<0.005		0.003	<0.2	2.05	14	10	80	0.5	<2	1.81	<0.5	7	7
229878		0.22	<0.005		0.001	<0.2	1.96	14	10	80	0.5	<2	1.97	<0.5	7	8
229879		0.28	<0.005		0.002	<0.2	1.83	14	10	80	0.6	<2	1.70	<0.5	6	7
229880		0.26	<0.005		0.001	<0.2	1.78	15	10	90	0.6	<2	1.56	<0.5	6	7
229881		0.30	<0.005		0.002	<0.2	1.79	14	10	70	0.6	<2	1.64	<0.5	7	6
229882		0.24	<0.005		0.002	<0.2	2.13	18	10	70	0.6	<2	1.96	<0.5	7	7
229883		0.26	<0.005		0.002	<0.2	2.05	16	10	70	0.5	<2	1.83	<0.5	6	6
229884		0.26	<0.005		0.002	<0.2	1.92	18	10	80	0.6	<2	1.61	<0.5	7	7
229885		0.26	<0.005		0.002	<0.2	1.86	18	10	80	0.6	<2	1.58	<0.5	7	6
229886		0.26	<0.005		0.002	<0.2	1.73	16	10	90	0.5	<2	1.35	<0.5	7	10
229887		0.24	<0.005		0.002	<0.2	1.86	17	10	90	0.6	<2	1.59	<0.5	6	9
229888		0.24	<0.005		0.002	<0.2	1.98	18	20	90	0.6	<2	1.68	<0.5	6	8
229889		0.28	<0.005		0.001	<0.2	2.01	22	20	80	0.6	<2	1.78	<0.5	7	8
229890		0.20	<0.005		0.002	<0.2	2.10	16	10	80	<0.5	<2	3.04	<0.5	7	8
229891		0.26	<0.005		0.002	<0.2	1.93	19	10	70	<0.5	<2	2.12	<0.5	7	7
229892		0.26	<0.005		0.002	<0.2	2.20	18	10	70	<0.5	<2	2.39	<0.5	7	7
229893		0.28	<0.005		0.001	<0.2	1.87	19	10	70	<0.5	<2	2.00	<0.5	7	6
229894		0.28	<0.005		0.001	<0.2	1.91	19	20	70	0.5	<2	1.64	<0.5	7	8
229895		0.28	<0.005		0.004	<0.2	1.97	19	10	70	<0.5	<2	1.77	<0.5	8	7
229896		0.28	<0.005		0.001	<0.2	1.83	20	10	80	<0.5	<2	1.65	<0.5	8	8
229897		0.26	<0.005		0.001	<0.2	2.20	15	10	70	0.5	<2	2.17	<0.5	8	6
229898		0.22	<0.005		0.002	<0.2	2.51	18	20	80	0.6	<2	2.97	<0.5	7	7
229899		0.30	<0.005		0.002	<0.2	2.13	19	20	70	0.6	<2	1.91	<0.5	7	7
229900		0.24	<0.005		0.002	<0.2	2.13	21	30	80	0.5	<2	2.03	<0.5	7	8
229901		0.24	<0.005		0.003	<0.2	2.00	24	30	80	0.5	<2	1.67	<0.5	8	8
229902		0.26	<0.005		0.002	<0.2	2.36	<2	<10	100	0.5	<2	2.42	<0.5	6	5
229903		0.22	<0.005		0.002	<0.2	1.90	22	20	90	<0.5	<2	1.78	<0.5	7	8
229904		0.32	<0.005		0.002	<0.2	1.68	18	20	80	<0.5	<2	1.62	<0.5	7	8
229905		0.26	<0.005		0.002	<0.2	1.76	21	20	80	<0.5	<2	1.65	<0.5	7	8
229906		0.24	<0.005		0.002	<0.2	1.74	19	10	80	<0.5	<2	1.62	<0.5	7	8
229907		0.22	<0.005		0.002	<0.2	1.90	18	10	80	<0.5	<2	2.00	<0.5	7	7
229908		0.28	<0.005		0.002	<0.2	1.98	20	20	80	0.5	<2	1.77	<0.5	7	7
229909		0.24	<0.005		0.002	<0.2	2.41	23	30	130	0.6	<2	1.75	<0.5	8	8
229910		0.26	<0.005		0.002	<0.2	2.12	21	10	170	<0.5	<2	1.65	<0.5	8	10
229911		0.24	<0.005		0.003	0.3	2.34	21	20	80	0.5	<2	2.03	<0.5	9	8
229912		0.22	<0.005		0.003	1.4	2.70	24	10	80	0.5	<2	2.54	0.9	8	7
229913		0.24	<0.005		0.003	0.2	2.39	25	10	80	0.5	<2	2.15	<0.5	8	7
229914		0.30	<0.005		0.001	<0.2	2.05	23	10	130	<0.5	<2	1.84	<0.5	8	7
229915		0.26	<0.005		0.003	1.9	2.31	25	10	90	<0.5	<2	1.88	<0.5	7	7
229916		0.28	<0.005		0.001	<0.2	2.11	23	10	120	<0.5	<2	1.86	<0.5	7	7

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KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 16-SEP-2006
Account: PIL

Project: 4013

CERTIFICATE OF ANALYSIS VA06080158

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Cu ppm 1	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2
229877		23	3.21	10	<1	0.16	10	1.05	741	<1	0.09	2	920	4	<0.01	<2
229878		7	3.34	10	<1	0.22	10	1.07	790	<1	0.09	3	890	3	<0.01	<2
229879		11	3.13	10	<1	0.14	10	0.95	683	<1	0.10	3	900	4	<0.01	<2
229880		14	2.99	10	<1	0.18	10	0.93	651	<1	0.11	3	890	2	<0.01	<2
229881		17	3.07	10	<1	0.15	10	1.01	704	<1	0.09	1	910	3	<0.01	<2
229882		15	3.23	10	<1	0.14	10	1.11	759	<1	0.09	2	880	4	0.01	<2
229883		15	3.07	10	<1	0.15	10	1.00	684	<1	0.09	2	890	2	<0.01	<2
229884		18	3.26	10	<1	0.15	10	1.04	738	<1	0.10	3	930	4	<0.01	<2
229885		19	3.23	10	<1	0.15	10	1.08	761	<1	0.09	2	910	3	<0.01	<2
229886		18	3.27	10	<1	0.17	10	1.05	731	<1	0.11	4	910	6	<0.01	<2
229887		14	3.09	10	<1	0.17	10	0.93	655	<1	0.11	2	920	7	<0.01	<2
229888		18	3.18	10	<1	0.17	10	0.94	674	<1	0.11	2	930	6	<0.01	2
229889		7	3.15	10	<1	0.16	10	0.98	693	<1	0.09	2	930	4	<0.01	<2
229890		16	3.29	10	<1	0.22	10	1.10	878	<1	0.09	2	870	7	<0.01	<2
229891		22	3.27	10	<1	0.14	10	1.15	853	<1	0.08	2	880	12	<0.01	<2
229892		15	3.20	10	<1	0.13	10	1.08	733	<1	0.07	2	860	5	<0.01	<2
229893		12	3.27	10	<1	0.13	10	1.10	734	<1	0.08	2	910	3	<0.01	<2
229894		13	3.41	10	<1	0.14	10	1.30	831	<1	0.09	3	910	4	<0.01	<2
229895		35	3.36	10	<1	0.12	10	1.25	809	1	0.08	2	910	3	0.01	<2
229896		13	3.50	10	<1	0.14	10	1.25	830	1	0.09	2	910	4	<0.01	<2
229897		13	3.37	10	<1	0.15	10	1.26	858	<1	0.08	2	920	5	<0.01	<2
229898		19	3.26	10	<1	0.23	10	1.17	818	<1	0.08	1	900	4	<0.01	<2
229899		16	3.37	10	<1	0.13	10	1.18	763	<1	0.07	2	930	4	<0.01	<2
229900		21	3.32	10	<1	0.16	10	1.13	714	<1	0.10	3	940	2	<0.01	<2
229901		32	3.26	10	<1	0.14	10	1.17	735	1	0.10	3	970	6	0.01	<2
229902		16	3.32	10	<1	0.16	10	0.68	500	1	0.15	1	990	4	<0.01	<2
229903		19	3.29	10	<1	0.17	10	1.18	752	<1	0.10	2	920	3	<0.01	<2
229904		18	3.38	10	<1	0.14	10	1.12	676	<1	0.08	3	930	2	<0.01	<2
229905		17	3.30	10	<1	0.15	10	1.13	703	<1	0.09	2	920	3	<0.01	<2
229906		17	3.33	10	<1	0.16	10	1.12	706	1	0.09	2	940	3	<0.01	<2
229907		19	3.16	10	<1	0.16	10	1.02	657	1	0.09	2	870	4	<0.01	<2
229908		18	3.26	10	<1	0.14	10	1.14	721	1	0.08	2	900	4	<0.01	<2
229909		24	3.30	10	<1	0.23	10	1.24	817	1	0.17	2	970	7	<0.01	<2
229910		19	3.48	10	1	0.29	10	1.18	780	1	0.21	3	940	4	<0.01	<2
229911		35	3.47	10	<1	0.16	10	1.19	788	2	0.09	2	940	9	0.03	<2
229912		26	3.43	10	1	0.14	10	1.17	789	2	0.08	2	950	19	<0.01	<2
229913		25	3.37	10	<1	0.16	10	1.19	779	1	0.09	2	950	7	<0.01	<2
229914		11	3.20	10	1	0.23	10	1.17	743	1	0.17	2	930	4	<0.01	<2
229915		31	3.14	10	<1	0.20	10	1.10	738	<1	0.09	3	880	22	<0.01	<2
229916		6	3.02	10	<1	0.21	10	1.07	696	<1	0.16	2	870	4	<0.01	2

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KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 16-SEP-2006
Account: PIL

Project: 4013

CERTIFICATE OF ANALYSIS VA06080158

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
229877		6	99	0.18	<10	<10	72	<10	72
229878		6	85	0.16	<10	<10	70	<10	78
229879		6	78	0.18	<10	<10	70	<10	71
229880		5	75	0.18	<10	<10	68	<10	67
229881		6	85	0.19	<10	<10	70	<10	78
229882		6	110	0.20	<10	<10	70	<10	91
229883		6	105	0.18	<10	<10	64	<10	73
229884		6	90	0.20	<10	<10	70	<10	78
229885		6	90	0.19	<10	<10	73	<10	77
229886		6	77	0.19	<10	<10	72	<10	77
229887		6	78	0.18	<10	<10	69	<10	75
229888		6	86	0.20	<10	<10	71	<10	75
229889		6	108	0.20	<10	<10	68	<10	79
229890		6	122	0.20	<10	<10	75	<10	85
229891		6	108	0.19	<10	<10	74	<10	87
229892		6	143	0.19	<10	<10	72	<10	81
229893		6	114	0.19	<10	<10	74	<10	77
229894		7	107	0.21	<10	<10	78	<10	82
229895		7	118	0.20	<10	<10	78	<10	81
229896		7	97	0.20	<10	<10	76	<10	83
229897		7	137	0.20	<10	<10	78	<10	83
229898		6	144	0.20	<10	<10	71	<10	86
229899		7	135	0.20	<10	<10	73	<10	80
229900		7	113	0.20	<10	<10	74	<10	80
229901		6	127	0.20	<10	<10	71	<10	83
229902		5	134	0.17	<10	<10	113	<10	40
229903		7	102	0.20	<10	<10	75	<10	81
229904		7	80	0.20	<10	<10	73	<10	76
229905		7	91	0.20	<10	<10	74	<10	80
229906		7	88	0.20	<10	<10	74	<10	81
229907		7	122	0.20	<10	<10	70	<10	74
229908		7	126	0.20	<10	<10	70	<10	80
229909		7	158	0.22	<10	<10	73	<10	88
229910		8	99	0.22	<10	<10	79	<10	85
229911		8	133	0.21	<10	<10	79	<10	88
229912		8	187	0.21	<10	<10	77	<10	86
229913		7	176	0.21	<10	<10	75	<10	88
229914		6	129	0.21	<10	<10	68	<10	86
229915		7	169	0.21	<10	<10	71	<10	85
229916		7	174	0.21	<10	<10	70	<10	80

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CERTIFICATE OF ANALYSIS VA06080158

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Au-AA23 Au Check ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1
229917		0.22	<0.005		0.001	<0.2	2.15	24	10	130	<0.5	<2	1.98	<0.5	8	8
229918		0.28	<0.005		0.001	<0.2	2.42	28	20	70	0.5	<2	1.97	<0.5	8	8
229919		0.28	<0.005	<0.005	<0.001	<0.2	2.11	24	30	140	<0.5	<2	1.78	<0.5	7	8
229920		0.28	0.007	<0.005	0.001	<0.2	2.24	29	30	120	0.5	<2	2.11	<0.5	8	8
229921		0.26	<0.005	<0.005	0.001	<0.2	2.34	31	20	100	<0.5	<2	2.11	<0.5	8	9
229922		0.24	<0.005		0.002	<0.2	2.35	30	10	100	<0.5	<2	2.00	<0.5	8	10
229923		0.28	<0.005		0.001	<0.2	2.35	26	20	100	<0.5	<2	1.77	<0.5	9	10
229924		0.28	<0.005		0.003	<0.2	2.43	27	20	150	<0.5	<2	1.35	<0.5	8	10
229925		0.24	<0.005		0.014	0.4	2.39	24	20	140	<0.5	<2	1.37	<0.5	9	9
229926		0.26	<0.005		0.005	0.2	2.40	25	20	130	<0.5	2	1.35	<0.5	9	9
229927		0.26	<0.005		0.001	<0.2	2.49	31	20	130	<0.5	<2	1.50	<0.5	8	11
229928		0.06	0.769		0.001	0.6	0.25	5	10	30	<0.5	<2	0.17	<0.5	1	4

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To: NORTHGATE MINERALS CORPORATION
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 16-SEP-2006
Account: PIL

Project: 4013

CERTIFICATE OF ANALYSIS VA06080158

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Cu ppm 1	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2
229917		6	3.36	10	<1	0.24	10	1.17	761	<1	0.16	2	930	3	<0.01	<2
229918		9	3.23	10	<1	0.15	10	1.18	699	<1	0.06	3	920	4	<0.01	<2
229919		2	3.23	10	<1	0.26	10	1.12	655	<1	0.19	2	900	3	<0.01	<2
229920		4	3.43	10	<1	0.22	10	1.20	702	<1	0.14	2	970	4	<0.01	<2
229921		8	3.49	10	<1	0.19	10	1.24	674	<1	0.12	2	990	3	<0.01	<2
229922		15	3.52	10	<1	0.21	10	1.30	671	1	0.12	3	1010	3	<0.01	<2
229923		5	3.15	10	<1	0.21	10	1.28	644	<1	0.14	4	980	2	<0.01	<2
229924		30	3.04	10	<1	0.23	10	1.32	612	1	0.21	3	1010	<2	<0.01	2
229925		136	3.02	10	<1	0.22	10	1.24	571	1	0.20	3	970	4	<0.01	<2
229926		47	3.05	10	<1	0.20	10	1.32	578	1	0.19	3	980	2	<0.01	<2
229927		11	3.00	10	<1	0.21	10	1.28	570	<1	0.18	2	980	3	<0.01	<2
229928		11	2.87	<10	<1	0.04	<10	0.04	30	1	0.14	2	570	104	2.81	<2

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Finalized Date: 16-SEP-2006
Account: PIL

Project: 4013

CERTIFICATE OF ANALYSIS VA06080158

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
229917		7	120	0.21	<10	<10	73	<10	86
229918		6	207	0.21	<10	<10	71	<10	84
229919		6	131	0.21	<10	<10	74	<10	74
229920		7	190	0.23	<10	<10	78	<10	80
229921		6	199	0.22	<10	<10	80	<10	85
229922		5	136	0.22	<10	<10	77	<10	93
229923		4	130	0.22	<10	<10	65	<10	87
229924		4	118	0.22	<10	<10	57	<10	88
229925		4	136	0.22	<10	<10	58	<10	82
229926		3	118	0.22	<10	<10	59	<10	86
229927		4	156	0.22	<10	<10	60	<10	84
229928		<1	5	<0.01	<10	<10	1	<10	21

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To: NORTHGATE MINERALS CORPORATION
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 11-SEP-2006
Account: PIL

CERTIFICATE VA06080454

Project: 4013
P.O. No.:
This report is for 26 Crushed Rock samples submitted to our lab in Vancouver, BC, Canada on 11-AUG-2006.

The following have access to data associated with this certificate:

CARL EDMUNDS R KONST	B. KAY RON KONST	BRIAN KAY

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
PUL-QC	Pulverizing QC Test
LOG-22	Sample login - Rcd w/o BarCode
PUL-31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au-AA23	Au 30g FA-AA finish	AAS
Cu-AA49	Assay Cu - HBr Digestion	AAS
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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Finalized Date: 11-SEP-2006
Account: PIL

Project: 4013

CERTIFICATE OF ANALYSIS VA06080454

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
229929		0.20	<0.005	0.005	0.2	2.35	24	20	60	<0.5	<2	1.53	0.5	7	9	47
229930		0.28	<0.005	0.003	<0.2	2.36	24	20	70	<0.5	<2	1.53	<0.5	8	12	26
229931		0.22	<0.005	0.007	0.7	2.35	24	20	80	<0.5	<2	1.34	<0.5	7	10	72
229932		0.22	<0.005	0.005	0.2	2.22	27	20	90	<0.5	<2	1.22	<0.5	8	11	47
229933		0.26	<0.005	0.002	2.7	2.06	25	20	70	<0.5	<2	1.36	<0.5	7	11	19
229934		0.26	<0.005	0.003	0.8	2.46	20	10	60	0.6	<2	1.79	<0.5	10	10	31
229935		0.24	<0.005	0.001	0.2	2.36	21	10	60	<0.5	<2	2.01	<0.5	7	9	6
229936		0.24	<0.005	0.001	<0.2	2.23	23	10	70	<0.5	<2	2.26	<0.5	8	10	3
229937		0.26	<0.005	0.001	<0.2	2.16	25	10	70	<0.5	<2	1.90	<0.5	8	11	4
229938		0.26	<0.005	0.001	<0.2	2.11	26	20	80	<0.5	<2	1.93	<0.5	8	11	11
229939		0.26	<0.005	0.002	<0.2	2.04	26	10	90	<0.5	<2	1.71	<0.5	8	11	15
229940		0.26	<0.005	0.004	<0.2	2.37	26	10	70	<0.5	<2	2.17	<0.5	8	9	37
229941		0.24	<0.005	0.001	<0.2	2.20	22	10	80	0.5	<2	2.06	<0.5	8	8	8
229942		0.24	<0.005	0.002	0.3	1.96	23	10	100	<0.5	<2	1.67	<0.5	7	10	12
229943		0.24	<0.005	0.003	0.2	1.96	25	10	90	<0.5	<2	1.65	0.8	7	8	25
229944		0.28	<0.005	0.005	0.4	2.28	23	10	80	0.5	<2	2.04	<0.5	7	10	45
229945		0.26	<0.005	0.003	0.4	2.16	24	10	80	<0.5	<2	2.10	0.6	9	9	23
229946		0.28	<0.005	0.003	<0.2	2.14	27	10	70	<0.5	<2	2.03	0.6	8	10	27
229947		0.30	<0.005	0.003	0.4	2.05	28	10	70	<0.5	<2	2.24	<0.5	7	9	26
229948		0.22	<0.005	0.002	0.2	2.12	30	20	90	<0.5	<2	1.79	<0.5	8	11	15
229949		0.28	<0.005	0.001	<0.2	2.20	24	10	80	0.5	<2	2.04	<0.5	8	10	2
229950		0.32	<0.005	0.002	0.2	2.25	23	10	70	0.5	<2	1.59	<0.5	8	11	19
229951		0.26	<0.005	0.001	<0.2	2.26	21	10	80	<0.5	<2	1.82	<0.5	9	11	10
229952		0.28	<0.005	<0.001	<0.2	2.29	22	10	90	0.5	<2	2.30	<0.5	8	10	2
229953		0.28	<0.005	0.002	<0.2	2.23	29	10	90	<0.5	<2	2.07	<0.5	9	9	23
229954		0.30	<0.005	0.002	0.2	2.19	31	10	90	<0.5	<2	2.05	<0.5	9	10	25

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To: NORTHGATE MINERALS CORPORATION
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 11-SEP-2006
Account: PIL

Project: 4013

CERTIFICATE OF ANALYSIS VA06080454

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
229929		2.78	10	<1	0.15	10	1.17	525	<1	0.10	2	850	6	<0.01	<2	3
229930		3.13	10	1	0.19	10	1.29	587	1	0.10	3	920	4	<0.01	<2	4
229931		3.04	10	1	0.19	10	1.26	569	2	0.12	3	940	7	0.01	<2	4
229932		2.93	10	1	0.18	10	1.22	507	<1	0.12	3	880	3	<0.01	2	4
229933		2.94	10	1	0.15	10	1.20	529	2	0.10	3	870	2	<0.01	<2	3
229934		2.97	10	<1	0.19	10	1.15	650	1	0.07	3	910	7	0.08	2	4
229935		2.81	10	<1	0.15	10	1.14	606	1	0.07	4	910	3	<0.01	<2	3
229936		2.96	10	<1	0.16	10	1.15	605	1	0.08	4	910	3	<0.01	<2	4
229937		3.14	10	<1	0.13	10	1.16	620	1	0.08	5	930	2	<0.01	2	4
229938		3.28	10	<1	0.16	10	1.18	655	1	0.10	3	950	4	<0.01	2	4
229939		3.29	10	<1	0.17	10	1.18	689	1	0.10	3	940	2	<0.01	3	4
229940		3.16	10	<1	0.15	10	1.16	718	2	0.07	3	930	4	<0.01	2	4
229941		3.28	10	<1	0.28	10	1.11	732	<1	0.08	2	940	7	<0.01	<2	5
229942		3.04	10	<1	0.19	10	1.06	657	1	0.10	3	870	6	<0.01	<2	5
229943		2.96	10	<1	0.17	10	0.99	634	1	0.09	3	890	7	0.01	<2	5
229944		3.18	10	<1	0.17	10	1.11	724	1	0.08	3	900	9	0.02	<2	5
229945		3.09	10	<1	0.16	10	1.10	741	1	0.07	3	910	7	0.04	<2	5
229946		3.17	10	<1	0.14	10	1.12	717	2	0.08	3	920	4	<0.01	<2	5
229947		3.08	10	<1	0.14	10	1.12	733	2	0.07	3	910	3	<0.01	2	4
229948		3.21	10	<1	0.17	10	1.19	737	1	0.12	3	950	4	<0.01	<2	4
229949		3.20	10	<1	0.27	10	1.22	808	<1	0.09	4	960	5	0.01	<2	4
229950		3.17	10	<1	0.23	10	1.21	837	1	0.08	3	960	5	0.01	2	4
229951		3.06	10	<1	0.19	10	1.23	834	3	0.10	4	950	3	<0.01	<2	4
229952		3.09	10	<1	0.31	10	1.15	826	<1	0.08	4	950	3	<0.01	<2	4
229953		3.18	10	<1	0.27	10	1.21	872	3	0.09	4	960	3	<0.01	<2	4
229954		3.16	10	<1	0.26	10	1.20	868	4	0.09	4	960	3	<0.01	<2	4

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KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 11-SEP-2006
Account: PIL

Project: 4013

CERTIFICATE OF ANALYSIS VA06080454

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
229929		180	0.20	<10	<10	51	<10	78
229930		160	0.22	<10	<10	58	<10	90
229931		175	0.22	<10	<10	56	<10	85
229932		132	0.23	<10	<10	60	<10	85
229933		127	0.21	<10	<10	57	10	80
229934		250	0.20	<10	<10	56	<10	83
229935		197	0.19	<10	<10	54	<10	83
229936		178	0.19	<10	<10	62	<10	83
229937		155	0.19	<10	<10	65	<10	85
229938		148	0.21	<10	<10	69	<10	90
229939		128	0.20	<10	<10	66	<10	90
229940		196	0.20	<10	<10	65	<10	92
229941		134	0.19	<10	<10	66	<10	95
229942		133	0.20	<10	<10	66	<10	85
229943		158	0.20	<10	<10	65	<10	83
229944		179	0.21	<10	<10	69	<10	98
229945		166	0.20	<10	<10	69	<10	95
229946		184	0.21	<10	<10	73	<10	94
229947		197	0.21	<10	<10	68	<10	93
229948		152	0.21	<10	<10	69	<10	98
229949		144	0.20	<10	<10	63	<10	96
229950		164	0.21	<10	<10	62	<10	100
229951		160	0.20	<10	<10	57	<10	98
229952		150	0.18	<10	10	52	<10	94
229953		135	0.19	<10	<10	54	<10	97
229954		130	0.18	<10	<10	53	<10	97

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Finalized Date: 11-SEP-2006
Account: PIL

CERTIFICATE VA06080455

Project: 4013
P.O. No.:
This report is for 26 Crushed Rock samples submitted to our lab in Vancouver, BC, Canada on 11-AUG-2006.

The following have access to data associated with this certificate:

CARL EDMUNDS R KONST	B. KAY RON KONST	BRIAN KAY

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
PUL-31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au-AA23	Au 30g FA-AA finish	AAS
Cu-AA49	Assay Cu - HBr Digestion	AAS
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
KEMESS MINE
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This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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Finalized Date: 11-SEP-2006
Account: PIL

Project: 4013

CERTIFICATE OF ANALYSIS VA06080455

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
229851		0.20	<0.005	0.001	<0.2	2.33	15	10	100	0.7	<2	1.49	<0.5	7	7	10
229852		0.28	<0.005	0.003	<0.2	2.32	19	20	70	0.8	<2	2.07	<0.5	8	7	34
229853		0.26	<0.005	0.003	<0.2	2.32	20	10	80	0.8	<2	2.08	<0.5	8	8	25
229854		0.24	<0.005	0.002	<0.2	2.24	18	10	80	0.8	<2	1.99	<0.5	7	6	18
229855		0.30	<0.005	0.002	<0.2	1.91	18	10	100	0.7	<2	1.71	<0.5	8	8	13
229856		0.26	<0.005	0.002	<0.2	1.96	18	10	90	0.5	<2	1.82	<0.5	7	7	19
229857		0.24	<0.005	0.001	<0.2	2.07	17	10	110	0.7	<2	1.67	<0.5	7	7	8
229858		0.28	<0.005	0.001	<0.2	1.95	18	10	130	0.7	<2	1.61	<0.5	7	7	10
229859		0.24	<0.005	0.002	<0.2	2.06	19	10	120	0.7	<2	1.76	<0.5	7	7	20
229860		0.20	<0.005	0.001	<0.2	2.03	18	10	130	0.7	<2	1.69	<0.5	7	6	8
229861		0.28	<0.005	0.001	<0.2	2.03	17	10	100	0.7	<2	1.66	<0.5	7	7	8
229862		0.26	<0.005	0.001	<0.2	1.85	20	10	120	0.6	<2	1.47	<0.5	7	7	8
229863		0.24	<0.005	0.001	<0.2	2.05	17	10	100	0.7	<2	1.83	<0.5	6	7	10
229864		0.28	<0.005	<0.001	<0.2	2.09	15	10	70	0.7	<2	2.11	<0.5	7	6	3
229865		0.22	<0.005	0.001	<0.2	2.07	20	10	110	0.6	<2	1.80	<0.5	7	7	7
229866		0.26	<0.005	0.002	<0.2	2.37	17	10	80	0.9	<2	2.48	<0.5	7	6	17
229867		0.26	<0.005	0.001	<0.2	2.18	19	10	90	0.7	<2	1.96	<0.5	7	9	6
229868		0.26	<0.005	0.001	<0.2	2.32	20	10	70	0.8	<2	2.34	<0.5	8	7	18
229869		0.24	<0.005	0.001	<0.2	2.46	20	10	80	0.7	<2	2.21	<0.5	7	7	10
229870		0.26	<0.005	0.001	<0.2	2.24	19	10	80	0.7	<2	2.12	<0.5	7	7	14
229871		0.26	0.005	0.004	<0.2	2.00	20	20	90	0.6	<2	1.85	<0.5	7	7	23
229872		0.30	<0.005	0.002	<0.2	2.38	19	10	80	0.7	<2	2.02	<0.5	8	9	35
229873		0.24	<0.005	0.001	<0.2	2.47	18	10	90	0.6	<2	2.43	<0.5	7	7	11
229874		0.30	<0.005	0.001	<0.2	1.86	17	20	130	0.6	<2	1.53	<0.5	7	7	11
229875		0.26	<0.005	0.001	<0.2	2.06	18	10	110	0.6	<2	2.10	<0.5	6	8	14
229876		0.26	<0.005	0.001	<0.2	2.12	18	20	120	0.6	<2	2.16	<0.5	6	7	14

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To: NORTHGATE MINERALS CORPORATION
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 11-SEP-2006
Account: PIL

Project: 4013

CERTIFICATE OF ANALYSIS VA06080455

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
229851		3.30	10	<1	0.18	10	1.11	809	<1	0.09	3	900	3	<0.01	2	7
229852		3.27	10	<1	0.12	10	1.08	824	<1	0.07	2	890	3	<0.01	<2	7
229853		3.49	10	<1	0.16	10	1.14	860	<1	0.10	3	940	4	<0.01	<2	8
229854		3.46	10	1	0.15	10	1.14	883	<1	0.08	2	930	3	<0.01	<2	8
229855		3.35	10	<1	0.18	10	1.12	868	<1	0.11	2	910	2	<0.01	<2	7
229856		3.39	10	<1	0.16	10	1.15	825	<1	0.08	3	900	4	<0.01	2	7
229857		3.22	10	<1	0.21	10	0.94	718	<1	0.11	3	900	3	<0.01	<2	6
229858		3.12	10	<1	0.21	10	0.86	667	<1	0.13	2	920	3	<0.01	<2	5
229859		3.26	10	<1	0.21	10	0.94	722	<1	0.12	2	930	3	<0.01	<2	6
229860		3.21	10	<1	0.23	10	0.94	728	1	0.16	2	920	3	<0.01	<2	6
229861		3.20	10	<1	0.18	10	1.02	775	<1	0.12	2	910	3	<0.01	2	7
229862		3.28	10	<1	0.22	10	0.97	729	<1	0.15	3	940	3	<0.01	<2	6
229863		3.18	10	<1	0.19	10	0.98	752	<1	0.12	2	900	2	<0.01	<2	7
229864		3.09	10	<1	0.14	10	1.03	781	<1	0.08	2	870	5	<0.01	<2	7
229865		3.33	10	<1	0.22	10	0.99	767	<1	0.13	2	940	3	<0.01	<2	7
229866		3.29	10	1	0.16	10	1.00	768	<1	0.09	1	890	3	<0.01	<2	7
229867		3.39	10	<1	0.18	10	1.13	859	<1	0.11	2	940	3	<0.01	<2	8
229868		3.45	10	<1	0.15	10	1.13	851	<1	0.09	3	920	4	<0.01	<2	8
229869		3.48	10	<1	0.16	10	1.10	822	<1	0.09	2	960	4	<0.01	<2	8
229870		3.50	10	<1	0.16	10	1.16	861	<1	0.09	3	940	4	<0.01	2	8
229871		3.29	10	<1	0.19	10	0.98	743	<1	0.12	3	940	5	<0.01	<2	7
229872		3.49	10	<1	0.16	10	1.19	901	<1	0.10	3	990	5	<0.01	<2	8
229873		3.26	10	<1	0.18	10	0.95	723	<1	0.09	2	930	5	<0.01	<2	7
229874		3.24	10	<1	0.24	10	0.89	701	<1	0.17	3	950	4	<0.01	<2	6
229875		3.29	10	<1	0.22	10	0.92	711	<1	0.16	3	950	5	<0.01	<2	6
229876		3.29	10	<1	0.23	10	0.92	718	<1	0.17	2	940	4	<0.01	<2	7

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SMITHERS BC V0J 2N0

Finalized Date: 11-SEP-2006
Account: PIL

Project: 4013

CERTIFICATE OF ANALYSIS VA06080455

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
229851		149	0.20	<10	<10	71	<10	78
229852		176	0.21	<10	<10	73	<10	82
229853		131	0.21	<10	<10	79	<10	80
229854		157	0.22	<10	<10	75	<10	79
229855		141	0.21	<10	<10	75	<10	78
229856		97	0.20	<10	<10	73	<10	78
229857		93	0.19	<10	<10	71	<10	75
229858		81	0.18	<10	<10	66	<10	68
229859		90	0.19	<10	<10	71	<10	70
229860		91	0.20	<10	<10	69	<10	68
229861		105	0.19	<10	<10	69	<10	71
229862		76	0.19	<10	<10	69	<10	71
229863		99	0.20	<10	<10	70	<10	69
229864		119	0.19	<10	<10	68	<10	70
229865		105	0.21	<10	<10	75	<10	71
229866		104	0.21	<10	<10	78	<10	70
229867		120	0.22	<10	<10	77	<10	76
229868		129	0.22	<10	<10	81	<10	78
229869		148	0.22	<10	<10	77	<10	77
229870		119	0.23	<10	<10	82	<10	79
229871		99	0.21	<10	<10	75	<10	74
229872		131	0.23	<10	<10	84	<10	87
229873		144	0.20	<10	<10	75	<10	70
229874		88	0.21	<10	<10	75	<10	70
229875		106	0.22	<10	<10	77	<10	69
229876		107	0.22	<10	<10	78	<10	69

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Finalized Date: 12-SEP-2006
Account: PIL

CERTIFICATE VA06081257

Project: 4013
P.O. No.:
This report is for 52 Crushed Rock samples submitted to our lab in Vancouver, BC, Canada on 15-AUG-2006.

The following have access to data associated with this certificate:

CARL EDMUNDS R KONST	B. KAY RON KONST	BRIAN KAY

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
PUL-31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au-AA23	Au 30g FA-AA finish	AAS
Cu-AA49	Assay Cu - HBr Digestion	AAS
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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Project: 4013

CERTIFICATE OF ANALYSIS VA06081257

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
225247		0.22	0.008	0.001	<0.2	1.90	21	10	110	0.5	<2	1.86	<0.5	7	8	7
225248		0.26	0.008	0.001	<0.2	2.17	21	10	80	0.6	<2	2.17	<0.5	7	8	5
225249		0.26	<0.005	0.001	<0.2	2.06	22	10	80	0.6	<2	1.97	<0.5	6	7	4
225250		0.24	0.005	0.001	<0.2	1.73	21	10	120	0.6	<2	1.62	<0.5	7	13	10
225251		0.24	0.007	0.001	<0.2	2.36	23	10	80	0.6	<2	2.04	<0.5	7	8	11
225252		0.26	<0.005	<0.001	<0.2	1.95	21	10	90	0.6	<2	1.82	<0.5	7	10	4
225253		0.26	<0.005	0.001	<0.2	1.72	21	10	120	0.6	<2	1.63	<0.5	6	8	19
225254		0.26	<0.005	0.001	<0.2	2.53	21	10	70	0.8	<2	2.19	<0.5	8	8	3
225255		0.24	<0.005	0.001	<0.2	2.38	20	10	90	0.7	<2	2.16	<0.5	7	7	4
225256		0.24	<0.005	0.001	<0.2	2.57	18	<10	90	0.8	<2	2.41	<0.5	6	7	9
225257		0.28	<0.005	0.002	<0.2	3.34	19	<10	90	0.9	<2	2.63	<0.5	8	7	21
225258		0.28	<0.005	0.002	<0.2	3.01	15	10	70	1.0	<2	2.48	<0.5	8	8	19
225259		0.26	<0.005	0.002	<0.2	2.39	17	<10	60	0.7	<2	2.00	<0.5	8	8	14
225260		0.26	0.008	0.003	<0.2	2.08	18	<10	80	0.7	<2	1.74	<0.5	8	8	27
225261		0.26	0.005	0.002	<0.2	2.03	18	<10	80	0.7	<2	1.81	<0.5	7	8	16
225262		0.26	<0.005	0.001	<0.2	2.21	16	<10	70	0.7	<2	1.82	<0.5	8	8	16
225263		0.24	<0.005	0.001	<0.2	2.27	16	<10	70	0.8	<2	1.89	<0.5	8	8	9
225264		0.26	<0.005	0.002	<0.2	2.23	17	<10	60	0.6	<2	2.05	<0.5	8	8	15
225265		0.28	<0.005	0.002	<0.2	2.31	15	<10	60	0.6	<2	1.93	<0.5	8	7	17
225266		0.28	<0.005	0.001	<0.2	2.42	15	<10	60	0.7	<2	2.20	<0.5	8	7	9
225267		0.28	0.005	0.002	<0.2	2.41	17	<10	60	0.7	<2	2.12	<0.5	8	9	19
225268		0.26	<0.005	0.002	<0.2	2.40	16	<10	60	0.7	<2	2.01	<0.5	8	8	19
225269		0.26	<0.005	0.003	<0.2	2.38	15	<10	60	0.8	<2	2.21	<0.5	8	8	33
225270		0.24	0.005	0.003	<0.2	2.14	15	<10	70	0.6	<2	1.88	<0.5	7	8	28
225271		0.26	0.010	0.002	<0.2	1.86	15	<10	90	0.6	<2	1.59	<0.5	7	7	16
225272		0.26	0.005	0.002	<0.2	1.84	15	<10	100	0.6	<2	1.55	<0.5	7	7	16
229955		0.26	<0.005	<0.001	<0.2	2.27	24	10	80	<0.5	<2	2.40	<0.5	9	10	3
229956		0.26	<0.005	0.004	<0.2	2.34	33	10	80	<0.5	<2	2.02	<0.5	9	11	34
229957		0.24	<0.005	0.002	<0.2	2.32	45	10	80	<0.5	<2	1.63	<0.5	8	11	17
229958		0.28	<0.005	0.001	<0.2	2.53	34	10	70	0.5	<2	2.32	<0.5	9	10	11
229959		0.24	0.007	0.003	1.1	2.83	37	10	60	0.5	<2	2.66	<0.5	9	10	31
229960		0.26	<0.005	0.002	0.5	2.62	27	10	60	<0.5	<2	2.26	<0.5	8	11	15
229961		0.24	0.005	0.002	0.2	2.84	22	10	60	0.6	<2	2.65	<0.5	9	10	15
229962		0.24	<0.005	0.002	<0.2	2.47	21	10	70	0.5	<2	2.32	<0.5	9	11	24
229963		0.24	<0.005	0.005	<0.2	2.35	21	10	80	0.5	<2	2.22	<0.5	8	9	57
229964		0.26	<0.005	0.001	<0.2	2.58	16	<10	60	<0.5	<2	3.39	<0.5	8	9	15
229965		0.28	0.007	0.006	0.2	2.48	21	10	60	0.5	<2	3.01	<0.5	8	9	56
229966		0.26	<0.005	0.005	<0.2	2.00	19	10	90	<0.5	<2	1.72	<0.5	9	10	47
229967		0.24	0.010	0.002	<0.2	2.27	23	10	80	0.6	<2	2.05	<0.5	8	10	16
229968		0.24	<0.005	0.001	<0.2	2.61	23	10	70	0.6	<2	2.43	<0.5	9	10	9

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Finalized Date: 12-SEP-2006
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Project: 4013

CERTIFICATE OF ANALYSIS VA06081257

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
225247		3.36	10	1	0.19	10	0.94	772	<1	0.11	2	930	4	<0.01	<2	6
225248		3.31	10	<1	0.15	10	1.00	788	2	0.08	2	940	4	<0.01	<2	6
225249		3.16	10	<1	0.15	10	0.85	712	<1	0.09	3	950	3	<0.01	<2	5
225250		3.14	10	<1	0.21	10	0.79	681	1	0.14	4	940	3	<0.01	<2	5
225251		3.36	10	<1	0.12	10	1.09	879	1	0.09	3	960	3	<0.01	<2	7
225252		3.14	10	<1	0.16	10	0.90	721	1	0.11	3	940	4	<0.01	<2	6
225253		3.07	10	<1	0.19	10	0.81	684	2	0.13	2	950	4	<0.01	<2	5
225254		3.48	10	<1	0.12	10	1.22	962	<1	0.09	2	990	4	<0.01	<2	8
225255		3.16	10	1	0.15	10	0.88	758	<1	0.10	2	950	4	<0.01	<2	6
225256		3.24	10	<1	0.14	10	0.93	772	1	0.09	2	960	3	<0.01	<2	7
225257		3.53	10	<1	0.11	10	1.19	918	1	0.07	3	980	4	<0.01	<2	9
225258		3.65	10	1	0.09	10	1.39	1050	1	0.07	3	1000	4	<0.01	<2	9
225259		3.43	10	<1	0.09	10	1.24	943	1	0.07	3	950	3	<0.01	<2	8
225260		3.32	10	1	0.13	10	1.08	814	1	0.10	3	950	4	0.02	<2	7
225261		3.32	10	<1	0.15	10	1.06	798	1	0.10	4	960	4	<0.01	<2	7
225262		3.56	10	<1	0.12	10	1.26	932	1	0.10	3	990	3	0.01	<2	8
225263		3.58	10	<1	0.12	10	1.33	994	<1	0.10	3	960	3	0.01	<2	8
225264		3.49	10	<1	0.11	10	1.27	941	1	0.09	3	950	4	<0.01	<2	8
225265		3.44	10	<1	0.10	10	1.23	918	1	0.08	3	960	3	<0.01	<2	8
225266		3.35	10	1	0.11	10	1.19	896	1	0.08	3	920	5	0.01	<2	8
225267		3.45	10	<1	0.11	10	1.24	922	1	0.08	3	960	5	0.01	<2	8
225268		3.45	10	1	0.10	10	1.25	932	1	0.09	2	940	8	0.02	<2	8
225269		3.43	10	<1	0.10	10	1.16	918	1	0.09	3	960	15	0.02	<2	8
225270		3.25	10	<1	0.13	10	1.02	825	2	0.10	3	970	7	<0.01	<2	6
225271		3.23	10	<1	0.17	10	0.92	759	1	0.11	2	950	6	0.01	<2	6
225272		3.18	10	<1	0.18	10	0.90	745	1	0.12	1	940	5	0.01	<2	5
229955		2.87	10	<1	0.24	<10	1.18	850	<1	0.08	3	940	4	0.01	<2	3
229956		3.02	10	1	0.21	<10	1.26	969	5	0.08	3	950	2	0.01	<2	3
229957		3.13	10	1	0.15	<10	1.29	1010	1	0.09	3	960	3	0.02	<2	3
229958		3.10	10	<1	0.23	10	1.24	1070	1	0.05	4	980	3	0.01	<2	4
229959		3.34	10	<1	0.19	10	1.33	1075	2	0.06	4	980	20	0.35	<2	4
229960		3.33	10	1	0.13	10	1.32	1065	1	0.06	4	950	12	0.20	<2	4
229961		3.41	10	<1	0.20	10	1.32	1065	1	0.06	3	950	8	0.08	<2	5
229962		3.45	10	<1	0.19	10	1.30	1025	1	0.07	3	980	7	0.07	<2	5
229963		3.36	10	1	0.23	10	1.28	1035	4	0.08	3	980	9	0.04	<2	4
229964		3.39	10	<1	0.20	<10	1.26	1025	2	0.06	3	940	10	0.01	<2	5
229965		3.38	10	1	0.18	10	1.29	1100	2	0.06	3	950	23	0.01	<2	5
229966		3.52	10	<1	0.17	10	1.31	974	4	0.11	4	940	11	0.01	<2	6
229967		3.38	10	<1	0.14	10	1.20	876	1	0.08	4	960	3	0.01	<2	5
229968		3.41	10	1	0.14	10	1.29	923	1	0.07	4	990	4	0.01	<2	5

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To: NORTHGATE MINERALS CORPORATION
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 12-SEP-2006
Account: PIL

Project: 4013

CERTIFICATE OF ANALYSIS VA06081257

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
225247		99	0.18	<10	<10	88	<10	66
225248		118	0.18	<10	<10	84	<10	71
225249		109	0.18	<10	<10	81	<10	61
225250		83	0.18	<10	<10	81	<10	57
225251		147	0.19	<10	<10	85	<10	79
225252		108	0.18	<10	<10	80	<10	62
225253		91	0.18	<10	<10	79	<10	65
225254		151	0.20	<10	<10	87	<10	94
225255		151	0.19	<10	<10	81	<10	63
225256		166	0.19	<10	<10	80	<10	63
225257		257	0.21	<10	<10	92	<10	79
225258		249	0.21	<10	<10	89	<10	84
225259		178	0.20	<10	<10	83	<10	80
225260		130	0.20	<10	<10	82	<10	62
225261		113	0.20	<10	<10	80	<10	62
225262		140	0.21	<10	<10	85	<10	76
225263		173	0.22	<10	<10	90	<10	85
225264		146	0.21	<10	<10	87	<10	79
225265		159	0.19	<10	<10	82	<10	78
225266		153	0.20	<10	<10	85	<10	98
225267		146	0.21	<10	<10	87	<10	85
225268		153	0.20	<10	<10	87	<10	89
225269		133	0.20	<10	<10	89	<10	86
225270		122	0.19	<10	<10	84	<10	77
225271		99	0.19	<10	<10	83	<10	70
225272		96	0.18	<10	<10	82	<10	69
229955		152	0.19	<10	<10	47	<10	92
229956		152	0.20	<10	<10	54	<10	102
229957		128	0.19	<10	<10	56	<10	108
229958		185	0.19	<10	<10	51	<10	106
229959		201	0.19	<10	<10	69	<10	108
229960		171	0.20	<10	<10	72	<10	106
229961		185	0.21	<10	<10	74	<10	109
229962		128	0.21	<10	<10	72	<10	116
229963		117	0.19	<10	<10	64	<10	117
229964		138	0.20	<10	<10	78	<10	104
229965		143	0.19	<10	<10	75	<10	104
229966		97	0.21	<10	<10	83	<10	96
229967		148	0.20	<10	<10	80	<10	90
229968		176	0.20	<10	<10	78	<10	95

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CERTIFICATE OF ANALYSIS VA06081257

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
229969		0.24	<0.005	0.002	<0.2	2.33	22	10	90	0.7	<2	1.98	<0.5	9	10	18
229970		0.26	<0.005	0.001	<0.2	2.40	32	10	70	0.6	<2	2.16	<0.5	9	10	12
229971		0.26	0.005	0.003	<0.2	2.37	21	10	70	0.5	<2	2.09	<0.5	9	11	26
229972		0.28	<0.005	0.004	0.2	2.22	26	10	70	0.6	<2	1.79	<0.5	9	10	43
229973		0.26	0.007	0.008	0.2	2.47	19	10	60	0.6	<2	2.34	<0.5	9	10	72
229974		0.26	<0.005	0.007	0.3	2.44	22	10	60	0.7	<2	2.33	<0.5	8	9	62
229975		0.26	<0.005	0.004	<0.2	2.26	22	10	70	0.7	<2	2.04	<0.5	9	10	36
229976		0.24	<0.005	0.001	<0.2	2.03	22	10	90	0.6	<2	1.64	<0.5	8	9	9
229977		0.24	<0.005	0.002	<0.2	2.28	20	10	70	0.5	<2	2.04	<0.5	9	10	23
229978		0.26	<0.005	0.004	<0.2	2.59	23	10	70	0.7	<2	2.29	<0.5	8	9	36
229979		0.26	<0.005	0.010	0.4	2.24	20	10	80	0.7	<2	2.28	<0.5	8	10	98
229980		0.26	<0.005	0.002	<0.2	2.62	14	<10	100	0.5	<2	2.77	<0.5	7	5	16

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CERTIFICATE OF ANALYSIS VA06081257

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
229969		3.43	10	<1	0.15	10	1.21	875	1	0.09	4	980	5	0.01	<2	6
229970		3.36	10	1	0.13	10	1.21	869	1	0.08	3	1000	5	0.01	<2	5
229971		3.39	10	1	0.13	10	1.29	905	1	0.09	4	1010	4	0.01	<2	5
229972		3.43	10	<1	0.13	10	1.32	922	1	0.09	4	990	4	0.01	<2	7
229973		3.37	10	<1	0.11	10	1.20	897	5	0.08	3	960	9	0.02	<2	7
229974		3.24	10	<1	0.11	10	1.13	835	4	0.07	3	950	7	0.02	<2	6
229975		3.23	10	<1	0.13	10	1.03	781	3	0.09	3	980	6	0.02	<2	6
229976		3.17	10	<1	0.15	10	1.07	794	1	0.11	3	950	3	0.01	<2	6
229977		3.42	10	<1	0.17	10	1.23	887	1	0.08	3	970	4	0.01	<2	6
229978		3.44	10	<1	0.12	10	1.23	912	3	0.07	3	990	5	0.01	<2	7
229979		3.35	10	<1	0.14	10	1.18	888	6	0.10	4	990	7	0.03	<2	6
229980		3.61	10	<1	0.16	10	0.76	568	1	0.15	1	1090	4	0.01	<2	6

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CERTIFICATE OF ANALYSIS VA06081257

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
229969		142	0.21	<10	<10	81	<10	92
229970		154	0.20	<10	<10	79	<10	92
229971		163	0.22	<10	<10	75	<10	93
229972		150	0.21	<10	<10	80	<10	91
229973		170	0.22	<10	<10	82	<10	83
229974		164	0.20	<10	<10	80	<10	84
229975		137	0.20	<10	<10	78	<10	80
229976		111	0.20	<10	<10	76	<10	83
229977		115	0.20	<10	<10	82	<10	119
229978		150	0.20	<10	<10	84	<10	86
229979		125	0.22	<10	<10	82	<10	83
229980		153	0.18	<10	<10	124	<10	47

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Finalized Date: 20-SEP-2006
Account: PIL

CERTIFICATE VA06083117

Project: 4013
P.O. No.:
This report is for 52 Crushed Rock samples submitted to our lab in Vancouver, BC, Canada on 18-AUG-2006.

The following have access to data associated with this certificate:

CARL EDMUNDS RON KONST	BRIAN KAY R KONST	B. KAY

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
PUL-31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES
Au-AA23	Au 30g FA-AA finish	AAS
Cu-AA49	Assay Cu - HBr Digestion	AAS

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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CERTIFICATE OF ANALYSIS VA06083117

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
225241		0.24	<0.005	0.002	<0.2	1.90	20	<10	70	0.5	<2	1.65	<0.5	7	9	21
225242		0.24	0.008	0.002	0.2	1.67	21	<10	80	<0.5	2	1.48	<0.5	7	7	28
225243		0.24	0.005	0.004	0.4	1.66	17	10	70	0.5	<2	1.47	<0.5	7	9	44
225244		0.24	<0.005	0.002	<0.2	1.80	24	10	60	0.5	<2	1.83	<0.5	7	9	17
225245		0.24	<0.005	<0.001	<0.2	1.73	25	10	80	0.5	<2	1.69	<0.5	6	6	6
225246		0.04	0.406	<0.001	<0.2	0.21	8	<10	20	<0.5	4	0.07	<0.5	<1	2	3
225273		0.26	<0.005	0.005	0.2	1.75	16	<10	80	0.5	<2	1.42	<0.5	7	6	48
225274		0.26	<0.005	0.002	0.2	2.24	17	<10	70	0.7	<2	1.94	<0.5	7	6	18
225275		0.26	<0.005	0.002	<0.2	1.73	18	<10	70	0.5	<2	1.56	0.5	7	7	20
225276		0.24	<0.005	0.001	0.2	2.16	15	<10	70	0.7	<2	1.85	<0.5	7	8	20
225277		0.24	0.005	0.001	0.2	1.96	17	<10	70	0.6	<2	1.73	<0.5	6	8	17
225278		0.24	0.011	0.001	<0.2	2.23	20	<10	60	0.7	<2	2.02	<0.5	8	8	10
225279		0.26	<0.005	0.002	<0.2	2.06	21	<10	50	0.5	<2	1.87	<0.5	8	10	18
225280		0.24	<0.005	0.001	<0.2	1.97	17	<10	60	0.6	2	1.71	<0.5	7	6	13
225281		0.24	<0.005	0.003	<0.2	1.92	17	<10	60	0.6	<2	1.72	<0.5	6	7	25
225282		0.26	<0.005	0.002	<0.2	2.04	19	<10	60	0.6	2	1.66	<0.5	7	7	20
225283		0.24	<0.005	0.002	<0.2	2.34	17	<10	50	0.6	<2	2.04	<0.5	8	6	29
225284		0.24	<0.005	0.002	0.2	2.18	22	<10	60	0.7	<2	1.82	<0.5	7	9	22
225285		0.24	<0.005	0.002	<0.2	2.16	11	<10	50	0.6	<2	1.96	3.5	7	7	20
225286		0.24	<0.005	0.002	<0.2	2.89	18	<10	40	0.7	2	2.45	1.5	8	7	21
225287		0.26	<0.005	0.003	<0.2	2.16	19	<10	50	0.6	<2	2.08	<0.5	7	7	27
225288		0.24	<0.005	0.005	0.2	2.40	13	<10	50	0.7	<2	2.21	<0.5	9	7	43
225289		0.24	<0.005	0.002	<0.2	3.00	14	<10	40	0.9	<2	2.90	<0.5	7	6	16
225290		0.24	0.005	0.002	<0.2	3.20	20	<10	50	0.6	<2	3.11	<0.5	8	8	11
225291		0.24	<0.005	0.001	<0.2	2.18	15	<10	50	0.5	<2	2.29	<0.5	8	8	10
225292		0.26	<0.005	0.002	<0.2	2.75	17	<10	60	0.8	<2	2.65	<0.5	8	7	18
225293		0.26	<0.005	0.001	<0.2	1.62	12	<10	70	<0.5	<2	1.54	<0.5	7	8	10
225294		0.26	<0.005	0.002	<0.2	2.30	15	<10	60	0.6	2	2.24	<0.5	7	7	14
225295		0.24	<0.005	0.002	<0.2	2.36	15	<10	50	0.6	<2	2.58	<0.5	7	6	18
225296		0.24	<0.005	0.002	<0.2	1.83	19	<10	70	0.6	<2	1.72	<0.5	6	7	15
225297		0.26	<0.005	0.002	<0.2	1.79	17	<10	60	<0.5	<2	1.77	<0.5	8	9	17
225298		0.24	<0.005	0.001	<0.2	0.92	9	<10	80	<0.5	<2	0.99	<0.5	5	5	14
229981		0.26	<0.005	0.004	0.3	1.81	21	<10	60	0.5	<2	1.50	<0.5	9	11	37
229982		0.24	0.005	0.001	0.2	2.10	16	<10	70	0.5	2	2.05	<0.5	9	11	17
229983		0.24	<0.005	0.001	<0.2	2.08	20	<10	60	<0.5	<2	2.08	<0.5	8	11	15
229984		0.26	0.005	0.001	<0.2	2.45	15	<10	60	0.5	<2	2.76	<0.5	8	8	9
229985		0.22	0.008	0.001	0.3	2.07	18	<10	60	<0.5	2	2.38	<0.5	10	7	6
229986		0.26	<0.005	0.001	<0.2	2.09	15	<10	60	0.5	<2	2.08	<0.5	8	6	6
229987		0.26	0.005	0.001	<0.2	2.56	15	<10	50	0.6	<2	2.73	<0.5	8	10	8
229988		0.24	<0.005	0.002	<0.2	2.38	21	<10	60	0.5	2	2.37	<0.5	8	9	17

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CERTIFICATE OF ANALYSIS VA06083117

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
225241		3.21	10	<1	0.10	10	0.89	684	1	0.07	3	940	4	0.01	2	4
225242		3.15	10	1	0.12	10	0.87	678	3	0.08	2	940	5	0.01	<2	4
225243		3.12	10	<1	0.10	10	0.81	617	1	0.09	3	940	5	0.01	<2	4
225244		3.30	10	1	0.10	10	0.91	705	<1	0.07	3	950	5	0.01	<2	5
225245		3.34	10	1	0.13	10	0.85	700	<1	0.08	2	960	4	0.01	<2	5
225246		0.39	<10	<1	0.10	<10	0.04	67	<1	0.06	1	60	<2	0.01	<2	<1
225273		3.23	10	<1	0.09	10	0.92	710	2	0.06	3	960	9	0.02	<2	5
225274		3.22	10	1	0.10	10	0.86	662	1	0.07	3	970	8	0.02	<2	5
225275		3.14	10	<1	0.10	10	0.73	572	1	0.08	4	980	7	0.02	<2	3
225276		3.23	10	<1	0.10	10	0.81	617	1	0.08	2	970	8	0.02	<2	4
225277		3.25	10	<1	0.09	10	0.82	627	2	0.06	3	970	5	0.02	<2	4
225278		3.40	10	<1	0.09	10	1.04	773	1	0.06	3	960	6	0.01	<2	6
225279		3.29	10	<1	0.07	10	1.03	761	1	0.05	5	970	4	0.01	<2	5
225280		3.32	10	<1	0.10	10	0.94	720	1	0.06	3	980	4	<0.01	<2	5
225281		3.18	10	<1	0.09	10	0.83	637	1	0.06	2	970	5	0.01	<2	4
225282		3.25	10	<1	0.09	10	0.98	728	1	0.06	2	960	6	0.01	2	5
225283		3.24	10	<1	0.08	10	1.05	886	1	0.05	3	980	7	0.01	<2	5
225284		3.16	10	<1	0.10	10	0.89	652	2	0.06	2	940	6	0.03	<2	5
225285		3.07	10	<1	0.08	10	1.02	724	1	0.04	3	910	8	0.05	<2	5
225286		3.40	10	1	0.06	10	1.25	847	1	0.05	2	910	13	0.02	<2	6
225287		3.39	10	<1	0.07	10	1.11	756	1	0.05	3	960	5	0.02	<2	6
225288		3.40	10	<1	0.08	10	1.16	805	2	0.06	3	970	6	0.01	<2	6
225289		3.21	10	<1	0.06	10	1.10	768	1	0.04	3	910	6	0.02	<2	7
225290		3.40	10	1	0.09	10	1.17	823	<1	0.05	3	920	3	0.01	<2	7
225291		3.59	10	<1	0.10	10	1.16	826	<1	0.05	3	970	5	<0.01	<2	7
225292		3.48	10	1	0.09	10	1.17	834	<1	0.06	3	940	5	<0.01	<2	7
225293		3.31	10	1	0.10	10	0.95	697	1	0.07	3	980	<2	<0.01	<2	4
225294		3.27	10	1	0.09	10	1.03	774	1	0.05	3	900	5	<0.01	<2	6
225295		3.25	10	1	0.11	10	1.01	774	1	0.05	3	920	4	<0.01	2	6
225296		3.06	10	1	0.11	10	0.84	597	1	0.07	2	940	3	0.01	2	4
225297		3.38	10	<1	0.09	10	1.04	739	1	0.06	3	980	3	<0.01	<2	5
225298		3.05	10	<1	0.10	10	0.45	376	<1	0.09	2	910	3	<0.01	2	2
229981		3.43	10	1	0.08	10	1.18	842	2	0.06	4	1000	5	<0.01	<2	5
229982		3.67	10	<1	0.14	10	1.32	905	1	0.06	4	980	4	<0.01	<2	5
229983		3.56	10	<1	0.09	10	1.17	857	<1	0.06	4	970	4	<0.01	<2	4
229984		3.42	10	<1	0.12	10	1.20	846	<1	0.05	3	960	6	<0.01	<2	4
229985		3.35	10	1	0.18	<10	1.22	855	1	0.05	4	960	7	0.01	2	3
229986		3.51	10	<1	0.15	10	1.19	933	<1	0.05	3	930	4	<0.01	2	6
229987		3.64	10	<1	0.12	10	1.26	893	1	0.04	3	950	7	<0.01	3	6
229988		3.57	10	1	0.10	10	1.19	893	<1	0.05	4	930	5	<0.01	2	6

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To: NORTHGATE MINERALS CORPORATION
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 20-SEP-2006
Account: PIL

Project: 4013

CERTIFICATE OF ANALYSIS VA06083117

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
225241		101	0.15	<10	<10	72	<10	66
225242		102	0.17	<10	<10	72	<10	68
225243		93	0.16	<10	<10	71	<10	66
225244		92	0.17	<10	<10	77	<10	71
225245		92	0.17	<10	<10	79	<10	64
225246		5	<0.01	<10	<10	1	<10	4
225273		86	0.16	<10	<10	78	<10	74
225274		135	0.17	<10	<10	75	<10	72
225275		104	0.15	<10	<10	74	<10	71
225276		128	0.15	<10	<10	74	<10	67
225277		110	0.15	<10	<10	73	<10	66
225278		124	0.18	<10	<10	76	<10	74
225279		125	0.15	<10	<10	70	<10	78
225280		114	0.17	<10	<10	73	<10	72
225281		105	0.16	<10	<10	73	<10	65
225282		119	0.17	<10	<10	73	<10	69
225283		144	0.17	<10	<10	72	<10	93
225284		123	0.16	<10	<10	73	<10	69
225285		130	0.16	<10	<10	66	<10	259
225286		184	0.15	10	<10	75	<10	87
225287		119	0.17	<10	<10	75	<10	71
225288		139	0.17	<10	<10	77	<10	71
225289		179	0.16	<10	<10	73	<10	70
225290		203	0.17	<10	<10	74	<10	79
225291		121	0.18	10	<10	79	<10	78
225292		185	0.18	<10	<10	79	<10	74
225293		83	0.15	<10	<10	75	<10	68
225294		137	0.15	<10	<10	76	<10	66
225295		158	0.16	<10	<10	72	<10	68
225296		105	0.16	<10	<10	69	<10	60
225297		94	0.17	<10	<10	78	<10	80
225298		31	0.17	<10	<10	100	<10	36
229981		86	0.18	<10	<10	76	<10	85
229982		89	0.19	10	<10	79	<10	92
229983		109	0.16	<10	<10	78	<10	83
229984		139	0.15	<10	<10	68	<10	88
229985		92	0.13	<10	<10	44	<10	106
229986		95	0.16	<10	<10	69	<10	104
229987		128	0.20	<10	<10	80	<10	96
229988		122	0.18	<10	<10	84	<10	80

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CERTIFICATE OF ANALYSIS VA06083117

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
229989		0.26	<0.005	0.002	0.2	2.18	19	<10	60	0.5	<2	2.17	<0.5	9	9	24
229990		0.22	0.005	0.002	<0.2	2.54	21	10	60	0.7	<2	2.39	<0.5	7	8	16
229991		0.22	<0.005	0.001	<0.2	2.60	20	<10	60	0.6	<2	2.77	<0.5	8	8	15
229992		0.26	<0.005	0.002	<0.2	2.85	20	<10	50	0.7	<2	2.48	<0.5	8	9	17
229993		0.26	<0.005	0.001	<0.2	2.74	19	<10	50	0.7	<2	2.43	<0.5	7	7	15
229994		0.26	<0.005	0.002	<0.2	2.22	19	<10	60	0.6	<2	1.82	<0.5	8	8	10
229995		0.26	<0.005	0.002	0.2	1.73	16	<10	60	0.6	<2	1.59	<0.5	6	7	22
229996		0.26	<0.005	0.002	<0.2	2.65	23	<10	60	0.6	2	2.63	<0.5	7	7	30
229997		0.24	0.005	0.001	<0.2	2.49	17	<10	60	0.6	2	2.09	<0.5	7	7	17
229998		0.24	<0.005	0.001	<0.2	3.12	19	<10	50	0.7	<2	2.94	<0.5	7	7	13
229999		0.26	<0.005	0.002	<0.2	2.25	16	<10	60	0.6	<2	2.24	<0.5	8	8	17
230000		0.26	0.010	0.005	0.2	2.00	14	<10	70	0.5	2	1.90	<0.5	8	6	45

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CERTIFICATE OF ANALYSIS VA06083117

Sample Description	Method	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Fe	Ga	Hg	K	La	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Sc
	Units	%	ppm	ppm	%	ppm	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm
	LOR	0.01	10	1	0.01	10	0.01	5	1	0.01	1	10	2	0.01	2	1
229989		3.60	10	1	0.10	10	1.27	900	1	0.05	4	960	5	<0.01	3	5
229990		3.41	10	<1	0.09	10	1.15	839	<1	0.05	3	940	6	<0.01	<2	5
229991		3.64	10	<1	0.10	10	1.22	898	1	0.05	4	980	4	<0.01	2	7
229992		3.57	10	1	0.08	10	1.22	881	1	0.05	4	1000	5	<0.01	<2	7
229993		3.29	10	1	0.08	10	1.08	799	1	0.05	3	940	4	<0.01	<2	6
229994		3.29	10	<1	0.09	10	1.05	783	1	0.06	3	950	4	<0.01	<2	5
229995		2.96	10	<1	0.10	10	0.79	600	1	0.06	3	930	5	<0.01	<2	4
229996		3.22	10	<1	0.10	10	0.99	758	<1	0.06	5	910	22	0.03	<2	6
229997		3.50	10	<1	0.09	10	1.10	847	<1	0.06	3	970	16	<0.01	<2	7
229998		3.48	10	1	0.08	10	1.15	874	1	0.05	4	940	7	<0.01	<2	7
229999		3.57	10	<1	0.11	10	1.10	840	<1	0.06	4	910	6	<0.01	<2	7
230000		3.56	10	<1	0.11	10	1.02	792	2	0.08	2	980	6	<0.01	<2	6

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CERTIFICATE OF ANALYSIS VA06083117

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
229989		106	0.18	<10	<10	81	<10	83
229990		150	0.18	<10	<10	79	<10	78
229991		151	0.19	<10	<10	86	<10	82
229992		166	0.19	<10	<10	82	<10	82
229993		163	0.17	<10	<10	76	<10	73
229994		118	0.16	<10	<10	73	<10	77
229995		89	0.14	<10	<10	67	<10	57
229996		159	0.17	<10	<10	74	<10	100
229997		145	0.18	<10	<10	81	<10	89
229998		200	0.18	<10	<10	80	<10	80
229999		129	0.18	<10	<10	80	<10	83
230000		106	0.18	<10	<10	85	<10	75

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KEMESS MINE
PO BOX 3519
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Finalized Date: 21-SEP-2006
Account: PIL

CERTIFICATE VA06083118

Project: 4013
P.O. No.:
This report is for 52 Crushed Rock samples submitted to our lab in Vancouver, BC, Canada on 18-AUG-2006.

The following have access to data associated with this certificate:

CARL EDMUNDS R KONST	B. KAY RON KONST	BRIAN KAY

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
PUL-31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES
Au-AA23	Au 30g FA-AA finish	AAS
Cu-AA49	Assay Cu - HBr Digestion	AAS

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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CERTIFICATE OF ANALYSIS VA06083118

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
225299		0.26	<0.005	0.002	<0.2	2.32	13	<10	60	0.7	<2	1.97	<0.5	6	8	13
225300		0.24	<0.005	0.002	<0.2	2.27	17	<10	50	0.7	<2	2.03	<0.5	7	7	17
225301		0.26	0.005	0.002	<0.2	2.13	16	<10	40	0.6	<2	1.81	<0.5	7	7	20
225302		0.24	<0.005	0.002	<0.2	2.69	15	<10	50	0.6	<2	2.23	<0.5	8	7	22
225303		0.24	0.007	0.002	<0.2	2.28	10	<10	50	0.7	<2	2.11	<0.5	8	8	19
225304		0.26	<0.005	0.002	<0.2	2.67	15	<10	40	0.7	<2	2.28	<0.5	9	7	18
225305		0.24	<0.005	0.001	<0.2	2.65	12	<10	50	0.7	<2	2.16	<0.5	8	7	16
225306		0.24	0.006	0.002	0.2	2.07	16	<10	60	0.6	<2	1.97	<0.5	7	21	20
225307		0.26	0.007	0.001	<0.2	2.39	13	<10	50	0.6	<2	2.31	<0.5	8	11	18
225308		0.24	0.005	0.002	<0.2	2.31	15	<10	50	0.6	<2	2.13	<0.5	7	8	19
225309		0.24	<0.005	0.003	<0.2	2.26	15	<10	50	0.7	<2	1.81	<0.5	8	7	28
225310		0.24	0.005	0.002	<0.2	1.93	12	<10	60	0.6	2	1.60	<0.5	8	11	16
225311		0.24	<0.005	0.002	<0.2	1.95	13	<10	60	0.6	<2	1.88	<0.5	7	8	18
225312		0.24	<0.005	0.002	0.2	2.61	20	<10	50	0.7	<2	2.51	<0.5	9	11	26
225313		0.26	0.013	0.002	<0.2	2.77	15	<10	50	0.8	<2	2.43	<0.5	8	8	16
225314		0.26	<0.005	0.001	<0.2	2.20	13	<10	50	0.6	<2	2.38	<0.5	6	8	15
225315		0.26	0.005	0.002	<0.2	2.52	17	<10	60	0.6	<2	2.73	<0.5	8	7	23
225316		0.24	<0.005	0.003	<0.2	2.78	11	<10	60	0.6	2	3.04	<0.5	9	7	26
225317		0.26	<0.005	0.002	<0.2	1.89	10	<10	60	0.5	<2	1.83	<0.5	7	8	23
225318		0.24	<0.005	0.003	0.2	1.83	14	<10	70	0.6	<2	1.70	<0.5	7	7	27
225319		0.24	<0.005	0.002	<0.2	1.93	16	<10	70	0.6	<2	1.89	<0.5	7	7	16
225320		0.24	<0.005	0.002	<0.2	2.15	16	<10	60	0.6	<2	2.24	<0.5	7	8	18
225321		0.26	<0.005	0.002	<0.2	1.92	13	<10	50	0.6	<2	1.95	<0.5	7	6	20
225322		0.26	<0.005	0.002	<0.2	2.45	13	<10	50	0.8	<2	2.25	<0.5	8	8	23
225323		0.26	<0.005	0.001	<0.2	2.33	13	<10	50	0.6	<2	1.98	<0.5	7	8	14
225324		0.04	0.803	0.001	0.7	0.23	6	10	30	<0.5	2	0.17	<0.5	2	4	11
225325		0.24	<0.005	0.002	<0.2	1.77	15	<10	60	0.6	<2	1.62	<0.5	7	8	18
225326		0.24	<0.005	0.003	<0.2	2.42	19	<10	50	0.7	<2	2.25	<0.5	9	8	37
225327		0.26	<0.005	0.002	0.2	2.15	18	<10	50	0.6	<2	2.11	<0.5	9	8	18
225328		0.24	<0.005	0.001	<0.2	2.07	15	<10	60	0.6	2	2.09	<0.5	7	7	14
225329		0.26	<0.005	0.001	<0.2	2.38	13	<10	50	0.7	2	2.37	<0.5	8	7	12
225330		0.24	<0.005	0.001	<0.2	1.98	18	<10	60	0.5	<2	1.53	<0.5	9	8	11
225331		0.26	<0.005	0.002	<0.2	2.10	17	<10	50	0.7	<2	1.79	<0.5	8	7	17
225332		0.26	<0.005	0.002	<0.2	2.25	16	<10	60	0.6	<2	1.69	<0.5	8	7	20
225333		0.24	<0.005	0.002	<0.2	2.10	16	<10	60	0.6	<2	1.69	<0.5	8	7	22
225334		0.26	<0.005	0.002	<0.2	2.03	13	<10	60	0.6	<2	1.80	<0.5	10	7	24
225335		0.26	<0.005	0.002	<0.2	2.35	13	<10	60	0.6	<2	1.85	<0.5	8	9	20
225336		0.26	<0.005	0.002	<0.2	2.76	19	<10	60	0.6	<2	2.20	<0.5	10	8	24
225337		0.26	<0.005	0.002	<0.2	2.24	18	<10	60	0.6	<2	2.01	<0.5	8	7	17
225338		0.24	<0.005	0.001	<0.2	2.29	16	<10	60	0.6	<2	1.79	<0.5	8	9	14

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CERTIFICATE OF ANALYSIS VA06083118

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
225299		3.20	10	<1	0.09	10	0.97	663	1	0.06	2	950	3	<0.01	<2	6
225300		3.17	10	1	0.08	10	0.91	642	1	0.05	2	960	3	<0.01	<2	5
225301		3.31	10	1	0.07	10	1.13	777	1	0.05	2	930	4	<0.01	<2	6
225302		3.45	10	1	0.07	10	1.29	860	1	0.05	3	1000	3	0.01	2	7
225303		3.56	10	<1	0.07	10	1.22	842	1	0.06	3	970	8	0.01	<2	7
225304		3.69	10	1	0.06	10	1.34	911	1	0.05	2	1020	5	<0.01	<2	8
225305		3.55	10	1	0.07	10	1.22	850	1	0.06	4	1030	6	<0.01	<2	7
225306		3.39	10	1	0.10	10	1.06	748	<1	0.06	2	1010	4	0.01	<2	6
225307		3.53	10	<1	0.10	10	1.22	983	1	0.06	5	980	5	0.01	3	7
225308		3.44	10	1	0.08	10	1.09	793	1	0.06	2	960	4	<0.01	<2	6
225309		3.54	10	<1	0.08	10	1.20	861	1	0.06	2	1000	5	0.02	<2	6
225310		3.38	10	1	0.09	10	1.05	764	1	0.06	4	970	9	0.01	<2	5
225311		3.36	10	<1	0.10	10	1.03	752	1	0.06	4	970	6	<0.01	2	6
225312		3.59	10	1	0.09	10	1.23	876	1	0.06	4	990	11	0.02	<2	8
225313		3.44	10	1	0.06	10	1.20	843	1	0.06	3	990	7	0.01	<2	7
225314		3.49	10	1	0.09	10	1.11	816	1	0.07	2	1010	4	<0.01	3	7
225315		3.64	10	<1	0.11	10	1.19	888	1	0.06	4	990	7	0.02	3	8
225316		3.77	10	1	0.13	10	1.18	917	1	0.06	2	1020	11	<0.01	<2	8
225317		3.38	10	1	0.11	10	0.95	712	1	0.07	2	1010	8	<0.01	<2	5
225318		3.44	10	1	0.10	10	0.99	762	2	0.07	4	990	8	<0.01	2	6
225319		3.19	10	<1	0.10	10	0.84	659	1	0.07	4	970	3	<0.01	<2	4
225320		3.21	10	1	0.09	10	0.94	721	1	0.06	3	970	6	<0.01	<2	5
225321		3.07	10	1	0.09	10	0.91	686	1	0.06	3	910	3	<0.01	2	5
225322		3.53	10	<1	0.08	10	1.19	843	<1	0.06	3	980	6	<0.01	<2	7
225323		3.41	10	1	0.08	10	1.18	818	1	0.06	2	980	5	<0.01	<2	6
225324		3.00	<10	1	0.04	<10	0.04	30	1	0.13	3	560	106	2.95	<2	<1
225325		3.25	10	<1	0.09	10	0.97	693	1	0.07	3	970	4	<0.01	<2	5
225326		3.61	10	<1	0.08	10	1.26	900	1	0.06	4	1000	6	0.01	2	8
225327		3.43	10	1	0.08	10	1.11	830	1	0.06	2	990	8	<0.01	2	7
225328		3.42	10	<1	0.09	10	1.10	826	1	0.06	2	970	4	<0.01	<2	7
225329		3.44	10	1	0.07	10	1.15	857	1	0.06	3	980	2	<0.01	<2	6
225330		3.37	10	<1	0.08	10	1.14	878	<1	0.07	3	1080	5	0.02	<2	6
225331		3.20	10	<1	0.08	10	1.02	779	1	0.07	3	1050	3	0.02	<2	6
225332		3.30	10	<1	0.08	10	1.00	779	1	0.07	3	1100	6	0.01	<2	6
225333		3.33	10	<1	0.09	10	0.99	780	1	0.07	3	1110	6	0.01	<2	6
225334		3.26	10	<1	0.08	10	0.97	764	1	0.07	4	1080	3	0.01	2	6
225335		3.19	10	<1	0.08	10	1.01	782	1	0.06	2	1080	7	0.02	<2	6
225336		3.32	10	1	0.08	10	1.10	824	2	0.06	5	1080	5	0.01	<2	6
225337		3.10	10	<1	0.08	<10	0.99	715	<1	0.06	3	1040	5	<0.01	2	5
225338		3.19	10	<1	0.08	10	1.03	728	1	0.06	4	1080	7	0.01	<2	5

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To: NORTHGATE MINERALS CORPORATION
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 21-SEP-2006
Account: PIL

Project: 4013

CERTIFICATE OF ANALYSIS VA06083118

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
225299		141	0.17	<10	<10	70	<10	69
225300		143	0.17	<10	<10	71	<10	64
225301		131	0.16	<10	<10	71	<10	69
225302		184	0.18	<10	<10	72	<10	84
225303		135	0.20	<10	<10	78	<10	80
225304		178	0.20	<10	<10	78	<10	85
225305		185	0.20	<10	<10	79	<10	81
225306		128	0.19	<10	<10	73	<10	76
225307		150	0.19	<10	<10	76	<10	87
225308		149	0.19	10	<10	76	<10	77
225309		133	0.19	<10	<10	76	<10	87
225310		113	0.19	<10	<10	74	<10	81
225311		106	0.17	<10	<10	75	<10	77
225312		178	0.20	<10	<10	81	<10	88
225313		189	0.20	<10	<10	75	<10	80
225314		131	0.19	10	<10	76	<10	80
225315		185	0.20	<10	<10	76	<10	84
225316		193	0.20	<10	<10	81	<10	87
225317		109	0.18	<10	<10	76	<10	71
225318		98	0.18	<10	<10	83	<10	72
225319		108	0.17	<10	<10	73	<10	66
225320		120	0.18	<10	<10	73	<10	70
225321		112	0.17	<10	<10	67	<10	70
225322		136	0.19	<10	<10	79	<10	85
225323		140	0.19	<10	<10	74	<10	93
225324		5	<0.01	<10	<10	1	<10	21
225325		97	0.16	<10	<10	71	<10	76
225326		151	0.20	<10	<10	78	<10	97
225327		129	0.19	<10	<10	76	<10	94
225328		125	0.19	<10	<10	78	<10	88
225329		148	0.19	<10	<10	77	<10	94
225330		110	0.18	10	<10	81	<10	80
225331		101	0.17	<10	<10	81	<10	65
225332		135	0.17	<10	<10	80	<10	63
225333		123	0.18	10	<10	79	<10	62
225334		102	0.17	<10	<10	82	<10	59
225335		144	0.17	<10	<10	79	<10	59
225336		182	0.18	<10	<10	78	<10	64
225337		132	0.16	<10	<10	71	<10	80
225338		142	0.17	<10	<10	72	<10	58

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CERTIFICATE OF ANALYSIS VA06083118

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
225339		0.26	<0.005	0.002	<0.2	2.07	18	<10	60	0.6	<2	1.63	<0.5	9	9	20
225340		0.26	<0.005	0.002	<0.2	2.57	18	<10	50	0.8	<2	2.33	<0.5	10	9	19
225341		0.26	<0.005	0.002	<0.2	2.51	18	<10	50	0.6	<2	2.09	<0.5	10	9	18
225342		0.22	<0.005	0.001	<0.2	2.48	17	<10	60	0.6	<2	1.98	<0.5	8	10	11
225343		0.26	<0.005	0.002	<0.2	2.32	18	<10	50	0.6	<2	1.89	<0.5	10	10	15
225344		0.22	<0.005	0.001	<0.2	2.96	18	<10	50	0.5	<2	2.27	<0.5	10	12	10
225345		0.24	<0.005	<0.001	<0.2	2.90	17	<10	60	0.5	<2	2.79	<0.5	10	14	4
225346		0.24	<0.005	0.001	<0.2	2.68	11	<10	50	0.5	<2	2.14	0.6	12	11	11
225347		0.26	<0.005	0.002	<0.2	2.50	15	<10	50	0.5	<2	2.04	0.6	10	10	23
225348		0.24	<0.005	0.001	<0.2	3.45	11	<10	60	0.5	<2	2.66	<0.5	12	10	12
225349		0.24	<0.005	0.003	<0.2	2.73	23	<10	50	0.7	<2	1.97	<0.5	13	9	32
225350		0.24	<0.005	0.003	<0.2	2.70	15	<10	50	0.7	<2	1.98	<0.5	12	10	36

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PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 21-SEP-2006
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Project: 4013

CERTIFICATE OF ANALYSIS VA06083118

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
225339		3.27	10	<1	0.08	10	1.03	755	1	0.06	5	1090	7	0.01	3	6
225340		3.55	10	<1	0.09	10	1.24	929	<1	0.06	4	1130	6	0.01	2	7
225341		3.51	10	<1	0.09	10	1.28	931	<1	0.05	5	1110	7	0.01	3	6
225342		3.50	10	<1	0.09	10	1.16	844	1	0.06	4	1110	4	0.01	<2	7
225343		3.41	10	<1	0.08	10	1.07	813	1	0.05	4	1100	6	0.02	<2	7
225344		3.41	10	<1	0.09	<10	1.27	978	<1	0.06	4	1090	6	0.01	2	6
225345		3.32	10	1	0.15	10	1.37	1200	<1	0.05	4	1120	12	0.01	<2	6
225346		3.54	10	<1	0.09	10	1.36	1045	<1	0.05	6	1140	8	0.01	<2	5
225347		3.32	10	<1	0.09	<10	1.30	1020	<1	0.04	4	1060	8	0.01	<2	5
225348		3.81	10	<1	0.09	10	1.55	1165	<1	0.05	4	1190	10	0.01	<2	6
225349		3.81	10	<1	0.08	10	1.37	998	<1	0.05	3	1160	6	0.02	<2	8
225350		3.81	10	<1	0.08	10	1.36	998	<1	0.06	5	1150	9	0.02	<2	8

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CERTIFICATE OF ANALYSIS VA06083118

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
225339		124	0.17	<10	<10	77	<10	57
225340		161	0.20	<10	<10	88	<10	66
225341		158	0.20	<10	<10	83	<10	79
225342		150	0.20	<10	<10	87	<10	64
225343		142	0.19	10	10	84	<10	64
225344		194	0.18	10	<10	82	<10	92
225345		201	0.19	<10	<10	76	<10	130
225346		192	0.20	<10	<10	85	<10	131
225347		162	0.19	10	<10	79	<10	121
225348		255	0.21	<10	<10	91	<10	114
225349		196	0.21	<10	<10	90	<10	72
225350		194	0.22	10	<10	92	<10	71

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KEMESS MINE
PO BOX 3519
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Finalized Date: 21-SEP-2006
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CERTIFICATE VA06083119

Project: 4013
P.O. No.:
This report is for 65 Crushed Rock samples submitted to our lab in Vancouver, BC, Canada on 18-AUG-2006.

The following have access to data associated with this certificate:

CARL EDMUNDS R KONST	B. KAY RON KONST	BRIAN KAY

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
PUL-31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES
Au-AA23	Au 30g FA-AA finish	AAS
Cu-AA49	Assay Cu - HBr Digestion	AAS

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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ALS Canada Ltd.
212 Brooksbank Avenue
North Vancouver BC V7J 2C1
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Finalized Date: 21-SEP-2006
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CERTIFICATE OF ANALYSIS VA06083119

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
227562		0.26	<0.005	0.002	0.2	1.85	16	10	70	<0.5	<2	1.63	<0.5	10	8	18
227563		0.26	<0.005	0.001	<0.2	1.79	18	10	70	<0.5	<2	1.81	<0.5	10	12	7
227564		0.24	<0.005	0.001	<0.2	1.99	12	10	70	<0.5	<2	1.74	<0.5	9	7	8
227565		0.24	<0.005	0.001	0.2	1.98	14	10	70	0.5	<2	1.46	<0.5	10	14	8
227566		0.22	<0.005	0.004	<0.2	2.21	14	20	80	0.6	<2	1.74	<0.5	10	9	41
227567		0.24	<0.005	0.001	<0.2	2.06	16	10	70	0.5	<2	1.51	<0.5	9	11	6
227568		0.22	<0.005	0.001	<0.2	1.97	19	10	70	0.5	<2	2.27	<0.5	10	7	5
227569		0.24	<0.005	0.002	<0.2	2.08	15	10	70	0.6	<2	1.61	<0.5	11	12	14
227570		0.28	<0.005	0.001	<0.2	2.26	18	10	70	0.5	<2	2.20	<0.5	10	6	9
227571		0.24	<0.005	0.001	<0.2	2.42	19	10	70	0.5	<2	1.93	<0.5	10	11	7
227572		0.26	<0.005	0.001	0.2	2.24	17	10	70	0.5	<2	1.69	<0.5	10	6	10
227573		0.26	<0.005	0.001	<0.2	1.97	19	10	70	0.5	<2	1.89	<0.5	9	11	12
227574		0.24	<0.005	0.004	<0.2	1.69	18	10	70	<0.5	<2	1.36	<0.5	7	8	33
227575		0.26	<0.005	0.004	<0.2	2.01	19	10	70	0.5	<2	1.64	<0.5	9	12	41
227576		0.24	<0.005	0.001	<0.2	1.90	17	10	70	<0.5	2	1.61	<0.5	10	8	10
227577		0.24	<0.005	0.003	0.2	2.11	22	10	70	0.5	<2	1.76	<0.5	10	11	34
227578		0.26	<0.005	0.002	<0.2	2.07	16	10	80	0.5	<2	1.47	<0.5	10	7	16
227579		0.24	<0.005	0.001	<0.2	2.45	25	10	70	0.5	2	2.01	<0.5	9	11	3
227580		0.24	<0.005	0.002	<0.2	2.10	18	10	80	0.5	<2	1.56	<0.5	9	10	15
227581		0.26	<0.005	0.002	<0.2	2.24	15	10	80	0.6	<2	1.77	<0.5	9	10	18
227582		0.24	<0.005	0.002	<0.2	2.47	20	10	80	0.7	<2	2.40	<0.5	8	6	21
227583		0.26	<0.005	0.004	<0.2	2.22	16	10	80	0.6	<2	1.75	<0.5	9	11	37
227584		0.24	<0.005	0.002	<0.2	2.15	17	10	80	0.5	<2	1.41	<0.5	9	6	16
227585		0.26	<0.005	0.003	<0.2	2.24	17	10	70	0.5	<2	1.53	<0.5	9	10	27
227586		0.26	<0.005	0.002	<0.2	2.20	15	10	70	0.5	<2	1.52	<0.5	9	5	18
227587		0.24	<0.005	0.001	<0.2	2.05	19	10	70	0.5	<2	1.40	<0.5	9	11	5
227588		0.24	<0.005	0.002	<0.2	2.86	17	10	70	0.7	<2	1.90	<0.5	8	6	15
227589		0.22	0.005	0.002	<0.2	2.19	19	10	70	<0.5	<2	1.60	<0.5	8	11	20
227590		0.24	<0.005	0.003	0.2	2.25	22	10	60	0.5	<2	1.35	<0.5	9	6	24
227591		0.24	<0.005	0.003	<0.2	2.16	17	10	60	<0.5	<2	1.26	<0.5	9	11	27
227592		0.24	<0.005	0.002	<0.2	2.34	16	10	60	<0.5	<2	1.43	<0.5	12	7	23
227593		0.24	<0.005	0.002	<0.2	2.06	22	10	70	<0.5	<2	1.50	<0.5	9	12	14
227594		0.24	<0.005	0.001	<0.2	2.04	20	10	70	<0.5	<2	1.34	<0.5	9	7	7
227595		0.24	<0.005	0.002	0.2	1.98	19	10	70	<0.5	<2	1.59	<0.5	10	10	17
227596		0.24	<0.005	0.002	<0.2	2.15	25	10	70	0.5	<2	1.57	<0.5	11	7	17
227597		0.24	<0.005	0.002	<0.2	2.02	20	10	80	<0.5	<2	1.53	<0.5	10	11	20
227598		0.24	<0.005	0.003	<0.2	1.87	18	10	70	<0.5	<2	1.71	<0.5	10	7	25
227599		0.26	<0.005	0.001	<0.2	2.30	22	10	60	<0.5	<2	1.36	<0.5	8	10	14
227600		0.04	0.838	0.001	0.6	0.21	6	<10	30	<0.5	<2	0.15	<0.5	1	3	10
227601		0.24	<0.005	0.002	<0.2	1.96	23	10	70	<0.5	<2	1.29	<0.5	11	8	20

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To: NORTHGATE MINERALS CORPORATION
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 21-SEP-2006
Account: PIL

Project: 4013

CERTIFICATE OF ANALYSIS VA06083119

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
227562		3.45	10	<1	0.15	10	1.22	813	<1	0.08	4	1090	3	0.02	4	7
227563		3.55	10	<1	0.16	10	1.19	840	<1	0.08	4	1110	5	0.01	<2	7
227564		3.56	10	<1	0.17	10	1.26	829	<1	0.08	3	1120	6	0.01	<2	7
227565		3.28	10	<1	0.15	10	1.21	821	1	0.08	4	1040	5	0.01	<2	6
227566		3.30	10	<1	0.15	10	1.17	793	<1	0.09	3	1040	5	0.01	2	6
227567		3.33	10	<1	0.14	10	1.19	774	<1	0.08	3	1060	3	<0.01	2	6
227568		3.11	10	<1	0.15	10	1.14	816	<1	0.08	3	1000	6	0.01	2	6
227569		3.22	10	<1	0.20	10	1.16	776	<1	0.07	3	1010	2	0.01	<2	6
227570		3.25	10	<1	0.16	10	1.19	795	<1	0.08	3	1050	5	0.01	2	6
227571		3.16	10	1	0.15	10	1.22	790	<1	0.08	4	1040	5	0.02	2	5
227572		3.18	10	<1	0.15	10	1.20	794	<1	0.08	2	1040	3	0.03	<2	7
227573		3.23	10	<1	0.14	10	1.17	804	1	0.09	2	1040	3	0.02	2	7
227574		2.90	10	<1	0.14	10	1.03	733	<1	0.09	2	920	<2	0.06	2	6
227575		3.49	10	<1	0.15	10	1.24	878	1	0.08	4	1110	<2	0.01	<2	7
227576		3.29	10	<1	0.14	10	1.23	873	<1	0.09	2	1050	2	0.01	2	7
227577		3.25	10	1	0.13	10	1.22	834	1	0.09	3	1070	9	<0.01	5	6
227578		3.25	10	<1	0.14	10	1.18	804	1	0.08	2	1050	5	<0.01	2	6
227579		3.11	10	<1	0.12	10	1.22	835	<1	0.08	5	1050	5	<0.01	3	6
227580		3.25	10	<1	0.13	10	1.22	830	2	0.09	4	1070	6	0.01	2	6
227581		3.44	10	1	0.14	10	1.19	854	1	0.09	4	1060	5	0.03	<2	7
227582		3.43	10	<1	0.14	10	1.17	869	1	0.08	3	1090	6	0.01	<2	7
227583		3.26	10	<1	0.13	10	1.19	831	2	0.07	4	1070	9	<0.01	<2	7
227584		3.09	10	<1	0.13	10	1.13	768	1	0.08	3	1050	3	<0.01	2	5
227585		3.15	10	<1	0.11	10	1.23	821	1	0.07	2	1050	2	0.02	2	5
227586		3.05	10	<1	0.12	10	1.22	781	1	0.07	2	1040	5	<0.01	<2	4
227587		3.18	10	<1	0.11	10	1.27	793	1	0.08	3	1070	5	<0.01	2	6
227588		3.38	10	<1	0.16	10	1.41	901	1	0.07	3	1040	3	<0.01	<2	6
227589		2.98	10	<1	0.11	10	1.24	734	1	0.08	4	1040	4	<0.01	<2	4
227590		2.84	10	<1	0.12	10	1.27	725	1	0.08	3	1040	5	0.01	2	4
227591		2.99	10	1	0.10	10	1.28	704	1	0.08	3	1040	<2	0.01	<2	4
227592		3.14	10	<1	0.11	10	1.31	716	1	0.08	2	1090	2	0.02	<2	4
227593		3.06	10	<1	0.12	10	1.22	670	2	0.09	4	1060	2	<0.01	2	5
227594		2.94	10	<1	0.10	10	1.20	644	2	0.07	4	1030	2	<0.01	2	4
227595		3.05	10	<1	0.11	10	1.22	677	1	0.08	3	1050	4	0.01	<2	4
227596		3.05	10	<1	0.11	10	1.31	771	1	0.08	3	1070	2	0.02	<2	5
227597		3.59	10	<1	0.14	10	1.32	724	1	0.08	3	1080	5	0.02	3	7
227598		3.38	10	<1	0.13	10	1.23	677	2	0.08	2	1060	3	0.01	<2	7
227599		3.18	10	<1	0.10	10	1.33	705	1	0.07	4	1060	6	0.01	3	5
227600		2.74	<10	<1	0.03	<10	0.04	30	1	0.11	2	610	99	2.77	<2	<1
227601		3.06	10	1	0.12	10	1.23	649	1	0.08	3	1040	4	0.02	<2	4

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CERTIFICATE OF ANALYSIS VA06083119

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
227562		74	0.20	<10	<10	67	<10	78
227563		69	0.20	<10	<10	71	<10	75
227564		84	0.20	<10	<10	70	<10	78
227565		104	0.19	10	<10	66	<10	74
227566		126	0.19	10	<10	66	<10	69
227567		106	0.19	<10	<10	68	<10	69
227568		103	0.18	<10	<10	64	<10	66
227569		116	0.18	<10	<10	64	<10	71
227570		138	0.19	10	<10	68	<10	74
227571		148	0.20	10	<10	65	<10	77
227572		136	0.19	<10	<10	66	<10	71
227573		119	0.19	<10	<10	68	<10	70
227574		100	0.19	<10	<10	64	<10	63
227575		120	0.21	<10	10	76	<10	76
227576		98	0.20	10	<10	69	<10	74
227577		131	0.20	<10	<10	65	<10	83
227578		116	0.19	<10	<10	67	<10	77
227579		165	0.20	20	<10	62	<10	83
227580		123	0.20	<10	<10	66	<10	81
227581		114	0.20	<10	<10	72	<10	78
227582		124	0.20	<10	<10	71	<10	78
227583		119	0.19	<10	<10	67	<10	79
227584		124	0.18	<10	<10	62	<10	77
227585		148	0.18	10	<10	62	<10	81
227586		143	0.18	10	<10	59	<10	87
227587		131	0.20	10	<10	63	<10	84
227588		196	0.20	<10	<10	68	<10	90
227589		154	0.21	<10	<10	59	<10	82
227590		176	0.19	10	<10	53	<10	79
227591		164	0.20	<10	<10	57	<10	79
227592		165	0.20	<10	<10	59	<10	79
227593		134	0.19	10	<10	61	<10	72
227594		119	0.17	<10	<10	57	<10	68
227595		119	0.19	<10	<10	62	<10	68
227596		189	0.20	<10	<10	63	<10	70
227597		93	0.19	<10	<10	79	<10	70
227598		97	0.19	<10	<10	78	<10	65
227599		159	0.19	<10	<10	62	<10	71
227600		4	<0.01	10	<10	1	<10	19
227601		108	0.18	10	<10	60	<10	65

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CERTIFICATE OF ANALYSIS VA06083119

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
227602		0.24	0.006	0.002	<0.2	1.91	21	10	60	<0.5	<2	1.57	<0.5	7	11	14
227603		0.24	<0.005	0.002	<0.2	1.76	18	10	60	<0.5	<2	1.77	<0.5	7	7	19
227604		0.26	<0.005	0.001	<0.2	1.85	14	10	60	<0.5	<2	1.77	<0.5	10	10	9
227605		0.24	0.008	0.003	<0.2	1.99	22	10	60	<0.5	<2	1.97	<0.5	10	8	26
227606		0.26	<0.005	0.002	<0.2	2.08	22	10	50	0.5	<2	2.02	<0.5	14	12	13
227607		0.24	<0.005	0.002	<0.2	1.94	22	10	60	<0.5	<2	1.36	0.7	9	8	13
227608		0.26	<0.005	0.002	<0.2	2.22	21	10	50	<0.5	<2	1.53	<0.5	9	11	21
227609		0.22	<0.005	0.002	<0.2	2.08	21	10	60	<0.5	<2	1.97	<0.5	10	6	15
227610		0.28	<0.005	0.001	<0.2	2.27	25	10	50	0.5	<2	1.50	<0.5	9	11	10
227611		0.24	<0.005	0.002	<0.2	1.94	21	10	60	<0.5	<2	1.30	<0.5	9	8	13
227612		0.22	<0.005	0.001	<0.2	1.84	15	10	70	<0.5	<2	1.48	<0.5	10	11	11
227613		0.24	<0.005	0.002	<0.2	2.01	23	10	70	0.5	2	1.64	<0.5	11	9	15
227614		0.24	<0.005	0.001	<0.2	2.00	21	<10	70	0.5	<2	1.89	<0.5	9	12	9
227615		0.28	<0.005	0.003	<0.2	2.11	10	10	60	<0.5	<2	1.70	<0.5	9	12	24
227616		0.26	<0.005	0.001	<0.2	1.92	23	20	40	<0.5	<2	1.80	<0.5	6	14	5
227617		0.26	<0.005	0.004	<0.2	2.24	9	<10	60	<0.5	<2	2.10	<0.5	9	12	33
227618		0.24	<0.005	0.002	<0.2	2.04	13	10	60	<0.5	<2	2.05	<0.5	8	20	15
227619		0.24	<0.005	0.002	<0.2	1.89	17	20	70	<0.5	<2	1.76	<0.5	10	11	12
227620		0.24	<0.005	0.002	<0.2	1.88	11	10	80	0.5	<2	1.60	<0.5	10	14	18
227621		0.26	<0.005	0.003	<0.2	1.96	17	10	80	0.5	<2	1.97	<0.5	9	8	30
227622		0.24	<0.005	0.002	<0.2	2.40	18	20	80	0.5	<2	2.04	<0.5	11	13	16
227623		0.24	0.005	0.001	<0.2	2.12	19	20	80	0.5	<2	1.82	<0.5	10	9	12
227624		0.24	<0.005	0.002	<0.2	2.77	16	10	80	0.6	<2	2.50	<0.5	10	14	14
227625		0.24	<0.005	0.002	<0.2	2.39	21	10	80	0.5	<2	2.62	<0.5	10	9	22
227626		0.26	<0.005	0.002	<0.2	2.34	23	10	70	0.5	<2	2.57	<0.5	10	14	22

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Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
227602		2.80	10	<1	0.10	10	1.22	597	1	0.08	3	1040	4	<0.01	2	4
227603		3.05	10	<1	0.12	10	1.23	629	1	0.08	2	1030	3	0.01	<2	5
227604		2.93	10	<1	0.11	10	1.23	613	2	0.08	2	1020	4	0.02	2	5
227605		3.01	10	<1	0.11	10	1.32	679	1	0.08	2	1070	6	0.03	4	5
227606		3.17	10	<1	0.11	10	1.45	745	1	0.07	4	1070	4	0.04	<2	5
227607		2.95	10	<1	0.10	10	1.26	640	2	0.08	2	1040	2	0.03	<2	4
227608		2.81	10	<1	0.09	10	1.33	619	2	0.07	3	1060	6	0.02	2	3
227609		2.83	10	<1	0.11	10	1.25	604	1	0.08	2	1040	<2	0.03	<2	4
227610		3.12	10	<1	0.12	10	1.55	741	2	0.06	2	1080	3	0.02	2	4
227611		3.04	10	<1	0.10	10	1.32	640	1	0.08	4	1060	2	0.02	<2	5
227612		3.34	10	1	0.12	10	1.38	721	1	0.08	3	1050	<2	0.02	2	6
227613		3.48	10	<1	0.13	10	1.40	754	1	0.09	3	1080	<2	0.04	<2	7
227614		3.55	10	<1	0.13	10	1.39	783	1	0.09	2	1090	4	0.04	6	8
227615		3.42	10	<1	0.13	10	1.38	644	2	0.08	5	1090	4	0.03	<2	7
227616		1.92	10	1	0.09	10	0.96	460	1	0.09	4	1060	3	0.01	<2	5
227617		3.30	10	<1	0.17	10	1.34	648	1	0.07	4	1000	3	0.04	<2	6
227618		2.96	10	<1	0.14	10	1.13	604	2	0.08	4	1050	5	0.02	<2	6
227619		3.14	10	<1	0.14	10	1.10	549	1	0.09	3	1060	5	0.03	<2	7
227620		3.57	10	<1	0.15	10	1.19	607	1	0.09	1	1080	6	0.05	<2	8
227621		3.62	10	<1	0.15	10	1.14	646	1	0.09	2	1090	5	0.04	<2	8
227622		3.67	10	<1	0.15	10	1.27	748	2	0.10	4	1110	2	0.05	<2	9
227623		3.41	10	<1	0.15	10	1.25	726	1	0.09	4	1100	6	0.04	<2	8
227624		3.25	10	<1	0.20	10	1.20	748	<1	0.08	4	1090	3	0.03	<2	7
227625		3.32	10	<1	0.22	10	1.19	839	<1	0.07	3	1090	9	0.02	<2	6
227626		3.23	10	1	0.21	10	1.16	819	1	0.07	5	1060	12	0.02	5	6

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Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
227602		109	0.16	<10	<10	53	<10	64
227603		88	0.17	<10	<10	62	<10	61
227604		94	0.15	<10	<10	62	<10	59
227605		122	0.19	<10	<10	62	<10	63
227606		124	0.19	<10	<10	64	<10	68
227607		137	0.19	<10	<10	60	<10	61
227608		152	0.19	<10	<10	53	<10	65
227609		137	0.19	<10	<10	54	<10	60
227610		144	0.17	<10	<10	58	<10	72
227611		122	0.18	10	<10	61	<10	62
227612		80	0.16	<10	<10	72	<10	65
227613		99	0.19	<10	<10	78	<10	66
227614		93	0.20	<10	<10	83	<10	67
227615		115	0.20	<10	<10	81	<10	69
227616		210	0.20	10	<10	50	<10	50
227617		146	0.17	<10	<10	81	<10	69
227618		148	0.18	10	<10	72	<10	64
227619		120	0.19	<10	<10	80	<10	60
227620		102	0.18	10	<10	90	<10	62
227621		111	0.18	<10	<10	91	<10	58
227622		130	0.19	<10	<10	91	<10	61
227623		129	0.19	<10	<10	82	<10	61
227624		246	0.17	10	<10	72	<10	67
227625		191	0.16	10	<10	69	<10	72
227626		188	0.15	10	<10	68	<10	70

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To: NORTHGATE MINERALS CORPORATION
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 29-SEP-2006
Account: PIL

CERTIFICATE VA06084831

Project: 4013
P.O. No.:
This report is for 78 Crushed Rock samples submitted to our lab in Vancouver, BC, Canada on 22-AUG-2006.

The following have access to data associated with this certificate:

CARL EDMUNDS RON KONST	BRIAN KAY R KONST	B. KAY

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
PUL-QC	Pulverizing QC Test
LOG-22	Sample login - Rcd w/o BarCode
PUL-31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES
Au-AA23	Au 30g FA-AA finish	AAS
Cu-AA49	Assay Cu - HBr Digestion	AAS

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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CERTIFICATE OF ANALYSIS VA06084831

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
227627		0.26	<0.005	0.001	<0.2	2.23	19	10	70	0.5	<2	1.89	<0.5	10	9	4
227628		0.26	<0.005	0.001	<0.2	2.08	23	10	100	0.5	<2	1.73	<0.5	10	18	6
227629		0.24	<0.005	0.001	<0.2	2.04	15	10	100	0.5	<2	2.31	<0.5	8	9	5
227630		0.26	<0.005	0.003	<0.2	2.12	16	10	60	0.5	<2	2.38	<0.5	9	14	28
227631		0.24	<0.005	0.002	<0.2	2.24	22	10	70	0.5	<2	2.25	<0.5	9	10	19
227632		0.26	<0.005	0.002	<0.2	2.08	19	10	90	0.5	<2	2.43	<0.5	8	15	15
227633		0.26	<0.005	0.003	0.2	2.23	19	10	70	<0.5	<2	2.66	<0.5	9	10	28
227634		0.26	<0.005	0.002	<0.2	2.16	15	10	90	<0.5	<2	2.85	<0.5	8	14	18
227635		0.24	<0.005	0.003	<0.2	2.32	19	10	70	0.5	<2	2.53	<0.5	8	9	27
227636		0.26	<0.005	0.003	<0.2	2.24	16	10	70	0.5	<2	2.65	<0.5	11	14	32
227637		0.26	<0.005	0.002	<0.2	2.27	20	10	80	0.6	<2	2.38	<0.5	8	9	23
227638		0.28	<0.005	0.001	<0.2	2.17	20	10	70	0.5	<2	3.02	<0.5	9	14	10
227639		0.26	<0.005	0.001	0.4	2.18	16	10	70	0.6	<2	2.92	<0.5	10	9	9
227640		0.26	<0.005	<0.001	<0.2	2.07	18	10	80	0.5	<2	2.70	<0.5	8	13	3
227641		0.26	0.005	<0.001	<0.2	2.17	21	10	80	0.5	<2	2.68	<0.5	9	10	3
227642		0.26	<0.005	<0.001	<0.2	2.22	18	10	90	0.5	<2	2.96	<0.5	9	15	1
227643		0.26	<0.005	0.001	<0.2	2.35	20	10	70	0.5	<2	3.14	<0.5	10	10	12
227644		0.26	<0.005	0.001	<0.2	2.35	22	10	70	0.5	<2	2.28	<0.5	10	16	2
227645		0.24	<0.005	0.001	<0.2	2.27	11	10	80	0.5	<2	2.37	<0.5	8	9	9
227646		0.26	<0.005	0.002	<0.2	2.37	17	10	70	0.6	<2	2.16	<0.5	9	15	19
227647		0.26	<0.005	0.003	<0.2	1.82	14	10	80	<0.5	<2	1.77	<0.5	8	9	29
227648		0.26	<0.005	0.003	<0.2	1.85	14	10	90	0.5	<2	2.34	<0.5	10	14	30
227649		0.26	<0.005	0.003	<0.2	1.81	13	10	100	0.5	<2	2.24	<0.5	10	9	25
227650		0.24	<0.005	0.002	<0.2	1.88	14	<10	100	0.5	<2	1.88	<0.5	8	12	21
227651		0.26	<0.005	0.002	<0.2	2.00	9	<10	80	0.5	<2	2.09	<0.5	8	7	16
227652		0.28	<0.005	0.002	<0.2	1.17	2	<10	150	<0.5	<2	1.12	<0.5	7	14	14
227653		0.24	<0.005	0.001	<0.2	2.01	10	10	90	0.6	<2	1.72	<0.5	8	8	14
227654		0.26	<0.005	0.002	<0.2	1.84	13	10	100	0.5	<2	1.48	<0.5	8	13	14
227655		0.26	<0.005	0.001	<0.2	2.17	9	10	70	0.7	<2	2.29	<0.5	8	7	14
227656		0.26	<0.005	0.001	<0.2	2.05	13	10	70	0.6	<2	2.31	<0.5	8	10	12
227657		0.26	<0.005	0.002	<0.2	2.13	8	10	70	0.6	<2	2.12	<0.5	8	7	22
227658		0.28	<0.005	0.002	<0.2	2.28	10	10	60	0.7	<2	2.57	<0.5	8	11	17
227659		0.24	<0.005	0.002	<0.2	2.34	13	10	70	0.6	<2	2.17	<0.5	8	7	18
227660		0.26	<0.005	0.002	<0.2	2.53	8	10	70	0.7	<2	2.85	<0.5	8	9	16
227661		0.26	<0.005	0.002	<0.2	2.04	10	10	80	0.5	<2	1.96	<0.5	8	6	15
227662		0.28	<0.005	0.002	<0.2	3.11	12	10	60	0.7	<2	3.21	<0.5	6	8	20
227663		0.26	<0.005	0.001	<0.2	2.92	13	10	70	0.7	<2	2.52	<0.5	7	6	13
227664		0.24	<0.005	0.001	<0.2	2.50	16	10	80	0.7	<2	1.92	<0.5	7	9	12
227665		0.26	<0.005	0.002	<0.2	2.49	16	10	60	0.7	<2	2.48	<0.5	7	7	18
227666		0.26	<0.005	0.002	<0.2	2.80	13	10	50	0.7	<2	2.28	<0.5	9	9	23

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PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 29-SEP-2006
Account: PIL

Project: 4013

CERTIFICATE OF ANALYSIS VA06084831

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
227627		3.32	10	<1	0.13	10	1.20	797	<1	0.06	5	910	4	0.01	2	7
227628		3.46	10	<1	0.19	10	1.23	802	1	0.08	3	970	5	0.01	<2	6
227629		3.21	10	<1	0.31	10	1.12	764	1	0.08	4	940	3	0.01	<2	5
227630		3.20	10	<1	0.18	10	1.11	743	1	0.05	3	950	6	0.01	2	6
227631		3.26	10	<1	0.16	10	1.19	832	1	0.06	3	940	6	0.01	<2	6
227632		3.11	10	<1	0.24	10	1.09	771	1	0.07	4	940	6	0.01	<2	5
227633		3.23	10	<1	0.24	10	1.19	814	2	0.06	4	950	6	0.01	<2	5
227634		3.19	10	<1	0.35	10	1.15	796	1	0.07	3	960	6	0.01	<2	4
227635		3.12	10	<1	0.28	10	1.13	788	2	0.05	2	940	6	<0.01	<2	5
227636		3.14	10	<1	0.23	10	1.14	819	1	0.06	3	950	9	0.02	<2	5
227637		3.23	10	<1	0.28	10	1.12	810	1	0.06	2	970	6	<0.01	<2	5
227638		3.16	10	<1	0.26	10	1.08	777	<1	0.05	4	940	9	0.01	<2	5
227639		3.38	10	<1	0.31	10	1.13	818	1	0.05	3	920	9	0.01	<2	6
227640		3.37	10	<1	0.26	10	1.08	760	1	0.07	4	920	5	<0.01	<2	5
227641		3.43	10	<1	0.26	10	1.11	747	<1	0.06	4	930	7	0.01	<2	5
227642		3.46	10	1	0.33	10	1.09	769	1	0.06	4	970	7	<0.01	<2	5
227643		3.34	10	<1	0.24	10	1.13	814	1	0.06	4	940	7	<0.01	<2	6
227644		3.35	10	<1	0.22	10	1.20	795	<1	0.05	3	970	5	<0.01	<2	5
227645		3.19	10	<1	0.34	10	1.17	789	1	0.05	5	940	5	0.01	<2	5
227646		3.37	10	<1	0.20	10	1.26	838	1	0.06	5	990	6	0.01	2	6
227647		3.30	10	1	0.14	10	1.16	859	1	0.08	4	890	5	0.01	3	7
227648		3.43	10	<1	0.17	10	1.16	880	3	0.09	5	950	3	0.02	<2	7
227649		3.51	10	<1	0.17	10	1.17	901	2	0.11	4	930	5	0.02	<2	8
227650		3.38	10	<1	0.17	10	1.03	783	1	0.09	3	950	3	0.01	<2	7
227651		3.49	10	<1	0.15	10	1.10	829	1	0.08	2	940	4	0.01	<2	8
227652		3.35	10	<1	0.19	10	0.52	454	<1	0.16	2	920	3	0.01	<2	3
227653		3.34	10	<1	0.17	10	0.99	706	1	0.10	3	970	5	0.02	<2	6
227654		3.27	10	1	0.17	10	0.98	689	1	0.11	3	950	6	0.01	<2	5
227655		3.65	10	<1	0.13	10	1.24	901	2	0.08	4	950	6	0.01	<2	8
227656		3.53	10	<1	0.12	10	1.23	869	1	0.08	3	930	4	0.01	<2	8
227657		3.42	10	<1	0.13	10	1.13	846	1	0.08	4	910	7	0.01	<2	8
227658		3.40	10	<1	0.12	10	1.04	780	1	0.07	2	930	5	0.02	<2	7
227659		3.39	10	<1	0.14	10	0.99	736	1	0.09	3	930	7	0.01	<2	7
227660		3.27	10	1	0.12	10	0.96	722	1	0.08	4	900	4	0.02	<2	6
227661		3.36	10	1	0.14	10	0.96	733	1	0.09	1	960	5	0.02	<2	6
227662		3.10	10	<1	0.11	10	0.86	641	1	0.07	2	890	6	0.01	<2	6
227663		3.26	10	<1	0.12	10	1.01	736	1	0.08	3	910	6	0.01	<2	7
227664		3.35	10	<1	0.13	10	0.95	665	1	0.08	3	970	5	0.01	<2	6
227665		3.18	10	<1	0.12	10	0.98	661	1	0.07	3	920	4	0.01	<2	6
227666		3.22	10	<1	0.10	10	1.12	741	2	0.07	3	940	4	0.01	<2	6

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Finalized Date: 29-SEP-2006
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Project: 4013

CERTIFICATE OF ANALYSIS VA06084831

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
227627		159	0.18	<10	<10	73	<10	69
227628		139	0.14	<10	<10	70	<10	69
227629		124	0.08	<10	<10	59	<10	67
227630		136	0.14	<10	<10	62	<10	88
227631		148	0.15	<10	<10	61	<10	88
227632		146	0.10	<10	<10	56	<10	84
227633		135	0.07	<10	<10	57	<10	91
227634		126	0.04	<10	<10	56	<10	83
227635		166	0.14	<10	<10	53	<10	79
227636		166	0.16	<10	<10	56	<10	80
227637		152	0.15	<10	<10	58	<10	79
227638		148	0.10	<10	<10	56	<10	77
227639		127	0.10	<10	<10	66	<10	68
227640		126	0.07	<10	<10	60	<10	64
227641		142	0.09	<10	<10	66	<10	72
227642		134	0.07	<10	<10	62	<10	67
227643		157	0.16	<10	<10	63	<10	68
227644		169	0.16	<10	<10	67	<10	74
227645		142	0.13	<10	<10	61	<10	63
227646		164	0.20	<10	<10	70	<10	56
227647		99	0.19	<10	<10	72	<10	72
227648		98	0.19	<10	<10	74	<10	71
227649		92	0.19	<10	<10	77	<10	77
227650		114	0.19	<10	<10	78	<10	70
227651		119	0.19	<10	<10	80	<10	71
227652		51	0.17	<10	<10	108	<10	37
227653		114	0.18	<10	<10	75	<10	70
227654		100	0.18	<10	<10	72	<10	68
227655		143	0.20	<10	<10	84	<10	76
227656		128	0.18	<10	<10	79	<10	72
227657		135	0.19	<10	<10	76	<10	71
227658		131	0.18	<10	<10	75	<10	66
227659		147	0.18	<10	<10	77	<10	64
227660		167	0.17	<10	<10	77	<10	62
227661		123	0.18	<10	<10	77	<10	60
227662		217	0.15	<10	<10	72	<10	58
227663		206	0.17	<10	<10	73	<10	63
227664		163	0.18	<10	<10	73	<10	66
227665		163	0.17	<10	<10	68	<10	64
227666		188	0.19	<10	<10	69	<10	68

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CERTIFICATE OF ANALYSIS VA06084831

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
227667		0.24	<0.005	0.001	<0.2	2.42	11	10	60	0.7	<2	2.15	<0.5	8	9	13
227668		0.26	<0.005	0.002	<0.2	2.40	11	10	50	0.7	<2	2.23	<0.5	8	11	15
227669		0.26	<0.005	0.001	<0.2	2.48	16	10	60	0.7	<2	2.38	<0.5	9	7	13
227670		0.26	<0.005	0.001	<0.2	2.29	13	10	70	0.7	<2	1.89	<0.5	9	9	8
227671		0.26	<0.005	0.002	<0.2	2.27	18	10	80	0.7	<2	1.92	<0.5	9	7	18
227672		0.26	<0.005	0.001	<0.2	2.01	12	10	90	0.6	<2	1.54	<0.5	8	11	13
227673		0.26	<0.005	0.001	<0.2	1.97	15	10	80	0.6	<2	1.67	<0.5	9	10	13
227674		0.26	<0.005	0.002	<0.2	2.15	16	10	60	0.6	<2	1.76	<0.5	9	10	18
227675		0.26	<0.005	0.001	<0.2	2.02	7	10	90	0.5	<2	1.72	<0.5	7	8	13
227676		0.24	<0.005	0.002	<0.2	2.34	11	10	70	0.6	<2	1.92	<0.5	9	10	20
227677		0.26	<0.005	0.001	<0.2	1.89	11	10	100	0.5	<2	1.54	<0.5	7	7	14
227678		0.06	0.412	<0.001	<0.2	0.21	2	<10	10	<0.5	4	0.07	<0.5	<1	2	3
227679		0.26	<0.005	0.002	<0.2	1.96	10	10	70	0.5	<2	1.86	<0.5	8	10	15
227680		0.26	<0.005	0.002	<0.2	2.31	12	10	70	0.6	<2	2.02	<0.5	8	7	18
227681		0.28	<0.005	0.003	<0.2	2.39	13	10	60	0.7	<2	2.08	<0.5	8	10	26
227682		0.28	<0.005	0.003	<0.2	2.33	16	10	80	0.6	<2	1.90	<0.5	8	7	26
227683		0.26	<0.005	0.003	<0.2	2.34	8	10	60	0.7	<2	2.24	<0.5	8	10	23
227684		0.26	<0.005	0.002	<0.2	2.59	12	10	60	0.7	<2	2.33	<0.5	8	8	19
227685		0.28	<0.005	0.002	<0.2	2.30	10	<10	60	0.6	<2	1.81	<0.5	8	12	22
227686		0.26	<0.005	0.001	<0.2	2.87	12	<10	50	0.8	<2	2.44	<0.5	8	7	15
227687		0.26	<0.005	0.001	<0.2	2.63	14	10	50	0.6	<2	2.12	<0.5	7	10	10
227688		0.28	<0.005	0.002	<0.2	1.88	14	10	80	0.5	<2	1.63	<0.5	7	7	15
227689		0.26	<0.005	0.002	<0.2	1.89	10	10	70	<0.5	<2	1.79	<0.5	7	11	14
227690		0.26	<0.005	0.002	0.2	2.91	10	10	50	0.7	<2	2.25	<0.5	7	7	18
227691		0.26	<0.005	0.002	<0.2	2.98	9	<10	60	0.6	<2	2.35	<0.5	6	10	18
227692		0.26	<0.005	0.003	<0.2	2.01	7	10	70	0.5	<2	1.67	<0.5	7	6	27
227693		0.26	<0.005	0.002	<0.2	2.00	11	10	70	<0.5	<2	1.52	<0.5	7	13	21
227694		0.24	<0.005	0.001	<0.2	2.12	11	10	80	0.5	<2	1.63	<0.5	5	7	13
227695		0.26	<0.005	0.001	<0.2	2.08	10	<10	60	0.5	<2	1.70	<0.5	5	10	12
227696		0.26	<0.005	0.002	<0.2	1.95	8	10	70	<0.5	<2	1.64	<0.5	9	8	15
227697		0.26	<0.005	0.004	0.2	2.80	9	10	50	0.6	<2	2.54	<0.5	6	11	46
227698		0.26	<0.005	0.001	<0.2	2.36	9	<10	80	0.5	<2	1.97	<0.5	8	7	12
227699		0.26	0.007	0.001	<0.2	1.94	10	10	70	0.5	<2	1.81	<0.5	7	10	11
227700		0.24	<0.005	0.002	<0.2	1.82	11	10	80	0.5	<2	1.51	<0.5	6	8	17
227701		0.26	<0.005	0.001	<0.2	1.79	12	10	80	<0.5	<2	1.50	<0.5	8	11	8
227702		0.24	<0.005	0.002	<0.2	2.47	12	10	60	0.5	<2	2.23	<0.5	7	7	20
227703		0.26	<0.005	0.003	<0.2	2.06	8	10	60	0.5	<2	1.76	<0.5	7	11	27
227704		0.26	<0.005	0.003	<0.2	2.08	12	10	70	0.5	<2	1.77	<0.5	7	8	33

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To: NORTHGATE MINERALS CORPORATION
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 29-SEP-2006
Account: PIL

Project: 4013

CERTIFICATE OF ANALYSIS VA06084831

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
227667		3.40	10	<1	0.11	10	1.19	810	1	0.07	4	940	4	0.01	2	7
227668		3.50	10	<1	0.10	10	1.26	859	1	0.07	3	930	5	0.01	<2	7
227669		3.48	10	<1	0.12	10	1.13	790	1	0.07	3	920	7	0.01	<2	7
227670		3.56	10	<1	0.12	10	1.18	788	1	0.08	3	980	3	0.01	<2	7
227671		3.65	10	<1	0.13	10	1.23	832	1	0.09	2	990	5	0.02	2	7
227672		3.46	10	<1	0.15	10	1.18	820	2	0.11	3	950	5	0.01	<2	7
227673		3.46	10	1	0.15	10	1.12	801	1	0.11	3	960	6	0.01	<2	7
227674		3.55	10	1	0.12	10	1.18	846	1	0.08	2	940	7	0.01	<2	7
227675		3.45	10	<1	0.14	10	1.09	817	1	0.10	4	940	5	0.01	<2	7
227676		3.50	10	<1	0.10	10	1.30	942	1	0.08	3	900	6	0.01	<2	8
227677		3.31	10	<1	0.16	10	1.02	765	1	0.11	3	930	4	0.01	<2	6
227678		0.38	<10	<1	0.10	<10	0.04	66	<1	0.05	1	60	3	<0.01	<2	<1
227679		3.17	<10	<1	0.14	10	0.92	674	1	0.09	2	940	3	0.01	<2	5
227680		3.21	10	<1	0.13	10	0.98	692	1	0.08	3	920	5	0.01	<2	6
227681		3.27	10	1	0.12	10	1.05	730	1	0.07	3	950	6	0.02	<2	6
227682		3.26	10	<1	0.13	10	1.01	719	1	0.08	2	930	6	0.01	<2	6
227683		3.20	10	<1	0.11	10	1.07	747	2	0.07	3	910	4	0.01	<2	6
227684		3.31	10	<1	0.13	10	1.12	788	1	0.07	4	930	5	0.02	<2	6
227685		3.41	10	<1	0.11	10	1.27	845	1	0.06	5	900	6	0.02	<2	7
227686		3.37	10	<1	0.10	10	1.27	842	1	0.07	2	890	6	0.02	<2	7
227687		3.21	10	1	0.11	<10	1.06	691	1	0.07	4	890	7	0.03	<2	6
227688		3.31	10	<1	0.14	10	1.01	683	1	0.08	2	910	6	0.03	<2	6
227689		3.04	10	<1	0.13	<10	0.95	592	1	0.08	3	910	6	0.03	<2	5
227690		3.29	10	<1	0.12	<10	1.07	710	1	0.08	3	910	8	0.04	<2	7
227691		3.30	10	<1	0.12	10	0.97	642	1	0.08	4	960	8	0.04	<2	5
227692		3.17	10	<1	0.15	<10	0.92	621	1	0.10	4	900	5	0.03	<2	4
227693		3.16	10	<1	0.12	<10	0.89	587	2	0.09	4	920	7	0.04	2	4
227694		3.11	10	<1	0.15	10	0.80	528	1	0.09	3	920	6	0.03	<2	4
227695		3.36	10	<1	0.14	10	0.95	620	1	0.08	3	930	5	0.02	<2	5
227696		3.49	10	<1	0.15	<10	1.01	667	1	0.09	4	910	7	0.04	<2	6
227697		3.08	10	<1	0.11	<10	1.00	627	1	0.08	4	950	10	0.04	<2	5
227698		3.28	10	<1	0.15	10	0.86	575	1	0.10	2	930	8	0.04	<2	4
227699		3.14	10	<1	0.14	10	0.90	592	1	0.08	3	900	7	0.02	<2	4
227700		3.40	10	<1	0.15	10	1.02	679	1	0.09	4	930	6	0.02	<2	5
227701		3.33	10	<1	0.13	<10	0.95	612	1	0.09	3	980	3	0.03	<2	4
227702		3.29	10	<1	0.13	<10	1.15	735	1	0.07	3	900	4	0.03	<2	6
227703		3.27	10	<1	0.13	10	1.08	675	2	0.08	5	930	4	0.02	<2	5
227704		3.24	10	<1	0.14	10	1.07	674	2	0.08	4	930	4	0.02	<2	5

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Finalized Date: 29-SEP-2006
Account: PIL

Project: 4013

CERTIFICATE OF ANALYSIS VA06084831

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
227667		166	0.19	<10	<10	75	<10	70
227668		172	0.19	<10	<10	78	<10	72
227669		199	0.19	<10	<10	84	<10	68
227670		147	0.19	<10	<10	78	<10	70
227671		140	0.20	<10	<10	82	<10	69
227672		125	0.19	<10	<10	77	<10	69
227673		120	0.19	<10	<10	76	<10	69
227674		146	0.18	<10	<10	80	<10	69
227675		142	0.18	<10	<10	81	<10	61
227676		166	0.18	<10	<10	81	<10	63
227677		141	0.17	<10	<10	76	<10	54
227678		5	<0.01	<10	<10	1	<10	3
227679		129	0.17	<10	<10	73	<10	56
227680		167	0.17	<10	<10	73	<10	60
227681		160	0.18	<10	<10	74	<10	65
227682		180	0.18	<10	<10	73	<10	64
227683		158	0.17	<10	<10	70	<10	65
227684		180	0.18	<10	<10	73	<10	64
227685		148	0.18	<10	<10	72	<10	62
227686		211	0.17	<10	<10	74	<10	59
227687		174	0.16	<10	<10	69	<10	51
227688		110	0.17	<10	<10	73	<10	47
227689		116	0.16	<10	<10	68	<10	45
227690		241	0.17	<10	<10	78	<10	51
227691		213	0.16	<10	<10	75	<10	49
227692		123	0.16	<10	<10	72	<10	51
227693		139	0.15	<10	<10	70	<10	45
227694		140	0.15	<10	<10	71	<10	41
227695		131	0.16	<10	<10	74	<10	47
227696		135	0.17	<10	<10	81	<10	61
227697		235	0.17	<10	<10	71	<10	58
227698		178	0.16	<10	<10	76	<10	52
227699		121	0.16	<10	<10	70	<10	44
227700		102	0.16	<10	<10	75	<10	46
227701		112	0.15	<10	<10	69	<10	43
227702		175	0.17	<10	<10	71	<10	48
227703		123	0.18	<10	<10	71	<10	46
227704		124	0.17	<10	<10	71	<10	45

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KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 22-SEP-2006
Account: PIL

CERTIFICATE VA06084832

Project: 4013
P.O. No.:
This report is for 41 Crushed Rock samples submitted to our lab in Vancouver, BC, Canada on 22-AUG-2006.

The following have access to data associated with this certificate:

CARL EDMUNDS RON KONST	BRIAN KAY R KONST	B. KAY

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
PUL-31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES
Au-AA23	Au 30g FA-AA finish	AAS
Cu-AA49	Assay Cu - HBr Digestion	AAS

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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CERTIFICATE OF ANALYSIS VA06084832

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
225351		0.26	<0.005	0.003	<0.2	2.69	17	<10	70	0.7	<2	2.39	<0.5	10	11	35
225352		0.26	<0.005	0.003	0.2	2.93	23	<10	60	0.8	<2	2.38	<0.5	12	11	34
225353		0.26	<0.005	0.001	<0.2	2.27	16	<10	50	0.7	<2	2.03	<0.5	9	12	12
225354		0.26	<0.005	<0.001	<0.2	2.52	13	<10	60	0.7	<2	2.25	<0.5	9	12	6
225355		0.28	<0.005	0.001	<0.2	2.71	14	<10	50	0.6	<2	2.33	<0.5	10	10	8
225356		0.24	<0.005	0.001	<0.2	2.07	12	<10	60	0.6	<2	1.95	<0.5	10	11	11
225357		0.26	<0.005	0.001	<0.2	2.75	15	<10	50	0.5	<2	4.02	<0.5	10	11	10
225358		0.26	<0.005	0.001	<0.2	5.90	18	<10	60	0.7	<2	6.39	<0.5	9	10	6
225359		0.24	<0.005	0.001	<0.2	2.43	14	<10	50	0.7	<2	2.68	<0.5	9	9	14
225360		0.26	<0.005	0.002	<0.2	2.24	16	<10	60	0.6	<2	2.18	<0.5	9	10	21
225361		0.28	<0.005	0.002	0.2	2.28	15	<10	60	0.5	<2	2.20	<0.5	9	10	23
225362		0.28	<0.005	0.001	<0.2	2.43	18	<10	50	0.5	<2	2.48	<0.5	9	11	7
225363		0.26	<0.005	0.001	<0.2	2.48	17	<10	60	0.7	<2	2.40	<0.5	10	11	10
225364		0.26	<0.005	0.001	<0.2	2.94	12	<10	60	0.5	<2	3.11	<0.5	9	10	5
225365		0.26	<0.005	<0.001	<0.2	2.97	23	<10	50	0.5	<2	2.59	<0.5	9	10	5
225366		0.24	<0.005	0.002	<0.2	1.14	3	<10	130	<0.5	<2	1.17	<0.5	7	7	16
227705		0.26	<0.005	0.002	<0.2	2.59	13	10	70	0.8	<2	2.26	<0.5	8	8	21
227706		0.24	<0.005	0.002	<0.2	2.23	8	10	80	0.6	<2	1.71	<0.5	7	8	18
227707		0.26	<0.005	0.002	<0.2	1.93	20	10	60	0.5	<2	1.61	<0.5	6	6	21
227708		0.28	<0.005	0.002	<0.2	2.07	10	<10	60	0.5	<2	1.89	<0.5	7	6	25
227709		0.24	<0.005	0.003	0.2	2.53	8	<10	50	0.7	<2	2.11	<0.5	8	7	27
227710		0.28	<0.005	0.002	<0.2	3.50	7	10	50	0.8	<2	2.85	<0.5	7	6	20
227711		0.26	<0.005	0.002	<0.2	3.14	12	<10	50	0.7	<2	2.79	<0.5	6	6	21
227712		0.28	<0.005	0.002	0.2	2.47	12	<10	70	0.6	<2	2.53	<0.5	6	6	26
227713		0.26	<0.005	0.002	<0.2	2.60	14	<10	70	0.6	<2	2.08	<0.5	6	7	24
227714		0.28	<0.005	0.002	<0.2	2.11	10	<10	70	0.6	<2	1.70	<0.5	7	7	18
227715		0.24	<0.005	0.001	<0.2	2.39	14	<10	70	0.6	<2	1.91	<0.5	7	8	13
227716		0.24	0.005	0.002	<0.2	2.51	14	<10	60	0.7	<2	1.98	<0.5	7	6	28
227717		0.26	<0.005	0.002	0.2	2.44	14	10	60	0.7	<2	2.00	<0.5	6	6	26
227718		0.24	<0.005	0.001	<0.2	2.53	7	<10	60	0.7	<2	2.03	<0.5	5	7	15
227719		0.26	<0.005	0.003	<0.2	1.79	17	10	60	0.6	<2	1.46	<0.5	6	7	30
227720		0.26	<0.005	0.001	<0.2	2.11	14	<10	60	0.7	<2	1.76	<0.5	7	7	10
227721		0.24	<0.005	0.002	0.2	1.91	14	<10	60	0.6	<2	1.50	<0.5	7	7	23
227722		0.26	<0.005	0.002	0.2	2.45	13	<10	50	0.5	<2	2.03	<0.5	9	7	16
227723		0.26	<0.005	0.002	<0.2	1.81	6	<10	60	0.5	<2	1.37	<0.5	7	8	24
227724		0.26	<0.005	0.001	<0.2	1.71	18	<10	70	0.6	<2	1.31	<0.5	6	9	13
227725		0.26	<0.005	0.002	<0.2	2.20	9	<10	70	0.6	<2	2.05	<0.5	6	8	10
227726		0.24	<0.005	0.002	0.2	2.04	21	<10	70	0.6	<2	1.74	<0.5	8	9	21
227727		0.26	<0.005	0.002	<0.2	1.99	15	<10	60	0.5	<2	1.74	<0.5	8	8	23
227728		0.26	<0.005	0.002	<0.2	2.30	12	<10	60	0.6	<2	2.06	<0.5	7	7	20

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Finalized Date: 22-SEP-2006
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Project: 4013

CERTIFICATE OF ANALYSIS VA06084832

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
225351		4.00	10	<1	0.09	10	1.44	984	1	0.05	4	1070	4	0.02	3	9
225352		3.99	10	<1	0.09	10	1.46	983	<1	0.06	5	1050	3	0.01	2	9
225353		3.82	10	<1	0.08	10	1.47	1030	1	0.05	4	1020	4	0.01	4	7
225354		3.78	10	1	0.10	10	1.37	969	<1	0.06	6	1020	3	0.01	3	7
225355		3.87	10	<1	0.08	10	1.43	989	<1	0.05	5	1060	<2	0.03	3	7
225356		3.80	10	1	0.10	10	1.34	967	1	0.06	4	1000	<2	0.01	<2	6
225357		3.57	10	1	0.07	10	1.40	1105	<1	0.04	3	980	5	0.01	3	7
225358		3.43	20	<1	0.07	10	1.49	1180	<1	0.03	3	980	10	0.02	2	7
225359		3.43	10	<1	0.08	10	1.27	899	1	0.06	4	950	3	<0.01	2	6
225360		3.89	10	<1	0.11	10	1.37	967	1	0.06	4	1020	2	<0.01	3	7
225361		3.63	10	1	0.13	10	1.36	1005	<1	0.05	3	1010	4	<0.01	2	6
225362		3.49	10	1	0.12	10	1.31	934	<1	0.05	4	970	4	<0.01	3	6
225363		3.95	10	1	0.10	10	1.38	996	<1	0.05	6	1030	3	<0.01	3	8
225364		3.48	10	<1	0.11	10	1.30	958	<1	0.04	3	950	4	<0.01	<2	7
225365		3.46	10	1	0.08	10	1.26	930	<1	0.04	3	920	3	<0.01	2	8
225366		3.48	10	<1	0.15	10	0.55	453	<1	0.13	1	1010	<2	0.01	<2	3
227705		3.52	10	2	0.12	10	1.06	691	1	0.06	2	1020	3	0.01	2	7
227706		3.29	10	<1	0.14	10	0.96	641	1	0.09	2	950	6	0.02	<2	6
227707		2.95	10	<1	0.12	10	0.79	491	1	0.07	4	970	4	<0.01	2	3
227708		3.06	10	<1	0.12	10	0.88	577	2	0.07	5	980	6	0.01	<2	4
227709		3.41	10	<1	0.11	10	1.14	769	1	0.06	5	1000	6	0.02	5	7
227710		3.59	10	<1	0.10	10	1.18	826	2	0.07	6	1090	6	0.02	<2	7
227711		2.97	10	<1	0.09	10	1.07	729	1	0.05	4	960	9	0.02	<2	6
227712		2.85	10	<1	0.10	10	0.76	576	2	0.07	5	1020	5	0.06	2	3
227713		3.26	10	1	0.12	10	0.91	699	2	0.08	4	1080	9	0.03	<2	4
227714		2.93	10	1	0.12	10	0.80	620	1	0.07	3	980	8	0.01	<2	3
227715		3.00	10	<1	0.11	10	0.91	684	1	0.07	5	1070	6	0.02	2	4
227716		2.99	10	1	0.11	10	0.85	650	2	0.07	3	1040	9	0.01	<2	4
227717		2.90	10	<1	0.10	10	0.83	621	1	0.06	4	980	12	0.01	<2	4
227718		3.20	10	1	0.11	10	1.02	746	1	0.07	6	1040	9	0.01	<2	5
227719		2.96	10	<1	0.11	10	0.87	638	2	0.07	6	1040	6	<0.01	<2	3
227720		3.27	10	<1	0.11	10	1.00	718	1	0.07	4	1000	7	0.01	<2	5
227721		3.18	10	<1	0.11	10	1.05	701	1	0.06	7	1030	6	0.01	3	5
227722		3.27	10	<1	0.09	10	1.27	799	1	0.06	6	1020	9	0.02	<2	6
227723		3.22	10	<1	0.11	10	1.15	725	1	0.07	3	1040	8	<0.01	<2	5
227724		3.12	10	<1	0.12	10	0.99	632	1	0.07	4	1050	4	0.02	2	4
227725		3.51	10	<1	0.13	10	1.12	697	1	0.07	5	1060	13	0.02	2	5
227726		3.44	10	<1	0.12	10	1.09	674	1	0.07	8	1050	7	0.07	2	5
227727		3.42	10	<1	0.11	10	1.23	792	1	0.06	6	1050	8	0.06	<2	7
227728		3.29	10	<1	0.11	10	1.10	724	1	0.07	4	1050	6	0.04	<2	6

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To: NORTHGATE MINERALS CORPORATION
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 22-SEP-2006
Account: PIL

Project: 4013

CERTIFICATE OF ANALYSIS VA06084832

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
225351		192	0.23	<10	<10	93	<10	74
225352		241	0.24	<10	<10	95	<10	75
225353		237	0.22	<10	<10	87	<10	80
225354		191	0.22	<10	<10	87	<10	83
225355		208	0.22	<10	<10	89	<10	85
225356		155	0.22	<10	<10	88	<10	77
225357		224	0.21	<10	<10	82	<10	82
225358		510	0.18	<10	<10	79	<10	92
225359		175	0.21	<10	<10	90	<10	71
225360		145	0.22	<10	<10	92	<10	79
225361		152	0.21	<10	<10	83	<10	131
225362		167	0.20	<10	<10	81	<10	93
225363		169	0.22	<10	<10	93	<10	78
225364		209	0.20	<10	<10	79	<10	82
225365		198	0.19	<10	<10	79	<10	67
225366		47	0.18	<10	<10	110	<10	39
227705		196	0.19	<10	<10	79	<10	45
227706		155	0.18	<10	<10	76	<10	41
227707		119	0.15	<10	<10	69	<10	34
227708		139	0.16	10	<10	71	<10	37
227709		194	0.18	<10	<10	84	<10	50
227710		273	0.17	<10	<10	81	<10	49
227711		262	0.16	<10	<10	73	<10	49
227712		195	0.14	<10	<10	66	<10	37
227713		185	0.17	<10	<10	75	<10	45
227714		145	0.16	<10	<10	69	<10	43
227715		181	0.16	<10	<10	73	<10	51
227716		172	0.16	<10	<10	68	<10	49
227717		164	0.16	<10	<10	69	<10	52
227718		186	0.18	<10	<10	73	<10	55
227719		98	0.17	<10	<10	67	<10	48
227720		125	0.18	<10	<10	83	<10	72
227721		109	0.16	<10	<10	73	<10	58
227722		174	0.18	<10	<10	71	<10	63
227723		100	0.19	<10	<10	72	<10	60
227724		85	0.18	<10	<10	70	<10	53
227725		138	0.19	<10	<10	86	<10	62
227726		119	0.18	<10	<10	84	<10	57
227727		131	0.18	<10	<10	79	<10	59
227728		149	0.17	<10	<10	78	<10	53

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CERTIFICATE OF ANALYSIS VA06084832

Sample Description	Method	WEI-21	Au-AA23	Cu-AA49	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Recvd Wt.	Au	Cu	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu
	Units	kg	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm
	LOR	0.02	0.005	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1
227729		0.26	<0.005	<0.001	<0.2	1.11	<2	<10	60	<0.5	<2	1.16	<0.5	4	4	4

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CERTIFICATE OF ANALYSIS VA06084832

Sample Description	Method	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Fe	Ga	Hg	K	La	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Sc
	Units	%	ppm	ppm	%	ppm	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm
	LOR	0.01	10	1	0.01	10	0.01	5	1	0.01	1	10	2	0.01	2	1
227729		3.12	<10	1	0.10	10	0.50	493	1	0.08	4	1040	<2	<0.01	<2	2

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CERTIFICATE OF ANALYSIS VA06084832

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
227729		32	0.15	<10	<10	101	<10	47

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Finalized Date: 26-SEP-2006
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CERTIFICATE VA06089266

Project: 4013
P.O. No.:
This report is for 25 Pulp samples submitted to our lab in Vancouver, BC, Canada on 29-AUG-2006.
The following have access to data associated with this certificate:

CARL EDMUNDS RON KONST	BRIAN KAY R KONST	B. KAY

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES
Au-AA23	Au 30g FA-AA finish	AAS
Cu-AA49	Assay Cu - HBr Digestion	AAS

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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PO BOX 3519
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CERTIFICATE OF ANALYSIS VA06089266

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
225376		0.26	<0.005	0.013	<0.2	3.68	4	<10	70	0.7	<2	2.83	2.5	8	65	129
225377		0.22	<0.005	0.001	<0.2	2.90	5	<10	60	0.7	<2	2.42	0.5	6	119	12
225378		0.24	<0.005	0.001	<0.2	3.70	7	<10	70	0.7	<2	2.99	<0.5	6	59	6
225379		0.22	<0.005	0.001	<0.2	3.53	<2	<10	60	0.8	<2	2.83	<0.5	6	63	8
225380		0.24	<0.005	0.001	<0.2	3.35	3	<10	80	0.8	<2	2.71	0.7	6	70	13
225381		0.24	<0.005	0.002	<0.2	3.33	<2	<10	80	0.7	<2	2.58	2.2	7	44	14
225382		0.24	<0.005	0.001	<0.2	4.12	3	<10	70	0.6	<2	3.46	<0.5	6	62	8
225383		0.14	<0.005	0.002	<0.2	4.03	4	<10	90	0.8	<2	3.22	<0.5	7	65	18
225384		0.16	<0.005	0.002	<0.2	4.02	<2	<10	80	0.8	<2	3.16	0.6	7	71	17
225385		0.08	0.005	0.001	<0.2	4.32	4	<10	120	0.8	<2	3.29	0.6	5	103	13
225386		0.26	<0.005	0.001	<0.2	4.57	6	<10	60	0.9	<2	4.12	<0.5	6	44	12
225387		0.18	<0.005	0.001	<0.2	3.37	<2	<10	70	0.7	<2	2.63	<0.5	6	75	7
225388		0.20	<0.005	<0.001	<0.2	2.98	4	<10	70	0.7	<2	2.29	<0.5	6	90	3
225389		0.26	0.005	<0.001	<0.2	3.64	<2	<10	60	0.7	<2	2.90	<0.5	5	54	6
225390		0.30	0.005	0.001	<0.2	3.35	2	<10	50	0.7	<2	2.85	<0.5	7	83	12
225391		0.18	<0.005	0.001	<0.2	3.55	2	<10	70	0.8	<2	2.92	<0.5	6	70	5
225392		0.24	<0.005	<0.001	<0.2	3.21	<2	<10	60	0.7	<2	2.54	<0.5	6	86	4
225393		0.14	<0.005	0.001	<0.2	3.18	3	<10	70	0.6	<2	2.43	<0.5	5	79	3
225394		0.28	<0.005	<0.001	<0.2	3.45	4	<10	60	0.8	<2	2.79	<0.5	6	65	2
225395		0.14	0.009	<0.001	<0.2	3.45	5	<10	70	0.7	<2	2.63	<0.5	6	70	4
225396		0.16	0.005	0.001	<0.2	4.60	5	<10	70	0.7	<2	3.61	<0.5	6	78	5
225397		0.10	<0.005	0.001	<0.2	4.48	2	<10	80	0.7	<2	3.49	<0.5	6	84	6
225398		0.14	0.006	0.002	<0.2	4.22	3	<10	70	0.7	<2	3.22	0.8	6	78	16
225399		0.16	<0.005	0.001	<0.2	3.52	4	<10	80	0.6	<2	2.78	0.7	6	77	13
225400		0.12	<0.005	0.004	<0.2	3.13	10	<10	180	0.5	<2	2.54	<0.5	8	103	35

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PO BOX 3519
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Finalized Date: 26-SEP-2006
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Project: 4013

CERTIFICATE OF ANALYSIS VA06089266

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
225376		2.41	10	1	0.16	10	0.73	652	3	0.09	4	490	28	<0.01	<2	5
225377		2.35	10	<1	0.16	10	0.65	568	<1	0.09	2	490	7	<0.01	<2	5
225378		2.33	10	1	0.16	10	0.70	587	<1	0.10	2	470	7	<0.01	2	5
225379		2.39	10	1	0.16	10	0.70	592	<1	0.08	2	500	6	<0.01	<2	5
225380		2.56	10	1	0.19	10	0.74	649	<1	0.11	<1	530	12	<0.01	<2	5
225381		2.37	10	2	0.21	10	0.71	631	<1	0.10	1	490	8	<0.01	<2	5
225382		2.29	10	1	0.15	10	0.70	600	<1	0.08	1	470	8	<0.01	<2	5
225383		2.35	10	1	0.21	10	0.68	612	<1	0.10	1	470	5	<0.01	2	5
225384		2.35	10	2	0.18	10	0.69	659	<1	0.09	<1	470	12	<0.01	<2	5
225385		2.30	10	<1	0.28	10	0.69	599	<1	0.16	1	450	14	<0.01	<2	5
225386		2.27	10	<1	0.11	10	0.72	609	<1	0.07	<1	480	11	<0.01	<2	5
225387		2.38	10	1	0.16	10	0.68	586	<1	0.10	1	490	7	<0.01	2	5
225388		2.38	10	2	0.16	10	0.68	590	<1	0.10	<1	490	4	<0.01	3	5
225389		2.34	10	3	0.15	10	0.69	608	<1	0.09	<1	490	8	<0.01	3	5
225390		2.39	10	1	0.12	10	0.68	615	<1	0.08	2	500	12	<0.01	<2	5
225391		2.42	10	2	0.15	10	0.71	652	<1	0.11	1	500	9	<0.01	<2	5
225392		2.32	10	2	0.15	10	0.68	596	<1	0.10	1	490	6	<0.01	<2	5
225393		2.33	10	3	0.17	10	0.70	631	<1	0.12	1	500	5	<0.01	<2	5
225394		2.32	10	1	0.13	10	0.68	596	<1	0.08	<1	500	7	<0.01	<2	5
225395		2.23	10	1	0.17	10	0.67	563	<1	0.11	1	460	5	<0.01	<2	4
225396		2.39	10	2	0.16	10	0.71	628	<1	0.11	<1	490	9	<0.01	<2	5
225397		2.28	10	1	0.19	10	0.69	600	<1	0.13	1	440	10	<0.01	<2	5
225398		2.36	10	2	0.17	10	0.71	630	<1	0.11	1	480	18	<0.01	<2	5
225399		2.41	10	2	0.18	10	0.72	654	<1	0.15	<1	480	9	<0.01	<2	5
225400		3.74	10	1	0.30	10	0.78	618	<1	0.27	<1	1090	3	0.03	<2	6

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CERTIFICATE OF ANALYSIS VA06089266

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
225376		150	0.15	<10	<10	51	<10	201
225377		105	0.14	<10	<10	48	<10	92
225378		153	0.15	<10	10	49	<10	52
225379		130	0.15	<10	<10	50	<10	53
225380		112	0.16	<10	<10	53	<10	76
225381		130	0.15	<10	<10	50	<10	130
225382		181	0.14	<10	<10	48	<10	47
225383		156	0.15	<10	<10	50	<10	92
225384		145	0.15	<10	<10	49	<10	123
225385		147	0.15	<10	<10	49	<10	79
225386		175	0.15	<10	<10	52	<10	51
225387		118	0.15	<10	<10	49	<10	43
225388		108	0.14	<10	<10	49	<10	40
225389		142	0.14	<10	<10	48	<10	50
225390		127	0.14	<10	<10	51	<10	53
225391		126	0.15	<10	<10	52	<10	52
225392		123	0.15	<10	10	49	<10	50
225393		121	0.14	<10	<10	46	<10	44
225394		110	0.15	<10	<10	54	<10	43
225395		122	0.14	<10	<10	46	<10	42
225396		184	0.15	<10	<10	49	<10	48
225397		172	0.14	<10	<10	48	<10	56
225398		163	0.15	<10	<10	48	<10	97
225399		141	0.15	<10	<10	49	<10	90
225400		206	0.22	<10	<10	123	<10	45

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Phone: 604 984 0221 Fax: 604 984 0218 www.alschemex.com

To: NORTHGATE MINERALS CORPORATION
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 26-SEP-2006
Account: PIL

CERTIFICATE VA06089268

Project: 4013
P.O. No.:
This report is for 9 Crushed Rock samples submitted to our lab in Vancouver, BC, Canada on 29-AUG-2006.

The following have access to data associated with this certificate:

CARL EDMUNDS R KONST	B. KAY RON KONST	BRIAN KAY

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
PUL-31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES
Au-AA23	Au 30g FA-AA finish	AAS
Cu-AA49	Assay Cu - HBr Digestion	AAS

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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Finalized Date: 26-SEP-2006
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Project: 4013

CERTIFICATE OF ANALYSIS VA06089268

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
225367		0.24	0.006	0.045	0.3	1.81	5	<10	130	<0.5	<2	1.38	0.8	6	27	478
225368		0.24	0.016	0.042	0.4	2.86	4	<10	100	0.7	<2	1.66	0.9	7	11	453
225369		0.18	0.021	0.029	0.4	2.73	5	<10	100	0.5	<2	1.56	0.9	7	21	301
225370		0.28	0.053	0.121	0.9	3.98	3	<10	40	0.7	<2	3.85	<0.5	31	110	1430
225371		0.24	0.010	0.075	0.3	3.30	5	<10	80	0.8	<2	2.34	2.4	10	12	824
225372		0.32	<0.005	0.026	<0.2	2.62	<2	<10	60	0.8	<2	1.91	3.5	7	5	277
225373		0.22	<0.005	0.003	0.2	3.52	<2	<10	80	0.7	<2	2.90	<0.5	6	4	36
225374		0.24	<0.005	0.010	<0.2	3.48	<2	<10	70	0.7	<2	2.70	1.8	6	4	98
225375		0.24	<0.005	0.011	<0.2	3.69	3	<10	80	0.7	<2	2.82	2.0	6	4	116

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Project: 4013

CERTIFICATE OF ANALYSIS VA06089268

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
225367		2.78	<10	1	0.32	10	0.87	857	<1	0.07	7	900	17	0.02	<2	5
225368		2.99	10	1	0.20	10	0.85	826	2	0.06	3	740	15	0.07	<2	5
225369		3.04	10	1	0.22	10	0.94	747	5	0.09	3	710	7	0.47	<2	5
225370		6.16	10	1	0.17	10	2.74	1250	27	0.05	28	1100	11	2.47	<2	20
225371		3.37	10	<1	0.15	10	1.12	889	3	0.09	9	760	7	0.05	<2	8
225372		2.59	10	2	0.12	10	0.78	643	<1	0.08	7	550	10	0.02	<2	6
225373		2.52	10	1	0.13	10	0.75	625	<1	0.10	<1	520	8	0.01	<2	5
225374		2.48	10	2	0.11	10	0.74	675	<1	0.09	<1	490	10	0.01	<2	5
225375		2.49	10	1	0.13	10	0.76	698	<1	0.10	<1	520	11	0.01	2	6

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CERTIFICATE OF ANALYSIS VA06089268

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
225367		76	0.17	<10	<10	63	<10	140
225368		97	0.13	<10	<10	67	<10	180
225369		101	0.13	<10	<10	63	<10	142
225370		103	0.27	<10	<10	183	<10	95
225371		119	0.19	<10	<10	77	<10	275
225372		75	0.16	<10	<10	54	<10	384
225373		143	0.15	<10	<10	52	<10	64
225374		159	0.14	<10	<10	48	<10	119
225375		169	0.14	<10	<10	48	<10	131

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Finalized Date: 28-SEP-2006
Account: PIL

CERTIFICATE VA06089490

Project: 4013
P.O. No.:
This report is for 49 Crushed Rock samples submitted to our lab in Vancouver, BC, Canada on 29-AUG-2006.

The following have access to data associated with this certificate:

CARL EDMUNDS RON KONST	BRIAN KAY	B. KAY

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
PUL-QC	Pulverizing QC Test
PUL-31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES
Au-AA23	Au 30g FA-AA finish	AAS
Cu-AA49	Assay Cu - HBr Digestion	AAS

To: NORTHGATE MINERALS CORPORATION
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This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

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Keith Rogers, Executive Manager Vancouver Laboratory

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Finalized Date: 28-SEP-2006
Account: PIL

Project: 4013

CERTIFICATE OF ANALYSIS VA06089490

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
225426		0.22	0.090	0.163	1.2	3.41	7	<10	40	0.5	<2	2.85	<0.5	15	80	1870
225427		0.28	0.070	0.072	1.8	3.21	2	<10	50	<0.5	<2	2.60	<0.5	10	42	841
225428		0.26	0.008	0.003	0.3	2.07	3	<10	70	<0.5	<2	3.03	<0.5	3	1	38
225429		0.30	<0.005	0.008	<0.2	3.44	<2	<10	160	0.8	<2	3.31	0.5	15	<1	89
225430		0.28	0.006	0.005	0.3	2.38	<2	<10	70	<0.5	<2	2.49	0.5	4	2	58
225431		0.24	0.009	0.002	<0.2	2.23	<2	<10	80	<0.5	<2	2.51	<0.5	5	3	19
225432		0.24	0.006	0.005	0.2	2.19	9	<10	90	<0.5	<2	2.25	<0.5	6	3	51
225433		0.22	0.008	0.005	0.3	2.40	<2	<10	80	0.5	<2	2.76	<0.5	5	5	49
225434		0.30	0.024	0.009	0.3	1.94	2	<10	170	0.5	<2	2.78	<0.5	6	4	84
225435		0.28	0.047	0.042	1.0	1.97	3	<10	120	<0.5	<2	1.91	<0.5	9	2	414
225436		0.26	0.103	0.003	0.3	2.09	<2	<10	140	0.5	<2	1.94	<0.5	8	3	27
225437		0.26	0.006	0.004	<0.2	2.47	<2	<10	170	<0.5	<2	2.46	<0.5	5	3	43
225438		0.28	0.009	0.018	0.2	2.76	4	<10	90	<0.5	<2	2.23	<0.5	7	2	194
225439		0.28	0.007	0.003	<0.2	2.82	<2	<10	150	<0.5	<2	2.36	<0.5	9	2	29
225440		0.32	0.034	0.018	0.5	2.80	12	<10	860	<0.5	2	2.61	1.5	12	2	182
225441		0.26	<0.005	0.003	<0.2	2.84	3	<10	780	<0.5	<2	2.93	<0.5	4	2	31
225442		0.28	<0.005	0.001	<0.2	2.76	10	<10	460	0.5	<2	2.72	<0.5	4	2	9
225443		0.22	0.008	0.003	<0.2	1.99	3	<10	540	<0.5	<2	2.91	3.9	4	2	28
225444		0.26	0.020	0.010	0.4	2.45	<2	<10	900	<0.5	<2	3.79	6.2	5	2	101
225445		0.26	0.047	0.028	1.0	2.11	5	<10	530	<0.5	2	3.32	1.9	8	1	282
225446		0.28	0.015	0.009	0.5	2.19	7	<10	260	<0.5	<2	2.71	1.2	6	2	94
225447		0.26	0.011	0.021	0.4	2.62	<2	<10	250	<0.5	<2	2.28	1.0	3	2	189
225448		0.28	0.017	0.032	1.0	3.66	<2	<10	90	0.6	<2	3.24	2.3	5	1	324
225449		0.28	<0.005	0.002	<0.2	2.49	3	<10	60	<0.5	<2	2.80	<0.5	6	3	19
225450		0.26	0.209	0.073	1.7	2.96	6	<10	80	0.6	6	2.51	6.9	7	2	748
225451		0.24	0.063	0.057	2.3	2.40	10	<10	190	0.5	2	1.89	2.9	6	3	578
225452		0.26	0.014	0.010	0.4	2.93	4	<10	220	0.5	<2	2.13	18.4	5	3	100
225453		0.26	0.018	0.009	0.5	2.58	<2	<10	140	<0.5	<2	1.94	11.5	4	3	95
225454		0.26	0.078	0.019	0.7	3.30	8	<10	100	0.6	<2	2.58	6.1	6	2	199
225455		0.26	0.264	0.031	1.5	3.47	8	<10	70	0.6	2	2.76	2.4	5	2	324
225456		0.26	0.108	0.062	2.3	3.52	4	<10	60	0.7	<2	2.96	10.3	4	2	635
225457		0.22	0.005	0.006	0.2	3.86	5	<10	90	0.8	<2	3.35	7.3	5	2	58
225458		0.22	0.007	0.004	<0.2	5.45	2	<10	100	1.0	<2	4.41	6.9	4	1	44
225459		0.22	0.006	0.003	<0.2	3.22	8	<10	110	0.6	<2	2.83	4.3	5	2	31
225460		0.22	0.008	0.006	0.4	3.32	<2	<10	140	0.6	<2	2.65	14.8	4	2	65
225461		0.24	0.008	0.006	<0.2	3.28	14	<10	80	0.6	<2	2.60	7.7	7	1	51
225462		0.24	<0.005	0.001	<0.2	3.19	<2	<10	110	0.6	<2	2.97	0.9	2	2	16
225463		0.26	0.007	0.003	<0.2	5.14	<2	<10	80	0.8	<2	3.90	5.8	8	2	34
225464		0.26	0.008	0.006	0.4	3.80	<2	<10	80	0.7	<2	3.00	14.0	4	3	61
225465		0.28	<0.005	0.002	<0.2	3.12	2	<10	50	0.6	<2	2.51	0.8	6	2	17

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Finalized Date: 28-SEP-2006
Account: PIL

Project: 4013

CERTIFICATE OF ANALYSIS VA06089490

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
225426		5.37	10	1	0.22	<10	2.49	1980	41	0.04	43	890	10	0.29	<2	11
225427		5.63	10	1	0.17	<10	1.68	1400	23	0.03	15	690	13	1.31	<2	7
225428		2.72	10	<1	0.24	<10	0.65	752	1	0.02	3	710	11	0.07	<2	3
225429		6.02	10	1	0.10	10	1.47	2050	<1	0.05	3	2050	16	0.09	<2	8
225430		3.12	10	<1	0.15	10	0.82	740	<1	0.04	2	800	12	0.04	<2	4
225431		3.35	10	1	0.17	10	0.87	895	<1	0.04	<1	930	8	0.03	<2	5
225432		3.35	10	<1	0.18	10	0.93	805	<1	0.05	<1	870	8	0.06	<2	5
225433		3.26	10	<1	0.21	10	0.91	877	<1	0.04	2	850	8	0.06	3	4
225434		3.31	10	<1	0.18	10	0.95	823	<1	0.03	6	910	10	0.12	2	5
225435		3.32	10	<1	0.18	10	0.94	812	<1	0.04	2	870	11	0.42	<2	4
225436		3.36	10	1	0.14	10	0.95	783	<1	0.06	3	920	8	0.16	3	5
225437		3.52	10	<1	0.18	10	0.93	808	<1	0.05	1	880	9	0.12	<2	5
225438		3.42	10	1	0.16	10	0.85	678	<1	0.05	<1	830	9	0.29	<2	4
225439		3.49	10	<1	0.13	10	0.78	765	<1	0.05	2	800	14	0.33	2	5
225440		4.25	10	1	0.19	10	1.05	1180	<1	0.04	1	970	17	0.61	<2	6
225441		3.18	10	1	0.22	10	0.75	1070	<1	0.04	<1	770	11	0.06	<2	4
225442		3.10	10	<1	0.15	10	0.74	1150	<1	0.06	<1	790	5	0.08	<2	5
225443		3.12	<10	2	0.26	10	0.69	1380	<1	0.04	<1	780	10	0.14	<2	4
225444		3.54	10	1	0.27	10	0.80	1670	<1	0.04	2	860	14	0.29	<2	5
225445		3.67	10	1	0.39	10	0.79	1970	1	0.02	1	840	17	0.69	<2	4
225446		3.98	10	<1	0.35	10	0.91	1950	1	0.03	2	820	9	0.21	<2	4
225447		3.56	10	2	0.13	10	0.81	1020	<1	0.08	<1	860	10	0.20	2	5
225448		3.29	10	3	0.12	<10	0.77	1000	<1	0.05	1	760	13	0.36	<2	4
225449		3.47	10	1	0.08	10	0.70	542	<1	0.07	1	1080	6	0.02	<2	5
225450		3.64	10	<1	0.12	10	0.81	868	<1	0.04	<1	790	10	0.91	3	5
225451		3.92	10	2	0.13	10	0.84	687	<1	0.08	<1	850	9	0.74	2	5
225452		3.82	10	1	0.11	10	0.80	831	<1	0.08	<1	800	6	0.54	<2	5
225453		3.82	10	<1	0.09	<10	0.78	905	<1	0.05	2	820	11	0.50	<2	5
225454		4.04	10	<1	0.12	10	0.86	952	1	0.06	1	880	12	0.64	3	6
225455		3.58	10	1	0.08	10	0.80	690	1	0.04	<1	790	8	0.46	6	4
225456		3.68	10	1	0.11	10	0.82	840	4	0.04	1	780	12	0.48	3	4
225457		3.75	10	1	0.12	10	0.85	1030	3	0.06	<1	860	11	0.29	<2	5
225458		3.40	10	<1	0.11	10	0.71	955	1	0.06	<1	750	7	0.23	<2	6
225459		3.48	10	1	0.15	10	0.71	991	3	0.06	1	770	12	0.29	<2	5
225460		3.93	10	<1	0.12	10	0.77	880	2	0.07	1	810	7	0.37	3	5
225461		3.96	10	1	0.08	10	0.76	743	4	0.05	<1	800	12	0.66	<2	5
225462		3.08	10	1	0.11	10	0.66	663	2	0.07	<1	810	9	0.03	<2	4
225463		3.11	10	2	0.09	10	0.68	712	2	0.05	<1	810	14	0.30	<2	5
225464		3.16	10	1	0.10	10	0.73	690	2	0.07	<1	830	9	0.15	<2	5
225465		2.98	10	1	0.07	10	0.81	719	2	0.05	1	870	8	0.02	<2	5

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Finalized Date: 28-SEP-2006
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CERTIFICATE OF ANALYSIS VA06089490

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
225426		66	0.23	<10	<10	119	<10	146
225427		79	0.12	<10	<10	85	<10	118
225428		65	0.08	<10	<10	35	<10	66
225429		100	0.28	<10	<10	126	<10	165
225430		89	0.12	<10	<10	57	<10	90
225431		88	0.13	<10	<10	64	<10	74
225432		85	0.14	<10	<10	62	<10	66
225433		90	0.11	<10	<10	55	<10	66
225434		122	0.11	<10	<10	57	<10	75
225435		90	0.12	<10	<10	58	<10	83
225436		108	0.16	<10	<10	71	<10	72
225437		129	0.13	<10	<10	64	<10	69
225438		116	0.12	<10	<10	59	<10	71
225439		119	0.13	<10	<10	62	<10	117
225440		113	0.11	<10	<10	60	<10	233
225441		142	0.09	<10	<10	52	<10	93
225442		146	0.11	<10	<10	57	<10	97
225443		114	0.04	<10	<10	51	<10	557
225444		129	0.03	<10	<10	53	<10	751
225445		81	0.02	<10	<10	42	<10	323
225446		89	0.03	<10	<10	51	<10	259
225447		175	0.13	<10	<10	64	<10	182
225448		198	0.10	<10	<10	49	<10	347
225449		138	0.15	<10	<10	109	<10	45
225450		134	0.10	<10	<10	58	<10	656
225451		170	0.14	<10	<10	67	<10	352
225452		283	0.13	<10	<10	66	<10	2190
225453		166	0.13	<10	<10	68	<10	1585
225454		163	0.15	<10	<10	72	<10	804
225455		177	0.12	<10	<10	59	<10	313
225456		179	0.12	<10	<10	59	<10	1250
225457		219	0.14	<10	<10	64	<10	991
225458		312	0.13	<10	<10	63	<10	1045
225459		178	0.13	<10	<10	61	<10	681
225460		187	0.14	<10	<10	68	<10	1850
225461		160	0.11	<10	<10	64	<10	946
225462		195	0.13	<10	<10	60	<10	144
225463		297	0.12	<10	<10	60	<10	695
225464		206	0.12	<10	<10	61	<10	1520
225465		160	0.13	<10	<10	63	<10	153

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To: NORTHGATE MINERALS CORPORATION
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 28-SEP-2006
Account: PIL

Project: 4013

CERTIFICATE OF ANALYSIS VA06089490

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
225466		0.24	<0.005	0.001	<0.2	3.85	<2	<10	90	0.8	<2	2.96	<0.5	7	3	19
225467		0.26	<0.005	0.001	0.2	3.03	<2	<10	100	0.7	<2	2.50	<0.5	6	3	18
225468		0.24	<0.005	0.001	<0.2	2.81	6	<10	80	0.6	<2	2.28	<0.5	5	4	11
225469		0.26	<0.005	0.001	<0.2	2.95	4	<10	80	0.6	<2	2.31	<0.5	7	3	12
225470		0.26	<0.005	0.002	<0.2	2.09	3	<10	70	<0.5	<2	2.04	<0.5	5	4	15
225471		0.24	0.017	0.001	<0.2	2.98	5	<10	60	0.5	<2	2.60	<0.5	9	3	7
225472		0.24	0.007	0.003	0.4	2.91	<2	<10	80	0.5	<2	3.12	<0.5	6	3	36
225473		0.24	0.078	0.003	4.2	2.96	<2	<10	90	0.5	5	2.82	<0.5	4	2	30
225474		0.26	0.070	0.003	3.9	3.03	<2	<10	110	0.5	6	2.79	<0.5	6	5	30

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CERTIFICATE OF ANALYSIS VA06089490

Sample Description	Method	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Fe	Ga	Hg	K	La	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Sc
	Units	%	ppm	ppm	%	ppm	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm
	LOR	0.01	10	1	0.01	10	0.01	5	1	0.01	1	10	2	0.01	2	1
225466		2.86	10	<1	0.11	10	0.68	615	2	0.09	<1	840	8	0.02	<2	5
225467		3.24	10	<1	0.13	10	0.76	686	2	0.10	<1	970	8	0.01	<2	5
225468		2.76	10	<1	0.11	10	0.71	603	1	0.08	<1	850	9	0.01	<2	4
225469		2.72	10	1	0.08	10	0.57	504	1	0.09	<1	850	8	0.07	<2	3
225470		2.97	10	<1	0.10	10	0.70	654	1	0.08	1	860	7	<0.01	3	5
225471		2.80	10	<1	0.10	10	0.81	763	2	0.06	1	810	9	0.23	<2	4
225472		3.09	10	<1	0.19	10	0.76	1020	2	0.06	2	840	6	0.03	<2	5
225473		3.10	10	1	0.12	10	0.84	951	2	0.05	<1	870	11	0.06	<2	5
225474		3.23	10	1	0.16	10	0.86	969	2	0.08	1	890	10	0.05	3	5

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CERTIFICATE OF ANALYSIS VA06089490

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
225466		224	0.13	<10	<10	62	<10	100
225467		188	0.15	<10	<10	69	<10	67
225468		170	0.12	<10	<10	57	<10	67
225469		211	0.11	<10	<10	60	<10	51
225470		128	0.13	<10	<10	63	<10	60
225471		170	0.09	<10	<10	50	<10	89
225472		163	0.10	<10	<10	55	<10	65
225473		172	0.11	<10	<10	56	<10	68
225474		177	0.13	<10	<10	61	<10	70

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CERTIFICATE VA06089491

Project: 4012
P.O. No.:
This report is for 49 Crushed Rock samples submitted to our lab in Vancouver, BC, Canada on 29-AUG-2006.

The following have access to data associated with this certificate:

CARL EDMUNDS RON KONST	BRIAN KAY	B. KAY

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
PUL-31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES
Au-AA23	Au 30g FA-AA finish	AAS
Cu-AA49	Assay Cu - HBr Digestion	AAS

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
225401		0.26	<0.005	0.001	<0.2	2.79	5	<10	60	0.7	<2	2.31	<0.5	5	4	10
225402		0.28	0.009	0.002	<0.2	3.29	3	<10	60	0.7	<2	2.63	1.8	5	4	23
225403		0.22	0.011	0.002	<0.2	3.62	<2	<10	60	0.7	<2	2.86	<0.5	6	3	21
225404		0.26	0.012	0.003	<0.2	3.29	2	<10	50	0.6	<2	2.67	2.5	6	3	30
225405		0.22	0.202	0.240	1.7	4.04	13	<10	30	0.7	<2	2.64	<0.5	28	105	2670
225406		0.20	0.117	0.140	1.1	3.17	7	<10	40	0.5	<2	2.15	<0.5	25	106	1495
225407		0.28	0.250	0.338	2.2	3.94	3	<10	30	0.7	<2	2.53	<0.5	45	135	3870
225408		0.28	0.189	0.259	1.6	3.97	2	<10	30	0.8	<2	3.23	<0.5	43	123	2970
225409		0.26	0.048	0.084	0.5	2.97	5	<10	40	0.6	<2	3.14	<0.5	23	88	915
225410		0.20	0.154	0.257	1.8	3.91	4	<10	50	0.8	<2	2.26	<0.5	52	80	3000
225411		0.24	0.142	0.258	2.0	3.33	<2	<10	60	0.6	<2	1.48	0.5	23	62	2850
225412		0.26	0.213	0.320	2.2	2.79	<2	<10	60	0.7	<2	1.48	0.8	18	73	3500
225413		0.20	0.245	0.349	2.2	3.06	10	<10	40	0.8	<2	1.68	0.5	20	37	3790
225414		0.20	0.203	0.269	1.8	4.34	12	<10	40	0.6	<2	2.22	<0.5	29	68	2920
225415		0.28	0.114	0.155	0.9	3.13	9	<10	20	0.5	<2	2.40	<0.5	23	84	1600
225416		0.24	0.370	0.399	2.2	3.32	11	<10	70	0.6	<2	2.29	<0.5	34	75	4290
225417		0.24	0.202	0.260	1.3	3.28	3	<10	120	<0.5	<2	2.03	<0.5	19	111	2760
225418		0.32	0.274	0.350	1.8	3.63	7	<10	60	<0.5	<2	2.16	<0.5	34	110	3870
225419		0.28	0.164	0.223	1.3	4.02	10	<10	120	<0.5	2	1.88	<0.5	30	108	2410
225420		0.32	0.125	0.201	1.3	3.77	13	<10	30	0.5	<2	2.63	<0.5	18	125	2130
225421		0.24	0.174	0.262	2.6	3.97	13	<10	150	0.5	<2	3.15	<0.5	24	64	2900
225422		0.24	0.054	0.105	1.6	2.10	5	<10	130	<0.5	<2	1.33	2.9	14	10	1040
225423		0.18	0.069	0.092	0.8	2.35	2	<10	80	<0.5	<2	2.04	1.5	8	14	919
225424		0.20	0.063	0.161	1.0	4.44	4	<10	60	0.8	<2	3.71	<0.5	16	147	1765
225425		0.06	0.809	0.002	0.7	0.22	8	10	30	<0.5	<2	0.17	<0.5	2	4	13
228077		0.26	0.070	0.027	0.8	2.45	4	<10	10	<0.5	3	5.73	<0.5	32	24	291
228078		0.26	0.059	0.033	0.8	3.36	5	<10	10	<0.5	2	4.66	<0.5	29	42	355
228079		0.26	0.070	0.039	0.8	3.13	3	<10	10	<0.5	3	5.01	<0.5	31	37	409
228080		0.24	0.073	0.026	0.7	2.73	9	<10	10	<0.5	3	5.08	<0.5	26	27	273
228081		0.24	0.132	0.040	1.1	1.32	8	<10	10	<0.5	2	4.14	<0.5	29	13	417
228082		0.26	0.110	0.073	1.0	2.66	7	<10	20	<0.5	<2	4.58	<0.5	34	40	768
228083		0.34	0.081	0.053	1.0	2.86	6	<10	10	<0.5	<2	4.61	<0.5	30	61	571
228084		0.22	0.075	0.030	0.8	3.86	4	<10	10	<0.5	<2	7.28	<0.5	25	32	325
228085		0.24	0.071	0.041	0.9	2.71	8	<10	10	<0.5	<2	7.12	<0.5	23	16	452
228086		0.26	0.082	0.063	1.2	3.68	2	<10	10	<0.5	<2	4.70	<0.5	27	30	678
228087		0.30	0.077	0.062	1.5	4.05	5	<10	20	<0.5	2	2.69	<0.5	36	35	684
228088		0.28	0.077	0.046	0.8	3.52	6	<10	40	<0.5	2	1.35	<0.5	38	40	515
228089		0.30	0.043	0.027	0.5	4.36	6	<10	30	<0.5	2	1.33	<0.5	37	77	296
228090		0.30	0.098	0.060	1.2	3.86	4	<10	30	<0.5	4	1.21	<0.5	34	52	664
228091		0.26	0.092	0.076	1.2	2.92	4	<10	10	<0.5	3	1.31	<0.5	40	29	810

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CERTIFICATE OF ANALYSIS VA06089491

Sample Description	Method	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Fe	Ga	Hg	K	La	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Sc
	Units	%	ppm	ppm	%	ppm	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm
	LOR	0.01	10	1	0.01	10	0.01	5	1	0.01	1	10	2	0.01	2	1
225401		2.63	10	<1	0.14	10	0.72	647	<1	0.10	1	540	10	0.02	<2	5
225402		2.65	10	1	0.12	10	0.79	700	<1	0.09	2	550	33	0.02	<2	5
225403		2.60	10	1	0.13	10	0.77	679	<1	0.10	1	500	8	0.01	<2	6
225404		2.51	10	<1	0.11	10	0.77	651	<1	0.08	1	500	10	0.02	<2	5
225405		6.07	10	<1	0.12	<10	3.24	974	105	0.07	27	1180	5	1.43	<2	20
225406		5.29	10	<1	0.14	<10	2.51	715	41	0.08	29	1170	3	1.22	<2	12
225407		6.65	10	1	0.12	<10	3.49	980	109	0.07	39	1280	4	2.62	<2	18
225408		6.49	10	<1	0.11	<10	3.29	1120	90	0.07	38	1180	7	2.94	<2	20
225409		5.90	10	<1	0.12	<10	2.41	1090	14	0.08	24	1190	5	2.09	<2	15
225410		8.11	20	<1	0.18	<10	3.42	1090	41	0.09	33	1260	3	4.23	<2	22
225411		4.65	10	<1	0.19	<10	2.10	920	82	0.07	16	1290	8	1.13	<2	11
225412		3.20	10	1	0.15	10	1.88	571	740	0.08	15	1000	10	0.74	<2	13
225413		3.55	10	<1	0.19	10	1.90	428	135	0.10	12	1110	7	1.17	<2	12
225414		6.42	10	1	0.15	10	3.22	742	300	0.06	25	1080	3	1.10	<2	22
225415		5.16	10	<1	0.10	<10	1.94	666	733	0.06	22	1080	5	0.69	2	10
225416		5.30	10	1	0.11	<10	2.15	620	247	0.08	28	1180	8	1.71	<2	12
225417		4.80	10	<1	0.10	<10	1.86	480	75	0.14	24	1110	4	1.14	2	11
225418		6.16	10	1	0.14	<10	2.13	448	60	0.11	39	1200	6	3.64	<2	12
225419		5.46	10	1	0.14	<10	2.72	576	53	0.15	39	1140	6	2.66	3	14
225420		4.92	10	1	0.10	<10	1.84	594	33	0.10	30	1040	5	1.02	<2	8
225421		5.20	10	<1	0.10	<10	2.17	938	68	0.08	27	1150	5	1.32	2	11
225422		4.97	10	<1	0.21	<10	0.98	975	17	0.05	6	820	17	0.33	<2	5
225423		4.21	10	<1	0.24	<10	0.93	960	22	0.05	5	700	8	0.24	<2	4
225424		5.60	10	<1	0.20	<10	2.59	2210	21	0.04	27	910	6	0.21	<2	13
225425		3.00	<10	<1	0.04	<10	0.04	31	1	0.12	2	570	113	2.94	<2	<1
228077		7.08	10	<1	0.14	<10	1.96	480	37	0.03	19	970	7	>10.0	<2	3
228078		6.13	10	<1	0.12	<10	3.05	709	8	0.03	19	1290	5	8.98	2	5
228079		6.19	10	1	0.11	<10	2.78	636	17	0.02	22	980	6	9.56	<2	4
228080		6.10	10	<1	0.11	<10	2.23	549	4	0.03	20	1060	15	9.78	<2	4
228081		9.42	<10	<1	0.16	<10	0.82	215	7	0.03	20	960	14	>10.0	3	2
228082		6.95	10	<1	0.12	<10	2.07	605	51	0.02	32	1500	10	10.00	<2	4
228083		6.45	10	<1	0.11	<10	2.52	705	28	0.02	40	1340	6	9.54	<2	3
228084		5.89	10	1	0.03	<10	2.61	1050	8	0.07	17	1020	9	>10.0	<2	12
228085		5.11	10	1	0.10	<10	1.85	726	27	0.03	15	1050	12	9.55	<2	6
228086		6.68	10	<1	0.07	<10	2.81	1145	13	0.04	19	1210	16	8.00	<2	10
228087		8.25	10	<1	0.11	10	2.93	1140	26	0.04	21	1200	10	8.27	<2	9
228088		8.47	10	<1	0.13	10	2.22	966	24	0.05	26	1160	17	7.62	<2	6
228089		8.36	10	<1	0.12	<10	3.19	1325	13	0.05	34	1230	13	6.60	<2	9
228090		9.43	10	<1	0.11	<10	2.82	1060	6	0.04	29	1400	14	8.79	<2	8
228091		7.86	10	1	0.19	<10	1.42	543	57	0.04	28	1210	13	8.02	<2	4

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Project: 4012

CERTIFICATE OF ANALYSIS VA06089491

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
225401		95	0.16	<10	<10	54	<10	66
225402		114	0.16	<10	<10	56	<10	137
225403		134	0.15	<10	<10	53	<10	97
225404		120	0.15	<10	<10	51	<10	170
225405		70	0.42	<10	<10	238	<10	110
225406		58	0.34	<10	<10	189	<10	81
225407		41	0.37	<10	<10	229	<10	79
225408		50	0.38	<10	<10	238	<10	89
225409		40	0.31	<10	<10	239	<10	70
225410		47	0.41	<10	<10	264	<10	93
225411		58	0.23	<10	<10	117	<10	117
225412		36	0.26	<10	<10	122	<10	84
225413		40	0.28	<10	<10	120	<10	67
225414		82	0.43	<10	<10	260	<10	91
225415		70	0.33	<10	<10	221	<10	86
225416		270	0.34	<10	<10	225	<10	88
225417		1215	0.30	<10	<10	222	<10	86
225418		904	0.27	<10	<10	183	<10	67
225419		1655	0.34	<10	<10	184	<10	81
225420		220	0.30	<10	<10	184	<10	72
225421		242	0.31	<10	<10	178	<10	84
225422		94	0.15	<10	<10	77	<10	495
225423		70	0.13	<10	<10	62	<10	299
225424		108	0.24	<10	<10	130	<10	179
225425		5	<0.01	<10	<10	1	<10	21
228077		236	<0.01	<10	<10	52	<10	109
228078		161	<0.01	<10	<10	74	<10	156
228079		185	<0.01	<10	<10	71	<10	143
228080		123	<0.01	<10	<10	54	<10	117
228081		148	<0.01	<10	<10	26	<10	50
228082		232	<0.01	<10	<10	62	<10	130
228083		145	<0.01	<10	<10	60	<10	146
228084		249	0.01	<10	<10	129	<10	229
228085		189	<0.01	<10	<10	79	<10	171
228086		125	<0.01	<10	<10	108	<10	286
228087		89	<0.01	<10	<10	99	<10	275
228088		316	<0.01	<10	<10	81	<10	219
228089		181	<0.01	<10	<10	111	<10	284
228090		179	<0.01	<10	<10	89	<10	228
228091		49	0.01	<10	<10	51	<10	118

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To: NORTHGATE MINERALS CORPORATION
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 28-SEP-2006
Account: PIL

Project: 4012

CERTIFICATE OF ANALYSIS VA06089491

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
228092		0.30	0.066	0.038	0.6	3.14	3	<10	20	<0.5	2	1.60	<0.5	32	25	429
228093		0.30	0.106	0.059	1.1	3.60	7	<10	30	<0.5	3	2.45	<0.5	41	37	679
228094		0.28	0.181	0.146	1.7	3.64	9	<10	30	<0.5	3	1.49	0.7	40	32	1620
228095		0.26	0.235	0.196	2.1	3.75	9	<10	10	<0.5	3	1.09	0.6	46	38	2210
228096		0.26	0.206	0.167	1.5	3.92	10	<10	10	<0.5	2	1.41	<0.5	44	40	1865
228097		0.28	0.080	0.038	0.5	1.75	9	<10	20	<0.5	3	0.74	<0.5	53	13	412
228098		0.24	0.087	0.074	0.8	4.34	6	<10	20	<0.5	<2	0.93	<0.5	40	41	824
228099		0.06	0.393	<0.001	<0.2	0.21	<2	<10	20	<0.5	3	0.07	<0.5	<1	2	8
228100		Not Recvd														

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Project: 4012

CERTIFICATE OF ANALYSIS VA06089491

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
228092		8.00	10	1	0.14	<10	1.55	609	21	0.05	22	990	9	8.09	2	4
228093		9.26	10	1	0.11	<10	2.00	826	16	0.08	29	1170	16	9.11	<2	9
228094		7.89	10	1	0.13	10	2.13	714	160	0.05	23	1060	12	7.69	<2	8
228095		8.53	10	<1	0.18	10	2.89	937	229	0.03	26	1260	8	7.84	<2	8
228096		9.59	10	<1	0.13	10	2.99	824	57	0.02	26	1160	7	6.71	2	12
228097		10.30	<10	<1	0.22	10	0.95	198	82	0.02	26	1100	7	>10.0	<2	3
228098		7.90	10	<1	0.16	10	3.38	679	75	0.03	25	1150	5	5.88	<2	8
228099		0.38	<10	<1	0.10	<10	0.04	64	<1	0.06	1	60	2	0.01	<2	<1
228100																

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Finalized Date: 28-SEP-2006
Account: PIL

Project: 4012

CERTIFICATE OF ANALYSIS VA06089491

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
228092		62	0.01	<10	<10	57	<10	126
228093		391	<0.01	<10	<10	88	<10	168
228094		352	0.01	<10	<10	85	<10	162
228095		37	0.01	<10	<10	85	<10	208
228096		23	0.01	<10	<10	128	<10	183
228097		22	<0.01	<10	<10	37	<10	43
228098		31	0.01	<10	<10	101	<10	144
228099		5	<0.01	<10	<10	1	<10	4
228100								

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Finalized Date: 2-OCT-2006
Account: PIL

CERTIFICATE VA06091177

Project: 4013
P.O. No.:
This report is for 20 Pulp samples submitted to our lab in Vancouver, BC, Canada on 12-SEP-2006.
The following have access to data associated with this certificate:

CARL EDMUNDS RON KONST	B. KAY	BRIAN KAY

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-24	Pulp Login - Rcd w/o Barcode

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES
Au-AA23	Au 30g FA-AA finish	AAS
Cu-AA49	Assay Cu - HBr Digestion	AAS

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
KEMESS MINE
PO BOX 3519
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This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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Finalized Date: 2-OCT-2006
Account: PIL

Project: 4013

CERTIFICATE OF ANALYSIS VA06091177

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
225475		0.28	<0.005	0.003	<0.2	4.93	<2	<10	120	0.8	<2	3.97	<0.5	5	41	28
225476		0.26	0.012	0.003	<0.2	4.81	2	<10	90	0.7	<2	3.79	<0.5	4	49	26
225477		0.26	0.086	0.010	0.3	4.55	2	<10	90	0.8	<2	3.36	<0.5	5	37	93
225478		0.24	0.024	0.005	0.5	3.76	3	<10	90	0.7	<2	3.02	<0.5	5	63	45
225479		0.28	0.007	0.002	0.2	3.26	4	<10	130	0.6	<2	3.36	0.6	5	62	22
225480		0.26	<0.005	0.003	<0.2	6.63	<2	<10	100	0.9	<2	6.40	<0.5	6	41	33
225481		0.26	0.007	0.001	<0.2	5.18	<2	<10	80	0.8	<2	4.44	<0.5	6	53	14
225482		0.24	0.011	0.002	<0.2	3.83	5	<10	90	0.7	<2	3.16	<0.5	4	54	20
225483		0.26	<0.005	0.002	<0.2	3.28	4	<10	110	0.6	<2	2.73	<0.5	4	69	23
225484		0.26	<0.005	0.004	<0.2	4.09	2	<10	130	0.7	<2	3.23	2.0	4	53	48
225485		0.24	<0.005	0.003	<0.2	3.54	3	<10	130	0.6	<2	2.82	1.2	3	55	32
225486		0.26	0.010	0.004	0.2	3.48	5	<10	120	0.6	<2	2.80	<0.5	4	58	42
225487		0.26	<0.005	0.003	<0.2	3.50	6	<10	120	0.7	<2	2.84	1.5	5	51	36
225488		0.24	0.017	0.002	<0.2	3.60	8	<10	100	0.6	<2	2.74	0.7	8	54	20
225489		0.26	<0.005	0.002	<0.2	3.30	4	<10	110	0.6	<2	2.68	0.6	5	51	19
225490		0.26	0.029	0.001	<0.2	3.31	<2	<10	90	0.6	2	2.68	<0.5	4	46	16
225491		0.24	<0.005	0.001	<0.2	4.38	<2	<10	90	0.7	<2	3.41	<0.5	4	43	14
225492		0.24	<0.005	0.002	<0.2	3.78	3	<10	90	0.7	<2	3.08	<0.5	5	54	25
225493		0.24	<0.005	0.003	0.2	3.16	<2	<10	100	0.6	<2	2.49	<0.5	5	74	35
225494		0.22	<0.005	0.003	<0.2	3.25	<2	<10	120	0.6	<2	2.50	<0.5	6	64	35

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KEMESS MINE
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SMITHERS BC V0J 2N0

Finalized Date: 2-OCT-2006
Account: PIL

Project: 4013

CERTIFICATE OF ANALYSIS VA06091177

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
225475		2.85	10	<1	0.19	10	0.73	707	2	0.07	3	760	5	0.05	<2	6
225476		2.80	10	<1	0.14	10	0.76	640	3	0.06	3	740	5	0.07	<2	5
225477		2.78	10	<1	0.21	10	0.75	756	2	0.07	3	740	9	0.08	<2	5
225478		3.00	10	1	0.20	10	0.78	810	2	0.07	2	760	10	0.05	<2	6
225479		3.00	10	<1	0.27	10	0.71	1010	3	0.05	3	730	18	0.08	<2	5
225480		2.91	10	1	0.15	10	0.76	842	1	0.06	1	730	7	0.14	3	6
225481		2.67	10	<1	0.16	10	0.72	696	2	0.05	3	730	7	0.03	<2	5
225482		2.90	10	<1	0.22	10	0.76	777	2	0.07	4	730	7	0.01	<2	6
225483		2.84	10	<1	0.19	10	0.63	610	3	0.10	3	760	6	0.01	<2	5
225484		3.09	10	<1	0.19	10	0.63	787	5	0.10	3	760	7	0.04	<2	5
225485		2.79	10	<1	0.20	10	0.63	579	5	0.11	2	750	6	0.03	<2	4
225486		3.03	10	<1	0.20	10	0.70	613	3	0.11	1	800	7	0.06	<2	5
225487		2.96	10	1	0.21	10	0.65	658	4	0.11	2	760	8	0.05	2	5
225488		2.83	10	<1	0.20	10	0.66	764	3	0.10	2	750	8	0.08	<2	4
225489		2.66	10	<1	0.18	10	0.51	793	3	0.12	3	750	6	0.01	<2	3
225490		2.70	10	<1	0.15	10	0.56	831	3	0.09	2	760	6	<0.01	<2	4
225491		2.53	10	<1	0.15	10	0.50	713	3	0.09	2	730	8	<0.01	<2	4
225492		2.76	10	<1	0.17	10	0.61	852	3	0.11	3	770	5	0.01	<2	5
225493		2.88	10	<1	0.20	10	0.62	898	4	0.14	2	800	7	0.01	<2	5
225494		2.71	10	<1	0.21	10	0.53	788	4	0.16	2	770	7	0.01	<2	3

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KEMESS MINE
PO BOX 3519
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Finalized Date: 2-OCT-2006
Account: PIL

Project: 4013

CERTIFICATE OF ANALYSIS VA06091177

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
225475		307	0.13	<10	<10	58	<10	58
225476		310	0.11	<10	<10	52	<10	56
225477		294	0.12	<10	<10	51	<10	75
225478		238	0.12	<10	<10	54	<10	69
225479		181	0.10	<10	<10	49	<10	149
225480		409	0.13	<10	<10	58	<10	96
225481		321	0.13	<10	10	58	<10	83
225482		230	0.13	<10	<10	57	<10	64
225483		211	0.14	<10	<10	57	<10	54
225484		265	0.15	<10	<10	62	<10	383
225485		244	0.13	<10	<10	57	<10	234
225486		233	0.15	<10	<10	60	<10	61
225487		234	0.14	<10	<10	61	<10	261
225488		245	0.14	<10	<10	55	<10	173
225489		251	0.14	<10	<10	59	<10	159
225490		229	0.13	<10	<10	57	<10	63
225491		278	0.13	<10	<10	56	<10	53
225492		241	0.15	<10	<10	63	<10	62
225493		213	0.16	<10	<10	63	<10	58
225494		247	0.15	<10	<10	60	<10	61

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KEMESS MINE
PO BOX 3519
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Finalized Date: 6-JAN-2007
This copy reported on 19-FEB-2007
Account: PIL

CERTIFICATE VA06124415

Project: 4012
P.O. No.:
This report is for 197 Pulp samples submitted to our lab in Vancouver, BC, Canada on 29-NOV-2006.
The following have access to data associated with this certificate:

CARL EDMUNDS RON KONST	B. KAY	BRIAN KAY

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-QC	QC Test on Received Samples
LOG-24	Pulp Login - Rcd w/o Barcode

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au-AA23	Au 30g FA-AA finish	AAS
Cu-AA49	Assay Cu - HBr Digestion	AAS
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 6-JAN-2007
Account: PIL

Project: 4012

CERTIFICATE OF ANALYSIS VA06124415

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
229329		0.26	0.205	0.036	1.1	4.34	4	<10	80	0.6	<2	2.21	<0.5	19	49	387
229330		0.26	0.137	0.028	0.6	4.54	5	<10	80	0.6	<2	3.33	0.6	27	57	289
229331		0.26	0.107	0.019	0.6	4.17	7	<10	30	<0.5	<2	3.40	<0.5	28	72	207
229332		0.28	0.120	0.016	0.6	3.58	8	<10	30	<0.5	2	2.54	<0.5	25	58	172
229333		0.28	0.100	0.010	0.5	3.65	<2	<10	30	<0.5	<2	2.57	<0.5	43	69	115
229334		0.24	0.099	0.016	0.5	3.66	8	<10	40	<0.5	2	2.81	<0.5	57	74	164
229335		0.26	0.161	0.025	0.7	3.78	2	<10	100	<0.5	<2	2.64	<0.5	30	101	257
229336		0.24	0.165	0.032	0.9	2.46	2	<10	80	<0.5	<2	2.28	<0.5	27	73	331
229337		0.24	0.167	0.035	1.2	3.17	10	<10	20	<0.5	3	1.69	13.4	15	111	384
229338		0.22	0.217	0.036	1.3	3.23	<2	<10	20	<0.5	2	1.50	3.1	27	122	376
229339		0.26	0.153	0.014	0.6	2.82	<2	<10	10	<0.5	2	2.02	<0.5	32	133	150
229340		0.24	0.213	0.047	0.9	2.48	11	<10	20	<0.5	3	1.68	1.7	35	95	515
229341		0.26	0.160	0.027	0.8	3.77	10	<10	10	<0.5	<2	3.43	<0.5	26	115	295
229342		0.24	0.110	0.010	0.2	3.75	11	<10	80	<0.5	3	3.23	<0.5	33	104	113
229343		0.24	0.134	0.028	0.6	2.41	3	<10	20	<0.5	<2	3.10	<0.5	24	121	308
229344		0.24	0.065	0.008	0.3	2.31	9	<10	10	<0.5	<2	2.33	<0.5	20	84	88
229345		0.28	0.085	0.014	0.3	2.72	9	<10	20	<0.5	<2	2.86	<0.5	22	92	151
229346		0.24	0.123	0.009	0.3	3.07	4	<10	20	<0.5	<2	2.81	<0.5	40	94	100
229347		0.26	0.084	0.005	0.4	2.58	<2	<10	20	<0.5	<2	3.35	<0.5	28	97	60
229348		0.26	0.127	0.032	0.7	4.40	5	<10	20	0.5	2	5.39	<0.5	46	130	378
229349		0.22	0.144	0.030	0.8	3.39	17	<10	20	<0.5	<2	3.09	<0.5	40	132	332
229350		0.24	<0.005	0.003	<0.2	1.91	<2	<10	140	<0.5	<2	1.84	<0.5	7	72	37
229351		0.24	0.095	0.015	0.5	2.64	9	<10	20	<0.5	<2	2.75	<0.5	50	111	168
229352		0.20	0.059	0.010	0.3	2.43	5	<10	20	<0.5	<2	2.52	<0.5	29	100	117
229353		0.18	0.114	0.019	0.5	2.42	15	<10	20	<0.5	<2	2.50	<0.5	35	112	212
229354		0.28	0.134	0.008	0.6	2.31	7	<10	20	<0.5	<2	2.21	<0.5	26	94	96
229355		0.26	0.086	0.012	<0.2	2.37	7	<10	10	<0.5	3	2.27	<0.5	16	102	125
229356		0.26	0.107	0.012	0.4	2.64	13	<10	10	<0.5	2	2.27	<0.5	22	104	134
229357		0.28	0.183	0.025	0.8	3.23	20	<10	10	<0.5	4	2.49	<0.5	33	124	276
229358		0.28	0.112	0.027	0.5	2.40	8	<10	10	<0.5	<2	2.56	0.5	25	106	287
229359		0.26	0.288	0.062	1.1	3.73	17	<10	20	<0.5	2	1.76	<0.5	26	128	713
229360		0.26	0.096	0.021	0.5	2.82	<2	<10	20	<0.5	4	2.08	<0.5	17	88	232
229361		0.24	0.057	0.005	0.2	2.68	6	<10	20	<0.5	2	2.25	<0.5	25	103	50
229362		0.26	0.068	0.007	0.6	2.81	10	<10	10	<0.5	2	2.24	<0.5	16	134	75
229363		0.24	0.104	0.014	0.5	3.41	13	<10	10	<0.5	2	2.33	<0.5	22	151	148
229364		0.28	0.063	0.006	0.4	2.60	12	<10	30	<0.5	<2	2.41	<0.5	36	92	68
229365		0.24	0.108	0.012	0.4	3.00	7	<10	10	<0.5	2	3.25	<0.5	46	104	122
229366		0.26	0.111	0.010	0.6	2.85	<2	<10	20	<0.5	<2	2.82	<0.5	38	83	108
229367		0.24	0.153	0.040	0.8	3.25	16	<10	20	0.5	2	3.58	<0.5	41	117	427
229368		0.28	0.119	0.038	0.7	3.84	10	<10	10	0.5	<2	3.35	0.5	39	151	410

Comments: **CORRECTED COPY FOR Au-AA23 ON SAMPLE 229425**

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ALS Canada Ltd.
212 Brooksbank Avenue
North Vancouver BC V7J 2C1
Phone: 604 984 0221 Fax: 604 984 0218 www.alschemex.com

To: NORTHGATE MINERALS CORPORATION
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 6-JAN-2007
Account: PIL

Project: 4012

CERTIFICATE OF ANALYSIS VA06124415

Sample Description	Method	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Fe	Ga	Hg	K	La	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Sc
	Units	%	ppm	ppm	%	ppm	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm
	LOR	0.01	10	1	0.01	10	0.01	5	1	0.01	1	10	2	0.01	2	1
229329		6.23	10	2	0.17	<10	2.65	919	1	0.07	19	1190	9	4.14	<2	11
229330		6.51	10	<1	0.10	<10	2.37	942	2	0.07	20	1150	6	4.36	<2	12
229331		6.44	10	<1	0.07	<10	2.55	1320	<1	0.07	18	1080	3	3.29	2	12
229332		7.02	10	3	0.09	<10	2.11	1120	<1	0.07	24	990	13	3.42	3	8
229333		7.20	10	<1	0.08	<10	2.49	948	1	0.07	26	1060	9	5.41	<2	10
229334		8.23	10	<1	0.07	<10	3.05	1110	1	0.08	30	1180	16	6.01	2	16
229335		7.59	10	1	0.09	<10	2.92	1230	<1	0.10	33	1100	9	4.74	5	15
229336		5.54	10	<1	0.07	<10	1.33	822	<1	0.17	25	1390	13	4.49	<2	7
229337		6.75	10	2	0.04	<10	2.86	1660	<1	0.10	27	1370	15	4.95	2	8
229338		7.74	10	<1	0.06	<10	2.98	1860	1	0.14	32	1300	15	6.15	3	9
229339		7.80	10	1	0.04	<10	2.54	1510	<1	0.09	29	1070	11	6.65	2	11
229340		8.05	10	<1	0.08	<10	1.95	1050	1	0.15	27	1310	4	7.39	3	10
229341		8.39	10	<1	0.05	<10	2.34	1220	1	0.08	27	1400	5	6.84	<2	13
229342		7.89	10	2	0.08	<10	1.53	844	1	0.15	25	1350	14	6.44	5	10
229343		6.83	10	<1	0.04	<10	1.77	1100	1	0.13	27	1370	10	3.94	2	10
229344		4.88	10	<1	0.06	<10	1.45	973	1	0.21	24	1300	9	2.06	<2	7
229345		4.70	10	2	0.05	<10	1.87	1130	<1	0.14	26	1250	8	2.73	<2	10
229346		7.41	10	2	0.07	<10	1.49	981	1	0.26	31	1270	15	4.14	4	9
229347		5.70	10	2	0.05	<10	2.15	1220	<1	0.18	26	1270	10	2.23	<2	14
229348		8.77	10	1	0.07	<10	3.34	1600	<1	0.16	35	1340	13	4.25	5	23
229349		7.09	10	1	0.05	<10	2.83	1450	1	0.21	31	1290	8	4.19	<2	14
229350		3.71	10	2	0.22	10	0.72	563	3	0.18	1	1090	<2	0.04	<2	5
229351		5.63	10	2	0.06	<10	2.03	1070	<1	0.17	29	1290	10	2.99	<2	10
229352		5.65	10	1	0.08	<10	1.49	862	<1	0.23	28	1260	8	1.50	<2	9
229353		6.09	10	2	0.08	<10	1.38	842	1	0.24	24	1190	10	3.04	3	8
229354		5.07	10	1	0.07	<10	1.20	644	<1	0.28	21	1220	11	2.59	<2	7
229355		5.76	10	<1	0.08	<10	1.38	750	1	0.25	25	1230	8	1.96	<2	8
229356		6.09	10	<1	0.07	<10	1.65	857	<1	0.19	24	1250	9	2.56	<2	8
229357		8.08	10	<1	0.06	<10	2.24	1020	<1	0.17	23	1230	20	6.20	<2	9
229358		5.36	10	1	0.07	<10	1.27	681	<1	0.22	24	1280	16	2.26	4	7
229359		8.56	10	<1	0.13	<10	3.08	1260	<1	0.12	31	1470	12	5.83	<2	9
229360		5.78	10	<1	0.20	<10	1.95	806	1	0.24	28	1580	8	2.74	3	6
229361		5.32	10	<1	0.16	<10	1.49	682	<1	0.24	25	1290	5	2.80	2	7
229362		5.90	10	<1	0.06	<10	2.10	943	<1	0.12	29	1240	7	3.57	<2	8
229363		6.39	10	<1	0.05	<10	2.35	945	1	0.11	34	1330	10	4.59	<2	8
229364		5.72	10	<1	0.10	<10	1.43	639	<1	0.22	29	1240	5	3.75	<2	8
229365		7.06	10	3	0.07	<10	1.49	643	<1	0.16	28	1250	7	5.69	<2	9
229366		6.07	10	<1	0.09	<10	1.03	523	<1	0.27	28	1340	10	5.89	6	7
229367		7.15	10	1	0.08	<10	1.16	575	<1	0.15	33	1270	10	7.15	5	8
229368		6.22	10	<1	0.06	<10	2.13	710	1	0.10	36	1100	6	5.44	<2	10

Comments: **CORRECTED COPY FOR Au-AA23 ON SAMPLE 229425**

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ALS Canada Ltd.
212 Brooksbank Avenue
North Vancouver BC V7J 2C1
Phone: 604 984 0221 Fax: 604 984 0218 www.alschemex.com

To: NORTHGATE MINERALS CORPORATION
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

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Project: 4012

CERTIFICATE OF ANALYSIS VA06124415

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
229329		137	0.25	<10	<10	170	10	161
229330		161	0.24	<10	<10	181	<10	168
229331		134	0.29	<10	<10	175	<10	157
229332		118	0.29	<10	<10	162	<10	166
229333		121	0.32	<10	<10	175	<10	174
229334		120	0.33	<10	<10	222	<10	194
229335		259	0.30	<10	<10	202	<10	213
229336		279	0.34	<10	<10	122	<10	95
229337		159	0.27	<10	<10	124	<10	1535
229338		135	0.30	<10	<10	146	<10	558
229339		88	0.29	<10	<10	152	<10	204
229340		175	0.36	<10	<10	148	<10	272
229341		187	0.32	<10	<10	160	<10	150
229342		888	0.39	<10	<10	151	<10	112
229343		223	0.45	<10	<10	170	<10	117
229344		125	0.47	<10	<10	150	<10	99
229345		220	0.41	10	<10	119	<10	127
229346		175	0.41	<10	<10	126	<10	111
229347		293	0.41	<10	<10	145	<10	122
229348		197	0.39	<10	<10	207	<10	183
229349		240	0.35	<10	<10	151	<10	209
229350		101	0.19	<10	<10	120	<10	44
229351		203	0.43	<10	<10	115	<10	160
229352		120	0.43	<10	<10	111	<10	104
229353		215	0.42	<10	<10	93	<10	101
229354		153	0.41	<10	<10	92	<10	96
229355		102	0.41	<10	<10	102	<10	105
229356		115	0.41	<10	<10	92	<10	129
229357		145	0.38	<10	<10	127	<10	176
229358		95	0.42	<10	<10	110	<10	115
229359		180	0.35	<10	<10	205	<10	229
229360		184	0.44	<10	<10	190	<10	148
229361		282	0.45	<10	<10	83	<10	114
229362		161	0.42	<10	<10	95	<10	142
229363		171	0.43	<10	<10	101	<10	152
229364		280	0.40	<10	<10	88	<10	88
229365		176	0.39	<10	<10	86	<10	82
229366		207	0.42	<10	<10	93	<10	77
229367		104	0.41	<10	<10	123	<10	81
229368		111	0.30	<10	<10	132	<10	134

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Project: 4012

CERTIFICATE OF ANALYSIS VA06124415

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
229369		0.26	0.120	0.022	0.6	2.89	15	<10	20	<0.5	2	2.46	<0.5	43	138	230
229370		0.28	0.096	0.037	0.6	2.31	11	<10	30	<0.5	<2	2.22	<0.5	31	104	399
229371		0.26	0.110	0.025	0.7	2.29	11	<10	10	<0.5	2	2.38	<0.5	26	112	259
229372		0.26	0.139	0.022	0.5	3.42	14	<10	20	<0.5	<2	2.37	<0.5	26	100	241
229373		0.36	0.231	0.030	1.0	3.93	33	<10	10	<0.5	3	3.02	<0.5	36	165	350
229374		0.24	0.275	0.026	0.9	3.44	24	<10	40	<0.5	5	4.29	1.1	30	167	291
229375		0.06	1.335	0.001	0.9	0.18	4	<10	30	<0.5	9	0.11	<0.5	1	4	7
229376		0.24	0.103	0.012	0.5	3.20	10	<10	30	<0.5	3	3.86	<0.5	39	152	130
229377		0.42	0.199	0.031	0.7	2.54	17	<10	30	<0.5	3	2.52	<0.5	29	117	321
229378		0.20	0.280	0.044	0.8	2.89	22	<10	10	<0.5	5	2.55	<0.5	27	127	457
229379		0.26	0.313	0.017	0.6	2.63	23	<10	10	<0.5	3	2.57	<0.5	39	129	175
229380		0.22	0.187	0.036	0.5	2.67	19	<10	20	<0.5	3	2.18	<0.5	36	126	377
229381		0.28	0.261	0.046	0.9	3.72	13	<10	10	<0.5	5	2.99	2.1	43	188	506
229382		0.24	0.101	0.011	0.3	3.17	5	<10	20	<0.5	<2	3.12	<0.5	23	109	118
229383		0.28	0.075	0.010	0.2	2.90	5	<10	20	<0.5	3	2.60	<0.5	15	103	98
229384		0.26	0.078	0.014	0.3	2.56	10	<10	30	<0.5	<2	2.44	<0.5	19	108	138
229385		0.30	0.168	0.025	0.6	3.88	21	<10	10	0.5	3	5.06	<0.5	43	162	272
229386		0.24	0.110	0.024	0.5	3.42	13	<10	10	<0.5	2	4.26	<0.5	24	141	249
229387		0.26	0.164	0.019	0.4	2.61	17	<10	20	<0.5	2	2.53	<0.5	23	118	190
229388		0.24	0.110	0.018	0.3	2.78	6	<10	20	<0.5	<2	2.46	<0.5	14	98	177
229389		0.28	0.098	0.010	0.2	2.88	11	<10	20	<0.5	<2	2.70	<0.5	21	139	98
229390		0.24	0.148	0.003	<0.2	2.56	16	<10	40	<0.5	2	2.34	<0.5	35	137	34
229391		0.26	0.240	0.004	0.4	4.13	67	<10	10	<0.5	4	2.82	<0.5	61	356	40
229392		0.26	0.164	0.009	0.3	3.96	16	<10	10	<0.5	5	4.20	<0.5	35	181	95
229393		0.28	0.141	0.021	0.4	4.23	28	<10	<10	<0.5	3	3.85	<0.5	42	103	223
229394		0.28	0.273	0.045	0.7	6.79	23	<10	<10	0.7	6	5.69	<0.5	66	147	541
229395		0.28	0.109	0.017	0.4	5.42	13	<10	10	0.5	2	4.51	<0.5	22	116	185
229396		0.28	0.092	0.019	0.7	5.03	9	<10	10	0.6	5	4.56	<0.5	19	118	192
229397		0.28	0.172	0.026	1.0	4.07	17	<10	10	0.5	2	3.18	<0.5	33	84	275
229398		0.26	0.109	0.015	0.6	3.32	7	<10	20	<0.5	2	3.10	1.3	16	74	150
229399		0.28	0.143	0.019	0.3	3.09	10	<10	20	<0.5	<2	2.62	<0.5	32	69	193
229400		0.28	0.140	0.019	0.3	2.90	14	<10	20	<0.5	3	2.50	<0.5	32	71	187
229401		0.26	0.102	0.012	0.3	4.54	7	<10	10	0.6	3	4.85	<0.5	32	114	132
229402		0.24	0.118	0.010	0.3	4.54	5	<10	10	0.6	2	6.28	<0.5	30	170	114
229403		0.34	0.138	0.022	0.4	4.56	8	<10	10	<0.5	3	4.18	<0.5	31	116	248
229404		0.28	0.115	0.022	0.3	3.50	21	<10	10	<0.5	5	4.36	<0.5	18	91	242
229405		0.28	0.155	0.015	0.7	4.38	14	<10	10	0.6	<2	8.16	<0.5	29	90	178
229406		0.28	0.082	0.006	0.6	2.28	6	<10	20	<0.5	2	2.76	<0.5	15	122	67
229407		0.26	0.120	0.009	0.3	2.26	5	<10	10	<0.5	2	2.72	<0.5	14	126	102
229408		0.26	0.068	0.004	0.8	2.73	11	<10	10	<0.5	3	3.49	0.9	31	158	53

Comments: **CORRECTED COPY FOR Au-AA23 ON SAMPLE 229425**

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CERTIFICATE OF ANALYSIS VA06124415

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
229369		7.82	10	1	0.07	<10	1.70	631	1	0.12	41	1120	14	7.81	<2	7
229370		5.41	10	<1	0.11	<10	1.35	563	<1	0.21	28	1310	11	5.31	<2	6
229371		4.99	10	<1	0.11	<10	1.32	544	<1	0.18	33	1250	14	4.69	7	7
229372		7.82	10	<1	0.11	<10	2.45	689	<1	0.13	26	1660	10	7.76	<2	8
229373		10.55	10	<1	0.12	<10	3.13	1020	1	0.17	37	1370	15	>10.0	5	13
229374		9.03	10	<1	0.16	<10	2.90	1110	3	0.07	32	1020	27	8.97	<2	17
229375		3.24	<10	<1	0.10	<10	0.03	87	1	0.06	3	350	136	3.14	<2	<1
229376		7.70	10	<1	0.06	<10	3.28	1180	1	0.15	32	1190	20	6.26	<2	21
229377		5.95	10	1	0.07	<10	2.23	1040	<1	0.17	28	1180	14	4.71	2	10
229378		5.96	10	1	0.08	<10	2.28	1020	<1	0.16	28	1160	13	4.34	<2	11
229379		6.61	10	1	0.10	<10	1.31	606	<1	0.16	32	1060	20	6.16	3	7
229380		5.45	10	<1	0.12	<10	1.51	576	<1	0.22	37	970	7	4.91	<2	7
229381		8.60	10	1	0.09	<10	2.48	922	1	0.14	44	1010	41	8.39	<2	11
229382		4.26	10	<1	0.12	<10	1.28	550	<1	0.19	28	1000	9	2.13	<2	7
229383		4.23	10	<1	0.12	<10	1.25	556	<1	0.20	25	960	8	1.09	<2	6
229384		4.29	10	1	0.14	<10	1.23	558	<1	0.28	27	1010	10	1.57	<2	7
229385		6.75	10	1	0.07	<10	2.83	1130	<1	0.07	42	1100	10	4.79	2	15
229386		4.57	10	<1	0.09	<10	2.08	857	<1	0.10	36	1100	10	2.32	<2	12
229387		4.50	10	<1	0.10	<10	1.74	653	1	0.14	32	1020	11	3.14	<2	8
229388		3.91	10	1	0.14	<10	1.87	604	<1	0.14	29	1140	4	1.71	2	7
229389		3.53	10	<1	0.11	<10	1.71	514	<1	0.12	42	900	6	2.04	<2	6
229390		4.60	10	1	0.11	<10	1.75	480	1	0.17	44	930	8	3.82	<2	6
229391		10.55	10	1	0.09	<10	3.56	772	2	0.05	90	960	9	9.99	2	13
229392		6.60	10	<1	0.06	<10	3.19	950	<1	0.08	51	1000	3	5.38	4	17
229393		7.96	10	1	0.06	<10	2.75	914	1	0.07	25	1260	13	7.57	<2	17
229394		9.47	20	1	0.05	<10	3.60	1170	1	0.04	35	1160	10	8.38	<2	21
229395		5.79	10	<1	0.07	<10	3.60	1560	1	0.06	29	1040	10	2.87	2	22
229396		6.32	10	1	0.07	<10	3.23	1760	1	0.05	26	920	10	2.29	<2	24
229397		7.55	10	<1	0.11	<10	3.17	1550	1	0.06	21	1240	24	3.99	3	23
229398		6.69	10	<1	0.10	<10	2.76	1530	2	0.08	16	1170	19	2.24	<2	20
229399		6.61	10	<1	0.09	<10	2.59	938	1	0.10	19	1090	6	3.47	<2	14
229400		6.33	10	1	0.09	<10	2.41	879	2	0.09	21	1030	9	3.41	2	13
229401		6.95	10	<1	0.14	<10	3.36	1020	1	0.04	29	800	11	2.53	<2	25
229402		7.96	10	<1	0.14	<10	3.42	1100	2	0.03	36	690	5	3.86	<2	27
229403		6.79	10	1	0.07	<10	3.39	1250	2	0.09	33	1090	5	3.68	<2	21
229404		6.88	10	1	0.09	<10	2.87	1060	1	0.06	23	980	3	2.63	<2	21
229405		7.26	10	<1	0.20	10	2.56	1160	13	0.03	21	980	28	5.70	4	16
229406		4.87	10	<1	0.29	<10	1.56	587	2	0.06	11	1100	12	4.43	<2	5
229407		4.69	10	<1	0.22	10	1.62	599	2	0.10	9	1100	10	3.60	2	7
229408		7.03	10	<1	0.23	<10	1.61	794	6	0.07	16	1030	23	7.13	<2	8

Comments: **CORRECTED COPY FOR Au-AA23 ON SAMPLE 229425**

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EXCELLENCE IN ANALYTICAL CHEMISTRY
ALS Canada Ltd.
212 Brooksbank Avenue
North Vancouver BC V7J 2C1
Phone: 604 984 0221 Fax: 604 984 0218 www.alschemex.com

To: NORTHGATE MINERALS CORPORATION
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 6-JAN-2007
Account: PIL

Project: 4012

CERTIFICATE OF ANALYSIS VA06124415

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
229369		156	0.37	<10	<10	117	<10	108
229370		193	0.38	<10	<10	98	<10	79
229371		76	0.36	<10	<10	100	<10	79
229372		103	0.32	10	<10	183	<10	157
229373		98	0.34	<10	<10	187	<10	187
229374		298	0.24	<10	<10	170	10	231
229375		7	<0.01	<10	<10	1	<10	21
229376		242	0.28	<10	<10	217	<10	126
229377		160	0.26	<10	<10	141	<10	120
229378		79	0.29	<10	<10	150	<10	133
229379		58	0.26	<10	<10	102	<10	80
229380		84	0.23	<10	<10	84	<10	70
229381		82	0.25	<10	<10	137	<10	325
229382		77	0.23	<10	<10	116	<10	66
229383		86	0.22	<10	<10	117	<10	70
229384		93	0.24	<10	<10	125	<10	60
229385		75	0.24	<10	<10	173	<10	119
229386		75	0.28	<10	<10	154	<10	88
229387		84	0.27	<10	<10	112	<10	71
229388		85	0.32	<10	<10	142	<10	73
229389		82	0.25	<10	<10	101	<10	58
229390		110	0.27	<10	<10	99	<10	55
229391		52	0.28	<10	<10	161	<10	123
229392		95	0.26	<10	<10	177	<10	82
229393		71	0.30	<10	<10	204	<10	87
229394		120	0.29	<10	<10	258	<10	126
229395		86	0.27	<10	<10	203	<10	150
229396		70	0.29	<10	<10	194	<10	155
229397		62	0.34	10	<10	231	<10	180
229398		88	0.31	<10	<10	221	<10	200
229399		112	0.27	<10	<10	209	<10	84
229400		110	0.25	<10	<10	197	<10	79
229401		81	0.33	<10	<10	212	<10	109
229402		88	0.28	<10	<10	195	<10	109
229403		72	0.36	<10	<10	194	10	112
229404		62	0.23	<10	<10	210	10	78
229405		131	0.13	<10	<10	146	<10	144
229406		33	0.05	<10	<10	60	<10	74
229407		44	0.06	<10	<10	73	<10	75
229408		40	0.11	<10	<10	82	<10	157

Comments: **CORRECTED COPY FOR Au-AA23 ON SAMPLE 229425**

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Finalized Date: 6-JAN-2007
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Project: 4012

CERTIFICATE OF ANALYSIS VA06124415

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
229409		0.26	0.097	0.009	0.7	2.56	7	<10	20	<0.5	3	1.75	0.5	25	153	95
229410		0.28	0.070	0.008	0.3	2.67	21	<10	20	<0.5	<2	1.65	<0.5	20	112	85
229411		0.26	0.070	0.013	0.3	2.45	4	<10	30	<0.5	3	1.12	<0.5	13	107	140
229412		0.30	0.109	0.022	0.3	2.71	17	<10	20	<0.5	2	1.47	<0.5	14	114	225
229413		0.32	0.091	0.013	0.3	2.54	6	<10	30	<0.5	4	1.54	0.5	19	111	131
229414		0.26	0.114	0.019	0.8	2.95	12	<10	60	<0.5	5	1.18	0.5	48	148	206
229415		0.28	0.110	0.026	0.3	3.15	6	<10	20	<0.5	4	2.11	<0.5	33	133	288
229416		0.24	0.081	0.026	0.3	2.50	10	<10	20	<0.5	2	2.30	<0.5	9	94	261
229417		0.26	0.085	0.020	0.4	3.21	5	<10	10	<0.5	3	1.94	<0.5	14	118	213
229418		0.24	0.159	0.045	0.5	3.56	9	<10	30	<0.5	6	2.47	<0.5	38	121	487
229419		0.28	0.258	0.042	0.6	3.25	7	<10	20	<0.5	6	2.04	<0.5	49	142	454
229420		0.26	0.125	0.020	0.7	4.16	13	<10	60	<0.5	4	2.36	<0.5	43	168	218
229421		0.28	0.126	0.024	0.7	3.81	4	<10	30	<0.5	5	2.25	1.5	25	128	274
229422		0.26	0.158	0.025	0.4	3.53	8	<10	30	<0.5	4	2.69	<0.5	44	132	284
229423		0.26	0.123	0.028	0.5	3.77	6	<10	40	<0.5	<2	2.43	<0.5	31	156	311
229424		0.28	0.175	0.022	0.4	3.51	2	<10	20	<0.5	<2	2.44	<0.5	48	135	251
229425		0.08	0.572	0.001	0.7	0.24	<2	<10	20	<0.5	3	0.18	<0.5	2	3	7
229426		0.28	0.077	0.013	0.2	3.23	10	<10	10	<0.5	3	2.56	<0.5	17	106	150
229427		0.28	0.074	0.013	0.2	3.36	12	<10	30	<0.5	4	2.36	<0.5	22	130	140
229428		0.28	0.132	0.021	0.3	3.56	2	<10	30	<0.5	3	2.48	<0.5	23	110	229
229429		0.26	0.188	0.026	0.3	3.43	10	<10	10	<0.5	6	2.36	<0.5	33	127	273
229430		0.28	0.116	0.018	0.3	3.36	15	<10	10	<0.5	<2	2.52	<0.5	22	94	187
229431		0.28	0.440	0.025	0.4	4.43	13	<10	10	0.5	3	3.11	<0.5	23	128	273
229432		0.28	0.227	0.010	0.2	3.42	9	<10	40	0.5	3	1.90	<0.5	19	108	110
229433		0.26	0.173	0.023	0.4	4.20	16	<10	30	<0.5	4	2.26	<0.5	44	165	254
229434		0.28	0.208	0.036	0.6	5.13	14	<10	50	0.5	5	2.73	<0.5	31	151	424
229435		0.26	0.117	0.024	0.4	3.44	8	<10	40	<0.5	4	2.20	<0.5	24	113	259
229436		0.28	0.056	0.008	0.2	5.33	11	<10	40	0.5	3	2.62	<0.5	27	185	93
229437		0.26	0.030	0.002	<0.2	5.37	8	<10	40	0.6	5	2.35	<0.5	29	223	18
229438		0.34	0.037	0.003	<0.2	6.20	10	<10	30	0.7	5	2.77	<0.5	26	199	34
229439		0.28	0.058	0.005	<0.2	4.48	5	<10	40	0.6	5	1.85	<0.5	35	209	63
229440		0.30	0.130	0.004	0.2	4.76	11	<10	40	0.7	6	2.36	<0.5	27	301	51
229441		0.26	0.074	0.003	1.0	3.77	17	<10	20	0.5	4	6.57	<0.5	28	121	35
229442		0.26	0.054	0.004	1.0	3.61	16	<10	50	<0.5	5	1.61	<0.5	40	177	47
229443		0.28	0.110	0.001	0.2	3.05	57	<10	40	<0.5	4	1.25	<0.5	35	190	16
229444		0.28	0.081	0.002	<0.2	3.81	10	<10	40	<0.5	3	1.29	<0.5	36	155	19
229445		0.28	0.148	0.002	<0.2	2.80	14	<10	50	<0.5	3	0.86	<0.5	34	202	16
229446		0.28	0.159	0.004	0.2	4.42	13	<10	50	0.5	4	1.84	<0.5	33	160	52
229447		0.28	0.300	0.022	0.3	5.04	3	<10	80	<0.5	4	2.39	<0.5	21	125	255
229448		0.26	0.264	0.024	0.4	4.42	16	<10	30	<0.5	4	2.86	<0.5	26	106	278

Comments: **CORRECTED COPY FOR Au-AA23 ON SAMPLE 229425**

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ALS Canada Ltd.
212 Brooksbank Avenue
North Vancouver BC V7J 2C1
Phone: 604 984 0221 Fax: 604 984 0218 www.alschemex.com

To: NORTHGATE MINERALS CORPORATION
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 6-JAN-2007
Account: PIL

Project: 4012

CERTIFICATE OF ANALYSIS VA06124415

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
229409		4.84	10	1	0.23	<10	2.08	727	2	0.09	16	1130	11	4.25	<2	9
229410		4.04	10	1	0.14	<10	1.68	539	2	0.10	12	1140	10	3.01	<2	8
229411		4.43	10	2	0.18	<10	1.79	517	1	0.10	10	1080	8	2.71	<2	6
229412		4.04	10	1	0.16	<10	1.72	459	1	0.08	9	1070	6	2.80	<2	6
229413		4.12	10	1	0.10	<10	1.79	581	1	0.12	12	1060	24	3.16	<2	7
229414		6.95	10	<1	0.09	<10	2.49	1240	1	0.15	23	1050	23	6.05	<2	10
229415		5.83	10	<1	0.06	<10	2.13	592	<1	0.19	29	1000	4	4.97	<2	10
229416		4.70	10	<1	0.10	<10	1.38	440	<1	0.22	20	1040	3	2.16	4	7
229417		3.83	10	1	0.09	<10	1.76	552	1	0.09	11	1090	10	2.71	<2	6
229418		6.22	10	1	0.10	<10	2.17	580	<1	0.38	31	1290	5	5.59	<2	12
229419		8.97	10	<1	0.15	<10	2.39	505	1	0.12	35	1210	7	9.09	<2	14
229420		6.88	10	<1	0.12	<10	3.37	960	1	0.10	35	1210	7	5.72	<2	17
229421		6.11	10	1	0.12	<10	2.72	746	1	0.09	29	1160	5	4.64	<2	10
229422		6.88	10	1	0.10	<10	2.43	592	3	0.12	29	1110	8	5.89	<2	10
229423		6.52	10	1	0.09	<10	2.79	644	1	0.10	29	1120	4	5.44	<2	12
229424		6.65	10	<1	0.10	<10	2.29	454	3	0.10	33	1100	4	6.09	<2	10
229425		2.68	<10	<1	0.01	<10	0.07	102	1	0.11	5	570	104	2.49	<2	1
229426		5.09	10	<1	0.10	<10	1.84	472	1	0.10	28	1120	4	3.27	<2	8
229427		6.33	10	<1	0.13	<10	2.27	482	1	0.18	29	1120	8	4.79	<2	10
229428		5.18	10	1	0.10	<10	1.87	372	<1	0.13	28	1060	7	4.77	2	6
229429		5.35	10	<1	0.10	<10	2.07	415	1	0.09	28	1080	6	4.86	2	7
229430		4.12	10	<1	0.14	<10	1.75	437	<1	0.08	23	1080	5	2.41	3	6
229431		5.68	20	1	0.10	<10	2.12	440	1	0.06	25	1070	6	4.69	<2	9
229432		5.79	10	1	0.17	<10	1.76	302	2	0.18	7	820	9	5.81	<2	10
229433		9.02	10	<1	0.12	<10	2.71	486	2	0.09	32	980	7	9.24	<2	11
229434		8.14	10	1	0.10	<10	3.17	606	1	0.15	31	1110	6	7.50	<2	13
229435		5.55	10	<1	0.12	<10	2.01	436	<1	0.20	26	1050	5	4.30	<2	7
229436		6.48	10	<1	0.14	<10	3.17	541	<1	0.14	34	1070	7	5.33	<2	18
229437		6.57	10	1	0.20	<10	3.68	380	1	0.14	35	1140	6	6.57	<2	18
229438		6.10	10	1	0.19	<10	3.78	537	1	0.08	36	1120	4	4.75	<2	19
229439		7.72	10	<1	0.16	<10	3.37	461	1	0.19	38	1080	3	7.88	<2	15
229440		6.80	10	<1	0.30	<10	4.43	541	1	0.07	43	1080	16	6.68	<2	14
229441		6.96	10	1	0.31	<10	2.40	705	3	0.03	25	1040	11	7.59	<2	14
229442		10.75	10	<1	0.33	<10	3.14	374	1	0.04	28	1170	14	>10.0	<2	9
229443		12.50	10	1	0.31	<10	2.67	257	3	0.02	28	1150	8	>10.0	<2	8
229444		6.85	10	<1	0.30	<10	3.42	271	2	0.04	27	1310	2	7.64	<2	9
229445		11.40	10	<1	0.30	<10	2.50	217	3	0.01	30	1070	<2	>10.0	<2	7
229446		9.72	10	<1	0.29	<10	3.16	281	2	0.11	27	1200	3	>10.0	<2	14
229447		6.24	10	1	0.19	<10	3.35	306	1	0.30	27	1290	2	6.51	<2	19
229448		7.08	10	1	0.15	<10	2.59	432	2	0.25	23	1280	3	6.25	<2	14

Comments: **CORRECTED COPY FOR Au-AA23 ON SAMPLE 229425**

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ALS Canada Ltd.
212 Brooksbank Avenue
North Vancouver BC V7J 2C1
Phone: 604 984 0221 Fax: 604 984 0218 www.alschemex.com

To: NORTHGATE MINERALS CORPORATION
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 6-JAN-2007
Account: PIL

Project: 4012

CERTIFICATE OF ANALYSIS VA06124415

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
229409		56	0.13	<10	<10	95	<10	107
229410		39	0.15	<10	<10	92	<10	70
229411		50	0.15	<10	<10	88	10	68
229412		49	0.14	<10	<10	83	<10	68
229413		108	0.16	<10	<10	91	<10	109
229414		374	0.21	<10	<10	118	<10	203
229415		146	0.24	<10	<10	132	<10	69
229416		79	0.39	<10	<10	140	<10	45
229417		48	0.17	<10	<10	84	<10	73
229418		145	0.44	<10	<10	171	<10	64
229419		105	0.33	<10	<10	162	<10	66
229420		396	0.32	<10	<10	202	<10	123
229421		148	0.29	<10	<10	177	<10	300
229422		152	0.30	10	<10	164	<10	73
229423		190	0.25	<10	<10	162	<10	76
229424		111	0.28	<10	<10	132	<10	62
229425		6	<0.01	<10	<10	2	<10	17
229426		94	0.31	<10	<10	130	<10	54
229427		160	0.30	<10	<10	135	<10	64
229428		186	0.24	<10	<10	89	<10	51
229429		62	0.27	<10	<10	126	<10	55
229430		69	0.29	<10	<10	148	<10	55
229431		78	0.27	<10	<10	161	<10	60
229432		254	0.16	<10	<10	103	<10	48
229433		271	0.23	<10	<10	161	<10	64
229434		281	0.25	<10	<10	192	<10	79
229435		237	0.30	<10	<10	162	<10	59
229436		194	0.27	10	<10	183	<10	84
229437		116	0.17	<10	<10	182	10	68
229438		119	0.27	<10	<10	181	<10	79
229439		177	0.22	<10	<10	189	<10	69
229440		115	0.11	<10	<10	122	<10	74
229441		108	0.05	<10	<10	125	<10	152
229442		159	0.07	<10	<10	123	<10	122
229443		29	0.08	<10	<10	110	<10	51
229444		66	0.04	<10	<10	139	<10	52
229445		30	0.07	<10	<10	110	<10	44
229446		112	0.14	<10	<10	135	<10	49
229447		386	0.16	<10	<10	188	<10	57
229448		292	0.26	<10	<10	221	<10	68

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CERTIFICATE OF ANALYSIS VA06124415

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
229449		0.28	0.239	0.033	0.4	3.43	15	<10	20	<0.5	4	2.03	<0.5	22	85	364
229450		0.26	<0.005	0.003	<0.2	1.91	10	<10	140	<0.5	2	1.84	<0.5	7	106	37
229451		0.22	0.197	0.029	0.3	3.97	12	<10	30	<0.5	3	2.05	<0.5	16	99	317
229452		0.22	0.189	0.014	0.2	4.52	14	<10	40	<0.5	4	2.21	<0.5	38	116	165
229453		0.24	0.132	0.011	<0.2	5.64	8	<10	80	<0.5	5	2.76	<0.5	25	116	128
229454		0.28	0.172	0.013	0.2	5.17	6	<10	40	<0.5	3	2.70	<0.5	27	107	154
229455		0.24	0.202	0.017	0.2	5.20	20	<10	20	<0.5	4	2.74	<0.5	38	129	213
229456		0.22	0.133	0.013	0.2	5.30	8	<10	30	<0.5	4	2.66	<0.5	27	154	153
229457		0.24	0.159	0.026	0.3	4.79	8	<10	50	0.5	4	2.69	<0.5	33	135	314
229458		0.28	0.221	0.042	0.4	5.04	14	<10	40	<0.5	3	2.44	<0.5	27	133	496
229459		0.24	0.110	0.008	0.5	2.84	13	<10	60	<0.5	4	1.24	<0.5	23	112	92
229460		0.26	0.071	0.005	0.7	3.62	7	<10	50	<0.5	4	2.17	<0.5	16	98	62
229461		0.28	0.094	0.007	0.2	2.71	3	<10	100	<0.5	3	1.14	0.5	14	91	79
229462		0.28	0.111	0.014	0.2	3.12	5	<10	100	0.5	2	1.40	<0.5	9	93	152
229463		0.26	0.079	0.009	0.2	2.42	7	<10	50	<0.5	4	1.16	<0.5	16	109	98
229464		0.26	0.101	0.011	0.2	3.20	10	<10	40	0.6	3	1.73	<0.5	14	93	126
229465		0.28	0.281	0.100	1.7	3.65	13	<10	40	<0.5	4	1.44	<0.5	31	188	1140
229466		0.28	0.244	0.045	0.7	5.57	11	<10	40	<0.5	6	2.99	<0.5	33	142	541
229467		0.26	0.316	0.017	0.5	5.31	10	<10	30	<0.5	5	2.60	<0.5	25	179	215
229468		0.28	0.751	0.035	1.6	5.13	52	<10	30	<0.5	8	2.51	<0.5	33	219	412
229469		0.28	0.767	0.043	1.3	6.17	51	<10	40	<0.5	7	3.19	<0.5	30	171	533
229470		0.26	0.232	0.022	0.4	6.16	16	<10	40	<0.5	3	3.23	<0.5	21	123	249
229471		0.30	0.163	0.026	0.4	5.16	14	<10	80	0.5	4	2.78	<0.5	27	152	288
229472		0.30	0.153	0.027	0.5	6.01	10	<10	20	0.5	5	3.33	<0.5	37	170	311
229473		0.28	0.131	0.019	0.4	4.13	12	<10	30	<0.5	3	3.15	<0.5	37	121	221
229474		0.26	0.199	0.036	0.5	5.17	11	<10	30	<0.5	3	3.67	<0.5	30	127	426
229475		0.26	0.225	0.036	0.4	5.39	18	<10	30	<0.5	3	3.78	<0.5	31	127	436
229476		0.26	0.099	0.020	0.4	5.09	15	<10	40	<0.5	4	3.35	<0.5	29	108	245
229477		0.28	0.179	0.026	0.5	5.58	16	<10	20	<0.5	4	3.93	<0.5	40	109	320
229478		0.28	0.121	0.025	0.5	5.71	6	<10	10	<0.5	3	7.35	<0.5	22	114	299
229479		0.28	0.284	0.040	0.7	4.88	48	<10	10	<0.5	5	4.73	<0.5	73	154	496
229480		0.28	0.513	0.041	1.3	4.46	17	<10	20	<0.5	8	2.38	<0.5	73	187	500
229481		0.30	0.159	0.017	1.0	3.73	18	<10	30	<0.5	5	2.72	<0.5	40	134	204
229482		0.26	0.192	0.020	0.8	3.58	7	<10	30	<0.5	2	2.44	1.4	37	95	215
229483		0.28	0.103	0.018	1.6	3.94	13	<10	10	<0.5	<2	2.99	1.8	23	88	210
229484		0.28	0.107	0.024	0.6	3.25	14	<10	20	<0.5	<2	2.70	<0.5	16	69	287
229485		0.28	0.213	0.034	0.5	3.51	14	<10	20	<0.5	<2	2.73	<0.5	24	71	383
229486		0.26	1.110	0.011	0.3	5.69	75	<10	10	<0.5	2	3.15	<0.5	72	203	121
229487		0.28	0.397	0.038	0.4	3.78	25	<10	40	<0.5	2	2.08	<0.5	46	145	403
229488		0.28	0.425	0.025	0.7	3.97	13	<10	20	<0.5	<2	2.88	0.6	31	100	270

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CERTIFICATE OF ANALYSIS VA06124415

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
229449		5.93	10	1	0.12	<10	2.00	304	1	0.25	19	1320	3	5.46	<2	9
229450		3.68	10	1	0.22	10	0.72	559	3	0.19	3	1020	4	0.04	<2	5
229451		5.30	10	1	0.27	<10	2.36	352	<1	0.35	19	1390	6	4.26	<2	12
229452		6.19	10	2	0.21	<10	2.80	306	1	0.31	21	1390	7	6.01	<2	15
229453		6.47	10	<1	0.28	<10	3.08	306	2	0.33	22	1450	3	6.11	<2	20
229454		6.29	10	<1	0.21	<10	3.06	304	2	0.29	23	1360	5	5.81	<2	19
229455		7.68	10	1	0.19	<10	2.95	377	2	0.32	24	1390	6	7.54	<2	19
229456		6.29	10	<1	0.18	<10	3.26	337	1	0.38	24	1400	3	6.32	<2	21
229457		6.68	10	1	0.28	<10	2.52	286	1	0.23	19	1260	4	7.11	<2	16
229458		5.73	10	<1	0.12	<10	3.15	388	1	0.35	30	1390	6	5.48	<2	14
229459		5.51	10	<1	0.40	<10	1.78	270	3	0.09	12	1150	9	5.65	<2	8
229460		4.32	10	1	0.35	<10	1.69	252	2	0.05	10	1130	3	4.52	<2	5
229461		4.23	10	1	0.33	<10	1.64	205	1	0.17	6	1020	11	4.26	<2	6
229462		3.99	10	1	0.28	10	1.68	199	1	0.22	2	840	6	3.89	<2	7
229463		4.81	10	<1	0.32	<10	1.45	196	2	0.10	9	1050	7	4.88	<2	7
229464		3.92	10	<1	0.23	<10	1.95	248	2	0.10	11	1150	8	3.46	<2	9
229465		9.64	10	1	0.22	<10	3.16	348	2	0.05	33	910	23	>10.0	<2	12
229466		9.27	10	3	0.13	<10	2.76	444	1	0.20	42	800	9	>10.0	<2	10
229467		10.20	10	1	0.20	<10	3.65	418	2	0.16	38	780	9	>10.0	<2	15
229468		13.30	10	1	0.10	<10	3.54	479	2	0.08	39	810	5	>10.0	<2	17
229469		12.25	10	1	0.11	<10	3.11	408	1	0.16	45	670	9	>10.0	<2	16
229470		5.54	10	1	0.15	<10	2.36	366	1	0.39	33	880	9	5.68	<2	11
229471		5.23	10	2	0.12	<10	3.02	425	1	0.23	34	1040	5	4.87	<2	14
229472		7.19	10	1	0.10	<10	3.27	452	1	0.19	47	1010	8	7.38	<2	14
229473		5.73	10	<1	0.11	<10	1.78	322	1	0.15	52	990	10	5.96	<2	7
229474		5.64	10	<1	0.12	<10	2.35	387	1	0.24	41	1020	7	5.41	<2	11
229475		5.83	10	1	0.12	<10	2.41	394	2	0.24	42	1040	10	5.68	<2	12
229476		6.07	10	2	0.13	<10	1.80	339	1	0.41	35	1140	14	6.52	<2	9
229477		8.36	10	2	0.10	<10	1.71	285	3	0.23	48	900	8	9.65	<2	7
229478		5.39	10	<1	0.11	<10	1.97	344	1	0.07	31	910	12	6.00	<2	11
229479		12.45	10	1	0.14	<10	1.99	310	2	0.10	39	870	9	>10.0	<2	13
229480		17.9	10	<1	0.16	<10	1.94	313	3	0.18	38	940	19	>10.0	<2	11
229481		11.90	10	<1	0.11	<10	1.27	284	1	0.18	36	1060	32	>10.0	<2	6
229482		8.08	10	<1	0.10	<10	0.64	236	1	0.25	25	990	64	9.71	<2	3
229483		5.28	10	<1	0.09	<10	1.32	500	1	0.13	25	1310	212	5.58	2	6
229484		3.16	10	<1	0.11	<10	0.80	293	<1	0.29	20	1300	25	3.09	5	5
229485		4.30	10	<1	0.10	<10	0.75	210	1	0.36	20	1290	9	4.53	2	5
229486		10.20	10	<1	0.08	<10	2.71	227	3	0.08	31	1290	5	>10.0	4	18
229487		6.77	10	<1	0.13	<10	2.14	186	1	0.27	35	980	6	7.83	3	12
229488		5.20	10	<1	0.08	<10	0.89	236	1	0.22	30	1260	48	6.26	4	5

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CERTIFICATE OF ANALYSIS VA06124415

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
229449		252	0.21	10	<10	186	<10	52
229450		100	0.21	<10	<10	119	<10	44
229451		485	0.25	<10	<10	207	<10	55
229452		498	0.21	<10	<10	210	<10	54
229453		1050	0.25	<10	<10	229	<10	51
229454		694	0.25	<10	<10	250	<10	56
229455		512	0.25	<10	<10	223	<10	61
229456		577	0.22	<10	<10	248	<10	62
229457		503	0.19	<10	<10	195	<10	58
229458		593	0.23	<10	<10	224	10	68
229459		157	0.13	<10	<10	89	<10	47
229460		59	0.10	<10	<10	63	<10	35
229461		233	0.10	<10	<10	69	<10	41
229462		292	0.10	<10	<10	77	<10	37
229463		57	0.14	<10	<10	78	<10	38
229464		64	0.16	<10	<10	104	<10	44
229465		95	0.20	10	<10	141	<10	123
229466		303	0.15	<10	<10	130	<10	83
229467		1310	0.15	<10	<10	163	<10	85
229468		362	0.21	<10	<10	174	<10	138
229469		345	0.20	<10	<10	151	<10	101
229470		596	0.13	10	<10	131	<10	58
229471		403	0.21	<10	<10	173	<10	81
229472		550	0.18	<10	<10	186	<10	100
229473		150	0.22	<10	<10	117	<10	64
229474		243	0.24	<10	<10	156	<10	70
229475		241	0.24	<10	<10	159	<10	71
229476		256	0.23	<10	<10	138	<10	61
229477		245	0.19	<10	<10	106	<10	44
229478		176	0.21	<10	<10	122	<10	47
229479		132	0.23	10	<10	134	10	42
229480		682	0.17	10	<10	131	<10	58
229481		159	0.17	<10	<10	101	<10	78
229482		310	0.17	<10	<10	64	<10	148
229483		119	0.23	<10	<10	106	<10	217
229484		121	0.25	<10	<10	86	<10	44
229485		183	0.22	<10	<10	78	<10	30
229486		220	0.25	<10	<10	182	<10	52
229487		636	0.19	<10	<10	132	<10	38
229488		189	0.18	<10	<10	89	<10	84

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CERTIFICATE OF ANALYSIS VA06124415

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
229489		0.28	0.272	0.038	1.2	4.83	15	<10	10	<0.5	<2	3.31	0.5	38	80	425
229490		0.28	0.191	0.078	1.5	3.32	18	<10	20	<0.5	<2	2.17	<0.5	35	110	814
229491		0.28	0.095	0.030	0.4	3.03	15	<10	20	<0.5	<2	2.36	<0.5	26	84	310
229492		0.28	0.201	0.048	0.5	4.75	18	<10	20	<0.5	3	2.81	<0.5	41	140	551
229493		0.28	0.075	0.022	0.6	3.05	6	<10	10	<0.5	<2	2.21	0.6	23	87	231
229494		0.28	0.099	0.018	0.4	3.94	14	<10	10	<0.5	<2	2.79	<0.5	21	90	198
229495		0.26	0.235	0.040	0.7	2.92	9	<10	30	<0.5	<2	2.12	0.7	51	129	456
229496		0.28	0.137	0.024	0.5	3.16	9	<10	20	<0.5	<2	2.73	<0.5	22	117	280
229497		0.28	0.155	0.035	0.5	2.45	16	<10	10	<0.5	<2	2.28	<0.5	32	82	388
229498		0.26	0.185	0.033	0.5	1.80	11	<10	10	<0.5	<2	1.91	<0.5	28	87	358
229499		0.28	0.133	0.025	0.4	2.87	13	<10	20	<0.5	<2	2.21	<0.5	30	111	266
229500		0.08	1.295	<0.001	0.7	0.18	5	<10	30	<0.5	6	0.09	<0.5	<1	4	6
230001		0.26	0.138	0.032	0.4	3.40	15	<10	10	<0.5	<2	2.34	<0.5	34	193	371
230002		0.28	0.166	0.030	0.5	3.59	19	<10	20	<0.5	<2	2.44	<0.5	31	123	331
230003		0.30	0.200	0.012	0.3	4.29	21	<10	40	<0.5	<2	2.87	<0.5	35	137	143
230004		0.24	0.139	0.019	0.5	3.99	13	<10	30	<0.5	<2	2.49	<0.5	19	135	209
230005		0.30	0.309	0.028	0.5	4.25	11	<10	30	<0.5	<2	3.11	<0.5	33	66	321
230006		0.28	0.245	0.020	0.4	3.84	15	<10	40	0.5	2	2.57	<0.5	40	119	244
230007		0.26	0.027	0.013	0.2	3.38	8	<10	70	0.5	<2	2.10	<0.5	7	102	148
230008		0.26	0.260	0.053	0.7	4.32	14	<10	30	<0.5	<2	2.90	<0.5	27	97	613
230009		0.26	0.206	0.033	0.5	3.59	8	<10	10	<0.5	<2	2.63	<0.5	39	89	369
230010		0.26	0.133	0.043	0.5	3.76	13	<10	20	<0.5	<2	3.01	<0.5	22	72	492
230011		0.26	0.234	0.083	1.0	5.17	15	<10	10	<0.5	<2	3.61	<0.5	29	86	947
230012		0.28	0.277	0.106	1.5	5.74	8	<10	<10	<0.5	2	3.68	<0.5	29	106	1180
230013		0.32	0.124	0.036	0.5	4.58	21	<10	10	<0.5	<2	3.21	<0.5	23	66	403
230014		0.26	0.205	0.044	0.9	4.73	14	<10	<10	<0.5	<2	3.84	<0.5	31	83	493
230015		0.32	0.111	0.027	0.7	4.60	16	<10	20	<0.5	<2	3.66	0.7	23	94	295
230016		0.26	0.078	0.020	1.4	3.83	11	<10	30	<0.5	<2	3.51	0.9	30	122	245
230017		0.26	0.108	0.015	0.4	2.74	3	<10	30	<0.5	<2	2.01	<0.5	17	123	175
230018		0.32	0.044	0.023	0.4	3.01	2	<10	20	<0.5	<2	2.59	<0.5	21	122	254
230019		0.26	0.055	0.019	0.7	3.59	4	<10	20	0.6	<2	3.10	1.5	22	127	214
230020		0.30	0.037	0.020	0.3	3.65	4	<10	20	<0.5	<2	3.78	<0.5	25	133	215
230021		0.28	0.036	0.024	0.7	3.38	2	<10	20	<0.5	<2	4.60	<0.5	33	151	262
230022		0.32	0.038	0.019	0.7	3.70	7	<10	20	<0.5	<2	6.23	1.6	34	139	215
230023		0.32	0.024	0.019	0.5	3.32	5	<10	10	<0.5	<2	5.28	<0.5	26	128	214
230024		0.34	0.026	0.021	0.6	3.22	3	<10	10	<0.5	<2	3.56	<0.5	21	139	240
230025		0.14	0.578	<0.001	0.6	0.25	3	<10	20	<0.5	<2	0.17	<0.5	1	3	6

Comments: **CORRECTED COPY FOR Au-AA23 ON SAMPLE 229425**

ALS Chemex
EXCELLENCE IN ANALYTICAL CHEMISTRY
ALS Canada Ltd.
212 Brooksbank Avenue
North Vancouver BC V7J 2C1
Phone: 604 984 0221 Fax: 604 984 0218 www.alschemex.com

To: NORTHGATE MINERALS CORPORATION
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 6-JAN-2007
Account: PIL

Project: 4012

CERTIFICATE OF ANALYSIS VA06124415

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
229489		5.97	10	1	0.06	<10	0.62	167	1	0.50	36	1190	50	7.46	4	3
229490		5.29	10	<1	0.07	<10	1.22	319	1	0.29	28	1210	27	6.01	2	6
229491		2.83	10	<1	0.09	<10	0.74	225	<1	0.32	22	1250	9	2.75	<2	5
229492		6.72	10	2	0.10	<10	1.58	252	2	0.20	34	1270	8	7.80	<2	9
229493		3.49	10	<1	0.09	<10	1.26	452	1	0.15	30	1210	17	3.29	3	5
229494		3.95	10	<1	0.09	<10	1.47	296	1	0.15	29	1130	12	3.62	2	4
229495		6.87	10	<1	0.09	<10	1.27	371	2	0.14	36	1220	13	7.79	2	6
229496		4.92	10	<1	0.08	<10	1.34	432	1	0.16	34	1350	13	5.04	3	6
229497		4.09	10	<1	0.08	<10	0.61	172	1	0.14	28	1320	11	4.56	<2	4
229498		3.69	<10	<1	0.07	<10	0.49	143	<1	0.25	27	1350	16	4.09	2	4
229499		3.81	10	1	0.15	<10	1.30	269	<1	0.19	49	1150	6	3.44	<2	4
229500		2.77	<10	<1	0.09	<10	0.02	80	1	0.06	4	310	120	2.84	<2	<1
230001		4.74	10	<1	0.14	<10	2.18	340	1	0.08	67	1040	7	4.37	<2	6
230002		5.89	10	<1	0.11	<10	1.81	306	2	0.13	36	1260	7	6.27	5	8
230003		7.84	10	<1	0.14	<10	2.46	362	4	0.11	34	1260	7	8.68	4	14
230004		5.69	10	1	0.14	<10	1.78	279	2	0.16	29	1310	8	6.27	3	7
230005		5.81	10	1	0.12	<10	0.65	145	1	0.24	29	1450	7	7.20	<2	3
230006		5.91	10	<1	0.13	<10	1.31	301	5	0.15	31	1260	4	6.08	2	6
230007		3.19	10	<1	0.14	10	1.06	303	2	0.18	6	870	6	0.77	<2	7
230008		5.43	10	<1	0.13	<10	1.51	264	1	0.13	36	1350	6	5.64	<2	6
230009		4.75	10	1	0.14	<10	1.06	234	1	0.10	32	1150	9	5.03	<2	4
230010		3.95	10	<1	0.12	<10	0.73	221	1	0.27	27	1280	9	4.31	2	4
230011		5.93	10	1	0.07	<10	1.31	301	2	0.23	30	1170	12	6.75	5	6
230012		7.00	10	<1	0.07	<10	1.69	417	2	0.07	31	1390	25	7.97	2	7
230013		4.55	10	<1	0.11	<10	1.09	323	2	0.18	28	1170	8	4.85	2	5
230014		4.77	10	<1	0.09	<10	1.06	350	3	0.08	27	1220	35	5.19	3	5
230015		4.71	10	<1	0.13	<10	2.14	533	4	0.08	30	1130	29	3.79	5	13
230016		5.20	10	1	0.28	<10	2.15	604	10	0.08	29	1020	66	3.82	4	13
230017		5.48	10	<1	0.11	<10	2.26	789	5	0.12	28	1040	8	2.25	5	11
230018		6.53	10	1	0.14	<10	2.78	814	2	0.09	29	1040	8	2.20	2	15
230019		6.82	10	<1	0.24	<10	2.69	785	4	0.07	28	1040	61	2.31	2	19
230020		6.66	10	1	0.19	<10	2.86	975	4	0.09	32	1020	11	3.04	2	21
230021		5.76	10	<1	0.24	<10	2.48	923	3	0.10	31	1000	13	3.66	<2	17
230022		6.72	10	<1	0.21	<10	2.91	1530	3	0.05	35	940	17	4.23	<2	19
230023		5.96	10	<1	0.13	<10	3.01	1415	1	0.08	28	900	14	2.55	<2	19
230024		6.29	10	<1	0.08	<10	3.28	1135	4	0.08	29	990	9	2.38	<2	20
230025		2.54	<10	<1	0.01	<10	0.07	98	<1	0.12	4	560	99	2.39	<2	1

Comments: **CORRECTED COPY FOR Au-AA23 ON SAMPLE 229425**

ALS Chemex
EXCELLENCE IN ANALYTICAL CHEMISTRY
ALS Canada Ltd.
212 Brooksbank Avenue
North Vancouver BC V7J 2C1
Phone: 604 984 0221 Fax: 604 984 0218 www.alschemex.com

To: NORTHGATE MINERALS CORPORATION
KEMESS MINE
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Finalized Date: 6-JAN-2007
Account: PIL

Project: 4012

CERTIFICATE OF ANALYSIS VA06124415

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
229489		190	0.21	<10	<10	64	<10	68
229490		131	0.20	<10	<10	94	<10	50
229491		183	0.23	<10	<10	81	<10	39
229492		194	0.20	<10	<10	131	10	45
229493		101	0.25	<10	<10	91	<10	110
229494		138	0.25	<10	<10	107	<10	43
229495		275	0.26	10	<10	124	<10	128
229496		222	0.29	<10	<10	117	<10	67
229497		115	0.27	<10	<10	82	<10	39
229498		142	0.28	<10	<10	75	<10	35
229499		124	0.25	<10	<10	85	<10	41
229500		6	<0.01	<10	<10	1	<10	19
230001		72	0.26	<10	<10	113	<10	56
230002		167	0.22	<10	<10	136	<10	54
230003		453	0.23	<10	<10	170	<10	67
230004		278	0.18	<10	<10	130	<10	54
230005		301	0.18	<10	<10	68	<10	26
230006		350	0.23	<10	<10	112	<10	47
230007		319	0.18	<10	<10	82	<10	42
230008		224	0.24	<10	<10	124	10	41
230009		90	0.21	<10	<10	87	<10	35
230010		123	0.22	<10	<10	73	<10	33
230011		177	0.21	<10	<10	107	<10	46
230012		126	0.19	<10	<10	116	<10	63
230013		132	0.21	<10	<10	79	<10	42
230014		106	0.23	<10	<10	90	<10	54
230015		207	0.23	<10	<10	143	<10	101
230016		198	0.23	<10	<10	159	<10	172
230017		235	0.29	<10	<10	228	<10	88
230018		89	0.29	<10	<10	235	<10	88
230019		114	0.22	<10	<10	230	<10	183
230020		174	0.21	<10	<10	235	<10	88
230021		172	0.11	<10	<10	159	<10	89
230022		132	0.10	<10	<10	178	<10	288
230023		110	0.20	<10	<10	204	<10	133
230024		99	0.21	<10	<10	221	<10	122
230025		5	<0.01	<10	<10	2	<10	17

Comments: **CORRECTED COPY FOR Au-AA23 ON SAMPLE 229425**

Kemess Property

2006 Drilling Program

Sample Preparation and Analytical Quality Assurance Report

Northgate Minerals Corp.

March 7, 2007

by Ron Konst

Table of Contents

1 Program Overview 3

2 Grind Control – Screen Analysis 4

3 Contamination – Blanks 4

4 Accuracy – Standards 6

5 Precision – Duplicates 10

6 Summary and Conclusions 13

Appendix I : Laboratory Quality Control Certification ……12

Appendix II : Reference Material Certification ……..……14

1 Program Overview

The Kemess Property 2006 Sample Preparation and Analytical Quality Assurance program follows protocols established for the Kemess North 2002 drilling program. The objective of this program is to provide sound and accurate gold and copper analytical results for use in resource/reserve estimates of Kemess Property deposits and for evaluation of other target areas on the property being investigated by Northgate Minerals Corporation. This objective was achieved through the implementation of quality control procedures that include the insertion on blanks, standards, and duplicates into the sample stream and then monitoring and evaluating the quality control analytical results.

An on-site sample preparation laboratory was established to complete the primary crushing (80 % minus 10-mesh) of cut or split diamond drill core. Samples ranged from 30 cm up to 2 m for NQ and 1.5 m for HQ. Operation of the sample preparation laboratory and the quality control procedures were implemented under the supervision of Bill Smith, Chief Assayer at Kemess Mine.

Diamond drill core sample submitted during the 2006 program were collected from over 11 kilometres of core drilled in 42 holes from various target areas on the Kemess Property. A total of 5,664 prepared samples, weighing approximately 250 grams, were submitted to ALS Chemex's Vancouver or Assayers Canada laboratories during the 2006 program. Quality control samples (blanks, duplicates, and standards) were inserted into the sample stream at regular intervals such that 1 in 26 samples were submitted for quality control purposes. A total of 247 quality control samples were submitted during the 2006 program. This amounted to 4.4 % of the entire population of samples submitted to ALS Chemex and Assayers Canada. QAQC information was recorded by geologists, core samplers, and by sample preparation staff. This triple-redundancy data capture was used to help identify and eliminate data entry errors.

At ALS Chemex or Assayers Canada samples were pulverized to better than 85 % minus 150-mesh (-75 microns) and submitted for 34 element analysis, by aqua-regia acid digestion and ICP-AES. This process quantitatively dissolves base metals for the majority of geological materials. Major rock forming elements and more resistive metals are only partially dissolved. Copper assay was done by triple acid digestion, HCl - HNO3 - HBr, 2 gram, digestion in Teflon beakers, with an atomic absorption finish. Samples were also submitted to a one assay-tonne gold fire assay, 30 gram nominal sample weight fire assay fusion by lead flux with Ag collector, with an atomic absorption finish. All sample batches were subjected to ALS Chemex's and Assayers Canada's internal quality control procedure, results of which are provided in Appendix I.

2 Grind Control – Screen Analysis

In addition to the insertion of quality control samples, grind sizes are also monitored as part of the QAQC program. Good grind control is required at both the primary crushing and pulverization stages to meet the precision and accuracy requirements of the program. For this purpose, preparation laboratory staff performed and recorded regular screen analysis to insure that primary crushing specification of 80 % minus 10-mesh was achieved. Regular crusher adjustments were performed whenever specification were not met and affected samples re-crushed.

Grind control for the pulverization stage was monitored by ALS Chemex and Assayers Canada. (See Appendix I)

3 Contamination – Blanks

Contamination is the addition of an unacceptable amount, of an element under investigation, into a geological sample that is not contained in the original in-situ location of that sample. It can be monitored using samples, referred to as “blanks”, which contain very low concentrations of the elements under investigation.

Throughout the 2006 program whole core blanks were used to test for contamination in the crushing stage through to final analysis. Barren intersections of Hazelton Group basalt and Duncan Lake Pluton Granite were selected by a geologist and inserted into the sample preparation stream as whole core. Due to the unblended nature of these whole core blanks, a greater tolerance is allowed in the variability of the analytical results. The intended purpose of these samples was to identify significant contamination during sample preparation or analysis. These samples were not intended for use in monitoring analytical laboratory performance.

A total of 80 blanks were submitted during the 2006 program, amounting to 1.4 % of the entire population of samples. Results of blank analysis over time are presented in Figure 1.

For gold, there are three blank outliers (table 1) outside the statistical upper control limit of mean plus 3 standard deviations of 0.05 g/t for gold. For copper, there are two blank samples that are outside the statistical upper control limit of 0.01 % Cu. The copper outliers are coincident with two of the gold outliers.

Figure 1:

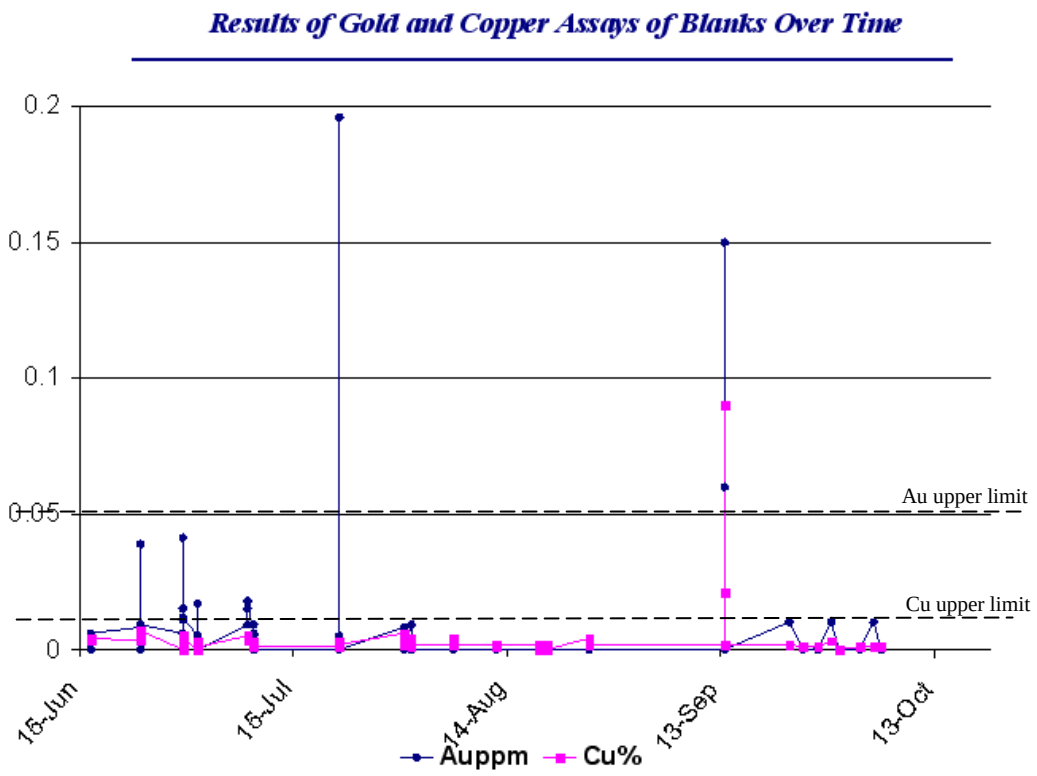


Table 1: ***Blank Outliers***

Certificate	Date Crushed	Expr1	Sample	Auppm	Cu%
VA06072015	21-Jul-06	KN-06-08	226050	0.20	0.00
VA06092726	13-Sep-06	KN-06-15	227900	0.15	0.09
VA06092724	13-Sep-06	KN-06-15	227850	0.06	0.02

The gold outliers, samples 227900 and 227850, display gold grades and ICP signatures that are identical matches of samples 227899 and 227850 respectively, which indicates that these sample are actually QAQC duplicates and not blank material. These two samples were also the only copper outliers.

The gold outlier, sample 226050, displays an ICP signature that is consistent with other ICP results for blanks but the Au result is not. The surrounding samples do not have high enough gold grades to suggest sample preparation contamination. The adjacent QAQC standard, 226074, performed within allowable limits on this same work order. Laboratory investigation revealed some weighing errors around this blank. The errors were rectified and a new certificate was issued.

These quality control results indicate that no significant or systematic contamination occurred during the 2006 program.

4 Accuracy – Standards

Accuracy is the degree to which an analysis approaches the true concentration of the material being analyzed. The only way to examine this aspect of analytical laboratory performance is by the insertion of prepared reference materials of known grade, referred to as "standards", into the sample stream. For the 2006 program, four certified RockLabs standards OXD-27, SE-19, SH-24 and SF-12, were inserted and their results monitored over the course of the program. Standard gold grade characteristics and acceptable performance limits are presented in Table2. The control limits were set, as recommended by RockLabs, at the mean grade +/- three times the standard deviation reported by RockLabs (Appendix II).

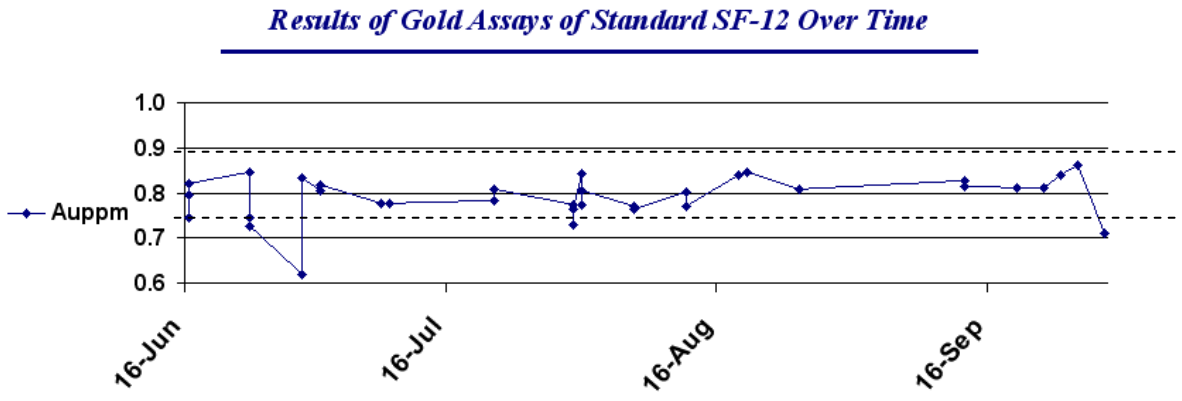
Table 2: ***Standard Control Limits***

Standard	Mean Au g/t	Standard deviation	Lower Limit	Upper Limit
SF-12	0.819	0.024	0.746	0.892
OXD-27	0.416	0.050	0.265	0.567
SE-19	0.583	0.026	0.504	0.662
SH-24	1.326	0.043	1.196	1.456

Since these standards were designed and intended for use as gold standards, their use as copper standards is limited in that the accuracy of higher grade copper assays can only be inferred from the lower grade copper results reported for these standards. Also, the standards were not blind to the lab, as they arrived as minus 150-mesh pulps in a stream of minus10-mesh crushed material.

A total of 89 standards were submitted during the 2006 program, amounting to 1.6 % of the entire population of samples. Results of gold and copper analysis of standards over time are presented in Figures 2 through 7 and Tables 3 and 4.

Figure 2:



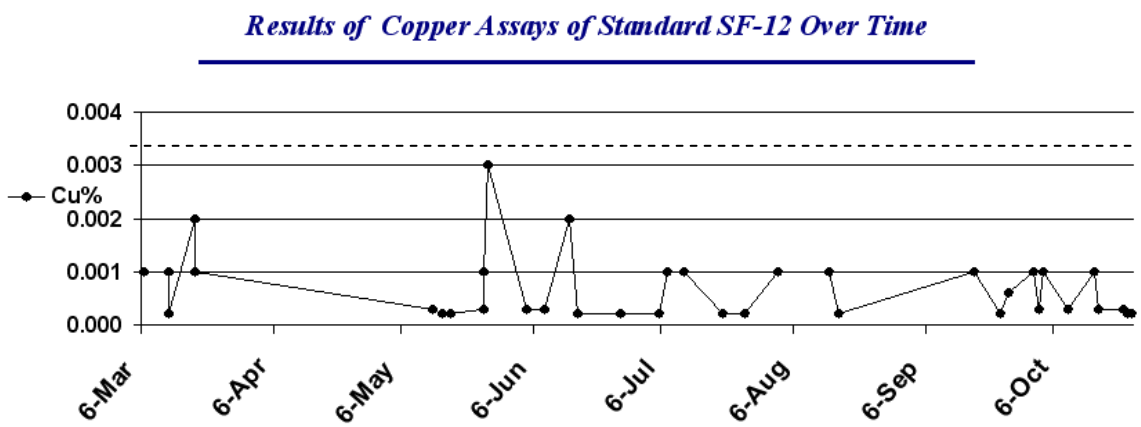
For standard SF-12 there are six outliers outside Rocklab's recommended mean +/- 3 standard deviation control limits (dashed lines) of 0.744 and 0.892 g/t for gold (table 2). Only one of these outliers is outside calculated mean +/- 3 standard deviation control limits of 0.650 and 0.933 g/t for gold from this set of standard performance results.

Table 3: *Standard SF-12 Outliers*

Certificate	Date Crushed	Sample	Au g/t
VA06060521	6/29/2006	223906	0.619
6V2270PA	9/29/2006	225800	0.710
VA06057569	6/23/2006	223384	0.725
VA06075274	7/30/2006	226350	0.728
VA06060522	6/23/2006	223462	0.744
VA06054329	6/16/2006	223243	0.744

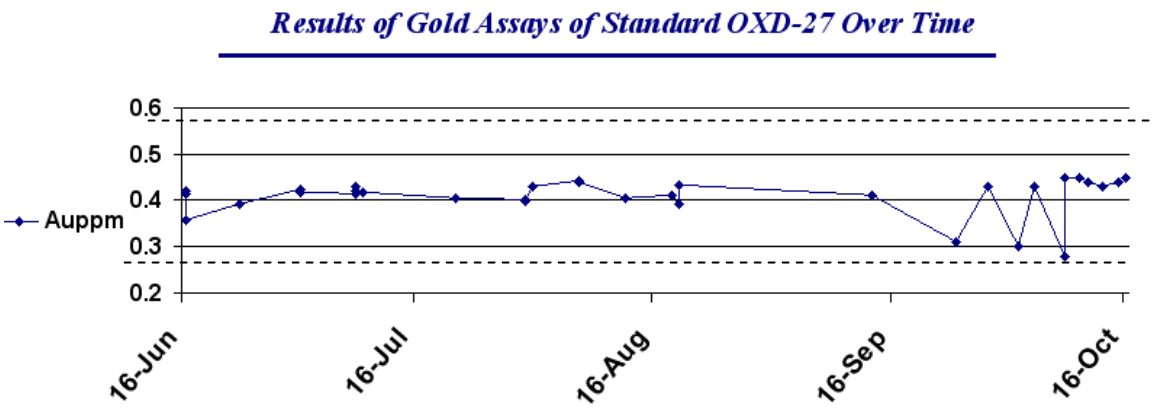
The standard outliers were investigated by the analytical laboratories. ALS Chemex reported that these standards reported slightly higher upon re-analysis and all surrounding samples reported results comparable to the original results. According to ALS Chemex the standard samples reported lower on the original analyses due to a less than optimal fusion related to the fluxing of the standard material alone and therefore did not affect the results of the mainstream samples. Assayer Canada reported similar findings for work order 6V2270PA. Based on standard SF-12 performance results and laboratory investigations of outliers, all mainstream results associated with this standard are considered accurate.

Figure 3:



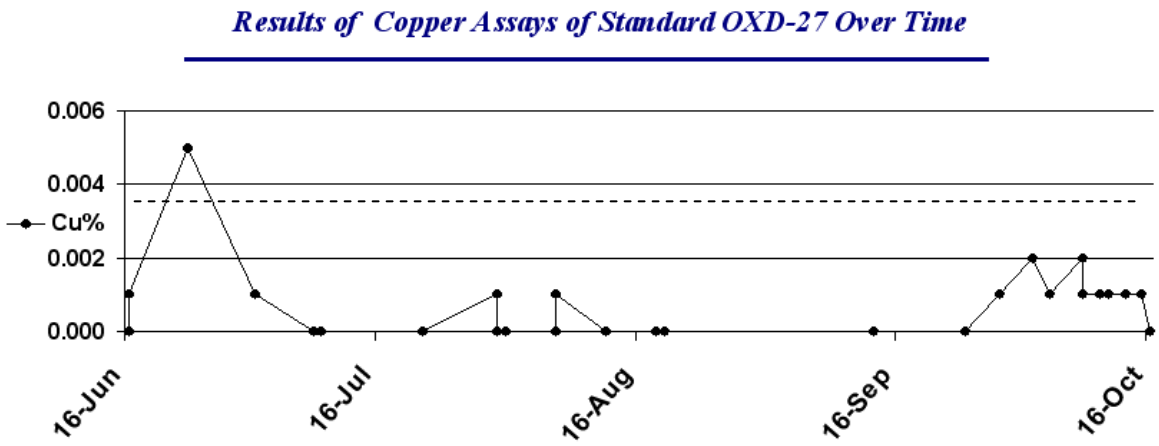
There are no SF-12 outliers above the calculated mean + 3 standard deviation control limit of 0.0033 % (dashed line) for copper.

Figure 4:



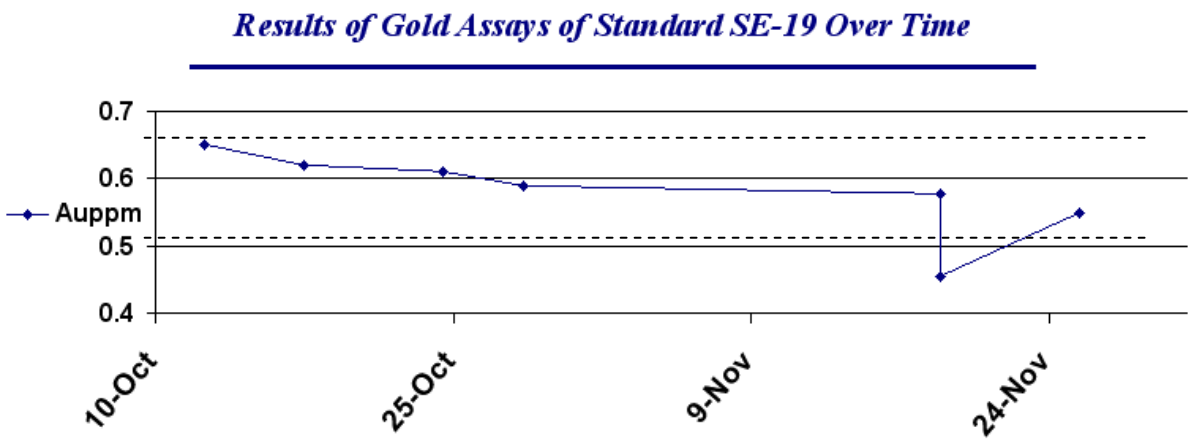
For standard OXD-27 there are no outliers outside Rocklab's recommended mean +/- 3 standard deviation control limits (dashed lines) of 0.265 and 0.567g/t for gold.

Figure 5:



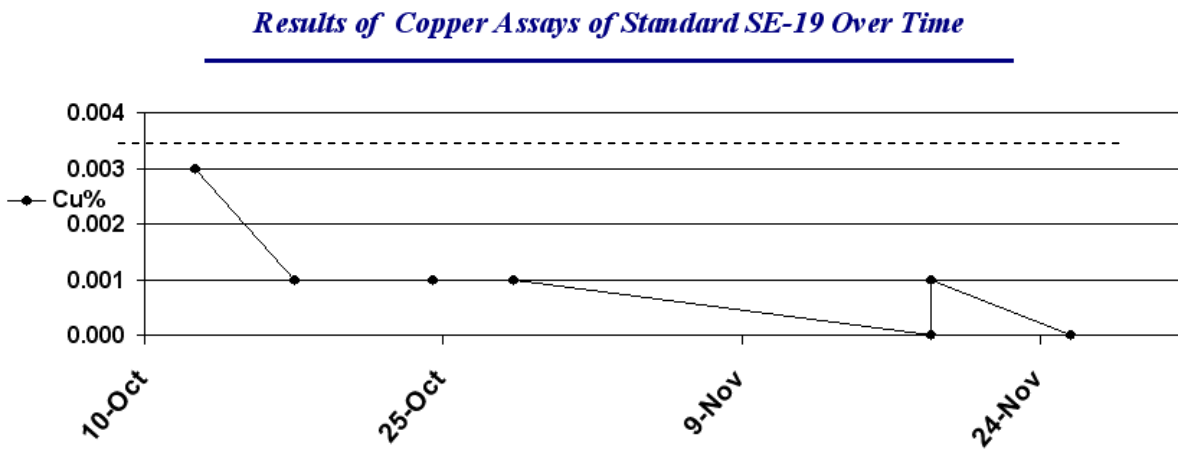
There is one OXD-27 outlier above the calculated control limit of 0.0035 % (dashed line) for copper. This outlier was investigated and the copper assay result is confirmed by ICP analysis of the standard material submitted to the analytical laboratory, indicating natural variation in the standard material itself rather than a problem with the copper assay.

Figure 6:



For standard SE-19, there is one outlier outside Rocklab's recommended mean +/- 3 standard deviation control limits (dashed lines) of 0.504 and 0.662g/t for gold. The outlier was investigated by ALS Chemex, who reported the following …" Sample 229425 originally reported 0.455 ppm while the re-analysis reported 0.572 ppm. The lower result reported originally was due to a less than optimal fusion. All surrounding samples reported re-analysis results comparable to the original results, confirming the original analysis."

Figure 7:



There are no SE-19, outliers above the calculated control limit of 0.0034 % (dashed line) for copper.

Table 3:

Standard SH-24 Results

Date Crushed	Sample	Auppm	Cu%
11/18/2006	229375	1.335	0.001
11/18/2006	229500	1.295	0.000
11/18/2006	230100	1.295	0.001
11/25/2006	230650	1.320	0.001

For standard SH-24there are no outliers outside Rocklab's recommended mean +/- 3 standard deviation control limits (dashed lines) of 1.196 and 1.456 g/t for gold. There are no SH-24outliers above the calculated control limit of 0.002 % for copper.

Based on the performance of the full set of standards over the entire course of the program and laboratory investigations of outliers, all mainstream results associated with these standards are considered accurate.

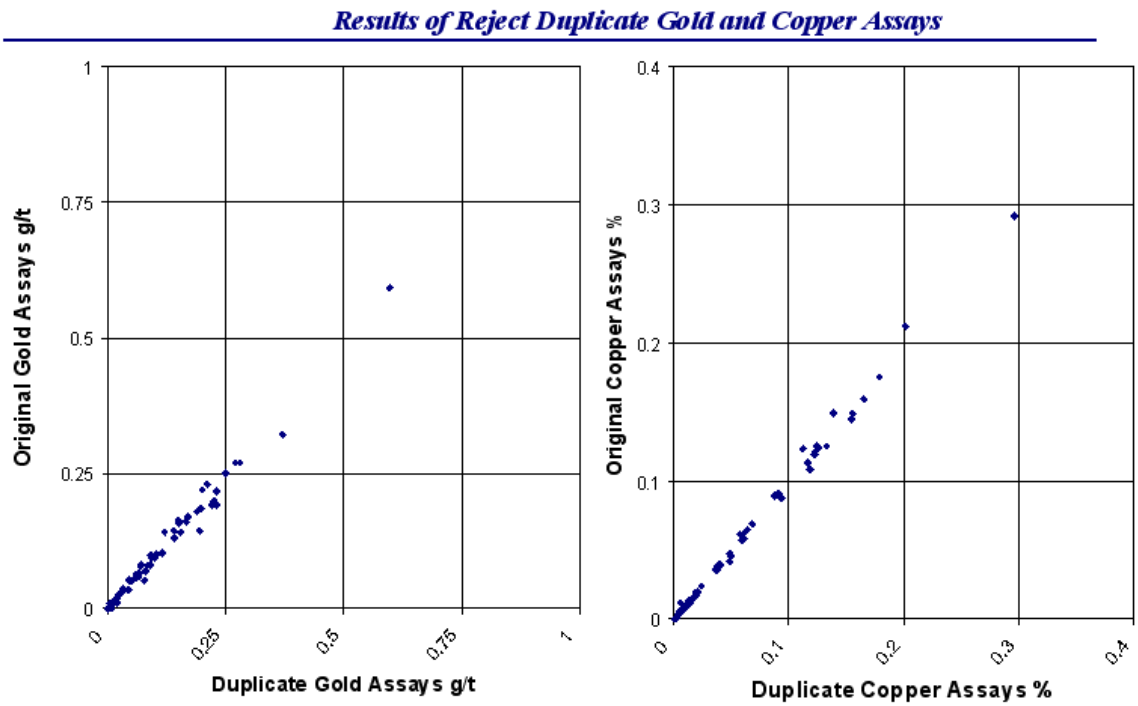
5 Precision – Duplicates

In simple terms precision refers to how tight a group of estimates is; as in the archery target and arrows analogy. Precision is formally defined as the percent relative variation at the two standard deviation (95%) confidence level. As the concentration of a given element decreases, its percent precision will increase. Once percent precision reaches 100 % the true detection limit is defined; also expressed as +/- 50%.

Combined preparation and analytical precision is examined using matched pairs created by taking a second split, referred to as a "duplicate", from randomly selected original mainstream crushed sample rejects. These matched pairs of duplicates and originals are used to measure this precision and how it varies with grade.

For the 2006 program 78 duplicate samples were submitted to ALS Chemex or Assayers Canada at regularly spaced intervals throughout the program, amounting to 1.4 % of the entire population of samples submitted. The scatter plots in figures 10 and 11 show the 78 matched-pair data for gold and copper respectively.

Figures 10 and 11:



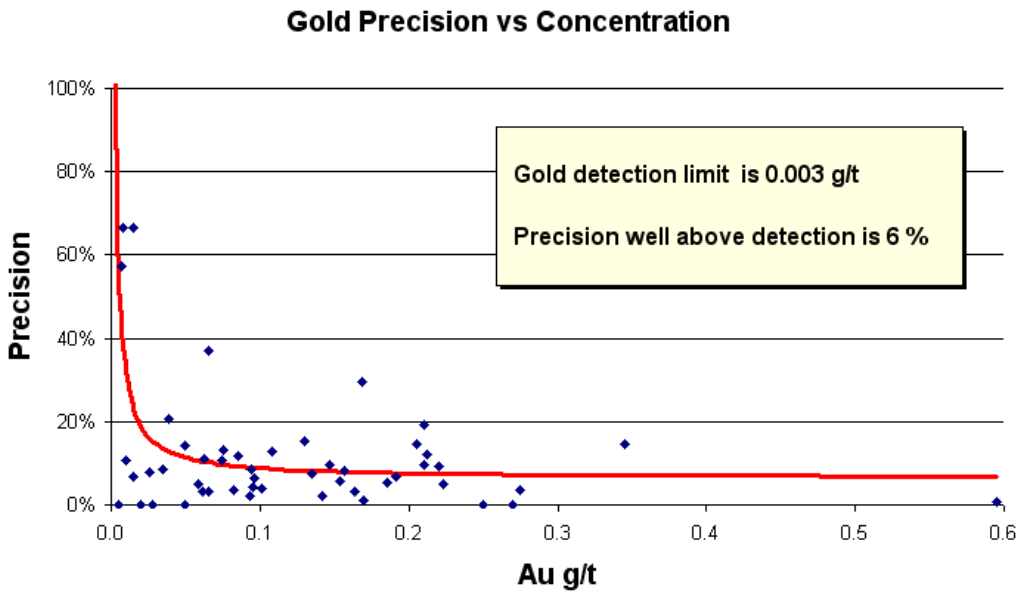
Outliers are defined as those matched pairs with a grade over 0.1 g/t gold or 0.1 % copper and greater than 25 % precision. Using these criteria there are no outlier matched-pairs for copper and there is only one for gold. For the gold outlier, comparisons between ICP signatures for each of the outlier-matched-pair and surrounding samples were used to determine if these are erroneous data points or valid outliers representing real nugget effects. This comparison indicates that the outlier presented in Tables 3 represents a real but weak nugget effect in a sample from hole KN-06-10 drilled in the Kemess North deposit.

Table 3:

Gold - Valid Matched-Pair Outliers

QAQC	Sample Duplicated	Au Precision	Au Diff	Original Au g/t	Duplicate Au g/t
226850	226849	30%	0.05	0.194	0.144

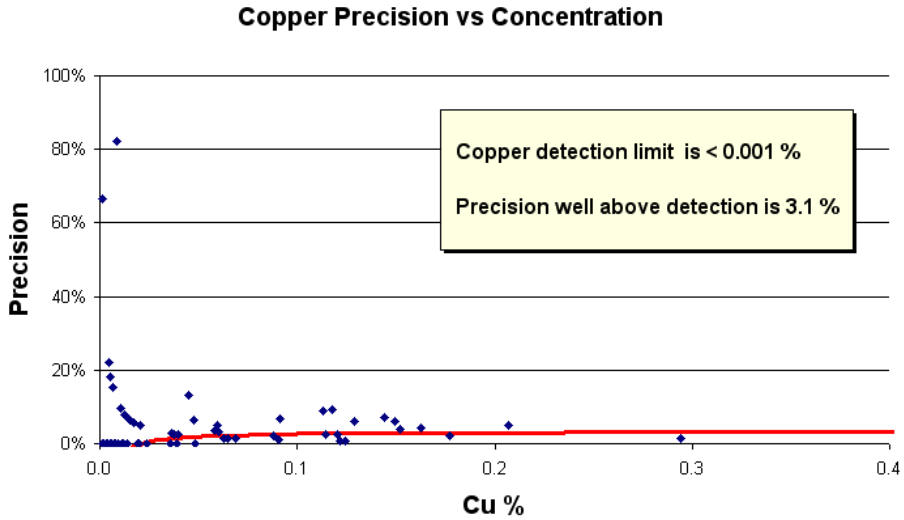
Figure 12:



Evaluation of 57 matched-pair analyses, above the reported detection limit, indicates that the 2006 gold results are precise, with the exception of a single isolated outliers presented in Table 3. Good levels of precision are demonstrated at grades of interest, such as 7 % precision at 0.4 g/t, and the actual detection limit is close to the lower reporting limit, as it should be.

The calculated precision, presented as the red line in Figure 12, includes the isolated outlier from Kemess North deposit, which exhibited a weak nugget effect. This sample is shown as the data point with greater than 25 % precision over 0.1 g/t in the left-center of Figure 12. The rarity of outliers indicates a lack of metallic gold in samples from the 2006 program.

Figure 13:



Evaluation of 77 matched-pair analyses, above the reported detection limit, indicates that copper results are precise. Good levels of precision are demonstrated at grades of interest, such as 3 % precision at a grade of 0.2 % copper. The actual detection limit is lower than the reporting limit, as indicated by the numerous samples with 0 % precision near the reporting limit of 0.001% Cu.

6 Summary and Conclusions

A total of 247 sample preparation and analytical quality control samples were submitted, at a frequency of 1 in 26, along with 5,664 prepared mainstream samples, to ALS Chemex and Assayers Canada during the Kemess Property 2006 Drilling program. This amounted to 4 % of the entire population of samples submitted to ALS Chemex, including 80 blanks, 89 standards, and 78 duplicates.

Evaluation of the 80 gold and copper analyses of blanks indicates that no significant or systematic contamination or laboratory error occurred during the course of the 2006 program. Laboratory investigations of one blank oultier revealed minor weighing errors that were later rectified by the lab.

Results for 82 of the 89 quality control standards, analyzed throughout the program, reported within industry accepted +/- 3 standard deviation error limits. The seven outliers were found to be due to less than optimal fusion related to the fluxing of the standard material alone and therefore did not affect the results of the mainstream samples.

Evaluation of 78 reject duplicate matched-pair analyses indicates that, for the vast majority of samples, results are precise at grades of interest. The precision levels are comparable to results of the 2002 through 2005 programs. Good levels of precision, 7 % precision for gold and 3 % for copper, are demonstrated at grades of 0.4 g/t and 0.2 % respectively.

Evaluation of the quality control results indicates that the preparatory work performed by Northgate/Kemess staff and the analytical work performed by ALS Chemex and Assayers Canada provided sound and accurate gold and copper results for the Kemess Property 2006 Drilling program. Therefore gold and copper results from this program are suitable for use in any subsequent resource/reserve estimation for Kemess Property Copper-Gold deposits.

Appendix I

Laboratory Quality Control Certification

Double-Click on the zipped file to view pdf files of Laboratory Quality Control Data:

QCDOC_PIL 2006.zip

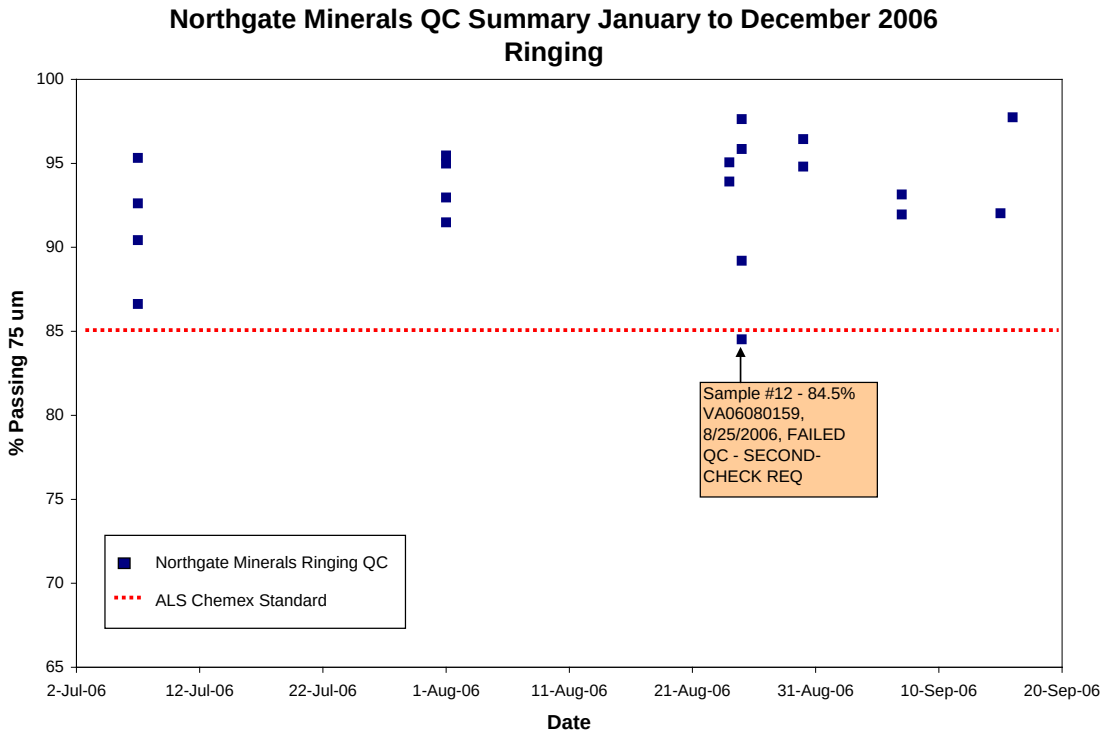
Northgate Minerals Corporation Preparation QC Summary for Kemess Mine

Prepared By ALS Chemex

Fineness tests to ensure crushing and pulverizing specifications are being met are done at least per shift daily at each sample preparation station.

Pulverizing QC

A total of 20 QC results are reported for pulverizing, one of which is a failure. Overall, 5% of your samples at original pulverizing were below our internal standard of 85% passing through a 75 µm screen. Our internal procedure action for failures is to test a second sample within the same work order. If this sample still fails our internal standard, it and previous samples that may have been affected are reprocessed until the amount of sample passing is equal to or greater than 85%. The chart below illustrates the results for all samples tested and it shows which samples failed our internal standard.



Appendix II

Reference Material Certification

Certificate of Analysis

Reference Material OxD27

Recommended Gold Concentration: 0.416 +/- 0.025 µg/g

The above values apply only to product in jars or sachets which have an identification number within the following range: *(The unique number range is not published on website)*

Prepared and Certified By:	Malcolm Smith BSc, FNZIC Malcolm Smith Reference Materials Ltd 2 Morriggia Place Auckland 10 **NEW ZEALAND** Telephone: +64 9 444 3534 Telefax: +64 9 444 7739 Email: mgs@xtra.co.nz
Date of Certification:	9 September 2002
Certificate Status:	Original. Future revisions (if any) will be notified on our website – www.rocklabs.com
Available Packaging:	This reference material has been packed in wide-mouthed jars that contain 2.5kg of product. The contents of some jars may be subsequently repacked into sealed polyethylene sachets.
Origin of Reference Material:	Feldspars with minor quantities of finely divided gold-containing minerals that have been screened to ensure there is no gold nugget effect.
Supplier of Reference Material:	ROCKLABS Ltd P O Box 18 142 Auckland **NEW ZEALAND** Email: rocklabs@clear.net.nz Telephone: +64 9 634 7696 Telefax: +64 9 634 6896

Description: The component minerals have been well mixed and a homogeneity test carried out after the entire batch was packaged into wide-mouthed jars to ascertain that the gold is

Certificate of Analysis

Reference Material SF12

Recommended Gold Concentration: 0.819 µg/g
95% Confidence Interval: +/- 0.012 µg/g

The above values apply only to product in jars or sachets which have an identification number within the following range: *(The unique number range is not published on website)*

Prepared and Certified By:	Malcolm Smith BSc, FNZIC Malcolm Smith Reference Materials Ltd 2 Morriggia Place Auckland 10 **NEW ZEALAND** Telephone: +64 9 444 3534 Telefax: +64 9 444 7739 Email: mgs@xtra.co.nz
Date of Certification:	23 August 2002
Certificate Status:	Original
Available Packaging:	This reference material has been packed in wide-mouthed jars that contain 2.5kg of product. The contents of some jars may be subsequently repacked into sealed polyethylene sachets.
Origin of Reference Material:	Feldspars and iron pyrites with minor quantities of finely divided gold-containing minerals that have been screened to ensure there is no gold nugget effect.
Supplier of Reference Material:	ROCKLABS Ltd P O Box 18 142 Auckland **NEW ZEALAND** Email: rocklabs@clear.net.nz Telephone: +64 9 634 7696

Description: The component minerals have been well mixed and a homogeneity test carried out after the entire batch was packaged into wide-mouthed jars to ascertain that the gold is

Certificate of Analysis

Reference Material SE19

Recommended Gold Concentration: 0.583 µg/g
95% Confidence Interval: +/- 0.011 µg/g

The above values apply only to product in jars or sachets which have an identification number within the following range: *(The unique number range is not published on website)*

Prepared and Certified By:	Malcolm Smith BSc, FNZIC Malcolm Smith Reference Materials Ltd 40 Oakford Park Crescent, Greenhithe, Auckland 1311 **NEW ZEALAND** Email: mgs@xtra.co.nz Telephone: +64 9 444 3534 Fax: +64 9 444 7739
Date of Certification:	29 July 2004
Certificate Status:	Original
Available Packaging:	This reference material has been packed in wide-mouthed jars that contain 2.5kg of product. The contents of some jars may be subsequently repacked into sealed polyethylene sachets.
Origin of Reference Material:	Feldspars and iron pyrites with minor quantities of finely divided gold-containing minerals that have been screened to ensure there is no gold nugget effect.
Supplier of Reference Material:	ROCKLABS Ltd P O Box 18 142 Auckland **NEW ZEALAND** Email: rocklabs@clear.net.nz Telephone: +64 9 634 7696 Fax: +64 9 634 6896

Description: The component minerals have been well mixed and a homogeneity test carried out after the entire batch was packaged into wide-mouthed jars to ascertain that the gold is

Certificate of Analysis

Reference Material SH24

Recommended Gold Concentration: 1.326 µg/g
95% Confidence Interval: +/- 0.016 µg/g

The above values apply only to product in jars or sachets which have an identification number within the following range: ***100 590*** to ***101 825.***

Prepared and Certified By:	Malcolm Smith BSc, FNZIC Malcolm Smith Reference Materials Ltd 40 Oakford Park Crescent, Greenhithe, Auckland 1311 **NEW ZEALAND** Email: Malcolm@MSRML.co.nz Telephone: +64 9 444 3534 Fax: +64 9 444 7739
Date of Certification:	18 July 2005
Certificate Status:	Original
Available Packaging:	This reference material has been packed in wide-mouthed jars that contain 2.5 kg of product. The contents of some jars may be subsequently repacked into sealed polyethylene sachets.
Origin of Reference Material:	Feldspars and iron pyrites with minor quantities of finely divided gold-containing minerals that have been screened to ensure there is no gold nugget effect.
Supplier of Reference Material:	ROCKLABS Ltd P O Box 18 142 Auckland **NEW ZEALAND** Email: rocklabs@clear.net.nz Website: www.rocklabs.com Telephone: +64 9 634 7696

Description: The component minerals have been well mixed and a homogeneity test carried out after the entire batch was packaged into wide-mouthed jars to ascertain that the gold is

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EXCELLENCE IN ANALYTICAL CHEMISTRY
ALS Canada Ltd.
212 Brooksbank Avenue
North Vancouver BC V7J 2C1
Phone: 604 984 0221 Fax: 604 984 0218 www.alschemex.com

To: NORTHGATE MINERALS CORPORATION
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 7-SEP-2006
This copy reported on 23-FEB-2007
Account: PIL

QC CERTIFICATE VA06077385

Project: 4012
P.O. No.:
This report is for 14 Pulp samples submitted to our lab in Vancouver, BC, Canada on 9-AUG-2006.
The following have access to data associated with this certificate:

CARL EDMUNDS B. KAY	C. EDMUNDS RON KONST	BRIAN KAY R KONST

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-QC	QC Test on Received Samples
LOG-22	Sample login - Rcd w/o BarCode

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au-AA23	Au 30g FA-AA finish	AAS
Cu-AA49	Assay Cu - HBr Digestion	AAS
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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Finalized Date: 7-SEP-2006
Account: PIL

Project: 4012

QC CERTIFICATE OF ANALYSIS VA06077385

Sample Description	Method	Au-AA23	Cu-AA49	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Au	Cu	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	0.005	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
STANDARDS																
BM-9/A				13.5	0.91	23	<10	90	0.8	112	0.17	26.2	96	197	5440	3.50
Target Range - Lower Bound				12.2	0.80	20	<10	70	<0.5	100	0.13	23.2	88	176	4890	3.28
Upper Bound				15.4	1.00	28	20	110	1.0	127	0.19	29.5	110	217	5980	4.04
CU-108			0.667													
Target Range - Lower Bound			0.627													
Upper Bound			0.695													
G2000				3.4	1.89	486	<10	900	1.0	<2	0.53	6.9	22	70	304	3.69
Target Range - Lower Bound				3.0	1.66	434	<10	720	<0.5	<2	0.46	6.0	21	63	272	3.41
Upper Bound				4.1	2.06	534	20	1000	1.0	4	0.58	8.4	27	79	334	4.19
GBM398-4c			0.407													
GBM398-4c			0.397													
Target Range - Lower Bound			0.369													
Upper Bound			0.410													
GBM999-5				57.6	0.19	<2	<10	50	<0.5	<2	0.05	<0.5	3	5	492	2.77
Target Range - Lower Bound				53.3	0.17	<2	<10	40	<0.5	<2	0.04	<0.5	2	4	436	2.56
Upper Bound				65.5	0.23	4	20	70	1.0	4	0.07	1.0	4	7	536	3.15
GEOMS-03				0.5	1.84	645	<10	1120	1.1	<2	0.37	<0.5	10	74	135	4.06
Target Range - Lower Bound				<0.2	1.63	552	<10	890	<0.5	<2	0.30	<0.5	10	59	120	3.48
Upper Bound				0.7	2.01	679	20	1230	1.7	4	0.38	1.0	14	74	148	4.28
ME89-2			0.238													
Target Range - Lower Bound			0.218													
Upper Bound			0.243													
OXD43		0.393														
Target Range - Lower Bound		0.368														
Upper Bound		0.434														
OxG46		1.025														
OxG46		1.060														
OxG46		1.045														
Target Range - Lower Bound		0.959														
Upper Bound		1.115														
ST-259		2.44														
ST-259		2.45														
Target Range - Lower Bound		2.30														
Upper Bound		2.66														
ST-327		6.73														
Target Range - Lower Bound		6.35														
Upper Bound		7.31														

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SMITHERS BC V0J 2N0

Finalized Date: 7-SEP-2006
Account: PIL

Project: 4012

QC CERTIFICATE OF ANALYSIS VA06077385

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
STANDARDS																
BM-9/A		<10	1	0.02	10	0.43	619	3	0.39	362	90	6690	1.48	7	8	73
Target Range - Lower Bound		<10	<1	<0.01	<10	0.37	561	3	0.37	329	70	5980	1.27	3	6	67
Upper Bound		20	2	0.03	20	0.47	697	5	0.47	404	100	7310	1.57	9	10	84
CU-108																
Target Range - Lower Bound																
Upper Bound																
G2000		10	1	0.42	20	0.67	542	5	0.01	277	930	678	0.25	26	7	68
Target Range - Lower Bound		<10	<1	0.37	<10	0.60	506	4	0.02	256	840	601	0.23	19	5	60
Upper Bound		20	2	0.47	40	0.76	630	8	0.04	316	1050	739	0.31	31	9	76
GBM398-4c																
GBM398-4c																
Target Range - Lower Bound																
Upper Bound																
GBM999-5		<10	<1	0.05	10	0.02	58	3	<0.01	3	40	489	0.29	5	1	3
Target Range - Lower Bound		<10	<1	0.04	<10	<0.01	49	2	<0.01	2	20	471	0.26	<2	<1	2
Upper Bound		20	2	0.07	20	0.03	71	5	0.03	5	50	580	0.34	8	2	5
GEOMS-03		10	1	0.35	20	0.45	522	3	<0.01	53	1030	5	0.04	14	8	108
Target Range - Lower Bound		<10	<1	0.29	<10	0.39	483	2	<0.01	47	880	4	0.02	7	7	92
Upper Bound		20	2	0.37	40	0.49	601	5	0.03	60	1100	9	0.04	14	11	115
ME89-2																
Target Range - Lower Bound																
Upper Bound																
OXD43																
Target Range - Lower Bound																
Upper Bound																
OxG46																
OxG46																
OxG46																
Target Range - Lower Bound																
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212 Brooksbank Avenue
North Vancouver BC V7J 2C1
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SMITHERS BC V0J 2N0

Finalized Date: 7-SEP-2006
Account: PIL

Project: 4012

QC CERTIFICATE OF ANALYSIS VA06077385

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
STANDARDS							
BM-9/A		0.01	<10	<10	15	<10	8320
Target Range - Lower Bound		<0.01	<10	<10	12	<10	7350
Upper Bound		0.02	20	20	17	20	8990
CU-108							
Target Range - Lower Bound							
Upper Bound							
G2000		0.06	<10	<10	68	10	1285
Target Range - Lower Bound		0.04	<10	<10	59	<10	1130
Upper Bound		0.07	20	20	74	20	1385
GBM398-4c							
GBM398-4c							
Target Range - Lower Bound							
Upper Bound							
GBM999-5		<0.01	<10	<10	5	<10	109
Target Range - Lower Bound		<0.01	<10	<10	4	<10	97
Upper Bound		0.02	20	20	7	20	123
GEOMS-03		0.04	<10	<10	72	10	46
Target Range - Lower Bound		0.03	<10	<10	59	<10	40
Upper Bound		0.05	20	20	75	20	54
ME89-2							
Target Range - Lower Bound							
Upper Bound							
OXD43							
Target Range - Lower Bound							
Upper Bound							
OxG46							
OxG46							
OxG46							
Target Range - Lower Bound							
Upper Bound							
ST-259							
ST-259							
Target Range - Lower Bound							
Upper Bound							
ST-327							
Target Range - Lower Bound							
Upper Bound							

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QC CERTIFICATE OF ANALYSIS VA06077385

Sample Description	Method / Analyte / Units / LOR	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1	ME-ICP41 Fe % 0.01
BLANKS																
BLANK			<0.001													
BLANK			<0.001													
BLANK				<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
BLANK				<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
BLANK		<0.005														
BLANK		<0.005														
BLANK		<0.005														
BLANK		<0.005														
Target Range - Lower Bound		<0.005	<0.001	<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
Upper Bound		0.010	0.002	0.4	0.02	4	20	20	1.0	4	0.02	1.0	2	2	2	0.02
DUPLICATES																
ORIGINAL		0.005														
DUP		0.005														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														
ORIGINAL		0.013														
DUP		0.012														
Target Range - Lower Bound		<0.005														
Upper Bound		0.023														
ORIGINAL		8.22														
DUP		8.16														
Target Range - Lower Bound		7.77														
Upper Bound		8.61														
ORIGINAL		0.211														
DUP		0.204														
Target Range - Lower Bound		0.187														
Upper Bound		0.228														
ORIGINAL		0.085														
DUP		0.085														
Target Range - Lower Bound		0.071														
Upper Bound		0.099														

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SMITHERS BC V0J 2N0

Finalized Date: 7-SEP-2006
Account: PIL

Project: 4012

QC CERTIFICATE OF ANALYSIS VA06077385

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
BLANKS																
BLANK																
BLANK																
BLANK		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
BLANK		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
BLANK																
BLANK																
BLANK																
BLANK																
Target Range - Lower Bound		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
Upper Bound		20	2	0.02	20	0.02	10	2	0.02	2	20	4	0.02	4	2	2
DUPLICATES																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																

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KEMESS MINE
PO BOX 3519
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Finalized Date: 7-SEP-2006
Account: PIL

Project: 4012

QC CERTIFICATE OF ANALYSIS VA06077385

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
BLANKS							
BLANK							
BLANK							
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK							
BLANK							
BLANK							
BLANK							
Target Range - Lower Bound		<0.01	<10	<10	<1	<10	<2
Upper Bound		0.02	20	20	2	20	4
DUPLICATES							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							

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QC CERTIFICATE OF ANALYSIS VA06077385

Sample Description	Method / Analyte / Units / LOR	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1	ME-ICP41 Fe % 0.01
DUPLICATES																
ORIGINAL		0.260		16.4	0.04	1435	<10	170	<0.5	42	0.14	1.4	573	16	2180	40.9
DUP		0.250		16.3	0.05	1455	<10	170	<0.5	43	0.15	1.5	578	17	2210	41.7
Target Range - Lower Bound		0.232		15.1	0.02	1370	<10	140	<0.5	36	0.12	<0.5	545	14	2080	39.2
Upper Bound		0.278		17.6	0.07	1520	20	200	1.0	49	0.17	2.5	606	19	2310	43.4
226476			0.076													
DUP			0.077													
Target Range - Lower Bound			0.073													
Upper Bound			0.080													
226305				0.7	4.95	<2	<10	50	0.5	2	2.50	0.5	28	180	830	6.62
DUP				0.7	5.04	3	<10	50	0.5	<2	2.54	0.5	29	194	859	6.79
Target Range - Lower Bound				0.3	4.73	<2	<10	30	<0.5	<2	2.37	<0.5	25	176	800	6.35
Upper Bound				1.1	5.26	4	20	70	1.0	4	2.67	1.0	32	198	889	7.06
226312			0.084													
DUP			0.085													
Target Range - Lower Bound			0.080													
Upper Bound			0.089													
226281				1.0	3.63	8	<10	30	<0.5	2	1.58	<0.5	37	108	1110	7.98
DUP				1.0	3.72	7	<10	30	<0.5	<2	1.62	<0.5	36	108	1110	8.08
Target Range - Lower Bound				0.6	3.47	3	<10	<10	<0.5	<2	1.50	<0.5	33	101	1055	7.61
Upper Bound				1.5	3.88	12	20	50	1.0	4	1.70	1.0	40	115	1170	8.45
226676				0.8	1.39	6	<10	10	<0.5	<2	0.02	<0.5	11	73	112	4.96
DUP				0.8	1.42	6	<10	10	<0.5	<2	0.02	<0.5	12	74	113	5.07
Target Range - Lower Bound				0.4	1.31	<2	<10	<10	<0.5	<2	<0.01	<0.5	9	68	105	4.74
Upper Bound				1.2	1.50	10	20	20	1.0	4	0.04	1.0	14	79	120	5.29

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QC CERTIFICATE OF ANALYSIS VA06077385

Sample Description / Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
DUPLICATES															
ORIGINAL	<10	1	0.02	<10	0.08	388	2	<0.01	3390	280	289	0.27	43	1	3
DUP	<10	<1	0.02	<10	0.08	380	2	<0.01	3410	300	290	0.28	39	1	3
Target Range - Lower Bound	<10	<1	<0.01	<10	0.06	355	<1	<0.01	3230	260	271	0.24	34	<1	<1
Upper Bound	20	2	0.04	20	0.10	413	4	0.02	3570	320	308	0.31	48	2	5
226476															
DUP															
Target Range - Lower Bound															
Upper Bound															
226305	10	1	0.24	<10	3.59	649	19	0.06	36	1190	16	5.10	<2	18	224
DUP	10	1	0.24	<10	3.66	660	20	0.06	38	1200	17	5.20	<2	18	229
Target Range - Lower Bound	<10	<1	0.21	<10	3.42	612	17	0.04	33	1120	12	4.87	<2	15	213
Upper Bound	20	2	0.27	20	3.83	697	22	0.08	41	1270	21	5.43	4	21	240
226312															
DUP															
Target Range - Lower Bound															
Upper Bound															
226281	10	<1	0.24	10	2.75	618	17	0.02	23	1010	8	6.63	<2	9	100
DUP	10	1	0.25	10	2.84	633	16	0.02	23	1060	8	6.79	<2	10	104
Target Range - Lower Bound	<10	<1	0.21	<10	2.64	584	14	<0.01	20	960	4	6.35	<2	7	95
Upper Bound	20	2	0.28	20	2.95	667	19	0.04	26	1110	12	7.07	4	12	109
226676	<10	<1	0.11	<10	0.01	11	1	<0.01	7	400	23	5.60	<2	4	32
DUP	<10	<1	0.11	<10	0.01	12	1	<0.01	8	420	23	5.74	<2	4	33
Target Range - Lower Bound	<10	<1	0.08	<10	<0.01	<5	<1	<0.01	5	370	18	5.37	<2	2	29
Upper Bound	20	2	0.14	20	0.02	22	2	0.02	10	450	28	5.97	4	6	36

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Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
		DUPLICATES					
ORIGINAL		<0.01	<10	<10	9	20	360
DUP		<0.01	<10	<10	9	20	366
Target Range - Lower Bound		<0.01	<10	<10	7	<10	341
Upper Bound		0.02	20	20	11	40	385
226476							
DUP							
Target Range - Lower Bound							
Upper Bound							
226305		0.09	<10	<10	167	<10	160
DUP		0.09	<10	<10	169	<10	164
Target Range - Lower Bound		0.07	<10	<10	158	<10	150
Upper Bound		0.11	20	20	178	20	174
226312							
DUP							
Target Range - Lower Bound							
Upper Bound							
226281		0.01	<10	<10	105	<10	109
DUP		0.01	<10	<10	106	<10	110
Target Range - Lower Bound		<0.01	<10	<10	98	<10	100
Upper Bound		0.02	20	20	113	20	119
226676		<0.01	<10	<10	10	<10	12
DUP		<0.01	<10	<10	11	<10	12
Target Range - Lower Bound		<0.01	<10	<10	8	<10	7
Upper Bound		0.02	20	20	13	20	17

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Finalized Date: 7-SEP-2006
This copy reported on 23-FEB-2007
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QC CERTIFICATE VA06077386

Project: 4012
P.O. No.:
This report is for 50 Pulp samples submitted to our lab in Vancouver, BC, Canada on 9-AUG-2006.
The following have access to data associated with this certificate:

CARL EDMUNDS R KONST	B. KAY RON KONST	BRIAN KAY

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-QC	QC Test on Received Samples
LOG-22	Sample login - Rcd w/o BarCode

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au-AA23	Au 30g FA-AA finish	AAS
Cu-AA49	Assay Cu - HBr Digestion	AAS
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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QC CERTIFICATE OF ANALYSIS VA06077386

Sample Description	Method	Au-AA23	Cu-AA49	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Au	Cu	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	0.005	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
STANDARDS																
BM-9/A				13.5	0.91	23	<10	90	0.8	112	0.17	26.2	96	197	5440	3.50
Target Range - Lower Bound				12.2	0.80	20	<10	70	<0.5	100	0.13	23.2	88	176	4890	3.28
Upper Bound				15.4	1.00	28	20	110	1.0	127	0.19	29.5	110	217	5980	4.04
CU-108			0.667													
Target Range - Lower Bound			0.627													
Upper Bound			0.695													
G2000				3.4	1.89	486	<10	900	1.0	<2	0.53	6.9	22	70	304	3.69
Target Range - Lower Bound				3.0	1.66	434	<10	720	<0.5	<2	0.46	6.0	21	63	272	3.41
Upper Bound				4.1	2.06	534	20	1000	1.0	4	0.58	8.4	27	79	334	4.19
GBM398-4c			0.397													
GBM398-4c			0.386													
Target Range - Lower Bound			0.369													
Upper Bound			0.410													
GBM999-5				56.4	0.19	4	<10	50	<0.5	<2	0.05	<0.5	3	5	498	2.78
Target Range - Lower Bound				53.3	0.17	<2	<10	40	<0.5	<2	0.04	<0.5	2	4	436	2.56
Upper Bound				65.5	0.23	4	20	70	1.0	4	0.07	1.0	4	7	536	3.15
GEOMS-03				0.5	1.83	644	10	1130	1.1	<2	0.37	<0.5	10	74	136	4.13
Target Range - Lower Bound				<0.2	1.63	552	<10	890	<0.5	<2	0.30	<0.5	10	59	120	3.48
Upper Bound				0.7	2.01	679	20	1230	1.7	4	0.38	1.0	14	74	148	4.28
ME89-2			0.234													
Target Range - Lower Bound			0.218													
Upper Bound			0.243													
OxG46		1.070														
Target Range - Lower Bound		0.959														
Upper Bound		1.115														
ST-259		2.49														
Target Range - Lower Bound		2.30														
Upper Bound		2.66														

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Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
STANDARDS																
BM-9/A		<10	1	0.02	10	0.43	619	3	0.39	362	90	6690	1.48	7	8	73
Target Range - Lower Bound		<10	<1	<0.01	<10	0.37	561	3	0.37	329	70	5980	1.27	3	6	67
Upper Bound		20	2	0.03	20	0.47	697	5	0.47	404	100	7310	1.57	9	10	84
CU-108																
Target Range - Lower Bound																
Upper Bound																
G2000		10	1	0.42	20	0.67	542	5	0.01	277	930	678	0.25	26	7	68
Target Range - Lower Bound		<10	<1	0.37	<10	0.60	506	4	0.02	256	840	601	0.23	19	5	60
Upper Bound		20	2	0.47	40	0.76	630	8	0.04	316	1050	739	0.31	31	9	76
GBM398-4c																
GBM398-4c																
Target Range - Lower Bound																
Upper Bound																
GBM999-5		<10	<1	0.05	10	0.02	64	3	0.01	2	30	497	0.27	5	1	7
Target Range - Lower Bound		<10	<1	0.04	<10	<0.01	49	2	<0.01	2	20	471	0.26	<2	<1	2
Upper Bound		20	2	0.07	20	0.03	71	5	0.03	5	50	580	0.34	8	2	5
GEOMS-03		10	1	0.35	20	0.46	529	3	0.02	53	1050	5	0.01	14	9	108
Target Range - Lower Bound		<10	<1	0.29	<10	0.39	483	2	<0.01	47	880	4	0.02	7	7	92
Upper Bound		20	2	0.37	40	0.49	601	5	0.03	60	1100	9	0.04	14	11	115
ME89-2																
Target Range - Lower Bound																
Upper Bound																
OxG46																
Target Range - Lower Bound																
Upper Bound																
ST-259																
Target Range - Lower Bound																
Upper Bound																

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Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
STANDARDS							
BM-9/A		0.01	<10	<10	15	<10	8320
Target Range - Lower Bound		<0.01	<10	<10	12	<10	7350
Upper Bound		0.02	20	20	17	20	8990
CU-108							
Target Range - Lower Bound							
Upper Bound							
G2000		0.06	<10	<10	68	10	1285
Target Range - Lower Bound		0.04	<10	<10	59	<10	1130
Upper Bound		0.07	20	20	74	20	1385
GBM398-4c							
GBM398-4c							
Target Range - Lower Bound							
Upper Bound							
GBM999-5		<0.01	<10	<10	5	<10	111
Target Range - Lower Bound		<0.01	<10	<10	4	<10	97
Upper Bound		0.02	20	20	7	20	123
GEOMS-03		0.04	<10	<10	72	10	47
Target Range - Lower Bound		0.03	<10	<10	59	<10	40
Upper Bound		0.05	20	20	75	20	54
ME89-2							
Target Range - Lower Bound							
Upper Bound							
OxG46							
Target Range - Lower Bound							
Upper Bound							
ST-259							
Target Range - Lower Bound							
Upper Bound							

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QC CERTIFICATE OF ANALYSIS VA06077386

Sample Description	Method	Au-AA23	Cu-AA49	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Au	Cu	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	0.005	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
BLANKS																
BLANK			<0.001													
BLANK			<0.001													
BLANK				<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
BLANK				<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
BLANK		<0.005														
Target Range - Lower Bound		<0.005	<0.001	<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
Upper Bound		0.010	0.002	0.4	0.02	4	20	20	1.0	4	0.02	1.0	2	2	2	0.02
DUPLICATES																
ORIGINAL		0.448														
DUP		0.441														
Target Range - Lower Bound		0.412														
Upper Bound		0.477														
ORIGINAL				16.0	2.30	19	<10	120	<0.5	<2	1.93	1.0	17	159	5520	3.01
DUP				16.0	2.28	19	<10	120	<0.5	<2	1.93	1.0	17	161	5570	3.09
Target Range - Lower Bound				14.8	2.16	14	<10	90	<0.5	<2	1.81	<0.5	14	150	5270	2.88
Upper Bound				17.2	2.42	24	20	150	1.0	4	2.05	2.1	20	170	5820	3.22
226312			0.084													
DUP			0.085													
Target Range - Lower Bound			0.080													
Upper Bound			0.089													
226281				1.0	3.63	8	<10	30	<0.5	2	1.58	<0.5	37	108	1110	7.98
DUP				1.0	3.72	7	<10	30	<0.5	<2	1.62	<0.5	36	108	1110	8.08
Target Range - Lower Bound				0.6	3.47	3	<10	<10	<0.5	<2	1.50	<0.5	33	101	1055	7.61
Upper Bound				1.5	3.88	12	20	50	1.0	4	1.70	1.0	40	115	1170	8.45
226293		0.132														
DUP		0.123														
Target Range - Lower Bound		0.111														
Upper Bound		0.144														
226676				0.8	1.39	6	<10	10	<0.5	<2	0.02	<0.5	11	73	112	4.96
DUP				0.8	1.42	6	<10	10	<0.5	<2	0.02	<0.5	12	74	113	5.07
Target Range - Lower Bound				0.4	1.31	<2	<10	<10	<0.5	<2	<0.01	<0.5	9	68	105	4.74
Upper Bound				1.2	1.50	10	20	20	1.0	4	0.04	1.0	14	79	120	5.29

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KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 7-SEP-2006
Account: PIL

Project: 4012

QC CERTIFICATE OF ANALYSIS VA06077386

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
BLANKS																
BLANK																
BLANK																
BLANK		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
BLANK		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
BLANK																
Target Range - Lower Bound		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
Upper Bound		20	2	0.02	20	0.02	10	2	0.02	2	20	4	0.02	4	2	2
DUPLICATES																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL		<10	<1	0.31	<10	1.02	283	<1	0.11	49	670	5	0.71	<2	3	229
DUP		<10	<1	0.31	<10	1.01	283	<1	0.11	51	680	6	0.71	<2	3	227
Target Range - Lower Bound		<10	<1	0.27	<10	0.94	259	<1	0.08	46	620	<2	0.65	<2	<1	215
Upper Bound		20	2	0.35	20	1.09	307	2	0.14	55	730	10	0.77	4	5	241
226312																
DUP																
Target Range - Lower Bound																
Upper Bound																
226281		10	<1	0.24	10	2.75	618	17	0.02	23	1010	8	6.63	<2	9	100
DUP		10	1	0.25	10	2.84	633	16	0.02	23	1060	8	6.79	<2	10	104
Target Range - Lower Bound		<10	<1	0.21	<10	2.64	584	14	<0.01	20	960	4	6.35	<2	7	95
Upper Bound		20	2	0.28	20	2.95	667	19	0.04	26	1110	12	7.07	4	12	109
226293																
DUP																
Target Range - Lower Bound																
Upper Bound																
226676		<10	<1	0.11	<10	0.01	11	1	<0.01	7	400	23	5.60	<2	4	32
DUP		<10	<1	0.11	<10	0.01	12	1	<0.01	8	420	23	5.74	<2	4	33
Target Range - Lower Bound		<10	<1	0.08	<10	<0.01	<5	<1	<0.01	5	370	18	5.37	<2	2	29
Upper Bound		20	2	0.14	20	0.02	22	2	0.02	10	450	28	5.97	4	6	36

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QC CERTIFICATE OF ANALYSIS VA06077386

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
BLANKS							
BLANK							
BLANK							
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK							
Target Range - Lower Bound		<0.01	<10	<10	<1	<10	<2
Upper Bound		0.02	20	20	2	20	4
DUPLICATES							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL		0.09	<10	<10	37	<10	37
DUP		0.09	<10	<10	37	<10	37
Target Range - Lower Bound		0.07	<10	<10	33	<10	31
Upper Bound		0.11	20	20	41	20	43
226312							
DUP							
Target Range - Lower Bound							
Upper Bound							
226281		0.01	<10	<10	105	<10	109
DUP		0.01	<10	<10	106	<10	110
Target Range - Lower Bound		<0.01	<10	<10	98	<10	100
Upper Bound		0.02	20	20	113	20	119
226293							
DUP							
Target Range - Lower Bound							
Upper Bound							
226676		<0.01	<10	<10	10	<10	12
DUP		<0.01	<10	<10	11	<10	12
Target Range - Lower Bound		<0.01	<10	<10	8	<10	7
Upper Bound		0.02	20	20	13	20	17

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QC CERTIFICATE OF ANALYSIS VA06077386

Sample Description	Method	Au-AA23	Cu-AA49	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Au	Cu	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	0.005	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
DUPLICATES																
226684			0.010													
DUP			0.010													
Target Range - Lower Bound			0.008													
Upper Bound			0.012													
226688		0.021														
DUP		0.021														
Target Range - Lower Bound		0.010														
Upper Bound		0.032														
226691				0.2	1.14	9	<10	10	<0.5	<2	5.23	1.4	7	82	45	5.73
DUP				<0.2	1.12	8	<10	10	<0.5	<2	5.07	1.4	6	79	44	5.50
Target Range - Lower Bound				<0.2	1.05	4	<10	<10	<0.5	<2	4.87	<0.5	4	74	40	5.31
Upper Bound				0.4	1.21	13	20	20	1.0	4	5.43	2.5	9	87	49	5.92

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QC CERTIFICATE OF ANALYSIS VA06077386

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
		DUPLICATES														
226684																
DUP																
Target Range - Lower Bound																
Upper Bound																
226688																
DUP																
Target Range - Lower Bound																
Upper Bound																
226691		<10	<1	0.07	<10	<0.01	23	2	0.01	2	260	50	>10.0	<2	1	363
DUP		<10	1	0.06	<10	<0.01	22	2	0.01	2	250	48	>10.0	<2	1	350
Target Range - Lower Bound		<10	<1	0.04	<10	<0.01	11	<1	<0.01	<1	220	43	9.48	<2	<1	337
Upper Bound		20	2	0.09	20	0.02	34	4	0.02	4	290	55	10.00	4	2	376

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Finalized Date: 7-SEP-2006
Account: PIL

Project: 4012

QC CERTIFICATE OF ANALYSIS VA06077386

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
		DUPLICATES					
226684							
DUP							
Target Range - Lower Bound							
Upper Bound							
226688							
DUP							
Target Range - Lower Bound							
Upper Bound							
226691		<0.01	<10	<10	8	<10	28
DUP		<0.01	<10	<10	7	<10	26
Target Range - Lower Bound		<0.01	<10	<10	5	<10	22
Upper Bound		0.02	20	20	10	20	32

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Finalized Date: 30-AUG-2006
This copy reported on 23-FEB-2007
Account: PIL

QC CERTIFICATE VA06077387

Project: 4012
P.O. No.:
This report is for 58 Crushed Rock samples submitted to our lab in Vancouver, BC, Canada on 9-AUG-2006.

The following have access to data associated with this certificate:

CARL EDMUNDS RON KONST	BRIAN KAY R KONST	B. KAY

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
PUL-31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
ME-XRF05	Trace Level XRF Analysis	XRF
ME-XRF06	Whole Rock Package - XRF	XRF
OA-GRA06	LOI for ME-XRF06	WST-SIM

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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Finalized Date: 30-AUG-2006
Account: PIL

Project: 4012

QC CERTIFICATE OF ANALYSIS VA06077387

Sample Description	Method / Analyte / Units / LOR	ME-XRF05 Nb ppm 2	ME-XRF05 Y ppm 2	ME-XRF05 Zr ppm 2	ME-XRF06 SiO2 % 0.01	ME-XRF06 Al2O3 % 0.01	ME-XRF06 Fe2O3 % 0.01	ME-XRF06 CaO % 0.01	ME-XRF06 MgO % 0.01	ME-XRF06 Na2O % 0.01	ME-XRF06 K2O % 0.01	ME-XRF06 Cr2O3 % 0.01	ME-XRF06 TiO2 % 0.01	ME-XRF06 MnO % 0.01	ME-XRF06 P2O5 % 0.01	ME-XRF06 SrO % 0.01
STANDARDS																
STSD-2					53.73	16.20	7.59	4.00	3.16	1.73	2.14	0.01	0.79	0.14	0.32	0.05
STSD-2					53.40	16.09	7.59	4.01	3.15	1.75	2.13	0.01	0.77	0.14	0.31	0.05
STSD-2					53.87	16.03	7.50	4.00	3.16	1.71	2.13	0.01	0.80	0.14	0.32	0.05
STSD-2					53.54	16.19	7.52	4.03	3.21	1.71	2.13	0.01	0.78	0.14	0.33	0.05
STSD-2		20	39	191												
STSD-2		19	40	194												
STSD-2		20	39	191												
STSD-2		20	40	193												
Target Range - Lower Bound		16	31	165	51.01	15.29	7.12	3.79	2.94	1.65	2.00	<0.01	0.74	0.12	0.29	0.03
Upper Bound		24	43	206	56.40	16.92	7.90	4.21	3.28	1.85	2.24	0.02	0.84	0.16	0.35	0.06
BLANKS																
BLANK					0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
BLANK					0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01
BLANK		<2	<2	<2												
BLANK		<2	<2	<2												
Target Range - Lower Bound		<2	<2	<2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Upper Bound		4	4	4	0.02	0.04	0.02	0.03	0.02	0.02	0.04	0.02	0.02	0.02	0.03	0.02
DUPLICATES																
226761		3	17	62	44.28	16.05	8.59	8.10	1.97	0.25	3.29	<0.01	0.88	0.04	0.30	0.04
DUP		3	17	62	44.39	16.12	8.59	8.03	1.97	0.27	3.29	<0.01	0.86	0.04	0.29	0.04
Target Range - Lower Bound		<2	12	55	43.21	15.66	8.36	7.84	1.90	0.23	3.19	<0.01	0.83	0.02	0.27	0.02
Upper Bound		4	22	69	45.46	16.51	8.82	8.29	2.04	0.29	3.39	0.02	0.91	0.06	0.32	0.06
226802		3	18	99	46.08	12.82	8.98	7.97	3.23	0.56	3.06	<0.01	0.84	0.09	0.21	0.03
DUP		3	18	99	46.31	12.85	8.96	8.00	3.20	0.57	3.08	<0.01	0.85	0.09	0.21	0.03
Target Range - Lower Bound		<2	13	90	45.02	12.49	8.73	7.77	3.11	0.53	2.97	<0.01	0.80	0.07	0.18	<0.01
Upper Bound		4	23	108	47.37	13.18	9.21	8.20	3.32	0.60	3.17	0.02	0.89	0.11	0.24	0.05

Comments: MEXRF06: Samples with low total were all rechecked.

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Finalized Date: 30-AUG-2006
Account: PIL

Project: 4012

QC CERTIFICATE OF ANALYSIS VA06077387

Sample Description	Method / Analyte / Units / LOR	ME-XRF06 BaO % 0.01	ME-XRF06 LOI % 0.01	ME-XRF06 Total % 0.01
STANDARDS				
STSD-2		0.07	10.00	99.93
STSD-2		0.07	10.30	99.77
STSD-2		0.07	9.88	99.66
STSD-2		0.06	10.00	99.69
STSD-2				
STSD-2				
STSD-2				
STSD-2				
Target Range - Lower Bound		0.05	9.78	94.99
Upper Bound		0.07	10.83	101.00
BLANKS				
BLANK		<0.01	0.00	0.01
BLANK		0.01	0.00	0.03
BLANK				
BLANK				
Target Range - Lower Bound		<0.01		
Upper Bound		0.02		
DUPLICATES				
226761		0.05	13.50	97.35
DUP		0.05	12.75	96.69
Target Range - Lower Bound		0.03	12.78	94.57
Upper Bound		0.07	13.47	99.47
226802		0.05	11.15	95.07
DUP		0.04	10.80	95.00
Target Range - Lower Bound		0.02	10.68	92.64
Upper Bound		0.07	11.27	97.43

Comments: MEXRF06: Samples with low total were all rechecked.

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Finalized Date: 14-SEP-2006
This copy reported on 23-FEB-2007
Account: PIL

QC CERTIFICATE VA06077388

Project: 4013
P.O. No.:
This report is for 50 Crushed Rock samples submitted to our lab in Vancouver, BC, Canada on 9-AUG-2006.

The following have access to data associated with this certificate:

CARL EDMUNDS RON KONST	BRIAN KAY	B. KAY

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
PUL-31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au-AA23	Au 30g FA-AA finish	AAS
Cu-AA49	Assay Cu - HBr Digestion	AAS
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES

To: NORTHGATE MINERALS CORPORATION
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This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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Project: 4013

QC CERTIFICATE OF ANALYSIS VA06077388

Sample Description	Method	Au-AA23	Cu-AA49	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Au	Cu	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	0.005	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
STANDARDS																
BM-9/A				14.3	0.86	23	<10	90	0.8	111	0.17	24.8	93	189	5500	3.30
Target Range - Lower Bound				12.2	0.80	20	<10	70	<0.5	100	0.13	23.2	88	176	4890	3.28
Upper Bound				15.4	1.00	28	20	110	1.0	127	0.19	29.5	110	217	5980	4.04
CU-108			0.676													
Target Range - Lower Bound			0.627													
Upper Bound			0.695													
G2000				3.2	1.91	472	10	890	1.0	<2	0.52	6.9	22	71	311	3.62
Target Range - Lower Bound				3.0	1.66	434	<10	720	<0.5	<2	0.46	6.0	21	63	272	3.41
Upper Bound				4.1	2.06	534	20	1000	1.0	4	0.58	8.4	27	79	334	4.19
GBM398-4c			0.386													
GBM398-4c			0.384													
GBM398-4c			0.388													
Target Range - Lower Bound			0.369													
Upper Bound			0.410													
GBM999-5				57.4	0.18	4	<10	50	<0.5	<2	0.05	<0.5	3	5	495	2.70
Target Range - Lower Bound				53.3	0.17	<2	<10	40	<0.5	<2	0.04	<0.5	2	4	436	2.56
Upper Bound				65.5	0.23	4	20	70	1.0	4	0.07	1.0	4	7	536	3.15
GEOMS-03				0.5	1.90	647	10	1140	1.1	<2	0.38	<0.5	10	74	139	4.19
Target Range - Lower Bound				<0.2	1.63	552	<10	890	<0.5	<2	0.30	<0.5	10	59	120	3.48
Upper Bound				0.7	2.01	679	20	1230	1.7	4	0.38	1.0	14	74	148	4.28
ME89-2			0.234													
ME89-2			0.235													
Target Range - Lower Bound			0.218													
Upper Bound			0.243													
OxG46		1.065														
OxG46		1.035														
Target Range - Lower Bound		0.959														
Upper Bound		1.115														
ST-259		2.50														
ST-259		2.53														
Target Range - Lower Bound		2.30														
Upper Bound		2.66														

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Finalized Date: 14-SEP-2006
Account: PIL

Project: 4013

QC CERTIFICATE OF ANALYSIS VA06077388

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
STANDARDS																
BM-9/A		<10	<1	0.02	10	0.41	611	4	0.41	337	80	5930	1.40	7	8	73
Target Range - Lower Bound		<10	<1	<0.01	<10	0.37	561	3	0.37	329	70	5980	1.27	3	6	67
Upper Bound		20	2	0.03	20	0.47	697	5	0.47	404	100	7310	1.57	9	10	84
CU-108																
Target Range - Lower Bound																
Upper Bound																
G2000		<10	1	0.42	20	0.66	547	6	0.04	264	930	606	0.26	27	7	69
Target Range - Lower Bound		<10	<1	0.37	<10	0.60	506	4	0.02	246	840	601	0.23	19	5	60
Upper Bound		20	2	0.47	40	0.76	630	8	0.04	302	1050	739	0.31	31	9	76
GBM398-4c																
GBM398-4c																
GBM398-4c																
Target Range - Lower Bound																
Upper Bound																
GBM999-5		<10	<1	0.05	10	0.02	59	3	<0.01	3	40	471	0.30	4	1	4
Target Range - Lower Bound		<10	<1	0.04	<10	<0.01	49	2	<0.01	2	20	452	0.26	<2	<1	2
Upper Bound		20	2	0.07	20	0.03	71	5	0.03	5	50	556	0.34	8	2	5
GEOMS-03		10	1	0.37	20	0.47	537	3	0.01	53	1060	6	0.04	14	9	113
Target Range - Lower Bound		<10	<1	0.29	<10	0.39	483	2	<0.01	47	880	4	0.02	7	7	92
Upper Bound		20	2	0.37	40	0.49	601	5	0.03	60	1100	9	0.04	14	11	115
ME89-2																
ME89-2																
Target Range - Lower Bound																
Upper Bound																
OxG46																
OxG46																
Target Range - Lower Bound																
Upper Bound																
ST-259																
ST-259																
Target Range - Lower Bound																
Upper Bound																

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QC CERTIFICATE OF ANALYSIS VA06077388

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
STANDARDS							
BM-9/A		0.01	<10	<10	15	<10	7440
Target Range - Lower Bound		<0.01	<10	<10	12	<10	7350
Upper Bound		0.02	20	20	17	20	8990
CU-108							
Target Range - Lower Bound							
Upper Bound							
G2000		0.05	<10	<10	68	10	1245
Target Range - Lower Bound		0.04	<10	<10	59	<10	1145
Upper Bound		0.07	20	20	74	20	1400
GBM398-4c							
GBM398-4c							
GBM398-4c							
Target Range - Lower Bound							
Upper Bound							
GBM999-5		<0.01	<10	<10	5	<10	106
Target Range - Lower Bound		<0.01	<10	<10	4	<10	97
Upper Bound		0.02	20	20	7	20	123
GEOMS-03		0.03	<10	<10	74	10	46
Target Range - Lower Bound		0.03	<10	<10	59	<10	40
Upper Bound		0.05	20	20	75	20	54
ME89-2							
ME89-2							
Target Range - Lower Bound							
Upper Bound							
OxG46							
OxG46							
Target Range - Lower Bound							
Upper Bound							
ST-259							
ST-259							
Target Range - Lower Bound							
Upper Bound							

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QC CERTIFICATE OF ANALYSIS VA06077388

Sample Description	Method	Au-AA23	Cu-AA49	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Au	Cu	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	0.005	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
BLANKS																
BLANK			<0.001													
BLANK				<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	1	<0.01
BLANK				<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
BLANK			<0.001													
BLANK			<0.001													
BLANK		<0.005														
BLANK		0.005														
Target Range - Lower Bound		<0.005	<0.001	<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
Upper Bound		0.010	0.002	0.4	0.02	4	20	20	1.0	4	0.02	1.0	2	2	2	0.02
DUPLICATES																
ORIGINAL		<0.005														
DUP		<0.005														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														
ORIGINAL		0.034														
DUP		0.040														
Target Range - Lower Bound		0.025														
Upper Bound		0.049														
226684			0.010													
DUP			0.010													
Target Range - Lower Bound			0.008													
Upper Bound			0.012													
227355				<0.2	2.04	9	<10	840	<0.5	<2	3.99	<0.5	10	6	8	3.62
DUP				<0.2	2.10	9	<10	840	<0.5	<2	4.00	<0.5	10	6	8	3.61
Target Range - Lower Bound				<0.2	1.95	5	<10	760	<0.5	<2	3.78	<0.5	8	4	6	3.41
Upper Bound				0.4	2.19	13	20	920	1.0	4	4.21	1.0	13	8	10	3.82
227357		<0.005														
DUP		<0.005														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														

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QC CERTIFICATE OF ANALYSIS VA06077388

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
BLANKS																
BLANK																
BLANK		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	1	<10	<2	<0.01	<2	<1	<1
BLANK		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
BLANK																
BLANK																
BLANK																
BLANK																
Target Range - Lower Bound		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
Upper Bound		20	2	0.02	20	0.02	10	2	0.02	2	20	4	0.02	4	2	2
DUPLICATES																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
226684																
DUP																
Target Range - Lower Bound																
Upper Bound																
227355		<10	<1	0.34	10	1.06	1110	<1	0.03	2	790	6	0.04	<2	5	96
DUP		10	1	0.34	10	1.05	1115	<1	0.03	2	800	7	0.05	<2	5	97
Target Range - Lower Bound		<10	<1	0.30	<10	0.98	1045	<1	<0.01	<1	740	<2	0.02	<2	3	90
Upper Bound		20	2	0.38	20	1.13	1180	2	0.05	4	850	11	0.07	4	7	103
227357																
DUP																
Target Range - Lower Bound																
Upper Bound																

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QC CERTIFICATE OF ANALYSIS VA06077388

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
BLANKS							
BLANK							
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK							
BLANK							
BLANK							
BLANK							
Target Range - Lower Bound		<0.01	<10	<10	<1	<10	<2
Upper Bound		0.02	20	20	2	20	4
DUPLICATES							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
226684							
DUP							
Target Range - Lower Bound							
Upper Bound							
227355		<0.01	<10	<10	59	<10	67
DUP		<0.01	<10	<10	59	<10	68
Target Range - Lower Bound		<0.01	<10	<10	54	<10	60
Upper Bound		0.02	20	20	64	20	75
227357							
DUP							
Target Range - Lower Bound							
Upper Bound							

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QC CERTIFICATE OF ANALYSIS VA06077388

Sample Description	Method	Au-AA23	Cu-AA49	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Au	Cu	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	0.005	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
DUPLICATES																
227365			0.018													
DUP			0.018													
Target Range - Lower Bound			0.016													
Upper Bound			0.020													
227425				1.0	3.76	14	<10	50	<0.5	3	5.97	<0.5	22	85	146	4.88
DUP				0.9	3.82	15	<10	40	<0.5	2	6.07	<0.5	22	87	149	4.96
Target Range - Lower Bound				0.5	3.58	10	<10	20	<0.5	<2	5.70	<0.5	19	80	138	4.65
Upper Bound				1.4	4.00	19	20	70	1.0	4	6.34	1.0	25	92	157	5.19
227427		0.056														
DUP		0.056														
Target Range - Lower Bound		0.043														
Upper Bound		0.069														
227440				1.2	3.62	21	<10	20	<0.5	3	2.34	6.2	28	97	69	5.59
DUP				1.3	3.57	20	<10	20	<0.5	<2	2.30	6.0	28	95	67	5.47
Target Range - Lower Bound				0.8	3.40	15	<10	<10	<0.5	<2	2.18	4.8	25	89	63	5.23
Upper Bound				1.7	3.79	26	20	40	1.0	4	2.46	7.4	31	103	73	5.83
226631			0.011													
DUP			0.011													
Target Range - Lower Bound			0.009													
Upper Bound			0.013													
ORIGINAL				2.4	0.32	9	<10	500	<0.5	3	8.80	<0.5	15	7	9370	3.95
DUP				2.3	0.33	8	<10	490	<0.5	3	8.70	<0.5	15	7	9400	3.95
Target Range - Lower Bound				1.8	0.29	4	<10	440	<0.5	<2	8.29	<0.5	12	5	8910	3.73
Upper Bound				2.9	0.36	13	20	550	1.0	4	9.21	1.0	18	9	9860	4.17

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Finalized Date: 14-SEP-2006
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QC CERTIFICATE OF ANALYSIS VA06077388

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
		DUPLICATES														
227365																
DUP																
Target Range - Lower Bound																
Upper Bound																
227425		10	<1	0.10	<10	2.92	2450	<1	0.05	39	1320	15	2.77	<2	7	122
DUP		10	<1	0.10	<10	2.96	2500	<1	0.05	38	1320	14	2.84	<2	7	123
Target Range - Lower Bound		<10	<1	0.08	<10	2.77	2340	<1	0.03	35	1230	10	2.64	<2	5	114
Upper Bound		20	2	0.13	20	3.11	2610	2	0.07	42	1410	19	2.97	4	9	131
227427																
DUP																
Target Range - Lower Bound																
Upper Bound																
227440		10	1	0.15	10	3.94	2980	1	0.03	35	840	83	4.84	<2	11	100
DUP		10	<1	0.16	10	3.87	2890	1	0.03	34	830	81	4.72	2	11	97
Target Range - Lower Bound		<10	<1	0.13	<10	3.69	2780	<1	<0.01	31	770	74	4.52	<2	8	92
Upper Bound		20	2	0.18	20	4.12	3090	2	0.05	38	900	90	5.04	4	14	105
226631																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL		<10	1	0.02	<10	2.35	3640	2	0.02	15	140	9	0.54	8	5	133
DUP		<10	<1	0.02	<10	2.35	3670	2	0.02	15	140	9	0.55	8	5	135
Target Range - Lower Bound		<10	<1	<0.01	<10	2.21	3460	<1	<0.01	12	110	5	0.50	3	3	125
Upper Bound		20	2	0.04	20	2.49	3850	4	0.04	18	170	13	0.59	13	7	143

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QC CERTIFICATE OF ANALYSIS VA06077388

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
DUPLICATES							
227365							
DUP							
Target Range - Lower Bound							
Upper Bound							
227425		0.26	<10	<10	153	<10	223
DUP		0.25	<10	<10	154	<10	227
Target Range - Lower Bound		0.22	<10	<10	144	<10	210
Upper Bound		0.29	20	20	163	20	240
227427							
DUP							
Target Range - Lower Bound							
Upper Bound							
227440		0.21	<10	<10	119	<10	624
DUP		0.20	<10	<10	117	<10	610
Target Range - Lower Bound		0.17	<10	<10	110	<10	582
Upper Bound		0.24	20	20	126	20	652
226631							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL		<0.01	<10	<10	45	<10	22
DUP		<0.01	<10	<10	45	<10	23
Target Range - Lower Bound		<0.01	<10	<10	41	<10	17
Upper Bound		0.02	20	20	49	20	28

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Finalized Date: 6-SEP-2006
This copy reported on 23-FEB-2007
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QC CERTIFICATE VA06078574

Project: 4013
P.O. No.:
This report is for 25 Pulp samples submitted to our lab in Vancouver, BC, Canada on 9-AUG-2006.
The following have access to data associated with this certificate:

CARL EDMUNDS R KONST	B. KAY RON KONST	BRIAN KAY

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-QC	QC Test on Received Samples
LOG-22	Sample login - Rcd w/o BarCode

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au-AA23	Au 30g FA-AA finish	AAS
Cu-AA49	Assay Cu - HBr Digestion	AAS
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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QC CERTIFICATE OF ANALYSIS VA06078574

Sample Description	Method	Au-AA23	Cu-AA49	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Au	Cu	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	0.005	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
STANDARDS																
BM-9/A				14.3	1.14	25	<10	100	0.9	111	0.18	26.2	102	213	5440	3.72
Target Range - Lower Bound				12.2	0.80	20	<10	70	<0.5	100	0.13	23.2	88	176	4890	3.28
Upper Bound				15.4	1.00	28	20	110	1.0	127	0.19	29.5	110	217	5980	4.04
G2000				3.4	2.14	480	10	1000	1.1	<2	0.55	6.9	22	77	299	3.87
Target Range - Lower Bound				3.0	1.66	434	<10	720	<0.5	<2	0.46	6.0	21	63	272	3.41
Upper Bound				4.1	2.06	534	20	1000	1.0	4	0.58	8.4	27	79	334	4.19
GBM398-4c			0.396													
Target Range - Lower Bound			0.369													
Upper Bound			0.410													
GBM999-5				63.2	0.24	3	<10	60	<0.5	<2	0.06	<0.5	2	5	496	3.04
Target Range - Lower Bound				53.3	0.17	<2	<10	40	<0.5	<2	0.04	<0.5	2	4	436	2.56
Upper Bound				65.5	0.23	4	20	70	1.0	4	0.07	1.0	4	7	536	3.15
ME89-2			0.231													
Target Range - Lower Bound			0.218													
Upper Bound			0.243													
OXD43		0.404														
Target Range - Lower Bound		0.368														
Upper Bound		0.434														
OxG46		1.095														
Target Range - Lower Bound		0.959														
Upper Bound		1.115														
ST-259		2.58														
Target Range - Lower Bound		2.30														
Upper Bound		2.66														
ST-327		6.83														
Target Range - Lower Bound		6.35														
Upper Bound		7.31														
BLANKS																
BLANK				<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
BLANK				<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
BLANK			<0.001													
BLANK		<0.005														
BLANK		<0.005														
Target Range - Lower Bound		<0.005	<0.001	<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
Upper Bound		0.010	0.002	0.4	0.02	4	20	20	1.0	4	0.02	1.0	2	2	2	0.02

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PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 6-SEP-2006
Account: PIL

Project: 4013

QC CERTIFICATE OF ANALYSIS VA06078574

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
STANDARDS																
BM-9/A		<10	<1	0.02	10	0.47	656	3	0.45	375	90	6500	1.51	7	9	78
Target Range - Lower Bound		<10	<1	<0.01	<10	0.37	561	3	0.37	329	70	5980	1.27	3	6	67
Upper Bound		20	2	0.03	20	0.47	697	5	0.47	404	100	7310	1.57	9	10	84
G2000		10	<1	0.44	20	0.69	569	6	0.03	287	970	665	0.29	28	8	75
Target Range - Lower Bound		<10	<1	0.37	<10	0.60	506	4	0.02	256	840	601	0.23	19	5	60
Upper Bound		20	2	0.47	40	0.76	630	8	0.04	316	1050	739	0.31	31	9	76
GBM398-4c																
Target Range - Lower Bound																
Upper Bound																
GBM999-5		<10	<1	0.06	10	0.02	61	4	0.01	3	40	517	0.33	5	1	4
Target Range - Lower Bound		<10	<1	0.04	<10	<0.01	49	2	<0.01	2	20	471	0.26	<2	<1	2
Upper Bound		20	2	0.07	20	0.03	71	5	0.03	5	50	580	0.34	8	2	5
ME89-2																
Target Range - Lower Bound																
Upper Bound																
OXD43																
Target Range - Lower Bound																
Upper Bound																
OxG46																
Target Range - Lower Bound																
Upper Bound																
ST-259																
Target Range - Lower Bound																
Upper Bound																
ST-327																
Target Range - Lower Bound																
Upper Bound																
BLANKS																
BLANK		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
BLANK		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
BLANK																
BLANK																
BLANK																
Target Range - Lower Bound		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
Upper Bound		20	2	0.02	20	0.02	10	2	0.02	2	20	4	0.02	4	2	2

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QC CERTIFICATE OF ANALYSIS VA06078574

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
STANDARDS							
BM-9/A		0.01	<10	<10	16	<10	8290
Target Range - Lower Bound		<0.01	<10	<10	12	<10	7350
Upper Bound		0.02	20	20	17	20	8990
G2000		0.07	<10	10	72	10	1315
Target Range - Lower Bound		0.04	<10	<10	59	<10	1130
Upper Bound		0.07	20	20	74	20	1385
GBM398-4c							
Target Range - Lower Bound							
Upper Bound							
GBM999-5		<0.01	<10	<10	6	<10	116
Target Range - Lower Bound		<0.01	<10	<10	4	<10	97
Upper Bound		0.02	20	20	7	20	123
ME89-2							
Target Range - Lower Bound							
Upper Bound							
OXD43							
Target Range - Lower Bound							
Upper Bound							
OxG46							
Target Range - Lower Bound							
Upper Bound							
ST-259							
Target Range - Lower Bound							
Upper Bound							
ST-327							
Target Range - Lower Bound							
Upper Bound							
BLANKS							
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK							
BLANK							
BLANK							
Target Range - Lower Bound		<0.01	<10	<10	<1	<10	<2
Upper Bound		0.02	20	20	2	20	4

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QC CERTIFICATE OF ANALYSIS VA06078574

Sample Description	Method	Au-AA23	Cu-AA49	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Au	Cu	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	0.005	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
DUPLICATES																
227524		0.085														
DUP		0.085														
Target Range - Lower Bound		0.071														
Upper Bound		0.099														
227531				0.8	3.19	9	<10	180	0.5	3	1.23	1.3	8	144	205	5.64
DUP				1.0	3.24	9	<10	160	0.5	4	1.25	1.3	8	149	210	5.72
Target Range - Lower Bound				0.5	3.03	5	<10	140	<0.5	<2	1.16	<0.5	6	137	195	5.38
Upper Bound				1.3	3.40	13	20	200	1.0	4	1.32	2.4	10	156	220	5.98
227396			0.002													
DUP			0.002													
Target Range - Lower Bound			<0.001													
Upper Bound			0.004													
227401				3.8	3.58	12	<10	70	<0.5	6	3.41	23.2	34	102	201	7.35
DUP				3.9	3.74	11	<10	70	<0.5	7	3.45	22.2	33	97	202	7.31
Target Range - Lower Bound				3.3	3.46	7	<10	40	<0.5	<2	3.24	20.6	30	93	189	6.94
Upper Bound				4.4	3.86	16	20	100	1.0	11	3.62	24.8	37	106	214	7.72
227412		<0.005														
DUP		<0.005														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														
227416				<0.2	3.48	5	<10	40	<0.5	<2	3.84	<0.5	26	141	84	5.05
DUP				<0.2	3.62	7	<10	40	<0.5	<2	3.98	<0.5	25	145	86	5.20
Target Range - Lower Bound				<0.2	3.35	<2	<10	20	<0.5	<2	3.69	<0.5	22	134	79	4.85
Upper Bound				0.4	3.75	10	20	60	1.0	4	4.13	1.0	29	152	91	5.40

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QC CERTIFICATE OF ANALYSIS VA06078574

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
DUPLICATES																
227524																
DUP																
Target Range - Lower Bound																
Upper Bound																
227531		10	<1	0.47	10	1.56	1690	1	0.25	7	990	60	5.52	<2	5	168
DUP		10	<1	0.49	10	1.59	1720	1	0.25	8	1000	60	5.57	<2	5	169
Target Range - Lower Bound		<10	<1	0.44	<10	1.48	1610	<1	0.22	5	930	53	5.25	<2	3	158
Upper Bound		20	2	0.52	20	1.67	1800	2	0.28	10	1060	67	5.84	4	7	179
227396																
DUP																
Target Range - Lower Bound																
Upper Bound																
227401		10	<1	0.27	<10	3.18	2090	<1	0.09	23	1040	1230	7.61	2	10	613
DUP		10	<1	0.31	<10	3.13	2100	1	0.10	21	1040	1220	7.64	3	11	613
Target Range - Lower Bound		<10	<1	0.26	<10	2.98	1980	<1	0.07	19	970	1160	7.22	<2	8	580
Upper Bound		20	2	0.32	20	3.33	2210	2	0.12	25	1110	1290	8.03	4	13	646
227412																
DUP																
Target Range - Lower Bound																
Upper Bound																
227416		10	<1	0.14	<10	3.17	1015	<1	0.13	52	1350	10	0.02	<2	8	190
DUP		10	<1	0.15	<10	3.27	1050	<1	0.14	52	1400	8	0.03	<2	8	198
Target Range - Lower Bound		<10	<1	0.12	<10	3.04	971	<1	0.11	47	1290	5	<0.01	<2	6	182
Upper Bound		20	2	0.17	20	3.40	1095	2	0.16	57	1460	13	0.05	4	10	206

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Account: PIL

Project: 4013

QC CERTIFICATE OF ANALYSIS VA06078574

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
		DUPLICATES					
227524							
DUP							
Target Range - Lower Bound							
Upper Bound							
227531		0.02	<10	10	57	<10	232
DUP		0.02	<10	10	58	<10	236
Target Range - Lower Bound		<0.01	<10	<10	53	<10	218
Upper Bound		0.04	20	20	62	20	250
227396							
DUP							
Target Range - Lower Bound							
Upper Bound							
227401		0.13	<10	20	144	<10	1410
DUP		0.14	<10	20	152	<10	1400
Target Range - Lower Bound		0.11	<10	<10	139	<10	1330
Upper Bound		0.16	20	40	157	20	1480
227412							
DUP							
Target Range - Lower Bound							
Upper Bound							
227416		0.42	<10	20	191	<10	86
DUP		0.43	<10	20	195	<10	89
Target Range - Lower Bound		0.38	<10	<10	181	<10	79
Upper Bound		0.47	20	40	205	20	96

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Finalized Date: 14-SEP-2006
This copy reported on 23-FEB-2007
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QC CERTIFICATE VA06080157

Project: 4012
P.O. No.:
This report is for 50 Crushed Rock samples submitted to our lab in Vancouver, BC, Canada on 11-AUG-2006.

The following have access to data associated with this certificate:

CARL EDMUNDS RON KONST	BRIAN KAY R KONST	B. KAY

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
PUL-31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au-AA23	Au 30g FA-AA finish	AAS
Cu-AA49	Assay Cu - HBr Digestion	AAS
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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Finalized Date: 14-SEP-2006
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Project: 4012

QC CERTIFICATE OF ANALYSIS VA06080157

Sample Description	Method	Au-AA23	Cu-AA49	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Au	Cu	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	0.005	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
STANDARDS																
BM-9/A				12.9	0.87	25	<10	90	0.8	114	0.19	27.7	97	199	5400	3.72
Target Range - Lower Bound				12.2	0.80	20	<10	70	<0.5	100	0.13	23.2	88	176	4890	3.28
Upper Bound				15.4	1.00	28	20	110	1.0	127	0.19	29.5	110	217	5980	4.04
CU-108			0.676													
Target Range - Lower Bound			0.627													
Upper Bound			0.695													
G2000				3.3	1.89	460	10	910	0.9	<2	0.54	6.8	21	69	308	3.68
Target Range - Lower Bound				3.0	1.66	434	<10	720	<0.5	<2	0.46	6.0	21	63	272	3.41
Upper Bound				4.1	2.06	534	20	1000	1.0	4	0.58	8.4	27	79	334	4.19
GBM398-4c			0.388													
GBM398-4c			0.387													
Target Range - Lower Bound			0.369													
Upper Bound			0.410													
GBM999-5				57.4	0.19	2	<10	50	<0.5	<2	0.05	<0.5	3	5	492	2.75
GBM999-5				56.1	0.19	3	<10	50	<0.5	<2	0.05	<0.5	3	5	493	2.81
Target Range - Lower Bound				53.3	0.17	<2	<10	40	<0.5	<2	0.04	<0.5	2	4	436	2.56
Upper Bound				65.5	0.23	4	20	70	1.0	4	0.07	1.0	4	7	536	3.15
GEOMS-03				0.4	1.82	611	10	1100	1.1	<2	0.36	<0.5	10	72	133	4.01
GEOMS-03				0.4	1.79	607	10	1090	1.1	<2	0.36	<0.5	10	71	131	4.01
Target Range - Lower Bound				<0.2	1.63	552	<10	890	<0.5	<2	0.30	<0.5	10	59	120	3.48
Upper Bound				0.7	2.01	679	20	1230	1.7	4	0.38	1.0	14	74	148	4.28
ME89-2			0.235													
Target Range - Lower Bound			0.218													
Upper Bound			0.243													
OxG46		1.035														
OxG46		1.015														
OxG46		1.050														
Target Range - Lower Bound		0.959														
Upper Bound		1.115														
ST-259		2.50														
ST-259		2.51														
ST-259		2.54														
Target Range - Lower Bound		2.30														
Upper Bound		2.66														

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QC CERTIFICATE OF ANALYSIS VA06080157

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
STANDARDS																
BM-9/A		<10	1	0.02	10	0.45	645	3	0.41	371	90	6720	1.54	5	8	73
Target Range - Lower Bound		<10	<1	<0.01	<10	0.37	561	3	0.37	329	70	5980	1.27	3	6	67
Upper Bound		20	2	0.03	20	0.47	697	5	0.47	404	100	7310	1.57	9	10	84
CU-108																
Target Range - Lower Bound																
Upper Bound																
G2000		10	1	0.41	20	0.67	542	5	0.04	268	900	619	0.28	19	7	69
Target Range - Lower Bound		<10	<1	0.37	<10	0.60	506	4	0.02	246	840	601	0.23	19	5	60
Upper Bound		20	2	0.47	40	0.76	630	8	0.04	302	1050	739	0.31	31	9	76
GBM398-4c																
GBM398-4c																
Target Range - Lower Bound																
Upper Bound																
GBM999-5		<10	<1	0.05	10	0.02	59	3	0.01	3	40	469	0.29	4	1	4
GBM999-5		<10	<1	0.05	10	0.02	61	3	0.01	4	30	466	0.28	5	1	4
Target Range - Lower Bound		<10	<1	0.04	<10	<0.01	49	2	<0.01	2	20	452	0.26	<2	<1	2
Upper Bound		20	2	0.07	20	0.03	71	5	0.03	5	50	556	0.34	8	2	5
GEOMS-03		10	1	0.34	20	0.45	514	3	0.02	50	1020	4	0.03	12	8	108
GEOMS-03		10	1	0.34	20	0.45	505	3	0.02	50	1020	5	0.02	12	8	107
Target Range - Lower Bound		<10	<1	0.29	<10	0.39	483	2	<0.01	47	880	4	0.02	7	7	92
Upper Bound		20	2	0.37	40	0.49	601	5	0.03	60	1100	9	0.04	14	11	115
ME89-2																
Target Range - Lower Bound																
Upper Bound																
OxG46																
OxG46																
OxG46																
Target Range - Lower Bound																
Upper Bound																
ST-259																
ST-259																
ST-259																
Target Range - Lower Bound																
Upper Bound																

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To: NORTHGATE MINERALS CORPORATION
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 14-SEP-2006
Account: PIL

Project: 4012

QC CERTIFICATE OF ANALYSIS VA06080157

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
STANDARDS							
BM-9/A		0.01	<10	<10	15	<10	8540
Target Range - Lower Bound		<0.01	<10	<10	12	<10	7350
Upper Bound		0.02	20	20	17	20	8990
CU-108							
Target Range - Lower Bound							
Upper Bound							
G2000		0.05	<10	<10	66	<10	1215
Target Range - Lower Bound		0.04	<10	<10	59	<10	1145
Upper Bound		0.07	20	20	74	20	1400
GBM398-4c							
GBM398-4c							
Target Range - Lower Bound							
Upper Bound							
GBM999-5		<0.01	<10	<10	5	<10	109
GBM999-5		<0.01	<10	<10	5	<10	107
Target Range - Lower Bound		<0.01	<10	<10	4	<10	97
Upper Bound		0.02	20	20	7	20	123
GEOMS-03		0.03	<10	<10	72	10	45
GEOMS-03		0.03	<10	<10	71	10	45
Target Range - Lower Bound		0.03	<10	<10	59	<10	40
Upper Bound		0.05	20	20	75	20	54
ME89-2							
Target Range - Lower Bound							
Upper Bound							
OxG46							
OxG46							
OxG46							
Target Range - Lower Bound							
Upper Bound							
ST-259							
ST-259							
ST-259							
Target Range - Lower Bound							
Upper Bound							

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QC CERTIFICATE OF ANALYSIS VA06080157

Sample Description	Method / Analyte / Units / LOR	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1	ME-ICP41 Fe % 0.01
BLANKS																
BLANK			<0.001													
BLANK			<0.001													
BLANK				<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
BLANK				<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
BLANK				<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
BLANK		<0.005														
BLANK		<0.005														
BLANK		<0.005														
Target Range - Lower Bound		<0.005	<0.001	<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
Upper Bound		0.010	0.002	0.4	0.02	4	20	20	1.0	4	0.02	1.0	2	2	2	0.02
DUPLICATES																
ORIGINAL		0.006														
DUP		0.005														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														
ORIGINAL		<0.005														
DUP		<0.005														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														
ORIGINAL		0.063														
DUP		0.073														
Target Range - Lower Bound		0.055														
Upper Bound		0.081														
ORIGINAL		0.109														
DUP		0.112														
Target Range - Lower Bound		0.095														
Upper Bound		0.126														
226626		<0.005														
DUP		<0.005														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														

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QC CERTIFICATE OF ANALYSIS VA06080157

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
BLANKS																
BLANK																
BLANK																
BLANK		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
BLANK		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
BLANK		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
BLANK																
BLANK																
BLANK																
Target Range - Lower Bound		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
Upper Bound		20	2	0.02	20	0.02	10	2	0.02	2	20	4	0.02	4	2	2
DUPLICATES																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
226626																
DUP																
Target Range - Lower Bound																
Upper Bound																

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QC CERTIFICATE OF ANALYSIS VA06080157

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
BLANKS							
BLANK							
BLANK							
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK							
BLANK							
BLANK							
Target Range - Lower Bound		<0.01	<10	<10	<1	<10	<2
Upper Bound		0.02	20	20	2	20	4
DUPLICATES							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
226626							
DUP							
Target Range - Lower Bound							
Upper Bound							

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QC CERTIFICATE OF ANALYSIS VA06080157

Sample Description	Method	Au-AA23	Cu-AA49	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Au	Cu	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	0.005	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
DUPLICATES																
226631			0.011													
DUP			0.011													
Target Range - Lower Bound			0.009													
Upper Bound			0.013													
226632				<0.2	3.46	3	<10	80	0.6	<2	3.41	<0.5	9	8	82	4.11
DUP				<0.2	3.48	<2	<10	80	0.6	<2	3.46	<0.5	9	8	83	4.11
Target Range - Lower Bound				<0.2	3.28	<2	<10	50	<0.5	<2	3.24	<0.5	7	6	76	3.88
Upper Bound				0.4	3.66	4	20	110	1.0	4	3.63	1.0	11	10	89	4.34
226646		0.065														
DUP		0.052														
Target Range - Lower Bound		0.046														
Upper Bound		0.071														
226647				<0.2	2.36	2	<10	270	<0.5	<2	1.47	0.7	5	4	7	4.74
DUP				<0.2	2.40	<2	<10	280	<0.5	<2	1.54	0.9	6	4	4	4.90
Target Range - Lower Bound				<0.2	2.24	<2	<10	230	<0.5	<2	1.41	<0.5	3	2	3	4.56
Upper Bound				0.4	2.52	4	20	320	1.0	4	1.60	1.0	8	6	8	5.08
226767			0.136	0.9	3.32	6	<10	30	<0.5	<2	6.57	0.5	34	45	1430	5.23
DUP			0.136	0.8	3.28	4	<10	30	<0.5	<2	6.59	<0.5	34	45	1430	5.09
Target Range - Lower Bound			0.131	0.4	3.12	<2	<10	<10	<0.5	<2	6.23	<0.5	30	41	1355	4.88
Upper Bound			0.141	1.3	3.49	9	20	50	1.0	4	6.93	1.0	38	49	1505	5.44
229883				<0.2	2.05	16	10	70	0.5	<2	1.83	<0.5	6	6	15	3.07
DUP				<0.2	2.06	15	10	70	0.5	<2	1.84	<0.5	6	7	15	3.10
Target Range - Lower Bound				<0.2	1.93	11	<10	40	<0.5	<2	1.72	<0.5	4	4	12	2.91
Upper Bound				0.4	2.18	20	20	100	1.0	4	1.95	1.0	8	9	18	3.26
229903				<0.2	1.90	22	20	90	<0.5	<2	1.78	<0.5	7	8	19	3.29
DUP				<0.2	1.91	20	20	90	0.5	<2	1.80	<0.5	7	9	19	3.39
Target Range - Lower Bound				<0.2	1.79	16	<10	60	<0.5	<2	1.68	<0.5	5	6	16	3.15
Upper Bound				0.4	2.02	26	40	120	1.0	4	1.90	1.0	9	11	22	3.53
ORIGINAL				<0.2	1.51	11	<10	110	<0.5	<2	0.13	<0.5	6	25	20	2.36
DUP				<0.2	1.52	12	<10	110	<0.5	<2	0.13	<0.5	6	26	20	2.37
Target Range - Lower Bound				<0.2	1.42	7	<10	80	<0.5	<2	0.10	<0.5	4	22	17	2.23
Upper Bound				0.4	1.61	16	20	140	1.0	4	0.16	1.0	8	29	23	2.50

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Finalized Date: 14-SEP-2006
Account: PIL

Project: 4012

QC CERTIFICATE OF ANALYSIS VA06080157

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
DUPLICATES																
226631																
DUP																
Target Range - Lower Bound																
Upper Bound																
226632		10	<1	0.19	<10	1.05	965	1	0.22	3	1020	5	0.03	<2	6	157
DUP		10	1	0.19	<10	1.07	971	1	0.22	4	1020	5	0.03	<2	6	159
Target Range - Lower Bound		<10	<1	0.16	<10	0.99	910	<1	0.19	<1	950	<2	<0.01	<2	4	148
Upper Bound		20	2	0.22	20	1.13	1025	2	0.25	6	1090	9	0.05	4	8	168
226646																
DUP																
Target Range - Lower Bound																
Upper Bound																
226647		10	<1	0.24	<10	0.78	593	1	0.19	1	890	4	0.05	<2	5	127
DUP		10	<1	0.24	<10	0.81	611	1	0.19	3	920	4	0.03	<2	5	126
Target Range - Lower Bound		<10	<1	0.21	<10	0.74	562	<1	0.16	<1	840	<2	0.02	<2	3	118
Upper Bound		20	2	0.27	20	0.85	642	2	0.22	4	970	8	0.06	4	7	135
226767		10	<1	0.21	<10	2.82	477	48	0.03	23	930	7	8.93	<2	6	351
DUP		10	<1	0.22	<10	2.77	467	48	0.03	22	900	6	8.86	<2	6	352
Target Range - Lower Bound		<10	<1	0.18	<10	2.64	438	44	<0.01	19	850	<2	8.43	<2	4	332
Upper Bound		20	2	0.25	20	2.95	506	52	0.05	26	980	11	9.36	4	8	371
229883		10	<1	0.15	10	1.00	684	<1	0.09	2	890	2	<0.01	<2	6	105
DUP		10	<1	0.15	10	1.00	689	<1	0.09	2	900	3	<0.01	2	6	105
Target Range - Lower Bound		<10	<1	0.12	<10	0.93	642	<1	0.07	<1	830	<2	<0.01	<2	4	98
Upper Bound		20	2	0.18	20	1.07	731	2	0.11	4	960	4	0.02	4	8	112
229903		10	<1	0.17	10	1.18	752	<1	0.10	2	920	3	<0.01	<2	7	102
DUP		10	<1	0.17	10	1.18	754	<1	0.10	3	930	3	<0.01	<2	7	103
Target Range - Lower Bound		<10	<1	0.14	<10	1.10	705	<1	0.08	<1	860	<2	<0.01	<2	5	95
Upper Bound		20	2	0.20	20	1.26	801	2	0.13	5	990	4	0.02	4	9	110
ORIGINAL		<10	<1	0.04	10	0.43	179	<1	0.01	19	560	10	<0.01	<2	2	11
DUP		<10	<1	0.04	10	0.43	180	1	0.01	18	570	10	0.01	<2	2	11
Target Range - Lower Bound		<10	<1	0.02	<10	0.39	161	<1	<0.01	16	520	6	<0.01	<2	<1	8
Upper Bound		20	2	0.06	20	0.47	198	2	0.02	21	610	15	0.02	4	4	14

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Finalized Date: 14-SEP-2006
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Project: 4012

QC CERTIFICATE OF ANALYSIS VA06080157

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
		DUPLICATES					
226631							
DUP							
Target Range - Lower Bound							
Upper Bound							
226632		0.23	<10	<10	115	<10	68
DUP		0.23	<10	<10	114	<10	68
Target Range - Lower Bound		0.20	<10	<10	107	<10	61
Upper Bound		0.26	20	20	122	20	75
226646							
DUP							
Target Range - Lower Bound							
Upper Bound							
226647		0.12	<10	<10	97	<10	89
DUP		0.13	<10	<10	98	<10	93
Target Range - Lower Bound		0.10	<10	<10	91	<10	82
Upper Bound		0.15	20	20	104	20	100
226767		<0.01	<10	<10	79	<10	142
DUP		<0.01	<10	<10	78	<10	140
Target Range - Lower Bound		<0.01	<10	<10	73	<10	130
Upper Bound		0.02	20	20	84	20	152
229883		0.18	<10	<10	64	<10	73
DUP		0.19	<10	<10	64	<10	74
Target Range - Lower Bound		0.16	<10	<10	59	<10	66
Upper Bound		0.21	20	20	69	20	81
229903		0.20	<10	<10	75	<10	81
DUP		0.21	<10	<10	76	<10	81
Target Range - Lower Bound		0.17	<10	<10	70	<10	73
Upper Bound		0.24	20	20	81	20	89
ORIGINAL		0.03	<10	<10	40	<10	57
DUP		0.03	<10	<10	40	<10	57
Target Range - Lower Bound		<0.01	<10	<10	36	<10	50
Upper Bound		0.05	20	20	44	20	64

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Finalized Date: 16-SEP-2006
This copy reported on 23-FEB-2007
Account: PIL

QC CERTIFICATE VA06080158

Project: 4013
P.O. No.:
This report is for 52 Crushed Rock samples submitted to our lab in Vancouver, BC, Canada on 11-AUG-2006.

The following have access to data associated with this certificate:

CARL EDMUNDS RON KONST	BRIAN KAY R KONST	B. KAY

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
PUL-31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au-AA23	Au 30g FA-AA finish	AAS
Cu-AA49	Assay Cu - HBr Digestion	AAS
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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QC CERTIFICATE OF ANALYSIS VA06080158

Sample Description	Method	Au-AA23	Au-AA23	Cu-AA49	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Au	Au Check	Cu	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu
	Units	ppm	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm
	LOR	0.005	0.005	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1
STANDARDS																	
BM-9/A					13.7	0.90	22	<10	90	0.8	113	0.17	26.5	101	198	5300
Target Range - Lower Bound					12.2	0.80	20	<10	70	<0.5	100	0.13	23.2	88	176	4890
Upper Bound					15.4	1.00	28	20	110	1.0	127	0.19	29.5	110	217	5980
CU-108				0.664												
Target Range - Lower Bound				0.627												
Upper Bound				0.695												
G2000					3.4	2.03	482	<10	940	1.0	<2	0.53	6.9	23	73	313
Target Range - Lower Bound					3.0	1.66	434	<10	720	<0.5	<2	0.46	6.0	21	63	272
Upper Bound					4.1	2.06	534	20	1000	1.0	4	0.58	8.4	27	79	334
GBM398-4c				0.387												
GBM398-4c				0.389												
Target Range - Lower Bound				0.369												
Upper Bound				0.410												
GBM999-5					56.1	0.19	3	<10	50	<0.5	<2	0.05	<0.5	3	5	493
Target Range - Lower Bound					53.3	0.17	<2	<10	40	<0.5	<2	0.04	<0.5	2	4	436
Upper Bound					65.5	0.23	4	20	70	1.0	4	0.07	1.0	4	7	536
GEOMS-03					0.4	1.79	607	10	1090	1.1	<2	0.36	<0.5	10	71	131
Target Range - Lower Bound					<0.2	1.63	552	<10	890	<0.5	<2	0.30	<0.5	10	59	120
Upper Bound					0.7	2.01	679	20	1230	1.7	4	0.38	1.0	14	74	148
ME89-2				0.235												
Target Range - Lower Bound				0.218												
Upper Bound				0.243												
OxG46		1.015														
OxG46		1.060	1.060													
OxG46		1.080	1.080													
Target Range - Lower Bound		0.959	0.959													
Upper Bound		1.115	1.115													
ST-259		2.43														
ST-259		2.62	2.62													
ST-259		2.59	2.59													
Target Range - Lower Bound		2.30	2.30													
Upper Bound		2.66	2.66													

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KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

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Account: PIL

Project: 4013

QC CERTIFICATE OF ANALYSIS VA06080158

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
STANDARDS																
BM-9/A		3.55	<10	1	0.02	10	0.43	644	4	0.41	360	90	6890	1.47	8	8
Target Range - Lower Bound		3.28	<10	<1	<0.01	<10	0.37	561	3	0.37	329	70	5980	1.27	3	6
Upper Bound		4.04	20	2	0.03	20	0.47	697	5	0.47	404	100	7310	1.57	9	10
CU-108																
Target Range - Lower Bound																
Upper Bound																
G2000		3.73	10	1	0.43	20	0.69	558	6	0.03	273	950	677	0.25	27	7
Target Range - Lower Bound		3.41	<10	<1	0.37	<10	0.60	506	4	0.02	246	840	601	0.23	19	5
Upper Bound		4.19	20	2	0.47	40	0.76	630	8	0.04	302	1050	739	0.31	31	9
GBM398-4c																
GBM398-4c																
Target Range - Lower Bound																
Upper Bound																
GBM999-5		2.81	<10	<1	0.05	10	0.02	61	3	0.01	4	30	466	0.28	5	1
Target Range - Lower Bound		2.56	<10	<1	0.04	<10	<0.01	49	2	<0.01	2	20	452	0.26	<2	<1
Upper Bound		3.15	20	2	0.07	20	0.03	71	5	0.03	5	50	556	0.34	8	2
GEOMS-03		4.01	10	1	0.34	20	0.45	505	3	0.02	50	1020	5	0.02	12	8
Target Range - Lower Bound		3.48	<10	<1	0.29	<10	0.39	483	2	<0.01	47	880	4	0.02	7	7
Upper Bound		4.28	20	2	0.37	40	0.49	601	5	0.03	60	1100	9	0.04	14	11
ME89-2																
Target Range - Lower Bound																
Upper Bound																
OxG46																
OxG46																
OxG46																
Target Range - Lower Bound																
Upper Bound																
ST-259																
ST-259																
ST-259																
Target Range - Lower Bound																
Upper Bound																

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QC CERTIFICATE OF ANALYSIS VA06080158

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
STANDARDS								
BM-9/A		74	0.01	<10	<10	15	<10	8150
Target Range - Lower Bound		67	<0.01	<10	<10	12	<10	7350
Upper Bound		84	0.02	20	20	17	20	8990
CU-108								
Target Range - Lower Bound								
Upper Bound								
G2000		71	0.06	<10	<10	69	10	1260
Target Range - Lower Bound		60	0.04	<10	<10	59	<10	1145
Upper Bound		76	0.07	20	20	74	20	1400
GBM398-4c								
GBM398-4c								
Target Range - Lower Bound								
Upper Bound								
GBM999-5		4	<0.01	<10	<10	5	<10	107
Target Range - Lower Bound		2	<0.01	<10	<10	4	<10	97
Upper Bound		5	0.02	20	20	7	20	123
GEOMS-03		107	0.03	<10	<10	71	10	45
Target Range - Lower Bound		92	0.03	<10	<10	59	<10	40
Upper Bound		115	0.05	20	20	75	20	54
ME89-2								
Target Range - Lower Bound								
Upper Bound								
OxG46								
OxG46								
OxG46								
Target Range - Lower Bound								
Upper Bound								
ST-259								
ST-259								
ST-259								
Target Range - Lower Bound								
Upper Bound								

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QC CERTIFICATE OF ANALYSIS VA06080158

Sample Description	Method / Analyte / Units / LOR	Au-AA23 Au ppm 0.005	Au-AA23 Au Check ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
BLANKS																
BLANK				<0.001												
BLANK				<0.001												
BLANK					<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1
BLANK					<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1
BLANK		<0.005														
BLANK		<0.005	<0.005													
BLANK		<0.005	<0.005													
Target Range - Lower Bound		<0.005	<0.005	<0.001	<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1
Upper Bound		0.010	0.010	0.002	0.4	0.02	4	20	20	1.0	4	0.02	1.0	2	2	2
DUPLICATES																
ORIGINAL		0.034														
DUP		0.034	0.034													
Target Range - Lower Bound		0.022	0.022													
Upper Bound		0.046	0.046													
ORIGINAL		0.100														
DUP		0.095	0.095													
Target Range - Lower Bound		0.083	0.080													
Upper Bound		0.112	0.110													
ORIGINAL		<0.005														
DUP		<0.005	<0.005													
Target Range - Lower Bound		<0.005	<0.005													
Upper Bound		0.010	0.010													
226767				0.136												
DUP				0.136												
Target Range - Lower Bound				0.131												
Upper Bound				0.141												
229883					<0.2	2.05	16	10	70	0.5	<2	1.83	<0.5	6	6	15
DUP					<0.2	2.06	15	10	70	0.5	<2	1.84	<0.5	6	7	15
Target Range - Lower Bound					<0.2	1.93	11	<10	40	<0.5	<2	1.72	<0.5	4	4	12
Upper Bound					0.4	2.18	20	20	100	1.0	4	1.95	1.0	8	9	18

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Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
BLANKS																
BLANK																
BLANK																
BLANK		<0.01	<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1
BLANK		<0.01	<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1
BLANK																
BLANK																
BLANK																
Target Range - Lower Bound		<0.01	<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1
Upper Bound		0.02	20	2	0.02	20	0.02	10	2	0.02	2	20	4	0.02	4	2
DUPLICATES																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
226767																
DUP																
Target Range - Lower Bound																
Upper Bound																
229883		3.07	10	<1	0.15	10	1.00	684	<1	0.09	2	890	2	<0.01	<2	6
DUP		3.10	10	<1	0.15	10	1.00	689	<1	0.09	2	900	3	<0.01	2	6
Target Range - Lower Bound		2.91	<10	<1	0.12	<10	0.93	642	<1	0.07	<1	830	<2	<0.01	<2	4
Upper Bound		3.26	20	2	0.18	20	1.07	731	2	0.11	4	960	4	0.02	4	8

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Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
BLANKS								
BLANK								
BLANK								
BLANK		<1	<0.01	<10	<10	<1	<10	<2
BLANK		<1	<0.01	<10	<10	<1	<10	<2
BLANK								
BLANK								
BLANK								
Target Range - Lower Bound		<1	<0.01	<10	<10	<1	<10	<2
Upper Bound		2	0.02	20	20	2	20	4
DUPLICATES								
ORIGINAL								
DUP								
Target Range - Lower Bound								
Upper Bound								
ORIGINAL								
DUP								
Target Range - Lower Bound								
Upper Bound								
ORIGINAL								
DUP								
Target Range - Lower Bound								
Upper Bound								
226767								
DUP								
Target Range - Lower Bound								
Upper Bound								
229883		105	0.18	<10	<10	64	<10	73
DUP		105	0.19	<10	<10	64	<10	74
Target Range - Lower Bound		98	0.16	<10	<10	59	<10	66
Upper Bound		112	0.21	20	20	69	20	81

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QC CERTIFICATE OF ANALYSIS VA06080158

Sample Description	Method / Analyte / Units / LOR	Au-AA23 Au ppm 0.005	Au-AA23 Au Check ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
DUPLICATES																
229885		<0.005														
DUP		<0.005														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														
229903					<0.2	1.90	22	20	90	<0.5	<2	1.78	<0.5	7	8	19
DUP					<0.2	1.91	20	20	90	0.5	<2	1.80	<0.5	7	9	19
Target Range - Lower Bound					<0.2	1.79	16	<10	60	<0.5	<2	1.68	<0.5	5	6	16
Upper Bound					0.4	2.02	26	40	120	1.0	4	1.90	1.0	9	11	22
229904				0.002												
DUP				0.002												
Target Range - Lower Bound				<0.001												
Upper Bound				0.004												
229905		<0.005														
DUP		<0.005														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														
229918					<0.2	2.42	28	20	70	0.5	<2	1.97	<0.5	8	8	9
DUP					0.2	2.40	28	20	70	0.5	<2	2.03	<0.5	8	8	9
Target Range - Lower Bound					<0.2	2.27	23	<10	40	<0.5	<2	1.88	<0.5	6	6	7
Upper Bound					0.4	2.55	33	40	100	1.0	4	2.12	1.0	10	10	11
229925		<0.005														
DUP		<0.005														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														
226710					0.2	0.75	8	<10	20	<0.5	<2	5.02	0.8	11	2	66
DUP					0.2	0.76	5	<10	30	<0.5	<2	5.55	1.2	11	2	64
Target Range - Lower Bound					<0.2	0.70	<2	<10	<10	<0.5	<2	5.00	<0.5	8	<1	60
Upper Bound					0.4	0.81	11	20	50	1.0	4	5.57	2.1	14	4	70
ORIGINAL		<0.005														
DUP		<0.005	<0.005													
Target Range - Lower Bound		<0.005	<0.005													
Upper Bound		0.010	0.010													

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QC CERTIFICATE OF ANALYSIS VA06080158

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1
								DUPLICATES								
229885																
DUP																
Target Range - Lower Bound																
Upper Bound																
229903		3.29	10	<1	0.17	10	1.18	752	<1	0.10	2	920	3	<0.01	<2	7
DUP		3.39	10	<1	0.17	10	1.18	754	<1	0.10	3	930	3	<0.01	<2	7
Target Range - Lower Bound		3.15	<10	<1	0.14	<10	1.10	705	<1	0.08	<1	860	<2	<0.01	<2	5
Upper Bound		3.53	20	2	0.20	20	1.26	801	2	0.13	5	990	4	0.02	4	9
229904																
DUP																
Target Range - Lower Bound																
Upper Bound																
229905																
DUP																
Target Range - Lower Bound																
Upper Bound																
229918		3.23	10	<1	0.15	10	1.18	699	<1	0.06	3	920	4	<0.01	<2	6
DUP		3.32	10	1	0.15	10	1.20	711	1	0.06	3	940	4	<0.01	<2	6
Target Range - Lower Bound		3.09	<10	<1	0.12	<10	1.11	660	<1	0.04	<1	860	<2	<0.01	<2	4
Upper Bound		3.46	20	2	0.18	20	1.27	750	2	0.08	5	1000	8	0.02	4	8
229925																
DUP																
Target Range - Lower Bound																
Upper Bound																
226710		6.14	<10	<1	0.07	<10	<0.01	10	6	0.01	4	150	29	>10.0	<2	1
DUP		6.28	<10	<1	0.07	<10	<0.01	14	7	0.01	3	150	31	>10.0	<2	1
Target Range - Lower Bound		5.88	<10	<1	0.05	<10	<0.01	<5	4	<0.01	<1	120	25	9.48	<2	<1
Upper Bound		6.54	20	2	0.09	20	0.02	23	9	0.02	6	180	36	10.00	4	2
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																

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Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
		DUPLICATES						
229885	DUP							
Target Range - Lower Bound								
Upper Bound								
229903	DUP	102	0.20	<10	<10	75	<10	81
		103	0.21	<10	<10	76	<10	81
Target Range - Lower Bound		95	0.17	<10	<10	70	<10	73
Upper Bound		110	0.24	20	20	81	20	89
229904	DUP							
Target Range - Lower Bound								
Upper Bound								
229905	DUP							
Target Range - Lower Bound								
Upper Bound								
229918	DUP	207	0.21	<10	<10	71	<10	84
		207	0.21	<10	<10	71	<10	85
Target Range - Lower Bound		195	0.18	<10	<10	65	<10	76
Upper Bound		219	0.24	20	20	77	20	93
229925	DUP							
Target Range - Lower Bound								
Upper Bound								
226710	DUP	272	<0.01	<10	<10	7	<10	13
		277	<0.01	<10	<10	7	<10	15
Target Range - Lower Bound		259	<0.01	<10	<10	5	<10	9
Upper Bound		290	0.02	20	20	9	20	19
ORIGINAL	DUP							
Target Range - Lower Bound								
Upper Bound								

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Sample Description	Method / Analyte / Units / LOR	Au-AA23 Au ppm 0.005	Au-AA23 Au Check ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1
DUPLICATES																
ORIGINAL		<0.005														
DUP		<0.005	<0.005													
Target Range - Lower Bound		<0.005	<0.005													
Upper Bound		0.010	0.010													

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DUPLICATES																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																

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PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 16-SEP-2006
Account: PIL

Project: 4013

QC CERTIFICATE OF ANALYSIS VA06080158

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
DUPLICATES								
ORIGINAL								
DUP								
Target Range - Lower Bound								
Upper Bound								

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SMITHERS BC V0J 2N0

Finalized Date: 15-SEP-2006
This copy reported on 23-FEB-2007
Account: PIL

QC CERTIFICATE VA06080159

Project: 4012
P.O. No.:
This report is for 50 Crushed Rock samples submitted to our lab in Vancouver, BC, Canada on 11-AUG-2006.

The following have access to data associated with this certificate:

CARL EDMUNDS R KONST	B. KAY RON KONST	BRIAN KAY

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
PUL-QC	Pulverizing QC Test
LOG-22	Sample login - Rcd w/o BarCode
PUL-31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au-AA23	Au 30g FA-AA finish	AAS
Cu-AA49	Assay Cu - HBr Digestion	AAS
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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Project: 4012

QC CERTIFICATE OF ANALYSIS VA06080159

Sample Description	Method	Au-AA23	Cu-AA49	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Au	Cu	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	0.005	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
STANDARDS																
BM-9/A				13.7	0.90	22	<10	90	0.8	113	0.17	26.5	101	198	5300	3.55
Target Range - Lower Bound				12.2	0.80	20	<10	70	<0.5	100	0.13	23.2	88	176	4890	3.28
Upper Bound				15.4	1.00	28	20	110	1.0	127	0.19	29.5	110	217	5980	4.04
CU-108			0.664													
Target Range - Lower Bound			0.627													
Upper Bound			0.695													
G2000				3.4	2.03	482	<10	940	1.0	<2	0.53	6.9	23	73	313	3.73
Target Range - Lower Bound				3.0	1.66	434	<10	720	<0.5	<2	0.46	6.0	21	63	272	3.41
Upper Bound				4.1	2.06	534	20	1000	1.0	4	0.58	8.4	27	79	334	4.19
GBM398-4c			0.389													
GBM398-4c			0.387													
GBM398-4c			0.404													
GBM398-4c			0.411													
Target Range - Lower Bound			0.369													
Upper Bound			0.410													
GBM999-5				57.0	0.20	2	<10	50	<0.5	<2	0.06	<0.5	3	5	469	2.83
Target Range - Lower Bound				53.3	0.17	<2	<10	40	<0.5	<2	0.04	<0.5	2	4	436	2.56
Upper Bound				65.5	0.23	4	20	70	1.0	4	0.07	1.0	4	7	536	3.15
GEOMS-03				0.4	1.86	624	<10	1110	1.1	<2	0.40	<0.5	11	72	136	4.06
Target Range - Lower Bound				<0.2	1.63	552	<10	890	<0.5	<2	0.30	<0.5	10	59	120	3.48
Upper Bound				0.7	2.01	679	20	1230	1.7	4	0.38	1.0	14	74	148	4.28
ME89-2			0.231													
ME89-2			0.243													
ME89-2			0.241													
Target Range - Lower Bound			0.218													
Upper Bound			0.243													
OXD43		0.419														
Target Range - Lower Bound		0.368														
Upper Bound		0.434														
OxG46		1.015														
OxG46		1.060														
OxG46		1.080														
Target Range - Lower Bound		0.959														
Upper Bound		1.115														
ST-259		2.51														
ST-259		2.62														
ST-259		2.54														
Target Range - Lower Bound		2.30														
Upper Bound		2.66														
ST-327		6.92														
Target Range - Lower Bound		6.35														

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QC CERTIFICATE OF ANALYSIS VA06080159

Sample Description	Analyte Units LOR	
	Upper Bound	7.31

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QC CERTIFICATE OF ANALYSIS VA06080159

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
STANDARDS																
BM-9/A		<10	1	0.02	10	0.43	644	4	0.41	360	90	6890	1.47	8	8	74
Target Range - Lower Bound		<10	<1	<0.01	<10	0.37	561	3	0.37	329	70	5980	1.27	3	6	67
Upper Bound		20	2	0.03	20	0.47	697	5	0.47	404	100	7310	1.57	9	10	84
CU-108																
Target Range - Lower Bound																
Upper Bound																
G2000		10	1	0.43	20	0.69	558	6	0.03	273	950	677	0.25	27	7	71
Target Range - Lower Bound		<10	<1	0.37	<10	0.60	506	4	0.02	246	840	601	0.23	19	5	60
Upper Bound		20	2	0.47	40	0.76	630	8	0.04	302	1050	739	0.31	31	9	76
GBM398-4c																
GBM398-4c																
GBM398-4c																
GBM398-4c																
Target Range - Lower Bound																
Upper Bound																
GBM999-5		<10	<1	0.05	10	0.02	60	4	0.01	3	40	542	0.28	4	1	3
Target Range - Lower Bound		<10	<1	0.04	<10	<0.01	49	2	<0.01	2	20	452	0.26	<2	<1	2
Upper Bound		20	2	0.07	20	0.03	71	5	0.03	5	50	556	0.34	8	2	5
GEOMS-03		10	1	0.35	20	0.45	516	4	0.02	50	1040	5	0.04	14	8	108
Target Range - Lower Bound		<10	<1	0.29	<10	0.39	483	2	<0.01	47	880	4	0.02	7	7	92
Upper Bound		20	2	0.37	40	0.49	601	5	0.03	60	1100	9	0.04	14	11	115
ME89-2																
ME89-2																
ME89-2																
Target Range - Lower Bound																
Upper Bound																
OXD43																
Target Range - Lower Bound																
Upper Bound																
OxG46																
OxG46																
OxG46																
Target Range - Lower Bound																
Upper Bound																
ST-259																
ST-259																
ST-259																
Target Range - Lower Bound																
Upper Bound																
ST-327																
Target Range - Lower Bound																

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QC CERTIFICATE OF ANALYSIS VA06080159

Upper Bound Analyte Units Sample Description LOR	

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QC CERTIFICATE OF ANALYSIS VA06080159

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
STANDARDS							
BM-9/A		0.01	<10	<10	15	<10	8150
Target Range - Lower Bound		<0.01	<10	<10	12	<10	7350
Upper Bound		0.02	20	20	17	20	8990
CU-108							
Target Range - Lower Bound							
Upper Bound							
G2000		0.06	<10	<10	69	10	1260
Target Range - Lower Bound		0.04	<10	<10	59	<10	1145
Upper Bound		0.07	20	20	74	20	1400
GBM398-4c							
GBM398-4c							
GBM398-4c							
GBM398-4c							
Target Range - Lower Bound							
Upper Bound							
GBM999-5		<0.01	<10	<10	5	<10	110
Target Range - Lower Bound		<0.01	<10	<10	4	<10	97
Upper Bound		0.02	20	20	7	20	123
GEOMS-03		0.04	<10	<10	71	10	45
Target Range - Lower Bound		0.03	<10	<10	59	<10	40
Upper Bound		0.05	20	20	75	20	54
ME89-2							
ME89-2							
ME89-2							
Target Range - Lower Bound							
Upper Bound							
OXD43							
Target Range - Lower Bound							
Upper Bound							
OxG46							
OxG46							
OxG46							
Target Range - Lower Bound							
Upper Bound							
ST-259							
ST-259							
ST-259							
Target Range - Lower Bound							
Upper Bound							
ST-327							
Target Range - Lower Bound							

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QC CERTIFICATE OF ANALYSIS VA06080159

Upper Bound Sample Description	Analyte Units LOR	

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QC CERTIFICATE OF ANALYSIS VA06080159

Sample Description	Method / Analyte / Units / LOR	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1	ME-ICP41 Fe % 0.01
BLANKS																
BLANK			<0.001													
BLANK			<0.001													
BLANK				<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
BLANK				<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	1	<0.01
BLANK			<0.001													
BLANK			<0.001													
BLANK		<0.005														
BLANK		<0.005														
BLANK		<0.005														
BLANK		<0.005														
Target Range - Lower Bound		<0.005	<0.001	<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
Upper Bound		0.010	0.002	0.4	0.02	4	20	20	1.0	4	0.02	1.0	2	2	2	0.02
DUPLICATES																
ORIGINAL		0.034														
DUP		0.034														
Target Range - Lower Bound		0.022														
Upper Bound		0.046														
ORIGINAL		0.100														
DUP		0.095														
Target Range - Lower Bound		0.083														
Upper Bound		0.112														
ORIGINAL		0.006														
DUP		0.005														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														
ORIGINAL		<0.005														
DUP		<0.005														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														

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QC CERTIFICATE OF ANALYSIS VA06080159

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
BLANKS																
BLANK																
BLANK																
BLANK		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
BLANK		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	2	<0.01	<2	<1	<1
BLANK																
BLANK																
BLANK																
BLANK																
BLANK																
BLANK																
Target Range - Lower Bound		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
Upper Bound		20	2	0.02	20	0.02	10	2	0.02	2	20	4	0.02	4	2	2
DUPLICATES																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																

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QC CERTIFICATE OF ANALYSIS VA06080159

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
BLANKS							
BLANK							
BLANK							
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK							
BLANK							
BLANK							
BLANK							
BLANK							
Target Range - Lower Bound		<0.01	<10	<10	<1	<10	<2
Upper Bound		0.02	20	20	2	20	4
DUPLICATES							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							

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QC CERTIFICATE OF ANALYSIS VA06080159

Sample Description	Method / Analyte / Units / LOR	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1	ME-ICP41 Fe % 0.01
DUPLICATES																
ORIGINAL		0.063														
DUP		0.073														
Target Range - Lower Bound		0.055														
Upper Bound		0.081														
ORIGINAL		<0.005														
DUP		<0.005														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														
229904			0.002													
DUP			0.002													
Target Range - Lower Bound			<0.001													
Upper Bound			0.004													
229918				<0.2	2.42	28	20	70	0.5	<2	1.97	<0.5	8	8	9	3.23
DUP				0.2	2.40	28	20	70	0.5	<2	2.03	<0.5	8	8	9	3.32
Target Range - Lower Bound				<0.2	2.27	23	<10	40	<0.5	<2	1.88	<0.5	6	6	7	3.09
Upper Bound				0.4	2.55	33	40	100	1.0	4	2.12	1.0	10	10	11	3.46
226710				0.2	0.75	8	<10	20	<0.5	<2	5.02	0.8	11	2	66	6.14
DUP				0.2	0.76	5	<10	30	<0.5	<2	5.55	1.2	11	2	64	6.28
Target Range - Lower Bound				<0.2	0.70	<2	<10	<10	<0.5	<2	5.00	<0.5	8	<1	60	5.88
Upper Bound				0.4	0.81	11	20	50	1.0	4	5.57	2.1	14	4	70	6.54
226712			0.003													
DUP			0.003													
Target Range - Lower Bound			<0.001													
Upper Bound			0.005													
226720		0.132														
DUP		0.125														
Target Range - Lower Bound		0.112														
Upper Bound		0.145														
226725				0.4	0.70	5	<10	20	<0.5	<2	4.30	0.7	13	1	396	5.94
DUP				0.5	0.69	4	<10	20	<0.5	<2	4.55	0.7	14	1	401	5.98
Target Range - Lower Bound				<0.2	0.64	<2	<10	<10	<0.5	<2	4.18	<0.5	11	<1	377	5.64
Upper Bound				0.9	0.75	9	20	40	1.0	4	4.67	1.0	16	2	420	6.28

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QC CERTIFICATE OF ANALYSIS VA06080159

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
DUPLICATES																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
229904																
DUP																
Target Range - Lower Bound																
Upper Bound																
229918		10	<1	0.15	10	1.18	699	<1	0.06	3	920	4	<0.01	<2	6	207
DUP		10	1	0.15	10	1.20	711	1	0.06	3	940	4	<0.01	<2	6	207
Target Range - Lower Bound		<10	<1	0.12	<10	1.11	660	<1	0.04	<1	860	<2	<0.01	<2	4	195
Upper Bound		20	2	0.18	20	1.27	750	2	0.08	5	1000	8	0.02	4	8	219
226710		<10	<1	0.07	<10	<0.01	10	6	0.01	4	150	29	>10.0	<2	1	272
DUP		<10	<1	0.07	<10	<0.01	14	7	0.01	3	150	31	>10.0	<2	1	277
Target Range - Lower Bound		<10	<1	0.05	<10	<0.01	<5	4	<0.01	<1	120	25	9.48	<2	<1	259
Upper Bound		20	2	0.09	20	0.02	23	9	0.02	6	180	36	10.00	4	2	290
226712																
DUP																
Target Range - Lower Bound																
Upper Bound																
226720																
DUP																
Target Range - Lower Bound																
Upper Bound																
226725		<10	<1	0.14	<10	0.01	20	12	0.01	2	140	33	>10.0	<2	1	288
DUP		<10	<1	0.14	<10	0.01	21	12	0.01	2	140	36	>10.0	<2	1	287
Target Range - Lower Bound		<10	<1	0.11	<10	<0.01	9	9	<0.01	<1	110	29	9.48	<2	<1	271
Upper Bound		20	2	0.17	20	0.02	32	15	0.02	4	170	40	10.00	4	2	304

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PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 15-SEP-2006
Account: PIL

Project: 4012

QC CERTIFICATE OF ANALYSIS VA06080159

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
		DUPLICATES					
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
229904							
DUP							
Target Range - Lower Bound							
Upper Bound							
229918		0.21	<10	<10	71	<10	84
DUP		0.21	<10	<10	71	<10	85
Target Range - Lower Bound		0.18	<10	<10	65	<10	76
Upper Bound		0.24	20	20	77	20	93
226710		<0.01	<10	<10	7	<10	13
DUP		<0.01	<10	<10	7	<10	15
Target Range - Lower Bound		<0.01	<10	<10	5	<10	9
Upper Bound		0.02	20	20	9	20	19
226712							
DUP							
Target Range - Lower Bound							
Upper Bound							
226720							
DUP							
Target Range - Lower Bound							
Upper Bound							
226725		<0.01	<10	<10	7	<10	12
DUP		<0.01	<10	<10	7	<10	13
Target Range - Lower Bound		<0.01	<10	<10	5	<10	8
Upper Bound		0.02	20	20	9	20	17

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QC CERTIFICATE OF ANALYSIS VA06080159

Sample Description	Method / Analyte / Units / LOR	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1	ME-ICP41 Fe % 0.01
DUPLICATES																
226729			0.038													
DUP			0.038													
Target Range - Lower Bound			0.035													
Upper Bound			0.041													
226740		0.034														
DUP		0.034														
Target Range - Lower Bound		0.022														
Upper Bound		0.046														
226745				0.4	1.29	9	<10	50	<0.5	<2	5.01	<0.5	33	2	662	6.62
DUP				0.4	1.28	6	<10	50	<0.5	<2	5.28	<0.5	33	3	666	6.88
Target Range - Lower Bound				<0.2	1.20	3	<10	30	<0.5	<2	4.87	<0.5	29	<1	629	6.39
Upper Bound				0.8	1.37	12	20	70	1.0	4	5.42	1.0	37	5	699	7.11
226748			0.097													
DUP			0.097													
Target Range - Lower Bound			0.093													
Upper Bound			0.101													
ORIGINAL		8.38														
DUP		8.14														
Target Range - Lower Bound		7.84														
Upper Bound		8.68														
ORIGINAL		2.06														
DUP		2.05														
Target Range - Lower Bound		1.940														
Upper Bound		2.17														
ORIGINAL		0.005														
DUP		0.005														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														
ORIGINAL		<0.005														
DUP		<0.005														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														

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QC CERTIFICATE OF ANALYSIS VA06080159

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
		DUPLICATES														
226729																
DUP																
Target Range - Lower Bound																
Upper Bound																
226740																
DUP																
Target Range - Lower Bound																
Upper Bound																
226745		<10	<1	0.22	<10	0.43	79	18	0.01	14	630	4	>10.0	<2	1	281
DUP		<10	<1	0.22	<10	0.45	82	19	0.01	15	670	4	>10.0	<2	1	294
Target Range - Lower Bound		<10	<1	0.19	<10	0.40	66	16	<0.01	12	600	<2	9.48	<2	<1	271
Upper Bound		20	2	0.25	20	0.48	95	21	0.02	17	700	8	10.00	4	2	304
226748																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																

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QC CERTIFICATE OF ANALYSIS VA06080159

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
		DUPLICATES					
226729	DUP						
	Target Range - Lower Bound						
	Upper Bound						
226740	DUP						
	Target Range - Lower Bound						
	Upper Bound						
226745	DUP	<0.01	<10	<10	32	<10	32
		<0.01	<10	<10	32	<10	33
	Target Range - Lower Bound	<0.01	<10	<10	28	<10	27
	Upper Bound	0.02	20	20	36	20	38
226748	DUP						
	Target Range - Lower Bound						
	Upper Bound						
ORIGINAL	DUP						
	Target Range - Lower Bound						
	Upper Bound						
ORIGINAL	DUP						
	Target Range - Lower Bound						
	Upper Bound						
ORIGINAL	DUP						
	Target Range - Lower Bound						
	Upper Bound						
ORIGINAL	DUP						
	Target Range - Lower Bound						
	Upper Bound						

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Finalized Date: 10-SEP-2006
This copy reported on 23-FEB-2007
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QC CERTIFICATE VA06080450

Project: 4012
P.O. No.:
This report is for 50 Pulp samples submitted to our lab in Vancouver, BC, Canada on 11-AUG-2006.
The following have access to data associated with this certificate:

CARL EDMUNDS R KONST	B. KAY RON KONST	BRIAN KAY

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-QC	QC Test on Received Samples
LOG-22	Sample login - Rcd w/o BarCode

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au-AA23	Au 30g FA-AA finish	AAS
Cu-AA49	Assay Cu - HBr Digestion	AAS
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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KEMESS MINE
PO BOX 3519
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Finalized Date: 10-SEP-2006
Account: PIL

Project: 4012

QC CERTIFICATE OF ANALYSIS VA06080450

Sample Description	Method	Au-AA23	Cu-AA49	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Au	Cu	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	0.005	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
STANDARDS																
BM-9/A				13.3	0.82	23	<10	80	0.8	111	0.18	27.7	100	195	5210	3.52
Target Range - Lower Bound				12.2	0.80	20	<10	70	<0.5	100	0.13	23.2	88	176	4890	3.28
Upper Bound				15.4	1.00	28	20	110	1.0	127	0.19	29.5	110	217	5980	4.04
CU-108			0.662													
Target Range - Lower Bound			0.627													
Upper Bound			0.695													
G2000				3.2	1.88	524	10	960	1.0	<2	0.59	8.0	24	78	298	3.94
Target Range - Lower Bound				3.0	1.66	434	<10	720	<0.5	<2	0.46	6.0	21	63	272	3.41
Upper Bound				4.1	2.06	534	20	1000	1.0	4	0.58	8.4	27	79	334	4.19
GBM398-4c			0.411													
GBM398-4c			0.400													
Target Range - Lower Bound			0.369													
Upper Bound			0.410													
GBM999-5				59.1	0.19	5	<10	60	<0.5	<2	0.06	<0.5	3	5	494	2.96
Target Range - Lower Bound				53.3	0.17	<2	<10	40	<0.5	<2	0.04	<0.5	2	4	436	2.56
Upper Bound				65.5	0.23	4	20	70	1.0	4	0.07	1.0	4	7	536	3.15
GEOMS-03				0.5	1.76	607	10	1080	1.1	2	0.36	<0.5	10	71	136	3.89
Target Range - Lower Bound				<0.2	1.63	552	<10	890	<0.5	<2	0.30	<0.5	10	59	120	3.48
Upper Bound				0.7	2.01	679	20	1230	1.7	4	0.38	1.0	14	74	148	4.28
ME89-2			0.241													
Target Range - Lower Bound			0.218													
Upper Bound			0.243													
OXD43		0.397														
Target Range - Lower Bound		0.368														
Upper Bound		0.434														
OxG46		1.015														
Target Range - Lower Bound		0.959														
Upper Bound		1.115														
ST-259		2.52														
Target Range - Lower Bound		2.30														
Upper Bound		2.66														
ST-327		6.55														
Target Range - Lower Bound		6.35														
Upper Bound		7.31														

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PO BOX 3519
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Finalized Date: 10-SEP-2006
Account: PIL

Project: 4012

QC CERTIFICATE OF ANALYSIS VA06080450

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
STANDARDS																
BM-9/A		<10	<1	0.02	10	0.43	636	4	0.40	366	100	6800	1.56	9	8	71
Target Range - Lower Bound		<10	<1	<0.01	<10	0.37	561	3	0.37	329	70	5980	1.27	3	6	67
Upper Bound		20	2	0.03	20	0.47	697	5	0.47	404	100	7310	1.57	9	10	84
CU-108																
Target Range - Lower Bound																
Upper Bound																
G2000		<10	1	0.41	20	0.73	596	6	0.03	300	1040	737	0.31	29	7	68
Target Range - Lower Bound		<10	<1	0.37	<10	0.60	506	4	0.02	246	840	601	0.23	19	5	60
Upper Bound		20	2	0.47	40	0.76	630	8	0.04	302	1050	739	0.31	31	9	76
GBM398-4c																
GBM398-4c																
Target Range - Lower Bound																
Upper Bound																
GBM999-5		<10	<1	0.05	10	0.02	69	4	0.02	3	40	553	0.33	6	1	3
Target Range - Lower Bound		<10	<1	0.04	<10	<0.01	49	2	<0.01	2	20	452	0.26	<2	<1	2
Upper Bound		20	2	0.07	20	0.03	71	5	0.03	5	50	556	0.34	8	2	5
GEOMS-03		10	1	0.34	20	0.43	521	3	0.02	50	1000	5	0.04	13	8	103
Target Range - Lower Bound		<10	<1	0.29	<10	0.39	483	2	<0.01	47	880	4	0.02	7	7	92
Upper Bound		20	2	0.37	40	0.49	601	5	0.03	60	1100	9	0.04	14	11	115
ME89-2																
Target Range - Lower Bound																
Upper Bound																
OXD43																
Target Range - Lower Bound																
Upper Bound																
OxG46																
Target Range - Lower Bound																
Upper Bound																
ST-259																
Target Range - Lower Bound																
Upper Bound																
ST-327																
Target Range - Lower Bound																
Upper Bound																

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North Vancouver BC V7J 2C1
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To: NORTHGATE MINERALS CORPORATION
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 10-SEP-2006
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QC CERTIFICATE OF ANALYSIS VA06080450

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
STANDARDS							
BM-9/A		0.01	<10	<10	14	<10	8660
Target Range - Lower Bound		<0.01	<10	<10	12	<10	7350
Upper Bound		0.02	20	20	17	20	8990
CU-108							
Target Range - Lower Bound							
Upper Bound							
G2000		0.05	<10	<10	68	<10	1325
Target Range - Lower Bound		0.04	<10	<10	59	<10	1145
Upper Bound		0.07	20	20	74	20	1400
GBM398-4c							
GBM398-4c							
Target Range - Lower Bound							
Upper Bound							
GBM999-5		<0.01	<10	<10	5	<10	122
Target Range - Lower Bound		<0.01	<10	<10	4	<10	97
Upper Bound		0.02	20	20	7	20	123
GEOMS-03		0.03	<10	<10	71	10	44
Target Range - Lower Bound		0.03	<10	<10	59	<10	40
Upper Bound		0.05	20	20	75	20	54
ME89-2							
Target Range - Lower Bound							
Upper Bound							
OXD43							
Target Range - Lower Bound							
Upper Bound							
OxG46							
Target Range - Lower Bound							
Upper Bound							
ST-259							
Target Range - Lower Bound							
Upper Bound							
ST-327							
Target Range - Lower Bound							
Upper Bound							

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QC CERTIFICATE OF ANALYSIS VA06080450

Sample Description	Method / Analyte / Units / LOR	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1	ME-ICP41 Fe % 0.01
BLANKS																
BLANK				<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	1	<0.01
BLANK				<0.2	<0.01	2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	1	<0.01
BLANK			<0.001													
BLANK			0.001													
BLANK		0.009														
BLANK		<0.005														
Target Range - Lower Bound		<0.005	<0.001	<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
Upper Bound		0.010	0.002	0.4	0.02	4	20	20	1.0	4	0.02	1.0	2	2	2	0.02
DUPLICATES																
ORIGINAL		1.745														
DUP		1.800														
Target Range - Lower Bound		1.675														
Upper Bound		1.870														
ORIGINAL		0.134														
DUP		0.130														
Target Range - Lower Bound		0.115														
Upper Bound		0.149														
ORIGINAL		0.041														
DUP		0.028														
Target Range - Lower Bound		0.023														
Upper Bound		0.046														
226748			0.097													
DUP			0.097													
Target Range - Lower Bound			0.093													
Upper Bound			0.101													
226792				3.3	4.05	15	<10	10	0.5	4	9.63	5.4	35	201	2360	6.75
DUP				3.1	3.90	15	<10	10	<0.5	6	9.22	5.3	34	195	2290	6.47
Target Range - Lower Bound				2.6	3.76	10	<10	<10	<0.5	<2	8.93	4.1	31	186	2210	6.26
Upper Bound				3.8	4.19	20	20	20	1.0	9	9.92	6.6	38	210	2440	6.96

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KEMESS MINE
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QC CERTIFICATE OF ANALYSIS VA06080450

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
BLANKS																
BLANK		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
BLANK		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
BLANK																
BLANK																
BLANK																
BLANK																
Target Range - Lower Bound		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
Upper Bound		20	2	0.02	20	0.02	10	2	0.02	2	20	4	0.02	4	2	2
DUPLICATES																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
226748																
DUP																
Target Range - Lower Bound																
Upper Bound																
226792		10	1	0.10	<10	2.11	1070	31	0.07	36	1070	11	>10.0	2	10	254
DUP		10	<1	0.10	<10	2.04	1030	30	0.07	34	1030	10	>10.0	<2	10	246
Target Range - Lower Bound		<10	<1	0.08	<10	1.95	988	27	0.05	31	980	6	9.48	<2	8	236
Upper Bound		20	2	0.13	20	2.20	1115	34	0.09	39	1120	15	10.00	4	13	265

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PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 10-SEP-2006
Account: PIL

Project: 4012

QC CERTIFICATE OF ANALYSIS VA06080450

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
BLANKS							
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK							
BLANK							
BLANK							
BLANK							
Target Range - Lower Bound		<0.01	<10	<10	<1	<10	<2
Upper Bound		0.02	20	20	2	20	4
DUPLICATES							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
226748							
DUP							
Target Range - Lower Bound							
Upper Bound							
226792		0.17	<10	10	136	<10	387
DUP		0.16	<10	<10	132	<10	378
Target Range - Lower Bound		0.14	<10	<10	125	<10	359
Upper Bound		0.19	20	20	143	20	406

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QC CERTIFICATE OF ANALYSIS VA06080450

Sample Description	Method	Au-AA23	Cu-AA49	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Au	Cu	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	0.005	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
DUPLICATES																
226794		0.105														
DUP		0.112														
Target Range - Lower Bound		0.093														
Upper Bound		0.124														
226807				1.7	2.73	6	<10	60	<0.5	<2	4.78	1.0	30	147	1990	5.96
DUP				1.7	2.73	7	<10	60	<0.5	<2	4.66	1.0	28	145	1980	5.91
Target Range - Lower Bound				1.2	2.57	<2	<10	40	<0.5	<2	4.46	<0.5	26	137	1885	5.62
Upper Bound				2.2	2.89	11	20	80	1.0	4	4.98	2.1	32	155	2090	6.25
226809			0.354													
DUP			0.354													
Target Range - Lower Bound			0.343													
Upper Bound			0.365													
226814		0.163														
DUP		0.155														
Target Range - Lower Bound		0.141														
Upper Bound		0.177														
ORIGINAL		0.341														
DUP		0.328														
Target Range - Lower Bound		0.308														
Upper Bound		0.361														
ORIGINAL				<0.2	0.18	7	<10	10	<0.5	<2	13.90	<0.5	2	4	2310	2.49
DUP				<0.2	0.17	8	<10	10	<0.5	<2	15.00	<0.5	2	4	2120	2.64
Target Range - Lower Bound				<0.2	0.15	3	<10	<10	<0.5	<2	13.70	<0.5	<1	2	2100	2.42
Upper Bound				0.4	0.20	12	20	20	1.0	4	15.20	1.0	4	6	2330	2.71

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QC CERTIFICATE OF ANALYSIS VA06080450

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
DUPLICATES																
226794																
DUP																
Target Range - Lower Bound																
Upper Bound																
226807		10	1	0.75	<10	2.25	803	219	0.04	21	770	4	7.17	<2	10	211
DUP		10	<1	0.74	<10	2.21	795	215	0.04	20	760	4	7.02	2	10	208
Target Range - Lower Bound		<10	<1	0.69	<10	2.10	749	204	0.02	17	710	<2	6.72	<2	8	197
Upper Bound		20	2	0.80	20	2.36	849	230	0.06	24	820	8	7.47	4	13	222
226809																
DUP																
Target Range - Lower Bound																
Upper Bound																
226814																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL		<10	<1	0.10	<10	7.48	757	1	0.03	11	20	5	0.33	<2	2	49
DUP		<10	<1	0.10	<10	7.81	790	1	0.02	11	10	6	0.37	<2	2	47
Target Range - Lower Bound		<10	<1	0.08	<10	7.24	725	<1	<0.01	8	<10	<2	0.31	<2	<1	44
Upper Bound		20	2	0.13	20	8.05	822	2	0.05	14	20	10	0.39	4	4	52

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QC CERTIFICATE OF ANALYSIS VA06080450

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
		DUPLICATES					
226794							
DUP							
Target Range - Lower Bound							
Upper Bound							
226807		0.07	<10	<10	126	<10	109
DUP		0.07	<10	<10	125	<10	106
Target Range - Lower Bound		0.05	<10	<10	117	<10	98
Upper Bound		0.09	20	20	134	20	117
226809							
DUP							
Target Range - Lower Bound							
Upper Bound							
226814							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL		<0.01	<10	<10	6	<10	4
DUP		<0.01	<10	<10	6	<10	3
Target Range - Lower Bound		<0.01	<10	<10	4	<10	<2
Upper Bound		0.02	20	20	8	20	4

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QC CERTIFICATE VA06080451

Project: 4012
P.O. No.:
This report is for 50 Crushed Rock samples submitted to our lab in Vancouver, BC, Canada on 11-AUG-2006.

The following have access to data associated with this certificate:

CARL EDMUNDS RON KONST	BRIAN KAY R KONST	B. KAY

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
PUL-31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au-AA23	Au 30g FA-AA finish	AAS
Cu-AA49	Assay Cu - HBr Digestion	AAS
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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Finalized Date: 12-SEP-2006
Account: PIL

Project: 4012

QC CERTIFICATE OF ANALYSIS VA06080451

Sample Description	Method	Au-AA23	Cu-AA49	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Au	Cu	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	0.005	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
STANDARDS																
BM-9/A				13.5	0.81	23	<10	90	0.8	107	0.17	26.6	98	189	4950	3.43
Target Range - Lower Bound				12.2	0.80	20	<10	70	<0.5	100	0.13	23.2	88	176	4890	3.28
Upper Bound				15.4	1.00	28	20	110	1.0	127	0.19	29.5	110	217	5980	4.04
CU-108			0.662													
CU-108			0.648													
Target Range - Lower Bound			0.627													
Upper Bound			0.695													
G2000				3.1	1.83	493	10	890	0.9	<2	0.53	7.1	23	71	293	3.65
Target Range - Lower Bound				3.0	1.66	434	<10	720	<0.5	<2	0.46	6.0	21	63	272	3.41
Upper Bound				4.1	2.06	534	20	1000	1.0	4	0.58	8.4	27	79	334	4.19
GBM398-4c			0.400													
GBM398-4c			0.389													
GBM398-4c			0.374													
Target Range - Lower Bound			0.369													
Upper Bound			0.410													
GBM999-5				59.9	0.19	3	<10	50	<0.5	<2	0.05	<0.5	3	5	487	2.73
Target Range - Lower Bound				53.3	0.17	<2	<10	40	<0.5	<2	0.04	<0.5	2	4	436	2.56
Upper Bound				65.5	0.23	4	20	70	1.0	4	0.07	1.0	4	7	536	3.15
GEOMS-03				0.3	1.87	609	10	1090	1.1	<2	0.35	<0.5	10	72	130	4.10
Target Range - Lower Bound				<0.2	1.63	552	<10	890	<0.5	<2	0.30	<0.5	10	59	120	3.48
Upper Bound				0.7	2.01	679	20	1230	1.7	4	0.38	1.0	14	74	148	4.28
ME89-2			0.237													
Target Range - Lower Bound			0.218													
Upper Bound			0.243													
OXD43		0.408														
Target Range - Lower Bound		0.368														
Upper Bound		0.434														
OxG46		1.015														
OxG46		1.055														
OxG46		1.050														
Target Range - Lower Bound		0.959														
Upper Bound		1.115														
SI15		1.880														
Target Range - Lower Bound		1.675														
Upper Bound		1.935														
ST-259		2.43														
ST-259		2.45														
ST-259		2.58														

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QC CERTIFICATE OF ANALYSIS VA06080451

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
STANDARDS																
BM-9/A		<10	<1	0.02	10	0.43	605	4	0.38	360	90	7100	1.52	8	8	68
Target Range - Lower Bound		<10	<1	<0.01	<10	0.37	561	3	0.37	329	70	5980	1.27	3	6	67
Upper Bound		20	2	0.03	20	0.47	697	5	0.47	404	100	7310	1.57	9	10	84
CU-108																
CU-108																
Target Range - Lower Bound																
Upper Bound																
G2000		10	1	0.41	20	0.68	538	6	0.02	278	970	687	0.30	26	7	64
Target Range - Lower Bound		<10	<1	0.37	<10	0.60	506	4	0.02	246	840	601	0.23	19	5	60
Upper Bound		20	2	0.47	40	0.76	630	8	0.04	302	1050	739	0.31	31	9	76
GBM398-4c																
GBM398-4c																
GBM398-4c																
Target Range - Lower Bound																
Upper Bound																
GBM999-5		<10	1	0.05	10	0.02	55	3	0.01	3	30	470	0.27	4	1	4
Target Range - Lower Bound		<10	<1	0.04	<10	<0.01	49	2	<0.01	2	20	452	0.26	<2	<1	2
Upper Bound		20	2	0.07	20	0.03	71	5	0.03	5	50	556	0.34	8	2	5
GEOMS-03		10	1	0.36	20	0.46	512	2	0.02	49	1000	5	0.03	14	9	108
Target Range - Lower Bound		<10	<1	0.29	<10	0.39	483	2	<0.01	47	880	4	0.02	7	7	92
Upper Bound		20	2	0.37	40	0.49	601	5	0.03	60	1100	9	0.04	14	11	115
ME89-2																
Target Range - Lower Bound																
Upper Bound																
OXD43																
Target Range - Lower Bound																
Upper Bound																
OxG46																
OxG46																
OxG46																
Target Range - Lower Bound																
Upper Bound																
SI15																
Target Range - Lower Bound																
Upper Bound																
ST-259																
ST-259																
ST-259																

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QC CERTIFICATE OF ANALYSIS VA06080451

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
STANDARDS							
BM-9/A		0.01	<10	<10	14	<10	8470
Target Range - Lower Bound		<0.01	<10	<10	12	<10	7350
Upper Bound		0.02	20	20	17	20	8990
CU-108							
CU-108							
Target Range - Lower Bound							
Upper Bound							
G2000		0.05	<10	<10	66	10	1270
Target Range - Lower Bound		0.04	<10	<10	59	<10	1145
Upper Bound		0.07	20	20	74	20	1400
GBM398-4c							
GBM398-4c							
GBM398-4c							
Target Range - Lower Bound							
Upper Bound							
GBM999-5		<0.01	<10	<10	5	<10	102
Target Range - Lower Bound		<0.01	<10	<10	4	<10	97
Upper Bound		0.02	20	20	7	20	123
GEOMS-03		0.04	<10	<10	71	10	43
Target Range - Lower Bound		0.03	<10	<10	59	<10	40
Upper Bound		0.05	20	20	75	20	54
ME89-2							
Target Range - Lower Bound							
Upper Bound							
OXD43							
Target Range - Lower Bound							
Upper Bound							
OxG46							
OxG46							
OxG46							
Target Range - Lower Bound							
Upper Bound							
SI15							
Target Range - Lower Bound							
Upper Bound							
ST-259							
ST-259							
ST-259							

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QC CERTIFICATE OF ANALYSIS VA06080451

Sample Description / Method	Au-AA23	Cu-AA49	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
Analyte	Au	Cu	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
Units	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
LOR	0.005	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
STANDARDS															
Target Range - Lower Bound	2.30														
Upper Bound	2.66														
ST-327	7.21														
Target Range - Lower Bound	6.35														
Upper Bound	7.31														
BLANKS															
BLANK			<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
BLANK			<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
BLANK		0.001													
BLANK		<0.001													
BLANK		<0.001													
BLANK	<0.005														
BLANK	<0.005														
BLANK	0.010														
BLANK	<0.005														
Target Range - Lower Bound	<0.005	<0.001	<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
Upper Bound	0.010	0.002	0.4	0.02	4	20	20	1.0	4	0.02	1.0	2	2	2	0.02
DUPLICATES															
ORIGINAL	<0.005														
DUP	<0.005														
Target Range - Lower Bound	<0.005														
Upper Bound	0.010														
ORIGINAL	<0.005														
DUP	<0.005														
Target Range - Lower Bound	<0.005														
Upper Bound	0.010														

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QC CERTIFICATE OF ANALYSIS VA06080451

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
STANDARDS																
Target Range - Lower Bound																
Upper Bound																
ST-327																
Target Range - Lower Bound																
Upper Bound																
BLANKS																
BLANK		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
BLANK		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
BLANK																
BLANK																
BLANK																
BLANK																
BLANK																
BLANK																
BLANK																
Target Range - Lower Bound		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
Upper Bound		20	2	0.02	20	0.02	10	2	0.02	2	20	4	0.02	4	2	2
DUPLICATES																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																

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Finalized Date: 12-SEP-2006
Account: PIL

Project: 4012

QC CERTIFICATE OF ANALYSIS VA06080451

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
STANDARDS							
Target Range - Lower Bound							
Upper Bound							
ST-327							
Target Range - Lower Bound							
Upper Bound							
BLANKS							
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK							
BLANK							
BLANK							
BLANK							
BLANK							
BLANK							
BLANK							
Target Range - Lower Bound		<0.01	<10	<10	<1	<10	<2
Upper Bound		0.02	20	20	2	20	4
DUPLICATES							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							

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QC CERTIFICATE OF ANALYSIS VA06080451

Sample Description	Method / Analyte / Units / LOR	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1	ME-ICP41 Fe % 0.01
DUPLICATES																
ORIGINAL		1.355														
DUP		1.305														
Target Range - Lower Bound		1.255														
Upper Bound		1.405														
229885		<0.005														
DUP		<0.005														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														
229905		<0.005														
DUP		<0.005														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														
229925		<0.005														
DUP		<0.005														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														
226809			0.354													
DUP			0.354													
Target Range - Lower Bound			0.343													
Upper Bound			0.365													
226260				1.2	3.65	2	<10	10	0.6	<2	3.36	1.0	39	41	1210	7.14
DUP				1.2	3.65	4	<10	10	0.6	<2	3.45	1.3	40	41	1190	7.33
Target Range - Lower Bound				0.7	3.45	<2	<10	<10	<0.5	<2	3.21	<0.5	36	37	1140	6.85
Upper Bound				1.7	3.85	4	20	20	1.0	4	3.60	2.2	43	45	1260	7.62
226270			0.070													
DUP			0.070													
Target Range - Lower Bound			0.066													
Upper Bound			0.074													
226830				1.7	3.09	19	<10	40	<0.5	2	4.71	1.1	37	118	2220	6.98
DUP				1.7	3.07	18	<10	40	<0.5	2	4.81	1.1	38	117	2160	7.11
Target Range - Lower Bound				1.2	2.91	14	<10	20	<0.5	<2	4.50	<0.5	34	110	2080	6.67
Upper Bound				2.2	3.25	23	20	60	1.0	4	5.02	2.2	41	125	2300	7.42

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KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

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Account: PIL

Project: 4012

QC CERTIFICATE OF ANALYSIS VA06080451

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
DUPLICATES																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
229885																
DUP																
Target Range - Lower Bound																
Upper Bound																
229905																
DUP																
Target Range - Lower Bound																
Upper Bound																
229925																
DUP																
Target Range - Lower Bound																
Upper Bound																
226809																
DUP																
Target Range - Lower Bound																
Upper Bound																
226260		10	<1	0.17	10	2.17	906	13	0.03	24	1170	6	5.09	<2	12	51
DUP		10	<1	0.17	10	2.22	917	13	0.03	24	1210	5	5.43	<2	12	52
Target Range - Lower Bound		<10	<1	0.14	<10	2.07	856	10	<0.01	21	1110	<2	4.98	<2	9	47
Upper Bound		20	2	0.20	20	2.32	967	16	0.05	27	1270	10	5.54	4	15	56
226270																
DUP																
Target Range - Lower Bound																
Upper Bound																
226830		10	<1	0.40	<10	2.74	907	82	0.02	37	950	7	6.79	<2	13	142
DUP		10	<1	0.40	<10	2.75	911	79	0.02	38	970	8	7.01	<2	13	142
Target Range - Lower Bound		<10	<1	0.36	<10	2.59	854	74	<0.01	34	890	3	6.54	<2	10	133
Upper Bound		20	2	0.44	20	2.90	964	87	0.04	41	1030	12	7.27	4	16	151

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QC CERTIFICATE OF ANALYSIS VA06080451

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
DUPLICATES							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
229885							
DUP							
Target Range - Lower Bound							
Upper Bound							
229905							
DUP							
Target Range - Lower Bound							
Upper Bound							
229925							
DUP							
Target Range - Lower Bound							
Upper Bound							
226809							
DUP							
Target Range - Lower Bound							
Upper Bound							
226260		0.01	<10	<10	124	<10	163
DUP		0.01	<10	<10	123	<10	164
Target Range - Lower Bound		<0.01	<10	<10	115	<10	151
Upper Bound		0.02	20	20	132	20	176
226270							
DUP							
Target Range - Lower Bound							
Upper Bound							
226830		0.19	<10	<10	145	<10	179
DUP		0.19	<10	<10	145	<10	179
Target Range - Lower Bound		0.16	<10	<10	136	<10	166
Upper Bound		0.22	20	20	154	20	192

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QC CERTIFICATE OF ANALYSIS VA06080451

Sample Description	Method / Analyte / Units / LOR	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1	ME-ICP41 Fe % 0.01
DUPLICATES																
226845				2.0	1.99	7	<10	40	<0.5	<2	3.82	0.5	10	11	2590	3.11
DUP				2.1	2.04	5	<10	40	<0.5	2	3.90	0.5	11	11	2660	3.22
Target Range - Lower Bound				1.5	1.89	<2	<10	20	<0.5	<2	3.65	<0.5	8	8	2490	2.99
Upper Bound				2.6	2.14	10	20	60	1.0	4	4.07	1.0	13	14	2760	3.34
226656			0.019													
DUP			0.020													
Target Range - Lower Bound			0.017													
Upper Bound			0.022													
226665				<0.2	2.30	2	<10	530	0.5	<2	2.72	<0.5	9	12	96	3.99
DUP				<0.2	2.31	4	<10	520	0.5	2	2.72	<0.5	8	12	98	3.99
Target Range - Lower Bound				<0.2	2.17	<2	<10	470	<0.5	<2	2.56	<0.5	6	9	90	3.77
Upper Bound				0.4	2.44	4	20	580	1.0	4	2.88	1.0	11	15	104	4.21
229933		<0.005														
DUP		<0.005														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														
229953		<0.005														
DUP		<0.005														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														
ORIGINAL		4.99														
DUP		4.88														
Target Range - Lower Bound		4.68														
Upper Bound		5.19														
ORIGINAL		0.496														
DUP		0.462														
Target Range - Lower Bound		0.445														
Upper Bound		0.513														

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Account: PIL

Project: 4012

QC CERTIFICATE OF ANALYSIS VA06080451

Sample Description / Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
DUPLICATES															
226845	<10	<1	0.27	<10	1.53	540	43	0.03	9	770	7	3.90	<2	3	156
DUP	10	1	0.27	<10	1.58	555	49	0.03	9	790	8	4.02	<2	3	160
Target Range - Lower Bound	<10	<1	0.24	<10	1.46	510	42	<0.01	7	720	3	3.74	<2	<1	148
Upper Bound	20	2	0.30	20	1.65	585	50	0.05	11	840	12	4.18	4	5	168
226656															
DUP															
Target Range - Lower Bound															
Upper Bound															
226665	10	1	0.29	10	0.98	939	<1	0.14	3	770	11	0.11	<2	4	368
DUP	10	<1	0.30	10	0.98	938	<1	0.14	4	780	10	0.11	<2	4	368
Target Range - Lower Bound	<10	<1	0.26	<10	0.91	882	<1	0.11	<1	720	6	0.08	<2	2	348
Upper Bound	20	2	0.33	20	1.05	995	2	0.17	6	830	15	0.14	4	6	388
229933															
DUP															
Target Range - Lower Bound															
Upper Bound															
229953															
DUP															
Target Range - Lower Bound															
Upper Bound															
ORIGINAL															
DUP															
Target Range - Lower Bound															
Upper Bound															
ORIGINAL															
DUP															
Target Range - Lower Bound															
Upper Bound															

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QC CERTIFICATE OF ANALYSIS VA06080451

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
		DUPLICATES					
226845		0.13	<10	<10	35	<10	158
DUP		0.14	<10	<10	36	<10	162
Target Range - Lower Bound		0.11	<10	<10	32	<10	148
Upper Bound		0.16	20	20	39	20	172
226656							
DUP							
Target Range - Lower Bound							
Upper Bound							
226665		0.02	<10	<10	67	<10	116
DUP		0.02	<10	<10	67	<10	116
Target Range - Lower Bound		<0.01	<10	<10	62	<10	106
Upper Bound		0.04	20	20	72	20	126
229933							
DUP							
Target Range - Lower Bound							
Upper Bound							
229953							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							

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Finalized Date: 11-SEP-2006
This copy reported on 23-FEB-2007
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QC CERTIFICATE VA06080452

Project: 4012
P.O. No.:
This report is for 25 Crushed Rock samples submitted to our lab in Vancouver, BC, Canada on 11-AUG-2006.

The following have access to data associated with this certificate:

CARL EDMUNDS RON KONST	BRIAN KAY R KONST	B. KAY

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
PUL-QC	Pulverizing QC Test
LOG-22	Sample login - Rcd w/o BarCode
PUL-31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au-AA23	Au 30g FA-AA finish	AAS
Cu-AA49	Assay Cu - HBr Digestion	AAS
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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Project: 4012

QC CERTIFICATE OF ANALYSIS VA06080452

Sample Description	Method	Au-AA23	Cu-AA49	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Au	Cu	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	0.005	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
STANDARDS																
BM-9/A				14.9	0.90	25	<10	90	0.8	106	0.16	23.6	95	192	5410	3.43
Target Range - Lower Bound				12.2	0.80	20	<10	70	<0.5	100	0.13	23.2	88	176	4890	3.28
Upper Bound				15.4	1.00	28	20	110	1.0	127	0.19	29.5	110	217	5980	4.04
CU-108			0.648													
Target Range - Lower Bound			0.627													
Upper Bound			0.695													
G2000				3.6	2.03	474	10	890	1.0	2	0.52	6.0	22	72	315	3.82
Target Range - Lower Bound				3.0	1.66	434	<10	720	<0.5	<2	0.46	6.0	21	63	272	3.41
Upper Bound				4.1	2.06	534	20	1000	1.0	4	0.58	8.4	27	79	334	4.19
GBM398-4c			0.374													
Target Range - Lower Bound			0.369													
Upper Bound			0.410													
GBM999-5				59.9	0.19	3	<10	50	<0.5	<2	0.05	<0.5	3	5	487	2.73
Target Range - Lower Bound				53.3	0.17	<2	<10	40	<0.5	<2	0.04	<0.5	2	4	436	2.56
Upper Bound				65.5	0.23	4	20	70	1.0	4	0.07	1.0	4	7	536	3.15
GEOMS-03				0.3	1.87	609	10	1090	1.1	<2	0.35	<0.5	10	72	130	4.10
Target Range - Lower Bound				<0.2	1.63	552	<10	890	<0.5	<2	0.30	<0.5	10	59	120	3.48
Upper Bound				0.7	2.01	679	20	1230	1.7	4	0.38	1.0	14	74	148	4.28
OxG46		0.997														
Target Range - Lower Bound		0.959														
Upper Bound		1.115														
ST-259		2.35														
Target Range - Lower Bound		2.30														
Upper Bound		2.66														
BLANKS																
BLANK				<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
BLANK				<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
BLANK			<0.001													
BLANK		<0.005														
Target Range - Lower Bound		<0.005	<0.001	<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
Upper Bound		0.010	0.002	0.4	0.02	4	20	20	1.0	4	0.02	1.0	2	2	2	0.02

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QC CERTIFICATE OF ANALYSIS VA06080452

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
STANDARDS																
BM-9/A		<10	1	0.02	10	0.42	597	3	0.42	341	80	6010	1.34	7	8	73
Target Range - Lower Bound		<10	<1	<0.01	<10	0.37	561	3	0.37	329	70	5980	1.27	3	6	67
Upper Bound		20	2	0.03	20	0.47	697	5	0.47	404	100	7310	1.57	9	10	84
CU-108																
Target Range - Lower Bound																
Upper Bound																
G2000		10	2	0.45	20	0.70	550	5	0.04	267	920	627	0.26	25	7	71
Target Range - Lower Bound		<10	<1	0.37	<10	0.60	506	4	0.02	246	840	601	0.23	19	5	60
Upper Bound		20	2	0.47	40	0.76	630	8	0.04	302	1050	739	0.31	31	9	76
GBM398-4c																
Target Range - Lower Bound																
Upper Bound																
GBM999-5		<10	1	0.05	10	0.02	55	3	0.01	3	30	470	0.27	4	1	4
Target Range - Lower Bound		<10	<1	0.04	<10	<0.01	49	2	<0.01	2	20	452	0.26	<2	<1	2
Upper Bound		20	2	0.07	20	0.03	71	5	0.03	5	50	556	0.34	8	2	5
GEOMS-03		10	1	0.36	20	0.46	512	2	0.02	49	1000	5	0.03	14	9	108
Target Range - Lower Bound		<10	<1	0.29	<10	0.39	483	2	<0.01	47	880	4	0.02	7	7	92
Upper Bound		20	2	0.37	40	0.49	601	5	0.03	60	1100	9	0.04	14	11	115
OxG46																
Target Range - Lower Bound																
Upper Bound																
ST-259																
Target Range - Lower Bound																
Upper Bound																
BLANKS																
BLANK		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
BLANK		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
BLANK																
BLANK																
Target Range - Lower Bound		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
Upper Bound		20	2	0.02	20	0.02	10	2	0.02	2	20	4	0.02	4	2	2

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Finalized Date: 11-SEP-2006
Account: PIL

Project: 4012

QC CERTIFICATE OF ANALYSIS VA06080452

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
STANDARDS							
BM-9/A		0.01	<10	<10	15	<10	7370
Target Range - Lower Bound		<0.01	<10	<10	12	<10	7350
Upper Bound		0.02	20	20	17	20	8990
CU-108							
Target Range - Lower Bound							
Upper Bound							
G2000		0.06	<10	<10	69	10	1240
Target Range - Lower Bound		0.04	<10	<10	59	<10	1145
Upper Bound		0.07	20	20	74	20	1400
GBM398-4c							
Target Range - Lower Bound							
Upper Bound							
GBM999-5		<0.01	<10	<10	5	<10	102
Target Range - Lower Bound		<0.01	<10	<10	4	<10	97
Upper Bound		0.02	20	20	7	20	123
GEOMS-03		0.04	<10	<10	71	10	43
Target Range - Lower Bound		0.03	<10	<10	59	<10	40
Upper Bound		0.05	20	20	75	20	54
OxG46							
Target Range - Lower Bound							
Upper Bound							
ST-259							
Target Range - Lower Bound							
Upper Bound							
BLANKS							
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK							
BLANK							
Target Range - Lower Bound		<0.01	<10	<10	<1	<10	<2
Upper Bound		0.02	20	20	2	20	4

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QC CERTIFICATE OF ANALYSIS VA06080452

Sample Description	Method	Au-AA23	Cu-AA49	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Au	Cu	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	0.005	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
DUPLICATES																
226845				2.0	1.99	7	<10	40	<0.5	<2	3.82	0.5	10	11	2590	3.11
DUP				2.1	2.04	5	<10	40	<0.5	2	3.90	0.5	11	11	2660	3.22
Target Range - Lower Bound				1.5	1.89	<2	<10	20	<0.5	<2	3.65	<0.5	8	8	2490	2.99
Upper Bound				2.6	2.14	10	20	60	1.0	4	4.07	1.0	13	14	2760	3.34
226656			0.019													
DUP			0.020													
Target Range - Lower Bound			0.017													
Upper Bound			0.022													
226660		0.011														
DUP		0.014														
Target Range - Lower Bound		<0.005														
Upper Bound		0.023														
226665				<0.2	2.30	2	<10	530	0.5	<2	2.72	<0.5	9	12	96	3.99
DUP				<0.2	2.31	4	<10	520	0.5	2	2.72	<0.5	8	12	98	3.99
Target Range - Lower Bound				<0.2	2.17	<2	<10	470	<0.5	<2	2.56	<0.5	6	9	90	3.77
Upper Bound				0.4	2.44	4	20	580	1.0	4	2.88	1.0	11	15	104	4.21
226855		0.704		3.4	3.54	7	<10	40	0.5	<2	5.09	<0.5	18	79	4340	6.11
DUP		0.661		3.4	3.56	8	<10	40	0.5	3	5.37	<0.5	19	79	4370	6.07
Target Range - Lower Bound		0.638		2.8	3.35	3	<10	20	<0.5	<2	4.95	<0.5	16	73	4140	5.77
Upper Bound		0.727		4.0	3.75	12	20	60	1.0	4	5.51	1.0	21	85	4570	6.41
226875		0.763		0.6	0.21	4	10	30	<0.5	2	0.16	<0.5	1	4	11	2.66
DUP				0.5	0.21	5	10	30	<0.5	2	0.16	<0.5	1	4	14	2.82
Target Range - Lower Bound				<0.2	0.18	<2	<10	<10	<0.5	<2	0.13	<0.5	<1	2	10	2.58
Upper Bound				1.0	0.24	9	20	50	1.0	4	0.19	1.0	2	6	15	2.90

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QC CERTIFICATE OF ANALYSIS VA06080452

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
							DUPLICATES									
226845		<10	<1	0.27	<10	1.53	540	43	0.03	9	770	7	3.90	<2	3	156
DUP		10	1	0.27	<10	1.58	555	49	0.03	9	790	8	4.02	<2	3	160
Target Range - Lower Bound		<10	<1	0.24	<10	1.46	510	42	<0.01	7	720	3	3.74	<2	<1	148
Upper Bound		20	2	0.30	20	1.65	585	50	0.05	11	840	12	4.18	4	5	168
226656																
DUP																
Target Range - Lower Bound																
Upper Bound																
226660																
DUP																
Target Range - Lower Bound																
Upper Bound																
226665		10	1	0.29	10	0.98	939	<1	0.14	3	770	11	0.11	<2	4	368
DUP		10	<1	0.30	10	0.98	938	<1	0.14	4	780	10	0.11	<2	4	368
Target Range - Lower Bound		<10	<1	0.26	<10	0.91	882	<1	0.11	<1	720	6	0.08	<2	2	348
Upper Bound		20	2	0.33	20	1.05	995	2	0.17	6	830	15	0.14	4	6	388
226855		10	1	0.64	<10	3.31	1050	30	0.03	16	740	8	4.64	<2	19	210
DUP		10	1	0.65	<10	3.26	1045	32	0.03	16	720	10	4.64	<2	20	215
Target Range - Lower Bound		<10	<1	0.59	<10	3.10	985	27	<0.01	13	670	5	4.39	<2	17	200
Upper Bound		20	2	0.70	20	3.47	1110	35	0.05	19	790	13	4.89	4	22	225
226875		<10	<1	0.04	<10	0.04	25	<1	0.12	2	510	93	2.47	<2	<1	3
DUP		<10	<1	0.04	<10	0.04	27	<1	0.12	2	510	97	2.56	<2	<1	3
Target Range - Lower Bound		<10	<1	0.02	<10	0.02	15	<1	0.09	<1	460	86	2.37	<2	<1	<1
Upper Bound		20	2	0.06	20	0.06	37	2	0.15	4	560	104	2.66	4	2	5

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QC CERTIFICATE OF ANALYSIS VA06080452

Sample Description / Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
DUPLICATES						
226845	0.13	<10	<10	35	<10	158
DUP	0.14	<10	<10	36	<10	162
Target Range - Lower Bound	0.11	<10	<10	32	<10	148
Upper Bound	0.16	20	20	39	20	172
226656						
DUP						
Target Range - Lower Bound						
Upper Bound						
226660						
DUP						
Target Range - Lower Bound						
Upper Bound						
226665	0.02	<10	<10	67	<10	116
DUP	0.02	<10	<10	67	<10	116
Target Range - Lower Bound	<0.01	<10	<10	62	<10	106
Upper Bound	0.04	20	20	72	20	126
226855	0.20	<10	<10	169	<10	188
DUP	0.21	<10	<10	170	<10	186
Target Range - Lower Bound	0.17	<10	<10	159	<10	174
Upper Bound	0.24	20	20	180	20	200
226875	<0.01	<10	<10	1	<10	20
DUP	<0.01	<10	<10	1	<10	23
Target Range - Lower Bound	<0.01	<10	<10	<1	<10	16
Upper Bound	0.02	20	20	2	20	27

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Finalized Date: 11-SEP-2006
This copy reported on 23-FEB-2007
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QC CERTIFICATE VA06080453

Project: 4012
P.O. No.:
This report is for 25 Crushed Rock samples submitted to our lab in Vancouver, BC, Canada on 11-AUG-2006.

The following have access to data associated with this certificate:

CARL EDMUNDS R KONST	B. KAY RON KONST	BRIAN KAY

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
PUL-31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au-AA23	Au 30g FA-AA finish	AAS
Cu-AA49	Assay Cu - HBr Digestion	AAS
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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Project: 4012

QC CERTIFICATE OF ANALYSIS VA06080453

Sample Description	Method	Au-AA23	Cu-AA49	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Au	Cu	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	0.005	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
STANDARDS																
BM-9/A				14.9	0.90	25	<10	90	0.8	106	0.16	23.6	95	192	5410	3.43
Target Range - Lower Bound				12.2	0.80	20	<10	70	<0.5	100	0.13	23.2	88	176	4890	3.28
Upper Bound				15.4	1.00	28	20	110	1.0	127	0.19	29.5	110	217	5980	4.04
CU-108			0.648													
Target Range - Lower Bound			0.627													
Upper Bound			0.695													
G2000				3.6	2.03	474	10	890	1.0	2	0.52	6.0	22	72	315	3.82
Target Range - Lower Bound				3.0	1.66	434	<10	720	<0.5	<2	0.46	6.0	21	63	272	3.41
Upper Bound				4.1	2.06	534	20	1000	1.0	4	0.58	8.4	27	79	334	4.19
GBM398-4c			0.374													
GBM398-4c			0.374													
Target Range - Lower Bound			0.369													
Upper Bound			0.410													
ME89-2			0.228													
Target Range - Lower Bound			0.218													
Upper Bound			0.243													
OxG46		0.997														
Target Range - Lower Bound		0.959														
Upper Bound		1.115														
ST-259		2.35														
Target Range - Lower Bound		2.30														
Upper Bound		2.66														
BLANKS																
BLANK				<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
BLANK			<0.001													
BLANK			<0.001													
BLANK		<0.005														
Target Range - Lower Bound		<0.005	<0.001	<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
Upper Bound		0.010	0.002	0.4	0.02	4	20	20	1.0	4	0.02	1.0	2	2	2	0.02

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QC CERTIFICATE OF ANALYSIS VA06080453

Sample Description / Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
STANDARDS															
BM-9/A	<10	1	0.02	10	0.42	597	3	0.42	341	80	6010	1.34	7	8	73
Target Range - Lower Bound	<10	<1	<0.01	<10	0.37	561	3	0.37	329	70	5980	1.27	3	6	67
Upper Bound	20	2	0.03	20	0.47	697	5	0.47	404	100	7310	1.57	9	10	84
CU-108															
Target Range - Lower Bound															
Upper Bound															
G2000	10	2	0.45	20	0.70	550	5	0.04	267	920	627	0.26	25	7	71
Target Range - Lower Bound	<10	<1	0.37	<10	0.60	506	4	0.02	246	840	601	0.23	19	5	60
Upper Bound	20	2	0.47	40	0.76	630	8	0.04	302	1050	739	0.31	31	9	76
GBM398-4c															
GBM398-4c															
Target Range - Lower Bound															
Upper Bound															
ME89-2															
Target Range - Lower Bound															
Upper Bound															
OxG46															
Target Range - Lower Bound															
Upper Bound															
ST-259															
Target Range - Lower Bound															
Upper Bound															
BLANKS															
BLANK	<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
BLANK															
BLANK															
BLANK															
Target Range - Lower Bound	<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
Upper Bound	20	2	0.02	20	0.02	10	2	0.02	2	20	4	0.02	4	2	2

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QC CERTIFICATE OF ANALYSIS VA06080453

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
STANDARDS							
BM-9/A		0.01	<10	<10	15	<10	7370
Target Range - Lower Bound		<0.01	<10	<10	12	<10	7350
Upper Bound		0.02	20	20	17	20	8990
CU-108							
Target Range - Lower Bound							
Upper Bound							
G2000		0.06	<10	<10	69	10	1240
Target Range - Lower Bound		0.04	<10	<10	59	<10	1145
Upper Bound		0.07	20	20	74	20	1400
GBM398-4c							
GBM398-4c							
Target Range - Lower Bound							
Upper Bound							
ME89-2							
Target Range - Lower Bound							
Upper Bound							
OxG46							
Target Range - Lower Bound							
Upper Bound							
ST-259							
Target Range - Lower Bound							
Upper Bound							
BLANKS							
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK							
BLANK							
BLANK							
Target Range - Lower Bound		<0.01	<10	<10	<1	<10	<2
Upper Bound		0.02	20	20	2	20	4

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QC CERTIFICATE OF ANALYSIS VA06080453

Sample Description	Method / Analyte / Units / LOR	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1	ME-ICP41 Fe % 0.01
DUPLICATES																
226656			0.019													
DUP			0.020													
Target Range - Lower Bound			0.017													
Upper Bound			0.022													
226660		0.011														
DUP		0.014														
Target Range - Lower Bound		<0.005														
Upper Bound		0.023														
226855		0.704		3.4	3.54	7	<10	40	0.5	<2	5.09	<0.5	18	79	4340	6.11
DUP		0.661		3.4	3.56	8	<10	40	0.5	3	5.37	<0.5	19	79	4370	6.07
Target Range - Lower Bound		0.638		2.8	3.35	3	<10	20	<0.5	<2	4.95	<0.5	16	73	4140	5.77
Upper Bound		0.727		4.0	3.75	12	20	60	1.0	4	5.51	1.0	21	85	4570	6.41
226867			0.207													
DUP			0.212													
Target Range - Lower Bound			0.202													
Upper Bound			0.217													
226875		0.763		0.6	0.21	4	10	30	<0.5	2	0.16	<0.5	1	4	11	2.66
DUP				0.5	0.21	5	10	30	<0.5	2	0.16	<0.5	1	4	14	2.82
Target Range - Lower Bound				<0.2	0.18	<2	<10	<10	<0.5	<2	0.13	<0.5	<1	2	10	2.58
Upper Bound				1.0	0.24	9	20	50	1.0	4	0.19	1.0	2	6	15	2.90

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QC CERTIFICATE OF ANALYSIS VA06080453

Sample Description / Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
DUPLICATES															
226656															
DUP															
Target Range - Lower Bound															
Upper Bound															
226660															
DUP															
Target Range - Lower Bound															
Upper Bound															
226855	10	1	0.64	<10	3.31	1050	30	0.03	16	740	8	4.64	<2	19	210
DUP	10	1	0.65	<10	3.26	1045	32	0.03	16	720	10	4.64	<2	20	215
Target Range - Lower Bound	<10	<1	0.59	<10	3.10	985	27	<0.01	13	670	5	4.39	<2	17	200
Upper Bound	20	2	0.70	20	3.47	1110	35	0.05	19	790	13	4.89	4	22	225
226867															
DUP															
Target Range - Lower Bound															
Upper Bound															
226875	<10	<1	0.04	<10	0.04	25	<1	0.12	2	510	93	2.47	<2	<1	3
DUP	<10	<1	0.04	<10	0.04	27	<1	0.12	2	510	97	2.56	<2	<1	3
Target Range - Lower Bound	<10	<1	0.02	<10	0.02	15	<1	0.09	<1	460	86	2.37	<2	<1	<1
Upper Bound	20	2	0.06	20	0.06	37	2	0.15	4	560	104	2.66	4	2	5

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KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 11-SEP-2006
Account: PIL

Project: 4012

QC CERTIFICATE OF ANALYSIS VA06080453

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
DUPLICATES							
226656							
DUP							
Target Range - Lower Bound							
Upper Bound							
226660							
DUP							
Target Range - Lower Bound							
Upper Bound							
226855		0.20	<10	<10	169	<10	188
DUP		0.21	<10	<10	170	<10	186
Target Range - Lower Bound		0.17	<10	<10	159	<10	174
Upper Bound		0.24	20	20	180	20	200
226867							
DUP							
Target Range - Lower Bound							
Upper Bound							
226875		<0.01	<10	<10	1	<10	20
DUP		<0.01	<10	<10	1	<10	23
Target Range - Lower Bound		<0.01	<10	<10	<1	<10	16
Upper Bound		0.02	20	20	2	20	27

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Finalized Date: 11-SEP-2006
This copy reported on 23-FEB-2007
Account: PIL

QC CERTIFICATE VA06080454

Project: 4013
P.O. No.:
This report is for 26 Crushed Rock samples submitted to our lab in Vancouver, BC, Canada on 11-AUG-2006.

The following have access to data associated with this certificate:

CARL EDMUNDS R KONST	B. KAY RON KONST	BRIAN KAY

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
PUL-QC	Pulverizing QC Test
LOG-22	Sample login - Rcd w/o BarCode
PUL-31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au-AA23	Au 30g FA-AA finish	AAS
Cu-AA49	Assay Cu - HBr Digestion	AAS
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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Finalized Date: 11-SEP-2006
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Project: 4013

QC CERTIFICATE OF ANALYSIS VA06080454

Sample Description	Method	Au-AA23	Cu-AA49	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Au	Cu	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	0.005	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
STANDARDS																
BM-9/A				14.9	0.90	25	<10	90	0.8	106	0.16	23.6	95	192	5410	3.43
Target Range - Lower Bound				12.2	0.80	20	<10	70	<0.5	100	0.13	23.2	88	176	4890	3.28
Upper Bound				15.4	1.00	28	20	110	1.0	127	0.19	29.5	110	217	5980	4.04
G2000				3.6	2.03	474	10	890	1.0	2	0.52	6.0	22	72	315	3.82
Target Range - Lower Bound				3.0	1.66	434	<10	720	<0.5	<2	0.46	6.0	21	63	272	3.41
Upper Bound				4.1	2.06	534	20	1000	1.0	4	0.58	8.4	27	79	334	4.19
GBM398-4c			0.382													
GBM398-4c			0.374													
Target Range - Lower Bound			0.369													
Upper Bound			0.410													
GBM999-5				54.3	0.18	4	<10	50	<0.5	<2	0.05	<0.5	2	5	481	2.79
Target Range - Lower Bound				53.3	0.17	<2	<10	40	<0.5	<2	0.04	<0.5	2	4	436	2.56
Upper Bound				65.5	0.23	4	20	70	1.0	4	0.07	1.0	4	7	536	3.15
GEOMS-03				0.5	1.74	615	10	1110	1.1	<2	0.36	<0.5	10	72	128	4.06
Target Range - Lower Bound				<0.2	1.63	552	<10	890	<0.5	<2	0.30	<0.5	10	59	120	3.48
Upper Bound				0.7	2.01	679	20	1230	1.7	4	0.38	1.0	14	74	148	4.28
ME89-2			0.231													
ME89-2			0.228													
Target Range - Lower Bound			0.218													
Upper Bound			0.243													
OXD43		0.408														
Target Range - Lower Bound		0.368														
Upper Bound		0.434														
ST-327		7.21														
Target Range - Lower Bound		6.35														
Upper Bound		7.31														
BLANKS																
BLANK				<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
BLANK				<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
BLANK			<0.001													
BLANK			<0.001													
BLANK		<0.005														
Target Range - Lower Bound		<0.005	<0.001	<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
Upper Bound		0.010	0.002	0.4	0.02	4	20	20	1.0	4	0.02	1.0	2	2	2	0.02

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PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 11-SEP-2006
Account: PIL

Project: 4013

QC CERTIFICATE OF ANALYSIS VA06080454

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
STANDARDS																
BM-9/A		<10	1	0.02	10	0.42	597	3	0.42	341	80	6010	1.34	7	8	73
Target Range - Lower Bound		<10	<1	<0.01	<10	0.37	561	3	0.37	329	70	5980	1.27	3	6	67
Upper Bound		20	2	0.03	20	0.47	697	5	0.47	404	100	7310	1.57	9	10	84
G2000		10	2	0.45	20	0.70	550	5	0.04	267	920	627	0.26	25	7	71
Target Range - Lower Bound		<10	<1	0.37	<10	0.60	506	4	0.02	246	840	601	0.23	19	5	60
Upper Bound		20	2	0.47	40	0.76	630	8	0.04	302	1050	739	0.31	31	9	76
GBM398-4c																
GBM398-4c																
Target Range - Lower Bound																
Upper Bound																
GBM999-5		<10	<1	0.05	10	0.02	59	3	0.01	3	40	470	0.27	5	1	4
Target Range - Lower Bound		<10	<1	0.04	<10	<0.01	49	2	<0.01	2	20	452	0.26	<2	<1	2
Upper Bound		20	2	0.07	20	0.03	71	5	0.03	5	50	556	0.34	8	2	5
GEOMS-03		10	1	0.35	20	0.43	509	3	0.02	51	1030	5	0.02	14	9	108
Target Range - Lower Bound		<10	<1	0.29	<10	0.39	483	2	<0.01	47	880	4	0.02	7	7	92
Upper Bound		20	2	0.37	40	0.49	601	5	0.03	60	1100	9	0.04	14	11	115
ME89-2																
ME89-2																
Target Range - Lower Bound																
Upper Bound																
OXD43																
Target Range - Lower Bound																
Upper Bound																
ST-327																
Target Range - Lower Bound																
Upper Bound																
BLANKS																
BLANK		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
BLANK		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
BLANK																
BLANK																
BLANK																
Target Range - Lower Bound		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
Upper Bound		20	2	0.02	20	0.02	10	2	0.02	2	20	4	0.02	4	2	2

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SMITHERS BC V0J 2N0

Finalized Date: 11-SEP-2006
Account: PIL

Project: 4013

QC CERTIFICATE OF ANALYSIS VA06080454

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
STANDARDS							
BM-9/A		0.01	<10	<10	15	<10	7370
Target Range - Lower Bound		<0.01	<10	<10	12	<10	7350
Upper Bound		0.02	20	20	17	20	8990
G2000		0.06	<10	<10	69	10	1240
Target Range - Lower Bound		0.04	<10	<10	59	<10	1145
Upper Bound		0.07	20	20	74	20	1400
GBM398-4c							
GBM398-4c							
Target Range - Lower Bound							
Upper Bound							
GBM999-5		<0.01	<10	<10	5	<10	109
Target Range - Lower Bound		<0.01	<10	<10	4	<10	97
Upper Bound		0.02	20	20	7	20	123
GEOMS-03		0.04	<10	<10	72	10	45
Target Range - Lower Bound		0.03	<10	<10	59	<10	40
Upper Bound		0.05	20	20	75	20	54
ME89-2							
ME89-2							
Target Range - Lower Bound							
Upper Bound							
OXD43							
Target Range - Lower Bound							
Upper Bound							
ST-327							
Target Range - Lower Bound							
Upper Bound							
BLANKS							
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK							
BLANK							
BLANK							
Target Range - Lower Bound		<0.01	<10	<10	<1	<10	<2
Upper Bound		0.02	20	20	2	20	4

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Finalized Date: 11-SEP-2006
Account: PIL

Project: 4013

QC CERTIFICATE OF ANALYSIS VA06080454

Sample Description	Method / Analyte / Units / LOR	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1	ME-ICP41 Fe % 0.01
DUPLICATES																
226855				3.4	3.54	7	<10	40	0.5	<2	5.09	<0.5	18	79	4340	6.11
DUP				3.4	3.56	8	<10	40	0.5	3	5.37	<0.5	19	79	4370	6.07
Target Range - Lower Bound				2.8	3.35	3	<10	20	<0.5	<2	4.95	<0.5	16	73	4140	5.77
Upper Bound				4.0	3.75	12	20	60	1.0	4	5.51	1.0	21	85	4570	6.41
226867			0.207													
DUP			0.212													
Target Range - Lower Bound			0.202													
Upper Bound			0.217													
226875				0.6	0.21	4	10	30	<0.5	2	0.16	<0.5	1	4	11	2.66
DUP				0.5	0.21	5	10	30	<0.5	2	0.16	<0.5	1	4	14	2.82
Target Range - Lower Bound				<0.2	0.18	<2	<10	<10	<0.5	<2	0.13	<0.5	<1	2	10	2.58
Upper Bound				1.0	0.24	9	20	50	1.0	4	0.19	1.0	2	6	15	2.90
229933		<0.005														
DUP		<0.005														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														
229943				0.2	1.96	25	10	90	<0.5	<2	1.65	0.8	7	8	25	2.96
DUP				0.2	1.92	24	10	90	<0.5	<2	1.62	0.9	7	8	25	2.93
Target Range - Lower Bound				<0.2	1.82	19	<10	60	<0.5	<2	1.53	<0.5	5	6	22	2.78
Upper Bound				0.4	2.06	30	20	120	1.0	4	1.74	1.0	9	10	28	3.11
229953		<0.005														
DUP		<0.005														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														
229852			0.003													
DUP			0.003													
Target Range - Lower Bound			<0.001													
Upper Bound			0.005													
229859				<0.2	2.06	19	10	120	0.7	<2	1.76	<0.5	7	7	20	3.26
DUP				0.3	2.02	17	10	120	0.7	<2	1.72	<0.5	7	8	20	3.18
Target Range - Lower Bound				<0.2	1.92	13	<10	90	<0.5	<2	1.63	<0.5	5	5	17	3.04
Upper Bound				0.4	2.16	23	20	150	1.0	4	1.85	1.0	9	10	23	3.40

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Finalized Date: 11-SEP-2006
Account: PIL

Project: 4013

QC CERTIFICATE OF ANALYSIS VA06080454

Sample Description / Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
DUPLICATES															
226855	10	1	0.64	<10	3.31	1050	30	0.03	16	740	8	4.64	<2	19	210
DUP	10	1	0.65	<10	3.26	1045	32	0.03	16	720	10	4.64	<2	20	215
Target Range - Lower Bound	<10	<1	0.59	<10	3.10	985	27	<0.01	13	670	5	4.39	<2	17	200
Upper Bound	20	2	0.70	20	3.47	1110	35	0.05	19	790	13	4.89	4	22	225
226867															
DUP															
Target Range - Lower Bound															
Upper Bound															
226875	<10	<1	0.04	<10	0.04	25	<1	0.12	2	510	93	2.47	<2	<1	3
DUP	<10	<1	0.04	<10	0.04	27	<1	0.12	2	510	97	2.56	<2	<1	3
Target Range - Lower Bound	<10	<1	0.02	<10	0.02	15	<1	0.09	<1	460	86	2.37	<2	<1	<1
Upper Bound	20	2	0.06	20	0.06	37	2	0.15	4	560	104	2.66	4	2	5
229933															
DUP															
Target Range - Lower Bound															
Upper Bound															
229943	10	<1	0.17	10	0.99	634	1	0.09	3	890	7	0.01	<2	5	158
DUP	10	<1	0.17	10	0.98	624	1	0.09	3	880	6	0.01	<2	5	152
Target Range - Lower Bound	<10	<1	0.14	<10	0.92	588	<1	0.07	<1	820	<2	<0.01	<2	3	145
Upper Bound	20	2	0.20	20	1.05	670	2	0.11	5	950	11	0.02	4	7	165
229953															
DUP															
Target Range - Lower Bound															
Upper Bound															
229852															
DUP															
Target Range - Lower Bound															
Upper Bound															
229859	10	<1	0.21	10	0.94	722	<1	0.12	2	930	3	<0.01	<2	6	90
DUP	10	<1	0.21	10	0.92	706	<1	0.12	2	920	2	<0.01	<2	6	88
Target Range - Lower Bound	<10	<1	0.18	<10	0.86	668	<1	0.09	<1	860	<2	<0.01	<2	4	83
Upper Bound	20	2	0.24	20	1.00	760	2	0.15	4	990	4	0.02	4	8	95

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Project: 4013

QC CERTIFICATE OF ANALYSIS VA06080454

Sample Description / Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
DUPLICATES						
226855	0.20	<10	<10	169	<10	188
DUP	0.21	<10	<10	170	<10	186
Target Range - Lower Bound	0.17	<10	<10	159	<10	174
Upper Bound	0.24	20	20	180	20	200
226867						
DUP						
Target Range - Lower Bound						
Upper Bound						
226875	<0.01	<10	<10	1	<10	20
DUP	<0.01	<10	<10	1	<10	23
Target Range - Lower Bound	<0.01	<10	<10	<1	<10	16
Upper Bound	0.02	20	20	2	20	27
229933						
DUP						
Target Range - Lower Bound						
Upper Bound						
229943	0.20	<10	<10	65	<10	83
DUP	0.20	<10	<10	63	<10	82
Target Range - Lower Bound	0.17	<10	<10	59	<10	74
Upper Bound	0.23	20	20	69	20	91
229953						
DUP						
Target Range - Lower Bound						
Upper Bound						
229852						
DUP						
Target Range - Lower Bound						
Upper Bound						
229859	0.19	<10	<10	71	<10	70
DUP	0.19	<10	<10	68	<10	69
Target Range - Lower Bound	0.16	<10	<10	64	<10	62
Upper Bound	0.22	20	20	75	20	77

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Finalized Date: 11-SEP-2006
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Account: PIL

QC CERTIFICATE VA06080455

Project: 4013
P.O. No.:
This report is for 26 Crushed Rock samples submitted to our lab in Vancouver, BC, Canada on 11-AUG-2006.

The following have access to data associated with this certificate:

CARL EDMUNDS R KONST	B. KAY RON KONST	BRIAN KAY

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
PUL-31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au-AA23	Au 30g FA-AA finish	AAS
Cu-AA49	Assay Cu - HBr Digestion	AAS
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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To: NORTHGATE MINERALS CORPORATION
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 11-SEP-2006
Account: PIL

Project: 4013

QC CERTIFICATE OF ANALYSIS VA06080455

Sample Description	Method	Au-AA23	Cu-AA49	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Au	Cu	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	0.005	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
STANDARDS																
BM-9/A				13.4	0.92	27	<10	110	0.9	113	0.17	26.3	97	212	5570	3.70
Target Range - Lower Bound				12.2	0.80	20	<10	70	<0.5	100	0.13	23.2	88	176	4890	3.28
Upper Bound				15.4	1.00	28	20	110	1.0	127	0.19	29.5	110	217	5980	4.04
G2000				3.2	2.10	473	10	960	1.0	<2	0.55	6.9	22	74	296	3.71
Target Range - Lower Bound				3.0	1.66	434	<10	720	<0.5	<2	0.46	6.0	21	63	272	3.41
Upper Bound				4.1	2.06	534	20	1000	1.0	4	0.58	8.4	27	79	334	4.19
GBM398-4c			0.382													
Target Range - Lower Bound			0.369													
Upper Bound			0.410													
GBM999-5				54.3	0.18	4	<10	50	<0.5	<2	0.05	<0.5	2	5	481	2.79
Target Range - Lower Bound				53.3	0.17	<2	<10	40	<0.5	<2	0.04	<0.5	2	4	436	2.56
Upper Bound				65.5	0.23	4	20	70	1.0	4	0.07	1.0	4	7	536	3.15
GEOMS-03				0.5	1.74	615	10	1110	1.1	<2	0.36	<0.5	10	72	128	4.06
Target Range - Lower Bound				<0.2	1.63	552	<10	890	<0.5	<2	0.30	<0.5	10	59	120	3.48
Upper Bound				0.7	2.01	679	20	1230	1.7	4	0.38	1.0	14	74	148	4.28
ME89-2			0.231													
Target Range - Lower Bound			0.218													
Upper Bound			0.243													
OXD43		0.408														
Target Range - Lower Bound		0.368														
Upper Bound		0.434														
ST-327		7.21														
Target Range - Lower Bound		6.35														
Upper Bound		7.31														
BLANKS																
BLANK				<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
BLANK				<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
BLANK			<0.001													
BLANK		<0.005														
Target Range - Lower Bound		<0.005	<0.001	<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
Upper Bound		0.010	0.002	0.4	0.02	4	20	20	1.0	4	0.02	1.0	2	2	2	0.02

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North Vancouver BC V7J 2C1
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To: NORTHGATE MINERALS CORPORATION
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 11-SEP-2006
Account: PIL

Project: 4013

QC CERTIFICATE OF ANALYSIS VA06080455

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
STANDARDS																
BM-9/A		<10	<1	0.02	10	0.48	636	4	0.43	363	90	6420	1.50	7	9	78
Target Range - Lower Bound		<10	<1	<0.01	<10	0.37	561	3	0.37	329	70	5980	1.27	3	6	67
Upper Bound		20	2	0.03	20	0.47	697	5	0.47	404	100	7310	1.57	9	10	84
G2000		10	1	0.45	20	0.66	556	5	0.03	266	970	629	0.26	26	7	75
Target Range - Lower Bound		<10	<1	0.37	<10	0.60	506	4	0.02	246	840	601	0.23	19	5	60
Upper Bound		20	2	0.47	40	0.76	630	8	0.04	302	1050	739	0.31	31	9	76
GBM398-4c																
Target Range - Lower Bound																
Upper Bound																
GBM999-5		<10	<1	0.05	10	0.02	59	3	0.01	3	40	470	0.27	5	1	4
Target Range - Lower Bound		<10	<1	0.04	<10	<0.01	49	2	<0.01	2	20	452	0.26	<2	<1	2
Upper Bound		20	2	0.07	20	0.03	71	5	0.03	5	50	556	0.34	8	2	5
GEOMS-03		10	1	0.35	20	0.43	509	3	0.02	51	1030	5	0.02	14	9	108
Target Range - Lower Bound		<10	<1	0.29	<10	0.39	483	2	<0.01	47	880	4	0.02	7	7	92
Upper Bound		20	2	0.37	40	0.49	601	5	0.03	60	1100	9	0.04	14	11	115
ME89-2																
Target Range - Lower Bound																
Upper Bound																
OXD43																
Target Range - Lower Bound																
Upper Bound																
ST-327																
Target Range - Lower Bound																
Upper Bound																
BLANKS																
BLANK		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
BLANK		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
BLANK																
BLANK																
Target Range - Lower Bound		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
Upper Bound		20	2	0.02	20	0.02	10	2	0.02	2	20	4	0.02	4	2	2

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QC CERTIFICATE OF ANALYSIS VA06080455

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
STANDARDS							
BM-9/A		0.01	<10	<10	17	<10	8050
Target Range - Lower Bound		<0.01	<10	<10	12	<10	7350
Upper Bound		0.02	20	20	17	20	8990
G2000		0.06	<10	<10	72	10	1265
Target Range - Lower Bound		0.04	<10	<10	59	<10	1145
Upper Bound		0.07	20	20	74	20	1400
GBM398-4c							
Target Range - Lower Bound							
Upper Bound							
GBM999-5		<0.01	<10	<10	5	<10	109
Target Range - Lower Bound		<0.01	<10	<10	4	<10	97
Upper Bound		0.02	20	20	7	20	123
GEOMS-03		0.04	<10	<10	72	10	45
Target Range - Lower Bound		0.03	<10	<10	59	<10	40
Upper Bound		0.05	20	20	75	20	54
ME89-2							
Target Range - Lower Bound							
Upper Bound							
OXD43							
Target Range - Lower Bound							
Upper Bound							
ST-327							
Target Range - Lower Bound							
Upper Bound							
BLANKS							
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK							
BLANK							
Target Range - Lower Bound		<0.01	<10	<10	<1	<10	<2
Upper Bound		0.02	20	20	2	20	4

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QC CERTIFICATE OF ANALYSIS VA06080455

Sample Description	Method	Au-AA23	Cu-AA49	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Au	Cu	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	0.005	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
DUPLICATES																
229933		<0.005														
DUP		<0.005														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														
229943				0.2	1.96	25	10	90	<0.5	<2	1.65	0.8	7	8	25	2.96
DUP				0.2	1.92	24	10	90	<0.5	<2	1.62	0.9	7	8	25	2.93
Target Range - Lower Bound				<0.2	1.82	19	<10	60	<0.5	<2	1.53	<0.5	5	6	22	2.78
Upper Bound				0.4	2.06	30	20	120	1.0	4	1.74	1.0	9	10	28	3.11
229953		<0.005														
DUP		<0.005														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														
229852			0.003													
DUP			0.003													
Target Range - Lower Bound			<0.001													
Upper Bound			0.005													
229859				<0.2	2.06	19	10	120	0.7	<2	1.76	<0.5	7	7	20	3.26
DUP				0.3	2.02	17	10	120	0.7	<2	1.72	<0.5	7	8	20	3.18
Target Range - Lower Bound				<0.2	1.92	13	<10	90	<0.5	<2	1.63	<0.5	5	5	17	3.04
Upper Bound				0.4	2.16	23	20	150	1.0	4	1.85	1.0	9	10	23	3.40
229874				<0.2	1.86	17	20	130	0.6	<2	1.53	<0.5	7	7	11	3.24
DUP				<0.2	1.94	18	20	140	0.6	<2	1.57	<0.5	6	8	12	3.32
Target Range - Lower Bound				<0.2	1.79	13	<10	100	<0.5	<2	1.45	<0.5	4	5	9	3.10
Upper Bound				0.4	2.02	22	40	170	1.0	4	1.65	1.0	9	10	14	3.46

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Finalized Date: 11-SEP-2006
Account: PIL

Project: 4013

QC CERTIFICATE OF ANALYSIS VA06080455

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
		DUPLICATES														
229933																
DUP																
Target Range - Lower Bound																
Upper Bound																
229943		10	<1	0.17	10	0.99	634	1	0.09	3	890	7	0.01	<2	5	158
DUP		10	<1	0.17	10	0.98	624	1	0.09	3	880	6	0.01	<2	5	152
Target Range - Lower Bound		<10	<1	0.14	<10	0.92	588	<1	0.07	<1	820	<2	<0.01	<2	3	145
Upper Bound		20	2	0.20	20	1.05	670	2	0.11	5	950	11	0.02	4	7	165
229953																
DUP																
Target Range - Lower Bound																
Upper Bound																
229852																
DUP																
Target Range - Lower Bound																
Upper Bound																
229859		10	<1	0.21	10	0.94	722	<1	0.12	2	930	3	<0.01	<2	6	90
DUP		10	<1	0.21	10	0.92	706	<1	0.12	2	920	2	<0.01	<2	6	88
Target Range - Lower Bound		<10	<1	0.18	<10	0.86	668	<1	0.09	<1	860	<2	<0.01	<2	4	83
Upper Bound		20	2	0.24	20	1.00	760	2	0.15	4	990	4	0.02	4	8	95
229874		10	<1	0.24	10	0.89	701	<1	0.17	3	950	4	<0.01	<2	6	88
DUP		10	<1	0.26	10	0.91	716	<1	0.19	3	960	4	<0.01	<2	6	92
Target Range - Lower Bound		<10	<1	0.22	<10	0.84	663	<1	0.15	<1	890	<2	<0.01	<2	4	84
Upper Bound		20	2	0.28	20	0.97	754	2	0.21	5	1020	8	0.02	4	8	97

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KEMESS MINE
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Finalized Date: 11-SEP-2006
Account: PIL

Project: 4013

QC CERTIFICATE OF ANALYSIS VA06080455

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
		DUPLICATES					
229933							
DUP							
Target Range - Lower Bound							
Upper Bound							
229943		0.20	<10	<10	65	<10	83
DUP		0.20	<10	<10	63	<10	82
Target Range - Lower Bound		0.17	<10	<10	59	<10	74
Upper Bound		0.23	20	20	69	20	91
229953							
DUP							
Target Range - Lower Bound							
Upper Bound							
229852							
DUP							
Target Range - Lower Bound							
Upper Bound							
229859		0.19	<10	<10	71	<10	70
DUP		0.19	<10	<10	68	<10	69
Target Range - Lower Bound		0.16	<10	<10	64	<10	62
Upper Bound		0.22	20	20	75	20	77
229874		0.21	<10	<10	75	<10	70
DUP		0.21	<10	<10	77	<10	71
Target Range - Lower Bound		0.18	<10	<10	70	<10	63
Upper Bound		0.24	20	20	82	20	78

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KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 12-SEP-2006
This copy reported on 23-FEB-2007
Account: PIL

QC CERTIFICATE VA06081257

Project: 4013
P.O. No.:
This report is for 52 Crushed Rock samples submitted to our lab in Vancouver, BC, Canada on 15-AUG-2006.

The following have access to data associated with this certificate:

CARL EDMUNDS RON KONST	BRIAN KAY R KONST	B. KAY

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
PUL-31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au-AA23	Au 30g FA-AA finish	AAS
Cu-AA49	Assay Cu - HBr Digestion	AAS
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
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PO BOX 3519
SMITHERS BC V0J 2N0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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Finalized Date: 12-SEP-2006
Account: PIL

Project: 4013

QC CERTIFICATE OF ANALYSIS VA06081257

Sample Description	Method	Au-AA23	Cu-AA49	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Au	Cu	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	0.005	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
STANDARDS																
BM-9/A				14.1	0.89	26	<10	100	0.9	108	0.17	26.0	97	195	5410	3.43
Target Range - Lower Bound				12.2	0.80	20	<10	70	<0.5	100	0.13	23.2	88	176	4890	3.28
Upper Bound				15.4	1.00	28	20	110	1.0	127	0.19	29.5	110	217	5980	4.04
CU-108			0.665													
CU-108			0.638													
Target Range - Lower Bound			0.627													
Upper Bound			0.695													
G2000				3.2	1.98	494	10	970	1.0	<2	0.55	7.2	24	74	313	3.82
Target Range - Lower Bound				3.0	1.66	434	<10	720	<0.5	<2	0.46	6.0	21	63	272	3.41
Upper Bound				4.1	2.06	534	20	1000	1.0	4	0.58	8.4	27	79	334	4.19
GBM398-4c			0.382													
GBM398-4c			0.388													
GBM398-4c			0.382													
GBM398-4c			0.379													
Target Range - Lower Bound			0.369													
Upper Bound			0.410													
GBM999-5				57.0	0.19	3	<10	50	<0.5	<2	0.05	<0.5	3	5	489	2.73
Target Range - Lower Bound				53.3	0.17	<2	<10	40	<0.5	<2	0.04	<0.5	2	4	436	2.56
Upper Bound				65.5	0.23	4	20	70	1.0	4	0.07	1.0	4	7	536	3.15
GEOMS-03				0.5	1.81	636	<10	1130	1.1	<2	0.37	<0.5	10	73	136	4.07
Target Range - Lower Bound				<0.2	1.63	552	<10	890	<0.5	<2	0.30	<0.5	10	59	120	3.48
Upper Bound				0.7	2.01	679	20	1230	1.7	4	0.38	1.0	14	74	148	4.28
ME89-2			0.231													
ME89-2			0.231													
Target Range - Lower Bound			0.218													
Upper Bound			0.243													
OXD43		0.415														
Target Range - Lower Bound		0.368														
Upper Bound		0.434														
ST-327		7.30														
Target Range - Lower Bound		6.35														
Upper Bound		7.31														

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QC CERTIFICATE OF ANALYSIS VA06081257

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
STANDARDS																
BM-9/A		<10	1	0.02	10	0.42	635	3	0.41	354	90	6300	1.47	8	8	76
Target Range - Lower Bound		<10	<1	<0.01	<10	0.37	561	3	0.37	329	70	5980	1.27	3	6	67
Upper Bound		20	2	0.03	20	0.47	697	5	0.47	404	100	7310	1.57	9	10	84
CU-108																
CU-108																
Target Range - Lower Bound																
Upper Bound																
G2000		10	1	0.43	20	0.70	569	6	0.04	282	960	651	0.29	27	7	72
Target Range - Lower Bound		<10	<1	0.37	<10	0.60	506	4	0.02	246	840	601	0.23	19	5	60
Upper Bound		20	2	0.47	40	0.76	630	8	0.04	302	1050	739	0.31	31	9	76
GBM398-4c																
GBM398-4c																
GBM398-4c																
GBM398-4c																
Target Range - Lower Bound																
Upper Bound																
GBM999-5		<10	<1	0.05	10	0.02	60	3	0.02	4	40	480	0.29	4	1	4
Target Range - Lower Bound		<10	<1	0.04	<10	<0.01	49	2	<0.01	2	20	452	0.26	<2	<1	2
Upper Bound		20	2	0.07	20	0.03	71	5	0.03	5	50	556	0.34	8	2	5
GEOMS-03		10	1	0.35	20	0.45	536	3	0.03	52	1040	4	0.03	14	9	108
Target Range - Lower Bound		<10	<1	0.29	<10	0.39	483	2	<0.01	47	880	4	0.02	7	7	92
Upper Bound		20	2	0.37	40	0.49	601	5	0.03	60	1100	9	0.04	14	11	115
ME89-2																
ME89-2																
Target Range - Lower Bound																
Upper Bound																
OXD43																
Target Range - Lower Bound																
Upper Bound																
ST-327																
Target Range - Lower Bound																
Upper Bound																

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SMITHERS BC V0J 2N0

Finalized Date: 12-SEP-2006
Account: PIL

Project: 4013

QC CERTIFICATE OF ANALYSIS VA06081257

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
STANDARDS							
BM-9/A		0.01	<10	<10	15	<10	8070
Target Range - Lower Bound		<0.01	<10	<10	12	<10	7350
Upper Bound		0.02	20	20	17	20	8990
CU-108							
CU-108							
Target Range - Lower Bound							
Upper Bound							
G2000		0.06	<10	<10	70	<10	1305
Target Range - Lower Bound		0.04	<10	<10	59	<10	1145
Upper Bound		0.07	20	20	74	20	1400
GBM398-4c							
GBM398-4c							
GBM398-4c							
GBM398-4c							
Target Range - Lower Bound							
Upper Bound							
GBM999-5		<0.01	<10	<10	5	<10	107
Target Range - Lower Bound		<0.01	<10	<10	4	<10	97
Upper Bound		0.02	20	20	7	20	123
GEOMS-03		0.03	<10	<10	72	10	46
Target Range - Lower Bound		0.03	<10	<10	59	<10	40
Upper Bound		0.05	20	20	75	20	54
ME89-2							
ME89-2							
Target Range - Lower Bound							
Upper Bound							
OXD43							
Target Range - Lower Bound							
Upper Bound							
ST-327							
Target Range - Lower Bound							
Upper Bound							

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QC CERTIFICATE OF ANALYSIS VA06081257

Sample Description	Method	Au-AA23	Cu-AA49	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Au	Cu	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	0.005	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
BLANKS																
BLANK			<0.001													
BLANK			<0.001													
BLANK			<0.001													
BLANK				<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	1	<0.01
BLANK			<0.001													
BLANK				<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
BLANK		<0.005														
Target Range - Lower Bound		<0.005	<0.001	<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
Upper Bound		0.010	0.002	0.4	0.02	4	20	20	1.0	4	0.02	1.0	2	2	2	0.02
DUPLICATES																
229852			0.003													
DUP			0.003													
Target Range - Lower Bound			<0.001													
Upper Bound			0.005													
ORIGINAL		5.10														
DUP		5.09														
Target Range - Lower Bound		4.83														
Upper Bound		5.36														
225250				<0.2	1.73	21	10	120	0.6	<2	1.62	<0.5	7	13	10	3.14
DUP				<0.2	1.74	24	10	130	0.6	<2	1.63	<0.5	7	13	10	3.13
Target Range - Lower Bound				<0.2	1.63	17	<10	100	<0.5	<2	1.52	<0.5	5	10	8	2.96
Upper Bound				0.4	1.84	28	20	150	1.0	4	1.73	1.0	9	16	13	3.31
225254			0.001													
DUP			<0.001													
Target Range - Lower Bound			<0.001													
Upper Bound			0.002													
225258			0.002													
DUP			0.002													
Target Range - Lower Bound			<0.001													
Upper Bound			0.004													

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Finalized Date: 12-SEP-2006
Account: PIL

Project: 4013

QC CERTIFICATE OF ANALYSIS VA06081257

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
BLANKS																
BLANK																
BLANK																
BLANK																
BLANK		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	0.01	<2	<1	1
BLANK																
BLANK		<10	<1	<0.01	<10	<0.01	<5	1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
BLANK																
Target Range - Lower Bound		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
Upper Bound		20	2	0.02	20	0.02	10	2	0.02	2	20	4	0.02	4	2	2
DUPLICATES																
229852																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
225250		10	<1	0.21	10	0.79	681	1	0.14	4	940	3	<0.01	<2	5	83
DUP		10	<1	0.22	10	0.80	683	2	0.14	3	950	4	0.01	<2	5	85
Target Range - Lower Bound		<10	<1	0.18	<10	0.74	638	<1	0.11	<1	880	<2	<0.01	<2	3	78
Upper Bound		20	2	0.25	20	0.85	726	2	0.17	6	1010	4	0.02	4	7	90
225254																
DUP																
Target Range - Lower Bound																
Upper Bound																
225258																
DUP																
Target Range - Lower Bound																
Upper Bound																

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QC CERTIFICATE OF ANALYSIS VA06081257

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
BLANKS							
BLANK							
BLANK							
BLANK							
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK							
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK							
Target Range - Lower Bound		<0.01	<10	<10	<1	<10	<2
Upper Bound		0.02	20	20	2	20	4
DUPLICATES							
229852							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
225250		0.18	<10	<10	81	<10	57
DUP		0.18	<10	<10	81	<10	58
Target Range - Lower Bound		0.15	<10	<10	75	<10	51
Upper Bound		0.21	20	20	87	20	64
225254							
DUP							
Target Range - Lower Bound							
Upper Bound							
225258							
DUP							
Target Range - Lower Bound							
Upper Bound							

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QC CERTIFICATE OF ANALYSIS VA06081257

Sample Description	Method	Au-AA23	Cu-AA49	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Au	Cu	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	0.005	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
DUPLICATES																
225266		<0.005														
DUP		0.007														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														
225270				<0.2	2.14	15	<10	70	0.6	<2	1.88	<0.5	7	8	28	3.25
DUP				<0.2	2.18	16	<10	70	0.6	<2	1.93	<0.5	7	8	28	3.31
Target Range - Lower Bound				<0.2	2.03	11	<10	40	<0.5	<2	1.79	<0.5	5	6	25	3.10
Upper Bound				0.4	2.29	20	20	100	1.0	4	2.02	1.0	9	10	31	3.46
229967				<0.2	2.27	23	10	80	0.6	<2	2.05	<0.5	8	10	16	3.38
DUP				<0.2	2.25	24	10	80	0.6	<2	2.04	<0.5	9	11	17	3.38
Target Range - Lower Bound				<0.2	2.13	18	<10	50	<0.5	<2	1.92	<0.5	6	8	14	3.19
Upper Bound				0.4	2.39	29	20	110	1.0	4	2.17	1.0	11	13	19	3.57
229968		<0.005														
DUP		<0.005														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														
229976			0.001													
DUP			0.001													
Target Range - Lower Bound			<0.001													
Upper Bound			0.002													
ORIGINAL				4.7	0.98	>10000	<10	240	0.9	9	7.79	284	2	26	1580	23.3
DUP				4.8	0.99	>10000	<10	240	0.9	9	7.67	283	1	26	1600	23.6
Target Range - Lower Bound				4.1	0.92	9500	<10	200	<0.5	5	7.32	268	<1	23	1510	22.3
Upper Bound				5.4	1.05	>10000	20	280	1.0	13	8.14	299	2	29	1670	24.6

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Finalized Date: 12-SEP-2006
Account: PIL

Project: 4013

QC CERTIFICATE OF ANALYSIS VA06081257

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
		DUPLICATES														
225266																
DUP																
Target Range - Lower Bound																
Upper Bound																
225270		10	<1	0.13	10	1.02	825	2	0.10	3	970	7	<0.01	<2	6	122
DUP		10	<1	0.13	10	1.04	841	1	0.10	3	970	6	0.01	<2	7	124
Target Range - Lower Bound		<10	<1	0.10	<10	0.96	781	<1	0.08	<1	900	<2	<0.01	<2	4	115
Upper Bound		20	2	0.16	20	1.10	885	2	0.13	5	1040	11	0.02	4	9	131
229967		10	<1	0.14	10	1.20	876	1	0.08	4	960	3	0.01	<2	5	148
DUP		10	1	0.15	10	1.20	874	1	0.09	4	980	4	0.01	<2	5	146
Target Range - Lower Bound		<10	<1	0.12	<10	1.12	821	<1	0.06	2	900	<2	<0.01	<2	3	138
Upper Bound		20	2	0.17	20	1.28	929	2	0.11	6	1040	4	0.02	4	7	156
229968																
DUP																
Target Range - Lower Bound																
Upper Bound																
229976																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL		<10	<1	0.06	30	4.41	4760	13	0.02	14	2330	418	0.02	1945	2	57
DUP		<10	1	0.06	30	4.40	4790	12	0.02	13	2340	419	0.02	1970	2	58
Target Range - Lower Bound		<10	<1	0.04	<10	4.16	4530	10	<0.01	11	2200	394	<0.01	1805	<1	53
Upper Bound		20	2	0.08	50	4.65	5020	15	0.04	16	2470	443	0.04	2110	4	62

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Finalized Date: 12-SEP-2006
Account: PIL

Project: 4013

QC CERTIFICATE OF ANALYSIS VA06081257

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
		DUPLICATES					
225266							
DUP							
Target Range - Lower Bound							
Upper Bound							
225270		0.19	<10	<10	84	<10	77
DUP		0.20	<10	<10	85	<10	78
Target Range - Lower Bound		0.17	<10	<10	78	<10	70
Upper Bound		0.22	20	20	91	20	85
229967		0.20	<10	<10	80	<10	90
DUP		0.21	<10	<10	81	<10	90
Target Range - Lower Bound		0.17	<10	<10	74	<10	82
Upper Bound		0.24	20	20	87	20	99
229968							
DUP							
Target Range - Lower Bound							
Upper Bound							
229976							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL		0.01	<10	10	52	20	>10000
DUP		0.01	<10	10	52	10	>10000
Target Range - Lower Bound		<0.01	<10	<10	47	<10	9500
Upper Bound		0.02	20	20	57	20	>10000

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Finalized Date: 18-SEP-2006
This copy reported on 23-FEB-2007
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QC CERTIFICATE VA06081258

Project: 4012
P.O. No.:
This report is for 52 Crushed Rock samples submitted to our lab in Vancouver, BC, Canada on 15-AUG-2006.

The following have access to data associated with this certificate:

CARL EDMUNDS RON KONST	BRIAN KAY R KONST	B. KAY

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
PUL-QC	Pulverizing QC Test
LOG-22	Sample login - Rcd w/o BarCode
PUL-31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Cu-OG46	Ore Grade Cu - Aqua Regia	VARIABLE
Au-AA23	Au 30g FA-AA finish	AAS
Cu-AA49	Assay Cu - HBr Digestion	AAS
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES
ME-OG46	Ore Grade Elements - AquaRegia	ICP-AES

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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Finalized Date: 18-SEP-2006
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Project: 4012

QC CERTIFICATE OF ANALYSIS VA06081258

Sample Description	Method / Analyte / Units / LOR	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1	ME-ICP41 Fe % 0.01
STANDARDS																
BM-9/A				14.2	0.92	23	<10	90	0.8	110	0.17	25.6	96	195	5410	3.39
Target Range - Lower Bound				12.2	0.80	20	<10	70	<0.5	100	0.13	23.2	88	176	4890	3.28
Upper Bound				15.4	1.00	28	20	110	1.0	127	0.19	29.5	110	217	5980	4.04
CU-108			0.680													
Target Range - Lower Bound			0.627													
Upper Bound			0.695													
G2000				3.6	1.91	474	10	940	1.0	2	0.53	7.0	22	70	307	3.66
Target Range - Lower Bound				3.0	1.66	434	<10	720	<0.5	<2	0.46	6.0	21	63	272	3.41
Upper Bound				4.1	2.06	534	20	1000	1.0	4	0.58	8.4	27	79	334	4.19
GBM302-10																
Target Range - Lower Bound																
Upper Bound																
GBM398-4c			0.382													
GBM398-4c			0.383													
Target Range - Lower Bound			0.369													
Upper Bound			0.410													
GBM900-10																
Target Range - Lower Bound																
Upper Bound																
GBM996-7C																
Target Range - Lower Bound																
Upper Bound																
GBM999-5				58.7	0.20	2	<10	60	<0.5	<2	0.06	<0.5	3	5	522	2.79
Target Range - Lower Bound				53.3	0.17	<2	<10	40	<0.5	<2	0.04	<0.5	2	4	436	2.56
Upper Bound				65.5	0.23	4	20	70	1.0	4	0.07	1.0	4	7	536	3.15
GEOMS-03				0.4	1.84	620	<10	1110	1.1	<2	0.36	<0.5	10	72	133	3.92
Target Range - Lower Bound				<0.2	1.63	552	<10	890	<0.5	<2	0.30	<0.5	10	59	120	3.48
Upper Bound				0.7	2.01	679	20	1230	1.7	4	0.38	1.0	14	74	148	4.28
ME89-2			0.231													
Target Range - Lower Bound			0.218													
Upper Bound			0.243													
OxG46		1.050														
OxG46		1.080														
OxG46		1.020														
Target Range - Lower Bound		0.959														
Upper Bound		1.115														
ST-259		2.54														
ST-259		2.59														

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KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 18-SEP-2006
Account: PIL

Project: 4012

QC CERTIFICATE OF ANALYSIS VA06081258

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
STANDARDS																
BM-9/A		<10	1	0.02	10	0.42	603	4	0.41	351	80	6170	1.38	7	8	76
Target Range - Lower Bound		<10	<1	<0.01	<10	0.37	561	3	0.37	329	70	5980	1.27	3	6	67
Upper Bound		20	2	0.03	20	0.47	697	5	0.47	404	100	7310	1.57	9	10	84
CU-108																
Target Range - Lower Bound																
Upper Bound																
G2000		10	1	0.42	20	0.67	551	6	0.03	271	930	644	0.27	27	7	70
Target Range - Lower Bound		<10	<1	0.37	<10	0.60	506	4	0.02	246	840	601	0.23	19	5	60
Upper Bound		20	2	0.47	40	0.76	630	8	0.04	302	1050	739	0.31	31	9	76
GBM302-10																
Target Range - Lower Bound																
Upper Bound																
GBM398-4c																
GBM398-4c																
Target Range - Lower Bound																
Upper Bound																
GBM900-10																
Target Range - Lower Bound																
Upper Bound																
GBM996-7C																
Target Range - Lower Bound																
Upper Bound																
GBM999-5		<10	<1	0.05	10	0.02	60	4	0.02	2	40	495	0.30	4	1	5
Target Range - Lower Bound		<10	<1	0.04	<10	<0.01	49	2	<0.01	2	20	452	0.26	<2	<1	2
Upper Bound		20	2	0.07	20	0.03	71	5	0.03	5	50	556	0.34	8	2	5
GEOMS-03		10	1	0.34	20	0.44	516	3	0.02	50	1010	5	0.04	14	9	109
Target Range - Lower Bound		<10	<1	0.29	<10	0.39	483	2	<0.01	47	880	4	0.02	7	7	92
Upper Bound		20	2	0.37	40	0.49	601	5	0.03	60	1100	9	0.04	14	11	115
ME89-2																
Target Range - Lower Bound																
Upper Bound																
OxG46																
OxG46																
OxG46																
Target Range - Lower Bound																
Upper Bound																
ST-259																
ST-259																

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QC CERTIFICATE OF ANALYSIS VA06081258

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2	Cu-OG46 Cu % 0.01
STANDARDS								
BM-9/A		0.01	<10	<10	15	<10	7690	
Target Range - Lower Bound		<0.01	<10	<10	12	<10	7350	
Upper Bound		0.02	20	20	17	20	8990	
CU-108								
Target Range - Lower Bound								
Upper Bound								
G2000		0.05	<10	<10	68	<10	1255	
Target Range - Lower Bound		0.04	<10	<10	59	<10	1145	
Upper Bound		0.07	20	20	74	20	1400	
GBM302-10								0.45
Target Range - Lower Bound								0.40
Upper Bound								0.45
GBM398-4c								
GBM398-4c								
Target Range - Lower Bound								
Upper Bound								
GBM900-10								14.65
Target Range - Lower Bound								14.60
Upper Bound								15.70
GBM996-7C								2.32
Target Range - Lower Bound								2.26
Upper Bound								2.44
GBM999-5		<0.01	<10	<10	6	<10	114	
Target Range - Lower Bound		<0.01	<10	<10	4	<10	97	
Upper Bound		0.02	20	20	7	20	123	
GEOMS-03		0.03	<10	<10	71	10	45	
Target Range - Lower Bound		0.03	<10	<10	59	<10	40	
Upper Bound		0.05	20	20	75	20	54	
ME89-2								
Target Range - Lower Bound								
Upper Bound								
OxG46								
OxG46								
OxG46								
Target Range - Lower Bound								
Upper Bound								
ST-259								
ST-259								

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QC CERTIFICATE OF ANALYSIS VA06081258

Sample Description	Method / Analyte / Units / LOR	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1	ME-ICP41 Fe % 0.01
STANDARDS																
ST-259		2.60														
Target Range - Lower Bound		2.30														
Upper Bound		2.66														
BLANKS																
BLANK			<0.001													
BLANK			<0.001													
BLANK				<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
BLANK				<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
BLANK																
BLANK		<0.005														
BLANK		<0.005														
BLANK		<0.005														
Target Range - Lower Bound		<0.005	<0.001	<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
Upper Bound		0.010	0.002	0.4	0.02	4	20	20	1.0	4	0.02	1.0	2	2	2	0.02
DUPLICATES																
ORIGINAL		3.61														
DUP		3.54														
Target Range - Lower Bound		3.39														
Upper Bound		3.76														
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																

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Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
STANDARDS																
ST-259																
Target Range - Lower Bound																
Upper Bound																
BLANKS																
BLANK																
BLANK																
BLANK		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
BLANK		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
BLANK																
BLANK																
BLANK																
BLANK																
Target Range - Lower Bound		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
Upper Bound		20	2	0.02	20	0.02	10	2	0.02	2	20	4	0.02	4	2	2
DUPLICATES																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																

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Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2	Cu-OG46 Cu % 0.01
STANDARDS								
ST-259								
Target Range - Lower Bound								
Upper Bound								
BLANKS								
BLANK								
BLANK								
BLANK		<0.01	<10	<10	<1	<10	<2	
BLANK		<0.01	<10	<10	<1	<10	<2	
BLANK								<0.01
BLANK								
BLANK								
BLANK								
Target Range - Lower Bound		<0.01	<10	<10	<1	<10	<2	<0.01
Upper Bound		0.02	20	20	2	20	4	0.02
DUPLICATES								
ORIGINAL								
DUP								
Target Range - Lower Bound								
Upper Bound								
ORIGINAL								1.49
DUP								1.46
Target Range - Lower Bound								1.42
Upper Bound								1.53
ORIGINAL								2.62
DUP								2.48
Target Range - Lower Bound								2.47
Upper Bound								2.63

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Sample Description / Method / Analyte / Units / LOR	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1	ME-ICP41 Fe % 0.01
DUPLICATES															
229976		0.001													
DUP		0.001													
Target Range - Lower Bound		<0.001													
Upper Bound		0.002													
226885	0.537														
DUP	0.409														
Target Range - Lower Bound	0.439														
Upper Bound	0.507														
226889			1.8	1.35	7	<10	40	<0.5	2	2.22	0.9	23	5	3120	11.00
DUP			1.7	1.31	8	<10	50	<0.5	<2	2.22	0.8	23	4	3050	10.80
Target Range - Lower Bound			1.3	1.24	3	<10	20	<0.5	<2	2.09	<0.5	20	2	2930	10.35
Upper Bound			2.2	1.42	12	20	70	1.0	4	2.35	1.0	26	7	3240	11.45
226904			1.7	1.56	5	<10	70	<0.5	<2	2.56	<0.5	8	3	1530	6.88
DUP			1.8	1.64	6	<10	50	<0.5	2	2.64	<0.5	8	3	1530	7.02
Target Range - Lower Bound			1.3	1.50	<2	<10	40	<0.5	<2	2.45	<0.5	6	<1	1450	6.58
Upper Bound			2.2	1.70	10	20	80	1.0	4	2.75	1.0	10	5	1610	7.32
226907		0.213													
DUP		0.208													
Target Range - Lower Bound		0.203													
Upper Bound		0.218													
226924			1.2	1.81	2	<10	150	<0.5	<2	2.75	0.6	9	5	1880	4.46
DUP			1.1	1.81	2	<10	150	<0.5	<2	2.64	0.6	9	5	1840	4.26
Target Range - Lower Bound			0.7	1.70	<2	<10	120	<0.5	<2	2.54	<0.5	7	3	1765	4.12
Upper Bound			1.6	1.92	4	20	180	1.0	4	2.85	1.0	11	7	1955	4.60
ORIGINAL	<0.005														
DUP	<0.005														
Target Range - Lower Bound	<0.005														
Upper Bound	0.010														
ORIGINAL	<0.005														
DUP	<0.005														
Target Range - Lower Bound	<0.005														
Upper Bound	0.010														

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QC CERTIFICATE OF ANALYSIS VA06081258

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
		DUPLICATES														
229976																
DUP																
Target Range - Lower Bound																
Upper Bound																
226885																
DUP																
Target Range - Lower Bound																
Upper Bound																
226889		10	<1	0.31	<10	0.63	476	258	0.02	6	330	8	8.78	<2	2	144
DUP		10	<1	0.31	<10	0.61	468	250	0.02	6	320	8	8.67	<2	2	140
Target Range - Lower Bound		<10	<1	0.27	<10	0.57	438	239	<0.01	4	290	4	8.27	<2	<1	133
Upper Bound		20	2	0.35	20	0.67	506	269	0.04	8	360	12	9.18	4	4	151
226904		<10	<1	0.43	<10	0.58	402	59	0.02	3	480	8	5.36	<2	2	150
DUP		10	<1	0.44	<10	0.60	414	61	0.02	3	490	9	5.51	<2	2	154
Target Range - Lower Bound		<10	<1	0.39	<10	0.54	378	55	<0.01	<1	440	4	5.14	<2	<1	142
Upper Bound		20	2	0.48	20	0.64	438	65	0.04	5	530	13	5.73	4	4	162
226907																
DUP																
Target Range - Lower Bound																
Upper Bound																
226924		10	1	0.45	<10	0.78	567	68	0.06	3	750	11	3.25	<2	2	136
DUP		<10	1	0.46	<10	0.75	546	64	0.05	2	710	10	3.12	<2	2	133
Target Range - Lower Bound		<10	<1	0.41	<10	0.71	519	61	0.03	<1	670	6	3.01	<2	<1	126
Upper Bound		20	2	0.50	20	0.82	594	71	0.08	5	790	15	3.36	4	4	143
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																

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QC CERTIFICATE OF ANALYSIS VA06081258

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2	Cu-OG46 Cu % 0.01
		DUPLICATES						
229976								
DUP								
Target Range - Lower Bound								
Upper Bound								
226885								
DUP								
Target Range - Lower Bound								
Upper Bound								
226889		0.02	<10	<10	62	<10	82	
DUP		0.02	<10	<10	61	<10	81	
Target Range - Lower Bound		<0.01	<10	<10	56	<10	73	
Upper Bound		0.04	20	20	67	20	90	
226904		0.05	<10	<10	36	<10	102	
DUP		0.05	<10	<10	37	<10	103	
Target Range - Lower Bound		0.03	<10	<10	33	<10	93	
Upper Bound		0.07	20	20	40	20	112	
226907								
DUP								
Target Range - Lower Bound								
Upper Bound								
226924		0.10	<10	<10	35	<10	105	
DUP		0.10	<10	<10	34	<10	102	
Target Range - Lower Bound		0.08	<10	<10	31	<10	94	
Upper Bound		0.13	20	20	38	20	113	
ORIGINAL								
DUP								
Target Range - Lower Bound								
Upper Bound								
ORIGINAL								
DUP								
Target Range - Lower Bound								
Upper Bound								

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Sample Description / Method / Analyte / Units / LOR	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1	ME-ICP41 Fe % 0.01
DUPLICATES															
ORIGINAL			<0.2	0.04	225	<10	10	<0.5	<2	>25.0	<0.5	4	1	1	0.50
DUP			<0.2	0.04	223	<10	10	<0.5	<2	>25.0	<0.5	4	1	1	0.51
Target Range - Lower Bound			<0.2	0.02	209	<10	<10	<0.5	<2	23.7	<0.5	2	<1	<1	0.46
Upper Bound			0.4	0.06	239	20	20	1.0	4	>25.0	1.0	6	2	2	0.55
ORIGINAL	0.370														
DUP	0.357														
Target Range - Lower Bound	0.335														
Upper Bound	0.392														
ORIGINAL	0.154														
DUP	0.135														
Target Range - Lower Bound	0.127														
Upper Bound	0.162														

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Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
DUPLICATES																
ORIGINAL		<10	<1	0.02	<10	0.24	506	<1	0.01	4	90	5	<0.50	<2	1	290
DUP		<10	1	0.02	<10	0.24	504	<1	0.01	4	90	5	<0.50	<2	1	287
Target Range - Lower Bound		<10	<1	<0.01	<10	0.21	470	<1	<0.01	2	70	<2	0.46	<2	<1	272
Upper Bound		20	2	0.04	20	0.27	540	2	0.02	6	110	9	0.55	4	2	305
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																

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Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2	Cu-OG46 Cu % 0.01
		DUPLICATES						
ORIGINAL		<0.01	<10	<10	1	<10	<2	
DUP		<0.01	<10	<10	1	<10	<2	
Target Range - Lower Bound		<0.01	<10	<10	<1	<10	<2	
Upper Bound		0.02	20	20	2	20	4	
ORIGINAL								
DUP								
Target Range - Lower Bound								
Upper Bound								
ORIGINAL								
DUP								
Target Range - Lower Bound								
Upper Bound								

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KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 28-SEP-2006
This copy reported on 23-FEB-2007
Account: PIL

QC CERTIFICATE VA06083115

Project: 4012
P.O. No.:
This report is for 48 Crushed Rock samples submitted to our lab in Vancouver, BC, Canada on 17-AUG-2006.

The following have access to data associated with this certificate:

CARL EDMUNDS R KONST	B. KAY RON KONST	BRIAN KAY

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
PUL-31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES
Au-AA23	Au 30g FA-AA finish	AAS
Cu-AA49	Assay Cu - HBr Digestion	AAS

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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Project: 4012

QC CERTIFICATE OF ANALYSIS VA06083115

Sample Description	Method	Au-AA23	Cu-AA49	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Au	Cu	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	0.005	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
STANDARDS																
BM-9/A				13.9	0.82	18	<10	90	0.8	110	0.16	25.7	96	194	5490	3.48
Target Range - Lower Bound				12.2	0.80	20	<10	70	<0.5	100	0.13	23.2	88	176	4890	3.28
Upper Bound				15.4	1.00	28	20	110	1.0	127	0.19	29.5	110	217	5980	4.04
CU-108			0.634													
Target Range - Lower Bound			0.627													
Upper Bound			0.695													
G2000				3.5	1.92	498	<10	920	1.0	<2	0.50	7.2	24	71	310	3.83
G2000				3.3	1.74	466	<10	840	0.9	2	0.48	6.7	22	65	293	3.63
Target Range - Lower Bound				3.0	1.66	434	<10	720	<0.5	<2	0.46	6.0	21	63	272	3.41
Upper Bound				4.1	2.06	534	20	1000	1.0	4	0.58	8.4	27	79	334	4.19
GBM398-4c			0.384													
GBM398-4c			0.384													
GBM398-4c			0.383													
Target Range - Lower Bound			0.369													
Upper Bound			0.410													
GBM999-5				59.9	0.20	<2	<10	50	<0.5	<2	0.06	<0.5	3	5	501	2.91
Target Range - Lower Bound				53.3	0.17	<2	<10	40	<0.5	<2	0.04	<0.5	2	4	436	2.56
Upper Bound				65.5	0.23	4	20	70	1.0	4	0.07	1.0	4	7	536	3.15
ME89-2			0.241													
ME89-2			0.236													
Target Range - Lower Bound			0.218													
Upper Bound			0.243													
OXD43		0.416														
Target Range - Lower Bound		0.368														
Upper Bound		0.434														
OxG46		1.030														
OxG46		1.055														
Target Range - Lower Bound		0.959														
Upper Bound		1.115														
ST-259		2.44														
ST-259		2.41														
Target Range - Lower Bound		2.30														
Upper Bound		2.66														
ST-327		6.86														
Target Range - Lower Bound		6.35														
Upper Bound		7.31														

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QC CERTIFICATE OF ANALYSIS VA06083115

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
STANDARDS																
BM-9/A		<10	<1	0.02	10	0.40	614	3	0.37	366	90	6660	1.43	4	8	72
Target Range - Lower Bound		<10	<1	<0.01	<10	0.37	561	3	0.37	329	70	5980	1.27	3	6	67
Upper Bound		20	2	0.03	20	0.47	697	5	0.47	404	100	7310	1.57	9	10	84
CU-108																
Target Range - Lower Bound																
Upper Bound																
G2000		10	1	0.40	20	0.67	568	5	0.03	286	970	685	0.28	25	7	70
G2000		10	1	0.38	20	0.63	547	5	0.03	270	920	648	0.26	24	7	64
Target Range - Lower Bound		<10	<1	0.37	<10	0.60	506	4	0.02	246	840	601	0.23	19	5	60
Upper Bound		20	2	0.47	40	0.76	630	8	0.04	302	1050	739	0.31	31	9	76
GBM398-4c																
GBM398-4c																
GBM398-4c																
Target Range - Lower Bound																
Upper Bound																
GBM999-5		<10	<1	0.05	10	0.02	63	3	0.02	4	50	504	0.29	4	1	4
Target Range - Lower Bound		<10	<1	0.04	<10	<0.01	49	2	<0.01	2	20	452	0.26	<2	<1	2
Upper Bound		20	2	0.07	20	0.03	71	5	0.03	5	50	556	0.34	8	2	5
ME89-2																
ME89-2																
Target Range - Lower Bound																
Upper Bound																
OXD43																
Target Range - Lower Bound																
Upper Bound																
OxG46																
OxG46																
Target Range - Lower Bound																
Upper Bound																
ST-259																
ST-259																
Target Range - Lower Bound																
Upper Bound																
ST-327																
Target Range - Lower Bound																
Upper Bound																

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QC CERTIFICATE OF ANALYSIS VA06083115

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
STANDARDS							
BM-9/A		0.01	<10	<10	14	<10	8280
Target Range - Lower Bound		<0.01	<10	<10	12	<10	7350
Upper Bound		0.02	20	20	17	20	8990
CU-108							
Target Range - Lower Bound							
Upper Bound							
G2000		0.05	<10	<10	67	10	1310
G2000		0.05	<10	<10	63	<10	1210
Target Range - Lower Bound		0.04	<10	<10	59	<10	1145
Upper Bound		0.07	20	20	74	20	1400
GBM398-4c							
GBM398-4c							
GBM398-4c							
Target Range - Lower Bound							
Upper Bound							
GBM999-5		<0.01	<10	<10	5	<10	125
Target Range - Lower Bound		<0.01	<10	<10	4	<10	97
Upper Bound		0.02	20	20	7	20	123
ME89-2							
ME89-2							
Target Range - Lower Bound							
Upper Bound							
OXD43							
Target Range - Lower Bound							
Upper Bound							
OxG46							
OxG46							
Target Range - Lower Bound							
Upper Bound							
ST-259							
ST-259							
Target Range - Lower Bound							
Upper Bound							
ST-327							
Target Range - Lower Bound							
Upper Bound							

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QC CERTIFICATE OF ANALYSIS VA06083115

Sample Description	Method	Au-AA23	Cu-AA49	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Au	Cu	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	0.005	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
BLANKS																
BLANK			<0.001													
BLANK			<0.001													
BLANK			<0.001													
BLANK		<0.005														
BLANK		<0.005														
BLANK		<0.005														
BLANK				<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
BLANK				<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
Target Range - Lower Bound		<0.005	<0.001	<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
Upper Bound		0.010	0.002	0.4	0.02	4	20	20	1.0	4	0.02	1.0	2	2	2	0.02
DUPLICATES																
ORIGINAL		0.070														
DUP		0.055														
Target Range - Lower Bound		0.049														
Upper Bound		0.076														
ORIGINAL				0.9	4.40	12	<10	10	<0.5	12	0.27	<0.5	19	55	72	10.10
DUP				0.8	4.15	12	<10	10	<0.5	13	0.25	<0.5	16	49	65	9.43
Target Range - Lower Bound				0.4	4.04	7	<10	<10	<0.5	8	0.23	<0.5	15	47	63	9.26
Upper Bound				1.3	4.51	17	20	20	1.0	17	0.29	1.0	20	57	74	10.25
226937			<0.001													
DUP			0.001													
Target Range - Lower Bound			<0.001													
Upper Bound			0.002													
226945		<0.005														
DUP		<0.005														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														
226949				<0.2	2.36	<2	<10	240	<0.5	<2	1.48	<0.5	6	4	49	4.55
DUP				<0.2	2.23	<2	<10	230	<0.5	<2	1.46	<0.5	5	4	46	4.46
Target Range - Lower Bound				<0.2	2.16	<2	<10	200	<0.5	<2	1.38	<0.5	3	2	43	4.26
Upper Bound				0.4	2.43	4	20	270	1.0	4	1.56	1.0	8	6	52	4.75

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QC CERTIFICATE OF ANALYSIS VA06083115

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
BLANKS																
BLANK																
BLANK																
BLANK																
BLANK																
BLANK																
BLANK																
BLANK		<10	<1	<0.01	<10	<0.01	<5	1	0.01	<1	10	<2	<0.01	<2	<1	<1
BLANK		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
Target Range - Lower Bound		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
Upper Bound		20	2	0.02	20	0.02	10	2	0.02	2	20	4	0.02	4	2	2
DUPLICATES																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL		10	2	0.09	<10	3.47	989	4	0.02	20	400	27	0.31	3	21	16
DUP		10	<1	0.08	<10	3.24	921	4	0.02	18	360	27	0.28	<2	20	15
Target Range - Lower Bound		<10	<1	0.06	<10	3.17	897	2	<0.01	16	340	22	0.26	<2	17	13
Upper Bound		20	2	0.11	20	3.54	1015	6	0.04	22	420	32	0.33	4	24	18
226937																
DUP																
Target Range - Lower Bound																
Upper Bound																
226945																
DUP																
Target Range - Lower Bound																
Upper Bound																
226949		10	1	0.22	<10	0.83	728	<1	0.19	2	920	7	0.04	<2	5	189
DUP		10	2	0.20	<10	0.80	722	<1	0.17	2	850	8	0.04	<2	5	181
Target Range - Lower Bound		<10	<1	0.18	<10	0.75	679	<1	0.15	<1	820	3	0.02	<2	3	174
Upper Bound		20	2	0.24	20	0.88	771	2	0.21	4	950	12	0.06	4	7	196

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Project: 4012

QC CERTIFICATE OF ANALYSIS VA06083115

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
BLANKS							
BLANK							
BLANK							
BLANK							
BLANK							
BLANK							
BLANK							
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK		<0.01	<10	<10	<1	<10	<2
Target Range - Lower Bound		<0.01	<10	<10	<1	<10	<2
Upper Bound		0.02	20	20	2	20	4
DUPLICATES							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL		0.14	10	<10	192	<10	201
DUP		0.12	<10	<10	174	<10	181
Target Range - Lower Bound		0.10	<10	<10	172	<10	177
Upper Bound		0.16	20	20	194	20	205
226937							
DUP							
Target Range - Lower Bound							
Upper Bound							
226945							
DUP							
Target Range - Lower Bound							
Upper Bound							
226949		0.20	<10	<10	95	<10	61
DUP		0.19	<10	<10	90	<10	59
Target Range - Lower Bound		0.17	<10	<10	86	<10	53
Upper Bound		0.22	20	20	99	20	67

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QC CERTIFICATE OF ANALYSIS VA06083115

Sample Description	Method / Analyte / Units / LOR	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1	ME-ICP41 Fe % 0.01
DUPLICATES																
228004			0.144													
DUP			0.143													
Target Range - Lower Bound			0.138													
Upper Bound			0.149													
228015		0.071														
DUP		0.072														
Target Range - Lower Bound		0.058														
Upper Bound		0.085														
228023			0.007													
DUP			0.008													
Target Range - Lower Bound			0.005													
Upper Bound			0.010													
ORIGINAL		<0.005														
DUP		<0.005														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														
ORIGINAL		<0.005														
DUP		<0.005														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														
227638		<0.005														
DUP		0.009														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														
227658		<0.005														
DUP		<0.005														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														

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Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
		DUPLICATES														
228004	DUP															
	Target Range - Lower Bound															
	Upper Bound															
228015	DUP															
	Target Range - Lower Bound															
	Upper Bound															
228023	DUP															
	Target Range - Lower Bound															
	Upper Bound															
ORIGINAL	DUP															
	Target Range - Lower Bound															
	Upper Bound															
ORIGINAL	DUP															
	Target Range - Lower Bound															
	Upper Bound															
227638	DUP															
	Target Range - Lower Bound															
	Upper Bound															
227658	DUP															
	Target Range - Lower Bound															
	Upper Bound															

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Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
		DUPLICATES					
228004 DUP							
Target Range - Lower Bound							
Upper Bound							
228015 DUP							
Target Range - Lower Bound							
Upper Bound							
228023 DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL DUP							
Target Range - Lower Bound							
Upper Bound							
227638 DUP							
Target Range - Lower Bound							
Upper Bound							
227658 DUP							
Target Range - Lower Bound							
Upper Bound							

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Finalized Date: 28-SEP-2006
This copy reported on 23-FEB-2007
Account: PIL

QC CERTIFICATE VA06083116

Project: 4012
P.O. No.:
This report is for 50 Crushed Rock samples submitted to our lab in Vancouver, BC, Canada on 18-AUG-2006.

The following have access to data associated with this certificate:

CARL EDMUNDS R KONST	B. KAY RON KONST	BRIAN KAY

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
PUL-31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES
Au-AA23	Au 30g FA-AA finish	AAS
Cu-AA49	Assay Cu - HBr Digestion	AAS

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KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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212 Brooksbank Avenue
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Phone: 604 984 0221 Fax: 604 984 0218 www.alschemex.com

To: NORTHGATE MINERALS CORPORATION
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 28-SEP-2006
Account: PIL

Project: 4012

QC CERTIFICATE OF ANALYSIS VA06083116

Sample Description	Method	Au-AA23	Cu-AA49	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Au	Cu	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	0.005	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
STANDARDS																
BM-9/A				14.2	0.87	26	<10	90	0.8	110	0.17	26.2	97	198	5340	3.60
Target Range - Lower Bound				12.2	0.80	20	<10	70	<0.5	100	0.13	23.2	88	176	4890	3.28
Upper Bound				15.4	1.00	28	20	110	1.0	127	0.19	29.5	110	217	5980	4.04
CU-108			0.634													
Target Range - Lower Bound			0.627													
Upper Bound			0.695													
G2000				3.4	1.83	483	<10	870	0.9	<2	0.50	6.8	24	69	298	3.71
G2000				3.3	1.75	472	<10	850	0.9	<2	0.49	6.8	23	67	293	3.64
Target Range - Lower Bound				3.0	1.66	434	<10	720	<0.5	<2	0.46	6.0	21	63	272	3.41
Upper Bound				4.1	2.06	534	20	1000	1.0	4	0.58	8.4	27	79	334	4.19
GBM398-4c			0.384													
GBM398-4c			0.381													
Target Range - Lower Bound			0.369													
Upper Bound			0.410													
GBM999-5				61.4	0.19	4	<10	50	<0.5	<2	0.05	<0.5	3	5	473	2.81
Target Range - Lower Bound				53.3	0.17	<2	<10	40	<0.5	<2	0.04	<0.5	2	4	436	2.56
Upper Bound				65.5	0.23	4	20	70	1.0	4	0.07	1.0	4	7	536	3.15
ME89-2			0.235													
Target Range - Lower Bound			0.218													
Upper Bound			0.243													
OXD43		0.416														
Target Range - Lower Bound		0.368														
Upper Bound		0.434														
OxG46		1.090														
OxG46		1.080														
OxG46		1.035														
Target Range - Lower Bound		0.959														
Upper Bound		1.115														
ST-259		2.54														
ST-259		2.44														
ST-259		2.50														
Target Range - Lower Bound		2.30														
Upper Bound		2.66														
ST-327		6.86														
Target Range - Lower Bound		6.35														
Upper Bound		7.31														

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QC CERTIFICATE OF ANALYSIS VA06083116

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
STANDARDS																
BM-9/A		<10	<1	0.02	10	0.41	639	3	0.40	360	90	6750	1.41	6	8	75
Target Range - Lower Bound		<10	<1	<0.01	<10	0.37	561	3	0.37	329	70	5980	1.27	3	6	67
Upper Bound		20	2	0.03	20	0.47	697	5	0.47	404	100	7310	1.57	9	10	84
CU-108																
Target Range - Lower Bound																
Upper Bound																
G2000		10	1	0.41	20	0.65	554	5	0.03	274	910	654	0.28	25	7	68
G2000		10	<1	0.40	20	0.63	538	5	0.03	267	900	641	0.26	24	7	65
Target Range - Lower Bound		<10	<1	0.37	<10	0.60	506	4	0.02	246	840	601	0.23	19	5	60
Upper Bound		20	2	0.47	40	0.76	630	8	0.04	302	1050	739	0.31	31	9	76
GBM398-4c																
GBM398-4c																
Target Range - Lower Bound																
Upper Bound																
GBM999-5		<10	<1	0.05	10	0.02	61	4	0.01	4	40	495	0.29	5	1	4
Target Range - Lower Bound		<10	<1	0.04	<10	<0.01	49	2	<0.01	2	20	452	0.26	<2	<1	2
Upper Bound		20	2	0.07	20	0.03	71	5	0.03	5	50	556	0.34	8	2	5
ME89-2																
Target Range - Lower Bound																
Upper Bound																
OXD43																
Target Range - Lower Bound																
Upper Bound																
OxG46																
OxG46																
OxG46																
Target Range - Lower Bound																
Upper Bound																
ST-259																
ST-259																
ST-259																
Target Range - Lower Bound																
Upper Bound																
ST-327																
Target Range - Lower Bound																
Upper Bound																

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QC CERTIFICATE OF ANALYSIS VA06083116

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
STANDARDS							
BM-9/A		0.01	<10	<10	15	<10	8160
Target Range - Lower Bound		<0.01	<10	<10	12	<10	7350
Upper Bound		0.02	20	20	17	20	8990
CU-108							
Target Range - Lower Bound							
Upper Bound							
G2000		0.05	<10	<10	65	<10	1255
G2000		0.05	<10	<10	64	<10	1240
Target Range - Lower Bound		0.04	<10	<10	59	<10	1145
Upper Bound		0.07	20	20	74	20	1400
GBM398-4c							
GBM398-4c							
Target Range - Lower Bound							
Upper Bound							
GBM999-5		<0.01	<10	<10	5	<10	109
Target Range - Lower Bound		<0.01	<10	<10	4	<10	97
Upper Bound		0.02	20	20	7	20	123
ME89-2							
Target Range - Lower Bound							
Upper Bound							
OXD43							
Target Range - Lower Bound							
Upper Bound							
OxG46							
OxG46							
OxG46							
Target Range - Lower Bound							
Upper Bound							
ST-259							
ST-259							
ST-259							
Target Range - Lower Bound							
Upper Bound							
ST-327							
Target Range - Lower Bound							
Upper Bound							

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QC CERTIFICATE OF ANALYSIS VA06083116

Sample Description	Method / Analyte / Units / LOR	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1	ME-ICP41 Fe % 0.01
BLANKS																
BLANK			<0.001													
BLANK			<0.001													
BLANK		<0.005														
BLANK		<0.005														
BLANK		<0.005														
BLANK		<0.005														
BLANK				<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
BLANK				<0.2	<0.01	2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
Target Range - Lower Bound		<0.005	<0.001	<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
Upper Bound		0.010	0.002	0.4	0.02	4	20	20	1.0	4	0.02	1.0	2	2	2	0.02
DUPLICATES																
ORIGINAL		<0.005														
DUP		<0.005														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														
ORIGINAL		1.215														
DUP		1.220														
Target Range - Lower Bound		1.145														
Upper Bound		1.290														
ORIGINAL		0.007														
DUP		0.008														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														
ORIGINAL		<0.005														
DUP		<0.005														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														
ORIGINAL		0.043														
DUP		0.040														
Target Range - Lower Bound		0.029														
Upper Bound		0.054														

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Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
BLANKS																
BLANK																
BLANK																
BLANK																
BLANK																
BLANK																
BLANK																
BLANK		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
BLANK		<10	<1	<0.01	<10	<0.01	<5	1	<0.01	<1	<10	2	<0.01	<2	<1	1
Target Range - Lower Bound		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
Upper Bound		20	2	0.02	20	0.02	10	2	0.02	2	20	4	0.02	4	2	2
DUPLICATES																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																

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QC CERTIFICATE OF ANALYSIS VA06083116

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
BLANKS							
BLANK							
BLANK							
BLANK							
BLANK							
BLANK							
BLANK							
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK		<0.01	<10	<10	<1	<10	<2
Target Range - Lower Bound		<0.01	<10	<10	<1	<10	<2
Upper Bound		0.02	20	20	2	20	4
DUPLICATES							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							

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QC CERTIFICATE OF ANALYSIS VA06083116

Sample Description	Method	Au-AA23	Cu-AA49	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Au	Cu	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	0.005	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
DUPLICATES																
226945		<0.005														
DUP		<0.005														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														
228015		0.071														
DUP		0.072														
Target Range - Lower Bound		0.058														
Upper Bound		0.085														
228023			0.007													
DUP			0.008													
Target Range - Lower Bound			0.005													
Upper Bound			0.010													
226960				1.0	0.45	8	<10	10	<0.5	2	4.00	0.5	9	1	148	3.94
DUP				0.9	0.44	7	<10	20	<0.5	2	4.24	0.6	9	1	148	4.12
Target Range - Lower Bound				0.5	0.40	3	<10	<10	<0.5	<2	3.89	<0.5	7	<1	139	3.81
Upper Bound				1.4	0.49	12	20	20	1.0	4	4.35	1.0	11	2	157	4.25
226984			0.017													
DUP			0.017													
Target Range - Lower Bound			0.015													
Upper Bound			0.019													
226996				0.6	0.54	5	<10	20	<0.5	<2	2.98	1.4	8	1	688	4.78
DUP				0.7	0.55	<2	<10	20	<0.5	<2	2.97	1.4	7	2	676	4.69
Target Range - Lower Bound				<0.2	0.50	<2	<10	<10	<0.5	<2	2.81	<0.5	5	<1	646	4.48
Upper Bound				1.1	0.59	4	20	40	1.0	4	3.14	2.5	10	2	718	4.99
225284		<0.005														
DUP		<0.005														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														
229986		<0.005														
DUP		<0.005														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														

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QC CERTIFICATE OF ANALYSIS VA06083116

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
DUPLICATES																
226945																
DUP																
Target Range - Lower Bound																
Upper Bound																
228015																
DUP																
Target Range - Lower Bound																
Upper Bound																
228023																
DUP																
Target Range - Lower Bound																
Upper Bound																
226960		<10	<1	0.09	<10	0.01	7	<1	0.01	3	100	50	7.89	<2	1	248
DUP		<10	<1	0.09	<10	0.01	8	1	0.01	3	100	52	8.14	<2	1	253
Target Range - Lower Bound		<10	<1	0.07	<10	<0.01	<5	<1	<0.01	<1	80	44	7.59	<2	<1	236
Upper Bound		20	2	0.11	20	0.02	10	2	0.02	5	130	58	8.44	4	2	265
226984																
DUP																
Target Range - Lower Bound																
Upper Bound																
226996		<10	<1	0.12	<10	0.02	15	5	0.01	2	160	33	7.68	<2	1	205
DUP		<10	<1	0.12	<10	0.02	17	6	0.01	2	160	32	7.54	<2	1	201
Target Range - Lower Bound		<10	<1	0.09	<10	<0.01	<5	3	<0.01	<1	130	27	7.21	<2	<1	191
Upper Bound		20	2	0.15	20	0.04	27	8	0.02	4	190	38	8.01	4	2	215
225284																
DUP																
Target Range - Lower Bound																
Upper Bound																
229986																
DUP																
Target Range - Lower Bound																
Upper Bound																

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Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
		DUPLICATES					
226945	DUP						
	Target Range - Lower Bound						
	Upper Bound						
228015	DUP						
	Target Range - Lower Bound						
	Upper Bound						
228023	DUP						
	Target Range - Lower Bound						
	Upper Bound						
226960		<0.01	<10	<10	3	<10	19
	DUP	<0.01	<10	<10	3	<10	21
	Target Range - Lower Bound	<0.01	<10	<10	<1	<10	15
	Upper Bound	0.02	20	20	5	20	25
226984	DUP						
	Target Range - Lower Bound						
	Upper Bound						
226996		<0.01	<10	<10	5	<10	15
	DUP	<0.01	<10	<10	5	<10	15
	Target Range - Lower Bound	<0.01	<10	<10	3	<10	10
	Upper Bound	0.02	20	20	7	20	20
225284	DUP						
	Target Range - Lower Bound						
	Upper Bound						
229986	DUP						
	Target Range - Lower Bound						
	Upper Bound						

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Finalized Date: 20-SEP-2006
This copy reported on 23-FEB-2007
Account: PIL

QC CERTIFICATE VA06083117

Project: 4013
P.O. No.:
This report is for 52 Crushed Rock samples submitted to our lab in Vancouver, BC, Canada on 18-AUG-2006.

The following have access to data associated with this certificate:

CARL EDMUNDS RON KONST	BRIAN KAY R KONST	B. KAY

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
PUL-31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES
Au-AA23	Au 30g FA-AA finish	AAS
Cu-AA49	Assay Cu - HBr Digestion	AAS

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
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This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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QC CERTIFICATE OF ANALYSIS VA06083117

Sample Description	Method	Au-AA23	Cu-AA49	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Au	Cu	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	0.005	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
STANDARDS																
BM-9/A				12.9	0.87	20	<10	90	0.8	110	0.16	25.8	98	196	5440	3.58
Target Range - Lower Bound				12.2	0.80	20	<10	70	<0.5	100	0.13	23.2	88	176	4890	3.28
Upper Bound				15.4	1.00	28	20	110	1.0	127	0.19	29.5	110	217	5980	4.04
CU-108			0.667													
Target Range - Lower Bound			0.627													
Upper Bound			0.695													
G2000				3.4	1.90	477	<10	910	1.0	2	0.52	6.9	23	71	304	3.86
G2000				3.1	1.72	470	<10	860	0.9	<2	0.49	7.1	23	68	294	3.77
G2000				3.6	1.73	466	<10	870	0.9	2	0.50	7.1	23	69	298	3.79
Target Range - Lower Bound				3.0	1.66	434	<10	720	<0.5	<2	0.46	6.0	21	63	272	3.41
Upper Bound				4.1	2.06	534	20	1000	1.0	4	0.58	8.4	27	79	334	4.19
GBM398-4c			0.383													
GBM398-4c			0.392													
Target Range - Lower Bound			0.369													
Upper Bound			0.410													
GBM999-5				67.3	0.18	7	<10	50	<0.5	2	0.05	<0.5	3	4	471	2.74
Target Range - Lower Bound				53.3	0.17	<2	<10	40	<0.5	<2	0.04	<0.5	2	4	436	2.56
Upper Bound				65.5	0.23	4	20	70	1.0	4	0.07	1.0	4	7	536	3.15
ME89-2			0.232													
Target Range - Lower Bound			0.218													
Upper Bound			0.243													
OxG46		1.090														
Target Range - Lower Bound		0.959														
Upper Bound		1.115														
ST-259		2.54														
Target Range - Lower Bound		2.30														
Upper Bound		2.66														
BLANKS																
BLANK				<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
BLANK				<0.2	<0.01	4	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
BLANK				<0.2	<0.01	3	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
BLANK		<0.005														
BLANK			<0.001													
BLANK			<0.001													
Target Range - Lower Bound		<0.005	<0.001	<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
Upper Bound		0.010	0.002	0.4	0.02	4	20	20	1.0	4	0.02	1.0	2	2	2	0.02

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PO BOX 3519
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Finalized Date: 20-SEP-2006
Account: PIL

Project: 4013

QC CERTIFICATE OF ANALYSIS VA06083117

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
STANDARDS																
BM-9/A		<10	1	0.02	10	0.41	610	4	0.41	356	90	6510	1.46	7	8	75
Target Range - Lower Bound		<10	<1	<0.01	<10	0.37	561	3	0.37	329	70	5980	1.27	3	6	67
Upper Bound		20	2	0.03	20	0.47	697	5	0.47	404	100	7310	1.57	9	10	84
CU-108																
Target Range - Lower Bound																
Upper Bound																
G2000		10	<1	0.41	20	0.67	562	5	0.03	279	940	666	0.29	24	7	70
G2000		10	1	0.39	20	0.65	544	5	0.03	268	910	650	0.27	25	7	65
G2000		10	2	0.40	20	0.65	539	5	0.03	274	920	658	0.27	24	7	65
Target Range - Lower Bound		<10	<1	0.37	<10	0.60	506	4	0.02	246	840	601	0.23	19	5	60
Upper Bound		20	2	0.47	40	0.76	630	8	0.04	302	1050	739	0.31	31	9	76
GBM398-4c																
GBM398-4c																
Target Range - Lower Bound																
Upper Bound																
GBM999-5		<10	1	0.05	10	0.02	57	3	0.02	4	40	476	0.28	4	1	5
Target Range - Lower Bound		<10	<1	0.04	<10	<0.01	49	2	<0.01	2	20	452	0.26	<2	<1	2
Upper Bound		20	2	0.07	20	0.03	71	5	0.03	5	50	556	0.34	8	2	5
ME89-2																
Target Range - Lower Bound																
Upper Bound																
OxG46																
Target Range - Lower Bound																
Upper Bound																
ST-259																
Target Range - Lower Bound																
Upper Bound																
BLANKS																
BLANK		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	1
BLANK		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	1	<10	<2	<0.01	<2	<1	<1
BLANK		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
BLANK																
BLANK																
BLANK																
Target Range - Lower Bound		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
Upper Bound		20	2	0.02	20	0.02	10	2	0.02	2	20	4	0.02	4	2	2

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QC CERTIFICATE OF ANALYSIS VA06083117

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
STANDARDS							
BM-9/A		0.01	<10	<10	15	<10	8110
Target Range - Lower Bound		<0.01	<10	<10	12	<10	7350
Upper Bound		0.02	20	20	17	20	8990
CU-108							
Target Range - Lower Bound							
Upper Bound							
G2000		0.06	<10	<10	67	10	1300
G2000		0.05	<10	<10	64	<10	1260
G2000		0.05	<10	<10	64	10	1285
Target Range - Lower Bound		0.04	<10	<10	59	<10	1145
Upper Bound		0.07	20	20	74	20	1400
GBM398-4c							
GBM398-4c							
Target Range - Lower Bound							
Upper Bound							
GBM999-5		<0.01	<10	<10	5	<10	109
Target Range - Lower Bound		<0.01	<10	<10	4	<10	97
Upper Bound		0.02	20	20	7	20	123
ME89-2							
Target Range - Lower Bound							
Upper Bound							
OxG46							
Target Range - Lower Bound							
Upper Bound							
ST-259							
Target Range - Lower Bound							
Upper Bound							
BLANKS							
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK							
BLANK							
BLANK							
Target Range - Lower Bound		<0.01	<10	<10	<1	<10	<2
Upper Bound		0.02	20	20	2	20	4

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QC CERTIFICATE OF ANALYSIS VA06083117

Sample Description	Method / Analyte / Units / LOR	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1	ME-ICP41 Fe % 0.01
DUPLICATES																
225276			0.001													
DUP			0.002													
Target Range - Lower Bound			<0.001													
Upper Bound			0.002													
225284		<0.005														
DUP		<0.005														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														
225287				<0.2	2.16	19	<10	50	0.6	<2	2.08	<0.5	7	7	27	3.39
DUP				<0.2	2.11	9	<10	40	0.6	3	2.02	<0.5	8	7	26	3.35
Target Range - Lower Bound				<0.2	2.01	9	<10	20	<0.5	<2	1.93	<0.5	5	5	23	3.18
Upper Bound				0.4	2.26	19	20	70	1.0	4	2.17	1.0	10	9	30	3.56
229986		<0.005														
DUP		<0.005														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														
229994			0.002													
DUP			0.001													
Target Range - Lower Bound			<0.001													
Upper Bound			0.002													
225303				<0.2	2.28	10	<10	50	0.7	<2	2.11	<0.5	8	8	19	3.56
DUP				<0.2	2.19	12	<10	50	0.7	2	2.02	<0.5	7	7	18	3.46
Target Range - Lower Bound				<0.2	2.10	6	<10	30	<0.5	<2	1.94	<0.5	5	5	16	3.31
Upper Bound				0.4	2.37	16	20	70	1.0	4	2.19	1.0	10	10	21	3.71
ORIGINAL				<0.2	0.04	930	<10	<10	<0.5	<2	0.03	<0.5	21	14	13	0.61
DUP				<0.2	0.04	930	<10	<10	<0.5	<2	0.04	<0.5	20	16	13	0.64
Target Range - Lower Bound				<0.2	0.02	880	<10	<10	<0.5	<2	<0.01	<0.5	17	12	10	0.57
Upper Bound				0.4	0.06	981	20	20	1.0	4	0.06	1.0	24	18	16	0.68

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QC CERTIFICATE OF ANALYSIS VA06083117

Sample Description / Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
DUPLICATES															
225276 DUP															
Target Range - Lower Bound															
Upper Bound															
225284 DUP															
Target Range - Lower Bound															
Upper Bound															
225287	10	<1	0.07	10	1.11	756	1	0.05	3	960	5	0.02	<2	6	119
DUP	10	<1	0.07	10	1.09	743	1	0.05	3	950	3	0.02	<2	6	115
Target Range - Lower Bound	<10	<1	0.05	<10	1.03	702	<1	0.03	<1	890	<2	<0.01	<2	4	109
Upper Bound	20	2	0.09	20	1.18	797	2	0.07	5	1020	8	0.04	4	8	125
229986 DUP															
Target Range - Lower Bound															
Upper Bound															
229994 DUP															
Target Range - Lower Bound															
Upper Bound															
225303	10	<1	0.07	10	1.22	842	1	0.06	3	970	8	0.01	<2	7	135
DUP	10	<1	0.07	10	1.18	814	1	0.05	3	980	5	<0.01	2	7	129
Target Range - Lower Bound	<10	<1	0.05	<10	1.12	777	<1	0.03	<1	910	<2	<0.01	<2	5	123
Upper Bound	20	2	0.09	20	1.28	879	2	0.08	5	1040	11	0.02	4	9	141
ORIGINAL	<10	<1	<0.01	<10	0.02	31	<1	0.01	8	20	<2	0.05	<2	<1	1
DUP	<10	<1	<0.01	<10	0.02	33	1	0.01	7	20	<2	0.04	<2	<1	1
Target Range - Lower Bound	<10	<1	<0.01	<10	<0.01	20	<1	<0.01	5	<10	<2	0.02	<2	<1	<1
Upper Bound	20	2	0.02	20	0.04	44	2	0.02	10	40	4	0.07	4	2	2

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QC CERTIFICATE OF ANALYSIS VA06083117

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
		DUPLICATES					
225276							
DUP							
Target Range - Lower Bound							
Upper Bound							
225284							
DUP							
Target Range - Lower Bound							
Upper Bound							
225287		0.17	<10	<10	75	<10	71
DUP		0.15	10	<10	73	<10	71
Target Range - Lower Bound		0.13	<10	<10	68	<10	63
Upper Bound		0.19	20	20	80	20	79
229986							
DUP							
Target Range - Lower Bound							
Upper Bound							
229994							
DUP							
Target Range - Lower Bound							
Upper Bound							
225303		0.20	<10	<10	78	<10	80
DUP		0.18	<10	<10	76	<10	77
Target Range - Lower Bound		0.16	<10	<10	71	<10	71
Upper Bound		0.22	20	20	83	20	86
ORIGINAL		0.01	<10	<10	4	<10	<2
DUP		0.01	<10	<10	4	<10	<2
Target Range - Lower Bound		<0.01	<10	<10	2	<10	<2
Upper Bound		0.02	20	20	6	20	4

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Finalized Date: 21-SEP-2006
This copy reported on 23-FEB-2007
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QC CERTIFICATE VA06083118

Project: 4013
P.O. No.:
This report is for 52 Crushed Rock samples submitted to our lab in Vancouver, BC, Canada on 18-AUG-2006.

The following have access to data associated with this certificate:

CARL EDMUNDS RON KONST	BRIAN KAY R KONST	B. KAY

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
PUL-31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES
Au-AA23	Au 30g FA-AA finish	AAS
Cu-AA49	Assay Cu - HBr Digestion	AAS

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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QC CERTIFICATE OF ANALYSIS VA06083118

Sample Description	Method	Au-AA23	Cu-AA49	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Au	Cu	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	0.005	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
STANDARDS																
BM-9/A				12.9	0.87	20	<10	90	0.8	110	0.16	25.8	98	196	5440	3.58
Target Range - Lower Bound				12.2	0.80	20	<10	70	<0.5	100	0.13	23.2	88	176	4890	3.28
Upper Bound				15.4	1.00	28	20	110	1.0	127	0.19	29.5	110	217	5980	4.04
CU-108			0.667													
Target Range - Lower Bound			0.627													
Upper Bound			0.695													
G2000				3.6	1.73	466	<10	870	0.9	2	0.50	7.1	23	69	298	3.79
G2000				3.5	1.97	484	<10	950	1.0	2	0.48	7.4	25	70	307	3.73
Target Range - Lower Bound				3.0	1.66	434	<10	720	<0.5	<2	0.46	6.0	21	63	272	3.41
Upper Bound				4.1	2.06	534	20	1000	1.0	4	0.58	8.4	27	79	334	4.19
GBM398-4c			0.392													
GBM398-4c			0.390													
Target Range - Lower Bound			0.369													
Upper Bound			0.410													
GBM999-5				62.0	0.21	2	<10	60	<0.5	<2	0.05	<0.5	4	5	498	2.83
Target Range - Lower Bound				53.3	0.17	<2	<10	40	<0.5	<2	0.04	<0.5	2	4	436	2.56
Upper Bound				65.5	0.23	4	20	70	1.0	4	0.07	1.0	4	7	536	3.15
ME89-2			0.235													
Target Range - Lower Bound			0.218													
Upper Bound			0.243													
OXD43		0.401														
Target Range - Lower Bound		0.368														
Upper Bound		0.434														
OxG46		1.090														
Target Range - Lower Bound		0.959														
Upper Bound		1.115														
ST-259		2.54														
Target Range - Lower Bound		2.30														
Upper Bound		2.66														
ST-327		6.81														
Target Range - Lower Bound		6.35														
Upper Bound		7.31														

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QC CERTIFICATE OF ANALYSIS VA06083118

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
STANDARDS																
BM-9/A		<10	1	0.02	10	0.41	610	4	0.41	356	90	6510	1.46	7	8	75
Target Range - Lower Bound		<10	<1	<0.01	<10	0.37	561	3	0.37	329	70	5980	1.27	3	6	67
Upper Bound		20	2	0.03	20	0.47	697	5	0.47	404	100	7310	1.57	9	10	84
CU-108																
Target Range - Lower Bound																
Upper Bound																
G2000		10	2	0.40	20	0.65	539	5	0.03	274	920	658	0.27	24	7	65
G2000		10	1	0.41	20	0.67	573	5	0.03	279	1030	690	0.29	25	7	73
Target Range - Lower Bound		<10	<1	0.37	<10	0.60	506	4	0.02	246	840	601	0.23	19	5	60
Upper Bound		20	2	0.47	40	0.76	630	8	0.04	302	1050	739	0.31	31	9	76
GBM398-4c																
GBM398-4c																
Target Range - Lower Bound																
Upper Bound																
GBM999-5		<10	1	0.05	10	0.02	64	4	0.01	4	40	519	0.32	5	1	5
Target Range - Lower Bound		<10	<1	0.04	<10	<0.01	49	2	<0.01	2	20	452	0.26	<2	<1	2
Upper Bound		20	2	0.07	20	0.03	71	5	0.03	5	50	556	0.34	8	2	5
ME89-2																
Target Range - Lower Bound																
Upper Bound																
OXD43																
Target Range - Lower Bound																
Upper Bound																
OxG46																
Target Range - Lower Bound																
Upper Bound																
ST-259																
Target Range - Lower Bound																
Upper Bound																
ST-327																
Target Range - Lower Bound																
Upper Bound																

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Finalized Date: 21-SEP-2006
Account: PIL

Project: 4013

QC CERTIFICATE OF ANALYSIS VA06083118

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
STANDARDS							
BM-9/A		0.01	<10	<10	15	<10	8110
Target Range - Lower Bound		<0.01	<10	<10	12	<10	7350
Upper Bound		0.02	20	20	17	20	8990
CU-108							
Target Range - Lower Bound							
Upper Bound							
G2000		0.05	<10	<10	64	10	1285
G2000		0.05	10	<10	68	10	1270
Target Range - Lower Bound		0.04	<10	<10	59	<10	1145
Upper Bound		0.07	20	20	74	20	1400
GBM398-4c							
GBM398-4c							
Target Range - Lower Bound							
Upper Bound							
GBM999-5		<0.01	<10	<10	6	<10	114
Target Range - Lower Bound		<0.01	<10	<10	4	<10	97
Upper Bound		0.02	20	20	7	20	123
ME89-2							
Target Range - Lower Bound							
Upper Bound							
OXD43							
Target Range - Lower Bound							
Upper Bound							
OxG46							
Target Range - Lower Bound							
Upper Bound							
ST-259							
Target Range - Lower Bound							
Upper Bound							
ST-327							
Target Range - Lower Bound							
Upper Bound							

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QC CERTIFICATE OF ANALYSIS VA06083118

Sample Description	Method	Au-AA23	Cu-AA49	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Au	Cu	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	0.005	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
BLANKS																
BLANK				<0.2	<0.01	3	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
BLANK				<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
BLANK		<0.005														
BLANK		<0.005														
BLANK			<0.001													
BLANK			<0.001													
Target Range - Lower Bound		<0.005	<0.001	<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
Upper Bound		0.010	0.002	0.4	0.02	4	20	20	1.0	4	0.02	1.0	2	2	2	0.02
DUPLICATES																
225284		<0.005														
DUP		<0.005														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														
229986		<0.005														
DUP		<0.005														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														
229994			0.002													
DUP			0.001													
Target Range - Lower Bound			<0.001													
Upper Bound			0.002													
225303				<0.2	2.28	10	<10	50	0.7	<2	2.11	<0.5	8	8	19	3.56
DUP				<0.2	2.19	12	<10	50	0.7	2	2.02	<0.5	7	7	18	3.46
Target Range - Lower Bound				<0.2	2.10	6	<10	30	<0.5	<2	1.94	<0.5	5	5	16	3.31
Upper Bound				0.4	2.37	16	20	70	1.0	4	2.19	1.0	10	10	21	3.71
225322		<0.005														
DUP		<0.005														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														

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QC CERTIFICATE OF ANALYSIS VA06083118

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
BLANKS																
BLANK		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
BLANK		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	1	<10	<2	<0.01	<2	<1	<1
BLANK																
BLANK																
BLANK																
BLANK																
Target Range - Lower Bound		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
Upper Bound		20	2	0.02	20	0.02	10	2	0.02	2	20	4	0.02	4	2	2
DUPLICATES																
225284																
DUP																
Target Range - Lower Bound																
Upper Bound																
229986																
DUP																
Target Range - Lower Bound																
Upper Bound																
229994																
DUP																
Target Range - Lower Bound																
Upper Bound																
225303		10	<1	0.07	10	1.22	842	1	0.06	3	970	8	0.01	<2	7	135
DUP		10	<1	0.07	10	1.18	814	1	0.05	3	980	5	<0.01	2	7	129
Target Range - Lower Bound		<10	<1	0.05	<10	1.12	777	<1	0.03	<1	910	<2	<0.01	<2	5	123
Upper Bound		20	2	0.09	20	1.28	879	2	0.08	5	1040	11	0.02	4	9	141
225322																
DUP																
Target Range - Lower Bound																
Upper Bound																

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QC CERTIFICATE OF ANALYSIS VA06083118

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
BLANKS							
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK							
BLANK							
BLANK							
BLANK							
Target Range - Lower Bound		<0.01	<10	<10	<1	<10	<2
Upper Bound		0.02	20	20	2	20	4
DUPLICATES							
225284							
DUP							
Target Range - Lower Bound							
Upper Bound							
229986							
DUP							
Target Range - Lower Bound							
Upper Bound							
229994							
DUP							
Target Range - Lower Bound							
Upper Bound							
225303		0.20	<10	<10	78	<10	80
DUP		0.18	<10	<10	76	<10	77
Target Range - Lower Bound		0.16	<10	<10	71	<10	71
Upper Bound		0.22	20	20	83	20	86
225322							
DUP							
Target Range - Lower Bound							
Upper Bound							

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QC CERTIFICATE OF ANALYSIS VA06083118

Sample Description	Method / Analyte / Units / LOR	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1	ME-ICP41 Fe % 0.01
DUPLICATES																
225328			0.001													
DUP			0.001													
Target Range - Lower Bound			<0.001													
Upper Bound			0.002													
225339				<0.2	2.07	18	<10	60	0.6	<2	1.63	<0.5	9	9	20	3.27
DUP				<0.2	2.03	19	<10	60	0.6	<2	1.62	<0.5	9	9	18	3.24
Target Range - Lower Bound				<0.2	1.93	14	<10	40	<0.5	<2	1.52	<0.5	7	7	16	3.07
Upper Bound				0.4	2.17	23	20	80	1.0	4	1.73	1.0	11	11	22	3.44
225342		<0.005														
DUP		<0.005														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														
227573		<0.005														
DUP		<0.005														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														

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QC CERTIFICATE OF ANALYSIS VA06083118

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
DUPLICATES																
225328																
DUP																
Target Range - Lower Bound																
Upper Bound																
225339		10	<1	0.08	10	1.03	755	1	0.06	5	1090	7	0.01	3	6	124
DUP		10	<1	0.08	10	1.01	749	1	0.06	3	1080	7	0.01	3	6	121
Target Range - Lower Bound		<10	<1	0.06	<10	0.95	704	<1	0.04	2	1010	3	<0.01	<2	4	114
Upper Bound		20	2	0.10	20	1.09	800	2	0.08	6	1160	11	0.02	4	8	131
225342																
DUP																
Target Range - Lower Bound																
Upper Bound																
227573																
DUP																
Target Range - Lower Bound																
Upper Bound																

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Project: 4013

QC CERTIFICATE OF ANALYSIS VA06083118

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
		DUPLICATES					
225328							
DUP							
Target Range - Lower Bound							
Upper Bound							
225339		0.17	<10	<10	77	<10	57
DUP		0.17	10	<10	76	<10	56
Target Range - Lower Bound		0.14	<10	<10	71	<10	50
Upper Bound		0.20	20	20	82	20	63
225342							
DUP							
Target Range - Lower Bound							
Upper Bound							
227573							
DUP							
Target Range - Lower Bound							
Upper Bound							

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Finalized Date: 21-SEP-2006
This copy reported on 23-FEB-2007
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QC CERTIFICATE VA06083119

Project: 4013
P.O. No.:
This report is for 65 Crushed Rock samples submitted to our lab in Vancouver, BC, Canada on 18-AUG-2006.

The following have access to data associated with this certificate:

CARL EDMUNDS R KONST	B. KAY RON KONST	BRIAN KAY

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
PUL-31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES
Au-AA23	Au 30g FA-AA finish	AAS
Cu-AA49	Assay Cu - HBr Digestion	AAS

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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Project: 4013

QC CERTIFICATE OF ANALYSIS VA06083119

Sample Description	Method	Au-AA23	Cu-AA49	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Au	Cu	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	0.005	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
STANDARDS																
BM-9/A				14.8	0.89	23	<10	90	0.9	121	0.15	28.5	99	198	5540	3.52
Target Range - Lower Bound				12.2	0.80	20	<10	70	<0.5	100	0.13	23.2	88	176	4890	3.28
Upper Bound				15.4	1.00	28	20	110	1.0	127	0.19	29.5	110	217	5980	4.04
CU-108			0.668													
Target Range - Lower Bound			0.627													
Upper Bound			0.695													
G2000				3.5	1.97	484	<10	950	1.0	2	0.48	7.4	25	70	307	3.73
G2000				5.5	1.82	490	<10	780	1.0	2	0.48	7.4	25	70	305	3.77
G2000				3.7	1.97	480	<10	900	1.0	2	0.48	7.8	24	73	303	3.79
Target Range - Lower Bound				3.0	1.66	434	<10	720	<0.5	<2	0.46	6.0	21	63	272	3.41
Upper Bound				4.1	2.06	534	20	1000	1.0	4	0.58	8.4	27	79	334	4.19
GBM398-4c			0.390													
GBM398-4c			0.387													
GBM398-4c			0.387													
Target Range - Lower Bound			0.369													
Upper Bound			0.410													
GBM999-5				62.0	0.21	2	<10	60	<0.5	<2	0.05	<0.5	4	5	498	2.83
GBM999-5				62.4	0.21	5	<10	60	<0.5	<2	0.05	<0.5	4	5	471	2.82
Target Range - Lower Bound				53.3	0.17	<2	<10	40	<0.5	<2	0.04	<0.5	2	4	436	2.56
Upper Bound				65.5	0.23	4	20	70	1.0	4	0.07	1.0	4	7	536	3.15
ME89-2			0.235													
ME89-2			0.233													
Target Range - Lower Bound			0.218													
Upper Bound			0.243													
OXD43		0.401														
Target Range - Lower Bound		0.368														
Upper Bound		0.434														
OxG46		1.065														
Target Range - Lower Bound		0.959														
Upper Bound		1.115														
ST-259		2.50														
Target Range - Lower Bound		2.30														
Upper Bound		2.66														
ST-327		6.81														
Target Range - Lower Bound		6.35														
Upper Bound		7.31														

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QC CERTIFICATE OF ANALYSIS VA06083119

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
STANDARDS																
BM-9/A		<10	1	0.02	10	0.41	641	3	0.41	366	90	6790	1.46	6	9	80
Target Range - Lower Bound		<10	<1	<0.01	<10	0.37	561	3	0.37	329	70	5980	1.27	3	6	67
Upper Bound		20	2	0.03	20	0.47	697	5	0.47	404	100	7310	1.57	9	10	84
CU-108																
Target Range - Lower Bound																
Upper Bound																
G2000		10	1	0.41	20	0.67	573	5	0.03	279	1030	690	0.29	25	7	73
G2000		10	<1	0.39	20	0.67	576	5	0.02	278	1040	688	0.26	22	7	67
G2000		10	1	0.40	20	0.67	583	6	0.03	282	1050	686	0.28	23	7	72
Target Range - Lower Bound		<10	<1	0.37	<10	0.60	506	4	0.02	246	840	601	0.23	19	5	60
Upper Bound		20	2	0.47	40	0.76	630	8	0.04	302	1050	739	0.31	31	9	76
GBM398-4c																
GBM398-4c																
GBM398-4c																
Target Range - Lower Bound																
Upper Bound																
GBM999-5		<10	1	0.05	10	0.02	64	4	0.01	4	40	519	0.32	5	1	5
GBM999-5		<10	<1	0.05	10	0.02	64	4	0.02	4	40	497	0.30	5	1	4
Target Range - Lower Bound		<10	<1	0.04	<10	<0.01	49	2	<0.01	2	20	452	0.26	<2	<1	2
Upper Bound		20	2	0.07	20	0.03	71	5	0.03	5	50	556	0.34	8	2	5
ME89-2																
ME89-2																
Target Range - Lower Bound																
Upper Bound																
OXD43																
Target Range - Lower Bound																
Upper Bound																
OxG46																
Target Range - Lower Bound																
Upper Bound																
ST-259																
Target Range - Lower Bound																
Upper Bound																
ST-327																
Target Range - Lower Bound																
Upper Bound																

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QC CERTIFICATE OF ANALYSIS VA06083119

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
STANDARDS							
BM-9/A		0.01	<10	<10	16	<10	7980
Target Range - Lower Bound		<0.01	<10	<10	12	<10	7350
Upper Bound		0.02	20	20	17	20	8990
CU-108							
Target Range - Lower Bound							
Upper Bound							
G2000		0.05	10	<10	68	10	1270
G2000		0.05	<10	<10	67	<10	1290
G2000		0.05	10	<10	69	10	1300
Target Range - Lower Bound		0.04	<10	<10	59	<10	1145
Upper Bound		0.07	20	20	74	20	1400
GBM398-4c							
GBM398-4c							
GBM398-4c							
Target Range - Lower Bound							
Upper Bound							
GBM999-5		<0.01	<10	<10	6	<10	114
GBM999-5		<0.01	<10	<10	6	<10	113
Target Range - Lower Bound		<0.01	<10	<10	4	<10	97
Upper Bound		0.02	20	20	7	20	123
ME89-2							
ME89-2							
Target Range - Lower Bound							
Upper Bound							
OXD43							
Target Range - Lower Bound							
Upper Bound							
OxG46							
Target Range - Lower Bound							
Upper Bound							
ST-259							
Target Range - Lower Bound							
Upper Bound							
ST-327							
Target Range - Lower Bound							
Upper Bound							

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PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 21-SEP-2006
Account: PIL

Project: 4013

QC CERTIFICATE OF ANALYSIS VA06083119

Sample Description	Method / Analyte / Units / LOR	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1	ME-ICP41 Fe % 0.01
BLANKS																
BLANK				<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
BLANK				<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
BLANK				<0.2	<0.01	3	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
BLANK		<0.005														
BLANK		<0.005														
BLANK			<0.001													
BLANK			<0.001													
BLANK			<0.001													
Target Range - Lower Bound		<0.005	<0.001	<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
Upper Bound		0.010	0.002	0.4	0.02	4	20	20	1.0	4	0.02	1.0	2	2	2	0.02
DUPLICATES																
225322		<0.005														
DUP		<0.005														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														
225328			0.001													
DUP			0.001													
Target Range - Lower Bound			<0.001													
Upper Bound			0.002													
225339				<0.2	2.07	18	<10	60	0.6	<2	1.63	<0.5	9	9	20	3.27
DUP				<0.2	2.03	19	<10	60	0.6	<2	1.62	<0.5	9	9	18	3.24
Target Range - Lower Bound				<0.2	1.93	14	<10	40	<0.5	<2	1.52	<0.5	7	7	16	3.07
Upper Bound				0.4	2.17	23	20	80	1.0	4	1.73	1.0	11	11	22	3.44
225342		<0.005														
DUP		<0.005														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														
227573		<0.005														
DUP		<0.005														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														

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PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 21-SEP-2006
Account: PIL

Project: 4013

QC CERTIFICATE OF ANALYSIS VA06083119

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
BLANKS																
BLANK		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	1	<10	<2	<0.01	<2	<1	<1
BLANK		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
BLANK		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
BLANK																
BLANK																
BLANK																
BLANK																
BLANK																
Target Range - Lower Bound		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
Upper Bound		20	2	0.02	20	0.02	10	2	0.02	2	20	4	0.02	4	2	2
DUPLICATES																
225322																
DUP																
Target Range - Lower Bound																
Upper Bound																
225328																
DUP																
Target Range - Lower Bound																
Upper Bound																
225339		10	<1	0.08	10	1.03	755	1	0.06	5	1090	7	0.01	3	6	124
DUP		10	<1	0.08	10	1.01	749	1	0.06	3	1080	7	0.01	3	6	121
Target Range - Lower Bound		<10	<1	0.06	<10	0.95	704	<1	0.04	2	1010	3	<0.01	<2	4	114
Upper Bound		20	2	0.10	20	1.09	800	2	0.08	6	1160	11	0.02	4	8	131
225342																
DUP																
Target Range - Lower Bound																
Upper Bound																
227573																
DUP																
Target Range - Lower Bound																
Upper Bound																

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QC CERTIFICATE OF ANALYSIS VA06083119

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
BLANKS							
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK							
BLANK							
BLANK							
BLANK							
BLANK							
Target Range - Lower Bound		<0.01	<10	<10	<1	<10	<2
Upper Bound		0.02	20	20	2	20	4
DUPLICATES							
225322							
DUP							
Target Range - Lower Bound							
Upper Bound							
225328							
DUP							
Target Range - Lower Bound							
Upper Bound							
225339		0.17	<10	<10	77	<10	57
DUP		0.17	10	<10	76	<10	56
Target Range - Lower Bound		0.14	<10	<10	71	<10	50
Upper Bound		0.20	20	20	82	20	63
225342							
DUP							
Target Range - Lower Bound							
Upper Bound							
227573							
DUP							
Target Range - Lower Bound							
Upper Bound							

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QC CERTIFICATE OF ANALYSIS VA06083119

Sample Description	Method / Analyte / Units / LOR	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1	ME-ICP41 Fe % 0.01
DUPLICATES																
227575			0.004													
DUP			0.004													
Target Range - Lower Bound			0.002													
Upper Bound			0.006													
227586				<0.2	2.20	15	10	70	0.5	<2	1.52	<0.5	9	5	18	3.05
DUP				<0.2	2.12	19	10	70	0.5	<2	1.50	<0.5	7	6	18	2.99
Target Range - Lower Bound				<0.2	2.03	12	<10	40	<0.5	<2	1.41	<0.5	6	3	15	2.85
Upper Bound				0.4	2.29	22	20	100	1.0	4	1.61	1.0	10	8	21	3.19
227611		<0.005	0.002													
DUP		<0.005	0.002													
Target Range - Lower Bound		<0.005	<0.001													
Upper Bound		0.010	0.004													
227622				<0.2	2.40	18	20	80	0.5	<2	2.04	<0.5	11	13	16	3.67
DUP				<0.2	2.32	18	10	80	0.5	<2	1.99	<0.5	10	13	15	3.59
Target Range - Lower Bound				<0.2	2.22	13	<10	50	<0.5	<2	1.89	<0.5	8	10	13	3.43
Upper Bound				0.4	2.50	23	20	110	1.0	4	2.14	1.0	13	16	18	3.83
ORIGINAL		0.005														
DUP		0.005														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														
ORIGINAL		<0.005														
DUP		<0.005														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														

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Finalized Date: 21-SEP-2006
Account: PIL

Project: 4013

QC CERTIFICATE OF ANALYSIS VA06083119

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
DUPLICATES																
227575																
DUP																
Target Range - Lower Bound																
Upper Bound																
227586		10	<1	0.12	10	1.22	781	1	0.07	2	1040	5	<0.01	<2	4	143
DUP		10	<1	0.11	10	1.18	767	1	0.07	2	1010	3	<0.01	<2	4	137
Target Range - Lower Bound		<10	<1	0.09	<10	1.12	725	<1	0.05	<1	950	<2	<0.01	<2	2	131
Upper Bound		20	2	0.14	20	1.28	823	2	0.09	4	1100	8	0.02	4	6	149
227611																
DUP																
Target Range - Lower Bound																
Upper Bound																
227622		10	<1	0.15	10	1.27	748	2	0.10	4	1110	2	0.05	<2	9	130
DUP		10	<1	0.14	10	1.24	733	2	0.09	2	1080	7	0.04	3	8	125
Target Range - Lower Bound		<10	<1	0.12	<10	1.17	693	<1	0.07	<1	1020	<2	0.02	<2	6	119
Upper Bound		20	2	0.17	20	1.34	788	4	0.12	5	1170	9	0.07	4	11	136
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																

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QC CERTIFICATE OF ANALYSIS VA06083119

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
		DUPLICATES					
227575							
DUP							
Target Range - Lower Bound							
Upper Bound							
227586		0.18	10	<10	59	<10	87
DUP		0.18	10	<10	57	<10	84
Target Range - Lower Bound		0.15	<10	<10	53	<10	77
Upper Bound		0.21	20	20	63	20	94
227611							
DUP							
Target Range - Lower Bound							
Upper Bound							
227622		0.19	<10	<10	91	<10	61
DUP		0.18	<10	<10	89	<10	60
Target Range - Lower Bound		0.16	<10	<10	84	<10	53
Upper Bound		0.21	20	20	97	20	68
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							

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Finalized Date: 12-SEP-2006
This copy reported on 23-FEB-2007
Account: PIL

QC CERTIFICATE VA06084070

Project: 4013
P.O. No.:
This report is for 21 Pulp samples submitted to our lab in Vancouver, BC, Canada on 18-AUG-2006.
The following have access to data associated with this certificate:

CARL EDMUNDS RON KONST	BRIAN KAY R KONST	B. KAY

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-24	Pulp Login - Rcd w/o Barcode
LOG-QC	QC Test on Received Samples

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
ME-XRF06	Whole Rock Package - XRF	XRF
OA-GRA06	LOI for ME-XRF06	WST-SIM
ME-XRF05	Trace Level XRF Analysis	XRF

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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Finalized Date: 12-SEP-2006
Account: PIL

Project: 4013

QC CERTIFICATE OF ANALYSIS VA06084070

Sample Description	Method / Analyte / Units / LOR	ME-XRF06 SiO2 % 0.01	ME-XRF06 Al2O3 % 0.01	ME-XRF06 Fe2O3 % 0.01	ME-XRF06 CaO % 0.01	ME-XRF06 MgO % 0.01	ME-XRF06 Na2O % 0.01	ME-XRF06 K2O % 0.01	ME-XRF06 Cr2O3 % 0.01	ME-XRF06 TiO2 % 0.01	ME-XRF06 MnO % 0.01	ME-XRF06 P2O5 % 0.01	ME-XRF06 SrO % 0.01	ME-XRF06 BaO % 0.01	ME-XRF06 LOI % 0.01	ME-XRF06 Total % 0.01
STANDARDS																
STSD-2		53.49	16.13	7.50	3.97	3.11	1.73	2.10	0.01	0.77	0.14	0.31	0.05	0.06	10.45	99.82
STSD-2		53.35	16.07	7.53	4.00	3.18	1.75	2.13	0.02	0.79	0.14	0.32	0.05	0.06	10.65	100.05
STSD-2																
STSD-2																
Target Range - Lower Bound		51.01	15.29	7.12	3.79	2.94	1.65	2.00	<0.01	0.74	0.12	0.29	0.03	0.05	9.78	94.99
Upper Bound		56.40	16.92	7.90	4.21	3.28	1.85	2.24	0.02	0.84	0.16	0.35	0.06	0.07	10.83	101.00
BLANKS																
BLANK		<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	0.00	<0.01
BLANK																
Target Range - Lower Bound		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
Upper Bound		0.02	0.04	0.02	0.03	0.02	0.02	0.04	0.02	0.02	0.02	0.03	0.02	0.02		
DUPLICATES																
225250		58.97	17.15	6.23	3.92	2.04	4.19	3.42	0.01	0.52	0.15	0.21	0.06	0.25	2.40	99.52
DUP		59.09	17.22	6.23	3.98	2.09	4.17	3.45	0.01	0.52	0.16	0.21	0.06	0.26	2.40	99.84
Target Range - Lower Bound		57.53	16.74	6.05	3.83	1.99	4.06	3.33	<0.01	0.49	0.13	0.18	0.04	0.23	2.32	97.17
Upper Bound		60.53	17.63	6.41	4.07	2.14	4.30	3.54	0.02	0.55	0.18	0.24	0.08	0.28	2.48	101.00

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Finalized Date: 12-SEP-2006
Account: PIL

Project: 4013

QC CERTIFICATE OF ANALYSIS VA06084070

Sample Description	Method / Analyte / Units / LOR	ME-XRF05 Nb ppm 2	ME-XRF05 Y ppm 2	ME-XRF05 Zr ppm 2
STANDARDS				
STSD-2				
STSD-2				
STSD-2		20	40	184
STSD-2		20	39	192
Target Range - Lower Bound		16	31	165
Upper Bound		24	43	206
BLANKS				
BLANK				
BLANK		<2	2	<2
Target Range - Lower Bound		<2	<2	<2
Upper Bound		4	4	4
DUPLICATES				
225250		5	16	93
DUP		4	16	94
Target Range - Lower Bound		<2	11	85
Upper Bound		9	21	102

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Finalized Date: 11-SEP-2006
This copy reported on 23-FEB-2007
Account: PIL

QC CERTIFICATE VA06084071

Project: 4012
P.O. No.:
This report is for 51 Pulp samples submitted to our lab in Vancouver, BC, Canada on 18-AUG-2006.
The following have access to data associated with this certificate:

CARL EDMUNDS R KONST	B. KAY RON KONST	BRIAN KAY

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-24	Pulp Login - Rcd w/o Barcode
LOG-QC	QC Test on Received Samples

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
ME-XRF06	Whole Rock Package - XRF	XRF
OA-GRA06	LOI for ME-XRF06	WST-SIM
ME-XRF05	Trace Level XRF Analysis	XRF

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
KEMESS MINE
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This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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Finalized Date: 11-SEP-2006
Account: PIL

Project: 4012

QC CERTIFICATE OF ANALYSIS VA06084071

Sample Description	Method / Analyte / Units / LOR	ME-XRF06 SiO2 % 0.01	ME-XRF06 Al2O3 % 0.01	ME-XRF06 Fe2O3 % 0.01	ME-XRF06 CaO % 0.01	ME-XRF06 MgO % 0.01	ME-XRF06 Na2O % 0.01	ME-XRF06 K2O % 0.01	ME-XRF06 Cr2O3 % 0.01	ME-XRF06 TiO2 % 0.01	ME-XRF06 MnO % 0.01	ME-XRF06 P2O5 % 0.01	ME-XRF06 SrO % 0.01	ME-XRF06 BaO % 0.01	ME-XRF06 LOI % 0.01	ME-XRF06 Total % 0.01
STANDARDS																
STSD-2		53.64	16.18	7.51	4.00	3.12	1.72	2.10	0.02	0.79	0.14	0.32	0.05	0.06	10.15	99.79
STSD-2		53.51	16.06	7.56	4.00	3.19	1.75	2.13	0.02	0.80	0.14	0.31	0.05	0.06	10.30	99.87
STSD-2		53.51	16.17	7.60	4.00	3.21	1.75	2.10	0.02	0.80	0.14	0.32	0.05	0.06	10.35	100.05
STSD-2		53.39	16.18	7.55	4.00	3.19	1.75	2.14	0.02	0.80	0.14	0.31	0.05	0.06	10.40	99.97
STSD-2																
STSD-2																
STSD-2																
STSD-2																
Target Range - Lower Bound		51.01	15.29	7.12	3.79	2.94	1.65	2.00	<0.01	0.74	0.12	0.29	0.03	0.05	9.78	94.99
Upper Bound		56.40	16.92	7.90	4.21	3.28	1.85	2.24	0.02	0.84	0.16	0.35	0.06	0.07	10.83	101.00
BLANKS																
BLANK		<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	0.00	<0.01
BLANK		0.02	0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.00	0.02
BLANK																
BLANK																
Target Range - Lower Bound		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
Upper Bound		0.02	0.04	0.02	0.03	0.02	0.02	0.04	0.02	0.02	0.02	0.03	0.02	0.02		
DUPLICATES																
226720		46.75	14.26	9.56	6.97	0.17	0.16	1.50	0.04	0.43	<0.01	0.17	0.08	0.08	18.40	98.57
DUP		47.25	14.20	9.58	6.92	0.17	0.14	1.53	0.03	0.43	<0.01	0.17	0.08	0.08	17.55	98.12
Target Range - Lower Bound		45.81	13.85	9.31	6.75	0.15	0.13	1.46	<0.01	0.40	<0.01	0.15	0.06	0.06	17.51	95.87
Upper Bound		48.20	14.61	9.83	7.14	0.19	0.17	1.57	0.06	0.46	0.02	0.19	0.10	0.10	18.44	100.80
226842		46.14	11.96	9.49	8.45	5.98	0.45	1.93	0.04	0.81	0.22	0.20	0.02	0.02	9.12	94.83
DUP		45.84	11.91	9.45	8.38	5.93	0.45	1.94	0.05	0.83	0.22	0.20	0.02	0.02	9.33	94.57
Target Range - Lower Bound		44.82	11.62	9.21	8.18	5.79	0.42	1.87	0.02	0.78	0.19	0.18	<0.01	<0.01	8.97	92.31
Upper Bound		47.16	12.25	9.73	8.65	6.12	0.48	2.00	0.07	0.86	0.25	0.23	0.04	0.04	9.48	97.09

Comments: MEXRF06: Samples with low total are confirmed by reanalysis.

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Finalized Date: 11-SEP-2006
Account: PIL

Project: 4012

QC CERTIFICATE OF ANALYSIS VA06084071

Sample Description	Method / Analyte / Units / LOR	ME-XRF05 Nb ppm 2	ME-XRF05 Y ppm 2	ME-XRF05 Zr ppm 2
STANDARDS				
STSD-2				
STSD-2				
STSD-2				
STSD-2				
STSD-2		20	40	194
STSD-2		20	38	190
STSD-2		20	40	193
STSD-2		19	39	191
Target Range - Lower Bound		16	31	165
Upper Bound		24	43	206
BLANKS				
BLANK				
BLANK				
BLANK		<2	<2	<2
BLANK		<2	2	<2
Target Range - Lower Bound		<2	<2	<2
Upper Bound		4	4	4
DUPLICATES				
226720		3	21	85
DUP		3	22	83
Target Range - Lower Bound		<2	16	76
Upper Bound		4	27	92
226842		3	15	66
DUP		4	17	65
Target Range - Lower Bound		<2	11	58
Upper Bound		4	21	73

Comments: MEXRF06: Samples with low total are confirmed by reanalysis.

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QC CERTIFICATE VA06084072

Project: 4012
P.O. No.:
This report is for 43 Pulp samples submitted to our lab in Vancouver, BC, Canada on 18-AUG-2006.
The following have access to data associated with this certificate:

CARL EDMUNDS RON KONST	BRIAN KAY R KONST	B. KAY

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-24	Pulp Login - Rcd w/o Barcode
LOG-QC	QC Test on Received Samples

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
ME-XRF06	Whole Rock Package - XRF	XRF
OA-GRA06	LOI for ME-XRF06	WST-SIM
ME-XRF05	Trace Level XRF Analysis	XRF

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
KEMESS MINE
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This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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Finalized Date: 11-SEP-2006
Account: PIL

Project: 4012

QC CERTIFICATE OF ANALYSIS VA06084072

Sample Description	Method / Analyte / Units / LOR	ME-XRF06 SiO2 % 0.01	ME-XRF06 Al2O3 % 0.01	ME-XRF06 Fe2O3 % 0.01	ME-XRF06 CaO % 0.01	ME-XRF06 MgO % 0.01	ME-XRF06 Na2O % 0.01	ME-XRF06 K2O % 0.01	ME-XRF06 Cr2O3 % 0.01	ME-XRF06 TiO2 % 0.01	ME-XRF06 MnO % 0.01	ME-XRF06 P2O5 % 0.01	ME-XRF06 SrO % 0.01	ME-XRF06 BaO % 0.01	ME-XRF06 LOI % 0.01	ME-XRF06 Total % 0.01
STANDARDS																
STSD-2		53.43	16.10	7.59	4.00	3.21	1.73	2.10	0.02	0.78	0.14	0.32	0.05	0.06	10.40	99.93
STSD-2		53.43	16.16	7.56	3.99	3.19	1.75	2.13	0.02	0.79	0.14	0.31	0.05	0.06	10.40	99.98
STSD-2		53.76	16.14	7.52	4.00	3.12	1.72	2.10	0.02	0.77	0.14	0.32	0.05	0.06	10.10	99.82
STSD-2		53.66	16.09	7.58	4.00	3.20	1.75	2.14	0.02	0.80	0.14	0.31	0.05	0.06	10.20	100.00
STSD-2																
STSD-2																
STSD-2																
STSD-2																
Target Range - Lower Bound		51.01	15.29	7.12	3.79	2.94	1.65	2.00	<0.01	0.74	0.12	0.29	0.03	0.05	9.78	94.99
Upper Bound		56.40	16.92	7.90	4.21	3.28	1.85	2.24	0.02	0.84	0.16	0.35	0.06	0.07	10.83	101.00
BLANKS																
BLANK		0.01	0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.00	<0.01
BLANK		<0.01	0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.00	<0.01
BLANK																
BLANK																
Target Range - Lower Bound		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
Upper Bound		0.02	0.04	0.02	0.03	0.02	0.02	0.04	0.02	0.02	0.02	0.03	0.02	0.02		
DUPLICATES																
226860		46.73	11.37	18.48	4.35	5.84	0.65	2.55	0.05	0.77	0.20	0.19	0.01	0.05	8.51	99.74
DUP		46.82	11.37	18.50	4.31	5.82	0.64	2.52	0.04	0.76	0.19	0.19	0.01	0.04	8.40	99.62
Target Range - Lower Bound		45.59	11.07	18.01	4.20	5.66	0.61	2.45	0.02	0.73	0.17	0.17	<0.01	0.02	8.22	97.17
Upper Bound		47.96	11.67	18.97	4.46	6.00	0.68	2.62	0.07	0.80	0.22	0.21	0.02	0.07	8.69	101.00
226969		51.51	15.44	9.26	3.78	0.15	0.15	1.89	0.03	0.49	<0.01	0.22	0.06	0.15	16.00	99.13
DUP		51.88	15.38	9.24	3.74	0.15	0.15	1.85	0.03	0.48	<0.01	0.22	0.06	0.16	16.05	99.39
Target Range - Lower Bound		50.38	15.00	9.00	3.65	0.13	0.13	1.80	<0.01	0.45	<0.01	0.19	0.04	0.13	15.60	96.76
Upper Bound		53.01	15.82	9.50	3.87	0.17	0.17	1.94	0.05	0.52	0.02	0.25	0.08	0.18	16.45	101.00

Comments: MEXRF06: Samples with low total were re-checked.

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Finalized Date: 11-SEP-2006
Account: PIL

Project: 4012

QC CERTIFICATE OF ANALYSIS VA06084072

Sample Description	Method / Analyte / Units / LOR	ME-XRF05 Nb ppm 2	ME-XRF05 Y ppm 2	ME-XRF05 Zr ppm 2
STANDARDS				
STSD-2				
STSD-2				
STSD-2				
STSD-2				
STSD-2		20	41	194
STSD-2		20	39	190
STSD-2		20	40	194
STSD-2		20	40	191
Target Range - Lower Bound		16	31	165
Upper Bound		24	43	206
BLANKS				
BLANK				
BLANK				
BLANK		<2	<2	<2
BLANK		<2	<2	<2
Target Range - Lower Bound		<2	<2	<2
Upper Bound		4	4	4
DUPLICATES				
226860		4	19	45
DUP		4	19	44
Target Range - Lower Bound		<2	14	38
Upper Bound		8	24	51
226969		3	18	81
DUP		3	17	80
Target Range - Lower Bound		<2	13	72
Upper Bound		4	22	89

Comments: MEXRF06: Samples with low total were re-checked.

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Finalized Date: 29-SEP-2006
This copy reported on 23-FEB-2007
Account: PIL

QC CERTIFICATE VA06084831

Project: 4013
P.O. No.:
This report is for 78 Crushed Rock samples submitted to our lab in Vancouver, BC, Canada on 22-AUG-2006.

The following have access to data associated with this certificate:

CARL EDMUNDS RON KONST	BRIAN KAY R KONST	B. KAY

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
PUL-QC	Pulverizing QC Test
LOG-22	Sample login - Rcd w/o BarCode
PUL-31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES
Au-AA23	Au 30g FA-AA finish	AAS
Cu-AA49	Assay Cu - HBr Digestion	AAS

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
KEMESS MINE
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This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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QC CERTIFICATE OF ANALYSIS VA06084831

Sample Description	Method	Au-AA23	Cu-AA49	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Au	Cu	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	0.005	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
STANDARDS																
BM-9/A				14.2	0.87	26	<10	90	0.8	110	0.17	26.2	97	198	5340	3.60
BM-9/A				13.3	0.86	18	<10	90	0.8	108	0.16	26.8	101	198	5770	3.64
Target Range - Lower Bound				12.2	0.80	20	<10	70	<0.5	100	0.13	23.2	88	176	4890	3.28
Upper Bound				15.4	1.00	28	20	110	1.0	127	0.19	29.5	110	217	5980	4.04
CU-108			0.656													
Target Range - Lower Bound			0.627													
Upper Bound			0.695													
G2000				3.3	1.75	472	<10	850	0.9	<2	0.49	6.8	23	67	293	3.64
G2000				3.3	1.79	486	<10	870	0.9	<2	0.50	6.6	23	69	289	3.74
G2000				3.1	1.74	468	<10	800	0.8	<2	0.47	6.3	21	65	302	3.63
Target Range - Lower Bound				3.0	1.66	434	<10	720	<0.5	<2	0.46	6.0	21	63	272	3.41
Upper Bound				4.1	2.06	534	20	1000	1.0	4	0.58	8.4	27	79	334	4.19
GBM398-4c			0.387													
GBM398-4c			0.391													
GBM398-4c			0.361													
Target Range - Lower Bound			0.369													
Upper Bound			0.410													
GBM999-5				57.1	0.19	4	<10	50	<0.5	<2	0.05	<0.5	3	5	477	2.87
Target Range - Lower Bound				53.3	0.17	<2	<10	40	<0.5	<2	0.04	<0.5	2	4	436	2.56
Upper Bound				65.5	0.23	4	20	70	1.0	4	0.07	1.0	4	7	536	3.15
ME89-2			0.232													
ME89-2			0.218													
Target Range - Lower Bound			0.218													
Upper Bound			0.243													
OXD43		0.406														
OXD43		0.399														
Target Range - Lower Bound		0.368														
Upper Bound		0.434														
OxG46		1.010														
OxG46		1.055														
OxG46		1.080														
OxG46		1.050														
OxG46		1.015														
Target Range - Lower Bound		0.959														
Upper Bound		1.115														
ST-259		2.60														
ST-259		2.41														
ST-259		2.44														

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Finalized Date: 29-SEP-2006
Account: PIL

Project: 4013

QC CERTIFICATE OF ANALYSIS VA06084831

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
STANDARDS																
BM-9/A		<10	<1	0.02	10	0.41	639	3	0.40	360	90	6750	1.41	6	8	75
BM-9/A		<10	<1	0.02	10	0.42	647	3	0.38	367	90	6680	1.41	6	8	73
Target Range - Lower Bound		<10	<1	<0.01	<10	0.37	561	3	0.37	329	70	5980	1.27	3	6	67
Upper Bound		20	2	0.03	20	0.47	697	5	0.47	404	100	7310	1.57	9	10	84
CU-108																
Target Range - Lower Bound																
Upper Bound																
G2000		10	<1	0.40	20	0.63	538	5	0.03	267	900	641	0.26	24	7	65
G2000		10	1	0.40	20	0.64	552	5	0.03	272	890	655	0.26	24	7	66
G2000		10	1	0.38	20	0.64	534	5	0.03	265	860	637	0.26	19	7	61
Target Range - Lower Bound		<10	<1	0.37	<10	0.60	506	4	0.02	246	840	601	0.23	19	5	60
Upper Bound		20	2	0.47	40	0.76	630	8	0.04	302	1050	739	0.31	31	9	76
GBM398-4c																
GBM398-4c																
GBM398-4c																
Target Range - Lower Bound																
Upper Bound																
GBM999-5		<10	<1	0.05	10	0.02	62	3	0.01	4	40	523	0.29	5	1	5
Target Range - Lower Bound		<10	<1	0.04	<10	<0.01	49	2	<0.01	2	20	452	0.26	<2	<1	2
Upper Bound		20	2	0.07	20	0.03	71	5	0.03	5	50	556	0.34	8	2	5
ME89-2																
ME89-2																
Target Range - Lower Bound																
Upper Bound																
OXD43																
OXD43																
Target Range - Lower Bound																
Upper Bound																
OxG46																
OxG46																
OxG46																
OxG46																
OxG46																
Target Range - Lower Bound																
Upper Bound																
ST-259																
ST-259																
ST-259																

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QC CERTIFICATE OF ANALYSIS VA06084831

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
STANDARDS							
BM-9/A		0.01	<10	<10	15	<10	8160
BM-9/A		0.01	<10	<10	14	<10	8210
Target Range - Lower Bound		<0.01	<10	<10	12	<10	7350
Upper Bound		0.02	20	20	17	20	8990
CU-108							
Target Range - Lower Bound							
Upper Bound							
G2000		0.05	<10	<10	64	<10	1240
G2000		0.05	<10	<10	64	<10	1255
G2000		0.05	<10	<10	60	<10	1240
Target Range - Lower Bound		0.04	<10	<10	59	<10	1145
Upper Bound		0.07	20	20	74	20	1400
GBM398-4c							
GBM398-4c							
GBM398-4c							
Target Range - Lower Bound							
Upper Bound							
GBM999-5		<0.01	<10	<10	5	<10	108
Target Range - Lower Bound		<0.01	<10	<10	4	<10	97
Upper Bound		0.02	20	20	7	20	123
ME89-2							
ME89-2							
Target Range - Lower Bound							
Upper Bound							
OXD43							
OXD43							
Target Range - Lower Bound							
Upper Bound							
OxG46							
OxG46							
OxG46							
OxG46							
OxG46							
Target Range - Lower Bound							
Upper Bound							
ST-259							
ST-259							
ST-259							

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QC CERTIFICATE OF ANALYSIS VA06084831

Sample Description	Method	Au-AA23	Cu-AA49	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Au	Cu	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	0.005	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
STANDARDS																
ST-259		2.57														
Target Range - Lower Bound		2.30														
Upper Bound		2.66														
ST-327		6.76														
ST-327		6.85														
Target Range - Lower Bound		6.35														
Upper Bound		7.31														
BLANKS																
BLANK			<0.001													
BLANK			<0.001													
BLANK			<0.001													
BLANK		<0.005														
BLANK		<0.005														
BLANK		<0.005														
BLANK		<0.005														
BLANK		<0.005														
BLANK		<0.005														
BLANK		<0.005														
BLANK				<0.2	<0.01	2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
BLANK				<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
BLANK				<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
Target Range - Lower Bound		<0.005	<0.001	<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
Upper Bound		0.010	0.002	0.4	0.02	4	20	20	1.0	4	0.02	1.0	2	2	2	0.02
DUPLICATES																
ORIGINAL		0.070														
DUP		0.068														
Target Range - Lower Bound		0.056														
Upper Bound		0.082														

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Finalized Date: 29-SEP-2006
Account: PIL

Project: 4013

QC CERTIFICATE OF ANALYSIS VA06084831

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
STANDARDS																
ST-259																
Target Range - Lower Bound																
Upper Bound																
ST-327																
ST-327																
Target Range - Lower Bound																
Upper Bound																
BLANKS																
BLANK																
BLANK																
BLANK																
BLANK																
BLANK																
BLANK																
BLANK																
BLANK																
BLANK																
BLANK																
BLANK		<10	<1	<0.01	<10	<0.01	<5	1	<0.01	<1	<10	2	<0.01	<2	<1	1
BLANK		<10	<1	<0.01	<10	<0.01	<5	1	<0.01	<1	<10	2	<0.01	<2	<1	<1
BLANK		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	1	<10	<2	<0.01	<2	<1	<1
Target Range - Lower Bound		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
Upper Bound		20	2	0.02	20	0.02	10	2	0.02	2	20	4	0.02	4	2	2
DUPLICATES																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																

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QC CERTIFICATE OF ANALYSIS VA06084831

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
STANDARDS							
ST-259							
Target Range - Lower Bound							
Upper Bound							
ST-327							
ST-327							
Target Range - Lower Bound							
Upper Bound							
BLANKS							
BLANK							
BLANK							
BLANK							
BLANK							
BLANK							
BLANK							
BLANK							
BLANK							
BLANK							
BLANK							
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK		<0.01	<10	<10	<1	<10	<2
Target Range - Lower Bound		<0.01	<10	<10	<1	<10	<2
Upper Bound		0.02	20	20	2	20	4
DUPLICATES							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							

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QC CERTIFICATE OF ANALYSIS VA06084831

Sample Description / Method / Analyte / Units / LOR	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1	ME-ICP41 Fe % 0.01
DUPLICATES															
ORIGINAL	0.070														
DUP	0.055														
Target Range - Lower Bound	0.049														
Upper Bound	0.076														
ORIGINAL	0.012														
DUP	0.011														
Target Range - Lower Bound	<0.005														
Upper Bound	0.022														
ORIGINAL	<0.005														
DUP	<0.005														
Target Range - Lower Bound	<0.005														
Upper Bound	0.010														
ORIGINAL	0.008														
DUP	0.008														
Target Range - Lower Bound	<0.005														
Upper Bound	0.010														
ORIGINAL	0.006														
DUP	0.007														
Target Range - Lower Bound	<0.005														
Upper Bound	0.010														
ORIGINAL	0.007														
DUP	<0.005														
Target Range - Lower Bound	<0.005														
Upper Bound	0.010														
ORIGINAL	<0.005														
DUP	<0.005														
Target Range - Lower Bound	<0.005														
Upper Bound	0.010														
ORIGINAL	2.35														
DUP	2.32														
Target Range - Lower Bound	2.21														
Upper Bound	2.46														

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Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
		DUPLICATES														
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																

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Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
		DUPLICATES					
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							

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QC CERTIFICATE OF ANALYSIS VA06084831

Sample Description	Method	Au-AA23	Cu-AA49	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Au	Cu	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	0.005	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
DUPLICATES																
ORIGINAL		0.007														
DUP		0.008														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														
ORIGINAL		<0.005														
DUP		<0.005														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														
226996				0.6	0.54	5	<10	20	<0.5	<2	2.98	1.4	8	1	688	4.78
DUP				0.7	0.55	<2	<10	20	<0.5	<2	2.97	1.4	7	2	676	4.69
Target Range - Lower Bound				<0.2	0.50	<2	<10	<10	<0.5	<2	2.81	<0.5	5	<1	646	4.48
Upper Bound				1.1	0.59	4	20	40	1.0	4	3.14	2.5	10	2	718	4.99
227636			0.003													
DUP			0.003													
Target Range - Lower Bound			<0.001													
Upper Bound			0.005													
227638		<0.005														
DUP		0.009														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														
227658		<0.005		<0.2	2.28	10	10	60	0.7	<2	2.57	<0.5	8	11	17	3.40
DUP		<0.005		<0.2	2.15	10	10	60	0.7	<2	2.40	<0.5	8	10	16	3.21
Target Range - Lower Bound		<0.005		<0.2	2.08	6	<10	40	<0.5	<2	2.34	<0.5	6	8	14	3.12
Upper Bound		0.010		0.4	2.35	15	20	80	1.0	4	2.63	1.0	10	13	19	3.49
227672			0.001													
DUP			0.002													
Target Range - Lower Bound			<0.001													
Upper Bound			0.002													
227694				<0.2	2.12	11	10	80	0.5	<2	1.63	<0.5	5	7	13	3.11
DUP				<0.2	2.18	11	<10	80	0.5	<2	1.69	<0.5	7	8	14	3.20
Target Range - Lower Bound				<0.2	2.02	6	<10	50	<0.5	<2	1.56	<0.5	4	5	11	2.98
Upper Bound				0.4	2.28	16	20	110	1.0	4	1.76	1.0	8	10	16	3.33

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QC CERTIFICATE OF ANALYSIS VA06084831

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
DUPLICATES																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
226996		<10	<1	0.12	<10	0.02	15	5	0.01	2	160	33	7.68	<2	1	205
DUP		<10	<1	0.12	<10	0.02	17	6	0.01	2	160	32	7.54	<2	1	201
Target Range - Lower Bound		<10	<1	0.09	<10	<0.01	<5	3	<0.01	<1	130	27	7.21	<2	<1	191
Upper Bound		20	2	0.15	20	0.04	27	8	0.02	4	190	38	8.01	4	2	215
227636																
DUP																
Target Range - Lower Bound																
Upper Bound																
227638																
DUP																
Target Range - Lower Bound																
Upper Bound																
227658		10	<1	0.12	10	1.04	780	1	0.07	2	930	5	0.02	<2	7	131
DUP		10	<1	0.11	10	1.00	736	1	0.07	3	900	4	0.02	<2	7	123
Target Range - Lower Bound		<10	<1	0.09	<10	0.95	710	<1	0.05	<1	850	<2	<0.01	<2	5	119
Upper Bound		20	2	0.14	20	1.09	806	2	0.09	5	980	9	0.04	4	9	135
227672																
DUP																
Target Range - Lower Bound																
Upper Bound																
227694		10	<1	0.15	10	0.80	528	1	0.09	3	920	6	0.03	<2	4	140
DUP		10	<1	0.17	10	0.83	547	1	0.10	4	940	5	0.02	<2	4	144
Target Range - Lower Bound		<10	<1	0.13	<10	0.75	501	<1	0.07	<1	860	<2	<0.01	<2	2	133
Upper Bound		20	2	0.19	20	0.88	574	2	0.12	6	1000	10	0.05	4	6	151

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QC CERTIFICATE OF ANALYSIS VA06084831

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
DUPLICATES							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
226996		<0.01	<10	<10	5	<10	15
DUP		<0.01	<10	<10	5	<10	15
Target Range - Lower Bound		<0.01	<10	<10	3	<10	10
Upper Bound		0.02	20	20	7	20	20
227636							
DUP							
Target Range - Lower Bound							
Upper Bound							
227638							
DUP							
Target Range - Lower Bound							
Upper Bound							
227658		0.18	<10	<10	75	<10	66
DUP		0.17	<10	<10	70	<10	62
Target Range - Lower Bound		0.15	<10	<10	67	<10	57
Upper Bound		0.20	20	20	78	20	71
227672							
DUP							
Target Range - Lower Bound							
Upper Bound							
227694		0.15	<10	<10	71	<10	41
DUP		0.16	<10	<10	73	<10	43
Target Range - Lower Bound		0.13	<10	<10	66	<10	36
Upper Bound		0.18	20	20	78	20	48

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QC CERTIFICATE OF ANALYSIS VA06084831

Sample Description	Method / Analyte / Units / LOR	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1	ME-ICP41 Fe % 0.01
DUPLICATES																
227704			0.003													
DUP			0.003													
Target Range - Lower Bound			<0.001													
Upper Bound			0.005													
225361		<0.005														
DUP		<0.005														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														
227719		<0.005														
DUP		<0.005														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														
ORIGINAL		<0.005														
DUP		<0.005														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														

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QC CERTIFICATE OF ANALYSIS VA06084831

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
		DUPLICATES														
227704																
DUP																
Target Range - Lower Bound																
Upper Bound																
225361																
DUP																
Target Range - Lower Bound																
Upper Bound																
227719																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																

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QC CERTIFICATE OF ANALYSIS VA06084831

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
		DUPLICATES					
227704	DUP						
	Target Range - Lower Bound						
	Upper Bound						
225361	DUP						
	Target Range - Lower Bound						
	Upper Bound						
227719	DUP						
	Target Range - Lower Bound						
	Upper Bound						
ORIGINAL	DUP						
	Target Range - Lower Bound						
	Upper Bound						

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QC CERTIFICATE VA06084832

Project: 4013
P.O. No.:
This report is for 41 Crushed Rock samples submitted to our lab in Vancouver, BC, Canada on 22-AUG-2006.

The following have access to data associated with this certificate:

CARL EDMUNDS R KONST	B. KAY RON KONST	BRIAN KAY

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
PUL-31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES
Au-AA23	Au 30g FA-AA finish	AAS
Cu-AA49	Assay Cu - HBr Digestion	AAS

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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To: NORTHGATE MINERALS CORPORATION
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 22-SEP-2006
Account: PIL

Project: 4013

QC CERTIFICATE OF ANALYSIS VA06084832

Sample Description	Method	Au-AA23	Cu-AA49	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Au	Cu	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	0.005	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
STANDARDS																
BM-9/A				14.9	0.97	24	<10	90	0.9	126	0.17	26.5	99	195	5670	3.66
Target Range - Lower Bound				12.2	0.80	20	<10	70	<0.5	100	0.13	23.2	88	176	4890	3.28
Upper Bound				15.4	1.00	28	20	110	1.0	127	0.19	29.5	110	217	5980	4.04
CU-108			0.649													
Target Range - Lower Bound			0.627													
Upper Bound			0.695													
G2000				3.6	2.03	486	10	910	1.0	<2	0.51	7.3	23	72	308	3.88
G2000				3.2	1.88	477	<10	730	0.9	2	0.49	6.6	23	65	322	3.65
Target Range - Lower Bound				3.0	1.66	434	<10	720	<0.5	<2	0.46	6.0	21	63	272	3.41
Upper Bound				4.1	2.06	534	20	1000	1.0	4	0.58	8.4	27	79	334	4.19
GBM398-4c			0.388													
GBM398-4c			0.391													
Target Range - Lower Bound			0.369													
Upper Bound			0.410													
GBM999-5				57.3	0.19	3	<10	50	<0.5	<2	0.04	<0.5	3	5	476	2.87
GBM999-5				61.0	0.22	<2	<10	60	<0.5	<2	0.05	<0.5	3	5	489	2.97
Target Range - Lower Bound				53.3	0.17	<2	<10	40	<0.5	<2	0.04	<0.5	2	4	436	2.56
Upper Bound				65.5	0.23	4	20	70	1.0	4	0.07	1.0	4	7	536	3.15
ME89-2			0.237													
Target Range - Lower Bound			0.218													
Upper Bound			0.243													
OxG46		1.015														
OxG46		1.035														
Target Range - Lower Bound		0.959														
Upper Bound		1.115														
ST-259		2.50														
Target Range - Lower Bound		2.30														
Upper Bound		2.66														

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QC CERTIFICATE OF ANALYSIS VA06084832

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
STANDARDS																
BM-9/A		<10	1	0.02	10	0.43	650	3	0.44	368	80	6690	1.53	5	9	82
Target Range - Lower Bound		<10	<1	<0.01	<10	0.37	561	3	0.37	329	70	5980	1.27	3	6	67
Upper Bound		20	2	0.03	20	0.47	697	5	0.47	404	100	7310	1.57	9	10	84
CU-108																
Target Range - Lower Bound																
Upper Bound																
G2000		10	2	0.41	20	0.68	571	5	0.04	281	950	685	0.28	21	7	74
G2000		10	<1	0.42	20	0.66	558	6	0.03	275	970	648	0.27	25	7	69
Target Range - Lower Bound		<10	<1	0.37	<10	0.60	506	4	0.02	246	840	601	0.23	19	5	60
Upper Bound		20	2	0.47	40	0.76	630	8	0.04	302	1050	739	0.31	31	9	76
GBM398-4c																
GBM398-4c																
Target Range - Lower Bound																
Upper Bound																
GBM999-5		<10	1	0.05	10	0.02	57	3	<0.01	5	30	477	0.28	6	1	4
GBM999-5		<10	<1	0.05	10	0.02	66	3	0.02	5	40	517	0.30	5	1	5
Target Range - Lower Bound		<10	<1	0.04	<10	<0.01	49	2	<0.01	2	20	452	0.26	<2	<1	2
Upper Bound		20	2	0.07	20	0.03	71	5	0.03	5	50	556	0.34	8	2	5
ME89-2																
Target Range - Lower Bound																
Upper Bound																
OxG46																
OxG46																
Target Range - Lower Bound																
Upper Bound																
ST-259																
Target Range - Lower Bound																
Upper Bound																

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QC CERTIFICATE OF ANALYSIS VA06084832

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
STANDARDS							
BM-9/A		0.01	<10	<10	16	<10	8310
Target Range - Lower Bound		<0.01	<10	<10	12	<10	7350
Upper Bound		0.02	20	20	17	20	8990
CU-108							
Target Range - Lower Bound							
Upper Bound							
G2000		0.06	<10	<10	69	<10	1280
G2000		0.05	<10	<10	65	<10	1240
Target Range - Lower Bound		0.04	<10	<10	59	<10	1145
Upper Bound		0.07	20	20	74	20	1400
GBM398-4c							
GBM398-4c							
Target Range - Lower Bound							
Upper Bound							
GBM999-5		<0.01	<10	<10	5	<10	112
GBM999-5		<0.01	<10	<10	6	<10	112
Target Range - Lower Bound		<0.01	<10	<10	4	<10	97
Upper Bound		0.02	20	20	7	20	123
ME89-2							
Target Range - Lower Bound							
Upper Bound							
OxG46							
OxG46							
Target Range - Lower Bound							
Upper Bound							
ST-259							
Target Range - Lower Bound							
Upper Bound							

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QC CERTIFICATE OF ANALYSIS VA06084832

Sample Description	Method	Au-AA23	Cu-AA49	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Au	Cu	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	0.005	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
BLANKS																
BLANK				<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	0.01
BLANK				<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
BLANK				<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
BLANK		<0.005														
BLANK		<0.005														
BLANK			<0.001													
BLANK			<0.001													
Target Range - Lower Bound		<0.005	<0.001	<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
Upper Bound		0.010	0.002	0.4	0.02	4	20	20	1.0	4	0.02	1.0	2	2	2	0.02
DUPLICATES																
ORIGINAL				11.1	1.62	106	<10	100	0.5	26	13.60	108.5	31	37	1880	9.96
DUP				10.3	1.59	112	<10	100	0.5	28	12.80	106.0	30	36	1825	9.72
Target Range - Lower Bound				9.8	1.50	100	<10	70	<0.5	22	12.50	101.0	27	33	1760	9.33
Upper Bound				11.6	1.71	118	20	130	1.0	32	13.90	113.5	34	40	1945	10.35
ORIGINAL				1.8	1.84	<2	<10	240	<0.5	<2	3.53	<0.5	5	4	6660	2.79
DUP				1.7	1.74	<2	<10	230	<0.5	7	3.40	<0.5	6	3	6360	2.66
Target Range - Lower Bound				1.3	1.68	<2	<10	200	<0.5	<2	3.27	<0.5	3	<1	6180	2.57
Upper Bound				2.2	1.90	4	20	270	1.0	9	3.66	1.0	8	6	6840	2.88
ORIGINAL		1.215														
DUP		1.220														
Target Range - Lower Bound		1.145														
Upper Bound		1.290														
ORIGINAL		0.043														
DUP		0.040														
Target Range - Lower Bound		0.029														
Upper Bound		0.054														
ORIGINAL				<0.2	3.32	15	<10	100	0.6	<2	0.49	<0.5	13	18	44	3.73
DUP				0.3	3.16	14	<10	100	0.6	<2	0.47	<0.5	12	17	42	3.58
Target Range - Lower Bound				<0.2	3.06	10	<10	70	<0.5	<2	0.44	<0.5	10	15	39	3.45
Upper Bound				0.4	3.42	19	20	130	1.0	4	0.52	1.0	15	20	47	3.86

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KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 22-SEP-2006
Account: PIL

Project: 4013

QC CERTIFICATE OF ANALYSIS VA06084832

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
BLANKS																
BLANK		<10	1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
BLANK		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
BLANK		<10	<1	<0.01	<10	<0.01	<5	1	<0.01	2	<10	<2	<0.01	<2	<1	1
BLANK																
BLANK																
BLANK																
BLANK																
Target Range - Lower Bound		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
Upper Bound		20	2	0.02	20	0.02	10	2	0.02	2	20	4	0.02	4	2	2
DUPLICATES																
ORIGINAL		10	1	0.03	70	1.14	2150	51	<0.01	41	1310	161	<0.01	12	4	19
DUP		10	1	0.02	70	1.11	2090	48	<0.01	42	1290	152	0.01	12	4	19
Target Range - Lower Bound		<10	<1	<0.01	50	1.05	2000	45	<0.01	37	1220	145	<0.01	7	2	16
Upper Bound		20	2	0.05	90	1.20	2240	54	0.02	46	1390	168	0.02	17	6	22
ORIGINAL		10	<1	1.18	30	1.21	508	48	0.08	4	1380	5	0.59	3	8	144
DUP		10	<1	1.11	20	1.15	484	46	0.07	4	1310	4	0.57	<2	8	138
Target Range - Lower Bound		<10	<1	1.07	<10	1.10	461	43	0.05	2	1260	<2	0.53	<2	6	132
Upper Bound		20	2	1.22	50	1.26	531	51	0.10	6	1430	9	0.63	4	10	150
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL		10	2	0.05	10	1.44	831	<1	0.02	14	840	16	0.03	<2	7	56
DUP		10	3	0.04	10	1.38	798	<1	0.02	15	810	16	0.03	<2	7	54
Target Range - Lower Bound		<10	<1	0.02	<10	1.32	764	<1	<0.01	12	760	11	<0.01	<2	5	50
Upper Bound		20	5	0.07	20	1.50	865	2	0.04	17	890	21	0.05	4	9	60

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QC CERTIFICATE OF ANALYSIS VA06084832

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
BLANKS							
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK							
BLANK							
BLANK							
BLANK							
Target Range - Lower Bound		<0.01	<10	<10	<1	<10	<2
Upper Bound		0.02	20	20	2	20	4
DUPLICATES							
ORIGINAL		0.11	<10	10	49	60	>10000
DUP		0.11	<10	10	48	50	>10000
Target Range - Lower Bound		0.08	<10	<10	44	30	9500
Upper Bound		0.14	20	20	53	80	>10000
ORIGINAL		0.20	<10	<10	112	<10	68
DUP		0.19	<10	<10	106	<10	73
Target Range - Lower Bound		0.17	<10	<10	102	<10	63
Upper Bound		0.22	20	20	116	20	78
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL		0.08	<10	<10	89	<10	89
DUP		0.08	<10	<10	86	<10	87
Target Range - Lower Bound		0.06	<10	<10	81	<10	80
Upper Bound		0.10	20	20	94	20	96

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QC CERTIFICATE OF ANALYSIS VA06084832

Sample Description	Method / Analyte / Units / LOR	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1	ME-ICP41 Fe % 0.01
DUPLICATES																
225360			0.002													
DUP			0.002													
Target Range - Lower Bound			<0.001													
Upper Bound			0.004													
225361		<0.005														
DUP		<0.005														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														
227719		<0.005														
DUP		<0.005														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														
227734			<0.001													
DUP			<0.001													
Target Range - Lower Bound			<0.001													
Upper Bound			0.002													

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Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
		DUPLICATES														
225360	DUP															
	Target Range - Lower Bound															
	Upper Bound															
225361	DUP															
	Target Range - Lower Bound															
	Upper Bound															
227719	DUP															
	Target Range - Lower Bound															
	Upper Bound															
227734	DUP															
	Target Range - Lower Bound															
	Upper Bound															

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QC CERTIFICATE OF ANALYSIS VA06084832

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
		DUPLICATES					
225360 DUP							
Target Range - Lower Bound							
Upper Bound							
225361 DUP							
Target Range - Lower Bound							
Upper Bound							
227719 DUP							
Target Range - Lower Bound							
Upper Bound							
227734 DUP							
Target Range - Lower Bound							
Upper Bound							

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Finalized Date: 26-SEP-2006
This copy reported on 23-FEB-2007
Account: PIL

QC CERTIFICATE VA06089265

Project: 4012
P.O. No.:
This report is for 21 Crushed Rock samples submitted to our lab in Vancouver, BC, Canada on 29-AUG-2006.

The following have access to data associated with this certificate:

CARL EDMUNDS R KONST	B. KAY RON KONST	BRIAN KAY

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
PUL-31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES
Au-AA23	Au 30g FA-AA finish	AAS
Cu-AA49	Assay Cu - HBr Digestion	AAS

To: NORTHGATE MINERALS CORPORATION
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This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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QC CERTIFICATE OF ANALYSIS VA06089265

Sample Description	Method	Au-AA23	Cu-AA49	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Au	Cu	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	0.005	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
STANDARDS																
BM-9/A				14.4	0.82	17	<10	90	0.8	108	0.17	26.4	93	191	5320	3.56
Target Range - Lower Bound				12.2	0.80	20	<10	70	<0.5	100	0.13	23.2	88	176	4890	3.28
Upper Bound				15.4	1.00	28	20	110	1.0	127	0.19	29.5	110	217	5980	4.04
CU-108			0.649													
Target Range - Lower Bound			0.627													
Upper Bound			0.695													
G2000				4.0	1.97	481	10	900	0.9	<2	0.52	7.1	23	70	310	3.81
G2000				3.3	1.89	476	10	870	0.9	<2	0.52	7.1	22	67	306	3.79
Target Range - Lower Bound				3.0	1.66	434	<10	720	<0.5	<2	0.46	6.0	21	63	272	3.41
Upper Bound				4.1	2.06	534	20	1000	1.0	4	0.58	8.4	27	79	334	4.19
GBM398-4c			0.391													
Target Range - Lower Bound			0.369													
Upper Bound			0.410													
GBM999-5				57.2	0.20	<2	<10	50	<0.5	<2	0.06	<0.5	2	4	490	2.88
Target Range - Lower Bound				53.3	0.17	<2	<10	40	<0.5	<2	0.04	<0.5	2	4	436	2.56
Upper Bound				65.5	0.23	4	20	70	1.0	4	0.07	1.0	4	7	536	3.15
OXD43		0.396														
Target Range - Lower Bound		0.368														
Upper Bound		0.434														
ST-327		6.39														
Target Range - Lower Bound		6.35														
Upper Bound		7.31														
BLANKS																
BLANK				<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
BLANK				<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
BLANK			<0.001													
BLANK		<0.005														
Target Range - Lower Bound		<0.005	<0.001	<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
Upper Bound		0.010	0.002	0.4	0.02	4	20	20	1.0	4	0.02	1.0	2	2	2	0.02

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PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 26-SEP-2006
Account: PIL

Project: 4012

QC CERTIFICATE OF ANALYSIS VA06089265

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
STANDARDS																
BM-9/A		<10	<1	0.02	10	0.40	634	2	0.37	350	90	6570	1.45	6	8	70
Target Range - Lower Bound		<10	<1	<0.01	<10	0.37	561	3	0.37	329	70	5980	1.27	3	6	67
Upper Bound		20	2	0.03	20	0.47	697	5	0.47	404	100	7310	1.57	9	10	84
CU-108																
Target Range - Lower Bound																
Upper Bound																
G2000		10	1	0.42	20	0.66	566	4	0.03	271	950	661	0.29	29	7	70
G2000		10	<1	0.41	20	0.65	568	4	0.03	269	960	663	0.29	28	7	67
Target Range - Lower Bound		<10	<1	0.37	<10	0.60	506	4	0.02	246	840	601	0.23	19	5	60
Upper Bound		20	2	0.47	40	0.76	630	8	0.04	302	1050	739	0.31	31	9	76
GBM398-4c																
Target Range - Lower Bound																
Upper Bound																
GBM999-5		<10	<1	0.05	10	0.02	62	2	0.01	4	30	488	0.30	5	1	5
Target Range - Lower Bound		<10	<1	0.04	<10	<0.01	49	2	<0.01	2	20	452	0.26	<2	<1	2
Upper Bound		20	2	0.07	20	0.03	71	5	0.03	5	50	556	0.34	8	2	5
OXD43																
Target Range - Lower Bound																
Upper Bound																
ST-327																
Target Range - Lower Bound																
Upper Bound																
BLANKS																
BLANK		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
BLANK		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
BLANK																
BLANK																
Target Range - Lower Bound		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
Upper Bound		20	2	0.02	20	0.02	10	2	0.02	2	20	4	0.02	4	2	2

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QC CERTIFICATE OF ANALYSIS VA06089265

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
STANDARDS							
BM-9/A		0.01	<10	<10	15	<10	8310
Target Range - Lower Bound		<0.01	<10	<10	12	<10	7350
Upper Bound		0.02	20	20	17	20	8990
CU-108							
Target Range - Lower Bound							
Upper Bound							
G2000		0.05	<10	<10	66	10	1290
G2000		0.05	10	<10	65	10	1270
Target Range - Lower Bound		0.04	<10	<10	59	<10	1145
Upper Bound		0.07	20	20	74	20	1400
GBM398-4c							
Target Range - Lower Bound							
Upper Bound							
GBM999-5		<0.01	<10	<10	6	<10	110
Target Range - Lower Bound		<0.01	<10	<10	4	<10	97
Upper Bound		0.02	20	20	7	20	123
OXD43							
Target Range - Lower Bound							
Upper Bound							
ST-327							
Target Range - Lower Bound							
Upper Bound							
BLANKS							
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK							
BLANK							
Target Range - Lower Bound		<0.01	<10	<10	<1	<10	<2
Upper Bound		0.02	20	20	2	20	4

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QC CERTIFICATE OF ANALYSIS VA06089265

Sample Description	Method / Analyte / Units / LOR	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1	ME-ICP41 Fe % 0.01
DUPLICATES																
ORIGINAL				0.8	1.79	35	<10	140	0.6	7	0.51	1.4	5	11	102	3.47
DUP				0.8	1.68	36	<10	140	0.6	8	0.51	1.1	4	10	95	3.41
Target Range - Lower Bound				0.4	1.63	30	<10	110	<0.5	3	0.46	<0.5	2	8	92	3.25
Upper Bound				1.2	1.84	41	20	170	1.0	12	0.56	2.3	7	13	105	3.63
227734			<0.001													
DUP			<0.001													
Target Range - Lower Bound			<0.001													
Upper Bound			0.002													
227747		0.008														
DUP		0.010														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														
225426				1.2	3.41	7	<10	40	0.5	<2	2.85	<0.5	15	80	1870	5.37
DUP				1.2	3.49	5	<10	40	0.6	<2	3.08	<0.5	17	82	1855	5.72
Target Range - Lower Bound				0.7	3.26	<2	<10	20	<0.5	<2	2.80	<0.5	13	75	1765	5.25
Upper Bound				1.7	3.64	10	20	60	1.0	4	3.13	1.0	19	87	1960	5.84
ORIGINAL		0.026														
DUP		0.026														
Target Range - Lower Bound		0.015														
Upper Bound		0.037														
ORIGINAL		0.020														
DUP		0.018														
Target Range - Lower Bound		0.008														
Upper Bound		0.030														

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QC CERTIFICATE OF ANALYSIS VA06089265

Sample Description / Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
DUPLICATES															
ORIGINAL	10	<1	0.06	20	0.25	339	3	0.01	7	940	101	0.06	<2	2	60
DUP	10	<1	0.05	20	0.24	340	3	0.01	7	930	99	0.05	3	2	57
Target Range - Lower Bound	<10	<1	0.03	<10	0.21	313	<1	<0.01	5	870	91	0.03	<2	<1	54
Upper Bound	20	2	0.08	40	0.28	366	5	0.02	9	1000	109	0.08	4	4	63
227734															
DUP															
Target Range - Lower Bound															
Upper Bound															
227747															
DUP															
Target Range - Lower Bound															
Upper Bound															
225426	10	1	0.22	<10	2.49	1980	41	0.04	43	890	10	0.29	<2	11	66
DUP	10	<1	0.22	<10	2.61	2100	45	0.04	41	960	6	0.30	<2	12	67
Target Range - Lower Bound	<10	<1	0.19	<10	2.40	1930	39	0.02	38	860	4	0.26	<2	9	61
Upper Bound	20	2	0.25	20	2.70	2150	47	0.06	46	990	12	0.33	4	14	72
ORIGINAL															
DUP															
Target Range - Lower Bound															
Upper Bound															
ORIGINAL															
DUP															
Target Range - Lower Bound															
Upper Bound															

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QC CERTIFICATE OF ANALYSIS VA06089265

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
		DUPLICATES					
ORIGINAL		0.03	<10	<10	61	<10	71
DUP		0.03	<10	<10	64	<10	70
Target Range - Lower Bound		<0.01	<10	<10	57	<10	63
Upper Bound		0.05	20	20	68	20	78
227734							
DUP							
Target Range - Lower Bound							
Upper Bound							
227747							
DUP							
Target Range - Lower Bound							
Upper Bound							
225426		0.23	<10	<10	119	<10	146
DUP		0.23	<10	<10	124	10	155
Target Range - Lower Bound		0.20	<10	<10	113	<10	139
Upper Bound		0.26	20	20	130	20	162
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							

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QC CERTIFICATE VA06089266

Project: 4013
P.O. No.:
This report is for 25 Pulp samples submitted to our lab in Vancouver, BC, Canada on 29-AUG-2006.
The following have access to data associated with this certificate:

CARL EDMUNDS RON KONST	BRIAN KAY R KONST	B. KAY

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES
Au-AA23	Au 30g FA-AA finish	AAS
Cu-AA49	Assay Cu - HBr Digestion	AAS

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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Finalized Date: 26-SEP-2006
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Project: 4013

QC CERTIFICATE OF ANALYSIS VA06089266

Sample Description	Method	Au-AA23	Cu-AA49	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Au	Cu	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	0.005	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
STANDARDS																
CU-108			0.649													
Target Range - Lower Bound			0.627													
Upper Bound			0.695													
G2000				3.1	1.81	475	<10	760	0.9	<2	0.49	6.6	22	68	290	3.59
Target Range - Lower Bound				3.0	1.66	434	<10	720	<0.5	<2	0.46	6.0	21	63	272	3.41
Upper Bound				4.1	2.06	534	20	1000	1.0	4	0.58	8.4	27	79	334	4.19
GBM398-4c			0.391													
GBM398-4c			0.387													
Target Range - Lower Bound			0.369													
Upper Bound			0.410													
GBM999-5				62.0	0.21	4	<10	60	<0.5	<2	0.05	<0.5	3	5	477	2.82
Target Range - Lower Bound				53.3	0.17	<2	<10	40	<0.5	<2	0.04	<0.5	2	4	436	2.56
Upper Bound				65.5	0.23	4	20	70	1.0	4	0.07	1.0	4	7	536	3.15
ME89-2			0.243													
Target Range - Lower Bound			0.218													
Upper Bound			0.243													
OXD43		0.396														
Target Range - Lower Bound		0.368														
Upper Bound		0.434														
ST-327		6.39														
Target Range - Lower Bound		6.35														
Upper Bound		7.31														
BLANKS																
BLANK				<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
BLANK			<0.001													
BLANK			<0.001													
BLANK		<0.005														
Target Range - Lower Bound		<0.005	<0.001	<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
Upper Bound		0.010	0.002	0.4	0.02	4	20	20	1.0	4	0.02	1.0	2	2	2	0.02

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QC CERTIFICATE OF ANALYSIS VA06089266

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
STANDARDS																
CU-108																
Target Range - Lower Bound																
Upper Bound																
G2000		10	2	0.40	20	0.63	551	4	0.03	266	900	621	0.24	20	7	64
Target Range - Lower Bound		<10	<1	0.37	<10	0.60	506	4	0.02	246	840	601	0.23	19	5	60
Upper Bound		20	2	0.47	40	0.76	630	8	0.04	302	1050	739	0.31	31	9	76
GBM398-4c																
GBM398-4c																
Target Range - Lower Bound																
Upper Bound																
GBM999-5		<10	<1	0.05	10	0.02	61	3	0.01	3	40	480	0.28	4	1	3
Target Range - Lower Bound		<10	<1	0.04	<10	<0.01	49	2	<0.01	2	20	452	0.26	<2	<1	2
Upper Bound		20	2	0.07	20	0.03	71	5	0.03	5	50	556	0.34	8	2	5
ME89-2																
Target Range - Lower Bound																
Upper Bound																
OXD43																
Target Range - Lower Bound																
Upper Bound																
ST-327																
Target Range - Lower Bound																
Upper Bound																
BLANKS																
BLANK		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
BLANK																
BLANK																
BLANK																
Target Range - Lower Bound		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
Upper Bound		20	2	0.02	20	0.02	10	2	0.02	2	20	4	0.02	4	2	2

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QC CERTIFICATE OF ANALYSIS VA06089266

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
STANDARDS							
CU-108							
Target Range - Lower Bound							
Upper Bound							
G2000		0.05	<10	<10	63	<10	1265
Target Range - Lower Bound		0.04	<10	<10	59	<10	1145
Upper Bound		0.07	20	20	74	20	1400
GBM398-4c							
GBM398-4c							
Target Range - Lower Bound							
Upper Bound							
GBM999-5		<0.01	<10	<10	5	<10	113
Target Range - Lower Bound		<0.01	<10	<10	4	<10	97
Upper Bound		0.02	20	20	7	20	123
ME89-2							
Target Range - Lower Bound							
Upper Bound							
OXD43							
Target Range - Lower Bound							
Upper Bound							
ST-327							
Target Range - Lower Bound							
Upper Bound							
BLANKS							
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK							
BLANK							
BLANK							
Target Range - Lower Bound		<0.01	<10	<10	<1	<10	<2
Upper Bound		0.02	20	20	2	20	4

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Phone: 604 984 0221 Fax: 604 984 0218 www.alschemex.com

To: NORTHGATE MINERALS CORPORATION
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 26-SEP-2006
Account: PIL

Project: 4013

QC CERTIFICATE OF ANALYSIS VA06089266

Sample Description	Method / Analyte / Units / LOR	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1	ME-ICP41 Fe % 0.01
DUPLICATES																
227734			<0.001													
DUP			<0.001													
Target Range - Lower Bound			<0.001													
Upper Bound			0.002													
227747		0.008														
DUP		0.010														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														
225377				<0.2	2.90	5	<10	60	0.7	<2	2.42	0.5	6	119	12	2.35
DUP				<0.2	2.78	4	<10	60	0.7	<2	2.32	<0.5	7	112	12	2.30
Target Range - Lower Bound				<0.2	2.68	<2	<10	40	<0.5	<2	2.23	<0.5	4	108	9	2.19
Upper Bound				0.4	3.00	9	20	80	1.0	4	2.51	1.0	9	123	15	2.46
225395			<0.001													
DUP			<0.001													
Target Range - Lower Bound			<0.001													
Upper Bound			0.002													
ORIGINAL		0.026														
DUP		0.026														
Target Range - Lower Bound		0.015														
Upper Bound		0.037														
ORIGINAL		0.020														
DUP		0.018														
Target Range - Lower Bound		0.008														
Upper Bound		0.030														

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QC CERTIFICATE OF ANALYSIS VA06089266

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
		DUPLICATES														
227734																
DUP																
Target Range - Lower Bound																
Upper Bound																
227747																
DUP																
Target Range - Lower Bound																
Upper Bound																
225377		10	<1	0.16	10	0.65	568	<1	0.09	2	490	7	<0.01	<2	5	105
DUP		10	1	0.15	10	0.64	559	<1	0.09	2	480	5	<0.01	<2	5	101
Target Range - Lower Bound		<10	<1	0.13	<10	0.59	525	<1	0.07	<1	440	<2	<0.01	<2	3	96
Upper Bound		20	2	0.18	20	0.70	602	2	0.11	4	530	10	0.02	4	7	110
225395																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																

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QC CERTIFICATE OF ANALYSIS VA06089266

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
DUPLICATES							
227734							
DUP							
Target Range - Lower Bound							
Upper Bound							
227747							
DUP							
Target Range - Lower Bound							
Upper Bound							
225377		0.14	<10	<10	48	<10	92
DUP		0.14	<10	<10	46	<10	90
Target Range - Lower Bound		0.11	<10	<10	43	<10	82
Upper Bound		0.17	20	20	51	20	100
225395							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							

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Finalized Date: 28-SEP-2006
This copy reported on 23-FEB-2007
Account: PIL

QC CERTIFICATE VA06089267

Project: 4012
P.O. No.:
This report is for 51 Crushed Rock samples submitted to our lab in Vancouver, BC, Canada on 29-AUG-2006.

The following have access to data associated with this certificate:

CARL EDMUNDS R KONST	B. KAY RON KONST	BRIAN KAY

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
PUL-QC	Pulverizing QC Test
PUL-31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES
Au-AA23	Au 30g FA-AA finish	AAS
Cu-AA49	Assay Cu - HBr Digestion	AAS

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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Project: 4012

QC CERTIFICATE OF ANALYSIS VA06089267

Sample Description	Method	Au-AA23	Cu-AA49	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Au	Cu	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	0.005	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
STANDARDS																
BM-9/A				14.4	0.92	19	<10	90	0.8	108	0.16	26.6	96	193	5390	3.52
Target Range - Lower Bound				12.2	0.80	20	<10	70	<0.5	100	0.13	23.2	88	176	4890	3.28
Upper Bound				15.4	1.00	28	20	110	1.0	127	0.19	29.5	110	217	5980	4.04
CU-108			0.645													
Target Range - Lower Bound			0.627													
Upper Bound			0.695													
G2000				3.7	1.95	478	10	870	1.0	<2	0.51	7.2	22	71	305	3.79
G2000				3.3	1.80	485	<10	880	1.0	<2	0.50	7.3	22	70	308	3.78
Target Range - Lower Bound				3.0	1.66	434	<10	720	<0.5	<2	0.46	6.0	21	63	272	3.41
Upper Bound				4.1	2.06	534	20	1000	1.0	4	0.58	8.4	27	79	334	4.19
GBM398-4c			0.387													
GBM398-4c			0.374													
Target Range - Lower Bound			0.369													
Upper Bound			0.410													
GBM999-5				57.5	0.18	2	<10	50	<0.5	<2	0.05	<0.5	2	4	462	2.68
Target Range - Lower Bound				53.3	0.17	<2	<10	40	<0.5	<2	0.04	<0.5	2	4	436	2.56
Upper Bound				65.5	0.23	4	20	70	1.0	4	0.07	1.0	4	7	536	3.15
ME89-2			0.243													
Target Range - Lower Bound			0.218													
Upper Bound			0.243													
OxG46		1.025														
OxG46		1.010														
OxG46		1.015														
Target Range - Lower Bound		0.959														
Upper Bound		1.115														
SI15		1.770														
Target Range - Lower Bound		1.675														
Upper Bound		1.935														
ST-259		2.46														
ST-259		2.33														
ST-259		2.60														
Target Range - Lower Bound		2.30														
Upper Bound		2.66														

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QC CERTIFICATE OF ANALYSIS VA06089267

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
STANDARDS																
BM-9/A		<10	<1	0.02	10	0.41	631	4	0.41	349	90	6550	1.39	6	8	74
Target Range - Lower Bound		<10	<1	<0.01	<10	0.37	561	3	0.37	329	70	5980	1.27	3	6	67
Upper Bound		20	2	0.03	20	0.47	697	5	0.47	404	100	7310	1.57	9	10	84
CU-108																
Target Range - Lower Bound																
Upper Bound																
G2000		10	<1	0.42	20	0.67	560	4	0.03	278	940	690	0.27	24	7	71
G2000		10	1	0.42	20	0.66	560	5	0.04	275	920	664	0.26	23	7	67
Target Range - Lower Bound		<10	<1	0.37	<10	0.60	506	4	0.02	246	840	601	0.23	19	5	60
Upper Bound		20	2	0.47	40	0.76	630	8	0.04	302	1050	739	0.31	31	9	76
GBM398-4c																
GBM398-4c																
Target Range - Lower Bound																
Upper Bound																
GBM999-5		<10	<1	0.05	10	0.02	58	3	0.01	2	40	516	0.27	5	1	4
Target Range - Lower Bound		<10	<1	0.04	<10	<0.01	49	2	<0.01	2	20	452	0.26	<2	<1	2
Upper Bound		20	2	0.07	20	0.03	71	5	0.03	5	50	556	0.34	8	2	5
ME89-2																
Target Range - Lower Bound																
Upper Bound																
OxG46																
OxG46																
OxG46																
Target Range - Lower Bound																
Upper Bound																
SI15																
Target Range - Lower Bound																
Upper Bound																
ST-259																
ST-259																
ST-259																
Target Range - Lower Bound																
Upper Bound																

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QC CERTIFICATE OF ANALYSIS VA06089267

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
STANDARDS							
BM-9/A		0.01	<10	<10	15	<10	8190
Target Range - Lower Bound		<0.01	<10	<10	12	<10	7350
Upper Bound		0.02	20	20	17	20	8990
CU-108							
Target Range - Lower Bound							
Upper Bound							
G2000		0.05	<10	<10	67	10	1265
G2000		0.05	<10	<10	66	10	1285
Target Range - Lower Bound		0.04	<10	<10	59	<10	1145
Upper Bound		0.07	20	20	74	20	1400
GBM398-4c							
GBM398-4c							
Target Range - Lower Bound							
Upper Bound							
GBM999-5		<0.01	<10	<10	5	<10	104
Target Range - Lower Bound		<0.01	<10	<10	4	<10	97
Upper Bound		0.02	20	20	7	20	123
ME89-2							
Target Range - Lower Bound							
Upper Bound							
OxG46							
OxG46							
OxG46							
Target Range - Lower Bound							
Upper Bound							
SI15							
Target Range - Lower Bound							
Upper Bound							
ST-259							
ST-259							
ST-259							
Target Range - Lower Bound							
Upper Bound							

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QC CERTIFICATE OF ANALYSIS VA06089267

Sample Description	Method / Analyte / Units / LOR	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1	ME-ICP41 Fe % 0.01
BLANKS																
BLANK				<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
BLANK				<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
BLANK			<0.001													
BLANK			<0.001													
BLANK		<0.005														
BLANK		<0.005														
BLANK		<0.005														
Target Range - Lower Bound		<0.005	<0.001	<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
Upper Bound		0.010	0.002	0.4	0.02	4	20	20	1.0	4	0.02	1.0	2	2	2	0.02
DUPLICATES																
ORIGINAL		0.028														
DUP		0.035														
Target Range - Lower Bound		0.020														
Upper Bound		0.043														
225395			<0.001													
DUP			<0.001													
Target Range - Lower Bound			<0.001													
Upper Bound			0.002													
228033				0.5	0.49	<2	<10	30	<0.5	<2	3.53	<0.5	16	<1	839	4.81
DUP				0.5	0.48	<2	<10	30	<0.5	2	3.37	<0.5	16	<1	877	4.51
Target Range - Lower Bound				<0.2	0.44	<2	<10	<10	<0.5	<2	3.26	<0.5	13	<1	813	4.41
Upper Bound				0.9	0.53	4	20	50	1.0	4	3.64	1.0	19	2	903	4.91
228041		0.051														
DUP		0.051														
Target Range - Lower Bound		0.038														
Upper Bound		0.064														
228056			0.028													
DUP			0.028													
Target Range - Lower Bound			0.025													
Upper Bound			0.031													

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QC CERTIFICATE OF ANALYSIS VA06089267

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
BLANKS																
BLANK		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
BLANK		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
BLANK																
BLANK																
BLANK																
BLANK																
BLANK																
Target Range - Lower Bound		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
Upper Bound		20	2	0.02	20	0.02	10	2	0.02	2	20	4	0.02	4	2	2
DUPLICATES																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
225395																
DUP																
Target Range - Lower Bound																
Upper Bound																
228033		<10	<1	0.16	<10	0.02	12	4	0.02	<1	120	18	8.52	<2	1	273
DUP		<10	<1	0.17	<10	0.02	11	3	0.01	<1	120	17	8.28	<2	1	271
Target Range - Lower Bound		<10	<1	0.14	<10	<0.01	<5	<1	<0.01	<1	90	13	7.96	<2	<1	256
Upper Bound		20	2	0.19	20	0.04	22	6	0.02	2	150	22	8.84	4	2	288
228041																
DUP																
Target Range - Lower Bound																
Upper Bound																
228056																
DUP																
Target Range - Lower Bound																
Upper Bound																

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Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
BLANKS							
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK							
BLANK							
BLANK							
BLANK							
BLANK							
Target Range - Lower Bound		<0.01	<10	<10	<1	<10	<2
Upper Bound		0.02	20	20	2	20	4
DUPLICATES							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
225395							
DUP							
Target Range - Lower Bound							
Upper Bound							
228033		<0.01	<10	<10	5	<10	9
DUP		<0.01	<10	<10	5	<10	8
Target Range - Lower Bound		<0.01	<10	<10	3	<10	4
Upper Bound		0.02	20	20	7	20	13
228041							
DUP							
Target Range - Lower Bound							
Upper Bound							
228056							
DUP							
Target Range - Lower Bound							
Upper Bound							

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QC CERTIFICATE OF ANALYSIS VA06089267

Sample Description	Method / Analyte / Units / LOR	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1	ME-ICP41 Fe % 0.01
DUPLICATES																
228069				1.2	2.28	<2	<10	10	<0.5	<2	4.48	<0.5	36	16	878	7.14
DUP				1.2	2.17	3	<10	10	<0.5	<2	4.37	<0.5	33	16	831	6.75
Target Range - Lower Bound				0.7	2.09	<2	<10	<10	<0.5	<2	4.18	<0.5	31	13	810	6.58
Upper Bound				1.7	2.36	4	20	20	1.0	4	4.67	1.0	38	19	899	7.31
227753		0.005														
DUP		<0.005														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														
227773		0.017														
DUP		0.018														
Target Range - Lower Bound		0.007														
Upper Bound		0.028														
ORIGINAL		0.008														
DUP		0.008														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														

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Phone: 604 984 0221 Fax: 604 984 0218 www.alschemex.com

To: NORTHGATE MINERALS CORPORATION
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 28-SEP-2006
Account: PIL

Project: 4012

QC CERTIFICATE OF ANALYSIS VA06089267

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
		DUPLICATES														
228069		10	<1	0.11	<10	1.73	378	38	0.03	15	1350	5	>10.0	<2	3	183
DUP		<10	<1	0.11	<10	1.63	359	36	0.03	15	1250	6	>10.0	<2	3	182
Target Range - Lower Bound		<10	<1	0.08	<10	1.58	340	33	<0.01	12	1220	<2	9.48	<2	<1	171
Upper Bound		20	2	0.14	20	1.78	397	41	0.05	18	1390	10	10.00	4	5	194
227753																
DUP																
Target Range - Lower Bound																
Upper Bound																
227773																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																

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QC CERTIFICATE OF ANALYSIS VA06089267

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
		DUPLICATES					
228069		<0.01	<10	<10	45	<10	106
DUP		<0.01	<10	<10	43	<10	100
Target Range - Lower Bound		<0.01	<10	<10	40	<10	94
Upper Bound		0.02	20	20	48	20	112
227753							
DUP							
Target Range - Lower Bound							
Upper Bound							
227773							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							

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Finalized Date: 26-SEP-2006
This copy reported on 23-FEB-2007
Account: PIL

QC CERTIFICATE VA06089268

Project: 4013
P.O. No.:
This report is for 9 Crushed Rock samples submitted to our lab in Vancouver, BC, Canada on 29-AUG-2006.

The following have access to data associated with this certificate:

CARL EDMUNDS R KONST	B. KAY RON KONST	BRIAN KAY

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
PUL-31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES
Au-AA23	Au 30g FA-AA finish	AAS
Cu-AA49	Assay Cu - HBr Digestion	AAS

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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Project: 4013

QC CERTIFICATE OF ANALYSIS VA06089268

Sample Description	Method	Au-AA23	Cu-AA49	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Au	Cu	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	0.005	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
STANDARDS																
BM-9/A				13.7	0.94	19	<10	80	0.8	110	0.16	25.1	99	195	5320	3.46
Target Range - Lower Bound				12.2	0.80	20	<10	70	<0.5	100	0.13	23.2	88	176	4890	3.28
Upper Bound				15.4	1.00	28	20	110	1.0	127	0.19	29.5	110	217	5980	4.04
CU-108			0.645													
Target Range - Lower Bound			0.627													
Upper Bound			0.695													
G2000				3.1	1.81	475	<10	760	0.9	<2	0.49	6.6	22	68	290	3.59
G2000				3.6	2.01	493	<10	890	1.0	<2	0.51	7.2	24	72	309	3.78
Target Range - Lower Bound				3.0	1.66	434	<10	720	<0.5	<2	0.46	6.0	21	63	272	3.41
Upper Bound				4.1	2.06	534	20	1000	1.0	4	0.58	8.4	27	79	334	4.19
GBM398-4c			0.374													
GBM398-4c			0.374													
Target Range - Lower Bound			0.369													
Upper Bound			0.410													
GBM999-5				62.0	0.21	4	<10	60	<0.5	<2	0.05	<0.5	3	5	477	2.82
Target Range - Lower Bound				53.3	0.17	<2	<10	40	<0.5	<2	0.04	<0.5	2	4	436	2.56
Upper Bound				65.5	0.23	4	20	70	1.0	4	0.07	1.0	4	7	536	3.15
ME89-2			0.225													
Target Range - Lower Bound			0.218													
Upper Bound			0.243													
OxG46		1.010														
Target Range - Lower Bound		0.959														
Upper Bound		1.115														
SI15		1.770														
Target Range - Lower Bound		1.675														
Upper Bound		1.935														
ST-259		2.33														
Target Range - Lower Bound		2.30														
Upper Bound		2.66														

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QC CERTIFICATE OF ANALYSIS VA06089268

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
STANDARDS																
BM-9/A		<10	2	0.02	10	0.41	607	2	0.39	351	90	6310	1.47	4	8	73
Target Range - Lower Bound		<10	<1	<0.01	<10	0.37	561	3	0.37	329	70	5980	1.27	3	6	67
Upper Bound		20	2	0.03	20	0.47	697	5	0.47	404	100	7310	1.57	9	10	84
CU-108																
Target Range - Lower Bound																
Upper Bound																
G2000		10	2	0.40	20	0.63	551	4	0.03	266	900	621	0.24	20	7	64
G2000		10	1	0.42	20	0.68	569	4	0.03	281	960	665	0.29	23	7	72
Target Range - Lower Bound		<10	<1	0.37	<10	0.60	506	4	0.02	246	840	601	0.23	19	5	60
Upper Bound		20	2	0.47	40	0.76	630	8	0.04	302	1050	739	0.31	31	9	76
GBM398-4c																
GBM398-4c																
Target Range - Lower Bound																
Upper Bound																
GBM999-5		<10	<1	0.05	10	0.02	61	3	0.01	3	40	480	0.28	4	1	3
Target Range - Lower Bound		<10	<1	0.04	<10	<0.01	49	2	<0.01	2	20	452	0.26	<2	<1	2
Upper Bound		20	2	0.07	20	0.03	71	5	0.03	5	50	556	0.34	8	2	5
ME89-2																
Target Range - Lower Bound																
Upper Bound																
OxG46																
Target Range - Lower Bound																
Upper Bound																
SI15																
Target Range - Lower Bound																
Upper Bound																
ST-259																
Target Range - Lower Bound																
Upper Bound																

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QC CERTIFICATE OF ANALYSIS VA06089268

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
STANDARDS							
BM-9/A		<0.01	<10	<10	15	<10	7870
Target Range - Lower Bound		<0.01	<10	<10	12	<10	7350
Upper Bound		0.02	20	20	17	20	8990
CU-108							
Target Range - Lower Bound							
Upper Bound							
G2000		0.05	<10	<10	63	<10	1265
G2000		0.05	<10	<10	68	<10	1315
Target Range - Lower Bound		0.04	<10	<10	59	<10	1145
Upper Bound		0.07	20	20	74	20	1400
GBM398-4c							
GBM398-4c							
Target Range - Lower Bound							
Upper Bound							
GBM999-5		<0.01	<10	<10	5	<10	113
Target Range - Lower Bound		<0.01	<10	<10	4	<10	97
Upper Bound		0.02	20	20	7	20	123
ME89-2							
Target Range - Lower Bound							
Upper Bound							
OxG46							
Target Range - Lower Bound							
Upper Bound							
SI15							
Target Range - Lower Bound							
Upper Bound							
ST-259							
Target Range - Lower Bound							
Upper Bound							

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QC CERTIFICATE OF ANALYSIS VA06089268

Sample Description	Method / Analyte / Units / LOR	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1	ME-ICP41 Fe % 0.01
BLANKS																
BLANK				<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
BLANK				<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
BLANK			<0.001													
BLANK			<0.001													
BLANK		<0.005														
Target Range - Lower Bound		<0.005	<0.001	<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
Upper Bound		0.010	0.002	0.4	0.02	4	20	20	1.0	4	0.02	1.0	2	2	2	0.02
DUPLICATES																
ORIGINAL		0.028														
DUP		0.035														
Target Range - Lower Bound		0.020														
Upper Bound		0.043														
225377				<0.2	2.90	5	<10	60	0.7	<2	2.42	0.5	6	119	12	2.35
DUP				<0.2	2.78	4	<10	60	0.7	<2	2.32	<0.5	7	112	12	2.30
Target Range - Lower Bound				<0.2	2.68	<2	<10	40	<0.5	<2	2.23	<0.5	4	108	9	2.19
Upper Bound				0.4	3.00	9	20	80	1.0	4	2.51	1.0	9	123	15	2.46
228056			0.028													
DUP			0.028													
Target Range - Lower Bound			0.025													
Upper Bound			0.031													
227753		0.005														
DUP		<0.005														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														
227754				<0.2	2.46	6	<10	100	<0.5	<2	1.76	<0.5	6	4	179	4.16
DUP				<0.2	2.54	7	<10	100	<0.5	<2	1.86	<0.5	6	4	181	4.36
Target Range - Lower Bound				<0.2	2.36	<2	<10	70	<0.5	<2	1.70	<0.5	4	2	169	4.03
Upper Bound				0.4	2.65	11	20	130	1.0	4	1.92	1.0	8	6	191	4.49
227757			0.001													
DUP			0.001													
Target Range - Lower Bound			<0.001													
Upper Bound			0.002													

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QC CERTIFICATE OF ANALYSIS VA06089268

Sample Description / Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
BLANKS															
BLANK	<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
BLANK	<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
BLANK															
BLANK															
BLANK															
Target Range - Lower Bound	<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
Upper Bound	20	2	0.02	20	0.02	10	2	0.02	2	20	4	0.02	4	2	2
DUPLICATES															
ORIGINAL															
DUP															
Target Range - Lower Bound															
Upper Bound															
225377	10	<1	0.16	10	0.65	568	<1	0.09	2	490	7	<0.01	<2	5	105
DUP	10	1	0.15	10	0.64	559	<1	0.09	2	480	5	<0.01	<2	5	101
Target Range - Lower Bound	<10	<1	0.13	<10	0.59	525	<1	0.07	<1	440	<2	<0.01	<2	3	96
Upper Bound	20	2	0.18	20	0.70	602	2	0.11	4	530	10	0.02	4	7	110
228056															
DUP															
Target Range - Lower Bound															
Upper Bound															
227753															
DUP															
Target Range - Lower Bound															
Upper Bound															
227754	10	1	0.11	10	1.18	965	<1	0.14	<1	890	4	0.20	<2	5	136
DUP	10	1	0.11	10	1.23	1010	<1	0.15	<1	930	2	0.21	2	5	140
Target Range - Lower Bound	<10	<1	0.08	<10	1.12	928	<1	0.12	<1	840	<2	0.17	<2	3	129
Upper Bound	20	2	0.14	20	1.29	1045	2	0.17	2	980	4	0.24	4	7	147
227757															
DUP															
Target Range - Lower Bound															
Upper Bound															

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Finalized Date: 26-SEP-2006
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Project: 4013

QC CERTIFICATE OF ANALYSIS VA06089268

Sample Description / Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
BLANKS						
BLANK	<0.01	<10	<10	<1	<10	<2
BLANK	<0.01	<10	<10	<1	<10	<2
BLANK						
BLANK						
BLANK						
Target Range - Lower Bound	<0.01	<10	<10	<1	<10	<2
Upper Bound	0.02	20	20	2	20	4
DUPLICATES						
ORIGINAL						
DUP						
Target Range - Lower Bound						
Upper Bound						
225377	0.14	<10	<10	48	<10	92
DUP	0.14	<10	<10	46	<10	90
Target Range - Lower Bound	0.11	<10	<10	43	<10	82
Upper Bound	0.17	20	20	51	20	100
228056						
DUP						
Target Range - Lower Bound						
Upper Bound						
227753						
DUP						
Target Range - Lower Bound						
Upper Bound						
227754	0.17	<10	<10	80	<10	98
DUP	0.17	<10	10	81	<10	100
Target Range - Lower Bound	0.14	<10	<10	74	<10	90
Upper Bound	0.20	20	20	87	20	108
227757						
DUP						
Target Range - Lower Bound						
Upper Bound						

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QC CERTIFICATE OF ANALYSIS VA06089268

Sample Description	Method / Analyte / Units / LOR	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1	ME-ICP41 Fe % 0.01
DUPLICATES																
227773		0.017														
DUP		0.018														
Target Range - Lower Bound		0.007														
Upper Bound		0.028														

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QC CERTIFICATE OF ANALYSIS VA06089268

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
		DUPLICATES														
227773																
DUP																
Target Range - Lower Bound																
Upper Bound																

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Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
DUPLICATES							
227773							
DUP							
Target Range - Lower Bound							
Upper Bound							

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Account: PIL

QC CERTIFICATE VA06089269

Project: 4012
P.O. No.:
This report is for 25 Crushed Rock samples submitted to our lab in Vancouver, BC, Canada on 29-AUG-2006.

The following have access to data associated with this certificate:

CARL EDMUNDS R KONST	B. KAY RON KONST	BRIAN KAY

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
PUL-31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES
Au-AA23	Au 30g FA-AA finish	AAS
Cu-AA49	Assay Cu - HBr Digestion	AAS

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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To: NORTHGATE MINERALS CORPORATION
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 26-SEP-2006
Account: PIL

Project: 4012

QC CERTIFICATE OF ANALYSIS VA06089269

Sample Description	Method	Au-AA23	Cu-AA49	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Au	Cu	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	0.005	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
STANDARDS																
BM-9/A				13.7	0.94	19	<10	80	0.8	110	0.16	25.1	99	195	5320	3.46
Target Range - Lower Bound				12.2	0.80	20	<10	70	<0.5	100	0.13	23.2	88	176	4890	3.28
Upper Bound				15.4	1.00	28	20	110	1.0	127	0.19	29.5	110	217	5980	4.04
G2000				3.6	2.01	493	<10	890	1.0	<2	0.51	7.2	24	72	309	3.78
Target Range - Lower Bound				3.0	1.66	434	<10	720	<0.5	<2	0.46	6.0	21	63	272	3.41
Upper Bound				4.1	2.06	534	20	1000	1.0	4	0.58	8.4	27	79	334	4.19
GBM398-4c			0.374													
Target Range - Lower Bound			0.369													
Upper Bound			0.410													
ME89-2			0.225													
Target Range - Lower Bound			0.218													
Upper Bound			0.243													
OxG46		1.010														
Target Range - Lower Bound		0.959														
Upper Bound		1.115														
SI15		1.770														
Target Range - Lower Bound		1.675														
Upper Bound		1.935														
ST-259		2.33														
Target Range - Lower Bound		2.30														
Upper Bound		2.66														
BLANKS																
BLANK				<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
BLANK			<0.001													
BLANK		<0.005														
Target Range - Lower Bound		<0.005	<0.001	<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
Upper Bound		0.010	0.002	0.4	0.02	4	20	20	1.0	4	0.02	1.0	2	2	2	0.02

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QC CERTIFICATE OF ANALYSIS VA06089269

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
STANDARDS																
BM-9/A		<10	2	0.02	10	0.41	607	2	0.39	351	90	6310	1.47	4	8	73
Target Range - Lower Bound		<10	<1	<0.01	<10	0.37	561	3	0.37	329	70	5980	1.27	3	6	67
Upper Bound		20	2	0.03	20	0.47	697	5	0.47	404	100	7310	1.57	9	10	84
G2000		10	1	0.42	20	0.68	569	4	0.03	281	960	665	0.29	23	7	72
Target Range - Lower Bound		<10	<1	0.37	<10	0.60	506	4	0.02	246	840	601	0.23	19	5	60
Upper Bound		20	2	0.47	40	0.76	630	8	0.04	302	1050	739	0.31	31	9	76
GBM398-4c																
Target Range - Lower Bound																
Upper Bound																
ME89-2																
Target Range - Lower Bound																
Upper Bound																
OxG46																
Target Range - Lower Bound																
Upper Bound																
SI15																
Target Range - Lower Bound																
Upper Bound																
ST-259																
Target Range - Lower Bound																
Upper Bound																
BLANKS																
BLANK		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
BLANK																
BLANK																
Target Range - Lower Bound		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
Upper Bound		20	2	0.02	20	0.02	10	2	0.02	2	20	4	0.02	4	2	2

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QC CERTIFICATE OF ANALYSIS VA06089269

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
STANDARDS							
BM-9/A		<0.01	<10	<10	15	<10	7870
Target Range - Lower Bound		<0.01	<10	<10	12	<10	7350
Upper Bound		0.02	20	20	17	20	8990
G2000		0.05	<10	<10	68	<10	1315
Target Range - Lower Bound		0.04	<10	<10	59	<10	1145
Upper Bound		0.07	20	20	74	20	1400
GBM398-4c							
Target Range - Lower Bound							
Upper Bound							
ME89-2							
Target Range - Lower Bound							
Upper Bound							
OxG46							
Target Range - Lower Bound							
Upper Bound							
SI15							
Target Range - Lower Bound							
Upper Bound							
ST-259							
Target Range - Lower Bound							
Upper Bound							
BLANKS							
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK							
BLANK							
Target Range - Lower Bound		<0.01	<10	<10	<1	<10	<2
Upper Bound		0.02	20	20	2	20	4

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QC CERTIFICATE OF ANALYSIS VA06089269

Sample Description	Method / Analyte / Units / LOR	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1	ME-ICP41 Fe % 0.01
DUPLICATES																
ORIGINAL		0.028														
DUP		0.035														
Target Range - Lower Bound		0.020														
Upper Bound		0.043														
227753		0.005														
DUP		<0.005														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														
227754				<0.2	2.46	6	<10	100	<0.5	<2	1.76	<0.5	6	4	179	4.16
DUP				<0.2	2.54	7	<10	100	<0.5	<2	1.86	<0.5	6	4	181	4.36
Target Range - Lower Bound				<0.2	2.36	<2	<10	70	<0.5	<2	1.70	<0.5	4	2	169	4.03
Upper Bound				0.4	2.65	11	20	130	1.0	4	1.92	1.0	8	6	191	4.49
227757			0.001													
DUP			0.001													
Target Range - Lower Bound			<0.001													
Upper Bound			0.002													
227773		0.017														
DUP		0.018														
Target Range - Lower Bound		0.007														
Upper Bound		0.028														

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QC CERTIFICATE OF ANALYSIS VA06089269

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
DUPLICATES																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
227753																
DUP																
Target Range - Lower Bound																
Upper Bound																
227754		10	1	0.11	10	1.18	965	<1	0.14	<1	890	4	0.20	<2	5	136
DUP		10	1	0.11	10	1.23	1010	<1	0.15	<1	930	2	0.21	2	5	140
Target Range - Lower Bound		<10	<1	0.08	<10	1.12	928	<1	0.12	<1	840	<2	0.17	<2	3	129
Upper Bound		20	2	0.14	20	1.29	1045	2	0.17	2	980	4	0.24	4	7	147
227757																
DUP																
Target Range - Lower Bound																
Upper Bound																
227773																
DUP																
Target Range - Lower Bound																
Upper Bound																

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QC CERTIFICATE OF ANALYSIS VA06089269

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
DUPLICATES							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
227753							
DUP							
Target Range - Lower Bound							
Upper Bound							
227754		0.17	<10	<10	80	<10	98
DUP		0.17	<10	10	81	<10	100
Target Range - Lower Bound		0.14	<10	<10	74	<10	90
Upper Bound		0.20	20	20	87	20	108
227757							
DUP							
Target Range - Lower Bound							
Upper Bound							
227773							
DUP							
Target Range - Lower Bound							
Upper Bound							

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Finalized Date: 28-SEP-2006
This copy reported on 23-FEB-2007
Account: PIL

QC CERTIFICATE VA06089490

Project: 4013
P.O. No.:
This report is for 49 Crushed Rock samples submitted to our lab in Vancouver, BC, Canada on 29-AUG-2006.

The following have access to data associated with this certificate:

CARL EDMUNDS RON KONST	B. KAY	BRIAN KAY

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
PUL-QC	Pulverizing QC Test
PUL-31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES
Au-AA23	Au 30g FA-AA finish	AAS
Cu-AA49	Assay Cu - HBr Digestion	AAS

To: NORTHGATE MINERALS CORPORATION
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Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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Finalized Date: 28-SEP-2006
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Project: 4013

QC CERTIFICATE OF ANALYSIS VA06089490

Sample Description	Method	Au-AA23	Cu-AA49	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Au	Cu	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	0.005	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
STANDARDS																
BM-9/A				14.4	0.82	17	<10	90	0.8	108	0.17	26.4	93	191	5320	3.56
BM-9/A				14.8	0.97	23	<10	100	0.9	125	0.18	28.9	105	213	5810	3.87
Target Range - Lower Bound				12.2	0.80	20	<10	70	<0.5	100	0.13	23.2	88	176	4890	3.28
Upper Bound				15.4	1.00	28	20	110	1.0	127	0.19	29.5	110	217	5980	4.04
CU-108			0.667													
Target Range - Lower Bound			0.627													
Upper Bound			0.695													
G2000				3.3	1.89	476	10	870	0.9	<2	0.52	7.1	22	67	306	3.79
G2000				4.1	1.96	487	<10	900	1.0	<2	0.51	7.2	24	72	305	3.84
Target Range - Lower Bound				3.0	1.66	434	<10	720	<0.5	<2	0.46	6.0	21	63	272	3.41
Upper Bound				4.1	2.06	534	20	1000	1.0	4	0.58	8.4	27	79	334	4.19
GBM398-4c			0.374													
GBM398-4c			0.388													
GBM398-4c			0.387													
GBM398-4c			0.396													
Target Range - Lower Bound			0.369													
Upper Bound			0.410													
GBM999-5				64.2	0.19	<2	<10	60	<0.5	<2	0.06	<0.5	3	4	472	2.98
Target Range - Lower Bound				53.3	0.17	<2	<10	40	<0.5	<2	0.04	<0.5	2	4	436	2.56
Upper Bound				65.5	0.23	4	20	70	1.0	4	0.07	1.0	4	7	536	3.15
ME89-2			0.225													
ME89-2			0.235													
ME89-2			0.236													
Target Range - Lower Bound			0.218													
Upper Bound			0.243													
OxG46		1.010														
OxG46		1.035														
Target Range - Lower Bound		0.959														
Upper Bound		1.115														
SI15		1.770														
Target Range - Lower Bound		1.675														
Upper Bound		1.935														
ST-259		2.33														
ST-259		2.52														
Target Range - Lower Bound		2.30														
Upper Bound		2.66														

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QC CERTIFICATE OF ANALYSIS VA06089490

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
STANDARDS																
BM-9/A		<10	<1	0.02	10	0.40	634	2	0.37	350	90	6570	1.45	6	8	70
BM-9/A		<10	<1	0.02	10	0.44	674	4	0.45	379	90	6880	1.56	7	9	80
Target Range - Lower Bound		<10	<1	<0.01	<10	0.37	561	3	0.37	329	70	5980	1.27	3	6	67
Upper Bound		20	2	0.03	20	0.47	697	5	0.47	404	100	7310	1.57	9	10	84
CU-108																
Target Range - Lower Bound																
Upper Bound																
G2000		10	<1	0.41	20	0.65	568	4	0.03	269	960	663	0.29	28	7	67
G2000		10	2	0.41	20	0.67	554	5	0.03	284	990	695	0.27	26	7	70
Target Range - Lower Bound		<10	<1	0.37	<10	0.60	506	4	0.02	246	840	601	0.23	19	5	60
Upper Bound		20	2	0.47	40	0.76	630	8	0.04	302	1050	739	0.31	31	9	76
GBM398-4c																
GBM398-4c																
GBM398-4c																
GBM398-4c																
Target Range - Lower Bound																
Upper Bound																
GBM999-5		<10	<1	0.05	10	0.02	66	3	0.01	4	20	515	0.30	7	1	4
Target Range - Lower Bound		<10	<1	0.04	<10	<0.01	49	2	<0.01	2	20	452	0.26	<2	<1	2
Upper Bound		20	2	0.07	20	0.03	71	5	0.03	5	50	556	0.34	8	2	5
ME89-2																
ME89-2																
ME89-2																
Target Range - Lower Bound																
Upper Bound																
OxG46																
OxG46																
Target Range - Lower Bound																
Upper Bound																
SI15																
Target Range - Lower Bound																
Upper Bound																
ST-259																
ST-259																
Target Range - Lower Bound																
Upper Bound																

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QC CERTIFICATE OF ANALYSIS VA06089490

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
STANDARDS							
BM-9/A		0.01	<10	<10	15	<10	8310
BM-9/A		0.01	<10	<10	17	<10	8590
Target Range - Lower Bound		<0.01	<10	<10	12	<10	7350
Upper Bound		0.02	20	20	17	20	8990
CU-108							
Target Range - Lower Bound							
Upper Bound							
G2000		0.05	10	<10	65	10	1270
G2000		0.05	<10	<10	68	<10	1305
Target Range - Lower Bound		0.04	<10	<10	59	<10	1145
Upper Bound		0.07	20	20	74	20	1400
GBM398-4c							
GBM398-4c							
GBM398-4c							
GBM398-4c							
Target Range - Lower Bound							
Upper Bound							
GBM999-5		<0.01	<10	<10	5	<10	117
Target Range - Lower Bound		<0.01	<10	<10	4	<10	97
Upper Bound		0.02	20	20	7	20	123
ME89-2							
ME89-2							
ME89-2							
Target Range - Lower Bound							
Upper Bound							
OxG46							
OxG46							
Target Range - Lower Bound							
Upper Bound							
SI15							
Target Range - Lower Bound							
Upper Bound							
ST-259							
ST-259							
Target Range - Lower Bound							
Upper Bound							

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Sample Description	Method / Analyte / Units / LOR	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1	ME-ICP41 Fe % 0.01
BLANKS																
BLANK				<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
BLANK				<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
BLANK				<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
BLANK			<0.001													
BLANK			<0.001													
BLANK			<0.001													
BLANK		<0.005														
BLANK		<0.005														
BLANK			<0.001													
Target Range - Lower Bound		<0.005	<0.001	<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
Upper Bound		0.010	0.002	0.4	0.02	4	20	20	1.0	4	0.02	1.0	2	2	2	0.02
DUPLICATES																
ORIGINAL		0.028														
DUP		0.035														
Target Range - Lower Bound		0.020														
Upper Bound		0.043														
227753		0.005														
DUP		<0.005														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														
227757			0.001													
DUP			0.001													
Target Range - Lower Bound			<0.001													
Upper Bound			0.002													
227773		0.017														
DUP		0.018														
Target Range - Lower Bound		0.007														
Upper Bound		0.028														
225426				1.2	3.41	7	<10	40	0.5	<2	2.85	<0.5	15	80	1870	5.37
DUP				1.2	3.49	5	<10	40	0.6	<2	3.08	<0.5	17	82	1855	5.72
Target Range - Lower Bound				0.7	3.26	<2	<10	20	<0.5	<2	2.80	<0.5	13	75	1765	5.25
Upper Bound				1.7	3.64	10	20	60	1.0	4	3.13	1.0	19	87	1960	5.84

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PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 28-SEP-2006
Account: PIL

Project: 4013

QC CERTIFICATE OF ANALYSIS VA06089490

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
BLANKS																
BLANK		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
BLANK		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
BLANK		<10	<1	<0.01	<10	<0.01	<5	1	<0.01	<1	<10	<2	<0.01	<2	<1	1
BLANK																
BLANK																
BLANK																
BLANK																
BLANK																
Target Range - Lower Bound		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
Upper Bound		20	2	0.02	20	0.02	10	2	0.02	2	20	4	0.02	4	2	2
DUPLICATES																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
227753																
DUP																
Target Range - Lower Bound																
Upper Bound																
227757																
DUP																
Target Range - Lower Bound																
Upper Bound																
227773																
DUP																
Target Range - Lower Bound																
Upper Bound																
225426		10	1	0.22	<10	2.49	1980	41	0.04	43	890	10	0.29	<2	11	66
DUP		10	<1	0.22	<10	2.61	2100	45	0.04	41	960	6	0.30	<2	12	67
Target Range - Lower Bound		<10	<1	0.19	<10	2.40	1930	39	0.02	38	860	4	0.26	<2	9	61
Upper Bound		20	2	0.25	20	2.70	2150	47	0.06	46	990	12	0.33	4	14	72

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QC CERTIFICATE OF ANALYSIS VA06089490

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
BLANKS							
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK							
BLANK							
BLANK							
BLANK							
BLANK							
BLANK							
Target Range - Lower Bound		<0.01	<10	<10	<1	<10	<2
Upper Bound		0.02	20	20	2	20	4
DUPLICATES							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
227753							
DUP							
Target Range - Lower Bound							
Upper Bound							
227757							
DUP							
Target Range - Lower Bound							
Upper Bound							
227773							
DUP							
Target Range - Lower Bound							
Upper Bound							
225426		0.23	<10	<10	119	<10	146
DUP		0.23	<10	<10	124	10	155
Target Range - Lower Bound		0.20	<10	<10	113	<10	139
Upper Bound		0.26	20	20	130	20	162

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QC CERTIFICATE OF ANALYSIS VA06089490

Sample Description	Method	Au-AA23	Cu-AA49	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Au	Cu	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	0.005	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
DUPLICATES																
225443			0.003													
DUP			0.003													
Target Range - Lower Bound			<0.001													
Upper Bound			0.005													
225448			0.032													
DUP			0.031													
Target Range - Lower Bound			0.029													
Upper Bound			0.034													
225460		0.008														
DUP		0.007														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														
225462				<0.2	3.19	<2	<10	110	0.6	<2	2.97	0.9	2	2	16	3.08
DUP				<0.2	3.12	5	<10	100	0.6	<2	2.87	0.7	3	2	21	2.99
Target Range - Lower Bound				<0.2	2.98	<2	<10	80	<0.5	<2	2.75	<0.5	<1	<1	16	2.86
Upper Bound				0.4	3.33	4	20	130	1.0	4	3.09	1.0	5	4	21	3.21
225472				0.4	2.91	<2	<10	80	0.5	<2	3.12	<0.5	6	3	36	3.09
DUP				<0.2	2.81	6	<10	80	0.5	<2	3.06	<0.5	5	3	36	3.03
Target Range - Lower Bound				<0.2	2.70	<2	<10	50	<0.5	<2	2.92	<0.5	3	<1	32	2.89
Upper Bound				0.4	3.02	8	20	110	1.0	4	3.26	1.0	8	5	40	3.23
225405			0.240													
DUP			0.236													
Target Range - Lower Bound			0.230													
Upper Bound			0.246													
228077		0.070														
DUP		0.073														
Target Range - Lower Bound		0.058														
Upper Bound		0.085														

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QC CERTIFICATE OF ANALYSIS VA06089490

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
DUPLICATES																
225443																
DUP																
Target Range - Lower Bound																
Upper Bound																
225448																
DUP																
Target Range - Lower Bound																
Upper Bound																
225460																
DUP																
Target Range - Lower Bound																
Upper Bound																
225462		10	1	0.11	10	0.66	663	2	0.07	<1	810	9	0.03	<2	4	195
DUP		10	1	0.11	10	0.65	647	4	0.06	<1	770	7	0.02	<2	4	193
Target Range - Lower Bound		<10	<1	0.08	<10	0.60	612	<1	0.04	<1	730	4	<0.01	<2	2	182
Upper Bound		20	2	0.14	20	0.71	698	5	0.09	2	850	12	0.05	4	6	206
225472		10	<1	0.19	10	0.76	1020	2	0.06	2	840	6	0.03	<2	5	163
DUP		<10	<1	0.19	10	0.74	999	2	0.06	1	830	7	0.03	<2	5	159
Target Range - Lower Bound		<10	<1	0.16	<10	0.69	949	<1	0.04	<1	770	<2	<0.01	<2	3	151
Upper Bound		20	2	0.22	20	0.81	1070	4	0.08	2	900	11	0.05	4	7	171
225405																
DUP																
Target Range - Lower Bound																
Upper Bound																
228077																
DUP																
Target Range - Lower Bound																
Upper Bound																

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QC CERTIFICATE OF ANALYSIS VA06089490

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
		DUPLICATES					
225443	DUP						
	Target Range - Lower Bound						
	Upper Bound						
225448	DUP						
	Target Range - Lower Bound						
	Upper Bound						
225460	DUP						
	Target Range - Lower Bound						
	Upper Bound						
225462		0.13	<10	<10	60	<10	144
	DUP	0.13	<10	<10	58	<10	134
	Target Range - Lower Bound	0.10	<10	<10	54	<10	128
	Upper Bound	0.16	20	20	64	20	150
225472		0.10	<10	<10	55	<10	65
	DUP	0.10	<10	<10	54	<10	63
	Target Range - Lower Bound	0.08	<10	<10	50	<10	57
	Upper Bound	0.13	20	20	59	20	71
225405	DUP						
	Target Range - Lower Bound						
	Upper Bound						
228077	DUP						
	Target Range - Lower Bound						
	Upper Bound						

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Finalized Date: 28-SEP-2006
This copy reported on 23-FEB-2007
Account: PIL

QC CERTIFICATE VA06089491

Project: 4012
P.O. No.:
This report is for 49 Crushed Rock samples submitted to our lab in Vancouver, BC, Canada on 29-AUG-2006.

The following have access to data associated with this certificate:

CARL EDMUNDS RON KONST	B. KAY	BRIAN KAY

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
PUL-31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES
Au-AA23	Au 30g FA-AA finish	AAS
Cu-AA49	Assay Cu - HBr Digestion	AAS

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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Finalized Date: 28-SEP-2006
Account: PIL

Project: 4012

QC CERTIFICATE OF ANALYSIS VA06089491

Sample Description	Method	Au-AA23	Cu-AA49	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Au	Cu	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	0.005	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
STANDARDS																
BM-9/A				13.8	0.92	25	<10	90	0.8	118	0.17	26.5	98	204	5310	3.62
BM-9/A				14.8	0.97	23	<10	100	0.9	125	0.18	28.9	105	213	5810	3.87
Target Range - Lower Bound				12.2	0.80	20	<10	70	<0.5	100	0.13	23.2	88	176	4890	3.28
Upper Bound				15.4	1.00	28	20	110	1.0	127	0.19	29.5	110	217	5980	4.04
CU-108			0.676													
Target Range - Lower Bound			0.627													
Upper Bound			0.695													
G2000				3.4	1.91	502	<10	900	1.0	<2	0.52	7.2	25	75	315	3.88
Target Range - Lower Bound				3.0	1.66	434	<10	720	<0.5	<2	0.46	6.0	21	63	272	3.41
Upper Bound				4.1	2.06	534	20	1000	1.0	4	0.58	8.4	27	79	334	4.19
GBM398-4c			0.387													
GBM398-4c			0.376													
Target Range - Lower Bound			0.369													
Upper Bound			0.410													
ME89-2			0.235													
Target Range - Lower Bound			0.218													
Upper Bound			0.243													
OxG46		1.035														
OxG46		1.050														
Target Range - Lower Bound		0.959														
Upper Bound		1.115														
ST-259		2.52														
ST-259		2.60														
Target Range - Lower Bound		2.30														
Upper Bound		2.66														
BLANKS																
BLANK				<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
BLANK				<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
BLANK			<0.001													
BLANK			<0.001													
BLANK		<0.005														
BLANK		<0.005														
Target Range - Lower Bound		<0.005	<0.001	<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
Upper Bound		0.010	0.002	0.4	0.02	4	20	20	1.0	4	0.02	1.0	2	2	2	0.02

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QC CERTIFICATE OF ANALYSIS VA06089491

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
STANDARDS																
BM-9/A		<10	1	0.02	10	0.41	629	4	0.42	369	90	6640	1.44	5	9	78
BM-9/A		<10	<1	0.02	10	0.44	674	4	0.45	379	90	6880	1.56	7	9	80
Target Range - Lower Bound		<10	<1	<0.01	<10	0.37	561	3	0.37	329	70	5980	1.27	3	6	67
Upper Bound		20	2	0.03	20	0.47	697	5	0.47	404	100	7310	1.57	9	10	84
CU-108																
Target Range - Lower Bound																
Upper Bound																
G2000		10	1	0.42	20	0.66	562	6	0.03	295	980	677	0.27	24	7	71
Target Range - Lower Bound		<10	<1	0.37	<10	0.60	506	4	0.02	246	840	601	0.23	19	5	60
Upper Bound		20	2	0.47	40	0.76	630	8	0.04	302	1050	739	0.31	31	9	76
GBM398-4c																
GBM398-4c																
Target Range - Lower Bound																
Upper Bound																
ME89-2																
Target Range - Lower Bound																
Upper Bound																
OxG46																
OxG46																
Target Range - Lower Bound																
Upper Bound																
ST-259																
ST-259																
Target Range - Lower Bound																
Upper Bound																
BLANKS																
BLANK		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
BLANK		<10	<1	<0.01	<10	<0.01	<5	1	<0.01	<1	<10	<2	<0.01	<2	<1	1
BLANK																
BLANK																
BLANK																
BLANK																
Target Range - Lower Bound		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
Upper Bound		20	2	0.02	20	0.02	10	2	0.02	2	20	4	0.02	4	2	2

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QC CERTIFICATE OF ANALYSIS VA06089491

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
STANDARDS							
BM-9/A		0.01	<10	<10	16	<10	8250
BM-9/A		0.01	<10	<10	17	<10	8590
Target Range - Lower Bound		<0.01	<10	<10	12	<10	7350
Upper Bound		0.02	20	20	17	20	8990
CU-108							
Target Range - Lower Bound							
Upper Bound							
G2000		0.06	<10	<10	70	10	1345
Target Range - Lower Bound		0.04	<10	<10	59	<10	1145
Upper Bound		0.07	20	20	74	20	1400
GBM398-4c							
GBM398-4c							
Target Range - Lower Bound							
Upper Bound							
ME89-2							
Target Range - Lower Bound							
Upper Bound							
OxG46							
OxG46							
Target Range - Lower Bound							
Upper Bound							
ST-259							
ST-259							
Target Range - Lower Bound							
Upper Bound							
BLANKS							
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK							
BLANK							
BLANK							
BLANK							
Target Range - Lower Bound		<0.01	<10	<10	<1	<10	<2
Upper Bound		0.02	20	20	2	20	4

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Project: 4012

QC CERTIFICATE OF ANALYSIS VA06089491

Sample Description	Method / Analyte / Units / LOR	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1	ME-ICP41 Fe % 0.01
DUPLICATES																
ORIGINAL		0.805														
DUP		0.801														
Target Range - Lower Bound		0.753														
Upper Bound		0.853														
ORIGINAL		0.336														
DUP		0.332														
Target Range - Lower Bound		0.307														
Upper Bound		0.361														
225460		0.008														
DUP		0.007														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														
225472				0.4	2.91	<2	<10	80	0.5	<2	3.12	<0.5	6	3	36	3.09
DUP				<0.2	2.81	6	<10	80	0.5	<2	3.06	<0.5	5	3	36	3.03
Target Range - Lower Bound				<0.2	2.70	<2	<10	50	<0.5	<2	2.92	<0.5	3	<1	32	2.89
Upper Bound				0.4	3.02	8	20	110	1.0	4	3.26	1.0	8	5	40	3.23
225405			0.240													
DUP			0.236													
Target Range - Lower Bound			0.230													
Upper Bound			0.246													
225407		0.250														
DUP		0.241														
Target Range - Lower Bound		0.223														
Upper Bound		0.268														
225424				1.0	4.44	4	<10	60	0.8	<2	3.71	<0.5	16	147	1765	5.60
DUP				1.1	4.39	6	<10	60	0.8	<2	3.70	<0.5	17	148	1810	5.56
Target Range - Lower Bound				0.6	4.17	<2	<10	40	<0.5	<2	3.50	<0.5	14	138	1695	5.28
Upper Bound				1.5	4.66	9	20	80	1.0	4	3.91	1.0	19	157	1880	5.88
228077		0.070														
DUP		0.073														
Target Range - Lower Bound		0.058														
Upper Bound		0.085														

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KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 28-SEP-2006
Account: PIL

Project: 4012

QC CERTIFICATE OF ANALYSIS VA06089491

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
DUPLICATES																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
225460																
DUP																
Target Range - Lower Bound																
Upper Bound																
225472		10	<1	0.19	10	0.76	1020	2	0.06	2	840	6	0.03	<2	5	163
DUP		<10	<1	0.19	10	0.74	999	2	0.06	1	830	7	0.03	<2	5	159
Target Range - Lower Bound		<10	<1	0.16	<10	0.69	949	<1	0.04	<1	770	<2	<0.01	<2	3	151
Upper Bound		20	2	0.22	20	0.81	1070	4	0.08	2	900	11	0.05	4	7	171
225405																
DUP																
Target Range - Lower Bound																
Upper Bound																
225407																
DUP																
Target Range - Lower Bound																
Upper Bound																
225424		10	<1	0.20	<10	2.59	2210	21	0.04	27	910	6	0.21	<2	13	108
DUP		10	1	0.22	<10	2.56	2190	21	0.04	28	910	5	0.22	<2	14	110
Target Range - Lower Bound		<10	<1	0.18	<10	2.43	2080	18	0.02	24	840	<2	0.18	<2	11	102
Upper Bound		20	2	0.24	20	2.72	2320	24	0.06	31	980	10	0.25	4	16	116
228077																
DUP																
Target Range - Lower Bound																
Upper Bound																

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QC CERTIFICATE OF ANALYSIS VA06089491

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
DUPLICATES							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
225460							
DUP							
Target Range - Lower Bound							
Upper Bound							
225472		0.10	<10	<10	55	<10	65
DUP		0.10	<10	<10	54	<10	63
Target Range - Lower Bound		0.08	<10	<10	50	<10	57
Upper Bound		0.13	20	20	59	20	71
225405							
DUP							
Target Range - Lower Bound							
Upper Bound							
225407							
DUP							
Target Range - Lower Bound							
Upper Bound							
225424		0.24	<10	<10	130	<10	179
DUP		0.25	<10	<10	134	<10	180
Target Range - Lower Bound		0.21	<10	<10	123	<10	167
Upper Bound		0.28	20	20	141	20	192
228077							
DUP							
Target Range - Lower Bound							
Upper Bound							

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QC CERTIFICATE OF ANALYSIS VA06089491

Sample Description	Method	Au-AA23	Cu-AA49	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Au	Cu	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	0.005	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
DUPLICATES																
228092			0.038													
DUP			0.038													
Target Range - Lower Bound			0.035													
Upper Bound			0.041													

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QC CERTIFICATE OF ANALYSIS VA06089491

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
		DUPLICATES														
228092																
DUP																
Target Range - Lower Bound																
Upper Bound																

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QC CERTIFICATE OF ANALYSIS VA06089491

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
DUPLICATES							
228092							
DUP							
Target Range - Lower Bound							
Upper Bound							

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Finalized Date: 26-SEP-2006
This copy reported on 23-FEB-2007
Account: PIL

QC CERTIFICATE VA06091176

Project: 4012
P.O. No.:
This report is for 18 Pulp samples submitted to our lab in Vancouver, BC, Canada on 12-SEP-2006.
The following have access to data associated with this certificate:

CARL EDMUNDS RON KONST	B. KAY	BRIAN KAY

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-24	Pulp Login - Rcd w/o Barcode
LOG-QC	QC Test on Received Samples

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
ME-XRF06	Whole Rock Package - XRF	XRF
OA-GRA06	LOI for ME-XRF06	WST-SIM
ME-XRF05	Trace Level XRF Analysis	XRF

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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Finalized Date: 26-SEP-2006
Account: PIL

Project: 4012

QC CERTIFICATE OF ANALYSIS VA06091176

Sample Description	Method / Analyte / Units / LOR	ME-XRF06 SiO2 % 0.01	ME-XRF06 Al2O3 % 0.01	ME-XRF06 Fe2O3 % 0.01	ME-XRF06 CaO % 0.01	ME-XRF06 MgO % 0.01	ME-XRF06 Na2O % 0.01	ME-XRF06 K2O % 0.01	ME-XRF06 Cr2O3 % 0.01	ME-XRF06 TiO2 % 0.01	ME-XRF06 MnO % 0.01	ME-XRF06 P2O5 % 0.01	ME-XRF06 SrO % 0.01	ME-XRF06 BaO % 0.01	ME-XRF06 LOI % 0.01	ME-XRF06 Total % 0.01
STANDARDS																
STSD-2		53.47	16.16	7.51	4.01	3.13	1.76	2.12	0.02	0.79	0.14	0.32	0.05	0.06	10.45	99.99
STSD-2		53.48	16.11	7.51	3.98	3.07	1.75	2.08	0.01	0.78	0.13	0.31	0.05	0.06	10.35	99.69
STSD-2																
STSD-2																
Target Range - Lower Bound		51.01	15.29	7.12	3.79	2.94	1.65	2.00	<0.01	0.74	0.12	0.29	0.03	0.05	9.78	94.99
Upper Bound		56.40	16.92	7.90	4.21	3.28	1.85	2.24	0.02	0.84	0.16	0.35	0.06	0.07	10.83	101.00
BLANKS																
BLANK		0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	0.00	0.02
BLANK																
Target Range - Lower Bound		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
Upper Bound		0.02	0.04	0.02	0.03	0.02	0.02	0.04	0.02	0.02	0.02	0.03	0.02	0.02		
DUPLICATES																
228109		49.50	13.75	11.24	10.30	7.55	2.42	1.24	0.03	0.85	0.33	0.31	0.05	0.03	2.28	99.85
DUP		49.12	13.74	11.18	10.37	7.56	2.44	1.26	0.02	0.84	0.32	0.30	0.05	0.03	2.27	99.51
Target Range - Lower Bound		48.06	13.38	10.91	10.06	7.35	2.35	1.20	<0.01	0.80	0.30	0.28	0.03	<0.01	2.20	97.17
Upper Bound		50.56	14.11	11.51	10.61	7.76	2.51	1.30	0.05	0.89	0.35	0.33	0.07	0.05	2.35	101.00

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Finalized Date: 26-SEP-2006
Account: PIL

Project: 4012

QC CERTIFICATE OF ANALYSIS VA06091176

Sample Description / Method / Analyte / Units / LOR	ME-XRF05 Nb ppm 2	ME-XRF05 Y ppm 2	ME-XRF05 Zr ppm 2
STANDARDS			
STSD-2			
STSD-2			
STSD-2	20	41	193
STSD-2	20	39	184
Target Range - Lower Bound	16	31	165
Upper Bound	24	43	206
BLANKS			
BLANK			
BLANK	<2	<2	4
Target Range - Lower Bound	<2	<2	<2
Upper Bound	4	4	4
DUPLICATES			
228109	4	14	54
DUP	3	14	54
Target Range - Lower Bound	<2	9	47
Upper Bound	4	19	61

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Finalized Date: 2-OCT-2006
This copy reported on 23-FEB-2007
Account: PIL

QC CERTIFICATE VA06091177

Project: 4013
P.O. No.:
This report is for 20 Pulp samples submitted to our lab in Vancouver, BC, Canada on 12-SEP-2006.
The following have access to data associated with this certificate:

CARL EDMUNDS RON KONST	B. KAY	BRIAN KAY

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-24	Pulp Login - Rcd w/o Barcode

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES
Au-AA23	Au 30g FA-AA finish	AAS
Cu-AA49	Assay Cu - HBr Digestion	AAS

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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Finalized Date: 2-OCT-2006
Account: PIL

Project: 4013

QC CERTIFICATE OF ANALYSIS VA06091177

Sample Description	Method	Au-AA23	Cu-AA49	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Au	Cu	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	0.005	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
STANDARDS																
CU-108			0.676													
Target Range - Lower Bound			0.627													
Upper Bound			0.695													
G2000				3.1	1.72	466	<10	890	0.9	<2	0.49	6.7	24	68	278	3.62
Target Range - Lower Bound				3.0	1.66	434	<10	720	<0.5	<2	0.46	6.0	21	63	272	3.41
Upper Bound				4.1	2.06	534	20	1000	1.0	4	0.58	8.4	27	79	334	4.19
GBM398-4c			0.376													
GBM398-4c			0.378													
Target Range - Lower Bound			0.369													
Upper Bound			0.410													
GBM999-5				65.0	0.20	5	<10	60	<0.5	2	0.05	<0.5	3	5	489	2.97
Target Range - Lower Bound				53.3	0.17	<2	<10	40	<0.5	<2	0.04	<0.5	2	4	436	2.56
Upper Bound				65.5	0.23	4	20	70	1.0	4	0.07	1.0	4	7	536	3.15
ME89-2			0.230													
Target Range - Lower Bound			0.218													
Upper Bound			0.243													
OxG46		1.060														
Target Range - Lower Bound		0.959														
Upper Bound		1.115														
ST-259		2.56														
Target Range - Lower Bound		2.30														
Upper Bound		2.66														
BLANKS																
BLANK				<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
BLANK			<0.001													
BLANK			<0.001													
BLANK		<0.005														
Target Range - Lower Bound		<0.005	<0.001	<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
Upper Bound		0.010	0.002	0.4	0.02	4	20	20	1.0	4	0.02	1.0	2	2	2	0.02

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Finalized Date: 2-OCT-2006
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QC CERTIFICATE OF ANALYSIS VA06091177

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
STANDARDS																
CU-108																
Target Range - Lower Bound																
Upper Bound																
G2000		10	<1	0.39	20	0.62	543	4	0.04	271	880	644	0.27	24	7	63
Target Range - Lower Bound		<10	<1	0.37	<10	0.60	506	4	0.02	246	840	601	0.23	19	5	60
Upper Bound		20	2	0.47	40	0.76	630	8	0.04	302	1050	739	0.31	31	9	76
GBM398-4c																
GBM398-4c																
Target Range - Lower Bound																
Upper Bound																
GBM999-5		<10	<1	0.05	10	0.02	60	4	0.02	4	40	506	0.29	4	1	4
Target Range - Lower Bound		<10	<1	0.04	<10	<0.01	49	2	<0.01	2	20	452	0.26	<2	<1	2
Upper Bound		20	2	0.07	20	0.03	71	5	0.03	5	50	556	0.34	8	2	5
ME89-2																
Target Range - Lower Bound																
Upper Bound																
OxG46																
Target Range - Lower Bound																
Upper Bound																
ST-259																
Target Range - Lower Bound																
Upper Bound																
BLANKS																
BLANK		<10	<1	<0.01	<10	<0.01	<5	1	<0.01	1	<10	<2	<0.01	<2	<1	<1
BLANK																
BLANK																
BLANK																
Target Range - Lower Bound		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
Upper Bound		20	2	0.02	20	0.02	10	2	0.02	2	20	4	0.02	4	2	2

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Finalized Date: 2-OCT-2006
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QC CERTIFICATE OF ANALYSIS VA06091177

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
STANDARDS							
CU-108							
Target Range - Lower Bound							
Upper Bound							
G2000		0.05	<10	<10	63	10	1240
Target Range - Lower Bound		0.04	<10	<10	59	<10	1145
Upper Bound		0.07	20	20	74	20	1400
GBM398-4c							
GBM398-4c							
Target Range - Lower Bound							
Upper Bound							
GBM999-5		<0.01	<10	<10	6	<10	107
Target Range - Lower Bound		<0.01	<10	<10	4	<10	97
Upper Bound		0.02	20	20	7	20	123
ME89-2							
Target Range - Lower Bound							
Upper Bound							
OxG46							
Target Range - Lower Bound							
Upper Bound							
ST-259							
Target Range - Lower Bound							
Upper Bound							
BLANKS							
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK							
BLANK							
BLANK							
Target Range - Lower Bound		<0.01	<10	<10	<1	<10	<2
Upper Bound		0.02	20	20	2	20	4

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PO BOX 3519
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Finalized Date: 2-OCT-2006
Account: PIL

Project: 4013

QC CERTIFICATE OF ANALYSIS VA06091177

Sample Description / Method / Analyte / Units / LOR	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1	ME-ICP41 Fe % 0.01
DUPLICATES															
ORIGINAL	0.006														
DUP	0.005														
Target Range - Lower Bound	<0.005														
Upper Bound	0.010														
ORIGINAL			0.4	0.58	1020	<10	190	<0.5	<2	2.19	<0.5	10	11	55	2.49
DUP			<0.2	0.58	1010	<10	180	<0.5	<2	2.13	<0.5	9	10	59	2.40
Target Range - Lower Bound			<0.2	0.53	960	<10	150	<0.5	<2	2.03	<0.5	7	8	52	2.30
Upper Bound			0.4	0.63	1070	20	220	1.0	4	2.29	1.0	12	13	62	2.59
228092		0.038													
DUP		0.038													
Target Range - Lower Bound		0.035													
Upper Bound		0.041													
225481	0.007														
DUP	0.008														
Target Range - Lower Bound	<0.005														
Upper Bound	0.010														
225494		0.003													
DUP		0.003													
Target Range - Lower Bound		<0.001													
Upper Bound		0.005													

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Finalized Date: 2-OCT-2006
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Project: 4013

QC CERTIFICATE OF ANALYSIS VA06091177

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
DUPLICATES																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL		<10	1	0.27	20	1.01	603	2	0.03	7	450	14	0.20	8	6	122
DUP		<10	2	0.27	20	0.99	581	2	0.03	7	440	14	0.19	8	6	123
Target Range - Lower Bound		<10	<1	0.24	<10	0.93	552	<1	<0.01	5	400	9	0.17	3	4	114
Upper Bound		20	2	0.30	40	1.07	632	4	0.05	9	490	19	0.22	13	8	131
228092																
DUP																
Target Range - Lower Bound																
Upper Bound																
225481																
DUP																
Target Range - Lower Bound																
Upper Bound																
225494																
DUP																
Target Range - Lower Bound																
Upper Bound																

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Project: 4013

QC CERTIFICATE OF ANALYSIS VA06091177

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
DUPLICATES							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL		0.02	<10	<10	33	<10	44
DUP		0.02	<10	<10	32	<10	42
Target Range - Lower Bound		<0.01	<10	<10	29	<10	37
Upper Bound		0.04	20	20	36	20	49
228092							
DUP							
Target Range - Lower Bound							
Upper Bound							
225481							
DUP							
Target Range - Lower Bound							
Upper Bound							
225494							
DUP							
Target Range - Lower Bound							
Upper Bound							

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Finalized Date: 26-SEP-2006
This copy reported on 23-FEB-2007
Account: PIL

QC CERTIFICATE VA06091178

Project: 4013
P.O. No.:
This report is for 2 Pulp samples submitted to our lab in Vancouver, BC, Canada on 12-SEP-2006.
The following have access to data associated with this certificate:

CARL EDMUNDS RON KONST	B. KAY	BRIAN KAY

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-24	Pulp Login - Rcd w/o Barcode

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
ME-XRF06	Whole Rock Package - XRF	XRF
OA-GRA06	LOI for ME-XRF06	WST-SIM
ME-XRF05	Trace Level XRF Analysis	XRF

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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Finalized Date: 26-SEP-2006
Account: PIL

Project: 4013

QC CERTIFICATE OF ANALYSIS VA06091178

Sample Description	Method / Analyte / Units / LOR	ME-XRF06 SiO2 % 0.01	ME-XRF06 Al2O3 % 0.01	ME-XRF06 Fe2O3 % 0.01	ME-XRF06 CaO % 0.01	ME-XRF06 MgO % 0.01	ME-XRF06 Na2O % 0.01	ME-XRF06 K2O % 0.01	ME-XRF06 Cr2O3 % 0.01	ME-XRF06 TiO2 % 0.01	ME-XRF06 MnO % 0.01	ME-XRF06 P2O5 % 0.01	ME-XRF06 SrO % 0.01	ME-XRF06 BaO % 0.01	ME-XRF06 LOI % 0.01	ME-XRF06 Total % 0.01
STANDARDS																
STSD-2		53.50	16.10	7.51	4.01	3.10	1.75	2.13	0.02	0.81	0.14	0.33	0.05	0.06	10.50	100.00
STSD-2		53.36	16.14	7.59	4.01	3.07	1.75	2.19	0.02	0.79	0.14	0.32	0.05	0.07	10.40	99.90
STSD-2																
STSD-2																
Target Range - Lower Bound		51.01	15.29	7.12	3.79	2.94	1.65	2.00	<0.01	0.74	0.12	0.29	0.03	0.05	9.78	94.99
Upper Bound		56.40	16.92	7.90	4.21	3.28	1.85	2.24	0.02	0.84	0.16	0.35	0.06	0.07	10.83	101.00
BLANKS																
BLANK		0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	0.00	0.01
BLANK																
Target Range - Lower Bound		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
Upper Bound		0.02	0.04	0.02	0.03	0.02	0.02	0.04	0.02	0.02	0.02	0.03	0.02	0.02		
DUPLICATES																
ORIGINAL		54.20	1.30	0.32	3.81	29.79	0.33	0.66	<0.01	0.06	0.07	0.07	0.01	0.01	7.70	98.33
DUP		54.35	1.31	0.32	3.84	29.87	0.32	0.66	<0.01	0.05	0.07	0.07	0.01	0.01	7.70	98.57
Target Range - Lower Bound		52.90	1.25	0.29	3.71	29.06	0.30	0.62	<0.01	0.03	0.05	0.05	<0.01	<0.01	7.49	95.97
Upper Bound		55.65	1.36	0.35	3.94	30.60	0.35	0.70	0.02	0.08	0.09	0.09	0.02	0.02	7.91	100.95
228109																
DUP																
Target Range - Lower Bound																
Upper Bound																

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Finalized Date: 26-SEP-2006
Account: PIL

Project: 4013

QC CERTIFICATE OF ANALYSIS VA06091178

Sample Description / Method / Analyte / Units / LOR	ME-XRF05 Nb ppm 2	ME-XRF05 Y ppm 2	ME-XRF05 Zr ppm 2
STANDARDS			
STSD-2			
STSD-2			
STSD-2	20	41	193
STSD-2	20	39	184
Target Range - Lower Bound	16	31	165
Upper Bound	24	43	206
BLANKS			
BLANK			
BLANK	<2	<2	4
Target Range - Lower Bound	<2	<2	<2
Upper Bound	4	4	4
DUPLICATES			
ORIGINAL			
DUP			
Target Range - Lower Bound			
Upper Bound			
228109	4	14	54
DUP	3	14	54
Target Range - Lower Bound	<2	9	47
Upper Bound	4	19	61

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Finalized Date: 1-OCT-2006
This copy reported on 23-FEB-2007
Account: PIL

QC CERTIFICATE VA06091276

Project: 4012/4013
P.O. No.:
This report is for 46 Pulp samples submitted to our lab in Vancouver, BC, Canada on 6-SEP-2006.
The following have access to data associated with this certificate:

CARL EDMUNDS	RON KONST	

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-24	Pulp Login - Rcd w/o Barcode
LOG-QC	QC Test on Received Samples

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
ME-XRF06	Whole Rock Package - XRF	XRF
OA-GRA06	LOI for ME-XRF06	WST-SIM
ME-XRF05	Trace Level XRF Analysis	XRF

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
KEMESS MINE
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This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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Finalized Date: 1-OCT-2006
Account: PIL

Project: 4012/4013

QC CERTIFICATE OF ANALYSIS VA06091276

Sample Description	Method / Analyte / Units / LOR	ME-XRF06 SiO2 % 0.01	ME-XRF06 Al2O3 % 0.01	ME-XRF06 Fe2O3 % 0.01	ME-XRF06 CaO % 0.01	ME-XRF06 MgO % 0.01	ME-XRF06 Na2O % 0.01	ME-XRF06 K2O % 0.01	ME-XRF06 Cr2O3 % 0.01	ME-XRF06 TiO2 % 0.01	ME-XRF06 MnO % 0.01	ME-XRF06 P2O5 % 0.01	ME-XRF06 SrO % 0.01	ME-XRF06 BaO % 0.01	ME-XRF06 LOI % 0.01	ME-XRF06 Total % 0.01
STANDARDS																
STSD-2																
STSD-2																
STSD-2																
STSD-2																
STSD-2		53.73	16.02	7.58	4.00	3.09	1.75	2.10	0.02	0.79	0.14	0.32	0.05	0.07	10.35	100.00
STSD-2		53.71	16.01	7.54	4.01	3.10	1.76	2.09	0.01	0.79	0.14	0.33	0.05	0.06	10.35	99.95
STSD-2		53.38	16.15	7.57	3.99	3.12	1.79	2.12	0.01	0.79	0.14	0.32	0.05	0.06	10.10	99.59
STSD-2		53.45	16.26	7.58	4.00	3.14	1.78	2.14	0.02	0.79	0.14	0.33	0.05	0.06	10.25	99.99
Target Range - Lower Bound		51.01	15.29	7.12	3.79	2.94	1.65	2.00	<0.01	0.74	0.12	0.29	0.03	0.05	9.78	94.99
Upper Bound		56.40	16.92	7.90	4.21	3.28	1.85	2.24	0.02	0.84	0.16	0.35	0.06	0.07	10.83	101.00
BLANKS																
BLANK																
BLANK																
BLANK		0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	0.00	<0.01
BLANK		0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.00	<0.01
Target Range - Lower Bound		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
Upper Bound		0.02	0.04	0.02	0.03	0.02	0.02	0.04	0.02	0.02	0.02	0.03	0.02	0.02		
DUPLICATES																
225418																
DUP																
Target Range - Lower Bound																
Upper Bound																
225422		60.73	14.61	8.36	2.46	2.07	2.82	3.62	0.02	0.49	0.16	0.21	0.03	0.21	3.54	99.32
DUP		61.31	14.62	8.36	2.46	2.07	2.82	3.61	0.02	0.47	0.16	0.20	0.04	0.20	3.54	99.87
Target Range - Lower Bound		59.47	14.23	8.13	2.38	2.00	2.73	3.50	<0.01	0.45	0.14	0.18	<0.01	0.18	3.43	97.09
Upper Bound		62.57	15.00	8.59	2.54	2.14	2.91	3.73	0.04	0.51	0.18	0.23	0.06	0.23	3.65	101.00

Comments: MEXRF06: Low total on sample 228053 is confirmed by reanalysis.

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SMITHERS BC V0J 2N0

Finalized Date: 1-OCT-2006
Account: PIL

Project: 4012/4013

QC CERTIFICATE OF ANALYSIS VA06091276

Sample Description	Method / Analyte / Units / LOR	ME-XRF05 Nb ppm 2	ME-XRF05 Y ppm 2	ME-XRF05 Zr ppm 2
STANDARDS				
STSD-2		20	36	178
STSD-2		20	37	186
STSD-2		20	36	181
STSD-2		21	37	188
STSD-2				
STSD-2				
STSD-2				
STSD-2				
Target Range - Lower Bound		16	31	165
Upper Bound		24	43	206
BLANKS				
BLANK		<2	<2	<2
BLANK		<2	<2	<2
BLANK				
BLANK				
Target Range - Lower Bound		<2	<2	<2
Upper Bound		4	4	4
DUPLICATES				
225418		4	14	62
DUP		4	15	62
Target Range - Lower Bound		<2	10	55
Upper Bound		8	19	69
225422				
DUP				
Target Range - Lower Bound				
Upper Bound				

Comments: MEXRF06: Low total on sample 228053 is confirmed by reanalysis.

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Finalized Date: 1-OCT-2006
Account: PIL

Project: 4012/4013

QC CERTIFICATE OF ANALYSIS VA06091276

Sample Description	Method / Analyte / Units / LOR	ME-XRF06 SiO2 % 0.01	ME-XRF06 Al2O3 % 0.01	ME-XRF06 Fe2O3 % 0.01	ME-XRF06 CaO % 0.01	ME-XRF06 MgO % 0.01	ME-XRF06 Na2O % 0.01	ME-XRF06 K2O % 0.01	ME-XRF06 Cr2O3 % 0.01	ME-XRF06 TiO2 % 0.01	ME-XRF06 MnO % 0.01	ME-XRF06 P2O5 % 0.01	ME-XRF06 SrO % 0.01	ME-XRF06 BaO % 0.01	ME-XRF06 LOI % 0.01	ME-XRF06 Total % 0.01
DUPLICATES																
228083																
DUP																
Target Range - Lower Bound																
Upper Bound																
227624		58.03	16.52	5.92	5.28	2.17	3.25	2.43	0.01	0.50	0.13	0.25	0.06	0.13	4.85	99.53
DUP		58.09	16.49	5.97	5.32	2.20	3.26	2.43	0.02	0.50	0.12	0.24	0.06	0.13	4.85	99.69
Target Range - Lower Bound		56.59	16.07	5.78	5.15	2.11	3.15	2.35	<0.01	0.47	0.10	0.22	0.04	0.11	4.71	97.10
Upper Bound		59.53	16.94	6.11	5.45	2.26	3.36	2.51	0.02	0.53	0.15	0.27	0.08	0.15	4.99	101.00

Comments: MEXRF06: Low total on sample 228053 is confirmed by reanalysis.

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Account: PIL

Project: 4012/4013

QC CERTIFICATE OF ANALYSIS VA06091276

Sample Description	Method / Analyte / Units / LOR	ME-XRF05 Nb ppm 2	ME-XRF05 Y ppm 2	ME-XRF05 Zr ppm 2
		DUPLICATES		
228083		4	16	56
DUP		4	16	55
Target Range - Lower Bound		<2	11	49
Upper Bound		8	21	62
227624				
DUP				
Target Range - Lower Bound				
Upper Bound				

Comments: MEXRF06: Low total on sample 228053 is confirmed by reanalysis.

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Finalized Date: 1-OCT-2006
This copy reported on 23-FEB-2007
Account: PIL

QC CERTIFICATE VA06091277

Project: 4012/4013
P.O. No.:
This report is for 4 Pulp samples submitted to our lab in Vancouver, BC, Canada on 6-SEP-2006.
The following have access to data associated with this certificate:

CARL EDMUNDS RON KONST	B. KAY	BRIAN KAY

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-24	Pulp Login - Rcd w/o Barcode

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
OA-GRA06	LOI for ME-XRF06	WST-SIM
ME-XRF05	Trace Level XRF Analysis	XRF
ME-XRF06	Whole Rock Package - XRF	XRF

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
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This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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Finalized Date: 1-OCT-2006
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Project: 4012/4013

QC CERTIFICATE OF ANALYSIS VA06091277

Sample Description	Method / Analyte / Units / LOR	ME-XRF05 Nb ppm 2	ME-XRF05 Y ppm 2	ME-XRF05 Zr ppm 2	ME-XRF06 SiO2 % 0.01	ME-XRF06 Al2O3 % 0.01	ME-XRF06 Fe2O3 % 0.01	ME-XRF06 CaO % 0.01	ME-XRF06 MgO % 0.01	ME-XRF06 Na2O % 0.01	ME-XRF06 K2O % 0.01	ME-XRF06 Cr2O3 % 0.01	ME-XRF06 TiO2 % 0.01	ME-XRF06 MnO % 0.01	ME-XRF06 P2O5 % 0.01	ME-XRF06 SrO % 0.01
STANDARDS																
STSD-2		20	36	178												
STSD-2		20	37	186												
STSD-2					53.45	16.11	7.50	4.02	3.08	1.71	2.10	0.02	0.79	0.14	0.31	0.05
STSD-2					53.49	16.15	7.54	4.01	3.08	1.74	2.12	0.02	0.78	0.14	0.33	0.05
Target Range - Lower Bound		16	31	165	51.01	15.29	7.12	3.79	2.94	1.65	2.00	<0.01	0.74	0.12	0.29	0.03
Upper Bound		24	43	206	56.40	16.92	7.90	4.21	3.28	1.85	2.24	0.02	0.84	0.16	0.35	0.06
BLANKS																
BLANK		<2	<2	<2												
BLANK					0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Target Range - Lower Bound		<2	<2	<2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Upper Bound		4	4	4	0.02	0.04	0.02	0.03	0.02	0.02	0.04	0.02	0.02	0.02	0.03	0.02
DUPLICATES																
225418		4	14	62												
DUP		4	15	62												
Target Range - Lower Bound		<2	10	55												
Upper Bound		8	19	69												
227694					60.07	16.74	5.83	3.84	2.18	3.90	3.24	0.01	0.58	0.14	0.24	0.06
DUP					60.13	16.61	5.79	3.84	2.19	3.95	3.24	0.01	0.60	0.14	0.23	0.07
Target Range - Lower Bound					58.58	16.24	5.64	3.72	2.11	3.81	3.14	<0.01	0.56	0.12	0.21	0.04
Upper Bound					61.62	17.11	5.98	3.96	2.26	4.04	3.34	0.02	0.62	0.16	0.26	0.09

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Finalized Date: 1-OCT-2006
Account: PIL

Project: 4012/4013

QC CERTIFICATE OF ANALYSIS VA06091277

Sample Description	Method / Analyte / Units / LOR	ME-XRF06 BaO % 0.01	ME-XRF06 LOI % 0.01	ME-XRF06 Total % 0.01
STANDARDS				
STSD-2				
STSD-2				
STSD-2		0.06	10.35	99.69
STSD-2		0.07	10.40	99.93
Target Range - Lower Bound		0.05	9.78	94.99
Upper Bound		0.07	10.83	101.00
BLANKS				
BLANK				
BLANK		<0.01	0.00	<0.01
Target Range - Lower Bound		<0.01		
Upper Bound		0.02		
DUPLICATES				
225418				
DUP				
Target Range - Lower Bound				
Upper Bound				
227694		0.21	2.92	99.96
DUP		0.22	2.92	99.94
Target Range - Lower Bound		0.19	2.83	97.43
Upper Bound		0.24	3.01	101.00

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Finalized Date: 7-OCT-2006
This copy reported on 23-FEB-2007
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QC CERTIFICATE VA06092724

Project: 4012
P.O. No.:
This report is for 50 Pulp samples submitted to our lab in Vancouver, BC, Canada on 18-SEP-2006.
The following have access to data associated with this certificate:

CARL EDMUNDS RON KONST	B. KAY	BRIAN KAY

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
LOG-QC	QC Test on Received Samples

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au-AA23	Au 30g FA-AA finish	AAS
Cu-AA49	Assay Cu - HBr Digestion	AAS
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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Project: 4012

QC CERTIFICATE OF ANALYSIS VA06092724

Sample Description	Method	Au-AA23	Cu-AA49	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Au	Cu	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	0.005	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
STANDARDS																
BM-9/A				14.5	0.87	22	<10	90	0.8	111	0.17	27.0	99	199	5400	3.60
BM-9/A				12.3	0.83	25	<10	80	0.8	107	0.16	24.6	91	184	5340	3.58
Target Range - Lower Bound				12.2	0.80	20	<10	70	<0.5	100	0.13	23.2	88	176	4890	3.28
Upper Bound				15.4	1.00	28	20	110	1.0	127	0.19	29.5	110	217	5980	4.04
CU-108			0.673													
Target Range - Lower Bound			0.627													
Upper Bound			0.695													
G2000				3.5	2.05	481	<10	940	1.0	<2	0.51	7.2	24	73	307	3.76
G2000				3.6	1.89	497	<10	910	1.0	<2	0.54	7.5	24	74	308	3.97
G2000				3.3	1.77	474	<10	840	0.9	<2	0.51	6.6	22	66	297	3.84
Target Range - Lower Bound				3.0	1.66	434	<10	720	<0.5	<2	0.46	6.0	21	63	272	3.41
Upper Bound				4.1	2.06	534	20	1000	1.0	4	0.58	8.4	27	79	334	4.19
GBM398-4c			0.396													
GBM398-4c			0.396													
Target Range - Lower Bound			0.369													
Upper Bound			0.410													
ME89-2			0.240													
Target Range - Lower Bound			0.218													
Upper Bound			0.243													
OXD43		0.399														
Target Range - Lower Bound		0.368														
Upper Bound		0.434														
OxG46		1.030														
OxG46		1.060														
Target Range - Lower Bound		0.959														
Upper Bound		1.115														
ST-259		2.54														
ST-259		2.37														
Target Range - Lower Bound		2.30														
Upper Bound		2.66														
ST-327		6.95														
Target Range - Lower Bound		6.35														
Upper Bound		7.31														

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Project: 4012

QC CERTIFICATE OF ANALYSIS VA06092724

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
STANDARDS																
BM-9/A		<10	<1	0.02	10	0.42	669	3	0.42	354	90	6550	1.45	6	8	74
BM-9/A		<10	<1	0.02	10	0.39	594	3	0.39	337	80	6360	1.36	7	8	73
Target Range - Lower Bound		<10	<1	<0.01	<10	0.37	561	3	0.37	329	70	5980	1.27	3	6	67
Upper Bound		20	2	0.03	20	0.47	697	5	0.47	404	100	7310	1.57	9	10	84
CU-108																
Target Range - Lower Bound																
Upper Bound																
G2000		10	1	0.43	20	0.67	548	5	0.01	279	940	662	0.27	28	7	73
G2000		10	<1	0.43	20	0.70	577	6	0.03	283	970	701	0.28	30	7	69
G2000		<10	1	0.40	20	0.64	546	5	0.03	263	910	635	0.27	26	7	64
Target Range - Lower Bound		<10	<1	0.37	<10	0.60	506	4	0.02	246	840	601	0.23	19	5	60
Upper Bound		20	2	0.47	40	0.76	630	8	0.04	302	1050	739	0.31	31	9	76
GBM398-4c																
GBM398-4c																
Target Range - Lower Bound																
Upper Bound																
ME89-2																
Target Range - Lower Bound																
Upper Bound																
OXD43																
Target Range - Lower Bound																
Upper Bound																
OxG46																
OxG46																
Target Range - Lower Bound																
Upper Bound																
ST-259																
ST-259																
Target Range - Lower Bound																
Upper Bound																
ST-327																
Target Range - Lower Bound																
Upper Bound																

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QC CERTIFICATE OF ANALYSIS VA06092724

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
STANDARDS							
BM-9/A		0.01	<10	<10	15	<10	8130
BM-9/A		0.01	<10	<10	15	<10	7840
Target Range - Lower Bound		<0.01	<10	<10	12	<10	7350
Upper Bound		0.02	20	20	17	20	8990
CU-108							
Target Range - Lower Bound							
Upper Bound							
G2000		0.06	<10	<10	68	10	1315
G2000		0.05	<10	<10	68	10	1300
G2000		0.05	<10	<10	65	10	1250
Target Range - Lower Bound		0.04	<10	<10	59	<10	1145
Upper Bound		0.07	20	20	74	20	1400
GBM398-4c							
GBM398-4c							
Target Range - Lower Bound							
Upper Bound							
ME89-2							
Target Range - Lower Bound							
Upper Bound							
OXD43							
Target Range - Lower Bound							
Upper Bound							
OxG46							
OxG46							
Target Range - Lower Bound							
Upper Bound							
ST-259							
ST-259							
Target Range - Lower Bound							
Upper Bound							
ST-327							
Target Range - Lower Bound							
Upper Bound							

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QC CERTIFICATE OF ANALYSIS VA06092724

Sample Description	Method / Analyte / Units / LOR	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1	ME-ICP41 Fe % 0.01
BLANKS																
BLANK				<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
BLANK				<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
BLANK				<0.2	<0.01	4	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
BLANK			<0.001													
BLANK			<0.001													
BLANK		<0.005														
BLANK		<0.005														
BLANK		<0.005														
Target Range - Lower Bound		<0.005	<0.001	<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
Upper Bound		0.010	0.002	0.4	0.02	4	20	20	1.0	4	0.02	1.0	2	2	2	0.02
DUPLICATES																
ORIGINAL				<0.2	0.43	20	<10	70	0.5	<2	7.20	<0.5	8	24	22	2.63
DUP				<0.2	0.41	15	<10	70	0.5	<2	7.45	<0.5	8	24	23	2.71
Target Range - Lower Bound				<0.2	0.38	13	<10	40	<0.5	<2	6.94	<0.5	6	21	19	2.52
Upper Bound				0.4	0.46	22	20	100	1.0	4	7.71	1.0	10	27	26	2.82
ORIGINAL		0.696														
DUP		0.684														
Target Range - Lower Bound		0.646														
Upper Bound		0.735														
227826		0.081														
DUP		0.080														
Target Range - Lower Bound		0.066														
Upper Bound		0.095														
227829				0.5	1.52	8	<10	20	<0.5	<2	0.31	<0.5	27	127	555	8.10
DUP				0.5	1.43	6	<10	20	<0.5	<2	0.30	<0.5	25	118	508	7.70
Target Range - Lower Bound				<0.2	1.38	3	<10	<10	<0.5	<2	0.27	<0.5	23	114	503	7.49
Upper Bound				0.9	1.57	11	20	40	1.0	4	0.34	1.0	29	131	560	8.32
227835			0.020													
DUP			0.020													
Target Range - Lower Bound			0.018													
Upper Bound			0.023													

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QC CERTIFICATE OF ANALYSIS VA06092724

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
BLANKS																
BLANK		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
BLANK		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
BLANK		<10	<1	<0.01	<10	<0.01	<5	1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
BLANK																
BLANK																
BLANK																
BLANK																
BLANK																
Target Range - Lower Bound		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
Upper Bound		20	2	0.02	20	0.02	10	2	0.02	2	20	4	0.02	4	2	2
DUPLICATES																
ORIGINAL		<10	<1	0.22	10	0.89	338	<1	0.02	20	610	14	0.98	<2	5	353
DUP		<10	<1	0.22	10	0.91	350	1	0.02	21	660	14	1.02	2	6	360
Target Range - Lower Bound		<10	<1	0.19	<10	0.84	317	<1	<0.01	17	580	9	0.93	<2	3	337
Upper Bound		20	2	0.25	20	0.97	371	2	0.04	24	690	19	1.07	4	8	376
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
227826																
DUP																
Target Range - Lower Bound																
Upper Bound																
227829		<10	<1	0.34	<10	0.15	43	192	0.02	10	1080	49	8.86	<2	3	28
DUP		<10	<1	0.32	<10	0.15	44	181	0.02	9	1020	37	8.37	2	2	26
Target Range - Lower Bound		<10	<1	0.29	<10	0.12	31	175	<0.01	7	980	37	8.16	<2	<1	24
Upper Bound		20	2	0.37	20	0.18	56	198	0.04	12	1120	49	9.07	4	5	30
227835																
DUP																
Target Range - Lower Bound																
Upper Bound																

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QC CERTIFICATE OF ANALYSIS VA06092724

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
BLANKS							
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK							
BLANK							
BLANK							
BLANK							
BLANK							
Target Range - Lower Bound		<0.01	<10	<10	<1	<10	<2
Upper Bound		0.02	20	20	2	20	4
DUPLICATES							
ORIGINAL		<0.01	<10	<10	21	<10	64
DUP		<0.01	<10	<10	21	<10	69
Target Range - Lower Bound		<0.01	<10	<10	18	<10	59
Upper Bound		0.02	20	20	24	20	74
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
227826							
DUP							
Target Range - Lower Bound							
Upper Bound							
227829		<0.01	<10	<10	23	<10	25
DUP		<0.01	<10	<10	22	<10	14
Target Range - Lower Bound		<0.01	<10	<10	19	<10	15
Upper Bound		0.02	20	20	26	20	24
227835							
DUP							
Target Range - Lower Bound							
Upper Bound							

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QC CERTIFICATE OF ANALYSIS VA06092724

Sample Description	Method / Analyte / Units / LOR	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1	ME-ICP41 Fe % 0.01
DUPLICATES																
227846		0.156														
DUP		0.150														
Target Range - Lower Bound		0.135														
Upper Bound		0.171														
227857				0.7	2.00	4	<10	50	<0.5	2	5.44	<0.5	25	72	652	7.21
DUP				0.8	2.06	7	<10	50	<0.5	2	5.92	<0.5	26	72	673	7.90
Target Range - Lower Bound				0.3	1.91	<2	<10	30	<0.5	<2	5.38	<0.5	22	66	627	7.16
Upper Bound				1.2	2.15	10	20	70	1.0	4	5.98	1.0	29	78	698	7.95
227866		0.057														
DUP		0.050														
Target Range - Lower Bound		0.041														
Upper Bound		0.066														
227871			0.040													
DUP			0.040													
Target Range - Lower Bound			0.037													
Upper Bound			0.043													
ORIGINAL		0.060														
DUP		0.046														
Target Range - Lower Bound		0.040														
Upper Bound		0.066														
ORIGINAL		0.027														
DUP		0.024														
Target Range - Lower Bound		0.014														
Upper Bound		0.037														
ORIGINAL		0.340														
DUP		0.334														
Target Range - Lower Bound		0.310														
Upper Bound		0.364														
ORIGINAL		<0.005														
DUP		<0.005														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														

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Project: 4012

QC CERTIFICATE OF ANALYSIS VA06092724

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
		DUPLICATES														
227846																
DUP																
Target Range - Lower Bound																
Upper Bound																
227857		<10	<1	0.23	<10	0.75	192	31	0.03	10	1030	11	>10.0	<2	2	328
DUP		<10	<1	0.23	<10	0.80	209	34	0.03	13	1110	10	>10.0	<2	2	346
Target Range - Lower Bound		<10	<1	0.20	<10	0.72	180	29	<0.01	9	1000	6	9.48	<2	<1	318
Upper Bound		20	2	0.26	20	0.83	221	36	0.05	14	1140	15	10.00	4	4	356
227866																
DUP																
Target Range - Lower Bound																
Upper Bound																
227871																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																

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PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 7-OCT-2006
Account: PIL

Project: 4012

QC CERTIFICATE OF ANALYSIS VA06092724

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
		DUPLICATES					
227846	DUP						
	Target Range - Lower Bound						
	Upper Bound						
227857	DUP	<0.01	<10	<10	39	<10	76
		<0.01	<10	<10	39	<10	77
	Target Range - Lower Bound	<0.01	<10	<10	35	<10	69
	Upper Bound	0.02	20	20	43	20	84
227866	DUP						
	Target Range - Lower Bound						
	Upper Bound						
227871	DUP						
	Target Range - Lower Bound						
	Upper Bound						
ORIGINAL	DUP						
	Target Range - Lower Bound						
	Upper Bound						
ORIGINAL	DUP						
	Target Range - Lower Bound						
	Upper Bound						
ORIGINAL	DUP						
	Target Range - Lower Bound						
	Upper Bound						
ORIGINAL	DUP						
	Target Range - Lower Bound						
	Upper Bound						

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QC CERTIFICATE OF ANALYSIS VA06092724

Sample Description	Method / Analyte / Units / LOR	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1	ME-ICP41 Fe % 0.01
DUPLICATES																
ORIGINAL		0.072														
DUP		0.061														
Target Range - Lower Bound		0.053														
Upper Bound		0.080														

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QC CERTIFICATE OF ANALYSIS VA06092724

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
DUPLICATES																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																

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QC CERTIFICATE OF ANALYSIS VA06092724

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
DUPLICATES							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							

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Finalized Date: 6-OCT-2006
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QC CERTIFICATE VA06092725

Project: 4012
P.O. No.:
This report is for 50 Pulp samples submitted to our lab in Vancouver, BC, Canada on 18-SEP-2006.
The following have access to data associated with this certificate:

CARL EDMUNDS RON KONST	B. KAY	BRIAN KAY

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
LOG-QC	QC Test on Received Samples

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au-AA23	Au 30g FA-AA finish	AAS
Cu-AA49	Assay Cu - HBr Digestion	AAS
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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Project: 4012

QC CERTIFICATE OF ANALYSIS VA06092725

Sample Description	Method	Au-AA23	Cu-AA49	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Au	Cu	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	0.005	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
STANDARDS																
BM-9/A				14.4	1.00	25	<10	90	0.8	115	0.16	27.4	101	204	5660	3.69
Target Range - Lower Bound				12.2	0.80	20	<10	70	<0.5	100	0.13	23.2	88	176	4890	3.28
Upper Bound				15.4	1.00	28	20	110	1.0	127	0.19	29.5	110	217	5980	4.04
CU-108			0.660													
Target Range - Lower Bound			0.627													
Upper Bound			0.695													
G2000				3.4	1.93	466	<10	850	1.0	<2	0.46	6.7	22	67	313	3.67
G2000				3.6	1.96	491	<10	880	0.9	2	0.48	6.9	23	71	316	3.74
Target Range - Lower Bound				3.0	1.66	434	<10	720	<0.5	<2	0.46	6.0	21	63	272	3.41
Upper Bound				4.1	2.06	534	20	1000	1.0	4	0.58	8.4	27	79	334	4.19
GBM398-4c			0.400													
GBM398-4c			0.391													
GBM398-4c			0.394													
Target Range - Lower Bound			0.369													
Upper Bound			0.410													
GBM999-5				57.5	0.18	3	<10	50	<0.5	<2	0.05	<0.5	3	5	468	2.70
Target Range - Lower Bound				53.3	0.17	<2	<10	40	<0.5	<2	0.04	<0.5	2	4	436	2.56
Upper Bound				65.5	0.23	4	20	70	1.0	4	0.07	1.0	4	7	536	3.15
ME89-2			0.242													
ME89-2			0.232													
Target Range - Lower Bound			0.218													
Upper Bound			0.243													
OXD43		0.399														
Target Range - Lower Bound		0.368														
Upper Bound		0.434														
OxG46		1.020														
Target Range - Lower Bound		0.959														
Upper Bound		1.115														
ST-259		2.51														
Target Range - Lower Bound		2.30														
Upper Bound		2.66														
ST-327		6.95														
Target Range - Lower Bound		6.35														
Upper Bound		7.31														

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QC CERTIFICATE OF ANALYSIS VA06092725

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
STANDARDS																
BM-9/A		<10	<1	0.02	10	0.44	646	4	0.42	368	90	6770	1.51	5	9	79
Target Range - Lower Bound		<10	<1	<0.01	<10	0.37	561	3	0.37	329	70	5980	1.27	3	6	67
Upper Bound		20	2	0.03	20	0.47	697	5	0.47	404	100	7310	1.57	9	10	84
CU-108																
Target Range - Lower Bound																
Upper Bound																
G2000		10	1	0.43	20	0.67	534	5	0.03	272	930	650	0.27	24	7	71
G2000		10	1	0.40	20	0.64	555	6	0.04	277	940	686	0.29	27	7	71
Target Range - Lower Bound		<10	<1	0.37	<10	0.60	506	4	0.02	246	840	601	0.23	19	5	60
Upper Bound		20	2	0.47	40	0.76	630	8	0.04	302	1050	739	0.31	31	9	76
GBM398-4c																
GBM398-4c																
GBM398-4c																
Target Range - Lower Bound																
Upper Bound																
GBM999-5		<10	<1	0.05	10	0.02	60	4	0.01	4	40	488	0.28	5	1	4
Target Range - Lower Bound		<10	<1	0.04	<10	<0.01	49	2	<0.01	2	20	452	0.26	<2	<1	2
Upper Bound		20	2	0.07	20	0.03	71	5	0.03	5	50	556	0.34	8	2	5
ME89-2																
ME89-2																
Target Range - Lower Bound																
Upper Bound																
OXD43																
Target Range - Lower Bound																
Upper Bound																
OxG46																
Target Range - Lower Bound																
Upper Bound																
ST-259																
Target Range - Lower Bound																
Upper Bound																
ST-327																
Target Range - Lower Bound																
Upper Bound																

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QC CERTIFICATE OF ANALYSIS VA06092725

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
STANDARDS							
BM-9/A		0.01	<10	<10	16	<10	8440
Target Range - Lower Bound		<0.01	<10	<10	12	<10	7350
Upper Bound		0.02	20	20	17	20	8990
CU-108							
Target Range - Lower Bound							
Upper Bound							
G2000		0.05	<10	<10	67	<10	1245
G2000		0.05	<10	<10	67	10	1270
Target Range - Lower Bound		0.04	<10	<10	59	<10	1145
Upper Bound		0.07	20	20	74	20	1400
GBM398-4c							
GBM398-4c							
GBM398-4c							
Target Range - Lower Bound							
Upper Bound							
GBM999-5		<0.01	<10	<10	6	<10	103
Target Range - Lower Bound		<0.01	<10	<10	4	<10	97
Upper Bound		0.02	20	20	7	20	123
ME89-2							
ME89-2							
Target Range - Lower Bound							
Upper Bound							
OXD43							
Target Range - Lower Bound							
Upper Bound							
OxG46							
Target Range - Lower Bound							
Upper Bound							
ST-259							
Target Range - Lower Bound							
Upper Bound							
ST-327							
Target Range - Lower Bound							
Upper Bound							

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QC CERTIFICATE OF ANALYSIS VA06092725

Sample Description	Method	Au-AA23	Cu-AA49	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Au	Cu	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	0.005	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
BLANKS																
BLANK				<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
BLANK				<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	1	1	<0.01
BLANK			<0.001													
BLANK			<0.001													
BLANK		<0.005														
BLANK		<0.005														
BLANK			<0.001													
Target Range - Lower Bound		<0.005	<0.001	<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
Upper Bound		0.010	0.002	0.4	0.02	4	20	20	1.0	4	0.02	1.0	2	2	2	0.02
DUPLICATES																
227826		0.081														
DUP		0.080														
Target Range - Lower Bound		0.066														
Upper Bound		0.095														
227846		0.156														
DUP		0.150														
Target Range - Lower Bound		0.135														
Upper Bound		0.171														
227866		0.057														
DUP		0.050														
Target Range - Lower Bound		0.041														
Upper Bound		0.066														
227785			0.004	0.7	1.13	<2	<10	10	<0.5	<2	2.69	0.6	8	120	40	4.24
DUP			0.004	0.6	1.15	3	<10	10	<0.5	<2	2.66	0.6	8	125	39	4.13
Target Range - Lower Bound			0.002	<0.2	1.06	<2	<10	<10	<0.5	<2	2.52	<0.5	6	114	36	3.96
Upper Bound			0.006	1.1	1.22	4	20	20	1.0	4	2.83	1.0	10	131	43	4.41
227804		0.097														
DUP		0.094														
Target Range - Lower Bound		0.081														
Upper Bound		0.110														

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KEMESS MINE
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SMITHERS BC V0J 2N0

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QC CERTIFICATE OF ANALYSIS VA06092725

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
BLANKS																
BLANK		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
BLANK		<10	<1	<0.01	<10	<0.01	<5	1	<0.01	1	<10	<2	<0.01	<2	<1	<1
BLANK																
BLANK																
BLANK																
BLANK																
BLANK																
Target Range - Lower Bound		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
Upper Bound		20	2	0.02	20	0.02	10	2	0.02	2	20	4	0.02	4	2	2
DUPLICATES																
227826																
DUP																
Target Range - Lower Bound																
Upper Bound																
227846																
DUP																
Target Range - Lower Bound																
Upper Bound																
227866																
DUP																
Target Range - Lower Bound																
Upper Bound																
227785		<10	<1	0.18	<10	0.01	15	2	0.01	5	460	92	7.38	<2	2	294
DUP		<10	<1	0.18	<10	0.02	15	2	0.01	4	450	93	7.22	<2	2	290
Target Range - Lower Bound		<10	<1	0.15	<10	<0.01	<5	<1	<0.01	2	410	84	6.92	<2	<1	275
Upper Bound		20	2	0.21	20	0.02	26	4	0.02	7	500	101	7.69	4	4	309
227804																
DUP																
Target Range - Lower Bound																
Upper Bound																

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QC CERTIFICATE OF ANALYSIS VA06092725

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
BLANKS							
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK							
BLANK							
BLANK							
BLANK							
BLANK							
Target Range - Lower Bound		<0.01	<10	<10	<1	<10	<2
Upper Bound		0.02	20	20	2	20	4
DUPLICATES							
227826							
DUP							
Target Range - Lower Bound							
Upper Bound							
227846							
DUP							
Target Range - Lower Bound							
Upper Bound							
227866							
DUP							
Target Range - Lower Bound							
Upper Bound							
227785		<0.01	<10	<10	8	<10	26
DUP		<0.01	<10	<10	8	<10	26
Target Range - Lower Bound		<0.01	<10	<10	6	<10	21
Upper Bound		0.02	20	20	10	20	31
227804							
DUP							
Target Range - Lower Bound							
Upper Bound							

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QC CERTIFICATE OF ANALYSIS VA06092725

Sample Description	Method / Analyte / Units / LOR	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1	ME-ICP41 Fe % 0.01
DUPLICATES																
227821			0.060	1.2	1.93	6	<10	30	<0.5	<2	0.59	<0.5	38	99	639	8.15
DUP			0.060	1.0	1.85	6	<10	30	<0.5	2	0.57	<0.5	36	94	644	7.78
Target Range - Lower Bound			0.057	0.6	1.78	<2	<10	<10	<0.5	<2	0.53	<0.5	33	90	607	7.55
Upper Bound			0.064	1.6	2.00	10	20	50	1.0	4	0.63	1.0	41	103	676	8.38
227824		0.140														
DUP		0.144														
Target Range - Lower Bound		0.125														
Upper Bound		0.159														
227883			0.037													
DUP			0.036													
Target Range - Lower Bound			0.034													
Upper Bound			0.039													
227894		0.178														
DUP		0.177														
Target Range - Lower Bound		0.159														
Upper Bound		0.196														

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To: NORTHGATE MINERALS CORPORATION
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PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 6-OCT-2006
Account: PIL

Project: 4012

QC CERTIFICATE OF ANALYSIS VA06092725

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
		DUPLICATES														
227821		<10	<1	0.28	<10	0.45	147	45	0.03	18	2250	18	8.31	<2	2	85
DUP		<10	<1	0.26	<10	0.44	140	43	0.03	17	2210	19	8.09	<2	2	85
Target Range - Lower Bound		<10	<1	0.24	<10	0.40	126	40	<0.01	15	2100	14	7.77	<2	<1	79
Upper Bound		20	2	0.30	20	0.49	161	48	0.05	20	2360	23	8.63	4	4	91
227824																
DUP																
Target Range - Lower Bound																
Upper Bound																
227883																
DUP																
Target Range - Lower Bound																
Upper Bound																
227894																
DUP																
Target Range - Lower Bound																
Upper Bound																

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QC CERTIFICATE OF ANALYSIS VA06092725

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
		DUPLICATES					
227821		<0.01	<10	<10	36	<10	40
DUP		<0.01	<10	<10	35	<10	39
Target Range - Lower Bound		<0.01	<10	<10	32	<10	34
Upper Bound		0.02	20	20	39	20	45
227824							
DUP							
Target Range - Lower Bound							
Upper Bound							
227883							
DUP							
Target Range - Lower Bound							
Upper Bound							
227894							
DUP							
Target Range - Lower Bound							
Upper Bound							

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Finalized Date: 11-OCT-2006
This copy reported on 23-FEB-2007
Account: PIL

QC CERTIFICATE VA06092726

Project: 4012
P.O. No.:
This report is for 50 Pulp samples submitted to our lab in Vancouver, BC, Canada on 18-SEP-2006.
The following have access to data associated with this certificate:

CARL EDMUNDS RON KONST	B. KAY	BRIAN KAY

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
LOG-QC	QC Test on Received Samples

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au-AA23	Au 30g FA-AA finish	AAS
Cu-AA49	Assay Cu - HBr Digestion	AAS
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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Project: 4012

QC CERTIFICATE OF ANALYSIS VA06092726

Sample Description	Method	Au-AA23	Cu-AA49	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Au	Cu	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	0.005	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
STANDARDS																
BM-9/A				14.4	0.93	27	<10	90	0.8	119	0.16	27.1	100	204	5620	3.64
Target Range - Lower Bound				12.2	0.80	20	<10	70	<0.5	100	0.13	23.2	88	176	4890	3.28
Upper Bound				15.4	1.00	28	20	110	1.0	127	0.19	29.5	110	217	5980	4.04
CU-108			0.673													
Target Range - Lower Bound			0.627													
Upper Bound			0.695													
G2000				3.6	1.96	491	<10	880	0.9	2	0.48	6.9	23	71	316	3.74
G2000				3.4	1.98	485	<10	900	1.0	2	0.47	7.2	23	76	314	3.72
Target Range - Lower Bound				3.0	1.66	434	<10	720	<0.5	<2	0.46	6.0	21	63	272	3.41
Upper Bound				4.1	2.06	534	20	1000	1.0	4	0.58	8.4	27	79	334	4.19
GBM398-4c			0.394													
GBM398-4c			0.386													
Target Range - Lower Bound			0.369													
Upper Bound			0.410													
GBM999-5				57.5	0.18	3	<10	50	<0.5	<2	0.05	<0.5	3	5	468	2.70
Target Range - Lower Bound				53.3	0.17	<2	<10	40	<0.5	<2	0.04	<0.5	2	4	436	2.56
Upper Bound				65.5	0.23	4	20	70	1.0	4	0.07	1.0	4	7	536	3.15
ME89-2			0.232													
Target Range - Lower Bound			0.218													
Upper Bound			0.243													
OxG46		1.020														
OxG46		1.040														
Target Range - Lower Bound		0.959														
Upper Bound		1.115														
ST-259		2.51														
ST-259		2.48														
ST-259		2.53														
Target Range - Lower Bound		2.30														
Upper Bound		2.66														

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Finalized Date: 11-OCT-2006
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Project: 4012

QC CERTIFICATE OF ANALYSIS VA06092726

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
STANDARDS																
BM-9/A		<10	1	0.02	10	0.41	662	4	0.40	374	90	6870	1.50	7	9	79
Target Range - Lower Bound		<10	<1	<0.01	<10	0.37	561	3	0.37	329	70	5980	1.27	3	6	67
Upper Bound		20	2	0.03	20	0.47	697	5	0.47	404	100	7310	1.57	9	10	84
CU-108																
Target Range - Lower Bound																
Upper Bound																
G2000		10	1	0.40	20	0.64	555	6	0.04	277	940	686	0.29	27	7	71
G2000		10	1	0.40	20	0.63	554	6	0.04	279	940	681	0.28	26	7	72
Target Range - Lower Bound		<10	<1	0.37	<10	0.60	506	4	0.02	246	840	601	0.23	19	5	60
Upper Bound		20	2	0.47	40	0.76	630	8	0.04	302	1050	739	0.31	31	9	76
GBM398-4c																
GBM398-4c																
Target Range - Lower Bound																
Upper Bound																
GBM999-5		<10	<1	0.05	10	0.02	60	4	0.01	4	40	488	0.28	5	1	4
Target Range - Lower Bound		<10	<1	0.04	<10	<0.01	49	2	<0.01	2	20	452	0.26	<2	<1	2
Upper Bound		20	2	0.07	20	0.03	71	5	0.03	5	50	556	0.34	8	2	5
ME89-2																
Target Range - Lower Bound																
Upper Bound																
OxG46																
OxG46																
Target Range - Lower Bound																
Upper Bound																
ST-259																
ST-259																
ST-259																
Target Range - Lower Bound																
Upper Bound																

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QC CERTIFICATE OF ANALYSIS VA06092726

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
STANDARDS							
BM-9/A		0.01	<10	<10	16	<10	8590
Target Range - Lower Bound		<0.01	<10	<10	12	<10	7350
Upper Bound		0.02	20	20	17	20	8990
CU-108							
Target Range - Lower Bound							
Upper Bound							
G2000		0.05	<10	<10	67	10	1270
G2000		0.05	<10	<10	67	10	1280
Target Range - Lower Bound		0.04	<10	<10	59	<10	1145
Upper Bound		0.07	20	20	74	20	1400
GBM398-4c							
GBM398-4c							
Target Range - Lower Bound							
Upper Bound							
GBM999-5		<0.01	<10	<10	6	<10	103
Target Range - Lower Bound		<0.01	<10	<10	4	<10	97
Upper Bound		0.02	20	20	7	20	123
ME89-2							
Target Range - Lower Bound							
Upper Bound							
OxG46							
OxG46							
Target Range - Lower Bound							
Upper Bound							
ST-259							
ST-259							
ST-259							
Target Range - Lower Bound							
Upper Bound							

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QC CERTIFICATE OF ANALYSIS VA06092726

Sample Description / Method	Au-AA23	Cu-AA49	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
Analyte	Au	Cu	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
Units	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
LOR	0.005	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
BLANKS															
BLANK			<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	1	1	<0.01
BLANK			<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	1	<0.01
BLANK	<0.005														
BLANK		<0.001													
BLANK		<0.001													
BLANK	<0.005														
BLANK	<0.005														
Target Range - Lower Bound	<0.005	<0.001	<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
Upper Bound	0.010	0.002	0.4	0.02	4	20	20	1.0	4	0.02	1.0	2	2	2	0.02
DUPLICATES															
ORIGINAL	0.111														
DUP	0.114														
Target Range - Lower Bound	0.097														
Upper Bound	0.128														
ORIGINAL	0.082														
DUP	0.087														
Target Range - Lower Bound	0.070														
Upper Bound	0.099														
ORIGINAL	0.045														
DUP	0.044														
Target Range - Lower Bound	0.032														
Upper Bound	0.057														
227804	0.097														
DUP	0.094														
Target Range - Lower Bound	0.081														
Upper Bound	0.110														
227821			1.2	1.93	6	<10	30	<0.5	<2	0.59	<0.5	38	99	639	8.15
DUP			1.0	1.85	6	<10	30	<0.5	2	0.57	<0.5	36	94	644	7.78
Target Range - Lower Bound			0.6	1.78	<2	<10	<10	<0.5	<2	0.53	<0.5	33	90	607	7.55
Upper Bound			1.6	2.00	10	20	50	1.0	4	0.63	1.0	41	103	676	8.38

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Account: PIL

Project: 4012

QC CERTIFICATE OF ANALYSIS VA06092726

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
BLANKS																
BLANK		<10	<1	<0.01	<10	<0.01	<5	1	<0.01	1	<10	<2	<0.01	<2	<1	<1
BLANK		<10	<1	<0.01	<10	<0.01	<5	1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
BLANK																
BLANK																
BLANK																
BLANK																
BLANK																
Target Range - Lower Bound		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
Upper Bound		20	2	0.02	20	0.02	10	2	0.02	2	20	4	0.02	4	2	2
DUPLICATES																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
227804																
DUP																
Target Range - Lower Bound																
Upper Bound																
227821		<10	<1	0.28	<10	0.45	147	45	0.03	18	2250	18	8.31	<2	2	85
DUP		<10	<1	0.26	<10	0.44	140	43	0.03	17	2210	19	8.09	<2	2	85
Target Range - Lower Bound		<10	<1	0.24	<10	0.40	126	40	<0.01	15	2100	14	7.77	<2	<1	79
Upper Bound		20	2	0.30	20	0.49	161	48	0.05	20	2360	23	8.63	4	4	91

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QC CERTIFICATE OF ANALYSIS VA06092726

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
BLANKS							
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK							
BLANK							
BLANK							
BLANK							
BLANK							
Target Range - Lower Bound		<0.01	<10	<10	<1	<10	<2
Upper Bound		0.02	20	20	2	20	4
DUPLICATES							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
227804							
DUP							
Target Range - Lower Bound							
Upper Bound							
227821		<0.01	<10	<10	36	<10	40
DUP		<0.01	<10	<10	35	<10	39
Target Range - Lower Bound		<0.01	<10	<10	32	<10	34
Upper Bound		0.02	20	20	39	20	45

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QC CERTIFICATE OF ANALYSIS VA06092726

Sample Description	Method / Analyte / Units / LOR	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1	ME-ICP41 Fe % 0.01
DUPLICATES																
227824		0.140														
DUP		0.144														
Target Range - Lower Bound		0.125														
Upper Bound		0.159														
227883			0.037													
DUP			0.036													
Target Range - Lower Bound			0.034													
Upper Bound			0.039													
227894		0.178														
DUP		0.177														
Target Range - Lower Bound		0.159														
Upper Bound		0.196														
227907				1.5	6.68	2	<10	10	0.6	5	2.53	<0.5	37	191	924	7.93
DUP				1.5	6.65	3	<10	10	0.6	6	2.48	<0.5	36	188	916	7.84
Target Range - Lower Bound				1.0	6.31	<2	<10	<10	<0.5	<2	2.36	<0.5	33	178	872	7.47
Upper Bound				2.0	7.02	4	20	20	1.0	10	2.65	1.0	40	201	968	8.30
227919			0.095													
DUP			0.094													
Target Range - Lower Bound			0.090													
Upper Bound			0.099													

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QC CERTIFICATE OF ANALYSIS VA06092726

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
		DUPLICATES														
227824																
DUP																
Target Range - Lower Bound																
Upper Bound																
227883																
DUP																
Target Range - Lower Bound																
Upper Bound																
227894																
DUP																
Target Range - Lower Bound																
Upper Bound																
227907		10	<1	0.13	<10	2.68	1040	93	0.06	26	1280	13	7.01	<2	15	168
DUP		20	<1	0.13	<10	2.65	1030	92	0.06	25	1280	17	6.99	<2	14	168
Target Range - Lower Bound		<10	<1	0.10	<10	2.51	973	86	0.04	22	1200	10	6.63	<2	12	158
Upper Bound		20	2	0.16	20	2.82	1095	99	0.08	29	1360	20	7.37	4	17	178
227919																
DUP																
Target Range - Lower Bound																
Upper Bound																

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SMITHERS BC V0J 2N0

Finalized Date: 11-OCT-2006
Account: PIL

Project: 4012

QC CERTIFICATE OF ANALYSIS VA06092726

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
		DUPLICATES					
227824	DUP						
	Target Range - Lower Bound						
	Upper Bound						
227883	DUP						
	Target Range - Lower Bound						
	Upper Bound						
227894	DUP						
	Target Range - Lower Bound						
	Upper Bound						
227907		0.06	<10	<10	150	<10	211
	DUP	0.06	<10	<10	148	<10	208
	Target Range - Lower Bound	0.04	<10	<10	140	<10	195
	Upper Bound	0.08	20	20	158	20	224
227919	DUP						
	Target Range - Lower Bound						
	Upper Bound						

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This copy reported on 23-FEB-2007
Account: PIL

QC CERTIFICATE VA06098509

Project: 4012
P.O. No.:
This report is for 35 Pulp samples submitted to our lab in Vancouver, BC, Canada on 22-SEP-2006.
The following have access to data associated with this certificate:

CARL EDMUNDS RON KONST	BRIAN KAY	B. KAY

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
LOG-QC	QC Test on Received Samples

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au-AA23	Au 30g FA-AA finish	AAS
Cu-AA49	Assay Cu - HBr Digestion	AAS
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
KEMESS MINE
PO BOX 3519
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This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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Project: 4012

QC CERTIFICATE OF ANALYSIS VA06098509

Sample Description	Method	Au-AA23	Cu-AA49	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Au	Cu	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	0.005	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
STANDARDS																
BM-9/A				14.1	1.00	23	<10	90	0.8	113	0.16	26.5	99	202	5770	3.63
Target Range - Lower Bound				12.2	0.80	20	<10	70	<0.5	100	0.13	23.2	88	176	4890	3.28
Upper Bound				15.4	1.00	28	20	110	1.0	127	0.19	29.5	110	217	5980	4.04
G2000				3.5	1.95	502	<10	840	0.9	<2	0.48	7.1	23	71	327	3.77
G2000				3.4	1.83	493	<10	870	0.9	3	0.48	6.9	23	68	300	3.74
Target Range - Lower Bound				3.0	1.66	434	<10	720	<0.5	<2	0.46	6.0	21	63	272	3.41
Upper Bound				4.1	2.06	534	20	1000	1.0	4	0.58	8.4	27	79	334	4.19
GBM398-4c			0.393													
Target Range - Lower Bound			0.369													
Upper Bound			0.410													
GBM999-5				58.5	0.19	4	<10	50	<0.5	<2	0.05	<0.5	3	5	496	2.82
Target Range - Lower Bound				53.3	0.17	<2	<10	40	<0.5	<2	0.04	<0.5	2	4	436	2.56
Upper Bound				65.5	0.23	4	20	70	1.0	4	0.07	1.0	4	7	536	3.15
ME89-2			0.239													
Target Range - Lower Bound			0.218													
Upper Bound			0.243													
OXD43		0.421														
Target Range - Lower Bound		0.368														
Upper Bound		0.434														
OxG46		1.035														
Target Range - Lower Bound		0.959														
Upper Bound		1.115														
SI15		1.845														
Target Range - Lower Bound		1.675														
Upper Bound		1.935														
ST-259		2.43														
Target Range - Lower Bound		2.30														
Upper Bound		2.66														

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Finalized Date: 16-OCT-2006
Account: PIL

Project: 4012

QC CERTIFICATE OF ANALYSIS VA06098509

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
STANDARDS																
BM-9/A		<10	1	0.02	10	0.43	640	3	0.39	372	90	6670	1.46	6	9	77
Target Range - Lower Bound		<10	<1	<0.01	<10	0.37	561	3	0.37	329	70	5980	1.27	3	6	67
Upper Bound		20	2	0.03	20	0.47	697	5	0.47	404	100	7310	1.57	9	10	84
G2000		10	1	0.40	20	0.66	547	6	0.04	275	960	669	0.28	24	7	69
G2000		10	1	0.40	20	0.66	546	5	0.04	270	960	664	0.28	21	7	67
Target Range - Lower Bound		<10	<1	0.37	<10	0.60	506	4	0.02	246	840	601	0.23	19	5	60
Upper Bound		20	2	0.47	40	0.76	630	8	0.04	302	1050	739	0.31	31	9	76
GBM398-4c																
Target Range - Lower Bound																
Upper Bound																
GBM999-5		<10	<1	0.05	10	0.02	60	3	0.01	2	40	508	0.31	6	1	4
Target Range - Lower Bound		<10	<1	0.04	<10	<0.01	49	2	<0.01	2	20	452	0.26	<2	<1	2
Upper Bound		20	2	0.07	20	0.03	71	5	0.03	5	50	556	0.34	8	2	5
ME89-2																
Target Range - Lower Bound																
Upper Bound																
OXD43																
Target Range - Lower Bound																
Upper Bound																
OxG46																
Target Range - Lower Bound																
Upper Bound																
SI15																
Target Range - Lower Bound																
Upper Bound																
ST-259																
Target Range - Lower Bound																
Upper Bound																

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QC CERTIFICATE OF ANALYSIS VA06098509

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
STANDARDS							
BM-9/A		0.01	<10	<10	16	<10	8190
Target Range - Lower Bound		<0.01	<10	<10	12	<10	7350
Upper Bound		0.02	20	20	17	20	8990
G2000		0.05	<10	<10	67	10	1350
G2000		0.05	<10	<10	65	<10	1305
Target Range - Lower Bound		0.04	<10	<10	59	<10	1145
Upper Bound		0.07	20	20	74	20	1400
GBM398-4c							
Target Range - Lower Bound							
Upper Bound							
GBM999-5		<0.01	<10	<10	5	<10	113
Target Range - Lower Bound		<0.01	<10	<10	4	<10	97
Upper Bound		0.02	20	20	7	20	123
ME89-2							
Target Range - Lower Bound							
Upper Bound							
OXD43							
Target Range - Lower Bound							
Upper Bound							
OxG46							
Target Range - Lower Bound							
Upper Bound							
SI15							
Target Range - Lower Bound							
Upper Bound							
ST-259							
Target Range - Lower Bound							
Upper Bound							

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QC CERTIFICATE OF ANALYSIS VA06098509

Sample Description	Method	Au-AA23	Cu-AA49	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Au	Cu	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	0.005	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
BLANKS																
BLANK				<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
BLANK				<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
BLANK		<0.005														
BLANK			<0.001													
BLANK		<0.005														
Target Range - Lower Bound		<0.005	<0.001	<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
Upper Bound		0.010	0.002	0.4	0.02	4	20	20	1.0	4	0.02	1.0	2	2	2	0.02
DUPLICATES																
ORIGINAL		<0.005														
DUP		<0.005														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														
ORIGINAL		0.039														
DUP		0.040														
Target Range - Lower Bound		0.028														
Upper Bound		0.051														
ORIGINAL		<0.005														
DUP		<0.005														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														
228202				1.3	4.81	5	<10	70	<0.5	3	1.30	<0.5	28	371	1000	7.28
DUP				1.3	4.98	3	<10	70	<0.5	2	1.33	<0.5	28	385	1040	7.51
Target Range - Lower Bound				0.8	4.63	<2	<10	40	<0.5	<2	1.23	<0.5	25	357	967	7.01
Upper Bound				1.8	5.16	8	20	100	1.0	4	1.40	1.0	31	399	1075	7.78
228209		0.271														
DUP		0.247														
Target Range - Lower Bound		0.236														
Upper Bound		0.282														
228210			0.150													
DUP			0.152													
Target Range - Lower Bound			0.145													
Upper Bound			0.157													

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Finalized Date: 16-OCT-2006
Account: PIL

Project: 4012

QC CERTIFICATE OF ANALYSIS VA06098509

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
BLANKS																
BLANK		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
BLANK		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
BLANK																
BLANK																
BLANK																
Target Range - Lower Bound		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
Upper Bound		20	2	0.02	20	0.02	10	2	0.02	2	20	4	0.02	4	2	2
DUPLICATES																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
228202		10	<1	0.56	10	2.31	876	137	0.04	23	1090	11	5.82	<2	11	56
DUP		10	1	0.59	10	2.39	906	140	0.04	24	1130	14	6.00	<2	11	58
Target Range - Lower Bound		<10	<1	0.53	<10	2.21	836	130	0.02	20	1030	8	5.59	<2	8	52
Upper Bound		20	2	0.62	20	2.49	946	147	0.06	27	1190	17	6.23	4	14	62
228209																
DUP																
Target Range - Lower Bound																
Upper Bound																
228210																
DUP																
Target Range - Lower Bound																
Upper Bound																

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Account: PIL

Project: 4012

QC CERTIFICATE OF ANALYSIS VA06098509

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
BLANKS							
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK							
BLANK							
BLANK							
Target Range - Lower Bound		<0.01	<10	<10	<1	<10	<2
Upper Bound		0.02	20	20	2	20	4
DUPLICATES							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
228202		0.01	10	<10	106	<10	176
DUP		0.02	<10	<10	111	<10	182
Target Range - Lower Bound		<0.01	<10	<10	101	<10	166
Upper Bound		0.02	20	20	116	20	192
228209							
DUP							
Target Range - Lower Bound							
Upper Bound							
228210							
DUP							
Target Range - Lower Bound							
Upper Bound							

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Project: 4012

QC CERTIFICATE OF ANALYSIS VA06098509

Sample Description	Method	Au-AA23	Cu-AA49	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Au	Cu	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	0.005	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
DUPLICATES																
227928				1.1	5.63	4	<10	40	<0.5	3	2.86	<0.5	39	215	1220	7.32
DUP				1.0	5.59	4	<10	40	<0.5	3	2.78	<0.5	38	210	1215	7.12
Target Range - Lower Bound				0.6	5.31	<2	<10	20	<0.5	<2	2.66	<0.5	35	200	1155	6.84
Upper Bound				1.5	5.91	8	20	60	1.0	4	2.98	1.0	42	225	1280	7.60
228181		0.898														
DUP		0.886														
Target Range - Lower Bound		0.837														
Upper Bound		0.947														

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Project: 4012

QC CERTIFICATE OF ANALYSIS VA06098509

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
		DUPLICATES														
227928		10	1	0.18	<10	3.38	735	17	0.05	42	1260	7	6.00	<2	22	122
DUP		10	<1	0.19	<10	3.29	712	17	0.05	41	1230	5	5.87	2	21	122
Target Range - Lower Bound		<10	<1	0.16	<10	3.15	677	14	0.03	37	1160	<2	5.62	<2	18	114
Upper Bound		20	2	0.21	20	3.52	770	20	0.07	46	1330	10	6.25	4	25	130
228181																
DUP																
Target Range - Lower Bound																
Upper Bound																

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QC CERTIFICATE OF ANALYSIS VA06098509

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
		DUPLICATES					
227928		0.16	<10	<10	200	<10	135
DUP		0.16	<10	<10	195	<10	132
Target Range - Lower Bound		0.13	<10	<10	186	<10	123
Upper Bound		0.19	20	20	209	20	144
228181							
DUP							
Target Range - Lower Bound							
Upper Bound							

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Finalized Date: 17-OCT-2006
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Account: PIL

QC CERTIFICATE VA06098720

Project: 4012
P.O. No.:
This report is for 50 Pulp samples submitted to our lab in Vancouver, BC, Canada on 22-SEP-2006.
The following have access to data associated with this certificate:

CARL EDMUNDS RON KONST	BRIAN KAY	B. KAY

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
LOG-QC	QC Test on Received Samples

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au-AA23	Au 30g FA-AA finish	AAS
Cu-AA49	Assay Cu - HBr Digestion	AAS
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES

To: NORTHGATE MINERALS CORPORATION
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This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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Project: 4012

QC CERTIFICATE OF ANALYSIS VA06098720

Sample Description	Method / Analyte / Units / LOR	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1	ME-ICP41 Fe % 0.01
STANDARDS																
BM-9/A				14.0	0.89	19	<10	90	0.9	115	0.17	27.1	101	202	5480	3.69
BM-9/A				13.8	0.79	26	<10	80	0.8	110	0.16	25.6	93	187	5170	3.36
Target Range - Lower Bound				12.2	0.80	20	<10	70	<0.5	100	0.13	23.2	88	176	4890	3.28
Upper Bound				15.4	1.00	28	20	110	1.0	127	0.19	29.5	110	217	5980	4.04
CU-108			0.666													
CU-108			0.670													
Target Range - Lower Bound			0.627													
Upper Bound			0.695													
G2000				3.5	1.93	494	<10	860	1.0	2	0.52	7.2	24	71	315	3.97
G2000				3.1	1.72	468	<10	850	0.9	<2	0.48	7.0	22	68	290	3.60
Target Range - Lower Bound				3.0	1.66	434	<10	720	<0.5	<2	0.46	6.0	21	63	272	3.41
Upper Bound				4.1	2.06	534	20	1000	1.0	4	0.58	8.4	27	79	334	4.19
GBM398-4c			0.399													
GBM398-4c			0.398													
GBM398-4c			0.393													
GBM398-4c			0.390													
Target Range - Lower Bound			0.369													
Upper Bound			0.410													
GBM999-5				58.5	0.19	4	<10	50	<0.5	<2	0.05	<0.5	3	5	496	2.82
Target Range - Lower Bound				53.3	0.17	<2	<10	40	<0.5	<2	0.04	<0.5	2	4	436	2.56
Upper Bound				65.5	0.23	4	20	70	1.0	4	0.07	1.0	4	7	536	3.15
ME89-2			0.241													
ME89-2			0.239													
Target Range - Lower Bound			0.218													
Upper Bound			0.243													
OXD43		0.421														
OXD43		0.409														
OXD43		0.412														
Target Range - Lower Bound		0.368														
Upper Bound		0.434														
OxG46		1.035														
OxG46		1.015														
Target Range - Lower Bound		0.959														
Upper Bound		1.115														
ST-259		2.57														
ST-259		2.36														
Target Range - Lower Bound		2.30														
Upper Bound		2.66														
ST-327		6.82														

Comments: Additional Cu-AA49 result for sample 227927 is 0.211%.

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EXCELLENCE IN ANALYTICAL CHEMISTRY
ALS Canada Ltd.
212 Brooksbank Avenue
North Vancouver BC V7J 2C1
Phone: 604 984 0221 Fax: 604 984 0218 www.alschemex.com

To: NORTHGATE MINERALS CORPORATION
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 17-OCT-2006
Account: PIL

Project: 4012

QC CERTIFICATE OF ANALYSIS VA06098720

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
STANDARDS																
BM-9/A		<10	1	0.02	10	0.42	630	3	0.43	376	90	6520	1.45	8	9	79
BM-9/A		<10	<1	0.02	10	0.38	596	4	0.37	338	80	6260	1.37	8	8	71
Target Range - Lower Bound		<10	<1	<0.01	<10	0.37	561	3	0.37	329	70	5980	1.27	3	6	67
Upper Bound		20	2	0.03	20	0.47	697	5	0.47	404	100	7310	1.57	9	10	84
CU-108																
CU-108																
Target Range - Lower Bound																
Upper Bound																
G2000		10	<1	0.44	20	0.69	563	5	0.03	291	980	670	0.27	27	8	72
G2000		10	<1	0.40	20	0.63	531	5	0.01	262	900	634	0.26	23	7	65
Target Range - Lower Bound		<10	<1	0.37	<10	0.60	506	4	0.02	246	840	601	0.23	19	5	60
Upper Bound		20	2	0.47	40	0.76	630	8	0.04	302	1050	739	0.31	31	9	76
GBM398-4c																
GBM398-4c																
GBM398-4c																
GBM398-4c																
Target Range - Lower Bound																
Upper Bound																
GBM999-5		<10	<1	0.05	10	0.02	60	3	0.01	2	40	508	0.31	6	1	4
Target Range - Lower Bound		<10	<1	0.04	<10	<0.01	49	2	<0.01	2	20	452	0.26	<2	<1	2
Upper Bound		20	2	0.07	20	0.03	71	5	0.03	5	50	556	0.34	8	2	5
ME89-2																
ME89-2																
Target Range - Lower Bound																
Upper Bound																
OXD43																
OXD43																
OXD43																
Target Range - Lower Bound																
Upper Bound																
OxG46																
OxG46																
Target Range - Lower Bound																
Upper Bound																
ST-259																
ST-259																
Target Range - Lower Bound																
Upper Bound																
ST-327																

Comments: Additional Cu-AA49 result for sample 227927 is 0.211%.

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North Vancouver BC V7J 2C1
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To: NORTHGATE MINERALS CORPORATION
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

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QC CERTIFICATE OF ANALYSIS VA06098720

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
STANDARDS							
BM-9/A		0.01	<10	<10	16	<10	8000
BM-9/A		0.01	<10	<10	14	<10	7910
Target Range - Lower Bound		<0.01	<10	<10	12	<10	7350
Upper Bound		0.02	20	20	17	20	8990
CU-108							
CU-108							
Target Range - Lower Bound							
Upper Bound							
G2000		0.05	<10	<10	68	<10	1300
G2000		0.05	<10	<10	63	<10	1240
Target Range - Lower Bound		0.04	<10	<10	59	<10	1145
Upper Bound		0.07	20	20	74	20	1400
GBM398-4c							
GBM398-4c							
GBM398-4c							
GBM398-4c							
Target Range - Lower Bound							
Upper Bound							
GBM999-5		<0.01	<10	<10	5	<10	113
Target Range - Lower Bound		<0.01	<10	<10	4	<10	97
Upper Bound		0.02	20	20	7	20	123
ME89-2							
ME89-2							
Target Range - Lower Bound							
Upper Bound							
OXD43							
OXD43							
OXD43							
Target Range - Lower Bound							
Upper Bound							
OxG46							
OxG46							
Target Range - Lower Bound							
Upper Bound							
ST-259							
ST-259							
Target Range - Lower Bound							
Upper Bound							
ST-327							

Comments: Additional Cu-AA49 result for sample 227927 is 0.211%.

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Sample Description	Method	Au-AA23	Cu-AA49	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Au	Cu	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	0.005	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
STANDARDS																
ST-327		6.78														
Target Range - Lower Bound		6.35														
Upper Bound		7.31														
BLANKS																
BLANK				<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
BLANK				<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
BLANK			<0.001													
BLANK			<0.001													
BLANK				<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
BLANK		<0.005														
BLANK		<0.005														
BLANK		<0.005														
BLANK			<0.001													
BLANK			<0.001													
BLANK		<0.005														
BLANK		<0.005														
Target Range - Lower Bound		<0.005	<0.001	<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
Upper Bound		0.010	0.002	0.4	0.02	4	20	20	1.0	4	0.02	1.0	2	2	2	0.02
DUPLICATES																
ORIGINAL		<0.005														
DUP		<0.005														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														
ORIGINAL		0.016														
DUP		0.017														
Target Range - Lower Bound		0.006														
Upper Bound		0.027														

Comments: Additional Cu-AA49 result for sample 227927 is 0.211%.

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QC CERTIFICATE OF ANALYSIS VA06098720

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
STANDARDS																
ST-327																
Target Range - Lower Bound																
Upper Bound																
BLANKS																
BLANK		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
BLANK		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
BLANK																
BLANK																
BLANK		<10	<1	<0.01	<10	<0.01	<5	1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
BLANK																
BLANK																
BLANK																
BLANK																
BLANK																
BLANK																
Target Range - Lower Bound		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
Upper Bound		20	2	0.02	20	0.02	10	2	0.02	2	20	4	0.02	4	2	2
DUPLICATES																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																

Comments: Additional Cu-AA49 result for sample 227927 is 0.211%.

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Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
STANDARDS							
ST-327							
Target Range - Lower Bound							
Upper Bound							
BLANKS							
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK							
BLANK							
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK							
BLANK							
BLANK							
BLANK							
BLANK							
BLANK							
BLANK							
Target Range - Lower Bound		<0.01	<10	<10	<1	<10	<2
Upper Bound		0.02	20	20	2	20	4
DUPLICATES							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							

Comments: Additional Cu-AA49 result for sample 227927 is 0.211%.

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Sample Description	Method / Analyte / Units / LOR	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1	ME-ICP41 Fe % 0.01
DUPLICATES																
ORIGINAL		2.40														
DUP		2.34														
Target Range - Lower Bound		2.24														
Upper Bound		2.50														
ORIGINAL		<0.005														
DUP		<0.005														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														
ORIGINAL		0.005														
DUP		<0.005														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														
ORIGINAL		0.007														
DUP		<0.005														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														
ORIGINAL		<0.005														
DUP		0.006														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														
228209		0.271														
DUP		0.247														
Target Range - Lower Bound		0.236														
Upper Bound		0.282														
228210			0.150													
DUP			0.152													
Target Range - Lower Bound			0.145													
Upper Bound			0.157													
227928		0.111		1.1	5.63	4	<10	40	<0.5	3	2.86	<0.5	39	215	1220	7.32
DUP		0.111		1.0	5.59	4	<10	40	<0.5	3	2.78	<0.5	38	210	1215	7.12
Target Range - Lower Bound		0.095		0.6	5.31	<2	<10	20	<0.5	<2	2.66	<0.5	35	200	1155	6.84
Upper Bound		0.127		1.5	5.91	8	20	60	1.0	4	2.98	1.0	42	225	1280	7.60

Comments: Additional Cu-AA49 result for sample 227927 is 0.211%.

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Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
DUPLICATES																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
228209																
DUP																
Target Range - Lower Bound																
Upper Bound																
228210																
DUP																
Target Range - Lower Bound																
Upper Bound																
227928		10	1	0.18	<10	3.38	735	17	0.05	42	1260	7	6.00	<2	22	122
DUP		10	<1	0.19	<10	3.29	712	17	0.05	41	1230	5	5.87	2	21	122
Target Range - Lower Bound		<10	<1	0.16	<10	3.15	677	14	0.03	37	1160	<2	5.62	<2	18	114
Upper Bound		20	2	0.21	20	3.52	770	20	0.07	46	1330	10	6.25	4	25	130

Comments: Additional Cu-AA49 result for sample 227927 is 0.211%.

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Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
		DUPLICATES					
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
228209							
DUP							
Target Range - Lower Bound							
Upper Bound							
228210							
DUP							
Target Range - Lower Bound							
Upper Bound							
227928		0.16	<10	<10	200	<10	135
DUP		0.16	<10	<10	195	<10	132
Target Range - Lower Bound		0.13	<10	<10	186	<10	123
Upper Bound		0.19	20	20	209	20	144

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Sample Description	Method	Au-AA23	Cu-AA49	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Au	Cu	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	0.005	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
DUPLICATES																
227936			0.109													
DUP			0.111													
Target Range - Lower Bound			0.105													
Upper Bound			0.115													
227938				0.9	6.58	9	10	20	0.6	3	4.20	<0.5	34	138	1005	7.29
DUP				1.0	6.55	6	<10	20	0.6	2	4.21	0.5	34	138	991	7.31
Target Range - Lower Bound				0.5	6.22	3	<10	<10	<0.5	<2	3.97	<0.5	30	129	946	6.92
Upper Bound				1.4	6.91	12	20	40	1.0	4	4.44	1.0	38	147	1050	7.69
227961				1.4	4.66	<2	<10	40	0.6	5	1.33	<0.5	46	160	1810	8.38
DUP				1.4	4.48	4	<10	40	0.6	3	1.31	<0.5	46	156	1790	8.25
Target Range - Lower Bound				0.9	4.32	<2	<10	20	<0.5	<2	1.23	<0.5	42	148	1710	7.88
Upper Bound				1.9	4.82	4	20	60	1.0	8	1.41	1.0	50	168	1890	8.75
227972			0.185													
DUP			0.186													
Target Range - Lower Bound			0.179													
Upper Bound			0.192													
228199			0.092													
DUP			0.093													
Target Range - Lower Bound			0.088													
Upper Bound			0.097													

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North Vancouver BC V7J 2C1
Phone: 604 984 0221 Fax: 604 984 0218 www.alschemex.com

To: NORTHGATE MINERALS CORPORATION
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 17-OCT-2006
Account: PIL

Project: 4012

QC CERTIFICATE OF ANALYSIS VA06098720

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
		DUPLICATES														
227936																
DUP																
Target Range - Lower Bound																
Upper Bound																
227938		20	<1	0.14	<10	3.23	843	60	0.05	29	1290	5	4.47	3	28	190
DUP		20	<1	0.13	<10	3.25	854	63	0.05	28	1290	6	4.47	3	29	189
Target Range - Lower Bound		<10	<1	0.11	<10	3.06	796	56	0.03	25	1210	<2	4.23	<2	25	178
Upper Bound		40	2	0.16	20	3.42	901	67	0.07	32	1370	10	4.71	4	32	201
227961		10	1	0.23	10	3.47	923	100	0.01	29	1100	12	6.11	<2	11	49
DUP		10	2	0.21	10	3.38	908	99	0.01	31	1080	13	6.00	<2	10	48
Target Range - Lower Bound		<10	<1	0.19	<10	3.23	860	93	<0.01	27	1020	8	5.73	<2	8	44
Upper Bound		20	2	0.25	20	3.62	971	106	0.02	34	1160	17	6.38	4	13	53
227972																
DUP																
Target Range - Lower Bound																
Upper Bound																
228199																
DUP																
Target Range - Lower Bound																
Upper Bound																

Comments: Additional Cu-AA49 result for sample 227927 is 0.211%.

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QC CERTIFICATE OF ANALYSIS VA06098720

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
DUPLICATES							
227936							
DUP							
Target Range - Lower Bound							
Upper Bound							
227938		0.41	<10	<10	267	<10	107
DUP		0.41	<10	<10	264	<10	106
Target Range - Lower Bound		0.37	<10	<10	250	<10	97
Upper Bound		0.45	20	20	281	20	116
227961		0.03	<10	<10	125	<10	135
DUP		0.02	<10	<10	122	<10	133
Target Range - Lower Bound		<0.01	<10	<10	115	<10	123
Upper Bound		0.05	20	20	132	20	145
227972							
DUP							
Target Range - Lower Bound							
Upper Bound							
228199							
DUP							
Target Range - Lower Bound							
Upper Bound							

Comments: Additional Cu-AA49 result for sample 227927 is 0.211%.

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Finalized Date: 17-OCT-2006
This copy reported on 23-FEB-2007
Account: PIL

QC CERTIFICATE VA06098721

Project: 4012
P.O. No.:
This report is for 50 Pulp samples submitted to our lab in Vancouver, BC, Canada on 22-SEP-2006.
The following have access to data associated with this certificate:

CARL EDMUNDS RON KONST	BRIAN KAY	B. KAY

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
LOG-QC	QC Test on Received Samples

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au-AA23	Au 30g FA-AA finish	AAS
Cu-AA49	Assay Cu - HBr Digestion	AAS
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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Finalized Date: 17-OCT-2006
Account: PIL

Project: 4012

QC CERTIFICATE OF ANALYSIS VA06098721

Sample Description	Method / Analyte / Units / LOR	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1	ME-ICP41 Fe % 0.01
STANDARDS																
BM-9/A				14.0	0.89	19	<10	90	0.9	115	0.17	27.1	101	202	5480	3.69
BM-9/A				14.9	0.99	23	<10	80	0.9	119	0.18	27.2	104	204	5470	3.70
BM-9/A				14.6	0.93	20	<10	90	0.8	120	0.17	28.0	103	208	5720	3.81
Target Range - Lower Bound				12.2	0.80	20	<10	70	<0.5	100	0.13	23.2	88	176	4890	3.28
Upper Bound				15.4	1.00	28	20	110	1.0	127	0.19	29.5	110	217	5980	4.04
CU-108			0.662													
CU-108			0.670													
Target Range - Lower Bound			0.627													
Upper Bound			0.695													
G2000				3.5	1.93	494	<10	860	1.0	2	0.52	7.2	24	71	315	3.97
G2000				3.8	1.92	477	<10	730	1.0	<2	0.52	7.0	24	70	298	3.73
G2000				3.5	1.90	500	<10	840	1.0	<2	0.47	7.2	24	74	329	3.83
G2000				3.5	1.83	477	<10	910	0.9	<2	0.51	7.2	22	68	331	3.77
Target Range - Lower Bound				3.0	1.66	434	<10	720	<0.5	<2	0.46	6.0	21	63	272	3.41
Upper Bound				4.1	2.06	534	20	1000	1.0	4	0.58	8.4	27	79	334	4.19
GBM398-4c			0.398													
GBM398-4c			0.394													
GBM398-4c			0.390													
Target Range - Lower Bound			0.369													
Upper Bound			0.410													
GBM999-5				61.0	0.19	4	<10	50	<0.5	<2	0.04	<0.5	3	5	486	2.81
Target Range - Lower Bound				53.3	0.17	<2	<10	40	<0.5	<2	0.04	<0.5	2	4	436	2.56
Upper Bound				65.5	0.23	4	20	70	1.0	4	0.07	1.0	4	7	536	3.15
ME89-2			0.241													
Target Range - Lower Bound			0.218													
Upper Bound			0.243													
OXD43		0.412														
OXD43		0.403														
Target Range - Lower Bound		0.368														
Upper Bound		0.434														
OxG46		1.035														
OxG46		1.035														
Target Range - Lower Bound		0.959														
Upper Bound		1.115														
SI15		1.845														
Target Range - Lower Bound		1.675														
Upper Bound		1.935														
ST-259		2.57														

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QC CERTIFICATE OF ANALYSIS VA06098721

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
STANDARDS																
BM-9/A		<10	1	0.02	10	0.42	630	3	0.43	376	90	6520	1.45	8	9	79
BM-9/A		<10	1	0.02	10	0.46	645	3	0.45	377	90	6820	1.54	5	9	83
BM-9/A		<10	<1	0.02	10	0.44	692	27	0.41	381	90	6900	1.50	8	9	81
Target Range - Lower Bound		<10	<1	<0.01	<10	0.37	561	3	0.37	329	70	5980	1.27	3	6	67
Upper Bound		20	2	0.03	20	0.47	697	5	0.47	404	100	7310	1.57	9	10	84
CU-108																
CU-108																
Target Range - Lower Bound																
Upper Bound																
G2000		10	<1	0.44	20	0.69	563	5	0.03	291	980	670	0.27	27	8	72
G2000		10	1	0.41	20	0.69	541	5	0.04	278	960	669	0.28	20	7	70
G2000		10	1	0.42	20	0.69	567	5	0.03	278	970	697	0.29	25	7	70
G2000		10	<1	0.40	20	0.67	551	5	0.02	270	950	659	0.27	25	7	71
Target Range - Lower Bound		<10	<1	0.37	<10	0.60	506	4	0.02	246	840	601	0.23	19	5	60
Upper Bound		20	2	0.47	40	0.76	630	8	0.04	302	1050	739	0.31	31	9	76
GBM398-4c																
GBM398-4c																
GBM398-4c																
Target Range - Lower Bound																
Upper Bound																
GBM999-5		<10	<1	0.05	10	0.02	62	4	0.01	3	20	496	0.29	6	1	3
Target Range - Lower Bound		<10	<1	0.04	<10	<0.01	49	2	<0.01	2	20	452	0.26	<2	<1	2
Upper Bound		20	2	0.07	20	0.03	71	5	0.03	5	50	556	0.34	8	2	5
ME89-2																
Target Range - Lower Bound																
Upper Bound																
OXD43																
OXD43																
Target Range - Lower Bound																
Upper Bound																
OxG46																
OxG46																
Target Range - Lower Bound																
Upper Bound																
SI15																
Target Range - Lower Bound																
Upper Bound																
ST-259																

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QC CERTIFICATE OF ANALYSIS VA06098721

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
STANDARDS							
BM-9/A		0.01	<10	<10	16	<10	8000
BM-9/A		<0.01	<10	<10	16	<10	8410
BM-9/A		0.01	<10	<10	17	<10	8580
Target Range - Lower Bound		<0.01	<10	<10	12	<10	7350
Upper Bound		0.02	20	20	17	20	8990
CU-108							
CU-108							
Target Range - Lower Bound							
Upper Bound							
G2000		0.05	<10	<10	68	<10	1300
G2000		0.05	<10	<10	67	<10	1250
G2000		0.05	<10	<10	69	<10	1300
G2000		0.05	<10	<10	66	<10	1270
Target Range - Lower Bound		0.04	<10	<10	59	<10	1145
Upper Bound		0.07	20	20	74	20	1400
GBM398-4c							
GBM398-4c							
GBM398-4c							
Target Range - Lower Bound							
Upper Bound							
GBM999-5		<0.01	<10	<10	5	<10	106
Target Range - Lower Bound		<0.01	<10	<10	4	<10	97
Upper Bound		0.02	20	20	7	20	123
ME89-2							
Target Range - Lower Bound							
Upper Bound							
OXD43							
OXD43							
Target Range - Lower Bound							
Upper Bound							
OxG46							
OxG46							
Target Range - Lower Bound							
Upper Bound							
SI15							
Target Range - Lower Bound							
Upper Bound							
ST-259							

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QC CERTIFICATE OF ANALYSIS VA06098721

Sample Description	Method	Au-AA23	Cu-AA49	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Au	Cu	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	0.005	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
STANDARDS																
ST-259		2.43														
Target Range - Lower Bound		2.30														
Upper Bound		2.66														
ST-327		6.78														
Target Range - Lower Bound		6.35														
Upper Bound		7.31														
BLANKS																
BLANK				<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
BLANK				<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
BLANK				<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
BLANK			<0.001													
BLANK			<0.001													
BLANK		<0.005														
BLANK			<0.001													
BLANK		<0.005														
BLANK		<0.005														
BLANK		<0.005														
BLANK				<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
Target Range - Lower Bound		<0.005	<0.001	<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
Upper Bound		0.010	0.002	0.4	0.02	4	20	20	1.0	4	0.02	1.0	2	2	2	0.02
DUPLICATES																
ORIGINAL		0.149														
DUP		0.134														
Target Range - Lower Bound		0.124														
Upper Bound		0.159														
ORIGINAL		2.40														
DUP		2.34														
Target Range - Lower Bound		2.24														
Upper Bound		2.50														

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QC CERTIFICATE OF ANALYSIS VA06098721

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
STANDARDS																
ST-259																
Target Range - Lower Bound																
Upper Bound																
ST-327																
Target Range - Lower Bound																
Upper Bound																
BLANKS																
BLANK		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
BLANK		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
BLANK		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
BLANK																
BLANK																
BLANK																
BLANK																
BLANK																
BLANK																
BLANK																
BLANK		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
Target Range - Lower Bound		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
Upper Bound		20	2	0.02	20	0.02	10	2	0.02	2	20	4	0.02	4	2	2
DUPLICATES																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																

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Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
STANDARDS							
ST-259							
Target Range - Lower Bound							
Upper Bound							
ST-327							
Target Range - Lower Bound							
Upper Bound							
BLANKS							
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK							
BLANK							
BLANK							
BLANK							
BLANK							
BLANK							
BLANK							
BLANK		<0.01	<10	<10	<1	<10	<2
Target Range - Lower Bound		<0.01	<10	<10	<1	<10	<2
Upper Bound		0.02	20	20	2	20	4
DUPLICATES							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							

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QC CERTIFICATE OF ANALYSIS VA06098721

Sample Description / Method / Analyte / Units / LOR	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1	ME-ICP41 Fe % 0.01
DUPLICATES															
ORIGINAL			<0.2	0.85	8	<10	100	0.8	<2	0.23	<0.5	1	1	3	2.46
DUP			<0.2	0.86	6	<10	100	0.8	<2	0.23	<0.5	<1	1	2	2.45
Target Range - Lower Bound			<0.2	0.79	3	<10	70	<0.5	<2	0.20	<0.5	<1	<1	<1	2.31
Upper Bound			0.4	0.92	11	20	130	1.0	4	0.26	1.0	2	2	5	2.60
ORIGINAL	<0.005														
DUP	<0.005														
Target Range - Lower Bound	<0.005														
Upper Bound	0.010														
ORIGINAL	0.005														
DUP	<0.005														
Target Range - Lower Bound	<0.005														
Upper Bound	0.010														
ORIGINAL			0.3	0.59	25	<10	450	<0.5	<2	0.14	3.3	13	1	2090	4.12
DUP			0.3	0.62	17	<10	490	<0.5	2	0.15	3.4	12	1	2150	4.13
Target Range - Lower Bound			<0.2	0.55	16	<10	410	<0.5	<2	0.12	2.2	10	<1	2010	3.90
Upper Bound			0.4	0.66	26	20	530	1.0	4	0.17	4.5	15	2	2230	4.35
ORIGINAL	0.007														
DUP	<0.005														
Target Range - Lower Bound	<0.005														
Upper Bound	0.010														
ORIGINAL	0.039														
DUP	0.040														
Target Range - Lower Bound	0.028														
Upper Bound	0.051														
ORIGINAL	<0.005														
DUP	<0.005														
Target Range - Lower Bound	<0.005														
Upper Bound	0.010														
227961			1.4	4.66	<2	<10	40	0.6	5	1.33	<0.5	46	160	1810	8.38
DUP			1.4	4.48	4	<10	40	0.6	3	1.31	<0.5	46	156	1790	8.25
Target Range - Lower Bound			0.9	4.32	<2	<10	20	<0.5	<2	1.23	<0.5	42	148	1710	7.88
Upper Bound			1.9	4.82	4	20	60	1.0	8	1.41	1.0	50	168	1890	8.75

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PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 17-OCT-2006
Account: PIL

Project: 4012

QC CERTIFICATE OF ANALYSIS VA06098721

Sample Description / Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
DUPLICATES															
ORIGINAL	<10	<1	0.08	10	0.07	297	4	0.08	1	180	11	0.01	<2	7	28
DUP	<10	<1	0.08	10	0.08	296	2	0.08	<1	180	11	0.02	<2	7	29
Target Range - Lower Bound	<10	<1	0.06	<10	0.05	272	<1	0.06	<1	150	6	<0.01	<2	5	25
Upper Bound	20	2	0.10	20	0.10	321	5	0.10	2	210	16	0.02	4	9	32
ORIGINAL															
DUP															
Target Range - Lower Bound															
Upper Bound															
ORIGINAL															
DUP															
Target Range - Lower Bound															
Upper Bound															
ORIGINAL	<10	<1	0.14	10	2.03	2200	3	0.01	1	550	31	0.44	<2	6	10
DUP	<10	<1	0.15	10	2.05	2200	2	0.01	1	560	37	0.45	<2	6	11
Target Range - Lower Bound	<10	<1	0.12	<10	1.92	2080	<1	<0.01	<1	510	28	0.40	<2	4	8
Upper Bound	20	2	0.17	20	2.16	2320	5	0.02	2	600	40	0.49	4	8	13
ORIGINAL															
DUP															
Target Range - Lower Bound															
Upper Bound															
ORIGINAL															
DUP															
Target Range - Lower Bound															
Upper Bound															
ORIGINAL															
DUP															
Target Range - Lower Bound															
Upper Bound															
227961	10	1	0.23	10	3.47	923	100	0.01	29	1100	12	6.11	<2	11	49
DUP	10	2	0.21	10	3.38	908	99	0.01	31	1080	13	6.00	<2	10	48
Target Range - Lower Bound	<10	<1	0.19	<10	3.23	860	93	<0.01	27	1020	8	5.73	<2	8	44
Upper Bound	20	2	0.25	20	3.62	971	106	0.02	34	1160	17	6.38	4	13	53

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QC CERTIFICATE OF ANALYSIS VA06098721

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
		DUPLICATES					
ORIGINAL		0.01	<10	<10	2	<10	41
DUP		0.01	<10	<10	2	<10	41
Target Range - Lower Bound		<0.01	<10	<10	<1	<10	35
Upper Bound		0.02	20	20	4	20	47
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL		<0.01	<10	<10	30	<10	882
DUP		<0.01	<10	<10	30	<10	893
Target Range - Lower Bound		<0.01	<10	<10	27	<10	839
Upper Bound		0.02	20	20	34	20	936
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
227961		0.03	<10	<10	125	<10	135
DUP		0.02	<10	<10	122	<10	133
Target Range - Lower Bound		<0.01	<10	<10	115	<10	123
Upper Bound		0.05	20	20	132	20	145

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QC CERTIFICATE OF ANALYSIS VA06098721

Sample Description	Method / Analyte / Units / LOR	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1	ME-ICP41 Fe % 0.01
DUPLICATES																
227972			0.185													
DUP			0.186													
Target Range - Lower Bound			0.179													
Upper Bound			0.192													
227989		0.125														
DUP		0.122														
Target Range - Lower Bound		0.107														
Upper Bound		0.140														
227997				0.4	8.42	8	<10	20	0.9	2	6.99	0.7	28	38	237	7.10
DUP				0.4	8.29	8	<10	20	0.9	2	6.82	<0.5	27	37	239	6.89
Target Range - Lower Bound				<0.2	7.92	4	<10	<10	<0.5	<2	6.54	<0.5	24	34	224	6.63
Upper Bound				0.8	8.79	12	20	40	1.0	4	7.27	1.0	31	41	252	7.36
228181		0.898														
DUP		0.886														
Target Range - Lower Bound		0.837														
Upper Bound		0.947														
228183			0.055													
DUP			0.055													
Target Range - Lower Bound			0.052													
Upper Bound			0.058													
228184		0.078														
DUP		0.075														
Target Range - Lower Bound		0.063														
Upper Bound		0.090														
228199			0.092													
DUP			0.093													
Target Range - Lower Bound			0.088													
Upper Bound			0.097													

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QC CERTIFICATE OF ANALYSIS VA06098721

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
		DUPLICATES														
227972																
DUP																
Target Range - Lower Bound																
Upper Bound																
227989																
DUP																
Target Range - Lower Bound																
Upper Bound																
227997		20	1	0.08	10	3.11	1580	9	0.08	9	860	8	1.24	5	28	248
DUP		20	1	0.08	10	3.02	1540	9	0.08	9	840	7	1.22	6	27	245
Target Range - Lower Bound		<10	<1	0.06	<10	2.89	1470	7	0.06	7	790	3	1.15	<2	24	232
Upper Bound		40	2	0.10	20	3.24	1650	11	0.10	11	910	12	1.31	10	31	261
228181																
DUP																
Target Range - Lower Bound																
Upper Bound																
228183																
DUP																
Target Range - Lower Bound																
Upper Bound																
228184																
DUP																
Target Range - Lower Bound																
Upper Bound																
228199																
DUP																
Target Range - Lower Bound																
Upper Bound																

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QC CERTIFICATE OF ANALYSIS VA06098721

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
DUPLICATES							
227972 DUP							
Target Range - Lower Bound							
Upper Bound							
227989 DUP							
Target Range - Lower Bound							
Upper Bound							
227997		0.45	<10	<10	280	<10	123
DUP		0.44	<10	<10	276	<10	123
Target Range - Lower Bound		0.40	<10	<10	262	<10	113
Upper Bound		0.49	20	20	294	20	133
228181 DUP							
Target Range - Lower Bound							
Upper Bound							
228183 DUP							
Target Range - Lower Bound							
Upper Bound							
228184 DUP							
Target Range - Lower Bound							
Upper Bound							
228199 DUP							
Target Range - Lower Bound							
Upper Bound							

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Finalized Date: 6-JAN-2007
This copy reported on 23-FEB-2007
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QC CERTIFICATE VA06124415

Project: 4012
P.O. No.:
This report is for 197 Pulp samples submitted to our lab in Vancouver, BC, Canada on 29-NOV-2006.
The following have access to data associated with this certificate:

CARL EDMUNDS RON KONST	BRIAN KAY	B. KAY

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-QC	QC Test on Received Samples
LOG-24	Pulp Login - Rcd w/o Barcode

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au-AA23	Au 30g FA-AA finish	AAS
Cu-AA49	Assay Cu - HBr Digestion	AAS
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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Project: 4012

QC CERTIFICATE OF ANALYSIS VA06124415

Sample Description	Method	Au-AA23	Cu-AA49	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Au	Cu	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	0.005	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
STANDARDS																
BM-9/A				13.9	0.82	20	<10	80	0.8	112	0.15	26.1	104	193	5380	3.69
BM-9/A				13.7	0.87	24	<10	90	0.8	119	0.17	26.4	99	200	5510	3.74
BM-9/A				14.2	0.97	21	<10	100	0.9	121	0.17	27.3	99	206	5620	3.81
BM-9/A				14.1	0.95	24	<10	90	0.9	117	0.16	26.5	97	198	5390	3.64
Target Range - Lower Bound				12.2	0.80	20	<10	70	<0.5	100	0.13	23.2	88	176	4890	3.28
Upper Bound				15.4	1.00	28	20	110	1.0	127	0.19	29.5	110	217	5980	4.04
CU-108			0.661													
CU-108			0.646													
CU-108			0.649													
Target Range - Lower Bound			0.627													
Upper Bound			0.695													
G2000				3.2	1.68	459	<10	860	0.9	<2	0.47	6.4	22	66	282	3.68
G2000				3.8	1.90	498	<10	900	1.0	<2	0.50	6.7	23	70	297	3.87
G2000				3.5	1.77	478	<10	890	0.9	3	0.50	6.7	23	67	291	3.85
G2000				3.7	1.86	477	<10	900	0.9	3	0.50	7.1	23	69	302	3.85
G2000				3.6	1.96	493	<10	910	1.0	4	0.51	7.0	23	70	311	3.89
G2000				3.3	1.76	465	<10	880	0.9	<2	0.46	6.4	22	68	295	3.51
G2000				3.7	1.84	473	10	880	0.9	2	0.47	6.8	23	68	298	3.71
Target Range - Lower Bound				3.0	1.66	434	<10	720	<0.5	<2	0.46	6.0	21	63	272	3.41
Upper Bound				4.1	2.06	534	20	1000	1.0	4	0.58	8.4	27	79	334	4.19
GBM398-4c			0.377													
GBM398-4c			0.376													
GBM398-4c			0.377													
GBM398-4c			0.369													
GBM398-4c			0.371													
GBM398-4c			0.369													
GBM398-4c			0.367													
GBM398-4c			0.374													
Target Range - Lower Bound			0.369													
Upper Bound			0.410													
GBM999-5				60.2	0.20	<2	<10	50	<0.5	<2	0.04	<0.5	3	4	477	2.92
GBM999-5				58.4	0.19	<2	<10	50	<0.5	3	0.05	<0.5	3	4	489	2.91
GBM999-5				63.3	0.20	2	<10	60	<0.5	<2	0.05	<0.5	3	5	530	2.92
Target Range - Lower Bound				53.3	0.17	<2	<10	40	<0.5	<2	0.04	<0.5	2	4	436	2.56
Upper Bound				65.5	0.23	4	20	70	1.0	4	0.07	1.0	4	7	536	3.15

Comments: **CORRECTED COPY FOR Au-AA23 ON SAMPLE 229425**

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Finalized Date: 6-JAN-2007
Account: PIL

Project: 4012

QC CERTIFICATE OF ANALYSIS VA06124415

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
STANDARDS																
BM-9/A		<10	<1	0.02	10	0.41	653	4	0.42	360	90	6850	1.46	5	8	75
BM-9/A		<10	<1	0.02	10	0.42	648	3	0.43	363	100	6690	1.48	6	9	75
BM-9/A		<10	2	0.02	10	0.45	655	4	0.44	367	100	6760	1.48	4	9	79
BM-9/A		<10	<1	0.02	10	0.43	634	3	0.42	362	90	6690	1.46	7	9	77
Target Range - Lower Bound		<10	<1	<0.01	<10	0.37	561	3	0.37	329	70	5980	1.27	3	6	67
Upper Bound		20	2	0.03	20	0.47	697	5	0.47	404	100	7310	1.57	9	10	84
CU-108																
CU-108																
CU-108																
Target Range - Lower Bound																
Upper Bound																
G2000		10	<1	0.39	20	0.63	539	5	0.03	260	890	637	0.27	23	7	63
G2000		10	<1	0.42	20	0.67	576	6	0.04	273	940	676	0.28	27	7	69
G2000		10	<1	0.39	20	0.66	563	5	0.03	268	930	652	0.28	22	7	65
G2000		10	2	0.41	20	0.67	569	5	0.03	270	930	657	0.29	20	7	68
G2000		10	1	0.42	20	0.69	562	5	0.03	276	980	672	0.28	21	7	71
G2000		10	1	0.37	20	0.61	534	6	0.03	272	890	630	0.26	27	7	64
G2000		10	1	0.40	20	0.65	532	5	0.03	270	920	655	0.26	27	7	68
Target Range - Lower Bound		<10	<1	0.37	<10	0.60	506	4	0.02	246	840	601	0.23	19	6	61
Upper Bound		20	2	0.47	40	0.76	630	8	0.04	302	1050	739	0.31	31	10	77
GBM398-4c																
GBM398-4c																
GBM398-4c																
GBM398-4c																
GBM398-4c																
GBM398-4c																
GBM398-4c																
GBM398-4c																
Target Range - Lower Bound																
Upper Bound																
GBM999-5		<10	1	0.05	10	0.02	60	4	0.02	3	40	496	0.30	4	1	4
GBM999-5		<10	1	0.05	10	0.02	60	4	0.01	5	40	499	0.30	4	1	4
GBM999-5		<10	<1	0.05	10	0.02	63	4	0.02	5	40	537	0.30	6	1	4
Target Range - Lower Bound		<10	<1	0.04	<10	<0.01	49	2	<0.01	3	20	452	0.26	<2	<1	2
Upper Bound		20	2	0.07	20	0.03	71	5	0.03	5	50	556	0.34	8	2	5

Comments: **CORRECTED COPY FOR Au-AA23 ON SAMPLE 229425**

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QC CERTIFICATE OF ANALYSIS VA06124415

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
					STANDARDS		
BM-9/A		0.01	<10	<10	16	<10	8260
BM-9/A		0.01	<10	<10	16	<10	8540
BM-9/A		0.01	<10	<10	16	<10	8710
BM-9/A		0.01	<10	<10	15	<10	8220
Target Range - Lower Bound		<0.01	<10	<10	12	<10	7350
Upper Bound		0.02	20	20	17	20	8990
CU-108							
CU-108							
CU-108							
Target Range - Lower Bound							
Upper Bound							
G2000		0.05	<10	<10	63	<10	1215
G2000		0.05	<10	<10	67	10	1245
G2000		0.05	10	<10	65	10	1260
G2000		0.05	<10	<10	66	10	1250
G2000		0.06	10	<10	68	<10	1275
G2000		0.05	<10	<10	65	10	1230
G2000		0.05	<10	<10	66	10	1250
Target Range - Lower Bound		0.04	<10	<10	59	<10	1145
Upper Bound		0.07	20	20	74	20	1400
GBM398-4c							
GBM398-4c							
GBM398-4c							
GBM398-4c							
GBM398-4c							
GBM398-4c							
GBM398-4c							
GBM398-4c							
Target Range - Lower Bound							
Upper Bound							
GBM999-5		<0.01	<10	<10	6	<10	106
GBM999-5		<0.01	<10	<10	6	<10	112
GBM999-5		<0.01	<10	<10	6	<10	114
Target Range - Lower Bound		<0.01	<10	<10	4	<10	97
Upper Bound		0.02	20	20	7	20	123

Comments: **CORRECTED COPY FOR Au-AA23 ON SAMPLE 229425**

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QC CERTIFICATE OF ANALYSIS VA06124415

Sample Description	Method	Au-AA23	Cu-AA49	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Au	Cu	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	0.005	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
STANDARDS																
ME89-2			0.226													
ME89-2			0.225													
ME89-2			0.226													
ME89-2			0.223													
ME89-2			0.225													
Target Range - Lower Bound			0.218													
Upper Bound			0.243													
OXD43		0.396														
OXD43		0.405														
OXD43		0.403														
Target Range - Lower Bound		0.368														
Upper Bound		0.434														
OxE42		0.602														
OxE42		0.645														
OxE42		0.585														
OxE42		0.584														
OxE42		0.609														
OxE42		0.572														
OxE42		0.607														
OxE42		0.607														
Target Range - Lower Bound		0.562														
Upper Bound		0.658														
OxG46		1.020														
OxG46		1.060														
Target Range - Lower Bound		0.959														
Upper Bound		1.115														
ST-259		2.52														
ST-259		2.41														
ST-259		2.48														
ST-259		2.52														
ST-259		2.41														
ST-259		2.53														
ST-259		2.48														
ST-259		2.52														
ST-259		2.45														
Target Range - Lower Bound		2.30														
Upper Bound		2.66														
ST-327		6.64														

Comments: **CORRECTED COPY FOR Au-AA23 ON SAMPLE 229425**

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PO BOX 3519
SMITHERS BC V0J 2N0

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Account: PIL

Project: 4012

QC CERTIFICATE OF ANALYSIS VA06124415

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
STANDARDS																
ME89-2																
ME89-2																
ME89-2																
ME89-2																
ME89-2																
Target Range - Lower Bound																
Upper Bound																
OXD43																
OXD43																
OXD43																
Target Range - Lower Bound																
Upper Bound																
OxE42																
OxE42																
OxE42																
OxE42																
OxE42																
OxE42																
OxE42																
OxE42																
Target Range - Lower Bound																
Upper Bound																
OxG46																
OxG46																
Target Range - Lower Bound																
Upper Bound																
ST-259																
ST-259																
ST-259																
ST-259																
ST-259																
ST-259																
ST-259																
ST-259																
ST-259																
Target Range - Lower Bound																
Upper Bound																
ST-327																

Comments: **CORRECTED COPY FOR Au-AA23 ON SAMPLE 229425**

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QC CERTIFICATE OF ANALYSIS VA06124415

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
		STANDARDS					
ME89-2							
ME89-2							
ME89-2							
ME89-2							
ME89-2							
Target Range - Lower Bound							
Upper Bound							
OXD43							
OXD43							
OXD43							
Target Range - Lower Bound							
Upper Bound							
OxE42							
OxE42							
OxE42							
OxE42							
OxE42							
OxE42							
OxE42							
OxE42							
Target Range - Lower Bound							
Upper Bound							
OxG46							
OxG46							
Target Range - Lower Bound							
Upper Bound							
ST-259							
ST-259							
ST-259							
ST-259							
ST-259							
ST-259							
ST-259							
ST-259							
ST-259							
Target Range - Lower Bound							
Upper Bound							
ST-327							

Comments: **CORRECTED COPY FOR Au-AA23 ON SAMPLE 229425**

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QC CERTIFICATE OF ANALYSIS VA06124415

Sample Description	Method / Analyte / Units / LOR	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1	ME-ICP41 Fe % 0.01
STANDARDS																
ST-327		6.91														
ST-327		6.95														
Target Range - Lower Bound		6.35														
Upper Bound		7.31														
BLANKS																
BLANK				<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	0.5	<1	<1	<1	<0.01
BLANK				<0.2	<0.01	2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
BLANK				<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
BLANK				<0.2	<0.01	<2	<10	<10	<0.5	2	<0.01	0.5	<1	<1	1	<0.01
BLANK				<0.2	<0.01	<2	<10	<10	<0.5	2	<0.01	<0.5	<1	<1	<1	<0.01
BLANK				<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
BLANK				<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
BLANK			<0.001													
BLANK			<0.001													
BLANK			<0.001													
BLANK			<0.001													
BLANK			<0.001													
BLANK			<0.001													
BLANK			<0.001													
BLANK		<0.005														
BLANK		<0.005														
BLANK		<0.005														
BLANK		<0.005														
BLANK		<0.005														
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BLANK			<0.001													
BLANK		<0.005														
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BLANK		<0.005														
BLANK		<0.005														
BLANK		<0.005														
Target Range - Lower Bound		<0.005	<0.001	<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
Upper Bound		0.010	0.002	0.4	0.02	4	20	20	1.0	4	0.02	1.0	2	2	2	0.02

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QC CERTIFICATE OF ANALYSIS VA06124415

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
STANDARDS																
ST-327																
ST-327																
Target Range - Lower Bound																
Upper Bound																
BLANKS																
BLANK		<10	<1	<0.01	<10	<0.01	<5	1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
BLANK		<10	<1	<0.01	<10	<0.01	<5	1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
BLANK		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
BLANK		<10	<1	<0.01	<10	<0.01	<5	1	<0.01	1	<10	<2	<0.01	<2	<1	<1
BLANK		<10	1	<0.01	<10	<0.01	<5	1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
BLANK		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	1	<10	<2	<0.01	<2	<1	<1
BLANK		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
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BLANK																
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BLANK																
Target Range - Lower Bound		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
Upper Bound		20	2	0.02	20	0.02	10	2	0.02	2	20	4	0.02	4	2	2

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QC CERTIFICATE OF ANALYSIS VA06124415

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
STANDARDS							
ST-327							
ST-327							
Target Range - Lower Bound							
Upper Bound							
BLANKS							
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK							
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BLANK							
BLANK							
BLANK							
Target Range - Lower Bound		<0.01	<10	<10	<1	<10	<2
Upper Bound		0.02	20	20	2	20	4

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QC CERTIFICATE OF ANALYSIS VA06124415

Sample Description / Method / Analyte / Units / LOR	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1	ME-ICP41 Fe % 0.01
DUPLICATES															
ORIGINAL			33.0	0.23	43	<10	80	0.7	<2	0.06	<0.5	3	5	4	1.21
DUP			43.8	0.24	49	<10	80	0.7	<2	0.06	<0.5	3	5	5	1.25
Target Range - Lower Bound			36.1	0.20	40	<10	50	<0.5	<2	0.04	<0.5	<1	3	2	1.15
Upper Bound			40.7	0.27	52	20	110	1.0	4	0.08	1.0	5	7	7	1.31
ORIGINAL	0.027														
DUP	0.027														
Target Range - Lower Bound	0.016														
Upper Bound	0.038														
ORIGINAL	0.009														
DUP	0.007														
Target Range - Lower Bound	<0.005														
Upper Bound	0.010														
ORIGINAL	<0.005														
DUP	<0.005														
Target Range - Lower Bound	<0.005														
Upper Bound	0.010														
ORIGINAL	0.026														
DUP	0.030														
Target Range - Lower Bound	0.017														
Upper Bound	0.039														
ORIGINAL	0.238														
DUP	0.229														
Target Range - Lower Bound	0.212														
Upper Bound	0.255														
ORIGINAL	<0.005														
DUP	<0.005														
Target Range - Lower Bound	<0.005														
Upper Bound	0.010														
ORIGINAL	0.020														
DUP	0.019														
Target Range - Lower Bound	0.009														
Upper Bound	0.030														

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QC CERTIFICATE OF ANALYSIS VA06124415

Sample Description / Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
DUPLICATES															
ORIGINAL	<10	<1	0.12	10	0.04	124	<1	<0.01	2	260	6	0.10	3	1	3
DUP	<10	1	0.12	10	0.04	129	<1	<0.01	2	270	15	0.10	3	1	3
Target Range - Lower Bound	<10	<1	0.09	<10	0.02	110	<1	<0.01	<1	230	6	0.08	<2	<1	<1
Upper Bound	20	2	0.15	20	0.06	143	2	0.02	4	300	15	0.13	4	2	5
ORIGINAL															
DUP															
Target Range - Lower Bound															
Upper Bound															
ORIGINAL															
DUP															
Target Range - Lower Bound															
Upper Bound															
ORIGINAL															
DUP															
Target Range - Lower Bound															
Upper Bound															
ORIGINAL															
DUP															
Target Range - Lower Bound															
Upper Bound															
ORIGINAL															
DUP															
Target Range - Lower Bound															
Upper Bound															
ORIGINAL															
DUP															
Target Range - Lower Bound															
Upper Bound															

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QC CERTIFICATE OF ANALYSIS VA06124415

Sample Description / Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
DUPLICATES						
ORIGINAL	<0.01	<10	<10	13	<10	18
DUP	<0.01	<10	<10	15	<10	26
Target Range - Lower Bound	<0.01	<10	<10	11	<10	17
Upper Bound	0.02	20	20	17	20	27
ORIGINAL						
DUP						
Target Range - Lower Bound						
Upper Bound						
ORIGINAL						
DUP						
Target Range - Lower Bound						
Upper Bound						
ORIGINAL						
DUP						
Target Range - Lower Bound						
Upper Bound						
ORIGINAL						
DUP						
Target Range - Lower Bound						
Upper Bound						
ORIGINAL						
DUP						
Target Range - Lower Bound						
Upper Bound						
ORIGINAL						
DUP						
Target Range - Lower Bound						
Upper Bound						

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QC CERTIFICATE OF ANALYSIS VA06124415

Sample Description / Method / Analyte / Units / LOR	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1	ME-ICP41 Fe % 0.01
DUPLICATES															
ORIGINAL	0.011														
DUP	0.010														
Target Range - Lower Bound	<0.005														
Upper Bound	0.021														
ORIGINAL	<0.005														
DUP	0.005														
Target Range - Lower Bound	<0.005														
Upper Bound	0.010														
ORIGINAL	0.030														
DUP	0.036														
Target Range - Lower Bound	0.021														
Upper Bound	0.045														
ORIGINAL	0.062														
DUP	0.062														
Target Range - Lower Bound	0.049														
Upper Bound	0.075														
ORIGINAL	0.085														
DUP	0.080														
Target Range - Lower Bound	0.068														
Upper Bound	0.097														
ORIGINAL	0.078														
DUP	0.069														
Target Range - Lower Bound	0.060														
Upper Bound	0.087														
ORIGINAL	<0.005														
DUP	0.006														
Target Range - Lower Bound	<0.005														
Upper Bound	0.010														
ORIGINAL	0.006														
DUP	0.005														
Target Range - Lower Bound	<0.005														
Upper Bound	0.010														

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Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
		DUPLICATES														
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																

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Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
		DUPLICATES					
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							

Comments: **CORRECTED COPY FOR Au-AA23 ON SAMPLE 229425**

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KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 6-JAN-2007
Account: PIL

Project: 4012

QC CERTIFICATE OF ANALYSIS VA06124415

Sample Description	Method / Analyte / Units / LOR	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1	ME-ICP41 Fe % 0.01
DUPLICATES																
ORIGINAL		<0.005														
DUP		<0.005														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														
ORIGINAL		<0.005														
DUP		<0.005														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														
ORIGINAL		<0.005														
DUP		<0.005														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														
ORIGINAL		0.012														
DUP		0.010														
Target Range - Lower Bound		<0.005														
Upper Bound		0.022														
ORIGINAL		0.061														
DUP		0.058														
Target Range - Lower Bound		0.047														
Upper Bound		0.072														
229338			0.036													
DUP			0.036													
Target Range - Lower Bound			0.033													
Upper Bound			0.039													
229344		0.065														
DUP		0.066														
Target Range - Lower Bound		0.052														
Upper Bound		0.079														
229347		0.084		0.4	2.58	<2	<10	20	<0.5	<2	3.35	<0.5	28	97	60	5.70
DUP		0.086		0.6	2.57	8	<10	20	<0.5	<2	3.30	<0.5	28	95	59	5.62
Target Range - Lower Bound		0.071		<0.2	2.43	<2	<10	<10	<0.5	<2	3.14	<0.5	25	89	55	5.36
Upper Bound		0.099		0.9	2.72	9	20	40	1.0	4	3.51	1.0	31	103	64	5.96

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QC CERTIFICATE OF ANALYSIS VA06124415

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
DUPLICATES																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
229338																
DUP																
Target Range - Lower Bound																
Upper Bound																
229344																
DUP																
Target Range - Lower Bound																
Upper Bound																
229347		10	2	0.05	<10	2.15	1220	<1	0.18	26	1270	10	2.23	<2	14	293
DUP		10	<1	0.05	<10	2.12	1200	1	0.18	27	1280	11	2.22	4	14	293
Target Range - Lower Bound		<10	<1	0.03	<10	2.01	1140	<1	0.15	23	1190	6	2.09	<2	11	276
Upper Bound		20	2	0.07	20	2.26	1280	2	0.21	30	1360	15	2.36	4	17	310

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QC CERTIFICATE OF ANALYSIS VA06124415

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
		DUPLICATES					
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
229338							
DUP							
Target Range - Lower Bound							
Upper Bound							
229344							
DUP							
Target Range - Lower Bound							
Upper Bound							
229347		0.41	<10	<10	145	<10	122
DUP		0.40	<10	<10	143	<10	119
Target Range - Lower Bound		0.36	<10	<10	135	<10	110
Upper Bound		0.45	20	20	153	20	131

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Sample Description	Method / Analyte / Units / LOR	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1	ME-ICP41 Fe % 0.01
DUPLICATES																
229374			0.026													
DUP			0.026													
Target Range - Lower Bound			0.023													
Upper Bound			0.029													
229383				0.2	2.90	5	<10	20	<0.5	3	2.60	<0.5	15	103	98	4.23
DUP				0.3	3.03	12	<10	20	<0.5	2	2.71	<0.5	14	105	100	4.38
Target Range - Lower Bound				<0.2	2.80	4	<10	<10	<0.5	<2	2.50	<0.5	12	97	92	4.07
Upper Bound				0.4	3.13	13	20	40	1.0	4	2.81	1.0	17	111	106	4.54
229387		0.164														
DUP		0.171														
Target Range - Lower Bound		0.149														
Upper Bound		0.186														
229394			0.045													
DUP			0.043													
Target Range - Lower Bound			0.041													
Upper Bound			0.047													
229410			0.008													
DUP			0.008													
Target Range - Lower Bound			0.006													
Upper Bound			0.010													
229419				0.6	3.25	7	<10	20	<0.5	6	2.04	<0.5	49	142	454	8.97
DUP				0.8	3.42	13	<10	20	<0.5	6	2.12	<0.5	49	150	478	9.43
Target Range - Lower Bound				0.3	3.15	6	<10	<10	<0.5	<2	1.96	<0.5	45	137	441	8.72
Upper Bound				1.1	3.52	15	20	40	1.0	10	2.20	1.0	53	155	491	9.68
229446			0.004													
DUP			0.004													
Target Range - Lower Bound			0.002													
Upper Bound			0.006													
229447		0.300														
DUP		0.321														
Target Range - Lower Bound		0.285														
Upper Bound		0.336														

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QC CERTIFICATE OF ANALYSIS VA06124415

Sample Description / Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
DUPLICATES															
229374 DUP															
Target Range - Lower Bound															
Upper Bound															
229383	10	<1	0.12	<10	1.25	556	<1	0.20	25	960	8	1.09	<2	6	86
DUP	10	1	0.13	<10	1.31	581	1	0.21	26	1010	10	1.13	<2	7	89
Target Range - Lower Bound	<10	<1	0.10	<10	1.20	530	<1	0.17	22	920	5	1.03	<2	4	81
Upper Bound	20	2	0.15	20	1.36	607	2	0.24	29	1050	13	1.19	4	9	94
229387 DUP															
Target Range - Lower Bound															
Upper Bound															
229394 DUP															
Target Range - Lower Bound															
Upper Bound															
229410 DUP															
Target Range - Lower Bound															
Upper Bound															
229419	10	<1	0.15	<10	2.39	505	1	0.12	35	1210	7	9.09	<2	14	105
DUP	10	<1	0.15	<10	2.50	529	1	0.13	39	1280	8	9.59	<2	15	111
Target Range - Lower Bound	<10	<1	0.12	<10	2.30	481	<1	0.10	33	1160	3	8.85	<2	12	101
Upper Bound	20	2	0.18	20	2.59	553	2	0.15	41	1330	12	9.83	4	17	115
229446 DUP															
Target Range - Lower Bound															
Upper Bound															
229447 DUP															
Target Range - Lower Bound															
Upper Bound															

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QC CERTIFICATE OF ANALYSIS VA06124415

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
		DUPLICATES					
229374	DUP						
	Target Range - Lower Bound						
	Upper Bound						
229383	DUP	0.22	<10	<10	117	<10	70
		0.24	<10	<10	122	<10	72
	Target Range - Lower Bound	0.20	<10	<10	112	<10	63
	Upper Bound	0.26	20	20	127	20	79
229387	DUP						
	Target Range - Lower Bound						
	Upper Bound						
229394	DUP						
	Target Range - Lower Bound						
	Upper Bound						
229410	DUP						
	Target Range - Lower Bound						
	Upper Bound						
229419	DUP	0.33	<10	<10	162	<10	66
		0.35	10	<10	170	<10	69
	Target Range - Lower Bound	0.30	<10	<10	156	<10	60
	Upper Bound	0.38	20	20	176	20	75
229446	DUP						
	Target Range - Lower Bound						
	Upper Bound						
229447	DUP						
	Target Range - Lower Bound						
	Upper Bound						

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QC CERTIFICATE OF ANALYSIS VA06124415

Sample Description	Method / Analyte / Units / LOR	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1	ME-ICP41 Fe % 0.01
DUPLICATES																
229455				0.2	5.20	20	<10	20	<0.5	4	2.74	<0.5	38	129	213	7.68
DUP				0.2	5.11	17	<10	20	<0.5	4	2.74	<0.5	38	129	208	7.73
Target Range - Lower Bound				<0.2	4.88	14	<10	<10	<0.5	<2	2.58	<0.5	34	121	198	7.30
Upper Bound				0.4	5.43	23	20	40	1.0	8	2.90	1.0	42	137	223	8.11
229467		0.316														
DUP		0.299														
Target Range - Lower Bound		0.282														
Upper Bound		0.333														
229482			0.020													
DUP			0.019													
Target Range - Lower Bound			0.017													
Upper Bound			0.022													
229487		0.397														
DUP		0.371														
Target Range - Lower Bound		0.355														
Upper Bound		0.413														
229491				0.4	3.03	15	<10	20	<0.5	<2	2.36	<0.5	26	84	310	2.83
DUP				0.4	3.30	13	<10	30	<0.5	<2	2.52	<0.5	26	90	336	3.00
Target Range - Lower Bound				<0.2	2.99	9	<10	<10	<0.5	<2	2.30	<0.5	23	81	305	2.75
Upper Bound				0.8	3.34	19	20	50	1.0	4	2.58	1.0	29	93	341	3.08
230012			0.106													
DUP			0.104													
Target Range - Lower Bound			0.100													
Upper Bound			0.110													
230018			0.023													
DUP			0.023													
Target Range - Lower Bound			0.020													
Upper Bound			0.026													
230096		0.043														
DUP		0.044														
Target Range - Lower Bound		0.031														
Upper Bound		0.056														

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QC CERTIFICATE OF ANALYSIS VA06124415

Sample Description / Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
DUPLICATES															
229455	10	1	0.19	<10	2.95	377	2	0.32	24	1390	6	7.54	<2	19	512
DUP	10	1	0.18	<10	2.94	378	2	0.31	25	1380	10	7.59	<2	19	502
Target Range - Lower Bound	<10	<1	0.16	<10	2.78	349	<1	0.28	21	1300	4	7.17	<2	16	480
Upper Bound	20	2	0.21	20	3.11	406	4	0.35	28	1470	12	7.96	4	22	534
229467															
DUP															
Target Range - Lower Bound															
Upper Bound															
229482															
DUP															
Target Range - Lower Bound															
Upper Bound															
229487															
DUP															
Target Range - Lower Bound															
Upper Bound															
229491	10	<1	0.09	<10	0.74	225	<1	0.32	22	1250	9	2.75	<2	5	183
DUP	10	1	0.10	<10	0.80	242	<1	0.35	24	1350	10	2.93	2	5	201
Target Range - Lower Bound	<10	<1	0.07	<10	0.71	212	<1	0.30	20	1220	5	2.68	<2	3	180
Upper Bound	20	2	0.12	20	0.83	255	2	0.37	26	1390	14	3.00	4	7	204
230012															
DUP															
Target Range - Lower Bound															
Upper Bound															
230018															
DUP															
Target Range - Lower Bound															
Upper Bound															
230096															
DUP															
Target Range - Lower Bound															
Upper Bound															

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QC CERTIFICATE OF ANALYSIS VA06124415

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
		DUPLICATES					
229455		0.25	<10	<10	223	<10	61
DUP		0.25	<10	<10	219	10	61
Target Range - Lower Bound		0.22	<10	<10	208	<10	54
Upper Bound		0.28	20	20	234	20	68
229467							
DUP							
Target Range - Lower Bound							
Upper Bound							
229482							
DUP							
Target Range - Lower Bound							
Upper Bound							
229487							
DUP							
Target Range - Lower Bound							
Upper Bound							
229491		0.23	<10	<10	81	<10	39
DUP		0.25	<10	<10	88	<10	41
Target Range - Lower Bound		0.21	<10	<10	78	<10	34
Upper Bound		0.27	20	20	91	20	46
230012							
DUP							
Target Range - Lower Bound							
Upper Bound							
230018							
DUP							
Target Range - Lower Bound							
Upper Bound							
230096							
DUP							
Target Range - Lower Bound							
Upper Bound							

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Sample Description / Method / Analyte / Units / LOR	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1	ME-ICP41 Fe % 0.01
DUPLICATES															
C230145	0.047														
DUP	0.046														
Target Range - Lower Bound	0.034														
Upper Bound	0.059														
ORIGINAL			12.3	0.26	313	<10	30	<0.5	<2	0.01	2.0	7	18	77	5.97
DUP			12.3	0.27	354	<10	10	<0.5	<2	0.02	2.3	7	20	80	6.03
Target Range - Lower Bound			11.3	0.23	313	<10	<10	<0.5	<2	<0.01	1.0	5	16	73	5.68
Upper Bound			13.3	0.30	354	20	40	1.0	4	0.02	3.3	9	22	84	6.32
ORIGINAL	0.010														
DUP	0.010														
Target Range - Lower Bound	<0.005														
Upper Bound	0.021														
ORIGINAL	0.358														
DUP	0.333														
Target Range - Lower Bound	0.318														
Upper Bound	0.373														
ORIGINAL	0.094														
DUP	0.093														
Target Range - Lower Bound	0.079														
Upper Bound	0.108														
ORIGINAL	0.178														
DUP	0.184														
Target Range - Lower Bound	0.162														
Upper Bound	0.200														
ORIGINAL	0.094														
DUP	0.093														
Target Range - Lower Bound	0.079														
Upper Bound	0.108														

Comments: **CORRECTED COPY FOR Au-AA23 ON SAMPLE 229425**

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Account: PIL

Project: 4012

QC CERTIFICATE OF ANALYSIS VA06124415

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
DUPLICATES																
C230145																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL		<10	1	0.01	<10	0.01	86	5	0.01	11	30	340	5.39	20	1	11
DUP		<10	2	0.01	<10	0.01	89	5	0.01	8	50	343	5.46	22	1	11
Target Range - Lower Bound		<10	<1	<0.01	<10	<0.01	73	3	<0.01	7	20	320	5.13	15	<1	8
Upper Bound		20	2	0.02	20	0.02	102	7	0.02	12	60	363	5.72	27	2	14
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																

Comments: **CORRECTED COPY FOR Au-AA23 ON SAMPLE 229425**

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QC CERTIFICATE OF ANALYSIS VA06124415

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
		DUPLICATES					
C230145							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL		<0.01	<10	<10	10	<10	597
DUP		<0.01	<10	<10	11	<10	628
Target Range - Lower Bound		<0.01	<10	<10	8	<10	578
Upper Bound		0.02	20	20	13	20	647
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							

Comments: **CORRECTED COPY FOR Au-AA23 ON SAMPLE 229425**

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This copy reported on 23-FEB-2007
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QC CERTIFICATE VA06124416

Project: 4012
P.O. No.:
This report is for 100 Pulp samples submitted to our lab in Vancouver, BC, Canada on 29-NOV-2006.
The following have access to data associated with this certificate:

CARL EDMUNDS RON KONST	BRIAN KAY	B. KAY

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
LOG-QC	QC Test on Received Samples

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au-AA23	Au 30g FA-AA finish	AAS
Cu-AA49	Assay Cu - HBr Digestion	AAS
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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Project: 4012

QC CERTIFICATE OF ANALYSIS VA06124416

Sample Description	Method	Au-AA23	Cu-AA49	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Au	Cu	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	0.005	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
STANDARDS																
CU-108			0.644													
CU-108			0.654													
Target Range - Lower Bound			0.627													
Upper Bound			0.695													
G2000				3.5	1.79	476	<10	840	0.9	3	0.47	6.9	22	66	305	3.70
G2000				3.3	1.83	475	10	910	0.9	<2	0.51	7.2	24	69	299	3.75
G2000				3.4	1.86	460	<10	870	0.9	<2	0.49	6.6	22	67	295	3.80
G2000				3.4	1.91	493	<10	900	1.0	3	0.51	7.6	23	71	299	3.89
Target Range - Lower Bound				3.0	1.66	434	<10	720	<0.5	<2	0.46	6.0	21	63	272	3.41
Upper Bound				4.1	2.06	534	20	1000	1.0	4	0.58	8.4	27	79	334	4.19
GBM398-4c			0.370													
GBM398-4c			0.368													
GBM398-4c			0.359													
GBM398-4c			0.376													
Target Range - Lower Bound			0.369													
Upper Bound			0.410													
GBM999-5				55.5	0.18	3	<10	50	<0.5	<2	0.05	<0.5	3	5	465	2.76
Target Range - Lower Bound				53.3	0.17	<2	<10	40	<0.5	<2	0.04	<0.5	2	4	436	2.56
Upper Bound				65.5	0.23	4	20	70	1.0	4	0.07	1.0	4	7	536	3.15
ME89-2			0.220													
ME89-2			0.218													
Target Range - Lower Bound			0.218													
Upper Bound			0.243													
OREAS-45P				<0.2	3.49	5	<10	170	0.6	4	0.25	<0.5	101	863	650	16.20
OREAS-45P				0.4	3.81	<2	<10	180	0.6	5	0.25	<0.5	106	914	706	17.50
OREAS-45P				<0.2	3.83	11	<10	190	0.6	3	0.25	<0.5	106	936	716	18.30
Target Range - Lower Bound				<0.2	3.32	<2	<10	140	<0.5	<2	0.21	<0.5	93	785	580	15.50
Upper Bound				0.4	4.08	7	20	210	1.0	4	0.27	1.0	115	961	712	18.95
OxE42		0.606														
OxE42		0.609														
OxE42		0.611														
OxE42		0.572														
OxE42		0.607														
OxE42		0.611														
Target Range - Lower Bound		0.562														
Upper Bound		0.658														

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QC CERTIFICATE OF ANALYSIS VA06124416

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
STANDARDS																
CU-108																
CU-108																
Target Range - Lower Bound																
Upper Bound																
G2000		<10	1	0.41	20	0.64	549	5	0.03	273	930	665	0.27	26	7	68
G2000		10	<1	0.40	20	0.65	557	6	0.03	267	960	665	0.28	25	7	67
G2000		10	1	0.40	20	0.66	555	5	0.04	271	920	656	0.28	25	7	71
G2000		10	1	0.41	20	0.68	572	6	0.03	275	970	672	0.27	27	7	69
Target Range - Lower Bound		<10	<1	0.37	<10	0.60	506	4	0.02	246	840	601	0.23	19	6	61
Upper Bound		20	2	0.47	40	0.76	630	8	0.04	302	1050	739	0.31	31	10	77
GBM398-4c																
GBM398-4c																
GBM398-4c																
GBM398-4c																
Target Range - Lower Bound																
Upper Bound																
GBM999-5		<10	<1	0.05	10	0.02	59	3	<0.01	4	40	502	0.28	6	1	4
Target Range - Lower Bound		<10	<1	0.04	<10	<0.01	49	2	<0.01	3	20	452	0.26	<2	<1	2
Upper Bound		20	2	0.07	20	0.03	71	5	0.03	5	50	556	0.34	8	2	5
ME89-2																
ME89-2																
Target Range - Lower Bound																
Upper Bound																
OREAS-45P		20	<1	0.07	10	0.11	1035	1	0.03	290	350	22	0.03	3	56	15
OREAS-45P		20	1	0.08	10	0.12	1090	1	0.01	303	380	20	0.03	4	59	15
OREAS-45P		20	3	0.08	20	0.12	1110	1	0.01	298	370	23	0.03	<2	62	16
Target Range - Lower Bound		<10	<1	0.06	<10	0.09	956	<1	<0.01	252	320	15	<0.01	<2	51	12
Upper Bound		20	2	0.10	20	0.13	1180	2	0.03	310	410	23	0.03	4	65	17
OxE42																
OxE42																
OxE42																
OxE42																
OxE42																
OxE42																
Target Range - Lower Bound																
Upper Bound																

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QC CERTIFICATE OF ANALYSIS VA06124416

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
STANDARDS							
CU-108							
CU-108							
Target Range - Lower Bound							
Upper Bound							
G2000		0.05	<10	<10	65	10	1265
G2000		0.05	<10	<10	65	<10	1290
G2000		0.05	<10	<10	64	10	1280
G2000		0.05	<10	<10	68	<10	1290
Target Range - Lower Bound		0.04	<10	<10	59	<10	1145
Upper Bound		0.07	20	20	74	20	1400
GBM398-4c							
GBM398-4c							
GBM398-4c							
GBM398-4c							
Target Range - Lower Bound							
Upper Bound							
GBM999-5		<0.01	<10	<10	5	<10	107
Target Range - Lower Bound		<0.01	<10	<10	4	<10	97
Upper Bound		0.02	20	20	7	20	123
ME89-2							
ME89-2							
Target Range - Lower Bound							
Upper Bound							
OREAS-45P		0.19	<10	<10	224	<10	113
OREAS-45P		0.21	<10	10	233	<10	128
OREAS-45P		0.22	<10	<10	247	<10	120
Target Range - Lower Bound		0.19	<10	<10	208	<10	108
Upper Bound		0.25	20	20	256	20	136
OxE42							
OxE42							
OxE42							
OxE42							
OxE42							
OxE42							
Target Range - Lower Bound							
Upper Bound							

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QC CERTIFICATE OF ANALYSIS VA06124416

Sample Description	Method	Au-AA23	Cu-AA49	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Au	Cu	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	0.005	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
STANDARDS																
SI15		1.755														
Target Range - Lower Bound		1.675														
Upper Bound		1.935														
ST-259		2.41														
ST-259		2.53														
ST-259		2.49														
ST-259		2.48														
ST-259		2.52														
ST-259		2.39														
Target Range - Lower Bound		2.30														
Upper Bound		2.66														
BLANKS																
BLANK				<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
BLANK				<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
BLANK				<0.2	<0.01	4	<10	<10	<0.5	<2	0.01	0.7	1	<1	1	<0.01
BLANK				<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
BLANK		<0.005														
BLANK		<0.005														
BLANK		<0.005														
BLANK		<0.005														
BLANK				<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	1	<1	<1	<0.01
BLANK		<0.005														
BLANK		<0.005														
BLANK			<0.001													
BLANK			<0.001													
BLANK			<0.001													
BLANK			<0.001													
Target Range - Lower Bound		<0.005	<0.001	<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
Upper Bound		0.010	0.002	0.4	0.02	4	20	20	1.0	4	0.02	1.0	2	2	2	0.02

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QC CERTIFICATE OF ANALYSIS VA06124416

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
STANDARDS																
SI15																
Target Range - Lower Bound																
Upper Bound																
ST-259																
ST-259																
ST-259																
ST-259																
ST-259																
ST-259																
Target Range - Lower Bound																
Upper Bound																
BLANKS																
BLANK		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	1
BLANK		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	1	<10	<2	<0.01	<2	<1	<1
BLANK		<10	<1	<0.01	<10	<0.01	<5	1	<0.01	1	<10	<2	<0.01	2	<1	1
BLANK		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
BLANK																
BLANK																
BLANK																
BLANK																
BLANK		<10	1	<0.01	<10	<0.01	<5	1	<0.01	1	<10	<2	<0.01	<2	<1	<1
BLANK																
BLANK																
BLANK																
BLANK																
BLANK																
BLANK																
Target Range - Lower Bound		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
Upper Bound		20	2	0.02	20	0.02	10	2	0.02	2	20	4	0.02	4	2	2

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QC CERTIFICATE OF ANALYSIS VA06124416

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
STANDARDS							
SI15							
Target Range - Lower Bound							
Upper Bound							
ST-259							
ST-259							
ST-259							
ST-259							
ST-259							
ST-259							
Target Range - Lower Bound							
Upper Bound							
BLANKS							
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK		<0.01	<10	<10	1	<10	<2
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK							
BLANK							
BLANK							
BLANK							
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK							
BLANK							
BLANK							
BLANK							
BLANK							
BLANK							
Target Range - Lower Bound		<0.01	<10	<10	<1	<10	<2
Upper Bound		0.02	20	20	2	20	4

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QC CERTIFICATE OF ANALYSIS VA06124416

Sample Description	Method / Analyte / Units / LOR	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1	ME-ICP41 Fe % 0.01
DUPLICATES																
ORIGINAL		0.471														
DUP		0.484														
Target Range - Lower Bound		0.444														
Upper Bound		0.511														
ORIGINAL		0.342														
DUP		0.339														
Target Range - Lower Bound		0.313														
Upper Bound		0.368														
ORIGINAL		0.026														
DUP		0.030														
Target Range - Lower Bound		0.017														
Upper Bound		0.039														
ORIGINAL		0.238														
DUP		0.229														
Target Range - Lower Bound		0.212														
Upper Bound		0.255														
ORIGINAL		0.020														
DUP		0.019														
Target Range - Lower Bound		0.009														
Upper Bound		0.030														
ORIGINAL		0.011														
DUP		0.010														
Target Range - Lower Bound		<0.005														
Upper Bound		0.021														
ORIGINAL		<0.005														
DUP		0.005														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														
ORIGINAL		0.030														
DUP		0.036														
Target Range - Lower Bound		0.021														
Upper Bound		0.045														

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Project: 4012

QC CERTIFICATE OF ANALYSIS VA06124416

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
		DUPLICATES														
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																

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Finalized Date: 9-JAN-2007
Account: PIL

Project: 4012

QC CERTIFICATE OF ANALYSIS VA06124416

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
		DUPLICATES					
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							

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QC CERTIFICATE OF ANALYSIS VA06124416

Sample Description	Method	Au-AA23	Cu-AA49	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Au	Cu	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	0.005	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
DUPLICATES																
ORIGINAL		<0.005														
DUP		<0.005														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														
ORIGINAL		0.030														
DUP		0.033														
Target Range - Lower Bound		0.020														
Upper Bound		0.043														
ORIGINAL		<0.005														
DUP		<0.005														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														
ORIGINAL				<0.2	0.13	62	<10	1650	<0.5	<2	0.07	<0.5	2	9	24	2.27
DUP				<0.2	0.14	68	<10	1700	<0.5	<2	0.08	<0.5	2	18	26	2.36
Target Range - Lower Bound				<0.2	0.11	58	<10	1530	<0.5	<2	0.05	<0.5	<1	11	22	2.18
Upper Bound				0.4	0.16	72	20	1820	1.0	4	0.10	1.0	4	16	28	2.45
230026		0.055														
DUP		0.057														
Target Range - Lower Bound		0.043														
Upper Bound		0.069														
230066			0.086													
DUP			0.084													
Target Range - Lower Bound			0.081													
Upper Bound			0.089													
230070		0.023														
DUP		0.023														
Target Range - Lower Bound		0.012														
Upper Bound		0.034														
230074				0.5	2.59	7	<10	10	<0.5	<2	2.98	<0.5	18	98	480	4.55
DUP				0.4	2.59	5	<10	10	<0.5	<2	2.96	<0.5	16	99	443	4.54
Target Range - Lower Bound				<0.2	2.44	<2	<10	<10	<0.5	<2	2.80	<0.5	14	92	436	4.30
Upper Bound				0.9	2.74	10	20	20	1.0	4	3.14	1.0	20	105	487	4.79

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Project: 4012

QC CERTIFICATE OF ANALYSIS VA06124416

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
DUPLICATES																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL		<10	1	0.01	<10	0.01	72	21	0.01	4	200	185	0.07	9	1	71
DUP		<10	1	0.01	<10	0.02	77	21	0.02	3	200	188	0.08	10	1	71
Target Range - Lower Bound		<10	<1	<0.01	<10	<0.01	61	18	<0.01	<1	170	173	0.05	5	<1	65
Upper Bound		20	2	0.02	20	0.02	88	24	0.02	6	230	200	0.10	14	2	77
230026																
DUP																
Target Range - Lower Bound																
Upper Bound																
230066																
DUP																
Target Range - Lower Bound																
Upper Bound																
230070																
DUP																
Target Range - Lower Bound																
Upper Bound																
230074		10	<1	0.11	<10	1.20	389	4	0.18	31	1080	4	3.66	4	5	148
DUP		10	<1	0.11	<10	1.20	389	4	0.18	31	1070	3	3.68	2	5	149
Target Range - Lower Bound		<10	<1	0.08	<10	1.12	360	2	0.15	27	1000	<2	3.47	<2	3	139
Upper Bound		20	2	0.14	20	1.28	418	6	0.21	35	1150	4	3.87	4	7	158

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QC CERTIFICATE OF ANALYSIS VA06124416

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
DUPLICATES							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL		0.01	<10	<10	26	<10	7
DUP		0.01	<10	<10	27	<10	8
Target Range - Lower Bound		<0.01	<10	<10	23	<10	3
Upper Bound		0.02	20	20	30	20	12
230026							
DUP							
Target Range - Lower Bound							
Upper Bound							
230066							
DUP							
Target Range - Lower Bound							
Upper Bound							
230070							
DUP							
Target Range - Lower Bound							
Upper Bound							
230074		0.25	<10	<10	127	<10	44
DUP		0.24	<10	<10	122	<10	42
Target Range - Lower Bound		0.21	<10	<10	116	<10	37
Upper Bound		0.28	20	20	133	20	49

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QC CERTIFICATE OF ANALYSIS VA06124416

Sample Description / Method	Au-AA23	Cu-AA49	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
Analyte	Au	Cu	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
Units	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
LOR	0.005	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
DUPLICATES															
235041	0.031														
DUP	0.028														
Target Range - Lower Bound	0.018														
Upper Bound	0.041														
230078		0.033													
DUP		0.032													
Target Range - Lower Bound		0.030													
Upper Bound		0.035													
230086			0.3	2.92	6	<10	30	<0.5	<2	2.03	<0.5	27	116	246	5.90
DUP			0.2	2.93	7	<10	30	<0.5	<2	2.04	<0.5	28	116	246	5.92
Target Range - Lower Bound			<0.2	2.76	<2	<10	<10	<0.5	<2	1.91	<0.5	24	108	232	5.59
Upper Bound			0.4	3.09	11	20	50	1.0	4	2.16	1.0	31	124	260	6.23
230096	0.043														
DUP	0.044														
Target Range - Lower Bound	0.031														
Upper Bound	0.056														
230113			0.2	3.45	8	<10	60	<0.5	3	3.08	<0.5	36	111	357	5.57
DUP			0.2	3.27	11	<10	60	<0.5	3	2.93	<0.5	34	106	332	5.31
Target Range - Lower Bound			<0.2	3.17	5	<10	40	<0.5	<2	2.83	<0.5	31	101	325	5.15
Upper Bound			0.4	3.55	14	20	80	1.0	4	3.18	1.0	39	116	364	5.73
230114		0.048													
DUP		0.049													
Target Range - Lower Bound		0.045													
Upper Bound		0.052													
230122			0.5	4.11	4	<10	80	0.5	<2	3.95	<0.5	28	113	479	6.67
DUP			0.4	4.09	2	<10	70	0.5	<2	3.97	<0.5	27	115	478	6.64
Target Range - Lower Bound			<0.2	3.88	<2	<10	50	<0.5	<2	3.74	<0.5	24	106	453	6.30
Upper Bound			0.9	4.33	4	20	100	1.0	4	4.18	1.0	31	122	504	7.01
C230135		0.054													
DUP		0.056													
Target Range - Lower Bound		0.052													
Upper Bound		0.058													

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QC CERTIFICATE OF ANALYSIS VA06124416

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
		DUPLICATES														
235041																
DUP																
Target Range - Lower Bound																
Upper Bound																
230078																
DUP																
Target Range - Lower Bound																
Upper Bound																
230086		10	1	0.19	<10	1.86	500	4	0.14	33	1060	6	2.46	<2	7	114
DUP		10	1	0.19	<10	1.88	502	3	0.14	31	1050	<2	2.46	2	7	113
Target Range - Lower Bound		<10	<1	0.16	<10	1.76	466	<1	0.11	28	980	<2	2.32	<2	5	106
Upper Bound		20	2	0.22	20	1.98	536	6	0.17	36	1130	8	2.60	4	9	121
230096																
DUP																
Target Range - Lower Bound																
Upper Bound																
230113		10	2	0.11	<10	1.71	532	1	0.18	32	1490	6	3.13	<2	7	135
DUP		10	1	0.11	<10	1.61	507	1	0.17	30	1370	12	2.94	<2	7	127
Target Range - Lower Bound		<10	<1	0.08	<10	1.56	484	<1	0.15	27	1340	5	2.86	<2	5	122
Upper Bound		20	2	0.14	20	1.76	555	2	0.20	35	1520	13	3.21	4	9	140
230114																
DUP																
Target Range - Lower Bound																
Upper Bound																
230122		10	1	0.38	10	2.89	1200	3	0.07	26	1090	2	4.76	<2	16	197
DUP		10	<1	0.38	10	2.89	1200	3	0.07	24	1090	4	4.66	<2	16	193
Target Range - Lower Bound		<10	<1	0.34	<10	2.73	1130	<1	0.05	22	1020	<2	4.45	<2	13	183
Upper Bound		20	2	0.42	20	3.05	1270	5	0.09	28	1160	4	4.97	4	19	207
C230135																
DUP																
Target Range - Lower Bound																
Upper Bound																

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Project: 4012

QC CERTIFICATE OF ANALYSIS VA06124416

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
		DUPLICATES					
235041							
DUP							
Target Range - Lower Bound							
Upper Bound							
230078							
DUP							
Target Range - Lower Bound							
Upper Bound							
230086		0.34	<10	<10	193	<10	62
DUP		0.35	<10	<10	195	<10	62
Target Range - Lower Bound		0.31	<10	<10	182	<10	55
Upper Bound		0.38	20	20	206	20	69
230096							
DUP							
Target Range - Lower Bound							
Upper Bound							
230113		0.27	<10	<10	158	<10	63
DUP		0.26	<10	<10	150	<10	60
Target Range - Lower Bound		0.23	<10	<10	144	<10	54
Upper Bound		0.30	20	20	164	20	69
230114							
DUP							
Target Range - Lower Bound							
Upper Bound							
230122		0.04	<10	<10	168	<10	65
DUP		0.04	<10	<10	168	<10	65
Target Range - Lower Bound		0.02	<10	<10	158	<10	58
Upper Bound		0.06	20	20	178	20	72
C230135							
DUP							
Target Range - Lower Bound							
Upper Bound							

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QC CERTIFICATE VA06124419

Project: 4012
P.O. No.:
This report is for 29 Crushed Rock samples submitted to our lab in Vancouver, BC, Canada on 29-NOV-2006.

The following have access to data associated with this certificate:

CARL EDMUNDS RON KONST	BRIAN KAY	B. KAY

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
PUL-31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au-AA23	Au 30g FA-AA finish	AAS
Cu-AA49	Assay Cu - HBr Digestion	AAS
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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Sample Description	Method	Au-AA23	Cu-AA49	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Au	Cu	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	0.005	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
STANDARDS																
G2000				3.3	1.95	472	<10	910	1.0	<2	0.50	6.9	23	71	298	3.77
Target Range - Lower Bound				3.0	1.66	434	<10	720	<0.5	<2	0.46	6.0	21	63	272	3.41
Upper Bound				4.1	2.06	534	20	1000	1.0	4	0.58	8.4	27	79	334	4.19
GBM398-4c			0.370													
Target Range - Lower Bound			0.369													
Upper Bound			0.410													
ME89-2			0.220													
Target Range - Lower Bound			0.218													
Upper Bound			0.243													
OREAS-45P				0.3	3.90	4	<10	190	0.6	3	0.27	1.1	109	951	709	17.40
OREAS-45P				0.3	3.82	6	<10	180	0.6	<2	0.24	0.7	104	920	681	16.40
Target Range - Lower Bound				<0.2	3.32	<2	<10	140	<0.5	<2	0.21	<0.5	93	785	580	15.50
Upper Bound				0.4	4.08	7	20	210	1.0	4	0.27	1.0	115	961	712	18.95
OxE42		0.585														
Target Range - Lower Bound		0.562														
Upper Bound		0.658														
ST-259		2.52														
Target Range - Lower Bound		2.30														
Upper Bound		2.66														
BLANKS																
BLANK				<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	0.6	1	<1	<1	<0.01
BLANK				<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
BLANK		<0.005														
BLANK			<0.001													
Target Range - Lower Bound		<0.005	<0.001	<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
Upper Bound		0.010	0.002	0.4	0.02	4	20	20	1.0	4	0.02	1.0	2	2	2	0.02

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STANDARDS																
G2000		10	1	0.39	20	0.67	556	6	0.03	265	920	645	0.27	24	7	72
Target Range - Lower Bound		<10	<1	0.37	<10	0.60	506	4	0.02	246	840	601	0.23	19	6	61
Upper Bound		20	2	0.47	40	0.76	630	8	0.04	302	1050	739	0.31	31	10	77
GBM398-4c																
Target Range - Lower Bound																
Upper Bound																
ME89-2																
Target Range - Lower Bound																
Upper Bound																
OREAS-45P		20	<1	0.08	20	0.13	1120	1	0.02	309	360	15	0.03	2	60	16
OREAS-45P		20	1	0.07	10	0.11	1080	<1	0.02	302	370	15	0.03	2	58	16
Target Range - Lower Bound		<10	<1	0.06	<10	0.09	956	<1	<0.01	252	320	15	<0.01	<2	51	12
Upper Bound		20	2	0.10	20	0.13	1180	2	0.03	310	410	23	0.03	4	65	17
OxE42																
Target Range - Lower Bound																
Upper Bound																
ST-259																
Target Range - Lower Bound																
Upper Bound																
BLANKS																
BLANK		<10	<1	<0.01	<10	<0.01	<5	1	<0.01	1	<10	<2	<0.01	<2	<1	<1
BLANK		<10	<1	<0.01	<10	<0.01	<5	1	<0.01	<1	<10	2	<0.01	<2	<1	<1
BLANK																
BLANK																
Target Range - Lower Bound		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
Upper Bound		20	2	0.02	20	0.02	10	2	0.02	2	20	4	0.02	4	2	2

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PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 9-JAN-2007
Account: PIL

Project: 4012

QC CERTIFICATE OF ANALYSIS VA06124419

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
STANDARDS							
G2000		0.05	<10	<10	68	<10	1260
Target Range - Lower Bound		0.04	<10	<10	59	<10	1145
Upper Bound		0.07	20	20	74	20	1400
GBM398-4c							
Target Range - Lower Bound							
Upper Bound							
ME89-2							
Target Range - Lower Bound							
Upper Bound							
OREAS-45P		0.23	<10	<10	251	<10	125
OREAS-45P		0.21	<10	<10	237	<10	121
Target Range - Lower Bound		0.19	<10	<10	208	<10	108
Upper Bound		0.25	20	20	256	20	136
OxE42							
Target Range - Lower Bound							
Upper Bound							
ST-259							
Target Range - Lower Bound							
Upper Bound							
BLANKS							
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK							
BLANK							
Target Range - Lower Bound		<0.01	<10	<10	<1	<10	<2
Upper Bound		0.02	20	20	2	20	4

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QC CERTIFICATE OF ANALYSIS VA06124419

Sample Description	Method / Analyte / Units / LOR	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1	ME-ICP41 Fe % 0.01
DUPLICATES																
ORIGINAL		<0.005														
DUP		<0.005														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														
ORIGINAL				0.3	2.35	10	30	40	0.9	<2	1.93	<0.5	21	40	59	5.09
DUP				0.3	2.27	11	20	40	0.8	<2	1.86	<0.5	21	38	57	4.96
Target Range - Lower Bound				<0.2	2.17	6	<10	20	<0.5	<2	1.78	<0.5	18	35	53	4.75
Upper Bound				0.4	2.45	15	50	60	1.0	4	2.01	1.0	24	43	63	5.30
C230126				0.8	3.43	6	<10	40	<0.5	3	4.05	0.5	34	52	498	7.84
DUP				0.7	3.49	5	<10	40	0.5	2	4.07	<0.5	36	53	509	7.95
Target Range - Lower Bound				0.3	3.27	<2	<10	20	<0.5	<2	3.84	<0.5	31	48	476	7.48
Upper Bound				1.2	3.65	10	20	60	1.0	4	4.28	1.0	39	57	531	8.31
C230135			0.054													
DUP			0.056													
Target Range - Lower Bound			0.052													
Upper Bound			0.058													
C230145		0.047														
DUP		0.046														
Target Range - Lower Bound		0.034														
Upper Bound		0.059														

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QC CERTIFICATE OF ANALYSIS VA06124419

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
DUPLICATES																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL		10	1	0.09	10	2.11	1180	1	0.17	24	1470	11	0.68	2	8	58
DUP		10	1	0.08	10	2.07	1150	1	0.16	26	1470	13	0.66	3	7	55
Target Range - Lower Bound		<10	<1	0.06	<10	1.97	1095	<1	0.14	22	1380	7	0.62	<2	5	52
Upper Bound		20	2	0.11	20	2.21	1235	2	0.19	28	1560	17	0.72	4	10	61
C230126		10	<1	0.21	10	2.83	1070	3	0.04	30	1070	5	6.17	<2	15	212
DUP		10	<1	0.23	10	2.87	1080	4	0.04	32	1050	3	6.31	<2	15	212
Target Range - Lower Bound		<10	<1	0.19	<10	2.69	1010	<1	0.02	27	990	<2	5.91	<2	12	199
Upper Bound		20	2	0.25	20	3.01	1140	6	0.06	35	1130	8	6.57	4	18	225
C230135																
DUP																
Target Range - Lower Bound																
Upper Bound																
C230145																
DUP																
Target Range - Lower Bound																
Upper Bound																

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QC CERTIFICATE OF ANALYSIS VA06124419

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
DUPLICATES							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL		0.25	<10	<10	179	<10	108
DUP		0.23	<10	<10	169	<10	103
Target Range - Lower Bound		0.21	<10	<10	163	<10	96
Upper Bound		0.27	20	20	185	20	115
C230126		0.01	<10	<10	156	<10	96
DUP		0.01	<10	<10	162	<10	100
Target Range - Lower Bound		<0.01	<10	<10	149	<10	89
Upper Bound		0.02	20	20	169	20	107
C230135							
DUP							
Target Range - Lower Bound							
Upper Bound							
C230145							
DUP							
Target Range - Lower Bound							
Upper Bound							

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Finalized Date: 12-JAN-2007
This copy reported on 23-FEB-2007
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QC CERTIFICATE VA06124775

Project: 4012
P.O. No.:
This report is for 50 Crushed Rock samples submitted to our lab in Vancouver, BC, Canada on 5-DEC-2006.

The following have access to data associated with this certificate:

CARL EDMUNDS RON KONST	BRIAN KAY	B. KAY

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
PUL-31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au-AA23	Au 30g FA-AA finish	AAS
Cu-AA49	Assay Cu - HBr Digestion	AAS
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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Project: 4012

QC CERTIFICATE OF ANALYSIS VA06124775

Sample Description	Method	Au-AA23	Cu-AA49	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Au	Cu	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	0.005	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
STANDARDS																
CU-108			0.654													
Target Range - Lower Bound			0.627													
Upper Bound			0.695													
G2000				3.3	1.81	499	<10	940	0.9	<2	0.52	7.3	23	70	302	3.85
G2000				3.8	1.86	493	<10	900	1.0	<2	0.52	7.5	24	70	305	3.87
G2000				3.6	1.90	489	10	920	1.0	3	0.62	7.0	23	71	310	3.89
Target Range - Lower Bound				3.0	1.66	434	<10	720	<0.5	<2	0.46	6.0	21	63	272	3.41
Upper Bound				4.1	2.06	534	20	1000	1.0	4	0.58	8.4	27	79	334	4.19
GBM398-4c			0.376													
GBM398-4c			0.380													
Target Range - Lower Bound			0.369													
Upper Bound			0.410													
GBM999-5				59.4	0.18	<2	<10	50	<0.5	<2	0.06	<0.5	3	4	487	2.81
Target Range - Lower Bound				53.3	0.17	<2	<10	40	<0.5	<2	0.04	<0.5	2	4	436	2.56
Upper Bound				65.5	0.23	4	20	70	1.0	4	0.07	1.0	4	7	536	3.15
ME89-2			0.229													
Target Range - Lower Bound			0.218													
Upper Bound			0.243													
OREAS-45P				0.2	3.69	4	<10	170	0.6	<2	0.23	<0.5	102	878	682	16.90
OREAS-45P				0.3	3.71	5	<10	180	0.6	<2	0.27	<0.5	102	878	682	17.30
Target Range - Lower Bound				<0.2	3.32	<2	<10	140	<0.5	<2	0.21	<0.5	93	785	580	15.50
Upper Bound				0.4	4.08	7	20	210	1.0	4	0.27	1.0	115	961	712	18.95
OXD43		0.406														
Target Range - Lower Bound		0.368														
Upper Bound		0.434														
OxE42		0.638														
Target Range - Lower Bound		0.562														
Upper Bound		0.658														
ST-259		2.69														
Target Range - Lower Bound		2.30														
Upper Bound		2.66														
ST-327		6.78														
Target Range - Lower Bound		6.35														
Upper Bound		7.31														

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QC CERTIFICATE OF ANALYSIS VA06124775

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
STANDARDS																
CU-108																
Target Range - Lower Bound																
Upper Bound																
G2000		10	<1	0.40	20	0.65	574	6	0.03	286	980	682	0.27	26	7	66
G2000		10	2	0.41	20	0.68	574	5	0.04	275	960	686	0.27	27	7	67
G2000		10	<1	0.41	20	0.68	555	6	0.03	278	960	673	0.27	26	7	71
Target Range - Lower Bound		<10	<1	0.37	<10	0.60	506	4	0.02	246	840	601	0.23	19	6	61
Upper Bound		20	2	0.47	40	0.76	630	8	0.04	302	1050	739	0.31	31	10	77
GBM398-4c																
GBM398-4c																
Target Range - Lower Bound																
Upper Bound																
GBM999-5		<10	<1	0.05	10	0.02	60	3	0.01	4	40	499	0.29	5	1	3
Target Range - Lower Bound		<10	<1	0.04	<10	<0.01	49	2	<0.01	3	20	452	0.26	<2	<1	2
Upper Bound		20	2	0.07	20	0.03	71	5	0.03	5	50	556	0.34	8	2	5
ME89-2																
Target Range - Lower Bound																
Upper Bound																
OREAS-45P		20	<1	0.07	20	0.11	1090	1	0.02	291	360	15	0.02	<2	59	16
OREAS-45P		20	<1	0.07	10	0.12	1050	1	0.02	306	370	17	0.02	<2	56	15
Target Range - Lower Bound		<10	<1	0.06	<10	0.09	956	<1	<0.01	252	320	15	<0.01	<2	51	12
Upper Bound		20	2	0.10	20	0.13	1180	2	0.03	310	410	23	0.03	4	65	17
OXD43																
Target Range - Lower Bound																
Upper Bound																
OxE42																
Target Range - Lower Bound																
Upper Bound																
ST-259																
Target Range - Lower Bound																
Upper Bound																
ST-327																
Target Range - Lower Bound																
Upper Bound																

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KEMESS MINE
PO BOX 3519
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QC CERTIFICATE OF ANALYSIS VA06124775

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
STANDARDS							
CU-108							
Target Range - Lower Bound							
Upper Bound							
G2000		0.05	<10	<10	66	<10	1310
G2000		0.05	<10	<10	66	10	1280
G2000		0.05	<10	<10	68	<10	1330
Target Range - Lower Bound		0.04	<10	<10	59	<10	1145
Upper Bound		0.07	20	20	74	20	1400
GBM398-4c							
GBM398-4c							
Target Range - Lower Bound							
Upper Bound							
GBM999-5		<0.01	<10	<10	5	<10	113
Target Range - Lower Bound		<0.01	<10	<10	4	<10	97
Upper Bound		0.02	20	20	7	20	123
ME89-2							
Target Range - Lower Bound							
Upper Bound							
OREAS-45P		0.21	<10	<10	225	<10	116
OREAS-45P		0.20	<10	<10	231	<10	119
Target Range - Lower Bound		0.19	<10	<10	208	<10	108
Upper Bound		0.25	20	20	256	20	136
OXD43							
Target Range - Lower Bound							
Upper Bound							
OxE42							
Target Range - Lower Bound							
Upper Bound							
ST-259							
Target Range - Lower Bound							
Upper Bound							
ST-327							
Target Range - Lower Bound							
Upper Bound							

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QC CERTIFICATE OF ANALYSIS VA06124775

Sample Description	Method	Au-AA23	Cu-AA49	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Au	Cu	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	0.005	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
BLANKS																
BLANK				<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	1	<1	1	<0.01
BLANK				<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
BLANK		<0.005														
BLANK			<0.001													
BLANK			<0.001													
BLANK				0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	1	<0.01
BLANK		<0.005														
Target Range - Lower Bound		<0.005	<0.001	<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
Upper Bound		0.010	0.002	0.4	0.02	4	20	20	1.0	4	0.02	1.0	2	2	2	0.02
DUPLICATES																
ORIGINAL		0.006														
DUP		0.005														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														
230114			0.048													
DUP			0.049													
Target Range - Lower Bound			0.045													
Upper Bound			0.052													
230519				0.6	2.28	7	<10	20	<0.5	2	2.11	<0.5	17	44	123	3.02
DUP				0.5	2.27	10	<10	20	<0.5	<2	2.13	0.5	17	45	121	3.04
Target Range - Lower Bound				<0.2	2.14	4	<10	<10	<0.5	<2	1.99	<0.5	14	40	114	2.86
Upper Bound				1.0	2.41	13	20	40	1.0	4	2.25	1.0	20	49	130	3.20
230526			0.008													
DUP			0.008													
Target Range - Lower Bound			0.006													
Upper Bound			0.010													
230527		0.051														
DUP		0.052														
Target Range - Lower Bound		0.039														
Upper Bound		0.064														

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QC CERTIFICATE OF ANALYSIS VA06124775

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
BLANKS																
BLANK		<10	<1	<0.01	<10	<0.01	<5	1	<0.01	1	<10	<2	<0.01	<2	<1	<1
BLANK		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
BLANK																
BLANK																
BLANK																
BLANK		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	3	<0.01	<2	<1	<1
BLANK																
Target Range - Lower Bound		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
Upper Bound		20	2	0.02	20	0.02	10	2	0.02	2	20	4	0.02	4	2	2
DUPLICATES																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
230114																
DUP																
Target Range - Lower Bound																
Upper Bound																
230519		10	<1	0.06	<10	1.20	643	<1	0.11	19	1440	10	1.40	2	4	78
DUP		<10	<1	0.06	<10	1.21	653	<1	0.11	18	1430	10	1.38	3	4	78
Target Range - Lower Bound		<10	<1	0.04	<10	1.12	606	<1	0.08	16	1340	6	1.30	<2	2	72
Upper Bound		20	2	0.08	20	1.29	690	2	0.14	21	1530	15	1.48	4	6	84
230526																
DUP																
Target Range - Lower Bound																
Upper Bound																
230527																
DUP																
Target Range - Lower Bound																
Upper Bound																

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Project: 4012

QC CERTIFICATE OF ANALYSIS VA06124775

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
BLANKS							
BLANK		<0.01	<10	<10	<1	<10	3
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK							
BLANK							
BLANK							
BLANK		<0.01	<10	<10	<1	<10	2
BLANK							
Target Range - Lower Bound		<0.01	<10	<10	<1	<10	<2
Upper Bound		0.02	20	20	2	20	4
DUPLICATES							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
230114							
DUP							
Target Range - Lower Bound							
Upper Bound							
230519		0.23	<10	<10	77	<10	101
DUP		0.24	<10	<10	79	<10	100
Target Range - Lower Bound		0.20	<10	<10	72	<10	91
Upper Bound		0.27	20	20	84	20	110
230526							
DUP							
Target Range - Lower Bound							
Upper Bound							
230527							
DUP							
Target Range - Lower Bound							
Upper Bound							

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QC CERTIFICATE OF ANALYSIS VA06124775

Sample Description	Method	Au-AA23	Cu-AA49	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Au	Cu	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	0.005	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
DUPLICATES																
230547		0.060														
DUP		0.061														
Target Range - Lower Bound		0.047														
Upper Bound		0.074														
ORIGINAL				39.2	0.23	892	<10	20	<0.5	33	0.01	0.6	14	6	1990	9.72
DUP				39.2	0.23	892	<10	20	<0.5	34	0.02	0.7	14	6	1960	9.83
Target Range - Lower Bound				36.8	0.20	843	<10	<10	<0.5	28	<0.01	<0.5	11	4	1875	9.27
Upper Bound				41.6	0.26	941	20	40	1.0	39	0.02	1.0	17	8	2080	10.30
ORIGINAL				<0.2	2.81	7	<10	50	0.7	<2	<0.01	<0.5	30	26	77	7.10
DUP				<0.2	2.75	8	<10	50	0.7	<2	0.01	<0.5	29	26	76	7.05
Target Range - Lower Bound				<0.2	2.62	3	<10	30	<0.5	<2	<0.01	<0.5	26	23	71	6.70
Upper Bound				0.4	2.94	12	20	70	1.0	4	0.02	1.0	33	29	82	7.45

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QC CERTIFICATE OF ANALYSIS VA06124775

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
DUPLICATES																
230547																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL		<10	3	0.05	<10	<0.01	27	1	0.02	4	20	239	>10.0	40	1	13
DUP		<10	2	0.05	<10	<0.01	29	1	0.02	4	20	243	>10.0	39	1	14
Target Range - Lower Bound		<10	<1	0.03	<10	<0.01	17	<1	<0.01	2	<10	225	9.48	33	<1	11
Upper Bound		20	5	0.07	20	0.02	39	2	0.04	6	40	257	10.00	46	2	16
ORIGINAL		10	<1	0.07	<10	0.14	1260	1	<0.01	13	460	5	0.03	4	24	1
DUP		10	<1	0.07	<10	0.14	1250	1	<0.01	13	460	6	0.03	3	23	1
Target Range - Lower Bound		<10	<1	0.05	<10	0.11	1180	<1	<0.01	10	420	<2	<0.01	<2	20	<1
Upper Bound		20	2	0.09	20	0.17	1330	2	0.02	16	500	10	0.05	4	27	2

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QC CERTIFICATE OF ANALYSIS VA06124775

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
DUPLICATES							
230547							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL		<0.01	<10	<10	7	<10	51
DUP		<0.01	10	<10	8	<10	52
Target Range - Lower Bound		<0.01	<10	<10	5	<10	45
Upper Bound		0.02	20	20	10	20	58
ORIGINAL		0.02	<10	<10	192	<10	32
DUP		0.02	<10	<10	189	<10	32
Target Range - Lower Bound		<0.01	<10	<10	179	<10	26
Upper Bound		0.04	20	20	202	20	38

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Finalized Date: 29-JAN-2007
This copy reported on 23-FEB-2007
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QC CERTIFICATE VA06124776

Project: 4012
P.O. No.:
This report is for 50 Crushed Rock samples submitted to our lab in Vancouver, BC, Canada on 5-DEC-2006.

The following have access to data associated with this certificate:

CARL EDMUNDS RON KONST	BRIAN KAY	B. KAY

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
PUL-31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au-AA23	Au 30g FA-AA finish	AAS
Cu-AA49	Assay Cu - HBr Digestion	AAS
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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QC CERTIFICATE OF ANALYSIS VA06124776

Sample Description	Method	Au-AA23	Cu-AA49	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Au	Cu	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	0.005	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
STANDARDS																
CU-108			0.666													
Target Range - Lower Bound			0.627													
Upper Bound			0.695													
G2000				3.2	1.86	475	<10	870	0.9	2	0.47	6.9	22	69	304	3.62
G2000				3.6	1.95	508	<10	940	1.0	<2	0.51	7.6	25	73	315	3.80
G2000				3.5	1.90	498	<10	920	1.0	3	0.52	7.3	24	71	300	3.89
Target Range - Lower Bound				3.0	1.66	434	<10	720	<0.5	<2	0.46	6.0	21	63	272	3.41
Upper Bound				4.1	2.06	534	20	1000	1.0	4	0.58	8.4	27	79	334	4.19
GBM398-4c			0.389													
GBM398-4c			0.375													
GBM398-4c			0.371													
Target Range - Lower Bound			0.369													
Upper Bound			0.410													
GBM999-5				60.2	0.20	3	<10	50	<0.5	<2	0.05	<0.5	4	5	484	2.78
Target Range - Lower Bound				53.3	0.17	<2	<10	40	<0.5	<2	0.04	<0.5	2	4	436	2.56
Upper Bound				65.5	0.23	4	20	70	1.0	4	0.07	1.0	4	7	536	3.15
ME89-2			0.232													
ME89-2			0.231													
Target Range - Lower Bound			0.218													
Upper Bound			0.243													
OREAS-45P				0.5	3.72	<2	<10	180	0.7	6	0.25	<0.5	108	920	697	17.80
Target Range - Lower Bound				<0.2	3.32	<2	<10	140	<0.5	<2	0.21	<0.5	93	785	580	15.50
Upper Bound				0.4	4.08	7	20	210	1.0	4	0.27	1.0	115	961	712	18.95
OXD43		0.397														
Target Range - Lower Bound		0.368														
Upper Bound		0.434														
OxE42		0.600														
OxE42		0.626														
Target Range - Lower Bound		0.562														
Upper Bound		0.658														
ST-259		2.48														
ST-259		2.49														
Target Range - Lower Bound		2.30														
Upper Bound		2.66														
ST-327		6.51														
Target Range - Lower Bound		6.35														
Upper Bound		7.31														

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QC CERTIFICATE OF ANALYSIS VA06124776

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
STANDARDS																
CU-108																
Target Range - Lower Bound																
Upper Bound																
G2000		10	1	0.40	20	0.67	557	6	0.04	272	940	643	0.26	25	7	68
G2000		10	1	0.41	20	0.68	578	6	0.03	289	980	699	0.27	26	7	70
G2000		10	2	0.41	20	0.68	564	6	0.04	271	1000	701	0.29	26	7	71
Target Range - Lower Bound		<10	<1	0.37	<10	0.60	506	4	0.02	246	840	601	0.23	19	6	61
Upper Bound		20	2	0.47	40	0.76	630	8	0.04	302	1050	739	0.31	31	10	77
GBM398-4c																
GBM398-4c																
GBM398-4c																
Target Range - Lower Bound																
Upper Bound																
GBM999-5		<10	<1	0.05	10	0.02	60	4	0.02	4	40	512	0.28	4	1	4
Target Range - Lower Bound		<10	<1	0.04	<10	<0.01	49	2	<0.01	3	20	452	0.26	<2	<1	2
Upper Bound		20	2	0.07	20	0.03	71	5	0.03	5	50	556	0.34	8	2	5
ME89-2																
ME89-2																
Target Range - Lower Bound																
Upper Bound																
OREAS-45P		20	<1	0.08	20	0.12	1145	2	0.02	304	390	17	0.03	<2	60	16
Target Range - Lower Bound		<10	<1	0.06	<10	0.09	956	<1	<0.01	252	320	15	<0.01	<2	51	12
Upper Bound		20	2	0.10	20	0.13	1180	2	0.03	310	410	23	0.03	4	65	17
OXD43																
Target Range - Lower Bound																
Upper Bound																
OxE42																
OxE42																
Target Range - Lower Bound																
Upper Bound																
ST-259																
ST-259																
Target Range - Lower Bound																
Upper Bound																
ST-327																
Target Range - Lower Bound																
Upper Bound																

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QC CERTIFICATE OF ANALYSIS VA06124776

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
		STANDARDS					
CU-108							
Target Range - Lower Bound							
Upper Bound							
G2000		0.05	<10	<10	65	10	1260
G2000		0.06	<10	<10	69	<10	1360
G2000		0.05	<10	<10	70	<10	1280
Target Range - Lower Bound		0.04	<10	<10	59	<10	1145
Upper Bound		0.07	20	20	74	20	1400
GBM398-4c							
GBM398-4c							
GBM398-4c							
Target Range - Lower Bound							
Upper Bound							
GBM999-5		<0.01	<10	<10	5	<10	112
Target Range - Lower Bound		<0.01	<10	<10	4	<10	97
Upper Bound		0.02	20	20	7	20	123
ME89-2							
ME89-2							
Target Range - Lower Bound							
Upper Bound							
OREAS-45P		0.23	<10	<10	242	<10	119
Target Range - Lower Bound		0.19	<10	<10	208	<10	108
Upper Bound		0.25	20	20	256	20	136
OXD43							
Target Range - Lower Bound							
Upper Bound							
OxE42							
OxE42							
Target Range - Lower Bound							
Upper Bound							
ST-259							
ST-259							
Target Range - Lower Bound							
Upper Bound							
ST-327							
Target Range - Lower Bound							
Upper Bound							

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QC CERTIFICATE OF ANALYSIS VA06124776

Sample Description	Method	Au-AA23	Cu-AA49	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Au	Cu	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	0.005	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
BLANKS																
BLANK				<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
BLANK				<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
BLANK				<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
BLANK		<0.005														
BLANK		<0.005														
BLANK		<0.005														
BLANK			<0.001													
BLANK			<0.001													
BLANK			<0.001													
Target Range - Lower Bound		<0.005	<0.001	<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
Upper Bound		0.010	0.002	0.4	0.02	4	20	20	1.0	4	0.02	1.0	2	2	2	0.02
DUPLICATES																
ORIGINAL		0.035														
DUP		0.035														
Target Range - Lower Bound		0.023														
Upper Bound		0.047														
ORIGINAL				<0.2	1.51	6	<10	120	0.9	<2	1.09	<0.5	12	62	10	2.94
DUP				<0.2	1.45	5	<10	110	0.8	<2	1.03	<0.5	12	58	9	2.78
Target Range - Lower Bound				<0.2	1.39	<2	<10	90	<0.5	<2	0.99	<0.5	9	55	7	2.70
Upper Bound				0.4	1.57	10	20	140	1.0	4	1.13	1.0	15	65	12	3.02
230561			0.033													
DUP			0.032													
Target Range - Lower Bound			0.030													
Upper Bound			0.035													
230579				0.4	3.93	11	<10	10	0.5	2	3.28	<0.5	40	69	404	5.87
DUP				0.5	4.07	10	<10	10	0.5	<2	3.42	<0.5	40	71	415	6.00
Target Range - Lower Bound				<0.2	3.78	6	<10	<10	<0.5	<2	3.16	<0.5	36	65	387	5.62
Upper Bound				0.9	4.22	15	20	20	1.0	4	3.54	1.0	44	76	432	6.25
230581		0.011														
DUP		0.010														
Target Range - Lower Bound		<0.005														
Upper Bound		0.021														

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QC CERTIFICATE OF ANALYSIS VA06124776

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
BLANKS																
BLANK		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
BLANK		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
BLANK		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
BLANK																
BLANK																
BLANK																
BLANK																
BLANK																
BLANK																
Target Range - Lower Bound		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
Upper Bound		20	2	0.02	20	0.02	10	2	0.02	2	20	4	0.02	4	2	2
DUPLICATES																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL		10	<1	0.43	30	1.07	580	1	0.04	13	590	5	0.01	2	3	85
DUP		10	<1	0.40	30	1.00	550	1	0.03	11	550	5	<0.01	<2	3	81
Target Range - Lower Bound		<10	<1	0.37	<10	0.96	527	<1	<0.01	9	520	<2	<0.01	<2	<1	77
Upper Bound		20	2	0.46	50	1.11	603	2	0.06	15	620	9	0.02	4	5	89
230561																
DUP																
Target Range - Lower Bound																
Upper Bound																
230579		10	<1	0.07	<10	1.92	710	5	0.07	27	1090	10	3.87	<2	10	86
DUP		10	<1	0.07	<10	1.96	731	6	0.08	28	1110	10	3.97	<2	10	89
Target Range - Lower Bound		<10	<1	0.05	<10	1.82	674	3	0.05	24	1030	6	3.70	<2	8	81
Upper Bound		20	2	0.09	20	2.06	767	8	0.10	31	1180	15	4.14	4	13	94
230581																
DUP																
Target Range - Lower Bound																
Upper Bound																

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PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 29-JAN-2007
Account: PIL

Project: 4012

QC CERTIFICATE OF ANALYSIS VA06124776

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
BLANKS							
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK							
BLANK							
BLANK							
BLANK							
BLANK							
BLANK							
Target Range - Lower Bound		<0.01	<10	<10	<1	<10	<2
Upper Bound		0.02	20	20	2	20	4
DUPLICATES							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL		0.05	<10	<10	52	<10	61
DUP		0.05	<10	<10	49	<10	56
Target Range - Lower Bound		0.03	<10	<10	46	<10	52
Upper Bound		0.07	20	20	55	20	65
230561							
DUP							
Target Range - Lower Bound							
Upper Bound							
230579		0.25	<10	<10	166	<10	86
DUP		0.27	<10	<10	172	<10	89
Target Range - Lower Bound		0.23	<10	<10	159	<10	79
Upper Bound		0.29	20	20	179	20	96
230581							
DUP							
Target Range - Lower Bound							
Upper Bound							

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QC CERTIFICATE OF ANALYSIS VA06124776

Sample Description	Method / Analyte / Units / LOR	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1	ME-ICP41 Fe % 0.01
DUPLICATES																
230597			0.002													
DUP			0.003													
Target Range - Lower Bound			<0.001													
Upper Bound			0.005													
230601		0.012														
DUP		0.014														
Target Range - Lower Bound		<0.005														
Upper Bound		0.024														
230664			0.004													
DUP			0.004													
Target Range - Lower Bound			0.002													
Upper Bound			0.006													
ORIGINAL		1.015														
DUP		0.975														
Target Range - Lower Bound		0.935														
Upper Bound		1.055														
ORIGINAL		1.025														
DUP		0.999														
Target Range - Lower Bound		0.951														
Upper Bound		1.075														
ORIGINAL		0.043														
DUP		0.035														
Target Range - Lower Bound		0.027														
Upper Bound		0.051														
ORIGINAL				<0.2	0.69	17	30	150	<0.5	<2	0.61	<0.5	84	339	20	4.99
DUP				<0.2	0.70	19	40	150	<0.5	<2	0.64	<0.5	87	356	21	5.16
Target Range - Lower Bound				<0.2	0.64	13	<10	120	<0.5	<2	0.57	<0.5	79	328	17	4.80
Upper Bound				0.4	0.75	23	60	180	1.0	4	0.68	1.0	92	367	24	5.35
ORIGINAL		0.383														
DUP		0.383														
Target Range - Lower Bound		0.354														
Upper Bound		0.412														

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QC CERTIFICATE OF ANALYSIS VA06124776

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
		DUPLICATES														
230597																
DUP																
Target Range - Lower Bound																
Upper Bound																
230601																
DUP																
Target Range - Lower Bound																
Upper Bound																
230664																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL		<10	<1	0.25	10	17.40	849	1	0.03	1635	660	14	0.21	2	6	67
DUP		<10	<1	0.25	10	17.60	872	1	0.03	1710	680	14	0.21	<2	6	68
Target Range - Lower Bound		<10	<1	0.22	<10	16.60	807	<1	<0.01	1585	620	9	0.18	<2	4	62
Upper Bound		20	2	0.28	20	18.40	914	2	0.05	1760	720	19	0.24	4	8	73
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																

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QC CERTIFICATE OF ANALYSIS VA06124776

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
		DUPLICATES					
230597							
DUP							
Target Range - Lower Bound							
Upper Bound							
230601							
DUP							
Target Range - Lower Bound							
Upper Bound							
230664							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL		0.07	<10	<10	32	<10	37
DUP		0.08	<10	<10	33	<10	37
Target Range - Lower Bound		0.05	<10	<10	29	<10	31
Upper Bound		0.10	20	20	36	20	43
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							

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QC CERTIFICATE OF ANALYSIS VA06124776

Sample Description	Method	Au-AA23	Cu-AA49	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Au	Cu	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	0.005	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
DUPLICATES																
ORIGINAL		0.100														
DUP		0.101														
Target Range - Lower Bound		0.085														
Upper Bound		0.116														

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QC CERTIFICATE OF ANALYSIS VA06124776

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
DUPLICATES																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																

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Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
		DUPLICATES					
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							

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QC CERTIFICATE VA06124777

Project: 4012
P.O. No.:
This report is for 63 Crushed Rock samples submitted to our lab in Vancouver, BC, Canada on 5-DEC-2006.

The following have access to data associated with this certificate:

CARL EDMUNDS RON KONST	BRIAN KAY	B. KAY

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
PUL-QC	Pulverizing QC Test
PUL-31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au-AA23	Au 30g FA-AA finish	AAS
Cu-AA49	Assay Cu - HBr Digestion	AAS
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES

To: NORTHGATE MINERALS CORPORATION
ATTN: RON KONST
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

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QC CERTIFICATE OF ANALYSIS VA06124777

Sample Description	Method	Au-AA23	Cu-AA49	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Au	Cu	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	0.005	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
STANDARDS																
CU-108			0.666													
Target Range - Lower Bound			0.627													
Upper Bound			0.695													
G2000				3.6	1.95	508	<10	940	1.0	<2	0.51	7.6	25	73	315	3.80
G2000				3.3	1.87	477	<10	860	1.0	2	0.50	7.3	22	69	298	3.72
G2000				3.4	2.05	501	<10	940	1.1	2	0.54	7.7	24	74	313	3.95
Target Range - Lower Bound				3.0	1.66	434	<10	720	<0.5	<2	0.46	6.0	21	63	272	3.41
Upper Bound				4.1	2.06	534	20	1000	1.0	4	0.58	8.4	27	79	334	4.19
GBM398-4c			0.375													
GBM398-4c			0.377													
GBM398-4c			0.371													
Target Range - Lower Bound			0.369													
Upper Bound			0.410													
GBM999-5				60.2	0.20	3	<10	50	<0.5	<2	0.05	<0.5	4	5	484	2.78
GBM999-5				61.5	0.21	5	<10	60	<0.5	<2	0.05	<0.5	2	3	480	2.92
Target Range - Lower Bound				53.3	0.17	<2	<10	40	<0.5	<2	0.04	<0.5	2	4	436	2.56
Upper Bound				65.5	0.23	4	20	70	1.0	4	0.07	1.0	4	7	536	3.15
ME89-2			0.222													
ME89-2			0.231													
Target Range - Lower Bound			0.218													
Upper Bound			0.243													
OREAS-45P				0.3	3.76	<2	<10	180	0.7	<2	0.24	<0.5	103	903	700	17.70
Target Range - Lower Bound				<0.2	3.32	<2	<10	140	<0.5	<2	0.21	<0.5	93	785	580	15.50
Upper Bound				0.4	4.08	7	20	210	1.0	4	0.27	1.0	115	961	712	18.95
OxE42		0.626														
OxE42		0.614														
Target Range - Lower Bound		0.562														
Upper Bound		0.658														
ST-259		2.49														
Target Range - Lower Bound		2.30														
Upper Bound		2.66														

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KEMESS MINE
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Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
STANDARDS																
CU-108																
Target Range - Lower Bound																
Upper Bound																
G2000		10	1	0.41	20	0.68	578	6	0.03	289	980	699	0.27	26	7	70
G2000		10	1	0.42	20	0.69	547	5	0.02	280	960	676	0.28	26	7	70
G2000		10	1	0.44	20	0.73	586	5	0.03	294	990	706	0.29	28	8	76
Target Range - Lower Bound		<10	<1	0.37	<10	0.60	506	4	0.02	246	840	601	0.23	19	6	61
Upper Bound		20	2	0.47	40	0.76	630	8	0.04	302	1050	739	0.31	31	10	77
GBM398-4c																
GBM398-4c																
GBM398-4c																
Target Range - Lower Bound																
Upper Bound																
GBM999-5		<10	<1	0.05	10	0.02	60	4	0.02	4	40	512	0.28	4	1	4
GBM999-5		<10	<1	0.05	10	0.02	63	4	0.01	3	40	492	0.30	4	1	4
Target Range - Lower Bound		<10	<1	0.04	<10	<0.01	49	2	<0.01	3	20	452	0.26	<2	<1	2
Upper Bound		20	2	0.07	20	0.03	71	5	0.03	5	50	556	0.34	8	2	5
ME89-2																
ME89-2																
Target Range - Lower Bound																
Upper Bound																
OREAS-45P		20	1	0.08	20	0.12	1085	2	0.01	304	360	17	0.03	<2	61	16
Target Range - Lower Bound		<10	<1	0.06	<10	0.09	956	<1	<0.01	252	320	15	<0.01	<2	51	12
Upper Bound		20	2	0.10	20	0.13	1180	2	0.03	310	410	23	0.03	4	65	17
OxE42																
OxE42																
Target Range - Lower Bound																
Upper Bound																
ST-259																
Target Range - Lower Bound																
Upper Bound																

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QC CERTIFICATE OF ANALYSIS VA06124777

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
		STANDARDS					
CU-108							
Target Range - Lower Bound							
Upper Bound							
G2000		0.06	<10	<10	69	<10	1360
G2000		0.05	<10	<10	66	<10	1285
G2000		0.06	<10	<10	71	10	1355
Target Range - Lower Bound		0.04	<10	<10	59	<10	1145
Upper Bound		0.07	20	20	74	20	1400
GBM398-4c							
GBM398-4c							
GBM398-4c							
Target Range - Lower Bound							
Upper Bound							
GBM999-5		<0.01	<10	<10	5	<10	112
GBM999-5		<0.01	<10	<10	6	<10	115
Target Range - Lower Bound		<0.01	<10	<10	4	<10	97
Upper Bound		0.02	20	20	7	20	123
ME89-2							
ME89-2							
Target Range - Lower Bound							
Upper Bound							
OREAS-45P		0.21	<10	<10	233	10	119
Target Range - Lower Bound		0.19	<10	<10	208	<10	108
Upper Bound		0.25	20	20	256	20	136
OxE42							
OxE42							
Target Range - Lower Bound							
Upper Bound							
ST-259							
Target Range - Lower Bound							
Upper Bound							

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QC CERTIFICATE OF ANALYSIS VA06124777

Sample Description	Method / Analyte / Units / LOR	Au-AA23 Au ppm 0.005	Cu-AA49 Cu % 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1	ME-ICP41 Fe % 0.01
BLANKS																
BLANK				<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
BLANK				<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
BLANK				<0.2	<0.01	3	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
BLANK		<0.005														
BLANK		<0.005														
BLANK			<0.001													
BLANK			<0.001													
BLANK			<0.001													
Target Range - Lower Bound		<0.005	<0.001	<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01
Upper Bound		0.010	0.002	0.4	0.02	4	20	20	1.0	4	0.02	1.0	2	2	2	0.02
DUPLICATES																
ORIGINAL		0.035														
DUP		0.035														
Target Range - Lower Bound		0.023														
Upper Bound		0.047														
230579				0.4	3.93	11	<10	10	0.5	2	3.28	<0.5	40	69	404	5.87
DUP				0.5	4.07	10	<10	10	0.5	<2	3.42	<0.5	40	71	415	6.00
Target Range - Lower Bound				<0.2	3.78	6	<10	<10	<0.5	<2	3.16	<0.5	36	65	387	5.62
Upper Bound				0.9	4.22	15	20	20	1.0	4	3.54	1.0	44	76	432	6.25
230581		0.011														
DUP		0.010														
Target Range - Lower Bound		<0.005														
Upper Bound		0.021														
230597			0.002													
DUP			0.003													
Target Range - Lower Bound			<0.001													
Upper Bound			0.005													
230601		0.012														
DUP		0.014														
Target Range - Lower Bound		<0.005														
Upper Bound		0.024														

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To: NORTHGATE MINERALS CORPORATION
KEMESS MINE
PO BOX 3519
SMITHERS BC V0J 2N0

Finalized Date: 29-JAN-2007
Account: PIL

Project: 4012

QC CERTIFICATE OF ANALYSIS VA06124777

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
BLANKS																
BLANK		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
BLANK		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
BLANK		<10	<1	<0.01	<10	<0.01	<5	1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
BLANK																
BLANK																
BLANK																
BLANK																
BLANK																
Target Range - Lower Bound		<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2	<1	<1
Upper Bound		20	2	0.02	20	0.02	10	2	0.02	2	20	4	0.02	4	2	2
DUPLICATES																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
230579		10	<1	0.07	<10	1.92	710	5	0.07	27	1090	10	3.87	<2	10	86
DUP		10	<1	0.07	<10	1.96	731	6	0.08	28	1110	10	3.97	<2	10	89
Target Range - Lower Bound		<10	<1	0.05	<10	1.82	674	3	0.05	24	1030	6	3.70	<2	8	81
Upper Bound		20	2	0.09	20	2.06	767	8	0.10	31	1180	15	4.14	4	13	94
230581																
DUP																
Target Range - Lower Bound																
Upper Bound																
230597																
DUP																
Target Range - Lower Bound																
Upper Bound																
230601																
DUP																
Target Range - Lower Bound																
Upper Bound																

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QC CERTIFICATE OF ANALYSIS VA06124777

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
BLANKS							
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK		<0.01	<10	<10	<1	<10	<2
BLANK							
BLANK							
BLANK							
BLANK							
BLANK							
Target Range - Lower Bound		<0.01	<10	<10	<1	<10	<2
Upper Bound		0.02	20	20	2	20	4
DUPLICATES							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							
230579		0.25	<10	<10	166	<10	86
DUP		0.27	<10	<10	172	<10	89
Target Range - Lower Bound		0.23	<10	<10	159	<10	79
Upper Bound		0.29	20	20	179	20	96
230581							
DUP							
Target Range - Lower Bound							
Upper Bound							
230597							
DUP							
Target Range - Lower Bound							
Upper Bound							
230601							
DUP							
Target Range - Lower Bound							
Upper Bound							

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Sample Description	Method	Au-AA23	Cu-AA49	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Au	Cu	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	0.005	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
DUPLICATES																
230615				0.5	2.49	5	<10	110	0.7	<2	2.15	<0.5	4	<1	277	2.72
DUP				0.4	2.54	2	<10	110	0.7	<2	2.21	<0.5	4	<1	278	2.75
Target Range - Lower Bound				<0.2	2.37	<2	<10	80	<0.5	<2	2.05	<0.5	2	<1	262	2.58
Upper Bound				0.9	2.66	4	20	140	1.0	4	2.31	1.0	6	2	293	2.89
230633			0.006													
DUP			0.006													
Target Range - Lower Bound			0.004													
Upper Bound			0.008													
230637		<0.005														
DUP		<0.005														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														
230651				<0.2	2.17	<2	<10	110	0.5	<2	2.08	<0.5	4	1	14	2.90
DUP				<0.2	2.17	2	<10	120	0.5	<2	2.09	<0.5	5	2	15	2.94
Target Range - Lower Bound				<0.2	2.04	<2	<10	90	<0.5	<2	1.96	<0.5	2	<1	12	2.75
Upper Bound				0.4	2.30	4	20	140	1.0	4	2.21	1.0	7	2	17	3.09
230657		<0.005														
DUP		<0.005														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														
230664			0.004													
DUP			0.004													
Target Range - Lower Bound			0.002													
Upper Bound			0.006													
ORIGINAL		<0.005														
DUP		0.005														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														

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Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
DUPLICATES																
230615		10	<1	0.11	10	0.58	355	2	0.07	<1	780	12	0.04	<2	3	125
DUP		10	<1	0.11	10	0.59	364	2	0.07	<1	780	11	0.03	<2	3	126
Target Range - Lower Bound		<10	<1	0.08	<10	0.54	332	<1	0.05	<1	720	7	<0.01	<2	<1	117
Upper Bound		20	2	0.14	20	0.63	387	4	0.09	2	840	16	0.06	4	5	134
230633																
DUP																
Target Range - Lower Bound																
Upper Bound																
230637																
DUP																
Target Range - Lower Bound																
Upper Bound																
230651		10	<1	0.13	10	0.56	560	2	0.08	1	890	6	0.02	<2	3	137
DUP		10	<1	0.13	10	0.56	563	3	0.08	<1	900	5	0.02	<2	3	136
Target Range - Lower Bound		<10	<1	0.10	<10	0.51	523	<1	0.06	<1	830	<2	<0.01	<2	<1	128
Upper Bound		20	2	0.16	20	0.61	600	5	0.10	2	960	10	0.04	4	5	145
230657																
DUP																
Target Range - Lower Bound																
Upper Bound																
230664																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																

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Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
		DUPLICATES					
230615		0.11	<10	<10	56	<10	40
DUP		0.12	<10	10	57	<10	40
Target Range - Lower Bound		0.09	<10	<10	52	<10	34
Upper Bound		0.14	20	20	61	20	46
230633							
DUP							
Target Range - Lower Bound							
Upper Bound							
230637							
DUP							
Target Range - Lower Bound							
Upper Bound							
230651		0.14	<10	<10	74	<10	30
DUP		0.14	10	<10	76	<10	30
Target Range - Lower Bound		0.11	<10	<10	69	<10	25
Upper Bound		0.17	20	20	81	20	36
230657							
DUP							
Target Range - Lower Bound							
Upper Bound							
230664							
DUP							
Target Range - Lower Bound							
Upper Bound							
ORIGINAL							
DUP							
Target Range - Lower Bound							
Upper Bound							

Quantec Geoscience Ltd.
116 Spadina Ave., Suite 400
Toronto, ON, M5V 2K6
Phone (416) 306 1941
Fax (416) 306 1949

Geophysical Survey Logistics Report

Regarding the

Quantec TITAN-24 Distributed Acquisition System TENSOR-MAGNETOTELLURIC and DC RESISTIVITY & INDUCED POLARIZATION SURVEYS over the KEMESS NORTH PROJECT, Kemess Mine, BC, on behalf of NORTHGATE MINERALS Corp., Vancouver, BC

J. Milne
J. Legault
K. Nurse
September, 2006
Project CA00433T

TABLE OF CONTENTS

1. INTRODUCTION 3
2. GENERAL SURVEY DETAILS 4
2.1 LOCATION 4
2.2 ACCESS 5
2.3 SURVEY GRID 5
3. SURVEY WORK UNDERTAKEN 6
3.1 GENERALITIES 6
3.2 PERSONNEL 6
3.3 SURVEY SPECIFICATIONS 7
3.4 SURVEY COVERAGE 9
3.5 INSTRUMENTATION 9
3.6 PARAMETERS 10
3.7 DATA ACCURACY AND REPEATABILITY 12
3.8 DATA PRESENTATION 14
3.9 REFERENCES 15

APPENDIX A: STATEMENT OF QUALIFICATIONS
APPENDIX B: PRODUCTION SUMMARY
APPENDIX C: DCIP PSEUDO-SECTIONS
APPENDIX D: MT APPARENT RESISTIVITY AND PHASE SOUNDING CURVES
APPENDIX E: MT APPARENT RESISTIVITY AND PHASE PSEUDO-SECTIONS
APPENDIX F: INSTRUMENT SPECIFICATIONS
APPENDIX G: DIGITAL DATA DVD ARCHIVE (DVD CASE)

LIST OF TABLES AND FIGURES

Figure 1: Kemess North Project General Location Map 4
Figure 2: Kemess North Titan Grid Line Location Map 5
Figure 3: Common Electrode Arrays 7
Figure 4: Titan-24 DCIP and MT Survey Layout 8
Figure 5: Titan Full-waveform IP Decay Curve and Best Fit Halverson-Wait Spectral Parameters 10
Figure 6: Example of Apparent Resistivity and Phase (XY and YX) Sounding Curves. 12
Figure 7: Example of Time Series taken from Parallel Sensor Test (BF-6) 13
Figure 8: Example of Time Series taken from Parallel Sensor Test (BF-4) 13

Table I: Kemess North Grid Survey Lines UTM Reference 5
Table II: Maximum and Minimum DCIP Pole Dipole Electrode Position 9
Table III: MT Survey Coverage (Pot-to-Pot) 9
Table IV: Minimum Errors for DCIP Measurements and Processing 12

1. INTRODUCTION

- **QGI Project No.:** **CA00433T**
- **Project Name:** **Kemess North Project**
- **Grid Name:** Kemess North Grid
- **Survey Period:** August 12th, 2006 to August 31st, 2006
- **Survey Type:** Tensor Magnetotelluric (MT)
  DC Resistivity and Induced Polarization (DC/IP)
- **Client:** Northgate Minerals Corp.
- **Client Address:** 815 Hornby Street
  Suite 406
  Vancouver, BC
  Canada V6Z 2E6
- **Representative:** Mr. Carl Edmunds
  Mr. Brian Kay
- **Objectives:**

  The principle survey objectives were to define the resistivity and chargeability signatures associated with the *Kemess North* porphyry copper deposit and to trace its potential down-faulted extension below younger volcanic cover rocks.

  The Titan 24 Distributed Acquisition System (DAS[1]) employs a combination of large array size, with a large multiplicity of sensors, as well as precise 24-bit digital sampling, with state of the art signal processing and 2D-3D computer-inversions, to help penetrate deeper than conventional mineral exploration surveys. It provides three independent datasets capable of accurately measuring subsurface resistivities (structure, alteration & lithology) to depths in excess of 1 kilometre, and chargeabilities (mineralization) to depths of 500-750m, in the current array configuration.

  The Titan Distributed Acquisition System combines: a) Tensor Magnetotelluric Resistivity (MT) method, with its high resolution and deep penetration (>1-1.5km) and b) Galvanic DC Resistivity and Induced Polarization (DCIP) surveys, which benefits from superior shallow to mid-depth resolution and penetration (<500-750m), and sensitivity to metallic mineralization, from disseminated to massive. The survey was chosen based on its high resolution and deep drill targeting capabilities.
- **Report Type:** Survey logistics, describing the survey parameters and methodology, as well as presenting the survey results in digital/plot forms.

[1] *Ref., Sheard, N. (1998). MIMDAS: A new direction in geophysics. Proceedings of the ASEG 13th International Conference, Hobart, Tasmania.*

2. GENERAL SURVEY DETAILS

2.1 LOCATION

- **General Location:** North central British Columbia
- **Nearest Settlement:** approx. 250km north of Smithers, BC
- **UTM Zone:** 9V
- **Latitude/Longitude:** approx.: 57ø02'00.00"N, 126ø43'00.00"W
- **UTM position[2]:** approx.: 637652mE, 6327265mN @ 1650msl

Figure 1: Kemess North Project General Location Map[3]

[2] *UTM coordinates (NAD83) positioning (GPS) supplied by Northgate Minerals Corp.*
[3] *Kemess North Project General Location Map obtained from www.northgateminerals.com*

2.2 ACCESS

- **Base of Operations:** Kemess Mine site
- **Mode of Access to Grid:** Trucks / helicopter
- **Mode of Access to Lines:** helicopter / by foot

2.3 SURVEY GRID

- **Established by:** Northgate Minerals Corp. (Figure 2)
- **Coordinate Reference System:** Survey Grid Coordinates referenced to UTM Coordinates (Table I).
- **Datum:** NAD 83
- **Projection:** UTM zone 9V
- **Station Interval:** 100 meters
- **Method of Chaining:** Metric, slope distance, pickets

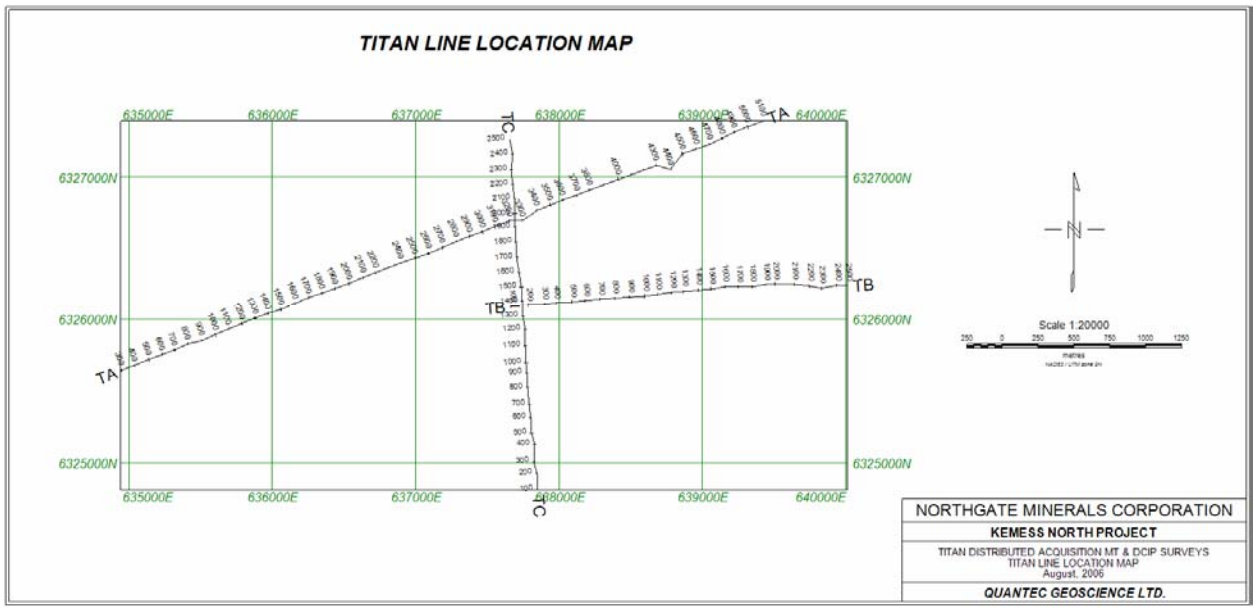


Figure 2: Kemess North Titan Grid Line Location Map

Line	Survey/Array Coord. Start	Survey/Array Coord. End	UTM Coord. Start		UTM Coord. End	
			Easting	Northing	Easting	Northing
Titan A	300E	5100E	634945	6325646	639423	6327393
Titan B	100E	2500E	637664	6326091	640010	6326238
Titan C	100N	2500N	637847	6324812	637652	6327265

Table I: Kemess North Grid Survey Lines UTM Reference

3. SURVEY WORK UNDERTAKEN

3.1 GENERALITIES

- **Survey Dates:** August 12th to August 21st, 2006
- **Survey Period:** 20 days
- **Mob/demob:** 7 days
- **Line Setup/Parallel Sensor Test:** 2 day
- **Survey Days (read time):** 9 days
- **Weather/Down Days:** 2 days
- **Number of Lines Surveyed:** 3 lines (see Table I)
- **Survey Coverage:** DC/IP survey: 9.8 km. (Table II)
  MT survey: 9.8 km (Table III)

3.2 PERSONNEL

- **Project Manager:** Kevin Blackshaw, Timmins, ON
- **Supervising Geophysicist:** Jean Legault, Waterdown, ON
- **Data Processing:** Ken Nurse, Toronto, ON
- **IP Operator:** Joel Cross, Reno, NV
- **Crew Chief & MT Operator:** Neil Maukonen, Severn Bridge, ON
- **Remote Operator:** Dusk Fairservice, Manitouwadge, ON
- **Field Technicians:** Kyle Corriveau
  Josh McLaren
  Derrick Mongeon
  Jeremy Monteith
  Christopher Pearson
  Richard Chassé

3.3 SURVEY SPECIFICATIONS

3.3.1 DCIP Survey

- **Survey Array:** Pole – Dipole – Dipole Array (combined PDR & PDL see Figure 3)
- **Receiver Configuration:** 24 Ex = Continuous In-line voltages (Figure 4)
  13 Ey = Alternating (2-station) cross-line voltages[4]
- **Array Length:** 2400 meters
- **Number of Arrays/line:** 1-2
- **Dipole spacing:** 100m
- **Rx-Tx Separation:** N-spacing (P_N-C_N min) = 0.5 to 23.5 max
- **Sampling Interval:** Ex = 100 meters
  Ey = 200 meters
- **Infinite Pole Location:** UTM: 0632930E, 6331610N (NAD83, 9V)
  Grid coordinates: 458E, 6249N
- **Spectral Domain:** Tx = Frequency-domain square-wave current
  Rx = Full waveform time-series acquisition
  Data processing/output in frequency-domain

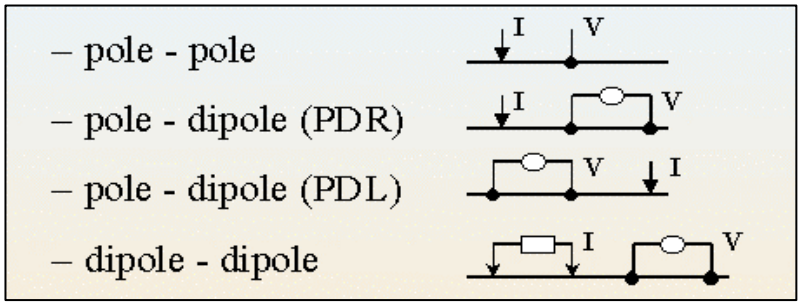


Figure 3: Common Electrode Arrays

3.3.2 MT Surveys

- **Technique:** Tensor soundings, remote-referenced
- **Base Configuration:** 24 Ex = Continuous In-line E-fields (Figure 4)
  13 Ey = Alternating (2-station) cross-line E-fields
  1 pair LF coils
  1 pair HF coils
- **Remote Configuration:** 1 Ex = in line E-fields
  1 Ey = cross-line E fields
  1 pair LF coils
  1 pair HF coils

[4] *Note: Cross-Line Ey voltages obtained for future reference purposes – not presented in cross-sectional plots.*

- **Array Length:** 2400 meters
- **Number of Arrays/line:** 1-2
- **Dipole Spacing:** 100 meters
- **Sampling Interval:** Ex = 100 meters
  Ey = 200 meters
- **Local Magnetic Field Measurements:** 1 Hx/Hy set per array
- **Ex/Ey Sampling Ratio:** 2:1 (see Figure 4)
- **E/H Sampling Ratio:** Ex = 24:1
  Ey = 13:1
- **Remote Reference Measurements:** 1 Hx/Hy set (1 Ey/Ex set for verification/monitoring)
- **Remote Reference Position:** 630727E, 6331562N (NAD 83 / Zone 9V)
- **Data Acquisition:** Full-waveform time-series acquisition
  Data processing/output in frequency-domain
- **Frequency bandwidth:** 0.1 to 10000 Hz

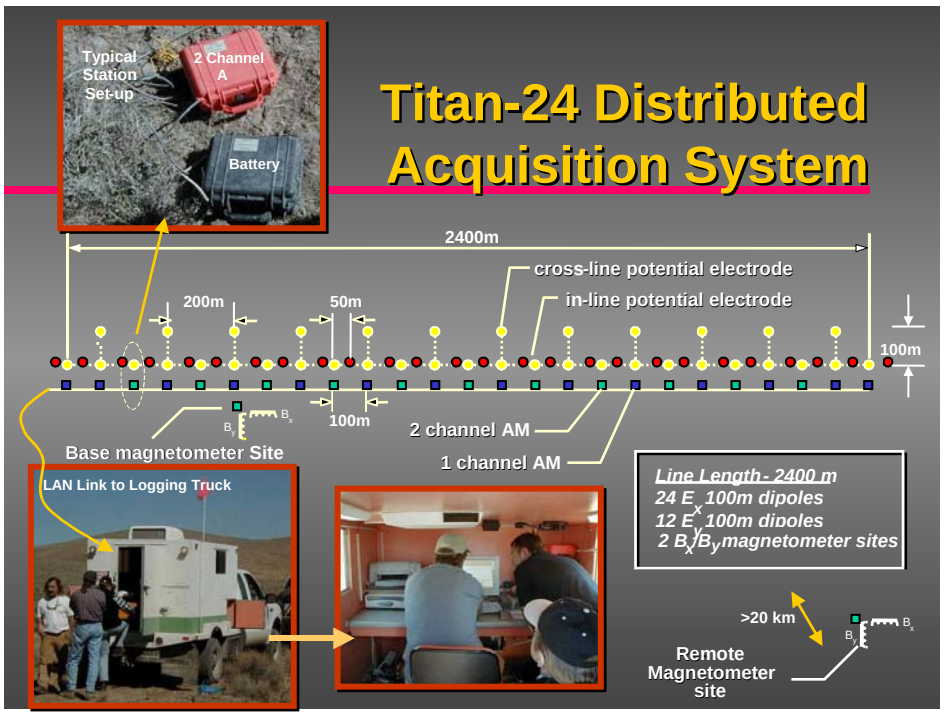


Figure 4: Titan-24 DCIP and MT Survey Layout

3.4 SURVEY COVERAGE

3.4.1 DCIP Surveys

LINE	Spread	Min Tx	Max Tx	Min P1	Max P2	Total (m)
Titan A	1	350E	3650E	300E	2700E	2400
Titan A	2	1750E	5050E	2500E	5100E	2600
Titan B	1	50E	2450E	100E	2500E	2400
Titan C	1	150N	2450N	100N	2500N	2400
					TOTAL	**9800**

Table II: Maximum and Minimum DCIP Pole Dipole Electrode Position.

3.4.2 MT Surveys

LINE	SPREAD	Min EXTENT	Max EXTENT	TOTAL (m)
Titan A	1	300E	2700E	2400
Titan A	2	2500E	5100E	2600
Titan B	1	100E	2500E	2400
Titan C	1	100N	2500N	2400
			TOTAL	**9800**

Table III: MT Survey Coverage (Pot-to-Pot)

3.5 INSTRUMENTATION

- **Receiver System:** Quantec Distributed Array Acquisition System, comprising:
  - 61channels max. per system (55ch operationally – Figure 4)
    with internal A/D conversion (24bit @120db / dual speed @120-48kHz), and buffer memory (6Mb).
    22 x 2-channel Acquisition Modules (AMs)
    17 x 1-channel Acquisition Modules (AMs)
    AM data transmission using LAN cabling
  - 2 Central Recording Units (CRU), at base & remote (MT surveys) reference sites (140Gb data storage)
  - 2 GPS synchronization clocks (10nsec precision /12.3MHz clock-speed), at base & remote (MT surveys) CPU's
  - 2 PC-based Central Processing Units (base & remote)
- **Transmitter (DCIP Surveys):** ZONGE GGT-10 (10kW) with frequency/waveform control, using CPU, and Current Monitor (CM)
- **Power Supply (DCIP Surveys):** Westinghouse Alternator (30 KVA @ 400 Hz / 220V / 3 phases) with Kolher Command 25 engine (25 HP / 2cyl) and Zonge VR-1 voltage regulator.
- **Receiver Electrodes:** Ground contacts using stainless steel rods
- **Receiver Coils (MT Surveys):** 4 EMI model BF-4 o BF-7 (100sec to 600Hz), 2 at base and 2 at remote
  4 EMI model BF-6 (10Hz to 20kHz) magnetometers (Hx-Hy), 2 at remote and 2 at base.

3.6 PARAMETERS

3.6.1 DCIP Surveys

- **Transmitter Waveform:** 30/256 Hz square waves at 100% duty cycle (~4sec Pos./Neg.)
- **Transmitter Output Current:** 0.04 amperes to 3.0 amperes
- **Receiver Sampling Speed:** 240 samples/second (24 bit A/D @ 120 db dynamic range)
- **Tx-Rx Synchronization:** using current monitor (10 μsec time-accuracy)
- **Time-Series Stacking:** 20 cycles (full-waveform)
- **Read Time:** 2.5 minutes per event
- **Post-Processing:** using QGL QuickLay v2.30
  1) Time-series stacking
  2) Robust statistics
  3) Current waveform deconvolution
  4) Digital filtering (60Hz + harmonics)
  5) Spectral model decay-curve fitting (see Figure 5)
- **Spectral Chargeability Model[5]:** Halverson-Wait (see Figure 5)
- **Time-Domain Decay Window:** T_O to T_F= 800 to 2030 milliseconds
- **Final Data Output:**
  1) Normalized voltage (volts/ampere)
  2) Voltage error (volts/ampere)
  3) Output current (ampere)
  4) Current error (ampere)
  5) Phase (milliradians)
  6) Phase error (milliradians)
  7) Apparent Resistivity (ohm-meters)

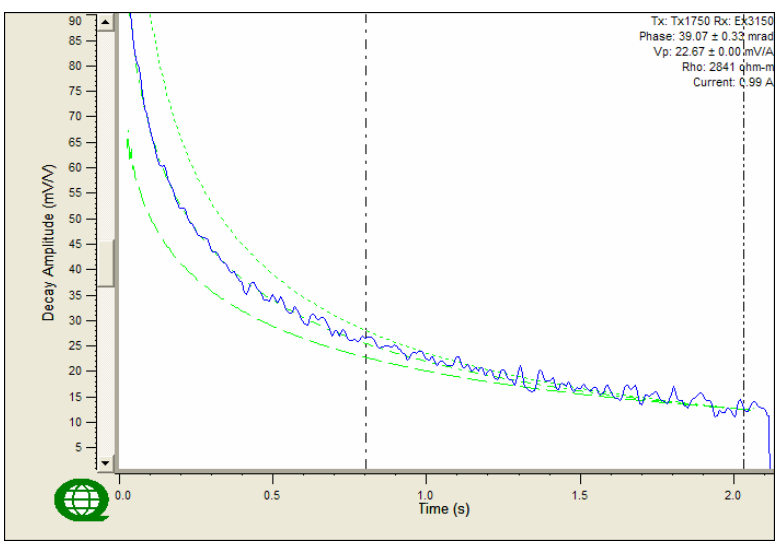


Figure 5: Titan Full-waveform IP Decay Curve and Best Fit Halverson-Wait Spectral Parameters[6]

[5] *Note: The Halverson-Wait model chargeability (Halverson et al., 1981) is similar to and improves upon the frequency-domain Cole-Cole model (Pelton et el., 1978) described in the time-domain by Johnson (1984).*

3.6.2 MT Surveys

- **Frequency Bandwidth:** Operating: 0.01 to 48000 Hz
  Effective: 10s to 20000 Hz
- **Time-series Sampling:** High Range: 48000 samples/sec
  Mid-Range: 9600 samples/sec
  Low Range: 120 samples/sec
- **Remote-Base Synchronization:** GPS clocks (10μsec time-accuracy)
- **Samples/Event:** High Range: 1,500,000 samples
  Mid-Range: 1,500,000 samples
  Low Range: 500,000 samples
- **Recording Time:** High Range: min. 4 events @ 30 seconds per event
  Mid Range: min. 2 events @ 2.5 minutes per event
  Low Range: 1.5 events @ 80 minutes for a full event
  (total recording and retrieving time approx. 5 to 7 hours)
- **Post-Processing:** using QGL QuickLay v.2.30
  1) Coherent noise rejection using remote-reference
  2) Proprietary digital filtering (scrubbing)
  3) Coherency sorting
  4) Impedance estimate stacking
- **Final Data Output:** 1) Auto and cross-power spectral estimates
  2) Unrotated (XY & YX) Tensor impedances + errors
  (apparent resistivities and E/H phase – see Figure 6)
- **Final Data Processing:** Edited and un-edited phase & resistivity sounding curves (0.1-10000 Hz @ 8 pts/decade) using Geotools™

[6] *Note: HW model parameters calculated in frequency domain, with hatched green lines corresponding to theoretical HW decay with spectral r-factors of 0.1, 1.0 (default) & 10, k-factor of 0.2 (default) for 800 to 2030msec decay interval, at 30/256Hz.*

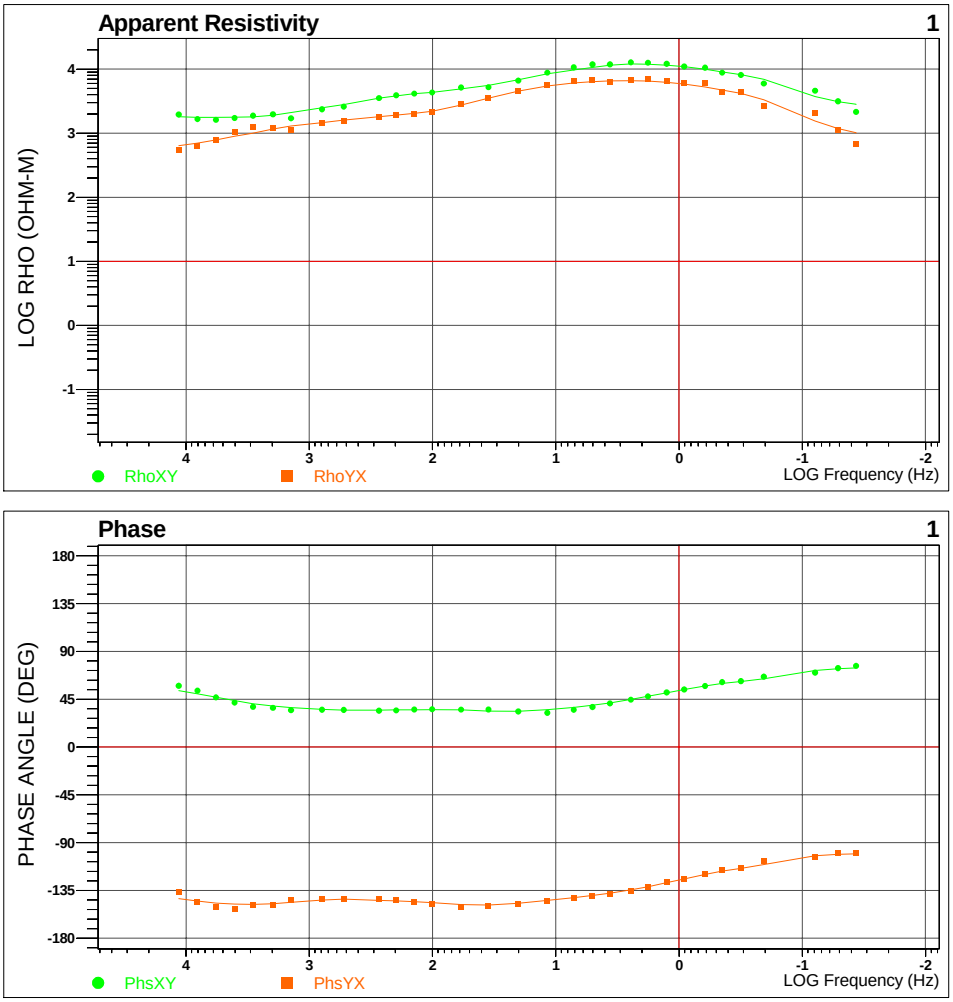


Figure 6: Example of Apparent Resistivity and Phase (XY and YX) Sounding Curves.

3.7 DATA ACCURACY AND REPEATABILITY

3.7.1 DCIP Surveys

ERROR TYPE	PHASE	VOLTAGE
Measured Data average error (csv files) using Halverson-Wait model calculation	< 6.4mrad	0.4%

Table IV: Minimum Errors for DCIP Measurements and Processing

- **Processor Comments:** The DC data quality is generally good but the IP data is of lesser quality, especially beyond an n of 15. The loose, sand-gravel/scree soil affected injection currents, contributing to poor signal to noise at the largest n-spacings. (JM Legault, QGL, pers. comm., Sept-2006).

3.7.2 MT Surveys

- **Parallel Sensor Test:** Test for BF-6 (High to Mid Frequency Range) see Figure 7.
  Test for BF-4 (Low Frequency Range) see Figure 8.
- **Data Error:** Apparent Resistivity = <1/20TH decade avg.
  Phase = <3 degrees avg.

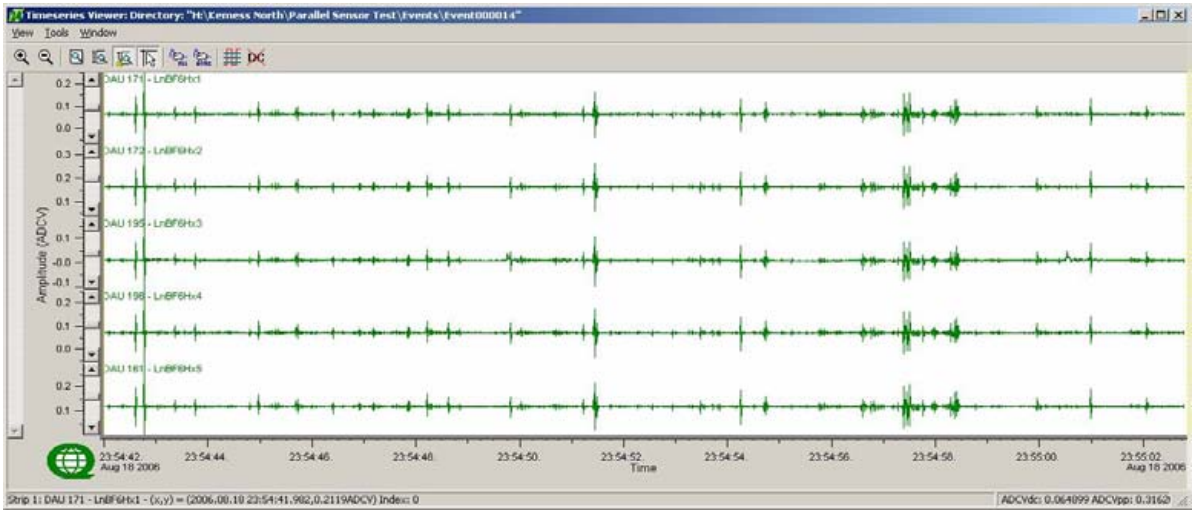


Figure 7: Example of Time Series taken from Parallel Sensor Test (BF-6)

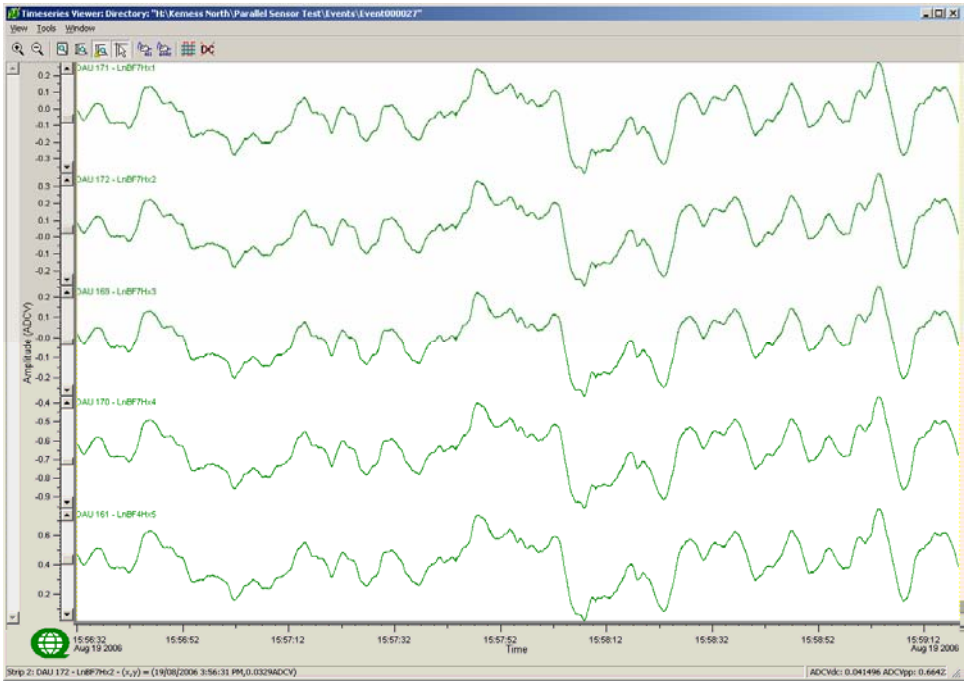


Figure 8: Example of Time Series taken from Parallel Sensor Test (BF-4)

- **Processor Comments:** In general the MT data quality is excellent, with little or no perceptible loss in the dead-band (1k-3k Hz) and at low frequencies (<1 Hz). Mid frequency data was lost for the YX (cross-line) component for sites 1850E and 1950E on line TB; this did not impact the overall data quality since the low and mid-frequency overlaps were sufficient (JM Legault, QGI, pers. comm., Sept-2006).

3.8 DATA PRESENTATION

3.8.1 DCIP Surveys

- **Maps:**

Pseudosections Plots: In-line[7] DC/IP Resistivity and Chargeability Pseudosections, posted, contoured (equal area zoning) and plotted in ground units using QuickLay viewer (Appendix C).

- **Digital:**

Raw data: Raw Event Log File Folders (i.e. Event10001 – 0012.dat). Also contains AU.txt and Event.log files, which contain information on the location and time of the event in QuickLay propriety digital format (output to Matlab format upon request).

Processed data:

DCIP ASCII DATA, in .CSV (comma spaced variables) file format, from QuickLay, containing final processed voltage and phase data (Ex)

Line 1:	Column headings
Column 1:	Event name/number (e.g., Event100020)
Column 2:	Transmitter site ID (e.g., Tx150)
Column 3:	Receiver site ID (e.g., Rx150)
Column 4-11:	C1-C2/P1-P2 positions in X and Y (meters)
Column 12:	Current (amperes)
Column 13:	Current error (amperes)
Column 14:	Normalized voltage (volts/ampere)
Column 15:	Voltage error (volts/ampere)
Column 16:	Phase (milliradians)
Column 17:	Phase error (milliradians)
Column 18:	Apparent resistivity (ohm-metres)[8]

3.8.2 MT Surveys

- **Maps:**

Sounding Curves: MT Apparent Resistivity and Phase (xy and yx) (Appendix D) in log frequency format, using Geotools™ viewer

Pseudosections Plots: MT Apparent Resistivity and Phase Pseudosections (XY, and YX), posted, contoured (equal area zoning) and plotted, in ground units using Geotools™ viewer (Appendix E)

[7] Note: Cross-line (YX) values not shown for presentation purposes.

[8] *Note: Apparent resistivities calculated in 2d space using 4-electrode general array configuration (as per XY electrode positioning in columns 4-11 of csv file) – not based on pole-dipole calculations (K. Nurse, QGL, pers. comm., 07-2004).*

- **Digital:**

Raw data:	Base and Remote Raw Event Log File Folders (i.e. Base - Event10001 – 0012.dat; Remote Event 0012 – 0034.dat). Also contains AU.txt and Event.log files, which contain information on the location and time of the event in QuickLay propriety digital format (output to Mat-lab format upon request).
Processed data:	MT DATA, in .EDI (electronic data interchange) file, created in Geotools™ containing tensor sounding data (XY & YX)[9], for individual stations (sites) and profiles (site-sets), in a format conforming to SEG standard for the storage MT data.

RESPECTFULLY SUBMITTED
QUANTEC GEOSCIENCE LTD.

Ken Nurse,
In-field Data Processor - QGL

Jean M. Legault, M.Sc., P.Eng., P.Geo.
Senior Geophysicist - QGL

Julie Milne
Data Processor - QGL

September, 2006
Toronto, ON

3.9 REFERENCES

1. Halverson, M.O., Zinn, W.G., McAlister, E.O., Ellis, R., and Yates, W.C. (1981). Assessment of results of broad-band spectral IP field test. In: Advances in Induced Polarization and Complex Resistivity, pp.295-346, University of Arizona.
2. Johnson, I.M (1984). Spectral induced polarization parameters as determined through time-domain measurements. Geophysics, v. 49, pp. 1993-2003.
3. Pelton, W.H., Ward, S.H., Hallof, P.G., Sill, W.R. and Nelson, P.H. (1978). Mineral discrimination and removal of inductive coupling with multi-frequency IP. Geophysics, v.43, pp.588-609.

[9] *XY denotes in-line electrical (E) field and orthogonal magnetic (H) field (Ex/Hy). YX denotes in-line H field and orthogonal E-field (Ey/Hx).*

APPENDIX A: STATEMENT OF QUALIFICATIONS

I, Jean M. Legault, declare that:

1. I am a consulting geophysicist with residence in Waterdown, Ontario and am presently employed in this capacity with Quantec Geoscience Ltd., Toronto, Ontario.

2. I obtained a Bachelor's Degree, with Honours, in Applied Science (B.A.Sc.), Geological Engineering (Geophysics Option), from Queen's University at Kingston, Ontario, in Spring of 1982. I also obtained a Master's of Applied Science (M.A.Sc.), in geophysics, at Ecole Polytechnique de Montreal, Quebec, in Spring, 2005.

3. I am a registered professional engineer (# 90531542), since 1985, and a registered professional geoscientist (#0948), since 2003, with license to practice in the Province of Ontario. I have obtained a permit for incidental practice in the province of Quebec with OGQ.

4. I have practiced my profession continuously since May, 1982, in North-America, Europe, South-America, North-Africa and Asia.

5. I am a member of the Association of Professional Geoscientists of Ontario, the Association of Professional Engineers of Ontario, the Association des Explorateurs du Quebec, the Prospectors and Developers Association of Canada, and the Canadian Exploration Geophysics Society (KEGS).

6. I have no interest, nor do I expect to receive any interest in the properties or securities of **Northgate Minerals Corp.,** its subsidiaries or its joint-venture partners.

7. I am the project supervisor, in charge of data acquisition quality control and qualified person for this project. I have reviewed the logistics report and survey results and can attest that these accurately and faithfully reflect the data acquired on site. The statements made in this report represent my professional opinion based on my consideration of the information available to me at the time of writing this report.

Toronto, Ontario
September, 2006

Jean M. Legault, M.Sc.A., P.Eng., P.Geo. (ON)
Senior Geophysicist
Quantec Geoscience Ltd.

APPENDIX A: STATEMENT OF QUALIFICATIONS

I, Ken Nurse, declare that:

1. I am a earth scientist with residence in Lynden, Ontario and am presently employed in this capacity with Quantec Geoscience Ltd., Toronto, Ontario.

2. I obtained an Honours Bachelor's Degree in Science (HBSc.), Geophysics (Geology Option), from the University of Western Ontario in London, ON, in 1988. I obtained a Master's Degree in Science (MSc.), Physics (Geophysics), from the University of Toronto in Toronto, Ontario in 1992

3. I have practiced my profession continuously since May 1988.

4. I have no interest, nor do I expect to receive any interest in the properties or securities of **Northgate Minerals Corp.,** its subsidiaries or its joint-venture partners.

5. I was the in-field data processor and am also responsible for the present logistics report and all the images contained. I attest that they are accurate and represent the results obtained in the field. The statements made in this report represent my professional opinion based on my consideration of the information available to me at the time of writing this report.

Toronto, Ontario
September, 2006

Ken Nurse MSc
Geophysicist
Quantec Geoscience Ltd.

APPENDIX B: PRODUCTION SUMMARY

DATE	DESCRIPTION	LINE	START	END	READ (m)		TOTAL (km)	
					MT	IP	MT	IP
Kemess North Project								
Aug 12/06	Mob #1: Timmins – Ignace	****	****	****	****	****		
Aug 13/06	Mob #1: Ignace – Regina	****	****	****	****	****		
Aug 14/06	Mob #1: Regina – Edmonton	****	****	****	****	****		
Aug 15/06	Mob #1: Edmonton – Prince George	****	****	****	****	****		
Aug 16/06	Mob #1: Layover in PG	****	****	****	****	****		
Aug 17/06	Mob #1: Prince George – Kemess Mine Mob #2: Toronto – Kemess Mine	****	****	****	****	****		
Aug 18/06	Safety Induction at Mine Line Setup Parallel Sensor Test	****	****	****	****	****		
Aug 19/06	Line Setup Remote site installation **Read MT**	Titan A Spread 1	3+00E	27+00E	2400	****	2.4	
Aug 20/06	**Read IP**	Titan A Spread 1	3+00E	27+00E	****	2400	2.4	2.4
Aug 21/06	Spread move	Titan A Spread 1-2	****	****	****	****	2.4	2.4
Aug 22/06	**Read IP – ¾** **Read MT**	Titan A Spread 2	25+00E	51+00E	2600	1800	5.0	4.2
Aug 23/06	**Read IP – ¼** Spread Move	Titan A Spread 2	25+00E	51+00E	****	800	5.0	5.0
Aug 24/06	Spread Move **Read MT**	Titan B	1+00E	25+00E	2400	****	7.4	5.0
Aug 25/06	IP Transmitter down **Read more MT**	Titan B	1+00E	25+00E	****	****	7.4	5.0
Aug 26/06	IP Transmitter down	Titan B	1+00E	25+00E	****	****	7.4	5.0
Aug 27/06	**Read IP**	Titan B	1+00	25+00E	****	2400	7.4	7.4
Aug 28/06	Spread Move	Titan C	1+00N	25+00N	****	****	7.4	7.4
Aug 29/06	**Read IP – ½** **Read MT**	Titan C	1+00N	25+00N	2400	1200	9.8	8.6
Aug 30/06	**Read IP – ½** Line Tear down	Titan C	1+00N	25+00N	****	1200	9.8	9.8
Aug 31/06	Demob	****	****	****	****	****	9.8	9.8

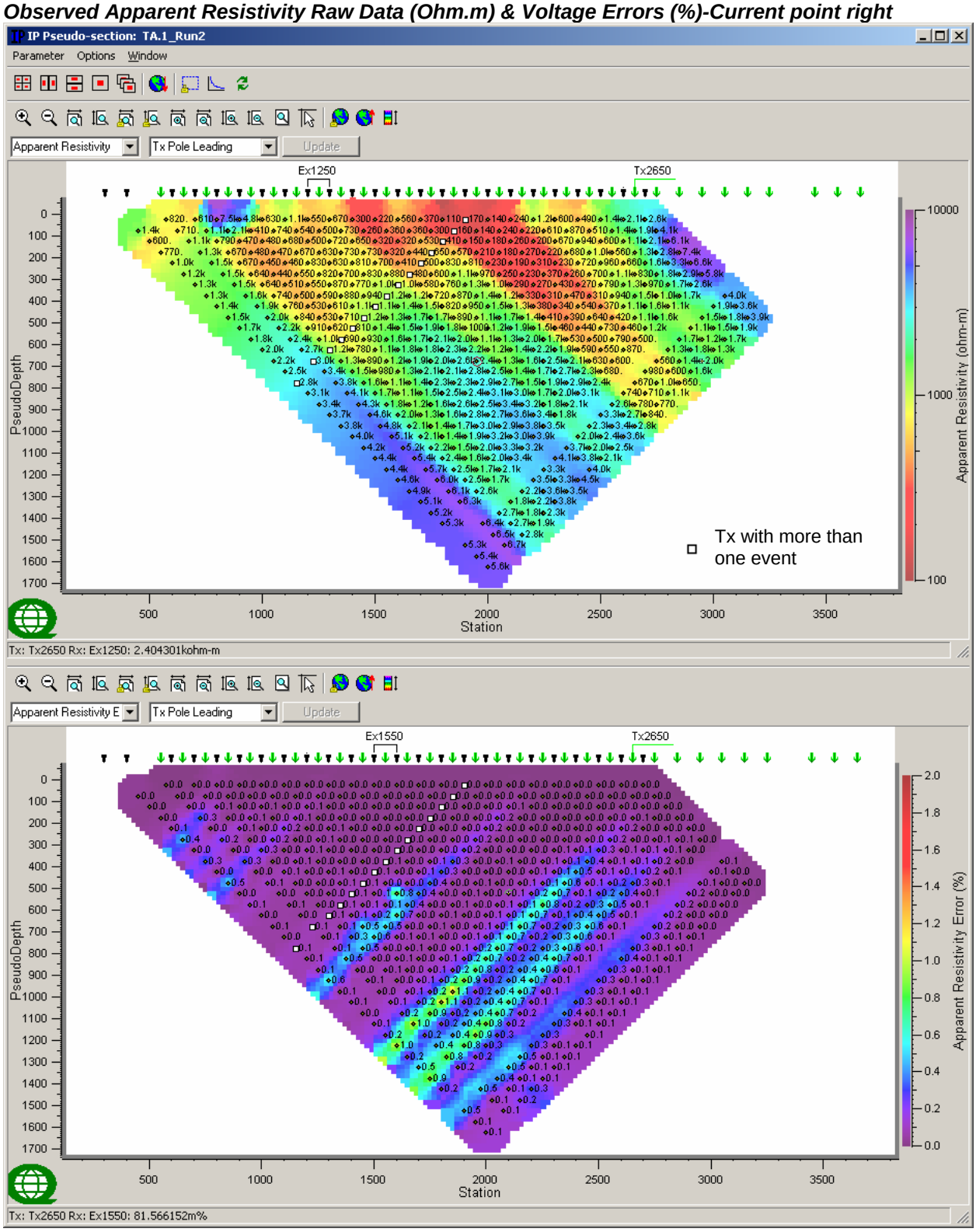
Survey days: 9
Weather days: 0
Mob-Demob days: 7
Line Setup/pickup: 2
Down days: 2
Total Days: 20

TOTAL PRODUCTION:
MT: 9.8km
IP: 9.8km

APPENDIX C – IP PSEUDOSECTIONS

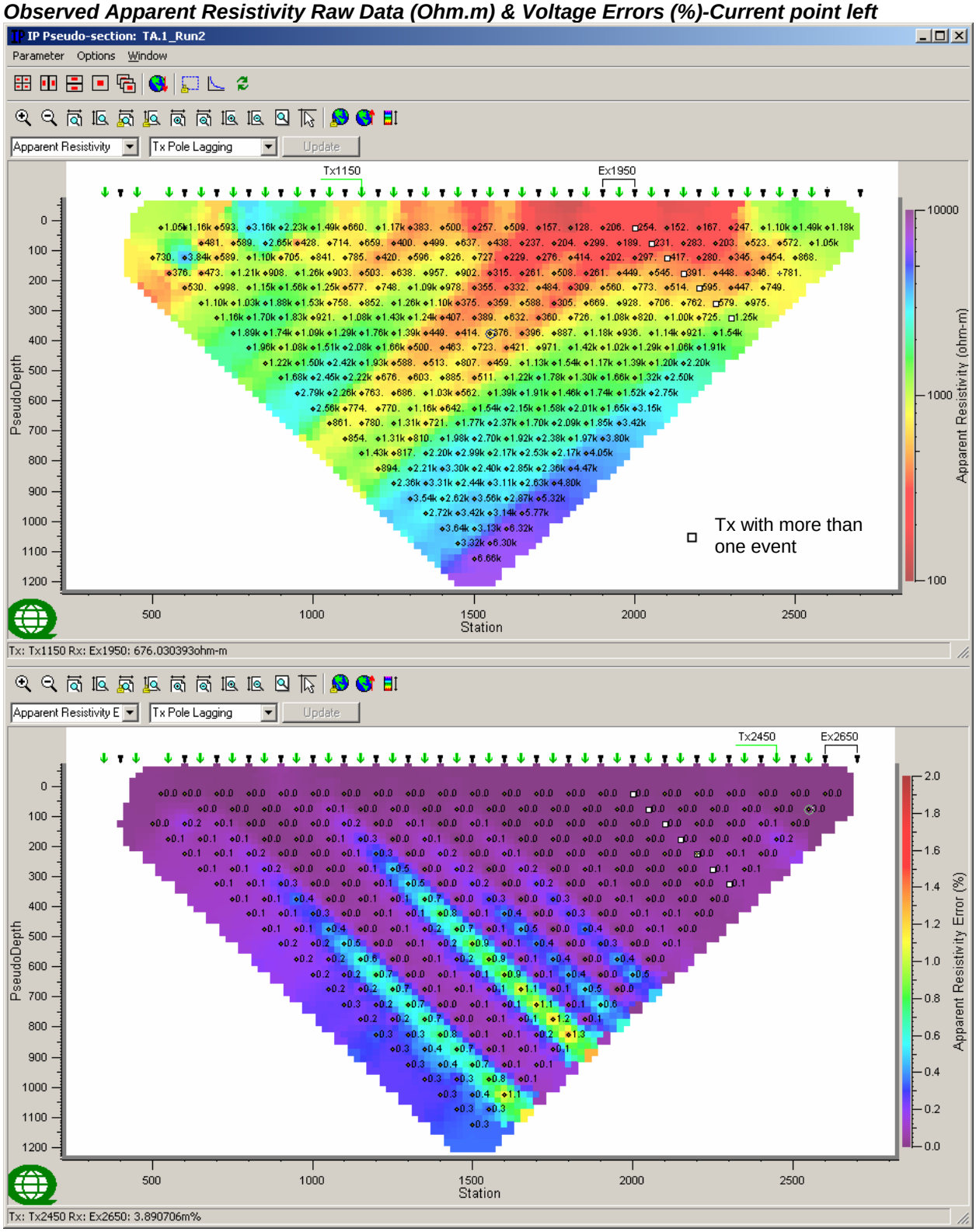
LINE TITAN A - SPREAD 1

Observed Apparent Resistivity Raw Data (Ohm.m) & Voltage Errors (%)-Current point right



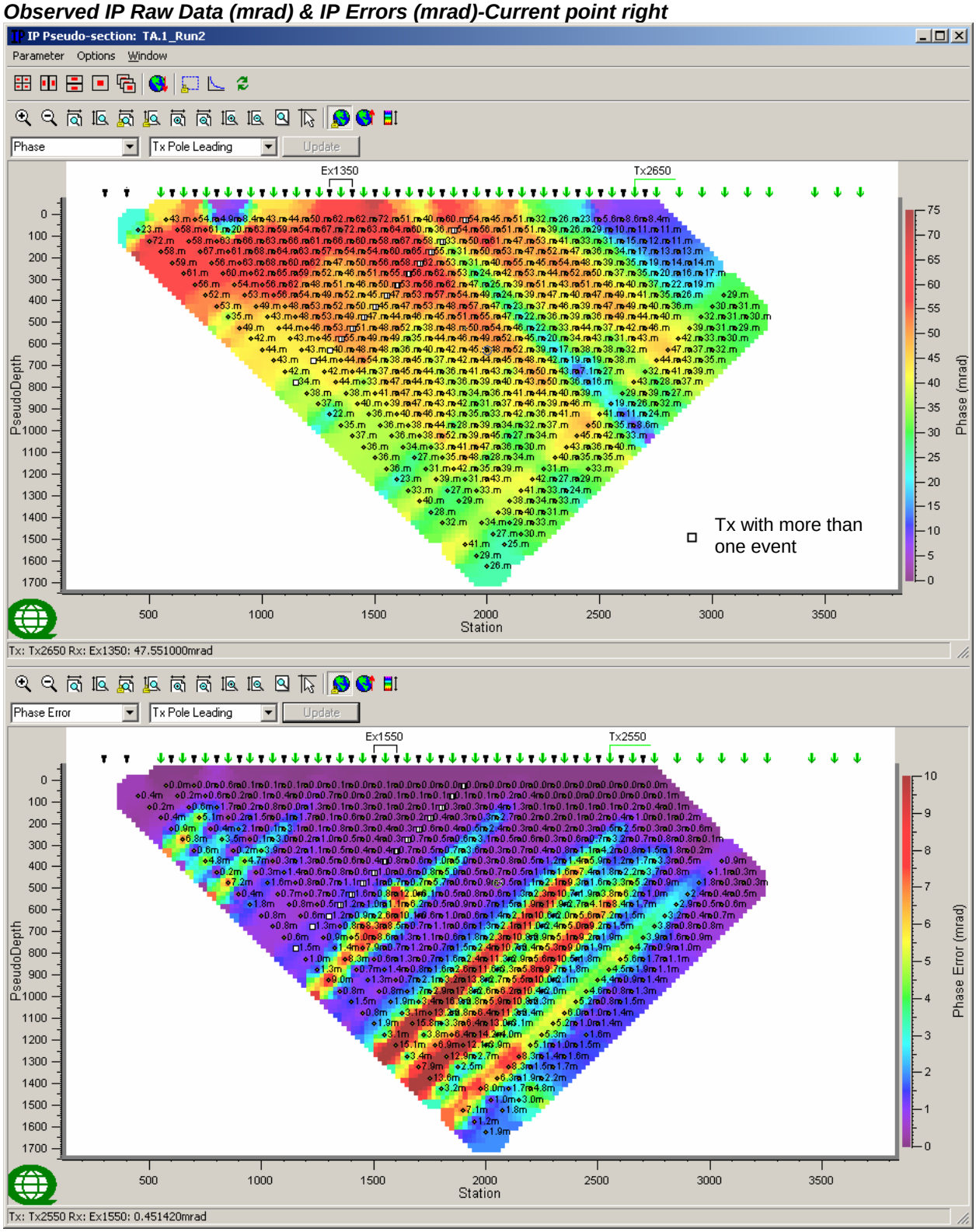
LINE TITAN A - SPREAD 1

Observed Apparent Resistivity Raw Data (Ohm.m) & Voltage Errors (%)-Current point left



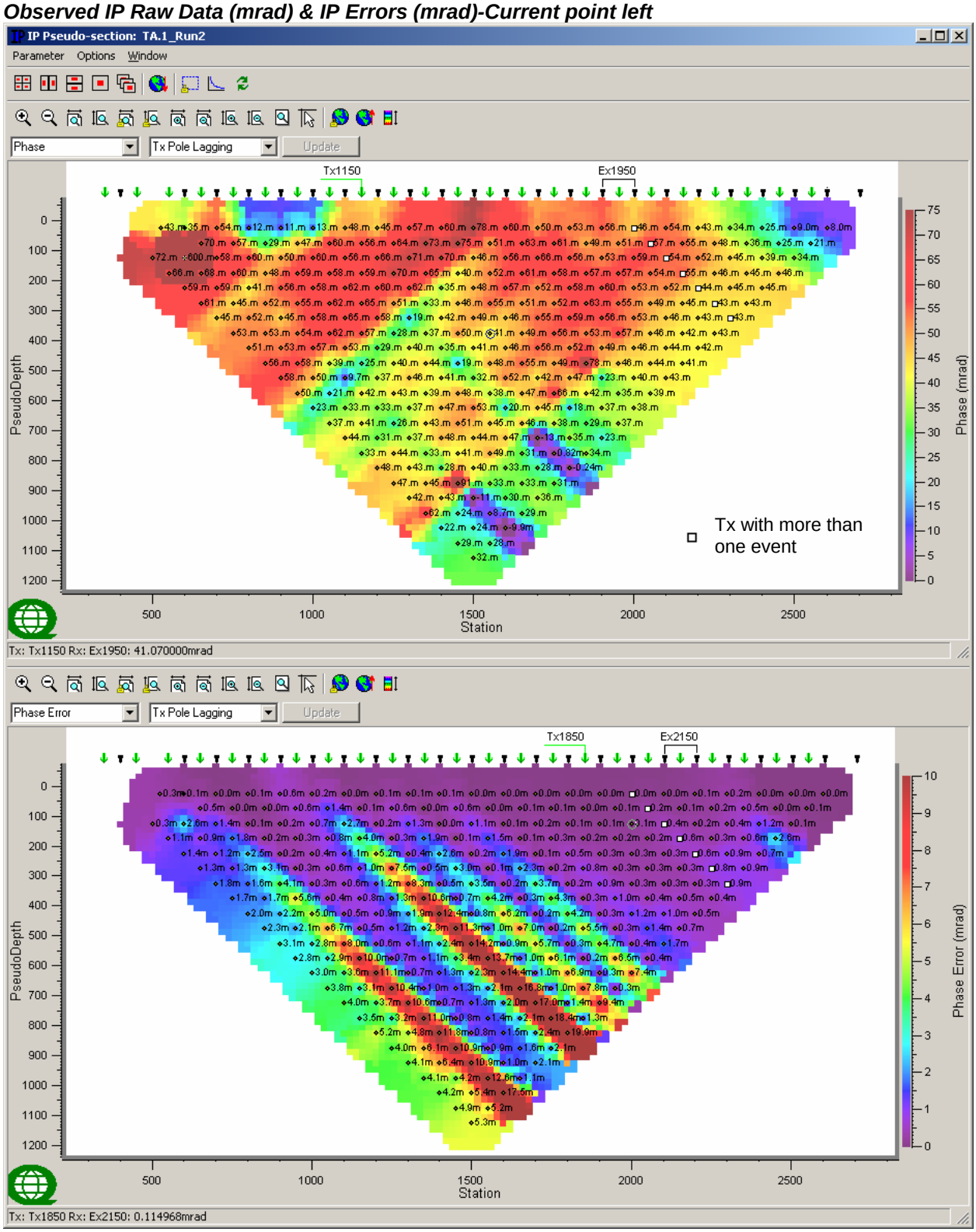
LINE TITAN A - SPREAD 1

Observed IP Raw Data (mrad) & IP Errors (mrad)-Current point right



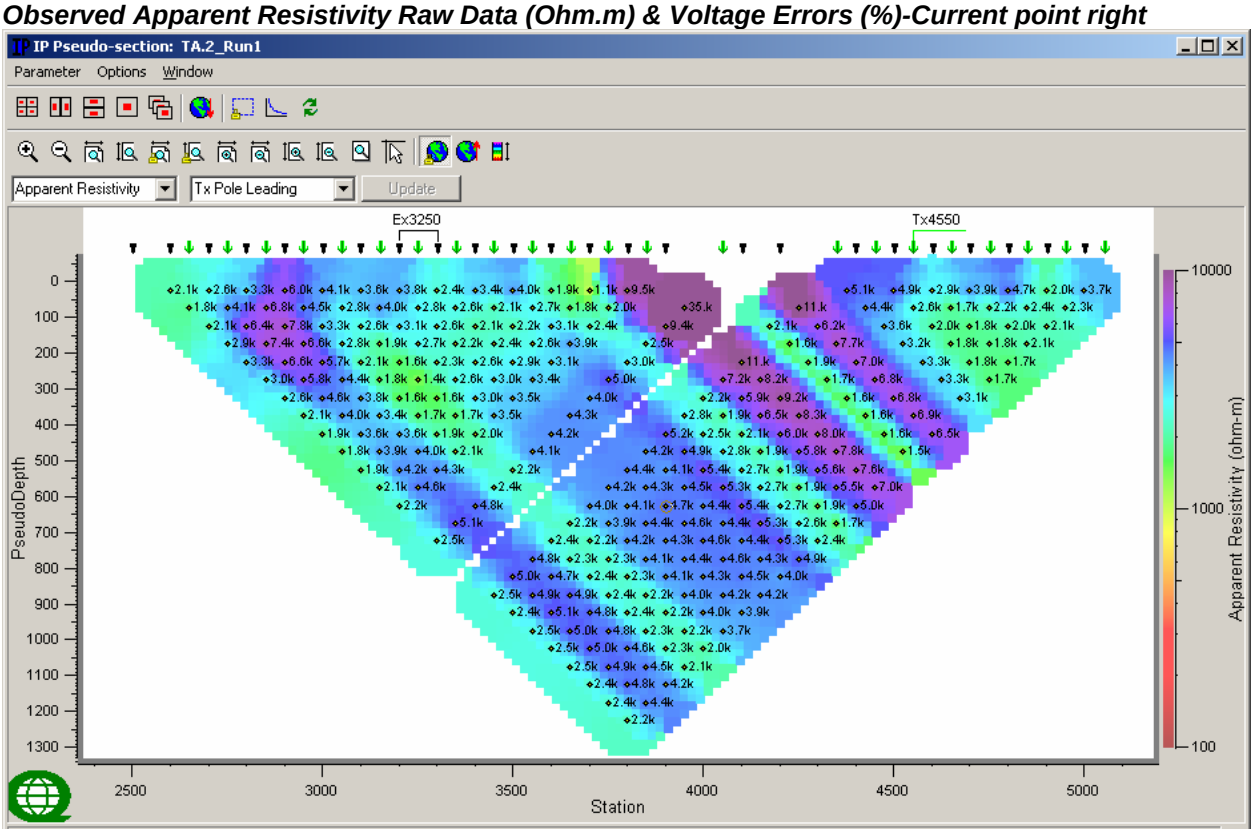
LINE TITAN A - SPREAD 1

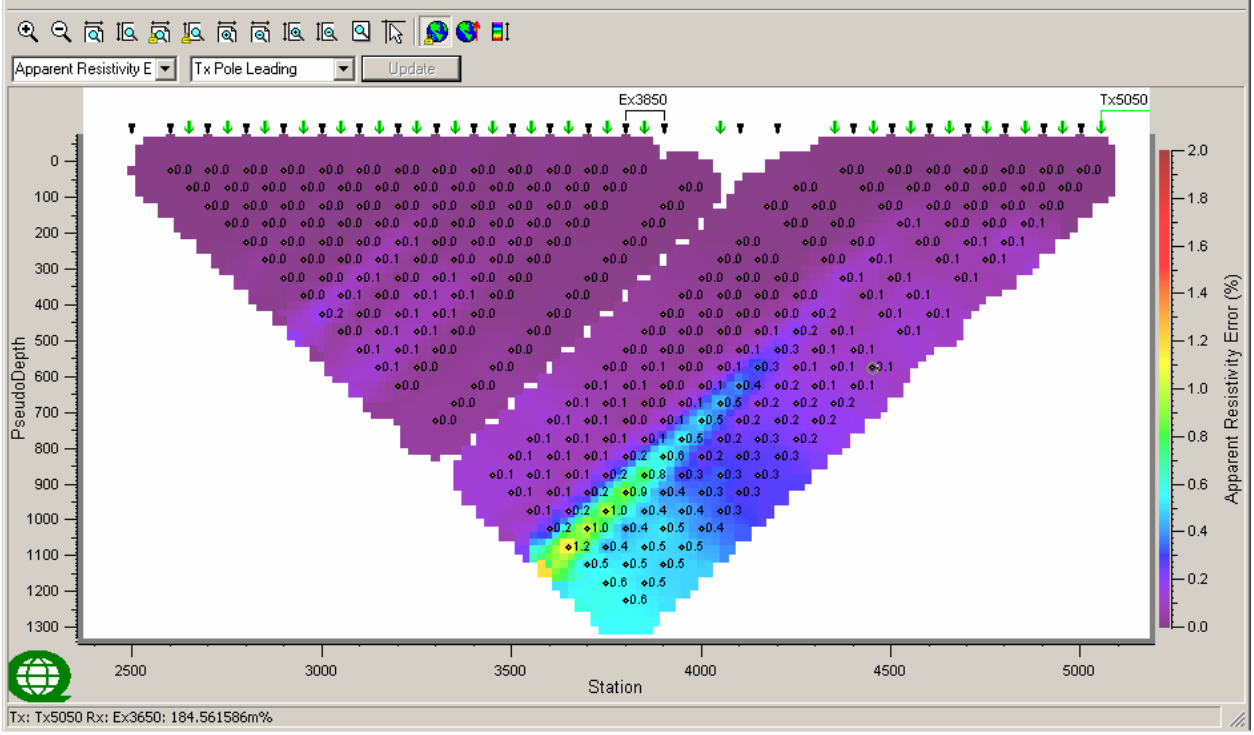
Observed IP Raw Data (mrad) & IP Errors (mrad)-Current point left



LINE TITAN A - SPREAD 2

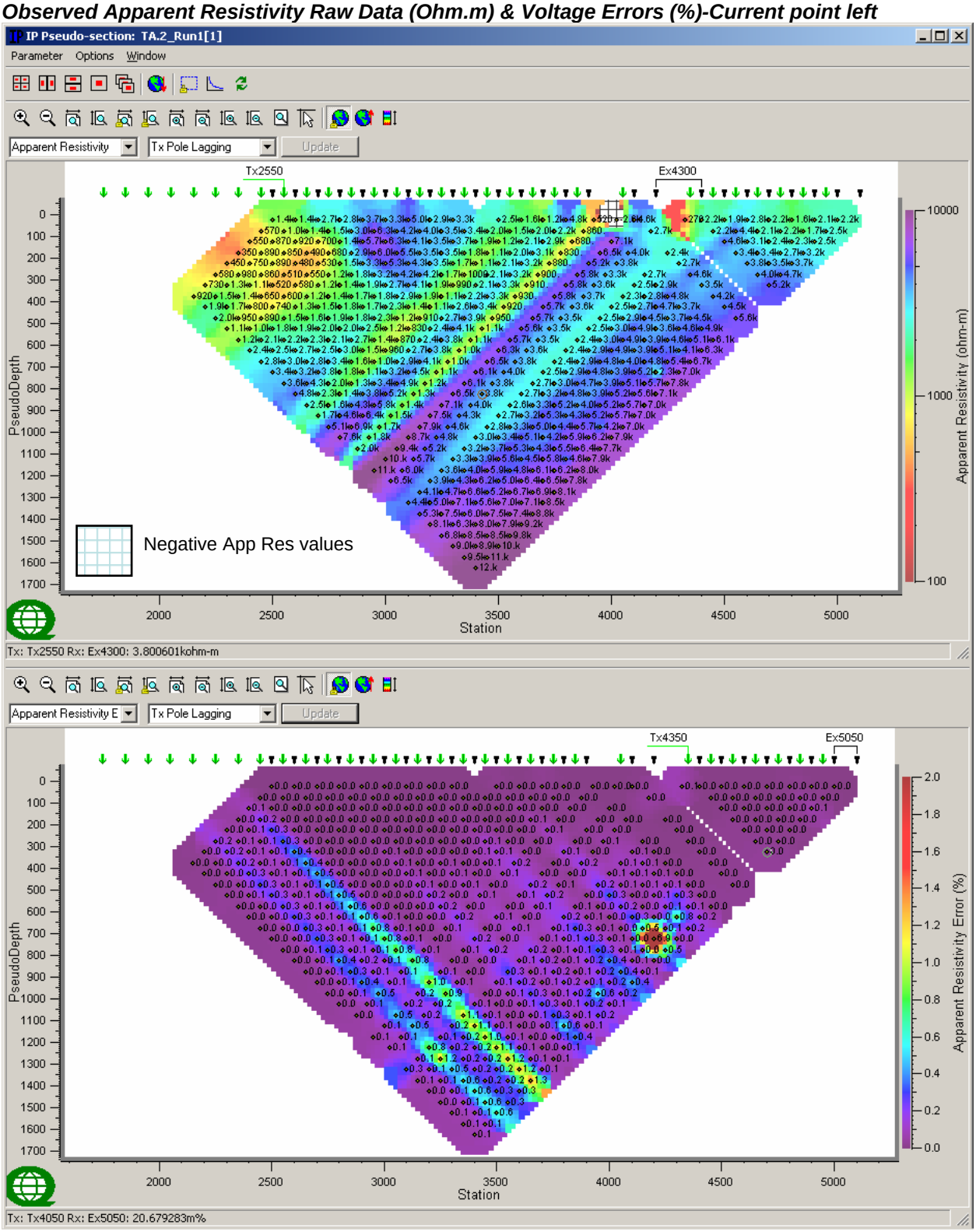
Observed Apparent Resistivity Raw Data (Ohm.m) & Voltage Errors (%)-Current point right





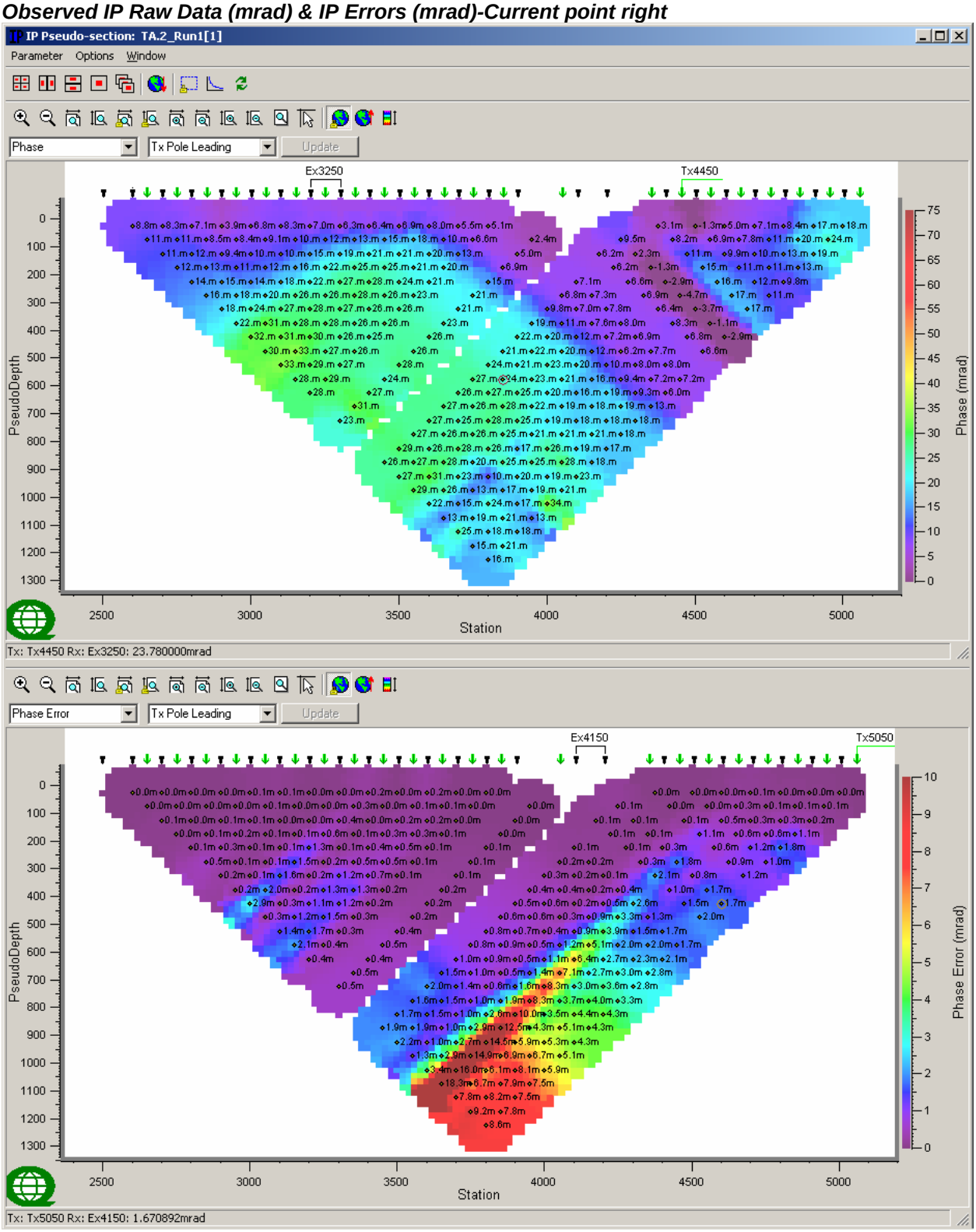
LINE TITAN A - SPREAD 2

Observed Apparent Resistivity Raw Data (Ohm.m) & Voltage Errors (%)-Current point left



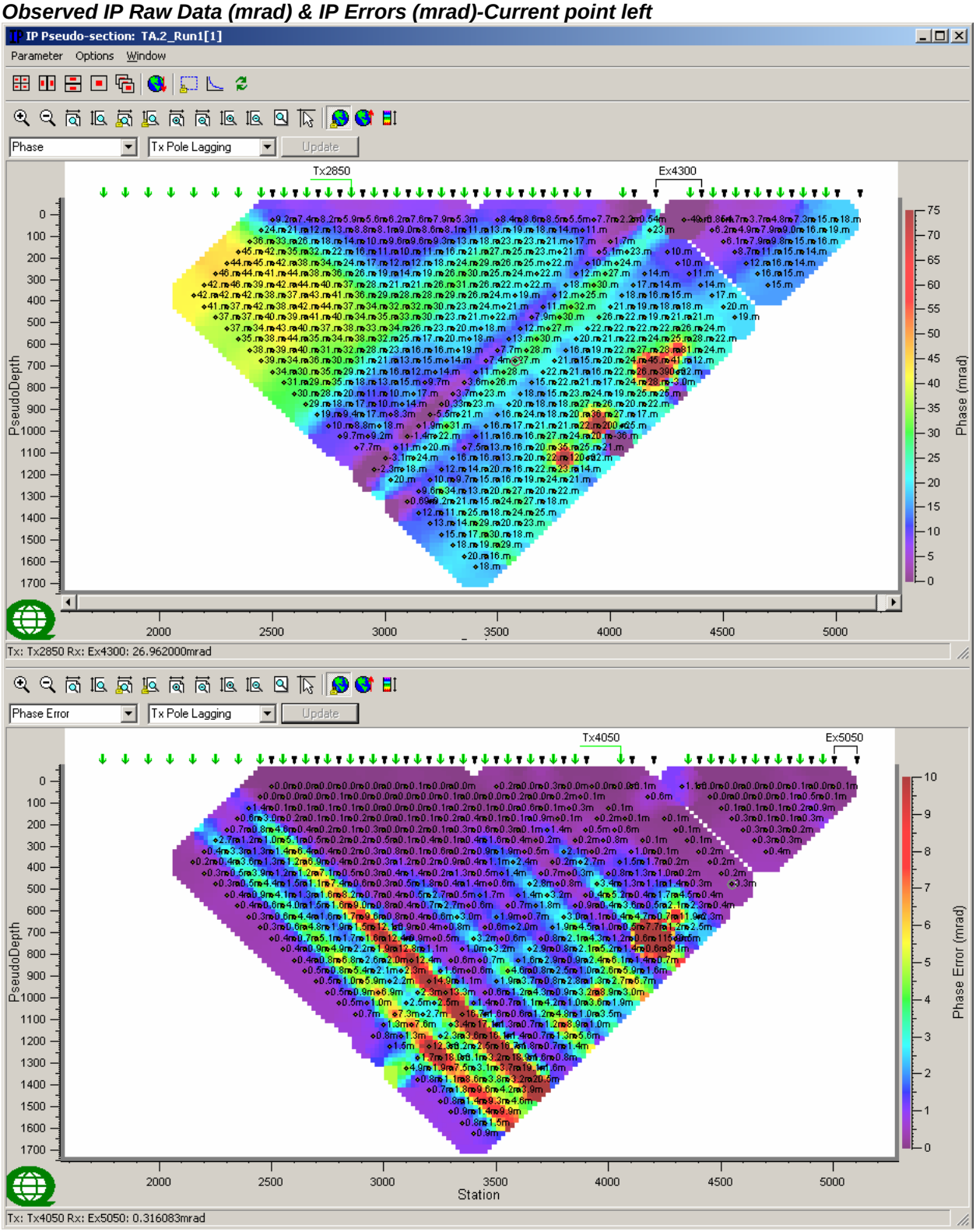
LINE TITAN A - SPREAD 2

Observed IP Raw Data (mrad) & IP Errors (mrad)-Current point right



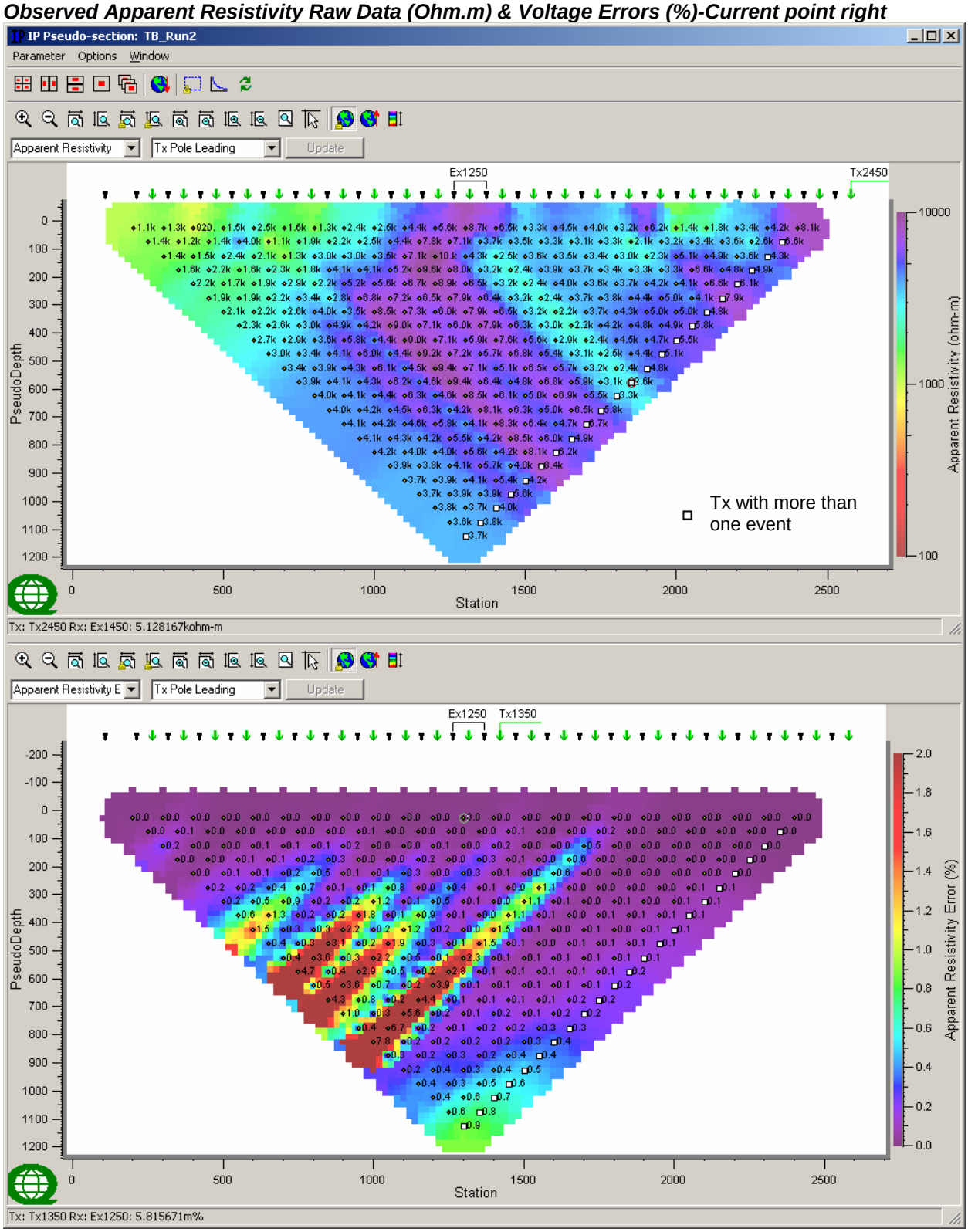
LINE TITAN A - SPREAD 2

Observed IP Raw Data (mrad) & IP Errors (mrad)-Current point left



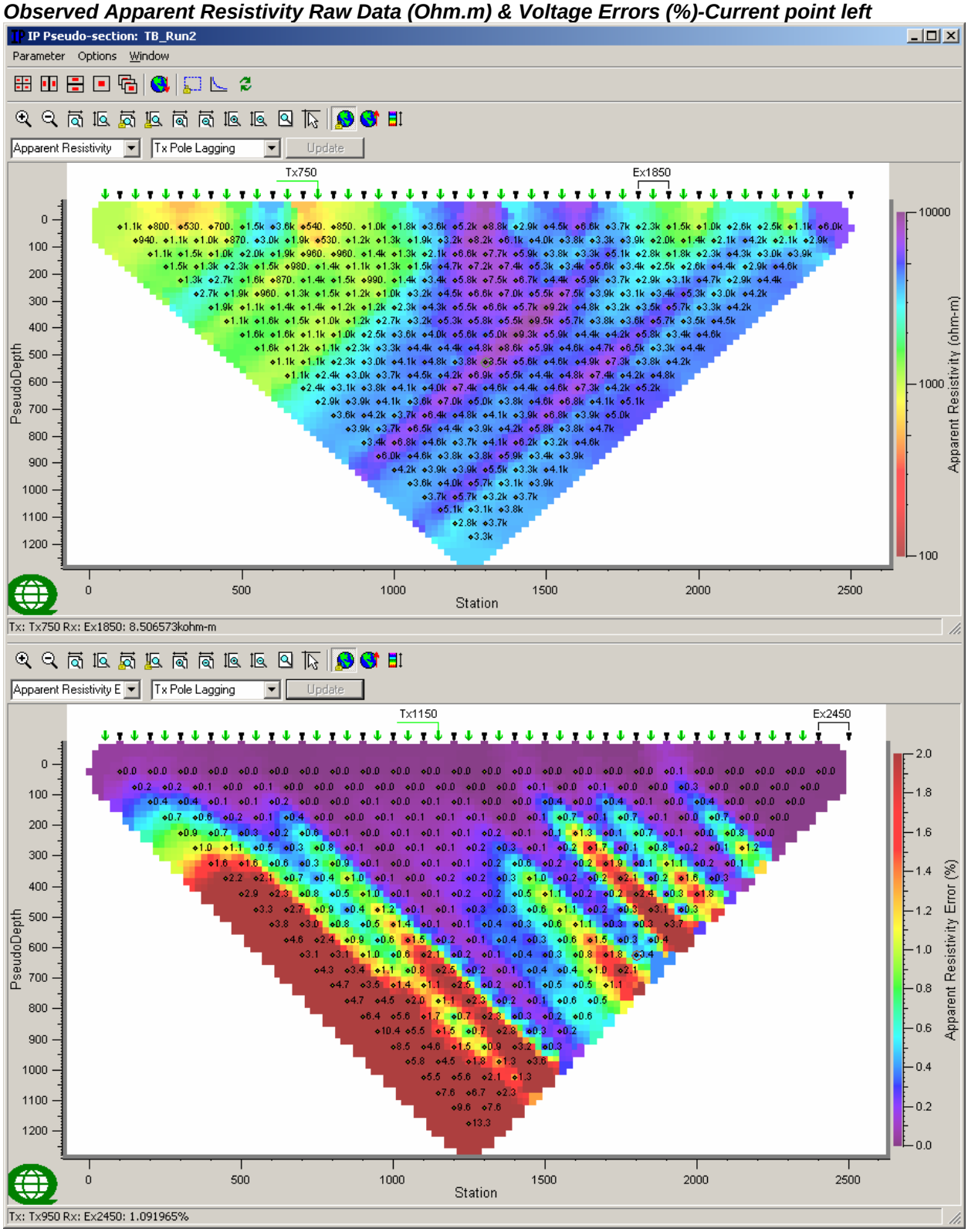
LINE TITAN B

Observed Apparent Resistivity Raw Data (Ohm.m) & Voltage Errors (%)-Current point right



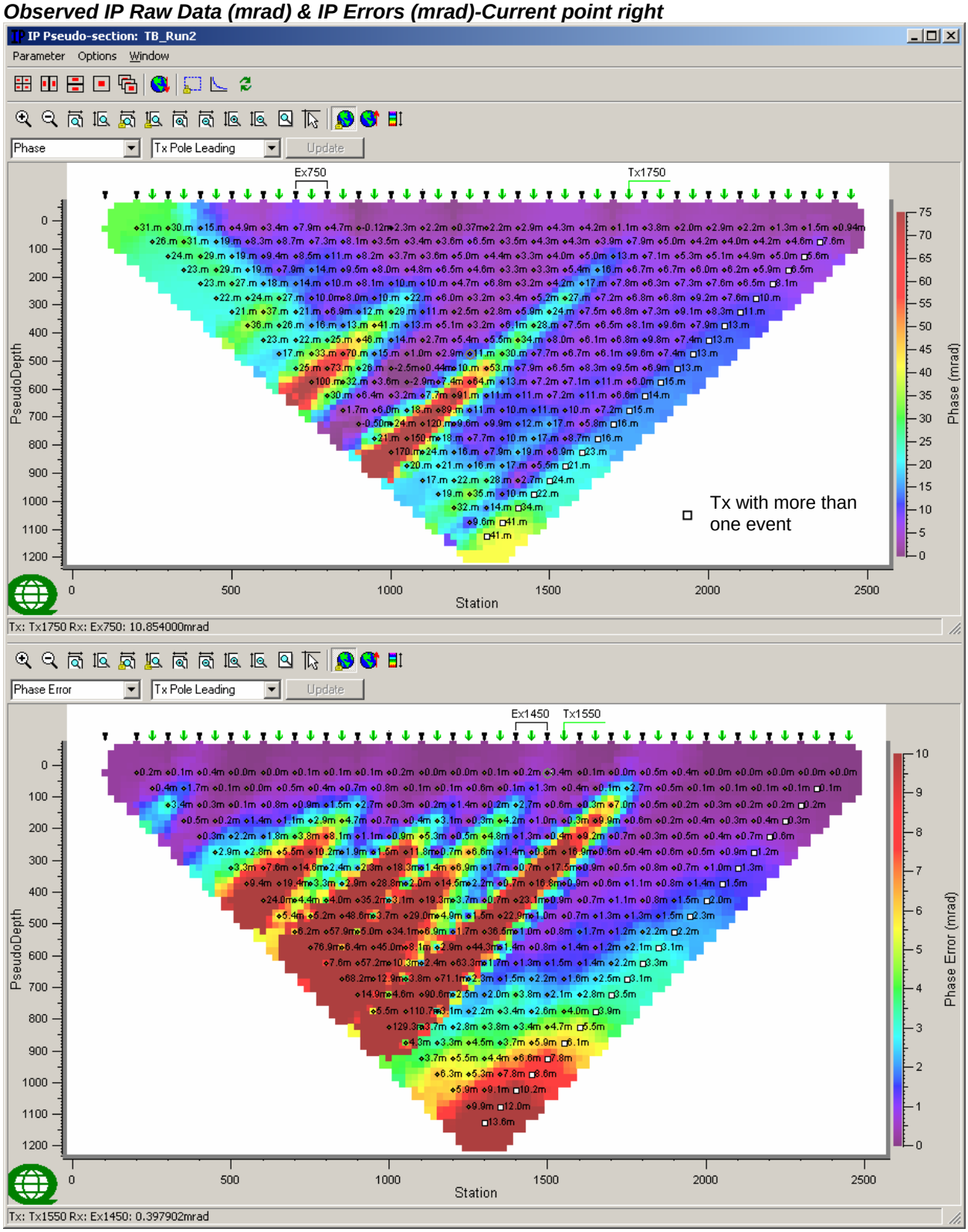
LINE TITAN B

Observed Apparent Resistivity Raw Data (Ohm.m) & Voltage Errors (%)-Current point left



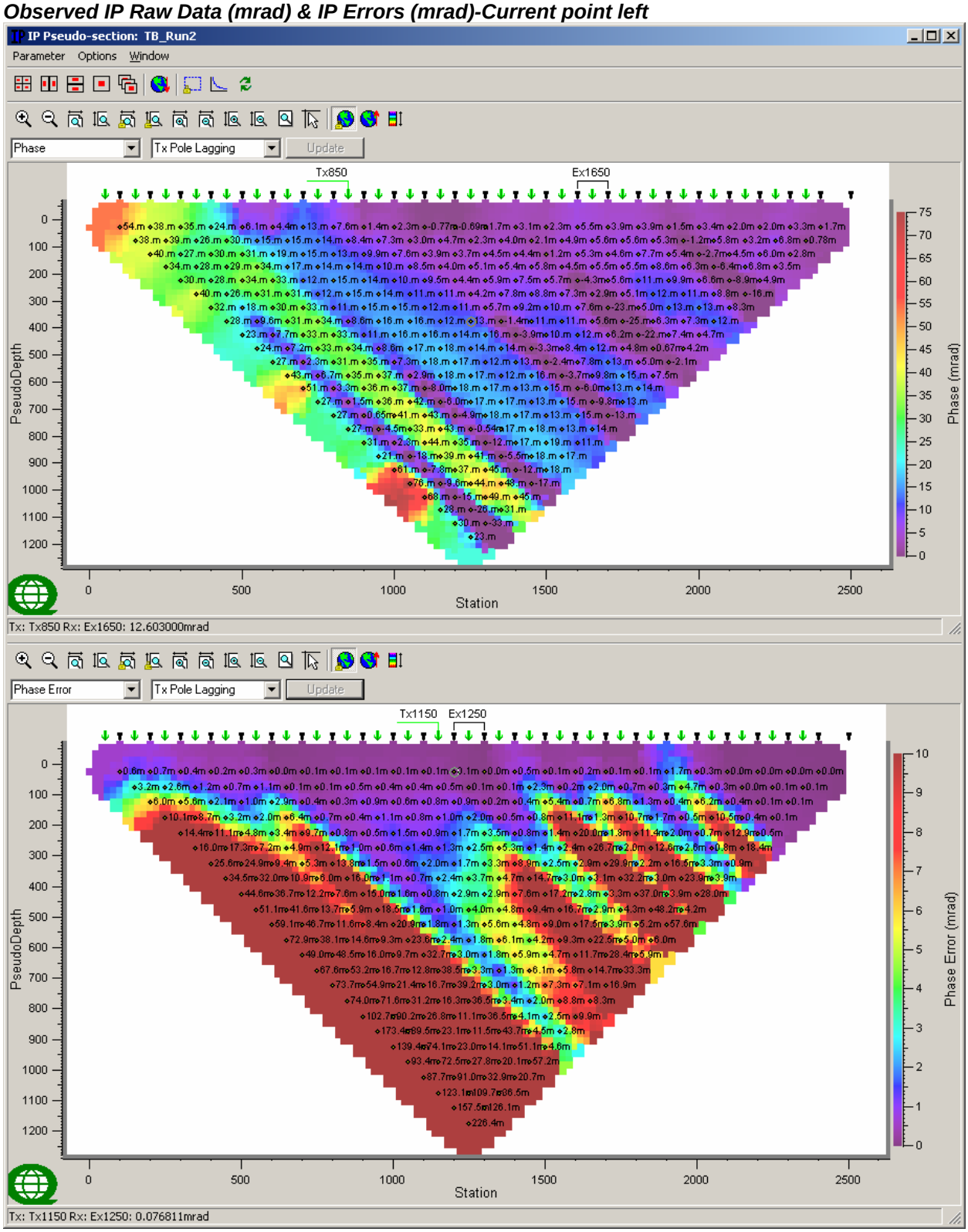
LINE TITAN B

Observed IP Raw Data (mrad) & IP Errors (mrad)-Current point right



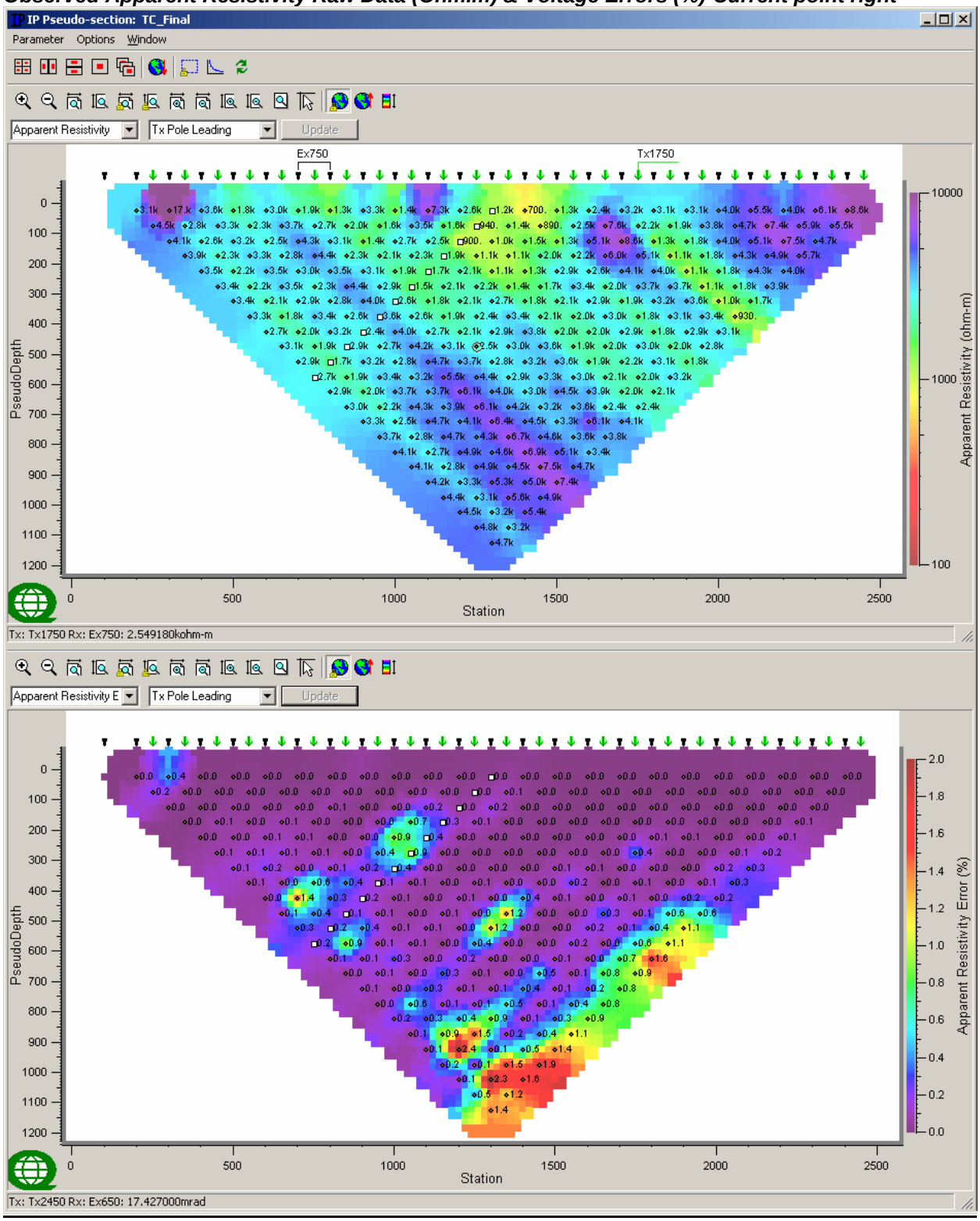
LINE TITAN B

Observed IP Raw Data (mrad) & IP Errors (mrad)-Current point left



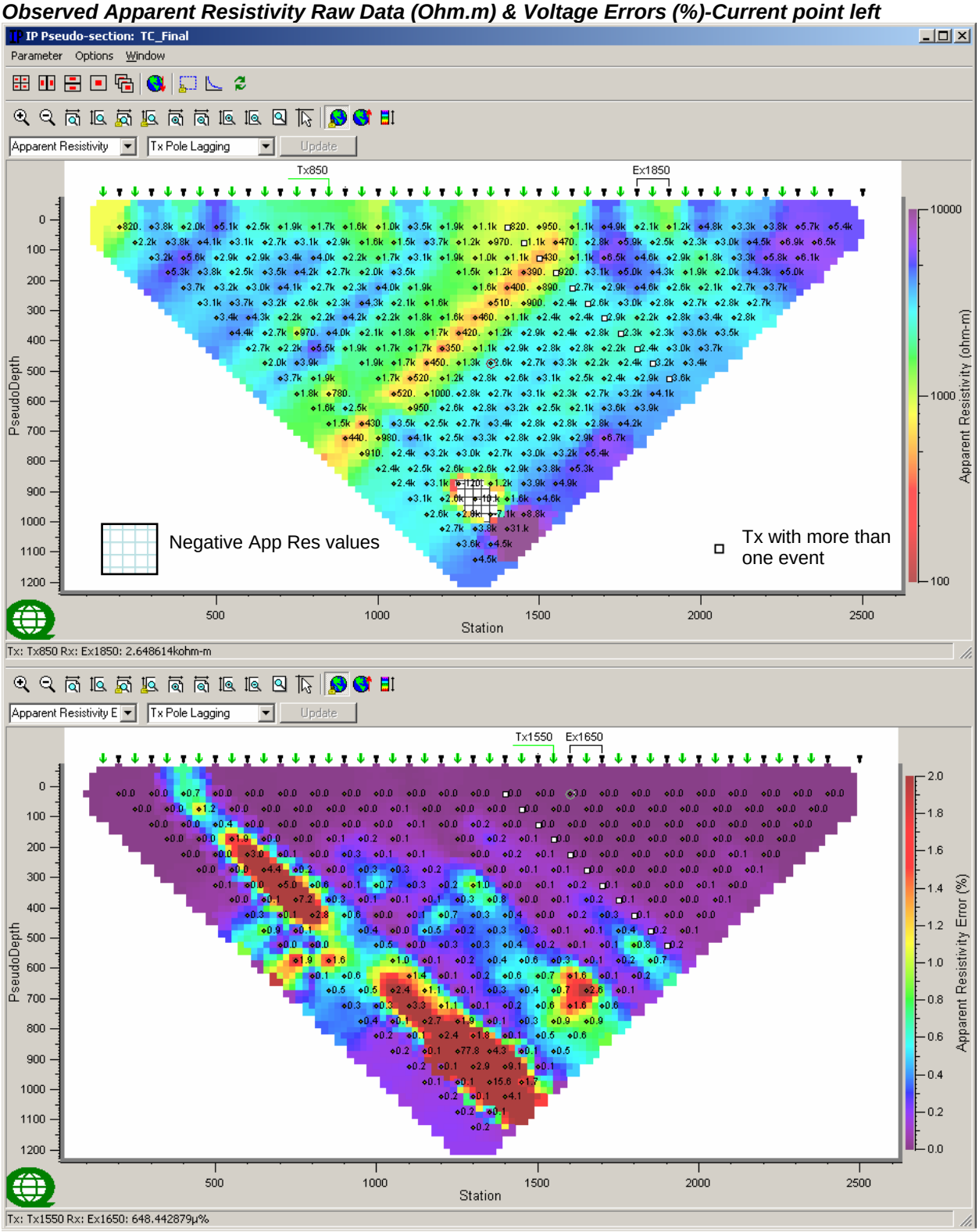
LINE TITAN C

Observed Apparent Resistivity Raw Data (Ohm.m) & Voltage Errors (%)-Current point right



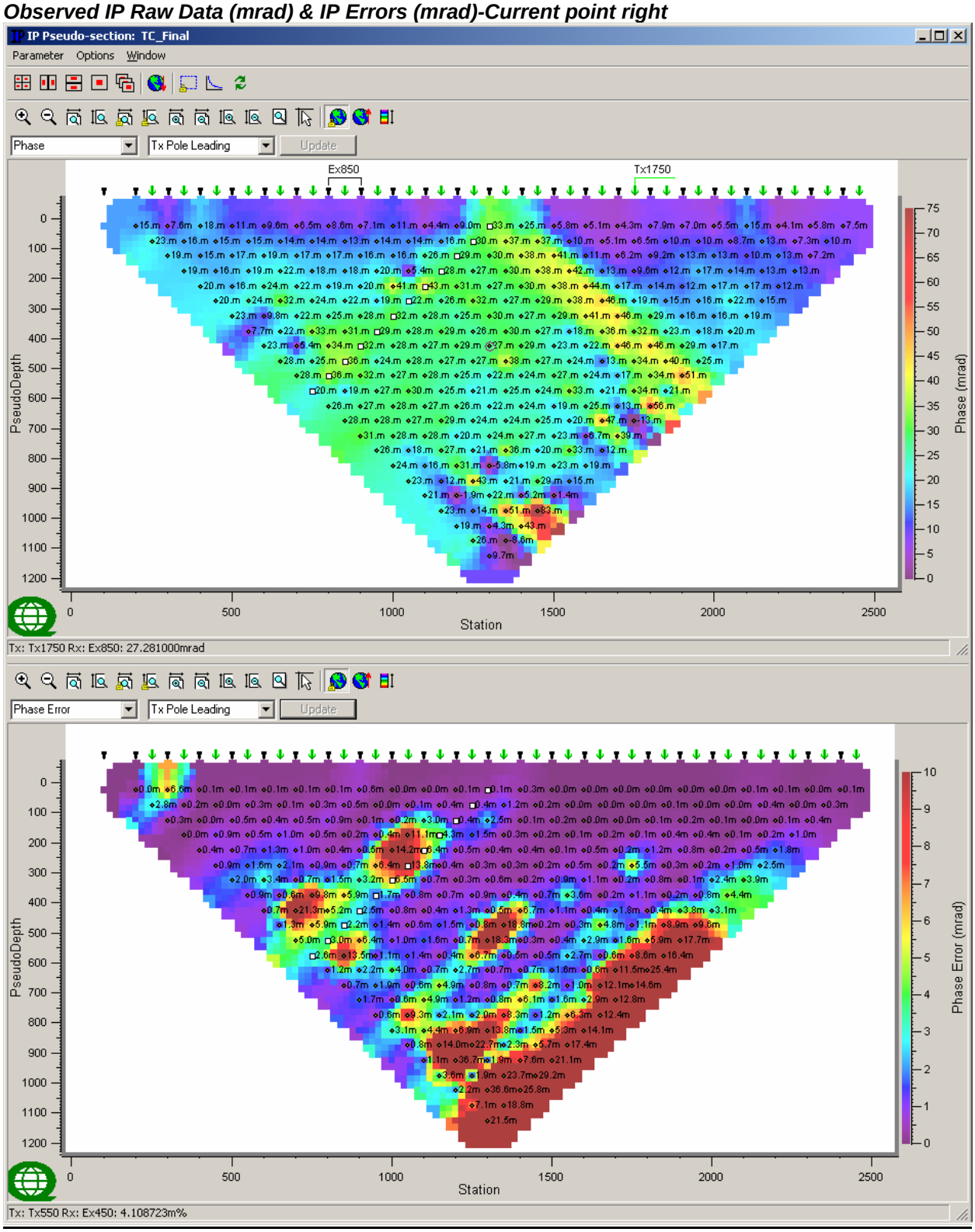
LINE TITAN C

Observed Apparent Resistivity Raw Data (Ohm.m) & Voltage Errors (%)-Current point left



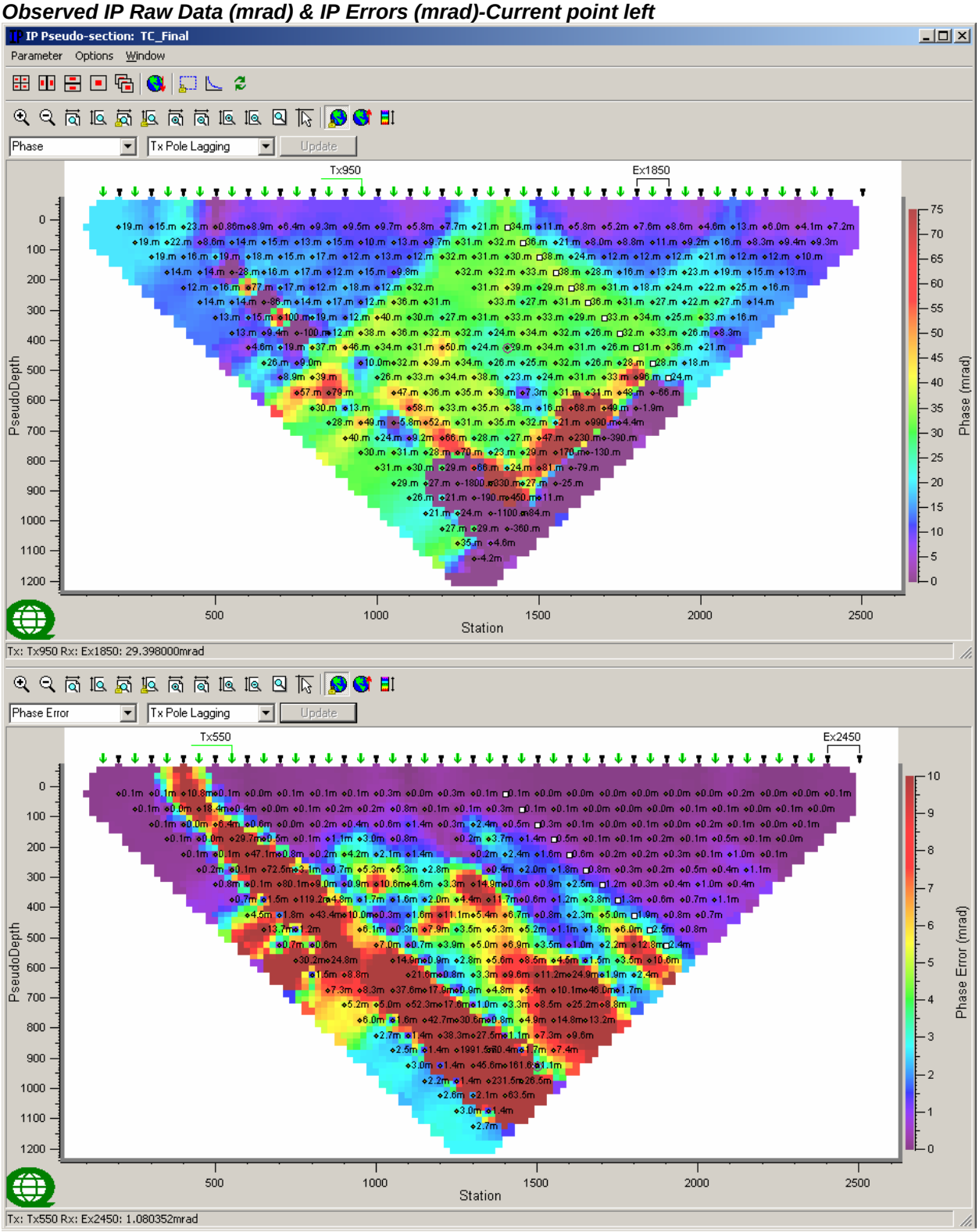
LINE TITAN C

Observed IP Raw Data (mrad) & IP Errors (mrad)-Current point right



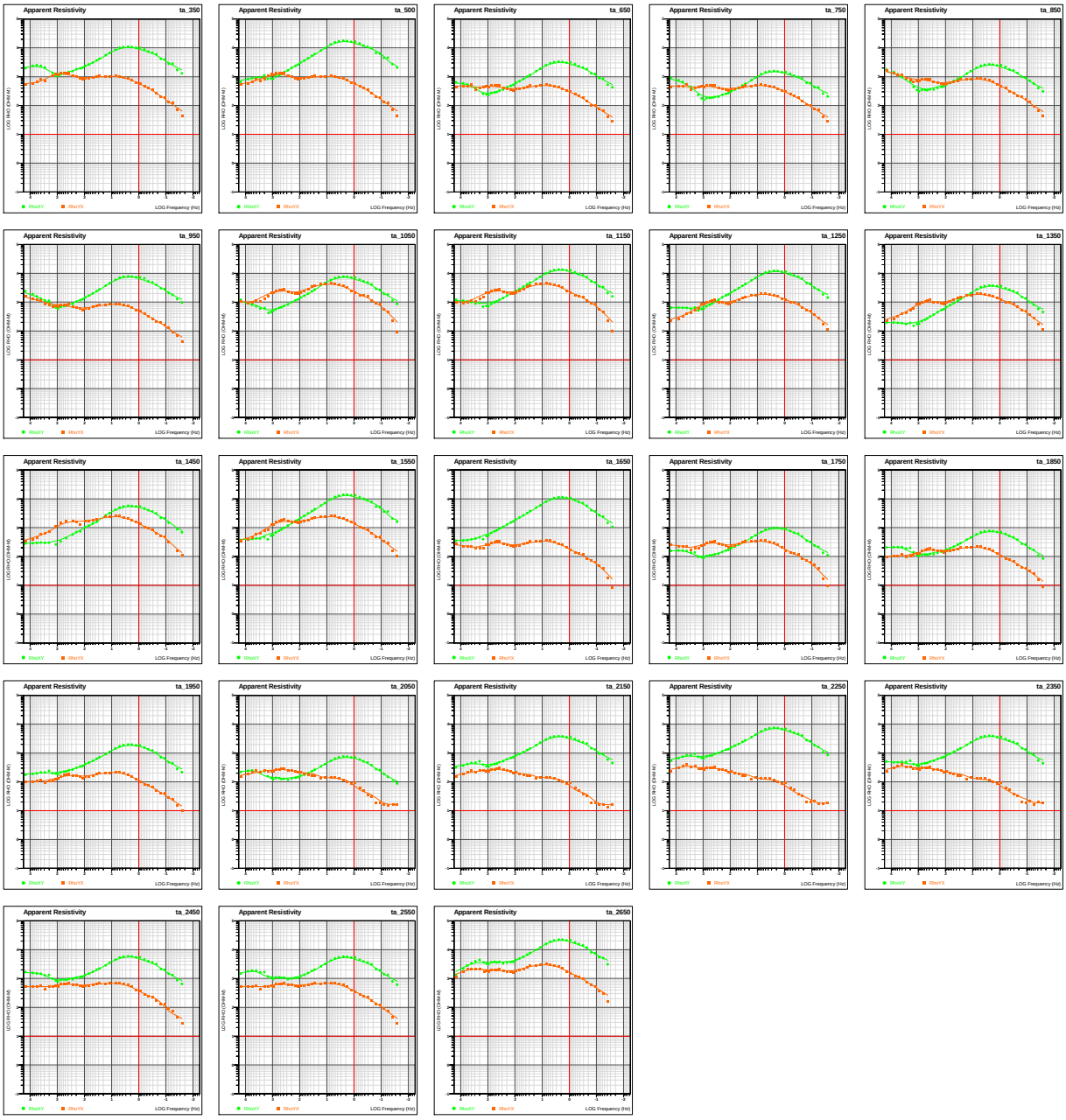
LINE TITAN C

Observed IP Raw Data (mrad) & IP Errors (mrad)-Current point left



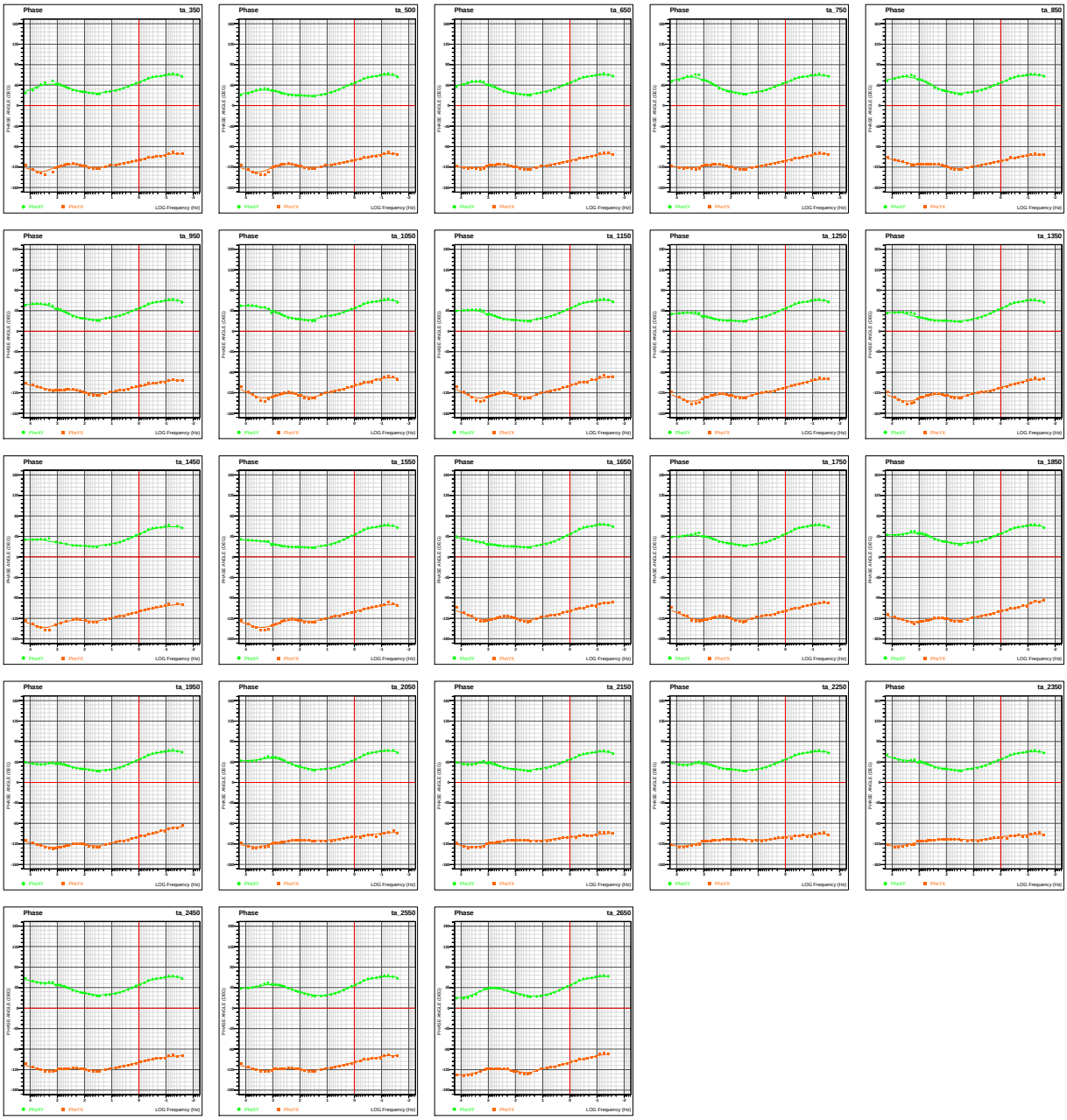
APPENDIX D: MT APPARENT RESISTIVITY AND PHASE SOUNDING CURVES

LINE TITAN A - SPREAD 1: APPARENT RESISTIVITY VS. FREQUENCY



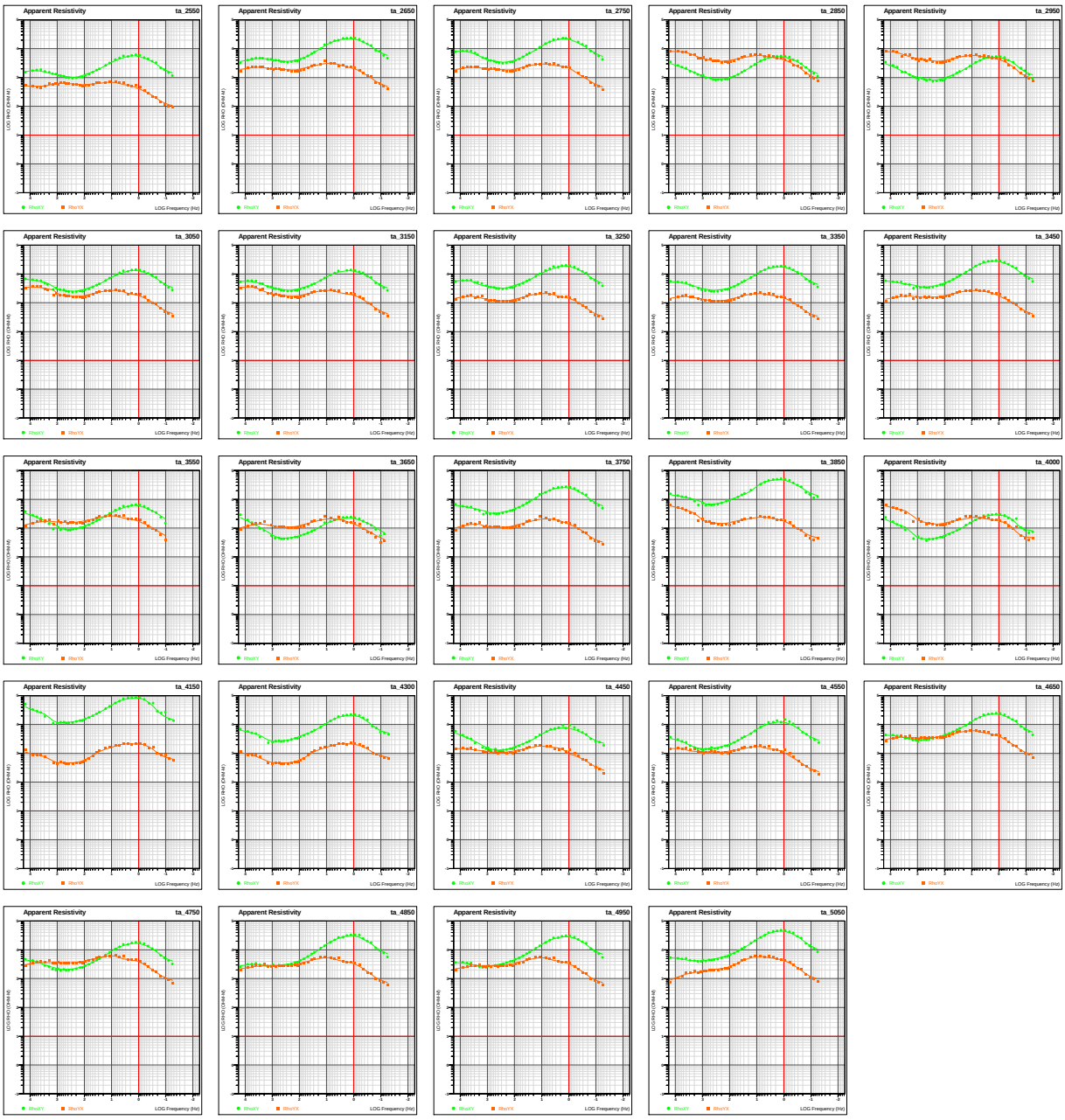
Rho ExHy ------- green
Rho EyHx ------- orange

LINE TITAN A - SPREAD 1: PHASE VS. FREQUENCY



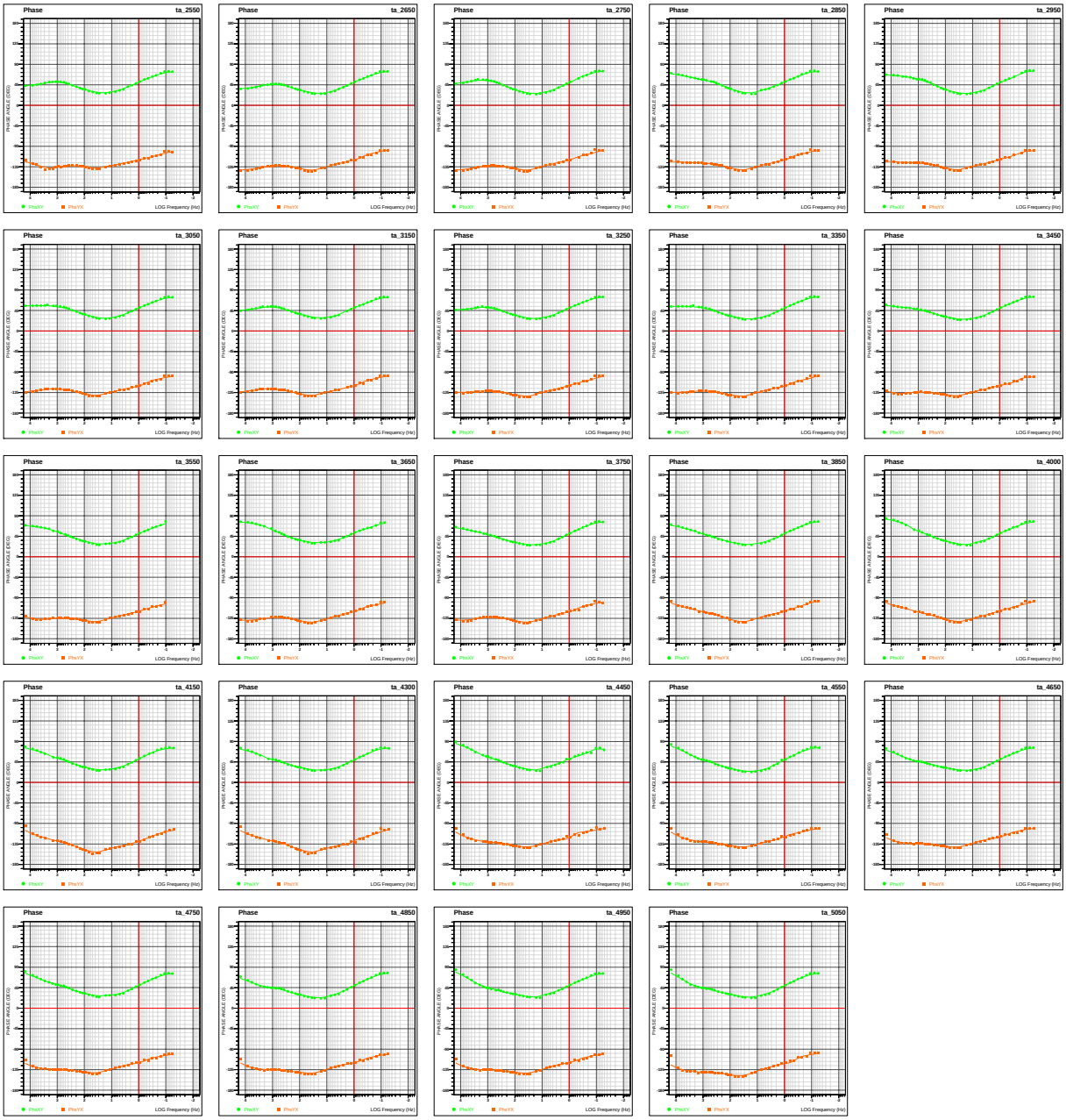
Phs ExHy ------- green
Phs EyHx ------- orange

LINE TITAN A - SPREAD 2: APPARENT RESISTIVITY VS. FREQUENCY



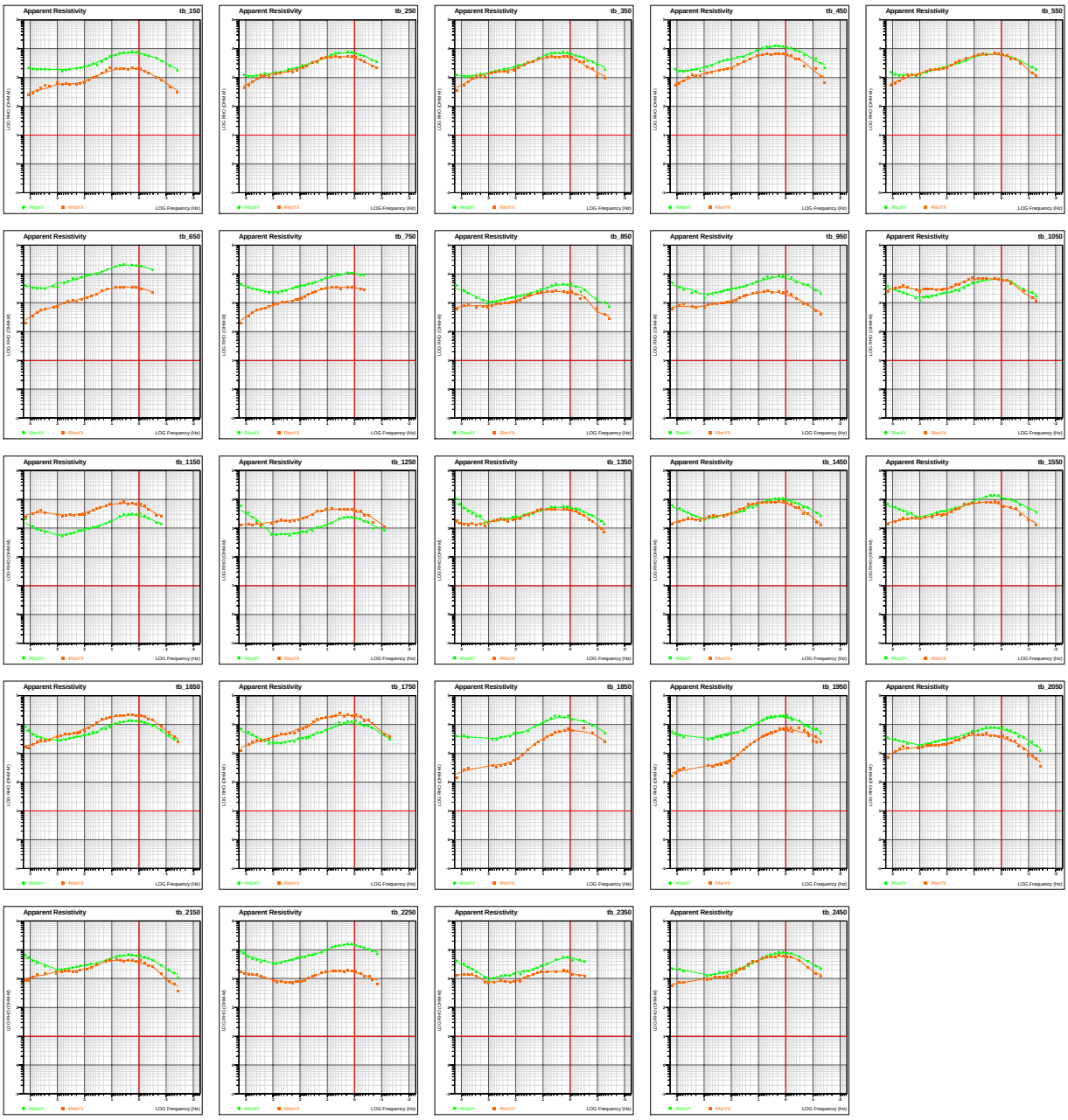
Rho ExHy ------- green
Rho EyHx ------- orange

LINE TITAN A - SPREAD 2: PHASE VS. FREQUENCY



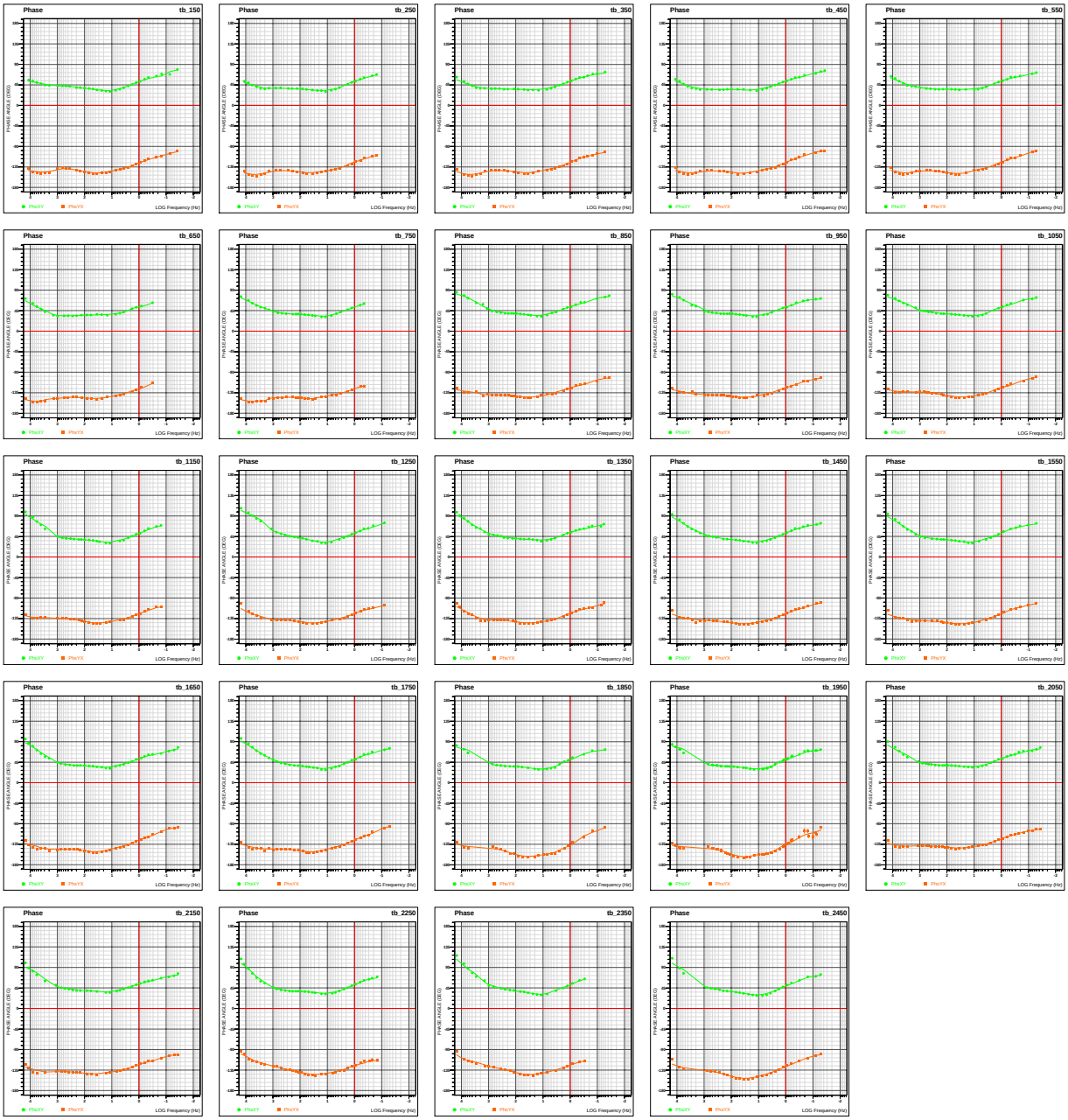
Phs ExHy ------- green
Phs EyHx ------- orange

LINE TITAN B.V3: APPARENT RESISTIVITY VS. FREQUENCY



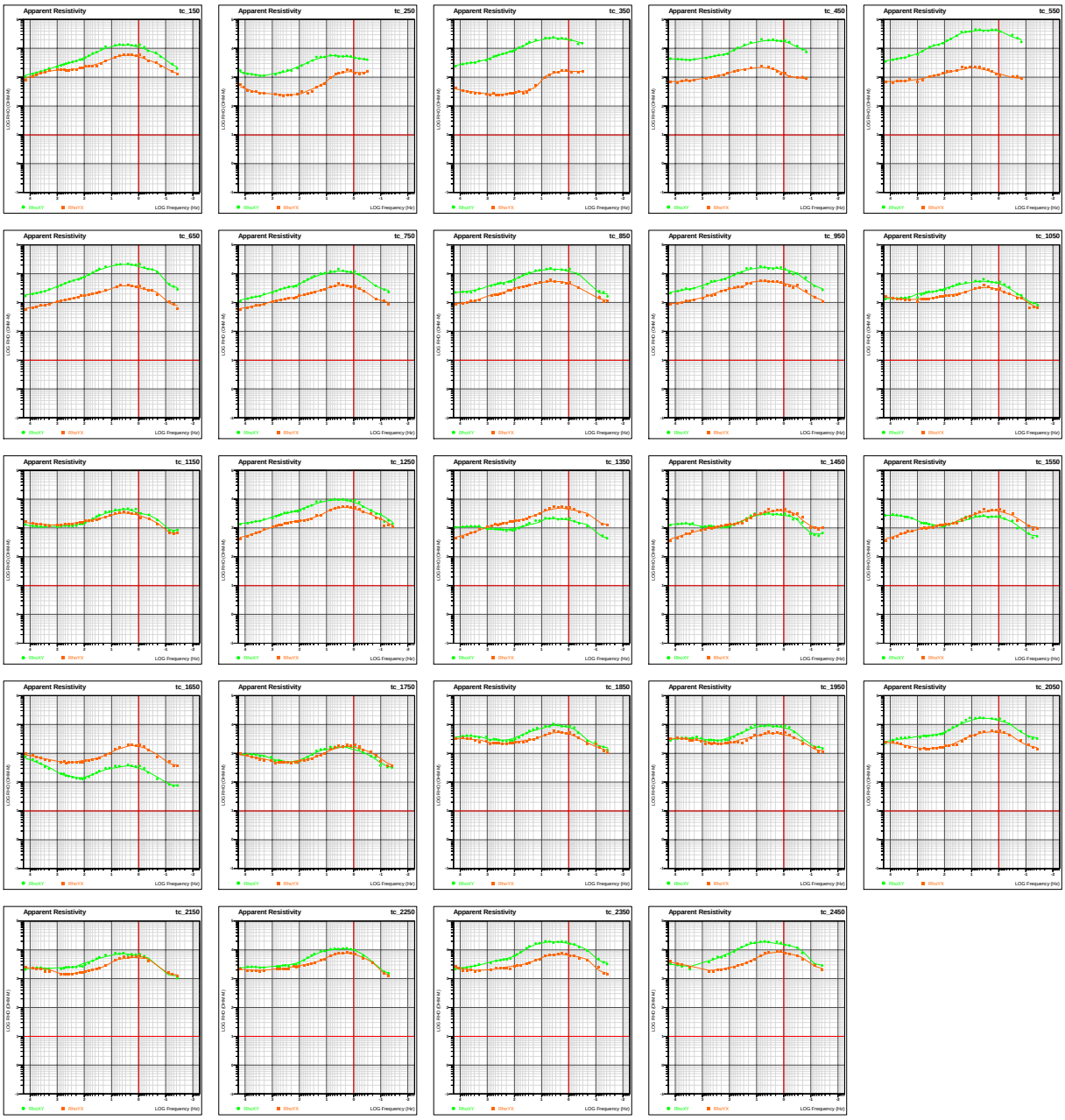
Rho ExHy ------- green
Rho EyHx ------- orange

LINE TITAN B.V3: PHASE VS. FREQUENCY



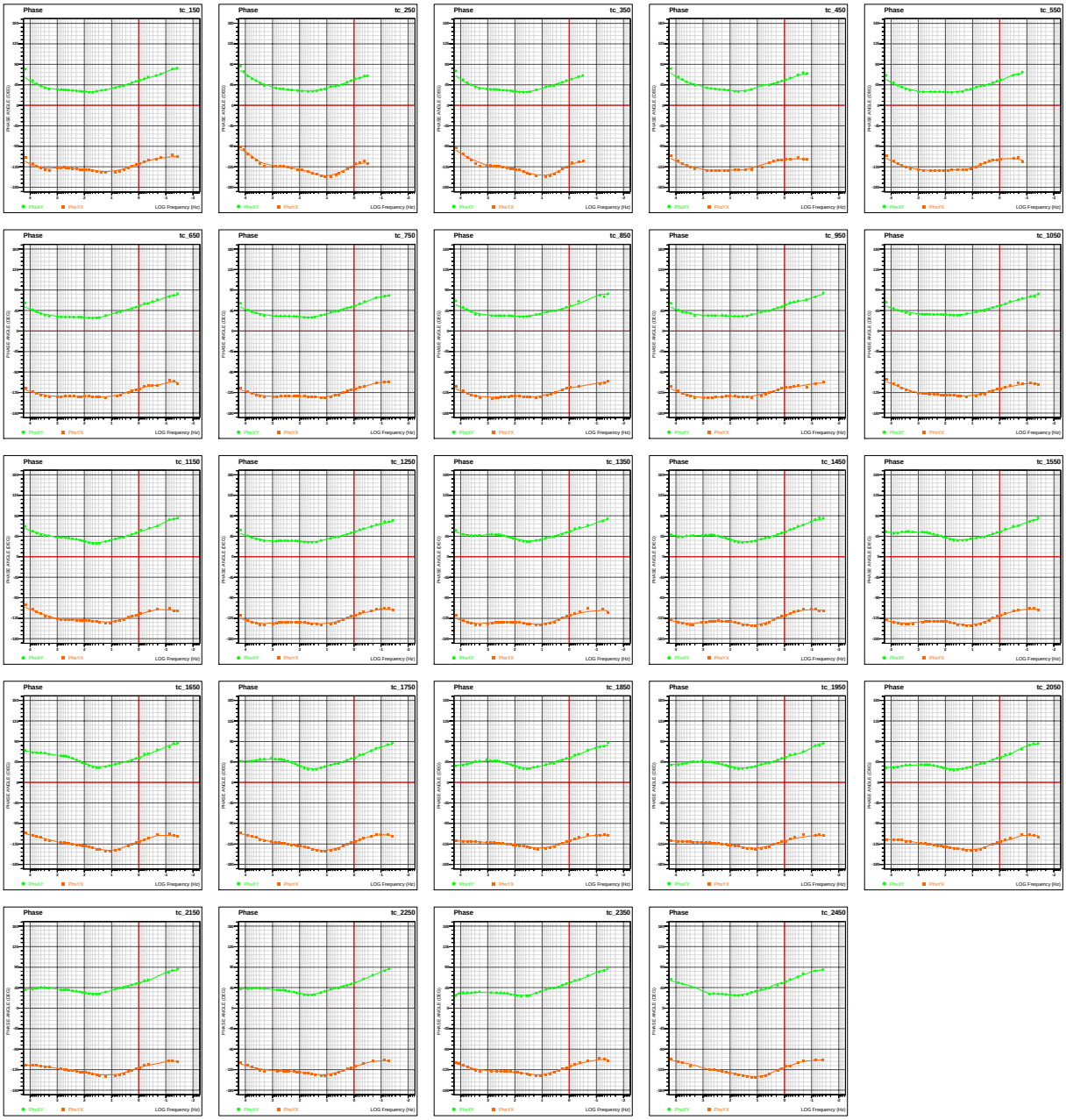
Phs ExHy ------- green
Phs EyHx ------- orange

LINE TITAN C: APPARENT RESISTIVITY VS. FREQUENCY



Rho ExHy ------- green
Rho EyHx ------- orange

LINE TITAN C: PHASE VS. FREQUENCY



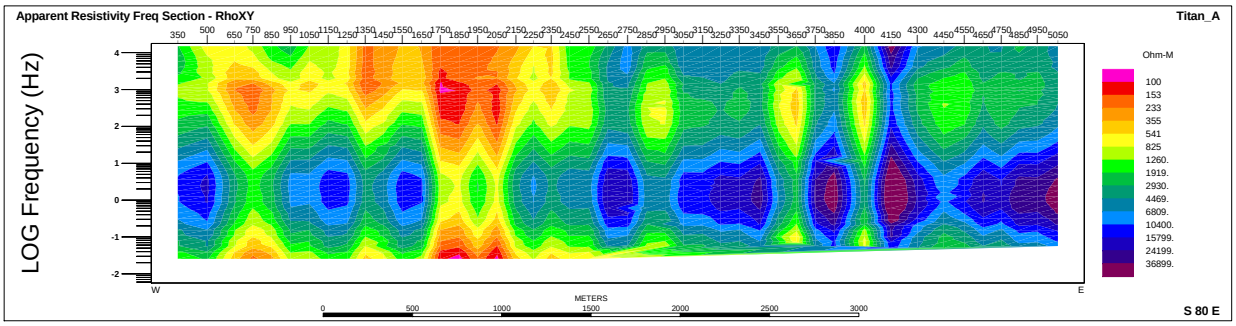
Phs ExHy ------- green
Phs EyHx ------- orange

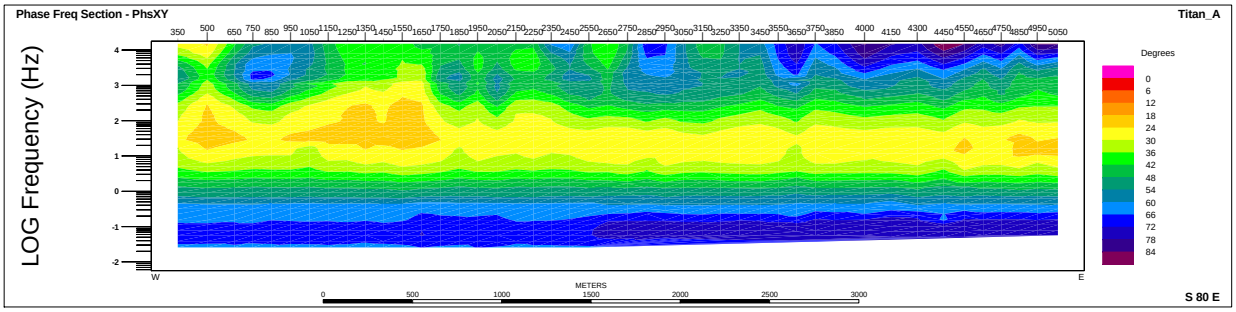
APPENDIX E: MT APPARENT RESISTIVITY AND PHASE PSEUDO-SECTIONS

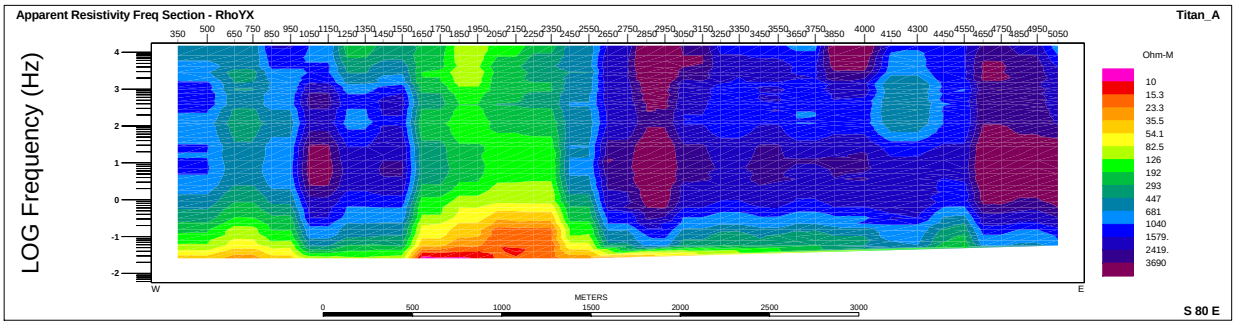
XY: E field parallel to the survey line

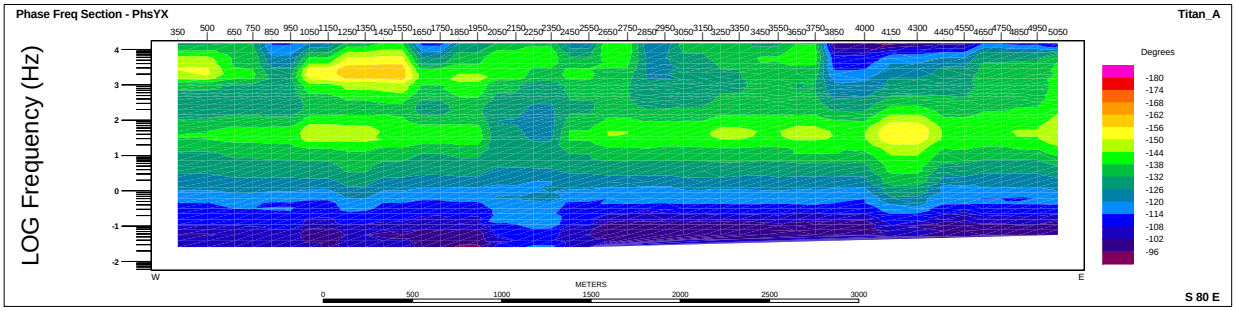
YX: E field normal to the survey line

LINE TITAN A –APPARENT RESISTIVITY AND PHASE (XY & YX) PSEUDOSECTION

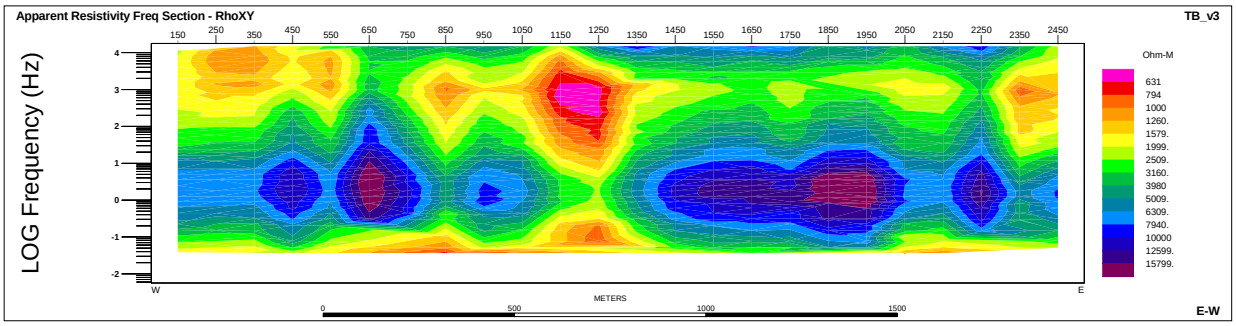


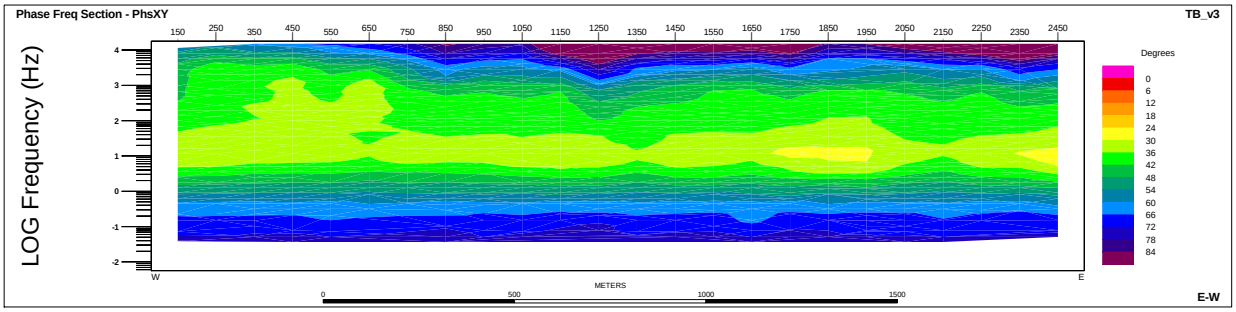


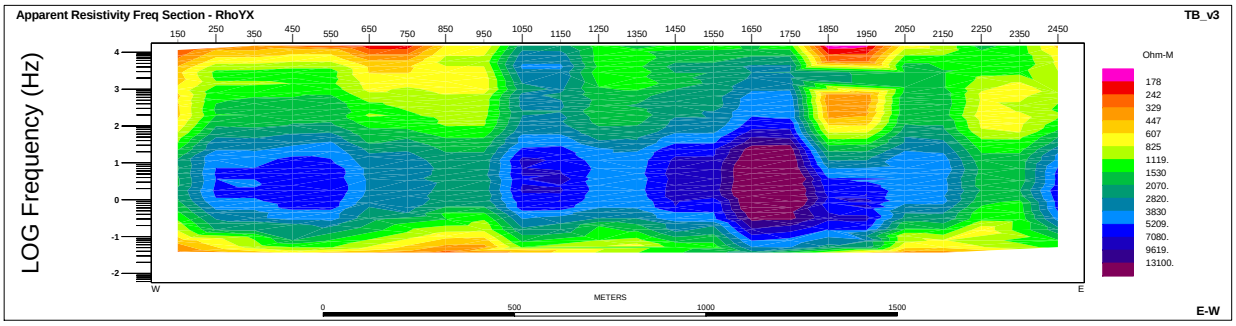


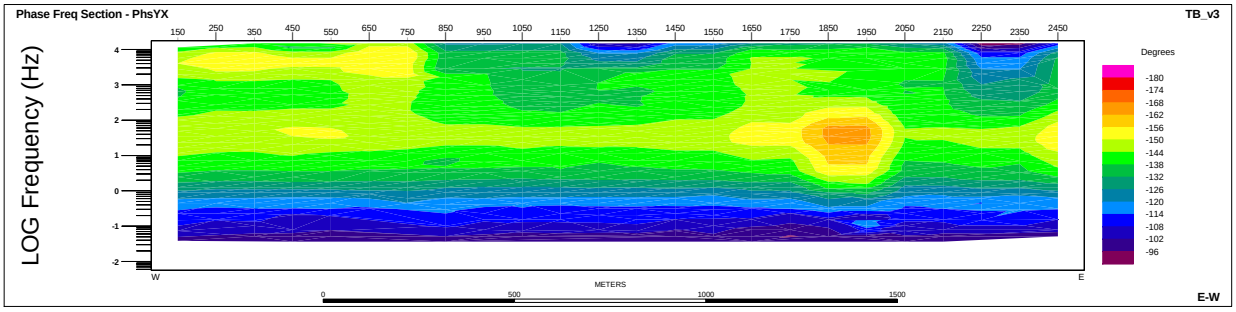


LINE TITAN B.V3 –APPARENT RESISTIVITY AND PHASE (XY & YX) PSEUDOSECTION

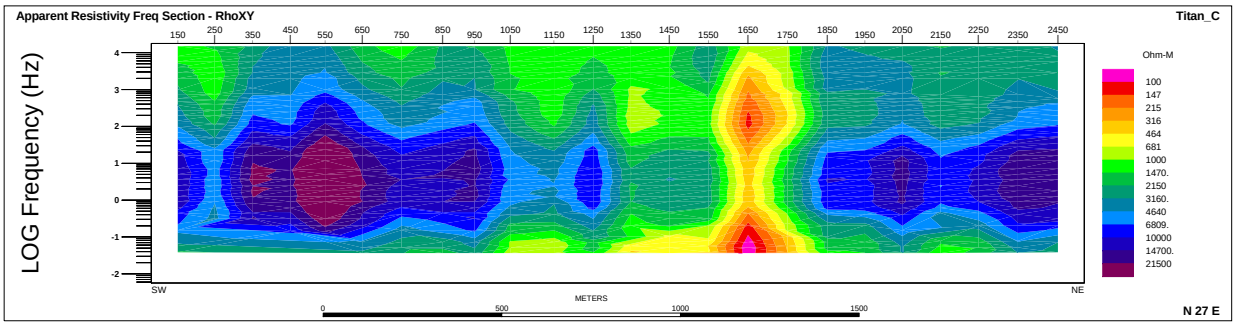


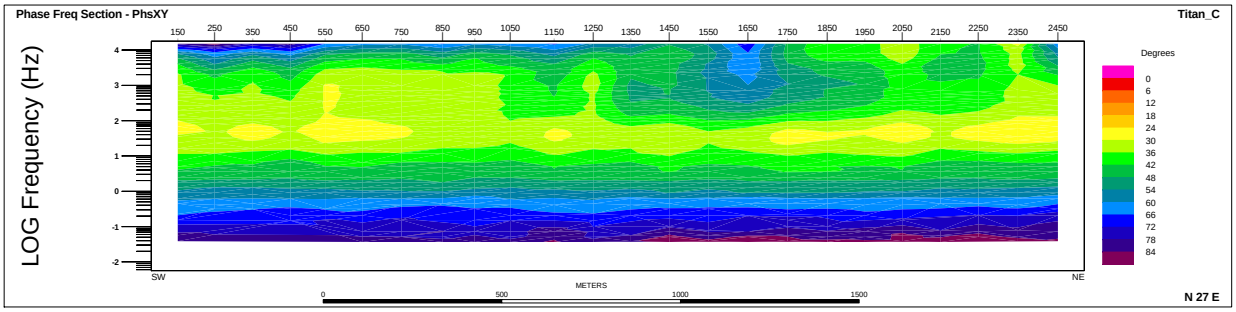


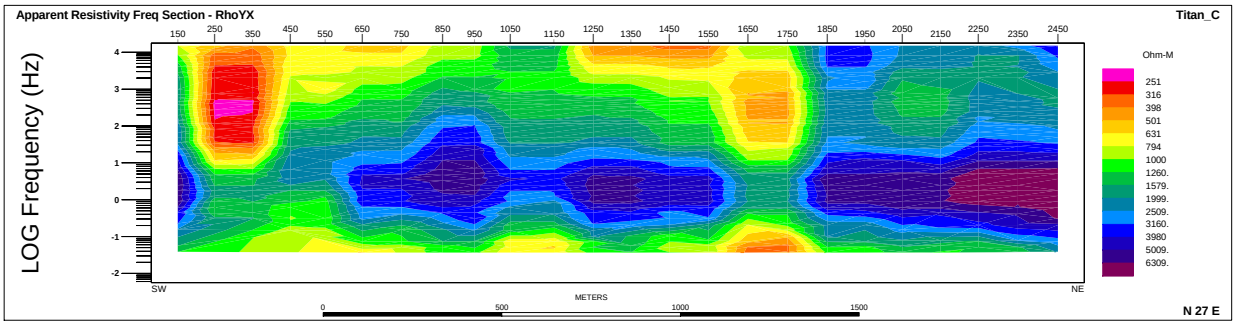


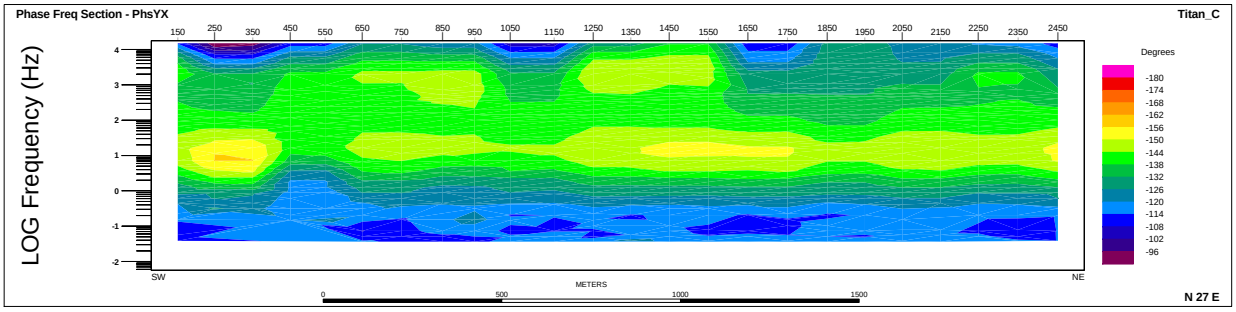


LINE TITAN C –APPARENT RESISTIVITY AND PHASE (XY & YX) PSEUDOSECTION









APPENDIX F: INSTRUMENT SPECIFICATIONS

REF TEK – 120 Data Acquisition System
Acquisition Module (AM)

SPECIFICATIONS

Physical	
Size:	♦ 267 x 248 x 184 mm ♦ 10.5 x 9.75 x 7.25 in.
Weight:	♦ 3.7kg ♦ 305 g ♦ 8 lbs (2-Channels maximum weight))
Temperature:	♦ -40°C to 60°C operating range.
Environmental:	♦ Operates in 1m of water without leaking for 48 hours. ♦ Airtight to 1.0 psi.
Shock:	♦ Remains operational after 1m drop (any corner) onto cement floor.
Connectors	
Line A & Line B:	♦ A pair of identical 10 pin U77/U style connectors. ♦ Each connector provides 3 pairs of lines (±): — A (+)/B (-) Receive telemetry data and/or commands — C (+)/D (-) Transmit telemetry data and/or commands — E (+)/F (-) Sync
Power:	♦ PTO7A12-8S style connector. ♦ Provides input +12 VDC supplied from battery.
Sensor:	♦ PU283/U style connector. ♦ Provides for a direct connection from the AM to the sensor.
Power Requirements	
Battery:	♦ Two 12 volt lead acid battery (7 Ah).
Signal Input	
Input Impedance:	♦ 10 megohms, 330pF, differential
Broadband Dynamic Range:	♦ 130dB (noise power ratio test @ 125 sample per second [sps])
ADC Type:	♦ Delta-sigma modulation
Sample Rage:	♦ Multiple 50 to 48,000
Gain Settings:	♦ Four – programmable for 1, 4, 16 and 64.

Sensor Input Signal Range:

Gain	***24-Bit High Speed A/D***		***24-Bit Low Speed A/D***	
	Actual	***Reported***	***Actual***	***Reported***
1	1.192µV	78.12mV	1.907µV	125.0mV
4	298.0nV	19.53mV	476.8nV	31.25mV
16	74.51nV	4.883mV	119.2nV	7.812mV
64	18.63nV	1.221mV	29.80nV	1.953mV

Data Storage	
Data Size:	♦ 32-bit two's compliment.
Base Memory:	♦ 128K EPROM ♦ 6.5Mb SRAM
Base Capacity:	♦ Better than 1.5 million samples or approximately 3 hours 10 minutes continuous data @ 125 sps.
AM Telemetry	
Protocol:	♦ Full duplex synchronous data link control (SDLC).
Error Correction:	♦ Packet acknowledge with modulo 8 sliding window.
Speed	♦ 3.072Mb/second
Encoding:	♦ Bi-phase pulse = 1, missing pulse = 0
Line Impedance:	♦ 100 Ohm
Synchronization	
Timing:	♦ Each AM on-line is timed and synchronized for simultaneous sampling within ± 1.50 μsecond.
Protection	
Electrical Protection:	♦ Line A and Line B signals circuits are protect by: — A surge arrestor located on the RT514 board (SS1-14). — A line isolation transformer located on the RT514 board (T1-6) with over-voltage diodes (D1-4) on both sides of each secondary windings.
State-of-Health	
Information Provided:	♦ The AM reports information on battery status, clock setting, gain setting, calibration mode and the communications link.

ACQUISITION PARAMETERS

Acquisition parameters include the sample rate, transmitter frequency and number of samples desired. The operator can also determine whether the AMs calibration signal is activated during data collection.
In typical use, the acquisition parameters are set according to the specific application configuration and event type. For each event type, several recording sessions are made, each at a different transmitter frequency and sample rate. The recording period is set based on event type and transmitter frequency.
The listing below shows several examples of event type, typical transmitter frequency (Hz), sample rates (with applicable ADC resolution) and the corresponding number of samples (record period).

Event Type	Transmit Frequency	Sample Rate	ADC Resolution	Number of Sample
Geophysical Response	375 Hz	48,000	24	124,032
Gain Test	375	48,000	24	65,536
Geophysical Response	75	9,600	24	130,176
Gain Test	75	9,600	24	65,536
Geophysical Response	25/8	3,200	24	139,264
Gain Test	25/8	3,200	24	32,768
Sensor Impedance	N/A	1,600	24	8,704
Ambient Noise	N/A	1,600	24	8,192
Geophysical Response	25/128	800	24	147,456
Gain Test	25/128	800	24	16,384
Geophysical Response	25/2048	100	24	212,992
Gain Test	25/256	100	24	4,096
Gain Test	N/A	50	24	4,096
Geophysical Response	N/A	50	24	65,536

SENSOR CALIBRATION

The AM can source a 12.5Hz, 50μA signal to the sensor input for measuring the source impedance of the attached sensor. The user can also specify frequency in amplitude of calibration signal.

TELEMETRY CABLE

The telemetry cable is a *Category V* specification cable and is supplied by the customer.

SAMPLE RATES

The following table shows all available sample rates, based on a 12.288 Mhz oscillator. A 24-bit resolution ADC is used for sample rates 48000 through 4800 and a 24-bit resolution ADC is used for sample rates 3200 and below. The correct ADC is selected automatically by the AM, based on the sample rate.

Typically, different sample rates and transmitter frequencies are used in 50 Hz and 60 Hz power environments to minimize AC power effects on the data. In the table, the shaded areas indicate the sample rates typically used in a 60 Hz power environment. A few rates are typically used in both environments.

Sample Rate	*Power Line*
48000	50 & 60
24000	50 & 60
19200	60
16000	50
12000	50 & 60
9600	50 & 60
6400	50
4800	60
3200	50
1920	60
1600	50
960	60
800	50
480	60
400	50
240	60
200	50
120	60
100	50
60	60
50	50
60/2	60
50/2	50
60/4	60
50/4	50
60/8	60
50/8	50
60/16	60
50/16	50
60/32	60
50/32	50

APPENDIX F: INSTRUMENT SPECIFICATIONS

EMI – ELECTROMAGNETIC INSTRUMENTS INC. – BERKELEY, CA

BF-4 Series Magnetic Sensors

EMI

ELECTROMAGNETIC INSTRUMENTS, INC.

Specifications

Home Page

Personnel

Magnetic Sensors

Magnetotellurics (MT)

Marine EM

Customers

How to find us

EMI

Magnetic Sensors

BF-4 Magnetic Field Induction Sensor

Features

- High sensitivity
- Very low noise
- Magnetic feedback design
- Chopper stabilized amplifier for best low frequency performance
- Ruggedized and waterproof
- Light weight and compact design
- Low power consumption (290 mW)
- Stable phase response

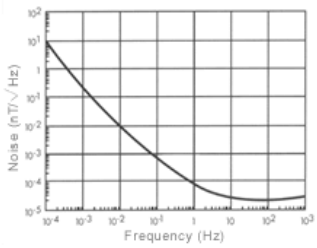
Applications

- Geophysical surveys: MT, AMT, CSAMT, MMR, MIP, CSEM
- Marine surveys
- Atmospheric studies
- Earthquake studies
- High accuracy magnetic field studies

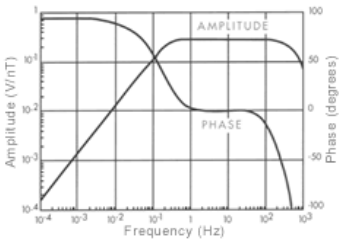
Options

- Marine connector for underwater applications

BF-4 Noise Spectrum



BF-4 Frequency Response



The BF-4 sensor design utilizes a magnetic feedback design to provide a stable flat respose over several decades of frequency. The sensors respond as a B field detector over the flat band regions. Both the amplitude and phase responses are highly stable with variations of less than 0.1 dB in amplitude and +/- 1 degree in phase between sensors. For the frequencies below the flat response region the sensor response is proportional to signal frequency so that the sensor acts as a dB/dt detector. The coil is sealed in epoxy inside a rugged impact resistant Nema G-10 fiberglass tube. A matched low-noise preamplifier is connected to the coil inside the waterproof case and is powered from the connector using a nearby +/- 12V power supply.

Technical Specifications

PERFORMANCE

Frequency Range:
0.0001 to 1000 Hz

3 dB frequency corners:
0.2 Hz, 500 Hz

Sensitivity (flat region):
0.3 V/nT (standard)

Power consumption:
12 mA at +/- 12V

MECHANICAL

Case style:
Nema G-10 Straight Tube

Length:
142 cm (56 in.)

Diameter:
6 cm (2.4 in.)

Weight:
7.9 Kg (17.4 Lbs)

Connector:
8 pin Waterproof Tajimi

For further information please contact gg@emiinc.com
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Last modified: March, 2001

APPENDIX F: INSTRUMENT SPECIFICATIONS

EMI – ELECTROMAGNETIC INSTRUMENTS INC. – BERKELEY, CA

BF-6 Series Magnetic Sensors

SPECIFICATIONS

EMI

ELECTROMAGNETIC INSTRUMENTS, INC.

Home Page

Personnel

Magnetic Sensors

Magnetotellurics (MT)

Marine EM

Customers

How to find us

EMI

Magnetic Sensors

BF-6 Magnetic Field Induction Sensor

Features

- High sensitivity
- Very low noise
- Magnetic feedback design
- Ruggedized and waterproof
- Light weight and compact design
- Low power consumption (210 mW)
- Stable phase response

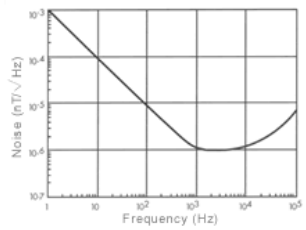
Applications

- Geophysical surveys: MT, AMT, CSAMT, MMR, MIP, CSEM, TSHMT, Stratagem™
- Marine surveys
- Earthquake studies
- High accuracy magnetic field studies

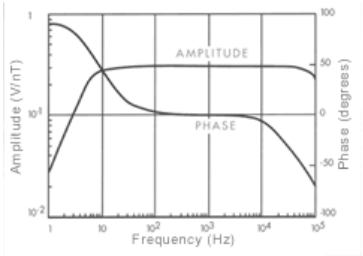
Options

- Marine connector for underwater applications

BF-6 Noise Spectrum



BF-6 Frequency Response



The BF-6 sensor design utilizes a magnetic feedback design to provide a stable flat response over several decades of frequency. The sensors respond as a B field detector over the flat band regions. Both the amplitude and phase responses are highly stable with variations of less than 0.1 dB in amplitude and +/- 1 degree in phase between sensors. For the frequencies below the flat response region the sensor response is proportional to signal frequency so that the sensor acts as a dB/dt detector. The coil is sealed in epoxy inside a rugged impact resistant ABS tube. A matched low-noise preamplifier is connected to the coil inside the waterproof case and is powered from the connector using a nearby +/- 12V power supply.

Technical Specifications

PERFORMANCE

Frequency Range:
1 Hz to 25 kHz or 1 Hz to 100 kHz

3 dB frequency corners:
10 Hz, 25kHz or 10 Hz, 100 kHz

Sensitivity (flat region):
0.3 V/nT (standard)

Power consumption:
9 mA at +/- 12V

MECHANICAL

Case style:
High Impact ABS Straight Tube

Length:
73 cm (29 in.)

Diameter:
5 cm (2 in.)

Weight:
1.7 Kg (3.7 Lbs)

Connector:
8 pin Waterproof Tajimi

For further information please contact gg@emiinc.com
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Last modified: March, 2001

Expr1	Station	UTM_X	UTM Y	UTM Z	Depth	Chg	Rho
TA1_shp	308.33	634952.7	6325649	1716.1	9.73	162.44	77.77
TA1_shp	308.33	634952.7	6325649	1696.63	29.2	166.14	363.34
TA1_shp	308.33	634952.7	6325649	1677.16	48.67	135.31	678.89
TA1_shp	308.33	634952.7	6325649	1657.7	68.13	98.67	930.06
TA1_shp	308.33	634952.7	6325649	1638.23	87.6	68.68	1081.42
TA1_shp	308.33	634952.7	6325649	1618.76	107.07	46.49	1306.61
TA1_shp	308.33	634952.7	6325649	1599.3	126.53	28.95	1806.45
TA1_shp	308.33	634952.7	6325649	1579.83	146	17.91	2796.45
TA1_shp	308.33	634952.7	6325649	1560.36	165.47	11.33	4589.51
TA1_shp	308.33	634952.7	6325649	1540.9	184.93	7.25	7560.98
TA1_shp	308.33	634952.7	6325649	1521.43	204.4	4.69	12089.79
TA1_shp	308.33	634952.7	6325649	1501.96	223.87	2.97	19173.06
TA1_shp	308.33	634952.7	6325649	1482.5	243.33	1.9	27373.85
TA1_shp	308.33	634952.7	6325649	1463.03	262.8	1.2	35728.32
TA1_shp	308.33	634952.7	6325649	1443.56	282.27	0.7	43413.79
TA1_shp	308.33	634952.7	6325649	1423.83	302	0.39	48067.33
TA1_shp	308.33	634952.7	6325649	1403.83	322	0.16	48364.94
TA1_shp	308.33	634952.7	6325649	1383.83	342	0.1	46072.55
TA1_shp	308.33	634952.7	6325649	1363.83	362	0.1	40164.11
TA1_shp	308.33	634952.7	6325649	1343.83	382	0.1	33808.45
TA1_shp	308.33	634952.7	6325649	1321.73	404.1	0.1	26360.2
TA1_shp	308.33	634952.7	6325649	1297.18	428.65	0.1	19995.96
TA1_shp	308.33	634952.7	6325649	1271.23	454.6	0.1	14405.97
TA1_shp	308.33	634952.7	6325649	1242.73	483.1	0.1	10079.25
TA1_shp	308.33	634952.7	6325649	1212.03	513.8	0.1	7238.63
TA1_shp	308.33	634952.7	6325649	1179.38	546.45	0.1	5097.24
TA1_shp	308.33	634952.7	6325649	1143.58	582.25	0.1	3619.22
TA1_shp	308.33	634952.7	6325649	1104.93	620.9	0.1	2745.8
TA1_shp	308.33	634952.7	6325649	1063.78	662.05	0.1	2123.77
TA1_shp	308.33	634952.7	6325649	1018.68	707.15	0.1	1676.38
TA1_shp	308.33	634952.7	6325649	970.03	755.8	0.1	1377
TA1_shp	308.33	634952.7	6325649	918.23	807.6	0.1	1182.32
TA1_shp	308.33	634952.7	6325649	861.43	864.4	0.1	1043.57
TA1_shp	308.33	634952.7	6325649	800.18	925.65	0.1	924.36
TA1_shp	308.33	634952.7	6325649	735.33	990.5	0.1	808.98
TA1_shp	308.33	634952.7	6325649	663.83	1062	0.1	725.09
TA1_shp	325	634968	6325654	1713.77	9.73	192.94	535.86
TA1_shp	325	634968	6325654	1694.3	29.2	135.46	747.98
TA1_shp	325	634968	6325654	1674.83	48.67	90.42	735.15
TA1_shp	325	634968	6325654	1655.37	68.13	61.94	628.76
TA1_shp	325	634968	6325654	1635.9	87.6	43.57	641.89
TA1_shp	325	634968	6325654	1616.43	107.07	29.46	859.09
TA1_shp	325	634968	6325654	1596.97	126.53	19.84	1397.38
TA1_shp	325	634968	6325654	1577.5	146	13.21	2485.54
TA1_shp	325	634968	6325654	1558.03	165.47	8.67	4469.69
TA1_shp	325	634968	6325654	1538.57	184.93	5.65	7774.67
TA1_shp	325	634968	6325654	1519.1	204.4	3.59	13531.06
TA1_shp	325	634968	6325654	1499.63	223.87	2.31	20959.11
TA1_shp	325	634968	6325654	1480.17	243.33	1.47	29468.31
TA1_shp	325	634968	6325654	1460.7	262.8	0.89	38341.43
TA1_shp	325	634968	6325654	1441.23	282.27	0.52	45437.18

TA1_shp	325	634968	6325654	1421.5	302	0.26	48457.58
TA1_shp	325	634968	6325654	1401.5	322	0.1	48762.76
TA1_shp	325	634968	6325654	1381.5	342	0.1	44068.27
TA1_shp	325	634968	6325654	1361.5	362	0.1	38219.74
TA1_shp	325	634968	6325654	1341.5	382	0.1	31266.84
TA1_shp	325	634968	6325654	1319.4	404.1	0.1	24641.01
TA1_shp	325	634968	6325654	1294.85	428.65	0.1	17929.91
TA1_shp	325	634968	6325654	1268.9	454.6	0.1	13278.04
TA1_shp	325	634968	6325654	1240.4	483.1	0.1	9413.95
TA1_shp	325	634968	6325654	1209.7	513.8	0.1	6408.15
TA1_shp	325	634968	6325654	1177.05	546.45	0.1	4782.57
TA1_shp	325	634968	6325654	1141.25	582.25	0.1	3498.81
TA1_shp	325	634968	6325654	1102.6	620.9	0.1	2584.9
TA1_shp	325	634968	6325654	1061.45	662.05	0.1	2012.91
TA1_shp	325	634968	6325654	1016.35	707.15	0.1	1636.58
TA1_shp	325	634968	6325654	967.7	755.8	0.1	1362.74
TA1_shp	325	634968	6325654	915.9	807.6	0.1	1169.32
TA1_shp	325	634968	6325654	859.1	864.4	0.1	1031.1
TA1_shp	325	634968	6325654	797.85	925.65	0.1	913.01
TA1_shp	325	634968	6325654	733	990.5	0.1	789.63
TA1_shp	325	634968	6325654	661.5	1062	0.1	725.07
TA1_shp	341.67	634983.3	6325660	1711.44	9.73	168.57	788.38
TA1_shp	341.67	634983.3	6325660	1691.97	29.2	97.43	1013.56
TA1_shp	341.67	634983.3	6325660	1672.5	48.67	61.68	608.32
TA1_shp	341.67	634983.3	6325660	1653.04	68.13	45.96	350.58
TA1_shp	341.67	634983.3	6325660	1633.57	87.6	37.03	295.92
TA1_shp	341.67	634983.3	6325660	1614.1	107.07	29.53	388.39
TA1_shp	341.67	634983.3	6325660	1594.64	126.53	22.5	674.74
TA1_shp	341.67	634983.3	6325660	1575.17	146	15.92	1316.11
TA1_shp	341.67	634983.3	6325660	1555.7	165.47	10.62	2586.55
TA1_shp	341.67	634983.3	6325660	1536.24	184.93	6.89	4883.43
TA1_shp	341.67	634983.3	6325660	1516.77	204.4	4.32	9275.55
TA1_shp	341.67	634983.3	6325660	1497.3	223.87	2.76	15520.19
TA1_shp	341.67	634983.3	6325660	1477.84	243.33	1.76	23416.38
TA1_shp	341.67	634983.3	6325660	1458.37	262.8	1.07	32468.72
TA1_shp	341.67	634983.3	6325660	1438.9	282.27	0.65	41256.74
TA1_shp	341.67	634983.3	6325660	1419.17	302	0.36	46632.7
TA1_shp	341.67	634983.3	6325660	1399.17	322	0.14	49502.95
TA1_shp	341.67	634983.3	6325660	1379.17	342	0.1	46672.09
TA1_shp	341.67	634983.3	6325660	1359.17	362	0.1	41864.02
TA1_shp	341.67	634983.3	6325660	1339.17	382	0.1	35163.84
TA1_shp	341.67	634983.3	6325660	1317.07	404.1	0.1	28124.28
TA1_shp	341.67	634983.3	6325660	1292.52	428.65	0.1	20694.36
TA1_shp	341.67	634983.3	6325660	1266.57	454.6	0.1	15290.46
TA1_shp	341.67	634983.3	6325660	1238.07	483.1	0.1	10779.42
TA1_shp	341.67	634983.3	6325660	1207.37	513.8	0.1	7245.54
TA1_shp	341.67	634983.3	6325660	1174.72	546.45	0.1	5344.2
TA1_shp	341.67	634983.3	6325660	1138.92	582.25	0.1	3850.98
TA1_shp	341.67	634983.3	6325660	1100.27	620.9	0.1	2798.35
TA1_shp	341.67	634983.3	6325660	1059.12	662.05	0.1	2151.16
TA1_shp	341.67	634983.3	6325660	1014.02	707.15	0.1	1730.03
TA1_shp	341.67	634983.3	6325660	965.37	755.8	0.1	1425.93

TA1_shp	341.67	634983.3	6325660	913.57	807.6	0.1	1212.91
TA1_shp	341.67	634983.3	6325660	856.77	864.4	0.1	1063.22
TA1_shp	341.67	634983.3	6325660	795.52	925.65	0.1	937.01
TA1_shp	341.67	634983.3	6325660	730.67	990.5	0.1	805.25
TA1_shp	341.67	634983.3	6325660	659.17	1062	0.1	737.23
TA1_shp	358.33	634998.7	6325665	1709.1	9.73	4.08	5586.72
TA1_shp	358.33	634998.7	6325665	1689.63	29.2	8.37	2117.48
TA1_shp	358.33	634998.7	6325665	1670.16	48.67	15.51	596.54
TA1_shp	358.33	634998.7	6325665	1650.7	68.13	24.68	219.73
TA1_shp	358.33	634998.7	6325665	1631.23	87.6	31.19	149.75
TA1_shp	358.33	634998.7	6325665	1611.76	107.07	31.7	188.32
TA1_shp	358.33	634998.7	6325665	1592.3	126.53	27.12	343.71
TA1_shp	358.33	634998.7	6325665	1572.83	146	20.1	721.7
TA1_shp	358.33	634998.7	6325665	1553.36	165.47	13.43	1529.71
TA1_shp	358.33	634998.7	6325665	1533.9	184.93	8.52	3093.99
TA1_shp	358.33	634998.7	6325665	1514.43	204.4	5.21	6335.61
TA1_shp	358.33	634998.7	6325665	1494.96	223.87	3.26	11331.64
TA1_shp	358.33	634998.7	6325665	1475.5	243.33	2.05	18198.48
TA1_shp	358.33	634998.7	6325665	1456.03	262.8	1.26	26694.94
TA1_shp	358.33	634998.7	6325665	1436.56	282.27	0.79	36206.51
TA1_shp	358.33	634998.7	6325665	1416.83	302	0.45	43392.39
TA1_shp	358.33	634998.7	6325665	1396.83	322	0.2	48576.96
TA1_shp	358.33	634998.7	6325665	1376.83	342	0.1	47965.95
TA1_shp	358.33	634998.7	6325665	1356.83	362	0.1	44643.44
TA1_shp	358.33	634998.7	6325665	1336.83	382	0.1	38726.14
TA1_shp	358.33	634998.7	6325665	1314.73	404.1	0.1	31584.73
TA1_shp	358.33	634998.7	6325665	1290.18	428.65	0.1	23655.34
TA1_shp	358.33	634998.7	6325665	1264.23	454.6	0.1	17495.87
TA1_shp	358.33	634998.7	6325665	1235.73	483.1	0.1	12306.62
TA1_shp	358.33	634998.7	6325665	1205.03	513.8	0.1	8188.01
TA1_shp	358.33	634998.7	6325665	1172.38	546.45	0.1	5973.57
TA1_shp	358.33	634998.7	6325665	1136.58	582.25	0.1	4243.46
TA1_shp	358.33	634998.7	6325665	1097.93	620.9	0.1	3034.44
TA1_shp	358.33	634998.7	6325665	1056.78	662.05	0.1	2300.78
TA1_shp	358.33	634998.7	6325665	1011.68	707.15	0.1	1828.56
TA1_shp	358.33	634998.7	6325665	963.03	755.8	0.1	1491.74
TA1_shp	358.33	634998.7	6325665	911.23	807.6	0.1	1259.21
TA1_shp	358.33	634998.7	6325665	854.43	864.4	0.1	1096.71
TA1_shp	358.33	634998.7	6325665	793.18	925.65	0.1	961.83
TA1_shp	358.33	634998.7	6325665	728.33	990.5	0.1	821.17
TA1_shp	358.33	634998.7	6325665	656.83	1062	0.1	749.52
TA1_shp	375	635014	6325670	1706.77	9.73	0.46	11642.87
TA1_shp	375	635014	6325670	1687.3	29.2	1.99	3595
TA1_shp	375	635014	6325670	1667.83	48.67	7.22	720.18
TA1_shp	375	635014	6325670	1648.37	68.13	20.16	196.63
TA1_shp	375	635014	6325670	1628.9	87.6	34.57	106.44
TA1_shp	375	635014	6325670	1609.43	107.07	39.38	117.91
TA1_shp	375	635014	6325670	1589.97	126.53	35.41	207.96
TA1_shp	375	635014	6325670	1570.5	146	26.67	442.87
TA1_shp	375	635014	6325670	1551.03	165.47	17.48	969.29
TA1_shp	375	635014	6325670	1531.57	184.93	10.68	2043.58
TA1_shp	375	635014	6325670	1512.1	204.4	6.28	4403.34

TA1_shp	375	635014	6325670	1492.63	223.87	3.82	8300.06
TA1_shp	375	635014	6325670	1473.17	243.33	2.37	14038.53
TA1_shp	375	635014	6325670	1453.7	262.8	1.45	21587.29
TA1_shp	375	635014	6325670	1434.23	282.27	0.92	31024.64
TA1_shp	375	635014	6325670	1414.5	302	0.55	39304.02
TA1_shp	375	635014	6325670	1394.5	322	0.27	46235.14
TA1_shp	375	635014	6325670	1374.5	342	0.1	47969.2
TA1_shp	375	635014	6325670	1354.5	362	0.1	46419.16
TA1_shp	375	635014	6325670	1334.5	382	0.1	41726.39
TA1_shp	375	635014	6325670	1312.4	404.1	0.1	34830.64
TA1_shp	375	635014	6325670	1287.85	428.65	0.1	26705.41
TA1_shp	375	635014	6325670	1261.9	454.6	0.1	19824.74
TA1_shp	375	635014	6325670	1233.4	483.1	0.1	13959.13
TA1_shp	375	635014	6325670	1202.7	513.8	0.1	9226.3
TA1_shp	375	635014	6325670	1170.05	546.45	0.1	6667.42
TA1_shp	375	635014	6325670	1134.25	582.25	0.1	4674.5
TA1_shp	375	635014	6325670	1095.6	620.9	0.1	3290.52
TA1_shp	375	635014	6325670	1054.45	662.05	0.1	2463.2
TA1_shp	375	635014	6325670	1009.35	707.15	0.1	1935.98
TA1_shp	375	635014	6325670	960.7	755.8	0.1	1562.59
TA1_shp	375	635014	6325670	908.9	807.6	0.1	1306.83
TA1_shp	375	635014	6325670	852.1	864.4	0.1	1131
TA1_shp	375	635014	6325670	790.85	925.65	0.1	987.24
TA1_shp	375	635014	6325670	726	990.5	0.1	837.46
TA1_shp	375	635014	6325670	654.5	1062	0.1	762.1
TA1_shp	391.67	635029.3	6325676	1704.44	9.73	1.92	10704.28
TA1_shp	391.67	635029.3	6325676	1684.97	29.2	4.47	5127.36
TA1_shp	391.67	635029.3	6325676	1665.5	48.67	13.67	1137.14
TA1_shp	391.67	635029.3	6325676	1646.04	68.13	34.64	281.48
TA1_shp	391.67	635029.3	6325676	1626.57	87.6	49.22	124.99
TA1_shp	391.67	635029.3	6325676	1607.1	107.07	51.83	110.4
TA1_shp	391.67	635029.3	6325676	1587.64	126.53	46.17	165.34
TA1_shp	391.67	635029.3	6325676	1568.17	146	35.21	322.79
TA1_shp	391.67	635029.3	6325676	1548.7	165.47	22.7	684.51
TA1_shp	391.67	635029.3	6325676	1529.24	184.93	13.31	1443.35
TA1_shp	391.67	635029.3	6325676	1509.77	204.4	7.49	3181.69
TA1_shp	391.67	635029.3	6325676	1490.3	223.87	4.41	6190.92
TA1_shp	391.67	635029.3	6325676	1470.84	243.33	2.69	10866.5
TA1_shp	391.67	635029.3	6325676	1451.37	262.8	1.63	17326.78
TA1_shp	391.67	635029.3	6325676	1431.9	282.27	1.05	26140.52
TA1_shp	391.67	635029.3	6325676	1412.17	302	0.64	34823.6
TA1_shp	391.67	635029.3	6325676	1392.17	322	0.34	42822.04
TA1_shp	391.67	635029.3	6325676	1372.17	342	0.15	46707.12
TA1_shp	391.67	635029.3	6325676	1352.17	362	0.1	47038.48
TA1_shp	391.67	635029.3	6325676	1332.17	382	0.1	43969.1
TA1_shp	391.67	635029.3	6325676	1310.07	404.1	0.1	37715.77
TA1_shp	391.67	635029.3	6325676	1285.52	428.65	0.1	29786.92
TA1_shp	391.67	635029.3	6325676	1259.57	454.6	0.1	22290.06
TA1_shp	391.67	635029.3	6325676	1231.07	483.1	0.1	15774.69
TA1_shp	391.67	635029.3	6325676	1200.37	513.8	0.1	10379.21
TA1_shp	391.67	635029.3	6325676	1167.72	546.45	0.1	7438.51
TA1_shp	391.67	635029.3	6325676	1131.92	582.25	0.1	5154.14

TA1_shp	391.67	635029.3	6325676	1093.27	620.9	0.1	3575.1
TA1_shp	391.67	635029.3	6325676	1052.12	662.05	0.1	2638.9
TA1_shp	391.67	635029.3	6325676	1007.02	707.15	0.1	2048.79
TA1_shp	391.67	635029.3	6325676	958.37	755.8	0.1	1636
TA1_shp	391.67	635029.3	6325676	906.57	807.6	0.1	1357.44
TA1_shp	391.67	635029.3	6325676	849.77	864.4	0.1	1167.18
TA1_shp	391.67	635029.3	6325676	788.52	925.65	0.1	1013.8
TA1_shp	391.67	635029.3	6325676	723.67	990.5	0.1	854.15
TA1_shp	391.67	635029.3	6325676	652.17	1062	0.1	774.86
TA1_shp	408.33	635045.3	6325682	1703.69	9.73	86.98	555.85
TA1_shp	408.33	635045.3	6325682	1684.22	29.2	60.05	2507.35
TA1_shp	408.33	635045.3	6325682	1664.75	48.67	56.59	1561.37
TA1_shp	408.33	635045.3	6325682	1645.29	68.13	63.51	518.34
TA1_shp	408.33	635045.3	6325682	1625.82	87.6	67.76	214.85
TA1_shp	408.33	635045.3	6325682	1606.35	107.07	65.03	150.51
TA1_shp	408.33	635045.3	6325682	1586.89	126.53	56.24	176.69
TA1_shp	408.33	635045.3	6325682	1567.42	146	43.41	288.45
TA1_shp	408.33	635045.3	6325682	1547.95	165.47	28.2	551.77
TA1_shp	408.33	635045.3	6325682	1528.49	184.93	16.11	1109.77
TA1_shp	408.33	635045.3	6325682	1509.02	204.4	8.74	2418.35
TA1_shp	408.33	635045.3	6325682	1489.55	223.87	4.99	4760.11
TA1_shp	408.33	635045.3	6325682	1470.09	243.33	2.98	8548.39
TA1_shp	408.33	635045.3	6325682	1450.62	262.8	1.8	13980.03
TA1_shp	408.33	635045.3	6325682	1431.15	282.27	1.16	21877.01
TA1_shp	408.33	635045.3	6325682	1411.42	302	0.73	30437.96
TA1_shp	408.33	635045.3	6325682	1391.42	322	0.41	38897.71
TA1_shp	408.33	635045.3	6325682	1371.42	342	0.21	44520.27
TA1_shp	408.33	635045.3	6325682	1351.42	362	0.1	46619
TA1_shp	408.33	635045.3	6325682	1331.42	382	0.1	45345.61
TA1_shp	408.33	635045.3	6325682	1309.32	404.1	0.1	40047.22
TA1_shp	408.33	635045.3	6325682	1284.77	428.65	0.1	32686.49
TA1_shp	408.33	635045.3	6325682	1258.82	454.6	0.1	24761.98
TA1_shp	408.33	635045.3	6325682	1230.32	483.1	0.1	17695.05
TA1_shp	408.33	635045.3	6325682	1199.62	513.8	0.1	11645.41
TA1_shp	408.33	635045.3	6325682	1166.97	546.45	0.1	8285.79
TA1_shp	408.33	635045.3	6325682	1131.17	582.25	0.1	5678.02
TA1_shp	408.33	635045.3	6325682	1092.52	620.9	0.1	3880.5
TA1_shp	408.33	635045.3	6325682	1051.37	662.05	0.1	2829.19
TA1_shp	408.33	635045.3	6325682	1006.27	707.15	0.1	2172.2
TA1_shp	408.33	635045.3	6325682	957.62	755.8	0.1	1715.63
TA1_shp	408.33	635045.3	6325682	905.82	807.6	0.1	1409.93
TA1_shp	408.33	635045.3	6325682	849.02	864.4	0.1	1204.37
TA1_shp	408.33	635045.3	6325682	787.77	925.65	0.1	1041.04
TA1_shp	408.33	635045.3	6325682	722.92	990.5	0.1	871.22
TA1_shp	408.33	635045.3	6325682	651.42	1062	0.1	787.88
TA1_shp	425	635062	6325689	1704.52	9.73	133.91	140.74
TA1_shp	425	635062	6325689	1685.05	29.2	102.86	1241.98
TA1_shp	425	635062	6325689	1665.58	48.67	87.79	1897.17
TA1_shp	425	635062	6325689	1646.12	68.13	84.16	963.75
TA1_shp	425	635062	6325689	1626.65	87.6	81.5	420.22
TA1_shp	425	635062	6325689	1607.18	107.07	74.71	250.38
TA1_shp	425	635062	6325689	1587.72	126.53	63.37	231.64

TA1_shp	425	635062	6325689	1568.25	146	48.94	305.62
TA1_shp	425	635062	6325689	1548.78	165.47	32.48	504.73
TA1_shp	425	635062	6325689	1529.32	184.93	18.39	935.45
TA1_shp	425	635062	6325689	1509.85	204.4	9.77	1949.76
TA1_shp	425	635062	6325689	1490.38	223.87	5.47	3800.12
TA1_shp	425	635062	6325689	1470.92	243.33	3.23	6867.68
TA1_shp	425	635062	6325689	1451.45	262.8	1.95	11384.34
TA1_shp	425	635062	6325689	1431.98	282.27	1.27	18301.19
TA1_shp	425	635062	6325689	1412.25	302	0.82	26368.9
TA1_shp	425	635062	6325689	1392.25	322	0.48	34777.99
TA1_shp	425	635062	6325689	1372.25	342	0.26	41658.54
TA1_shp	425	635062	6325689	1352.25	362	0.11	45319.02
TA1_shp	425	635062	6325689	1332.25	382	0.1	45898.05
TA1_shp	425	635062	6325689	1310.15	404.1	0.1	41834.34
TA1_shp	425	635062	6325689	1285.6	428.65	0.1	35413.75
TA1_shp	425	635062	6325689	1259.65	454.6	0.1	27258.92
TA1_shp	425	635062	6325689	1231.15	483.1	0.1	19735.16
TA1_shp	425	635062	6325689	1200.45	513.8	0.1	13025.58
TA1_shp	425	635062	6325689	1167.8	546.45	0.1	9217.18
TA1_shp	425	635062	6325689	1132	582.25	0.1	6259.68
TA1_shp	425	635062	6325689	1093.35	620.9	0.1	4221.26
TA1_shp	425	635062	6325689	1052.2	662.05	0.1	3035.77
TA1_shp	425	635062	6325689	1007.1	707.15	0.1	2302.12
TA1_shp	425	635062	6325689	958.45	755.8	0.1	1798.27
TA1_shp	425	635062	6325689	906.65	807.6	0.1	1465.86
TA1_shp	425	635062	6325689	849.85	864.4	0.1	1243.56
TA1_shp	425	635062	6325689	788.6	925.65	0.1	1069.52
TA1_shp	425	635062	6325689	723.75	990.5	0.1	888.74
TA1_shp	425	635062	6325689	652.25	1062	0.1	801.15
TA1_shp	441.67	635078.7	6325696	1705.35	9.73	133.47	121.65
TA1_shp	441.67	635078.7	6325696	1685.88	29.2	107	962.38
TA1_shp	441.67	635078.7	6325696	1666.41	48.67	93.25	2324.06
TA1_shp	441.67	635078.7	6325696	1646.95	68.13	88.83	1652.27
TA1_shp	441.67	635078.7	6325696	1627.48	87.6	85.19	784.95
TA1_shp	441.67	635078.7	6325696	1608.01	107.07	77.66	427.57
TA1_shp	441.67	635078.7	6325696	1588.55	126.53	65.85	330.87
TA1_shp	441.67	635078.7	6325696	1569.08	146	51.07	360.09
TA1_shp	441.67	635078.7	6325696	1549.61	165.47	34.4	509.36
TA1_shp	441.67	635078.7	6325696	1530.15	184.93	19.56	852.64
TA1_shp	441.67	635078.7	6325696	1510.68	204.4	10.36	1666.96
TA1_shp	441.67	635078.7	6325696	1491.21	223.87	5.79	3162.97
TA1_shp	441.67	635078.7	6325696	1471.75	243.33	3.41	5679.13
TA1_shp	441.67	635078.7	6325696	1452.28	262.8	2.08	9447.23
TA1_shp	441.67	635078.7	6325696	1432.81	282.27	1.37	15407.81
TA1_shp	441.67	635078.7	6325696	1413.08	302	0.9	22792.96
TA1_shp	441.67	635078.7	6325696	1393.08	322	0.55	30820.19
TA1_shp	441.67	635078.7	6325696	1373.08	342	0.32	38382.48
TA1_shp	441.67	635078.7	6325696	1353.08	362	0.15	43261.31
TA1_shp	441.67	635078.7	6325696	1333.08	382	0.1	45572.18
TA1_shp	441.67	635078.7	6325696	1310.98	404.1	0.1	42900.68
TA1_shp	441.67	635078.7	6325696	1286.43	428.65	0.1	37704.34
TA1_shp	441.67	635078.7	6325696	1260.48	454.6	0.1	29619.52

TA1_shp	441.67	635078.7	6325696	1231.98	483.1	0.1	21827.51
TA1_shp	441.67	635078.7	6325696	1201.28	513.8	0.1	14532.25
TA1_shp	441.67	635078.7	6325696	1168.63	546.45	0.1	10232.01
TA1_shp	441.67	635078.7	6325696	1132.83	582.25	0.1	6889.17
TA1_shp	441.67	635078.7	6325696	1094.18	620.9	0.1	4584.94
TA1_shp	441.67	635078.7	6325696	1053.03	662.05	0.1	3258.56
TA1_shp	441.67	635078.7	6325696	1007.93	707.15	0.1	2444.5
TA1_shp	441.67	635078.7	6325696	959.28	755.8	0.1	1888.53
TA1_shp	441.67	635078.7	6325696	907.48	807.6	0.1	1523.95
TA1_shp	441.67	635078.7	6325696	850.68	864.4	0.1	1283.89
TA1_shp	441.67	635078.7	6325696	789.43	925.65	0.1	1098.78
TA1_shp	441.67	635078.7	6325696	724.58	990.5	0.1	906.7
TA1_shp	441.67	635078.7	6325696	653.08	1062	0.1	814.71
TA1_shp	458.33	635095.3	6325703	1706.19	9.73	69.5	393.3
TA1_shp	458.33	635095.3	6325703	1686.72	29.2	72.12	1371.54
TA1_shp	458.33	635095.3	6325703	1667.25	48.67	74.72	3177.34
TA1_shp	458.33	635095.3	6325703	1647.79	68.13	78.36	2598.85
TA1_shp	458.33	635095.3	6325703	1628.32	87.6	78.91	1303.15
TA1_shp	458.33	635095.3	6325703	1608.85	107.07	73.89	673.92
TA1_shp	458.33	635095.3	6325703	1589.39	126.53	63.6	463.99
TA1_shp	458.33	635095.3	6325703	1569.92	146	49.8	437.54
TA1_shp	458.33	635095.3	6325703	1550.45	165.47	33.87	544.09
TA1_shp	458.33	635095.3	6325703	1530.99	184.93	19.54	826.36
TA1_shp	458.33	635095.3	6325703	1511.52	204.4	10.49	1503.14
TA1_shp	458.33	635095.3	6325703	1492.05	223.87	5.94	2739.76
TA1_shp	458.33	635095.3	6325703	1472.59	243.33	3.55	4829.71
TA1_shp	458.33	635095.3	6325703	1453.12	262.8	2.19	7988.69
TA1_shp	458.33	635095.3	6325703	1433.65	282.27	1.47	13085.43
TA1_shp	458.33	635095.3	6325703	1413.92	302	0.99	19732.07
TA1_shp	458.33	635095.3	6325703	1393.92	322	0.63	27209.38
TA1_shp	458.33	635095.3	6325703	1373.92	342	0.39	35032.01
TA1_shp	458.33	635095.3	6325703	1353.92	362	0.19	40810.66
TA1_shp	458.33	635095.3	6325703	1333.92	382	0.1	44633.34
TA1_shp	458.33	635095.3	6325703	1311.82	404.1	0.1	43420.41
TA1_shp	458.33	635095.3	6325703	1287.27	428.65	0.1	39643.07
TA1_shp	458.33	635095.3	6325703	1261.32	454.6	0.1	31881.68
TA1_shp	458.33	635095.3	6325703	1232.82	483.1	0.1	23973.18
TA1_shp	458.33	635095.3	6325703	1202.12	513.8	0.1	16142.15
TA1_shp	458.33	635095.3	6325703	1169.47	546.45	0.1	11337.85
TA1_shp	458.33	635095.3	6325703	1133.67	582.25	0.1	7588.07
TA1_shp	458.33	635095.3	6325703	1095.02	620.9	0.1	4990.49
TA1_shp	458.33	635095.3	6325703	1053.87	662.05	0.1	3501.95
TA1_shp	458.33	635095.3	6325703	1008.77	707.15	0.1	2594.78
TA1_shp	458.33	635095.3	6325703	960.12	755.8	0.1	1981.77
TA1_shp	458.33	635095.3	6325703	908.32	807.6	0.1	1585.77
TA1_shp	458.33	635095.3	6325703	851.52	864.4	0.1	1326.55
TA1_shp	458.33	635095.3	6325703	790.27	925.65	0.1	1129.44
TA1_shp	458.33	635095.3	6325703	725.42	990.5	0.1	925.13
TA1_shp	458.33	635095.3	6325703	653.92	1062	0.1	828.48
TA1_shp	475	635112	6325710	1707.02	9.73	25.48	988.11
TA1_shp	475	635112	6325710	1687.55	29.2	36.52	2488.28
TA1_shp	475	635112	6325710	1668.08	48.67	49.53	4725.7

TA1_shp	475	635112	6325710	1648.62	68.13	60.88	3762.95
TA1_shp	475	635112	6325710	1629.15	87.6	66.81	1881.21
TA1_shp	475	635112	6325710	1609.68	107.07	65.45	941.17
TA1_shp	475	635112	6325710	1590.22	126.53	57.74	606.3
TA1_shp	475	635112	6325710	1570.75	146	45.85	523.5
TA1_shp	475	635112	6325710	1551.28	165.47	31.37	594.58
TA1_shp	475	635112	6325710	1531.82	184.93	18.56	833.76
TA1_shp	475	635112	6325710	1512.35	204.4	10.29	1414.06
TA1_shp	475	635112	6325710	1492.88	223.87	6	2463.89
TA1_shp	475	635112	6325710	1473.42	243.33	3.67	4229.77
TA1_shp	475	635112	6325710	1453.95	262.8	2.31	6901.55
TA1_shp	475	635112	6325710	1434.48	282.27	1.58	11247.33
TA1_shp	475	635112	6325710	1414.75	302	1.08	17129.34
TA1_shp	475	635112	6325710	1394.75	322	0.7	23929.94
TA1_shp	475	635112	6325710	1374.75	342	0.45	31672.99
TA1_shp	475	635112	6325710	1354.75	362	0.24	38028.66
TA1_shp	475	635112	6325710	1334.75	382	0.1	43056.65
TA1_shp	475	635112	6325710	1312.65	404.1	0.1	43321.66
TA1_shp	475	635112	6325710	1288.1	428.65	0.1	41126.38
TA1_shp	475	635112	6325710	1262.15	454.6	0.1	33930.07
TA1_shp	475	635112	6325710	1233.65	483.1	0.1	26092.82
TA1_shp	475	635112	6325710	1202.95	513.8	0.1	17853.38
TA1_shp	475	635112	6325710	1170.3	546.45	0.1	12517.95
TA1_shp	475	635112	6325710	1134.5	582.25	0.1	8335.62
TA1_shp	475	635112	6325710	1095.85	620.9	0.1	5423.24
TA1_shp	475	635112	6325710	1054.7	662.05	0.1	3762.44
TA1_shp	475	635112	6325710	1009.6	707.15	0.1	2758.5
TA1_shp	475	635112	6325710	960.95	755.8	0.1	2083.63
TA1_shp	475	635112	6325710	909.15	807.6	0.1	1649.98
TA1_shp	475	635112	6325710	852.35	864.4	0.1	1370.11
TA1_shp	475	635112	6325710	791.1	925.65	0.1	1160.73
TA1_shp	475	635112	6325710	726.25	990.5	0.1	943.96
TA1_shp	475	635112	6325710	654.75	1062	0.1	842.55
TA1_shp	491.67	635128.7	6325717	1707.85	9.73	9.62	2063.59
TA1_shp	491.67	635128.7	6325717	1688.38	29.2	15.08	4534.59
TA1_shp	491.67	635128.7	6325717	1668.91	48.67	27.72	6878.87
TA1_shp	491.67	635128.7	6325717	1649.45	68.13	43.37	4881.05
TA1_shp	491.67	635128.7	6325717	1629.98	87.6	53.11	2351.93
TA1_shp	491.67	635128.7	6325717	1610.51	107.07	55.08	1157.06
TA1_shp	491.67	635128.7	6325717	1591.05	126.53	50.06	726.37
TA1_shp	491.67	635128.7	6325717	1571.58	146	40.39	603.07
TA1_shp	491.67	635128.7	6325717	1552.11	165.47	27.94	650.16
TA1_shp	491.67	635128.7	6325717	1532.65	184.93	17.11	862.34
TA1_shp	491.67	635128.7	6325717	1513.18	204.4	9.9	1375.71
TA1_shp	491.67	635128.7	6325717	1493.71	223.87	6	2284.04
TA1_shp	491.67	635128.7	6325717	1474.25	243.33	3.79	3793.27
TA1_shp	491.67	635128.7	6325717	1454.78	262.8	2.45	6068.55
TA1_shp	491.67	635128.7	6325717	1435.31	282.27	1.71	9780.59
TA1_shp	491.67	635128.7	6325717	1415.58	302	1.2	14949.67
TA1_shp	491.67	635128.7	6325717	1395.58	322	0.8	21059.99
TA1_shp	491.67	635128.7	6325717	1375.58	342	0.53	28500.51
TA1_shp	491.67	635128.7	6325717	1355.58	362	0.31	35156.98

TA1_shp	491.67	635128.7	6325717	1335.58	382	0.12	41063.13
TA1_shp	491.67	635128.7	6325717	1313.48	404.1	0.1	42727.73
TA1_shp	491.67	635128.7	6325717	1288.93	428.65	0.1	42156.23
TA1_shp	491.67	635128.7	6325717	1262.98	454.6	0.1	35786.74
TA1_shp	491.67	635128.7	6325717	1234.48	483.1	0.1	28205.93
TA1_shp	491.67	635128.7	6325717	1203.78	513.8	0.1	19663.28
TA1_shp	491.67	635128.7	6325717	1171.13	546.45	0.1	13797.38
TA1_shp	491.67	635128.7	6325717	1135.33	582.25	0.1	9163.69
TA1_shp	491.67	635128.7	6325717	1096.68	620.9	0.1	5904.32
TA1_shp	491.67	635128.7	6325717	1055.53	662.05	0.1	4048.38
TA1_shp	491.67	635128.7	6325717	1010.43	707.15	0.1	2931.87
TA1_shp	491.67	635128.7	6325717	961.78	755.8	0.1	2188.34
TA1_shp	491.67	635128.7	6325717	909.98	807.6	0.1	1717.68
TA1_shp	491.67	635128.7	6325717	853.18	864.4	0.1	1416.26
TA1_shp	491.67	635128.7	6325717	791.93	925.65	0.1	1193.6
TA1_shp	491.67	635128.7	6325717	727.08	990.5	0.1	963.3
TA1_shp	491.67	635128.7	6325717	655.58	1062	0.1	856.85
TA1_shp	508.33	635144.6	6325723	1710.27	9.73	6.59	3595.88
TA1_shp	508.33	635144.6	6325723	1690.8	29.2	8.77	7347.43
TA1_shp	508.33	635144.6	6325723	1671.33	48.67	16	8812.56
TA1_shp	508.33	635144.6	6325723	1651.87	68.13	29.32	5422.14
TA1_shp	508.33	635144.6	6325723	1632.4	87.6	40.88	2538.62
TA1_shp	508.33	635144.6	6325723	1612.93	107.07	45.11	1271.18
TA1_shp	508.33	635144.6	6325723	1593.47	126.53	42.36	812.64
TA1_shp	508.33	635144.6	6325723	1574	146	34.67	675.56
TA1_shp	508.33	635144.6	6325723	1554.53	165.47	24.56	714.02
TA1_shp	508.33	635144.6	6325723	1535.07	184.93	15.77	911.07
TA1_shp	508.33	635144.6	6325723	1515.6	204.4	9.6	1376.39
TA1_shp	508.33	635144.6	6325723	1496.13	223.87	6.08	2176.94
TA1_shp	508.33	635144.6	6325723	1476.67	243.33	3.99	3480.49
TA1_shp	508.33	635144.6	6325723	1457.2	262.8	2.66	5428.7
TA1_shp	508.33	635144.6	6325723	1437.73	282.27	1.88	8604.58
TA1_shp	508.33	635144.6	6325723	1418	302	1.34	13119.5
TA1_shp	508.33	635144.6	6325723	1398	322	0.93	18557.58
TA1_shp	508.33	635144.6	6325723	1378	342	0.63	25575.68
TA1_shp	508.33	635144.6	6325723	1358	362	0.39	32314.46
TA1_shp	508.33	635144.6	6325723	1338	382	0.19	38785.95
TA1_shp	508.33	635144.6	6325723	1315.9	404.1	0.1	41710.23
TA1_shp	508.33	635144.6	6325723	1291.35	428.65	0.1	42710.42
TA1_shp	508.33	635144.6	6325723	1265.4	454.6	0.1	37365.5
TA1_shp	508.33	635144.6	6325723	1236.9	483.1	0.1	30218.2
TA1_shp	508.33	635144.6	6325723	1206.2	513.8	0.1	21521.74
TA1_shp	508.33	635144.6	6325723	1173.55	546.45	0.1	15137.2
TA1_shp	508.33	635144.6	6325723	1137.75	582.25	0.1	10045.32
TA1_shp	508.33	635144.6	6325723	1099.1	620.9	0.1	6418.24
TA1_shp	508.33	635144.6	6325723	1057.95	662.05	0.1	4351.23
TA1_shp	508.33	635144.6	6325723	1012.85	707.15	0.1	3118.65
TA1_shp	508.33	635144.6	6325723	964.2	755.8	0.1	2302.46
TA1_shp	508.33	635144.6	6325723	912.4	807.6	0.1	1788.45
TA1_shp	508.33	635144.6	6325723	855.6	864.4	0.1	1463.23
TA1_shp	508.33	635144.6	6325723	794.35	925.65	0.1	1227.04
TA1_shp	508.33	635144.6	6325723	729.5	990.5	0.1	983.06

TA1_shp	508.33	635144.6	6325723	658	1062	0.1	871.47
TA1_shp	525	635159.8	6325729	1714.27	9.73	8.1	5092.82
TA1_shp	525	635159.8	6325729	1694.8	29.2	7.1	9616.59
TA1_shp	525	635159.8	6325729	1675.33	48.67	11.14	9064.02
TA1_shp	525	635159.8	6325729	1655.87	68.13	20.89	5006.78
TA1_shp	525	635159.8	6325729	1636.4	87.6	31.76	2397.99
TA1_shp	525	635159.8	6325729	1616.93	107.07	37.2	1286.42
TA1_shp	525	635159.8	6325729	1597.47	126.53	36.07	873.3
TA1_shp	525	635159.8	6325729	1578	146	30.28	750.58
TA1_shp	525	635159.8	6325729	1558.53	165.47	22.27	793.29
TA1_shp	525	635159.8	6325729	1539.07	184.93	15.07	983.28
TA1_shp	525	635159.8	6325729	1519.6	204.4	9.67	1408.05
TA1_shp	525	635159.8	6325729	1500.13	223.87	6.39	2114.35
TA1_shp	525	635159.8	6325729	1480.67	243.33	4.33	3240.1
TA1_shp	525	635159.8	6325729	1461.2	262.8	2.97	4907.58
TA1_shp	525	635159.8	6325729	1441.73	282.27	2.14	7624.04
TA1_shp	525	635159.8	6325729	1422	302	1.55	11548.51
TA1_shp	525	635159.8	6325729	1402	322	1.08	16355.58
TA1_shp	525	635159.8	6325729	1382	342	0.75	22891.83
TA1_shp	525	635159.8	6325729	1362	362	0.48	29558.52
TA1_shp	525	635159.8	6325729	1342	382	0.25	36350.04
TA1_shp	525	635159.8	6325729	1319.9	404.1	0.11	40371.07
TA1_shp	525	635159.8	6325729	1295.35	428.65	0.1	42832.54
TA1_shp	525	635159.8	6325729	1269.4	454.6	0.1	38684.9
TA1_shp	525	635159.8	6325729	1240.9	483.1	0.1	32151.47
TA1_shp	525	635159.8	6325729	1210.2	513.8	0.1	23479.68
TA1_shp	525	635159.8	6325729	1177.55	546.45	0.1	16585.41
TA1_shp	525	635159.8	6325729	1141.75	582.25	0.1	11017.48
TA1_shp	525	635159.8	6325729	1103.1	620.9	0.1	6986.33
TA1_shp	525	635159.8	6325729	1061.95	662.05	0.1	4684.61
TA1_shp	525	635159.8	6325729	1016.85	707.15	0.1	3317.32
TA1_shp	525	635159.8	6325729	968.2	755.8	0.1	2419.68
TA1_shp	525	635159.8	6325729	916.4	807.6	0.1	1862.65
TA1_shp	525	635159.8	6325729	859.6	864.4	0.1	1513.14
TA1_shp	525	635159.8	6325729	798.35	925.65	0.1	1262.27
TA1_shp	525	635159.8	6325729	733.5	990.5	0.1	1003.36
TA1_shp	525	635159.8	6325729	662	1062	0.1	886.3
TA1_shp	541.67	635174.9	6325734	1718.27	9.73	71.46	3707.42
TA1_shp	541.67	635174.9	6325734	1698.8	29.2	11.61	6606.72
TA1_shp	541.67	635174.9	6325734	1679.33	48.67	6.02	9273.77
TA1_shp	541.67	635174.9	6325734	1659.87	68.13	8.98	7058.71
TA1_shp	541.67	635174.9	6325734	1640.4	87.6	17.21	3878.06
TA1_shp	541.67	635174.9	6325734	1620.93	107.07	27.12	2073.24
TA1_shp	541.67	635174.9	6325734	1601.47	126.53	32.76	1261.85
TA1_shp	541.67	635174.9	6325734	1582	146	32.56	937.4
TA1_shp	541.67	635174.9	6325734	1562.53	165.47	28.1	845.88
TA1_shp	541.67	635174.9	6325734	1543.07	184.93	21.58	896.99
TA1_shp	541.67	635174.9	6325734	1523.6	204.4	15.35	1079.23
TA1_shp	541.67	635174.9	6325734	1504.13	223.87	10.32	1461.28
TA1_shp	541.67	635174.9	6325734	1484.67	243.33	7.07	2078.41
TA1_shp	541.67	635174.9	6325734	1465.2	262.8	4.92	3045.77
TA1_shp	541.67	635174.9	6325734	1445.73	282.27	3.42	4467.4

TA1_shp	541.67	635174.9	6325734	1426	302	2.48	6813.32
TA1_shp	541.67	635174.9	6325734	1406	322	1.81	10292.83
TA1_shp	541.67	635174.9	6325734	1386	342	1.28	14583.69
TA1_shp	541.67	635174.9	6325734	1366	362	0.9	20585.59
TA1_shp	541.67	635174.9	6325734	1346	382	0.58	27089.79
TA1_shp	541.67	635174.9	6325734	1323.9	404.1	0.31	34754.54
TA1_shp	541.67	635174.9	6325734	1299.35	428.65	0.12	39731.98
TA1_shp	541.67	635174.9	6325734	1273.4	454.6	0.1	41876.63
TA1_shp	541.67	635174.9	6325734	1244.9	483.1	0.1	38748.92
TA1_shp	541.67	635174.9	6325734	1214.2	513.8	0.1	30835.56
TA1_shp	541.67	635174.9	6325734	1181.55	546.45	0.1	22502.67
TA1_shp	541.67	635174.9	6325734	1145.75	582.25	0.1	14563.07
TA1_shp	541.67	635174.9	6325734	1107.1	620.9	0.1	9569.83
TA1_shp	541.67	635174.9	6325734	1065.95	662.05	0.1	6243.31
TA1_shp	541.67	635174.9	6325734	1020.85	707.15	0.1	4064.66
TA1_shp	541.67	635174.9	6325734	972.2	755.8	0.1	2804.64
TA1_shp	541.67	635174.9	6325734	920.4	807.6	0.1	2120.41
TA1_shp	541.67	635174.9	6325734	863.6	864.4	0.1	1693.17
TA1_shp	541.67	635174.9	6325734	802.35	925.65	0.1	1380.48
TA1_shp	541.67	635174.9	6325734	737.5	990.5	0.1	1106.43
TA1_shp	541.67	635174.9	6325734	666	1062	0.1	922.12
TA1_shp	558.33	635190.1	6325740	1722.27	9.73	1.91	6200.51
TA1_shp	558.33	635190.1	6325740	1702.8	29.2	2.15	6116.43
TA1_shp	558.33	635190.1	6325740	1683.33	48.67	3.72	5855.42
TA1_shp	558.33	635190.1	6325740	1663.87	68.13	8.23	4273.43
TA1_shp	558.33	635190.1	6325740	1644.4	87.6	17.01	2724.7
TA1_shp	558.33	635190.1	6325740	1624.93	107.07	26.67	1768.34
TA1_shp	558.33	635190.1	6325740	1605.47	126.53	32.12	1264.29
TA1_shp	558.33	635190.1	6325740	1586	146	32.3	1040.65
TA1_shp	558.33	635190.1	6325740	1566.53	165.47	28.58	980.72
TA1_shp	558.33	635190.1	6325740	1547.07	184.93	22.83	1035.68
TA1_shp	558.33	635190.1	6325740	1527.6	204.4	16.95	1197.74
TA1_shp	558.33	635190.1	6325740	1508.13	223.87	11.8	1524.86
TA1_shp	558.33	635190.1	6325740	1488.67	243.33	8.31	2047.25
TA1_shp	558.33	635190.1	6325740	1469.2	262.8	5.87	2866.1
TA1_shp	558.33	635190.1	6325740	1449.73	282.27	4.11	4071.76
TA1_shp	558.33	635190.1	6325740	1430	302	2.99	6066.14
TA1_shp	558.33	635190.1	6325740	1410	322	2.18	9090.71
TA1_shp	558.33	635190.1	6325740	1390	342	1.54	12878.74
TA1_shp	558.33	635190.1	6325740	1370	362	1.09	18345.34
TA1_shp	558.33	635190.1	6325740	1350	382	0.73	24598.57
TA1_shp	558.33	635190.1	6325740	1327.9	404.1	0.39	32256.34
TA1_shp	558.33	635190.1	6325740	1303.35	428.65	0.15	38214.41
TA1_shp	558.33	635190.1	6325740	1277.4	454.6	0.1	41623.45
TA1_shp	558.33	635190.1	6325740	1248.9	483.1	0.1	40063.52
TA1_shp	558.33	635190.1	6325740	1218.2	513.8	0.1	32688.6
TA1_shp	558.33	635190.1	6325740	1185.55	546.45	0.1	24374.48
TA1_shp	558.33	635190.1	6325740	1149.75	582.25	0.1	15930.75
TA1_shp	558.33	635190.1	6325740	1111.1	620.9	0.1	10434.34
TA1_shp	558.33	635190.1	6325740	1069.95	662.05	0.1	6760.53
TA1_shp	558.33	635190.1	6325740	1024.85	707.15	0.1	4349.06
TA1_shp	558.33	635190.1	6325740	976.2	755.8	0.1	2957.9

TA1_shp	558.33	635190.1	6325740	924.4	807.6	0.1	2215.97
TA1_shp	558.33	635190.1	6325740	867.6	864.4	0.1	1756.42
TA1_shp	558.33	635190.1	6325740	806.35	925.65	0.1	1423.08
TA1_shp	558.33	635190.1	6325740	741.5	990.5	0.1	1132.63
TA1_shp	558.33	635190.1	6325740	670	1062	0.1	938.24
TA1_shp	575	635205.3	6325746	1726.27	9.73	0.28	2021.6
TA1_shp	575	635205.3	6325746	1706.8	29.2	1.4	2360.19
TA1_shp	575	635205.3	6325746	1687.33	48.67	4.37	2633.24
TA1_shp	575	635205.3	6325746	1667.87	68.13	10.94	2436.43
TA1_shp	575	635205.3	6325746	1648.4	87.6	21.17	2016.55
TA1_shp	575	635205.3	6325746	1628.93	107.07	30.58	1626.29
TA1_shp	575	635205.3	6325746	1609.47	126.53	35.52	1353.26
TA1_shp	575	635205.3	6325746	1590	146	35.67	1207.64
TA1_shp	575	635205.3	6325746	1570.53	165.47	32.17	1162.66
TA1_shp	575	635205.3	6325746	1551.07	184.93	26.54	1198.7
TA1_shp	575	635205.3	6325746	1531.6	204.4	20.37	1319.43
TA1_shp	575	635205.3	6325746	1512.13	223.87	14.56	1572.16
TA1_shp	575	635205.3	6325746	1492.67	243.33	10.39	1996.77
TA1_shp	575	635205.3	6325746	1473.2	262.8	7.38	2676.04
TA1_shp	575	635205.3	6325746	1453.73	282.27	5.16	3688.06
TA1_shp	575	635205.3	6325746	1434	302	3.73	5391.74
TA1_shp	575	635205.3	6325746	1414	322	2.69	8013.81
TA1_shp	575	635205.3	6325746	1394	342	1.89	11346.62
TA1_shp	575	635205.3	6325746	1374	362	1.34	16320.93
TA1_shp	575	635205.3	6325746	1354	382	0.9	22264.07
TA1_shp	575	635205.3	6325746	1331.9	404.1	0.5	29752.43
TA1_shp	575	635205.3	6325746	1307.35	428.65	0.23	36518.3
TA1_shp	575	635205.3	6325746	1281.4	454.6	0.1	41084.71
TA1_shp	575	635205.3	6325746	1252.9	483.1	0.1	41131.99
TA1_shp	575	635205.3	6325746	1222.2	513.8	0.1	34474.14
TA1_shp	575	635205.3	6325746	1189.55	546.45	0.1	26307.39
TA1_shp	575	635205.3	6325746	1153.75	582.25	0.1	17386.03
TA1_shp	575	635205.3	6325746	1115.1	620.9	0.1	11356.39
TA1_shp	575	635205.3	6325746	1073.95	662.05	0.1	7305.92
TA1_shp	575	635205.3	6325746	1028.85	707.15	0.1	4644.55
TA1_shp	575	635205.3	6325746	980.2	755.8	0.1	3125.35
TA1_shp	575	635205.3	6325746	928.4	807.6	0.1	2318.13
TA1_shp	575	635205.3	6325746	871.6	864.4	0.1	1821.87
TA1_shp	575	635205.3	6325746	810.35	925.65	0.1	1466.25
TA1_shp	575	635205.3	6325746	745.5	990.5	0.1	1159.18
TA1_shp	575	635205.3	6325746	674	1062	0.1	954.56
TA1_shp	591.67	635220.4	6325751	1730.27	9.73	0.37	599.96
TA1_shp	591.67	635220.4	6325751	1710.8	29.2	2.51	975.79
TA1_shp	591.67	635220.4	6325751	1691.33	48.67	8.23	1461.67
TA1_shp	591.67	635220.4	6325751	1671.87	68.13	18.57	1759.74
TA1_shp	591.67	635220.4	6325751	1652.4	87.6	30.2	1798.87
TA1_shp	591.67	635220.4	6325751	1632.93	107.07	38.96	1686.92
TA1_shp	591.67	635220.4	6325751	1613.47	126.53	42.97	1538.49
TA1_shp	591.67	635220.4	6325751	1594	146	42.73	1423.88
TA1_shp	591.67	635220.4	6325751	1574.53	165.47	39.17	1357.01
TA1_shp	591.67	635220.4	6325751	1555.07	184.93	33.25	1342.86
TA1_shp	591.67	635220.4	6325751	1535.6	204.4	26.24	1397.37

TA1_shp	591.67	635220.4	6325751	1516.13	223.87	19.13	1568.38
TA1_shp	591.67	635220.4	6325751	1496.67	243.33	13.72	1898.46
TA1_shp	591.67	635220.4	6325751	1477.2	262.8	9.69	2457.88
TA1_shp	591.67	635220.4	6325751	1457.73	282.27	6.7	3312.31
TA1_shp	591.67	635220.4	6325751	1438	302	4.76	4771.56
TA1_shp	591.67	635220.4	6325751	1418	322	3.39	7068.79
TA1_shp	591.67	635220.4	6325751	1398	342	2.34	10026.83
TA1_shp	591.67	635220.4	6325751	1378	362	1.66	14539.94
TA1_shp	591.67	635220.4	6325751	1358	382	1.11	20175.87
TA1_shp	591.67	635220.4	6325751	1335.9	404.1	0.64	27471.16
TA1_shp	591.67	635220.4	6325751	1311.35	428.65	0.31	34816.13
TA1_shp	591.67	635220.4	6325751	1285.4	454.6	0.1	40348.29
TA1_shp	591.67	635220.4	6325751	1256.9	483.1	0.1	41959.18
TA1_shp	591.67	635220.4	6325751	1226.2	513.8	0.1	36155.33
TA1_shp	591.67	635220.4	6325751	1193.55	546.45	0.1	28259.51
TA1_shp	591.67	635220.4	6325751	1157.75	582.25	0.1	18924.44
TA1_shp	591.67	635220.4	6325751	1119.1	620.9	0.1	12343.16
TA1_shp	591.67	635220.4	6325751	1077.95	662.05	0.1	7901.66
TA1_shp	591.67	635220.4	6325751	1032.85	707.15	0.1	4971.34
TA1_shp	591.67	635220.4	6325751	984.2	755.8	0.1	3297.57
TA1_shp	591.67	635220.4	6325751	932.4	807.6	0.1	2422.96
TA1_shp	591.67	635220.4	6325751	875.6	864.4	0.1	1890.38
TA1_shp	591.67	635220.4	6325751	814.35	925.65	0.1	1511.96
TA1_shp	591.67	635220.4	6325751	749.5	990.5	0.1	1186.85
TA1_shp	591.67	635220.4	6325751	678	1062	0.1	971.21
TA1_shp	608.33	635235.4	6325757	1736.27	9.73	2.04	156.11
TA1_shp	608.33	635235.4	6325757	1716.8	29.2	2.21	373.2
TA1_shp	608.33	635235.4	6325757	1697.33	48.67	6.07	835.01
TA1_shp	608.33	635235.4	6325757	1677.87	68.13	16.2	1385.56
TA1_shp	608.33	635235.4	6325757	1658.4	87.6	30.42	1784.59
TA1_shp	608.33	635235.4	6325757	1638.93	107.07	42.64	1931.4
TA1_shp	608.33	635235.4	6325757	1619.47	126.53	50.68	1873.5
TA1_shp	608.33	635235.4	6325757	1600	146	54.01	1732.92
TA1_shp	608.33	635235.4	6325757	1580.53	165.47	53.23	1583.6
TA1_shp	608.33	635235.4	6325757	1561.07	184.93	49.27	1461.63
TA1_shp	608.33	635235.4	6325757	1541.6	204.4	42.94	1384.19
TA1_shp	608.33	635235.4	6325757	1522.13	223.87	34.91	1375.08
TA1_shp	608.33	635235.4	6325757	1502.67	243.33	25.96	1479.04
TA1_shp	608.33	635235.4	6325757	1483.2	262.8	18.74	1735.73
TA1_shp	608.33	635235.4	6325757	1463.73	282.27	13.16	2200.38
TA1_shp	608.33	635235.4	6325757	1444	302	8.9	2944.98
TA1_shp	608.33	635235.4	6325757	1424	322	6.13	4228.06
TA1_shp	608.33	635235.4	6325757	1404	342	4.29	6277.18
TA1_shp	608.33	635235.4	6325757	1384	362	2.92	8958.46
TA1_shp	608.33	635235.4	6325757	1364	382	2.03	13073.36
TA1_shp	608.33	635235.4	6325757	1341.9	404.1	1.3	19123.84
TA1_shp	608.33	635235.4	6325757	1317.35	428.65	0.69	26936.48
TA1_shp	608.33	635235.4	6325757	1291.4	454.6	0.32	35249.73
TA1_shp	608.33	635235.4	6325757	1262.9	483.1	0.1	40537.27
TA1_shp	608.33	635235.4	6325757	1232.2	513.8	0.1	41543.97
TA1_shp	608.33	635235.4	6325757	1199.55	546.45	0.1	35191.14
TA1_shp	608.33	635235.4	6325757	1163.75	582.25	0.1	25760.57

TA1_shp	608.33	635235.4	6325757	1125.1	620.9	0.1	17010.64
TA1_shp	608.33	635235.4	6325757	1083.95	662.05	0.1	10332.1
TA1_shp	608.33	635235.4	6325757	1038.85	707.15	0.1	6160.93
TA1_shp	608.33	635235.4	6325757	990.2	755.8	0.1	4143.51
TA1_shp	608.33	635235.4	6325757	938.4	807.6	0.1	2891.23
TA1_shp	608.33	635235.4	6325757	881.6	864.4	0.1	2132.87
TA1_shp	608.33	635235.4	6325757	820.35	925.65	0.1	1661.64
TA1_shp	608.33	635235.4	6325757	755.5	990.5	0.1	1318.24
TA1_shp	608.33	635235.4	6325757	684	1062	0.1	1012.01
TA1_shp	625	635250.3	6325762	1744.27	9.73	2.53	507.23
TA1_shp	625	635250.3	6325762	1724.8	29.2	4.84	741.42
TA1_shp	625	635250.3	6325762	1705.33	48.67	12.94	1264.65
TA1_shp	625	635250.3	6325762	1685.87	68.13	28.85	1789.26
TA1_shp	625	635250.3	6325762	1666.4	87.6	44.95	2086.8
TA1_shp	625	635250.3	6325762	1646.93	107.07	57.11	2102.54
TA1_shp	625	635250.3	6325762	1627.47	126.53	64.83	1938.73
TA1_shp	625	635250.3	6325762	1608	146	67.82	1715.78
TA1_shp	625	635250.3	6325762	1588.53	165.47	66.6	1512.96
TA1_shp	625	635250.3	6325762	1569.07	184.93	61.95	1351.23
TA1_shp	625	635250.3	6325762	1549.6	204.4	54.65	1245.72
TA1_shp	625	635250.3	6325762	1530.13	223.87	45.74	1214.32
TA1_shp	625	635250.3	6325762	1510.67	243.33	35.04	1291.79
TA1_shp	625	635250.3	6325762	1491.2	262.8	25.6	1508.74
TA1_shp	625	635250.3	6325762	1471.73	282.27	17.92	1910.99
TA1_shp	625	635250.3	6325762	1452	302	11.93	2561.05
TA1_shp	625	635250.3	6325762	1432	322	8.03	3687.9
TA1_shp	625	635250.3	6325762	1412	342	5.49	5502.65
TA1_shp	625	635250.3	6325762	1392	362	3.64	7903.75
TA1_shp	625	635250.3	6325762	1372	382	2.5	11668.26
TA1_shp	625	635250.3	6325762	1349.9	404.1	1.59	17379.41
TA1_shp	625	635250.3	6325762	1325.35	428.65	0.84	24917.91
TA1_shp	625	635250.3	6325762	1299.4	454.6	0.41	33696.46
TA1_shp	625	635250.3	6325762	1270.9	483.1	0.14	40085.82
TA1_shp	625	635250.3	6325762	1240.2	513.8	0.1	42499.84
TA1_shp	625	635250.3	6325762	1207.55	546.45	0.1	37135.73
TA1_shp	625	635250.3	6325762	1171.75	582.25	0.1	27633.38
TA1_shp	625	635250.3	6325762	1133.1	620.9	0.1	18431.56
TA1_shp	625	635250.3	6325762	1091.95	662.05	0.1	11183.09
TA1_shp	625	635250.3	6325762	1046.85	707.15	0.1	6617.94
TA1_shp	625	635250.3	6325762	998.2	755.8	0.1	4400.86
TA1_shp	625	635250.3	6325762	946.4	807.6	0.1	3035.96
TA1_shp	625	635250.3	6325762	889.6	864.4	0.1	2218.63
TA1_shp	625	635250.3	6325762	828.35	925.65	0.1	1716.11
TA1_shp	625	635250.3	6325762	763.5	990.5	0.1	1353.22
TA1_shp	625	635250.3	6325762	692	1062	0.1	1030.09
TA1_shp	641.67	635265.1	6325768	1752.27	9.73	6.68	1354.92
TA1_shp	641.67	635265.1	6325768	1732.8	29.2	15.1	1428.39
TA1_shp	641.67	635265.1	6325768	1713.33	48.67	29.89	1817.31
TA1_shp	641.67	635265.1	6325768	1693.87	68.13	46.04	2088.31
TA1_shp	641.67	635265.1	6325768	1674.4	87.6	60.63	2102.64
TA1_shp	641.67	635265.1	6325768	1654.93	107.07	72.41	1894.66
TA1_shp	641.67	635265.1	6325768	1635.47	126.53	80.27	1602.53

TA1_shp	641.67	635265.1	6325768	1616	146	83.32	1342.13
TA1_shp	641.67	635265.1	6325768	1596.53	165.47	81.71	1148.73
TA1_shp	641.67	635265.1	6325768	1577.07	184.93	76.1	1020.83
TA1_shp	641.67	635265.1	6325768	1557.6	204.4	67.5	953.59
TA1_shp	641.67	635265.1	6325768	1538.13	223.87	57.13	950.72
TA1_shp	641.67	635265.1	6325768	1518.67	243.33	45.06	1041.27
TA1_shp	641.67	635265.1	6325768	1499.2	262.8	33.71	1247.7
TA1_shp	641.67	635265.1	6325768	1479.73	282.27	23.87	1612.42
TA1_shp	641.67	635265.1	6325768	1460	302	15.73	2193.43
TA1_shp	641.67	635265.1	6325768	1440	322	10.4	3198.3
TA1_shp	641.67	635265.1	6325768	1420	342	6.97	4824.29
TA1_shp	641.67	635265.1	6325768	1400	362	4.49	6994.51
TA1_shp	641.67	635265.1	6325768	1380	382	3.05	10456.14
TA1_shp	641.67	635265.1	6325768	1357.9	404.1	1.91	15855.09
TA1_shp	641.67	635265.1	6325768	1333.35	428.65	1.01	23119.71
TA1_shp	641.67	635265.1	6325768	1307.4	454.6	0.51	32236.18
TA1_shp	641.67	635265.1	6325768	1278.9	483.1	0.17	39615.71
TA1_shp	641.67	635265.1	6325768	1248.2	513.8	0.1	43385.86
TA1_shp	641.67	635265.1	6325768	1215.55	546.45	0.1	39124.58
TA1_shp	641.67	635265.1	6325768	1179.75	582.25	0.1	29595.69
TA1_shp	641.67	635265.1	6325768	1141.1	620.9	0.1	19953.54
TA1_shp	641.67	635265.1	6325768	1099.95	662.05	0.1	12112.75
TA1_shp	641.67	635265.1	6325768	1054.85	707.15	0.1	7084.32
TA1_shp	641.67	635265.1	6325768	1006.2	755.8	0.1	4670.1
TA1_shp	641.67	635265.1	6325768	954.4	807.6	0.1	3190.59
TA1_shp	641.67	635265.1	6325768	897.6	864.4	0.1	2309.16
TA1_shp	641.67	635265.1	6325768	836.35	925.65	0.1	1771.46
TA1_shp	641.67	635265.1	6325768	771.5	990.5	0.1	1388.69
TA1_shp	641.67	635265.1	6325768	700	1062	0.1	1048.34
TA1_shp	658.33	635279.9	6325773	1760.27	9.73	51.65	4736.1
TA1_shp	658.33	635279.9	6325773	1740.8	29.2	36.31	1960.57
TA1_shp	658.33	635279.9	6325773	1721.33	48.67	39.17	1639.21
TA1_shp	658.33	635279.9	6325773	1701.87	68.13	47.65	1699.24
TA1_shp	658.33	635279.9	6325773	1682.4	87.6	59.79	1717.79
TA1_shp	658.33	635279.9	6325773	1662.93	107.07	73.73	1557.11
TA1_shp	658.33	635279.9	6325773	1643.47	126.53	86.31	1274.54
TA1_shp	658.33	635279.9	6325773	1624	146	94.99	1000.54
TA1_shp	658.33	635279.9	6325773	1604.53	165.47	98.46	802.48
TA1_shp	658.33	635279.9	6325773	1585.07	184.93	96.57	688.66
TA1_shp	658.33	635279.9	6325773	1565.6	204.4	90.08	633.71
TA1_shp	658.33	635279.9	6325773	1546.13	223.87	80.17	629.4
TA1_shp	658.33	635279.9	6325773	1526.67	243.33	68.22	670.87
TA1_shp	658.33	635279.9	6325773	1507.2	262.8	54.47	787.88
TA1_shp	658.33	635279.9	6325773	1487.73	282.27	41.74	994.26
TA1_shp	658.33	635279.9	6325773	1468	302	30.1	1341.14
TA1_shp	658.33	635279.9	6325773	1448	322	19.92	1889.59
TA1_shp	658.33	635279.9	6325773	1428	342	12.95	2793.84
TA1_shp	658.33	635279.9	6325773	1408	362	8.57	4285.22
TA1_shp	658.33	635279.9	6325773	1388	382	5.41	6301.43
TA1_shp	658.33	635279.9	6325773	1365.9	404.1	3.42	9826.57
TA1_shp	658.33	635279.9	6325773	1341.35	428.65	2.03	15924.37
TA1_shp	658.33	635279.9	6325773	1315.4	454.6	1.05	23838.43

TA1_shp	658.33	635279.9	6325773	1286.9	483.1	0.42	34096.33
TA1_shp	658.33	635279.9	6325773	1256.2	513.8	0.11	41898.51
TA1_shp	658.33	635279.9	6325773	1223.55	546.45	0.1	42935.08
TA1_shp	658.33	635279.9	6325773	1187.75	582.25	0.1	37316.18
TA1_shp	658.33	635279.9	6325773	1149.1	620.9	0.1	26096.92
TA1_shp	658.33	635279.9	6325773	1107.95	662.05	0.1	16485.07
TA1_shp	658.33	635279.9	6325773	1062.85	707.15	0.1	9967.85
TA1_shp	658.33	635279.9	6325773	1014.2	755.8	0.1	5977.08
TA1_shp	658.33	635279.9	6325773	962.4	807.6	0.1	3802.97
TA1_shp	658.33	635279.9	6325773	905.6	864.4	0.1	2611.73
TA1_shp	658.33	635279.9	6325773	844.35	925.65	0.1	1952.41
TA1_shp	658.33	635279.9	6325773	779.5	990.5	0.1	1547.46
TA1_shp	658.33	635279.9	6325773	708	1062	0.1	1101.39
TA1_shp	675	635294.8	6325779	1768.27	9.73	31.99	4770.22
TA1_shp	675	635294.8	6325779	1748.8	29.2	37.65	1582.3
TA1_shp	675	635294.8	6325779	1729.33	48.67	42.74	1151.01
TA1_shp	675	635294.8	6325779	1709.87	68.13	50.77	1104.46
TA1_shp	675	635294.8	6325779	1690.4	87.6	64.32	1056.54
TA1_shp	675	635294.8	6325779	1670.93	107.07	80.63	894.39
TA1_shp	675	635294.8	6325779	1651.47	126.53	95.79	678.46
TA1_shp	675	635294.8	6325779	1632	146	106.32	500.61
TA1_shp	675	635294.8	6325779	1612.53	165.47	110.68	393.56
TA1_shp	675	635294.8	6325779	1593.07	184.93	108.78	347.72
TA1_shp	675	635294.8	6325779	1573.6	204.4	101.62	344.97
TA1_shp	675	635294.8	6325779	1554.13	223.87	90.63	376.81
TA1_shp	675	635294.8	6325779	1534.67	243.33	77.42	444.57
TA1_shp	675	635294.8	6325779	1515.2	262.8	62.38	573.84
TA1_shp	675	635294.8	6325779	1495.73	282.27	48.51	776.93
TA1_shp	675	635294.8	6325779	1476	302	35.71	1101.81
TA1_shp	675	635294.8	6325779	1456	322	24.19	1604.97
TA1_shp	675	635294.8	6325779	1436	342	15.72	2426.98
TA1_shp	675	635294.8	6325779	1416	362	10.31	3790.01
TA1_shp	675	635294.8	6325779	1396	382	6.4	5642.94
TA1_shp	675	635294.8	6325779	1373.9	404.1	4	8909.86
TA1_shp	675	635294.8	6325779	1349.35	428.65	2.35	14729.49
TA1_shp	675	635294.8	6325779	1323.4	454.6	1.22	22491.8
TA1_shp	675	635294.8	6325779	1294.9	483.1	0.52	32890.58
TA1_shp	675	635294.8	6325779	1264.2	513.8	0.14	41913.69
TA1_shp	675	635294.8	6325779	1231.55	546.45	0.1	44246.29
TA1_shp	675	635294.8	6325779	1195.75	582.25	0.1	39528.4
TA1_shp	675	635294.8	6325779	1157.1	620.9	0.1	28148.66
TA1_shp	675	635294.8	6325779	1115.95	662.05	0.1	17832.01
TA1_shp	675	635294.8	6325779	1070.85	707.15	0.1	10732.29
TA1_shp	675	635294.8	6325779	1022.2	755.8	0.1	6367.38
TA1_shp	675	635294.8	6325779	970.4	807.6	0.1	4007.66
TA1_shp	675	635294.8	6325779	913.6	864.4	0.1	2725.08
TA1_shp	675	635294.8	6325779	852.35	925.65	0.1	2018.27
TA1_shp	675	635294.8	6325779	787.5	990.5	0.1	1591.59
TA1_shp	675	635294.8	6325779	716	1062	0.1	1121.59
TA1_shp	691.67	635309.6	6325785	1776.27	9.73	48.41	1759.91
TA1_shp	691.67	635309.6	6325785	1756.8	29.2	43.21	1372.88
TA1_shp	691.67	635309.6	6325785	1737.33	48.67	39.14	810.27

TA1_shp	691.67	635309.6	6325785	1717.87	68.13	39.27	660.41
TA1_shp	691.67	635309.6	6325785	1698.4	87.6	47.17	641.11
TA1_shp	691.67	635309.6	6325785	1678.93	107.07	62.54	599.31
TA1_shp	691.67	635309.6	6325785	1659.47	126.53	81.47	477.22
TA1_shp	691.67	635309.6	6325785	1640	146	98.98	333.81
TA1_shp	691.67	635309.6	6325785	1620.53	165.47	111.41	231
TA1_shp	691.67	635309.6	6325785	1601.07	184.93	116.97	177.83
TA1_shp	691.67	635309.6	6325785	1581.6	204.4	115.48	164.11
TA1_shp	691.67	635309.6	6325785	1562.13	223.87	108.24	178.3
TA1_shp	691.67	635309.6	6325785	1542.67	243.33	96.94	219.07
TA1_shp	691.67	635309.6	6325785	1523.2	262.8	83.35	289.49
TA1_shp	691.67	635309.6	6325785	1503.73	282.27	67.72	416.47
TA1_shp	691.67	635309.6	6325785	1484	302	53.12	610.55
TA1_shp	691.67	635309.6	6325785	1464	322	39.61	919.07
TA1_shp	691.67	635309.6	6325785	1444	342	27.52	1390.51
TA1_shp	691.67	635309.6	6325785	1424	362	17.92	2139.92
TA1_shp	691.67	635309.6	6325785	1404	382	11.78	3412.32
TA1_shp	691.67	635309.6	6325785	1381.9	404.1	6.99	5449.89
TA1_shp	691.67	635309.6	6325785	1357.35	428.65	3.9	8824.09
TA1_shp	691.67	635309.6	6325785	1331.4	454.6	2.26	15351.56
TA1_shp	691.67	635309.6	6325785	1302.9	483.1	1.13	24645.58
TA1_shp	691.67	635309.6	6325785	1272.2	513.8	0.42	35562.58
TA1_shp	691.67	635309.6	6325785	1239.55	546.45	0.1	45808.7
TA1_shp	691.67	635309.6	6325785	1203.75	582.25	0.1	45319.3
TA1_shp	691.67	635309.6	6325785	1165.1	620.9	0.1	36097.18
TA1_shp	691.67	635309.6	6325785	1123.95	662.05	0.1	24477.1
TA1_shp	691.67	635309.6	6325785	1078.85	707.15	0.1	14352.2
TA1_shp	691.67	635309.6	6325785	1030.2	755.8	0.1	7995.69
TA1_shp	691.67	635309.6	6325785	978.4	807.6	0.1	4793.94
TA1_shp	691.67	635309.6	6325785	921.6	864.4	0.1	3216.74
TA1_shp	691.67	635309.6	6325785	860.35	925.65	0.1	2326.06
TA1_shp	691.67	635309.6	6325785	795.5	990.5	0.1	1771.84
TA1_shp	691.67	635309.6	6325785	724	1062	0.1	1276.98
TA1_shp	708.33	635324.7	6325791	1786.85	9.73	53.84	417.46
TA1_shp	708.33	635324.7	6325791	1767.38	29.2	57.18	379.55
TA1_shp	708.33	635324.7	6325791	1747.91	48.67	47.74	376.85
TA1_shp	708.33	635324.7	6325791	1728.45	68.13	41.94	397.6
TA1_shp	708.33	635324.7	6325791	1708.98	87.6	45.91	421.16
TA1_shp	708.33	635324.7	6325791	1689.51	107.07	59.35	388.33
TA1_shp	708.33	635324.7	6325791	1670.05	126.53	77.75	285.87
TA1_shp	708.33	635324.7	6325791	1650.58	146	95.62	180.25
TA1_shp	708.33	635324.7	6325791	1631.11	165.47	108.75	114.28
TA1_shp	708.33	635324.7	6325791	1611.65	184.93	115.26	84.89
TA1_shp	708.33	635324.7	6325791	1592.18	204.4	114.75	80.85
TA1_shp	708.33	635324.7	6325791	1572.71	223.87	108.44	96.29
TA1_shp	708.33	635324.7	6325791	1553.25	243.33	97.96	132.1
TA1_shp	708.33	635324.7	6325791	1533.78	262.8	84.93	195.27
TA1_shp	708.33	635324.7	6325791	1514.31	282.27	69.77	310.18
TA1_shp	708.33	635324.7	6325791	1494.58	302	55.44	488.19
TA1_shp	708.33	635324.7	6325791	1474.58	322	42.04	770.97
TA1_shp	708.33	635324.7	6325791	1454.58	342	29.85	1203.61
TA1_shp	708.33	635324.7	6325791	1434.58	362	19.72	1895.49

TA1_shp	708.33	635324.7	6325791	1414.58	382	13.03	3069.36
TA1_shp	708.33	635324.7	6325791	1392.48	404.1	7.73	4966.54
TA1_shp	708.33	635324.7	6325791	1367.93	428.65	4.28	8139.98
TA1_shp	708.33	635324.7	6325791	1341.98	454.6	2.5	14405.09
TA1_shp	708.33	635324.7	6325791	1313.48	483.1	1.25	23668.33
TA1_shp	708.33	635324.7	6325791	1282.78	513.8	0.49	34997.62
TA1_shp	708.33	635324.7	6325791	1250.13	546.45	0.1	46323.49
TA1_shp	708.33	635324.7	6325791	1214.33	582.25	0.1	47346.01
TA1_shp	708.33	635324.7	6325791	1175.68	620.9	0.1	38446.18
TA1_shp	708.33	635324.7	6325791	1134.53	662.05	0.1	26382.37
TA1_shp	708.33	635324.7	6325791	1089.43	707.15	0.1	15492.78
TA1_shp	708.33	635324.7	6325791	1040.78	755.8	0.1	8534.74
TA1_shp	708.33	635324.7	6325791	988.98	807.6	0.1	5062.63
TA1_shp	708.33	635324.7	6325791	932.18	864.4	0.1	3365.27
TA1_shp	708.33	635324.7	6325791	870.93	925.65	0.1	2412.94
TA1_shp	708.33	635324.7	6325791	806.08	990.5	0.1	1826.08
TA1_shp	708.33	635324.7	6325791	734.58	1062	0.1	1305.01
TA1_shp	725	635340	6325798	1800.02	9.73	6.15	8891.26
TA1_shp	725	635340	6325798	1780.55	29.2	32.97	840.72
TA1_shp	725	635340	6325798	1761.08	48.67	57.55	287.95
TA1_shp	725	635340	6325798	1741.62	68.13	56.11	267.18
TA1_shp	725	635340	6325798	1722.15	87.6	48.97	320.02
TA1_shp	725	635340	6325798	1702.68	107.07	48.35	363.78
TA1_shp	725	635340	6325798	1683.22	126.53	56.85	328.25
TA1_shp	725	635340	6325798	1663.75	146	71.41	220.76
TA1_shp	725	635340	6325798	1644.28	165.47	87.04	123.33
TA1_shp	725	635340	6325798	1624.82	184.93	99.42	70.2
TA1_shp	725	635340	6325798	1605.35	204.4	106.32	49.01
TA1_shp	725	635340	6325798	1585.88	223.87	106.95	47.05
TA1_shp	725	635340	6325798	1566.42	243.33	102.27	59.56
TA1_shp	725	635340	6325798	1546.95	262.8	93.52	88.99
TA1_shp	725	635340	6325798	1527.48	282.27	82.2	142.44
TA1_shp	725	635340	6325798	1507.75	302	68.37	246.23
TA1_shp	725	635340	6325798	1487.75	322	54.95	410.74
TA1_shp	725	635340	6325798	1467.75	342	42.3	673.99
TA1_shp	725	635340	6325798	1447.75	362	30.56	1081.08
TA1_shp	725	635340	6325798	1427.75	382	20.45	1720.53
TA1_shp	725	635340	6325798	1405.65	404.1	13.03	2957.98
TA1_shp	725	635340	6325798	1381.1	428.65	7.49	5200.51
TA1_shp	725	635340	6325798	1355.15	454.6	4.05	9004.18
TA1_shp	725	635340	6325798	1326.65	483.1	2.05	15771.08
TA1_shp	725	635340	6325798	1295.95	513.8	1.01	27068.18
TA1_shp	725	635340	6325798	1263.3	546.45	0.36	39721.66
TA1_shp	725	635340	6325798	1227.5	582.25	0.1	48117.7
TA1_shp	725	635340	6325798	1188.85	620.9	0.1	46751.03
TA1_shp	725	635340	6325798	1147.7	662.05	0.1	34455.57
TA1_shp	725	635340	6325798	1102.6	707.15	0.1	20420.8
TA1_shp	725	635340	6325798	1053.95	755.8	0.1	11646.34
TA1_shp	725	635340	6325798	1002.15	807.6	0.1	6764.74
TA1_shp	725	635340	6325798	945.35	864.4	0.1	4128.12
TA1_shp	725	635340	6325798	884.1	925.65	0.1	2775.09
TA1_shp	725	635340	6325798	819.25	990.5	0.1	2032.23

TA1_shp	725	635340	6325798	747.75	1062	0.1	1483.12
TA1_shp	741.67	635355.3	6325805	1813.19	9.73	1.02	37409.89
TA1_shp	741.67	635355.3	6325805	1793.72	29.2	3.68	10876.01
TA1_shp	741.67	635355.3	6325805	1774.25	48.67	22.3	1228.89
TA1_shp	741.67	635355.3	6325805	1754.79	68.13	52.07	357.18
TA1_shp	741.67	635355.3	6325805	1735.32	87.6	60.01	290.65
TA1_shp	741.67	635355.3	6325805	1715.85	107.07	56.56	356.54
TA1_shp	741.67	635355.3	6325805	1696.39	126.53	53.28	420.49
TA1_shp	741.67	635355.3	6325805	1676.92	146	55.98	370.74
TA1_shp	741.67	635355.3	6325805	1657.45	165.47	64.56	230.88
TA1_shp	741.67	635355.3	6325805	1637.99	184.93	75.8	116.43
TA1_shp	741.67	635355.3	6325805	1618.52	204.4	85.95	59.79
TA1_shp	741.67	635355.3	6325805	1599.05	223.87	92.49	38.72
TA1_shp	741.67	635355.3	6325805	1579.59	243.33	94.22	36
TA1_shp	741.67	635355.3	6325805	1560.12	262.8	91.46	45.94
TA1_shp	741.67	635355.3	6325805	1540.65	282.27	85	70.82
TA1_shp	741.67	635355.3	6325805	1520.92	302	75.84	117.83
TA1_shp	741.67	635355.3	6325805	1500.92	322	64.04	212.95
TA1_shp	741.67	635355.3	6325805	1480.92	342	52.34	364.81
TA1_shp	741.67	635355.3	6325805	1460.92	362	40.92	611.56
TA1_shp	741.67	635355.3	6325805	1440.92	382	30.07	997.86
TA1_shp	741.67	635355.3	6325805	1418.82	404.1	19.37	1659.65
TA1_shp	741.67	635355.3	6325805	1394.27	428.65	11.78	3031.23
TA1_shp	741.67	635355.3	6325805	1368.32	454.6	6.74	5627.33
TA1_shp	741.67	635355.3	6325805	1339.82	483.1	3.56	10592.5
TA1_shp	741.67	635355.3	6325805	1309.12	513.8	1.71	19047.83
TA1_shp	741.67	635355.3	6325805	1276.47	546.45	0.7	31560.98
TA1_shp	741.67	635355.3	6325805	1240.67	582.25	0.14	46548.78
TA1_shp	741.67	635355.3	6325805	1202.02	620.9	0.1	51651.47
TA1_shp	741.67	635355.3	6325805	1160.87	662.05	0.1	42924.64
TA1_shp	741.67	635355.3	6325805	1115.77	707.15	0.1	28513.4
TA1_shp	741.67	635355.3	6325805	1067.12	755.8	0.1	16130.14
TA1_shp	741.67	635355.3	6325805	1015.32	807.6	0.1	8713.87
TA1_shp	741.67	635355.3	6325805	958.52	864.4	0.1	4987.97
TA1_shp	741.67	635355.3	6325805	897.27	925.65	0.1	3177.73
TA1_shp	741.67	635355.3	6325805	832.42	990.5	0.1	2254.15
TA1_shp	741.67	635355.3	6325805	760.92	1062	0.1	1676.89
TA1_shp	758.33	635370.7	6325812	1826.35	9.73	1.28	6698.51
TA1_shp	758.33	635370.7	6325812	1806.88	29.2	2.72	4947.51
TA1_shp	758.33	635370.7	6325812	1787.41	48.67	14.69	1272.44
TA1_shp	758.33	635370.7	6325812	1767.95	68.13	44.82	508.99
TA1_shp	758.33	635370.7	6325812	1748.48	87.6	60.34	407.19
TA1_shp	758.33	635370.7	6325812	1729.01	107.07	62.54	495.36
TA1_shp	758.33	635370.7	6325812	1709.55	126.53	58.94	596.59
TA1_shp	758.33	635370.7	6325812	1690.08	146	56.94	525.98
TA1_shp	758.33	635370.7	6325812	1670.61	165.47	59.37	317.35
TA1_shp	758.33	635370.7	6325812	1651.15	184.93	65.3	151.91
TA1_shp	758.33	635370.7	6325812	1631.68	204.4	72.12	73.3
TA1_shp	758.33	635370.7	6325812	1612.21	223.87	77.44	44.29
TA1_shp	758.33	635370.7	6325812	1592.75	243.33	79.65	38.4
TA1_shp	758.33	635370.7	6325812	1573.28	262.8	78.54	46.26
TA1_shp	758.33	635370.7	6325812	1553.81	282.27	74.36	68.41

TA1_shp	758.33	635370.7	6325812	1534.08	302	67.63	111.37
TA1_shp	758.33	635370.7	6325812	1514.08	322	58.29	198.75
TA1_shp	758.33	635370.7	6325812	1494.08	342	48.54	340.02
TA1_shp	758.33	635370.7	6325812	1474.08	362	38.58	570.87
TA1_shp	758.33	635370.7	6325812	1454.08	382	28.81	934.12
TA1_shp	758.33	635370.7	6325812	1431.98	404.1	18.94	1559.66
TA1_shp	758.33	635370.7	6325812	1407.43	428.65	11.67	2868.45
TA1_shp	758.33	635370.7	6325812	1381.48	454.6	6.79	5359.2
TA1_shp	758.33	635370.7	6325812	1352.98	483.1	3.65	10193.96
TA1_shp	758.33	635370.7	6325812	1322.28	513.8	1.79	18568.18
TA1_shp	758.33	635370.7	6325812	1289.63	546.45	0.75	31231.31
TA1_shp	758.33	635370.7	6325812	1253.83	582.25	0.17	47295.64
TA1_shp	758.33	635370.7	6325812	1215.18	620.9	0.1	53992.27
TA1_shp	758.33	635370.7	6325812	1174.03	662.05	0.1	45756.55
TA1_shp	758.33	635370.7	6325812	1128.93	707.15	0.1	30679.47
TA1_shp	758.33	635370.7	6325812	1080.28	755.8	0.1	17316.53
TA1_shp	758.33	635370.7	6325812	1028.48	807.6	0.1	9280.96
TA1_shp	758.33	635370.7	6325812	971.68	864.4	0.1	5258.03
TA1_shp	758.33	635370.7	6325812	910.43	925.65	0.1	3309.93
TA1_shp	758.33	635370.7	6325812	845.58	990.5	0.1	2328.93
TA1_shp	758.33	635370.7	6325812	774.08	1062	0.1	1722.41
TA1_shp	775	635386	6325819	1839.52	9.73	1.28	21673.26
TA1_shp	775	635386	6325819	1820.05	29.2	1.12	9702.71
TA1_shp	775	635386	6325819	1800.58	48.67	2.2	5116.87
TA1_shp	775	635386	6325819	1781.12	68.13	9.6	1802.53
TA1_shp	775	635386	6325819	1761.65	87.6	36.34	797.21
TA1_shp	775	635386	6325819	1742.18	107.07	58.6	616.31
TA1_shp	775	635386	6325819	1722.72	126.53	66.77	739.74
TA1_shp	775	635386	6325819	1703.25	146	64.36	922.06
TA1_shp	775	635386	6325819	1683.78	165.47	59.13	852.91
TA1_shp	775	635386	6325819	1664.32	184.93	56.25	531.33
TA1_shp	775	635386	6325819	1644.85	204.4	57.01	257.45
TA1_shp	775	635386	6325819	1625.38	223.87	60.14	122.38
TA1_shp	775	635386	6325819	1605.92	243.33	63.61	70.38
TA1_shp	775	635386	6325819	1586.45	262.8	65.7	55.76
TA1_shp	775	635386	6325819	1566.98	282.27	65.71	60
TA1_shp	775	635386	6325819	1547.25	302	63.31	80.41
TA1_shp	775	635386	6325819	1527.25	322	58.66	121.63
TA1_shp	775	635386	6325819	1507.25	342	51.6	205.05
TA1_shp	775	635386	6325819	1487.25	362	43.74	339.59
TA1_shp	775	635386	6325819	1467.25	382	35.29	561.76
TA1_shp	775	635386	6325819	1445.15	404.1	25.89	971.33
TA1_shp	775	635386	6325819	1420.6	428.65	16.54	1735.78
TA1_shp	775	635386	6325819	1394.65	454.6	9.57	3100
TA1_shp	775	635386	6325819	1366.15	483.1	5.39	6148.53
TA1_shp	775	635386	6325819	1335.45	513.8	2.86	12406.76
TA1_shp	775	635386	6325819	1302.8	546.45	1.39	23302.07
TA1_shp	775	635386	6325819	1267	582.25	0.52	38843.37
TA1_shp	775	635386	6325819	1228.35	620.9	0.1	52515.54
TA1_shp	775	635386	6325819	1187.2	662.05	0.1	54329.34
TA1_shp	775	635386	6325819	1142.1	707.15	0.1	40419.84
TA1_shp	775	635386	6325819	1093.45	755.8	0.1	22924.65

TA1_shp	775	635386	6325819	1041.65	807.6	0.1	11689.19
TA1_shp	775	635386	6325819	984.85	864.4	0.1	6438.58
TA1_shp	775	635386	6325819	923.6	925.65	0.1	3917.06
TA1_shp	775	635386	6325819	858.75	990.5	0.1	2683.45
TA1_shp	775	635386	6325819	787.25	1062	0.1	1942.49
TA1_shp	791.67	635401.3	6325827	1852.69	9.73	2.63	17467.74
TA1_shp	791.67	635401.3	6325827	1833.22	29.2	1.77	15013.57
TA1_shp	791.67	635401.3	6325827	1813.75	48.67	1.19	10314.57
TA1_shp	791.67	635401.3	6325827	1794.29	68.13	1.92	6565.34
TA1_shp	791.67	635401.3	6325827	1774.82	87.6	6.91	2740.18
TA1_shp	791.67	635401.3	6325827	1755.35	107.07	28.3	1207.88
TA1_shp	791.67	635401.3	6325827	1735.89	126.53	55.27	873.11
TA1_shp	791.67	635401.3	6325827	1716.42	146	69.23	1034.27
TA1_shp	791.67	635401.3	6325827	1696.95	165.47	69.2	1372.92
TA1_shp	791.67	635401.3	6325827	1677.49	184.93	62.27	1412.34
TA1_shp	791.67	635401.3	6325827	1658.02	204.4	55.34	978.75
TA1_shp	791.67	635401.3	6325827	1638.55	223.87	51.61	509.93
TA1_shp	791.67	635401.3	6325827	1619.09	243.33	51.13	248.93
TA1_shp	791.67	635401.3	6325827	1599.62	262.8	52.49	138.22
TA1_shp	791.67	635401.3	6325827	1580.15	282.27	53.97	99.69
TA1_shp	791.67	635401.3	6325827	1560.42	302	54.48	93.65
TA1_shp	791.67	635401.3	6325827	1540.42	322	53.35	109.55
TA1_shp	791.67	635401.3	6325827	1520.42	342	50.36	148.3
TA1_shp	791.67	635401.3	6325827	1500.42	362	45.18	227.72
TA1_shp	791.67	635401.3	6325827	1480.42	382	38.9	357.5
TA1_shp	791.67	635401.3	6325827	1458.32	404.1	31.01	601.35
TA1_shp	791.67	635401.3	6325827	1433.77	428.65	22.03	1092.61
TA1_shp	791.67	635401.3	6325827	1407.82	454.6	13.93	2030.91
TA1_shp	791.67	635401.3	6325827	1379.32	483.1	7.88	3940.9
TA1_shp	791.67	635401.3	6325827	1348.62	513.8	4.18	7912.29
TA1_shp	791.67	635401.3	6325827	1315.97	546.45	2.06	15629.01
TA1_shp	791.67	635401.3	6325827	1280.17	582.25	0.89	29561.66
TA1_shp	791.67	635401.3	6325827	1241.52	620.9	0.23	49045.69
TA1_shp	791.67	635401.3	6325827	1200.37	662.05	0.1	59599.96
TA1_shp	791.67	635401.3	6325827	1155.27	707.15	0.1	50173.62
TA1_shp	791.67	635401.3	6325827	1106.62	755.8	0.1	31532.08
TA1_shp	791.67	635401.3	6325827	1054.82	807.6	0.1	16915
TA1_shp	791.67	635401.3	6325827	998.02	864.4	0.1	8738.45
TA1_shp	791.67	635401.3	6325827	936.77	925.65	0.1	4898.54
TA1_shp	791.67	635401.3	6325827	871.92	990.5	0.1	3127.63
TA1_shp	791.67	635401.3	6325827	800.42	1062	0.1	2181.19
TA1_shp	808.33	635417.2	6325832	1854.11	9.73	4.1	9409.99
TA1_shp	808.33	635417.2	6325832	1834.64	29.2	4.26	4397.31
TA1_shp	808.33	635417.2	6325832	1815.17	48.67	1.89	5714.67
TA1_shp	808.33	635417.2	6325832	1795.71	68.13	2.02	6142.81
TA1_shp	808.33	635417.2	6325832	1776.24	87.6	5.54	3372.16
TA1_shp	808.33	635417.2	6325832	1756.77	107.07	21.68	1539.63
TA1_shp	808.33	635417.2	6325832	1737.31	126.53	50.11	1037.4
TA1_shp	808.33	635417.2	6325832	1717.84	146	68.68	1201.01
TA1_shp	808.33	635417.2	6325832	1698.37	165.47	72.08	1733.52
TA1_shp	808.33	635417.2	6325832	1678.91	184.93	65.44	2098.25
TA1_shp	808.33	635417.2	6325832	1659.44	204.4	56.3	1740.07

TA1_shp	808.33	635417.2	6325832	1639.97	223.87	49.28	1039.87
TA1_shp	808.33	635417.2	6325832	1620.51	243.33	45.7	540.85
TA1_shp	808.33	635417.2	6325832	1601.04	262.8	44.84	296.33
TA1_shp	808.33	635417.2	6325832	1581.57	282.27	45.36	195.92
TA1_shp	808.33	635417.2	6325832	1561.84	302	45.84	160.82
TA1_shp	808.33	635417.2	6325832	1541.84	322	45.44	161.66
TA1_shp	808.33	635417.2	6325832	1521.84	342	43.59	192.61
TA1_shp	808.33	635417.2	6325832	1501.84	362	39.84	264.98
TA1_shp	808.33	635417.2	6325832	1481.84	382	34.81	389.22
TA1_shp	808.33	635417.2	6325832	1459.74	404.1	28.14	625.24
TA1_shp	808.33	635417.2	6325832	1435.19	428.65	20.28	1104.96
TA1_shp	808.33	635417.2	6325832	1409.24	454.6	13.04	2025.87
TA1_shp	808.33	635417.2	6325832	1380.74	483.1	7.53	3907.21
TA1_shp	808.33	635417.2	6325832	1350.04	513.8	4.08	7843.42
TA1_shp	808.33	635417.2	6325832	1317.39	546.45	2.06	15563.73
TA1_shp	808.33	635417.2	6325832	1281.59	582.25	0.91	29711.2
TA1_shp	808.33	635417.2	6325832	1242.94	620.9	0.25	50422.28
TA1_shp	808.33	635417.2	6325832	1201.79	662.05	0.1	62609.47
TA1_shp	808.33	635417.2	6325832	1156.69	707.15	0.1	53519.81
TA1_shp	808.33	635417.2	6325832	1108.04	755.8	0.1	33886.64
TA1_shp	808.33	635417.2	6325832	1056.24	807.6	0.1	18136.19
TA1_shp	808.33	635417.2	6325832	999.44	864.4	0.1	9271.59
TA1_shp	808.33	635417.2	6325832	938.19	925.65	0.1	5136.45
TA1_shp	808.33	635417.2	6325832	873.34	990.5	0.1	3248.43
TA1_shp	808.33	635417.2	6325832	801.84	1062	0.1	2247.95
TA1_shp	825	635433.5	6325836	1843.77	9.73	13.26	1017
TA1_shp	825	635433.5	6325836	1824.3	29.2	3.41	2705.18
TA1_shp	825	635433.5	6325836	1804.83	48.67	2.53	4965.17
TA1_shp	825	635433.5	6325836	1785.37	68.13	4.89	3598.22
TA1_shp	825	635433.5	6325836	1765.9	87.6	15.96	1696.44
TA1_shp	825	635433.5	6325836	1746.43	107.07	42.28	1008
TA1_shp	825	635433.5	6325836	1726.97	126.53	63.73	1075.64
TA1_shp	825	635433.5	6325836	1707.5	146	71.24	1662.08
TA1_shp	825	635433.5	6325836	1688.03	165.47	67.22	2438.66
TA1_shp	825	635433.5	6325836	1668.57	184.93	58.29	2583.27
TA1_shp	825	635433.5	6325836	1649.1	204.4	49.76	1893.64
TA1_shp	825	635433.5	6325836	1629.63	223.87	43.97	1103.68
TA1_shp	825	635433.5	6325836	1610.17	243.33	41.11	614.34
TA1_shp	825	635433.5	6325836	1590.7	262.8	40.32	382.07
TA1_shp	825	635433.5	6325836	1571.23	282.27	40.29	280.68
TA1_shp	825	635433.5	6325836	1551.5	302	40.04	247.24
TA1_shp	825	635433.5	6325836	1531.5	322	38.8	257.8
TA1_shp	825	635433.5	6325836	1511.5	342	35.92	318.02
TA1_shp	825	635433.5	6325836	1491.5	362	31.8	432.09
TA1_shp	825	635433.5	6325836	1471.5	382	26.64	632
TA1_shp	825	635433.5	6325836	1449.4	404.1	20.3	1008.79
TA1_shp	825	635433.5	6325836	1424.85	428.65	13.58	1722.63
TA1_shp	825	635433.5	6325836	1398.9	454.6	8.35	3025.37
TA1_shp	825	635433.5	6325836	1370.4	483.1	4.95	5940.94
TA1_shp	825	635433.5	6325836	1339.7	513.8	2.77	12147.21
TA1_shp	825	635433.5	6325836	1307.05	546.45	1.44	23392.2
TA1_shp	825	635433.5	6325836	1271.25	582.25	0.59	41016.77

TA1_shp	825	635433.5	6325836	1232.6	620.9	0.14	58679.46
TA1_shp	825	635433.5	6325836	1191.45	662.05	0.1	64018.75
TA1_shp	825	635433.5	6325836	1146.35	707.15	0.1	50039.12
TA1_shp	825	635433.5	6325836	1097.7	755.8	0.1	28625.68
TA1_shp	825	635433.5	6325836	1045.9	807.6	0.1	14175.13
TA1_shp	825	635433.5	6325836	989.1	864.4	0.1	7568.43
TA1_shp	825	635433.5	6325836	927.85	925.65	0.1	4463.37
TA1_shp	825	635433.5	6325836	863	990.5	0.1	2980.51
TA1_shp	825	635433.5	6325836	791.5	1062	0.1	2116.28
TA1_shp	841.67	635449.8	6325840	1833.43	9.73	16.73	961.04
TA1_shp	841.67	635449.8	6325840	1813.96	29.2	5.9	3608.53
TA1_shp	841.67	635449.8	6325840	1794.49	48.67	4.03	6488.53
TA1_shp	841.67	635449.8	6325840	1775.03	68.13	5.07	4922.03
TA1_shp	841.67	635449.8	6325840	1755.56	87.6	11.55	2084.67
TA1_shp	841.67	635449.8	6325840	1736.09	107.07	31.63	914.19
TA1_shp	841.67	635449.8	6325840	1716.63	126.53	54.27	763.59
TA1_shp	841.67	635449.8	6325840	1697.16	146	66.35	1156.76
TA1_shp	841.67	635449.8	6325840	1677.69	165.47	67.08	2018.37
TA1_shp	841.67	635449.8	6325840	1658.23	184.93	60.89	2818.04
TA1_shp	841.67	635449.8	6325840	1638.76	204.4	52.71	2697.53
TA1_shp	841.67	635449.8	6325840	1619.29	223.87	45.79	1873.31
TA1_shp	841.67	635449.8	6325840	1599.83	243.33	41.26	1110.81
TA1_shp	841.67	635449.8	6325840	1580.36	262.8	39.03	674.91
TA1_shp	841.67	635449.8	6325840	1560.89	282.27	38.07	459.49
TA1_shp	841.67	635449.8	6325840	1541.16	302	37.42	365.47
TA1_shp	841.67	635449.8	6325840	1521.16	322	36.21	344.13
TA1_shp	841.67	635449.8	6325840	1501.16	342	33.67	385.74
TA1_shp	841.67	635449.8	6325840	1481.16	362	29.91	490.43
TA1_shp	841.67	635449.8	6325840	1461.16	382	25.12	684.27
TA1_shp	841.67	635449.8	6325840	1439.06	404.1	19.21	1058.15
TA1_shp	841.67	635449.8	6325840	1414.51	428.65	12.92	1773.04
TA1_shp	841.67	635449.8	6325840	1388.56	454.6	8.04	3071.01
TA1_shp	841.67	635449.8	6325840	1360.06	483.1	4.8	6013.91
TA1_shp	841.67	635449.8	6325840	1329.36	513.8	2.73	12259.11
TA1_shp	841.67	635449.8	6325840	1296.71	546.45	1.43	23761.48
TA1_shp	841.67	635449.8	6325840	1260.91	582.25	0.61	42087.6
TA1_shp	841.67	635449.8	6325840	1222.26	620.9	0.15	61125.61
TA1_shp	841.67	635449.8	6325840	1181.11	662.05	0.1	67812.63
TA1_shp	841.67	635449.8	6325840	1136.01	707.15	0.1	53660.93
TA1_shp	841.67	635449.8	6325840	1087.36	755.8	0.1	30764.65
TA1_shp	841.67	635449.8	6325840	1035.56	807.6	0.1	15140.93
TA1_shp	841.67	635449.8	6325840	978.76	864.4	0.1	7982.14
TA1_shp	841.67	635449.8	6325840	917.51	925.65	0.1	4659.39
TA1_shp	841.67	635449.8	6325840	852.66	990.5	0.1	3085.28
TA1_shp	841.67	635449.8	6325840	781.16	1062	0.1	2176.88
TA1_shp	858.33	635466.2	6325844	1823.11	9.73	11.73	20199.98
TA1_shp	858.33	635466.2	6325844	1803.64	29.2	7.99	13954.2
TA1_shp	858.33	635466.2	6325844	1784.17	48.67	6.16	10522.6
TA1_shp	858.33	635466.2	6325844	1764.71	68.13	8.51	3857.97
TA1_shp	858.33	635466.2	6325844	1745.24	87.6	20.29	1008.11
TA1_shp	858.33	635466.2	6325844	1725.77	107.07	41.76	510.85
TA1_shp	858.33	635466.2	6325844	1706.31	126.53	58.28	631.23

TA1_shp	858.33	635466.2	6325844	1686.84	146	65.49	1205.7
TA1_shp	858.33	635466.2	6325844	1667.37	165.47	63.97	2171.11
TA1_shp	858.33	635466.2	6325844	1647.91	184.93	57.73	2792.26
TA1_shp	858.33	635466.2	6325844	1628.44	204.4	50.64	2436.8
TA1_shp	858.33	635466.2	6325844	1608.97	223.87	44.87	1626.14
TA1_shp	858.33	635466.2	6325844	1589.51	243.33	41.22	1011.01
TA1_shp	858.33	635466.2	6325844	1570.04	262.8	39.11	667.43
TA1_shp	858.33	635466.2	6325844	1550.57	282.27	37.66	500.6
TA1_shp	858.33	635466.2	6325844	1530.84	302	36.04	439.6
TA1_shp	858.33	635466.2	6325844	1510.84	322	33.31	457.61
TA1_shp	858.33	635466.2	6325844	1490.84	342	29.5	550.27
TA1_shp	858.33	635466.2	6325844	1470.84	362	24.74	736.13
TA1_shp	858.33	635466.2	6325844	1450.84	382	19.44	1049.57
TA1_shp	858.33	635466.2	6325844	1428.74	404.1	13.6	1607.71
TA1_shp	858.33	635466.2	6325844	1404.19	428.65	9.01	2820.7
TA1_shp	858.33	635466.2	6325844	1378.24	454.6	5.67	5166.51
TA1_shp	858.33	635466.2	6325844	1349.74	483.1	3.33	9928.81
TA1_shp	858.33	635466.2	6325844	1319.04	513.8	1.83	18704.57
TA1_shp	858.33	635466.2	6325844	1286.39	546.45	0.89	33156.83
TA1_shp	858.33	635466.2	6325844	1250.59	582.25	0.3	55600.8
TA1_shp	858.33	635466.2	6325844	1211.94	620.9	0.1	71858.12
TA1_shp	858.33	635466.2	6325844	1170.79	662.05	0.1	66795.32
TA1_shp	858.33	635466.2	6325844	1125.69	707.15	0.1	47260.59
TA1_shp	858.33	635466.2	6325844	1077.04	755.8	0.1	26628.54
TA1_shp	858.33	635466.2	6325844	1025.24	807.6	0.1	13490.09
TA1_shp	858.33	635466.2	6325844	968.44	864.4	0.1	7130.76
TA1_shp	858.33	635466.2	6325844	907.19	925.65	0.1	4219.01
TA1_shp	858.33	635466.2	6325844	842.34	990.5	0.1	2825.13
TA1_shp	858.33	635466.2	6325844	770.84	1062	0.1	2019.49
TA1_shp	875	635482.5	6325848	1812.77	9.73	13.77	28855.95
TA1_shp	875	635482.5	6325848	1793.3	29.2	9.25	15198.93
TA1_shp	875	635482.5	6325848	1773.83	48.67	5.63	18160.93
TA1_shp	875	635482.5	6325848	1754.37	68.13	5.41	9519.46
TA1_shp	875	635482.5	6325848	1734.9	87.6	11.5	1598.57
TA1_shp	875	635482.5	6325848	1715.43	107.07	27.93	409.48
TA1_shp	875	635482.5	6325848	1695.97	126.53	48.99	327.43
TA1_shp	875	635482.5	6325848	1676.5	146	63.38	590.41
TA1_shp	875	635482.5	6325848	1657.03	165.47	68.04	1280.67
TA1_shp	875	635482.5	6325848	1637.57	184.93	64.72	2167.14
TA1_shp	875	635482.5	6325848	1618.1	204.4	58.07	2422.13
TA1_shp	875	635482.5	6325848	1598.63	223.87	51.35	1888.56
TA1_shp	875	635482.5	6325848	1579.17	243.33	46.33	1256.11
TA1_shp	875	635482.5	6325848	1559.7	262.8	42.95	836.87
TA1_shp	875	635482.5	6325848	1540.23	282.27	40.5	615.91
TA1_shp	875	635482.5	6325848	1520.5	302	38.07	523.17
TA1_shp	875	635482.5	6325848	1500.5	322	34.69	523.49
TA1_shp	875	635482.5	6325848	1480.5	342	30.38	608.65
TA1_shp	875	635482.5	6325848	1460.5	362	25.24	792.72
TA1_shp	875	635482.5	6325848	1440.5	382	19.64	1109.05
TA1_shp	875	635482.5	6325848	1418.4	404.1	13.61	1676.67
TA1_shp	875	635482.5	6325848	1393.85	428.65	8.96	2905.95
TA1_shp	875	635482.5	6325848	1367.9	454.6	5.61	5296.55

TA1_shp	875	635482.5	6325848	1339.4	483.1	3.3	10144.41
TA1_shp	875	635482.5	6325848	1308.7	513.8	1.81	19130.33
TA1_shp	875	635482.5	6325848	1276.05	546.45	0.9	34077.7
TA1_shp	875	635482.5	6325848	1240.25	582.25	0.31	57528.84
TA1_shp	875	635482.5	6325848	1201.6	620.9	0.1	75744.8
TA1_shp	875	635482.5	6325848	1160.45	662.05	0.1	71310.53
TA1_shp	875	635482.5	6325848	1115.35	707.15	0.1	50755.5
TA1_shp	875	635482.5	6325848	1066.7	755.8	0.1	28560.3
TA1_shp	875	635482.5	6325848	1014.9	807.6	0.1	14360.87
TA1_shp	875	635482.5	6325848	958.1	864.4	0.1	7495.32
TA1_shp	875	635482.5	6325848	896.85	925.65	0.1	4389.21
TA1_shp	875	635482.5	6325848	832	990.5	0.1	2915.49
TA1_shp	875	635482.5	6325848	760.5	1062	0.1	2072.83
TA1_shp	891.67	635498.8	6325852	1802.43	9.73	6.64	5621.29
TA1_shp	891.67	635498.8	6325852	1782.96	29.2	3.45	8363.61
TA1_shp	891.67	635498.8	6325852	1763.49	48.67	2.88	14515.67
TA1_shp	891.67	635498.8	6325852	1744.03	68.13	6.11	2959.26
TA1_shp	891.67	635498.8	6325852	1724.56	87.6	17.82	440.85
TA1_shp	891.67	635498.8	6325852	1705.09	107.07	40.15	197.58
TA1_shp	891.67	635498.8	6325852	1685.63	126.53	61.38	285.12
TA1_shp	891.67	635498.8	6325852	1666.16	146	72.63	670.98
TA1_shp	891.67	635498.8	6325852	1646.69	165.47	72.93	1410.46
TA1_shp	891.67	635498.8	6325852	1627.23	184.93	67.05	1971.67
TA1_shp	891.67	635498.8	6325852	1607.76	204.4	59.65	1816.84
TA1_shp	891.67	635498.8	6325852	1588.29	223.87	53.43	1320.83
TA1_shp	891.67	635498.8	6325852	1568.83	243.33	48.83	916.66
TA1_shp	891.67	635498.8	6325852	1549.36	262.8	45.27	681.39
TA1_shp	891.67	635498.8	6325852	1529.89	282.27	41.97	578.17
TA1_shp	891.67	635498.8	6325852	1510.16	302	37.77	569.97
TA1_shp	891.67	635498.8	6325852	1490.16	322	32.75	650.94
TA1_shp	891.67	635498.8	6325852	1470.16	342	26.94	833.62
TA1_shp	891.67	635498.8	6325852	1450.16	362	20.71	1149.19
TA1_shp	891.67	635498.8	6325852	1430.16	382	14.78	1675.33
TA1_shp	891.67	635498.8	6325852	1408.06	404.1	10.08	2736.31
TA1_shp	891.67	635498.8	6325852	1383.51	428.65	6.33	4730.83
TA1_shp	891.67	635498.8	6325852	1357.56	454.6	3.8	8284.1
TA1_shp	891.67	635498.8	6325852	1329.06	483.1	2.18	15000.73
TA1_shp	891.67	635498.8	6325852	1298.36	513.8	1.25	28387.53
TA1_shp	891.67	635498.8	6325852	1265.71	546.45	0.59	48524.74
TA1_shp	891.67	635498.8	6325852	1229.91	582.25	0.18	70205.38
TA1_shp	891.67	635498.8	6325852	1191.26	620.9	0.1	81690.55
TA1_shp	891.67	635498.8	6325852	1150.11	662.05	0.1	69945.52
TA1_shp	891.67	635498.8	6325852	1105.01	707.15	0.1	42727.84
TA1_shp	891.67	635498.8	6325852	1056.36	755.8	0.1	23009.13
TA1_shp	891.67	635498.8	6325852	1004.56	807.6	0.1	12184.84
TA1_shp	891.67	635498.8	6325852	947.76	864.4	0.1	6675.21
TA1_shp	891.67	635498.8	6325852	886.51	925.65	0.1	4073.32
TA1_shp	891.67	635498.8	6325852	821.66	990.5	0.1	2768.17
TA1_shp	891.67	635498.8	6325852	750.16	1062	0.1	1887.44
TA1_shp	908.33	635514.8	6325858	1792.27	9.73	1.93	1255.54
TA1_shp	908.33	635514.8	6325858	1772.8	29.2	1.66	13185.5
TA1_shp	908.33	635514.8	6325858	1753.33	48.67	3.54	5369.65

TA1_shp	908.33	635514.8	6325858	1733.87	68.13	12.16	599.46
TA1_shp	908.33	635514.8	6325858	1714.4	87.6	32.91	156.23
TA1_shp	908.33	635514.8	6325858	1694.93	107.07	59.52	159.6
TA1_shp	908.33	635514.8	6325858	1675.47	126.53	77.46	367.13
TA1_shp	908.33	635514.8	6325858	1656	146	81.4	882.82
TA1_shp	908.33	635514.8	6325858	1636.53	165.47	76.38	1467.94
TA1_shp	908.33	635514.8	6325858	1617.07	184.93	68.51	1559.85
TA1_shp	908.33	635514.8	6325858	1597.6	204.4	61.41	1240.73
TA1_shp	908.33	635514.8	6325858	1578.13	223.87	55.82	905.43
TA1_shp	908.33	635514.8	6325858	1558.67	243.33	51.3	692.87
TA1_shp	908.33	635514.8	6325858	1539.2	262.8	47.08	596.67
TA1_shp	908.33	635514.8	6325858	1519.73	282.27	42.05	592.89
TA1_shp	908.33	635514.8	6325858	1500	302	36.24	675.11
TA1_shp	908.33	635514.8	6325858	1480	322	29.57	860.64
TA1_shp	908.33	635514.8	6325858	1460	342	22.47	1179.23
TA1_shp	908.33	635514.8	6325858	1440	362	15.8	1719.78
TA1_shp	908.33	635514.8	6325858	1420	382	11.05	2680.17
TA1_shp	908.33	635514.8	6325858	1397.9	404.1	7.06	4290.15
TA1_shp	908.33	635514.8	6325858	1373.35	428.65	4.25	7068.27
TA1_shp	908.33	635514.8	6325858	1347.4	454.6	2.7	13229.41
TA1_shp	908.33	635514.8	6325858	1318.9	483.1	1.58	24051.77
TA1_shp	908.33	635514.8	6325858	1288.2	513.8	0.82	40842.22
TA1_shp	908.33	635514.8	6325858	1255.55	546.45	0.29	64368.46
TA1_shp	908.33	635514.8	6325858	1219.75	582.25	0.1	84953.77
TA1_shp	908.33	635514.8	6325858	1181.1	620.9	0.1	81897.69
TA1_shp	908.33	635514.8	6325858	1139.95	662.05	0.1	62426.78
TA1_shp	908.33	635514.8	6325858	1094.85	707.15	0.1	36933.62
TA1_shp	908.33	635514.8	6325858	1046.2	755.8	0.1	18443.21
TA1_shp	908.33	635514.8	6325858	994.4	807.6	0.1	9592.34
TA1_shp	908.33	635514.8	6325858	937.6	864.4	0.1	5709.92
TA1_shp	908.33	635514.8	6325858	876.35	925.65	0.1	3707.59
TA1_shp	908.33	635514.8	6325858	811.5	990.5	0.1	2602.22
TA1_shp	908.33	635514.8	6325858	740	1062	0.1	1682.05
TA1_shp	925	635530.5	6325864	1782.27	9.73	1.63	1337.43
TA1_shp	925	635530.5	6325864	1762.8	29.2	1.38	14463.03
TA1_shp	925	635530.5	6325864	1743.33	48.67	2.55	10875.97
TA1_shp	925	635530.5	6325864	1723.87	68.13	9.49	975.62
TA1_shp	925	635530.5	6325864	1704.4	87.6	28.46	162.86
TA1_shp	925	635530.5	6325864	1684.93	107.07	57.48	116.06
TA1_shp	925	635530.5	6325864	1665.47	126.53	80.37	238.45
TA1_shp	925	635530.5	6325864	1646	146	87.92	600.87
TA1_shp	925	635530.5	6325864	1626.53	165.47	84.23	1104.17
TA1_shp	925	635530.5	6325864	1607.07	184.93	76.61	1298.8
TA1_shp	925	635530.5	6325864	1587.6	204.4	69.16	1109.64
TA1_shp	925	635530.5	6325864	1568.13	223.87	63	848.85
TA1_shp	925	635530.5	6325864	1548.67	243.33	57.79	669.65
TA1_shp	925	635530.5	6325864	1529.2	262.8	52.82	589.74
TA1_shp	925	635530.5	6325864	1509.73	282.27	46.93	595.58
TA1_shp	925	635530.5	6325864	1490	302	40.3	685.19
TA1_shp	925	635530.5	6325864	1470	322	32.75	879.67
TA1_shp	925	635530.5	6325864	1450	342	24.68	1210.32
TA1_shp	925	635530.5	6325864	1430	362	17.08	1767.09

TA1_shp	925	635530.5	6325864	1410	382	11.74	2754.46
TA1_shp	925	635530.5	6325864	1387.9	404.1	7.33	4408.96
TA1_shp	925	635530.5	6325864	1363.35	428.65	4.33	7263.42
TA1_shp	925	635530.5	6325864	1337.4	454.6	2.73	13596.9
TA1_shp	925	635530.5	6325864	1308.9	483.1	1.58	24808.87
TA1_shp	925	635530.5	6325864	1278.2	513.8	0.82	42350.41
TA1_shp	925	635530.5	6325864	1245.55	546.45	0.3	67165.93
TA1_shp	925	635530.5	6325864	1209.75	582.25	0.1	89931.46
TA1_shp	925	635530.5	6325864	1171.1	620.9	0.1	87397.12
TA1_shp	925	635530.5	6325864	1129.95	662.05	0.1	66937.38
TA1_shp	925	635530.5	6325864	1084.85	707.15	0.1	39624.41
TA1_shp	925	635530.5	6325864	1036.2	755.8	0.1	19628.63
TA1_shp	925	635530.5	6325864	984.4	807.6	0.1	10104.91
TA1_shp	925	635530.5	6325864	927.6	864.4	0.1	5960.25
TA1_shp	925	635530.5	6325864	866.35	925.65	0.1	3837.98
TA1_shp	925	635530.5	6325864	801.5	990.5	0.1	2677.38
TA1_shp	925	635530.5	6325864	730	1062	0.1	1716.81
TA1_shp	941.67	635546.2	6325871	1772.27	9.73	1.79	19273.36
TA1_shp	941.67	635546.2	6325871	1752.8	29.2	2.51	22293.06
TA1_shp	941.67	635546.2	6325871	1733.33	48.67	8.76	1682.78
TA1_shp	941.67	635546.2	6325871	1713.87	68.13	26.83	207.03
TA1_shp	941.67	635546.2	6325871	1694.4	87.6	55.62	112.09
TA1_shp	941.67	635546.2	6325871	1674.93	107.07	80.73	198.88
TA1_shp	941.67	635546.2	6325871	1655.47	126.53	91.03	481.74
TA1_shp	941.67	635546.2	6325871	1636	146	89.33	908.21
TA1_shp	941.67	635546.2	6325871	1616.53	165.47	82.7	1118.67
TA1_shp	941.67	635546.2	6325871	1597.07	184.93	75.67	996.68
TA1_shp	941.67	635546.2	6325871	1577.6	204.4	69.54	784.65
TA1_shp	941.67	635546.2	6325871	1558.13	223.87	64.06	633.93
TA1_shp	941.67	635546.2	6325871	1538.67	243.33	58.63	569.19
TA1_shp	941.67	635546.2	6325871	1519.2	262.8	52.04	585.55
TA1_shp	941.67	635546.2	6325871	1499.73	282.27	44.77	682.37
TA1_shp	941.67	635546.2	6325871	1480	302	36.53	881.07
TA1_shp	941.67	635546.2	6325871	1460	322	27.51	1217.19
TA1_shp	941.67	635546.2	6325871	1440	342	18.87	1793.35
TA1_shp	941.67	635546.2	6325871	1420	362	12.75	2794.29
TA1_shp	941.67	635546.2	6325871	1400	382	8.03	4211.09
TA1_shp	941.67	635546.2	6325871	1377.9	404.1	5.11	6853.95
TA1_shp	941.67	635546.2	6325871	1353.35	428.65	3.17	12307.91
TA1_shp	941.67	635546.2	6325871	1327.4	454.6	1.85	21057.88
TA1_shp	941.67	635546.2	6325871	1298.9	483.1	1.02	35323.88
TA1_shp	941.67	635546.2	6325871	1268.2	513.8	0.51	59652.66
TA1_shp	941.67	635546.2	6325871	1235.55	546.45	0.17	83707.31
TA1_shp	941.67	635546.2	6325871	1199.75	582.25	0.1	97923.25
TA1_shp	941.67	635546.2	6325871	1161.1	620.9	0.1	87805.52
TA1_shp	941.67	635546.2	6325871	1119.95	662.05	0.1	57377.09
TA1_shp	941.67	635546.2	6325871	1074.85	707.15	0.1	32871.36
TA1_shp	941.67	635546.2	6325871	1026.2	755.8	0.1	17051.89
TA1_shp	941.67	635546.2	6325871	974.4	807.6	0.1	9025.12
TA1_shp	941.67	635546.2	6325871	917.6	864.4	0.1	5216.92
TA1_shp	941.67	635546.2	6325871	856.35	925.65	0.1	3392.06
TA1_shp	941.67	635546.2	6325871	791.5	990.5	0.1	2481.55

TA1_shp	941.67	635546.2	6325871	720	1062	0.1	1479.07
TA1_shp	958.33	635561.8	6325878	1762.27	9.73	2.63	52439.21
TA1_shp	958.33	635561.8	6325878	1742.8	29.2	4.51	19017.23
TA1_shp	958.33	635561.8	6325878	1723.33	48.67	10.4	2100.48
TA1_shp	958.33	635561.8	6325878	1703.87	68.13	27.61	272.71
TA1_shp	958.33	635561.8	6325878	1684.4	87.6	53.53	136.49
TA1_shp	958.33	635561.8	6325878	1664.93	107.07	77.72	212.15
TA1_shp	958.33	635561.8	6325878	1645.47	126.53	89.85	469.22
TA1_shp	958.33	635561.8	6325878	1626	146	90.56	846.22
TA1_shp	958.33	635561.8	6325878	1606.53	165.47	85.86	1037.21
TA1_shp	958.33	635561.8	6325878	1587.07	184.93	80.18	931.76
TA1_shp	958.33	635561.8	6325878	1567.6	204.4	74.8	741.13
TA1_shp	958.33	635561.8	6325878	1548.13	223.87	69.57	604.86
TA1_shp	958.33	635561.8	6325878	1528.67	243.33	63.96	549.1
TA1_shp	958.33	635561.8	6325878	1509.2	262.8	56.9	572.09
TA1_shp	958.33	635561.8	6325878	1489.73	282.27	49.01	675.42
TA1_shp	958.33	635561.8	6325878	1470	302	40.08	882.09
TA1_shp	958.33	635561.8	6325878	1450	322	30.3	1228.93
TA1_shp	958.33	635561.8	6325878	1430	342	20.6	1821.29
TA1_shp	958.33	635561.8	6325878	1410	362	13.73	2850.22
TA1_shp	958.33	635561.8	6325878	1390	382	8.46	4306.96
TA1_shp	958.33	635561.8	6325878	1367.9	404.1	5.29	7025.44
TA1_shp	958.33	635561.8	6325878	1343.35	428.65	3.23	12637.42
TA1_shp	958.33	635561.8	6325878	1317.4	454.6	1.87	21672.5
TA1_shp	958.33	635561.8	6325878	1288.9	483.1	1.03	36455.45
TA1_shp	958.33	635561.8	6325878	1258.2	513.8	0.51	61992.3
TA1_shp	958.33	635561.8	6325878	1225.55	546.45	0.17	87949.04
TA1_shp	958.33	635561.8	6325878	1189.75	582.25	0.1	103936.6
TA1_shp	958.33	635561.8	6325878	1151.1	620.9	0.1	94066.26
TA1_shp	958.33	635561.8	6325878	1109.95	662.05	0.1	61564.34
TA1_shp	958.33	635561.8	6325878	1064.85	707.15	0.1	35163.59
TA1_shp	958.33	635561.8	6325878	1016.2	755.8	0.1	18097.21
TA1_shp	958.33	635561.8	6325878	964.4	807.6	0.1	9481.23
TA1_shp	958.33	635561.8	6325878	907.6	864.4	0.1	5424.35
TA1_shp	958.33	635561.8	6325878	846.35	925.65	0.1	3498.1
TA1_shp	958.33	635561.8	6325878	781.5	990.5	0.1	2548.56
TA1_shp	958.33	635561.8	6325878	710	1062	0.1	1503.12
TA1_shp	975	635577.5	6325885	1752.27	9.73	8.45	6024.82
TA1_shp	975	635577.5	6325885	1732.8	29.2	11.88	1944.71
TA1_shp	975	635577.5	6325885	1713.33	48.67	28.25	343.74
TA1_shp	975	635577.5	6325885	1693.87	68.13	50.77	187.37
TA1_shp	975	635577.5	6325885	1674.4	87.6	72.88	272.2
TA1_shp	975	635577.5	6325885	1654.93	107.07	85.5	539.88
TA1_shp	975	635577.5	6325885	1635.47	126.53	88.35	897.73
TA1_shp	975	635577.5	6325885	1616	146	86.08	1050.75
TA1_shp	975	635577.5	6325885	1596.53	165.47	82.39	925.83
TA1_shp	975	635577.5	6325885	1577.07	184.93	78.31	729
TA1_shp	975	635577.5	6325885	1557.6	204.4	73.81	592.69
TA1_shp	975	635577.5	6325885	1538.13	223.87	68.4	537.42
TA1_shp	975	635577.5	6325885	1518.67	243.33	61.13	562.19
TA1_shp	975	635577.5	6325885	1499.2	262.8	52.83	668.35
TA1_shp	975	635577.5	6325885	1479.73	282.27	43.51	876.31

TA1_shp	975	635577.5	6325885	1460	302	33.22	1219.65
TA1_shp	975	635577.5	6325885	1440	322	22.61	1826.76
TA1_shp	975	635577.5	6325885	1420	342	14.91	2868.24
TA1_shp	975	635577.5	6325885	1400	362	8.97	4328.85
TA1_shp	975	635577.5	6325885	1380	382	5.88	6849.66
TA1_shp	975	635577.5	6325885	1357.9	404.1	3.64	11587.06
TA1_shp	975	635577.5	6325885	1333.35	428.65	2.08	18827.36
TA1_shp	975	635577.5	6325885	1307.4	454.6	1.3	32759.93
TA1_shp	975	635577.5	6325885	1278.9	483.1	0.69	54409.46
TA1_shp	975	635577.5	6325885	1248.2	513.8	0.27	81305.23
TA1_shp	975	635577.5	6325885	1215.55	546.45	0.1	108426.6
TA1_shp	975	635577.5	6325885	1179.75	582.25	0.1	105865.6
TA1_shp	975	635577.5	6325885	1141.1	620.9	0.1	84364.94
TA1_shp	975	635577.5	6325885	1099.95	662.05	0.1	52308.89
TA1_shp	975	635577.5	6325885	1054.85	707.15	0.1	26432.6
TA1_shp	975	635577.5	6325885	1006.2	755.8	0.1	14750.03
TA1_shp	975	635577.5	6325885	954.4	807.6	0.1	8294.26
TA1_shp	975	635577.5	6325885	897.6	864.4	0.1	4992.56
TA1_shp	975	635577.5	6325885	836.35	925.65	0.1	3309.28
TA1_shp	975	635577.5	6325885	771.5	990.5	0.1	2320.67
TA1_shp	975	635577.5	6325885	700	1062	0.1	1460.63
TA1_shp	991.67	635593.2	6325892	1742.27	9.73	6.69	4895.48
TA1_shp	991.67	635593.2	6325892	1722.8	29.2	10.63	1699.59
TA1_shp	991.67	635593.2	6325892	1703.33	48.67	26.94	386.72
TA1_shp	991.67	635593.2	6325892	1683.87	68.13	47.17	256.77
TA1_shp	991.67	635593.2	6325892	1664.4	87.6	66.55	378.27
TA1_shp	991.67	635593.2	6325892	1644.93	107.07	78.83	692.3
TA1_shp	991.67	635593.2	6325892	1625.47	126.53	83.47	1047.93
TA1_shp	991.67	635593.2	6325892	1606	146	83.77	1150.38
TA1_shp	991.67	635593.2	6325892	1586.53	165.47	82.41	972.85
TA1_shp	991.67	635593.2	6325892	1567.07	184.93	80.11	748.4
TA1_shp	991.67	635593.2	6325892	1547.6	204.4	76.69	597.44
TA1_shp	991.67	635593.2	6325892	1528.13	223.87	71.76	536.52
TA1_shp	991.67	635593.2	6325892	1508.67	243.33	64.54	558.25
TA1_shp	991.67	635593.2	6325892	1489.2	262.8	56	664.67
TA1_shp	991.67	635593.2	6325892	1469.73	282.27	46.3	875.52
TA1_shp	991.67	635593.2	6325892	1450	302	35.52	1224.45
TA1_shp	991.67	635593.2	6325892	1430	322	24.22	1842.43
TA1_shp	991.67	635593.2	6325892	1410	342	15.87	2908.57
TA1_shp	991.67	635593.2	6325892	1390	362	9.39	4403.73
TA1_shp	991.67	635593.2	6325892	1370	382	6.08	6978.84
TA1_shp	991.67	635593.2	6325892	1347.9	404.1	3.71	11839.96
TA1_shp	991.67	635593.2	6325892	1323.35	428.65	2.09	19285.57
TA1_shp	991.67	635593.2	6325892	1297.4	454.6	1.3	33676.85
TA1_shp	991.67	635593.2	6325892	1268.9	483.1	0.69	56224.31
TA1_shp	991.67	635593.2	6325892	1238.2	513.8	0.27	84610.24
TA1_shp	991.67	635593.2	6325892	1205.55	546.45	0.1	114216.1
TA1_shp	991.67	635593.2	6325892	1169.75	582.25	0.1	112656.7
TA1_shp	991.67	635593.2	6325892	1131.1	620.9	0.1	90343.59
TA1_shp	991.67	635593.2	6325892	1089.95	662.05	0.1	56078.92
TA1_shp	991.67	635593.2	6325892	1044.85	707.15	0.1	28139.6
TA1_shp	991.67	635593.2	6325892	996.2	755.8	0.1	15590.88

TA1_shp	991.67	635593.2	6325892	944.4	807.6	0.1	8686.15
TA1_shp	991.67	635593.2	6325892	887.6	864.4	0.1	5179.34
TA1_shp	991.67	635593.2	6325892	826.35	925.65	0.1	3408.15
TA1_shp	991.67	635593.2	6325892	761.5	990.5	0.1	2378.28
TA1_shp	991.67	635593.2	6325892	690	1062	0.1	1483.08
TA1_shp	1008.33	635608.6	6325898	1736.85	9.73	3.34	10500.63
TA1_shp	1008.33	635608.6	6325898	1717.38	29.2	8.63	1393.05
TA1_shp	1008.33	635608.6	6325898	1697.91	48.67	24.65	367.83
TA1_shp	1008.33	635608.6	6325898	1678.45	68.13	44.05	321.26
TA1_shp	1008.33	635608.6	6325898	1658.98	87.6	60.61	523.18
TA1_shp	1008.33	635608.6	6325898	1639.51	107.07	71.51	918.85
TA1_shp	1008.33	635608.6	6325898	1620.05	126.53	77.24	1286.85
TA1_shp	1008.33	635608.6	6325898	1600.58	146	79.85	1316.24
TA1_shp	1008.33	635608.6	6325898	1581.11	165.47	80.85	1062.54
TA1_shp	1008.33	635608.6	6325898	1561.65	184.93	80.46	791.11
TA1_shp	1008.33	635608.6	6325898	1542.18	204.4	78.31	618.25
TA1_shp	1008.33	635608.6	6325898	1522.71	223.87	74.07	544.9
TA1_shp	1008.33	635608.6	6325898	1503.25	243.33	67.07	561.26
TA1_shp	1008.33	635608.6	6325898	1483.78	262.8	58.42	665.23
TA1_shp	1008.33	635608.6	6325898	1464.31	282.27	48.44	876.69
TA1_shp	1008.33	635608.6	6325898	1444.58	302	37.28	1229.69
TA1_shp	1008.33	635608.6	6325898	1424.58	322	25.47	1856.34
TA1_shp	1008.33	635608.6	6325898	1404.58	342	16.62	2945.84
TA1_shp	1008.33	635608.6	6325898	1384.58	362	9.69	4472.71
TA1_shp	1008.33	635608.6	6325898	1364.58	382	6.21	7091.61
TA1_shp	1008.33	635608.6	6325898	1342.48	404.1	3.74	12061.76
TA1_shp	1008.33	635608.6	6325898	1317.93	428.65	2.08	19688.66
TA1_shp	1008.33	635608.6	6325898	1291.98	454.6	1.29	34452.6
TA1_shp	1008.33	635608.6	6325898	1263.48	483.1	0.68	57989.9
TA1_shp	1008.33	635608.6	6325898	1232.78	513.8	0.26	88016.12
TA1_shp	1008.33	635608.6	6325898	1200.13	546.45	0.1	120045.2
TA1_shp	1008.33	635608.6	6325898	1164.33	582.25	0.1	119786
TA1_shp	1008.33	635608.6	6325898	1125.68	620.9	0.1	96730.94
TA1_shp	1008.33	635608.6	6325898	1084.53	662.05	0.1	60075
TA1_shp	1008.33	635608.6	6325898	1039.43	707.15	0.1	29969.47
TA1_shp	1008.33	635608.6	6325898	990.78	755.8	0.1	16479.38
TA1_shp	1008.33	635608.6	6325898	938.98	807.6	0.1	9093.64
TA1_shp	1008.33	635608.6	6325898	882.18	864.4	0.1	5372.35
TA1_shp	1008.33	635608.6	6325898	820.93	925.65	0.1	3510.27
TA1_shp	1008.33	635608.6	6325898	756.08	990.5	0.1	2437.41
TA1_shp	1008.33	635608.6	6325898	684.58	1062	0.1	1505.59
TA1_shp	1025	635623.8	6325904	1736.02	9.73	8.24	4388.29
TA1_shp	1025	635623.8	6325904	1716.55	29.2	14.62	801.21
TA1_shp	1025	635623.8	6325904	1697.08	48.67	29.89	313.25
TA1_shp	1025	635623.8	6325904	1677.62	68.13	44.75	375.6
TA1_shp	1025	635623.8	6325904	1658.15	87.6	56.07	686.79
TA1_shp	1025	635623.8	6325904	1638.68	107.07	64.38	1190.66
TA1_shp	1025	635623.8	6325904	1619.22	126.53	70.39	1570.82
TA1_shp	1025	635623.8	6325904	1599.75	146	75	1515.38
TA1_shp	1025	635623.8	6325904	1580.28	165.47	78.24	1170.1
TA1_shp	1025	635623.8	6325904	1560.82	184.93	79.7	846.76
TA1_shp	1025	635623.8	6325904	1541.35	204.4	78.87	644.87

TA1_shp	1025	635623.8	6325904	1521.88	223.87	75.37	558.06
TA1_shp	1025	635623.8	6325904	1502.42	243.33	68.72	566.24
TA1_shp	1025	635623.8	6325904	1482.95	262.8	60.09	666.91
TA1_shp	1025	635623.8	6325904	1463.48	282.27	49.95	876.53
TA1_shp	1025	635623.8	6325904	1443.75	302	38.51	1229.32
TA1_shp	1025	635623.8	6325904	1423.75	322	26.37	1864.8
TA1_shp	1025	635623.8	6325904	1403.75	342	17.16	2964.42
TA1_shp	1025	635623.8	6325904	1383.75	362	9.92	4511.28
TA1_shp	1025	635623.8	6325904	1363.75	382	6.29	7188.55
TA1_shp	1025	635623.8	6325904	1341.65	404.1	3.75	12250.69
TA1_shp	1025	635623.8	6325904	1317.1	428.65	2.07	20021.03
TA1_shp	1025	635623.8	6325904	1291.15	454.6	1.28	35172.86
TA1_shp	1025	635623.8	6325904	1262.65	483.1	0.68	59648.44
TA1_shp	1025	635623.8	6325904	1231.95	513.8	0.26	91284.9
TA1_shp	1025	635623.8	6325904	1199.3	546.45	0.1	125931.8
TA1_shp	1025	635623.8	6325904	1163.5	582.25	0.1	127069.4
TA1_shp	1025	635623.8	6325904	1124.85	620.9	0.1	103361
TA1_shp	1025	635623.8	6325904	1083.7	662.05	0.1	64346.54
TA1_shp	1025	635623.8	6325904	1038.6	707.15	0.1	31891.69
TA1_shp	1025	635623.8	6325904	989.95	755.8	0.1	17416.09
TA1_shp	1025	635623.8	6325904	938.15	807.6	0.1	9522.92
TA1_shp	1025	635623.8	6325904	881.35	864.4	0.1	5572.71
TA1_shp	1025	635623.8	6325904	820.1	925.65	0.1	3614.33
TA1_shp	1025	635623.8	6325904	755.25	990.5	0.1	2497.44
TA1_shp	1025	635623.8	6325904	683.75	1062	0.1	1528.13
TA1_shp	1041.67	635638.9	6325911	1735.19	9.73	11.55	3222.83
TA1_shp	1041.67	635638.9	6325911	1715.72	29.2	23.31	454.13
TA1_shp	1041.67	635638.9	6325911	1696.25	48.67	36.73	280.02
TA1_shp	1041.67	635638.9	6325911	1676.79	68.13	45	434.69
TA1_shp	1041.67	635638.9	6325911	1657.32	87.6	51	845.54
TA1_shp	1041.67	635638.9	6325911	1637.85	107.07	57	1432.1
TA1_shp	1041.67	635638.9	6325911	1618.39	126.53	63.41	1810.66
TA1_shp	1041.67	635638.9	6325911	1598.92	146	69.82	1675.23
TA1_shp	1041.67	635638.9	6325911	1579.45	165.47	75.1	1257.1
TA1_shp	1041.67	635638.9	6325911	1559.99	184.93	78.28	889.81
TA1_shp	1041.67	635638.9	6325911	1540.52	204.4	78.65	667.12
TA1_shp	1041.67	635638.9	6325911	1521.05	223.87	75.89	568.28
TA1_shp	1041.67	635638.9	6325911	1501.59	243.33	69.6	570.39
TA1_shp	1041.67	635638.9	6325911	1482.12	262.8	61.06	667.08
TA1_shp	1041.67	635638.9	6325911	1462.65	282.27	50.84	873.41
TA1_shp	1041.67	635638.9	6325911	1442.92	302	39.21	1223.83
TA1_shp	1041.67	635638.9	6325911	1422.92	322	26.84	1861.01
TA1_shp	1041.67	635638.9	6325911	1402.92	342	17.41	2968.34
TA1_shp	1041.67	635638.9	6325911	1382.92	362	9.97	4525.91
TA1_shp	1041.67	635638.9	6325911	1362.92	382	6.29	7217.05
TA1_shp	1041.67	635638.9	6325911	1340.82	404.1	3.72	12368.51
TA1_shp	1041.67	635638.9	6325911	1316.27	428.65	2.04	20306.73
TA1_shp	1041.67	635638.9	6325911	1290.32	454.6	1.25	35804.49
TA1_shp	1041.67	635638.9	6325911	1261.82	483.1	0.65	61234.22
TA1_shp	1041.67	635638.9	6325911	1231.12	513.8	0.24	94517.97
TA1_shp	1041.67	635638.9	6325911	1198.47	546.45	0.1	131758.5
TA1_shp	1041.67	635638.9	6325911	1162.67	582.25	0.1	134635.5

TA1_shp	1041.67	635638.9	6325911	1124.02	620.9	0.1	110402.2
TA1_shp	1041.67	635638.9	6325911	1082.87	662.05	0.1	68891.67
TA1_shp	1041.67	635638.9	6325911	1037.77	707.15	0.1	33949.28
TA1_shp	1041.67	635638.9	6325911	989.12	755.8	0.1	18403.77
TA1_shp	1041.67	635638.9	6325911	937.32	807.6	0.1	9968.66
TA1_shp	1041.67	635638.9	6325911	880.52	864.4	0.1	5779.94
TA1_shp	1041.67	635638.9	6325911	819.27	925.65	0.1	3722.01
TA1_shp	1041.67	635638.9	6325911	754.42	990.5	0.1	2559.3
TA1_shp	1041.67	635638.9	6325911	682.92	1062	0.1	1550.99
TA1_shp	1058.33	635654.1	6325917	1734.35	9.73	29.21	361.27
TA1_shp	1058.33	635654.1	6325917	1714.88	29.2	35.67	346.16
TA1_shp	1058.33	635654.1	6325917	1695.41	48.67	39.36	530.27
TA1_shp	1058.33	635654.1	6325917	1675.95	68.13	43.33	961.12
TA1_shp	1058.33	635654.1	6325917	1656.48	87.6	49.16	1549.57
TA1_shp	1058.33	635654.1	6325917	1637.01	107.07	56.71	1894.89
TA1_shp	1058.33	635654.1	6325917	1617.55	126.53	64.99	1721.34
TA1_shp	1058.33	635654.1	6325917	1598.08	146	72.14	1278.94
TA1_shp	1058.33	635654.1	6325917	1578.61	165.47	76.85	900.36
TA1_shp	1058.33	635654.1	6325917	1559.15	184.93	78.18	671.6
TA1_shp	1058.33	635654.1	6325917	1539.68	204.4	76.03	568.68
TA1_shp	1058.33	635654.1	6325917	1520.21	223.87	70	568.27
TA1_shp	1058.33	635654.1	6325917	1500.75	243.33	61.52	662.03
TA1_shp	1058.33	635654.1	6325917	1481.28	262.8	51.21	866.18
TA1_shp	1058.33	635654.1	6325917	1461.81	282.27	39.58	1206.92
TA1_shp	1058.33	635654.1	6325917	1442.08	302	27.24	1833
TA1_shp	1058.33	635654.1	6325917	1422.08	322	17.59	2924.34
TA1_shp	1058.33	635654.1	6325917	1402.08	342	9.96	4448.08
TA1_shp	1058.33	635654.1	6325917	1382.08	362	6.3	7149.94
TA1_shp	1058.33	635654.1	6325917	1362.08	382	3.84	11622.05
TA1_shp	1058.33	635654.1	6325917	1339.98	404.1	2.26	18246.93
TA1_shp	1058.33	635654.1	6325917	1315.43	428.65	1.41	32364.4
TA1_shp	1058.33	635654.1	6325917	1289.48	454.6	0.77	52651.08
TA1_shp	1058.33	635654.1	6325917	1260.98	483.1	0.34	84164.62
TA1_shp	1058.33	635654.1	6325917	1230.28	513.8	0.11	121324.2
TA1_shp	1058.33	635654.1	6325917	1197.63	546.45	0.1	142937.5
TA1_shp	1058.33	635654.1	6325917	1161.83	582.25	0.1	139589.8
TA1_shp	1058.33	635654.1	6325917	1123.18	620.9	0.1	95377.57
TA1_shp	1058.33	635654.1	6325917	1082.03	662.05	0.1	57500.01
TA1_shp	1058.33	635654.1	6325917	1036.93	707.15	0.1	28992.88
TA1_shp	1058.33	635654.1	6325917	988.28	755.8	0.1	14211.19
TA1_shp	1058.33	635654.1	6325917	936.48	807.6	0.1	8168.53
TA1_shp	1058.33	635654.1	6325917	879.68	864.4	0.1	5157.46
TA1_shp	1058.33	635654.1	6325917	818.43	925.65	0.1	3468.93
TA1_shp	1058.33	635654.1	6325917	753.58	990.5	0.1	2259.35
TA1_shp	1058.33	635654.1	6325917	682.08	1062	0.1	1524.3
TA1_shp	1075	635669.3	6325923	1733.52	9.73	26	916.25
TA1_shp	1075	635669.3	6325923	1714.05	29.2	29.13	597.31
TA1_shp	1075	635669.3	6325923	1694.58	48.67	32.13	660.97
TA1_shp	1075	635669.3	6325923	1675.12	68.13	36.14	994.86
TA1_shp	1075	635669.3	6325923	1655.65	87.6	42.67	1479.65
TA1_shp	1075	635669.3	6325923	1636.18	107.07	51.54	1774.13
TA1_shp	1075	635669.3	6325923	1616.72	126.53	61.42	1613.61

TA1_shp	1075	635669.3	6325923	1597.25	146	70.01	1211.26
TA1_shp	1075	635669.3	6325923	1577.78	165.47	75.82	862.82
TA1_shp	1075	635669.3	6325923	1558.32	184.93	77.91	649.2
TA1_shp	1075	635669.3	6325923	1538.85	204.4	76.11	554.55
TA1_shp	1075	635669.3	6325923	1519.38	223.87	70.22	556.57
TA1_shp	1075	635669.3	6325923	1499.92	243.33	61.69	651.87
TA1_shp	1075	635669.3	6325923	1480.45	262.8	51.26	855.33
TA1_shp	1075	635669.3	6325923	1460.98	282.27	39.47	1193.59
TA1_shp	1075	635669.3	6325923	1441.25	302	26.95	1820.73
TA1_shp	1075	635669.3	6325923	1421.25	322	17.3	2907.46
TA1_shp	1075	635669.3	6325923	1401.25	342	9.73	4427.86
TA1_shp	1075	635669.3	6325923	1381.25	362	6.14	7144.22
TA1_shp	1075	635669.3	6325923	1361.25	382	3.73	11629.68
TA1_shp	1075	635669.3	6325923	1339.15	404.1	2.2	18268.2
TA1_shp	1075	635669.3	6325923	1314.6	428.65	1.37	32554.87
TA1_shp	1075	635669.3	6325923	1288.65	454.6	0.75	53372.39
TA1_shp	1075	635669.3	6325923	1260.15	483.1	0.33	86162.75
TA1_shp	1075	635669.3	6325923	1229.45	513.8	0.11	125805.9
TA1_shp	1075	635669.3	6325923	1196.8	546.45	0.1	149810.6
TA1_shp	1075	635669.3	6325923	1161	582.25	0.1	148324.5
TA1_shp	1075	635669.3	6325923	1122.35	620.9	0.1	101829.1
TA1_shp	1075	635669.3	6325923	1081.2	662.05	0.1	61423.2
TA1_shp	1075	635669.3	6325923	1036.1	707.15	0.1	30794.7
TA1_shp	1075	635669.3	6325923	987.45	755.8	0.1	14940.46
TA1_shp	1075	635669.3	6325923	935.65	807.6	0.1	8515.57
TA1_shp	1075	635669.3	6325923	878.85	864.4	0.1	5336.54
TA1_shp	1075	635669.3	6325923	817.6	925.65	0.1	3567.98
TA1_shp	1075	635669.3	6325923	752.75	990.5	0.1	2309.47
TA1_shp	1075	635669.3	6325923	681.25	1062	0.1	1546.38
TA1_shp	1091.67	635684.4	6325929	1732.69	9.73	38.92	1769.33
TA1_shp	1091.67	635684.4	6325929	1713.22	29.2	36.21	871.41
TA1_shp	1091.67	635684.4	6325929	1693.75	48.67	33.8	744.08
TA1_shp	1091.67	635684.4	6325929	1674.29	68.13	34.24	921.75
TA1_shp	1091.67	635684.4	6325929	1654.82	87.6	39.57	1263.13
TA1_shp	1091.67	635684.4	6325929	1635.35	107.07	48.88	1496.73
TA1_shp	1091.67	635684.4	6325929	1615.89	126.53	59.83	1387.6
TA1_shp	1091.67	635684.4	6325929	1596.42	146	69.45	1068.14
TA1_shp	1091.67	635684.4	6325929	1576.95	165.47	75.94	780.79
TA1_shp	1091.67	635684.4	6325929	1557.49	184.93	78.38	600.88
TA1_shp	1091.67	635684.4	6325929	1538.02	204.4	76.62	523.68
TA1_shp	1091.67	635684.4	6325929	1518.55	223.87	70.59	533.72
TA1_shp	1091.67	635684.4	6325929	1499.09	243.33	61.84	631.91
TA1_shp	1091.67	635684.4	6325929	1479.62	262.8	51.16	835.47
TA1_shp	1091.67	635684.4	6325929	1460.15	282.27	39.12	1172.17
TA1_shp	1091.67	635684.4	6325929	1440.42	302	26.43	1796.56
TA1_shp	1091.67	635684.4	6325929	1420.42	322	16.83	2881.36
TA1_shp	1091.67	635684.4	6325929	1400.42	342	9.41	4399.12
TA1_shp	1091.67	635684.4	6325929	1380.42	362	5.93	7107.62
TA1_shp	1091.67	635684.4	6325929	1360.42	382	3.6	11617.26
TA1_shp	1091.67	635684.4	6325929	1338.32	404.1	2.12	18312.98
TA1_shp	1091.67	635684.4	6325929	1313.77	428.65	1.32	32643.57
TA1_shp	1091.67	635684.4	6325929	1287.82	454.6	0.71	53777.72

TA1_shp	1091.67	635684.4	6325929	1259.32	483.1	0.29	87490.27
TA1_shp	1091.67	635684.4	6325929	1228.62	513.8	0.1	129910
TA1_shp	1091.67	635684.4	6325929	1195.97	546.45	0.1	156611.4
TA1_shp	1091.67	635684.4	6325929	1160.17	582.25	0.1	157173.9
TA1_shp	1091.67	635684.4	6325929	1121.52	620.9	0.1	108541.7
TA1_shp	1091.67	635684.4	6325929	1080.37	662.05	0.1	65554.8
TA1_shp	1091.67	635684.4	6325929	1035.27	707.15	0.1	32695.94
TA1_shp	1091.67	635684.4	6325929	986.62	755.8	0.1	15715.73
TA1_shp	1091.67	635684.4	6325929	934.82	807.6	0.1	8880.53
TA1_shp	1091.67	635684.4	6325929	878.02	864.4	0.1	5521.79
TA1_shp	1091.67	635684.4	6325929	816.77	925.65	0.1	3669.01
TA1_shp	1091.67	635684.4	6325929	751.92	990.5	0.1	2360.3
TA1_shp	1091.67	635684.4	6325929	680.42	1062	0.1	1568.49
TA1_shp	1108.33	635699.9	6325935	1730.27	9.73	65.43	763.04
TA1_shp	1108.33	635699.9	6325935	1710.8	29.2	52.86	782.45
TA1_shp	1108.33	635699.9	6325935	1691.33	48.67	40.46	725.92
TA1_shp	1108.33	635699.9	6325935	1671.87	68.13	35.17	792.39
TA1_shp	1108.33	635699.9	6325935	1652.4	87.6	38.72	1005.25
TA1_shp	1108.33	635699.9	6325935	1632.93	107.07	48.4	1185.28
TA1_shp	1108.33	635699.9	6325935	1613.47	126.53	60.35	1122.73
TA1_shp	1108.33	635699.9	6325935	1594	146	70.74	890.48
TA1_shp	1108.33	635699.9	6325935	1574.53	165.47	77.56	671.06
TA1_shp	1108.33	635699.9	6325935	1555.07	184.93	79.93	533.07
TA1_shp	1108.33	635699.9	6325935	1535.6	204.4	77.86	476.79
TA1_shp	1108.33	635699.9	6325935	1516.13	223.87	71.36	498.99
TA1_shp	1108.33	635699.9	6325935	1496.67	243.33	62.16	600.87
TA1_shp	1108.33	635699.9	6325935	1477.2	262.8	51.07	804.55
TA1_shp	1108.33	635699.9	6325935	1457.73	282.27	38.67	1139.38
TA1_shp	1108.33	635699.9	6325935	1438	302	25.78	1756.38
TA1_shp	1108.33	635699.9	6325935	1418	322	16.26	2831.49
TA1_shp	1108.33	635699.9	6325935	1398	342	9.01	4338.47
TA1_shp	1108.33	635699.9	6325935	1378	362	5.69	7035.36
TA1_shp	1108.33	635699.9	6325935	1358	382	3.46	11533.6
TA1_shp	1108.33	635699.9	6325935	1335.9	404.1	2.03	18216.94
TA1_shp	1108.33	635699.9	6325935	1311.35	428.65	1.26	32646.03
TA1_shp	1108.33	635699.9	6325935	1285.4	454.6	0.67	54116.77
TA1_shp	1108.33	635699.9	6325935	1256.9	483.1	0.27	88654.01
TA1_shp	1108.33	635699.9	6325935	1226.2	513.8	0.1	133673.1
TA1_shp	1108.33	635699.9	6325935	1193.55	546.45	0.1	163161.4
TA1_shp	1108.33	635699.9	6325935	1157.75	582.25	0.1	166249.7
TA1_shp	1108.33	635699.9	6325935	1119.1	620.9	0.1	115575.1
TA1_shp	1108.33	635699.9	6325935	1077.95	662.05	0.1	69935.6
TA1_shp	1108.33	635699.9	6325935	1032.85	707.15	0.1	34719.08
TA1_shp	1108.33	635699.9	6325935	984.2	755.8	0.1	16524.34
TA1_shp	1108.33	635699.9	6325935	932.4	807.6	0.1	9260.52
TA1_shp	1108.33	635699.9	6325935	875.6	864.4	0.1	5714.92
TA1_shp	1108.33	635699.9	6325935	814.35	925.65	0.1	3774.25
TA1_shp	1108.33	635699.9	6325935	749.5	990.5	0.1	2412.6
TA1_shp	1108.33	635699.9	6325935	678	1062	0.1	1590.63
TA1_shp	1125	635715.8	6325942	1726.27	9.73	47.84	1624.45
TA1_shp	1125	635715.8	6325942	1706.8	29.2	44.41	1293.71
TA1_shp	1125	635715.8	6325942	1687.33	48.67	35.35	861.42

TA1_shp	1125	635715.8	6325942	1667.87	68.13	31.55	711.35
TA1_shp	1125	635715.8	6325942	1648.4	87.6	37.13	801.28
TA1_shp	1125	635715.8	6325942	1628.93	107.07	49.16	924.41
TA1_shp	1125	635715.8	6325942	1609.47	126.53	62.86	887.51
TA1_shp	1125	635715.8	6325942	1590	146	74.1	719.74
TA1_shp	1125	635715.8	6325942	1570.53	165.47	80.93	558.41
TA1_shp	1125	635715.8	6325942	1551.07	184.93	82.81	457.34
TA1_shp	1125	635715.8	6325942	1531.6	204.4	80.03	423.26
TA1_shp	1125	635715.8	6325942	1512.13	223.87	72.68	456.46
TA1_shp	1125	635715.8	6325942	1492.67	243.33	62.74	562.84
TA1_shp	1125	635715.8	6325942	1473.2	262.8	51.04	766.14
TA1_shp	1125	635715.8	6325942	1453.73	282.27	38.17	1096.78
TA1_shp	1125	635715.8	6325942	1434	302	24.99	1706.69
TA1_shp	1125	635715.8	6325942	1414	322	15.56	2763.12
TA1_shp	1125	635715.8	6325942	1394	342	8.55	4245.86
TA1_shp	1125	635715.8	6325942	1374	362	5.41	6914.78
TA1_shp	1125	635715.8	6325942	1354	382	3.29	11372.11
TA1_shp	1125	635715.8	6325942	1331.9	404.1	1.92	17997.91
TA1_shp	1125	635715.8	6325942	1307.35	428.65	1.19	32417.42
TA1_shp	1125	635715.8	6325942	1281.4	454.6	0.63	54121.28
TA1_shp	1125	635715.8	6325942	1252.9	483.1	0.25	89409.8
TA1_shp	1125	635715.8	6325942	1222.2	513.8	0.1	137090.1
TA1_shp	1125	635715.8	6325942	1189.55	546.45	0.1	169523.2
TA1_shp	1125	635715.8	6325942	1153.75	582.25	0.1	175402.7
TA1_shp	1125	635715.8	6325942	1115.1	620.9	0.1	122861.5
TA1_shp	1125	635715.8	6325942	1073.95	662.05	0.1	74530.34
TA1_shp	1125	635715.8	6325942	1028.85	707.15	0.1	36850.65
TA1_shp	1125	635715.8	6325942	980.2	755.8	0.1	17385.08
TA1_shp	1125	635715.8	6325942	928.4	807.6	0.1	9659.04
TA1_shp	1125	635715.8	6325942	871.6	864.4	0.1	5914.36
TA1_shp	1125	635715.8	6325942	810.35	925.65	0.1	3881.83
TA1_shp	1125	635715.8	6325942	745.5	990.5	0.1	2466.14
TA1_shp	1125	635715.8	6325942	674	1062	0.1	1613.34
TA1_shp	1141.67	635731.6	6325949	1722.27	9.73	39.37	4646.43
TA1_shp	1141.67	635731.6	6325949	1702.8	29.2	37.04	3338.93
TA1_shp	1141.67	635731.6	6325949	1683.33	48.67	29.3	1286.82
TA1_shp	1141.67	635731.6	6325949	1663.87	68.13	27.51	697.77
TA1_shp	1141.67	635731.6	6325949	1644.4	87.6	36.12	663.47
TA1_shp	1141.67	635731.6	6325949	1624.93	107.07	51.39	737.06
TA1_shp	1141.67	635731.6	6325949	1605.47	126.53	67.15	703.89
TA1_shp	1141.67	635731.6	6325949	1586	146	79.13	578.25
TA1_shp	1141.67	635731.6	6325949	1566.53	165.47	85.74	458.01
TA1_shp	1141.67	635731.6	6325949	1547.07	184.93	86.84	387.55
TA1_shp	1141.67	635731.6	6325949	1527.6	204.4	83	370.79
TA1_shp	1141.67	635731.6	6325949	1508.13	223.87	74.51	413.69
TA1_shp	1141.67	635731.6	6325949	1488.67	243.33	63.6	523.08
TA1_shp	1141.67	635731.6	6325949	1469.2	262.8	51.12	725.16
TA1_shp	1141.67	635731.6	6325949	1449.73	282.27	37.65	1050.83
TA1_shp	1141.67	635731.6	6325949	1430	302	24.13	1647.73
TA1_shp	1141.67	635731.6	6325949	1410	322	14.8	2683.4
TA1_shp	1141.67	635731.6	6325949	1390	342	8.07	4138.58
TA1_shp	1141.67	635731.6	6325949	1370	362	5.1	6762.24

TA1_shp	1141.67	635731.6	6325949	1350	382	3.11	11163.56
TA1_shp	1141.67	635731.6	6325949	1327.9	404.1	1.83	17717.24
TA1_shp	1141.67	635731.6	6325949	1303.35	428.65	1.13	32128.38
TA1_shp	1141.67	635731.6	6325949	1277.4	454.6	0.6	53971.96
TA1_shp	1141.67	635731.6	6325949	1248.9	483.1	0.23	89704.74
TA1_shp	1141.67	635731.6	6325949	1218.2	513.8	0.1	140013
TA1_shp	1141.67	635731.6	6325949	1185.55	546.45	0.1	175570.7
TA1_shp	1141.67	635731.6	6325949	1149.75	582.25	0.1	184662.6
TA1_shp	1141.67	635731.6	6325949	1111.1	620.9	0.1	130456
TA1_shp	1141.67	635731.6	6325949	1069.95	662.05	0.1	79392.52
TA1_shp	1141.67	635731.6	6325949	1024.85	707.15	0.1	39116.17
TA1_shp	1141.67	635731.6	6325949	976.2	755.8	0.1	18278.19
TA1_shp	1141.67	635731.6	6325949	924.4	807.6	0.1	10073.14
TA1_shp	1141.67	635731.6	6325949	867.6	864.4	0.1	6121.8
TA1_shp	1141.67	635731.6	6325949	806.35	925.65	0.1	3993.61
TA1_shp	1141.67	635731.6	6325949	741.5	990.5	0.1	2521.4
TA1_shp	1141.67	635731.6	6325949	670	1062	0.1	1636.43
TA1_shp	1158.33	635747.4	6325955	1718.27	9.73	50.06	2206
TA1_shp	1158.33	635747.4	6325955	1698.8	29.2	40.24	3133.17
TA1_shp	1158.33	635747.4	6325955	1679.33	48.67	30.12	1418.79
TA1_shp	1158.33	635747.4	6325955	1659.87	68.13	27.89	639.62
TA1_shp	1158.33	635747.4	6325955	1640.4	87.6	38.22	556.44
TA1_shp	1158.33	635747.4	6325955	1620.93	107.07	55.77	602.36
TA1_shp	1158.33	635747.4	6325955	1601.47	126.53	73.06	570.4
TA1_shp	1158.33	635747.4	6325955	1582	146	85.46	467.98
TA1_shp	1158.33	635747.4	6325955	1562.53	165.47	91.6	376.58
TA1_shp	1158.33	635747.4	6325955	1543.07	184.93	91.68	327.35
TA1_shp	1158.33	635747.4	6325955	1523.6	204.4	86.53	323.8
TA1_shp	1158.33	635747.4	6325955	1504.13	223.87	76.65	373.33
TA1_shp	1158.33	635747.4	6325955	1484.67	243.33	64.59	484.45
TA1_shp	1158.33	635747.4	6325955	1465.2	262.8	51.2	683.64
TA1_shp	1158.33	635747.4	6325955	1445.73	282.27	37.06	1001.98
TA1_shp	1158.33	635747.4	6325955	1426	302	23.18	1585.94
TA1_shp	1158.33	635747.4	6325955	1406	322	13.98	2594.26
TA1_shp	1158.33	635747.4	6325955	1386	342	7.57	4012.8
TA1_shp	1158.33	635747.4	6325955	1366	362	4.78	6583.52
TA1_shp	1158.33	635747.4	6325955	1346	382	2.91	10897.37
TA1_shp	1158.33	635747.4	6325955	1323.9	404.1	1.72	17321.58
TA1_shp	1158.33	635747.4	6325955	1299.35	428.65	1.06	31697.85
TA1_shp	1158.33	635747.4	6325955	1273.4	454.6	0.55	53678.16
TA1_shp	1158.33	635747.4	6325955	1244.9	483.1	0.2	89893.28
TA1_shp	1158.33	635747.4	6325955	1214.2	513.8	0.1	142478.2
TA1_shp	1158.33	635747.4	6325955	1181.55	546.45	0.1	181125.9
TA1_shp	1158.33	635747.4	6325955	1145.75	582.25	0.1	193924.7
TA1_shp	1158.33	635747.4	6325955	1107.1	620.9	0.1	138308.9
TA1_shp	1158.33	635747.4	6325955	1065.95	662.05	0.1	84493.59
TA1_shp	1158.33	635747.4	6325955	1020.85	707.15	0.1	41506.79
TA1_shp	1158.33	635747.4	6325955	972.2	755.8	0.1	19229.42
TA1_shp	1158.33	635747.4	6325955	920.4	807.6	0.1	10507.79
TA1_shp	1158.33	635747.4	6325955	863.6	864.4	0.1	6335.89
TA1_shp	1158.33	635747.4	6325955	802.35	925.65	0.1	4107.52
TA1_shp	1158.33	635747.4	6325955	737.5	990.5	0.1	2577.56

TA1_shp	1158.33	635747.4	6325955	666	1062	0.1	1659.73
TA1_shp	1175	635763.3	6325961	1714.27	9.73	32.36	1321.55
TA1_shp	1175	635763.3	6325961	1694.8	29.2	30.54	897.27
TA1_shp	1175	635763.3	6325961	1675.33	48.67	30.55	468.61
TA1_shp	1175	635763.3	6325961	1655.87	68.13	42.65	452.68
TA1_shp	1175	635763.3	6325961	1636.4	87.6	61.45	505.63
TA1_shp	1175	635763.3	6325961	1616.93	107.07	79.58	472.61
TA1_shp	1175	635763.3	6325961	1597.47	126.53	92	384.81
TA1_shp	1175	635763.3	6325961	1578	146	97.49	312.06
TA1_shp	1175	635763.3	6325961	1558.53	165.47	96.45	278.58
TA1_shp	1175	635763.3	6325961	1539.07	184.93	90.03	283.45
TA1_shp	1175	635763.3	6325961	1519.6	204.4	78.74	337.71
TA1_shp	1175	635763.3	6325961	1500.13	223.87	65.51	447.97
TA1_shp	1175	635763.3	6325961	1480.67	243.33	51.18	642.73
TA1_shp	1175	635763.3	6325961	1461.2	262.8	36.31	953.2
TA1_shp	1175	635763.3	6325961	1441.73	282.27	22.36	1511.26
TA1_shp	1175	635763.3	6325961	1422	302	13.32	2467.39
TA1_shp	1175	635763.3	6325961	1402	322	7.1	3809.34
TA1_shp	1175	635763.3	6325961	1382	342	4.52	6303.24
TA1_shp	1175	635763.3	6325961	1362	362	2.74	10426.17
TA1_shp	1175	635763.3	6325961	1342	382	1.73	16108.02
TA1_shp	1175	635763.3	6325961	1319.9	404.1	1.1	27914.9
TA1_shp	1175	635763.3	6325961	1295.35	428.65	0.59	44706.8
TA1_shp	1175	635763.3	6325961	1269.4	454.6	0.28	77939.3
TA1_shp	1175	635763.3	6325961	1240.9	483.1	0.1	123622
TA1_shp	1175	635763.3	6325961	1210.2	513.8	0.1	179149.8
TA1_shp	1175	635763.3	6325961	1177.55	546.45	0.1	197379.9
TA1_shp	1175	635763.3	6325961	1141.75	582.25	0.1	174575.5
TA1_shp	1175	635763.3	6325961	1103.1	620.9	0.1	118876.6
TA1_shp	1175	635763.3	6325961	1061.95	662.05	0.1	63810.74
TA1_shp	1175	635763.3	6325961	1016.85	707.15	0.1	33766.91
TA1_shp	1175	635763.3	6325961	968.2	755.8	0.1	16740.95
TA1_shp	1175	635763.3	6325961	916.4	807.6	0.1	8858.1
TA1_shp	1175	635763.3	6325961	859.6	864.4	0.1	5359.21
TA1_shp	1175	635763.3	6325961	798.35	925.65	0.1	3748.3
TA1_shp	1175	635763.3	6325961	733.5	990.5	0.1	2157.71
TA1_shp	1175	635763.3	6325961	662	1062	0.1	1624.98
TA1_shp	1191.67	635779.1	6325968	1710.27	9.73	37.04	898.52
TA1_shp	1191.67	635779.1	6325968	1690.8	29.2	32.27	490.29
TA1_shp	1191.67	635779.1	6325968	1671.33	48.67	32.38	326.75
TA1_shp	1191.67	635779.1	6325968	1651.87	68.13	45.51	389
TA1_shp	1191.67	635779.1	6325968	1632.4	87.6	65.2	450.53
TA1_shp	1191.67	635779.1	6325968	1612.93	107.07	83.94	408.34
TA1_shp	1191.67	635779.1	6325968	1593.47	126.53	96.68	325.45
TA1_shp	1191.67	635779.1	6325968	1574	146	101.94	264.7
TA1_shp	1191.67	635779.1	6325968	1554.53	165.47	100.2	240.98
TA1_shp	1191.67	635779.1	6325968	1535.07	184.93	92.78	252.2
TA1_shp	1191.67	635779.1	6325968	1515.6	204.4	80.34	308.64
TA1_shp	1191.67	635779.1	6325968	1496.13	223.87	66.04	417.83
TA1_shp	1191.67	635779.1	6325968	1476.67	243.33	50.86	608.18
TA1_shp	1191.67	635779.1	6325968	1457.2	262.8	35.38	909.99
TA1_shp	1191.67	635779.1	6325968	1437.73	282.27	21.27	1449.88

TA1_shp	1191.67	635779.1	6325968	1418	302	12.44	2376.91
TA1_shp	1191.67	635779.1	6325968	1398	322	6.6	3679.02
TA1_shp	1191.67	635779.1	6325968	1378	342	4.19	6100.67
TA1_shp	1191.67	635779.1	6325968	1358	362	2.54	10105.44
TA1_shp	1191.67	635779.1	6325968	1338	382	1.61	15625.19
TA1_shp	1191.67	635779.1	6325968	1315.9	404.1	1.01	27269.3
TA1_shp	1191.67	635779.1	6325968	1291.35	428.65	0.53	43913.21
TA1_shp	1191.67	635779.1	6325968	1265.4	454.6	0.25	77247.16
TA1_shp	1191.67	635779.1	6325968	1236.9	483.1	0.1	124161.8
TA1_shp	1191.67	635779.1	6325968	1206.2	513.8	0.1	182075.4
TA1_shp	1191.67	635779.1	6325968	1173.55	546.45	0.1	204676.9
TA1_shp	1191.67	635779.1	6325968	1137.75	582.25	0.1	183386.2
TA1_shp	1191.67	635779.1	6325968	1099.1	620.9	0.1	126355
TA1_shp	1191.67	635779.1	6325968	1057.95	662.05	0.1	67798.59
TA1_shp	1191.67	635779.1	6325968	1012.85	707.15	0.1	35745.69
TA1_shp	1191.67	635779.1	6325968	964.2	755.8	0.1	17578.28
TA1_shp	1191.67	635779.1	6325968	912.4	807.6	0.1	9210.61
TA1_shp	1191.67	635779.1	6325968	855.6	864.4	0.1	5527.21
TA1_shp	1191.67	635779.1	6325968	794.35	925.65	0.1	3850.7
TA1_shp	1191.67	635779.1	6325968	729.5	990.5	0.1	2197.75
TA1_shp	1191.67	635779.1	6325968	658	1062	0.1	1647.17
TA1_shp	1208.33	635794.7	6325974	1706.44	9.73	41.66	6033.07
TA1_shp	1208.33	635794.7	6325974	1686.97	29.2	30.66	616.5
TA1_shp	1208.33	635794.7	6325974	1667.5	48.67	29.79	352.16
TA1_shp	1208.33	635794.7	6325974	1648.04	68.13	44.05	435.76
TA1_shp	1208.33	635794.7	6325974	1628.57	87.6	64.76	461.29
TA1_shp	1208.33	635794.7	6325974	1609.1	107.07	84.43	378.57
TA1_shp	1208.33	635794.7	6325974	1589.64	126.53	97.98	287.27
TA1_shp	1208.33	635794.7	6325974	1570.17	146	103.74	231.91
TA1_shp	1208.33	635794.7	6325974	1550.7	165.47	102	214.05
TA1_shp	1208.33	635794.7	6325974	1531.24	184.93	94.16	229.45
TA1_shp	1208.33	635794.7	6325974	1511.77	204.4	80.99	286.71
TA1_shp	1208.33	635794.7	6325974	1492.3	223.87	65.95	394.02
TA1_shp	1208.33	635794.7	6325974	1472.84	243.33	50.08	578.71
TA1_shp	1208.33	635794.7	6325974	1453.37	262.8	34.09	870.39
TA1_shp	1208.33	635794.7	6325974	1433.9	282.27	20.08	1393.06
TA1_shp	1208.33	635794.7	6325974	1414.17	302	11.56	2287.57
TA1_shp	1208.33	635794.7	6325974	1394.17	322	6.08	3545.4
TA1_shp	1208.33	635794.7	6325974	1374.17	342	3.88	5896.65
TA1_shp	1208.33	635794.7	6325974	1354.17	362	2.36	9778.42
TA1_shp	1208.33	635794.7	6325974	1334.17	382	1.49	15124.83
TA1_shp	1208.33	635794.7	6325974	1312.07	404.1	0.94	26503.07
TA1_shp	1208.33	635794.7	6325974	1287.52	428.65	0.49	42862.42
TA1_shp	1208.33	635794.7	6325974	1261.57	454.6	0.22	76269.66
TA1_shp	1208.33	635794.7	6325974	1233.07	483.1	0.1	124418.9
TA1_shp	1208.33	635794.7	6325974	1202.37	513.8	0.1	184746.8
TA1_shp	1208.33	635794.7	6325974	1169.72	546.45	0.1	211661.1
TA1_shp	1208.33	635794.7	6325974	1133.92	582.25	0.1	192152.7
TA1_shp	1208.33	635794.7	6325974	1095.27	620.9	0.1	134194.8
TA1_shp	1208.33	635794.7	6325974	1054.12	662.05	0.1	72028.97
TA1_shp	1208.33	635794.7	6325974	1009.02	707.15	0.1	37845.49
TA1_shp	1208.33	635794.7	6325974	960.37	755.8	0.1	18457.54

TA1_shp	1208.33	635794.7	6325974	908.57	807.6	0.1	9578
TA1_shp	1208.33	635794.7	6325974	851.77	864.4	0.1	5702.78
TA1_shp	1208.33	635794.7	6325974	790.52	925.65	0.1	3957.36
TA1_shp	1208.33	635794.7	6325974	725.67	990.5	0.1	2238.79
TA1_shp	1208.33	635794.7	6325974	654.17	1062	0.1	1669.58
TA1_shp	1225	635810	6325981	1702.77	9.73	49	1434
TA1_shp	1225	635810	6325981	1683.3	29.2	35.74	658.8
TA1_shp	1225	635810	6325981	1663.83	48.67	32.17	655.02
TA1_shp	1225	635810	6325981	1644.37	68.13	43.29	697.82
TA1_shp	1225	635810	6325981	1624.9	87.6	62.15	565.77
TA1_shp	1225	635810	6325981	1605.43	107.07	81.68	386.49
TA1_shp	1225	635810	6325981	1585.97	126.53	96.03	269.02
TA1_shp	1225	635810	6325981	1566.5	146	102.74	211.91
TA1_shp	1225	635810	6325981	1547.03	165.47	101.68	196.63
TA1_shp	1225	635810	6325981	1527.57	184.93	94	213.56
TA1_shp	1225	635810	6325981	1508.1	204.4	80.51	270.68
TA1_shp	1225	635810	6325981	1488.63	223.87	65.03	375.41
TA1_shp	1225	635810	6325981	1469.17	243.33	48.71	554.41
TA1_shp	1225	635810	6325981	1449.7	262.8	32.42	836.35
TA1_shp	1225	635810	6325981	1430.23	282.27	18.75	1340.24
TA1_shp	1225	635810	6325981	1410.5	302	10.65	2203.06
TA1_shp	1225	635810	6325981	1390.5	322	5.58	3417.18
TA1_shp	1225	635810	6325981	1370.5	342	3.57	5690.32
TA1_shp	1225	635810	6325981	1350.5	362	2.17	9464.72
TA1_shp	1225	635810	6325981	1330.5	382	1.38	14675.75
TA1_shp	1225	635810	6325981	1308.4	404.1	0.86	25728.7
TA1_shp	1225	635810	6325981	1283.85	428.65	0.44	41686.63
TA1_shp	1225	635810	6325981	1257.9	454.6	0.18	74919.27
TA1_shp	1225	635810	6325981	1229.4	483.1	0.1	124093.3
TA1_shp	1225	635810	6325981	1198.7	513.8	0.1	186691
TA1_shp	1225	635810	6325981	1166.05	546.45	0.1	218401.3
TA1_shp	1225	635810	6325981	1130.25	582.25	0.1	201003.2
TA1_shp	1225	635810	6325981	1091.6	620.9	0.1	142273
TA1_shp	1225	635810	6325981	1050.45	662.05	0.1	76466.67
TA1_shp	1225	635810	6325981	1005.35	707.15	0.1	40068.24
TA1_shp	1225	635810	6325981	956.7	755.8	0.1	19389.76
TA1_shp	1225	635810	6325981	904.9	807.6	0.1	9963.54
TA1_shp	1225	635810	6325981	848.1	864.4	0.1	5883.73
TA1_shp	1225	635810	6325981	786.85	925.65	0.1	4066.96
TA1_shp	1225	635810	6325981	722	990.5	0.1	2280.78
TA1_shp	1225	635810	6325981	650.5	1062	0.1	1692.39
TA1_shp	1241.67	635825.3	6325988	1699.1	9.73	57.16	304.25
TA1_shp	1241.67	635825.3	6325988	1679.63	29.2	44.38	518.21
TA1_shp	1241.67	635825.3	6325988	1660.16	48.67	39.74	1227.84
TA1_shp	1241.67	635825.3	6325988	1640.7	68.13	45.91	1243.68
TA1_shp	1241.67	635825.3	6325988	1621.23	87.6	60.4	772.17
TA1_shp	1241.67	635825.3	6325988	1601.76	107.07	77.8	426.75
TA1_shp	1241.67	635825.3	6325988	1582.3	126.53	92.06	268.51
TA1_shp	1241.67	635825.3	6325988	1562.83	146	99.61	202.77
TA1_shp	1241.67	635825.3	6325988	1543.36	165.47	99.33	187.59
TA1_shp	1241.67	635825.3	6325988	1523.9	184.93	92.23	203.95
TA1_shp	1241.67	635825.3	6325988	1504.43	204.4	78.87	260.92

TA1_shp	1241.67	635825.3	6325988	1484.96	223.87	63.27	362.09
TA1_shp	1241.67	635825.3	6325988	1465.5	243.33	46.75	535.48
TA1_shp	1241.67	635825.3	6325988	1446.03	262.8	30.34	808.28
TA1_shp	1241.67	635825.3	6325988	1426.56	282.27	17.3	1288.07
TA1_shp	1241.67	635825.3	6325988	1406.83	302	9.71	2123.91
TA1_shp	1241.67	635825.3	6325988	1386.83	322	5.09	3299.73
TA1_shp	1241.67	635825.3	6325988	1366.83	342	3.26	5476.22
TA1_shp	1241.67	635825.3	6325988	1346.83	362	2	9147.46
TA1_shp	1241.67	635825.3	6325988	1326.83	382	1.27	14249.11
TA1_shp	1241.67	635825.3	6325988	1304.73	404.1	0.79	25095.86
TA1_shp	1241.67	635825.3	6325988	1280.18	428.65	0.4	40774.93
TA1_shp	1241.67	635825.3	6325988	1254.23	454.6	0.15	73541.17
TA1_shp	1241.67	635825.3	6325988	1225.73	483.1	0.1	123383.8
TA1_shp	1241.67	635825.3	6325988	1195.03	513.8	0.1	187861.6
TA1_shp	1241.67	635825.3	6325988	1162.38	546.45	0.1	224550.4
TA1_shp	1241.67	635825.3	6325988	1126.58	582.25	0.1	209744.2
TA1_shp	1241.67	635825.3	6325988	1087.93	620.9	0.1	150789.1
TA1_shp	1241.67	635825.3	6325988	1046.78	662.05	0.1	81169.17
TA1_shp	1241.67	635825.3	6325988	1001.68	707.15	0.1	42418.02
TA1_shp	1241.67	635825.3	6325988	953.03	755.8	0.1	20365.69
TA1_shp	1241.67	635825.3	6325988	901.23	807.6	0.1	10365.05
TA1_shp	1241.67	635825.3	6325988	844.43	864.4	0.1	6072.57
TA1_shp	1241.67	635825.3	6325988	783.18	925.65	0.1	4181.02
TA1_shp	1241.67	635825.3	6325988	718.33	990.5	0.1	2323.91
TA1_shp	1241.67	635825.3	6325988	646.83	1062	0.1	1715.52
TA1_shp	1258.33	635840.7	6325994	1695.44	9.73	37.34	218.06
TA1_shp	1258.33	635840.7	6325994	1675.97	29.2	40.71	1524.53
TA1_shp	1258.33	635840.7	6325994	1656.5	48.67	46.98	1869.71
TA1_shp	1258.33	635840.7	6325994	1637.04	68.13	58.77	1023.3
TA1_shp	1258.33	635840.7	6325994	1617.57	87.6	74.08	489.79
TA1_shp	1258.33	635840.7	6325994	1598.1	107.07	87.62	280.54
TA1_shp	1258.33	635840.7	6325994	1578.64	126.53	95.37	204.09
TA1_shp	1258.33	635840.7	6325994	1559.17	146	95.76	185
TA1_shp	1258.33	635840.7	6325994	1539.7	165.47	89.24	201.12
TA1_shp	1258.33	635840.7	6325994	1520.24	184.93	76.22	255.25
TA1_shp	1258.33	635840.7	6325994	1500.77	204.4	60.74	353.18
TA1_shp	1258.33	635840.7	6325994	1481.3	223.87	44.23	519.7
TA1_shp	1258.33	635840.7	6325994	1461.84	243.33	27.94	780.15
TA1_shp	1258.33	635840.7	6325994	1442.37	262.8	15.76	1240.75
TA1_shp	1258.33	635840.7	6325994	1422.9	282.27	8.86	2025.48
TA1_shp	1258.33	635840.7	6325994	1403.17	302	4.68	3106.09
TA1_shp	1258.33	635840.7	6325994	1383.17	322	3.02	5206.45
TA1_shp	1258.33	635840.7	6325994	1363.17	342	1.85	8658.56
TA1_shp	1258.33	635840.7	6325994	1343.17	362	1.18	13548.92
TA1_shp	1258.33	635840.7	6325994	1323.17	382	0.76	22852.77
TA1_shp	1258.33	635840.7	6325994	1301.07	404.1	0.42	35278.8
TA1_shp	1258.33	635840.7	6325994	1276.52	428.65	0.18	64142.01
TA1_shp	1258.33	635840.7	6325994	1250.57	454.6	0.1	102862.6
TA1_shp	1258.33	635840.7	6325994	1222.07	483.1	0.1	165234.8
TA1_shp	1258.33	635840.7	6325994	1191.37	513.8	0.1	213545.8
TA1_shp	1258.33	635840.7	6325994	1158.72	546.45	0.1	242239.8
TA1_shp	1258.33	635840.7	6325994	1122.92	582.25	0.1	190052.8

TA1_shp	1258.33	635840.7	6325994	1084.27	620.9	0.1	124763.3
TA1_shp	1258.33	635840.7	6325994	1043.12	662.05	0.1	63730.09
TA1_shp	1258.33	635840.7	6325994	998.02	707.15	0.1	30602.19
TA1_shp	1258.33	635840.7	6325994	949.37	755.8	0.1	16693.2
TA1_shp	1258.33	635840.7	6325994	897.57	807.6	0.1	9237.47
TA1_shp	1258.33	635840.7	6325994	840.77	864.4	0.1	5541.77
TA1_shp	1258.33	635840.7	6325994	779.52	925.65	0.1	3718.64
TA1_shp	1258.33	635840.7	6325994	714.67	990.5	0.1	1911.1
TA1_shp	1258.33	635840.7	6325994	643.17	1062	0.1	1674.48
TA1_shp	1275	635856	6326000	1691.77	9.73	24.95	364.36
TA1_shp	1275	635856	6326000	1672.3	29.2	33.55	1737.89
TA1_shp	1275	635856	6326000	1652.83	48.67	44.32	2277.81
TA1_shp	1275	635856	6326000	1633.37	68.13	56.83	1234.2
TA1_shp	1275	635856	6326000	1613.9	87.6	71.15	557.47
TA1_shp	1275	635856	6326000	1594.43	107.07	83.83	303.53
TA1_shp	1275	635856	6326000	1574.97	126.53	91.33	212.89
TA1_shp	1275	635856	6326000	1555.5	146	91.94	188.86
TA1_shp	1275	635856	6326000	1536.03	165.47	85.75	202.34
TA1_shp	1275	635856	6326000	1516.57	184.93	72.97	253.52
TA1_shp	1275	635856	6326000	1497.1	204.4	57.65	347.53
TA1_shp	1275	635856	6326000	1477.63	223.87	41.27	506.98
TA1_shp	1275	635856	6326000	1458.17	243.33	25.24	756.4
TA1_shp	1275	635856	6326000	1438.7	262.8	14.15	1200.77
TA1_shp	1275	635856	6326000	1419.23	282.27	7.93	1950.58
TA1_shp	1275	635856	6326000	1399.5	302	4.21	2983.75
TA1_shp	1275	635856	6326000	1379.5	322	2.74	5011.2
TA1_shp	1275	635856	6326000	1359.5	342	1.69	8329.34
TA1_shp	1275	635856	6326000	1339.5	362	1.08	13020.77
TA1_shp	1275	635856	6326000	1319.5	382	0.7	22005.49
TA1_shp	1275	635856	6326000	1297.4	404.1	0.38	34020.48
TA1_shp	1275	635856	6326000	1272.85	428.65	0.16	62708.62
TA1_shp	1275	635856	6326000	1246.9	454.6	0.1	101586.4
TA1_shp	1275	635856	6326000	1218.4	483.1	0.1	165099.2
TA1_shp	1275	635856	6326000	1187.7	513.8	0.1	216935.5
TA1_shp	1275	635856	6326000	1155.05	546.45	0.1	250035.9
TA1_shp	1275	635856	6326000	1119.25	582.25	0.1	199446.7
TA1_shp	1275	635856	6326000	1080.6	620.9	0.1	132039.2
TA1_shp	1275	635856	6326000	1039.45	662.05	0.1	67624.23
TA1_shp	1275	635856	6326000	994.35	707.15	0.1	32277.39
TA1_shp	1275	635856	6326000	945.7	755.8	0.1	17489.98
TA1_shp	1275	635856	6326000	893.9	807.6	0.1	9596.03
TA1_shp	1275	635856	6326000	837.1	864.4	0.1	5713.21
TA1_shp	1275	635856	6326000	775.85	925.65	0.1	3817.61
TA1_shp	1275	635856	6326000	711	990.5	0.1	1938.52
TA1_shp	1275	635856	6326000	639.5	1062	0.1	1696.94
TA1_shp	1291.67	635871.3	6326007	1688.1	9.73	24.93	625.09
TA1_shp	1291.67	635871.3	6326007	1668.63	29.2	32.37	1827.42
TA1_shp	1291.67	635871.3	6326007	1649.16	48.67	44.8	2371.41
TA1_shp	1291.67	635871.3	6326007	1629.7	68.13	57.41	1354.49
TA1_shp	1291.67	635871.3	6326007	1610.23	87.6	70.57	619.64
TA1_shp	1291.67	635871.3	6326007	1590.76	107.07	81.81	333.48
TA1_shp	1291.67	635871.3	6326007	1571.3	126.53	88.37	228.5

TA1_shp	1291.67	635871.3	6326007	1551.83	146	88.54	199.12
TA1_shp	1291.67	635871.3	6326007	1532.36	165.47	82.21	208.26
TA1_shp	1291.67	635871.3	6326007	1512.9	184.93	69.45	256.45
TA1_shp	1291.67	635871.3	6326007	1493.43	204.4	54.24	346.2
TA1_shp	1291.67	635871.3	6326007	1473.96	223.87	38.08	499.52
TA1_shp	1291.67	635871.3	6326007	1454.5	243.33	22.5	739.77
TA1_shp	1291.67	635871.3	6326007	1435.03	262.8	12.58	1166.09
TA1_shp	1291.67	635871.3	6326007	1415.56	282.27	7.05	1887.88
TA1_shp	1291.67	635871.3	6326007	1395.83	302	3.78	2882.39
TA1_shp	1291.67	635871.3	6326007	1375.83	322	2.47	4828.48
TA1_shp	1291.67	635871.3	6326007	1355.83	342	1.53	8030.52
TA1_shp	1291.67	635871.3	6326007	1335.83	362	0.99	12568.88
TA1_shp	1291.67	635871.3	6326007	1315.83	382	0.63	21250.32
TA1_shp	1291.67	635871.3	6326007	1293.73	404.1	0.34	32857.16
TA1_shp	1291.67	635871.3	6326007	1269.18	428.65	0.14	60953.96
TA1_shp	1291.67	635871.3	6326007	1243.23	454.6	0.1	99662.38
TA1_shp	1291.67	635871.3	6326007	1214.73	483.1	0.1	164485.9
TA1_shp	1291.67	635871.3	6326007	1184.03	513.8	0.1	220026.8
TA1_shp	1291.67	635871.3	6326007	1151.38	546.45	0.1	257717.6
TA1_shp	1291.67	635871.3	6326007	1115.58	582.25	0.1	208897.7
TA1_shp	1291.67	635871.3	6326007	1076.93	620.9	0.1	139491.7
TA1_shp	1291.67	635871.3	6326007	1035.78	662.05	0.1	71733.85
TA1_shp	1291.67	635871.3	6326007	990.68	707.15	0.1	34046.46
TA1_shp	1291.67	635871.3	6326007	942.03	755.8	0.1	18330.31
TA1_shp	1291.67	635871.3	6326007	890.23	807.6	0.1	9972.08
TA1_shp	1291.67	635871.3	6326007	833.43	864.4	0.1	5890.81
TA1_shp	1291.67	635871.3	6326007	772.18	925.65	0.1	3919.83
TA1_shp	1291.67	635871.3	6326007	707.33	990.5	0.1	1966.3
TA1_shp	1291.67	635871.3	6326007	635.83	1062	0.1	1719.66
TA1_shp	1308.33	635886.4	6326013	1685.94	9.73	25.47	182.74
TA1_shp	1308.33	635886.4	6326013	1666.47	29.2	46.36	1281.18
TA1_shp	1308.33	635886.4	6326013	1647	48.67	55.44	2103.33
TA1_shp	1308.33	635886.4	6326013	1627.54	68.13	63.61	1372.87
TA1_shp	1308.33	635886.4	6326013	1608.07	87.6	73.34	672.61
TA1_shp	1308.33	635886.4	6326013	1588.6	107.07	82.05	369.32
TA1_shp	1308.33	635886.4	6326013	1569.14	126.53	86.8	251.87
TA1_shp	1308.33	635886.4	6326013	1549.67	146	85.88	214.93
TA1_shp	1308.33	635886.4	6326013	1530.2	165.47	78.93	219.22
TA1_shp	1308.33	635886.4	6326013	1510.74	184.93	65.95	262.83
TA1_shp	1308.33	635886.4	6326013	1491.27	204.4	50.74	347.02
TA1_shp	1308.33	635886.4	6326013	1471.8	223.87	34.88	493.53
TA1_shp	1308.33	635886.4	6326013	1452.34	243.33	19.92	724.39
TA1_shp	1308.33	635886.4	6326013	1432.87	262.8	11.13	1131.92
TA1_shp	1308.33	635886.4	6326013	1413.4	282.27	6.26	1824.99
TA1_shp	1308.33	635886.4	6326013	1393.67	302	3.38	2780.01
TA1_shp	1308.33	635886.4	6326013	1373.67	322	2.23	4642.94
TA1_shp	1308.33	635886.4	6326013	1353.67	342	1.39	7728.39
TA1_shp	1308.33	635886.4	6326013	1333.67	362	0.89	12114.61
TA1_shp	1308.33	635886.4	6326013	1313.67	382	0.57	20534.8
TA1_shp	1308.33	635886.4	6326013	1291.57	404.1	0.3	31799.93
TA1_shp	1308.33	635886.4	6326013	1267.02	428.65	0.13	59396.1
TA1_shp	1308.33	635886.4	6326013	1241.07	454.6	0.1	97835.31

TA1_shp	1308.33	635886.4	6326013	1212.57	483.1	0.1	163234.3
TA1_shp	1308.33	635886.4	6326013	1181.87	513.8	0.1	222346.6
TA1_shp	1308.33	635886.4	6326013	1149.22	546.45	0.1	264892.8
TA1_shp	1308.33	635886.4	6326013	1113.42	582.25	0.1	218596.6
TA1_shp	1308.33	635886.4	6326013	1074.77	620.9	0.1	147321.8
TA1_shp	1308.33	635886.4	6326013	1033.62	662.05	0.1	76072.53
TA1_shp	1308.33	635886.4	6326013	988.52	707.15	0.1	35912.54
TA1_shp	1308.33	635886.4	6326013	939.87	755.8	0.1	19212.65
TA1_shp	1308.33	635886.4	6326013	888.07	807.6	0.1	10364.37
TA1_shp	1308.33	635886.4	6326013	831.27	864.4	0.1	6075.78
TA1_shp	1308.33	635886.4	6326013	770.02	925.65	0.1	4025.95
TA1_shp	1308.33	635886.4	6326013	705.17	990.5	0.1	1994.58
TA1_shp	1308.33	635886.4	6326013	633.67	1062	0.1	1742.77
TA1_shp	1325	635901.3	6326018	1685.27	9.73	36.77	146.24
TA1_shp	1325	635901.3	6326018	1665.8	29.2	59.31	953.02
TA1_shp	1325	635901.3	6326018	1646.33	48.67	66.97	1738.99
TA1_shp	1325	635901.3	6326018	1626.87	68.13	71.86	1299.96
TA1_shp	1325	635901.3	6326018	1607.4	87.6	78.19	709.04
TA1_shp	1325	635901.3	6326018	1587.93	107.07	84.1	407.49
TA1_shp	1325	635901.3	6326018	1568.47	126.53	86.66	280.37
TA1_shp	1325	635901.3	6326018	1549	146	84.11	234.3
TA1_shp	1325	635901.3	6326018	1529.53	165.47	76.16	233.04
TA1_shp	1325	635901.3	6326018	1510.07	184.93	62.65	270.14
TA1_shp	1325	635901.3	6326018	1490.6	204.4	47.32	348.76
TA1_shp	1325	635901.3	6326018	1471.13	223.87	31.78	487.96
TA1_shp	1325	635901.3	6326018	1451.67	243.33	17.59	708.33
TA1_shp	1325	635901.3	6326018	1432.2	262.8	9.84	1100.29
TA1_shp	1325	635901.3	6326018	1412.73	282.27	5.56	1765.74
TA1_shp	1325	635901.3	6326018	1393	302	3.04	2681.84
TA1_shp	1325	635901.3	6326018	1373	322	2.01	4465.4
TA1_shp	1325	635901.3	6326018	1353	342	1.26	7415.79
TA1_shp	1325	635901.3	6326018	1333	362	0.82	11607.66
TA1_shp	1325	635901.3	6326018	1313	382	0.52	19734.62
TA1_shp	1325	635901.3	6326018	1290.9	404.1	0.26	30627.65
TA1_shp	1325	635901.3	6326018	1266.35	428.65	0.11	57585.03
TA1_shp	1325	635901.3	6326018	1240.4	454.6	0.1	95680.92
TA1_shp	1325	635901.3	6326018	1211.9	483.1	0.1	161843.9
TA1_shp	1325	635901.3	6326018	1181.2	513.8	0.1	224361.4
TA1_shp	1325	635901.3	6326018	1148.55	546.45	0.1	271514.1
TA1_shp	1325	635901.3	6326018	1112.75	582.25	0.1	228200.5
TA1_shp	1325	635901.3	6326018	1074.1	620.9	0.1	155317.2
TA1_shp	1325	635901.3	6326018	1032.95	662.05	0.1	80663.58
TA1_shp	1325	635901.3	6326018	987.85	707.15	0.1	37887.93
TA1_shp	1325	635901.3	6326018	939.2	755.8	0.1	20145.48
TA1_shp	1325	635901.3	6326018	887.4	807.6	0.1	10776.46
TA1_shp	1325	635901.3	6326018	830.6	864.4	0.1	6267.12
TA1_shp	1325	635901.3	6326018	769.35	925.65	0.1	4135.48
TA1_shp	1325	635901.3	6326018	704.5	990.5	0.1	2023.36
TA1_shp	1325	635901.3	6326018	633	1062	0.1	1766.26
TA1_shp	1341.67	635916.1	6326024	1684.6	9.73	37.52	214.78
TA1_shp	1341.67	635916.1	6326024	1665.13	29.2	64.46	802.11
TA1_shp	1341.67	635916.1	6326024	1645.66	48.67	73.97	1374.18

TA1_shp	1341.67	635916.1	6326024	1626.2	68.13	78.64	1168.7
TA1_shp	1341.67	635916.1	6326024	1606.73	87.6	83.19	722.77
TA1_shp	1341.67	635916.1	6326024	1587.26	107.07	86.81	445.44
TA1_shp	1341.67	635916.1	6326024	1567.8	126.53	87.27	311.36
TA1_shp	1341.67	635916.1	6326024	1548.33	146	83	256.75
TA1_shp	1341.67	635916.1	6326024	1528.86	165.47	73.84	248.1
TA1_shp	1341.67	635916.1	6326024	1509.4	184.93	59.65	278.97
TA1_shp	1341.67	635916.1	6326024	1489.93	204.4	44.02	351.87
TA1_shp	1341.67	635916.1	6326024	1470.46	223.87	28.83	484.46
TA1_shp	1341.67	635916.1	6326024	1451	243.33	15.51	696.38
TA1_shp	1341.67	635916.1	6326024	1431.53	262.8	8.7	1075.63
TA1_shp	1341.67	635916.1	6326024	1412.06	282.27	4.94	1717.99
TA1_shp	1341.67	635916.1	6326024	1392.33	302	2.74	2602.22
TA1_shp	1341.67	635916.1	6326024	1372.33	322	1.82	4326.5
TA1_shp	1341.67	635916.1	6326024	1352.33	342	1.15	7162.28
TA1_shp	1341.67	635916.1	6326024	1332.33	362	0.74	11180.68
TA1_shp	1341.67	635916.1	6326024	1312.33	382	0.47	19007.77
TA1_shp	1341.67	635916.1	6326024	1290.23	404.1	0.23	29508.03
TA1_shp	1341.67	635916.1	6326024	1265.68	428.65	0.1	55744.27
TA1_shp	1341.67	635916.1	6326024	1239.73	454.6	0.1	93261.75
TA1_shp	1341.67	635916.1	6326024	1211.23	483.1	0.1	159486.4
TA1_shp	1341.67	635916.1	6326024	1180.53	513.8	0.1	225573.6
TA1_shp	1341.67	635916.1	6326024	1147.88	546.45	0.1	277941.1
TA1_shp	1341.67	635916.1	6326024	1112.08	582.25	0.1	238065.1
TA1_shp	1341.67	635916.1	6326024	1073.43	620.9	0.1	163649.5
TA1_shp	1341.67	635916.1	6326024	1032.28	662.05	0.1	85488.54
TA1_shp	1341.67	635916.1	6326024	987.18	707.15	0.1	39973.15
TA1_shp	1341.67	635916.1	6326024	938.53	755.8	0.1	21126.16
TA1_shp	1341.67	635916.1	6326024	886.73	807.6	0.1	11206.78
TA1_shp	1341.67	635916.1	6326024	829.93	864.4	0.1	6467.28
TA1_shp	1341.67	635916.1	6326024	768.68	925.65	0.1	4249.63
TA1_shp	1341.67	635916.1	6326024	703.83	990.5	0.1	2052.6
TA1_shp	1341.67	635916.1	6326024	632.33	1062	0.1	1790.1
TA1_shp	1358.33	635930.9	6326029	1683.94	9.73	63.46	224.02
TA1_shp	1358.33	635930.9	6326029	1664.47	29.2	68.66	645.05
TA1_shp	1358.33	635930.9	6326029	1645	48.67	76.14	1070.33
TA1_shp	1358.33	635930.9	6326029	1625.54	68.13	81.96	1018.48
TA1_shp	1358.33	635930.9	6326029	1606.07	87.6	86.62	719.26
TA1_shp	1358.33	635930.9	6326029	1586.6	107.07	89.18	480.24
TA1_shp	1358.33	635930.9	6326029	1567.14	126.53	87.93	344.49
TA1_shp	1358.33	635930.9	6326029	1547.67	146	82.11	281.21
TA1_shp	1358.33	635930.9	6326029	1528.2	165.47	71.78	264.16
TA1_shp	1358.33	635930.9	6326029	1508.74	184.93	56.86	287.78
TA1_shp	1358.33	635930.9	6326029	1489.27	204.4	40.9	355
TA1_shp	1358.33	635930.9	6326029	1469.8	223.87	26.06	481.06
TA1_shp	1358.33	635930.9	6326029	1450.34	243.33	13.71	684.44
TA1_shp	1358.33	635930.9	6326029	1430.87	262.8	7.71	1051.83
TA1_shp	1358.33	635930.9	6326029	1411.4	282.27	4.41	1672.02
TA1_shp	1358.33	635930.9	6326029	1391.67	302	2.48	2525.66
TA1_shp	1358.33	635930.9	6326029	1371.67	322	1.65	4194.07
TA1_shp	1358.33	635930.9	6326029	1351.67	342	1.04	6932.31
TA1_shp	1358.33	635930.9	6326029	1331.67	362	0.67	10808.84

TA1_shp	1358.33	635930.9	6326029	1311.67	382	0.42	18362.13
TA1_shp	1358.33	635930.9	6326029	1289.57	404.1	0.2	28495.68
TA1_shp	1358.33	635930.9	6326029	1265.02	428.65	0.1	54018.79
TA1_shp	1358.33	635930.9	6326029	1239.07	454.6	0.1	90914.12
TA1_shp	1358.33	635930.9	6326029	1210.57	483.1	0.1	156995.9
TA1_shp	1358.33	635930.9	6326029	1179.87	513.8	0.1	225986.1
TA1_shp	1358.33	635930.9	6326029	1147.22	546.45	0.1	282919.9
TA1_shp	1358.33	635930.9	6326029	1111.42	582.25	0.1	247600.8
TA1_shp	1358.33	635930.9	6326029	1072.77	620.9	0.1	172153.3
TA1_shp	1358.33	635930.9	6326029	1031.62	662.05	0.1	90601.67
TA1_shp	1358.33	635930.9	6326029	986.52	707.15	0.1	42179.43
TA1_shp	1358.33	635930.9	6326029	937.87	755.8	0.1	22162.87
TA1_shp	1358.33	635930.9	6326029	886.07	807.6	0.1	11659.34
TA1_shp	1358.33	635930.9	6326029	829.27	864.4	0.1	6674.49
TA1_shp	1358.33	635930.9	6326029	768.02	925.65	0.1	4367.57
TA1_shp	1358.33	635930.9	6326029	703.17	990.5	0.1	2082.42
TA1_shp	1358.33	635930.9	6326029	631.67	1062	0.1	1814.39
TA1_shp	1375	635945.8	6326034	1683.27	9.73	39.02	145.02
TA1_shp	1375	635945.8	6326034	1663.8	29.2	58.16	478.23
TA1_shp	1375	635945.8	6326034	1644.33	48.67	72.54	818.93
TA1_shp	1375	635945.8	6326034	1624.87	68.13	82.14	872.78
TA1_shp	1375	635945.8	6326034	1605.4	87.6	88.25	703.26
TA1_shp	1375	635945.8	6326034	1585.93	107.07	90.59	510.19
TA1_shp	1375	635945.8	6326034	1566.47	126.53	88.38	375.58
TA1_shp	1375	635945.8	6326034	1547	146	81.29	304.03
TA1_shp	1375	635945.8	6326034	1527.53	165.47	69.9	277.66
TA1_shp	1375	635945.8	6326034	1508.07	184.93	54.24	294.51
TA1_shp	1375	635945.8	6326034	1488.6	204.4	37.96	355.54
TA1_shp	1375	635945.8	6326034	1469.13	223.87	23.5	475.74
TA1_shp	1375	635945.8	6326034	1449.67	243.33	12.12	672.38
TA1_shp	1375	635945.8	6326034	1430.2	262.8	6.87	1026.52
TA1_shp	1375	635945.8	6326034	1410.73	282.27	3.97	1626.74
TA1_shp	1375	635945.8	6326034	1391	302	2.25	2452.39
TA1_shp	1375	635945.8	6326034	1371	322	1.51	4057.8
TA1_shp	1375	635945.8	6326034	1351	342	0.95	6695.36
TA1_shp	1375	635945.8	6326034	1331	362	0.61	10431.13
TA1_shp	1375	635945.8	6326034	1311	382	0.38	17705.04
TA1_shp	1375	635945.8	6326034	1288.9	404.1	0.17	27462.53
TA1_shp	1375	635945.8	6326034	1264.35	428.65	0.1	52199.96
TA1_shp	1375	635945.8	6326034	1238.4	454.6	0.1	88352.69
TA1_shp	1375	635945.8	6326034	1209.9	483.1	0.1	154046.1
TA1_shp	1375	635945.8	6326034	1179.2	513.8	0.1	226096.6
TA1_shp	1375	635945.8	6326034	1146.55	546.45	0.1	287924.3
TA1_shp	1375	635945.8	6326034	1110.75	582.25	0.1	257178.5
TA1_shp	1375	635945.8	6326034	1072.1	620.9	0.1	180806
TA1_shp	1375	635945.8	6326034	1030.95	662.05	0.1	95945.43
TA1_shp	1375	635945.8	6326034	985.85	707.15	0.1	44512.73
TA1_shp	1375	635945.8	6326034	937.2	755.8	0.1	23256.13
TA1_shp	1375	635945.8	6326034	885.4	807.6	0.1	12133.09
TA1_shp	1375	635945.8	6326034	828.6	864.4	0.1	6892.16
TA1_shp	1375	635945.8	6326034	767.35	925.65	0.1	4491.03
TA1_shp	1375	635945.8	6326034	702.5	990.5	0.1	2112.9

TA1_shp	1375	635945.8	6326034	631	1062	0.1	1839.18
TA1_shp	1391.67	635960.6	6326040	1682.6	9.73	13.86	138.01
TA1_shp	1391.67	635960.6	6326040	1663.13	29.2	45.24	365.41
TA1_shp	1391.67	635960.6	6326040	1643.66	48.67	66.38	620.8
TA1_shp	1391.67	635960.6	6326040	1624.2	68.13	80.46	737.94
TA1_shp	1391.67	635960.6	6326040	1604.73	87.6	88.66	676.62
TA1_shp	1391.67	635960.6	6326040	1585.26	107.07	91.26	530.54
TA1_shp	1391.67	635960.6	6326040	1565.8	126.53	88.37	400.58
TA1_shp	1391.67	635960.6	6326040	1546.33	146	80.33	320.23
TA1_shp	1391.67	635960.6	6326040	1526.86	165.47	68.03	286.63
TA1_shp	1391.67	635960.6	6326040	1507.4	184.93	51.73	297.53
TA1_shp	1391.67	635960.6	6326040	1487.93	204.4	35.18	354.37
TA1_shp	1391.67	635960.6	6326040	1468.46	223.87	21.16	470.29
TA1_shp	1391.67	635960.6	6326040	1449	243.33	10.78	661.67
TA1_shp	1391.67	635960.6	6326040	1429.53	262.8	6.14	1008.77
TA1_shp	1391.67	635960.6	6326040	1410.06	282.27	3.57	1592.64
TA1_shp	1391.67	635960.6	6326040	1390.33	302	2.06	2394.55
TA1_shp	1391.67	635960.6	6326040	1370.33	322	1.38	3954.75
TA1_shp	1391.67	635960.6	6326040	1350.33	342	0.88	6504
TA1_shp	1391.67	635960.6	6326040	1330.33	362	0.57	10105.59
TA1_shp	1391.67	635960.6	6326040	1310.33	382	0.35	17132.76
TA1_shp	1391.67	635960.6	6326040	1288.23	404.1	0.14	26562.88
TA1_shp	1391.67	635960.6	6326040	1263.68	428.65	0.1	50584.21
TA1_shp	1391.67	635960.6	6326040	1237.73	454.6	0.1	85926.19
TA1_shp	1391.67	635960.6	6326040	1209.23	483.1	0.1	150702.2
TA1_shp	1391.67	635960.6	6326040	1178.53	513.8	0.1	224936.1
TA1_shp	1391.67	635960.6	6326040	1145.88	546.45	0.1	290938
TA1_shp	1391.67	635960.6	6326040	1110.08	582.25	0.1	266326.9
TA1_shp	1391.67	635960.6	6326040	1071.43	620.9	0.1	189663.3
TA1_shp	1391.67	635960.6	6326040	1030.28	662.05	0.1	101599.6
TA1_shp	1391.67	635960.6	6326040	985.18	707.15	0.1	46967.44
TA1_shp	1391.67	635960.6	6326040	936.53	755.8	0.1	24407.78
TA1_shp	1391.67	635960.6	6326040	884.73	807.6	0.1	12631.76
TA1_shp	1391.67	635960.6	6326040	827.93	864.4	0.1	7117.43
TA1_shp	1391.67	635960.6	6326040	766.68	925.65	0.1	4618.56
TA1_shp	1391.67	635960.6	6326040	701.83	990.5	0.1	2143.98
TA1_shp	1391.67	635960.6	6326040	630.33	1062	0.1	1864.44
TA1_shp	1408.33	635975.6	6326045	1682.6	9.73	41.16	388.51
TA1_shp	1408.33	635975.6	6326045	1663.13	29.2	44.43	335.35
TA1_shp	1408.33	635975.6	6326045	1643.66	48.67	63.13	492.74
TA1_shp	1408.33	635975.6	6326045	1624.2	68.13	79.21	638.28
TA1_shp	1408.33	635975.6	6326045	1604.73	87.6	88.7	651.77
TA1_shp	1408.33	635975.6	6326045	1585.26	107.07	91.46	543.7
TA1_shp	1408.33	635975.6	6326045	1565.8	126.53	88.06	417.31
TA1_shp	1408.33	635975.6	6326045	1546.33	146	79.24	330.79
TA1_shp	1408.33	635975.6	6326045	1526.86	165.47	66.22	291.72
TA1_shp	1408.33	635975.6	6326045	1507.4	184.93	49.36	298.75
TA1_shp	1408.33	635975.6	6326045	1487.93	204.4	32.65	352.69
TA1_shp	1408.33	635975.6	6326045	1468.46	223.87	19.07	465.5
TA1_shp	1408.33	635975.6	6326045	1449	243.33	9.6	652.72
TA1_shp	1408.33	635975.6	6326045	1429.53	262.8	5.5	992.67
TA1_shp	1408.33	635975.6	6326045	1410.06	282.27	3.23	1563.59

TA1_shp	1408.33	635975.6	6326045	1390.33	302	1.89	2346.64
TA1_shp	1408.33	635975.6	6326045	1370.33	322	1.28	3865.06
TA1_shp	1408.33	635975.6	6326045	1350.33	342	0.82	6338.25
TA1_shp	1408.33	635975.6	6326045	1330.33	362	0.52	9827.29
TA1_shp	1408.33	635975.6	6326045	1310.33	382	0.31	16576.58
TA1_shp	1408.33	635975.6	6326045	1288.23	404.1	0.13	25619.28
TA1_shp	1408.33	635975.6	6326045	1263.68	428.65	0.1	48980.43
TA1_shp	1408.33	635975.6	6326045	1237.73	454.6	0.1	83614.05
TA1_shp	1408.33	635975.6	6326045	1209.23	483.1	0.1	147672.3
TA1_shp	1408.33	635975.6	6326045	1178.53	513.8	0.1	223990.5
TA1_shp	1408.33	635975.6	6326045	1145.88	546.45	0.1	293889.3
TA1_shp	1408.33	635975.6	6326045	1110.08	582.25	0.1	275026.2
TA1_shp	1408.33	635975.6	6326045	1071.43	620.9	0.1	198366.3
TA1_shp	1408.33	635975.6	6326045	1030.28	662.05	0.1	107515.9
TA1_shp	1408.33	635975.6	6326045	985.18	707.15	0.1	49575.88
TA1_shp	1408.33	635975.6	6326045	936.53	755.8	0.1	25626.33
TA1_shp	1408.33	635975.6	6326045	884.73	807.6	0.1	13153.61
TA1_shp	1408.33	635975.6	6326045	827.93	864.4	0.1	7353.78
TA1_shp	1408.33	635975.6	6326045	766.68	925.65	0.1	4751.9
TA1_shp	1408.33	635975.6	6326045	701.83	990.5	0.1	2175.67
TA1_shp	1408.33	635975.6	6326045	630.33	1062	0.1	1890.16
TA1_shp	1425	635990.8	6326050	1683.27	9.73	46.57	172.1
TA1_shp	1425	635990.8	6326050	1663.8	29.2	54.4	264.87
TA1_shp	1425	635990.8	6326050	1644.33	48.67	68.86	417.31
TA1_shp	1425	635990.8	6326050	1624.87	68.13	81.51	578.31
TA1_shp	1425	635990.8	6326050	1605.4	87.6	89.55	639.38
TA1_shp	1425	635990.8	6326050	1585.93	107.07	91.55	556.07
TA1_shp	1425	635990.8	6326050	1566.47	126.53	87.52	428.35
TA1_shp	1425	635990.8	6326050	1547	146	78.05	335.4
TA1_shp	1425	635990.8	6326050	1527.53	165.47	64.49	292.06
TA1_shp	1425	635990.8	6326050	1508.07	184.93	47.18	296.6
TA1_shp	1425	635990.8	6326050	1488.6	204.4	30.4	348.15
TA1_shp	1425	635990.8	6326050	1469.13	223.87	17.29	458.45
TA1_shp	1425	635990.8	6326050	1449.67	243.33	8.63	642.26
TA1_shp	1425	635990.8	6326050	1430.2	262.8	5	973.85
TA1_shp	1425	635990.8	6326050	1410.73	282.27	2.97	1534.43
TA1_shp	1425	635990.8	6326050	1391	302	1.74	2302.47
TA1_shp	1425	635990.8	6326050	1371	322	1.19	3778.4
TA1_shp	1425	635990.8	6326050	1351	342	0.77	6190.52
TA1_shp	1425	635990.8	6326050	1331	362	0.49	9598.73
TA1_shp	1425	635990.8	6326050	1311	382	0.29	16136.54
TA1_shp	1425	635990.8	6326050	1288.9	404.1	0.11	24882.05
TA1_shp	1425	635990.8	6326050	1264.35	428.65	0.1	47454.67
TA1_shp	1425	635990.8	6326050	1238.4	454.6	0.1	81177.18
TA1_shp	1425	635990.8	6326050	1209.9	483.1	0.1	144175.4
TA1_shp	1425	635990.8	6326050	1179.2	513.8	0.1	221965.3
TA1_shp	1425	635990.8	6326050	1146.55	546.45	0.1	295261.4
TA1_shp	1425	635990.8	6326050	1110.75	582.25	0.1	283358.9
TA1_shp	1425	635990.8	6326050	1072.1	620.9	0.1	207199
TA1_shp	1425	635990.8	6326050	1030.95	662.05	0.1	113658
TA1_shp	1425	635990.8	6326050	985.85	707.15	0.1	52299.92
TA1_shp	1425	635990.8	6326050	937.2	755.8	0.1	26908.65

TA1_shp	1425	635990.8	6326050	885.4	807.6	0.1	13705.36
TA1_shp	1425	635990.8	6326050	828.6	864.4	0.1	7599.82
TA1_shp	1425	635990.8	6326050	767.35	925.65	0.1	4890.44
TA1_shp	1425	635990.8	6326050	702.5	990.5	0.1	2208.14
TA1_shp	1425	635990.8	6326050	631	1062	0.1	1916.47
TA1_shp	1441.67	636005.9	6326055	1683.94	9.73	61.89	115.25
TA1_shp	1441.67	636005.9	6326055	1664.47	29.2	69.92	236.65
TA1_shp	1441.67	636005.9	6326055	1645	48.67	76.67	358.83
TA1_shp	1441.67	636005.9	6326055	1625.54	68.13	84.26	537.6
TA1_shp	1441.67	636005.9	6326055	1606.07	87.6	90.24	638.89
TA1_shp	1441.67	636005.9	6326055	1586.6	107.07	91.41	564.49
TA1_shp	1441.67	636005.9	6326055	1567.14	126.53	86.85	431
TA1_shp	1441.67	636005.9	6326055	1547.67	146	76.89	331.73
TA1_shp	1441.67	636005.9	6326055	1528.2	165.47	62.9	286.84
TA1_shp	1441.67	636005.9	6326055	1508.74	184.93	45.23	290.51
TA1_shp	1441.67	636005.9	6326055	1489.27	204.4	28.51	341.4
TA1_shp	1441.67	636005.9	6326055	1469.8	223.87	15.88	449.72
TA1_shp	1441.67	636005.9	6326055	1450.34	243.33	7.94	629.49
TA1_shp	1441.67	636005.9	6326055	1430.87	262.8	4.63	953.88
TA1_shp	1441.67	636005.9	6326055	1411.4	282.27	2.77	1500.33
TA1_shp	1441.67	636005.9	6326055	1391.67	302	1.65	2248.07
TA1_shp	1441.67	636005.9	6326055	1371.67	322	1.13	3682.76
TA1_shp	1441.67	636005.9	6326055	1351.67	342	0.73	6023.62
TA1_shp	1441.67	636005.9	6326055	1331.67	362	0.47	9328.64
TA1_shp	1441.67	636005.9	6326055	1311.67	382	0.27	15712.6
TA1_shp	1441.67	636005.9	6326055	1289.57	404.1	0.1	24263.48
TA1_shp	1441.67	636005.9	6326055	1265.02	428.65	0.1	46296.55
TA1_shp	1441.67	636005.9	6326055	1239.07	454.6	0.1	79311.05
TA1_shp	1441.67	636005.9	6326055	1210.57	483.1	0.1	141227.8
TA1_shp	1441.67	636005.9	6326055	1179.87	513.8	0.1	220077
TA1_shp	1441.67	636005.9	6326055	1147.22	546.45	0.1	296173.4
TA1_shp	1441.67	636005.9	6326055	1111.42	582.25	0.1	290823.7
TA1_shp	1441.67	636005.9	6326055	1072.77	620.9	0.1	215669.6
TA1_shp	1441.67	636005.9	6326055	1031.62	662.05	0.1	120086.5
TA1_shp	1441.67	636005.9	6326055	986.52	707.15	0.1	55198.12
TA1_shp	1441.67	636005.9	6326055	937.87	755.8	0.1	28264.48
TA1_shp	1441.67	636005.9	6326055	886.07	807.6	0.1	14281.42
TA1_shp	1441.67	636005.9	6326055	829.27	864.4	0.1	7858.81
TA1_shp	1441.67	636005.9	6326055	768.02	925.65	0.1	5035.82
TA1_shp	1441.67	636005.9	6326055	703.17	990.5	0.1	2241.42
TA1_shp	1441.67	636005.9	6326055	631.67	1062	0.1	1943.42
TA1_shp	1458.33	636021.1	6326060	1684.6	9.73	62.99	1260.6
TA1_shp	1458.33	636021.1	6326060	1665.13	29.2	69.6	349.6
TA1_shp	1458.33	636021.1	6326060	1645.66	48.67	75.63	325.68
TA1_shp	1458.33	636021.1	6326060	1626.2	68.13	83.32	521.14
TA1_shp	1458.33	636021.1	6326060	1606.73	87.6	89.59	652.78
TA1_shp	1458.33	636021.1	6326060	1587.26	107.07	90.82	574.79
TA1_shp	1458.33	636021.1	6326060	1567.8	126.53	86.09	428.62
TA1_shp	1458.33	636021.1	6326060	1548.33	146	75.85	324.71
TA1_shp	1458.33	636021.1	6326060	1528.86	165.47	61.55	279.24
TA1_shp	1458.33	636021.1	6326060	1509.4	184.93	43.58	283.55
TA1_shp	1458.33	636021.1	6326060	1489.93	204.4	27.03	334.07

TA1_shp	1458.33	636021.1	6326060	1470.46	223.87	14.86	440.76
TA1_shp	1458.33	636021.1	6326060	1451	243.33	7.45	617.02
TA1_shp	1458.33	636021.1	6326060	1431.53	262.8	4.37	932.38
TA1_shp	1458.33	636021.1	6326060	1412.06	282.27	2.63	1462.53
TA1_shp	1458.33	636021.1	6326060	1392.33	302	1.58	2187.1
TA1_shp	1458.33	636021.1	6326060	1372.33	322	1.09	3574.15
TA1_shp	1458.33	636021.1	6326060	1352.33	342	0.71	5830.14
TA1_shp	1458.33	636021.1	6326060	1332.33	362	0.45	9010.67
TA1_shp	1458.33	636021.1	6326060	1312.33	382	0.26	15143.49
TA1_shp	1458.33	636021.1	6326060	1290.23	404.1	0.1	23355.29
TA1_shp	1458.33	636021.1	6326060	1265.68	428.65	0.1	44872.57
TA1_shp	1458.33	636021.1	6326060	1239.73	454.6	0.1	77302.23
TA1_shp	1458.33	636021.1	6326060	1211.23	483.1	0.1	138507.7
TA1_shp	1458.33	636021.1	6326060	1180.53	513.8	0.1	218169.4
TA1_shp	1458.33	636021.1	6326060	1147.88	546.45	0.1	296606.1
TA1_shp	1458.33	636021.1	6326060	1112.08	582.25	0.1	298133.5
TA1_shp	1458.33	636021.1	6326060	1073.43	620.9	0.1	224188
TA1_shp	1458.33	636021.1	6326060	1032.28	662.05	0.1	126661.6
TA1_shp	1458.33	636021.1	6326060	987.18	707.15	0.1	58206.72
TA1_shp	1458.33	636021.1	6326060	938.53	755.8	0.1	29689.93
TA1_shp	1458.33	636021.1	6326060	886.73	807.6	0.1	14892.14
TA1_shp	1458.33	636021.1	6326060	829.93	864.4	0.1	8128.41
TA1_shp	1458.33	636021.1	6326060	768.68	925.65	0.1	5186.82
TA1_shp	1458.33	636021.1	6326060	703.83	990.5	0.1	2275.42
TA1_shp	1458.33	636021.1	6326060	632.33	1062	0.1	1970.92
TA1_shp	1475	636036.3	6326065	1685.27	9.73	55.15	426.79
TA1_shp	1475	636036.3	6326065	1665.8	29.2	62.52	206.94
TA1_shp	1475	636036.3	6326065	1646.33	48.67	71.67	306.31
TA1_shp	1475	636036.3	6326065	1626.87	68.13	81.55	558.96
TA1_shp	1475	636036.3	6326065	1607.4	87.6	88.71	697.99
TA1_shp	1475	636036.3	6326065	1587.93	107.07	90.26	590.32
TA1_shp	1475	636036.3	6326065	1568.47	126.53	85.48	426.55
TA1_shp	1475	636036.3	6326065	1549	146	75.03	317.34
TA1_shp	1475	636036.3	6326065	1529.53	165.47	60.54	272.4
TA1_shp	1475	636036.3	6326065	1510.07	184.93	42.43	277.4
TA1_shp	1475	636036.3	6326065	1490.6	204.4	26.13	328.38
TA1_shp	1475	636036.3	6326065	1471.13	223.87	14.3	434
TA1_shp	1475	636036.3	6326065	1451.67	243.33	7.18	607.22
TA1_shp	1475	636036.3	6326065	1432.2	262.8	4.23	917.36
TA1_shp	1475	636036.3	6326065	1412.73	282.27	2.57	1435.85
TA1_shp	1475	636036.3	6326065	1393	302	1.55	2143.05
TA1_shp	1475	636036.3	6326065	1373	322	1.06	3493.22
TA1_shp	1475	636036.3	6326065	1353	342	0.69	5686.09
TA1_shp	1475	636036.3	6326065	1333	362	0.45	8775.56
TA1_shp	1475	636036.3	6326065	1313	382	0.25	14689.89
TA1_shp	1475	636036.3	6326065	1290.9	404.1	0.1	22598.3
TA1_shp	1475	636036.3	6326065	1266.35	428.65	0.1	43365.96
TA1_shp	1475	636036.3	6326065	1240.4	454.6	0.1	75029.49
TA1_shp	1475	636036.3	6326065	1211.9	483.1	0.1	135644.2
TA1_shp	1475	636036.3	6326065	1181.2	513.8	0.1	216116.4
TA1_shp	1475	636036.3	6326065	1148.55	546.45	0.1	296754.5
TA1_shp	1475	636036.3	6326065	1112.75	582.25	0.1	304559.6

TA1_shp	1475	636036.3	6326065	1074.1	620.9	0.1	232295.7
TA1_shp	1475	636036.3	6326065	1032.95	662.05	0.1	133509
TA1_shp	1475	636036.3	6326065	987.85	707.15	0.1	61396.68
TA1_shp	1475	636036.3	6326065	939.2	755.8	0.1	31197.81
TA1_shp	1475	636036.3	6326065	887.4	807.6	0.1	15532.74
TA1_shp	1475	636036.3	6326065	830.6	864.4	0.1	8412.26
TA1_shp	1475	636036.3	6326065	769.35	925.65	0.1	5345.4
TA1_shp	1475	636036.3	6326065	704.5	990.5	0.1	2310.42
TA1_shp	1475	636036.3	6326065	633	1062	0.1	1999.18
TA1_shp	1491.67	636051.4	6326070	1685.94	9.73	63.81	77.64
TA1_shp	1491.67	636051.4	6326070	1666.47	29.2	69.31	128.78
TA1_shp	1491.67	636051.4	6326070	1647	48.67	75.31	336.88
TA1_shp	1491.67	636051.4	6326070	1627.54	68.13	83.19	650.42
TA1_shp	1491.67	636051.4	6326070	1608.07	87.6	89.28	761.76
TA1_shp	1491.67	636051.4	6326070	1588.6	107.07	90.24	608.61
TA1_shp	1491.67	636051.4	6326070	1569.14	126.53	85.14	424.6
TA1_shp	1491.67	636051.4	6326070	1549.67	146	74.51	312.12
TA1_shp	1491.67	636051.4	6326070	1530.2	165.47	59.94	267.87
TA1_shp	1491.67	636051.4	6326070	1510.74	184.93	41.86	274.23
TA1_shp	1491.67	636051.4	6326070	1491.27	204.4	25.75	325.6
TA1_shp	1491.67	636051.4	6326070	1471.8	223.87	14.11	430.72
TA1_shp	1491.67	636051.4	6326070	1452.34	243.33	7.11	602.02
TA1_shp	1491.67	636051.4	6326070	1432.87	262.8	4.2	905.46
TA1_shp	1491.67	636051.4	6326070	1413.4	282.27	2.56	1412.05
TA1_shp	1491.67	636051.4	6326070	1393.67	302	1.55	2101.25
TA1_shp	1491.67	636051.4	6326070	1373.67	322	1.07	3406.73
TA1_shp	1491.67	636051.4	6326070	1353.67	342	0.7	5535.82
TA1_shp	1491.67	636051.4	6326070	1333.67	362	0.44	8541.24
TA1_shp	1491.67	636051.4	6326070	1313.67	382	0.25	14262.04
TA1_shp	1491.67	636051.4	6326070	1291.57	404.1	0.1	21903.39
TA1_shp	1491.67	636051.4	6326070	1267.02	428.65	0.1	41881.25
TA1_shp	1491.67	636051.4	6326070	1241.07	454.6	0.1	72713.23
TA1_shp	1491.67	636051.4	6326070	1212.57	483.1	0.1	132625.3
TA1_shp	1491.67	636051.4	6326070	1181.87	513.8	0.1	214043.3
TA1_shp	1491.67	636051.4	6326070	1149.22	546.45	0.1	297094
TA1_shp	1491.67	636051.4	6326070	1113.42	582.25	0.1	311012.6
TA1_shp	1491.67	636051.4	6326070	1074.77	620.9	0.1	240402
TA1_shp	1491.67	636051.4	6326070	1033.62	662.05	0.1	140398.4
TA1_shp	1491.67	636051.4	6326070	988.52	707.15	0.1	64699.04
TA1_shp	1491.67	636051.4	6326070	939.87	755.8	0.1	32783.16
TA1_shp	1491.67	636051.4	6326070	888.07	807.6	0.1	16212.37
TA1_shp	1491.67	636051.4	6326070	831.27	864.4	0.1	8708.93
TA1_shp	1491.67	636051.4	6326070	770.02	925.65	0.1	5510.73
TA1_shp	1491.67	636051.4	6326070	705.17	990.5	0.1	2346.18
TA1_shp	1491.67	636051.4	6326070	633.67	1062	0.1	2028.03
TA1_shp	1508.33	636067.2	6326076	1689.94	9.73	83.12	150.59
TA1_shp	1508.33	636067.2	6326076	1670.47	29.2	78.35	223.81
TA1_shp	1508.33	636067.2	6326076	1651	48.67	79.85	471.91
TA1_shp	1508.33	636067.2	6326076	1631.54	68.13	85.28	776.07
TA1_shp	1508.33	636067.2	6326076	1612.07	87.6	90.01	822.74
TA1_shp	1508.33	636067.2	6326076	1592.6	107.07	90.21	625.35
TA1_shp	1508.33	636067.2	6326076	1573.14	126.53	84.79	426.59

TA1_shp	1508.33	636067.2	6326076	1553.67	146	74.11	311.5
TA1_shp	1508.33	636067.2	6326076	1534.2	165.47	59.67	266.83
TA1_shp	1508.33	636067.2	6326076	1514.74	184.93	41.8	272.9
TA1_shp	1508.33	636067.2	6326076	1495.27	204.4	25.87	323.74
TA1_shp	1508.33	636067.2	6326076	1475.8	223.87	14.28	426.96
TA1_shp	1508.33	636067.2	6326076	1456.34	243.33	7.21	594.79
TA1_shp	1508.33	636067.2	6326076	1436.87	262.8	4.27	893.66
TA1_shp	1508.33	636067.2	6326076	1417.4	282.27	2.6	1386.17
TA1_shp	1508.33	636067.2	6326076	1397.67	302	1.57	2055.45
TA1_shp	1508.33	636067.2	6326076	1377.67	322	1.08	3331.88
TA1_shp	1508.33	636067.2	6326076	1357.67	342	0.7	5389.06
TA1_shp	1508.33	636067.2	6326076	1337.67	362	0.44	8276.94
TA1_shp	1508.33	636067.2	6326076	1317.67	382	0.25	13848.87
TA1_shp	1508.33	636067.2	6326076	1295.57	404.1	0.1	21310.49
TA1_shp	1508.33	636067.2	6326076	1271.02	428.65	0.1	40460.15
TA1_shp	1508.33	636067.2	6326076	1245.07	454.6	0.1	70343.11
TA1_shp	1508.33	636067.2	6326076	1216.57	483.1	0.1	129235.5
TA1_shp	1508.33	636067.2	6326076	1185.87	513.8	0.1	211411.8
TA1_shp	1508.33	636067.2	6326076	1153.22	546.45	0.1	296763.5
TA1_shp	1508.33	636067.2	6326076	1117.42	582.25	0.1	316732.2
TA1_shp	1508.33	636067.2	6326076	1078.77	620.9	0.1	248278.5
TA1_shp	1508.33	636067.2	6326076	1037.62	662.05	0.1	147586.1
TA1_shp	1508.33	636067.2	6326076	992.52	707.15	0.1	68177.21
TA1_shp	1508.33	636067.2	6326076	943.87	755.8	0.1	34447.91
TA1_shp	1508.33	636067.2	6326076	892.07	807.6	0.1	16922.41
TA1_shp	1508.33	636067.2	6326076	835.27	864.4	0.1	9021.47
TA1_shp	1508.33	636067.2	6326076	774.02	925.65	0.1	5684.46
TA1_shp	1508.33	636067.2	6326076	709.17	990.5	0.1	2383
TA1_shp	1508.33	636067.2	6326076	637.67	1062	0.1	2057.69
TA1_shp	1525	636083.5	6326083	1697.27	9.73	56.58	1242.53
TA1_shp	1525	636083.5	6326083	1677.8	29.2	66.56	475.52
TA1_shp	1525	636083.5	6326083	1658.33	48.67	71.12	429.9
TA1_shp	1525	636083.5	6326083	1638.87	68.13	76.72	639.23
TA1_shp	1525	636083.5	6326083	1619.4	87.6	83.47	885.73
TA1_shp	1525	636083.5	6326083	1599.93	107.07	88.5	870.83
TA1_shp	1525	636083.5	6326083	1580.47	126.53	88.93	643.97
TA1_shp	1525	636083.5	6326083	1561	146	83.8	433.11
TA1_shp	1525	636083.5	6326083	1541.53	165.47	73.5	314.85
TA1_shp	1525	636083.5	6326083	1522.07	184.93	59.49	268.37
TA1_shp	1525	636083.5	6326083	1502.6	204.4	42.1	273.65
TA1_shp	1525	636083.5	6326083	1483.13	223.87	26.41	323.9
TA1_shp	1525	636083.5	6326083	1463.67	243.33	14.8	425.57
TA1_shp	1525	636083.5	6326083	1444.2	262.8	7.53	590.97
TA1_shp	1525	636083.5	6326083	1424.73	282.27	4.45	886.85
TA1_shp	1525	636083.5	6326083	1405	302	2.69	1375.96
TA1_shp	1525	636083.5	6326083	1385	322	1.63	2054.59
TA1_shp	1525	636083.5	6326083	1365	342	1.11	3304.62
TA1_shp	1525	636083.5	6326083	1345	362	0.72	5340.48
TA1_shp	1525	636083.5	6326083	1325	382	0.45	8128.34
TA1_shp	1525	636083.5	6326083	1302.9	404.1	0.23	14315.97
TA1_shp	1525	636083.5	6326083	1278.35	428.65	0.1	23510.05
TA1_shp	1525	636083.5	6326083	1252.4	454.6	0.1	44389.88

TA1_shp	1525	636083.5	6326083	1223.9	483.1	0.1	86398.34
TA1_shp	1525	636083.5	6326083	1193.2	513.8	0.1	149690.6
TA1_shp	1525	636083.5	6326083	1160.55	546.45	0.1	248602.9
TA1_shp	1525	636083.5	6326083	1124.75	582.25	0.1	308307.1
TA1_shp	1525	636083.5	6326083	1086.1	620.9	0.1	308824.6
TA1_shp	1525	636083.5	6326083	1044.95	662.05	0.1	197257.4
TA1_shp	1525	636083.5	6326083	999.85	707.15	0.1	107596.5
TA1_shp	1525	636083.5	6326083	951.2	755.8	0.1	48316.43
TA1_shp	1525	636083.5	6326083	899.4	807.6	0.1	21251.36
TA1_shp	1525	636083.5	6326083	842.6	864.4	0.1	10827.77
TA1_shp	1525	636083.5	6326083	781.35	925.65	0.1	6973.63
TA1_shp	1525	636083.5	6326083	716.5	990.5	0.1	3285.85
TA1_shp	1525	636083.5	6326083	645	1062	0.1	2178.81
TA1_shp	1541.67	636099.8	6326091	1704.6	9.73	57.8	1093.03
TA1_shp	1541.67	636099.8	6326091	1685.13	29.2	57.57	610.9
TA1_shp	1541.67	636099.8	6326091	1665.66	48.67	60.6	551.09
TA1_shp	1541.67	636099.8	6326091	1646.2	68.13	68.29	739.55
TA1_shp	1541.67	636099.8	6326091	1626.73	87.6	77.33	953.49
TA1_shp	1541.67	636099.8	6326091	1607.26	107.07	84.01	910.48
TA1_shp	1541.67	636099.8	6326091	1587.8	126.53	85.78	667.28
TA1_shp	1541.67	636099.8	6326091	1568.33	146	81.8	448.08
TA1_shp	1541.67	636099.8	6326091	1548.86	165.47	72.52	324.71
TA1_shp	1541.67	636099.8	6326091	1529.4	184.93	59.38	274.97
TA1_shp	1541.67	636099.8	6326091	1509.93	204.4	42.73	278.95
TA1_shp	1541.67	636099.8	6326091	1490.46	223.87	27.37	327.25
TA1_shp	1541.67	636099.8	6326091	1471	243.33	15.68	427.02
TA1_shp	1541.67	636099.8	6326091	1451.53	262.8	8.05	590.3
TA1_shp	1541.67	636099.8	6326091	1432.06	282.27	4.76	880.69
TA1_shp	1541.67	636099.8	6326091	1412.33	302	2.88	1360.73
TA1_shp	1541.67	636099.8	6326091	1392.33	322	1.73	2025.69
TA1_shp	1541.67	636099.8	6326091	1372.33	342	1.18	3244.96
TA1_shp	1541.67	636099.8	6326091	1352.33	362	0.76	5220.21
TA1_shp	1541.67	636099.8	6326091	1332.33	382	0.47	7918.89
TA1_shp	1541.67	636099.8	6326091	1310.23	404.1	0.24	13912.66
TA1_shp	1541.67	636099.8	6326091	1285.68	428.65	0.1	22814.45
TA1_shp	1541.67	636099.8	6326091	1259.73	454.6	0.1	42987.27
TA1_shp	1541.67	636099.8	6326091	1231.23	483.1	0.1	83773.01
TA1_shp	1541.67	636099.8	6326091	1200.53	513.8	0.1	145483.1
TA1_shp	1541.67	636099.8	6326091	1167.88	546.45	0.1	245686.7
TA1_shp	1541.67	636099.8	6326091	1132.08	582.25	0.1	309800.5
TA1_shp	1541.67	636099.8	6326091	1093.43	620.9	0.1	316080.4
TA1_shp	1541.67	636099.8	6326091	1052.28	662.05	0.1	205546
TA1_shp	1541.67	636099.8	6326091	1007.18	707.15	0.1	112991.3
TA1_shp	1541.67	636099.8	6326091	958.53	755.8	0.1	50855.62
TA1_shp	1541.67	636099.8	6326091	906.73	807.6	0.1	22237.61
TA1_shp	1541.67	636099.8	6326091	849.93	864.4	0.1	11246.52
TA1_shp	1541.67	636099.8	6326091	788.68	925.65	0.1	7215.21
TA1_shp	1541.67	636099.8	6326091	723.83	990.5	0.1	3362.99
TA1_shp	1541.67	636099.8	6326091	652.33	1062	0.1	2212.26
TA1_shp	1558.33	636116.2	6326098	1711.94	9.73	69.35	301.52
TA1_shp	1558.33	636116.2	6326098	1692.47	29.2	59.87	388
TA1_shp	1558.33	636116.2	6326098	1673	48.67	54.82	514.09

TA1_shp	1558.33	636116.2	6326098	1653.54	68.13	59.81	763.16
TA1_shp	1558.33	636116.2	6326098	1634.07	87.6	69.39	999.19
TA1_shp	1558.33	636116.2	6326098	1614.6	107.07	77.73	962.57
TA1_shp	1558.33	636116.2	6326098	1595.14	126.53	81.28	711.64
TA1_shp	1558.33	636116.2	6326098	1575.67	146	79.01	479.08
TA1_shp	1558.33	636116.2	6326098	1556.2	165.47	71.23	344.12
TA1_shp	1558.33	636116.2	6326098	1536.74	184.93	59.27	287.82
TA1_shp	1558.33	636116.2	6326098	1517.27	204.4	43.54	287.49
TA1_shp	1558.33	636116.2	6326098	1497.8	223.87	28.61	333.14
TA1_shp	1558.33	636116.2	6326098	1478.34	243.33	16.84	431.23
TA1_shp	1558.33	636116.2	6326098	1458.87	262.8	8.76	592.73
TA1_shp	1558.33	636116.2	6326098	1439.4	282.27	5.17	877.58
TA1_shp	1558.33	636116.2	6326098	1419.67	302	3.12	1352.98
TA1_shp	1558.33	636116.2	6326098	1399.67	322	1.87	2010.31
TA1_shp	1558.33	636116.2	6326098	1379.67	342	1.27	3201.83
TA1_shp	1558.33	636116.2	6326098	1359.67	362	0.81	5126.36
TA1_shp	1558.33	636116.2	6326098	1339.67	382	0.51	7752.35
TA1_shp	1558.33	636116.2	6326098	1317.57	404.1	0.26	13544.55
TA1_shp	1558.33	636116.2	6326098	1293.02	428.65	0.1	22149.93
TA1_shp	1558.33	636116.2	6326098	1267.07	454.6	0.1	41748.61
TA1_shp	1558.33	636116.2	6326098	1238.57	483.1	0.1	81268.99
TA1_shp	1558.33	636116.2	6326098	1207.87	513.8	0.1	141197.6
TA1_shp	1558.33	636116.2	6326098	1175.22	546.45	0.1	242761.5
TA1_shp	1558.33	636116.2	6326098	1139.42	582.25	0.1	311048.1
TA1_shp	1558.33	636116.2	6326098	1100.77	620.9	0.1	322777.3
TA1_shp	1558.33	636116.2	6326098	1059.62	662.05	0.1	213669
TA1_shp	1558.33	636116.2	6326098	1014.52	707.15	0.1	118441.3
TA1_shp	1558.33	636116.2	6326098	965.87	755.8	0.1	53515.31
TA1_shp	1558.33	636116.2	6326098	914.07	807.6	0.1	23288.98
TA1_shp	1558.33	636116.2	6326098	857.27	864.4	0.1	11686.24
TA1_shp	1558.33	636116.2	6326098	796.02	925.65	0.1	7468.07
TA1_shp	1558.33	636116.2	6326098	731.17	990.5	0.1	3443.14
TA1_shp	1558.33	636116.2	6326098	659.67	1062	0.1	2246.63
TA1_shp	1575	636132.5	6326105	1719.27	9.73	31.56	521.36
TA1_shp	1575	636132.5	6326105	1699.8	29.2	57.61	350.46
TA1_shp	1575	636132.5	6326105	1680.33	48.67	55.42	349.41
TA1_shp	1575	636132.5	6326105	1660.87	68.13	49.56	487.69
TA1_shp	1575	636132.5	6326105	1641.4	87.6	52.67	774.23
TA1_shp	1575	636132.5	6326105	1621.93	107.07	61.84	1050.24
TA1_shp	1575	636132.5	6326105	1602.47	126.53	71.23	1034.86
TA1_shp	1575	636132.5	6326105	1583	146	76.37	774.66
TA1_shp	1575	636132.5	6326105	1563.53	165.47	75.9	522.1
TA1_shp	1575	636132.5	6326105	1544.07	184.93	69.79	370.49
TA1_shp	1575	636132.5	6326105	1524.6	204.4	59.16	305.19
TA1_shp	1575	636132.5	6326105	1505.13	223.87	44.45	298.93
TA1_shp	1575	636132.5	6326105	1485.67	243.33	30.09	341.86
TA1_shp	1575	636132.5	6326105	1466.2	262.8	18.26	438.41
TA1_shp	1575	636132.5	6326105	1446.73	282.27	9.66	598.02
TA1_shp	1575	636132.5	6326105	1427	302	5.65	882.37
TA1_shp	1575	636132.5	6326105	1407	322	3.38	1366.86
TA1_shp	1575	636132.5	6326105	1387	342	2.01	2034.88
TA1_shp	1575	636132.5	6326105	1367	362	1.35	3197.98

TA1_shp	1575	636132.5	6326105	1347	382	0.87	5121.46
TA1_shp	1575	636132.5	6326105	1324.9	404.1	0.49	7969.88
TA1_shp	1575	636132.5	6326105	1300.35	428.65	0.23	14707.26
TA1_shp	1575	636132.5	6326105	1274.4	454.6	0.1	26242.85
TA1_shp	1575	636132.5	6326105	1245.9	483.1	0.1	47113.72
TA1_shp	1575	636132.5	6326105	1215.2	513.8	0.1	99432.49
TA1_shp	1575	636132.5	6326105	1182.55	546.45	0.1	178084.5
TA1_shp	1575	636132.5	6326105	1146.75	582.25	0.1	286782.8
TA1_shp	1575	636132.5	6326105	1108.1	620.9	0.1	335705.1
TA1_shp	1575	636132.5	6326105	1066.95	662.05	0.1	272913
TA1_shp	1575	636132.5	6326105	1021.85	707.15	0.1	164703.4
TA1_shp	1575	636132.5	6326105	973.2	755.8	0.1	70599.4
TA1_shp	1575	636132.5	6326105	921.4	807.6	0.1	32578.95
TA1_shp	1575	636132.5	6326105	864.6	864.4	0.1	16346.29
TA1_shp	1575	636132.5	6326105	803.35	925.65	0.1	8998.26
TA1_shp	1575	636132.5	6326105	738.5	990.5	0.1	4790.3
TA1_shp	1575	636132.5	6326105	667	1062	0.1	2379.15
TA1_shp	1591.67	636148.8	6326113	1726.6	9.73	37.4	744.83
TA1_shp	1591.67	636148.8	6326113	1707.13	29.2	54.11	421.86
TA1_shp	1591.67	636148.8	6326113	1687.66	48.67	50.68	348.17
TA1_shp	1591.67	636148.8	6326113	1668.2	68.13	44.98	476.3
TA1_shp	1591.67	636148.8	6326113	1648.73	87.6	47.26	784.8
TA1_shp	1591.67	636148.8	6326113	1629.26	107.07	55.82	1102.75
TA1_shp	1591.67	636148.8	6326113	1609.8	126.53	65.61	1119.45
TA1_shp	1591.67	636148.8	6326113	1590.33	146	71.95	852.77
TA1_shp	1591.67	636148.8	6326113	1570.86	165.47	72.99	576.07
TA1_shp	1591.67	636148.8	6326113	1551.4	184.93	68.42	405.27
TA1_shp	1591.67	636148.8	6326113	1531.93	204.4	59.1	327.64
TA1_shp	1591.67	636148.8	6326113	1512.46	223.87	45.5	313.65
TA1_shp	1591.67	636148.8	6326113	1493	243.33	31.76	353.56
TA1_shp	1591.67	636148.8	6326113	1473.53	262.8	19.89	447.84
TA1_shp	1591.67	636148.8	6326113	1454.06	282.27	10.71	604.71
TA1_shp	1591.67	636148.8	6326113	1434.33	302	6.25	888.04
TA1_shp	1591.67	636148.8	6326113	1414.33	322	3.73	1370.5
TA1_shp	1591.67	636148.8	6326113	1394.33	342	2.2	2034.16
TA1_shp	1591.67	636148.8	6326113	1374.33	362	1.47	3183.55
TA1_shp	1591.67	636148.8	6326113	1354.33	382	0.94	5073.63
TA1_shp	1591.67	636148.8	6326113	1332.23	404.1	0.53	7866.41
TA1_shp	1591.67	636148.8	6326113	1307.68	428.65	0.25	14414.25
TA1_shp	1591.67	636148.8	6326113	1281.73	454.6	0.1	25607.95
TA1_shp	1591.67	636148.8	6326113	1253.23	483.1	0.1	45844.29
TA1_shp	1591.67	636148.8	6326113	1222.53	513.8	0.1	96360.87
TA1_shp	1591.67	636148.8	6326113	1189.88	546.45	0.1	173942.6
TA1_shp	1591.67	636148.8	6326113	1154.08	582.25	0.1	283132.5
TA1_shp	1591.67	636148.8	6326113	1115.43	620.9	0.1	338759.3
TA1_shp	1591.67	636148.8	6326113	1074.28	662.05	0.1	279923.8
TA1_shp	1591.67	636148.8	6326113	1029.18	707.15	0.1	172084.8
TA1_shp	1591.67	636148.8	6326113	980.53	755.8	0.1	74324.59
TA1_shp	1591.67	636148.8	6326113	928.73	807.6	0.1	34204.01
TA1_shp	1591.67	636148.8	6326113	871.93	864.4	0.1	17070.16
TA1_shp	1591.67	636148.8	6326113	810.68	925.65	0.1	9337.45
TA1_shp	1591.67	636148.8	6326113	745.83	990.5	0.1	4935.91

TA1_shp	1591.67	636148.8	6326113	674.33	1062	0.1	2417.93
TA1_shp	1608.33	636164.7	6326120	1731.35	9.73	58.91	399.76
TA1_shp	1608.33	636164.7	6326120	1711.88	29.2	56.9	353.94
TA1_shp	1608.33	636164.7	6326120	1692.41	48.67	47.8	321.45
TA1_shp	1608.33	636164.7	6326120	1672.95	68.13	42.26	455.57
TA1_shp	1608.33	636164.7	6326120	1653.48	87.6	44.42	775.51
TA1_shp	1608.33	636164.7	6326120	1634.01	107.07	52.42	1135.68
TA1_shp	1608.33	636164.7	6326120	1614.55	126.53	62.01	1201.5
TA1_shp	1608.33	636164.7	6326120	1595.08	146	68.81	941.03
TA1_shp	1608.33	636164.7	6326120	1575.61	165.47	70.79	639.16
TA1_shp	1608.33	636164.7	6326120	1556.15	184.93	67.37	447.85
TA1_shp	1608.33	636164.7	6326120	1536.68	204.4	59.21	353.97
TA1_shp	1608.33	636164.7	6326120	1517.21	223.87	46.66	331.64
TA1_shp	1608.33	636164.7	6326120	1497.75	243.33	33.51	367.48
TA1_shp	1608.33	636164.7	6326120	1478.28	262.8	21.6	459.49
TA1_shp	1608.33	636164.7	6326120	1458.81	282.27	11.91	615.06
TA1_shp	1608.33	636164.7	6326120	1439.08	302	6.94	898.56
TA1_shp	1608.33	636164.7	6326120	1419.08	322	4.11	1379.92
TA1_shp	1608.33	636164.7	6326120	1399.08	342	2.4	2040.21
TA1_shp	1608.33	636164.7	6326120	1379.08	362	1.59	3177.81
TA1_shp	1608.33	636164.7	6326120	1359.08	382	1	5044.51
TA1_shp	1608.33	636164.7	6326120	1336.98	404.1	0.56	7800.45
TA1_shp	1608.33	636164.7	6326120	1312.43	428.65	0.27	14128.57
TA1_shp	1608.33	636164.7	6326120	1286.48	454.6	0.1	24971.21
TA1_shp	1608.33	636164.7	6326120	1257.98	483.1	0.1	44626.37
TA1_shp	1608.33	636164.7	6326120	1227.28	513.8	0.1	93407.87
TA1_shp	1608.33	636164.7	6326120	1194.63	546.45	0.1	169597.7
TA1_shp	1608.33	636164.7	6326120	1158.83	582.25	0.1	278462.3
TA1_shp	1608.33	636164.7	6326120	1120.18	620.9	0.1	341631.3
TA1_shp	1608.33	636164.7	6326120	1079.03	662.05	0.1	287072.5
TA1_shp	1608.33	636164.7	6326120	1033.93	707.15	0.1	179665.2
TA1_shp	1608.33	636164.7	6326120	985.28	755.8	0.1	78229.51
TA1_shp	1608.33	636164.7	6326120	933.48	807.6	0.1	35910.64
TA1_shp	1608.33	636164.7	6326120	876.68	864.4	0.1	17833.42
TA1_shp	1608.33	636164.7	6326120	815.43	925.65	0.1	9696.37
TA1_shp	1608.33	636164.7	6326120	750.58	990.5	0.1	5089.44
TA1_shp	1608.33	636164.7	6326120	679.08	1062	0.1	2458.22
TA1_shp	1625	636180	6326126	1733.52	9.73	16.23	445.95
TA1_shp	1625	636180	6326126	1714.05	29.2	42.04	340.02
TA1_shp	1625	636180	6326126	1694.58	48.67	44.17	290.97
TA1_shp	1625	636180	6326126	1675.12	68.13	42.32	415.08
TA1_shp	1625	636180	6326126	1655.65	87.6	44.9	735.02
TA1_shp	1625	636180	6326126	1636.18	107.07	51.91	1133.89
TA1_shp	1625	636180	6326126	1616.72	126.53	60.61	1262.67
TA1_shp	1625	636180	6326126	1597.25	146	67.21	1018.36
TA1_shp	1625	636180	6326126	1577.78	165.47	69.6	703.9
TA1_shp	1625	636180	6326126	1558.32	184.93	66.89	492.74
TA1_shp	1625	636180	6326126	1538.85	204.4	59.59	383.7
TA1_shp	1625	636180	6326126	1519.38	223.87	47.86	352.47
TA1_shp	1625	636180	6326126	1499.92	243.33	35.14	384.25
TA1_shp	1625	636180	6326126	1480.45	262.8	23.19	474.02
TA1_shp	1625	636180	6326126	1460.98	282.27	13.05	628.39

TA1_shp	1625	636180	6326126	1441.25	302	7.59	914.08
TA1_shp	1625	636180	6326126	1421.25	322	4.48	1394.52
TA1_shp	1625	636180	6326126	1401.25	342	2.6	2051.51
TA1_shp	1625	636180	6326126	1381.25	362	1.72	3180.58
TA1_shp	1625	636180	6326126	1361.25	382	1.08	5025.65
TA1_shp	1625	636180	6326126	1339.15	404.1	0.59	7745.24
TA1_shp	1625	636180	6326126	1314.6	428.65	0.28	13925.26
TA1_shp	1625	636180	6326126	1288.65	454.6	0.1	24455.58
TA1_shp	1625	636180	6326126	1260.15	483.1	0.1	43472.65
TA1_shp	1625	636180	6326126	1229.45	513.8	0.1	90679.36
TA1_shp	1625	636180	6326126	1196.8	546.45	0.1	165386
TA1_shp	1625	636180	6326126	1161	582.25	0.1	273395.8
TA1_shp	1625	636180	6326126	1122.35	620.9	0.1	342977.9
TA1_shp	1625	636180	6326126	1081.2	662.05	0.1	293439.8
TA1_shp	1625	636180	6326126	1036.1	707.15	0.1	187454.6
TA1_shp	1625	636180	6326126	987.45	755.8	0.1	82336.91
TA1_shp	1625	636180	6326126	935.65	807.6	0.1	37718.33
TA1_shp	1625	636180	6326126	878.85	864.4	0.1	18641.42
TA1_shp	1625	636180	6326126	817.6	925.65	0.1	10074.27
TA1_shp	1625	636180	6326126	752.75	990.5	0.1	5250.37
TA1_shp	1625	636180	6326126	681.25	1062	0.1	2499.59
TA1_shp	1641.67	636195.3	6326133	1735.69	9.73	6.18	636.49
TA1_shp	1641.67	636195.3	6326133	1716.22	29.2	22.99	532.62
TA1_shp	1641.67	636195.3	6326133	1696.75	48.67	44.09	310.11
TA1_shp	1641.67	636195.3	6326133	1677.29	68.13	47.32	248.23
TA1_shp	1641.67	636195.3	6326133	1657.82	87.6	46.44	360.49
TA1_shp	1641.67	636195.3	6326133	1638.35	107.07	48.36	667.8
TA1_shp	1641.67	636195.3	6326133	1618.89	126.53	53.88	1089.16
TA1_shp	1641.67	636195.3	6326133	1599.42	146	61.13	1282.67
TA1_shp	1641.67	636195.3	6326133	1579.95	165.47	66.88	1076.57
TA1_shp	1641.67	636195.3	6326133	1560.49	184.93	69.01	766.06
TA1_shp	1641.67	636195.3	6326133	1541.02	204.4	66.59	537.55
TA1_shp	1641.67	636195.3	6326133	1521.55	223.87	59.81	415.07
TA1_shp	1641.67	636195.3	6326133	1502.09	243.33	48.75	375.64
TA1_shp	1641.67	636195.3	6326133	1482.62	262.8	36.45	403.37
TA1_shp	1641.67	636195.3	6326133	1463.15	282.27	24.57	491.71
TA1_shp	1641.67	636195.3	6326133	1443.42	302	14.09	650.32
TA1_shp	1641.67	636195.3	6326133	1423.42	322	8.07	942.27
TA1_shp	1641.67	636195.3	6326133	1403.42	342	4.8	1431.7
TA1_shp	1641.67	636195.3	6326133	1383.42	362	2.78	2104.39
TA1_shp	1641.67	636195.3	6326133	1363.42	382	1.81	3229.37
TA1_shp	1641.67	636195.3	6326133	1341.32	404.1	1.08	5343.51
TA1_shp	1641.67	636195.3	6326133	1316.77	428.65	0.52	8624.94
TA1_shp	1641.67	636195.3	6326133	1290.82	454.6	0.22	15453.13
TA1_shp	1641.67	636195.3	6326133	1262.32	483.1	0.1	29840.83
TA1_shp	1641.67	636195.3	6326133	1231.62	513.8	0.1	56841.02
TA1_shp	1641.67	636195.3	6326133	1198.97	546.45	0.1	109067.5
TA1_shp	1641.67	636195.3	6326133	1163.17	582.25	0.1	210654.4
TA1_shp	1641.67	636195.3	6326133	1124.52	620.9	0.1	305883.7
TA1_shp	1641.67	636195.3	6326133	1083.37	662.05	0.1	343905.7
TA1_shp	1641.67	636195.3	6326133	1038.27	707.15	0.1	241653.2
TA1_shp	1641.67	636195.3	6326133	989.62	755.8	0.1	125307.4

TA1_shp	1641.67	636195.3	6326133	937.82	807.6	0.1	57292.12
TA1_shp	1641.67	636195.3	6326133	881.02	864.4	0.1	24704.82
TA1_shp	1641.67	636195.3	6326133	819.77	925.65	0.1	11992.19
TA1_shp	1641.67	636195.3	6326133	754.92	990.5	0.1	6937.28
TA1_shp	1641.67	636195.3	6326133	683.42	1062	0.1	2649.36
TA1_shp	1658.33	636210.7	6326140	1737.85	9.73	29.93	2436.85
TA1_shp	1658.33	636210.7	6326140	1718.38	29.2	41.47	823.39
TA1_shp	1658.33	636210.7	6326140	1698.91	48.67	51.15	308.77
TA1_shp	1658.33	636210.7	6326140	1679.45	68.13	52.53	219.47
TA1_shp	1658.33	636210.7	6326140	1659.98	87.6	51.38	315.57
TA1_shp	1658.33	636210.7	6326140	1640.51	107.07	52.44	599.49
TA1_shp	1658.33	636210.7	6326140	1621.05	126.53	56.53	1020.13
TA1_shp	1658.33	636210.7	6326140	1601.58	146	62.31	1263.69
TA1_shp	1658.33	636210.7	6326140	1582.11	165.47	67.06	1108.15
TA1_shp	1658.33	636210.7	6326140	1562.65	184.93	68.77	812.72
TA1_shp	1658.33	636210.7	6326140	1543.18	204.4	66.39	576.79
TA1_shp	1658.33	636210.7	6326140	1523.71	223.87	59.9	445.81
TA1_shp	1658.33	636210.7	6326140	1504.25	243.33	49.28	399.92
TA1_shp	1658.33	636210.7	6326140	1484.78	262.8	37.33	424.59
TA1_shp	1658.33	636210.7	6326140	1465.31	282.27	25.54	512.6
TA1_shp	1658.33	636210.7	6326140	1445.58	302	14.91	672.96
TA1_shp	1658.33	636210.7	6326140	1425.58	322	8.57	968.35
TA1_shp	1658.33	636210.7	6326140	1405.58	342	5.1	1459.73
TA1_shp	1658.33	636210.7	6326140	1385.58	362	2.95	2133.66
TA1_shp	1658.33	636210.7	6326140	1365.58	382	1.91	3259.22
TA1_shp	1658.33	636210.7	6326140	1343.48	404.1	1.13	5353.99
TA1_shp	1658.33	636210.7	6326140	1318.93	428.65	0.55	8589.57
TA1_shp	1658.33	636210.7	6326140	1292.98	454.6	0.22	15260.01
TA1_shp	1658.33	636210.7	6326140	1264.48	483.1	0.1	29244.68
TA1_shp	1658.33	636210.7	6326140	1233.78	513.8	0.1	55432.84
TA1_shp	1658.33	636210.7	6326140	1201.13	546.45	0.1	106030.5
TA1_shp	1658.33	636210.7	6326140	1165.33	582.25	0.1	205469.3
TA1_shp	1658.33	636210.7	6326140	1126.68	620.9	0.1	302724.5
TA1_shp	1658.33	636210.7	6326140	1085.53	662.05	0.1	346822.7
TA1_shp	1658.33	636210.7	6326140	1040.43	707.15	0.1	250926.2
TA1_shp	1658.33	636210.7	6326140	991.78	755.8	0.1	131165
TA1_shp	1658.33	636210.7	6326140	939.98	807.6	0.1	60246.5
TA1_shp	1658.33	636210.7	6326140	883.18	864.4	0.1	25904.94
TA1_shp	1658.33	636210.7	6326140	821.93	925.65	0.1	12490.82
TA1_shp	1658.33	636210.7	6326140	757.08	990.5	0.1	7190.34
TA1_shp	1658.33	636210.7	6326140	685.58	1062	0.1	2696.38
TA1_shp	1675	636226	6326147	1740.02	9.73	17.01	7990.16
TA1_shp	1675	636226	6326147	1720.55	29.2	23.29	1600.36
TA1_shp	1675	636226	6326147	1701.08	48.67	38.21	391.3
TA1_shp	1675	636226	6326147	1681.62	68.13	47.36	225.44
TA1_shp	1675	636226	6326147	1662.15	87.6	50.89	297.24
TA1_shp	1675	636226	6326147	1642.68	107.07	53.65	550.81
TA1_shp	1675	636226	6326147	1623.22	126.53	57.89	943.97
TA1_shp	1675	636226	6326147	1603.75	146	62.97	1206.89
TA1_shp	1675	636226	6326147	1584.28	165.47	67	1104.02
TA1_shp	1675	636226	6326147	1564.82	184.93	68.27	838.44
TA1_shp	1675	636226	6326147	1545.35	204.4	65.86	606.66

TA1_shp	1675	636226	6326147	1525.88	223.87	59.6	472.77
TA1_shp	1675	636226	6326147	1506.42	243.33	49.33	423.28
TA1_shp	1675	636226	6326147	1486.95	262.8	37.69	446.15
TA1_shp	1675	636226	6326147	1467.48	282.27	26.05	535
TA1_shp	1675	636226	6326147	1447.75	302	15.38	698.5
TA1_shp	1675	636226	6326147	1427.75	322	8.91	997.47
TA1_shp	1675	636226	6326147	1407.75	342	5.31	1493.63
TA1_shp	1675	636226	6326147	1387.75	362	3.07	2171.27
TA1_shp	1675	636226	6326147	1367.75	382	1.98	3294.34
TA1_shp	1675	636226	6326147	1345.65	404.1	1.17	5370.21
TA1_shp	1675	636226	6326147	1321.1	428.65	0.57	8563.11
TA1_shp	1675	636226	6326147	1295.15	454.6	0.24	15077.66
TA1_shp	1675	636226	6326147	1266.65	483.1	0.1	28657.78
TA1_shp	1675	636226	6326147	1235.95	513.8	0.1	54029.64
TA1_shp	1675	636226	6326147	1203.3	546.45	0.1	102992.7
TA1_shp	1675	636226	6326147	1167.5	582.25	0.1	200440.4
TA1_shp	1675	636226	6326147	1128.85	620.9	0.1	299533.1
TA1_shp	1675	636226	6326147	1087.7	662.05	0.1	349282.1
TA1_shp	1675	636226	6326147	1042.6	707.15	0.1	259696.7
TA1_shp	1675	636226	6326147	993.95	755.8	0.1	137126.2
TA1_shp	1675	636226	6326147	942.15	807.6	0.1	63379.06
TA1_shp	1675	636226	6326147	885.35	864.4	0.1	27177.36
TA1_shp	1675	636226	6326147	824.1	925.65	0.1	13017.16
TA1_shp	1675	636226	6326147	759.25	990.5	0.1	7457.01
TA1_shp	1675	636226	6326147	687.75	1062	0.1	2745.22
TA1_shp	1691.67	636241.3	6326154	1742.19	9.73	9.42	6822.26
TA1_shp	1691.67	636241.3	6326154	1722.72	29.2	9.14	1605.77
TA1_shp	1691.67	636241.3	6326154	1703.25	48.67	17.47	427.52
TA1_shp	1691.67	636241.3	6326154	1683.79	68.13	32.02	239.54
TA1_shp	1691.67	636241.3	6326154	1664.32	87.6	42.86	293.53
TA1_shp	1691.67	636241.3	6326154	1644.85	107.07	50.16	515.69
TA1_shp	1691.67	636241.3	6326154	1625.39	126.53	56.47	866.22
TA1_shp	1691.67	636241.3	6326154	1605.92	146	62.08	1121.33
TA1_shp	1691.67	636241.3	6326154	1586.45	165.47	65.92	1064.42
TA1_shp	1691.67	636241.3	6326154	1566.99	184.93	66.92	836.94
TA1_shp	1691.67	636241.3	6326154	1547.52	204.4	64.49	621.74
TA1_shp	1691.67	636241.3	6326154	1528.05	223.87	58.44	493.95
TA1_shp	1691.67	636241.3	6326154	1508.59	243.33	48.59	444.62
TA1_shp	1691.67	636241.3	6326154	1489.12	262.8	37.32	467.74
TA1_shp	1691.67	636241.3	6326154	1469.65	282.27	25.94	559.15
TA1_shp	1691.67	636241.3	6326154	1449.92	302	15.43	727.5
TA1_shp	1691.67	636241.3	6326154	1429.92	322	9	1031.59
TA1_shp	1691.67	636241.3	6326154	1409.92	342	5.41	1532.35
TA1_shp	1691.67	636241.3	6326154	1389.92	362	3.13	2213.79
TA1_shp	1691.67	636241.3	6326154	1369.92	382	2.02	3338.14
TA1_shp	1691.67	636241.3	6326154	1347.82	404.1	1.19	5394.56
TA1_shp	1691.67	636241.3	6326154	1323.27	428.65	0.58	8544.59
TA1_shp	1691.67	636241.3	6326154	1297.32	454.6	0.24	14945.45
TA1_shp	1691.67	636241.3	6326154	1268.82	483.1	0.1	28117.36
TA1_shp	1691.67	636241.3	6326154	1238.12	513.8	0.1	52656.61
TA1_shp	1691.67	636241.3	6326154	1205.47	546.45	0.1	100031.4
TA1_shp	1691.67	636241.3	6326154	1169.67	582.25	0.1	195038.1

TA1_shp	1691.67	636241.3	6326154	1131.02	620.9	0.1	295485
TA1_shp	1691.67	636241.3	6326154	1089.87	662.05	0.1	350845.5
TA1_shp	1691.67	636241.3	6326154	1044.77	707.15	0.1	268838.3
TA1_shp	1691.67	636241.3	6326154	996.12	755.8	0.1	143317.6
TA1_shp	1691.67	636241.3	6326154	944.32	807.6	0.1	66651.01
TA1_shp	1691.67	636241.3	6326154	887.52	864.4	0.1	28532.51
TA1_shp	1691.67	636241.3	6326154	826.27	925.65	0.1	13577.46
TA1_shp	1691.67	636241.3	6326154	761.42	990.5	0.1	7740.05
TA1_shp	1691.67	636241.3	6326154	689.92	1062	0.1	2795.72
TA1_shp	1708.33	636256.9	6326160	1742.19	9.73	42.65	258.25
TA1_shp	1708.33	636256.9	6326160	1722.72	29.2	13.14	371.28
TA1_shp	1708.33	636256.9	6326160	1703.25	48.67	13.09	261.64
TA1_shp	1708.33	636256.9	6326160	1683.79	68.13	20.08	215.14
TA1_shp	1708.33	636256.9	6326160	1664.32	87.6	32	278.78
TA1_shp	1708.33	636256.9	6326160	1644.85	107.07	43.69	473.34
TA1_shp	1708.33	636256.9	6326160	1625.39	126.53	52.66	774.65
TA1_shp	1708.33	636256.9	6326160	1605.92	146	59.42	1006.78
TA1_shp	1708.33	636256.9	6326160	1586.45	165.47	63.44	987.96
TA1_shp	1708.33	636256.9	6326160	1566.99	184.93	64.43	806.07
TA1_shp	1708.33	636256.9	6326160	1547.52	204.4	62.06	620.2
TA1_shp	1708.33	636256.9	6326160	1528.05	223.87	56.27	505.65
TA1_shp	1708.33	636256.9	6326160	1508.59	243.33	46.82	462.22
TA1_shp	1708.33	636256.9	6326160	1489.12	262.8	35.91	489.78
TA1_shp	1708.33	636256.9	6326160	1469.65	282.27	24.94	585.31
TA1_shp	1708.33	636256.9	6326160	1449.92	302	14.9	757.99
TA1_shp	1708.33	636256.9	6326160	1429.92	322	8.8	1067.69
TA1_shp	1708.33	636256.9	6326160	1409.92	342	5.34	1572.54
TA1_shp	1708.33	636256.9	6326160	1389.92	362	3.13	2256.68
TA1_shp	1708.33	636256.9	6326160	1369.92	382	2.02	3380.37
TA1_shp	1708.33	636256.9	6326160	1347.82	404.1	1.19	5414.36
TA1_shp	1708.33	636256.9	6326160	1323.27	428.65	0.58	8517.36
TA1_shp	1708.33	636256.9	6326160	1297.32	454.6	0.24	14797.14
TA1_shp	1708.33	636256.9	6326160	1268.82	483.1	0.1	27614.81
TA1_shp	1708.33	636256.9	6326160	1238.12	513.8	0.1	51391.22
TA1_shp	1708.33	636256.9	6326160	1205.47	546.45	0.1	97160.68
TA1_shp	1708.33	636256.9	6326160	1169.67	582.25	0.1	189797.9
TA1_shp	1708.33	636256.9	6326160	1131.02	620.9	0.1	291091
TA1_shp	1708.33	636256.9	6326160	1089.87	662.05	0.1	351308.6
TA1_shp	1708.33	636256.9	6326160	1044.77	707.15	0.1	277163.3
TA1_shp	1708.33	636256.9	6326160	996.12	755.8	0.1	149602.2
TA1_shp	1708.33	636256.9	6326160	944.32	807.6	0.1	70144.09
TA1_shp	1708.33	636256.9	6326160	887.52	864.4	0.1	29973.41
TA1_shp	1708.33	636256.9	6326160	826.27	925.65	0.1	14171.33
TA1_shp	1708.33	636256.9	6326160	761.42	990.5	0.1	8039.57
TA1_shp	1708.33	636256.9	6326160	689.92	1062	0.1	2848.43
TA1_shp	1725	636272.8	6326165	1740.02	9.73	51.43	395.04
TA1_shp	1725	636272.8	6326165	1720.55	29.2	31.32	235.78
TA1_shp	1725	636272.8	6326165	1701.08	48.67	17.94	169.51
TA1_shp	1725	636272.8	6326165	1681.62	68.13	17.32	169.4
TA1_shp	1725	636272.8	6326165	1662.15	87.6	24.76	238.85
TA1_shp	1725	636272.8	6326165	1642.68	107.07	36.77	406.13
TA1_shp	1725	636272.8	6326165	1623.22	126.53	47.41	659.18

TA1_shp	1725	636272.8	6326165	1603.75	146	55.11	867.66
TA1_shp	1725	636272.8	6326165	1584.28	165.47	59.47	885.55
TA1_shp	1725	636272.8	6326165	1564.82	184.93	60.56	754.11
TA1_shp	1725	636272.8	6326165	1545.35	204.4	58.33	605.61
TA1_shp	1725	636272.8	6326165	1525.88	223.87	52.85	509.11
TA1_shp	1725	636272.8	6326165	1506.42	243.33	43.91	476.45
TA1_shp	1725	636272.8	6326165	1486.95	262.8	33.52	510.25
TA1_shp	1725	636272.8	6326165	1467.48	282.27	23.21	611.79
TA1_shp	1725	636272.8	6326165	1447.75	302	13.96	791.52
TA1_shp	1725	636272.8	6326165	1427.75	322	8.37	1107.31
TA1_shp	1725	636272.8	6326165	1407.75	342	5.16	1616.68
TA1_shp	1725	636272.8	6326165	1387.75	362	3.07	2303.69
TA1_shp	1725	636272.8	6326165	1367.75	382	1.99	3425.95
TA1_shp	1725	636272.8	6326165	1345.65	404.1	1.18	5435.31
TA1_shp	1725	636272.8	6326165	1321.1	428.65	0.57	8485.77
TA1_shp	1725	636272.8	6326165	1295.15	454.6	0.23	14615.57
TA1_shp	1725	636272.8	6326165	1266.65	483.1	0.1	27025.19
TA1_shp	1725	636272.8	6326165	1235.95	513.8	0.1	49996.48
TA1_shp	1725	636272.8	6326165	1203.3	546.45	0.1	94213.38
TA1_shp	1725	636272.8	6326165	1167.5	582.25	0.1	184252.1
TA1_shp	1725	636272.8	6326165	1128.85	620.9	0.1	286270.3
TA1_shp	1725	636272.8	6326165	1087.7	662.05	0.1	351516.2
TA1_shp	1725	636272.8	6326165	1042.6	707.15	0.1	285886.9
TA1_shp	1725	636272.8	6326165	993.95	755.8	0.1	156064.9
TA1_shp	1725	636272.8	6326165	942.15	807.6	0.1	73754.31
TA1_shp	1725	636272.8	6326165	885.35	864.4	0.1	31507.28
TA1_shp	1725	636272.8	6326165	824.1	925.65	0.1	14805.88
TA1_shp	1725	636272.8	6326165	759.25	990.5	0.1	8358.52
TA1_shp	1725	636272.8	6326165	687.75	1062	0.1	2902.83
TA1_shp	1741.67	636288.6	6326170	1737.85	9.73	45.51	466.21
TA1_shp	1741.67	636288.6	6326170	1718.38	29.2	43.06	187.2
TA1_shp	1741.67	636288.6	6326170	1698.91	48.67	25.3	117.05
TA1_shp	1741.67	636288.6	6326170	1679.45	68.13	18.19	125.47
TA1_shp	1741.67	636288.6	6326170	1659.98	87.6	21.75	186.49
TA1_shp	1741.67	636288.6	6326170	1640.51	107.07	32.09	321.85
TA1_shp	1741.67	636288.6	6326170	1621.05	126.53	42.97	527.82
TA1_shp	1741.67	636288.6	6326170	1601.58	146	50.65	715.44
TA1_shp	1741.67	636288.6	6326170	1582.11	165.47	54.8	762.83
TA1_shp	1741.67	636288.6	6326170	1562.65	184.93	55.75	683.87
TA1_shp	1741.67	636288.6	6326170	1543.18	204.4	53.5	576.57
TA1_shp	1741.67	636288.6	6326170	1523.71	223.87	48.28	504.58
TA1_shp	1741.67	636288.6	6326170	1504.25	243.33	39.88	487.14
TA1_shp	1741.67	636288.6	6326170	1484.78	262.8	30.19	530.05
TA1_shp	1741.67	636288.6	6326170	1465.31	282.27	20.85	638.6
TA1_shp	1741.67	636288.6	6326170	1445.58	302	12.72	825.05
TA1_shp	1741.67	636288.6	6326170	1425.58	322	7.79	1147.46
TA1_shp	1741.67	636288.6	6326170	1405.58	342	4.9	1661.97
TA1_shp	1741.67	636288.6	6326170	1385.58	362	2.97	2351.46
TA1_shp	1741.67	636288.6	6326170	1365.58	382	1.95	3467.52
TA1_shp	1741.67	636288.6	6326170	1343.48	404.1	1.16	5455.06
TA1_shp	1741.67	636288.6	6326170	1318.93	428.65	0.56	8462.16
TA1_shp	1741.67	636288.6	6326170	1292.98	454.6	0.23	14454.44

TA1_shp	1741.67	636288.6	6326170	1264.48	483.1	0.1	26473.31
TA1_shp	1741.67	636288.6	6326170	1233.78	513.8	0.1	48641.89
TA1_shp	1741.67	636288.6	6326170	1201.13	546.45	0.1	91247.73
TA1_shp	1741.67	636288.6	6326170	1165.33	582.25	0.1	178629
TA1_shp	1741.67	636288.6	6326170	1126.68	620.9	0.1	280618.3
TA1_shp	1741.67	636288.6	6326170	1085.53	662.05	0.1	349965.3
TA1_shp	1741.67	636288.6	6326170	1040.43	707.15	0.1	293516
TA1_shp	1741.67	636288.6	6326170	991.78	755.8	0.1	162622.1
TA1_shp	1741.67	636288.6	6326170	939.98	807.6	0.1	77633.04
TA1_shp	1741.67	636288.6	6326170	883.18	864.4	0.1	33142.01
TA1_shp	1741.67	636288.6	6326170	821.93	925.65	0.1	15477.32
TA1_shp	1741.67	636288.6	6326170	757.08	990.5	0.1	8695.52
TA1_shp	1741.67	636288.6	6326170	685.58	1062	0.1	2959.53
TA1_shp	1758.33	636304.4	6326175	1735.69	9.73	46.24	233.11
TA1_shp	1758.33	636304.4	6326175	1716.22	29.2	50.62	117.55
TA1_shp	1758.33	636304.4	6326175	1696.75	48.67	34.54	87.21
TA1_shp	1758.33	636304.4	6326175	1677.29	68.13	22.72	95.44
TA1_shp	1758.33	636304.4	6326175	1657.82	87.6	23.2	139.74
TA1_shp	1758.33	636304.4	6326175	1638.35	107.07	30.73	238.64
TA1_shp	1758.33	636304.4	6326175	1618.89	126.53	39.84	398.27
TA1_shp	1758.33	636304.4	6326175	1599.42	146	46.52	562.34
TA1_shp	1758.33	636304.4	6326175	1579.95	165.47	49.96	634.4
TA1_shp	1758.33	636304.4	6326175	1560.49	184.93	50.37	604.5
TA1_shp	1758.33	636304.4	6326175	1541.02	204.4	47.89	540.09
TA1_shp	1758.33	636304.4	6326175	1521.55	223.87	42.82	495
TA1_shp	1758.33	636304.4	6326175	1502.09	243.33	34.82	494.34
TA1_shp	1758.33	636304.4	6326175	1482.62	262.8	26.08	548.1
TA1_shp	1758.33	636304.4	6326175	1463.15	282.27	17.99	665.33
TA1_shp	1758.33	636304.4	6326175	1443.42	302	11.18	859.94
TA1_shp	1758.33	636304.4	6326175	1423.42	322	7.03	1190.21
TA1_shp	1758.33	636304.4	6326175	1403.42	342	4.53	1709.83
TA1_shp	1758.33	636304.4	6326175	1383.42	362	2.81	2401.55
TA1_shp	1758.33	636304.4	6326175	1363.42	382	1.87	3512.24
TA1_shp	1758.33	636304.4	6326175	1341.32	404.1	1.13	5471.97
TA1_shp	1758.33	636304.4	6326175	1316.77	428.65	0.55	8422.58
TA1_shp	1758.33	636304.4	6326175	1290.82	454.6	0.22	14246.41
TA1_shp	1758.33	636304.4	6326175	1262.32	483.1	0.1	25866.11
TA1_shp	1758.33	636304.4	6326175	1231.62	513.8	0.1	47218.88
TA1_shp	1758.33	636304.4	6326175	1198.97	546.45	0.1	88133.05
TA1_shp	1758.33	636304.4	6326175	1163.17	582.25	0.1	172703.2
TA1_shp	1758.33	636304.4	6326175	1124.52	620.9	0.1	274797.3
TA1_shp	1758.33	636304.4	6326175	1083.37	662.05	0.1	348570.9
TA1_shp	1758.33	636304.4	6326175	1038.27	707.15	0.1	301325
TA1_shp	1758.33	636304.4	6326175	989.62	755.8	0.1	169250.3
TA1_shp	1758.33	636304.4	6326175	937.82	807.6	0.1	81612.91
TA1_shp	1758.33	636304.4	6326175	881.02	864.4	0.1	34885.98
TA1_shp	1758.33	636304.4	6326175	819.77	925.65	0.1	16197.56
TA1_shp	1758.33	636304.4	6326175	754.92	990.5	0.1	9055.85
TA1_shp	1758.33	636304.4	6326175	683.42	1062	0.1	3018.33
TA1_shp	1775	636320.3	6326180	1733.52	9.73	73.84	129.14
TA1_shp	1775	636320.3	6326180	1714.05	29.2	54.57	89.16
TA1_shp	1775	636320.3	6326180	1694.58	48.67	35.5	83.61

TA1_shp	1775	636320.3	6326180	1675.12	68.13	29.52	107.3
TA1_shp	1775	636320.3	6326180	1655.65	87.6	33.07	172.13
TA1_shp	1775	636320.3	6326180	1636.18	107.07	39.35	288.77
TA1_shp	1775	636320.3	6326180	1616.72	126.53	43.98	428.22
TA1_shp	1775	636320.3	6326180	1597.25	146	45.83	515.93
TA1_shp	1775	636320.3	6326180	1577.78	165.47	45.1	527.01
TA1_shp	1775	636320.3	6326180	1558.32	184.93	41.97	499.83
TA1_shp	1775	636320.3	6326180	1538.85	204.4	36.61	480.95
TA1_shp	1775	636320.3	6326180	1519.38	223.87	28.97	498.59
TA1_shp	1775	636320.3	6326180	1499.92	243.33	21.45	564.82
TA1_shp	1775	636320.3	6326180	1480.45	262.8	14.89	690.35
TA1_shp	1775	636320.3	6326180	1460.98	282.27	9.57	886.69
TA1_shp	1775	636320.3	6326180	1441.25	302	6.3	1221.43
TA1_shp	1775	636320.3	6326180	1421.25	322	4.16	1736.38
TA1_shp	1775	636320.3	6326180	1401.25	342	2.65	2412.22
TA1_shp	1775	636320.3	6326180	1381.25	362	1.8	3514.77
TA1_shp	1775	636320.3	6326180	1361.25	382	1.15	5186.8
TA1_shp	1775	636320.3	6326180	1339.15	404.1	0.63	7575.88
TA1_shp	1775	636320.3	6326180	1314.6	428.65	0.29	12580.1
TA1_shp	1775	636320.3	6326180	1288.65	454.6	0.1	20705.5
TA1_shp	1775	636320.3	6326180	1260.15	483.1	0.1	34881.96
TA1_shp	1775	636320.3	6326180	1229.45	513.8	0.1	69152.27
TA1_shp	1775	636320.3	6326180	1196.8	546.45	0.1	126499.6
TA1_shp	1775	636320.3	6326180	1161	582.25	0.1	214724.7
TA1_shp	1775	636320.3	6326180	1122.35	620.9	0.1	321565.1
TA1_shp	1775	636320.3	6326180	1081.2	662.05	0.1	329031.2
TA1_shp	1775	636320.3	6326180	1036.1	707.15	0.1	256963.1
TA1_shp	1775	636320.3	6326180	987.45	755.8	0.1	129610.3
TA1_shp	1775	636320.3	6326180	935.65	807.6	0.1	59578.89
TA1_shp	1775	636320.3	6326180	878.85	864.4	0.1	28597.08
TA1_shp	1775	636320.3	6326180	817.6	925.65	0.1	14704.29
TA1_shp	1775	636320.3	6326180	752.75	990.5	0.1	7179.77
TA1_shp	1775	636320.3	6326180	681.25	1062	0.1	2947.37
TA1_shp	1791.67	636336.1	6326185	1731.35	9.73	73.13	280.64
TA1_shp	1791.67	636336.1	6326185	1711.88	29.2	65.26	129.7
TA1_shp	1791.67	636336.1	6326185	1692.41	48.67	46.14	93.27
TA1_shp	1791.67	636336.1	6326185	1672.95	68.13	37.72	93.03
TA1_shp	1791.67	636336.1	6326185	1653.48	87.6	38.47	128.04
TA1_shp	1791.67	636336.1	6326185	1634.01	107.07	41.78	207.65
TA1_shp	1791.67	636336.1	6326185	1614.55	126.53	43.51	320.55
TA1_shp	1791.67	636336.1	6326185	1595.08	146	43	412.55
TA1_shp	1791.67	636336.1	6326185	1575.61	165.47	40.45	453.62
TA1_shp	1791.67	636336.1	6326185	1556.15	184.93	35.96	458.71
TA1_shp	1791.67	636336.1	6326185	1536.68	204.4	30.13	463.99
TA1_shp	1791.67	636336.1	6326185	1517.21	223.87	23.26	499.1
TA1_shp	1791.67	636336.1	6326185	1497.75	243.33	17.16	577.26
TA1_shp	1791.67	636336.1	6326185	1478.28	262.8	12.09	712.26
TA1_shp	1791.67	636336.1	6326185	1458.81	282.27	8.07	917.02
TA1_shp	1791.67	636336.1	6326185	1439.08	302	5.49	1259.13
TA1_shp	1791.67	636336.1	6326185	1419.08	322	3.75	1779.21
TA1_shp	1791.67	636336.1	6326185	1399.08	342	2.47	2456.06
TA1_shp	1791.67	636336.1	6326185	1379.08	362	1.7	3544.34

TA1_shp	1791.67	636336.1	6326185	1359.08	382	1.1	5189.99
TA1_shp	1791.67	636336.1	6326185	1336.98	404.1	0.62	7538.4
TA1_shp	1791.67	636336.1	6326185	1312.43	428.65	0.29	12366.74
TA1_shp	1791.67	636336.1	6326185	1286.48	454.6	0.1	20193.48
TA1_shp	1791.67	636336.1	6326185	1257.98	483.1	0.1	33844.41
TA1_shp	1791.67	636336.1	6326185	1227.28	513.8	0.1	66572.47
TA1_shp	1791.67	636336.1	6326185	1194.63	546.45	0.1	121584.4
TA1_shp	1791.67	636336.1	6326185	1158.83	582.25	0.1	206720.8
TA1_shp	1791.67	636336.1	6326185	1120.18	620.9	0.1	315317.2
TA1_shp	1791.67	636336.1	6326185	1079.03	662.05	0.1	329826.4
TA1_shp	1791.67	636336.1	6326185	1033.93	707.15	0.1	263697.9
TA1_shp	1791.67	636336.1	6326185	985.28	755.8	0.1	135945.8
TA1_shp	1791.67	636336.1	6326185	933.48	807.6	0.1	62778.23
TA1_shp	1791.67	636336.1	6326185	876.68	864.4	0.1	30103.61
TA1_shp	1791.67	636336.1	6326185	815.43	925.65	0.1	15403.54
TA1_shp	1791.67	636336.1	6326185	750.58	990.5	0.1	7465.61
TA1_shp	1791.67	636336.1	6326185	679.08	1062	0.1	3007.25
TA1_shp	1808.33	636351.8	6326190	1728.6	9.73	71.88	129.4
TA1_shp	1808.33	636351.8	6326190	1709.13	29.2	60.21	152.72
TA1_shp	1808.33	636351.8	6326190	1689.66	48.67	48.52	126.38
TA1_shp	1808.33	636351.8	6326190	1670.2	68.13	44.54	97.73
TA1_shp	1808.33	636351.8	6326190	1650.73	87.6	46.31	104.27
TA1_shp	1808.33	636351.8	6326190	1631.26	107.07	47.95	153.45
TA1_shp	1808.33	636351.8	6326190	1611.8	126.53	46.09	241.36
TA1_shp	1808.33	636351.8	6326190	1592.33	146	41.91	330.94
TA1_shp	1808.33	636351.8	6326190	1572.86	165.47	36.45	390.13
TA1_shp	1808.33	636351.8	6326190	1553.4	184.93	30.25	419.81
TA1_shp	1808.33	636351.8	6326190	1533.93	204.4	24.2	445.56
TA1_shp	1808.33	636351.8	6326190	1514.46	223.87	18.3	497.12
TA1_shp	1808.33	636351.8	6326190	1495	243.33	13.55	587.55
TA1_shp	1808.33	636351.8	6326190	1475.53	262.8	9.76	731.14
TA1_shp	1808.33	636351.8	6326190	1456.06	282.27	6.77	941.63
TA1_shp	1808.33	636351.8	6326190	1436.33	302	4.78	1288.2
TA1_shp	1808.33	636351.8	6326190	1416.33	322	3.37	1808.84
TA1_shp	1808.33	636351.8	6326190	1396.33	342	2.3	2481.54
TA1_shp	1808.33	636351.8	6326190	1376.33	362	1.61	3550.81
TA1_shp	1808.33	636351.8	6326190	1356.33	382	1.06	5163.11
TA1_shp	1808.33	636351.8	6326190	1334.23	404.1	0.6	7461.03
TA1_shp	1808.33	636351.8	6326190	1309.68	428.65	0.29	12123.24
TA1_shp	1808.33	636351.8	6326190	1283.73	454.6	0.1	19643.5
TA1_shp	1808.33	636351.8	6326190	1255.23	483.1	0.1	32715.91
TA1_shp	1808.33	636351.8	6326190	1224.53	513.8	0.1	63903.25
TA1_shp	1808.33	636351.8	6326190	1191.88	546.45	0.1	116480.9
TA1_shp	1808.33	636351.8	6326190	1156.08	582.25	0.1	198215.4
TA1_shp	1808.33	636351.8	6326190	1117.43	620.9	0.1	307002.3
TA1_shp	1808.33	636351.8	6326190	1076.28	662.05	0.1	328769.8
TA1_shp	1808.33	636351.8	6326190	1031.18	707.15	0.1	269711
TA1_shp	1808.33	636351.8	6326190	982.53	755.8	0.1	142755.8
TA1_shp	1808.33	636351.8	6326190	930.73	807.6	0.1	66204.96
TA1_shp	1808.33	636351.8	6326190	873.93	864.4	0.1	31711.1
TA1_shp	1808.33	636351.8	6326190	812.68	925.65	0.1	16146.8
TA1_shp	1808.33	636351.8	6326190	747.83	990.5	0.1	7768.64

TA1_shp	1808.33	636351.8	6326190	676.33	1062	0.1	3069.79
TA1_shp	1825	636367.5	6326196	1725.27	9.73	58.93	174.6
TA1_shp	1825	636367.5	6326196	1705.8	29.2	61.71	161
TA1_shp	1825	636367.5	6326196	1686.33	48.67	54.28	170
TA1_shp	1825	636367.5	6326196	1666.87	68.13	53.7	117.27
TA1_shp	1825	636367.5	6326196	1647.4	87.6	57.99	94.72
TA1_shp	1825	636367.5	6326196	1627.93	107.07	58.15	119.55
TA1_shp	1825	636367.5	6326196	1608.47	126.53	51.88	185.05
TA1_shp	1825	636367.5	6326196	1589	146	43.27	267.24
TA1_shp	1825	636367.5	6326196	1569.53	165.47	34.28	336.37
TA1_shp	1825	636367.5	6326196	1550.07	184.93	26.05	384.13
TA1_shp	1825	636367.5	6326196	1530.6	204.4	19.59	426.92
TA1_shp	1825	636367.5	6326196	1511.13	223.87	14.46	491.94
TA1_shp	1825	636367.5	6326196	1491.67	243.33	10.74	591.46
TA1_shp	1825	636367.5	6326196	1472.2	262.8	7.93	741.57
TA1_shp	1825	636367.5	6326196	1452.73	282.27	5.73	957.03
TA1_shp	1825	636367.5	6326196	1433	302	4.19	1307.07
TA1_shp	1825	636367.5	6326196	1413	322	3.05	1827.14
TA1_shp	1825	636367.5	6326196	1393	342	2.16	2495.03
TA1_shp	1825	636367.5	6326196	1373	362	1.54	3547.12
TA1_shp	1825	636367.5	6326196	1353	382	1.04	5124.9
TA1_shp	1825	636367.5	6326196	1330.9	404.1	0.6	7368.2
TA1_shp	1825	636367.5	6326196	1306.35	428.65	0.29	11863.31
TA1_shp	1825	636367.5	6326196	1280.4	454.6	0.1	19083.77
TA1_shp	1825	636367.5	6326196	1251.9	483.1	0.1	31600.11
TA1_shp	1825	636367.5	6326196	1221.2	513.8	0.1	61162.19
TA1_shp	1825	636367.5	6326196	1188.55	546.45	0.1	111236.4
TA1_shp	1825	636367.5	6326196	1152.75	582.25	0.1	189547.6
TA1_shp	1825	636367.5	6326196	1114.1	620.9	0.1	298589.4
TA1_shp	1825	636367.5	6326196	1072.95	662.05	0.1	327333.6
TA1_shp	1825	636367.5	6326196	1027.85	707.15	0.1	275235.5
TA1_shp	1825	636367.5	6326196	979.2	755.8	0.1	149502.6
TA1_shp	1825	636367.5	6326196	927.4	807.6	0.1	69794.66
TA1_shp	1825	636367.5	6326196	870.6	864.4	0.1	33432.65
TA1_shp	1825	636367.5	6326196	809.35	925.65	0.1	16945.64
TA1_shp	1825	636367.5	6326196	744.5	990.5	0.1	8092.52
TA1_shp	1825	636367.5	6326196	673	1062	0.1	3134.51
TA1_shp	1841.67	636383.2	6326202	1721.94	9.73	34.74	166.66
TA1_shp	1841.67	636383.2	6326202	1702.47	29.2	57.42	156.87
TA1_shp	1841.67	636383.2	6326202	1683	48.67	56.58	245.61
TA1_shp	1841.67	636383.2	6326202	1663.54	68.13	61.54	160.32
TA1_shp	1841.67	636383.2	6326202	1644.07	87.6	70.76	96.28
TA1_shp	1841.67	636383.2	6326202	1624.6	107.07	71.07	99.06
TA1_shp	1841.67	636383.2	6326202	1605.14	126.53	60.97	146.56
TA1_shp	1841.67	636383.2	6326202	1585.67	146	47.3	219.66
TA1_shp	1841.67	636383.2	6326202	1566.2	165.47	33.83	292.53
TA1_shp	1841.67	636383.2	6326202	1546.74	184.93	23.17	351.05
TA1_shp	1841.67	636383.2	6326202	1527.27	204.4	16.28	406.53
TA1_shp	1841.67	636383.2	6326202	1507.8	223.87	11.7	482.55
TA1_shp	1841.67	636383.2	6326202	1488.34	243.33	8.72	590.88
TA1_shp	1841.67	636383.2	6326202	1468.87	262.8	6.57	747.36
TA1_shp	1841.67	636383.2	6326202	1449.4	282.27	4.92	966.54

TA1_shp	1841.67	636383.2	6326202	1429.67	302	3.73	1316.19
TA1_shp	1841.67	636383.2	6326202	1409.67	322	2.81	1829.79
TA1_shp	1841.67	636383.2	6326202	1389.67	342	2.05	2486.91
TA1_shp	1841.67	636383.2	6326202	1369.67	362	1.49	3519.6
TA1_shp	1841.67	636383.2	6326202	1349.67	382	1.03	5053.01
TA1_shp	1841.67	636383.2	6326202	1327.57	404.1	0.61	7223.53
TA1_shp	1841.67	636383.2	6326202	1303.02	428.65	0.3	11549.73
TA1_shp	1841.67	636383.2	6326202	1277.07	454.6	0.1	18455.14
TA1_shp	1841.67	636383.2	6326202	1248.57	483.1	0.1	30364.97
TA1_shp	1841.67	636383.2	6326202	1217.87	513.8	0.1	58314.02
TA1_shp	1841.67	636383.2	6326202	1185.22	546.45	0.1	105797.2
TA1_shp	1841.67	636383.2	6326202	1149.42	582.25	0.1	180392.1
TA1_shp	1841.67	636383.2	6326202	1110.77	620.9	0.1	288359.4
TA1_shp	1841.67	636383.2	6326202	1069.62	662.05	0.1	324128.3
TA1_shp	1841.67	636383.2	6326202	1024.52	707.15	0.1	279925.6
TA1_shp	1841.67	636383.2	6326202	975.87	755.8	0.1	156671.3
TA1_shp	1841.67	636383.2	6326202	924.07	807.6	0.1	73628.82
TA1_shp	1841.67	636383.2	6326202	867.27	864.4	0.1	35273.79
TA1_shp	1841.67	636383.2	6326202	806.02	925.65	0.1	17799.04
TA1_shp	1841.67	636383.2	6326202	741.17	990.5	0.1	8437.41
TA1_shp	1841.67	636383.2	6326202	669.67	1062	0.1	3202.08
TA1_shp	1858.33	636398.8	6326208	1718.6	9.73	19.53	37.06
TA1_shp	1858.33	636398.8	6326208	1699.13	29.2	40.29	98.41
TA1_shp	1858.33	636398.8	6326208	1679.66	48.67	47.31	374.24
TA1_shp	1858.33	636398.8	6326208	1660.2	68.13	62.77	249.33
TA1_shp	1858.33	636398.8	6326208	1640.73	87.6	80.66	109.63
TA1_shp	1858.33	636398.8	6326208	1621.26	107.07	83.93	88.24
TA1_shp	1858.33	636398.8	6326208	1601.8	126.53	71.12	120.31
TA1_shp	1858.33	636398.8	6326208	1582.33	146	52.2	183.6
TA1_shp	1858.33	636398.8	6326208	1562.86	165.47	33.95	255.33
TA1_shp	1858.33	636398.8	6326208	1543.4	184.93	20.91	321.09
TA1_shp	1858.33	636398.8	6326208	1523.93	204.4	13.72	385.28
TA1_shp	1858.33	636398.8	6326208	1504.46	223.87	9.67	470.3
TA1_shp	1858.33	636398.8	6326208	1485	243.33	7.26	583.55
TA1_shp	1858.33	636398.8	6326208	1465.53	262.8	5.61	743.49
TA1_shp	1858.33	636398.8	6326208	1446.06	282.27	4.34	965.02
TA1_shp	1858.33	636398.8	6326208	1426.33	302	3.39	1310.8
TA1_shp	1858.33	636398.8	6326208	1406.33	322	2.63	1819.23
TA1_shp	1858.33	636398.8	6326208	1386.33	342	1.98	2467.41
TA1_shp	1858.33	636398.8	6326208	1366.33	362	1.48	3475.26
TA1_shp	1858.33	636398.8	6326208	1346.33	382	1.04	4964.33
TA1_shp	1858.33	636398.8	6326208	1324.23	404.1	0.63	7067.31
TA1_shp	1858.33	636398.8	6326208	1299.68	428.65	0.32	11226.8
TA1_shp	1858.33	636398.8	6326208	1273.73	454.6	0.1	17812.43
TA1_shp	1858.33	636398.8	6326208	1245.23	483.1	0.1	29096.89
TA1_shp	1858.33	636398.8	6326208	1214.53	513.8	0.1	55434.07
TA1_shp	1858.33	636398.8	6326208	1181.88	546.45	0.1	100348.7
TA1_shp	1858.33	636398.8	6326208	1146.08	582.25	0.1	171255.6
TA1_shp	1858.33	636398.8	6326208	1107.43	620.9	0.1	277704.4
TA1_shp	1858.33	636398.8	6326208	1066.28	662.05	0.1	320058
TA1_shp	1858.33	636398.8	6326208	1021.18	707.15	0.1	283771.5
TA1_shp	1858.33	636398.8	6326208	972.53	755.8	0.1	163754.4

TA1_shp	1858.33	636398.8	6326208	920.73	807.6	0.1	77655.27
TA1_shp	1858.33	636398.8	6326208	863.93	864.4	0.1	37251.12
TA1_shp	1858.33	636398.8	6326208	802.68	925.65	0.1	18719.22
TA1_shp	1858.33	636398.8	6326208	737.83	990.5	0.1	8807.43
TA1_shp	1858.33	636398.8	6326208	666.33	1062	0.1	3272.39
TA1_shp	1875	636414.5	6326213	1715.27	9.73	59.35	47.99
TA1_shp	1875	636414.5	6326213	1695.8	29.2	43.03	520.91
TA1_shp	1875	636414.5	6326213	1676.33	48.67	60.26	384.73
TA1_shp	1875	636414.5	6326213	1656.87	68.13	85.52	133.07
TA1_shp	1875	636414.5	6326213	1637.4	87.6	93.38	83.64
TA1_shp	1875	636414.5	6326213	1617.93	107.07	79.67	103.05
TA1_shp	1875	636414.5	6326213	1598.47	126.53	56.55	157.22
TA1_shp	1875	636414.5	6326213	1579	146	34.36	226.59
TA1_shp	1875	636414.5	6326213	1559.53	165.47	19.35	294.47
TA1_shp	1875	636414.5	6326213	1540.07	184.93	11.99	363.82
TA1_shp	1875	636414.5	6326213	1520.6	204.4	8.27	453.52
TA1_shp	1875	636414.5	6326213	1501.13	223.87	6.25	569.88
TA1_shp	1875	636414.5	6326213	1481.67	243.33	4.94	731.64
TA1_shp	1875	636414.5	6326213	1462.2	262.8	3.95	953.49
TA1_shp	1875	636414.5	6326213	1442.73	282.27	3.19	1289.94
TA1_shp	1875	636414.5	6326213	1423	302	2.55	1776.6
TA1_shp	1875	636414.5	6326213	1403	322	1.98	2397.08
TA1_shp	1875	636414.5	6326213	1383	342	1.5	3376.35
TA1_shp	1875	636414.5	6326213	1363	362	1.08	4790.11
TA1_shp	1875	636414.5	6326213	1343	382	0.72	6619.67
TA1_shp	1875	636414.5	6326213	1320.9	404.1	0.42	9973.99
TA1_shp	1875	636414.5	6326213	1296.35	428.65	0.15	14685.68
TA1_shp	1875	636414.5	6326213	1270.4	454.6	0.1	24358.75
TA1_shp	1875	636414.5	6326213	1241.9	483.1	0.1	42725.3
TA1_shp	1875	636414.5	6326213	1211.2	513.8	0.1	70564.12
TA1_shp	1875	636414.5	6326213	1178.55	546.45	0.1	130323.7
TA1_shp	1875	636414.5	6326213	1142.75	582.25	0.1	214089.7
TA1_shp	1875	636414.5	6326213	1104.1	620.9	0.1	301516.2
TA1_shp	1875	636414.5	6326213	1062.95	662.05	0.1	326169.7
TA1_shp	1875	636414.5	6326213	1017.85	707.15	0.1	238868.5
TA1_shp	1875	636414.5	6326213	969.2	755.8	0.1	137596.6
TA1_shp	1875	636414.5	6326213	917.4	807.6	0.1	61631.46
TA1_shp	1875	636414.5	6326213	860.6	864.4	0.1	27737.34
TA1_shp	1875	636414.5	6326213	799.35	925.65	0.1	16547.14
TA1_shp	1875	636414.5	6326213	734.5	990.5	0.1	6048.17
TA1_shp	1875	636414.5	6326213	663	1062	0.1	3187.68
TA1_shp	1891.67	636430.2	6326219	1711.94	9.73	69.6	70.51
TA1_shp	1891.67	636430.2	6326219	1692.47	29.2	38.79	723.17
TA1_shp	1891.67	636430.2	6326219	1673	48.67	55.55	545.53
TA1_shp	1891.67	636430.2	6326219	1653.54	68.13	85.4	160.45
TA1_shp	1891.67	636430.2	6326219	1634.07	87.6	97.24	82.71
TA1_shp	1891.67	636430.2	6326219	1614.6	107.07	83.96	91.73
TA1_shp	1891.67	636430.2	6326219	1595.14	126.53	58.46	137.81
TA1_shp	1891.67	636430.2	6326219	1575.67	146	33.69	202.39
TA1_shp	1891.67	636430.2	6326219	1556.2	165.47	17.73	270.24
TA1_shp	1891.67	636430.2	6326219	1536.74	184.93	10.59	341.22
TA1_shp	1891.67	636430.2	6326219	1517.27	204.4	7.28	433.49

TA1_shp	1891.67	636430.2	6326219	1497.8	223.87	5.58	549.69
TA1_shp	1891.67	636430.2	6326219	1478.34	243.33	4.51	709.79
TA1_shp	1891.67	636430.2	6326219	1458.87	262.8	3.72	928.65
TA1_shp	1891.67	636430.2	6326219	1439.4	282.27	3.09	1257.47
TA1_shp	1891.67	636430.2	6326219	1419.67	302	2.54	1729.34
TA1_shp	1891.67	636430.2	6326219	1399.67	322	2.03	2330
TA1_shp	1891.67	636430.2	6326219	1379.67	342	1.57	3279.91
TA1_shp	1891.67	636430.2	6326219	1359.67	362	1.16	4637.44
TA1_shp	1891.67	636430.2	6326219	1339.67	382	0.79	6385.07
TA1_shp	1891.67	636430.2	6326219	1317.57	404.1	0.48	9595.97
TA1_shp	1891.67	636430.2	6326219	1293.02	428.65	0.2	14091.88
TA1_shp	1891.67	636430.2	6326219	1267.07	454.6	0.1	23182.94
TA1_shp	1891.67	636430.2	6326219	1238.57	483.1	0.1	40422.64
TA1_shp	1891.67	636430.2	6326219	1207.87	513.8	0.1	66544.22
TA1_shp	1891.67	636430.2	6326219	1175.22	546.45	0.1	122670.3
TA1_shp	1891.67	636430.2	6326219	1139.42	582.25	0.1	203107.1
TA1_shp	1891.67	636430.2	6326219	1100.77	620.9	0.1	289869.7
TA1_shp	1891.67	636430.2	6326219	1059.62	662.05	0.1	323811.6
TA1_shp	1891.67	636430.2	6326219	1014.52	707.15	0.1	243203.1
TA1_shp	1891.67	636430.2	6326219	965.87	755.8	0.1	143776.8
TA1_shp	1891.67	636430.2	6326219	914.07	807.6	0.1	65262.95
TA1_shp	1891.67	636430.2	6326219	857.27	864.4	0.1	29284.67
TA1_shp	1891.67	636430.2	6326219	796.02	925.65	0.1	17414.85
TA1_shp	1891.67	636430.2	6326219	731.17	990.5	0.1	6279.72
TA1_shp	1891.67	636430.2	6326219	659.67	1062	0.1	3259.17
TA1_shp	1908.33	636445.8	6326225	1709.35	9.73	43.63	135.82
TA1_shp	1908.33	636445.8	6326225	1689.88	29.2	27.23	1120.36
TA1_shp	1908.33	636445.8	6326225	1670.41	48.67	47.54	743.13
TA1_shp	1908.33	636445.8	6326225	1650.95	68.13	80.63	185.89
TA1_shp	1908.33	636445.8	6326225	1631.48	87.6	95.22	82.43
TA1_shp	1908.33	636445.8	6326225	1612.01	107.07	83.13	84.06
TA1_shp	1908.33	636445.8	6326225	1592.55	126.53	56.99	124.25
TA1_shp	1908.33	636445.8	6326225	1573.08	146	31.35	183.24
TA1_shp	1908.33	636445.8	6326225	1553.61	165.47	15.9	248.41
TA1_shp	1908.33	636445.8	6326225	1534.15	184.93	9.44	317.75
TA1_shp	1908.33	636445.8	6326225	1514.68	204.4	6.61	409.18
TA1_shp	1908.33	636445.8	6326225	1495.21	223.87	5.2	524.66
TA1_shp	1908.33	636445.8	6326225	1475.75	243.33	4.33	682.29
TA1_shp	1908.33	636445.8	6326225	1456.28	262.8	3.67	896.1
TA1_shp	1908.33	636445.8	6326225	1436.81	282.27	3.14	1216
TA1_shp	1908.33	636445.8	6326225	1417.08	302	2.64	1671.63
TA1_shp	1908.33	636445.8	6326225	1397.08	322	2.16	2249.9
TA1_shp	1908.33	636445.8	6326225	1377.08	342	1.7	3161.95
TA1_shp	1908.33	636445.8	6326225	1357.08	362	1.28	4454.56
TA1_shp	1908.33	636445.8	6326225	1337.08	382	0.9	6111.34
TA1_shp	1908.33	636445.8	6326225	1314.98	404.1	0.57	9155.8
TA1_shp	1908.33	636445.8	6326225	1290.43	428.65	0.25	13408.15
TA1_shp	1908.33	636445.8	6326225	1264.48	454.6	0.1	21914.26
TA1_shp	1908.33	636445.8	6326225	1235.98	483.1	0.1	38012.33
TA1_shp	1908.33	636445.8	6326225	1205.28	513.8	0.1	62383.66
TA1_shp	1908.33	636445.8	6326225	1172.63	546.45	0.1	114675.7
TA1_shp	1908.33	636445.8	6326225	1136.83	582.25	0.1	191532.4

TA1_shp	1908.33	636445.8	6326225	1098.18	620.9	0.1	277315.9
TA1_shp	1908.33	636445.8	6326225	1057.03	662.05	0.1	320123.6
TA1_shp	1908.33	636445.8	6326225	1011.93	707.15	0.1	247031.8
TA1_shp	1908.33	636445.8	6326225	963.28	755.8	0.1	150090.7
TA1_shp	1908.33	636445.8	6326225	911.48	807.6	0.1	69109.77
TA1_shp	1908.33	636445.8	6326225	854.68	864.4	0.1	30937.87
TA1_shp	1908.33	636445.8	6326225	793.43	925.65	0.1	18341.6
TA1_shp	1908.33	636445.8	6326225	728.58	990.5	0.1	6524.49
TA1_shp	1908.33	636445.8	6326225	657.08	1062	0.1	3332.88
TA1_shp	1925	636461.3	6326230	1707.52	9.73	46.98	166.77
TA1_shp	1925	636461.3	6326230	1688.05	29.2	24.64	1382.75
TA1_shp	1925	636461.3	6326230	1668.58	48.67	42.16	853.57
TA1_shp	1925	636461.3	6326230	1649.12	68.13	73.56	197.71
TA1_shp	1925	636461.3	6326230	1629.65	87.6	87.66	81.13
TA1_shp	1925	636461.3	6326230	1610.18	107.07	75.85	79.05
TA1_shp	1925	636461.3	6326230	1590.72	126.53	50.5	114.86
TA1_shp	1925	636461.3	6326230	1571.25	146	26.24	168.68
TA1_shp	1925	636461.3	6326230	1551.78	165.47	13.58	229.66
TA1_shp	1925	636461.3	6326230	1532.32	184.93	8.45	296.17
TA1_shp	1925	636461.3	6326230	1512.85	204.4	6.2	384.24
TA1_shp	1925	636461.3	6326230	1493.38	223.87	5.07	496.02
TA1_shp	1925	636461.3	6326230	1473.92	243.33	4.36	648.19
TA1_shp	1925	636461.3	6326230	1454.45	262.8	3.8	854.24
TA1_shp	1925	636461.3	6326230	1434.98	282.27	3.32	1163.65
TA1_shp	1925	636461.3	6326230	1415.25	302	2.85	1599.6
TA1_shp	1925	636461.3	6326230	1395.25	322	2.38	2151.51
TA1_shp	1925	636461.3	6326230	1375.25	342	1.9	3023.77
TA1_shp	1925	636461.3	6326230	1355.25	362	1.46	4253.45
TA1_shp	1925	636461.3	6326230	1335.25	382	1.04	5825.15
TA1_shp	1925	636461.3	6326230	1313.15	404.1	0.68	8699.62
TA1_shp	1925	636461.3	6326230	1288.6	428.65	0.33	12703.16
TA1_shp	1925	636461.3	6326230	1262.65	454.6	0.12	20642.23
TA1_shp	1925	636461.3	6326230	1234.15	483.1	0.1	35641.99
TA1_shp	1925	636461.3	6326230	1203.45	513.8	0.1	58331.63
TA1_shp	1925	636461.3	6326230	1170.8	546.45	0.1	106891
TA1_shp	1925	636461.3	6326230	1135	582.25	0.1	179830
TA1_shp	1925	636461.3	6326230	1096.35	620.9	0.1	263921.1
TA1_shp	1925	636461.3	6326230	1055.2	662.05	0.1	314788.9
TA1_shp	1925	636461.3	6326230	1010.1	707.15	0.1	249962.7
TA1_shp	1925	636461.3	6326230	961.45	755.8	0.1	156315.1
TA1_shp	1925	636461.3	6326230	909.65	807.6	0.1	73219.45
TA1_shp	1925	636461.3	6326230	852.85	864.4	0.1	32721.53
TA1_shp	1925	636461.3	6326230	791.6	925.65	0.1	19341.44
TA1_shp	1925	636461.3	6326230	726.75	990.5	0.1	6786.17
TA1_shp	1925	636461.3	6326230	655.25	1062	0.1	3409.93
TA1_shp	1941.67	636476.8	6326236	1705.69	9.73	53.39	199.03
TA1_shp	1941.67	636476.8	6326236	1686.22	29.2	26.69	1271.43
TA1_shp	1941.67	636476.8	6326236	1666.75	48.67	40.47	765.65
TA1_shp	1941.67	636476.8	6326236	1647.29	68.13	66.64	183.98
TA1_shp	1941.67	636476.8	6326236	1627.82	87.6	77.07	77.37
TA1_shp	1941.67	636476.8	6326236	1608.35	107.07	64.75	75.91
TA1_shp	1941.67	636476.8	6326236	1588.89	126.53	41.66	109.41

TA1_shp	1941.67	636476.8	6326236	1569.42	146	21.17	158.41
TA1_shp	1941.67	636476.8	6326236	1549.95	165.47	11.66	213.99
TA1_shp	1941.67	636476.8	6326236	1530.49	184.93	7.84	275.43
TA1_shp	1941.67	636476.8	6326236	1511.02	204.4	6.15	358.36
TA1_shp	1941.67	636476.8	6326236	1491.55	223.87	5.26	465.28
TA1_shp	1941.67	636476.8	6326236	1472.09	243.33	4.66	611.53
TA1_shp	1941.67	636476.8	6326236	1452.62	262.8	4.16	809.2
TA1_shp	1941.67	636476.8	6326236	1433.15	282.27	3.71	1103.29
TA1_shp	1941.67	636476.8	6326236	1413.42	302	3.24	1518.88
TA1_shp	1941.67	636476.8	6326236	1393.42	322	2.75	2044.71
TA1_shp	1941.67	636476.8	6326236	1373.42	342	2.22	2871.65
TA1_shp	1941.67	636476.8	6326236	1353.42	362	1.73	4037.07
TA1_shp	1941.67	636476.8	6326236	1333.42	382	1.25	5526.42
TA1_shp	1941.67	636476.8	6326236	1311.32	404.1	0.84	8215.72
TA1_shp	1941.67	636476.8	6326236	1286.77	428.65	0.43	11950.72
TA1_shp	1941.67	636476.8	6326236	1260.82	454.6	0.16	19339.85
TA1_shp	1941.67	636476.8	6326236	1232.32	483.1	0.1	33219.88
TA1_shp	1941.67	636476.8	6326236	1201.62	513.8	0.1	54168.54
TA1_shp	1941.67	636476.8	6326236	1168.97	546.45	0.1	98907.85
TA1_shp	1941.67	636476.8	6326236	1133.17	582.25	0.1	167862.1
TA1_shp	1941.67	636476.8	6326236	1094.52	620.9	0.1	250051.9
TA1_shp	1941.67	636476.8	6326236	1053.37	662.05	0.1	308106.6
TA1_shp	1941.67	636476.8	6326236	1008.27	707.15	0.1	252204.3
TA1_shp	1941.67	636476.8	6326236	959.62	755.8	0.1	162523.3
TA1_shp	1941.67	636476.8	6326236	907.82	807.6	0.1	77535.98
TA1_shp	1941.67	636476.8	6326236	851.02	864.4	0.1	34619.98
TA1_shp	1941.67	636476.8	6326236	789.77	925.65	0.1	20406.56
TA1_shp	1941.67	636476.8	6326236	724.92	990.5	0.1	7063.35
TA1_shp	1941.67	636476.8	6326236	653.42	1062	0.1	3490.32
TA1_shp	1958.33	636492.3	6326241	1703.85	9.73	39.33	216.03
TA1_shp	1958.33	636492.3	6326241	1684.38	29.2	29.08	838.78
TA1_shp	1958.33	636492.3	6326241	1664.91	48.67	40.35	553.68
TA1_shp	1958.33	636492.3	6326241	1645.45	68.13	60.38	150.74
TA1_shp	1958.33	636492.3	6326241	1625.98	87.6	65.78	71.33
TA1_shp	1958.33	636492.3	6326241	1606.51	107.07	52.25	74.55
TA1_shp	1958.33	636492.3	6326241	1587.05	126.53	31.45	107.23
TA1_shp	1958.33	636492.3	6326241	1567.58	146	16.76	151.33
TA1_shp	1958.33	636492.3	6326241	1548.11	165.47	10.36	200.07
TA1_shp	1958.33	636492.3	6326241	1528.65	184.93	7.68	255.59
TA1_shp	1958.33	636492.3	6326241	1509.18	204.4	6.49	332.07
TA1_shp	1958.33	636492.3	6326241	1489.71	223.87	5.81	432.53
TA1_shp	1958.33	636492.3	6326241	1470.25	243.33	5.3	570.78
TA1_shp	1958.33	636492.3	6326241	1450.78	262.8	4.83	757.71
TA1_shp	1958.33	636492.3	6326241	1431.31	282.27	4.35	1034.94
TA1_shp	1958.33	636492.3	6326241	1411.58	302	3.83	1427.96
TA1_shp	1958.33	636492.3	6326241	1391.58	322	3.28	1925.55
TA1_shp	1958.33	636492.3	6326241	1371.58	342	2.68	2707.35
TA1_shp	1958.33	636492.3	6326241	1351.58	362	2.1	3807.31
TA1_shp	1958.33	636492.3	6326241	1331.58	382	1.55	5211.75
TA1_shp	1958.33	636492.3	6326241	1309.48	404.1	1.06	7727.53
TA1_shp	1958.33	636492.3	6326241	1284.93	428.65	0.58	11211.58
TA1_shp	1958.33	636492.3	6326241	1258.98	454.6	0.26	18061.99

TA1_shp	1958.33	636492.3	6326241	1230.48	483.1	0.1	30820.85
TA1_shp	1958.33	636492.3	6326241	1199.78	513.8	0.1	50023.41
TA1_shp	1958.33	636492.3	6326241	1167.13	546.45	0.1	91137.55
TA1_shp	1958.33	636492.3	6326241	1131.33	582.25	0.1	155922.1
TA1_shp	1958.33	636492.3	6326241	1092.68	620.9	0.1	235619.6
TA1_shp	1958.33	636492.3	6326241	1051.53	662.05	0.1	299854.6
TA1_shp	1958.33	636492.3	6326241	1006.43	707.15	0.1	253448.7
TA1_shp	1958.33	636492.3	6326241	957.78	755.8	0.1	168529.3
TA1_shp	1958.33	636492.3	6326241	905.98	807.6	0.1	82125.65
TA1_shp	1958.33	636492.3	6326241	849.18	864.4	0.1	36665.64
TA1_shp	1958.33	636492.3	6326241	787.93	925.65	0.1	21554.54
TA1_shp	1958.33	636492.3	6326241	723.08	990.5	0.1	7359.07
TA1_shp	1958.33	636492.3	6326241	651.58	1062	0.1	3573.83
TA1_shp	1975	636507.8	6326246	1702.02	9.73	46.27	52.81
TA1_shp	1975	636507.8	6326246	1682.55	29.2	27.22	510.68
TA1_shp	1975	636507.8	6326246	1663.08	48.67	38.24	362.16
TA1_shp	1975	636507.8	6326246	1643.62	68.13	54.23	111.78
TA1_shp	1975	636507.8	6326246	1624.15	87.6	54.59	64.58
TA1_shp	1975	636507.8	6326246	1604.68	107.07	40.26	75.2
TA1_shp	1975	636507.8	6326246	1585.22	126.53	23.56	108.18
TA1_shp	1975	636507.8	6326246	1565.75	146	14.38	147.04
TA1_shp	1975	636507.8	6326246	1546.28	165.47	10.29	188.26
TA1_shp	1975	636507.8	6326246	1526.82	184.93	8.4	236.48
TA1_shp	1975	636507.8	6326246	1507.35	204.4	7.53	305.94
TA1_shp	1975	636507.8	6326246	1487.88	223.87	6.96	398.91
TA1_shp	1975	636507.8	6326246	1468.42	243.33	6.46	528.53
TA1_shp	1975	636507.8	6326246	1448.95	262.8	5.95	704.53
TA1_shp	1975	636507.8	6326246	1429.48	282.27	5.39	963.7
TA1_shp	1975	636507.8	6326246	1409.75	302	4.76	1333.08
TA1_shp	1975	636507.8	6326246	1389.75	322	4.09	1801.07
TA1_shp	1975	636507.8	6326246	1369.75	342	3.36	2534.25
TA1_shp	1975	636507.8	6326246	1349.75	362	2.65	3564.77
TA1_shp	1975	636507.8	6326246	1329.75	382	1.95	4879.83
TA1_shp	1975	636507.8	6326246	1307.65	404.1	1.35	7217.51
TA1_shp	1975	636507.8	6326246	1283.1	428.65	0.77	10449.51
TA1_shp	1975	636507.8	6326246	1257.15	454.6	0.38	16797.2
TA1_shp	1975	636507.8	6326246	1228.65	483.1	0.13	28450.64
TA1_shp	1975	636507.8	6326246	1197.95	513.8	0.1	45905.49
TA1_shp	1975	636507.8	6326246	1165.3	546.45	0.1	83446.15
TA1_shp	1975	636507.8	6326246	1129.5	582.25	0.1	144075.3
TA1_shp	1975	636507.8	6326246	1090.85	620.9	0.1	221068.3
TA1_shp	1975	636507.8	6326246	1049.7	662.05	0.1	290456.1
TA1_shp	1975	636507.8	6326246	1004.6	707.15	0.1	253908.1
TA1_shp	1975	636507.8	6326246	955.95	755.8	0.1	174348.4
TA1_shp	1975	636507.8	6326246	904.15	807.6	0.1	86911.86
TA1_shp	1975	636507.8	6326246	847.35	864.4	0.1	38845.74
TA1_shp	1975	636507.8	6326246	786.1	925.65	0.1	22779.88
TA1_shp	1975	636507.8	6326246	721.25	990.5	0.1	7672.23
TA1_shp	1975	636507.8	6326246	649.75	1062	0.1	3660.39
TA1_shp	1991.67	636523.3	6326252	1700.19	9.73	46.48	34.24
TA1_shp	1991.67	636523.3	6326252	1680.72	29.2	23.81	370.33
TA1_shp	1991.67	636523.3	6326252	1661.25	48.67	37.72	211.5

TA1_shp	1991.67	636523.3	6326252	1641.79	68.13	51.02	78.38
TA1_shp	1991.67	636523.3	6326252	1622.32	87.6	47.22	60.08
TA1_shp	1991.67	636523.3	6326252	1602.85	107.07	32.52	79.21
TA1_shp	1991.67	636523.3	6326252	1583.39	126.53	20.19	112.24
TA1_shp	1991.67	636523.3	6326252	1563.92	146	14.4	145.01
TA1_shp	1991.67	636523.3	6326252	1544.45	165.47	11.86	178.25
TA1_shp	1991.67	636523.3	6326252	1524.99	184.93	10.55	219.19
TA1_shp	1991.67	636523.3	6326252	1505.52	204.4	9.81	281.52
TA1_shp	1991.67	636523.3	6326252	1486.05	223.87	9.14	367.08
TA1_shp	1991.67	636523.3	6326252	1466.59	243.33	8.46	486.96
TA1_shp	1991.67	636523.3	6326252	1447.12	262.8	7.77	649.92
TA1_shp	1991.67	636523.3	6326252	1427.65	282.27	7.01	890.95
TA1_shp	1991.67	636523.3	6326252	1407.92	302	6.16	1235.01
TA1_shp	1991.67	636523.3	6326252	1387.92	322	5.26	1671.85
TA1_shp	1991.67	636523.3	6326252	1367.92	342	4.32	2360.28
TA1_shp	1991.67	636523.3	6326252	1347.92	362	3.4	3319.41
TA1_shp	1991.67	636523.3	6326252	1327.92	382	2.51	4537.58
TA1_shp	1991.67	636523.3	6326252	1305.82	404.1	1.75	6705.53
TA1_shp	1991.67	636523.3	6326252	1281.27	428.65	1.03	9698.12
TA1_shp	1991.67	636523.3	6326252	1255.32	454.6	0.55	15528.52
TA1_shp	1991.67	636523.3	6326252	1226.82	483.1	0.21	26087.81
TA1_shp	1991.67	636523.3	6326252	1196.12	513.8	0.1	41836.89
TA1_shp	1991.67	636523.3	6326252	1163.47	546.45	0.1	75990.06
TA1_shp	1991.67	636523.3	6326252	1127.67	582.25	0.1	132404.4
TA1_shp	1991.67	636523.3	6326252	1089.02	620.9	0.1	206280.8
TA1_shp	1991.67	636523.3	6326252	1047.87	662.05	0.1	279765.7
TA1_shp	1991.67	636523.3	6326252	1002.77	707.15	0.1	253336.9
TA1_shp	1991.67	636523.3	6326252	954.12	755.8	0.1	179821.7
TA1_shp	1991.67	636523.3	6326252	902.32	807.6	0.1	91962.22
TA1_shp	1991.67	636523.3	6326252	845.52	864.4	0.1	41175.5
TA1_shp	1991.67	636523.3	6326252	784.27	925.65	0.1	24089.93
TA1_shp	1991.67	636523.3	6326252	719.42	990.5	0.1	8004.47
TA1_shp	1991.67	636523.3	6326252	647.92	1062	0.1	3750.27
TA1_shp	2008.33	636539.3	6326258	1699.02	9.73	41.11	389.87
TA1_shp	2008.33	636539.3	6326258	1679.55	29.2	28.58	324.06
TA1_shp	2008.33	636539.3	6326258	1660.08	48.67	43.25	118.01
TA1_shp	2008.33	636539.3	6326258	1640.62	68.13	52.83	58.8
TA1_shp	2008.33	636539.3	6326258	1621.15	87.6	45.65	61.17
TA1_shp	2008.33	636539.3	6326258	1601.68	107.07	31.72	88.3
TA1_shp	2008.33	636539.3	6326258	1582.22	126.53	22.14	119.86
TA1_shp	2008.33	636539.3	6326258	1562.75	146	18.08	145.01
TA1_shp	2008.33	636539.3	6326258	1543.28	165.47	16.41	169.78
TA1_shp	2008.33	636539.3	6326258	1523.82	184.93	15.26	203.77
TA1_shp	2008.33	636539.3	6326258	1504.35	204.4	14.11	259.11
TA1_shp	2008.33	636539.3	6326258	1484.88	223.87	12.91	337.04
TA1_shp	2008.33	636539.3	6326258	1465.42	243.33	11.75	447.24
TA1_shp	2008.33	636539.3	6326258	1445.95	262.8	10.64	597.68
TA1_shp	2008.33	636539.3	6326258	1426.48	282.27	9.52	821.26
TA1_shp	2008.33	636539.3	6326258	1406.75	302	8.31	1140.82
TA1_shp	2008.33	636539.3	6326258	1386.75	322	7.05	1546.87
TA1_shp	2008.33	636539.3	6326258	1366.75	342	5.76	2187.67
TA1_shp	2008.33	636539.3	6326258	1346.75	362	4.52	3079.77

TA1_shp	2008.33	636539.3	6326258	1326.75	382	3.32	4212.34
TA1_shp	2008.33	636539.3	6326258	1304.65	404.1	2.32	6211.41
TA1_shp	2008.33	636539.3	6326258	1280.1	428.65	1.37	8960.37
TA1_shp	2008.33	636539.3	6326258	1254.15	454.6	0.76	14261.27
TA1_shp	2008.33	636539.3	6326258	1225.65	483.1	0.31	23786.6
TA1_shp	2008.33	636539.3	6326258	1194.95	513.8	0.1	37960.64
TA1_shp	2008.33	636539.3	6326258	1162.3	546.45	0.1	68898.65
TA1_shp	2008.33	636539.3	6326258	1126.5	582.25	0.1	121108.4
TA1_shp	2008.33	636539.3	6326258	1087.85	620.9	0.1	191545
TA1_shp	2008.33	636539.3	6326258	1046.7	662.05	0.1	267962.2
TA1_shp	2008.33	636539.3	6326258	1001.6	707.15	0.1	251866.2
TA1_shp	2008.33	636539.3	6326258	952.95	755.8	0.1	184974.3
TA1_shp	2008.33	636539.3	6326258	901.15	807.6	0.1	97179.12
TA1_shp	2008.33	636539.3	6326258	844.35	864.4	0.1	43654
TA1_shp	2008.33	636539.3	6326258	783.1	925.65	0.1	25487.27
TA1_shp	2008.33	636539.3	6326258	718.25	990.5	0.1	8356.66
TA1_shp	2008.33	636539.3	6326258	646.75	1062	0.1	3843.85
TA1_shp	2025	636556	6326265	1698.52	9.73	45.35	195.91
TA1_shp	2025	636556	6326265	1679.05	29.2	33.57	175.08
TA1_shp	2025	636556	6326265	1659.58	48.67	48.55	82.82
TA1_shp	2025	636556	6326265	1640.12	68.13	56.54	55.9
TA1_shp	2025	636556	6326265	1620.65	87.6	48.8	71.55
TA1_shp	2025	636556	6326265	1601.18	107.07	36.55	105.63
TA1_shp	2025	636556	6326265	1581.72	126.53	29.05	132.74
TA1_shp	2025	636556	6326265	1562.25	146	26.3	147.24
TA1_shp	2025	636556	6326265	1542.78	165.47	25.08	162.99
TA1_shp	2025	636556	6326265	1523.32	184.93	23.53	189.84
TA1_shp	2025	636556	6326265	1503.85	204.4	21.23	239.11
TA1_shp	2025	636556	6326265	1484.38	223.87	18.92	309.68
TA1_shp	2025	636556	6326265	1464.92	243.33	16.83	410.18
TA1_shp	2025	636556	6326265	1445.45	262.8	14.99	547.76
TA1_shp	2025	636556	6326265	1425.98	282.27	13.26	751.89
TA1_shp	2025	636556	6326265	1406.25	302	11.49	1045.75
TA1_shp	2025	636556	6326265	1386.25	322	9.69	1419.67
TA1_shp	2025	636556	6326265	1366.25	342	7.85	2008.41
TA1_shp	2025	636556	6326265	1346.25	362	6.1	2833.28
TA1_shp	2025	636556	6326265	1326.25	382	4.45	3884.09
TA1_shp	2025	636556	6326265	1304.15	404.1	3.09	5711.17
TA1_shp	2025	636556	6326265	1279.6	428.65	1.82	8211.46
TA1_shp	2025	636556	6326265	1253.65	454.6	1.04	12988.67
TA1_shp	2025	636556	6326265	1225.15	483.1	0.43	21545.13
TA1_shp	2025	636556	6326265	1194.45	513.8	0.1	34265.25
TA1_shp	2025	636556	6326265	1161.8	546.45	0.1	62107.05
TA1_shp	2025	636556	6326265	1126	582.25	0.1	110150.7
TA1_shp	2025	636556	6326265	1087.35	620.9	0.1	176927.5
TA1_shp	2025	636556	6326265	1046.2	662.05	0.1	255254.8
TA1_shp	2025	636556	6326265	1001.1	707.15	0.1	249351.2
TA1_shp	2025	636556	6326265	952.45	755.8	0.1	189593.6
TA1_shp	2025	636556	6326265	900.65	807.6	0.1	102620.6
TA1_shp	2025	636556	6326265	843.85	864.4	0.1	46288.31
TA1_shp	2025	636556	6326265	782.6	925.65	0.1	26973.93
TA1_shp	2025	636556	6326265	717.75	990.5	0.1	8728.2

TA1_shp	2025	636556	6326265	646.25	1062	0.1	3940.17
TA1_shp	2041.67	636572.7	6326273	1698.02	9.73	35.26	134.06
TA1_shp	2041.67	636572.7	6326273	1678.55	29.2	30.32	142.53
TA1_shp	2041.67	636572.7	6326273	1659.08	48.67	55.44	73.61
TA1_shp	2041.67	636572.7	6326273	1639.62	68.13	64.9	65.08
TA1_shp	2041.67	636572.7	6326273	1620.15	87.6	57.1	97.58
TA1_shp	2041.67	636572.7	6326273	1600.68	107.07	46.83	138.48
TA1_shp	2041.67	636572.7	6326273	1581.22	126.53	41.52	153.59
TA1_shp	2041.67	636572.7	6326273	1561.75	146	39.55	153.29
TA1_shp	2041.67	636572.7	6326273	1542.28	165.47	37.9	158.59
TA1_shp	2041.67	636572.7	6326273	1522.82	184.93	35.26	179.07
TA1_shp	2041.67	636572.7	6326273	1503.35	204.4	31.34	222.09
TA1_shp	2041.67	636572.7	6326273	1483.88	223.87	27.51	285.43
TA1_shp	2041.67	636572.7	6326273	1464.42	243.33	24.15	376.13
TA1_shp	2041.67	636572.7	6326273	1444.95	262.8	21.26	500.56
TA1_shp	2041.67	636572.7	6326273	1425.48	282.27	18.78	686.17
TA1_shp	2041.67	636572.7	6326273	1405.75	302	16.24	953.98
TA1_shp	2041.67	636572.7	6326273	1385.75	322	13.63	1295.45
TA1_shp	2041.67	636572.7	6326273	1365.75	342	10.94	1835.8
TA1_shp	2041.67	636572.7	6326273	1345.75	362	8.43	2589.88
TA1_shp	2041.67	636572.7	6326273	1325.75	382	6.08	3548.48
TA1_shp	2041.67	636572.7	6326273	1303.65	404.1	4.19	5215.73
TA1_shp	2041.67	636572.7	6326273	1279.1	428.65	2.42	7490.92
TA1_shp	2041.67	636572.7	6326273	1253.15	454.6	1.4	11780.56
TA1_shp	2041.67	636572.7	6326273	1224.65	483.1	0.61	19445
TA1_shp	2041.67	636572.7	6326273	1193.95	513.8	0.1	30831.06
TA1_shp	2041.67	636572.7	6326273	1161.3	546.45	0.1	55811.11
TA1_shp	2041.67	636572.7	6326273	1125.5	582.25	0.1	99741.8
TA1_shp	2041.67	636572.7	6326273	1086.85	620.9	0.1	162585.1
TA1_shp	2041.67	636572.7	6326273	1045.7	662.05	0.1	241800.8
TA1_shp	2041.67	636572.7	6326273	1000.6	707.15	0.1	245972.1
TA1_shp	2041.67	636572.7	6326273	951.95	755.8	0.1	193738
TA1_shp	2041.67	636572.7	6326273	900.15	807.6	0.1	108152.8
TA1_shp	2041.67	636572.7	6326273	843.35	864.4	0.1	49074.88
TA1_shp	2041.67	636572.7	6326273	782.1	925.65	0.1	28552.54
TA1_shp	2041.67	636572.7	6326273	717.25	990.5	0.1	9121.09
TA1_shp	2041.67	636572.7	6326273	645.75	1062	0.1	4040.73
TA1_shp	2058.33	636589.3	6326280	1697.52	9.73	16.11	1732.05
TA1_shp	2058.33	636589.3	6326280	1678.05	29.2	39.29	199.01
TA1_shp	2058.33	636589.3	6326280	1658.58	48.67	72.25	70.55
TA1_shp	2058.33	636589.3	6326280	1639.12	68.13	77.03	92.11
TA1_shp	2058.33	636589.3	6326280	1619.65	87.6	66.26	157.73
TA1_shp	2058.33	636589.3	6326280	1600.18	107.07	57.35	199.55
TA1_shp	2058.33	636589.3	6326280	1580.72	126.53	54.35	186.67
TA1_shp	2058.33	636589.3	6326280	1561.25	146	53.43	163.96
TA1_shp	2058.33	636589.3	6326280	1541.78	165.47	51.25	157.62
TA1_shp	2058.33	636589.3	6326280	1522.32	184.93	47.36	171.81
TA1_shp	2058.33	636589.3	6326280	1502.85	204.4	42.18	209.46
TA1_shp	2058.33	636589.3	6326280	1483.38	223.87	37.32	265.99
TA1_shp	2058.33	636589.3	6326280	1463.92	243.33	33.05	347.27
TA1_shp	2058.33	636589.3	6326280	1444.45	262.8	29.31	458.91
TA1_shp	2058.33	636589.3	6326280	1424.98	282.27	26.14	625.61

TA1_shp	2058.33	636589.3	6326280	1405.25	302	22.78	867.15
TA1_shp	2058.33	636589.3	6326280	1385.25	322	19.26	1175.79
TA1_shp	2058.33	636589.3	6326280	1365.25	342	15.39	1665.86
TA1_shp	2058.33	636589.3	6326280	1345.25	362	11.76	2350.17
TA1_shp	2058.33	636589.3	6326280	1325.25	382	8.37	3220.37
TA1_shp	2058.33	636589.3	6326280	1303.15	404.1	5.69	4723.95
TA1_shp	2058.33	636589.3	6326280	1278.6	428.65	3.23	6771.38
TA1_shp	2058.33	636589.3	6326280	1252.65	454.6	1.86	10615.56
TA1_shp	2058.33	636589.3	6326280	1224.15	483.1	0.83	17457.08
TA1_shp	2058.33	636589.3	6326280	1193.45	513.8	0.19	27603.31
TA1_shp	2058.33	636589.3	6326280	1160.8	546.45	0.1	49817.27
TA1_shp	2058.33	636589.3	6326280	1125	582.25	0.1	89814.82
TA1_shp	2058.33	636589.3	6326280	1086.35	620.9	0.1	148746
TA1_shp	2058.33	636589.3	6326280	1045.2	662.05	0.1	227934.4
TA1_shp	2058.33	636589.3	6326280	1000.1	707.15	0.1	241659.9
TA1_shp	2058.33	636589.3	6326280	951.45	755.8	0.1	197255.9
TA1_shp	2058.33	636589.3	6326280	899.65	807.6	0.1	113901.3
TA1_shp	2058.33	636589.3	6326280	842.85	864.4	0.1	52027.48
TA1_shp	2058.33	636589.3	6326280	781.6	925.65	0.1	30227.08
TA1_shp	2058.33	636589.3	6326280	716.75	990.5	0.1	9534.82
TA1_shp	2058.33	636589.3	6326280	645.25	1062	0.1	4144.26
TA1_shp	2075	636606	6326288	1697.02	9.73	53.63	589.15
TA1_shp	2075	636606	6326288	1677.55	29.2	69.27	129.28
TA1_shp	2075	636606	6326288	1658.08	48.67	83.25	96.35
TA1_shp	2075	636606	6326288	1638.62	68.13	77.33	181.96
TA1_shp	2075	636606	6326288	1619.15	87.6	66.88	297.21
TA1_shp	2075	636606	6326288	1599.68	107.07	62.8	302.06
TA1_shp	2075	636606	6326288	1580.22	126.53	63.94	231.32
TA1_shp	2075	636606	6326288	1560.75	146	64.79	178.33
TA1_shp	2075	636606	6326288	1541.28	165.47	62.47	160.1
TA1_shp	2075	636606	6326288	1521.82	184.93	57.65	168.98
TA1_shp	2075	636606	6326288	1502.35	204.4	51.46	201.8
TA1_shp	2075	636606	6326288	1482.88	223.87	46.27	251.56
TA1_shp	2075	636606	6326288	1463.42	243.33	42.05	323.06
TA1_shp	2075	636606	6326288	1443.95	262.8	38.47	421.58
TA1_shp	2075	636606	6326288	1424.48	282.27	35.07	570.47
TA1_shp	2075	636606	6326288	1404.75	302	31.18	786.52
TA1_shp	2075	636606	6326288	1384.75	322	26.88	1063.43
TA1_shp	2075	636606	6326288	1364.75	342	21.57	1506.94
TA1_shp	2075	636606	6326288	1344.75	362	16.48	2124.92
TA1_shp	2075	636606	6326288	1324.75	382	11.61	2909.87
TA1_shp	2075	636606	6326288	1302.65	404.1	7.78	4262.86
TA1_shp	2075	636606	6326288	1278.1	428.65	4.29	6101.01
TA1_shp	2075	636606	6326288	1252.15	454.6	2.46	9522.35
TA1_shp	2075	636606	6326288	1223.65	483.1	1.12	15609.42
TA1_shp	2075	636606	6326288	1192.95	513.8	0.3	24634.49
TA1_shp	2075	636606	6326288	1160.3	546.45	0.11	44366.8
TA1_shp	2075	636606	6326288	1124.5	582.25	0.1	80579.65
TA1_shp	2075	636606	6326288	1085.85	620.9	0.1	135458.8
TA1_shp	2075	636606	6326288	1044.7	662.05	0.1	213743.6
TA1_shp	2075	636606	6326288	999.6	707.15	0.1	236581.6
TA1_shp	2075	636606	6326288	950.95	755.8	0.1	200168.1

TA1_shp	2075	636606	6326288	899.15	807.6	0.1	119622.6
TA1_shp	2075	636606	6326288	842.35	864.4	0.1	55115.28
TA1_shp	2075	636606	6326288	781.1	925.65	0.1	31986.27
TA1_shp	2075	636606	6326288	716.25	990.5	0.1	9967.7
TA1_shp	2075	636606	6326288	644.75	1062	0.1	4251.21
TA1_shp	2091.67	636622.7	6326296	1696.52	9.73	52.5	204.51
TA1_shp	2091.67	636622.7	6326296	1677.05	29.2	52.78	135
TA1_shp	2091.67	636622.7	6326296	1657.58	48.67	58.86	218.95
TA1_shp	2091.67	636622.7	6326296	1638.12	68.13	55.11	440.31
TA1_shp	2091.67	636622.7	6326296	1618.65	87.6	53.97	567.68
TA1_shp	2091.67	636622.7	6326296	1599.18	107.07	59.99	439.44
TA1_shp	2091.67	636622.7	6326296	1579.72	126.53	68.15	278.97
TA1_shp	2091.67	636622.7	6326296	1560.25	146	72.33	193.89
TA1_shp	2091.67	636622.7	6326296	1540.78	165.47	70.72	166.34
TA1_shp	2091.67	636622.7	6326296	1521.32	184.93	65.55	171.17
TA1_shp	2091.67	636622.7	6326296	1501.85	204.4	58.91	199.99
TA1_shp	2091.67	636622.7	6326296	1482.38	223.87	53.7	243.12
TA1_shp	2091.67	636622.7	6326296	1462.92	243.33	49.83	304.74
TA1_shp	2091.67	636622.7	6326296	1443.45	262.8	46.84	389.98
TA1_shp	2091.67	636622.7	6326296	1423.98	282.27	44.17	520.66
TA1_shp	2091.67	636622.7	6326296	1404.25	302	40.54	711.62
TA1_shp	2091.67	636622.7	6326296	1384.25	322	36.07	957.53
TA1_shp	2091.67	636622.7	6326296	1364.25	342	29.54	1354.99
TA1_shp	2091.67	636622.7	6326296	1344.25	362	22.87	1907.56
TA1_shp	2091.67	636622.7	6326296	1324.25	382	16.07	2608.55
TA1_shp	2091.67	636622.7	6326296	1302.15	404.1	10.65	3816.88
TA1_shp	2091.67	636622.7	6326296	1277.6	428.65	5.71	5457.61
TA1_shp	2091.67	636622.7	6326296	1251.65	454.6	3.24	8503.72
TA1_shp	2091.67	636622.7	6326296	1223.15	483.1	1.47	13888.96
TA1_shp	2091.67	636622.7	6326296	1192.45	513.8	0.43	21853.93
TA1_shp	2091.67	636622.7	6326296	1159.8	546.45	0.15	39265.98
TA1_shp	2091.67	636622.7	6326296	1124	582.25	0.1	71943.13
TA1_shp	2091.67	636622.7	6326296	1085.35	620.9	0.1	122882.1
TA1_shp	2091.67	636622.7	6326296	1044.2	662.05	0.1	199517.2
TA1_shp	2091.67	636622.7	6326296	999.1	707.15	0.1	230643.4
TA1_shp	2091.67	636622.7	6326296	950.45	755.8	0.1	202316.7
TA1_shp	2091.67	636622.7	6326296	898.65	807.6	0.1	125450.6
TA1_shp	2091.67	636622.7	6326296	841.85	864.4	0.1	58365.47
TA1_shp	2091.67	636622.7	6326296	780.6	925.65	0.1	33842.85
TA1_shp	2091.67	636622.7	6326296	715.75	990.5	0.1	10422.49
TA1_shp	2091.67	636622.7	6326296	644.25	1062	0.1	4361.92
TA1_shp	2108.33	636638.2	6326302	1695.19	9.73	12.53	88.15
TA1_shp	2108.33	636638.2	6326302	1675.72	29.2	19.37	414.53
TA1_shp	2108.33	636638.2	6326302	1656.25	48.67	22.11	916.52
TA1_shp	2108.33	636638.2	6326302	1636.79	68.13	33.14	914.39
TA1_shp	2108.33	636638.2	6326302	1617.32	87.6	52.26	558.49
TA1_shp	2108.33	636638.2	6326302	1597.85	107.07	68.16	311.41
TA1_shp	2108.33	636638.2	6326302	1578.39	126.53	75.94	206.8
TA1_shp	2108.33	636638.2	6326302	1558.92	146	75.56	176.15
TA1_shp	2108.33	636638.2	6326302	1539.45	165.47	70.6	180.46
TA1_shp	2108.33	636638.2	6326302	1519.99	184.93	64.26	205.83
TA1_shp	2108.33	636638.2	6326302	1500.52	204.4	59.73	241.9

TA1_shp	2108.33	636638.2	6326302	1481.05	223.87	56.72	292.87
TA1_shp	2108.33	636638.2	6326302	1461.59	243.33	54.62	363.96
TA1_shp	2108.33	636638.2	6326302	1442.12	262.8	52.6	476.36
TA1_shp	2108.33	636638.2	6326302	1422.65	282.27	49.51	640.68
TA1_shp	2108.33	636638.2	6326302	1402.92	302	45.51	850.28
TA1_shp	2108.33	636638.2	6326302	1382.92	322	38.72	1203.91
TA1_shp	2108.33	636638.2	6326302	1362.92	342	30.92	1689.81
TA1_shp	2108.33	636638.2	6326302	1342.92	362	22.04	2316.45
TA1_shp	2108.33	636638.2	6326302	1322.92	382	15.2	3268.31
TA1_shp	2108.33	636638.2	6326302	1300.82	404.1	8.63	4478.2
TA1_shp	2108.33	636638.2	6326302	1276.27	428.65	5.03	6888.79
TA1_shp	2108.33	636638.2	6326302	1250.32	454.6	2.27	10339.38
TA1_shp	2108.33	636638.2	6326302	1221.82	483.1	1.02	16549.53
TA1_shp	2108.33	636638.2	6326302	1191.12	513.8	0.35	28498.81
TA1_shp	2108.33	636638.2	6326302	1158.47	546.45	0.1	46713.61
TA1_shp	2108.33	636638.2	6326302	1122.67	582.25	0.1	84797.81
TA1_shp	2108.33	636638.2	6326302	1084.02	620.9	0.1	146285.4
TA1_shp	2108.33	636638.2	6326302	1042.87	662.05	0.1	207122.1
TA1_shp	2108.33	636638.2	6326302	997.77	707.15	0.1	236984.5
TA1_shp	2108.33	636638.2	6326302	949.12	755.8	0.1	175443.8
TA1_shp	2108.33	636638.2	6326302	897.32	807.6	0.1	107358.4
TA1_shp	2108.33	636638.2	6326302	840.52	864.4	0.1	51811.38
TA1_shp	2108.33	636638.2	6326302	779.27	925.65	0.1	28308.53
TA1_shp	2108.33	636638.2	6326302	714.42	990.5	0.1	5145.07
TA1_shp	2108.33	636638.2	6326302	642.92	1062	0.1	4225.33
TA1_shp	2125	636652.5	6326307	1693.02	9.73	19.48	50.44
TA1_shp	2125	636652.5	6326307	1673.55	29.2	11.18	528.43
TA1_shp	2125	636652.5	6326307	1654.08	48.67	10.8	1276.63
TA1_shp	2125	636652.5	6326307	1634.62	68.13	20.6	1067
TA1_shp	2125	636652.5	6326307	1615.15	87.6	46.12	571.87
TA1_shp	2125	636652.5	6326307	1595.68	107.07	66.37	312.65
TA1_shp	2125	636652.5	6326307	1576.22	126.53	76.04	216.56
TA1_shp	2125	636652.5	6326307	1556.75	146	76.47	193.18
TA1_shp	2125	636652.5	6326307	1537.28	165.47	72.36	200.46
TA1_shp	2125	636652.5	6326307	1517.82	184.93	67.3	222.07
TA1_shp	2125	636652.5	6326307	1498.35	204.4	64.27	249.3
TA1_shp	2125	636652.5	6326307	1478.88	223.87	62.73	288.17
TA1_shp	2125	636652.5	6326307	1459.42	243.33	61.93	344.52
TA1_shp	2125	636652.5	6326307	1439.95	262.8	60.73	438.11
TA1_shp	2125	636652.5	6326307	1420.48	282.27	58.01	580.14
TA1_shp	2125	636652.5	6326307	1400.75	302	54.19	763.48
TA1_shp	2125	636652.5	6326307	1380.75	322	47.58	1075.21
TA1_shp	2125	636652.5	6326307	1360.75	342	39.2	1505.66
TA1_shp	2125	636652.5	6326307	1340.75	362	28.94	2062.42
TA1_shp	2125	636652.5	6326307	1320.75	382	20.2	2905.46
TA1_shp	2125	636652.5	6326307	1298.65	404.1	11.27	3976.18
TA1_shp	2125	636652.5	6326307	1274.1	428.65	6.48	6092.14
TA1_shp	2125	636652.5	6326307	1248.15	454.6	2.84	9119
TA1_shp	2125	636652.5	6326307	1219.65	483.1	1.28	14565.58
TA1_shp	2125	636652.5	6326307	1188.95	513.8	0.43	25073.72
TA1_shp	2125	636652.5	6326307	1156.3	546.45	0.1	41215.65
TA1_shp	2125	636652.5	6326307	1120.5	582.25	0.1	75582.05

TA1_shp	2125	636652.5	6326307	1081.85	620.9	0.1	133995.7
TA1_shp	2125	636652.5	6326307	1040.7	662.05	0.1	195035.6
TA1_shp	2125	636652.5	6326307	995.6	707.15	0.1	233491.9
TA1_shp	2125	636652.5	6326307	946.95	755.8	0.1	178798.4
TA1_shp	2125	636652.5	6326307	895.15	807.6	0.1	112300.5
TA1_shp	2125	636652.5	6326307	838.35	864.4	0.1	54810.95
TA1_shp	2125	636652.5	6326307	777.1	925.65	0.1	29867.22
TA1_shp	2125	636652.5	6326307	712.25	990.5	0.1	5285.32
TA1_shp	2125	636652.5	6326307	640.75	1062	0.1	4334.02
TA1_shp	2141.67	636666.8	6326313	1690.85	9.73	44.44	29.23
TA1_shp	2141.67	636666.8	6326313	1671.38	29.2	13.78	620.27
TA1_shp	2141.67	636666.8	6326313	1651.91	48.67	10.67	1264.63
TA1_shp	2141.67	636666.8	6326313	1632.45	68.13	19.75	902.62
TA1_shp	2141.67	636666.8	6326313	1612.98	87.6	44.86	476.58
TA1_shp	2141.67	636666.8	6326313	1593.51	107.07	64.59	288.4
TA1_shp	2141.67	636666.8	6326313	1574.05	126.53	73.74	227.91
TA1_shp	2141.67	636666.8	6326313	1554.58	146	74.37	223.26
TA1_shp	2141.67	636666.8	6326313	1535.11	165.47	71.4	237.29
TA1_shp	2141.67	636666.8	6326313	1515.65	184.93	68.3	253.49
TA1_shp	2141.67	636666.8	6326313	1496.18	204.4	67.35	268.22
TA1_shp	2141.67	636666.8	6326313	1476.71	223.87	67.75	291.45
TA1_shp	2141.67	636666.8	6326313	1457.25	243.33	68.61	330.58
TA1_shp	2141.67	636666.8	6326313	1437.78	262.8	68.5	405.17
TA1_shp	2141.67	636666.8	6326313	1418.31	282.27	66.28	525.18
TA1_shp	2141.67	636666.8	6326313	1398.58	302	62.63	682.98
TA1_shp	2141.67	636666.8	6326313	1378.58	322	55.66	955.01
TA1_shp	2141.67	636666.8	6326313	1358.58	342	46.91	1334.03
TA1_shp	2141.67	636666.8	6326313	1338.58	362	36.25	1826.87
TA1_shp	2141.67	636666.8	6326313	1318.58	382	25.82	2569.35
TA1_shp	2141.67	636666.8	6326313	1296.48	404.1	14.4	3511.15
TA1_shp	2141.67	636666.8	6326313	1271.93	428.65	8.18	5368.81
TA1_shp	2141.67	636666.8	6326313	1245.98	454.6	3.46	8024.68
TA1_shp	2141.67	636666.8	6326313	1217.48	483.1	1.57	12800.81
TA1_shp	2141.67	636666.8	6326313	1186.78	513.8	0.53	22050.03
TA1_shp	2141.67	636666.8	6326313	1154.13	546.45	0.1	36357.66
TA1_shp	2141.67	636666.8	6326313	1118.33	582.25	0.1	67288.66
TA1_shp	2141.67	636666.8	6326313	1079.68	620.9	0.1	122457.3
TA1_shp	2141.67	636666.8	6326313	1038.53	662.05	0.1	183130.9
TA1_shp	2141.67	636666.8	6326313	993.43	707.15	0.1	229064.6
TA1_shp	2141.67	636666.8	6326313	944.78	755.8	0.1	181625.9
TA1_shp	2141.67	636666.8	6326313	892.98	807.6	0.1	117137.8
TA1_shp	2141.67	636666.8	6326313	836.18	864.4	0.1	57926.22
TA1_shp	2141.67	636666.8	6326313	774.93	925.65	0.1	31484.9
TA1_shp	2141.67	636666.8	6326313	710.08	990.5	0.1	5428.74
TA1_shp	2141.67	636666.8	6326313	638.58	1062	0.1	4445.14
TA1_shp	2158.33	636681.2	6326318	1688.69	9.73	29.95	1164.94
TA1_shp	2158.33	636681.2	6326318	1669.22	29.2	21.96	1200.67
TA1_shp	2158.33	636681.2	6326318	1649.75	48.67	18.75	1010.04
TA1_shp	2158.33	636681.2	6326318	1630.29	68.13	27.69	591.06
TA1_shp	2158.33	636681.2	6326318	1610.82	87.6	47.43	345.09
TA1_shp	2158.33	636681.2	6326318	1591.35	107.07	62.7	260.3
TA1_shp	2158.33	636681.2	6326318	1571.89	126.53	69.47	252.78

TA1_shp	2158.33	636681.2	6326318	1552.42	146	69.94	279.16
TA1_shp	2158.33	636681.2	6326318	1532.95	165.47	68.43	302.4
TA1_shp	2158.33	636681.2	6326318	1513.49	184.93	67.87	306.79
TA1_shp	2158.33	636681.2	6326318	1494.02	204.4	69.44	301.73
TA1_shp	2158.33	636681.2	6326318	1474.55	223.87	72.07	303.95
TA1_shp	2158.33	636681.2	6326318	1455.09	243.33	74.81	322.97
TA1_shp	2158.33	636681.2	6326318	1435.62	262.8	75.86	378.59
TA1_shp	2158.33	636681.2	6326318	1416.15	282.27	74.17	477.27
TA1_shp	2158.33	636681.2	6326318	1396.42	302	70.65	610.78
TA1_shp	2158.33	636681.2	6326318	1376.42	322	63.17	846.45
TA1_shp	2158.33	636681.2	6326318	1356.42	342	54.06	1176.7
TA1_shp	2158.33	636681.2	6326318	1336.42	362	43.23	1607.58
TA1_shp	2158.33	636681.2	6326318	1316.42	382	31.36	2257.8
TA1_shp	2158.33	636681.2	6326318	1294.32	404.1	17.74	3082.93
TA1_shp	2158.33	636681.2	6326318	1269.77	428.65	10.01	4711.08
TA1_shp	2158.33	636681.2	6326318	1243.82	454.6	4.12	7036.93
TA1_shp	2158.33	636681.2	6326318	1215.32	483.1	1.86	11214.76
TA1_shp	2158.33	636681.2	6326318	1184.62	513.8	0.63	19346.44
TA1_shp	2158.33	636681.2	6326318	1151.97	546.45	0.1	32012.32
TA1_shp	2158.33	636681.2	6326318	1116.17	582.25	0.1	59782.17
TA1_shp	2158.33	636681.2	6326318	1077.52	620.9	0.1	111578.1
TA1_shp	2158.33	636681.2	6326318	1036.37	662.05	0.1	171388
TA1_shp	2158.33	636681.2	6326318	991.27	707.15	0.1	223771
TA1_shp	2158.33	636681.2	6326318	942.62	755.8	0.1	183976.6
TA1_shp	2158.33	636681.2	6326318	890.82	807.6	0.1	121881.9
TA1_shp	2158.33	636681.2	6326318	834.02	864.4	0.1	61137.78
TA1_shp	2158.33	636681.2	6326318	772.77	925.65	0.1	33152.37
TA1_shp	2158.33	636681.2	6326318	707.92	990.5	0.1	5576.17
TA1_shp	2158.33	636681.2	6326318	636.42	1062	0.1	4559.3
TA1_shp	2175	636695.5	6326324	1686.52	9.73	42.65	2387.95
TA1_shp	2175	636695.5	6326324	1667.05	29.2	41.97	1053.98
TA1_shp	2175	636695.5	6326324	1647.58	48.67	35.01	588.48
TA1_shp	2175	636695.5	6326324	1628.12	68.13	37.26	343.14
TA1_shp	2175	636695.5	6326324	1608.65	87.6	48.59	251.57
TA1_shp	2175	636695.5	6326324	1589.18	107.07	58.6	254.52
TA1_shp	2175	636695.5	6326324	1569.72	126.53	63.12	309.45
TA1_shp	2175	636695.5	6326324	1550.25	146	63.93	381.01
TA1_shp	2175	636695.5	6326324	1530.78	165.47	64.31	414.66
TA1_shp	2175	636695.5	6326324	1511.32	184.93	66.62	393.09
TA1_shp	2175	636695.5	6326324	1491.85	204.4	70.91	354.33
TA1_shp	2175	636695.5	6326324	1472.38	223.87	75.9	326.18
TA1_shp	2175	636695.5	6326324	1452.92	243.33	80.56	320.46
TA1_shp	2175	636695.5	6326324	1433.45	262.8	82.72	356.41
TA1_shp	2175	636695.5	6326324	1413.98	282.27	81.48	434.57
TA1_shp	2175	636695.5	6326324	1394.25	302	78.02	545.57
TA1_shp	2175	636695.5	6326324	1374.25	322	70.01	748.64
TA1_shp	2175	636695.5	6326324	1354.25	342	60.36	1035.06
TA1_shp	2175	636695.5	6326324	1334.25	362	48.95	1410.15
TA1_shp	2175	636695.5	6326324	1314.25	382	36.03	1979.21
TA1_shp	2175	636695.5	6326324	1292.15	404.1	21.02	2702.3
TA1_shp	2175	636695.5	6326324	1267.6	428.65	11.86	4129.94
TA1_shp	2175	636695.5	6326324	1241.65	454.6	4.77	6167.36

TA1_shp	2175	636695.5	6326324	1213.15	483.1	2.14	9821.95
TA1_shp	2175	636695.5	6326324	1182.45	513.8	0.74	16984.43
TA1_shp	2175	636695.5	6326324	1149.8	546.45	0.1	28217.43
TA1_shp	2175	636695.5	6326324	1114	582.25	0.1	53162.98
TA1_shp	2175	636695.5	6326324	1075.35	620.9	0.1	101616.1
TA1_shp	2175	636695.5	6326324	1034.2	662.05	0.1	160158.3
TA1_shp	2175	636695.5	6326324	989.1	707.15	0.1	217754.4
TA1_shp	2175	636695.5	6326324	940.45	755.8	0.1	185756.7
TA1_shp	2175	636695.5	6326324	888.65	807.6	0.1	126404.6
TA1_shp	2175	636695.5	6326324	831.85	864.4	0.1	64407.65
TA1_shp	2175	636695.5	6326324	770.6	925.65	0.1	34850.57
TA1_shp	2175	636695.5	6326324	705.75	990.5	0.1	5727.19
TA1_shp	2175	636695.5	6326324	634.25	1062	0.1	4676.2
TA1_shp	2191.67	636709.8	6326330	1684.35	9.73	54.22	2158.35
TA1_shp	2191.67	636709.8	6326330	1664.88	29.2	50.69	893.8
TA1_shp	2191.67	636709.8	6326330	1645.41	48.67	38.86	409.95
TA1_shp	2191.67	636709.8	6326330	1625.95	68.13	36.81	240.62
TA1_shp	2191.67	636709.8	6326330	1606.48	87.6	43.84	219.61
TA1_shp	2191.67	636709.8	6326330	1587.01	107.07	51.1	291.1
TA1_shp	2191.67	636709.8	6326330	1567.55	126.53	55.05	425.24
TA1_shp	2191.67	636709.8	6326330	1548.08	146	57.11	560.99
TA1_shp	2191.67	636709.8	6326330	1528.61	165.47	59.84	597.6
TA1_shp	2191.67	636709.8	6326330	1509.15	184.93	65.17	522.57
TA1_shp	2191.67	636709.8	6326330	1489.68	204.4	72.16	429
TA1_shp	2191.67	636709.8	6326330	1470.21	223.87	79.36	358.22
TA1_shp	2191.67	636709.8	6326330	1450.75	243.33	85.75	322.64
TA1_shp	2191.67	636709.8	6326330	1431.28	262.8	88.88	338.53
TA1_shp	2191.67	636709.8	6326330	1411.81	282.27	87.95	397.16
TA1_shp	2191.67	636709.8	6326330	1392.08	302	84.45	487.52
TA1_shp	2191.67	636709.8	6326330	1372.08	322	75.86	661.23
TA1_shp	2191.67	636709.8	6326330	1352.08	342	65.54	908.31
TA1_shp	2191.67	636709.8	6326330	1332.08	362	53.38	1233.47
TA1_shp	2191.67	636709.8	6326330	1312.08	382	39.72	1728.5
TA1_shp	2191.67	636709.8	6326330	1289.98	404.1	23.9	2358.08
TA1_shp	2191.67	636709.8	6326330	1265.43	428.65	13.51	3606.57
TA1_shp	2191.67	636709.8	6326330	1239.48	454.6	5.35	5391.69
TA1_shp	2191.67	636709.8	6326330	1210.98	483.1	2.4	8600.79
TA1_shp	2191.67	636709.8	6326330	1180.28	513.8	0.84	14922.94
TA1_shp	2191.67	636709.8	6326330	1147.63	546.45	0.11	24887.74
TA1_shp	2191.67	636709.8	6326330	1111.83	582.25	0.1	47219.8
TA1_shp	2191.67	636709.8	6326330	1073.18	620.9	0.1	92318.83
TA1_shp	2191.67	636709.8	6326330	1032.03	662.05	0.1	149252.8
TA1_shp	2191.67	636709.8	6326330	986.93	707.15	0.1	211075.4
TA1_shp	2191.67	636709.8	6326330	938.28	755.8	0.1	187072.6
TA1_shp	2191.67	636709.8	6326330	886.48	807.6	0.1	130772.4
TA1_shp	2191.67	636709.8	6326330	829.68	864.4	0.1	67737.88
TA1_shp	2191.67	636709.8	6326330	768.43	925.65	0.1	36580.7
TA1_shp	2191.67	636709.8	6326330	703.58	990.5	0.1	5882.11
TA1_shp	2191.67	636709.8	6326330	632.08	1062	0.1	4796.06
TA1_shp	2208.33	636724.4	6326335	1682.81	9.73	49.31	2349.48
TA1_shp	2208.33	636724.4	6326335	1663.34	29.2	36.72	1392.12
TA1_shp	2208.33	636724.4	6326335	1643.87	48.67	26.4	467.54

TA1_shp	2208.33	636724.4	6326335	1624.41	68.13	26.76	241.52
TA1_shp	2208.33	636724.4	6326335	1604.94	87.6	34.23	248.62
TA1_shp	2208.33	636724.4	6326335	1585.47	107.07	41.55	391.87
TA1_shp	2208.33	636724.4	6326335	1566.01	126.53	46.25	638.49
TA1_shp	2208.33	636724.4	6326335	1546.54	146	50.14	858.58
TA1_shp	2208.33	636724.4	6326335	1527.07	165.47	55.37	878.04
TA1_shp	2208.33	636724.4	6326335	1507.61	184.93	63.58	704.9
TA1_shp	2208.33	636724.4	6326335	1488.14	204.4	73.02	526.43
TA1_shp	2208.33	636724.4	6326335	1468.67	223.87	82.19	397.76
TA1_shp	2208.33	636724.4	6326335	1449.21	243.33	90.04	327.32
TA1_shp	2208.33	636724.4	6326335	1429.74	262.8	93.89	323.31
TA1_shp	2208.33	636724.4	6326335	1410.27	282.27	93.16	363.91
TA1_shp	2208.33	636724.4	6326335	1390.54	302	89.54	436.03
TA1_shp	2208.33	636724.4	6326335	1370.54	322	80.39	584.93
TA1_shp	2208.33	636724.4	6326335	1350.54	342	69.44	798.19
TA1_shp	2208.33	636724.4	6326335	1330.54	362	56.6	1079.92
TA1_shp	2208.33	636724.4	6326335	1310.54	382	42.37	1510.57
TA1_shp	2208.33	636724.4	6326335	1288.44	404.1	25.98	2058.81
TA1_shp	2208.33	636724.4	6326335	1263.89	428.65	14.71	3152.26
TA1_shp	2208.33	636724.4	6326335	1237.94	454.6	5.78	4718.99
TA1_shp	2208.33	636724.4	6326335	1209.44	483.1	2.58	7542.22
TA1_shp	2208.33	636724.4	6326335	1178.74	513.8	0.91	13137.38
TA1_shp	2208.33	636724.4	6326335	1146.09	546.45	0.14	22004.78
TA1_shp	2208.33	636724.4	6326335	1110.29	582.25	0.1	42072.23
TA1_shp	2208.33	636724.4	6326335	1071.64	620.9	0.1	83979.02
TA1_shp	2208.33	636724.4	6326335	1030.49	662.05	0.1	139048.7
TA1_shp	2208.33	636724.4	6326335	985.39	707.15	0.1	203903.1
TA1_shp	2208.33	636724.4	6326335	936.74	755.8	0.1	187766.2
TA1_shp	2208.33	636724.4	6326335	884.94	807.6	0.1	134819.6
TA1_shp	2208.33	636724.4	6326335	828.14	864.4	0.1	71135.73
TA1_shp	2208.33	636724.4	6326335	766.89	925.65	0.1	38345.66
TA1_shp	2208.33	636724.4	6326335	702.04	990.5	0.1	6039.6
TA1_shp	2208.33	636724.4	6326335	630.54	1062	0.1	4917.87
TA1_shp	2225	636739.1	6326341	1681.9	9.73	34.76	920.04
TA1_shp	2225	636739.1	6326341	1662.43	29.2	19.05	1057.39
TA1_shp	2225	636739.1	6326341	1642.95	48.67	14.49	451.07
TA1_shp	2225	636739.1	6326341	1623.49	68.13	17.13	276.92
TA1_shp	2225	636739.1	6326341	1604.03	87.6	24.55	334.48
TA1_shp	2225	636739.1	6326341	1584.56	107.07	32.48	589
TA1_shp	2225	636739.1	6326341	1565.09	126.53	38.47	1000.65
TA1_shp	2225	636739.1	6326341	1545.62	146	44.21	1317.32
TA1_shp	2225	636739.1	6326341	1526.16	165.47	51.7	1270.58
TA1_shp	2225	636739.1	6326341	1506.7	184.93	62.32	937.45
TA1_shp	2225	636739.1	6326341	1487.22	204.4	73.71	641.01
TA1_shp	2225	636739.1	6326341	1467.76	223.87	84.31	441.13
TA1_shp	2225	636739.1	6326341	1448.3	243.33	93.14	333.31
TA1_shp	2225	636739.1	6326341	1428.82	262.8	97.42	310.3
TA1_shp	2225	636739.1	6326341	1409.35	282.27	96.7	334.86
TA1_shp	2225	636739.1	6326341	1389.62	302	92.86	391.21
TA1_shp	2225	636739.1	6326341	1369.62	322	83.21	517.4
TA1_shp	2225	636739.1	6326341	1349.62	342	71.74	700.44
TA1_shp	2225	636739.1	6326341	1329.62	362	58.33	943.98

TA1_shp	2225	636739.1	6326341	1309.62	382	43.73	1318.78
TA1_shp	2225	636739.1	6326341	1287.53	404.1	27.01	1796.74
TA1_shp	2225	636739.1	6326341	1262.97	428.65	15.31	2754.13
TA1_shp	2225	636739.1	6326341	1237.03	454.6	6	4132.56
TA1_shp	2225	636739.1	6326341	1208.53	483.1	2.69	6631.91
TA1_shp	2225	636739.1	6326341	1177.82	513.8	0.95	11602.9
TA1_shp	2225	636739.1	6326341	1145.18	546.45	0.16	19504.15
TA1_shp	2225	636739.1	6326341	1109.38	582.25	0.1	37474.28
TA1_shp	2225	636739.1	6326341	1070.72	620.9	0.1	76285.23
TA1_shp	2225	636739.1	6326341	1029.57	662.05	0.1	129320.1
TA1_shp	2225	636739.1	6326341	984.47	707.15	0.1	196373.9
TA1_shp	2225	636739.1	6326341	935.83	755.8	0.1	188029.2
TA1_shp	2225	636739.1	6326341	884.03	807.6	0.1	138608.2
TA1_shp	2225	636739.1	6326341	827.22	864.4	0.1	74497.61
TA1_shp	2225	636739.1	6326341	765.97	925.65	0.1	40094.46
TA1_shp	2225	636739.1	6326341	701.12	990.5	0.1	6200.33
TA1_shp	2225	636739.1	6326341	629.62	1062	0.1	5042.16
TA1_shp	2241.67	636753.9	6326346	1680.98	9.73	20.36	277.82
TA1_shp	2241.67	636753.9	6326346	1661.51	29.2	10.03	758.53
TA1_shp	2241.67	636753.9	6326346	1642.04	48.67	9.79	453.29
TA1_shp	2241.67	636753.9	6326346	1622.58	68.13	13.19	353.75
TA1_shp	2241.67	636753.9	6326346	1603.11	87.6	19.28	495.11
TA1_shp	2241.67	636753.9	6326346	1583.64	107.07	26.18	919.86
TA1_shp	2241.67	636753.9	6326346	1564.18	126.53	32.57	1554.39
TA1_shp	2241.67	636753.9	6326346	1544.71	146	39.74	1945.71
TA1_shp	2241.67	636753.9	6326346	1525.24	165.47	48.84	1755.15
TA1_shp	2241.67	636753.9	6326346	1505.78	184.93	61.16	1196.29
TA1_shp	2241.67	636753.9	6326346	1486.31	204.4	73.77	757.67
TA1_shp	2241.67	636753.9	6326346	1466.84	223.87	85.19	481.31
TA1_shp	2241.67	636753.9	6326346	1447.38	243.33	94.51	336.95
TA1_shp	2241.67	636753.9	6326346	1427.91	262.8	98.86	298.34
TA1_shp	2241.67	636753.9	6326346	1408.44	282.27	98.02	309.41
TA1_shp	2241.67	636753.9	6326346	1388.71	302	93.95	352.39
TA1_shp	2241.67	636753.9	6326346	1368.71	322	83.9	459.54
TA1_shp	2241.67	636753.9	6326346	1348.71	342	72.07	617.23
TA1_shp	2241.67	636753.9	6326346	1328.71	362	58.35	828.7
TA1_shp	2241.67	636753.9	6326346	1308.71	382	43.55	1155.74
TA1_shp	2241.67	636753.9	6326346	1286.61	404.1	26.68	1573.31
TA1_shp	2241.67	636753.9	6326346	1262.06	428.65	15.13	2414.46
TA1_shp	2241.67	636753.9	6326346	1236.11	454.6	5.98	3631.64
TA1_shp	2241.67	636753.9	6326346	1207.61	483.1	2.7	5852.48
TA1_shp	2241.67	636753.9	6326346	1176.91	513.8	0.97	10282.72
TA1_shp	2241.67	636753.9	6326346	1144.26	546.45	0.17	17352.08
TA1_shp	2241.67	636753.9	6326346	1108.46	582.25	0.1	33550.64
TA1_shp	2241.67	636753.9	6326346	1069.81	620.9	0.1	69499.52
TA1_shp	2241.67	636753.9	6326346	1028.66	662.05	0.1	120375.1
TA1_shp	2241.67	636753.9	6326346	983.56	707.15	0.1	188612.4
TA1_shp	2241.67	636753.9	6326346	934.91	755.8	0.1	187663.5
TA1_shp	2241.67	636753.9	6326346	883.11	807.6	0.1	141963.8
TA1_shp	2241.67	636753.9	6326346	826.31	864.4	0.1	77857.95
TA1_shp	2241.67	636753.9	6326346	765.06	925.65	0.1	41843.59
TA1_shp	2241.67	636753.9	6326346	700.21	990.5	0.1	6363.21

TA1_shp	2241.67	636753.9	6326346	628.71	1062	0.1	5168.05
TA1_shp	2258.33	636768.6	6326352	1680.06	9.73	9.7	6790.34
TA1_shp	2258.33	636768.6	6326352	1660.59	29.2	9.81	2572.46
TA1_shp	2258.33	636768.6	6326352	1641.12	48.67	12.16	795.8
TA1_shp	2258.33	636768.6	6326352	1621.66	68.13	15.15	534.58
TA1_shp	2258.33	636768.6	6326352	1602.19	87.6	18.76	761.55
TA1_shp	2258.33	636768.6	6326352	1582.72	107.07	23.2	1413.01
TA1_shp	2258.33	636768.6	6326352	1563.26	126.53	28.85	2289.83
TA1_shp	2258.33	636768.6	6326352	1543.79	146	36.55	2680.7
TA1_shp	2258.33	636768.6	6326352	1524.32	165.47	46.64	2250.37
TA1_shp	2258.33	636768.6	6326352	1504.86	184.93	59.9	1436.82
TA1_shp	2258.33	636768.6	6326352	1485.39	204.4	72.98	856.23
TA1_shp	2258.33	636768.6	6326352	1465.92	223.87	84.54	510.72
TA1_shp	2258.33	636768.6	6326352	1446.46	243.33	93.8	336.8
TA1_shp	2258.33	636768.6	6326352	1426.99	262.8	97.92	285.71
TA1_shp	2258.33	636768.6	6326352	1407.52	282.27	96.82	286.28
TA1_shp	2258.33	636768.6	6326352	1387.79	302	92.47	318.74
TA1_shp	2258.33	636768.6	6326352	1367.79	322	82.23	409.43
TA1_shp	2258.33	636768.6	6326352	1347.79	342	70.28	544.97
TA1_shp	2258.33	636768.6	6326352	1327.79	362	56.52	728.22
TA1_shp	2258.33	636768.6	6326352	1307.79	382	41.78	1014.38
TA1_shp	2258.33	636768.6	6326352	1285.69	404.1	25.04	1380.61
TA1_shp	2258.33	636768.6	6326352	1261.14	428.65	14.19	2123.01
TA1_shp	2258.33	636768.6	6326352	1235.19	454.6	5.7	3203.12
TA1_shp	2258.33	636768.6	6326352	1206.69	483.1	2.61	5186.97
TA1_shp	2258.33	636768.6	6326352	1175.99	513.8	0.96	9153.58
TA1_shp	2258.33	636768.6	6326352	1143.34	546.45	0.17	15493.93
TA1_shp	2258.33	636768.6	6326352	1107.54	582.25	0.1	30061.98
TA1_shp	2258.33	636768.6	6326352	1068.89	620.9	0.1	63298.49
TA1_shp	2258.33	636768.6	6326352	1027.74	662.05	0.1	111949
TA1_shp	2258.33	636768.6	6326352	982.64	707.15	0.1	180686.8
TA1_shp	2258.33	636768.6	6326352	933.99	755.8	0.1	186920.2
TA1_shp	2258.33	636768.6	6326352	882.19	807.6	0.1	145036.9
TA1_shp	2258.33	636768.6	6326352	825.39	864.4	0.1	81155.17
TA1_shp	2258.33	636768.6	6326352	764.14	925.65	0.1	43562.74
TA1_shp	2258.33	636768.6	6326352	699.29	990.5	0.1	6528.64
TA1_shp	2258.33	636768.6	6326352	627.79	1062	0.1	5295.93
TA1_shp	2275	636783.4	6326358	1679.15	9.73	20.1	9979.04
TA1_shp	2275	636783.4	6326358	1659.68	29.2	23.28	2857.43
TA1_shp	2275	636783.4	6326358	1640.2	48.67	25.54	942.67
TA1_shp	2275	636783.4	6326358	1620.74	68.13	22.72	724.27
TA1_shp	2275	636783.4	6326358	1601.28	87.6	20.53	1101.99
TA1_shp	2275	636783.4	6326358	1581.81	107.07	21.79	2008.68
TA1_shp	2275	636783.4	6326358	1562.34	126.53	26.36	3075.62
TA1_shp	2275	636783.4	6326358	1542.88	146	34.2	3359.84
TA1_shp	2275	636783.4	6326358	1523.41	165.47	44.8	2643.66
TA1_shp	2275	636783.4	6326358	1503.95	184.93	58.26	1600.59
TA1_shp	2275	636783.4	6326358	1484.47	204.4	71.08	911.53
TA1_shp	2275	636783.4	6326358	1465.01	223.87	82.13	520.42
TA1_shp	2275	636783.4	6326358	1445.55	243.33	90.79	329
TA1_shp	2275	636783.4	6326358	1426.07	262.8	94.42	271.56
TA1_shp	2275	636783.4	6326358	1406.6	282.27	92.93	264.96

TA1_shp	2275	636783.4	6326358	1386.88	302	88.28	289.21
TA1_shp	2275	636783.4	6326358	1366.88	322	78.06	367.19
TA1_shp	2275	636783.4	6326358	1346.88	342	66.25	484.69
TA1_shp	2275	636783.4	6326358	1326.88	362	52.74	644.22
TA1_shp	2275	636783.4	6326358	1306.88	382	38.43	896.03
TA1_shp	2275	636783.4	6326358	1284.78	404.1	22.24	1219.13
TA1_shp	2275	636783.4	6326358	1260.22	428.65	12.64	1879.41
TA1_shp	2275	636783.4	6326358	1234.28	454.6	5.24	2844.44
TA1_shp	2275	636783.4	6326358	1205.78	483.1	2.44	4626.41
TA1_shp	2275	636783.4	6326358	1175.07	513.8	0.93	8191.32
TA1_shp	2275	636783.4	6326358	1142.43	546.45	0.18	13905.16
TA1_shp	2275	636783.4	6326358	1106.62	582.25	0.1	27111.06
TA1_shp	2275	636783.4	6326358	1067.97	620.9	0.1	57885.09
TA1_shp	2275	636783.4	6326358	1026.82	662.05	0.1	104302.2
TA1_shp	2275	636783.4	6326358	981.72	707.15	0.1	172829.8
TA1_shp	2275	636783.4	6326358	933.08	755.8	0.1	185571.6
TA1_shp	2275	636783.4	6326358	881.28	807.6	0.1	147585.6
TA1_shp	2275	636783.4	6326358	824.47	864.4	0.1	84401.68
TA1_shp	2275	636783.4	6326358	763.22	925.65	0.1	45257.71
TA1_shp	2275	636783.4	6326358	698.38	990.5	0.1	6695.95
TA1_shp	2275	636783.4	6326358	626.88	1062	0.1	5425.2
TA1_shp	2291.67	636798.1	6326363	1678.23	9.73	39.16	890.43
TA1_shp	2291.67	636798.1	6326363	1658.76	29.2	36.59	711.78
TA1_shp	2291.67	636798.1	6326363	1639.29	48.67	32.94	660.61
TA1_shp	2291.67	636798.1	6326363	1619.83	68.13	24.16	844.64
TA1_shp	2291.67	636798.1	6326363	1600.36	87.6	18.89	1441.53
TA1_shp	2291.67	636798.1	6326363	1580.89	107.07	19.26	2539.36
TA1_shp	2291.67	636798.1	6326363	1561.43	126.53	23.95	3649.05
TA1_shp	2291.67	636798.1	6326363	1541.96	146	32.16	3750.49
TA1_shp	2291.67	636798.1	6326363	1522.49	165.47	42.98	2809.64
TA1_shp	2291.67	636798.1	6326363	1503.03	184.93	56.08	1644.07
TA1_shp	2291.67	636798.1	6326363	1483.56	204.4	68.06	912.98
TA1_shp	2291.67	636798.1	6326363	1464.09	223.87	78.09	509.97
TA1_shp	2291.67	636798.1	6326363	1444.63	243.33	85.69	314.8
TA1_shp	2291.67	636798.1	6326363	1425.16	262.8	88.51	255.62
TA1_shp	2291.67	636798.1	6326363	1405.69	282.27	86.52	244.96
TA1_shp	2291.67	636798.1	6326363	1385.96	302	81.58	263.37
TA1_shp	2291.67	636798.1	6326363	1365.96	322	71.54	330.6
TA1_shp	2291.67	636798.1	6326363	1345.96	342	60.06	433.23
TA1_shp	2291.67	636798.1	6326363	1325.96	362	47.05	573.52
TA1_shp	2291.67	636798.1	6326363	1305.96	382	33.68	796.53
TA1_shp	2291.67	636798.1	6326363	1283.86	404.1	18.72	1083.15
TA1_shp	2291.67	636798.1	6326363	1259.31	428.65	10.69	1674.66
TA1_shp	2291.67	636798.1	6326363	1233.36	454.6	4.64	2541.35
TA1_shp	2291.67	636798.1	6326363	1204.86	483.1	2.22	4145.7
TA1_shp	2291.67	636798.1	6326363	1174.16	513.8	0.87	7367.27
TA1_shp	2291.67	636798.1	6326363	1141.51	546.45	0.17	12538.2
TA1_shp	2291.67	636798.1	6326363	1105.71	582.25	0.1	24506.61
TA1_shp	2291.67	636798.1	6326363	1067.06	620.9	0.1	52988.5
TA1_shp	2291.67	636798.1	6326363	1025.91	662.05	0.1	97180.45
TA1_shp	2291.67	636798.1	6326363	980.81	707.15	0.1	164991.6
TA1_shp	2291.67	636798.1	6326363	932.16	755.8	0.1	183908

TA1_shp	2291.67	636798.1	6326363	880.36	807.6	0.1	149819.2
TA1_shp	2291.67	636798.1	6326363	823.56	864.4	0.1	87521.18
TA1_shp	2291.67	636798.1	6326363	762.31	925.65	0.1	46890.82
TA1_shp	2291.67	636798.1	6326363	697.46	990.5	0.1	6865.41
TA1_shp	2291.67	636798.1	6326363	625.96	1062	0.1	5556.09
TA1_shp	2308.33	636812.9	6326369	1677.31	9.73	36.38	118.94
TA1_shp	2308.33	636812.9	6326369	1657.84	29.2	23.19	234.48
TA1_shp	2308.33	636812.9	6326369	1638.37	48.67	19.15	593.47
TA1_shp	2308.33	636812.9	6326369	1618.91	68.13	14.75	1034.27
TA1_shp	2308.33	636812.9	6326369	1599.44	87.6	13.08	1720.44
TA1_shp	2308.33	636812.9	6326369	1579.97	107.07	15.17	2792.38
TA1_shp	2308.33	636812.9	6326369	1560.51	126.53	21.06	3769.42
TA1_shp	2308.33	636812.9	6326369	1541.04	146	30.13	3728.68
TA1_shp	2308.33	636812.9	6326369	1521.57	165.47	41.02	2712.94
TA1_shp	2308.33	636812.9	6326369	1502.11	184.93	53.35	1564.88
TA1_shp	2308.33	636812.9	6326369	1482.64	204.4	64.06	862.49
TA1_shp	2308.33	636812.9	6326369	1463.17	223.87	72.64	480.05
TA1_shp	2308.33	636812.9	6326369	1443.71	243.33	78.8	295.48
TA1_shp	2308.33	636812.9	6326369	1424.24	262.8	80.49	238.67
TA1_shp	2308.33	636812.9	6326369	1404.77	282.27	77.9	226.71
TA1_shp	2308.33	636812.9	6326369	1385.04	302	72.67	241.49
TA1_shp	2308.33	636812.9	6326369	1365.04	322	62.92	300.52
TA1_shp	2308.33	636812.9	6326369	1345.04	342	51.81	391.18
TA1_shp	2308.33	636812.9	6326369	1325.04	362	39.25	515.48
TA1_shp	2308.33	636812.9	6326369	1305.04	382	27.52	714.12
TA1_shp	2308.33	636812.9	6326369	1282.94	404.1	14.94	969.74
TA1_shp	2308.33	636812.9	6326369	1258.39	428.65	8.67	1504.34
TA1_shp	2308.33	636812.9	6326369	1232.44	454.6	4	2289.65
TA1_shp	2308.33	636812.9	6326369	1203.94	483.1	1.98	3746.64
TA1_shp	2308.33	636812.9	6326369	1173.24	513.8	0.8	6669.35
TA1_shp	2308.33	636812.9	6326369	1140.59	546.45	0.16	11370.7
TA1_shp	2308.33	636812.9	6326369	1104.79	582.25	0.1	22309.64
TA1_shp	2308.33	636812.9	6326369	1066.14	620.9	0.1	48754.81
TA1_shp	2308.33	636812.9	6326369	1024.99	662.05	0.1	90789.4
TA1_shp	2308.33	636812.9	6326369	979.89	707.15	0.1	157364.9
TA1_shp	2308.33	636812.9	6326369	931.24	755.8	0.1	181710.3
TA1_shp	2308.33	636812.9	6326369	879.44	807.6	0.1	151501.5
TA1_shp	2308.33	636812.9	6326369	822.64	864.4	0.1	90502.04
TA1_shp	2308.33	636812.9	6326369	761.39	925.65	0.1	48455.96
TA1_shp	2308.33	636812.9	6326369	696.54	990.5	0.1	7036.34
TA1_shp	2308.33	636812.9	6326369	625.04	1062	0.1	5688.11
TA1_shp	2325	636827.6	6326375	1676.4	9.73	8.75	386.49
TA1_shp	2325	636827.6	6326375	1656.93	29.2	8.72	1045.36
TA1_shp	2325	636827.6	6326375	1637.45	48.67	7.99	1402.35
TA1_shp	2325	636827.6	6326375	1617.99	68.13	8.5	1819.59
TA1_shp	2325	636827.6	6326375	1598.53	87.6	11.6	2620.75
TA1_shp	2325	636827.6	6326375	1579.06	107.07	18.26	3390.04
TA1_shp	2325	636827.6	6326375	1559.59	126.53	28.11	3317.85
TA1_shp	2325	636827.6	6326375	1540.12	146	38.96	2413.32
TA1_shp	2325	636827.6	6326375	1520.66	165.47	50.28	1397.29
TA1_shp	2325	636827.6	6326375	1501.2	184.93	59.44	778.03
TA1_shp	2325	636827.6	6326375	1481.72	204.4	66.27	438.99

TA1_shp	2325	636827.6	6326375	1462.26	223.87	70.7	272.39
TA1_shp	2325	636827.6	6326375	1442.8	243.33	71.07	221.17
TA1_shp	2325	636827.6	6326375	1423.32	262.8	67.76	209.99
TA1_shp	2325	636827.6	6326375	1403.85	282.27	62.31	222.01
TA1_shp	2325	636827.6	6326375	1384.12	302	53.11	273.5
TA1_shp	2325	636827.6	6326375	1364.12	322	42.57	352.87
TA1_shp	2325	636827.6	6326375	1344.12	342	30.56	464.47
TA1_shp	2325	636827.6	6326375	1324.12	362	20.94	639.99
TA1_shp	2325	636827.6	6326375	1304.12	382	12.51	847.34
TA1_shp	2325	636827.6	6326375	1282.03	404.1	7.62	1256.06
TA1_shp	2325	636827.6	6326375	1257.47	428.65	3.76	1778.1
TA1_shp	2325	636827.6	6326375	1231.53	454.6	2.26	2982.78
TA1_shp	2325	636827.6	6326375	1203.03	483.1	0.97	4877.25
TA1_shp	2325	636827.6	6326375	1172.32	513.8	0.34	8139.32
TA1_shp	2325	636827.6	6326375	1139.68	546.45	0.1	15814.21
TA1_shp	2325	636827.6	6326375	1103.88	582.25	0.1	29958.15
TA1_shp	2325	636827.6	6326375	1065.22	620.9	0.1	60122.21
TA1_shp	2325	636827.6	6326375	1024.07	662.05	0.1	112933.2
TA1_shp	2325	636827.6	6326375	978.97	707.15	0.1	164063.5
TA1_shp	2325	636827.6	6326375	930.33	755.8	0.1	189351.6
TA1_shp	2325	636827.6	6326375	878.53	807.6	0.1	129738
TA1_shp	2325	636827.6	6326375	821.72	864.4	0.1	79546.82
TA1_shp	2325	636827.6	6326375	760.47	925.65	0.1	36162.08
TA1_shp	2325	636827.6	6326375	695.62	990.5	0.1	6830.33
TA1_shp	2325	636827.6	6326375	624.12	1062	0.1	5443.03
TA1_shp	2341.67	636842.4	6326380	1675.48	9.73	18.87	1316
TA1_shp	2341.67	636842.4	6326380	1656.01	29.2	10.95	2183.07
TA1_shp	2341.67	636842.4	6326380	1636.54	48.67	7.09	1731.79
TA1_shp	2341.67	636842.4	6326380	1617.08	68.13	6.8	1658.65
TA1_shp	2341.67	636842.4	6326380	1597.61	87.6	9.52	2144.19
TA1_shp	2341.67	636842.4	6326380	1578.14	107.07	16.04	2728.9
TA1_shp	2341.67	636842.4	6326380	1558.68	126.53	26.24	2713.87
TA1_shp	2341.67	636842.4	6326380	1539.21	146	37	2015.08
TA1_shp	2341.67	636842.4	6326380	1519.74	165.47	47.24	1191.74
TA1_shp	2341.67	636842.4	6326380	1500.28	184.93	54.75	678.12
TA1_shp	2341.67	636842.4	6326380	1480.81	204.4	59.68	391.63
TA1_shp	2341.67	636842.4	6326380	1461.34	223.87	62.19	248.5
TA1_shp	2341.67	636842.4	6326380	1441.88	243.33	61.01	203.83
TA1_shp	2341.67	636842.4	6326380	1422.41	262.8	56.84	194.9
TA1_shp	2341.67	636842.4	6326380	1402.94	282.27	50.92	206.55
TA1_shp	2341.67	636842.4	6326380	1383.21	302	41.94	252.31
TA1_shp	2341.67	636842.4	6326380	1363.21	322	32.29	323.74
TA1_shp	2341.67	636842.4	6326380	1343.21	342	21.99	424.86
TA1_shp	2341.67	636842.4	6326380	1323.21	362	14.81	584.13
TA1_shp	2341.67	636842.4	6326380	1303.21	382	9.18	772.36
TA1_shp	2341.67	636842.4	6326380	1281.11	404.1	5.83	1147.79
TA1_shp	2341.67	636842.4	6326380	1256.56	428.65	3.13	1628.15
TA1_shp	2341.67	636842.4	6326380	1230.61	454.6	1.92	2732.57
TA1_shp	2341.67	636842.4	6326380	1202.11	483.1	0.87	4470.75
TA1_shp	2341.67	636842.4	6326380	1171.41	513.8	0.32	7465.79
TA1_shp	2341.67	636842.4	6326380	1138.76	546.45	0.1	14538.64
TA1_shp	2341.67	636842.4	6326380	1102.96	582.25	0.1	27654.6

TA1_shp	2341.67	636842.4	6326380	1064.31	620.9	0.1	55818.24
TA1_shp	2341.67	636842.4	6326380	1023.16	662.05	0.1	106866.5
TA1_shp	2341.67	636842.4	6326380	978.06	707.15	0.1	158283.1
TA1_shp	2341.67	636842.4	6326380	929.41	755.8	0.1	188360.5
TA1_shp	2341.67	636842.4	6326380	877.61	807.6	0.1	131582
TA1_shp	2341.67	636842.4	6326380	820.81	864.4	0.1	81782.33
TA1_shp	2341.67	636842.4	6326380	759.56	925.65	0.1	37160.21
TA1_shp	2341.67	636842.4	6326380	694.71	990.5	0.1	6991.99
TA1_shp	2341.67	636842.4	6326380	623.21	1062	0.1	5565.42
TA1_shp	2358.33	636857.1	6326386	1674.56	9.73	14.56	485.73
TA1_shp	2358.33	636857.1	6326386	1655.09	29.2	25.49	1572.57
TA1_shp	2358.33	636857.1	6326386	1635.62	48.67	10.56	1575.91
TA1_shp	2358.33	636857.1	6326386	1616.16	68.13	6.86	1370.54
TA1_shp	2358.33	636857.1	6326386	1596.69	87.6	8.43	1649.79
TA1_shp	2358.33	636857.1	6326386	1577.22	107.07	14.33	2083.44
TA1_shp	2358.33	636857.1	6326386	1557.76	126.53	24.57	2130.92
TA1_shp	2358.33	636857.1	6326386	1538.29	146	35.35	1632.7
TA1_shp	2358.33	636857.1	6326386	1518.82	165.47	44.64	993.2
TA1_shp	2358.33	636857.1	6326386	1499.36	184.93	50.52	580.08
TA1_shp	2358.33	636857.1	6326386	1479.89	204.4	53.49	344.29
TA1_shp	2358.33	636857.1	6326386	1460.42	223.87	53.95	224.91
TA1_shp	2358.33	636857.1	6326386	1440.96	243.33	51.05	187.39
TA1_shp	2358.33	636857.1	6326386	1421.49	262.8	45.82	181.25
TA1_shp	2358.33	636857.1	6326386	1402.02	282.27	39.24	193.18
TA1_shp	2358.33	636857.1	6326386	1382.29	302	30.32	235.02
TA1_shp	2358.33	636857.1	6326386	1362.29	322	22.12	300.4
TA1_shp	2358.33	636857.1	6326386	1342.29	342	14.89	393
TA1_shp	2358.33	636857.1	6326386	1322.29	362	10.16	538.78
TA1_shp	2358.33	636857.1	6326386	1302.29	382	6.66	711.05
TA1_shp	2358.33	636857.1	6326386	1280.19	404.1	4.45	1059.55
TA1_shp	2358.33	636857.1	6326386	1255.64	428.65	2.59	1506.32
TA1_shp	2358.33	636857.1	6326386	1229.69	454.6	1.64	2519.49
TA1_shp	2358.33	636857.1	6326386	1201.19	483.1	0.79	4122.18
TA1_shp	2358.33	636857.1	6326386	1170.49	513.8	0.3	6895.87
TA1_shp	2358.33	636857.1	6326386	1137.84	546.45	0.1	13441.29
TA1_shp	2358.33	636857.1	6326386	1102.04	582.25	0.1	25629.17
TA1_shp	2358.33	636857.1	6326386	1063.39	620.9	0.1	51929.74
TA1_shp	2358.33	636857.1	6326386	1022.24	662.05	0.1	101106
TA1_shp	2358.33	636857.1	6326386	977.14	707.15	0.1	152530.3
TA1_shp	2358.33	636857.1	6326386	928.49	755.8	0.1	186947.2
TA1_shp	2358.33	636857.1	6326386	876.69	807.6	0.1	133154
TA1_shp	2358.33	636857.1	6326386	819.89	864.4	0.1	83865.37
TA1_shp	2358.33	636857.1	6326386	758.64	925.65	0.1	38097.52
TA1_shp	2358.33	636857.1	6326386	693.79	990.5	0.1	7153.79
TA1_shp	2358.33	636857.1	6326386	622.29	1062	0.1	5687.9
TA1_shp	2375	636871.9	6326392	1673.65	9.73	70.6	31.96
TA1_shp	2375	636871.9	6326392	1654.18	29.2	43.77	970.5
TA1_shp	2375	636871.9	6326392	1634.7	48.67	12.04	1460.91
TA1_shp	2375	636871.9	6326392	1615.24	68.13	6.16	1154.1
TA1_shp	2375	636871.9	6326392	1595.78	87.6	7.16	1255.95
TA1_shp	2375	636871.9	6326392	1576.31	107.07	12.62	1564.78
TA1_shp	2375	636871.9	6326392	1556.84	126.53	23.03	1648.98

TA1_shp	2375	636871.9	6326392	1537.38	146	34.21	1316.9
TA1_shp	2375	636871.9	6326392	1517.91	165.47	42.83	826.25
TA1_shp	2375	636871.9	6326392	1498.45	184.93	47.18	496.08
TA1_shp	2375	636871.9	6326392	1478.97	204.4	48.21	303.12
TA1_shp	2375	636871.9	6326392	1459.51	223.87	46.55	204.01
TA1_shp	2375	636871.9	6326392	1440.05	243.33	41.77	173.15
TA1_shp	2375	636871.9	6326392	1420.57	262.8	35.16	169.65
TA1_shp	2375	636871.9	6326392	1401.1	282.27	27.73	181.96
TA1_shp	2375	636871.9	6326392	1381.38	302	20.41	220.93
TA1_shp	2375	636871.9	6326392	1361.38	322	14.35	281.66
TA1_shp	2375	636871.9	6326392	1341.38	342	9.9	367.56
TA1_shp	2375	636871.9	6326392	1321.38	362	7	502.52
TA1_shp	2375	636871.9	6326392	1301.38	382	4.87	661.93
TA1_shp	2375	636871.9	6326392	1279.28	404.1	3.44	985.23
TA1_shp	2375	636871.9	6326392	1254.72	428.65	2.18	1399.85
TA1_shp	2375	636871.9	6326392	1228.78	454.6	1.42	2340.65
TA1_shp	2375	636871.9	6326392	1200.28	483.1	0.73	3830.06
TA1_shp	2375	636871.9	6326392	1169.57	513.8	0.29	6409.49
TA1_shp	2375	636871.9	6326392	1136.93	546.45	0.1	12499.69
TA1_shp	2375	636871.9	6326392	1101.12	582.25	0.1	23881.82
TA1_shp	2375	636871.9	6326392	1062.47	620.9	0.1	48547.48
TA1_shp	2375	636871.9	6326392	1021.33	662.05	0.1	95833.75
TA1_shp	2375	636871.9	6326392	976.22	707.15	0.1	146941.1
TA1_shp	2375	636871.9	6326392	927.58	755.8	0.1	184886.8
TA1_shp	2375	636871.9	6326392	875.78	807.6	0.1	134325
TA1_shp	2375	636871.9	6326392	818.97	864.4	0.1	85732.38
TA1_shp	2375	636871.9	6326392	757.72	925.65	0.1	38948.86
TA1_shp	2375	636871.9	6326392	692.88	990.5	0.1	7316.1
TA1_shp	2375	636871.9	6326392	621.38	1062	0.1	5810.72
TA1_shp	2391.67	636886.6	6326397	1672.73	9.73	36.94	184.76
TA1_shp	2391.67	636886.6	6326397	1653.26	29.2	20.07	1521.26
TA1_shp	2391.67	636886.6	6326397	1633.79	48.67	6.54	1605.8
TA1_shp	2391.67	636886.6	6326397	1614.33	68.13	4.24	994.71
TA1_shp	2391.67	636886.6	6326397	1594.86	87.6	5.67	955.34
TA1_shp	2391.67	636886.6	6326397	1575.39	107.07	11.09	1178.08
TA1_shp	2391.67	636886.6	6326397	1555.93	126.53	22	1296.76
TA1_shp	2391.67	636886.6	6326397	1536.46	146	33.91	1084.69
TA1_shp	2391.67	636886.6	6326397	1516.99	165.47	42.06	702.58
TA1_shp	2391.67	636886.6	6326397	1497.53	184.93	45.04	432.74
TA1_shp	2391.67	636886.6	6326397	1478.06	204.4	44.21	271.1
TA1_shp	2391.67	636886.6	6326397	1458.59	223.87	40.44	187.31
TA1_shp	2391.67	636886.6	6326397	1439.13	243.33	33.49	162.03
TA1_shp	2391.67	636886.6	6326397	1419.66	262.8	26.1	160.58
TA1_shp	2391.67	636886.6	6326397	1400.19	282.27	18.76	173.04
TA1_shp	2391.67	636886.6	6326397	1380.46	302	13.51	210
TA1_shp	2391.67	636886.6	6326397	1360.46	322	9.4	266.88
TA1_shp	2391.67	636886.6	6326397	1340.46	342	6.74	346.78
TA1_shp	2391.67	636886.6	6326397	1320.46	362	4.98	473.15
TA1_shp	2391.67	636886.6	6326397	1300.46	382	3.68	622.65
TA1_shp	2391.67	636886.6	6326397	1278.36	404.1	2.74	925.6
TA1_shp	2391.67	636886.6	6326397	1253.81	428.65	1.87	1314.03
TA1_shp	2391.67	636886.6	6326397	1227.86	454.6	1.26	2191.62

TA1_shp	2391.67	636886.6	6326397	1199.36	483.1	0.69	3585.18
TA1_shp	2391.67	636886.6	6326397	1168.66	513.8	0.29	6004.86
TA1_shp	2391.67	636886.6	6326397	1136.01	546.45	0.1	11697.28
TA1_shp	2391.67	636886.6	6326397	1100.21	582.25	0.1	22348.84
TA1_shp	2391.67	636886.6	6326397	1061.56	620.9	0.1	45476.38
TA1_shp	2391.67	636886.6	6326397	1020.41	662.05	0.1	90819.95
TA1_shp	2391.67	636886.6	6326397	975.31	707.15	0.1	141418.5
TA1_shp	2391.67	636886.6	6326397	926.66	755.8	0.1	182515.3
TA1_shp	2391.67	636886.6	6326397	874.86	807.6	0.1	135227.7
TA1_shp	2391.67	636886.6	6326397	818.06	864.4	0.1	87416.16
TA1_shp	2391.67	636886.6	6326397	756.81	925.65	0.1	39725.84
TA1_shp	2391.67	636886.6	6326397	691.96	990.5	0.1	7476.63
TA1_shp	2391.67	636886.6	6326397	620.46	1062	0.1	5932.25
TA1_shp	2408.33	636902.2	6326403	1672.6	9.73	19.36	1917.5
TA1_shp	2408.33	636902.2	6326403	1653.13	29.2	6.5	2660.51
TA1_shp	2408.33	636902.2	6326403	1633.66	48.67	3.24	1524.71
TA1_shp	2408.33	636902.2	6326403	1614.2	68.13	2.93	758.5
TA1_shp	2408.33	636902.2	6326403	1594.73	87.6	4.78	677.65
TA1_shp	2408.33	636902.2	6326403	1575.26	107.07	10.42	877.63
TA1_shp	2408.33	636902.2	6326403	1555.8	126.53	22.2	1045.01
TA1_shp	2408.33	636902.2	6326403	1536.33	146	34.88	929.73
TA1_shp	2408.33	636902.2	6326403	1516.86	165.47	42.6	620.4
TA1_shp	2408.33	636902.2	6326403	1497.4	184.93	44.32	389.9
TA1_shp	2408.33	636902.2	6326403	1477.93	204.4	41.71	248.74
TA1_shp	2408.33	636902.2	6326403	1458.46	223.87	35.92	175.06
TA1_shp	2408.33	636902.2	6326403	1439	243.33	27.2	153.67
TA1_shp	2408.33	636902.2	6326403	1419.53	262.8	19.67	153.8
TA1_shp	2408.33	636902.2	6326403	1400.06	282.27	13.05	166.5
TA1_shp	2408.33	636902.2	6326403	1380.33	302	9.34	201.48
TA1_shp	2408.33	636902.2	6326403	1360.33	322	6.53	254.97
TA1_shp	2408.33	636902.2	6326403	1340.33	342	4.85	329.85
TA1_shp	2408.33	636902.2	6326403	1320.33	362	3.74	449.82
TA1_shp	2408.33	636902.2	6326403	1300.33	382	2.92	592.25
TA1_shp	2408.33	636902.2	6326403	1278.23	404.1	2.28	875.86
TA1_shp	2408.33	636902.2	6326403	1253.68	428.65	1.66	1238.59
TA1_shp	2408.33	636902.2	6326403	1227.73	454.6	1.16	2066.33
TA1_shp	2408.33	636902.2	6326403	1199.23	483.1	0.67	3379.02
TA1_shp	2408.33	636902.2	6326403	1168.53	513.8	0.3	5655.77
TA1_shp	2408.33	636902.2	6326403	1135.88	546.45	0.11	10996.4
TA1_shp	2408.33	636902.2	6326403	1100.08	582.25	0.1	21006.47
TA1_shp	2408.33	636902.2	6326403	1061.43	620.9	0.1	42792.94
TA1_shp	2408.33	636902.2	6326403	1020.28	662.05	0.1	86245.41
TA1_shp	2408.33	636902.2	6326403	975.18	707.15	0.1	136084.7
TA1_shp	2408.33	636902.2	6326403	926.53	755.8	0.1	179521.9
TA1_shp	2408.33	636902.2	6326403	874.73	807.6	0.1	135724.7
TA1_shp	2408.33	636902.2	6326403	817.93	864.4	0.1	88871.55
TA1_shp	2408.33	636902.2	6326403	756.68	925.65	0.1	40412.63
TA1_shp	2408.33	636902.2	6326403	691.83	990.5	0.1	7638.76
TA1_shp	2408.33	636902.2	6326403	620.33	1062	0.1	6054.91
TA1_shp	2425	636918.5	6326408	1673.27	9.73	7.57	3561.46
TA1_shp	2425	636918.5	6326408	1653.8	29.2	3.76	2880.26
TA1_shp	2425	636918.5	6326408	1634.33	48.67	2.55	1110.4

TA1_shp	2425	636918.5	6326408	1614.87	68.13	2.78	486.17
TA1_shp	2425	636918.5	6326408	1595.4	87.6	4.91	448.22
TA1_shp	2425	636918.5	6326408	1575.93	107.07	11.12	656.59
TA1_shp	2425	636918.5	6326408	1556.47	126.53	24.07	880.99
TA1_shp	2425	636918.5	6326408	1537	146	37.18	836.99
TA1_shp	2425	636918.5	6326408	1517.53	165.47	44.26	576.44
TA1_shp	2425	636918.5	6326408	1498.07	184.93	44.81	367.8
TA1_shp	2425	636918.5	6326408	1478.6	204.4	40.7	236.81
TA1_shp	2425	636918.5	6326408	1459.13	223.87	33.26	168.8
TA1_shp	2425	636918.5	6326408	1439.67	243.33	23.28	149.08
TA1_shp	2425	636918.5	6326408	1420.2	262.8	15.78	149.82
TA1_shp	2425	636918.5	6326408	1400.73	282.27	9.83	162.45
TA1_shp	2425	636918.5	6326408	1381	302	7.02	195.67
TA1_shp	2425	636918.5	6326408	1361	322	4.95	246.34
TA1_shp	2425	636918.5	6326408	1341	342	3.79	317.19
TA1_shp	2425	636918.5	6326408	1321	362	3.03	431.69
TA1_shp	2425	636918.5	6326408	1301	382	2.47	567.94
TA1_shp	2425	636918.5	6326408	1278.9	404.1	2	835.66
TA1_shp	2425	636918.5	6326408	1254.35	428.65	1.54	1177.45
TA1_shp	2425	636918.5	6326408	1228.4	454.6	1.11	1965.2
TA1_shp	2425	636918.5	6326408	1199.9	483.1	0.69	3210.88
TA1_shp	2425	636918.5	6326408	1169.2	513.8	0.34	5366.06
TA1_shp	2425	636918.5	6326408	1136.55	546.45	0.13	10402.92
TA1_shp	2425	636918.5	6326408	1100.75	582.25	0.1	19835.63
TA1_shp	2425	636918.5	6326408	1062.1	620.9	0.1	40356.93
TA1_shp	2425	636918.5	6326408	1020.95	662.05	0.1	81884.77
TA1_shp	2425	636918.5	6326408	975.85	707.15	0.1	130819.1
TA1_shp	2425	636918.5	6326408	927.2	755.8	0.1	176291.3
TA1_shp	2425	636918.5	6326408	875.4	807.6	0.1	135954.8
TA1_shp	2425	636918.5	6326408	818.6	864.4	0.1	90122.12
TA1_shp	2425	636918.5	6326408	757.35	925.65	0.1	41015.81
TA1_shp	2425	636918.5	6326408	692.5	990.5	0.1	7798.16
TA1_shp	2425	636918.5	6326408	621	1062	0.1	6175.53
TA1_shp	2441.67	636934.8	6326414	1673.94	9.73	6.27	8250.42
TA1_shp	2441.67	636934.8	6326414	1654.47	29.2	3.94	3518.74
TA1_shp	2441.67	636934.8	6326414	1635	48.67	3.11	772.26
TA1_shp	2441.67	636934.8	6326414	1615.54	68.13	3.53	287.38
TA1_shp	2441.67	636934.8	6326414	1596.07	87.6	6.08	296
TA1_shp	2441.67	636934.8	6326414	1576.6	107.07	13.21	525.19
TA1_shp	2441.67	636934.8	6326414	1557.14	126.53	27.35	807.9
TA1_shp	2441.67	636934.8	6326414	1537.67	146	40.15	812.82
TA1_shp	2441.67	636934.8	6326414	1518.2	165.47	46.55	569.35
TA1_shp	2441.67	636934.8	6326414	1498.74	184.93	46.23	365.11
TA1_shp	2441.67	636934.8	6326414	1479.27	204.4	41.03	235.17
TA1_shp	2441.67	636934.8	6326414	1459.8	223.87	32.37	167.76
TA1_shp	2441.67	636934.8	6326414	1440.34	243.33	21.42	148.44
TA1_shp	2441.67	636934.8	6326414	1420.87	262.8	13.84	148.81
TA1_shp	2441.67	636934.8	6326414	1401.4	282.27	8.22	160.7
TA1_shp	2441.67	636934.8	6326414	1381.67	302	5.87	193.04
TA1_shp	2441.67	636934.8	6326414	1361.67	322	4.16	241.6
TA1_shp	2441.67	636934.8	6326414	1341.67	342	3.25	308.86
TA1_shp	2441.67	636934.8	6326414	1321.67	362	2.67	418.55

TA1_shp	2441.67	636934.8	6326414	1301.67	382	2.24	549.36
TA1_shp	2441.67	636934.8	6326414	1279.57	404.1	1.87	803.46
TA1_shp	2441.67	636934.8	6326414	1255.02	428.65	1.5	1127.33
TA1_shp	2441.67	636934.8	6326414	1229.07	454.6	1.12	1882.8
TA1_shp	2441.67	636934.8	6326414	1200.57	483.1	0.74	3069.36
TA1_shp	2441.67	636934.8	6326414	1169.87	513.8	0.39	5110.28
TA1_shp	2441.67	636934.8	6326414	1137.22	546.45	0.16	9869.48
TA1_shp	2441.67	636934.8	6326414	1101.42	582.25	0.1	18781.31
TA1_shp	2441.67	636934.8	6326414	1062.77	620.9	0.1	38173.88
TA1_shp	2441.67	636934.8	6326414	1021.62	662.05	0.1	77892.32
TA1_shp	2441.67	636934.8	6326414	976.52	707.15	0.1	125802.3
TA1_shp	2441.67	636934.8	6326414	927.87	755.8	0.1	172676.4
TA1_shp	2441.67	636934.8	6326414	876.07	807.6	0.1	135824.2
TA1_shp	2441.67	636934.8	6326414	819.27	864.4	0.1	91117.22
TA1_shp	2441.67	636934.8	6326414	758.02	925.65	0.1	41516.13
TA1_shp	2441.67	636934.8	6326414	693.17	990.5	0.1	7956.32
TA1_shp	2441.67	636934.8	6326414	621.67	1062	0.1	6295.22
TA1_shp	2458.33	636951.2	6326419	1674.6	9.73	3.39	8259.82
TA1_shp	2458.33	636951.2	6326419	1655.13	29.2	4.69	3194.4
TA1_shp	2458.33	636951.2	6326419	1635.66	48.67	4.53	491.8
TA1_shp	2458.33	636951.2	6326419	1616.2	68.13	5.06	176.79
TA1_shp	2458.33	636951.2	6326419	1596.73	87.6	8.04	224.78
TA1_shp	2458.33	636951.2	6326419	1577.26	107.07	16.11	483.84
TA1_shp	2458.33	636951.2	6326419	1557.8	126.53	30.7	824.14
TA1_shp	2458.33	636951.2	6326419	1538.33	146	42.81	853.91
TA1_shp	2458.33	636951.2	6326419	1518.86	165.47	48.86	599.71
TA1_shp	2458.33	636951.2	6326419	1499.4	184.93	48.17	383.45
TA1_shp	2458.33	636951.2	6326419	1479.93	204.4	42.38	245.48
TA1_shp	2458.33	636951.2	6326419	1460.46	223.87	32.94	173.55
TA1_shp	2458.33	636951.2	6326419	1441	243.33	21.24	152.18
TA1_shp	2458.33	636951.2	6326419	1421.53	262.8	13.38	151
TA1_shp	2458.33	636951.2	6326419	1402.06	282.27	7.73	161.59
TA1_shp	2458.33	636951.2	6326419	1382.33	302	5.52	192.71
TA1_shp	2458.33	636951.2	6326419	1362.33	322	3.92	239.3
TA1_shp	2458.33	636951.2	6326419	1342.33	342	3.1	303.74
TA1_shp	2458.33	636951.2	6326419	1322.33	362	2.59	408.95
TA1_shp	2458.33	636951.2	6326419	1302.33	382	2.23	534.45
TA1_shp	2458.33	636951.2	6326419	1280.23	404.1	1.9	777.72
TA1_shp	2458.33	636951.2	6326419	1255.68	428.65	1.56	1087.72
TA1_shp	2458.33	636951.2	6326419	1229.73	454.6	1.21	1816.75
TA1_shp	2458.33	636951.2	6326419	1201.23	483.1	0.84	2953.3
TA1_shp	2458.33	636951.2	6326419	1170.53	513.8	0.48	4895.49
TA1_shp	2458.33	636951.2	6326419	1137.88	546.45	0.21	9419.36
TA1_shp	2458.33	636951.2	6326419	1102.08	582.25	0.1	17867.16
TA1_shp	2458.33	636951.2	6326419	1063.43	620.9	0.1	36194.47
TA1_shp	2458.33	636951.2	6326419	1022.28	662.05	0.1	74062.08
TA1_shp	2458.33	636951.2	6326419	977.18	707.15	0.1	120818.6
TA1_shp	2458.33	636951.2	6326419	928.53	755.8	0.1	168857
TA1_shp	2458.33	636951.2	6326419	876.73	807.6	0.1	135461.7
TA1_shp	2458.33	636951.2	6326419	819.93	864.4	0.1	91933.64
TA1_shp	2458.33	636951.2	6326419	758.68	925.65	0.1	41943.93
TA1_shp	2458.33	636951.2	6326419	693.83	990.5	0.1	8112.74

TA1_shp	2458.33	636951.2	6326419	622.33	1062	0.1	6413.58
TA1_shp	2475	636967.5	6326424	1675.27	9.73	3.57	2315.56
TA1_shp	2475	636967.5	6326424	1655.8	29.2	5.67	1472.3
TA1_shp	2475	636967.5	6326424	1636.33	48.67	5.82	302.95
TA1_shp	2475	636967.5	6326424	1616.87	68.13	6.44	147.02
TA1_shp	2475	636967.5	6326424	1597.4	87.6	9.72	238.95
TA1_shp	2475	636967.5	6326424	1577.93	107.07	18.42	559.63
TA1_shp	2475	636967.5	6326424	1558.47	126.53	32.86	946.15
TA1_shp	2475	636967.5	6326424	1539	146	44.55	963.25
TA1_shp	2475	636967.5	6326424	1519.53	165.47	50.66	664.78
TA1_shp	2475	636967.5	6326424	1500.07	184.93	50.05	420.88
TA1_shp	2475	636967.5	6326424	1480.6	204.4	44.26	267.29
TA1_shp	2475	636967.5	6326424	1461.13	223.87	34.69	186.1
TA1_shp	2475	636967.5	6326424	1441.67	243.33	22.52	161.03
TA1_shp	2475	636967.5	6326424	1422.2	262.8	14.23	157.17
TA1_shp	2475	636967.5	6326424	1402.73	282.27	8.18	165.66
TA1_shp	2475	636967.5	6326424	1383	302	5.83	195.49
TA1_shp	2475	636967.5	6326424	1363	322	4.15	240.48
TA1_shp	2475	636967.5	6326424	1343	342	3.31	302.96
TA1_shp	2475	636967.5	6326424	1323	362	2.78	404.57
TA1_shp	2475	636967.5	6326424	1303	382	2.4	525.68
TA1_shp	2475	636967.5	6326424	1280.9	404.1	2.07	761.17
TA1_shp	2475	636967.5	6326424	1256.35	428.65	1.73	1061.41
TA1_shp	2475	636967.5	6326424	1230.4	454.6	1.36	1765.54
TA1_shp	2475	636967.5	6326424	1201.9	483.1	0.97	2853.77
TA1_shp	2475	636967.5	6326424	1171.2	513.8	0.59	4699.13
TA1_shp	2475	636967.5	6326424	1138.55	546.45	0.26	9001.99
TA1_shp	2475	636967.5	6326424	1102.75	582.25	0.1	17019.25
TA1_shp	2475	636967.5	6326424	1064.1	620.9	0.1	34364.83
TA1_shp	2475	636967.5	6326424	1022.95	662.05	0.1	70526.08
TA1_shp	2475	636967.5	6326424	977.85	707.15	0.1	116086.8
TA1_shp	2475	636967.5	6326424	929.2	755.8	0.1	164772.4
TA1_shp	2475	636967.5	6326424	877.4	807.6	0.1	134771.9
TA1_shp	2475	636967.5	6326424	820.6	864.4	0.1	92492.39
TA1_shp	2475	636967.5	6326424	759.35	925.65	0.1	42267.43
TA1_shp	2475	636967.5	6326424	694.5	990.5	0.1	8267.07
TA1_shp	2475	636967.5	6326424	623	1062	0.1	6530.35
TA1_shp	2491.67	636983.8	6326430	1675.94	9.73	3.12	875.22
TA1_shp	2491.67	636983.8	6326430	1656.47	29.2	4.78	949.92
TA1_shp	2491.67	636983.8	6326430	1637	48.67	5.24	318.28
TA1_shp	2491.67	636983.8	6326430	1617.54	68.13	6.33	220.24
TA1_shp	2491.67	636983.8	6326430	1598.07	87.6	9.95	379.79
TA1_shp	2491.67	636983.8	6326430	1578.6	107.07	18.92	795.99
TA1_shp	2491.67	636983.8	6326430	1559.14	126.53	33.05	1204.5
TA1_shp	2491.67	636983.8	6326430	1539.67	146	44.85	1144.67
TA1_shp	2491.67	636983.8	6326430	1520.2	165.47	51.48	767.66
TA1_shp	2491.67	636983.8	6326430	1500.74	184.93	51.44	477.71
TA1_shp	2491.67	636983.8	6326430	1481.27	204.4	46.23	299.47
TA1_shp	2491.67	636983.8	6326430	1461.8	223.87	37.15	206.03
TA1_shp	2491.67	636983.8	6326430	1442.34	243.33	25.03	174.6
TA1_shp	2491.67	636983.8	6326430	1422.87	262.8	16.29	167.16
TA1_shp	2491.67	636983.8	6326430	1403.4	282.27	9.58	173.4

TA1_shp	2491.67	636983.8	6326430	1383.67	302	6.86	201.28
TA1_shp	2491.67	636983.8	6326430	1363.67	322	4.9	244.61
TA1_shp	2491.67	636983.8	6326430	1343.67	342	3.9	305.79
TA1_shp	2491.67	636983.8	6326430	1323.67	362	3.27	404.49
TA1_shp	2491.67	636983.8	6326430	1303.67	382	2.81	521.87
TA1_shp	2491.67	636983.8	6326430	1281.57	404.1	2.42	750.46
TA1_shp	2491.67	636983.8	6326430	1257.02	428.65	2.02	1041.92
TA1_shp	2491.67	636983.8	6326430	1231.07	454.6	1.61	1721.07
TA1_shp	2491.67	636983.8	6326430	1202.57	483.1	1.17	2765.3
TA1_shp	2491.67	636983.8	6326430	1171.87	513.8	0.74	4527.85
TA1_shp	2491.67	636983.8	6326430	1139.22	546.45	0.38	8644.06
TA1_shp	2491.67	636983.8	6326430	1103.42	582.25	0.1	16282.8
TA1_shp	2491.67	636983.8	6326430	1064.77	620.9	0.1	32727.96
TA1_shp	2491.67	636983.8	6326430	1023.62	662.05	0.1	67138.04
TA1_shp	2491.67	636983.8	6326430	978.52	707.15	0.1	111389.9
TA1_shp	2491.67	636983.8	6326430	929.87	755.8	0.1	160561.6
TA1_shp	2491.67	636983.8	6326430	878.07	807.6	0.1	133881.6
TA1_shp	2491.67	636983.8	6326430	821.27	864.4	0.1	92880.8
TA1_shp	2491.67	636983.8	6326430	760.02	925.65	0.1	42521.34
TA1_shp	2491.67	636983.8	6326430	695.17	990.5	0.1	8419.04
TA1_shp	2491.67	636983.8	6326430	623.67	1062	0.1	6645.34
TA1_shp	2508.33	636999.8	6326435	1678.1	9.73	0.86	8541.97
TA1_shp	2508.33	636999.8	6326435	1658.63	29.2	1.67	3905.06
TA1_shp	2508.33	636999.8	6326435	1639.16	48.67	2.58	1547.05
TA1_shp	2508.33	636999.8	6326435	1619.7	68.13	3.47	625.48
TA1_shp	2508.33	636999.8	6326435	1600.23	87.6	5.1	501.19
TA1_shp	2508.33	636999.8	6326435	1580.76	107.07	9.01	751.33
TA1_shp	2508.33	636999.8	6326435	1561.3	126.53	18	1256.18
TA1_shp	2508.33	636999.8	6326435	1541.83	146	31.94	1593.02
TA1_shp	2508.33	636999.8	6326435	1522.36	165.47	43.87	1384.59
TA1_shp	2508.33	636999.8	6326435	1502.9	184.93	51.14	901.04
TA1_shp	2508.33	636999.8	6326435	1483.43	204.4	52.03	554.46
TA1_shp	2508.33	636999.8	6326435	1463.96	223.87	47.9	345.68
TA1_shp	2508.33	636999.8	6326435	1444.5	243.33	39.96	234.92
TA1_shp	2508.33	636999.8	6326435	1425.03	262.8	28.66	195.01
TA1_shp	2508.33	636999.8	6326435	1405.56	282.27	19.64	182.4
TA1_shp	2508.33	636999.8	6326435	1385.83	302	12.12	185.49
TA1_shp	2508.33	636999.8	6326435	1365.83	322	8.69	211.67
TA1_shp	2508.33	636999.8	6326435	1345.83	342	6.28	254.01
TA1_shp	2508.33	636999.8	6326435	1325.83	362	4.96	313.53
TA1_shp	2508.33	636999.8	6326435	1305.83	382	4.13	410.85
TA1_shp	2508.33	636999.8	6326435	1283.73	404.1	3.43	536.77
TA1_shp	2508.33	636999.8	6326435	1259.18	428.65	2.89	804.67
TA1_shp	2508.33	636999.8	6326435	1233.23	454.6	2.36	1195.61
TA1_shp	2508.33	636999.8	6326435	1204.73	483.1	1.81	1913.74
TA1_shp	2508.33	636999.8	6326435	1174.03	513.8	1.27	3306.8
TA1_shp	2508.33	636999.8	6326435	1141.38	546.45	0.74	5524.92
TA1_shp	2508.33	636999.8	6326435	1105.58	582.25	0.32	10651.56
TA1_shp	2508.33	636999.8	6326435	1066.93	620.9	0.1	23307.57
TA1_shp	2508.33	636999.8	6326435	1025.78	662.05	0.1	46011.63
TA1_shp	2508.33	636999.8	6326435	980.68	707.15	0.1	87631.3
TA1_shp	2508.33	636999.8	6326435	932.03	755.8	0.1	136464.9

TA1_shp	2508.33	636999.8	6326435	880.23	807.6	0.1	142121
TA1_shp	2508.33	636999.8	6326435	823.43	864.4	0.1	109008.1
TA1_shp	2508.33	636999.8	6326435	762.18	925.65	0.1	58665.65
TA1_shp	2508.33	636999.8	6326435	697.33	990.5	0.1	9060.56
TA1_shp	2508.33	636999.8	6326435	625.83	1062	0.1	7250.63
TA1_shp	2525	637015.5	6326441	1681.77	9.73	0.78	3388.51
TA1_shp	2525	637015.5	6326441	1662.3	29.2	1.09	2817.71
TA1_shp	2525	637015.5	6326441	1642.83	48.67	1.63	1859.29
TA1_shp	2525	637015.5	6326441	1623.37	68.13	2.43	1192.58
TA1_shp	2525	637015.5	6326441	1603.9	87.6	4.06	1099.75
TA1_shp	2525	637015.5	6326441	1584.43	107.07	7.8	1438.15
TA1_shp	2525	637015.5	6326441	1564.97	126.53	16.29	1933.6
TA1_shp	2525	637015.5	6326441	1545.5	146	29.67	2064.36
TA1_shp	2525	637015.5	6326441	1526.03	165.47	41.61	1645.08
TA1_shp	2525	637015.5	6326441	1506.57	184.93	49.55	1047.52
TA1_shp	2525	637015.5	6326441	1487.1	204.4	51.59	642.66
TA1_shp	2525	637015.5	6326441	1467.63	223.87	48.94	401.35
TA1_shp	2525	637015.5	6326441	1448.17	243.33	42.66	271.57
TA1_shp	2525	637015.5	6326441	1428.7	262.8	33.03	222.25
TA1_shp	2525	637015.5	6326441	1409.23	282.27	24.2	203.61
TA1_shp	2525	637015.5	6326441	1389.5	302	16.14	202.49
TA1_shp	2525	637015.5	6326441	1369.5	322	11.81	226.88
TA1_shp	2525	637015.5	6326441	1349.5	342	8.67	267.23
TA1_shp	2525	637015.5	6326441	1329.5	362	6.79	324.56
TA1_shp	2525	637015.5	6326441	1309.5	382	5.58	419.19
TA1_shp	2525	637015.5	6326441	1287.4	404.1	4.56	541.9
TA1_shp	2525	637015.5	6326441	1262.85	428.65	3.78	804.4
TA1_shp	2525	637015.5	6326441	1236.9	454.6	3.02	1184
TA1_shp	2525	637015.5	6326441	1208.4	483.1	2.28	1872.58
TA1_shp	2525	637015.5	6326441	1177.7	513.8	1.6	3210.23
TA1_shp	2525	637015.5	6326441	1145.05	546.45	0.96	5339.88
TA1_shp	2525	637015.5	6326441	1109.25	582.25	0.47	10257.25
TA1_shp	2525	637015.5	6326441	1070.6	620.9	0.17	22278.16
TA1_shp	2525	637015.5	6326441	1029.45	662.05	0.1	43840.69
TA1_shp	2525	637015.5	6326441	984.35	707.15	0.1	83424.91
TA1_shp	2525	637015.5	6326441	935.7	755.8	0.1	132006.2
TA1_shp	2525	637015.5	6326441	883.9	807.6	0.1	139570.7
TA1_shp	2525	637015.5	6326441	827.1	864.4	0.1	108976.3
TA1_shp	2525	637015.5	6326441	765.85	925.65	0.1	58729.84
TA1_shp	2525	637015.5	6326441	701	990.5	0.1	9216.78
TA1_shp	2525	637015.5	6326441	629.5	1062	0.1	7371.19
TA1_shp	2541.67	637031.2	6326447	1685.44	9.73	1.22	1021.37
TA1_shp	2541.67	637031.2	6326447	1665.97	29.2	1.32	1677.86
TA1_shp	2541.67	637031.2	6326447	1646.5	48.67	1.5	1925.14
TA1_shp	2541.67	637031.2	6326447	1627.04	68.13	2.03	1845.63
TA1_shp	2541.67	637031.2	6326447	1607.57	87.6	3.4	1953.3
TA1_shp	2541.67	637031.2	6326447	1588.1	107.07	6.65	2343.21
TA1_shp	2541.67	637031.2	6326447	1568.64	126.53	14.03	2684.92
TA1_shp	2541.67	637031.2	6326447	1549.17	146	26.37	2515.01
TA1_shp	2541.67	637031.2	6326447	1529.7	165.47	38.04	1883.63
TA1_shp	2541.67	637031.2	6326447	1510.24	184.93	46.73	1189.65
TA1_shp	2541.67	637031.2	6326447	1490.77	204.4	50.12	736.1

TA1_shp	2541.67	637031.2	6326447	1471.3	223.87	49.26	464.81
TA1_shp	2541.67	637031.2	6326447	1451.84	243.33	45.08	314.6
TA1_shp	2541.67	637031.2	6326447	1432.37	262.8	37.62	255.17
TA1_shp	2541.67	637031.2	6326447	1412.9	282.27	29.72	229.64
TA1_shp	2541.67	637031.2	6326447	1393.17	302	21.85	223.45
TA1_shp	2541.67	637031.2	6326447	1373.17	322	16.49	245.74
TA1_shp	2541.67	637031.2	6326447	1353.17	342	12.42	283.82
TA1_shp	2541.67	637031.2	6326447	1333.17	362	9.71	338.7
TA1_shp	2541.67	637031.2	6326447	1313.17	382	7.89	430.65
TA1_shp	2541.67	637031.2	6326447	1291.07	404.1	6.31	550.27
TA1_shp	2541.67	637031.2	6326447	1266.52	428.65	5.1	805.52
TA1_shp	2541.67	637031.2	6326447	1240.57	454.6	3.96	1172.41
TA1_shp	2541.67	637031.2	6326447	1212.07	483.1	2.95	1832.66
TA1_shp	2541.67	637031.2	6326447	1181.37	513.8	2.06	3123.01
TA1_shp	2541.67	637031.2	6326447	1148.72	546.45	1.25	5174.37
TA1_shp	2541.67	637031.2	6326447	1112.92	582.25	0.64	9881.77
TA1_shp	2541.67	637031.2	6326447	1074.27	620.9	0.24	21269.76
TA1_shp	2541.67	637031.2	6326447	1033.12	662.05	0.1	41758.49
TA1_shp	2541.67	637031.2	6326447	988.02	707.15	0.1	79556.52
TA1_shp	2541.67	637031.2	6326447	939.37	755.8	0.1	127669
TA1_shp	2541.67	637031.2	6326447	887.57	807.6	0.1	136880.8
TA1_shp	2541.67	637031.2	6326447	830.77	864.4	0.1	108651.9
TA1_shp	2541.67	637031.2	6326447	769.52	925.65	0.1	58646.9
TA1_shp	2541.67	637031.2	6326447	704.67	990.5	0.1	9368.98
TA1_shp	2541.67	637031.2	6326447	633.17	1062	0.1	7488.66
TA1_shp	2558.33	637046.8	6326453	1689.1	9.73	5.43	3142.47
TA1_shp	2558.33	637046.8	6326453	1669.63	29.2	2.89	1998.01
TA1_shp	2558.33	637046.8	6326453	1650.16	48.67	1.88	2200.11
TA1_shp	2558.33	637046.8	6326453	1630.7	68.13	1.94	2514.97
TA1_shp	2558.33	637046.8	6326453	1611.23	87.6	2.93	2873.96
TA1_shp	2558.33	637046.8	6326453	1591.76	107.07	5.51	3251.31
TA1_shp	2558.33	637046.8	6326453	1572.3	126.53	11.46	3328.4
TA1_shp	2558.33	637046.8	6326453	1552.83	146	22.07	2856.2
TA1_shp	2558.33	637046.8	6326453	1533.36	165.47	33.49	2063.04
TA1_shp	2558.33	637046.8	6326453	1513.9	184.93	42.92	1310.1
TA1_shp	2558.33	637046.8	6326453	1494.43	204.4	47.81	826.42
TA1_shp	2558.33	637046.8	6326453	1474.96	223.87	48.96	533.62
TA1_shp	2558.33	637046.8	6326453	1455.5	243.33	47.11	366.12
TA1_shp	2558.33	637046.8	6326453	1436.03	262.8	42.1	295.91
TA1_shp	2558.33	637046.8	6326453	1416.56	282.27	35.85	263.09
TA1_shp	2558.33	637046.8	6326453	1396.83	302	29.06	251.46
TA1_shp	2558.33	637046.8	6326453	1376.83	322	23.03	270.4
TA1_shp	2558.33	637046.8	6326453	1356.83	342	18.07	305.8
TA1_shp	2558.33	637046.8	6326453	1336.83	362	14.22	358.71
TA1_shp	2558.33	637046.8	6326453	1316.83	382	11.5	448.35
TA1_shp	2558.33	637046.8	6326453	1294.73	404.1	9.03	565.26
TA1_shp	2558.33	637046.8	6326453	1270.18	428.65	7.1	811.86
TA1_shp	2558.33	637046.8	6326453	1244.23	454.6	5.33	1165.32
TA1_shp	2558.33	637046.8	6326453	1215.73	483.1	3.86	1799.5
TA1_shp	2558.33	637046.8	6326453	1185.03	513.8	2.65	3044.96
TA1_shp	2558.33	637046.8	6326453	1152.38	546.45	1.61	5021.05
TA1_shp	2558.33	637046.8	6326453	1116.58	582.25	0.86	9524.88

TA1_shp	2558.33	637046.8	6326453	1077.93	620.9	0.33	20339.78
TA1_shp	2558.33	637046.8	6326453	1036.78	662.05	0.1	39802.9
TA1_shp	2558.33	637046.8	6326453	991.68	707.15	0.1	75762.34
TA1_shp	2558.33	637046.8	6326453	943.03	755.8	0.1	123295.3
TA1_shp	2558.33	637046.8	6326453	891.23	807.6	0.1	134060.2
TA1_shp	2558.33	637046.8	6326453	834.43	864.4	0.1	108160.5
TA1_shp	2558.33	637046.8	6326453	773.18	925.65	0.1	58478.88
TA1_shp	2558.33	637046.8	6326453	708.33	990.5	0.1	9516.67
TA1_shp	2558.33	637046.8	6326453	636.83	1062	0.1	7602.67
TA1_shp	2575	637062.5	6326459	1692.77	9.73	7.83	3591.13
TA1_shp	2575	637062.5	6326459	1673.3	29.2	4.17	2113.81
TA1_shp	2575	637062.5	6326459	1653.83	48.67	2.22	2556.37
TA1_shp	2575	637062.5	6326459	1634.37	68.13	1.89	3283.77
TA1_shp	2575	637062.5	6326459	1614.9	87.6	2.53	3837.76
TA1_shp	2575	637062.5	6326459	1595.43	107.07	4.47	4034.7
TA1_shp	2575	637062.5	6326459	1575.97	126.53	8.94	3764.37
TA1_shp	2575	637062.5	6326459	1556.5	146	17.42	3031.75
TA1_shp	2575	637062.5	6326459	1537.03	165.47	28.26	2154.52
TA1_shp	2575	637062.5	6326459	1517.57	184.93	38.48	1395.84
TA1_shp	2575	637062.5	6326459	1498.1	204.4	45.01	907.18
TA1_shp	2575	637062.5	6326459	1478.63	223.87	48.27	604.31
TA1_shp	2575	637062.5	6326459	1459.17	243.33	48.8	424.43
TA1_shp	2575	637062.5	6326459	1439.7	262.8	46.19	343.39
TA1_shp	2575	637062.5	6326459	1420.23	282.27	42.03	303.39
TA1_shp	2575	637062.5	6326459	1400.5	302	36.99	286.35
TA1_shp	2575	637062.5	6326459	1380.5	322	31.1	301.17
TA1_shp	2575	637062.5	6326459	1360.5	342	25.67	333.18
TA1_shp	2575	637062.5	6326459	1340.5	362	20.71	383.47
TA1_shp	2575	637062.5	6326459	1320.5	382	16.79	469.02
TA1_shp	2575	637062.5	6326459	1298.4	404.1	12.98	580.69
TA1_shp	2575	637062.5	6326459	1273.85	428.65	9.96	815.93
TA1_shp	2575	637062.5	6326459	1247.9	454.6	7.2	1154.07
TA1_shp	2575	637062.5	6326459	1219.4	483.1	5.09	1763.22
TA1_shp	2575	637062.5	6326459	1188.7	513.8	3.42	2968.28
TA1_shp	2575	637062.5	6326459	1156.05	546.45	2.05	4875.35
TA1_shp	2575	637062.5	6326459	1120.25	582.25	1.11	9180.76
TA1_shp	2575	637062.5	6326459	1081.6	620.9	0.46	19422.06
TA1_shp	2575	637062.5	6326459	1040.45	662.05	0.1	37912.91
TA1_shp	2575	637062.5	6326459	995.35	707.15	0.1	72246.63
TA1_shp	2575	637062.5	6326459	946.7	755.8	0.1	119023.6
TA1_shp	2575	637062.5	6326459	894.9	807.6	0.1	131134.3
TA1_shp	2575	637062.5	6326459	838.1	864.4	0.1	107444.5
TA1_shp	2575	637062.5	6326459	776.85	925.65	0.1	58197.34
TA1_shp	2575	637062.5	6326459	712	990.5	0.1	9660.13
TA1_shp	2575	637062.5	6326459	640.5	1062	0.1	7713.4
TA1_shp	2591.67	637078.2	6326465	1696.44	9.73	24.61	252.67
TA1_shp	2591.67	637078.2	6326465	1676.97	29.2	10.58	884.81
TA1_shp	2591.67	637078.2	6326465	1657.5	48.67	4.39	1778.38
TA1_shp	2591.67	637078.2	6326465	1638.04	68.13	2.26	3261.15
TA1_shp	2591.67	637078.2	6326465	1618.57	87.6	1.79	4556.08
TA1_shp	2591.67	637078.2	6326465	1599.1	107.07	2.2	4999.06
TA1_shp	2591.67	637078.2	6326465	1579.64	126.53	3.62	4711.13

TA1_shp	2591.67	637078.2	6326465	1560.17	146	6.91	3997.84
TA1_shp	2591.67	637078.2	6326465	1540.7	165.47	13.36	3059.77
TA1_shp	2591.67	637078.2	6326465	1521.24	184.93	23.01	2160.66
TA1_shp	2591.67	637078.2	6326465	1501.77	204.4	34.02	1438.58
TA1_shp	2591.67	637078.2	6326465	1482.3	223.87	42.19	971.28
TA1_shp	2591.67	637078.2	6326465	1462.84	243.33	47.51	673.09
TA1_shp	2591.67	637078.2	6326465	1443.37	262.8	50.32	487.16
TA1_shp	2591.67	637078.2	6326465	1423.9	282.27	49.99	397.19
TA1_shp	2591.67	637078.2	6326465	1404.17	302	47.77	349.7
TA1_shp	2591.67	637078.2	6326465	1384.17	322	44.39	327.1
TA1_shp	2591.67	637078.2	6326465	1364.17	342	39.5	336.91
TA1_shp	2591.67	637078.2	6326465	1344.17	362	34.24	365.56
TA1_shp	2591.67	637078.2	6326465	1324.17	382	28.63	412.24
TA1_shp	2591.67	637078.2	6326465	1302.07	404.1	23.06	503.54
TA1_shp	2591.67	637078.2	6326465	1277.52	428.65	17.29	631.96
TA1_shp	2591.67	637078.2	6326465	1251.57	454.6	12.77	884.46
TA1_shp	2591.67	637078.2	6326465	1223.07	483.1	8.85	1333.75
TA1_shp	2591.67	637078.2	6326465	1192.37	513.8	5.59	2002.04
TA1_shp	2591.67	637078.2	6326465	1159.72	546.45	3.64	3510.85
TA1_shp	2591.67	637078.2	6326465	1123.92	582.25	2.07	6606.62
TA1_shp	2591.67	637078.2	6326465	1085.27	620.9	0.93	12570.49
TA1_shp	2591.67	637078.2	6326465	1044.12	662.05	0.28	25231.64
TA1_shp	2591.67	637078.2	6326465	999.02	707.15	0.1	54726.73
TA1_shp	2591.67	637078.2	6326465	950.37	755.8	0.1	95985.92
TA1_shp	2591.67	637078.2	6326465	898.57	807.6	0.1	132204.9
TA1_shp	2591.67	637078.2	6326465	841.77	864.4	0.1	120344.8
TA1_shp	2591.67	637078.2	6326465	780.52	925.65	0.1	73328.18
TA1_shp	2591.67	637078.2	6326465	715.67	990.5	0.1	21727.56
TA1_shp	2591.67	637078.2	6326465	644.17	1062	0.1	8359.34
TA1_shp	2608.33	637093.9	6326471	1701.1	9.73	19.48	137.43
TA1_shp	2608.33	637093.9	6326471	1681.63	29.2	10.1	759.48
TA1_shp	2608.33	637093.9	6326471	1662.16	48.67	4.27	2837.37
TA1_shp	2608.33	637093.9	6326471	1642.7	68.13	2.22	5667.01
TA1_shp	2608.33	637093.9	6326471	1623.23	87.6	1.69	6925.4
TA1_shp	2608.33	637093.9	6326471	1603.76	107.07	1.95	6332.9
TA1_shp	2608.33	637093.9	6326471	1584.3	126.53	3.02	5136.01
TA1_shp	2608.33	637093.9	6326471	1564.83	146	5.51	3950.36
TA1_shp	2608.33	637093.9	6326471	1545.36	165.47	10.46	2918.4
TA1_shp	2608.33	637093.9	6326471	1525.9	184.93	18.73	2085.01
TA1_shp	2608.33	637093.9	6326471	1506.43	204.4	30.13	1444.19
TA1_shp	2608.33	637093.9	6326471	1486.96	223.87	39.8	1021.27
TA1_shp	2608.33	637093.9	6326471	1467.5	243.33	47.03	740.78
TA1_shp	2608.33	637093.9	6326471	1448.03	262.8	51.91	556.11
TA1_shp	2608.33	637093.9	6326471	1428.56	282.27	53.66	458.17
TA1_shp	2608.33	637093.9	6326471	1408.83	302	53.17	403.6
TA1_shp	2608.33	637093.9	6326471	1388.83	322	51.3	374.33
TA1_shp	2608.33	637093.9	6326471	1368.83	342	47.43	377.84
TA1_shp	2608.33	637093.9	6326471	1348.83	362	42.73	400.76
TA1_shp	2608.33	637093.9	6326471	1328.83	382	37.22	442.24
TA1_shp	2608.33	637093.9	6326471	1306.73	404.1	30.82	527.17
TA1_shp	2608.33	637093.9	6326471	1282.18	428.65	23.72	648.27
TA1_shp	2608.33	637093.9	6326471	1256.23	454.6	17.42	893.1

TA1_shp	2608.33	637093.9	6326471	1227.73	483.1	11.89	1324.53
TA1_shp	2608.33	637093.9	6326471	1197.03	513.8	7.24	1964.17
TA1_shp	2608.33	637093.9	6326471	1164.38	546.45	4.63	3415.13
TA1_shp	2608.33	637093.9	6326471	1128.58	582.25	2.59	6372.06
TA1_shp	2608.33	637093.9	6326471	1089.93	620.9	1.18	12041.8
TA1_shp	2608.33	637093.9	6326471	1048.78	662.05	0.4	24030.62
TA1_shp	2608.33	637093.9	6326471	1003.68	707.15	0.11	52192.39
TA1_shp	2608.33	637093.9	6326471	955.03	755.8	0.1	92232.4
TA1_shp	2608.33	637093.9	6326471	903.23	807.6	0.1	128261.5
TA1_shp	2608.33	637093.9	6326471	846.43	864.4	0.1	118987.4
TA1_shp	2608.33	637093.9	6326471	785.18	925.65	0.1	72679.09
TA1_shp	2608.33	637093.9	6326471	720.33	990.5	0.1	21717.72
TA1_shp	2608.33	637093.9	6326471	648.83	1062	0.1	8471.42
TA1_shp	2625	637109.8	6326478	1706.77	9.73	13.19	953.85
TA1_shp	2625	637109.8	6326478	1687.3	29.2	8.3	3163.52
TA1_shp	2625	637109.8	6326478	1667.83	48.67	3.95	8005.7
TA1_shp	2625	637109.8	6326478	1648.37	68.13	2.15	11268.34
TA1_shp	2625	637109.8	6326478	1628.9	87.6	1.62	10061.12
TA1_shp	2625	637109.8	6326478	1609.43	107.07	1.79	7204.19
TA1_shp	2625	637109.8	6326478	1589.97	126.53	2.65	5019.88
TA1_shp	2625	637109.8	6326478	1570.5	146	4.64	3570.41
TA1_shp	2625	637109.8	6326478	1551.03	165.47	8.7	2623.95
TA1_shp	2625	637109.8	6326478	1531.57	184.93	15.89	1939
TA1_shp	2625	637109.8	6326478	1512.1	204.4	27.35	1422.8
TA1_shp	2625	637109.8	6326478	1492.63	223.87	38.21	1063.61
TA1_shp	2625	637109.8	6326478	1473.17	243.33	47.09	810.2
TA1_shp	2625	637109.8	6326478	1453.7	262.8	53.74	632.22
TA1_shp	2625	637109.8	6326478	1434.23	282.27	57.25	528.12
TA1_shp	2625	637109.8	6326478	1414.5	302	58.28	466.21
TA1_shp	2625	637109.8	6326478	1394.5	322	57.74	429.01
TA1_shp	2625	637109.8	6326478	1374.5	342	54.65	424.66
TA1_shp	2625	637109.8	6326478	1354.5	362	50.47	440.31
TA1_shp	2625	637109.8	6326478	1334.5	382	45.26	475.09
TA1_shp	2625	637109.8	6326478	1312.4	404.1	38.58	552.11
TA1_shp	2625	637109.8	6326478	1287.85	428.65	30.84	663.96
TA1_shp	2625	637109.8	6326478	1261.9	454.6	22.83	896.18
TA1_shp	2625	637109.8	6326478	1233.4	483.1	15.59	1310.29
TA1_shp	2625	637109.8	6326478	1202.7	513.8	9.29	1927.04
TA1_shp	2625	637109.8	6326478	1170.05	546.45	5.83	3325.8
TA1_shp	2625	637109.8	6326478	1134.25	582.25	3.19	6138.29
TA1_shp	2625	637109.8	6326478	1095.6	620.9	1.45	11521.78
TA1_shp	2625	637109.8	6326478	1054.45	662.05	0.53	22939.92
TA1_shp	2625	637109.8	6326478	1009.35	707.15	0.15	49781.56
TA1_shp	2625	637109.8	6326478	960.7	755.8	0.1	88586.61
TA1_shp	2625	637109.8	6326478	908.9	807.6	0.1	124367.7
TA1_shp	2625	637109.8	6326478	852.1	864.4	0.1	117493.4
TA1_shp	2625	637109.8	6326478	790.85	925.65	0.1	71943.2
TA1_shp	2625	637109.8	6326478	726	990.5	0.1	21687.12
TA1_shp	2625	637109.8	6326478	654.5	1062	0.1	8578.83
TA1_shp	2641.67	637125.6	6326484	1712.44	9.73	10.9	4940.74
TA1_shp	2641.67	637125.6	6326484	1692.97	29.2	7.15	12190.16
TA1_shp	2641.67	637125.6	6326484	1673.5	48.67	3.66	18629.91

TA1_shp	2641.67	637125.6	6326484	1654.04	68.13	2.11	17051.03
TA1_shp	2641.67	637125.6	6326484	1634.57	87.6	1.62	11222.25
TA1_shp	2641.67	637125.6	6326484	1615.1	107.07	1.76	6704.41
TA1_shp	2641.67	637125.6	6326484	1595.64	126.53	2.52	4303.75
TA1_shp	2641.67	637125.6	6326484	1576.17	146	4.28	3017.75
TA1_shp	2641.67	637125.6	6326484	1556.7	165.47	7.86	2282.09
TA1_shp	2641.67	637125.6	6326484	1537.24	184.93	14.46	1791.31
TA1_shp	2641.67	637125.6	6326484	1517.77	204.4	25.84	1401.71
TA1_shp	2641.67	637125.6	6326484	1498.3	223.87	37.59	1113.57
TA1_shp	2641.67	637125.6	6326484	1478.84	243.33	47.76	892.97
TA1_shp	2641.67	637125.6	6326484	1459.37	262.8	55.79	721.58
TA1_shp	2641.67	637125.6	6326484	1439.9	282.27	60.77	610.56
TA1_shp	2641.67	637125.6	6326484	1420.17	302	63.03	538.69
TA1_shp	2641.67	637125.6	6326484	1400.17	322	63.55	490.38
TA1_shp	2641.67	637125.6	6326484	1380.17	342	61.13	476.93
TA1_shp	2641.67	637125.6	6326484	1360.17	362	57.36	483.4
TA1_shp	2641.67	637125.6	6326484	1340.17	382	52.32	508.93
TA1_shp	2641.67	637125.6	6326484	1318.07	404.1	45.61	577.5
TA1_shp	2641.67	637125.6	6326484	1293.52	428.65	37.65	680.58
TA1_shp	2641.67	637125.6	6326484	1267.57	454.6	28.5	903.21
TA1_shp	2641.67	637125.6	6326484	1239.07	483.1	19.77	1299.98
TA1_shp	2641.67	637125.6	6326484	1208.37	513.8	11.7	1890.58
TA1_shp	2641.67	637125.6	6326484	1175.72	546.45	7.22	3225.24
TA1_shp	2641.67	637125.6	6326484	1139.92	582.25	3.89	5904.92
TA1_shp	2641.67	637125.6	6326484	1101.27	620.9	1.77	11025.33
TA1_shp	2641.67	637125.6	6326484	1060.12	662.05	0.68	21865.05
TA1_shp	2641.67	637125.6	6326484	1015.02	707.15	0.19	47529.23
TA1_shp	2641.67	637125.6	6326484	966.37	755.8	0.1	85130.84
TA1_shp	2641.67	637125.6	6326484	914.57	807.6	0.1	120526.1
TA1_shp	2641.67	637125.6	6326484	857.77	864.4	0.1	115855.1
TA1_shp	2641.67	637125.6	6326484	796.52	925.65	0.1	71115.68
TA1_shp	2641.67	637125.6	6326484	731.67	990.5	0.1	21634.81
TA1_shp	2641.67	637125.6	6326484	660.17	1062	0.1	8681.54
TA1_shp	2658.33	637141.4	6326490	1718.1	9.73	8.57	4760.43
TA1_shp	2658.33	637141.4	6326490	1698.63	29.2	9.09	6505.59
TA1_shp	2658.33	637141.4	6326490	1679.16	48.67	6.06	14983.88
TA1_shp	2658.33	637141.4	6326490	1659.7	68.13	3.46	19238.02
TA1_shp	2658.33	637141.4	6326490	1640.23	87.6	2.17	14619.07
TA1_shp	2658.33	637141.4	6326490	1620.76	107.07	1.74	8645.58
TA1_shp	2658.33	637141.4	6326490	1601.3	126.53	1.88	5031.88
TA1_shp	2658.33	637141.4	6326490	1581.83	146	2.63	3312.79
TA1_shp	2658.33	637141.4	6326490	1562.36	165.47	4.31	2474.33
TA1_shp	2658.33	637141.4	6326490	1542.9	184.93	7.76	2008.34
TA1_shp	2658.33	637141.4	6326490	1523.43	204.4	14.21	1709.51
TA1_shp	2658.33	637141.4	6326490	1503.96	223.87	25.71	1431.2
TA1_shp	2658.33	637141.4	6326490	1484.5	243.33	38.04	1199.64
TA1_shp	2658.33	637141.4	6326490	1465.03	262.8	49.06	1001.85
TA1_shp	2658.33	637141.4	6326490	1445.56	282.27	58.06	831.74
TA1_shp	2658.33	637141.4	6326490	1425.83	302	64.14	708.16
TA1_shp	2658.33	637141.4	6326490	1405.83	322	67.26	622.37
TA1_shp	2658.33	637141.4	6326490	1385.83	342	68.46	560.6
TA1_shp	2658.33	637141.4	6326490	1365.83	362	66.59	535.4

TA1_shp	2658.33	637141.4	6326490	1345.83	382	63.11	531.39
TA1_shp	2658.33	637141.4	6326490	1323.73	404.1	57.72	547.1
TA1_shp	2658.33	637141.4	6326490	1299.18	428.65	49.93	623.94
TA1_shp	2658.33	637141.4	6326490	1273.23	454.6	41.05	753.47
TA1_shp	2658.33	637141.4	6326490	1244.73	483.1	30.48	979.38
TA1_shp	2658.33	637141.4	6326490	1214.03	513.8	20.43	1478.55
TA1_shp	2658.33	637141.4	6326490	1181.38	546.45	12.1	2362
TA1_shp	2658.33	637141.4	6326490	1145.58	582.25	6.12	3852.25
TA1_shp	2658.33	637141.4	6326490	1106.93	620.9	3.21	7464.32
TA1_shp	2658.33	637141.4	6326490	1065.78	662.05	1.43	16000.39
TA1_shp	2658.33	637141.4	6326490	1020.68	707.15	0.43	33655.96
TA1_shp	2658.33	637141.4	6326490	972.03	755.8	0.1	64508.32
TA1_shp	2658.33	637141.4	6326490	920.23	807.6	0.1	110437.9
TA1_shp	2658.33	637141.4	6326490	863.43	864.4	0.1	115000.7
TA1_shp	2658.33	637141.4	6326490	802.18	925.65	0.1	84821.76
TA1_shp	2658.33	637141.4	6326490	737.33	990.5	0.1	36170.53
TA1_shp	2658.33	637141.4	6326490	665.83	1062	0.1	9349.18
TA1_shp	2675	637157.3	6326497	1723.77	9.73	7.05	4066.89
TA1_shp	2675	637157.3	6326497	1704.3	29.2	7.28	5800.23
TA1_shp	2675	637157.3	6326497	1684.83	48.67	5.45	10706.48
TA1_shp	2675	637157.3	6326497	1665.37	68.13	3.5	11835.87
TA1_shp	2675	637157.3	6326497	1645.9	87.6	2.4	8551.98
TA1_shp	2675	637157.3	6326497	1626.43	107.07	2.03	5302.09
TA1_shp	2675	637157.3	6326497	1606.97	126.53	2.21	3407.98
TA1_shp	2675	637157.3	6326497	1587.5	146	3.02	2508.55
TA1_shp	2675	637157.3	6326497	1568.03	165.47	4.8	2093.9
TA1_shp	2675	637157.3	6326497	1548.57	184.93	8.36	1877.12
TA1_shp	2675	637157.3	6326497	1529.1	204.4	15.04	1726.04
TA1_shp	2675	637157.3	6326497	1509.63	223.87	26.91	1548.76
TA1_shp	2675	637157.3	6326497	1490.17	243.33	39.48	1355.88
TA1_shp	2675	637157.3	6326497	1470.7	262.8	50.81	1165.21
TA1_shp	2675	637157.3	6326497	1451.23	282.27	60.29	986.5
TA1_shp	2675	637157.3	6326497	1431.5	302	66.96	835.91
TA1_shp	2675	637157.3	6326497	1411.5	322	70.66	727.96
TA1_shp	2675	637157.3	6326497	1391.5	342	72.42	646.29
TA1_shp	2675	637157.3	6326497	1371.5	362	70.96	601.67
TA1_shp	2675	637157.3	6326497	1351.5	382	67.78	582.62
TA1_shp	2675	637157.3	6326497	1329.4	404.1	62.63	585.89
TA1_shp	2675	637157.3	6326497	1304.85	428.65	54.83	649.84
TA1_shp	2675	637157.3	6326497	1278.9	454.6	45.85	763.94
TA1_shp	2675	637157.3	6326497	1250.4	483.1	35.09	968.8
TA1_shp	2675	637157.3	6326497	1219.7	513.8	23.95	1448.15
TA1_shp	2675	637157.3	6326497	1187.05	546.45	14.4	2293.62
TA1_shp	2675	637157.3	6326497	1151.25	582.25	7.19	3714.48
TA1_shp	2675	637157.3	6326497	1112.6	620.9	3.75	7162.33
TA1_shp	2675	637157.3	6326497	1071.45	662.05	1.68	15300.08
TA1_shp	2675	637157.3	6326497	1026.35	707.15	0.51	32171.4
TA1_shp	2675	637157.3	6326497	977.7	755.8	0.1	61783.65
TA1_shp	2675	637157.3	6326497	925.9	807.6	0.1	106549.5
TA1_shp	2675	637157.3	6326497	869.1	864.4	0.1	112502.4
TA1_shp	2675	637157.3	6326497	807.85	925.65	0.1	83571.3
TA1_shp	2675	637157.3	6326497	743	990.5	0.1	35812.68

TA1_shp	2675	637157.3	6326497	671.5	1062	0.1	9450.09
TA1_shp	2691.67	637173.1	6326503	1729.44	9.73	6.23	3528.76
TA1_shp	2691.67	637173.1	6326503	1709.97	29.2	6.9	4612.33
TA1_shp	2691.67	637173.1	6326503	1690.5	48.67	5.53	6385.08
TA1_shp	2691.67	637173.1	6326503	1671.04	68.13	3.87	6122.09
TA1_shp	2691.67	637173.1	6326503	1651.57	87.6	2.87	4528.06
TA1_shp	2691.67	637173.1	6326503	1632.1	107.07	2.54	3181.72
TA1_shp	2691.67	637173.1	6326503	1612.64	126.53	2.78	2404.31
TA1_shp	2691.67	637173.1	6326503	1593.17	146	3.71	2058.51
TA1_shp	2691.67	637173.1	6326503	1573.7	165.47	5.72	1948.93
TA1_shp	2691.67	637173.1	6326503	1554.24	184.93	9.67	1927.88
TA1_shp	2691.67	637173.1	6326503	1534.77	204.4	16.85	1893.07
TA1_shp	2691.67	637173.1	6326503	1515.3	223.87	29.07	1780.15
TA1_shp	2691.67	637173.1	6326503	1495.84	243.33	41.47	1601.53
TA1_shp	2691.67	637173.1	6326503	1476.37	262.8	52.63	1394.9
TA1_shp	2691.67	637173.1	6326503	1456.9	282.27	62.14	1183.57
TA1_shp	2691.67	637173.1	6326503	1437.17	302	69.04	996.98
TA1_shp	2691.67	637173.1	6326503	1417.17	322	73.04	853.93
TA1_shp	2691.67	637173.1	6326503	1397.17	342	75.13	739.85
TA1_shp	2691.67	637173.1	6326503	1377.17	362	74.03	673
TA1_shp	2691.67	637173.1	6326503	1357.17	382	71.13	635.1
TA1_shp	2691.67	637173.1	6326503	1335.07	404.1	66.23	620.74
TA1_shp	2691.67	637173.1	6326503	1310.52	428.65	58.55	668.08
TA1_shp	2691.67	637173.1	6326503	1284.57	454.6	49.62	767.01
TA1_shp	2691.67	637173.1	6326503	1256.07	483.1	38.78	959.33
TA1_shp	2691.67	637173.1	6326503	1225.37	513.8	27.03	1418.55
TA1_shp	2691.67	637173.1	6326503	1192.72	546.45	16.62	2224.01
TA1_shp	2691.67	637173.1	6326503	1156.92	582.25	8.29	3573.32
TA1_shp	2691.67	637173.1	6326503	1118.27	620.9	4.31	6865.73
TA1_shp	2691.67	637173.1	6326503	1077.12	662.05	1.93	14664.85
TA1_shp	2691.67	637173.1	6326503	1032.02	707.15	0.6	30809.31
TA1_shp	2691.67	637173.1	6326503	983.37	755.8	0.1	59188.63
TA1_shp	2691.67	637173.1	6326503	931.57	807.6	0.1	102740.5
TA1_shp	2691.67	637173.1	6326503	874.77	864.4	0.1	109970.4
TA1_shp	2691.67	637173.1	6326503	813.52	925.65	0.1	82260.07
TA1_shp	2691.67	637173.1	6326503	748.67	990.5	0.1	35429.29
TA1_shp	2691.67	637173.1	6326503	677.17	1062	0.1	9544.9
TA1_shp	2708.33	637189.2	6326510	1738.77	9.73	6.94	3087.48
TA1_shp	2708.33	637189.2	6326510	1719.3	29.2	7.24	2129.42
TA1_shp	2708.33	637189.2	6326510	1699.83	48.67	7.2	2860.03
TA1_shp	2708.33	637189.2	6326510	1680.37	68.13	5.94	3461.09
TA1_shp	2708.33	637189.2	6326510	1660.9	87.6	4.5	3211.81
TA1_shp	2708.33	637189.2	6326510	1641.43	107.07	3.6	2634.09
TA1_shp	2708.33	637189.2	6326510	1621.97	126.53	3.32	2193.7
TA1_shp	2708.33	637189.2	6326510	1602.5	146	3.65	1994.8
TA1_shp	2708.33	637189.2	6326510	1583.03	165.47	4.74	1981.21
TA1_shp	2708.33	637189.2	6326510	1563.57	184.93	7.07	2091.55
TA1_shp	2708.33	637189.2	6326510	1544.1	204.4	11.51	2220.1
TA1_shp	2708.33	637189.2	6326510	1524.63	223.87	19.23	2268.01
TA1_shp	2708.33	637189.2	6326510	1505.17	243.33	31.54	2172.12
TA1_shp	2708.33	637189.2	6326510	1485.7	262.8	43.44	1967.42
TA1_shp	2708.33	637189.2	6326510	1466.23	282.27	54.09	1707.08

TA1_shp	2708.33	637189.2	6326510	1446.5	302	63.41	1423.75
TA1_shp	2708.33	637189.2	6326510	1426.5	322	70.32	1174.78
TA1_shp	2708.33	637189.2	6326510	1406.5	342	74.3	983.85
TA1_shp	2708.33	637189.2	6326510	1386.5	362	76.48	829.33
TA1_shp	2708.33	637189.2	6326510	1366.5	382	75.64	736.64
TA1_shp	2708.33	637189.2	6326510	1344.4	404.1	72.51	674.69
TA1_shp	2708.33	637189.2	6326510	1319.85	428.65	67.19	642.47
TA1_shp	2708.33	637189.2	6326510	1293.9	454.6	59	690.01
TA1_shp	2708.33	637189.2	6326510	1265.4	483.1	48.88	822.5
TA1_shp	2708.33	637189.2	6326510	1234.7	513.8	37.18	1084.18
TA1_shp	2708.33	637189.2	6326510	1202.05	546.45	24.42	1586.72
TA1_shp	2708.33	637189.2	6326510	1166.25	582.25	14.29	2703.73
TA1_shp	2708.33	637189.2	6326510	1127.6	620.9	7.13	5011.23
TA1_shp	2708.33	637189.2	6326510	1086.45	662.05	3.05	9787.57
TA1_shp	2708.33	637189.2	6326510	1041.35	707.15	1.03	19706.65
TA1_shp	2708.33	637189.2	6326510	992.7	755.8	0.26	44941.34
TA1_shp	2708.33	637189.2	6326510	940.9	807.6	0.1	83217.61
TA1_shp	2708.33	637189.2	6326510	884.1	864.4	0.1	106632.7
TA1_shp	2708.33	637189.2	6326510	822.85	925.65	0.1	94623.09
TA1_shp	2708.33	637189.2	6326510	758	990.5	0.1	48769.93
TA1_shp	2708.33	637189.2	6326510	686.5	1062	0.1	10220.92
TA1_shp	2725	637205.5	6326517	1751.77	9.73	4.6	4290.96
TA1_shp	2725	637205.5	6326517	1732.3	29.2	5.65	2070.56
TA1_shp	2725	637205.5	6326517	1712.83	48.67	6.48	1994.03
TA1_shp	2725	637205.5	6326517	1693.37	68.13	6.15	2100.06
TA1_shp	2725	637205.5	6326517	1673.9	87.6	5.26	2036.87
TA1_shp	2725	637205.5	6326517	1654.43	107.07	4.58	1929.58
TA1_shp	2725	637205.5	6326517	1634.97	126.53	4.39	1917.23
TA1_shp	2725	637205.5	6326517	1615.5	146	4.83	2038.51
TA1_shp	2725	637205.5	6326517	1596.03	165.47	6.16	2283.03
TA1_shp	2725	637205.5	6326517	1576.57	184.93	8.81	2577.13
TA1_shp	2725	637205.5	6326517	1557.1	204.4	13.71	2829.53
TA1_shp	2725	637205.5	6326517	1537.63	223.87	21.74	2913.4
TA1_shp	2725	637205.5	6326517	1518.17	243.33	33.65	2767.6
TA1_shp	2725	637205.5	6326517	1498.7	262.8	44.84	2466.03
TA1_shp	2725	637205.5	6326517	1479.23	282.27	54.8	2097.96
TA1_shp	2725	637205.5	6326517	1459.5	302	63.6	1710.37
TA1_shp	2725	637205.5	6326517	1439.5	322	70.28	1371.68
TA1_shp	2725	637205.5	6326517	1419.5	342	74.23	1119.97
TA1_shp	2725	637205.5	6326517	1399.5	362	76.48	918.72
TA1_shp	2725	637205.5	6326517	1379.5	382	75.89	793.31
TA1_shp	2725	637205.5	6326517	1357.4	404.1	73.11	707.75
TA1_shp	2725	637205.5	6326517	1332.85	428.65	68.23	658.91
TA1_shp	2725	637205.5	6326517	1306.9	454.6	60.42	694.67
TA1_shp	2725	637205.5	6326517	1278.4	483.1	50.62	815.53
TA1_shp	2725	637205.5	6326517	1247.7	513.8	39.14	1062.99
TA1_shp	2725	637205.5	6326517	1215.05	546.45	26.4	1542.1
TA1_shp	2725	637205.5	6326517	1179.25	582.25	15.66	2608.09
TA1_shp	2725	637205.5	6326517	1140.6	620.9	7.88	4826.35
TA1_shp	2725	637205.5	6326517	1099.45	662.05	3.37	9423.81
TA1_shp	2725	637205.5	6326517	1054.35	707.15	1.14	18957.68
TA1_shp	2725	637205.5	6326517	1005.7	755.8	0.31	43110.7

TA1_shp	2725	637205.5	6326517	953.9	807.6	0.1	80179.49
TA1_shp	2725	637205.5	6326517	897.1	864.4	0.1	103644.8
TA1_shp	2725	637205.5	6326517	835.85	925.65	0.1	92905.34
TA1_shp	2725	637205.5	6326517	771	990.5	0.1	48042.33
TA1_shp	2725	637205.5	6326517	699.5	1062	0.1	10308.96
TA1_shp	2741.67	637221.8	6326525	1764.77	9.73	3.21	19619.38
TA1_shp	2741.67	637221.8	6326525	1745.3	29.2	3.78	6196.94
TA1_shp	2741.67	637221.8	6326525	1725.83	48.67	4.86	2417.93
TA1_shp	2741.67	637221.8	6326525	1706.37	68.13	6.05	1805.07
TA1_shp	2741.67	637221.8	6326525	1686.9	87.6	6.48	1727.31
TA1_shp	2741.67	637221.8	6326525	1667.43	107.07	6.19	1765.12
TA1_shp	2741.67	637221.8	6326525	1647.97	126.53	5.8	1903.55
TA1_shp	2741.67	637221.8	6326525	1628.5	146	5.74	2158.67
TA1_shp	2741.67	637221.8	6326525	1609.03	165.47	6.31	2554.66
TA1_shp	2741.67	637221.8	6326525	1589.57	184.93	7.81	3038.18
TA1_shp	2741.67	637221.8	6326525	1570.1	204.4	10.75	3515.15
TA1_shp	2741.67	637221.8	6326525	1550.63	223.87	15.89	3838.11
TA1_shp	2741.67	637221.8	6326525	1531.17	243.33	23.84	3884.4
TA1_shp	2741.67	637221.8	6326525	1511.7	262.8	34.95	3576.63
TA1_shp	2741.67	637221.8	6326525	1492.23	282.27	45.25	3091.58
TA1_shp	2741.67	637221.8	6326525	1472.5	302	54.58	2542.99
TA1_shp	2741.67	637221.8	6326525	1452.5	322	62.86	1997.64
TA1_shp	2741.67	637221.8	6326525	1432.5	342	69.17	1550.64
TA1_shp	2741.67	637221.8	6326525	1412.5	362	72.95	1234.74
TA1_shp	2741.67	637221.8	6326525	1392.5	382	75.17	987.04
TA1_shp	2741.67	637221.8	6326525	1370.4	404.1	74.8	814.91
TA1_shp	2741.67	637221.8	6326525	1345.85	428.65	71.59	714.47
TA1_shp	2741.67	637221.8	6326525	1319.9	454.6	66.25	673.08
TA1_shp	2741.67	637221.8	6326525	1291.4	483.1	58.23	700.93
TA1_shp	2741.67	637221.8	6326525	1260.7	513.8	47.46	865.34
TA1_shp	2741.67	637221.8	6326525	1228.05	546.45	35.31	1221.87
TA1_shp	2741.67	637221.8	6326525	1192.25	582.25	22.59	1916.55
TA1_shp	2741.67	637221.8	6326525	1153.6	620.9	11.28	3176.68
TA1_shp	2741.67	637221.8	6326525	1112.45	662.05	5.49	6324.05
TA1_shp	2741.67	637221.8	6326525	1067.35	707.15	2.29	14296.68
TA1_shp	2741.67	637221.8	6326525	1018.7	755.8	0.7	31974.89
TA1_shp	2741.67	637221.8	6326525	966.9	807.6	0.1	62309.98
TA1_shp	2741.67	637221.8	6326525	910.1	864.4	0.1	99101.26
TA1_shp	2741.67	637221.8	6326525	848.85	925.65	0.1	104221.2
TA1_shp	2741.67	637221.8	6326525	784	990.5	0.1	60442.55
TA1_shp	2741.67	637221.8	6326525	712.5	1062	0.1	12107.66
TA1_shp	2758.33	637238.2	6326532	1777.77	9.73	7.59	12730.49
TA1_shp	2758.33	637238.2	6326532	1758.3	29.2	5.2	13003.12
TA1_shp	2758.33	637238.2	6326532	1738.83	48.67	4.88	6469.94
TA1_shp	2758.33	637238.2	6326532	1719.37	68.13	5.51	3138.87
TA1_shp	2758.33	637238.2	6326532	1699.9	87.6	6.56	2203.75
TA1_shp	2758.33	637238.2	6326532	1680.43	107.07	7.24	1998.47
TA1_shp	2758.33	637238.2	6326532	1660.97	126.53	7.35	2107.25
TA1_shp	2758.33	637238.2	6326532	1641.5	146	7.2	2433.15
TA1_shp	2758.33	637238.2	6326532	1622.03	165.47	7.27	2955.01
TA1_shp	2758.33	637238.2	6326532	1602.57	184.93	7.91	3642.13
TA1_shp	2758.33	637238.2	6326532	1583.1	204.4	9.47	4395.83

TA1_shp	2758.33	637238.2	6326532	1563.63	223.87	12.41	5010.39
TA1_shp	2758.33	637238.2	6326532	1544.17	243.33	17.42	5304.53
TA1_shp	2758.33	637238.2	6326532	1524.7	262.8	24.83	5155.57
TA1_shp	2758.33	637238.2	6326532	1505.23	282.27	34.95	4544.34
TA1_shp	2758.33	637238.2	6326532	1485.5	302	44.53	3756.44
TA1_shp	2758.33	637238.2	6326532	1465.5	322	53.24	2960.26
TA1_shp	2758.33	637238.2	6326532	1445.5	342	60.88	2244.5
TA1_shp	2758.33	637238.2	6326532	1425.5	362	66.85	1684.17
TA1_shp	2758.33	637238.2	6326532	1405.5	382	70.48	1310.28
TA1_shp	2758.33	637238.2	6326532	1383.4	404.1	72.7	1005.21
TA1_shp	2758.33	637238.2	6326532	1358.85	428.65	72.66	787.53
TA1_shp	2758.33	637238.2	6326532	1332.9	454.6	69.06	696.47
TA1_shp	2758.33	637238.2	6326532	1304.4	483.1	62.93	672.65
TA1_shp	2758.33	637238.2	6326532	1273.7	513.8	54.25	739.3
TA1_shp	2758.33	637238.2	6326532	1241.05	546.45	43.27	925.63
TA1_shp	2758.33	637238.2	6326532	1205.25	582.25	30.02	1408.54
TA1_shp	2758.33	637238.2	6326532	1166.6	620.9	17.73	2436.18
TA1_shp	2758.33	637238.2	6326532	1125.45	662.05	8.78	4690.4
TA1_shp	2758.33	637238.2	6326532	1080.35	707.15	3.55	10017.9
TA1_shp	2758.33	637238.2	6326532	1031.7	755.8	1.12	21735.26
TA1_shp	2758.33	637238.2	6326532	979.9	807.6	0.17	45829.37
TA1_shp	2758.33	637238.2	6326532	923.1	864.4	0.1	87916.27
TA1_shp	2758.33	637238.2	6326532	861.85	925.65	0.1	100117.3
TA1_shp	2758.33	637238.2	6326532	797	990.5	0.1	72196.79
TA1_shp	2758.33	637238.2	6326532	725.5	1062	0.1	25008.28
TA1_shp	2775	637254.5	6326539	1790.77	9.73	6.52	7167.69
TA1_shp	2775	637254.5	6326539	1771.3	29.2	7.05	10038.94
TA1_shp	2775	637254.5	6326539	1751.83	48.67	6.76	7242.18
TA1_shp	2775	637254.5	6326539	1732.37	68.13	7.04	4376.06
TA1_shp	2775	637254.5	6326539	1712.9	87.6	7.79	3164.63
TA1_shp	2775	637254.5	6326539	1693.43	107.07	8.46	2856.99
TA1_shp	2775	637254.5	6326539	1673.97	126.53	8.69	3042.88
TA1_shp	2775	637254.5	6326539	1654.5	146	8.65	3600.55
TA1_shp	2775	637254.5	6326539	1635.03	165.47	8.74	4444.05
TA1_shp	2775	637254.5	6326539	1615.57	184.93	9.33	5470.76
TA1_shp	2775	637254.5	6326539	1596.1	204.4	10.77	6444.56
TA1_shp	2775	637254.5	6326539	1576.63	223.87	13.49	7074.92
TA1_shp	2775	637254.5	6326539	1557.17	243.33	17.97	7106.99
TA1_shp	2775	637254.5	6326539	1537.7	262.8	24.55	6556.04
TA1_shp	2775	637254.5	6326539	1518.23	282.27	33.59	5488.85
TA1_shp	2775	637254.5	6326539	1498.5	302	42.34	4340.04
TA1_shp	2775	637254.5	6326539	1478.5	322	50.41	3283.93
TA1_shp	2775	637254.5	6326539	1458.5	342	57.55	2398.14
TA1_shp	2775	637254.5	6326539	1438.5	362	63.29	1754.79
TA1_shp	2775	637254.5	6326539	1418.5	382	66.9	1337.69
TA1_shp	2775	637254.5	6326539	1396.4	404.1	69.29	1005.62
TA1_shp	2775	637254.5	6326539	1371.85	428.65	69.69	778.38
TA1_shp	2775	637254.5	6326539	1345.9	454.6	66.77	682.28
TA1_shp	2775	637254.5	6326539	1317.4	483.1	61.39	656.42
TA1_shp	2775	637254.5	6326539	1286.7	513.8	53.49	722.25
TA1_shp	2775	637254.5	6326539	1254.05	546.45	43.24	905.36
TA1_shp	2775	637254.5	6326539	1218.25	582.25	30.57	1371.6

TA1_shp	2775	637254.5	6326539	1179.6	620.9	18.35	2372.39
TA1_shp	2775	637254.5	6326539	1138.45	662.05	9.2	4567.3
TA1_shp	2775	637254.5	6326539	1093.35	707.15	3.74	9717.15
TA1_shp	2775	637254.5	6326539	1044.7	755.8	1.19	20989.38
TA1_shp	2775	637254.5	6326539	992.9	807.6	0.2	44158.59
TA1_shp	2775	637254.5	6326539	936.1	864.4	0.1	84940.95
TA1_shp	2775	637254.5	6326539	874.85	925.65	0.1	97641.72
TA1_shp	2775	637254.5	6326539	810	990.5	0.1	70738.33
TA1_shp	2775	637254.5	6326539	738.5	1062	0.1	24730.82
TA1_shp	2791.67	637270.8	6326547	1803.77	9.73	2.98	438.49
TA1_shp	2791.67	637270.8	6326547	1784.3	29.2	5.85	3168.1
TA1_shp	2791.67	637270.8	6326547	1764.83	48.67	8.07	6960.63
TA1_shp	2791.67	637270.8	6326547	1745.37	68.13	8.54	6942.32
TA1_shp	2791.67	637270.8	6326547	1725.9	87.6	8.79	5358.48
TA1_shp	2791.67	637270.8	6326547	1706.43	107.07	9.33	4396.85
TA1_shp	2791.67	637270.8	6326547	1686.97	126.53	9.8	4182.6
TA1_shp	2791.67	637270.8	6326547	1667.5	146	9.96	4570.39
TA1_shp	2791.67	637270.8	6326547	1648.03	165.47	9.83	5431.19
TA1_shp	2791.67	637270.8	6326547	1628.57	184.93	9.82	6650.62
TA1_shp	2791.67	637270.8	6326547	1609.1	204.4	10.23	7979.38
TA1_shp	2791.67	637270.8	6326547	1589.63	223.87	11.4	9029.41
TA1_shp	2791.67	637270.8	6326547	1570.17	243.33	13.7	9404.23
TA1_shp	2791.67	637270.8	6326547	1550.7	262.8	17.48	8943.39
TA1_shp	2791.67	637270.8	6326547	1531.23	282.27	23.05	7777.31
TA1_shp	2791.67	637270.8	6326547	1511.5	302	31.03	6159.55
TA1_shp	2791.67	637270.8	6326547	1491.5	322	39.14	4637.09
TA1_shp	2791.67	637270.8	6326547	1471.5	342	46.67	3376.76
TA1_shp	2791.67	637270.8	6326547	1451.5	362	53.41	2392.84
TA1_shp	2791.67	637270.8	6326547	1431.5	382	58.96	1711.55
TA1_shp	2791.67	637270.8	6326547	1409.4	404.1	62.93	1253.09
TA1_shp	2791.67	637270.8	6326547	1384.85	428.65	65.36	921.51
TA1_shp	2791.67	637270.8	6326547	1358.9	454.6	65.62	720.31
TA1_shp	2791.67	637270.8	6326547	1330.4	483.1	63.07	624.97
TA1_shp	2791.67	637270.8	6326547	1299.7	513.8	57.03	644.35
TA1_shp	2791.67	637270.8	6326547	1267.05	546.45	48.45	771.85
TA1_shp	2791.67	637270.8	6326547	1231.25	582.25	37.3	1090.6
TA1_shp	2791.67	637270.8	6326547	1192.6	620.9	24.67	1762.49
TA1_shp	2791.67	637270.8	6326547	1151.45	662.05	12.66	3099.35
TA1_shp	2791.67	637270.8	6326547	1106.35	707.15	5.38	6275.27
TA1_shp	2791.67	637270.8	6326547	1057.7	755.8	2.1	14762.55
TA1_shp	2791.67	637270.8	6326547	1005.9	807.6	0.62	34237.84
TA1_shp	2791.67	637270.8	6326547	949.1	864.4	0.1	68453.34
TA1_shp	2791.67	637270.8	6326547	887.85	925.65	0.1	92754.44
TA1_shp	2791.67	637270.8	6326547	823	990.5	0.1	81506.22
TA1_shp	2791.67	637270.8	6326547	751.5	1062	0.1	36657.6
TA1_shp	2808.33	637286.7	6326553	1814.19	9.73	3.32	2385.94
TA1_shp	2808.33	637286.7	6326553	1794.72	29.2	3.62	1198.11
TA1_shp	2808.33	637286.7	6326553	1775.25	48.67	5.76	2657.96
TA1_shp	2808.33	637286.7	6326553	1755.79	68.13	8.23	4864.12
TA1_shp	2808.33	637286.7	6326553	1736.32	87.6	9.52	5725.08
TA1_shp	2808.33	637286.7	6326553	1716.85	107.07	10.16	5514.22
TA1_shp	2808.33	637286.7	6326553	1697.39	126.53	10.63	5317.71

TA1_shp	2808.33	637286.7	6326553	1677.92	146	10.88	5568.95
TA1_shp	2808.33	637286.7	6326553	1658.45	165.47	10.8	6342.53
TA1_shp	2808.33	637286.7	6326553	1638.99	184.93	10.5	7605.26
TA1_shp	2808.33	637286.7	6326553	1619.52	204.4	10.27	9173.39
TA1_shp	2808.33	637286.7	6326553	1600.05	223.87	10.47	10662.42
TA1_shp	2808.33	637286.7	6326553	1580.59	243.33	11.29	11522.69
TA1_shp	2808.33	637286.7	6326553	1561.12	262.8	13.07	11404.96
TA1_shp	2808.33	637286.7	6326553	1541.65	282.27	16.07	10247.76
TA1_shp	2808.33	637286.7	6326553	1521.92	302	20.66	8433.69
TA1_shp	2808.33	637286.7	6326553	1501.92	322	27.54	6312.03
TA1_shp	2808.33	637286.7	6326553	1481.92	342	34.95	4573.3
TA1_shp	2808.33	637286.7	6326553	1461.92	362	42.1	3229.54
TA1_shp	2808.33	637286.7	6326553	1441.92	382	48.64	2231.6
TA1_shp	2808.33	637286.7	6326553	1419.82	404.1	54.7	1507.87
TA1_shp	2808.33	637286.7	6326553	1395.27	428.65	59.02	1076.63
TA1_shp	2808.33	637286.7	6326553	1369.32	454.6	61.37	804.81
TA1_shp	2808.33	637286.7	6326553	1340.82	483.1	61.32	651.38
TA1_shp	2808.33	637286.7	6326553	1310.12	513.8	58.39	600.89
TA1_shp	2808.33	637286.7	6326553	1277.47	546.45	52.39	651.34
TA1_shp	2808.33	637286.7	6326553	1241.67	582.25	42.95	837.16
TA1_shp	2808.33	637286.7	6326553	1203.02	620.9	30.79	1315.11
TA1_shp	2808.33	637286.7	6326553	1161.87	662.05	18.29	2353.94
TA1_shp	2808.33	637286.7	6326553	1116.77	707.15	8.71	4811.27
TA1_shp	2808.33	637286.7	6326553	1068.12	755.8	3.38	10938.15
TA1_shp	2808.33	637286.7	6326553	1016.32	807.6	1.04	25070.13
TA1_shp	2808.33	637286.7	6326553	959.52	864.4	0.17	53014.2
TA1_shp	2808.33	637286.7	6326553	898.27	925.65	0.1	87532.25
TA1_shp	2808.33	637286.7	6326553	833.42	990.5	0.1	91616.17
TA1_shp	2808.33	637286.7	6326553	761.92	1062	0.1	47939.91
TA1_shp	2825	637302	6326559	1822.02	9.73	2.41	3890.76
TA1_shp	2825	637302	6326559	1802.55	29.2	3.23	2437.97
TA1_shp	2825	637302	6326559	1783.08	48.67	5.2	2815.25
TA1_shp	2825	637302	6326559	1763.62	68.13	7.78	3769.82
TA1_shp	2825	637302	6326559	1744.15	87.6	9.79	4544.61
TA1_shp	2825	637302	6326559	1724.68	107.07	10.89	5056.03
TA1_shp	2825	637302	6326559	1705.22	126.53	11.4	5614.1
TA1_shp	2825	637302	6326559	1685.75	146	11.4	6476.05
TA1_shp	2825	637302	6326559	1666.28	165.47	11.05	7763.69
TA1_shp	2825	637302	6326559	1646.82	184.93	10.52	9438.24
TA1_shp	2825	637302	6326559	1627.35	204.4	10.12	11250.57
TA1_shp	2825	637302	6326559	1607.88	223.87	10.07	12677.5
TA1_shp	2825	637302	6326559	1588.42	243.33	10.61	13161.2
TA1_shp	2825	637302	6326559	1568.95	262.8	11.87	12410.18
TA1_shp	2825	637302	6326559	1549.48	282.27	14.19	10611.07
TA1_shp	2825	637302	6326559	1529.75	302	17.74	8345.73
TA1_shp	2825	637302	6326559	1509.75	322	23.4	5991.71
TA1_shp	2825	637302	6326559	1489.75	342	29.96	4209.68
TA1_shp	2825	637302	6326559	1469.75	362	36.83	2907.32
TA1_shp	2825	637302	6326559	1449.75	382	43.43	1981.46
TA1_shp	2825	637302	6326559	1427.65	404.1	49.58	1334.11
TA1_shp	2825	637302	6326559	1403.1	428.65	54.2	960.53
TA1_shp	2825	637302	6326559	1377.15	454.6	57.1	729.75

TA1_shp	2825	637302	6326559	1348.65	483.1	57.78	605.38
TA1_shp	2825	637302	6326559	1317.95	513.8	55.7	573.22
TA1_shp	2825	637302	6326559	1285.3	546.45	50.58	631.7
TA1_shp	2825	637302	6326559	1249.5	582.25	42	821.55
TA1_shp	2825	637302	6326559	1210.85	620.9	30.58	1303.71
TA1_shp	2825	637302	6326559	1169.7	662.05	18.39	2332.86
TA1_shp	2825	637302	6326559	1124.6	707.15	8.85	4738.93
TA1_shp	2825	637302	6326559	1075.95	755.8	3.45	10691.01
TA1_shp	2825	637302	6326559	1024.15	807.6	1.08	24348.2
TA1_shp	2825	637302	6326559	967.35	864.4	0.19	51326.5
TA1_shp	2825	637302	6326559	906.1	925.65	0.1	84861.62
TA1_shp	2825	637302	6326559	841.25	990.5	0.1	89499.01
TA1_shp	2825	637302	6326559	769.75	1062	0.1	46999.56
TA1_shp	2841.67	637317.3	6326565	1829.85	9.73	1.65	6677.97
TA1_shp	2841.67	637317.3	6326565	1810.38	29.2	2.83	3953.82
TA1_shp	2841.67	637317.3	6326565	1790.91	48.67	4.86	3190.07
TA1_shp	2841.67	637317.3	6326565	1771.45	68.13	7.5	3304.8
TA1_shp	2841.67	637317.3	6326565	1751.98	87.6	9.8	3776.09
TA1_shp	2841.67	637317.3	6326565	1732.51	107.07	11.16	4471.63
TA1_shp	2841.67	637317.3	6326565	1713.05	126.53	11.6	5412.78
TA1_shp	2841.67	637317.3	6326565	1693.58	146	11.37	6711.05
TA1_shp	2841.67	637317.3	6326565	1674.11	165.47	10.73	8373.61
TA1_shp	2841.67	637317.3	6326565	1654.65	184.93	10.02	10325.8
TA1_shp	2841.67	637317.3	6326565	1635.18	204.4	9.47	12205.57
TA1_shp	2841.67	637317.3	6326565	1615.71	223.87	9.27	13443.88
TA1_shp	2841.67	637317.3	6326565	1596.25	243.33	9.58	13458.32
TA1_shp	2841.67	637317.3	6326565	1576.78	262.8	10.51	12229.63
TA1_shp	2841.67	637317.3	6326565	1557.31	282.27	12.24	10030.72
TA1_shp	2841.67	637317.3	6326565	1537.58	302	15.03	7599.07
TA1_shp	2841.67	637317.3	6326565	1517.58	322	19.54	5280.12
TA1_shp	2841.67	637317.3	6326565	1497.58	342	25.19	3624.1
TA1_shp	2841.67	637317.3	6326565	1477.58	362	31.59	2465.21
TA1_shp	2841.67	637317.3	6326565	1457.58	382	38.15	1669.81
TA1_shp	2841.67	637317.3	6326565	1435.48	404.1	44.66	1129.41
TA1_shp	2841.67	637317.3	6326565	1410.93	428.65	49.62	830.23
TA1_shp	2841.67	637317.3	6326565	1384.98	454.6	53.03	647.8
TA1_shp	2841.67	637317.3	6326565	1356.48	483.1	54.38	555.59
TA1_shp	2841.67	637317.3	6326565	1325.78	513.8	53.07	544.48
TA1_shp	2841.67	637317.3	6326565	1293.13	546.45	48.83	614.52
TA1_shp	2841.67	637317.3	6326565	1257.33	582.25	41.05	813.14
TA1_shp	2841.67	637317.3	6326565	1218.68	620.9	30.31	1302.12
TA1_shp	2841.67	637317.3	6326565	1177.53	662.05	18.42	2324.2
TA1_shp	2841.67	637317.3	6326565	1132.43	707.15	8.93	4683.25
TA1_shp	2841.67	637317.3	6326565	1083.78	755.8	3.5	10471.91
TA1_shp	2841.67	637317.3	6326565	1031.98	807.6	1.1	23695.74
TA1_shp	2841.67	637317.3	6326565	975.18	864.4	0.2	49777.04
TA1_shp	2841.67	637317.3	6326565	913.93	925.65	0.1	82333.78
TA1_shp	2841.67	637317.3	6326565	849.08	990.5	0.1	87416.8
TA1_shp	2841.67	637317.3	6326565	777.58	1062	0.1	46070.22
TA1_shp	2858.33	637332.7	6326571	1837.69	9.73	3.67	5688.35
TA1_shp	2858.33	637332.7	6326571	1818.22	29.2	2.92	6719.98
TA1_shp	2858.33	637332.7	6326571	1798.75	48.67	3.67	4828.49

TA1_shp	2858.33	637332.7	6326571	1779.29	68.13	5.44	3529.6
TA1_shp	2858.33	637332.7	6326571	1759.82	87.6	7.82	3152.61
TA1_shp	2858.33	637332.7	6326571	1740.35	107.07	9.97	3369.96
TA1_shp	2858.33	637332.7	6326571	1720.89	126.53	11.2	4003.59
TA1_shp	2858.33	637332.7	6326571	1701.42	146	11.42	5029.75
TA1_shp	2858.33	637332.7	6326571	1681.95	165.47	10.91	6440.56
TA1_shp	2858.33	637332.7	6326571	1662.49	184.93	10.08	8234.99
TA1_shp	2858.33	637332.7	6326571	1643.02	204.4	9.24	10203.33
TA1_shp	2858.33	637332.7	6326571	1623.55	223.87	8.61	11982.58
TA1_shp	2858.33	637332.7	6326571	1604.09	243.33	8.31	12947.48
TA1_shp	2858.33	637332.7	6326571	1584.62	262.8	8.47	12658.13
TA1_shp	2858.33	637332.7	6326571	1565.15	282.27	9.15	11123.44
TA1_shp	2858.33	637332.7	6326571	1545.42	302	10.51	8836.79
TA1_shp	2858.33	637332.7	6326571	1525.42	322	12.77	6450.36
TA1_shp	2858.33	637332.7	6326571	1505.42	342	16.49	4358.82
TA1_shp	2858.33	637332.7	6326571	1485.42	362	21.34	2944.07
TA1_shp	2858.33	637332.7	6326571	1465.42	382	27.2	1987.07
TA1_shp	2858.33	637332.7	6326571	1443.32	404.1	34.2	1309.29
TA1_shp	2858.33	637332.7	6326571	1418.77	428.65	41.44	875.76
TA1_shp	2858.33	637332.7	6326571	1392.82	454.6	46.99	645.81
TA1_shp	2858.33	637332.7	6326571	1364.32	483.1	50.58	534.11
TA1_shp	2858.33	637332.7	6326571	1333.62	513.8	51.55	502.62
TA1_shp	2858.33	637332.7	6326571	1300.97	546.45	49.51	545.92
TA1_shp	2858.33	637332.7	6326571	1265.17	582.25	44.07	698.37
TA1_shp	2858.33	637332.7	6326571	1226.52	620.9	35.25	1053.61
TA1_shp	2858.33	637332.7	6326571	1185.37	662.05	24.01	1787.27
TA1_shp	2858.33	637332.7	6326571	1140.27	707.15	12.24	3390.02
TA1_shp	2858.33	637332.7	6326571	1091.62	755.8	4.78	7159.95
TA1_shp	2858.33	637332.7	6326571	1039.82	807.6	1.53	15840.28
TA1_shp	2858.33	637332.7	6326571	983.02	864.4	0.34	37074
TA1_shp	2858.33	637332.7	6326571	921.77	925.65	0.1	73967.68
TA1_shp	2858.33	637332.7	6326571	856.92	990.5	0.1	86905.9
TA1_shp	2858.33	637332.7	6326571	785.42	1062	0.1	56085.3
TA1_shp	2875	637348	6326577	1845.52	9.73	6.78	13002.79
TA1_shp	2875	637348	6326577	1826.05	29.2	5.65	8381.39
TA1_shp	2875	637348	6326577	1806.58	48.67	5.48	5535.69
TA1_shp	2875	637348	6326577	1787.12	68.13	6.67	3809.81
TA1_shp	2875	637348	6326577	1767.65	87.6	8.55	3165.13
TA1_shp	2875	637348	6326577	1748.18	107.07	10.25	3205.34
TA1_shp	2875	637348	6326577	1728.72	126.53	11.11	3723.66
TA1_shp	2875	637348	6326577	1709.25	146	11.01	4652.74
TA1_shp	2875	637348	6326577	1689.78	165.47	10.26	5978.57
TA1_shp	2875	637348	6326577	1670.32	184.93	9.28	7639.3
TA1_shp	2875	637348	6326577	1650.85	204.4	8.37	9463.42
TA1_shp	2875	637348	6326577	1631.38	223.87	7.71	11018.28
TA1_shp	2875	637348	6326577	1611.92	243.33	7.38	11754.56
TA1_shp	2875	637348	6326577	1592.45	262.8	7.46	11260.67
TA1_shp	2875	637348	6326577	1572.98	282.27	8	9668.25
TA1_shp	2875	637348	6326577	1553.25	302	9.11	7487.39
TA1_shp	2875	637348	6326577	1533.25	322	10.97	5343.87
TA1_shp	2875	637348	6326577	1513.25	342	14.11	3538.91
TA1_shp	2875	637348	6326577	1493.25	362	18.3	2365.3

TA1_shp	2875	637348	6326577	1473.25	382	23.62	1590.11
TA1_shp	2875	637348	6326577	1451.15	404.1	30.35	1052.9
TA1_shp	2875	637348	6326577	1426.6	428.65	37.76	721.23
TA1_shp	2875	637348	6326577	1400.65	454.6	43.81	550.45
TA1_shp	2875	637348	6326577	1372.15	483.1	47.8	476.64
TA1_shp	2875	637348	6326577	1341.45	513.8	49.34	468.81
TA1_shp	2875	637348	6326577	1308.8	546.45	47.9	530.04
TA1_shp	2875	637348	6326577	1273	582.25	43.08	697.38
TA1_shp	2875	637348	6326577	1234.35	620.9	34.83	1062.06
TA1_shp	2875	637348	6326577	1193.2	662.05	23.97	1798.22
TA1_shp	2875	637348	6326577	1148.1	707.15	12.28	3388.78
TA1_shp	2875	637348	6326577	1099.45	755.8	4.8	7087.67
TA1_shp	2875	637348	6326577	1047.65	807.6	1.55	15552.03
TA1_shp	2875	637348	6326577	990.85	864.4	0.35	36110.47
TA1_shp	2875	637348	6326577	929.6	925.65	0.1	71770.41
TA1_shp	2875	637348	6326577	864.75	990.5	0.1	84712.83
TA1_shp	2875	637348	6326577	793.25	1062	0.1	54848.83
TA1_shp	2891.67	637363.3	6326583	1853.35	9.73	4.26	2050.29
TA1_shp	2891.67	637363.3	6326583	1833.88	29.2	6.15	6100.84
TA1_shp	2891.67	637363.3	6326583	1814.41	48.67	6.14	7482.76
TA1_shp	2891.67	637363.3	6326583	1794.95	68.13	6.36	5672.02
TA1_shp	2891.67	637363.3	6326583	1775.48	87.6	7.43	3988.67
TA1_shp	2891.67	637363.3	6326583	1756.01	107.07	8.99	3260.95
TA1_shp	2891.67	637363.3	6326583	1736.55	126.53	10.32	3205.33
TA1_shp	2891.67	637363.3	6326583	1717.08	146	10.83	3599.04
TA1_shp	2891.67	637363.3	6326583	1697.61	165.47	10.46	4379.07
TA1_shp	2891.67	637363.3	6326583	1678.15	184.93	9.54	5511.25
TA1_shp	2891.67	637363.3	6326583	1658.68	204.4	8.49	6951.7
TA1_shp	2891.67	637363.3	6326583	1639.21	223.87	7.56	8497.58
TA1_shp	2891.67	637363.3	6326583	1619.75	243.33	6.91	9813.83
TA1_shp	2891.67	637363.3	6326583	1600.28	262.8	6.57	10343.12
TA1_shp	2891.67	637363.3	6326583	1580.81	282.27	6.62	9792.01
TA1_shp	2891.67	637363.3	6326583	1561.08	302	7.07	8242.57
TA1_shp	2891.67	637363.3	6326583	1541.08	322	8.06	6236.56
TA1_shp	2891.67	637363.3	6326583	1521.08	342	9.68	4353.31
TA1_shp	2891.67	637363.3	6326583	1501.08	362	12.48	2823.76
TA1_shp	2891.67	637363.3	6326583	1481.08	382	16.28	1871.84
TA1_shp	2891.67	637363.3	6326583	1458.98	404.1	21.84	1209.29
TA1_shp	2891.67	637363.3	6326583	1434.43	428.65	29.16	791.5
TA1_shp	2891.67	637363.3	6326583	1408.48	454.6	36.64	565.4
TA1_shp	2891.67	637363.3	6326583	1379.98	483.1	42.89	457.42
TA1_shp	2891.67	637363.3	6326583	1349.28	513.8	46.82	426.99
TA1_shp	2891.67	637363.3	6326583	1316.63	546.45	48	459.79
TA1_shp	2891.67	637363.3	6326583	1280.83	582.25	45.68	571.6
TA1_shp	2891.67	637363.3	6326583	1242.18	620.9	39.27	828.57
TA1_shp	2891.67	637363.3	6326583	1201.03	662.05	29.31	1368.37
TA1_shp	2891.67	637363.3	6326583	1155.93	707.15	16.74	2523.3
TA1_shp	2891.67	637363.3	6326583	1107.28	755.8	7.42	5220.9
TA1_shp	2891.67	637363.3	6326583	1055.48	807.6	2.75	12001.72
TA1_shp	2891.67	637363.3	6326583	998.68	864.4	0.77	28414.43
TA1_shp	2891.67	637363.3	6326583	937.43	925.65	0.13	58554.57
TA1_shp	2891.67	637363.3	6326583	872.58	990.5	0.1	79521.79

TA1_shp	2891.67	637363.3	6326583	801.08	1062	0.1	63967.71
TA1_shp	2908.33	637378.6	6326589	1854.94	9.73	4.29	605.17
TA1_shp	2908.33	637378.6	6326589	1835.47	29.2	6.2	2373.5
TA1_shp	2908.33	637378.6	6326589	1816	48.67	5.65	6345.08
TA1_shp	2908.33	637378.6	6326589	1796.54	68.13	6.03	5846.79
TA1_shp	2908.33	637378.6	6326589	1777.07	87.6	7.22	4269.8
TA1_shp	2908.33	637378.6	6326589	1757.6	107.07	8.75	3489.53
TA1_shp	2908.33	637378.6	6326589	1738.14	126.53	9.95	3334.26
TA1_shp	2908.33	637378.6	6326589	1718.67	146	10.33	3596.62
TA1_shp	2908.33	637378.6	6326589	1699.2	165.47	9.84	4200.21
TA1_shp	2908.33	637378.6	6326589	1679.74	184.93	8.86	5122.74
TA1_shp	2908.33	637378.6	6326589	1660.27	204.4	7.79	6321.26
TA1_shp	2908.33	637378.6	6326589	1640.8	223.87	6.88	7624.08
TA1_shp	2908.33	637378.6	6326589	1621.34	243.33	6.26	8703.67
TA1_shp	2908.33	637378.6	6326589	1601.87	262.8	5.94	9106
TA1_shp	2908.33	637378.6	6326589	1582.4	282.27	5.98	8505.94
TA1_shp	2908.33	637378.6	6326589	1562.67	302	6.4	7074.84
TA1_shp	2908.33	637378.6	6326589	1542.67	322	7.29	5260.53
TA1_shp	2908.33	637378.6	6326589	1522.67	342	8.8	3615.69
TA1_shp	2908.33	637378.6	6326589	1502.67	362	11.37	2311.15
TA1_shp	2908.33	637378.6	6326589	1482.67	382	14.95	1520.96
TA1_shp	2908.33	637378.6	6326589	1460.57	404.1	20.24	981.9
TA1_shp	2908.33	637378.6	6326589	1436.02	428.65	27.44	650.47
TA1_shp	2908.33	637378.6	6326589	1410.07	454.6	35.02	478.6
TA1_shp	2908.33	637378.6	6326589	1381.57	483.1	41.52	404.37
TA1_shp	2908.33	637378.6	6326589	1350.87	513.8	45.69	396.26
TA1_shp	2908.33	637378.6	6326589	1318.22	546.45	47.21	445.63
TA1_shp	2908.33	637378.6	6326589	1282.42	582.25	45.29	570.81
TA1_shp	2908.33	637378.6	6326589	1243.77	620.9	39.24	838.48
TA1_shp	2908.33	637378.6	6326589	1202.62	662.05	29.45	1390.38
TA1_shp	2908.33	637378.6	6326589	1157.52	707.15	16.84	2553.38
TA1_shp	2908.33	637378.6	6326589	1108.87	755.8	7.45	5220.89
TA1_shp	2908.33	637378.6	6326589	1057.07	807.6	2.75	11870.26
TA1_shp	2908.33	637378.6	6326589	1000.27	864.4	0.77	27822.44
TA1_shp	2908.33	637378.6	6326589	939.02	925.65	0.13	56981.45
TA1_shp	2908.33	637378.6	6326589	874.17	990.5	0.1	77443.19
TA1_shp	2908.33	637378.6	6326589	802.67	1062	0.1	62473.63
TA1_shp	2925	637393.8	6326594	1850.27	9.73	8.41	1638.19
TA1_shp	2925	637393.8	6326594	1830.8	29.2	5.16	6707.27
TA1_shp	2925	637393.8	6326594	1811.33	48.67	5.25	6562.8
TA1_shp	2925	637393.8	6326594	1791.87	68.13	6.42	4807.02
TA1_shp	2925	637393.8	6326594	1772.4	87.6	7.98	3861.84
TA1_shp	2925	637393.8	6326594	1752.93	107.07	9.25	3556.23
TA1_shp	2925	637393.8	6326594	1733.47	126.53	9.69	3654.08
TA1_shp	2925	637393.8	6326594	1714	146	9.23	4090.53
TA1_shp	2925	637393.8	6326594	1694.53	165.47	8.27	4832.39
TA1_shp	2925	637393.8	6326594	1675.07	184.93	7.21	5851.79
TA1_shp	2925	637393.8	6326594	1655.6	204.4	6.34	6976.57
TA1_shp	2925	637393.8	6326594	1636.13	223.87	5.74	7912.02
TA1_shp	2925	637393.8	6326594	1616.67	243.33	5.45	8200.66
TA1_shp	2925	637393.8	6326594	1597.2	262.8	5.5	7594.92
TA1_shp	2925	637393.8	6326594	1577.73	282.27	5.9	6249.19

TA1_shp	2925	637393.8	6326594	1558	302	6.76	4609.13
TA1_shp	2925	637393.8	6326594	1538	322	8.2	3121.42
TA1_shp	2925	637393.8	6326594	1518	342	10.67	1973.97
TA1_shp	2925	637393.8	6326594	1498	362	14.14	1283.15
TA1_shp	2925	637393.8	6326594	1478	382	18.79	857.62
TA1_shp	2925	637393.8	6326594	1455.9	404.1	25.1	583.94
TA1_shp	2925	637393.8	6326594	1431.35	428.65	32.7	430.13
TA1_shp	2925	637393.8	6326594	1405.4	454.6	39.5	367.45
TA1_shp	2925	637393.8	6326594	1376.9	483.1	44.14	363.06
TA1_shp	2925	637393.8	6326594	1346.2	513.8	46.58	407.36
TA1_shp	2925	637393.8	6326594	1313.55	546.45	46.18	510.19
TA1_shp	2925	637393.8	6326594	1277.75	582.25	42.45	713.42
TA1_shp	2925	637393.8	6326594	1239.1	620.9	35.03	1112.78
TA1_shp	2925	637393.8	6326594	1197.95	662.05	24.45	1878.31
TA1_shp	2925	637393.8	6326594	1152.85	707.15	12.55	3456.97
TA1_shp	2925	637393.8	6326594	1104.2	755.8	4.87	6994.18
TA1_shp	2925	637393.8	6326594	1052.4	807.6	1.58	14924.04
TA1_shp	2925	637393.8	6326594	995.6	864.4	0.37	33724.83
TA1_shp	2925	637393.8	6326594	934.35	925.65	0.1	65925.3
TA1_shp	2925	637393.8	6326594	869.5	990.5	0.1	78480.49
TA1_shp	2925	637393.8	6326594	798	1062	0.1	51263.02
TA1_shp	2941.67	637408.9	6326600	1845.6	9.73	5.52	4368.72
TA1_shp	2941.67	637408.9	6326600	1826.13	29.2	4.08	8943.66
TA1_shp	2941.67	637408.9	6326600	1806.66	48.67	4.4	7577.59
TA1_shp	2941.67	637408.9	6326600	1787.2	68.13	5.56	5445.47
TA1_shp	2941.67	637408.9	6326600	1767.73	87.6	7.14	4259.43
TA1_shp	2941.67	637408.9	6326600	1748.26	107.07	8.51	3740.88
TA1_shp	2941.67	637408.9	6326600	1728.8	126.53	9.08	3681.46
TA1_shp	2941.67	637408.9	6326600	1709.33	146	8.7	3982.97
TA1_shp	2941.67	637408.9	6326600	1689.86	165.47	7.78	4624.43
TA1_shp	2941.67	637408.9	6326600	1670.4	184.93	6.76	5548.22
TA1_shp	2941.67	637408.9	6326600	1650.93	204.4	5.91	6597.31
TA1_shp	2941.67	637408.9	6326600	1631.46	223.87	5.34	7453.01
TA1_shp	2941.67	637408.9	6326600	1612	243.33	5.07	7698.67
TA1_shp	2941.67	637408.9	6326600	1592.53	262.8	5.13	7040.63
TA1_shp	2941.67	637408.9	6326600	1573.06	282.27	5.54	5719.63
TA1_shp	2941.67	637408.9	6326600	1553.33	302	6.4	4149.39
TA1_shp	2941.67	637408.9	6326600	1533.33	322	7.86	2766.5
TA1_shp	2941.67	637408.9	6326600	1513.33	342	10.38	1719.46
TA1_shp	2941.67	637408.9	6326600	1493.33	362	13.92	1106.9
TA1_shp	2941.67	637408.9	6326600	1473.33	382	18.69	737.11
TA1_shp	2941.67	637408.9	6326600	1451.23	404.1	25.17	504.33
TA1_shp	2941.67	637408.9	6326600	1426.68	428.65	32.93	379.54
TA1_shp	2941.67	637408.9	6326600	1400.73	454.6	39.8	334.3
TA1_shp	2941.67	637408.9	6326600	1372.23	483.1	44.48	342.18
TA1_shp	2941.67	637408.9	6326600	1341.53	513.8	47.01	396.92
TA1_shp	2941.67	637408.9	6326600	1308.88	546.45	46.71	510.64
TA1_shp	2941.67	637408.9	6326600	1273.08	582.25	43.07	725.74
TA1_shp	2941.67	637408.9	6326600	1234.43	620.9	35.66	1138.89
TA1_shp	2941.67	637408.9	6326600	1193.28	662.05	24.91	1917.75
TA1_shp	2941.67	637408.9	6326600	1148.18	707.15	12.73	3497.62
TA1_shp	2941.67	637408.9	6326600	1099.53	755.8	4.9	6996.97

TA1_shp	2941.67	637408.9	6326600	1047.73	807.6	1.58	14788.81
TA1_shp	2941.67	637408.9	6326600	990.93	864.4	0.37	33063.27
TA1_shp	2941.67	637408.9	6326600	929.68	925.65	0.1	64186.3
TA1_shp	2941.67	637408.9	6326600	864.83	990.5	0.1	76528.28
TA1_shp	2941.67	637408.9	6326600	793.33	1062	0.1	50121.26
TA1_shp	2958.33	637424.1	6326605	1840.94	9.73	2.99	10631.83
TA1_shp	2958.33	637424.1	6326605	1821.47	29.2	3.22	9167.16
TA1_shp	2958.33	637424.1	6326605	1802	48.67	3.85	7486.43
TA1_shp	2958.33	637424.1	6326605	1782.54	68.13	5.02	5686.5
TA1_shp	2958.33	637424.1	6326605	1763.07	87.6	6.6	4394.31
TA1_shp	2958.33	637424.1	6326605	1743.6	107.07	8.05	3740.43
TA1_shp	2958.33	637424.1	6326605	1724.14	126.53	8.68	3587.51
TA1_shp	2958.33	637424.1	6326605	1704.67	146	8.34	3852.61
TA1_shp	2958.33	637424.1	6326605	1685.2	165.47	7.44	4482.07
TA1_shp	2958.33	637424.1	6326605	1665.74	184.93	6.42	5426.08
TA1_shp	2958.33	637424.1	6326605	1646.27	204.4	5.59	6502.37
TA1_shp	2958.33	637424.1	6326605	1626.8	223.87	5.03	7383.89
TA1_shp	2958.33	637424.1	6326605	1607.34	243.33	4.77	7600.41
TA1_shp	2958.33	637424.1	6326605	1587.87	262.8	4.85	6899.36
TA1_shp	2958.33	637424.1	6326605	1568.4	282.27	5.27	5510.45
TA1_shp	2958.33	637424.1	6326605	1548.67	302	6.15	3930.59
TA1_shp	2958.33	637424.1	6326605	1528.67	322	7.65	2566.92
TA1_shp	2958.33	637424.1	6326605	1508.67	342	10.26	1568.36
TA1_shp	2958.33	637424.1	6326605	1488.67	362	14	996.6
TA1_shp	2958.33	637424.1	6326605	1468.67	382	19.05	659.16
TA1_shp	2958.33	637424.1	6326605	1446.57	404.1	25.85	452.53
TA1_shp	2958.33	637424.1	6326605	1422.02	428.65	33.9	345.86
TA1_shp	2958.33	637424.1	6326605	1396.07	454.6	40.78	312.16
TA1_shp	2958.33	637424.1	6326605	1367.57	483.1	45.48	328.81
TA1_shp	2958.33	637424.1	6326605	1336.87	513.8	48.02	392.32
TA1_shp	2958.33	637424.1	6326605	1304.22	546.45	47.75	516
TA1_shp	2958.33	637424.1	6326605	1268.42	582.25	44.12	742.82
TA1_shp	2958.33	637424.1	6326605	1229.77	620.9	36.58	1169.76
TA1_shp	2958.33	637424.1	6326605	1188.62	662.05	25.52	1961.8
TA1_shp	2958.33	637424.1	6326605	1143.52	707.15	12.97	3545.2
TA1_shp	2958.33	637424.1	6326605	1094.87	755.8	4.92	7013.95
TA1_shp	2958.33	637424.1	6326605	1043.07	807.6	1.58	14666.08
TA1_shp	2958.33	637424.1	6326605	986.27	864.4	0.37	32457.96
TA1_shp	2958.33	637424.1	6326605	925.02	925.65	0.1	62567.02
TA1_shp	2958.33	637424.1	6326605	860.17	990.5	0.1	74629.85
TA1_shp	2958.33	637424.1	6326605	788.67	1062	0.1	48998.1
TA1_shp	2975	637439.3	6326611	1836.27	9.73	2.95	9414.07
TA1_shp	2975	637439.3	6326611	1816.8	29.2	3.46	5752.22
TA1_shp	2975	637439.3	6326611	1797.33	48.67	3.98	6190.46
TA1_shp	2975	637439.3	6326611	1777.87	68.13	5.05	5322.52
TA1_shp	2975	637439.3	6326611	1758.4	87.6	6.59	4152.2
TA1_shp	2975	637439.3	6326611	1738.93	107.07	8.02	3491.45
TA1_shp	2975	637439.3	6326611	1719.47	126.53	8.61	3370.94
TA1_shp	2975	637439.3	6326611	1700	146	8.21	3693.31
TA1_shp	2975	637439.3	6326611	1680.53	165.47	7.24	4419.79
TA1_shp	2975	637439.3	6326611	1661.07	184.93	6.19	5485.55
TA1_shp	2975	637439.3	6326611	1641.6	204.4	5.33	6713.53

TA1_shp	2975	637439.3	6326611	1622.13	223.87	4.77	7693.14
TA1_shp	2975	637439.3	6326611	1602.67	243.33	4.51	7926.53
TA1_shp	2975	637439.3	6326611	1583.2	262.8	4.59	7129.18
TA1_shp	2975	637439.3	6326611	1563.73	282.27	5.03	5606.83
TA1_shp	2975	637439.3	6326611	1544	302	5.94	3922.56
TA1_shp	2975	637439.3	6326611	1524	322	7.5	2514.13
TA1_shp	2975	637439.3	6326611	1504	342	10.28	1506.4
TA1_shp	2975	637439.3	6326611	1484	362	14.26	944.3
TA1_shp	2975	637439.3	6326611	1464	382	19.68	619.09
TA1_shp	2975	637439.3	6326611	1441.9	404.1	26.94	424.07
TA1_shp	2975	637439.3	6326611	1417.35	428.65	35.35	327.49
TA1_shp	2975	637439.3	6326611	1391.4	454.6	42.27	300.71
TA1_shp	2975	637439.3	6326611	1362.9	483.1	47.01	323.52
TA1_shp	2975	637439.3	6326611	1332.2	513.8	49.57	393.68
TA1_shp	2975	637439.3	6326611	1299.55	546.45	49.29	526.41
TA1_shp	2975	637439.3	6326611	1263.75	582.25	45.55	764.69
TA1_shp	2975	637439.3	6326611	1225.1	620.9	37.77	1204.25
TA1_shp	2975	637439.3	6326611	1183.95	662.05	26.33	2007.79
TA1_shp	2975	637439.3	6326611	1138.85	707.15	13.27	3596.41
TA1_shp	2975	637439.3	6326611	1090.2	755.8	4.95	7043.92
TA1_shp	2975	637439.3	6326611	1038.4	807.6	1.57	14580.25
TA1_shp	2975	637439.3	6326611	981.6	864.4	0.37	31908.1
TA1_shp	2975	637439.3	6326611	920.35	925.65	0.1	61025.5
TA1_shp	2975	637439.3	6326611	855.5	990.5	0.1	72819.04
TA1_shp	2975	637439.3	6326611	784	1062	0.1	47923.04
TA1_shp	2991.67	637454.4	6326617	1831.6	9.73	4.66	2621.79
TA1_shp	2991.67	637454.4	6326617	1812.13	29.2	4.61	4775.07
TA1_shp	2991.67	637454.4	6326617	1792.66	48.67	5.56	4755.78
TA1_shp	2991.67	637454.4	6326617	1773.2	68.13	7.07	3769.59
TA1_shp	2991.67	637454.4	6326617	1753.73	87.6	8.43	3197.54
TA1_shp	2991.67	637454.4	6326617	1734.26	107.07	8.87	3166
TA1_shp	2991.67	637454.4	6326617	1714.8	126.53	8.29	3599
TA1_shp	2991.67	637454.4	6326617	1695.33	146	7.19	4483.34
TA1_shp	2991.67	637454.4	6326617	1675.86	165.47	6.05	5764.25
TA1_shp	2991.67	637454.4	6326617	1656.4	184.93	5.15	7235.89
TA1_shp	2991.67	637454.4	6326617	1636.93	204.4	4.55	8433.98
TA1_shp	2991.67	637454.4	6326617	1617.46	223.87	4.28	8719.45
TA1_shp	2991.67	637454.4	6326617	1598	243.33	4.35	7796.1
TA1_shp	2991.67	637454.4	6326617	1578.53	262.8	4.79	6034.58
TA1_shp	2991.67	637454.4	6326617	1559.06	282.27	5.7	4168.77
TA1_shp	2991.67	637454.4	6326617	1539.33	302	7.31	2640.93
TA1_shp	2991.67	637454.4	6326617	1519.33	322	10.21	1557.93
TA1_shp	2991.67	637454.4	6326617	1499.33	342	14.48	957.7
TA1_shp	2991.67	637454.4	6326617	1479.33	362	20.3	618.69
TA1_shp	2991.67	637454.4	6326617	1459.33	382	27.3	429.48
TA1_shp	2991.67	637454.4	6326617	1437.23	404.1	35.66	331.76
TA1_shp	2991.67	637454.4	6326617	1412.68	428.65	42.4	305.29
TA1_shp	2991.67	637454.4	6326617	1386.73	454.6	47.49	316.94
TA1_shp	2991.67	637454.4	6326617	1358.23	483.1	50.81	370.88
TA1_shp	2991.67	637454.4	6326617	1327.53	513.8	51.83	476.14
TA1_shp	2991.67	637454.4	6326617	1294.88	546.45	49.96	649.17
TA1_shp	2991.67	637454.4	6326617	1259.08	582.25	44.19	955.71

TA1_shp	2991.67	637454.4	6326617	1220.43	620.9	33.97	1544.12
TA1_shp	2991.67	637454.4	6326617	1179.28	662.05	20.8	2611.89
TA1_shp	2991.67	637454.4	6326617	1134.18	707.15	9.81	4816.03
TA1_shp	2991.67	637454.4	6326617	1085.53	755.8	3.66	9772.32
TA1_shp	2991.67	637454.4	6326617	1033.73	807.6	1.15	20292.45
TA1_shp	2991.67	637454.4	6326617	976.93	864.4	0.23	40033.39
TA1_shp	2991.67	637454.4	6326617	915.68	925.65	0.1	64494
TA1_shp	2991.67	637454.4	6326617	850.83	990.5	0.1	70102.16
TA1_shp	2991.67	637454.4	6326617	779.33	1062	0.1	38165.36
TA1_shp	3008.33	637469.7	6326622	1825.6	9.73	3.98	1415.69
TA1_shp	3008.33	637469.7	6326622	1806.13	29.2	4.82	4156.95
TA1_shp	3008.33	637469.7	6326622	1786.66	48.67	6.15	4637.44
TA1_shp	3008.33	637469.7	6326622	1767.2	68.13	7.81	3701.29
TA1_shp	3008.33	637469.7	6326622	1747.73	87.6	9.11	3145.46
TA1_shp	3008.33	637469.7	6326622	1728.26	107.07	9.35	3160.42
TA1_shp	3008.33	637469.7	6326622	1708.8	126.53	8.55	3682.13
TA1_shp	3008.33	637469.7	6326622	1689.33	146	7.27	4730.68
TA1_shp	3008.33	637469.7	6326622	1669.86	165.47	6.01	6272.3
TA1_shp	3008.33	637469.7	6326622	1650.4	184.93	5.02	8107.14
TA1_shp	3008.33	637469.7	6326622	1630.93	204.4	4.38	9618.25
TA1_shp	3008.33	637469.7	6326622	1611.46	223.87	4.06	10031.93
TA1_shp	3008.33	637469.7	6326622	1592	243.33	4.11	8934.53
TA1_shp	3008.33	637469.7	6326622	1572.53	262.8	4.54	6849.76
TA1_shp	3008.33	637469.7	6326622	1553.06	282.27	5.46	4651.57
TA1_shp	3008.33	637469.7	6326622	1533.33	302	7.11	2894.31
TA1_shp	3008.33	637469.7	6326622	1513.33	322	10.19	1674
TA1_shp	3008.33	637469.7	6326622	1493.33	342	14.79	1012.56
TA1_shp	3008.33	637469.7	6326622	1473.33	362	21.14	645.7
TA1_shp	3008.33	637469.7	6326622	1453.33	382	28.73	443.67
TA1_shp	3008.33	637469.7	6326622	1431.23	404.1	37.62	340.43
TA1_shp	3008.33	637469.7	6326622	1406.68	428.65	44.55	313.36
TA1_shp	3008.33	637469.7	6326622	1380.73	454.6	49.78	326.16
TA1_shp	3008.33	637469.7	6326622	1352.23	483.1	53.17	383.21
TA1_shp	3008.33	637469.7	6326622	1321.53	513.8	54.14	493.28
TA1_shp	3008.33	637469.7	6326622	1288.88	546.45	52.13	672.28
TA1_shp	3008.33	637469.7	6326622	1253.08	582.25	46.05	988.75
TA1_shp	3008.33	637469.7	6326622	1214.43	620.9	35.4	1587.22
TA1_shp	3008.33	637469.7	6326622	1173.28	662.05	21.53	2665.43
TA1_shp	3008.33	637469.7	6326622	1128.18	707.15	10.01	4874.04
TA1_shp	3008.33	637469.7	6326622	1079.53	755.8	3.65	9782.97
TA1_shp	3008.33	637469.7	6326622	1027.73	807.6	1.13	20093.79
TA1_shp	3008.33	637469.7	6326622	970.93	864.4	0.23	39302.98
TA1_shp	3008.33	637469.7	6326622	909.68	925.65	0.1	63010.09
TA1_shp	3008.33	637469.7	6326622	844.83	990.5	0.1	68439.66
TA1_shp	3008.33	637469.7	6326622	773.33	1062	0.1	37385.31
TA1_shp	3025	637485	6326628	1818.27	9.73	4.47	890.61
TA1_shp	3025	637485	6326628	1798.8	29.2	5.13	5320.08
TA1_shp	3025	637485	6326628	1779.33	48.67	6.77	5620.78
TA1_shp	3025	637485	6326628	1759.87	68.13	8.61	4308.08
TA1_shp	3025	637485	6326628	1740.4	87.6	9.83	3571.26
TA1_shp	3025	637485	6326628	1720.93	107.07	9.89	3502.79
TA1_shp	3025	637485	6326628	1701.47	126.53	8.9	4027.92

TA1_shp	3025	637485	6326628	1682	146	7.47	5180.35
TA1_shp	3025	637485	6326628	1662.53	165.47	6.07	6994.35
TA1_shp	3025	637485	6326628	1643.07	184.93	4.98	9239.41
TA1_shp	3025	637485	6326628	1623.6	204.4	4.26	11201.66
TA1_shp	3025	637485	6326628	1604.13	223.87	3.89	11821
TA1_shp	3025	637485	6326628	1584.67	243.33	3.9	10566.52
TA1_shp	3025	637485	6326628	1565.2	262.8	4.3	8056.81
TA1_shp	3025	637485	6326628	1545.73	282.27	5.21	5407.1
TA1_shp	3025	637485	6326628	1526	302	6.88	3319.43
TA1_shp	3025	637485	6326628	1506	322	10.09	1896.02
TA1_shp	3025	637485	6326628	1486	342	15.03	1130.69
TA1_shp	3025	637485	6326628	1466	362	21.92	710.86
TA1_shp	3025	637485	6326628	1446	382	30.15	482.71
TA1_shp	3025	637485	6326628	1423.9	404.1	39.61	365.53
TA1_shp	3025	637485	6326628	1399.35	428.65	46.82	333.45
TA1_shp	3025	637485	6326628	1373.4	454.6	52.25	344.29
TA1_shp	3025	637485	6326628	1344.9	483.1	55.74	402.44
TA1_shp	3025	637485	6326628	1314.2	513.8	56.69	516.18
TA1_shp	3025	637485	6326628	1281.55	546.45	54.5	700.19
TA1_shp	3025	637485	6326628	1245.75	582.25	48.1	1024.6
TA1_shp	3025	637485	6326628	1207.1	620.9	36.94	1630.47
TA1_shp	3025	637485	6326628	1165.95	662.05	22.26	2717.24
TA1_shp	3025	637485	6326628	1120.85	707.15	10.18	4930.5
TA1_shp	3025	637485	6326628	1072.2	755.8	3.64	9793.92
TA1_shp	3025	637485	6326628	1020.4	807.6	1.12	19920.12
TA1_shp	3025	637485	6326628	963.6	864.4	0.23	38645.11
TA1_shp	3025	637485	6326628	902.35	925.65	0.1	61604.13
TA1_shp	3025	637485	6326628	837.5	990.5	0.1	66833.04
TA1_shp	3025	637485	6326628	766	1062	0.1	36627.11
TA1_shp	3041.67	637500.3	6326634	1810.94	9.73	5.22	12341.08
TA1_shp	3041.67	637500.3	6326634	1791.47	29.2	7.32	7701.41
TA1_shp	3041.67	637500.3	6326634	1772	48.67	9.2	5575.03
TA1_shp	3041.67	637500.3	6326634	1752.54	68.13	10.31	4523.86
TA1_shp	3041.67	637500.3	6326634	1733.07	87.6	10.3	4221.48
TA1_shp	3041.67	637500.3	6326634	1713.6	107.07	9.28	4606.21
TA1_shp	3041.67	637500.3	6326634	1694.14	126.53	7.76	5759.87
TA1_shp	3041.67	637500.3	6326634	1674.67	146	6.23	7753.02
TA1_shp	3041.67	637500.3	6326634	1655.2	165.47	5.01	10438.88
TA1_shp	3041.67	637500.3	6326634	1635.74	184.93	4.19	12955.68
TA1_shp	3041.67	637500.3	6326634	1616.27	204.4	3.76	13993.31
TA1_shp	3041.67	637500.3	6326634	1596.8	223.87	3.71	12681.83
TA1_shp	3041.67	637500.3	6326634	1577.34	243.33	4.07	9739.6
TA1_shp	3041.67	637500.3	6326634	1557.87	262.8	4.96	6527.31
TA1_shp	3041.67	637500.3	6326634	1538.4	282.27	6.62	4011.13
TA1_shp	3041.67	637500.3	6326634	1518.67	302	9.86	2291.74
TA1_shp	3041.67	637500.3	6326634	1498.67	322	15.05	1345.45
TA1_shp	3041.67	637500.3	6326634	1478.67	342	22.4	831.24
TA1_shp	3041.67	637500.3	6326634	1458.67	362	31.25	552.41
TA1_shp	3041.67	637500.3	6326634	1438.67	382	40.37	425.17
TA1_shp	3041.67	637500.3	6326634	1416.57	404.1	47.61	373.54
TA1_shp	3041.67	637500.3	6326634	1392.02	428.65	53.62	365.87
TA1_shp	3041.67	637500.3	6326634	1366.07	454.6	57.85	400.86

TA1_shp	3041.67	637500.3	6326634	1337.57	483.1	59.85	486.67
TA1_shp	3041.67	637500.3	6326634	1306.87	513.8	58.25	645.94
TA1_shp	3041.67	637500.3	6326634	1274.22	546.45	53.34	908.71
TA1_shp	3041.67	637500.3	6326634	1238.42	582.25	44.44	1361.36
TA1_shp	3041.67	637500.3	6326634	1199.77	620.9	31.51	2134.39
TA1_shp	3041.67	637500.3	6326634	1158.62	662.05	15.93	3454.13
TA1_shp	3041.67	637500.3	6326634	1113.52	707.15	6.07	6162.49
TA1_shp	3041.67	637500.3	6326634	1064.87	755.8	2.29	12407.38
TA1_shp	3041.67	637500.3	6326634	1013.07	807.6	0.71	25175.69
TA1_shp	3041.67	637500.3	6326634	956.27	864.4	0.13	46315.79
TA1_shp	3041.67	637500.3	6326634	895.02	925.65	0.1	62817.57
TA1_shp	3041.67	637500.3	6326634	830.17	990.5	0.1	57288.3
TA1_shp	3041.67	637500.3	6326634	758.67	1062	0.1	27890.47
TA1_shp	3058.33	637515.7	6326640	1803.6	9.73	5.06	8429.36
TA1_shp	3058.33	637515.7	6326640	1784.13	29.2	7.1	7281.84
TA1_shp	3058.33	637515.7	6326640	1764.66	48.67	8.93	6459.56
TA1_shp	3058.33	637515.7	6326640	1745.2	68.13	10.08	5538.66
TA1_shp	3058.33	637515.7	6326640	1725.73	87.6	10.32	4990.11
TA1_shp	3058.33	637515.7	6326640	1706.26	107.07	9.56	5121.32
TA1_shp	3058.33	637515.7	6326640	1686.8	126.53	8.1	6125.09
TA1_shp	3058.33	637515.7	6326640	1667.33	146	6.48	8188.82
TA1_shp	3058.33	637515.7	6326640	1647.86	165.47	5.12	11230.15
TA1_shp	3058.33	637515.7	6326640	1628.4	184.93	4.18	14422.36
TA1_shp	3058.33	637515.7	6326640	1608.93	204.4	3.67	16142.09
TA1_shp	3058.33	637515.7	6326640	1589.46	223.87	3.55	15082.19
TA1_shp	3058.33	637515.7	6326640	1570	243.33	3.87	11809.24
TA1_shp	3058.33	637515.7	6326640	1550.53	262.8	4.72	8007.94
TA1_shp	3058.33	637515.7	6326640	1531.06	282.27	6.36	4943.55
TA1_shp	3058.33	637515.7	6326640	1511.33	302	9.68	2819.87
TA1_shp	3058.33	637515.7	6326640	1491.33	322	15.13	1645.4
TA1_shp	3058.33	637515.7	6326640	1471.33	342	23.02	1005.17
TA1_shp	3058.33	637515.7	6326640	1451.33	362	32.54	656.69
TA1_shp	3058.33	637515.7	6326640	1431.33	382	42.16	496.24
TA1_shp	3058.33	637515.7	6326640	1409.23	404.1	49.84	425.78
TA1_shp	3058.33	637515.7	6326640	1384.68	428.65	56.22	406.41
TA1_shp	3058.33	637515.7	6326640	1358.73	454.6	60.67	435.45
TA1_shp	3058.33	637515.7	6326640	1330.23	483.1	62.75	518.36
TA1_shp	3058.33	637515.7	6326640	1299.53	513.8	60.96	677.53
TA1_shp	3058.33	637515.7	6326640	1266.88	546.45	55.69	943.38
TA1_shp	3058.33	637515.7	6326640	1231.08	582.25	46.26	1402.03
TA1_shp	3058.33	637515.7	6326640	1192.43	620.9	32.62	2182.82
TA1_shp	3058.33	637515.7	6326640	1151.28	662.05	16.17	3509.84
TA1_shp	3058.33	637515.7	6326640	1106.18	707.15	6.04	6216.63
TA1_shp	3058.33	637515.7	6326640	1057.53	755.8	2.25	12395.25
TA1_shp	3058.33	637515.7	6326640	1005.73	807.6	0.68	24934.25
TA1_shp	3058.33	637515.7	6326640	948.93	864.4	0.13	45508.19
TA1_shp	3058.33	637515.7	6326640	887.68	925.65	0.1	61467.4
TA1_shp	3058.33	637515.7	6326640	822.83	990.5	0.1	56006.11
TA1_shp	3058.33	637515.7	6326640	751.33	1062	0.1	27388.06
TA1_shp	3075	637531	6326646	1796.27	9.73	5.2	8574.12
TA1_shp	3075	637531	6326646	1776.8	29.2	6.49	7482.5
TA1_shp	3075	637531	6326646	1757.33	48.67	7.8	6792.67

TA1_shp	3075	637531	6326646	1737.87	68.13	9.03	5841.8
TA1_shp	3075	637531	6326646	1718.4	87.6	9.83	5118.53
TA1_shp	3075	637531	6326646	1698.93	107.07	9.66	5033.97
TA1_shp	3075	637531	6326646	1679.47	126.53	8.46	5851.1
TA1_shp	3075	637531	6326646	1660	146	6.81	7825.28
TA1_shp	3075	637531	6326646	1640.53	165.47	5.29	11062.42
TA1_shp	3075	637531	6326646	1621.07	184.93	4.22	14884.14
TA1_shp	3075	637531	6326646	1601.6	204.4	3.6	17631.13
TA1_shp	3075	637531	6326646	1582.13	223.87	3.43	17347.7
TA1_shp	3075	637531	6326646	1562.67	243.33	3.69	14151.64
TA1_shp	3075	637531	6326646	1543.2	262.8	4.5	9874.21
TA1_shp	3075	637531	6326646	1523.73	282.27	6.12	6199.53
TA1_shp	3075	637531	6326646	1504	302	9.49	3555.39
TA1_shp	3075	637531	6326646	1484	322	15.18	2073.81
TA1_shp	3075	637531	6326646	1464	342	23.58	1257.17
TA1_shp	3075	637531	6326646	1444	362	33.77	806.61
TA1_shp	3075	637531	6326646	1424	382	43.9	596.69
TA1_shp	3075	637531	6326646	1401.9	404.1	52.05	497.87
TA1_shp	3075	637531	6326646	1377.35	428.65	58.82	460.38
TA1_shp	3075	637531	6326646	1351.4	454.6	63.53	479.24
TA1_shp	3075	637531	6326646	1322.9	483.1	65.65	555.25
TA1_shp	3075	637531	6326646	1292.2	513.8	63.62	712.63
TA1_shp	3075	637531	6326646	1259.55	546.45	57.94	978.81
TA1_shp	3075	637531	6326646	1223.75	582.25	47.94	1440.27
TA1_shp	3075	637531	6326646	1185.1	620.9	33.58	2227.69
TA1_shp	3075	637531	6326646	1143.95	662.05	16.32	3566.09
TA1_shp	3075	637531	6326646	1098.85	707.15	5.97	6279.68
TA1_shp	3075	637531	6326646	1050.2	755.8	2.2	12401.54
TA1_shp	3075	637531	6326646	998.4	807.6	0.66	24707.82
TA1_shp	3075	637531	6326646	941.6	864.4	0.12	44739.49
TA1_shp	3075	637531	6326646	880.35	925.65	0.1	60180.75
TA1_shp	3075	637531	6326646	815.5	990.5	0.1	54777.48
TA1_shp	3075	637531	6326646	744	1062	0.1	26900.75
TA1_shp	3091.67	637546.3	6326652	1788.94	9.73	5.39	9256.17
TA1_shp	3091.67	637546.3	6326652	1769.47	29.2	6.06	6320.11
TA1_shp	3091.67	637546.3	6326652	1750	48.67	7.45	5025.76
TA1_shp	3091.67	637546.3	6326652	1730.54	68.13	9.01	4284.89
TA1_shp	3091.67	637546.3	6326652	1711.07	87.6	9.65	4162.82
TA1_shp	3091.67	637546.3	6326652	1691.6	107.07	8.86	4836.46
TA1_shp	3091.67	637546.3	6326652	1672.14	126.53	7.19	6604.45
TA1_shp	3091.67	637546.3	6326652	1652.67	146	5.52	9735.58
TA1_shp	3091.67	637546.3	6326652	1633.2	165.47	4.28	13929.28
TA1_shp	3091.67	637546.3	6326652	1613.74	184.93	3.56	17741.59
TA1_shp	3091.67	637546.3	6326652	1594.27	204.4	3.32	18737.07
TA1_shp	3091.67	637546.3	6326652	1574.8	223.87	3.53	16257.85
TA1_shp	3091.67	637546.3	6326652	1555.34	243.33	4.29	11908.59
TA1_shp	3091.67	637546.3	6326652	1535.87	262.8	5.89	7714.33
TA1_shp	3091.67	637546.3	6326652	1516.4	282.27	9.24	4554.62
TA1_shp	3091.67	637546.3	6326652	1496.67	302	15.04	2694.07
TA1_shp	3091.67	637546.3	6326652	1476.67	322	23.84	1622.6
TA1_shp	3091.67	637546.3	6326652	1456.67	342	34.68	1022.84
TA1_shp	3091.67	637546.3	6326652	1436.67	362	45.34	741.29

TA1_shp	3091.67	637546.3	6326652	1416.67	382	53.29	606.87
TA1_shp	3091.67	637546.3	6326652	1394.57	404.1	60.28	532.48
TA1_shp	3091.67	637546.3	6326652	1370.02	428.65	65.74	519.37
TA1_shp	3091.67	637546.3	6326652	1344.07	454.6	67.81	577.98
TA1_shp	3091.67	637546.3	6326652	1315.57	483.1	67.13	693.67
TA1_shp	3091.67	637546.3	6326652	1284.87	513.8	63.1	891.28
TA1_shp	3091.67	637546.3	6326652	1252.22	546.45	55.36	1205.01
TA1_shp	3091.67	637546.3	6326652	1216.42	582.25	42.35	1805.1
TA1_shp	3091.67	637546.3	6326652	1177.77	620.9	25.44	2859.41
TA1_shp	3091.67	637546.3	6326652	1136.62	662.05	11.81	4787.29
TA1_shp	3091.67	637546.3	6326652	1091.52	707.15	4.06	8627.64
TA1_shp	3091.67	637546.3	6326652	1042.87	755.8	1.24	16016.11
TA1_shp	3091.67	637546.3	6326652	991.07	807.6	0.26	29643.21
TA1_shp	3091.67	637546.3	6326652	934.27	864.4	0.1	51630.82
TA1_shp	3091.67	637546.3	6326652	873.02	925.65	0.1	61183
TA1_shp	3091.67	637546.3	6326652	808.17	990.5	0.1	46200.11
TA1_shp	3091.67	637546.3	6326652	736.67	1062	0.1	19031.62
TA1_shp	3108.33	637562.4	6326658	1782.1	9.73	3.23	7364.85
TA1_shp	3108.33	637562.4	6326658	1762.63	29.2	4.18	4957.71
TA1_shp	3108.33	637562.4	6326658	1743.16	48.67	6.01	3719.37
TA1_shp	3108.33	637562.4	6326658	1723.7	68.13	8.35	3117.09
TA1_shp	3108.33	637562.4	6326658	1704.23	87.6	9.82	3039.65
TA1_shp	3108.33	637562.4	6326658	1684.76	107.07	9.41	3572.25
TA1_shp	3108.33	637562.4	6326658	1665.3	126.53	7.66	4975.07
TA1_shp	3108.33	637562.4	6326658	1645.83	146	5.76	7649.24
TA1_shp	3108.33	637562.4	6326658	1626.36	165.47	4.35	11691.08
TA1_shp	3108.33	637562.4	6326658	1606.9	184.93	3.51	16164.9
TA1_shp	3108.33	637562.4	6326658	1587.43	204.4	3.21	18705.77
TA1_shp	3108.33	637562.4	6326658	1567.96	223.87	3.38	17591.08
TA1_shp	3108.33	637562.4	6326658	1548.5	243.33	4.12	13773.83
TA1_shp	3108.33	637562.4	6326658	1529.03	262.8	5.69	9359.45
TA1_shp	3108.33	637562.4	6326658	1509.56	282.27	9.08	5706.66
TA1_shp	3108.33	637562.4	6326658	1489.83	302	15.1	3438.64
TA1_shp	3108.33	637562.4	6326658	1469.83	322	24.38	2081.72
TA1_shp	3108.33	637562.4	6326658	1449.83	342	35.85	1301.76
TA1_shp	3108.33	637562.4	6326658	1429.83	362	47.01	922.84
TA1_shp	3108.33	637562.4	6326658	1409.83	382	55.4	735.41
TA1_shp	3108.33	637562.4	6326658	1387.73	404.1	62.78	623.26
TA1_shp	3108.33	637562.4	6326658	1363.18	428.65	68.51	585.53
TA1_shp	3108.33	637562.4	6326658	1337.23	454.6	70.56	631.37
TA1_shp	3108.33	637562.4	6326658	1308.73	483.1	69.65	737.57
TA1_shp	3108.33	637562.4	6326658	1278.03	513.8	65.21	929.39
TA1_shp	3108.33	637562.4	6326658	1245.38	546.45	56.9	1241.27
TA1_shp	3108.33	637562.4	6326658	1209.58	582.25	43.23	1843.23
TA1_shp	3108.33	637562.4	6326658	1170.93	620.9	25.63	2904.23
TA1_shp	3108.33	637562.4	6326658	1129.78	662.05	11.68	4840.55
TA1_shp	3108.33	637562.4	6326658	1084.68	707.15	3.95	8673.55
TA1_shp	3108.33	637562.4	6326658	1036.03	755.8	1.19	15992.07
TA1_shp	3108.33	637562.4	6326658	984.23	807.6	0.24	29384.34
TA1_shp	3108.33	637562.4	6326658	927.43	864.4	0.1	50771.25
TA1_shp	3108.33	637562.4	6326658	866.18	925.65	0.1	59925.37
TA1_shp	3108.33	637562.4	6326658	801.33	990.5	0.1	45254.39

TA1_shp	3108.33	637562.4	6326658	729.83	1062	0.1	18755.48
TA1_shp	3125	637579.3	6326665	1775.77	9.73	2.94	8575.01
TA1_shp	3125	637579.3	6326665	1756.3	29.2	3.7	4520.82
TA1_shp	3125	637579.3	6326665	1736.83	48.67	5.65	2902.69
TA1_shp	3125	637579.3	6326665	1717.37	68.13	8.53	2348.12
TA1_shp	3125	637579.3	6326665	1697.9	87.6	10.57	2265.61
TA1_shp	3125	637579.3	6326665	1678.43	107.07	10.28	2600.43
TA1_shp	3125	637579.3	6326665	1658.97	126.53	8.24	3571.42
TA1_shp	3125	637579.3	6326665	1639.5	146	6.02	5566.13
TA1_shp	3125	637579.3	6326665	1620.03	165.47	4.4	8943.02
TA1_shp	3125	637579.3	6326665	1600.57	184.93	3.46	13398.71
TA1_shp	3125	637579.3	6326665	1581.1	204.4	3.1	16998.62
TA1_shp	3125	637579.3	6326665	1561.63	223.87	3.24	17625.46
TA1_shp	3125	637579.3	6326665	1542.17	243.33	3.95	14981.83
TA1_shp	3125	637579.3	6326665	1522.7	262.8	5.52	10888.41
TA1_shp	3125	637579.3	6326665	1503.23	282.27	8.96	6945.49
TA1_shp	3125	637579.3	6326665	1483.5	302	15.22	4310.83
TA1_shp	3125	637579.3	6326665	1463.5	322	24.99	2646.41
TA1_shp	3125	637579.3	6326665	1443.5	342	37.1	1647.12
TA1_shp	3125	637579.3	6326665	1423.5	362	48.73	1149.14
TA1_shp	3125	637579.3	6326665	1403.5	382	57.52	893.18
TA1_shp	3125	637579.3	6326665	1381.4	404.1	65.25	731.02
TA1_shp	3125	637579.3	6326665	1356.85	428.65	71.22	662.26
TA1_shp	3125	637579.3	6326665	1330.9	454.6	73.2	690.83
TA1_shp	3125	637579.3	6326665	1302.4	483.1	72	784.5
TA1_shp	3125	637579.3	6326665	1271.7	513.8	67.08	968.48
TA1_shp	3125	637579.3	6326665	1239.05	546.45	58.2	1276.57
TA1_shp	3125	637579.3	6326665	1203.25	582.25	43.85	1881.43
TA1_shp	3125	637579.3	6326665	1164.6	620.9	25.62	2950.15
TA1_shp	3125	637579.3	6326665	1123.45	662.05	11.44	4887.45
TA1_shp	3125	637579.3	6326665	1078.35	707.15	3.8	8705.92
TA1_shp	3125	637579.3	6326665	1029.7	755.8	1.14	15969.46
TA1_shp	3125	637579.3	6326665	977.9	807.6	0.22	29179.22
TA1_shp	3125	637579.3	6326665	921.1	864.4	0.1	49961.5
TA1_shp	3125	637579.3	6326665	859.85	925.65	0.1	58710.37
TA1_shp	3125	637579.3	6326665	795	990.5	0.1	44333.75
TA1_shp	3125	637579.3	6326665	723.5	1062	0.1	18480.48
TA1_shp	3141.67	637596.1	6326672	1769.44	9.73	4.37	4216.19
TA1_shp	3141.67	637596.1	6326672	1749.97	29.2	6.64	2608.99
TA1_shp	3141.67	637596.1	6326672	1730.5	48.67	9.92	2216.48
TA1_shp	3141.67	637596.1	6326672	1711.04	68.13	12.1	2053.78
TA1_shp	3141.67	637596.1	6326672	1691.57	87.6	11.49	2128.43
TA1_shp	3141.67	637596.1	6326672	1672.1	107.07	8.88	2668.35
TA1_shp	3141.67	637596.1	6326672	1652.64	126.53	6.25	3979.5
TA1_shp	3141.67	637596.1	6326672	1633.17	146	4.41	6465.67
TA1_shp	3141.67	637596.1	6326672	1613.7	165.47	3.38	10236.06
TA1_shp	3141.67	637596.1	6326672	1594.24	184.93	2.99	14178.27
TA1_shp	3141.67	637596.1	6326672	1574.77	204.4	3.11	16211.89
TA1_shp	3141.67	637596.1	6326672	1555.3	223.87	3.8	15126.81
TA1_shp	3141.67	637596.1	6326672	1535.84	243.33	5.37	11874.65
TA1_shp	3141.67	637596.1	6326672	1516.37	262.8	8.91	8030.77
TA1_shp	3141.67	637596.1	6326672	1496.9	282.27	15.34	5219.51

TA1_shp	3141.67	637596.1	6326672	1477.17	302	25.38	3297.89
TA1_shp	3141.67	637596.1	6326672	1457.17	322	38.15	2063.47
TA1_shp	3141.67	637596.1	6326672	1437.17	342	50.22	1427.11
TA1_shp	3141.67	637596.1	6326672	1417.17	362	59.49	1081.34
TA1_shp	3141.67	637596.1	6326672	1397.17	382	67.11	865.21
TA1_shp	3141.67	637596.1	6326672	1375.07	404.1	72.65	768.83
TA1_shp	3141.67	637596.1	6326672	1350.52	428.65	75.32	751.63
TA1_shp	3141.67	637596.1	6326672	1324.57	454.6	75.3	796.14
TA1_shp	3141.67	637596.1	6326672	1296.07	483.1	71.68	914.39
TA1_shp	3141.67	637596.1	6326672	1265.37	513.8	63.1	1182.49
TA1_shp	3141.67	637596.1	6326672	1232.72	546.45	51	1640.07
TA1_shp	3141.67	637596.1	6326672	1196.92	582.25	35.05	2402.46
TA1_shp	3141.67	637596.1	6326672	1158.27	620.9	15.97	3628.25
TA1_shp	3141.67	637596.1	6326672	1117.12	662.05	6.7	6113.64
TA1_shp	3141.67	637596.1	6326672	1072.02	707.15	2.47	11236.23
TA1_shp	3141.67	637596.1	6326672	1023.37	755.8	0.74	20856.9
TA1_shp	3141.67	637596.1	6326672	971.57	807.6	0.13	35822.48
TA1_shp	3141.67	637596.1	6326672	914.77	864.4	0.1	53525.41
TA1_shp	3141.67	637596.1	6326672	853.52	925.65	0.1	59449.89
TA1_shp	3141.67	637596.1	6326672	788.67	990.5	0.1	36584.86
TA1_shp	3141.67	637596.1	6326672	717.17	1062	0.1	11335.48
TA1_shp	3158.33	637612.9	6326678	1763.1	9.73	6.76	1575.22
TA1_shp	3158.33	637612.9	6326678	1743.63	29.2	9.47	2705.47
TA1_shp	3158.33	637612.9	6326678	1724.16	48.67	12.14	3026.15
TA1_shp	3158.33	637612.9	6326678	1704.7	68.13	13.74	2616.73
TA1_shp	3158.33	637612.9	6326678	1685.23	87.6	12.53	2214.33
TA1_shp	3158.33	637612.9	6326678	1665.76	107.07	9.36	2286.48
TA1_shp	3158.33	637612.9	6326678	1646.3	126.53	6.32	3009.17
TA1_shp	3158.33	637612.9	6326678	1626.83	146	4.32	4650.75
TA1_shp	3158.33	637612.9	6326678	1607.36	165.47	3.24	7489.22
TA1_shp	3158.33	637612.9	6326678	1587.9	184.93	2.85	11024.23
TA1_shp	3158.33	637612.9	6326678	1568.43	204.4	2.96	13750.1
TA1_shp	3158.33	637612.9	6326678	1548.96	223.87	3.68	14076.85
TA1_shp	3158.33	637612.9	6326678	1529.5	243.33	5.28	12025.56
TA1_shp	3158.33	637612.9	6326678	1510.03	262.8	8.96	8714.13
TA1_shp	3158.33	637612.9	6326678	1490.56	282.27	15.73	5952.86
TA1_shp	3158.33	637612.9	6326678	1470.83	302	26.29	3893.4
TA1_shp	3158.33	637612.9	6326678	1450.83	322	39.69	2477.02
TA1_shp	3158.33	637612.9	6326678	1430.83	342	52.18	1707.83
TA1_shp	3158.33	637612.9	6326678	1410.83	362	61.8	1277.16
TA1_shp	3158.33	637612.9	6326678	1390.83	382	69.69	999.4
TA1_shp	3158.33	637612.9	6326678	1368.73	404.1	75.3	865.71
TA1_shp	3158.33	637612.9	6326678	1344.18	428.65	77.76	821.89
TA1_shp	3158.33	637612.9	6326678	1318.23	454.6	77.37	848.28
TA1_shp	3158.33	637612.9	6326678	1289.73	483.1	73.21	957.34
TA1_shp	3158.33	637612.9	6326678	1259.03	513.8	64.02	1220.37
TA1_shp	3158.33	637612.9	6326678	1226.38	546.45	51.3	1675.9
TA1_shp	3158.33	637612.9	6326678	1190.58	582.25	34.79	2440.6
TA1_shp	3158.33	637612.9	6326678	1151.93	620.9	15.36	3674.64
TA1_shp	3158.33	637612.9	6326678	1110.78	662.05	6.4	6158.52
TA1_shp	3158.33	637612.9	6326678	1065.68	707.15	2.34	11271.34
TA1_shp	3158.33	637612.9	6326678	1017.03	755.8	0.69	20805.54

TA1_shp	3158.33	637612.9	6326678	965.23	807.6	0.11	35492
TA1_shp	3158.33	637612.9	6326678	908.43	864.4	0.1	52669.87
TA1_shp	3158.33	637612.9	6326678	847.18	925.65	0.1	58219.96
TA1_shp	3158.33	637612.9	6326678	782.33	990.5	0.1	35887.6
TA1_shp	3158.33	637612.9	6326678	710.83	1062	0.1	11226.78
TA1_shp	3175	637629.8	6326684	1756.77	9.73	9.43	2029.41
TA1_shp	3175	637629.8	6326684	1737.3	29.2	10.75	5213.49
TA1_shp	3175	637629.8	6326684	1717.83	48.67	12.03	6186.24
TA1_shp	3175	637629.8	6326684	1698.37	68.13	13.26	4760.48
TA1_shp	3175	637629.8	6326684	1678.9	87.6	12.31	3080.85
TA1_shp	3175	637629.8	6326684	1659.43	107.07	9.19	2411.41
TA1_shp	3175	637629.8	6326684	1639.97	126.53	6.1	2570.6
TA1_shp	3175	637629.8	6326684	1620.5	146	4.1	3522.86
TA1_shp	3175	637629.8	6326684	1601.03	165.47	3.04	5475.65
TA1_shp	3175	637629.8	6326684	1581.57	184.93	2.67	8286.28
TA1_shp	3175	637629.8	6326684	1562.1	204.4	2.82	11052.77
TA1_shp	3175	637629.8	6326684	1542.63	223.87	3.56	12281.68
TA1_shp	3175	637629.8	6326684	1523.17	243.33	5.23	11360.52
TA1_shp	3175	637629.8	6326684	1503.7	262.8	9.07	8855.26
TA1_shp	3175	637629.8	6326684	1484.23	282.27	16.26	6381.85
TA1_shp	3175	637629.8	6326684	1464.5	302	27.44	4347.77
TA1_shp	3175	637629.8	6326684	1444.5	322	41.51	2846.02
TA1_shp	3175	637629.8	6326684	1424.5	342	54.4	1972.83
TA1_shp	3175	637629.8	6326684	1404.5	362	64.29	1468.68
TA1_shp	3175	637629.8	6326684	1384.5	382	72.35	1133.97
TA1_shp	3175	637629.8	6326684	1362.4	404.1	77.9	963.5
TA1_shp	3175	637629.8	6326684	1337.85	428.65	80.07	892.74
TA1_shp	3175	637629.8	6326684	1311.9	454.6	79.24	900.48
TA1_shp	3175	637629.8	6326684	1283.4	483.1	74.48	1000.06
TA1_shp	3175	637629.8	6326684	1252.7	513.8	64.61	1257.2
TA1_shp	3175	637629.8	6326684	1220.05	546.45	51.28	1711.26
TA1_shp	3175	637629.8	6326684	1184.25	582.25	34.28	2478.21
TA1_shp	3175	637629.8	6326684	1145.6	620.9	14.63	3717.28
TA1_shp	3175	637629.8	6326684	1104.45	662.05	6.06	6218.34
TA1_shp	3175	637629.8	6326684	1059.35	707.15	2.19	11324.15
TA1_shp	3175	637629.8	6326684	1010.7	755.8	0.64	20756.88
TA1_shp	3175	637629.8	6326684	958.9	807.6	0.1	35161.77
TA1_shp	3175	637629.8	6326684	902.1	864.4	0.1	51855.96
TA1_shp	3175	637629.8	6326684	840.85	925.65	0.1	57054.23
TA1_shp	3175	637629.8	6326684	776	990.5	0.1	35220.94
TA1_shp	3175	637629.8	6326684	704.5	1062	0.1	11111.55
TA1_shp	3191.67	637646.6	6326691	1750.44	9.73	7.33	10907.56
TA1_shp	3191.67	637646.6	6326691	1730.97	29.2	8.03	10850.79
TA1_shp	3191.67	637646.6	6326691	1711.5	48.67	9.63	8930.54
TA1_shp	3191.67	637646.6	6326691	1692.04	68.13	10.19	5002.25
TA1_shp	3191.67	637646.6	6326691	1672.57	87.6	8.15	3058.82
TA1_shp	3191.67	637646.6	6326691	1653.1	107.07	5.51	2545.49
TA1_shp	3191.67	637646.6	6326691	1633.64	126.53	3.71	2927.25
TA1_shp	3191.67	637646.6	6326691	1614.17	146	2.77	4155.89
TA1_shp	3191.67	637646.6	6326691	1594.7	165.47	2.46	6220.58
TA1_shp	3191.67	637646.6	6326691	1575.24	184.93	2.66	8579.59
TA1_shp	3191.67	637646.6	6326691	1555.77	204.4	3.45	10196.94

TA1_shp	3191.67	637646.6	6326691	1536.3	223.87	5.22	10113.97
TA1_shp	3191.67	637646.6	6326691	1516.84	243.33	9.32	8454.95
TA1_shp	3191.67	637646.6	6326691	1497.37	262.8	17.02	6446.46
TA1_shp	3191.67	637646.6	6326691	1477.9	282.27	28.69	4624.02
TA1_shp	3191.67	637646.6	6326691	1458.17	302	43.3	3145.26
TA1_shp	3191.67	637646.6	6326691	1438.17	322	56.5	2215.86
TA1_shp	3191.67	637646.6	6326691	1418.17	342	66.69	1648.31
TA1_shp	3191.67	637646.6	6326691	1398.17	362	74.95	1262.75
TA1_shp	3191.67	637646.6	6326691	1378.17	382	79.81	1078.97
TA1_shp	3191.67	637646.6	6326691	1356.07	404.1	82.14	971.09
TA1_shp	3191.67	637646.6	6326691	1331.52	428.65	82.09	931.2
TA1_shp	3191.67	637646.6	6326691	1305.57	454.6	77.14	1012.85
TA1_shp	3191.67	637646.6	6326691	1277.07	483.1	68.83	1198.25
TA1_shp	3191.67	637646.6	6326691	1246.37	513.8	57.14	1522.83
TA1_shp	3191.67	637646.6	6326691	1213.72	546.45	41.73	2079.48
TA1_shp	3191.67	637646.6	6326691	1177.92	582.25	23.33	3127.27
TA1_shp	3191.67	637646.6	6326691	1139.27	620.9	9.96	4951.62
TA1_shp	3191.67	637646.6	6326691	1098.12	662.05	3.35	8128.17
TA1_shp	3191.67	637646.6	6326691	1053.02	707.15	1.07	13849.41
TA1_shp	3191.67	637646.6	6326691	1004.37	755.8	0.31	25450.23
TA1_shp	3191.67	637646.6	6326691	952.57	807.6	0.1	41315.38
TA1_shp	3191.67	637646.6	6326691	895.77	864.4	0.1	52629.6
TA1_shp	3191.67	637646.6	6326691	834.52	925.65	0.1	49542.65
TA1_shp	3191.67	637646.6	6326691	769.67	990.5	0.1	28154.06
TA1_shp	3191.67	637646.6	6326691	698.17	1062	0.1	9904.86
TA1_shp	3208.33	637662.3	6326694	1741.86	9.73	3.2	2140.75
TA1_shp	3208.33	637662.3	6326694	1722.39	29.2	4.22	4039.49
TA1_shp	3208.33	637662.3	6326694	1702.92	48.67	6.1	8361.75
TA1_shp	3208.33	637662.3	6326694	1683.46	68.13	7.63	6851.33
TA1_shp	3208.33	637662.3	6326694	1663.99	87.6	6.71	4133.91
TA1_shp	3208.33	637662.3	6326694	1644.52	107.07	4.7	2855.82
TA1_shp	3208.33	637662.3	6326694	1625.06	126.53	3.22	2689
TA1_shp	3208.33	637662.3	6326694	1605.59	146	2.45	3370.61
TA1_shp	3208.33	637662.3	6326694	1586.12	165.47	2.24	4786.9
TA1_shp	3208.33	637662.3	6326694	1566.66	184.93	2.5	6662.38
TA1_shp	3208.33	637662.3	6326694	1547.19	204.4	3.37	8226.82
TA1_shp	3208.33	637662.3	6326694	1527.72	223.87	5.27	8623.33
TA1_shp	3208.33	637662.3	6326694	1508.26	243.33	9.7	7671.55
TA1_shp	3208.33	637662.3	6326694	1488.79	262.8	18.03	6162.36
TA1_shp	3208.33	637662.3	6326694	1469.32	282.27	30.44	4630.23
TA1_shp	3208.33	637662.3	6326694	1449.59	302	45.74	3282.57
TA1_shp	3208.33	637662.3	6326694	1429.59	322	59.18	2362.39
TA1_shp	3208.33	637662.3	6326694	1409.59	342	69.44	1778.35
TA1_shp	3208.33	637662.3	6326694	1389.59	362	77.65	1367.84
TA1_shp	3208.33	637662.3	6326694	1369.59	382	82.27	1163
TA1_shp	3208.33	637662.3	6326694	1347.49	404.1	84.19	1037.4
TA1_shp	3208.33	637662.3	6326694	1322.94	428.65	83.58	982.6
TA1_shp	3208.33	637662.3	6326694	1296.99	454.6	77.98	1056.53
TA1_shp	3208.33	637662.3	6326694	1268.49	483.1	69	1238
TA1_shp	3208.33	637662.3	6326694	1237.79	513.8	56.67	1562.07
TA1_shp	3208.33	637662.3	6326694	1205.14	546.45	40.68	2121
TA1_shp	3208.33	637662.3	6326694	1169.34	582.25	22.35	3171.3

TA1_shp	3208.33	637662.3	6326694	1130.69	620.9	9.33	5008.38
TA1_shp	3208.33	637662.3	6326694	1089.54	662.05	3.13	8200.93
TA1_shp	3208.33	637662.3	6326694	1044.44	707.15	0.98	13917.49
TA1_shp	3208.33	637662.3	6326694	995.79	755.8	0.26	25376.46
TA1_shp	3208.33	637662.3	6326694	943.99	807.6	0.1	40884.52
TA1_shp	3208.33	637662.3	6326694	887.19	864.4	0.1	51800.43
TA1_shp	3208.33	637662.3	6326694	825.94	925.65	0.1	48606.2
TA1_shp	3208.33	637662.3	6326694	761.09	990.5	0.1	27669.02
TA1_shp	3208.33	637662.3	6326694	689.59	1062	0.1	9800.21
TA1_shp	3225	637676.8	6326695	1731.02	9.73	4.24	1558.02
TA1_shp	3225	637676.8	6326695	1711.55	29.2	5.36	5843.99
TA1_shp	3225	637676.8	6326695	1692.08	48.67	6.64	7732.16
TA1_shp	3225	637676.8	6326695	1672.62	68.13	5.75	5478.52
TA1_shp	3225	637676.8	6326695	1653.15	87.6	3.97	3422.22
TA1_shp	3225	637676.8	6326695	1633.68	107.07	2.72	2711.56
TA1_shp	3225	637676.8	6326695	1614.22	126.53	2.11	2944.41
TA1_shp	3225	637676.8	6326695	1594.75	146	2	3884.21
TA1_shp	3225	637676.8	6326695	1575.28	165.47	2.35	5291.54
TA1_shp	3225	637676.8	6326695	1555.82	184.93	3.31	6630.61
TA1_shp	3225	637676.8	6326695	1536.35	204.4	5.39	7221.48
TA1_shp	3225	637676.8	6326695	1516.88	223.87	10.26	6727.95
TA1_shp	3225	637676.8	6326695	1497.42	243.33	19.42	5653.17
TA1_shp	3225	637676.8	6326695	1477.95	262.8	32.6	4436.43
TA1_shp	3225	637676.8	6326695	1458.48	282.27	48.24	3287.25
TA1_shp	3225	637676.8	6326695	1438.75	302	61.6	2441.87
TA1_shp	3225	637676.8	6326695	1418.75	322	71.95	1866.66
TA1_shp	3225	637676.8	6326695	1398.75	342	80.16	1450.38
TA1_shp	3225	637676.8	6326695	1378.75	362	84.43	1234.53
TA1_shp	3225	637676.8	6326695	1358.75	382	86.06	1101.47
TA1_shp	3225	637676.8	6326695	1336.65	404.1	85.36	1033.17
TA1_shp	3225	637676.8	6326695	1312.1	428.65	80.05	1080.57
TA1_shp	3225	637676.8	6326695	1286.15	454.6	72.41	1200.04
TA1_shp	3225	637676.8	6326695	1257.65	483.1	61.14	1439.78
TA1_shp	3225	637676.8	6326695	1226.95	513.8	46.02	1936.9
TA1_shp	3225	637676.8	6326695	1194.3	546.45	29.5	2707.97
TA1_shp	3225	637676.8	6326695	1158.5	582.25	11.96	3887.2
TA1_shp	3225	637676.8	6326695	1119.85	620.9	5.33	6269.3
TA1_shp	3225	637676.8	6326695	1078.7	662.05	2.04	10740.2
TA1_shp	3225	637676.8	6326695	1033.6	707.15	0.61	18432.87
TA1_shp	3225	637676.8	6326695	984.95	755.8	0.1	30356.61
TA1_shp	3225	637676.8	6326695	933.15	807.6	0.1	46594.77
TA1_shp	3225	637676.8	6326695	876.35	864.4	0.1	52315.73
TA1_shp	3225	637676.8	6326695	815.1	925.65	0.1	41542.65
TA1_shp	3225	637676.8	6326695	750.25	990.5	0.1	21041.31
TA1_shp	3225	637676.8	6326695	678.75	1062	0.1	9137.38
TA1_shp	3241.67	637691.3	6326695	1720.18	9.73	5.49	2306.82
TA1_shp	3241.67	637691.3	6326695	1700.71	29.2	6.3	4274.71
TA1_shp	3241.67	637691.3	6326695	1681.24	48.67	7.05	7948.49
TA1_shp	3241.67	637691.3	6326695	1661.78	68.13	5.4	7030.57
TA1_shp	3241.67	637691.3	6326695	1642.31	87.6	3.44	4190.68
TA1_shp	3241.67	637691.3	6326695	1622.84	107.07	2.29	2886.35
TA1_shp	3241.67	637691.3	6326695	1603.38	126.53	1.81	2755.73

TA1_shp	3241.67	637691.3	6326695	1583.91	146	1.79	3352.09
TA1_shp	3241.67	637691.3	6326695	1564.44	165.47	2.21	4405.34
TA1_shp	3241.67	637691.3	6326695	1544.98	184.93	3.29	5476.52
TA1_shp	3241.67	637691.3	6326695	1525.51	204.4	5.59	6047.88
TA1_shp	3241.67	637691.3	6326695	1506.04	223.87	11.02	5802.03
TA1_shp	3241.67	637691.3	6326695	1486.58	243.33	21.19	5045.99
TA1_shp	3241.67	637691.3	6326695	1467.11	262.8	35.14	4108.06
TA1_shp	3241.67	637691.3	6326695	1447.64	282.27	51.06	3162.18
TA1_shp	3241.67	637691.3	6326695	1427.91	302	64.42	2417.09
TA1_shp	3241.67	637691.3	6326695	1407.91	322	74.61	1890.98
TA1_shp	3241.67	637691.3	6326695	1387.91	342	82.58	1497.27
TA1_shp	3241.67	637691.3	6326695	1367.91	362	86.44	1281.76
TA1_shp	3241.67	637691.3	6326695	1347.91	382	87.6	1147.85
TA1_shp	3241.67	637691.3	6326695	1325.81	404.1	86.3	1077.46
TA1_shp	3241.67	637691.3	6326695	1301.26	428.65	80.33	1122.51
TA1_shp	3241.67	637691.3	6326695	1275.31	454.6	72.06	1241.36
TA1_shp	3241.67	637691.3	6326695	1246.81	483.1	60.2	1484.33
TA1_shp	3241.67	637691.3	6326695	1216.11	513.8	44.58	1985.01
TA1_shp	3241.67	637691.3	6326695	1183.46	546.45	28.02	2759.9
TA1_shp	3241.67	637691.3	6326695	1147.66	582.25	11.07	3944.15
TA1_shp	3241.67	637691.3	6326695	1109.01	620.9	4.94	6350.08
TA1_shp	3241.67	637691.3	6326695	1067.86	662.05	1.89	10827.19
TA1_shp	3241.67	637691.3	6326695	1022.76	707.15	0.55	18471.19
TA1_shp	3241.67	637691.3	6326695	974.11	755.8	0.1	30236.83
TA1_shp	3241.67	637691.3	6326695	922.31	807.6	0.1	46061.82
TA1_shp	3241.67	637691.3	6326695	865.51	864.4	0.1	51454.52
TA1_shp	3241.67	637691.3	6326695	804.26	925.65	0.1	40802.85
TA1_shp	3241.67	637691.3	6326695	739.41	990.5	0.1	20707.39
TA1_shp	3241.67	637691.3	6326695	667.91	1062	0.1	9032.03
TA1_shp	3258.33	637705.8	6326695	1709.36	9.73	6.15	1402.68
TA1_shp	3258.33	637705.8	6326695	1689.89	29.2	7.48	5963.81
TA1_shp	3258.33	637705.8	6326695	1670.42	48.67	5.18	8144.47
TA1_shp	3258.33	637705.8	6326695	1650.96	68.13	3.02	4951.48
TA1_shp	3258.33	637705.8	6326695	1631.49	87.6	1.94	3120.51
TA1_shp	3258.33	637705.8	6326695	1612.02	107.07	1.56	2703.5
TA1_shp	3258.33	637705.8	6326695	1592.56	126.53	1.62	3068.69
TA1_shp	3258.33	637705.8	6326695	1573.09	146	2.12	3858.35
TA1_shp	3258.33	637705.8	6326695	1553.62	165.47	3.34	4685.14
TA1_shp	3258.33	637705.8	6326695	1534.16	184.93	5.92	5156.84
TA1_shp	3258.33	637705.8	6326695	1514.69	204.4	12.04	4998.05
TA1_shp	3258.33	637705.8	6326695	1495.22	223.87	23.35	4435.54
TA1_shp	3258.33	637705.8	6326695	1475.76	243.33	37.94	3711.5
TA1_shp	3258.33	637705.8	6326695	1456.29	262.8	53.85	2955.52
TA1_shp	3258.33	637705.8	6326695	1436.82	282.27	66.91	2331.55
TA1_shp	3258.33	637705.8	6326695	1417.09	302	76.8	1873.45
TA1_shp	3258.33	637705.8	6326695	1397.09	322	84.55	1515.3
TA1_shp	3258.33	637705.8	6326695	1377.09	342	87.93	1312.68
TA1_shp	3258.33	637705.8	6326695	1357.09	362	88.69	1182.8
TA1_shp	3258.33	637705.8	6326695	1337.09	382	86.95	1122.53
TA1_shp	3258.33	637705.8	6326695	1314.99	404.1	81.63	1148.86
TA1_shp	3258.33	637705.8	6326695	1290.44	428.65	74.1	1227.55
TA1_shp	3258.33	637705.8	6326695	1264.49	454.6	62.8	1451.61

TA1_shp	3258.33	637705.8	6326695	1235.99	483.1	48.84	1837.58
TA1_shp	3258.33	637705.8	6326695	1205.29	513.8	32.52	2394.99
TA1_shp	3258.33	637705.8	6326695	1172.64	546.45	17.28	3440.94
TA1_shp	3258.33	637705.8	6326695	1136.84	582.25	7.36	5233.52
TA1_shp	3258.33	637705.8	6326695	1098.19	620.9	2.58	8166.69
TA1_shp	3258.33	637705.8	6326695	1057.04	662.05	1	13393.45
TA1_shp	3258.33	637705.8	6326695	1011.94	707.15	0.27	23037.92
TA1_shp	3258.33	637705.8	6326695	963.29	755.8	0.1	35947.49
TA1_shp	3258.33	637705.8	6326695	911.49	807.6	0.1	48522.98
TA1_shp	3258.33	637705.8	6326695	854.69	864.4	0.1	51700.61
TA1_shp	3258.33	637705.8	6326695	793.44	925.65	0.1	34153.49
TA1_shp	3258.33	637705.8	6326695	728.59	990.5	0.1	14459.39
TA1_shp	3258.33	637705.8	6326695	657.09	1062	0.1	8383.18
TA1_shp	3275	637720.3	6326696	1698.52	9.73	7.49	1374.52
TA1_shp	3275	637720.3	6326696	1679.05	29.2	7.98	4484.47
TA1_shp	3275	637720.3	6326696	1659.58	48.67	4.88	8463.28
TA1_shp	3275	637720.3	6326696	1640.12	68.13	2.66	5326.57
TA1_shp	3275	637720.3	6326696	1620.65	87.6	1.68	3254.22
TA1_shp	3275	637720.3	6326696	1601.18	107.07	1.37	2706.36
TA1_shp	3275	637720.3	6326696	1581.72	126.53	1.51	2949.98
TA1_shp	3275	637720.3	6326696	1562.25	146	2.11	3555.18
TA1_shp	3275	637720.3	6326696	1542.78	165.47	3.48	4195
TA1_shp	3275	637720.3	6326696	1523.32	184.93	6.41	4505.41
TA1_shp	3275	637720.3	6326696	1503.85	204.4	13.36	4347.08
TA1_shp	3275	637720.3	6326696	1484.38	223.87	25.78	3886.87
TA1_shp	3275	637720.3	6326696	1464.92	243.33	40.84	3308.14
TA1_shp	3275	637720.3	6326696	1445.45	262.8	56.46	2706.79
TA1_shp	3275	637720.3	6326696	1425.98	282.27	69.26	2194.6
TA1_shp	3275	637720.3	6326696	1406.25	302	78.76	1809.65
TA1_shp	3275	637720.3	6326696	1386.25	322	86.05	1502.51
TA1_shp	3275	637720.3	6326696	1366.25	342	88.9	1322.91
TA1_shp	3275	637720.3	6326696	1346.25	362	89.14	1208.68
TA1_shp	3275	637720.3	6326696	1326.25	382	86.86	1157
TA1_shp	3275	637720.3	6326696	1304.15	404.1	81.02	1188.5
TA1_shp	3275	637720.3	6326696	1279.6	428.65	72.97	1271.31
TA1_shp	3275	637720.3	6326696	1253.65	454.6	61.26	1499.61
TA1_shp	3275	637720.3	6326696	1225.15	483.1	46.95	1891.07
TA1_shp	3275	637720.3	6326696	1194.45	513.8	30.38	2455.22
TA1_shp	3275	637720.3	6326696	1161.8	546.45	16.03	3510.24
TA1_shp	3275	637720.3	6326696	1126	582.25	6.77	5319.42
TA1_shp	3275	637720.3	6326696	1087.35	620.9	2.39	8270.73
TA1_shp	3275	637720.3	6326696	1046.2	662.05	0.92	13497.12
TA1_shp	3275	637720.3	6326696	1001.1	707.15	0.25	23055.73
TA1_shp	3275	637720.3	6326696	952.45	755.8	0.1	35724.52
TA1_shp	3275	637720.3	6326696	900.65	807.6	0.1	47931.89
TA1_shp	3275	637720.3	6326696	843.85	864.4	0.1	50781.93
TA1_shp	3275	637720.3	6326696	782.6	925.65	0.1	33559.41
TA1_shp	3275	637720.3	6326696	717.75	990.5	0.1	14245.05
TA1_shp	3275	637720.3	6326696	646.25	1062	0.1	8278.3
TA1_shp	3291.67	637734.8	6326696	1687.68	9.73	7.53	2530.77
TA1_shp	3291.67	637734.8	6326696	1668.21	29.2	4.32	7469.16
TA1_shp	3291.67	637734.8	6326696	1648.74	48.67	2.33	4982.69

TA1_shp	3291.67	637734.8	6326696	1629.28	68.13	1.49	3209.46
TA1_shp	3291.67	637734.8	6326696	1609.81	87.6	1.27	2733.24
TA1_shp	3291.67	637734.8	6326696	1590.34	107.07	1.49	2947.78
TA1_shp	3291.67	637734.8	6326696	1570.88	126.53	2.19	3455.38
TA1_shp	3291.67	637734.8	6326696	1551.41	146	3.75	3921.86
TA1_shp	3291.67	637734.8	6326696	1531.94	165.47	7.1	4077.23
TA1_shp	3291.67	637734.8	6326696	1512.48	184.93	15	3846.66
TA1_shp	3291.67	637734.8	6326696	1493.01	204.4	28.3	3422.19
TA1_shp	3291.67	637734.8	6326696	1473.54	223.87	43.57	2933.56
TA1_shp	3291.67	637734.8	6326696	1454.08	243.33	58.66	2444.24
TA1_shp	3291.67	637734.8	6326696	1434.61	262.8	71	2036.08
TA1_shp	3291.67	637734.8	6326696	1415.14	282.27	79.92	1724.93
TA1_shp	3291.67	637734.8	6326696	1395.41	302	86.75	1469.67
TA1_shp	3291.67	637734.8	6326696	1375.41	322	89.05	1320.55
TA1_shp	3291.67	637734.8	6326696	1355.41	342	88.91	1224.76
TA1_shp	3291.67	637734.8	6326696	1335.41	362	86.15	1185.71
TA1_shp	3291.67	637734.8	6326696	1315.41	382	80.69	1216.68
TA1_shp	3291.67	637734.8	6326696	1293.31	404.1	73.34	1284.93
TA1_shp	3291.67	637734.8	6326696	1268.76	428.65	62.34	1490.91
TA1_shp	3291.67	637734.8	6326696	1242.81	454.6	49.78	1785.43
TA1_shp	3291.67	637734.8	6326696	1214.31	483.1	34.12	2298.86
TA1_shp	3291.67	637734.8	6326696	1183.61	513.8	20.18	3158.4
TA1_shp	3291.67	637734.8	6326696	1150.96	546.45	8.22	4375.54
TA1_shp	3291.67	637734.8	6326696	1115.16	582.25	3.85	6651.53
TA1_shp	3291.67	637734.8	6326696	1076.51	620.9	1.56	10853.48
TA1_shp	3291.67	637734.8	6326696	1035.36	662.05	0.47	17268.24
TA1_shp	3291.67	637734.8	6326696	990.26	707.15	0.1	27525.18
TA1_shp	3291.67	637734.8	6326696	941.61	755.8	0.1	41032.27
TA1_shp	3291.67	637734.8	6326696	889.81	807.6	0.1	48232.7
TA1_shp	3291.67	637734.8	6326696	833.01	864.4	0.1	45191.57
TA1_shp	3291.67	637734.8	6326696	771.76	925.65	0.1	27293.63
TA1_shp	3291.67	637734.8	6326696	706.91	990.5	0.1	9574.56
TA1_shp	3291.67	637734.8	6326696	635.41	1062	0.1	7647.83
TA1_shp	3308.33	637750.3	6326702	1684.69	9.73	7.05	3569.94
TA1_shp	3308.33	637750.3	6326702	1665.22	29.2	3.46	4733.38
TA1_shp	3308.33	637750.3	6326702	1645.75	48.67	2.03	3974.65
TA1_shp	3308.33	637750.3	6326702	1626.29	68.13	1.37	3038.86
TA1_shp	3308.33	637750.3	6326702	1606.82	87.6	1.27	2790
TA1_shp	3308.33	637750.3	6326702	1587.35	107.07	1.59	3057.86
TA1_shp	3308.33	637750.3	6326702	1567.89	126.53	2.42	3510.94
TA1_shp	3308.33	637750.3	6326702	1548.42	146	4.2	3828.93
TA1_shp	3308.33	637750.3	6326702	1528.95	165.47	8	3819.36
TA1_shp	3308.33	637750.3	6326702	1509.49	184.93	16.82	3477.57
TA1_shp	3308.33	637750.3	6326702	1490.02	204.4	30.61	3044.06
TA1_shp	3308.33	637750.3	6326702	1470.55	223.87	45.7	2606.08
TA1_shp	3308.33	637750.3	6326702	1451.09	243.33	60.13	2196.65
TA1_shp	3308.33	637750.3	6326702	1431.62	262.8	71.92	1870.55
TA1_shp	3308.33	637750.3	6326702	1412.15	282.27	80.3	1623.44
TA1_shp	3308.33	637750.3	6326702	1392.42	302	86.58	1421.68
TA1_shp	3308.33	637750.3	6326702	1372.42	322	88.4	1304.58
TA1_shp	3308.33	637750.3	6326702	1352.42	342	87.82	1232.71
TA1_shp	3308.33	637750.3	6326702	1332.42	362	84.68	1208.98

TA1_shp	3308.33	637750.3	6326702	1312.42	382	78.92	1251.37
TA1_shp	3308.33	637750.3	6326702	1290.32	404.1	71.27	1330.34
TA1_shp	3308.33	637750.3	6326702	1265.77	428.65	60.14	1543.47
TA1_shp	3308.33	637750.3	6326702	1239.82	454.6	47.47	1845.45
TA1_shp	3308.33	637750.3	6326702	1211.32	483.1	31.82	2368.65
TA1_shp	3308.33	637750.3	6326702	1180.62	513.8	18.55	3239.32
TA1_shp	3308.33	637750.3	6326702	1147.97	546.45	7.54	4469.07
TA1_shp	3308.33	637750.3	6326702	1112.17	582.25	3.55	6762.01
TA1_shp	3308.33	637750.3	6326702	1073.52	620.9	1.44	10973.48
TA1_shp	3308.33	637750.3	6326702	1032.37	662.05	0.43	17366.91
TA1_shp	3308.33	637750.3	6326702	987.27	707.15	0.1	27524.98
TA1_shp	3308.33	637750.3	6326702	938.62	755.8	0.1	40713
TA1_shp	3308.33	637750.3	6326702	886.82	807.6	0.1	47592.54
TA1_shp	3308.33	637750.3	6326702	830.02	864.4	0.1	44411.08
TA1_shp	3308.33	637750.3	6326702	768.77	925.65	0.1	26839.16
TA1_shp	3308.33	637750.3	6326702	703.92	990.5	0.1	9442.53
TA1_shp	3308.33	637750.3	6326702	632.42	1062	0.1	7545.76
TA1_shp	3325	637766.8	6326714	1689.52	9.73	6.28	1045.98
TA1_shp	3325	637766.8	6326714	1670.05	29.2	3.43	2959.76
TA1_shp	3325	637766.8	6326714	1650.58	48.67	1.86	3408.6
TA1_shp	3325	637766.8	6326714	1631.12	68.13	1.36	2943.76
TA1_shp	3325	637766.8	6326714	1611.65	87.6	1.4	2890.61
TA1_shp	3325	637766.8	6326714	1592.18	107.07	1.85	3249.72
TA1_shp	3325	637766.8	6326714	1572.72	126.53	2.84	3690.24
TA1_shp	3325	637766.8	6326714	1553.25	146	4.9	3874.2
TA1_shp	3325	637766.8	6326714	1533.78	165.47	9.16	3680.44
TA1_shp	3325	637766.8	6326714	1514.32	184.93	18.69	3213.09
TA1_shp	3325	637766.8	6326714	1494.85	204.4	32.41	2742.24
TA1_shp	3325	637766.8	6326714	1475.38	223.87	46.95	2324.4
TA1_shp	3325	637766.8	6326714	1455.92	243.33	60.63	1969.5
TA1_shp	3325	637766.8	6326714	1436.45	262.8	71.77	1710.9
TA1_shp	3325	637766.8	6326714	1416.98	282.27	79.58	1519.49
TA1_shp	3325	637766.8	6326714	1397.25	302	85.34	1366.45
TA1_shp	3325	637766.8	6326714	1377.25	322	86.75	1282.15
TA1_shp	3325	637766.8	6326714	1357.25	342	85.82	1236.04
TA1_shp	3325	637766.8	6326714	1337.25	362	82.4	1230.54
TA1_shp	3325	637766.8	6326714	1317.25	382	76.48	1285.38
TA1_shp	3325	637766.8	6326714	1295.15	404.1	68.71	1375.32
TA1_shp	3325	637766.8	6326714	1270.6	428.65	57.58	1597.18
TA1_shp	3325	637766.8	6326714	1244.65	454.6	44.97	1908.45
TA1_shp	3325	637766.8	6326714	1216.15	483.1	29.49	2443.46
TA1_shp	3325	637766.8	6326714	1185.45	513.8	16.97	3328.57
TA1_shp	3325	637766.8	6326714	1152.8	546.45	6.92	4573.97
TA1_shp	3325	637766.8	6326714	1117	582.25	3.28	6880.22
TA1_shp	3325	637766.8	6326714	1078.35	620.9	1.34	11102.48
TA1_shp	3325	637766.8	6326714	1037.2	662.05	0.4	17482.09
TA1_shp	3325	637766.8	6326714	992.1	707.15	0.1	27560.21
TA1_shp	3325	637766.8	6326714	943.45	755.8	0.1	40414.46
TA1_shp	3325	637766.8	6326714	891.65	807.6	0.1	46964.12
TA1_shp	3325	637766.8	6326714	834.85	864.4	0.1	43639.3
TA1_shp	3325	637766.8	6326714	773.6	925.65	0.1	26388.43
TA1_shp	3325	637766.8	6326714	708.75	990.5	0.1	9309.36

TA1_shp	3325	637766.8	6326714	637.25	1062	0.1	7442.79
TA1_shp	3341.67	637783.3	6326727	1694.35	9.73	9.47	668.85
TA1_shp	3341.67	637783.3	6326727	1674.88	29.2	3.17	2753.78
TA1_shp	3341.67	637783.3	6326727	1655.41	48.67	1.72	3168.4
TA1_shp	3341.67	637783.3	6326727	1635.95	68.13	1.49	2839.19
TA1_shp	3341.67	637783.3	6326727	1616.48	87.6	1.76	2986.98
TA1_shp	3341.67	637783.3	6326727	1597.01	107.07	2.39	3511.05
TA1_shp	3341.67	637783.3	6326727	1577.55	126.53	3.57	3974.67
TA1_shp	3341.67	637783.3	6326727	1558.08	146	5.87	4008.84
TA1_shp	3341.67	637783.3	6326727	1538.61	165.47	10.49	3620.51
TA1_shp	3341.67	637783.3	6326727	1519.15	184.93	20.28	3011.6
TA1_shp	3341.67	637783.3	6326727	1499.68	204.4	33.42	2492.1
TA1_shp	3341.67	637783.3	6326727	1480.21	223.87	47.11	2083.12
TA1_shp	3341.67	637783.3	6326727	1460.75	243.33	59.96	1768.9
TA1_shp	3341.67	637783.3	6326727	1441.28	262.8	70.44	1561.04
TA1_shp	3341.67	637783.3	6326727	1421.81	282.27	77.72	1416.21
TA1_shp	3341.67	637783.3	6326727	1402.08	302	83.03	1306.68
TA1_shp	3341.67	637783.3	6326727	1382.08	322	84.12	1253.48
TA1_shp	3341.67	637783.3	6326727	1362.08	342	82.97	1233.09
TA1_shp	3341.67	637783.3	6326727	1342.08	362	79.42	1247.62
TA1_shp	3341.67	637783.3	6326727	1322.08	382	73.47	1316.72
TA1_shp	3341.67	637783.3	6326727	1299.98	404.1	65.71	1419.61
TA1_shp	3341.67	637783.3	6326727	1275.43	428.65	54.74	1654.02
TA1_shp	3341.67	637783.3	6326727	1249.48	454.6	42.35	1978.16
TA1_shp	3341.67	637783.3	6326727	1220.98	483.1	27.21	2526.8
TA1_shp	3341.67	637783.3	6326727	1190.28	513.8	15.48	3424.28
TA1_shp	3341.67	637783.3	6326727	1157.63	546.45	6.37	4682.34
TA1_shp	3341.67	637783.3	6326727	1121.83	582.25	3.04	7007
TA1_shp	3341.67	637783.3	6326727	1083.18	620.9	1.25	11243.74
TA1_shp	3341.67	637783.3	6326727	1042.03	662.05	0.36	17609.06
TA1_shp	3341.67	637783.3	6326727	996.93	707.15	0.1	27596.82
TA1_shp	3341.67	637783.3	6326727	948.28	755.8	0.1	40132.54
TA1_shp	3341.67	637783.3	6326727	896.48	807.6	0.1	46361.8
TA1_shp	3341.67	637783.3	6326727	839.68	864.4	0.1	42892.2
TA1_shp	3341.67	637783.3	6326727	778.43	925.65	0.1	25948.05
TA1_shp	3341.67	637783.3	6326727	713.58	990.5	0.1	9172.49
TA1_shp	3341.67	637783.3	6326727	642.08	1062	0.1	7336.97
TA1_shp	3358.33	637799.8	6326739	1699.19	9.73	23.59	1914.54
TA1_shp	3358.33	637799.8	6326739	1679.72	29.2	5.93	2665.96
TA1_shp	3358.33	637799.8	6326739	1660.25	48.67	2.25	3572.07
TA1_shp	3358.33	637799.8	6326739	1640.79	68.13	1.69	2904.61
TA1_shp	3358.33	637799.8	6326739	1621.32	87.6	1.95	2623.9
TA1_shp	3358.33	637799.8	6326739	1601.85	107.07	2.55	3054.27
TA1_shp	3358.33	637799.8	6326739	1582.39	126.53	3.38	3824.51
TA1_shp	3358.33	637799.8	6326739	1562.92	146	4.68	4326.47
TA1_shp	3358.33	637799.8	6326739	1543.45	165.47	7.11	4190.75
TA1_shp	3358.33	637799.8	6326739	1523.99	184.93	11.79	3586.95
TA1_shp	3358.33	637799.8	6326739	1504.52	204.4	21.21	2837.69
TA1_shp	3358.33	637799.8	6326739	1485.05	223.87	33.39	2272.53
TA1_shp	3358.33	637799.8	6326739	1465.59	243.33	46.04	1870.43
TA1_shp	3358.33	637799.8	6326739	1446.12	262.8	58.03	1589.67
TA1_shp	3358.33	637799.8	6326739	1426.65	282.27	67.87	1425.26

TA1_shp	3358.33	637799.8	6326739	1406.92	302	74.75	1318.8
TA1_shp	3358.33	637799.8	6326739	1386.92	322	79.65	1246.9
TA1_shp	3358.33	637799.8	6326739	1366.92	342	80.56	1224.71
TA1_shp	3358.33	637799.8	6326739	1346.92	362	79.2	1231.19
TA1_shp	3358.33	637799.8	6326739	1326.92	382	75.69	1265.1
TA1_shp	3358.33	637799.8	6326739	1304.82	404.1	69.05	1363.09
TA1_shp	3358.33	637799.8	6326739	1280.27	428.65	60.39	1507.52
TA1_shp	3358.33	637799.8	6326739	1254.32	454.6	48.77	1784.51
TA1_shp	3358.33	637799.8	6326739	1225.82	483.1	34.99	2229.78
TA1_shp	3358.33	637799.8	6326739	1195.12	513.8	19.55	2852.61
TA1_shp	3358.33	637799.8	6326739	1162.47	546.45	10.4	3979.76
TA1_shp	3358.33	637799.8	6326739	1126.67	582.25	4.49	5868.67
TA1_shp	3358.33	637799.8	6326739	1088.02	620.9	1.67	8898.28
TA1_shp	3358.33	637799.8	6326739	1046.87	662.05	0.62	14174.19
TA1_shp	3358.33	637799.8	6326739	1001.77	707.15	0.16	23382.69
TA1_shp	3358.33	637799.8	6326739	953.12	755.8	0.1	34926.07
TA1_shp	3358.33	637799.8	6326739	901.32	807.6	0.1	45352.35
TA1_shp	3358.33	637799.8	6326739	844.52	864.4	0.1	46585.36
TA1_shp	3358.33	637799.8	6326739	783.27	925.65	0.1	30802.16
TA1_shp	3358.33	637799.8	6326739	718.42	990.5	0.1	13181.03
TA1_shp	3358.33	637799.8	6326739	646.92	1062	0.1	7721.4
TA1_shp	3375	637816.3	6326751	1704.02	9.73	1.61	11997.53
TA1_shp	3375	637816.3	6326751	1684.55	29.2	1.72	6516.74
TA1_shp	3375	637816.3	6326751	1665.08	48.67	1.64	3641.77
TA1_shp	3375	637816.3	6326751	1645.62	68.13	2.18	2350.66
TA1_shp	3375	637816.3	6326751	1626.15	87.6	3.15	2341.68
TA1_shp	3375	637816.3	6326751	1606.68	107.07	4.15	3140.19
TA1_shp	3375	637816.3	6326751	1587.22	126.53	5.02	4203.96
TA1_shp	3375	637816.3	6326751	1567.75	146	6.2	4732.17
TA1_shp	3375	637816.3	6326751	1548.28	165.47	8.42	4389.29
TA1_shp	3375	637816.3	6326751	1528.82	184.93	12.74	3560.76
TA1_shp	3375	637816.3	6326751	1509.35	204.4	21.21	2686.15
TA1_shp	3375	637816.3	6326751	1489.88	223.87	32.18	2085.37
TA1_shp	3375	637816.3	6326751	1470.42	243.33	43.74	1690.96
TA1_shp	3375	637816.3	6326751	1450.95	262.8	54.89	1437.22
TA1_shp	3375	637816.3	6326751	1431.48	282.27	64.15	1305.58
TA1_shp	3375	637816.3	6326751	1411.75	302	70.65	1232.02
TA1_shp	3375	637816.3	6326751	1391.75	322	75.28	1192.32
TA1_shp	3375	637816.3	6326751	1371.75	342	76.17	1196.47
TA1_shp	3375	637816.3	6326751	1351.75	362	74.9	1226.96
TA1_shp	3375	637816.3	6326751	1331.75	382	71.58	1282.67
TA1_shp	3375	637816.3	6326751	1309.65	404.1	65.2	1397.95
TA1_shp	3375	637816.3	6326751	1285.1	428.65	56.84	1558.71
TA1_shp	3375	637816.3	6326751	1259.15	454.6	45.63	1849.86
TA1_shp	3375	637816.3	6326751	1230.65	483.1	32.44	2310.84
TA1_shp	3375	637816.3	6326751	1199.95	513.8	17.77	2950.57
TA1_shp	3375	637816.3	6326751	1167.3	546.45	9.55	4092.47
TA1_shp	3375	637816.3	6326751	1131.5	582.25	4.19	5999.18
TA1_shp	3375	637816.3	6326751	1092.85	620.9	1.58	9048.65
TA1_shp	3375	637816.3	6326751	1051.7	662.05	0.58	14343.3
TA1_shp	3375	637816.3	6326751	1006.6	707.15	0.15	23492.69
TA1_shp	3375	637816.3	6326751	957.95	755.8	0.1	34822.71

TA1_shp	3375	637816.3	6326751	906.15	807.6	0.1	44902.2
TA1_shp	3375	637816.3	6326751	849.35	864.4	0.1	45811.81
TA1_shp	3375	637816.3	6326751	788.1	925.65	0.1	30285.78
TA1_shp	3375	637816.3	6326751	723.25	990.5	0.1	12969.17
TA1_shp	3375	637816.3	6326751	651.75	1062	0.1	7604.31
TA1_shp	3391.67	637832.8	6326763	1708.85	9.73	1.98	10655.55
TA1_shp	3391.67	637832.8	6326763	1689.38	29.2	1.76	5561.86
TA1_shp	3391.67	637832.8	6326763	1669.91	48.67	2.44	2558.09
TA1_shp	3391.67	637832.8	6326763	1650.45	68.13	4.09	1800.59
TA1_shp	3391.67	637832.8	6326763	1630.98	87.6	6	2171.86
TA1_shp	3391.67	637832.8	6326763	1611.51	107.07	7.02	3337.21
TA1_shp	3391.67	637832.8	6326763	1592.05	126.53	7.31	4682.24
TA1_shp	3391.67	637832.8	6326763	1572.58	146	7.84	5182.08
TA1_shp	3391.67	637832.8	6326763	1553.11	165.47	9.44	4575.49
TA1_shp	3391.67	637832.8	6326763	1533.65	184.93	12.96	3523.89
TA1_shp	3391.67	637832.8	6326763	1514.18	204.4	20.14	2539.87
TA1_shp	3391.67	637832.8	6326763	1494.71	223.87	29.78	1917.17
TA1_shp	3391.67	637832.8	6326763	1475.25	243.33	40.27	1535.06
TA1_shp	3391.67	637832.8	6326763	1455.78	262.8	50.65	1304.76
TA1_shp	3391.67	637832.8	6326763	1436.31	282.27	59.4	1204.58
TA1_shp	3391.67	637832.8	6326763	1416.58	302	65.65	1158.3
TA1_shp	3391.67	637832.8	6326763	1396.58	322	70.19	1144.13
TA1_shp	3391.67	637832.8	6326763	1376.58	342	71.2	1173.71
TA1_shp	3391.67	637832.8	6326763	1356.58	362	70.12	1226.2
TA1_shp	3391.67	637832.8	6326763	1336.58	382	67.05	1300.63
TA1_shp	3391.67	637832.8	6326763	1314.48	404.1	61.04	1433.47
TA1_shp	3391.67	637832.8	6326763	1289.93	428.65	53.14	1612.31
TA1_shp	3391.67	637832.8	6326763	1263.98	454.6	42.37	1919.96
TA1_shp	3391.67	637832.8	6326763	1235.48	483.1	29.9	2395.88
TA1_shp	3391.67	637832.8	6326763	1204.78	513.8	16.2	3049.16
TA1_shp	3391.67	637832.8	6326763	1172.13	546.45	8.8	4211.32
TA1_shp	3391.67	637832.8	6326763	1136.33	582.25	3.93	6141.36
TA1_shp	3391.67	637832.8	6326763	1097.68	620.9	1.5	9214.7
TA1_shp	3391.67	637832.8	6326763	1056.53	662.05	0.55	14526.02
TA1_shp	3391.67	637832.8	6326763	1011.43	707.15	0.14	23616.98
TA1_shp	3391.67	637832.8	6326763	962.78	755.8	0.1	34731.09
TA1_shp	3391.67	637832.8	6326763	910.98	807.6	0.1	44458.14
TA1_shp	3391.67	637832.8	6326763	854.18	864.4	0.1	45042.52
TA1_shp	3391.67	637832.8	6326763	792.93	925.65	0.1	29770.66
TA1_shp	3391.67	637832.8	6326763	728.08	990.5	0.1	12755.33
TA1_shp	3391.67	637832.8	6326763	656.58	1062	0.1	7484.99
TA1_shp	3408.33	637848.8	6326772	1711.85	9.73	0.82	21708.97
TA1_shp	3408.33	637848.8	6326772	1692.38	29.2	2.33	5074.85
TA1_shp	3408.33	637848.8	6326772	1672.91	48.67	4.95	1898.35
TA1_shp	3408.33	637848.8	6326772	1653.45	68.13	8.67	1553.03
TA1_shp	3408.33	637848.8	6326772	1633.98	87.6	11	2221.01
TA1_shp	3408.33	637848.8	6326772	1614.51	107.07	10.63	3732.72
TA1_shp	3408.33	637848.8	6326772	1595.05	126.53	9.44	5285.56
TA1_shp	3408.33	637848.8	6326772	1575.58	146	8.94	5625.07
TA1_shp	3408.33	637848.8	6326772	1556.11	165.47	9.73	4708.79
TA1_shp	3408.33	637848.8	6326772	1536.65	184.93	12.36	3447.81
TA1_shp	3408.33	637848.8	6326772	1517.18	204.4	18.16	2395.22

TA1_shp	3408.33	637848.8	6326772	1497.71	223.87	26.46	1765.04
TA1_shp	3408.33	637848.8	6326772	1478.25	243.33	35.93	1400.67
TA1_shp	3408.33	637848.8	6326772	1458.78	262.8	45.67	1197.93
TA1_shp	3408.33	637848.8	6326772	1439.31	282.27	54.03	1117.74
TA1_shp	3408.33	637848.8	6326772	1419.58	302	60.13	1094.26
TA1_shp	3408.33	637848.8	6326772	1399.58	322	64.65	1103.69
TA1_shp	3408.33	637848.8	6326772	1379.58	342	65.85	1152.78
TA1_shp	3408.33	637848.8	6326772	1359.58	362	65.06	1224.65
TA1_shp	3408.33	637848.8	6326772	1339.58	382	62.35	1318.32
TA1_shp	3408.33	637848.8	6326772	1317.48	404.1	56.79	1468.92
TA1_shp	3408.33	637848.8	6326772	1292.93	428.65	49.41	1665.61
TA1_shp	3408.33	637848.8	6326772	1266.98	454.6	39.17	1986.76
TA1_shp	3408.33	637848.8	6326772	1238.48	483.1	27.5	2479.33
TA1_shp	3408.33	637848.8	6326772	1207.78	513.8	14.85	3152.14
TA1_shp	3408.33	637848.8	6326772	1175.13	546.45	8.16	4334.69
TA1_shp	3408.33	637848.8	6326772	1139.33	582.25	3.71	6287.52
TA1_shp	3408.33	637848.8	6326772	1100.68	620.9	1.44	9385.57
TA1_shp	3408.33	637848.8	6326772	1059.53	662.05	0.53	14722.39
TA1_shp	3408.33	637848.8	6326772	1014.43	707.15	0.14	23753.5
TA1_shp	3408.33	637848.8	6326772	965.78	755.8	0.1	34653.01
TA1_shp	3408.33	637848.8	6326772	913.98	807.6	0.1	44033.55
TA1_shp	3408.33	637848.8	6326772	857.18	864.4	0.1	44295.63
TA1_shp	3408.33	637848.8	6326772	795.93	925.65	0.1	29268.6
TA1_shp	3408.33	637848.8	6326772	731.08	990.5	0.1	12544
TA1_shp	3408.33	637848.8	6326772	659.58	1062	0.1	7365.7
TA1_shp	3425	637864.5	6326779	1713.02	9.73	4.04	10286.57
TA1_shp	3425	637864.5	6326779	1693.55	29.2	6.85	2998.11
TA1_shp	3425	637864.5	6326779	1674.08	48.67	11.16	1543.01
TA1_shp	3425	637864.5	6326779	1654.62	68.13	15.1	1604.21
TA1_shp	3425	637864.5	6326779	1635.15	87.6	15.21	2551.68
TA1_shp	3425	637864.5	6326779	1615.68	107.07	12.55	4355.52
TA1_shp	3425	637864.5	6326779	1596.22	126.53	10.09	5962.57
TA1_shp	3425	637864.5	6326779	1576.75	146	8.92	6019.69
TA1_shp	3425	637864.5	6326779	1557.28	165.47	9.19	4779.28
TA1_shp	3425	637864.5	6326779	1537.82	184.93	11.16	3347.25
TA1_shp	3425	637864.5	6326779	1518.35	204.4	15.82	2251.81
TA1_shp	3425	637864.5	6326779	1498.88	223.87	22.85	1631.19
TA1_shp	3425	637864.5	6326779	1479.42	243.33	31.36	1288.47
TA1_shp	3425	637864.5	6326779	1459.95	262.8	40.51	1106.73
TA1_shp	3425	637864.5	6326779	1440.48	282.27	48.55	1047.99
TA1_shp	3425	637864.5	6326779	1420.75	302	54.54	1043.05
TA1_shp	3425	637864.5	6326779	1400.75	322	59.09	1069.94
TA1_shp	3425	637864.5	6326779	1380.75	342	60.49	1137.22
TA1_shp	3425	637864.5	6326779	1360.75	362	60	1227.38
TA1_shp	3425	637864.5	6326779	1340.75	382	57.68	1339.44
TA1_shp	3425	637864.5	6326779	1318.65	404.1	52.62	1506.06
TA1_shp	3425	637864.5	6326779	1294.1	428.65	45.82	1718.92
TA1_shp	3425	637864.5	6326779	1268.15	454.6	36.12	2057.28
TA1_shp	3425	637864.5	6326779	1239.65	483.1	25.28	2567.5
TA1_shp	3425	637864.5	6326779	1208.95	513.8	13.7	3258.43
TA1_shp	3425	637864.5	6326779	1176.3	546.45	7.63	4464.79
TA1_shp	3425	637864.5	6326779	1140.5	582.25	3.55	6445.49

TA1_shp	3425	637864.5	6326779	1101.85	620.9	1.41	9573.14
TA1_shp	3425	637864.5	6326779	1060.7	662.05	0.52	14934.04
TA1_shp	3425	637864.5	6326779	1015.6	707.15	0.14	23903.53
TA1_shp	3425	637864.5	6326779	966.95	755.8	0.1	34590.27
TA1_shp	3425	637864.5	6326779	915.15	807.6	0.1	43626.2
TA1_shp	3425	637864.5	6326779	858.35	864.4	0.1	43553.57
TA1_shp	3425	637864.5	6326779	797.1	925.65	0.1	28767.95
TA1_shp	3425	637864.5	6326779	732.25	990.5	0.1	12330.98
TA1_shp	3425	637864.5	6326779	660.75	1062	0.1	7244.44
TA1_shp	3441.67	637880.2	6326785	1714.19	9.73	14.57	4657.86
TA1_shp	3441.67	637880.2	6326785	1694.72	29.2	11.76	2246.43
TA1_shp	3441.67	637880.2	6326785	1675.25	48.67	14.32	1662.35
TA1_shp	3441.67	637880.2	6326785	1655.79	68.13	15.74	1968.19
TA1_shp	3441.67	637880.2	6326785	1636.32	87.6	14.11	3145.02
TA1_shp	3441.67	637880.2	6326785	1616.85	107.07	11.25	5135.98
TA1_shp	3441.67	637880.2	6326785	1597.39	126.53	9.06	6634.44
TA1_shp	3441.67	637880.2	6326785	1577.92	146	8.04	6315.23
TA1_shp	3441.67	637880.2	6326785	1558.45	165.47	8.26	4764.92
TA1_shp	3441.67	637880.2	6326785	1538.99	184.93	9.89	3223.62
TA1_shp	3441.67	637880.2	6326785	1519.52	204.4	13.76	2115.93
TA1_shp	3441.67	637880.2	6326785	1500.05	223.87	19.72	1516.29
TA1_shp	3441.67	637880.2	6326785	1480.59	243.33	27.25	1197.51
TA1_shp	3441.67	637880.2	6326785	1461.12	262.8	35.68	1034.14
TA1_shp	3441.67	637880.2	6326785	1441.65	282.27	43.44	991.81
TA1_shp	3441.67	637880.2	6326785	1421.92	302	49.28	1001.11
TA1_shp	3441.67	637880.2	6326785	1401.92	322	53.8	1041.63
TA1_shp	3441.67	637880.2	6326785	1381.92	342	55.38	1124.45
TA1_shp	3441.67	637880.2	6326785	1361.92	362	55.17	1230.06
TA1_shp	3441.67	637880.2	6326785	1341.92	382	53.22	1357.46
TA1_shp	3441.67	637880.2	6326785	1319.82	404.1	48.66	1540.34
TA1_shp	3441.67	637880.2	6326785	1295.27	428.65	42.42	1770.66
TA1_shp	3441.67	637880.2	6326785	1269.32	454.6	33.32	2123.95
TA1_shp	3441.67	637880.2	6326785	1240.82	483.1	23.31	2653.04
TA1_shp	3441.67	637880.2	6326785	1210.12	513.8	12.76	3366.49
TA1_shp	3441.67	637880.2	6326785	1177.47	546.45	7.2	4597.96
TA1_shp	3441.67	637880.2	6326785	1141.67	582.25	3.42	6605.76
TA1_shp	3441.67	637880.2	6326785	1103.02	620.9	1.38	9762.75
TA1_shp	3441.67	637880.2	6326785	1061.87	662.05	0.52	15156.43
TA1_shp	3441.67	637880.2	6326785	1016.77	707.15	0.14	24072.21
TA1_shp	3441.67	637880.2	6326785	968.12	755.8	0.1	34538.9
TA1_shp	3441.67	637880.2	6326785	916.32	807.6	0.1	43216.24
TA1_shp	3441.67	637880.2	6326785	859.52	864.4	0.1	42829.28
TA1_shp	3441.67	637880.2	6326785	798.27	925.65	0.1	28277.95
TA1_shp	3441.67	637880.2	6326785	733.42	990.5	0.1	12119.53
TA1_shp	3441.67	637880.2	6326785	661.92	1062	0.1	7122.74
TA1_shp	3458.33	637895.8	6326791	1715.35	9.73	6.14	15477.5
TA1_shp	3458.33	637895.8	6326791	1695.88	29.2	7.13	7548.71
TA1_shp	3458.33	637895.8	6326791	1676.41	48.67	8.76	3398.55
TA1_shp	3458.33	637895.8	6326791	1656.95	68.13	10.23	2339.37
TA1_shp	3458.33	637895.8	6326791	1637.48	87.6	10.83	2580.8
TA1_shp	3458.33	637895.8	6326791	1618.01	107.07	10.13	3849.62
TA1_shp	3458.33	637895.8	6326791	1598.55	126.53	8.76	5864.55

TA1_shp	3458.33	637895.8	6326791	1579.08	146	7.63	7117.52
TA1_shp	3458.33	637895.8	6326791	1559.61	165.47	7.15	6437.91
TA1_shp	3458.33	637895.8	6326791	1540.15	184.93	7.57	4688.63
TA1_shp	3458.33	637895.8	6326791	1520.68	204.4	9.11	3086.5
TA1_shp	3458.33	637895.8	6326791	1501.21	223.87	12.48	1996.74
TA1_shp	3458.33	637895.8	6326791	1481.75	243.33	17.63	1421.51
TA1_shp	3458.33	637895.8	6326791	1462.28	262.8	24.28	1123.52
TA1_shp	3458.33	637895.8	6326791	1442.81	282.27	31.92	977.76
TA1_shp	3458.33	637895.8	6326791	1423.08	302	39.32	946.85
TA1_shp	3458.33	637895.8	6326791	1403.08	322	44.93	969.46
TA1_shp	3458.33	637895.8	6326791	1383.08	342	49.2	1023.22
TA1_shp	3458.33	637895.8	6326791	1363.08	362	50.88	1118.86
TA1_shp	3458.33	637895.8	6326791	1343.08	382	50.78	1239.82
TA1_shp	3458.33	637895.8	6326791	1320.98	404.1	48.99	1397.56
TA1_shp	3458.33	637895.8	6326791	1296.43	428.65	43.97	1625.33
TA1_shp	3458.33	637895.8	6326791	1270.48	454.6	37.27	1915.69
TA1_shp	3458.33	637895.8	6326791	1241.98	483.1	27.92	2322.94
TA1_shp	3458.33	637895.8	6326791	1211.28	513.8	18.04	3004.84
TA1_shp	3458.33	637895.8	6326791	1178.63	546.45	9.94	3986.71
TA1_shp	3458.33	637895.8	6326791	1142.83	582.25	4.46	5417.86
TA1_shp	3458.33	637895.8	6326791	1104.18	620.9	2.21	8117.88
TA1_shp	3458.33	637895.8	6326791	1063.03	662.05	0.92	12825.38
TA1_shp	3458.33	637895.8	6326791	1017.93	707.15	0.25	20163.12
TA1_shp	3458.33	637895.8	6326791	969.28	755.8	0.1	30372.89
TA1_shp	3458.33	637895.8	6326791	917.48	807.6	0.1	41342.44
TA1_shp	3458.33	637895.8	6326791	860.68	864.4	0.1	42351.59
TA1_shp	3458.33	637895.8	6326791	799.43	925.65	0.1	32554.79
TA1_shp	3458.33	637895.8	6326791	734.58	990.5	0.1	16674.86
TA1_shp	3458.33	637895.8	6326791	663.08	1062	0.1	7438.49
TA1_shp	3475	637911.5	6326798	1716.52	9.73	10.72	19525.95
TA1_shp	3475	637911.5	6326798	1697.05	29.2	9.21	9051.41
TA1_shp	3475	637911.5	6326798	1677.58	48.67	7.7	4177.11
TA1_shp	3475	637911.5	6326798	1658.12	68.13	7.35	2813.6
TA1_shp	3475	637911.5	6326798	1638.65	87.6	7.57	3007.18
TA1_shp	3475	637911.5	6326798	1619.18	107.07	7.61	4312.91
TA1_shp	3475	637911.5	6326798	1599.72	126.53	7.27	6281.24
TA1_shp	3475	637911.5	6326798	1580.25	146	6.93	7293.51
TA1_shp	3475	637911.5	6326798	1560.78	165.47	6.95	6374.22
TA1_shp	3475	637911.5	6326798	1541.32	184.93	7.6	4532.56
TA1_shp	3475	637911.5	6326798	1521.85	204.4	9.18	2942.75
TA1_shp	3475	637911.5	6326798	1502.38	223.87	12.31	1893.14
TA1_shp	3475	637911.5	6326798	1482.92	243.33	16.94	1346.84
TA1_shp	3475	637911.5	6326798	1463.45	262.8	22.87	1068.28
TA1_shp	3475	637911.5	6326798	1443.98	282.27	29.66	936.1
TA1_shp	3475	637911.5	6326798	1424.25	302	36.38	914.71
TA1_shp	3475	637911.5	6326798	1404.25	322	41.55	945.93
TA1_shp	3475	637911.5	6326798	1384.25	342	45.53	1008.48
TA1_shp	3475	637911.5	6326798	1364.25	362	47.13	1115.85
TA1_shp	3475	637911.5	6326798	1344.25	382	47.11	1248.19
TA1_shp	3475	637911.5	6326798	1322.15	404.1	45.56	1418.16
TA1_shp	3475	637911.5	6326798	1297.6	428.65	40.96	1662.83
TA1_shp	3475	637911.5	6326798	1271.65	454.6	34.77	1971.08

TA1_shp	3475	637911.5	6326798	1243.15	483.1	26.07	2397.07
TA1_shp	3475	637911.5	6326798	1212.45	513.8	16.98	3101.26
TA1_shp	3475	637911.5	6326798	1179.8	546.45	9.49	4109.92
TA1_shp	3475	637911.5	6326798	1144	582.25	4.37	5574.2
TA1_shp	3475	637911.5	6326798	1105.35	620.9	2.19	8308.39
TA1_shp	3475	637911.5	6326798	1064.2	662.05	0.93	13054.64
TA1_shp	3475	637911.5	6326798	1019.1	707.15	0.27	20388.5
TA1_shp	3475	637911.5	6326798	970.45	755.8	0.1	30486.39
TA1_shp	3475	637911.5	6326798	918.65	807.6	0.1	41074.55
TA1_shp	3475	637911.5	6326798	861.85	864.4	0.1	41751.15
TA1_shp	3475	637911.5	6326798	800.6	925.65	0.1	31990.87
TA1_shp	3475	637911.5	6326798	735.75	990.5	0.1	16381.95
TA1_shp	3475	637911.5	6326798	664.25	1062	0.1	7306.2
TA1_shp	3491.67	637927.2	6326804	1717.69	9.73	12.12	17101.59
TA1_shp	3491.67	637927.2	6326804	1698.22	29.2	8.68	7118.91
TA1_shp	3491.67	637927.2	6326804	1678.75	48.67	6.66	3532.45
TA1_shp	3491.67	637927.2	6326804	1659.29	68.13	6.25	2602.95
TA1_shp	3491.67	637927.2	6326804	1639.82	87.6	6.64	2951.58
TA1_shp	3491.67	637927.2	6326804	1620.35	107.07	7.14	4311.27
TA1_shp	3491.67	637927.2	6326804	1600.89	126.53	7.41	6210.67
TA1_shp	3491.67	637927.2	6326804	1581.42	146	7.56	7078.82
TA1_shp	3491.67	637927.2	6326804	1561.95	165.47	7.92	6094.87
TA1_shp	3491.67	637927.2	6326804	1542.49	184.93	8.8	4301.01
TA1_shp	3491.67	637927.2	6326804	1523.02	204.4	10.49	2790.84
TA1_shp	3491.67	637927.2	6326804	1503.55	223.87	13.56	1798.94
TA1_shp	3491.67	637927.2	6326804	1484.09	243.33	17.84	1285.33
TA1_shp	3491.67	637927.2	6326804	1464.62	262.8	23.12	1025.77
TA1_shp	3491.67	637927.2	6326804	1445.15	282.27	29.06	905.16
TA1_shp	3491.67	637927.2	6326804	1425.42	302	34.95	891.15
TA1_shp	3491.67	637927.2	6326804	1405.42	322	39.49	930.84
TA1_shp	3491.67	637927.2	6326804	1385.42	342	43	1001.82
TA1_shp	3491.67	637927.2	6326804	1365.42	362	44.38	1115.49
TA1_shp	3491.67	637927.2	6326804	1345.42	382	44.29	1257.77
TA1_shp	3491.67	637927.2	6326804	1323.32	404.1	42.81	1442.2
TA1_shp	3491.67	637927.2	6326804	1298.77	428.65	38.52	1701.84
TA1_shp	3491.67	637927.2	6326804	1272.82	454.6	32.74	2026.49
TA1_shp	3491.67	637927.2	6326804	1244.32	483.1	24.59	2472.03
TA1_shp	3491.67	637927.2	6326804	1213.62	513.8	16.16	3201.81
TA1_shp	3491.67	637927.2	6326804	1180.97	546.45	9.17	4239.18
TA1_shp	3491.67	637927.2	6326804	1145.17	582.25	4.31	5736.49
TA1_shp	3491.67	637927.2	6326804	1106.52	620.9	2.18	8516.93
TA1_shp	3491.67	637927.2	6326804	1065.37	662.05	0.95	13297.44
TA1_shp	3491.67	637927.2	6326804	1020.27	707.15	0.28	20619.98
TA1_shp	3491.67	637927.2	6326804	971.62	755.8	0.1	30606.77
TA1_shp	3491.67	637927.2	6326804	919.82	807.6	0.1	40822.25
TA1_shp	3491.67	637927.2	6326804	863.02	864.4	0.1	41156.84
TA1_shp	3491.67	637927.2	6326804	801.77	925.65	0.1	31428.06
TA1_shp	3491.67	637927.2	6326804	736.92	990.5	0.1	16089.99
TA1_shp	3491.67	637927.2	6326804	665.42	1062	0.1	7174.66
TA1_shp	3508.33	637942.3	6326810	1719.35	9.73	2.05	3928.98
TA1_shp	3508.33	637942.3	6326810	1699.88	29.2	3.63	3369.4
TA1_shp	3508.33	637942.3	6326810	1680.41	48.67	4.79	2266.21

TA1_shp	3508.33	637942.3	6326810	1660.95	68.13	5.96	1990.35
TA1_shp	3508.33	637942.3	6326810	1641.48	87.6	7.36	2525.51
TA1_shp	3508.33	637942.3	6326810	1622.01	107.07	8.66	3894.66
TA1_shp	3508.33	637942.3	6326810	1602.55	126.53	9.56	5703.24
TA1_shp	3508.33	637942.3	6326810	1583.08	146	10.14	6513.33
TA1_shp	3508.33	637942.3	6326810	1563.61	165.47	10.72	5635.66
TA1_shp	3508.33	637942.3	6326810	1544.15	184.93	11.77	4011.92
TA1_shp	3508.33	637942.3	6326810	1524.68	204.4	13.59	2633.27
TA1_shp	3508.33	637942.3	6326810	1505.21	223.87	16.66	1717.87
TA1_shp	3508.33	637942.3	6326810	1485.75	243.33	20.63	1238.95
TA1_shp	3508.33	637942.3	6326810	1466.28	262.8	25.3	996.03
TA1_shp	3508.33	637942.3	6326810	1446.81	282.27	30.37	884.94
TA1_shp	3508.33	637942.3	6326810	1427.08	302	35.22	876.83
TA1_shp	3508.33	637942.3	6326810	1407.08	322	38.91	921.3
TA1_shp	3508.33	637942.3	6326810	1387.08	342	41.71	997.5
TA1_shp	3508.33	637942.3	6326810	1367.08	362	42.66	1120.93
TA1_shp	3508.33	637942.3	6326810	1347.08	382	42.34	1272.72
TA1_shp	3508.33	637942.3	6326810	1324.98	404.1	40.77	1467.42
TA1_shp	3508.33	637942.3	6326810	1300.43	428.65	36.65	1741.46
TA1_shp	3508.33	637942.3	6326810	1274.48	454.6	31.17	2082.49
TA1_shp	3508.33	637942.3	6326810	1245.98	483.1	23.47	2547.54
TA1_shp	3508.33	637942.3	6326810	1215.28	513.8	15.53	3300.64
TA1_shp	3508.33	637942.3	6326810	1182.63	546.45	8.94	4366.51
TA1_shp	3508.33	637942.3	6326810	1146.83	582.25	4.29	5899.8
TA1_shp	3508.33	637942.3	6326810	1108.18	620.9	2.21	8721.49
TA1_shp	3508.33	637942.3	6326810	1067.03	662.05	0.98	13548.32
TA1_shp	3508.33	637942.3	6326810	1021.93	707.15	0.3	20869.78
TA1_shp	3508.33	637942.3	6326810	973.28	755.8	0.1	30739.08
TA1_shp	3508.33	637942.3	6326810	921.48	807.6	0.1	40570.41
TA1_shp	3508.33	637942.3	6326810	864.68	864.4	0.1	40573.73
TA1_shp	3508.33	637942.3	6326810	803.43	925.65	0.1	30877.07
TA1_shp	3508.33	637942.3	6326810	738.58	990.5	0.1	15801.4
TA1_shp	3508.33	637942.3	6326810	667.08	1062	0.1	7042.12
TA1_shp	3525	637956.8	6326816	1721.52	9.73	0.78	3726.07
TA1_shp	3525	637956.8	6326816	1702.05	29.2	2.1	2633.19
TA1_shp	3525	637956.8	6326816	1682.58	48.67	4.16	1616.78
TA1_shp	3525	637956.8	6326816	1663.12	68.13	6.86	1483.86
TA1_shp	3525	637956.8	6326816	1643.65	87.6	9.96	2033.39
TA1_shp	3525	637956.8	6326816	1624.18	107.07	12.72	3285.37
TA1_shp	3525	637956.8	6326816	1604.72	126.53	14.52	4921.43
TA1_shp	3525	637956.8	6326816	1585.25	146	15.54	5702.39
TA1_shp	3525	637956.8	6326816	1565.78	165.47	16.24	5031.9
TA1_shp	3525	637956.8	6326816	1546.32	184.93	17.28	3664.37
TA1_shp	3525	637956.8	6326816	1526.85	204.4	19.1	2460.02
TA1_shp	3525	637956.8	6326816	1507.38	223.87	22	1637.55
TA1_shp	3525	637956.8	6326816	1487.92	243.33	25.52	1199.01
TA1_shp	3525	637956.8	6326816	1468.45	262.8	29.37	974.61
TA1_shp	3525	637956.8	6326816	1448.98	282.27	33.35	873.44
TA1_shp	3525	637956.8	6326816	1429.25	302	36.99	869.98
TA1_shp	3525	637956.8	6326816	1409.25	322	39.67	919.99
TA1_shp	3525	637956.8	6326816	1389.25	342	41.6	1001.92
TA1_shp	3525	637956.8	6326816	1369.25	362	41.96	1130.3

TA1_shp	3525	637956.8	6326816	1349.25	382	41.23	1289.5
TA1_shp	3525	637956.8	6326816	1327.15	404.1	39.4	1494.71
TA1_shp	3525	637956.8	6326816	1302.6	428.65	35.34	1780.22
TA1_shp	3525	637956.8	6326816	1276.65	454.6	30.02	2135.46
TA1_shp	3525	637956.8	6326816	1248.15	483.1	22.63	2620.61
TA1_shp	3525	637956.8	6326816	1217.45	513.8	15.07	3401.81
TA1_shp	3525	637956.8	6326816	1184.8	546.45	8.77	4499.35
TA1_shp	3525	637956.8	6326816	1149	582.25	4.3	6069.12
TA1_shp	3525	637956.8	6326816	1110.35	620.9	2.24	8943.64
TA1_shp	3525	637956.8	6326816	1069.2	662.05	1.01	13811.11
TA1_shp	3525	637956.8	6326816	1024.1	707.15	0.32	21123.09
TA1_shp	3525	637956.8	6326816	975.45	755.8	0.1	30875.06
TA1_shp	3525	637956.8	6326816	923.65	807.6	0.1	40324.45
TA1_shp	3525	637956.8	6326816	866.85	864.4	0.1	39988.54
TA1_shp	3525	637956.8	6326816	805.6	925.65	0.1	30322.09
TA1_shp	3525	637956.8	6326816	740.75	990.5	0.1	15511.95
TA1_shp	3525	637956.8	6326816	669.25	1062	0.1	6910.29
TA1_shp	3541.67	637971.3	6326821	1723.69	9.73	0.7	4930.04
TA1_shp	3541.67	637971.3	6326821	1704.22	29.2	2.34	2739.17
TA1_shp	3541.67	637971.3	6326821	1684.75	48.67	5.28	1391.74
TA1_shp	3541.67	637971.3	6326821	1665.29	68.13	9.74	1191.2
TA1_shp	3541.67	637971.3	6326821	1645.82	87.6	15.12	1629.94
TA1_shp	3541.67	637971.3	6326821	1626.35	107.07	19.75	2678.02
TA1_shp	3541.67	637971.3	6326821	1606.89	126.53	22.5	4058.89
TA1_shp	3541.67	637971.3	6326821	1587.42	146	23.88	4798.34
TA1_shp	3541.67	637971.3	6326821	1567.95	165.47	24.64	4360.72
TA1_shp	3541.67	637971.3	6326821	1548.49	184.93	25.64	3285.17
TA1_shp	3541.67	637971.3	6326821	1529.02	204.4	27.35	2282.09
TA1_shp	3541.67	637971.3	6326821	1509.55	223.87	29.85	1561.88
TA1_shp	3541.67	637971.3	6326821	1490.09	243.33	32.54	1167.93
TA1_shp	3541.67	637971.3	6326821	1470.62	262.8	35.26	962.27
TA1_shp	3541.67	637971.3	6326821	1451.15	282.27	37.91	868.56
TA1_shp	3541.67	637971.3	6326821	1431.42	302	40.14	870.75
TA1_shp	3541.67	637971.3	6326821	1411.42	322	41.61	923.49
TA1_shp	3541.67	637971.3	6326821	1391.42	342	42.48	1007.63
TA1_shp	3541.67	637971.3	6326821	1371.42	362	42.1	1141.88
TA1_shp	3541.67	637971.3	6326821	1351.42	382	40.85	1308.73
TA1_shp	3541.67	637971.3	6326821	1329.32	404.1	38.65	1524.1
TA1_shp	3541.67	637971.3	6326821	1304.77	428.65	34.49	1822.43
TA1_shp	3541.67	637971.3	6326821	1278.82	454.6	29.18	2192.83
TA1_shp	3541.67	637971.3	6326821	1250.32	483.1	21.96	2697.5
TA1_shp	3541.67	637971.3	6326821	1219.62	513.8	14.71	3501.19
TA1_shp	3541.67	637971.3	6326821	1186.97	546.45	8.66	4628.1
TA1_shp	3541.67	637971.3	6326821	1151.17	582.25	4.33	6237.57
TA1_shp	3541.67	637971.3	6326821	1112.52	620.9	2.29	9161.74
TA1_shp	3541.67	637971.3	6326821	1071.37	662.05	1.06	14079.04
TA1_shp	3541.67	637971.3	6326821	1026.27	707.15	0.35	21391.06
TA1_shp	3541.67	637971.3	6326821	977.62	755.8	0.1	31024.75
TA1_shp	3541.67	637971.3	6326821	925.82	807.6	0.1	40077.61
TA1_shp	3541.67	637971.3	6326821	869.02	864.4	0.1	39412.6
TA1_shp	3541.67	637971.3	6326821	807.77	925.65	0.1	29777.56
TA1_shp	3541.67	637971.3	6326821	742.92	990.5	0.1	15225.57

TA1_shp	3541.67	637971.3	6326821	671.42	1062	0.1	6777.7
TA1_shp	3558.33	637985.8	6326827	1725.85	9.73	0.94	3710.7
TA1_shp	3558.33	637985.8	6326827	1706.38	29.2	3.51	2791.28
TA1_shp	3558.33	637985.8	6326827	1686.91	48.67	8.12	1376.52
TA1_shp	3558.33	637985.8	6326827	1667.45	68.13	14.69	1053.59
TA1_shp	3558.33	637985.8	6326827	1647.98	87.6	21.81	1345.32
TA1_shp	3558.33	637985.8	6326827	1628.51	107.07	27.28	2150.14
TA1_shp	3558.33	637985.8	6326827	1609.05	126.53	30.48	3251.53
TA1_shp	3558.33	637985.8	6326827	1589.58	146	32.43	3915.61
TA1_shp	3558.33	637985.8	6326827	1570.11	165.47	33.89	3687.93
TA1_shp	3558.33	637985.8	6326827	1550.65	184.93	35.35	2899.51
TA1_shp	3558.33	637985.8	6326827	1531.18	204.4	37.02	2096.71
TA1_shp	3558.33	637985.8	6326827	1511.71	223.87	38.91	1487.17
TA1_shp	3558.33	637985.8	6326827	1492.25	243.33	40.6	1141.44
TA1_shp	3558.33	637985.8	6326827	1472.78	262.8	42.09	956.84
TA1_shp	3558.33	637985.8	6326827	1453.31	282.27	43.34	872.9
TA1_shp	3558.33	637985.8	6326827	1433.58	302	44.13	878.37
TA1_shp	3558.33	637985.8	6326827	1413.58	322	44.31	934.33
TA1_shp	3558.33	637985.8	6326827	1393.58	342	44.05	1021.89
TA1_shp	3558.33	637985.8	6326827	1373.58	362	42.85	1160.66
TA1_shp	3558.33	637985.8	6326827	1353.58	382	40.98	1332.59
TA1_shp	3558.33	637985.8	6326827	1331.48	404.1	38.29	1554.09
TA1_shp	3558.33	637985.8	6326827	1306.93	428.65	33.92	1862.38
TA1_shp	3558.33	637985.8	6326827	1280.98	454.6	28.53	2246.08
TA1_shp	3558.33	637985.8	6326827	1252.48	483.1	21.43	2770.26
TA1_shp	3558.33	637985.8	6326827	1221.78	513.8	14.43	3600.83
TA1_shp	3558.33	637985.8	6326827	1189.13	546.45	8.6	4760.31
TA1_shp	3558.33	637985.8	6326827	1153.33	582.25	4.38	6410.52
TA1_shp	3558.33	637985.8	6326827	1114.68	620.9	2.35	9395.28
TA1_shp	3558.33	637985.8	6326827	1073.53	662.05	1.11	14363.22
TA1_shp	3558.33	637985.8	6326827	1028.43	707.15	0.38	21668.58
TA1_shp	3558.33	637985.8	6326827	979.78	755.8	0.1	31174.28
TA1_shp	3558.33	637985.8	6326827	927.98	807.6	0.1	39840.95
TA1_shp	3558.33	637985.8	6326827	871.18	864.4	0.1	38841.27
TA1_shp	3558.33	637985.8	6326827	809.93	925.65	0.1	29234.37
TA1_shp	3558.33	637985.8	6326827	745.08	990.5	0.1	14940.51
TA1_shp	3558.33	637985.8	6326827	673.58	1062	0.1	6646.24
TA1_shp	3575	638000.3	6326833	1728.02	9.73	0.91	3078.61
TA1_shp	3575	638000.3	6326833	1708.55	29.2	4.58	3036.67
TA1_shp	3575	638000.3	6326833	1689.08	48.67	11.49	1496.03
TA1_shp	3575	638000.3	6326833	1669.62	68.13	19.21	1003.34
TA1_shp	3575	638000.3	6326833	1650.15	87.6	25.98	1146.7
TA1_shp	3575	638000.3	6326833	1630.68	107.07	31.07	1727.48
TA1_shp	3575	638000.3	6326833	1611.22	126.53	34.93	2575.49
TA1_shp	3575	638000.3	6326833	1591.75	146	38.24	3147.02
TA1_shp	3575	638000.3	6326833	1572.28	165.47	41.26	3078.25
TA1_shp	3575	638000.3	6326833	1552.82	184.93	43.79	2534.57
TA1_shp	3575	638000.3	6326833	1533.35	204.4	45.83	1918.49
TA1_shp	3575	638000.3	6326833	1513.88	223.87	47.48	1417.74
TA1_shp	3575	638000.3	6326833	1494.42	243.33	48.49	1121.01
TA1_shp	3575	638000.3	6326833	1474.95	262.8	48.96	957.62
TA1_shp	3575	638000.3	6326833	1455.48	282.27	48.97	882.66

TA1_shp	3575	638000.3	6326833	1435.75	302	48.4	891.74
TA1_shp	3575	638000.3	6326833	1415.75	322	47.35	950.36
TA1_shp	3575	638000.3	6326833	1395.75	342	45.97	1040.4
TA1_shp	3575	638000.3	6326833	1375.75	362	43.92	1182.81
TA1_shp	3575	638000.3	6326833	1355.75	382	41.4	1359.05
TA1_shp	3575	638000.3	6326833	1333.65	404.1	38.17	1585.94
TA1_shp	3575	638000.3	6326833	1309.1	428.65	33.53	1905.03
TA1_shp	3575	638000.3	6326833	1283.15	454.6	28.01	2303.04
TA1_shp	3575	638000.3	6326833	1254.65	483.1	20.96	2847.56
TA1_shp	3575	638000.3	6326833	1223.95	513.8	14.18	3701.83
TA1_shp	3575	638000.3	6326833	1191.3	546.45	8.54	4892.34
TA1_shp	3575	638000.3	6326833	1155.5	582.25	4.44	6584.68
TA1_shp	3575	638000.3	6326833	1116.85	620.9	2.41	9625.67
TA1_shp	3575	638000.3	6326833	1075.7	662.05	1.16	14650.82
TA1_shp	3575	638000.3	6326833	1030.6	707.15	0.41	21956.75
TA1_shp	3575	638000.3	6326833	981.95	755.8	0.1	31332.59
TA1_shp	3575	638000.3	6326833	930.15	807.6	0.1	39594.82
TA1_shp	3575	638000.3	6326833	873.35	864.4	0.1	38270.31
TA1_shp	3575	638000.3	6326833	812.1	925.65	0.1	28695.89
TA1_shp	3575	638000.3	6326833	747.25	990.5	0.1	14657.83
TA1_shp	3575	638000.3	6326833	675.75	1062	0.1	6515.78
TA1_shp	3591.67	638014.8	6326838	1730.19	9.73	1.07	3640.45
TA1_shp	3591.67	638014.8	6326838	1710.72	29.2	6.06	4205.21
TA1_shp	3591.67	638014.8	6326838	1691.25	48.67	14.5	1826.75
TA1_shp	3591.67	638014.8	6326838	1671.79	68.13	20.68	1012.52
TA1_shp	3591.67	638014.8	6326838	1652.32	87.6	25.23	1003.63
TA1_shp	3591.67	638014.8	6326838	1632.85	107.07	29.49	1407
TA1_shp	3591.67	638014.8	6326838	1613.39	126.53	34.38	2052.05
TA1_shp	3591.67	638014.8	6326838	1593.92	146	39.8	2538.37
TA1_shp	3591.67	638014.8	6326838	1574.45	165.47	44.98	2570.32
TA1_shp	3591.67	638014.8	6326838	1554.99	184.93	49.19	2221.43
TA1_shp	3591.67	638014.8	6326838	1535.52	204.4	52.25	1761.47
TA1_shp	3591.67	638014.8	6326838	1516.05	223.87	54.33	1358.77
TA1_shp	3591.67	638014.8	6326838	1496.59	243.33	55.13	1107.73
TA1_shp	3591.67	638014.8	6326838	1477.12	262.8	54.95	965.16
TA1_shp	3591.67	638014.8	6326838	1457.65	282.27	54.03	899.86
TA1_shp	3591.67	638014.8	6326838	1437.92	302	52.34	912.08
TA1_shp	3591.67	638014.8	6326838	1417.92	322	50.23	972.14
TA1_shp	3591.67	638014.8	6326838	1397.92	342	47.85	1063.16
TA1_shp	3591.67	638014.8	6326838	1377.92	362	45	1207.84
TA1_shp	3591.67	638014.8	6326838	1357.92	382	41.86	1387.26
TA1_shp	3591.67	638014.8	6326838	1335.82	404.1	38.08	1618.55
TA1_shp	3591.67	638014.8	6326838	1311.27	428.65	33.13	1949.38
TA1_shp	3591.67	638014.8	6326838	1285.32	454.6	27.44	2361.19
TA1_shp	3591.67	638014.8	6326838	1256.82	483.1	20.46	2921.68
TA1_shp	3591.67	638014.8	6326838	1226.12	513.8	13.92	3800.02
TA1_shp	3591.67	638014.8	6326838	1193.47	546.45	8.48	5023.1
TA1_shp	3591.67	638014.8	6326838	1157.67	582.25	4.49	6760.33
TA1_shp	3591.67	638014.8	6326838	1119.02	620.9	2.47	9872.27
TA1_shp	3591.67	638014.8	6326838	1077.87	662.05	1.22	14950.9
TA1_shp	3591.67	638014.8	6326838	1032.77	707.15	0.46	22249.31
TA1_shp	3591.67	638014.8	6326838	984.12	755.8	0.1	31494.46

TA1_shp	3591.67	638014.8	6326838	932.32	807.6	0.1	39359.09
TA1_shp	3591.67	638014.8	6326838	875.52	864.4	0.1	37696.41
TA1_shp	3591.67	638014.8	6326838	814.27	925.65	0.1	28150.66
TA1_shp	3591.67	638014.8	6326838	749.42	990.5	0.1	14372.98
TA1_shp	3591.67	638014.8	6326838	677.92	1062	0.1	6385.53
TA1_shp	3608.33	638030.3	6326844	1731.94	9.73	0.84	932.24
TA1_shp	3608.33	638030.3	6326844	1712.47	29.2	5.95	4647.1
TA1_shp	3608.33	638030.3	6326844	1693	48.67	13.65	2268.42
TA1_shp	3608.33	638030.3	6326844	1673.54	68.13	17.52	1046.43
TA1_shp	3608.33	638030.3	6326844	1654.07	87.6	19.87	903.04
TA1_shp	3608.33	638030.3	6326844	1634.6	107.07	23.31	1179.29
TA1_shp	3608.33	638030.3	6326844	1615.14	126.53	29.01	1679.05
TA1_shp	3608.33	638030.3	6326844	1595.67	146	36.48	2096.89
TA1_shp	3608.33	638030.3	6326844	1576.2	165.47	44.27	2191.65
TA1_shp	3608.33	638030.3	6326844	1556.74	184.93	50.91	1976.91
TA1_shp	3608.33	638030.3	6326844	1537.27	204.4	55.74	1640.5
TA1_shp	3608.33	638030.3	6326844	1517.8	223.87	58.84	1316.96
TA1_shp	3608.33	638030.3	6326844	1498.34	243.33	59.87	1105.85
TA1_shp	3608.33	638030.3	6326844	1478.87	262.8	59.43	982.12
TA1_shp	3608.33	638030.3	6326844	1459.4	282.27	57.92	924.43
TA1_shp	3608.33	638030.3	6326844	1439.67	302	55.4	938.96
TA1_shp	3608.33	638030.3	6326844	1419.67	322	52.45	1000.42
TA1_shp	3608.33	638030.3	6326844	1399.67	342	49.27	1092.46
TA1_shp	3608.33	638030.3	6326844	1379.67	362	45.77	1238.27
TA1_shp	3608.33	638030.3	6326844	1359.67	382	42.08	1420.36
TA1_shp	3608.33	638030.3	6326844	1337.57	404.1	37.82	1656.05
TA1_shp	3608.33	638030.3	6326844	1313.02	428.65	32.58	1994.54
TA1_shp	3608.33	638030.3	6326844	1287.07	454.6	26.75	2418
TA1_shp	3608.33	638030.3	6326844	1258.57	483.1	19.87	2997.91
TA1_shp	3608.33	638030.3	6326844	1227.87	513.8	13.58	3901.7
TA1_shp	3608.33	638030.3	6326844	1195.22	546.45	8.37	5158.73
TA1_shp	3608.33	638030.3	6326844	1159.42	582.25	4.52	6942.17
TA1_shp	3608.33	638030.3	6326844	1120.77	620.9	2.52	10114.13
TA1_shp	3608.33	638030.3	6326844	1079.62	662.05	1.27	15254.98
TA1_shp	3608.33	638030.3	6326844	1034.52	707.15	0.5	22555.66
TA1_shp	3608.33	638030.3	6326844	985.87	755.8	0.1	31665.53
TA1_shp	3608.33	638030.3	6326844	934.07	807.6	0.1	39115.84
TA1_shp	3608.33	638030.3	6326844	877.27	864.4	0.1	37132.95
TA1_shp	3608.33	638030.3	6326844	816.02	925.65	0.1	27619.92
TA1_shp	3608.33	638030.3	6326844	751.17	990.5	0.1	14093.79
TA1_shp	3608.33	638030.3	6326844	679.67	1062	0.1	6256.14
TA1_shp	3625	638046.8	6326849	1733.27	9.73	0.42	531.07
TA1_shp	3625	638046.8	6326849	1713.8	29.2	3.36	4323.2
TA1_shp	3625	638046.8	6326849	1694.33	48.67	7.65	2375.95
TA1_shp	3625	638046.8	6326849	1674.87	68.13	9.69	1023.22
TA1_shp	3625	638046.8	6326849	1655.4	87.6	11.09	824.16
TA1_shp	3625	638046.8	6326849	1635.93	107.07	13.89	1032.97
TA1_shp	3625	638046.8	6326849	1616.47	126.53	19.55	1442.75
TA1_shp	3625	638046.8	6326849	1597	146	28.71	1812.65
TA1_shp	3625	638046.8	6326849	1577.53	165.47	39.26	1940.26
TA1_shp	3625	638046.8	6326849	1558.07	184.93	48.54	1811.55
TA1_shp	3625	638046.8	6326849	1538.6	204.4	55.48	1560.71

TA1_shp	3625	638046.8	6326849	1519.13	223.87	60.04	1296.41
TA1_shp	3625	638046.8	6326849	1499.67	243.33	61.8	1115.87
TA1_shp	3625	638046.8	6326849	1480.2	262.8	61.6	1006.69
TA1_shp	3625	638046.8	6326849	1460.73	282.27	59.99	954.86
TA1_shp	3625	638046.8	6326849	1441	302	57	970.99
TA1_shp	3625	638046.8	6326849	1421	322	53.53	1032.18
TA1_shp	3625	638046.8	6326849	1401	342	49.81	1123.27
TA1_shp	3625	638046.8	6326849	1381	362	45.79	1268.75
TA1_shp	3625	638046.8	6326849	1361	382	41.67	1452.9
TA1_shp	3625	638046.8	6326849	1338.9	404.1	37.04	1693.16
TA1_shp	3625	638046.8	6326849	1314.35	428.65	31.64	2042.95
TA1_shp	3625	638046.8	6326849	1288.4	454.6	25.77	2479.07
TA1_shp	3625	638046.8	6326849	1259.9	483.1	19.09	3072.51
TA1_shp	3625	638046.8	6326849	1229.2	513.8	13.14	3998.92
TA1_shp	3625	638046.8	6326849	1196.55	546.45	8.2	5288.95
TA1_shp	3625	638046.8	6326849	1160.75	582.25	4.54	7120.39
TA1_shp	3625	638046.8	6326849	1122.1	620.9	2.57	10370.66
TA1_shp	3625	638046.8	6326849	1080.95	662.05	1.33	15569.69
TA1_shp	3625	638046.8	6326849	1035.85	707.15	0.55	22860.76
TA1_shp	3625	638046.8	6326849	987.2	755.8	0.12	31828.7
TA1_shp	3625	638046.8	6326849	935.4	807.6	0.1	38875.39
TA1_shp	3625	638046.8	6326849	878.6	864.4	0.1	36561.91
TA1_shp	3625	638046.8	6326849	817.35	925.65	0.1	27080.08
TA1_shp	3625	638046.8	6326849	752.5	990.5	0.1	13812.11
TA1_shp	3625	638046.8	6326849	681	1062	0.1	6127.61
TA1_shp	3641.67	638063.3	6326855	1734.6	9.73	0.29	502.96
TA1_shp	3641.67	638063.3	6326855	1715.13	29.2	1.78	4031.28
TA1_shp	3641.67	638063.3	6326855	1695.66	48.67	3.27	2076.24
TA1_shp	3641.67	638063.3	6326855	1676.2	68.13	4.08	926.25
TA1_shp	3641.67	638063.3	6326855	1656.73	87.6	5	770.3
TA1_shp	3641.67	638063.3	6326855	1637.26	107.07	6.9	967.31
TA1_shp	3641.67	638063.3	6326855	1617.8	126.53	10.93	1332.88
TA1_shp	3641.67	638063.3	6326855	1598.33	146	18.79	1668.18
TA1_shp	3641.67	638063.3	6326855	1578.86	165.47	30.89	1805.56
TA1_shp	3641.67	638063.3	6326855	1559.4	184.93	43.01	1723.25
TA1_shp	3641.67	638063.3	6326855	1539.93	204.4	52.09	1525.53
TA1_shp	3641.67	638063.3	6326855	1520.46	223.87	58.27	1300.26
TA1_shp	3641.67	638063.3	6326855	1501	243.33	61.02	1140.55
TA1_shp	3641.67	638063.3	6326855	1481.53	262.8	61.32	1041.22
TA1_shp	3641.67	638063.3	6326855	1462.06	282.27	59.85	992.77
TA1_shp	3641.67	638063.3	6326855	1442.33	302	56.78	1008.29
TA1_shp	3641.67	638063.3	6326855	1422.33	322	53.11	1069.16
TA1_shp	3641.67	638063.3	6326855	1402.33	342	49.16	1159.87
TA1_shp	3641.67	638063.3	6326855	1382.33	362	44.89	1304.03
TA1_shp	3641.67	638063.3	6326855	1362.33	382	40.56	1490.23
TA1_shp	3641.67	638063.3	6326855	1340.23	404.1	35.7	1735.95
TA1_shp	3641.67	638063.3	6326855	1315.68	428.65	30.24	2090.39
TA1_shp	3641.67	638063.3	6326855	1289.73	454.6	24.46	2534.99
TA1_shp	3641.67	638063.3	6326855	1261.23	483.1	18.11	3145.71
TA1_shp	3641.67	638063.3	6326855	1230.53	513.8	12.56	4099.05
TA1_shp	3641.67	638063.3	6326855	1197.88	546.45	7.95	5426.58
TA1_shp	3641.67	638063.3	6326855	1162.08	582.25	4.5	7310.06

TA1_shp	3641.67	638063.3	6326855	1123.43	620.9	2.6	10626.94
TA1_shp	3641.67	638063.3	6326855	1082.28	662.05	1.38	15890.42
TA1_shp	3641.67	638063.3	6326855	1037.18	707.15	0.59	23181.29
TA1_shp	3641.67	638063.3	6326855	988.53	755.8	0.16	32005.37
TA1_shp	3641.67	638063.3	6326855	936.73	807.6	0.1	38618.7
TA1_shp	3641.67	638063.3	6326855	879.93	864.4	0.1	35989.38
TA1_shp	3641.67	638063.3	6326855	818.68	925.65	0.1	26545.92
TA1_shp	3641.67	638063.3	6326855	753.83	990.5	0.1	13533.45
TA1_shp	3641.67	638063.3	6326855	682.33	1062	0.1	6000.5
TA1_shp	3658.33	638079.8	6326860	1735.94	9.73	1.07	1721.91
TA1_shp	3658.33	638079.8	6326860	1716.47	29.2	0.8	2121.13
TA1_shp	3658.33	638079.8	6326860	1697	48.67	0.93	3612.59
TA1_shp	3658.33	638079.8	6326860	1677.54	68.13	1.24	1534.67
TA1_shp	3658.33	638079.8	6326860	1658.07	87.6	1.59	811.84
TA1_shp	3658.33	638079.8	6326860	1638.6	107.07	2.22	764.35
TA1_shp	3658.33	638079.8	6326860	1619.14	126.53	3.52	986.79
TA1_shp	3658.33	638079.8	6326860	1599.67	146	6.25	1341.1
TA1_shp	3658.33	638079.8	6326860	1580.2	165.47	11.91	1650.93
TA1_shp	3658.33	638079.8	6326860	1560.74	184.93	22.33	1780.6
TA1_shp	3658.33	638079.8	6326860	1541.27	204.4	35.8	1710.8
TA1_shp	3658.33	638079.8	6326860	1521.8	223.87	46.62	1536.87
TA1_shp	3658.33	638079.8	6326860	1502.34	243.33	54.15	1330.93
TA1_shp	3658.33	638079.8	6326860	1482.87	262.8	57.78	1180.86
TA1_shp	3658.33	638079.8	6326860	1463.4	282.27	58.69	1085.48
TA1_shp	3658.33	638079.8	6326860	1443.67	302	57.6	1037.8
TA1_shp	3658.33	638079.8	6326860	1423.67	322	54.68	1051.95
TA1_shp	3658.33	638079.8	6326860	1403.67	342	51.06	1113.3
TA1_shp	3658.33	638079.8	6326860	1383.67	362	47.09	1204.68
TA1_shp	3658.33	638079.8	6326860	1363.67	382	42.77	1348.01
TA1_shp	3658.33	638079.8	6326860	1341.57	404.1	37.94	1560.22
TA1_shp	3658.33	638079.8	6326860	1317.02	428.65	32.54	1843.29
TA1_shp	3658.33	638079.8	6326860	1291.07	454.6	26.89	2235.82
TA1_shp	3658.33	638079.8	6326860	1262.57	483.1	20.87	2789.16
TA1_shp	3658.33	638079.8	6326860	1231.87	513.8	14.87	3548.35
TA1_shp	3658.33	638079.8	6326860	1199.22	546.45	9.7	4637.9
TA1_shp	3658.33	638079.8	6326860	1163.42	582.25	6.12	6415.56
TA1_shp	3658.33	638079.8	6326860	1124.77	620.9	3.53	9179.78
TA1_shp	3658.33	638079.8	6326860	1083.62	662.05	1.85	13386.46
TA1_shp	3658.33	638079.8	6326860	1038.52	707.15	0.85	19951.21
TA1_shp	3658.33	638079.8	6326860	989.87	755.8	0.35	28914.19
TA1_shp	3658.33	638079.8	6326860	938.07	807.6	0.1	36043.9
TA1_shp	3658.33	638079.8	6326860	881.27	864.4	0.1	36958.23
TA1_shp	3658.33	638079.8	6326860	820.02	925.65	0.1	29842.29
TA1_shp	3658.33	638079.8	6326860	755.17	990.5	0.1	17084.34
TA1_shp	3658.33	638079.8	6326860	683.67	1062	0.1	6205.72
TA1_shp	3675	638096.3	6326865	1737.27	9.73	3.29	7164.91
TA1_shp	3675	638096.3	6326865	1717.8	29.2	1.25	3545.16
TA1_shp	3675	638096.3	6326865	1698.33	48.67	0.65	2264.39
TA1_shp	3675	638096.3	6326865	1678.87	68.13	0.58	1064.24
TA1_shp	3675	638096.3	6326865	1659.4	87.6	0.76	763.73
TA1_shp	3675	638096.3	6326865	1639.93	107.07	1.22	839.68
TA1_shp	3675	638096.3	6326865	1620.47	126.53	2.18	1110.97

TA1_shp	3675	638096.3	6326865	1601	146	4.19	1472.16
TA1_shp	3675	638096.3	6326865	1581.53	165.47	8.36	1756.89
TA1_shp	3675	638096.3	6326865	1562.07	184.93	16.39	1855.48
TA1_shp	3675	638096.3	6326865	1542.6	204.4	28.49	1771.14
TA1_shp	3675	638096.3	6326865	1523.13	223.87	40.04	1591.85
TA1_shp	3675	638096.3	6326865	1503.67	243.33	48.39	1388.43
TA1_shp	3675	638096.3	6326865	1484.2	262.8	52.69	1237.19
TA1_shp	3675	638096.3	6326865	1464.73	282.27	54.15	1139.82
TA1_shp	3675	638096.3	6326865	1445	302	53.56	1090.41
TA1_shp	3675	638096.3	6326865	1425	322	51.04	1099.63
TA1_shp	3675	638096.3	6326865	1405	342	47.66	1159.1
TA1_shp	3675	638096.3	6326865	1385	362	43.87	1249.21
TA1_shp	3675	638096.3	6326865	1365	382	39.71	1389.24
TA1_shp	3675	638096.3	6326865	1342.9	404.1	35.05	1601.8
TA1_shp	3675	638096.3	6326865	1318.35	428.65	29.83	1888.3
TA1_shp	3675	638096.3	6326865	1292.4	454.6	24.48	2286.46
TA1_shp	3675	638096.3	6326865	1263.9	483.1	18.96	2850.18
TA1_shp	3675	638096.3	6326865	1233.2	513.8	13.61	3626.19
TA1_shp	3675	638096.3	6326865	1200.55	546.45	9.06	4743.58
TA1_shp	3675	638096.3	6326865	1164.75	582.25	5.84	6578.99
TA1_shp	3675	638096.3	6326865	1126.1	620.9	3.46	9414.36
TA1_shp	3675	638096.3	6326865	1084.95	662.05	1.88	13695.29
TA1_shp	3675	638096.3	6326865	1039.85	707.15	0.89	20324.13
TA1_shp	3675	638096.3	6326865	991.2	755.8	0.38	29170.34
TA1_shp	3675	638096.3	6326865	939.4	807.6	0.11	35939.21
TA1_shp	3675	638096.3	6326865	882.6	864.4	0.1	36476.32
TA1_shp	3675	638096.3	6326865	821.35	925.65	0.1	29234.89
TA1_shp	3675	638096.3	6326865	756.5	990.5	0.1	16731.85
TA1_shp	3675	638096.3	6326865	685	1062	0.1	6072.22
TA1_shp	3691.67	638112.8	6326871	1738.6	9.73	8.76	3639.5
TA1_shp	3691.67	638112.8	6326871	1719.13	29.2	3.21	1469.49
TA1_shp	3691.67	638112.8	6326871	1699.66	48.67	1.31	1053.56
TA1_shp	3691.67	638112.8	6326871	1680.2	68.13	0.78	832.31
TA1_shp	3691.67	638112.8	6326871	1660.73	87.6	0.76	841.35
TA1_shp	3691.67	638112.8	6326871	1641.26	107.07	1.08	1040.76
TA1_shp	3691.67	638112.8	6326871	1621.8	126.53	1.87	1372.48
TA1_shp	3691.67	638112.8	6326871	1602.33	146	3.55	1741.29
TA1_shp	3691.67	638112.8	6326871	1582.86	165.47	6.89	1985.17
TA1_shp	3691.67	638112.8	6326871	1563.4	184.93	13.15	2030.11
TA1_shp	3691.67	638112.8	6326871	1543.93	204.4	22.88	1902.69
TA1_shp	3691.67	638112.8	6326871	1524.46	223.87	33.32	1695.52
TA1_shp	3691.67	638112.8	6326871	1505	243.33	41.65	1472.41
TA1_shp	3691.67	638112.8	6326871	1485.53	262.8	46.18	1310.35
TA1_shp	3691.67	638112.8	6326871	1466.06	282.27	48	1204.65
TA1_shp	3691.67	638112.8	6326871	1446.33	302	47.86	1147.36
TA1_shp	3691.67	638112.8	6326871	1426.33	322	45.75	1153.16
TA1_shp	3691.67	638112.8	6326871	1406.33	342	42.76	1207.79
TA1_shp	3691.67	638112.8	6326871	1386.33	362	39.36	1293.69
TA1_shp	3691.67	638112.8	6326871	1366.33	382	35.57	1434.15
TA1_shp	3691.67	638112.8	6326871	1344.23	404.1	31.27	1646.37
TA1_shp	3691.67	638112.8	6326871	1319.68	428.65	26.43	1932.45
TA1_shp	3691.67	638112.8	6326871	1293.73	454.6	21.63	2335.91

TA1_shp	3691.67	638112.8	6326871	1265.23	483.1	16.81	2912.42
TA1_shp	3691.67	638112.8	6326871	1234.53	513.8	12.21	3709.17
TA1_shp	3691.67	638112.8	6326871	1201.88	546.45	8.33	4856.91
TA1_shp	3691.67	638112.8	6326871	1166.08	582.25	5.51	6736.22
TA1_shp	3691.67	638112.8	6326871	1127.43	620.9	3.37	9641.4
TA1_shp	3691.67	638112.8	6326871	1086.28	662.05	1.89	14006.91
TA1_shp	3691.67	638112.8	6326871	1041.18	707.15	0.94	20700.21
TA1_shp	3691.67	638112.8	6326871	992.53	755.8	0.43	29415.38
TA1_shp	3691.67	638112.8	6326871	940.73	807.6	0.12	35837.34
TA1_shp	3691.67	638112.8	6326871	883.93	864.4	0.1	36003.78
TA1_shp	3691.67	638112.8	6326871	822.68	925.65	0.1	28627.75
TA1_shp	3691.67	638112.8	6326871	757.83	990.5	0.1	16380.25
TA1_shp	3691.67	638112.8	6326871	686.33	1062	0.1	5940.05
TA1_shp	3708.33	638128.3	6326876	1741.77	9.73	22.33	413.79
TA1_shp	3708.33	638128.3	6326876	1722.3	29.2	9.98	503.02
TA1_shp	3708.33	638128.3	6326876	1702.83	48.67	3.74	697.27
TA1_shp	3708.33	638128.3	6326876	1683.37	68.13	1.86	866.1
TA1_shp	3708.33	638128.3	6326876	1663.9	87.6	1.38	1084.39
TA1_shp	3708.33	638128.3	6326876	1644.43	107.07	1.52	1405.91
TA1_shp	3708.33	638128.3	6326876	1624.97	126.53	2.21	1801.26
TA1_shp	3708.33	638128.3	6326876	1605.5	146	3.73	2161.61
TA1_shp	3708.33	638128.3	6326876	1586.03	165.47	6.62	2343.81
TA1_shp	3708.33	638128.3	6326876	1566.57	184.93	11.66	2299.83
TA1_shp	3708.33	638128.3	6326876	1547.1	204.4	19.16	2098.19
TA1_shp	3708.33	638128.3	6326876	1527.63	223.87	27.52	1838.65
TA1_shp	3708.33	638128.3	6326876	1508.17	243.33	34.88	1582.49
TA1_shp	3708.33	638128.3	6326876	1488.7	262.8	39.12	1397.6
TA1_shp	3708.33	638128.3	6326876	1469.23	282.27	40.98	1277.17
TA1_shp	3708.33	638128.3	6326876	1449.5	302	41.06	1210.88
TA1_shp	3708.33	638128.3	6326876	1429.5	322	39.36	1207.63
TA1_shp	3708.33	638128.3	6326876	1409.5	342	36.84	1257.62
TA1_shp	3708.33	638128.3	6326876	1389.5	362	33.93	1340.58
TA1_shp	3708.33	638128.3	6326876	1369.5	382	30.58	1478.52
TA1_shp	3708.33	638128.3	6326876	1347.4	404.1	26.77	1688.35
TA1_shp	3708.33	638128.3	6326876	1322.85	428.65	22.52	1972.7
TA1_shp	3708.33	638128.3	6326876	1296.9	454.6	18.49	2381.32
TA1_shp	3708.33	638128.3	6326876	1268.4	483.1	14.51	2972.25
TA1_shp	3708.33	638128.3	6326876	1237.7	513.8	10.76	3791.13
TA1_shp	3708.33	638128.3	6326876	1205.05	546.45	7.57	4965.96
TA1_shp	3708.33	638128.3	6326876	1169.25	582.25	5.15	6901.27
TA1_shp	3708.33	638128.3	6326876	1130.6	620.9	3.26	9878.48
TA1_shp	3708.33	638128.3	6326876	1089.45	662.05	1.9	14322.64
TA1_shp	3708.33	638128.3	6326876	1044.35	707.15	0.98	21087.51
TA1_shp	3708.33	638128.3	6326876	995.7	755.8	0.47	29669.41
TA1_shp	3708.33	638128.3	6326876	943.9	807.6	0.14	35719.42
TA1_shp	3708.33	638128.3	6326876	887.1	864.4	0.1	35513.5
TA1_shp	3708.33	638128.3	6326876	825.85	925.65	0.1	28024.78
TA1_shp	3708.33	638128.3	6326876	761	990.5	0.1	16031.45
TA1_shp	3708.33	638128.3	6326876	689.5	1062	0.1	5809.45
TA1_shp	3725	638142.8	6326882	1746.77	9.73	12.7	1470.94
TA1_shp	3725	638142.8	6326882	1727.3	29.2	11.1	775.88
TA1_shp	3725	638142.8	6326882	1707.83	48.67	6.44	838.12

TA1_shp	3725	638142.8	6326882	1688.37	68.13	3.55	1112.59
TA1_shp	3725	638142.8	6326882	1668.9	87.6	2.49	1487.68
TA1_shp	3725	638142.8	6326882	1649.43	107.07	2.41	1943.43
TA1_shp	3725	638142.8	6326882	1629.97	126.53	3.01	2401.66
TA1_shp	3725	638142.8	6326882	1610.5	146	4.44	2737.46
TA1_shp	3725	638142.8	6326882	1591.03	165.47	7	2819.83
TA1_shp	3725	638142.8	6326882	1571.57	184.93	11.09	2660.34
TA1_shp	3725	638142.8	6326882	1552.1	204.4	16.74	2352.37
TA1_shp	3725	638142.8	6326882	1532.63	223.87	22.96	2018.96
TA1_shp	3725	638142.8	6326882	1513.17	243.33	28.75	1710.09
TA1_shp	3725	638142.8	6326882	1493.7	262.8	32.24	1494.77
TA1_shp	3725	638142.8	6326882	1474.23	282.27	33.83	1355.06
TA1_shp	3725	638142.8	6326882	1454.5	302	33.95	1274.97
TA1_shp	3725	638142.8	6326882	1434.5	322	32.56	1263.81
TA1_shp	3725	638142.8	6326882	1414.5	342	30.43	1307.6
TA1_shp	3725	638142.8	6326882	1394.5	362	27.94	1385.49
TA1_shp	3725	638142.8	6326882	1374.5	382	25.11	1520.38
TA1_shp	3725	638142.8	6326882	1352.4	404.1	21.98	1728.84
TA1_shp	3725	638142.8	6326882	1327.85	428.65	18.55	2013.59
TA1_shp	3725	638142.8	6326882	1301.9	454.6	15.39	2428.04
TA1_shp	3725	638142.8	6326882	1273.4	483.1	12.29	3031.55
TA1_shp	3725	638142.8	6326882	1242.7	513.8	9.35	3872.68
TA1_shp	3725	638142.8	6326882	1210.05	546.45	6.8	5086.86
TA1_shp	3725	638142.8	6326882	1174.25	582.25	4.78	7067.82
TA1_shp	3725	638142.8	6326882	1135.6	620.9	3.14	10115.49
TA1_shp	3725	638142.8	6326882	1094.45	662.05	1.9	14644.34
TA1_shp	3725	638142.8	6326882	1049.35	707.15	1.02	21471.4
TA1_shp	3725	638142.8	6326882	1000.7	755.8	0.51	29908.18
TA1_shp	3725	638142.8	6326882	948.9	807.6	0.16	35599.8
TA1_shp	3725	638142.8	6326882	892.1	864.4	0.1	35025.15
TA1_shp	3725	638142.8	6326882	830.85	925.65	0.1	27413.24
TA1_shp	3725	638142.8	6326882	766	990.5	0.1	15679.66
TA1_shp	3725	638142.8	6326882	694.5	1062	0.1	5680.38
TA1_shp	3741.67	638157.3	6326889	1751.77	9.73	3.47	11845.96
TA1_shp	3741.67	638157.3	6326889	1732.3	29.2	5.33	1937.75
TA1_shp	3741.67	638157.3	6326889	1712.83	48.67	5.46	1234.46
TA1_shp	3741.67	638157.3	6326889	1693.37	68.13	4.31	1477.46
TA1_shp	3741.67	638157.3	6326889	1673.9	87.6	3.53	1995.96
TA1_shp	3741.67	638157.3	6326889	1654.43	107.07	3.44	2604.97
TA1_shp	3741.67	638157.3	6326889	1634.97	126.53	4.02	3145.46
TA1_shp	3741.67	638157.3	6326889	1615.5	146	5.34	3439.89
TA1_shp	3741.67	638157.3	6326889	1596.03	165.47	7.55	3399.32
TA1_shp	3741.67	638157.3	6326889	1576.57	184.93	10.76	3086.39
TA1_shp	3741.67	638157.3	6326889	1557.1	204.4	14.84	2650.66
TA1_shp	3741.67	638157.3	6326889	1537.63	223.87	19.13	2226.27
TA1_shp	3741.67	638157.3	6326889	1518.17	243.33	23.1	1854.04
TA1_shp	3741.67	638157.3	6326889	1498.7	262.8	25.54	1601.28
TA1_shp	3741.67	638157.3	6326889	1479.23	282.27	26.66	1437.41
TA1_shp	3741.67	638157.3	6326889	1459.5	302	26.68	1340.09
TA1_shp	3741.67	638157.3	6326889	1439.5	322	25.51	1318.68
TA1_shp	3741.67	638157.3	6326889	1419.5	342	23.81	1355.59
TA1_shp	3741.67	638157.3	6326889	1399.5	362	21.86	1428.36

TA1_shp	3741.67	638157.3	6326889	1379.5	382	19.71	1560.24
TA1_shp	3741.67	638157.3	6326889	1357.4	404.1	17.38	1766.89
TA1_shp	3741.67	638157.3	6326889	1332.85	428.65	14.86	2051.38
TA1_shp	3741.67	638157.3	6326889	1306.9	454.6	12.56	2472.92
TA1_shp	3741.67	638157.3	6326889	1278.4	483.1	10.26	3089.04
TA1_shp	3741.67	638157.3	6326889	1247.7	513.8	8.05	3950.72
TA1_shp	3741.67	638157.3	6326889	1215.05	546.45	6.06	5199.65
TA1_shp	3741.67	638157.3	6326889	1179.25	582.25	4.41	7239.58
TA1_shp	3741.67	638157.3	6326889	1140.6	620.9	3.01	10360.76
TA1_shp	3741.67	638157.3	6326889	1099.45	662.05	1.89	14969.37
TA1_shp	3741.67	638157.3	6326889	1054.35	707.15	1.05	21869.87
TA1_shp	3741.67	638157.3	6326889	1005.7	755.8	0.54	30162.1
TA1_shp	3741.67	638157.3	6326889	953.9	807.6	0.18	35469.64
TA1_shp	3741.67	638157.3	6326889	897.1	864.4	0.1	34526.27
TA1_shp	3741.67	638157.3	6326889	835.85	925.65	0.1	26815.39
TA1_shp	3741.67	638157.3	6326889	771	990.5	0.1	15334.93
TA1_shp	3741.67	638157.3	6326889	699.5	1062	0.1	5552.79
TA1_shp	3758.33	638171.8	6326895	1756.77	9.73	0.57	43998.79
TA1_shp	3758.33	638171.8	6326895	1737.3	29.2	1.49	8969.66
TA1_shp	3758.33	638171.8	6326895	1717.83	48.67	2.69	2283.64
TA1_shp	3758.33	638171.8	6326895	1698.37	68.13	3.6	1562.21
TA1_shp	3758.33	638171.8	6326895	1678.9	87.6	3.85	1859.84
TA1_shp	3758.33	638171.8	6326895	1659.43	107.07	3.87	2529.67
TA1_shp	3758.33	638171.8	6326895	1639.97	126.53	4.13	3322.47
TA1_shp	3758.33	638171.8	6326895	1620.5	146	4.83	3963.32
TA1_shp	3758.33	638171.8	6326895	1601.03	165.47	6.1	4234.28
TA1_shp	3758.33	638171.8	6326895	1581.57	184.93	7.99	4053.54
TA1_shp	3758.33	638171.8	6326895	1562.1	204.4	10.45	3568.93
TA1_shp	3758.33	638171.8	6326895	1542.63	223.87	13.3	2985.16
TA1_shp	3758.33	638171.8	6326895	1523.17	243.33	16.07	2454.01
TA1_shp	3758.33	638171.8	6326895	1503.7	262.8	18.52	2008.46
TA1_shp	3758.33	638171.8	6326895	1484.23	282.27	19.92	1712.26
TA1_shp	3758.33	638171.8	6326895	1464.5	302	20.41	1518.92
TA1_shp	3758.33	638171.8	6326895	1444.5	322	20.15	1403.58
TA1_shp	3758.33	638171.8	6326895	1424.5	342	19.18	1371.82
TA1_shp	3758.33	638171.8	6326895	1404.5	362	17.89	1402.96
TA1_shp	3758.33	638171.8	6326895	1384.5	382	16.47	1471.82
TA1_shp	3758.33	638171.8	6326895	1362.4	404.1	14.82	1615.82
TA1_shp	3758.33	638171.8	6326895	1337.85	428.65	13.06	1860.74
TA1_shp	3758.33	638171.8	6326895	1311.9	454.6	11.31	2196.15
TA1_shp	3758.33	638171.8	6326895	1283.4	483.1	9.57	2668.18
TA1_shp	3758.33	638171.8	6326895	1252.7	513.8	7.89	3428.91
TA1_shp	3758.33	638171.8	6326895	1220.05	546.45	6.29	4549.73
TA1_shp	3758.33	638171.8	6326895	1184.25	582.25	4.76	6217.99
TA1_shp	3758.33	638171.8	6326895	1145.6	620.9	3.38	8652.83
TA1_shp	3758.33	638171.8	6326895	1104.45	662.05	2.3	12797.43
TA1_shp	3758.33	638171.8	6326895	1059.35	707.15	1.42	19255.33
TA1_shp	3758.33	638171.8	6326895	1010.7	755.8	0.77	27128.16
TA1_shp	3758.33	638171.8	6326895	958.9	807.6	0.33	33997.08
TA1_shp	3758.33	638171.8	6326895	902.1	864.4	0.1	36089.3
TA1_shp	3758.33	638171.8	6326895	840.85	925.65	0.1	29569.73
TA1_shp	3758.33	638171.8	6326895	776	990.5	0.1	18355.02

TA1_shp	3758.33	638171.8	6326895	704.5	1062	0.1	5984.42
TA1_shp	3775	638186.3	6326901	1761.77	9.73	0.6	7944.77
TA1_shp	3775	638186.3	6326901	1742.3	29.2	0.94	7167.38
TA1_shp	3775	638186.3	6326901	1722.83	48.67	1.65	3027.74
TA1_shp	3775	638186.3	6326901	1703.37	68.13	2.45	2088.97
TA1_shp	3775	638186.3	6326901	1683.9	87.6	3.12	2324.79
TA1_shp	3775	638186.3	6326901	1664.43	107.07	3.68	3094.88
TA1_shp	3775	638186.3	6326901	1644.97	126.53	4.32	4059.45
TA1_shp	3775	638186.3	6326901	1625.5	146	5.21	4831.03
TA1_shp	3775	638186.3	6326901	1606.03	165.47	6.47	5083.62
TA1_shp	3775	638186.3	6326901	1586.57	184.93	8.08	4758.4
TA1_shp	3775	638186.3	6326901	1567.1	204.4	9.94	4087.13
TA1_shp	3775	638186.3	6326901	1547.63	223.87	11.88	3342.11
TA1_shp	3775	638186.3	6326901	1528.17	243.33	13.55	2692.78
TA1_shp	3775	638186.3	6326901	1508.7	262.8	14.82	2166.74
TA1_shp	3775	638186.3	6326901	1489.23	282.27	15.4	1822.01
TA1_shp	3775	638186.3	6326901	1469.5	302	15.41	1598.18
TA1_shp	3775	638186.3	6326901	1449.5	322	14.98	1463.15
TA1_shp	3775	638186.3	6326901	1429.5	342	14.18	1418.74
TA1_shp	3775	638186.3	6326901	1409.5	362	13.24	1443.21
TA1_shp	3775	638186.3	6326901	1389.5	382	12.26	1507.57
TA1_shp	3775	638186.3	6326901	1367.4	404.1	11.18	1647.66
TA1_shp	3775	638186.3	6326901	1342.85	428.65	10.03	1892.84
TA1_shp	3775	638186.3	6326901	1316.9	454.6	8.9	2231.6
TA1_shp	3775	638186.3	6326901	1288.4	483.1	7.76	2710.6
TA1_shp	3775	638186.3	6326901	1257.7	513.8	6.61	3488.35
TA1_shp	3775	638186.3	6326901	1225.05	546.45	5.45	4640.81
TA1_shp	3775	638186.3	6326901	1189.25	582.25	4.28	6360.42
TA1_shp	3775	638186.3	6326901	1150.6	620.9	3.17	8870.29
TA1_shp	3775	638186.3	6326901	1109.45	662.05	2.22	13098.5
TA1_shp	3775	638186.3	6326901	1064.35	707.15	1.42	19629.46
TA1_shp	3775	638186.3	6326901	1015.7	755.8	0.79	27430.15
TA1_shp	3775	638186.3	6326901	963.9	807.6	0.36	34011.03
TA1_shp	3775	638186.3	6326901	907.1	864.4	0.1	35649.21
TA1_shp	3775	638186.3	6326901	845.85	925.65	0.1	28892.02
TA1_shp	3775	638186.3	6326901	781	990.5	0.1	17933.85
TA1_shp	3775	638186.3	6326901	709.5	1062	0.1	5846.8
TA1_shp	3791.67	638200.8	6326907	1766.77	9.73	1.03	10762.07
TA1_shp	3791.67	638200.8	6326907	1747.3	29.2	0.98	9246.16
TA1_shp	3791.67	638200.8	6326907	1727.83	48.67	1.41	4325.21
TA1_shp	3791.67	638200.8	6326907	1708.37	68.13	2.03	2810.06
TA1_shp	3791.67	638200.8	6326907	1688.9	87.6	2.72	2882.71
TA1_shp	3791.67	638200.8	6326907	1669.43	107.07	3.46	3699.53
TA1_shp	3791.67	638200.8	6326907	1649.97	126.53	4.31	4829.28
TA1_shp	3791.67	638200.8	6326907	1630.5	146	5.32	5738.06
TA1_shp	3791.67	638200.8	6326907	1611.03	165.47	6.55	5989.2
TA1_shp	3791.67	638200.8	6326907	1591.57	184.93	7.91	5508.4
TA1_shp	3791.67	638200.8	6326907	1572.1	204.4	9.3	4640.1
TA1_shp	3791.67	638200.8	6326907	1552.63	223.87	10.56	3710.46
TA1_shp	3791.67	638200.8	6326907	1533.17	243.33	11.49	2938.78
TA1_shp	3791.67	638200.8	6326907	1513.7	262.8	12.02	2326.76
TA1_shp	3791.67	638200.8	6326907	1494.23	282.27	12.08	1931.27

TA1_shp	3791.67	638200.8	6326907	1474.5	302	11.79	1675.89
TA1_shp	3791.67	638200.8	6326907	1454.5	322	11.24	1520.31
TA1_shp	3791.67	638200.8	6326907	1434.5	342	10.55	1463.72
TA1_shp	3791.67	638200.8	6326907	1414.5	362	9.85	1480.64
TA1_shp	3791.67	638200.8	6326907	1394.5	382	9.16	1540.05
TA1_shp	3791.67	638200.8	6326907	1372.4	404.1	8.46	1678.97
TA1_shp	3791.67	638200.8	6326907	1347.85	428.65	7.75	1924.14
TA1_shp	3791.67	638200.8	6326907	1321.9	454.6	7.04	2265.72
TA1_shp	3791.67	638200.8	6326907	1293.4	483.1	6.33	2753.11
TA1_shp	3791.67	638200.8	6326907	1262.7	513.8	5.55	3547.26
TA1_shp	3791.67	638200.8	6326907	1230.05	546.45	4.74	4732.75
TA1_shp	3791.67	638200.8	6326907	1194.25	582.25	3.87	6507.01
TA1_shp	3791.67	638200.8	6326907	1155.6	620.9	2.97	9096.79
TA1_shp	3791.67	638200.8	6326907	1114.45	662.05	2.15	13424.14
TA1_shp	3791.67	638200.8	6326907	1069.35	707.15	1.41	20011.99
TA1_shp	3791.67	638200.8	6326907	1020.7	755.8	0.82	27722.89
TA1_shp	3791.67	638200.8	6326907	968.9	807.6	0.39	34009.08
TA1_shp	3791.67	638200.8	6326907	912.1	864.4	0.1	35197.04
TA1_shp	3791.67	638200.8	6326907	850.85	925.65	0.1	28212.53
TA1_shp	3791.67	638200.8	6326907	786	990.5	0.1	17512.43
TA1_shp	3791.67	638200.8	6326907	714.5	1062	0.1	5710.6
TA1_shp	3808.33	638216.4	6326913	1774.73	9.73	5.68	1485.18
TA1_shp	3808.33	638216.4	6326913	1755.26	29.2	2.33	9479.21
TA1_shp	3808.33	638216.4	6326913	1735.79	48.67	1.69	9380.95
TA1_shp	3808.33	638216.4	6326913	1716.33	68.13	1.86	5039.66
TA1_shp	3808.33	638216.4	6326913	1696.86	87.6	2.29	3400.53
TA1_shp	3808.33	638216.4	6326913	1677.39	107.07	2.87	3418.69
TA1_shp	3808.33	638216.4	6326913	1657.93	126.53	3.58	4338.43
TA1_shp	3808.33	638216.4	6326913	1638.46	146	4.44	5654.22
TA1_shp	3808.33	638216.4	6326913	1618.99	165.47	5.43	6716.46
TA1_shp	3808.33	638216.4	6326913	1599.53	184.93	6.55	6946.75
TA1_shp	3808.33	638216.4	6326913	1580.06	204.4	7.66	6303.95
TA1_shp	3808.33	638216.4	6326913	1560.59	223.87	8.66	5206.46
TA1_shp	3808.33	638216.4	6326913	1541.13	243.33	9.43	4092.91
TA1_shp	3808.33	638216.4	6326913	1521.66	262.8	9.84	3183.82
TA1_shp	3808.33	638216.4	6326913	1502.19	282.27	9.9	2481.92
TA1_shp	3808.33	638216.4	6326913	1482.46	302	9.64	2029.18
TA1_shp	3808.33	638216.4	6326913	1462.46	322	9.18	1741.46
TA1_shp	3808.33	638216.4	6326913	1442.46	342	8.59	1569.23
TA1_shp	3808.33	638216.4	6326913	1422.46	362	7.97	1500.33
TA1_shp	3808.33	638216.4	6326913	1402.46	382	7.44	1513.6
TA1_shp	3808.33	638216.4	6326913	1380.36	404.1	6.9	1584.19
TA1_shp	3808.33	638216.4	6326913	1355.81	428.65	6.39	1735.53
TA1_shp	3808.33	638216.4	6326913	1329.86	454.6	5.94	2024.75
TA1_shp	3808.33	638216.4	6326913	1301.36	483.1	5.49	2453.05
TA1_shp	3808.33	638216.4	6326913	1270.66	513.8	5.01	3078.86
TA1_shp	3808.33	638216.4	6326913	1238.01	546.45	4.49	3982.56
TA1_shp	3808.33	638216.4	6326913	1202.21	582.25	3.85	5535.01
TA1_shp	3808.33	638216.4	6326913	1163.56	620.9	3.14	7953.23
TA1_shp	3808.33	638216.4	6326913	1122.41	662.05	2.41	11652.37
TA1_shp	3808.33	638216.4	6326913	1077.31	707.15	1.68	17321.17
TA1_shp	3808.33	638216.4	6326913	1028.66	755.8	1.03	24986.77

TA1_shp	3808.33	638216.4	6326913	976.86	807.6	0.54	33052.68
TA1_shp	3808.33	638216.4	6326913	920.06	864.4	0.2	35532.9
TA1_shp	3808.33	638216.4	6326913	858.81	925.65	0.1	29820.79
TA1_shp	3808.33	638216.4	6326913	793.96	990.5	0.1	20230.15
TA1_shp	3808.33	638216.4	6326913	722.46	1062	0.1	8712.74
TA1_shp	3825	638233.3	6326920	1785.65	9.73	14.73	1598.82
TA1_shp	3825	638233.3	6326920	1766.18	29.2	4.7	6345.54
TA1_shp	3825	638233.3	6326920	1746.7	48.67	3.07	6824.03
TA1_shp	3825	638233.3	6326920	1727.24	68.13	2.97	4485.01
TA1_shp	3825	638233.3	6326920	1707.78	87.6	3.22	3513.35
TA1_shp	3825	638233.3	6326920	1688.31	107.07	3.62	3807.44
TA1_shp	3825	638233.3	6326920	1668.84	126.53	4.19	4972.33
TA1_shp	3825	638233.3	6326920	1649.38	146	4.91	6565.26
TA1_shp	3825	638233.3	6326920	1629.91	165.47	5.76	7796.18
TA1_shp	3825	638233.3	6326920	1610.45	184.93	6.68	7992.55
TA1_shp	3825	638233.3	6326920	1590.97	204.4	7.53	7145.12
TA1_shp	3825	638233.3	6326920	1571.51	223.87	8.18	5796.55
TA1_shp	3825	638233.3	6326920	1552.05	243.33	8.56	4475.06
TA1_shp	3825	638233.3	6326920	1532.57	262.8	8.61	3428.59
TA1_shp	3825	638233.3	6326920	1513.1	282.27	8.36	2634.16
TA1_shp	3825	638233.3	6326920	1493.38	302	7.91	2128.34
TA1_shp	3825	638233.3	6326920	1473.38	322	7.35	1807.83
TA1_shp	3825	638233.3	6326920	1453.38	342	6.77	1614.05
TA1_shp	3825	638233.3	6326920	1433.38	362	6.22	1533.88
TA1_shp	3825	638233.3	6326920	1413.38	382	5.78	1540.49
TA1_shp	3825	638233.3	6326920	1391.28	404.1	5.38	1606.73
TA1_shp	3825	638233.3	6326920	1366.72	428.65	5.02	1756.99
TA1_shp	3825	638233.3	6326920	1340.78	454.6	4.76	2046.82
TA1_shp	3825	638233.3	6326920	1312.28	483.1	4.49	2481.25
TA1_shp	3825	638233.3	6326920	1281.57	513.8	4.21	3121.77
TA1_shp	3825	638233.3	6326920	1248.93	546.45	3.89	4052.01
TA1_shp	3825	638233.3	6326920	1213.12	582.25	3.44	5647.36
TA1_shp	3825	638233.3	6326920	1174.47	620.9	2.89	8142.19
TA1_shp	3825	638233.3	6326920	1133.32	662.05	2.29	11945.78
TA1_shp	3825	638233.3	6326920	1088.22	707.15	1.65	17706.8
TA1_shp	3825	638233.3	6326920	1039.57	755.8	1.04	25362.43
TA1_shp	3825	638233.3	6326920	987.78	807.6	0.56	33187.22
TA1_shp	3825	638233.3	6326920	930.97	864.4	0.22	35173.2
TA1_shp	3825	638233.3	6326920	869.72	925.65	0.1	29201.47
TA1_shp	3825	638233.3	6326920	804.88	990.5	0.1	19728.03
TA1_shp	3825	638233.3	6326920	733.38	1062	0.1	8501.23
TA1_shp	3841.67	638250.1	6326926	1796.56	9.73	18.96	5926.56
TA1_shp	3841.67	638250.1	6326926	1777.09	29.2	11.97	4732.68
TA1_shp	3841.67	638250.1	6326926	1757.62	48.67	5.39	5530.43
TA1_shp	3841.67	638250.1	6326926	1738.16	68.13	4.35	4357.49
TA1_shp	3841.67	638250.1	6326926	1718.69	87.6	4.53	3332.19
TA1_shp	3841.67	638250.1	6326926	1699.22	107.07	4.78	3242.66
TA1_shp	3841.67	638250.1	6326926	1679.76	126.53	5.01	4024.48
TA1_shp	3841.67	638250.1	6326926	1660.29	146	5.31	5605.57
TA1_shp	3841.67	638250.1	6326926	1640.82	165.47	5.76	7566.75
TA1_shp	3841.67	638250.1	6326926	1621.36	184.93	6.34	9006.98
TA1_shp	3841.67	638250.1	6326926	1601.89	204.4	6.98	9144.37

TA1_shp	3841.67	638250.1	6326926	1582.42	223.87	7.52	8044.05
TA1_shp	3841.67	638250.1	6326926	1562.96	243.33	7.86	6412.64
TA1_shp	3841.67	638250.1	6326926	1543.49	262.8	7.92	4866.41
TA1_shp	3841.67	638250.1	6326926	1524.02	282.27	7.7	3666.12
TA1_shp	3841.67	638250.1	6326926	1504.29	302	7.23	2765.22
TA1_shp	3841.67	638250.1	6326926	1484.29	322	6.66	2204.72
TA1_shp	3841.67	638250.1	6326926	1464.29	342	6.06	1858.71
TA1_shp	3841.67	638250.1	6326926	1444.29	362	5.49	1650.34
TA1_shp	3841.67	638250.1	6326926	1424.29	382	4.99	1558.42
TA1_shp	3841.67	638250.1	6326926	1402.19	404.1	4.6	1565.81
TA1_shp	3841.67	638250.1	6326926	1377.64	428.65	4.27	1655.96
TA1_shp	3841.67	638250.1	6326926	1351.69	454.6	4.01	1843.04
TA1_shp	3841.67	638250.1	6326926	1323.19	483.1	3.83	2173.58
TA1_shp	3841.67	638250.1	6326926	1292.49	513.8	3.68	2714.17
TA1_shp	3841.67	638250.1	6326926	1259.84	546.45	3.51	3544.85
TA1_shp	3841.67	638250.1	6326926	1224.04	582.25	3.26	4873.33
TA1_shp	3841.67	638250.1	6326926	1185.39	620.9	2.9	6939.02
TA1_shp	3841.67	638250.1	6326926	1144.24	662.05	2.43	10050.88
TA1_shp	3841.67	638250.1	6326926	1099.14	707.15	1.85	15129.15
TA1_shp	3841.67	638250.1	6326926	1050.49	755.8	1.26	22748.79
TA1_shp	3841.67	638250.1	6326926	998.69	807.6	0.77	30469.66
TA1_shp	3841.67	638250.1	6326926	941.89	864.4	0.36	34327.22
TA1_shp	3841.67	638250.1	6326926	880.64	925.65	0.11	30979.48
TA1_shp	3841.67	638250.1	6326926	815.79	990.5	0.1	22210.72
TA1_shp	3841.67	638250.1	6326926	744.29	1062	0.1	11271.03
TA1_shp	3858.33	638266.9	6326932	1807.48	9.73	13.3	195781.3
TA1_shp	3858.33	638266.9	6326932	1788.01	29.2	7.3	23636.66
TA1_shp	3858.33	638266.9	6326932	1768.54	48.67	4.53	5732.39
TA1_shp	3858.33	638266.9	6326932	1749.08	68.13	4.78	2825.87
TA1_shp	3858.33	638266.9	6326932	1729.61	87.6	5.87	2428.02
TA1_shp	3858.33	638266.9	6326932	1710.14	107.07	6.55	2918.49
TA1_shp	3858.33	638266.9	6326932	1690.68	126.53	6.72	4193.29
TA1_shp	3858.33	638266.9	6326932	1671.21	146	6.72	6272.25
TA1_shp	3858.33	638266.9	6326932	1651.74	165.47	6.83	8695.44
TA1_shp	3858.33	638266.9	6326932	1632.28	184.93	7.07	10340.15
TA1_shp	3858.33	638266.9	6326932	1612.81	204.4	7.37	10408.18
TA1_shp	3858.33	638266.9	6326932	1593.34	223.87	7.59	8986.67
TA1_shp	3858.33	638266.9	6326932	1573.88	243.33	7.63	7045.31
TA1_shp	3858.33	638266.9	6326932	1554.41	262.8	7.43	5251.95
TA1_shp	3858.33	638266.9	6326932	1534.94	282.27	7.03	3896.57
TA1_shp	3858.33	638266.9	6326932	1515.21	302	6.42	2899.07
TA1_shp	3858.33	638266.9	6326932	1495.21	322	5.79	2285.1
TA1_shp	3858.33	638266.9	6326932	1475.21	342	5.19	1907.79
TA1_shp	3858.33	638266.9	6326932	1455.21	362	4.63	1680.54
TA1_shp	3858.33	638266.9	6326932	1435.21	382	4.17	1580.28
TA1_shp	3858.33	638266.9	6326932	1413.11	404.1	3.82	1581.01
TA1_shp	3858.33	638266.9	6326932	1388.56	428.65	3.54	1668.31
TA1_shp	3858.33	638266.9	6326932	1362.61	454.6	3.34	1857.09
TA1_shp	3858.33	638266.9	6326932	1334.11	483.1	3.22	2191.52
TA1_shp	3858.33	638266.9	6326932	1303.41	513.8	3.15	2744.62
TA1_shp	3858.33	638266.9	6326932	1270.76	546.45	3.07	3597.96
TA1_shp	3858.33	638266.9	6326932	1234.96	582.25	2.93	4965.09

TA1_shp	3858.33	638266.9	6326932	1196.31	620.9	2.67	7091.15
TA1_shp	3858.33	638266.9	6326932	1155.16	662.05	2.3	10292.16
TA1_shp	3858.33	638266.9	6326932	1110.06	707.15	1.8	15517.06
TA1_shp	3858.33	638266.9	6326932	1061.41	755.8	1.26	23175.86
TA1_shp	3858.33	638266.9	6326932	1009.61	807.6	0.78	30681.57
TA1_shp	3858.33	638266.9	6326932	952.81	864.4	0.38	34097.75
TA1_shp	3858.33	638266.9	6326932	891.56	925.65	0.12	30403.45
TA1_shp	3858.33	638266.9	6326932	826.71	990.5	0.1	21636.64
TA1_shp	3858.33	638266.9	6326932	755.21	1062	0.1	10985.87
TA1_shp	3875	638283.8	6326939	1818.4	9.73	12.86	1612251
TA1_shp	3875	638283.8	6326939	1798.93	29.2	9.79	279832.2
TA1_shp	3875	638283.8	6326939	1779.45	48.67	5.27	30367.24
TA1_shp	3875	638283.8	6326939	1759.99	68.13	3.81	5002.11
TA1_shp	3875	638283.8	6326939	1740.53	87.6	4.56	2125.2
TA1_shp	3875	638283.8	6326939	1721.06	107.07	6.31	2002.2
TA1_shp	3875	638283.8	6326939	1701.59	126.53	7.61	2788.14
TA1_shp	3875	638283.8	6326939	1682.12	146	7.96	4444.98
TA1_shp	3875	638283.8	6326939	1662.66	165.47	7.81	7025.09
TA1_shp	3875	638283.8	6326939	1643.2	184.93	7.62	9907.96
TA1_shp	3875	638283.8	6326939	1623.72	204.4	7.56	11788.28
TA1_shp	3875	638283.8	6326939	1604.26	223.87	7.58	11703.62
TA1_shp	3875	638283.8	6326939	1584.8	243.33	7.57	9952.77
TA1_shp	3875	638283.8	6326939	1565.32	262.8	7.4	7675.6
TA1_shp	3875	638283.8	6326939	1545.85	282.27	7.05	5630.37
TA1_shp	3875	638283.8	6326939	1526.12	302	6.51	4099.5
TA1_shp	3875	638283.8	6326939	1506.12	322	5.83	2995.46
TA1_shp	3875	638283.8	6326939	1486.12	342	5.17	2343.07
TA1_shp	3875	638283.8	6326939	1466.12	362	4.56	1943.54
TA1_shp	3875	638283.8	6326939	1446.12	382	4.03	1703.65
TA1_shp	3875	638283.8	6326939	1424.03	404.1	3.54	1582.98
TA1_shp	3875	638283.8	6326939	1399.47	428.65	3.21	1596.78
TA1_shp	3875	638283.8	6326939	1373.53	454.6	2.98	1718.19
TA1_shp	3875	638283.8	6326939	1345.03	483.1	2.84	1976.5
TA1_shp	3875	638283.8	6326939	1314.32	513.8	2.77	2407.1
TA1_shp	3875	638283.8	6326939	1281.68	546.45	2.75	3064.11
TA1_shp	3875	638283.8	6326939	1245.88	582.25	2.72	4145.63
TA1_shp	3875	638283.8	6326939	1207.22	620.9	2.59	6002.78
TA1_shp	3875	638283.8	6326939	1166.07	662.05	2.34	8919.09
TA1_shp	3875	638283.8	6326939	1120.97	707.15	1.94	13597.29
TA1_shp	3875	638283.8	6326939	1072.32	755.8	1.45	20470.85
TA1_shp	3875	638283.8	6326939	1020.53	807.6	0.96	28256.33
TA1_shp	3875	638283.8	6326939	963.72	864.4	0.52	33748.93
TA1_shp	3875	638283.8	6326939	902.47	925.65	0.19	32308.98
TA1_shp	3875	638283.8	6326939	837.62	990.5	0.1	23881.26
TA1_shp	3875	638283.8	6326939	766.12	1062	0.1	13522.11
TA1_shp	3891.67	638300.6	6326945	1829.31	9.73	10.78	894102.5
TA1_shp	3891.67	638300.6	6326945	1809.84	29.2	6.65	168545.4
TA1_shp	3891.67	638300.6	6326945	1790.37	48.67	3.79	21051.91
TA1_shp	3891.67	638300.6	6326945	1770.91	68.13	3.1	4018.11
TA1_shp	3891.67	638300.6	6326945	1751.44	87.6	3.91	1894.88
TA1_shp	3891.67	638300.6	6326945	1731.97	107.07	5.66	1938.95
TA1_shp	3891.67	638300.6	6326945	1712.51	126.53	7.24	2895.47

TA1_shp	3891.67	638300.6	6326945	1693.04	146	7.91	4863.22
TA1_shp	3891.67	638300.6	6326945	1673.57	165.47	7.87	7886.9
TA1_shp	3891.67	638300.6	6326945	1654.11	184.93	7.65	11207.65
TA1_shp	3891.67	638300.6	6326945	1634.64	204.4	7.5	13280.67
TA1_shp	3891.67	638300.6	6326945	1615.17	223.87	7.41	13023.32
TA1_shp	3891.67	638300.6	6326945	1595.71	243.33	7.29	10910.32
TA1_shp	3891.67	638300.6	6326945	1576.24	262.8	7.06	8280.54
TA1_shp	3891.67	638300.6	6326945	1556.77	282.27	6.64	5988.4
TA1_shp	3891.67	638300.6	6326945	1537.04	302	6.08	4297.44
TA1_shp	3891.67	638300.6	6326945	1517.04	322	5.39	3105.52
TA1_shp	3891.67	638300.6	6326945	1497.04	342	4.75	2404.45
TA1_shp	3891.67	638300.6	6326945	1477.04	362	4.16	1977.29
TA1_shp	3891.67	638300.6	6326945	1457.04	382	3.64	1722.54
TA1_shp	3891.67	638300.6	6326945	1434.94	404.1	3.18	1594.32
TA1_shp	3891.67	638300.6	6326945	1410.39	428.65	2.86	1603.99
TA1_shp	3891.67	638300.6	6326945	1384.44	454.6	2.65	1725.69
TA1_shp	3891.67	638300.6	6326945	1355.94	483.1	2.53	1987.88
TA1_shp	3891.67	638300.6	6326945	1325.24	513.8	2.48	2426.91
TA1_shp	3891.67	638300.6	6326945	1292.59	546.45	2.49	3100.78
TA1_shp	3891.67	638300.6	6326945	1256.79	582.25	2.5	4217.11
TA1_shp	3891.67	638300.6	6326945	1218.14	620.9	2.42	6132.84
TA1_shp	3891.67	638300.6	6326945	1176.99	662.05	2.22	9133.19
TA1_shp	3891.67	638300.6	6326945	1131.89	707.15	1.88	13942.53
TA1_shp	3891.67	638300.6	6326945	1083.24	755.8	1.43	20907.2
TA1_shp	3891.67	638300.6	6326945	1031.44	807.6	0.97	28573.81
TA1_shp	3891.67	638300.6	6326945	974.64	864.4	0.54	33651.63
TA1_shp	3891.67	638300.6	6326945	913.39	925.65	0.21	31747.71
TA1_shp	3891.67	638300.6	6326945	848.54	990.5	0.1	23232.95
TA1_shp	3891.67	638300.6	6326945	777.04	1062	0.1	13162.79
TA1_shp	3908.33	638317.4	6326951	1840.23	9.73	0.83	9966.51
TA1_shp	3908.33	638317.4	6326951	1820.76	29.2	4.59	129228.9
TA1_shp	3908.33	638317.4	6326951	1801.29	48.67	3.53	54180
TA1_shp	3908.33	638317.4	6326951	1781.83	68.13	2.53	11758.39
TA1_shp	3908.33	638317.4	6326951	1762.36	87.6	2.39	3355.4
TA1_shp	3908.33	638317.4	6326951	1742.89	107.07	3.08	1941.29
TA1_shp	3908.33	638317.4	6326951	1723.43	126.53	4.42	2108.81
TA1_shp	3908.33	638317.4	6326951	1703.96	146	5.77	3217.02
TA1_shp	3908.33	638317.4	6326951	1684.49	165.47	6.54	5443.36
TA1_shp	3908.33	638317.4	6326951	1665.03	184.93	6.77	8853.95
TA1_shp	3908.33	638317.4	6326951	1645.56	204.4	6.75	12536.94
TA1_shp	3908.33	638317.4	6326951	1626.09	223.87	6.72	14734.48
TA1_shp	3908.33	638317.4	6326951	1606.63	243.33	6.72	14271.53
TA1_shp	3908.33	638317.4	6326951	1587.16	262.8	6.67	11817.39
TA1_shp	3908.33	638317.4	6326951	1567.69	282.27	6.49	8847.63
TA1_shp	3908.33	638317.4	6326951	1547.96	302	6.16	6290.98
TA1_shp	3908.33	638317.4	6326951	1527.96	322	5.66	4434.35
TA1_shp	3908.33	638317.4	6326951	1507.96	342	5.03	3170.08
TA1_shp	3908.33	638317.4	6326951	1487.96	362	4.43	2439.02
TA1_shp	3908.33	638317.4	6326951	1467.96	382	3.87	1996.21
TA1_shp	3908.33	638317.4	6326951	1445.86	404.1	3.34	1721.44
TA1_shp	3908.33	638317.4	6326951	1421.31	428.65	2.88	1596.26
TA1_shp	3908.33	638317.4	6326951	1395.36	454.6	2.57	1613.04

TA1_shp	3908.33	638317.4	6326951	1366.86	483.1	2.38	1787.7
TA1_shp	3908.33	638317.4	6326951	1336.16	513.8	2.3	2136.42
TA1_shp	3908.33	638317.4	6326951	1303.51	546.45	2.29	2711.75
TA1_shp	3908.33	638317.4	6326951	1267.71	582.25	2.31	3662.98
TA1_shp	3908.33	638317.4	6326951	1229.06	620.9	2.31	5251.03
TA1_shp	3908.33	638317.4	6326951	1187.91	662.05	2.21	7790.27
TA1_shp	3908.33	638317.4	6326951	1142.81	707.15	1.97	11873.48
TA1_shp	3908.33	638317.4	6326951	1094.16	755.8	1.59	18188.69
TA1_shp	3908.33	638317.4	6326951	1042.36	807.6	1.12	26518.6
TA1_shp	3908.33	638317.4	6326951	985.56	864.4	0.67	33418.31
TA1_shp	3908.33	638317.4	6326951	924.31	925.65	0.3	32971.5
TA1_shp	3908.33	638317.4	6326951	859.46	990.5	0.1	25182.59
TA1_shp	3908.33	638317.4	6326951	787.96	1062	0.1	15467.24
TA1_shp	3925	638334.3	6326958	1851.15	9.73	0.98	5173.23
TA1_shp	3925	638334.3	6326958	1831.68	29.2	2.59	37416.19
TA1_shp	3925	638334.3	6326958	1812.2	48.67	2.26	25230.61
TA1_shp	3925	638334.3	6326958	1792.74	68.13	1.82	8128.31
TA1_shp	3925	638334.3	6326958	1773.28	87.6	1.83	3192.98
TA1_shp	3925	638334.3	6326958	1753.81	107.07	2.31	2166.97
TA1_shp	3925	638334.3	6326958	1734.34	126.53	3.15	2440.26
TA1_shp	3925	638334.3	6326958	1714.88	146	4.06	3680.35
TA1_shp	3925	638334.3	6326958	1695.41	165.47	4.7	6146.55
TA1_shp	3925	638334.3	6326958	1675.95	184.93	5.05	9846.59
TA1_shp	3925	638334.3	6326958	1656.47	204.4	5.26	13793.26
TA1_shp	3925	638334.3	6326958	1637.01	223.87	5.44	16029.08
TA1_shp	3925	638334.3	6326958	1617.55	243.33	5.63	15373.48
TA1_shp	3925	638334.3	6326958	1598.07	262.8	5.75	12595.08
TA1_shp	3925	638334.3	6326958	1578.6	282.27	5.76	9339.47
TA1_shp	3925	638334.3	6326958	1558.88	302	5.59	6562.6
TA1_shp	3925	638334.3	6326958	1538.88	322	5.25	4586.36
TA1_shp	3925	638334.3	6326958	1518.88	342	4.75	3244.99
TA1_shp	3925	638334.3	6326958	1498.88	362	4.22	2477.91
TA1_shp	3925	638334.3	6326958	1478.88	382	3.71	2015.49
TA1_shp	3925	638334.3	6326958	1456.78	404.1	3.22	1728.78
TA1_shp	3925	638334.3	6326958	1432.22	428.65	2.77	1598.42
TA1_shp	3925	638334.3	6326958	1406.28	454.6	2.46	1613.18
TA1_shp	3925	638334.3	6326958	1377.78	483.1	2.26	1791.5
TA1_shp	3925	638334.3	6326958	1347.07	513.8	2.18	2146.26
TA1_shp	3925	638334.3	6326958	1314.43	546.45	2.17	2737.81
TA1_shp	3925	638334.3	6326958	1278.62	582.25	2.2	3719.78
TA1_shp	3925	638334.3	6326958	1239.97	620.9	2.2	5361.34
TA1_shp	3925	638334.3	6326958	1198.82	662.05	2.12	7981.98
TA1_shp	3925	638334.3	6326958	1153.72	707.15	1.91	12179.65
TA1_shp	3925	638334.3	6326958	1105.07	755.8	1.55	18632.58
TA1_shp	3925	638334.3	6326958	1053.28	807.6	1.12	26967.45
TA1_shp	3925	638334.3	6326958	996.47	864.4	0.68	33451.16
TA1_shp	3925	638334.3	6326958	935.22	925.65	0.32	32447.18
TA1_shp	3925	638334.3	6326958	870.38	990.5	0.1	24526.05
TA1_shp	3925	638334.3	6326958	798.88	1062	0.1	15031.44
TA1_shp	3941.67	638351.1	6326964	1862.06	9.73	4.4	4146.07
TA1_shp	3941.67	638351.1	6326964	1842.59	29.2	2.33	6688.83
TA1_shp	3941.67	638351.1	6326964	1823.12	48.67	2.27	19048.93

TA1_shp	3941.67	638351.1	6326964	1803.66	68.13	1.8	15097.14
TA1_shp	3941.67	638351.1	6326964	1784.19	87.6	1.47	6628.45
TA1_shp	3941.67	638351.1	6326964	1764.72	107.07	1.46	3301.23
TA1_shp	3941.67	638351.1	6326964	1745.26	126.53	1.71	2501.45
TA1_shp	3941.67	638351.1	6326964	1725.79	146	2.15	2853.56
TA1_shp	3941.67	638351.1	6326964	1706.32	165.47	2.64	4218.04
TA1_shp	3941.67	638351.1	6326964	1686.86	184.93	3.06	6849.78
TA1_shp	3941.67	638351.1	6326964	1667.39	204.4	3.39	10760.36
TA1_shp	3941.67	638351.1	6326964	1647.92	223.87	3.7	14853.18
TA1_shp	3941.67	638351.1	6326964	1628.46	243.33	4.03	17071.28
TA1_shp	3941.67	638351.1	6326964	1608.99	262.8	4.39	16265.07
TA1_shp	3941.67	638351.1	6326964	1589.52	282.27	4.71	13224.1
TA1_shp	3941.67	638351.1	6326964	1569.79	302	4.92	9677.82
TA1_shp	3941.67	638351.1	6326964	1549.79	322	4.97	6705.86
TA1_shp	3941.67	638351.1	6326964	1529.79	342	4.81	4649.22
TA1_shp	3941.67	638351.1	6326964	1509.79	362	4.47	3267.08
TA1_shp	3941.67	638351.1	6326964	1489.79	382	4.06	2489.38
TA1_shp	3941.67	638351.1	6326964	1467.69	404.1	3.57	1985.01
TA1_shp	3941.67	638351.1	6326964	1443.14	428.65	3.08	1700.8
TA1_shp	3941.67	638351.1	6326964	1417.19	454.6	2.66	1603.59
TA1_shp	3941.67	638351.1	6326964	1388.69	483.1	2.36	1669.56
TA1_shp	3941.67	638351.1	6326964	1357.99	513.8	2.18	1909.13
TA1_shp	3941.67	638351.1	6326964	1325.34	546.45	2.11	2355.56
TA1_shp	3941.67	638351.1	6326964	1289.54	582.25	2.13	3116.13
TA1_shp	3941.67	638351.1	6326964	1250.89	620.9	2.15	4431.75
TA1_shp	3941.67	638351.1	6326964	1209.74	662.05	2.12	6692.85
TA1_shp	3941.67	638351.1	6326964	1164.64	707.15	1.97	10392.52
TA1_shp	3941.67	638351.1	6326964	1115.99	755.8	1.67	16336.03
TA1_shp	3941.67	638351.1	6326964	1064.19	807.6	1.27	24347.14
TA1_shp	3941.67	638351.1	6326964	1007.39	864.4	0.84	31387.74
TA1_shp	3941.67	638351.1	6326964	946.14	925.65	0.44	32515.55
TA1_shp	3941.67	638351.1	6326964	881.29	990.5	0.14	26472.06
TA1_shp	3941.67	638351.1	6326964	809.79	1062	0.1	17101.28
TA1_shp	3958.33	638367.9	6326970	1872.98	9.73	22.33	6782.88
TA1_shp	3958.33	638367.9	6326970	1853.51	29.2	10.24	5422.05
TA1_shp	3958.33	638367.9	6326970	1834.04	48.67	4.53	7387.32
TA1_shp	3958.33	638367.9	6326970	1814.58	68.13	2.63	12591.14
TA1_shp	3958.33	638367.9	6326970	1795.11	87.6	1.75	10603.14
TA1_shp	3958.33	638367.9	6326970	1775.64	107.07	1.35	5865.43
TA1_shp	3958.33	638367.9	6326970	1756.18	126.53	1.22	3493.66
TA1_shp	3958.33	638367.9	6326970	1736.71	146	1.27	2860.28
TA1_shp	3958.33	638367.9	6326970	1717.24	165.47	1.42	3279.68
TA1_shp	3958.33	638367.9	6326970	1697.78	184.93	1.63	4726.84
TA1_shp	3958.33	638367.9	6326970	1678.31	204.4	1.85	7466.98
TA1_shp	3958.33	638367.9	6326970	1658.84	223.87	2.1	11467.84
TA1_shp	3958.33	638367.9	6326970	1639.38	243.33	2.41	15600.92
TA1_shp	3958.33	638367.9	6326970	1619.91	262.8	2.78	17789.86
TA1_shp	3958.33	638367.9	6326970	1600.44	282.27	3.21	16875.45
TA1_shp	3958.33	638367.9	6326970	1580.71	302	3.68	13629.94
TA1_shp	3958.33	638367.9	6326970	1560.71	322	4.08	9860.5
TA1_shp	3958.33	638367.9	6326970	1540.71	342	4.34	6796.95
TA1_shp	3958.33	638367.9	6326970	1520.71	362	4.4	4682.11

TA1_shp	3958.33	638367.9	6326970	1500.71	382	4.24	3272.9
TA1_shp	3958.33	638367.9	6326970	1478.61	404.1	3.92	2419.33
TA1_shp	3958.33	638367.9	6326970	1454.06	428.65	3.46	1902.39
TA1_shp	3958.33	638367.9	6326970	1428.11	454.6	3	1656.57
TA1_shp	3958.33	638367.9	6326970	1399.61	483.1	2.61	1607.81
TA1_shp	3958.33	638367.9	6326970	1368.91	513.8	2.33	1745.23
TA1_shp	3958.33	638367.9	6326970	1336.26	546.45	2.18	2090.85
TA1_shp	3958.33	638367.9	6326970	1300.46	582.25	2.12	2729.13
TA1_shp	3958.33	638367.9	6326970	1261.81	620.9	2.13	3826.3
TA1_shp	3958.33	638367.9	6326970	1220.66	662.05	2.12	5719.46
TA1_shp	3958.33	638367.9	6326970	1175.56	707.15	2.02	8948.86
TA1_shp	3958.33	638367.9	6326970	1126.91	755.8	1.78	14159.37
TA1_shp	3958.33	638367.9	6326970	1075.11	807.6	1.42	21650.33
TA1_shp	3958.33	638367.9	6326970	1018.31	864.4	0.98	29618.71
TA1_shp	3958.33	638367.9	6326970	957.06	925.65	0.57	32925.45
TA1_shp	3958.33	638367.9	6326970	892.21	990.5	0.22	28445.63
TA1_shp	3958.33	638367.9	6326970	820.71	1062	0.1	19018.83
TA1_shp	3975	638384.8	6326977	1883.9	9.73	32.86	6187.89
TA1_shp	3975	638384.8	6326977	1864.43	29.2	18.87	6043.46
TA1_shp	3975	638384.8	6326977	1844.95	48.67	7.4	7691.83
TA1_shp	3975	638384.8	6326977	1825.49	68.13	3.33	9992.81
TA1_shp	3975	638384.8	6326977	1806.03	87.6	1.91	8440.81
TA1_shp	3975	638384.8	6326977	1786.56	107.07	1.32	5413.61
TA1_shp	3975	638384.8	6326977	1767.09	126.53	1.05	3653.84
TA1_shp	3975	638384.8	6326977	1747.62	146	0.93	3167.28
TA1_shp	3975	638384.8	6326977	1728.16	165.47	0.9	3637.31
TA1_shp	3975	638384.8	6326977	1708.7	184.93	0.93	5123.5
TA1_shp	3975	638384.8	6326977	1689.22	204.4	1.02	7876.99
TA1_shp	3975	638384.8	6326977	1669.76	223.87	1.19	11855.19
TA1_shp	3975	638384.8	6326977	1650.3	243.33	1.44	15927.45
TA1_shp	3975	638384.8	6326977	1630.82	262.8	1.79	18105.28
TA1_shp	3975	638384.8	6326977	1611.35	282.27	2.25	17168.12
TA1_shp	3975	638384.8	6326977	1591.62	302	2.78	13887.29
TA1_shp	3975	638384.8	6326977	1571.62	322	3.32	10041.16
TA1_shp	3975	638384.8	6326977	1551.62	342	3.76	6912.1
TA1_shp	3975	638384.8	6326977	1531.62	362	4.01	4743.37
TA1_shp	3975	638384.8	6326977	1511.62	382	4.06	3300.03
TA1_shp	3975	638384.8	6326977	1489.53	404.1	3.9	2431.01
TA1_shp	3975	638384.8	6326977	1464.97	428.65	3.55	1905
TA1_shp	3975	638384.8	6326977	1439.03	454.6	3.13	1655.47
TA1_shp	3975	638384.8	6326977	1410.53	483.1	2.74	1606.79
TA1_shp	3975	638384.8	6326977	1379.82	513.8	2.44	1746.97
TA1_shp	3975	638384.8	6326977	1347.18	546.45	2.27	2103
TA1_shp	3975	638384.8	6326977	1311.38	582.25	2.19	2759.11
TA1_shp	3975	638384.8	6326977	1272.72	620.9	2.17	3894.93
TA1_shp	3975	638384.8	6326977	1231.57	662.05	2.14	5854.87
TA1_shp	3975	638384.8	6326977	1186.47	707.15	2.02	9185.61
TA1_shp	3975	638384.8	6326977	1137.82	755.8	1.77	14544.46
TA1_shp	3975	638384.8	6326977	1086.03	807.6	1.41	22129.92
TA1_shp	3975	638384.8	6326977	1029.22	864.4	0.98	29901.18
TA1_shp	3975	638384.8	6326977	967.97	925.65	0.57	32678.54
TA1_shp	3975	638384.8	6326977	903.12	990.5	0.23	27802.84

TA1_shp	3975	638384.8	6326977	831.62	1062	0.1	18436.32
TA1_shp	3991.67	638401.6	6326983	1894.81	9.73	51.57	11520.06
TA1_shp	3991.67	638401.6	6326983	1875.34	29.2	42.3	7073.94
TA1_shp	3991.67	638401.6	6326983	1855.87	48.67	26.33	6889.61
TA1_shp	3991.67	638401.6	6326983	1836.41	68.13	9.91	8354.08
TA1_shp	3991.67	638401.6	6326983	1816.94	87.6	4.02	9087.03
TA1_shp	3991.67	638401.6	6326983	1797.47	107.07	2.08	7377.68
TA1_shp	3991.67	638401.6	6326983	1778.01	126.53	1.28	5085.95
TA1_shp	3991.67	638401.6	6326983	1758.54	146	0.86	3725.87
TA1_shp	3991.67	638401.6	6326983	1739.07	165.47	0.62	3357.21
TA1_shp	3991.67	638401.6	6326983	1719.61	184.93	0.48	3860.26
TA1_shp	3991.67	638401.6	6326983	1700.14	204.4	0.42	5313.69
TA1_shp	3991.67	638401.6	6326983	1680.67	223.87	0.45	8005.7
TA1_shp	3991.67	638401.6	6326983	1661.21	243.33	0.55	11831.39
TA1_shp	3991.67	638401.6	6326983	1641.74	262.8	0.75	15817.53
TA1_shp	3991.67	638401.6	6326983	1622.27	282.27	1.07	17977.53
TA1_shp	3991.67	638401.6	6326983	1602.54	302	1.5	17163.4
TA1_shp	3991.67	638401.6	6326983	1582.54	322	2.06	13828.37
TA1_shp	3991.67	638401.6	6326983	1562.54	342	2.66	10019.93
TA1_shp	3991.67	638401.6	6326983	1542.54	362	3.25	6866.29
TA1_shp	3991.67	638401.6	6326983	1522.54	382	3.69	4720.74
TA1_shp	3991.67	638401.6	6326983	1500.44	404.1	3.98	3119.47
TA1_shp	3991.67	638401.6	6326983	1475.89	428.65	3.94	2255.79
TA1_shp	3991.67	638401.6	6326983	1449.94	454.6	3.65	1785.02
TA1_shp	3991.67	638401.6	6326983	1421.44	483.1	3.21	1588.63
TA1_shp	3991.67	638401.6	6326983	1390.74	513.8	2.82	1613.22
TA1_shp	3991.67	638401.6	6326983	1358.09	546.45	2.53	1840.81
TA1_shp	3991.67	638401.6	6326983	1322.29	582.25	2.35	2344.18
TA1_shp	3991.67	638401.6	6326983	1283.64	620.9	2.29	3229.58
TA1_shp	3991.67	638401.6	6326983	1242.49	662.05	2.25	4779.5
TA1_shp	3991.67	638401.6	6326983	1197.39	707.15	2.14	7586.27
TA1_shp	3991.67	638401.6	6326983	1148.74	755.8	1.92	12228.05
TA1_shp	3991.67	638401.6	6326983	1096.94	807.6	1.57	19490.75
TA1_shp	3991.67	638401.6	6326983	1040.14	864.4	1.13	28606.16
TA1_shp	3991.67	638401.6	6326983	978.89	925.65	0.69	33547.93
TA1_shp	3991.67	638401.6	6326983	914.04	990.5	0.32	29763.32
TA1_shp	3991.67	638401.6	6326983	842.54	1062	0.1	20129.59
TA1_shp	4008.33	638417.4	6326989	1896.08	9.73	52.64	11504.9
TA1_shp	4008.33	638417.4	6326989	1876.61	29.2	45.66	6668.09
TA1_shp	4008.33	638417.4	6326989	1857.14	48.67	27.89	8606.07
TA1_shp	4008.33	638417.4	6326989	1837.68	68.13	10.56	9991.91
TA1_shp	4008.33	638417.4	6326989	1818.21	87.6	4.25	9103.99
TA1_shp	4008.33	638417.4	6326989	1798.74	107.07	2.07	6784.72
TA1_shp	4008.33	638417.4	6326989	1779.28	126.53	1.11	4774.41
TA1_shp	4008.33	638417.4	6326989	1759.81	146	0.59	3661.81
TA1_shp	4008.33	638417.4	6326989	1740.34	165.47	0.29	3400.85
TA1_shp	4008.33	638417.4	6326989	1720.88	184.93	0.14	3894.54
TA1_shp	4008.33	638417.4	6326989	1701.41	204.4	0.14	5286.59
TA1_shp	4008.33	638417.4	6326989	1681.94	223.87	0.14	7794.72
TA1_shp	4008.33	638417.4	6326989	1662.48	243.33	0.15	11442.2
TA1_shp	4008.33	638417.4	6326989	1643.01	262.8	0.27	15241.53
TA1_shp	4008.33	638417.4	6326989	1623.54	282.27	0.53	17510.19

TA1_shp	4008.33	638417.4	6326989	1603.81	302	0.93	16844.06
TA1_shp	4008.33	638417.4	6326989	1583.81	322	1.47	13740.36
TA1_shp	4008.33	638417.4	6326989	1563.81	342	2.11	9991.91
TA1_shp	4008.33	638417.4	6326989	1543.81	362	2.8	6876.11
TA1_shp	4008.33	638417.4	6326989	1523.81	382	3.42	4712.71
TA1_shp	4008.33	638417.4	6326989	1501.71	404.1	3.96	3119.69
TA1_shp	4008.33	638417.4	6326989	1477.16	428.65	4.12	2245.92
TA1_shp	4008.33	638417.4	6326989	1451.21	454.6	3.96	1779.37
TA1_shp	4008.33	638417.4	6326989	1422.71	483.1	3.56	1580.85
TA1_shp	4008.33	638417.4	6326989	1392.01	513.8	3.14	1612.18
TA1_shp	4008.33	638417.4	6326989	1359.36	546.45	2.8	1843.18
TA1_shp	4008.33	638417.4	6326989	1323.56	582.25	2.57	2365.87
TA1_shp	4008.33	638417.4	6326989	1284.91	620.9	2.46	3273.71
TA1_shp	4008.33	638417.4	6326989	1243.76	662.05	2.37	4883.07
TA1_shp	4008.33	638417.4	6326989	1198.66	707.15	2.22	7786.77
TA1_shp	4008.33	638417.4	6326989	1150.01	755.8	1.95	12589.24
TA1_shp	4008.33	638417.4	6326989	1098.21	807.6	1.58	20016.49
TA1_shp	4008.33	638417.4	6326989	1041.41	864.4	1.13	29036.85
TA1_shp	4008.33	638417.4	6326989	980.16	925.65	0.69	33407.83
TA1_shp	4008.33	638417.4	6326989	915.31	990.5	0.32	29090.91
TA1_shp	4008.33	638417.4	6326989	843.81	1062	0.1	19478.56
TA1_shp	4025	638432.1	6326994	1887.69	9.73	44.09	5595.16
TA1_shp	4025	638432.1	6326994	1868.22	29.2	23.24	13938.58
TA1_shp	4025	638432.1	6326994	1848.75	48.67	8.91	13407.85
TA1_shp	4025	638432.1	6326994	1829.29	68.13	3.73	9503.9
TA1_shp	4025	638432.1	6326994	1809.82	87.6	1.69	6312.33
TA1_shp	4025	638432.1	6326994	1790.35	107.07	0.72	4395.5
TA1_shp	4025	638432.1	6326994	1770.89	126.53	0.22	3473.81
TA1_shp	4025	638432.1	6326994	1751.42	146	0.17	3282.63
TA1_shp	4025	638432.1	6326994	1731.95	165.47	0.15	3757.45
TA1_shp	4025	638432.1	6326994	1712.49	184.93	0.14	5018.32
TA1_shp	4025	638432.1	6326994	1693.02	204.4	0.13	7327.13
TA1_shp	4025	638432.1	6326994	1673.55	223.87	0.13	10690.11
TA1_shp	4025	638432.1	6326994	1654.09	243.33	0.13	14347.49
TA1_shp	4025	638432.1	6326994	1634.62	262.8	0.15	16683.88
TA1_shp	4025	638432.1	6326994	1615.15	282.27	0.5	16317.41
TA1_shp	4025	638432.1	6326994	1595.42	302	1	13556.71
TA1_shp	4025	638432.1	6326994	1575.42	322	1.65	9999.12
TA1_shp	4025	638432.1	6326994	1555.42	342	2.43	6918.74
TA1_shp	4025	638432.1	6326994	1535.42	362	3.2	4754.06
TA1_shp	4025	638432.1	6326994	1515.42	382	3.92	3292.37
TA1_shp	4025	638432.1	6326994	1493.32	404.1	4.34	2414.14
TA1_shp	4025	638432.1	6326994	1468.77	428.65	4.4	1882.5
TA1_shp	4025	638432.1	6326994	1442.82	454.6	4.15	1634.33
TA1_shp	4025	638432.1	6326994	1414.32	483.1	3.75	1594.93
TA1_shp	4025	638432.1	6326994	1383.62	513.8	3.34	1751.57
TA1_shp	4025	638432.1	6326994	1350.97	546.45	3.02	2140.79
TA1_shp	4025	638432.1	6326994	1315.17	582.25	2.79	2857.46
TA1_shp	4025	638432.1	6326994	1276.52	620.9	2.63	4115.43
TA1_shp	4025	638432.1	6326994	1235.37	662.05	2.46	6294.06
TA1_shp	4025	638432.1	6326994	1190.27	707.15	2.2	9992.29
TA1_shp	4025	638432.1	6326994	1141.62	755.8	1.86	15824.08

TA1_shp	4025	638432.1	6326994	1089.82	807.6	1.44	23601.16
TA1_shp	4025	638432.1	6326994	1033.02	864.4	1	30653.62
TA1_shp	4025	638432.1	6326994	971.77	925.65	0.59	31780.34
TA1_shp	4025	638432.1	6326994	906.92	990.5	0.25	25796.18
TA1_shp	4025	638432.1	6326994	835.42	1062	0.1	16722.75
TA1_shp	4041.67	638446.8	6327000	1879.3	9.73	39.48	7891.97
TA1_shp	4041.67	638446.8	6327000	1859.83	29.2	14.22	35027.25
TA1_shp	4041.67	638446.8	6327000	1840.36	48.67	5.93	19142.71
TA1_shp	4041.67	638446.8	6327000	1820.9	68.13	2.53	9726.59
TA1_shp	4041.67	638446.8	6327000	1801.43	87.6	0.94	5745.54
TA1_shp	4041.67	638446.8	6327000	1781.96	107.07	0.33	3979.41
TA1_shp	4041.67	638446.8	6327000	1762.5	126.53	0.23	3202.58
TA1_shp	4041.67	638446.8	6327000	1743.03	146	0.18	3056.37
TA1_shp	4041.67	638446.8	6327000	1723.56	165.47	0.15	3471.61
TA1_shp	4041.67	638446.8	6327000	1704.1	184.93	0.14	4589.62
TA1_shp	4041.67	638446.8	6327000	1684.63	204.4	0.13	6645
TA1_shp	4041.67	638446.8	6327000	1665.16	223.87	0.12	9728.38
TA1_shp	4041.67	638446.8	6327000	1645.7	243.33	0.12	13219.28
TA1_shp	4041.67	638446.8	6327000	1626.23	262.8	0.12	15672.51
TA1_shp	4041.67	638446.8	6327000	1606.76	282.27	0.19	15623.6
TA1_shp	4041.67	638446.8	6327000	1587.03	302	0.65	13200.13
TA1_shp	4041.67	638446.8	6327000	1567.03	322	1.31	9816.79
TA1_shp	4041.67	638446.8	6327000	1547.03	342	2.15	6841.19
TA1_shp	4041.67	638446.8	6327000	1527.03	362	3.08	4706.51
TA1_shp	4041.67	638446.8	6327000	1507.03	382	4.03	3265.48
TA1_shp	4041.67	638446.8	6327000	1484.93	404.1	4.7	2394.9
TA1_shp	4041.67	638446.8	6327000	1460.38	428.65	4.97	1869.59
TA1_shp	4041.67	638446.8	6327000	1434.43	454.6	4.8	1625.01
TA1_shp	4041.67	638446.8	6327000	1405.93	483.1	4.38	1589.91
TA1_shp	4041.67	638446.8	6327000	1375.23	513.8	3.9	1754.06
TA1_shp	4041.67	638446.8	6327000	1342.58	546.45	3.48	2156.19
TA1_shp	4041.67	638446.8	6327000	1306.78	582.25	3.17	2899.2
TA1_shp	4041.67	638446.8	6327000	1268.13	620.9	2.92	4202.08
TA1_shp	4041.67	638446.8	6327000	1226.98	662.05	2.66	6453.43
TA1_shp	4041.67	638446.8	6327000	1181.88	707.15	2.32	10284.73
TA1_shp	4041.67	638446.8	6327000	1133.23	755.8	1.92	16283.71
TA1_shp	4041.67	638446.8	6327000	1081.43	807.6	1.47	24094.02
TA1_shp	4041.67	638446.8	6327000	1024.63	864.4	1.01	30854.93
TA1_shp	4041.67	638446.8	6327000	963.38	925.65	0.59	31429.93
TA1_shp	4041.67	638446.8	6327000	898.53	990.5	0.25	25111.3
TA1_shp	4041.67	638446.8	6327000	827.03	1062	0.1	16163.17
TA1_shp	4058.33	638461.5	6327005	1870.91	9.73	5.11	115600.9
TA1_shp	4058.33	638461.5	6327005	1851.44	29.2	2.89	25961.93
TA1_shp	4058.33	638461.5	6327005	1831.97	48.67	1.05	9255.97
TA1_shp	4058.33	638461.5	6327005	1812.51	68.13	0.45	5189.58
TA1_shp	4058.33	638461.5	6327005	1793.04	87.6	0.31	3635.08
TA1_shp	4058.33	638461.5	6327005	1773.57	107.07	0.22	2952.43
TA1_shp	4058.33	638461.5	6327005	1754.11	126.53	0.18	2793.94
TA1_shp	4058.33	638461.5	6327005	1734.64	146	0.15	3129.29
TA1_shp	4058.33	638461.5	6327005	1715.17	165.47	0.13	4080.15
TA1_shp	4058.33	638461.5	6327005	1695.71	184.93	0.12	5887.2
TA1_shp	4058.33	638461.5	6327005	1676.24	204.4	0.11	8673.97

TA1_shp	4058.33	638461.5	6327005	1656.77	223.87	0.11	11992.72
TA1_shp	4058.33	638461.5	6327005	1637.31	243.33	0.11	14541.14
TA1_shp	4058.33	638461.5	6327005	1617.84	262.8	0.12	14835.2
TA1_shp	4058.33	638461.5	6327005	1598.37	282.27	0.38	12814.44
TA1_shp	4058.33	638461.5	6327005	1578.64	302	1.02	9719.47
TA1_shp	4058.33	638461.5	6327005	1558.64	322	1.91	6829.15
TA1_shp	4058.33	638461.5	6327005	1538.64	342	2.98	4714.39
TA1_shp	4058.33	638461.5	6327005	1518.64	362	4.21	3273.08
TA1_shp	4058.33	638461.5	6327005	1498.64	382	5.1	2462.77
TA1_shp	4058.33	638461.5	6327005	1476.54	404.1	5.64	1940.68
TA1_shp	4058.33	638461.5	6327005	1451.99	428.65	5.71	1654.01
TA1_shp	4058.33	638461.5	6327005	1426.04	454.6	5.38	1569.73
TA1_shp	4058.33	638461.5	6327005	1397.54	483.1	4.84	1666.2
TA1_shp	4058.33	638461.5	6327005	1366.84	513.8	4.29	1963.39
TA1_shp	4058.33	638461.5	6327005	1334.19	546.45	3.83	2517.26
TA1_shp	4058.33	638461.5	6327005	1298.39	582.25	3.47	3453.56
TA1_shp	4058.33	638461.5	6327005	1259.74	620.9	3.12	5141.52
TA1_shp	4058.33	638461.5	6327005	1218.59	662.05	2.74	8012.47
TA1_shp	4058.33	638461.5	6327005	1173.49	707.15	2.3	12736.63
TA1_shp	4058.33	638461.5	6327005	1124.84	755.8	1.81	19713.14
TA1_shp	4058.33	638461.5	6327005	1073.04	807.6	1.32	27526.85
TA1_shp	4058.33	638461.5	6327005	1016.24	864.4	0.87	31842.37
TA1_shp	4058.33	638461.5	6327005	954.99	925.65	0.48	29299.63
TA1_shp	4058.33	638461.5	6327005	890.14	990.5	0.18	21865.58
TA1_shp	4058.33	638461.5	6327005	818.64	1062	0.1	13651.58
TA1_shp	4075	638476.3	6327011	1862.52	9.73	2.03	69807.05
TA1_shp	4075	638476.3	6327011	1843.05	29.2	0.72	19157.57
TA1_shp	4075	638476.3	6327011	1823.58	48.67	0.51	8077.68
TA1_shp	4075	638476.3	6327011	1804.12	68.13	0.37	5043.86
TA1_shp	4075	638476.3	6327011	1784.65	87.6	0.26	3614.17
TA1_shp	4075	638476.3	6327011	1765.18	107.07	0.21	2852.97
TA1_shp	4075	638476.3	6327011	1745.72	126.53	0.18	2594.02
TA1_shp	4075	638476.3	6327011	1726.25	146	0.15	2806.72
TA1_shp	4075	638476.3	6327011	1706.78	165.47	0.13	3593.46
TA1_shp	4075	638476.3	6327011	1687.32	184.93	0.11	5161.18
TA1_shp	4075	638476.3	6327011	1667.85	204.4	0.1	7671.8
TA1_shp	4075	638476.3	6327011	1648.38	223.87	0.11	10821.32
TA1_shp	4075	638476.3	6327011	1628.92	243.33	0.12	13442.58
TA1_shp	4075	638476.3	6327011	1609.45	262.8	0.12	14053.25
TA1_shp	4075	638476.3	6327011	1589.98	282.27	0.19	12396.2
TA1_shp	4075	638476.3	6327011	1570.25	302	0.81	9521.83
TA1_shp	4075	638476.3	6327011	1550.25	322	1.76	6738.43
TA1_shp	4075	638476.3	6327011	1530.25	342	2.99	4674.1
TA1_shp	4075	638476.3	6327011	1510.25	362	4.53	3243.36
TA1_shp	4075	638476.3	6327011	1490.25	382	5.74	2439.28
TA1_shp	4075	638476.3	6327011	1468.15	404.1	6.57	1923.19
TA1_shp	4075	638476.3	6327011	1443.6	428.65	6.81	1641.27
TA1_shp	4075	638476.3	6327011	1417.65	454.6	6.5	1560.53
TA1_shp	4075	638476.3	6327011	1389.15	483.1	5.86	1661.91
TA1_shp	4075	638476.3	6327011	1358.45	513.8	5.16	1969.46
TA1_shp	4075	638476.3	6327011	1325.8	546.45	4.53	2545.96
TA1_shp	4075	638476.3	6327011	1290	582.25	4.02	3516.06

TA1_shp	4075	638476.3	6327011	1251.35	620.9	3.53	5270.29
TA1_shp	4075	638476.3	6327011	1210.2	662.05	3	8255.16
TA1_shp	4075	638476.3	6327011	1165.1	707.15	2.45	13144.55
TA1_shp	4075	638476.3	6327011	1116.45	755.8	1.89	20244.16
TA1_shp	4075	638476.3	6327011	1064.65	807.6	1.36	27937.44
TA1_shp	4075	638476.3	6327011	1007.85	864.4	0.88	31787.24
TA1_shp	4075	638476.3	6327011	946.6	925.65	0.48	28753.78
TA1_shp	4075	638476.3	6327011	881.75	990.5	0.18	21200.85
TA1_shp	4075	638476.3	6327011	810.25	1062	0.1	13182.15
TA1_shp	4091.67	638491	6327016	1854.13	9.73	1.2	53659.58
TA1_shp	4091.67	638491	6327016	1834.66	29.2	0.49	13825.11
TA1_shp	4091.67	638491	6327016	1815.19	48.67	0.37	8663.58
TA1_shp	4091.67	638491	6327016	1795.73	68.13	0.28	6220.26
TA1_shp	4091.67	638491	6327016	1776.26	87.6	0.24	4281.89
TA1_shp	4091.67	638491	6327016	1756.79	107.07	0.21	3071.71
TA1_shp	4091.67	638491	6327016	1737.33	126.53	0.18	2543.66
TA1_shp	4091.67	638491	6327016	1717.86	146	0.15	2586.55
TA1_shp	4091.67	638491	6327016	1698.39	165.47	0.13	3198.27
TA1_shp	4091.67	638491	6327016	1678.93	184.93	0.11	4554.65
TA1_shp	4091.67	638491	6327016	1659.46	204.4	0.11	6805.08
TA1_shp	4091.67	638491	6327016	1639.99	223.87	0.12	9782.27
TA1_shp	4091.67	638491	6327016	1620.53	243.33	0.12	12422.34
TA1_shp	4091.67	638491	6327016	1601.06	262.8	0.13	13325.78
TA1_shp	4091.67	638491	6327016	1581.59	282.27	0.14	11976.78
TA1_shp	4091.67	638491	6327016	1561.86	302	0.65	9330.57
TA1_shp	4091.67	638491	6327016	1541.86	322	1.66	6642.54
TA1_shp	4091.67	638491	6327016	1521.86	342	3.07	4622.11
TA1_shp	4091.67	638491	6327016	1501.86	362	4.97	3208.2
TA1_shp	4091.67	638491	6327016	1481.86	382	6.58	2412.62
TA1_shp	4091.67	638491	6327016	1459.76	404.1	7.77	1902.17
TA1_shp	4091.67	638491	6327016	1435.21	428.65	8.23	1625.48
TA1_shp	4091.67	638491	6327016	1409.26	454.6	7.93	1550.7
TA1_shp	4091.67	638491	6327016	1380.76	483.1	7.16	1659.1
TA1_shp	4091.67	638491	6327016	1350.06	513.8	6.26	1977.02
TA1_shp	4091.67	638491	6327016	1317.41	546.45	5.44	2574.47
TA1_shp	4091.67	638491	6327016	1281.61	582.25	4.73	3575.95
TA1_shp	4091.67	638491	6327016	1242.96	620.9	4.04	5397.74
TA1_shp	4091.67	638491	6327016	1201.81	662.05	3.34	8511.75
TA1_shp	4091.67	638491	6327016	1156.71	707.15	2.64	13567.13
TA1_shp	4091.67	638491	6327016	1108.06	755.8	1.97	20796.49
TA1_shp	4091.67	638491	6327016	1056.26	807.6	1.39	28332.18
TA1_shp	4091.67	638491	6327016	999.46	864.4	0.89	31685.8
TA1_shp	4091.67	638491	6327016	938.21	925.65	0.48	28184.64
TA1_shp	4091.67	638491	6327016	873.36	990.5	0.18	20545.13
TA1_shp	4091.67	638491	6327016	801.86	1062	0.1	12727.28
TA1_shp	4108.33	638505.7	6327022	1845.74	9.73	0.27	15169.17
TA1_shp	4108.33	638505.7	6327022	1826.27	29.2	0.27	14780.63
TA1_shp	4108.33	638505.7	6327022	1806.8	48.67	0.26	10661.39
TA1_shp	4108.33	638505.7	6327022	1787.34	68.13	0.24	6384.64
TA1_shp	4108.33	638505.7	6327022	1767.87	87.6	0.22	3843.97
TA1_shp	4108.33	638505.7	6327022	1748.4	107.07	0.19	2745.48
TA1_shp	4108.33	638505.7	6327022	1728.94	126.53	0.16	2521.97

TA1_shp	4108.33	638505.7	6327022	1709.47	146	0.14	2959.61
TA1_shp	4108.33	638505.7	6327022	1690	165.47	0.13	4116.77
TA1_shp	4108.33	638505.7	6327022	1670.54	184.93	0.13	6154.53
TA1_shp	4108.33	638505.7	6327022	1651.07	204.4	0.12	8939.27
TA1_shp	4108.33	638505.7	6327022	1631.6	223.87	0.12	11582.47
TA1_shp	4108.33	638505.7	6327022	1612.14	243.33	0.13	12697.91
TA1_shp	4108.33	638505.7	6327022	1592.67	262.8	0.14	11621.49
TA1_shp	4108.33	638505.7	6327022	1573.2	282.27	0.54	9192.23
TA1_shp	4108.33	638505.7	6327022	1553.47	302	1.58	6633.74
TA1_shp	4108.33	638505.7	6327022	1533.47	322	3.17	4628.26
TA1_shp	4108.33	638505.7	6327022	1513.47	342	5.46	3211.1
TA1_shp	4108.33	638505.7	6327022	1493.47	362	7.57	2401.69
TA1_shp	4108.33	638505.7	6327022	1473.47	382	9.1	1922.13
TA1_shp	4108.33	638505.7	6327022	1451.37	404.1	9.96	1636.3
TA1_shp	4108.33	638505.7	6327022	1426.82	428.65	9.89	1523.68
TA1_shp	4108.33	638505.7	6327022	1400.87	454.6	9.11	1576.95
TA1_shp	4108.33	638505.7	6327022	1372.37	483.1	8.05	1825.93
TA1_shp	4108.33	638505.7	6327022	1341.67	513.8	7	2330.24
TA1_shp	4108.33	638505.7	6327022	1309.02	546.45	6.06	3164.61
TA1_shp	4108.33	638505.7	6327022	1273.22	582.25	5.15	4593.79
TA1_shp	4108.33	638505.7	6327022	1234.57	620.9	4.24	7031.41
TA1_shp	4108.33	638505.7	6327022	1193.42	662.05	3.36	10896.96
TA1_shp	4108.33	638505.7	6327022	1148.32	707.15	2.53	16732.55
TA1_shp	4108.33	638505.7	6327022	1099.67	755.8	1.8	24270.52
TA1_shp	4108.33	638505.7	6327022	1047.87	807.6	1.21	31153.64
TA1_shp	4108.33	638505.7	6327022	991.07	864.4	0.73	31763.96
TA1_shp	4108.33	638505.7	6327022	929.82	925.65	0.37	25505.75
TA1_shp	4108.33	638505.7	6327022	864.97	990.5	0.1	17427.99
TA1_shp	4108.33	638505.7	6327022	793.47	1062	0.1	10528.62
TA1_shp	4125	638520.4	6327027	1837.35	9.73	0.26	17621.52
TA1_shp	4125	638520.4	6327027	1817.88	29.2	0.27	31029.98
TA1_shp	4125	638520.4	6327027	1798.41	48.67	0.28	22373.07
TA1_shp	4125	638520.4	6327027	1778.95	68.13	0.27	11401.78
TA1_shp	4125	638520.4	6327027	1759.48	87.6	0.25	5613.75
TA1_shp	4125	638520.4	6327027	1740.01	107.07	0.22	3331.26
TA1_shp	4125	638520.4	6327027	1720.55	126.53	0.19	2685.49
TA1_shp	4125	638520.4	6327027	1701.08	146	0.16	2914.31
TA1_shp	4125	638520.4	6327027	1681.61	165.47	0.15	3901.54
TA1_shp	4125	638520.4	6327027	1662.15	184.93	0.14	5749.24
TA1_shp	4125	638520.4	6327027	1642.68	204.4	0.13	8359.46
TA1_shp	4125	638520.4	6327027	1623.21	223.87	0.13	10951.03
TA1_shp	4125	638520.4	6327027	1603.75	243.33	0.13	12223.5
TA1_shp	4125	638520.4	6327027	1584.28	262.8	0.14	11345.91
TA1_shp	4125	638520.4	6327027	1564.81	282.27	0.46	9074.29
TA1_shp	4125	638520.4	6327027	1545.08	302	1.57	6589.32
TA1_shp	4125	638520.4	6327027	1525.08	322	3.36	4592.06
TA1_shp	4125	638520.4	6327027	1505.08	342	6.12	3186.92
TA1_shp	4125	638520.4	6327027	1485.08	362	8.78	2377.13
TA1_shp	4125	638520.4	6327027	1465.08	382	10.81	1898.72
TA1_shp	4125	638520.4	6327027	1442.98	404.1	12.02	1616.27
TA1_shp	4125	638520.4	6327027	1418.43	428.65	12.05	1505.53
TA1_shp	4125	638520.4	6327027	1392.48	454.6	11.17	1565.96

TA1_shp	4125	638520.4	6327027	1363.98	483.1	9.85	1825.61
TA1_shp	4125	638520.4	6327027	1333.28	513.8	8.54	2344.28
TA1_shp	4125	638520.4	6327027	1300.63	546.45	7.32	3212.29
TA1_shp	4125	638520.4	6327027	1264.83	582.25	6.11	4704.71
TA1_shp	4125	638520.4	6327027	1226.18	620.9	4.89	7243.5
TA1_shp	4125	638520.4	6327027	1185.03	662.05	3.74	11248.77
TA1_shp	4125	638520.4	6327027	1139.93	707.15	2.72	17238.69
TA1_shp	4125	638520.4	6327027	1091.28	755.8	1.89	24814.86
TA1_shp	4125	638520.4	6327027	1039.48	807.6	1.23	31381.26
TA1_shp	4125	638520.4	6327027	982.68	864.4	0.74	31375.96
TA1_shp	4125	638520.4	6327027	921.43	925.65	0.37	24801.42
TA1_shp	4125	638520.4	6327027	856.58	990.5	0.1	16820.33
TA1_shp	4125	638520.4	6327027	785.08	1062	0.1	10158.55
TA1_shp	4141.67	638535.1	6327033	1828.96	9.73	0.31	80505.58
TA1_shp	4141.67	638535.1	6327033	1809.49	29.2	0.34	50751.63
TA1_shp	4141.67	638535.1	6327033	1790.02	48.67	0.35	22225.89
TA1_shp	4141.67	638535.1	6327033	1770.56	68.13	0.33	9069.97
TA1_shp	4141.67	638535.1	6327033	1751.09	87.6	0.28	4493.41
TA1_shp	4141.67	638535.1	6327033	1731.62	107.07	0.24	3144.19
TA1_shp	4141.67	638535.1	6327033	1712.16	126.53	0.19	3109.36
TA1_shp	4141.67	638535.1	6327033	1692.69	146	0.17	3933.69
TA1_shp	4141.67	638535.1	6327033	1673.22	165.47	0.15	5620.41
TA1_shp	4141.67	638535.1	6327033	1653.76	184.93	0.14	8066.6
TA1_shp	4141.67	638535.1	6327033	1634.29	204.4	0.13	10572.7
TA1_shp	4141.67	638535.1	6327033	1614.82	223.87	0.13	11934.41
TA1_shp	4141.67	638535.1	6327033	1595.36	243.33	0.14	11204.12
TA1_shp	4141.67	638535.1	6327033	1575.89	262.8	0.41	9046.17
TA1_shp	4141.67	638535.1	6327033	1556.42	282.27	1.57	6621.21
TA1_shp	4141.67	638535.1	6327033	1536.69	302	3.57	4642.78
TA1_shp	4141.67	638535.1	6327033	1516.69	322	6.82	3207.29
TA1_shp	4141.67	638535.1	6327033	1496.69	342	10.12	2373.79
TA1_shp	4141.67	638535.1	6327033	1476.69	362	12.72	1885.16
TA1_shp	4141.67	638535.1	6327033	1456.69	382	14.32	1610.97
TA1_shp	4141.67	638535.1	6327033	1434.59	404.1	14.62	1487.07
TA1_shp	4141.67	638535.1	6327033	1410.04	428.65	13.73	1536.3
TA1_shp	4141.67	638535.1	6327033	1384.09	454.6	12.44	1737.1
TA1_shp	4141.67	638535.1	6327033	1355.59	483.1	10.95	2150.02
TA1_shp	4141.67	638535.1	6327033	1324.89	513.8	9.43	2851.3
TA1_shp	4141.67	638535.1	6327033	1292.24	546.45	7.95	3956
TA1_shp	4141.67	638535.1	6327033	1256.44	582.25	6.41	5856.15
TA1_shp	4141.67	638535.1	6327033	1217.79	620.9	4.91	9163.67
TA1_shp	4141.67	638535.1	6327033	1176.64	662.05	3.61	14135.59
TA1_shp	4141.67	638535.1	6327033	1131.54	707.15	2.53	20891.39
TA1_shp	4141.67	638535.1	6327033	1082.89	755.8	1.7	27756.54
TA1_shp	4141.67	638535.1	6327033	1031.09	807.6	1.08	31350.7
TA1_shp	4141.67	638535.1	6327033	974.29	864.4	0.62	28990.53
TA1_shp	4141.67	638535.1	6327033	913.04	925.65	0.27	21751.01
TA1_shp	4141.67	638535.1	6327033	848.19	990.5	0.1	14097.55
TA1_shp	4141.67	638535.1	6327033	776.69	1062	0.1	8185.4
TA1_shp	4158.33	638549.9	6327038	1820.58	9.73	0.34	103064.3
TA1_shp	4158.33	638549.9	6327038	1801.11	29.2	0.46	96383.68
TA1_shp	4158.33	638549.9	6327038	1781.64	48.67	0.48	39796.7

TA1_shp	4158.33	638549.9	6327038	1762.18	68.13	0.45	14473.8
TA1_shp	4158.33	638549.9	6327038	1742.71	87.6	0.38	6353.2
TA1_shp	4158.33	638549.9	6327038	1723.24	107.07	0.31	3977.76
TA1_shp	4158.33	638549.9	6327038	1703.78	126.53	0.25	3593.88
TA1_shp	4158.33	638549.9	6327038	1684.31	146	0.19	4242.56
TA1_shp	4158.33	638549.9	6327038	1664.84	165.47	0.17	5784.29
TA1_shp	4158.33	638549.9	6327038	1645.38	184.93	0.15	8062.7
TA1_shp	4158.33	638549.9	6327038	1625.91	204.4	0.14	10475.65
TA1_shp	4158.33	638549.9	6327038	1606.44	223.87	0.14	11847.72
TA1_shp	4158.33	638549.9	6327038	1586.98	243.33	0.14	11213.88
TA1_shp	4158.33	638549.9	6327038	1567.51	262.8	0.4	9101.12
TA1_shp	4158.33	638549.9	6327038	1548.04	282.27	1.64	6670.27
TA1_shp	4158.33	638549.9	6327038	1528.31	302	3.88	4665.08
TA1_shp	4158.33	638549.9	6327038	1508.31	322	7.7	3203.46
TA1_shp	4158.33	638549.9	6327038	1488.31	342	11.66	2357.99
TA1_shp	4158.33	638549.9	6327038	1468.31	362	14.81	1864.43
TA1_shp	4158.33	638549.9	6327038	1448.31	382	16.78	1588.86
TA1_shp	4158.33	638549.9	6327038	1426.21	404.1	17.24	1466.33
TA1_shp	4158.33	638549.9	6327038	1401.66	428.65	16.29	1521.2
TA1_shp	4158.33	638549.9	6327038	1375.71	454.6	14.88	1729.94
TA1_shp	4158.33	638549.9	6327038	1347.21	483.1	13.19	2157.02
TA1_shp	4158.33	638549.9	6327038	1316.51	513.8	11.39	2885.09
TA1_shp	4158.33	638549.9	6327038	1283.86	546.45	9.56	4037.48
TA1_shp	4158.33	638549.9	6327038	1248.06	582.25	7.56	6018.83
TA1_shp	4158.33	638549.9	6327038	1209.41	620.9	5.61	9462.2
TA1_shp	4158.33	638549.9	6327038	1168.26	662.05	4	14587.2
TA1_shp	4158.33	638549.9	6327038	1123.16	707.15	2.71	21441.75
TA1_shp	4158.33	638549.9	6327038	1074.51	755.8	1.76	28146.97
TA1_shp	4158.33	638549.9	6327038	1022.71	807.6	1.09	31288.05
TA1_shp	4158.33	638549.9	6327038	965.91	864.4	0.61	28429.55
TA1_shp	4158.33	638549.9	6327038	904.66	925.65	0.27	21045.07
TA1_shp	4158.33	638549.9	6327038	839.81	990.5	0.1	13567.32
TA1_shp	4158.33	638549.9	6327038	768.31	1062	0.1	7899.15
TA1_shp	4175	638564.6	6327043	1812.19	9.73	0.77	148672.4
TA1_shp	4175	638564.6	6327043	1792.72	29.2	0.76	50764.25
TA1_shp	4175	638564.6	6327043	1773.25	48.67	0.64	18652.07
TA1_shp	4175	638564.6	6327043	1753.79	68.13	0.52	8391.02
TA1_shp	4175	638564.6	6327043	1734.32	87.6	0.41	5132.04
TA1_shp	4175	638564.6	6327043	1714.85	107.07	0.32	4384.28
TA1_shp	4175	638564.6	6327043	1695.39	126.53	0.24	4854.04
TA1_shp	4175	638564.6	6327043	1675.92	146	0.19	6238.37
TA1_shp	4175	638564.6	6327043	1656.45	165.47	0.16	8344.65
TA1_shp	4175	638564.6	6327043	1636.99	184.93	0.14	10617.38
TA1_shp	4175	638564.6	6327043	1617.52	204.4	0.14	11975.08
TA1_shp	4175	638564.6	6327043	1598.05	223.87	0.15	11384.33
TA1_shp	4175	638564.6	6327043	1578.59	243.33	0.42	9283.16
TA1_shp	4175	638564.6	6327043	1559.12	262.8	1.77	6802.35
TA1_shp	4175	638564.6	6327043	1539.65	282.27	4.23	4759.88
TA1_shp	4175	638564.6	6327043	1519.92	302	8.53	3258.39
TA1_shp	4175	638564.6	6327043	1499.92	322	13.16	2369.92
TA1_shp	4175	638564.6	6327043	1479.92	342	16.87	1855.78
TA1_shp	4175	638564.6	6327043	1459.92	362	19.23	1569.85

TA1_shp	4175	638564.6	6327043	1439.92	382	19.76	1460.42
TA1_shp	4175	638564.6	6327043	1417.82	404.1	19.1	1490.83
TA1_shp	4175	638564.6	6327043	1393.27	428.65	17.84	1654.1
TA1_shp	4175	638564.6	6327043	1367.32	454.6	16.23	1982.42
TA1_shp	4175	638564.6	6327043	1338.82	483.1	14.38	2563.59
TA1_shp	4175	638564.6	6327043	1308.12	513.8	12.35	3594.42
TA1_shp	4175	638564.6	6327043	1275.47	546.45	10.07	5249.2
TA1_shp	4175	638564.6	6327043	1239.67	582.25	7.65	7958.47
TA1_shp	4175	638564.6	6327043	1201.02	620.9	5.39	12081.63
TA1_shp	4175	638564.6	6327043	1159.87	662.05	3.63	17812.43
TA1_shp	4175	638564.6	6327043	1114.77	707.15	2.36	25157.14
TA1_shp	4175	638564.6	6327043	1066.12	755.8	1.5	30609.69
TA1_shp	4175	638564.6	6327043	1014.32	807.6	0.91	30568.82
TA1_shp	4175	638564.6	6327043	957.52	864.4	0.49	25437.46
TA1_shp	4175	638564.6	6327043	896.27	925.65	0.18	18076.68
TA1_shp	4175	638564.6	6327043	831.42	990.5	0.1	11568.98
TA1_shp	4175	638564.6	6327043	759.92	1062	0.1	6140.61
TA1_shp	4191.67	638579.3	6327049	1803.8	9.73	1.35	39941.37
TA1_shp	4191.67	638579.3	6327049	1784.33	29.2	1.4	24327.55
TA1_shp	4191.67	638579.3	6327049	1764.86	48.67	1.1	14579.33
TA1_shp	4191.67	638579.3	6327049	1745.4	68.13	0.73	8843.14
TA1_shp	4191.67	638579.3	6327049	1725.93	87.6	0.52	6169.34
TA1_shp	4191.67	638579.3	6327049	1706.46	107.07	0.39	5369.68
TA1_shp	4191.67	638579.3	6327049	1687	126.53	0.3	5720.3
TA1_shp	4191.67	638579.3	6327049	1667.53	146	0.23	6941.81
TA1_shp	4191.67	638579.3	6327049	1648.06	165.47	0.19	8852.45
TA1_shp	4191.67	638579.3	6327049	1628.6	184.93	0.16	10961.45
TA1_shp	4191.67	638579.3	6327049	1609.13	204.4	0.15	12280.2
TA1_shp	4191.67	638579.3	6327049	1589.66	223.87	0.16	11729.19
TA1_shp	4191.67	638579.3	6327049	1570.2	243.33	0.49	9604.19
TA1_shp	4191.67	638579.3	6327049	1550.73	262.8	1.95	7026.38
TA1_shp	4191.67	638579.3	6327049	1531.26	282.27	4.69	4883.22
TA1_shp	4191.67	638579.3	6327049	1511.53	302	9.58	3303.29
TA1_shp	4191.67	638579.3	6327049	1491.53	322	14.81	2377.17
TA1_shp	4191.67	638579.3	6327049	1471.53	342	18.96	1845
TA1_shp	4191.67	638579.3	6327049	1451.53	362	21.55	1550.39
TA1_shp	4191.67	638579.3	6327049	1431.53	382	22.16	1441.19
TA1_shp	4191.67	638579.3	6327049	1409.43	404.1	21.54	1473.83
TA1_shp	4191.67	638579.3	6327049	1384.88	428.65	20.33	1642.72
TA1_shp	4191.67	638579.3	6327049	1358.93	454.6	18.77	1982.81
TA1_shp	4191.67	638579.3	6327049	1330.43	483.1	16.92	2588.97
TA1_shp	4191.67	638579.3	6327049	1299.73	513.8	14.65	3659.31
TA1_shp	4191.67	638579.3	6327049	1267.08	546.45	11.91	5377.69
TA1_shp	4191.67	638579.3	6327049	1231.28	582.25	8.89	8197.99
TA1_shp	4191.67	638579.3	6327049	1192.63	620.9	6.08	12472.6
TA1_shp	4191.67	638579.3	6327049	1151.48	662.05	3.94	18342.92
TA1_shp	4191.67	638579.3	6327049	1106.38	707.15	2.47	25710.66
TA1_shp	4191.67	638579.3	6327049	1057.73	755.8	1.54	30782.93
TA1_shp	4191.67	638579.3	6327049	1005.93	807.6	0.92	30219.42
TA1_shp	4191.67	638579.3	6327049	949.13	864.4	0.48	24775.83
TA1_shp	4191.67	638579.3	6327049	887.88	925.65	0.17	17437.19
TA1_shp	4191.67	638579.3	6327049	823.03	990.5	0.1	11129.13

TA1_shp	4191.67	638579.3	6327049	751.53	1062	0.1	5932.17
TA1_shp	4208.33	638594	6327054	1795.41	9.73	1.8	7868.56
TA1_shp	4208.33	638594	6327054	1775.94	29.2	4.76	6251.72
TA1_shp	4208.33	638594	6327054	1756.47	48.67	3.29	7474.33
TA1_shp	4208.33	638594	6327054	1737.01	68.13	1.6	7121.95
TA1_shp	4208.33	638594	6327054	1717.54	87.6	0.63	6414.01
TA1_shp	4208.33	638594	6327054	1698.07	107.07	0.47	6198.33
TA1_shp	4208.33	638594	6327054	1678.61	126.53	0.35	6662.14
TA1_shp	4208.33	638594	6327054	1659.14	146	0.27	7767.37
TA1_shp	4208.33	638594	6327054	1639.67	165.47	0.21	9450.65
TA1_shp	4208.33	638594	6327054	1620.21	184.93	0.18	11393.99
TA1_shp	4208.33	638594	6327054	1600.74	204.4	0.17	12700.54
TA1_shp	4208.33	638594	6327054	1581.27	223.87	0.18	12216.95
TA1_shp	4208.33	638594	6327054	1561.81	243.33	0.61	10078.86
TA1_shp	4208.33	638594	6327054	1542.34	262.8	2.22	7356.21
TA1_shp	4208.33	638594	6327054	1522.87	282.27	5.25	5070.57
TA1_shp	4208.33	638594	6327054	1503.14	302	10.66	3378.86
TA1_shp	4208.33	638594	6327054	1483.14	322	16.37	2396.93
TA1_shp	4208.33	638594	6327054	1463.14	342	20.75	1838.47
TA1_shp	4208.33	638594	6327054	1443.14	362	23.39	1531.92
TA1_shp	4208.33	638594	6327054	1423.14	382	24.02	1420.72
TA1_shp	4208.33	638594	6327054	1401.04	404.1	23.54	1455.67
TA1_shp	4208.33	638594	6327054	1376.49	428.65	22.54	1631.08
TA1_shp	4208.33	638594	6327054	1350.54	454.6	21.22	1982.78
TA1_shp	4208.33	638594	6327054	1322.04	483.1	19.55	2608.07
TA1_shp	4208.33	638594	6327054	1291.34	513.8	17.15	3719.47
TA1_shp	4208.33	638594	6327054	1258.69	546.45	13.97	5515.95
TA1_shp	4208.33	638594	6327054	1222.89	582.25	10.31	8455.07
TA1_shp	4208.33	638594	6327054	1184.24	620.9	6.85	12877.54
TA1_shp	4208.33	638594	6327054	1143.09	662.05	4.29	18889.87
TA1_shp	4208.33	638594	6327054	1097.99	707.15	2.6	26247.09
TA1_shp	4208.33	638594	6327054	1049.34	755.8	1.57	30891.42
TA1_shp	4208.33	638594	6327054	997.54	807.6	0.92	29834.88
TA1_shp	4208.33	638594	6327054	940.74	864.4	0.47	24111.12
TA1_shp	4208.33	638594	6327054	879.49	925.65	0.17	16804.03
TA1_shp	4208.33	638594	6327054	814.64	990.5	0.1	10695.24
TA1_shp	4208.33	638594	6327054	743.14	1062	0.1	5727.08
TA1_shp	4225	638608.8	6327060	1787.02	9.73	45.04	2483.09
TA1_shp	4225	638608.8	6327060	1767.55	29.2	10.01	3883.72
TA1_shp	4225	638608.8	6327060	1748.08	48.67	3.97	4985.52
TA1_shp	4225	638608.8	6327060	1728.62	68.13	1.34	5754.73
TA1_shp	4225	638608.8	6327060	1709.15	87.6	0.52	6486.85
TA1_shp	4225	638608.8	6327060	1689.68	107.07	0.4	7368.38
TA1_shp	4225	638608.8	6327060	1670.22	126.53	0.31	8463.67
TA1_shp	4225	638608.8	6327060	1650.75	146	0.24	9924.28
TA1_shp	4225	638608.8	6327060	1631.28	165.47	0.2	11722.02
TA1_shp	4225	638608.8	6327060	1611.82	184.93	0.18	13127.48
TA1_shp	4225	638608.8	6327060	1592.35	204.4	0.19	12847.91
TA1_shp	4225	638608.8	6327060	1572.88	223.87	0.78	10731.27
TA1_shp	4225	638608.8	6327060	1553.42	243.33	2.56	7822.05
TA1_shp	4225	638608.8	6327060	1533.95	262.8	5.91	5333.03
TA1_shp	4225	638608.8	6327060	1514.48	282.27	11.72	3513.95

TA1_shp	4225	638608.8	6327060	1494.75	302	17.67	2453.34
TA1_shp	4225	638608.8	6327060	1474.75	322	22.22	1847.48
TA1_shp	4225	638608.8	6327060	1454.75	342	24.89	1519.55
TA1_shp	4225	638608.8	6327060	1434.75	362	25.52	1403.48
TA1_shp	4225	638608.8	6327060	1414.75	382	25.25	1428.08
TA1_shp	4225	638608.8	6327060	1392.65	404.1	24.6	1558.13
TA1_shp	4225	638608.8	6327060	1368.1	428.65	23.69	1844.06
TA1_shp	4225	638608.8	6327060	1342.15	454.6	22.49	2422.7
TA1_shp	4225	638608.8	6327060	1313.65	483.1	20.61	3353.12
TA1_shp	4225	638608.8	6327060	1282.95	513.8	17.8	4799.34
TA1_shp	4225	638608.8	6327060	1250.3	546.45	13.85	6977.72
TA1_shp	4225	638608.8	6327060	1214.5	582.25	9.53	10779.15
TA1_shp	4225	638608.8	6327060	1175.85	620.9	6.19	16159.63
TA1_shp	4225	638608.8	6327060	1134.7	662.05	3.81	22591.91
TA1_shp	4225	638608.8	6327060	1089.6	707.15	2.24	28603.99
TA1_shp	4225	638608.8	6327060	1040.95	755.8	1.28	31390.26
TA1_shp	4225	638608.8	6327060	989.15	807.6	0.7	28210.95
TA1_shp	4225	638608.8	6327060	932.35	864.4	0.33	20886.37
TA1_shp	4225	638608.8	6327060	871.1	925.65	0.1	14093.83
TA1_shp	4225	638608.8	6327060	806.25	990.5	0.1	8985.49
TA1_shp	4225	638608.8	6327060	734.75	1062	0.1	4236.52
TA1_shp	4241.67	638623.5	6327065	1778.63	9.73	69.88	2516.28
TA1_shp	4241.67	638623.5	6327065	1759.16	29.2	54.47	2464.71
TA1_shp	4241.67	638623.5	6327065	1739.69	48.67	18.3	3352.94
TA1_shp	4241.67	638623.5	6327065	1720.23	68.13	2.37	4605.77
TA1_shp	4241.67	638623.5	6327065	1700.76	87.6	0.54	6080.17
TA1_shp	4241.67	638623.5	6327065	1681.29	107.07	0.43	7548.14
TA1_shp	4241.67	638623.5	6327065	1661.83	126.53	0.33	8750.82
TA1_shp	4241.67	638623.5	6327065	1642.36	146	0.26	10005.03
TA1_shp	4241.67	638623.5	6327065	1622.89	165.47	0.21	11724.32
TA1_shp	4241.67	638623.5	6327065	1603.43	184.93	0.2	13380.7
TA1_shp	4241.67	638623.5	6327065	1583.96	204.4	0.2	13527.99
TA1_shp	4241.67	638623.5	6327065	1564.49	223.87	1.02	11537.21
TA1_shp	4241.67	638623.5	6327065	1545.03	243.33	2.99	8447.72
TA1_shp	4241.67	638623.5	6327065	1525.56	262.8	6.67	5678.38
TA1_shp	4241.67	638623.5	6327065	1506.09	282.27	12.89	3670.4
TA1_shp	4241.67	638623.5	6327065	1486.36	302	18.98	2509.35
TA1_shp	4241.67	638623.5	6327065	1466.36	322	23.47	1853.93
TA1_shp	4241.67	638623.5	6327065	1446.36	342	25.98	1505.06
TA1_shp	4241.67	638623.5	6327065	1426.36	362	26.54	1382.13
TA1_shp	4241.67	638623.5	6327065	1406.36	382	26.38	1408.47
TA1_shp	4241.67	638623.5	6327065	1384.26	404.1	25.94	1543.59
TA1_shp	4241.67	638623.5	6327065	1359.71	428.65	25.36	1836.47
TA1_shp	4241.67	638623.5	6327065	1333.76	454.6	24.58	2436.22
TA1_shp	4241.67	638623.5	6327065	1305.26	483.1	23.01	3404.15
TA1_shp	4241.67	638623.5	6327065	1274.56	513.8	20.24	4910.9
TA1_shp	4241.67	638623.5	6327065	1241.91	546.45	15.88	7180.56
TA1_shp	4241.67	638623.5	6327065	1206.11	582.25	10.76	11124.5
TA1_shp	4241.67	638623.5	6327065	1167.46	620.9	6.82	16657.84
TA1_shp	4241.67	638623.5	6327065	1126.31	662.05	4.07	23124.63
TA1_shp	4241.67	638623.5	6327065	1081.21	707.15	2.32	28921.79
TA1_shp	4241.67	638623.5	6327065	1032.56	755.8	1.29	31217.89

TA1_shp	4241.67	638623.5	6327065	980.76	807.6	0.69	27580.62
TA1_shp	4241.67	638623.5	6327065	923.96	864.4	0.32	20174.94
TA1_shp	4241.67	638623.5	6327065	862.71	925.65	0.1	13542.1
TA1_shp	4241.67	638623.5	6327065	797.86	990.5	0.1	8634.97
TA1_shp	4241.67	638623.5	6327065	726.36	1062	0.1	4101.76
TA1_shp	4258.33	638638.2	6327071	1770.24	9.73	71.56	1646.23
TA1_shp	4258.33	638638.2	6327071	1750.77	29.2	48.76	2323.42
TA1_shp	4258.33	638638.2	6327071	1731.3	48.67	17.61	3461.55
TA1_shp	4258.33	638638.2	6327071	1711.84	68.13	2.88	5177.32
TA1_shp	4258.33	638638.2	6327071	1692.37	87.6	0.45	7113.64
TA1_shp	4258.33	638638.2	6327071	1672.9	107.07	0.35	8388.61
TA1_shp	4258.33	638638.2	6327071	1653.44	126.53	0.27	9434.59
TA1_shp	4258.33	638638.2	6327071	1633.97	146	0.22	11126.89
TA1_shp	4258.33	638638.2	6327071	1614.5	165.47	0.2	13287.73
TA1_shp	4258.33	638638.2	6327071	1595.04	184.93	0.3	14199.7
TA1_shp	4258.33	638638.2	6327071	1575.57	204.4	1.33	12534.71
TA1_shp	4258.33	638638.2	6327071	1556.1	223.87	3.53	9240.25
TA1_shp	4258.33	638638.2	6327071	1536.64	243.33	7.54	6123.27
TA1_shp	4258.33	638638.2	6327071	1517.17	262.8	14.05	3863.63
TA1_shp	4258.33	638638.2	6327071	1497.7	282.27	20.01	2591.4
TA1_shp	4258.33	638638.2	6327071	1477.97	302	24.26	1877.95
TA1_shp	4258.33	638638.2	6327071	1457.97	322	26.6	1496.98
TA1_shp	4258.33	638638.2	6327071	1437.97	342	27.09	1366.78
TA1_shp	4258.33	638638.2	6327071	1417.97	362	27.05	1388
TA1_shp	4258.33	638638.2	6327071	1397.97	382	26.83	1496.93
TA1_shp	4258.33	638638.2	6327071	1375.87	404.1	26.61	1769
TA1_shp	4258.33	638638.2	6327071	1351.32	428.65	26.32	2295.96
TA1_shp	4258.33	638638.2	6327071	1325.37	454.6	25.6	3081.35
TA1_shp	4258.33	638638.2	6327071	1296.87	483.1	23.97	4275.53
TA1_shp	4258.33	638638.2	6327071	1266.17	513.8	19.8	6399.99
TA1_shp	4258.33	638638.2	6327071	1233.52	546.45	14.72	9612.55
TA1_shp	4258.33	638638.2	6327071	1197.72	582.25	9.49	14173.53
TA1_shp	4258.33	638638.2	6327071	1159.07	620.9	5.49	20176.12
TA1_shp	4258.33	638638.2	6327071	1117.92	662.05	3.29	26733.21
TA1_shp	4258.33	638638.2	6327071	1072.82	707.15	1.91	30383.37
TA1_shp	4258.33	638638.2	6327071	1024.17	755.8	1.06	29461.23
TA1_shp	4258.33	638638.2	6327071	972.37	807.6	0.55	24394.62
TA1_shp	4258.33	638638.2	6327071	915.57	864.4	0.22	17217.29
TA1_shp	4258.33	638638.2	6327071	854.32	925.65	0.1	11045.79
TA1_shp	4258.33	638638.2	6327071	789.47	990.5	0.1	7119.08
TA1_shp	4258.33	638638.2	6327071	717.97	1062	0.1	2793.26
TA1_shp	4275	638652.9	6327076	1761.85	9.73	80.95	1881.06
TA1_shp	4275	638652.9	6327076	1742.38	29.2	52.16	1868.62
TA1_shp	4275	638652.9	6327076	1722.91	48.67	29.92	2580.16
TA1_shp	4275	638652.9	6327076	1703.45	68.13	8.32	4115.99
TA1_shp	4275	638652.9	6327076	1683.98	87.6	2	6230.53
TA1_shp	4275	638652.9	6327076	1664.51	107.07	0.41	7387.01
TA1_shp	4275	638652.9	6327076	1645.05	126.53	0.27	8144.05
TA1_shp	4275	638652.9	6327076	1625.58	146	0.22	9860.09
TA1_shp	4275	638652.9	6327076	1606.11	165.47	0.21	12712.01
TA1_shp	4275	638652.9	6327076	1586.65	184.93	0.55	14781.59
TA1_shp	4275	638652.9	6327076	1567.18	204.4	1.7	13728.98

TA1_shp	4275	638652.9	6327076	1547.71	223.87	4.15	10250.35
TA1_shp	4275	638652.9	6327076	1528.25	243.33	8.49	6689.41
TA1_shp	4275	638652.9	6327076	1508.78	262.8	15.18	4103.5
TA1_shp	4275	638652.9	6327076	1489.31	282.27	20.92	2679.02
TA1_shp	4275	638652.9	6327076	1469.58	302	24.85	1896.54
TA1_shp	4275	638652.9	6327076	1449.58	322	26.9	1484.1
TA1_shp	4275	638652.9	6327076	1429.58	342	27.27	1348.02
TA1_shp	4275	638652.9	6327076	1409.58	362	27.3	1368.53
TA1_shp	4275	638652.9	6327076	1389.58	382	27.26	1480.61
TA1_shp	4275	638652.9	6327076	1367.48	404.1	27.33	1764.66
TA1_shp	4275	638652.9	6327076	1342.93	428.65	27.45	2307.01
TA1_shp	4275	638652.9	6327076	1316.98	454.6	27.18	3121.05
TA1_shp	4275	638652.9	6327076	1288.48	483.1	25.97	4372.39
TA1_shp	4275	638652.9	6327076	1257.78	513.8	21.8	6574.92
TA1_shp	4275	638652.9	6327076	1225.13	546.45	16.29	9903.62
TA1_shp	4275	638652.9	6327076	1189.33	582.25	10.41	14607.73
TA1_shp	4275	638652.9	6327076	1150.68	620.9	5.85	20744.51
TA1_shp	4275	638652.9	6327076	1109.53	662.05	3.43	27168.3
TA1_shp	4275	638652.9	6327076	1064.43	707.15	1.94	30394.6
TA1_shp	4275	638652.9	6327076	1015.78	755.8	1.06	29025.79
TA1_shp	4275	638652.9	6327076	963.98	807.6	0.53	23694.89
TA1_shp	4275	638652.9	6327076	907.18	864.4	0.2	16547.26
TA1_shp	4275	638652.9	6327076	845.93	925.65	0.1	10587.59
TA1_shp	4275	638652.9	6327076	781.08	990.5	0.1	6844.64
TA1_shp	4275	638652.9	6327076	709.58	1062	0.1	2721.35
TA1_shp	4291.67	638667.6	6327082	1753.46	9.73	32.67	1538.88
TA1_shp	4291.67	638667.6	6327082	1733.99	29.2	18.61	1982.09
TA1_shp	4291.67	638667.6	6327082	1714.52	48.67	8.56	3159.04
TA1_shp	4291.67	638667.6	6327082	1695.06	68.13	3.45	5228.54
TA1_shp	4291.67	638667.6	6327082	1675.59	87.6	1.15	5976.64
TA1_shp	4291.67	638667.6	6327082	1656.12	107.07	0.33	6334.27
TA1_shp	4291.67	638667.6	6327082	1636.66	126.53	0.21	8018.99
TA1_shp	4291.67	638667.6	6327082	1617.19	146	0.25	11635.28
TA1_shp	4291.67	638667.6	6327082	1597.72	165.47	0.8	15231.43
TA1_shp	4291.67	638667.6	6327082	1578.26	184.93	2.12	15168.59
TA1_shp	4291.67	638667.6	6327082	1558.79	204.4	4.88	11507.56
TA1_shp	4291.67	638667.6	6327082	1539.32	223.87	9.61	7374.26
TA1_shp	4291.67	638667.6	6327082	1519.86	243.33	16.42	4389.36
TA1_shp	4291.67	638667.6	6327082	1500.39	262.8	21.81	2775.73
TA1_shp	4291.67	638667.6	6327082	1480.92	282.27	25.22	1919.92
TA1_shp	4291.67	638667.6	6327082	1461.19	302	26.9	1477.63
TA1_shp	4291.67	638667.6	6327082	1441.19	322	27.15	1331.64
TA1_shp	4291.67	638667.6	6327082	1421.19	342	27.25	1347.78
TA1_shp	4291.67	638667.6	6327082	1401.19	362	27.35	1460.34
TA1_shp	4291.67	638667.6	6327082	1381.19	382	27.68	1723.93
TA1_shp	4291.67	638667.6	6327082	1359.09	404.1	28.13	2191.18
TA1_shp	4291.67	638667.6	6327082	1334.54	428.65	28.58	2877.95
TA1_shp	4291.67	638667.6	6327082	1308.59	454.6	27.91	4052.85
TA1_shp	4291.67	638667.6	6327082	1280.09	483.1	25.15	5905.9
TA1_shp	4291.67	638667.6	6327082	1249.39	513.8	20.42	8603.88
TA1_shp	4291.67	638667.6	6327082	1216.74	546.45	13.77	12610.55
TA1_shp	4291.67	638667.6	6327082	1180.94	582.25	8.65	18212.85

TA1_shp	4291.67	638667.6	6327082	1142.29	620.9	4.94	24270
TA1_shp	4291.67	638667.6	6327082	1101.14	662.05	2.69	29374.2
TA1_shp	4291.67	638667.6	6327082	1056.04	707.15	1.43	31099.73
TA1_shp	4291.67	638667.6	6327082	1007.39	755.8	0.81	26693.96
TA1_shp	4291.67	638667.6	6327082	955.59	807.6	0.39	20411.94
TA1_shp	4291.67	638667.6	6327082	898.79	864.4	0.13	14066.86
TA1_shp	4291.67	638667.6	6327082	837.54	925.65	0.1	9073.93
TA1_shp	4291.67	638667.6	6327082	772.69	990.5	0.1	5510.35
TA1_shp	4291.67	638667.6	6327082	701.19	1062	0.1	2463.33
TA1_shp	4308.33	638683.3	6327082	1739.11	9.73	37.44	1899.96
TA1_shp	4308.33	638683.3	6327082	1719.64	29.2	8.33	1702.6
TA1_shp	4308.33	638683.3	6327082	1700.17	48.67	4.54	2396.23
TA1_shp	4308.33	638683.3	6327082	1680.71	68.13	3.5	4424.07
TA1_shp	4308.33	638683.3	6327082	1661.24	87.6	1.56	4508.57
TA1_shp	4308.33	638683.3	6327082	1641.77	107.07	0.56	4396.59
TA1_shp	4308.33	638683.3	6327082	1622.31	126.53	0.27	5963.63
TA1_shp	4308.33	638683.3	6327082	1602.84	146	0.4	10201.87
TA1_shp	4308.33	638683.3	6327082	1583.37	165.47	1.02	15573.57
TA1_shp	4308.33	638683.3	6327082	1563.91	184.93	2.54	16908.79
TA1_shp	4308.33	638683.3	6327082	1544.44	204.4	5.67	13013.78
TA1_shp	4308.33	638683.3	6327082	1524.97	223.87	10.81	8193.06
TA1_shp	4308.33	638683.3	6327082	1505.51	243.33	17.6	4710.44
TA1_shp	4308.33	638683.3	6327082	1486.04	262.8	22.51	2882.64
TA1_shp	4308.33	638683.3	6327082	1466.57	282.27	25.38	1941.33
TA1_shp	4308.33	638683.3	6327082	1446.84	302	26.65	1463.11
TA1_shp	4308.33	638683.3	6327082	1426.84	322	26.79	1313.21
TA1_shp	4308.33	638683.3	6327082	1406.84	342	26.96	1329.18
TA1_shp	4308.33	638683.3	6327082	1386.84	362	27.23	1444.86
TA1_shp	4308.33	638683.3	6327082	1366.84	382	27.84	1719.36
TA1_shp	4308.33	638683.3	6327082	1344.74	404.1	28.6	2201.86
TA1_shp	4308.33	638683.3	6327082	1320.19	428.65	29.42	2910.56
TA1_shp	4308.33	638683.3	6327082	1294.24	454.6	29.11	4138.35
TA1_shp	4308.33	638683.3	6327082	1265.74	483.1	26.59	6063.68
TA1_shp	4308.33	638683.3	6327082	1235.04	513.8	21.85	8866.52
TA1_shp	4308.33	638683.3	6327082	1202.39	546.45	14.71	13043.98
TA1_shp	4308.33	638683.3	6327082	1166.59	582.25	9.14	18734.08
TA1_shp	4308.33	638683.3	6327082	1127.94	620.9	5.14	24729.25
TA1_shp	4308.33	638683.3	6327082	1086.79	662.05	2.73	29570.49
TA1_shp	4308.33	638683.3	6327082	1041.69	707.15	1.42	30774.53
TA1_shp	4308.33	638683.3	6327082	993.04	755.8	0.79	26047.6
TA1_shp	4308.33	638683.3	6327082	941.24	807.6	0.37	19706.37
TA1_shp	4308.33	638683.3	6327082	884.44	864.4	0.13	13489.55
TA1_shp	4308.33	638683.3	6327082	823.19	925.65	0.1	8696.79
TA1_shp	4308.33	638683.3	6327082	758.34	990.5	0.1	5304.77
TA1_shp	4308.33	638683.3	6327082	686.84	1062	0.1	2403.16
TA1_shp	4325	638699.8	6327077	1718.77	9.73	3.54	1513.1
TA1_shp	4325	638699.8	6327077	1699.3	29.2	1.72	1730.26
TA1_shp	4325	638699.8	6327077	1679.83	48.67	4.12	4128.14
TA1_shp	4325	638699.8	6327077	1660.37	68.13	1.8	3284.56
TA1_shp	4325	638699.8	6327077	1640.9	87.6	0.57	2746.65
TA1_shp	4325	638699.8	6327077	1621.43	107.07	0.28	4084.97
TA1_shp	4325	638699.8	6327077	1601.97	126.53	0.46	8676.11

TA1_shp	4325	638699.8	6327077	1582.5	146	1.18	15951
TA1_shp	4325	638699.8	6327077	1563.03	165.47	2.95	18921.69
TA1_shp	4325	638699.8	6327077	1543.57	184.93	6.5	14792.26
TA1_shp	4325	638699.8	6327077	1524.1	204.4	12.05	9042.74
TA1_shp	4325	638699.8	6327077	1504.63	223.87	18.68	5026.04
TA1_shp	4325	638699.8	6327077	1485.17	243.33	23.04	2974.39
TA1_shp	4325	638699.8	6327077	1465.7	262.8	25.38	1947.1
TA1_shp	4325	638699.8	6327077	1446.23	282.27	26.27	1447.31
TA1_shp	4325	638699.8	6327077	1426.5	302	26.3	1295.12
TA1_shp	4325	638699.8	6327077	1406.5	322	26.53	1308.06
TA1_shp	4325	638699.8	6327077	1386.5	342	26.94	1425.02
TA1_shp	4325	638699.8	6327077	1366.5	362	27.81	1708.24
TA1_shp	4325	638699.8	6327077	1346.5	382	28.75	2141.11
TA1_shp	4325	638699.8	6327077	1324.4	404.1	29.87	2761.73
TA1_shp	4325	638699.8	6327077	1299.85	428.65	30.04	3902.07
TA1_shp	4325	638699.8	6327077	1273.9	454.6	28.9	5472.74
TA1_shp	4325	638699.8	6327077	1245.4	483.1	25.23	7829.33
TA1_shp	4325	638699.8	6327077	1214.7	513.8	18.52	11713.69
TA1_shp	4325	638699.8	6327077	1182.05	546.45	12.07	16549.39
TA1_shp	4325	638699.8	6327077	1146.25	582.25	6.66	22501.48
TA1_shp	4325	638699.8	6327077	1107.6	620.9	3.89	27947.33
TA1_shp	4325	638699.8	6327077	1066.45	662.05	2.18	30009.47
TA1_shp	4325	638699.8	6327077	1021.35	707.15	1.14	28487.75
TA1_shp	4325	638699.8	6327077	972.7	755.8	0.56	23153.33
TA1_shp	4325	638699.8	6327077	920.9	807.6	0.23	16493.71
TA1_shp	4325	638699.8	6327077	864.1	864.4	0.1	11243.19
TA1_shp	4325	638699.8	6327077	802.85	925.65	0.1	7365.83
TA1_shp	4325	638699.8	6327077	738	990.5	0.1	4138.12
TA1_shp	4325	638699.8	6327077	666.5	1062	0.1	2249.48
TA1_shp	4341.67	638716.3	6327072	1698.43	9.73	0.81	1367.96
TA1_shp	4341.67	638716.3	6327072	1678.96	29.2	16.09	4961.15
TA1_shp	4341.67	638716.3	6327072	1659.49	48.67	2.71	2460.16
TA1_shp	4341.67	638716.3	6327072	1640.03	68.13	0.45	1581.73
TA1_shp	4341.67	638716.3	6327072	1620.56	87.6	0.15	2621.53
TA1_shp	4341.67	638716.3	6327072	1601.09	107.07	0.4	7335.52
TA1_shp	4341.67	638716.3	6327072	1581.63	126.53	1.26	16507.72
TA1_shp	4341.67	638716.3	6327072	1562.16	146	3.32	21323.56
TA1_shp	4341.67	638716.3	6327072	1542.69	165.47	7.34	16663.61
TA1_shp	4341.67	638716.3	6327072	1523.23	184.93	13.21	9902.72
TA1_shp	4341.67	638716.3	6327072	1503.76	204.4	19.52	5303.77
TA1_shp	4341.67	638716.3	6327072	1484.29	223.87	23.26	3034.84
TA1_shp	4341.67	638716.3	6327072	1464.83	243.33	25.04	1940.75
TA1_shp	4341.67	638716.3	6327072	1445.36	262.8	25.58	1424.37
TA1_shp	4341.67	638716.3	6327072	1425.89	282.27	25.56	1275.2
TA1_shp	4341.67	638716.3	6327072	1406.16	302	25.86	1288.18
TA1_shp	4341.67	638716.3	6327072	1386.16	322	26.41	1406.3
TA1_shp	4341.67	638716.3	6327072	1366.16	342	27.56	1700.01
TA1_shp	4341.67	638716.3	6327072	1346.16	362	28.77	2140.88
TA1_shp	4341.67	638716.3	6327072	1326.16	382	30.04	2722.57
TA1_shp	4341.67	638716.3	6327072	1304.06	404.1	30.56	3725.65
TA1_shp	4341.67	638716.3	6327072	1279.51	428.65	30.48	5059.79
TA1_shp	4341.67	638716.3	6327072	1253.56	454.6	27.22	7288.3

TA1_shp	4341.67	638716.3	6327072	1225.06	483.1	21.85	10541.51
TA1_shp	4341.67	638716.3	6327072	1194.36	513.8	14.59	14793.2
TA1_shp	4341.67	638716.3	6327072	1161.71	546.45	9.29	20303.82
TA1_shp	4341.67	638716.3	6327072	1125.91	582.25	5.35	25650.67
TA1_shp	4341.67	638716.3	6327072	1087.26	620.9	2.84	29839.02
TA1_shp	4341.67	638716.3	6327072	1046.11	662.05	1.58	29944.4
TA1_shp	4341.67	638716.3	6327072	1001.01	707.15	0.87	25753.04
TA1_shp	4341.67	638716.3	6327072	952.36	755.8	0.41	19924.18
TA1_shp	4341.67	638716.3	6327072	900.56	807.6	0.14	13869.14
TA1_shp	4341.67	638716.3	6327072	843.76	864.4	0.1	9143.58
TA1_shp	4341.67	638716.3	6327072	782.51	925.65	0.1	6140.75
TA1_shp	4341.67	638716.3	6327072	717.66	990.5	0.1	3072.75
TA1_shp	4341.67	638716.3	6327072	646.16	1062	0.1	2104.3
TA1_shp	4358.33	638732.8	6327067	1678.11	9.73	53.2	6355.22
TA1_shp	4358.33	638732.8	6327067	1658.64	29.2	4.03	1977.73
TA1_shp	4358.33	638732.8	6327067	1639.17	48.67	0.16	841.7
TA1_shp	4358.33	638732.8	6327067	1619.71	68.13	0.1	1588.79
TA1_shp	4358.33	638732.8	6327067	1600.24	87.6	0.27	6278.73
TA1_shp	4358.33	638732.8	6327067	1580.77	107.07	1.31	17437.78
TA1_shp	4358.33	638732.8	6327067	1561.31	126.53	3.71	23902.19
TA1_shp	4358.33	638732.8	6327067	1541.84	146	8.22	18482.4
TA1_shp	4358.33	638732.8	6327067	1522.37	165.47	14.28	10597.88
TA1_shp	4358.33	638732.8	6327067	1502.91	184.93	20.02	5497.05
TA1_shp	4358.33	638732.8	6327067	1483.44	204.4	23.07	3060.43
TA1_shp	4358.33	638732.8	6327067	1463.97	223.87	24.31	1920.76
TA1_shp	4358.33	638732.8	6327067	1444.51	243.33	24.55	1399.52
TA1_shp	4358.33	638732.8	6327067	1425.04	262.8	24.57	1255.06
TA1_shp	4358.33	638732.8	6327067	1405.57	282.27	25.01	1274.99
TA1_shp	4358.33	638732.8	6327067	1385.84	302	25.75	1396.54
TA1_shp	4358.33	638732.8	6327067	1365.84	322	27.14	1702.56
TA1_shp	4358.33	638732.8	6327067	1345.84	342	28.58	2153.4
TA1_shp	4358.33	638732.8	6327067	1325.84	362	30.09	2758.34
TA1_shp	4358.33	638732.8	6327067	1305.84	382	30.79	3675.27
TA1_shp	4358.33	638732.8	6327067	1283.74	404.1	31.17	4840.12
TA1_shp	4358.33	638732.8	6327067	1259.19	428.65	28.53	6932.31
TA1_shp	4358.33	638732.8	6327067	1233.24	454.6	24.52	9592.34
TA1_shp	4358.33	638732.8	6327067	1204.74	483.1	17.51	13607.76
TA1_shp	4358.33	638732.8	6327067	1174.04	513.8	11.6	18560.52
TA1_shp	4358.33	638732.8	6327067	1141.39	546.45	6.6	23941.04
TA1_shp	4358.33	638732.8	6327067	1105.59	582.25	3.9	28533.98
TA1_shp	4358.33	638732.8	6327067	1066.94	620.9	2.22	29725.55
TA1_shp	4358.33	638732.8	6327067	1025.79	662.05	1.17	28077.34
TA1_shp	4358.33	638732.8	6327067	980.69	707.15	0.6	22781.86
TA1_shp	4358.33	638732.8	6327067	932.04	755.8	0.27	16769.44
TA1_shp	4358.33	638732.8	6327067	880.24	807.6	0.1	11725.56
TA1_shp	4358.33	638732.8	6327067	823.44	864.4	0.1	7772.5
TA1_shp	4358.33	638732.8	6327067	762.19	925.65	0.1	5019.24
TA1_shp	4358.33	638732.8	6327067	697.34	990.5	0.1	2291.63
TA1_shp	4358.33	638732.8	6327067	625.84	1062	0.1	1966.72
TA1_shp	4375	638749.3	6327062	1657.77	9.73	2.34	1739.4
TA1_shp	4375	638749.3	6327062	1638.3	29.2	0.1	532.66
TA1_shp	4375	638749.3	6327062	1618.83	48.67	0.1	850.5

TA1_shp	4375	638749.3	6327062	1599.37	68.13	0.14	5520.89
TA1_shp	4375	638749.3	6327062	1579.9	87.6	1.38	18730.95
TA1_shp	4375	638749.3	6327062	1560.43	107.07	4.19	26384.89
TA1_shp	4375	638749.3	6327062	1540.97	126.53	9.17	19821.73
TA1_shp	4375	638749.3	6327062	1521.5	146	15.16	11009.24
TA1_shp	4375	638749.3	6327062	1502.03	165.47	20.13	5557.53
TA1_shp	4375	638749.3	6327062	1482.57	184.93	22.43	3035.26
TA1_shp	4375	638749.3	6327062	1463.1	204.4	23.17	1886.78
TA1_shp	4375	638749.3	6327062	1443.63	223.87	23.2	1372.8
TA1_shp	4375	638749.3	6327062	1424.17	243.33	23.31	1239.43
TA1_shp	4375	638749.3	6327062	1404.7	262.8	23.93	1268.82
TA1_shp	4375	638749.3	6327062	1385.23	282.27	24.88	1395.69
TA1_shp	4375	638749.3	6327062	1365.5	302	26.51	1711.16
TA1_shp	4375	638749.3	6327062	1345.5	322	28.18	2171.87
TA1_shp	4375	638749.3	6327062	1325.5	342	29.9	2799.66
TA1_shp	4375	638749.3	6327062	1305.5	362	30.78	3736.03
TA1_shp	4375	638749.3	6327062	1285.5	382	31.26	4826.11
TA1_shp	4375	638749.3	6327062	1263.4	404.1	29.34	6675.41
TA1_shp	4375	638749.3	6327062	1238.85	428.65	26.34	8966.03
TA1_shp	4375	638749.3	6327062	1212.9	454.6	19.87	12717.53
TA1_shp	4375	638749.3	6327062	1184.4	483.1	13.53	17085.19
TA1_shp	4375	638749.3	6327062	1153.7	513.8	8.36	22319.04
TA1_shp	4375	638749.3	6327062	1121.05	546.45	5.1	26730.11
TA1_shp	4375	638749.3	6327062	1085.25	582.25	2.77	29939.21
TA1_shp	4375	638749.3	6327062	1046.6	620.9	1.58	29118.02
TA1_shp	4375	638749.3	6327062	1005.45	662.05	0.89	25120.48
TA1_shp	4375	638749.3	6327062	960.35	707.15	0.42	19646.73
TA1_shp	4375	638749.3	6327062	911.7	755.8	0.13	13724.81
TA1_shp	4375	638749.3	6327062	859.9	807.6	0.1	9728.64
TA1_shp	4375	638749.3	6327062	803.1	864.4	0.1	6608.06
TA1_shp	4375	638749.3	6327062	741.85	925.65	0.1	3994.63
TA1_shp	4375	638749.3	6327062	677	990.5	0.1	2150.22
TA1_shp	4375	638749.3	6327062	605.5	1062	0.1	1836.71
TA1_shp	4391.67	638765.8	6327057	1637.43	9.73	0.1	372.61
TA1_shp	4391.67	638765.8	6327057	1617.96	29.2	0.17	5350
TA1_shp	4391.67	638765.8	6327057	1598.49	48.67	1.65	20390.48
TA1_shp	4391.67	638765.8	6327057	1579.03	68.13	4.92	27961.48
TA1_shp	4391.67	638765.8	6327057	1559.56	87.6	10.14	20271.4
TA1_shp	4391.67	638765.8	6327057	1540.09	107.07	15.66	10944.01
TA1_shp	4391.67	638765.8	6327057	1520.63	126.53	19.61	5448.63
TA1_shp	4391.67	638765.8	6327057	1501.16	146	21.19	2956.1
TA1_shp	4391.67	638765.8	6327057	1481.69	165.47	21.57	1839.69
TA1_shp	4391.67	638765.8	6327057	1462.23	184.93	21.52	1348.05
TA1_shp	4391.67	638765.8	6327057	1442.76	204.4	21.79	1227.87
TA1_shp	4391.67	638765.8	6327057	1423.29	223.87	22.65	1268.85
TA1_shp	4391.67	638765.8	6327057	1403.83	243.33	23.85	1406.84
TA1_shp	4391.67	638765.8	6327057	1384.36	262.8	25.69	1733.8
TA1_shp	4391.67	638765.8	6327057	1364.89	282.27	27.54	2192.11
TA1_shp	4391.67	638765.8	6327057	1345.16	302	29.43	2833.43
TA1_shp	4391.67	638765.8	6327057	1325.16	322	30.52	3783.26
TA1_shp	4391.67	638765.8	6327057	1305.16	342	31.1	4921.13
TA1_shp	4391.67	638765.8	6327057	1285.16	362	29.63	6592.89

TA1_shp	4391.67	638765.8	6327057	1265.16	382	27.2	8513.58
TA1_shp	4391.67	638765.8	6327057	1243.06	404.1	22.65	11395.34
TA1_shp	4391.67	638765.8	6327057	1218.51	428.65	16.53	15030.79
TA1_shp	4391.67	638765.8	6327057	1192.56	454.6	11.67	19300.29
TA1_shp	4391.67	638765.8	6327057	1164.06	483.1	6.86	24129.05
TA1_shp	4391.67	638765.8	6327057	1133.36	513.8	4.55	27666.05
TA1_shp	4391.67	638765.8	6327057	1100.71	546.45	2.62	29752.32
TA1_shp	4391.67	638765.8	6327057	1064.91	582.25	1.53	28629.91
TA1_shp	4391.67	638765.8	6327057	1026.26	620.9	0.88	24700.65
TA1_shp	4391.67	638765.8	6327057	985.11	662.05	0.43	19617.26
TA1_shp	4391.67	638765.8	6327057	940.01	707.15	0.16	14272.81
TA1_shp	4391.67	638765.8	6327057	891.36	755.8	0.1	10237.46
TA1_shp	4391.67	638765.8	6327057	839.56	807.6	0.1	7052.99
TA1_shp	4391.67	638765.8	6327057	782.76	864.4	0.1	4753.48
TA1_shp	4391.67	638765.8	6327057	721.51	925.65	0.1	2273.82
TA1_shp	4391.67	638765.8	6327057	656.66	990.5	0.1	1933.89
TA1_shp	4391.67	638765.8	6327057	585.16	1062	0.1	1631.45
TA1_shp	4408.33	638781	6327063	1638.52	9.73	0.32	331.99
TA1_shp	4408.33	638781	6327063	1619.05	29.2	0.17	1090.92
TA1_shp	4408.33	638781	6327063	1599.58	48.67	0.58	7429.63
TA1_shp	4408.33	638781	6327063	1580.12	68.13	2.41	22458.73
TA1_shp	4408.33	638781	6327063	1560.65	87.6	6.01	28083.38
TA1_shp	4408.33	638781	6327063	1541.18	107.07	11.06	19526.1
TA1_shp	4408.33	638781	6327063	1521.72	126.53	15.64	10392.71
TA1_shp	4408.33	638781	6327063	1502.25	146	18.44	5168.9
TA1_shp	4408.33	638781	6327063	1482.78	165.47	19.34	2824.45
TA1_shp	4408.33	638781	6327063	1463.32	184.93	19.46	1782.03
TA1_shp	4408.33	638781	6327063	1443.85	204.4	19.46	1327.54
TA1_shp	4408.33	638781	6327063	1424.38	223.87	19.99	1224.73
TA1_shp	4408.33	638781	6327063	1404.92	243.33	21.14	1279.73
TA1_shp	4408.33	638781	6327063	1385.45	262.8	22.65	1430.49
TA1_shp	4408.33	638781	6327063	1365.98	282.27	24.76	1771.61
TA1_shp	4408.33	638781	6327063	1346.25	302	26.87	2257.95
TA1_shp	4408.33	638781	6327063	1326.25	322	28.96	2934.7
TA1_shp	4408.33	638781	6327063	1306.25	342	30.13	3936.24
TA1_shp	4408.33	638781	6327063	1286.25	362	30.79	5119.68
TA1_shp	4408.33	638781	6327063	1266.25	382	29.23	6864.74
TA1_shp	4408.33	638781	6327063	1244.15	404.1	26.49	9048.36
TA1_shp	4408.33	638781	6327063	1219.6	428.65	21.04	12520.79
TA1_shp	4408.33	638781	6327063	1193.65	454.6	14.67	16473.71
TA1_shp	4408.33	638781	6327063	1165.15	483.1	9.93	21243.04
TA1_shp	4408.33	638781	6327063	1134.45	513.8	5.86	25706.42
TA1_shp	4408.33	638781	6327063	1101.8	546.45	3.46	29182.01
TA1_shp	4408.33	638781	6327063	1066	582.25	2.05	28885.51
TA1_shp	4408.33	638781	6327063	1027.35	620.9	1.07	26457.45
TA1_shp	4408.33	638781	6327063	986.2	662.05	0.58	21234.33
TA1_shp	4408.33	638781	6327063	941.1	707.15	0.25	15900.45
TA1_shp	4408.33	638781	6327063	892.45	755.8	0.1	11125.65
TA1_shp	4408.33	638781	6327063	840.65	807.6	0.1	7534.51
TA1_shp	4408.33	638781	6327063	783.85	864.4	0.1	5313.83
TA1_shp	4408.33	638781	6327063	722.6	925.65	0.1	2963.58
TA1_shp	4408.33	638781	6327063	657.75	990.5	0.1	1969.24

TA1_shp	4408.33	638781	6327063	586.25	1062	0.1	1677.46
TA1_shp	4425	638795	6327082	1661.02	9.73	1.3	428.29
TA1_shp	4425	638795	6327082	1641.55	29.2	0.85	572.51
TA1_shp	4425	638795	6327082	1622.08	48.67	0.66	2110.12
TA1_shp	4425	638795	6327082	1602.62	68.13	1.53	9564.76
TA1_shp	4425	638795	6327082	1583.15	87.6	3.64	23115.4
TA1_shp	4425	638795	6327082	1563.68	107.07	7.3	26206.92
TA1_shp	4425	638795	6327082	1544.22	126.53	11.61	17706.03
TA1_shp	4425	638795	6327082	1524.75	146	14.93	9458.5
TA1_shp	4425	638795	6327082	1505.28	165.47	16.59	4782.6
TA1_shp	4425	638795	6327082	1485.82	184.93	16.98	2674.25
TA1_shp	4425	638795	6327082	1466.35	204.4	17.02	1730.28
TA1_shp	4425	638795	6327082	1446.88	223.87	17.19	1319.36
TA1_shp	4425	638795	6327082	1427.42	243.33	18.03	1235.18
TA1_shp	4425	638795	6327082	1407.95	262.8	19.48	1303.66
TA1_shp	4425	638795	6327082	1388.48	282.27	21.3	1466.28
TA1_shp	4425	638795	6327082	1368.75	302	23.73	1829.59
TA1_shp	4425	638795	6327082	1348.75	322	26.11	2350.7
TA1_shp	4425	638795	6327082	1328.75	342	28.38	3053.02
TA1_shp	4425	638795	6327082	1308.75	362	29.58	4105.63
TA1_shp	4425	638795	6327082	1288.75	382	30.25	5332.72
TA1_shp	4425	638795	6327082	1266.65	404.1	28.32	7362.02
TA1_shp	4425	638795	6327082	1242.1	428.65	25.2	9863.08
TA1_shp	4425	638795	6327082	1216.15	454.6	18.91	13899.29
TA1_shp	4425	638795	6327082	1187.65	483.1	12.77	18416.58
TA1_shp	4425	638795	6327082	1156.95	513.8	7.82	23463.11
TA1_shp	4425	638795	6327082	1124.3	546.45	4.74	27184.39
TA1_shp	4425	638795	6327082	1088.5	582.25	2.53	29429.61
TA1_shp	4425	638795	6327082	1049.85	620.9	1.42	27491.27
TA1_shp	4425	638795	6327082	1008.7	662.05	0.77	22963.66
TA1_shp	4425	638795	6327082	963.6	707.15	0.34	17404.11
TA1_shp	4425	638795	6327082	914.95	755.8	0.1	11960.28
TA1_shp	4425	638795	6327082	863.15	807.6	0.1	8487.23
TA1_shp	4425	638795	6327082	806.35	864.4	0.1	5803.81
TA1_shp	4425	638795	6327082	745.1	925.65	0.1	3576.58
TA1_shp	4425	638795	6327082	680.25	990.5	0.1	1999.94
TA1_shp	4425	638795	6327082	608.75	1062	0.1	1718.56
TA1_shp	4441.67	638809	6327100	1683.52	9.73	1.9	942.24
TA1_shp	4441.67	638809	6327100	1664.05	29.2	1.75	590.92
TA1_shp	4441.67	638809	6327100	1644.58	48.67	1.62	1008.61
TA1_shp	4441.67	638809	6327100	1625.12	68.13	1.78	3318.89
TA1_shp	4441.67	638809	6327100	1605.65	87.6	2.9	11194.51
TA1_shp	4441.67	638809	6327100	1586.18	107.07	5.17	22135.3
TA1_shp	4441.67	638809	6327100	1566.72	126.53	8.43	23025.27
TA1_shp	4441.67	638809	6327100	1547.25	146	11.58	15337.65
TA1_shp	4441.67	638809	6327100	1527.78	165.47	13.57	8352.94
TA1_shp	4441.67	638809	6327100	1508.32	184.93	14.31	4361.65
TA1_shp	4441.67	638809	6327100	1488.85	204.4	14.38	2526.7
TA1_shp	4441.67	638809	6327100	1469.38	223.87	14.45	1691.07
TA1_shp	4441.67	638809	6327100	1449.92	243.33	14.81	1325.24
TA1_shp	4441.67	638809	6327100	1430.45	262.8	15.9	1259.77
TA1_shp	4441.67	638809	6327100	1410.98	282.27	17.65	1343.74

TA1_shp	4441.67	638809	6327100	1391.25	302	19.79	1525.23
TA1_shp	4441.67	638809	6327100	1371.25	322	22.52	1907.47
TA1_shp	4441.67	638809	6327100	1351.25	342	25.12	2457.09
TA1_shp	4441.67	638809	6327100	1331.25	362	27.59	3184.8
TA1_shp	4441.67	638809	6327100	1311.25	382	28.81	4284.24
TA1_shp	4441.67	638809	6327100	1289.15	404.1	29.57	5679.8
TA1_shp	4441.67	638809	6327100	1264.6	428.65	26.86	8130.84
TA1_shp	4441.67	638809	6327100	1238.65	454.6	22.8	11198.16
TA1_shp	4441.67	638809	6327100	1210.15	483.1	16.04	15707.71
TA1_shp	4441.67	638809	6327100	1179.45	513.8	10.5	20661.46
TA1_shp	4441.67	638809	6327100	1146.8	546.45	5.89	25603.55
TA1_shp	4441.67	638809	6327100	1111	582.25	3.43	28630.79
TA1_shp	4441.67	638809	6327100	1072.35	620.9	1.9	27955.27
TA1_shp	4441.67	638809	6327100	1031.2	662.05	0.95	24699.89
TA1_shp	4441.67	638809	6327100	986.1	707.15	0.44	18891.82
TA1_shp	4441.67	638809	6327100	937.45	755.8	0.16	13517.45
TA1_shp	4441.67	638809	6327100	885.65	807.6	0.1	9321.96
TA1_shp	4441.67	638809	6327100	828.85	864.4	0.1	6225.05
TA1_shp	4441.67	638809	6327100	767.6	925.65	0.1	4116.66
TA1_shp	4441.67	638809	6327100	702.75	990.5	0.1	2026.46
TA1_shp	4441.67	638809	6327100	631.25	1062	0.1	1755.11
TA1_shp	4458.33	638823	6327118	1706.02	9.73	0.4	837.21
TA1_shp	4458.33	638823	6327118	1686.55	29.2	1.81	1428.38
TA1_shp	4458.33	638823	6327118	1667.08	48.67	2.37	1118.46
TA1_shp	4458.33	638823	6327118	1647.62	68.13	2.66	1750.52
TA1_shp	4458.33	638823	6327118	1628.15	87.6	3.2	4602.76
TA1_shp	4458.33	638823	6327118	1608.68	107.07	4.5	11976.7
TA1_shp	4458.33	638823	6327118	1589.22	126.53	6.62	19948.64
TA1_shp	4458.33	638823	6327118	1569.75	146	9.03	19358.58
TA1_shp	4458.33	638823	6327118	1550.28	165.47	10.9	12944.73
TA1_shp	4458.33	638823	6327118	1530.82	184.93	11.77	7289.29
TA1_shp	4458.33	638823	6327118	1511.35	204.4	11.9	3971.12
TA1_shp	4458.33	638823	6327118	1491.88	223.87	11.84	2404.96
TA1_shp	4458.33	638823	6327118	1472.42	243.33	11.98	1672.87
TA1_shp	4458.33	638823	6327118	1452.95	262.8	12.51	1347.33
TA1_shp	4458.33	638823	6327118	1433.48	282.27	13.81	1298.82
TA1_shp	4458.33	638823	6327118	1413.75	302	15.8	1397.23
TA1_shp	4458.33	638823	6327118	1393.75	322	18.21	1597.39
TA1_shp	4458.33	638823	6327118	1373.75	342	21.17	1991.45
TA1_shp	4458.33	638823	6327118	1353.75	362	23.95	2570.1
TA1_shp	4458.33	638823	6327118	1333.75	382	26.56	3325.39
TA1_shp	4458.33	638823	6327118	1311.65	404.1	27.85	4606.44
TA1_shp	4458.33	638823	6327118	1287.1	428.65	28.28	6299.22
TA1_shp	4458.33	638823	6327118	1261.15	454.6	24.96	9076.61
TA1_shp	4458.33	638823	6327118	1232.65	483.1	19.74	12960.85
TA1_shp	4458.33	638823	6327118	1201.95	513.8	12.83	17874.85
TA1_shp	4458.33	638823	6327118	1169.3	546.45	8.06	23091.82
TA1_shp	4458.33	638823	6327118	1133.5	582.25	4.54	27014.26
TA1_shp	4458.33	638823	6327118	1094.85	620.9	2.33	28762.01
TA1_shp	4458.33	638823	6327118	1053.7	662.05	1.23	25959.53
TA1_shp	4458.33	638823	6327118	1008.6	707.15	0.61	20603.97
TA1_shp	4458.33	638823	6327118	959.95	755.8	0.23	14937.2

TA1_shp	4458.33	638823	6327118	908.15	807.6	0.1	10058.34
TA1_shp	4458.33	638823	6327118	851.35	864.4	0.1	6666.73
TA1_shp	4458.33	638823	6327118	790.1	925.65	0.1	4591.23
TA1_shp	4458.33	638823	6327118	725.25	990.5	0.1	2477.88
TA1_shp	4458.33	638823	6327118	653.75	1062	0.1	1787.25
TA1_shp	4475	638837	6327137	1728.52	9.73	3.8	837.62
TA1_shp	4475	638837	6327137	1709.05	29.2	2.2	1247.06
TA1_shp	4475	638837	6327137	1689.58	48.67	3.08	2145.36
TA1_shp	4475	638837	6327137	1670.12	68.13	3.6	1940.38
TA1_shp	4475	638837	6327137	1650.65	87.6	4.05	2704.56
TA1_shp	4475	638837	6327137	1631.18	107.07	4.75	5646.21
TA1_shp	4475	638837	6327137	1611.72	126.53	5.96	11814.24
TA1_shp	4475	638837	6327137	1592.25	146	7.53	17141.76
TA1_shp	4475	638837	6327137	1572.78	165.47	8.91	15968.29
TA1_shp	4475	638837	6327137	1553.32	184.93	9.7	10864.13
TA1_shp	4475	638837	6327137	1533.85	204.4	9.85	6383.04
TA1_shp	4475	638837	6327137	1514.38	223.87	9.67	3656.94
TA1_shp	4475	638837	6327137	1494.92	243.33	9.59	2325.9
TA1_shp	4475	638837	6327137	1475.45	262.8	9.82	1681.58
TA1_shp	4475	638837	6327137	1455.98	282.27	10.45	1388.1
TA1_shp	4475	638837	6327137	1436.25	302	11.86	1353.55
TA1_shp	4475	638837	6327137	1416.25	322	13.99	1468.06
TA1_shp	4475	638837	6327137	1396.25	342	16.53	1684.33
TA1_shp	4475	638837	6327137	1376.25	362	19.68	2091.94
TA1_shp	4475	638837	6327137	1356.25	382	22.61	2698.74
TA1_shp	4475	638837	6327137	1334.15	404.1	25.65	3558.64
TA1_shp	4475	638837	6327137	1309.6	428.65	26.77	5105.42
TA1_shp	4475	638837	6327137	1283.65	454.6	26.19	7212.27
TA1_shp	4475	638837	6327137	1255.15	483.1	22.56	10339.28
TA1_shp	4475	638837	6327137	1224.45	513.8	16.23	15089.47
TA1_shp	4475	638837	6327137	1191.8	546.45	10.3	20288.96
TA1_shp	4475	638837	6327137	1156	582.25	5.5	25755.95
TA1_shp	4475	638837	6327137	1117.35	620.9	3.12	28172.14
TA1_shp	4475	638837	6327137	1076.2	662.05	1.65	26659.16
TA1_shp	4475	638837	6327137	1031.1	707.15	0.77	22319.58
TA1_shp	4475	638837	6327137	982.45	755.8	0.3	16241.69
TA1_shp	4475	638837	6327137	930.65	807.6	0.1	11016.33
TA1_shp	4475	638837	6327137	873.85	864.4	0.1	7465.74
TA1_shp	4475	638837	6327137	812.6	925.65	0.1	5002.78
TA1_shp	4475	638837	6327137	747.75	990.5	0.1	3003.86
TA1_shp	4475	638837	6327137	676.25	1062	0.1	1815.4
TA1_shp	4491.67	638851	6327155	1751.02	9.73	9.36	1010.47
TA1_shp	4491.67	638851	6327155	1731.55	29.2	5.46	1195.95
TA1_shp	4491.67	638851	6327155	1712.08	48.67	4.13	2019.14
TA1_shp	4491.67	638851	6327155	1692.62	68.13	4.52	2988.38
TA1_shp	4491.67	638851	6327155	1673.15	87.6	4.9	2805.8
TA1_shp	4491.67	638851	6327155	1653.68	107.07	5.32	3494.52
TA1_shp	4491.67	638851	6327155	1634.22	126.53	5.93	6090.88
TA1_shp	4491.67	638851	6327155	1614.75	146	6.78	10799.8
TA1_shp	4491.67	638851	6327155	1595.28	165.47	7.61	14335.36
TA1_shp	4491.67	638851	6327155	1575.82	184.93	8.17	13162.13
TA1_shp	4491.67	638851	6327155	1556.35	204.4	8.27	9233.32

TA1_shp	4491.67	638851	6327155	1536.88	223.87	8.08	5689.16
TA1_shp	4491.67	638851	6327155	1517.42	243.33	7.8	3439.19
TA1_shp	4491.67	638851	6327155	1497.95	262.8	7.74	2291.62
TA1_shp	4491.67	638851	6327155	1478.48	282.27	8.03	1715.08
TA1_shp	4491.67	638851	6327155	1458.75	302	8.75	1446.88
TA1_shp	4491.67	638851	6327155	1438.75	322	10.18	1421.3
TA1_shp	4491.67	638851	6327155	1418.75	342	12.34	1548
TA1_shp	4491.67	638851	6327155	1398.75	362	14.93	1776.95
TA1_shp	4491.67	638851	6327155	1378.75	382	18.16	2195.49
TA1_shp	4491.67	638851	6327155	1356.65	404.1	21.49	2911.35
TA1_shp	4491.67	638851	6327155	1332.1	428.65	24.77	3950.11
TA1_shp	4491.67	638851	6327155	1306.15	454.6	25.59	5717.52
TA1_shp	4491.67	638851	6327155	1277.65	483.1	23.66	8446.75
TA1_shp	4491.67	638851	6327155	1246.95	513.8	19.2	12260.6
TA1_shp	4491.67	638851	6327155	1214.3	546.45	12.54	17550
TA1_shp	4491.67	638851	6327155	1178.5	582.25	7.57	23049.74
TA1_shp	4491.67	638851	6327155	1139.85	620.9	4.07	26882.96
TA1_shp	4491.67	638851	6327155	1098.7	662.05	2.02	27689.18
TA1_shp	4491.67	638851	6327155	1053.6	707.15	0.94	23885.51
TA1_shp	4491.67	638851	6327155	1004.95	755.8	0.42	17788.06
TA1_shp	4491.67	638851	6327155	953.15	807.6	0.14	12371.63
TA1_shp	4491.67	638851	6327155	896.35	864.4	0.1	8166.12
TA1_shp	4491.67	638851	6327155	835.1	925.65	0.1	5355.58
TA1_shp	4491.67	638851	6327155	770.25	990.5	0.1	3466.26
TA1_shp	4491.67	638851	6327155	698.75	1062	0.1	1839.71
TA1_shp	4508.33	638865.9	6327167	1758.69	9.73	16.19	15018.58
TA1_shp	4508.33	638865.9	6327167	1739.22	29.2	6.92	2697.66
TA1_shp	4508.33	638865.9	6327167	1719.75	48.67	4.73	2332.29
TA1_shp	4508.33	638865.9	6327167	1700.29	68.13	4.48	3131.64
TA1_shp	4508.33	638865.9	6327167	1680.82	87.6	4.95	3613.33
TA1_shp	4508.33	638865.9	6327167	1661.35	107.07	5.38	3236.3
TA1_shp	4508.33	638865.9	6327167	1641.89	126.53	5.78	3726.52
TA1_shp	4508.33	638865.9	6327167	1622.42	146	6.25	5808.89
TA1_shp	4508.33	638865.9	6327167	1602.95	165.47	6.75	9376.02
TA1_shp	4508.33	638865.9	6327167	1583.49	184.93	7.11	11942.52
TA1_shp	4508.33	638865.9	6327167	1564.02	204.4	7.18	11091.59
TA1_shp	4508.33	638865.9	6327167	1544.55	223.87	6.96	8074.12
TA1_shp	4508.33	638865.9	6327167	1525.09	243.33	6.62	5229.98
TA1_shp	4508.33	638865.9	6327167	1505.62	262.8	6.33	3317.69
TA1_shp	4508.33	638865.9	6327167	1486.15	282.27	6.29	2299.29
TA1_shp	4508.33	638865.9	6327167	1466.42	302	6.62	1766.42
TA1_shp	4508.33	638865.9	6327167	1446.42	322	7.39	1519.66
TA1_shp	4508.33	638865.9	6327167	1426.42	342	8.79	1496.55
TA1_shp	4508.33	638865.9	6327167	1406.42	362	10.92	1633.33
TA1_shp	4508.33	638865.9	6327167	1386.42	382	13.47	1874.92
TA1_shp	4508.33	638865.9	6327167	1364.32	404.1	17.02	2348.84
TA1_shp	4508.33	638865.9	6327167	1339.77	428.65	20.69	3235.3
TA1_shp	4508.33	638865.9	6327167	1313.82	454.6	23.49	4542.96
TA1_shp	4508.33	638865.9	6327167	1285.32	483.1	24.43	6520.93
TA1_shp	4508.33	638865.9	6327167	1254.62	513.8	20.86	9958.28
TA1_shp	4508.33	638865.9	6327167	1221.97	546.45	15.44	14666.9
TA1_shp	4508.33	638865.9	6327167	1186.17	582.25	9.42	20297.88

TA1_shp	4508.33	638865.9	6327167	1147.52	620.9	4.89	25873.8
TA1_shp	4508.33	638865.9	6327167	1106.37	662.05	2.65	27626.53
TA1_shp	4508.33	638865.9	6327167	1061.27	707.15	1.32	24837.74
TA1_shp	4508.33	638865.9	6327167	1012.62	755.8	0.57	19497.56
TA1_shp	4508.33	638865.9	6327167	960.82	807.6	0.19	13591.05
TA1_shp	4508.33	638865.9	6327167	904.02	864.4	0.1	8754.09
TA1_shp	4508.33	638865.9	6327167	842.77	925.65	0.1	5655.83
TA1_shp	4508.33	638865.9	6327167	777.92	990.5	0.1	3869.58
TA1_shp	4508.33	638865.9	6327167	706.42	1062	0.1	1902.19
TA1_shp	4525	638881.8	6327173	1751.52	9.73	2.67	7249.06
TA1_shp	4525	638881.8	6327173	1732.05	29.2	3.13	4097.71
TA1_shp	4525	638881.8	6327173	1712.58	48.67	3.69	4037.98
TA1_shp	4525	638881.8	6327173	1693.12	68.13	4.3	3609.8
TA1_shp	4525	638881.8	6327173	1673.65	87.6	4.82	2999.56
TA1_shp	4525	638881.8	6327173	1654.18	107.07	5.33	3345.55
TA1_shp	4525	638881.8	6327173	1634.72	126.53	5.84	5046.48
TA1_shp	4525	638881.8	6327173	1615.25	146	6.27	7961.45
TA1_shp	4525	638881.8	6327173	1595.78	165.47	6.46	10180.83
TA1_shp	4525	638881.8	6327173	1576.32	184.93	6.31	9690.83
TA1_shp	4525	638881.8	6327173	1556.85	204.4	5.95	7333.87
TA1_shp	4525	638881.8	6327173	1537.38	223.87	5.53	4948.24
TA1_shp	4525	638881.8	6327173	1517.92	243.33	5.22	3263.54
TA1_shp	4525	638881.8	6327173	1498.45	262.8	5.19	2331.87
TA1_shp	4525	638881.8	6327173	1478.98	282.27	5.51	1832.52
TA1_shp	4525	638881.8	6327173	1459.25	302	6.21	1590.99
TA1_shp	4525	638881.8	6327173	1439.25	322	7.54	1570.64
TA1_shp	4525	638881.8	6327173	1419.25	342	9.57	1702.54
TA1_shp	4525	638881.8	6327173	1399.25	362	12.03	1939.53
TA1_shp	4525	638881.8	6327173	1379.25	382	15.22	2377.64
TA1_shp	4525	638881.8	6327173	1357.15	404.1	18.56	3128
TA1_shp	4525	638881.8	6327173	1332.6	428.65	21.9	4216.56
TA1_shp	4525	638881.8	6327173	1306.65	454.6	22.75	6060.47
TA1_shp	4525	638881.8	6327173	1278.15	483.1	20.92	8892.39
TA1_shp	4525	638881.8	6327173	1247.45	513.8	16.78	12795.61
TA1_shp	4525	638881.8	6327173	1214.8	546.45	10.95	18071.04
TA1_shp	4525	638881.8	6327173	1179	582.25	6.63	23244.75
TA1_shp	4525	638881.8	6327173	1140.35	620.9	3.59	26469.79
TA1_shp	4525	638881.8	6327173	1099.2	662.05	1.79	26534.02
TA1_shp	4525	638881.8	6327173	1054.1	707.15	0.81	22215.36
TA1_shp	4525	638881.8	6327173	1005.45	755.8	0.35	16292.67
TA1_shp	4525	638881.8	6327173	953.65	807.6	0.11	11228.38
TA1_shp	4525	638881.8	6327173	896.85	864.4	0.1	7402.84
TA1_shp	4525	638881.8	6327173	835.6	925.65	0.1	4890.45
TA1_shp	4525	638881.8	6327173	770.75	990.5	0.1	3206.38
TA1_shp	4525	638881.8	6327173	699.25	1062	0.1	1754.32
TA1_shp	4541.67	638897.6	6327179	1744.35	9.73	1.98	8932.88
TA1_shp	4541.67	638897.6	6327179	1724.88	29.2	2.39	5110.26
TA1_shp	4541.67	638897.6	6327179	1705.41	48.67	2.79	4513.17
TA1_shp	4541.67	638897.6	6327179	1685.95	68.13	3.27	3215.56
TA1_shp	4541.67	638897.6	6327179	1666.48	87.6	3.88	2430.95
TA1_shp	4541.67	638897.6	6327179	1647.01	107.07	4.61	2748.16
TA1_shp	4541.67	638897.6	6327179	1627.55	126.53	5.33	4247.11

TA1_shp	4541.67	638897.6	6327179	1608.08	146	5.88	6908.23
TA1_shp	4541.67	638897.6	6327179	1588.61	165.47	6.02	9041.89
TA1_shp	4541.67	638897.6	6327179	1569.15	184.93	5.76	8843.82
TA1_shp	4541.67	638897.6	6327179	1549.68	204.4	5.27	6877.11
TA1_shp	4541.67	638897.6	6327179	1530.21	223.87	4.79	4768.61
TA1_shp	4541.67	638897.6	6327179	1510.75	243.33	4.44	3227.71
TA1_shp	4541.67	638897.6	6327179	1491.28	262.8	4.39	2353.02
TA1_shp	4541.67	638897.6	6327179	1471.81	282.27	4.68	1876.15
TA1_shp	4541.67	638897.6	6327179	1452.08	302	5.33	1644.5
TA1_shp	4541.67	638897.6	6327179	1432.08	322	6.6	1624.36
TA1_shp	4541.67	638897.6	6327179	1412.08	342	8.54	1760.73
TA1_shp	4541.67	638897.6	6327179	1392.08	362	10.91	2004.72
TA1_shp	4541.67	638897.6	6327179	1372.08	382	14.03	2453.74
TA1_shp	4541.67	638897.6	6327179	1349.98	404.1	17.34	3223.46
TA1_shp	4541.67	638897.6	6327179	1325.43	428.65	20.68	4339.64
TA1_shp	4541.67	638897.6	6327179	1299.48	454.6	21.47	6221.91
TA1_shp	4541.67	638897.6	6327179	1270.98	483.1	19.7	9094.13
TA1_shp	4541.67	638897.6	6327179	1240.28	513.8	15.73	13024.96
TA1_shp	4541.67	638897.6	6327179	1207.63	546.45	10.24	18281.43
TA1_shp	4541.67	638897.6	6327179	1171.83	582.25	6.21	23252.05
TA1_shp	4541.67	638897.6	6327179	1133.18	620.9	3.36	26158.88
TA1_shp	4541.67	638897.6	6327179	1092.03	662.05	1.67	25887.49
TA1_shp	4541.67	638897.6	6327179	1046.93	707.15	0.75	21415.42
TA1_shp	4541.67	638897.6	6327179	998.28	755.8	0.31	15568.81
TA1_shp	4541.67	638897.6	6327179	946.48	807.6	0.1	10678.43
TA1_shp	4541.67	638897.6	6327179	889.68	864.4	0.1	7043.81
TA1_shp	4541.67	638897.6	6327179	828.43	925.65	0.1	4676.69
TA1_shp	4541.67	638897.6	6327179	763.58	990.5	0.1	3086
TA1_shp	4541.67	638897.6	6327179	692.08	1062	0.1	1713.41
TA1_shp	4558.33	638913.4	6327185	1737.19	9.73	2.42	33098.34
TA1_shp	4558.33	638913.4	6327185	1717.72	29.2	1.99	12618.39
TA1_shp	4558.33	638913.4	6327185	1698.25	48.67	2.05	6103.5
TA1_shp	4558.33	638913.4	6327185	1678.79	68.13	2.44	3109.94
TA1_shp	4558.33	638913.4	6327185	1659.32	87.6	3.18	2051.82
TA1_shp	4558.33	638913.4	6327185	1639.85	107.07	4.18	2308.22
TA1_shp	4558.33	638913.4	6327185	1620.39	126.53	5.21	3726.34
TA1_shp	4558.33	638913.4	6327185	1600.92	146	5.93	6266.13
TA1_shp	4558.33	638913.4	6327185	1581.45	165.47	6.03	8380
TA1_shp	4558.33	638913.4	6327185	1561.99	184.93	5.58	8293.93
TA1_shp	4558.33	638913.4	6327185	1542.52	204.4	4.91	6500.44
TA1_shp	4558.33	638913.4	6327185	1523.05	223.87	4.3	4567.77
TA1_shp	4558.33	638913.4	6327185	1503.59	243.33	3.9	3136.29
TA1_shp	4558.33	638913.4	6327185	1484.12	262.8	3.82	2320.74
TA1_shp	4558.33	638913.4	6327185	1464.65	282.27	4.07	1875.55
TA1_shp	4558.33	638913.4	6327185	1444.92	302	4.68	1660.51
TA1_shp	4558.33	638913.4	6327185	1424.92	322	5.89	1651.4
TA1_shp	4558.33	638913.4	6327185	1404.92	342	7.76	1795.94
TA1_shp	4558.33	638913.4	6327185	1384.92	362	10.05	2048.36
TA1_shp	4558.33	638913.4	6327185	1364.92	382	13.09	2511.26
TA1_shp	4558.33	638913.4	6327185	1342.82	404.1	16.35	3298.95
TA1_shp	4558.33	638913.4	6327185	1318.27	428.65	19.67	4438.45
TA1_shp	4558.33	638913.4	6327185	1292.32	454.6	20.42	6361.37

TA1_shp	4558.33	638913.4	6327185	1263.82	483.1	18.66	9272.57
TA1_shp	4558.33	638913.4	6327185	1233.12	513.8	14.81	13225.43
TA1_shp	4558.33	638913.4	6327185	1200.47	546.45	9.61	18451.35
TA1_shp	4558.33	638913.4	6327185	1164.67	582.25	5.83	23201.82
TA1_shp	4558.33	638913.4	6327185	1126.02	620.9	3.16	25785.42
TA1_shp	4558.33	638913.4	6327185	1084.87	662.05	1.56	25176.67
TA1_shp	4558.33	638913.4	6327185	1039.77	707.15	0.69	20518.45
TA1_shp	4558.33	638913.4	6327185	991.12	755.8	0.27	14842.78
TA1_shp	4558.33	638913.4	6327185	939.32	807.6	0.1	10159.06
TA1_shp	4558.33	638913.4	6327185	882.52	864.4	0.1	6707.73
TA1_shp	4558.33	638913.4	6327185	821.27	925.65	0.1	4470.06
TA1_shp	4558.33	638913.4	6327185	756.42	990.5	0.1	2969.5
TA1_shp	4558.33	638913.4	6327185	684.92	1062	0.1	1673.61
TA1_shp	4575	638929.3	6327190	1730.02	9.73	1.25	14207.69
TA1_shp	4575	638929.3	6327190	1710.55	29.2	1.54	5998.3
TA1_shp	4575	638929.3	6327190	1691.08	48.67	2.1	3464.57
TA1_shp	4575	638929.3	6327190	1671.62	68.13	3.07	2134.75
TA1_shp	4575	638929.3	6327190	1652.15	87.6	4.42	2257.69
TA1_shp	4575	638929.3	6327190	1632.68	107.07	5.81	3559.8
TA1_shp	4575	638929.3	6327190	1613.22	126.53	6.65	5933.83
TA1_shp	4575	638929.3	6327190	1593.75	146	6.54	7895.09
TA1_shp	4575	638929.3	6327190	1574.28	165.47	5.76	7722.69
TA1_shp	4575	638929.3	6327190	1554.82	184.93	4.79	6023.64
TA1_shp	4575	638929.3	6327190	1535.35	204.4	4.01	4229.41
TA1_shp	4575	638929.3	6327190	1515.88	223.87	3.53	2934.41
TA1_shp	4575	638929.3	6327190	1496.42	243.33	3.41	2201.25
TA1_shp	4575	638929.3	6327190	1476.95	262.8	3.63	1806.37
TA1_shp	4575	638929.3	6327190	1457.48	282.27	4.2	1625.71
TA1_shp	4575	638929.3	6327190	1437.75	302	5.34	1636.63
TA1_shp	4575	638929.3	6327190	1417.75	322	7.14	1792.87
TA1_shp	4575	638929.3	6327190	1397.75	342	9.36	2054.75
TA1_shp	4575	638929.3	6327190	1377.75	362	12.36	2535.86
TA1_shp	4575	638929.3	6327190	1357.75	382	15.3	3242.27
TA1_shp	4575	638929.3	6327190	1335.65	404.1	18.48	4237.06
TA1_shp	4575	638929.3	6327190	1311.1	428.65	19.49	6004.19
TA1_shp	4575	638929.3	6327190	1285.15	454.6	18.92	8363.31
TA1_shp	4575	638929.3	6327190	1256.65	483.1	15.64	11786.66
TA1_shp	4575	638929.3	6327190	1225.95	513.8	11.09	16516.98
TA1_shp	4575	638929.3	6327190	1193.3	546.45	6.98	21168.4
TA1_shp	4575	638929.3	6327190	1157.5	582.25	3.79	25341.65
TA1_shp	4575	638929.3	6327190	1118.85	620.9	2.14	25502.04
TA1_shp	4575	638929.3	6327190	1077.7	662.05	1.11	22417.23
TA1_shp	4575	638929.3	6327190	1032.6	707.15	0.47	17490.32
TA1_shp	4575	638929.3	6327190	983.95	755.8	0.11	12116
TA1_shp	4575	638929.3	6327190	932.15	807.6	0.1	8158.63
TA1_shp	4575	638929.3	6327190	875.35	864.4	0.1	5597.63
TA1_shp	4575	638929.3	6327190	814.1	925.65	0.1	3849.49
TA1_shp	4575	638929.3	6327190	749.25	990.5	0.1	2433.73
TA1_shp	4575	638929.3	6327190	677.75	1062	0.1	1580.05
TA1_shp	4591.67	638945.1	6327196	1722.85	9.73	0.92	1994.55
TA1_shp	4591.67	638945.1	6327196	1703.38	29.2	1.49	2143.53
TA1_shp	4591.67	638945.1	6327196	1683.91	48.67	2.4	4018.74

TA1_shp	4591.67	638945.1	6327196	1664.45	68.13	3.74	2978.14
TA1_shp	4591.67	638945.1	6327196	1644.98	87.6	5.52	2663.19
TA1_shp	4591.67	638945.1	6327196	1625.51	107.07	7.3	3632.99
TA1_shp	4591.67	638945.1	6327196	1606.05	126.53	8.15	5638.38
TA1_shp	4591.67	638945.1	6327196	1586.58	146	7.58	7202.43
TA1_shp	4591.67	638945.1	6327196	1567.11	165.47	6.22	6873.77
TA1_shp	4591.67	638945.1	6327196	1547.65	184.93	4.85	5268.65
TA1_shp	4591.67	638945.1	6327196	1528.18	204.4	3.86	3700.63
TA1_shp	4591.67	638945.1	6327196	1508.71	223.87	3.27	2593.17
TA1_shp	4591.67	638945.1	6327196	1489.25	243.33	3.11	1984.29
TA1_shp	4591.67	638945.1	6327196	1469.78	262.8	3.32	1669.85
TA1_shp	4591.67	638945.1	6327196	1450.31	282.27	3.88	1540.49
TA1_shp	4591.67	638945.1	6327196	1430.58	302	5.02	1587.19
TA1_shp	4591.67	638945.1	6327196	1410.58	322	6.82	1771.23
TA1_shp	4591.67	638945.1	6327196	1390.58	342	9.05	2056.43
TA1_shp	4591.67	638945.1	6327196	1370.58	362	12.04	2556.16
TA1_shp	4591.67	638945.1	6327196	1350.58	382	14.95	3284.98
TA1_shp	4591.67	638945.1	6327196	1328.48	404.1	18.08	4308.14
TA1_shp	4591.67	638945.1	6327196	1303.93	428.65	18.99	6107.88
TA1_shp	4591.67	638945.1	6327196	1277.98	454.6	18.34	8498.61
TA1_shp	4591.67	638945.1	6327196	1249.48	483.1	15.01	11950.33
TA1_shp	4591.67	638945.1	6327196	1218.78	513.8	10.57	16633.45
TA1_shp	4591.67	638945.1	6327196	1186.13	546.45	6.61	21147.34
TA1_shp	4591.67	638945.1	6327196	1150.33	582.25	3.57	25063
TA1_shp	4591.67	638945.1	6327196	1111.68	620.9	2.01	24883.98
TA1_shp	4591.67	638945.1	6327196	1070.53	662.05	1.03	21617.74
TA1_shp	4591.67	638945.1	6327196	1025.43	707.15	0.43	16693.43
TA1_shp	4591.67	638945.1	6327196	976.78	755.8	0.1	11522.41
TA1_shp	4591.67	638945.1	6327196	924.98	807.6	0.1	7752.47
TA1_shp	4591.67	638945.1	6327196	868.18	864.4	0.1	5331.81
TA1_shp	4591.67	638945.1	6327196	806.93	925.65	0.1	3684.27
TA1_shp	4591.67	638945.1	6327196	742.08	990.5	0.1	2350.75
TA1_shp	4591.67	638945.1	6327196	670.58	1062	0.1	1544.48
TA1_shp	4608.33	638960.8	6327202	1714.36	9.73	2.19	592.3
TA1_shp	4608.33	638960.8	6327202	1694.89	29.2	3.39	5253.07
TA1_shp	4608.33	638960.8	6327202	1675.42	48.67	5.07	4974.47
TA1_shp	4608.33	638960.8	6327202	1655.96	68.13	7.29	3412.78
TA1_shp	4608.33	638960.8	6327202	1636.49	87.6	9.45	3671.17
TA1_shp	4608.33	638960.8	6327202	1617.02	107.07	10.15	5031.98
TA1_shp	4608.33	638960.8	6327202	1597.56	126.53	8.89	6098.52
TA1_shp	4608.33	638960.8	6327202	1578.09	146	6.79	5655.4
TA1_shp	4608.33	638960.8	6327202	1558.62	165.47	4.96	4289.78
TA1_shp	4608.33	638960.8	6327202	1539.16	184.93	3.75	3029.64
TA1_shp	4608.33	638960.8	6327202	1519.69	204.4	3.08	2166.87
TA1_shp	4608.33	638960.8	6327202	1500.22	223.87	2.91	1707.63
TA1_shp	4608.33	638960.8	6327202	1480.76	243.33	3.12	1487.95
TA1_shp	4608.33	638960.8	6327202	1461.29	262.8	3.7	1421.8
TA1_shp	4608.33	638960.8	6327202	1441.82	282.27	4.86	1509.53
TA1_shp	4608.33	638960.8	6327202	1422.09	302	6.67	1718.63
TA1_shp	4608.33	638960.8	6327202	1402.09	322	8.93	2022.69
TA1_shp	4608.33	638960.8	6327202	1382.09	342	11.97	2546.25
TA1_shp	4608.33	638960.8	6327202	1362.09	362	14.88	3291.01

TA1_shp	4608.33	638960.8	6327202	1342.09	382	17.67	4247.44
TA1_shp	4608.33	638960.8	6327202	1319.99	404.1	18.73	5805.66
TA1_shp	4608.33	638960.8	6327202	1295.44	428.65	18.81	7832.32
TA1_shp	4608.33	638960.8	6327202	1269.49	454.6	15.65	11014.52
TA1_shp	4608.33	638960.8	6327202	1240.99	483.1	11.8	15021.19
TA1_shp	4608.33	638960.8	6327202	1210.29	513.8	7.4	19723.25
TA1_shp	4608.33	638960.8	6327202	1177.64	546.45	4.68	23254.02
TA1_shp	4608.33	638960.8	6327202	1141.84	582.25	2.63	24539.06
TA1_shp	4608.33	638960.8	6327202	1103.19	620.9	1.32	23224.23
TA1_shp	4608.33	638960.8	6327202	1062.04	662.05	0.64	18704.08
TA1_shp	4608.33	638960.8	6327202	1016.94	707.15	0.24	13842.17
TA1_shp	4608.33	638960.8	6327202	968.29	755.8	0.1	9579.03
TA1_shp	4608.33	638960.8	6327202	916.49	807.6	0.1	6410.86
TA1_shp	4608.33	638960.8	6327202	859.69	864.4	0.1	4385.7
TA1_shp	4608.33	638960.8	6327202	798.44	925.65	0.1	3151.07
TA1_shp	4608.33	638960.8	6327202	733.59	990.5	0.1	1894.37
TA1_shp	4608.33	638960.8	6327202	662.09	1062	0.1	1458.93
TA1_shp	4625	638976.5	6327207	1704.52	9.73	2.37	736.27
TA1_shp	4625	638976.5	6327207	1685.05	29.2	4.48	10779.8
TA1_shp	4625	638976.5	6327207	1665.58	48.67	6.16	7931.26
TA1_shp	4625	638976.5	6327207	1646.12	68.13	8.54	3843.88
TA1_shp	4625	638976.5	6327207	1626.65	87.6	11.09	3265.12
TA1_shp	4625	638976.5	6327207	1607.18	107.07	11.78	4028.11
TA1_shp	4625	638976.5	6327207	1587.72	126.53	9.86	4679.96
TA1_shp	4625	638976.5	6327207	1568.25	146	7.15	4283.15
TA1_shp	4625	638976.5	6327207	1548.78	165.47	4.97	3261.72
TA1_shp	4625	638976.5	6327207	1529.32	184.93	3.64	2347.44
TA1_shp	4625	638976.5	6327207	1509.85	204.4	2.94	1731.3
TA1_shp	4625	638976.5	6327207	1490.38	223.87	2.78	1420.21
TA1_shp	4625	638976.5	6327207	1470.92	243.33	3.03	1294.91
TA1_shp	4625	638976.5	6327207	1451.45	262.8	3.66	1293.2
TA1_shp	4625	638976.5	6327207	1431.98	282.27	4.91	1423.02
TA1_shp	4625	638976.5	6327207	1412.25	302	6.84	1666.01
TA1_shp	4625	638976.5	6327207	1392.25	322	9.22	1999.53
TA1_shp	4625	638976.5	6327207	1372.25	342	12.38	2547.5
TA1_shp	4625	638976.5	6327207	1352.25	362	15.32	3316.65
TA1_shp	4625	638976.5	6327207	1332.25	382	18.06	4297.47
TA1_shp	4625	638976.5	6327207	1310.15	404.1	18.95	5886.06
TA1_shp	4625	638976.5	6327207	1285.6	428.65	18.8	7946.57
TA1_shp	4625	638976.5	6327207	1259.65	454.6	15.45	11153.21
TA1_shp	4625	638976.5	6327207	1231.15	483.1	11.5	15134.35
TA1_shp	4625	638976.5	6327207	1200.45	513.8	7.09	19756.35
TA1_shp	4625	638976.5	6327207	1167.8	546.45	4.46	23044.34
TA1_shp	4625	638976.5	6327207	1132	582.25	2.49	24049.96
TA1_shp	4625	638976.5	6327207	1093.35	620.9	1.23	22475.19
TA1_shp	4625	638976.5	6327207	1052.2	662.05	0.58	17889.88
TA1_shp	4625	638976.5	6327207	1007.1	707.15	0.22	13171.96
TA1_shp	4625	638976.5	6327207	958.45	755.8	0.1	9093.11
TA1_shp	4625	638976.5	6327207	906.65	807.6	0.1	6087.04
TA1_shp	4625	638976.5	6327207	849.85	864.4	0.1	4183.99
TA1_shp	4625	638976.5	6327207	788.6	925.65	0.1	3022.33
TA1_shp	4625	638976.5	6327207	723.75	990.5	0.1	1839.76

TA1_shp	4625	638976.5	6327207	652.25	1062	0.1	1426.91
TA1_shp	4641.67	638992.2	6327212	1694.68	9.73	5.77	24230.27
TA1_shp	4641.67	638992.2	6327212	1675.21	29.2	5.87	8447.7
TA1_shp	4641.67	638992.2	6327212	1655.74	48.67	7.83	3119.05
TA1_shp	4641.67	638992.2	6327212	1636.28	68.13	10.69	2450.8
TA1_shp	4641.67	638992.2	6327212	1616.81	87.6	11.87	2909.3
TA1_shp	4641.67	638992.2	6327212	1597.34	107.07	9.91	3332.18
TA1_shp	4641.67	638992.2	6327212	1577.88	126.53	7	3066.81
TA1_shp	4641.67	638992.2	6327212	1558.41	146	4.78	2382.67
TA1_shp	4641.67	638992.2	6327212	1538.94	165.47	3.47	1772.25
TA1_shp	4641.67	638992.2	6327212	1519.48	184.93	2.84	1366.5
TA1_shp	4641.67	638992.2	6327212	1500.01	204.4	2.75	1178.46
TA1_shp	4641.67	638992.2	6327212	1480.54	223.87	3.08	1130.44
TA1_shp	4641.67	638992.2	6327212	1461.08	243.33	3.82	1181.97
TA1_shp	4641.67	638992.2	6327212	1441.61	262.8	5.22	1349.91
TA1_shp	4641.67	638992.2	6327212	1422.14	282.27	7.29	1616.74
TA1_shp	4641.67	638992.2	6327212	1402.41	302	9.82	1962.57
TA1_shp	4641.67	638992.2	6327212	1382.41	322	13.15	2532.1
TA1_shp	4641.67	638992.2	6327212	1362.41	342	16.16	3312.55
TA1_shp	4641.67	638992.2	6327212	1342.41	362	18.82	4317.44
TA1_shp	4641.67	638992.2	6327212	1322.41	382	19.55	5745.5
TA1_shp	4641.67	638992.2	6327212	1300.31	404.1	19.43	7529.2
TA1_shp	4641.67	638992.2	6327212	1275.76	428.65	16.35	10472.71
TA1_shp	4641.67	638992.2	6327212	1249.81	454.6	12.65	13884.2
TA1_shp	4641.67	638992.2	6327212	1221.31	483.1	8.42	18189.13
TA1_shp	4641.67	638992.2	6327212	1190.61	513.8	5.31	21620.54
TA1_shp	4641.67	638992.2	6327212	1157.96	546.45	2.94	24063.67
TA1_shp	4641.67	638992.2	6327212	1122.16	582.25	1.68	22948.32
TA1_shp	4641.67	638992.2	6327212	1083.51	620.9	0.86	19524.66
TA1_shp	4641.67	638992.2	6327212	1042.36	662.05	0.35	15060.5
TA1_shp	4641.67	638992.2	6327212	997.26	707.15	0.1	10567.15
TA1_shp	4641.67	638992.2	6327212	948.61	755.8	0.1	7414.57
TA1_shp	4641.67	638992.2	6327212	896.81	807.6	0.1	5169.79
TA1_shp	4641.67	638992.2	6327212	840.01	864.4	0.1	3618.89
TA1_shp	4641.67	638992.2	6327212	778.76	925.65	0.1	2566.72
TA1_shp	4641.67	638992.2	6327212	713.91	990.5	0.1	1521.2
TA1_shp	4641.67	638992.2	6327212	642.41	1062	0.1	1348.45
TA1_shp	4658.33	639007.8	6327217	1684.86	9.73	10.07	31574.43
TA1_shp	4658.33	639007.8	6327217	1665.39	29.2	5.96	4885.31
TA1_shp	4658.33	639007.8	6327217	1645.92	48.67	6.22	1989.79
TA1_shp	4658.33	639007.8	6327217	1626.46	68.13	8.59	1782.79
TA1_shp	4658.33	639007.8	6327217	1606.99	87.6	10.23	2091.26
TA1_shp	4658.33	639007.8	6327217	1587.52	107.07	8.87	2340.37
TA1_shp	4658.33	639007.8	6327217	1568.06	126.53	6.35	2177.24
TA1_shp	4658.33	639007.8	6327217	1548.59	146	4.41	1750.9
TA1_shp	4658.33	639007.8	6327217	1529.12	165.47	3.3	1364.65
TA1_shp	4658.33	639007.8	6327217	1509.66	184.93	2.8	1108.42
TA1_shp	4658.33	639007.8	6327217	1490.19	204.4	2.82	1006.8
TA1_shp	4658.33	639007.8	6327217	1470.72	223.87	3.28	1014.04
TA1_shp	4658.33	639007.8	6327217	1451.26	243.33	4.17	1105.08
TA1_shp	4658.33	639007.8	6327217	1431.79	262.8	5.81	1300.17
TA1_shp	4658.33	639007.8	6327217	1412.32	282.27	8.18	1587.2

TA1_shp	4658.33	639007.8	6327217	1392.59	302	11.01	1950.29
TA1_shp	4658.33	639007.8	6327217	1372.59	322	14.55	2537.56
TA1_shp	4658.33	639007.8	6327217	1352.59	342	17.61	3335.41
TA1_shp	4658.33	639007.8	6327217	1332.59	362	20.14	4357.33
TA1_shp	4658.33	639007.8	6327217	1312.59	382	20.59	5810.03
TA1_shp	4658.33	639007.8	6327217	1290.49	404.1	20.08	7624.66
TA1_shp	4658.33	639007.8	6327217	1265.94	428.65	16.6	10603.72
TA1_shp	4658.33	639007.8	6327217	1239.99	454.6	12.58	14026.82
TA1_shp	4658.33	639007.8	6327217	1211.49	483.1	8.26	18261.93
TA1_shp	4658.33	639007.8	6327217	1180.79	513.8	5.14	21498.7
TA1_shp	4658.33	639007.8	6327217	1148.14	546.45	2.82	23677.74
TA1_shp	4658.33	639007.8	6327217	1112.34	582.25	1.59	22294.93
TA1_shp	4658.33	639007.8	6327217	1073.69	620.9	0.81	18772
TA1_shp	4658.33	639007.8	6327217	1032.54	662.05	0.32	14336.69
TA1_shp	4658.33	639007.8	6327217	987.44	707.15	0.1	10017.27
TA1_shp	4658.33	639007.8	6327217	938.79	755.8	0.1	7028.22
TA1_shp	4658.33	639007.8	6327217	886.99	807.6	0.1	4913.42
TA1_shp	4658.33	639007.8	6327217	830.19	864.4	0.1	3459.18
TA1_shp	4658.33	639007.8	6327217	768.94	925.65	0.1	2469.76
TA1_shp	4658.33	639007.8	6327217	704.09	990.5	0.1	1486.35
TA1_shp	4658.33	639007.8	6327217	632.59	1062	0.1	1320.16
TA1_shp	4675	639023.5	6327222	1675.02	9.73	3.38	2446.79
TA1_shp	4675	639023.5	6327222	1655.55	29.2	3.88	1830.78
TA1_shp	4675	639023.5	6327222	1636.08	48.67	5.92	1721.51
TA1_shp	4675	639023.5	6327222	1616.62	68.13	7.8	1716.58
TA1_shp	4675	639023.5	6327222	1597.15	87.6	7.25	1746.59
TA1_shp	4675	639023.5	6327222	1577.68	107.07	5.48	1619.52
TA1_shp	4675	639023.5	6327222	1558.22	126.53	4.01	1359.62
TA1_shp	4675	639023.5	6327222	1538.75	146	3.17	1118.22
TA1_shp	4675	639023.5	6327222	1519.28	165.47	2.86	960.29
TA1_shp	4675	639023.5	6327222	1499.82	184.93	3.05	915.65
TA1_shp	4675	639023.5	6327222	1480.35	204.4	3.7	958.69
TA1_shp	4675	639023.5	6327222	1460.88	223.87	4.83	1074.5
TA1_shp	4675	639023.5	6327222	1441.42	243.33	6.81	1284.54
TA1_shp	4675	639023.5	6327222	1421.95	262.8	9.58	1582.51
TA1_shp	4675	639023.5	6327222	1402.48	282.27	12.76	1946.68
TA1_shp	4675	639023.5	6327222	1382.75	302	16.47	2532.55
TA1_shp	4675	639023.5	6327222	1362.75	322	19.57	3329.62
TA1_shp	4675	639023.5	6327222	1342.75	342	21.87	4367.62
TA1_shp	4675	639023.5	6327222	1322.75	362	22.03	5824.48
TA1_shp	4675	639023.5	6327222	1302.75	382	21.1	7489.99
TA1_shp	4675	639023.5	6327222	1280.65	404.1	17.92	10066.47
TA1_shp	4675	639023.5	6327222	1256.1	428.65	13.62	13190.43
TA1_shp	4675	639023.5	6327222	1230.15	454.6	9.54	16993.46
TA1_shp	4675	639023.5	6327222	1201.65	483.1	5.84	20501.91
TA1_shp	4675	639023.5	6327222	1170.95	513.8	3.49	22852.78
TA1_shp	4675	639023.5	6327222	1138.3	546.45	2.04	22364.83
TA1_shp	4675	639023.5	6327222	1102.5	582.25	1.02	20153.12
TA1_shp	4675	639023.5	6327222	1063.85	620.9	0.48	15812.25
TA1_shp	4675	639023.5	6327222	1022.7	662.05	0.19	11830.9
TA1_shp	4675	639023.5	6327222	977.6	707.15	0.1	8253.34
TA1_shp	4675	639023.5	6327222	928.95	755.8	0.1	5602.14

TA1_shp	4675	639023.5	6327222	877.15	807.6	0.1	4136.52
TA1_shp	4675	639023.5	6327222	820.35	864.4	0.1	3012.71
TA1_shp	4675	639023.5	6327222	759.1	925.65	0.1	2081.83
TA1_shp	4675	639023.5	6327222	694.25	990.5	0.1	1408.67
TA1_shp	4675	639023.5	6327222	622.75	1062	0.1	1248.89
TA1_shp	4691.67	639039.2	6327228	1665.18	9.73	1.48	2448.45
TA1_shp	4691.67	639039.2	6327228	1645.71	29.2	2.51	2942.79
TA1_shp	4691.67	639039.2	6327228	1626.24	48.67	4.32	2419.18
TA1_shp	4691.67	639039.2	6327228	1606.78	68.13	6.1	1713.41
TA1_shp	4691.67	639039.2	6327228	1587.31	87.6	5.99	1460.49
TA1_shp	4691.67	639039.2	6327228	1567.84	107.07	4.81	1321.7
TA1_shp	4691.67	639039.2	6327228	1548.38	126.53	3.77	1160
TA1_shp	4691.67	639039.2	6327228	1528.91	146	3.2	1012.68
TA1_shp	4691.67	639039.2	6327228	1509.44	165.47	3.12	917.29
TA1_shp	4691.67	639039.2	6327228	1489.98	184.93	3.52	907.07
TA1_shp	4691.67	639039.2	6327228	1470.51	204.4	4.43	969.03
TA1_shp	4691.67	639039.2	6327228	1451.04	223.87	5.92	1094.72
TA1_shp	4691.67	639039.2	6327228	1431.58	243.33	8.39	1307.47
TA1_shp	4691.67	639039.2	6327228	1412.11	262.8	11.67	1604.33
TA1_shp	4691.67	639039.2	6327228	1392.64	282.27	15.32	1966.05
TA1_shp	4691.67	639039.2	6327228	1372.91	302	19.17	2553.23
TA1_shp	4691.67	639039.2	6327228	1352.91	322	22.18	3354.85
TA1_shp	4691.67	639039.2	6327228	1332.91	342	24.12	4401.23
TA1_shp	4691.67	639039.2	6327228	1312.91	362	23.78	5878.09
TA1_shp	4691.67	639039.2	6327228	1292.91	382	22.3	7569.38
TA1_shp	4691.67	639039.2	6327228	1270.81	404.1	18.58	10185.52
TA1_shp	4691.67	639039.2	6327228	1246.26	428.65	13.73	13356.58
TA1_shp	4691.67	639039.2	6327228	1220.31	454.6	9.5	17097.11
TA1_shp	4691.67	639039.2	6327228	1191.81	483.1	5.69	20475.68
TA1_shp	4691.67	639039.2	6327228	1161.11	513.8	3.37	22555.69
TA1_shp	4691.67	639039.2	6327228	1128.46	546.45	1.95	21820.12
TA1_shp	4691.67	639039.2	6327228	1092.66	582.25	0.96	19414.14
TA1_shp	4691.67	639039.2	6327228	1054.01	620.9	0.43	15086.52
TA1_shp	4691.67	639039.2	6327228	1012.86	662.05	0.17	11227.55
TA1_shp	4691.67	639039.2	6327228	967.76	707.15	0.1	7810.48
TA1_shp	4691.67	639039.2	6327228	919.11	755.8	0.1	5308.41
TA1_shp	4691.67	639039.2	6327228	867.31	807.6	0.1	3939.73
TA1_shp	4691.67	639039.2	6327228	810.51	864.4	0.1	2886.85
TA1_shp	4691.67	639039.2	6327228	749.26	925.65	0.1	2011.35
TA1_shp	4691.67	639039.2	6327228	684.41	990.5	0.1	1377.11
TA1_shp	4691.67	639039.2	6327228	612.91	1062	0.1	1223.54
TA1_shp	4708.33	639054.3	6327234	1657.52	9.73	1.97	975.77
TA1_shp	4708.33	639054.3	6327234	1638.05	29.2	4.32	3156.19
TA1_shp	4708.33	639054.3	6327234	1618.58	48.67	5.14	3606.28
TA1_shp	4708.33	639054.3	6327234	1599.12	68.13	6.01	1961.06
TA1_shp	4708.33	639054.3	6327234	1579.65	87.6	5.68	1391.1
TA1_shp	4708.33	639054.3	6327234	1560.18	107.07	4.67	1217.32
TA1_shp	4708.33	639054.3	6327234	1540.72	126.53	3.86	1120.06
TA1_shp	4708.33	639054.3	6327234	1521.25	146	3.52	1033
TA1_shp	4708.33	639054.3	6327234	1501.78	165.47	3.67	975.83
TA1_shp	4708.33	639054.3	6327234	1482.32	184.93	4.35	982.58
TA1_shp	4708.33	639054.3	6327234	1462.85	204.4	5.66	1048.86

TA1_shp	4708.33	639054.3	6327234	1443.38	223.87	7.64	1170.51
TA1_shp	4708.33	639054.3	6327234	1423.92	243.33	10.79	1370.23
TA1_shp	4708.33	639054.3	6327234	1404.45	262.8	14.64	1652.81
TA1_shp	4708.33	639054.3	6327234	1384.98	282.27	18.76	2000.31
TA1_shp	4708.33	639054.3	6327234	1365.25	302	22.56	2578.34
TA1_shp	4708.33	639054.3	6327234	1345.25	322	25.29	3377.95
TA1_shp	4708.33	639054.3	6327234	1325.25	342	26.7	4430.93
TA1_shp	4708.33	639054.3	6327234	1305.25	362	25.75	5933.02
TA1_shp	4708.33	639054.3	6327234	1285.25	382	23.62	7658.82
TA1_shp	4708.33	639054.3	6327234	1263.15	404.1	19.32	10306.38
TA1_shp	4708.33	639054.3	6327234	1238.6	428.65	13.87	13509.2
TA1_shp	4708.33	639054.3	6327234	1212.65	454.6	9.47	17181.9
TA1_shp	4708.33	639054.3	6327234	1184.15	483.1	5.54	20426.67
TA1_shp	4708.33	639054.3	6327234	1153.45	513.8	3.24	22235.83
TA1_shp	4708.33	639054.3	6327234	1120.8	546.45	1.86	21244.66
TA1_shp	4708.33	639054.3	6327234	1085	582.25	0.89	18642.68
TA1_shp	4708.33	639054.3	6327234	1046.35	620.9	0.39	14362.82
TA1_shp	4708.33	639054.3	6327234	1005.2	662.05	0.15	10636.29
TA1_shp	4708.33	639054.3	6327234	960.1	707.15	0.1	7384.24
TA1_shp	4708.33	639054.3	6327234	911.45	755.8	0.1	5042.01
TA1_shp	4708.33	639054.3	6327234	859.65	807.6	0.1	3755.2
TA1_shp	4708.33	639054.3	6327234	802.85	864.4	0.1	2765.56
TA1_shp	4708.33	639054.3	6327234	741.6	925.65	0.1	1943.05
TA1_shp	4708.33	639054.3	6327234	676.75	990.5	0.1	1346.11
TA1_shp	4708.33	639054.3	6327234	605.25	1062	0.1	1198.61
TA1_shp	4725	639068.8	6327241	1652.02	9.73	17.48	2695.67
TA1_shp	4725	639068.8	6327241	1632.55	29.2	8.84	4703.49
TA1_shp	4725	639068.8	6327241	1613.08	48.67	7.52	2297.87
TA1_shp	4725	639068.8	6327241	1593.62	68.13	6.38	1467.79
TA1_shp	4725	639068.8	6327241	1574.15	87.6	5.17	1273.23
TA1_shp	4725	639068.8	6327241	1554.68	107.07	4.4	1222.48
TA1_shp	4725	639068.8	6327241	1535.22	126.53	4.22	1181.64
TA1_shp	4725	639068.8	6327241	1515.75	146	4.65	1147.17
TA1_shp	4725	639068.8	6327241	1496.28	165.47	5.75	1154.44
TA1_shp	4725	639068.8	6327241	1476.82	184.93	7.62	1205.41
TA1_shp	4725	639068.8	6327241	1457.35	204.4	10.31	1300.71
TA1_shp	4725	639068.8	6327241	1437.88	223.87	14.25	1467.89
TA1_shp	4725	639068.8	6327241	1418.42	243.33	18.58	1719.23
TA1_shp	4725	639068.8	6327241	1398.95	262.8	22.98	2038.17
TA1_shp	4725	639068.8	6327241	1379.48	282.27	26.37	2596.02
TA1_shp	4725	639068.8	6327241	1359.75	302	28.63	3372.56
TA1_shp	4725	639068.8	6327241	1339.75	322	29.37	4435.7
TA1_shp	4725	639068.8	6327241	1319.75	342	27.85	5945.36
TA1_shp	4725	639068.8	6327241	1299.75	362	25.05	7705.1
TA1_shp	4725	639068.8	6327241	1279.75	382	20.71	10098.14
TA1_shp	4725	639068.8	6327241	1257.65	404.1	15.22	13030.37
TA1_shp	4725	639068.8	6327241	1233.1	428.65	10.56	16405.92
TA1_shp	4725	639068.8	6327241	1207.15	454.6	6.07	19958.53
TA1_shp	4725	639068.8	6327241	1178.65	483.1	3.95	21364.76
TA1_shp	4725	639068.8	6327241	1147.95	513.8	2.16	21583.73
TA1_shp	4725	639068.8	6327241	1115.3	546.45	1.18	19372.8
TA1_shp	4725	639068.8	6327241	1079.5	582.25	0.59	15779.09

TA1_shp	4725	639068.8	6327241	1040.85	620.9	0.2	11813.8
TA1_shp	4725	639068.8	6327241	999.7	662.05	0.1	8506.09
TA1_shp	4725	639068.8	6327241	954.6	707.15	0.1	6095.09
TA1_shp	4725	639068.8	6327241	905.95	755.8	0.1	4308.89
TA1_shp	4725	639068.8	6327241	854.15	807.6	0.1	3136.48
TA1_shp	4725	639068.8	6327241	797.35	864.4	0.1	2406.02
TA1_shp	4725	639068.8	6327241	736.1	925.65	0.1	1632.68
TA1_shp	4725	639068.8	6327241	671.25	990.5	0.1	1277.65
TA1_shp	4725	639068.8	6327241	599.75	1062	0.1	1135.95
TA1_shp	4741.67	639083.3	6327248	1646.52	9.73	15.82	5900.12
TA1_shp	4741.67	639083.3	6327248	1627.05	29.2	11.21	6071.02
TA1_shp	4741.67	639083.3	6327248	1607.58	48.67	9.72	2624.8
TA1_shp	4741.67	639083.3	6327248	1588.12	68.13	7.89	1647.56
TA1_shp	4741.67	639083.3	6327248	1568.65	87.6	6.32	1466.28
TA1_shp	4741.67	639083.3	6327248	1549.18	107.07	5.48	1476.85
TA1_shp	4741.67	639083.3	6327248	1529.72	126.53	5.46	1478.3
TA1_shp	4741.67	639083.3	6327248	1510.25	146	6.29	1451.44
TA1_shp	4741.67	639083.3	6327248	1490.78	165.47	7.99	1431.72
TA1_shp	4741.67	639083.3	6327248	1471.32	184.93	10.64	1435.89
TA1_shp	4741.67	639083.3	6327248	1451.85	204.4	14.2	1474.19
TA1_shp	4741.67	639083.3	6327248	1432.38	223.87	18.86	1584.04
TA1_shp	4741.67	639083.3	6327248	1412.92	243.33	23.35	1790.72
TA1_shp	4741.67	639083.3	6327248	1393.45	262.8	27.6	2073.42
TA1_shp	4741.67	639083.3	6327248	1373.98	282.27	30.33	2617.01
TA1_shp	4741.67	639083.3	6327248	1354.25	302	31.9	3389.25
TA1_shp	4741.67	639083.3	6327248	1334.25	322	31.92	4461.29
TA1_shp	4741.67	639083.3	6327248	1314.25	342	29.71	6008.21
TA1_shp	4741.67	639083.3	6327248	1294.25	362	26.26	7821.09
TA1_shp	4741.67	639083.3	6327248	1274.25	382	21.39	10262.44
TA1_shp	4741.67	639083.3	6327248	1252.15	404.1	15.37	13245.87
TA1_shp	4741.67	639083.3	6327248	1227.6	428.65	10.51	16564.44
TA1_shp	4741.67	639083.3	6327248	1201.65	454.6	5.9	20023.68
TA1_shp	4741.67	639083.3	6327248	1173.15	483.1	3.82	21150.66
TA1_shp	4741.67	639083.3	6327248	1142.45	513.8	2.06	21098.91
TA1_shp	4741.67	639083.3	6327248	1109.8	546.45	1.11	18656.84
TA1_shp	4741.67	639083.3	6327248	1074	582.25	0.55	15057.8
TA1_shp	4741.67	639083.3	6327248	1035.35	620.9	0.18	11184.1
TA1_shp	4741.67	639083.3	6327248	994.2	662.05	0.1	8036.27
TA1_shp	4741.67	639083.3	6327248	949.1	707.15	0.1	5767.96
TA1_shp	4741.67	639083.3	6327248	900.45	755.8	0.1	4096.32
TA1_shp	4741.67	639083.3	6327248	848.65	807.6	0.1	2995.56
TA1_shp	4741.67	639083.3	6327248	791.85	864.4	0.1	2310.27
TA1_shp	4741.67	639083.3	6327248	730.6	925.65	0.1	1584.79
TA1_shp	4741.67	639083.3	6327248	665.75	990.5	0.1	1249.84
TA1_shp	4741.67	639083.3	6327248	594.25	1062	0.1	1113.81
TA1_shp	4758.33	639097.8	6327255	1641.02	9.73	11.21	25706.81
TA1_shp	4758.33	639097.8	6327255	1621.55	29.2	12.39	10400.49
TA1_shp	4758.33	639097.8	6327255	1602.08	48.67	11.6	3147.31
TA1_shp	4758.33	639097.8	6327255	1582.62	68.13	9.3	1929.66
TA1_shp	4758.33	639097.8	6327255	1563.15	87.6	7.56	1798.05
TA1_shp	4758.33	639097.8	6327255	1543.68	107.07	6.87	1892.88
TA1_shp	4758.33	639097.8	6327255	1524.22	126.53	7.23	1942.91

TA1_shp	4758.33	639097.8	6327255	1504.75	146	8.73	1900.6
TA1_shp	4758.33	639097.8	6327255	1485.28	165.47	11.32	1813.19
TA1_shp	4758.33	639097.8	6327255	1465.82	184.93	14.92	1726.62
TA1_shp	4758.33	639097.8	6327255	1446.35	204.4	19.33	1668.34
TA1_shp	4758.33	639097.8	6327255	1426.88	223.87	24.23	1697.06
TA1_shp	4758.33	639097.8	6327255	1407.42	243.33	28.38	1847.9
TA1_shp	4758.33	639097.8	6327255	1387.95	262.8	31.97	2089.4
TA1_shp	4758.33	639097.8	6327255	1368.48	282.27	33.88	2616.64
TA1_shp	4758.33	639097.8	6327255	1348.75	302	34.7	3389.73
TA1_shp	4758.33	639097.8	6327255	1328.75	322	34.06	4485.41
TA1_shp	4758.33	639097.8	6327255	1308.75	342	31.23	6079.76
TA1_shp	4758.33	639097.8	6327255	1288.75	362	27.18	7953.4
TA1_shp	4758.33	639097.8	6327255	1268.75	382	21.85	10451.11
TA1_shp	4758.33	639097.8	6327255	1246.65	404.1	15.38	13494.82
TA1_shp	4758.33	639097.8	6327255	1222.1	428.65	10.37	16754.67
TA1_shp	4758.33	639097.8	6327255	1196.15	454.6	5.71	20115.06
TA1_shp	4758.33	639097.8	6327255	1167.65	483.1	3.67	20928.51
TA1_shp	4758.33	639097.8	6327255	1136.95	513.8	1.95	20595.01
TA1_shp	4758.33	639097.8	6327255	1104.3	546.45	1.04	17958.86
TA1_shp	4758.33	639097.8	6327255	1068.5	582.25	0.5	14361.07
TA1_shp	4758.33	639097.8	6327255	1029.85	620.9	0.14	10575.01
TA1_shp	4758.33	639097.8	6327255	988.7	662.05	0.1	7581.72
TA1_shp	4758.33	639097.8	6327255	943.6	707.15	0.1	5447.49
TA1_shp	4758.33	639097.8	6327255	894.95	755.8	0.1	3886.61
TA1_shp	4758.33	639097.8	6327255	843.15	807.6	0.1	2864.67
TA1_shp	4758.33	639097.8	6327255	786.35	864.4	0.1	2221.09
TA1_shp	4758.33	639097.8	6327255	725.1	925.65	0.1	1539.43
TA1_shp	4758.33	639097.8	6327255	660.25	990.5	0.1	1223.01
TA1_shp	4758.33	639097.8	6327255	588.75	1062	0.1	1092.39
TA1_shp	4775	639112.3	6327262	1635.52	9.73	14.16	11533.84
TA1_shp	4775	639112.3	6327262	1616.05	29.2	10.9	3455.8
TA1_shp	4775	639112.3	6327262	1596.58	48.67	8.61	2274.16
TA1_shp	4775	639112.3	6327262	1577.12	68.13	7.75	2258.62
TA1_shp	4775	639112.3	6327262	1557.65	87.6	7.96	2477.37
TA1_shp	4775	639112.3	6327262	1538.18	107.07	9.25	2586.89
TA1_shp	4775	639112.3	6327262	1518.72	126.53	11.92	2480.95
TA1_shp	4775	639112.3	6327262	1499.25	146	15.69	2261.71
TA1_shp	4775	639112.3	6327262	1479.78	165.47	20.17	2028.94
TA1_shp	4775	639112.3	6327262	1460.32	184.93	25	1835.93
TA1_shp	4775	639112.3	6327262	1440.85	204.4	29.44	1772
TA1_shp	4775	639112.3	6327262	1421.38	223.87	32.83	1868.05
TA1_shp	4775	639112.3	6327262	1401.92	243.33	35.54	2075.64
TA1_shp	4775	639112.3	6327262	1382.45	262.8	36.69	2599.31
TA1_shp	4775	639112.3	6327262	1362.98	282.27	36.84	3371.44
TA1_shp	4775	639112.3	6327262	1343.25	302	35.65	4488.51
TA1_shp	4775	639112.3	6327262	1323.25	322	32.39	6124.7
TA1_shp	4775	639112.3	6327262	1303.25	342	27.84	8076.95
TA1_shp	4775	639112.3	6327262	1283.25	362	22.2	10616.46
TA1_shp	4775	639112.3	6327262	1263.25	382	16.03	13429.81
TA1_shp	4775	639112.3	6327262	1241.15	404.1	11.07	16336.09
TA1_shp	4775	639112.3	6327262	1216.6	428.65	6.61	19448.79
TA1_shp	4775	639112.3	6327262	1190.65	454.6	4.14	20545.02

TA1_shp	4775	639112.3	6327262	1162.15	483.1	2.16	21030.55
TA1_shp	4775	639112.3	6327262	1131.45	513.8	1.33	18385.7
TA1_shp	4775	639112.3	6327262	1098.8	546.45	0.63	15359.7
TA1_shp	4775	639112.3	6327262	1063	582.25	0.24	11641.67
TA1_shp	4775	639112.3	6327262	1024.35	620.9	0.1	8645.06
TA1_shp	4775	639112.3	6327262	983.2	662.05	0.1	6098.19
TA1_shp	4775	639112.3	6327262	938.1	707.15	0.1	4432.59
TA1_shp	4775	639112.3	6327262	889.45	755.8	0.1	3333.78
TA1_shp	4775	639112.3	6327262	837.65	807.6	0.1	2522.38
TA1_shp	4775	639112.3	6327262	780.85	864.4	0.1	1930.32
TA1_shp	4775	639112.3	6327262	719.6	925.65	0.1	1291.87
TA1_shp	4775	639112.3	6327262	654.75	990.5	0.1	1162.52
TA1_shp	4775	639112.3	6327262	583.25	1062	0.1	1037.22
TA1_shp	4791.67	639126.8	6327269	1630.02	9.73	5.85	5207.76
TA1_shp	4791.67	639126.8	6327269	1610.55	29.2	5.13	3278.69
TA1_shp	4791.67	639126.8	6327269	1591.08	48.67	5.56	2746.79
TA1_shp	4791.67	639126.8	6327269	1571.62	68.13	6.68	2921.52
TA1_shp	4791.67	639126.8	6327269	1552.15	87.6	8.5	3280.39
TA1_shp	4791.67	639126.8	6327269	1532.68	107.07	11.26	3402.81
TA1_shp	4791.67	639126.8	6327269	1513.22	126.53	15.49	3130.49
TA1_shp	4791.67	639126.8	6327269	1493.75	146	20.43	2692.55
TA1_shp	4791.67	639126.8	6327269	1474.28	165.47	25.42	2262.93
TA1_shp	4791.67	639126.8	6327269	1454.82	184.93	30.07	1920.24
TA1_shp	4791.67	639126.8	6327269	1435.35	204.4	33.65	1779.3
TA1_shp	4791.67	639126.8	6327269	1415.88	223.87	36.23	1836.76
TA1_shp	4791.67	639126.8	6327269	1396.42	243.33	38.18	2026.77
TA1_shp	4791.67	639126.8	6327269	1376.95	262.8	38.68	2559.84
TA1_shp	4791.67	639126.8	6327269	1357.48	282.27	38.25	3357.92
TA1_shp	4791.67	639126.8	6327269	1337.75	302	36.55	4523.54
TA1_shp	4791.67	639126.8	6327269	1317.75	322	32.86	6241.01
TA1_shp	4791.67	639126.8	6327269	1297.75	342	27.94	8294.68
TA1_shp	4791.67	639126.8	6327269	1277.75	362	22.04	10909.1
TA1_shp	4791.67	639126.8	6327269	1257.75	382	15.7	13784.99
TA1_shp	4791.67	639126.8	6327269	1235.65	404.1	10.72	16630.84
TA1_shp	4791.67	639126.8	6327269	1211.1	428.65	6.33	19602.33
TA1_shp	4791.67	639126.8	6327269	1185.15	454.6	3.94	20416.3
TA1_shp	4791.67	639126.8	6327269	1156.65	483.1	2.04	20548.29
TA1_shp	4791.67	639126.8	6327269	1125.95	513.8	1.25	17737.13
TA1_shp	4791.67	639126.8	6327269	1093.3	546.45	0.58	14627.11
TA1_shp	4791.67	639126.8	6327269	1057.5	582.25	0.2	11004.49
TA1_shp	4791.67	639126.8	6327269	1018.85	620.9	0.1	8145.24
TA1_shp	4791.67	639126.8	6327269	977.7	662.05	0.1	5744.72
TA1_shp	4791.67	639126.8	6327269	932.6	707.15	0.1	4192.23
TA1_shp	4791.67	639126.8	6327269	883.95	755.8	0.1	3172.1
TA1_shp	4791.67	639126.8	6327269	832.15	807.6	0.1	2418.04
TA1_shp	4791.67	639126.8	6327269	775.35	864.4	0.1	1861.88
TA1_shp	4791.67	639126.8	6327269	714.1	925.65	0.1	1262.15
TA1_shp	4791.67	639126.8	6327269	649.25	990.5	0.1	1138.43
TA1_shp	4791.67	639126.8	6327269	577.75	1062	0.1	1018.21
TA1_shp	4808.33	639141	6327276	1625.1	9.73	2.77	2499.91
TA1_shp	4808.33	639141	6327276	1605.63	29.2	3.27	3529.47
TA1_shp	4808.33	639141	6327276	1586.16	48.67	4.32	3600.06

TA1_shp	4808.33	639141	6327276	1566.7	68.13	6.34	3935.17
TA1_shp	4808.33	639141	6327276	1547.23	87.6	9.42	4362.08
TA1_shp	4808.33	639141	6327276	1527.76	107.07	13.65	4343.58
TA1_shp	4808.33	639141	6327276	1508.3	126.53	19.33	3723.68
TA1_shp	4808.33	639141	6327276	1488.83	146	24.9	2977.33
TA1_shp	4808.33	639141	6327276	1469.36	165.47	29.74	2334.13
TA1_shp	4808.33	639141	6327276	1449.9	184.93	33.69	1870.46
TA1_shp	4808.33	639141	6327276	1430.43	204.4	36.47	1693.4
TA1_shp	4808.33	639141	6327276	1410.96	223.87	38.37	1744.33
TA1_shp	4808.33	639141	6327276	1391.5	243.33	39.71	1943.87
TA1_shp	4808.33	639141	6327276	1372.03	262.8	39.69	2506.38
TA1_shp	4808.33	639141	6327276	1352.56	282.27	38.81	3353.44
TA1_shp	4808.33	639141	6327276	1332.83	302	36.75	4595.01
TA1_shp	4808.33	639141	6327276	1312.83	322	32.75	6414.76
TA1_shp	4808.33	639141	6327276	1292.83	342	27.56	8586.57
TA1_shp	4808.33	639141	6327276	1272.83	362	21.56	11277.07
TA1_shp	4808.33	639141	6327276	1252.83	382	15.18	14209.44
TA1_shp	4808.33	639141	6327276	1230.73	404.1	10.26	16974.27
TA1_shp	4808.33	639141	6327276	1206.18	428.65	6.02	19773.77
TA1_shp	4808.33	639141	6327276	1180.23	454.6	3.72	20287.54
TA1_shp	4808.33	639141	6327276	1151.73	483.1	1.91	20051.05
TA1_shp	4808.33	639141	6327276	1121.03	513.8	1.16	17090.74
TA1_shp	4808.33	639141	6327276	1088.38	546.45	0.53	13910.56
TA1_shp	4808.33	639141	6327276	1052.58	582.25	0.17	10389.27
TA1_shp	4808.33	639141	6327276	1013.93	620.9	0.1	7669.45
TA1_shp	4808.33	639141	6327276	972.78	662.05	0.1	5415.13
TA1_shp	4808.33	639141	6327276	927.68	707.15	0.1	3972.16
TA1_shp	4808.33	639141	6327276	879.03	755.8	0.1	3019.71
TA1_shp	4808.33	639141	6327276	827.23	807.6	0.1	2313.99
TA1_shp	4808.33	639141	6327276	770.43	864.4	0.1	1793.81
TA1_shp	4808.33	639141	6327276	709.18	925.65	0.1	1232.87
TA1_shp	4808.33	639141	6327276	644.33	990.5	0.1	1114.69
TA1_shp	4808.33	639141	6327276	572.83	1062	0.1	999.45
TA1_shp	4825	639155	6327283	1620.77	9.73	3.51	2364.67
TA1_shp	4825	639155	6327283	1601.3	29.2	5.2	3822.44
TA1_shp	4825	639155	6327283	1581.83	48.67	5.61	4450.9
TA1_shp	4825	639155	6327283	1562.37	68.13	8	5165.87
TA1_shp	4825	639155	6327283	1542.9	87.6	12.09	5614.71
TA1_shp	4825	639155	6327283	1523.43	107.07	17.28	5188.74
TA1_shp	4825	639155	6327283	1503.97	126.53	23.29	4035.79
TA1_shp	4825	639155	6327283	1484.5	146	28.35	2967.38
TA1_shp	4825	639155	6327283	1465.03	165.47	32.36	2177.25
TA1_shp	4825	639155	6327283	1445.57	184.93	35.48	1681.61
TA1_shp	4825	639155	6327283	1426.1	204.4	37.62	1528.14
TA1_shp	4825	639155	6327283	1406.63	223.87	39.04	1610.94
TA1_shp	4825	639155	6327283	1387.17	243.33	39.96	1847.62
TA1_shp	4825	639155	6327283	1367.7	262.8	39.62	2459.46
TA1_shp	4825	639155	6327283	1348.23	282.27	38.48	3374.19
TA1_shp	4825	639155	6327283	1328.5	302	36.24	4709.04
TA1_shp	4825	639155	6327283	1308.5	322	32.06	6647.91
TA1_shp	4825	639155	6327283	1288.5	342	26.7	8954.25
TA1_shp	4825	639155	6327283	1268.5	362	20.71	11729.99

TA1_shp	4825	639155	6327283	1248.5	382	14.44	14724.59
TA1_shp	4825	639155	6327283	1226.4	404.1	9.7	17372.98
TA1_shp	4825	639155	6327283	1201.85	428.65	5.67	19937.2
TA1_shp	4825	639155	6327283	1175.9	454.6	3.49	20124.23
TA1_shp	4825	639155	6327283	1147.4	483.1	1.79	19503.36
TA1_shp	4825	639155	6327283	1116.7	513.8	1.07	16414.68
TA1_shp	4825	639155	6327283	1084.05	546.45	0.48	13184.6
TA1_shp	4825	639155	6327283	1048.25	582.25	0.16	9782.63
TA1_shp	4825	639155	6327283	1009.6	620.9	0.1	7206.97
TA1_shp	4825	639155	6327283	968.45	662.05	0.1	5097.29
TA1_shp	4825	639155	6327283	923.35	707.15	0.1	3756.61
TA1_shp	4825	639155	6327283	874.7	755.8	0.1	2874.45
TA1_shp	4825	639155	6327283	822.9	807.6	0.1	2219.64
TA1_shp	4825	639155	6327283	766.1	864.4	0.1	1731.37
TA1_shp	4825	639155	6327283	704.85	925.65	0.1	1204.84
TA1_shp	4825	639155	6327283	640	990.5	0.1	1091.85
TA1_shp	4825	639155	6327283	568.5	1062	0.1	981.34
TA1_shp	4841.67	639169	6327290	1616.44	9.73	14.04	2678.24
TA1_shp	4841.67	639169	6327290	1596.97	29.2	8.69	4523.37
TA1_shp	4841.67	639169	6327290	1577.5	48.67	11.72	6092.63
TA1_shp	4841.67	639169	6327290	1558.04	68.13	16.92	6520.56
TA1_shp	4841.67	639169	6327290	1538.57	87.6	21.95	5455.94
TA1_shp	4841.67	639169	6327290	1519.1	107.07	26.55	3804.23
TA1_shp	4841.67	639169	6327290	1499.64	126.53	30.1	2588.33
TA1_shp	4841.67	639169	6327290	1480.17	146	32.98	1816.75
TA1_shp	4841.67	639169	6327290	1460.7	165.47	35.36	1401.71
TA1_shp	4841.67	639169	6327290	1441.24	184.93	37.09	1319.29
TA1_shp	4841.67	639169	6327290	1421.77	204.4	38.24	1464.74
TA1_shp	4841.67	639169	6327290	1402.3	223.87	38.99	1761.91
TA1_shp	4841.67	639169	6327290	1382.84	243.33	38.58	2443.94
TA1_shp	4841.67	639169	6327290	1363.37	262.8	37.35	3461.75
TA1_shp	4841.67	639169	6327290	1343.9	282.27	35.09	4901.78
TA1_shp	4841.67	639169	6327290	1324.17	302	30.93	6955.13
TA1_shp	4841.67	639169	6327290	1304.17	322	25.5	9422.87
TA1_shp	4841.67	639169	6327290	1284.17	342	19.67	12264.18
TA1_shp	4841.67	639169	6327290	1264.17	362	13.64	15290.73
TA1_shp	4841.67	639169	6327290	1244.17	382	9.42	17606.03
TA1_shp	4841.67	639169	6327290	1222.07	404.1	6.03	19664.07
TA1_shp	4841.67	639169	6327290	1197.52	428.65	3.6	20177.76
TA1_shp	4841.67	639169	6327290	1171.57	454.6	2.15	19253.98
TA1_shp	4841.67	639169	6327290	1143.07	483.1	1.22	16894.63
TA1_shp	4841.67	639169	6327290	1112.37	513.8	0.55	13692.13
TA1_shp	4841.67	639169	6327290	1079.72	546.45	0.27	10676.09
TA1_shp	4841.67	639169	6327290	1043.92	582.25	0.1	7778.12
TA1_shp	4841.67	639169	6327290	1005.27	620.9	0.1	5712.48
TA1_shp	4841.67	639169	6327290	964.12	662.05	0.1	4256.37
TA1_shp	4841.67	639169	6327290	919.02	707.15	0.1	3137.05
TA1_shp	4841.67	639169	6327290	870.37	755.8	0.1	2463.45
TA1_shp	4841.67	639169	6327290	818.57	807.6	0.1	1966.56
TA1_shp	4841.67	639169	6327290	761.77	864.4	0.1	1510.58
TA1_shp	4841.67	639169	6327290	700.52	925.65	0.1	1136.2
TA1_shp	4841.67	639169	6327290	635.67	990.5	0.1	1040.18

TA1_shp	4841.67	639169	6327290	564.17	1062	0.1	934.31
TA1_shp	4858.33	639183	6327297	1612.1	9.73	2.62	10041.81
TA1_shp	4858.33	639183	6327297	1592.63	29.2	6.75	5780.22
TA1_shp	4858.33	639183	6327297	1573.16	48.67	15.07	6403.14
TA1_shp	4858.33	639183	6327297	1553.7	68.13	22.01	6343.84
TA1_shp	4858.33	639183	6327297	1534.23	87.6	25.74	4806.38
TA1_shp	4858.33	639183	6327297	1514.76	107.07	27.92	3068.69
TA1_shp	4858.33	639183	6327297	1495.3	126.53	29.71	1983.27
TA1_shp	4858.33	639183	6327297	1475.83	146	31.53	1380.89
TA1_shp	4858.33	639183	6327297	1456.36	165.47	33.42	1108.57
TA1_shp	4858.33	639183	6327297	1436.9	184.93	35.05	1116.72
TA1_shp	4858.33	639183	6327297	1417.43	204.4	36.22	1335.4
TA1_shp	4858.33	639183	6327297	1397.96	223.87	37.05	1700.94
TA1_shp	4858.33	639183	6327297	1378.5	243.33	36.81	2470.98
TA1_shp	4858.33	639183	6327297	1359.03	262.8	35.69	3603.9
TA1_shp	4858.33	639183	6327297	1339.56	282.27	33.48	5193.07
TA1_shp	4858.33	639183	6327297	1319.83	302	29.35	7405.15
TA1_shp	4858.33	639183	6327297	1299.83	322	23.94	10038.72
TA1_shp	4858.33	639183	6327297	1279.83	342	18.34	12945.23
TA1_shp	4858.33	639183	6327297	1259.83	362	12.66	15987.1
TA1_shp	4858.33	639183	6327297	1239.83	382	8.72	18131.82
TA1_shp	4858.33	639183	6327297	1217.73	404.1	5.58	19870.59
TA1_shp	4858.33	639183	6327297	1193.18	428.65	3.33	20030.87
TA1_shp	4858.33	639183	6327297	1167.23	454.6	1.98	18734.58
TA1_shp	4858.33	639183	6327297	1138.73	483.1	1.12	16203.83
TA1_shp	4858.33	639183	6327297	1108.03	513.8	0.5	12933.56
TA1_shp	4858.33	639183	6327297	1075.38	546.45	0.24	10039.58
TA1_shp	4858.33	639183	6327297	1039.58	582.25	0.1	7282.76
TA1_shp	4858.33	639183	6327297	1000.93	620.9	0.1	5360.89
TA1_shp	4858.33	639183	6327297	959.78	662.05	0.1	4010.65
TA1_shp	4858.33	639183	6327297	914.68	707.15	0.1	2975.85
TA1_shp	4858.33	639183	6327297	866.03	755.8	0.1	2354.14
TA1_shp	4858.33	639183	6327297	814.23	807.6	0.1	1891
TA1_shp	4858.33	639183	6327297	757.43	864.4	0.1	1463.36
TA1_shp	4858.33	639183	6327297	696.18	925.65	0.1	1111.72
TA1_shp	4858.33	639183	6327297	631.33	990.5	0.1	1019.71
TA1_shp	4858.33	639183	6327297	559.83	1062	0.1	918.28
TA1_shp	4875	639197	6327304	1607.77	9.73	3.77	4977.72
TA1_shp	4875	639197	6327304	1588.3	29.2	8.94	4040.31
TA1_shp	4875	639197	6327304	1568.83	48.67	18.68	5066.68
TA1_shp	4875	639197	6327304	1549.37	68.13	24.93	4938.01
TA1_shp	4875	639197	6327304	1529.9	87.6	26.52	3527.78
TA1_shp	4875	639197	6327304	1510.43	107.07	26.4	2154.23
TA1_shp	4875	639197	6327304	1490.97	126.53	26.79	1382.6
TA1_shp	4875	639197	6327304	1471.5	146	28.06	1002.11
TA1_shp	4875	639197	6327304	1452.03	165.47	30.01	871.68
TA1_shp	4875	639197	6327304	1432.57	184.93	32.04	963.22
TA1_shp	4875	639197	6327304	1413.1	204.4	33.54	1253.98
TA1_shp	4875	639197	6327304	1393.63	223.87	34.67	1691.87
TA1_shp	4875	639197	6327304	1374.17	243.33	34.7	2572.37
TA1_shp	4875	639197	6327304	1354.7	262.8	33.76	3847.15
TA1_shp	4875	639197	6327304	1335.23	282.27	31.6	5617.62

TA1_shp	4875	639197	6327304	1315.5	302	27.54	8012.4
TA1_shp	4875	639197	6327304	1295.5	322	22.2	10830.5
TA1_shp	4875	639197	6327304	1275.5	342	16.91	13769.49
TA1_shp	4875	639197	6327304	1255.5	362	11.64	16768.42
TA1_shp	4875	639197	6327304	1235.5	382	8	18688.4
TA1_shp	4875	639197	6327304	1213.4	404.1	5.12	20050.94
TA1_shp	4875	639197	6327304	1188.85	428.65	3.06	19840.2
TA1_shp	4875	639197	6327304	1162.9	454.6	1.82	18190.56
TA1_shp	4875	639197	6327304	1134.4	483.1	1.02	15514.23
TA1_shp	4875	639197	6327304	1103.7	513.8	0.44	12206.33
TA1_shp	4875	639197	6327304	1071.05	546.45	0.21	9431.38
TA1_shp	4875	639197	6327304	1035.25	582.25	0.1	6811.23
TA1_shp	4875	639197	6327304	996.6	620.9	0.1	5030.33
TA1_shp	4875	639197	6327304	955.45	662.05	0.1	3781.89
TA1_shp	4875	639197	6327304	910.35	707.15	0.1	2825.88
TA1_shp	4875	639197	6327304	861.7	755.8	0.1	2246.56
TA1_shp	4875	639197	6327304	809.9	807.6	0.1	1814.89
TA1_shp	4875	639197	6327304	753.1	864.4	0.1	1416.23
TA1_shp	4875	639197	6327304	691.85	925.65	0.1	1087.78
TA1_shp	4875	639197	6327304	627	990.5	0.1	999.69
TA1_shp	4875	639197	6327304	555.5	1062	0.1	902.56
TA1_shp	4891.67	639211	6327312	1603.44	9.73	7.27	1608.2
TA1_shp	4891.67	639211	6327312	1583.97	29.2	12.36	2524.33
TA1_shp	4891.67	639211	6327312	1564.5	48.67	20.03	3624.26
TA1_shp	4891.67	639211	6327312	1545.04	68.13	23.61	3468.77
TA1_shp	4891.67	639211	6327312	1525.57	87.6	23.21	2408.7
TA1_shp	4891.67	639211	6327312	1506.1	107.07	21.92	1463.84
TA1_shp	4891.67	639211	6327312	1486.64	126.53	21.92	966.33
TA1_shp	4891.67	639211	6327312	1467.17	146	23.3	751.42
TA1_shp	4891.67	639211	6327312	1447.7	165.47	25.72	721.48
TA1_shp	4891.67	639211	6327312	1428.24	184.93	28.52	878
TA1_shp	4891.67	639211	6327312	1408.77	204.4	30.62	1241.91
TA1_shp	4891.67	639211	6327312	1389.3	223.87	32.23	1763.43
TA1_shp	4891.67	639211	6327312	1369.84	243.33	32.52	2778.4
TA1_shp	4891.67	639211	6327312	1350.37	262.8	31.75	4224.63
TA1_shp	4891.67	639211	6327312	1330.9	282.27	29.62	6213.05
TA1_shp	4891.67	639211	6327312	1311.17	302	25.65	8792.18
TA1_shp	4891.67	639211	6327312	1291.17	322	20.45	11773.44
TA1_shp	4891.67	639211	6327312	1271.17	342	15.48	14699.35
TA1_shp	4891.67	639211	6327312	1251.17	362	10.63	17597.82
TA1_shp	4891.67	639211	6327312	1231.17	382	7.3	19232.31
TA1_shp	4891.67	639211	6327312	1209.07	404.1	4.68	20149.19
TA1_shp	4891.67	639211	6327312	1184.52	428.65	2.8	19540.43
TA1_shp	4891.67	639211	6327312	1158.57	454.6	1.66	17550.37
TA1_shp	4891.67	639211	6327312	1130.07	483.1	0.93	14756.85
TA1_shp	4891.67	639211	6327312	1099.37	513.8	0.39	11448.91
TA1_shp	4891.67	639211	6327312	1066.72	546.45	0.18	8820.49
TA1_shp	4891.67	639211	6327312	1030.92	582.25	0.1	6357.32
TA1_shp	4891.67	639211	6327312	992.27	620.9	0.1	4714.1
TA1_shp	4891.67	639211	6327312	951.12	662.05	0.1	3562.73
TA1_shp	4891.67	639211	6327312	906.02	707.15	0.1	2681.51
TA1_shp	4891.67	639211	6327312	857.37	755.8	0.1	2147.93

TA1_shp	4891.67	639211	6327312	805.57	807.6	0.1	1746.18
TA1_shp	4891.67	639211	6327312	748.77	864.4	0.1	1372.76
TA1_shp	4891.67	639211	6327312	687.52	925.65	0.1	1064.59
TA1_shp	4891.67	639211	6327312	622.67	990.5	0.1	980.25
TA1_shp	4891.67	639211	6327312	551.17	1062	0.1	887.27
TA1_shp	4908.33	639225.8	6327318	1600.19	9.73	9.46	1020.56
TA1_shp	4908.33	639225.8	6327318	1580.72	29.2	14.42	2343.38
TA1_shp	4908.33	639225.8	6327318	1561.25	48.67	18.82	2848.44
TA1_shp	4908.33	639225.8	6327318	1541.79	68.13	19.7	2553.8
TA1_shp	4908.33	639225.8	6327318	1522.32	87.6	18.29	1769.68
TA1_shp	4908.33	639225.8	6327318	1502.85	107.07	17	1098.24
TA1_shp	4908.33	639225.8	6327318	1483.39	126.53	17.25	758.66
TA1_shp	4908.33	639225.8	6327318	1463.92	146	18.99	636.2
TA1_shp	4908.33	639225.8	6327318	1444.45	165.47	21.85	667.35
TA1_shp	4908.33	639225.8	6327318	1424.99	184.93	25.29	879.64
TA1_shp	4908.33	639225.8	6327318	1405.52	204.4	27.94	1321.9
TA1_shp	4908.33	639225.8	6327318	1386.05	223.87	30.02	1941.27
TA1_shp	4908.33	639225.8	6327318	1366.59	243.33	30.53	3125.05
TA1_shp	4908.33	639225.8	6327318	1347.12	262.8	29.87	4770.94
TA1_shp	4908.33	639225.8	6327318	1327.65	282.27	27.72	6997.74
TA1_shp	4908.33	639225.8	6327318	1307.92	302	23.83	9764.82
TA1_shp	4908.33	639225.8	6327318	1287.92	322	18.77	12901.73
TA1_shp	4908.33	639225.8	6327318	1267.92	342	14.11	15750.08
TA1_shp	4908.33	639225.8	6327318	1247.92	362	9.66	18455.35
TA1_shp	4908.33	639225.8	6327318	1227.92	382	6.62	19743.8
TA1_shp	4908.33	639225.8	6327318	1205.82	404.1	4.25	20170.81
TA1_shp	4908.33	639225.8	6327318	1181.27	428.65	2.55	19160.25
TA1_shp	4908.33	639225.8	6327318	1155.32	454.6	1.5	16863.31
TA1_shp	4908.33	639225.8	6327318	1126.82	483.1	0.82	13990.69
TA1_shp	4908.33	639225.8	6327318	1096.12	513.8	0.32	10724.29
TA1_shp	4908.33	639225.8	6327318	1063.47	546.45	0.16	8239.32
TA1_shp	4908.33	639225.8	6327318	1027.67	582.25	0.1	5927.41
TA1_shp	4908.33	639225.8	6327318	989.02	620.9	0.1	4416.31
TA1_shp	4908.33	639225.8	6327318	947.87	662.05	0.1	3358.07
TA1_shp	4908.33	639225.8	6327318	902.77	707.15	0.1	2547.37
TA1_shp	4908.33	639225.8	6327318	854.12	755.8	0.1	2051.11
TA1_shp	4908.33	639225.8	6327318	802.32	807.6	0.1	1677.2
TA1_shp	4908.33	639225.8	6327318	745.52	864.4	0.1	1329.52
TA1_shp	4908.33	639225.8	6327318	684.27	925.65	0.1	1041.99
TA1_shp	4908.33	639225.8	6327318	619.42	990.5	0.1	961.29
TA1_shp	4908.33	639225.8	6327318	547.92	1062	0.1	872.32
TA1_shp	4925	639241.3	6327325	1598.02	9.73	15.14	3107.41
TA1_shp	4925	639241.3	6327325	1578.55	29.2	16.4	2276.19
TA1_shp	4925	639241.3	6327325	1559.08	48.67	16.02	2028.74
TA1_shp	4925	639241.3	6327325	1539.62	68.13	14.66	1499.18
TA1_shp	4925	639241.3	6327325	1520.15	87.6	13.73	981.47
TA1_shp	4925	639241.3	6327325	1500.68	107.07	14.31	719.7
TA1_shp	4925	639241.3	6327325	1481.22	126.53	16.29	644.26
TA1_shp	4925	639241.3	6327325	1461.75	146	19.35	720.16
TA1_shp	4925	639241.3	6327325	1442.28	165.47	23.12	989.78
TA1_shp	4925	639241.3	6327325	1422.82	184.93	26.06	1540.3
TA1_shp	4925	639241.3	6327325	1403.35	204.4	28.39	2305.85

TA1_shp	4925	639241.3	6327325	1383.88	223.87	28.98	3695.36
TA1_shp	4925	639241.3	6327325	1364.42	243.33	28.24	5602.04
TA1_shp	4925	639241.3	6327325	1344.95	262.8	25.98	8093.54
TA1_shp	4925	639241.3	6327325	1325.48	282.27	22.12	10993.95
TA1_shp	4925	639241.3	6327325	1305.75	302	17.25	14175.19
TA1_shp	4925	639241.3	6327325	1285.75	322	12.87	16858.94
TA1_shp	4925	639241.3	6327325	1265.75	342	8.77	19274.41
TA1_shp	4925	639241.3	6327325	1245.75	362	6	20154.48
TA1_shp	4925	639241.3	6327325	1225.75	382	4.06	20057.01
TA1_shp	4925	639241.3	6327325	1203.65	404.1	2.47	19089.2
TA1_shp	4925	639241.3	6327325	1179.1	428.65	1.57	16679.35
TA1_shp	4925	639241.3	6327325	1153.15	454.6	0.86	14065.83
TA1_shp	4925	639241.3	6327325	1124.65	483.1	0.43	11097.73
TA1_shp	4925	639241.3	6327325	1093.95	513.8	0.18	8541.57
TA1_shp	4925	639241.3	6327325	1061.3	546.45	0.1	6274.49
TA1_shp	4925	639241.3	6327325	1025.5	582.25	0.1	4801.63
TA1_shp	4925	639241.3	6327325	986.85	620.9	0.1	3549.67
TA1_shp	4925	639241.3	6327325	945.7	662.05	0.1	2798.27
TA1_shp	4925	639241.3	6327325	900.6	707.15	0.1	2231.49
TA1_shp	4925	639241.3	6327325	851.95	755.8	0.1	1797.23
TA1_shp	4925	639241.3	6327325	800.15	807.6	0.1	1500.52
TA1_shp	4925	639241.3	6327325	743.35	864.4	0.1	1175.17
TA1_shp	4925	639241.3	6327325	682.1	925.65	0.1	996.37
TA1_shp	4925	639241.3	6327325	617.25	990.5	0.1	919.14
TA1_shp	4925	639241.3	6327325	545.75	1062	0.1	834
TA1_shp	4941.67	639256.8	6327331	1595.85	9.73	7.7	1295.53
TA1_shp	4941.67	639256.8	6327331	1576.38	29.2	11.28	1405.19
TA1_shp	4941.67	639256.8	6327331	1556.91	48.67	13.21	1779.57
TA1_shp	4941.67	639256.8	6327331	1537.45	68.13	13.13	1569.6
TA1_shp	4941.67	639256.8	6327331	1517.98	87.6	12.69	1114.03
TA1_shp	4941.67	639256.8	6327331	1498.51	107.07	13.4	854.37
TA1_shp	4941.67	639256.8	6327331	1479.05	126.53	15.39	785
TA1_shp	4941.67	639256.8	6327331	1459.58	146	18.42	889.79
TA1_shp	4941.67	639256.8	6327331	1440.11	165.47	22.19	1228.82
TA1_shp	4941.67	639256.8	6327331	1420.65	184.93	25.16	1904.38
TA1_shp	4941.67	639256.8	6327331	1401.18	204.4	27.5	2830.87
TA1_shp	4941.67	639256.8	6327331	1381.71	223.87	28	4465.96
TA1_shp	4941.67	639256.8	6327331	1362.25	243.33	27.1	6622.99
TA1_shp	4941.67	639256.8	6327331	1342.78	262.8	24.62	9370.47
TA1_shp	4941.67	639256.8	6327331	1323.31	282.27	20.71	12374.76
TA1_shp	4941.67	639256.8	6327331	1303.58	302	15.91	15571.2
TA1_shp	4941.67	639256.8	6327331	1283.58	322	11.76	17990.01
TA1_shp	4941.67	639256.8	6327331	1263.58	342	7.97	20001.5
TA1_shp	4941.67	639256.8	6327331	1243.58	362	5.43	20428.05
TA1_shp	4941.67	639256.8	6327331	1223.58	382	3.67	19845.54
TA1_shp	4941.67	639256.8	6327331	1201.48	404.1	2.23	18494.84
TA1_shp	4941.67	639256.8	6327331	1176.93	428.65	1.41	15897.23
TA1_shp	4941.67	639256.8	6327331	1150.98	454.6	0.76	13211.72
TA1_shp	4941.67	639256.8	6327331	1122.48	483.1	0.37	10351.24
TA1_shp	4941.67	639256.8	6327331	1091.78	513.8	0.14	7934.65
TA1_shp	4941.67	639256.8	6327331	1059.13	546.45	0.1	5832.64
TA1_shp	4941.67	639256.8	6327331	1023.33	582.25	0.1	4481.21

TA1_shp	4941.67	639256.8	6327331	984.68	620.9	0.1	3336.49
TA1_shp	4941.67	639256.8	6327331	943.53	662.05	0.1	2647.48
TA1_shp	4941.67	639256.8	6327331	898.43	707.15	0.1	2124.93
TA1_shp	4941.67	639256.8	6327331	849.78	755.8	0.1	1722.11
TA1_shp	4941.67	639256.8	6327331	797.98	807.6	0.1	1446.2
TA1_shp	4941.67	639256.8	6327331	741.18	864.4	0.1	1143.66
TA1_shp	4941.67	639256.8	6327331	679.93	925.65	0.1	976.21
TA1_shp	4941.67	639256.8	6327331	615.08	990.5	0.1	902.33
TA1_shp	4941.67	639256.8	6327331	543.58	1062	0.1	820.89
TA1_shp	4958.33	639272.3	6327337	1593.69	9.73	5.78	1013.98
TA1_shp	4958.33	639272.3	6327337	1574.22	29.2	9.8	1472.33
TA1_shp	4958.33	639272.3	6327337	1554.75	48.67	13.51	2141.32
TA1_shp	4958.33	639272.3	6327337	1535.29	68.13	14.34	2048.24
TA1_shp	4958.33	639272.3	6327337	1515.82	87.6	13.9	1523.52
TA1_shp	4958.33	639272.3	6327337	1496.35	107.07	14.42	1196.18
TA1_shp	4958.33	639272.3	6327337	1476.89	126.53	16.2	1099.46
TA1_shp	4958.33	639272.3	6327337	1457.42	146	19.03	1225.35
TA1_shp	4958.33	639272.3	6327337	1437.95	165.47	22.58	1653.58
TA1_shp	4958.33	639272.3	6327337	1418.49	184.93	25.32	2489.33
TA1_shp	4958.33	639272.3	6327337	1399.02	204.4	27.43	3615.98
TA1_shp	4958.33	639272.3	6327337	1379.55	223.87	27.65	5525.77
TA1_shp	4958.33	639272.3	6327337	1360.09	243.33	26.43	7937.49
TA1_shp	4958.33	639272.3	6327337	1340.62	262.8	23.58	10917.41
TA1_shp	4958.33	639272.3	6327337	1321.15	282.27	19.54	13938.89
TA1_shp	4958.33	639272.3	6327337	1301.42	302	14.74	17025.31
TA1_shp	4958.33	639272.3	6327337	1281.42	322	10.77	19065.6
TA1_shp	4958.33	639272.3	6327337	1261.42	342	7.25	20566.16
TA1_shp	4958.33	639272.3	6327337	1241.42	362	4.9	20503.58
TA1_shp	4958.33	639272.3	6327337	1221.42	382	3.31	19445.81
TA1_shp	4958.33	639272.3	6327337	1199.32	404.1	2	17747.08
TA1_shp	4958.33	639272.3	6327337	1174.77	428.65	1.25	15037.72
TA1_shp	4958.33	639272.3	6327337	1148.82	454.6	0.66	12333.9
TA1_shp	4958.33	639272.3	6327337	1120.32	483.1	0.3	9600.68
TA1_shp	4958.33	639272.3	6327337	1089.62	513.8	0.11	7337.17
TA1_shp	4958.33	639272.3	6327337	1056.97	546.45	0.1	5409.24
TA1_shp	4958.33	639272.3	6327337	1021.17	582.25	0.1	4177.28
TA1_shp	4958.33	639272.3	6327337	982.52	620.9	0.1	3135.43
TA1_shp	4958.33	639272.3	6327337	941.37	662.05	0.1	2504.97
TA1_shp	4958.33	639272.3	6327337	896.27	707.15	0.1	2025.81
TA1_shp	4958.33	639272.3	6327337	847.62	755.8	0.1	1655.08
TA1_shp	4958.33	639272.3	6327337	795.82	807.6	0.1	1397.12
TA1_shp	4958.33	639272.3	6327337	739.02	864.4	0.1	1114.26
TA1_shp	4958.33	639272.3	6327337	677.77	925.65	0.1	956.76
TA1_shp	4958.33	639272.3	6327337	612.92	990.5	0.1	886.1
TA1_shp	4958.33	639272.3	6327337	541.42	1062	0.1	808.19
TA1_shp	4975	639287.8	6327344	1591.52	9.73	10.08	3070.42
TA1_shp	4975	639287.8	6327344	1572.05	29.2	14.6	2810.1
TA1_shp	4975	639287.8	6327344	1552.58	48.67	18.42	3317.08
TA1_shp	4975	639287.8	6327344	1533.12	68.13	18.46	3036.37
TA1_shp	4975	639287.8	6327344	1513.65	87.6	17.07	2278.9
TA1_shp	4975	639287.8	6327344	1494.18	107.07	16.99	1804.57
TA1_shp	4975	639287.8	6327344	1474.72	126.53	18.39	1648.02

TA1_shp	4975	639287.8	6327344	1455.25	146	20.92	1792.57
TA1_shp	4975	639287.8	6327344	1435.78	165.47	24.08	2331.66
TA1_shp	4975	639287.8	6327344	1416.32	184.93	26.39	3356.73
TA1_shp	4975	639287.8	6327344	1396.85	204.4	28.06	4711.65
TA1_shp	4975	639287.8	6327344	1377.38	223.87	27.82	6901.65
TA1_shp	4975	639287.8	6327344	1357.92	243.33	26.14	9533.54
TA1_shp	4975	639287.8	6327344	1338.45	262.8	22.81	12666.21
TA1_shp	4975	639287.8	6327344	1318.98	282.27	18.56	15591.23
TA1_shp	4975	639287.8	6327344	1299.25	302	13.7	18432.39
TA1_shp	4975	639287.8	6327344	1279.25	322	9.87	19991.11
TA1_shp	4975	639287.8	6327344	1259.25	342	6.59	20894.59
TA1_shp	4975	639287.8	6327344	1239.25	362	4.42	20344.14
TA1_shp	4975	639287.8	6327344	1219.25	382	2.97	18868.03
TA1_shp	4975	639287.8	6327344	1197.15	404.1	1.79	16878.9
TA1_shp	4975	639287.8	6327344	1172.6	428.65	1.11	14113.64
TA1_shp	4975	639287.8	6327344	1146.65	454.6	0.57	11440.6
TA1_shp	4975	639287.8	6327344	1118.15	483.1	0.24	8873.86
TA1_shp	4975	639287.8	6327344	1087.45	513.8	0.1	6776.85
TA1_shp	4975	639287.8	6327344	1054.8	546.45	0.1	5016.94
TA1_shp	4975	639287.8	6327344	1019	582.25	0.1	3896.05
TA1_shp	4975	639287.8	6327344	980.35	620.9	0.1	2948.61
TA1_shp	4975	639287.8	6327344	939.2	662.05	0.1	2371.96
TA1_shp	4975	639287.8	6327344	894.1	707.15	0.1	1931.17
TA1_shp	4975	639287.8	6327344	845.45	755.8	0.1	1587.93
TA1_shp	4975	639287.8	6327344	793.65	807.6	0.1	1348.23
TA1_shp	4975	639287.8	6327344	736.85	864.4	0.1	1085.39
TA1_shp	4975	639287.8	6327344	675.6	925.65	0.1	937.91
TA1_shp	4975	639287.8	6327344	610.75	990.5	0.1	870.34
TA1_shp	4975	639287.8	6327344	539.25	1062	0.1	795.83
TA1_shp	4991.67	639303.3	6327350	1589.35	9.73	20	7501.2
TA1_shp	4991.67	639303.3	6327350	1569.88	29.2	24.5	5250.75
TA1_shp	4991.67	639303.3	6327350	1550.41	48.67	25.69	5102.29
TA1_shp	4991.67	639303.3	6327350	1530.95	68.13	23.28	4376.51
TA1_shp	4991.67	639303.3	6327350	1511.48	87.6	20.7	3328.52
TA1_shp	4991.67	639303.3	6327350	1492.01	107.07	20.16	2692.53
TA1_shp	4991.67	639303.3	6327350	1472.55	126.53	21.32	2477.6
TA1_shp	4991.67	639303.3	6327350	1453.08	146	23.61	2652.41
TA1_shp	4991.67	639303.3	6327350	1433.61	165.47	26.29	3322.9
TA1_shp	4991.67	639303.3	6327350	1414.15	184.93	28.08	4558.38
TA1_shp	4991.67	639303.3	6327350	1394.68	204.4	29.19	6156.77
TA1_shp	4991.67	639303.3	6327350	1375.21	223.87	28.39	8607.03
TA1_shp	4991.67	639303.3	6327350	1355.75	243.33	26.13	11391.49
TA1_shp	4991.67	639303.3	6327350	1336.28	262.8	22.21	14555.55
TA1_shp	4991.67	639303.3	6327350	1316.81	282.27	17.7	17246.24
TA1_shp	4991.67	639303.3	6327350	1297.08	302	12.77	19692.6
TA1_shp	4991.67	639303.3	6327350	1277.08	322	9.06	20684.97
TA1_shp	4991.67	639303.3	6327350	1257.08	342	5.98	20939.71
TA1_shp	4991.67	639303.3	6327350	1237.08	362	3.99	19922.47
TA1_shp	4991.67	639303.3	6327350	1217.08	382	2.67	18095.41
TA1_shp	4991.67	639303.3	6327350	1194.98	404.1	1.59	15888.69
TA1_shp	4991.67	639303.3	6327350	1170.43	428.65	0.97	13145.86
TA1_shp	4991.67	639303.3	6327350	1144.48	454.6	0.48	10555.25

TA1_shp	4991.67	639303.3	6327350	1115.98	483.1	0.19	8165.71
TA1_shp	4991.67	639303.3	6327350	1085.28	513.8	0.1	6238.89
TA1_shp	4991.67	639303.3	6327350	1052.63	546.45	0.1	4645.41
TA1_shp	4991.67	639303.3	6327350	1016.83	582.25	0.1	3630.85
TA1_shp	4991.67	639303.3	6327350	978.18	620.9	0.1	2772.65
TA1_shp	4991.67	639303.3	6327350	937.03	662.05	0.1	2246.61
TA1_shp	4991.67	639303.3	6327350	891.93	707.15	0.1	1843.37
TA1_shp	4991.67	639303.3	6327350	843.28	755.8	0.1	1527.94
TA1_shp	4991.67	639303.3	6327350	791.48	807.6	0.1	1303.97
TA1_shp	4991.67	639303.3	6327350	734.68	864.4	0.1	1058.38
TA1_shp	4991.67	639303.3	6327350	673.43	925.65	0.1	919.72
TA1_shp	4991.67	639303.3	6327350	608.58	990.5	0.1	855.1
TA1_shp	4991.67	639303.3	6327350	537.08	1062	0.1	783.84
TA1_shp	5008.33	639320.3	6327357	1587.69	9.73	28.74	2520.19
TA1_shp	5008.33	639320.3	6327357	1568.22	29.2	30.38	5334.27
TA1_shp	5008.33	639320.3	6327357	1548.75	48.67	28.13	6179.27
TA1_shp	5008.33	639320.3	6327357	1529.29	68.13	24.84	5478.35
TA1_shp	5008.33	639320.3	6327357	1509.82	87.6	22.85	4396.49
TA1_shp	5008.33	639320.3	6327357	1490.35	107.07	22.88	3746.25
TA1_shp	5008.33	639320.3	6327357	1470.89	126.53	24.3	3554.29
TA1_shp	5008.33	639320.3	6327357	1451.42	146	26.5	3802.64
TA1_shp	5008.33	639320.3	6327357	1431.95	165.47	28.73	4639.72
TA1_shp	5008.33	639320.3	6327357	1412.49	184.93	29.99	6094.83
TA1_shp	5008.33	639320.3	6327357	1393.02	204.4	30.55	7925.94
TA1_shp	5008.33	639320.3	6327357	1373.55	223.87	29.11	10566.89
TA1_shp	5008.33	639320.3	6327357	1354.09	243.33	26.21	13399.44
TA1_shp	5008.33	639320.3	6327357	1334.62	262.8	21.67	16450.97
TA1_shp	5008.33	639320.3	6327357	1315.15	282.27	16.87	18760.69
TA1_shp	5008.33	639320.3	6327357	1295.42	302	11.87	20662.08
TA1_shp	5008.33	639320.3	6327357	1275.42	322	8.28	21047.56
TA1_shp	5008.33	639320.3	6327357	1255.42	342	5.42	20668.43
TA1_shp	5008.33	639320.3	6327357	1235.42	362	3.58	19248.92
TA1_shp	5008.33	639320.3	6327357	1215.42	382	2.38	17167.06
TA1_shp	5008.33	639320.3	6327357	1193.32	404.1	1.4	14822.92
TA1_shp	5008.33	639320.3	6327357	1168.77	428.65	0.85	12151.1
TA1_shp	5008.33	639320.3	6327357	1142.82	454.6	0.41	9680.87
TA1_shp	5008.33	639320.3	6327357	1114.32	483.1	0.16	7490.4
TA1_shp	5008.33	639320.3	6327357	1083.62	513.8	0.1	5738.89
TA1_shp	5008.33	639320.3	6327357	1050.97	546.45	0.1	4304.33
TA1_shp	5008.33	639320.3	6327357	1015.17	582.25	0.1	3387.65
TA1_shp	5008.33	639320.3	6327357	976.52	620.9	0.1	2610.31
TA1_shp	5008.33	639320.3	6327357	935.37	662.05	0.1	2129.68
TA1_shp	5008.33	639320.3	6327357	890.27	707.15	0.1	1759.38
TA1_shp	5008.33	639320.3	6327357	841.62	755.8	0.1	1468.05
TA1_shp	5008.33	639320.3	6327357	789.82	807.6	0.1	1260.03
TA1_shp	5008.33	639320.3	6327357	733.02	864.4	0.1	1031.92
TA1_shp	5008.33	639320.3	6327357	671.77	925.65	0.1	902.1
TA1_shp	5008.33	639320.3	6327357	606.92	990.5	0.1	840.31
TA1_shp	5008.33	639320.3	6327357	535.42	1062	0.1	772.19
TA1_shp	5025	639339	6327363	1586.52	9.73	29.53	2897.18
TA1_shp	5025	639339	6327363	1567.05	29.2	26.36	5643.13
TA1_shp	5025	639339	6327363	1547.58	48.67	23.55	6413.52

TA1_shp	5025	639339	6327363	1528.12	68.13	22.45	5894.71
TA1_shp	5025	639339	6327363	1508.65	87.6	22.98	5155.94
TA1_shp	5025	639339	6327363	1489.18	107.07	24.68	4737.33
TA1_shp	5025	639339	6327363	1469.72	126.53	26.92	4726.42
TA1_shp	5025	639339	6327363	1450.25	146	29.27	5149.32
TA1_shp	5025	639339	6327363	1430.78	165.47	31.14	6195.38
TA1_shp	5025	639339	6327363	1411.32	184.93	31.9	7868.94
TA1_shp	5025	639339	6327363	1391.85	204.4	31.88	9905.02
TA1_shp	5025	639339	6327363	1372.38	223.87	29.77	12651.35
TA1_shp	5025	639339	6327363	1352.92	243.33	26.21	15405.06
TA1_shp	5025	639339	6327363	1333.45	262.8	21.02	18170.07
TA1_shp	5025	639339	6327363	1313.98	282.27	15.98	19981.63
TA1_shp	5025	639339	6327363	1294.25	302	10.97	21252.92
TA1_shp	5025	639339	6327363	1274.25	322	7.52	21041.22
TA1_shp	5025	639339	6327363	1254.25	342	4.88	20085.5
TA1_shp	5025	639339	6327363	1234.25	362	3.19	18342.12
TA1_shp	5025	639339	6327363	1214.25	382	2.11	16097.27
TA1_shp	5025	639339	6327363	1192.15	404.1	1.23	13696.59
TA1_shp	5025	639339	6327363	1167.6	428.65	0.73	11153.7
TA1_shp	5025	639339	6327363	1141.65	454.6	0.34	8840.58
TA1_shp	5025	639339	6327363	1113.15	483.1	0.14	6853.44
TA1_shp	5025	639339	6327363	1082.45	513.8	0.1	5272.49
TA1_shp	5025	639339	6327363	1049.8	546.45	0.1	3985.19
TA1_shp	5025	639339	6327363	1014	582.25	0.1	3159.51
TA1_shp	5025	639339	6327363	975.35	620.9	0.1	2457.71
TA1_shp	5025	639339	6327363	934.2	662.05	0.1	2020.51
TA1_shp	5025	639339	6327363	889.1	707.15	0.1	1682.24
TA1_shp	5025	639339	6327363	840.45	755.8	0.1	1414.53
TA1_shp	5025	639339	6327363	788.65	807.6	0.1	1220.25
TA1_shp	5025	639339	6327363	731.85	864.4	0.1	1007.2
TA1_shp	5025	639339	6327363	670.6	925.65	0.1	885.15
TA1_shp	5025	639339	6327363	605.75	990.5	0.1	826.07
TA1_shp	5025	639339	6327363	534.25	1062	0.1	760.92
TA1_shp	5041.67	639357.7	6327370	1585.35	9.73	17.6	3518.23
TA1_shp	5041.67	639357.7	6327370	1565.88	29.2	15.22	5190.44
TA1_shp	5041.67	639357.7	6327370	1546.41	48.67	16.17	5521.63
TA1_shp	5041.67	639357.7	6327370	1526.95	68.13	18.77	5437.04
TA1_shp	5041.67	639357.7	6327370	1507.48	87.6	22.48	5325.65
TA1_shp	5041.67	639357.7	6327370	1488.01	107.07	26.05	5393.51
TA1_shp	5041.67	639357.7	6327370	1468.55	126.53	29.17	5759.57
TA1_shp	5041.67	639357.7	6327370	1449.08	146	31.71	6491.37
TA1_shp	5041.67	639357.7	6327370	1429.61	165.47	33.31	7815.55
TA1_shp	5041.67	639357.7	6327370	1410.15	184.93	33.6	9712.78
TA1_shp	5041.67	639357.7	6327370	1390.68	204.4	33.01	11918.16
TA1_shp	5041.67	639357.7	6327370	1371.21	223.87	30.2	14638.04
TA1_shp	5041.67	639357.7	6327370	1351.75	243.33	25.98	17186.35
TA1_shp	5041.67	639357.7	6327370	1332.28	262.8	20.17	19544.1
TA1_shp	5041.67	639357.7	6327370	1312.81	282.27	14.97	20788.6
TA1_shp	5041.67	639357.7	6327370	1293.08	302	10.05	21390.65
TA1_shp	5041.67	639357.7	6327370	1273.08	322	6.78	20642.85
TA1_shp	5041.67	639357.7	6327370	1253.08	342	4.36	19221.6
TA1_shp	5041.67	639357.7	6327370	1233.08	362	2.83	17255.93

TA1_shp	5041.67	639357.7	6327370	1213.08	382	1.86	14943.64
TA1_shp	5041.67	639357.7	6327370	1190.98	404.1	1.07	12561.72
TA1_shp	5041.67	639357.7	6327370	1166.43	428.65	0.62	10184.44
TA1_shp	5041.67	639357.7	6327370	1140.48	454.6	0.28	8049.12
TA1_shp	5041.67	639357.7	6327370	1111.98	483.1	0.11	6261.28
TA1_shp	5041.67	639357.7	6327370	1081.28	513.8	0.1	4843.67
TA1_shp	5041.67	639357.7	6327370	1048.63	546.45	0.1	3693.91
TA1_shp	5041.67	639357.7	6327370	1012.83	582.25	0.1	2951.64
TA1_shp	5041.67	639357.7	6327370	974.18	620.9	0.1	2318.27
TA1_shp	5041.67	639357.7	6327370	933.03	662.05	0.1	1919.17
TA1_shp	5041.67	639357.7	6327370	887.93	707.15	0.1	1608.83
TA1_shp	5041.67	639357.7	6327370	839.28	755.8	0.1	1361.78
TA1_shp	5041.67	639357.7	6327370	787.48	807.6	0.1	1181.25
TA1_shp	5041.67	639357.7	6327370	730.68	864.4	0.1	983.29
TA1_shp	5041.67	639357.7	6327370	669.43	925.65	0.1	868.93
TA1_shp	5041.67	639357.7	6327370	604.58	990.5	0.1	812.41
TA1_shp	5041.67	639357.7	6327370	533.08	1062	0.1	750.09
TA1_shp	5058.33	639376.3	6327377	1584.19	9.73	5.13	3603.15
TA1_shp	5058.33	639376.3	6327377	1564.72	29.2	7.8	3536.52
TA1_shp	5058.33	639376.3	6327377	1545.25	48.67	11.82	3803.06
TA1_shp	5058.33	639376.3	6327377	1525.79	68.13	16.96	4277.32
TA1_shp	5058.33	639376.3	6327377	1506.32	87.6	23.06	4889.29
TA1_shp	5058.33	639376.3	6327377	1486.85	107.07	27.89	5565.39
TA1_shp	5058.33	639376.3	6327377	1467.39	126.53	31.51	6441.46
TA1_shp	5058.33	639376.3	6327377	1447.92	146	34.05	7606.69
TA1_shp	5058.33	639376.3	6327377	1428.45	165.47	35.3	9281.38
TA1_shp	5058.33	639376.3	6327377	1408.99	184.93	35.08	11407.35
TA1_shp	5058.33	639376.3	6327377	1389.52	204.4	33.88	13751.74
TA1_shp	5058.33	639376.3	6327377	1370.05	223.87	30.3	16358.42
TA1_shp	5058.33	639376.3	6327377	1350.59	243.33	25.44	18603.08
TA1_shp	5058.33	639376.3	6327377	1331.12	262.8	19.11	20442.28
TA1_shp	5058.33	639376.3	6327377	1311.65	282.27	13.84	21103.07
TA1_shp	5058.33	639376.3	6327377	1291.92	302	9.11	21075.05
TA1_shp	5058.33	639376.3	6327377	1271.92	322	6.06	19886.16
TA1_shp	5058.33	639376.3	6327377	1251.92	342	3.87	18121.81
TA1_shp	5058.33	639376.3	6327377	1231.92	362	2.49	16031.41
TA1_shp	5058.33	639376.3	6327377	1211.92	382	1.63	13733.42
TA1_shp	5058.33	639376.3	6327377	1189.82	404.1	0.92	11433.5
TA1_shp	5058.33	639376.3	6327377	1165.27	428.65	0.51	9250.04
TA1_shp	5058.33	639376.3	6327377	1139.32	454.6	0.22	7308.71
TA1_shp	5058.33	639376.3	6327377	1110.82	483.1	0.1	5717.87
TA1_shp	5058.33	639376.3	6327377	1080.12	513.8	0.1	4454.21
TA1_shp	5058.33	639376.3	6327377	1047.47	546.45	0.1	3427.16
TA1_shp	5058.33	639376.3	6327377	1011.67	582.25	0.1	2759.34
TA1_shp	5058.33	639376.3	6327377	973.02	620.9	0.1	2187.53
TA1_shp	5058.33	639376.3	6327377	931.87	662.05	0.1	1825.02
TA1_shp	5058.33	639376.3	6327377	886.77	707.15	0.1	1541.66
TA1_shp	5058.33	639376.3	6327377	838.12	755.8	0.1	1314.57
TA1_shp	5058.33	639376.3	6327377	786.32	807.6	0.1	1145.91
TA1_shp	5058.33	639376.3	6327377	729.52	864.4	0.1	960.97
TA1_shp	5058.33	639376.3	6327377	668.27	925.65	0.1	853.38
TA1_shp	5058.33	639376.3	6327377	603.42	990.5	0.1	799.29

TA1_shp	5058.33	639376.3	6327377	531.92	1062	0.1	739.65
TA1_shp	5075	639395	6327383	1583.02	9.73	5.34	1201.4
TA1_shp	5075	639395	6327383	1563.55	29.2	7.68	1526.95
TA1_shp	5075	639395	6327383	1544.08	48.67	12.23	2131.17
TA1_shp	5075	639395	6327383	1524.62	68.13	18.58	2975.64
TA1_shp	5075	639395	6327383	1505.15	87.6	25.74	4100.75
TA1_shp	5075	639395	6327383	1485.68	107.07	30.75	5313.07
TA1_shp	5075	639395	6327383	1466.22	126.53	34.2	6711.62
TA1_shp	5075	639395	6327383	1446.75	146	36.43	8362.96
TA1_shp	5075	639395	6327383	1427.28	165.47	37.15	10430.66
TA1_shp	5075	639395	6327383	1407.82	184.93	36.3	12787.53
TA1_shp	5075	639395	6327383	1388.35	204.4	34.41	15244.92
TA1_shp	5075	639395	6327383	1368.88	223.87	29.98	17638.27
TA1_shp	5075	639395	6327383	1349.42	243.33	24.49	19521.2
TA1_shp	5075	639395	6327383	1329.95	262.8	17.8	20831.06
TA1_shp	5075	639395	6327383	1310.48	282.27	12.57	20943.86
TA1_shp	5075	639395	6327383	1290.75	302	8.15	20349.48
TA1_shp	5075	639395	6327383	1270.75	322	5.35	18833.02
TA1_shp	5075	639395	6327383	1250.75	342	3.4	16863.33
TA1_shp	5075	639395	6327383	1230.75	362	2.17	14743.3
TA1_shp	5075	639395	6327383	1210.75	382	1.4	12527.57
TA1_shp	5075	639395	6327383	1188.65	404.1	0.78	10359.73
TA1_shp	5075	639395	6327383	1164.1	428.65	0.42	8386.93
TA1_shp	5075	639395	6327383	1138.15	454.6	0.16	6641
TA1_shp	5075	639395	6327383	1109.65	483.1	0.1	5224.52
TA1_shp	5075	639395	6327383	1078.95	513.8	0.1	4099.07
TA1_shp	5075	639395	6327383	1046.3	546.45	0.1	3184.07
TA1_shp	5075	639395	6327383	1010.5	582.25	0.1	2584.81
TA1_shp	5075	639395	6327383	971.85	620.9	0.1	2069.45
TA1_shp	5075	639395	6327383	930.7	662.05	0.1	1738.25
TA1_shp	5075	639395	6327383	885.6	707.15	0.1	1478.11
TA1_shp	5075	639395	6327383	836.95	755.8	0.1	1268.45
TA1_shp	5075	639395	6327383	785.15	807.6	0.1	1111.54
TA1_shp	5075	639395	6327383	728.35	864.4	0.1	939.49
TA1_shp	5075	639395	6327383	667.1	925.65	0.1	838.54
TA1_shp	5075	639395	6327383	602.25	990.5	0.1	786.75
TA1_shp	5075	639395	6327383	530.75	1062	0.1	729.65
TA1_shp	5091.67	639413.7	6327390	1581.85	9.73	8.43	456.14
TA1_shp	5091.67	639413.7	6327390	1562.38	29.2	11.13	675.21
TA1_shp	5091.67	639413.7	6327390	1542.91	48.67	16.83	1181.59
TA1_shp	5091.67	639413.7	6327390	1523.45	68.13	23.97	2016.66
TA1_shp	5091.67	639413.7	6327390	1503.98	87.6	30.4	3336.8
TA1_shp	5091.67	639413.7	6327390	1484.51	107.07	34.62	4890.7
TA1_shp	5091.67	639413.7	6327390	1465.05	126.53	37.37	6708.5
TA1_shp	5091.67	639413.7	6327390	1445.58	146	38.94	8803.76
TA1_shp	5091.67	639413.7	6327390	1426.11	165.47	38.87	11254.14
TA1_shp	5091.67	639413.7	6327390	1406.65	184.93	37.22	13791.02
TA1_shp	5091.67	639413.7	6327390	1387.18	204.4	34.52	16300.67
TA1_shp	5091.67	639413.7	6327390	1367.71	223.87	29.21	18452.25
TA1_shp	5091.67	639413.7	6327390	1348.25	243.33	23.16	19950.7
TA1_shp	5091.67	639413.7	6327390	1328.78	262.8	16.28	20714.84
TA1_shp	5091.67	639413.7	6327390	1309.31	282.27	11.22	20358.79

TA1_shp	5091.67	639413.7	6327390	1289.58	302	7.19	19334.81
TA1_shp	5091.67	639413.7	6327390	1269.58	322	4.68	17600.95
TA1_shp	5091.67	639413.7	6327390	1249.58	342	2.96	15522.01
TA1_shp	5091.67	639413.7	6327390	1229.58	362	1.88	13441.96
TA1_shp	5091.67	639413.7	6327390	1209.58	382	1.2	11361.21
TA1_shp	5091.67	639413.7	6327390	1187.48	404.1	0.65	9356.89
TA1_shp	5091.67	639413.7	6327390	1162.93	428.65	0.33	7588.02
TA1_shp	5091.67	639413.7	6327390	1136.98	454.6	0.11	6030.34
TA1_shp	5091.67	639413.7	6327390	1108.48	483.1	0.1	4780.29
TA1_shp	5091.67	639413.7	6327390	1077.78	513.8	0.1	3781.78
TA1_shp	5091.67	639413.7	6327390	1045.13	546.45	0.1	2964.92
TA1_shp	5091.67	639413.7	6327390	1009.33	582.25	0.1	2425.41
TA1_shp	5091.67	639413.7	6327390	970.68	620.9	0.1	1959.59
TA1_shp	5091.67	639413.7	6327390	929.53	662.05	0.1	1658.19
TA1_shp	5091.67	639413.7	6327390	884.43	707.15	0.1	1420.32
TA1_shp	5091.67	639413.7	6327390	835.78	755.8	0.1	1227.38
TA1_shp	5091.67	639413.7	6327390	783.98	807.6	0.1	1080.53
TA1_shp	5091.67	639413.7	6327390	727.18	864.4	0.1	919.5
TA1_shp	5091.67	639413.7	6327390	665.93	925.65	0.1	824.35
TA1_shp	5091.67	639413.7	6327390	601.08	990.5	0.1	774.74
TA1_shp	5091.67	639413.7	6327390	529.58	1062	0.1	720.05

Expr1	Station	UTM_X	UTM Y	UTM Z	Depth	Chg	Rho
TB1_shp	58.33	637614	6326087	1738.44	9.73	79.83	912.28
TB1_shp	58.33	637614	6326087	1718.97	29.2	70.98	1067.57
TB1_shp	58.33	637614	6326087	1699.5	48.67	62.44	1112.05
TB1_shp	58.33	637614	6326087	1680.04	68.13	55.68	1154.53
TB1_shp	58.33	637614	6326087	1660.57	87.6	51.09	1225.79
TB1_shp	58.33	637614	6326087	1641.1	107.07	47.97	1328.92
TB1_shp	58.33	637614	6326087	1621.64	126.53	45.63	1456.95
TB1_shp	58.33	637614	6326087	1602.17	146	43.59	1606.89
TB1_shp	58.33	637614	6326087	1582.7	165.47	41.7	1773.42
TB1_shp	58.33	637614	6326087	1563.24	184.93	39.8	1951.31
TB1_shp	58.33	637614	6326087	1543.77	204.4	37.66	2153.94
TB1_shp	58.33	637614	6326087	1524.3	223.87	35.52	2345.87
TB1_shp	58.33	637614	6326087	1504.84	243.33	33.3	2530.88
TB1_shp	58.33	637614	6326087	1485.37	262.8	30.98	2711.54
TB1_shp	58.33	637614	6326087	1465.9	282.27	28.58	2878.72
TB1_shp	58.33	637614	6326087	1446.17	302	26.18	3025.33
TB1_shp	58.33	637614	6326087	1426.17	322	23.76	3159.62
TB1_shp	58.33	637614	6326087	1406.17	342	21.39	3271.06
TB1_shp	58.33	637614	6326087	1386.17	362	19.18	3366.68
TB1_shp	58.33	637614	6326087	1366.17	382	17.12	3447.16
TB1_shp	58.33	637614	6326087	1344.07	404.1	15.28	3510.99
TB1_shp	58.33	637614	6326087	1319.52	428.65	13.43	3569.13
TB1_shp	58.33	637614	6326087	1293.57	454.6	11.92	3598.32
TB1_shp	58.33	637614	6326087	1265.07	483.1	10.5	3615.1
TB1_shp	58.33	637614	6326087	1234.37	513.8	9.2	3618.75
TB1_shp	58.33	637614	6326087	1201.72	546.45	8.21	3597.67
TB1_shp	58.33	637614	6326087	1165.92	582.25	7.29	3563.39
TB1_shp	58.33	637614	6326087	1127.27	620.9	6.48	3514.9
TB1_shp	58.33	637614	6326087	1086.12	662.05	5.81	3450.52
TB1_shp	58.33	637614	6326087	1041.02	707.15	5.25	3378.32
TB1_shp	58.33	637614	6326087	992.37	755.8	4.78	3300.96
TB1_shp	58.33	637614	6326087	940.57	807.6	4.39	3221.61
TB1_shp	58.33	637614	6326087	883.77	864.4	4.07	3142.52
TB1_shp	58.33	637614	6326087	822.52	925.65	3.77	3046.52
TB1_shp	58.33	637614	6326087	757.67	990.5	3.46	2944.31
TB1_shp	58.33	637614	6326087	686.17	1062	3.3	2868.02
TB1_shp	75	637634	6326089	1734.77	9.73	82.59	837.57
TB1_shp	75	637634	6326089	1715.3	29.2	71.86	1124.09
TB1_shp	75	637634	6326089	1695.83	48.67	60.86	1271.6
TB1_shp	75	637634	6326089	1676.37	68.13	52.6	1354.84
TB1_shp	75	637634	6326089	1656.9	87.6	47.61	1440.53
TB1_shp	75	637634	6326089	1637.43	107.07	44.72	1550.43
TB1_shp	75	637634	6326089	1617.97	126.53	42.83	1684.3
TB1_shp	75	637634	6326089	1598.5	146	41.27	1841.64
TB1_shp	75	637634	6326089	1579.03	165.47	39.81	2016.9
TB1_shp	75	637634	6326089	1559.57	184.93	38.31	2204.65
TB1_shp	75	637634	6326089	1540.1	204.4	36.53	2417.83
TB1_shp	75	637634	6326089	1520.63	223.87	34.68	2618.3
TB1_shp	75	637634	6326089	1501.17	243.33	32.71	2809.79
TB1_shp	75	637634	6326089	1481.7	262.8	30.61	2995.05
TB1_shp	75	637634	6326089	1462.23	282.27	28.39	3164.07

TB1_shp	75	637634	6326089	1442.5	302	26.13	3309.92
TB1_shp	75	637634	6326089	1422.5	322	23.83	3441.77
TB1_shp	75	637634	6326089	1402.5	342	21.54	3547.92
TB1_shp	75	637634	6326089	1382.5	362	19.4	3636.83
TB1_shp	75	637634	6326089	1362.5	382	17.39	3709.27
TB1_shp	75	637634	6326089	1340.4	404.1	15.58	3763.14
TB1_shp	75	637634	6326089	1315.85	428.65	13.76	3809.64
TB1_shp	75	637634	6326089	1289.9	454.6	12.25	3824.85
TB1_shp	75	637634	6326089	1261.4	483.1	10.83	3826.49
TB1_shp	75	637634	6326089	1230.7	513.8	9.51	3814.06
TB1_shp	75	637634	6326089	1198.05	546.45	8.5	3776.66
TB1_shp	75	637634	6326089	1162.25	582.25	7.55	3725.09
TB1_shp	75	637634	6326089	1123.6	620.9	6.7	3658.85
TB1_shp	75	637634	6326089	1082.45	662.05	5.99	3577.45
TB1_shp	75	637634	6326089	1037.35	707.15	5.41	3489.16
TB1_shp	75	637634	6326089	988.7	755.8	4.91	3396.58
TB1_shp	75	637634	6326089	936.9	807.6	4.49	3303.51
TB1_shp	75	637634	6326089	880.1	864.4	4.16	3212.59
TB1_shp	75	637634	6326089	818.85	925.65	3.84	3105.73
TB1_shp	75	637634	6326089	754	990.5	3.51	2992.12
TB1_shp	75	637634	6326089	682.5	1062	3.33	2909.01
TB1_shp	91.67	637654	6326090	1731.1	9.73	74.15	868.34
TB1_shp	91.67	637654	6326090	1711.63	29.2	64.01	1180.46
TB1_shp	91.67	637654	6326090	1692.16	48.67	54.65	1364.71
TB1_shp	91.67	637654	6326090	1672.7	68.13	47.71	1482.35
TB1_shp	91.67	637654	6326090	1653.23	87.6	43.46	1591
TB1_shp	91.67	637654	6326090	1633.76	107.07	41.13	1716.74
TB1_shp	91.67	637654	6326090	1614.3	126.53	39.77	1864.13
TB1_shp	91.67	637654	6326090	1594.83	146	38.74	2035.38
TB1_shp	91.67	637654	6326090	1575.36	165.47	37.75	2225.33
TB1_shp	91.67	637654	6326090	1555.9	184.93	36.66	2427.96
TB1_shp	91.67	637654	6326090	1536.43	204.4	35.25	2656.43
TB1_shp	91.67	637654	6326090	1516.96	223.87	33.71	2869.23
TB1_shp	91.67	637654	6326090	1497.5	243.33	32.01	3070.51
TB1_shp	91.67	637654	6326090	1478.03	262.8	30.14	3263.3
TB1_shp	91.67	637654	6326090	1458.56	282.27	28.1	3436.33
TB1_shp	91.67	637654	6326090	1438.83	302	25.99	3583.53
TB1_shp	91.67	637654	6326090	1418.83	322	23.83	3715
TB1_shp	91.67	637654	6326090	1398.83	342	21.63	3817.85
TB1_shp	91.67	637654	6326090	1378.83	362	19.57	3901.79
TB1_shp	91.67	637654	6326090	1358.83	382	17.62	3967.63
TB1_shp	91.67	637654	6326090	1336.73	404.1	15.85	4012.8
TB1_shp	91.67	637654	6326090	1312.18	428.65	14.07	4048.89
TB1_shp	91.67	637654	6326090	1286.23	454.6	12.58	4050.87
TB1_shp	91.67	637654	6326090	1257.73	483.1	11.15	4038.17
TB1_shp	91.67	637654	6326090	1227.03	513.8	9.83	4010.45
TB1_shp	91.67	637654	6326090	1194.38	546.45	8.79	3957.16
TB1_shp	91.67	637654	6326090	1158.58	582.25	7.82	3888.58
TB1_shp	91.67	637654	6326090	1119.93	620.9	6.95	3804.77
TB1_shp	91.67	637654	6326090	1078.78	662.05	6.2	3706.65
TB1_shp	91.67	637654	6326090	1033.68	707.15	5.58	3602.3
TB1_shp	91.67	637654	6326090	985.03	755.8	5.05	3494.13

TB1_shp	91.67	637654	6326090	933.23	807.6	4.6	3386.68
TB1_shp	91.67	637654	6326090	876.43	864.4	4.24	3283.48
TB1_shp	91.67	637654	6326090	815.18	925.65	3.91	3165.64
TB1_shp	91.67	637654	6326090	750.33	990.5	3.56	3040.53
TB1_shp	91.67	637654	6326090	678.83	1062	3.37	2950.49
TB1_shp	108.33	637674	6326092	1727.44	9.73	48.78	1302.27
TB1_shp	108.33	637674	6326092	1707.97	29.2	48.83	1275.42
TB1_shp	108.33	637674	6326092	1688.5	48.67	45.5	1365.84
TB1_shp	108.33	637674	6326092	1669.04	68.13	41.71	1487.48
TB1_shp	108.33	637674	6326092	1649.57	87.6	39	1621.89
TB1_shp	108.33	637674	6326092	1630.1	107.07	37.48	1775.61
TB1_shp	108.33	637674	6326092	1610.64	126.53	36.71	1950.53
TB1_shp	108.33	637674	6326092	1591.17	146	36.21	2148.12
TB1_shp	108.33	637674	6326092	1571.7	165.47	35.7	2363.66
TB1_shp	108.33	637674	6326092	1552.24	184.93	34.99	2589.88
TB1_shp	108.33	637674	6326092	1532.77	204.4	33.94	2841.71
TB1_shp	108.33	637674	6326092	1513.3	223.87	32.69	3073.32
TB1_shp	108.33	637674	6326092	1493.84	243.33	31.24	3289.86
TB1_shp	108.33	637674	6326092	1474.37	262.8	29.59	3495.11
TB1_shp	108.33	637674	6326092	1454.9	282.27	27.75	3676.39
TB1_shp	108.33	637674	6326092	1435.17	302	25.8	3829.06
TB1_shp	108.33	637674	6326092	1415.17	322	23.77	3964.18
TB1_shp	108.33	637674	6326092	1395.17	342	21.68	4067.34
TB1_shp	108.33	637674	6326092	1375.17	362	19.7	4149.73
TB1_shp	108.33	637674	6326092	1355.17	382	17.83	4212.25
TB1_shp	108.33	637674	6326092	1333.07	404.1	16.11	4251.91
TB1_shp	108.33	637674	6326092	1308.52	428.65	14.37	4280.88
TB1_shp	108.33	637674	6326092	1282.57	454.6	12.9	4272.28
TB1_shp	108.33	637674	6326092	1254.07	483.1	11.48	4247.46
TB1_shp	108.33	637674	6326092	1223.37	513.8	10.16	4206.2
TB1_shp	108.33	637674	6326092	1190.72	546.45	9.1	4137.76
TB1_shp	108.33	637674	6326092	1154.92	582.25	8.11	4052.85
TB1_shp	108.33	637674	6326092	1116.27	620.9	7.2	3952.08
TB1_shp	108.33	637674	6326092	1075.12	662.05	6.42	3837.77
TB1_shp	108.33	637674	6326092	1030.02	707.15	5.76	3716.93
TB1_shp	108.33	637674	6326092	981.37	755.8	5.2	3592.94
TB1_shp	108.33	637674	6326092	929.57	807.6	4.72	3471.22
TB1_shp	108.33	637674	6326092	872.77	864.4	4.33	3355.57
TB1_shp	108.33	637674	6326092	811.52	925.65	3.98	3226.51
TB1_shp	108.33	637674	6326092	746.67	990.5	3.6	3089.63
TB1_shp	108.33	637674	6326092	675.17	1062	3.41	2992.51
TB1_shp	125	637694	6326094	1723.77	9.73	39.69	1050.76
TB1_shp	125	637694	6326094	1704.3	29.2	40.13	1111.55
TB1_shp	125	637694	6326094	1684.83	48.67	38.59	1221.91
TB1_shp	125	637694	6326094	1665.37	68.13	36.47	1361.59
TB1_shp	125	637694	6326094	1645.9	87.6	34.93	1523.02
TB1_shp	125	637694	6326094	1626.43	107.07	34.18	1710.7
TB1_shp	125	637694	6326094	1606.97	126.53	33.98	1922.56
TB1_shp	125	637694	6326094	1587.5	146	33.96	2157.59
TB1_shp	125	637694	6326094	1568.03	165.47	33.84	2408.99
TB1_shp	125	637694	6326094	1548.57	184.93	33.46	2667.81
TB1_shp	125	637694	6326094	1529.1	204.4	32.71	2950.75

TB1_shp	125	637694	6326094	1509.63	223.87	31.7	3207.83
TB1_shp	125	637694	6326094	1490.17	243.33	30.47	3445.66
TB1_shp	125	637694	6326094	1470.7	262.8	29.03	3669.13
TB1_shp	125	637694	6326094	1451.23	282.27	27.37	3864.88
TB1_shp	125	637694	6326094	1431.5	302	25.57	4028.89
TB1_shp	125	637694	6326094	1411.5	322	23.68	4173.39
TB1_shp	125	637694	6326094	1391.5	342	21.7	4282.45
TB1_shp	125	637694	6326094	1371.5	362	19.81	4368.52
TB1_shp	125	637694	6326094	1351.5	382	18.02	4432.58
TB1_shp	125	637694	6326094	1329.4	404.1	16.35	4471.21
TB1_shp	125	637694	6326094	1304.85	428.65	14.66	4497.61
TB1_shp	125	637694	6326094	1278.9	454.6	13.21	4482.56
TB1_shp	125	637694	6326094	1250.4	483.1	11.82	4449.39
TB1_shp	125	637694	6326094	1219.7	513.8	10.5	4397.92
TB1_shp	125	637694	6326094	1187.05	546.45	9.43	4315.46
TB1_shp	125	637694	6326094	1151.25	582.25	8.41	4215.48
TB1_shp	125	637694	6326094	1112.6	620.9	7.46	4099.02
TB1_shp	125	637694	6326094	1071.45	662.05	6.63	3969.56
TB1_shp	125	637694	6326094	1026.35	707.15	5.94	3833.12
TB1_shp	125	637694	6326094	977.7	755.8	5.34	3693.49
TB1_shp	125	637694	6326094	925.9	807.6	4.84	3557.06
TB1_shp	125	637694	6326094	869.1	864.4	4.43	3428.97
TB1_shp	125	637694	6326094	807.85	925.65	4.06	3288.39
TB1_shp	125	637694	6326094	743	990.5	3.66	3139.43
TB1_shp	125	637694	6326094	671.5	1062	3.45	3035.05
TB1_shp	141.67	637714	6326095	1720.1	9.73	37.4	821.13
TB1_shp	141.67	637714	6326095	1700.63	29.2	36.85	931.58
TB1_shp	141.67	637714	6326095	1681.16	48.67	34.83	1039.52
TB1_shp	141.67	637714	6326095	1661.7	68.13	32.91	1173.12
TB1_shp	141.67	637714	6326095	1642.23	87.6	31.9	1344.17
TB1_shp	141.67	637714	6326095	1622.76	107.07	31.67	1557.06
TB1_shp	141.67	637714	6326095	1603.3	126.53	31.9	1802.72
TB1_shp	141.67	637714	6326095	1583.83	146	32.21	2075.26
TB1_shp	141.67	637714	6326095	1564.36	165.47	32.36	2364.04
TB1_shp	141.67	637714	6326095	1544.9	184.93	32.19	2657.67
TB1_shp	141.67	637714	6326095	1525.43	204.4	31.65	2974.95
TB1_shp	141.67	637714	6326095	1505.96	223.87	30.83	3261.35
TB1_shp	141.67	637714	6326095	1486.5	243.33	29.77	3524.85
TB1_shp	141.67	637714	6326095	1467.03	262.8	28.49	3771.38
TB1_shp	141.67	637714	6326095	1447.56	282.27	26.99	3987.14
TB1_shp	141.67	637714	6326095	1427.83	302	25.33	4168.49
TB1_shp	141.67	637714	6326095	1407.83	322	23.58	4328.64
TB1_shp	141.67	637714	6326095	1387.83	342	21.71	4449.92
TB1_shp	141.67	637714	6326095	1367.83	362	19.92	4546.05
TB1_shp	141.67	637714	6326095	1347.83	382	18.2	4618.13
TB1_shp	141.67	637714	6326095	1325.73	404.1	16.6	4661.65
TB1_shp	141.67	637714	6326095	1301.18	428.65	14.96	4691.57
TB1_shp	141.67	637714	6326095	1275.23	454.6	13.54	4676.11
TB1_shp	141.67	637714	6326095	1246.73	483.1	12.16	4639.63
TB1_shp	141.67	637714	6326095	1216.03	513.8	10.85	4581.9
TB1_shp	141.67	637714	6326095	1183.38	546.45	9.76	4488.3
TB1_shp	141.67	637714	6326095	1147.58	582.25	8.71	4375.68

TB1_shp	141.67	637714	6326095	1108.93	620.9	7.73	4245.49
TB1_shp	141.67	637714	6326095	1067.78	662.05	6.88	4102.35
TB1_shp	141.67	637714	6326095	1022.68	707.15	6.15	3950.21
TB1_shp	141.67	637714	6326095	974.03	755.8	5.5	3794.9
TB1_shp	141.67	637714	6326095	922.23	807.6	4.97	3644.09
TB1_shp	141.67	637714	6326095	865.43	864.4	4.53	3503.48
TB1_shp	141.67	637714	6326095	804.18	925.65	4.13	3351.15
TB1_shp	141.67	637714	6326095	739.33	990.5	3.72	3189.82
TB1_shp	141.67	637714	6326095	667.83	1062	3.5	3078.04
TB1_shp	158.33	637734	6326097	1716.44	9.73	36.64	902.89
TB1_shp	158.33	637734	6326097	1696.97	29.2	35.64	871.82
TB1_shp	158.33	637734	6326097	1677.5	48.67	33.04	895.58
TB1_shp	158.33	637734	6326097	1658.04	68.13	30.97	989.46
TB1_shp	158.33	637734	6326097	1638.57	87.6	30.15	1149.94
TB1_shp	158.33	637734	6326097	1619.1	107.07	30.23	1372.84
TB1_shp	158.33	637734	6326097	1599.64	126.53	30.69	1639.93
TB1_shp	158.33	637734	6326097	1580.17	146	31.15	1939.32
TB1_shp	158.33	637734	6326097	1560.7	165.47	31.39	2256.33
TB1_shp	158.33	637734	6326097	1541.24	184.93	31.32	2577.02
TB1_shp	158.33	637734	6326097	1521.77	204.4	30.88	2922.09
TB1_shp	158.33	637734	6326097	1502.3	223.87	30.15	3234.19
TB1_shp	158.33	637734	6326097	1482.84	243.33	29.19	3522.36
TB1_shp	158.33	637734	6326097	1463.37	262.8	28.04	3793.24
TB1_shp	158.33	637734	6326097	1443.9	282.27	26.65	4032.88
TB1_shp	158.33	637734	6326097	1424.17	302	25.12	4236.84
TB1_shp	158.33	637734	6326097	1404.17	322	23.49	4418.77
TB1_shp	158.33	637734	6326097	1384.17	342	21.73	4559.3
TB1_shp	158.33	637734	6326097	1364.17	362	20.03	4672.49
TB1_shp	158.33	637734	6326097	1344.17	382	18.39	4759.52
TB1_shp	158.33	637734	6326097	1322.07	404.1	16.84	4815.05
TB1_shp	158.33	637734	6326097	1297.52	428.65	15.25	4856.09
TB1_shp	158.33	637734	6326097	1271.57	454.6	13.87	4847.16
TB1_shp	158.33	637734	6326097	1243.07	483.1	12.51	4813.61
TB1_shp	158.33	637734	6326097	1212.37	513.8	11.21	4755.01
TB1_shp	158.33	637734	6326097	1179.72	546.45	10.11	4653.38
TB1_shp	158.33	637734	6326097	1143.92	582.25	9.04	4530.95
TB1_shp	158.33	637734	6326097	1105.27	620.9	8.03	4389.39
TB1_shp	158.33	637734	6326097	1064.12	662.05	7.13	4234.02
TB1_shp	158.33	637734	6326097	1019.02	707.15	6.36	4067.66
TB1_shp	158.33	637734	6326097	970.37	755.8	5.68	3897.37
TB1_shp	158.33	637734	6326097	918.57	807.6	5.1	3731.96
TB1_shp	158.33	637734	6326097	861.77	864.4	4.63	3578.31
TB1_shp	158.33	637734	6326097	800.52	925.65	4.21	3414.24
TB1_shp	158.33	637734	6326097	735.67	990.5	3.77	3240.62
TB1_shp	158.33	637734	6326097	664.17	1062	3.54	3121.4
TB1_shp	175	637754	6326099	1712.77	9.73	36.67	851.03
TB1_shp	175	637754	6326099	1693.3	29.2	35.73	763.25
TB1_shp	175	637754	6326099	1673.83	48.67	32.38	760.05
TB1_shp	175	637754	6326099	1654.37	68.13	30.2	833.72
TB1_shp	175	637754	6326099	1634.9	87.6	29.6	985.22
TB1_shp	175	637754	6326099	1615.43	107.07	29.89	1209.26
TB1_shp	175	637754	6326099	1595.97	126.53	30.43	1483.57

TB1_shp	175	637754	6326099	1576.5	146	30.87	1792.76
TB1_shp	175	637754	6326099	1557.03	165.47	31.05	2120.67
TB1_shp	175	637754	6326099	1537.57	184.93	30.92	2452.52
TB1_shp	175	637754	6326099	1518.1	204.4	30.44	2810.65
TB1_shp	175	637754	6326099	1498.63	223.87	29.72	3138.19
TB1_shp	175	637754	6326099	1479.17	243.33	28.79	3444.45
TB1_shp	175	637754	6326099	1459.7	262.8	27.69	3736.14
TB1_shp	175	637754	6326099	1440.23	282.27	26.37	4000.09
TB1_shp	175	637754	6326099	1420.5	302	24.94	4229.66
TB1_shp	175	637754	6326099	1400.5	322	23.41	4437.87
TB1_shp	175	637754	6326099	1380.5	342	21.76	4603.91
TB1_shp	175	637754	6326099	1360.5	362	20.15	4740.89
TB1_shp	175	637754	6326099	1340.5	382	18.59	4850.05
TB1_shp	175	637754	6326099	1318.4	404.1	17.1	4924.91
TB1_shp	175	637754	6326099	1293.85	428.65	15.56	4984.83
TB1_shp	175	637754	6326099	1267.9	454.6	14.21	4989.39
TB1_shp	175	637754	6326099	1239.4	483.1	12.87	4965.61
TB1_shp	175	637754	6326099	1208.7	513.8	11.58	4912.72
TB1_shp	175	637754	6326099	1176.05	546.45	10.47	4808.12
TB1_shp	175	637754	6326099	1140.25	582.25	9.38	4680.09
TB1_shp	175	637754	6326099	1101.6	620.9	8.34	4530.3
TB1_shp	175	637754	6326099	1060.45	662.05	7.4	4364.49
TB1_shp	175	637754	6326099	1015.35	707.15	6.58	4184.37
TB1_shp	175	637754	6326099	966.7	755.8	5.86	3999.44
TB1_shp	175	637754	6326099	914.9	807.6	5.25	3819.94
TB1_shp	175	637754	6326099	858.1	864.4	4.75	3653.71
TB1_shp	175	637754	6326099	796.85	925.65	4.3	3477.88
TB1_shp	175	637754	6326099	732	990.5	3.83	3291.88
TB1_shp	175	637754	6326099	660.5	1062	3.58	3165.13
TB1_shp	191.67	637774	6326100	1709.1	9.73	35.62	602.41
TB1_shp	191.67	637774	6326100	1689.63	29.2	31.26	641.79
TB1_shp	191.67	637774	6326100	1670.16	48.67	29.82	722.17
TB1_shp	191.67	637774	6326100	1650.7	68.13	29.95	875.85
TB1_shp	191.67	637774	6326100	1631.23	87.6	30.58	1100.2
TB1_shp	191.67	637774	6326100	1611.76	107.07	31.12	1370.4
TB1_shp	191.67	637774	6326100	1592.3	126.53	31.38	1670.76
TB1_shp	191.67	637774	6326100	1572.83	146	31.34	1987.39
TB1_shp	191.67	637774	6326100	1553.36	165.47	31.01	2309.52
TB1_shp	191.67	637774	6326100	1533.9	184.93	30.37	2661.09
TB1_shp	191.67	637774	6326100	1514.43	204.4	29.55	2989.55
TB1_shp	191.67	637774	6326100	1494.96	223.87	28.58	3303.84
TB1_shp	191.67	637774	6326100	1475.5	243.33	27.47	3609.41
TB1_shp	191.67	637774	6326100	1456.03	262.8	26.19	3894.55
TB1_shp	191.67	637774	6326100	1436.56	282.27	24.83	4146.87
TB1_shp	191.67	637774	6326100	1416.83	302	23.4	4381.57
TB1_shp	191.67	637774	6326100	1396.83	322	21.85	4577.24
TB1_shp	191.67	637774	6326100	1376.83	342	20.32	4745.07
TB1_shp	191.67	637774	6326100	1356.83	362	18.83	4883.3
TB1_shp	191.67	637774	6326100	1336.83	382	17.52	4978.19
TB1_shp	191.67	637774	6326100	1314.73	404.1	16.17	5061.98
TB1_shp	191.67	637774	6326100	1290.18	428.65	14.89	5093.52
TB1_shp	191.67	637774	6326100	1264.23	454.6	13.63	5103.99

TB1_shp	191.67	637774	6326100	1235.73	483.1	12.43	5068.15
TB1_shp	191.67	637774	6326100	1205.03	513.8	11.3	4990.94
TB1_shp	191.67	637774	6326100	1172.38	546.45	10.2	4885.31
TB1_shp	191.67	637774	6326100	1136.58	582.25	9.17	4744.37
TB1_shp	191.67	637774	6326100	1097.93	620.9	8.19	4583.55
TB1_shp	191.67	637774	6326100	1056.78	662.05	7.28	4408.44
TB1_shp	191.67	637774	6326100	1011.68	707.15	6.46	4216.24
TB1_shp	191.67	637774	6326100	963.03	755.8	5.78	4025.01
TB1_shp	191.67	637774	6326100	911.23	807.6	5.21	3846.82
TB1_shp	191.67	637774	6326100	854.43	864.4	4.7	3669.86
TB1_shp	191.67	637774	6326100	793.18	925.65	4.23	3482.47
TB1_shp	191.67	637774	6326100	728.33	990.5	3.76	3290.98
TB1_shp	191.67	637774	6326100	656.83	1062	3.57	3178.71
TB1_shp	208.33	637793.3	6326102	1705.6	9.73	23.11	501.51
TB1_shp	208.33	637793.3	6326102	1686.13	29.2	26.4	553.52
TB1_shp	208.33	637793.3	6326102	1666.66	48.67	28.98	663.54
TB1_shp	208.33	637793.3	6326102	1647.2	68.13	30.91	836.26
TB1_shp	208.33	637793.3	6326102	1627.73	87.6	32.15	1062.34
TB1_shp	208.33	637793.3	6326102	1608.26	107.07	32.67	1316.71
TB1_shp	208.33	637793.3	6326102	1588.8	126.53	32.62	1589.08
TB1_shp	208.33	637793.3	6326102	1569.33	146	32.21	1873.02
TB1_shp	208.33	637793.3	6326102	1549.86	165.47	31.54	2164.55
TB1_shp	208.33	637793.3	6326102	1530.4	184.93	30.63	2490.02
TB1_shp	208.33	637793.3	6326102	1510.93	204.4	29.63	2803.75
TB1_shp	208.33	637793.3	6326102	1491.46	223.87	28.55	3113.92
TB1_shp	208.33	637793.3	6326102	1472	243.33	27.38	3424.7
TB1_shp	208.33	637793.3	6326102	1452.53	262.8	26.08	3726.15
TB1_shp	208.33	637793.3	6326102	1433.06	282.27	24.75	4001.89
TB1_shp	208.33	637793.3	6326102	1413.33	302	23.38	4264.26
TB1_shp	208.33	637793.3	6326102	1393.33	322	21.91	4492.48
TB1_shp	208.33	637793.3	6326102	1373.33	342	20.47	4693.36
TB1_shp	208.33	637793.3	6326102	1353.33	362	19.05	4865.16
TB1_shp	208.33	637793.3	6326102	1333.33	382	17.8	4989.68
TB1_shp	208.33	637793.3	6326102	1311.23	404.1	16.5	5104.28
TB1_shp	208.33	637793.3	6326102	1286.68	428.65	15.25	5162.73
TB1_shp	208.33	637793.3	6326102	1260.73	454.6	14.02	5197.71
TB1_shp	208.33	637793.3	6326102	1232.23	483.1	12.83	5179.32
TB1_shp	208.33	637793.3	6326102	1201.53	513.8	11.69	5114.27
TB1_shp	208.33	637793.3	6326102	1168.88	546.45	10.59	5016.77
TB1_shp	208.33	637793.3	6326102	1133.08	582.25	9.52	4875.68
TB1_shp	208.33	637793.3	6326102	1094.43	620.9	8.5	4710.46
TB1_shp	208.33	637793.3	6326102	1053.28	662.05	7.54	4527.68
TB1_shp	208.33	637793.3	6326102	1008.18	707.15	6.68	4323.89
TB1_shp	208.33	637793.3	6326102	959.53	755.8	5.96	4120.51
TB1_shp	208.33	637793.3	6326102	907.73	807.6	5.35	3930.73
TB1_shp	208.33	637793.3	6326102	850.93	864.4	4.82	3742.3
TB1_shp	208.33	637793.3	6326102	789.68	925.65	4.32	3543.27
TB1_shp	208.33	637793.3	6326102	724.83	990.5	3.82	3339.93
TB1_shp	208.33	637793.3	6326102	653.33	1062	3.62	3221.54
TB1_shp	225	637812	6326103	1702.27	9.73	22.16	351.88
TB1_shp	225	637812	6326103	1682.8	29.2	24.71	495.19
TB1_shp	225	637812	6326103	1663.33	48.67	29.33	678.3

TB1_shp	225	637812	6326103	1643.87	68.13	32.73	884.68
TB1_shp	225	637812	6326103	1624.4	87.6	34.5	1104.83
TB1_shp	225	637812	6326103	1604.93	107.07	34.88	1324.39
TB1_shp	225	637812	6326103	1585.47	126.53	34.41	1547.02
TB1_shp	225	637812	6326103	1566	146	33.52	1778.52
TB1_shp	225	637812	6326103	1546.53	165.47	32.43	2022.82
TB1_shp	225	637812	6326103	1527.07	184.93	31.15	2307.74
TB1_shp	225	637812	6326103	1507.6	204.4	29.9	2595.26
TB1_shp	225	637812	6326103	1488.13	223.87	28.66	2891.63
TB1_shp	225	637812	6326103	1468.67	243.33	27.38	3199.21
TB1_shp	225	637812	6326103	1449.2	262.8	26.05	3510.86
TB1_shp	225	637812	6326103	1429.73	282.27	24.73	3805.45
TB1_shp	225	637812	6326103	1410	302	23.39	4092.05
TB1_shp	225	637812	6326103	1390	322	22	4353.06
TB1_shp	225	637812	6326103	1370	342	20.63	4588.2
TB1_shp	225	637812	6326103	1350	362	19.28	4795.82
TB1_shp	225	637812	6326103	1330	382	18.09	4953.76
TB1_shp	225	637812	6326103	1307.9	404.1	16.84	5104.12
TB1_shp	225	637812	6326103	1283.35	428.65	15.63	5194.82
TB1_shp	225	637812	6326103	1257.4	454.6	14.42	5260.05
TB1_shp	225	637812	6326103	1228.9	483.1	13.25	5265.79
TB1_shp	225	637812	6326103	1198.2	513.8	12.11	5219.24
TB1_shp	225	637812	6326103	1165.55	546.45	10.99	5135.91
TB1_shp	225	637812	6326103	1129.75	582.25	9.9	4999.31
TB1_shp	225	637812	6326103	1091.1	620.9	8.84	4831.83
TB1_shp	225	637812	6326103	1049.95	662.05	7.83	4642.76
TB1_shp	225	637812	6326103	1004.85	707.15	6.92	4429.87
TB1_shp	225	637812	6326103	956.2	755.8	6.15	4215.49
TB1_shp	225	637812	6326103	904.4	807.6	5.5	4014.59
TB1_shp	225	637812	6326103	847.6	864.4	4.93	3814.76
TB1_shp	225	637812	6326103	786.35	925.65	4.4	3604.19
TB1_shp	225	637812	6326103	721.5	990.5	3.88	3389.11
TB1_shp	225	637812	6326103	650	1062	3.67	3264.55
TB1_shp	241.67	637830.7	6326105	1698.94	9.73	22.75	383.03
TB1_shp	241.67	637830.7	6326105	1679.47	29.2	25.34	587.99
TB1_shp	241.67	637830.7	6326105	1660	48.67	31.03	830.43
TB1_shp	241.67	637830.7	6326105	1640.54	68.13	35.4	1044.96
TB1_shp	241.67	637830.7	6326105	1621.07	87.6	37.37	1222.94
TB1_shp	241.67	637830.7	6326105	1601.6	107.07	37.44	1375.74
TB1_shp	241.67	637830.7	6326105	1582.14	126.53	36.47	1527.29
TB1_shp	241.67	637830.7	6326105	1562.67	146	35.03	1693.33
TB1_shp	241.67	637830.7	6326105	1543.2	165.47	33.47	1882.5
TB1_shp	241.67	637830.7	6326105	1523.74	184.93	31.8	2120.2
TB1_shp	241.67	637830.7	6326105	1504.27	204.4	30.3	2375.47
TB1_shp	241.67	637830.7	6326105	1484.8	223.87	28.87	2652.01
TB1_shp	241.67	637830.7	6326105	1465.34	243.33	27.46	2950.3
TB1_shp	241.67	637830.7	6326105	1445.87	262.8	26.06	3266.34
TB1_shp	241.67	637830.7	6326105	1426.4	282.27	24.73	3574.73
TB1_shp	241.67	637830.7	6326105	1406.67	302	23.41	3881.09
TB1_shp	241.67	637830.7	6326105	1386.67	322	22.09	4172.36
TB1_shp	241.67	637830.7	6326105	1366.67	342	20.8	4440.47
TB1_shp	241.67	637830.7	6326105	1346.67	362	19.53	4683.94

TB1_shp	241.67	637830.7	6326105	1326.67	382	18.39	4876.89
TB1_shp	241.67	637830.7	6326105	1304.57	404.1	17.19	5065.55
TB1_shp	241.67	637830.7	6326105	1280.02	428.65	16.02	5192.84
TB1_shp	241.67	637830.7	6326105	1254.07	454.6	14.85	5293.19
TB1_shp	241.67	637830.7	6326105	1225.57	483.1	13.68	5328.72
TB1_shp	241.67	637830.7	6326105	1194.87	513.8	12.55	5306.32
TB1_shp	241.67	637830.7	6326105	1162.22	546.45	11.42	5242.46
TB1_shp	241.67	637830.7	6326105	1126.42	582.25	10.29	5113.21
TB1_shp	241.67	637830.7	6326105	1087.77	620.9	9.19	4946.62
TB1_shp	241.67	637830.7	6326105	1046.62	662.05	8.14	4754.09
TB1_shp	241.67	637830.7	6326105	1001.52	707.15	7.16	4533.82
TB1_shp	241.67	637830.7	6326105	952.87	755.8	6.35	4309.46
TB1_shp	241.67	637830.7	6326105	901.07	807.6	5.66	4098.27
TB1_shp	241.67	637830.7	6326105	844.27	864.4	5.05	3887.58
TB1_shp	241.67	637830.7	6326105	783.02	925.65	4.5	3665.35
TB1_shp	241.67	637830.7	6326105	718.17	990.5	3.94	3438.41
TB1_shp	241.67	637830.7	6326105	646.67	1062	3.72	3307.66
TB1_shp	258.33	637849.3	6326106	1695.6	9.73	20.83	702.5
TB1_shp	258.33	637849.3	6326106	1676.13	29.2	26.86	1072.81
TB1_shp	258.33	637849.3	6326106	1656.66	48.67	33.85	1212.82
TB1_shp	258.33	637849.3	6326106	1637.2	68.13	38.56	1312.6
TB1_shp	258.33	637849.3	6326106	1617.73	87.6	40.27	1377.59
TB1_shp	258.33	637849.3	6326106	1598.26	107.07	39.84	1432.36
TB1_shp	258.33	637849.3	6326106	1578.8	126.53	38.34	1503.12
TB1_shp	258.33	637849.3	6326106	1559.33	146	36.43	1603.33
TB1_shp	258.33	637849.3	6326106	1539.86	165.47	34.46	1739.75
TB1_shp	258.33	637849.3	6326106	1520.4	184.93	32.44	1932.17
TB1_shp	258.33	637849.3	6326106	1500.93	204.4	30.69	2155.05
TB1_shp	258.33	637849.3	6326106	1481.46	223.87	29.09	2409.56
TB1_shp	258.33	637849.3	6326106	1462	243.33	27.55	2694.59
TB1_shp	258.33	637849.3	6326106	1442.53	262.8	26.09	3009.58
TB1_shp	258.33	637849.3	6326106	1423.06	282.27	24.74	3326.25
TB1_shp	258.33	637849.3	6326106	1403.33	302	23.43	3646.87
TB1_shp	258.33	637849.3	6326106	1383.33	322	22.19	3963.89
TB1_shp	258.33	637849.3	6326106	1363.33	342	20.97	4261.55
TB1_shp	258.33	637849.3	6326106	1343.33	362	19.78	4538.59
TB1_shp	258.33	637849.3	6326106	1323.33	382	18.7	4766.08
TB1_shp	258.33	637849.3	6326106	1301.23	404.1	17.57	4993.35
TB1_shp	258.33	637849.3	6326106	1276.68	428.65	16.44	5159.71
TB1_shp	258.33	637849.3	6326106	1250.73	454.6	15.29	5298.66
TB1_shp	258.33	637849.3	6326106	1222.23	483.1	14.15	5369.6
TB1_shp	258.33	637849.3	6326106	1191.53	513.8	13.01	5375.62
TB1_shp	258.33	637849.3	6326106	1158.88	546.45	11.86	5334.87
TB1_shp	258.33	637849.3	6326106	1123.08	582.25	10.7	5217.06
TB1_shp	258.33	637849.3	6326106	1084.43	620.9	9.56	5054.32
TB1_shp	258.33	637849.3	6326106	1043.28	662.05	8.45	4860.68
TB1_shp	258.33	637849.3	6326106	998.18	707.15	7.42	4635.08
TB1_shp	258.33	637849.3	6326106	949.53	755.8	6.56	4402.15
TB1_shp	258.33	637849.3	6326106	897.73	807.6	5.82	4181.51
TB1_shp	258.33	637849.3	6326106	840.93	864.4	5.18	3960.32
TB1_shp	258.33	637849.3	6326106	779.68	925.65	4.59	3726.52
TB1_shp	258.33	637849.3	6326106	714.83	990.5	4	3487.81

TB1_shp	258.33	637849.3	6326106	643.33	1062	3.77	3350.84
TB1_shp	275	637868	6326107	1692.27	9.73	32.7	2045.69
TB1_shp	275	637868	6326107	1672.8	29.2	37.66	1662.51
TB1_shp	275	637868	6326107	1653.33	48.67	41.28	1539.29
TB1_shp	275	637868	6326107	1633.87	68.13	42.3	1475.16
TB1_shp	275	637868	6326107	1614.4	87.6	41.37	1445.32
TB1_shp	275	637868	6326107	1594.93	107.07	39.51	1453.02
TB1_shp	275	637868	6326107	1575.47	126.53	37.31	1502.32
TB1_shp	275	637868	6326107	1556	146	35.11	1596.38
TB1_shp	275	637868	6326107	1536.53	165.47	32.89	1750.37
TB1_shp	275	637868	6326107	1517.07	184.93	30.97	1943.88
TB1_shp	275	637868	6326107	1497.6	204.4	29.24	2176.48
TB1_shp	275	637868	6326107	1478.13	223.87	27.62	2446.2
TB1_shp	275	637868	6326107	1458.67	243.33	26.1	2755.69
TB1_shp	275	637868	6326107	1439.2	262.8	24.74	3075.41
TB1_shp	275	637868	6326107	1419.73	282.27	23.47	3400.19
TB1_shp	275	637868	6326107	1400	302	22.3	3732.72
TB1_shp	275	637868	6326107	1380	322	21.15	4055.79
TB1_shp	275	637868	6326107	1360	342	20.05	4362.27
TB1_shp	275	637868	6326107	1340	362	19.03	4623.53
TB1_shp	275	637868	6326107	1320	382	18.07	4862.26
TB1_shp	275	637868	6326107	1297.9	404.1	17.08	5059.25
TB1_shp	275	637868	6326107	1273.35	428.65	16.01	5253.84
TB1_shp	275	637868	6326107	1247.4	454.6	14.98	5353.54
TB1_shp	275	637868	6326107	1218.9	483.1	13.89	5426.07
TB1_shp	275	637868	6326107	1188.2	513.8	12.79	5425.18
TB1_shp	275	637868	6326107	1155.55	546.45	11.68	5355.55
TB1_shp	275	637868	6326107	1119.75	582.25	10.51	5239.77
TB1_shp	275	637868	6326107	1081.1	620.9	9.36	5066.68
TB1_shp	275	637868	6326107	1039.95	662.05	8.3	4863.74
TB1_shp	275	637868	6326107	994.85	707.15	7.3	4637.03
TB1_shp	275	637868	6326107	946.2	755.8	6.41	4397.18
TB1_shp	275	637868	6326107	894.4	807.6	5.74	4183.76
TB1_shp	275	637868	6326107	837.6	864.4	5.11	3954.46
TB1_shp	275	637868	6326107	776.35	925.65	4.49	3709.51
TB1_shp	275	637868	6326107	711.5	990.5	3.99	3498.26
TB1_shp	275	637868	6326107	640	1062	3.75	3355.03
TB1_shp	291.67	637886.7	6326109	1688.94	9.73	37.39	1458
TB1_shp	291.67	637886.7	6326109	1669.47	29.2	39.2	1529.15
TB1_shp	291.67	637886.7	6326109	1650	48.67	41.57	1496.35
TB1_shp	291.67	637886.7	6326109	1630.54	68.13	42.21	1442.12
TB1_shp	291.67	637886.7	6326109	1611.07	87.6	41.25	1397.99
TB1_shp	291.67	637886.7	6326109	1591.6	107.07	39.47	1379.12
TB1_shp	291.67	637886.7	6326109	1572.14	126.53	37.36	1397.29
TB1_shp	291.67	637886.7	6326109	1552.67	146	35.2	1460.69
TB1_shp	291.67	637886.7	6326109	1533.2	165.47	32.97	1583.59
TB1_shp	291.67	637886.7	6326109	1513.74	184.93	31.02	1751.83
TB1_shp	291.67	637886.7	6326109	1494.27	204.4	29.25	1963.83
TB1_shp	291.67	637886.7	6326109	1474.8	223.87	27.59	2217.07
TB1_shp	291.67	637886.7	6326109	1455.34	243.33	26.05	2517.61
TB1_shp	291.67	637886.7	6326109	1435.87	262.8	24.69	2835.6
TB1_shp	291.67	637886.7	6326109	1416.4	282.27	23.45	3163.23

TB1_shp	291.67	637886.7	6326109	1396.67	302	22.36	3509.01
TB1_shp	291.67	637886.7	6326109	1376.67	322	21.3	3850.47
TB1_shp	291.67	637886.7	6326109	1356.67	342	20.29	4181.21
TB1_shp	291.67	637886.7	6326109	1336.67	362	19.35	4470.19
TB1_shp	291.67	637886.7	6326109	1316.67	382	18.45	4738.38
TB1_shp	291.67	637886.7	6326109	1294.57	404.1	17.51	4969.74
TB1_shp	291.67	637886.7	6326109	1270.02	428.65	16.48	5203.12
TB1_shp	291.67	637886.7	6326109	1244.07	454.6	15.48	5339.38
TB1_shp	291.67	637886.7	6326109	1215.57	483.1	14.39	5447.68
TB1_shp	291.67	637886.7	6326109	1184.87	513.8	13.28	5475.95
TB1_shp	291.67	637886.7	6326109	1152.22	546.45	12.15	5427.72
TB1_shp	291.67	637886.7	6326109	1116.42	582.25	10.94	5328.5
TB1_shp	291.67	637886.7	6326109	1077.77	620.9	9.73	5161.5
TB1_shp	291.67	637886.7	6326109	1036.62	662.05	8.62	4959.2
TB1_shp	291.67	637886.7	6326109	991.52	707.15	7.56	4729.6
TB1_shp	291.67	637886.7	6326109	942.87	755.8	6.61	4483.29
TB1_shp	291.67	637886.7	6326109	891.07	807.6	5.9	4261.4
TB1_shp	291.67	637886.7	6326109	834.27	864.4	5.23	4022.33
TB1_shp	291.67	637886.7	6326109	773.02	925.65	4.58	3766.59
TB1_shp	291.67	637886.7	6326109	708.17	990.5	4.06	3546.04
TB1_shp	291.67	637886.7	6326109	636.67	1062	3.81	3396.53
TB1_shp	308.33	637902.8	6326110	1685.52	9.73	29.75	1224.35
TB1_shp	308.33	637902.8	6326110	1666.05	29.2	34.75	1208.46
TB1_shp	308.33	637902.8	6326110	1646.58	48.67	37.67	1284.34
TB1_shp	308.33	637902.8	6326110	1627.12	68.13	39	1340.24
TB1_shp	308.33	637902.8	6326110	1607.65	87.6	38.91	1335.8
TB1_shp	308.33	637902.8	6326110	1588.18	107.07	37.88	1310.77
TB1_shp	308.33	637902.8	6326110	1568.72	126.53	36.33	1306.29
TB1_shp	308.33	637902.8	6326110	1549.25	146	34.55	1344.08
TB1_shp	308.33	637902.8	6326110	1529.78	165.47	32.58	1440.84
TB1_shp	308.33	637902.8	6326110	1510.32	184.93	30.77	1586.96
TB1_shp	308.33	637902.8	6326110	1490.85	204.4	29.07	1779.84
TB1_shp	308.33	637902.8	6326110	1471.38	223.87	27.44	2016.49
TB1_shp	308.33	637902.8	6326110	1451.92	243.33	25.91	2305.16
TB1_shp	308.33	637902.8	6326110	1432.45	262.8	24.59	2617.31
TB1_shp	308.33	637902.8	6326110	1412.98	282.27	23.4	2942.91
TB1_shp	308.33	637902.8	6326110	1393.25	302	22.4	3295.23
TB1_shp	308.33	637902.8	6326110	1373.25	322	21.43	3648.75
TB1_shp	308.33	637902.8	6326110	1353.25	342	20.52	3997.97
TB1_shp	308.33	637902.8	6326110	1333.25	362	19.67	4309.78
TB1_shp	308.33	637902.8	6326110	1313.25	382	18.84	4602.97
TB1_shp	308.33	637902.8	6326110	1291.15	404.1	17.95	4865.84
TB1_shp	308.33	637902.8	6326110	1266.6	428.65	16.98	5135.56
TB1_shp	308.33	637902.8	6326110	1240.65	454.6	15.99	5307.49
TB1_shp	308.33	637902.8	6326110	1212.15	483.1	14.92	5451.68
TB1_shp	308.33	637902.8	6326110	1181.45	513.8	13.81	5511.59
TB1_shp	308.33	637902.8	6326110	1148.8	546.45	12.64	5486.92
TB1_shp	308.33	637902.8	6326110	1113	582.25	11.39	5406.65
TB1_shp	308.33	637902.8	6326110	1074.35	620.9	10.12	5249.07
TB1_shp	308.33	637902.8	6326110	1033.2	662.05	8.95	5049.91
TB1_shp	308.33	637902.8	6326110	988.1	707.15	7.83	4819.39
TB1_shp	308.33	637902.8	6326110	939.45	755.8	6.82	4567.82

TB1_shp	308.33	637902.8	6326110	887.65	807.6	6.07	4338.46
TB1_shp	308.33	637902.8	6326110	830.85	864.4	5.36	4090.08
TB1_shp	308.33	637902.8	6326110	769.6	925.65	4.66	3823.61
TB1_shp	308.33	637902.8	6326110	704.75	990.5	4.11	3593.8
TB1_shp	308.33	637902.8	6326110	633.25	1062	3.85	3437.98
TB1_shp	325	637916.3	6326111	1682.02	9.73	29.61	314.27
TB1_shp	325	637916.3	6326111	1662.55	29.2	28.59	618.19
TB1_shp	325	637916.3	6326111	1643.08	48.67	29.97	1032.25
TB1_shp	325	637916.3	6326111	1623.62	68.13	32.7	1288.93
TB1_shp	325	637916.3	6326111	1604.15	87.6	34.39	1327.44
TB1_shp	325	637916.3	6326111	1584.68	107.07	34.77	1280.66
TB1_shp	325	637916.3	6326111	1565.22	126.53	34.26	1244.57
TB1_shp	325	637916.3	6326111	1545.75	146	33.18	1255.32
TB1_shp	325	637916.3	6326111	1526.28	165.47	31.7	1328.01
TB1_shp	325	637916.3	6326111	1506.82	184.93	30.19	1454.46
TB1_shp	325	637916.3	6326111	1487.35	204.4	28.68	1629.82
TB1_shp	325	637916.3	6326111	1467.88	223.87	27.16	1850.29
TB1_shp	325	637916.3	6326111	1448.42	243.33	25.7	2125.61
TB1_shp	325	637916.3	6326111	1428.95	262.8	24.44	2428.63
TB1_shp	325	637916.3	6326111	1409.48	282.27	23.32	2747.92
TB1_shp	325	637916.3	6326111	1389.75	302	22.42	3101.38
TB1_shp	325	637916.3	6326111	1369.75	322	21.55	3460.91
TB1_shp	325	637916.3	6326111	1349.75	342	20.75	3821.91
TB1_shp	325	637916.3	6326111	1329.75	362	19.99	4151.39
TB1_shp	325	637916.3	6326111	1309.75	382	19.25	4465.18
TB1_shp	325	637916.3	6326111	1287.65	404.1	18.42	4755.26
TB1_shp	325	637916.3	6326111	1263.1	428.65	17.5	5056.77
TB1_shp	325	637916.3	6326111	1237.15	454.6	16.53	5263.12
TB1_shp	325	637916.3	6326111	1208.65	483.1	15.47	5442.43
TB1_shp	325	637916.3	6326111	1177.95	513.8	14.35	5534.45
TB1_shp	325	637916.3	6326111	1145.3	546.45	13.15	5535.19
TB1_shp	325	637916.3	6326111	1109.5	582.25	11.86	5476.29
TB1_shp	325	637916.3	6326111	1070.85	620.9	10.53	5330.42
TB1_shp	325	637916.3	6326111	1029.7	662.05	9.3	5136.08
TB1_shp	325	637916.3	6326111	984.6	707.15	8.11	4906.21
TB1_shp	325	637916.3	6326111	935.95	755.8	7.04	4651.1
TB1_shp	325	637916.3	6326111	884.15	807.6	6.25	4415.08
TB1_shp	325	637916.3	6326111	827.35	864.4	5.5	4157.69
TB1_shp	325	637916.3	6326111	766.1	925.65	4.76	3880.49
TB1_shp	325	637916.3	6326111	701.25	990.5	4.18	3641.42
TB1_shp	325	637916.3	6326111	629.75	1062	3.91	3479.3
TB1_shp	341.67	637929.8	6326113	1678.52	9.73	25.33	159.38
TB1_shp	341.67	637929.8	6326113	1659.05	29.2	16.68	534.73
TB1_shp	341.67	637929.8	6326113	1639.58	48.67	18.37	1150.21
TB1_shp	341.67	637929.8	6326113	1620.12	68.13	23.92	1464.32
TB1_shp	341.67	637929.8	6326113	1600.65	87.6	28.44	1425.67
TB1_shp	341.67	637929.8	6326113	1581.18	107.07	30.66	1299.68
TB1_shp	341.67	637929.8	6326113	1561.72	126.53	31.42	1213.99
TB1_shp	341.67	637929.8	6326113	1542.25	146	31.23	1195.86
TB1_shp	341.67	637929.8	6326113	1522.78	165.47	30.41	1247.33
TB1_shp	341.67	637929.8	6326113	1503.32	184.93	29.33	1356.94
TB1_shp	341.67	637929.8	6326113	1483.85	204.4	28.09	1516.76

TB1_shp	341.67	637929.8	6326113	1464.38	223.87	26.75	1721.91
TB1_shp	341.67	637929.8	6326113	1444.92	243.33	25.4	1982.79
TB1_shp	341.67	637929.8	6326113	1425.45	262.8	24.24	2274.28
TB1_shp	341.67	637929.8	6326113	1405.98	282.27	23.21	2584.07
TB1_shp	341.67	637929.8	6326113	1386.25	302	22.42	2933.48
TB1_shp	341.67	637929.8	6326113	1366.25	322	21.67	3293.47
TB1_shp	341.67	637929.8	6326113	1346.25	342	20.98	3660.35
TB1_shp	341.67	637929.8	6326113	1326.25	362	20.31	4001.82
TB1_shp	341.67	637929.8	6326113	1306.25	382	19.65	4330.64
TB1_shp	341.67	637929.8	6326113	1284.15	404.1	18.9	4643.48
TB1_shp	341.67	637929.8	6326113	1259.6	428.65	18.04	4972.45
TB1_shp	341.67	637929.8	6326113	1233.65	454.6	17.09	5210.21
TB1_shp	341.67	637929.8	6326113	1205.15	483.1	16.04	5422.35
TB1_shp	341.67	637929.8	6326113	1174.45	513.8	14.9	5546.14
TB1_shp	341.67	637929.8	6326113	1141.8	546.45	13.67	5573.12
TB1_shp	341.67	637929.8	6326113	1106	582.25	12.33	5537.18
TB1_shp	341.67	637929.8	6326113	1067.35	620.9	10.95	5405.51
TB1_shp	341.67	637929.8	6326113	1026.2	662.05	9.65	5218.29
TB1_shp	341.67	637929.8	6326113	981.1	707.15	8.4	4990.95
TB1_shp	341.67	637929.8	6326113	932.45	755.8	7.27	4733.25
TB1_shp	341.67	637929.8	6326113	880.65	807.6	6.42	4490.67
TB1_shp	341.67	637929.8	6326113	823.85	864.4	5.63	4224.49
TB1_shp	341.67	637929.8	6326113	762.6	925.65	4.86	3936.87
TB1_shp	341.67	637929.8	6326113	697.75	990.5	4.24	3688.75
TB1_shp	341.67	637929.8	6326113	626.25	1062	3.96	3520.34
TB1_shp	358.33	637943.3	6326114	1675.02	9.73	21.47	338.69
TB1_shp	358.33	637943.3	6326114	1655.55	29.2	11.36	1406.77
TB1_shp	358.33	637943.3	6326114	1636.08	48.67	11.87	1982.16
TB1_shp	358.33	637943.3	6326114	1616.62	68.13	16.62	1886.71
TB1_shp	358.33	637943.3	6326114	1597.15	87.6	22.46	1573.15
TB1_shp	358.33	637943.3	6326114	1577.68	107.07	26.3	1330.96
TB1_shp	358.33	637943.3	6326114	1558.22	126.53	28.24	1200.59
TB1_shp	358.33	637943.3	6326114	1538.75	146	28.96	1162.45
TB1_shp	358.33	637943.3	6326114	1519.28	165.47	28.86	1199.26
TB1_shp	358.33	637943.3	6326114	1499.82	184.93	28.27	1295.56
TB1_shp	358.33	637943.3	6326114	1480.35	204.4	27.36	1441.7
TB1_shp	358.33	637943.3	6326114	1460.88	223.87	26.25	1632.29
TB1_shp	358.33	637943.3	6326114	1441.42	243.33	25.04	1877.89
TB1_shp	358.33	637943.3	6326114	1421.95	262.8	24.01	2156.14
TB1_shp	358.33	637943.3	6326114	1402.48	282.27	23.09	2454.08
TB1_shp	358.33	637943.3	6326114	1382.75	302	22.42	2795.3
TB1_shp	358.33	637943.3	6326114	1362.75	322	21.79	3150.95
TB1_shp	358.33	637943.3	6326114	1342.75	342	21.23	3518.2
TB1_shp	358.33	637943.3	6326114	1322.75	362	20.66	3866.23
TB1_shp	358.33	637943.3	6326114	1302.75	382	20.08	4204.68
TB1_shp	358.33	637943.3	6326114	1280.65	404.1	19.39	4535.48
TB1_shp	358.33	637943.3	6326114	1256.1	428.65	18.6	4886.99
TB1_shp	358.33	637943.3	6326114	1230.15	454.6	17.67	5152.7
TB1_shp	358.33	637943.3	6326114	1201.65	483.1	16.63	5394.86
TB1_shp	358.33	637943.3	6326114	1170.95	513.8	15.48	5549.55
TB1_shp	358.33	637943.3	6326114	1138.3	546.45	14.22	5603.34
TB1_shp	358.33	637943.3	6326114	1102.5	582.25	12.83	5591.62

TB1_shp	358.33	637943.3	6326114	1063.85	620.9	11.38	5475.69
TB1_shp	358.33	637943.3	6326114	1022.7	662.05	10.02	5296.68
TB1_shp	358.33	637943.3	6326114	977.6	707.15	8.7	5072.79
TB1_shp	358.33	637943.3	6326114	928.95	755.8	7.5	4813.28
TB1_shp	358.33	637943.3	6326114	877.15	807.6	6.61	4564.75
TB1_shp	358.33	637943.3	6326114	820.35	864.4	5.78	4290.27
TB1_shp	358.33	637943.3	6326114	759.1	925.65	4.96	3992.64
TB1_shp	358.33	637943.3	6326114	694.25	990.5	4.31	3735.75
TB1_shp	358.33	637943.3	6326114	622.75	1062	4.01	3561.1
TB1_shp	375	637956.8	6326115	1671.52	9.73	12.46	5644.46
TB1_shp	375	637956.8	6326115	1652.05	29.2	10.86	2997.31
TB1_shp	375	637956.8	6326115	1632.58	48.67	13.44	2013.53
TB1_shp	375	637956.8	6326115	1613.12	68.13	18.17	1553.73
TB1_shp	375	637956.8	6326115	1593.65	87.6	22.5	1311.81
TB1_shp	375	637956.8	6326115	1574.18	107.07	25.16	1192.09
TB1_shp	375	637956.8	6326115	1554.72	126.53	26.62	1155.67
TB1_shp	375	637956.8	6326115	1535.25	146	27.22	1186.3
TB1_shp	375	637956.8	6326115	1515.78	165.47	27.13	1272.34
TB1_shp	375	637956.8	6326115	1496.32	184.93	26.58	1405.63
TB1_shp	375	637956.8	6326115	1476.85	204.4	25.72	1581.67
TB1_shp	375	637956.8	6326115	1457.38	223.87	24.67	1811.24
TB1_shp	375	637956.8	6326115	1437.92	243.33	23.78	2074.4
TB1_shp	375	637956.8	6326115	1418.45	262.8	22.99	2358.27
TB1_shp	375	637956.8	6326115	1398.98	282.27	22.45	2683.82
TB1_shp	375	637956.8	6326115	1379.25	302	21.95	3025.88
TB1_shp	375	637956.8	6326115	1359.25	322	21.5	3388.51
TB1_shp	375	637956.8	6326115	1339.25	342	21.03	3738.75
TB1_shp	375	637956.8	6326115	1319.25	362	20.54	4082.05
TB1_shp	375	637956.8	6326115	1299.25	382	19.98	4395.51
TB1_shp	375	637956.8	6326115	1277.15	404.1	19.32	4728.32
TB1_shp	375	637956.8	6326115	1252.6	428.65	18.49	5021.49
TB1_shp	375	637956.8	6326115	1226.65	454.6	17.58	5308.6
TB1_shp	375	637956.8	6326115	1198.15	483.1	16.5	5479.25
TB1_shp	375	637956.8	6326115	1167.45	513.8	15.31	5610.15
TB1_shp	375	637956.8	6326115	1134.8	546.45	14	5649.56
TB1_shp	375	637956.8	6326115	1099	582.25	12.58	5588.73
TB1_shp	375	637956.8	6326115	1060.35	620.9	11.12	5470.64
TB1_shp	375	637956.8	6326115	1019.2	662.05	9.74	5281.22
TB1_shp	375	637956.8	6326115	974.1	707.15	8.49	5047.46
TB1_shp	375	637956.8	6326115	925.45	755.8	7.38	4795.39
TB1_shp	375	637956.8	6326115	873.65	807.6	6.44	4542.22
TB1_shp	375	637956.8	6326115	816.85	864.4	5.64	4257.44
TB1_shp	375	637956.8	6326115	755.6	925.65	4.79	3950.16
TB1_shp	375	637956.8	6326115	690.75	990.5	4.3	3733.18
TB1_shp	375	637956.8	6326115	619.25	1062	3.99	3552.31
TB1_shp	391.67	637970.3	6326117	1668.02	9.73	15.61	1366.53
TB1_shp	391.67	637970.3	6326117	1648.55	29.2	10.64	1284.84
TB1_shp	391.67	637970.3	6326117	1629.08	48.67	11.58	1354.6
TB1_shp	391.67	637970.3	6326117	1609.62	68.13	15.09	1342.69
TB1_shp	391.67	637970.3	6326117	1590.15	87.6	19.29	1274.98
TB1_shp	391.67	637970.3	6326117	1570.68	107.07	22.46	1213.68
TB1_shp	391.67	637970.3	6326117	1551.22	126.53	24.52	1190.12

TB1_shp	391.67	637970.3	6326117	1531.75	146	25.71	1215.54
TB1_shp	391.67	637970.3	6326117	1512.28	165.47	26.07	1290.31
TB1_shp	391.67	637970.3	6326117	1492.82	184.93	25.84	1409.39
TB1_shp	391.67	637970.3	6326117	1473.35	204.4	25.2	1569.34
TB1_shp	391.67	637970.3	6326117	1453.88	223.87	24.33	1781.56
TB1_shp	391.67	637970.3	6326117	1434.42	243.33	23.58	2027.96
TB1_shp	391.67	637970.3	6326117	1414.95	262.8	22.92	2295.64
TB1_shp	391.67	637970.3	6326117	1395.48	282.27	22.5	2607.68
TB1_shp	391.67	637970.3	6326117	1375.75	302	22.12	2938.25
TB1_shp	391.67	637970.3	6326117	1355.75	322	21.79	3292.11
TB1_shp	391.67	637970.3	6326117	1335.75	342	21.41	3639.68
TB1_shp	391.67	637970.3	6326117	1315.75	362	21.01	3983.73
TB1_shp	391.67	637970.3	6326117	1295.75	382	20.5	4304.04
TB1_shp	391.67	637970.3	6326117	1273.65	404.1	19.9	4647.18
TB1_shp	391.67	637970.3	6326117	1249.1	428.65	19.1	4958.1
TB1_shp	391.67	637970.3	6326117	1223.15	454.6	18.21	5265.66
TB1_shp	391.67	637970.3	6326117	1194.65	483.1	17.12	5460.48
TB1_shp	391.67	637970.3	6326117	1163.95	513.8	15.91	5616.3
TB1_shp	391.67	637970.3	6326117	1131.3	546.45	14.55	5680.13
TB1_shp	391.67	637970.3	6326117	1095.5	582.25	13.07	5639.07
TB1_shp	391.67	637970.3	6326117	1056.85	620.9	11.54	5537.05
TB1_shp	391.67	637970.3	6326117	1015.7	662.05	10.1	5354.84
TB1_shp	391.67	637970.3	6326117	970.6	707.15	8.78	5122.97
TB1_shp	391.67	637970.3	6326117	921.95	755.8	7.6	4869.39
TB1_shp	391.67	637970.3	6326117	870.15	807.6	6.63	4611.87
TB1_shp	391.67	637970.3	6326117	813.35	864.4	5.78	4318.47
TB1_shp	391.67	637970.3	6326117	752.1	925.65	4.87	4001.8
TB1_shp	391.67	637970.3	6326117	687.25	990.5	4.36	3777.79
TB1_shp	391.67	637970.3	6326117	615.75	1062	4.04	3590.73
TB1_shp	408.33	637986.2	6326118	1666.77	9.73	2.93	1775.24
TB1_shp	408.33	637986.2	6326118	1647.3	29.2	4.6	1405.97
TB1_shp	408.33	637986.2	6326118	1627.83	48.67	7.54	1432.02
TB1_shp	408.33	637986.2	6326118	1608.37	68.13	11.74	1440.89
TB1_shp	408.33	637986.2	6326118	1588.9	87.6	16.44	1388.04
TB1_shp	408.33	637986.2	6326118	1569.43	107.07	20.24	1324.26
TB1_shp	408.33	637986.2	6326118	1549.97	126.53	22.83	1288.38
TB1_shp	408.33	637986.2	6326118	1530.5	146	24.5	1295.88
TB1_shp	408.33	637986.2	6326118	1511.03	165.47	25.21	1352.47
TB1_shp	408.33	637986.2	6326118	1491.57	184.93	25.23	1453.05
TB1_shp	408.33	637986.2	6326118	1472.1	204.4	24.78	1593.91
TB1_shp	408.33	637986.2	6326118	1452.63	223.87	24.06	1786.6
TB1_shp	408.33	637986.2	6326118	1433.17	243.33	23.45	2014.47
TB1_shp	408.33	637986.2	6326118	1413.7	262.8	22.92	2264.31
TB1_shp	408.33	637986.2	6326118	1394.23	282.27	22.61	2560.3
TB1_shp	408.33	637986.2	6326118	1374.5	302	22.34	2876.73
TB1_shp	408.33	637986.2	6326118	1354.5	322	22.11	3219.04
TB1_shp	408.33	637986.2	6326118	1334.5	342	21.82	3560.3
TB1_shp	408.33	637986.2	6326118	1314.5	362	21.5	3900.98
TB1_shp	408.33	637986.2	6326118	1294.5	382	21.05	4223.93
TB1_shp	408.33	637986.2	6326118	1272.4	404.1	20.5	4572.72
TB1_shp	408.33	637986.2	6326118	1247.85	428.65	19.72	4897.56
TB1_shp	408.33	637986.2	6326118	1221.9	454.6	18.85	5221.91

TB1_shp	408.33	637986.2	6326118	1193.4	483.1	17.74	5438.94
TB1_shp	408.33	637986.2	6326118	1162.7	513.8	16.51	5618.17
TB1_shp	408.33	637986.2	6326118	1130.05	546.45	15.11	5705.9
TB1_shp	408.33	637986.2	6326118	1094.25	582.25	13.58	5684.23
TB1_shp	408.33	637986.2	6326118	1055.6	620.9	11.98	5598.42
TB1_shp	408.33	637986.2	6326118	1014.45	662.05	10.46	5425.07
TB1_shp	408.33	637986.2	6326118	969.35	707.15	9.07	5196.28
TB1_shp	408.33	637986.2	6326118	920.7	755.8	7.83	4941.97
TB1_shp	408.33	637986.2	6326118	868.9	807.6	6.8	4680.36
TB1_shp	408.33	637986.2	6326118	812.1	864.4	5.91	4378.61
TB1_shp	408.33	637986.2	6326118	750.85	925.65	4.97	4052.84
TB1_shp	408.33	637986.2	6326118	686	990.5	4.43	3821.93
TB1_shp	408.33	637986.2	6326118	614.5	1062	4.09	3628.72
TB1_shp	425	638004.5	6326119	1667.77	9.73	0.79	7702.02
TB1_shp	425	638004.5	6326119	1648.3	29.2	1.76	3571.63
TB1_shp	425	638004.5	6326119	1628.83	48.67	4.53	2335.01
TB1_shp	425	638004.5	6326119	1609.37	68.13	9.17	1900.35
TB1_shp	425	638004.5	6326119	1589.9	87.6	14.44	1674.45
TB1_shp	425	638004.5	6326119	1570.43	107.07	18.79	1533.49
TB1_shp	425	638004.5	6326119	1550.97	126.53	21.75	1453.72
TB1_shp	425	638004.5	6326119	1531.5	146	23.72	1427.95
TB1_shp	425	638004.5	6326119	1512.03	165.47	24.64	1457.91
TB1_shp	425	638004.5	6326119	1492.57	184.93	24.82	1534.79
TB1_shp	425	638004.5	6326119	1473.1	204.4	24.5	1653.13
TB1_shp	425	638004.5	6326119	1453.63	223.87	23.9	1823.97
TB1_shp	425	638004.5	6326119	1434.17	243.33	23.41	2031.38
TB1_shp	425	638004.5	6326119	1414.7	262.8	22.99	2261.59
TB1_shp	425	638004.5	6326119	1395.23	282.27	22.79	2539.77
TB1_shp	425	638004.5	6326119	1375.5	302	22.61	2840
TB1_shp	425	638004.5	6326119	1355.5	322	22.47	3168.29
TB1_shp	425	638004.5	6326119	1335.5	342	22.25	3500.35
TB1_shp	425	638004.5	6326119	1315.5	362	22	3834.53
TB1_shp	425	638004.5	6326119	1295.5	382	21.6	4156.84
TB1_shp	425	638004.5	6326119	1273.4	404.1	21.1	4507.58
TB1_shp	425	638004.5	6326119	1248.85	428.65	20.35	4843
TB1_shp	425	638004.5	6326119	1222.9	454.6	19.5	5180.84
TB1_shp	425	638004.5	6326119	1194.4	483.1	18.38	5417.4
TB1_shp	425	638004.5	6326119	1163.7	513.8	17.12	5617.64
TB1_shp	425	638004.5	6326119	1131.05	546.45	15.69	5727.7
TB1_shp	425	638004.5	6326119	1095.25	582.25	14.09	5725.64
TB1_shp	425	638004.5	6326119	1056.6	620.9	12.41	5656.74
TB1_shp	425	638004.5	6326119	1015.45	662.05	10.83	5492.58
TB1_shp	425	638004.5	6326119	970.35	707.15	9.37	5267.3
TB1_shp	425	638004.5	6326119	921.7	755.8	8.06	5012.86
TB1_shp	425	638004.5	6326119	869.9	807.6	6.98	4748.02
TB1_shp	425	638004.5	6326119	813.1	864.4	6.05	4438.06
TB1_shp	425	638004.5	6326119	751.85	925.65	5.06	4103.3
TB1_shp	425	638004.5	6326119	687	990.5	4.5	3865.55
TB1_shp	425	638004.5	6326119	615.5	1062	4.15	3666.25
TB1_shp	441.67	638022.8	6326121	1668.77	9.73	0.47	5737.04
TB1_shp	441.67	638022.8	6326121	1649.3	29.2	1.25	3233.42
TB1_shp	441.67	638022.8	6326121	1629.83	48.67	3.98	2473.28

TB1_shp	441.67	638022.8	6326121	1610.37	68.13	8.73	2155.34
TB1_shp	441.67	638022.8	6326121	1590.9	87.6	14.05	1938.83
TB1_shp	441.67	638022.8	6326121	1571.43	107.07	18.45	1772.62
TB1_shp	441.67	638022.8	6326121	1551.97	126.53	21.46	1659.26
TB1_shp	441.67	638022.8	6326121	1532.5	146	23.47	1598.79
TB1_shp	441.67	638022.8	6326121	1513.03	165.47	24.42	1598.85
TB1_shp	441.67	638022.8	6326121	1493.57	184.93	24.63	1648.81
TB1_shp	441.67	638022.8	6326121	1474.1	204.4	24.36	1741.91
TB1_shp	441.67	638022.8	6326121	1454.63	223.87	23.85	1889.38
TB1_shp	441.67	638022.8	6326121	1435.17	243.33	23.46	2074.87
TB1_shp	441.67	638022.8	6326121	1415.7	262.8	23.14	2284.07
TB1_shp	441.67	638022.8	6326121	1396.23	282.27	23.02	2543.39
TB1_shp	441.67	638022.8	6326121	1376.5	302	22.93	2826.02
TB1_shp	441.67	638022.8	6326121	1356.5	322	22.87	3138.45
TB1_shp	441.67	638022.8	6326121	1336.5	342	22.72	3459.33
TB1_shp	441.67	638022.8	6326121	1316.5	362	22.53	3784.93
TB1_shp	441.67	638022.8	6326121	1296.5	382	22.17	4103.85
TB1_shp	441.67	638022.8	6326121	1274.4	404.1	21.71	4453.2
TB1_shp	441.67	638022.8	6326121	1249.85	428.65	20.98	4796.2
TB1_shp	441.67	638022.8	6326121	1223.9	454.6	20.15	5144.53
TB1_shp	441.67	638022.8	6326121	1195.4	483.1	19.02	5397.54
TB1_shp	441.67	638022.8	6326121	1164.7	513.8	17.75	5616.13
TB1_shp	441.67	638022.8	6326121	1132.05	546.45	16.26	5746.83
TB1_shp	441.67	638022.8	6326121	1096.25	582.25	14.6	5763.75
TB1_shp	441.67	638022.8	6326121	1057.6	620.9	12.85	5711.72
TB1_shp	441.67	638022.8	6326121	1016.45	662.05	11.19	5557.59
TB1_shp	441.67	638022.8	6326121	971.35	707.15	9.67	5336.61
TB1_shp	441.67	638022.8	6326121	922.7	755.8	8.3	5082.55
TB1_shp	441.67	638022.8	6326121	870.9	807.6	7.16	4814.57
TB1_shp	441.67	638022.8	6326121	814.1	864.4	6.19	4496.61
TB1_shp	441.67	638022.8	6326121	752.85	925.65	5.16	4153.11
TB1_shp	441.67	638022.8	6326121	688	990.5	4.57	3908.64
TB1_shp	441.67	638022.8	6326121	616.5	1062	4.21	3703.29
TB1_shp	458.33	638041.2	6326122	1669.77	9.73	2.24	363.47
TB1_shp	458.33	638041.2	6326122	1650.3	29.2	2.64	937.08
TB1_shp	458.33	638041.2	6326122	1630.83	48.67	5.66	1612.36
TB1_shp	458.33	638041.2	6326122	1611.37	68.13	10.38	1993.46
TB1_shp	458.33	638041.2	6326122	1591.9	87.6	15.31	2065.85
TB1_shp	458.33	638041.2	6326122	1572.43	107.07	19.28	1984.26
TB1_shp	458.33	638041.2	6326122	1552.97	126.53	21.97	1875.2
TB1_shp	458.33	638041.2	6326122	1533.5	146	23.72	1790.69
TB1_shp	458.33	638041.2	6326122	1514.03	165.47	24.5	1763.26
TB1_shp	458.33	638041.2	6326122	1494.57	184.93	24.63	1786.09
TB1_shp	458.33	638041.2	6326122	1475.1	204.4	24.34	1852.97
TB1_shp	458.33	638041.2	6326122	1455.63	223.87	23.9	1976.41
TB1_shp	458.33	638041.2	6326122	1436.17	243.33	23.59	2139.38
TB1_shp	458.33	638041.2	6326122	1416.7	262.8	23.36	2326.99
TB1_shp	458.33	638041.2	6326122	1397.23	282.27	23.31	2566.69
TB1_shp	458.33	638041.2	6326122	1377.5	302	23.29	2830.89
TB1_shp	458.33	638041.2	6326122	1357.5	322	23.31	3126.56
TB1_shp	458.33	638041.2	6326122	1337.5	342	23.21	3434.92
TB1_shp	458.33	638041.2	6326122	1317.5	362	23.06	3750.4

TB1_shp	458.33	638041.2	6326122	1297.5	382	22.74	4064.05
TB1_shp	458.33	638041.2	6326122	1275.4	404.1	22.31	4409.79
TB1_shp	458.33	638041.2	6326122	1250.85	428.65	21.61	4757.79
TB1_shp	458.33	638041.2	6326122	1224.9	454.6	20.8	5113.85
TB1_shp	458.33	638041.2	6326122	1196.4	483.1	19.66	5379.87
TB1_shp	458.33	638041.2	6326122	1165.7	513.8	18.36	5614
TB1_shp	458.33	638041.2	6326122	1133.05	546.45	16.84	5764.12
TB1_shp	458.33	638041.2	6326122	1097.25	582.25	15.12	5800.04
TB1_shp	458.33	638041.2	6326122	1058.6	620.9	13.31	5765.19
TB1_shp	458.33	638041.2	6326122	1017.45	662.05	11.57	5620.87
TB1_shp	458.33	638041.2	6326122	972.35	707.15	9.97	5404.18
TB1_shp	458.33	638041.2	6326122	923.7	755.8	8.54	5150.74
TB1_shp	458.33	638041.2	6326122	871.9	807.6	7.34	4880.08
TB1_shp	458.33	638041.2	6326122	815.1	864.4	6.33	4554.29
TB1_shp	458.33	638041.2	6326122	753.85	925.65	5.25	4202.23
TB1_shp	458.33	638041.2	6326122	689	990.5	4.65	3951.15
TB1_shp	458.33	638041.2	6326122	617.5	1062	4.26	3739.82
TB1_shp	475	638059.5	6326124	1670.77	9.73	3.76	1441.77
TB1_shp	475	638059.5	6326124	1651.3	29.2	3.99	1389.59
TB1_shp	475	638059.5	6326124	1631.83	48.67	7.45	1738.89
TB1_shp	475	638059.5	6326124	1612.37	68.13	12.66	2093.66
TB1_shp	475	638059.5	6326124	1592.9	87.6	17.45	2233.45
TB1_shp	475	638059.5	6326124	1573.43	107.07	20.9	2195.13
TB1_shp	475	638059.5	6326124	1553.97	126.53	23.05	2091.4
TB1_shp	475	638059.5	6326124	1534.5	146	24.32	1989.53
TB1_shp	475	638059.5	6326124	1515.03	165.47	24.78	1938.34
TB1_shp	475	638059.5	6326124	1495.57	184.93	24.73	1936.13
TB1_shp	475	638059.5	6326124	1476.1	204.4	24.39	1978.12
TB1_shp	475	638059.5	6326124	1456.63	223.87	23.99	2077.56
TB1_shp	475	638059.5	6326124	1437.17	243.33	23.75	2218.45
TB1_shp	475	638059.5	6326124	1417.7	262.8	23.6	2384.98
TB1_shp	475	638059.5	6326124	1398.23	282.27	23.64	2604.73
TB1_shp	475	638059.5	6326124	1378.5	302	23.69	2850.39
TB1_shp	475	638059.5	6326124	1358.5	322	23.76	3129.42
TB1_shp	475	638059.5	6326124	1338.5	342	23.71	3424.41
TB1_shp	475	638059.5	6326124	1318.5	362	23.6	3728.35
TB1_shp	475	638059.5	6326124	1298.5	382	23.32	4036.03
TB1_shp	475	638059.5	6326124	1276.4	404.1	22.92	4377.72
TB1_shp	475	638059.5	6326124	1251.85	428.65	22.23	4727.95
TB1_shp	475	638059.5	6326124	1225.9	454.6	21.43	5088.23
TB1_shp	475	638059.5	6326124	1197.4	483.1	20.29	5364.48
TB1_shp	475	638059.5	6326124	1166.7	513.8	18.97	5612.16
TB1_shp	475	638059.5	6326124	1134.05	546.45	17.4	5781.47
TB1_shp	475	638059.5	6326124	1098.25	582.25	15.62	5835.3
TB1_shp	475	638059.5	6326124	1059.6	620.9	13.74	5816.55
TB1_shp	475	638059.5	6326124	1018.45	662.05	11.93	5682.11
TB1_shp	475	638059.5	6326124	973.35	707.15	10.27	5470.06
TB1_shp	475	638059.5	6326124	924.7	755.8	8.78	5217.59
TB1_shp	475	638059.5	6326124	872.9	807.6	7.53	4944.45
TB1_shp	475	638059.5	6326124	816.1	864.4	6.48	4611.04
TB1_shp	475	638059.5	6326124	754.85	925.65	5.35	4250.62
TB1_shp	475	638059.5	6326124	690	990.5	4.72	3993.02

TB1_shp	475	638059.5	6326124	618.5	1062	4.32	3775.77
TB1_shp	491.67	638077.8	6326126	1671.77	9.73	2.83	4417.2
TB1_shp	491.67	638077.8	6326126	1652.3	29.2	3.94	2583.26
TB1_shp	491.67	638077.8	6326126	1632.83	48.67	8.44	2273.23
TB1_shp	491.67	638077.8	6326126	1613.37	68.13	14.81	2391.64
TB1_shp	491.67	638077.8	6326126	1593.9	87.6	19.82	2463.42
TB1_shp	491.67	638077.8	6326126	1574.43	107.07	22.76	2411.79
TB1_shp	491.67	638077.8	6326126	1554.97	126.53	24.27	2298.98
TB1_shp	491.67	638077.8	6326126	1535.5	146	24.97	2181.13
TB1_shp	491.67	638077.8	6326126	1516.03	165.47	25.07	2110.26
TB1_shp	491.67	638077.8	6326126	1496.57	184.93	24.82	2086.8
TB1_shp	491.67	638077.8	6326126	1477.1	204.4	24.41	2106.87
TB1_shp	491.67	638077.8	6326126	1457.63	223.87	24.06	2184.64
TB1_shp	491.67	638077.8	6326126	1438.17	243.33	23.9	2304.98
TB1_shp	491.67	638077.8	6326126	1418.7	262.8	23.84	2451.57
TB1_shp	491.67	638077.8	6326126	1399.23	282.27	23.96	2652.52
TB1_shp	491.67	638077.8	6326126	1379.5	302	24.09	2880.29
TB1_shp	491.67	638077.8	6326126	1359.5	322	24.21	3142.7
TB1_shp	491.67	638077.8	6326126	1339.5	342	24.21	3424.27
TB1_shp	491.67	638077.8	6326126	1319.5	362	24.13	3716.57
TB1_shp	491.67	638077.8	6326126	1299.5	382	23.87	4017.67
TB1_shp	491.67	638077.8	6326126	1277.4	404.1	23.5	4354.39
TB1_shp	491.67	638077.8	6326126	1252.85	428.65	22.83	4704.1
TB1_shp	491.67	638077.8	6326126	1226.9	454.6	22.05	5065.31
TB1_shp	491.67	638077.8	6326126	1198.4	483.1	20.89	5351.7
TB1_shp	491.67	638077.8	6326126	1167.7	513.8	19.56	5612.41
TB1_shp	491.67	638077.8	6326126	1135.05	546.45	17.96	5799.56
TB1_shp	491.67	638077.8	6326126	1099.25	582.25	16.13	5870.33
TB1_shp	491.67	638077.8	6326126	1060.6	620.9	14.18	5866.87
TB1_shp	491.67	638077.8	6326126	1019.45	662.05	12.3	5741.72
TB1_shp	491.67	638077.8	6326126	974.35	707.15	10.57	5534.18
TB1_shp	491.67	638077.8	6326126	925.7	755.8	9.01	5282.92
TB1_shp	491.67	638077.8	6326126	873.9	807.6	7.71	5007.89
TB1_shp	491.67	638077.8	6326126	817.1	864.4	6.62	4666.92
TB1_shp	491.67	638077.8	6326126	755.85	925.65	5.45	4298.22
TB1_shp	491.67	638077.8	6326126	691	990.5	4.79	4034.18
TB1_shp	491.67	638077.8	6326126	619.5	1062	4.37	3811.09
TB1_shp	508.33	638094.8	6326127	1671.94	9.73	1.23	768.39
TB1_shp	508.33	638094.8	6326127	1652.47	29.2	3.3	1556.76
TB1_shp	508.33	638094.8	6326127	1633	48.67	8.61	2202.42
TB1_shp	508.33	638094.8	6326127	1613.54	68.13	16.1	2563.36
TB1_shp	508.33	638094.8	6326127	1594.07	87.6	21.57	2669.66
TB1_shp	508.33	638094.8	6326127	1574.6	107.07	24.15	2610.39
TB1_shp	508.33	638094.8	6326127	1555.14	126.53	25.12	2485.37
TB1_shp	508.33	638094.8	6326127	1535.67	146	25.34	2353.26
TB1_shp	508.33	638094.8	6326127	1516.2	165.47	25.14	2267.2
TB1_shp	508.33	638094.8	6326127	1496.74	184.93	24.74	2227.19
TB1_shp	508.33	638094.8	6326127	1477.27	204.4	24.3	2229.42
TB1_shp	508.33	638094.8	6326127	1457.8	223.87	24.03	2288.84
TB1_shp	508.33	638094.8	6326127	1438.34	243.33	23.98	2391.02
TB1_shp	508.33	638094.8	6326127	1418.87	262.8	24.03	2519.65
TB1_shp	508.33	638094.8	6326127	1399.4	282.27	24.25	2703.56

TB1_shp	508.33	638094.8	6326127	1379.67	302	24.45	2914.76
TB1_shp	508.33	638094.8	6326127	1359.67	322	24.63	3161.31
TB1_shp	508.33	638094.8	6326127	1339.67	342	24.68	3430.3
TB1_shp	508.33	638094.8	6326127	1319.67	362	24.64	3711.86
TB1_shp	508.33	638094.8	6326127	1299.67	382	24.41	4006.06
TB1_shp	508.33	638094.8	6326127	1277.57	404.1	24.06	4336.91
TB1_shp	508.33	638094.8	6326127	1253.02	428.65	23.4	4685.38
TB1_shp	508.33	638094.8	6326127	1227.07	454.6	22.63	5046.84
TB1_shp	508.33	638094.8	6326127	1198.57	483.1	21.47	5342.84
TB1_shp	508.33	638094.8	6326127	1167.87	513.8	20.13	5615.72
TB1_shp	508.33	638094.8	6326127	1135.22	546.45	18.49	5819.24
TB1_shp	508.33	638094.8	6326127	1099.42	582.25	16.61	5905.02
TB1_shp	508.33	638094.8	6326127	1060.77	620.9	14.61	5915.22
TB1_shp	508.33	638094.8	6326127	1019.62	662.05	12.66	5799.36
TB1_shp	508.33	638094.8	6326127	974.52	707.15	10.86	5596.83
TB1_shp	508.33	638094.8	6326127	925.87	755.8	9.25	5347.18
TB1_shp	508.33	638094.8	6326127	874.07	807.6	7.89	5070.2
TB1_shp	508.33	638094.8	6326127	817.27	864.4	6.76	4721.85
TB1_shp	508.33	638094.8	6326127	756.02	925.65	5.54	4345.06
TB1_shp	508.33	638094.8	6326127	691.17	990.5	4.86	4074.68
TB1_shp	508.33	638094.8	6326127	619.67	1062	4.43	3845.8
TB1_shp	525	638110.3	6326128	1671.27	9.73	1.14	2112.59
TB1_shp	525	638110.3	6326128	1651.8	29.2	2.46	2373.57
TB1_shp	525	638110.3	6326128	1632.33	48.67	6.96	2726.62
TB1_shp	525	638110.3	6326128	1612.87	68.13	15.03	2917.8
TB1_shp	525	638110.3	6326128	1593.4	87.6	21.53	2915.66
TB1_shp	525	638110.3	6326128	1573.93	107.07	24.31	2797.74
TB1_shp	525	638110.3	6326128	1554.47	126.53	25.11	2645.59
TB1_shp	525	638110.3	6326128	1535	146	25.11	2498.5
TB1_shp	525	638110.3	6326128	1515.53	165.47	24.78	2401.22
TB1_shp	525	638110.3	6326128	1496.07	184.93	24.36	2349.75
TB1_shp	525	638110.3	6326128	1476.6	204.4	23.98	2339.03
TB1_shp	525	638110.3	6326128	1457.13	223.87	23.85	2383.8
TB1_shp	525	638110.3	6326128	1437.67	243.33	23.94	2470.96
TB1_shp	525	638110.3	6326128	1418.2	262.8	24.13	2584.42
TB1_shp	525	638110.3	6326128	1398.73	282.27	24.46	2753.37
TB1_shp	525	638110.3	6326128	1379	302	24.76	2949.96
TB1_shp	525	638110.3	6326128	1359	322	25.01	3182.43
TB1_shp	525	638110.3	6326128	1339	342	25.1	3440.12
TB1_shp	525	638110.3	6326128	1319	362	25.1	3711.93
TB1_shp	525	638110.3	6326128	1299	382	24.89	3999.27
TB1_shp	525	638110.3	6326128	1276.9	404.1	24.56	4323.84
TB1_shp	525	638110.3	6326128	1252.35	428.65	23.93	4671.02
TB1_shp	525	638110.3	6326128	1226.4	454.6	23.18	5032.77
TB1_shp	525	638110.3	6326128	1197.9	483.1	22.02	5338.21
TB1_shp	525	638110.3	6326128	1167.2	513.8	20.66	5622.35
TB1_shp	525	638110.3	6326128	1134.55	546.45	19	5839.89
TB1_shp	525	638110.3	6326128	1098.75	582.25	17.07	5939.46
TB1_shp	525	638110.3	6326128	1060.1	620.9	15.01	5962.65
TB1_shp	525	638110.3	6326128	1018.95	662.05	13.01	5856.02
TB1_shp	525	638110.3	6326128	973.85	707.15	11.15	5658.27
TB1_shp	525	638110.3	6326128	925.2	755.8	9.47	5410.18

TB1_shp	525	638110.3	6326128	873.4	807.6	8.08	5131.6
TB1_shp	525	638110.3	6326128	816.6	864.4	6.9	4775.94
TB1_shp	525	638110.3	6326128	755.35	925.65	5.65	4391.12
TB1_shp	525	638110.3	6326128	690.5	990.5	4.94	4114.47
TB1_shp	525	638110.3	6326128	619	1062	4.49	3879.89
TB1_shp	541.67	638125.8	6326130	1670.6	9.73	0.58	5847.03
TB1_shp	541.67	638125.8	6326130	1651.13	29.2	1.35	4286.73
TB1_shp	541.67	638125.8	6326130	1631.66	48.67	4.61	3652.87
TB1_shp	541.67	638125.8	6326130	1612.2	68.13	12	3387.05
TB1_shp	541.67	638125.8	6326130	1592.73	87.6	19.47	3170.76
TB1_shp	541.67	638125.8	6326130	1573.26	107.07	22.94	2959.7
TB1_shp	541.67	638125.8	6326130	1553.8	126.53	24.01	2772.24
TB1_shp	541.67	638125.8	6326130	1534.33	146	24.12	2611.93
TB1_shp	541.67	638125.8	6326130	1514.86	165.47	23.87	2507.75
TB1_shp	541.67	638125.8	6326130	1495.4	184.93	23.57	2449.72
TB1_shp	541.67	638125.8	6326130	1475.93	204.4	23.36	2430.8
TB1_shp	541.67	638125.8	6326130	1456.46	223.87	23.44	2464.55
TB1_shp	541.67	638125.8	6326130	1437	243.33	23.73	2540.15
TB1_shp	541.67	638125.8	6326130	1417.53	262.8	24.11	2641.68
TB1_shp	541.67	638125.8	6326130	1398.06	282.27	24.57	2797.77
TB1_shp	541.67	638125.8	6326130	1378.33	302	24.98	2982.13
TB1_shp	541.67	638125.8	6326130	1358.33	322	25.32	3203.23
TB1_shp	541.67	638125.8	6326130	1338.33	342	25.47	3451
TB1_shp	541.67	638125.8	6326130	1318.33	362	25.51	3713.7
TB1_shp	541.67	638125.8	6326130	1298.33	382	25.33	3994.78
TB1_shp	541.67	638125.8	6326130	1276.23	404.1	25.04	4313.73
TB1_shp	541.67	638125.8	6326130	1251.68	428.65	24.42	4660.39
TB1_shp	541.67	638125.8	6326130	1225.73	454.6	23.68	5023.24
TB1_shp	541.67	638125.8	6326130	1197.23	483.1	22.52	5337.39
TB1_shp	541.67	638125.8	6326130	1166.53	513.8	21.16	5631.77
TB1_shp	541.67	638125.8	6326130	1133.88	546.45	19.48	5861.81
TB1_shp	541.67	638125.8	6326130	1098.08	582.25	17.51	5973.86
TB1_shp	541.67	638125.8	6326130	1059.43	620.9	15.4	6008.97
TB1_shp	541.67	638125.8	6326130	1018.28	662.05	13.35	5911.27
TB1_shp	541.67	638125.8	6326130	973.18	707.15	11.43	5718.6
TB1_shp	541.67	638125.8	6326130	924.53	755.8	9.71	5472.39
TB1_shp	541.67	638125.8	6326130	872.73	807.6	8.26	5192.24
TB1_shp	541.67	638125.8	6326130	815.93	864.4	7.04	4829.26
TB1_shp	541.67	638125.8	6326130	754.68	925.65	5.74	4436.4
TB1_shp	541.67	638125.8	6326130	689.83	990.5	5.01	4153.53
TB1_shp	541.67	638125.8	6326130	618.33	1062	4.55	3913.31
TB1_shp	558.33	638141.3	6326131	1669.94	9.73	0.13	630.7
TB1_shp	558.33	638141.3	6326131	1650.47	29.2	0.91	2371.53
TB1_shp	558.33	638141.3	6326131	1631	48.67	3.4	3416.01
TB1_shp	558.33	638141.3	6326131	1611.54	68.13	9.37	3501.19
TB1_shp	558.33	638141.3	6326131	1592.07	87.6	16.55	3291.46
TB1_shp	558.33	638141.3	6326131	1572.6	107.07	20.49	3051.95
TB1_shp	558.33	638141.3	6326131	1553.14	126.53	21.98	2851.95
TB1_shp	558.33	638141.3	6326131	1533.67	146	22.4	2689.76
TB1_shp	558.33	638141.3	6326131	1514.2	165.47	22.4	2585.19
TB1_shp	558.33	638141.3	6326131	1494.74	184.93	22.36	2525.16
TB1_shp	558.33	638141.3	6326131	1475.27	204.4	22.42	2501.81

TB1_shp	558.33	638141.3	6326131	1455.8	223.87	22.79	2527.63
TB1_shp	558.33	638141.3	6326131	1436.34	243.33	23.33	2594.43
TB1_shp	558.33	638141.3	6326131	1416.87	262.8	23.94	2686.66
TB1_shp	558.33	638141.3	6326131	1397.4	282.27	24.56	2832.76
TB1_shp	558.33	638141.3	6326131	1377.67	302	25.11	3007.41
TB1_shp	558.33	638141.3	6326131	1357.67	322	25.54	3219.22
TB1_shp	558.33	638141.3	6326131	1337.67	342	25.76	3458.86
TB1_shp	558.33	638141.3	6326131	1317.67	362	25.85	3714.1
TB1_shp	558.33	638141.3	6326131	1297.67	382	25.71	3990.38
TB1_shp	558.33	638141.3	6326131	1275.57	404.1	25.45	4305.23
TB1_shp	558.33	638141.3	6326131	1251.02	428.65	24.85	4652.58
TB1_shp	558.33	638141.3	6326131	1225.07	454.6	24.13	5017.63
TB1_shp	558.33	638141.3	6326131	1196.57	483.1	22.98	5340.08
TB1_shp	558.33	638141.3	6326131	1165.87	513.8	21.62	5643.82
TB1_shp	558.33	638141.3	6326131	1133.22	546.45	19.92	5884.64
TB1_shp	558.33	638141.3	6326131	1097.42	582.25	17.92	6008.24
TB1_shp	558.33	638141.3	6326131	1058.77	620.9	15.77	6054.74
TB1_shp	558.33	638141.3	6326131	1017.62	662.05	13.66	5966.05
TB1_shp	558.33	638141.3	6326131	972.52	707.15	11.7	5778.28
TB1_shp	558.33	638141.3	6326131	923.87	755.8	9.92	5533.79
TB1_shp	558.33	638141.3	6326131	872.07	807.6	8.43	5252.11
TB1_shp	558.33	638141.3	6326131	815.27	864.4	7.18	4881.78
TB1_shp	558.33	638141.3	6326131	754.02	925.65	5.84	4480.84
TB1_shp	558.33	638141.3	6326131	689.17	990.5	5.08	4191.77
TB1_shp	558.33	638141.3	6326131	617.67	1062	4.6	3945.99
TB1_shp	575	638156.8	6326132	1669.27	9.73	0.38	429.49
TB1_shp	575	638156.8	6326132	1649.8	29.2	1.04	1729.6
TB1_shp	575	638156.8	6326132	1630.33	48.67	3.12	3043.94
TB1_shp	575	638156.8	6326132	1610.87	68.13	7.91	3395.8
TB1_shp	575	638156.8	6326132	1591.4	87.6	13.96	3281.22
TB1_shp	575	638156.8	6326132	1571.93	107.07	17.74	3072.09
TB1_shp	575	638156.8	6326132	1552.47	126.53	19.45	2887.08
TB1_shp	575	638156.8	6326132	1533	146	20.17	2734.35
TB1_shp	575	638156.8	6326132	1513.53	165.47	20.48	2634.64
TB1_shp	575	638156.8	6326132	1494.07	184.93	20.77	2575.62
TB1_shp	575	638156.8	6326132	1474.6	204.4	21.19	2550.1
TB1_shp	575	638156.8	6326132	1455.13	223.87	21.9	2570.82
TB1_shp	575	638156.8	6326132	1435.67	243.33	22.73	2631.25
TB1_shp	575	638156.8	6326132	1416.2	262.8	23.61	2716.49
TB1_shp	575	638156.8	6326132	1396.73	282.27	24.42	2855.4
TB1_shp	575	638156.8	6326132	1377	302	25.13	3023
TB1_shp	575	638156.8	6326132	1357	322	25.67	3227.95
TB1_shp	575	638156.8	6326132	1337	342	25.97	3461.83
TB1_shp	575	638156.8	6326132	1317	362	26.13	3711.9
TB1_shp	575	638156.8	6326132	1297	382	26.04	3985.31
TB1_shp	575	638156.8	6326132	1274.9	404.1	25.81	4298.03
TB1_shp	575	638156.8	6326132	1250.35	428.65	25.23	4646.99
TB1_shp	575	638156.8	6326132	1224.4	454.6	24.52	5014.89
TB1_shp	575	638156.8	6326132	1195.9	483.1	23.38	5345.05
TB1_shp	575	638156.8	6326132	1165.2	513.8	22.02	5657.47
TB1_shp	575	638156.8	6326132	1132.55	546.45	20.32	5908.21
TB1_shp	575	638156.8	6326132	1096.75	582.25	18.29	6042.79

TB1_shp	575	638156.8	6326132	1058.1	620.9	16.11	6100.26
TB1_shp	575	638156.8	6326132	1016.95	662.05	13.96	6020.22
TB1_shp	575	638156.8	6326132	971.85	707.15	11.95	5837.34
TB1_shp	575	638156.8	6326132	923.2	755.8	10.13	5594.63
TB1_shp	575	638156.8	6326132	871.4	807.6	8.6	5311.35
TB1_shp	575	638156.8	6326132	814.6	864.4	7.31	4933.62
TB1_shp	575	638156.8	6326132	753.35	925.65	5.94	4524.55
TB1_shp	575	638156.8	6326132	688.5	990.5	5.16	4229.3
TB1_shp	575	638156.8	6326132	617	1062	4.67	3978.02
TB1_shp	591.67	638172.3	6326134	1668.6	9.73	0.83	572.49
TB1_shp	591.67	638172.3	6326134	1649.13	29.2	1.55	1738.04
TB1_shp	591.67	638172.3	6326134	1629.66	48.67	3.4	2893.99
TB1_shp	591.67	638172.3	6326134	1610.2	68.13	7.22	3286.65
TB1_shp	591.67	638172.3	6326134	1590.73	87.6	11.97	3234.55
TB1_shp	591.67	638172.3	6326134	1571.26	107.07	15.18	3065
TB1_shp	591.67	638172.3	6326134	1551.8	126.53	16.84	2900.89
TB1_shp	591.67	638172.3	6326134	1532.33	146	17.71	2758.32
TB1_shp	591.67	638172.3	6326134	1512.86	165.47	18.29	2662.14
TB1_shp	591.67	638172.3	6326134	1493.4	184.93	18.91	2602.96
TB1_shp	591.67	638172.3	6326134	1473.93	204.4	19.72	2575.06
TB1_shp	591.67	638172.3	6326134	1454.46	223.87	20.81	2591.79
TB1_shp	591.67	638172.3	6326134	1435	243.33	21.96	2647.89
TB1_shp	591.67	638172.3	6326134	1415.53	262.8	23.12	2728.63
TB1_shp	591.67	638172.3	6326134	1396.06	282.27	24.14	2862.99
TB1_shp	591.67	638172.3	6326134	1376.33	302	25.02	3026.16
TB1_shp	591.67	638172.3	6326134	1356.33	322	25.71	3226.88
TB1_shp	591.67	638172.3	6326134	1336.33	342	26.1	3457.64
TB1_shp	591.67	638172.3	6326134	1316.33	362	26.33	3705.21
TB1_shp	591.67	638172.3	6326134	1296.33	382	26.28	3977.5
TB1_shp	591.67	638172.3	6326134	1274.23	404.1	26.09	4289.61
TB1_shp	591.67	638172.3	6326134	1249.68	428.65	25.54	4641.51
TB1_shp	591.67	638172.3	6326134	1223.73	454.6	24.85	5013.52
TB1_shp	591.67	638172.3	6326134	1195.23	483.1	23.72	5351.27
TB1_shp	591.67	638172.3	6326134	1164.53	513.8	22.36	5672.17
TB1_shp	591.67	638172.3	6326134	1131.88	546.45	20.66	5932.47
TB1_shp	591.67	638172.3	6326134	1096.08	582.25	18.62	6077.86
TB1_shp	591.67	638172.3	6326134	1057.43	620.9	16.42	6146.17
TB1_shp	591.67	638172.3	6326134	1016.28	662.05	14.24	6074.68
TB1_shp	591.67	638172.3	6326134	971.18	707.15	12.19	5896.25
TB1_shp	591.67	638172.3	6326134	922.53	755.8	10.33	5654.92
TB1_shp	591.67	638172.3	6326134	870.73	807.6	8.76	5369.94
TB1_shp	591.67	638172.3	6326134	813.93	864.4	7.44	4984.72
TB1_shp	591.67	638172.3	6326134	752.68	925.65	6.03	4567.44
TB1_shp	591.67	638172.3	6326134	687.83	990.5	5.23	4266.04
TB1_shp	591.67	638172.3	6326134	616.33	1062	4.72	4009.34
TB1_shp	608.33	638188.7	6326135	1665.52	9.73	0.94	1266.84
TB1_shp	608.33	638188.7	6326135	1646.05	29.2	2.28	2041.22
TB1_shp	608.33	638188.7	6326135	1626.58	48.67	3.77	2981.88
TB1_shp	608.33	638188.7	6326135	1607.12	68.13	6.62	3318.26
TB1_shp	608.33	638188.7	6326135	1587.65	87.6	10.29	3257.84
TB1_shp	608.33	638188.7	6326135	1568.18	107.07	12.92	3087.06
TB1_shp	608.33	638188.7	6326135	1548.72	126.53	14.35	2920.68

TB1_shp	608.33	638188.7	6326135	1529.25	146	15.23	2772.89
TB1_shp	608.33	638188.7	6326135	1509.78	165.47	16.01	2671.69
TB1_shp	608.33	638188.7	6326135	1490.32	184.93	16.95	2607.88
TB1_shp	608.33	638188.7	6326135	1470.85	204.4	18.12	2575.71
TB1_shp	608.33	638188.7	6326135	1451.38	223.87	19.58	2589.41
TB1_shp	608.33	638188.7	6326135	1431.92	243.33	21.05	2643.06
TB1_shp	608.33	638188.7	6326135	1412.45	262.8	22.51	2721.65
TB1_shp	608.33	638188.7	6326135	1392.98	282.27	23.76	2854.09
TB1_shp	608.33	638188.7	6326135	1373.25	302	24.82	3015.56
TB1_shp	608.33	638188.7	6326135	1353.25	322	25.64	3214.85
TB1_shp	608.33	638188.7	6326135	1333.25	342	26.13	3444.91
TB1_shp	608.33	638188.7	6326135	1313.25	362	26.45	3692.2
TB1_shp	608.33	638188.7	6326135	1293.25	382	26.45	3965.5
TB1_shp	608.33	638188.7	6326135	1271.15	404.1	26.31	4279.32
TB1_shp	608.33	638188.7	6326135	1246.6	428.65	25.78	4635.47
TB1_shp	608.33	638188.7	6326135	1220.65	454.6	25.11	5012.62
TB1_shp	608.33	638188.7	6326135	1192.15	483.1	23.99	5358.33
TB1_shp	608.33	638188.7	6326135	1161.45	513.8	22.65	5687.98
TB1_shp	608.33	638188.7	6326135	1128.8	546.45	20.96	5957.97
TB1_shp	608.33	638188.7	6326135	1093	582.25	18.91	6114
TB1_shp	608.33	638188.7	6326135	1054.35	620.9	16.7	6192.78
TB1_shp	608.33	638188.7	6326135	1013.2	662.05	14.49	6129.1
TB1_shp	608.33	638188.7	6326135	968.1	707.15	12.41	5954.86
TB1_shp	608.33	638188.7	6326135	919.45	755.8	10.52	5714.82
TB1_shp	608.33	638188.7	6326135	867.65	807.6	8.92	5428.06
TB1_shp	608.33	638188.7	6326135	810.85	864.4	7.57	5035.21
TB1_shp	608.33	638188.7	6326135	749.6	925.65	6.12	4609.55
TB1_shp	608.33	638188.7	6326135	684.75	990.5	5.3	4301.98
TB1_shp	608.33	638188.7	6326135	613.25	1062	4.78	4039.93
TB1_shp	625	638206	6326137	1660.02	9.73	4.46	629.49
TB1_shp	625	638206	6326137	1640.55	29.2	3.63	2104.43
TB1_shp	625	638206	6326137	1621.08	48.67	3.58	3398.45
TB1_shp	625	638206	6326137	1601.62	68.13	5.6	3632.89
TB1_shp	625	638206	6326137	1582.15	87.6	8.66	3426.48
TB1_shp	625	638206	6326137	1562.68	107.07	10.9	3164.63
TB1_shp	625	638206	6326137	1543.22	126.53	12.1	2948.47
TB1_shp	625	638206	6326137	1523.75	146	12.92	2773.2
TB1_shp	625	638206	6326137	1504.28	165.47	13.83	2656.96
TB1_shp	625	638206	6326137	1484.82	184.93	15.01	2584.88
TB1_shp	625	638206	6326137	1465.35	204.4	16.49	2548.55
TB1_shp	625	638206	6326137	1445.88	223.87	18.29	2561
TB1_shp	625	638206	6326137	1426.42	243.33	20.07	2614.77
TB1_shp	625	638206	6326137	1406.95	262.8	21.82	2694.19
TB1_shp	625	638206	6326137	1387.48	282.27	23.28	2827.96
TB1_shp	625	638206	6326137	1367.75	302	24.52	2990.75
TB1_shp	625	638206	6326137	1347.75	322	25.48	3191.36
TB1_shp	625	638206	6326137	1327.75	342	26.07	3423.22
TB1_shp	625	638206	6326137	1307.75	362	26.47	3672.57
TB1_shp	625	638206	6326137	1287.75	382	26.52	3948.71
TB1_shp	625	638206	6326137	1265.65	404.1	26.44	4266.01
TB1_shp	625	638206	6326137	1241.1	428.65	25.94	4627.92
TB1_shp	625	638206	6326137	1215.15	454.6	25.3	5011.67

TB1_shp	625	638206	6326137	1186.65	483.1	24.2	5365.79
TB1_shp	625	638206	6326137	1155.95	513.8	22.87	5704.67
TB1_shp	625	638206	6326137	1123.3	546.45	21.19	5984.79
TB1_shp	625	638206	6326137	1087.5	582.25	19.15	6151.33
TB1_shp	625	638206	6326137	1048.85	620.9	16.93	6240.3
TB1_shp	625	638206	6326137	1007.7	662.05	14.71	6184.31
TB1_shp	625	638206	6326137	962.6	707.15	12.61	6013.85
TB1_shp	625	638206	6326137	913.95	755.8	10.69	5774.63
TB1_shp	625	638206	6326137	862.15	807.6	9.07	5485.7
TB1_shp	625	638206	6326137	805.35	864.4	7.69	5085.04
TB1_shp	625	638206	6326137	744.1	925.65	6.21	4650.82
TB1_shp	625	638206	6326137	679.25	990.5	5.37	4337.07
TB1_shp	625	638206	6326137	607.75	1062	4.83	4069.75
TB1_shp	641.67	638223.3	6326139	1654.52	9.73	10.72	421.29
TB1_shp	641.67	638223.3	6326139	1635.05	29.2	2.78	3935.43
TB1_shp	641.67	638223.3	6326139	1615.58	48.67	2.41	4987.38
TB1_shp	641.67	638223.3	6326139	1596.12	68.13	4.32	4369.51
TB1_shp	641.67	638223.3	6326139	1576.65	87.6	7.22	3689.14
TB1_shp	641.67	638223.3	6326139	1557.18	107.07	9.17	3225.86
TB1_shp	641.67	638223.3	6326139	1537.72	126.53	10.11	2930.7
TB1_shp	641.67	638223.3	6326139	1518.25	146	10.87	2725.39
TB1_shp	641.67	638223.3	6326139	1498.78	165.47	11.88	2598.61
TB1_shp	641.67	638223.3	6326139	1479.32	184.93	13.26	2523.66
TB1_shp	641.67	638223.3	6326139	1459.85	204.4	14.98	2487.96
TB1_shp	641.67	638223.3	6326139	1440.38	223.87	17.05	2504.05
TB1_shp	641.67	638223.3	6326139	1420.92	243.33	19.09	2561.67
TB1_shp	641.67	638223.3	6326139	1401.45	262.8	21.08	2645.13
TB1_shp	641.67	638223.3	6326139	1381.98	282.27	22.73	2783.73
TB1_shp	641.67	638223.3	6326139	1362.25	302	24.15	2951.07
TB1_shp	641.67	638223.3	6326139	1342.25	322	25.23	3155.84
TB1_shp	641.67	638223.3	6326139	1322.25	342	25.93	3392.03
TB1_shp	641.67	638223.3	6326139	1302.25	362	26.4	3645.83
TB1_shp	641.67	638223.3	6326139	1282.25	382	26.52	3926.78
TB1_shp	641.67	638223.3	6326139	1260.15	404.1	26.49	4249.57
TB1_shp	641.67	638223.3	6326139	1235.6	428.65	26.03	4618.58
TB1_shp	641.67	638223.3	6326139	1209.65	454.6	25.42	5010.14
TB1_shp	641.67	638223.3	6326139	1181.15	483.1	24.34	5373.85
TB1_shp	641.67	638223.3	6326139	1150.45	513.8	23.03	5722.88
TB1_shp	641.67	638223.3	6326139	1117.8	546.45	21.37	6013.48
TB1_shp	641.67	638223.3	6326139	1082	582.25	19.34	6190.46
TB1_shp	641.67	638223.3	6326139	1043.35	620.9	17.13	6289.22
TB1_shp	641.67	638223.3	6326139	1002.2	662.05	14.91	6239.96
TB1_shp	641.67	638223.3	6326139	957.1	707.15	12.8	6072.78
TB1_shp	641.67	638223.3	6326139	908.45	755.8	10.86	5834.17
TB1_shp	641.67	638223.3	6326139	856.65	807.6	9.21	5543.07
TB1_shp	641.67	638223.3	6326139	799.85	864.4	7.81	5134.4
TB1_shp	641.67	638223.3	6326139	738.6	925.65	6.3	4691.38
TB1_shp	641.67	638223.3	6326139	673.75	990.5	5.44	4371.4
TB1_shp	641.67	638223.3	6326139	602.25	1062	4.89	4098.87
TB1_shp	658.33	638240.7	6326141	1649.02	9.73	0.96	21034.3
TB1_shp	658.33	638240.7	6326141	1629.55	29.2	1.62	8949.81
TB1_shp	658.33	638240.7	6326141	1610.08	48.67	3.87	5018.52

TB1_shp	658.33	638240.7	6326141	1590.62	68.13	6.44	3635.91
TB1_shp	658.33	638240.7	6326141	1571.15	87.6	7.83	3050.16
TB1_shp	658.33	638240.7	6326141	1551.68	107.07	8.47	2755.9
TB1_shp	658.33	638240.7	6326141	1532.22	126.53	9.19	2576.71
TB1_shp	658.33	638240.7	6326141	1512.75	146	10.28	2471.51
TB1_shp	658.33	638240.7	6326141	1493.28	165.47	11.78	2413.57
TB1_shp	658.33	638240.7	6326141	1473.82	184.93	13.65	2391.89
TB1_shp	658.33	638240.7	6326141	1454.35	204.4	15.91	2418.54
TB1_shp	658.33	638240.7	6326141	1434.88	223.87	18.14	2485.51
TB1_shp	658.33	638240.7	6326141	1415.42	243.33	20.31	2577.5
TB1_shp	658.33	638240.7	6326141	1395.95	262.8	22.15	2723.37
TB1_shp	658.33	638240.7	6326141	1376.48	282.27	23.69	2895.3
TB1_shp	658.33	638240.7	6326141	1356.75	302	24.88	3104.6
TB1_shp	658.33	638240.7	6326141	1336.75	322	25.68	3346.21
TB1_shp	658.33	638240.7	6326141	1316.75	342	26.23	3606.29
TB1_shp	658.33	638240.7	6326141	1296.75	362	26.42	3892.5
TB1_shp	658.33	638240.7	6326141	1276.75	382	26.44	4190.89
TB1_shp	658.33	638240.7	6326141	1254.65	404.1	26.13	4529.16
TB1_shp	658.33	638240.7	6326141	1230.1	428.65	25.6	4909.82
TB1_shp	658.33	638240.7	6326141	1204.15	454.6	24.73	5264.3
TB1_shp	658.33	638240.7	6326141	1175.65	483.1	23.68	5637.93
TB1_shp	658.33	638240.7	6326141	1144.95	513.8	22.15	5922.17
TB1_shp	658.33	638240.7	6326141	1112.3	546.45	20.43	6164.89
TB1_shp	658.33	638240.7	6326141	1076.5	582.25	18.36	6310.49
TB1_shp	658.33	638240.7	6326141	1037.85	620.9	16.24	6319.39
TB1_shp	658.33	638240.7	6326141	996.7	662.05	14.1	6246.23
TB1_shp	658.33	638240.7	6326141	951.6	707.15	12.08	6046.06
TB1_shp	658.33	638240.7	6326141	902.95	755.8	10.38	5783.47
TB1_shp	658.33	638240.7	6326141	851.15	807.6	8.85	5458.69
TB1_shp	658.33	638240.7	6326141	794.35	864.4	7.43	5039.53
TB1_shp	658.33	638240.7	6326141	733.1	925.65	5.91	4587.53
TB1_shp	658.33	638240.7	6326141	668.25	990.5	5.36	4329.36
TB1_shp	658.33	638240.7	6326141	596.75	1062	4.79	4051.7
TB1_shp	675	638258	6326142	1643.52	9.73	3.41	7898.64
TB1_shp	675	638258	6326142	1624.05	29.2	3.91	4478.09
TB1_shp	675	638258	6326142	1604.58	48.67	5.28	3123.78
TB1_shp	675	638258	6326142	1585.12	68.13	6.37	2637.68
TB1_shp	675	638258	6326142	1565.65	87.6	6.85	2449.84
TB1_shp	675	638258	6326142	1546.18	107.07	7.23	2361.92
TB1_shp	675	638258	6326142	1526.72	126.53	7.94	2305.58
TB1_shp	675	638258	6326142	1507.25	146	9.08	2270.33
TB1_shp	675	638258	6326142	1487.78	165.47	10.65	2255.88
TB1_shp	675	638258	6326142	1468.32	184.93	12.6	2263.64
TB1_shp	675	638258	6326142	1448.85	204.4	14.95	2308.98
TB1_shp	675	638258	6326142	1429.38	223.87	17.3	2390.19
TB1_shp	675	638258	6326142	1409.92	243.33	19.61	2494.1
TB1_shp	675	638258	6326142	1390.45	262.8	21.55	2649.77
TB1_shp	675	638258	6326142	1370.98	282.27	23.21	2831.15
TB1_shp	675	638258	6326142	1351.25	302	24.5	3049.58
TB1_shp	675	638258	6326142	1331.25	322	25.38	3299.6
TB1_shp	675	638258	6326142	1311.25	342	25.99	3567.56
TB1_shp	675	638258	6326142	1291.25	362	26.23	3861.85

TB1_shp	675	638258	6326142	1271.25	382	26.29	4168.43
TB1_shp	675	638258	6326142	1249.15	404.1	26.03	4515.73
TB1_shp	675	638258	6326142	1224.6	428.65	25.55	4906.4
TB1_shp	675	638258	6326142	1198.65	454.6	24.72	5270.92
TB1_shp	675	638258	6326142	1170.15	483.1	23.7	5655.39
TB1_shp	675	638258	6326142	1139.45	513.8	22.19	5950.47
TB1_shp	675	638258	6326142	1106.8	546.45	20.5	6203.8
TB1_shp	675	638258	6326142	1071	582.25	18.47	6359.12
TB1_shp	675	638258	6326142	1032.35	620.9	16.36	6374.44
TB1_shp	675	638258	6326142	991.2	662.05	14.24	6305.71
TB1_shp	675	638258	6326142	946.1	707.15	12.23	6106.57
TB1_shp	675	638258	6326142	897.45	755.8	10.52	5842.17
TB1_shp	675	638258	6326142	845.65	807.6	8.97	5512.79
TB1_shp	675	638258	6326142	788.85	864.4	7.53	5084.96
TB1_shp	675	638258	6326142	727.6	925.65	5.98	4623.6
TB1_shp	675	638258	6326142	662.75	990.5	5.42	4360.7
TB1_shp	675	638258	6326142	591.25	1062	4.83	4077.99
TB1_shp	691.67	638275.3	6326144	1638.02	9.73	8.66	1453.78
TB1_shp	691.67	638275.3	6326144	1618.55	29.2	7.11	1256.46
TB1_shp	691.67	638275.3	6326144	1599.08	48.67	6.55	1334.64
TB1_shp	691.67	638275.3	6326144	1579.62	68.13	6.28	1534.66
TB1_shp	691.67	638275.3	6326144	1560.15	87.6	6.22	1737.96
TB1_shp	691.67	638275.3	6326144	1540.68	107.07	6.48	1886.76
TB1_shp	691.67	638275.3	6326144	1521.22	126.53	7.19	1980.8
TB1_shp	691.67	638275.3	6326144	1501.75	146	8.34	2033.93
TB1_shp	691.67	638275.3	6326144	1482.28	165.47	9.91	2074.78
TB1_shp	691.67	638275.3	6326144	1462.82	184.93	11.86	2119.21
TB1_shp	691.67	638275.3	6326144	1443.35	204.4	14.23	2186.92
TB1_shp	691.67	638275.3	6326144	1423.88	223.87	16.61	2284.74
TB1_shp	691.67	638275.3	6326144	1404.42	243.33	18.95	2402.25
TB1_shp	691.67	638275.3	6326144	1384.95	262.8	20.98	2568.64
TB1_shp	691.67	638275.3	6326144	1365.48	282.27	22.71	2760.5
TB1_shp	691.67	638275.3	6326144	1345.75	302	24.07	2989.2
TB1_shp	691.67	638275.3	6326144	1325.75	322	25.01	3248.67
TB1_shp	691.67	638275.3	6326144	1305.75	342	25.67	3525.48
TB1_shp	691.67	638275.3	6326144	1285.75	362	25.96	3829.18
TB1_shp	691.67	638275.3	6326144	1265.75	382	26.07	4145.42
TB1_shp	691.67	638275.3	6326144	1243.65	404.1	25.85	4502.73
TB1_shp	691.67	638275.3	6326144	1219.1	428.65	25.41	4904.15
TB1_shp	691.67	638275.3	6326144	1193.15	454.6	24.61	5279.18
TB1_shp	691.67	638275.3	6326144	1164.65	483.1	23.64	5674.92
TB1_shp	691.67	638275.3	6326144	1133.95	513.8	22.17	5981.34
TB1_shp	691.67	638275.3	6326144	1101.3	546.45	20.52	6245.4
TB1_shp	691.67	638275.3	6326144	1065.5	582.25	18.53	6409.77
TB1_shp	691.67	638275.3	6326144	1026.85	620.9	16.46	6431.22
TB1_shp	691.67	638275.3	6326144	985.7	662.05	14.36	6366.67
TB1_shp	691.67	638275.3	6326144	940.6	707.15	12.35	6167.93
TB1_shp	691.67	638275.3	6326144	891.95	755.8	10.64	5901.09
TB1_shp	691.67	638275.3	6326144	840.15	807.6	9.08	5566.6
TB1_shp	691.67	638275.3	6326144	783.35	864.4	7.63	5129.81
TB1_shp	691.67	638275.3	6326144	722.1	925.65	6.06	4658.8
TB1_shp	691.67	638275.3	6326144	657.25	990.5	5.48	4391.21

TB1_shp	691.67	638275.3	6326144	585.75	1062	4.88	4103.5
TB1_shp	708.33	638292.4	6326146	1638.94	9.73	5.74	771.06
TB1_shp	708.33	638292.4	6326146	1619.47	29.2	7.25	533.36
TB1_shp	708.33	638292.4	6326146	1600	48.67	6.91	678.27
TB1_shp	708.33	638292.4	6326146	1580.54	68.13	6.34	966.54
TB1_shp	708.33	638292.4	6326146	1561.07	87.6	6.1	1279.63
TB1_shp	708.33	638292.4	6326146	1541.6	107.07	6.29	1533.24
TB1_shp	708.33	638292.4	6326146	1522.14	126.53	6.96	1714.38
TB1_shp	708.33	638292.4	6326146	1502.67	146	8.06	1826.64
TB1_shp	708.33	638292.4	6326146	1483.2	165.47	9.57	1908.23
TB1_shp	708.33	638292.4	6326146	1463.74	184.93	11.45	1981.49
TB1_shp	708.33	638292.4	6326146	1444.27	204.4	13.74	2068.33
TB1_shp	708.33	638292.4	6326146	1424.8	223.87	16.07	2180.62
TB1_shp	708.33	638292.4	6326146	1405.34	243.33	18.39	2310.23
TB1_shp	708.33	638292.4	6326146	1385.87	262.8	20.43	2487
TB1_shp	708.33	638292.4	6326146	1366.4	282.27	22.19	2688.82
TB1_shp	708.33	638292.4	6326146	1346.67	302	23.6	2927.11
TB1_shp	708.33	638292.4	6326146	1326.67	322	24.58	3196.42
TB1_shp	708.33	638292.4	6326146	1306.67	342	25.28	3483.17
TB1_shp	708.33	638292.4	6326146	1286.67	362	25.61	3796.86
TB1_shp	708.33	638292.4	6326146	1266.67	382	25.76	4123.13
TB1_shp	708.33	638292.4	6326146	1244.57	404.1	25.59	4490.83
TB1_shp	708.33	638292.4	6326146	1220.02	428.65	25.2	4903.39
TB1_shp	708.33	638292.4	6326146	1194.07	454.6	24.44	5289.82
TB1_shp	708.33	638292.4	6326146	1165.57	483.1	23.51	5697.96
TB1_shp	708.33	638292.4	6326146	1134.87	513.8	22.09	6015.77
TB1_shp	708.33	638292.4	6326146	1102.22	546.45	20.49	6290.52
TB1_shp	708.33	638292.4	6326146	1066.42	582.25	18.54	6463.71
TB1_shp	708.33	638292.4	6326146	1027.77	620.9	16.51	6490.24
TB1_shp	708.33	638292.4	6326146	986.62	662.05	14.45	6428.66
TB1_shp	708.33	638292.4	6326146	941.52	707.15	12.46	6229.69
TB1_shp	708.33	638292.4	6326146	892.87	755.8	10.75	5960.19
TB1_shp	708.33	638292.4	6326146	841.07	807.6	9.19	5620.41
TB1_shp	708.33	638292.4	6326146	784.27	864.4	7.72	5174.29
TB1_shp	708.33	638292.4	6326146	723.02	925.65	6.13	4693.22
TB1_shp	708.33	638292.4	6326146	658.17	990.5	5.54	4420.98
TB1_shp	708.33	638292.4	6326146	586.67	1062	4.93	4128.34
TB1_shp	725	638309.3	6326147	1646.27	9.73	4.68	2883.54
TB1_shp	725	638309.3	6326147	1626.8	29.2	7.66	875.23
TB1_shp	725	638309.3	6326147	1607.33	48.67	7.79	715.19
TB1_shp	725	638309.3	6326147	1587.87	68.13	7.03	896.29
TB1_shp	725	638309.3	6326147	1568.4	87.6	6.61	1162.7
TB1_shp	725	638309.3	6326147	1548.93	107.07	6.67	1400.38
TB1_shp	725	638309.3	6326147	1529.47	126.53	7.24	1581.26
TB1_shp	725	638309.3	6326147	1510	146	8.24	1699.8
TB1_shp	725	638309.3	6326147	1490.53	165.47	9.62	1789.85
TB1_shp	725	638309.3	6326147	1471.07	184.93	11.36	1872.06
TB1_shp	725	638309.3	6326147	1451.6	204.4	13.49	1967.54
TB1_shp	725	638309.3	6326147	1432.13	223.87	15.7	2088
TB1_shp	725	638309.3	6326147	1412.67	243.33	17.91	2225.57
TB1_shp	725	638309.3	6326147	1393.2	262.8	19.91	2410.38
TB1_shp	725	638309.3	6326147	1373.73	282.27	21.66	2620.4

TB1_shp	725	638309.3	6326147	1354	302	23.09	2867.17
TB1_shp	725	638309.3	6326147	1334	322	24.1	3145.73
TB1_shp	725	638309.3	6326147	1314	342	24.83	3442.12
TB1_shp	725	638309.3	6326147	1294	362	25.19	3766.14
TB1_shp	725	638309.3	6326147	1274	382	25.37	4103.04
TB1_shp	725	638309.3	6326147	1251.9	404.1	25.24	4481.62
TB1_shp	725	638309.3	6326147	1227.35	428.65	24.9	4905.77
TB1_shp	725	638309.3	6326147	1201.4	454.6	24.2	5303.96
TB1_shp	725	638309.3	6326147	1172.9	483.1	23.32	5724.85
TB1_shp	725	638309.3	6326147	1142.2	513.8	21.96	6054.37
TB1_shp	725	638309.3	6326147	1109.55	546.45	20.42	6339.68
TB1_shp	725	638309.3	6326147	1073.75	582.25	18.52	6520.58
TB1_shp	725	638309.3	6326147	1035.1	620.9	16.54	6551.56
TB1_shp	725	638309.3	6326147	993.95	662.05	14.52	6492.44
TB1_shp	725	638309.3	6326147	948.85	707.15	12.55	6292.59
TB1_shp	725	638309.3	6326147	900.2	755.8	10.85	6019.72
TB1_shp	725	638309.3	6326147	848.4	807.6	9.29	5674.05
TB1_shp	725	638309.3	6326147	791.6	864.4	7.8	5218.31
TB1_shp	725	638309.3	6326147	730.35	925.65	6.2	4726.86
TB1_shp	725	638309.3	6326147	665.5	990.5	5.6	4450.05
TB1_shp	725	638309.3	6326147	594	1062	4.98	4152.55
TB1_shp	741.67	638326.1	6326149	1653.6	9.73	6.31	3336.65
TB1_shp	741.67	638326.1	6326149	1634.13	29.2	8.4	2059.2
TB1_shp	741.67	638326.1	6326149	1614.66	48.67	9.93	1227.34
TB1_shp	741.67	638326.1	6326149	1595.2	68.13	9.32	1088.84
TB1_shp	741.67	638326.1	6326149	1575.73	87.6	8.31	1195.88
TB1_shp	741.67	638326.1	6326149	1556.26	107.07	7.7	1361.11
TB1_shp	741.67	638326.1	6326149	1536.8	126.53	7.59	1501.36
TB1_shp	741.67	638326.1	6326149	1517.33	146	7.98	1604.53
TB1_shp	741.67	638326.1	6326149	1497.86	165.47	8.8	1675.42
TB1_shp	741.67	638326.1	6326149	1478.4	184.93	9.99	1737.52
TB1_shp	741.67	638326.1	6326149	1458.93	204.4	11.52	1804.6
TB1_shp	741.67	638326.1	6326149	1439.46	223.87	13.44	1895.13
TB1_shp	741.67	638326.1	6326149	1420	243.33	15.46	2014.85
TB1_shp	741.67	638326.1	6326149	1400.53	262.8	17.51	2154.17
TB1_shp	741.67	638326.1	6326149	1381.06	282.27	19.42	2343.94
TB1_shp	741.67	638326.1	6326149	1361.33	302	21.13	2563.15
TB1_shp	741.67	638326.1	6326149	1341.33	322	22.57	2820.54
TB1_shp	741.67	638326.1	6326149	1321.33	342	23.57	3109.07
TB1_shp	741.67	638326.1	6326149	1301.33	362	24.32	3415.04
TB1_shp	741.67	638326.1	6326149	1281.33	382	24.7	3749.85
TB1_shp	741.67	638326.1	6326149	1259.23	404.1	24.95	4132.92
TB1_shp	741.67	638326.1	6326149	1234.68	428.65	24.77	4566.99
TB1_shp	741.67	638326.1	6326149	1208.73	454.6	24.46	5026.74
TB1_shp	741.67	638326.1	6326149	1180.23	483.1	23.63	5460.98
TB1_shp	741.67	638326.1	6326149	1149.53	513.8	22.6	5882.58
TB1_shp	741.67	638326.1	6326149	1116.88	546.45	21.21	6243.9
TB1_shp	741.67	638326.1	6326149	1081.08	582.25	19.45	6479.13
TB1_shp	741.67	638326.1	6326149	1042.43	620.9	17.5	6626.76
TB1_shp	741.67	638326.1	6326149	1001.28	662.05	15.47	6603.83
TB1_shp	741.67	638326.1	6326149	956.18	707.15	13.47	6443.3
TB1_shp	741.67	638326.1	6326149	907.53	755.8	11.58	6197.03

TB1_shp	741.67	638326.1	6326149	855.73	807.6	9.9	5884.6
TB1_shp	741.67	638326.1	6326149	798.93	864.4	8.4	5421.65
TB1_shp	741.67	638326.1	6326149	737.68	925.65	6.78	4919.32
TB1_shp	741.67	638326.1	6326149	672.83	990.5	5.83	4560.6
TB1_shp	741.67	638326.1	6326149	601.33	1062	5.19	4258.33
TB1_shp	758.33	638342.9	6326150	1660.94	9.73	5.89	2226.56
TB1_shp	758.33	638342.9	6326150	1641.47	29.2	8.39	2289.94
TB1_shp	758.33	638342.9	6326150	1622	48.67	10.25	2224.99
TB1_shp	758.33	638342.9	6326150	1602.54	68.13	10.38	2100.6
TB1_shp	758.33	638342.9	6326150	1583.07	87.6	9.76	1996.07
TB1_shp	758.33	638342.9	6326150	1563.6	107.07	9.18	1907.7
TB1_shp	758.33	638342.9	6326150	1544.14	126.53	8.94	1833.55
TB1_shp	758.33	638342.9	6326150	1524.67	146	9.1	1776.41
TB1_shp	758.33	638342.9	6326150	1505.2	165.47	9.68	1748.87
TB1_shp	758.33	638342.9	6326150	1485.74	184.93	10.62	1750.42
TB1_shp	758.33	638342.9	6326150	1466.27	204.4	11.88	1780.63
TB1_shp	758.33	638342.9	6326150	1446.8	223.87	13.53	1854.22
TB1_shp	758.33	638342.9	6326150	1427.34	243.33	15.31	1965.37
TB1_shp	758.33	638342.9	6326150	1407.87	262.8	17.15	2100.62
TB1_shp	758.33	638342.9	6326150	1388.4	282.27	18.93	2291.44
TB1_shp	758.33	638342.9	6326150	1368.67	302	20.56	2513.98
TB1_shp	758.33	638342.9	6326150	1348.67	322	21.96	2777.67
TB1_shp	758.33	638342.9	6326150	1328.67	342	22.97	3073.34
TB1_shp	758.33	638342.9	6326150	1308.67	362	23.74	3386.9
TB1_shp	758.33	638342.9	6326150	1288.67	382	24.15	3730.61
TB1_shp	758.33	638342.9	6326150	1266.57	404.1	24.43	4124.1
TB1_shp	758.33	638342.9	6326150	1242.02	428.65	24.3	4570.47
TB1_shp	758.33	638342.9	6326150	1216.07	454.6	24.05	5043.39
TB1_shp	758.33	638342.9	6326150	1187.57	483.1	23.29	5491.03
TB1_shp	758.33	638342.9	6326150	1156.87	513.8	22.32	5925.66
TB1_shp	758.33	638342.9	6326150	1124.22	546.45	21.01	6298.2
TB1_shp	758.33	638342.9	6326150	1088.42	582.25	19.32	6540.65
TB1_shp	758.33	638342.9	6326150	1049.77	620.9	17.44	6693.28
TB1_shp	758.33	638342.9	6326150	1008.62	662.05	15.47	6671.77
TB1_shp	758.33	638342.9	6326150	963.52	707.15	13.51	6509.72
TB1_shp	758.33	638342.9	6326150	914.87	755.8	11.65	6259.83
TB1_shp	758.33	638342.9	6326150	863.07	807.6	9.98	5941.86
TB1_shp	758.33	638342.9	6326150	806.27	864.4	8.47	5468.47
TB1_shp	758.33	638342.9	6326150	745.02	925.65	6.84	4954.76
TB1_shp	758.33	638342.9	6326150	680.17	990.5	5.88	4589.21
TB1_shp	758.33	638342.9	6326150	608.67	1062	5.23	4282.23
TB1_shp	775	638359.8	6326151	1668.27	9.73	3.12	4811
TB1_shp	775	638359.8	6326151	1648.8	29.2	5.87	4474.05
TB1_shp	775	638359.8	6326151	1629.33	48.67	9.32	4442.26
TB1_shp	775	638359.8	6326151	1609.87	68.13	10.98	3971.87
TB1_shp	775	638359.8	6326151	1590.4	87.6	11.17	3322.62
TB1_shp	775	638359.8	6326151	1570.93	107.07	10.84	2748.81
TB1_shp	775	638359.8	6326151	1551.47	126.53	10.52	2332.27
TB1_shp	775	638359.8	6326151	1532	146	10.44	2048.91
TB1_shp	775	638359.8	6326151	1512.53	165.47	10.73	1889.15
TB1_shp	775	638359.8	6326151	1493.07	184.93	11.36	1810.92
TB1_shp	775	638359.8	6326151	1473.6	204.4	12.31	1792.11

TB1_shp	775	638359.8	6326151	1454.13	223.87	13.66	1841.03
TB1_shp	775	638359.8	6326151	1434.67	243.33	15.18	1938.17
TB1_shp	775	638359.8	6326151	1415.2	262.8	16.78	2065.13
TB1_shp	775	638359.8	6326151	1395.73	282.27	18.42	2254.37
TB1_shp	775	638359.8	6326151	1376	302	19.94	2477.67
TB1_shp	775	638359.8	6326151	1356	322	21.3	2745.24
TB1_shp	775	638359.8	6326151	1336	342	22.3	3046.65
TB1_shp	775	638359.8	6326151	1316	362	23.09	3367.01
TB1_shp	775	638359.8	6326151	1296	382	23.52	3719.21
TB1_shp	775	638359.8	6326151	1273.9	404.1	23.84	4122.87
TB1_shp	775	638359.8	6326151	1249.35	428.65	23.77	4582.17
TB1_shp	775	638359.8	6326151	1223.4	454.6	23.59	5069.14
TB1_shp	775	638359.8	6326151	1194.9	483.1	22.9	5529.91
TB1_shp	775	638359.8	6326151	1164.2	513.8	22	5976.79
TB1_shp	775	638359.8	6326151	1131.55	546.45	20.76	6358.79
TB1_shp	775	638359.8	6326151	1095.75	582.25	19.16	6607.59
TB1_shp	775	638359.8	6326151	1057.1	620.9	17.36	6764.39
TB1_shp	775	638359.8	6326151	1015.95	662.05	15.46	6742.69
TB1_shp	775	638359.8	6326151	970.85	707.15	13.55	6577.73
TB1_shp	775	638359.8	6326151	922.2	755.8	11.71	6323.33
TB1_shp	775	638359.8	6326151	870.4	807.6	10.06	5999.67
TB1_shp	775	638359.8	6326151	813.6	864.4	8.54	5515.29
TB1_shp	775	638359.8	6326151	752.35	925.65	6.91	4989.61
TB1_shp	775	638359.8	6326151	687.5	990.5	5.94	4617.07
TB1_shp	775	638359.8	6326151	616	1062	5.28	4305.43
TB1_shp	791.67	638376.6	6326153	1675.6	9.73	2.27	1252.03
TB1_shp	791.67	638376.6	6326153	1656.13	29.2	3.22	2566.06
TB1_shp	791.67	638376.6	6326153	1636.66	48.67	5.81	4023.14
TB1_shp	791.67	638376.6	6326153	1617.2	68.13	9.38	5067.64
TB1_shp	791.67	638376.6	6326153	1597.73	87.6	11.71	5027.41
TB1_shp	791.67	638376.6	6326153	1578.26	107.07	12.48	4286.26
TB1_shp	791.67	638376.6	6326153	1558.8	126.53	12.39	3440.08
TB1_shp	791.67	638376.6	6326153	1539.33	146	12.04	2774.31
TB1_shp	791.67	638376.6	6326153	1519.86	165.47	11.73	2307.79
TB1_shp	791.67	638376.6	6326153	1500.4	184.93	11.73	2035.1
TB1_shp	791.67	638376.6	6326153	1480.93	204.4	12.05	1885.55
TB1_shp	791.67	638376.6	6326153	1461.46	223.87	12.69	1821.25
TB1_shp	791.67	638376.6	6326153	1442	243.33	13.74	1845.79
TB1_shp	791.67	638376.6	6326153	1422.53	262.8	15	1928.24
TB1_shp	791.67	638376.6	6326153	1403.06	282.27	16.38	2045.76
TB1_shp	791.67	638376.6	6326153	1383.33	302	17.88	2234.9
TB1_shp	791.67	638376.6	6326153	1363.33	322	19.3	2462.25
TB1_shp	791.67	638376.6	6326153	1343.33	342	20.61	2731.83
TB1_shp	791.67	638376.6	6326153	1323.33	362	21.58	3039.61
TB1_shp	791.67	638376.6	6326153	1303.33	382	22.39	3366.41
TB1_shp	791.67	638376.6	6326153	1281.23	404.1	22.88	3767.99
TB1_shp	791.67	638376.6	6326153	1256.68	428.65	23.28	4228.39
TB1_shp	791.67	638376.6	6326153	1230.73	454.6	23.17	4729.85
TB1_shp	791.67	638376.6	6326153	1202.23	483.1	22.88	5254.58
TB1_shp	791.67	638376.6	6326153	1171.53	513.8	22.21	5764.29
TB1_shp	791.67	638376.6	6326153	1138.88	546.45	21.17	6194.04
TB1_shp	791.67	638376.6	6326153	1103.08	582.25	19.83	6570.48

TB1_shp	791.67	638376.6	6326153	1064.43	620.9	18.12	6788.98
TB1_shp	791.67	638376.6	6326153	1023.28	662.05	16.29	6827.47
TB1_shp	791.67	638376.6	6326153	978.18	707.15	14.34	6739.63
TB1_shp	791.67	638376.6	6326153	929.53	755.8	12.39	6510.68
TB1_shp	791.67	638376.6	6326153	877.73	807.6	10.75	6182.13
TB1_shp	791.67	638376.6	6326153	820.93	864.4	9.13	5733.16
TB1_shp	791.67	638376.6	6326153	759.68	925.65	7.49	5195.02
TB1_shp	791.67	638376.6	6326153	694.83	990.5	6.17	4730.4
TB1_shp	791.67	638376.6	6326153	623.33	1062	5.5	4414.18
TB1_shp	808.33	638393.8	6326154	1683.27	9.73	3.57	598.94
TB1_shp	808.33	638393.8	6326154	1663.8	29.2	3.86	907.4
TB1_shp	808.33	638393.8	6326154	1644.33	48.67	6.04	1835.37
TB1_shp	808.33	638393.8	6326154	1624.87	68.13	9.39	3091.89
TB1_shp	808.33	638393.8	6326154	1605.4	87.6	12.07	3888.04
TB1_shp	808.33	638393.8	6326154	1585.93	107.07	13.29	3898.87
TB1_shp	808.33	638393.8	6326154	1566.47	126.53	13.45	3432.98
TB1_shp	808.33	638393.8	6326154	1547	146	13.13	2882.9
TB1_shp	808.33	638393.8	6326154	1527.53	165.47	12.67	2415.94
TB1_shp	808.33	638393.8	6326154	1508.07	184.93	12.45	2115.57
TB1_shp	808.33	638393.8	6326154	1488.6	204.4	12.52	1936.55
TB1_shp	808.33	638393.8	6326154	1469.13	223.87	12.9	1847.73
TB1_shp	808.33	638393.8	6326154	1449.67	243.33	13.68	1856.04
TB1_shp	808.33	638393.8	6326154	1430.2	262.8	14.71	1928.19
TB1_shp	808.33	638393.8	6326154	1410.73	282.27	15.87	2038.75
TB1_shp	808.33	638393.8	6326154	1391	302	17.22	2225.71
TB1_shp	808.33	638393.8	6326154	1371	322	18.54	2452.95
TB1_shp	808.33	638393.8	6326154	1351	342	19.79	2724.94
TB1_shp	808.33	638393.8	6326154	1331	362	20.77	3037.5
TB1_shp	808.33	638393.8	6326154	1311	382	21.6	3370.26
TB1_shp	808.33	638393.8	6326154	1288.9	404.1	22.14	3780.93
TB1_shp	808.33	638393.8	6326154	1264.35	428.65	22.61	4252.33
TB1_shp	808.33	638393.8	6326154	1238.4	454.6	22.56	4767.31
TB1_shp	808.33	638393.8	6326154	1209.9	483.1	22.35	5305.75
TB1_shp	808.33	638393.8	6326154	1179.2	513.8	21.77	5827.75
TB1_shp	808.33	638393.8	6326154	1146.55	546.45	20.81	6266.06
TB1_shp	808.33	638393.8	6326154	1110.75	582.25	19.57	6648.94
TB1_shp	808.33	638393.8	6326154	1072.1	620.9	17.95	6870.02
TB1_shp	808.33	638393.8	6326154	1030.95	662.05	16.2	6906.79
TB1_shp	808.33	638393.8	6326154	985.85	707.15	14.33	6814.63
TB1_shp	808.33	638393.8	6326154	937.2	755.8	12.43	6579.12
TB1_shp	808.33	638393.8	6326154	885.4	807.6	10.82	6243.55
TB1_shp	808.33	638393.8	6326154	828.6	864.4	9.2	5784.13
TB1_shp	808.33	638393.8	6326154	767.35	925.65	7.56	5232.99
TB1_shp	808.33	638393.8	6326154	702.5	990.5	6.23	4758.21
TB1_shp	808.33	638393.8	6326154	631	1062	5.55	4437.47
TB1_shp	825	638411.3	6326155	1691.27	9.73	2.18	614.41
TB1_shp	825	638411.3	6326155	1671.8	29.2	2.93	451.27
TB1_shp	825	638411.3	6326155	1652.33	48.67	5.04	760.67
TB1_shp	825	638411.3	6326155	1632.87	68.13	8.29	1460.91
TB1_shp	825	638411.3	6326155	1613.4	87.6	11.33	2273.45
TB1_shp	825	638411.3	6326155	1593.93	107.07	13.09	2775.15
TB1_shp	825	638411.3	6326155	1574.47	126.53	13.63	2834.01

TB1_shp	825	638411.3	6326155	1555	146	13.45	2623.55
TB1_shp	825	638411.3	6326155	1535.53	165.47	13	2325.8
TB1_shp	825	638411.3	6326155	1516.07	184.93	12.69	2094.28
TB1_shp	825	638411.3	6326155	1496.6	204.4	12.61	1939.91
TB1_shp	825	638411.3	6326155	1477.13	223.87	12.81	1856.47
TB1_shp	825	638411.3	6326155	1457.67	243.33	13.4	1862.82
TB1_shp	825	638411.3	6326155	1438.2	262.8	14.25	1932.3
TB1_shp	825	638411.3	6326155	1418.73	282.27	15.24	2040.19
TB1_shp	825	638411.3	6326155	1399	302	16.47	2227.34
TB1_shp	825	638411.3	6326155	1379	322	17.69	2456.04
TB1_shp	825	638411.3	6326155	1359	342	18.9	2731
TB1_shp	825	638411.3	6326155	1339	362	19.88	3049.03
TB1_shp	825	638411.3	6326155	1319	382	20.74	3388.52
TB1_shp	825	638411.3	6326155	1296.9	404.1	21.34	3808.63
TB1_shp	825	638411.3	6326155	1272.35	428.65	21.88	4291.2
TB1_shp	825	638411.3	6326155	1246.4	454.6	21.92	4818.47
TB1_shp	825	638411.3	6326155	1217.9	483.1	21.79	5369.4
TB1_shp	825	638411.3	6326155	1187.2	513.8	21.3	5902.67
TB1_shp	825	638411.3	6326155	1154.55	546.45	20.43	6348.29
TB1_shp	825	638411.3	6326155	1118.75	582.25	19.29	6735.99
TB1_shp	825	638411.3	6326155	1080.1	620.9	17.78	6957.15
TB1_shp	825	638411.3	6326155	1038.95	662.05	16.11	6990.41
TB1_shp	825	638411.3	6326155	993.85	707.15	14.31	6892.6
TB1_shp	825	638411.3	6326155	945.2	755.8	12.46	6649.79
TB1_shp	825	638411.3	6326155	893.4	807.6	10.87	6305.97
TB1_shp	825	638411.3	6326155	836.6	864.4	9.26	5835.23
TB1_shp	825	638411.3	6326155	775.35	925.65	7.61	5270.48
TB1_shp	825	638411.3	6326155	710.5	990.5	6.28	4785.13
TB1_shp	825	638411.3	6326155	639	1062	5.59	4459.94
TB1_shp	841.67	638428.8	6326157	1699.27	9.73	0.1	3711.08
TB1_shp	841.67	638428.8	6326157	1679.8	29.2	0.48	890.26
TB1_shp	841.67	638428.8	6326157	1660.33	48.67	1.61	367.6
TB1_shp	841.67	638428.8	6326157	1640.87	68.13	3.6	425.2
TB1_shp	841.67	638428.8	6326157	1621.4	87.6	6.56	760.92
TB1_shp	841.67	638428.8	6326157	1601.93	107.07	9.64	1298.33
TB1_shp	841.67	638428.8	6326157	1582.47	126.53	11.8	1825.87
TB1_shp	841.67	638428.8	6326157	1563	146	12.77	2134.67
TB1_shp	841.67	638428.8	6326157	1543.53	165.47	12.89	2198.71
TB1_shp	841.67	638428.8	6326157	1524.07	184.93	12.62	2106.5
TB1_shp	841.67	638428.8	6326157	1504.6	204.4	12.36	1989.61
TB1_shp	841.67	638428.8	6326157	1485.13	223.87	12.27	1896.74
TB1_shp	841.67	638428.8	6326157	1465.67	243.33	12.4	1844.4
TB1_shp	841.67	638428.8	6326157	1446.2	262.8	12.88	1862.83
TB1_shp	841.67	638428.8	6326157	1426.73	282.27	13.61	1938.54
TB1_shp	841.67	638428.8	6326157	1407	302	14.5	2052.4
TB1_shp	841.67	638428.8	6326157	1387	322	15.64	2245.1
TB1_shp	841.67	638428.8	6326157	1367	342	16.8	2479.71
TB1_shp	841.67	638428.8	6326157	1347	362	17.98	2758.9
TB1_shp	841.67	638428.8	6326157	1327	382	18.96	3084.83
TB1_shp	841.67	638428.8	6326157	1304.9	404.1	19.95	3467.71
TB1_shp	841.67	638428.8	6326157	1280.35	428.65	20.63	3954.35
TB1_shp	841.67	638428.8	6326157	1254.4	454.6	21.15	4480.96

TB1_shp	841.67	638428.8	6326157	1225.9	483.1	21.28	5073.09
TB1_shp	841.67	638428.8	6326157	1195.2	513.8	21.06	5646.46
TB1_shp	841.67	638428.8	6326157	1162.55	546.45	20.57	6198.64
TB1_shp	841.67	638428.8	6326157	1126.75	582.25	19.6	6645.18
TB1_shp	841.67	638428.8	6326157	1088.1	620.9	18.3	6941.03
TB1_shp	841.67	638428.8	6326157	1046.95	662.05	16.77	7097.27
TB1_shp	841.67	638428.8	6326157	1001.85	707.15	15.02	7056.3
TB1_shp	841.67	638428.8	6326157	953.2	755.8	13.21	6822.79
TB1_shp	841.67	638428.8	6326157	901.4	807.6	11.51	6502.46
TB1_shp	841.67	638428.8	6326157	844.6	864.4	9.84	6070.57
TB1_shp	841.67	638428.8	6326157	783.35	925.65	8.19	5491.45
TB1_shp	841.67	638428.8	6326157	718.5	990.5	6.52	4900.77
TB1_shp	841.67	638428.8	6326157	647	1062	5.82	4571.21
TB1_shp	858.33	638446.3	6326158	1707.27	9.73	0.21	1529.24
TB1_shp	858.33	638446.3	6326158	1687.8	29.2	0.38	804.66
TB1_shp	858.33	638446.3	6326158	1668.33	48.67	1.18	403.92
TB1_shp	858.33	638446.3	6326158	1648.87	68.13	2.74	371.73
TB1_shp	858.33	638446.3	6326158	1629.4	87.6	5.13	542.55
TB1_shp	858.33	638446.3	6326158	1609.93	107.07	7.81	875.35
TB1_shp	858.33	638446.3	6326158	1590.47	126.53	9.97	1281.5
TB1_shp	858.33	638446.3	6326158	1571	146	11.2	1621.06
TB1_shp	858.33	638446.3	6326158	1551.53	165.47	11.64	1810.07
TB1_shp	858.33	638446.3	6326158	1532.07	184.93	11.64	1864.33
TB1_shp	858.33	638446.3	6326158	1512.6	204.4	11.55	1851.73
TB1_shp	858.33	638446.3	6326158	1493.13	223.87	11.55	1827.8
TB1_shp	858.33	638446.3	6326158	1473.67	243.33	11.71	1818.91
TB1_shp	858.33	638446.3	6326158	1454.2	262.8	12.15	1858.49
TB1_shp	858.33	638446.3	6326158	1434.73	282.27	12.82	1947.47
TB1_shp	858.33	638446.3	6326158	1415	302	13.63	2070.6
TB1_shp	858.33	638446.3	6326158	1395	322	14.7	2269.16
TB1_shp	858.33	638446.3	6326158	1375	342	15.81	2510.04
TB1_shp	858.33	638446.3	6326158	1355	362	16.97	2795.95
TB1_shp	858.33	638446.3	6326158	1335	382	17.97	3128.76
TB1_shp	858.33	638446.3	6326158	1312.9	404.1	19.01	3519.3
TB1_shp	858.33	638446.3	6326158	1288.35	428.65	19.77	4016.1
TB1_shp	858.33	638446.3	6326158	1262.4	454.6	20.39	4553.98
TB1_shp	858.33	638446.3	6326158	1233.9	483.1	20.63	5159.43
TB1_shp	858.33	638446.3	6326158	1203.2	513.8	20.5	5743.33
TB1_shp	858.33	638446.3	6326158	1170.55	546.45	20.12	6303.69
TB1_shp	858.33	638446.3	6326158	1134.75	582.25	19.26	6752.18
TB1_shp	858.33	638446.3	6326158	1096.1	620.9	18.06	7045.4
TB1_shp	858.33	638446.3	6326158	1054.95	662.05	16.63	7195.62
TB1_shp	858.33	638446.3	6326158	1009.85	707.15	14.96	7144.95
TB1_shp	858.33	638446.3	6326158	961.2	755.8	13.21	6901.34
TB1_shp	858.33	638446.3	6326158	909.4	807.6	11.54	6570.77
TB1_shp	858.33	638446.3	6326158	852.6	864.4	9.89	6127.11
TB1_shp	858.33	638446.3	6326158	791.35	925.65	8.24	5532.91
TB1_shp	858.33	638446.3	6326158	726.5	990.5	6.57	4927.13
TB1_shp	858.33	638446.3	6326158	655	1062	5.86	4593.29
TB1_shp	875	638463.8	6326159	1715.27	9.73	9.15	4619.47
TB1_shp	875	638463.8	6326159	1695.8	29.2	1.43	2772.86
TB1_shp	875	638463.8	6326159	1676.33	48.67	0.73	1414.41

TB1_shp	875	638463.8	6326159	1656.87	68.13	1.23	708.5
TB1_shp	875	638463.8	6326159	1637.4	87.6	2.42	515.45
TB1_shp	875	638463.8	6326159	1617.93	107.07	4.29	566.4
TB1_shp	875	638463.8	6326159	1598.47	126.53	6.42	765.83
TB1_shp	875	638463.8	6326159	1579	146	8.28	1051.66
TB1_shp	875	638463.8	6326159	1559.53	165.47	9.53	1337.4
TB1_shp	875	638463.8	6326159	1540.07	184.93	10.15	1548.46
TB1_shp	875	638463.8	6326159	1520.6	204.4	10.37	1673.27
TB1_shp	875	638463.8	6326159	1501.13	223.87	10.47	1728.8
TB1_shp	875	638463.8	6326159	1481.67	243.33	10.6	1760
TB1_shp	875	638463.8	6326159	1462.2	262.8	10.83	1792.33
TB1_shp	875	638463.8	6326159	1442.73	282.27	11.28	1856.45
TB1_shp	875	638463.8	6326159	1423	302	11.93	1963.62
TB1_shp	875	638463.8	6326159	1403	322	12.72	2103.03
TB1_shp	875	638463.8	6326159	1383	342	13.74	2310.17
TB1_shp	875	638463.8	6326159	1363	362	14.82	2561.95
TB1_shp	875	638463.8	6326159	1343	382	15.96	2856.45
TB1_shp	875	638463.8	6326159	1320.9	404.1	17.1	3237.45
TB1_shp	875	638463.8	6326159	1296.35	428.65	18.27	3688.58
TB1_shp	875	638463.8	6326159	1270.4	454.6	19.11	4233.44
TB1_shp	875	638463.8	6326159	1241.9	483.1	19.73	4842.54
TB1_shp	875	638463.8	6326159	1211.2	513.8	20.08	5503.41
TB1_shp	875	638463.8	6326159	1178.55	546.45	19.87	6096.91
TB1_shp	875	638463.8	6326159	1142.75	582.25	19.33	6628.05
TB1_shp	875	638463.8	6326159	1104.1	620.9	18.44	7054.89
TB1_shp	875	638463.8	6326159	1062.95	662.05	17.15	7276.45
TB1_shp	875	638463.8	6326159	1017.85	707.15	15.6	7265.65
TB1_shp	875	638463.8	6326159	969.2	755.8	13.9	7092.25
TB1_shp	875	638463.8	6326159	917.4	807.6	12.15	6781
TB1_shp	875	638463.8	6326159	860.6	864.4	10.48	6370.08
TB1_shp	875	638463.8	6326159	799.35	925.65	8.81	5768.25
TB1_shp	875	638463.8	6326159	734.5	990.5	7.06	5122.6
TB1_shp	875	638463.8	6326159	663	1062	6.09	4706.99
TB1_shp	891.67	638481.3	6326161	1723.27	9.73	7.96	5994.52
TB1_shp	891.67	638481.3	6326161	1703.8	29.2	1.61	4584.93
TB1_shp	891.67	638481.3	6326161	1684.33	48.67	0.93	2679.54
TB1_shp	891.67	638481.3	6326161	1664.87	68.13	1.35	1408.73
TB1_shp	891.67	638481.3	6326161	1645.4	87.6	2.38	898.99
TB1_shp	891.67	638481.3	6326161	1625.93	107.07	3.9	781.23
TB1_shp	891.67	638481.3	6326161	1606.47	126.53	5.58	858.17
TB1_shp	891.67	638481.3	6326161	1587	146	7.08	1035.95
TB1_shp	891.67	638481.3	6326161	1567.53	165.47	8.15	1245.24
TB1_shp	891.67	638481.3	6326161	1548.07	184.93	8.79	1427.27
TB1_shp	891.67	638481.3	6326161	1528.6	204.4	9.14	1566.08
TB1_shp	891.67	638481.3	6326161	1509.13	223.87	9.36	1652.61
TB1_shp	891.67	638481.3	6326161	1489.67	243.33	9.59	1717.25
TB1_shp	891.67	638481.3	6326161	1470.2	262.8	9.88	1779.91
TB1_shp	891.67	638481.3	6326161	1450.73	282.27	10.35	1865.99
TB1_shp	891.67	638481.3	6326161	1431	302	11	1989.59
TB1_shp	891.67	638481.3	6326161	1411	322	11.77	2142.43
TB1_shp	891.67	638481.3	6326161	1391	342	12.75	2359.88
TB1_shp	891.67	638481.3	6326161	1371	362	13.81	2621.71

TB1_shp	891.67	638481.3	6326161	1351	382	14.94	2925.99
TB1_shp	891.67	638481.3	6326161	1328.9	404.1	16.1	3317.73
TB1_shp	891.67	638481.3	6326161	1304.35	428.65	17.32	3780.77
TB1_shp	891.67	638481.3	6326161	1278.4	454.6	18.26	4338.23
TB1_shp	891.67	638481.3	6326161	1249.9	483.1	18.99	4959.81
TB1_shp	891.67	638481.3	6326161	1219.2	513.8	19.47	5632.63
TB1_shp	891.67	638481.3	6326161	1186.55	546.45	19.37	6231.88
TB1_shp	891.67	638481.3	6326161	1150.75	582.25	18.94	6763.8
TB1_shp	891.67	638481.3	6326161	1112.1	620.9	18.16	7185.81
TB1_shp	891.67	638481.3	6326161	1070.95	662.05	16.99	7395.99
TB1_shp	891.67	638481.3	6326161	1025.85	707.15	15.52	7370.23
TB1_shp	891.67	638481.3	6326161	977.2	755.8	13.88	7181.67
TB1_shp	891.67	638481.3	6326161	925.4	807.6	12.18	6856.49
TB1_shp	891.67	638481.3	6326161	868.6	864.4	10.53	6432.73
TB1_shp	891.67	638481.3	6326161	807.35	925.65	8.86	5814.78
TB1_shp	891.67	638481.3	6326161	742.5	990.5	7.11	5151.96
TB1_shp	891.67	638481.3	6326161	671	1062	6.13	4729.11
TB1_shp	908.33	638498.7	6326162	1732.1	9.73	0.1	529.29
TB1_shp	908.33	638498.7	6326162	1712.63	29.2	0.2	2152.2
TB1_shp	908.33	638498.7	6326162	1693.16	48.67	0.46	3765.33
TB1_shp	908.33	638498.7	6326162	1673.7	68.13	0.78	3508.65
TB1_shp	908.33	638498.7	6326162	1654.23	87.6	1.44	2358.95
TB1_shp	908.33	638498.7	6326162	1634.76	107.07	2.48	1558.82
TB1_shp	908.33	638498.7	6326162	1615.3	126.53	3.82	1209.4
TB1_shp	908.33	638498.7	6326162	1595.83	146	5.18	1131.74
TB1_shp	908.33	638498.7	6326162	1576.36	165.47	6.35	1191.02
TB1_shp	908.33	638498.7	6326162	1556.9	184.93	7.2	1310.26
TB1_shp	908.33	638498.7	6326162	1537.43	204.4	7.75	1436.22
TB1_shp	908.33	638498.7	6326162	1517.96	223.87	8.11	1552.17
TB1_shp	908.33	638498.7	6326162	1498.5	243.33	8.38	1639.35
TB1_shp	908.33	638498.7	6326162	1479.03	262.8	8.66	1715.78
TB1_shp	908.33	638498.7	6326162	1459.56	282.27	8.99	1794.75
TB1_shp	908.33	638498.7	6326162	1439.83	302	9.48	1897.9
TB1_shp	908.33	638498.7	6326162	1419.83	322	10.13	2037.79
TB1_shp	908.33	638498.7	6326162	1399.83	342	10.87	2204.99
TB1_shp	908.33	638498.7	6326162	1379.83	362	11.82	2433.43
TB1_shp	908.33	638498.7	6326162	1359.83	382	12.86	2708.52
TB1_shp	908.33	638498.7	6326162	1337.73	404.1	14.1	3056.86
TB1_shp	908.33	638498.7	6326162	1313.18	428.65	15.4	3516.12
TB1_shp	908.33	638498.7	6326162	1287.23	454.6	16.66	4037.74
TB1_shp	908.33	638498.7	6326162	1258.73	483.1	17.81	4664.73
TB1_shp	908.33	638498.7	6326162	1228.03	513.8	18.51	5352.16
TB1_shp	908.33	638498.7	6326162	1195.38	546.45	18.89	6027.36
TB1_shp	908.33	638498.7	6326162	1159.58	582.25	18.88	6678.29
TB1_shp	908.33	638498.7	6326162	1120.93	620.9	18.29	7152.03
TB1_shp	908.33	638498.7	6326162	1079.78	662.05	17.34	7433.42
TB1_shp	908.33	638498.7	6326162	1034.68	707.15	16.06	7523.57
TB1_shp	908.33	638498.7	6326162	986.03	755.8	14.5	7397.32
TB1_shp	908.33	638498.7	6326162	934.23	807.6	12.79	7072.57
TB1_shp	908.33	638498.7	6326162	877.43	864.4	11.14	6646.11
TB1_shp	908.33	638498.7	6326162	816.18	925.65	9.44	6065.73
TB1_shp	908.33	638498.7	6326162	751.33	990.5	7.68	5384.93

TB1_shp	908.33	638498.7	6326162	679.83	1062	6.37	4844.65
TB1_shp	925	638516	6326163	1741.77	9.73	0.1	2808.23
TB1_shp	925	638516	6326163	1722.3	29.2	0.1	2361.67
TB1_shp	925	638516	6326163	1702.83	48.67	0.26	3198.11
TB1_shp	925	638516	6326163	1683.37	68.13	0.81	3725.1
TB1_shp	925	638516	6326163	1663.9	87.6	1.64	3220.39
TB1_shp	925	638516	6326163	1644.43	107.07	2.74	2420.66
TB1_shp	925	638516	6326163	1624.97	126.53	3.97	1864.48
TB1_shp	925	638516	6326163	1605.5	146	5.1	1598.77
TB1_shp	925	638516	6326163	1586.03	165.47	6	1511.22
TB1_shp	925	638516	6326163	1566.57	184.93	6.64	1518.82
TB1_shp	925	638516	6326163	1547.1	204.4	7.06	1566.49
TB1_shp	925	638516	6326163	1527.63	223.87	7.36	1632.2
TB1_shp	925	638516	6326163	1508.17	243.33	7.61	1696.21
TB1_shp	925	638516	6326163	1488.7	262.8	7.88	1765.19
TB1_shp	925	638516	6326163	1469.23	282.27	8.22	1845.9
TB1_shp	925	638516	6326163	1449.5	302	8.7	1956.93
TB1_shp	925	638516	6326163	1429.5	322	9.32	2106.14
TB1_shp	925	638516	6326163	1409.5	342	10.03	2283.42
TB1_shp	925	638516	6326163	1389.5	362	10.94	2522.81
TB1_shp	925	638516	6326163	1369.5	382	11.95	2809.31
TB1_shp	925	638516	6326163	1347.4	404.1	13.17	3170.71
TB1_shp	925	638516	6326163	1322.85	428.65	14.5	3644.02
TB1_shp	925	638516	6326163	1296.9	454.6	15.82	4180.22
TB1_shp	925	638516	6326163	1268.4	483.1	17.06	4822.78
TB1_shp	925	638516	6326163	1237.7	513.8	17.87	5521.68
TB1_shp	925	638516	6326163	1205.05	546.45	18.37	6203.83
TB1_shp	925	638516	6326163	1169.25	582.25	18.48	6855.74
TB1_shp	925	638516	6326163	1130.6	620.9	18.01	7318.83
TB1_shp	925	638516	6326163	1089.45	662.05	17.16	7583.05
TB1_shp	925	638516	6326163	1044.35	707.15	15.96	7651.59
TB1_shp	925	638516	6326163	995.7	755.8	14.48	7502.17
TB1_shp	925	638516	6326163	943.9	807.6	12.82	7158.46
TB1_shp	925	638516	6326163	887.1	864.4	11.18	6715.9
TB1_shp	925	638516	6326163	825.85	925.65	9.49	6118.12
TB1_shp	925	638516	6326163	761	990.5	7.72	5418.39
TB1_shp	925	638516	6326163	689.5	1062	6.4	4866.02
TB1_shp	941.67	638533.3	6326165	1751.44	9.73	0.4	7045.23
TB1_shp	941.67	638533.3	6326165	1731.97	29.2	0.25	4192.69
TB1_shp	941.67	638533.3	6326165	1712.5	48.67	0.2	2634.72
TB1_shp	941.67	638533.3	6326165	1693.04	68.13	0.54	2920.24
TB1_shp	941.67	638533.3	6326165	1673.57	87.6	1.18	3656.83
TB1_shp	941.67	638533.3	6326165	1654.1	107.07	2.09	3808.53
TB1_shp	941.67	638533.3	6326165	1634.64	126.53	3.21	3322.01
TB1_shp	941.67	638533.3	6326165	1615.17	146	4.33	2704.85
TB1_shp	941.67	638533.3	6326165	1595.7	165.47	5.26	2261.98
TB1_shp	941.67	638533.3	6326165	1576.24	184.93	5.93	2002.27
TB1_shp	941.67	638533.3	6326165	1556.77	204.4	6.38	1870.25
TB1_shp	941.67	638533.3	6326165	1537.3	223.87	6.65	1815.3
TB1_shp	941.67	638533.3	6326165	1517.84	243.33	6.86	1806.23
TB1_shp	941.67	638533.3	6326165	1498.37	262.8	7.06	1826.54
TB1_shp	941.67	638533.3	6326165	1478.9	282.27	7.3	1871.44

TB1_shp	941.67	638533.3	6326165	1459.17	302	7.61	1942.22
TB1_shp	941.67	638533.3	6326165	1439.17	322	8.06	2054.04
TB1_shp	941.67	638533.3	6326165	1419.17	342	8.65	2209.01
TB1_shp	941.67	638533.3	6326165	1399.17	362	9.33	2395.27
TB1_shp	941.67	638533.3	6326165	1379.17	382	10.19	2644.74
TB1_shp	941.67	638533.3	6326165	1357.07	404.1	11.29	2980.85
TB1_shp	941.67	638533.3	6326165	1332.52	428.65	12.61	3405.01
TB1_shp	941.67	638533.3	6326165	1306.57	454.6	14.03	3931.86
TB1_shp	941.67	638533.3	6326165	1278.07	483.1	15.45	4559.62
TB1_shp	941.67	638533.3	6326165	1247.37	513.8	16.74	5267.66
TB1_shp	941.67	638533.3	6326165	1214.72	546.45	17.66	6022.78
TB1_shp	941.67	638533.3	6326165	1178.92	582.25	18.02	6707.86
TB1_shp	941.67	638533.3	6326165	1140.27	620.9	17.94	7278.86
TB1_shp	941.67	638533.3	6326165	1099.12	662.05	17.43	7675.11
TB1_shp	941.67	638533.3	6326165	1054.02	707.15	16.44	7840.31
TB1_shp	941.67	638533.3	6326165	1005.37	755.8	15.05	7695.61
TB1_shp	941.67	638533.3	6326165	953.57	807.6	13.45	7384.51
TB1_shp	941.67	638533.3	6326165	896.77	864.4	11.77	6947.87
TB1_shp	941.67	638533.3	6326165	835.52	925.65	10.07	6386.94
TB1_shp	941.67	638533.3	6326165	770.67	990.5	8.29	5667.5
TB1_shp	941.67	638533.3	6326165	699.17	1062	6.63	4983.21
TB1_shp	958.33	638550.7	6326166	1761.1	9.73	2.38	2578.7
TB1_shp	958.33	638550.7	6326166	1741.63	29.2	1.08	2701.19
TB1_shp	958.33	638550.7	6326166	1722.16	48.67	0.98	2317.26
TB1_shp	958.33	638550.7	6326166	1702.7	68.13	1.32	2667.78
TB1_shp	958.33	638550.7	6326166	1683.23	87.6	1.95	3504.82
TB1_shp	958.33	638550.7	6326166	1663.76	107.07	2.85	4139.92
TB1_shp	958.33	638550.7	6326166	1644.3	126.53	3.88	4120.16
TB1_shp	958.33	638550.7	6326166	1624.83	146	4.85	3636.59
TB1_shp	958.33	638550.7	6326166	1605.36	165.47	5.58	3089.4
TB1_shp	958.33	638550.7	6326166	1585.9	184.93	6.05	2657.93
TB1_shp	958.33	638550.7	6326166	1566.43	204.4	6.32	2363.84
TB1_shp	958.33	638550.7	6326166	1546.96	223.87	6.46	2181.57
TB1_shp	958.33	638550.7	6326166	1527.5	243.33	6.56	2074.29
TB1_shp	958.33	638550.7	6326166	1508.03	262.8	6.69	2032.15
TB1_shp	958.33	638550.7	6326166	1488.56	282.27	6.88	2037.84
TB1_shp	958.33	638550.7	6326166	1468.83	302	7.14	2084.84
TB1_shp	958.33	638550.7	6326166	1448.83	322	7.54	2187.8
TB1_shp	958.33	638550.7	6326166	1428.83	342	8.08	2342.09
TB1_shp	958.33	638550.7	6326166	1408.83	362	8.71	2531.93
TB1_shp	958.33	638550.7	6326166	1388.83	382	9.53	2790.08
TB1_shp	958.33	638550.7	6326166	1366.73	404.1	10.58	3138.84
TB1_shp	958.33	638550.7	6326166	1342.18	428.65	11.86	3579.25
TB1_shp	958.33	638550.7	6326166	1316.23	454.6	13.29	4123.35
TB1_shp	958.33	638550.7	6326166	1287.73	483.1	14.76	4767.31
TB1_shp	958.33	638550.7	6326166	1257.03	513.8	16.14	5489.37
TB1_shp	958.33	638550.7	6326166	1224.38	546.45	17.17	6253.9
TB1_shp	958.33	638550.7	6326166	1188.58	582.25	17.64	6936.3
TB1_shp	958.33	638550.7	6326166	1149.93	620.9	17.68	7493.9
TB1_shp	958.33	638550.7	6326166	1108.78	662.05	17.26	7866.51
TB1_shp	958.33	638550.7	6326166	1063.68	707.15	16.36	7999.57
TB1_shp	958.33	638550.7	6326166	1015.03	755.8	15.02	7822.9

TB1_shp	958.33	638550.7	6326166	963.23	807.6	13.47	7485.24
TB1_shp	958.33	638550.7	6326166	906.43	864.4	11.82	7026.84
TB1_shp	958.33	638550.7	6326166	845.18	925.65	10.12	6446.68
TB1_shp	958.33	638550.7	6326166	780.33	990.5	8.34	5706.77
TB1_shp	958.33	638550.7	6326166	708.83	1062	6.67	5004.55
TB1_shp	975	638568	6326167	1770.77	9.73	8.6	7228.78
TB1_shp	975	638568	6326167	1751.3	29.2	6.17	3570.63
TB1_shp	975	638568	6326167	1731.83	48.67	3.55	2658.24
TB1_shp	975	638568	6326167	1712.37	68.13	2.65	2307.07
TB1_shp	975	638568	6326167	1692.9	87.6	2.64	2604.28
TB1_shp	975	638568	6326167	1673.43	107.07	3.1	3429.97
TB1_shp	975	638568	6326167	1653.97	126.53	3.84	4338.85
TB1_shp	975	638568	6326167	1634.5	146	4.69	4762.34
TB1_shp	975	638568	6326167	1615.03	165.47	5.45	4554.62
TB1_shp	975	638568	6326167	1595.57	184.93	5.99	4014.88
TB1_shp	975	638568	6326167	1576.1	204.4	6.28	3447.68
TB1_shp	975	638568	6326167	1556.63	223.87	6.41	2987.61
TB1_shp	975	638568	6326167	1537.17	243.33	6.44	2659.72
TB1_shp	975	638568	6326167	1517.7	262.8	6.44	2433.36
TB1_shp	975	638568	6326167	1498.23	282.27	6.49	2312.07
TB1_shp	975	638568	6326167	1478.5	302	6.61	2265.08
TB1_shp	975	638568	6326167	1458.5	322	6.82	2279.66
TB1_shp	975	638568	6326167	1438.5	342	7.17	2366.17
TB1_shp	975	638568	6326167	1418.5	362	7.66	2517.05
TB1_shp	975	638568	6326167	1398.5	382	8.24	2709.53
TB1_shp	975	638568	6326167	1376.4	404.1	9.08	3003.27
TB1_shp	975	638568	6326167	1351.85	428.65	10.23	3422.05
TB1_shp	975	638568	6326167	1325.9	454.6	11.58	3926.12
TB1_shp	975	638568	6326167	1297.4	483.1	13.15	4544.23
TB1_shp	975	638568	6326167	1266.7	513.8	14.73	5280.52
TB1_shp	975	638568	6326167	1234.05	546.45	16.06	6058.49
TB1_shp	975	638568	6326167	1198.25	582.25	17.07	6842.17
TB1_shp	975	638568	6326167	1159.6	620.9	17.54	7530.22
TB1_shp	975	638568	6326167	1118.45	662.05	17.35	7958.19
TB1_shp	975	638568	6326167	1073.35	707.15	16.66	8129.44
TB1_shp	975	638568	6326167	1024.7	755.8	15.54	8046.67
TB1_shp	975	638568	6326167	972.9	807.6	14.09	7746.55
TB1_shp	975	638568	6326167	916.1	864.4	12.41	7280.88
TB1_shp	975	638568	6326167	854.85	925.65	10.71	6735.22
TB1_shp	975	638568	6326167	790	990.5	8.92	5974.42
TB1_shp	975	638568	6326167	718.5	1062	6.94	5135.34
TB1_shp	991.67	638585.3	6326169	1780.44	9.73	5.98	9296.27
TB1_shp	991.67	638585.3	6326169	1760.97	29.2	6.52	5056.28
TB1_shp	991.67	638585.3	6326169	1741.5	48.67	5.31	3231.79
TB1_shp	991.67	638585.3	6326169	1722.04	68.13	4.34	2585.11
TB1_shp	991.67	638585.3	6326169	1702.57	87.6	4.07	2736.34
TB1_shp	991.67	638585.3	6326169	1683.1	107.07	4.3	3487.73
TB1_shp	991.67	638585.3	6326169	1663.64	126.53	4.82	4511.82
TB1_shp	991.67	638585.3	6326169	1644.17	146	5.45	5266.04
TB1_shp	991.67	638585.3	6326169	1624.7	165.47	6.01	5378.8
TB1_shp	991.67	638585.3	6326169	1605.24	184.93	6.38	4950.2
TB1_shp	991.67	638585.3	6326169	1585.77	204.4	6.56	4313.98

TB1_shp	991.67	638585.3	6326169	1566.3	223.87	6.58	3709.37
TB1_shp	991.67	638585.3	6326169	1546.84	243.33	6.52	3232.54
TB1_shp	991.67	638585.3	6326169	1527.37	262.8	6.44	2874.76
TB1_shp	991.67	638585.3	6326169	1507.9	282.27	6.41	2662.1
TB1_shp	991.67	638585.3	6326169	1488.17	302	6.47	2551.25
TB1_shp	991.67	638585.3	6326169	1468.17	322	6.62	2522.31
TB1_shp	991.67	638585.3	6326169	1448.17	342	6.9	2586.43
TB1_shp	991.67	638585.3	6326169	1428.17	362	7.34	2728.31
TB1_shp	991.67	638585.3	6326169	1408.17	382	7.87	2918.64
TB1_shp	991.67	638585.3	6326169	1386.07	404.1	8.65	3219.95
TB1_shp	991.67	638585.3	6326169	1361.52	428.65	9.74	3652.87
TB1_shp	991.67	638585.3	6326169	1335.57	454.6	11.04	4174.7
TB1_shp	991.67	638585.3	6326169	1307.07	483.1	12.6	4814.15
TB1_shp	991.67	638585.3	6326169	1276.37	513.8	14.22	5568.69
TB1_shp	991.67	638585.3	6326169	1243.72	546.45	15.64	6357.19
TB1_shp	991.67	638585.3	6326169	1207.92	582.25	16.75	7140.16
TB1_shp	991.67	638585.3	6326169	1169.27	620.9	17.33	7811.08
TB1_shp	991.67	638585.3	6326169	1128.12	662.05	17.22	8203.9
TB1_shp	991.67	638585.3	6326169	1083.02	707.15	16.6	8331.46
TB1_shp	991.67	638585.3	6326169	1034.37	755.8	15.54	8204.53
TB1_shp	991.67	638585.3	6326169	982.57	807.6	14.13	7866.01
TB1_shp	991.67	638585.3	6326169	925.77	864.4	12.46	7370.52
TB1_shp	991.67	638585.3	6326169	864.52	925.65	10.77	6802.72
TB1_shp	991.67	638585.3	6326169	799.67	990.5	8.96	6020.04
TB1_shp	991.67	638585.3	6326169	728.17	1062	6.97	5156.86
TB1_shp	1008.33	638601.5	6326170	1789.93	9.73	1.73	728.42
TB1_shp	1008.33	638601.5	6326170	1770.46	29.2	2.91	3106.45
TB1_shp	1008.33	638601.5	6326170	1750.99	48.67	4.02	3758
TB1_shp	1008.33	638601.5	6326170	1731.53	68.13	4.59	3205.67
TB1_shp	1008.33	638601.5	6326170	1712.06	87.6	4.69	2783.86
TB1_shp	1008.33	638601.5	6326170	1692.59	107.07	4.77	2923.61
TB1_shp	1008.33	638601.5	6326170	1673.13	126.53	5.03	3625.67
TB1_shp	1008.33	638601.5	6326170	1653.66	146	5.45	4688.36
TB1_shp	1008.33	638601.5	6326170	1634.19	165.47	5.95	5652.3
TB1_shp	1008.33	638601.5	6326170	1614.73	184.93	6.4	6059.33
TB1_shp	1008.33	638601.5	6326170	1595.26	204.4	6.7	5807.17
TB1_shp	1008.33	638601.5	6326170	1575.79	223.87	6.8	5180.22
TB1_shp	1008.33	638601.5	6326170	1556.33	243.33	6.76	4476.39
TB1_shp	1008.33	638601.5	6326170	1536.86	262.8	6.65	3867.89
TB1_shp	1008.33	638601.5	6326170	1517.39	282.27	6.51	3380.43
TB1_shp	1008.33	638601.5	6326170	1497.66	302	6.43	3068.97
TB1_shp	1008.33	638601.5	6326170	1477.66	322	6.43	2889.44
TB1_shp	1008.33	638601.5	6326170	1457.66	342	6.53	2815.55
TB1_shp	1008.33	638601.5	6326170	1437.66	362	6.75	2852.98
TB1_shp	1008.33	638601.5	6326170	1417.66	382	7.13	2986.95
TB1_shp	1008.33	638601.5	6326170	1395.56	404.1	7.68	3206.39
TB1_shp	1008.33	638601.5	6326170	1371.01	428.65	8.48	3549.17
TB1_shp	1008.33	638601.5	6326170	1345.06	454.6	9.65	4053.88
TB1_shp	1008.33	638601.5	6326170	1316.56	483.1	11.09	4676.77
TB1_shp	1008.33	638601.5	6326170	1285.86	513.8	12.75	5408.89
TB1_shp	1008.33	638601.5	6326170	1253.21	546.45	14.5	6231.71
TB1_shp	1008.33	638601.5	6326170	1217.41	582.25	15.95	7087.9

TB1_shp	1008.33	638601.5	6326170	1178.76	620.9	16.83	7801.46
TB1_shp	1008.33	638601.5	6326170	1137.61	662.05	17.14	8306.5
TB1_shp	1008.33	638601.5	6326170	1092.51	707.15	16.87	8550.78
TB1_shp	1008.33	638601.5	6326170	1043.86	755.8	16.03	8495.12
TB1_shp	1008.33	638601.5	6326170	992.06	807.6	14.73	8166.92
TB1_shp	1008.33	638601.5	6326170	935.26	864.4	13.07	7646.15
TB1_shp	1008.33	638601.5	6326170	874.01	925.65	11.37	7058.79
TB1_shp	1008.33	638601.5	6326170	809.16	990.5	9.56	6307.47
TB1_shp	1008.33	638601.5	6326170	737.66	1062	7.55	5419.47
TB1_shp	1025	638616.5	6326172	1799.27	9.73	4.1	2412.43
TB1_shp	1025	638616.5	6326172	1779.8	29.2	2.9	2514.48
TB1_shp	1025	638616.5	6326172	1760.33	48.67	3.01	2785.36
TB1_shp	1025	638616.5	6326172	1740.87	68.13	3.6	2795.8
TB1_shp	1025	638616.5	6326172	1721.4	87.6	4.17	2767.08
TB1_shp	1025	638616.5	6326172	1701.93	107.07	4.63	3043.05
TB1_shp	1025	638616.5	6326172	1682.47	126.53	5.09	3761.94
TB1_shp	1025	638616.5	6326172	1663	146	5.58	4837.98
TB1_shp	1025	638616.5	6326172	1643.53	165.47	6.09	5922.98
TB1_shp	1025	638616.5	6326172	1624.07	184.93	6.54	6559.49
TB1_shp	1025	638616.5	6326172	1604.6	204.4	6.85	6511.07
TB1_shp	1025	638616.5	6326172	1585.13	223.87	6.96	5962.91
TB1_shp	1025	638616.5	6326172	1565.67	243.33	6.92	5223.67
TB1_shp	1025	638616.5	6326172	1546.2	262.8	6.8	4521.76
TB1_shp	1025	638616.5	6326172	1526.73	282.27	6.63	3923.61
TB1_shp	1025	638616.5	6326172	1507	302	6.51	3521.96
TB1_shp	1025	638616.5	6326172	1487	322	6.46	3274.11
TB1_shp	1025	638616.5	6326172	1467	342	6.51	3151.82
TB1_shp	1025	638616.5	6326172	1447	362	6.68	3161.51
TB1_shp	1025	638616.5	6326172	1427	382	7.01	3284.34
TB1_shp	1025	638616.5	6326172	1404.9	404.1	7.49	3501.51
TB1_shp	1025	638616.5	6326172	1380.35	428.65	8.23	3853.52
TB1_shp	1025	638616.5	6326172	1354.4	454.6	9.35	4378.33
TB1_shp	1025	638616.5	6326172	1325.9	483.1	10.75	5024.25
TB1_shp	1025	638616.5	6326172	1295.2	513.8	12.4	5778.85
TB1_shp	1025	638616.5	6326172	1262.55	546.45	14.18	6618.67
TB1_shp	1025	638616.5	6326172	1226.75	582.25	15.71	7471.42
TB1_shp	1025	638616.5	6326172	1188.1	620.9	16.68	8160.81
TB1_shp	1025	638616.5	6326172	1146.95	662.05	17.06	8623.34
TB1_shp	1025	638616.5	6326172	1101.85	707.15	16.84	8810.08
TB1_shp	1025	638616.5	6326172	1053.2	755.8	16.06	8691.95
TB1_shp	1025	638616.5	6326172	1001.4	807.6	14.79	8309.9
TB1_shp	1025	638616.5	6326172	944.6	864.4	13.14	7750.53
TB1_shp	1025	638616.5	6326172	883.35	925.65	11.44	7135.64
TB1_shp	1025	638616.5	6326172	818.5	990.5	9.61	6360.1
TB1_shp	1025	638616.5	6326172	747	1062	7.58	5446.53
TB1_shp	1041.67	638631.5	6326174	1808.61	9.73	9.6	10398.5
TB1_shp	1041.67	638631.5	6326174	1789.14	29.2	4.06	3394.71
TB1_shp	1041.67	638631.5	6326174	1769.67	48.67	2.88	2455.3
TB1_shp	1041.67	638631.5	6326174	1750.21	68.13	3.04	2465.55
TB1_shp	1041.67	638631.5	6326174	1730.74	87.6	3.55	2664.34
TB1_shp	1041.67	638631.5	6326174	1711.27	107.07	4.11	3087.11
TB1_shp	1041.67	638631.5	6326174	1691.81	126.53	4.7	3847.71

TB1_shp	1041.67	638631.5	6326174	1672.34	146	5.3	4924.77
TB1_shp	1041.67	638631.5	6326174	1652.87	165.47	5.89	6062.15
TB1_shp	1041.67	638631.5	6326174	1633.41	184.93	6.42	6858.31
TB1_shp	1041.67	638631.5	6326174	1613.94	204.4	6.79	7005.38
TB1_shp	1041.67	638631.5	6326174	1594.47	223.87	7	6589.31
TB1_shp	1041.67	638631.5	6326174	1575.01	243.33	7.02	5882.5
TB1_shp	1041.67	638631.5	6326174	1555.54	262.8	6.93	5140.87
TB1_shp	1041.67	638631.5	6326174	1536.07	282.27	6.77	4467.1
TB1_shp	1041.67	638631.5	6326174	1516.34	302	6.63	3994.51
TB1_shp	1041.67	638631.5	6326174	1496.34	322	6.55	3688.63
TB1_shp	1041.67	638631.5	6326174	1476.34	342	6.56	3523.31
TB1_shp	1041.67	638631.5	6326174	1456.34	362	6.68	3508.2
TB1_shp	1041.67	638631.5	6326174	1436.34	382	6.96	3622.33
TB1_shp	1041.67	638631.5	6326174	1414.24	404.1	7.4	3839.78
TB1_shp	1041.67	638631.5	6326174	1389.69	428.65	8.08	4203.9
TB1_shp	1041.67	638631.5	6326174	1363.74	454.6	9.13	4751.98
TB1_shp	1041.67	638631.5	6326174	1335.24	483.1	10.5	5423.86
TB1_shp	1041.67	638631.5	6326174	1304.54	513.8	12.13	6202.32
TB1_shp	1041.67	638631.5	6326174	1271.89	546.45	13.93	7057.27
TB1_shp	1041.67	638631.5	6326174	1236.09	582.25	15.53	7900.91
TB1_shp	1041.67	638631.5	6326174	1197.44	620.9	16.56	8557.38
TB1_shp	1041.67	638631.5	6326174	1156.29	662.05	17.01	8969.07
TB1_shp	1041.67	638631.5	6326174	1111.19	707.15	16.86	9089.93
TB1_shp	1041.67	638631.5	6326174	1062.54	755.8	16.1	8899.99
TB1_shp	1041.67	638631.5	6326174	1010.74	807.6	14.86	8459.36
TB1_shp	1041.67	638631.5	6326174	953.94	864.4	13.21	7857.58
TB1_shp	1041.67	638631.5	6326174	892.69	925.65	11.51	7213.35
TB1_shp	1041.67	638631.5	6326174	827.84	990.5	9.67	6412.78
TB1_shp	1041.67	638631.5	6326174	756.34	1062	7.62	5473.08
TB1_shp	1058.33	638646.5	6326176	1817.93	9.73	3.45	7486.82
TB1_shp	1058.33	638646.5	6326176	1798.46	29.2	5.1	5155.68
TB1_shp	1058.33	638646.5	6326176	1778.99	48.67	3.51	2842.84
TB1_shp	1058.33	638646.5	6326176	1759.53	68.13	2.74	2285.87
TB1_shp	1058.33	638646.5	6326176	1740.06	87.6	2.73	2336.85
TB1_shp	1058.33	638646.5	6326176	1720.59	107.07	3.07	2620.3
TB1_shp	1058.33	638646.5	6326176	1701.13	126.53	3.57	3114.3
TB1_shp	1058.33	638646.5	6326176	1681.66	146	4.16	3889.88
TB1_shp	1058.33	638646.5	6326176	1662.19	165.47	4.81	4937.61
TB1_shp	1058.33	638646.5	6326176	1642.73	184.93	5.47	6069.58
TB1_shp	1058.33	638646.5	6326176	1623.26	204.4	6.1	6950.61
TB1_shp	1058.33	638646.5	6326176	1603.79	223.87	6.6	7260.06
TB1_shp	1058.33	638646.5	6326176	1584.33	243.33	6.92	6999.87
TB1_shp	1058.33	638646.5	6326176	1564.86	262.8	7.04	6383.84
TB1_shp	1058.33	638646.5	6326176	1545.39	282.27	7.02	5664.71
TB1_shp	1058.33	638646.5	6326176	1525.66	302	6.9	4956.29
TB1_shp	1058.33	638646.5	6326176	1505.66	322	6.77	4443.09
TB1_shp	1058.33	638646.5	6326176	1485.66	342	6.68	4105.87
TB1_shp	1058.33	638646.5	6326176	1465.66	362	6.66	3916.46
TB1_shp	1058.33	638646.5	6326176	1445.66	382	6.74	3885.34
TB1_shp	1058.33	638646.5	6326176	1423.56	404.1	7.02	4017.11
TB1_shp	1058.33	638646.5	6326176	1399.01	428.65	7.5	4299.32
TB1_shp	1058.33	638646.5	6326176	1373.06	454.6	8.25	4740.46

TB1_shp	1058.33	638646.5	6326176	1344.56	483.1	9.37	5379.69
TB1_shp	1058.33	638646.5	6326176	1313.86	513.8	10.91	6170.02
TB1_shp	1058.33	638646.5	6326176	1281.21	546.45	12.69	7034.67
TB1_shp	1058.33	638646.5	6326176	1245.41	582.25	14.52	7927.92
TB1_shp	1058.33	638646.5	6326176	1206.76	620.9	16.05	8721.24
TB1_shp	1058.33	638646.5	6326176	1165.61	662.05	16.95	9264.81
TB1_shp	1058.33	638646.5	6326176	1120.51	707.15	17.1	9452.87
TB1_shp	1058.33	638646.5	6326176	1071.86	755.8	16.52	9252.4
TB1_shp	1058.33	638646.5	6326176	1020.06	807.6	15.4	8804.07
TB1_shp	1058.33	638646.5	6326176	963.26	864.4	13.86	8189.67
TB1_shp	1058.33	638646.5	6326176	902.01	925.65	12.13	7505.22
TB1_shp	1058.33	638646.5	6326176	837.16	990.5	10.3	6728.65
TB1_shp	1058.33	638646.5	6326176	765.66	1062	8.21	5762.16
TB1_shp	1075	638661.5	6326178	1827.27	9.73	1.16	4172.04
TB1_shp	1075	638661.5	6326178	1807.8	29.2	2.7	4004.46
TB1_shp	1075	638661.5	6326178	1788.33	48.67	2.88	2947.79
TB1_shp	1075	638661.5	6326178	1768.87	68.13	2.61	2484.93
TB1_shp	1075	638661.5	6326178	1749.4	87.6	2.55	2469.15
TB1_shp	1075	638661.5	6326178	1729.93	107.07	2.74	2715.75
TB1_shp	1075	638661.5	6326178	1710.47	126.53	3.13	3189.56
TB1_shp	1075	638661.5	6326178	1691	146	3.65	3921.05
TB1_shp	1075	638661.5	6326178	1671.53	165.47	4.28	4894.88
TB1_shp	1075	638661.5	6326178	1652.07	184.93	4.97	5963.78
TB1_shp	1075	638661.5	6326178	1632.6	204.4	5.67	6859.29
TB1_shp	1075	638661.5	6326178	1613.13	223.87	6.29	7279.29
TB1_shp	1075	638661.5	6326178	1593.67	243.33	6.73	7173.73
TB1_shp	1075	638661.5	6326178	1574.2	262.8	6.98	6689.16
TB1_shp	1075	638661.5	6326178	1554.73	282.27	7.07	6047.89
TB1_shp	1075	638661.5	6326178	1535	302	7.02	5370.21
TB1_shp	1075	638661.5	6326178	1515	322	6.92	4858.69
TB1_shp	1075	638661.5	6326178	1495	342	6.84	4513.08
TB1_shp	1075	638661.5	6326178	1475	362	6.8	4314.74
TB1_shp	1075	638661.5	6326178	1455	382	6.86	4280.71
TB1_shp	1075	638661.5	6326178	1432.9	404.1	7.09	4420.81
TB1_shp	1075	638661.5	6326178	1408.35	428.65	7.53	4721.25
TB1_shp	1075	638661.5	6326178	1382.4	454.6	8.22	5190.16
TB1_shp	1075	638661.5	6326178	1353.9	483.1	9.3	5867
TB1_shp	1075	638661.5	6326178	1323.2	513.8	10.81	6690.91
TB1_shp	1075	638661.5	6326178	1290.55	546.45	12.58	7576.44
TB1_shp	1075	638661.5	6326178	1254.75	582.25	14.44	8468.31
TB1_shp	1075	638661.5	6326178	1216.1	620.9	16.03	9230.12
TB1_shp	1075	638661.5	6326178	1174.95	662.05	16.97	9711.23
TB1_shp	1075	638661.5	6326178	1129.85	707.15	17.16	9811.27
TB1_shp	1075	638661.5	6326178	1081.2	755.8	16.6	9515.91
TB1_shp	1075	638661.5	6326178	1029.4	807.6	15.5	8991.2
TB1_shp	1075	638661.5	6326178	972.6	864.4	13.96	8318.31
TB1_shp	1075	638661.5	6326178	911.35	925.65	12.21	7593.83
TB1_shp	1075	638661.5	6326178	846.5	990.5	10.36	6788.74
TB1_shp	1075	638661.5	6326178	775	1062	8.26	5795.05
TB1_shp	1091.67	638676.5	6326180	1836.61	9.73	0.1	13439.43
TB1_shp	1091.67	638676.5	6326180	1817.14	29.2	0.37	7249.06
TB1_shp	1091.67	638676.5	6326180	1797.67	48.67	1.64	4851.94

TB1_shp	1091.67	638676.5	6326180	1778.21	68.13	2.44	3643.52
TB1_shp	1091.67	638676.5	6326180	1758.74	87.6	2.51	3032.24
TB1_shp	1091.67	638676.5	6326180	1739.27	107.07	2.46	2851.85
TB1_shp	1091.67	638676.5	6326180	1719.81	126.53	2.54	2974.47
TB1_shp	1091.67	638676.5	6326180	1700.34	146	2.81	3350.84
TB1_shp	1091.67	638676.5	6326180	1680.87	165.47	3.24	3979.18
TB1_shp	1091.67	638676.5	6326180	1661.41	184.93	3.81	4828.82
TB1_shp	1091.67	638676.5	6326180	1641.94	204.4	4.49	5781.48
TB1_shp	1091.67	638676.5	6326180	1622.47	223.87	5.22	6625.58
TB1_shp	1091.67	638676.5	6326180	1603.01	243.33	5.91	7098.12
TB1_shp	1091.67	638676.5	6326180	1583.54	262.8	6.47	7122.59
TB1_shp	1091.67	638676.5	6326180	1564.07	282.27	6.85	6785.64
TB1_shp	1091.67	638676.5	6326180	1544.34	302	7.06	6254.54
TB1_shp	1091.67	638676.5	6326180	1524.34	322	7.11	5649.99
TB1_shp	1091.67	638676.5	6326180	1504.34	342	7.07	5187.47
TB1_shp	1091.67	638676.5	6326180	1484.34	362	7.01	4871.87
TB1_shp	1091.67	638676.5	6326180	1464.34	382	6.97	4696.55
TB1_shp	1091.67	638676.5	6326180	1442.24	404.1	7.02	4676.79
TB1_shp	1091.67	638676.5	6326180	1417.69	428.65	7.26	4888.47
TB1_shp	1091.67	638676.5	6326180	1391.74	454.6	7.75	5290.72
TB1_shp	1091.67	638676.5	6326180	1363.24	483.1	8.59	5911.34
TB1_shp	1091.67	638676.5	6326180	1332.54	513.8	9.82	6718.07
TB1_shp	1091.67	638676.5	6326180	1299.89	546.45	11.44	7638.32
TB1_shp	1091.67	638676.5	6326180	1264.09	582.25	13.47	8630.04
TB1_shp	1091.67	638676.5	6326180	1225.44	620.9	15.36	9485.84
TB1_shp	1091.67	638676.5	6326180	1184.29	662.05	16.62	10024.18
TB1_shp	1091.67	638676.5	6326180	1139.19	707.15	17.17	10193.97
TB1_shp	1091.67	638676.5	6326180	1090.54	755.8	16.95	9964.02
TB1_shp	1091.67	638676.5	6326180	1038.74	807.6	16.08	9430.25
TB1_shp	1091.67	638676.5	6326180	981.94	864.4	14.64	8706.34
TB1_shp	1091.67	638676.5	6326180	920.69	925.65	12.86	7915.8
TB1_shp	1091.67	638676.5	6326180	855.84	990.5	11.02	7126.99
TB1_shp	1091.67	638676.5	6326180	784.34	1062	8.88	6105.64
TB1_shp	1108.33	638692.3	6326182	1847.52	9.73	0.1	2879.01
TB1_shp	1108.33	638692.3	6326182	1828.05	29.2	0.5	5135.82
TB1_shp	1108.33	638692.3	6326182	1808.58	48.67	1.59	5257.77
TB1_shp	1108.33	638692.3	6326182	1789.12	68.13	2.42	4521.31
TB1_shp	1108.33	638692.3	6326182	1769.65	87.6	2.56	3820.4
TB1_shp	1108.33	638692.3	6326182	1750.18	107.07	2.46	3443.5
TB1_shp	1108.33	638692.3	6326182	1730.72	126.53	2.45	3388.27
TB1_shp	1108.33	638692.3	6326182	1711.25	146	2.61	3612.31
TB1_shp	1108.33	638692.3	6326182	1691.78	165.47	2.94	4088.84
TB1_shp	1108.33	638692.3	6326182	1672.32	184.93	3.44	4774.98
TB1_shp	1108.33	638692.3	6326182	1652.85	204.4	4.07	5567.77
TB1_shp	1108.33	638692.3	6326182	1633.38	223.87	4.8	6306.02
TB1_shp	1108.33	638692.3	6326182	1613.92	243.33	5.54	6771.19
TB1_shp	1108.33	638692.3	6326182	1594.45	262.8	6.2	6884.46
TB1_shp	1108.33	638692.3	6326182	1574.98	282.27	6.69	6684.93
TB1_shp	1108.33	638692.3	6326182	1555.25	302	7.02	6294.63
TB1_shp	1108.33	638692.3	6326182	1535.25	322	7.17	5813.11
TB1_shp	1108.33	638692.3	6326182	1515.25	342	7.2	5432.78
TB1_shp	1108.33	638692.3	6326182	1495.25	362	7.18	5175.38

TB1_shp	1108.33	638692.3	6326182	1475.25	382	7.16	5045.21
TB1_shp	1108.33	638692.3	6326182	1453.15	404.1	7.19	5068.08
TB1_shp	1108.33	638692.3	6326182	1428.6	428.65	7.41	5325.65
TB1_shp	1108.33	638692.3	6326182	1402.65	454.6	7.86	5780.04
TB1_shp	1108.33	638692.3	6326182	1374.15	483.1	8.66	6459.88
TB1_shp	1108.33	638692.3	6326182	1343.45	513.8	9.86	7325.1
TB1_shp	1108.33	638692.3	6326182	1310.8	546.45	11.46	8290.72
TB1_shp	1108.33	638692.3	6326182	1275	582.25	13.49	9301.37
TB1_shp	1108.33	638692.3	6326182	1236.35	620.9	15.42	10124.69
TB1_shp	1108.33	638692.3	6326182	1195.2	662.05	16.71	10588.34
TB1_shp	1108.33	638692.3	6326182	1150.1	707.15	17.28	10650.7
TB1_shp	1108.33	638692.3	6326182	1101.45	755.8	17.08	10301.17
TB1_shp	1108.33	638692.3	6326182	1049.65	807.6	16.21	9661.97
TB1_shp	1108.33	638692.3	6326182	992.85	864.4	14.76	8859.64
TB1_shp	1108.33	638692.3	6326182	931.6	925.65	12.97	8016.08
TB1_shp	1108.33	638692.3	6326182	866.75	990.5	11.11	7194.35
TB1_shp	1108.33	638692.3	6326182	795.25	1062	8.93	6145.12
TB1_shp	1125	638709	6326184	1860.02	9.73	0.22	6416.38
TB1_shp	1125	638709	6326184	1840.55	29.2	0.29	3661.53
TB1_shp	1125	638709	6326184	1821.08	48.67	0.93	4452.4
TB1_shp	1125	638709	6326184	1801.62	68.13	2.02	5249.95
TB1_shp	1125	638709	6326184	1782.15	87.6	2.75	5168.33
TB1_shp	1125	638709	6326184	1762.68	107.07	2.79	4626.97
TB1_shp	1125	638709	6326184	1743.22	126.53	2.58	4145.01
TB1_shp	1125	638709	6326184	1723.75	146	2.45	3917.94
TB1_shp	1125	638709	6326184	1704.28	165.47	2.51	3965.17
TB1_shp	1125	638709	6326184	1684.82	184.93	2.75	4260.16
TB1_shp	1125	638709	6326184	1665.35	204.4	3.17	4753.01
TB1_shp	1125	638709	6326184	1645.88	223.87	3.74	5358.08
TB1_shp	1125	638709	6326184	1626.42	243.33	4.45	5948.48
TB1_shp	1125	638709	6326184	1606.95	262.8	5.21	6360.68
TB1_shp	1125	638709	6326184	1587.48	282.27	5.92	6517.25
TB1_shp	1125	638709	6326184	1567.75	302	6.53	6428.81
TB1_shp	1125	638709	6326184	1547.75	322	6.97	6172.48
TB1_shp	1125	638709	6326184	1527.75	342	7.22	5831.89
TB1_shp	1125	638709	6326184	1507.75	362	7.32	5563.65
TB1_shp	1125	638709	6326184	1487.75	382	7.35	5397.09
TB1_shp	1125	638709	6326184	1465.65	404.1	7.35	5353.44
TB1_shp	1125	638709	6326184	1441.1	428.65	7.41	5493.24
TB1_shp	1125	638709	6326184	1415.15	454.6	7.64	5849.52
TB1_shp	1125	638709	6326184	1386.65	483.1	8.19	6494.1
TB1_shp	1125	638709	6326184	1355.95	513.8	9.16	7383.56
TB1_shp	1125	638709	6326184	1323.3	546.45	10.58	8400.33
TB1_shp	1125	638709	6326184	1287.5	582.25	12.46	9474.33
TB1_shp	1125	638709	6326184	1248.85	620.9	14.54	10431.22
TB1_shp	1125	638709	6326184	1207.7	662.05	16.3	11069.71
TB1_shp	1125	638709	6326184	1162.6	707.15	17.31	11243.24
TB1_shp	1125	638709	6326184	1113.95	755.8	17.46	10920.37
TB1_shp	1125	638709	6326184	1062.15	807.6	16.82	10210.66
TB1_shp	1125	638709	6326184	1005.35	864.4	15.46	9312.32
TB1_shp	1125	638709	6326184	944.1	925.65	13.65	8383.87
TB1_shp	1125	638709	6326184	879.25	990.5	11.77	7527.71

TB1_shp	1125	638709	6326184	807.75	1062	9.58	6477.56
TB1_shp	1141.67	638725.7	6326186	1872.52	9.73	0.1	11463.1
TB1_shp	1141.67	638725.7	6326186	1853.05	29.2	0.28	6999.16
TB1_shp	1141.67	638725.7	6326186	1833.58	48.67	0.68	4121.01
TB1_shp	1141.67	638725.7	6326186	1814.12	68.13	1.64	4215.67
TB1_shp	1141.67	638725.7	6326186	1794.65	87.6	2.83	5038.24
TB1_shp	1141.67	638725.7	6326186	1775.18	107.07	3.39	5430.05
TB1_shp	1141.67	638725.7	6326186	1755.72	126.53	3.21	5230.81
TB1_shp	1141.67	638725.7	6326186	1736.25	146	2.81	4816.39
TB1_shp	1141.67	638725.7	6326186	1716.78	165.47	2.55	4494.67
TB1_shp	1141.67	638725.7	6326186	1697.32	184.93	2.49	4381.12
TB1_shp	1141.67	638725.7	6326186	1677.85	204.4	2.65	4485.52
TB1_shp	1141.67	638725.7	6326186	1658.38	223.87	2.99	4771.59
TB1_shp	1141.67	638725.7	6326186	1638.92	243.33	3.51	5170.92
TB1_shp	1141.67	638725.7	6326186	1619.45	262.8	4.18	5592.82
TB1_shp	1141.67	638725.7	6326186	1599.98	282.27	4.93	5915.86
TB1_shp	1141.67	638725.7	6326186	1580.25	302	5.7	6079.34
TB1_shp	1141.67	638725.7	6326186	1560.25	322	6.38	6068.7
TB1_shp	1141.67	638725.7	6326186	1540.25	342	6.9	5933.8
TB1_shp	1141.67	638725.7	6326186	1520.25	362	7.26	5737.12
TB1_shp	1141.67	638725.7	6326186	1500.25	382	7.44	5593.85
TB1_shp	1141.67	638725.7	6326186	1478.15	404.1	7.51	5536.5
TB1_shp	1141.67	638725.7	6326186	1453.6	428.65	7.56	5640.46
TB1_shp	1141.67	638725.7	6326186	1427.65	454.6	7.68	5952.71
TB1_shp	1141.67	638725.7	6326186	1399.15	483.1	7.99	6524.8
TB1_shp	1141.67	638725.7	6326186	1368.45	513.8	8.66	7382.68
TB1_shp	1141.67	638725.7	6326186	1335.8	546.45	9.78	8476.1
TB1_shp	1141.67	638725.7	6326186	1300	582.25	11.48	9685.86
TB1_shp	1141.67	638725.7	6326186	1261.35	620.9	13.67	10818.42
TB1_shp	1141.67	638725.7	6326186	1220.2	662.05	15.78	11604.87
TB1_shp	1141.67	638725.7	6326186	1175.1	707.15	17.16	11866.58
TB1_shp	1141.67	638725.7	6326186	1126.45	755.8	17.64	11563.77
TB1_shp	1141.67	638725.7	6326186	1074.65	807.6	17.24	10813.76
TB1_shp	1141.67	638725.7	6326186	1017.85	864.4	16.08	9836.56
TB1_shp	1141.67	638725.7	6326186	956.6	925.65	14.37	8814.08
TB1_shp	1141.67	638725.7	6326186	891.75	990.5	12.44	7867.45
TB1_shp	1141.67	638725.7	6326186	820.25	1062	10.26	6824.48
TB1_shp	1158.33	638742.3	6326188	1885.02	9.73	0.26	7523.49
TB1_shp	1158.33	638742.3	6326188	1865.55	29.2	0.6	5376.5
TB1_shp	1158.33	638742.3	6326188	1846.08	48.67	1.41	3999.53
TB1_shp	1158.33	638742.3	6326188	1826.62	68.13	2.81	4023.32
TB1_shp	1158.33	638742.3	6326188	1807.15	87.6	4.06	4710.48
TB1_shp	1158.33	638742.3	6326188	1787.68	107.07	4.3	5326.83
TB1_shp	1158.33	638742.3	6326188	1768.22	126.53	3.78	5502.52
TB1_shp	1158.33	638742.3	6326188	1748.75	146	3.14	5320.78
TB1_shp	1158.33	638742.3	6326188	1729.28	165.47	2.72	5033.54
TB1_shp	1158.33	638742.3	6326188	1709.82	184.93	2.56	4817.77
TB1_shp	1158.33	638742.3	6326188	1690.35	204.4	2.63	4747.39
TB1_shp	1158.33	638742.3	6326188	1670.88	223.87	2.9	4825.73
TB1_shp	1158.33	638742.3	6326188	1651.42	243.33	3.36	5015.42
TB1_shp	1158.33	638742.3	6326188	1631.95	262.8	3.99	5257.98
TB1_shp	1158.33	638742.3	6326188	1612.48	282.27	4.72	5470.97

TB1_shp	1158.33	638742.3	6326188	1592.75	302	5.51	5606.31
TB1_shp	1158.33	638742.3	6326188	1572.75	322	6.25	5646.79
TB1_shp	1158.33	638742.3	6326188	1552.75	342	6.85	5613.57
TB1_shp	1158.33	638742.3	6326188	1532.75	362	7.3	5554.22
TB1_shp	1158.33	638742.3	6326188	1512.75	382	7.53	5536
TB1_shp	1158.33	638742.3	6326188	1490.65	404.1	7.67	5607.9
TB1_shp	1158.33	638742.3	6326188	1466.1	428.65	7.75	5843.74
TB1_shp	1158.33	638742.3	6326188	1440.15	454.6	7.88	6283.04
TB1_shp	1158.33	638742.3	6326188	1411.65	483.1	8.19	6985.69
TB1_shp	1158.33	638742.3	6326188	1380.95	513.8	8.83	7978.23
TB1_shp	1158.33	638742.3	6326188	1348.3	546.45	9.94	9199.95
TB1_shp	1158.33	638742.3	6326188	1312.5	582.25	11.64	10506.27
TB1_shp	1158.33	638742.3	6326188	1273.85	620.9	13.83	11670.66
TB1_shp	1158.33	638742.3	6326188	1232.7	662.05	15.95	12400.25
TB1_shp	1158.33	638742.3	6326188	1187.6	707.15	17.35	12535.25
TB1_shp	1158.33	638742.3	6326188	1138.95	755.8	17.83	12068.28
TB1_shp	1158.33	638742.3	6326188	1087.15	807.6	17.42	11160.83
TB1_shp	1158.33	638742.3	6326188	1030.35	864.4	16.25	10057.88
TB1_shp	1158.33	638742.3	6326188	969.1	925.65	14.51	8950.86
TB1_shp	1158.33	638742.3	6326188	904.25	990.5	12.55	7954.19
TB1_shp	1158.33	638742.3	6326188	832.75	1062	10.33	6877.5
TB1_shp	1175	638759	6326190	1897.52	9.73	0.31	33495.23
TB1_shp	1175	638759	6326190	1878.05	29.2	0.62	9838.26
TB1_shp	1175	638759	6326190	1858.58	48.67	1.44	5174.53
TB1_shp	1175	638759	6326190	1839.12	68.13	2.91	3959.85
TB1_shp	1175	638759	6326190	1819.65	87.6	4.69	3850.14
TB1_shp	1175	638759	6326190	1800.18	107.07	5.65	4317.78
TB1_shp	1175	638759	6326190	1780.72	126.53	5.35	4963.03
TB1_shp	1175	638759	6326190	1761.25	146	4.42	5434.72
TB1_shp	1175	638759	6326190	1741.78	165.47	3.53	5578.93
TB1_shp	1175	638759	6326190	1722.32	184.93	2.94	5460.24
TB1_shp	1175	638759	6326190	1702.85	204.4	2.68	5230.86
TB1_shp	1175	638759	6326190	1683.38	223.87	2.67	5022.92
TB1_shp	1175	638759	6326190	1663.92	243.33	2.88	4905.33
TB1_shp	1175	638759	6326190	1644.45	262.8	3.29	4889.4
TB1_shp	1175	638759	6326190	1624.98	282.27	3.87	4953.03
TB1_shp	1175	638759	6326190	1605.25	302	4.59	5048.86
TB1_shp	1175	638759	6326190	1585.25	322	5.39	5137.41
TB1_shp	1175	638759	6326190	1565.25	342	6.16	5200.16
TB1_shp	1175	638759	6326190	1545.25	362	6.81	5242.01
TB1_shp	1175	638759	6326190	1525.25	382	7.33	5298.94
TB1_shp	1175	638759	6326190	1503.15	404.1	7.65	5411.98
TB1_shp	1175	638759	6326190	1478.6	428.65	7.83	5656.85
TB1_shp	1175	638759	6326190	1452.65	454.6	7.95	6103.34
TB1_shp	1175	638759	6326190	1424.15	483.1	8.14	6811.28
TB1_shp	1175	638759	6326190	1393.45	513.8	8.58	7826.51
TB1_shp	1175	638759	6326190	1360.8	546.45	9.45	9129.72
TB1_shp	1175	638759	6326190	1325	582.25	10.9	10596.77
TB1_shp	1175	638759	6326190	1286.35	620.9	12.91	11966.43
TB1_shp	1175	638759	6326190	1245.2	662.05	15.15	12941.59
TB1_shp	1175	638759	6326190	1200.1	707.15	17.01	13288.03
TB1_shp	1175	638759	6326190	1151.45	755.8	17.93	12903.73

TB1_shp	1175	638759	6326190	1099.65	807.6	17.85	11952.89
TB1_shp	1175	638759	6326190	1042.85	864.4	16.9	10700.85
TB1_shp	1175	638759	6326190	981.6	925.65	15.26	9446.86
TB1_shp	1175	638759	6326190	916.75	990.5	13.26	8325.89
TB1_shp	1175	638759	6326190	845.25	1062	11.04	7245.77
TB1_shp	1191.67	638775.7	6326192	1910.02	9.73	0.96	26495.26
TB1_shp	1191.67	638775.7	6326192	1890.55	29.2	0.48	20905.81
TB1_shp	1191.67	638775.7	6326192	1871.08	48.67	0.77	8298
TB1_shp	1191.67	638775.7	6326192	1851.62	68.13	1.95	5036.34
TB1_shp	1191.67	638775.7	6326192	1832.15	87.6	4.14	4002.15
TB1_shp	1191.67	638775.7	6326192	1812.68	107.07	6.3	3710.6
TB1_shp	1191.67	638775.7	6326192	1793.22	126.53	6.95	3918.77
TB1_shp	1191.67	638775.7	6326192	1773.75	146	6.22	4468.12
TB1_shp	1191.67	638775.7	6326192	1754.28	165.47	4.98	5117.42
TB1_shp	1191.67	638775.7	6326192	1734.82	184.93	3.9	5593.22
TB1_shp	1191.67	638775.7	6326192	1715.35	204.4	3.19	5740.53
TB1_shp	1191.67	638775.7	6326192	1695.88	223.87	2.84	5590.56
TB1_shp	1191.67	638775.7	6326192	1676.42	243.33	2.77	5294.37
TB1_shp	1191.67	638775.7	6326192	1656.95	262.8	2.92	5000.2
TB1_shp	1191.67	638775.7	6326192	1637.48	282.27	3.28	4790.65
TB1_shp	1191.67	638775.7	6326192	1617.75	302	3.83	4681.71
TB1_shp	1191.67	638775.7	6326192	1597.75	322	4.54	4659.31
TB1_shp	1191.67	638775.7	6326192	1577.75	342	5.33	4691.25
TB1_shp	1191.67	638775.7	6326192	1557.75	362	6.11	4756.99
TB1_shp	1191.67	638775.7	6326192	1537.75	382	6.8	4851.45
TB1_shp	1191.67	638775.7	6326192	1515.65	404.1	7.43	5018.12
TB1_shp	1191.67	638775.7	6326192	1491.1	428.65	7.82	5279.69
TB1_shp	1191.67	638775.7	6326192	1465.15	454.6	8.02	5717.81
TB1_shp	1191.67	638775.7	6326192	1436.65	483.1	8.16	6436.79
TB1_shp	1191.67	638775.7	6326192	1405.95	513.8	8.42	7461.74
TB1_shp	1191.67	638775.7	6326192	1373.3	546.45	9.02	8845.02
TB1_shp	1191.67	638775.7	6326192	1337.5	582.25	10.17	10562.32
TB1_shp	1191.67	638775.7	6326192	1298.85	620.9	11.99	12251.75
TB1_shp	1191.67	638775.7	6326192	1257.7	662.05	14.36	13581.73
TB1_shp	1191.67	638775.7	6326192	1212.6	707.15	16.7	14208.08
TB1_shp	1191.67	638775.7	6326192	1163.95	755.8	18.05	13914.65
TB1_shp	1191.67	638775.7	6326192	1112.15	807.6	18.31	12881.17
TB1_shp	1191.67	638775.7	6326192	1055.35	864.4	17.58	11426.65
TB1_shp	1191.67	638775.7	6326192	994.1	925.65	16.04	9986.92
TB1_shp	1191.67	638775.7	6326192	929.25	990.5	13.99	8719.31
TB1_shp	1191.67	638775.7	6326192	857.75	1062	11.78	7628.17
TB1_shp	1208.33	638790.8	6326194	1911.11	9.73	1.07	17275.04
TB1_shp	1208.33	638790.8	6326194	1891.64	29.2	0.34	12533.12
TB1_shp	1208.33	638790.8	6326194	1872.17	48.67	0.24	6786.29
TB1_shp	1208.33	638790.8	6326194	1852.71	68.13	0.94	5107.72
TB1_shp	1208.33	638790.8	6326194	1833.24	87.6	2.91	4235.87
TB1_shp	1208.33	638790.8	6326194	1813.77	107.07	5.64	3689.19
TB1_shp	1208.33	638790.8	6326194	1794.31	126.53	6.93	3589.56
TB1_shp	1208.33	638790.8	6326194	1774.84	146	6.46	3965
TB1_shp	1208.33	638790.8	6326194	1755.37	165.47	5.29	4677.31
TB1_shp	1208.33	638790.8	6326194	1735.91	184.93	4.19	5431.83
TB1_shp	1208.33	638790.8	6326194	1716.44	204.4	3.43	5888.35

TB1_shp	1208.33	638790.8	6326194	1696.97	223.87	3.02	5891.47
TB1_shp	1208.33	638790.8	6326194	1677.51	243.33	2.9	5553.8
TB1_shp	1208.33	638790.8	6326194	1658.04	262.8	3.01	5104.8
TB1_shp	1208.33	638790.8	6326194	1638.57	282.27	3.32	4713.09
TB1_shp	1208.33	638790.8	6326194	1618.84	302	3.84	4443.89
TB1_shp	1208.33	638790.8	6326194	1598.84	322	4.51	4307.13
TB1_shp	1208.33	638790.8	6326194	1578.84	342	5.29	4280.58
TB1_shp	1208.33	638790.8	6326194	1558.84	362	6.07	4335.42
TB1_shp	1208.33	638790.8	6326194	1538.84	382	6.78	4461.08
TB1_shp	1208.33	638790.8	6326194	1516.74	404.1	7.46	4704.18
TB1_shp	1208.33	638790.8	6326194	1492.19	428.65	7.89	5071.61
TB1_shp	1208.33	638790.8	6326194	1466.24	454.6	8.14	5645.44
TB1_shp	1208.33	638790.8	6326194	1437.74	483.1	8.31	6532.02
TB1_shp	1208.33	638790.8	6326194	1407.04	513.8	8.59	7749.54
TB1_shp	1208.33	638790.8	6326194	1374.39	546.45	9.2	9348.33
TB1_shp	1208.33	638790.8	6326194	1338.59	582.25	10.36	11297.19
TB1_shp	1208.33	638790.8	6326194	1299.94	620.9	12.2	13157.32
TB1_shp	1208.33	638790.8	6326194	1258.79	662.05	14.58	14558.63
TB1_shp	1208.33	638790.8	6326194	1213.69	707.15	16.93	15114.83
TB1_shp	1208.33	638790.8	6326194	1165.04	755.8	18.27	14635.95
TB1_shp	1208.33	638790.8	6326194	1113.24	807.6	18.52	13384.09
TB1_shp	1208.33	638790.8	6326194	1056.44	864.4	17.77	11738.38
TB1_shp	1208.33	638790.8	6326194	995.19	925.65	16.21	10169.97
TB1_shp	1208.33	638790.8	6326194	930.34	990.5	14.14	8825.35
TB1_shp	1208.33	638790.8	6326194	858.84	1062	11.88	7692.54
TB1_shp	1225	638804.5	6326195	1900.77	9.73	0.1	17621.7
TB1_shp	1225	638804.5	6326195	1881.3	29.2	0.1	8830.18
TB1_shp	1225	638804.5	6326195	1861.83	48.67	0.1	6570.35
TB1_shp	1225	638804.5	6326195	1842.37	68.13	1.01	5154.53
TB1_shp	1225	638804.5	6326195	1822.9	87.6	3.34	3999.71
TB1_shp	1225	638804.5	6326195	1803.43	107.07	5.51	3435.53
TB1_shp	1225	638804.5	6326195	1783.97	126.53	5.96	3552.84
TB1_shp	1225	638804.5	6326195	1764.5	146	5.27	4233.95
TB1_shp	1225	638804.5	6326195	1745.03	165.47	4.36	5191.85
TB1_shp	1225	638804.5	6326195	1725.57	184.93	3.65	5957.63
TB1_shp	1225	638804.5	6326195	1706.1	204.4	3.22	6156.61
TB1_shp	1225	638804.5	6326195	1686.63	223.87	3.06	5810.24
TB1_shp	1225	638804.5	6326195	1667.17	243.33	3.13	5218.53
TB1_shp	1225	638804.5	6326195	1647.7	262.8	3.41	4656.38
TB1_shp	1225	638804.5	6326195	1628.23	282.27	3.87	4242.81
TB1_shp	1225	638804.5	6326195	1608.5	302	4.51	4003.74
TB1_shp	1225	638804.5	6326195	1588.5	322	5.26	3914.99
TB1_shp	1225	638804.5	6326195	1568.5	342	6.04	3948.34
TB1_shp	1225	638804.5	6326195	1548.5	362	6.75	4086.61
TB1_shp	1225	638804.5	6326195	1528.5	382	7.39	4350.61
TB1_shp	1225	638804.5	6326195	1506.4	404.1	7.84	4742.12
TB1_shp	1225	638804.5	6326195	1481.85	428.65	8.15	5352.33
TB1_shp	1225	638804.5	6326195	1455.9	454.6	8.36	6237.67
TB1_shp	1225	638804.5	6326195	1427.4	483.1	8.62	7462.58
TB1_shp	1225	638804.5	6326195	1396.7	513.8	9.11	9068.74
TB1_shp	1225	638804.5	6326195	1364.05	546.45	10	11004.83
TB1_shp	1225	638804.5	6326195	1328.25	582.25	11.48	13046.82

TB1_shp	1225	638804.5	6326195	1289.6	620.9	13.55	14773.82
TB1_shp	1225	638804.5	6326195	1248.45	662.05	15.84	15768.91
TB1_shp	1225	638804.5	6326195	1203.35	707.15	17.71	15776.81
TB1_shp	1225	638804.5	6326195	1154.7	755.8	18.6	14819.5
TB1_shp	1225	638804.5	6326195	1102.9	807.6	18.48	13265.21
TB1_shp	1225	638804.5	6326195	1046.1	864.4	17.47	11511.46
TB1_shp	1225	638804.5	6326195	984.85	925.65	15.76	9924.03
TB1_shp	1225	638804.5	6326195	920	990.5	13.65	8610.05
TB1_shp	1225	638804.5	6326195	848.5	1062	11.31	7416.75
TB1_shp	1241.67	638818.2	6326197	1890.43	9.73	0.1	29464.28
TB1_shp	1241.67	638818.2	6326197	1870.96	29.2	0.1	13421.2
TB1_shp	1241.67	638818.2	6326197	1851.49	48.67	0.1	10009.82
TB1_shp	1241.67	638818.2	6326197	1832.03	68.13	0.1	7313.74
TB1_shp	1241.67	638818.2	6326197	1812.56	87.6	1.45	4928.61
TB1_shp	1241.67	638818.2	6326197	1793.09	107.07	3.74	3555.21
TB1_shp	1241.67	638818.2	6326197	1773.63	126.53	5.07	3291.03
TB1_shp	1241.67	638818.2	6326197	1754.16	146	5.04	3865.24
TB1_shp	1241.67	638818.2	6326197	1734.69	165.47	4.45	4960.02
TB1_shp	1241.67	638818.2	6326197	1715.23	184.93	3.84	6014.39
TB1_shp	1241.67	638818.2	6326197	1695.76	204.4	3.42	6425.7
TB1_shp	1241.67	638818.2	6326197	1676.29	223.87	3.23	6080.46
TB1_shp	1241.67	638818.2	6326197	1656.83	243.33	3.27	5347.39
TB1_shp	1241.67	638818.2	6326197	1637.36	262.8	3.51	4617.4
TB1_shp	1241.67	638818.2	6326197	1617.89	282.27	3.95	4067.03
TB1_shp	1241.67	638818.2	6326197	1598.16	302	4.55	3737.09
TB1_shp	1241.67	638818.2	6326197	1578.16	322	5.28	3593.98
TB1_shp	1241.67	638818.2	6326197	1558.16	342	6.04	3605.61
TB1_shp	1241.67	638818.2	6326197	1538.16	362	6.74	3746.87
TB1_shp	1241.67	638818.2	6326197	1518.16	382	7.39	4038.45
TB1_shp	1241.67	638818.2	6326197	1496.06	404.1	7.86	4480.92
TB1_shp	1241.67	638818.2	6326197	1471.51	428.65	8.19	5172.87
TB1_shp	1241.67	638818.2	6326197	1445.56	454.6	8.43	6177.23
TB1_shp	1241.67	638818.2	6326197	1417.06	483.1	8.71	7563.25
TB1_shp	1241.67	638818.2	6326197	1386.36	513.8	9.22	9378.49
TB1_shp	1241.67	638818.2	6326197	1353.71	546.45	10.14	11558.14
TB1_shp	1241.67	638818.2	6326197	1317.91	582.25	11.66	13838.62
TB1_shp	1241.67	638818.2	6326197	1279.26	620.9	13.76	15726.07
TB1_shp	1241.67	638818.2	6326197	1238.11	662.05	16.07	16747.08
TB1_shp	1241.67	638818.2	6326197	1193.01	707.15	17.95	16641.84
TB1_shp	1241.67	638818.2	6326197	1144.36	755.8	18.82	15480.61
TB1_shp	1241.67	638818.2	6326197	1092.56	807.6	18.68	13711.63
TB1_shp	1241.67	638818.2	6326197	1035.76	864.4	17.66	11782.22
TB1_shp	1241.67	638818.2	6326197	974.51	925.65	15.92	10080.34
TB1_shp	1241.67	638818.2	6326197	909.66	990.5	13.78	8700.73
TB1_shp	1241.67	638818.2	6326197	838.16	1062	11.39	7470.26
TB1_shp	1258.33	638831.8	6326198	1880.11	9.73	0.1	3387.27
TB1_shp	1258.33	638831.8	6326198	1860.64	29.2	0.1	8701
TB1_shp	1258.33	638831.8	6326198	1841.17	48.67	0.1	9526.83
TB1_shp	1258.33	638831.8	6326198	1821.71	68.13	0.47	6569.7
TB1_shp	1258.33	638831.8	6326198	1802.24	87.6	2.44	3984.37
TB1_shp	1258.33	638831.8	6326198	1782.77	107.07	4.26	3183.23
TB1_shp	1258.33	638831.8	6326198	1763.31	126.53	4.79	3601.84

TB1_shp	1258.33	638831.8	6326198	1743.84	146	4.51	4795.12
TB1_shp	1258.33	638831.8	6326198	1724.37	165.47	4.02	6120.91
TB1_shp	1258.33	638831.8	6326198	1704.91	184.93	3.62	6742.63
TB1_shp	1258.33	638831.8	6326198	1685.44	204.4	3.41	6387.07
TB1_shp	1258.33	638831.8	6326198	1665.97	223.87	3.42	5498.25
TB1_shp	1258.33	638831.8	6326198	1646.51	243.33	3.63	4599.01
TB1_shp	1258.33	638831.8	6326198	1627.04	262.8	4.03	3920.1
TB1_shp	1258.33	638831.8	6326198	1607.57	282.27	4.61	3514.58
TB1_shp	1258.33	638831.8	6326198	1587.84	302	5.28	3323.1
TB1_shp	1258.33	638831.8	6326198	1567.84	322	6.02	3306.9
TB1_shp	1258.33	638831.8	6326198	1547.84	342	6.71	3439.72
TB1_shp	1258.33	638831.8	6326198	1527.84	362	7.34	3740.27
TB1_shp	1258.33	638831.8	6326198	1507.84	382	7.78	4164.7
TB1_shp	1258.33	638831.8	6326198	1485.74	404.1	8.11	4809.48
TB1_shp	1258.33	638831.8	6326198	1461.19	428.65	8.38	5783.09
TB1_shp	1258.33	638831.8	6326198	1435.24	454.6	8.64	7092.54
TB1_shp	1258.33	638831.8	6326198	1406.74	483.1	9.05	8838.33
TB1_shp	1258.33	638831.8	6326198	1376.04	513.8	9.79	11042.46
TB1_shp	1258.33	638831.8	6326198	1343.39	546.45	11	13522.57
TB1_shp	1258.33	638831.8	6326198	1307.59	582.25	12.8	15863.54
TB1_shp	1258.33	638831.8	6326198	1268.94	620.9	15.14	17470.93
TB1_shp	1258.33	638831.8	6326198	1227.79	662.05	17.32	17882.2
TB1_shp	1258.33	638831.8	6326198	1182.69	707.15	18.7	17087.26
TB1_shp	1258.33	638831.8	6326198	1134.04	755.8	19.11	15415.09
TB1_shp	1258.33	638831.8	6326198	1082.24	807.6	18.61	13385.54
TB1_shp	1258.33	638831.8	6326198	1025.44	864.4	17.32	11423.12
TB1_shp	1258.33	638831.8	6326198	964.19	925.65	15.43	9760.29
TB1_shp	1258.33	638831.8	6326198	899.34	990.5	13.26	8446.66
TB1_shp	1258.33	638831.8	6326198	827.84	1062	10.78	7169.27
TB1_shp	1275	638845.5	6326200	1869.77	9.73	0.1	4147.55
TB1_shp	1275	638845.5	6326200	1850.3	29.2	0.1	7459.18
TB1_shp	1275	638845.5	6326200	1830.83	48.67	0.1	10803.25
TB1_shp	1275	638845.5	6326200	1811.37	68.13	0.1	8852.93
TB1_shp	1275	638845.5	6326200	1791.9	87.6	1.76	4666.73
TB1_shp	1275	638845.5	6326200	1772.43	107.07	3.82	3179.42
TB1_shp	1275	638845.5	6326200	1752.97	126.53	4.7	3434.73
TB1_shp	1275	638845.5	6326200	1733.5	146	4.63	4728.51
TB1_shp	1275	638845.5	6326200	1714.03	165.47	4.22	6326.25
TB1_shp	1275	638845.5	6326200	1694.57	184.93	3.83	7147.15
TB1_shp	1275	638845.5	6326200	1675.1	204.4	3.59	6750.64
TB1_shp	1275	638845.5	6326200	1655.63	223.87	3.56	5680.69
TB1_shp	1275	638845.5	6326200	1636.17	243.33	3.74	4603.71
TB1_shp	1275	638845.5	6326200	1616.7	262.8	4.11	3803.09
TB1_shp	1275	638845.5	6326200	1597.23	282.27	4.65	3325.79
TB1_shp	1275	638845.5	6326200	1577.5	302	5.3	3092.49
TB1_shp	1275	638845.5	6326200	1557.5	322	6	3052.74
TB1_shp	1275	638845.5	6326200	1537.5	342	6.67	3175.78
TB1_shp	1275	638845.5	6326200	1517.5	362	7.27	3477.97
TB1_shp	1275	638845.5	6326200	1497.5	382	7.7	3917.32
TB1_shp	1275	638845.5	6326200	1475.4	404.1	8.04	4596.28
TB1_shp	1275	638845.5	6326200	1450.85	428.65	8.32	5634.81
TB1_shp	1275	638845.5	6326200	1424.9	454.6	8.62	7047.6

TB1_shp	1275	638845.5	6326200	1396.4	483.1	9.06	8951.01
TB1_shp	1275	638845.5	6326200	1365.7	513.8	9.84	11373.2
TB1_shp	1275	638845.5	6326200	1333.05	546.45	11.1	14115.03
TB1_shp	1275	638845.5	6326200	1297.25	582.25	12.96	16698.65
TB1_shp	1275	638845.5	6326200	1258.6	620.9	15.33	18444.71
TB1_shp	1275	638845.5	6326200	1217.45	662.05	17.54	18826.92
TB1_shp	1275	638845.5	6326200	1172.35	707.15	18.91	17872.86
TB1_shp	1275	638845.5	6326200	1123.7	755.8	19.31	15985.52
TB1_shp	1275	638845.5	6326200	1071.9	807.6	18.8	13755.52
TB1_shp	1275	638845.5	6326200	1015.1	864.4	17.49	11643.3
TB1_shp	1275	638845.5	6326200	953.85	925.65	15.57	9886.45
TB1_shp	1275	638845.5	6326200	889	990.5	13.38	8520.65
TB1_shp	1275	638845.5	6326200	817.5	1062	10.86	7211.81
TB1_shp	1291.67	638859.2	6326202	1859.43	9.73	0.1	5740.5
TB1_shp	1291.67	638859.2	6326202	1839.96	29.2	0.1	10387.33
TB1_shp	1291.67	638859.2	6326202	1820.49	48.67	0.1	11724.57
TB1_shp	1291.67	638859.2	6326202	1801.03	68.13	1.71	5473.6
TB1_shp	1291.67	638859.2	6326202	1781.56	87.6	3.91	3202.36
TB1_shp	1291.67	638859.2	6326202	1762.09	107.07	4.85	3340.19
TB1_shp	1291.67	638859.2	6326202	1742.63	126.53	4.83	4772.34
TB1_shp	1291.67	638859.2	6326202	1723.16	146	4.43	6659.96
TB1_shp	1291.67	638859.2	6326202	1703.69	165.47	4.01	7659.14
TB1_shp	1291.67	638859.2	6326202	1684.23	184.93	3.73	7176.95
TB1_shp	1291.67	638859.2	6326202	1664.76	204.4	3.67	5892.58
TB1_shp	1291.67	638859.2	6326202	1645.29	223.87	3.82	4631.5
TB1_shp	1291.67	638859.2	6326202	1625.83	243.33	4.18	3714.79
TB1_shp	1291.67	638859.2	6326202	1606.36	262.8	4.68	3173.11
TB1_shp	1291.67	638859.2	6326202	1586.89	282.27	5.29	2906.1
TB1_shp	1291.67	638859.2	6326202	1567.16	302	5.95	2841.72
TB1_shp	1291.67	638859.2	6326202	1547.16	322	6.57	2946.8
TB1_shp	1291.67	638859.2	6326202	1527.16	342	7.14	3237.49
TB1_shp	1291.67	638859.2	6326202	1507.16	362	7.56	3676.38
TB1_shp	1291.67	638859.2	6326202	1487.16	382	7.87	4291.73
TB1_shp	1291.67	638859.2	6326202	1465.06	404.1	8.15	5208.48
TB1_shp	1291.67	638859.2	6326202	1440.51	428.65	8.43	6533.25
TB1_shp	1291.67	638859.2	6326202	1414.56	454.6	8.8	8265.11
TB1_shp	1291.67	638859.2	6326202	1386.06	483.1	9.48	10635.81
TB1_shp	1291.67	638859.2	6326202	1355.36	513.8	10.6	13450.23
TB1_shp	1291.67	638859.2	6326202	1322.71	546.45	12.2	16185.55
TB1_shp	1291.67	638859.2	6326202	1286.91	582.25	14.3	18434.8
TB1_shp	1291.67	638859.2	6326202	1248.26	620.9	16.58	19604.01
TB1_shp	1291.67	638859.2	6326202	1207.11	662.05	18.43	19400.69
TB1_shp	1291.67	638859.2	6326202	1162.01	707.15	19.4	17908.28
TB1_shp	1291.67	638859.2	6326202	1113.36	755.8	19.45	15638.73
TB1_shp	1291.67	638859.2	6326202	1061.56	807.6	18.68	13219.14
TB1_shp	1291.67	638859.2	6326202	1004.76	864.4	17.13	11146.33
TB1_shp	1291.67	638859.2	6326202	943.51	925.65	15.04	9491.31
TB1_shp	1291.67	638859.2	6326202	878.66	990.5	12.82	8227.5
TB1_shp	1291.67	638859.2	6326202	807.16	1062	10.2	6887.01
TB1_shp	1308.33	638874.4	6326203	1849.36	9.73	0.1	5419.94
TB1_shp	1308.33	638874.4	6326203	1829.89	29.2	0.1	6370.04
TB1_shp	1308.33	638874.4	6326203	1810.42	48.67	0.15	13579.91

TB1_shp	1308.33	638874.4	6326203	1790.96	68.13	2.59	6024.35
TB1_shp	1308.33	638874.4	6326203	1771.49	87.6	4.6	3163.37
TB1_shp	1308.33	638874.4	6326203	1752.02	107.07	5.16	3301.91
TB1_shp	1308.33	638874.4	6326203	1732.56	126.53	5.01	4939.49
TB1_shp	1308.33	638874.4	6326203	1713.09	146	4.58	7130.99
TB1_shp	1308.33	638874.4	6326203	1693.62	165.47	4.13	8265.42
TB1_shp	1308.33	638874.4	6326203	1674.16	184.93	3.82	7641.75
TB1_shp	1308.33	638874.4	6326203	1654.69	204.4	3.73	6120.63
TB1_shp	1308.33	638874.4	6326203	1635.22	223.87	3.86	4677.03
TB1_shp	1308.33	638874.4	6326203	1615.76	243.33	4.2	3653.49
TB1_shp	1308.33	638874.4	6326203	1596.29	262.8	4.67	3055.83
TB1_shp	1308.33	638874.4	6326203	1576.82	282.27	5.25	2756.16
TB1_shp	1308.33	638874.4	6326203	1557.09	302	5.86	2670.21
TB1_shp	1308.33	638874.4	6326203	1537.09	322	6.43	2758.57
TB1_shp	1308.33	638874.4	6326203	1517.09	342	6.97	3036.19
TB1_shp	1308.33	638874.4	6326203	1497.09	362	7.36	3469.44
TB1_shp	1308.33	638874.4	6326203	1477.09	382	7.66	4088.77
TB1_shp	1308.33	638874.4	6326203	1454.99	404.1	7.95	5025.94
TB1_shp	1308.33	638874.4	6326203	1430.44	428.65	8.26	6399.83
TB1_shp	1308.33	638874.4	6326203	1404.49	454.6	8.67	8221.05
TB1_shp	1308.33	638874.4	6326203	1375.99	483.1	9.4	10754.18
TB1_shp	1308.33	638874.4	6326203	1345.29	513.8	10.59	13797.71
TB1_shp	1308.33	638874.4	6326203	1312.64	546.45	12.26	16777.44
TB1_shp	1308.33	638874.4	6326203	1276.84	582.25	14.42	19232.96
TB1_shp	1308.33	638874.4	6326203	1238.19	620.9	16.74	20495.37
TB1_shp	1308.33	638874.4	6326203	1197.04	662.05	18.61	20241.79
TB1_shp	1308.33	638874.4	6326203	1151.94	707.15	19.59	18583.36
TB1_shp	1308.33	638874.4	6326203	1103.29	755.8	19.62	16104.75
TB1_shp	1308.33	638874.4	6326203	1051.49	807.6	18.84	13502.45
TB1_shp	1308.33	638874.4	6326203	994.69	864.4	17.27	11311.75
TB1_shp	1308.33	638874.4	6326203	933.44	925.65	15.16	9586.3
TB1_shp	1308.33	638874.4	6326203	868.59	990.5	12.91	8284.29
TB1_shp	1308.33	638874.4	6326203	797.09	1062	10.25	6918.97
TB1_shp	1325	638891.3	6326204	1839.52	9.73	0.1	3576.05
TB1_shp	1325	638891.3	6326204	1820.05	29.2	1.78	15856.86
TB1_shp	1325	638891.3	6326204	1800.58	48.67	5.08	6021.39
TB1_shp	1325	638891.3	6326204	1781.12	68.13	5.46	3008.89
TB1_shp	1325	638891.3	6326204	1761.65	87.6	5.21	3327.82
TB1_shp	1325	638891.3	6326204	1742.18	107.07	4.92	5242.39
TB1_shp	1325	638891.3	6326204	1722.72	126.53	4.53	7712.9
TB1_shp	1325	638891.3	6326204	1703.25	146	4.11	8900.68
TB1_shp	1325	638891.3	6326204	1683.78	165.47	3.81	8088.34
TB1_shp	1325	638891.3	6326204	1664.32	184.93	3.73	6334.81
TB1_shp	1325	638891.3	6326204	1644.85	204.4	3.86	4731.29
TB1_shp	1325	638891.3	6326204	1625.38	223.87	4.18	3616.68
TB1_shp	1325	638891.3	6326204	1605.92	243.33	4.63	2972.06
TB1_shp	1325	638891.3	6326204	1586.45	262.8	5.16	2643.35
TB1_shp	1325	638891.3	6326204	1566.98	282.27	5.73	2536.7
TB1_shp	1325	638891.3	6326204	1547.25	302	6.24	2602.77
TB1_shp	1325	638891.3	6326204	1527.25	322	6.74	2857.15
TB1_shp	1325	638891.3	6326204	1507.25	342	7.1	3272.87
TB1_shp	1325	638891.3	6326204	1487.25	362	7.4	3879.42

TB1_shp	1325	638891.3	6326204	1467.25	382	7.66	4700.2
TB1_shp	1325	638891.3	6326204	1445.15	404.1	7.95	5899.1
TB1_shp	1325	638891.3	6326204	1420.6	428.65	8.36	7666.52
TB1_shp	1325	638891.3	6326204	1394.65	454.6	9.02	9960.49
TB1_shp	1325	638891.3	6326204	1366.15	483.1	10.04	12854.48
TB1_shp	1325	638891.3	6326204	1335.45	513.8	11.51	16048.38
TB1_shp	1325	638891.3	6326204	1302.8	546.45	13.43	19003.64
TB1_shp	1325	638891.3	6326204	1267	582.25	15.79	21095.8
TB1_shp	1325	638891.3	6326204	1228.35	620.9	17.95	21465.34
TB1_shp	1325	638891.3	6326204	1187.2	662.05	19.29	20343.53
TB1_shp	1325	638891.3	6326204	1142.1	707.15	19.81	18157.1
TB1_shp	1325	638891.3	6326204	1093.45	755.8	19.49	15499.87
TB1_shp	1325	638891.3	6326204	1041.65	807.6	18.45	12983.49
TB1_shp	1325	638891.3	6326204	984.85	864.4	16.75	10876.33
TB1_shp	1325	638891.3	6326204	923.6	925.65	14.59	9234.32
TB1_shp	1325	638891.3	6326204	858.75	990.5	12.29	7955.33
TB1_shp	1325	638891.3	6326204	787.25	1062	9.55	6571.86
TB1_shp	1341.67	638908.1	6326206	1829.68	9.73	0.1	4116.31
TB1_shp	1341.67	638908.1	6326206	1810.21	29.2	7.7	23657.94
TB1_shp	1341.67	638908.1	6326206	1790.74	48.67	7.31	5477.48
TB1_shp	1341.67	638908.1	6326206	1771.28	68.13	4.97	2805.95
TB1_shp	1341.67	638908.1	6326206	1751.81	87.6	4.35	3467.2
TB1_shp	1341.67	638908.1	6326206	1732.34	107.07	4.29	5684.31
TB1_shp	1341.67	638908.1	6326206	1712.88	126.53	4.15	8324.59
TB1_shp	1341.67	638908.1	6326206	1693.41	146	3.9	9440.82
TB1_shp	1341.67	638908.1	6326206	1673.94	165.47	3.69	8427.8
TB1_shp	1341.67	638908.1	6326206	1654.48	184.93	3.65	6497.43
TB1_shp	1341.67	638908.1	6326206	1635.01	204.4	3.8	4782.56
TB1_shp	1341.67	638908.1	6326206	1615.54	223.87	4.12	3602.92
TB1_shp	1341.67	638908.1	6326206	1596.08	243.33	4.55	2921.35
TB1_shp	1341.67	638908.1	6326206	1576.61	262.8	5.05	2565.89
TB1_shp	1341.67	638908.1	6326206	1557.14	282.27	5.55	2437.04
TB1_shp	1341.67	638908.1	6326206	1537.41	302	6.01	2481.85
TB1_shp	1341.67	638908.1	6326206	1517.41	322	6.46	2713.63
TB1_shp	1341.67	638908.1	6326206	1497.41	342	6.79	3110.76
TB1_shp	1341.67	638908.1	6326206	1477.41	362	7.07	3704.12
TB1_shp	1341.67	638908.1	6326206	1457.41	382	7.33	4519.74
TB1_shp	1341.67	638908.1	6326206	1435.31	404.1	7.64	5727.33
TB1_shp	1341.67	638908.1	6326206	1410.76	428.65	8.1	7540.16
TB1_shp	1341.67	638908.1	6326206	1384.81	454.6	8.81	9927.61
TB1_shp	1341.67	638908.1	6326206	1356.31	483.1	9.9	12979.79
TB1_shp	1341.67	638908.1	6326206	1325.61	513.8	11.45	16385.77
TB1_shp	1341.67	638908.1	6326206	1292.96	546.45	13.44	19567.62
TB1_shp	1341.67	638908.1	6326206	1257.16	582.25	15.88	21838.7
TB1_shp	1341.67	638908.1	6326206	1218.51	620.9	18.07	22248.69
TB1_shp	1341.67	638908.1	6326206	1177.36	662.05	19.43	21043.19
TB1_shp	1341.67	638908.1	6326206	1132.26	707.15	19.95	18695.42
TB1_shp	1341.67	638908.1	6326206	1083.61	755.8	19.63	15861.53
TB1_shp	1341.67	638908.1	6326206	1031.81	807.6	18.57	13203.68
TB1_shp	1341.67	638908.1	6326206	975.01	864.4	16.86	11003.18
TB1_shp	1341.67	638908.1	6326206	913.76	925.65	14.69	9305.97
TB1_shp	1341.67	638908.1	6326206	848.91	990.5	12.35	7996.67

TB1_shp	1341.67	638908.1	6326206	777.41	1062	9.58	6594.05
TB1_shp	1358.33	638924.9	6326207	1819.86	9.73	5.97	35635.76
TB1_shp	1358.33	638924.9	6326207	1800.39	29.2	3.87	5003.29
TB1_shp	1358.33	638924.9	6326207	1780.92	48.67	2.71	2777.7
TB1_shp	1358.33	638924.9	6326207	1761.46	68.13	2.78	3814.73
TB1_shp	1358.33	638924.9	6326207	1741.99	87.6	3.25	6248.31
TB1_shp	1358.33	638924.9	6326207	1722.52	107.07	3.53	8824.72
TB1_shp	1358.33	638924.9	6326207	1703.06	126.53	3.53	9722.05
TB1_shp	1358.33	638924.9	6326207	1683.59	146	3.48	8560.4
TB1_shp	1358.33	638924.9	6326207	1664.12	165.47	3.52	6566.34
TB1_shp	1358.33	638924.9	6326207	1644.66	184.93	3.71	4818.37
TB1_shp	1358.33	638924.9	6326207	1625.19	204.4	4.03	3610.2
TB1_shp	1358.33	638924.9	6326207	1605.72	223.87	4.43	2902.42
TB1_shp	1358.33	638924.9	6326207	1586.26	243.33	4.88	2522.68
TB1_shp	1358.33	638924.9	6326207	1566.79	262.8	5.33	2369.67
TB1_shp	1358.33	638924.9	6326207	1547.32	282.27	5.73	2389.59
TB1_shp	1358.33	638924.9	6326207	1527.59	302	6.12	2589.21
TB1_shp	1358.33	638924.9	6326207	1507.59	322	6.42	2958.22
TB1_shp	1358.33	638924.9	6326207	1487.59	342	6.69	3524.68
TB1_shp	1358.33	638924.9	6326207	1467.59	362	6.95	4316.63
TB1_shp	1358.33	638924.9	6326207	1447.59	382	7.25	5406.92
TB1_shp	1358.33	638924.9	6326207	1425.49	404.1	7.69	7005.54
TB1_shp	1358.33	638924.9	6326207	1400.94	428.65	8.35	9190.46
TB1_shp	1358.33	638924.9	6326207	1374.99	454.6	9.28	11946.62
TB1_shp	1358.33	638924.9	6326207	1346.49	483.1	10.66	15400.61
TB1_shp	1358.33	638924.9	6326207	1315.79	513.8	12.57	18750.65
TB1_shp	1358.33	638924.9	6326207	1283.14	546.45	14.8	21379.53
TB1_shp	1358.33	638924.9	6326207	1247.34	582.25	17.08	22790.6
TB1_shp	1358.33	638924.9	6326207	1208.69	620.9	18.95	22581.64
TB1_shp	1358.33	638924.9	6326207	1167.54	662.05	19.99	20808.99
TB1_shp	1358.33	638924.9	6326207	1122.44	707.15	20.13	17971.33
TB1_shp	1358.33	638924.9	6326207	1073.79	755.8	19.45	15023.39
TB1_shp	1358.33	638924.9	6326207	1021.99	807.6	18.15	12548.54
TB1_shp	1358.33	638924.9	6326207	965.19	864.4	16.28	10524.85
TB1_shp	1358.33	638924.9	6326207	903.94	925.65	14.08	8969.25
TB1_shp	1358.33	638924.9	6326207	839.09	990.5	11.66	7647.5
TB1_shp	1358.33	638924.9	6326207	767.59	1062	8.85	6227.4
TB1_shp	1375	638941.8	6326209	1810.02	9.73	3.33	24888.44
TB1_shp	1375	638941.8	6326209	1790.55	29.2	1.76	4919
TB1_shp	1375	638941.8	6326209	1771.08	48.67	1.23	3254.24
TB1_shp	1375	638941.8	6326209	1751.62	68.13	1.57	4538.13
TB1_shp	1375	638941.8	6326209	1732.15	87.6	2.3	6910.71
TB1_shp	1375	638941.8	6326209	1712.68	107.07	2.88	9058.5
TB1_shp	1375	638941.8	6326209	1693.22	126.53	3.13	9612.06
TB1_shp	1375	638941.8	6326209	1673.75	146	3.24	8419.29
TB1_shp	1375	638941.8	6326209	1654.28	165.47	3.38	6519.39
TB1_shp	1375	638941.8	6326209	1634.82	184.93	3.61	4832.39
TB1_shp	1375	638941.8	6326209	1615.35	204.4	3.93	3636.98
TB1_shp	1375	638941.8	6326209	1595.88	223.87	4.3	2915.61
TB1_shp	1375	638941.8	6326209	1576.42	243.33	4.69	2512.21
TB1_shp	1375	638941.8	6326209	1556.95	262.8	5.08	2332.23
TB1_shp	1375	638941.8	6326209	1537.48	282.27	5.43	2324.69

TB1_shp	1375	638941.8	6326209	1517.75	302	5.75	2494.05
TB1_shp	1375	638941.8	6326209	1497.75	322	6.02	2835.73
TB1_shp	1375	638941.8	6326209	1477.75	342	6.28	3378.1
TB1_shp	1375	638941.8	6326209	1457.75	362	6.55	4150.46
TB1_shp	1375	638941.8	6326209	1437.75	382	6.87	5229.8
TB1_shp	1375	638941.8	6326209	1415.65	404.1	7.34	6838
TB1_shp	1375	638941.8	6326209	1391.1	428.65	8.05	9063.09
TB1_shp	1375	638941.8	6326209	1365.15	454.6	9.04	11902.53
TB1_shp	1375	638941.8	6326209	1336.65	483.1	10.5	15507.16
TB1_shp	1375	638941.8	6326209	1305.95	513.8	12.5	19053.56
TB1_shp	1375	638941.8	6326209	1273.3	546.45	14.79	21866.47
TB1_shp	1375	638941.8	6326209	1237.5	582.25	17.13	23402.04
TB1_shp	1375	638941.8	6326209	1198.85	620.9	19.04	23214.84
TB1_shp	1375	638941.8	6326209	1157.7	662.05	20.09	21354.9
TB1_shp	1375	638941.8	6326209	1112.6	707.15	20.24	18368.34
TB1_shp	1375	638941.8	6326209	1063.95	755.8	19.56	15282.7
TB1_shp	1375	638941.8	6326209	1012.15	807.6	18.24	12708.32
TB1_shp	1375	638941.8	6326209	955.35	864.4	16.36	10617.39
TB1_shp	1375	638941.8	6326209	894.1	925.65	14.15	9021.73
TB1_shp	1375	638941.8	6326209	829.25	990.5	11.7	7677.16
TB1_shp	1375	638941.8	6326209	757.75	1062	8.86	6241.01
TB1_shp	1391.67	638958.6	6326211	1800.18	9.73	1.76	5222.75
TB1_shp	1391.67	638958.6	6326211	1780.71	29.2	0.87	4238.06
TB1_shp	1391.67	638958.6	6326211	1761.24	48.67	1.06	5733.09
TB1_shp	1391.67	638958.6	6326211	1741.78	68.13	1.77	7611.8
TB1_shp	1391.67	638958.6	6326211	1722.31	87.6	2.43	8931.28
TB1_shp	1391.67	638958.6	6326211	1702.84	107.07	2.81	9088.68
TB1_shp	1391.67	638958.6	6326211	1683.38	126.53	3.05	8014.43
TB1_shp	1391.67	638958.6	6326211	1663.91	146	3.27	6360.92
TB1_shp	1391.67	638958.6	6326211	1644.44	165.47	3.53	4827.33
TB1_shp	1391.67	638958.6	6326211	1624.98	184.93	3.84	3686.74
TB1_shp	1391.67	638958.6	6326211	1605.51	204.4	4.16	2962.63
TB1_shp	1391.67	638958.6	6326211	1586.04	223.87	4.49	2534.13
TB1_shp	1391.67	638958.6	6326211	1566.58	243.33	4.81	2322.42
TB1_shp	1391.67	638958.6	6326211	1547.11	262.8	5.09	2282.7
TB1_shp	1391.67	638958.6	6326211	1527.64	282.27	5.36	2415.59
TB1_shp	1391.67	638958.6	6326211	1507.91	302	5.6	2719.38
TB1_shp	1391.67	638958.6	6326211	1487.91	322	5.85	3226.49
TB1_shp	1391.67	638958.6	6326211	1467.91	342	6.12	3963.76
TB1_shp	1391.67	638958.6	6326211	1447.91	362	6.46	5025.85
TB1_shp	1391.67	638958.6	6326211	1427.91	382	6.91	6459.4
TB1_shp	1391.67	638958.6	6326211	1405.81	404.1	7.53	8369.05
TB1_shp	1391.67	638958.6	6326211	1381.26	428.65	8.44	10990.63
TB1_shp	1391.67	638958.6	6326211	1355.31	454.6	9.83	14363.03
TB1_shp	1391.67	638958.6	6326211	1326.81	483.1	11.62	17914.31
TB1_shp	1391.67	638958.6	6326211	1296.11	513.8	13.78	21216.73
TB1_shp	1391.67	638958.6	6326211	1263.46	546.45	16.19	23717.72
TB1_shp	1391.67	638958.6	6326211	1227.66	582.25	18.3	24164.41
TB1_shp	1391.67	638958.6	6326211	1189.01	620.9	19.64	22899.85
TB1_shp	1391.67	638958.6	6326211	1147.86	662.05	20.23	20498.87
TB1_shp	1391.67	638958.6	6326211	1102.76	707.15	20.08	17438.53
TB1_shp	1391.67	638958.6	6326211	1054.11	755.8	19.24	14390.27

TB1_shp	1391.67	638958.6	6326211	1002.31	807.6	17.79	11931.34
TB1_shp	1391.67	638958.6	6326211	945.51	864.4	15.74	10071.61
TB1_shp	1391.67	638958.6	6326211	884.26	925.65	13.5	8649.15
TB1_shp	1391.67	638958.6	6326211	819.41	990.5	10.96	7308.41
TB1_shp	1391.67	638958.6	6326211	747.91	1062	8.1	5858.11
TB1_shp	1408.33	638974.4	6326212	1790.86	9.73	12.9	6612.97
TB1_shp	1408.33	638974.4	6326212	1771.39	29.2	1.96	4478.88
TB1_shp	1408.33	638974.4	6326212	1751.92	48.67	1.2	6936.4
TB1_shp	1408.33	638974.4	6326212	1732.46	68.13	1.72	8103.27
TB1_shp	1408.33	638974.4	6326212	1712.99	87.6	2.29	8394.47
TB1_shp	1408.33	638974.4	6326212	1693.52	107.07	2.68	8254.37
TB1_shp	1408.33	638974.4	6326212	1674.06	126.53	2.99	7433.07
TB1_shp	1408.33	638974.4	6326212	1654.59	146	3.26	6128.01
TB1_shp	1408.33	638974.4	6326212	1635.12	165.47	3.51	4816.54
TB1_shp	1408.33	638974.4	6326212	1615.66	184.93	3.78	3762.1
TB1_shp	1408.33	638974.4	6326212	1596.19	204.4	4.03	3043.58
TB1_shp	1408.33	638974.4	6326212	1576.72	223.87	4.28	2587.17
TB1_shp	1408.33	638974.4	6326212	1557.26	243.33	4.53	2338.13
TB1_shp	1408.33	638974.4	6326212	1537.79	262.8	4.75	2261.13
TB1_shp	1408.33	638974.4	6326212	1518.32	282.27	4.97	2356.51
TB1_shp	1408.33	638974.4	6326212	1498.59	302	5.19	2627.42
TB1_shp	1408.33	638974.4	6326212	1478.59	322	5.42	3104.48
TB1_shp	1408.33	638974.4	6326212	1458.59	342	5.69	3814.6
TB1_shp	1408.33	638974.4	6326212	1438.59	362	6.04	4855.03
TB1_shp	1408.33	638974.4	6326212	1418.59	382	6.53	6279.66
TB1_shp	1408.33	638974.4	6326212	1396.49	404.1	7.2	8194.35
TB1_shp	1408.33	638974.4	6326212	1371.94	428.65	8.15	10847.5
TB1_shp	1408.33	638974.4	6326212	1345.99	454.6	9.6	14310.99
TB1_shp	1408.33	638974.4	6326212	1317.49	483.1	11.47	17994.38
TB1_shp	1408.33	638974.4	6326212	1286.79	513.8	13.7	21454.85
TB1_shp	1408.33	638974.4	6326212	1254.14	546.45	16.17	24111.92
TB1_shp	1408.33	638974.4	6326212	1218.34	582.25	18.32	24635.99
TB1_shp	1408.33	638974.4	6326212	1179.69	620.9	19.68	23355.55
TB1_shp	1408.33	638974.4	6326212	1138.54	662.05	20.28	20880.02
TB1_shp	1408.33	638974.4	6326212	1093.44	707.15	20.15	17716.07
TB1_shp	1408.33	638974.4	6326212	1044.79	755.8	19.31	14568.96
TB1_shp	1408.33	638974.4	6326212	992.99	807.6	17.86	12037.34
TB1_shp	1408.33	638974.4	6326212	936.19	864.4	15.8	10132.86
TB1_shp	1408.33	638974.4	6326212	874.94	925.65	13.54	8683.81
TB1_shp	1408.33	638974.4	6326212	810.09	990.5	10.99	7327.75
TB1_shp	1408.33	638974.4	6326212	738.59	1062	8.1	5864.78
TB1_shp	1425	638989.3	6326213	1782.02	9.73	1.43	2597.65
TB1_shp	1425	638989.3	6326213	1762.55	29.2	1.56	7567.79
TB1_shp	1425	638989.3	6326213	1743.08	48.67	2.05	7943.31
TB1_shp	1425	638989.3	6326213	1723.62	68.13	2.44	7430.86
TB1_shp	1425	638989.3	6326213	1704.15	87.6	2.78	7279.56
TB1_shp	1425	638989.3	6326213	1684.68	107.07	3.1	6801.82
TB1_shp	1425	638989.3	6326213	1665.22	126.53	3.37	5873.37
TB1_shp	1425	638989.3	6326213	1645.75	146	3.58	4812.78
TB1_shp	1425	638989.3	6326213	1626.28	165.47	3.76	3866.79
TB1_shp	1425	638989.3	6326213	1606.82	184.93	3.91	3159.41
TB1_shp	1425	638989.3	6326213	1587.35	204.4	4.08	2670.17

TB1_shp	1425	638989.3	6326213	1567.88	223.87	4.25	2375.7
TB1_shp	1425	638989.3	6326213	1548.42	243.33	4.42	2255.7
TB1_shp	1425	638989.3	6326213	1528.95	262.8	4.59	2309.83
TB1_shp	1425	638989.3	6326213	1509.48	282.27	4.78	2542.48
TB1_shp	1425	638989.3	6326213	1489.75	302	5	2976.82
TB1_shp	1425	638989.3	6326213	1469.75	322	5.28	3647.5
TB1_shp	1425	638989.3	6326213	1449.75	342	5.64	4663.7
TB1_shp	1425	638989.3	6326213	1429.75	362	6.15	6060.85
TB1_shp	1425	638989.3	6326213	1409.75	382	6.75	7726.27
TB1_shp	1425	638989.3	6326213	1387.65	404.1	7.65	10130.82
TB1_shp	1425	638989.3	6326213	1363.1	428.65	8.98	13326.06
TB1_shp	1425	638989.3	6326213	1337.15	454.6	10.63	16829.09
TB1_shp	1425	638989.3	6326213	1308.65	483.1	12.73	20550.95
TB1_shp	1425	638989.3	6326213	1277.95	513.8	15.12	23328.03
TB1_shp	1425	638989.3	6326213	1245.3	546.45	17.32	24737.16
TB1_shp	1425	638989.3	6326213	1209.5	582.25	19.15	24625.18
TB1_shp	1425	638989.3	6326213	1170.85	620.9	20.24	22798.68
TB1_shp	1425	638989.3	6326213	1129.7	662.05	20.39	19780.39
TB1_shp	1425	638989.3	6326213	1084.6	707.15	19.9	16601.56
TB1_shp	1425	638989.3	6326213	1035.95	755.8	18.81	13752.07
TB1_shp	1425	638989.3	6326213	984.15	807.6	17.21	11452.26
TB1_shp	1425	638989.3	6326213	927.35	864.4	15.13	9645.32
TB1_shp	1425	638989.3	6326213	866.1	925.65	12.85	8279.17
TB1_shp	1425	638989.3	6326213	801.25	990.5	10.22	6942.44
TB1_shp	1425	638989.3	6326213	729.75	1062	7.31	5468.79
TB1_shp	1441.67	639004.1	6326215	1773.18	9.73	0.84	2317.01
TB1_shp	1441.67	639004.1	6326215	1753.71	29.2	2.87	9185.69
TB1_shp	1441.67	639004.1	6326215	1734.24	48.67	2.96	6870.85
TB1_shp	1441.67	639004.1	6326215	1714.78	68.13	2.9	6185.32
TB1_shp	1441.67	639004.1	6326215	1695.31	87.6	3.12	6380.2
TB1_shp	1441.67	639004.1	6326215	1675.84	107.07	3.43	6247.07
TB1_shp	1441.67	639004.1	6326215	1656.38	126.53	3.65	5640.99
TB1_shp	1441.67	639004.1	6326215	1636.91	146	3.74	4826.12
TB1_shp	1441.67	639004.1	6326215	1617.44	165.47	3.79	4003.29
TB1_shp	1441.67	639004.1	6326215	1597.98	184.93	3.83	3309.66
TB1_shp	1441.67	639004.1	6326215	1578.51	204.4	3.9	2780.48
TB1_shp	1441.67	639004.1	6326215	1559.04	223.87	4	2432.26
TB1_shp	1441.67	639004.1	6326215	1539.58	243.33	4.12	2263.11
TB1_shp	1441.67	639004.1	6326215	1520.11	262.8	4.25	2273.28
TB1_shp	1441.67	639004.1	6326215	1500.64	282.27	4.42	2471.04
TB1_shp	1441.67	639004.1	6326215	1480.91	302	4.63	2874.7
TB1_shp	1441.67	639004.1	6326215	1460.91	322	4.9	3516.74
TB1_shp	1441.67	639004.1	6326215	1440.91	342	5.28	4507.13
TB1_shp	1441.67	639004.1	6326215	1420.91	362	5.79	5886.05
TB1_shp	1441.67	639004.1	6326215	1400.91	382	6.42	7540.22
TB1_shp	1441.67	639004.1	6326215	1378.81	404.1	7.36	9949.91
TB1_shp	1441.67	639004.1	6326215	1354.26	428.65	8.74	13182.16
TB1_shp	1441.67	639004.1	6326215	1328.31	454.6	10.45	16750
TB1_shp	1441.67	639004.1	6326215	1299.81	483.1	12.6	20575.73
TB1_shp	1441.67	639004.1	6326215	1269.11	513.8	15.05	23476.42
TB1_shp	1441.67	639004.1	6326215	1236.46	546.45	17.29	24985.02
TB1_shp	1441.67	639004.1	6326215	1200.66	582.25	19.14	24932.55

TB1_shp	1441.67	639004.1	6326215	1162.01	620.9	20.25	23101.61
TB1_shp	1441.67	639004.1	6326215	1120.86	662.05	20.42	20026.13
TB1_shp	1441.67	639004.1	6326215	1075.76	707.15	19.94	16781.12
TB1_shp	1441.67	639004.1	6326215	1027.11	755.8	18.85	13870.37
TB1_shp	1441.67	639004.1	6326215	975.31	807.6	17.24	11522.5
TB1_shp	1441.67	639004.1	6326215	918.51	864.4	15.16	9682.84
TB1_shp	1441.67	639004.1	6326215	857.26	925.65	12.87	8298.09
TB1_shp	1441.67	639004.1	6326215	792.41	990.5	10.22	6953.08
TB1_shp	1441.67	639004.1	6326215	720.91	1062	7.3	5470.31
TB1_shp	1458.33	639018.9	6326216	1764.36	9.73	9.25	11998.36
TB1_shp	1458.33	639018.9	6326216	1744.89	29.2	4.71	5357.38
TB1_shp	1458.33	639018.9	6326216	1725.42	48.67	3.6	5215.53
TB1_shp	1458.33	639018.9	6326216	1705.96	68.13	3.74	5834.03
TB1_shp	1458.33	639018.9	6326216	1686.49	87.6	4.02	5855.62
TB1_shp	1458.33	639018.9	6326216	1667.02	107.07	4.09	5444.37
TB1_shp	1458.33	639018.9	6326216	1647.56	126.53	3.98	4855.24
TB1_shp	1458.33	639018.9	6326216	1628.09	146	3.84	4168.21
TB1_shp	1458.33	639018.9	6326216	1608.62	165.47	3.76	3491.13
TB1_shp	1458.33	639018.9	6326216	1589.16	184.93	3.74	2914.08
TB1_shp	1458.33	639018.9	6326216	1569.69	204.4	3.78	2502.33
TB1_shp	1458.33	639018.9	6326216	1550.22	223.87	3.84	2278.73
TB1_shp	1458.33	639018.9	6326216	1530.76	243.33	3.95	2242.94
TB1_shp	1458.33	639018.9	6326216	1511.29	262.8	4.1	2406.18
TB1_shp	1458.33	639018.9	6326216	1491.82	282.27	4.3	2773.59
TB1_shp	1458.33	639018.9	6326216	1472.09	302	4.56	3369.83
TB1_shp	1458.33	639018.9	6326216	1452.09	322	4.95	4334.75
TB1_shp	1458.33	639018.9	6326216	1432.09	342	5.47	5679.95
TB1_shp	1458.33	639018.9	6326216	1412.09	362	6.1	7300.81
TB1_shp	1458.33	639018.9	6326216	1392.09	382	6.98	9477.74
TB1_shp	1458.33	639018.9	6326216	1369.99	404.1	8.2	12305.09
TB1_shp	1458.33	639018.9	6326216	1345.44	428.65	9.77	15743.4
TB1_shp	1458.33	639018.9	6326216	1319.49	454.6	11.78	19297.12
TB1_shp	1458.33	639018.9	6326216	1290.99	483.1	14.06	22463.44
TB1_shp	1458.33	639018.9	6326216	1260.29	513.8	16.42	24853.55
TB1_shp	1458.33	639018.9	6326216	1227.64	546.45	18.47	25571.18
TB1_shp	1458.33	639018.9	6326216	1191.84	582.25	19.7	24263.31
TB1_shp	1458.33	639018.9	6326216	1153.19	620.9	20.32	21867.84
TB1_shp	1458.33	639018.9	6326216	1112.04	662.05	20.31	18786.89
TB1_shp	1458.33	639018.9	6326216	1066.94	707.15	19.67	15521.29
TB1_shp	1458.33	639018.9	6326216	1018.29	755.8	18.33	12956.73
TB1_shp	1458.33	639018.9	6326216	966.49	807.6	16.56	10899.83
TB1_shp	1458.33	639018.9	6326216	909.69	864.4	14.46	9268.69
TB1_shp	1458.33	639018.9	6326216	848.44	925.65	12.09	7906.44
TB1_shp	1458.33	639018.9	6326216	783.59	990.5	9.42	6555.14
TB1_shp	1458.33	639018.9	6326216	712.09	1062	7.01	5330.18
TB1_shp	1475	639033.8	6326217	1755.52	9.73	7.55	7124.94
TB1_shp	1475	639033.8	6326217	1736.05	29.2	4.39	3843.48
TB1_shp	1475	639033.8	6326217	1716.58	48.67	4.1	5149.47
TB1_shp	1475	639033.8	6326217	1697.12	68.13	4.63	5831.99
TB1_shp	1475	639033.8	6326217	1677.65	87.6	4.86	5603.94
TB1_shp	1475	639033.8	6326217	1658.18	107.07	4.62	5250.89
TB1_shp	1475	639033.8	6326217	1638.72	126.53	4.23	4882.67

TB1_shp	1475	639033.8	6326217	1619.25	146	3.9	4354.09
TB1_shp	1475	639033.8	6326217	1599.78	165.47	3.71	3697.29
TB1_shp	1475	639033.8	6326217	1580.32	184.93	3.61	3062.77
TB1_shp	1475	639033.8	6326217	1560.85	204.4	3.59	2579.13
TB1_shp	1475	639033.8	6326217	1541.38	223.87	3.63	2297.23
TB1_shp	1475	639033.8	6326217	1521.92	243.33	3.71	2215.88
TB1_shp	1475	639033.8	6326217	1502.45	262.8	3.83	2346.69
TB1_shp	1475	639033.8	6326217	1482.98	282.27	4.02	2687.58
TB1_shp	1475	639033.8	6326217	1463.25	302	4.28	3259.06
TB1_shp	1475	639033.8	6326217	1443.25	322	4.67	4199.13
TB1_shp	1475	639033.8	6326217	1423.25	342	5.2	5523.22
TB1_shp	1475	639033.8	6326217	1403.25	362	5.86	7125.89
TB1_shp	1475	639033.8	6326217	1383.25	382	6.75	9291.01
TB1_shp	1475	639033.8	6326217	1361.15	404.1	8	12121.07
TB1_shp	1475	639033.8	6326217	1336.6	428.65	9.6	15576.66
TB1_shp	1475	639033.8	6326217	1310.65	454.6	11.65	19180.41
TB1_shp	1475	639033.8	6326217	1282.15	483.1	13.97	22419.49
TB1_shp	1475	639033.8	6326217	1251.45	513.8	16.35	24895.85
TB1_shp	1475	639033.8	6326217	1218.8	546.45	18.42	25693.88
TB1_shp	1475	639033.8	6326217	1183	582.25	19.66	24423.63
TB1_shp	1475	639033.8	6326217	1144.35	620.9	20.3	22033.41
TB1_shp	1475	639033.8	6326217	1103.2	662.05	20.31	18929.9
TB1_shp	1475	639033.8	6326217	1058.1	707.15	19.67	15626.46
TB1_shp	1475	639033.8	6326217	1009.45	755.8	18.33	13025.57
TB1_shp	1475	639033.8	6326217	957.65	807.6	16.57	10940.07
TB1_shp	1475	639033.8	6326217	900.85	864.4	14.46	9288.88
TB1_shp	1475	639033.8	6326217	839.6	925.65	12.09	7915.24
TB1_shp	1475	639033.8	6326217	774.75	990.5	9.42	6558.92
TB1_shp	1475	639033.8	6326217	703.25	1062	7	5329.81
TB1_shp	1491.67	639048.6	6326219	1746.68	9.73	3.88	3361.05
TB1_shp	1491.67	639048.6	6326219	1727.21	29.2	5.04	6592.83
TB1_shp	1491.67	639048.6	6326219	1707.74	48.67	5.85	6241.03
TB1_shp	1491.67	639048.6	6326219	1688.28	68.13	5.69	5318.78
TB1_shp	1491.67	639048.6	6326219	1668.81	87.6	5.03	5004.2
TB1_shp	1491.67	639048.6	6326219	1649.34	107.07	4.39	4899.58
TB1_shp	1491.67	639048.6	6326219	1629.88	126.53	3.93	4556.16
TB1_shp	1491.67	639048.6	6326219	1610.41	146	3.65	3918.06
TB1_shp	1491.67	639048.6	6326219	1590.94	165.47	3.51	3215.21
TB1_shp	1491.67	639048.6	6326219	1571.48	184.93	3.46	2653.66
TB1_shp	1491.67	639048.6	6326219	1552.01	204.4	3.47	2312.79
TB1_shp	1491.67	639048.6	6326219	1532.54	223.87	3.52	2188.89
TB1_shp	1491.67	639048.6	6326219	1513.08	243.33	3.63	2290.98
TB1_shp	1491.67	639048.6	6326219	1493.61	262.8	3.81	2608.8
TB1_shp	1491.67	639048.6	6326219	1474.14	282.27	4.06	3146.65
TB1_shp	1491.67	639048.6	6326219	1454.41	302	4.44	4052.23
TB1_shp	1491.67	639048.6	6326219	1434.41	322	4.97	5340.56
TB1_shp	1491.67	639048.6	6326219	1414.41	342	5.63	6903.8
TB1_shp	1491.67	639048.6	6326219	1394.41	362	6.54	9052.58
TB1_shp	1491.67	639048.6	6326219	1374.41	382	7.66	11560.6
TB1_shp	1491.67	639048.6	6326219	1352.31	404.1	9.1	14673.53
TB1_shp	1491.67	639048.6	6326219	1327.76	428.65	11.02	18115.23
TB1_shp	1491.67	639048.6	6326219	1301.81	454.6	13.13	21404.23

TB1_shp	1491.67	639048.6	6326219	1273.31	483.1	15.5	24287.18
TB1_shp	1491.67	639048.6	6326219	1242.61	513.8	17.52	25386.03
TB1_shp	1491.67	639048.6	6326219	1209.96	546.45	19.11	25233.17
TB1_shp	1491.67	639048.6	6326219	1174.16	582.25	20.16	23606.24
TB1_shp	1491.67	639048.6	6326219	1135.51	620.9	20.36	20663.07
TB1_shp	1491.67	639048.6	6326219	1094.36	662.05	20.01	17599.71
TB1_shp	1491.67	639048.6	6326219	1049.26	707.15	19.13	14638.34
TB1_shp	1491.67	639048.6	6326219	1000.61	755.8	17.75	12134.62
TB1_shp	1491.67	639048.6	6326219	948.81	807.6	15.86	10272.07
TB1_shp	1491.67	639048.6	6326219	892.01	864.4	13.73	8849.3
TB1_shp	1491.67	639048.6	6326219	830.76	925.65	11.29	7512.03
TB1_shp	1491.67	639048.6	6326219	765.91	990.5	8.61	6152.45
TB1_shp	1491.67	639048.6	6326219	694.41	1062	6.76	5213.82
TB1_shp	1508.33	639064.1	6326220	1738.19	9.73	5.29	14349.34
TB1_shp	1508.33	639064.1	6326220	1718.72	29.2	6.73	12999.34
TB1_shp	1508.33	639064.1	6326220	1699.25	48.67	6.46	6687.67
TB1_shp	1508.33	639064.1	6326220	1679.79	68.13	5.72	4842.19
TB1_shp	1508.33	639064.1	6326220	1660.32	87.6	4.97	4722.3
TB1_shp	1508.33	639064.1	6326220	1640.85	107.07	4.35	4936.39
TB1_shp	1508.33	639064.1	6326220	1621.39	126.53	3.9	4775.52
TB1_shp	1508.33	639064.1	6326220	1601.92	146	3.62	4138.46
TB1_shp	1508.33	639064.1	6326220	1582.45	165.47	3.47	3353.97
TB1_shp	1508.33	639064.1	6326220	1562.99	184.93	3.4	2713.32
TB1_shp	1508.33	639064.1	6326220	1543.52	204.4	3.38	2318.11
TB1_shp	1508.33	639064.1	6326220	1524.05	223.87	3.41	2158.75
TB1_shp	1508.33	639064.1	6326220	1504.59	243.33	3.5	2238.33
TB1_shp	1508.33	639064.1	6326220	1485.12	262.8	3.66	2538.34
TB1_shp	1508.33	639064.1	6326220	1465.65	282.27	3.9	3059.17
TB1_shp	1508.33	639064.1	6326220	1445.92	302	4.28	3945.96
TB1_shp	1508.33	639064.1	6326220	1425.92	322	4.82	5213.5
TB1_shp	1508.33	639064.1	6326220	1405.92	342	5.48	6755.32
TB1_shp	1508.33	639064.1	6326220	1385.92	362	6.4	8883.22
TB1_shp	1508.33	639064.1	6326220	1365.92	382	7.53	11374.14
TB1_shp	1508.33	639064.1	6326220	1343.82	404.1	8.99	14471.76
TB1_shp	1508.33	639064.1	6326220	1319.27	428.65	10.94	17919.96
TB1_shp	1508.33	639064.1	6326220	1293.32	454.6	13.06	21231.47
TB1_shp	1508.33	639064.1	6326220	1264.82	483.1	15.43	24164.92
TB1_shp	1508.33	639064.1	6326220	1234.12	513.8	17.44	25328.16
TB1_shp	1508.33	639064.1	6326220	1201.47	546.45	19.03	25235.6
TB1_shp	1508.33	639064.1	6326220	1165.67	582.25	20.09	23659.77
TB1_shp	1508.33	639064.1	6326220	1127.02	620.9	20.31	20731.62
TB1_shp	1508.33	639064.1	6326220	1085.87	662.05	19.97	17665.7
TB1_shp	1508.33	639064.1	6326220	1040.77	707.15	19.11	14690.65
TB1_shp	1508.33	639064.1	6326220	992.12	755.8	17.73	12167.71
TB1_shp	1508.33	639064.1	6326220	940.32	807.6	15.84	10288.42
TB1_shp	1508.33	639064.1	6326220	883.52	864.4	13.72	8854.94
TB1_shp	1508.33	639064.1	6326220	822.27	925.65	11.27	7512.79
TB1_shp	1508.33	639064.1	6326220	757.42	990.5	8.59	6151.33
TB1_shp	1508.33	639064.1	6326220	685.92	1062	6.75	5211.92
TB1_shp	1525	639080.3	6326223	1730.02	9.73	5.45	14153.16
TB1_shp	1525	639080.3	6326223	1710.55	29.2	4.49	5597.16
TB1_shp	1525	639080.3	6326223	1691.08	48.67	4.44	4278.88

TB1_shp	1525	639080.3	6326223	1671.62	68.13	4.39	4572.14
TB1_shp	1525	639080.3	6326223	1652.15	87.6	4.16	5064.83
TB1_shp	1525	639080.3	6326223	1632.68	107.07	3.87	5015.78
TB1_shp	1525	639080.3	6326223	1613.22	126.53	3.65	4333.03
TB1_shp	1525	639080.3	6326223	1593.75	146	3.5	3456.25
TB1_shp	1525	639080.3	6326223	1574.28	165.47	3.42	2742.83
TB1_shp	1525	639080.3	6326223	1554.82	184.93	3.37	2306.35
TB1_shp	1525	639080.3	6326223	1535.35	204.4	3.38	2123.21
TB1_shp	1525	639080.3	6326223	1515.88	223.87	3.44	2188.62
TB1_shp	1525	639080.3	6326223	1496.42	243.33	3.59	2476.8
TB1_shp	1525	639080.3	6326223	1476.95	262.8	3.81	2985.25
TB1_shp	1525	639080.3	6326223	1457.48	282.27	4.18	3845.06
TB1_shp	1525	639080.3	6326223	1437.75	302	4.7	5067.84
TB1_shp	1525	639080.3	6326223	1417.75	322	5.35	6569.77
TB1_shp	1525	639080.3	6326223	1397.75	342	6.28	8672.56
TB1_shp	1525	639080.3	6326223	1377.75	362	7.42	11120.8
TB1_shp	1525	639080.3	6326223	1357.75	382	8.75	13899.6
TB1_shp	1525	639080.3	6326223	1335.65	404.1	10.46	16990.13
TB1_shp	1525	639080.3	6326223	1311.1	428.65	12.46	20343.27
TB1_shp	1525	639080.3	6326223	1285.15	454.6	14.6	23041.86
TB1_shp	1525	639080.3	6326223	1256.65	483.1	16.65	24857.04
TB1_shp	1525	639080.3	6326223	1225.95	513.8	18.53	25711.84
TB1_shp	1525	639080.3	6326223	1193.3	546.45	19.54	24379.94
TB1_shp	1525	639080.3	6326223	1157.5	582.25	20.12	22196.84
TB1_shp	1525	639080.3	6326223	1118.85	620.9	20.19	19305.89
TB1_shp	1525	639080.3	6326223	1077.7	662.05	19.65	16261.84
TB1_shp	1525	639080.3	6326223	1032.6	707.15	18.53	13672.58
TB1_shp	1525	639080.3	6326223	983.95	755.8	16.98	11478.9
TB1_shp	1525	639080.3	6326223	932.15	807.6	15.1	9738.41
TB1_shp	1525	639080.3	6326223	875.35	864.4	12.96	8395.13
TB1_shp	1525	639080.3	6326223	814.1	925.65	10.44	7101.32
TB1_shp	1525	639080.3	6326223	749.25	990.5	7.76	5739.7
TB1_shp	1525	639080.3	6326223	677.75	1062	6.51	5094.63
TB1_shp	1541.67	639096.4	6326225	1721.85	9.73	2.27	6817
TB1_shp	1541.67	639096.4	6326225	1702.38	29.2	2.4	4491.76
TB1_shp	1541.67	639096.4	6326225	1682.91	48.67	3.23	4214.05
TB1_shp	1541.67	639096.4	6326225	1663.45	68.13	3.9	4753.44
TB1_shp	1541.67	639096.4	6326225	1643.98	87.6	4.07	5333.7
TB1_shp	1541.67	639096.4	6326225	1624.51	107.07	3.94	5255.96
TB1_shp	1541.67	639096.4	6326225	1605.05	126.53	3.78	4469.44
TB1_shp	1541.67	639096.4	6326225	1585.58	146	3.63	3499.17
TB1_shp	1541.67	639096.4	6326225	1566.11	165.47	3.53	2732.96
TB1_shp	1541.67	639096.4	6326225	1546.65	184.93	3.47	2273.98
TB1_shp	1541.67	639096.4	6326225	1527.18	204.4	3.44	2081.71
TB1_shp	1541.67	639096.4	6326225	1507.71	223.87	3.48	2142.03
TB1_shp	1541.67	639096.4	6326225	1488.25	243.33	3.6	2424.84
TB1_shp	1541.67	639096.4	6326225	1468.78	262.8	3.8	2925.8
TB1_shp	1541.67	639096.4	6326225	1449.31	282.27	4.16	3773.2
TB1_shp	1541.67	639096.4	6326225	1429.58	302	4.68	4978.84
TB1_shp	1541.67	639096.4	6326225	1409.58	322	5.32	6459.85
TB1_shp	1541.67	639096.4	6326225	1389.58	342	6.25	8533.08
TB1_shp	1541.67	639096.4	6326225	1369.58	362	7.39	10949.27

TB1_shp	1541.67	639096.4	6326225	1349.58	382	8.73	13693.65
TB1_shp	1541.67	639096.4	6326225	1327.48	404.1	10.43	16758.02
TB1_shp	1541.67	639096.4	6326225	1302.93	428.65	12.42	20090.17
TB1_shp	1541.67	639096.4	6326225	1276.98	454.6	14.54	22801.43
TB1_shp	1541.67	639096.4	6326225	1248.48	483.1	16.56	24652.54
TB1_shp	1541.67	639096.4	6326225	1217.78	513.8	18.42	25565.38
TB1_shp	1541.67	639096.4	6326225	1185.13	546.45	19.43	24296.88
TB1_shp	1541.67	639096.4	6326225	1149.33	582.25	20.01	22165.12
TB1_shp	1541.67	639096.4	6326225	1110.68	620.9	20.11	19309.66
TB1_shp	1541.67	639096.4	6326225	1069.53	662.05	19.58	16277.53
TB1_shp	1541.67	639096.4	6326225	1024.43	707.15	18.47	13686.96
TB1_shp	1541.67	639096.4	6326225	975.78	755.8	16.94	11486.76
TB1_shp	1541.67	639096.4	6326225	923.98	807.6	15.06	9738.19
TB1_shp	1541.67	639096.4	6326225	867.18	864.4	12.93	8389.13
TB1_shp	1541.67	639096.4	6326225	805.93	925.65	10.41	7096.05
TB1_shp	1541.67	639096.4	6326225	741.08	990.5	7.73	5735.58
TB1_shp	1541.67	639096.4	6326225	669.58	1062	6.48	5091.33
TB1_shp	1558.33	639112.6	6326227	1713.69	9.73	2.17	6109
TB1_shp	1558.33	639112.6	6326227	1694.22	29.2	2.24	5323.23
TB1_shp	1558.33	639112.6	6326227	1674.75	48.67	3.1	4899.67
TB1_shp	1558.33	639112.6	6326227	1655.29	68.13	4.02	5251.91
TB1_shp	1558.33	639112.6	6326227	1635.82	87.6	4.33	5703.24
TB1_shp	1558.33	639112.6	6326227	1616.35	107.07	4.22	5459.95
TB1_shp	1558.33	639112.6	6326227	1596.89	126.53	4.04	4520.36
TB1_shp	1558.33	639112.6	6326227	1577.42	146	3.88	3467.81
TB1_shp	1558.33	639112.6	6326227	1557.95	165.47	3.76	2677.89
TB1_shp	1558.33	639112.6	6326227	1538.49	184.93	3.66	2220.15
TB1_shp	1558.33	639112.6	6326227	1519.02	204.4	3.59	2034.96
TB1_shp	1558.33	639112.6	6326227	1499.55	223.87	3.59	2100.09
TB1_shp	1558.33	639112.6	6326227	1480.09	243.33	3.68	2384
TB1_shp	1558.33	639112.6	6326227	1460.62	262.8	3.86	2882.02
TB1_shp	1558.33	639112.6	6326227	1441.15	282.27	4.2	3720.54
TB1_shp	1558.33	639112.6	6326227	1421.42	302	4.71	4909.86
TB1_shp	1558.33	639112.6	6326227	1401.42	322	5.35	6369.06
TB1_shp	1558.33	639112.6	6326227	1381.42	342	6.28	8409.3
TB1_shp	1558.33	639112.6	6326227	1361.42	362	7.42	10786.19
TB1_shp	1558.33	639112.6	6326227	1341.42	382	8.74	13485.23
TB1_shp	1558.33	639112.6	6326227	1319.32	404.1	10.43	16510.85
TB1_shp	1558.33	639112.6	6326227	1294.77	428.65	12.38	19808.04
TB1_shp	1558.33	639112.6	6326227	1268.82	454.6	14.47	22519.34
TB1_shp	1558.33	639112.6	6326227	1240.32	483.1	16.46	24397.57
TB1_shp	1558.33	639112.6	6326227	1209.62	513.8	18.29	25363.8
TB1_shp	1558.33	639112.6	6326227	1176.97	546.45	19.3	24163.98
TB1_shp	1558.33	639112.6	6326227	1141.17	582.25	19.89	22092.04
TB1_shp	1558.33	639112.6	6326227	1102.52	620.9	20	19282.74
TB1_shp	1558.33	639112.6	6326227	1061.37	662.05	19.49	16271.98
TB1_shp	1558.33	639112.6	6326227	1016.27	707.15	18.4	13687.42
TB1_shp	1558.33	639112.6	6326227	967.62	755.8	16.88	11485.98
TB1_shp	1558.33	639112.6	6326227	915.82	807.6	15.01	9732.4
TB1_shp	1558.33	639112.6	6326227	859.02	864.4	12.89	8378.79
TB1_shp	1558.33	639112.6	6326227	797.77	925.65	10.38	7087.95
TB1_shp	1558.33	639112.6	6326227	732.92	990.5	7.71	5730.22

TB1_shp	1558.33	639112.6	6326227	661.42	1062	6.46	5087.27
TB1_shp	1575	639128.8	6326230	1705.52	9.73	3.12	7550.93
TB1_shp	1575	639128.8	6326230	1686.05	29.2	4.06	5747.01
TB1_shp	1575	639128.8	6326230	1666.58	48.67	5.08	5845.81
TB1_shp	1575	639128.8	6326230	1647.12	68.13	5.08	6146.02
TB1_shp	1575	639128.8	6326230	1627.65	87.6	4.71	5629.65
TB1_shp	1575	639128.8	6326230	1608.18	107.07	4.43	4485.27
TB1_shp	1575	639128.8	6326230	1588.72	126.53	4.23	3366.53
TB1_shp	1575	639128.8	6326230	1569.25	146	4.08	2583.42
TB1_shp	1575	639128.8	6326230	1549.78	165.47	3.96	2149.19
TB1_shp	1575	639128.8	6326230	1530.32	184.93	3.84	1986.3
TB1_shp	1575	639128.8	6326230	1510.85	204.4	3.8	2064.87
TB1_shp	1575	639128.8	6326230	1491.38	223.87	3.85	2355.84
TB1_shp	1575	639128.8	6326230	1471.92	243.33	4.01	2855.12
TB1_shp	1575	639128.8	6326230	1452.45	262.8	4.33	3687.35
TB1_shp	1575	639128.8	6326230	1432.98	282.27	4.82	4844.05
TB1_shp	1575	639128.8	6326230	1413.25	302	5.43	6245.61
TB1_shp	1575	639128.8	6326230	1393.25	322	6.34	8248.16
TB1_shp	1575	639128.8	6326230	1373.25	342	7.44	10562.11
TB1_shp	1575	639128.8	6326230	1353.25	362	8.75	13207.37
TB1_shp	1575	639128.8	6326230	1333.25	382	10.24	15896.51
TB1_shp	1575	639128.8	6326230	1311.15	404.1	11.96	18889.34
TB1_shp	1575	639128.8	6326230	1286.6	428.65	13.89	21525.49
TB1_shp	1575	639128.8	6326230	1260.65	454.6	15.8	23769.42
TB1_shp	1575	639128.8	6326230	1232.15	483.1	17.51	24797.99
TB1_shp	1575	639128.8	6326230	1201.45	513.8	18.75	24439.87
TB1_shp	1575	639128.8	6326230	1168.8	546.45	19.64	23140.98
TB1_shp	1575	639128.8	6326230	1133	582.25	19.9	20602.11
TB1_shp	1575	639128.8	6326230	1094.35	620.9	19.65	17818.93
TB1_shp	1575	639128.8	6326230	1053.2	662.05	18.99	15056.2
TB1_shp	1575	639128.8	6326230	1008.1	707.15	17.81	12625.46
TB1_shp	1575	639128.8	6326230	959.45	755.8	16.12	10758.99
TB1_shp	1575	639128.8	6326230	907.65	807.6	14.23	9255.92
TB1_shp	1575	639128.8	6326230	850.85	864.4	12.06	7949.62
TB1_shp	1575	639128.8	6326230	789.6	925.65	9.54	6670.99
TB1_shp	1575	639128.8	6326230	724.75	990.5	7.02	5386.91
TB1_shp	1575	639128.8	6326230	653.25	1062	6.22	4968.46
TB1_shp	1591.67	639144.9	6326232	1697.35	9.73	3.26	5906.19
TB1_shp	1591.67	639144.9	6326232	1677.88	29.2	7.22	5384.96
TB1_shp	1591.67	639144.9	6326232	1658.41	48.67	7.84	6444.67
TB1_shp	1591.67	639144.9	6326232	1638.95	68.13	6.28	6782.05
TB1_shp	1591.67	639144.9	6326232	1619.48	87.6	5.22	5815.29
TB1_shp	1591.67	639144.9	6326232	1600.01	107.07	4.78	4387.24
TB1_shp	1591.67	639144.9	6326232	1580.55	126.53	4.59	3213.03
TB1_shp	1591.67	639144.9	6326232	1561.08	146	4.46	2462.2
TB1_shp	1591.67	639144.9	6326232	1541.61	165.47	4.33	2069.95
TB1_shp	1591.67	639144.9	6326232	1522.15	184.93	4.19	1940.89
TB1_shp	1591.67	639144.9	6326232	1502.68	204.4	4.11	2039.84
TB1_shp	1591.67	639144.9	6326232	1483.21	223.87	4.12	2342.37
TB1_shp	1591.67	639144.9	6326232	1463.75	243.33	4.23	2846.67
TB1_shp	1591.67	639144.9	6326232	1444.28	262.8	4.52	3674.44
TB1_shp	1591.67	639144.9	6326232	1424.81	282.27	4.98	4816.72

TB1_shp	1591.67	639144.9	6326232	1405.08	302	5.57	6196.36
TB1_shp	1591.67	639144.9	6326232	1385.08	322	6.47	8156.86
TB1_shp	1591.67	639144.9	6326232	1365.08	342	7.55	10419.29
TB1_shp	1591.67	639144.9	6326232	1345.08	362	8.83	13002.97
TB1_shp	1591.67	639144.9	6326232	1325.08	382	10.28	15635.06
TB1_shp	1591.67	639144.9	6326232	1302.98	404.1	11.96	18567.04
TB1_shp	1591.67	639144.9	6326232	1278.43	428.65	13.83	21174.21
TB1_shp	1591.67	639144.9	6326232	1252.48	454.6	15.69	23409.52
TB1_shp	1591.67	639144.9	6326232	1223.98	483.1	17.37	24482.54
TB1_shp	1591.67	639144.9	6326232	1193.28	513.8	18.59	24191.48
TB1_shp	1591.67	639144.9	6326232	1160.63	546.45	19.48	22970.49
TB1_shp	1591.67	639144.9	6326232	1124.83	582.25	19.75	20496.99
TB1_shp	1591.67	639144.9	6326232	1086.18	620.9	19.53	17758.24
TB1_shp	1591.67	639144.9	6326232	1045.03	662.05	18.89	15024.4
TB1_shp	1591.67	639144.9	6326232	999.93	707.15	17.72	12606.13
TB1_shp	1591.67	639144.9	6326232	951.28	755.8	16.05	10741.9
TB1_shp	1591.67	639144.9	6326232	899.48	807.6	14.17	9238.62
TB1_shp	1591.67	639144.9	6326232	842.68	864.4	12.01	7932.81
TB1_shp	1591.67	639144.9	6326232	781.43	925.65	9.51	6659.32
TB1_shp	1591.67	639144.9	6326232	716.58	990.5	7	5380.37
TB1_shp	1591.67	639144.9	6326232	645.08	1062	6.2	4963.09
TB1_shp	1608.33	639161.1	6326233	1689.6	9.73	14.72	3700.17
TB1_shp	1608.33	639161.1	6326233	1670.13	29.2	10.67	6883.35
TB1_shp	1608.33	639161.1	6326233	1650.66	48.67	6.64	7597.86
TB1_shp	1608.33	639161.1	6326233	1631.2	68.13	5.11	5973.36
TB1_shp	1608.33	639161.1	6326233	1611.73	87.6	4.75	4226.61
TB1_shp	1608.33	639161.1	6326233	1592.26	107.07	4.77	3026.8
TB1_shp	1608.33	639161.1	6326233	1572.8	126.53	4.81	2332.2
TB1_shp	1608.33	639161.1	6326233	1553.33	146	4.75	1993.59
TB1_shp	1608.33	639161.1	6326233	1533.86	165.47	4.61	1904.66
TB1_shp	1608.33	639161.1	6326233	1514.4	184.93	4.5	2027.97
TB1_shp	1608.33	639161.1	6326233	1494.93	204.4	4.47	2344.73
TB1_shp	1608.33	639161.1	6326233	1475.46	223.87	4.54	2856.24
TB1_shp	1608.33	639161.1	6326233	1456	243.33	4.78	3680.14
TB1_shp	1608.33	639161.1	6326233	1436.53	262.8	5.22	4807.03
TB1_shp	1608.33	639161.1	6326233	1417.06	282.27	5.77	6137.55
TB1_shp	1608.33	639161.1	6326233	1397.33	302	6.62	8024.81
TB1_shp	1608.33	639161.1	6326233	1377.33	322	7.65	10213.5
TB1_shp	1608.33	639161.1	6326233	1357.33	342	8.89	12729
TB1_shp	1608.33	639161.1	6326233	1337.33	362	10.28	15292.87
TB1_shp	1608.33	639161.1	6326233	1317.33	382	11.75	17880.81
TB1_shp	1608.33	639161.1	6326233	1295.23	404.1	13.38	20277.82
TB1_shp	1608.33	639161.1	6326233	1270.68	428.65	15.18	22765.86
TB1_shp	1608.33	639161.1	6326233	1244.73	454.6	16.67	23779.58
TB1_shp	1608.33	639161.1	6326233	1216.23	483.1	18.05	24239.01
TB1_shp	1608.33	639161.1	6326233	1185.53	513.8	18.99	23336.22
TB1_shp	1608.33	639161.1	6326233	1152.88	546.45	19.45	21463.36
TB1_shp	1608.33	639161.1	6326233	1117.08	582.25	19.59	19034.11
TB1_shp	1608.33	639161.1	6326233	1078.43	620.9	19.18	16306.77
TB1_shp	1608.33	639161.1	6326233	1037.28	662.05	18.28	13943.15
TB1_shp	1608.33	639161.1	6326233	992.18	707.15	16.99	11790
TB1_shp	1608.33	639161.1	6326233	943.53	755.8	15.29	10002.75

TB1_shp	1608.33	639161.1	6326233	891.73	807.6	13.39	8751.86
TB1_shp	1608.33	639161.1	6326233	834.93	864.4	11.16	7510.39
TB1_shp	1608.33	639161.1	6326233	773.68	925.65	8.67	6243.09
TB1_shp	1608.33	639161.1	6326233	708.83	990.5	6.74	5259.74
TB1_shp	1608.33	639161.1	6326233	637.33	1062	5.96	4843.78
TB1_shp	1625	639177.3	6326233	1682.27	9.73	5.52	4661.44
TB1_shp	1625	639177.3	6326233	1662.8	29.2	6.58	8077.15
TB1_shp	1625	639177.3	6326233	1643.33	48.67	4.62	8227.54
TB1_shp	1625	639177.3	6326233	1623.87	68.13	3.95	5880.42
TB1_shp	1625	639177.3	6326233	1604.4	87.6	4.13	3973.16
TB1_shp	1625	639177.3	6326233	1584.93	107.07	4.61	2826.69
TB1_shp	1625	639177.3	6326233	1565.47	126.53	4.99	2210.02
TB1_shp	1625	639177.3	6326233	1546	146	5.14	1930.35
TB1_shp	1625	639177.3	6326233	1526.53	165.47	5.08	1883.14
TB1_shp	1625	639177.3	6326233	1507.07	184.93	4.97	2032.2
TB1_shp	1625	639177.3	6326233	1487.6	204.4	4.89	2364.5
TB1_shp	1625	639177.3	6326233	1468.13	223.87	4.91	2883.72
TB1_shp	1625	639177.3	6326233	1448.67	243.33	5.11	3704.04
TB1_shp	1625	639177.3	6326233	1429.2	262.8	5.49	4813.45
TB1_shp	1625	639177.3	6326233	1409.73	282.27	6	6117.23
TB1_shp	1625	639177.3	6326233	1390	302	6.81	7953.39
TB1_shp	1625	639177.3	6326233	1370	322	7.8	10079.79
TB1_shp	1625	639177.3	6326233	1350	342	8.99	12520.56
TB1_shp	1625	639177.3	6326233	1330	362	10.32	15012.65
TB1_shp	1625	639177.3	6326233	1310	382	11.73	17530.32
TB1_shp	1625	639177.3	6326233	1287.9	404.1	13.29	19884.97
TB1_shp	1625	639177.3	6326233	1263.35	428.65	15.03	22338.88
TB1_shp	1625	639177.3	6326233	1237.4	454.6	16.48	23387.19
TB1_shp	1625	639177.3	6326233	1208.9	483.1	17.83	23897.44
TB1_shp	1625	639177.3	6326233	1178.2	513.8	18.78	23076.78
TB1_shp	1625	639177.3	6326233	1145.55	546.45	19.26	21278.85
TB1_shp	1625	639177.3	6326233	1109.75	582.25	19.42	18918.39
TB1_shp	1625	639177.3	6326233	1071.1	620.9	19.04	16234.16
TB1_shp	1625	639177.3	6326233	1029.95	662.05	18.16	13894.93
TB1_shp	1625	639177.3	6326233	984.85	707.15	16.89	11756.42
TB1_shp	1625	639177.3	6326233	936.2	755.8	15.2	9975.11
TB1_shp	1625	639177.3	6326233	884.4	807.6	13.31	8726.03
TB1_shp	1625	639177.3	6326233	827.6	864.4	11.1	7489.67
TB1_shp	1625	639177.3	6326233	766.35	925.65	8.62	6229.88
TB1_shp	1625	639177.3	6326233	701.5	990.5	6.72	5252.02
TB1_shp	1625	639177.3	6326233	630	1062	5.93	4837.51
TB1_shp	1641.67	639193.4	6326233	1674.94	9.73	2.54	5271.48
TB1_shp	1641.67	639193.4	6326233	1655.47	29.2	3.56	9152.73
TB1_shp	1641.67	639193.4	6326233	1636	48.67	2.58	8044.86
TB1_shp	1641.67	639193.4	6326233	1616.54	68.13	2.56	5436.11
TB1_shp	1641.67	639193.4	6326233	1597.07	87.6	3.19	3668.86
TB1_shp	1641.67	639193.4	6326233	1577.6	107.07	4.13	2649.65
TB1_shp	1641.67	639193.4	6326233	1558.14	126.53	5	2116.43
TB1_shp	1641.67	639193.4	6326233	1538.67	146	5.48	1890.46
TB1_shp	1641.67	639193.4	6326233	1519.2	165.47	5.57	1881.46
TB1_shp	1641.67	639193.4	6326233	1499.74	184.93	5.47	2055.04
TB1_shp	1641.67	639193.4	6326233	1480.27	204.4	5.36	2402.64

TB1_shp	1641.67	639193.4	6326233	1460.8	223.87	5.32	2929.39
TB1_shp	1641.67	639193.4	6326233	1441.34	243.33	5.46	3744.1
TB1_shp	1641.67	639193.4	6326233	1421.87	262.8	5.79	4832.71
TB1_shp	1641.67	639193.4	6326233	1402.4	282.27	6.25	6105.64
TB1_shp	1641.67	639193.4	6326233	1382.67	302	7.01	7885.06
TB1_shp	1641.67	639193.4	6326233	1362.67	322	7.94	9943.47
TB1_shp	1641.67	639193.4	6326233	1342.67	342	9.07	12303.85
TB1_shp	1641.67	639193.4	6326233	1322.67	362	10.33	14719.7
TB1_shp	1641.67	639193.4	6326233	1302.67	382	11.67	17163.19
TB1_shp	1641.67	639193.4	6326233	1280.57	404.1	13.17	19473.27
TB1_shp	1641.67	639193.4	6326233	1256.02	428.65	14.84	21891.34
TB1_shp	1641.67	639193.4	6326233	1230.07	454.6	16.26	22974.41
TB1_shp	1641.67	639193.4	6326233	1201.57	483.1	17.6	23535.42
TB1_shp	1641.67	639193.4	6326233	1170.87	513.8	18.55	22796.34
TB1_shp	1641.67	639193.4	6326233	1138.22	546.45	19.05	21076.08
TB1_shp	1641.67	639193.4	6326233	1102.42	582.25	19.24	18788.48
TB1_shp	1641.67	639193.4	6326233	1063.77	620.9	18.88	16151
TB1_shp	1641.67	639193.4	6326233	1022.62	662.05	18.03	13837.98
TB1_shp	1641.67	639193.4	6326233	977.52	707.15	16.78	11715.6
TB1_shp	1641.67	639193.4	6326233	928.87	755.8	15.11	9942.17
TB1_shp	1641.67	639193.4	6326233	877.07	807.6	13.23	8696.64
TB1_shp	1641.67	639193.4	6326233	820.27	864.4	11.03	7466.6
TB1_shp	1641.67	639193.4	6326233	759.02	925.65	8.58	6215.23
TB1_shp	1641.67	639193.4	6326233	694.17	990.5	6.69	5243.51
TB1_shp	1641.67	639193.4	6326233	622.67	1062	5.91	4830.6
TB1_shp	1658.33	639209.6	6326233	1667.6	9.73	4.38	7908.26
TB1_shp	1658.33	639209.6	6326233	1648.13	29.2	1.92	6416.84
TB1_shp	1658.33	639209.6	6326233	1628.66	48.67	1.67	4798.29
TB1_shp	1658.33	639209.6	6326233	1609.2	68.13	2.34	3429.61
TB1_shp	1658.33	639209.6	6326233	1589.73	87.6	3.55	2541.29
TB1_shp	1658.33	639209.6	6326233	1570.26	107.07	4.83	2068.23
TB1_shp	1658.33	639209.6	6326233	1550.8	126.53	5.69	1881.39
TB1_shp	1658.33	639209.6	6326233	1531.33	146	6.01	1903.59
TB1_shp	1658.33	639209.6	6326233	1511.86	165.47	5.98	2098.9
TB1_shp	1658.33	639209.6	6326233	1492.4	184.93	5.85	2459.92
TB1_shp	1658.33	639209.6	6326233	1472.93	204.4	5.74	2992.16
TB1_shp	1658.33	639209.6	6326233	1453.46	223.87	5.81	3797.39
TB1_shp	1658.33	639209.6	6326233	1434	243.33	6.08	4858.79
TB1_shp	1658.33	639209.6	6326233	1414.53	262.8	6.48	6094.18
TB1_shp	1658.33	639209.6	6326233	1395.06	282.27	7.18	7788.22
TB1_shp	1658.33	639209.6	6326233	1375.33	302	8.03	9735.15
TB1_shp	1658.33	639209.6	6326233	1355.33	322	9.08	12009.58
TB1_shp	1658.33	639209.6	6326233	1335.33	342	10.28	14345.69
TB1_shp	1658.33	639209.6	6326233	1315.33	362	11.55	16716.36
TB1_shp	1658.33	639209.6	6326233	1295.33	382	12.85	18791.14
TB1_shp	1658.33	639209.6	6326233	1273.23	404.1	14.29	20949.26
TB1_shp	1658.33	639209.6	6326233	1248.68	428.65	15.67	22271.51
TB1_shp	1658.33	639209.6	6326233	1222.73	454.6	17.05	23353.74
TB1_shp	1658.33	639209.6	6326233	1194.23	483.1	17.94	22743.55
TB1_shp	1658.33	639209.6	6326233	1163.53	513.8	18.68	21655.83
TB1_shp	1658.33	639209.6	6326233	1130.88	546.45	19.03	19687.26
TB1_shp	1658.33	639209.6	6326233	1095.08	582.25	18.89	17342.98

TB1_shp	1658.33	639209.6	6326233	1056.43	620.9	18.41	14898.19
TB1_shp	1658.33	639209.6	6326233	1015.28	662.05	17.43	12763.06
TB1_shp	1658.33	639209.6	6326233	970.18	707.15	16	10963.13
TB1_shp	1658.33	639209.6	6326233	921.53	755.8	14.31	9429.79
TB1_shp	1658.33	639209.6	6326233	869.73	807.6	12.44	8202.19
TB1_shp	1658.33	639209.6	6326233	812.93	864.4	10.19	7045.88
TB1_shp	1658.33	639209.6	6326233	751.68	925.65	7.76	5803.89
TB1_shp	1658.33	639209.6	6326233	686.83	990.5	6.44	5121.87
TB1_shp	1658.33	639209.6	6326233	615.33	1062	5.67	4710.76
TB1_shp	1675	639225.8	6326232	1660.27	9.73	3.52	6050.52
TB1_shp	1675	639225.8	6326232	1640.8	29.2	1.33	4562.81
TB1_shp	1675	639225.8	6326232	1621.33	48.67	1.08	4357.31
TB1_shp	1675	639225.8	6326232	1601.87	68.13	1.69	3353.84
TB1_shp	1675	639225.8	6326232	1582.4	87.6	2.96	2521.5
TB1_shp	1675	639225.8	6326232	1562.93	107.07	4.53	2069.53
TB1_shp	1675	639225.8	6326232	1543.47	126.53	5.76	1904.72
TB1_shp	1675	639225.8	6326232	1524	146	6.36	1950.9
TB1_shp	1675	639225.8	6326232	1504.53	165.47	6.41	2164.76
TB1_shp	1675	639225.8	6326232	1485.07	184.93	6.27	2536.87
TB1_shp	1675	639225.8	6326232	1465.6	204.4	6.11	3071.13
TB1_shp	1675	639225.8	6326232	1446.13	223.87	6.11	3860.24
TB1_shp	1675	639225.8	6326232	1426.67	243.33	6.32	4887.85
TB1_shp	1675	639225.8	6326232	1407.2	262.8	6.66	6078.42
TB1_shp	1675	639225.8	6326232	1387.73	282.27	7.3	7703.64
TB1_shp	1675	639225.8	6326232	1368	302	8.09	9573.8
TB1_shp	1675	639225.8	6326232	1348	322	9.08	11761.22
TB1_shp	1675	639225.8	6326232	1328	342	10.2	14022.06
TB1_shp	1675	639225.8	6326232	1308	362	11.41	16324.04
TB1_shp	1675	639225.8	6326232	1288	382	12.65	18361.23
TB1_shp	1675	639225.8	6326232	1265.9	404.1	14.04	20491.94
TB1_shp	1675	639225.8	6326232	1241.35	428.65	15.39	21834.16
TB1_shp	1675	639225.8	6326232	1215.4	454.6	16.76	22951.37
TB1_shp	1675	639225.8	6326232	1186.9	483.1	17.67	22414.45
TB1_shp	1675	639225.8	6326232	1156.2	513.8	18.43	21402.61
TB1_shp	1675	639225.8	6326232	1123.55	546.45	18.81	19508.99
TB1_shp	1675	639225.8	6326232	1087.75	582.25	18.71	17218.8
TB1_shp	1675	639225.8	6326232	1049.1	620.9	18.27	14816.14
TB1_shp	1675	639225.8	6326232	1007.95	662.05	17.31	12701.81
TB1_shp	1675	639225.8	6326232	962.85	707.15	15.89	10914.76
TB1_shp	1675	639225.8	6326232	914.2	755.8	14.21	9389.91
TB1_shp	1675	639225.8	6326232	862.4	807.6	12.36	8167.61
TB1_shp	1675	639225.8	6326232	805.6	864.4	10.12	7020.58
TB1_shp	1675	639225.8	6326232	744.35	925.65	7.71	5788.69
TB1_shp	1675	639225.8	6326232	679.5	990.5	6.41	5111.38
TB1_shp	1675	639225.8	6326232	608	1062	5.65	4702.26
TB1_shp	1691.67	639241.9	6326232	1652.94	9.73	0.98	3030.51
TB1_shp	1691.67	639241.9	6326232	1633.47	29.2	0.81	4427.3
TB1_shp	1691.67	639241.9	6326232	1614	48.67	1.27	3459.88
TB1_shp	1691.67	639241.9	6326232	1594.54	68.13	2.43	2571.49
TB1_shp	1691.67	639241.9	6326232	1575.07	87.6	4.13	2110.4
TB1_shp	1691.67	639241.9	6326232	1555.6	107.07	5.66	1957.21
TB1_shp	1691.67	639241.9	6326232	1536.14	126.53	6.53	2023.97

TB1_shp	1691.67	639241.9	6326232	1516.67	146	6.69	2254.13
TB1_shp	1691.67	639241.9	6326232	1497.2	165.47	6.55	2633.98
TB1_shp	1691.67	639241.9	6326232	1477.74	184.93	6.35	3164.16
TB1_shp	1691.67	639241.9	6326232	1458.27	204.4	6.3	3927.84
TB1_shp	1691.67	639241.9	6326232	1438.8	223.87	6.46	4913.22
TB1_shp	1691.67	639241.9	6326232	1419.34	243.33	6.75	6049.83
TB1_shp	1691.67	639241.9	6326232	1399.87	262.8	7.34	7600.32
TB1_shp	1691.67	639241.9	6326232	1380.4	282.27	8.06	9363.41
TB1_shp	1691.67	639241.9	6326232	1360.67	302	8.97	11436.34
TB1_shp	1691.67	639241.9	6326232	1340.67	322	10.04	13621.88
TB1_shp	1691.67	639241.9	6326232	1320.67	342	11.18	15860.28
TB1_shp	1691.67	639241.9	6326232	1300.67	362	12.38	17874.44
TB1_shp	1691.67	639241.9	6326232	1280.67	382	13.59	19784.04
TB1_shp	1691.67	639241.9	6326232	1258.57	404.1	14.82	21167.28
TB1_shp	1691.67	639241.9	6326232	1234.02	428.65	16.11	22288.24
TB1_shp	1691.67	639241.9	6326232	1208.07	454.6	17.08	22233.61
TB1_shp	1691.67	639241.9	6326232	1179.57	483.1	18.02	21767.72
TB1_shp	1691.67	639241.9	6326232	1148.87	513.8	18.43	20061.35
TB1_shp	1691.67	639241.9	6326232	1116.22	546.45	18.63	18141.05
TB1_shp	1691.67	639241.9	6326232	1080.42	582.25	18.39	15833.22
TB1_shp	1691.67	639241.9	6326232	1041.77	620.9	17.67	13737.21
TB1_shp	1691.67	639241.9	6326232	1000.62	662.05	16.63	11779.4
TB1_shp	1691.67	639241.9	6326232	955.52	707.15	15.12	10164.37
TB1_shp	1691.67	639241.9	6326232	906.87	755.8	13.42	8888.56
TB1_shp	1691.67	639241.9	6326232	855.07	807.6	11.51	7736.51
TB1_shp	1691.67	639241.9	6326232	798.27	864.4	9.29	6604.56
TB1_shp	1691.67	639241.9	6326232	737.02	925.65	6.9	5383.92
TB1_shp	1691.67	639241.9	6326232	672.17	990.5	6.17	4989.04
TB1_shp	1691.67	639241.9	6326232	600.67	1062	5.41	4582.07
TB1_shp	1708.33	639257.7	6326232	1645.52	9.73	6.27	6903.07
TB1_shp	1708.33	639257.7	6326232	1626.05	29.2	1.5	5061.54
TB1_shp	1708.33	639257.7	6326232	1606.58	48.67	1.09	3552.56
TB1_shp	1708.33	639257.7	6326232	1587.12	68.13	1.97	2636.78
TB1_shp	1708.33	639257.7	6326232	1567.65	87.6	3.67	2177.18
TB1_shp	1708.33	639257.7	6326232	1548.18	107.07	5.42	2034.65
TB1_shp	1708.33	639257.7	6326232	1528.72	126.53	6.5	2121.6
TB1_shp	1708.33	639257.7	6326232	1509.25	146	6.74	2366.64
TB1_shp	1708.33	639257.7	6326232	1489.78	165.47	6.62	2749.21
TB1_shp	1708.33	639257.7	6326232	1470.32	184.93	6.41	3267.23
TB1_shp	1708.33	639257.7	6326232	1450.85	204.4	6.33	3994.33
TB1_shp	1708.33	639257.7	6326232	1431.38	223.87	6.47	4926.74
TB1_shp	1708.33	639257.7	6326232	1411.92	243.33	6.73	6000.97
TB1_shp	1708.33	639257.7	6326232	1392.45	262.8	7.28	7473.61
TB1_shp	1708.33	639257.7	6326232	1372.98	282.27	7.96	9157.25
TB1_shp	1708.33	639257.7	6326232	1353.25	302	8.82	11147.54
TB1_shp	1708.33	639257.7	6326232	1333.25	322	9.84	13267.21
TB1_shp	1708.33	639257.7	6326232	1313.25	342	10.94	15450.95
TB1_shp	1708.33	639257.7	6326232	1293.25	362	12.1	17439.29
TB1_shp	1708.33	639257.7	6326232	1273.25	382	13.28	19336.51
TB1_shp	1708.33	639257.7	6326232	1251.15	404.1	14.49	20735.98
TB1_shp	1708.33	639257.7	6326232	1226.6	428.65	15.78	21892.08
TB1_shp	1708.33	639257.7	6326232	1200.65	454.6	16.77	21892.09

TB1_shp	1708.33	639257.7	6326232	1172.15	483.1	17.74	21491.96
TB1_shp	1708.33	639257.7	6326232	1141.45	513.8	18.18	19849.04
TB1_shp	1708.33	639257.7	6326232	1108.8	546.45	18.42	17986.63
TB1_shp	1708.33	639257.7	6326232	1073	582.25	18.22	15722.74
TB1_shp	1708.33	639257.7	6326232	1034.35	620.9	17.52	13653.29
TB1_shp	1708.33	639257.7	6326232	993.2	662.05	16.5	11714.1
TB1_shp	1708.33	639257.7	6326232	948.1	707.15	15.01	10110.41
TB1_shp	1708.33	639257.7	6326232	899.45	755.8	13.32	8842.64
TB1_shp	1708.33	639257.7	6326232	847.65	807.6	11.43	7698.97
TB1_shp	1708.33	639257.7	6326232	790.85	864.4	9.23	6578.35
TB1_shp	1708.33	639257.7	6326232	729.6	925.65	6.86	5369.95
TB1_shp	1708.33	639257.7	6326232	664.75	990.5	6.13	4977.44
TB1_shp	1708.33	639257.7	6326232	593.25	1062	5.39	4572.75
TB1_shp	1725	639273	6326232	1638.02	9.73	9.11	5375.62
TB1_shp	1725	639273	6326232	1618.55	29.2	1.26	3749.13
TB1_shp	1725	639273	6326232	1599.08	48.67	0.67	3444.95
TB1_shp	1725	639273	6326232	1579.62	68.13	1.48	2743.24
TB1_shp	1725	639273	6326232	1560.15	87.6	3.23	2272.4
TB1_shp	1725	639273	6326232	1540.68	107.07	5.1	2130.09
TB1_shp	1725	639273	6326232	1521.22	126.53	6.26	2239.96
TB1_shp	1725	639273	6326232	1501.75	146	6.55	2499.74
TB1_shp	1725	639273	6326232	1482.28	165.47	6.45	2879.13
TB1_shp	1725	639273	6326232	1462.82	184.93	6.25	3373.95
TB1_shp	1725	639273	6326232	1443.35	204.4	6.19	4049.97
TB1_shp	1725	639273	6326232	1423.88	223.87	6.33	4918.38
TB1_shp	1725	639273	6326232	1404.42	243.33	6.59	5921.66
TB1_shp	1725	639273	6326232	1384.95	262.8	7.12	7314.85
TB1_shp	1725	639273	6326232	1365.48	282.27	7.77	8921.5
TB1_shp	1725	639273	6326232	1345.75	302	8.6	10837.05
TB1_shp	1725	639273	6326232	1325.75	322	9.58	12899.01
TB1_shp	1725	639273	6326232	1305.75	342	10.64	15036.35
TB1_shp	1725	639273	6326232	1285.75	362	11.77	17006.76
TB1_shp	1725	639273	6326232	1265.75	382	12.93	18899.34
TB1_shp	1725	639273	6326232	1243.65	404.1	14.14	20318.99
TB1_shp	1725	639273	6326232	1219.1	428.65	15.44	21511.98
TB1_shp	1725	639273	6326232	1193.15	454.6	16.45	21564.04
TB1_shp	1725	639273	6326232	1164.65	483.1	17.45	21225.35
TB1_shp	1725	639273	6326232	1133.95	513.8	17.94	19640.02
TB1_shp	1725	639273	6326232	1101.3	546.45	18.22	17830.38
TB1_shp	1725	639273	6326232	1065.5	582.25	18.05	15607.09
TB1_shp	1725	639273	6326232	1026.85	620.9	17.38	13563.75
TB1_shp	1725	639273	6326232	985.7	662.05	16.38	11643.82
TB1_shp	1725	639273	6326232	940.6	707.15	14.9	10052.2
TB1_shp	1725	639273	6326232	891.95	755.8	13.21	8793.1
TB1_shp	1725	639273	6326232	840.15	807.6	11.33	7658.49
TB1_shp	1725	639273	6326232	783.35	864.4	9.16	6550.2
TB1_shp	1725	639273	6326232	722.1	925.65	6.81	5355.09
TB1_shp	1725	639273	6326232	657.25	990.5	6.09	4965.13
TB1_shp	1725	639273	6326232	585.75	1062	5.35	4562.89
TB1_shp	1741.67	639288.3	6326233	1630.52	9.73	0.19	2708.97
TB1_shp	1741.67	639288.3	6326233	1611.05	29.2	0.25	4131.96
TB1_shp	1741.67	639288.3	6326233	1591.58	48.67	1.21	3029.13

TB1_shp	1741.67	639288.3	6326233	1572.12	68.13	3.07	2368.79
TB1_shp	1741.67	639288.3	6326233	1552.65	87.6	4.93	2221.61
TB1_shp	1741.67	639288.3	6326233	1533.18	107.07	5.94	2373.73
TB1_shp	1741.67	639288.3	6326233	1513.72	126.53	6.14	2653.28
TB1_shp	1741.67	639288.3	6326233	1494.25	146	6.04	3022.64
TB1_shp	1741.67	639288.3	6326233	1474.78	165.47	5.89	3480.93
TB1_shp	1741.67	639288.3	6326233	1455.32	184.93	5.88	4089.73
TB1_shp	1741.67	639288.3	6326233	1435.85	204.4	6.06	4887.4
TB1_shp	1741.67	639288.3	6326233	1416.38	223.87	6.34	5819.62
TB1_shp	1741.67	639288.3	6326233	1396.92	243.33	6.87	7136.03
TB1_shp	1741.67	639288.3	6326233	1377.45	262.8	7.52	8678.78
TB1_shp	1741.67	639288.3	6326233	1357.98	282.27	8.32	10505.59
TB1_shp	1741.67	639288.3	6326233	1338.25	302	9.26	12494.26
TB1_shp	1741.67	639288.3	6326233	1318.25	322	10.3	14599.52
TB1_shp	1741.67	639288.3	6326233	1298.25	342	11.41	16564.21
TB1_shp	1741.67	639288.3	6326233	1278.25	362	12.55	18459.18
TB1_shp	1741.67	639288.3	6326233	1258.25	382	13.65	19808.88
TB1_shp	1741.67	639288.3	6326233	1236.15	404.1	14.83	20916.69
TB1_shp	1741.67	639288.3	6326233	1211.6	428.65	15.9	21319.39
TB1_shp	1741.67	639288.3	6326233	1185.65	454.6	16.85	21059.93
TB1_shp	1741.67	639288.3	6326233	1157.15	483.1	17.52	19987.69
TB1_shp	1741.67	639288.3	6326233	1126.45	513.8	18.04	18445.7
TB1_shp	1741.67	639288.3	6326233	1093.8	546.45	17.95	16469.37
TB1_shp	1741.67	639288.3	6326233	1058	582.25	17.64	14402.79
TB1_shp	1741.67	639288.3	6326233	1019.35	620.9	16.82	12496.48
TB1_shp	1741.67	639288.3	6326233	978.2	662.05	15.61	10877.38
TB1_shp	1741.67	639288.3	6326233	933.1	707.15	14.12	9405.65
TB1_shp	1741.67	639288.3	6326233	884.45	755.8	12.42	8285.94
TB1_shp	1741.67	639288.3	6326233	832.65	807.6	10.49	7235.01
TB1_shp	1741.67	639288.3	6326233	775.85	864.4	8.34	6139.62
TB1_shp	1741.67	639288.3	6326233	714.6	925.65	6.52	5203.85
TB1_shp	1741.67	639288.3	6326233	649.75	990.5	5.86	4841.44
TB1_shp	1741.67	639288.3	6326233	578.25	1062	5.13	4441.86
TB1_shp	1758.33	639303.7	6326233	1623.02	9.73	0.1	22420.67
TB1_shp	1758.33	639303.7	6326233	1603.55	29.2	0.17	7975.86
TB1_shp	1758.33	639303.7	6326233	1584.08	48.67	1.36	3347.98
TB1_shp	1758.33	639303.7	6326233	1564.62	68.13	3.37	2350.52
TB1_shp	1758.33	639303.7	6326233	1545.15	87.6	4.89	2279.48
TB1_shp	1758.33	639303.7	6326233	1525.68	107.07	5.5	2514.28
TB1_shp	1758.33	639303.7	6326233	1506.22	126.53	5.55	2813.87
TB1_shp	1758.33	639303.7	6326233	1486.75	146	5.46	3155.14
TB1_shp	1758.33	639303.7	6326233	1467.28	165.47	5.38	3551.87
TB1_shp	1758.33	639303.7	6326233	1447.82	184.93	5.46	4076.82
TB1_shp	1758.33	639303.7	6326233	1428.35	204.4	5.69	4793.98
TB1_shp	1758.33	639303.7	6326233	1408.88	223.87	6.03	5648.46
TB1_shp	1758.33	639303.7	6326233	1389.42	243.33	6.57	6896.59
TB1_shp	1758.33	639303.7	6326233	1369.95	262.8	7.22	8380.5
TB1_shp	1758.33	639303.7	6326233	1350.48	282.27	8.01	10160.35
TB1_shp	1758.33	639303.7	6326233	1330.75	302	8.93	12118.87
TB1_shp	1758.33	639303.7	6326233	1310.75	322	9.94	14204.9
TB1_shp	1758.33	639303.7	6326233	1290.75	342	11.04	16168.95
TB1_shp	1758.33	639303.7	6326233	1270.75	362	12.19	18072.5

TB1_shp	1758.33	639303.7	6326233	1250.75	382	13.29	19443.54
TB1_shp	1758.33	639303.7	6326233	1228.65	404.1	14.49	20583.91
TB1_shp	1758.33	639303.7	6326233	1204.1	428.65	15.59	21025.04
TB1_shp	1758.33	639303.7	6326233	1178.15	454.6	16.58	20808.08
TB1_shp	1758.33	639303.7	6326233	1149.65	483.1	17.28	19777.29
TB1_shp	1758.33	639303.7	6326233	1118.95	513.8	17.84	18277.39
TB1_shp	1758.33	639303.7	6326233	1086.3	546.45	17.79	16332.13
TB1_shp	1758.33	639303.7	6326233	1050.5	582.25	17.51	14294.56
TB1_shp	1758.33	639303.7	6326233	1011.85	620.9	16.69	12407.7
TB1_shp	1758.33	639303.7	6326233	970.7	662.05	15.49	10803.4
TB1_shp	1758.33	639303.7	6326233	925.6	707.15	14	9344.04
TB1_shp	1758.33	639303.7	6326233	876.95	755.8	12.31	8233.17
TB1_shp	1758.33	639303.7	6326233	825.15	807.6	10.41	7193.84
TB1_shp	1758.33	639303.7	6326233	768.35	864.4	8.28	6112.05
TB1_shp	1758.33	639303.7	6326233	707.1	925.65	6.47	5187.37
TB1_shp	1758.33	639303.7	6326233	642.25	990.5	5.82	4827.52
TB1_shp	1758.33	639303.7	6326233	570.75	1062	5.1	4430.76
TB1_shp	1775	639319	6326233	1615.52	9.73	0.1	19711.7
TB1_shp	1775	639319	6326233	1596.05	29.2	0.82	4527.68
TB1_shp	1775	639319	6326233	1576.58	48.67	2.57	2297.25
TB1_shp	1775	639319	6326233	1557.12	68.13	4.11	2110.67
TB1_shp	1775	639319	6326233	1537.65	87.6	4.78	2343.94
TB1_shp	1775	639319	6326233	1518.18	107.07	4.9	2688.91
TB1_shp	1775	639319	6326233	1498.72	126.53	4.83	2985.03
TB1_shp	1775	639319	6326233	1479.25	146	4.77	3264.35
TB1_shp	1775	639319	6326233	1459.78	165.47	4.79	3569.99
TB1_shp	1775	639319	6326233	1440.32	184.93	4.97	4001.18
TB1_shp	1775	639319	6326233	1420.85	204.4	5.29	4638.78
TB1_shp	1775	639319	6326233	1401.38	223.87	5.68	5422.57
TB1_shp	1775	639319	6326233	1381.92	243.33	6.24	6619.62
TB1_shp	1775	639319	6326233	1362.45	262.8	6.9	8060.63
TB1_shp	1775	639319	6326233	1342.98	282.27	7.68	9807.94
TB1_shp	1775	639319	6326233	1323.25	302	8.59	11751.29
TB1_shp	1775	639319	6326233	1303.25	322	9.59	13833.55
TB1_shp	1775	639319	6326233	1283.25	342	10.68	15806.62
TB1_shp	1775	639319	6326233	1263.25	362	11.82	17725.54
TB1_shp	1775	639319	6326233	1243.25	382	12.93	19119.3
TB1_shp	1775	639319	6326233	1221.15	404.1	14.15	20289.95
TB1_shp	1775	639319	6326233	1196.6	428.65	15.29	20763.23
TB1_shp	1775	639319	6326233	1170.65	454.6	16.32	20579.03
TB1_shp	1775	639319	6326233	1142.15	483.1	17.06	19580.07
TB1_shp	1775	639319	6326233	1111.45	513.8	17.67	18112.42
TB1_shp	1775	639319	6326233	1078.8	546.45	17.64	16195
TB1_shp	1775	639319	6326233	1043	582.25	17.38	14183.7
TB1_shp	1775	639319	6326233	1004.35	620.9	16.57	12314.54
TB1_shp	1775	639319	6326233	963.2	662.05	15.37	10724.68
TB1_shp	1775	639319	6326233	918.1	707.15	13.88	9278.16
TB1_shp	1775	639319	6326233	869.45	755.8	12.2	8177.24
TB1_shp	1775	639319	6326233	817.65	807.6	10.31	7150.22
TB1_shp	1775	639319	6326233	760.85	864.4	8.21	6082.64
TB1_shp	1775	639319	6326233	699.6	925.65	6.42	5169.55
TB1_shp	1775	639319	6326233	634.75	990.5	5.78	4812.43

TB1_shp	1775	639319	6326233	563.25	1062	5.07	4418.7
TB1_shp	1791.67	639334.3	6326233	1608.02	9.73	3.03	1202.13
TB1_shp	1791.67	639334.3	6326233	1588.55	29.2	3.94	1767.06
TB1_shp	1791.67	639334.3	6326233	1569.08	48.67	4.22	2224.71
TB1_shp	1791.67	639334.3	6326233	1549.62	68.13	4.22	2624.46
TB1_shp	1791.67	639334.3	6326233	1530.15	87.6	4.1	2957.67
TB1_shp	1791.67	639334.3	6326233	1510.68	107.07	4.03	3158.16
TB1_shp	1791.67	639334.3	6326233	1491.22	126.53	4.07	3320.25
TB1_shp	1791.67	639334.3	6326233	1471.75	146	4.23	3513.58
TB1_shp	1791.67	639334.3	6326233	1452.28	165.47	4.52	3853.22
TB1_shp	1791.67	639334.3	6326233	1432.82	184.93	4.91	4433.65
TB1_shp	1791.67	639334.3	6326233	1413.35	204.4	5.36	5178.57
TB1_shp	1791.67	639334.3	6326233	1393.88	223.87	5.93	6343.14
TB1_shp	1791.67	639334.3	6326233	1374.42	243.33	6.61	7775.34
TB1_shp	1791.67	639334.3	6326233	1354.95	262.8	7.38	9510.69
TB1_shp	1791.67	639334.3	6326233	1335.48	282.27	8.27	11435.9
TB1_shp	1791.67	639334.3	6326233	1315.75	302	9.24	13499.23
TB1_shp	1791.67	639334.3	6326233	1295.75	322	10.33	15489.15
TB1_shp	1791.67	639334.3	6326233	1275.75	342	11.47	17428.67
TB1_shp	1791.67	639334.3	6326233	1255.75	362	12.6	18843.35
TB1_shp	1791.67	639334.3	6326233	1235.75	382	13.72	19923.88
TB1_shp	1791.67	639334.3	6326233	1213.65	404.1	14.82	20562.36
TB1_shp	1791.67	639334.3	6326233	1189.1	428.65	15.84	20409.56
TB1_shp	1791.67	639334.3	6326233	1163.15	454.6	16.68	19796.29
TB1_shp	1791.67	639334.3	6326233	1134.65	483.1	17.28	18455.85
TB1_shp	1791.67	639334.3	6326233	1103.95	513.8	17.52	16798.71
TB1_shp	1791.67	639334.3	6326233	1071.3	546.45	17.48	14886.16
TB1_shp	1791.67	639334.3	6326233	1035.5	582.25	16.85	13110.54
TB1_shp	1791.67	639334.3	6326233	996.85	620.9	15.95	11362.92
TB1_shp	1791.67	639334.3	6326233	955.7	662.05	14.61	9960.21
TB1_shp	1791.67	639334.3	6326233	910.6	707.15	13.08	8760.34
TB1_shp	1791.67	639334.3	6326233	861.95	755.8	11.39	7693.31
TB1_shp	1791.67	639334.3	6326233	810.15	807.6	9.49	6733.46
TB1_shp	1791.67	639334.3	6326233	753.35	864.4	7.41	5680.96
TB1_shp	1791.67	639334.3	6326233	692.1	925.65	6.18	5041.53
TB1_shp	1791.67	639334.3	6326233	627.25	990.5	5.54	4687.3
TB1_shp	1791.67	639334.3	6326233	555.75	1062	4.84	4296.74
TB1_shp	1808.33	639350.2	6326234	1603.02	9.73	0.61	7053.83
TB1_shp	1808.33	639350.2	6326234	1583.55	29.2	1.9	3883.13
TB1_shp	1808.33	639350.2	6326234	1564.08	48.67	2.91	3177.78
TB1_shp	1808.33	639350.2	6326234	1544.62	68.13	3.22	3168.8
TB1_shp	1808.33	639350.2	6326234	1525.15	87.6	3.22	3251.06
TB1_shp	1808.33	639350.2	6326234	1505.68	107.07	3.28	3252.76
TB1_shp	1808.33	639350.2	6326234	1486.22	126.53	3.45	3257.62
TB1_shp	1808.33	639350.2	6326234	1466.75	146	3.73	3332.77
TB1_shp	1808.33	639350.2	6326234	1447.28	165.47	4.13	3604.33
TB1_shp	1808.33	639350.2	6326234	1427.82	184.93	4.58	4143.77
TB1_shp	1808.33	639350.2	6326234	1408.35	204.4	5.07	4861.1
TB1_shp	1808.33	639350.2	6326234	1388.88	223.87	5.66	6016.18
TB1_shp	1808.33	639350.2	6326234	1369.42	243.33	6.33	7446.86
TB1_shp	1808.33	639350.2	6326234	1349.95	262.8	7.09	9189.66
TB1_shp	1808.33	639350.2	6326234	1330.48	282.27	7.97	11131.08

TB1_shp	1808.33	639350.2	6326234	1310.75	302	8.93	13216.02
TB1_shp	1808.33	639350.2	6326234	1290.75	322	10.01	15227.89
TB1_shp	1808.33	639350.2	6326234	1270.75	342	11.16	17189.37
TB1_shp	1808.33	639350.2	6326234	1250.75	362	12.3	18622.41
TB1_shp	1808.33	639350.2	6326234	1230.75	382	13.44	19719
TB1_shp	1808.33	639350.2	6326234	1208.65	404.1	14.57	20371.31
TB1_shp	1808.33	639350.2	6326234	1184.1	428.65	15.62	20227.78
TB1_shp	1808.33	639350.2	6326234	1158.15	454.6	16.5	19624.59
TB1_shp	1808.33	639350.2	6326234	1129.65	483.1	17.13	18295.65
TB1_shp	1808.33	639350.2	6326234	1098.95	513.8	17.39	16654.06
TB1_shp	1808.33	639350.2	6326234	1066.3	546.45	17.36	14760.26
TB1_shp	1808.33	639350.2	6326234	1030.5	582.25	16.74	13000.45
TB1_shp	1808.33	639350.2	6326234	991.85	620.9	15.84	11268.25
TB1_shp	1808.33	639350.2	6326234	950.7	662.05	14.49	9879.04
TB1_shp	1808.33	639350.2	6326234	905.6	707.15	12.96	8691.36
TB1_shp	1808.33	639350.2	6326234	856.95	755.8	11.28	7636.15
TB1_shp	1808.33	639350.2	6326234	805.15	807.6	9.4	6690.64
TB1_shp	1808.33	639350.2	6326234	748.35	864.4	7.34	5653.86
TB1_shp	1808.33	639350.2	6326234	687.1	925.65	6.12	5022.68
TB1_shp	1808.33	639350.2	6326234	622.25	990.5	5.5	4671.5
TB1_shp	1808.33	639350.2	6326234	550.75	1062	4.81	4284.31
TB1_shp	1825	639366.5	6326237	1600.52	9.73	0.4	6777.87
TB1_shp	1825	639366.5	6326237	1581.05	29.2	1.39	4157.65
TB1_shp	1825	639366.5	6326237	1561.58	48.67	2.26	3579.36
TB1_shp	1825	639366.5	6326237	1542.12	68.13	2.49	3492.58
TB1_shp	1825	639366.5	6326237	1522.65	87.6	2.53	3357.78
TB1_shp	1825	639366.5	6326237	1503.18	107.07	2.69	3168.27
TB1_shp	1825	639366.5	6326237	1483.72	126.53	2.98	3039.73
TB1_shp	1825	639366.5	6326237	1464.25	146	3.38	3036.31
TB1_shp	1825	639366.5	6326237	1444.78	165.47	3.86	3278.48
TB1_shp	1825	639366.5	6326237	1425.32	184.93	4.35	3808.43
TB1_shp	1825	639366.5	6326237	1405.85	204.4	4.87	4525.78
TB1_shp	1825	639366.5	6326237	1386.38	223.87	5.44	5692.1
TB1_shp	1825	639366.5	6326237	1366.92	243.33	6.1	7141.41
TB1_shp	1825	639366.5	6326237	1347.45	262.8	6.84	8911.16
TB1_shp	1825	639366.5	6326237	1327.98	282.27	7.7	10882.45
TB1_shp	1825	639366.5	6326237	1308.25	302	8.63	12999.37
TB1_shp	1825	639366.5	6326237	1288.25	322	9.72	15037.64
TB1_shp	1825	639366.5	6326237	1268.25	342	10.87	17022.54
TB1_shp	1825	639366.5	6326237	1248.25	362	12.03	18466.99
TB1_shp	1825	639366.5	6326237	1228.25	382	13.2	19567.36
TB1_shp	1825	639366.5	6326237	1206.15	404.1	14.36	20220.56
TB1_shp	1825	639366.5	6326237	1181.6	428.65	15.44	20072.96
TB1_shp	1825	639366.5	6326237	1155.65	454.6	16.35	19468.32
TB1_shp	1825	639366.5	6326237	1127.15	483.1	17.01	18142.02
TB1_shp	1825	639366.5	6326237	1096.45	513.8	17.28	16509.36
TB1_shp	1825	639366.5	6326237	1063.8	546.45	17.26	14629.36
TB1_shp	1825	639366.5	6326237	1028	582.25	16.63	12884.94
TB1_shp	1825	639366.5	6326237	989.35	620.9	15.73	11168.81
TB1_shp	1825	639366.5	6326237	948.2	662.05	14.37	9794
TB1_shp	1825	639366.5	6326237	903.1	707.15	12.84	8619.12
TB1_shp	1825	639366.5	6326237	854.45	755.8	11.16	7576.16

TB1_shp	1825	639366.5	6326237	802.65	807.6	9.31	6645.56
TB1_shp	1825	639366.5	6326237	745.85	864.4	7.28	5625.13
TB1_shp	1825	639366.5	6326237	684.6	925.65	6.08	5002.54
TB1_shp	1825	639366.5	6326237	619.75	990.5	5.46	4654.6
TB1_shp	1825	639366.5	6326237	548.25	1062	4.78	4270.97
TB1_shp	1841.67	639382.8	6326239	1598.02	9.73	2.09	4697.97
TB1_shp	1841.67	639382.8	6326239	1578.55	29.2	2.57	4081.12
TB1_shp	1841.67	639382.8	6326239	1559.08	48.67	2.43	4000.71
TB1_shp	1841.67	639382.8	6326239	1539.62	68.13	2.12	3745.4
TB1_shp	1841.67	639382.8	6326239	1520.15	87.6	2.06	3286.88
TB1_shp	1841.67	639382.8	6326239	1500.68	107.07	2.29	2906.57
TB1_shp	1841.67	639382.8	6326239	1481.22	126.53	2.7	2688.52
TB1_shp	1841.67	639382.8	6326239	1461.75	146	3.21	2660.14
TB1_shp	1841.67	639382.8	6326239	1442.28	165.47	3.75	2913.11
TB1_shp	1841.67	639382.8	6326239	1422.82	184.93	4.26	3461.53
TB1_shp	1841.67	639382.8	6326239	1403.35	204.4	4.76	4201.41
TB1_shp	1841.67	639382.8	6326239	1383.88	223.87	5.3	5396.8
TB1_shp	1841.67	639382.8	6326239	1364.42	243.33	5.92	6881.3
TB1_shp	1841.67	639382.8	6326239	1344.95	262.8	6.63	8693.19
TB1_shp	1841.67	639382.8	6326239	1325.48	282.27	7.47	10705.1
TB1_shp	1841.67	639382.8	6326239	1305.75	302	8.4	12862.28
TB1_shp	1841.67	639382.8	6326239	1285.75	322	9.48	14926.77
TB1_shp	1841.67	639382.8	6326239	1265.75	342	10.63	16930.64
TB1_shp	1841.67	639382.8	6326239	1245.75	362	11.81	18378.66
TB1_shp	1841.67	639382.8	6326239	1225.75	382	12.99	19472.78
TB1_shp	1841.67	639382.8	6326239	1203.65	404.1	14.18	20114.49
TB1_shp	1841.67	639382.8	6326239	1179.1	428.65	15.29	19946.97
TB1_shp	1841.67	639382.8	6326239	1153.15	454.6	16.23	19327.21
TB1_shp	1841.67	639382.8	6326239	1124.65	483.1	16.92	17993.01
TB1_shp	1841.67	639382.8	6326239	1093.95	513.8	17.2	16363.19
TB1_shp	1841.67	639382.8	6326239	1061.3	546.45	17.19	14494.18
TB1_shp	1841.67	639382.8	6326239	1025.5	582.25	16.55	12764.17
TB1_shp	1841.67	639382.8	6326239	986.85	620.9	15.63	11063.74
TB1_shp	1841.67	639382.8	6326239	945.7	662.05	14.26	9704.17
TB1_shp	1841.67	639382.8	6326239	900.6	707.15	12.72	8543.09
TB1_shp	1841.67	639382.8	6326239	851.95	755.8	11.05	7513.42
TB1_shp	1841.67	639382.8	6326239	800.15	807.6	9.21	6598.18
TB1_shp	1841.67	639382.8	6326239	743.35	864.4	7.21	5594.6
TB1_shp	1841.67	639382.8	6326239	682.1	925.65	6.03	4980.93
TB1_shp	1841.67	639382.8	6326239	617.25	990.5	5.42	4636.4
TB1_shp	1841.67	639382.8	6326239	545.75	1062	4.75	4256.55
TB1_shp	1858.33	639399.2	6326241	1595.52	9.73	4.49	4961.7
TB1_shp	1858.33	639399.2	6326241	1576.05	29.2	3.64	7772.18
TB1_shp	1858.33	639399.2	6326241	1556.58	48.67	2.33	6055.54
TB1_shp	1858.33	639399.2	6326241	1537.12	68.13	1.74	4309.01
TB1_shp	1858.33	639399.2	6326241	1517.65	87.6	1.74	3150.57
TB1_shp	1858.33	639399.2	6326241	1498.18	107.07	2.11	2543.33
TB1_shp	1858.33	639399.2	6326241	1478.72	126.53	2.65	2279.1
TB1_shp	1858.33	639399.2	6326241	1459.25	146	3.26	2271.23
TB1_shp	1858.33	639399.2	6326241	1439.78	165.47	3.81	2560.42
TB1_shp	1858.33	639399.2	6326241	1420.32	184.93	4.29	3144.71
TB1_shp	1858.33	639399.2	6326241	1400.85	204.4	4.74	3921.26

TB1_shp	1858.33	639399.2	6326241	1381.38	223.87	5.22	5158.49
TB1_shp	1858.33	639399.2	6326241	1361.92	243.33	5.79	6690.21
TB1_shp	1858.33	639399.2	6326241	1342.45	262.8	6.46	8555.41
TB1_shp	1858.33	639399.2	6326241	1322.98	282.27	7.28	10614.4
TB1_shp	1858.33	639399.2	6326241	1303.25	302	8.19	12815.61
TB1_shp	1858.33	639399.2	6326241	1283.25	322	9.28	14904.73
TB1_shp	1858.33	639399.2	6326241	1263.25	342	10.44	16923.32
TB1_shp	1858.33	639399.2	6326241	1243.25	362	11.63	18362.99
TB1_shp	1858.33	639399.2	6326241	1223.25	382	12.84	19434.09
TB1_shp	1858.33	639399.2	6326241	1201.15	404.1	14.05	20047.64
TB1_shp	1858.33	639399.2	6326241	1176.6	428.65	15.2	19844.62
TB1_shp	1858.33	639399.2	6326241	1150.65	454.6	16.16	19196.84
TB1_shp	1858.33	639399.2	6326241	1122.15	483.1	16.85	17845.9
TB1_shp	1858.33	639399.2	6326241	1091.45	513.8	17.14	16213.29
TB1_shp	1858.33	639399.2	6326241	1058.8	546.45	17.12	14352.05
TB1_shp	1858.33	639399.2	6326241	1023	582.25	16.46	12636.83
TB1_shp	1858.33	639399.2	6326241	984.35	620.9	15.53	10953.27
TB1_shp	1858.33	639399.2	6326241	943.2	662.05	14.14	9610
TB1_shp	1858.33	639399.2	6326241	898.1	707.15	12.6	8463.47
TB1_shp	1858.33	639399.2	6326241	849.45	755.8	10.93	7447.67
TB1_shp	1858.33	639399.2	6326241	797.65	807.6	9.12	6548.43
TB1_shp	1858.33	639399.2	6326241	740.85	864.4	7.13	5562.38
TB1_shp	1858.33	639399.2	6326241	679.6	925.65	5.97	4958.02
TB1_shp	1858.33	639399.2	6326241	614.75	990.5	5.37	4617.09
TB1_shp	1858.33	639399.2	6326241	543.25	1062	4.72	4241.2
TB1_shp	1875	639415.5	6326244	1593.02	9.73	2.8	29859.57
TB1_shp	1875	639415.5	6326244	1573.55	29.2	1.72	10598.78
TB1_shp	1875	639415.5	6326244	1554.08	48.67	1.4	4805.75
TB1_shp	1875	639415.5	6326244	1534.62	68.13	1.66	2857.1
TB1_shp	1875	639415.5	6326244	1515.15	87.6	2.25	2127.15
TB1_shp	1875	639415.5	6326244	1495.68	107.07	2.92	1890.66
TB1_shp	1875	639415.5	6326244	1476.22	126.53	3.58	1941.07
TB1_shp	1875	639415.5	6326244	1456.75	146	4.07	2275.46
TB1_shp	1875	639415.5	6326244	1437.28	165.47	4.45	2913.86
TB1_shp	1875	639415.5	6326244	1417.82	184.93	4.8	3748.27
TB1_shp	1875	639415.5	6326244	1398.35	204.4	5.21	5037.3
TB1_shp	1875	639415.5	6326244	1378.88	223.87	5.73	6643.76
TB1_shp	1875	639415.5	6326244	1359.42	243.33	6.36	8569.62
TB1_shp	1875	639415.5	6326244	1339.95	262.8	7.16	10687.24
TB1_shp	1875	639415.5	6326244	1320.48	282.27	8.05	12903.84
TB1_shp	1875	639415.5	6326244	1300.75	302	9.12	14978.77
TB1_shp	1875	639415.5	6326244	1280.75	322	10.29	16999.52
TB1_shp	1875	639415.5	6326244	1260.75	342	11.5	18416.17
TB1_shp	1875	639415.5	6326244	1240.75	362	12.74	19448.23
TB1_shp	1875	639415.5	6326244	1220.75	382	13.87	20038.97
TB1_shp	1875	639415.5	6326244	1198.65	404.1	14.92	19809.59
TB1_shp	1875	639415.5	6326244	1174.1	428.65	15.98	19360.83
TB1_shp	1875	639415.5	6326244	1148.15	454.6	16.62	18108.48
TB1_shp	1875	639415.5	6326244	1119.65	483.1	17.12	16666.56
TB1_shp	1875	639415.5	6326244	1088.95	513.8	17.08	14922.21
TB1_shp	1875	639415.5	6326244	1056.3	546.45	16.74	13225.63
TB1_shp	1875	639415.5	6326244	1020.5	582.25	15.93	11587.92

TB1_shp	1875	639415.5	6326244	981.85	620.9	14.74	10192.02
TB1_shp	1875	639415.5	6326244	940.7	662.05	13.34	8908.67
TB1_shp	1875	639415.5	6326244	895.6	707.15	11.79	7958.28
TB1_shp	1875	639415.5	6326244	846.95	755.8	10.11	7038.25
TB1_shp	1875	639415.5	6326244	795.15	807.6	8.33	6155.66
TB1_shp	1875	639415.5	6326244	738.35	864.4	6.37	5187.87
TB1_shp	1875	639415.5	6326244	677.1	925.65	5.74	4830.01
TB1_shp	1875	639415.5	6326244	612.25	990.5	5.15	4492.86
TB1_shp	1875	639415.5	6326244	540.75	1062	4.51	4121.15
TB1_shp	1891.67	639431.8	6326246	1590.52	9.73	1.65	23106.7
TB1_shp	1891.67	639431.8	6326246	1571.05	29.2	1.35	9124.03
TB1_shp	1891.67	639431.8	6326246	1551.58	48.67	1.45	4122.52
TB1_shp	1891.67	639431.8	6326246	1532.12	68.13	2.03	2369.61
TB1_shp	1891.67	639431.8	6326246	1512.65	87.6	2.8	1748.4
TB1_shp	1891.67	639431.8	6326246	1493.18	107.07	3.53	1587.45
TB1_shp	1891.67	639431.8	6326246	1473.72	126.53	4.12	1694.01
TB1_shp	1891.67	639431.8	6326246	1454.25	146	4.44	2071.43
TB1_shp	1891.67	639431.8	6326246	1434.78	165.47	4.67	2753.71
TB1_shp	1891.67	639431.8	6326246	1415.32	184.93	4.89	3634.88
TB1_shp	1891.67	639431.8	6326246	1395.85	204.4	5.22	4983.06
TB1_shp	1891.67	639431.8	6326246	1376.38	223.87	5.67	6653.32
TB1_shp	1891.67	639431.8	6326246	1356.92	243.33	6.26	8647.63
TB1_shp	1891.67	639431.8	6326246	1337.45	262.8	7.04	10814.4
TB1_shp	1891.67	639431.8	6326246	1317.98	282.27	7.93	13070.09
TB1_shp	1891.67	639431.8	6326246	1298.25	302	9.01	15149.94
TB1_shp	1891.67	639431.8	6326246	1278.25	322	10.2	17158.94
TB1_shp	1891.67	639431.8	6326246	1258.25	342	11.43	18535.62
TB1_shp	1891.67	639431.8	6326246	1238.25	362	12.69	19509.72
TB1_shp	1891.67	639431.8	6326246	1218.25	382	13.84	20043.87
TB1_shp	1891.67	639431.8	6326246	1196.15	404.1	14.91	19754.62
TB1_shp	1891.67	639431.8	6326246	1171.6	428.65	15.98	19247.49
TB1_shp	1891.67	639431.8	6326246	1145.65	454.6	16.61	17966.08
TB1_shp	1891.67	639431.8	6326246	1117.15	483.1	17.11	16502.07
TB1_shp	1891.67	639431.8	6326246	1086.45	513.8	17.05	14762.17
TB1_shp	1891.67	639431.8	6326246	1053.8	546.45	16.69	13075.41
TB1_shp	1891.67	639431.8	6326246	1018	582.25	15.85	11455.62
TB1_shp	1891.67	639431.8	6326246	979.35	620.9	14.64	10078.02
TB1_shp	1891.67	639431.8	6326246	938.2	662.05	13.21	8813.2
TB1_shp	1891.67	639431.8	6326246	893.1	707.15	11.66	7877.55
TB1_shp	1891.67	639431.8	6326246	844.45	755.8	10	6973.59
TB1_shp	1891.67	639431.8	6326246	792.65	807.6	8.24	6108.23
TB1_shp	1891.67	639431.8	6326246	735.85	864.4	6.31	5159.34
TB1_shp	1891.67	639431.8	6326246	674.6	925.65	5.69	4806.11
TB1_shp	1891.67	639431.8	6326246	609.75	990.5	5.11	4472.91
TB1_shp	1891.67	639431.8	6326246	538.25	1062	4.48	4105.54
TB1_shp	1908.33	639445.3	6326248	1590.94	9.73	0.38	3430.92
TB1_shp	1908.33	639445.3	6326248	1571.47	29.2	1.06	4323.18
TB1_shp	1908.33	639445.3	6326248	1552	48.67	1.8	2959.11
TB1_shp	1908.33	639445.3	6326248	1532.54	68.13	2.82	1908.86
TB1_shp	1908.33	639445.3	6326248	1513.07	87.6	3.77	1483.81
TB1_shp	1908.33	639445.3	6326248	1493.6	107.07	4.44	1400.56
TB1_shp	1908.33	639445.3	6326248	1474.14	126.53	4.8	1553.76

TB1_shp	1908.33	639445.3	6326248	1454.67	146	4.86	1969.42
TB1_shp	1908.33	639445.3	6326248	1435.2	165.47	4.9	2697.26
TB1_shp	1908.33	639445.3	6326248	1415.74	184.93	4.97	3629.79
TB1_shp	1908.33	639445.3	6326248	1396.27	204.4	5.22	5045.41
TB1_shp	1908.33	639445.3	6326248	1376.8	223.87	5.63	6785.01
TB1_shp	1908.33	639445.3	6326248	1357.34	243.33	6.2	8850.54
TB1_shp	1908.33	639445.3	6326248	1337.87	262.8	6.97	11064.45
TB1_shp	1908.33	639445.3	6326248	1318.4	282.27	7.85	13354.77
TB1_shp	1908.33	639445.3	6326248	1298.67	302	8.95	15423.6
TB1_shp	1908.33	639445.3	6326248	1278.67	322	10.15	17399.2
TB1_shp	1908.33	639445.3	6326248	1258.67	342	11.4	18714.79
TB1_shp	1908.33	639445.3	6326248	1238.67	362	12.68	19610.18
TB1_shp	1908.33	639445.3	6326248	1218.67	382	13.86	20070.39
TB1_shp	1908.33	639445.3	6326248	1196.57	404.1	14.94	19709.02
TB1_shp	1908.33	639445.3	6326248	1172.02	428.65	16.01	19131.92
TB1_shp	1908.33	639445.3	6326248	1146.07	454.6	16.64	17817.24
TB1_shp	1908.33	639445.3	6326248	1117.57	483.1	17.12	16327.83
TB1_shp	1908.33	639445.3	6326248	1086.87	513.8	17.03	14592.54
TB1_shp	1908.33	639445.3	6326248	1054.22	546.45	16.63	12916.32
TB1_shp	1908.33	639445.3	6326248	1018.42	582.25	15.76	11316.01
TB1_shp	1908.33	639445.3	6326248	979.77	620.9	14.52	9958.11
TB1_shp	1908.33	639445.3	6326248	938.62	662.05	13.07	8713.16
TB1_shp	1908.33	639445.3	6326248	893.52	707.15	11.52	7793.53
TB1_shp	1908.33	639445.3	6326248	844.87	755.8	9.88	6906.48
TB1_shp	1908.33	639445.3	6326248	793.07	807.6	8.15	6058.81
TB1_shp	1908.33	639445.3	6326248	736.27	864.4	6.25	5129.32
TB1_shp	1908.33	639445.3	6326248	675.02	925.65	5.64	4780.92
TB1_shp	1908.33	639445.3	6326248	610.17	990.5	5.07	4451.84
TB1_shp	1908.33	639445.3	6326248	538.67	1062	4.45	4089.01
TB1_shp	1925	639456	6326248	1594.27	9.73	0.53	2547.13
TB1_shp	1925	639456	6326248	1574.8	29.2	1.26	3586.72
TB1_shp	1925	639456	6326248	1555.33	48.67	2.38	2588.04
TB1_shp	1925	639456	6326248	1535.87	68.13	3.88	1718.47
TB1_shp	1925	639456	6326248	1516.4	87.6	4.93	1370.93
TB1_shp	1925	639456	6326248	1496.93	107.07	5.43	1331.16
TB1_shp	1925	639456	6326248	1477.47	126.53	5.48	1518.69
TB1_shp	1925	639456	6326248	1458	146	5.23	1972.44
TB1_shp	1925	639456	6326248	1438.53	165.47	5.09	2751.62
TB1_shp	1925	639456	6326248	1419.07	184.93	5.03	3743.5
TB1_shp	1925	639456	6326248	1399.6	204.4	5.23	5235.85
TB1_shp	1925	639456	6326248	1380.13	223.87	5.6	7050.05
TB1_shp	1925	639456	6326248	1360.67	243.33	6.15	9187.98
TB1_shp	1925	639456	6326248	1341.2	262.8	6.93	11440.44
TB1_shp	1925	639456	6326248	1321.73	282.27	7.82	13751.73
TB1_shp	1925	639456	6326248	1302	302	8.93	15790.28
TB1_shp	1925	639456	6326248	1282	322	10.15	17710.33
TB1_shp	1925	639456	6326248	1262	342	11.43	18943.56
TB1_shp	1925	639456	6326248	1242	362	12.74	19739.51
TB1_shp	1925	639456	6326248	1222	382	13.93	20109.2
TB1_shp	1925	639456	6326248	1199.9	404.1	15.01	19665.63
TB1_shp	1925	639456	6326248	1175.35	428.65	16.08	19008.98
TB1_shp	1925	639456	6326248	1149.4	454.6	16.69	17657.34

TB1_shp	1925	639456	6326248	1120.9	483.1	17.14	16139.89
TB1_shp	1925	639456	6326248	1090.2	513.8	17.01	14410.52
TB1_shp	1925	639456	6326248	1057.55	546.45	16.58	12746.71
TB1_shp	1925	639456	6326248	1021.75	582.25	15.66	11168.57
TB1_shp	1925	639456	6326248	983.1	620.9	14.39	9832.62
TB1_shp	1925	639456	6326248	941.95	662.05	12.92	8609.49
TB1_shp	1925	639456	6326248	896.85	707.15	11.38	7706.48
TB1_shp	1925	639456	6326248	848.2	755.8	9.75	6836.88
TB1_shp	1925	639456	6326248	796.4	807.6	8.05	6007.33
TB1_shp	1925	639456	6326248	739.6	864.4	6.19	5097.72
TB1_shp	1925	639456	6326248	678.35	925.65	5.58	4754.33
TB1_shp	1925	639456	6326248	613.5	990.5	5.03	4429.56
TB1_shp	1925	639456	6326248	542	1062	4.42	4071.49
TB1_shp	1941.67	639466.7	6326249	1597.6	9.73	1.62	2482.79
TB1_shp	1941.67	639466.7	6326249	1578.13	29.2	1.02	4074.11
TB1_shp	1941.67	639466.7	6326249	1558.66	48.67	1.54	4042.65
TB1_shp	1941.67	639466.7	6326249	1539.2	68.13	2.9	2660.47
TB1_shp	1941.67	639466.7	6326249	1519.73	87.6	4.86	1734.04
TB1_shp	1941.67	639466.7	6326249	1500.26	107.07	5.99	1381.81
TB1_shp	1941.67	639466.7	6326249	1480.8	126.53	6.29	1357.66
TB1_shp	1941.67	639466.7	6326249	1461.33	146	6.01	1567.52
TB1_shp	1941.67	639466.7	6326249	1441.86	165.47	5.51	2066.55
TB1_shp	1941.67	639466.7	6326249	1422.4	184.93	5.22	2895.14
TB1_shp	1941.67	639466.7	6326249	1402.93	204.4	5.06	3941.72
TB1_shp	1941.67	639466.7	6326249	1383.46	223.87	5.22	5521.16
TB1_shp	1941.67	639466.7	6326249	1364	243.33	5.57	7396.16
TB1_shp	1941.67	639466.7	6326249	1344.53	262.8	6.12	9606.26
TB1_shp	1941.67	639466.7	6326249	1325.06	282.27	6.89	11882.55
TB1_shp	1941.67	639466.7	6326249	1305.33	302	7.81	14228.43
TB1_shp	1941.67	639466.7	6326249	1285.33	322	8.96	16245.6
TB1_shp	1941.67	639466.7	6326249	1265.33	342	10.2	18083.86
TB1_shp	1941.67	639466.7	6326249	1245.33	362	11.5	19211.08
TB1_shp	1941.67	639466.7	6326249	1225.33	382	12.83	19885.6
TB1_shp	1941.67	639466.7	6326249	1203.23	404.1	14.13	20097.09
TB1_shp	1941.67	639466.7	6326249	1178.68	428.65	15.34	19503.54
TB1_shp	1941.67	639466.7	6326249	1152.73	454.6	16.32	18551.75
TB1_shp	1941.67	639466.7	6326249	1124.23	483.1	16.95	17027.56
TB1_shp	1941.67	639466.7	6326249	1093.53	513.8	17.12	15337.79
TB1_shp	1941.67	639466.7	6326249	1060.88	546.45	16.93	13506.93
TB1_shp	1941.67	639466.7	6326249	1025.08	582.25	16.1	11881.45
TB1_shp	1941.67	639466.7	6326249	986.43	620.9	15	10304.02
TB1_shp	1941.67	639466.7	6326249	945.28	662.05	13.49	9063.88
TB1_shp	1941.67	639466.7	6326249	900.18	707.15	11.91	8008.67
TB1_shp	1941.67	639466.7	6326249	851.53	755.8	10.26	7077.96
TB1_shp	1941.67	639466.7	6326249	799.73	807.6	8.59	6267.04
TB1_shp	1941.67	639466.7	6326249	742.93	864.4	6.76	5377.85
TB1_shp	1941.67	639466.7	6326249	681.68	925.65	5.69	4825.35
TB1_shp	1941.67	639466.7	6326249	616.83	990.5	5.15	4505.08
TB1_shp	1941.67	639466.7	6326249	545.33	1062	4.55	4151.96
TB1_shp	1958.33	639477.3	6326250	1600.94	9.73	0.66	15394.23
TB1_shp	1958.33	639477.3	6326250	1581.47	29.2	0.73	8604.88
TB1_shp	1958.33	639477.3	6326250	1562	48.67	1.46	4842.65

TB1_shp	1958.33	639477.3	6326250	1542.54	68.13	3.18	2754.44
TB1_shp	1958.33	639477.3	6326250	1523.07	87.6	5.62	1787.64
TB1_shp	1958.33	639477.3	6326250	1503.6	107.07	6.81	1459.39
TB1_shp	1958.33	639477.3	6326250	1484.14	126.53	6.93	1469.19
TB1_shp	1958.33	639477.3	6326250	1464.67	146	6.36	1721.22
TB1_shp	1958.33	639477.3	6326250	1445.2	165.47	5.68	2279.89
TB1_shp	1958.33	639477.3	6326250	1425.74	184.93	5.3	3185.86
TB1_shp	1958.33	639477.3	6326250	1406.27	204.4	5.09	4318.34
TB1_shp	1958.33	639477.3	6326250	1386.8	223.87	5.24	5993.6
TB1_shp	1958.33	639477.3	6326250	1367.34	243.33	5.58	7950.04
TB1_shp	1958.33	639477.3	6326250	1347.87	262.8	6.14	10225.46
TB1_shp	1958.33	639477.3	6326250	1328.4	282.27	6.93	12512.98
TB1_shp	1958.33	639477.3	6326250	1308.67	302	7.86	14838.21
TB1_shp	1958.33	639477.3	6326250	1288.67	322	9.03	16772.86
TB1_shp	1958.33	639477.3	6326250	1268.67	342	10.3	18498.04
TB1_shp	1958.33	639477.3	6326250	1248.67	362	11.62	19496.65
TB1_shp	1958.33	639477.3	6326250	1228.67	382	12.97	20032.68
TB1_shp	1958.33	639477.3	6326250	1206.57	404.1	14.29	20114.92
TB1_shp	1958.33	639477.3	6326250	1182.02	428.65	15.48	19414.7
TB1_shp	1958.33	639477.3	6326250	1156.07	454.6	16.43	18383.31
TB1_shp	1958.33	639477.3	6326250	1127.57	483.1	17.03	16820.63
TB1_shp	1958.33	639477.3	6326250	1096.87	513.8	17.14	15121.44
TB1_shp	1958.33	639477.3	6326250	1064.22	546.45	16.9	13303.13
TB1_shp	1958.33	639477.3	6326250	1028.42	582.25	16.01	11702.87
TB1_shp	1958.33	639477.3	6326250	989.77	620.9	14.86	10154.03
TB1_shp	1958.33	639477.3	6326250	948.62	662.05	13.34	8940.07
TB1_shp	1958.33	639477.3	6326250	903.52	707.15	11.75	7907.15
TB1_shp	1958.33	639477.3	6326250	854.87	755.8	10.11	6996.34
TB1_shp	1958.33	639477.3	6326250	803.07	807.6	8.47	6204.52
TB1_shp	1958.33	639477.3	6326250	746.27	864.4	6.68	5336.26
TB1_shp	1958.33	639477.3	6326250	685.02	925.65	5.63	4795.08
TB1_shp	1958.33	639477.3	6326250	620.17	990.5	5.1	4479.47
TB1_shp	1958.33	639477.3	6326250	548.67	1062	4.52	4131.49
TB1_shp	1975	639488	6326251	1604.27	9.73	0.33	24124.06
TB1_shp	1975	639488	6326251	1584.8	29.2	0.49	9630.61
TB1_shp	1975	639488	6326251	1565.33	48.67	1.3	4469.79
TB1_shp	1975	639488	6326251	1545.87	68.13	3.29	2580.48
TB1_shp	1975	639488	6326251	1526.4	87.6	6.12	1810.13
TB1_shp	1975	639488	6326251	1506.93	107.07	7.35	1578.85
TB1_shp	1975	639488	6326251	1487.47	126.53	7.32	1654.08
TB1_shp	1975	639488	6326251	1468	146	6.57	1969.96
TB1_shp	1975	639488	6326251	1448.53	165.47	5.79	2609.14
TB1_shp	1975	639488	6326251	1429.07	184.93	5.35	3610.41
TB1_shp	1975	639488	6326251	1409.6	204.4	5.12	4844.02
TB1_shp	1975	639488	6326251	1390.13	223.87	5.27	6621.17
TB1_shp	1975	639488	6326251	1370.67	243.33	5.62	8655.74
TB1_shp	1975	639488	6326251	1351.2	262.8	6.18	10982.58
TB1_shp	1975	639488	6326251	1331.73	282.27	6.99	13256.8
TB1_shp	1975	639488	6326251	1312	302	7.96	15530.26
TB1_shp	1975	639488	6326251	1292	322	9.15	17352.02
TB1_shp	1975	639488	6326251	1272	342	10.45	18934.35
TB1_shp	1975	639488	6326251	1252	362	11.79	19783.28

TB1_shp	1975	639488	6326251	1232	382	13.15	20165.28
TB1_shp	1975	639488	6326251	1209.9	404.1	14.46	20107.66
TB1_shp	1975	639488	6326251	1185.35	428.65	15.63	19299.18
TB1_shp	1975	639488	6326251	1159.4	454.6	16.55	18188.96
TB1_shp	1975	639488	6326251	1130.9	483.1	17.1	16592.27
TB1_shp	1975	639488	6326251	1100.2	513.8	17.17	14887.83
TB1_shp	1975	639488	6326251	1067.55	546.45	16.86	13086.03
TB1_shp	1975	639488	6326251	1031.75	582.25	15.92	11514.64
TB1_shp	1975	639488	6326251	993.1	620.9	14.72	9997.71
TB1_shp	1975	639488	6326251	951.95	662.05	13.18	8811.3
TB1_shp	1975	639488	6326251	906.85	707.15	11.59	7802.02
TB1_shp	1975	639488	6326251	858.2	755.8	9.95	6912.35
TB1_shp	1975	639488	6326251	806.4	807.6	8.35	6140.02
TB1_shp	1975	639488	6326251	749.6	864.4	6.59	5293.14
TB1_shp	1975	639488	6326251	688.35	925.65	5.57	4763.57
TB1_shp	1975	639488	6326251	623.5	990.5	5.05	4452.78
TB1_shp	1975	639488	6326251	552	1062	4.48	4110.13
TB1_shp	1991.67	639498.7	6326252	1607.6	9.73	0.46	8657.18
TB1_shp	1991.67	639498.7	6326252	1588.13	29.2	0.62	4490.53
TB1_shp	1991.67	639498.7	6326252	1568.66	48.67	1.52	2863.31
TB1_shp	1991.67	639498.7	6326252	1549.2	68.13	3.67	2140.11
TB1_shp	1991.67	639498.7	6326252	1529.73	87.6	6.53	1790.03
TB1_shp	1991.67	639498.7	6326252	1510.26	107.07	7.65	1735.25
TB1_shp	1991.67	639498.7	6326252	1490.8	126.53	7.5	1916.98
TB1_shp	1991.67	639498.7	6326252	1471.33	146	6.67	2325.81
TB1_shp	1991.67	639498.7	6326252	1451.86	165.47	5.85	3069.35
TB1_shp	1991.67	639498.7	6326252	1432.4	184.93	5.4	4183.9
TB1_shp	1991.67	639498.7	6326252	1412.93	204.4	5.17	5532.06
TB1_shp	1991.67	639498.7	6326252	1393.46	223.87	5.33	7411.06
TB1_shp	1991.67	639498.7	6326252	1374	243.33	5.69	9512.48
TB1_shp	1991.67	639498.7	6326252	1354.53	262.8	6.27	11866.8
TB1_shp	1991.67	639498.7	6326252	1335.06	282.27	7.1	14097.74
TB1_shp	1991.67	639498.7	6326252	1315.33	302	8.09	16285.41
TB1_shp	1991.67	639498.7	6326252	1295.33	322	9.31	17961.01
TB1_shp	1991.67	639498.7	6326252	1275.33	342	10.64	19367.83
TB1_shp	1991.67	639498.7	6326252	1255.33	362	11.99	20047.68
TB1_shp	1991.67	639498.7	6326252	1235.33	382	13.35	20264.7
TB1_shp	1991.67	639498.7	6326252	1213.23	404.1	14.66	20061.1
TB1_shp	1991.67	639498.7	6326252	1188.68	428.65	15.81	19146.83
TB1_shp	1991.67	639498.7	6326252	1162.73	454.6	16.69	17961.91
TB1_shp	1991.67	639498.7	6326252	1134.23	483.1	17.19	16337.99
TB1_shp	1991.67	639498.7	6326252	1103.53	513.8	17.19	14634.6
TB1_shp	1991.67	639498.7	6326252	1070.88	546.45	16.81	12855.32
TB1_shp	1991.67	639498.7	6326252	1035.08	582.25	15.81	11316.42
TB1_shp	1991.67	639498.7	6326252	996.43	620.9	14.56	9834.5
TB1_shp	1991.67	639498.7	6326252	955.28	662.05	13	8678.15
TB1_shp	1991.67	639498.7	6326252	910.18	707.15	11.41	7693.96
TB1_shp	1991.67	639498.7	6326252	861.53	755.8	9.8	6826.16
TB1_shp	1991.67	639498.7	6326252	809.73	807.6	8.23	6073.65
TB1_shp	1991.67	639498.7	6326252	752.93	864.4	6.51	5248.51
TB1_shp	1991.67	639498.7	6326252	691.68	925.65	5.5	4730.78
TB1_shp	1991.67	639498.7	6326252	626.83	990.5	5	4424.97

TB1_shp	1991.67	639498.7	6326252	555.33	1062	4.44	4087.81
TB1_shp	2008.33	639515.1	6326252	1613.19	9.73	1.19	529.6
TB1_shp	2008.33	639515.1	6326252	1593.72	29.2	1.32	1196.53
TB1_shp	2008.33	639515.1	6326252	1574.24	48.67	2.35	1620.09
TB1_shp	2008.33	639515.1	6326252	1554.79	68.13	4.47	1758.41
TB1_shp	2008.33	639515.1	6326252	1535.32	87.6	6.95	1809.19
TB1_shp	2008.33	639515.1	6326252	1515.85	107.07	7.78	1957.39
TB1_shp	2008.33	639515.1	6326252	1496.39	126.53	7.5	2277.4
TB1_shp	2008.33	639515.1	6326252	1476.92	146	6.66	2808.05
TB1_shp	2008.33	639515.1	6326252	1457.45	165.47	5.87	3679.42
TB1_shp	2008.33	639515.1	6326252	1437.99	184.93	5.45	4921.11
TB1_shp	2008.33	639515.1	6326252	1418.52	204.4	5.24	6391.04
TB1_shp	2008.33	639515.1	6326252	1399.05	223.87	5.41	8361.81
TB1_shp	2008.33	639515.1	6326252	1379.59	243.33	5.78	10509.35
TB1_shp	2008.33	639515.1	6326252	1360.11	262.8	6.39	12858.45
TB1_shp	2008.33	639515.1	6326252	1340.65	282.27	7.24	15009.05
TB1_shp	2008.33	639515.1	6326252	1320.92	302	8.26	17070.87
TB1_shp	2008.33	639515.1	6326252	1300.92	322	9.5	18570.23
TB1_shp	2008.33	639515.1	6326252	1280.92	342	10.85	19776.68
TB1_shp	2008.33	639515.1	6326252	1260.92	362	12.21	20273.46
TB1_shp	2008.33	639515.1	6326252	1240.92	382	13.58	20318.42
TB1_shp	2008.33	639515.1	6326252	1218.82	404.1	14.88	19966.57
TB1_shp	2008.33	639515.1	6326252	1194.27	428.65	15.99	18952.62
TB1_shp	2008.33	639515.1	6326252	1168.32	454.6	16.83	17700.02
TB1_shp	2008.33	639515.1	6326252	1139.82	483.1	17.26	16057.35
TB1_shp	2008.33	639515.1	6326252	1109.11	513.8	17.19	14361.84
TB1_shp	2008.33	639515.1	6326252	1076.47	546.45	16.74	12610.71
TB1_shp	2008.33	639515.1	6326252	1040.67	582.25	15.69	11108.75
TB1_shp	2008.33	639515.1	6326252	1002.02	620.9	14.39	9665.69
TB1_shp	2008.33	639515.1	6326252	960.87	662.05	12.81	8540.69
TB1_shp	2008.33	639515.1	6326252	915.77	707.15	11.22	7582.71
TB1_shp	2008.33	639515.1	6326252	867.12	755.8	9.62	6737.71
TB1_shp	2008.33	639515.1	6326252	815.32	807.6	8.09	6005.4
TB1_shp	2008.33	639515.1	6326252	758.52	864.4	6.42	5202.4
TB1_shp	2008.33	639515.1	6326252	697.27	925.65	5.44	4696.78
TB1_shp	2008.33	639515.1	6326252	632.42	990.5	4.95	4396.12
TB1_shp	2008.33	639515.1	6326252	560.92	1062	4.41	4064.64
TB1_shp	2025	639537.3	6326251	1621.02	9.73	0.63	2899.03
TB1_shp	2025	639537.3	6326251	1601.55	29.2	1.19	946.53
TB1_shp	2025	639537.3	6326251	1582.08	48.67	1.81	985.76
TB1_shp	2025	639537.3	6326251	1562.62	68.13	3.1	1347.25
TB1_shp	2025	639537.3	6326251	1543.15	87.6	5.13	1678.57
TB1_shp	2025	639537.3	6326251	1523.68	107.07	7.13	1962.6
TB1_shp	2025	639537.3	6326251	1504.22	126.53	7.72	2285.31
TB1_shp	2025	639537.3	6326251	1484.75	146	7.39	2749.49
TB1_shp	2025	639537.3	6326251	1465.28	165.47	6.58	3411.83
TB1_shp	2025	639537.3	6326251	1445.82	184.93	5.87	4427.94
TB1_shp	2025	639537.3	6326251	1426.35	204.4	5.48	5789.03
TB1_shp	2025	639537.3	6326251	1406.88	223.87	5.29	7363.53
TB1_shp	2025	639537.3	6326251	1387.42	243.33	5.5	9402.94
TB1_shp	2025	639537.3	6326251	1367.95	262.8	5.89	11558.87
TB1_shp	2025	639537.3	6326251	1348.48	282.27	6.52	13860.16

TB1_shp	2025	639537.3	6326251	1328.75	302	7.4	15926.98
TB1_shp	2025	639537.3	6326251	1308.75	322	8.46	17849.65
TB1_shp	2025	639537.3	6326251	1288.75	342	9.73	19145.94
TB1_shp	2025	639537.3	6326251	1268.75	362	11.1	20131.62
TB1_shp	2025	639537.3	6326251	1248.75	382	12.46	20437.29
TB1_shp	2025	639537.3	6326251	1226.65	404.1	13.97	20296.65
TB1_shp	2025	639537.3	6326251	1202.1	428.65	15.3	19608.84
TB1_shp	2025	639537.3	6326251	1176.15	454.6	16.42	18441.92
TB1_shp	2025	639537.3	6326251	1147.65	483.1	17.06	16907
TB1_shp	2025	639537.3	6326251	1116.95	513.8	17.44	15129.09
TB1_shp	2025	639537.3	6326251	1084.3	546.45	16.96	13404.91
TB1_shp	2025	639537.3	6326251	1048.5	582.25	16.21	11664.43
TB1_shp	2025	639537.3	6326251	1009.85	620.9	14.91	10171.87
TB1_shp	2025	639537.3	6326251	968.7	662.05	13.38	8929.56
TB1_shp	2025	639537.3	6326251	923.6	707.15	11.69	7815.44
TB1_shp	2025	639537.3	6326251	874.95	755.8	10.09	6972.33
TB1_shp	2025	639537.3	6326251	823.15	807.6	8.54	6210.48
TB1_shp	2025	639537.3	6326251	766.35	864.4	6.91	5429.89
TB1_shp	2025	639537.3	6326251	705.1	925.65	5.53	4752.81
TB1_shp	2025	639537.3	6326251	640.25	990.5	5.04	4457.46
TB1_shp	2025	639537.3	6326251	568.75	1062	4.51	4131.83
TB1_shp	2041.67	639559.4	6326251	1628.85	9.73	0.17	5888.07
TB1_shp	2041.67	639559.4	6326251	1609.39	29.2	0.71	1803.98
TB1_shp	2041.67	639559.4	6326251	1589.91	48.67	1.81	1338.47
TB1_shp	2041.67	639559.4	6326251	1570.45	68.13	3.52	1556.89
TB1_shp	2041.67	639559.4	6326251	1550.98	87.6	5.55	1908.06
TB1_shp	2041.67	639559.4	6326251	1531.52	107.07	7.18	2316.92
TB1_shp	2041.67	639559.4	6326251	1512.05	126.53	7.54	2782.3
TB1_shp	2041.67	639559.4	6326251	1492.58	146	7.15	3395.1
TB1_shp	2041.67	639559.4	6326251	1473.11	165.47	6.42	4209.54
TB1_shp	2041.67	639559.4	6326251	1453.66	184.93	5.8	5375.97
TB1_shp	2041.67	639559.4	6326251	1434.18	204.4	5.48	6862.85
TB1_shp	2041.67	639559.4	6326251	1414.71	223.87	5.35	8542.69
TB1_shp	2041.67	639559.4	6326251	1395.26	243.33	5.59	10615.96
TB1_shp	2041.67	639559.4	6326251	1375.78	262.8	6.01	12749.48
TB1_shp	2041.67	639559.4	6326251	1356.31	282.27	6.68	14957.51
TB1_shp	2041.67	639559.4	6326251	1336.58	302	7.59	16863.39
TB1_shp	2041.67	639559.4	6326251	1316.58	322	8.68	18579.72
TB1_shp	2041.67	639559.4	6326251	1296.58	342	9.97	19652.25
TB1_shp	2041.67	639559.4	6326251	1276.58	362	11.35	20405.51
TB1_shp	2041.67	639559.4	6326251	1256.58	382	12.71	20519.33
TB1_shp	2041.67	639559.4	6326251	1234.48	404.1	14.2	20195.24
TB1_shp	2041.67	639559.4	6326251	1209.93	428.65	15.5	19375.47
TB1_shp	2041.67	639559.4	6326251	1183.98	454.6	16.57	18128.51
TB1_shp	2041.67	639559.4	6326251	1155.48	483.1	17.13	16568.84
TB1_shp	2041.67	639559.4	6326251	1124.78	513.8	17.43	14795.31
TB1_shp	2041.67	639559.4	6326251	1092.14	546.45	16.89	13110.6
TB1_shp	2041.67	639559.4	6326251	1056.33	582.25	16.07	11415.07
TB1_shp	2041.67	639559.4	6326251	1017.68	620.9	14.72	9970.38
TB1_shp	2041.67	639559.4	6326251	976.53	662.05	13.17	8767.61
TB1_shp	2041.67	639559.4	6326251	931.43	707.15	11.47	7688.51
TB1_shp	2041.67	639559.4	6326251	882.78	755.8	9.89	6870.66

TB1_shp	2041.67	639559.4	6326251	830.98	807.6	8.38	6131.18
TB1_shp	2041.67	639559.4	6326251	774.18	864.4	6.8	5373.29
TB1_shp	2041.67	639559.4	6326251	712.93	925.65	5.46	4715.02
TB1_shp	2041.67	639559.4	6326251	648.08	990.5	4.99	4425.11
TB1_shp	2041.67	639559.4	6326251	576.58	1062	4.47	4105.48
TB1_shp	2058.33	639581.6	6326251	1636.69	9.73	0.1	703.37
TB1_shp	2058.33	639581.6	6326251	1617.22	29.2	0.2	3381.61
TB1_shp	2058.33	639581.6	6326251	1597.75	48.67	0.64	2425.38
TB1_shp	2058.33	639581.6	6326251	1578.29	68.13	1.85	2002.03
TB1_shp	2058.33	639581.6	6326251	1558.82	87.6	3.79	2097.65
TB1_shp	2058.33	639581.6	6326251	1539.35	107.07	5.79	2413.29
TB1_shp	2058.33	639581.6	6326251	1519.89	126.53	7.09	2885.83
TB1_shp	2058.33	639581.6	6326251	1500.42	146	7.27	3463.31
TB1_shp	2058.33	639581.6	6326251	1480.95	165.47	6.86	4208.79
TB1_shp	2058.33	639581.6	6326251	1461.49	184.93	6.2	5164.23
TB1_shp	2058.33	639581.6	6326251	1442.02	204.4	5.68	6473.45
TB1_shp	2058.33	639581.6	6326251	1422.55	223.87	5.44	8059.04
TB1_shp	2058.33	639581.6	6326251	1403.09	243.33	5.37	9808.94
TB1_shp	2058.33	639581.6	6326251	1383.62	262.8	5.66	11873.19
TB1_shp	2058.33	639581.6	6326251	1364.15	282.27	6.12	13937.86
TB1_shp	2058.33	639581.6	6326251	1344.42	302	6.83	16030.67
TB1_shp	2058.33	639581.6	6326251	1324.42	322	7.8	17757.67
TB1_shp	2058.33	639581.6	6326251	1304.42	342	8.91	19237.23
TB1_shp	2058.33	639581.6	6326251	1284.42	362	10.22	20061.14
TB1_shp	2058.33	639581.6	6326251	1264.42	382	11.62	20579.33
TB1_shp	2058.33	639581.6	6326251	1242.32	404.1	13.12	20449.61
TB1_shp	2058.33	639581.6	6326251	1217.77	428.65	14.75	19903.92
TB1_shp	2058.33	639581.6	6326251	1191.82	454.6	15.93	18761.51
TB1_shp	2058.33	639581.6	6326251	1163.32	483.1	17.03	17321.64
TB1_shp	2058.33	639581.6	6326251	1132.62	513.8	17.26	15567.27
TB1_shp	2058.33	639581.6	6326251	1099.97	546.45	17.18	13784.34
TB1_shp	2058.33	639581.6	6326251	1064.17	582.25	16.45	12001.34
TB1_shp	2058.33	639581.6	6326251	1025.52	620.9	15.21	10474.83
TB1_shp	2058.33	639581.6	6326251	984.37	662.05	13.7	9090.88
TB1_shp	2058.33	639581.6	6326251	939.27	707.15	11.95	7972.62
TB1_shp	2058.33	639581.6	6326251	890.62	755.8	10.32	7088.57
TB1_shp	2058.33	639581.6	6326251	838.82	807.6	8.76	6305.85
TB1_shp	2058.33	639581.6	6326251	782.02	864.4	7.22	5570.78
TB1_shp	2058.33	639581.6	6326251	720.77	925.65	5.56	4778.12
TB1_shp	2058.33	639581.6	6326251	655.92	990.5	5.07	4478.29
TB1_shp	2058.33	639581.6	6326251	584.42	1062	4.56	4164.79
TB1_shp	2075	639603.8	6326250	1644.52	9.73	0.41	606.64
TB1_shp	2075	639603.8	6326250	1625.05	29.2	0.49	2369.96
TB1_shp	2075	639603.8	6326250	1605.58	48.67	1.02	2879.14
TB1_shp	2075	639603.8	6326250	1586.12	68.13	2.36	2757.46
TB1_shp	2075	639603.8	6326250	1566.65	87.6	4.32	2828.86
TB1_shp	2075	639603.8	6326250	1547.18	107.07	6.07	3124.89
TB1_shp	2075	639603.8	6326250	1527.72	126.53	6.98	3650.11
TB1_shp	2075	639603.8	6326250	1508.25	146	6.95	4328
TB1_shp	2075	639603.8	6326250	1488.78	165.47	6.5	5198.66
TB1_shp	2075	639603.8	6326250	1469.32	184.93	5.93	6289.24
TB1_shp	2075	639603.8	6326250	1449.85	204.4	5.52	7719.6

TB1_shp	2075	639603.8	6326250	1430.38	223.87	5.36	9377.78
TB1_shp	2075	639603.8	6326250	1410.92	243.33	5.37	11166.11
TB1_shp	2075	639603.8	6326250	1391.45	262.8	5.71	13170.7
TB1_shp	2075	639603.8	6326250	1371.98	282.27	6.22	15120.42
TB1_shp	2075	639603.8	6326250	1352.25	302	6.97	17022.26
TB1_shp	2075	639603.8	6326250	1332.25	322	7.98	18517.67
TB1_shp	2075	639603.8	6326250	1312.25	342	9.13	19741.78
TB1_shp	2075	639603.8	6326250	1292.25	362	10.46	20329.41
TB1_shp	2075	639603.8	6326250	1272.25	382	11.87	20620.26
TB1_shp	2075	639603.8	6326250	1250.15	404.1	13.35	20307.78
TB1_shp	2075	639603.8	6326250	1225.6	428.65	14.95	19598.22
TB1_shp	2075	639603.8	6326250	1199.65	454.6	16.06	18383.04
TB1_shp	2075	639603.8	6326250	1171.15	483.1	17.09	16896.13
TB1_shp	2075	639603.8	6326250	1140.45	513.8	17.23	15171.23
TB1_shp	2075	639603.8	6326250	1107.8	546.45	17.07	13428.16
TB1_shp	2075	639603.8	6326250	1072	582.25	16.26	11705.36
TB1_shp	2075	639603.8	6326250	1033.35	620.9	14.98	10235.52
TB1_shp	2075	639603.8	6326250	992.2	662.05	13.44	8904.54
TB1_shp	2075	639603.8	6326250	947.1	707.15	11.7	7826.8
TB1_shp	2075	639603.8	6326250	898.45	755.8	10.1	6972.96
TB1_shp	2075	639603.8	6326250	846.65	807.6	8.58	6215.81
TB1_shp	2075	639603.8	6326250	789.85	864.4	7.09	5503.73
TB1_shp	2075	639603.8	6326250	728.6	925.65	5.49	4735.87
TB1_shp	2075	639603.8	6326250	663.75	990.5	5.01	4442.3
TB1_shp	2075	639603.8	6326250	592.25	1062	4.52	4135.06
TB1_shp	2091.67	639625.9	6326249	1652.35	9.73	1.22	540.5
TB1_shp	2091.67	639625.9	6326249	1632.88	29.2	1.13	2347.35
TB1_shp	2091.67	639625.9	6326249	1613.41	48.67	1.84	3317.71
TB1_shp	2091.67	639625.9	6326249	1593.95	68.13	3.33	3434.12
TB1_shp	2091.67	639625.9	6326249	1574.48	87.6	5.14	3567.54
TB1_shp	2091.67	639625.9	6326249	1555.01	107.07	6.41	3906.75
TB1_shp	2091.67	639625.9	6326249	1535.55	126.53	6.81	4516.49
TB1_shp	2091.67	639625.9	6326249	1516.08	146	6.57	5305.66
TB1_shp	2091.67	639625.9	6326249	1496.61	165.47	6.09	6298.88
TB1_shp	2091.67	639625.9	6326249	1477.15	184.93	5.6	7511.2
TB1_shp	2091.67	639625.9	6326249	1457.68	204.4	5.3	9033.76
TB1_shp	2091.67	639625.9	6326249	1438.21	223.87	5.23	10725.27
TB1_shp	2091.67	639625.9	6326249	1418.75	243.33	5.32	12507.46
TB1_shp	2091.67	639625.9	6326249	1399.28	262.8	5.72	14403.22
TB1_shp	2091.67	639625.9	6326249	1379.81	282.27	6.29	16195.94
TB1_shp	2091.67	639625.9	6326249	1360.08	302	7.1	17873.84
TB1_shp	2091.67	639625.9	6326249	1340.08	322	8.15	19121.49
TB1_shp	2091.67	639625.9	6326249	1320.08	342	9.33	20084.8
TB1_shp	2091.67	639625.9	6326249	1300.08	362	10.68	20447.2
TB1_shp	2091.67	639625.9	6326249	1280.08	382	12.1	20529.4
TB1_shp	2091.67	639625.9	6326249	1257.98	404.1	13.56	20058.17
TB1_shp	2091.67	639625.9	6326249	1233.43	428.65	15.11	19213.3
TB1_shp	2091.67	639625.9	6326249	1207.48	454.6	16.16	17947.14
TB1_shp	2091.67	639625.9	6326249	1178.98	483.1	17.11	16434.38
TB1_shp	2091.67	639625.9	6326249	1148.28	513.8	17.17	14751.55
TB1_shp	2091.67	639625.9	6326249	1115.63	546.45	16.92	13058.73
TB1_shp	2091.67	639625.9	6326249	1079.83	582.25	16.05	11401.53

TB1_shp	2091.67	639625.9	6326249	1041.18	620.9	14.72	9990.99
TB1_shp	2091.67	639625.9	6326249	1000.03	662.05	13.18	8714.59
TB1_shp	2091.67	639625.9	6326249	954.93	707.15	11.45	7678.89
TB1_shp	2091.67	639625.9	6326249	906.28	755.8	9.88	6855.99
TB1_shp	2091.67	639625.9	6326249	854.48	807.6	8.39	6124.76
TB1_shp	2091.67	639625.9	6326249	797.68	864.4	6.95	5435.69
TB1_shp	2091.67	639625.9	6326249	736.43	925.65	5.41	4692.65
TB1_shp	2091.67	639625.9	6326249	671.58	990.5	4.94	4405.44
TB1_shp	2091.67	639625.9	6326249	600.08	1062	4.47	4104.6
TB1_shp	2108.33	639645.8	6326249	1659.02	9.73	6.01	1205.24
TB1_shp	2108.33	639645.8	6326249	1639.55	29.2	2.6	1728.82
TB1_shp	2108.33	639645.8	6326249	1620.08	48.67	2.17	3219.51
TB1_shp	2108.33	639645.8	6326249	1600.62	68.13	3.1	3769.01
TB1_shp	2108.33	639645.8	6326249	1581.15	87.6	4.64	3905.8
TB1_shp	2108.33	639645.8	6326249	1561.68	107.07	6	4154.74
TB1_shp	2108.33	639645.8	6326249	1542.22	126.53	6.62	4618.88
TB1_shp	2108.33	639645.8	6326249	1522.75	146	6.54	5372.37
TB1_shp	2108.33	639645.8	6326249	1503.28	165.47	6.11	6300.49
TB1_shp	2108.33	639645.8	6326249	1483.82	184.93	5.63	7420.47
TB1_shp	2108.33	639645.8	6326249	1464.35	204.4	5.22	8742.74
TB1_shp	2108.33	639645.8	6326249	1444.88	223.87	5.04	10326.64
TB1_shp	2108.33	639645.8	6326249	1425.42	243.33	5.07	12012.36
TB1_shp	2108.33	639645.8	6326249	1405.95	262.8	5.24	13747.9
TB1_shp	2108.33	639645.8	6326249	1386.48	282.27	5.71	15495.37
TB1_shp	2108.33	639645.8	6326249	1366.75	302	6.36	17119.81
TB1_shp	2108.33	639645.8	6326249	1346.75	322	7.24	18575.27
TB1_shp	2108.33	639645.8	6326249	1326.75	342	8.33	19553.25
TB1_shp	2108.33	639645.8	6326249	1306.75	362	9.55	20263.82
TB1_shp	2108.33	639645.8	6326249	1286.75	382	10.92	20398.82
TB1_shp	2108.33	639645.8	6326249	1264.65	404.1	12.48	20286.33
TB1_shp	2108.33	639645.8	6326249	1240.1	428.65	14.04	19501.77
TB1_shp	2108.33	639645.8	6326249	1214.15	454.6	15.62	18491.93
TB1_shp	2108.33	639645.8	6326249	1185.65	483.1	16.48	16976.49
TB1_shp	2108.33	639645.8	6326249	1154.95	513.8	17.07	15345.23
TB1_shp	2108.33	639645.8	6326249	1122.3	546.45	17.03	13612.52
TB1_shp	2108.33	639645.8	6326249	1086.5	582.25	16.3	11954.83
TB1_shp	2108.33	639645.8	6326249	1047.85	620.9	15.18	10361.61
TB1_shp	2108.33	639645.8	6326249	1006.7	662.05	13.62	9054.29
TB1_shp	2108.33	639645.8	6326249	961.6	707.15	11.91	7958.36
TB1_shp	2108.33	639645.8	6326249	912.95	755.8	10.22	7022.73
TB1_shp	2108.33	639645.8	6326249	861.15	807.6	8.69	6265.01
TB1_shp	2108.33	639645.8	6326249	804.35	864.4	7.3	5595.11
TB1_shp	2108.33	639645.8	6326249	743.1	925.65	5.81	4876.89
TB1_shp	2108.33	639645.8	6326249	678.25	990.5	5.01	4448
TB1_shp	2108.33	639645.8	6326249	606.75	1062	4.55	4153.66
TB1_shp	2125	639663.3	6326247	1664.52	9.73	3.67	4914.25
TB1_shp	2125	639663.3	6326247	1645.05	29.2	2.95	3690.47
TB1_shp	2125	639663.3	6326247	1625.58	48.67	3.23	3772.11
TB1_shp	2125	639663.3	6326247	1606.12	68.13	4.46	3838.09
TB1_shp	2125	639663.3	6326247	1586.65	87.6	5.76	4058.02
TB1_shp	2125	639663.3	6326247	1567.18	107.07	6.47	4509.13
TB1_shp	2125	639663.3	6326247	1547.72	126.53	6.47	5175.23

TB1_shp	2125	639663.3	6326247	1528.25	146	6.04	6127.87
TB1_shp	2125	639663.3	6326247	1508.78	165.47	5.53	7221.09
TB1_shp	2125	639663.3	6326247	1489.32	184.93	5.11	8472.97
TB1_shp	2125	639663.3	6326247	1469.85	204.4	4.82	9892.58
TB1_shp	2125	639663.3	6326247	1450.38	223.87	4.74	11507.34
TB1_shp	2125	639663.3	6326247	1430.92	243.33	4.87	13154.8
TB1_shp	2125	639663.3	6326247	1411.45	262.8	5.13	14808.95
TB1_shp	2125	639663.3	6326247	1391.98	282.27	5.67	16381.69
TB1_shp	2125	639663.3	6326247	1372.25	302	6.38	17799.97
TB1_shp	2125	639663.3	6326247	1352.25	322	7.32	19008.41
TB1_shp	2125	639663.3	6326247	1332.25	342	8.46	19748.88
TB1_shp	2125	639663.3	6326247	1312.25	362	9.71	20227.27
TB1_shp	2125	639663.3	6326247	1292.25	382	11.08	20185.96
TB1_shp	2125	639663.3	6326247	1270.15	404.1	12.64	19904.03
TB1_shp	2125	639663.3	6326247	1245.6	428.65	14.15	19024.9
TB1_shp	2125	639663.3	6326247	1219.65	454.6	15.67	17941.52
TB1_shp	2125	639663.3	6326247	1191.15	483.1	16.45	16445.69
TB1_shp	2125	639663.3	6326247	1160.45	513.8	16.95	14850.7
TB1_shp	2125	639663.3	6326247	1127.8	546.45	16.83	13185.16
TB1_shp	2125	639663.3	6326247	1092	582.25	16.03	11601.6
TB1_shp	2125	639663.3	6326247	1053.35	620.9	14.87	10082.93
TB1_shp	2125	639663.3	6326247	1012.2	662.05	13.3	8836.77
TB1_shp	2125	639663.3	6326247	967.1	707.15	11.62	7789.41
TB1_shp	2125	639663.3	6326247	918.45	755.8	9.96	6893.02
TB1_shp	2125	639663.3	6326247	866.65	807.6	8.48	6164.6
TB1_shp	2125	639663.3	6326247	809.85	864.4	7.14	5517.78
TB1_shp	2125	639663.3	6326247	748.6	925.65	5.71	4824.21
TB1_shp	2125	639663.3	6326247	683.75	990.5	4.94	4407.9
TB1_shp	2125	639663.3	6326247	612.25	1062	4.49	4120.15
TB1_shp	2141.67	639680.8	6326245	1670.02	9.73	3.05	2147.42
TB1_shp	2141.67	639680.8	6326245	1650.55	29.2	3.06	2450.44
TB1_shp	2141.67	639680.8	6326245	1631.08	48.67	3.84	2895.82
TB1_shp	2141.67	639680.8	6326245	1611.62	68.13	5.05	3342.22
TB1_shp	2141.67	639680.8	6326245	1592.15	87.6	5.93	3909.44
TB1_shp	2141.67	639680.8	6326245	1572.68	107.07	6.14	4651.54
TB1_shp	2141.67	639680.8	6326245	1553.22	126.53	5.84	5562.09
TB1_shp	2141.67	639680.8	6326245	1533.75	146	5.34	6738.14
TB1_shp	2141.67	639680.8	6326245	1514.28	165.47	4.89	8002.84
TB1_shp	2141.67	639680.8	6326245	1494.82	184.93	4.58	9379.19
TB1_shp	2141.67	639680.8	6326245	1475.35	204.4	4.42	10877.94
TB1_shp	2141.67	639680.8	6326245	1455.88	223.87	4.45	12494.97
TB1_shp	2141.67	639680.8	6326245	1436.42	243.33	4.67	14079.13
TB1_shp	2141.67	639680.8	6326245	1416.95	262.8	5.02	15629.68
TB1_shp	2141.67	639680.8	6326245	1397.48	282.27	5.63	17015.55
TB1_shp	2141.67	639680.8	6326245	1377.75	302	6.41	18227.1
TB1_shp	2141.67	639680.8	6326245	1357.75	322	7.4	19203.29
TB1_shp	2141.67	639680.8	6326245	1337.75	342	8.58	19730.53
TB1_shp	2141.67	639680.8	6326245	1317.75	362	9.86	20006.33
TB1_shp	2141.67	639680.8	6326245	1297.75	382	11.23	19820.69
TB1_shp	2141.67	639680.8	6326245	1275.65	404.1	12.78	19405.77
TB1_shp	2141.67	639680.8	6326245	1251.1	428.65	14.23	18464.81
TB1_shp	2141.67	639680.8	6326245	1225.15	454.6	15.67	17340.14

TB1_shp	2141.67	639680.8	6326245	1196.65	483.1	16.37	15881.61
TB1_shp	2141.67	639680.8	6326245	1165.95	513.8	16.78	14338.17
TB1_shp	2141.67	639680.8	6326245	1133.3	546.45	16.58	12748.91
TB1_shp	2141.67	639680.8	6326245	1097.5	582.25	15.73	11243.99
TB1_shp	2141.67	639680.8	6326245	1058.85	620.9	14.53	9802.61
TB1_shp	2141.67	639680.8	6326245	1017.7	662.05	12.96	8619.18
TB1_shp	2141.67	639680.8	6326245	972.6	707.15	11.31	7620.5
TB1_shp	2141.67	639680.8	6326245	923.95	755.8	9.7	6763.06
TB1_shp	2141.67	639680.8	6326245	872.15	807.6	8.27	6063.9
TB1_shp	2141.67	639680.8	6326245	815.35	864.4	6.98	5439.97
TB1_shp	2141.67	639680.8	6326245	754.1	925.65	5.61	4770.85
TB1_shp	2141.67	639680.8	6326245	689.25	990.5	4.87	4367.09
TB1_shp	2141.67	639680.8	6326245	617.75	1062	4.44	4085.99
TB1_shp	2158.33	639698.3	6326244	1675.52	9.73	0.1	1516.15
TB1_shp	2158.33	639698.3	6326244	1656.05	29.2	0.52	1169.97
TB1_shp	2158.33	639698.3	6326244	1636.58	48.67	1.46	1536.62
TB1_shp	2158.33	639698.3	6326244	1617.12	68.13	2.76	2136.16
TB1_shp	2158.33	639698.3	6326244	1597.65	87.6	4.1	2848.9
TB1_shp	2158.33	639698.3	6326244	1578.18	107.07	4.95	3694.49
TB1_shp	2158.33	639698.3	6326244	1558.72	126.53	5.14	4689.15
TB1_shp	2158.33	639698.3	6326244	1539.25	146	4.91	5821.57
TB1_shp	2158.33	639698.3	6326244	1519.78	165.47	4.55	7198.56
TB1_shp	2158.33	639698.3	6326244	1500.32	184.93	4.26	8611.02
TB1_shp	2158.33	639698.3	6326244	1480.85	204.4	4.08	10087.34
TB1_shp	2158.33	639698.3	6326244	1461.38	223.87	4.03	11638.13
TB1_shp	2158.33	639698.3	6326244	1441.92	243.33	4.17	13231.59
TB1_shp	2158.33	639698.3	6326244	1422.45	262.8	4.48	14734.39
TB1_shp	2158.33	639698.3	6326244	1402.98	282.27	4.9	16167.69
TB1_shp	2158.33	639698.3	6326244	1383.25	302	5.59	17389.56
TB1_shp	2158.33	639698.3	6326244	1363.25	322	6.45	18412.43
TB1_shp	2158.33	639698.3	6326244	1343.25	342	7.49	19179.48
TB1_shp	2158.33	639698.3	6326244	1323.25	362	8.71	19509.95
TB1_shp	2158.33	639698.3	6326244	1303.25	382	10.02	19622.95
TB1_shp	2158.33	639698.3	6326244	1281.15	404.1	11.53	19262.5
TB1_shp	2158.33	639698.3	6326244	1256.6	428.65	13.21	18687.91
TB1_shp	2158.33	639698.3	6326244	1230.65	454.6	14.6	17552.87
TB1_shp	2158.33	639698.3	6326244	1202.15	483.1	15.81	16253.71
TB1_shp	2158.33	639698.3	6326244	1171.45	513.8	16.46	14741.89
TB1_shp	2158.33	639698.3	6326244	1138.8	546.45	16.44	13208.54
TB1_shp	2158.33	639698.3	6326244	1103	582.25	15.96	11623.77
TB1_shp	2158.33	639698.3	6326244	1064.35	620.9	14.81	10158.75
TB1_shp	2158.33	639698.3	6326244	1023.2	662.05	13.34	8932.04
TB1_shp	2158.33	639698.3	6326244	978.1	707.15	11.68	7825
TB1_shp	2158.33	639698.3	6326244	929.45	755.8	9.97	6891.83
TB1_shp	2158.33	639698.3	6326244	877.65	807.6	8.58	6214.79
TB1_shp	2158.33	639698.3	6326244	820.85	864.4	7.25	5566.7
TB1_shp	2158.33	639698.3	6326244	759.6	925.65	5.93	4921.9
TB1_shp	2158.33	639698.3	6326244	694.75	990.5	4.92	4400.42
TB1_shp	2158.33	639698.3	6326244	623.25	1062	4.5	4126.03
TB1_shp	2175	639715.8	6326242	1681.02	9.73	0.1	1945.05
TB1_shp	2175	639715.8	6326242	1661.55	29.2	0.1	1279.37
TB1_shp	2175	639715.8	6326242	1642.08	48.67	0.42	1362.84

TB1_shp	2175	639715.8	6326242	1622.62	68.13	1.46	1852.2
TB1_shp	2175	639715.8	6326242	1603.15	87.6	2.71	2603.44
TB1_shp	2175	639715.8	6326242	1583.68	107.07	3.63	3570.69
TB1_shp	2175	639715.8	6326242	1564.22	126.53	4	4717.95
TB1_shp	2175	639715.8	6326242	1544.75	146	3.98	6001.59
TB1_shp	2175	639715.8	6326242	1525.28	165.47	3.82	7522.06
TB1_shp	2175	639715.8	6326242	1505.82	184.93	3.68	9038.24
TB1_shp	2175	639715.8	6326242	1486.35	204.4	3.64	10576.39
TB1_shp	2175	639715.8	6326242	1466.88	223.87	3.7	12147.37
TB1_shp	2175	639715.8	6326242	1447.42	243.33	3.94	13698.56
TB1_shp	2175	639715.8	6326242	1427.95	262.8	4.32	15108.89
TB1_shp	2175	639715.8	6326242	1408.48	282.27	4.81	16421.25
TB1_shp	2175	639715.8	6326242	1388.75	302	5.56	17476.37
TB1_shp	2175	639715.8	6326242	1368.75	322	6.47	18326.27
TB1_shp	2175	639715.8	6326242	1348.75	342	7.57	18915.7
TB1_shp	2175	639715.8	6326242	1328.75	362	8.81	19102.79
TB1_shp	2175	639715.8	6326242	1308.75	382	10.14	19089.47
TB1_shp	2175	639715.8	6326242	1286.65	404.1	11.62	18647.55
TB1_shp	2175	639715.8	6326242	1262.1	428.65	13.27	18003.47
TB1_shp	2175	639715.8	6326242	1236.15	454.6	14.56	16878.18
TB1_shp	2175	639715.8	6326242	1207.65	483.1	15.68	15607.87
TB1_shp	2175	639715.8	6326242	1176.95	513.8	16.24	14165.86
TB1_shp	2175	639715.8	6326242	1144.3	546.45	16.14	12716.5
TB1_shp	2175	639715.8	6326242	1108.5	582.25	15.6	11223.69
TB1_shp	2175	639715.8	6326242	1069.85	620.9	14.42	9844.18
TB1_shp	2175	639715.8	6326242	1028.7	662.05	12.96	8686.33
TB1_shp	2175	639715.8	6326242	983.6	707.15	11.34	7638.51
TB1_shp	2175	639715.8	6326242	934.95	755.8	9.68	6750.86
TB1_shp	2175	639715.8	6326242	883.15	807.6	8.35	6102.94
TB1_shp	2175	639715.8	6326242	826.35	864.4	7.08	5480.52
TB1_shp	2175	639715.8	6326242	765.1	925.65	5.82	4859.78
TB1_shp	2175	639715.8	6326242	700.25	990.5	4.85	4356.6
TB1_shp	2175	639715.8	6326242	628.75	1062	4.44	4088.99
TB1_shp	2191.67	639733.3	6326241	1686.52	9.73	0.1	2869.28
TB1_shp	2191.67	639733.3	6326241	1667.05	29.2	0.1	1637.74
TB1_shp	2191.67	639733.3	6326241	1647.58	48.67	0.1	1491.09
TB1_shp	2191.67	639733.3	6326241	1628.12	68.13	0.74	1869.32
TB1_shp	2191.67	639733.3	6326241	1608.65	87.6	1.78	2586.34
TB1_shp	2191.67	639733.3	6326241	1589.18	107.07	2.66	3576.75
TB1_shp	2191.67	639733.3	6326241	1569.72	126.53	3.12	4782.29
TB1_shp	2191.67	639733.3	6326241	1550.25	146	3.25	6136.08
TB1_shp	2191.67	639733.3	6326241	1530.78	165.47	3.24	7728.13
TB1_shp	2191.67	639733.3	6326241	1511.32	184.93	3.24	9292.11
TB1_shp	2191.67	639733.3	6326241	1491.85	204.4	3.3	10848.36
TB1_shp	2191.67	639733.3	6326241	1472.38	223.87	3.45	12406.11
TB1_shp	2191.67	639733.3	6326241	1452.92	243.33	3.75	13896.88
TB1_shp	2191.67	639733.3	6326241	1433.45	262.8	4.21	15210.64
TB1_shp	2191.67	639733.3	6326241	1413.98	282.27	4.75	16406.57
TB1_shp	2191.67	639733.3	6326241	1394.25	302	5.56	17317.36
TB1_shp	2191.67	639733.3	6326241	1374.25	322	6.52	18022.49
TB1_shp	2191.67	639733.3	6326241	1354.25	342	7.65	18468.95
TB1_shp	2191.67	639733.3	6326241	1334.25	362	8.92	18547.3

TB1_shp	2191.67	639733.3	6326241	1314.25	382	10.25	18442.27
TB1_shp	2191.67	639733.3	6326241	1292.15	404.1	11.69	17950.26
TB1_shp	2191.67	639733.3	6326241	1267.6	428.65	13.29	17269.05
TB1_shp	2191.67	639733.3	6326241	1241.65	454.6	14.49	16174.73
TB1_shp	2191.67	639733.3	6326241	1213.15	483.1	15.5	14951.85
TB1_shp	2191.67	639733.3	6326241	1182.45	513.8	15.96	13589.64
TB1_shp	2191.67	639733.3	6326241	1149.8	546.45	15.79	12227.57
TB1_shp	2191.67	639733.3	6326241	1114	582.25	15.2	10827.43
TB1_shp	2191.67	639733.3	6326241	1075.35	620.9	14.01	9533.65
TB1_shp	2191.67	639733.3	6326241	1034.2	662.05	12.57	8443.54
TB1_shp	2191.67	639733.3	6326241	989.1	707.15	10.98	7453.48
TB1_shp	2191.67	639733.3	6326241	940.45	755.8	9.39	6610.37
TB1_shp	2191.67	639733.3	6326241	888.65	807.6	8.12	5991.6
TB1_shp	2191.67	639733.3	6326241	831.85	864.4	6.91	5394.61
TB1_shp	2191.67	639733.3	6326241	770.6	925.65	5.71	4797.5
TB1_shp	2191.67	639733.3	6326241	705.75	990.5	4.78	4312.33
TB1_shp	2191.67	639733.3	6326241	634.25	1062	4.39	4051.55
TB1_shp	2208.33	639749	6326239	1692.19	9.73	0.1	2088.02
TB1_shp	2208.33	639749	6326239	1672.72	29.2	0.1	1782.38
TB1_shp	2208.33	639749	6326239	1653.25	48.67	0.1	1728.36
TB1_shp	2208.33	639749	6326239	1633.79	68.13	0.5	2069.2
TB1_shp	2208.33	639749	6326239	1614.32	87.6	1.39	2741.76
TB1_shp	2208.33	639749	6326239	1594.85	107.07	2.17	3700.22
TB1_shp	2208.33	639749	6326239	1575.39	126.53	2.61	4889.3
TB1_shp	2208.33	639749	6326239	1555.92	146	2.79	6238.71
TB1_shp	2208.33	639749	6326239	1536.45	165.47	2.86	7830.99
TB1_shp	2208.33	639749	6326239	1516.99	184.93	2.93	9387.66
TB1_shp	2208.33	639749	6326239	1497.52	204.4	3.07	10921.34
TB1_shp	2208.33	639749	6326239	1478.05	223.87	3.28	12437.7
TB1_shp	2208.33	639749	6326239	1458.59	243.33	3.65	13856.17
TB1_shp	2208.33	639749	6326239	1439.12	262.8	4.15	15075.47
TB1_shp	2208.33	639749	6326239	1419.65	282.27	4.75	16165.05
TB1_shp	2208.33	639749	6326239	1399.92	302	5.6	16954.13
TB1_shp	2208.33	639749	6326239	1379.92	322	6.6	17542.09
TB1_shp	2208.33	639749	6326239	1359.92	342	7.77	17878.75
TB1_shp	2208.33	639749	6326239	1339.92	362	9.04	17879.62
TB1_shp	2208.33	639749	6326239	1319.92	382	10.35	17713.21
TB1_shp	2208.33	639749	6326239	1297.82	404.1	11.75	17197.41
TB1_shp	2208.33	639749	6326239	1273.27	428.65	13.28	16505.65
TB1_shp	2208.33	639749	6326239	1247.32	454.6	14.38	15458.18
TB1_shp	2208.33	639749	6326239	1218.82	483.1	15.29	14295.68
TB1_shp	2208.33	639749	6326239	1188.12	513.8	15.65	13017.58
TB1_shp	2208.33	639749	6326239	1155.47	546.45	15.41	11744.6
TB1_shp	2208.33	639749	6326239	1119.67	582.25	14.76	10437.39
TB1_shp	2208.33	639749	6326239	1081.02	620.9	13.57	9227.31
TB1_shp	2208.33	639749	6326239	1039.87	662.05	12.16	8203.77
TB1_shp	2208.33	639749	6326239	994.77	707.15	10.62	7270.69
TB1_shp	2208.33	639749	6326239	946.12	755.8	9.09	6471.51
TB1_shp	2208.33	639749	6326239	894.32	807.6	7.88	5881.22
TB1_shp	2208.33	639749	6326239	837.52	864.4	6.73	5309.13
TB1_shp	2208.33	639749	6326239	776.27	925.65	5.59	4735.21
TB1_shp	2208.33	639749	6326239	711.42	990.5	4.7	4267.77

TB1_shp	2208.33	639749	6326239	639.92	1062	4.33	4013.81
TB1_shp	2225	639763	6326236	1698.02	9.73	0.1	1157.75
TB1_shp	2225	639763	6326236	1678.55	29.2	0.1	2096.89
TB1_shp	2225	639763	6326236	1659.08	48.67	0.1	2219.67
TB1_shp	2225	639763	6326236	1639.62	68.13	0.1	2195.18
TB1_shp	2225	639763	6326236	1620.15	87.6	0.65	2460.33
TB1_shp	2225	639763	6326236	1600.68	107.07	1.47	3043.3
TB1_shp	2225	639763	6326236	1581.22	126.53	2.1	3912.45
TB1_shp	2225	639763	6326236	1561.75	146	2.44	5023.08
TB1_shp	2225	639763	6326236	1542.28	165.47	2.58	6307.4
TB1_shp	2225	639763	6326236	1522.82	184.93	2.67	7841.53
TB1_shp	2225	639763	6326236	1503.35	204.4	2.78	9347.73
TB1_shp	2225	639763	6326236	1483.88	223.87	2.96	10827.34
TB1_shp	2225	639763	6326236	1464.42	243.33	3.22	12280.61
TB1_shp	2225	639763	6326236	1444.95	262.8	3.62	13618.99
TB1_shp	2225	639763	6326236	1425.48	282.27	4.17	14748.56
TB1_shp	2225	639763	6326236	1405.75	302	4.83	15752.89
TB1_shp	2225	639763	6326236	1385.75	322	5.73	16451.69
TB1_shp	2225	639763	6326236	1365.75	342	6.77	16936.35
TB1_shp	2225	639763	6326236	1345.75	362	7.96	17193.17
TB1_shp	2225	639763	6326236	1325.75	382	9.21	17130.38
TB1_shp	2225	639763	6326236	1303.65	404.1	10.64	16905.63
TB1_shp	2225	639763	6326236	1279.1	428.65	12.1	16273.42
TB1_shp	2225	639763	6326236	1253.15	454.6	13.5	15485.89
TB1_shp	2225	639763	6326236	1224.65	483.1	14.58	14399.23
TB1_shp	2225	639763	6326236	1193.95	513.8	15.14	13213.62
TB1_shp	2225	639763	6326236	1161.3	546.45	15.3	11961.46
TB1_shp	2225	639763	6326236	1125.5	582.25	14.74	10693.02
TB1_shp	2225	639763	6326236	1086.85	620.9	13.72	9495.2
TB1_shp	2225	639763	6326236	1045.7	662.05	12.42	8385.83
TB1_shp	2225	639763	6326236	1000.6	707.15	10.87	7419.04
TB1_shp	2225	639763	6326236	951.95	755.8	9.39	6636.84
TB1_shp	2225	639763	6326236	900.15	807.6	8.08	5981.14
TB1_shp	2225	639763	6326236	843.35	864.4	6.91	5399.32
TB1_shp	2225	639763	6326236	782.1	925.65	5.82	4848.14
TB1_shp	2225	639763	6326236	717.25	990.5	4.74	4290.28
TB1_shp	2225	639763	6326236	645.75	1062	4.38	4043.12
TB1_shp	2241.67	639777	6326233	1703.85	9.73	0.1	1722.18
TB1_shp	2241.67	639777	6326233	1684.38	29.2	0.1	2991.09
TB1_shp	2241.67	639777	6326233	1664.91	48.67	0.1	3146.79
TB1_shp	2241.67	639777	6326233	1645.45	68.13	0.47	2935.93
TB1_shp	2241.67	639777	6326233	1625.98	87.6	1.29	3004.51
TB1_shp	2241.67	639777	6326233	1606.51	107.07	1.99	3425.4
TB1_shp	2241.67	639777	6326233	1587.05	126.53	2.4	4156.64
TB1_shp	2241.67	639777	6326233	1567.58	146	2.57	5147.29
TB1_shp	2241.67	639777	6326233	1548.11	165.47	2.62	6330.29
TB1_shp	2241.67	639777	6326233	1528.65	184.93	2.66	7770.29
TB1_shp	2241.67	639777	6326233	1509.18	204.4	2.76	9196.34
TB1_shp	2241.67	639777	6326233	1489.71	223.87	2.96	10600.47
TB1_shp	2241.67	639777	6326233	1470.25	243.33	3.25	11977.27
TB1_shp	2241.67	639777	6326233	1450.78	262.8	3.69	13233
TB1_shp	2241.67	639777	6326233	1431.31	282.27	4.27	14279.61

TB1_shp	2241.67	639777	6326233	1411.58	302	4.96	15200.27
TB1_shp	2241.67	639777	6326233	1391.58	322	5.9	15818.15
TB1_shp	2241.67	639777	6326233	1371.58	342	6.96	16233.51
TB1_shp	2241.67	639777	6326233	1351.58	362	8.15	16433.42
TB1_shp	2241.67	639777	6326233	1331.58	382	9.38	16341.07
TB1_shp	2241.67	639777	6326233	1309.48	404.1	10.77	16096.97
TB1_shp	2241.67	639777	6326233	1284.93	428.65	12.14	15484.42
TB1_shp	2241.67	639777	6326233	1258.98	454.6	13.42	14733.07
TB1_shp	2241.67	639777	6326233	1230.48	483.1	14.38	13718.16
TB1_shp	2241.67	639777	6326233	1199.78	513.8	14.83	12615.75
TB1_shp	2241.67	639777	6326233	1167.13	546.45	14.9	11453.89
TB1_shp	2241.67	639777	6326233	1131.33	582.25	14.29	10276.9
TB1_shp	2241.67	639777	6326233	1092.68	620.9	13.26	9163.05
TB1_shp	2241.67	639777	6326233	1051.53	662.05	11.97	8128.88
TB1_shp	2241.67	639777	6326233	1006.43	707.15	10.49	7223.31
TB1_shp	2241.67	639777	6326233	957.78	755.8	9.08	6484.93
TB1_shp	2241.67	639777	6326233	905.98	807.6	7.84	5862.95
TB1_shp	2241.67	639777	6326233	849.18	864.4	6.72	5307.92
TB1_shp	2241.67	639777	6326233	787.93	925.65	5.7	4778.99
TB1_shp	2241.67	639777	6326233	723.08	990.5	4.67	4243.45
TB1_shp	2241.67	639777	6326233	651.58	1062	4.32	4003.09
TB1_shp	2258.33	639791	6326230	1709.69	9.73	1.83	18008.02
TB1_shp	2258.33	639791	6326230	1690.22	29.2	1.16	8241.31
TB1_shp	2258.33	639791	6326230	1670.75	48.67	1.4	5064.77
TB1_shp	2258.33	639791	6326230	1651.29	68.13	2.13	3865.8
TB1_shp	2258.33	639791	6326230	1631.82	87.6	2.84	3555.21
TB1_shp	2258.33	639791	6326230	1612.35	107.07	3.15	3772.87
TB1_shp	2258.33	639791	6326230	1592.89	126.53	3.13	4356.86
TB1_shp	2258.33	639791	6326230	1573.42	146	2.98	5222.51
TB1_shp	2258.33	639791	6326230	1553.95	165.47	2.86	6295.77
TB1_shp	2258.33	639791	6326230	1534.49	184.93	2.81	7629.49
TB1_shp	2258.33	639791	6326230	1515.02	204.4	2.88	8963.76
TB1_shp	2258.33	639791	6326230	1495.55	223.87	3.07	10282.57
TB1_shp	2258.33	639791	6326230	1476.09	243.33	3.38	11575.9
TB1_shp	2258.33	639791	6326230	1456.62	262.8	3.85	12749.24
TB1_shp	2258.33	639791	6326230	1437.15	282.27	4.46	13718.82
TB1_shp	2258.33	639791	6326230	1417.42	302	5.18	14565.3
TB1_shp	2258.33	639791	6326230	1397.42	322	6.14	15118.34
TB1_shp	2258.33	639791	6326230	1377.42	342	7.2	15481.14
TB1_shp	2258.33	639791	6326230	1357.42	362	8.39	15641.53
TB1_shp	2258.33	639791	6326230	1337.42	382	9.58	15534.95
TB1_shp	2258.33	639791	6326230	1315.32	404.1	10.91	15287.42
TB1_shp	2258.33	639791	6326230	1290.77	428.65	12.17	14706.75
TB1_shp	2258.33	639791	6326230	1264.82	454.6	13.33	14000.87
TB1_shp	2258.33	639791	6326230	1236.32	483.1	14.16	13058.58
TB1_shp	2258.33	639791	6326230	1205.62	513.8	14.5	12038.19
TB1_shp	2258.33	639791	6326230	1172.97	546.45	14.47	10964.13
TB1_shp	2258.33	639791	6326230	1137.17	582.25	13.82	9874.74
TB1_shp	2258.33	639791	6326230	1098.52	620.9	12.79	8841.79
TB1_shp	2258.33	639791	6326230	1057.37	662.05	11.54	7879.91
TB1_shp	2258.33	639791	6326230	1012.27	707.15	10.12	7032.06
TB1_shp	2258.33	639791	6326230	963.62	755.8	8.78	6335.52

TB1_shp	2258.33	639791	6326230	911.82	807.6	7.6	5746.2
TB1_shp	2258.33	639791	6326230	855.02	864.4	6.55	5217.42
TB1_shp	2258.33	639791	6326230	793.77	925.65	5.57	4710.26
TB1_shp	2258.33	639791	6326230	728.92	990.5	4.59	4196.55
TB1_shp	2258.33	639791	6326230	657.42	1062	4.26	3962.97
TB1_shp	2275	639805	6326227	1715.52	9.73	3.2	14843.27
TB1_shp	2275	639805	6326227	1696.05	29.2	3.16	12420.05
TB1_shp	2275	639805	6326227	1676.58	48.67	3.8	7909.51
TB1_shp	2275	639805	6326227	1657.12	68.13	4.86	5346.48
TB1_shp	2275	639805	6326227	1637.65	87.6	5.75	4166.09
TB1_shp	2275	639805	6326227	1618.18	107.07	5.78	3797.38
TB1_shp	2275	639805	6326227	1598.72	126.53	5.11	3942.99
TB1_shp	2275	639805	6326227	1579.25	146	4.31	4445.8
TB1_shp	2275	639805	6326227	1559.78	165.47	3.68	5222.86
TB1_shp	2275	639805	6326227	1540.32	184.93	3.29	6202.71
TB1_shp	2275	639805	6326227	1520.85	204.4	3.12	7435.65
TB1_shp	2275	639805	6326227	1501.38	223.87	3.13	8677.24
TB1_shp	2275	639805	6326227	1481.92	243.33	3.3	9907.34
TB1_shp	2275	639805	6326227	1462.45	262.8	3.61	11115.69
TB1_shp	2275	639805	6326227	1442.98	282.27	4.1	12210
TB1_shp	2275	639805	6326227	1423.25	302	4.76	13118.01
TB1_shp	2275	639805	6326227	1403.25	322	5.52	13899.21
TB1_shp	2275	639805	6326227	1383.25	342	6.49	14401.11
TB1_shp	2275	639805	6326227	1363.25	362	7.55	14714.13
TB1_shp	2275	639805	6326227	1343.25	382	8.72	14846.41
TB1_shp	2275	639805	6326227	1321.15	404.1	9.98	14704.77
TB1_shp	2275	639805	6326227	1296.6	428.65	11.34	14408.77
TB1_shp	2275	639805	6326227	1270.65	454.6	12.51	13799.59
TB1_shp	2275	639805	6326227	1242.15	483.1	13.47	13019.49
TB1_shp	2275	639805	6326227	1211.45	513.8	14.17	12081.72
TB1_shp	2275	639805	6326227	1178.8	546.45	14.15	11080.05
TB1_shp	2275	639805	6326227	1143	582.25	13.73	10036.29
TB1_shp	2275	639805	6326227	1104.35	620.9	12.9	8987.78
TB1_shp	2275	639805	6326227	1063.2	662.05	11.69	8024.72
TB1_shp	2275	639805	6326227	1018.1	707.15	10.33	7187.35
TB1_shp	2275	639805	6326227	969.45	755.8	8.97	6443.88
TB1_shp	2275	639805	6326227	917.65	807.6	7.73	5811.46
TB1_shp	2275	639805	6326227	860.85	864.4	6.67	5286.5
TB1_shp	2275	639805	6326227	799.6	925.65	5.74	4796.67
TB1_shp	2275	639805	6326227	734.75	990.5	4.76	4282.1
TB1_shp	2275	639805	6326227	663.25	1062	4.29	3984.64
TB1_shp	2291.67	639819	6326224	1721.35	9.73	1.51	6240.29
TB1_shp	2291.67	639819	6326224	1701.88	29.2	2.12	5060.34
TB1_shp	2291.67	639819	6326224	1682.41	48.67	4.47	4472.05
TB1_shp	2291.67	639819	6326224	1662.95	68.13	8.42	4012.49
TB1_shp	2291.67	639819	6326224	1643.48	87.6	10.73	3703.79
TB1_shp	2291.67	639819	6326224	1624.01	107.07	9.98	3662.43
TB1_shp	2291.67	639819	6326224	1604.55	126.53	7.82	3910.31
TB1_shp	2291.67	639819	6326224	1585.08	146	5.88	4419.11
TB1_shp	2291.67	639819	6326224	1565.61	165.47	4.62	5153.99
TB1_shp	2291.67	639819	6326224	1546.15	184.93	3.91	6065.62
TB1_shp	2291.67	639819	6326224	1526.68	204.4	3.57	7209.63

TB1_shp	2291.67	639819	6326224	1507.21	223.87	3.51	8362.92
TB1_shp	2291.67	639819	6326224	1487.75	243.33	3.66	9506.87
TB1_shp	2291.67	639819	6326224	1468.28	262.8	3.97	10631.12
TB1_shp	2291.67	639819	6326224	1448.81	282.27	4.48	11647.29
TB1_shp	2291.67	639819	6326224	1429.08	302	5.14	12487.93
TB1_shp	2291.67	639819	6326224	1409.08	322	5.92	13208.88
TB1_shp	2291.67	639819	6326224	1389.08	342	6.89	13666.18
TB1_shp	2291.67	639819	6326224	1369.08	362	7.94	13948.42
TB1_shp	2291.67	639819	6326224	1349.08	382	9.07	14063.14
TB1_shp	2291.67	639819	6326224	1326.98	404.1	10.24	13926.47
TB1_shp	2291.67	639819	6326224	1302.43	428.65	11.5	13648.09
TB1_shp	2291.67	639819	6326224	1276.48	454.6	12.52	13085.93
TB1_shp	2291.67	639819	6326224	1247.98	483.1	13.33	12367.4
TB1_shp	2291.67	639819	6326224	1217.28	513.8	13.89	11504.73
TB1_shp	2291.67	639819	6326224	1184.63	546.45	13.76	10585.05
TB1_shp	2291.67	639819	6326224	1148.83	582.25	13.29	9624.29
TB1_shp	2291.67	639819	6326224	1110.18	620.9	12.44	8656.48
TB1_shp	2291.67	639819	6326224	1069.03	662.05	11.24	7764.12
TB1_shp	2291.67	639819	6326224	1023.93	707.15	9.94	6983.39
TB1_shp	2291.67	639819	6326224	975.28	755.8	8.66	6286.31
TB1_shp	2291.67	639819	6326224	923.48	807.6	7.48	5689.66
TB1_shp	2291.67	639819	6326224	866.68	864.4	6.49	5191.59
TB1_shp	2291.67	639819	6326224	805.43	925.65	5.61	4722.74
TB1_shp	2291.67	639819	6326224	740.58	990.5	4.69	4229.97
TB1_shp	2291.67	639819	6326224	669.08	1062	4.24	3942.77
TB1_shp	2308.33	639835	6326224	1726.94	9.73	1.44	1086.48
TB1_shp	2308.33	639835	6326224	1707.47	29.2	1.63	1621.46
TB1_shp	2308.33	639835	6326224	1688	48.67	4.74	2332.01
TB1_shp	2308.33	639835	6326224	1668.54	68.13	11.32	2824.82
TB1_shp	2308.33	639835	6326224	1649.07	87.6	15.26	3116.34
TB1_shp	2308.33	639835	6326224	1629.6	107.07	14.02	3392.67
TB1_shp	2308.33	639835	6326224	1610.14	126.53	10.55	3778.15
TB1_shp	2308.33	639835	6326224	1590.67	146	7.54	4325.97
TB1_shp	2308.33	639835	6326224	1571.2	165.47	5.66	5042.19
TB1_shp	2308.33	639835	6326224	1551.74	184.93	4.64	5901.74
TB1_shp	2308.33	639835	6326224	1532.27	204.4	4.13	6967.37
TB1_shp	2308.33	639835	6326224	1512.8	223.87	4.01	8039.6
TB1_shp	2308.33	639835	6326224	1493.34	243.33	4.13	9102.45
TB1_shp	2308.33	639835	6326224	1473.87	262.8	4.45	10146.56
TB1_shp	2308.33	639835	6326224	1454.4	282.27	4.97	11090.01
TB1_shp	2308.33	639835	6326224	1434.67	302	5.65	11868.03
TB1_shp	2308.33	639835	6326224	1414.67	322	6.44	12533.55
TB1_shp	2308.33	639835	6326224	1394.67	342	7.39	12952.92
TB1_shp	2308.33	639835	6326224	1374.67	362	8.41	13209.82
TB1_shp	2308.33	639835	6326224	1354.67	382	9.47	13311.22
TB1_shp	2308.33	639835	6326224	1332.57	404.1	10.55	13182.61
TB1_shp	2308.33	639835	6326224	1308.02	428.65	11.67	12924.28
TB1_shp	2308.33	639835	6326224	1282.07	454.6	12.54	12408.07
TB1_shp	2308.33	639835	6326224	1253.57	483.1	13.19	11749.4
TB1_shp	2308.33	639835	6326224	1222.87	513.8	13.59	10959.43
TB1_shp	2308.33	639835	6326224	1190.22	546.45	13.38	10115.83
TB1_shp	2308.33	639835	6326224	1154.42	582.25	12.85	9232.84

TB1_shp	2308.33	639835	6326224	1115.77	620.9	11.97	8340.86
TB1_shp	2308.33	639835	6326224	1074.62	662.05	10.81	7513.24
TB1_shp	2308.33	639835	6326224	1029.52	707.15	9.57	6785.55
TB1_shp	2308.33	639835	6326224	980.87	755.8	8.35	6132.72
TB1_shp	2308.33	639835	6326224	929.07	807.6	7.25	5570.71
TB1_shp	2308.33	639835	6326224	872.27	864.4	6.31	5098.39
TB1_shp	2308.33	639835	6326224	811.02	925.65	5.48	4649.85
TB1_shp	2308.33	639835	6326224	746.17	990.5	4.61	4178.18
TB1_shp	2308.33	639835	6326224	674.67	1062	4.18	3901.04
TB1_shp	2325	639853	6326227	1732.27	9.73	24.64	8387.08
TB1_shp	2325	639853	6326227	1712.8	29.2	4.78	2434.68
TB1_shp	2325	639853	6326227	1693.33	48.67	2.64	1783.68
TB1_shp	2325	639853	6326227	1673.87	68.13	5.88	2038.2
TB1_shp	2325	639853	6326227	1654.4	87.6	13.31	2447.02
TB1_shp	2325	639853	6326227	1634.93	107.07	17.48	2828.74
TB1_shp	2325	639853	6326227	1615.47	126.53	15.99	3212.2
TB1_shp	2325	639853	6326227	1596	146	12.17	3660.49
TB1_shp	2325	639853	6326227	1576.53	165.47	8.78	4223.15
TB1_shp	2325	639853	6326227	1557.07	184.93	6.6	4917.21
TB1_shp	2325	639853	6326227	1537.6	204.4	5.41	5729.46
TB1_shp	2325	639853	6326227	1518.13	223.87	4.8	6725.18
TB1_shp	2325	639853	6326227	1498.67	243.33	4.63	7721.94
TB1_shp	2325	639853	6326227	1479.2	262.8	4.74	8709.71
TB1_shp	2325	639853	6326227	1459.73	282.27	5.05	9679.18
TB1_shp	2325	639853	6326227	1440	302	5.59	10564.71
TB1_shp	2325	639853	6326227	1420	322	6.29	11290.42
TB1_shp	2325	639853	6326227	1400	342	7.08	11898.27
TB1_shp	2325	639853	6326227	1380	362	8.01	12282.01
TB1_shp	2325	639853	6326227	1360	382	8.97	12509.06
TB1_shp	2325	639853	6326227	1337.9	404.1	10.06	12610.96
TB1_shp	2325	639853	6326227	1313.35	428.65	11.1	12434.1
TB1_shp	2325	639853	6326227	1287.4	454.6	12.04	12121.99
TB1_shp	2325	639853	6326227	1258.9	483.1	12.82	11603.94
TB1_shp	2325	639853	6326227	1228.2	513.8	13.16	10902.28
TB1_shp	2325	639853	6326227	1195.55	546.45	13.19	10132.74
TB1_shp	2325	639853	6326227	1159.75	582.25	12.83	9288.93
TB1_shp	2325	639853	6326227	1121.1	620.9	11.99	8440.76
TB1_shp	2325	639853	6326227	1079.95	662.05	10.93	7636.11
TB1_shp	2325	639853	6326227	1034.85	707.15	9.71	6873.73
TB1_shp	2325	639853	6326227	986.2	755.8	8.48	6196.25
TB1_shp	2325	639853	6326227	934.4	807.6	7.37	5631.19
TB1_shp	2325	639853	6326227	877.6	864.4	6.44	5160.43
TB1_shp	2325	639853	6326227	816.35	925.65	5.6	4713.63
TB1_shp	2325	639853	6326227	751.5	990.5	4.77	4262.36
TB1_shp	2325	639853	6326227	680	1062	4.19	3915.95
TB1_shp	2341.67	639871	6326231	1737.6	9.73	5.9	17147.63
TB1_shp	2341.67	639871	6326231	1718.13	29.2	2.23	5791.93
TB1_shp	2341.67	639871	6326231	1698.66	48.67	2.05	3049.14
TB1_shp	2341.67	639871	6326231	1679.2	68.13	4.83	2553.07
TB1_shp	2341.67	639871	6326231	1659.73	87.6	11.05	2611.82
TB1_shp	2341.67	639871	6326231	1640.26	107.07	15.35	2843.93
TB1_shp	2341.67	639871	6326231	1620.8	126.53	14.82	3174.62

TB1_shp	2341.67	639871	6326231	1601.33	146	12.01	3600.09
TB1_shp	2341.67	639871	6326231	1581.86	165.47	9.22	4138.75
TB1_shp	2341.67	639871	6326231	1562.4	184.93	7.27	4796.6
TB1_shp	2341.67	639871	6326231	1542.93	204.4	6.13	5560.09
TB1_shp	2341.67	639871	6326231	1523.46	223.87	5.53	6489.9
TB1_shp	2341.67	639871	6326231	1504	243.33	5.36	7418.66
TB1_shp	2341.67	639871	6326231	1484.53	262.8	5.47	8337.01
TB1_shp	2341.67	639871	6326231	1465.06	282.27	5.79	9236.54
TB1_shp	2341.67	639871	6326231	1445.33	302	6.34	10057.07
TB1_shp	2341.67	639871	6326231	1425.33	322	7.04	10727.14
TB1_shp	2341.67	639871	6326231	1405.33	342	7.82	11287.15
TB1_shp	2341.67	639871	6326231	1385.33	362	8.7	11640.13
TB1_shp	2341.67	639871	6326231	1365.33	382	9.58	11847.95
TB1_shp	2341.67	639871	6326231	1343.23	404.1	10.56	11939.59
TB1_shp	2341.67	639871	6326231	1318.68	428.65	11.44	11777.54
TB1_shp	2341.67	639871	6326231	1292.73	454.6	12.21	11492.33
TB1_shp	2341.67	639871	6326231	1264.23	483.1	12.79	11019.53
TB1_shp	2341.67	639871	6326231	1233.53	513.8	12.97	10379.59
TB1_shp	2341.67	639871	6326231	1200.88	546.45	12.87	9676.55
TB1_shp	2341.67	639871	6326231	1165.08	582.25	12.42	8903.84
TB1_shp	2341.67	639871	6326231	1126.43	620.9	11.57	8124.54
TB1_shp	2341.67	639871	6326231	1085.28	662.05	10.51	7380.35
TB1_shp	2341.67	639871	6326231	1040.18	707.15	9.34	6671.74
TB1_shp	2341.67	639871	6326231	991.53	755.8	8.16	6039.18
TB1_shp	2341.67	639871	6326231	939.73	807.6	7.12	5508.09
TB1_shp	2341.67	639871	6326231	882.93	864.4	6.26	5062.88
TB1_shp	2341.67	639871	6326231	821.68	925.65	5.47	4637.25
TB1_shp	2341.67	639871	6326231	756.83	990.5	4.69	4205.68
TB1_shp	2341.67	639871	6326231	685.33	1062	4.14	3873.04
TB1_shp	2358.33	639889	6326234	1742.94	9.73	0.1	5346.36
TB1_shp	2358.33	639889	6326234	1723.47	29.2	0.1	6439.27
TB1_shp	2358.33	639889	6326234	1704	48.67	0.55	4483.66
TB1_shp	2358.33	639889	6326234	1684.54	68.13	2.26	3385.61
TB1_shp	2358.33	639889	6326234	1665.07	87.6	6.15	3025.16
TB1_shp	2358.33	639889	6326234	1645.6	107.07	10.2	3023.71
TB1_shp	2358.33	639889	6326234	1626.14	126.53	11.44	3228.67
TB1_shp	2358.33	639889	6326234	1606.67	146	10.5	3583.93
TB1_shp	2358.33	639889	6326234	1587.2	165.47	8.96	4072.67
TB1_shp	2358.33	639889	6326234	1567.74	184.93	7.65	4684.46
TB1_shp	2358.33	639889	6326234	1548.27	204.4	6.79	5397.72
TB1_shp	2358.33	639889	6326234	1528.8	223.87	6.32	6267.26
TB1_shp	2358.33	639889	6326234	1509.34	243.33	6.21	7133.22
TB1_shp	2358.33	639889	6326234	1489.87	262.8	6.35	7987.84
TB1_shp	2358.33	639889	6326234	1470.4	282.27	6.69	8823.79
TB1_shp	2358.33	639889	6326234	1450.67	302	7.25	9583.85
TB1_shp	2358.33	639889	6326234	1430.67	322	7.93	10201.95
TB1_shp	2358.33	639889	6326234	1410.67	342	8.67	10717.31
TB1_shp	2358.33	639889	6326234	1390.67	362	9.48	11042.34
TB1_shp	2358.33	639889	6326234	1370.67	382	10.26	11232.56
TB1_shp	2358.33	639889	6326234	1348.57	404.1	11.1	11314.57
TB1_shp	2358.33	639889	6326234	1324.02	428.65	11.8	11166.42
TB1_shp	2358.33	639889	6326234	1298.07	454.6	12.39	10905.82

TB1_shp	2358.33	639889	6326234	1269.57	483.1	12.78	10473.48
TB1_shp	2358.33	639889	6326234	1238.87	513.8	12.79	9889.72
TB1_shp	2358.33	639889	6326234	1206.22	546.45	12.56	9247.94
TB1_shp	2358.33	639889	6326234	1170.42	582.25	12.03	8541.56
TB1_shp	2358.33	639889	6326234	1131.77	620.9	11.15	7825.23
TB1_shp	2358.33	639889	6326234	1090.62	662.05	10.12	7137.3
TB1_shp	2358.33	639889	6326234	1045.52	707.15	8.99	6478.86
TB1_shp	2358.33	639889	6326234	996.87	755.8	7.88	5887.71
TB1_shp	2358.33	639889	6326234	945.07	807.6	6.9	5388.54
TB1_shp	2358.33	639889	6326234	888.27	864.4	6.08	4967.75
TB1_shp	2358.33	639889	6326234	827.02	925.65	5.33	4562.46
TB1_shp	2358.33	639889	6326234	762.17	990.5	4.61	4149.87
TB1_shp	2358.33	639889	6326234	690.67	1062	4.08	3830.56
TB1_shp	2375	639907	6326238	1748.27	9.73	0.1	6772.27
TB1_shp	2375	639907	6326238	1728.8	29.2	0.1	7851.39
TB1_shp	2375	639907	6326238	1709.33	48.67	0.1	5763.92
TB1_shp	2375	639907	6326238	1689.87	68.13	0.82	4157
TB1_shp	2375	639907	6326238	1670.4	87.6	2.94	3430.91
TB1_shp	2375	639907	6326238	1650.93	107.07	5.95	3214.93
TB1_shp	2375	639907	6326238	1631.47	126.53	8.1	3295.27
TB1_shp	2375	639907	6326238	1612	146	8.7	3575.22
TB1_shp	2375	639907	6326238	1592.53	165.47	8.4	4011.48
TB1_shp	2375	639907	6326238	1573.07	184.93	7.88	4576.7
TB1_shp	2375	639907	6326238	1553.6	204.4	7.44	5244.24
TB1_shp	2375	639907	6326238	1534.13	223.87	7.19	6059.73
TB1_shp	2375	639907	6326238	1514.67	243.33	7.19	6869.59
TB1_shp	2375	639907	6326238	1495.2	262.8	7.39	7666.85
TB1_shp	2375	639907	6326238	1475.73	282.27	7.76	8444.79
TB1_shp	2375	639907	6326238	1456	302	8.31	9147.94
TB1_shp	2375	639907	6326238	1436	322	8.95	9718.13
TB1_shp	2375	639907	6326238	1416	342	9.63	10192.42
TB1_shp	2375	639907	6326238	1396	362	10.33	10489.83
TB1_shp	2375	639907	6326238	1376	382	10.99	10663.37
TB1_shp	2375	639907	6326238	1353.9	404.1	11.67	10737.37
TB1_shp	2375	639907	6326238	1329.35	428.65	12.18	10600.7
TB1_shp	2375	639907	6326238	1303.4	454.6	12.57	10361.57
TB1_shp	2375	639907	6326238	1274.9	483.1	12.76	9966.26
TB1_shp	2375	639907	6326238	1244.2	513.8	12.62	9433.33
TB1_shp	2375	639907	6326238	1211.55	546.45	12.27	8847.21
TB1_shp	2375	639907	6326238	1175.75	582.25	11.65	8201.44
TB1_shp	2375	639907	6326238	1137.1	620.9	10.75	7542.48
TB1_shp	2375	639907	6326238	1095.95	662.05	9.73	6906.1
TB1_shp	2375	639907	6326238	1050.85	707.15	8.65	6294.09
TB1_shp	2375	639907	6326238	1002.2	755.8	7.6	5741.89
TB1_shp	2375	639907	6326238	950.4	807.6	6.68	5272.73
TB1_shp	2375	639907	6326238	893.6	864.4	5.92	4875.04
TB1_shp	2375	639907	6326238	832.35	925.65	5.22	4489.25
TB1_shp	2375	639907	6326238	767.5	990.5	4.53	4095.02
TB1_shp	2375	639907	6326238	696	1062	4.03	3788.62
TB1_shp	2391.67	639925	6326242	1753.6	9.73	0.1	22343.07
TB1_shp	2391.67	639925	6326242	1734.13	29.2	0.1	11866.18
TB1_shp	2391.67	639925	6326242	1714.66	48.67	0.1	8992.49

TB1_shp	2391.67	639925	6326242	1695.2	68.13	0.1	6322.11
TB1_shp	2391.67	639925	6326242	1675.73	87.6	0.19	4528.07
TB1_shp	2391.67	639925	6326242	1656.26	107.07	1.48	3641.82
TB1_shp	2391.67	639925	6326242	1636.8	126.53	3.67	3313.73
TB1_shp	2391.67	639925	6326242	1617.33	146	5.93	3318.87
TB1_shp	2391.67	639925	6326242	1597.86	165.47	7.36	3548.56
TB1_shp	2391.67	639925	6326242	1578.4	184.93	7.99	3945.12
TB1_shp	2391.67	639925	6326242	1558.93	204.4	8.16	4473.83
TB1_shp	2391.67	639925	6326242	1539.46	223.87	8.17	5102.84
TB1_shp	2391.67	639925	6326242	1520	243.33	8.19	5870.27
TB1_shp	2391.67	639925	6326242	1500.53	262.8	8.34	6630.05
TB1_shp	2391.67	639925	6326242	1481.06	282.27	8.61	7374.59
TB1_shp	2391.67	639925	6326242	1461.33	302	9	8106.88
TB1_shp	2391.67	639925	6326242	1441.33	322	9.55	8766.42
TB1_shp	2391.67	639925	6326242	1421.33	342	10.12	9286.91
TB1_shp	2391.67	639925	6326242	1401.33	362	10.71	9717.28
TB1_shp	2391.67	639925	6326242	1381.33	382	11.28	9987.85
TB1_shp	2391.67	639925	6326242	1359.23	404.1	11.83	10145.93
TB1_shp	2391.67	639925	6326242	1334.68	428.65	12.34	10199.72
TB1_shp	2391.67	639925	6326242	1308.73	454.6	12.64	10035.16
TB1_shp	2391.67	639925	6326242	1280.23	483.1	12.76	9741.24
TB1_shp	2391.67	639925	6326242	1249.53	513.8	12.67	9325.53
TB1_shp	2391.67	639925	6326242	1216.88	546.45	12.3	8793.39
TB1_shp	2391.67	639925	6326242	1181.08	582.25	11.67	8202.03
TB1_shp	2391.67	639925	6326242	1142.43	620.9	10.84	7580.41
TB1_shp	2391.67	639925	6326242	1101.28	662.05	9.85	6954.64
TB1_shp	2391.67	639925	6326242	1056.18	707.15	8.75	6333.76
TB1_shp	2391.67	639925	6326242	1007.53	755.8	7.72	5800.74
TB1_shp	2391.67	639925	6326242	955.73	807.6	6.79	5326.54
TB1_shp	2391.67	639925	6326242	898.93	864.4	5.99	4907.96
TB1_shp	2391.67	639925	6326242	837.68	925.65	5.29	4530.77
TB1_shp	2391.67	639925	6326242	772.83	990.5	4.64	4154.2
TB1_shp	2391.67	639925	6326242	701.33	1062	4.04	3796.85
TB1_shp	2408.33	639940.3	6326243	1753.77	9.73	0.1	15227.33
TB1_shp	2408.33	639940.3	6326243	1734.3	29.2	0.1	7299.87
TB1_shp	2408.33	639940.3	6326243	1714.83	48.67	0.1	7440.76
TB1_shp	2408.33	639940.3	6326243	1695.37	68.13	0.1	5937.82
TB1_shp	2408.33	639940.3	6326243	1675.9	87.6	0.1	4462.05
TB1_shp	2408.33	639940.3	6326243	1656.43	107.07	0.94	3637.24
TB1_shp	2408.33	639940.3	6326243	1636.97	126.53	2.73	3306.1
TB1_shp	2408.33	639940.3	6326243	1617.5	146	4.93	3294.41
TB1_shp	2408.33	639940.3	6326243	1598.03	165.47	6.75	3504.43
TB1_shp	2408.33	639940.3	6326243	1578.57	184.93	7.97	3879.62
TB1_shp	2408.33	639940.3	6326243	1559.1	204.4	8.68	4382.1
TB1_shp	2408.33	639940.3	6326243	1539.63	223.87	9.08	4979.17
TB1_shp	2408.33	639940.3	6326243	1520.17	243.33	9.38	5703.98
TB1_shp	2408.33	639940.3	6326243	1500.7	262.8	9.68	6417.99
TB1_shp	2408.33	639940.3	6326243	1481.23	282.27	10.02	7113.36
TB1_shp	2408.33	639940.3	6326243	1461.5	302	10.42	7793.43
TB1_shp	2408.33	639940.3	6326243	1441.5	322	10.9	8403.56
TB1_shp	2408.33	639940.3	6326243	1421.5	342	11.38	8881.67
TB1_shp	2408.33	639940.3	6326243	1401.5	362	11.85	9275.17

TB1_shp	2408.33	639940.3	6326243	1381.5	382	12.25	9520.75
TB1_shp	2408.33	639940.3	6326243	1359.4	404.1	12.6	9662.67
TB1_shp	2408.33	639940.3	6326243	1334.85	428.65	12.9	9708.63
TB1_shp	2408.33	639940.3	6326243	1308.9	454.6	12.96	9556.19
TB1_shp	2408.33	639940.3	6326243	1280.4	483.1	12.87	9285.8
TB1_shp	2408.33	639940.3	6326243	1249.7	513.8	12.59	8904.74
TB1_shp	2408.33	639940.3	6326243	1217.05	546.45	12.08	8418.71
TB1_shp	2408.33	639940.3	6326243	1181.25	582.25	11.35	7875.84
TB1_shp	2408.33	639940.3	6326243	1142.6	620.9	10.48	7303.98
TB1_shp	2408.33	639940.3	6326243	1101.45	662.05	9.5	6726.75
TB1_shp	2408.33	639940.3	6326243	1056.35	707.15	8.44	6151.01
TB1_shp	2408.33	639940.3	6326243	1007.7	755.8	7.45	5653.6
TB1_shp	2408.33	639940.3	6326243	955.9	807.6	6.58	5208.77
TB1_shp	2408.33	639940.3	6326243	899.1	864.4	5.82	4814.1
TB1_shp	2408.33	639940.3	6326243	837.85	925.65	5.17	4456.24
TB1_shp	2408.33	639940.3	6326243	773	990.5	4.55	4096.52
TB1_shp	2408.33	639940.3	6326243	701.5	1062	3.98	3754.62
TB1_shp	2425	639953	6326242	1748.77	9.73	0.1	3454.97
TB1_shp	2425	639953	6326242	1729.3	29.2	0.1	5986.88
TB1_shp	2425	639953	6326242	1709.83	48.67	0.1	5414.57
TB1_shp	2425	639953	6326242	1690.37	68.13	0.1	4245.58
TB1_shp	2425	639953	6326242	1670.9	87.6	0.9	3536.49
TB1_shp	2425	639953	6326242	1651.43	107.07	2.63	3250.26
TB1_shp	2425	639953	6326242	1631.97	126.53	4.83	3253.37
TB1_shp	2425	639953	6326242	1612.5	146	6.88	3462.78
TB1_shp	2425	639953	6326242	1593.03	165.47	8.46	3827.51
TB1_shp	2425	639953	6326242	1573.57	184.93	9.56	4310.58
TB1_shp	2425	639953	6326242	1554.1	204.4	10.28	4879.63
TB1_shp	2425	639953	6326242	1534.63	223.87	10.81	5565.96
TB1_shp	2425	639953	6326242	1515.17	243.33	11.22	6236.83
TB1_shp	2425	639953	6326242	1495.7	262.8	11.6	6885.96
TB1_shp	2425	639953	6326242	1476.23	282.27	11.99	7509.54
TB1_shp	2425	639953	6326242	1456.5	302	12.37	8064.5
TB1_shp	2425	639953	6326242	1436.5	322	12.72	8506.4
TB1_shp	2425	639953	6326242	1416.5	342	13.03	8868.71
TB1_shp	2425	639953	6326242	1396.5	362	13.24	9088.97
TB1_shp	2425	639953	6326242	1376.5	382	13.37	9214.74
TB1_shp	2425	639953	6326242	1354.4	404.1	13.43	9263.86
TB1_shp	2425	639953	6326242	1329.85	428.65	13.31	9151.69
TB1_shp	2425	639953	6326242	1303.9	454.6	13.09	8962.99
TB1_shp	2425	639953	6326242	1275.4	483.1	12.71	8658.85
TB1_shp	2425	639953	6326242	1244.7	513.8	12.12	8250.42
TB1_shp	2425	639953	6326242	1212.05	546.45	11.43	7799.53
TB1_shp	2425	639953	6326242	1176.25	582.25	10.61	7300
TB1_shp	2425	639953	6326242	1137.6	620.9	9.68	6785.18
TB1_shp	2425	639953	6326242	1096.45	662.05	8.72	6281.46
TB1_shp	2425	639953	6326242	1051.35	707.15	7.76	5790.17
TB1_shp	2425	639953	6326242	1002.7	755.8	6.86	5339.09
TB1_shp	2425	639953	6326242	950.9	807.6	6.09	4949.28
TB1_shp	2425	639953	6326242	894.1	864.4	5.46	4613.55
TB1_shp	2425	639953	6326242	832.85	925.65	4.88	4280.97
TB1_shp	2425	639953	6326242	768	990.5	4.3	3937.35

TB1_shp	2425	639953	6326242	696.5	1062	3.88	3666.96
TB1_shp	2441.67	639965.7	6326241	1743.77	9.73	0.1	4330.26
TB1_shp	2441.67	639965.7	6326241	1724.3	29.2	0.1	6324.87
TB1_shp	2441.67	639965.7	6326241	1704.83	48.67	0.1	5290.7
TB1_shp	2441.67	639965.7	6326241	1685.37	68.13	0.16	4117.28
TB1_shp	2441.67	639965.7	6326241	1665.9	87.6	1.32	3465.54
TB1_shp	2441.67	639965.7	6326241	1646.43	107.07	3.22	3216.52
TB1_shp	2441.67	639965.7	6326241	1626.97	126.53	5.54	3235.8
TB1_shp	2441.67	639965.7	6326241	1607.5	146	7.73	3447.72
TB1_shp	2441.67	639965.7	6326241	1588.03	165.47	9.53	3803.86
TB1_shp	2441.67	639965.7	6326241	1568.57	184.93	10.86	4270.06
TB1_shp	2441.67	639965.7	6326241	1549.1	204.4	11.8	4812.67
TB1_shp	2441.67	639965.7	6326241	1529.63	223.87	12.48	5461.43
TB1_shp	2441.67	639965.7	6326241	1510.17	243.33	12.96	6090.43
TB1_shp	2441.67	639965.7	6326241	1490.7	262.8	13.34	6694.1
TB1_shp	2441.67	639965.7	6326241	1471.23	282.27	13.66	7269.84
TB1_shp	2441.67	639965.7	6326241	1451.5	302	13.91	7778.49
TB1_shp	2441.67	639965.7	6326241	1431.5	322	14.1	8180.14
TB1_shp	2441.67	639965.7	6326241	1411.5	342	14.22	8507.32
TB1_shp	2441.67	639965.7	6326241	1391.5	362	14.23	8703.76
TB1_shp	2441.67	639965.7	6326241	1371.5	382	14.15	8813.91
TB1_shp	2441.67	639965.7	6326241	1349.4	404.1	13.98	8853.59
TB1_shp	2441.67	639965.7	6326241	1324.85	428.65	13.65	8747.13
TB1_shp	2441.67	639965.7	6326241	1298.9	454.6	13.22	8570.97
TB1_shp	2441.67	639965.7	6326241	1270.4	483.1	12.66	8289.37
TB1_shp	2441.67	639965.7	6326241	1239.7	513.8	11.96	7912.66
TB1_shp	2441.67	639965.7	6326241	1207.05	546.45	11.18	7497.32
TB1_shp	2441.67	639965.7	6326241	1171.25	582.25	10.3	7037.53
TB1_shp	2441.67	639965.7	6326241	1132.6	620.9	9.36	6561.33
TB1_shp	2441.67	639965.7	6326241	1091.45	662.05	8.42	6094.81
TB1_shp	2441.67	639965.7	6326241	1046.35	707.15	7.5	5638.43
TB1_shp	2441.67	639965.7	6326241	997.7	755.8	6.65	5217.11
TB1_shp	2441.67	639965.7	6326241	945.9	807.6	5.93	4849.96
TB1_shp	2441.67	639965.7	6326241	889.1	864.4	5.33	4532.41
TB1_shp	2441.67	639965.7	6326241	827.85	925.65	4.78	4215.79
TB1_shp	2441.67	639965.7	6326241	763	990.5	4.23	3887.54
TB1_shp	2441.67	639965.7	6326241	691.5	1062	3.83	3628.18
TB1_shp	2458.33	639978.3	6326240	1738.77	9.73	0.1	14050.65
TB1_shp	2458.33	639978.3	6326240	1719.3	29.2	0.1	8567
TB1_shp	2458.33	639978.3	6326240	1699.83	48.67	0.1	5585.06
TB1_shp	2458.33	639978.3	6326240	1680.37	68.13	0.83	4151.19
TB1_shp	2458.33	639978.3	6326240	1660.9	87.6	2.44	3489.73
TB1_shp	2458.33	639978.3	6326240	1641.43	107.07	4.64	3250.08
TB1_shp	2458.33	639978.3	6326240	1621.97	126.53	7.07	3273.57
TB1_shp	2458.33	639978.3	6326240	1602.5	146	9.3	3480.45
TB1_shp	2458.33	639978.3	6326240	1583.03	165.47	11.15	3824.41
TB1_shp	2458.33	639978.3	6326240	1563.57	184.93	12.59	4269.43
TB1_shp	2458.33	639978.3	6326240	1544.1	204.4	13.6	4783.63
TB1_shp	2458.33	639978.3	6326240	1524.63	223.87	14.34	5392.52
TB1_shp	2458.33	639978.3	6326240	1505.17	243.33	14.82	5978.44
TB1_shp	2458.33	639978.3	6326240	1485.7	262.8	15.15	6537.07
TB1_shp	2458.33	639978.3	6326240	1466.23	282.27	15.36	7066.46

TB1_shp	2458.33	639978.3	6326240	1446.5	302	15.46	7529.03
TB1_shp	2458.33	639978.3	6326240	1426.5	322	15.45	7891.79
TB1_shp	2458.33	639978.3	6326240	1406.5	342	15.37	8185.31
TB1_shp	2458.33	639978.3	6326240	1386.5	362	15.16	8357.67
TB1_shp	2458.33	639978.3	6326240	1366.5	382	14.87	8451.67
TB1_shp	2458.33	639978.3	6326240	1344.4	404.1	14.47	8481.01
TB1_shp	2458.33	639978.3	6326240	1319.85	428.65	13.94	8378.5
TB1_shp	2458.33	639978.3	6326240	1293.9	454.6	13.33	8212.5
TB1_shp	2458.33	639978.3	6326240	1265.4	483.1	12.61	7949.95
TB1_shp	2458.33	639978.3	6326240	1234.7	513.8	11.79	7601.73
TB1_shp	2458.33	639978.3	6326240	1202.05	546.45	10.93	7218.01
TB1_shp	2458.33	639978.3	6326240	1166.25	582.25	10.01	6792.98
TB1_shp	2458.33	639978.3	6326240	1127.6	620.9	9.07	6352.1
TB1_shp	2458.33	639978.3	6326240	1086.45	662.05	8.15	5919.44
TB1_shp	2458.33	639978.3	6326240	1041.35	707.15	7.25	5494.75
TB1_shp	2458.33	639978.3	6326240	992.7	755.8	6.44	5100.56
TB1_shp	2458.33	639978.3	6326240	940.9	807.6	5.76	4755.09
TB1_shp	2458.33	639978.3	6326240	884.1	864.4	5.21	4454.62
TB1_shp	2458.33	639978.3	6326240	822.85	925.65	4.69	4153.02
TB1_shp	2458.33	639978.3	6326240	758	990.5	4.17	3839.28
TB1_shp	2458.33	639978.3	6326240	686.5	1062	3.78	3590.4
TB1_shp	2475	639991	6326239	1733.77	9.73	0.1	14657.83
TB1_shp	2475	639991	6326239	1714.3	29.2	0.1	8311.31
TB1_shp	2475	639991	6326239	1694.83	48.67	0.99	5620.66
TB1_shp	2475	639991	6326239	1675.37	68.13	2.58	4267.29
TB1_shp	2475	639991	6326239	1655.9	87.6	4.7	3615.68
TB1_shp	2475	639991	6326239	1636.43	107.07	7.03	3369.43
TB1_shp	2475	639991	6326239	1616.97	126.53	9.35	3380.83
TB1_shp	2475	639991	6326239	1597.5	146	11.44	3572.01
TB1_shp	2475	639991	6326239	1578.03	165.47	13.21	3894.66
TB1_shp	2475	639991	6326239	1558.57	184.93	14.58	4312.96
TB1_shp	2475	639991	6326239	1539.1	204.4	15.57	4793.9
TB1_shp	2475	639991	6326239	1519.63	223.87	16.28	5359.48
TB1_shp	2475	639991	6326239	1500.17	243.33	16.69	5900.24
TB1_shp	2475	639991	6326239	1480.7	262.8	16.91	6412.76
TB1_shp	2475	639991	6326239	1461.23	282.27	16.99	6895.37
TB1_shp	2475	639991	6326239	1441.5	302	16.91	7311.46
TB1_shp	2475	639991	6326239	1421.5	322	16.71	7636.26
TB1_shp	2475	639991	6326239	1401.5	342	16.42	7897.34
TB1_shp	2475	639991	6326239	1381.5	362	16	8045.43
TB1_shp	2475	639991	6326239	1361.5	382	15.51	8123.33
TB1_shp	2475	639991	6326239	1339.4	404.1	14.9	8142.67
TB1_shp	2475	639991	6326239	1314.85	428.65	14.18	8041.97
TB1_shp	2475	639991	6326239	1288.9	454.6	13.4	7883.92
TB1_shp	2475	639991	6326239	1260.4	483.1	12.52	7638.84
TB1_shp	2475	639991	6326239	1229.7	513.8	11.61	7315.44
TB1_shp	2475	639991	6326239	1197.05	546.45	10.68	6959.84
TB1_shp	2475	639991	6326239	1161.25	582.25	9.73	6566.65
TB1_shp	2475	639991	6326239	1122.6	620.9	8.79	6156.67
TB1_shp	2475	639991	6326239	1081.45	662.05	7.89	5754.63
TB1_shp	2475	639991	6326239	1036.35	707.15	7.04	5359.16
TB1_shp	2475	639991	6326239	987.7	755.8	6.26	4990.17

TB1_shp	2475	639991	6326239	935.9	807.6	5.62	4664.6
TB1_shp	2475	639991	6326239	879.1	864.4	5.09	4380.03
TB1_shp	2475	639991	6326239	817.85	925.65	4.6	4092.59
TB1_shp	2475	639991	6326239	753	990.5	4.11	3792.65
TB1_shp	2475	639991	6326239	681.5	1062	3.75	3553.76
TB1_shp	2491.67	640003.7	6326239	1728.77	9.73	2.44	6873.56
TB1_shp	2491.67	640003.7	6326239	1709.3	29.2	4.31	5592.59
TB1_shp	2491.67	640003.7	6326239	1689.83	48.67	6.23	4481.02
TB1_shp	2491.67	640003.7	6326239	1670.37	68.13	8.15	3844.51
TB1_shp	2491.67	640003.7	6326239	1650.9	87.6	10.09	3576.28
TB1_shp	2491.67	640003.7	6326239	1631.43	107.07	12.04	3560.47
TB1_shp	2491.67	640003.7	6326239	1611.97	126.53	13.84	3723.8
TB1_shp	2491.67	640003.7	6326239	1592.5	146	15.39	4015.64
TB1_shp	2491.67	640003.7	6326239	1573.03	165.47	16.62	4399.8
TB1_shp	2491.67	640003.7	6326239	1553.57	184.93	17.5	4841.91
TB1_shp	2491.67	640003.7	6326239	1534.1	204.4	18.11	5359.73
TB1_shp	2491.67	640003.7	6326239	1514.63	223.87	18.42	5853.24
TB1_shp	2491.67	640003.7	6326239	1495.17	243.33	18.52	6317.68
TB1_shp	2491.67	640003.7	6326239	1475.7	262.8	18.45	6752.21
TB1_shp	2491.67	640003.7	6326239	1456.23	282.27	18.19	7118.33
TB1_shp	2491.67	640003.7	6326239	1436.5	302	17.81	7403.65
TB1_shp	2491.67	640003.7	6326239	1416.5	322	17.33	7635.55
TB1_shp	2491.67	640003.7	6326239	1396.5	342	16.71	7760.67
TB1_shp	2491.67	640003.7	6326239	1376.5	362	16.04	7825.75
TB1_shp	2491.67	640003.7	6326239	1356.5	382	15.32	7833.39
TB1_shp	2491.67	640003.7	6326239	1334.4	404.1	14.53	7758.33
TB1_shp	2491.67	640003.7	6326239	1309.85	428.65	13.65	7635.34
TB1_shp	2491.67	640003.7	6326239	1283.9	454.6	12.74	7425.42
TB1_shp	2491.67	640003.7	6326239	1255.4	483.1	11.78	7164.39
TB1_shp	2491.67	640003.7	6326239	1224.7	513.8	10.8	6856.27
TB1_shp	2491.67	640003.7	6326239	1192.05	546.45	9.9	6523.11
TB1_shp	2491.67	640003.7	6326239	1156.25	582.25	8.99	6164.85
TB1_shp	2491.67	640003.7	6326239	1117.6	620.9	8.09	5791.9
TB1_shp	2491.67	640003.7	6326239	1076.45	662.05	7.26	5429.89
TB1_shp	2491.67	640003.7	6326239	1031.35	707.15	6.52	5090.4
TB1_shp	2491.67	640003.7	6326239	982.7	755.8	5.86	4770.11
TB1_shp	2491.67	640003.7	6326239	930.9	807.6	5.29	4479.15
TB1_shp	2491.67	640003.7	6326239	874.1	864.4	4.81	4220.04
TB1_shp	2491.67	640003.7	6326239	812.85	925.65	4.37	3948.62
TB1_shp	2491.67	640003.7	6326239	748	990.5	3.91	3661.67
TB1_shp	2491.67	640003.7	6326239	676.5	1062	3.65	3477.75

Expr1	Station	UTM_X	UTM Y	UTM Z	Depth	Chg	Rho
TC1_shp	108.33	637846.5	6324822	1665.44	9.73	36.21	1699.46
TC1_shp	108.33	637846.5	6324822	1645.97	29.2	34.57	1892.72
TC1_shp	108.33	637846.5	6324822	1626.5	48.67	29.88	2342.83
TC1_shp	108.33	637846.5	6324822	1607.04	68.13	25.13	2945.45
TC1_shp	108.33	637846.5	6324822	1587.57	87.6	21.35	3599.44
TC1_shp	108.33	637846.5	6324822	1568.1	107.07	18.83	4252.07
TC1_shp	108.33	637846.5	6324822	1548.64	126.53	17.25	4858.14
TC1_shp	108.33	637846.5	6324822	1529.17	146	16.24	5383.95
TC1_shp	108.33	637846.5	6324822	1509.7	165.47	15.49	5847.1
TC1_shp	108.33	637846.5	6324822	1490.24	184.93	14.9	6171.4
TC1_shp	108.33	637846.5	6324822	1470.77	204.4	14.35	6386.79
TC1_shp	108.33	637846.5	6324822	1451.3	223.87	13.79	6514.75
TC1_shp	108.33	637846.5	6324822	1431.84	243.33	13.19	6534.06
TC1_shp	108.33	637846.5	6324822	1412.37	262.8	12.58	6483.24
TC1_shp	108.33	637846.5	6324822	1392.9	282.27	11.96	6392.32
TC1_shp	108.33	637846.5	6324822	1373.17	302	11.34	6235.82
TC1_shp	108.33	637846.5	6324822	1353.17	322	10.73	6057.32
TC1_shp	108.33	637846.5	6324822	1333.17	342	10.15	5855.26
TC1_shp	108.33	637846.5	6324822	1313.17	362	9.62	5646.96
TC1_shp	108.33	637846.5	6324822	1293.17	382	9.12	5435.55
TC1_shp	108.33	637846.5	6324822	1271.07	404.1	8.64	5203.45
TC1_shp	108.33	637846.5	6324822	1246.52	428.65	8.13	4946.28
TC1_shp	108.33	637846.5	6324822	1220.57	454.6	7.67	4692.24
TC1_shp	108.33	637846.5	6324822	1192.07	483.1	7.21	4426.93
TC1_shp	108.33	637846.5	6324822	1161.37	513.8	6.8	4170.42
TC1_shp	108.33	637846.5	6324822	1128.72	546.45	6.43	3925.54
TC1_shp	108.33	637846.5	6324822	1092.92	582.25	6.06	3676.96
TC1_shp	108.33	637846.5	6324822	1054.27	620.9	5.75	3442.26
TC1_shp	108.33	637846.5	6324822	1013.12	662.05	5.47	3234.4
TC1_shp	108.33	637846.5	6324822	968.02	707.15	5.2	3036.74
TC1_shp	108.33	637846.5	6324822	919.37	755.8	4.96	2856.92
TC1_shp	108.33	637846.5	6324822	867.57	807.6	4.77	2711.43
TC1_shp	108.33	637846.5	6324822	810.77	864.4	4.59	2555.53
TC1_shp	108.33	637846.5	6324822	749.52	925.65	4.39	2389.01
TC1_shp	108.33	637846.5	6324822	684.67	990.5	4.22	2249.11
TC1_shp	108.33	637846.5	6324822	613.17	1062	4.11	2162.75
TC1_shp	125	637845.5	6324841	1667.77	9.73	26.89	932.17
TC1_shp	125	637845.5	6324841	1648.3	29.2	24.32	1346.82
TC1_shp	125	637845.5	6324841	1628.83	48.67	20.93	1933.81
TC1_shp	125	637845.5	6324841	1609.37	68.13	18.68	2608.84
TC1_shp	125	637845.5	6324841	1589.9	87.6	17.37	3317.69
TC1_shp	125	637845.5	6324841	1570.43	107.07	16.64	4036.68
TC1_shp	125	637845.5	6324841	1550.97	126.53	16.25	4724.73
TC1_shp	125	637845.5	6324841	1531.5	146	16.03	5343.38
TC1_shp	125	637845.5	6324841	1512.03	165.47	15.86	5909.28
TC1_shp	125	637845.5	6324841	1492.57	184.93	15.66	6323.05
TC1_shp	125	637845.5	6324841	1473.1	204.4	15.39	6614.08
TC1_shp	125	637845.5	6324841	1453.63	223.87	15.03	6804.73
TC1_shp	125	637845.5	6324841	1434.17	243.33	14.54	6866.95
TC1_shp	125	637845.5	6324841	1414.7	262.8	13.99	6842.16
TC1_shp	125	637845.5	6324841	1395.23	282.27	13.39	6767.63

TC1_shp	125	637845.5	6324841	1375.5	302	12.73	6612.18
TC1_shp	125	637845.5	6324841	1355.5	322	12.06	6428.62
TC1_shp	125	637845.5	6324841	1335.5	342	11.39	6214.27
TC1_shp	125	637845.5	6324841	1315.5	362	10.78	5989.52
TC1_shp	125	637845.5	6324841	1295.5	382	10.19	5759.59
TC1_shp	125	637845.5	6324841	1273.4	404.1	9.61	5504.56
TC1_shp	125	637845.5	6324841	1248.85	428.65	8.99	5221.08
TC1_shp	125	637845.5	6324841	1222.9	454.6	8.44	4940.8
TC1_shp	125	637845.5	6324841	1194.4	483.1	7.88	4647.9
TC1_shp	125	637845.5	6324841	1163.7	513.8	7.39	4364.29
TC1_shp	125	637845.5	6324841	1131.05	546.45	6.93	4094.29
TC1_shp	125	637845.5	6324841	1095.25	582.25	6.49	3820.92
TC1_shp	125	637845.5	6324841	1056.6	620.9	6.12	3564.22
TC1_shp	125	637845.5	6324841	1015.45	662.05	5.78	3337.47
TC1_shp	125	637845.5	6324841	970.35	707.15	5.46	3122.49
TC1_shp	125	637845.5	6324841	921.7	755.8	5.19	2927.86
TC1_shp	125	637845.5	6324841	869.9	807.6	4.97	2771.4
TC1_shp	125	637845.5	6324841	813.1	864.4	4.75	2604.78
TC1_shp	125	637845.5	6324841	751.85	925.65	4.53	2427.46
TC1_shp	125	637845.5	6324841	687	990.5	4.34	2278.91
TC1_shp	125	637845.5	6324841	615.5	1062	4.21	2188.22
TC1_shp	141.67	637844.5	6324861	1670.1	9.73	13.38	536.73
TC1_shp	141.67	637844.5	6324861	1650.63	29.2	12.78	1136.31
TC1_shp	141.67	637844.5	6324861	1631.16	48.67	12.61	1744.09
TC1_shp	141.67	637844.5	6324861	1611.7	68.13	12.97	2373.18
TC1_shp	141.67	637844.5	6324861	1592.23	87.6	13.62	3055.36
TC1_shp	141.67	637844.5	6324861	1572.76	107.07	14.34	3787.93
TC1_shp	141.67	637844.5	6324861	1553.3	126.53	15.01	4527.93
TC1_shp	141.67	637844.5	6324861	1533.83	146	15.55	5222.93
TC1_shp	141.67	637844.5	6324861	1514.36	165.47	15.98	5887.64
TC1_shp	141.67	637844.5	6324861	1494.9	184.93	16.18	6394.61
TC1_shp	141.67	637844.5	6324861	1475.43	204.4	16.2	6769.65
TC1_shp	141.67	637844.5	6324861	1455.96	223.87	16.06	7034.24
TC1_shp	141.67	637844.5	6324861	1436.5	243.33	15.73	7151.8
TC1_shp	141.67	637844.5	6324861	1417.03	262.8	15.26	7164.26
TC1_shp	141.67	637844.5	6324861	1397.56	282.27	14.72	7116.43
TC1_shp	141.67	637844.5	6324861	1377.83	302	14.06	6969.94
TC1_shp	141.67	637844.5	6324861	1357.83	322	13.36	6788.16
TC1_shp	141.67	637844.5	6324861	1337.83	342	12.63	6566.91
TC1_shp	141.67	637844.5	6324861	1317.83	362	11.94	6329.21
TC1_shp	141.67	637844.5	6324861	1297.83	382	11.28	6083.31
TC1_shp	141.67	637844.5	6324861	1275.73	404.1	10.61	5807.74
TC1_shp	141.67	637844.5	6324861	1251.18	428.65	9.88	5500.4
TC1_shp	141.67	637844.5	6324861	1225.23	454.6	9.23	5194.02
TC1_shp	141.67	637844.5	6324861	1196.73	483.1	8.58	4873.44
TC1_shp	141.67	637844.5	6324861	1166.03	513.8	7.99	4562.12
TC1_shp	141.67	637844.5	6324861	1133.38	546.45	7.46	4266.82
TC1_shp	141.67	637844.5	6324861	1097.58	582.25	6.94	3968.48
TC1_shp	141.67	637844.5	6324861	1058.93	620.9	6.5	3689.17
TC1_shp	141.67	637844.5	6324861	1017.78	662.05	6.11	3442.93
TC1_shp	141.67	637844.5	6324861	972.68	707.15	5.75	3210.02
TC1_shp	141.67	637844.5	6324861	924.03	755.8	5.42	2999.95

TC1_shp	141.67	637844.5	6324861	872.23	807.6	5.17	2832.18
TC1_shp	141.67	637844.5	6324861	815.43	864.4	4.92	2654.61
TC1_shp	141.67	637844.5	6324861	754.18	925.65	4.68	2466.29
TC1_shp	141.67	637844.5	6324861	689.33	990.5	4.46	2308.95
TC1_shp	141.67	637844.5	6324861	617.83	1062	4.32	2213.87
TC1_shp	158.33	637843.5	6324880	1672.44	9.73	16.53	14370.52
TC1_shp	158.33	637843.5	6324880	1652.97	29.2	9.52	3944.19
TC1_shp	158.33	637843.5	6324880	1633.5	48.67	7.51	2216.67
TC1_shp	158.33	637843.5	6324880	1614.04	68.13	8.16	2019.19
TC1_shp	158.33	637843.5	6324880	1594.57	87.6	9.58	2312.69
TC1_shp	158.33	637843.5	6324880	1575.1	107.07	11.18	2852.27
TC1_shp	158.33	637843.5	6324880	1555.64	126.53	12.71	3537.77
TC1_shp	158.33	637843.5	6324880	1536.17	146	14.05	4292.43
TC1_shp	158.33	637843.5	6324880	1516.7	165.47	15.16	5041.15
TC1_shp	158.33	637843.5	6324880	1497.24	184.93	16.05	5791.52
TC1_shp	158.33	637843.5	6324880	1477.77	204.4	16.6	6388.89
TC1_shp	158.33	637843.5	6324880	1458.3	223.87	16.88	6851.11
TC1_shp	158.33	637843.5	6324880	1438.84	243.33	16.95	7196.86
TC1_shp	158.33	637843.5	6324880	1419.37	262.8	16.75	7379.74
TC1_shp	158.33	637843.5	6324880	1399.9	282.27	16.38	7440.17
TC1_shp	158.33	637843.5	6324880	1380.17	302	15.9	7428.16
TC1_shp	158.33	637843.5	6324880	1360.17	322	15.26	7296.84
TC1_shp	158.33	637843.5	6324880	1340.17	342	14.56	7122.18
TC1_shp	158.33	637843.5	6324880	1320.17	362	13.81	6901.41
TC1_shp	158.33	637843.5	6324880	1300.17	382	13.08	6654.31
TC1_shp	158.33	637843.5	6324880	1278.07	404.1	12.28	6368.48
TC1_shp	158.33	637843.5	6324880	1253.52	428.65	11.45	6040.9
TC1_shp	158.33	637843.5	6324880	1227.57	454.6	10.62	5697.58
TC1_shp	158.33	637843.5	6324880	1199.07	483.1	9.8	5333.9
TC1_shp	158.33	637843.5	6324880	1168.37	513.8	9.06	4978.31
TC1_shp	158.33	637843.5	6324880	1135.72	546.45	8.35	4626.17
TC1_shp	158.33	637843.5	6324880	1099.92	582.25	7.72	4289.18
TC1_shp	158.33	637843.5	6324880	1061.27	620.9	7.16	3968.89
TC1_shp	158.33	637843.5	6324880	1020.12	662.05	6.65	3667.86
TC1_shp	158.33	637843.5	6324880	975.02	707.15	6.19	3395.39
TC1_shp	158.33	637843.5	6324880	926.37	755.8	5.82	3163.47
TC1_shp	158.33	637843.5	6324880	874.57	807.6	5.49	2960.68
TC1_shp	158.33	637843.5	6324880	817.77	864.4	5.19	2768.44
TC1_shp	158.33	637843.5	6324880	756.52	925.65	4.91	2568.92
TC1_shp	158.33	637843.5	6324880	691.67	990.5	4.63	2366.33
TC1_shp	158.33	637843.5	6324880	620.17	1062	4.48	2266.8
TC1_shp	175	637842.5	6324899	1674.77	9.73	22.17	16155.9
TC1_shp	175	637842.5	6324899	1655.3	29.2	12.01	6937.76
TC1_shp	175	637842.5	6324899	1635.83	48.67	7.88	3120.82
TC1_shp	175	637842.5	6324899	1616.37	68.13	7.7	2221.96
TC1_shp	175	637842.5	6324899	1596.9	87.6	8.85	2243.74
TC1_shp	175	637842.5	6324899	1577.43	107.07	10.45	2655.93
TC1_shp	175	637842.5	6324899	1557.97	126.53	12.14	3285.54
TC1_shp	175	637842.5	6324899	1538.5	146	13.72	4034.27
TC1_shp	175	637842.5	6324899	1519.03	165.47	15.09	4817.75
TC1_shp	175	637842.5	6324899	1499.57	184.93	16.27	5637.11
TC1_shp	175	637842.5	6324899	1480.1	204.4	17.05	6316.18

TC1_shp	175	637842.5	6324899	1460.63	223.87	17.51	6863.59
TC1_shp	175	637842.5	6324899	1441.17	243.33	17.74	7293.19
TC1_shp	175	637842.5	6324899	1421.7	262.8	17.66	7549.07
TC1_shp	175	637842.5	6324899	1402.23	282.27	17.37	7665.91
TC1_shp	175	637842.5	6324899	1382.5	302	16.97	7700.59
TC1_shp	175	637842.5	6324899	1362.5	322	16.36	7596.43
TC1_shp	175	637842.5	6324899	1342.5	342	15.68	7438.87
TC1_shp	175	637842.5	6324899	1322.5	362	14.93	7224.51
TC1_shp	175	637842.5	6324899	1302.5	382	14.17	6974.31
TC1_shp	175	637842.5	6324899	1280.4	404.1	13.32	6680.42
TC1_shp	175	637842.5	6324899	1255.85	428.65	12.43	6334.46
TC1_shp	175	637842.5	6324899	1229.9	454.6	11.52	5969.76
TC1_shp	175	637842.5	6324899	1201.4	483.1	10.61	5580.25
TC1_shp	175	637842.5	6324899	1170.7	513.8	9.77	5198.49
TC1_shp	175	637842.5	6324899	1138.05	546.45	8.98	4819.71
TC1_shp	175	637842.5	6324899	1102.25	582.25	8.26	4455.71
TC1_shp	175	637842.5	6324899	1063.6	620.9	7.61	4110.11
TC1_shp	175	637842.5	6324899	1022.45	662.05	7.04	3785.71
TC1_shp	175	637842.5	6324899	977.35	707.15	6.52	3492.77
TC1_shp	175	637842.5	6324899	928.7	755.8	6.09	3244.16
TC1_shp	175	637842.5	6324899	876.9	807.6	5.72	3027.47
TC1_shp	175	637842.5	6324899	820.1	864.4	5.4	2823.05
TC1_shp	175	637842.5	6324899	758.85	925.65	5.09	2612.14
TC1_shp	175	637842.5	6324899	694	990.5	4.77	2398.06
TC1_shp	175	637842.5	6324899	622.5	1062	4.6	2294.03
TC1_shp	191.67	637841.5	6324919	1677.1	9.73	29.63	9472.84
TC1_shp	191.67	637841.5	6324919	1657.63	29.2	19.48	4894.12
TC1_shp	191.67	637841.5	6324919	1638.16	48.67	12.45	2657.21
TC1_shp	191.67	637841.5	6324919	1618.7	68.13	10.47	2022.92
TC1_shp	191.67	637841.5	6324919	1599.23	87.6	10.51	2055.29
TC1_shp	191.67	637841.5	6324919	1579.76	107.07	11.44	2433.21
TC1_shp	191.67	637841.5	6324919	1560.3	126.53	12.75	3032.53
TC1_shp	191.67	637841.5	6324919	1540.83	146	14.15	3773.42
TC1_shp	191.67	637841.5	6324919	1521.36	165.47	15.48	4576.4
TC1_shp	191.67	637841.5	6324919	1501.9	184.93	16.71	5448.03
TC1_shp	191.67	637841.5	6324919	1482.43	204.4	17.58	6194.92
TC1_shp	191.67	637841.5	6324919	1462.96	223.87	18.13	6818.75
TC1_shp	191.67	637841.5	6324919	1443.5	243.33	18.44	7328.78
TC1_shp	191.67	637841.5	6324919	1424.03	262.8	18.44	7659.47
TC1_shp	191.67	637841.5	6324919	1404.56	282.27	18.22	7837.67
TC1_shp	191.67	637841.5	6324919	1384.83	302	17.87	7925.78
TC1_shp	191.67	637841.5	6324919	1364.83	322	17.31	7857.2
TC1_shp	191.67	637841.5	6324919	1344.83	342	16.66	7724.97
TC1_shp	191.67	637841.5	6324919	1324.83	362	15.93	7525
TC1_shp	191.67	637841.5	6324919	1304.83	382	15.16	7277.71
TC1_shp	191.67	637841.5	6324919	1282.73	404.1	14.3	6981.46
TC1_shp	191.67	637841.5	6324919	1258.18	428.65	13.37	6621.57
TC1_shp	191.67	637841.5	6324919	1232.23	454.6	12.41	6239.15
TC1_shp	191.67	637841.5	6324919	1203.73	483.1	11.41	5825.3
TC1_shp	191.67	637841.5	6324919	1173.03	513.8	10.49	5418.59
TC1_shp	191.67	637841.5	6324919	1140.38	546.45	9.61	5014.09
TC1_shp	191.67	637841.5	6324919	1104.58	582.25	8.81	4623.1

TC1_shp	191.67	637841.5	6324919	1065.93	620.9	8.09	4252.49
TC1_shp	191.67	637841.5	6324919	1024.78	662.05	7.43	3904.96
TC1_shp	191.67	637841.5	6324919	979.68	707.15	6.86	3591.33
TC1_shp	191.67	637841.5	6324919	931.03	755.8	6.38	3325.85
TC1_shp	191.67	637841.5	6324919	879.23	807.6	5.97	3095.09
TC1_shp	191.67	637841.5	6324919	822.43	864.4	5.61	2878.3
TC1_shp	191.67	637841.5	6324919	761.18	925.65	5.26	2655.79
TC1_shp	191.67	637841.5	6324919	696.33	990.5	4.91	2430.01
TC1_shp	191.67	637841.5	6324919	624.83	1062	4.72	2321.43
TC1_shp	208.33	637839.4	6324935	1680.19	9.73	15.8	1242.55
TC1_shp	208.33	637839.4	6324935	1660.72	29.2	25.25	1824.07
TC1_shp	208.33	637839.4	6324935	1641.25	48.67	21.47	1736.7
TC1_shp	208.33	637839.4	6324935	1621.79	68.13	16.63	1662.77
TC1_shp	208.33	637839.4	6324935	1602.32	87.6	14.29	1821.74
TC1_shp	208.33	637839.4	6324935	1582.85	107.07	13.82	2212.28
TC1_shp	208.33	637839.4	6324935	1563.39	126.53	14.3	2798.78
TC1_shp	208.33	637839.4	6324935	1543.92	146	15.23	3530.98
TC1_shp	208.33	637839.4	6324935	1524.45	165.47	16.29	4342.11
TC1_shp	208.33	637839.4	6324935	1504.99	184.93	17.39	5246.84
TC1_shp	208.33	637839.4	6324935	1485.52	204.4	18.19	6044.55
TC1_shp	208.33	637839.4	6324935	1466.05	223.87	18.74	6731.12
TC1_shp	208.33	637839.4	6324935	1446.59	243.33	19.07	7311.55
TC1_shp	208.33	637839.4	6324935	1427.12	262.8	19.1	7714.11
TC1_shp	208.33	637839.4	6324935	1407.65	282.27	18.92	7955
TC1_shp	208.33	637839.4	6324935	1387.92	302	18.62	8100.26
TC1_shp	208.33	637839.4	6324935	1367.92	322	18.11	8074.06
TC1_shp	208.33	637839.4	6324935	1347.92	342	17.5	7974.05
TC1_shp	208.33	637839.4	6324935	1327.92	362	16.8	7795.5
TC1_shp	208.33	637839.4	6324935	1307.92	382	16.04	7557.62
TC1_shp	208.33	637839.4	6324935	1285.82	404.1	15.19	7265.92
TC1_shp	208.33	637839.4	6324935	1261.27	428.65	14.24	6896.99
TC1_shp	208.33	637839.4	6324935	1235.32	454.6	13.25	6501.3
TC1_shp	208.33	637839.4	6324935	1206.82	483.1	12.2	6066.86
TC1_shp	208.33	637839.4	6324935	1176.12	513.8	11.22	5636.96
TC1_shp	208.33	637839.4	6324935	1143.47	546.45	10.26	5207.54
TC1_shp	208.33	637839.4	6324935	1107.67	582.25	9.37	4790.77
TC1_shp	208.33	637839.4	6324935	1069.02	620.9	8.56	4395.59
TC1_shp	208.33	637839.4	6324935	1027.87	662.05	7.84	4025.07
TC1_shp	208.33	637839.4	6324935	982.77	707.15	7.21	3691.02
TC1_shp	208.33	637839.4	6324935	934.12	755.8	6.68	3408.45
TC1_shp	208.33	637839.4	6324935	882.32	807.6	6.23	3163.36
TC1_shp	208.33	637839.4	6324935	825.52	864.4	5.83	2933.98
TC1_shp	208.33	637839.4	6324935	764.27	925.65	5.45	2699.76
TC1_shp	208.33	637839.4	6324935	699.42	990.5	5.06	2462.16
TC1_shp	208.33	637839.4	6324935	627.92	1062	4.85	2348.97
TC1_shp	225	637836.3	6324948	1684.02	9.73	17.68	1944.93
TC1_shp	225	637836.3	6324948	1664.55	29.2	27.66	1863.03
TC1_shp	225	637836.3	6324948	1645.08	48.67	27.75	1582.45
TC1_shp	225	637836.3	6324948	1625.62	68.13	22.54	1501.27
TC1_shp	225	637836.3	6324948	1606.15	87.6	18.51	1662.66
TC1_shp	225	637836.3	6324948	1586.68	107.07	16.7	2042
TC1_shp	225	637836.3	6324948	1567.22	126.53	16.3	2610.52

TC1_shp	225	637836.3	6324948	1547.75	146	16.66	3328.43
TC1_shp	225	637836.3	6324948	1528.28	165.47	17.33	4136.4
TC1_shp	225	637836.3	6324948	1508.82	184.93	18.18	5055.94
TC1_shp	225	637836.3	6324948	1489.35	204.4	18.84	5885.89
TC1_shp	225	637836.3	6324948	1469.88	223.87	19.31	6618.45
TC1_shp	225	637836.3	6324948	1450.42	243.33	19.59	7255.28
TC1_shp	225	637836.3	6324948	1430.95	262.8	19.62	7721.59
TC1_shp	225	637836.3	6324948	1411.48	282.27	19.47	8022.11
TC1_shp	225	637836.3	6324948	1391.75	302	19.19	8224.36
TC1_shp	225	637836.3	6324948	1371.75	322	18.72	8244.61
TC1_shp	225	637836.3	6324948	1351.75	342	18.16	8182.32
TC1_shp	225	637836.3	6324948	1331.75	362	17.51	8032.19
TC1_shp	225	637836.3	6324948	1311.75	382	16.79	7809.48
TC1_shp	225	637836.3	6324948	1289.65	404.1	15.97	7528.1
TC1_shp	225	637836.3	6324948	1265.1	428.65	15.02	7156.84
TC1_shp	225	637836.3	6324948	1239.15	454.6	14.03	6753.9
TC1_shp	225	637836.3	6324948	1210.65	483.1	12.95	6301.99
TC1_shp	225	637836.3	6324948	1179.95	513.8	11.91	5851.44
TC1_shp	225	637836.3	6324948	1147.3	546.45	10.89	5399.14
TC1_shp	225	637836.3	6324948	1111.5	582.25	9.94	4957.39
TC1_shp	225	637836.3	6324948	1072.85	620.9	9.06	4538.51
TC1_shp	225	637836.3	6324948	1031.7	662.05	8.26	4145.64
TC1_shp	225	637836.3	6324948	986.6	707.15	7.57	3791.15
TC1_shp	225	637836.3	6324948	937.95	755.8	6.99	3491.57
TC1_shp	225	637836.3	6324948	886.15	807.6	6.49	3232.15
TC1_shp	225	637836.3	6324948	829.35	864.4	6.05	2990.09
TC1_shp	225	637836.3	6324948	768.1	925.65	5.63	2744.01
TC1_shp	225	637836.3	6324948	703.25	990.5	5.21	2494.46
TC1_shp	225	637836.3	6324948	631.75	1062	4.98	2376.63
TC1_shp	241.67	637833.1	6324962	1687.85	9.73	16.48	5322.04
TC1_shp	241.67	637833.1	6324962	1668.38	29.2	19.02	2844.55
TC1_shp	241.67	637833.1	6324962	1648.91	48.67	23.13	1771.67
TC1_shp	241.67	637833.1	6324962	1629.45	68.13	22.73	1487.14
TC1_shp	241.67	637833.1	6324962	1609.98	87.6	20.48	1587.21
TC1_shp	241.67	637833.1	6324962	1590.51	107.07	18.82	1937.11
TC1_shp	241.67	637833.1	6324962	1571.05	126.53	18.1	2482.84
TC1_shp	241.67	637833.1	6324962	1551.58	146	18.06	3181.86
TC1_shp	241.67	637833.1	6324962	1532.11	165.47	18.39	3977.51
TC1_shp	241.67	637833.1	6324962	1512.65	184.93	18.94	4895.58
TC1_shp	241.67	637833.1	6324962	1493.18	204.4	19.41	5739.38
TC1_shp	241.67	637833.1	6324962	1473.71	223.87	19.75	6499.61
TC1_shp	241.67	637833.1	6324962	1454.25	243.33	19.95	7175.88
TC1_shp	241.67	637833.1	6324962	1434.78	262.8	19.96	7693.68
TC1_shp	241.67	637833.1	6324962	1415.31	282.27	19.81	8047.13
TC1_shp	241.67	637833.1	6324962	1395.58	302	19.57	8302.8
TC1_shp	241.67	637833.1	6324962	1375.58	322	19.15	8370.32
TC1_shp	241.67	637833.1	6324962	1355.58	342	18.64	8348.88
TC1_shp	241.67	637833.1	6324962	1335.58	362	18.04	8232.8
TC1_shp	241.67	637833.1	6324962	1315.58	382	17.38	8030.35
TC1_shp	241.67	637833.1	6324962	1293.48	404.1	16.62	7764.68
TC1_shp	241.67	637833.1	6324962	1268.93	428.65	15.71	7397.05
TC1_shp	241.67	637833.1	6324962	1242.98	454.6	14.72	6992.75

TC1_shp	241.67	637833.1	6324962	1214.48	483.1	13.64	6528.54
TC1_shp	241.67	637833.1	6324962	1183.78	513.8	12.57	6060.04
TC1_shp	241.67	637833.1	6324962	1151.13	546.45	11.51	5586.37
TC1_shp	241.67	637833.1	6324962	1115.33	582.25	10.5	5121.71
TC1_shp	241.67	637833.1	6324962	1076.68	620.9	9.56	4680.25
TC1_shp	241.67	637833.1	6324962	1035.53	662.05	8.69	4265.78
TC1_shp	241.67	637833.1	6324962	990.43	707.15	7.93	3891.65
TC1_shp	241.67	637833.1	6324962	941.78	755.8	7.3	3575.07
TC1_shp	241.67	637833.1	6324962	889.98	807.6	6.76	3301.23
TC1_shp	241.67	637833.1	6324962	833.18	864.4	6.28	3046.41
TC1_shp	241.67	637833.1	6324962	771.93	925.65	5.83	2788.44
TC1_shp	241.67	637833.1	6324962	707.08	990.5	5.37	2526.9
TC1_shp	241.67	637833.1	6324962	635.58	1062	5.13	2404.38
TC1_shp	258.33	637829.9	6324975	1691.69	9.73	0.18	4833.63
TC1_shp	258.33	637829.9	6324975	1672.22	29.2	2.52	5097.85
TC1_shp	258.33	637829.9	6324975	1652.75	48.67	6.72	3073.92
TC1_shp	258.33	637829.9	6324975	1633.29	68.13	13.47	1876.84
TC1_shp	258.33	637829.9	6324975	1613.82	87.6	18.54	1507.88
TC1_shp	258.33	637829.9	6324975	1594.35	107.07	19.9	1568.88
TC1_shp	258.33	637829.9	6324975	1574.89	126.53	19.67	1896.84
TC1_shp	258.33	637829.9	6324975	1555.42	146	19.29	2423.97
TC1_shp	258.33	637829.9	6324975	1535.95	165.47	19.15	3103.92
TC1_shp	258.33	637829.9	6324975	1516.49	184.93	19.25	3880.2
TC1_shp	258.33	637829.9	6324975	1497.02	204.4	19.54	4782.96
TC1_shp	258.33	637829.9	6324975	1477.55	223.87	19.8	5621.99
TC1_shp	258.33	637829.9	6324975	1458.09	243.33	19.99	6390.03
TC1_shp	258.33	637829.9	6324975	1438.62	262.8	20.1	7087.46
TC1_shp	258.33	637829.9	6324975	1419.15	282.27	20.07	7641.17
TC1_shp	258.33	637829.9	6324975	1399.42	302	19.93	8041.71
TC1_shp	258.33	637829.9	6324975	1379.42	322	19.71	8342.51
TC1_shp	258.33	637829.9	6324975	1359.42	342	19.35	8456.2
TC1_shp	258.33	637829.9	6324975	1339.42	362	18.9	8471.31
TC1_shp	258.33	637829.9	6324975	1319.42	382	18.38	8392.06
TC1_shp	258.33	637829.9	6324975	1297.32	404.1	17.73	8187.7
TC1_shp	258.33	637829.9	6324975	1272.77	428.65	16.95	7907.12
TC1_shp	258.33	637829.9	6324975	1246.82	454.6	16.03	7516.25
TC1_shp	258.33	637829.9	6324975	1218.32	483.1	14.99	7063.7
TC1_shp	258.33	637829.9	6324975	1187.62	513.8	13.85	6557.51
TC1_shp	258.33	637829.9	6324975	1154.97	546.45	12.75	6058.29
TC1_shp	258.33	637829.9	6324975	1119.17	582.25	11.63	5547.1
TC1_shp	258.33	637829.9	6324975	1080.52	620.9	10.52	5040.4
TC1_shp	258.33	637829.9	6324975	1039.37	662.05	9.52	4574.88
TC1_shp	258.33	637829.9	6324975	994.27	707.15	8.66	4161.51
TC1_shp	258.33	637829.9	6324975	945.62	755.8	7.9	3788.21
TC1_shp	258.33	637829.9	6324975	893.82	807.6	7.24	3464.57
TC1_shp	258.33	637829.9	6324975	837.02	864.4	6.69	3189.98
TC1_shp	258.33	637829.9	6324975	775.77	925.65	6.2	2918.8
TC1_shp	258.33	637829.9	6324975	710.92	990.5	5.68	2633
TC1_shp	258.33	637829.9	6324975	639.42	1062	5.35	2466.81
TC1_shp	275	637826.8	6324989	1695.52	9.73	0.14	6499.5
TC1_shp	275	637826.8	6324989	1676.05	29.2	1.18	5545.76
TC1_shp	275	637826.8	6324989	1656.58	48.67	3.98	3279.42

TC1_shp	275	637826.8	6324989	1637.12	68.13	9.43	1984.35
TC1_shp	275	637826.8	6324989	1617.65	87.6	15.48	1569.57
TC1_shp	275	637826.8	6324989	1598.18	107.07	18.86	1611.52
TC1_shp	275	637826.8	6324989	1578.72	126.53	19.87	1929.38
TC1_shp	275	637826.8	6324989	1559.25	146	19.96	2445.03
TC1_shp	275	637826.8	6324989	1539.78	165.47	19.84	3106.31
TC1_shp	275	637826.8	6324989	1520.32	184.93	19.79	3857.72
TC1_shp	275	637826.8	6324989	1500.85	204.4	19.84	4730.03
TC1_shp	275	637826.8	6324989	1481.38	223.87	19.91	5546.42
TC1_shp	275	637826.8	6324989	1461.92	243.33	19.96	6302.9
TC1_shp	275	637826.8	6324989	1442.45	262.8	19.99	7000.84
TC1_shp	275	637826.8	6324989	1422.98	282.27	19.94	7574.02
TC1_shp	275	637826.8	6324989	1403.25	302	19.81	8005.14
TC1_shp	275	637826.8	6324989	1383.25	322	19.63	8343
TC1_shp	275	637826.8	6324989	1363.25	342	19.35	8500.19
TC1_shp	275	637826.8	6324989	1343.25	362	18.99	8555.68
TC1_shp	275	637826.8	6324989	1323.25	382	18.56	8513.84
TC1_shp	275	637826.8	6324989	1301.15	404.1	18	8340.14
TC1_shp	275	637826.8	6324989	1276.6	428.65	17.32	8087.79
TC1_shp	275	637826.8	6324989	1250.65	454.6	16.49	7709.35
TC1_shp	275	637826.8	6324989	1222.15	483.1	15.52	7261.95
TC1_shp	275	637826.8	6324989	1191.45	513.8	14.43	6753.4
TC1_shp	275	637826.8	6324989	1158.8	546.45	13.33	6241.33
TC1_shp	275	637826.8	6324989	1123	582.25	12.19	5713.45
TC1_shp	275	637826.8	6324989	1084.35	620.9	11.04	5186.92
TC1_shp	275	637826.8	6324989	1043.2	662.05	9.99	4700.87
TC1_shp	275	637826.8	6324989	998.1	707.15	9.08	4268.69
TC1_shp	275	637826.8	6324989	949.45	755.8	8.26	3877.72
TC1_shp	275	637826.8	6324989	897.65	807.6	7.55	3538.22
TC1_shp	275	637826.8	6324989	840.85	864.4	6.95	3250.34
TC1_shp	275	637826.8	6324989	779.6	925.65	6.42	2967.11
TC1_shp	275	637826.8	6324989	714.75	990.5	5.86	2668.68
TC1_shp	275	637826.8	6324989	643.25	1062	5.51	2495.87
TC1_shp	291.67	637823.6	6325003	1699.35	9.73	0.3	10602.08
TC1_shp	291.67	637823.6	6325003	1679.88	29.2	1.35	7647.19
TC1_shp	291.67	637823.6	6325003	1660.41	48.67	4.29	3873.89
TC1_shp	291.67	637823.6	6325003	1640.95	68.13	9.67	2208.37
TC1_shp	291.67	637823.6	6325003	1621.48	87.6	15.45	1711.77
TC1_shp	291.67	637823.6	6325003	1602.01	107.07	18.95	1736.24
TC1_shp	291.67	637823.6	6325003	1582.55	126.53	20.22	2051.25
TC1_shp	291.67	637823.6	6325003	1563.08	146	20.4	2559.4
TC1_shp	291.67	637823.6	6325003	1543.61	165.47	20.22	3200.56
TC1_shp	291.67	637823.6	6325003	1524.15	184.93	19.99	3918.38
TC1_shp	291.67	637823.6	6325003	1504.68	204.4	19.81	4744.7
TC1_shp	291.67	637823.6	6325003	1485.21	223.87	19.7	5519.69
TC1_shp	291.67	637823.6	6325003	1465.75	243.33	19.62	6244.92
TC1_shp	291.67	637823.6	6325003	1446.28	262.8	19.57	6923.76
TC1_shp	291.67	637823.6	6325003	1426.81	282.27	19.53	7498.35
TC1_shp	291.67	637823.6	6325003	1407.08	302	19.44	7946.68
TC1_shp	291.67	637823.6	6325003	1387.08	322	19.32	8311.13
TC1_shp	291.67	637823.6	6325003	1367.08	342	19.13	8506.08
TC1_shp	291.67	637823.6	6325003	1347.08	362	18.88	8599.28

TC1_shp	291.67	637823.6	6325003	1327.08	382	18.57	8595.1
TC1_shp	291.67	637823.6	6325003	1304.98	404.1	18.12	8454.54
TC1_shp	291.67	637823.6	6325003	1280.43	428.65	17.57	8234.23
TC1_shp	291.67	637823.6	6325003	1254.48	454.6	16.84	7874.1
TC1_shp	291.67	637823.6	6325003	1225.98	483.1	15.96	7438.06
TC1_shp	291.67	637823.6	6325003	1195.28	513.8	14.94	6933.55
TC1_shp	291.67	637823.6	6325003	1162.63	546.45	13.86	6413.18
TC1_shp	291.67	637823.6	6325003	1126.83	582.25	12.71	5872.25
TC1_shp	291.67	637823.6	6325003	1088.18	620.9	11.54	5328.62
TC1_shp	291.67	637823.6	6325003	1047.03	662.05	10.44	4824.03
TC1_shp	291.67	637823.6	6325003	1001.93	707.15	9.48	4373.95
TC1_shp	291.67	637823.6	6325003	953.28	755.8	8.61	3966.07
TC1_shp	291.67	637823.6	6325003	901.48	807.6	7.86	3611.41
TC1_shp	291.67	637823.6	6325003	844.68	864.4	7.22	3310.52
TC1_shp	291.67	637823.6	6325003	783.43	925.65	6.65	3015.31
TC1_shp	291.67	637823.6	6325003	718.58	990.5	6.05	2704.31
TC1_shp	291.67	637823.6	6325003	647.08	1062	5.67	2524.89
TC1_shp	308.33	637822.3	6325019	1701.69	9.73	3.16	3828.26
TC1_shp	308.33	637822.3	6325019	1682.22	29.2	4.63	7794.6
TC1_shp	308.33	637822.3	6325019	1662.75	48.67	9.25	4609.71
TC1_shp	308.33	637822.3	6325019	1643.29	68.13	14.88	2573.57
TC1_shp	308.33	637822.3	6325019	1623.82	87.6	18.76	1964.47
TC1_shp	308.33	637822.3	6325019	1604.35	107.07	20.53	1968.91
TC1_shp	308.33	637822.3	6325019	1584.89	126.53	20.97	2283.97
TC1_shp	308.33	637822.3	6325019	1565.42	146	20.77	2783.84
TC1_shp	308.33	637822.3	6325019	1545.95	165.47	20.31	3396.77
TC1_shp	308.33	637822.3	6325019	1526.49	184.93	19.85	4068.07
TC1_shp	308.33	637822.3	6325019	1507.02	204.4	19.43	4829.57
TC1_shp	308.33	637822.3	6325019	1487.55	223.87	19.14	5544.16
TC1_shp	308.33	637822.3	6325019	1468.09	243.33	18.97	6219.4
TC1_shp	308.33	637822.3	6325019	1448.62	262.8	18.87	6860.69
TC1_shp	308.33	637822.3	6325019	1429.15	282.27	18.84	7419.46
TC1_shp	308.33	637822.3	6325019	1409.42	302	18.82	7871.52
TC1_shp	308.33	637822.3	6325019	1389.42	322	18.79	8251.38
TC1_shp	308.33	637822.3	6325019	1369.42	342	18.72	8476.89
TC1_shp	308.33	637822.3	6325019	1349.42	362	18.58	8603.77
TC1_shp	308.33	637822.3	6325019	1329.42	382	18.39	8636.29
TC1_shp	308.33	637822.3	6325019	1307.32	404.1	18.08	8530.55
TC1_shp	308.33	637822.3	6325019	1282.77	428.65	17.67	8345.33
TC1_shp	308.33	637822.3	6325019	1256.82	454.6	17.07	8008.35
TC1_shp	308.33	637822.3	6325019	1228.32	483.1	16.3	7589.07
TC1_shp	308.33	637822.3	6325019	1197.62	513.8	15.38	7094.45
TC1_shp	308.33	637822.3	6325019	1164.97	546.45	14.33	6571.03
TC1_shp	308.33	637822.3	6325019	1129.17	582.25	13.2	6021.47
TC1_shp	308.33	637822.3	6325019	1090.52	620.9	12.02	5464.05
TC1_shp	308.33	637822.3	6325019	1049.37	662.05	10.9	4942.74
TC1_shp	308.33	637822.3	6325019	1004.27	707.15	9.9	4476.61
TC1_shp	308.33	637822.3	6325019	955.62	755.8	8.98	4053.07
TC1_shp	308.33	637822.3	6325019	903.82	807.6	8.18	3683.81
TC1_shp	308.33	637822.3	6325019	847.02	864.4	7.5	3370.25
TC1_shp	308.33	637822.3	6325019	785.77	925.65	6.89	3063.23
TC1_shp	308.33	637822.3	6325019	720.92	990.5	6.25	2739.83

TC1_shp	308.33	637822.3	6325019	649.42	1062	5.84	2553.83
TC1_shp	325	637823	6325040	1702.52	9.73	8.73	3123.87
TC1_shp	325	637823	6325040	1683.05	29.2	16.6	8891.73
TC1_shp	325	637823	6325040	1663.58	48.67	23.15	5480.85
TC1_shp	325	637823	6325040	1644.12	68.13	24.12	3049.05
TC1_shp	325	637823	6325040	1624.65	87.6	23.26	2336.87
TC1_shp	325	637823	6325040	1605.18	107.07	22.35	2330.87
TC1_shp	325	637823	6325040	1585.72	126.53	21.61	2649.15
TC1_shp	325	637823	6325040	1566.25	146	20.86	3133.16
TC1_shp	325	637823	6325040	1546.78	165.47	20.08	3702.16
TC1_shp	325	637823	6325040	1527.32	184.93	19.36	4306.52
TC1_shp	325	637823	6325040	1507.85	204.4	18.71	4979.87
TC1_shp	325	637823	6325040	1488.38	223.87	18.28	5613.77
TC1_shp	325	637823	6325040	1468.92	243.33	18.02	6220.74
TC1_shp	325	637823	6325040	1449.45	262.8	17.9	6807.63
TC1_shp	325	637823	6325040	1429.98	282.27	17.92	7336.94
TC1_shp	325	637823	6325040	1410.25	302	17.98	7780.62
TC1_shp	325	637823	6325040	1390.25	322	18.06	8165.14
TC1_shp	325	637823	6325040	1370.25	342	18.12	8414.99
TC1_shp	325	637823	6325040	1350.25	362	18.13	8571.45
TC1_shp	325	637823	6325040	1330.25	382	18.08	8638.54
TC1_shp	325	637823	6325040	1308.15	404.1	17.91	8568.62
TC1_shp	325	637823	6325040	1283.6	428.65	17.66	8421.01
TC1_shp	325	637823	6325040	1257.65	454.6	17.19	8111.58
TC1_shp	325	637823	6325040	1229.15	483.1	16.55	7714
TC1_shp	325	637823	6325040	1198.45	513.8	15.74	7234.64
TC1_shp	325	637823	6325040	1165.8	546.45	14.75	6712.67
TC1_shp	325	637823	6325040	1130	582.25	13.66	6158.93
TC1_shp	325	637823	6325040	1091.35	620.9	12.49	5591.83
TC1_shp	325	637823	6325040	1050.2	662.05	11.35	5056.7
TC1_shp	325	637823	6325040	1005.1	707.15	10.32	4575.95
TC1_shp	325	637823	6325040	956.45	755.8	9.35	4137.89
TC1_shp	325	637823	6325040	904.65	807.6	8.5	3755.11
TC1_shp	325	637823	6325040	847.85	864.4	7.79	3429.45
TC1_shp	325	637823	6325040	786.6	925.65	7.14	3110.78
TC1_shp	325	637823	6325040	721.75	990.5	6.46	2775.11
TC1_shp	325	637823	6325040	650.25	1062	6.02	2582.59
TC1_shp	341.67	637823.7	6325060	1703.35	9.73	13.23	4624.17
TC1_shp	341.67	637823.7	6325060	1683.88	29.2	27.08	12371.09
TC1_shp	341.67	637823.7	6325060	1664.41	48.67	29.13	6514.59
TC1_shp	341.67	637823.7	6325060	1644.95	68.13	26.17	3575.48
TC1_shp	341.67	637823.7	6325060	1625.48	87.6	23.58	2817.15
TC1_shp	341.67	637823.7	6325060	1606.01	107.07	22.2	2835.31
TC1_shp	341.67	637823.7	6325060	1586.55	126.53	21.32	3161.6
TC1_shp	341.67	637823.7	6325060	1567.08	146	20.43	3613.45
TC1_shp	341.67	637823.7	6325060	1547.61	165.47	19.45	4111.22
TC1_shp	341.67	637823.7	6325060	1528.15	184.93	18.52	4620.38
TC1_shp	341.67	637823.7	6325060	1508.68	204.4	17.68	5179.92
TC1_shp	341.67	637823.7	6325060	1489.21	223.87	17.15	5713.73
TC1_shp	341.67	637823.7	6325060	1469.75	243.33	16.85	6236.96
TC1_shp	341.67	637823.7	6325060	1450.28	262.8	16.74	6756.37
TC1_shp	341.67	637823.7	6325060	1430.81	282.27	16.84	7245.48

TC1_shp	341.67	637823.7	6325060	1411.08	302	17.01	7671.29
TC1_shp	341.67	637823.7	6325060	1391.08	322	17.21	8051.88
TC1_shp	341.67	637823.7	6325060	1371.08	342	17.41	8319.6
TC1_shp	341.67	637823.7	6325060	1351.08	362	17.56	8501.41
TC1_shp	341.67	637823.7	6325060	1331.08	382	17.66	8601.01
TC1_shp	341.67	637823.7	6325060	1308.98	404.1	17.64	8567
TC1_shp	341.67	637823.7	6325060	1284.43	428.65	17.55	8458.4
TC1_shp	341.67	637823.7	6325060	1258.48	454.6	17.23	8181.67
TC1_shp	341.67	637823.7	6325060	1229.98	483.1	16.72	7811.13
TC1_shp	341.67	637823.7	6325060	1199.28	513.8	16.03	7352.48
TC1_shp	341.67	637823.7	6325060	1166.63	546.45	15.12	6836.86
TC1_shp	341.67	637823.7	6325060	1130.83	582.25	14.08	6283.53
TC1_shp	341.67	637823.7	6325060	1092.18	620.9	12.94	5710.66
TC1_shp	341.67	637823.7	6325060	1051.03	662.05	11.78	5164.1
TC1_shp	341.67	637823.7	6325060	1005.93	707.15	10.72	4671.17
TC1_shp	341.67	637823.7	6325060	957.28	755.8	9.73	4220.42
TC1_shp	341.67	637823.7	6325060	905.48	807.6	8.84	3825.04
TC1_shp	341.67	637823.7	6325060	848.68	864.4	8.09	3487.75
TC1_shp	341.67	637823.7	6325060	787.43	925.65	7.4	3157.71
TC1_shp	341.67	637823.7	6325060	722.58	990.5	6.68	2810.07
TC1_shp	341.67	637823.7	6325060	651.08	1062	6.21	2611.12
TC1_shp	358.33	637824.3	6325080	1704.19	9.73	6.76	48323.89
TC1_shp	358.33	637824.3	6325080	1684.72	29.2	11.04	23097.73
TC1_shp	358.33	637824.3	6325080	1665.25	48.67	14.59	7444.24
TC1_shp	358.33	637824.3	6325080	1645.79	68.13	16.64	3984.75
TC1_shp	358.33	637824.3	6325080	1626.32	87.6	18.32	3361.76
TC1_shp	358.33	637824.3	6325080	1606.85	107.07	19.58	3481.92
TC1_shp	358.33	637824.3	6325080	1587.39	126.53	19.96	3822.38
TC1_shp	358.33	637824.3	6325080	1567.92	146	19.48	4211.23
TC1_shp	358.33	637824.3	6325080	1548.45	165.47	18.51	4598.38
TC1_shp	358.33	637824.3	6325080	1528.99	184.93	17.45	4978.17
TC1_shp	358.33	637824.3	6325080	1509.52	204.4	16.49	5400.42
TC1_shp	358.33	637824.3	6325080	1490.05	223.87	15.88	5819.89
TC1_shp	358.33	637824.3	6325080	1470.59	243.33	15.57	6250.03
TC1_shp	358.33	637824.3	6325080	1451.12	262.8	15.5	6695.1
TC1_shp	358.33	637824.3	6325080	1431.65	282.27	15.67	7137.76
TC1_shp	358.33	637824.3	6325080	1411.92	302	15.95	7539.81
TC1_shp	358.33	637824.3	6325080	1391.92	322	16.28	7910.87
TC1_shp	358.33	637824.3	6325080	1371.92	342	16.63	8191.84
TC1_shp	358.33	637824.3	6325080	1351.92	362	16.93	8395.5
TC1_shp	358.33	637824.3	6325080	1331.92	382	17.18	8525.17
TC1_shp	358.33	637824.3	6325080	1309.82	404.1	17.31	8526.93
TC1_shp	358.33	637824.3	6325080	1285.27	428.65	17.37	8458.36
TC1_shp	358.33	637824.3	6325080	1259.32	454.6	17.2	8217.45
TC1_shp	358.33	637824.3	6325080	1230.82	483.1	16.83	7878.46
TC1_shp	358.33	637824.3	6325080	1200.12	513.8	16.27	7446.23
TC1_shp	358.33	637824.3	6325080	1167.47	546.45	15.45	6941.44
TC1_shp	358.33	637824.3	6325080	1131.67	582.25	14.47	6393.21
TC1_shp	358.33	637824.3	6325080	1093.02	620.9	13.36	5819.17
TC1_shp	358.33	637824.3	6325080	1051.87	662.05	12.21	5264.92
TC1_shp	358.33	637824.3	6325080	1006.77	707.15	11.13	4761.69
TC1_shp	358.33	637824.3	6325080	958.12	755.8	10.11	4299.72

TC1_shp	358.33	637824.3	6325080	906.32	807.6	9.19	3893.13
TC1_shp	358.33	637824.3	6325080	849.52	864.4	8.39	3545.06
TC1_shp	358.33	637824.3	6325080	788.27	925.65	7.66	3203.97
TC1_shp	358.33	637824.3	6325080	723.42	990.5	6.9	2844.64
TC1_shp	358.33	637824.3	6325080	651.92	1062	6.4	2639.37
TC1_shp	375	637825	6325101	1705.02	9.73	2.41	30151
TC1_shp	375	637825	6325101	1685.55	29.2	3.49	12160.54
TC1_shp	375	637825	6325101	1666.08	48.67	5.7	5358.04
TC1_shp	375	637825	6325101	1646.62	68.13	9.24	3945.02
TC1_shp	375	637825	6325101	1627.15	87.6	13.37	3935.24
TC1_shp	375	637825	6325101	1607.68	107.07	16.76	4265.83
TC1_shp	375	637825	6325101	1588.22	126.53	18.35	4603.42
TC1_shp	375	637825	6325101	1568.75	146	18.34	4877.43
TC1_shp	375	637825	6325101	1549.28	165.47	17.44	5105.65
TC1_shp	375	637825	6325101	1529.82	184.93	16.31	5326.65
TC1_shp	375	637825	6325101	1510.35	204.4	15.26	5597
TC1_shp	375	637825	6325101	1490.88	223.87	14.63	5898.05
TC1_shp	375	637825	6325101	1471.42	243.33	14.33	6235.61
TC1_shp	375	637825	6325101	1451.95	262.8	14.29	6608.3
TC1_shp	375	637825	6325101	1432.48	282.27	14.53	7005.33
TC1_shp	375	637825	6325101	1412.75	302	14.91	7382.48
TC1_shp	375	637825	6325101	1392.75	322	15.37	7741.78
TC1_shp	375	637825	6325101	1372.75	342	15.85	8032.87
TC1_shp	375	637825	6325101	1352.75	362	16.28	8255.78
TC1_shp	375	637825	6325101	1332.75	382	16.68	8413.46
TC1_shp	375	637825	6325101	1310.65	404.1	16.95	8450.34
TC1_shp	375	637825	6325101	1286.1	428.65	17.17	8421.97
TC1_shp	375	637825	6325101	1260.15	454.6	17.12	8219.94
TC1_shp	375	637825	6325101	1231.65	483.1	16.88	7916.05
TC1_shp	375	637825	6325101	1200.95	513.8	16.45	7514.28
TC1_shp	375	637825	6325101	1168.3	546.45	15.73	7025.5
TC1_shp	375	637825	6325101	1132.5	582.25	14.82	6487.31
TC1_shp	375	637825	6325101	1093.85	620.9	13.76	5916.47
TC1_shp	375	637825	6325101	1052.7	662.05	12.63	5357.38
TC1_shp	375	637825	6325101	1007.6	707.15	11.53	4846.74
TC1_shp	375	637825	6325101	958.95	755.8	10.48	4375.67
TC1_shp	375	637825	6325101	907.15	807.6	9.53	3959.04
TC1_shp	375	637825	6325101	850.35	864.4	8.7	3601
TC1_shp	375	637825	6325101	789.1	925.65	7.93	3249.29
TC1_shp	375	637825	6325101	724.25	990.5	7.12	2878.74
TC1_shp	375	637825	6325101	652.75	1062	6.59	2667.29
TC1_shp	391.67	637825.7	6325121	1705.85	9.73	2.35	6595.57
TC1_shp	391.67	637825.7	6325121	1686.38	29.2	3.08	4144.01
TC1_shp	391.67	637825.7	6325121	1666.91	48.67	4.92	3657.06
TC1_shp	391.67	637825.7	6325121	1647.45	68.13	7.88	4101.71
TC1_shp	391.67	637825.7	6325121	1627.98	87.6	11.62	4738.48
TC1_shp	391.67	637825.7	6325121	1608.51	107.07	15.13	5208.26
TC1_shp	391.67	637825.7	6325121	1589.05	126.53	17.08	5433.5
TC1_shp	391.67	637825.7	6325121	1569.58	146	17.3	5509.27
TC1_shp	391.67	637825.7	6325121	1550.11	165.47	16.47	5537.87
TC1_shp	391.67	637825.7	6325121	1530.65	184.93	15.31	5590.84
TC1_shp	391.67	637825.7	6325121	1511.18	204.4	14.21	5718.21

TC1_shp	391.67	637825.7	6325121	1491.71	223.87	13.55	5913.84
TC1_shp	391.67	637825.7	6325121	1472.25	243.33	13.24	6171.27
TC1_shp	391.67	637825.7	6325121	1452.78	262.8	13.21	6481.9
TC1_shp	391.67	637825.7	6325121	1433.31	282.27	13.51	6839
TC1_shp	391.67	637825.7	6325121	1413.58	302	13.97	7193.98
TC1_shp	391.67	637825.7	6325121	1393.58	322	14.52	7542.45
TC1_shp	391.67	637825.7	6325121	1373.58	342	15.11	7842.01
TC1_shp	391.67	637825.7	6325121	1353.58	362	15.67	8082.31
TC1_shp	391.67	637825.7	6325121	1333.58	382	16.19	8265.89
TC1_shp	391.67	637825.7	6325121	1311.48	404.1	16.6	8336.97
TC1_shp	391.67	637825.7	6325121	1286.93	428.65	16.95	8348.56
TC1_shp	391.67	637825.7	6325121	1260.98	454.6	17.03	8187.51
TC1_shp	391.67	637825.7	6325121	1232.48	483.1	16.92	7922.53
TC1_shp	391.67	637825.7	6325121	1201.78	513.8	16.6	7556.59
TC1_shp	391.67	637825.7	6325121	1169.13	546.45	15.97	7088.02
TC1_shp	391.67	637825.7	6325121	1133.33	582.25	15.14	6564.34
TC1_shp	391.67	637825.7	6325121	1094.68	620.9	14.14	6001.24
TC1_shp	391.67	637825.7	6325121	1053.53	662.05	13.03	5441.38
TC1_shp	391.67	637825.7	6325121	1008.43	707.15	11.93	4925.62
TC1_shp	391.67	637825.7	6325121	959.78	755.8	10.86	4447.41
TC1_shp	391.67	637825.7	6325121	907.98	807.6	9.88	4022.47
TC1_shp	391.67	637825.7	6325121	851.18	864.4	9.02	3655.41
TC1_shp	391.67	637825.7	6325121	789.93	925.65	8.22	3293.55
TC1_shp	391.67	637825.7	6325121	725.08	990.5	7.36	2912.23
TC1_shp	391.67	637825.7	6325121	653.58	1062	6.8	2694.78
TC1_shp	408.33	637824.3	6325138	1701.36	9.73	20.2	1433.08
TC1_shp	408.33	637824.3	6325138	1681.89	29.2	10.58	2607.19
TC1_shp	408.33	637824.3	6325138	1662.42	48.67	8.97	4064.25
TC1_shp	408.33	637824.3	6325138	1642.96	68.13	9.02	5298.86
TC1_shp	408.33	637824.3	6325138	1623.49	87.6	10.77	6016.38
TC1_shp	408.33	637824.3	6325138	1604.02	107.07	13.49	6223.61
TC1_shp	408.33	637824.3	6325138	1584.56	126.53	15.62	6126.66
TC1_shp	408.33	637824.3	6325138	1565.09	146	16.28	5935.27
TC1_shp	408.33	637824.3	6325138	1545.62	165.47	15.69	5770.02
TC1_shp	408.33	637824.3	6325138	1526.16	184.93	14.61	5687.35
TC1_shp	408.33	637824.3	6325138	1506.69	204.4	13.49	5712.01
TC1_shp	408.33	637824.3	6325138	1487.22	223.87	12.78	5834.58
TC1_shp	408.33	637824.3	6325138	1467.76	243.33	12.43	6037.24
TC1_shp	408.33	637824.3	6325138	1448.29	262.8	12.39	6305.58
TC1_shp	408.33	637824.3	6325138	1428.82	282.27	12.69	6634.63
TC1_shp	408.33	637824.3	6325138	1409.09	302	13.19	6974.16
TC1_shp	408.33	637824.3	6325138	1389.09	322	13.79	7315.49
TC1_shp	408.33	637824.3	6325138	1369.09	342	14.47	7623.05
TC1_shp	408.33	637824.3	6325138	1349.09	362	15.13	7879.49
TC1_shp	408.33	637824.3	6325138	1329.09	382	15.76	8087.01
TC1_shp	408.33	637824.3	6325138	1306.99	404.1	16.28	8190.94
TC1_shp	408.33	637824.3	6325138	1282.44	428.65	16.75	8241.47
TC1_shp	408.33	637824.3	6325138	1256.49	454.6	16.94	8122.08
TC1_shp	408.33	637824.3	6325138	1227.99	483.1	16.95	7898.08
TC1_shp	408.33	637824.3	6325138	1197.29	513.8	16.75	7571.41
TC1_shp	408.33	637824.3	6325138	1164.64	546.45	16.2	7128.18
TC1_shp	408.33	637824.3	6325138	1128.84	582.25	15.44	6623.86

TC1_shp	408.33	637824.3	6325138	1090.19	620.9	14.48	6072.84
TC1_shp	408.33	637824.3	6325138	1049.04	662.05	13.41	5515.73
TC1_shp	408.33	637824.3	6325138	1003.94	707.15	12.32	4997.86
TC1_shp	408.33	637824.3	6325138	955.29	755.8	11.24	4514.76
TC1_shp	408.33	637824.3	6325138	903.49	807.6	10.24	4083
TC1_shp	408.33	637824.3	6325138	846.69	864.4	9.36	3708.04
TC1_shp	408.33	637824.3	6325138	785.44	925.65	8.51	3336.58
TC1_shp	408.33	637824.3	6325138	720.59	990.5	7.62	2945.03
TC1_shp	408.33	637824.3	6325138	649.09	1062	7.02	2721.77
TC1_shp	425	637820.8	6325150	1691.52	9.73	20.16	2060.1
TC1_shp	425	637820.8	6325150	1672.05	29.2	21.37	6190.88
TC1_shp	425	637820.8	6325150	1652.58	48.67	11	7551.75
TC1_shp	425	637820.8	6325150	1633.12	68.13	6.94	7709.21
TC1_shp	425	637820.8	6325150	1613.65	87.6	7.39	7359.76
TC1_shp	425	637820.8	6325150	1594.18	107.07	10.05	6835.14
TC1_shp	425	637820.8	6325150	1574.72	126.53	13.2	6338.33
TC1_shp	425	637820.8	6325150	1555.25	146	15.05	5948.98
TC1_shp	425	637820.8	6325150	1535.78	165.47	15.18	5688.84
TC1_shp	425	637820.8	6325150	1516.32	184.93	14.34	5557.91
TC1_shp	425	637820.8	6325150	1496.85	204.4	13.22	5549.66
TC1_shp	425	637820.8	6325150	1477.38	223.87	12.41	5647.45
TC1_shp	425	637820.8	6325150	1457.92	243.33	11.97	5828.46
TC1_shp	425	637820.8	6325150	1438.45	262.8	11.85	6077.05
TC1_shp	425	637820.8	6325150	1418.98	282.27	12.12	6392.19
TC1_shp	425	637820.8	6325150	1399.25	302	12.62	6724.11
TC1_shp	425	637820.8	6325150	1379.25	322	13.24	7062.71
TC1_shp	425	637820.8	6325150	1359.25	342	13.98	7379.48
TC1_shp	425	637820.8	6325150	1339.25	362	14.72	7651.43
TC1_shp	425	637820.8	6325150	1319.25	382	15.43	7880.48
TC1_shp	425	637820.8	6325150	1297.15	404.1	16.04	8015.56
TC1_shp	425	637820.8	6325150	1272.6	428.65	16.61	8103.64
TC1_shp	425	637820.8	6325150	1246.65	454.6	16.9	8025.94
TC1_shp	425	637820.8	6325150	1218.15	483.1	16.99	7844.19
TC1_shp	425	637820.8	6325150	1187.45	513.8	16.87	7559.31
TC1_shp	425	637820.8	6325150	1154.8	546.45	16.39	7145.59
TC1_shp	425	637820.8	6325150	1119	582.25	15.7	6665.02
TC1_shp	425	637820.8	6325150	1080.35	620.9	14.81	6130.48
TC1_shp	425	637820.8	6325150	1039.2	662.05	13.78	5579.8
TC1_shp	425	637820.8	6325150	994.1	707.15	12.7	5062.63
TC1_shp	425	637820.8	6325150	945.45	755.8	11.62	4577.03
TC1_shp	425	637820.8	6325150	893.65	807.6	10.6	4140.37
TC1_shp	425	637820.8	6325150	836.85	864.4	9.7	3758.71
TC1_shp	425	637820.8	6325150	775.6	925.65	8.81	3378.24
TC1_shp	425	637820.8	6325150	710.75	990.5	7.88	2977.07
TC1_shp	425	637820.8	6325150	639.25	1062	7.24	2748.21
TC1_shp	441.67	637817.3	6325163	1681.68	9.73	10.59	16698.51
TC1_shp	441.67	637817.3	6325163	1662.21	29.2	4.04	10286.47
TC1_shp	441.67	637817.3	6325163	1642.74	48.67	2.32	8112.5
TC1_shp	441.67	637817.3	6325163	1623.28	68.13	3.15	7020.3
TC1_shp	441.67	637817.3	6325163	1603.81	87.6	5.93	6284.38
TC1_shp	441.67	637817.3	6325163	1584.34	107.07	10.25	5786.67
TC1_shp	441.67	637817.3	6325163	1564.88	126.53	13.87	5464.77

TC1_shp	441.67	637817.3	6325163	1545.41	146	15.12	5280.99
TC1_shp	441.67	637817.3	6325163	1525.94	165.47	14.64	5209.57
TC1_shp	441.67	637817.3	6325163	1506.48	184.93	13.47	5243.41
TC1_shp	441.67	637817.3	6325163	1487.01	204.4	12.51	5363.56
TC1_shp	441.67	637817.3	6325163	1467.54	223.87	11.9	5554.85
TC1_shp	441.67	637817.3	6325163	1448.08	243.33	11.65	5806.05
TC1_shp	441.67	637817.3	6325163	1428.61	262.8	11.83	6119.15
TC1_shp	441.67	637817.3	6325163	1409.14	282.27	12.28	6446.27
TC1_shp	441.67	637817.3	6325163	1389.41	302	12.87	6782.27
TC1_shp	441.67	637817.3	6325163	1369.41	322	13.64	7107.44
TC1_shp	441.67	637817.3	6325163	1349.41	342	14.42	7395.52
TC1_shp	441.67	637817.3	6325163	1329.41	362	15.19	7644.14
TC1_shp	441.67	637817.3	6325163	1309.41	382	15.81	7799.3
TC1_shp	441.67	637817.3	6325163	1287.31	404.1	16.42	7925.31
TC1_shp	441.67	637817.3	6325163	1262.76	428.65	16.79	7909.45
TC1_shp	441.67	637817.3	6325163	1236.81	454.6	17.05	7830.82
TC1_shp	441.67	637817.3	6325163	1208.31	483.1	17.02	7612.17
TC1_shp	441.67	637817.3	6325163	1177.61	513.8	16.75	7293.86
TC1_shp	441.67	637817.3	6325163	1144.96	546.45	16.3	6905.27
TC1_shp	441.67	637817.3	6325163	1109.16	582.25	15.55	6427.59
TC1_shp	441.67	637817.3	6325163	1070.51	620.9	14.66	5917.83
TC1_shp	441.67	637817.3	6325163	1029.36	662.05	13.67	5402.41
TC1_shp	441.67	637817.3	6325163	984.26	707.15	12.62	4905.01
TC1_shp	441.67	637817.3	6325163	935.61	755.8	11.59	4458.99
TC1_shp	441.67	637817.3	6325163	883.81	807.6	10.65	4061.37
TC1_shp	441.67	637817.3	6325163	827.01	864.4	9.74	3682.42
TC1_shp	441.67	637817.3	6325163	765.76	925.65	8.82	3295.15
TC1_shp	441.67	637817.3	6325163	700.91	990.5	7.88	2902.95
TC1_shp	441.67	637817.3	6325163	629.41	1062	7.31	2725.79
TC1_shp	458.33	637813.8	6325176	1671.86	9.73	46.73	4147.11
TC1_shp	458.33	637813.8	6325176	1652.39	29.2	2.5	3155.28
TC1_shp	458.33	637813.8	6325176	1632.92	48.67	0.63	4227.41
TC1_shp	458.33	637813.8	6325176	1613.46	68.13	1.17	4763.54
TC1_shp	458.33	637813.8	6325176	1593.99	87.6	3.43	4805.79
TC1_shp	458.33	637813.8	6325176	1574.52	107.07	8.25	4725.56
TC1_shp	458.33	637813.8	6325176	1555.06	126.53	13.53	4673.32
TC1_shp	458.33	637813.8	6325176	1535.59	146	15.95	4674.22
TC1_shp	458.33	637813.8	6325176	1516.12	165.47	15.76	4729.39
TC1_shp	458.33	637813.8	6325176	1496.66	184.93	14.4	4849.33
TC1_shp	458.33	637813.8	6325176	1477.19	204.4	13.14	5020.69
TC1_shp	458.33	637813.8	6325176	1457.72	223.87	12.25	5241.79
TC1_shp	458.33	637813.8	6325176	1438.26	243.33	11.77	5509.25
TC1_shp	458.33	637813.8	6325176	1418.79	262.8	11.82	5828.56
TC1_shp	458.33	637813.8	6325176	1399.32	282.27	12.19	6159.85
TC1_shp	458.33	637813.8	6325176	1379.59	302	12.74	6499.69
TC1_shp	458.33	637813.8	6325176	1359.59	322	13.52	6832.93
TC1_shp	458.33	637813.8	6325176	1339.59	342	14.31	7133.17
TC1_shp	458.33	637813.8	6325176	1319.59	362	15.11	7398.32
TC1_shp	458.33	637813.8	6325176	1299.59	382	15.77	7576.19
TC1_shp	458.33	637813.8	6325176	1277.49	404.1	16.42	7730.32
TC1_shp	458.33	637813.8	6325176	1252.94	428.65	16.84	7750.18
TC1_shp	458.33	637813.8	6325176	1226.99	454.6	17.13	7709.78

TC1_shp	458.33	637813.8	6325176	1198.49	483.1	17.15	7532.73
TC1_shp	458.33	637813.8	6325176	1167.79	513.8	16.92	7251.82
TC1_shp	458.33	637813.8	6325176	1135.14	546.45	16.53	6897.34
TC1_shp	458.33	637813.8	6325176	1099.34	582.25	15.83	6444.86
TC1_shp	458.33	637813.8	6325176	1060.69	620.9	14.98	5952.33
TC1_shp	458.33	637813.8	6325176	1019.54	662.05	14.04	5448.2
TC1_shp	458.33	637813.8	6325176	974.44	707.15	12.99	4955.75
TC1_shp	458.33	637813.8	6325176	925.79	755.8	11.96	4509.85
TC1_shp	458.33	637813.8	6325176	873.99	807.6	11.01	4109.79
TC1_shp	458.33	637813.8	6325176	817.19	864.4	10.08	3725.86
TC1_shp	458.33	637813.8	6325176	755.94	925.65	9.13	3330.96
TC1_shp	458.33	637813.8	6325176	691.09	990.5	8.15	2931.01
TC1_shp	458.33	637813.8	6325176	619.59	1062	7.55	2749.83
TC1_shp	475	637810.3	6325189	1662.02	9.73	0.93	1090.97
TC1_shp	475	637810.3	6325189	1642.55	29.2	0.1	2353.59
TC1_shp	475	637810.3	6325189	1623.08	48.67	0.51	3285.09
TC1_shp	475	637810.3	6325189	1603.62	68.13	2.55	3631.02
TC1_shp	475	637810.3	6325189	1584.15	87.6	8.04	3781.61
TC1_shp	475	637810.3	6325189	1564.68	107.07	14.98	3918.12
TC1_shp	475	637810.3	6325189	1545.22	126.53	18.24	4070.66
TC1_shp	475	637810.3	6325189	1525.75	146	17.98	4239.94
TC1_shp	475	637810.3	6325189	1506.28	165.47	16.08	4445.03
TC1_shp	475	637810.3	6325189	1486.82	184.93	14.32	4669.94
TC1_shp	475	637810.3	6325189	1467.35	204.4	13.03	4924.17
TC1_shp	475	637810.3	6325189	1447.88	223.87	12.24	5211.21
TC1_shp	475	637810.3	6325189	1428.42	243.33	12.11	5538.1
TC1_shp	475	637810.3	6325189	1408.95	262.8	12.36	5873.55
TC1_shp	475	637810.3	6325189	1389.48	282.27	12.82	6211.83
TC1_shp	475	637810.3	6325189	1369.75	302	13.57	6545.69
TC1_shp	475	637810.3	6325189	1349.75	322	14.35	6856.58
TC1_shp	475	637810.3	6325189	1329.75	342	15.17	7134.8
TC1_shp	475	637810.3	6325189	1309.75	362	15.84	7334.79
TC1_shp	475	637810.3	6325189	1289.75	382	16.44	7495.8
TC1_shp	475	637810.3	6325189	1267.65	404.1	16.87	7563.21
TC1_shp	475	637810.3	6325189	1243.1	428.65	17.26	7598.11
TC1_shp	475	637810.3	6325189	1217.15	454.6	17.29	7473.52
TC1_shp	475	637810.3	6325189	1188.65	483.1	17.22	7292.71
TC1_shp	475	637810.3	6325189	1157.95	513.8	16.91	7003.97
TC1_shp	475	637810.3	6325189	1125.3	546.45	16.38	6638
TC1_shp	475	637810.3	6325189	1089.5	582.25	15.71	6210.14
TC1_shp	475	637810.3	6325189	1050.85	620.9	14.87	5733.05
TC1_shp	475	637810.3	6325189	1009.7	662.05	13.95	5274.86
TC1_shp	475	637810.3	6325189	964.6	707.15	12.95	4816.98
TC1_shp	475	637810.3	6325189	915.95	755.8	11.93	4380.95
TC1_shp	475	637810.3	6325189	864.15	807.6	11.05	4019.62
TC1_shp	475	637810.3	6325189	807.35	864.4	10.12	3639.3
TC1_shp	475	637810.3	6325189	746.1	925.65	9.13	3237.54
TC1_shp	475	637810.3	6325189	681.25	990.5	8.25	2907.87
TC1_shp	475	637810.3	6325189	609.75	1062	7.61	2722.81
TC1_shp	491.67	637806.8	6325202	1652.18	9.73	0.42	1095.06
TC1_shp	491.67	637806.8	6325202	1632.71	29.2	0.1	2493.87
TC1_shp	491.67	637806.8	6325202	1613.24	48.67	0.4	3131.48

TC1_shp	491.67	637806.8	6325202	1593.78	68.13	2.8	3199.18
TC1_shp	491.67	637806.8	6325202	1574.31	87.6	10.08	3260.6
TC1_shp	491.67	637806.8	6325202	1554.84	107.07	18.88	3410.63
TC1_shp	491.67	637806.8	6325202	1535.38	126.53	22.2	3615.75
TC1_shp	491.67	637806.8	6325202	1515.91	146	21.23	3842.08
TC1_shp	491.67	637806.8	6325202	1496.44	165.47	18.46	4098.69
TC1_shp	491.67	637806.8	6325202	1476.98	184.93	15.99	4358.16
TC1_shp	491.67	637806.8	6325202	1457.51	204.4	14.17	4634.49
TC1_shp	491.67	637806.8	6325202	1438.04	223.87	13.01	4934.51
TC1_shp	491.67	637806.8	6325202	1418.58	243.33	12.67	5264.53
TC1_shp	491.67	637806.8	6325202	1399.11	262.8	12.79	5600.7
TC1_shp	491.67	637806.8	6325202	1379.64	282.27	13.16	5938.67
TC1_shp	491.67	637806.8	6325202	1359.91	302	13.86	6272.87
TC1_shp	491.67	637806.8	6325202	1339.91	322	14.62	6588.23
TC1_shp	491.67	637806.8	6325202	1319.91	342	15.41	6875.83
TC1_shp	491.67	637806.8	6325202	1299.91	362	16.07	7090.24
TC1_shp	491.67	637806.8	6325202	1279.91	382	16.66	7268.18
TC1_shp	491.67	637806.8	6325202	1257.81	404.1	17.08	7361.62
TC1_shp	491.67	637806.8	6325202	1233.26	428.65	17.46	7428.01
TC1_shp	491.67	637806.8	6325202	1207.31	454.6	17.48	7338.82
TC1_shp	491.67	637806.8	6325202	1178.81	483.1	17.41	7195.01
TC1_shp	491.67	637806.8	6325202	1148.11	513.8	17.1	6942.1
TC1_shp	491.67	637806.8	6325202	1115.46	546.45	16.61	6607.12
TC1_shp	491.67	637806.8	6325202	1079.66	582.25	15.98	6207.56
TC1_shp	491.67	637806.8	6325202	1041.01	620.9	15.18	5750.27
TC1_shp	491.67	637806.8	6325202	999.86	662.05	14.29	5304.48
TC1_shp	491.67	637806.8	6325202	954.76	707.15	13.32	4854.8
TC1_shp	491.67	637806.8	6325202	906.11	755.8	12.3	4422.5
TC1_shp	491.67	637806.8	6325202	854.31	807.6	11.42	4060.21
TC1_shp	491.67	637806.8	6325202	797.51	864.4	10.47	3675.9
TC1_shp	491.67	637806.8	6325202	736.26	925.65	9.44	3268.11
TC1_shp	491.67	637806.8	6325202	671.41	990.5	8.53	2933.17
TC1_shp	491.67	637806.8	6325202	599.91	1062	7.84	2744.38
TC1_shp	508.33	637804.4	6325217	1644.6	9.73	0.1	5233.22
TC1_shp	508.33	637804.4	6325217	1625.13	29.2	0.68	4144.17
TC1_shp	508.33	637804.4	6325217	1605.66	48.67	4.25	3370.18
TC1_shp	508.33	637804.4	6325217	1586.2	68.13	14.84	3133.62
TC1_shp	508.33	637804.4	6325217	1566.73	87.6	24.51	3181.15
TC1_shp	508.33	637804.4	6325217	1547.26	107.07	26.83	3357.71
TC1_shp	508.33	637804.4	6325217	1527.8	126.53	24.87	3584.22
TC1_shp	508.33	637804.4	6325217	1508.33	146	21.09	3850.25
TC1_shp	508.33	637804.4	6325217	1488.86	165.47	17.88	4117.86
TC1_shp	508.33	637804.4	6325217	1469.4	184.93	15.55	4398.02
TC1_shp	508.33	637804.4	6325217	1449.93	204.4	14.02	4697.72
TC1_shp	508.33	637804.4	6325217	1430.46	223.87	13.47	5022.92
TC1_shp	508.33	637804.4	6325217	1411	243.33	13.45	5352.81
TC1_shp	508.33	637804.4	6325217	1391.53	262.8	13.72	5684.39
TC1_shp	508.33	637804.4	6325217	1372.06	282.27	14.36	6009.97
TC1_shp	508.33	637804.4	6325217	1352.33	302	15.05	6321.26
TC1_shp	508.33	637804.4	6325217	1332.33	322	15.8	6612.46
TC1_shp	508.33	637804.4	6325217	1312.33	342	16.43	6839.29
TC1_shp	508.33	637804.4	6325217	1292.33	362	16.99	7030.06

TC1_shp	508.33	637804.4	6325217	1272.33	382	17.35	7140.02
TC1_shp	508.33	637804.4	6325217	1250.23	404.1	17.65	7224.77
TC1_shp	508.33	637804.4	6325217	1225.68	428.65	17.71	7200.82
TC1_shp	508.33	637804.4	6325217	1199.73	454.6	17.69	7141.99
TC1_shp	508.33	637804.4	6325217	1171.23	483.1	17.41	6940.62
TC1_shp	508.33	637804.4	6325217	1140.53	513.8	17.04	6690.86
TC1_shp	508.33	637804.4	6325217	1107.88	546.45	16.53	6363.27
TC1_shp	508.33	637804.4	6325217	1072.08	582.25	15.86	5971.14
TC1_shp	508.33	637804.4	6325217	1033.43	620.9	15.09	5546.9
TC1_shp	508.33	637804.4	6325217	992.28	662.05	14.21	5125.88
TC1_shp	508.33	637804.4	6325217	947.18	707.15	13.28	4714.95
TC1_shp	508.33	637804.4	6325217	898.53	755.8	12.35	4321.78
TC1_shp	508.33	637804.4	6325217	846.73	807.6	11.46	3961.93
TC1_shp	508.33	637804.4	6325217	789.93	864.4	10.48	3578.73
TC1_shp	508.33	637804.4	6325217	728.68	925.65	9.43	3165.81
TC1_shp	508.33	637804.4	6325217	663.83	990.5	8.62	2905.15
TC1_shp	508.33	637804.4	6325217	592.33	1062	7.89	2712.81
TC1_shp	525	637803.3	6325235	1639.27	9.73	0.45	6729.57
TC1_shp	525	637803.3	6325235	1619.8	29.2	1.62	4817.3
TC1_shp	525	637803.3	6325235	1600.33	48.67	6.85	3611.12
TC1_shp	525	637803.3	6325235	1580.87	68.13	20.14	3199.9
TC1_shp	525	637803.3	6325235	1561.4	87.6	28.76	3156.23
TC1_shp	525	637803.3	6325235	1541.93	107.07	30.16	3278.76
TC1_shp	525	637803.3	6325235	1522.47	126.53	27.51	3471.06
TC1_shp	525	637803.3	6325235	1503	146	23.15	3713.47
TC1_shp	525	637803.3	6325235	1483.53	165.47	19.53	3963.82
TC1_shp	525	637803.3	6325235	1464.07	184.93	16.9	4228.77
TC1_shp	525	637803.3	6325235	1444.6	204.4	15.14	4513.41
TC1_shp	525	637803.3	6325235	1425.13	223.87	14.46	4822.67
TC1_shp	525	637803.3	6325235	1405.67	243.33	14.34	5138.02
TC1_shp	525	637803.3	6325235	1386.2	262.8	14.54	5456.1
TC1_shp	525	637803.3	6325235	1366.73	282.27	15.1	5771.36
TC1_shp	525	637803.3	6325235	1347	302	15.72	6075.96
TC1_shp	525	637803.3	6325235	1327	322	16.4	6365.3
TC1_shp	525	637803.3	6325235	1307	342	16.96	6596.94
TC1_shp	525	637803.3	6325235	1287	362	17.45	6796.24
TC1_shp	525	637803.3	6325235	1267	382	17.75	6921.13
TC1_shp	525	637803.3	6325235	1244.9	404.1	18	7025.31
TC1_shp	525	637803.3	6325235	1220.35	428.65	18	7028.29
TC1_shp	525	637803.3	6325235	1194.4	454.6	17.93	6999.33
TC1_shp	525	637803.3	6325235	1165.9	483.1	17.64	6830.57
TC1_shp	525	637803.3	6325235	1135.2	513.8	17.26	6614.09
TC1_shp	525	637803.3	6325235	1102.55	546.45	16.77	6318.41
TC1_shp	525	637803.3	6325235	1066.75	582.25	16.13	5952.19
TC1_shp	525	637803.3	6325235	1028.1	620.9	15.39	5550.21
TC1_shp	525	637803.3	6325235	986.95	662.05	14.55	5143.61
TC1_shp	525	637803.3	6325235	941.85	707.15	13.65	4741.77
TC1_shp	525	637803.3	6325235	893.2	755.8	12.74	4353.89
TC1_shp	525	637803.3	6325235	841.4	807.6	11.85	3995.66
TC1_shp	525	637803.3	6325235	784.6	864.4	10.85	3608.78
TC1_shp	525	637803.3	6325235	723.35	925.65	9.76	3191.75
TC1_shp	525	637803.3	6325235	658.5	990.5	8.91	2927.61

TC1_shp	525	637803.3	6325235	587	1062	8.13	2731.91
TC1_shp	541.67	637802.1	6325253	1633.94	9.73	0.76	7091.54
TC1_shp	541.67	637802.1	6325253	1614.47	29.2	2.55	4557.26
TC1_shp	541.67	637802.1	6325253	1595	48.67	8.33	3583.38
TC1_shp	541.67	637802.1	6325253	1575.54	68.13	21.03	3283.38
TC1_shp	541.67	637802.1	6325253	1556.07	87.6	28.97	3246.34
TC1_shp	541.67	637802.1	6325253	1536.6	107.07	30.3	3334.17
TC1_shp	541.67	637802.1	6325253	1517.14	126.53	27.86	3483.33
TC1_shp	541.67	637802.1	6325253	1497.67	146	23.8	3682.31
TC1_shp	541.67	637802.1	6325253	1478.2	165.47	20.42	3896.53
TC1_shp	541.67	637802.1	6325253	1458.74	184.93	17.93	4129.71
TC1_shp	541.67	637802.1	6325253	1439.27	204.4	16.24	4385.07
TC1_shp	541.67	637802.1	6325253	1419.8	223.87	15.59	4668.41
TC1_shp	541.67	637802.1	6325253	1400.34	243.33	15.46	4960.48
TC1_shp	541.67	637802.1	6325253	1380.87	262.8	15.61	5257.19
TC1_shp	541.67	637802.1	6325253	1361.4	282.27	16.1	5556.93
TC1_shp	541.67	637802.1	6325253	1341.67	302	16.63	5849.03
TC1_shp	541.67	637802.1	6325253	1321.67	322	17.22	6129.92
TC1_shp	541.67	637802.1	6325253	1301.67	342	17.68	6361.14
TC1_shp	541.67	637802.1	6325253	1281.67	362	18.07	6564.54
TC1_shp	541.67	637802.1	6325253	1261.67	382	18.27	6700.39
TC1_shp	541.67	637802.1	6325253	1239.57	404.1	18.4	6819.8
TC1_shp	541.67	637802.1	6325253	1215.02	428.65	18.33	6846.38
TC1_shp	541.67	637802.1	6325253	1189.07	454.6	18.2	6844.13
TC1_shp	541.67	637802.1	6325253	1160.57	483.1	17.88	6706.76
TC1_shp	541.67	637802.1	6325253	1129.87	513.8	17.49	6522.56
TC1_shp	541.67	637802.1	6325253	1097.22	546.45	17	6258.37
TC1_shp	541.67	637802.1	6325253	1061.42	582.25	16.4	5920.25
TC1_shp	541.67	637802.1	6325253	1022.77	620.9	15.7	5543.32
TC1_shp	541.67	637802.1	6325253	981.62	662.05	14.9	5152.86
TC1_shp	541.67	637802.1	6325253	936.52	707.15	14.03	4761.88
TC1_shp	541.67	637802.1	6325253	887.87	755.8	13.13	4381.03
TC1_shp	541.67	637802.1	6325253	836.07	807.6	12.25	4025.99
TC1_shp	541.67	637802.1	6325253	779.27	864.4	11.21	3636.35
TC1_shp	541.67	637802.1	6325253	718.02	925.65	10.09	3216.18
TC1_shp	541.67	637802.1	6325253	653.17	990.5	9.2	2949.03
TC1_shp	541.67	637802.1	6325253	581.67	1062	8.38	2750.18
TC1_shp	558.33	637800.9	6325271	1628.6	9.73	2.9	2935.37
TC1_shp	558.33	637800.9	6325271	1609.13	29.2	7.4	3211.01
TC1_shp	558.33	637800.9	6325271	1589.66	48.67	17.18	3319.71
TC1_shp	558.33	637800.9	6325271	1570.2	68.13	24.64	3391.89
TC1_shp	558.33	637800.9	6325271	1550.73	87.6	26.65	3478.57
TC1_shp	558.33	637800.9	6325271	1531.26	107.07	25.34	3590.54
TC1_shp	558.33	637800.9	6325271	1511.8	126.53	22.61	3739.91
TC1_shp	558.33	637800.9	6325271	1492.33	146	20.25	3907.79
TC1_shp	558.33	637800.9	6325271	1472.86	165.47	18.47	4098.41
TC1_shp	558.33	637800.9	6325271	1453.4	184.93	17.25	4314.02
TC1_shp	558.33	637800.9	6325271	1433.93	204.4	16.81	4562.33
TC1_shp	558.33	637800.9	6325271	1414.46	223.87	16.77	4823.43
TC1_shp	558.33	637800.9	6325271	1395	243.33	16.95	5091.5
TC1_shp	558.33	637800.9	6325271	1375.53	262.8	17.36	5369.63
TC1_shp	558.33	637800.9	6325271	1356.06	282.27	17.77	5640.06

TC1_shp	558.33	637800.9	6325271	1336.33	302	18.21	5903.73
TC1_shp	558.33	637800.9	6325271	1316.33	322	18.54	6130.65
TC1_shp	558.33	637800.9	6325271	1296.33	342	18.8	6332.25
TC1_shp	558.33	637800.9	6325271	1276.33	362	18.88	6476.82
TC1_shp	558.33	637800.9	6325271	1256.33	382	18.89	6594.79
TC1_shp	558.33	637800.9	6325271	1234.23	404.1	18.76	6652.36
TC1_shp	558.33	637800.9	6325271	1209.68	428.65	18.54	6674.7
TC1_shp	558.33	637800.9	6325271	1183.73	454.6	18.23	6604.52
TC1_shp	558.33	637800.9	6325271	1155.23	483.1	17.86	6496.73
TC1_shp	558.33	637800.9	6325271	1124.53	513.8	17.41	6279.2
TC1_shp	558.33	637800.9	6325271	1091.88	546.45	16.91	6024.7
TC1_shp	558.33	637800.9	6325271	1056.08	582.25	16.33	5699.4
TC1_shp	558.33	637800.9	6325271	1017.43	620.9	15.64	5349.62
TC1_shp	558.33	637800.9	6325271	976.28	662.05	14.88	4985.32
TC1_shp	558.33	637800.9	6325271	931.18	707.15	14.03	4616.12
TC1_shp	558.33	637800.9	6325271	882.53	755.8	13.19	4271.46
TC1_shp	558.33	637800.9	6325271	830.73	807.6	12.29	3918.55
TC1_shp	558.33	637800.9	6325271	773.93	864.4	11.22	3527.02
TC1_shp	558.33	637800.9	6325271	712.68	925.65	10.07	3104.82
TC1_shp	558.33	637800.9	6325271	647.83	990.5	9.27	2914.42
TC1_shp	558.33	637800.9	6325271	576.33	1062	8.4	2712.62
TC1_shp	575	637799.8	6325289	1623.27	9.73	2.86	4041.43
TC1_shp	575	637799.8	6325289	1603.8	29.2	6.08	3577.78
TC1_shp	575	637799.8	6325289	1584.33	48.67	12.37	3511.62
TC1_shp	575	637799.8	6325289	1564.87	68.13	17.64	3581.02
TC1_shp	575	637799.8	6325289	1545.4	87.6	20.01	3668.42
TC1_shp	575	637799.8	6325289	1525.93	107.07	20.41	3756.29
TC1_shp	575	637799.8	6325289	1506.47	126.53	19.85	3863.17
TC1_shp	575	637799.8	6325289	1487	146	19.16	3983.32
TC1_shp	575	637799.8	6325289	1467.53	165.47	18.57	4126.22
TC1_shp	575	637799.8	6325289	1448.07	184.93	18.17	4295.93
TC1_shp	575	637799.8	6325289	1428.6	204.4	18.14	4502.11
TC1_shp	575	637799.8	6325289	1409.13	223.87	18.29	4726.35
TC1_shp	575	637799.8	6325289	1389.67	243.33	18.54	4960.76
TC1_shp	575	637799.8	6325289	1370.2	262.8	18.87	5211.43
TC1_shp	575	637799.8	6325289	1350.73	282.27	19.16	5458.47
TC1_shp	575	637799.8	6325289	1331	302	19.4	5703.91
TC1_shp	575	637799.8	6325289	1311	322	19.55	5919.83
TC1_shp	575	637799.8	6325289	1291	342	19.63	6115.12
TC1_shp	575	637799.8	6325289	1271	362	19.56	6261.08
TC1_shp	575	637799.8	6325289	1251	382	19.44	6384.04
TC1_shp	575	637799.8	6325289	1228.9	404.1	19.19	6454.66
TC1_shp	575	637799.8	6325289	1204.35	428.65	18.86	6495.81
TC1_shp	575	637799.8	6325289	1178.4	454.6	18.48	6449.78
TC1_shp	575	637799.8	6325289	1149.9	483.1	18.06	6369.92
TC1_shp	575	637799.8	6325289	1119.2	513.8	17.62	6181.51
TC1_shp	575	637799.8	6325289	1086.55	546.45	17.14	5956.25
TC1_shp	575	637799.8	6325289	1050.75	582.25	16.6	5659.49
TC1_shp	575	637799.8	6325289	1012.1	620.9	15.95	5331.48
TC1_shp	575	637799.8	6325289	970.95	662.05	15.23	4985.26
TC1_shp	575	637799.8	6325289	925.85	707.15	14.42	4628.31
TC1_shp	575	637799.8	6325289	877.2	755.8	13.61	4290.85

TC1_shp	575	637799.8	6325289	825.4	807.6	12.7	3941.44
TC1_shp	575	637799.8	6325289	768.6	864.4	11.61	3548.98
TC1_shp	575	637799.8	6325289	707.35	925.65	10.42	3125.78
TC1_shp	575	637799.8	6325289	642.5	990.5	9.57	2932.94
TC1_shp	575	637799.8	6325289	571	1062	8.65	2728.41
TC1_shp	591.67	637798.6	6325307	1617.94	9.73	3.96	3112.42
TC1_shp	591.67	637798.6	6325307	1598.47	29.2	5.88	3057.8
TC1_shp	591.67	637798.6	6325307	1579	48.67	8.66	3315.27
TC1_shp	591.67	637798.6	6325307	1559.54	68.13	11	3607.44
TC1_shp	591.67	637798.6	6325307	1540.07	87.6	13	3807.81
TC1_shp	591.67	637798.6	6325307	1520.6	107.07	14.87	3928.37
TC1_shp	591.67	637798.6	6325307	1501.14	126.53	16.54	4019.44
TC1_shp	591.67	637798.6	6325307	1481.67	146	17.73	4102.18
TC1_shp	591.67	637798.6	6325307	1462.2	165.47	18.58	4199.52
TC1_shp	591.67	637798.6	6325307	1442.74	184.93	19.21	4321.18
TC1_shp	591.67	637798.6	6325307	1423.27	204.4	19.7	4481.12
TC1_shp	591.67	637798.6	6325307	1403.8	223.87	20.1	4664.33
TC1_shp	591.67	637798.6	6325307	1384.34	243.33	20.44	4860.88
TC1_shp	591.67	637798.6	6325307	1364.87	262.8	20.62	5079.82
TC1_shp	591.67	637798.6	6325307	1345.4	282.27	20.73	5299.24
TC1_shp	591.67	637798.6	6325307	1325.67	302	20.75	5522.21
TC1_shp	591.67	637798.6	6325307	1305.67	322	20.66	5723.07
TC1_shp	591.67	637798.6	6325307	1285.67	342	20.52	5908.15
TC1_shp	591.67	637798.6	6325307	1265.67	362	20.28	6051.84
TC1_shp	591.67	637798.6	6325307	1245.67	382	20	6176.22
TC1_shp	591.67	637798.6	6325307	1223.57	404.1	19.62	6256.17
TC1_shp	591.67	637798.6	6325307	1199.02	428.65	19.17	6312.09
TC1_shp	591.67	637798.6	6325307	1173.07	454.6	18.72	6287.33
TC1_shp	591.67	637798.6	6325307	1144.57	483.1	18.24	6232.66
TC1_shp	591.67	637798.6	6325307	1113.87	513.8	17.8	6073.23
TC1_shp	591.67	637798.6	6325307	1081.22	546.45	17.34	5877.23
TC1_shp	591.67	637798.6	6325307	1045.42	582.25	16.84	5609.35
TC1_shp	591.67	637798.6	6325307	1006.77	620.9	16.25	5304.46
TC1_shp	591.67	637798.6	6325307	965.62	662.05	15.59	4977.99
TC1_shp	591.67	637798.6	6325307	920.52	707.15	14.82	4634.65
TC1_shp	591.67	637798.6	6325307	871.87	755.8	14.02	4305.68
TC1_shp	591.67	637798.6	6325307	820.07	807.6	13.11	3960.94
TC1_shp	591.67	637798.6	6325307	763.27	864.4	11.99	3568.58
TC1_shp	591.67	637798.6	6325307	702.02	925.65	10.79	3145.47
TC1_shp	591.67	637798.6	6325307	637.17	990.5	9.89	2950.43
TC1_shp	591.67	637798.6	6325307	565.67	1062	8.91	2743.38
TC1_shp	608.33	637797.4	6325324	1613.85	9.73	7.02	1339.8
TC1_shp	608.33	637797.4	6325324	1594.38	29.2	6.7	1679.4
TC1_shp	608.33	637797.4	6325324	1574.91	48.67	6.29	2603.83
TC1_shp	608.33	637797.4	6325324	1555.45	68.13	6.96	3366.71
TC1_shp	608.33	637797.4	6325324	1535.98	87.6	8.6	3824.77
TC1_shp	608.33	637797.4	6325324	1516.51	107.07	11.04	4056.17
TC1_shp	608.33	637797.4	6325324	1497.05	126.53	14.12	4175.15
TC1_shp	608.33	637797.4	6325324	1477.58	146	16.84	4241.18
TC1_shp	608.33	637797.4	6325324	1458.11	165.47	19.02	4302.16
TC1_shp	608.33	637797.4	6325324	1438.65	184.93	20.68	4379.01
TC1_shp	608.33	637797.4	6325324	1419.18	204.4	21.7	4491.76

TC1_shp	608.33	637797.4	6325324	1399.71	223.87	22.3	4632.26
TC1_shp	608.33	637797.4	6325324	1380.25	243.33	22.66	4788.78
TC1_shp	608.33	637797.4	6325324	1360.78	262.8	22.64	4972.78
TC1_shp	608.33	637797.4	6325324	1341.31	282.27	22.51	5161.35
TC1_shp	608.33	637797.4	6325324	1321.58	302	22.22	5358.61
TC1_shp	608.33	637797.4	6325324	1301.58	322	21.86	5540.94
TC1_shp	608.33	637797.4	6325324	1281.58	342	21.46	5712.19
TC1_shp	608.33	637797.4	6325324	1261.58	362	21.01	5850.13
TC1_shp	608.33	637797.4	6325324	1241.58	382	20.54	5972.54
TC1_shp	608.33	637797.4	6325324	1219.48	404.1	20.02	6058.58
TC1_shp	608.33	637797.4	6325324	1194.93	428.65	19.44	6125.99
TC1_shp	608.33	637797.4	6325324	1168.98	454.6	18.93	6120.26
TC1_shp	608.33	637797.4	6325324	1140.48	483.1	18.41	6088.76
TC1_shp	608.33	637797.4	6325324	1109.78	513.8	17.98	5956.6
TC1_shp	608.33	637797.4	6325324	1077.13	546.45	17.54	5788.74
TC1_shp	608.33	637797.4	6325324	1041.33	582.25	17.08	5549.93
TC1_shp	608.33	637797.4	6325324	1002.68	620.9	16.54	5268.86
TC1_shp	608.33	637797.4	6325324	961.53	662.05	15.94	4963.19
TC1_shp	608.33	637797.4	6325324	916.43	707.15	15.21	4635.16
TC1_shp	608.33	637797.4	6325324	867.78	755.8	14.44	4316
TC1_shp	608.33	637797.4	6325324	815.98	807.6	13.54	3977.07
TC1_shp	608.33	637797.4	6325324	759.18	864.4	12.39	3585.76
TC1_shp	608.33	637797.4	6325324	697.93	925.65	11.16	3163.79
TC1_shp	608.33	637797.4	6325324	633.08	990.5	10.21	2966.78
TC1_shp	608.33	637797.4	6325324	561.58	1062	9.17	2757.47
TC1_shp	625	637796.3	6325339	1611.02	9.73	4.74	1023.19
TC1_shp	625	637796.3	6325339	1591.55	29.2	4.1	2107.52
TC1_shp	625	637796.3	6325339	1572.08	48.67	4.78	3107.15
TC1_shp	625	637796.3	6325339	1552.62	68.13	6.51	3773.07
TC1_shp	625	637796.3	6325339	1533.15	87.6	9.3	4134.7
TC1_shp	625	637796.3	6325339	1513.68	107.07	13.28	4312.02
TC1_shp	625	637796.3	6325339	1494.22	126.53	17.15	4382.75
TC1_shp	625	637796.3	6325339	1474.75	146	20.4	4420.79
TC1_shp	625	637796.3	6325339	1455.28	165.47	22.89	4459.9
TC1_shp	625	637796.3	6325339	1435.82	184.93	24.24	4528.65
TC1_shp	625	637796.3	6325339	1416.35	204.4	24.86	4626.96
TC1_shp	625	637796.3	6325339	1396.88	223.87	25.08	4742.56
TC1_shp	625	637796.3	6325339	1377.42	243.33	24.79	4890.57
TC1_shp	625	637796.3	6325339	1357.95	262.8	24.35	5046.62
TC1_shp	625	637796.3	6325339	1338.48	282.27	23.74	5212.68
TC1_shp	625	637796.3	6325339	1318.75	302	23.08	5371.55
TC1_shp	625	637796.3	6325339	1298.75	322	22.38	5526.48
TC1_shp	625	637796.3	6325339	1278.75	342	21.71	5656.36
TC1_shp	625	637796.3	6325339	1258.75	362	21.05	5773.81
TC1_shp	625	637796.3	6325339	1238.75	382	20.44	5857.05
TC1_shp	625	637796.3	6325339	1216.65	404.1	19.81	5924.96
TC1_shp	625	637796.3	6325339	1192.1	428.65	19.23	5952.35
TC1_shp	625	637796.3	6325339	1166.15	454.6	18.73	5941.54
TC1_shp	625	637796.3	6325339	1137.65	483.1	18.29	5869.78
TC1_shp	625	637796.3	6325339	1106.95	513.8	17.86	5763.04
TC1_shp	625	637796.3	6325339	1074.3	546.45	17.49	5575.62
TC1_shp	625	637796.3	6325339	1038.5	582.25	17.07	5355.7

TC1_shp	625	637796.3	6325339	999.85	620.9	16.57	5089.69
TC1_shp	625	637796.3	6325339	958.7	662.05	15.99	4805.53
TC1_shp	625	637796.3	6325339	913.6	707.15	15.31	4500.25
TC1_shp	625	637796.3	6325339	864.95	755.8	14.57	4199.82
TC1_shp	625	637796.3	6325339	813.15	807.6	13.58	3854.33
TC1_shp	625	637796.3	6325339	756.35	864.4	12.4	3465.16
TC1_shp	625	637796.3	6325339	695.1	925.65	11.24	3115.31
TC1_shp	625	637796.3	6325339	630.25	990.5	10.24	2923.64
TC1_shp	625	637796.3	6325339	558.75	1062	9.15	2712.3
TC1_shp	641.67	637795.1	6325354	1608.19	9.73	1.75	1371.83
TC1_shp	641.67	637795.1	6325354	1588.72	29.2	2.56	2103.97
TC1_shp	641.67	637795.1	6325354	1569.25	48.67	3.81	2980.04
TC1_shp	641.67	637795.1	6325354	1549.79	68.13	5.93	3708.43
TC1_shp	641.67	637795.1	6325354	1530.32	87.6	9.23	4171.32
TC1_shp	641.67	637795.1	6325354	1510.85	107.07	14.14	4420.54
TC1_shp	641.67	637795.1	6325354	1491.39	126.53	18.99	4512.89
TC1_shp	641.67	637795.1	6325354	1471.92	146	22.97	4540.94
TC1_shp	641.67	637795.1	6325354	1452.45	165.47	25.84	4550.94
TC1_shp	641.67	637795.1	6325354	1432.99	184.93	27.18	4579.67
TC1_shp	641.67	637795.1	6325354	1413.52	204.4	27.61	4637.44
TC1_shp	641.67	637795.1	6325354	1394.05	223.87	27.57	4712.73
TC1_shp	641.67	637795.1	6325354	1374.59	243.33	26.92	4823.77
TC1_shp	641.67	637795.1	6325354	1355.12	262.8	26.12	4946.07
TC1_shp	641.67	637795.1	6325354	1335.65	282.27	25.15	5082.47
TC1_shp	641.67	637795.1	6325354	1315.92	302	24.18	5217.85
TC1_shp	641.67	637795.1	6325354	1295.92	322	23.2	5353.23
TC1_shp	641.67	637795.1	6325354	1275.92	342	22.31	5472.19
TC1_shp	641.67	637795.1	6325354	1255.92	362	21.45	5583
TC1_shp	641.67	637795.1	6325354	1235.92	382	20.72	5665.97
TC1_shp	641.67	637795.1	6325354	1213.82	404.1	19.99	5738.07
TC1_shp	641.67	637795.1	6325354	1189.27	428.65	19.36	5775.78
TC1_shp	641.67	637795.1	6325354	1163.32	454.6	18.84	5780.57
TC1_shp	641.67	637795.1	6325354	1134.82	483.1	18.4	5730.15
TC1_shp	641.67	637795.1	6325354	1104.12	513.8	18	5648.46
TC1_shp	641.67	637795.1	6325354	1071.47	546.45	17.68	5487.15
TC1_shp	641.67	637795.1	6325354	1035.67	582.25	17.32	5293.71
TC1_shp	641.67	637795.1	6325354	997.02	620.9	16.9	5050.51
TC1_shp	641.67	637795.1	6325354	955.87	662.05	16.37	4784.88
TC1_shp	641.67	637795.1	6325354	910.77	707.15	15.74	4495.52
TC1_shp	641.67	637795.1	6325354	862.12	755.8	15.02	4205.03
TC1_shp	641.67	637795.1	6325354	810.32	807.6	14.02	3864.45
TC1_shp	641.67	637795.1	6325354	753.52	864.4	12.82	3478.37
TC1_shp	641.67	637795.1	6325354	692.27	925.65	11.62	3130.44
TC1_shp	641.67	637795.1	6325354	627.42	990.5	10.57	2937.15
TC1_shp	641.67	637795.1	6325354	555.92	1062	9.41	2724.04
TC1_shp	658.33	637793.9	6325369	1605.35	9.73	4.8	1485.44
TC1_shp	658.33	637793.9	6325369	1585.88	29.2	3.01	2088.68
TC1_shp	658.33	637793.9	6325369	1566.41	48.67	4.01	2881.69
TC1_shp	658.33	637793.9	6325369	1546.95	68.13	6.63	3637.69
TC1_shp	658.33	637793.9	6325369	1527.48	87.6	10.86	4176.76
TC1_shp	658.33	637793.9	6325369	1508.01	107.07	17	4498.41
TC1_shp	658.33	637793.9	6325369	1488.55	126.53	22.58	4621.94

TC1_shp	658.33	637793.9	6325369	1469.08	146	26.72	4651.48
TC1_shp	658.33	637793.9	6325369	1449.61	165.47	29.33	4642.9
TC1_shp	658.33	637793.9	6325369	1430.15	184.93	30.34	4637.44
TC1_shp	658.33	637793.9	6325369	1410.68	204.4	30.41	4658.43
TC1_shp	658.33	637793.9	6325369	1391.21	223.87	29.98	4695.99
TC1_shp	658.33	637793.9	6325369	1371.75	243.33	28.91	4770.57
TC1_shp	658.33	637793.9	6325369	1352.28	262.8	27.72	4859.09
TC1_shp	658.33	637793.9	6325369	1332.81	282.27	26.39	4965.09
TC1_shp	658.33	637793.9	6325369	1313.08	302	25.11	5075.86
TC1_shp	658.33	637793.9	6325369	1293.08	322	23.86	5190.32
TC1_shp	658.33	637793.9	6325369	1273.08	342	22.76	5296.31
TC1_shp	658.33	637793.9	6325369	1253.08	362	21.74	5398.09
TC1_shp	658.33	637793.9	6325369	1233.08	382	20.9	5478.7
TC1_shp	658.33	637793.9	6325369	1210.98	404.1	20.1	5552.88
TC1_shp	658.33	637793.9	6325369	1186.43	428.65	19.43	5598.88
TC1_shp	658.33	637793.9	6325369	1160.48	454.6	18.9	5617.39
TC1_shp	658.33	637793.9	6325369	1131.98	483.1	18.48	5586.26
TC1_shp	658.33	637793.9	6325369	1101.28	513.8	18.11	5527.43
TC1_shp	658.33	637793.9	6325369	1068.63	546.45	17.85	5391.65
TC1_shp	658.33	637793.9	6325369	1032.83	582.25	17.56	5224.56
TC1_shp	658.33	637793.9	6325369	994.18	620.9	17.21	5005.06
TC1_shp	658.33	637793.9	6325369	953.03	662.05	16.75	4758.54
TC1_shp	658.33	637793.9	6325369	907.93	707.15	16.18	4485.64
TC1_shp	658.33	637793.9	6325369	859.28	755.8	15.49	4206.06
TC1_shp	658.33	637793.9	6325369	807.48	807.6	14.48	3871.36
TC1_shp	658.33	637793.9	6325369	750.68	864.4	13.26	3489.43
TC1_shp	658.33	637793.9	6325369	689.43	925.65	12.02	3144.27
TC1_shp	658.33	637793.9	6325369	624.58	990.5	10.91	2949.59
TC1_shp	658.33	637793.9	6325369	553.08	1062	9.69	2734.95
TC1_shp	675	637792.8	6325384	1602.52	9.73	6.14	1419.88
TC1_shp	675	637792.8	6325384	1583.05	29.2	3.58	1970.61
TC1_shp	675	637792.8	6325384	1563.58	48.67	4.92	2758.31
TC1_shp	675	637792.8	6325384	1544.12	68.13	8.65	3549.59
TC1_shp	675	637792.8	6325384	1524.65	87.6	14.52	4151.17
TC1_shp	675	637792.8	6325384	1505.18	107.07	22.08	4541.39
TC1_shp	675	637792.8	6325384	1485.72	126.53	27.53	4703.08
TC1_shp	675	637792.8	6325384	1466.25	146	31.05	4744.75
TC1_shp	675	637792.8	6325384	1446.78	165.47	33.05	4728.22
TC1_shp	675	637792.8	6325384	1427.32	184.93	33.46	4695.88
TC1_shp	675	637792.8	6325384	1407.85	204.4	33.01	4684.63
TC1_shp	675	637792.8	6325384	1388.38	223.87	32.09	4687.58
TC1_shp	675	637792.8	6325384	1368.92	243.33	30.59	4727.38
TC1_shp	675	637792.8	6325384	1349.45	262.8	29.01	4783.03
TC1_shp	675	637792.8	6325384	1329.98	282.27	27.33	4858.57
TC1_shp	675	637792.8	6325384	1310.25	302	25.77	4944.33
TC1_shp	675	637792.8	6325384	1290.25	322	24.28	5037.24
TC1_shp	675	637792.8	6325384	1270.25	342	23.02	5129.04
TC1_shp	675	637792.8	6325384	1250.25	362	21.86	5220.3
TC1_shp	675	637792.8	6325384	1230.25	382	20.94	5296.71
TC1_shp	675	637792.8	6325384	1208.15	404.1	20.1	5370.69
TC1_shp	675	637792.8	6325384	1183.6	428.65	19.42	5422.8
TC1_shp	675	637792.8	6325384	1157.65	454.6	18.9	5452.99

TC1_shp	675	637792.8	6325384	1129.15	483.1	18.52	5439.62
TC1_shp	675	637792.8	6325384	1098.45	513.8	18.2	5402.36
TC1_shp	675	637792.8	6325384	1065.8	546.45	18.01	5290.93
TC1_shp	675	637792.8	6325384	1030	582.25	17.8	5149.14
TC1_shp	675	637792.8	6325384	991.35	620.9	17.53	4952.94
TC1_shp	675	637792.8	6325384	950.2	662.05	17.13	4726.26
TC1_shp	675	637792.8	6325384	905.1	707.15	16.62	4471.03
TC1_shp	675	637792.8	6325384	856.45	755.8	15.97	4203.19
TC1_shp	675	637792.8	6325384	804.65	807.6	14.95	3875.23
TC1_shp	675	637792.8	6325384	747.85	864.4	13.7	3498.36
TC1_shp	675	637792.8	6325384	686.6	925.65	12.43	3156.76
TC1_shp	675	637792.8	6325384	621.75	990.5	11.26	2960.93
TC1_shp	675	637792.8	6325384	550.25	1062	9.97	2745.02
TC1_shp	691.67	637791.6	6325399	1599.69	9.73	4.26	1462.86
TC1_shp	691.67	637791.6	6325399	1580.22	29.2	3.65	1893.54
TC1_shp	691.67	637791.6	6325399	1560.75	48.67	6.28	2646.79
TC1_shp	691.67	637791.6	6325399	1541.29	68.13	12.05	3448.12
TC1_shp	691.67	637791.6	6325399	1521.82	87.6	20.17	4093.41
TC1_shp	691.67	637791.6	6325399	1502.35	107.07	27.92	4545.33
TC1_shp	691.67	637791.6	6325399	1482.89	126.53	32.67	4750.13
TC1_shp	691.67	637791.6	6325399	1463.42	146	35.31	4813.25
TC1_shp	691.67	637791.6	6325399	1443.95	165.47	36.47	4798.81
TC1_shp	691.67	637791.6	6325399	1424.49	184.93	36.18	4748.04
TC1_shp	691.67	637791.6	6325399	1405.02	204.4	35.14	4710.32
TC1_shp	691.67	637791.6	6325399	1385.55	223.87	33.7	4683
TC1_shp	691.67	637791.6	6325399	1366.09	243.33	31.79	4690.19
TC1_shp	691.67	637791.6	6325399	1346.62	262.8	29.85	4714.4
TC1_shp	691.67	637791.6	6325399	1327.15	282.27	27.87	4760.03
TC1_shp	691.67	637791.6	6325399	1307.42	302	26.08	4821.06
TC1_shp	691.67	637791.6	6325399	1287.42	322	24.41	4892.54
TC1_shp	691.67	637791.6	6325399	1267.42	342	23.02	4969.07
TC1_shp	691.67	637791.6	6325399	1247.42	362	21.79	5048.12
TC1_shp	691.67	637791.6	6325399	1227.42	382	20.84	5119.03
TC1_shp	691.67	637791.6	6325399	1205.32	404.1	19.98	5191.66
TC1_shp	691.67	637791.6	6325399	1180.77	428.65	19.3	5248.4
TC1_shp	691.67	637791.6	6325399	1154.82	454.6	18.82	5288.55
TC1_shp	691.67	637791.6	6325399	1126.32	483.1	18.5	5290.89
TC1_shp	691.67	637791.6	6325399	1095.62	513.8	18.26	5272.88
TC1_shp	691.67	637791.6	6325399	1062.97	546.45	18.16	5184.89
TC1_shp	691.67	637791.6	6325399	1027.17	582.25	18.03	5067.91
TC1_shp	691.67	637791.6	6325399	988.52	620.9	17.85	4895.64
TC1_shp	691.67	637791.6	6325399	947.37	662.05	17.52	4689.02
TC1_shp	691.67	637791.6	6325399	902.27	707.15	17.08	4451.66
TC1_shp	691.67	637791.6	6325399	853.62	755.8	16.46	4196.28
TC1_shp	691.67	637791.6	6325399	801.82	807.6	15.43	3875.92
TC1_shp	691.67	637791.6	6325399	745.02	864.4	14.16	3505.11
TC1_shp	691.67	637791.6	6325399	683.77	925.65	12.85	3167.86
TC1_shp	691.67	637791.6	6325399	618.92	990.5	11.62	2971.11
TC1_shp	691.67	637791.6	6325399	547.42	1062	10.26	2754.18
TC1_shp	708.33	637789.9	6325416	1599.19	9.73	2.32	1085.41
TC1_shp	708.33	637789.9	6325416	1579.72	29.2	3.82	1701.84
TC1_shp	708.33	637789.9	6325416	1560.25	48.67	8.01	2495.29

TC1_shp	708.33	637789.9	6325416	1540.79	68.13	16.18	3311.04
TC1_shp	708.33	637789.9	6325416	1521.32	87.6	25.81	3992.38
TC1_shp	708.33	637789.9	6325416	1501.85	107.07	32.99	4503.74
TC1_shp	708.33	637789.9	6325416	1482.39	126.53	36.92	4757.03
TC1_shp	708.33	637789.9	6325416	1462.92	146	38.74	4850.45
TC1_shp	708.33	637789.9	6325416	1443.45	165.47	39.11	4847.99
TC1_shp	708.33	637789.9	6325416	1423.99	184.93	38.13	4787.58
TC1_shp	708.33	637789.9	6325416	1404.52	204.4	36.53	4729.75
TC1_shp	708.33	637789.9	6325416	1385.05	223.87	34.63	4677.17
TC1_shp	708.33	637789.9	6325416	1365.59	243.33	32.37	4654.69
TC1_shp	708.33	637789.9	6325416	1346.12	262.8	30.14	4649.91
TC1_shp	708.33	637789.9	6325416	1326.65	282.27	27.94	4667.41
TC1_shp	708.33	637789.9	6325416	1306.92	302	25.99	4704.49
TC1_shp	708.33	637789.9	6325416	1286.92	322	24.2	4754.66
TC1_shp	708.33	637789.9	6325416	1266.92	342	22.76	4815.58
TC1_shp	708.33	637789.9	6325416	1246.92	362	21.5	4881.82
TC1_shp	708.33	637789.9	6325416	1226.92	382	20.55	4946.42
TC1_shp	708.33	637789.9	6325416	1204.82	404.1	19.73	5016.64
TC1_shp	708.33	637789.9	6325416	1180.27	428.65	19.11	5076.57
TC1_shp	708.33	637789.9	6325416	1154.32	454.6	18.69	5124.97
TC1_shp	708.33	637789.9	6325416	1125.82	483.1	18.46	5141.31
TC1_shp	708.33	637789.9	6325416	1095.12	513.8	18.31	5140.8
TC1_shp	708.33	637789.9	6325416	1062.47	546.45	18.29	5074.98
TC1_shp	708.33	637789.9	6325416	1026.67	582.25	18.27	4981.7
TC1_shp	708.33	637789.9	6325416	988.02	620.9	18.17	4832.78
TC1_shp	708.33	637789.9	6325416	946.87	662.05	17.92	4646.64
TC1_shp	708.33	637789.9	6325416	901.77	707.15	17.54	4428
TC1_shp	708.33	637789.9	6325416	853.12	755.8	16.96	4185.69
TC1_shp	708.33	637789.9	6325416	801.32	807.6	15.94	3873.67
TC1_shp	708.33	637789.9	6325416	744.52	864.4	14.64	3509.74
TC1_shp	708.33	637789.9	6325416	683.27	925.65	13.29	3177.55
TC1_shp	708.33	637789.9	6325416	618.42	990.5	11.99	2980.11
TC1_shp	708.33	637789.9	6325416	546.92	1062	10.55	2762.42
TC1_shp	725	637787.8	6325436	1601.02	9.73	8.75	877.52
TC1_shp	725	637787.8	6325436	1581.55	29.2	6.46	1495.28
TC1_shp	725	637787.8	6325436	1562.08	48.67	10.24	2296.84
TC1_shp	725	637787.8	6325436	1542.62	68.13	19.46	3126.15
TC1_shp	725	637787.8	6325436	1523.15	87.6	29.16	3843.6
TC1_shp	725	637787.8	6325436	1503.68	107.07	36.03	4414.59
TC1_shp	725	637787.8	6325436	1484.22	126.53	39.47	4721.12
TC1_shp	725	637787.8	6325436	1464.75	146	40.72	4852.68
TC1_shp	725	637787.8	6325436	1445.28	165.47	40.51	4871.52
TC1_shp	725	637787.8	6325436	1425.82	184.93	39	4809.97
TC1_shp	725	637787.8	6325436	1406.35	204.4	36.98	4738.56
TC1_shp	725	637787.8	6325436	1386.88	223.87	34.72	4666.06
TC1_shp	725	637787.8	6325436	1367.42	243.33	32.24	4616.82
TC1_shp	725	637787.8	6325436	1347.95	262.8	29.82	4585.68
TC1_shp	725	637787.8	6325436	1328.48	282.27	27.5	4577.36
TC1_shp	725	637787.8	6325436	1308.75	302	25.47	4591.98
TC1_shp	725	637787.8	6325436	1288.75	322	23.63	4621.79
TC1_shp	725	637787.8	6325436	1268.75	342	22.2	4667.46
TC1_shp	725	637787.8	6325436	1248.75	362	20.98	4720.99

TC1_shp	725	637787.8	6325436	1228.75	382	20.1	4778.86
TC1_shp	725	637787.8	6325436	1206.65	404.1	19.37	4845.87
TC1_shp	725	637787.8	6325436	1182.1	428.65	18.84	4907.6
TC1_shp	725	637787.8	6325436	1156.15	454.6	18.51	4962.33
TC1_shp	725	637787.8	6325436	1127.65	483.1	18.38	4990.91
TC1_shp	725	637787.8	6325436	1096.95	513.8	18.34	5006.2
TC1_shp	725	637787.8	6325436	1064.3	546.45	18.43	4961.68
TC1_shp	725	637787.8	6325436	1028.5	582.25	18.5	4891.42
TC1_shp	725	637787.8	6325436	989.85	620.9	18.5	4765.79
TC1_shp	725	637787.8	6325436	948.7	662.05	18.33	4599.98
TC1_shp	725	637787.8	6325436	903.6	707.15	18.01	4400
TC1_shp	725	637787.8	6325436	854.95	755.8	17.48	4171.35
TC1_shp	725	637787.8	6325436	803.15	807.6	16.45	3868.43
TC1_shp	725	637787.8	6325436	746.35	864.4	15.13	3512.29
TC1_shp	725	637787.8	6325436	685.1	925.65	13.74	3185.92
TC1_shp	725	637787.8	6325436	620.25	990.5	12.37	2988.02
TC1_shp	725	637787.8	6325436	548.75	1062	10.86	2769.82
TC1_shp	741.67	637785.6	6325455	1602.85	9.73	12.24	852.95
TC1_shp	741.67	637785.6	6325455	1583.38	29.2	6.8	1385.87
TC1_shp	741.67	637785.6	6325455	1563.91	48.67	10.41	2116.48
TC1_shp	741.67	637785.6	6325455	1544.45	68.13	20.02	2925.71
TC1_shp	741.67	637785.6	6325455	1524.98	87.6	29.86	3664.94
TC1_shp	741.67	637785.6	6325455	1505.51	107.07	36.72	4288.18
TC1_shp	741.67	637785.6	6325455	1486.05	126.53	39.96	4647
TC1_shp	741.67	637785.6	6325455	1466.58	146	40.93	4820.3
TC1_shp	741.67	637785.6	6325455	1447.11	165.47	40.39	4867
TC1_shp	741.67	637785.6	6325455	1427.65	184.93	38.56	4811.67
TC1_shp	741.67	637785.6	6325455	1408.18	204.4	36.32	4732.97
TC1_shp	741.67	637785.6	6325455	1388.71	223.87	33.87	4646.12
TC1_shp	741.67	637785.6	6325455	1369.25	243.33	31.3	4573.91
TC1_shp	741.67	637785.6	6325455	1349.78	262.8	28.84	4519.63
TC1_shp	741.67	637785.6	6325455	1330.31	282.27	26.51	4487.97
TC1_shp	741.67	637785.6	6325455	1310.58	302	24.52	4482
TC1_shp	741.67	637785.6	6325455	1290.58	322	22.73	4492.92
TC1_shp	741.67	637785.6	6325455	1270.58	342	21.4	4524.31
TC1_shp	741.67	637785.6	6325455	1250.58	362	20.28	4565.85
TC1_shp	741.67	637785.6	6325455	1230.58	382	19.51	4616.58
TC1_shp	741.67	637785.6	6325455	1208.48	404.1	18.91	4679.09
TC1_shp	741.67	637785.6	6325455	1183.93	428.65	18.5	4741.33
TC1_shp	741.67	637785.6	6325455	1157.98	454.6	18.29	4801.17
TC1_shp	741.67	637785.6	6325455	1129.48	483.1	18.28	4840.8
TC1_shp	741.67	637785.6	6325455	1098.78	513.8	18.37	4870.66
TC1_shp	741.67	637785.6	6325455	1066.13	546.45	18.56	4846.06
TC1_shp	741.67	637785.6	6325455	1030.33	582.25	18.73	4797.53
TC1_shp	741.67	637785.6	6325455	991.68	620.9	18.83	4694.41
TC1_shp	741.67	637785.6	6325455	950.53	662.05	18.74	4549.02
TC1_shp	741.67	637785.6	6325455	905.43	707.15	18.5	4368.22
TC1_shp	741.67	637785.6	6325455	856.78	755.8	18.01	4153.66
TC1_shp	741.67	637785.6	6325455	804.98	807.6	16.97	3860.47
TC1_shp	741.67	637785.6	6325455	748.18	864.4	15.62	3512.89
TC1_shp	741.67	637785.6	6325455	686.93	925.65	14.19	3192.98
TC1_shp	741.67	637785.6	6325455	622.08	990.5	12.75	2994.85

TC1_shp	741.67	637785.6	6325455	550.58	1062	11.17	2776.39
TC1_shp	758.33	637783.4	6325475	1604.69	9.73	1.89	1006.07
TC1_shp	758.33	637783.4	6325475	1585.22	29.2	3.77	1343.15
TC1_shp	758.33	637783.4	6325475	1565.75	48.67	8.76	1972.3
TC1_shp	758.33	637783.4	6325475	1546.29	68.13	18.5	2740.34
TC1_shp	758.33	637783.4	6325475	1526.82	87.6	28.39	3480.61
TC1_shp	758.33	637783.4	6325475	1507.35	107.07	35.25	4139.09
TC1_shp	758.33	637783.4	6325475	1487.89	126.53	38.43	4542.74
TC1_shp	758.33	637783.4	6325475	1468.42	146	39.3	4757.07
TC1_shp	758.33	637783.4	6325475	1448.95	165.47	38.67	4835.25
TC1_shp	758.33	637783.4	6325475	1429.49	184.93	36.78	4792.21
TC1_shp	758.33	637783.4	6325475	1410.02	204.4	34.52	4711.54
TC1_shp	758.33	637783.4	6325475	1390.55	223.87	32.08	4615.24
TC1_shp	758.33	637783.4	6325475	1371.09	243.33	29.58	4524.22
TC1_shp	758.33	637783.4	6325475	1351.62	262.8	27.2	4450.2
TC1_shp	758.33	637783.4	6325475	1332.15	282.27	25	4397.63
TC1_shp	758.33	637783.4	6325475	1312.42	302	23.16	4372.84
TC1_shp	758.33	637783.4	6325475	1292.42	322	21.54	4366.24
TC1_shp	758.33	637783.4	6325475	1272.42	342	20.37	4384.37
TC1_shp	758.33	637783.4	6325475	1252.42	362	19.43	4414.76
TC1_shp	758.33	637783.4	6325475	1232.42	382	18.81	4458.43
TC1_shp	758.33	637783.4	6325475	1210.32	404.1	18.37	4516.03
TC1_shp	758.33	637783.4	6325475	1185.77	428.65	18.11	4578.02
TC1_shp	758.33	637783.4	6325475	1159.82	454.6	18.04	4641.87
TC1_shp	758.33	637783.4	6325475	1131.32	483.1	18.16	4691.36
TC1_shp	758.33	637783.4	6325475	1100.62	513.8	18.37	4734.52
TC1_shp	758.33	637783.4	6325475	1067.97	546.45	18.68	4728.75
TC1_shp	758.33	637783.4	6325475	1032.17	582.25	18.98	4701
TC1_shp	758.33	637783.4	6325475	993.52	620.9	19.18	4619.97
TC1_shp	758.33	637783.4	6325475	952.37	662.05	19.17	4494.57
TC1_shp	758.33	637783.4	6325475	907.27	707.15	19.01	4332.64
TC1_shp	758.33	637783.4	6325475	858.62	755.8	18.56	4132.55
TC1_shp	758.33	637783.4	6325475	806.82	807.6	17.51	3849.74
TC1_shp	758.33	637783.4	6325475	750.02	864.4	16.14	3511.5
TC1_shp	758.33	637783.4	6325475	688.77	925.65	14.67	3198.72
TC1_shp	758.33	637783.4	6325475	623.92	990.5	13.16	3000.57
TC1_shp	758.33	637783.4	6325475	552.42	1062	11.49	2782.11
TC1_shp	775	637781.3	6325495	1606.52	9.73	2.53	851.98
TC1_shp	775	637781.3	6325495	1587.05	29.2	4.03	1239.49
TC1_shp	775	637781.3	6325495	1567.58	48.67	8.39	1848.72
TC1_shp	775	637781.3	6325495	1548.12	68.13	16.66	2582.75
TC1_shp	775	637781.3	6325495	1528.65	87.6	25.56	3307.93
TC1_shp	775	637781.3	6325495	1509.18	107.07	32.03	3982.05
TC1_shp	775	637781.3	6325495	1489.72	126.53	35.11	4418.76
TC1_shp	775	637781.3	6325495	1470.25	146	36.01	4669.19
TC1_shp	775	637781.3	6325495	1450.78	165.47	35.47	4778.9
TC1_shp	775	637781.3	6325495	1431.32	184.93	33.74	4751.51
TC1_shp	775	637781.3	6325495	1411.85	204.4	31.65	4672.94
TC1_shp	775	637781.3	6325495	1392.38	223.87	29.41	4571.51
TC1_shp	775	637781.3	6325495	1372.92	243.33	27.14	4465.6
TC1_shp	775	637781.3	6325495	1353.45	262.8	25.01	4375.19
TC1_shp	775	637781.3	6325495	1333.98	282.27	23.05	4304.37

TC1_shp	775	637781.3	6325495	1314.25	302	21.47	4263.18
TC1_shp	775	637781.3	6325495	1294.25	322	20.13	4241.31
TC1_shp	775	637781.3	6325495	1274.25	342	19.21	4247.38
TC1_shp	775	637781.3	6325495	1254.25	362	18.48	4267.29
TC1_shp	775	637781.3	6325495	1234.25	382	18.05	4304.11
TC1_shp	775	637781.3	6325495	1212.15	404.1	17.79	4356.69
TC1_shp	775	637781.3	6325495	1187.6	428.65	17.7	4417.97
TC1_shp	775	637781.3	6325495	1161.65	454.6	17.78	4485.14
TC1_shp	775	637781.3	6325495	1133.15	483.1	18.03	4543.36
TC1_shp	775	637781.3	6325495	1102.45	513.8	18.38	4598.43
TC1_shp	775	637781.3	6325495	1069.8	546.45	18.81	4610.28
TC1_shp	775	637781.3	6325495	1034	582.25	19.23	4602.13
TC1_shp	775	637781.3	6325495	995.35	620.9	19.52	4542.33
TC1_shp	775	637781.3	6325495	954.2	662.05	19.61	4436.79
TC1_shp	775	637781.3	6325495	909.1	707.15	19.52	4293.96
TC1_shp	775	637781.3	6325495	860.45	755.8	19.11	4108.46
TC1_shp	775	637781.3	6325495	808.65	807.6	18.06	3836.48
TC1_shp	775	637781.3	6325495	751.85	864.4	16.66	3508.19
TC1_shp	775	637781.3	6325495	690.6	925.65	15.15	3203.07
TC1_shp	775	637781.3	6325495	625.75	990.5	13.56	3005.14
TC1_shp	775	637781.3	6325495	554.25	1062	11.81	2786.92
TC1_shp	791.67	637779.1	6325514	1608.35	9.73	2.95	727.51
TC1_shp	791.67	637779.1	6325514	1588.88	29.2	3.92	1165.83
TC1_shp	791.67	637779.1	6325514	1569.41	48.67	7.55	1758.53
TC1_shp	791.67	637779.1	6325514	1549.95	68.13	14.16	2454.76
TC1_shp	791.67	637779.1	6325514	1530.48	87.6	21.56	3153.79
TC1_shp	791.67	637779.1	6325514	1511.01	107.07	27.43	3826.55
TC1_shp	791.67	637779.1	6325514	1491.55	126.53	30.35	4284.45
TC1_shp	791.67	637779.1	6325514	1472.08	146	31.34	4564.07
TC1_shp	791.67	637779.1	6325514	1452.61	165.47	31.04	4702.49
TC1_shp	791.67	637779.1	6325514	1433.15	184.93	29.65	4692.58
TC1_shp	791.67	637779.1	6325514	1413.68	204.4	27.91	4618.67
TC1_shp	791.67	637779.1	6325514	1394.21	223.87	26.02	4515.08
TC1_shp	791.67	637779.1	6325514	1374.75	243.33	24.15	4397.92
TC1_shp	791.67	637779.1	6325514	1355.28	262.8	22.4	4294.21
TC1_shp	791.67	637779.1	6325514	1335.81	282.27	20.83	4207.52
TC1_shp	791.67	637779.1	6325514	1316.08	302	19.61	4151.95
TC1_shp	791.67	637779.1	6325514	1296.08	322	18.62	4116.61
TC1_shp	791.67	637779.1	6325514	1276.08	342	17.97	4111.96
TC1_shp	791.67	637779.1	6325514	1256.08	362	17.49	4122.54
TC1_shp	791.67	637779.1	6325514	1236.08	382	17.26	4153.08
TC1_shp	791.67	637779.1	6325514	1213.98	404.1	17.19	4200.86
TC1_shp	791.67	637779.1	6325514	1189.43	428.65	17.27	4261.25
TC1_shp	791.67	637779.1	6325514	1163.48	454.6	17.51	4331.12
TC1_shp	791.67	637779.1	6325514	1134.98	483.1	17.9	4397.25
TC1_shp	791.67	637779.1	6325514	1104.28	513.8	18.4	4463.27
TC1_shp	791.67	637779.1	6325514	1071.63	546.45	18.95	4491.54
TC1_shp	791.67	637779.1	6325514	1035.83	582.25	19.49	4501.86
TC1_shp	791.67	637779.1	6325514	997.18	620.9	19.9	4462.57
TC1_shp	791.67	637779.1	6325514	956.03	662.05	20.07	4376.28
TC1_shp	791.67	637779.1	6325514	910.93	707.15	20.05	4252.1
TC1_shp	791.67	637779.1	6325514	862.28	755.8	19.69	4081.44

TC1_shp	791.67	637779.1	6325514	810.48	807.6	18.63	3820.76
TC1_shp	791.67	637779.1	6325514	753.68	864.4	17.19	3503.07
TC1_shp	791.67	637779.1	6325514	692.43	925.65	15.64	3206.15
TC1_shp	791.67	637779.1	6325514	627.58	990.5	13.97	3008.65
TC1_shp	791.67	637779.1	6325514	556.08	1062	12.14	2790.9
TC1_shp	808.33	637777.5	6325533	1610.52	9.73	1.06	982.07
TC1_shp	808.33	637777.5	6325533	1591.05	29.2	2.63	1200.77
TC1_shp	808.33	637777.5	6325533	1571.58	48.67	6.15	1709.94
TC1_shp	808.33	637777.5	6325533	1552.12	68.13	11.65	2353.3
TC1_shp	808.33	637777.5	6325533	1532.65	87.6	17.41	3018.53
TC1_shp	808.33	637777.5	6325533	1513.18	107.07	22.18	3679.23
TC1_shp	808.33	637777.5	6325533	1493.72	126.53	24.76	4148.42
TC1_shp	808.33	637777.5	6325533	1474.25	146	25.8	4449.87
TC1_shp	808.33	637777.5	6325533	1454.78	165.47	25.78	4612.4
TC1_shp	808.33	637777.5	6325533	1435.32	184.93	24.84	4618.48
TC1_shp	808.33	637777.5	6325533	1415.85	204.4	23.59	4550.43
TC1_shp	808.33	637777.5	6325533	1396.38	223.87	22.21	4447.03
TC1_shp	808.33	637777.5	6325533	1376.92	243.33	20.87	4320.82
TC1_shp	808.33	637777.5	6325533	1357.45	262.8	19.64	4206.27
TC1_shp	808.33	637777.5	6325533	1337.98	282.27	18.57	4106.48
TC1_shp	808.33	637777.5	6325533	1318.25	302	17.76	4038.66
TC1_shp	808.33	637777.5	6325533	1298.25	322	17.12	3991.56
TC1_shp	808.33	637777.5	6325533	1278.25	342	16.75	3977.43
TC1_shp	808.33	637777.5	6325533	1258.25	362	16.5	3979.64
TC1_shp	808.33	637777.5	6325533	1238.25	382	16.47	4004.67
TC1_shp	808.33	637777.5	6325533	1216.15	404.1	16.59	4048.37
TC1_shp	808.33	637777.5	6325533	1191.6	428.65	16.84	4108.03
TC1_shp	808.33	637777.5	6325533	1165.65	454.6	17.23	4180.29
TC1_shp	808.33	637777.5	6325533	1137.15	483.1	17.77	4253.5
TC1_shp	808.33	637777.5	6325533	1106.45	513.8	18.42	4329.33
TC1_shp	808.33	637777.5	6325533	1073.8	546.45	19.1	4372.85
TC1_shp	808.33	637777.5	6325533	1038	582.25	19.77	4400.46
TC1_shp	808.33	637777.5	6325533	999.35	620.9	20.28	4380.69
TC1_shp	808.33	637777.5	6325533	958.2	662.05	20.54	4313.27
TC1_shp	808.33	637777.5	6325533	913.1	707.15	20.6	4207.69
TC1_shp	808.33	637777.5	6325533	864.45	755.8	20.27	4051.88
TC1_shp	808.33	637777.5	6325533	812.65	807.6	19.2	3802.86
TC1_shp	808.33	637777.5	6325533	755.85	864.4	17.73	3496.29
TC1_shp	808.33	637777.5	6325533	694.6	925.65	16.13	3208.02
TC1_shp	808.33	637777.5	6325533	629.75	990.5	14.39	3011.17
TC1_shp	808.33	637777.5	6325533	558.25	1062	12.47	2794.12
TC1_shp	825	637776.5	6325549	1613.02	9.73	1.37	1341.41
TC1_shp	825	637776.5	6325549	1593.55	29.2	1.58	1133.62
TC1_shp	825	637776.5	6325549	1574.08	48.67	3.14	1278.03
TC1_shp	825	637776.5	6325549	1554.62	68.13	6.34	1703.63
TC1_shp	825	637776.5	6325549	1535.15	87.6	10.61	2279.8
TC1_shp	825	637776.5	6325549	1515.68	107.07	14.56	2900.73
TC1_shp	825	637776.5	6325549	1496.22	126.53	17.57	3539
TC1_shp	825	637776.5	6325549	1476.75	146	19.32	4013.08
TC1_shp	825	637776.5	6325549	1457.28	165.47	20.17	4330.74
TC1_shp	825	637776.5	6325549	1437.82	184.93	20.37	4513.69
TC1_shp	825	637776.5	6325549	1418.35	204.4	19.93	4533.04

TC1_shp	825	637776.5	6325549	1398.88	223.87	19.3	4471.79
TC1_shp	825	637776.5	6325549	1379.42	243.33	18.57	4369.58
TC1_shp	825	637776.5	6325549	1359.95	262.8	17.81	4236.09
TC1_shp	825	637776.5	6325549	1340.48	282.27	17.11	4112.46
TC1_shp	825	637776.5	6325549	1320.75	302	16.49	4000.47
TC1_shp	825	637776.5	6325549	1300.75	322	16.05	3921.59
TC1_shp	825	637776.5	6325549	1280.75	342	15.72	3864.44
TC1_shp	825	637776.5	6325549	1260.75	362	15.6	3843.11
TC1_shp	825	637776.5	6325549	1240.75	382	15.57	3838.49
TC1_shp	825	637776.5	6325549	1218.65	404.1	15.75	3863.4
TC1_shp	825	637776.5	6325549	1194.1	428.65	16.06	3908.25
TC1_shp	825	637776.5	6325549	1168.15	454.6	16.56	3976.36
TC1_shp	825	637776.5	6325549	1139.65	483.1	17.16	4057.95
TC1_shp	825	637776.5	6325549	1108.95	513.8	17.95	4142.91
TC1_shp	825	637776.5	6325549	1076.3	546.45	18.78	4221.27
TC1_shp	825	637776.5	6325549	1040.5	582.25	19.66	4282.7
TC1_shp	825	637776.5	6325549	1001.85	620.9	20.37	4298.27
TC1_shp	825	637776.5	6325549	960.7	662.05	20.94	4281.99
TC1_shp	825	637776.5	6325549	915.6	707.15	21.16	4205
TC1_shp	825	637776.5	6325549	866.95	755.8	21	4076.94
TC1_shp	825	637776.5	6325549	815.15	807.6	20.32	3885.24
TC1_shp	825	637776.5	6325549	758.35	864.4	18.81	3590.33
TC1_shp	825	637776.5	6325549	697.1	925.65	17.19	3272.31
TC1_shp	825	637776.5	6325549	632.25	990.5	15.37	3072.36
TC1_shp	825	637776.5	6325549	560.75	1062	13.36	2856.24
TC1_shp	841.67	637775.5	6325566	1615.52	9.73	2.3	1388.13
TC1_shp	841.67	637775.5	6325566	1596.05	29.2	3.17	1257.19
TC1_shp	841.67	637775.5	6325566	1576.58	48.67	5.25	1389.75
TC1_shp	841.67	637775.5	6325566	1557.12	68.13	8.28	1748.66
TC1_shp	841.67	637775.5	6325566	1537.65	87.6	11.2	2255.77
TC1_shp	841.67	637775.5	6325566	1518.18	107.07	13.28	2825.33
TC1_shp	841.67	637775.5	6325566	1498.72	126.53	14.59	3432.22
TC1_shp	841.67	637775.5	6325566	1479.25	146	15.34	3897.36
TC1_shp	841.67	637775.5	6325566	1459.78	165.47	15.77	4218.92
TC1_shp	841.67	637775.5	6325566	1440.32	184.93	15.98	4411.88
TC1_shp	841.67	637775.5	6325566	1420.85	204.4	15.95	4439.9
TC1_shp	841.67	637775.5	6325566	1401.38	223.87	15.79	4381.96
TC1_shp	841.67	637775.5	6325566	1381.92	243.33	15.56	4279.87
TC1_shp	841.67	637775.5	6325566	1362.45	262.8	15.25	4140.54
TC1_shp	841.67	637775.5	6325566	1342.98	282.27	14.96	4009.85
TC1_shp	841.67	637775.5	6325566	1323.25	302	14.71	3889.05
TC1_shp	841.67	637775.5	6325566	1303.25	322	14.56	3801.71
TC1_shp	841.67	637775.5	6325566	1283.25	342	14.48	3736.42
TC1_shp	841.67	637775.5	6325566	1263.25	362	14.57	3709.02
TC1_shp	841.67	637775.5	6325566	1243.25	382	14.73	3699.31
TC1_shp	841.67	637775.5	6325566	1221.15	404.1	15.08	3720.51
TC1_shp	841.67	637775.5	6325566	1196.6	428.65	15.56	3762.32
TC1_shp	841.67	637775.5	6325566	1170.65	454.6	16.21	3831.17
TC1_shp	841.67	637775.5	6325566	1142.15	483.1	16.98	3914.85
TC1_shp	841.67	637775.5	6325566	1111.45	513.8	17.92	4007.85
TC1_shp	841.67	637775.5	6325566	1078.8	546.45	18.9	4096.44
TC1_shp	841.67	637775.5	6325566	1043	582.25	19.92	4172.45

TC1_shp	841.67	637775.5	6325566	1004.35	620.9	20.74	4205.19
TC1_shp	841.67	637775.5	6325566	963.2	662.05	21.41	4207.32
TC1_shp	841.67	637775.5	6325566	918.1	707.15	21.72	4149
TC1_shp	841.67	637775.5	6325566	869.45	755.8	21.59	4036.82
TC1_shp	841.67	637775.5	6325566	817.65	807.6	20.93	3859.11
TC1_shp	841.67	637775.5	6325566	760.85	864.4	19.38	3576.19
TC1_shp	841.67	637775.5	6325566	699.6	925.65	17.72	3271.11
TC1_shp	841.67	637775.5	6325566	634.75	990.5	15.82	3072.55
TC1_shp	841.67	637775.5	6325566	563.25	1062	13.72	2857.56
TC1_shp	858.33	637774.5	6325583	1618.02	9.73	7.19	1790.49
TC1_shp	858.33	637774.5	6325583	1598.55	29.2	8.1	1527.23
TC1_shp	858.33	637774.5	6325583	1579.08	48.67	10.17	1562.59
TC1_shp	858.33	637774.5	6325583	1559.62	68.13	11.96	1834.86
TC1_shp	858.33	637774.5	6325583	1540.15	87.6	12.8	2269.63
TC1_shp	858.33	637774.5	6325583	1520.68	107.07	12.94	2785.49
TC1_shp	858.33	637774.5	6325583	1501.22	126.53	12.83	3354.03
TC1_shp	858.33	637774.5	6325583	1481.75	146	12.8	3801.21
TC1_shp	858.33	637774.5	6325583	1462.28	165.47	12.86	4117.04
TC1_shp	858.33	637774.5	6325583	1442.82	184.93	13	4310.94
TC1_shp	858.33	637774.5	6325583	1423.35	204.4	13.14	4342.3
TC1_shp	858.33	637774.5	6325583	1403.88	223.87	13.22	4284.9
TC1_shp	858.33	637774.5	6325583	1384.42	243.33	13.28	4181.65
TC1_shp	858.33	637774.5	6325583	1364.95	262.8	13.26	4037.71
TC1_shp	858.33	637774.5	6325583	1345.48	282.27	13.25	3901.46
TC1_shp	858.33	637774.5	6325583	1325.75	302	13.25	3773.75
TC1_shp	858.33	637774.5	6325583	1305.75	322	13.32	3679.98
TC1_shp	858.33	637774.5	6325583	1285.75	342	13.44	3608.6
TC1_shp	858.33	637774.5	6325583	1265.75	362	13.69	3576.31
TC1_shp	858.33	637774.5	6325583	1245.75	382	14	3562.26
TC1_shp	858.33	637774.5	6325583	1223.65	404.1	14.5	3580.53
TC1_shp	858.33	637774.5	6325583	1199.1	428.65	15.13	3620.17
TC1_shp	858.33	637774.5	6325583	1173.15	454.6	15.92	3689.9
TC1_shp	858.33	637774.5	6325583	1144.65	483.1	16.83	3775.6
TC1_shp	858.33	637774.5	6325583	1113.95	513.8	17.93	3876.15
TC1_shp	858.33	637774.5	6325583	1081.3	546.45	19.06	3974.22
TC1_shp	858.33	637774.5	6325583	1045.5	582.25	20.21	4063.5
TC1_shp	858.33	637774.5	6325583	1006.85	620.9	21.15	4112.29
TC1_shp	858.33	637774.5	6325583	965.7	662.05	21.92	4131.8
TC1_shp	858.33	637774.5	6325583	920.6	707.15	22.3	4091.37
TC1_shp	858.33	637774.5	6325583	871.95	755.8	22.22	3994.79
TC1_shp	858.33	637774.5	6325583	820.15	807.6	21.55	3831.08
TC1_shp	858.33	637774.5	6325583	763.35	864.4	19.96	3560.49
TC1_shp	858.33	637774.5	6325583	702.1	925.65	18.25	3268.69
TC1_shp	858.33	637774.5	6325583	637.25	990.5	16.27	3071.71
TC1_shp	858.33	637774.5	6325583	565.75	1062	14.08	2858.07
TC1_shp	875	637773.5	6325600	1620.52	9.73	7.94	2556.04
TC1_shp	875	637773.5	6325600	1601.05	29.2	10.93	1933
TC1_shp	875	637773.5	6325600	1581.58	48.67	14.03	1778.99
TC1_shp	875	637773.5	6325600	1562.12	68.13	14.95	1953.14
TC1_shp	875	637773.5	6325600	1542.65	87.6	14.14	2319.04
TC1_shp	875	637773.5	6325600	1523.18	107.07	12.89	2780.35
TC1_shp	875	637773.5	6325600	1503.72	126.53	11.83	3304.83

TC1_shp	875	637773.5	6325600	1484.25	146	11.29	3725.56
TC1_shp	875	637773.5	6325600	1464.78	165.47	11.09	4026.99
TC1_shp	875	637773.5	6325600	1445.32	184.93	11.13	4214.08
TC1_shp	875	637773.5	6325600	1425.85	204.4	11.3	4242.84
TC1_shp	875	637773.5	6325600	1406.38	223.87	11.49	4182.96
TC1_shp	875	637773.5	6325600	1386.92	243.33	11.67	4077.07
TC1_shp	875	637773.5	6325600	1367.45	262.8	11.81	3928.78
TC1_shp	875	637773.5	6325600	1347.98	282.27	11.96	3787.99
TC1_shp	875	637773.5	6325600	1328.25	302	12.12	3655.42
TC1_shp	875	637773.5	6325600	1308.25	322	12.34	3556.72
TC1_shp	875	637773.5	6325600	1288.25	342	12.59	3480.39
TC1_shp	875	637773.5	6325600	1268.25	362	12.96	3444.35
TC1_shp	875	637773.5	6325600	1248.25	382	13.38	3427.08
TC1_shp	875	637773.5	6325600	1226.15	404.1	13.99	3443.29
TC1_shp	875	637773.5	6325600	1201.6	428.65	14.75	3481.47
TC1_shp	875	637773.5	6325600	1175.65	454.6	15.69	3552.44
TC1_shp	875	637773.5	6325600	1147.15	483.1	16.75	3640.4
TC1_shp	875	637773.5	6325600	1116.45	513.8	17.99	3747.69
TC1_shp	875	637773.5	6325600	1083.8	546.45	19.26	3854.35
TC1_shp	875	637773.5	6325600	1048	582.25	20.54	3955.92
TC1_shp	875	637773.5	6325600	1009.35	620.9	21.59	4019.74
TC1_shp	875	637773.5	6325600	968.2	662.05	22.46	4055.73
TC1_shp	875	637773.5	6325600	923.1	707.15	22.89	4032.7
TC1_shp	875	637773.5	6325600	874.45	755.8	22.84	3951.36
TC1_shp	875	637773.5	6325600	822.65	807.6	22.18	3801.51
TC1_shp	875	637773.5	6325600	765.85	864.4	20.55	3543.45
TC1_shp	875	637773.5	6325600	704.6	925.65	18.79	3265.17
TC1_shp	875	637773.5	6325600	639.75	990.5	16.73	3069.94
TC1_shp	875	637773.5	6325600	568.25	1062	14.45	2857.84
TC1_shp	891.67	637772.5	6325617	1623.02	9.73	3.39	3349.6
TC1_shp	891.67	637772.5	6325617	1603.55	29.2	6.48	2299.69
TC1_shp	891.67	637772.5	6325617	1584.08	48.67	11.69	1997.08
TC1_shp	891.67	637772.5	6325617	1564.62	68.13	14.52	2097.19
TC1_shp	891.67	637772.5	6325617	1545.15	87.6	14.23	2400.22
TC1_shp	891.67	637772.5	6325617	1525.68	107.07	12.75	2805.75
TC1_shp	891.67	637772.5	6325617	1506.22	126.53	11.35	3280.8
TC1_shp	891.67	637772.5	6325617	1486.75	146	10.54	3668.19
TC1_shp	891.67	637772.5	6325617	1467.28	165.47	10.18	3947.82
TC1_shp	891.67	637772.5	6325617	1447.82	184.93	10.1	4120.94
TC1_shp	891.67	637772.5	6325617	1428.35	204.4	10.24	4142.24
TC1_shp	891.67	637772.5	6325617	1408.88	223.87	10.42	4076.97
TC1_shp	891.67	637772.5	6325617	1389.42	243.33	10.62	3966.75
TC1_shp	891.67	637772.5	6325617	1369.95	262.8	10.82	3814.92
TC1_shp	891.67	637772.5	6325617	1350.48	282.27	11.04	3670.56
TC1_shp	891.67	637772.5	6325617	1330.75	302	11.29	3534.34
TC1_shp	891.67	637772.5	6325617	1310.75	322	11.59	3432.12
TC1_shp	891.67	637772.5	6325617	1290.75	342	11.93	3352.41
TC1_shp	891.67	637772.5	6325617	1270.75	362	12.39	3313.75
TC1_shp	891.67	637772.5	6325617	1250.75	382	12.9	3294.23
TC1_shp	891.67	637772.5	6325617	1228.65	404.1	13.61	3309.34
TC1_shp	891.67	637772.5	6325617	1204.1	428.65	14.48	3347.1
TC1_shp	891.67	637772.5	6325617	1178.15	454.6	15.53	3419.49

TC1_shp	891.67	637772.5	6325617	1149.65	483.1	16.72	3509.63
TC1_shp	891.67	637772.5	6325617	1118.95	513.8	18.09	3623.17
TC1_shp	891.67	637772.5	6325617	1086.3	546.45	19.5	3737.72
TC1_shp	891.67	637772.5	6325617	1050.5	582.25	20.93	3850.46
TC1_shp	891.67	637772.5	6325617	1011.85	620.9	22.08	3928.2
TC1_shp	891.67	637772.5	6325617	970.7	662.05	23.03	3979.56
TC1_shp	891.67	637772.5	6325617	925.6	707.15	23.51	3973.01
TC1_shp	891.67	637772.5	6325617	876.95	755.8	23.49	3906.55
TC1_shp	891.67	637772.5	6325617	825.15	807.6	22.82	3770.48
TC1_shp	891.67	637772.5	6325617	768.35	864.4	21.14	3525.19
TC1_shp	891.67	637772.5	6325617	707.1	925.65	19.32	3260.69
TC1_shp	891.67	637772.5	6325617	642.25	990.5	17.18	3067.37
TC1_shp	891.67	637772.5	6325617	570.75	1062	14.81	2856.97
TC1_shp	908.33	637771.7	6325631	1625.52	9.73	3.98	1134.17
TC1_shp	908.33	637771.7	6325631	1606.05	29.2	4.2	1877.67
TC1_shp	908.33	637771.7	6325631	1586.58	48.67	8.15	2085.46
TC1_shp	908.33	637771.7	6325631	1567.12	68.13	12.44	2237.72
TC1_shp	908.33	637771.7	6325631	1547.65	87.6	13.66	2496.57
TC1_shp	908.33	637771.7	6325631	1528.18	107.07	12.77	2847.79
TC1_shp	908.33	637771.7	6325631	1508.72	126.53	11.39	3272.78
TC1_shp	908.33	637771.7	6325631	1489.25	146	10.46	3623.96
TC1_shp	908.33	637771.7	6325631	1469.78	165.47	9.94	3877.72
TC1_shp	908.33	637771.7	6325631	1450.32	184.93	9.73	4032.34
TC1_shp	908.33	637771.7	6325631	1430.85	204.4	9.76	4041.93
TC1_shp	908.33	637771.7	6325631	1411.38	223.87	9.87	3968.62
TC1_shp	908.33	637771.7	6325631	1391.92	243.33	10.03	3852.35
TC1_shp	908.33	637771.7	6325631	1372.45	262.8	10.23	3696.91
TC1_shp	908.33	637771.7	6325631	1352.98	282.27	10.45	3549.47
TC1_shp	908.33	637771.7	6325631	1333.25	302	10.71	3410.83
TC1_shp	908.33	637771.7	6325631	1313.25	322	11.05	3306.57
TC1_shp	908.33	637771.7	6325631	1293.25	342	11.44	3225.04
TC1_shp	908.33	637771.7	6325631	1273.25	362	11.96	3185.04
TC1_shp	908.33	637771.7	6325631	1253.25	382	12.53	3164.39
TC1_shp	908.33	637771.7	6325631	1231.15	404.1	13.32	3178.95
TC1_shp	908.33	637771.7	6325631	1206.6	428.65	14.28	3216.5
TC1_shp	908.33	637771.7	6325631	1180.65	454.6	15.44	3290.53
TC1_shp	908.33	637771.7	6325631	1152.15	483.1	16.75	3383.09
TC1_shp	908.33	637771.7	6325631	1121.45	513.8	18.26	3502.3
TC1_shp	908.33	637771.7	6325631	1088.8	546.45	19.8	3624.07
TC1_shp	908.33	637771.7	6325631	1053	582.25	21.35	3747.13
TC1_shp	908.33	637771.7	6325631	1014.35	620.9	22.6	3837.87
TC1_shp	908.33	637771.7	6325631	973.2	662.05	23.63	3903.71
TC1_shp	908.33	637771.7	6325631	928.1	707.15	24.15	3912.96
TC1_shp	908.33	637771.7	6325631	879.45	755.8	24.14	3860.82
TC1_shp	908.33	637771.7	6325631	827.65	807.6	23.46	3738.24
TC1_shp	908.33	637771.7	6325631	770.85	864.4	21.72	3505.83
TC1_shp	908.33	637771.7	6325631	709.6	925.65	19.86	3255.21
TC1_shp	908.33	637771.7	6325631	644.75	990.5	17.63	3063.95
TC1_shp	908.33	637771.7	6325631	573.25	1062	15.18	2855.43
TC1_shp	925	637771	6325643	1628.02	9.73	8.7	781.9
TC1_shp	925	637771	6325643	1608.55	29.2	4.27	1714.97
TC1_shp	925	637771	6325643	1589.08	48.67	6.96	2156.39

TC1_shp	925	637771	6325643	1569.62	68.13	11.54	2345.98
TC1_shp	925	637771	6325643	1550.15	87.6	13.79	2574.01
TC1_shp	925	637771	6325643	1530.68	107.07	13.44	2884.16
TC1_shp	925	637771	6325643	1511.22	126.53	12.11	3267.72
TC1_shp	925	637771	6325643	1491.75	146	11.03	3586.06
TC1_shp	925	637771	6325643	1472.28	165.47	10.32	3813.55
TC1_shp	925	637771	6325643	1452.82	184.93	9.91	3946.97
TC1_shp	925	637771	6325643	1433.35	204.4	9.78	3942.21
TC1_shp	925	637771	6325643	1413.88	223.87	9.77	3859.01
TC1_shp	925	637771	6325643	1394.42	243.33	9.81	3735.37
TC1_shp	925	637771	6325643	1374.95	262.8	9.95	3576.43
TC1_shp	925	637771	6325643	1355.48	282.27	10.12	3426.41
TC1_shp	925	637771	6325643	1335.75	302	10.37	3286.42
TC1_shp	925	637771	6325643	1315.75	322	10.71	3181.43
TC1_shp	925	637771	6325643	1295.75	342	11.12	3099.6
TC1_shp	925	637771	6325643	1275.75	362	11.67	3059.01
TC1_shp	925	637771	6325643	1255.75	382	12.28	3037.64
TC1_shp	925	637771	6325643	1233.65	404.1	13.13	3052.34
TC1_shp	925	637771	6325643	1209.1	428.65	14.18	3090.56
TC1_shp	925	637771	6325643	1183.15	454.6	15.43	3166.38
TC1_shp	925	637771	6325643	1154.65	483.1	16.86	3261.25
TC1_shp	925	637771	6325643	1123.95	513.8	18.5	3385.69
TC1_shp	925	637771	6325643	1091.3	546.45	20.17	3514.07
TC1_shp	925	637771	6325643	1055.5	582.25	21.85	3646.5
TC1_shp	925	637771	6325643	1016.85	620.9	23.18	3749.2
TC1_shp	925	637771	6325643	975.7	662.05	24.27	3828.47
TC1_shp	925	637771	6325643	930.6	707.15	24.82	3852.64
TC1_shp	925	637771	6325643	881.95	755.8	24.8	3814.32
TC1_shp	925	637771	6325643	830.15	807.6	24.1	3704.97
TC1_shp	925	637771	6325643	773.35	864.4	22.31	3485.46
TC1_shp	925	637771	6325643	712.1	925.65	20.38	3248.75
TC1_shp	925	637771	6325643	647.25	990.5	18.08	3059.69
TC1_shp	925	637771	6325643	575.75	1062	15.53	2853.2
TC1_shp	941.67	637770.3	6325654	1630.52	9.73	17.14	755.85
TC1_shp	941.67	637770.3	6325654	1611.05	29.2	4.78	1866.24
TC1_shp	941.67	637770.3	6325654	1591.58	48.67	7.17	2256.21
TC1_shp	941.67	637770.3	6325654	1572.12	68.13	12.27	2401.65
TC1_shp	941.67	637770.3	6325654	1552.65	87.6	15.19	2606.31
TC1_shp	941.67	637770.3	6325654	1533.18	107.07	15.11	2896.16
TC1_shp	941.67	637770.3	6325654	1513.72	126.53	13.67	3254.35
TC1_shp	941.67	637770.3	6325654	1494.25	146	12.34	3547.76
TC1_shp	941.67	637770.3	6325654	1474.78	165.47	11.33	3751.78
TC1_shp	941.67	637770.3	6325654	1455.32	184.93	10.64	3863.79
TC1_shp	941.67	637770.3	6325654	1435.85	204.4	10.27	3842.98
TC1_shp	941.67	637770.3	6325654	1416.38	223.87	10.05	3748.78
TC1_shp	941.67	637770.3	6325654	1396.92	243.33	9.92	3616.99
TC1_shp	941.67	637770.3	6325654	1377.45	262.8	9.93	3454.24
TC1_shp	941.67	637770.3	6325654	1357.98	282.27	10.02	3301.91
TC1_shp	941.67	637770.3	6325654	1338.25	302	10.21	3161.57
TC1_shp	941.67	637770.3	6325654	1318.25	322	10.53	3056.65
TC1_shp	941.67	637770.3	6325654	1298.25	342	10.93	2975.15
TC1_shp	941.67	637770.3	6325654	1278.25	362	11.5	2935.02

TC1_shp	941.67	637770.3	6325654	1258.25	382	12.15	2914.18
TC1_shp	941.67	637770.3	6325654	1236.15	404.1	13.05	2929.7
TC1_shp	941.67	637770.3	6325654	1211.6	428.65	14.16	2968.97
TC1_shp	941.67	637770.3	6325654	1185.65	454.6	15.51	3046.73
TC1_shp	941.67	637770.3	6325654	1157.15	483.1	17.04	3144
TC1_shp	941.67	637770.3	6325654	1126.45	513.8	18.8	3273.12
TC1_shp	941.67	637770.3	6325654	1093.8	546.45	20.59	3407.51
TC1_shp	941.67	637770.3	6325654	1058	582.25	22.4	3548.56
TC1_shp	941.67	637770.3	6325654	1019.35	620.9	23.81	3662.38
TC1_shp	941.67	637770.3	6325654	978.2	662.05	24.95	3754.21
TC1_shp	941.67	637770.3	6325654	933.1	707.15	25.5	3792.53
TC1_shp	941.67	637770.3	6325654	884.45	755.8	25.47	3767.46
TC1_shp	941.67	637770.3	6325654	832.65	807.6	24.74	3670.96
TC1_shp	941.67	637770.3	6325654	775.85	864.4	22.89	3464.25
TC1_shp	941.67	637770.3	6325654	714.6	925.65	20.9	3241.34
TC1_shp	941.67	637770.3	6325654	649.75	990.5	18.52	3054.61
TC1_shp	941.67	637770.3	6325654	578.25	1062	15.88	2850.29
TC1_shp	958.33	637769.7	6325666	1633.02	9.73	2.24	7661.66
TC1_shp	958.33	637769.7	6325666	1613.55	29.2	2.84	3915.29
TC1_shp	958.33	637769.7	6325666	1594.08	48.67	3.83	2747.05
TC1_shp	958.33	637769.7	6325666	1574.62	68.13	8.36	2381.6
TC1_shp	958.33	637769.7	6325666	1555.15	87.6	14.63	2390.95
TC1_shp	958.33	637769.7	6325666	1535.68	107.07	17.85	2590.58
TC1_shp	958.33	637769.7	6325666	1516.22	126.53	17.74	2884.24
TC1_shp	958.33	637769.7	6325666	1496.75	146	16.07	3232.56
TC1_shp	958.33	637769.7	6325666	1477.28	165.47	14.38	3508.14
TC1_shp	958.33	637769.7	6325666	1457.82	184.93	12.98	3690.98
TC1_shp	958.33	637769.7	6325666	1438.35	204.4	11.89	3781.41
TC1_shp	958.33	637769.7	6325666	1418.88	223.87	11.17	3743.56
TC1_shp	958.33	637769.7	6325666	1399.42	243.33	10.67	3637.73
TC1_shp	958.33	637769.7	6325666	1379.95	262.8	10.29	3497.33
TC1_shp	958.33	637769.7	6325666	1360.48	282.27	10.15	3331.59
TC1_shp	958.33	637769.7	6325666	1340.75	302	10.1	3175.66
TC1_shp	958.33	637769.7	6325666	1320.75	322	10.2	3033.32
TC1_shp	958.33	637769.7	6325666	1300.75	342	10.48	2931.03
TC1_shp	958.33	637769.7	6325666	1280.75	362	10.86	2851.16
TC1_shp	958.33	637769.7	6325666	1260.75	382	11.45	2814.01
TC1_shp	958.33	637769.7	6325666	1238.65	404.1	12.19	2792.38
TC1_shp	958.33	637769.7	6325666	1214.1	428.65	13.29	2820.26
TC1_shp	958.33	637769.7	6325666	1188.15	454.6	14.54	2864.29
TC1_shp	958.33	637769.7	6325666	1159.65	483.1	16.18	2963.67
TC1_shp	958.33	637769.7	6325666	1128.95	513.8	17.99	3080.29
TC1_shp	958.33	637769.7	6325666	1096.3	546.45	19.99	3222.39
TC1_shp	958.33	637769.7	6325666	1060.5	582.25	21.97	3372.83
TC1_shp	958.33	637769.7	6325666	1021.85	620.9	23.84	3521.45
TC1_shp	958.33	637769.7	6325666	980.7	662.05	25.19	3640.45
TC1_shp	958.33	637769.7	6325666	935.6	707.15	25.96	3710.44
TC1_shp	958.33	637769.7	6325666	886.95	755.8	26.24	3733.06
TC1_shp	958.33	637769.7	6325666	835.15	807.6	26	3699.18
TC1_shp	958.33	637769.7	6325666	778.35	864.4	24.12	3508.89
TC1_shp	958.33	637769.7	6325666	717.1	925.65	22.06	3299.74
TC1_shp	958.33	637769.7	6325666	652.25	990.5	19.68	3103.96

TC1_shp	958.33	637769.7	6325666	580.75	1062	16.97	2901.94
TC1_shp	975	637769	6325678	1635.52	9.73	6.49	5344.11
TC1_shp	975	637769	6325678	1616.05	29.2	6.63	3585.8
TC1_shp	975	637769	6325678	1596.58	48.67	8.09	2526.94
TC1_shp	975	637769	6325678	1577.12	68.13	12.92	2242.73
TC1_shp	975	637769	6325678	1557.65	87.6	18.43	2315.93
TC1_shp	975	637769	6325678	1538.18	107.07	21.03	2555.97
TC1_shp	975	637769	6325678	1518.72	126.53	20.79	2865.59
TC1_shp	975	637769	6325678	1499.25	146	19.02	3209.34
TC1_shp	975	637769	6325678	1479.78	165.47	17.03	3468.77
TC1_shp	975	637769	6325678	1460.32	184.93	15.21	3630.96
TC1_shp	975	637769	6325678	1440.85	204.4	13.62	3699.81
TC1_shp	975	637769	6325678	1421.38	223.87	12.44	3643.81
TC1_shp	975	637769	6325678	1401.92	243.33	11.56	3526.11
TC1_shp	975	637769	6325678	1382.45	262.8	10.87	3377.38
TC1_shp	975	637769	6325678	1362.98	282.27	10.51	3208.78
TC1_shp	975	637769	6325678	1343.25	302	10.31	3051.72
TC1_shp	975	637769	6325678	1323.25	322	10.3	2910.51
TC1_shp	975	637769	6325678	1303.25	342	10.53	2809.91
TC1_shp	975	637769	6325678	1283.25	362	10.88	2732.06
TC1_shp	975	637769	6325678	1263.25	382	11.47	2696.88
TC1_shp	975	637769	6325678	1241.15	404.1	12.22	2677.42
TC1_shp	975	637769	6325678	1216.6	428.65	13.38	2707.2
TC1_shp	975	637769	6325678	1190.65	454.6	14.7	2753.12
TC1_shp	975	637769	6325678	1162.15	483.1	16.45	2854.67
TC1_shp	975	637769	6325678	1131.45	513.8	18.38	2974.18
TC1_shp	975	637769	6325678	1098.8	546.45	20.52	3120.35
TC1_shp	975	637769	6325678	1063	582.25	22.6	3277.36
TC1_shp	975	637769	6325678	1024.35	620.9	24.55	3434.23
TC1_shp	975	637769	6325678	983.2	662.05	25.93	3563.69
TC1_shp	975	637769	6325678	938.1	707.15	26.69	3645.94
TC1_shp	975	637769	6325678	889.45	755.8	26.95	3681.34
TC1_shp	975	637769	6325678	837.65	807.6	26.66	3659.87
TC1_shp	975	637769	6325678	780.85	864.4	24.71	3482.21
TC1_shp	975	637769	6325678	719.6	925.65	22.57	3286.64
TC1_shp	975	637769	6325678	654.75	990.5	20.13	3097.05
TC1_shp	975	637769	6325678	583.25	1062	17.33	2897.43
TC1_shp	991.67	637768.3	6325689	1638.02	9.73	16.23	3426.37
TC1_shp	991.67	637768.3	6325689	1618.55	29.2	13.31	2509.15
TC1_shp	991.67	637768.3	6325689	1599.08	48.67	12.56	2117.61
TC1_shp	991.67	637768.3	6325689	1579.62	68.13	15.46	2095.58
TC1_shp	991.67	637768.3	6325689	1560.15	87.6	19.75	2265.01
TC1_shp	991.67	637768.3	6325689	1540.68	107.07	22.6	2539.54
TC1_shp	991.67	637768.3	6325689	1521.22	126.53	23.17	2856.36
TC1_shp	991.67	637768.3	6325689	1501.75	146	21.95	3190.32
TC1_shp	991.67	637768.3	6325689	1482.28	165.47	19.98	3431.45
TC1_shp	991.67	637768.3	6325689	1462.82	184.93	17.82	3571.83
TC1_shp	991.67	637768.3	6325689	1443.35	204.4	15.71	3618.25
TC1_shp	991.67	637768.3	6325689	1423.88	223.87	13.96	3544.12
TC1_shp	991.67	637768.3	6325689	1404.42	243.33	12.63	3414.51
TC1_shp	991.67	637768.3	6325689	1384.95	262.8	11.57	3257.49
TC1_shp	991.67	637768.3	6325689	1365.48	282.27	10.97	3086.81

TC1_shp	991.67	637768.3	6325689	1345.75	302	10.58	2929.36
TC1_shp	991.67	637768.3	6325689	1325.75	322	10.46	2790
TC1_shp	991.67	637768.3	6325689	1305.75	342	10.63	2691.75
TC1_shp	991.67	637768.3	6325689	1285.75	362	10.95	2616.52
TC1_shp	991.67	637768.3	6325689	1265.75	382	11.54	2583.85
TC1_shp	991.67	637768.3	6325689	1243.65	404.1	12.33	2567.11
TC1_shp	991.67	637768.3	6325689	1219.1	428.65	13.55	2599.19
TC1_shp	991.67	637768.3	6325689	1193.15	454.6	14.94	2647.33
TC1_shp	991.67	637768.3	6325689	1164.65	483.1	16.81	2750.76
TC1_shp	991.67	637768.3	6325689	1133.95	513.8	18.87	2872.87
TC1_shp	991.67	637768.3	6325689	1101.3	546.45	21.14	3022.89
TC1_shp	991.67	637768.3	6325689	1065.5	582.25	23.31	3185.84
TC1_shp	991.67	637768.3	6325689	1026.85	620.9	25.31	3350.17
TC1_shp	991.67	637768.3	6325689	985.7	662.05	26.7	3489.13
TC1_shp	991.67	637768.3	6325689	940.6	707.15	27.44	3582.65
TC1_shp	991.67	637768.3	6325689	891.95	755.8	27.67	3630.01
TC1_shp	991.67	637768.3	6325689	840.15	807.6	27.33	3620.4
TC1_shp	991.67	637768.3	6325689	783.35	864.4	25.31	3455.14
TC1_shp	991.67	637768.3	6325689	722.1	925.65	23.08	3272.94
TC1_shp	991.67	637768.3	6325689	657.25	990.5	20.56	3089.52
TC1_shp	991.67	637768.3	6325689	585.75	1062	17.68	2892.41
TC1_shp	1008.33	637767.3	6325705	1645.35	9.73	3.77	1328.55
TC1_shp	1008.33	637767.3	6325705	1625.88	29.2	6.5	1690.94
TC1_shp	1008.33	637767.3	6325705	1606.41	48.67	8.27	1878.84
TC1_shp	1008.33	637767.3	6325705	1586.95	68.13	11.55	2039.35
TC1_shp	1008.33	637767.3	6325705	1567.48	87.6	16.73	2260.53
TC1_shp	1008.33	637767.3	6325705	1548.01	107.07	21.69	2544.1
TC1_shp	1008.33	637767.3	6325705	1528.55	126.53	24.25	2854.89
TC1_shp	1008.33	637767.3	6325705	1509.08	146	24.37	3172.78
TC1_shp	1008.33	637767.3	6325705	1489.61	165.47	22.81	3393.36
TC1_shp	1008.33	637767.3	6325705	1470.15	184.93	20.49	3511.49
TC1_shp	1008.33	637767.3	6325705	1450.68	204.4	17.89	3535.78
TC1_shp	1008.33	637767.3	6325705	1431.21	223.87	15.53	3443.94
TC1_shp	1008.33	637767.3	6325705	1411.75	243.33	13.73	3302.93
TC1_shp	1008.33	637767.3	6325705	1392.28	262.8	12.26	3138.19
TC1_shp	1008.33	637767.3	6325705	1372.81	282.27	11.43	2966.39
TC1_shp	1008.33	637767.3	6325705	1353.08	302	10.87	2809.29
TC1_shp	1008.33	637767.3	6325705	1333.08	322	10.66	2672.25
TC1_shp	1008.33	637767.3	6325705	1313.08	342	10.77	2576.89
TC1_shp	1008.33	637767.3	6325705	1293.08	362	11.06	2504.89
TC1_shp	1008.33	637767.3	6325705	1273.08	382	11.67	2475.17
TC1_shp	1008.33	637767.3	6325705	1250.98	404.1	12.49	2461.55
TC1_shp	1008.33	637767.3	6325705	1226.43	428.65	13.79	2496.09
TC1_shp	1008.33	637767.3	6325705	1200.48	454.6	15.28	2546.55
TC1_shp	1008.33	637767.3	6325705	1171.98	483.1	17.26	2652.01
TC1_shp	1008.33	637767.3	6325705	1141.28	513.8	19.44	2776.62
TC1_shp	1008.33	637767.3	6325705	1108.63	546.45	21.85	2929.91
TC1_shp	1008.33	637767.3	6325705	1072.83	582.25	24.08	3098.22
TC1_shp	1008.33	637767.3	6325705	1034.18	620.9	26.13	3269.3
TC1_shp	1008.33	637767.3	6325705	993.03	662.05	27.51	3416.88
TC1_shp	1008.33	637767.3	6325705	947.93	707.15	28.22	3520.86
TC1_shp	1008.33	637767.3	6325705	899.28	755.8	28.4	3579.42

TC1_shp	1008.33	637767.3	6325705	847.48	807.6	27.99	3581.02
TC1_shp	1008.33	637767.3	6325705	790.68	864.4	25.88	3427.88
TC1_shp	1008.33	637767.3	6325705	729.43	925.65	23.56	3258.74
TC1_shp	1008.33	637767.3	6325705	664.58	990.5	20.96	3081.45
TC1_shp	1008.33	637767.3	6325705	593.08	1062	18.02	2886.93
TC1_shp	1025	637766	6325725	1657.52	9.73	2.54	2165.17
TC1_shp	1025	637766	6325725	1638.05	29.2	3.02	1643.41
TC1_shp	1025	637766	6325725	1618.58	48.67	3.86	1690.32
TC1_shp	1025	637766	6325725	1599.12	68.13	5.16	1844.3
TC1_shp	1025	637766	6325725	1579.65	87.6	8.04	2025.84
TC1_shp	1025	637766	6325725	1560.18	107.07	13.48	2258.37
TC1_shp	1025	637766	6325725	1540.72	126.53	20.24	2541.96
TC1_shp	1025	637766	6325725	1521.25	146	24.79	2845.49
TC1_shp	1025	637766	6325725	1501.78	165.47	26.25	3149.13
TC1_shp	1025	637766	6325725	1482.32	184.93	25.2	3350.52
TC1_shp	1025	637766	6325725	1462.85	204.4	22.83	3447.73
TC1_shp	1025	637766	6325725	1443.38	223.87	19.82	3451.17
TC1_shp	1025	637766	6325725	1423.92	243.33	16.9	3342.64
TC1_shp	1025	637766	6325725	1404.45	262.8	14.65	3191.17
TC1_shp	1025	637766	6325725	1384.98	282.27	12.82	3019.72
TC1_shp	1025	637766	6325725	1365.25	302	11.79	2845.23
TC1_shp	1025	637766	6325725	1345.25	322	11.1	2688.05
TC1_shp	1025	637766	6325725	1325.25	342	10.81	2554.25
TC1_shp	1025	637766	6325725	1305.25	362	10.91	2464.21
TC1_shp	1025	637766	6325725	1285.25	382	11.21	2395.98
TC1_shp	1025	637766	6325725	1263.15	404.1	11.95	2369.89
TC1_shp	1025	637766	6325725	1238.6	428.65	12.91	2358.69
TC1_shp	1025	637766	6325725	1212.65	454.6	14.49	2410.91
TC1_shp	1025	637766	6325725	1184.15	483.1	16.35	2484.99
TC1_shp	1025	637766	6325725	1153.45	513.8	18.63	2600.56
TC1_shp	1025	637766	6325725	1120.8	546.45	21.14	2748.37
TC1_shp	1025	637766	6325725	1085	582.25	23.78	2920.38
TC1_shp	1025	637766	6325725	1046.35	620.9	26.1	3107.76
TC1_shp	1025	637766	6325725	1005.2	662.05	27.72	3273.71
TC1_shp	1025	637766	6325725	960.1	707.15	28.84	3419.18
TC1_shp	1025	637766	6325725	911.45	755.8	29.29	3523.01
TC1_shp	1025	637766	6325725	859.65	807.6	28.83	3537.28
TC1_shp	1025	637766	6325725	802.85	864.4	27.22	3450.25
TC1_shp	1025	637766	6325725	741.6	925.65	24.81	3293.85
TC1_shp	1025	637766	6325725	676.75	990.5	22.18	3125.13
TC1_shp	1025	637766	6325725	605.25	1062	19.16	2933.28
TC1_shp	1041.67	637764.7	6325745	1669.69	9.73	2.87	2255.32
TC1_shp	1041.67	637764.7	6325745	1650.22	29.2	2.88	1708.81
TC1_shp	1041.67	637764.7	6325745	1630.75	48.67	3.14	1646.55
TC1_shp	1041.67	637764.7	6325745	1611.29	68.13	4.19	1768.39
TC1_shp	1041.67	637764.7	6325745	1591.82	87.6	6.92	1961.47
TC1_shp	1041.67	637764.7	6325745	1572.35	107.07	12.57	2212.54
TC1_shp	1041.67	637764.7	6325745	1552.89	126.53	20.3	2509.03
TC1_shp	1041.67	637764.7	6325745	1533.42	146	25.83	2816.45
TC1_shp	1041.67	637764.7	6325745	1513.95	165.47	27.87	3113.23
TC1_shp	1041.67	637764.7	6325745	1494.49	184.93	26.96	3300.3
TC1_shp	1041.67	637764.7	6325745	1475.02	204.4	24.44	3379.22

TC1_shp	1041.67	637764.7	6325745	1455.55	223.87	21.1	3363.16
TC1_shp	1041.67	637764.7	6325745	1436.09	243.33	17.75	3239.85
TC1_shp	1041.67	637764.7	6325745	1416.62	262.8	15.2	3079.54
TC1_shp	1041.67	637764.7	6325745	1397.15	282.27	13.13	2902.69
TC1_shp	1041.67	637764.7	6325745	1377.42	302	11.99	2728.6
TC1_shp	1041.67	637764.7	6325745	1357.42	322	11.23	2573.43
TC1_shp	1041.67	637764.7	6325745	1337.42	342	10.91	2443.52
TC1_shp	1041.67	637764.7	6325745	1317.42	362	11.03	2357.6
TC1_shp	1041.67	637764.7	6325745	1297.42	382	11.35	2293.58
TC1_shp	1041.67	637764.7	6325745	1275.32	404.1	12.15	2271.08
TC1_shp	1041.67	637764.7	6325745	1250.77	428.65	13.19	2263.49
TC1_shp	1041.67	637764.7	6325745	1224.82	454.6	14.88	2318.52
TC1_shp	1041.67	637764.7	6325745	1196.32	483.1	16.88	2395.32
TC1_shp	1041.67	637764.7	6325745	1165.62	513.8	19.32	2512.99
TC1_shp	1041.67	637764.7	6325745	1132.97	546.45	21.96	2663.32
TC1_shp	1041.67	637764.7	6325745	1097.17	582.25	24.7	2838.57
TC1_shp	1041.67	637764.7	6325745	1058.52	620.9	27.04	3030.89
TC1_shp	1041.67	637764.7	6325745	1017.37	662.05	28.63	3203.34
TC1_shp	1041.67	637764.7	6325745	972.27	707.15	29.69	3356.9
TC1_shp	1041.67	637764.7	6325745	923.62	755.8	30.05	3470.6
TC1_shp	1041.67	637764.7	6325745	871.82	807.6	29.51	3494.87
TC1_shp	1041.67	637764.7	6325745	815.02	864.4	27.81	3419.09
TC1_shp	1041.67	637764.7	6325745	753.77	925.65	25.29	3275.03
TC1_shp	1041.67	637764.7	6325745	688.92	990.5	22.57	3115.43
TC1_shp	1041.67	637764.7	6325745	617.42	1062	19.49	2926.28
TC1_shp	1058.33	637763.3	6325765	1681.85	9.73	1.81	3858.56
TC1_shp	1058.33	637763.3	6325765	1662.38	29.2	2.4	2209.81
TC1_shp	1058.33	637763.3	6325765	1642.91	48.67	2.72	1583.96
TC1_shp	1058.33	637763.3	6325765	1623.45	68.13	3.14	1492.78
TC1_shp	1058.33	637763.3	6325765	1603.98	87.6	4.46	1613.54
TC1_shp	1058.33	637763.3	6325765	1584.51	107.07	7.76	1832.78
TC1_shp	1058.33	637763.3	6325765	1565.05	126.53	14.29	2118.04
TC1_shp	1058.33	637763.3	6325765	1545.58	146	22.46	2443.15
TC1_shp	1058.33	637763.3	6325765	1526.11	165.47	27.62	2767.14
TC1_shp	1058.33	637763.3	6325765	1506.65	184.93	29.2	3065.51
TC1_shp	1058.33	637763.3	6325765	1487.18	204.4	27.9	3242.78
TC1_shp	1058.33	637763.3	6325765	1467.71	223.87	25.03	3306.09
TC1_shp	1058.33	637763.3	6325765	1448.25	243.33	21.4	3272.62
TC1_shp	1058.33	637763.3	6325765	1428.78	262.8	17.87	3135.08
TC1_shp	1058.33	637763.3	6325765	1409.31	282.27	15.21	2967.17
TC1_shp	1058.33	637763.3	6325765	1389.58	302	13.07	2784.2
TC1_shp	1058.33	637763.3	6325765	1369.58	322	11.92	2609.39
TC1_shp	1058.33	637763.3	6325765	1349.58	342	11.2	2458.57
TC1_shp	1058.33	637763.3	6325765	1329.58	362	10.93	2333.3
TC1_shp	1058.33	637763.3	6325765	1309.58	382	11.12	2253.63
TC1_shp	1058.33	637763.3	6325765	1287.48	404.1	11.55	2187.77
TC1_shp	1058.33	637763.3	6325765	1262.93	428.65	12.61	2176
TC1_shp	1058.33	637763.3	6325765	1236.98	454.6	13.97	2187.6
TC1_shp	1058.33	637763.3	6325765	1208.48	483.1	15.99	2251.41
TC1_shp	1058.33	637763.3	6325765	1177.78	513.8	18.46	2354.55
TC1_shp	1058.33	637763.3	6325765	1145.13	546.45	21.24	2486.72
TC1_shp	1058.33	637763.3	6325765	1109.33	582.25	24.26	2663.87

TC1_shp	1058.33	637763.3	6325765	1070.68	620.9	26.86	2858.96
TC1_shp	1058.33	637763.3	6325765	1029.53	662.05	28.99	3056.58
TC1_shp	1058.33	637763.3	6325765	984.43	707.15	30.35	3241.11
TC1_shp	1058.33	637763.3	6325765	935.78	755.8	30.72	3370.59
TC1_shp	1058.33	637763.3	6325765	883.98	807.6	30.44	3441.39
TC1_shp	1058.33	637763.3	6325765	827.18	864.4	29.22	3430.16
TC1_shp	1058.33	637763.3	6325765	765.93	925.65	26.58	3298.03
TC1_shp	1058.33	637763.3	6325765	701.08	990.5	23.79	3156.04
TC1_shp	1058.33	637763.3	6325765	629.58	1062	20.64	2969.66
TC1_shp	1075	637762	6325784	1694.02	9.73	1	4045.08
TC1_shp	1075	637762	6325784	1674.55	29.2	1.41	3730.72
TC1_shp	1075	637762	6325784	1655.08	48.67	2.13	2142.23
TC1_shp	1075	637762	6325784	1635.62	68.13	2.87	1458.61
TC1_shp	1075	637762	6325784	1616.15	87.6	3.86	1326.67
TC1_shp	1075	637762	6325784	1596.68	107.07	6.05	1439.62
TC1_shp	1075	637762	6325784	1577.22	126.53	10.79	1680.94
TC1_shp	1075	637762	6325784	1557.75	146	18.6	2002.12
TC1_shp	1075	637762	6325784	1538.28	165.47	25.81	2361.78
TC1_shp	1075	637762	6325784	1518.82	184.93	29.4	2707.64
TC1_shp	1075	637762	6325784	1499.35	204.4	29.68	3012.32
TC1_shp	1075	637762	6325784	1479.88	223.87	27.6	3181.27
TC1_shp	1075	637762	6325784	1460.42	243.33	24.34	3229.67
TC1_shp	1075	637762	6325784	1440.95	262.8	20.55	3179.51
TC1_shp	1075	637762	6325784	1421.48	282.27	17.13	3029.22
TC1_shp	1075	637762	6325784	1401.75	302	14.59	2852.19
TC1_shp	1075	637762	6325784	1381.75	322	12.61	2664.09
TC1_shp	1075	637762	6325784	1361.75	342	11.6	2492.28
TC1_shp	1075	637762	6325784	1341.75	362	11.02	2347
TC1_shp	1075	637762	6325784	1321.75	382	10.86	2227.09
TC1_shp	1075	637762	6325784	1299.65	404.1	11.21	2148.43
TC1_shp	1075	637762	6325784	1275.1	428.65	11.88	2087.85
TC1_shp	1075	637762	6325784	1249.15	454.6	13.22	2087.64
TC1_shp	1075	637762	6325784	1220.65	483.1	15.09	2124.58
TC1_shp	1075	637762	6325784	1189.95	513.8	17.47	2199.03
TC1_shp	1075	637762	6325784	1157.3	546.45	20.46	2328.26
TC1_shp	1075	637762	6325784	1121.5	582.25	23.64	2492.21
TC1_shp	1075	637762	6325784	1082.85	620.9	26.78	2687.27
TC1_shp	1075	637762	6325784	1041.7	662.05	29.23	2900.52
TC1_shp	1075	637762	6325784	996.6	707.15	30.74	3098.28
TC1_shp	1075	637762	6325784	947.95	755.8	31.48	3265.62
TC1_shp	1075	637762	6325784	896.15	807.6	31.43	3382.4
TC1_shp	1075	637762	6325784	839.35	864.4	30.6	3426.46
TC1_shp	1075	637762	6325784	778.1	925.65	27.93	3313.79
TC1_shp	1075	637762	6325784	713.25	990.5	25.01	3185.99
TC1_shp	1075	637762	6325784	641.75	1062	21.81	3011.24
TC1_shp	1091.67	637760.7	6325804	1706.19	9.73	1.35	5091.31
TC1_shp	1091.67	637760.7	6325804	1686.72	29.2	1.71	4094.38
TC1_shp	1091.67	637760.7	6325804	1667.25	48.67	2.69	2199.49
TC1_shp	1091.67	637760.7	6325804	1647.79	68.13	3.94	1388.23
TC1_shp	1091.67	637760.7	6325804	1628.32	87.6	5.87	1199.81
TC1_shp	1091.67	637760.7	6325804	1608.85	107.07	9.77	1294.81
TC1_shp	1091.67	637760.7	6325804	1589.39	126.53	16.59	1547.96

TC1_shp	1091.67	637760.7	6325804	1569.92	146	24.14	1897.77
TC1_shp	1091.67	637760.7	6325804	1550.45	165.47	28.67	2288.37
TC1_shp	1091.67	637760.7	6325804	1530.99	184.93	29.91	2654.31
TC1_shp	1091.67	637760.7	6325804	1511.52	204.4	28.54	2961.59
TC1_shp	1091.67	637760.7	6325804	1492.05	223.87	25.68	3119.87
TC1_shp	1091.67	637760.7	6325804	1472.59	243.33	22.2	3151.53
TC1_shp	1091.67	637760.7	6325804	1453.12	262.8	18.59	3083.27
TC1_shp	1091.67	637760.7	6325804	1433.65	282.27	15.6	2921.31
TC1_shp	1091.67	637760.7	6325804	1413.92	302	13.47	2739.1
TC1_shp	1091.67	637760.7	6325804	1393.92	322	11.85	2549.67
TC1_shp	1091.67	637760.7	6325804	1373.92	342	11.1	2381.83
TC1_shp	1091.67	637760.7	6325804	1353.92	362	10.73	2241.65
TC1_shp	1091.67	637760.7	6325804	1333.92	382	10.73	2127.95
TC1_shp	1091.67	637760.7	6325804	1311.82	404.1	11.24	2055.34
TC1_shp	1091.67	637760.7	6325804	1287.27	428.65	12.06	2000.99
TC1_shp	1091.67	637760.7	6325804	1261.32	454.6	13.57	2005.49
TC1_shp	1091.67	637760.7	6325804	1232.82	483.1	15.65	2046.56
TC1_shp	1091.67	637760.7	6325804	1202.12	513.8	18.26	2124.5
TC1_shp	1091.67	637760.7	6325804	1169.47	546.45	21.47	2255.55
TC1_shp	1091.67	637760.7	6325804	1133.67	582.25	24.77	2421.59
TC1_shp	1091.67	637760.7	6325804	1095.02	620.9	27.93	2619.15
TC1_shp	1091.67	637760.7	6325804	1053.87	662.05	30.33	2835.69
TC1_shp	1091.67	637760.7	6325804	1008.77	707.15	31.74	3038.4
TC1_shp	1091.67	637760.7	6325804	960.12	755.8	32.36	3212.23
TC1_shp	1091.67	637760.7	6325804	908.32	807.6	32.17	3336.85
TC1_shp	1091.67	637760.7	6325804	851.52	864.4	31.21	3389.64
TC1_shp	1091.67	637760.7	6325804	790.27	925.65	28.41	3287.88
TC1_shp	1091.67	637760.7	6325804	725.42	990.5	25.36	3171.71
TC1_shp	1091.67	637760.7	6325804	653.92	1062	22.09	3001.84
TC1_shp	1108.33	637760.1	6325824	1709.94	9.73	5.69	2742.89
TC1_shp	1108.33	637760.1	6325824	1690.47	29.2	4.02	4267.34
TC1_shp	1108.33	637760.1	6325824	1671	48.67	4.79	2375.37
TC1_shp	1108.33	637760.1	6325824	1651.54	68.13	6.56	1377.59
TC1_shp	1108.33	637760.1	6325824	1632.07	87.6	9.95	1122.6
TC1_shp	1108.33	637760.1	6325824	1612.6	107.07	16.08	1198.93
TC1_shp	1108.33	637760.1	6325824	1593.14	126.53	23.13	1459.11
TC1_shp	1108.33	637760.1	6325824	1573.67	146	27.56	1830.13
TC1_shp	1108.33	637760.1	6325824	1554.2	165.47	28.87	2242.73
TC1_shp	1108.33	637760.1	6325824	1534.74	184.93	27.83	2619.72
TC1_shp	1108.33	637760.1	6325824	1515.27	204.4	25.19	2920.41
TC1_shp	1108.33	637760.1	6325824	1495.8	223.87	21.99	3061.02
TC1_shp	1108.33	637760.1	6325824	1476.34	243.33	18.78	3071.94
TC1_shp	1108.33	637760.1	6325824	1456.87	262.8	15.81	2984.25
TC1_shp	1108.33	637760.1	6325824	1437.4	282.27	13.58	2810.71
TC1_shp	1108.33	637760.1	6325824	1417.67	302	12.04	2624.67
TC1_shp	1108.33	637760.1	6325824	1397.67	322	10.91	2435.85
TC1_shp	1108.33	637760.1	6325824	1377.67	342	10.47	2273.66
TC1_shp	1108.33	637760.1	6325824	1357.67	362	10.36	2139.72
TC1_shp	1108.33	637760.1	6325824	1337.67	382	10.56	2032.83
TC1_shp	1108.33	637760.1	6325824	1315.57	404.1	11.26	1966.85
TC1_shp	1108.33	637760.1	6325824	1291.02	428.65	12.27	1919.28
TC1_shp	1108.33	637760.1	6325824	1265.07	454.6	13.99	1928.63

TC1_shp	1108.33	637760.1	6325824	1236.57	483.1	16.29	1973.82
TC1_shp	1108.33	637760.1	6325824	1205.87	513.8	19.16	2055.05
TC1_shp	1108.33	637760.1	6325824	1173.22	546.45	22.58	2188.13
TC1_shp	1108.33	637760.1	6325824	1137.42	582.25	25.99	2356.15
TC1_shp	1108.33	637760.1	6325824	1098.77	620.9	29.16	2555.76
TC1_shp	1108.33	637760.1	6325824	1057.62	662.05	31.49	2774.9
TC1_shp	1108.33	637760.1	6325824	1012.52	707.15	32.76	2981.67
TC1_shp	1108.33	637760.1	6325824	963.87	755.8	33.23	3161.18
TC1_shp	1108.33	637760.1	6325824	912.07	807.6	32.89	3292.97
TC1_shp	1108.33	637760.1	6325824	855.27	864.4	31.8	3353.94
TC1_shp	1108.33	637760.1	6325824	794.02	925.65	28.87	3262.51
TC1_shp	1108.33	637760.1	6325824	729.17	990.5	25.69	3157.35
TC1_shp	1108.33	637760.1	6325824	657.67	1062	22.36	2992.22
TC1_shp	1125	637760.3	6325843	1705.27	9.73	8.83	2436.52
TC1_shp	1125	637760.3	6325843	1685.8	29.2	6.4	4947.92
TC1_shp	1125	637760.3	6325843	1666.33	48.67	7.27	2618.08
TC1_shp	1125	637760.3	6325843	1646.87	68.13	9.91	1393.35
TC1_shp	1125	637760.3	6325843	1627.4	87.6	14.82	1086.43
TC1_shp	1125	637760.3	6325843	1607.93	107.07	21.18	1156.1
TC1_shp	1125	637760.3	6325843	1588.47	126.53	25.24	1426.17
TC1_shp	1125	637760.3	6325843	1569	146	26.22	1812.92
TC1_shp	1125	637760.3	6325843	1549.53	165.47	25.03	2236.55
TC1_shp	1125	637760.3	6325843	1530.07	184.93	22.67	2610.62
TC1_shp	1125	637760.3	6325843	1510.6	204.4	19.8	2890.86
TC1_shp	1125	637760.3	6325843	1491.13	223.87	17.13	3004.42
TC1_shp	1125	637760.3	6325843	1471.67	243.33	14.79	2989.59
TC1_shp	1125	637760.3	6325843	1452.2	262.8	12.81	2881.08
TC1_shp	1125	637760.3	6325843	1432.73	282.27	11.42	2697.87
TC1_shp	1125	637760.3	6325843	1413	302	10.52	2509.51
TC1_shp	1125	637760.3	6325843	1393	322	9.92	2322.62
TC1_shp	1125	637760.3	6325843	1373	342	9.81	2167.46
TC1_shp	1125	637760.3	6325843	1353	362	9.98	2040.94
TC1_shp	1125	637760.3	6325843	1333	382	10.41	1941.81
TC1_shp	1125	637760.3	6325843	1310.9	404.1	11.32	1882.87
TC1_shp	1125	637760.3	6325843	1286.35	428.65	12.55	1842.32
TC1_shp	1125	637760.3	6325843	1260.4	454.6	14.49	1856.76
TC1_shp	1125	637760.3	6325843	1231.9	483.1	17.06	1906.17
TC1_shp	1125	637760.3	6325843	1201.2	513.8	20.22	1990.69
TC1_shp	1125	637760.3	6325843	1168.55	546.45	23.81	2125.61
TC1_shp	1125	637760.3	6325843	1132.75	582.25	27.3	2295.37
TC1_shp	1125	637760.3	6325843	1094.1	620.9	30.44	2496.69
TC1_shp	1125	637760.3	6325843	1052.95	662.05	32.66	2717.87
TC1_shp	1125	637760.3	6325843	1007.85	707.15	33.8	2928.29
TC1_shp	1125	637760.3	6325843	959.2	755.8	34.11	3112.86
TC1_shp	1125	637760.3	6325843	907.4	807.6	33.6	3250.96
TC1_shp	1125	637760.3	6325843	850.6	864.4	32.36	3319.26
TC1_shp	1125	637760.3	6325843	789.35	925.65	29.31	3237.65
TC1_shp	1125	637760.3	6325843	724.5	990.5	25.98	3142.98
TC1_shp	1125	637760.3	6325843	653	1062	22.59	2982.46
TC1_shp	1141.67	637760.4	6325862	1700.6	9.73	6.24	3992.33
TC1_shp	1141.67	637760.4	6325862	1681.13	29.2	5.99	6722.82
TC1_shp	1141.67	637760.4	6325862	1661.66	48.67	7.93	2836.36

TC1_shp	1141.67	637760.4	6325862	1642.2	68.13	11.38	1397.19
TC1_shp	1141.67	637760.4	6325862	1622.73	87.6	16.01	1084.95
TC1_shp	1141.67	637760.4	6325862	1603.26	107.07	19.78	1170.39
TC1_shp	1141.67	637760.4	6325862	1583.8	126.53	20.76	1456.98
TC1_shp	1141.67	637760.4	6325862	1564.33	146	19.74	1854.03
TC1_shp	1141.67	637760.4	6325862	1544.86	165.47	17.83	2273.87
TC1_shp	1141.67	637760.4	6325862	1525.4	184.93	15.82	2627.26
TC1_shp	1141.67	637760.4	6325862	1505.93	204.4	13.93	2870.09
TC1_shp	1141.67	637760.4	6325862	1486.46	223.87	12.39	2946.72
TC1_shp	1141.67	637760.4	6325862	1467	243.33	11.14	2901.62
TC1_shp	1141.67	637760.4	6325862	1447.53	262.8	10.14	2771.52
TC1_shp	1141.67	637760.4	6325862	1428.06	282.27	9.5	2580.98
TC1_shp	1141.67	637760.4	6325862	1408.33	302	9.15	2392.97
TC1_shp	1141.67	637760.4	6325862	1388.33	322	9.01	2210.66
TC1_shp	1141.67	637760.4	6325862	1368.33	342	9.23	2063.94
TC1_shp	1141.67	637760.4	6325862	1348.33	362	9.66	1945.82
TC1_shp	1141.67	637760.4	6325862	1328.33	382	10.32	1855.09
TC1_shp	1141.67	637760.4	6325862	1306.23	404.1	11.44	1803.63
TC1_shp	1141.67	637760.4	6325862	1281.68	428.65	12.92	1770.45
TC1_shp	1141.67	637760.4	6325862	1255.73	454.6	15.12	1790.07
TC1_shp	1141.67	637760.4	6325862	1227.23	483.1	17.99	1843.68
TC1_shp	1141.67	637760.4	6325862	1196.53	513.8	21.47	1931.35
TC1_shp	1141.67	637760.4	6325862	1163.88	546.45	25.16	2068.18
TC1_shp	1141.67	637760.4	6325862	1128.08	582.25	28.67	2239.54
TC1_shp	1141.67	637760.4	6325862	1089.43	620.9	31.76	2442.22
TC1_shp	1141.67	637760.4	6325862	1048.28	662.05	33.86	2664.93
TC1_shp	1141.67	637760.4	6325862	1003.18	707.15	34.84	2878.14
TC1_shp	1141.67	637760.4	6325862	954.53	755.8	34.97	3066.96
TC1_shp	1141.67	637760.4	6325862	902.73	807.6	34.29	3210.77
TC1_shp	1141.67	637760.4	6325862	845.93	864.4	32.89	3285.91
TC1_shp	1141.67	637760.4	6325862	784.68	925.65	29.71	3213.49
TC1_shp	1141.67	637760.4	6325862	719.83	990.5	26.25	3128.65
TC1_shp	1141.67	637760.4	6325862	648.33	1062	22.81	2972.57
TC1_shp	1158.33	637760.6	6325881	1695.94	9.73	2.28	29421.11
TC1_shp	1158.33	637760.6	6325881	1676.47	29.2	3.7	11477.27
TC1_shp	1158.33	637760.6	6325881	1657	48.67	6.87	2894.09
TC1_shp	1158.33	637760.6	6325881	1637.54	68.13	10.17	1378.01
TC1_shp	1158.33	637760.6	6325881	1618.07	87.6	12.5	1132.3
TC1_shp	1158.33	637760.6	6325881	1598.6	107.07	13.35	1255.15
TC1_shp	1158.33	637760.6	6325881	1579.14	126.53	12.92	1559.26
TC1_shp	1158.33	637760.6	6325881	1559.67	146	11.96	1954.07
TC1_shp	1158.33	637760.6	6325881	1540.2	165.47	10.93	2349.75
TC1_shp	1158.33	637760.6	6325881	1520.74	184.93	10.06	2661.23
TC1_shp	1158.33	637760.6	6325881	1501.27	204.4	9.34	2849.62
TC1_shp	1158.33	637760.6	6325881	1481.8	223.87	8.79	2881.16
TC1_shp	1158.33	637760.6	6325881	1462.34	243.33	8.38	2803.8
TC1_shp	1158.33	637760.6	6325881	1442.87	262.8	8.09	2653.94
TC1_shp	1158.33	637760.6	6325881	1423.4	282.27	7.99	2459.47
TC1_shp	1158.33	637760.6	6325881	1403.67	302	8.07	2274.8
TC1_shp	1158.33	637760.6	6325881	1383.67	322	8.29	2099.73
TC1_shp	1158.33	637760.6	6325881	1363.67	342	8.78	1963.08
TC1_shp	1158.33	637760.6	6325881	1343.67	362	9.47	1854.45

TC1_shp	1158.33	637760.6	6325881	1323.67	382	10.35	1772.63
TC1_shp	1158.33	637760.6	6325881	1301.57	404.1	11.71	1728.9
TC1_shp	1158.33	637760.6	6325881	1277.02	428.65	13.43	1703.22
TC1_shp	1158.33	637760.6	6325881	1251.07	454.6	15.94	1728.14
TC1_shp	1158.33	637760.6	6325881	1222.57	483.1	19.15	1786.04
TC1_shp	1158.33	637760.6	6325881	1191.87	513.8	22.98	1876.94
TC1_shp	1158.33	637760.6	6325881	1159.22	546.45	26.68	2015.6
TC1_shp	1158.33	637760.6	6325881	1123.42	582.25	30.13	2188.28
TC1_shp	1158.33	637760.6	6325881	1084.77	620.9	33.09	2391.88
TC1_shp	1158.33	637760.6	6325881	1043.62	662.05	35.06	2615.57
TC1_shp	1158.33	637760.6	6325881	998.52	707.15	35.86	2831.32
TC1_shp	1158.33	637760.6	6325881	949.87	755.8	35.81	3023.92
TC1_shp	1158.33	637760.6	6325881	898.07	807.6	34.95	3172.65
TC1_shp	1158.33	637760.6	6325881	841.27	864.4	33.39	3253.75
TC1_shp	1158.33	637760.6	6325881	780.02	925.65	30.08	3189.98
TC1_shp	1158.33	637760.6	6325881	715.17	990.5	26.49	3114.43
TC1_shp	1158.33	637760.6	6325881	643.67	1062	23	2962.64
TC1_shp	1175	637760.8	6325900	1691.27	9.73	2.13	28375.88
TC1_shp	1175	637760.8	6325900	1671.8	29.2	3.87	6571.12
TC1_shp	1175	637760.8	6325900	1652.33	48.67	6.91	2198.91
TC1_shp	1175	637760.8	6325900	1632.87	68.13	8.2	1385.5
TC1_shp	1175	637760.8	6325900	1613.4	87.6	8.05	1275.09
TC1_shp	1175	637760.8	6325900	1593.93	107.07	7.55	1433.11
TC1_shp	1175	637760.8	6325900	1574.47	126.53	7.11	1737.03
TC1_shp	1175	637760.8	6325900	1555	146	6.78	2103.77
TC1_shp	1175	637760.8	6325900	1535.53	165.47	6.57	2447.97
TC1_shp	1175	637760.8	6325900	1516.07	184.93	6.45	2695.73
TC1_shp	1175	637760.8	6325900	1496.6	204.4	6.43	2817.25
TC1_shp	1175	637760.8	6325900	1477.13	223.87	6.46	2800.46
TC1_shp	1175	637760.8	6325900	1457.67	243.33	6.54	2692.57
TC1_shp	1175	637760.8	6325900	1438.2	262.8	6.69	2527.07
TC1_shp	1175	637760.8	6325900	1418.73	282.27	6.95	2333.18
TC1_shp	1175	637760.8	6325900	1399	302	7.34	2155.33
TC1_shp	1175	637760.8	6325900	1379	322	7.83	1990.29
TC1_shp	1175	637760.8	6325900	1359	342	8.56	1865.01
TC1_shp	1175	637760.8	6325900	1339	362	9.47	1766.9
TC1_shp	1175	637760.8	6325900	1319	382	10.56	1694.8
TC1_shp	1175	637760.8	6325900	1296.9	404.1	12.17	1659.07
TC1_shp	1175	637760.8	6325900	1272.35	428.65	14.19	1640.99
TC1_shp	1175	637760.8	6325900	1246.4	454.6	17.07	1671.28
TC1_shp	1175	637760.8	6325900	1217.9	483.1	20.61	1733.52
TC1_shp	1175	637760.8	6325900	1187.2	513.8	24.72	1827.62
TC1_shp	1175	637760.8	6325900	1154.55	546.45	28.37	1967.92
TC1_shp	1175	637760.8	6325900	1118.75	582.25	31.68	2141.67
TC1_shp	1175	637760.8	6325900	1080.1	620.9	34.46	2345.9
TC1_shp	1175	637760.8	6325900	1038.95	662.05	36.25	2570.29
TC1_shp	1175	637760.8	6325900	993.85	707.15	36.87	2787.77
TC1_shp	1175	637760.8	6325900	945.2	755.8	36.62	2983.37
TC1_shp	1175	637760.8	6325900	893.4	807.6	35.57	3136.43
TC1_shp	1175	637760.8	6325900	836.6	864.4	33.85	3223.09
TC1_shp	1175	637760.8	6325900	775.35	925.65	30.42	3167.34
TC1_shp	1175	637760.8	6325900	710.5	990.5	26.7	3100.37

TC1_shp	1175	637760.8	6325900	639	1062	23.16	2952.68
TC1_shp	1191.67	637760.9	6325919	1686.6	9.73	4.58	2782.24
TC1_shp	1191.67	637760.9	6325919	1667.13	29.2	6.16	2082.71
TC1_shp	1191.67	637760.9	6325919	1647.66	48.67	5.51	1672.03
TC1_shp	1191.67	637760.9	6325919	1628.2	68.13	4.68	1581.84
TC1_shp	1191.67	637760.9	6325919	1608.73	87.6	4.24	1713.63
TC1_shp	1191.67	637760.9	6325919	1589.26	107.07	4.11	1973.27
TC1_shp	1191.67	637760.9	6325919	1569.8	126.53	4.17	2275.07
TC1_shp	1191.67	637760.9	6325919	1550.33	146	4.32	2540.16
TC1_shp	1191.67	637760.9	6325919	1530.86	165.47	4.54	2708.41
TC1_shp	1191.67	637760.9	6325919	1511.4	184.93	4.82	2758.33
TC1_shp	1191.67	637760.9	6325919	1491.93	204.4	5.13	2696.26
TC1_shp	1191.67	637760.9	6325919	1472.46	223.87	5.47	2564.13
TC1_shp	1191.67	637760.9	6325919	1453	243.33	5.87	2390.43
TC1_shp	1191.67	637760.9	6325919	1433.53	262.8	6.36	2202.7
TC1_shp	1191.67	637760.9	6325919	1414.06	282.27	6.95	2037.49
TC1_shp	1191.67	637760.9	6325919	1394.33	302	7.64	1886.08
TC1_shp	1191.67	637760.9	6325919	1374.33	322	8.56	1773.51
TC1_shp	1191.67	637760.9	6325919	1354.33	342	9.68	1685.37
TC1_shp	1191.67	637760.9	6325919	1334.33	362	11	1623.22
TC1_shp	1191.67	637760.9	6325919	1314.33	382	12.69	1595.63
TC1_shp	1191.67	637760.9	6325919	1292.23	404.1	14.75	1581.94
TC1_shp	1191.67	637760.9	6325919	1267.68	428.65	17.79	1610.38
TC1_shp	1191.67	637760.9	6325919	1241.73	454.6	21.18	1657.68
TC1_shp	1191.67	637760.9	6325919	1213.23	483.1	25.16	1746.35
TC1_shp	1191.67	637760.9	6325919	1182.53	513.8	28.77	1867.52
TC1_shp	1191.67	637760.9	6325919	1149.88	546.45	32.12	2013.71
TC1_shp	1191.67	637760.9	6325919	1114.08	582.25	34.74	2201.51
TC1_shp	1191.67	637760.9	6325919	1075.43	620.9	36.59	2410.09
TC1_shp	1191.67	637760.9	6325919	1034.28	662.05	37.74	2626.14
TC1_shp	1191.67	637760.9	6325919	989.18	707.15	37.9	2839.65
TC1_shp	1191.67	637760.9	6325919	940.53	755.8	36.98	3012.71
TC1_shp	1191.67	637760.9	6325919	888.73	807.6	35.5	3133.7
TC1_shp	1191.67	637760.9	6325919	831.93	864.4	33.19	3183.41
TC1_shp	1191.67	637760.9	6325919	770.68	925.65	29.57	3127.75
TC1_shp	1191.67	637760.9	6325919	705.83	990.5	25.79	3062.36
TC1_shp	1191.67	637760.9	6325919	634.33	1062	22.39	2897.97
TC1_shp	1208.33	637759.7	6325936	1683.94	9.73	4.49	6006.94
TC1_shp	1208.33	637759.7	6325936	1664.47	29.2	3.75	3407.41
TC1_shp	1208.33	637759.7	6325936	1645	48.67	3.16	2313.24
TC1_shp	1208.33	637759.7	6325936	1625.54	68.13	2.81	2008.16
TC1_shp	1208.33	637759.7	6325936	1606.07	87.6	2.7	2037.25
TC1_shp	1208.33	637759.7	6325936	1586.6	107.07	2.81	2209.5
TC1_shp	1208.33	637759.7	6325936	1567.14	126.53	3.04	2418.62
TC1_shp	1208.33	637759.7	6325936	1547.67	146	3.35	2589.8
TC1_shp	1208.33	637759.7	6325936	1528.2	165.47	3.7	2676.72
TC1_shp	1208.33	637759.7	6325936	1508.74	184.93	4.11	2662.88
TC1_shp	1208.33	637759.7	6325936	1489.27	204.4	4.54	2565.7
TC1_shp	1208.33	637759.7	6325936	1469.8	223.87	5.02	2419.28
TC1_shp	1208.33	637759.7	6325936	1450.34	243.33	5.56	2245.78
TC1_shp	1208.33	637759.7	6325936	1430.87	262.8	6.2	2069.45
TC1_shp	1208.33	637759.7	6325936	1411.4	282.27	6.96	1918.11

TC1_shp	1208.33	637759.7	6325936	1391.67	302	7.8	1781.68
TC1_shp	1208.33	637759.7	6325936	1371.67	322	8.91	1682.68
TC1_shp	1208.33	637759.7	6325936	1351.67	342	10.24	1606.57
TC1_shp	1208.33	637759.7	6325936	1331.67	362	11.82	1554.81
TC1_shp	1208.33	637759.7	6325936	1311.67	382	13.84	1534.91
TC1_shp	1208.33	637759.7	6325936	1289.57	404.1	16.29	1528.39
TC1_shp	1208.33	637759.7	6325936	1265.02	428.65	19.75	1562.08
TC1_shp	1208.33	637759.7	6325936	1239.07	454.6	23.46	1613.9
TC1_shp	1208.33	637759.7	6325936	1210.57	483.1	27.37	1705.51
TC1_shp	1208.33	637759.7	6325936	1179.87	513.8	30.83	1828.51
TC1_shp	1208.33	637759.7	6325936	1147.22	546.45	33.95	1975.78
TC1_shp	1208.33	637759.7	6325936	1111.42	582.25	36.3	2163.55
TC1_shp	1208.33	637759.7	6325936	1072.77	620.9	37.88	2372.17
TC1_shp	1208.33	637759.7	6325936	1031.62	662.05	38.76	2588.56
TC1_shp	1208.33	637759.7	6325936	986.52	707.15	38.73	2803.05
TC1_shp	1208.33	637759.7	6325936	937.87	755.8	37.62	2978.59
TC1_shp	1208.33	637759.7	6325936	886.07	807.6	35.99	3103.09
TC1_shp	1208.33	637759.7	6325936	829.27	864.4	33.53	3157.77
TC1_shp	1208.33	637759.7	6325936	768.02	925.65	29.8	3109.02
TC1_shp	1208.33	637759.7	6325936	703.17	990.5	25.92	3050.61
TC1_shp	1208.33	637759.7	6325936	631.67	1062	22.51	2888.79
TC1_shp	1225	637757	6325952	1683.27	9.73	2.83	3721.71
TC1_shp	1225	637757	6325952	1663.8	29.2	2.53	2996.86
TC1_shp	1225	637757	6325952	1644.33	48.67	2.35	2482.02
TC1_shp	1225	637757	6325952	1624.87	68.13	2.27	2275
TC1_shp	1225	637757	6325952	1605.4	87.6	2.33	2266.03
TC1_shp	1225	637757	6325952	1585.93	107.07	2.55	2359.74
TC1_shp	1225	637757	6325952	1566.47	126.53	2.86	2479
TC1_shp	1225	637757	6325952	1547	146	3.22	2565.92
TC1_shp	1225	637757	6325952	1527.53	165.47	3.62	2585.99
TC1_shp	1225	637757	6325952	1508.07	184.93	4.09	2526.87
TC1_shp	1225	637757	6325952	1488.6	204.4	4.57	2410.07
TC1_shp	1225	637757	6325952	1469.13	223.87	5.12	2261.26
TC1_shp	1225	637757	6325952	1449.67	243.33	5.74	2096.62
TC1_shp	1225	637757	6325952	1430.2	262.8	6.48	1936.51
TC1_shp	1225	637757	6325952	1410.73	282.27	7.35	1801.75
TC1_shp	1225	637757	6325952	1391	302	8.33	1681.93
TC1_shp	1225	637757	6325952	1371	322	9.64	1597.08
TC1_shp	1225	637757	6325952	1351	342	11.23	1533.22
TC1_shp	1225	637757	6325952	1331	362	13.13	1491.7
TC1_shp	1225	637757	6325952	1311	382	15.55	1479.34
TC1_shp	1225	637757	6325952	1288.9	404.1	18.48	1479.86
TC1_shp	1225	637757	6325952	1264.35	428.65	22.22	1518.66
TC1_shp	1225	637757	6325952	1238.4	454.6	26.08	1574.86
TC1_shp	1225	637757	6325952	1209.9	483.1	29.83	1669.12
TC1_shp	1225	637757	6325952	1179.2	513.8	33.04	1793.76
TC1_shp	1225	637757	6325952	1146.55	546.45	35.86	1941.96
TC1_shp	1225	637757	6325952	1110.75	582.25	37.89	2129.44
TC1_shp	1225	637757	6325952	1072.1	620.9	39.15	2337.74
TC1_shp	1225	637757	6325952	1030.95	662.05	39.76	2554.12
TC1_shp	1225	637757	6325952	985.85	707.15	39.51	2769.57
TC1_shp	1225	637757	6325952	937.2	755.8	38.21	2947.12

TC1_shp	1225	637757	6325952	885.4	807.6	36.42	3074.44
TC1_shp	1225	637757	6325952	828.6	864.4	33.84	3133.32
TC1_shp	1225	637757	6325952	767.35	925.65	30.01	3090.98
TC1_shp	1225	637757	6325952	702.5	990.5	26.02	3039.01
TC1_shp	1225	637757	6325952	631	1062	22.6	2879.69
TC1_shp	1241.67	637754.3	6325968	1682.6	9.73	2.76	1921.61
TC1_shp	1241.67	637754.3	6325968	1663.13	29.2	2.71	2512.46
TC1_shp	1241.67	637754.3	6325968	1643.66	48.67	2.77	2490.87
TC1_shp	1241.67	637754.3	6325968	1624.2	68.13	2.83	2372.53
TC1_shp	1241.67	637754.3	6325968	1604.73	87.6	2.99	2335.59
TC1_shp	1241.67	637754.3	6325968	1585.26	107.07	3.27	2371.49
TC1_shp	1241.67	637754.3	6325968	1565.8	126.53	3.61	2427.63
TC1_shp	1241.67	637754.3	6325968	1546.33	146	3.97	2458.33
TC1_shp	1241.67	637754.3	6325968	1526.86	165.47	4.33	2437.99
TC1_shp	1241.67	637754.3	6325968	1507.4	184.93	4.76	2356.45
TC1_shp	1241.67	637754.3	6325968	1487.93	204.4	5.23	2236.14
TC1_shp	1241.67	637754.3	6325968	1468.46	223.87	5.79	2095.73
TC1_shp	1241.67	637754.3	6325968	1449	243.33	6.45	1946.8
TC1_shp	1241.67	637754.3	6325968	1429.53	262.8	7.25	1806.59
TC1_shp	1241.67	637754.3	6325968	1410.06	282.27	8.23	1690.15
TC1_shp	1241.67	637754.3	6325968	1390.33	302	9.37	1587.72
TC1_shp	1241.67	637754.3	6325968	1370.33	322	10.95	1517.23
TC1_shp	1241.67	637754.3	6325968	1350.33	342	12.89	1465.68
TC1_shp	1241.67	637754.3	6325968	1330.33	362	15.2	1434.27
TC1_shp	1241.67	637754.3	6325968	1310.33	382	18.03	1429.3
TC1_shp	1241.67	637754.3	6325968	1288.23	404.1	21.41	1436.65
TC1_shp	1241.67	637754.3	6325968	1263.68	428.65	25.18	1480.15
TC1_shp	1241.67	637754.3	6325968	1237.73	454.6	28.95	1540.39
TC1_shp	1241.67	637754.3	6325968	1209.23	483.1	32.46	1637.27
TC1_shp	1241.67	637754.3	6325968	1178.53	513.8	35.36	1763.39
TC1_shp	1241.67	637754.3	6325968	1145.88	546.45	37.84	1912.28
TC1_shp	1241.67	637754.3	6325968	1110.08	582.25	39.5	2099.31
TC1_shp	1241.67	637754.3	6325968	1071.43	620.9	40.42	2307.22
TC1_shp	1241.67	637754.3	6325968	1030.28	662.05	40.71	2523.37
TC1_shp	1241.67	637754.3	6325968	985.18	707.15	40.21	2738.96
TC1_shp	1241.67	637754.3	6325968	936.53	755.8	38.73	2917.88
TC1_shp	1241.67	637754.3	6325968	884.73	807.6	36.79	3047.61
TC1_shp	1241.67	637754.3	6325968	827.93	864.4	34.08	3110.36
TC1_shp	1241.67	637754.3	6325968	766.68	925.65	30.17	3073.75
TC1_shp	1241.67	637754.3	6325968	701.83	990.5	26.11	3027.59
TC1_shp	1241.67	637754.3	6325968	630.33	1062	22.69	2870.68
TC1_shp	1258.33	637751.7	6325984	1681.94	9.73	3.34	7795.02
TC1_shp	1258.33	637751.7	6325984	1662.47	29.2	4.29	3997.39
TC1_shp	1258.33	637751.7	6325984	1643	48.67	5.06	2704.64
TC1_shp	1258.33	637751.7	6325984	1623.54	68.13	5.42	2311.14
TC1_shp	1258.33	637751.7	6325984	1604.07	87.6	5.68	2221.05
TC1_shp	1258.33	637751.7	6325984	1584.6	107.07	5.89	2237.78
TC1_shp	1258.33	637751.7	6325984	1565.14	126.53	6.04	2273.07
TC1_shp	1258.33	637751.7	6325984	1545.67	146	6.11	2283.11
TC1_shp	1258.33	637751.7	6325984	1526.2	165.47	6.21	2249.22
TC1_shp	1258.33	637751.7	6325984	1506.74	184.93	6.41	2165.77
TC1_shp	1258.33	637751.7	6325984	1487.27	204.4	6.73	2054.69

TC1_shp	1258.33	637751.7	6325984	1467.8	223.87	7.17	1930.47
TC1_shp	1258.33	637751.7	6325984	1448.34	243.33	7.76	1801.82
TC1_shp	1258.33	637751.7	6325984	1428.87	262.8	8.62	1682.98
TC1_shp	1258.33	637751.7	6325984	1409.4	282.27	9.77	1585.47
TC1_shp	1258.33	637751.7	6325984	1389.67	302	11.15	1500.55
TC1_shp	1258.33	637751.7	6325984	1369.67	322	13.11	1443.84
TC1_shp	1258.33	637751.7	6325984	1349.67	342	15.49	1404.12
TC1_shp	1258.33	637751.7	6325984	1329.67	362	18.32	1382.47
TC1_shp	1258.33	637751.7	6325984	1309.67	382	21.42	1384.6
TC1_shp	1258.33	637751.7	6325984	1287.57	404.1	24.97	1398.51
TC1_shp	1258.33	637751.7	6325984	1263.02	428.65	28.52	1446.43
TC1_shp	1258.33	637751.7	6325984	1237.07	454.6	32.02	1510.42
TC1_shp	1258.33	637751.7	6325984	1208.57	483.1	35.19	1609.69
TC1_shp	1258.33	637751.7	6325984	1177.87	513.8	37.75	1737.05
TC1_shp	1258.33	637751.7	6325984	1145.22	546.45	39.86	1886.4
TC1_shp	1258.33	637751.7	6325984	1109.42	582.25	41.09	2072.82
TC1_shp	1258.33	637751.7	6325984	1070.77	620.9	41.63	2279.99
TC1_shp	1258.33	637751.7	6325984	1029.62	662.05	41.59	2495.59
TC1_shp	1258.33	637751.7	6325984	984.52	707.15	40.81	2711.3
TC1_shp	1258.33	637751.7	6325984	935.87	755.8	39.18	2891.25
TC1_shp	1258.33	637751.7	6325984	884.07	807.6	37.1	3022.8
TC1_shp	1258.33	637751.7	6325984	827.27	864.4	34.29	3088.67
TC1_shp	1258.33	637751.7	6325984	766.02	925.65	30.31	3057.27
TC1_shp	1258.33	637751.7	6325984	701.17	990.5	26.18	3016.38
TC1_shp	1258.33	637751.7	6325984	629.67	1062	22.76	2861.8
TC1_shp	1275	637749	6325999	1681.27	9.73	10.74	4835.96
TC1_shp	1275	637749	6325999	1661.8	29.2	13.63	2622.71
TC1_shp	1275	637749	6325999	1642.33	48.67	15.64	1991.77
TC1_shp	1275	637749	6325999	1622.87	68.13	16.64	1882.84
TC1_shp	1275	637749	6325999	1603.4	87.6	16.1	1927.88
TC1_shp	1275	637749	6325999	1583.93	107.07	14.42	2003.48
TC1_shp	1275	637749	6325999	1564.47	126.53	12.7	2059.48
TC1_shp	1275	637749	6325999	1545	146	11.26	2074.73
TC1_shp	1275	637749	6325999	1525.53	165.47	10.21	2045
TC1_shp	1275	637749	6325999	1506.07	184.93	9.53	1971.86
TC1_shp	1275	637749	6325999	1486.6	204.4	9.32	1876.97
TC1_shp	1275	637749	6325999	1467.13	223.87	9.51	1772.61
TC1_shp	1275	637749	6325999	1447.67	243.33	10.03	1665.8
TC1_shp	1275	637749	6325999	1428.2	262.8	11	1568.32
TC1_shp	1275	637749	6325999	1408.73	282.27	12.38	1489.25
TC1_shp	1275	637749	6325999	1389	302	14.07	1421.14
TC1_shp	1275	637749	6325999	1369	322	16.52	1377.56
TC1_shp	1275	637749	6325999	1349	342	19.34	1349.05
TC1_shp	1275	637749	6325999	1329	362	22.55	1336.6
TC1_shp	1275	637749	6325999	1309	382	25.62	1345.34
TC1_shp	1275	637749	6325999	1286.9	404.1	28.94	1365.31
TC1_shp	1275	637749	6325999	1262.35	428.65	32.13	1417.37
TC1_shp	1275	637749	6325999	1236.4	454.6	35.23	1484.89
TC1_shp	1275	637749	6325999	1207.9	483.1	38	1586.35
TC1_shp	1275	637749	6325999	1177.2	513.8	40.14	1714.73
TC1_shp	1275	637749	6325999	1144.55	546.45	41.84	1864.33
TC1_shp	1275	637749	6325999	1108.75	582.25	42.64	2050.05

TC1_shp	1275	637749	6325999	1070.1	620.9	42.79	2256.47
TC1_shp	1275	637749	6325999	1028.95	662.05	42.4	2471.34
TC1_shp	1275	637749	6325999	983.85	707.15	41.34	2686.43
TC1_shp	1275	637749	6325999	935.2	755.8	39.55	2866.78
TC1_shp	1275	637749	6325999	883.4	807.6	37.35	2999.77
TC1_shp	1275	637749	6325999	826.6	864.4	34.44	3068.47
TC1_shp	1275	637749	6325999	765.35	925.65	30.41	3041.66
TC1_shp	1275	637749	6325999	700.5	990.5	26.22	3005.41
TC1_shp	1275	637749	6325999	629	1062	22.8	2853.06
TC1_shp	1291.67	637746.3	6326015	1680.6	9.73	33.15	1443.81
TC1_shp	1291.67	637746.3	6326015	1661.13	29.2	39.02	1165.41
TC1_shp	1291.67	637746.3	6326015	1641.66	48.67	44.55	1269.36
TC1_shp	1291.67	637746.3	6326015	1622.2	68.13	45.15	1459.78
TC1_shp	1291.67	637746.3	6326015	1602.73	87.6	41.19	1639.07
TC1_shp	1291.67	637746.3	6326015	1583.26	107.07	34.79	1770.57
TC1_shp	1291.67	637746.3	6326015	1563.8	126.53	27.88	1847.26
TC1_shp	1291.67	637746.3	6326015	1544.33	146	21.74	1870.66
TC1_shp	1291.67	637746.3	6326015	1524.86	165.47	17.59	1848.82
TC1_shp	1291.67	637746.3	6326015	1505.4	184.93	15.05	1789.1
TC1_shp	1291.67	637746.3	6326015	1485.93	204.4	13.87	1711.94
TC1_shp	1291.67	637746.3	6326015	1466.46	223.87	13.55	1627.62
TC1_shp	1291.67	637746.3	6326015	1447	243.33	13.85	1541.88
TC1_shp	1291.67	637746.3	6326015	1427.53	262.8	14.9	1464.57
TC1_shp	1291.67	637746.3	6326015	1408.06	282.27	16.52	1402.63
TC1_shp	1291.67	637746.3	6326015	1388.33	302	18.54	1349.99
TC1_shp	1291.67	637746.3	6326015	1368.33	322	21.4	1318.61
TC1_shp	1291.67	637746.3	6326015	1348.33	342	24.35	1300.47
TC1_shp	1291.67	637746.3	6326015	1328.33	362	27.41	1296.42
TC1_shp	1291.67	637746.3	6326015	1308.33	382	30.2	1311.36
TC1_shp	1291.67	637746.3	6326015	1286.23	404.1	33.16	1337.11
TC1_shp	1291.67	637746.3	6326015	1261.68	428.65	35.91	1393.01
TC1_shp	1291.67	637746.3	6326015	1235.73	454.6	38.54	1463.71
TC1_shp	1291.67	637746.3	6326015	1207.23	483.1	40.8	1567.03
TC1_shp	1291.67	637746.3	6326015	1176.53	513.8	42.49	1696.17
TC1_shp	1291.67	637746.3	6326015	1143.88	546.45	43.74	1845.82
TC1_shp	1291.67	637746.3	6326015	1108.08	582.25	44.11	2030.77
TC1_shp	1291.67	637746.3	6326015	1069.43	620.9	43.87	2236.09
TC1_shp	1291.67	637746.3	6326015	1028.28	662.05	43.13	2449.86
TC1_shp	1291.67	637746.3	6326015	983.18	707.15	41.78	2664.29
TC1_shp	1291.67	637746.3	6326015	934.53	755.8	39.84	2844.83
TC1_shp	1291.67	637746.3	6326015	882.73	807.6	37.54	2978.74
TC1_shp	1291.67	637746.3	6326015	825.93	864.4	34.55	3049.58
TC1_shp	1291.67	637746.3	6326015	764.68	925.65	30.47	3026.84
TC1_shp	1291.67	637746.3	6326015	699.83	990.5	26.24	2994.73
TC1_shp	1291.67	637746.3	6326015	628.33	1062	22.83	2844.51
TC1_shp	1308.33	637744.7	6326032	1684.52	9.73	6.96	891.82
TC1_shp	1308.33	637744.7	6326032	1665.05	29.2	38.39	888.41
TC1_shp	1308.33	637744.7	6326032	1645.58	48.67	57.37	1081.44
TC1_shp	1308.33	637744.7	6326032	1626.12	68.13	62.52	1301.17
TC1_shp	1308.33	637744.7	6326032	1606.65	87.6	59.25	1484.47
TC1_shp	1308.33	637744.7	6326032	1587.18	107.07	51.87	1608.08
TC1_shp	1308.33	637744.7	6326032	1567.72	126.53	43.31	1675.41

TC1_shp	1308.33	637744.7	6326032	1548.25	146	35.22	1694.18
TC1_shp	1308.33	637744.7	6326032	1528.78	165.47	28.96	1675.46
TC1_shp	1308.33	637744.7	6326032	1509.32	184.93	24.16	1626.77
TC1_shp	1308.33	637744.7	6326032	1489.85	204.4	21.37	1565.45
TC1_shp	1308.33	637744.7	6326032	1470.38	223.87	20.06	1499.23
TC1_shp	1308.33	637744.7	6326032	1450.92	243.33	19.86	1432.42
TC1_shp	1308.33	637744.7	6326032	1431.45	262.8	20.81	1373.1
TC1_shp	1308.33	637744.7	6326032	1411.98	282.27	22.5	1326.47
TC1_shp	1308.33	637744.7	6326032	1392.25	302	24.61	1287.68
TC1_shp	1308.33	637744.7	6326032	1372.25	322	27.2	1267.36
TC1_shp	1308.33	637744.7	6326032	1352.25	342	29.82	1258.62
TC1_shp	1308.33	637744.7	6326032	1332.25	362	32.47	1262.22
TC1_shp	1308.33	637744.7	6326032	1312.25	382	34.89	1282.65
TC1_shp	1308.33	637744.7	6326032	1290.15	404.1	37.45	1313.41
TC1_shp	1308.33	637744.7	6326032	1265.6	428.65	39.72	1372.91
TC1_shp	1308.33	637744.7	6326032	1239.65	454.6	41.85	1446.64
TC1_shp	1308.33	637744.7	6326032	1211.15	483.1	43.56	1551.56
TC1_shp	1308.33	637744.7	6326032	1180.45	513.8	44.75	1681.28
TC1_shp	1308.33	637744.7	6326032	1147.8	546.45	45.52	1830.86
TC1_shp	1308.33	637744.7	6326032	1112	582.25	45.48	2014.96
TC1_shp	1308.33	637744.7	6326032	1073.35	620.9	44.84	2219.15
TC1_shp	1308.33	637744.7	6326032	1032.2	662.05	43.75	2431.69
TC1_shp	1308.33	637744.7	6326032	987.1	707.15	42.15	2644.86
TC1_shp	1308.33	637744.7	6326032	938.45	755.8	40.06	2824.97
TC1_shp	1308.33	637744.7	6326032	886.65	807.6	37.65	2959.46
TC1_shp	1308.33	637744.7	6326032	829.85	864.4	34.59	3032.17
TC1_shp	1308.33	637744.7	6326032	768.6	925.65	30.49	3012.91
TC1_shp	1308.33	637744.7	6326032	703.75	990.5	26.24	2984.36
TC1_shp	1308.33	637744.7	6326032	632.25	1062	22.85	2836.16
TC1_shp	1325	637744	6326049	1693.02	9.73	8.28	3943.72
TC1_shp	1325	637744	6326049	1673.55	29.2	10.1	1702.56
TC1_shp	1325	637744	6326049	1654.08	48.67	32.51	1292.19
TC1_shp	1325	637744	6326049	1634.62	68.13	54.97	1277.11
TC1_shp	1325	637744	6326049	1615.15	87.6	65.71	1360.28
TC1_shp	1325	637744	6326049	1595.68	107.07	66.59	1450.45
TC1_shp	1325	637744	6326049	1576.22	126.53	61.58	1514.62
TC1_shp	1325	637744	6326049	1556.75	146	54.12	1547.25
TC1_shp	1325	637744	6326049	1537.28	165.47	46.33	1549.91
TC1_shp	1325	637744	6326049	1517.82	184.93	39.47	1528.58
TC1_shp	1325	637744	6326049	1498.35	204.4	33.83	1487.6
TC1_shp	1325	637744	6326049	1478.88	223.87	30.29	1439.17
TC1_shp	1325	637744	6326049	1459.42	243.33	28.3	1388.3
TC1_shp	1325	637744	6326049	1439.95	262.8	27.49	1337.79
TC1_shp	1325	637744	6326049	1420.48	282.27	28.07	1294.03
TC1_shp	1325	637744	6326049	1400.75	302	29.36	1260.51
TC1_shp	1325	637744	6326049	1380.75	322	31.06	1234.16
TC1_shp	1325	637744	6326049	1360.75	342	33.18	1223.54
TC1_shp	1325	637744	6326049	1340.75	362	35.34	1223.7
TC1_shp	1325	637744	6326049	1320.75	382	37.56	1234.18
TC1_shp	1325	637744	6326049	1298.65	404.1	39.77	1263.46
TC1_shp	1325	637744	6326049	1274.1	428.65	42.06	1305.21
TC1_shp	1325	637744	6326049	1248.15	454.6	43.9	1374.36

TC1_shp	1325	637744	6326049	1219.65	483.1	45.44	1467.09
TC1_shp	1325	637744	6326049	1188.95	513.8	46.64	1582.69
TC1_shp	1325	637744	6326049	1156.3	546.45	47.04	1729.05
TC1_shp	1325	637744	6326049	1120.5	582.25	46.95	1902.86
TC1_shp	1325	637744	6326049	1081.85	620.9	46.31	2101.97
TC1_shp	1325	637744	6326049	1040.7	662.05	44.99	2319.98
TC1_shp	1325	637744	6326049	995.6	707.15	43.21	2536.47
TC1_shp	1325	637744	6326049	946.95	755.8	41.08	2737.57
TC1_shp	1325	637744	6326049	895.15	807.6	38.65	2904.25
TC1_shp	1325	637744	6326049	838.35	864.4	35.84	3014.79
TC1_shp	1325	637744	6326049	777.1	925.65	31.78	3004.97
TC1_shp	1325	637744	6326049	712.25	990.5	27.43	2987.72
TC1_shp	1325	637744	6326049	640.75	1062	23.75	2867.83
TC1_shp	1341.67	637743.3	6326067	1701.52	9.73	13.28	3630.11
TC1_shp	1341.67	637743.3	6326067	1682.05	29.2	16.35	2312.89
TC1_shp	1341.67	637743.3	6326067	1662.58	48.67	31.39	1761.98
TC1_shp	1341.67	637743.3	6326067	1643.12	68.13	49.02	1545.82
TC1_shp	1341.67	637743.3	6326067	1623.65	87.6	60.99	1470.91
TC1_shp	1341.67	637743.3	6326067	1604.18	107.07	65.38	1452.55
TC1_shp	1341.67	637743.3	6326067	1584.72	126.53	63.84	1450.28
TC1_shp	1341.67	637743.3	6326067	1565.25	146	59.06	1445.36
TC1_shp	1341.67	637743.3	6326067	1545.78	165.47	53.11	1430.86
TC1_shp	1341.67	637743.3	6326067	1526.32	184.93	47.35	1405.97
TC1_shp	1341.67	637743.3	6326067	1506.85	204.4	42.12	1370.64
TC1_shp	1341.67	637743.3	6326067	1487.38	223.87	38.53	1332.7
TC1_shp	1341.67	637743.3	6326067	1467.92	243.33	36.28	1294.56
TC1_shp	1341.67	637743.3	6326067	1448.45	262.8	35.1	1257.74
TC1_shp	1341.67	637743.3	6326067	1428.98	282.27	35.14	1227.16
TC1_shp	1341.67	637743.3	6326067	1409.25	302	35.93	1205.38
TC1_shp	1341.67	637743.3	6326067	1389.25	322	37.15	1189.78
TC1_shp	1341.67	637743.3	6326067	1369.25	342	38.84	1187.55
TC1_shp	1341.67	637743.3	6326067	1349.25	362	40.57	1194.93
TC1_shp	1341.67	637743.3	6326067	1329.25	382	42.34	1211.51
TC1_shp	1341.67	637743.3	6326067	1307.15	404.1	44.09	1245.45
TC1_shp	1341.67	637743.3	6326067	1282.6	428.65	45.9	1291.43
TC1_shp	1341.67	637743.3	6326067	1256.65	454.6	47.25	1363.33
TC1_shp	1341.67	637743.3	6326067	1228.15	483.1	48.26	1458.02
TC1_shp	1341.67	637743.3	6326067	1197.45	513.8	48.88	1574.71
TC1_shp	1341.67	637743.3	6326067	1164.8	546.45	48.76	1721
TC1_shp	1341.67	637743.3	6326067	1129	582.25	48.2	1894.09
TC1_shp	1341.67	637743.3	6326067	1090.35	620.9	47.16	2091.87
TC1_shp	1341.67	637743.3	6326067	1049.2	662.05	45.5	2308.15
TC1_shp	1341.67	637743.3	6326067	1004.1	707.15	43.47	2522.88
TC1_shp	1341.67	637743.3	6326067	955.45	755.8	41.17	2722.52
TC1_shp	1341.67	637743.3	6326067	903.65	807.6	38.63	2888.45
TC1_shp	1341.67	637743.3	6326067	846.85	864.4	35.79	2999.48
TC1_shp	1341.67	637743.3	6326067	785.6	925.65	31.73	2991.99
TC1_shp	1341.67	637743.3	6326067	720.75	990.5	27.38	2977.29
TC1_shp	1341.67	637743.3	6326067	649.25	1062	23.72	2859.41
TC1_shp	1358.33	637742.7	6326084	1710.02	9.73	3.36	2314.15
TC1_shp	1358.33	637742.7	6326084	1690.55	29.2	15.68	2004.68
TC1_shp	1358.33	637742.7	6326084	1671.08	48.67	32.8	1768.45

TC1_shp	1358.33	637742.7	6326084	1651.62	68.13	45.09	1588.22
TC1_shp	1358.33	637742.7	6326084	1632.15	87.6	54.45	1476.36
TC1_shp	1358.33	637742.7	6326084	1612.68	107.07	59.76	1413.39
TC1_shp	1358.33	637742.7	6326084	1593.22	126.53	60.88	1377.61
TC1_shp	1358.33	637742.7	6326084	1573.75	146	59.04	1352.21
TC1_shp	1358.33	637742.7	6326084	1554.28	165.47	55.63	1328.52
TC1_shp	1358.33	637742.7	6326084	1534.82	184.93	51.75	1303.1
TC1_shp	1358.33	637742.7	6326084	1515.35	204.4	47.86	1273.5
TC1_shp	1358.33	637742.7	6326084	1495.88	223.87	44.94	1244.57
TC1_shp	1358.33	637742.7	6326084	1476.42	243.33	42.93	1217.1
TC1_shp	1358.33	637742.7	6326084	1456.95	262.8	41.7	1191.73
TC1_shp	1358.33	637742.7	6326084	1437.48	282.27	41.45	1172.19
TC1_shp	1358.33	637742.7	6326084	1417.75	302	41.85	1160.27
TC1_shp	1358.33	637742.7	6326084	1397.75	322	42.65	1153.74
TC1_shp	1358.33	637742.7	6326084	1377.75	342	43.95	1158.76
TC1_shp	1358.33	637742.7	6326084	1357.75	362	45.3	1172.36
TC1_shp	1358.33	637742.7	6326084	1337.75	382	46.7	1194.16
TC1_shp	1358.33	637742.7	6326084	1315.65	404.1	48.02	1232.18
TC1_shp	1358.33	637742.7	6326084	1291.1	428.65	49.35	1281.89
TC1_shp	1358.33	637742.7	6326084	1265.15	454.6	50.26	1356.12
TC1_shp	1358.33	637742.7	6326084	1236.65	483.1	50.77	1452.5
TC1_shp	1358.33	637742.7	6326084	1205.95	513.8	50.87	1570.23
TC1_shp	1358.33	637742.7	6326084	1173.3	546.45	50.24	1716.26
TC1_shp	1358.33	637742.7	6326084	1137.5	582.25	49.24	1888.42
TC1_shp	1358.33	637742.7	6326084	1098.85	620.9	47.82	2084.61
TC1_shp	1358.33	637742.7	6326084	1057.7	662.05	45.85	2298.79
TC1_shp	1358.33	637742.7	6326084	1012.6	707.15	43.6	2511.61
TC1_shp	1358.33	637742.7	6326084	963.95	755.8	41.15	2709.74
TC1_shp	1358.33	637742.7	6326084	912.15	807.6	38.54	2874.74
TC1_shp	1358.33	637742.7	6326084	855.35	864.4	35.67	2985.64
TC1_shp	1358.33	637742.7	6326084	794.1	925.65	31.62	2979.99
TC1_shp	1358.33	637742.7	6326084	729.25	990.5	27.29	2967.34
TC1_shp	1358.33	637742.7	6326084	657.75	1062	23.66	2851.26
TC1_shp	1375	637742	6326102	1718.52	9.73	38.44	262.63
TC1_shp	1375	637742	6326102	1699.05	29.2	19.63	773.33
TC1_shp	1375	637742	6326102	1679.58	48.67	33.88	1187.18
TC1_shp	1375	637742	6326102	1660.12	68.13	41.04	1360.29
TC1_shp	1375	637742	6326102	1640.65	87.6	44.92	1384.55
TC1_shp	1375	637742	6326102	1621.18	107.07	49.14	1356.39
TC1_shp	1375	637742	6326102	1601.72	126.53	53.04	1320.47
TC1_shp	1375	637742	6326102	1582.25	146	55.35	1289.52
TC1_shp	1375	637742	6326102	1562.78	165.47	55.84	1263.57
TC1_shp	1375	637742	6326102	1543.32	184.93	54.92	1240.09
TC1_shp	1375	637742	6326102	1523.85	204.4	53.2	1217.72
TC1_shp	1375	637742	6326102	1504.38	223.87	51.05	1194.28
TC1_shp	1375	637742	6326102	1484.92	243.33	49.24	1173.27
TC1_shp	1375	637742	6326102	1465.45	262.8	47.88	1154.68
TC1_shp	1375	637742	6326102	1445.98	282.27	46.96	1138.68
TC1_shp	1375	637742	6326102	1426.25	302	46.7	1128.12
TC1_shp	1375	637742	6326102	1406.25	322	46.93	1124.47
TC1_shp	1375	637742	6326102	1386.25	342	47.46	1125.82
TC1_shp	1375	637742	6326102	1366.25	362	48.41	1137.12

TC1_shp	1375	637742	6326102	1346.25	382	49.43	1156.42
TC1_shp	1375	637742	6326102	1324.15	404.1	50.61	1185.35
TC1_shp	1375	637742	6326102	1299.6	428.65	51.63	1233.98
TC1_shp	1375	637742	6326102	1273.65	454.6	52.47	1295.48
TC1_shp	1375	637742	6326102	1245.15	483.1	52.98	1379.25
TC1_shp	1375	637742	6326102	1214.45	513.8	52.78	1493.39
TC1_shp	1375	637742	6326102	1181.8	546.45	52.1	1627.54
TC1_shp	1375	637742	6326102	1146	582.25	50.89	1788.19
TC1_shp	1375	637742	6326102	1107.35	620.9	49.19	1981.48
TC1_shp	1375	637742	6326102	1066.2	662.05	47.09	2191.84
TC1_shp	1375	637742	6326102	1021.1	707.15	44.66	2413.89
TC1_shp	1375	637742	6326102	972.45	755.8	42.06	2630.68
TC1_shp	1375	637742	6326102	920.65	807.6	39.36	2812.69
TC1_shp	1375	637742	6326102	863.85	864.4	36.47	2935.41
TC1_shp	1375	637742	6326102	802.6	925.65	32.77	2972.37
TC1_shp	1375	637742	6326102	737.75	990.5	28.48	2961.22
TC1_shp	1375	637742	6326102	666.25	1062	24.49	2881.84
TC1_shp	1391.67	637741.3	6326120	1727.02	9.73	13.04	156.21
TC1_shp	1391.67	637741.3	6326120	1707.55	29.2	42.54	419.18
TC1_shp	1391.67	637741.3	6326120	1688.08	48.67	52.4	772.9
TC1_shp	1391.67	637741.3	6326120	1668.62	68.13	49.87	1036.41
TC1_shp	1391.67	637741.3	6326120	1649.15	87.6	45.95	1169.6
TC1_shp	1391.67	637741.3	6326120	1629.68	107.07	45.07	1215.39
TC1_shp	1391.67	637741.3	6326120	1610.22	126.53	46.78	1218.44
TC1_shp	1391.67	637741.3	6326120	1590.75	146	49.25	1204.89
TC1_shp	1391.67	637741.3	6326120	1571.28	165.47	51.25	1186.51
TC1_shp	1391.67	637741.3	6326120	1551.82	184.93	52.34	1167.64
TC1_shp	1391.67	637741.3	6326120	1532.35	204.4	52.6	1149.64
TC1_shp	1391.67	637741.3	6326120	1512.88	223.87	52.24	1132.01
TC1_shp	1391.67	637741.3	6326120	1493.42	243.33	51.71	1117.52
TC1_shp	1391.67	637741.3	6326120	1473.95	262.8	51.2	1106.07
TC1_shp	1391.67	637741.3	6326120	1454.48	282.27	50.83	1097.68
TC1_shp	1391.67	637741.3	6326120	1434.75	302	50.77	1094.51
TC1_shp	1391.67	637741.3	6326120	1414.75	322	50.98	1097.59
TC1_shp	1391.67	637741.3	6326120	1394.75	342	51.37	1105.15
TC1_shp	1391.67	637741.3	6326120	1374.75	362	52.05	1121.74
TC1_shp	1391.67	637741.3	6326120	1354.75	382	52.78	1145.5
TC1_shp	1391.67	637741.3	6326120	1332.65	404.1	53.64	1178.57
TC1_shp	1391.67	637741.3	6326120	1308.1	428.65	54.31	1230.25
TC1_shp	1391.67	637741.3	6326120	1282.15	454.6	54.77	1294.24
TC1_shp	1391.67	637741.3	6326120	1253.65	483.1	54.89	1379.7
TC1_shp	1391.67	637741.3	6326120	1222.95	513.8	54.29	1494.65
TC1_shp	1391.67	637741.3	6326120	1190.3	546.45	53.22	1628.96
TC1_shp	1391.67	637741.3	6326120	1154.5	582.25	51.58	1788.95
TC1_shp	1391.67	637741.3	6326120	1115.85	620.9	49.56	1980.45
TC1_shp	1391.67	637741.3	6326120	1074.7	662.05	47.21	2188.65
TC1_shp	1391.67	637741.3	6326120	1029.6	707.15	44.59	2408.3
TC1_shp	1391.67	637741.3	6326120	980.95	755.8	41.87	2622.75
TC1_shp	1391.67	637741.3	6326120	929.15	807.6	39.12	2803.03
TC1_shp	1391.67	637741.3	6326120	872.35	864.4	36.24	2924.81
TC1_shp	1391.67	637741.3	6326120	811.1	925.65	32.57	2962.07
TC1_shp	1391.67	637741.3	6326120	746.25	990.5	28.32	2951.94

TC1_shp	1391.67	637741.3	6326120	674.75	1062	24.38	2873.85
TC1_shp	1408.33	637740.5	6326137	1736.52	9.73	11.59	91.3
TC1_shp	1408.33	637740.5	6326137	1717.05	29.2	34.19	218.24
TC1_shp	1408.33	637740.5	6326137	1697.58	48.67	54.42	454.03
TC1_shp	1408.33	637740.5	6326137	1678.12	68.13	57.82	727.27
TC1_shp	1408.33	637740.5	6326137	1658.65	87.6	51.21	946.68
TC1_shp	1408.33	637740.5	6326137	1639.18	107.07	44.22	1078.41
TC1_shp	1408.33	637740.5	6326137	1619.72	126.53	40.97	1137.54
TC1_shp	1408.33	637740.5	6326137	1600.25	146	41.34	1152.7
TC1_shp	1408.33	637740.5	6326137	1580.78	165.47	43.74	1145.95
TC1_shp	1408.33	637740.5	6326137	1561.32	184.93	46.6	1131.16
TC1_shp	1408.33	637740.5	6326137	1541.85	204.4	49.11	1114.8
TC1_shp	1408.33	637740.5	6326137	1522.38	223.87	50.91	1099.69
TC1_shp	1408.33	637740.5	6326137	1502.92	243.33	52.11	1086.17
TC1_shp	1408.33	637740.5	6326137	1483.45	262.8	52.76	1076.55
TC1_shp	1408.33	637740.5	6326137	1463.98	282.27	53.15	1070.44
TC1_shp	1408.33	637740.5	6326137	1444.25	302	53.42	1067.72
TC1_shp	1408.33	637740.5	6326137	1424.25	322	53.67	1070.48
TC1_shp	1408.33	637740.5	6326137	1404.25	342	53.99	1079.17
TC1_shp	1408.33	637740.5	6326137	1384.25	362	54.37	1092
TC1_shp	1408.33	637740.5	6326137	1364.25	382	54.85	1112.87
TC1_shp	1408.33	637740.5	6326137	1342.15	404.1	55.43	1144.07
TC1_shp	1408.33	637740.5	6326137	1317.6	428.65	56.07	1185.98
TC1_shp	1408.33	637740.5	6326137	1291.65	454.6	56.4	1245.36
TC1_shp	1408.33	637740.5	6326137	1263.15	483.1	56.39	1324.14
TC1_shp	1408.33	637740.5	6326137	1232.45	513.8	55.96	1423.72
TC1_shp	1408.33	637740.5	6326137	1199.8	546.45	54.89	1549.75
TC1_shp	1408.33	637740.5	6326137	1164	582.25	53.04	1705.31
TC1_shp	1408.33	637740.5	6326137	1125.35	620.9	50.82	1886.34
TC1_shp	1408.33	637740.5	6326137	1084.2	662.05	48.35	2089.7
TC1_shp	1408.33	637740.5	6326137	1039.1	707.15	45.51	2317.31
TC1_shp	1408.33	637740.5	6326137	990.45	755.8	42.67	2535.6
TC1_shp	1408.33	637740.5	6326137	938.65	807.6	39.84	2728.18
TC1_shp	1408.33	637740.5	6326137	881.85	864.4	36.91	2878.38
TC1_shp	1408.33	637740.5	6326137	820.6	925.65	33.58	2955.82
TC1_shp	1408.33	637740.5	6326137	755.75	990.5	29.4	2946.2
TC1_shp	1408.33	637740.5	6326137	684.25	1062	25.14	2903.86
TC1_shp	1425	637739.5	6326153	1747.02	9.73	4.59	1657.69
TC1_shp	1425	637739.5	6326153	1727.55	29.2	14.57	962.78
TC1_shp	1425	637739.5	6326153	1708.08	48.67	36.86	895.61
TC1_shp	1425	637739.5	6326153	1688.62	68.13	44.5	977.76
TC1_shp	1425	637739.5	6326153	1669.15	87.6	42.65	1069.81
TC1_shp	1425	637739.5	6326153	1649.68	107.07	38.59	1127.16
TC1_shp	1425	637739.5	6326153	1630.22	126.53	36.4	1147.06
TC1_shp	1425	637739.5	6326153	1610.75	146	36.95	1141.54
TC1_shp	1425	637739.5	6326153	1591.28	165.47	39.47	1123.9
TC1_shp	1425	637739.5	6326153	1571.82	184.93	42.81	1103.18
TC1_shp	1425	637739.5	6326153	1552.35	204.4	46.11	1084.02
TC1_shp	1425	637739.5	6326153	1532.88	223.87	48.91	1068.51
TC1_shp	1425	637739.5	6326153	1513.42	243.33	51.23	1056.48
TC1_shp	1425	637739.5	6326153	1493.95	262.8	52.83	1049.58
TC1_shp	1425	637739.5	6326153	1474.48	282.27	53.97	1046.99

TC1_shp	1425	637739.5	6326153	1454.75	302	54.83	1048.37
TC1_shp	1425	637739.5	6326153	1434.75	322	55.44	1055.55
TC1_shp	1425	637739.5	6326153	1414.75	342	55.92	1068.28
TC1_shp	1425	637739.5	6326153	1394.75	362	56.35	1084.89
TC1_shp	1425	637739.5	6326153	1374.75	382	56.73	1109.08
TC1_shp	1425	637739.5	6326153	1352.65	404.1	57.14	1143.38
TC1_shp	1425	637739.5	6326153	1328.1	428.65	57.54	1188.24
TC1_shp	1425	637739.5	6326153	1302.15	454.6	57.64	1249.71
TC1_shp	1425	637739.5	6326153	1273.65	483.1	57.37	1330.01
TC1_shp	1425	637739.5	6326153	1242.95	513.8	56.65	1430.51
TC1_shp	1425	637739.5	6326153	1210.3	546.45	55.32	1556.8
TC1_shp	1425	637739.5	6326153	1174.5	582.25	53.21	1711.5
TC1_shp	1425	637739.5	6326153	1135.85	620.9	50.77	1891.01
TC1_shp	1425	637739.5	6326153	1094.7	662.05	48.11	2092.28
TC1_shp	1425	637739.5	6326153	1049.6	707.15	45.17	2317.33
TC1_shp	1425	637739.5	6326153	1000.95	755.8	42.28	2532.79
TC1_shp	1425	637739.5	6326153	949.15	807.6	39.43	2722.95
TC1_shp	1425	637739.5	6326153	892.35	864.4	36.54	2871.29
TC1_shp	1425	637739.5	6326153	831.1	925.65	33.27	2947.75
TC1_shp	1425	637739.5	6326153	766.25	990.5	29.18	2938.18
TC1_shp	1425	637739.5	6326153	694.75	1062	24.99	2896.19
TC1_shp	1441.67	637738.5	6326170	1757.52	9.73	0.1	2325.13
TC1_shp	1441.67	637738.5	6326170	1738.05	29.2	0.94	2154.22
TC1_shp	1441.67	637738.5	6326170	1718.58	48.67	3.81	1741.54
TC1_shp	1441.67	637738.5	6326170	1699.12	68.13	12.32	1519.71
TC1_shp	1441.67	637738.5	6326170	1679.65	87.6	24.23	1407.44
TC1_shp	1441.67	637738.5	6326170	1660.18	107.07	30.3	1339.49
TC1_shp	1441.67	637738.5	6326170	1640.72	126.53	31.85	1284.48
TC1_shp	1441.67	637738.5	6326170	1621.25	146	32.5	1232.23
TC1_shp	1441.67	637738.5	6326170	1601.78	165.47	34.08	1182.44
TC1_shp	1441.67	637738.5	6326170	1582.32	184.93	36.83	1138.85
TC1_shp	1441.67	637738.5	6326170	1562.85	204.4	40.26	1102.88
TC1_shp	1441.67	637738.5	6326170	1543.38	223.87	43.83	1075.19
TC1_shp	1441.67	637738.5	6326170	1523.92	243.33	47.08	1055.53
TC1_shp	1441.67	637738.5	6326170	1504.45	262.8	50.02	1042.15
TC1_shp	1441.67	637738.5	6326170	1484.98	282.27	52.22	1035.9
TC1_shp	1441.67	637738.5	6326170	1465.25	302	53.92	1035.06
TC1_shp	1441.67	637738.5	6326170	1445.25	322	55.25	1039.06
TC1_shp	1441.67	637738.5	6326170	1425.25	342	56.18	1049.28
TC1_shp	1441.67	637738.5	6326170	1405.25	362	56.83	1065.05
TC1_shp	1441.67	637738.5	6326170	1385.25	382	57.35	1084.64
TC1_shp	1441.67	637738.5	6326170	1363.15	404.1	57.74	1114.18
TC1_shp	1441.67	637738.5	6326170	1338.6	428.65	58.06	1156.84
TC1_shp	1441.67	637738.5	6326170	1312.65	454.6	58.23	1210.15
TC1_shp	1441.67	637738.5	6326170	1284.15	483.1	58.14	1279.28
TC1_shp	1441.67	637738.5	6326170	1253.45	513.8	57.44	1373.83
TC1_shp	1441.67	637738.5	6326170	1220.8	546.45	56.18	1490.98
TC1_shp	1441.67	637738.5	6326170	1185	582.25	54.29	1634.92
TC1_shp	1441.67	637738.5	6326170	1146.35	620.9	51.73	1804.06
TC1_shp	1441.67	637738.5	6326170	1105.2	662.05	48.96	2002.14
TC1_shp	1441.67	637738.5	6326170	1060.1	707.15	45.95	2223.5
TC1_shp	1441.67	637738.5	6326170	1011.45	755.8	42.91	2447.4

TC1_shp	1441.67	637738.5	6326170	959.65	807.6	39.97	2654.41
TC1_shp	1441.67	637738.5	6326170	902.85	864.4	37.04	2829.27
TC1_shp	1441.67	637738.5	6326170	841.6	925.65	34.13	2943.75
TC1_shp	1441.67	637738.5	6326170	776.75	990.5	30.13	2933.93
TC1_shp	1441.67	637738.5	6326170	705.25	1062	25.71	2922.92
TC1_shp	1458.33	637737.5	6326187	1768.02	9.73	0.3	2490.66
TC1_shp	1458.33	637737.5	6326187	1748.55	29.2	0.66	2245.16
TC1_shp	1458.33	637737.5	6326187	1729.08	48.67	2.27	2283.67
TC1_shp	1458.33	637737.5	6326187	1709.62	68.13	6.66	2137.46
TC1_shp	1458.33	637737.5	6326187	1690.15	87.6	14.22	1903.42
TC1_shp	1458.33	637737.5	6326187	1670.68	107.07	22.41	1682.9
TC1_shp	1458.33	637737.5	6326187	1651.22	126.53	27.96	1504.33
TC1_shp	1458.33	637737.5	6326187	1631.75	146	30.88	1366.49
TC1_shp	1458.33	637737.5	6326187	1612.28	165.47	33.32	1260.76
TC1_shp	1458.33	637737.5	6326187	1592.82	184.93	36.04	1182.98
TC1_shp	1458.33	637737.5	6326187	1573.35	204.4	39.17	1125.98
TC1_shp	1458.33	637737.5	6326187	1553.88	223.87	42.49	1085.9
TC1_shp	1458.33	637737.5	6326187	1534.42	243.33	45.67	1059.05
TC1_shp	1458.33	637737.5	6326187	1514.95	262.8	48.75	1041.95
TC1_shp	1458.33	637737.5	6326187	1495.48	282.27	51.19	1034.35
TC1_shp	1458.33	637737.5	6326187	1475.75	302	53.18	1033.57
TC1_shp	1458.33	637737.5	6326187	1455.75	322	54.81	1038.58
TC1_shp	1458.33	637737.5	6326187	1435.75	342	55.98	1050.44
TC1_shp	1458.33	637737.5	6326187	1415.75	362	56.78	1068
TC1_shp	1458.33	637737.5	6326187	1395.75	382	57.39	1089.4
TC1_shp	1458.33	637737.5	6326187	1373.65	404.1	57.81	1120.9
TC1_shp	1458.33	637737.5	6326187	1349.1	428.65	58.08	1165.26
TC1_shp	1458.33	637737.5	6326187	1323.15	454.6	58.17	1220.01
TC1_shp	1458.33	637737.5	6326187	1294.65	483.1	57.98	1290.29
TC1_shp	1458.33	637737.5	6326187	1263.95	513.8	57.13	1385.45
TC1_shp	1458.33	637737.5	6326187	1231.3	546.45	55.75	1502.63
TC1_shp	1458.33	637737.5	6326187	1195.5	582.25	53.73	1645.98
TC1_shp	1458.33	637737.5	6326187	1156.85	620.9	51.1	1813.89
TC1_shp	1458.33	637737.5	6326187	1115.7	662.05	48.28	2010.01
TC1_shp	1458.33	637737.5	6326187	1070.6	707.15	45.27	2228.81
TC1_shp	1458.33	637737.5	6326187	1021.95	755.8	42.27	2449.68
TC1_shp	1458.33	637737.5	6326187	970.15	807.6	39.38	2653.65
TC1_shp	1458.33	637737.5	6326187	913.35	864.4	36.53	2825.87
TC1_shp	1458.33	637737.5	6326187	852.1	925.65	33.72	2938.34
TC1_shp	1458.33	637737.5	6326187	787.25	990.5	29.82	2927.67
TC1_shp	1458.33	637737.5	6326187	715.75	1062	25.5	2915.73
TC1_shp	1475	637736.5	6326203	1778.52	9.73	2.37	6324.27
TC1_shp	1475	637736.5	6326203	1759.05	29.2	0.7	4372.75
TC1_shp	1475	637736.5	6326203	1739.58	48.67	0.87	3367.76
TC1_shp	1475	637736.5	6326203	1720.12	68.13	2.38	3035
TC1_shp	1475	637736.5	6326203	1700.65	87.6	6.22	2729.61
TC1_shp	1475	637736.5	6326203	1681.18	107.07	13.18	2365.32
TC1_shp	1475	637736.5	6326203	1661.72	126.53	21.68	2017.89
TC1_shp	1475	637736.5	6326203	1642.25	146	28.46	1733.66
TC1_shp	1475	637736.5	6326203	1622.78	165.47	32.24	1517.82
TC1_shp	1475	637736.5	6326203	1603.32	184.93	34.76	1358.7
TC1_shp	1475	637736.5	6326203	1583.85	204.4	36.99	1245.89

TC1_shp	1475	637736.5	6326203	1564.38	223.87	39.4	1166.63
TC1_shp	1475	637736.5	6326203	1544.92	243.33	42.04	1112.33
TC1_shp	1475	637736.5	6326203	1525.45	262.8	44.74	1076.83
TC1_shp	1475	637736.5	6326203	1505.98	282.27	47.53	1054.41
TC1_shp	1475	637736.5	6326203	1486.25	302	49.92	1043.92
TC1_shp	1475	637736.5	6326203	1466.25	322	51.97	1042.03
TC1_shp	1475	637736.5	6326203	1446.25	342	53.69	1046.99
TC1_shp	1475	637736.5	6326203	1426.25	362	55	1059.28
TC1_shp	1475	637736.5	6326203	1406.25	382	55.9	1077.86
TC1_shp	1475	637736.5	6326203	1384.15	404.1	56.65	1103.54
TC1_shp	1475	637736.5	6326203	1359.6	428.65	57.19	1139.67
TC1_shp	1475	637736.5	6326203	1333.65	454.6	57.41	1190.36
TC1_shp	1475	637736.5	6326203	1305.15	483.1	57.35	1255.65
TC1_shp	1475	637736.5	6326203	1274.45	513.8	56.88	1338.36
TC1_shp	1475	637736.5	6326203	1241.8	546.45	55.85	1441.83
TC1_shp	1475	637736.5	6326203	1206	582.25	53.98	1579.04
TC1_shp	1475	637736.5	6326203	1167.35	620.9	51.48	1741.29
TC1_shp	1475	637736.5	6326203	1126.2	662.05	48.68	1927.91
TC1_shp	1475	637736.5	6326203	1081.1	707.15	45.68	2142.39
TC1_shp	1475	637736.5	6326203	1032.45	755.8	42.6	2371.65
TC1_shp	1475	637736.5	6326203	980.65	807.6	39.68	2590.46
TC1_shp	1475	637736.5	6326203	923.85	864.4	36.89	2775.49
TC1_shp	1475	637736.5	6326203	862.6	925.65	34.13	2899.16
TC1_shp	1475	637736.5	6326203	797.75	990.5	30.61	2925.91
TC1_shp	1475	637736.5	6326203	726.25	1062	26.42	2912.57
TC1_shp	1491.67	637735.5	6326220	1789.02	9.73	8.84	233.21
TC1_shp	1491.67	637735.5	6326220	1769.55	29.2	3.26	1844.93
TC1_shp	1491.67	637735.5	6326220	1750.08	48.67	1.14	2924.08
TC1_shp	1491.67	637735.5	6326220	1730.62	68.13	1.4	3280.36
TC1_shp	1491.67	637735.5	6326220	1711.15	87.6	3.34	3269.22
TC1_shp	1491.67	637735.5	6326220	1691.68	107.07	8.07	3022.5
TC1_shp	1491.67	637735.5	6326220	1672.22	126.53	16.39	2647.85
TC1_shp	1491.67	637735.5	6326220	1652.75	146	26.11	2258.3
TC1_shp	1491.67	637735.5	6326220	1633.28	165.47	32.53	1921.13
TC1_shp	1491.67	637735.5	6326220	1613.82	184.93	36.04	1657.17
TC1_shp	1491.67	637735.5	6326220	1594.35	204.4	37.91	1459.09
TC1_shp	1491.67	637735.5	6326220	1574.88	223.87	39.22	1318.41
TC1_shp	1491.67	637735.5	6326220	1555.42	243.33	40.6	1219.45
TC1_shp	1491.67	637735.5	6326220	1535.95	262.8	42.27	1151.48
TC1_shp	1491.67	637735.5	6326220	1516.48	282.27	44.2	1106.91
TC1_shp	1491.67	637735.5	6326220	1496.75	302	46.43	1077.65
TC1_shp	1491.67	637735.5	6326220	1476.75	322	48.51	1063.27
TC1_shp	1491.67	637735.5	6326220	1456.75	342	50.37	1059.27
TC1_shp	1491.67	637735.5	6326220	1436.75	362	52.02	1063.09
TC1_shp	1491.67	637735.5	6326220	1416.75	382	53.36	1074.73
TC1_shp	1491.67	637735.5	6326220	1394.65	404.1	54.39	1095.62
TC1_shp	1491.67	637735.5	6326220	1370.1	428.65	55.23	1126.29
TC1_shp	1491.67	637735.5	6326220	1344.15	454.6	55.81	1167.52
TC1_shp	1491.67	637735.5	6326220	1315.65	483.1	56.09	1224.16
TC1_shp	1491.67	637735.5	6326220	1284.95	513.8	55.86	1299.8
TC1_shp	1491.67	637735.5	6326220	1252.3	546.45	55.1	1396.06
TC1_shp	1491.67	637735.5	6326220	1216.5	582.25	53.66	1520.26

TC1_shp	1491.67	637735.5	6326220	1177.85	620.9	51.5	1672.57
TC1_shp	1491.67	637735.5	6326220	1136.7	662.05	48.77	1849.5
TC1_shp	1491.67	637735.5	6326220	1091.6	707.15	45.83	2060.34
TC1_shp	1491.67	637735.5	6326220	1042.95	755.8	42.82	2291.2
TC1_shp	1491.67	637735.5	6326220	991.15	807.6	39.94	2513.24
TC1_shp	1491.67	637735.5	6326220	934.35	864.4	37.15	2714.14
TC1_shp	1491.67	637735.5	6326220	873.1	925.65	34.44	2862.81
TC1_shp	1491.67	637735.5	6326220	808.25	990.5	31.33	2925.99
TC1_shp	1491.67	637735.5	6326220	736.75	1062	27.27	2910.78
TC1_shp	1508.33	637733.7	6326237	1800.27	9.73	5.16	324.63
TC1_shp	1508.33	637733.7	6326237	1780.8	29.2	3.06	849.82
TC1_shp	1508.33	637733.7	6326237	1761.33	48.67	1.86	1698.87
TC1_shp	1508.33	637733.7	6326237	1741.87	68.13	2.51	2499.02
TC1_shp	1508.33	637733.7	6326237	1722.4	87.6	5.42	2913.28
TC1_shp	1508.33	637733.7	6326237	1702.93	107.07	12.28	2928.7
TC1_shp	1508.33	637733.7	6326237	1683.47	126.53	23.03	2695.18
TC1_shp	1508.33	637733.7	6326237	1664	146	32.88	2365.47
TC1_shp	1508.33	637733.7	6326237	1644.53	165.47	38.49	2041.28
TC1_shp	1508.33	637733.7	6326237	1625.07	184.93	41.03	1767.18
TC1_shp	1508.33	637733.7	6326237	1605.6	204.4	41.84	1551.66
TC1_shp	1508.33	637733.7	6326237	1586.13	223.87	41.99	1393.71
TC1_shp	1508.33	637733.7	6326237	1566.67	243.33	42.21	1280.26
TC1_shp	1508.33	637733.7	6326237	1547.2	262.8	42.82	1200.89
TC1_shp	1508.33	637733.7	6326237	1527.73	282.27	43.83	1147.67
TC1_shp	1508.33	637733.7	6326237	1508	302	45.31	1111.45
TC1_shp	1508.33	637733.7	6326237	1488	322	46.87	1092.23
TC1_shp	1508.33	637733.7	6326237	1468	342	48.42	1084.81
TC1_shp	1508.33	637733.7	6326237	1448	362	49.89	1086.16
TC1_shp	1508.33	637733.7	6326237	1428	382	51.17	1096.18
TC1_shp	1508.33	637733.7	6326237	1405.9	404.1	52.23	1116.04
TC1_shp	1508.33	637733.7	6326237	1381.35	428.65	53.13	1145.92
TC1_shp	1508.33	637733.7	6326237	1355.4	454.6	53.79	1186.6
TC1_shp	1508.33	637733.7	6326237	1326.9	483.1	54.18	1243.05
TC1_shp	1508.33	637733.7	6326237	1296.2	513.8	53.99	1318.44
TC1_shp	1508.33	637733.7	6326237	1263.55	546.45	53.28	1414.3
TC1_shp	1508.33	637733.7	6326237	1227.75	582.25	51.92	1537.76
TC1_shp	1508.33	637733.7	6326237	1189.1	620.9	49.88	1688.95
TC1_shp	1508.33	637733.7	6326237	1147.95	662.05	47.28	1864.54
TC1_shp	1508.33	637733.7	6326237	1102.85	707.15	44.55	2073.48
TC1_shp	1508.33	637733.7	6326237	1054.2	755.8	41.71	2301.26
TC1_shp	1508.33	637733.7	6326237	1002.4	807.6	39.03	2519.98
TC1_shp	1508.33	637733.7	6326237	945.6	864.4	36.42	2717.33
TC1_shp	1508.33	637733.7	6326237	884.35	925.65	33.86	2862.81
TC1_shp	1508.33	637733.7	6326237	819.5	990.5	30.88	2923.46
TC1_shp	1508.33	637733.7	6326237	748	1062	26.95	2905.97
TC1_shp	1525	637731	6326255	1812.27	9.73	1.2	5456.82
TC1_shp	1525	637731	6326255	1792.8	29.2	2.59	1204.94
TC1_shp	1525	637731	6326255	1773.33	48.67	2.68	1009.66
TC1_shp	1525	637731	6326255	1753.87	68.13	2.74	1429.81
TC1_shp	1525	637731	6326255	1734.4	87.6	4.24	2047.19
TC1_shp	1525	637731	6326255	1714.93	107.07	8.89	2520.29
TC1_shp	1525	637731	6326255	1695.47	126.53	18.66	2693.3

TC1_shp	1525	637731	6326255	1676	146	30.51	2607.39
TC1_shp	1525	637731	6326255	1656.53	165.47	39.67	2377.76
TC1_shp	1525	637731	6326255	1637.07	184.93	44.33	2105.21
TC1_shp	1525	637731	6326255	1617.6	204.4	45.76	1850.09
TC1_shp	1525	637731	6326255	1598.13	223.87	45.47	1635.26
TC1_shp	1525	637731	6326255	1578.67	243.33	44.56	1470.63
TC1_shp	1525	637731	6326255	1559.2	262.8	43.71	1347.59
TC1_shp	1525	637731	6326255	1539.73	282.27	43.31	1259.29
TC1_shp	1525	637731	6326255	1520	302	43.46	1197.29
TC1_shp	1525	637731	6326255	1500	322	44.18	1153.65
TC1_shp	1525	637731	6326255	1480	342	45.18	1129.47
TC1_shp	1525	637731	6326255	1460	362	46.34	1118.14
TC1_shp	1525	637731	6326255	1440	382	47.55	1116.45
TC1_shp	1525	637731	6326255	1417.9	404.1	48.81	1124.62
TC1_shp	1525	637731	6326255	1393.35	428.65	49.92	1146.04
TC1_shp	1525	637731	6326255	1367.4	454.6	50.82	1178.72
TC1_shp	1525	637731	6326255	1338.9	483.1	51.51	1226.63
TC1_shp	1525	637731	6326255	1308.2	513.8	51.82	1291.33
TC1_shp	1525	637731	6326255	1275.55	546.45	51.59	1373.9
TC1_shp	1525	637731	6326255	1239.75	582.25	50.71	1485.18
TC1_shp	1525	637731	6326255	1201.1	620.9	49.02	1629.21
TC1_shp	1525	637731	6326255	1159.95	662.05	46.73	1798.26
TC1_shp	1525	637731	6326255	1114.85	707.15	44.19	1998.77
TC1_shp	1525	637731	6326255	1066.2	755.8	41.55	2222.81
TC1_shp	1525	637731	6326255	1014.4	807.6	38.94	2449.79
TC1_shp	1525	637731	6326255	957.6	864.4	36.42	2662.42
TC1_shp	1525	637731	6326255	896.35	925.65	33.99	2831.71
TC1_shp	1525	637731	6326255	831.5	990.5	31.44	2927.44
TC1_shp	1525	637731	6326255	760	1062	27.65	2907.25
TC1_shp	1541.67	637728.3	6326273	1824.27	9.73	0.49	9164.89
TC1_shp	1541.67	637728.3	6326273	1804.8	29.2	1.15	3044.48
TC1_shp	1541.67	637728.3	6326273	1785.33	48.67	2.02	1752.18
TC1_shp	1541.67	637728.3	6326273	1765.87	68.13	3.23	1718.6
TC1_shp	1541.67	637728.3	6326273	1746.4	87.6	6	2040.44
TC1_shp	1541.67	637728.3	6326273	1726.93	107.07	12.83	2373.57
TC1_shp	1541.67	637728.3	6326273	1707.47	126.53	24.61	2545.6
TC1_shp	1541.67	637728.3	6326273	1688	146	36.24	2526.98
TC1_shp	1541.67	637728.3	6326273	1668.53	165.47	44.38	2370.6
TC1_shp	1541.67	637728.3	6326273	1649.07	184.93	48.28	2150.39
TC1_shp	1541.67	637728.3	6326273	1629.6	204.4	48.95	1922.69
TC1_shp	1541.67	637728.3	6326273	1610.13	223.87	47.89	1717.57
TC1_shp	1541.67	637728.3	6326273	1590.67	243.33	46.21	1551.81
TC1_shp	1541.67	637728.3	6326273	1571.2	262.8	44.6	1423.16
TC1_shp	1541.67	637728.3	6326273	1551.73	282.27	43.44	1327.24
TC1_shp	1541.67	637728.3	6326273	1532	302	42.87	1257.59
TC1_shp	1541.67	637728.3	6326273	1512	322	42.88	1206.2
TC1_shp	1541.67	637728.3	6326273	1492	342	43.36	1175.82
TC1_shp	1541.67	637728.3	6326273	1472	362	44.12	1159.27
TC1_shp	1541.67	637728.3	6326273	1452	382	45.03	1153.13
TC1_shp	1541.67	637728.3	6326273	1429.9	404.1	46.1	1157.42
TC1_shp	1541.67	637728.3	6326273	1405.35	428.65	47.14	1175.65
TC1_shp	1541.67	637728.3	6326273	1379.4	454.6	48.07	1205.83

TC1_shp	1541.67	637728.3	6326273	1350.9	483.1	48.81	1251.77
TC1_shp	1541.67	637728.3	6326273	1320.2	513.8	49.19	1314.92
TC1_shp	1541.67	637728.3	6326273	1287.55	546.45	49.04	1396.21
TC1_shp	1541.67	637728.3	6326273	1251.75	582.25	48.3	1506.39
TC1_shp	1541.67	637728.3	6326273	1213.1	620.9	46.8	1649.3
TC1_shp	1541.67	637728.3	6326273	1171.95	662.05	44.77	1817.02
TC1_shp	1541.67	637728.3	6326273	1126.85	707.15	42.53	2015.75
TC1_shp	1541.67	637728.3	6326273	1078.2	755.8	40.17	2237.15
TC1_shp	1541.67	637728.3	6326273	1026.4	807.6	37.82	2460.85
TC1_shp	1541.67	637728.3	6326273	969.6	864.4	35.55	2669.86
TC1_shp	1541.67	637728.3	6326273	908.35	925.65	33.33	2835.3
TC1_shp	1541.67	637728.3	6326273	843.5	990.5	30.92	2927.72
TC1_shp	1541.67	637728.3	6326273	772	1062	27.27	2904.42
TC1_shp	1558.33	637725.7	6326291	1836.27	9.73	0.75	4134.32
TC1_shp	1558.33	637725.7	6326291	1816.8	29.2	0.49	5469.2
TC1_shp	1558.33	637725.7	6326291	1797.33	48.67	0.79	3844.26
TC1_shp	1558.33	637725.7	6326291	1777.87	68.13	1.58	2744.23
TC1_shp	1558.33	637725.7	6326291	1758.4	87.6	3.22	2379.21
TC1_shp	1558.33	637725.7	6326291	1738.93	107.07	6.84	2389.82
TC1_shp	1558.33	637725.7	6326291	1719.47	126.53	14.97	2507.51
TC1_shp	1558.33	637725.7	6326291	1700	146	27.13	2579.11
TC1_shp	1558.33	637725.7	6326291	1680.53	165.47	38.12	2543.88
TC1_shp	1558.33	637725.7	6326291	1661.07	184.93	45.62	2410.44
TC1_shp	1558.33	637725.7	6326291	1641.6	204.4	49.19	2217.88
TC1_shp	1558.33	637725.7	6326291	1622.13	223.87	49.8	2009.03
TC1_shp	1558.33	637725.7	6326291	1602.67	243.33	48.54	1811.46
TC1_shp	1558.33	637725.7	6326291	1583.2	262.8	46.58	1644.68
TC1_shp	1558.33	637725.7	6326291	1563.73	282.27	44.6	1510.18
TC1_shp	1558.33	637725.7	6326291	1544	302	42.98	1405.44
TC1_shp	1558.33	637725.7	6326291	1524	322	41.93	1326.69
TC1_shp	1558.33	637725.7	6326291	1504	342	41.43	1267.16
TC1_shp	1558.33	637725.7	6326291	1484	362	41.5	1230.13
TC1_shp	1558.33	637725.7	6326291	1464	382	41.91	1207.68
TC1_shp	1558.33	637725.7	6326291	1441.9	404.1	42.62	1196.36
TC1_shp	1558.33	637725.7	6326291	1417.35	428.65	43.57	1198.01
TC1_shp	1558.33	637725.7	6326291	1391.4	454.6	44.57	1213.68
TC1_shp	1558.33	637725.7	6326291	1362.9	483.1	45.52	1247.45
TC1_shp	1558.33	637725.7	6326291	1332.2	513.8	46.16	1300.14
TC1_shp	1558.33	637725.7	6326291	1299.55	546.45	46.37	1371.82
TC1_shp	1558.33	637725.7	6326291	1263.75	582.25	46.05	1469.89
TC1_shp	1558.33	637725.7	6326291	1225.1	620.9	45.1	1598.9
TC1_shp	1558.33	637725.7	6326291	1183.95	662.05	43.55	1756.93
TC1_shp	1558.33	637725.7	6326291	1138.85	707.15	41.59	1946.62
TC1_shp	1558.33	637725.7	6326291	1090.2	755.8	39.56	2165.09
TC1_shp	1558.33	637725.7	6326291	1038.4	807.6	37.37	2397.52
TC1_shp	1558.33	637725.7	6326291	981.6	864.4	35.29	2618.82
TC1_shp	1558.33	637725.7	6326291	920.35	925.65	33.28	2801.03
TC1_shp	1558.33	637725.7	6326291	855.5	990.5	31.15	2911.02
TC1_shp	1558.33	637725.7	6326291	784	1062	27.85	2909.54
TC1_shp	1575	637723	6326308	1848.27	9.73	2.73	6868.65
TC1_shp	1575	637723	6326308	1828.8	29.2	1.58	4720.85
TC1_shp	1575	637723	6326308	1809.33	48.67	0.88	4789.51

TC1_shp	1575	637723	6326308	1789.87	68.13	0.9	4535.68
TC1_shp	1575	637723	6326308	1770.4	87.6	1.51	3857.33
TC1_shp	1575	637723	6326308	1750.93	107.07	3.06	3300.3
TC1_shp	1575	637723	6326308	1731.47	126.53	6.6	3010.5
TC1_shp	1575	637723	6326308	1712	146	14.16	2885.42
TC1_shp	1575	637723	6326308	1692.53	165.47	25.4	2804.44
TC1_shp	1575	637723	6326308	1673.07	184.93	35.68	2694.96
TC1_shp	1575	637723	6326308	1653.6	204.4	42.9	2535.44
TC1_shp	1575	637723	6326308	1634.13	223.87	46.8	2339.32
TC1_shp	1575	637723	6326308	1614.67	243.33	47.86	2130.87
TC1_shp	1575	637723	6326308	1595.2	262.8	47.13	1931.05
TC1_shp	1575	637723	6326308	1575.73	282.27	45.44	1758.07
TC1_shp	1575	637723	6326308	1556	302	43.53	1612.62
TC1_shp	1575	637723	6326308	1536	322	41.83	1496.41
TC1_shp	1575	637723	6326308	1516	342	40.59	1407.96
TC1_shp	1575	637723	6326308	1496	362	39.82	1338.31
TC1_shp	1575	637723	6326308	1476	382	39.6	1293.27
TC1_shp	1575	637723	6326308	1453.9	404.1	39.78	1261.22
TC1_shp	1575	637723	6326308	1429.35	428.65	40.34	1243.93
TC1_shp	1575	637723	6326308	1403.4	454.6	41.14	1243.16
TC1_shp	1575	637723	6326308	1374.9	483.1	42.06	1259.83
TC1_shp	1575	637723	6326308	1344.2	513.8	42.9	1296.25
TC1_shp	1575	637723	6326308	1311.55	546.45	43.42	1353.91
TC1_shp	1575	637723	6326308	1275.75	582.25	43.55	1436.35
TC1_shp	1575	637723	6326308	1237.1	620.9	43.07	1552.16
TC1_shp	1575	637723	6326308	1195.95	662.05	41.91	1701.72
TC1_shp	1575	637723	6326308	1150.85	707.15	40.35	1883.93
TC1_shp	1575	637723	6326308	1102.2	755.8	38.65	2096.86
TC1_shp	1575	637723	6326308	1050.4	807.6	36.79	2327.11
TC1_shp	1575	637723	6326308	993.6	864.4	34.92	2555.81
TC1_shp	1575	637723	6326308	932.35	925.65	33.1	2752.73
TC1_shp	1575	637723	6326308	867.5	990.5	31.17	2885.23
TC1_shp	1575	637723	6326308	796	1062	28.34	2917.34
TC1_shp	1591.67	637720.3	6326326	1860.27	9.73	3.16	6770.76
TC1_shp	1591.67	637720.3	6326326	1840.8	29.2	2.26	4804.43
TC1_shp	1591.67	637720.3	6326326	1821.33	48.67	1.48	4536.26
TC1_shp	1591.67	637720.3	6326326	1801.87	68.13	1.3	4835.59
TC1_shp	1591.67	637720.3	6326326	1782.4	87.6	1.73	4690.76
TC1_shp	1591.67	637720.3	6326326	1762.93	107.07	2.99	4216.26
TC1_shp	1591.67	637720.3	6326326	1743.47	126.53	5.83	3763.54
TC1_shp	1591.67	637720.3	6326326	1724	146	11.5	3437.12
TC1_shp	1591.67	637720.3	6326326	1704.53	165.47	20.41	3197.71
TC1_shp	1591.67	637720.3	6326326	1685.07	184.93	29.69	2984.17
TC1_shp	1591.67	637720.3	6326326	1665.6	204.4	36.95	2764.65
TC1_shp	1591.67	637720.3	6326326	1646.13	223.87	41.58	2534.27
TC1_shp	1591.67	637720.3	6326326	1626.67	243.33	43.45	2304.88
TC1_shp	1591.67	637720.3	6326326	1607.2	262.8	43.69	2087.94
TC1_shp	1591.67	637720.3	6326326	1587.73	282.27	42.85	1899.77
TC1_shp	1591.67	637720.3	6326326	1568	302	41.53	1739.07
TC1_shp	1591.67	637720.3	6326326	1548	322	40.13	1607.94
TC1_shp	1591.67	637720.3	6326326	1528	342	38.97	1505.87
TC1_shp	1591.67	637720.3	6326326	1508	362	38.14	1422.58

TC1_shp	1591.67	637720.3	6326326	1488	382	37.76	1366.63
TC1_shp	1591.67	637720.3	6326326	1465.9	404.1	37.73	1324.3
TC1_shp	1591.67	637720.3	6326326	1441.35	428.65	38.05	1297.49
TC1_shp	1591.67	637720.3	6326326	1415.4	454.6	38.64	1288.76
TC1_shp	1591.67	637720.3	6326326	1386.9	483.1	39.35	1298.87
TC1_shp	1591.67	637720.3	6326326	1356.2	513.8	40.04	1330.03
TC1_shp	1591.67	637720.3	6326326	1323.55	546.45	40.53	1383.87
TC1_shp	1591.67	637720.3	6326326	1287.75	582.25	40.7	1463.79
TC1_shp	1591.67	637720.3	6326326	1249.1	620.9	40.38	1577.49
TC1_shp	1591.67	637720.3	6326326	1207.95	662.05	39.45	1725.43
TC1_shp	1591.67	637720.3	6326326	1162.85	707.15	38.27	1906.28
TC1_shp	1591.67	637720.3	6326326	1114.2	755.8	36.94	2117.16
TC1_shp	1591.67	637720.3	6326326	1062.4	807.6	35.4	2344.82
TC1_shp	1591.67	637720.3	6326326	1005.6	864.4	33.84	2569.96
TC1_shp	1591.67	637720.3	6326326	944.35	925.65	32.29	2762.67
TC1_shp	1591.67	637720.3	6326326	879.5	990.5	30.56	2890.9
TC1_shp	1591.67	637720.3	6326326	808	1062	27.88	2918.63
TC1_shp	1608.33	637717.8	6326344	1868.69	9.73	14.25	258.15
TC1_shp	1608.33	637717.8	6326344	1849.22	29.2	4.61	1645.16
TC1_shp	1608.33	637717.8	6326344	1829.75	48.67	2.98	2403.39
TC1_shp	1608.33	637717.8	6326344	1810.29	68.13	2.29	3194.08
TC1_shp	1608.33	637717.8	6326344	1790.82	87.6	1.99	4168.28
TC1_shp	1608.33	637717.8	6326344	1771.35	107.07	2.2	4754.28
TC1_shp	1608.33	637717.8	6326344	1751.89	126.53	3.09	4754.3
TC1_shp	1608.33	637717.8	6326344	1732.42	146	5.06	4436.01
TC1_shp	1608.33	637717.8	6326344	1712.95	165.47	8.7	4058.33
TC1_shp	1608.33	637717.8	6326344	1693.49	184.93	14.43	3712.35
TC1_shp	1608.33	637717.8	6326344	1674.02	204.4	21.81	3398.25
TC1_shp	1608.33	637717.8	6326344	1654.55	223.87	28.91	3099.82
TC1_shp	1608.33	637717.8	6326344	1635.09	243.33	34.23	2813.08
TC1_shp	1608.33	637717.8	6326344	1615.62	262.8	37.36	2541.41
TC1_shp	1608.33	637717.8	6326344	1596.15	282.27	38.77	2291.53
TC1_shp	1608.33	637717.8	6326344	1576.42	302	39.05	2073.39
TC1_shp	1608.33	637717.8	6326344	1556.42	322	38.64	1887.04
TC1_shp	1608.33	637717.8	6326344	1536.42	342	37.86	1735.55
TC1_shp	1608.33	637717.8	6326344	1516.42	362	37.08	1616.26
TC1_shp	1608.33	637717.8	6326344	1496.42	382	36.4	1516.43
TC1_shp	1608.33	637717.8	6326344	1474.32	404.1	35.98	1441.23
TC1_shp	1608.33	637717.8	6326344	1449.77	428.65	35.86	1384.21
TC1_shp	1608.33	637717.8	6326344	1423.82	454.6	36.06	1349.73
TC1_shp	1608.33	637717.8	6326344	1395.32	483.1	36.48	1337.21
TC1_shp	1608.33	637717.8	6326344	1364.62	513.8	37.02	1348.34
TC1_shp	1608.33	637717.8	6326344	1331.97	546.45	37.52	1385.13
TC1_shp	1608.33	637717.8	6326344	1296.17	582.25	37.85	1450.43
TC1_shp	1608.33	637717.8	6326344	1257.52	620.9	37.85	1547.64
TC1_shp	1608.33	637717.8	6326344	1216.37	662.05	37.4	1680.15
TC1_shp	1608.33	637717.8	6326344	1171.27	707.15	36.61	1851
TC1_shp	1608.33	637717.8	6326344	1122.62	755.8	35.65	2053.89
TC1_shp	1608.33	637717.8	6326344	1070.82	807.6	34.49	2279.31
TC1_shp	1608.33	637717.8	6326344	1014.02	864.4	33.19	2513.33
TC1_shp	1608.33	637717.8	6326344	952.77	925.65	31.9	2721.04
TC1_shp	1608.33	637717.8	6326344	887.92	990.5	30.45	2870.96

TC1_shp	1608.33	637717.8	6326344	816.42	1062	28.27	2931.44
TC1_shp	1625	637715.3	6326361	1873.52	9.73	6.58	1471.77
TC1_shp	1625	637715.3	6326361	1854.05	29.2	3.92	1391.61
TC1_shp	1625	637715.3	6326361	1834.58	48.67	3.35	1458.09
TC1_shp	1625	637715.3	6326361	1815.12	68.13	3.12	2081.55
TC1_shp	1625	637715.3	6326361	1795.65	87.6	2.84	3135.99
TC1_shp	1625	637715.3	6326361	1776.18	107.07	2.81	4183.42
TC1_shp	1625	637715.3	6326361	1756.72	126.53	3.29	4775.28
TC1_shp	1625	637715.3	6326361	1737.25	146	4.47	4858.57
TC1_shp	1625	637715.3	6326361	1717.78	165.47	6.58	4634.75
TC1_shp	1625	637715.3	6326361	1698.32	184.93	9.84	4288.88
TC1_shp	1625	637715.3	6326361	1678.85	204.4	14.42	3910.71
TC1_shp	1625	637715.3	6326361	1659.38	223.87	20.3	3534.76
TC1_shp	1625	637715.3	6326361	1639.92	243.33	26.17	3176.44
TC1_shp	1625	637715.3	6326361	1620.45	262.8	30.57	2845.29
TC1_shp	1625	637715.3	6326361	1600.98	282.27	33.12	2545.83
TC1_shp	1625	637715.3	6326361	1581.25	302	34.59	2287.63
TC1_shp	1625	637715.3	6326361	1561.25	322	35.23	2067.61
TC1_shp	1625	637715.3	6326361	1541.25	342	35.26	1888.19
TC1_shp	1625	637715.3	6326361	1521.25	362	35.01	1745.57
TC1_shp	1625	637715.3	6326361	1501.25	382	34.65	1624.89
TC1_shp	1625	637715.3	6326361	1479.15	404.1	34.34	1531.79
TC1_shp	1625	637715.3	6326361	1454.6	428.65	34.16	1458.96
TC1_shp	1625	637715.3	6326361	1428.65	454.6	34.17	1411.19
TC1_shp	1625	637715.3	6326361	1400.15	483.1	34.35	1387.86
TC1_shp	1625	637715.3	6326361	1369.45	513.8	34.66	1390.62
TC1_shp	1625	637715.3	6326361	1336.8	546.45	35	1421.11
TC1_shp	1625	637715.3	6326361	1301	582.25	35.25	1481.87
TC1_shp	1625	637715.3	6326361	1262.35	620.9	35.27	1576.14
TC1_shp	1625	637715.3	6326361	1221.2	662.05	35	1706.69
TC1_shp	1625	637715.3	6326361	1176.1	707.15	34.51	1876.03
TC1_shp	1625	637715.3	6326361	1127.45	755.8	33.89	2077.32
TC1_shp	1625	637715.3	6326361	1075.65	807.6	33.05	2300.56
TC1_shp	1625	637715.3	6326361	1018.85	864.4	32.07	2531.55
TC1_shp	1625	637715.3	6326361	957.6	925.65	31.05	2734.94
TC1_shp	1625	637715.3	6326361	892.75	990.5	29.82	2880.11
TC1_shp	1625	637715.3	6326361	821.25	1062	27.8	2935.59
TC1_shp	1641.67	637712.8	6326378	1878.35	9.73	3.75	11049.78
TC1_shp	1641.67	637712.8	6326378	1858.88	29.2	3.55	3170.01
TC1_shp	1641.67	637712.8	6326378	1839.41	48.67	3.82	1367.86
TC1_shp	1641.67	637712.8	6326378	1819.95	68.13	3.91	1533.6
TC1_shp	1641.67	637712.8	6326378	1800.48	87.6	3.64	2350.81
TC1_shp	1641.67	637712.8	6326378	1781.01	107.07	3.38	3478.03
TC1_shp	1641.67	637712.8	6326378	1761.55	126.53	3.47	4472.69
TC1_shp	1641.67	637712.8	6326378	1742.08	146	4.05	5017.13
TC1_shp	1641.67	637712.8	6326378	1722.61	165.47	5.2	5097.42
TC1_shp	1641.67	637712.8	6326378	1703.15	184.93	7.04	4868.86
TC1_shp	1641.67	637712.8	6326378	1683.68	204.4	9.75	4487.26
TC1_shp	1641.67	637712.8	6326378	1664.21	223.87	13.59	4051.64
TC1_shp	1641.67	637712.8	6326378	1644.75	243.33	18.63	3618.52
TC1_shp	1641.67	637712.8	6326378	1625.28	262.8	23.84	3215.1
TC1_shp	1641.67	637712.8	6326378	1605.81	282.27	27.71	2852.29

TC1_shp	1641.67	637712.8	6326378	1586.08	302	30.15	2541.01
TC1_shp	1641.67	637712.8	6326378	1566.08	322	31.78	2277.56
TC1_shp	1641.67	637712.8	6326378	1546.08	342	32.66	2062.3
TC1_shp	1641.67	637712.8	6326378	1526.08	362	32.98	1891.19
TC1_shp	1641.67	637712.8	6326378	1506.08	382	33.02	1745.1
TC1_shp	1641.67	637712.8	6326378	1483.98	404.1	32.89	1631.04
TC1_shp	1641.67	637712.8	6326378	1459.43	428.65	32.7	1539.73
TC1_shp	1641.67	637712.8	6326378	1433.48	454.6	32.57	1476.9
TC1_shp	1641.67	637712.8	6326378	1404.98	483.1	32.54	1441.48
TC1_shp	1641.67	637712.8	6326378	1374.28	513.8	32.62	1434.88
TC1_shp	1641.67	637712.8	6326378	1341.63	546.45	32.77	1458.42
TC1_shp	1641.67	637712.8	6326378	1305.83	582.25	32.9	1514.3
TC1_shp	1641.67	637712.8	6326378	1267.18	620.9	32.91	1605.41
TC1_shp	1641.67	637712.8	6326378	1226.03	662.05	32.79	1734.06
TC1_shp	1641.67	637712.8	6326378	1180.93	707.15	32.57	1902.16
TC1_shp	1641.67	637712.8	6326378	1132.28	755.8	32.22	2102.03
TC1_shp	1641.67	637712.8	6326378	1080.48	807.6	31.66	2323.13
TC1_shp	1641.67	637712.8	6326378	1023.68	864.4	31.01	2550.99
TC1_shp	1641.67	637712.8	6326378	962.43	925.65	30.25	2750.23
TC1_shp	1641.67	637712.8	6326378	897.58	990.5	29.2	2890.32
TC1_shp	1641.67	637712.8	6326378	826.08	1062	27.33	2940.51
TC1_shp	1658.33	637710.3	6326395	1883.19	9.73	4.1	2516.48
TC1_shp	1658.33	637710.3	6326395	1863.72	29.2	4.71	2351.71
TC1_shp	1658.33	637710.3	6326395	1844.25	48.67	4.84	1319.04
TC1_shp	1658.33	637710.3	6326395	1824.79	68.13	4.65	1315.19
TC1_shp	1658.33	637710.3	6326395	1805.32	87.6	4.2	1912.34
TC1_shp	1658.33	637710.3	6326395	1785.85	107.07	3.78	2944.7
TC1_shp	1658.33	637710.3	6326395	1766.39	126.53	3.61	4110.57
TC1_shp	1658.33	637710.3	6326395	1746.92	146	3.8	5016.45
TC1_shp	1658.33	637710.3	6326395	1727.45	165.47	4.39	5439.92
TC1_shp	1658.33	637710.3	6326395	1707.99	184.93	5.47	5411.96
TC1_shp	1658.33	637710.3	6326395	1688.52	204.4	7.17	5089.14
TC1_shp	1658.33	637710.3	6326395	1669.05	223.87	9.75	4624.4
TC1_shp	1658.33	637710.3	6326395	1649.59	243.33	13.48	4122.73
TC1_shp	1658.33	637710.3	6326395	1630.12	262.8	18.2	3642.07
TC1_shp	1658.33	637710.3	6326395	1610.65	282.27	22.94	3206.27
TC1_shp	1658.33	637710.3	6326395	1590.92	302	26.37	2832.22
TC1_shp	1658.33	637710.3	6326395	1570.92	322	28.76	2516.04
TC1_shp	1658.33	637710.3	6326395	1550.92	342	30.32	2258.12
TC1_shp	1658.33	637710.3	6326395	1530.92	362	31.22	2052.31
TC1_shp	1658.33	637710.3	6326395	1510.92	382	31.65	1876.62
TC1_shp	1658.33	637710.3	6326395	1488.82	404.1	31.73	1738.34
TC1_shp	1658.33	637710.3	6326395	1464.27	428.65	31.58	1625.92
TC1_shp	1658.33	637710.3	6326395	1438.32	454.6	31.34	1546.18
TC1_shp	1658.33	637710.3	6326395	1409.82	483.1	31.1	1497.22
TC1_shp	1658.33	637710.3	6326395	1379.12	513.8	30.94	1480.43
TC1_shp	1658.33	637710.3	6326395	1346.47	546.45	30.85	1496.57
TC1_shp	1658.33	637710.3	6326395	1310.67	582.25	30.81	1547.37
TC1_shp	1658.33	637710.3	6326395	1272.02	620.9	30.8	1635.48
TC1_shp	1658.33	637710.3	6326395	1230.87	662.05	30.8	1762.53
TC1_shp	1658.33	637710.3	6326395	1185.77	707.15	30.79	1929.43
TC1_shp	1658.33	637710.3	6326395	1137.12	755.8	30.67	2127.74

TC1_shp	1658.33	637710.3	6326395	1085.32	807.6	30.37	2346.96
TC1_shp	1658.33	637710.3	6326395	1028.52	864.4	30.01	2571.96
TC1_shp	1658.33	637710.3	6326395	967.27	925.65	29.5	2766.65
TC1_shp	1658.33	637710.3	6326395	902.42	990.5	28.62	2901.56
TC1_shp	1658.33	637710.3	6326395	830.92	1062	26.88	2946.12
TC1_shp	1675	637707.8	6326412	1888.02	9.73	1.46	2994.51
TC1_shp	1675	637707.8	6326412	1868.55	29.2	3.05	3472.33
TC1_shp	1675	637707.8	6326412	1849.08	48.67	4.72	2414
TC1_shp	1675	637707.8	6326412	1829.62	68.13	5.2	1389.67
TC1_shp	1675	637707.8	6326412	1810.15	87.6	4.95	1271.45
TC1_shp	1675	637707.8	6326412	1790.68	107.07	4.47	1722.39
TC1_shp	1675	637707.8	6326412	1771.22	126.53	4.02	2638.8
TC1_shp	1675	637707.8	6326412	1751.75	146	3.75	3841.07
TC1_shp	1675	637707.8	6326412	1732.28	165.47	3.74	4969.78
TC1_shp	1675	637707.8	6326412	1712.82	184.93	4.03	5689.51
TC1_shp	1675	637707.8	6326412	1693.35	204.4	4.71	5890.81
TC1_shp	1675	637707.8	6326412	1673.88	223.87	5.87	5674.95
TC1_shp	1675	637707.8	6326412	1654.42	243.33	7.76	5215.99
TC1_shp	1675	637707.8	6326412	1634.95	262.8	10.62	4662.2
TC1_shp	1675	637707.8	6326412	1615.48	282.27	14.65	4106.98
TC1_shp	1675	637707.8	6326412	1595.75	302	19.4	3587.7
TC1_shp	1675	637707.8	6326412	1575.75	322	23.65	3140.12
TC1_shp	1675	637707.8	6326412	1555.75	342	26.68	2766.94
TC1_shp	1675	637707.8	6326412	1535.75	362	28.74	2463.35
TC1_shp	1675	637707.8	6326412	1515.75	382	30.02	2220.11
TC1_shp	1675	637707.8	6326412	1493.65	404.1	30.84	1990.05
TC1_shp	1675	637707.8	6326412	1469.1	428.65	31.05	1816.11
TC1_shp	1675	637707.8	6326412	1443.15	454.6	30.83	1683.13
TC1_shp	1675	637707.8	6326412	1414.65	483.1	30.38	1588.11
TC1_shp	1675	637707.8	6326412	1383.95	513.8	29.88	1535.47
TC1_shp	1675	637707.8	6326412	1351.3	546.45	29.45	1521.56
TC1_shp	1675	637707.8	6326412	1315.5	582.25	29.15	1547.43
TC1_shp	1675	637707.8	6326412	1276.85	620.9	28.99	1614.31
TC1_shp	1675	637707.8	6326412	1235.7	662.05	29	1724.26
TC1_shp	1675	637707.8	6326412	1190.6	707.15	29.14	1881.09
TC1_shp	1675	637707.8	6326412	1141.95	755.8	29.28	2072.47
TC1_shp	1675	637707.8	6326412	1090.15	807.6	29.21	2291.33
TC1_shp	1675	637707.8	6326412	1033.35	864.4	29.15	2527.17
TC1_shp	1675	637707.8	6326412	972.1	925.65	28.98	2737.75
TC1_shp	1675	637707.8	6326412	907.25	990.5	28.4	2893.01
TC1_shp	1675	637707.8	6326412	835.75	1062	27.18	2969.01
TC1_shp	1691.67	637705.3	6326430	1892.85	9.73	1.58	4974.09
TC1_shp	1691.67	637705.3	6326430	1873.38	29.2	2.69	4335.37
TC1_shp	1691.67	637705.3	6326430	1853.91	48.67	4.2	2795.26
TC1_shp	1691.67	637705.3	6326430	1834.45	68.13	4.99	1582.92
TC1_shp	1691.67	637705.3	6326430	1814.98	87.6	4.98	1345.71
TC1_shp	1691.67	637705.3	6326430	1795.51	107.07	4.68	1697.57
TC1_shp	1691.67	637705.3	6326430	1776.05	126.53	4.34	2523.46
TC1_shp	1691.67	637705.3	6326430	1756.58	146	4.06	3703.73
TC1_shp	1691.67	637705.3	6326430	1737.11	165.47	3.94	4942.2
TC1_shp	1691.67	637705.3	6326430	1717.65	184.93	4.07	5871.54
TC1_shp	1691.67	637705.3	6326430	1698.18	204.4	4.5	6282.24

TC1_shp	1691.67	637705.3	6326430	1678.71	223.87	5.37	6197.17
TC1_shp	1691.67	637705.3	6326430	1659.25	243.33	6.85	5778.04
TC1_shp	1691.67	637705.3	6326430	1639.78	262.8	9.22	5197.56
TC1_shp	1691.67	637705.3	6326430	1620.31	282.27	12.74	4582.22
TC1_shp	1691.67	637705.3	6326430	1600.58	302	17.32	3990.5
TC1_shp	1691.67	637705.3	6326430	1580.58	322	21.87	3473.27
TC1_shp	1691.67	637705.3	6326430	1560.58	342	25.47	3039.28
TC1_shp	1691.67	637705.3	6326430	1540.58	362	27.96	2685.18
TC1_shp	1691.67	637705.3	6326430	1520.58	382	29.55	2401.39
TC1_shp	1691.67	637705.3	6326430	1498.48	404.1	30.6	2132.09
TC1_shp	1691.67	637705.3	6326430	1473.93	428.65	30.88	1928.16
TC1_shp	1691.67	637705.3	6326430	1447.98	454.6	30.59	1770.6
TC1_shp	1691.67	637705.3	6326430	1419.48	483.1	29.94	1656
TC1_shp	1691.67	637705.3	6326430	1388.78	513.8	29.16	1589.22
TC1_shp	1691.67	637705.3	6326430	1356.13	546.45	28.41	1565.14
TC1_shp	1691.67	637705.3	6326430	1320.33	582.25	27.84	1584.11
TC1_shp	1691.67	637705.3	6326430	1281.68	620.9	27.53	1646.97
TC1_shp	1691.67	637705.3	6326430	1240.53	662.05	27.5	1754.52
TC1_shp	1691.67	637705.3	6326430	1195.43	707.15	27.69	1910.67
TC1_shp	1691.67	637705.3	6326430	1146.78	755.8	27.92	2101.06
TC1_shp	1691.67	637705.3	6326430	1094.98	807.6	28.06	2318.62
TC1_shp	1691.67	637705.3	6326430	1038.18	864.4	28.25	2552.3
TC1_shp	1691.67	637705.3	6326430	976.93	925.65	28.32	2758.19
TC1_shp	1691.67	637705.3	6326430	912.08	990.5	27.85	2907.66
TC1_shp	1691.67	637705.3	6326430	840.58	1062	26.75	2977.56
TC1_shp	1708.33	637703.5	6326447	1889.69	9.73	2.54	5824.86
TC1_shp	1708.33	637703.5	6326447	1870.22	29.2	3.27	3912.39
TC1_shp	1708.33	637703.5	6326447	1850.75	48.67	3.97	3187.01
TC1_shp	1708.33	637703.5	6326447	1831.29	68.13	4.87	1877.19
TC1_shp	1708.33	637703.5	6326447	1811.82	87.6	5.22	1512.99
TC1_shp	1708.33	637703.5	6326447	1792.35	107.07	5.19	1789.3
TC1_shp	1708.33	637703.5	6326447	1772.89	126.53	4.99	2546.66
TC1_shp	1708.33	637703.5	6326447	1753.42	146	4.74	3679.3
TC1_shp	1708.33	637703.5	6326447	1733.95	165.47	4.54	4941.81
TC1_shp	1708.33	637703.5	6326447	1714.49	184.93	4.51	5987.52
TC1_shp	1708.33	637703.5	6326447	1695.02	204.4	4.76	6557.81
TC1_shp	1708.33	637703.5	6326447	1675.55	223.87	5.41	6606.29
TC1_shp	1708.33	637703.5	6326447	1656.09	243.33	6.66	6255.32
TC1_shp	1708.33	637703.5	6326447	1636.62	262.8	8.74	5680.95
TC1_shp	1708.33	637703.5	6326447	1617.15	282.27	11.98	5030.03
TC1_shp	1708.33	637703.5	6326447	1597.42	302	16.47	4381.83
TC1_shp	1708.33	637703.5	6326447	1577.42	322	21.22	3803.51
TC1_shp	1708.33	637703.5	6326447	1557.42	342	25.21	3312.68
TC1_shp	1708.33	637703.5	6326447	1537.42	362	28	2909.04
TC1_shp	1708.33	637703.5	6326447	1517.42	382	29.8	2584.84
TC1_shp	1708.33	637703.5	6326447	1495.32	404.1	31.01	2275.49
TC1_shp	1708.33	637703.5	6326447	1470.77	428.65	31.29	2040.91
TC1_shp	1708.33	637703.5	6326447	1444.82	454.6	30.88	1858.44
TC1_shp	1708.33	637703.5	6326447	1416.32	483.1	29.96	1723.99
TC1_shp	1708.33	637703.5	6326447	1385.62	513.8	28.86	1643.17
TC1_shp	1708.33	637703.5	6326447	1352.97	546.45	27.77	1608.82
TC1_shp	1708.33	637703.5	6326447	1317.17	582.25	26.9	1621.16

TC1_shp	1708.33	637703.5	6326447	1278.52	620.9	26.4	1680.11
TC1_shp	1708.33	637703.5	6326447	1237.37	662.05	26.29	1785.02
TC1_shp	1708.33	637703.5	6326447	1192.27	707.15	26.45	1940.77
TC1_shp	1708.33	637703.5	6326447	1143.62	755.8	26.73	2131.02
TC1_shp	1708.33	637703.5	6326447	1091.82	807.6	27.06	2347.57
TC1_shp	1708.33	637703.5	6326447	1035.02	864.4	27.45	2578.42
TC1_shp	1708.33	637703.5	6326447	973.77	925.65	27.72	2779.85
TC1_shp	1708.33	637703.5	6326447	908.92	990.5	27.34	2923.25
TC1_shp	1708.33	637703.5	6326447	837.42	1062	26.35	2986.74
TC1_shp	1725	637702.5	6326465	1878.52	9.73	3.62	2361.03
TC1_shp	1725	637702.5	6326465	1859.05	29.2	3.79	3676.63
TC1_shp	1725	637702.5	6326465	1839.58	48.67	5.11	2243.6
TC1_shp	1725	637702.5	6326465	1820.12	68.13	5.97	1745.24
TC1_shp	1725	637702.5	6326465	1800.65	87.6	6.25	1962.05
TC1_shp	1725	637702.5	6326465	1781.18	107.07	6.22	2662.24
TC1_shp	1725	637702.5	6326465	1761.72	126.53	5.99	3723.84
TC1_shp	1725	637702.5	6326465	1742.25	146	5.68	4941.52
TC1_shp	1725	637702.5	6326465	1722.78	165.47	5.45	6014.22
TC1_shp	1725	637702.5	6326465	1703.32	184.93	5.47	6682.12
TC1_shp	1725	637702.5	6326465	1683.85	204.4	5.91	6851.47
TC1_shp	1725	637702.5	6326465	1664.38	223.87	6.96	6592.82
TC1_shp	1725	637702.5	6326465	1644.92	243.33	8.89	6061.3
TC1_shp	1725	637702.5	6326465	1625.45	262.8	12.01	5409.12
TC1_shp	1725	637702.5	6326465	1605.98	282.27	16.48	4739.1
TC1_shp	1725	637702.5	6326465	1586.25	302	21.37	4124.51
TC1_shp	1725	637702.5	6326465	1566.25	322	25.65	3585.17
TC1_shp	1725	637702.5	6326465	1546.25	342	28.69	3136.03
TC1_shp	1725	637702.5	6326465	1526.25	362	30.7	2772.07
TC1_shp	1725	637702.5	6326465	1506.25	382	31.87	2456.79
TC1_shp	1725	637702.5	6326465	1484.15	404.1	32.19	2205.74
TC1_shp	1725	637702.5	6326465	1459.6	428.65	31.79	1996.05
TC1_shp	1725	637702.5	6326465	1433.65	454.6	30.81	1839.37
TC1_shp	1725	637702.5	6326465	1405.15	483.1	29.5	1730.63
TC1_shp	1725	637702.5	6326465	1374.45	513.8	28.11	1669.75
TC1_shp	1725	637702.5	6326465	1341.8	546.45	26.87	1655.25
TC1_shp	1725	637702.5	6326465	1306	582.25	25.95	1685.92
TC1_shp	1725	637702.5	6326465	1267.35	620.9	25.47	1762.36
TC1_shp	1725	637702.5	6326465	1226.2	662.05	25.37	1883.88
TC1_shp	1725	637702.5	6326465	1181.1	707.15	25.53	2048.1
TC1_shp	1725	637702.5	6326465	1132.45	755.8	25.89	2243.06
TC1_shp	1725	637702.5	6326465	1080.65	807.6	26.4	2455.97
TC1_shp	1725	637702.5	6326465	1023.85	864.4	26.9	2668.56
TC1_shp	1725	637702.5	6326465	962.6	925.65	27.09	2843.74
TC1_shp	1725	637702.5	6326465	897.75	990.5	26.63	2955.2
TC1_shp	1725	637702.5	6326465	826.25	1062	25.34	2974.61
TC1_shp	1741.67	637701.5	6326482	1867.35	9.73	3.62	2298.88
TC1_shp	1741.67	637701.5	6326482	1847.88	29.2	3.5	5637.01
TC1_shp	1741.67	637701.5	6326482	1828.41	48.67	5.79	2682.4
TC1_shp	1741.67	637701.5	6326482	1808.95	68.13	7.2	2007.37
TC1_shp	1741.67	637701.5	6326482	1789.48	87.6	7.74	2182.05
TC1_shp	1741.67	637701.5	6326482	1770.01	107.07	7.98	2825.16
TC1_shp	1741.67	637701.5	6326482	1750.55	126.53	7.89	3789.52

TC1_shp	1741.67	637701.5	6326482	1731.08	146	7.46	4900.9
TC1_shp	1741.67	637701.5	6326482	1711.61	165.47	6.92	5922.57
TC1_shp	1741.67	637701.5	6326482	1692.15	184.93	6.61	6627.48
TC1_shp	1741.67	637701.5	6326482	1672.68	204.4	6.77	6896.27
TC1_shp	1741.67	637701.5	6326482	1653.21	223.87	7.63	6747.64
TC1_shp	1741.67	637701.5	6326482	1633.75	243.33	9.45	6295.84
TC1_shp	1741.67	637701.5	6326482	1614.28	262.8	12.58	5682.11
TC1_shp	1741.67	637701.5	6326482	1594.81	282.27	17.2	5015.38
TC1_shp	1741.67	637701.5	6326482	1575.08	302	22.35	4381.26
TC1_shp	1741.67	637701.5	6326482	1555.08	322	26.8	3812.1
TC1_shp	1741.67	637701.5	6326482	1535.08	342	30.07	3330.19
TC1_shp	1741.67	637701.5	6326482	1515.08	362	32.17	2935.34
TC1_shp	1741.67	637701.5	6326482	1495.08	382	33.39	2591.09
TC1_shp	1741.67	637701.5	6326482	1472.98	404.1	33.63	2314.83
TC1_shp	1741.67	637701.5	6326482	1448.43	428.65	33.03	2083.11
TC1_shp	1741.67	637701.5	6326482	1422.48	454.6	31.77	1908.53
TC1_shp	1741.67	637701.5	6326482	1393.98	483.1	30.11	1785.96
TC1_shp	1741.67	637701.5	6326482	1363.28	513.8	28.34	1715.06
TC1_shp	1741.67	637701.5	6326482	1330.63	546.45	26.75	1693.8
TC1_shp	1741.67	637701.5	6326482	1294.83	582.25	25.54	1720.25
TC1_shp	1741.67	637701.5	6326482	1256.18	620.9	24.84	1794.82
TC1_shp	1741.67	637701.5	6326482	1215.03	662.05	24.6	1916.02
TC1_shp	1741.67	637701.5	6326482	1169.93	707.15	24.7	2080.36
TC1_shp	1741.67	637701.5	6326482	1121.28	755.8	25.1	2275.24
TC1_shp	1741.67	637701.5	6326482	1069.48	807.6	25.72	2486.7
TC1_shp	1741.67	637701.5	6326482	1012.68	864.4	26.35	2695.79
TC1_shp	1741.67	637701.5	6326482	951.43	925.65	26.63	2865.66
TC1_shp	1741.67	637701.5	6326482	886.58	990.5	26.23	2970.59
TC1_shp	1741.67	637701.5	6326482	815.08	1062	25	2983.03
TC1_shp	1758.33	637700.5	6326500	1856.19	9.73	3.25	8474.22
TC1_shp	1758.33	637700.5	6326500	1836.72	29.2	6.42	3175.79
TC1_shp	1758.33	637700.5	6326500	1817.25	48.67	7.99	2279.65
TC1_shp	1758.33	637700.5	6326500	1797.79	68.13	8.65	2412.17
TC1_shp	1758.33	637700.5	6326500	1778.32	87.6	9.48	2995.2
TC1_shp	1758.33	637700.5	6326500	1758.85	107.07	10	3835.77
TC1_shp	1758.33	637700.5	6326500	1739.39	126.53	9.67	4789.48
TC1_shp	1758.33	637700.5	6326500	1719.92	146	8.79	5698.53
TC1_shp	1758.33	637700.5	6326500	1700.45	165.47	8.03	6389.83
TC1_shp	1758.33	637700.5	6326500	1680.99	184.93	7.83	6735.23
TC1_shp	1758.33	637700.5	6326500	1661.52	204.4	8.47	6704.39
TC1_shp	1758.33	637700.5	6326500	1642.05	223.87	10.22	6360.64
TC1_shp	1758.33	637700.5	6326500	1622.59	243.33	13.45	5821.94
TC1_shp	1758.33	637700.5	6326500	1603.12	262.8	18.34	5193.39
TC1_shp	1758.33	637700.5	6326500	1583.65	282.27	23.67	4576.68
TC1_shp	1758.33	637700.5	6326500	1563.92	302	28.27	4006.21
TC1_shp	1758.33	637700.5	6326500	1543.92	322	31.77	3504.14
TC1_shp	1758.33	637700.5	6326500	1523.92	342	34	3085.88
TC1_shp	1758.33	637700.5	6326500	1503.92	362	35.23	2717.77
TC1_shp	1758.33	637700.5	6326500	1483.92	382	35.41	2445.22
TC1_shp	1758.33	637700.5	6326500	1461.82	404.1	34.8	2209.91
TC1_shp	1758.33	637700.5	6326500	1437.27	428.65	33.45	2014.49
TC1_shp	1758.33	637700.5	6326500	1411.32	454.6	31.65	1872.26

TC1_shp	1758.33	637700.5	6326500	1382.82	483.1	29.61	1778.76
TC1_shp	1758.33	637700.5	6326500	1352.12	513.8	27.61	1732.56
TC1_shp	1758.33	637700.5	6326500	1319.47	546.45	25.92	1732.72
TC1_shp	1758.33	637700.5	6326500	1283.67	582.25	24.74	1779.59
TC1_shp	1758.33	637700.5	6326500	1245.02	620.9	24.11	1876.22
TC1_shp	1758.33	637700.5	6326500	1203.87	662.05	23.94	2016.35
TC1_shp	1758.33	637700.5	6326500	1158.77	707.15	24.15	2190.23
TC1_shp	1758.33	637700.5	6326500	1110.12	755.8	24.73	2389.23
TC1_shp	1758.33	637700.5	6326500	1058.32	807.6	25.48	2595.14
TC1_shp	1758.33	637700.5	6326500	1001.52	864.4	26.08	2783.55
TC1_shp	1758.33	637700.5	6326500	940.27	925.65	26.17	2925.65
TC1_shp	1758.33	637700.5	6326500	875.42	990.5	25.66	2998.28
TC1_shp	1758.33	637700.5	6326500	803.92	1062	24.08	2965.97
TC1_shp	1775	637699.5	6326518	1845.02	9.73	7.54	2738.49
TC1_shp	1775	637699.5	6326518	1825.55	29.2	7.4	2355.33
TC1_shp	1775	637699.5	6326518	1806.08	48.67	7.84	2551.1
TC1_shp	1775	637699.5	6326518	1786.62	68.13	9.57	3124.95
TC1_shp	1775	637699.5	6326518	1767.15	87.6	11.35	3838.14
TC1_shp	1775	637699.5	6326518	1747.68	107.07	11.63	4599.29
TC1_shp	1775	637699.5	6326518	1728.22	126.53	10.57	5354.55
TC1_shp	1775	637699.5	6326518	1708.75	146	9.34	5996.35
TC1_shp	1775	637699.5	6326518	1689.28	165.47	8.78	6396.15
TC1_shp	1775	637699.5	6326518	1669.82	184.93	9.2	6479.29
TC1_shp	1775	637699.5	6326518	1650.35	204.4	10.93	6259.62
TC1_shp	1775	637699.5	6326518	1630.88	223.87	14.32	5821.13
TC1_shp	1775	637699.5	6326518	1611.42	243.33	19.57	5260.03
TC1_shp	1775	637699.5	6326518	1591.95	262.8	25.2	4679.64
TC1_shp	1775	637699.5	6326518	1572.48	282.27	29.99	4129.62
TC1_shp	1775	637699.5	6326518	1552.75	302	33.65	3633.47
TC1_shp	1775	637699.5	6326518	1532.75	322	36.01	3204.81
TC1_shp	1775	637699.5	6326518	1512.75	342	37.26	2822.63
TC1_shp	1775	637699.5	6326518	1492.75	362	37.36	2535.04
TC1_shp	1775	637699.5	6326518	1472.75	382	36.71	2306.67
TC1_shp	1775	637699.5	6326518	1450.65	404.1	35.36	2108.54
TC1_shp	1775	637699.5	6326518	1426.1	428.65	33.39	1948.15
TC1_shp	1775	637699.5	6326518	1400.15	454.6	31.17	1840.37
TC1_shp	1775	637699.5	6326518	1371.65	483.1	28.89	1780.5
TC1_shp	1775	637699.5	6326518	1340.95	513.8	26.84	1764.25
TC1_shp	1775	637699.5	6326518	1308.3	546.45	25.27	1790.72
TC1_shp	1775	637699.5	6326518	1272.5	582.25	24.18	1860.81
TC1_shp	1775	637699.5	6326518	1233.85	620.9	23.6	1974.61
TC1_shp	1775	637699.5	6326518	1192.7	662.05	23.5	2124.02
TC1_shp	1775	637699.5	6326518	1147.6	707.15	23.87	2303.66
TC1_shp	1775	637699.5	6326518	1098.95	755.8	24.58	2502.65
TC1_shp	1775	637699.5	6326518	1047.15	807.6	25.41	2701.43
TC1_shp	1775	637699.5	6326518	990.35	864.4	25.9	2868.98
TC1_shp	1775	637699.5	6326518	929.1	925.65	25.78	2982.22
TC1_shp	1775	637699.5	6326518	864.25	990.5	25.14	3022.4
TC1_shp	1775	637699.5	6326518	792.75	1062	23.2	2945.18
TC1_shp	1791.67	637698.5	6326535	1833.85	9.73	8.19	2567.03
TC1_shp	1791.67	637698.5	6326535	1814.38	29.2	6.2	1983.32
TC1_shp	1791.67	637698.5	6326535	1794.91	48.67	6.32	2402.1

TC1_shp	1791.67	637698.5	6326535	1775.45	68.13	8.54	3166.28
TC1_shp	1791.67	637698.5	6326535	1755.98	87.6	11.49	3798.9
TC1_shp	1791.67	637698.5	6326535	1736.51	107.07	12.55	4349.13
TC1_shp	1791.67	637698.5	6326535	1717.05	126.53	11.52	4930.21
TC1_shp	1791.67	637698.5	6326535	1697.58	146	10.01	5503.06
TC1_shp	1791.67	637698.5	6326535	1678.11	165.47	9.2	5936.8
TC1_shp	1791.67	637698.5	6326535	1658.65	184.93	9.52	6119.31
TC1_shp	1791.67	637698.5	6326535	1639.18	204.4	11.27	6021.05
TC1_shp	1791.67	637698.5	6326535	1619.71	223.87	14.88	5693.17
TC1_shp	1791.67	637698.5	6326535	1600.25	243.33	20.54	5217.76
TC1_shp	1791.67	637698.5	6326535	1580.78	262.8	26.53	4693.9
TC1_shp	1791.67	637698.5	6326535	1561.31	282.27	31.65	4176.48
TC1_shp	1791.67	637698.5	6326535	1541.58	302	35.55	3697.08
TC1_shp	1791.67	637698.5	6326535	1521.58	322	38.07	3273.57
TC1_shp	1791.67	637698.5	6326535	1501.58	342	39.33	2889.5
TC1_shp	1791.67	637698.5	6326535	1481.58	362	39.35	2597.13
TC1_shp	1791.67	637698.5	6326535	1461.58	382	38.55	2362.86
TC1_shp	1791.67	637698.5	6326535	1439.48	404.1	36.97	2158.08
TC1_shp	1791.67	637698.5	6326535	1414.93	428.65	34.71	1991.27
TC1_shp	1791.67	637698.5	6326535	1388.98	454.6	32.17	1878.37
TC1_shp	1791.67	637698.5	6326535	1360.48	483.1	29.57	1815.03
TC1_shp	1791.67	637698.5	6326535	1329.78	513.8	27.21	1796.71
TC1_shp	1791.67	637698.5	6326535	1297.13	546.45	25.37	1822.8
TC1_shp	1791.67	637698.5	6326535	1261.33	582.25	24.06	1893.43
TC1_shp	1791.67	637698.5	6326535	1222.68	620.9	23.33	2008.39
TC1_shp	1791.67	637698.5	6326535	1181.53	662.05	23.18	2159.49
TC1_shp	1791.67	637698.5	6326535	1136.43	707.15	23.54	2340.28
TC1_shp	1791.67	637698.5	6326535	1087.78	755.8	24.28	2538.44
TC1_shp	1791.67	637698.5	6326535	1035.98	807.6	25.16	2734.21
TC1_shp	1791.67	637698.5	6326535	979.18	864.4	25.61	2896.15
TC1_shp	1791.67	637698.5	6326535	917.93	925.65	25.49	3002.32
TC1_shp	1791.67	637698.5	6326535	853.08	990.5	24.86	3035.33
TC1_shp	1791.67	637698.5	6326535	781.58	1062	22.95	2950.44
TC1_shp	1808.33	637697.4	6326553	1823.02	9.73	6.4	1006.2
TC1_shp	1808.33	637697.4	6326553	1803.55	29.2	5.83	1910.92
TC1_shp	1808.33	637697.4	6326553	1784.08	48.67	7.83	3158.21
TC1_shp	1808.33	637697.4	6326553	1764.62	68.13	10.97	3757.96
TC1_shp	1808.33	637697.4	6326553	1745.15	87.6	12.22	4071.53
TC1_shp	1808.33	637697.4	6326553	1725.68	107.07	11.19	4476.03
TC1_shp	1808.33	637697.4	6326553	1706.22	126.53	9.66	4977.23
TC1_shp	1808.33	637697.4	6326553	1686.75	146	8.85	5429
TC1_shp	1808.33	637697.4	6326553	1667.28	165.47	9.21	5687.41
TC1_shp	1808.33	637697.4	6326553	1647.82	184.93	11.03	5691.84
TC1_shp	1808.33	637697.4	6326553	1628.35	204.4	14.84	5467.86
TC1_shp	1808.33	637697.4	6326553	1608.88	223.87	20.93	5083.19
TC1_shp	1808.33	637697.4	6326553	1589.42	243.33	27.42	4627.8
TC1_shp	1808.33	637697.4	6326553	1569.95	262.8	32.97	4158.04
TC1_shp	1808.33	637697.4	6326553	1550.48	282.27	37.14	3714.08
TC1_shp	1808.33	637697.4	6326553	1530.75	302	39.83	3312.61
TC1_shp	1808.33	637697.4	6326553	1510.75	322	41.18	2935.86
TC1_shp	1808.33	637697.4	6326553	1490.75	342	41.18	2643.22
TC1_shp	1808.33	637697.4	6326553	1470.75	362	40.27	2407.09

TC1_shp	1808.33	637697.4	6326553	1450.75	382	38.74	2214.34
TC1_shp	1808.33	637697.4	6326553	1428.65	404.1	36.5	2051.32
TC1_shp	1808.33	637697.4	6326553	1404.1	428.65	33.84	1939.22
TC1_shp	1808.33	637697.4	6326553	1378.15	454.6	31.17	1865.62
TC1_shp	1808.33	637697.4	6326553	1349.65	483.1	28.56	1830.36
TC1_shp	1808.33	637697.4	6326553	1318.95	513.8	26.28	1836.43
TC1_shp	1808.33	637697.4	6326553	1286.3	546.45	24.58	1883.62
TC1_shp	1808.33	637697.4	6326553	1250.5	582.25	23.44	1976.09
TC1_shp	1808.33	637697.4	6326553	1211.85	620.9	23	2112.31
TC1_shp	1808.33	637697.4	6326553	1170.7	662.05	23.11	2274.13
TC1_shp	1808.33	637697.4	6326553	1125.6	707.15	23.64	2458.19
TC1_shp	1808.33	637697.4	6326553	1076.95	755.8	24.43	2648.72
TC1_shp	1808.33	637697.4	6326553	1025.15	807.6	25.11	2821.75
TC1_shp	1808.33	637697.4	6326553	968.35	864.4	25.35	2958.04
TC1_shp	1808.33	637697.4	6326553	907.1	925.65	25.08	3036.53
TC1_shp	1808.33	637697.4	6326553	842.25	990.5	24.27	3041.61
TC1_shp	1808.33	637697.4	6326553	770.75	1062	22.12	2923.7
TC1_shp	1825	637696.3	6326571	1812.52	9.73	6.4	950.64
TC1_shp	1825	637696.3	6326571	1793.05	29.2	5.59	1642.25
TC1_shp	1825	637696.3	6326571	1773.58	48.67	7.67	3393.76
TC1_shp	1825	637696.3	6326571	1754.12	68.13	10.19	3803.99
TC1_shp	1825	637696.3	6326571	1734.65	87.6	10.79	3804.77
TC1_shp	1825	637696.3	6326571	1715.18	107.07	9.66	4038.68
TC1_shp	1825	637696.3	6326571	1695.72	126.53	8.36	4480.19
TC1_shp	1825	637696.3	6326571	1676.25	146	7.79	4939.91
TC1_shp	1825	637696.3	6326571	1656.78	165.47	8.29	5246.93
TC1_shp	1825	637696.3	6326571	1637.32	184.93	10.18	5323.88
TC1_shp	1825	637696.3	6326571	1617.85	204.4	14.1	5182.66
TC1_shp	1825	637696.3	6326571	1598.38	223.87	20.54	4879.67
TC1_shp	1825	637696.3	6326571	1578.92	243.33	27.66	4493.5
TC1_shp	1825	637696.3	6326571	1559.45	262.8	33.72	4079.12
TC1_shp	1825	637696.3	6326571	1539.98	282.27	38.27	3674.58
TC1_shp	1825	637696.3	6326571	1520.25	302	41.2	3300.14
TC1_shp	1825	637696.3	6326571	1500.25	322	42.68	2941.26
TC1_shp	1825	637696.3	6326571	1480.25	342	42.68	2658.1
TC1_shp	1825	637696.3	6326571	1460.25	362	41.69	2427.3
TC1_shp	1825	637696.3	6326571	1440.25	382	40.01	2237.47
TC1_shp	1825	637696.3	6326571	1418.15	404.1	37.59	2075.54
TC1_shp	1825	637696.3	6326571	1393.6	428.65	34.73	1964.18
TC1_shp	1825	637696.3	6326571	1367.65	454.6	31.84	1891.27
TC1_shp	1825	637696.3	6326571	1339.15	483.1	29.02	1857.19
TC1_shp	1825	637696.3	6326571	1308.45	513.8	26.55	1865
TC1_shp	1825	637696.3	6326571	1275.8	546.45	24.68	1914.18
TC1_shp	1825	637696.3	6326571	1240	582.25	23.43	2009.89
TC1_shp	1825	637696.3	6326571	1201.35	620.9	22.94	2148.73
TC1_shp	1825	637696.3	6326571	1160.2	662.05	23.04	2312.6
TC1_shp	1825	637696.3	6326571	1115.1	707.15	23.58	2497.38
TC1_shp	1825	637696.3	6326571	1066.45	755.8	24.34	2686.2
TC1_shp	1825	637696.3	6326571	1014.65	807.6	24.97	2854.94
TC1_shp	1825	637696.3	6326571	957.85	864.4	25.16	2984.7
TC1_shp	1825	637696.3	6326571	896.6	925.65	24.86	3055.46
TC1_shp	1825	637696.3	6326571	831.75	990.5	24.02	3052.86

TC1_shp	1825	637696.3	6326571	760.25	1062	21.88	2926.87
TC1_shp	1841.67	637695.1	6326589	1802.02	9.73	4.97	1655.59
TC1_shp	1841.67	637695.1	6326589	1782.55	29.2	7.67	4492.75
TC1_shp	1841.67	637695.1	6326589	1763.08	48.67	8.86	4099.5
TC1_shp	1841.67	637695.1	6326589	1743.62	68.13	8.5	3593.8
TC1_shp	1841.67	637695.1	6326589	1724.15	87.6	7.46	3657.31
TC1_shp	1841.67	637695.1	6326589	1704.68	107.07	6.61	4058.52
TC1_shp	1841.67	637695.1	6326589	1685.22	126.53	6.38	4519.43
TC1_shp	1841.67	637695.1	6326589	1665.75	146	7.01	4846.01
TC1_shp	1841.67	637695.1	6326589	1646.28	165.47	8.88	4959.33
TC1_shp	1841.67	637695.1	6326589	1626.82	184.93	12.7	4871.4
TC1_shp	1841.67	637695.1	6326589	1607.35	204.4	19.26	4632.12
TC1_shp	1841.67	637695.1	6326589	1587.88	223.87	27.01	4308.95
TC1_shp	1841.67	637695.1	6326589	1568.42	243.33	33.68	3950.03
TC1_shp	1841.67	637695.1	6326589	1548.95	262.8	38.71	3590.4
TC1_shp	1841.67	637695.1	6326589	1529.48	282.27	41.94	3253.8
TC1_shp	1841.67	637695.1	6326589	1509.75	302	43.61	2925.13
TC1_shp	1841.67	637695.1	6326589	1489.75	322	43.72	2655.89
TC1_shp	1841.67	637695.1	6326589	1469.75	342	42.72	2434.27
TC1_shp	1841.67	637695.1	6326589	1449.75	362	40.98	2250.18
TC1_shp	1841.67	637695.1	6326589	1429.75	382	38.67	2108.13
TC1_shp	1841.67	637695.1	6326589	1407.65	404.1	35.99	2003.28
TC1_shp	1841.67	637695.1	6326589	1383.1	428.65	33.07	1925.21
TC1_shp	1841.67	637695.1	6326589	1357.15	454.6	30.2	1881.86
TC1_shp	1841.67	637695.1	6326589	1328.65	483.1	27.53	1878.22
TC1_shp	1841.67	637695.1	6326589	1297.95	513.8	25.54	1920.21
TC1_shp	1841.67	637695.1	6326589	1265.3	546.45	24.08	1998.42
TC1_shp	1841.67	637695.1	6326589	1229.5	582.25	23.2	2114.83
TC1_shp	1841.67	637695.1	6326589	1190.85	620.9	22.93	2263.18
TC1_shp	1841.67	637695.1	6326589	1149.7	662.05	23.21	2432.4
TC1_shp	1841.67	637695.1	6326589	1104.6	707.15	23.9	2618
TC1_shp	1841.67	637695.1	6326589	1055.95	755.8	24.62	2795.45
TC1_shp	1841.67	637695.1	6326589	1004.15	807.6	24.98	2938.44
TC1_shp	1841.67	637695.1	6326589	947.35	864.4	24.94	3037.26
TC1_shp	1841.67	637695.1	6326589	886.1	925.65	24.45	3075.17
TC1_shp	1841.67	637695.1	6326589	821.25	990.5	23.21	3027.63
TC1_shp	1841.67	637695.1	6326589	749.75	1062	21.07	2893.42
TC1_shp	1858.33	637693.9	6326607	1791.52	9.73	6.02	7226.58
TC1_shp	1858.33	637693.9	6326607	1772.05	29.2	6.95	9074.85
TC1_shp	1858.33	637693.9	6326607	1752.58	48.67	6.64	4968.24
TC1_shp	1858.33	637693.9	6326607	1733.12	68.13	5.92	3454.04
TC1_shp	1858.33	637693.9	6326607	1713.65	87.6	5.35	3349.91
TC1_shp	1858.33	637693.9	6326607	1694.18	107.07	4.98	3740.28
TC1_shp	1858.33	637693.9	6326607	1674.72	126.53	5.01	4198.65
TC1_shp	1858.33	637693.9	6326607	1655.25	146	5.67	4515.04
TC1_shp	1858.33	637693.9	6326607	1635.78	165.47	7.37	4628.21
TC1_shp	1858.33	637693.9	6326607	1616.32	184.93	10.87	4561.57
TC1_shp	1858.33	637693.9	6326607	1596.85	204.4	17.2	4364.81
TC1_shp	1858.33	637693.9	6326607	1577.38	223.87	25.47	4092.73
TC1_shp	1858.33	637693.9	6326607	1557.92	243.33	32.78	3785.26
TC1_shp	1858.33	637693.9	6326607	1538.45	262.8	38.36	3471
TC1_shp	1858.33	637693.9	6326607	1518.98	282.27	41.97	3171.08

TC1_shp	1858.33	637693.9	6326607	1499.25	302	43.9	2872.38
TC1_shp	1858.33	637693.9	6326607	1479.25	322	44.12	2624.3
TC1_shp	1858.33	637693.9	6326607	1459.25	342	43.16	2417.51
TC1_shp	1858.33	637693.9	6326607	1439.25	362	41.39	2244.14
TC1_shp	1858.33	637693.9	6326607	1419.25	382	39.04	2110.05
TC1_shp	1858.33	637693.9	6326607	1397.15	404.1	36.3	2010.86
TC1_shp	1858.33	637693.9	6326607	1372.6	428.65	33.32	1938.04
TC1_shp	1858.33	637693.9	6326607	1346.65	454.6	30.39	1899.64
TC1_shp	1858.33	637693.9	6326607	1318.15	483.1	27.67	1900.42
TC1_shp	1858.33	637693.9	6326607	1287.45	513.8	25.63	1947.43
TC1_shp	1858.33	637693.9	6326607	1254.8	546.45	24.16	2030.45
TC1_shp	1858.33	637693.9	6326607	1219	582.25	23.28	2151.45
TC1_shp	1858.33	637693.9	6326607	1180.35	620.9	23.03	2303.47
TC1_shp	1858.33	637693.9	6326607	1139.2	662.05	23.31	2474.32
TC1_shp	1858.33	637693.9	6326607	1094.1	707.15	24.01	2659.87
TC1_shp	1858.33	637693.9	6326607	1045.45	755.8	24.63	2834.28
TC1_shp	1858.33	637693.9	6326607	993.65	807.6	24.92	2971.46
TC1_shp	1858.33	637693.9	6326607	936.85	864.4	24.82	3062.55
TC1_shp	1858.33	637693.9	6326607	875.6	925.65	24.27	3092.19
TC1_shp	1858.33	637693.9	6326607	810.75	990.5	22.99	3036.67
TC1_shp	1858.33	637693.9	6326607	739.25	1062	20.83	2894.18
TC1_shp	1875	637692.8	6326624	1781.02	9.73	4.67	13325.13
TC1_shp	1875	637692.8	6326624	1761.55	29.2	4.25	5289.55
TC1_shp	1875	637692.8	6326624	1742.08	48.67	4	3156.99
TC1_shp	1875	637692.8	6326624	1722.62	68.13	3.94	3096.75
TC1_shp	1875	637692.8	6326624	1703.15	87.6	3.86	3541.25
TC1_shp	1875	637692.8	6326624	1683.68	107.07	3.93	3992.26
TC1_shp	1875	637692.8	6326624	1664.22	126.53	4.48	4267.3
TC1_shp	1875	637692.8	6326624	1644.75	146	5.91	4345.58
TC1_shp	1875	637692.8	6326624	1625.28	165.47	8.89	4272.08
TC1_shp	1875	637692.8	6326624	1605.82	184.93	14.59	4096.61
TC1_shp	1875	637692.8	6326624	1586.35	204.4	23.01	3863.42
TC1_shp	1875	637692.8	6326624	1566.88	223.87	30.97	3600.29
TC1_shp	1875	637692.8	6326624	1547.42	243.33	37.14	3329.25
TC1_shp	1875	637692.8	6326624	1527.95	262.8	41.19	3065.89
TC1_shp	1875	637692.8	6326624	1508.48	282.27	43.41	2802.52
TC1_shp	1875	637692.8	6326624	1488.75	302	43.82	2579.85
TC1_shp	1875	637692.8	6326624	1468.75	322	42.97	2389.4
TC1_shp	1875	637692.8	6326624	1448.75	342	41.27	2228.16
TC1_shp	1875	637692.8	6326624	1428.75	362	38.94	2104.24
TC1_shp	1875	637692.8	6326624	1408.75	382	36.49	2019.39
TC1_shp	1875	637692.8	6326624	1386.65	404.1	33.8	1952.4
TC1_shp	1875	637692.8	6326624	1362.1	428.65	30.95	1913.07
TC1_shp	1875	637692.8	6326624	1336.15	454.6	28.48	1917.58
TC1_shp	1875	637692.8	6326624	1307.65	483.1	26.34	1952.83
TC1_shp	1875	637692.8	6326624	1276.95	513.8	24.67	2021.51
TC1_shp	1875	637692.8	6326624	1244.3	546.45	23.57	2123.28
TC1_shp	1875	637692.8	6326624	1208.5	582.25	23.19	2266.09
TC1_shp	1875	637692.8	6326624	1169.85	620.9	23.3	2427.25
TC1_shp	1875	637692.8	6326624	1128.7	662.05	23.77	2598.12
TC1_shp	1875	637692.8	6326624	1083.6	707.15	24.38	2772.85
TC1_shp	1875	637692.8	6326624	1034.95	755.8	24.83	2932.03

TC1_shp	1875	637692.8	6326624	983.15	807.6	24.94	3049.5
TC1_shp	1875	637692.8	6326624	926.35	864.4	24.6	3107.62
TC1_shp	1875	637692.8	6326624	865.1	925.65	23.83	3104.76
TC1_shp	1875	637692.8	6326624	800.25	990.5	22.18	3004.6
TC1_shp	1875	637692.8	6326624	728.75	1062	20	2853.7
TC1_shp	1891.67	637691.6	6326642	1770.52	9.73	3.76	10088.26
TC1_shp	1891.67	637691.6	6326642	1751.05	29.2	3.4	3712.74
TC1_shp	1891.67	637691.6	6326642	1731.58	48.67	3.49	2634.47
TC1_shp	1891.67	637691.6	6326642	1712.12	68.13	3.56	2945.66
TC1_shp	1891.67	637691.6	6326642	1692.65	87.6	3.33	3491.44
TC1_shp	1891.67	637691.6	6326642	1673.18	107.07	3.2	3907.64
TC1_shp	1891.67	637691.6	6326642	1653.72	126.53	3.52	4103.04
TC1_shp	1891.67	637691.6	6326642	1634.25	146	4.61	4116.84
TC1_shp	1891.67	637691.6	6326642	1614.78	165.47	7.03	4015.21
TC1_shp	1891.67	637691.6	6326642	1595.32	184.93	11.87	3844.36
TC1_shp	1891.67	637691.6	6326642	1575.85	204.4	19.8	3637.49
TC1_shp	1891.67	637691.6	6326642	1556.38	223.87	28.36	3410.13
TC1_shp	1891.67	637691.6	6326642	1536.92	243.33	35.07	3176.28
TC1_shp	1891.67	637691.6	6326642	1517.45	262.8	39.58	2946.78
TC1_shp	1891.67	637691.6	6326642	1497.98	282.27	42.14	2714.2
TC1_shp	1891.67	637691.6	6326642	1478.25	302	42.75	2515.01
TC1_shp	1891.67	637691.6	6326642	1458.25	322	42.04	2343.37
TC1_shp	1891.67	637691.6	6326642	1438.25	342	40.45	2197.52
TC1_shp	1891.67	637691.6	6326642	1418.25	362	38.21	2085.07
TC1_shp	1891.67	637691.6	6326642	1398.25	382	35.85	2009.41
TC1_shp	1891.67	637691.6	6326642	1376.15	404.1	33.27	1951.19
TC1_shp	1891.67	637691.6	6326642	1351.6	428.65	30.54	1919.96
TC1_shp	1891.67	637691.6	6326642	1325.65	454.6	28.19	1932.15
TC1_shp	1891.67	637691.6	6326642	1297.15	483.1	26.17	1974.87
TC1_shp	1891.67	637691.6	6326642	1266.45	513.8	24.63	2050.53
TC1_shp	1891.67	637691.6	6326642	1233.8	546.45	23.63	2158.59
TC1_shp	1891.67	637691.6	6326642	1198	582.25	23.33	2306.97
TC1_shp	1891.67	637691.6	6326642	1159.35	620.9	23.49	2471.63
TC1_shp	1891.67	637691.6	6326642	1118.2	662.05	23.96	2643.55
TC1_shp	1891.67	637691.6	6326642	1073.1	707.15	24.52	2816.53
TC1_shp	1891.67	637691.6	6326642	1024.45	755.8	24.89	2971.06
TC1_shp	1891.67	637691.6	6326642	972.65	807.6	24.92	3081.37
TC1_shp	1891.67	637691.6	6326642	915.85	864.4	24.49	3130.67
TC1_shp	1891.67	637691.6	6326642	854.6	925.65	23.65	3119.25
TC1_shp	1891.67	637691.6	6326642	789.75	990.5	21.96	3011.06
TC1_shp	1891.67	637691.6	6326642	718.25	1062	19.75	2851.7
TC1_shp	1908.33	637690.9	6326659	1761.94	9.73	6.4	1828.22
TC1_shp	1908.33	637690.9	6326659	1742.47	29.2	5.4	2452.36
TC1_shp	1908.33	637690.9	6326659	1723	48.67	4.38	3125.64
TC1_shp	1908.33	637690.9	6326659	1703.54	68.13	3.26	3660.59
TC1_shp	1908.33	637690.9	6326659	1684.07	87.6	2.68	3951.09
TC1_shp	1908.33	637690.9	6326659	1664.6	107.07	2.74	4017.31
TC1_shp	1908.33	637690.9	6326659	1645.14	126.53	3.53	3943.4
TC1_shp	1908.33	637690.9	6326659	1625.67	146	5.44	3799.48
TC1_shp	1908.33	637690.9	6326659	1606.2	165.47	9.42	3621.81
TC1_shp	1908.33	637690.9	6326659	1586.74	184.93	16.39	3430.13
TC1_shp	1908.33	637690.9	6326659	1567.27	204.4	25.19	3229.54

TC1_shp	1908.33	637690.9	6326659	1547.8	223.87	32.3	3024.36
TC1_shp	1908.33	637690.9	6326659	1528.34	243.33	37.2	2824.12
TC1_shp	1908.33	637690.9	6326659	1508.87	262.8	40.07	2618.59
TC1_shp	1908.33	637690.9	6326659	1489.4	282.27	40.9	2443.68
TC1_shp	1908.33	637690.9	6326659	1469.67	302	40.4	2292.02
TC1_shp	1908.33	637690.9	6326659	1449.67	322	39	2160.76
TC1_shp	1908.33	637690.9	6326659	1429.67	342	36.94	2060.76
TC1_shp	1908.33	637690.9	6326659	1409.67	362	34.76	1994.27
TC1_shp	1908.33	637690.9	6326659	1389.67	382	32.58	1946.95
TC1_shp	1908.33	637690.9	6326659	1367.57	404.1	30.33	1927.34
TC1_shp	1908.33	637690.9	6326659	1343.02	428.65	28.2	1938.21
TC1_shp	1908.33	637690.9	6326659	1317.07	454.6	26.33	1973.81
TC1_shp	1908.33	637690.9	6326659	1288.57	483.1	24.83	2041.08
TC1_shp	1908.33	637690.9	6326659	1257.87	513.8	23.98	2147
TC1_shp	1908.33	637690.9	6326659	1225.22	546.45	23.55	2278.34
TC1_shp	1908.33	637690.9	6326659	1189.42	582.25	23.53	2433.67
TC1_shp	1908.33	637690.9	6326659	1150.77	620.9	23.91	2602.43
TC1_shp	1908.33	637690.9	6326659	1109.62	662.05	24.46	2770.23
TC1_shp	1908.33	637690.9	6326659	1064.52	707.15	24.84	2926.01
TC1_shp	1908.33	637690.9	6326659	1015.87	755.8	24.96	3049.8
TC1_shp	1908.33	637690.9	6326659	964.07	807.6	24.75	3128.51
TC1_shp	1908.33	637690.9	6326659	907.27	864.4	24.16	3154.81
TC1_shp	1908.33	637690.9	6326659	846.02	925.65	23.17	3123.65
TC1_shp	1908.33	637690.9	6326659	781.17	990.5	21.12	2971.54
TC1_shp	1908.33	637690.9	6326659	709.67	1062	18.86	2803.67
TC1_shp	1925	637690.8	6326674	1755.27	9.73	7.31	2214.91
TC1_shp	1925	637690.8	6326674	1735.8	29.2	9.11	3784.85
TC1_shp	1925	637690.8	6326674	1716.33	48.67	5.97	3986.32
TC1_shp	1925	637690.8	6326674	1696.87	68.13	3.25	4099.91
TC1_shp	1925	637690.8	6326674	1677.4	87.6	2.19	4110.51
TC1_shp	1925	637690.8	6326674	1657.93	107.07	2.08	4001.14
TC1_shp	1925	637690.8	6326674	1638.47	126.53	2.67	3826.96
TC1_shp	1925	637690.8	6326674	1619	146	4.21	3635.32
TC1_shp	1925	637690.8	6326674	1599.53	165.47	7.47	3442.47
TC1_shp	1925	637690.8	6326674	1580.07	184.93	13.36	3256.95
TC1_shp	1925	637690.8	6326674	1560.6	204.4	21.67	3071.57
TC1_shp	1925	637690.8	6326674	1541.13	223.87	29.05	2887.22
TC1_shp	1925	637690.8	6326674	1521.67	243.33	34.17	2707.77
TC1_shp	1925	637690.8	6326674	1502.2	262.8	37.28	2523.92
TC1_shp	1925	637690.8	6326674	1482.73	282.27	38.3	2367.32
TC1_shp	1925	637690.8	6326674	1463	302	38	2231.85
TC1_shp	1925	637690.8	6326674	1443	322	36.82	2115.24
TC1_shp	1925	637690.8	6326674	1423	342	35	2027.58
TC1_shp	1925	637690.8	6326674	1403	362	33.08	1971.76
TC1_shp	1925	637690.8	6326674	1383	382	31.17	1934.25
TC1_shp	1925	637690.8	6326674	1360.9	404.1	29.2	1924.15
TC1_shp	1925	637690.8	6326674	1336.35	428.65	27.35	1944.56
TC1_shp	1925	637690.8	6326674	1310.4	454.6	25.76	1989.36
TC1_shp	1925	637690.8	6326674	1281.9	483.1	24.52	2065.58
TC1_shp	1925	637690.8	6326674	1251.2	513.8	23.85	2180.16
TC1_shp	1925	637690.8	6326674	1218.55	546.45	23.6	2318.84
TC1_shp	1925	637690.8	6326674	1182.75	582.25	23.71	2479.89

TC1_shp	1925	637690.8	6326674	1144.1	620.9	24.16	2651.91
TC1_shp	1925	637690.8	6326674	1102.95	662.05	24.67	2819.1
TC1_shp	1925	637690.8	6326674	1057.85	707.15	24.99	2970.81
TC1_shp	1925	637690.8	6326674	1009.2	755.8	25.03	3087.83
TC1_shp	1925	637690.8	6326674	957.4	807.6	24.74	3157.97
TC1_shp	1925	637690.8	6326674	900.6	864.4	24.05	3174.75
TC1_shp	1925	637690.8	6326674	839.35	925.65	22.98	3134.85
TC1_shp	1925	637690.8	6326674	774.5	990.5	20.89	2975.05
TC1_shp	1925	637690.8	6326674	703	1062	18.59	2798.71
TC1_shp	1941.67	637690.6	6326690	1748.6	9.73	14.74	7856.82
TC1_shp	1941.67	637690.6	6326690	1729.13	29.2	7.14	5200.56
TC1_shp	1941.67	637690.6	6326690	1709.66	48.67	2.84	4587.49
TC1_shp	1941.67	637690.6	6326690	1690.2	68.13	1.65	4302.2
TC1_shp	1941.67	637690.6	6326690	1670.73	87.6	1.54	4035.3
TC1_shp	1941.67	637690.6	6326690	1651.26	107.07	2.06	3774.21
TC1_shp	1941.67	637690.6	6326690	1631.8	126.53	3.37	3536.77
TC1_shp	1941.67	637690.6	6326690	1612.33	146	6.1	3323.47
TC1_shp	1941.67	637690.6	6326690	1592.86	165.47	11.04	3132.99
TC1_shp	1941.67	637690.6	6326690	1573.4	184.93	18.25	2951.46
TC1_shp	1941.67	637690.6	6326690	1553.93	204.4	25.54	2776.54
TC1_shp	1941.67	637690.6	6326690	1534.46	223.87	30.65	2608.26
TC1_shp	1941.67	637690.6	6326690	1515	243.33	33.84	2437.87
TC1_shp	1941.67	637690.6	6326690	1495.53	262.8	35.01	2294.21
TC1_shp	1941.67	637690.6	6326690	1476.06	282.27	34.93	2172.66
TC1_shp	1941.67	637690.6	6326690	1456.33	302	34.04	2068.73
TC1_shp	1941.67	637690.6	6326690	1436.33	322	32.54	1992.52
TC1_shp	1941.67	637690.6	6326690	1416.33	342	30.96	1946.05
TC1_shp	1941.67	637690.6	6326690	1396.33	362	29.38	1917.5
TC1_shp	1941.67	637690.6	6326690	1376.33	382	27.93	1917.59
TC1_shp	1941.67	637690.6	6326690	1354.23	404.1	26.55	1940.03
TC1_shp	1941.67	637690.6	6326690	1329.68	428.65	25.22	1984.02
TC1_shp	1941.67	637690.6	6326690	1303.73	454.6	24.38	2062.77
TC1_shp	1941.67	637690.6	6326690	1275.23	483.1	23.81	2168.3
TC1_shp	1941.67	637690.6	6326690	1244.53	513.8	23.54	2298.57
TC1_shp	1941.67	637690.6	6326690	1211.88	546.45	23.69	2452
TC1_shp	1941.67	637690.6	6326690	1176.08	582.25	24.14	2616.17
TC1_shp	1941.67	637690.6	6326690	1137.43	620.9	24.63	2782.02
TC1_shp	1941.67	637690.6	6326690	1096.28	662.05	25.03	2938.78
TC1_shp	1941.67	637690.6	6326690	1051.18	707.15	25.22	3076.95
TC1_shp	1941.67	637690.6	6326690	1002.53	755.8	25.01	3158.67
TC1_shp	1941.67	637690.6	6326690	950.73	807.6	24.47	3193.78
TC1_shp	1941.67	637690.6	6326690	893.93	864.4	23.58	3178.85
TC1_shp	1941.67	637690.6	6326690	832.68	925.65	22.16	3095.41
TC1_shp	1941.67	637690.6	6326690	767.83	990.5	20.01	2927.83
TC1_shp	1941.67	637690.6	6326690	696.33	1062	17.71	2754.43
TC1_shp	1958.33	637690.4	6326705	1741.94	9.73	20.71	4042.28
TC1_shp	1958.33	637690.4	6326705	1722.47	29.2	5.94	4566.08
TC1_shp	1958.33	637690.4	6326705	1703	48.67	1.99	4608.4
TC1_shp	1958.33	637690.4	6326705	1683.54	68.13	1.17	4403.62
TC1_shp	1958.33	637690.4	6326705	1664.07	87.6	1.18	4106.94
TC1_shp	1958.33	637690.4	6326705	1644.6	107.07	1.71	3801.39
TC1_shp	1958.33	637690.4	6326705	1625.14	126.53	2.92	3525.26

TC1_shp	1958.33	637690.4	6326705	1605.67	146	5.34	3284.06
TC1_shp	1958.33	637690.4	6326705	1586.2	165.47	9.53	3074.32
TC1_shp	1958.33	637690.4	6326705	1566.74	184.93	15.53	2882.48
TC1_shp	1958.33	637690.4	6326705	1547.27	204.4	21.97	2702.4
TC1_shp	1958.33	637690.4	6326705	1527.8	223.87	26.82	2534.03
TC1_shp	1958.33	637690.4	6326705	1508.34	243.33	29.88	2366.98
TC1_shp	1958.33	637690.4	6326705	1488.87	262.8	31.12	2229.27
TC1_shp	1958.33	637690.4	6326705	1469.4	282.27	31.23	2115.19
TC1_shp	1958.33	637690.4	6326705	1449.67	302	30.64	2019.87
TC1_shp	1958.33	637690.4	6326705	1429.67	322	29.53	1953.34
TC1_shp	1958.33	637690.4	6326705	1409.67	342	28.35	1916.58
TC1_shp	1958.33	637690.4	6326705	1389.67	362	27.17	1897.71
TC1_shp	1958.33	637690.4	6326705	1369.67	382	26.12	1907.36
TC1_shp	1958.33	637690.4	6326705	1347.57	404.1	25.14	1940.01
TC1_shp	1958.33	637690.4	6326705	1323.02	428.65	24.22	1994.96
TC1_shp	1958.33	637690.4	6326705	1297.07	454.6	23.71	2083.8
TC1_shp	1958.33	637690.4	6326705	1268.57	483.1	23.44	2199.1
TC1_shp	1958.33	637690.4	6326705	1237.87	513.8	23.43	2338.34
TC1_shp	1958.33	637690.4	6326705	1205.22	546.45	23.78	2499.04
TC1_shp	1958.33	637690.4	6326705	1169.42	582.25	24.32	2667.56
TC1_shp	1958.33	637690.4	6326705	1130.77	620.9	24.85	2834.89
TC1_shp	1958.33	637690.4	6326705	1089.62	662.05	25.23	2989.68
TC1_shp	1958.33	637690.4	6326705	1044.52	707.15	25.36	3121.8
TC1_shp	1958.33	637690.4	6326705	995.87	755.8	25.05	3194.62
TC1_shp	1958.33	637690.4	6326705	944.07	807.6	24.42	3219.89
TC1_shp	1958.33	637690.4	6326705	887.27	864.4	23.44	3195.24
TC1_shp	1958.33	637690.4	6326705	826.02	925.65	21.95	3103.2
TC1_shp	1958.33	637690.4	6326705	761.17	990.5	19.74	2928.11
TC1_shp	1958.33	637690.4	6326705	689.67	1062	17.4	2748.43
TC1_shp	1975	637690.3	6326720	1735.27	9.73	13.43	3908.86
TC1_shp	1975	637690.3	6326720	1715.8	29.2	3.26	3983.34
TC1_shp	1975	637690.3	6326720	1696.33	48.67	1.25	4391.27
TC1_shp	1975	637690.3	6326720	1676.87	68.13	0.88	4449.96
TC1_shp	1975	637690.3	6326720	1657.4	87.6	1.04	4248.4
TC1_shp	1975	637690.3	6326720	1637.93	107.07	1.65	3942.19
TC1_shp	1975	637690.3	6326720	1618.47	126.53	2.89	3630.63
TC1_shp	1975	637690.3	6326720	1599	146	5.18	3346.49
TC1_shp	1975	637690.3	6326720	1579.53	165.47	8.81	3099.2
TC1_shp	1975	637690.3	6326720	1560.07	184.93	13.63	2877.25
TC1_shp	1975	637690.3	6326720	1540.6	204.4	18.69	2675.07
TC1_shp	1975	637690.3	6326720	1521.13	223.87	22.82	2491.93
TC1_shp	1975	637690.3	6326720	1501.67	243.33	25.58	2316.61
TC1_shp	1975	637690.3	6326720	1482.2	262.8	26.78	2176.46
TC1_shp	1975	637690.3	6326720	1462.73	282.27	27.06	2064.08
TC1_shp	1975	637690.3	6326720	1443	302	26.78	1973.54
TC1_shp	1975	637690.3	6326720	1423	322	26.11	1914.27
TC1_shp	1975	637690.3	6326720	1403	342	25.4	1886.12
TC1_shp	1975	637690.3	6326720	1383	362	24.7	1876.4
TC1_shp	1975	637690.3	6326720	1363	382	24.1	1895.46
TC1_shp	1975	637690.3	6326720	1340.9	404.1	23.57	1938.69
TC1_shp	1975	637690.3	6326720	1316.35	428.65	23.1	2005.34
TC1_shp	1975	637690.3	6326720	1290.4	454.6	22.96	2104.75

TC1_shp	1975	637690.3	6326720	1261.9	483.1	23.01	2230.65
TC1_shp	1975	637690.3	6326720	1231.2	513.8	23.28	2379.83
TC1_shp	1975	637690.3	6326720	1198.55	546.45	23.84	2548.2
TC1_shp	1975	637690.3	6326720	1162.75	582.25	24.48	2720.98
TC1_shp	1975	637690.3	6326720	1124.1	620.9	25.04	2889.62
TC1_shp	1975	637690.3	6326720	1082.95	662.05	25.41	3042.22
TC1_shp	1975	637690.3	6326720	1037.85	707.15	25.48	3167.71
TC1_shp	1975	637690.3	6326720	989.2	755.8	25.09	3230.66
TC1_shp	1975	637690.3	6326720	937.4	807.6	24.36	3245.64
TC1_shp	1975	637690.3	6326720	880.6	864.4	23.3	3211.14
TC1_shp	1975	637690.3	6326720	819.35	925.65	21.74	3110.46
TC1_shp	1975	637690.3	6326720	754.5	990.5	19.47	2927.9
TC1_shp	1975	637690.3	6326720	683	1062	17.08	2742.02
TC1_shp	1991.67	637690.1	6326736	1728.6	9.73	1.48	3312.84
TC1_shp	1991.67	637690.1	6326736	1709.13	29.2	0.99	4260.79
TC1_shp	1991.67	637690.1	6326736	1689.66	48.67	0.92	4617.68
TC1_shp	1991.67	637690.1	6326736	1670.2	68.13	1.24	4548.97
TC1_shp	1991.67	637690.1	6326736	1650.73	87.6	2.01	4251.92
TC1_shp	1991.67	637690.1	6326736	1631.26	107.07	3.41	3889.36
TC1_shp	1991.67	637690.1	6326736	1611.8	126.53	5.67	3537.35
TC1_shp	1991.67	637690.1	6326736	1592.33	146	8.78	3225.42
TC1_shp	1991.67	637690.1	6326736	1572.86	165.47	12.42	2948.7
TC1_shp	1991.67	637690.1	6326736	1553.4	184.93	15.95	2703.22
TC1_shp	1991.67	637690.1	6326736	1533.93	204.4	18.82	2488.8
TC1_shp	1991.67	637690.1	6326736	1514.46	223.87	20.98	2291.19
TC1_shp	1991.67	637690.1	6326736	1495	243.33	22.09	2139.48
TC1_shp	1991.67	637690.1	6326736	1475.53	262.8	22.56	2022.33
TC1_shp	1991.67	637690.1	6326736	1456.06	282.27	22.65	1932.51
TC1_shp	1991.67	637690.1	6326736	1436.33	302	22.5	1878.79
TC1_shp	1991.67	637690.1	6326736	1416.33	322	22.31	1856.32
TC1_shp	1991.67	637690.1	6326736	1396.33	342	22.13	1853.63
TC1_shp	1991.67	637690.1	6326736	1376.33	362	21.99	1882.19
TC1_shp	1991.67	637690.1	6326736	1356.33	382	21.93	1928.7
TC1_shp	1991.67	637690.1	6326736	1334.23	404.1	21.92	1997.19
TC1_shp	1991.67	637690.1	6326736	1309.68	428.65	22.11	2098.54
TC1_shp	1991.67	637690.1	6326736	1283.73	454.6	22.4	2217.08
TC1_shp	1991.67	637690.1	6326736	1255.23	483.1	22.87	2363.6
TC1_shp	1991.67	637690.1	6326736	1224.53	513.8	23.56	2528.53
TC1_shp	1991.67	637690.1	6326736	1191.88	546.45	24.27	2697.23
TC1_shp	1991.67	637690.1	6326736	1156.08	582.25	24.98	2870.09
TC1_shp	1991.67	637690.1	6326736	1117.43	620.9	25.42	3023.53
TC1_shp	1991.67	637690.1	6326736	1076.28	662.05	25.57	3146.89
TC1_shp	1991.67	637690.1	6326736	1031.18	707.15	25.4	3236.63
TC1_shp	1991.67	637690.1	6326736	982.53	755.8	24.86	3279.96
TC1_shp	1991.67	637690.1	6326736	930.73	807.6	23.94	3265.65
TC1_shp	1991.67	637690.1	6326736	873.93	864.4	22.7	3201.87
TC1_shp	1991.67	637690.1	6326736	812.68	925.65	20.8	3060
TC1_shp	1991.67	637690.1	6326736	747.83	990.5	18.47	2870.13
TC1_shp	1991.67	637690.1	6326736	676.33	1062	16.22	2697.28
TC1_shp	2008.33	637689.8	6326752	1722.85	9.73	4.71	8216.79
TC1_shp	2008.33	637689.8	6326752	1703.38	29.2	2	5450.48
TC1_shp	2008.33	637689.8	6326752	1683.91	48.67	1.59	5205.87

TC1_shp	2008.33	637689.8	6326752	1664.45	68.13	2.05	5109.29
TC1_shp	2008.33	637689.8	6326752	1644.98	87.6	3.14	4782.13
TC1_shp	2008.33	637689.8	6326752	1625.51	107.07	4.81	4338.09
TC1_shp	2008.33	637689.8	6326752	1606.05	126.53	6.99	3882.8
TC1_shp	2008.33	637689.8	6326752	1586.58	146	9.35	3471.9
TC1_shp	2008.33	637689.8	6326752	1567.11	165.47	11.66	3108.59
TC1_shp	2008.33	637689.8	6326752	1547.65	184.93	13.68	2794.5
TC1_shp	2008.33	637689.8	6326752	1528.18	204.4	15.35	2528.96
TC1_shp	2008.33	637689.8	6326752	1508.71	223.87	16.72	2293.83
TC1_shp	2008.33	637689.8	6326752	1489.25	243.33	17.63	2120.26
TC1_shp	2008.33	637689.8	6326752	1469.78	262.8	18.23	1991.49
TC1_shp	2008.33	637689.8	6326752	1450.31	282.27	18.64	1897
TC1_shp	2008.33	637689.8	6326752	1430.58	302	18.99	1845.22
TC1_shp	2008.33	637689.8	6326752	1410.58	322	19.31	1827.94
TC1_shp	2008.33	637689.8	6326752	1390.58	342	19.62	1832.21
TC1_shp	2008.33	637689.8	6326752	1370.58	362	19.93	1869.83
TC1_shp	2008.33	637689.8	6326752	1350.58	382	20.27	1925.98
TC1_shp	2008.33	637689.8	6326752	1328.48	404.1	20.68	2005.65
TC1_shp	2008.33	637689.8	6326752	1303.93	428.65	21.21	2118.71
TC1_shp	2008.33	637689.8	6326752	1277.98	454.6	21.83	2248.72
TC1_shp	2008.33	637689.8	6326752	1249.48	483.1	22.59	2406.09
TC1_shp	2008.33	637689.8	6326752	1218.78	513.8	23.48	2579.67
TC1_shp	2008.33	637689.8	6326752	1186.13	546.45	24.34	2754.5
TC1_shp	2008.33	637689.8	6326752	1150.33	582.25	25.1	2930.22
TC1_shp	2008.33	637689.8	6326752	1111.68	620.9	25.54	3081.48
TC1_shp	2008.33	637689.8	6326752	1070.53	662.05	25.65	3198.74
TC1_shp	2008.33	637689.8	6326752	1025.43	707.15	25.43	3279.3
TC1_shp	2008.33	637689.8	6326752	976.78	755.8	24.82	3311.44
TC1_shp	2008.33	637689.8	6326752	924.98	807.6	23.81	3286.22
TC1_shp	2008.33	637689.8	6326752	868.18	864.4	22.49	3213.15
TC1_shp	2008.33	637689.8	6326752	806.93	925.65	20.53	3063.53
TC1_shp	2008.33	637689.8	6326752	742.08	990.5	18.14	2866.57
TC1_shp	2008.33	637689.8	6326752	670.58	1062	15.89	2690.02
TC1_shp	2025	637689.5	6326770	1718.02	9.73	4.6	6793.66
TC1_shp	2025	637689.5	6326770	1698.55	29.2	2.68	5341.28
TC1_shp	2025	637689.5	6326770	1679.08	48.67	2.72	5636.66
TC1_shp	2025	637689.5	6326770	1659.62	68.13	3.96	5795.29
TC1_shp	2025	637689.5	6326770	1640.15	87.6	5.89	5512.16
TC1_shp	2025	637689.5	6326770	1620.68	107.07	7.85	4989.42
TC1_shp	2025	637689.5	6326770	1601.22	126.53	9.3	4403.27
TC1_shp	2025	637689.5	6326770	1581.75	146	10.26	3855.22
TC1_shp	2025	637689.5	6326770	1562.28	165.47	10.99	3368.09
TC1_shp	2025	637689.5	6326770	1542.82	184.93	11.67	2954.71
TC1_shp	2025	637689.5	6326770	1523.35	204.4	12.38	2615.04
TC1_shp	2025	637689.5	6326770	1503.88	223.87	13.2	2325.82
TC1_shp	2025	637689.5	6326770	1484.42	243.33	13.93	2119.94
TC1_shp	2025	637689.5	6326770	1464.95	262.8	14.62	1972.64
TC1_shp	2025	637689.5	6326770	1445.48	282.27	15.29	1868.75
TC1_shp	2025	637689.5	6326770	1425.75	302	16.01	1816.2
TC1_shp	2025	637689.5	6326770	1405.75	322	16.72	1802.42
TC1_shp	2025	637689.5	6326770	1385.75	342	17.41	1812.6
TC1_shp	2025	637689.5	6326770	1365.75	362	18.07	1859.05

TC1_shp	2025	637689.5	6326770	1345.75	382	18.75	1924.78
TC1_shp	2025	637689.5	6326770	1323.65	404.1	19.5	2015.74
TC1_shp	2025	637689.5	6326770	1299.1	428.65	20.35	2140.78
TC1_shp	2025	637689.5	6326770	1273.15	454.6	21.26	2282.51
TC1_shp	2025	637689.5	6326770	1244.65	483.1	22.29	2451.03
TC1_shp	2025	637689.5	6326770	1213.95	513.8	23.38	2633.63
TC1_shp	2025	637689.5	6326770	1181.3	546.45	24.36	2814.72
TC1_shp	2025	637689.5	6326770	1145.5	582.25	25.18	2993.07
TC1_shp	2025	637689.5	6326770	1106.85	620.9	25.63	3140.97
TC1_shp	2025	637689.5	6326770	1065.7	662.05	25.71	3251.38
TC1_shp	2025	637689.5	6326770	1020.6	707.15	25.43	3322.25
TC1_shp	2025	637689.5	6326770	971.95	755.8	24.74	3342.73
TC1_shp	2025	637689.5	6326770	920.15	807.6	23.64	3305.9
TC1_shp	2025	637689.5	6326770	863.35	864.4	22.25	3223.36
TC1_shp	2025	637689.5	6326770	802.1	925.65	20.23	3066.12
TC1_shp	2025	637689.5	6326770	737.25	990.5	17.8	2862.34
TC1_shp	2025	637689.5	6326770	665.75	1062	15.54	2682.3
TC1_shp	2041.67	637689.2	6326789	1713.19	9.73	1.62	2949.58
TC1_shp	2041.67	637689.2	6326789	1693.72	29.2	1.38	3126.99
TC1_shp	2041.67	637689.2	6326789	1674.25	48.67	3.45	5053.24
TC1_shp	2041.67	637689.2	6326789	1654.79	68.13	7.88	6193.22
TC1_shp	2041.67	637689.2	6326789	1635.32	87.6	12.16	6289.11
TC1_shp	2041.67	637689.2	6326789	1615.85	107.07	13.45	5806.39
TC1_shp	2041.67	637689.2	6326789	1596.39	126.53	12.33	5103.84
TC1_shp	2041.67	637689.2	6326789	1576.92	146	10.92	4386.9
TC1_shp	2041.67	637689.2	6326789	1557.45	165.47	10.05	3735.87
TC1_shp	2041.67	637689.2	6326789	1537.99	184.93	9.75	3187.07
TC1_shp	2041.67	637689.2	6326789	1518.52	204.4	9.89	2748.18
TC1_shp	2041.67	637689.2	6326789	1499.05	223.87	10.41	2386.59
TC1_shp	2041.67	637689.2	6326789	1479.59	243.33	11.09	2137.66
TC1_shp	2041.67	637689.2	6326789	1460.12	262.8	11.87	1965.25
TC1_shp	2041.67	637689.2	6326789	1440.65	282.27	12.72	1847.68
TC1_shp	2041.67	637689.2	6326789	1420.92	302	13.67	1792
TC1_shp	2041.67	637689.2	6326789	1400.92	322	14.64	1780.34
TC1_shp	2041.67	637689.2	6326789	1380.92	342	15.6	1795.55
TC1_shp	2041.67	637689.2	6326789	1360.92	362	16.52	1850.49
TC1_shp	2041.67	637689.2	6326789	1340.92	382	17.45	1925.7
TC1_shp	2041.67	637689.2	6326789	1318.82	404.1	18.46	2028.09
TC1_shp	2041.67	637689.2	6326789	1294.27	428.65	19.57	2165.54
TC1_shp	2041.67	637689.2	6326789	1268.32	454.6	20.73	2319.5
TC1_shp	2041.67	637689.2	6326789	1239.82	483.1	22.02	2499.65
TC1_shp	2041.67	637689.2	6326789	1209.12	513.8	23.26	2691.37
TC1_shp	2041.67	637689.2	6326789	1176.47	546.45	24.34	2878.47
TC1_shp	2041.67	637689.2	6326789	1140.67	582.25	25.22	3058.75
TC1_shp	2041.67	637689.2	6326789	1102.02	620.9	25.66	3202.34
TC1_shp	2041.67	637689.2	6326789	1060.87	662.05	25.72	3304.83
TC1_shp	2041.67	637689.2	6326789	1015.77	707.15	25.38	3364.99
TC1_shp	2041.67	637689.2	6326789	967.12	755.8	24.62	3373.08
TC1_shp	2041.67	637689.2	6326789	915.32	807.6	23.44	3324.53
TC1_shp	2041.67	637689.2	6326789	858.52	864.4	21.98	3232.51
TC1_shp	2041.67	637689.2	6326789	797.27	925.65	19.91	3067.8
TC1_shp	2041.67	637689.2	6326789	732.42	990.5	17.43	2857.43

TC1_shp	2041.67	637689.2	6326789	660.92	1062	15.18	2674.08
TC1_shp	2058.33	637688.8	6326807	1708.35	9.73	0.32	1533.39
TC1_shp	2058.33	637688.8	6326807	1688.88	29.2	4.38	4137.24
TC1_shp	2058.33	637688.8	6326807	1669.41	48.67	17.28	6230.6
TC1_shp	2058.33	637688.8	6326807	1649.95	68.13	24.02	6963.21
TC1_shp	2058.33	637688.8	6326807	1630.48	87.6	20.67	6718.99
TC1_shp	2058.33	637688.8	6326807	1611.01	107.07	14.45	5969.13
TC1_shp	2058.33	637688.8	6326807	1591.55	126.53	10.46	5070.81
TC1_shp	2058.33	637688.8	6326807	1572.08	146	8.55	4215.13
TC1_shp	2058.33	637688.8	6326807	1552.61	165.47	7.83	3492.23
TC1_shp	2058.33	637688.8	6326807	1533.15	184.93	7.81	2925.98
TC1_shp	2058.33	637688.8	6326807	1513.68	204.4	8.28	2473.69
TC1_shp	2058.33	637688.8	6326807	1494.21	223.87	9.01	2171.32
TC1_shp	2058.33	637688.8	6326807	1474.75	243.33	9.89	1968.04
TC1_shp	2058.33	637688.8	6326807	1455.28	262.8	10.86	1833.4
TC1_shp	2058.33	637688.8	6326807	1435.81	282.27	11.96	1773.61
TC1_shp	2058.33	637688.8	6326807	1416.08	302	13.07	1761.99
TC1_shp	2058.33	637688.8	6326807	1396.08	322	14.2	1780.27
TC1_shp	2058.33	637688.8	6326807	1376.08	342	15.29	1843.45
TC1_shp	2058.33	637688.8	6326807	1356.08	362	16.37	1927.1
TC1_shp	2058.33	637688.8	6326807	1336.08	382	17.46	2030.34
TC1_shp	2058.33	637688.8	6326807	1313.98	404.1	18.63	2162.23
TC1_shp	2058.33	637688.8	6326807	1289.43	428.65	19.93	2316.65
TC1_shp	2058.33	637688.8	6326807	1263.48	454.6	21.3	2491.61
TC1_shp	2058.33	637688.8	6326807	1234.98	483.1	22.65	2679.96
TC1_shp	2058.33	637688.8	6326807	1204.28	513.8	23.94	2877.76
TC1_shp	2058.33	637688.8	6326807	1171.63	546.45	24.8	3045.86
TC1_shp	2058.33	637688.8	6326807	1135.83	582.25	25.43	3196.91
TC1_shp	2058.33	637688.8	6326807	1097.18	620.9	25.74	3320.61
TC1_shp	2058.33	637688.8	6326807	1056.03	662.05	25.6	3393.28
TC1_shp	2058.33	637688.8	6326807	1010.93	707.15	24.97	3408.12
TC1_shp	2058.33	637688.8	6326807	962.28	755.8	23.99	3379.84
TC1_shp	2058.33	637688.8	6326807	910.48	807.6	22.69	3310.69
TC1_shp	2058.33	637688.8	6326807	853.68	864.4	21.13	3203.52
TC1_shp	2058.33	637688.8	6326807	792.43	925.65	18.8	3003.28
TC1_shp	2058.33	637688.8	6326807	727.58	990.5	16.29	2786.76
TC1_shp	2058.33	637688.8	6326807	656.08	1062	14.33	2627.76
TC1_shp	2075	637688.5	6326825	1703.52	9.73	0.88	2133.97
TC1_shp	2075	637688.5	6326825	1684.05	29.2	10.94	4143.41
TC1_shp	2075	637688.5	6326825	1664.58	48.67	35.57	6259.32
TC1_shp	2075	637688.5	6326825	1645.12	68.13	34.84	7505.54
TC1_shp	2075	637688.5	6326825	1625.65	87.6	23.68	7662.89
TC1_shp	2075	637688.5	6326825	1606.18	107.07	13.23	6975.69
TC1_shp	2075	637688.5	6326825	1586.72	126.53	8.49	5901.41
TC1_shp	2075	637688.5	6326825	1567.25	146	6.64	4802.24
TC1_shp	2075	637688.5	6326825	1547.78	165.47	6.07	3865.25
TC1_shp	2075	637688.5	6326825	1528.32	184.93	6.18	3142.76
TC1_shp	2075	637688.5	6326825	1508.85	204.4	6.75	2582.65
TC1_shp	2075	637688.5	6326825	1489.38	223.87	7.57	2218.05
TC1_shp	2075	637688.5	6326825	1469.92	243.33	8.55	1979.17
TC1_shp	2075	637688.5	6326825	1450.45	262.8	9.64	1825.12
TC1_shp	2075	637688.5	6326825	1430.98	282.27	10.83	1759.45

TC1_shp	2075	637688.5	6326825	1411.25	302	12.03	1748.18
TC1_shp	2075	637688.5	6326825	1391.25	322	13.23	1770.45
TC1_shp	2075	637688.5	6326825	1371.25	342	14.41	1842.01
TC1_shp	2075	637688.5	6326825	1351.25	362	15.59	1935.23
TC1_shp	2075	637688.5	6326825	1331.25	382	16.77	2049.19
TC1_shp	2075	637688.5	6326825	1309.15	404.1	18.07	2192.68
TC1_shp	2075	637688.5	6326825	1284.6	428.65	19.5	2359.68
TC1_shp	2075	637688.5	6326825	1258.65	454.6	20.99	2545.94
TC1_shp	2075	637688.5	6326825	1230.15	483.1	22.45	2743.7
TC1_shp	2075	637688.5	6326825	1199.45	513.8	23.84	2948.67
TC1_shp	2075	637688.5	6326825	1166.8	546.45	24.74	3117.08
TC1_shp	2075	637688.5	6326825	1131	582.25	25.37	3264.78
TC1_shp	2075	637688.5	6326825	1092.35	620.9	25.66	3381.2
TC1_shp	2075	637688.5	6326825	1051.2	662.05	25.48	3442.42
TC1_shp	2075	637688.5	6326825	1006.1	707.15	24.78	3444.33
TC1_shp	2075	637688.5	6326825	957.45	755.8	23.72	3403.37
TC1_shp	2075	637688.5	6326825	905.65	807.6	22.36	3323.01
TC1_shp	2075	637688.5	6326825	848.85	864.4	20.75	3206.89
TC1_shp	2075	637688.5	6326825	787.6	925.65	18.4	3000.93
TC1_shp	2075	637688.5	6326825	722.75	990.5	15.89	2778.56
TC1_shp	2075	637688.5	6326825	651.25	1062	13.97	2618.66
TC1_shp	2091.67	637688.2	6326843	1698.69	9.73	5.97	3468.24
TC1_shp	2091.67	637688.2	6326843	1679.22	29.2	41.19	4499.38
TC1_shp	2091.67	637688.2	6326843	1659.75	48.67	46.46	6262.04
TC1_shp	2091.67	637688.2	6326843	1640.29	68.13	32.73	7909.58
TC1_shp	2091.67	637688.2	6326843	1620.82	87.6	17.29	8591.66
TC1_shp	2091.67	637688.2	6326843	1601.35	107.07	8.77	8087.86
TC1_shp	2091.67	637688.2	6326843	1581.89	126.53	5.78	6856.83
TC1_shp	2091.67	637688.2	6326843	1562.42	146	4.76	5481.55
TC1_shp	2091.67	637688.2	6326843	1542.95	165.47	4.62	4292.11
TC1_shp	2091.67	637688.2	6326843	1523.49	184.93	4.96	3388.19
TC1_shp	2091.67	637688.2	6326843	1504.02	204.4	5.71	2705.34
TC1_shp	2091.67	637688.2	6326843	1484.55	223.87	6.66	2272.38
TC1_shp	2091.67	637688.2	6326843	1465.09	243.33	7.75	1995.59
TC1_shp	2091.67	637688.2	6326843	1445.62	262.8	8.96	1821.25
TC1_shp	2091.67	637688.2	6326843	1426.15	282.27	10.21	1749.7
TC1_shp	2091.67	637688.2	6326843	1406.42	302	11.45	1738.9
TC1_shp	2091.67	637688.2	6326843	1386.42	322	12.69	1765.36
TC1_shp	2091.67	637688.2	6326843	1366.42	342	13.89	1845.6
TC1_shp	2091.67	637688.2	6326843	1346.42	362	15.09	1948.74
TC1_shp	2091.67	637688.2	6326843	1326.42	382	16.3	2073.78
TC1_shp	2091.67	637688.2	6326843	1304.32	404.1	17.65	2229.15
TC1_shp	2091.67	637688.2	6326843	1279.77	428.65	19.15	2408.94
TC1_shp	2091.67	637688.2	6326843	1253.82	454.6	20.7	2606.12
TC1_shp	2091.67	637688.2	6326843	1225.32	483.1	22.23	2812.62
TC1_shp	2091.67	637688.2	6326843	1194.62	513.8	23.68	3023.85
TC1_shp	2091.67	637688.2	6326843	1161.97	546.45	24.6	3191.9
TC1_shp	2091.67	637688.2	6326843	1126.17	582.25	25.24	3335.04
TC1_shp	2091.67	637688.2	6326843	1087.52	620.9	25.52	3442.66
TC1_shp	2091.67	637688.2	6326843	1046.37	662.05	25.28	3491.39
TC1_shp	2091.67	637688.2	6326843	1001.27	707.15	24.53	3479.75
TC1_shp	2091.67	637688.2	6326843	952.62	755.8	23.4	3425.54

TC1_shp	2091.67	637688.2	6326843	900.82	807.6	21.98	3333.55
TC1_shp	2091.67	637688.2	6326843	844.02	864.4	20.33	3208.86
TC1_shp	2091.67	637688.2	6326843	782.77	925.65	17.98	2997.55
TC1_shp	2091.67	637688.2	6326843	717.92	990.5	15.46	2769.73
TC1_shp	2091.67	637688.2	6326843	646.42	1062	13.6	2609.1
TC1_shp	2108.33	637686.8	6326860	1695.6	9.73	18.27	2502.11
TC1_shp	2108.33	637686.8	6326860	1676.13	29.2	33.66	3967.47
TC1_shp	2108.33	637686.8	6326860	1656.66	48.67	26.38	5948.3
TC1_shp	2108.33	637686.8	6326860	1637.2	68.13	13.86	8126.45
TC1_shp	2108.33	637686.8	6326860	1617.73	87.6	7.26	9452.6
TC1_shp	2108.33	637686.8	6326860	1598.26	107.07	4.51	9250.07
TC1_shp	2108.33	637686.8	6326860	1578.8	126.53	3.52	7894.4
TC1_shp	2108.33	637686.8	6326860	1559.33	146	3.31	6219.7
TC1_shp	2108.33	637686.8	6326860	1539.86	165.47	3.56	4748.92
TC1_shp	2108.33	637686.8	6326860	1520.4	184.93	4.14	3645.02
TC1_shp	2108.33	637686.8	6326860	1500.93	204.4	5.09	2831.94
TC1_shp	2108.33	637686.8	6326860	1481.46	223.87	6.21	2328.63
TC1_shp	2108.33	637686.8	6326860	1462	243.33	7.45	2014.1
TC1_shp	2108.33	637686.8	6326860	1442.53	262.8	8.76	1820.42
TC1_shp	2108.33	637686.8	6326860	1423.06	282.27	10.08	1743.93
TC1_shp	2108.33	637686.8	6326860	1403.33	302	11.33	1734.38
TC1_shp	2108.33	637686.8	6326860	1383.33	322	12.53	1765.72
TC1_shp	2108.33	637686.8	6326860	1363.33	342	13.67	1855.2
TC1_shp	2108.33	637686.8	6326860	1343.33	362	14.83	1968.6
TC1_shp	2108.33	637686.8	6326860	1323.33	382	16.01	2104.9
TC1_shp	2108.33	637686.8	6326860	1301.23	404.1	17.34	2272.32
TC1_shp	2108.33	637686.8	6326860	1276.68	428.65	18.84	2465.02
TC1_shp	2108.33	637686.8	6326860	1250.73	454.6	20.41	2672.75
TC1_shp	2108.33	637686.8	6326860	1222.23	483.1	21.96	2887.37
TC1_shp	2108.33	637686.8	6326860	1191.53	513.8	23.45	3103.99
TC1_shp	2108.33	637686.8	6326860	1158.88	546.45	24.39	3269.9
TC1_shp	2108.33	637686.8	6326860	1123.08	582.25	25.03	3407.05
TC1_shp	2108.33	637686.8	6326860	1084.43	620.9	25.29	3504.69
TC1_shp	2108.33	637686.8	6326860	1043.28	662.05	25.01	3539.59
TC1_shp	2108.33	637686.8	6326860	998.18	707.15	24.2	3513.65
TC1_shp	2108.33	637686.8	6326860	949.53	755.8	23.01	3446.04
TC1_shp	2108.33	637686.8	6326860	897.73	807.6	21.53	3342.67
TC1_shp	2108.33	637686.8	6326860	840.93	864.4	19.86	3209.29
TC1_shp	2108.33	637686.8	6326860	779.68	925.65	17.53	2993.05
TC1_shp	2108.33	637686.8	6326860	714.83	990.5	15.03	2760.25
TC1_shp	2108.33	637686.8	6326860	643.33	1062	13.22	2599.1
TC1_shp	2125	637684.5	6326876	1694.27	9.73	1.3	2599.75
TC1_shp	2125	637684.5	6326876	1674.8	29.2	3.07	3705.56
TC1_shp	2125	637684.5	6326876	1655.33	48.67	3.84	5620.57
TC1_shp	2125	637684.5	6326876	1635.87	68.13	3.3	8204.32
TC1_shp	2125	637684.5	6326876	1616.4	87.6	2.58	10190.32
TC1_shp	2125	637684.5	6326876	1596.93	107.07	2.18	10379.02
TC1_shp	2125	637684.5	6326876	1577.47	126.53	2.13	8941.47
TC1_shp	2125	637684.5	6326876	1558	146	2.38	6964.63
TC1_shp	2125	637684.5	6326876	1538.53	165.47	2.91	5201.36
TC1_shp	2125	637684.5	6326876	1519.07	184.93	3.71	3892.64
TC1_shp	2125	637684.5	6326876	1499.6	204.4	4.88	2950.59

TC1_shp	2125	637684.5	6326876	1480.13	223.87	6.22	2380.09
TC1_shp	2125	637684.5	6326876	1460.67	243.33	7.63	2031.17
TC1_shp	2125	637684.5	6326876	1441.2	262.8	9.07	1821.12
TC1_shp	2125	637684.5	6326876	1421.73	282.27	10.41	1741.65
TC1_shp	2125	637684.5	6326876	1402	302	11.6	1734.92
TC1_shp	2125	637684.5	6326876	1382	322	12.72	1772.4
TC1_shp	2125	637684.5	6326876	1362	342	13.74	1871.7
TC1_shp	2125	637684.5	6326876	1342	362	14.79	1995.93
TC1_shp	2125	637684.5	6326876	1322	382	15.85	2144.01
TC1_shp	2125	637684.5	6326876	1299.9	404.1	17.12	2323.82
TC1_shp	2125	637684.5	6326876	1275.35	428.65	18.56	2529.65
TC1_shp	2125	637684.5	6326876	1249.4	454.6	20.11	2747.28
TC1_shp	2125	637684.5	6326876	1220.9	483.1	21.65	2968.85
TC1_shp	2125	637684.5	6326876	1190.2	513.8	23.14	3189.22
TC1_shp	2125	637684.5	6326876	1157.55	546.45	24.1	3351.7
TC1_shp	2125	637684.5	6326876	1121.75	582.25	24.73	3481.18
TC1_shp	2125	637684.5	6326876	1083.1	620.9	24.97	3567
TC1_shp	2125	637684.5	6326876	1041.95	662.05	24.64	3586.96
TC1_shp	2125	637684.5	6326876	996.85	707.15	23.77	3546.11
TC1_shp	2125	637684.5	6326876	948.2	755.8	22.54	3464.69
TC1_shp	2125	637684.5	6326876	896.4	807.6	21.04	3349.78
TC1_shp	2125	637684.5	6326876	839.6	864.4	19.35	3208.04
TC1_shp	2125	637684.5	6326876	778.35	925.65	17.05	2987.34
TC1_shp	2125	637684.5	6326876	713.5	990.5	14.59	2750.06
TC1_shp	2125	637684.5	6326876	642	1062	12.84	2588.59
TC1_shp	2141.67	637682.2	6326892	1692.94	9.73	1.72	3269.69
TC1_shp	2141.67	637682.2	6326892	1673.47	29.2	0.99	3518.85
TC1_shp	2141.67	637682.2	6326892	1654	48.67	0.94	5209.19
TC1_shp	2141.67	637682.2	6326892	1634.54	68.13	0.98	8101.89
TC1_shp	2141.67	637682.2	6326892	1615.07	87.6	1.03	10723.04
TC1_shp	2141.67	637682.2	6326892	1595.6	107.07	1.16	11363.69
TC1_shp	2141.67	637682.2	6326892	1576.14	126.53	1.43	9900.55
TC1_shp	2141.67	637682.2	6326892	1556.67	146	1.9	7648.13
TC1_shp	2141.67	637682.2	6326892	1537.2	165.47	2.62	5606.7
TC1_shp	2141.67	637682.2	6326892	1517.74	184.93	3.64	4106.51
TC1_shp	2141.67	637682.2	6326892	1498.27	204.4	5.1	3048.45
TC1_shp	2141.67	637682.2	6326892	1478.8	223.87	6.71	2420.34
TC1_shp	2141.67	637682.2	6326892	1459.34	243.33	8.34	2043.9
TC1_shp	2141.67	637682.2	6326892	1439.87	262.8	9.92	1822.36
TC1_shp	2141.67	637682.2	6326892	1420.4	282.27	11.24	1743.01
TC1_shp	2141.67	637682.2	6326892	1400.67	302	12.31	1741.21
TC1_shp	2141.67	637682.2	6326892	1380.67	322	13.25	1786.41
TC1_shp	2141.67	637682.2	6326892	1360.67	342	14.05	1896.44
TC1_shp	2141.67	637682.2	6326892	1340.67	362	14.91	2032.27
TC1_shp	2141.67	637682.2	6326892	1320.67	382	15.82	2192.77
TC1_shp	2141.67	637682.2	6326892	1298.57	404.1	16.97	2384.83
TC1_shp	2141.67	637682.2	6326892	1274.02	428.65	18.3	2603.26
TC1_shp	2141.67	637682.2	6326892	1248.07	454.6	19.78	2829.8
TC1_shp	2141.67	637682.2	6326892	1219.57	483.1	21.27	3057.27
TC1_shp	2141.67	637682.2	6326892	1188.87	513.8	22.74	3280.2
TC1_shp	2141.67	637682.2	6326892	1156.22	546.45	23.71	3436.89
TC1_shp	2141.67	637682.2	6326892	1120.42	582.25	24.34	3556.74

TC1_shp	2141.67	637682.2	6326892	1081.77	620.9	24.55	3629.22
TC1_shp	2141.67	637682.2	6326892	1040.62	662.05	24.18	3632.88
TC1_shp	2141.67	637682.2	6326892	995.52	707.15	23.27	3576.5
TC1_shp	2141.67	637682.2	6326892	946.87	755.8	22.01	3481.17
TC1_shp	2141.67	637682.2	6326892	895.07	807.6	20.49	3354.96
TC1_shp	2141.67	637682.2	6326892	838.27	864.4	18.81	3205.13
TC1_shp	2141.67	637682.2	6326892	777.02	925.65	16.55	2980.41
TC1_shp	2141.67	637682.2	6326892	712.17	990.5	14.14	2739.12
TC1_shp	2141.67	637682.2	6326892	640.67	1062	12.45	2577.54
TC1_shp	2158.33	637679.8	6326908	1691.6	9.73	31.52	3477.09
TC1_shp	2158.33	637679.8	6326908	1672.13	29.2	1.44	2646.06
TC1_shp	2158.33	637679.8	6326908	1652.66	48.67	0.44	4477.11
TC1_shp	2158.33	637679.8	6326908	1633.2	68.13	0.4	7753.38
TC1_shp	2158.33	637679.8	6326908	1613.73	87.6	0.53	10987.02
TC1_shp	2158.33	637679.8	6326908	1594.26	107.07	0.77	12108.06
TC1_shp	2158.33	637679.8	6326908	1574.8	126.53	1.15	10678.56
TC1_shp	2158.33	637679.8	6326908	1555.33	146	1.78	8201.58
TC1_shp	2158.33	637679.8	6326908	1535.86	165.47	2.7	5923.5
TC1_shp	2158.33	637679.8	6326908	1516.4	184.93	4	4264.48
TC1_shp	2158.33	637679.8	6326908	1496.93	204.4	5.88	3114.87
TC1_shp	2158.33	637679.8	6326908	1477.46	223.87	7.86	2444.41
TC1_shp	2158.33	637679.8	6326908	1458	243.33	9.75	2050.18
TC1_shp	2158.33	637679.8	6326908	1438.53	262.8	11.46	1823.57
TC1_shp	2158.33	637679.8	6326908	1419.06	282.27	12.64	1748.29
TC1_shp	2158.33	637679.8	6326908	1399.33	302	13.45	1754.05
TC1_shp	2158.33	637679.8	6326908	1379.33	322	14.07	1808.9
TC1_shp	2158.33	637679.8	6326908	1359.33	342	14.57	1930.93
TC1_shp	2158.33	637679.8	6326908	1339.33	362	15.18	2079.19
TC1_shp	2158.33	637679.8	6326908	1319.33	382	15.88	2252.54
TC1_shp	2158.33	637679.8	6326908	1297.23	404.1	16.84	2456.86
TC1_shp	2158.33	637679.8	6326908	1272.68	428.65	17.99	2687.63
TC1_shp	2158.33	637679.8	6326908	1246.73	454.6	19.38	2922.13
TC1_shp	2158.33	637679.8	6326908	1218.23	483.1	20.81	3153.78
TC1_shp	2158.33	637679.8	6326908	1187.53	513.8	22.25	3376.9
TC1_shp	2158.33	637679.8	6326908	1154.88	546.45	23.21	3525.85
TC1_shp	2158.33	637679.8	6326908	1119.08	582.25	23.83	3633.94
TC1_shp	2158.33	637679.8	6326908	1080.43	620.9	24.02	3691.02
TC1_shp	2158.33	637679.8	6326908	1039.28	662.05	23.62	3677.31
TC1_shp	2158.33	637679.8	6326908	994.18	707.15	22.68	3604.72
TC1_shp	2158.33	637679.8	6326908	945.53	755.8	21.4	3495.16
TC1_shp	2158.33	637679.8	6326908	893.73	807.6	19.88	3357.76
TC1_shp	2158.33	637679.8	6326908	836.93	864.4	18.22	3200.4
TC1_shp	2158.33	637679.8	6326908	775.68	925.65	16.03	2972.19
TC1_shp	2158.33	637679.8	6326908	710.83	990.5	13.69	2727.47
TC1_shp	2158.33	637679.8	6326908	639.33	1062	12.07	2566.01
TC1_shp	2175	637677.5	6326923	1690.27	9.73	0.29	1496.35
TC1_shp	2175	637677.5	6326923	1670.8	29.2	0.2	3714.16
TC1_shp	2175	637677.5	6326923	1651.33	48.67	0.27	7306.89
TC1_shp	2175	637677.5	6326923	1631.87	68.13	0.43	11022.26
TC1_shp	2175	637677.5	6326923	1612.4	87.6	0.72	12573.34
TC1_shp	2175	637677.5	6326923	1592.93	107.07	1.2	11208.62
TC1_shp	2175	637677.5	6326923	1573.47	126.53	2	8570.79

TC1_shp	2175	637677.5	6326923	1554	146	3.24	6119.27
TC1_shp	2175	637677.5	6326923	1534.53	165.47	4.99	4348.01
TC1_shp	2175	637677.5	6326923	1515.07	184.93	7.47	3141.48
TC1_shp	2175	637677.5	6326923	1495.6	204.4	9.95	2448.56
TC1_shp	2175	637677.5	6326923	1476.13	223.87	12.11	2048.75
TC1_shp	2175	637677.5	6326923	1456.67	243.33	13.82	1825.29
TC1_shp	2175	637677.5	6326923	1437.2	262.8	14.67	1758.42
TC1_shp	2175	637677.5	6326923	1417.73	282.27	15.03	1773.96
TC1_shp	2175	637677.5	6326923	1398	302	15.15	1837.72
TC1_shp	2175	637677.5	6326923	1378	322	15.24	1972.98
TC1_shp	2175	637677.5	6326923	1358	342	15.48	2133.19
TC1_shp	2175	637677.5	6326923	1338	362	15.9	2319.96
TC1_shp	2175	637677.5	6326923	1318	382	16.56	2515.17
TC1_shp	2175	637677.5	6326923	1295.9	404.1	17.4	2734.97
TC1_shp	2175	637677.5	6326923	1271.35	428.65	18.57	2964.55
TC1_shp	2175	637677.5	6326923	1245.4	454.6	19.83	3192.31
TC1_shp	2175	637677.5	6326923	1216.9	483.1	21.14	3401.28
TC1_shp	2175	637677.5	6326923	1186.2	513.8	22.2	3562.05
TC1_shp	2175	637677.5	6326923	1153.55	546.45	23.05	3687.32
TC1_shp	2175	637677.5	6326923	1117.75	582.25	23.35	3741.14
TC1_shp	2175	637677.5	6326923	1079.1	620.9	23.17	3736.38
TC1_shp	2175	637677.5	6326923	1037.95	662.05	22.6	3687.08
TC1_shp	2175	637677.5	6326923	992.85	707.15	21.55	3586.96
TC1_shp	2175	637677.5	6326923	944.2	755.8	20.16	3451.1
TC1_shp	2175	637677.5	6326923	892.4	807.6	18.67	3301.97
TC1_shp	2175	637677.5	6326923	835.6	864.4	16.94	3122.13
TC1_shp	2175	637677.5	6326923	774.35	925.65	14.81	2888.33
TC1_shp	2175	637677.5	6326923	709.5	990.5	12.63	2649.95
TC1_shp	2175	637677.5	6326923	638	1062	11.33	2518.12
TC1_shp	2191.67	637675.2	6326939	1688.94	9.73	0.31	1460.97
TC1_shp	2191.67	637675.2	6326939	1669.47	29.2	0.39	3489.06
TC1_shp	2191.67	637675.2	6326939	1650	48.67	0.45	7025.14
TC1_shp	2191.67	637675.2	6326939	1630.54	68.13	0.6	10970.78
TC1_shp	2191.67	637675.2	6326939	1611.07	87.6	0.94	12803.44
TC1_shp	2191.67	637675.2	6326939	1591.6	107.07	1.58	11477.77
TC1_shp	2191.67	637675.2	6326939	1572.14	126.53	2.71	8730.04
TC1_shp	2191.67	637675.2	6326939	1552.67	146	4.5	6174.87
TC1_shp	2191.67	637675.2	6326939	1533.2	165.47	7.02	4350.08
TC1_shp	2191.67	637675.2	6326939	1513.74	184.93	10.42	3125.46
TC1_shp	2191.67	637675.2	6326939	1494.27	204.4	13.45	2432.82
TC1_shp	2191.67	637675.2	6326939	1474.8	223.87	15.72	2040.94
TC1_shp	2191.67	637675.2	6326939	1455.34	243.33	17.14	1828.68
TC1_shp	2191.67	637675.2	6326939	1435.87	262.8	17.29	1774.65
TC1_shp	2191.67	637675.2	6326939	1416.4	282.27	16.94	1803.67
TC1_shp	2191.67	637675.2	6326939	1396.67	302	16.37	1881.47
TC1_shp	2191.67	637675.2	6326939	1376.67	322	15.93	2031.6
TC1_shp	2191.67	637675.2	6326939	1356.67	342	15.76	2206.16
TC1_shp	2191.67	637675.2	6326939	1336.67	362	15.86	2406.72
TC1_shp	2191.67	637675.2	6326939	1316.67	382	16.3	2612.55
TC1_shp	2191.67	637675.2	6326939	1294.57	404.1	16.96	2842.56
TC1_shp	2191.67	637675.2	6326939	1270.02	428.65	18.01	3076.97
TC1_shp	2191.67	637675.2	6326939	1244.07	454.6	19.17	3306.87

TC1_shp	2191.67	637675.2	6326939	1215.57	483.1	20.43	3511.46
TC1_shp	2191.67	637675.2	6326939	1184.87	513.8	21.46	3662.42
TC1_shp	2191.67	637675.2	6326939	1152.22	546.45	22.29	3774.14
TC1_shp	2191.67	637675.2	6326939	1116.42	582.25	22.59	3809.67
TC1_shp	2191.67	637675.2	6326939	1077.77	620.9	22.4	3786.1
TC1_shp	2191.67	637675.2	6326939	1036.62	662.05	21.83	3718.65
TC1_shp	2191.67	637675.2	6326939	991.52	707.15	20.8	3602.62
TC1_shp	2191.67	637675.2	6326939	942.87	755.8	19.44	3455.18
TC1_shp	2191.67	637675.2	6326939	891.07	807.6	18	3297.78
TC1_shp	2191.67	637675.2	6326939	834.27	864.4	16.34	3112.73
TC1_shp	2191.67	637675.2	6326939	773.02	925.65	14.29	2876.83
TC1_shp	2191.67	637675.2	6326939	708.17	990.5	12.19	2636.48
TC1_shp	2191.67	637675.2	6326939	636.67	1062	10.96	2506.04
TC1_shp	2208.33	637673.3	6326956	1687.6	9.73	13.39	2433.88
TC1_shp	2208.33	637673.3	6326956	1668.13	29.2	2.42	3797.64
TC1_shp	2208.33	637673.3	6326956	1648.66	48.67	1.19	7054.02
TC1_shp	2208.33	637673.3	6326956	1629.2	68.13	1.12	11008.56
TC1_shp	2208.33	637673.3	6326956	1609.73	87.6	1.53	12894.66
TC1_shp	2208.33	637673.3	6326956	1590.26	107.07	2.52	11510.26
TC1_shp	2208.33	637673.3	6326956	1570.8	126.53	4.31	8679.97
TC1_shp	2208.33	637673.3	6326956	1551.33	146	7.14	6091.1
TC1_shp	2208.33	637673.3	6326956	1531.86	165.47	10.94	4271.77
TC1_shp	2208.33	637673.3	6326956	1512.4	184.93	15.48	3069.33
TC1_shp	2208.33	637673.3	6326956	1492.93	204.4	18.8	2399.6
TC1_shp	2208.33	637673.3	6326956	1473.46	223.87	20.69	2028.8
TC1_shp	2208.33	637673.3	6326956	1454	243.33	21.25	1835.78
TC1_shp	2208.33	637673.3	6326956	1434.53	262.8	20.29	1799.59
TC1_shp	2208.33	637673.3	6326956	1415.06	282.27	18.96	1845.54
TC1_shp	2208.33	637673.3	6326956	1395.33	302	17.49	1940
TC1_shp	2208.33	637673.3	6326956	1375.33	322	16.48	2106.39
TC1_shp	2208.33	637673.3	6326956	1355.33	342	15.86	2296.01
TC1_shp	2208.33	637673.3	6326956	1335.33	362	15.64	2510.34
TC1_shp	2208.33	637673.3	6326956	1315.33	382	15.89	2726.08
TC1_shp	2208.33	637673.3	6326956	1293.23	404.1	16.39	2965.15
TC1_shp	2208.33	637673.3	6326956	1268.68	428.65	17.34	3201.95
TC1_shp	2208.33	637673.3	6326956	1242.73	454.6	18.4	3431.16
TC1_shp	2208.33	637673.3	6326956	1214.23	483.1	19.61	3627.91
TC1_shp	2208.33	637673.3	6326956	1183.53	513.8	20.6	3765.91
TC1_shp	2208.33	637673.3	6326956	1150.88	546.45	21.41	3861.23
TC1_shp	2208.33	637673.3	6326956	1115.08	582.25	21.71	3876.65
TC1_shp	2208.33	637673.3	6326956	1076.43	620.9	21.53	3833.03
TC1_shp	2208.33	637673.3	6326956	1035.28	662.05	20.99	3746.76
TC1_shp	2208.33	637673.3	6326956	990.18	707.15	19.99	3615.02
TC1_shp	2208.33	637673.3	6326956	941.53	755.8	18.68	3456.56
TC1_shp	2208.33	637673.3	6326956	889.73	807.6	17.29	3291.36
TC1_shp	2208.33	637673.3	6326956	832.93	864.4	15.7	3101.53
TC1_shp	2208.33	637673.3	6326956	771.68	925.65	13.76	2864.14
TC1_shp	2208.33	637673.3	6326956	706.83	990.5	11.76	2622.41
TC1_shp	2208.33	637673.3	6326956	635.33	1062	10.6	2493.49
TC1_shp	2225	637671.8	6326973	1686.27	9.73	17.83	2437.06
TC1_shp	2225	637671.8	6326973	1666.8	29.2	4.39	4016.23
TC1_shp	2225	637671.8	6326973	1647.33	48.67	2.15	7322.48

TC1_shp	2225	637671.8	6326973	1627.87	68.13	1.96	11211.64
TC1_shp	2225	637671.8	6326973	1608.4	87.6	2.69	12908.92
TC1_shp	2225	637671.8	6326973	1588.93	107.07	4.45	11336.19
TC1_shp	2225	637671.8	6326973	1569.47	126.53	7.68	8439.71
TC1_shp	2225	637671.8	6326973	1550	146	12.48	5881.16
TC1_shp	2225	637671.8	6326973	1530.53	165.47	18	4122.52
TC1_shp	2225	637671.8	6326973	1511.07	184.93	23.13	2980.35
TC1_shp	2225	637671.8	6326973	1491.6	204.4	25.78	2354.21
TC1_shp	2225	637671.8	6326973	1472.13	223.87	26.38	2016.46
TC1_shp	2225	637671.8	6326973	1452.67	243.33	25.43	1850.4
TC1_shp	2225	637671.8	6326973	1433.2	262.8	23.11	1836.43
TC1_shp	2225	637671.8	6326973	1413.73	282.27	20.66	1902.47
TC1_shp	2225	637671.8	6326973	1394	302	18.23	2016.03
TC1_shp	2225	637671.8	6326973	1374	322	16.67	2199.88
TC1_shp	2225	637671.8	6326973	1354	342	15.65	2405.15
TC1_shp	2225	637671.8	6326973	1334	362	15.2	2633.2
TC1_shp	2225	637671.8	6326973	1314	382	15.29	2857.5
TC1_shp	2225	637671.8	6326973	1291.9	404.1	15.67	3103.54
TC1_shp	2225	637671.8	6326973	1267.35	428.65	16.53	3340.02
TC1_shp	2225	637671.8	6326973	1241.4	454.6	17.52	3565.47
TC1_shp	2225	637671.8	6326973	1212.9	483.1	18.69	3750.54
TC1_shp	2225	637671.8	6326973	1182.2	513.8	19.65	3872.25
TC1_shp	2225	637671.8	6326973	1149.55	546.45	20.43	3948.22
TC1_shp	2225	637671.8	6326973	1113.75	582.25	20.73	3941.51
TC1_shp	2225	637671.8	6326973	1075.1	620.9	20.58	3876.82
TC1_shp	2225	637671.8	6326973	1033.95	662.05	20.07	3771.3
TC1_shp	2225	637671.8	6326973	988.85	707.15	19.13	3623.81
TC1_shp	2225	637671.8	6326973	940.2	755.8	17.89	3454.86
TC1_shp	2225	637671.8	6326973	888.4	807.6	16.58	3282.54
TC1_shp	2225	637671.8	6326973	831.6	864.4	15.07	3088.65
TC1_shp	2225	637671.8	6326973	770.35	925.65	13.23	2850.35
TC1_shp	2225	637671.8	6326973	705.5	990.5	11.35	2607.83
TC1_shp	2225	637671.8	6326973	634	1062	10.25	2480.53
TC1_shp	2241.67	637670.3	6326991	1684.94	9.73	3.13	2694.34
TC1_shp	2241.67	637670.3	6326991	1665.47	29.2	2.79	4445.52
TC1_shp	2241.67	637670.3	6326991	1646	48.67	2.44	7810.44
TC1_shp	2241.67	637670.3	6326991	1626.54	68.13	2.9	11517.7
TC1_shp	2241.67	637670.3	6326991	1607.07	87.6	4.63	12818.46
TC1_shp	2241.67	637670.3	6326991	1587.6	107.07	8.33	10963.24
TC1_shp	2241.67	637670.3	6326991	1568.14	126.53	14.52	8032.89
TC1_shp	2241.67	637670.3	6326991	1548.67	146	21.97	5567.79
TC1_shp	2241.67	637670.3	6326991	1529.2	165.47	28	3919.75
TC1_shp	2241.67	637670.3	6326991	1509.74	184.93	31.85	2868.77
TC1_shp	2241.67	637670.3	6326991	1490.27	204.4	32.64	2303.32
TC1_shp	2241.67	637670.3	6326991	1470.8	223.87	31.35	2008.83
TC1_shp	2241.67	637670.3	6326991	1451.34	243.33	28.67	1876.39
TC1_shp	2241.67	637670.3	6326991	1431.87	262.8	25.02	1889.02
TC1_shp	2241.67	637670.3	6326991	1412.4	282.27	21.54	1978.32
TC1_shp	2241.67	637670.3	6326991	1392.67	302	18.28	2113.45
TC1_shp	2241.67	637670.3	6326991	1372.67	322	16.35	2315.71
TC1_shp	2241.67	637670.3	6326991	1352.67	342	15.08	2536.59
TC1_shp	2241.67	637670.3	6326991	1332.67	362	14.5	2777.28

TC1_shp	2241.67	637670.3	6326991	1312.67	382	14.51	3008.35
TC1_shp	2241.67	637670.3	6326991	1290.57	404.1	14.8	3259.01
TC1_shp	2241.67	637670.3	6326991	1266.02	428.65	15.61	3491.35
TC1_shp	2241.67	637670.3	6326991	1240.07	454.6	16.55	3708.95
TC1_shp	2241.67	637670.3	6326991	1211.57	483.1	17.67	3878.11
TC1_shp	2241.67	637670.3	6326991	1180.87	513.8	18.59	3980.19
TC1_shp	2241.67	637670.3	6326991	1148.22	546.45	19.35	4034.08
TC1_shp	2241.67	637670.3	6326991	1112.42	582.25	19.66	4003.53
TC1_shp	2241.67	637670.3	6326991	1073.77	620.9	19.56	3916.79
TC1_shp	2241.67	637670.3	6326991	1032.62	662.05	19.11	3791.71
TC1_shp	2241.67	637670.3	6326991	987.52	707.15	18.23	3629.09
TC1_shp	2241.67	637670.3	6326991	938.87	755.8	17.07	3450.27
TC1_shp	2241.67	637670.3	6326991	887.07	807.6	15.84	3271.39
TC1_shp	2241.67	637670.3	6326991	830.27	864.4	14.42	3074
TC1_shp	2241.67	637670.3	6326991	769.02	925.65	12.7	2835.41
TC1_shp	2241.67	637670.3	6326991	704.17	990.5	10.93	2592.72
TC1_shp	2241.67	637670.3	6326991	632.67	1062	9.9	2467.17
TC1_shp	2258.33	637668.8	6327008	1683.6	9.73	17.59	3110.41
TC1_shp	2258.33	637668.8	6327008	1664.13	29.2	2.93	4842.86
TC1_shp	2258.33	637668.8	6327008	1644.66	48.67	2.36	8253.22
TC1_shp	2258.33	637668.8	6327008	1625.2	68.13	3.69	11718.95
TC1_shp	2258.33	637668.8	6327008	1605.73	87.6	7.55	12522.42
TC1_shp	2258.33	637668.8	6327008	1586.26	107.07	15.4	10384.7
TC1_shp	2258.33	637668.8	6327008	1566.8	126.53	25.4	7486.07
TC1_shp	2258.33	637668.8	6327008	1547.33	146	33.27	5178.74
TC1_shp	2258.33	637668.8	6327008	1527.86	165.47	37.84	3682.2
TC1_shp	2258.33	637668.8	6327008	1508.4	184.93	39.29	2746.93
TC1_shp	2258.33	637668.8	6327008	1488.93	204.4	37.82	2255.66
TC1_shp	2258.33	637668.8	6327008	1469.46	223.87	34.57	2012.65
TC1_shp	2258.33	637668.8	6327008	1450	243.33	30.25	1919.49
TC1_shp	2258.33	637668.8	6327008	1430.53	262.8	25.43	1962.73
TC1_shp	2258.33	637668.8	6327008	1411.06	282.27	21.22	2077.96
TC1_shp	2258.33	637668.8	6327008	1391.33	302	17.47	2236.48
TC1_shp	2258.33	637668.8	6327008	1371.33	322	15.45	2457.34
TC1_shp	2258.33	637668.8	6327008	1351.33	342	14.12	2693.21
TC1_shp	2258.33	637668.8	6327008	1331.33	362	13.53	2945.03
TC1_shp	2258.33	637668.8	6327008	1311.33	382	13.53	3180.23
TC1_shp	2258.33	637668.8	6327008	1289.23	404.1	13.82	3432.05
TC1_shp	2258.33	637668.8	6327008	1264.68	428.65	14.59	3656.05
TC1_shp	2258.33	637668.8	6327008	1238.73	454.6	15.49	3861.35
TC1_shp	2258.33	637668.8	6327008	1210.23	483.1	16.57	4010
TC1_shp	2258.33	637668.8	6327008	1179.53	513.8	17.46	4088.67
TC1_shp	2258.33	637668.8	6327008	1146.88	546.45	18.2	4117.37
TC1_shp	2258.33	637668.8	6327008	1111.08	582.25	18.54	4061.67
TC1_shp	2258.33	637668.8	6327008	1072.43	620.9	18.48	3952.44
TC1_shp	2258.33	637668.8	6327008	1031.28	662.05	18.1	3807.82
TC1_shp	2258.33	637668.8	6327008	986.18	707.15	17.31	3630.31
TC1_shp	2258.33	637668.8	6327008	937.53	755.8	16.24	3442.42
TC1_shp	2258.33	637668.8	6327008	885.73	807.6	15.1	3257.83
TC1_shp	2258.33	637668.8	6327008	828.93	864.4	13.78	3057.73
TC1_shp	2258.33	637668.8	6327008	767.68	925.65	12.17	2819.44
TC1_shp	2258.33	637668.8	6327008	702.83	990.5	10.53	2577.16

TC1_shp	2258.33	637668.8	6327008	631.33	1062	9.56	2453.46
TC1_shp	2275	637667.3	6327026	1682.27	9.73	7.53	2910.95
TC1_shp	2275	637667.3	6327026	1662.8	29.2	1.49	4968.83
TC1_shp	2275	637667.3	6327026	1643.33	48.67	1.71	8487.71
TC1_shp	2275	637667.3	6327026	1623.87	68.13	4.01	11658.04
TC1_shp	2275	637667.3	6327026	1604.4	87.6	11.31	11950.96
TC1_shp	2275	637667.3	6327026	1584.93	107.07	24.82	9608.7
TC1_shp	2275	637667.3	6327026	1565.47	126.53	36.11	6835.1
TC1_shp	2275	637667.3	6327026	1546	146	42.82	4745.89
TC1_shp	2275	637667.3	6327026	1526.53	165.47	45.1	3431.89
TC1_shp	2275	637667.3	6327026	1507.07	184.93	43.91	2629.08
TC1_shp	2275	637667.3	6327026	1487.6	204.4	40.25	2221.04
TC1_shp	2275	637667.3	6327026	1468.13	223.87	35.27	2035.45
TC1_shp	2275	637667.3	6327026	1448.67	243.33	29.63	1986.21
TC1_shp	2275	637667.3	6327026	1429.2	262.8	24.02	2063.49
TC1_shp	2275	637667.3	6327026	1409.73	282.27	19.56	2206.73
TC1_shp	2275	637667.3	6327026	1390	302	15.84	2389.92
TC1_shp	2275	637667.3	6327026	1370	322	14.01	2629.15
TC1_shp	2275	637667.3	6327026	1350	342	12.83	2878.58
TC1_shp	2275	637667.3	6327026	1330	362	12.35	3138.87
TC1_shp	2275	637667.3	6327026	1310	382	12.4	3374.6
TC1_shp	2275	637667.3	6327026	1287.9	404.1	12.73	3623.14
TC1_shp	2275	637667.3	6327026	1263.35	428.65	13.49	3833.44
TC1_shp	2275	637667.3	6327026	1237.4	454.6	14.37	4021.09
TC1_shp	2275	637667.3	6327026	1208.9	483.1	15.41	4144.42
TC1_shp	2275	637667.3	6327026	1178.2	513.8	16.29	4196.23
TC1_shp	2275	637667.3	6327026	1145.55	546.45	17.03	4197.17
TC1_shp	2275	637667.3	6327026	1109.75	582.25	17.38	4114.83
TC1_shp	2275	637667.3	6327026	1071.1	620.9	17.37	3982.82
TC1_shp	2275	637667.3	6327026	1029.95	662.05	17.07	3819.15
TC1_shp	2275	637667.3	6327026	984.85	707.15	16.39	3627.83
TC1_shp	2275	637667.3	6327026	936.2	755.8	15.42	3431.61
TC1_shp	2275	637667.3	6327026	884.4	807.6	14.37	3241.93
TC1_shp	2275	637667.3	6327026	827.6	864.4	13.16	3039.72
TC1_shp	2275	637667.3	6327026	766.35	925.65	11.66	2802.36
TC1_shp	2275	637667.3	6327026	701.5	990.5	10.13	2561.14
TC1_shp	2275	637667.3	6327026	630	1062	9.23	2439.38
TC1_shp	2291.67	637665.8	6327044	1680.94	9.73	0.52	3237.12
TC1_shp	2291.67	637665.8	6327044	1661.47	29.2	0.35	5352.03
TC1_shp	2291.67	637665.8	6327044	1642	48.67	1.07	8592.15
TC1_shp	2291.67	637665.8	6327044	1622.54	68.13	4.03	11284.81
TC1_shp	2291.67	637665.8	6327044	1603.07	87.6	15.37	11098.93
TC1_shp	2291.67	637665.8	6327044	1583.6	107.07	32.49	8679.83
TC1_shp	2291.67	637665.8	6327044	1564.14	126.53	43.63	6128.64
TC1_shp	2291.67	637665.8	6327044	1544.67	146	48.37	4304.19
TC1_shp	2291.67	637665.8	6327044	1525.2	165.47	48.23	3191.43
TC1_shp	2291.67	637665.8	6327044	1505.74	184.93	44.58	2529.71
TC1_shp	2291.67	637665.8	6327044	1486.27	204.4	39.14	2210.17
TC1_shp	2291.67	637665.8	6327044	1466.8	223.87	32.98	2086.15
TC1_shp	2291.67	637665.8	6327044	1447.34	243.33	26.64	2084.49
TC1_shp	2291.67	637665.8	6327044	1427.87	262.8	20.86	2198.36
TC1_shp	2291.67	637665.8	6327044	1408.4	282.27	16.76	2371.02

TC1_shp	2291.67	637665.8	6327044	1388.67	302	13.63	2579.49
TC1_shp	2291.67	637665.8	6327044	1368.67	322	12.21	2835.43
TC1_shp	2291.67	637665.8	6327044	1348.67	342	11.33	3095.67
TC1_shp	2291.67	637665.8	6327044	1328.67	362	11.04	3360.48
TC1_shp	2291.67	637665.8	6327044	1308.67	382	11.19	3592.07
TC1_shp	2291.67	637665.8	6327044	1286.57	404.1	11.58	3831.83
TC1_shp	2291.67	637665.8	6327044	1262.02	428.65	12.35	4022.65
TC1_shp	2291.67	637665.8	6327044	1236.07	454.6	13.22	4186.94
TC1_shp	2291.67	637665.8	6327044	1207.57	483.1	14.22	4279.7
TC1_shp	2291.67	637665.8	6327044	1176.87	513.8	15.09	4301.04
TC1_shp	2291.67	637665.8	6327044	1144.22	546.45	15.83	4271.76
TC1_shp	2291.67	637665.8	6327044	1108.42	582.25	16.22	4162.31
TC1_shp	2291.67	637665.8	6327044	1069.77	620.9	16.28	4007.54
TC1_shp	2291.67	637665.8	6327044	1028.62	662.05	16.05	3825.2
TC1_shp	2291.67	637665.8	6327044	983.52	707.15	15.46	3620.94
TC1_shp	2291.67	637665.8	6327044	934.87	755.8	14.59	3417.54
TC1_shp	2291.67	637665.8	6327044	883.07	807.6	13.65	3223.75
TC1_shp	2291.67	637665.8	6327044	826.27	864.4	12.54	3020.19
TC1_shp	2291.67	637665.8	6327044	765.02	925.65	11.16	2784.32
TC1_shp	2291.67	637665.8	6327044	700.17	990.5	9.76	2544.69
TC1_shp	2291.67	637665.8	6327044	628.67	1062	8.91	2424.98
TC1_shp	2308.33	637665.7	6327061	1678.27	9.73	0.1	5194.59
TC1_shp	2308.33	637665.7	6327061	1658.8	29.2	0.2	5773.29
TC1_shp	2308.33	637665.7	6327061	1639.33	48.67	0.98	8338.37
TC1_shp	2308.33	637665.7	6327061	1619.87	68.13	4.35	10582.13
TC1_shp	2308.33	637665.7	6327061	1600.4	87.6	18.86	10040.9
TC1_shp	2308.33	637665.7	6327061	1580.93	107.07	36.62	7676.93
TC1_shp	2308.33	637665.7	6327061	1561.47	126.53	46.1	5421.92
TC1_shp	2308.33	637665.7	6327061	1542	146	48.47	3887.87
TC1_shp	2308.33	637665.7	6327061	1522.53	165.47	46.1	2982.64
TC1_shp	2308.33	637665.7	6327061	1503.07	184.93	40.6	2463.97
TC1_shp	2308.33	637665.7	6327061	1483.6	204.4	34.15	2235.22
TC1_shp	2308.33	637665.7	6327061	1464.13	223.87	27.59	2175.41
TC1_shp	2308.33	637665.7	6327061	1444.67	243.33	21.37	2223.95
TC1_shp	2308.33	637665.7	6327061	1425.2	262.8	16.52	2376.25
TC1_shp	2308.33	637665.7	6327061	1405.73	282.27	13.39	2578.55
TC1_shp	2308.33	637665.7	6327061	1386	302	11.2	2811.42
TC1_shp	2308.33	637665.7	6327061	1366	322	10.28	3080.89
TC1_shp	2308.33	637665.7	6327061	1346	342	9.77	3347.51
TC1_shp	2308.33	637665.7	6327061	1326	362	9.7	3611.11
TC1_shp	2308.33	637665.7	6327061	1306	382	9.97	3832.6
TC1_shp	2308.33	637665.7	6327061	1283.9	404.1	10.43	4056.88
TC1_shp	2308.33	637665.7	6327061	1259.35	428.65	11.21	4221.52
TC1_shp	2308.33	637665.7	6327061	1233.4	454.6	12.08	4356.15
TC1_shp	2308.33	637665.7	6327061	1204.9	483.1	13.05	4413.77
TC1_shp	2308.33	637665.7	6327061	1174.2	513.8	13.9	4401.46
TC1_shp	2308.33	637665.7	6327061	1141.55	546.45	14.65	4339.81
TC1_shp	2308.33	637665.7	6327061	1105.75	582.25	15.08	4202.94
TC1_shp	2308.33	637665.7	6327061	1067.1	620.9	15.2	4026.05
TC1_shp	2308.33	637665.7	6327061	1025.95	662.05	15.05	3826.17
TC1_shp	2308.33	637665.7	6327061	980.85	707.15	14.56	3610.11
TC1_shp	2308.33	637665.7	6327061	932.2	755.8	13.8	3400.41

TC1_shp	2308.33	637665.7	6327061	880.4	807.6	12.95	3203.28
TC1_shp	2308.33	637665.7	6327061	823.6	864.4	11.95	2999.07
TC1_shp	2308.33	637665.7	6327061	762.35	925.65	10.68	2765.3
TC1_shp	2308.33	637665.7	6327061	697.5	990.5	9.39	2527.86
TC1_shp	2308.33	637665.7	6327061	626	1062	8.6	2410.28
TC1_shp	2325	637667	6327079	1674.27	9.73	0.16	4767.85
TC1_shp	2325	637667	6327079	1654.8	29.2	1.14	4580.36
TC1_shp	2325	637667	6327079	1635.33	48.67	1.62	7498.85
TC1_shp	2325	637667	6327079	1615.87	68.13	5.41	9710.53
TC1_shp	2325	637667	6327079	1596.4	87.6	20.72	8919.26
TC1_shp	2325	637667	6327079	1576.93	107.07	35.96	6690.44
TC1_shp	2325	637667	6327079	1557.47	126.53	42.39	4768.96
TC1_shp	2325	637667	6327079	1538	146	42.22	3529.42
TC1_shp	2325	637667	6327079	1518.53	165.47	38.22	2826.98
TC1_shp	2325	637667	6327079	1499.07	184.93	31.95	2448.52
TC1_shp	2325	637667	6327079	1479.6	204.4	25.64	2310.6
TC1_shp	2325	637667	6327079	1460.13	223.87	19.89	2316.31
TC1_shp	2325	637667	6327079	1440.67	243.33	15.01	2416.55
TC1_shp	2325	637667	6327079	1421.2	262.8	12	2607.51
TC1_shp	2325	637667	6327079	1401.73	282.27	10.14	2837.63
TC1_shp	2325	637667	6327079	1382	302	8.9	3091.78
TC1_shp	2325	637667	6327079	1362	322	8.45	3369.03
TC1_shp	2325	637667	6327079	1342	342	8.28	3635.42
TC1_shp	2325	637667	6327079	1322	362	8.42	3890.23
TC1_shp	2325	637667	6327079	1302	382	8.79	4094.43
TC1_shp	2325	637667	6327079	1279.9	404.1	9.32	4295.45
TC1_shp	2325	637667	6327079	1255.35	428.65	10.11	4426.92
TC1_shp	2325	637667	6327079	1229.4	454.6	10.97	4525.56
TC1_shp	2325	637667	6327079	1200.9	483.1	11.92	4543.66
TC1_shp	2325	637667	6327079	1170.2	513.8	12.76	4495.2
TC1_shp	2325	637667	6327079	1137.55	546.45	13.51	4399.87
TC1_shp	2325	637667	6327079	1101.75	582.25	13.98	4235.86
TC1_shp	2325	637667	6327079	1063.1	620.9	14.15	4037.77
TC1_shp	2325	637667	6327079	1021.95	662.05	14.08	3821.54
TC1_shp	2325	637667	6327079	976.85	707.15	13.69	3594.91
TC1_shp	2325	637667	6327079	928.2	755.8	13.03	3380.15
TC1_shp	2325	637667	6327079	876.4	807.6	12.28	3180.69
TC1_shp	2325	637667	6327079	819.6	864.4	11.37	2976.59
TC1_shp	2325	637667	6327079	758.35	925.65	10.21	2745.43
TC1_shp	2325	637667	6327079	693.5	990.5	9.03	2510.71
TC1_shp	2325	637667	6327079	622	1062	8.3	2395.35
TC1_shp	2341.67	637668.3	6327097	1670.27	9.73	16.59	2981.14
TC1_shp	2341.67	637668.3	6327097	1650.8	29.2	3.45	7169.44
TC1_shp	2341.67	637668.3	6327097	1631.33	48.67	7.3	9127.67
TC1_shp	2341.67	637668.3	6327097	1611.87	68.13	19.63	7883.97
TC1_shp	2341.67	637668.3	6327097	1592.4	87.6	29.34	5797.34
TC1_shp	2341.67	637668.3	6327097	1572.93	107.07	31.69	4214.44
TC1_shp	2341.67	637668.3	6327097	1553.47	126.53	29.59	3258.37
TC1_shp	2341.67	637668.3	6327097	1534	146	25.37	2746.8
TC1_shp	2341.67	637668.3	6327097	1514.53	165.47	19.89	2502.41
TC1_shp	2341.67	637668.3	6327097	1495.07	184.93	15.48	2453.67
TC1_shp	2341.67	637668.3	6327097	1475.6	204.4	12.16	2524.6

TC1_shp	2341.67	637668.3	6327097	1456.13	223.87	9.74	2676.29
TC1_shp	2341.67	637668.3	6327097	1436.67	243.33	8.32	2903.61
TC1_shp	2341.67	637668.3	6327097	1417.2	262.8	7.47	3157.04
TC1_shp	2341.67	637668.3	6327097	1397.73	282.27	6.94	3422.93
TC1_shp	2341.67	637668.3	6327097	1378	302	6.86	3695.7
TC1_shp	2341.67	637668.3	6327097	1358	322	6.95	3953.89
TC1_shp	2341.67	637668.3	6327097	1338	342	7.24	4190.34
TC1_shp	2341.67	637668.3	6327097	1318	362	7.69	4370.99
TC1_shp	2341.67	637668.3	6327097	1298	382	8.21	4523.85
TC1_shp	2341.67	637668.3	6327097	1275.9	404.1	8.91	4618.85
TC1_shp	2341.67	637668.3	6327097	1251.35	428.65	9.72	4697.66
TC1_shp	2341.67	637668.3	6327097	1225.4	454.6	10.56	4674.59
TC1_shp	2341.67	637668.3	6327097	1196.9	483.1	11.41	4622.04
TC1_shp	2341.67	637668.3	6327097	1166.2	513.8	12.16	4507.24
TC1_shp	2341.67	637668.3	6327097	1133.55	546.45	12.7	4347
TC1_shp	2341.67	637668.3	6327097	1097.75	582.25	13.1	4153.07
TC1_shp	2341.67	637668.3	6327097	1059.1	620.9	13.21	3930.19
TC1_shp	2341.67	637668.3	6327097	1017.95	662.05	13.03	3709.89
TC1_shp	2341.67	637668.3	6327097	972.85	707.15	12.64	3486.34
TC1_shp	2341.67	637668.3	6327097	924.2	755.8	12.05	3270.9
TC1_shp	2341.67	637668.3	6327097	872.4	807.6	11.37	3087.49
TC1_shp	2341.67	637668.3	6327097	815.6	864.4	10.48	2880.25
TC1_shp	2341.67	637668.3	6327097	754.35	925.65	9.44	2652.28
TC1_shp	2341.67	637668.3	6327097	689.5	990.5	8.51	2462.5
TC1_shp	2341.67	637668.3	6327097	618	1062	7.83	2349.43
TC1_shp	2358.33	637669.7	6327115	1666.27	9.73	1.28	11315.4
TC1_shp	2358.33	637669.7	6327115	1646.8	29.2	3.64	10051.33
TC1_shp	2358.33	637669.7	6327115	1627.33	48.67	8.87	9034.32
TC1_shp	2358.33	637669.7	6327115	1607.87	68.13	14.36	6941.23
TC1_shp	2358.33	637669.7	6327115	1588.4	87.6	16.47	5034.27
TC1_shp	2358.33	637669.7	6327115	1568.93	107.07	15.76	3794.03
TC1_shp	2358.33	637669.7	6327115	1549.47	126.53	13.83	3102.47
TC1_shp	2358.33	637669.7	6327115	1530	146	11.72	2767.16
TC1_shp	2358.33	637669.7	6327115	1510.53	165.47	9.7	2649.32
TC1_shp	2358.33	637669.7	6327115	1491.07	184.93	8.17	2686.17
TC1_shp	2358.33	637669.7	6327115	1471.6	204.4	7.03	2819.78
TC1_shp	2358.33	637669.7	6327115	1452.13	223.87	6.19	3019.44
TC1_shp	2358.33	637669.7	6327115	1432.67	243.33	5.72	3276.67
TC1_shp	2358.33	637669.7	6327115	1413.2	262.8	5.49	3544.89
TC1_shp	2358.33	637669.7	6327115	1393.73	282.27	5.41	3816.39
TC1_shp	2358.33	637669.7	6327115	1374	302	5.57	4076.52
TC1_shp	2358.33	637669.7	6327115	1354	322	5.84	4314.09
TC1_shp	2358.33	637669.7	6327115	1334	342	6.23	4520.69
TC1_shp	2358.33	637669.7	6327115	1314	362	6.73	4666.42
TC1_shp	2358.33	637669.7	6327115	1294	382	7.28	4781.81
TC1_shp	2358.33	637669.7	6327115	1271.9	404.1	7.98	4834.77
TC1_shp	2358.33	637669.7	6327115	1247.35	428.65	8.78	4866.7
TC1_shp	2358.33	637669.7	6327115	1221.4	454.6	9.59	4802.22
TC1_shp	2358.33	637669.7	6327115	1192.9	483.1	10.42	4708.81
TC1_shp	2358.33	637669.7	6327115	1162.2	513.8	11.17	4559.92
TC1_shp	2358.33	637669.7	6327115	1129.55	546.45	11.72	4373.42
TC1_shp	2358.33	637669.7	6327115	1093.75	582.25	12.14	4157.16

TC1_shp	2358.33	637669.7	6327115	1055.1	620.9	12.3	3919.81
TC1_shp	2358.33	637669.7	6327115	1013.95	662.05	12.19	3690.81
TC1_shp	2358.33	637669.7	6327115	968.85	707.15	11.89	3461.79
TC1_shp	2358.33	637669.7	6327115	920.2	755.8	11.39	3244.17
TC1_shp	2358.33	637669.7	6327115	868.4	807.6	10.79	3061.28
TC1_shp	2358.33	637669.7	6327115	811.6	864.4	9.99	2856.4
TC1_shp	2358.33	637669.7	6327115	750.35	925.65	9.05	2632.05
TC1_shp	2358.33	637669.7	6327115	685.5	990.5	8.21	2445.47
TC1_shp	2358.33	637669.7	6327115	614	1062	7.58	2334.74
TC1_shp	2375	637671	6327133	1662.27	9.73	7.14	9548.45
TC1_shp	2375	637671	6327133	1642.8	29.2	10.42	9305.53
TC1_shp	2375	637671	6327133	1623.33	48.67	7.97	7962.54
TC1_shp	2375	637671	6327133	1603.87	68.13	6.56	5944.63
TC1_shp	2375	637671	6327133	1584.4	87.6	5.98	4433.98
TC1_shp	2375	637671	6327133	1564.93	107.07	5.62	3546.9
TC1_shp	2375	637671	6327133	1545.47	126.53	5.28	3097
TC1_shp	2375	637671	6327133	1526	146	4.94	2921.24
TC1_shp	2375	637671	6327133	1506.53	165.47	4.6	2919.66
TC1_shp	2375	637671	6327133	1487.07	184.93	4.32	3035.18
TC1_shp	2375	637671	6327133	1467.6	204.4	4.12	3224.19
TC1_shp	2375	637671	6327133	1448.13	223.87	4	3462.72
TC1_shp	2375	637671	6327133	1428.67	243.33	3.99	3737.91
TC1_shp	2375	637671	6327133	1409.2	262.8	4.09	4007.21
TC1_shp	2375	637671	6327133	1389.73	282.27	4.25	4269.76
TC1_shp	2375	637671	6327133	1370	302	4.55	4502.17
TC1_shp	2375	637671	6327133	1350	322	4.93	4704.95
TC1_shp	2375	637671	6327133	1330	342	5.38	4868.85
TC1_shp	2375	637671	6327133	1310	362	5.91	4969.63
TC1_shp	2375	637671	6327133	1290	382	6.47	5038.97
TC1_shp	2375	637671	6327133	1267.9	404.1	7.15	5044.16
TC1_shp	2375	637671	6327133	1243.35	428.65	7.93	5024.22
TC1_shp	2375	637671	6327133	1217.4	454.6	8.71	4916.87
TC1_shp	2375	637671	6327133	1188.9	483.1	9.52	4781.97
TC1_shp	2375	637671	6327133	1158.2	513.8	10.26	4600.33
TC1_shp	2375	637671	6327133	1125.55	546.45	10.82	4389.46
TC1_shp	2375	637671	6327133	1089.75	582.25	11.26	4153.06
TC1_shp	2375	637671	6327133	1051.1	620.9	11.46	3903.35
TC1_shp	2375	637671	6327133	1009.95	662.05	11.41	3667.27
TC1_shp	2375	637671	6327133	964.85	707.15	11.18	3434.11
TC1_shp	2375	637671	6327133	916.2	755.8	10.77	3215.23
TC1_shp	2375	637671	6327133	864.4	807.6	10.24	3033.53
TC1_shp	2375	637671	6327133	807.6	864.4	9.53	2831.56
TC1_shp	2375	637671	6327133	746.35	925.65	8.68	2611.3
TC1_shp	2375	637671	6327133	681.5	990.5	7.91	2428.26
TC1_shp	2375	637671	6327133	610	1062	7.33	2319.93
TC1_shp	2391.67	637672.3	6327151	1658.27	9.73	23.98	8562.01
TC1_shp	2391.67	637672.3	6327151	1638.8	29.2	4.91	8745.69
TC1_shp	2391.67	637672.3	6327151	1619.33	48.67	2.19	6982.75
TC1_shp	2391.67	637672.3	6327151	1599.87	68.13	1.72	5199.44
TC1_shp	2391.67	637672.3	6327151	1580.4	87.6	1.73	4104.42
TC1_shp	2391.67	637672.3	6327151	1560.93	107.07	1.86	3532.93
TC1_shp	2391.67	637672.3	6327151	1541.47	126.53	2.02	3291.75

TC1_shp	2391.67	637672.3	6327151	1522	146	2.16	3253.88
TC1_shp	2391.67	637672.3	6327151	1502.53	165.47	2.29	3352.81
TC1_shp	2391.67	637672.3	6327151	1483.07	184.93	2.41	3533.04
TC1_shp	2391.67	637672.3	6327151	1463.6	204.4	2.54	3762.43
TC1_shp	2391.67	637672.3	6327151	1444.13	223.87	2.69	4022.72
TC1_shp	2391.67	637672.3	6327151	1424.67	243.33	2.88	4295.81
TC1_shp	2391.67	637672.3	6327151	1405.2	262.8	3.13	4546.06
TC1_shp	2391.67	637672.3	6327151	1385.73	282.27	3.41	4779.76
TC1_shp	2391.67	637672.3	6327151	1366	302	3.78	4966.42
TC1_shp	2391.67	637672.3	6327151	1346	322	4.2	5118.22
TC1_shp	2391.67	637672.3	6327151	1326	342	4.69	5225.67
TC1_shp	2391.67	637672.3	6327151	1306	362	5.22	5272.06
TC1_shp	2391.67	637672.3	6327151	1286	382	5.78	5288.04
TC1_shp	2391.67	637672.3	6327151	1263.9	404.1	6.44	5240.98
TC1_shp	2391.67	637672.3	6327151	1239.35	428.65	7.2	5165.5
TC1_shp	2391.67	637672.3	6327151	1213.4	454.6	7.96	5015.73
TC1_shp	2391.67	637672.3	6327151	1184.9	483.1	8.73	4840.19
TC1_shp	2391.67	637672.3	6327151	1154.2	513.8	9.44	4627.46
TC1_shp	2391.67	637672.3	6327151	1121.55	546.45	10	4394.32
TC1_shp	2391.67	637672.3	6327151	1085.75	582.25	10.46	4140.13
TC1_shp	2391.67	637672.3	6327151	1047.1	620.9	10.69	3880.34
TC1_shp	2391.67	637672.3	6327151	1005.95	662.05	10.69	3639
TC1_shp	2391.67	637672.3	6327151	960.85	707.15	10.52	3403.27
TC1_shp	2391.67	637672.3	6327151	912.2	755.8	10.18	3184.43
TC1_shp	2391.67	637672.3	6327151	860.4	807.6	9.72	3004.57
TC1_shp	2391.67	637672.3	6327151	803.6	864.4	9.09	2805.98
TC1_shp	2391.67	637672.3	6327151	742.35	925.65	8.32	2590.18
TC1_shp	2391.67	637672.3	6327151	677.5	990.5	7.63	2410.92
TC1_shp	2391.67	637672.3	6327151	606	1062	7.09	2305.05
TC1_shp	2408.33	637671.3	6327169	1655.44	9.73	0.19	15545.81
TC1_shp	2408.33	637671.3	6327169	1635.97	29.2	0.1	9780.72
TC1_shp	2408.33	637671.3	6327169	1616.5	48.67	0.1	6486.77
TC1_shp	2408.33	637671.3	6327169	1597.04	68.13	0.2	4896.39
TC1_shp	2408.33	637671.3	6327169	1577.57	87.6	0.36	4154.1
TC1_shp	2408.33	637671.3	6327169	1558.1	107.07	0.57	3834.2
TC1_shp	2408.33	637671.3	6327169	1538.64	126.53	0.78	3756.7
TC1_shp	2408.33	637671.3	6327169	1519.17	146	0.99	3825.42
TC1_shp	2408.33	637671.3	6327169	1499.7	165.47	1.22	3996.47
TC1_shp	2408.33	637671.3	6327169	1480.24	184.93	1.44	4214.58
TC1_shp	2408.33	637671.3	6327169	1460.77	204.4	1.66	4456.75
TC1_shp	2408.33	637671.3	6327169	1441.3	223.87	1.9	4709.77
TC1_shp	2408.33	637671.3	6327169	1421.84	243.33	2.17	4951.38
TC1_shp	2408.33	637671.3	6327169	1402.37	262.8	2.48	5156.13
TC1_shp	2408.33	637671.3	6327169	1382.9	282.27	2.8	5336.47
TC1_shp	2408.33	637671.3	6327169	1363.17	302	3.2	5457.29
TC1_shp	2408.33	637671.3	6327169	1343.17	322	3.64	5541.31
TC1_shp	2408.33	637671.3	6327169	1323.17	342	4.14	5579.75
TC1_shp	2408.33	637671.3	6327169	1303.17	362	4.66	5563.38
TC1_shp	2408.33	637671.3	6327169	1283.17	382	5.21	5519.72
TC1_shp	2408.33	637671.3	6327169	1261.07	404.1	5.84	5418.14
TC1_shp	2408.33	637671.3	6327169	1236.52	428.65	6.56	5286.21
TC1_shp	2408.33	637671.3	6327169	1210.57	454.6	7.28	5095.24

TC1_shp	2408.33	637671.3	6327169	1182.07	483.1	8.02	4880.99
TC1_shp	2408.33	637671.3	6327169	1151.37	513.8	8.71	4640.54
TC1_shp	2408.33	637671.3	6327169	1118.72	546.45	9.26	4388.16
TC1_shp	2408.33	637671.3	6327169	1082.92	582.25	9.73	4119.09
TC1_shp	2408.33	637671.3	6327169	1044.27	620.9	9.98	3851.62
TC1_shp	2408.33	637671.3	6327169	1003.12	662.05	10.02	3606.81
TC1_shp	2408.33	637671.3	6327169	958.02	707.15	9.91	3369.89
TC1_shp	2408.33	637671.3	6327169	909.37	755.8	9.64	3151.87
TC1_shp	2408.33	637671.3	6327169	857.57	807.6	9.24	2974.45
TC1_shp	2408.33	637671.3	6327169	800.77	864.4	8.68	2779.7
TC1_shp	2408.33	637671.3	6327169	739.52	925.65	7.99	2568.75
TC1_shp	2408.33	637671.3	6327169	674.67	990.5	7.37	2393.55
TC1_shp	2408.33	637671.3	6327169	603.17	1062	6.87	2290.15
TC1_shp	2425	637667.8	6327186	1653.77	9.73	0.1	17755.52
TC1_shp	2425	637667.8	6327186	1634.3	29.2	0.1	9429.78
TC1_shp	2425	637667.8	6327186	1614.83	48.67	0.1	6349.85
TC1_shp	2425	637667.8	6327186	1595.37	68.13	0.1	5202.16
TC1_shp	2425	637667.8	6327186	1575.9	87.6	0.1	4732.12
TC1_shp	2425	637667.8	6327186	1556.43	107.07	0.1	4570.74
TC1_shp	2425	637667.8	6327186	1536.97	126.53	0.28	4587.15
TC1_shp	2425	637667.8	6327186	1517.5	146	0.48	4708.02
TC1_shp	2425	637667.8	6327186	1498.03	165.47	0.71	4899.33
TC1_shp	2425	637667.8	6327186	1478.57	184.93	0.93	5108.63
TC1_shp	2425	637667.8	6327186	1459.1	204.4	1.17	5319.41
TC1_shp	2425	637667.8	6327186	1439.63	223.87	1.43	5522.7
TC1_shp	2425	637667.8	6327186	1420.17	243.33	1.73	5694.86
TC1_shp	2425	637667.8	6327186	1400.7	262.8	2.05	5822.39
TC1_shp	2425	637667.8	6327186	1381.23	282.27	2.38	5921.56
TC1_shp	2425	637667.8	6327186	1361.5	302	2.79	5957.08
TC1_shp	2425	637667.8	6327186	1341.5	322	3.23	5957.75
TC1_shp	2425	637667.8	6327186	1321.5	342	3.71	5916.51
TC1_shp	2425	637667.8	6327186	1301.5	362	4.22	5831.88
TC1_shp	2425	637667.8	6327186	1281.5	382	4.74	5725.64
TC1_shp	2425	637667.8	6327186	1259.4	404.1	5.35	5569.39
TC1_shp	2425	637667.8	6327186	1234.85	428.65	6.03	5381.96
TC1_shp	2425	637667.8	6327186	1208.9	454.6	6.72	5153.28
TC1_shp	2425	637667.8	6327186	1180.4	483.1	7.42	4903.86
TC1_shp	2425	637667.8	6327186	1149.7	513.8	8.07	4638.88
TC1_shp	2425	637667.8	6327186	1117.05	546.45	8.61	4370.47
TC1_shp	2425	637667.8	6327186	1081.25	582.25	9.07	4089.69
TC1_shp	2425	637667.8	6327186	1042.6	620.9	9.34	3816.93
TC1_shp	2425	637667.8	6327186	1001.45	662.05	9.42	3570.52
TC1_shp	2425	637667.8	6327186	956.35	707.15	9.35	3334.02
TC1_shp	2425	637667.8	6327186	907.7	755.8	9.13	3118.07
TC1_shp	2425	637667.8	6327186	855.9	807.6	8.79	2943.55
TC1_shp	2425	637667.8	6327186	799.1	864.4	8.29	2752.98
TC1_shp	2425	637667.8	6327186	737.85	925.65	7.68	2547.14
TC1_shp	2425	637667.8	6327186	673	990.5	7.11	2376.18
TC1_shp	2425	637667.8	6327186	601.5	1062	6.65	2275.28
TC1_shp	2441.67	637664.3	6327204	1652.1	9.73	0.1	17808.58
TC1_shp	2441.67	637664.3	6327204	1632.63	29.2	0.1	9172.88
TC1_shp	2441.67	637664.3	6327204	1613.16	48.67	0.1	7374.63

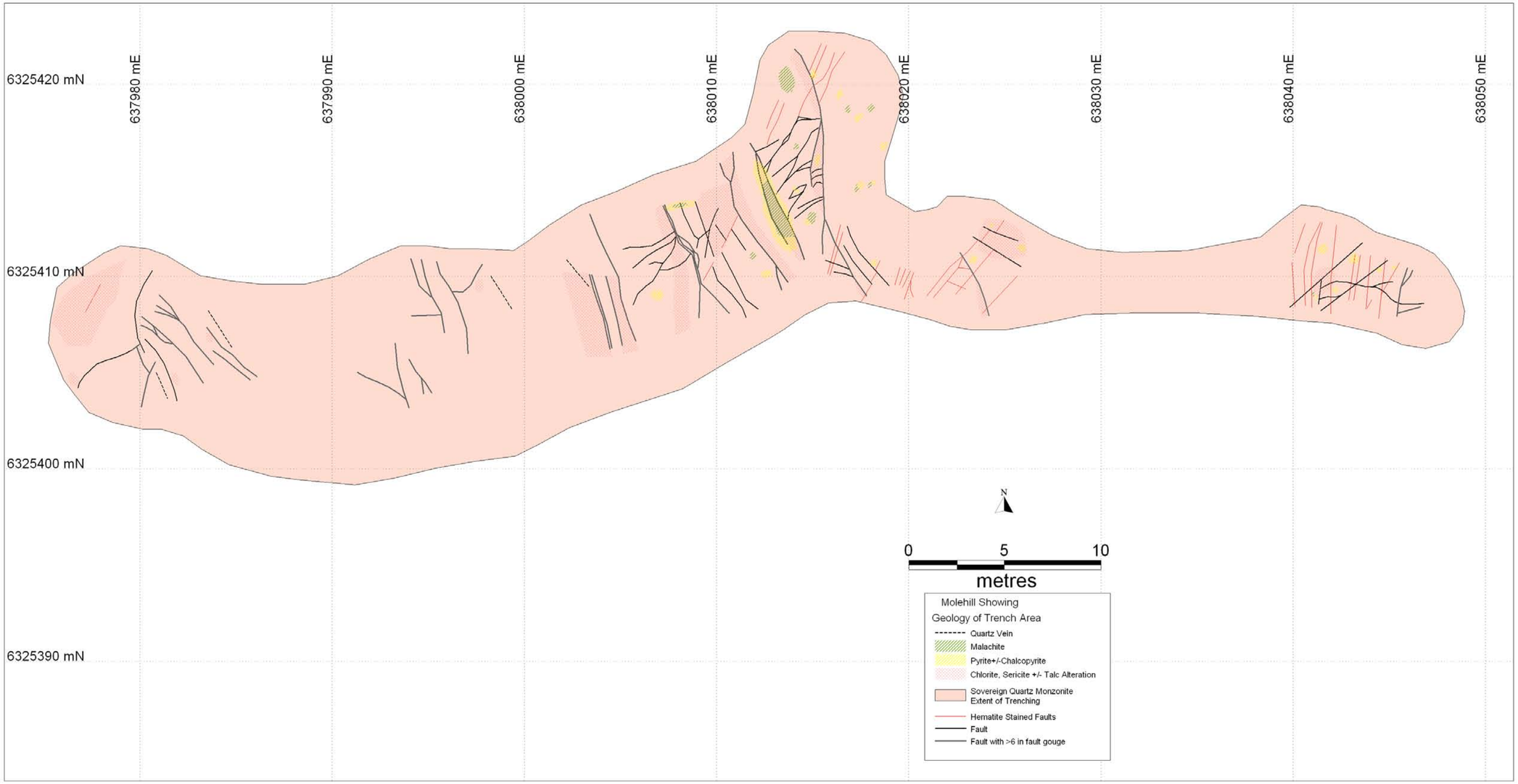
TC1_shp	2441.67	637664.3	6327204	1593.7	68.13	0.1	6510.73
TC1_shp	2441.67	637664.3	6327204	1574.23	87.6	0.1	6071.05
TC1_shp	2441.67	637664.3	6327204	1554.76	107.07	0.1	5897.07
TC1_shp	2441.67	637664.3	6327204	1535.3	126.53	0.1	5888.06
TC1_shp	2441.67	637664.3	6327204	1515.83	146	0.26	5968.91
TC1_shp	2441.67	637664.3	6327204	1496.36	165.47	0.46	6096.01
TC1_shp	2441.67	637664.3	6327204	1476.9	184.93	0.67	6225.46
TC1_shp	2441.67	637664.3	6327204	1457.43	204.4	0.91	6342.95
TC1_shp	2441.67	637664.3	6327204	1437.96	223.87	1.16	6441.67
TC1_shp	2441.67	637664.3	6327204	1418.5	243.33	1.45	6500.6
TC1_shp	2441.67	637664.3	6327204	1399.03	262.8	1.77	6517.82
TC1_shp	2441.67	637664.3	6327204	1379.56	282.27	2.1	6508.97
TC1_shp	2441.67	637664.3	6327204	1359.83	302	2.49	6443.03
TC1_shp	2441.67	637664.3	6327204	1339.83	322	2.92	6348.55
TC1_shp	2441.67	637664.3	6327204	1319.83	342	3.39	6221.29
TC1_shp	2441.67	637664.3	6327204	1299.83	362	3.87	6066.25
TC1_shp	2441.67	637664.3	6327204	1279.83	382	4.37	5897.36
TC1_shp	2441.67	637664.3	6327204	1257.73	404.1	4.94	5688.96
TC1_shp	2441.67	637664.3	6327204	1233.18	428.65	5.58	5449.74
TC1_shp	2441.67	637664.3	6327204	1207.23	454.6	6.23	5187.72
TC1_shp	2441.67	637664.3	6327204	1178.73	483.1	6.89	4907.78
TC1_shp	2441.67	637664.3	6327204	1148.03	513.8	7.52	4622.95
TC1_shp	2441.67	637664.3	6327204	1115.38	546.45	8.04	4342.16
TC1_shp	2441.67	637664.3	6327204	1079.58	582.25	8.49	4052.88
TC1_shp	2441.67	637664.3	6327204	1040.93	620.9	8.77	3777.36
TC1_shp	2441.67	637664.3	6327204	999.78	662.05	8.87	3531.06
TC1_shp	2441.67	637664.3	6327204	954.68	707.15	8.85	3296.19
TC1_shp	2441.67	637664.3	6327204	906.03	755.8	8.67	3083.03
TC1_shp	2441.67	637664.3	6327204	854.23	807.6	8.38	2911.91
TC1_shp	2441.67	637664.3	6327204	797.43	864.4	7.94	2725.86
TC1_shp	2441.67	637664.3	6327204	736.18	925.65	7.39	2525.39
TC1_shp	2441.67	637664.3	6327204	671.33	990.5	6.89	2358.84
TC1_shp	2441.67	637664.3	6327204	599.83	1062	6.46	2260.45
TC1_shp	2458.33	637660.8	6327221	1650.44	9.73	0.1	13477.54
TC1_shp	2458.33	637660.8	6327221	1630.97	29.2	0.1	11003.24
TC1_shp	2458.33	637660.8	6327221	1611.5	48.67	0.1	9252.89
TC1_shp	2458.33	637660.8	6327221	1592.04	68.13	0.1	8363.25
TC1_shp	2458.33	637660.8	6327221	1572.57	87.6	0.1	7928.83
TC1_shp	2458.33	637660.8	6327221	1553.1	107.07	0.1	7725.48
TC1_shp	2458.33	637660.8	6327221	1533.64	126.53	0.16	7633.4
TC1_shp	2458.33	637660.8	6327221	1514.17	146	0.35	7578.7
TC1_shp	2458.33	637660.8	6327221	1494.7	165.47	0.55	7536.76
TC1_shp	2458.33	637660.8	6327221	1475.24	184.93	0.77	7487.55
TC1_shp	2458.33	637660.8	6327221	1455.77	204.4	1.01	7421.85
TC1_shp	2458.33	637660.8	6327221	1436.3	223.87	1.29	7325.94
TC1_shp	2458.33	637660.8	6327221	1416.84	243.33	1.6	7203.93
TC1_shp	2458.33	637660.8	6327221	1397.37	262.8	1.92	7065.44
TC1_shp	2458.33	637660.8	6327221	1377.9	282.27	2.3	6890.79
TC1_shp	2458.33	637660.8	6327221	1358.17	302	2.7	6698.75
TC1_shp	2458.33	637660.8	6327221	1338.17	322	3.13	6484.41
TC1_shp	2458.33	637660.8	6327221	1318.17	342	3.59	6261.64
TC1_shp	2458.33	637660.8	6327221	1298.17	362	4.06	6034.14

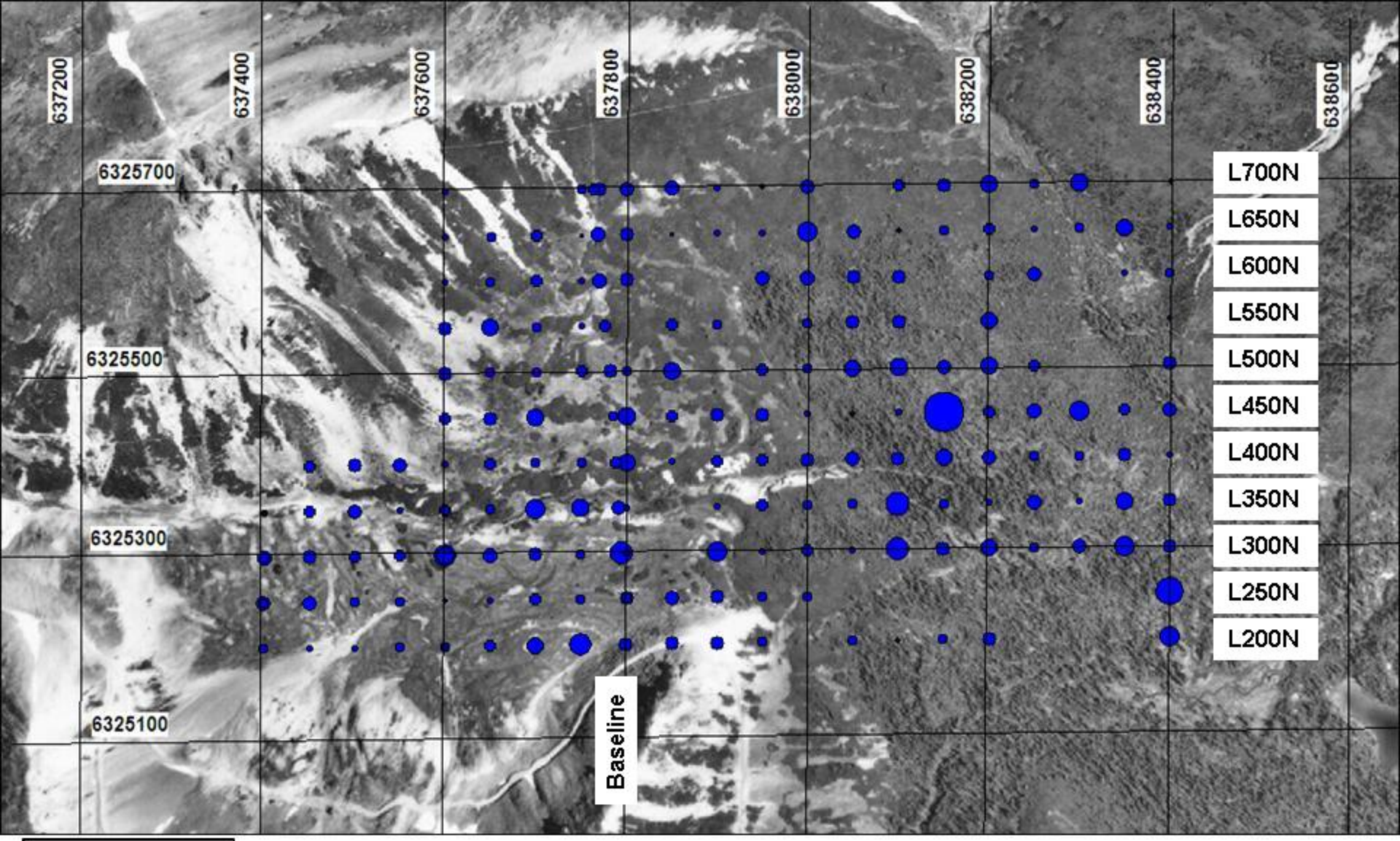
TC1_shp	2458.33	637660.8	6327221	1278.17	382	4.55	5803.16
TC1_shp	2458.33	637660.8	6327221	1256.07	404.1	5.09	5546.33
TC1_shp	2458.33	637660.8	6327221	1231.52	428.65	5.67	5269.98
TC1_shp	2458.33	637660.8	6327221	1205.57	454.6	6.28	4980.93
TC1_shp	2458.33	637660.8	6327221	1177.07	483.1	6.82	4702.46
TC1_shp	2458.33	637660.8	6327221	1146.37	513.8	7.35	4416.06
TC1_shp	2458.33	637660.8	6327221	1113.72	546.45	7.8	4137.05
TC1_shp	2458.33	637660.8	6327221	1077.92	582.25	8.11	3869.99
TC1_shp	2458.33	637660.8	6327221	1039.27	620.9	8.34	3609.04
TC1_shp	2458.33	637660.8	6327221	998.12	662.05	8.4	3380.13
TC1_shp	2458.33	637660.8	6327221	953.02	707.15	8.32	3172.8
TC1_shp	2458.33	637660.8	6327221	904.37	755.8	8.15	2983.6
TC1_shp	2458.33	637660.8	6327221	852.57	807.6	7.91	2817.52
TC1_shp	2458.33	637660.8	6327221	795.77	864.4	7.46	2636.69
TC1_shp	2458.33	637660.8	6327221	734.52	925.65	6.97	2441.72
TC1_shp	2458.33	637660.8	6327221	669.67	990.5	6.56	2315.54
TC1_shp	2458.33	637660.8	6327221	598.17	1062	6.17	2219.65
TC1_shp	2475	637657.3	6327239	1648.77	9.73	0.1	16014.55
TC1_shp	2475	637657.3	6327239	1629.3	29.2	0.1	14289.39
TC1_shp	2475	637657.3	6327239	1609.83	48.67	0.1	12596.43
TC1_shp	2475	637657.3	6327239	1590.37	68.13	0.1	11414.94
TC1_shp	2475	637657.3	6327239	1570.9	87.6	0.1	10613.79
TC1_shp	2475	637657.3	6327239	1551.43	107.07	0.1	10053.69
TC1_shp	2475	637657.3	6327239	1531.97	126.53	0.16	9636.6
TC1_shp	2475	637657.3	6327239	1512.5	146	0.33	9269.24
TC1_shp	2475	637657.3	6327239	1493.03	165.47	0.52	8960.05
TC1_shp	2475	637657.3	6327239	1473.57	184.93	0.73	8674.12
TC1_shp	2475	637657.3	6327239	1454.1	204.4	0.96	8393.04
TC1_shp	2475	637657.3	6327239	1434.63	223.87	1.23	8111.87
TC1_shp	2475	637657.3	6327239	1415.17	243.33	1.51	7833.3
TC1_shp	2475	637657.3	6327239	1395.7	262.8	1.82	7554.98
TC1_shp	2475	637657.3	6327239	1376.23	282.27	2.17	7270.38
TC1_shp	2475	637657.3	6327239	1356.5	302	2.55	6980.56
TC1_shp	2475	637657.3	6327239	1336.5	322	2.97	6684.91
TC1_shp	2475	637657.3	6327239	1316.5	342	3.4	6399.99
TC1_shp	2475	637657.3	6327239	1296.5	362	3.84	6121.08
TC1_shp	2475	637657.3	6327239	1276.5	382	4.29	5853.06
TC1_shp	2475	637657.3	6327239	1254.4	404.1	4.8	5561.84
TC1_shp	2475	637657.3	6327239	1229.85	428.65	5.35	5261.47
TC1_shp	2475	637657.3	6327239	1203.9	454.6	5.92	4951.04
TC1_shp	2475	637657.3	6327239	1175.4	483.1	6.43	4663.13
TC1_shp	2475	637657.3	6327239	1144.7	513.8	6.93	4369.3
TC1_shp	2475	637657.3	6327239	1112.05	546.45	7.35	4087.56
TC1_shp	2475	637657.3	6327239	1076.25	582.25	7.66	3821.09
TC1_shp	2475	637657.3	6327239	1037.6	620.9	7.89	3562.3
TC1_shp	2475	637657.3	6327239	996.45	662.05	7.97	3337.02
TC1_shp	2475	637657.3	6327239	951.35	707.15	7.92	3133.73
TC1_shp	2475	637657.3	6327239	902.7	755.8	7.78	2948.74
TC1_shp	2475	637657.3	6327239	850.9	807.6	7.57	2786.84
TC1_shp	2475	637657.3	6327239	794.1	864.4	7.17	2611.25
TC1_shp	2475	637657.3	6327239	732.85	925.65	6.73	2421.96
TC1_shp	2475	637657.3	6327239	668	990.5	6.36	2299.26

TC1_shp	2475	637657.3	6327239	596.5	1062	6	2205.85
TC1_shp	2491.67	637653.8	6327257	1647.1	9.73	0.1	19086.19
TC1_shp	2491.67	637653.8	6327257	1627.63	29.2	0.1	18265.04
TC1_shp	2491.67	637653.8	6327257	1608.16	48.67	0.1	16729.62
TC1_shp	2491.67	637653.8	6327257	1588.7	68.13	0.1	15139.95
TC1_shp	2491.67	637653.8	6327257	1569.23	87.6	0.1	13779.21
TC1_shp	2491.67	637653.8	6327257	1549.76	107.07	0.1	12677.33
TC1_shp	2491.67	637653.8	6327257	1530.3	126.53	0.21	11790
TC1_shp	2491.67	637653.8	6327257	1510.83	146	0.38	11000.95
TC1_shp	2491.67	637653.8	6327257	1491.36	165.47	0.55	10355.5
TC1_shp	2491.67	637653.8	6327257	1471.9	184.93	0.74	9789.63
TC1_shp	2491.67	637653.8	6327257	1452.43	204.4	0.97	9267.52
TC1_shp	2491.67	637653.8	6327257	1432.96	223.87	1.21	8793.3
TC1_shp	2491.67	637653.8	6327257	1413.5	243.33	1.48	8358.2
TC1_shp	2491.67	637653.8	6327257	1394.03	262.8	1.78	7944.31
TC1_shp	2491.67	637653.8	6327257	1374.56	282.27	2.11	7559.34
TC1_shp	2491.67	637653.8	6327257	1354.83	302	2.47	7182.05
TC1_shp	2491.67	637653.8	6327257	1334.83	322	2.86	6816.36
TC1_shp	2491.67	637653.8	6327257	1314.83	342	3.27	6479.69
TC1_shp	2491.67	637653.8	6327257	1294.83	362	3.68	6159.3
TC1_shp	2491.67	637653.8	6327257	1274.83	382	4.1	5862.52
TC1_shp	2491.67	637653.8	6327257	1252.73	404.1	4.57	5545.32
TC1_shp	2491.67	637653.8	6327257	1228.18	428.65	5.08	5228.05
TC1_shp	2491.67	637653.8	6327257	1202.23	454.6	5.61	4903.09
TC1_shp	2491.67	637653.8	6327257	1173.73	483.1	6.08	4610.23
TC1_shp	2491.67	637653.8	6327257	1143.03	513.8	6.55	4313.17
TC1_shp	2491.67	637653.8	6327257	1110.38	546.45	6.96	4031.96
TC1_shp	2491.67	637653.8	6327257	1074.58	582.25	7.26	3768.08
TC1_shp	2491.67	637653.8	6327257	1035.93	620.9	7.49	3512.99
TC1_shp	2491.67	637653.8	6327257	994.78	662.05	7.59	3292.51
TC1_shp	2491.67	637653.8	6327257	949.68	707.15	7.56	3094.07
TC1_shp	2491.67	637653.8	6327257	901.03	755.8	7.45	2913.8
TC1_shp	2491.67	637653.8	6327257	849.23	807.6	7.26	2756.26
TC1_shp	2491.67	637653.8	6327257	792.43	864.4	6.91	2585.99
TC1_shp	2491.67	637653.8	6327257	731.18	925.65	6.52	2402.46
TC1_shp	2491.67	637653.8	6327257	666.33	990.5	6.18	2283.26
TC1_shp	2491.67	637653.8	6327257	594.83	1062	5.84	2192.29

Line (N)	Station (E)	Au(ppb)	Ag	Al %	As	Ba	Bi	Ca %	Cd	Co	Cr	Cu	Fe %	La	Mg %	Mn	Mo	Na %	Ni	P	Pb	Sb	Sn	Sr	Ti %	U	V	W	Y	Zn
L250	637400	35	0.3	3.32	<5	85	<5	0.58	<1	8	12	163	2.81	<10	0.40	470	3	0.02	6	970	24	<5	<20	57	0.05	<10	55	<10	5	32
L300	637400	20	0.3	3.94	5	70	<5	0.27	<1	9	27	98	4.33	<10	0.51	554	3	0.02	8	1020	30	<5	<20	30	0.07	<10	74	<10	7	47
L350	637400	30	<0.2	3.10	<5	55	<5	0.46	<1	9	14	88	3.99	<10	0.46	441	3	0.01	4	760	26	<5	<20	44	0.06	<10	74	<10	6	42
L200	637600	45	0.3	4.31	15	65	<5	2.28	<1	20	31	213	2.92	<10	0.94	443	8	0.02	24	720	26	<5	<20	174	0.07	<10	62	<10	9	32
L250	637600	15	<0.2	5.28	5	100	<5	2.49	<1	18	44	153	3.17	<10	1.15	458	10	0.02	33	840	28	<5	<20	223	0.14	<10	75	<10	8	31
L300	637600	20	0.8	3.10	<5	70	<5	0.21	<1	6	17	97	4.10	<10	0.40	380	4	0.02	6	710	26	<5	<20	30	0.06	<10	74	<10	6	42
L350	637600	10	0.4	2.87	<5	110	<5	0.47	<1	11	10	89	3.66	<10	0.44	1801	9	0.02	4	890	32	<5	<20	62	0.05	<10	70	<10	6	52
L400	637600	25	0.2	2.32	<5	80	<5	0.97	<1	15	13	153	2.57	<10	0.65	651	<1	0.01	6	760	20	<5	<20	75	0.04	<10	43	<10	6	52
L450	637600	55	0.4	4.25	10	155	<5	2.06	<1	24	40	105	4.36	<10	1.11	1664	2	0.02	14	1040	46	<5	<20	160	0.06	<10	78	<10	11	135
L500	637600	75	0.5	2.87	5	85	<5	2.00	2	20	25	94	2.69	<10	0.74	1007	1	0.01	9	630	32	<5	<20	119	0.03	<10	41	<10	7	162
L550	637600	30	0.5	2.75	10	325	<5	1.02	1	18	37	85	3.90	<10	0.78	2149	1	0.02	12	2160	36	<5	<20	94	0.01	<10	67	<10	11	106
L600	637600	5	0.2	3.21	<5	460	<5	0.65	1	14	17	50	3.86	10	0.56	3517	1	0.01	6	1830	66	<5	<20	60	0.01	<10	43	<10	15	112
L650	637600	15	0.2	2.70	<5	585	<5	0.50	<1	16	11	26	3.73	<10	0.51	3464	3	0.01	4	1090	118	<5	<20	73	<0.01	<10	55	<10	9	142
L700	637600	15	0.2	2.67	<5	190	<5	1.37	<1	5	6	26	1.76	<10	0.39	608	<1	0.01	2	510	24	<5	<20	130	0.01	<10	26	<10	6	42
L200	Baseline																													
L250	Baseline	40	0.3	6.58	20	85	<5	2.84	<1	41	69	326	4.49	10	1.57	872	31	0.04	61	1230	46	<5	<20	177	0.10	<10	99	<10	22	52
L300	Baseline	50	1.5	2.42	<5	70	<5	0.11	<1	4	16	51	2.60	<10	0.30	187	2	0.01	6	770	18	<5	<20	26	0.04	<10	62	<10	4	19
L350	Baseline	25	0.6	3.98	<5	100	<5	0.46	<1	11	17	126	3.52	<10	0.41	1639	4	<0.01	5	1700	32	<5	<20	46	0.04	<10	58	<10	7	45
L400	Baseline	30	0.4	3.80	5	165	<5	1.00	<1	9	6	854	2.98	40	0.57	587	20	0.02	23	2270	44	<5	<20	67	0.02	<10	95	<10	25	45
L450	Baseline	30	0.3	3.32	<5	55	<5	0.15	<1	7	21	58	4.00	<10	0.48	357	3	0.01	7	800	26	<5	<20	21	0.08	<10	81	<10	5	46
L500	Baseline	20	0.5	0.90	<5	45	<5	0.15	<1	5	15	29	1.09	<10	0.19	99	<1	0.01	6	780	16	<5	<20	14	0.11	<10	59	<10	2	14
L550	Baseline	20	0.4	2.03	5	85	<5	0.11	<1	11	19	35	4.58	<10	0.35	1542	3	0.01	5	1190	44	<5	<20	22	0.08	<10	101	<10	3	56
L600	Baseline	<5	0.7	1.32	<5	70	<5	0.15	<1	5	14	20	2.43	<10	0.29	404	1	0.01	5	580	20	<5	<20	29	0.07	<10	73	<10	2	35
L650	Baseline	25	0.7	3.61	10	65	<5	0.24	<1	20	52	103	5.47	<10	1.07	682	3	0.02	19	710	36	<5	<20	27	0.12	<10	103	<10	6	116
L700	Baseline	10	0.4	2.88	<5	635	<5	1.13	<1	7	9	43	2.78	10	0.62	1690	1	<0.01	5	780	34	<5	<20	100	<0.01	<10	37	<10	15	65
L200	638000																													
L250	638000	15	0.3	2.03	<5	50	<5	0.15	<1	8	20	41	4.31	<10	0.52	427	3	0.02	7	650	24	<5	<20	25	0.07	<10	105	<10	4	37
L300	638000	35	0.4	1.82	<5	45	<5	0.10	<1	6	17	32	3.56	<10	0.41	291	2	0.01	6	350	18	<5	<20	22	0.05	<10	85	<10	3	32
L350	638000	5	0.3	0.47	<5	45	<5	0.07	<1	2	10	6	1.86	<10	0.06	104	<1	0.01	1	230	6	<5	<20	17	0.03	<10	47	<10	1	8
L400	638000	30	0.5	1.78	<5	55	<5	0.16	<1	5	16	44	3.74	<10	0.31	231	2	0.01	4	530	18	<5	<20	24	0.07	<10	77	<10	4	25
L450	638000	25	0.2	1.68	<5	65	<5	0.31	<1	5	12	48	3.11	<10	0.39	274	1	0.01	4	520	20	<5	<20	32	0.06	<10	66	<10	4	34
L500	638000	25	0.3	2.30	<5	70	<5	0.92	<1	14	21	74	3.24	<10	0.72	542	2	0.01	10	980	22	<5	<20	63	0.08	<10	65	<10	7	76
L550	638000	15	0.3	1.92	5	150	<5	1.51	<1	10	18	150	3.02	10	0.68	498	4	0.02	11	970	16	<5	<20	79	0.08	<10	71	<10	11	42
L600	638000	20	0.7	2.60	5	310	<5	1.43	1	11	21	108	2.81	<10	0.64	1106	6	0.02	13	1150	46	<5	<20	74	0.04	<10	60	<10	10	99
L650	638000	120	1.1	1.94	5	370	<5	0.39	1	13	19	46	3.25	10	0.43	5983	5	0.01	11	390	30	<5	<20	33	0.08	<10	102	<10	10	40
L700	638000	20	0.6	2.16	10	55	<5	0.15	<1	15	28	39	4.52	<10	0.74	1344	2	0.01	10	960	28	<5	<20	22	0.13	<10	116	<10	3	61
L200	638200	10	0.5	3.35	85	140	<5	0.50	<1	16	46	117	5.31	<10	1.34	610	22	0.02	28	730	30	<5	<20	50	0.06	<10	104	<10	10	90
L250	638200																													
L300	638200	25	0.8	1.67	<5	55	<5	0.32	<1	6	12	37	2.26	<10	0.47	172	8	0.01	7	410	16	<5	<20	30	0.06	<10	80	<10	4	32
L350	638200	10	0.2	1.25	<5	125	<5	0.25	<1	6	2	33	2.04	<10	0.35	382	6	0.01	4	310	18	<5	<20	41	0.06	<10	65	<10	4	34
L400	638200	20	0.6	3.31	<5	165	<5	1.65	<1	13	16	212	3.37	10	0.77	751	7	0.02	10	970	40	<5	<20	114	0.04	<10	63	<10	11	61
L450	638200	15	0.4	0.24	<5	180	<5	4.57	<1	<1	2	34	0.24	<10	0.06	14	4	0.01	2	590	2	<5	<20	124	<0.01	<10	5	<10	2	4
L500	638200	30	0.9	2.72	5	470	<5	2.30	1	11	31	185	3.14	20	0.70	676	8	0.02	20	1280	28	<5	<20	99	0.03	<10	64	<10	26	70
L550	638200	10	0.8	0.63	<5	90	<5	2.30	1	2	5	36	0.47	<10	0.07	33	2	0.01	4	1320	4	<5	<20	78	<0.01	<10	7	<10	5	16
L600	638200	610	0.3	2.36	5	125	<5	0.86	<1	12	30	91	3.26	<10	0.89	468	3	0.02	16	900	22	<5	<20	63	0.07	<10	78	<10	8	68
L650	638200	35	0.4	1.79	5	105	<5	0.27	<1	9	32	56	3.11	<10	0.67	297	3	0.01	11	720	22	<5	<20	38	0.10	<10	86	<10	4	47
L700	638200	60	0.9	1.74	5	65	<5	0.19	<1	10	24	34	3.48	<10	0.55	650	1	0.01	9	730	18	<5	<20	27	0.06	<10	80	<10	3	50
L200	638400	25	1.2	1.33	<5	115	<5	0.82	<1	9	13	33	1.70	<10	0.40	376	7	0.02	10	1800	12	<5	<20	55	0.01	<10	42	<10	6	22
L250	638400	15	2.0	3.00	15	155	<5	0.13	<1	7	30	72	2.88	<10	0.53	222	7	0.01	20	1100	28	<5	<20	27	0.02	<10	71	<10	4	48
L300	638400	20	0.5	3.65	10	160	<5	0.74	<1	22	43	258	5.09	20	1.02	1198	48	0.02	30	1120	38	<5	<20	54	0.04	<10	103	<10	20	65
L350	638400	25	0.5	2.91	<5	165	<5	0.89	<1	6	10	185	2.21	<10	0.58	266	20	0.02	10	950	28	<5	<20	86	0.02	<10	70	<10	6	62
L400	638400	10	0.2	2.53	5	115	<5	0.97	<1	23	46	93	3.66	<10	1.06	689	3	0.02	35	720	22	<5	<20	93	0.07	<10	71	<10	8	68
L450	638400	10	0.6	2.55	5	115	<5	0.41	<1	8	30	65	3.43	<10	0.75	395	2	0.01	13	1030	22	<5	<20	41	0.05	<10	64	<10	6	61
L500	638400	750	0.5	2.07	<5	100	<5	0.74	3	8	19	80	2.81	<10	0.74	396	3	0.02	11	910	26	<5	<20	75	0.04	<10	60	<10	7	121
L550	638400	15	<0.2	2.73	<5	110	<5	0.61	<1	12	20	98	3.41	<10	0.83	719	2	0.01	12	840	34	<5	<20	63	0.08	<10	65	<10	12	92
L600	638400	25	0.3	2.46	<5	240	<5	1.88	<1	9	10	36	2.32	<10	0.83	687	2	0.01	6	910	20	<5	<20	124	0.05	<10	51	<10	7	53
L650	638400	25	0.2	1.13	<5	50	<5	0.23	<1	7	12	37	2.94	<10	0.31	293	2	0.01	5	400	16	<5	<20	33	0.06	<10	78	<10	3	33
L700	638400	20	<0.2	2.45	5	170	<5	0.47	<1	12	35	69	4.58	<10	1.00	691	2	0.01	20	880	26	<5	<20	45	0.06	<10	85	<10	6	88
L700	637650																													
L700	637700	25	0.5	3.74	<5	115	<5	1.29	<1	6	6	55	2.93	<10	0.56	607	2	0.02	4	510	28	<5	<20	110	0.04	<10	58	<10	7	43
L700	637750	5	0.3	2.19	<5	460	<5	0.83	<1	7	7	28	3.00	<10	0.74	1367	<1	0.01	4	640	28	<5	<20	64	0.02	<10	43	<10	12	70
L700	637800	30	0.6	1.90	<5	65	<5	0.16	<1	4	14	24	2.14	<10	0.30	329	1	0.02	6	510	20	<5	<20	27	0.04	<10	64	<10	3	27
L700	637850	25	0.7	3.75	5	80	<5	0.34	<1	8	24	49	4.32	<10	0.75	488	2	0.02	10	640	32	<5	<20	34	0.04	<10	79	<10	6	64
L700	637900	30	0.2	1.09	<5	85	<5	0.08	<1	2	5	8	1.15	<10	0.08	278	<1	0.02	2	690	8	<5	<20	20	<0.01	<10	27	<10	2	16
L700	637950	20	<0.2	3.54	20	90	<5	0.30	<1	12	32	77	4.56	<10	0.92	592	2	0.02	14	590	26	<5	<20	37	0.08	<10	82	<10	6	95
L700	638050																													
L700	638100	45	0.4	2.10	10	70	<5	0.19	<1	17	42	64	4.78	<10	1.06	930	2	0.02	16	550	24	<5	<20	30	0.13	<10	113	<10	3	74
L700	638150	180	0.5	1.74	5	85	<5	0.19	<1	14	30	43	4.43	<10	0.71	931	2	0.02	11	820	20	<5	<20	23	0.12	<10	106	<10	3	57
L700	638250	20	0.3	2.45	<5	70	<5	0.17	<1	10	23	46	4.30	<10	0.76	404	3	0.02	15	460	24	<5	<20	24	0.08	<10	96	<10	4	57
L700	638300	25	1.0	3.41	<5	270	<5	1.58	<1	6	15	68	2.09	<10	0.47	292	3	0.03	10	1010	32	<5	<20	123	0.02	<10	47	<10	8	56
L700	638350																													
L650	637650	10	0.3	2.58	<5	470	<5	0.58	2	10	11	23	2.99	<10	0.49	3724	2	0.02	5	960	50	<5	<20	66	<0.01	<10	46	<10	8	105
L650	637700	5	0.4	3.02	<5	70	<5	1.06	<1	5	5	52	2.32	<10	0.44	1059	2	0.02	3	600	22	<5	<20	91	0.02	<10	46	<10	5	37
L650	637750																													
L650	637800	40	0.5	1.29	<5	60	<5	0.12	<1	3	8	15	1.73	<10	0.20	195	1	0.02	4	320	14	<5	<20	20	0.05	<10	66	<10	2	19
L650	637850																													
L650	637900	15	0.2	1.99	5	65	<5	0.17	<1	10	21	44	3.94	<10	0.63	698	1	0.02	8	500	30	<5	<20	25	0.09	<10	107	<10	3	51
L650	637950	20	0.2	2.76	<5	180	<5	0.99	<1	10	14	67	3.21	10	0.73	939	2	0.02	10	480	26	<5	<20	74	0.04	<10	56	<10	9	86
L650	638050	25	0.6	2.86	5	365	<5	1.16	<1	15	38	138	3.99	10	1.10	1003	3	0.02	20	360	30	<5	<20	61	0.07	<10	86	<10	15	132
L650	638100	20	<0.2	2.44	5	175	<5	0.34	<1	15	22	75	3.24	<10	0.39	911	4	0.03	11	550	28	<5	<20	34	0.02	<10	81	<10	5	62
L650	638150	20	0.3	2.59	5	150	<5	0.83	<1	19	31	133	4.04	10	0.97	1137	3	0.02	20	520	26	<5	<20	57	0.09	<10	81	<10	11	107
L650	638250	30	0.2	1.70	<5	125	<5	0.87	<1	10	18	89	3.49	10	0.72	547	2	0.02	12	470	22	<5	<20	68	0.10	<10	76	<10	10	52
L650	638300	20	0.3	2.46	5	140	<5	0.96	<1	9	20	67	3.38	<10	1.11	647	3	0.02	12	700	32	<5	<20	80	0.05	<10	80	<10	8	162
L650	638350	70	0.8	2.57	<5	220	<5	0.75	<1	12	22	100	3.12	<10	0.60	986	6	0.02	16	710	26	<5	<20	66	0.02	<10	75	<10	5	68
L600	637650	15	0.3	1.49	<5	135	<5	0.26	<1	4	4	21	2.35	<10	0.36	708	1	0.02	2	810	26	<5	<20	44	0.02	<10	49	<10	4	53
L600	637700	5	0.4	2.16	<5	105	<5	0.24	<1	5	6	27	2.15	<10	0.34	1277	2	0.01	3	950	24	<5	<20	40	<0.01	<10	41	<10	4	43
L600	637750	5	0.2	3.09	<5	155	<5	0.29	<1	9	16	80	3.94	<10	0.65	992	2	0.02	7	360	44	<5	<20	40	0.01	<10	57	<10	7	103
L600	637800	65	0.5	2.05	<5	120	<5	0.08	<1	5	10	20	3.17	<10	0.18	406	1	0.01	2	480	24	<5	<20	25	0.01	<10	66	<10	3	26
L600	637850																													
L600	637900																													
L600	637950	15	0.6	3.06	10	635	<5	1.86	<1	12	30	149	3.34	10	0.74	1474	3	0.02	16	980	30	<5	<20	77	0.03	<10	70	<10	15	69
L600	638050	20	0.5	2.30	5	250	<5	1.38	<1	11	22	84	2.89	10	0.82	460	5	0.02	15	570	32	<5	<20	74	0.05	<10	63	<10	17	88
L600	638100	10	0.5	0.59	<5	345	<5	2.25	<1	2	5	42	0.49	<10	0.07	41	6	0.04	5	660	6	<5	<20	68	<0.01	<10	11	<10	8	29
L600	638150																													
L600	638250	10	0.6	1.00	<5	50	<5	0.09	<1	2	11	18	1.49	<10	0.13	94	1	0.02	3	780	8	<5	<20	18	0.02	<10	36	<10	2	13
L600	638300																													
L600	638350	25	0.2	2.57	<5	165	<5	1.17	2	10	21	126	3.16	10	0.94	760	3	0.02	14	650	30	<5	<20	79	0.03	<10	66	<10	15	173
L550	637650	55	0.9	4.05	15	195	<5	1.16	<1	14	21	66	3.73	<10	0.86	1410	4	0.03	7	700	138	<5	<20	85	0.02	<10	65	<10	11	207
L550	637700	50	0.3	3.96	10	80	<5	0.78	<1	11	32	72	3.93	10	0.87	560	2	0.02	13	810	30	<5	<20	63	0.08	<10	80	<10	8	68
L550	637750	70	0.2	2.32	10	50	<5	0.18	<1	15	48	53	4.64	<10	0.84	1013	2	0.02	12	650	24	<5	<20	23	0.13	<10	118	<10	4	68
L550	637800																													
L550	637850	55	0.4	2.74	15	45	<5	0.21	<1	18	43	82	5.62	<10	1.10	891	2	0.02	15	750	30	<5	<20	28	0.16	<10	134	<10	5	93
L550	637900	15	0.3	2.44	<5	65	<5	0.08	<1	8	19	30	3.96	<10	0.50	1099	2	0.02	6	600	28	<5	<20	16	0.03	<10	86	<10	3	56
L550	637950																													
L550	638050	35	0.5	1.91	5	180	<5	1.52	<1	7	18	113	2.18	<10	0.44	334	6	0.02	10	1040	16	<5	<20	70	0.04	<10	51	<10	9	43
L550	638100	20	0.5	2.46	5	185	<5	1.03	<1	12	24	100	3.40	10	0.73	422	10	0.02	18	1010	24	<5	<20	69	0.05	<10	76	<10	11	62
L550	638150																													
L550	638250																													
L550	638300																													
L550	638350																													
L500	637650	35	0.3	4.00	10	130	<5	1.87	<1	12	27	56	3.81	<10	1.10	843	2	0.02	10	890	36	<5	<20	131	0.06	<10	79	<10	8	132
L500	637700	20	0.3	2.18	10	40	<5	0.24	<1	13	36	77	3.88	<10	0.94	542	1	0.02	13	530	28	<5	<20	26	0.15	<10	101	<10	4	67
L500	637750	15	0.4	3.35	5	95	<5	0.42	<1	13	39	83	3.98	<10	0.80	595	2	0.02	18	700	28	<5	<20	43	0.09	<10	82	<10	6	84
L500	637800	20	0.3	2.82	20	50	<5	0.23	<1	19	53	83	5.40	<10	1.10	790	1	0.01	19	900	26	<5	<20	22	0.09	<10	106	<10	5	86
L500	637850	15	0.9	3.20	10	55	<5	0.20	<1	14	54	80	4.78	<10	1.03	702	2	0.02	18	570	26	<5	<20	25	0.11	<10	99	<10	5	84
L500	637900																													
L500	637950	20	0.4	2.33	5	60	<5	0.17	<1	12	24	48	4.06	<10	0.58	705	2	0.02	10	650	26	<5	<20	29	0.09	<10	118	<10	4	44
L500	638050	40	0.8	2.56	5	60	<5	0.18	<1	10	32	47	3.56	<10	0.74	342	4	0.02	13	400	22	<5	<20	25	0.09	<10	87	<10	4	47
L500	638100	30	1.0	3.92	15	290	<5	1.73	<1	15	34	176	4.13	20	0.91	1110	17	0.03	22	1630	32	<5	<20	91	0.04	<10	95	<10	22	77
L500	638150	20	0.6	3.20	10	300	<5	1.14	<1	15	30	129	4.28	10	0.80	920	13	0.03	20	1050	30	<5	<20	79	0.04	<10	92	<10	16	74
L500	638250	15	0.4	2.40	5	145	<5	1.01	<1	12	26	102	3.64	<10	0.76	462	7	0.02	17	920	20	<5	<20	70	0.07	<10	82	<10	9	63
L500	638300																													
L500	638350																													
L450	637650	370	0.5	3.62	10	140	<5	1.86	<1	16	30	63	3.66	<10	0.97	1252	2	0.02	9	810	40	<5	<20	128	0.05	<10	63	<10	10	123
L450	637700	55	0.9	4.60	10	150	<5	1.94	<1	12	21	78	2.95	<10	0.75	775	2	0.02	7	800	48	<5	<20	140	0.02	<10	49	<10	10	111
L450	637750																													
L450	637800	25	1.0	2.87	10	50	<5	0.25	<1	13	55	74	4.98	<10	0.97	538	1	0.02	15	650	26	<5	<20	28	0.09	<10	103	<10	4	70
L450	637850	15	0.4	1.41	<5	75	<5	0.15	<1	6	12	21	2.64	<10	0.36	328	2	0.02	5	530	18	<5	<20	26	0.08	<10	74	<10	3	29
L450	637900	5	0.5	1.69	<5	60	<5	0.07	<1	5	9	30	2.39	<10	0.21	212	2	0.02	4	390	20	<5	<20	26	0.03	<10	48	<10	3	25
L450	637950	35	0.5	2.59	<5	120	<5	0.98	<1	11	15	185	3.31	<10	0.68	691	2	0.01	8	850	24	<5	<20	67	0.05	<10	60	<10	8	56
L450	638050	30	<0.2	1.45	5	55	<5	0.11	<1	8	9	40	4.19	<10	0.53	346	2	0.02	6	300	22	<5	<20	22	0.13	<10	124	<10	3	39
L450	638100	20	0.2	0.77	<5	125	<5	0.12	<1	4	8	22	1.92	<10	0.26	124	3	0.01	3	210	8	<5	<20	49	0.03	<10	48	<10	2	19
L450	638150	35	4.1	2.23	10	205	<5	1.56	<1	7	32	442	1.80	90	0.22	397	12	0.02	44	2760	42	<5	<20	73	0.02	<10	49	<10	114	27
L450	638250	10	0.7	1.57	<5	250	<5	1.59	<1	3	13	45	1.22	<10	0.26	111	6	0.03	8	1220	14	<5	<20	69	0.01	10	39	<10	4	35
L450	638300	15	1.1	3.69	<5	215	<5	1.12	<1	9	35	127	3.72	10	0.71	301	6	0.03	21	1110	28	<5	<20	68	0.02	<10	79	<10	7	61
L450	638350	15	0.4	2.30	5	95	<5	0.41	<1	10	28	103	3.89	<10	0.75	387	5	0.02	14	670	24	<5	<20	41	0.06	<10	92	<10	6	58
L400	637450	35	0.4	3.00	<5	310	<5	1.73	<1	9	10	87	3.17	<10	0.67	1124	2	0.01	4	470	36	<5	<20	116	0.03	<10	47	<10	9	75
L400	637500	115	0.5	4.08	5	210	<5	2.26	<1	6	8	89	2.57	<10	0.72	615	1	0.02	6	540	48	<5	<20	179	0.03	<10	47	<10	10	95
L400	637550	75	0.6	3.87	10	130	<5	1.90	<1	14	23	113	3.14	<10	0.86	961	1	0.01	9	640	40	<5	<20	144	0.03	<10	56	<10	8	110
L400	637650	55	0.4	2.41	10	65	<5	0.21	<1	12	33	80	4.42	<10	0.63	395	3	0.01	12	500	28	<5	<20	29	0.09	<10	101	<10	4	58
L400	637700	25	0.3	0.70	<5	50	<5	0.13	<1	5	25	19	2.64	<10	0.07	79	1	0.01	3	390	14	<5	<20	23	0.05	<10	77	<10	1	13
L400	637750	25	0.3	5.04	<5	85	<5	0.88	<1	10	18	174	3.90	<10	0.51	384	3	0.01	8	680	36	<5	<20	67	0.07	<10	68	<10	7	55
L400	637800	40	0.9	2.22	<5	100	<5	0.08	<1	3	7	35	1.82	<10	0.13	260	3	0.02	3	700	22	<5	<20	32	<0.01	<10	39	<10	3	17
L400	637850	30	0.2	0.74	<5	65	<5	0.05	<1	3	5	15	2.93	<10	0.05	125	2	0.01	<1	330	10	<5	<20	26	0.02	<10	68	<10	<1	11
L400	637900	105	0.4	2.43	<5	130	<5	1.22	<1	15	23	203	3.37	<10	0.82	595	2	0.02	15	540	24	<5	<20	89	0.06	<10	62	<10	8	58
L400	637950	50	0.4	2.90	<5	115	<5	1.94	<1	10	9	135	2.74	<10	0.64	612	6	0.01	7	460	28	<5	<20	125	0.05	<10	45	<10	9	58
L400	638050	15	0.6	2.63	<5	115	<5	1.55	<1	9	8	236	3.10	<10	0.59	441	2	0.01	4	760	30	<5	<20	131	0.04	<10	43	<10	8	32
L400	638100	25	0.5	2.38	<5	130	<5	1.31	<1	12	10	136	3.41	<10	0.64	519	4	0.01	7	690	30	<5	<20	80	0.06	<10	63	<10	8	50
L400	638150	25	0.8	2.54	<5	135	<5	1.66	<1	12	12	223	3.43	10	0.69	651	4	0.02	8	460	44	<5	<20	103	0.07	<10	63	<10	10	56
L400	638250	15	0.3	2.06	<5	120	<5	1.18	<1	11	12	161	3.00	<10	0.66	612	5	0.02	8	440	28	<5	<20	77	0.06	<10	57	<10	10	55
L400	638300	35	0.3	2.26	<5	135	<5	1.44	<1	8	11	152	3.14	<10	0.66	442	12	0.02	8	540	32	<5	<20	85	0.06	<10	64	<10	9	54
L400	638350	50	0.5	3.19	<5	195	<5	1.67	<1	7	10	267	1.94	20	0.78	380	8	0.03	14	890	42	<5	<20	113	0.04	<10	58	<10	17	66
L350	637400	75	0.2	3.45	<5	70	<5	0.69	<1	12	15	142	5.17	10	0.55	497	4	0.01	6	780	34	<5	<20	53	0.06	<10	86	<10	8	44
L350	637450	30	0.4	3.79	5	75	<5	0.81	<1	11	12	126	3.93	<10	0.45	1196	3	0.01	5	940	34	<5	<20	65	0.05	<10	68	<10	8	40
L350	637500	60	0.6	4.22	<5	90	<5	0.72	<1	11	15	193	3.96	<10	0.38	843	4	0.01	6	820	36	<5	<20	67	0.06	<10	72	<10	6	39
L350	637550	30	0.2	1.58	<5	105	<5	0.19	<1	5	6	35	2.57	<10	0.21	660	2	0.02	3	600	22	<5	<20	65	0.05	<10	57	<10	3	25
L350	637600	40	0.3	3.15	<5	135	<5	0.85	<1	7	13	164	3.43	10	0.47	481	14	0.02	8	590	36	<5	<20	60	0.02	<10	59	<10	8	56
L350	637650	80	0.3	3.28	5	115	<5	1.34	<1	12	14	213	3.29	<10	0.52	594	3	0.01	8	800	32	<5	<20	105	0.04	<10	55	<10	6	52
L350	637700	20	1.1	3.88	<5	65	<5	0.30	<1	4	14	124	3.33	<10	0.25	281	3	0.02	5	560	40	<5	<20	40	0.03	<10	54	<10	5	34
L350	637750	25	1.0	4.80	<5	70	<5	0.43	<1	7	22	187	3.77	<10	0.33	289	6	0.02	9	870	38	<5	<20	37	0.07	<10	51	<10	6	37
L350	637800	15	0.2	2.39	<5	95	<5	0.23	<1	7	9	85	5.57	<10	0.49	533	5	0.02	4	720	30	<5	<20	39	0.06	<10	123	<10	4	45
L350	637900	20	0.2	0.92	<5	60	<5	0.05	<1	3	<1	9	1.32	<10	0.06	64	<1	0.01	1	120	12	<5	<20	29	0.05	<10	40	<10	1	7
L350	637950	10	0.4	0.53	<5	65	<5	0.11	<1	1	3	11	1.14	<10	0.04	62	1	0.02	1	250	6	<5	<20	29	0.01	<10	30	<10	<1	10
L350	638050	20	0.3	0.68	<5	60	<5	0.55	<1	2	5	15	1.58	<10	0.05	105	6	0.02	2	590	8	<5	<20	32	0.01	<10	40	<10	2	9
L350	638100	15	1.6	3.92	10	290	<5	0.37	<1	10	29	211	4.29	<10	0.57	1398	36	0.02	20	2310	46	<5	<20	30	<0.01	<10	91	<10	6	82
L350	638150	10	0.3	2.67	<5	135	<5	1.37	<1	11	11	107	2.83	<10	0.61	726	7	0.02	6	530	32	<5	<20	95	0.04	<10	51	<10	7	55
L350	638250	25	0.7	1.95	<5	125	<5	0.41	<1	4	6	84	1.51	<10	0.38	196	11	0.02	5	300	18	<5	<20	50	0.01	<10	39	<10	4	31
L350	638300	40	0.2	2.59	<5	110	<5	0.70	<1	12	30	109	3.26	<10	0.88	372	11	0.02	21	410	24	<5	<20	60	0.07	<10	73	<10	8	52
L350	638350	35	0.9	3.97	5	245	<5	0.74	<1	14	31	237	3.78	10	0.81	683	26	0.02	24	1150	38	<5	<20	60	0.02	<10	78	<10	13	61
L300	637400	240	0.7	3.12	<5	70	<5	0.21	<1	6	15	779	3.70	<10	0.31	248	6	0.02	7	620	34	<5	<20	30	0.04	<10	75	<10	5	34
L300	637450	30	0.5	2.50	<5	85	<5	0.77	<1	6	9	100	2.25	<10	0.43	290	4	0.02	5	670	20	<5	<20	61	0.03	<10	47	<10	5	32
L300	637500	15	0.4	4.96	<5	80	<5	0.52	<1	4	12	72	2.84	<10	0.29	497	3	0.02	5	790	36	<5	<20	47	0.04	<10	46	<10	6	34
L300	637550	35	0.4	2.03	<5	60	<5	0.17	<1	5	9	63	2.98	<10	0.31	311	3	0.01	4	650	24	<5	<20	32	0.04	<10	65	<10	3	29
L300	637600	50	1.3	3.00	<5	125	<5	0.24	<1	5	13	85	2.51	<10	0.21	527	3	0.02	6	600	28	<5	<20	59	0.04	<10	49	<10	4	30
L300	637650	240	0.7	3.12	<5	70	<5	0.21	<1	6	15	779	3.70	<10	0.31	248	6	0.02	7	620	34	<5	<20	30	0.04	<10	75	<10	5	34
L300	637700	30	0.5	2.50	<5	85	<5	0.77	<1	6	9	100	2.25	<10	0.43	290	4	0.02	5	670	20	<5	<20	61	0.03	<10	47	<10	5	32
L300	637750	35	0.3	2.35	<5	65	<5	0.15	<1	10	18	68	5.13	<10	0.43	404	4	0.01	8	530	30	<5	<20	30	0.10	<10	112	<10	4	35
L300	637800	25	0.2	3.72	25	80	<5	1.17	<1	17	25	94	3.51	<10	0.68	476	5	0.02	18	700	30	<5	<20	81	0.07	<10	67	<10	7	52
L300	637900	45	1.2	2.66	5	80	<5	0.29	<1	8	19	80	4.24	<10	0.41	475	5	0.02	7	830	26	<5	<20	37	0.06	<10	83	<10	4	36
L300	637950	180	0.2	0.82	<5	60	<5	0.08	<1	4	<1	13	1.35	<10	0.09	110	2	0.01	2	170	14	<5	<20	27	0.07	<10	61	<10	1	11
L300	638050	45	0.2	3.22	10	65	<5	1.54	<1	24	44	194	2.97	<10	0.91	646	22	0.02	37	630	30	<5	<20	99	0.04	<10	68	<10	12	34
L300	638100	15	1.5	5.80	5	55	<5	0.17	<1	5	31	87	3.20	10	0.25	300	3	0.03	9	1050	36	<5	<20	20	0.04	<10	47	<10	8	27
L300	638150	<5	0.5	0.48	<5	55	<5	1.86	<1	1	4	26	0.34	<10	0.05	39	6	0.04	3	900	6	<5	<20	57	<0.01	<10	5	<10	5	12
L300	638250	15	0.3	2.73	<5	155	<5	1.94	<1	7	7	46	2.40	<10	0.55	642	7	0.02	5	470	24	<5	<20	114	0.03	<10	47	<10	7	43
L300	638300	20	0.6	1.42	10	95	<5	0.09	<1	6	3	23	2.07	<10	0.13	405	32	0.01	7	360	28	<5	<20	27	0.03	<10	90	<10	2	21
L300	638350	30	1.2	2.52	10	170	<5	0.79	<1	11	16	143	2.83	10	0.68	813	20	0.02	13	710	30	<5	<20	64	0.02	<10	65	<10	9	57
L250	637400	55	0.6	3.65	<5	65	<5	0.91	<1	10	18	205	3.38	<10	0.66	520	3	0.01	8	550	32	<5	<20	66	0.07	<10	59	<10	9	53
L250	637450	35	0.6	4.27	<5	50	<5	0.37	<1	7	26	125	3.63	<10	0.40	282	3	0.01	7	970	32	<5	<20	34	0.05	<10	59	<10	6	32
L250	637500	40	0.3	2.48	<5	80	<5	0.14	<1	6	13	98	2.79	<10	0.36	399	3	0.02	6	710	24	<5	<20	31	0.03	<10	56	<10	5	36
L250	637550	40	0.3	3.12	<5	70	<5	0.16	<1	6	15	101	3.61	<10	0.41	466	5	0.02	6	620	30	<5	<20	29	0.03	<10	59	<10	6	51
L250	637600	20	<0.2	5.72	10	90	<5	2.30	<1	17	42	156	3.11	<10	0.96	454	13	0.02	28	630	32	<5	<20	197	0.11	<10	73	<10	7	29
L250	637650	30	0.2	2.09	<5	190	<5	1.15	<1	10	16	76	3.41	<10	0.54	918	34	0.02	10	770	22	<5	<20	72	0.04	<10	73	<10	10	47
L250	637700	15	0.4	2.49	<5	65	<5	0.30	<1	7	16	87	3.11	<10	0.40	237	3	0.02	8	770	24	<5	<20	37	0.04	<10	67	<10	4	28
L250	637750	20	0.3	4.52	5	65	<5	0.51	<1	9	22	146	3.84	<10	0.45	550	4	0.02	7	1020	34	<5	<20	42	0.06	<10	62	<10	6	40
L250	637800	45	0.5	5.96	20	80	<5	2.30	<1	38	62	337	4.26	10	1.50	778	22	0.05	56	720	48	<5	<20	143	0.10	<10	96	<10	22	52
L250	637850	190	0.6	3.03	<5	90	<5	0.24	<1	12	31	81	4.47	<10	0.67	298	3	0.02	18	380	30	<5	<20	41	0.06	<10	108	<10	5	36
L250	637900	50	0.5	4.29	25	100	<5	1.62	<1	23	51	212	4.18	<10	0.74	457	13	0.02	46	550	66	<5	<20	122	0.04	<10	61	<10	6	58
L250	637950	20	0.3	4.78	15	90	<5	1.29	<1	19	43	159	4.98	<10	0.71	473	10	0.02	29	580	38	<5	<20	85	0.06	<10	85	<10	8	45
L250	638000	35	0.3	2.14	<5	65	<5	0.10	<1	6	17	40	4.40	<10	0.31	432	3	0.01	6	510	24	<5	<20	27	0.06	<10	97	<10	3	27
L200	637400	70	0.3	2.93	<5	100	<5	1.65	<1	13	11	341	2.97	<10	0.52	354	4	0.01	8	590	22	<5	<20	125	0.04	<10	42	<10	9	21
L200	637450	60	0.2	2.28	<5	110	<5	1.09	<1	13	6	473	2.83	<10	0.57	304	4	0.01	8	500	18	<5	<20	106	0.05	<10	48	<10	9	22
L200	637500	45	0.2	4.24	10	95	<5	1.31	<1	20	9	600	3.09	10	0.55	447	16	0.02	11	510	34	<5	<20	79	0.01	<10	55	<10	9	29
L200	637550	30	0.3	1.85	<5	70	<5	0.12	<1	6	8	51	2.29	<10	0.26	255	3	0.01	4	360	24	<5	<20	29	0.04	<10	58	<10	3	25
L200	637600	30	0.2	4.16	10	75	<5	2.14	<1	17	29	204	2.99	<10	0.97	416	8	0.02	21	390	28	<5	<20	172	0.09	<10	69	<10	8	30
L200	637650	30	0.4	2.11	<5	55	<5	0.17	<1	9	19	72	4.74	<10	0.46	374	4	0.02	7	550	26	<5	<20	32	0.08	<10	99	<10	4	34
L200	637700	50	0.8	2.71	<5	65	<5	0.16	<1	9	18	78	3.63	<10	0.56	328	3	0.02	9	360	24	<5	<20	30	0.05	<10	83	<10	4	39
L200	637750	50	1.3	5.42	5	60	<5	0.54	<1	9	23	159	3.54	<10	0.41	362	5	0.01	8	750	38	<5	<20	43	0.07	<10	58	<10	7	31
L200	637800	30	0.5	3.96	5	60	<5	1.56	<1	32	76	323	4.47	<10	1.40	509	12	0.02	55	380	32	<5	<20	120	0.10	<10	83	<10	8	40
L200	637850	55	0.5	4.84	25	40	<5	2.06	<1	36	87	262	4.72	<10	1.20	723	17	0.02	69	610	32	<5	<20	132	0.07	<10	75	<10	8	35
L200	637900	25	0.5	5.25	45	55	<5	1.80	<1	28	44	173	5.32	<10	0.59	319	20	0.02	38	460	50	<5	<20	117	0.03	<10	70	<10	8	44
L200	637950	25	0.3	2.10	15	60	<5	0.16	<1	13	38	87	3.95	<10	0.41	511	11	0.02	20	830	20	<5	<20	42	0.04	<10	108	<10	4	21
L200	638050	45	0.3	2.41	35	80	<5	0.22	<1	9	26	68	4.24	<10	0.63	334	4	0.01	13	350	28	<5	<20	34	0.05	<10	92	<10	4	48
L200	638100	120	<0.2	2.78	15	145	<5	0.18	<1	17	44	63	5.61	<10	0.76	2030	29	0.02	26	360	32	<5	<20	37	0.06	<10	134	<10	5	60
L200	638150	15	0.3	3.33	20	145	<5	1.10	<1	18	48	71	4.92	<10	0.93	716	16	0.02	30	550	28	<5	<20	79	0.05	<10	115	<10	9	62
L200	638200	20	0.5	3.37	10	205	<5	0.97	<1	13	23	115	3.01	10	0.57	1842	47	0.02	26	890	32	<5	<20	73	0.02	<10	83	<10	15	44

Sample I.	Sample Ty	Sample #	UTM E	UTM N	Rock Type	Width (m)	Orientation	Mineralization	Au (g/t)	Au(ppb)	Ag	Al %	As	Ba	Bi	Ca %	Cd	Co	Cr	Cu	Fe %	La	Mg %	Mn	Mo	Na %	Ni	P	Pb	Sb	Sn	Sr	Ti %	U	V	W	Y	Zn
DG-01	Grab	64840	637955	6325304	Monzonite	n/a		pyrite		10	0.2	1.44	15	580	<5	0.89	<1	5	90	282	3.42	<10	0.90	455	3	0.11	4	810	14	5	<20	46	0.04	<10	83	<10	13	24
DG-02	Grab	64841	637958	6325204	Monzonite	n/a		pyrite		5	0.2	1.60	10	570	<5	0.94	<1	4	99	197	3.45	<10	0.85	624	4	0.08	3	810	18	<5	<20	37	<0.01	<10	68	<10	18	40
DG-03	Grab	64842	637957	6325304	Monzonite	n/a		pyrite		10	<0.2	1.65	15	845	<5	0.84	<1	2	93	245	3.61	<10	0.88	622	3	0.10	3	820	18	<5	<20	52	0.03	<10	77	<10	22	36
DG-04	Grab	64843	637958	6325305	Monzonite	n/a		Pyrite +/- Chalcopyrite		5	0.2	1.50	15	365	<5	1.60	<1	5	85	165	3.12	<10	0.81	820	3	0.06	3	750	18	5	<20	33	<0.01	<10	64	<10	19	34
DG-05	Grab	64844	637959	6325306	Monzonite	n/a		Pyrite +/- Chalcopyrite		5	<0.2	1.46	15	290	<5	1.46	<1	5	93	139	3.29	<10	0.80	609	4	0.10	4	770	16	<5	<20	60	0.02	<10	72	<10	19	21
DG-06	Grab	64845	637959	6325307	Monzonite	n/a		Pyrite +/- Chalcopyrite		5	0.2	1.35	10	275	<5	1.62	<1	6	110	183	3.02	<10	0.67	691	5	0.08	4	770	18	<5	<20	28	0.02	<10	69	<10	18	41
DG-07	Grab	64846	637960	6325306	Monzonite	n/a		Pyrite +/- Chalcopyrite		<5	<0.2	1.44	10	415	<5	1.24	<1	5	117	90	3.05	<10	0.63	594	3	0.07	4	790	22	<5	<20	42	<0.01	<10	63	<10	22	29
DG-08	Grab	64847	637958	6325306	Monzonite	n/a		Pyrite +/- Chalcopyrite		<5	<0.2	1.39	10	560	<5	1.94	<1	5	100	68	3.19	<10	0.76	648	6	0.06	4	810	18	<5	<20	38	0.01	<10	63	<10	20	43
DG-09	Grab	64848	637954	6325304	Monzonite	n/a		pyrite		<5	<0.2	1.31	10	200	<5	1.08	<1	9	106	135	3.58	<10	0.80	622	5	0.11	5	790	14	<5	<20	43	0.04	<10	81	<10	15	22
DG-10	Grab	64849	637953	6325303	Monzonite	n/a		pyrite		5	0.3	1.78	10	1255	<5	0.47	<1	<1	95	152	3.35	<10	0.83	916	4	0.06	5	750	20	5	<20	46	0.02	<10	72	<10	11	35
DG-11	Grab	64850	637953	6325305	Monzonite	n/a		pyrite		10	0.4	1.31	10	330	<5	1.15	1	4	105	457	3.52	<10	0.78	616	6	0.10	4	780	12	<5	<20	53	0.03	<10	75	<10	16	20
DG-12	Grab	24914	637952	6325304	Monzonite	n/a		Pyrite +/- Chalcopyrite		20	3.3	1.71	10	675	<5	3.25	2	4	101	366	3.22	<10	0.60	4317	7	0.01	3	750	258	<5	<20	52	<0.01	<10	48	<10	21	180
DG-13	Grab	24915	637951	6325304	Monzonite	n/a		pyrite		50	0.6	1.78	15	460	<5	0.69	1	5	99	1373	3.80	<10	0.83	1044	7	0.04	3	820	22	<5	<20	38	<0.01	<10	55	<10	21	59
PG-01	Grab	24916	638012	6325417	Monzonite	n/a		Pyrite +/- Chalcopyrite	<0.03		0.3	1.20	<5	185	<5	2.32	<1	6	88	200	2.61	<10	0.61	2708	6	<0.01	2	690	20	<5	<20	46	<0.01	<10	32	<10	15	83
PG-02	Grab	24917	638012	6325416	Monzonite	n/a		Pyrite +/- Chalcopyrite	0.09		25.4	0.93	95	220	<5	2.88	11	5	73	2681	1.84	<10	0.56	2571	4	<0.01	3	380	920	200	<20	27	<0.01	<10	24	<10	13	671
PG-03	Grab	24918	638012	6325415	Monzonite	n/a		Pyrite +/- Chalcopyrite	0.04		0.4	1.01	5	430	<5	3.34	1	3	75	114	2.28	<10	0.34	2353	4	<0.01	2	670	20	5	<20	39	<0.01	<10	30	<10	15	173
PG-04	Grab	24919	638012	6325414	Monzonite	n/a		Pyrite +/- Chalcopyrite, Malachite, Azurite	0.06		11.3	0.80	35	90	<5	2.86	12	5	96	1823	1.31	<10	0.43	1790	4	<0.01	2	530	358	90	<20	23	<0.01	<10	17	<10	14	706
PG-05	Grab	24920	638013	6325412	Monzonite	n/a		Pyrite +/- Chalcopyrite, Malachite, Azurite	0.06		<0.2	1.42	5	280	<5	2.21	<1	5	64	81	2.80	10	0.79	845	4	0.02	4	710	24	5	<20	29	<0.01	<10	49	<10	15	61
PG-06	Grab	24921	638013	6325411	Monzonite	n/a		Pyrite +/- Chalcopyrite, Malachite, Azurite	<0.03		<0.2	2.04	<5	235	<5	2.03	<1	8	62	191	2.89	10	0.75	539	<1	0.04	2	700	28	5	<20	103	0.09	<10	67	<10	17	32
PG-07	Grab	24922	638013	6325410	Monzonite	n/a		Pyrite +/- Chalcopyrite, Malachite, Azurite	0.04		0.6	1.71	<5	390	<5	1.69	<1	7	78	647	3.32	<10	0.74	1339	6	0.01	2	740	34	10	<20	34	<0.01	<10	34	<10	13	144
PG-08	Grab	24923	638014	6325414	Monzonite	n/a		Pyrite +/- Chalcopyrite, Malachite, Azurite	0.04		1.7	0.77	10	215	<5	2.49	4	5	78	203	1.38	<10	0.40	1669	4	<0.01	2	640	92	10	<20	27	<0.01	<10	20	<10	14	318
PG-09	Grab	24924	638015	6325415	Monzonite	n/a		Pyrite +/- Chalcopyrite, Malachite, Azurite	0.04		0.4	1.95	<5	90	<5	2.12	1	8	83	243	3.83	<10	0.70	2022	8	<0.01	3	730	32	5	<20	24	<0.01	<10	32	<10	11	281
PG-10	Grab	24925	638009	6325414	Monzonite	n/a		Pyrite +/- Chalcopyrite, Malachite, Azurite	0.03		4.1	1.20	<5	140	<5	2.00	2	7	71	359	2.43	<10	0.71	1339	5	0.02	3	670	26	10	<20	23	<0.01	<10	36	<10	14	175
PG-11	Grab	24926	638010	6325414	Monzonite	n/a		Pyrite +/- Chalcopyrite, Malachite, Azurite	0.03		1.1	1.27	<5	175	<5	2.09	1	6	81	442	2.72	20	0.78	1303	6	0.02	4	700	24	15	<20	26	<0.01	<10	47	<10	21	85
PG-12	Grab	24927	638011	6325414	Monzonite	n/a		Pyrite +/- Chalcopyrite, Malachite, Azurite	<0.03		<0.2	1.24	<5	510	<5	2.10	<1	4	70	44	2.88	10	0.70	857	4	0.03	2	730	18	5	<20	33	<0.01	<10	49	<10	19	45
PGC-01	Chip	24928	638011	6325412	Monzonite	1.5	315	Pyrite +/- Chalcopyrite, Malachite, Azurite	<0.03		0.3	1.35	<5	150	<5	1.56	2	11	70	211	2.90	10	0.73	848	5	0.02	2	720	30	<5	<20	23	<0.01	<10	43	<10	15	194
PGC-02	Chip	24929	638013	6325411	Monzonite	1.5	241	Pyrite +/- Chalcopyrite, Malachite, Azurite	0.05		2.4	1.27	5	190	<5	1.45	4	9	64	447	2.50	<10	0.69	2327	5	<0.01	3	700	72	5	<20	24	<0.01	<10	29	<10	16	337
PGC-03	Chip	24930	638011	6325415	Monzonite	1.4	231	Pyrite +/- Chalcopyrite, Malachite, Azurite	0.11		5.7	1.33	25	55	<5	1.93	3	37	102	396	2.95	<10	0.64	1753	10	0.01	4	580	134	10	<20	22	<0.01	<10	27	<10	13	219
PGC-04	Chip	24931	638013	6325415	Monzonite	1.25	246	Pyrite +/- Chalcopyrite, Malachite, Azurite	<0.03		1.6	1.14	10	205	<5	3.73	1	9	70	576	2.17	<10	0.52	3109	4	<0.01	2	590	44	5	<20	46	<0.01	<10	20	<10	18	174
FGC-01	Chip	24932	638041	6325411	Monzonite	1.2	290	pyrite	<0.03		0.5	2.03	5	135	<5	1.10	<1	8	72	465	3.36	<10	0.78	613	9	0.03	3	730	34	10	<20	62	0.05	<10	62	<10	19	56
FGC-02	Chip	24933	638041	6325409	Monzonite	1	277	pyrite, malachite	<0.03		0.4	1.24	<5	345	<5	0.92	<1	6	74	495	3.09	10	0.79	594	4	0.05	4	740	20	5	<20	95	0.05	<10	69	<10	17	43
FGC-03	Chip	24934	638042	6325409	Monzonite	1	320	pyrite	<0.03		<0.2	1.45	<5	225	<5	0.73	<1	8	80	319	3.23	10	0.69	626	3	0.05	4	760	24	<5	<20	75	0.08	<10	71	<10	20	46
FGC-04	Chip	24935	638043	6325411	Monzonite	1	281	pyrite	<0.03		<0.2	0.95	<5	180	<5	0.73	<1	6	57	242	2.80	10	0.57	304	2	0.06	2	720	16	5	<20	58	0.09	<10	68	<10	16	23
FGC-05	Chip	24936	638043	6325409	Monzonite	0.9	276	pyrite	<0.03		0.2	1.16	<5	240	<5	0.64	<1	6	71	258	3.00	10	0.69	421	2	0.06	3	720	20	<5	<20	87	0.10	<10	72	<10	18	29
FGC-06	Chip	24937	638044	6325410	Monzonite	1.1	281	pyrite	<0.03		<0.2	1.14	<5	145	<5	0.78	<1	7	65	275	3.04	10	0.59	350	3	0.06	5	720	20	10	<20	51	0.09	<10	72	<10	18	23
FGC-07	Chip	24938	638046	6325410	Monzonite	1	280	pyrite	0.03		1.5	2.71	5	130	<5	1.70	2	8	69	578	2.98	10	0.76	812	3	0.03	4	700	134	10	<20	110	0.07	<10	64	<10	20	174
FGC-08	Chip	24939	638047	6325408	Monzonite	1.4	190	pyrite	<0.03		<0.2	1.43	5	130	<5	0.76	1	6	53	572	3.23	10	0.74	491	4	0.04	2	720	24	<5	<20	43	0.05	<10	68	<10	19	80
NGC-01	Chip	24940	638015	6325418	Monzonite	1	257	Pyrite +/- Chalcopyrite, Malachite	0.03		2.9	1.43	<5	90	<5	2.39	<1	9	67	460	3.30	<10	0.70	1706	6	0.01	3	730	82	<5	<20	45	<0.01	<10	38	<10	15	72
NGC-02	Chip	24941	638017	6325418	Monzonite	1.3	334	Pyrite +/- Chalcopyrite, Malachite	<0.03		0.5	1.53	<5	490	<5	2.07	<1	4	51	350	3.33	10	0.68	971	6	0.01	3	760	28	5	<20	45	<0.01	<10	38	<10	15	107
NGC-03	Chip	24942	638017	6325416	Monzonite	1	357	Pyrite +/- Chalcopyrite	0.03		1.3	1.34	<5	110	<5	2.96	<1	9	66	445	3.22	<10	0.66	1733	7	0.01	2	740	40	5	<20	53	<0.01	<10	34	<10	20	53
NGC-04	Chip	24943	638015	6325416	Monzonite	0.9	265	Pyrite +/- Chalcopyrite, Malachite	<0.03		0.7	1.45	<5	970	<5	3.25	<1	2	55	394	3.25	10	0.79	2272	6	0.02	4	710	32	5	<20	72	<0.01	<10	41	<10	15	94
NGC-05	Chip	24944	638016	6325414	Monzonite	1.2	268	Pyrite +/- Chalcopyrite	0.03		1.3	1.44	5	555	<5	2.84	<1	5	65	409	3.09	10	0.77	2206	6	0.01	3	690	116	<5	<20	52	<0.01	<10	40	<10	19	136
NGC-06	Chip	24945	638015	6325413	Monzonite	0.8	307	Pyrite +/- Chalcopyrite, Malachite	0.03		0.7	1.38	5	260	<5	0.62	<1	8	60	530	3.48	<10	0.82	1272	7	0.03	3	750	28	5	<20	36	0.01	<10	54	<10	14	68
NGC-07	Chip	24946	638018	6325414	Monzonite	0.8	290	Pyrite +/- Chalcopyrite, Malachite	0.03		0.5	1.25	5	365	<5	0.82	<1	6	66	477	3.27	10	0.59	1220	9	0.02	3	770	22	<5	<20	23	<0.01	<10	49	<10	24	30
NGC-08	Chip	24947	638018	6325415	Monzonite	1	358	Pyrite +/- Chalcopyrite	<0.03		0.3	1.23	<5	215	<5	1.59	<1	6	58	397	3.00	10	0.56	1008	7	0.02	3	740	26	10	<20	31	<0.01	<10	46	<10	17	39
NGC-09	Chip	24948	638015	6325418	Monzonite	0.9	251	Pyrite +/- Chalcopyrite, Malachite	<0.03		0.9	1.35	5	640	<5	3.47	1	5	77	511	2.99	10	0.72	2192	7	0.01	4	640	36	10	<20	62	<0.01	<10	35	<10	15	72
DGC-01	Chip	24949	638015	6325412	Monzonite	1.5	322	pyrite	0.03		0.7	1.37	5	215	<5	0.47	<1	7	66	640	3.41	<10	0.85	1055	10	0.03	3	720	26	<5	<20	33	<0.01	<10	55	<10	13	52
DGC-02	Chip	24950	638013	6325411	Monzonite	1	248	pyrite	<0.03		0.3	1.35	<5	255	<5	0.57	<1	6	76	172	3.46	10	0.82	1074	7	0.04	4	780	26	<5	<20	30	0.03	<10	70	<10	14	45
DGC-03	Chip	24951	638014	6325412	Monzonite	1	240	pyrite, chalcopyrite	0.04		0.9	1.33	<5	265	<5	0.83	1	6	58	442	3.36	10	0.80	1335	9	0.03	4	800	58	<5	<20	24	<0.01	<10	61	<10	18	81
DGC-04	Chip	24952	638020	6325409	Monzonite	1	250	pyrite	0.04		0.4	1.35	<5	295	<5	0.86	<1	8	93	331	3.28	<10	0.88	659	4	0.06	7	800	22	<5	<20	42	0.07	<10	78	<10	13	43
DGC-05	Chip	24953	638023	6325409	Monzonite	1.2	208	pyrite	<0.03		0.3	1.38	<5	330	<5	0.82	<1	6	64	239	3.21	10	0.82	1004	6	0.03	3	810	24	<5	<20	35	<0.01	<10	57	<10	24	52
DGC-06	Chip	24954	638024	6325411	Monzonite	1.3	208	pyrite	<0.03		<0.2	1.22	<5	370	<5	1.74	<1	5	69	131	3.18	<10	0.74	817	6	0.04	3	770	20	10	<20	46	0.02	<10	65	<10	20	41
DGC-07	Chip	24955	638024	6325413	Monzonite	1.1	269	pyrite	<0.03		0.3	1.06	<5	375	<5	4.13	1	6	59	93	2.81	10	0.76	2440	6	0.02	3	720	24	10	<20	57	<0.01	<10	47	<10	21	64
DGC-08	Chip	24956	638024	6325409	Monzonite	1	298	pyrite	<0.03		0.4	1.31	<5	525	<5	0.84	1	5	65	84	3.16	<10	0.75	782	5	0.03	2	830	24	<5	<20	26	<0.01	<10	55	<10	21	46
DGC-09	Chip	24957	638022	6325408	Monzonite	1	302	pyrite	<0.03		0.6	1.48	5	360	<5	0.54	<1	5	61	390	3.24	10	0.78	935	6	0.03	3	810	28	5	<20	26	<0.01	<10	57	<10	20	58
BAGC-01	Chip	24958	637983	6325405	Monzonite	1	238	pyrite	<0.03		<0.2	1.86	<5	385	10	2.32	1	6	59	15	2.98	10	0.74	745	5	0.03	4	750	26	15	<20	99	0.03	<10	57	<10	15	56
BAGC-02	Chip	24959	637984	6325406	Monzonite	1	240	pyrite	<0.03		0.2	1.75	5	70	<5	2.00	<1	10	69	138	2.32	10	0.81	757	2	0.03	3	750	28	5	<20	48	0.04	<10	53	<10	22	52
BAGC-03	Chip	24960	637982	6325405	Monzonite	1.25	248	pyrite	<0.03		<0.2	2.73	10	110	15	2.43	<1	12	50	30	3.14	<10	0.93	1069	<1	0.04	4	630	38	10	<20	103	0.11	<10	64	<10	17	59
BAGC-04	Chip	24961	637980	6325405	Monzonite	0.8	272	pyrite	<0.03		0.2	2.03	5	95	<5	2.10	<1	10	58	25	2.43	<10	0.78	1190	2	0.02	3	770	34	10	<20	65	0.05	<10	50	<10	15	61
BAGC-05	Chip	24962	637978	6325405	Monzonite	1	278	pyrite	<0.03		0.2	2.91	10	90	5	2.43	<1	10	46	84	2.78	<10	1.02	1887	<1	0.03	3	660	40	15	<20	87	0.12	<10	55	<10	13	86
BAGC-06	Chip	24963	637982	6325408	Monzonite	1.1	240	pyrite	<0.03		<0.2	2.46	10	100	10	2.75	<1	8	64	9	2.83	<10	0.74	684	<1	0.03	3	750	32	<5	<20	100	0.08	<10	58	<10	17	51
BAGC-07	Chip	24964	637980	6325406	Monzonite	0.8	271	pyrite	<0.03		<0.2	2.57	10	130	<5	3.43	<1	10	57	21	2.56	<10	0.76	1243	<1	0.03	3	650	38	10	<20	104	0.11	<10	57	<10	17	68
BAGC-08	Chip	24965	637978	6325410	Monzonite	0.75	265	pyrite	<0.03		<0.2	1.93	10	85	15	1.75	<1	14	46	24	3.01	<10	1.08	1043	<1	0.06	3	480	28	10	<20	77	0.15	<10	80	<10	18	44
LGC-01	Chip	24966	638004	6325405	Monzonite	1	255	pyrite	<0.03		<0.2	1.58	<5	210	5	3.72	<1	8	91	24	2.69	<10	0.51	1272	3	0.02	3	770	24	5	<20	65	0.04	<10	54	<10	18	57
LGC-02	Chip	24967	638003	6325404	Monzonite	1.3	252	pyrite	<0.03		0.4	1.23	10	105	<5	2.99	2	10	101	28	2.13	<10	0.48	1325	3	<0.01	4	590	30	10	<20	27	0.02	<10	30	<10	13	170
LGC-03	Chip	24968	638002	6325406	Monzonite	1.25	256	pyrite	0.08		1.8	1.36	10	95	<5	5.04	6	29	95	85	2.45	<10	0.60	2100	12	<0.01	3	480	142	<5	<20	47	0.02	<10	27	<10	15	360
LGC-04	Chip	24969	638001	6325405	Monzonite	0.9	257	pyrite	<0.03		<0.2	2.39	5	185	5	3.87	<1	7	54	30	2.49	10	0.55	1184	3	0.02	2	730	34	5	<20	112	0.03	<10	49	<10	19	37
LGC-05	Chip	24970	637999	6325404	Monzonite	1	259	pyrite	<0.03		<0.2	1.58	5	210	<5	2.41	<1	8	96	19	2.31	<10	0.56	1060	4	0.03	3	700	24	5	<20	61	0.01	<10	43	<10	15	69
LGC-06	Chip	24971	637998	6325405	Monzonite	1	256	pyrite	<0.03		1.3	1.68	5	140	10	4.15	<1	16	107	10	2.16	<10	0.57	1762	4	0.01	5	580	34	10	<20	69	<0.01	<10	28	<10	15	113
LGC-07	Chip	24972	637998	6325406	Monzonite	1	258	pyrite	<0.03		0.8	1.34	10	85	5	4.24	1	17	114	10	2.01	<10	0.51	1964	4	<0.01	3	530	24	5	<20	45	<0.01	<10	22	<10	12	139
LGC-08	Chip	24973	637995	6325406	Monzonite	1	245	pyrite	0.05		0.2	1.84	5	365	5	3.50	1	11	71	31	3.05	<10	0.80	1545	3	0.02	3	740	30	<5	<20	60	0.03	<10	50	<10	18	97
LGC-09	Chip	24974	637995	6325404	Monzonite	1.4	245	pyrite	<0.03		<0.2	3.53	10	145	15	3.35	<1	8	51	12	2.67	<10	0.72	729	<1	0.04	2	710	44	5	<20	167	0.09	<10	60	<10	14	20
LGC-10	Chip	24975	637995	6325401	Monzonite	1.5	264	pyrite	<0.03		<0.2	3.68	10	140	10	3.39	<1	9	62	11	2.93	<10	0.85	689	<1	0.03	3	770	48	10	<20	160	0.10	<10	64	<10	18	31
LGC-11	Chip	24976	637993	6325401	Monzonite	1	206	pyrite	<0.03		0.3	2.04	5	1455	<5	3.57	<1	1	66	206	2.61	10	0.71	923	3	0.02	2	740	36	10	<20	95	0.02	<10	48	<10	20	54
MGC-01	Chip	24977	638013	6325413	Monzonite	1.15	280	pyrite, malachite	<0.03		0.6	1.31	<5	195	<5	1.57	1	10	78	197	2.96	<10	0.74	877	5	0.03	3	740	36	<5	<20	26	<0.01	<10	49	<10	14	148
MGC-02	Chip	24978	638012	6325413	Monzonite	1	277	pyrite	<0.03		0.3	2.47	5	175	<5	2.17	<1	11	51	188	3.13	10	0.81	710	2	0.04	2	720	36	5	<20	94	0.06	<10	60	<10	20	48
MGC-03	Chip	24979	638011	6325412	Monzonite	1	326	pyrite	0.03		0.4	2.33	5	200	<5	1.98	1	7	57	293	3.05	10	0.72	698	6	0.03	4	740	34	15	<20	81	0.02	<10	52	<10	18	47
MGC-04	Chip	24980	638010	6325413	Monzonite	1	249	pyrite, malachite	0.08		0.3	2.01	5	510	<5	2.15	<1	5	56	389	3.29	10	0.72	555	5	0.03	2	780	30	5	<20	63	<0.01	<10	49	<10	15	43
MGC-05	Chip	24981	638012	6325410	Monzonite	1	238	pyrite	0.05		0.3	1.54	<5	180	<5	0.69	<1	10	62	163	3.10	10	0.80	529	3	0.04	3	760	26	5	<20	41	0.05	<10	62	<10	17	29
MGC-06	Chip	24982	638010	6325409	Monzonite	1	238	pyrite	0.03		0.3	2.66	5	545	<5	2.16	<1	5	48	386	3.10	<10	0.67	706	4	0.03	1	740	38	<5	<20	106	0.02	<10	51	<10	18	45
MGC-07	Chip	24983	638009	6325409	Monzonite	1	270	pyrite	0.04		0.9	2.38	10	290	<5	1.21	<1	6	47	328	2.64	<10	0.64	477	4	0.02	2	770	40	<5	<20	87	0.02	<10	42	<10	13	34
MGC-08	Chip	24984	638006	6325409	Monzonite	1	270	pyrite	<0.03		0.2	3.76	10	250	<5	2.33	1	8	47	226	2.67	10	0.78	565	3	0.02	2	750	52	10	<20	159	0.03	<10	47	<10	20	58
MGC-09	Chip	24985	638009	6325411	Monzonite	1.5	255	pyrite	0.03		0.6	2.62	10	500	<5	2.20	<1	6	44	296	2.69	10	0.62	626	4	0.02	3	720	40	10	<20	112	0.02	<10	42	<10	17	47
MGC-10	Chip	24986	638007	6325411	Monzonite	1	294	pyrite	0.12		0.8	4.94	10	220	<5	3.54	<1	6	40	641	1.97	<10	0.65	385	1	0.03	2	700	66	15	<20	237	0.08	<10	53	<10	14	28
MGC-11	Chip	24987	638007	6325412	Monzonite	1.1	288	pyrite	<0.03		<0.2	5.63	15	260	<5	4.08	<1	9	34	331	2.42	10	0.75	544	2	0.04	2	720	74	15	<20	283	0.07	<10	66	<10	15	34
MGC-12	Chip	24988	638007	6325414	Monzonite	1.1	258	pyrite, malachite	0.03		3.4	4.04	15	205	<5	3.10	<1	11	42	712	2.80	10	0.76	693	2	0.02	1	680	96	10	<20	183	0.07	<10	61	<10	19	48


6325420 mN
6325410 mN
6325400 mN
6325390 mN
637980 mE
637990 mE
638000 mE
638010 mE
638020 mE
638030 mE
638040 mE
638050 mE
N
0
5
10
metres
Molehill Showing
Geology of Trench Area
Quartz Vein
Malachite
Pyrite+/-Chalcopyrite
Chlorite, Sericite +/- Talc Alteration
Sovereign Quartz Monzonite
Extent of Trenching
Hematite Stained Faults
Fault
Fault with >6 in fault gouge

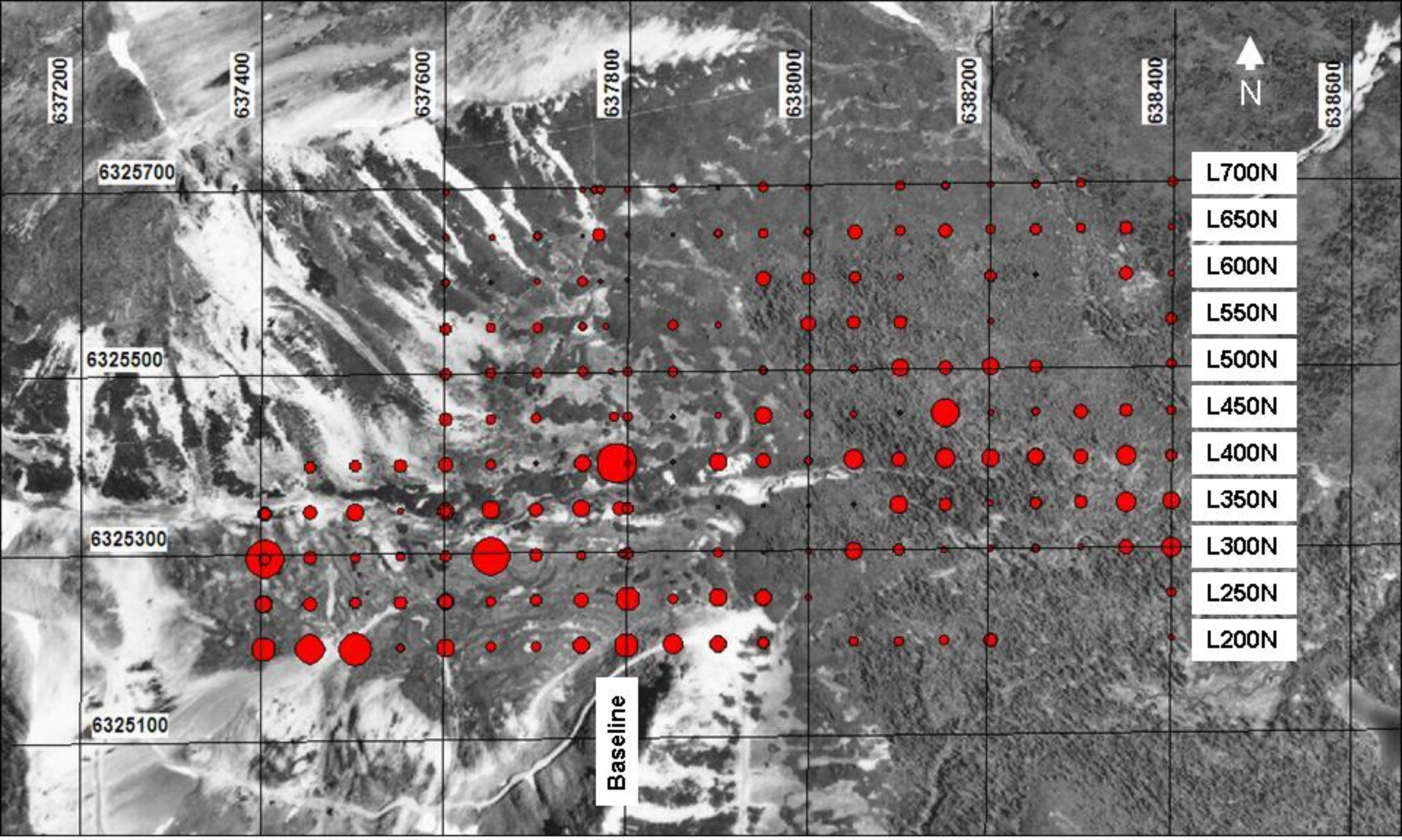


Soil Samples g/t Ag
Molehill Showing

4
2
0.5

200m

Northgate Minerals Corp.
Kemess East Project
UTM Nad83 Grid
March 15 2007
Drawn by: K. Lucas



Soil Samples ppmCu

Molehill Showing

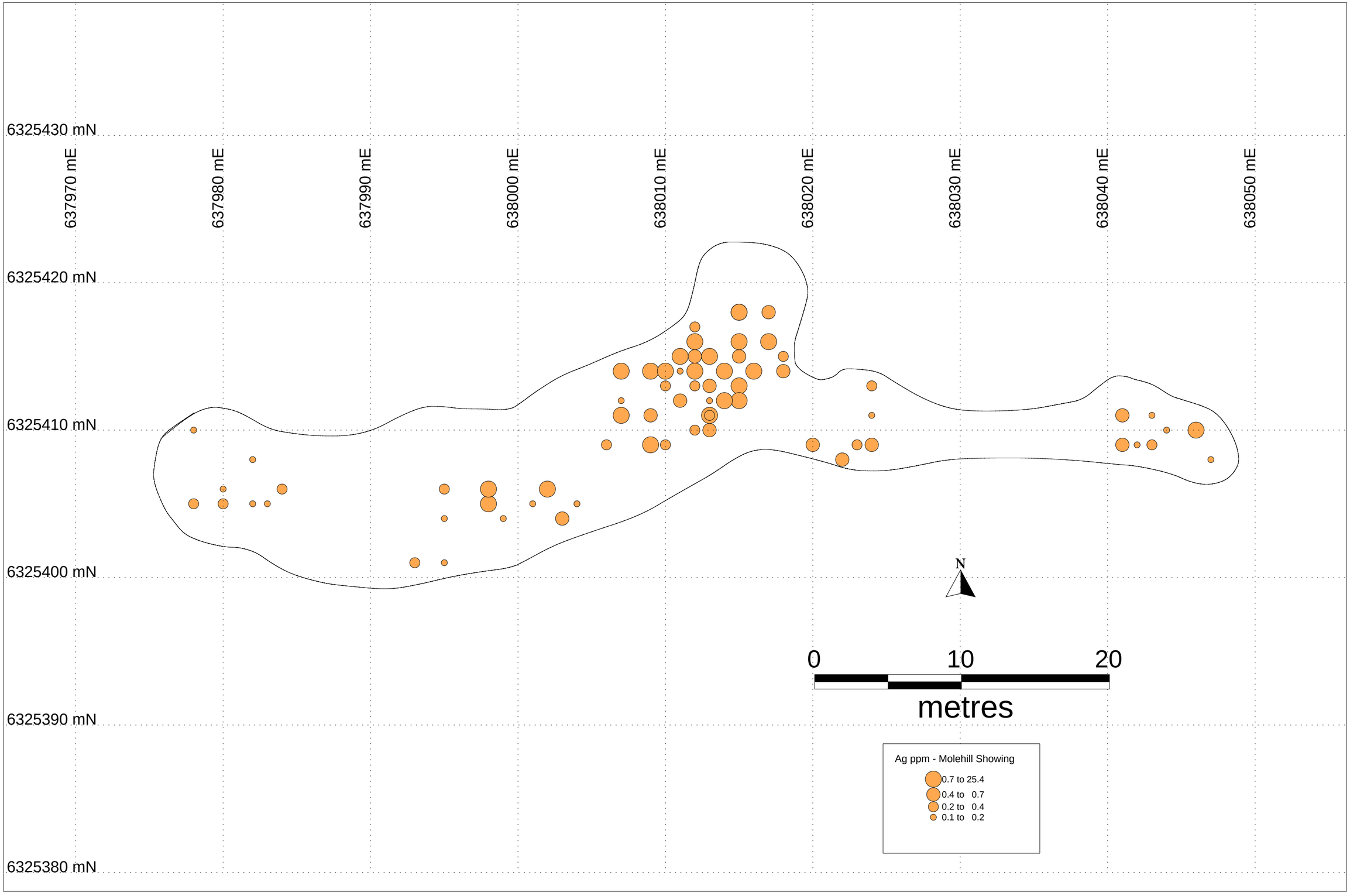
860

430

85

200m

Northgate Minerals Corp.
Kemess East Project
UTM Nad83 Grid
March 15 2007
Drawn by: K. Lucas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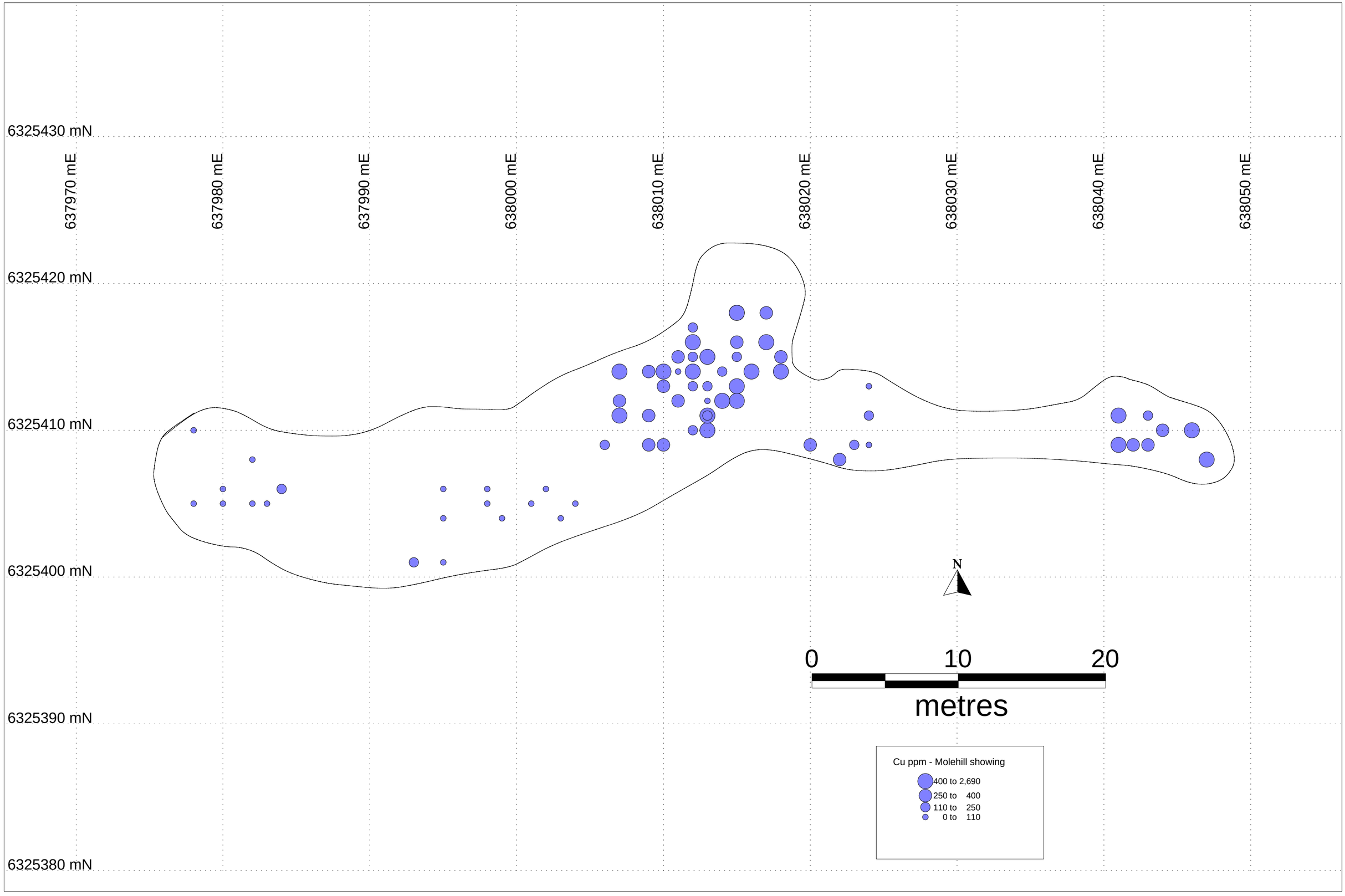
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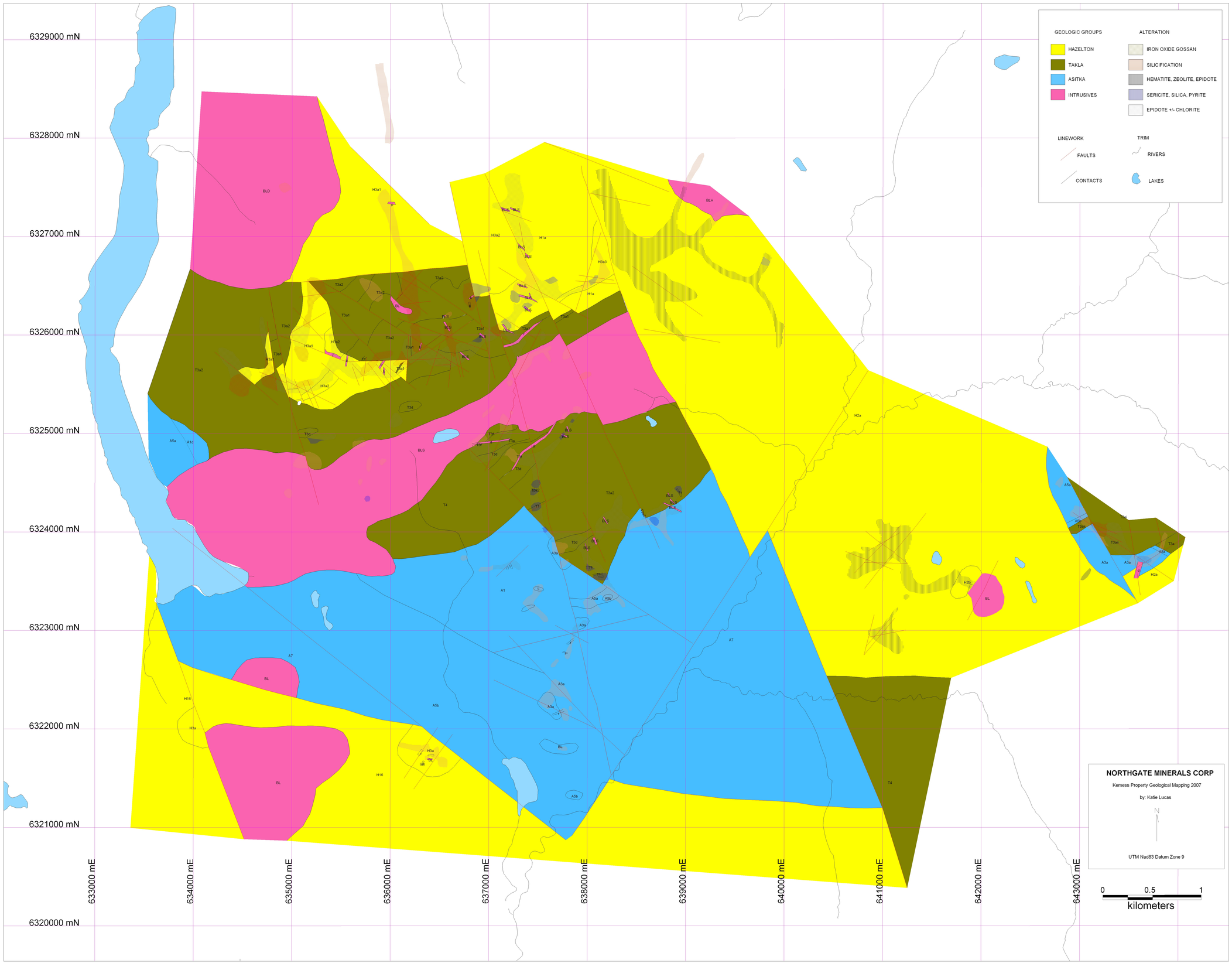

GEOLOGIC NOMENCLATURE AND UNIT DESCRIPTIONS TAKEN FROM:

Geological Survey Branch

GEOSCIENCE MAP 2001-1

GEOLOGY OF THE SOUTHERN TOODOGGONE RIVER and NORTHERN McCONNELL CREEK MAP AREAS, NORTH-CENTRAL BRITISH COLUMBIA

PARTS OF NTS 94E/2, 94D/15 and 94D/16

Compiled by: Larry J. Diakow

LOWER JURASSIC

HAZELTON GROUP:

TOODOGGONE FORMATION - Exclusively subaerial, andesitic to dacitic pyroclastic rocks and subordinate lava flows. Sparse, trachyte pyroclastic rocks and basaltic hypabyssal intrusions.

H16 Covered by vegetation, colluvium, alluvium or glacial drift; probably underlain by volcanic rocks of the Toodoggone formation.

KEMESS MEMBER

H15 Hornblende-augite tuff breccia and lapilli tuff: reddish, oxidized, thickly bedded. (190.8 ± 2.0 Ma by $^{40}Ar/^{39}Ar$)

H14 Trachyte tuffs and minor flows: **(H14a)** lapilli tuffs, tan-buff, flaggy weathering, moderately welded; corroded plagioclase and mafics impart a pilted appearance; **(H14b)** subordinate flows with faint laminae and rare lithophysae.

H13 Dacitic crystal-ash tuff: light grey, composed of 15 % plagioclase, up to 3% biotite and trace quartz phenocrysts; a minor fragmental unit that depositionally overlies unit H12.

H12 Dacitic lapilli tuff and crystal-ash tuffs: Oxidized with an orange mottled appearance, characterized by up to 15% hornblende crystals less than 1 mm long; lithologically resembles unit H6. (189.9 ± 2.0 and 191.1 ± 1.9 Ma by $^{40}Ar/^{39}Ar$(h))

H11 Intraformational oligomictic cobble conglomerate and interbedded sandstone; unconformably rests on unit H8 locally.

SAUNDERS MEMBER

H10 Volcaniclastic-epiclastic deposits: Lapilli tuff, dark maroon, crudely layered thick beds that when exposed rapidly disintegrate due to probable swelling clay in the matrix, tuffs are dominated by light green, clay-altered vitriclasts and abundant plagioclase fragments; epiclastic intervals consist of feldspathic sandstones and siltstones that commonly contain abundant detrital pyroxene grains, lesser conglomerates and minor mudstones; (194 ± 0.6 Ma by U-Pb(z)); scarce interlayered, dark green aphanitic basalt flows or sills(?).

H9 Crystal and ash tuffs: Green, platy weathering, contains plagioclase and trace amounts of quartz and biotite, depositionally overlies unit H8 locally.

H8 Dacite ash-flow tuff: Generally grey-green but south of Attycelley Creek correlative ash-flow tuffs are oxidized to reddish colors, incipiently to densely welded, diagnostic pyroclasts consist of plagioclase, hornblende, biotite and quartz crystal fragments and distinctive flattened, clot-like porphyritic cognate vitriclasts; minor volcanic breccia. (192.6 ± 2.1 to 194.5 ± 1.9 Ma by $^{40}Ar/^{39}Ar$(b,h))

H7 Andesitic flows and tuffs: Maroon or green, dominated by plagioclase less than 2 mm long, differs from other Toodoggone units by the absence of visible quartz, biotite or hornblende; air-fall deposits may locally contain tear-shaped bombs, depositionally overlies unit H6 locally.

H6 Dacitic crystal-ash and lapilli tuffs: Light green to light maroon; thick, crudely layered beds with platy weathering, characterized locally by up to 15 % minute vitreous hornblende averaging 1 mm long, biotite up to 5 %, and lesser quartz phenocrysts. Circa 193 to 194 Ma by $^{40}Ar/^{39}Ar$(h).

H5 Intraformational oligomictic cobble-boulder conglomerate derived from andesite flows resembling unit H4; clasts are characterized by blocky feldspar, hornblende up to 5 mm long and augite; interbedded layered intervals are composed of pebble conglomerates and feldspathic sandstones.

METSANTAN MEMBER

H4 Andesite flows, grey-green to light purple, 15-25 % blocky feldspar between 2 and 5 mm in length, chloritized biotite and hornblende (2 % combined); trace quartz; minor interflow tuff and monolithic debris flows; flows are similar in appearance and phenocryst mineralogy to those comprising unit A3a.

DUNCAN MEMBER

H3 **(H3a)** Dacitic tuffs: Grey-green, medium-grained crowded texture with up to 40 % plagioclase, quartz to 5%, relict hornblende and biotite (up to 3 % combined), relatively sparse but widespread accidental lithic fragments include augite phyric and mega-plagiophyric basalts of unit T3; and a pink, porphyritic quartz-feldspar granitoid, interpreted as probable non-welded crystal-rich ash-flow tuffs. **(H3b)** minor bedded volcanic-epiclastic deposits. (199.1 ± 0.3 Ma by U-Pb(z))

H2 **(H2a)** Lapilli tuffs with volcaniclastic-epiclastic interbeds: Reddish brown, less commonly green, massively bedded except for local, well layered epiclastic intervals; fragments are typically reddish brown, aphanitic or biotite-quartz-plagioclase phyric; lapilli mixed with varying proportions of broken phenocryst fragments. **(H2b)** volcaniclastic-epiclastic sections composed of sandstones, siltstone and maroon mudstones are typically planar bedded and internally graded, they provide local markers within the otherwise thick, monotonous tuffs. (200.4 ± 0.3 Ma by U-Pb(z))

H1 Basal conglomerates and interbedded sandstones: **(H1a)** a lower oligomictic conglomerate is composed of hematized cobbles and boulders derived from Takla Group basalts of unit T3. **(H1b)** an overlying polymictic conglomerate is composed mainly of quartz and biotite-bearing lithologies derived from the Toodoggone formation, but it also contains granite and Takla basalt clasts; interbedded sandstones with a pink, laumontite-rich matrix. **(H1c)** light green quartz-biotite crystal-ash tuffs may underlie or interfinger these basal conglomerates.

UPPER TRIASSIC

TAKLA GROUP - An initial marine shale is stratigraphically overlain by subaerial basaltic flows with subordinate pyroclastic rocks and locally significant wacke intervals.

T4 Covered by vegetation, colluvium, alluvium or glacial drift; probably underlain by strata of the Takla Group.

T3 Basaltic flows and subordinate tuffs, and associated epiclastic rocks: Dark green to shades of maroon when oxidized, thick flows typically forming strongly fractured cliffs and craggy physiography. **(T3a)** Lava flows and tuffs characterized by augite and plagioclase phenocrysts; subordinate tuffs forming laterally discontinuous deposits are composed of aphanitic and porphyritic basaltic lapilli and uncommon blocks; **(T3b)** mega-plagiophyric basaltic flows containing distinctive plagioclase laths up to 2 cm long; **(T3c)** aphanitic basalts, lithologically indistinguishable from unit A4a; **(T3d)** sandstone and siltstone composed exclusively of augite and plagioclase grains, and minor oligomictic cobble-boulder conglomerate as alternating dark and lighter green layers occurring as interbeds within flows of unit T3a; vary from several metres thick to intervals up to 175 m thick; **(T3e)** chlorite schist, presumed to be derived from Late Triassic basalts.

T2 Polymictic conglomerate: Granules and pebbles composed of chert, limestone and rare granite; locally underlies unit T3a west of Thutade Lake. (236.5 ± 4.5 Ma on granitic clast by $^{40}Ar/^{39}Ar$)

T1 Calcareous mudstone and siltstone: Black, flaggy weathering; minor dark grey to black micritic limestone as pods and discontinuous beds up to 0.5 m thick. Limy horizons may contain the bivalve *Halobia*, scarce ammonite fragments and rare belemnoids.

MID-PENNSYLVANIAN TO LOWER PERMIAN

ASITKA GROUP - The stratigraphically lowest mafic volcanic succession passes locally into rhyolitic pyroclastic rocks overlain by andesitic flows containing sandstone and siltstone interbeds. A sedimentary-dominated upper succession has coralline limestone gradationally overlain by chert and intercalated siltstone and black siliceous mudstone.

A7 Covered by vegetation, colluvium, alluvium or glacial drift; probably underlain by strata of the Asitka Group.

A6 Undivided volcanic rocks of uncertain stratigraphic position: **(A6a)** basaltic to andesitic rocks, commonly chloritized and locally foliated; **(A6b)** dacitic to rhyolitic pyroclastic and flow rocks.

A5 **(A5a)** Chert interlayered with siltstone and mudstone: Cherts are light green to grey and less commonly red jasperoidal varieties, well bedded in parallel layers between 2 and 15 cm thick; minor limestone interbeds similar to unit A4a; approaching the upper contact are light grey or black chert and interbedded siliceous black mudstone with diagnostic rusty weathering of authigenic disseminated pyrite; indeterminate bivalves are present in the black mudstones. **(A5b)** siliceous siltstone and feldspathic sandstone, light green, subordinate interbeds of thinly laminated coralline limestone, black argillite and aphanitic basalt; **(A5c)** rare, cobble conglomerate derived locally from unit A2b; passes upwards into feldspathic sandstone then into black rusty mudstone with grey-black limestone lenses containing solitary corals.

A4 **(A4a)** Limestone; off white, light grey weathering, recrystallized, massive to thickly bedded; locally contains discontinuous chert beds, lenses and nodular layers; locally interlayered or intruded(?) by massive basaltic sills(?). **(A4a)** limestone, light green weathering, thinly laminated; **(A4b)** interlayered fossiliferous limestone and calcareous lapilli tuffs, light green to dark maroon, than to medium thickly bedded. Silicified solitary corals and crinoid debris are abundant in unit A4a and are accompanied by fusilinaceans.

A3 **(A3a)** Andesite lava flows; medium green and less commonly maroon, sparse, but diagnostic quartz phenocrysts typically less than 2 mm in diameter and 15 to 25 % equidimensional blocky plagioclase phenocrysts between 3 and 4 mm; green, volcanic siltstone, sandstone to granule conglomerate are found as thinly bedded intervals within the flows; **(A3b)** rare ash and lapilli tuff layers containing trace quartz phenocrysts; closely resembles tuffs comprising the Toodoggone formation.

A2 **(A2a)** Rhyolitic lapilli tuff and ash-flow tuff: off white to light grey, aphanitic and flow laminated rhyolitic pyroclasts, moderately welded zones contain chloritized flamme; scarce intervals of green and maroon tuffs composed of ash, crystals and lapilli, rare blocks and accretionary lapilli; tuff intervals up to 25 m thick (308.4 ± 0.7 Ma by U-Pb(z)); **(A2b)** Rhyolite lava flows: grey, aphanitic with faint flow laminae (309.7 ± 3.6 Ma by U-Pb(z)); **(A2c)** lapilli and crystal-ash tuffs, grey, well bedded; less than 50 m thick; locally thermally metamorphosed near intrusive contacts.

A1 **(A1a)** Basalt flows: dark green, massive and strongly fractured; generally aphanitic but may contain sparse, chloritized pyroxene phenocrysts; locally deformed to chlorite schist adjacent to the Ingenika Fault; may contain pods of grey weathering limestone and jasperoidal silica; **(A1b)** minor black mudstone alternating with feldspathic siltstone to coarse-grained sandstone; **(A1c)** metasedimentary rocks containing garnet and biotite and locally interlayered with comparatively underformed and unmetamorphosed aphanitic basalts, foliated; **(A1d)** minor limestone, light grey to light green, massive to thinly laminated; minor garnet-bearing skarn; resembles units A4a and A4a but appears to be bounded by basalts of unit A1a.

INTRUSIVE and METAMORPHIC ROCKS

EARLY JURASSIC

BLACK LAKE INTRUSIVE SUITE - Epizonal and sub-volcanic-emplaced biotite-hornblende-titanite-bearing stocks and smaller plutons of intermediate composition that are co-spatial and comagmatic with extrusive rocks of the Toodoggone Formation.

BL Unnamed, isolated intrusions of the Black Lake suite: These intrusives vary in texture from inequigranular to equigranular, and less commonly porphyritic and contain variable amounts of hornblende, biotite and titanite. Granodiorite **(BL_{gd})**, hornblende diorite **(BL_{hd})**, pyroxene-quartz diorite **(BL_{qd})**, monzogranite **(BL_{mg})**, quartz monzonite **(BL_{qmz})**, quartz monzodiorite **(BL_{qmd})**.

BLF Fredrikson stock: Monzogranite, pink, medium to coarse grained, equigranular, 15 % combined hornblende and biotite in roughly equal proportions. A similar monzogranite north-northeast of Serrated Peak (unit BL_{mg}) is distinguished by 2-3% mafics that consist solely of chloritized biotite. (191.0 ± 0.4 Ma by U-Pb(z))

BLM McConnell stock: Quartz monzonite, light pink, medium grained, inequigranular, approximately 10 % combined mafics with either hornblende or biotite dominant, rare potassium feldspar megacrysts; isolated plutons locally sheared adjacent to the Ingenika Fault; compositionally unclassified sheared granitoid **(BL_{sg})**

BLD Duncan stock: Quartz monzonite, light pink to greyish white, inequigranular randomly oriented medium to coarse grained subhedral plagioclase and fine intercrystalline quartz and potassium feldspar, 20 % combined mafics with modal hornblende greatly exceeding biotite. (197.3 +1.7/-0.9 Ma by U-Pb(z))

BLG Giegerich pluton: Granodiorite, light pink, medium grained, equigranular, 15 to 25 % combined mafics with modal hornblende greatly exceeding biotite. Quartz monzodiorite and lesser quartz diorite phase, light grey to white, medium grained, predominantly unaltered green hornblende to 20 % and up to 2% chloritized biotite, 3-7% augite may be locally present in quartz diorites. (197.5 ± 2.0 Ma by U-Pb(z))

BLML Maple Leaf sill: A tabular, southwest-inclined sill that hosts disseminated and fracture-controlled mineralization at the Kemess Au-Cu porphyry deposit; the hypogene zone **(BL_{ML})** has extensive and intensive potassic alteration which obliterates primary mineralogy and texture, thus inhibiting classification of the original granitoid (199.6 ± 0.6 Ma by U-Pb(z)); supergene zone **(BL_{ML})**.

BLS Sovereign hypabyssal stock: Quartz monzonite porphyry, greyish pink, 3-5 % prismatic and resorbed quartz phenocrysts and about 10% combined mafics, dominated by unaltered green hornblende and 1-2 % biotite. Probable subvolcanic feeder to volcanic rocks of unit H3a. (202.7 +1.9/-1.6 Ma by U-Pb(z))

BLJ Jensen pluton: Quartz monzonite, white, medium to coarse grained, myrmekite, inequigranular, 5-7 % combined mafics comprised almost exclusively of unaltered green hornblende, rare potassium feldspar megacrysts. (201.2 ± 2.6 Ma by U-Pb(z))

DIKES

b,bp Basalt dikes and rare plug: dark green; recessive weathering; typically less than 2 m wide; fine grained, aphanitic to sparsely porphyritic texture, 2-5 % chloritized pyroxene, sparse medium grained plagioclase phenocrysts, calcite-filled amygdules; rare, purple weathering basalt plug (subunit **bp**)

d Andesitic to dacitic feldspar ± quartz porphyry: light pink, orange to brick red weathering, typically porphyritic due to 15-25% medium grained plagioclase, trace to 3 % quartz and 5-10% combined hornblende and biotite phenocrysts, the latter generally altered to chlorite; range in width up to 30 m with the average less than 3 m.

r Quartz rhyolite porphyry: conspicuous quartz phenocrysts as large as 1.5 cm in diameter (up to 20 %), off white to pale green groundmass; dikes up to 40 m wide; proximal to and possibly comagmatic with the Sovereign intrusion (unit BLS) except for a similar dike that cuts broadly folded Paleozoic rocks north of Serrated Peak dated at 195.7 ± 2.5 Ma by U-Pb(z).

ANTIQUUS Archaeological Consultants Ltd.
23021 - 132nd Avenue • Maple Ridge, B.C. • V4R 2T3 • Tel/Fax: (604) 467-3497

APPLICATION FOR A SECTION 14 HERITAGE INSPECTION PERMIT TO CONDUCT AN ARCHAEOLOGICAL IMPACT ASSESSMENT FOR KEMESS MINE'S PROPOSED 2006-2007 LAND-ALTERING DEVELOPMENTS RELATED TO ACCESS TRAIL CONSTRUCTION AND TEST DRILLING WITHIN TWO CURRENTLY PROPOSED EXPLORATION AREAS

June 5, 2006

Mike K. Rousseau,
Antiquus Archaeological Consultants Ltd.
23021 - 132 Avenue, Maple Ridge, B.C.
V4R 2T2

1.0 INTRODUCTION AND BACKGROUND

I am herein applying for a "Blanket" **Heritage Inspection Permit** (Section 14, Archaeology Branch:1998) to conduct archaeological impact assessment (AIA) studies within two specific development/management areas for the Kemess Mine property, which is located approximately 300 km northwest of MacKenzie in North Central BC (Figures 1 to 3). It is the current intent of Northgate Minerals Corporation (406 - 815 Hornby Street, Vancouver, B.C. V6Z 2E6; Fax: 604-681-4003) to construct an access trail and drill 20 exploratory " Skid Drill Holes" in the area immediately east of the "Kemess North" pit (Figure 3). Also, they are proposing to construct access trails and drill 15 more exploratory test holes and impose heavy vehicle traffic in the "Kemess East Exploration Area" (Figure 3). Specific plans for the latter eastern area have not been finalized, since Northgate Minerals has opted to await the outcome of this AIA so that the information can be included when considering plan option details. Mr. Carl Edmunds is overseeing this archaeological study on behalf of Northgate Minerals Corporation (604-681-4004; email: cedmunds@northgateminerals.com). His Kemess Mine phone contact number is 604-639-8549). Specific proposed development details are presented and discussed in Section 2.0.

Over the last 15 years, archaeological studies have been completed for the Kemess Mine South mine property for proposed developments that have included access roads, an air strip, power transmission line corridors, open pits, waste rock dumps, buildings, pipelines, and ore conveyors (Rousseau et al. 1993; Yellowhorn and Rousseau 1997; Will, Seip and Rousseau 2004). These studies have resulted in identification, recording, assessing, and management of several pre-contact period lithic scatter sites, and several post-contact period (historic) sites as well.

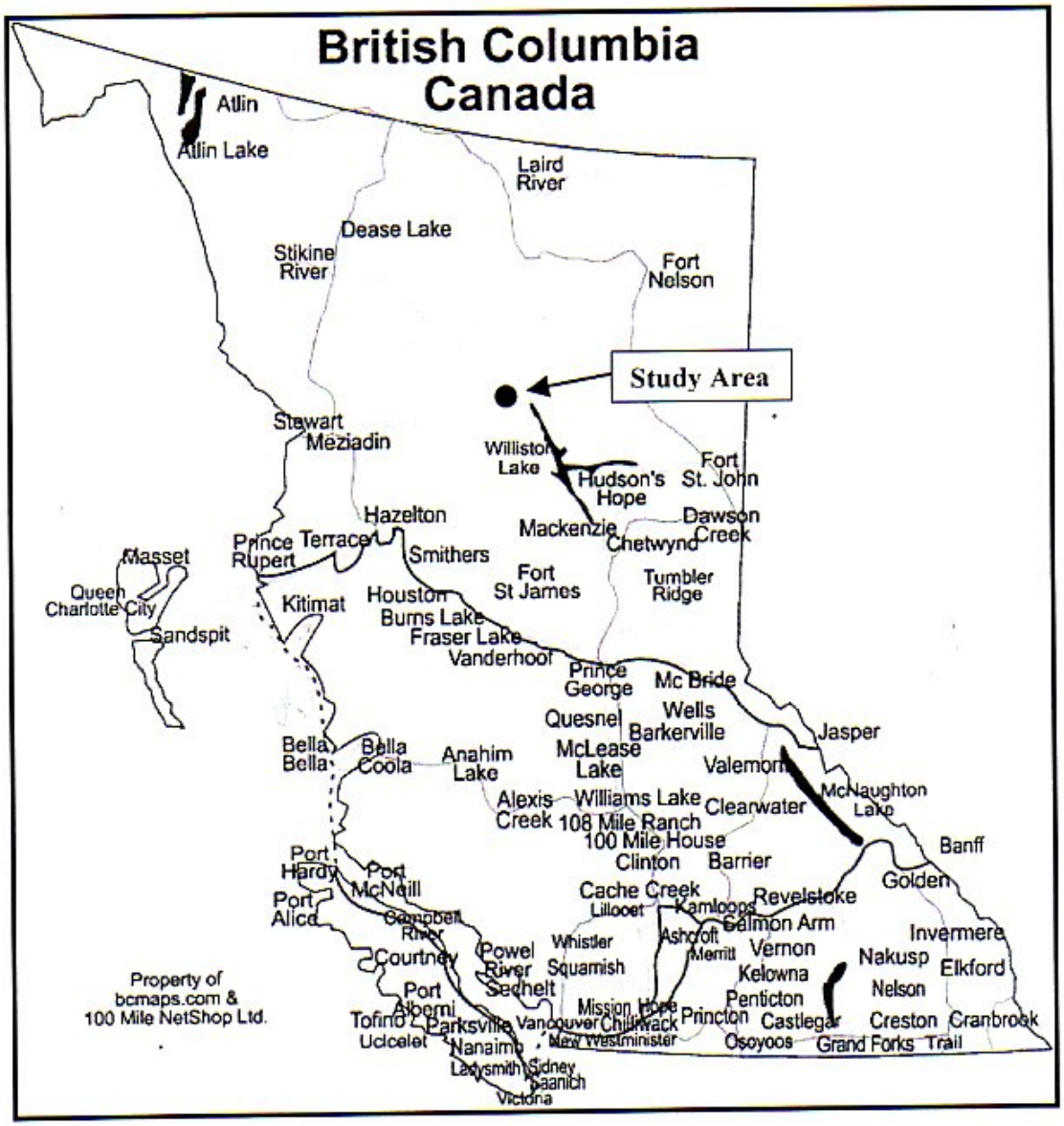

Figure 1. General location of Kemess Mine in North-Central BC.

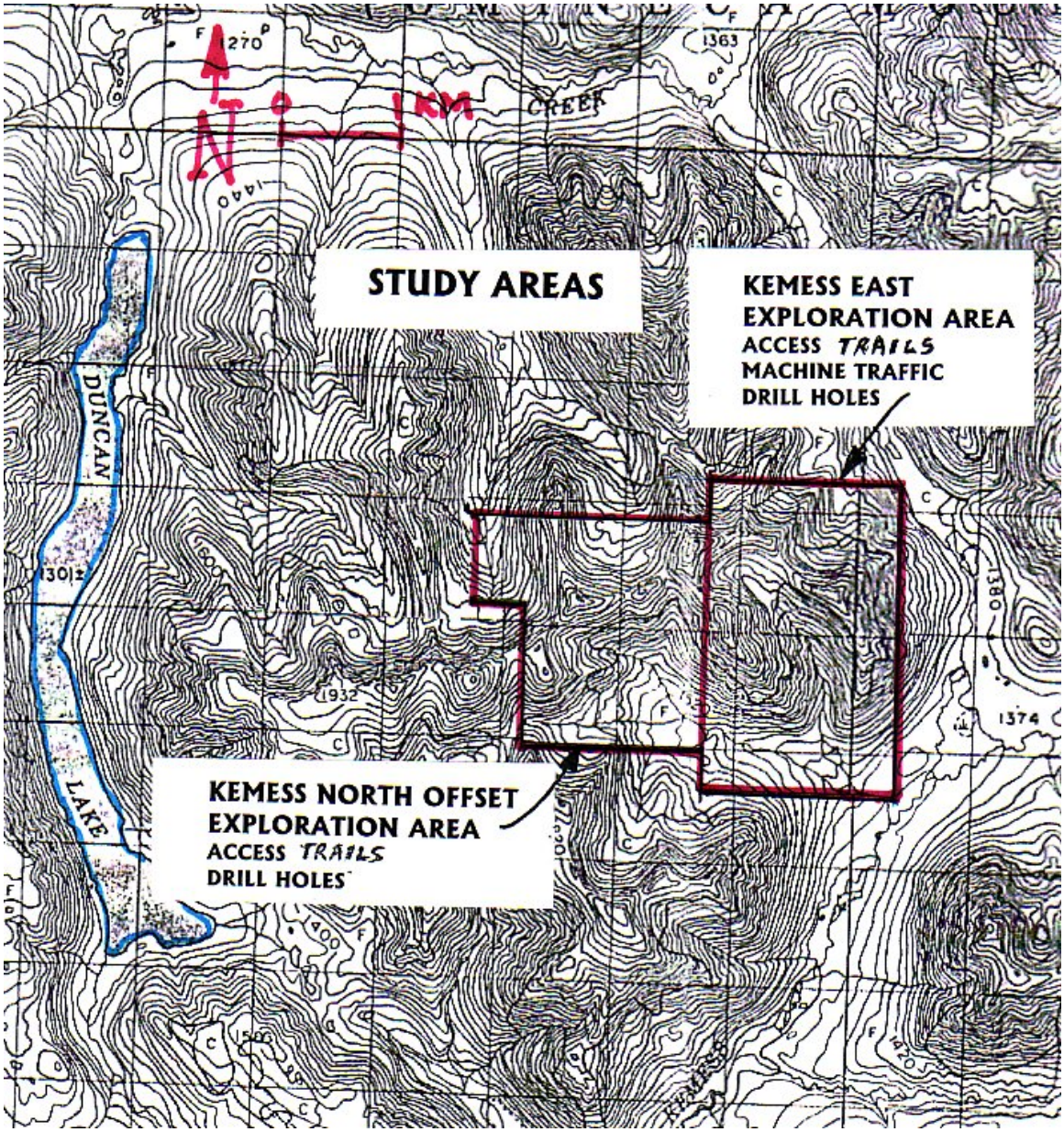

Figure 2. The two general areas to be inspected during this proposed archaeological impact assessment (AIA) study. Specific proposed development details are provided in Section 2.0 and Figure 3 of this application.

1.1 First Nations Consultation and Participation

The proposed study areas lie within the traditional territories of the Following First Nations agencies.

1) **Tsay Keh Dene Band;** 11 - 1839 First Avenue, Prince George, BC V2L 2Y8; Contacts: Chief Johnny Pierre, Grand Chief Gordon Pierre.

2) **Takla Lake First Nation;** #345 - 1460 6th Avenue, Prince George, BC V2L 3N2; Contact: Chief John Allen French.

3) **Kwadacha Band;** 207-513 Ahbau Street, Prince George, BC V2M 3R6; Contact: Chief Donny Van Somer.

4) **Gitskan House of Nii Kyap;** PO Box 229, 1650 Omineca Street, Hazelton, BC VOJ 1Y0; Contact: Chief Rena Benson.

5) **Carrier Sekani Tribal Council**; 200 - 1460 sixth Avenue, Prince George, BC V2L 3N2; Contact: Grand Chief Gordon Pierre.

All the above First Nation organizations will be provided with a copy of this permit application via Kemess Mine/Northgate Minerals, and a second copy will be sent to them from the Archaeology Branch in Victoria after they have reviewed the initial permit application. These organizations will be asked to provide comments on the proposed impact assessment study objectives and methods contained in the permit application, and they will have 30 days to do so after the Archaeology Branch sends them a copy of this application. It is our intent to inform these agencies when we will be in the field, and we will provide them with a copy of the final report when it has been completed.

We wish to include at least four First Nation fieldworkers on our field crew, and they will assist us in locating and assessing sites. These representatives will be selected by their respective communities, and they will be paid directly by Northgate Minerals. Travel arrangements and accommodations will also be provided by the mine. We are hoping that the selected individuals will have had some previous archaeological field survey experience, but this is not a necessity, as we will train them in the field. We would also like to work with these First Nations to ask them to assist us in the preparation of the background sections of the final report, and to pass on any oral information that may be available about known past land use in the study area during post-contact period (prehistoric) times, and other heritage concerns that may require management.

2.0 DEVELOPMENT TYPE, FACILITIES AND SCHEDULE

There are two general exploration areas currently proposed: **(1)** the "Kemess North Offset Exploration Area"; and **(2)** the "Kemess East Exploration Area" (Figures 2 and 3). Similar land-altering activities are being proposed for these two areas, but proposed specific impact zones have only been presented for the "Kemess North Offset Exploration Area". Figure 3 shows the approximate location of the proposed main access trail in the "Kemess East Exploration Area, as well as proposed locations of 15 exploratory "Fly Drill Holes". The final location of the road and exploratory holes may be revised slightly before we enter the field, although these changes will be made clear to us at that time.

Specifically, land-altering activities that could impose negative impacts to archaeological resources in the study areas include:

(1) Selective timber harvesting and vegetation removal within proposed access trail right-of-ways involving heavy earth-moving and timber harvesting equipment. The areas to be impacted by tree cutting will vary according to terrain and ground cover.

(2) Construction of new access trails leading into, and networking within both study areas using heavy earth moving equipment. A route for the proposed access trails in the two western study areas has been provisionally identified (Figure 3). The new main access trail will be approximately 5 meters wide, and include approximately 5 km of right-of-way. Cutting and filling will be required for much of the length of this proposed trail.

(3) Heavy machinery traffic leading from main access trails to specific drill-hole locations (Figure 3).

(4) Preparation of drill-hole areas to accommodate drilling rigs using heavy equipment (i.e. to clear and level drill-sites).

(5) Various other minor miscellaneous ancillary land-altering activities (e.g., culverting, bridge construction, erosion prevention and management, etc.).

All of the above could pose a serious threat of direct adverse impacts to any archaeological or heritage concerns. An indirect negative indirect impact that could *potentially* arise as a secondary result of the proposed land-altering developments is erosion. It is the current intent of Northgate Minerals to commission this AIA assessment this summer, and proceed with access trail construction and drilling in late summer 2006. The results of this study will be incorporated into the final design plan to ensure that any identified archaeological concerns will be properly identified and managed before any land-alteration commences.

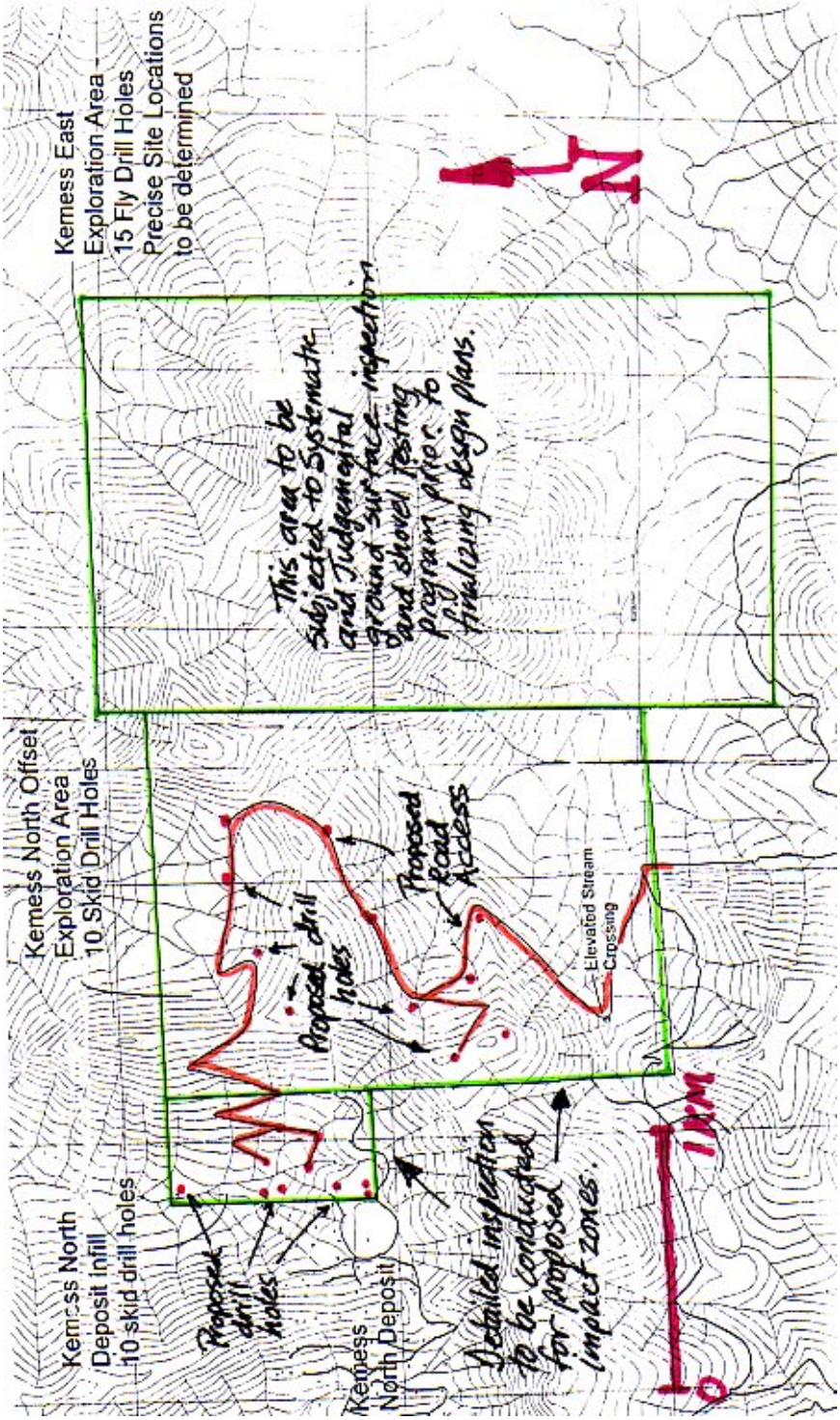

Figure 3. Presently proposed location of access trials (red) and associated proposed drill holes (purple) in the Kemess North Offset area. The "Kemess East Exploration Area" will be subjected to systematic and judgemental visual inspections to identify sites contained there for future management purposes.

3.0 ARCHAEOLOGICAL PROJECT OBJECTIVES AND METHODOLOGY

3.1 Objectives

The basic objectives of the archaeological impact assessment study will be: **(1)** to identify (locate and map) all archaeological/heritage sites within proposed impact zones associated with the proposed access trails and drill holes in the "Kemess North Offset Area", and in the "Kemess East Exploration Area" (Figures 2 and 3); **(2)** to evaluate the overall heritage significance value of all identified archaeological concerns; **(3)** to determine the nature, extent, intensity and duration of land-altering activities and assess how they could potentially affect any identified sites (or portions thereof); and **(4)** to provide recommendations to ensure effective management, protection, and/or mitigation of any significant archaeological concerns lying within the proposed impact zones.

The archaeological impact assessment studies will be designed to ensure that all archaeological concerns existing within the selected development impact zones and the eastern exploration area will be identified, recorded, assessed, and properly managed prior to initiation of any land-altering development activities. The studies will include a review of available ethnographic, historic, and archaeological documentation; oral interviews with local residents (if possible); both systematic and judgemental visual ground surface reconnaissance inspections of selected impact zones (or portions thereof); a judgemental shovel testing program of areas considered to have medium or greater site potential; an evaluative testing program (if required); and recording and assessment of all identified sites.

Specifically, the impact assessment studies for the proposed access trails, drill-hole locations, and ancillary minor projects will or could involve:

(1) Documentary background research involving the review and evaluation of archaeological, ethnographic, and historical literature relevant to the development areas. Much of this research has already been conducted for other previous studies.

(2) A rigorous visual ground surface reconnaissance inspection program involving both complete systematic and judgemental survey methodologies within proposed access trail and drill-hole impact zones, and other various related impact zones. A crew of four archaeologists and four First Nations community members will conduct the survey inspection. All areas with medium or higher site potential will be visually inspected.

(3) Some select artifacts found during the ground surface inspection may be collected. They could include isolated finds (e.g. projectile points, formed bifaces and unifaces, stone carvings, bone and antler tools, shells, etc.). Small lithic scatters lying within unavoidable impact zones or in contexts where they will eventually be lost to erosion or artifact collectors, will be systematically collected. See Section 4.3 for more information about curation arrangements. Basic quantitative (i.e., dimensional), and descriptive data (e.g., morphology, material type, evidence of use-wear, etc.) for analysis, will be documented for such artifacts prior to interment.

(4) Initiation of a judgmental shovel testing program within any sites identified during the ground surface reconnaissance, and within areas considered to possess medium or greater arch/heritage site potential (e.g., extant and extinct lake, stream, creek, river terraces, and/or relatively flat or raised ridges, promontories, terraces and knolls). This will help identify any buried sites, and also permit a fair assessment of the nature, extent, depth, and integrity to help determine overall archaeological significance of subsurface cultural deposits contained at all sites identified during the field inspection. Any cultural materials recovered during the shovel testing program will be recorded and placed in plastic bags labeled with the temporary site number, shovel test number, and depth of the find(s) below present surface (if known) (see above and Section 4.3). Basic quantitative (i.e., dimensional), and descriptive (e.g., morphology, material type, evidence of use-wear, etc.) will be recorded and presented in tabular form in the final report. All cultural materials recovered during any subsurface testing will be submitted to the respective curation facility as outlined in Section 4.3 below.

(5) While it is unlikely, evaluative testing (Archaeology Branch 1998:12-13) (if considered necessary) **may** be conducted within probable impact zones (e.g., access road right-of-ways, drill-hole areas, etc.) at one or more selected sites (or portions thereof) containing buried cultural materials that are deemed to have possible medium to high archaeological/heritage significance. This will entail excavation of 1m. x 1m. units in 10 cm-thick arbitrary levels using shovel and trowel. The removed matrices will be screened through 1/8 inch (3mm) wire screen mesh. Provenience on artifacts and features will be taken where appropriate. The number and judgmental placement of such test units required will depend upon the results of the ground surface reconnaissance survey and testing program, and the perceived likelihood of a potential impact arising from the land-altering project/activity. Cultural materials will be collected during any evaluative testing that may be conducted. Their provenience will be recorded, and detailed descriptions will be provided in the final report. Following reporting, they will be submitted to the respective storage facility as outlined in Section 4.3 below.

(6) Assessment of the overall heritage resource significance value of all sites, or portions thereof, identified within the proposed impact zones.

(7) Evaluation of the most recent project plans with respect to potential impacts to all identified archaeological sites.

(8) Formulation and presentation of management recommendations for any significant archaeological resources in potential conflict with the presently proposed land-altering development activities relating to road construction and exploration drill holes.

(9) If required, preparation of brief summary "letter" or "interim" reports that will present a brief preliminary account of the findings, and preliminary management options and recommendations.

(10) Eventual preparation of a final detailed "archaeological impact assessment report" (Archaeology Branch 1998:23-25), that will present the objectives, findings, interpretations, and management recommendations for any further archaeological investigations that may be required within and/or adjacent to the project areas prior to commencement of any land-altering activities.

3.2 Methods

The ground reconnaissance surveys will entail visual systematic inspection of access trails, drill-hole locations, and ancillary project impact zones. Special attention will be given to relatively gently sloping and flat terraces or knolls beside, or in close proximity to, extinct and extant streams and rivers, ponds, and lakes; extinct shorelines, large boulders or rock faces; or areas sheltered by geographic features in close proximity to potable water. Crew members will systematically traverse the impact zones and survey areas spaced at roughly 10 to 15 metre intervals in areas considered to have medium site potential, and 5 to 10 m intervals in areas with high site potential. Surficially evident pre-contact period (prehistoric) and post-contact period (historic) cultural remains will be sought (i.e., lithic scatters, housepit depressions, small cultural depressions, culturally modified trees, fire-altered rock, bone, pictographs, petroglyphs, historic refuse and/or structural remains, etc.). All diagnostic, unique and/or interesting prehistoric tools (i.e., formed and unformed unifaces and bifaces, pecked and ground stone items, antler and bone tools, etc.) found on the surface within the inspected areas will be noted, described and provenienced on respective site or detailed plan maps. During the ground surface reconnaissance, exposed surface artifacts and lithic scatters deemed to have medium or high archaeological value lying directly within proposed impact zones will be surface collected (see Section 4.3 for repository details).

Both judgmental and systematic shovel testing programs will be employed as site discovery techniques in areas considered to have medium or higher heritage site potential (e.g., relatively sandy and flat terraces or knolls beside, or in close proximity to extinct and extant streams, rivers, ponds and lakes, promontories, ridges, etc.) where the ground surface is obscured. Where required and deemed appropriate, both systematic and judgmental shovel testing programs will be employed at identified sites to help define the general nature, horizontal and vertical extent, and integrity of subsurface cultural deposits. Shovel tests will average 45 cm in diameter and will be dug to sterile glacial or fluvial deposits. Tests will be placed at five to ten meter intervals depending on the landform and perceived site potential. Removed matrices will be passed through 3 mm (1/8") mesh screen. The placement and number of tests will depend upon the size, location, extent and number of areas examined, and the nature, cultural material density, and extent of each identified site. All cultural materials encountered during the shovel testing program will be recorded according to site, test unit number, and relative depth below ground surface. Significant artifacts, waste flakes, bone, shell, antler or other archaeological remains will be collected during shovel testing (see Section 4.3 for details). Detailed descriptions of any such items will be provided in the final AIA report.

Each identified archaeological site will be recorded and described on B.C. Archaeological Site Forms according to APA guideline criteria. Site maps will be drawn either using pace-and-compass method, GPS data points, and/or compass and hip chain, and will be plotted on detailed plan maps. All surficially evident features and/or historic "heritage" structures and/or structural remains (i.e., pre-AD 1900) will be described and measured. Each site and/or significant heritage concern's location(s) will also be marked on a detailed 1:5000 scale map, photographed using colour print film, and their estimated perimeters will be clearly indicated on plan and site maps, and in the field with fluorescent survey flagging ribbon for future reference.

3.3 CMT Methodology

Any culturally modified trees encountered during this AIA will be identified, recorded, and dated to Level II standards as presented in the CMT handbook (Stryd 1997). Recording shall provide basic information on the presence of CMT's, such as location, type, and frequency as well as detailed feature records. All site boundaries will be defined on maps. Relevant NTS and/or TRIM map sheets, shall be included with the recorded information. If possible all CMTs found in low numbers (<5), or a representative sample of larger numbers (>5), will be dated to establish whether they are protected under the *Heritage Conservation Act* (i.e., pre-date AD 1846).

Dating methods for this shall include sample collection using either wedge samples or increment core samples. The type of sample selected (i.e., wedge or increment core) will depend upon the preferred method given the circumstance. For example, a wedge sample shall be selected in cases where rot prohibits the collection of increment cores. Further details provided in the CMT Handbook shall serve as a guideline in assessing the superior method to be followed in the collection of wood samples from CMT's (Stryd 1997:98-101). Methodology applied will rely upon the accuracy that particular sample will provide in terms of dating the CMT, and which procedure is less time consuming, yet still effective, given the extent of the study period.

3.4 Data Analysis Methods

Post-fieldwork analysis of all encountered cultural materials will focus primarily on recording qualitative (i.e., descriptive) and quantitative data. Analyses and report preparation will be undertaken at our company office in Maple Ridge. The methodology used will follow procedures considered to be standard for B.C. archaeological research. All significant lithic and bone tools will be categorized, described, measured, weighed and photographed. Lithic waste will be categorized and tabulated according to production mode, weight, and lithic raw material types. All faunal remains will be identified and assigned to the most specific taxonomic category possible, and maximum and minimum individual number estimates will be provided. The data generated during the analyses will be presented in tabular form and discussed summarily in the final report text.

3.5 Human Remains

In the event that any pre-contact period (prehistoric) or post-contact period (historic) human remains or gravesites are identified during the investigations, the Archaeology Branch in Victoria and the appropriate First Nation government agencies/communities will be notified immediately. After a review of the specific situation encountered, appropriate management steps for the reburial, recovery, treatment and/or other management of any human remains will be collectively considered, and a plan will be implemented as conferred upon by these agencies.

4.0 PERSONNEL, REPORTING AND CURATION

4.1 Personnel

Fieldwork (i.e., field survey, mapping, flagging, follow-ups, etc.) for the impact assessment study will be carried out sometime during the summer of 2006 (July to September)**.** The permit applicant (Mike Rousseau) will act as the head project director, and will direct the crew in the field. The remaining Antiquus field crew will or could include: Mike Will, David Crellin, Mitch Wells, and/or Jenn Hewitt. These persons will be involved with fieldwork, labwork and/or preparation of the final report. First Nations community members participating in the fieldwork component of the study will be chosen by their respective FN government/community. In the unlikely event that Mike R. cannot direct the fieldwork, Mike Will shall take his place.

4.2 Reporting

Shortly after completion of the fieldwork a brief "letter report" will be prepared (if deemed appropriate/necessary) and submitted to Kemess Mine/Northgate Minerals, the Archaeology Branch, and the various local First Nation governments/communities in order to provide immediate important field results, and preliminary management recommendations for any urgent situations/conflicts. This information will be useful for quick formulation and implementation of immediate and long-range management plan strategies.

After completion of fieldwork, a detailed comprehensive "archaeological impact assessment report" will be prepared that will present the development project details, archaeological study objectives and methods, study results, a detailed significance evaluation and impact assessment for each site within proposed impact zones, and recommendations for site management, and/or for any additional archaeological investigations that might be required.

The final impact assessment report will be prepared by Mike Rousseau and Mike Will. Draft/review copies will be forwarded to Kemess Mine/Northgate Minerals with the request to edit for errors, omissions, deletions, etc. **The final report will be then printed and submitted to the Archaeology Branch, and involved First Nations agencies before June 30, 2007.**

4.3 Curation

Any artifacts collected during this AIA study will be analyzed, described and photographed in our Maple Ridge office. Subsequent to the reporting these items will be sent to the Royal BC Museum in Victoria for storage on behalf of the local First Nation agencies. These items will be held there until such time that the First Nation agencies formally request their transfer to another approved storage facility.

Mike Rousseau (MA, RPCA)
Antiquus Archaeological Consultants Ltd.
June 5, 2006

5.0 REFERENCES CITED

Archaeology Branch
1996 British Columbia Archaeological Impact Assessment Guidelines. Archaeology Branch, Ministry of Municipal Affairs Recreation and Minister Responsible for Culture, Victoria.

AORB (Archaeology and Outdoor Recreation Branch)
1989 Form Guide: British Columbia Archaeological Site Inventory Form. Archaeology and Outdoor Recreation Branch, Ministry of Municipal Affairs Recreation and Culture, Victoria.

Stryd, Arnoud
1997 Culturally Modified Trees of British Columbia, A Handbook for the Identification and Recording of Culturally Modified Trees.

Will, Mike, Lisa Seip and Mike Rousseau
2004 An Archaeological Impact Assessment for Kemess North Mine Expansion, North Central BC. Permit 2003 - 341; on file at Archaeology Branch, Victoria.

Yellowhorn, Eldon and Mike K. Rousseau
1997 An Archaeological Impact Assessment for Kemess Mines Inc.'s Kemess South Mine Facilities and Related Ancillary Developments in North Central B.C. Report on file, Archaeology Branch Permit No. 1996-139.

ANTIQUUS Archaeological Consultants Ltd.
23021 - 132nd Avenue • Maple Ridge, B.C. • V4R 2T3 • Tel/Fax: (604) 467-3497

August 11, 2006

Mr. Carl Edmunds,
Northgate Minerals Corporation,
406-815 Hornby St.,
Vancouver, B.C.
V6Z-2E6

Re: Preliminary Interim Report on the Results of the Fieldwork for an Archaeological Impact Assessment Conducted by Antiquus Archaeological Consultants Ltd. for a Proposed Access Trail R-O-W, Kemess North Offset Exploration area, and Kemess East Exploration Area

Dear Mr. Edmunds,

The archaeological impact assessment (AIA) for the above-captioned proposed developments for Kemess Mine proposed exploration development was conducted between August 4 and 7, 2006 under favorable field and weather conditions. A crew of eight persons conducted a visual ground surface reconnaissance of the proposed access trail R-O-W, and judgmentally selected specific locations within the "Kemess North Offset Area" and "Kemess East Exploration Area" that were considered to have medium or greater archaeological site potential (Figures 1 to 3). A judgmental and systematic shovel testing program was undertaken, with a total of approximately 175 tests being dug in areas considered to have medium or greater site potential. The majority of the entire study area (Figure 2), has nil or low site potential, and the AIA inspection focused specifically on areas that were considered to be suited for human occupation or use.

Proposed Kemess North Access Trail

The entire proposed impact zone for the new proposed trail to the Kemess North Open Pit (Figures 1, 4 to 7) was subjected to a visual inspection involving a crew of eight persons. Judgmental shovel testing was also conducted in several locations at the south end of the proposed R-O-W (Figures 1, 4 and 8), notably along the south side of the creek gully. The majority of the proposed access trail route has nil or low site potential, since it lies along exceptionally steep alpine mountain slopes. Three areas considered to have medium site potential were identified and inspected; they are shown in Figure 1.

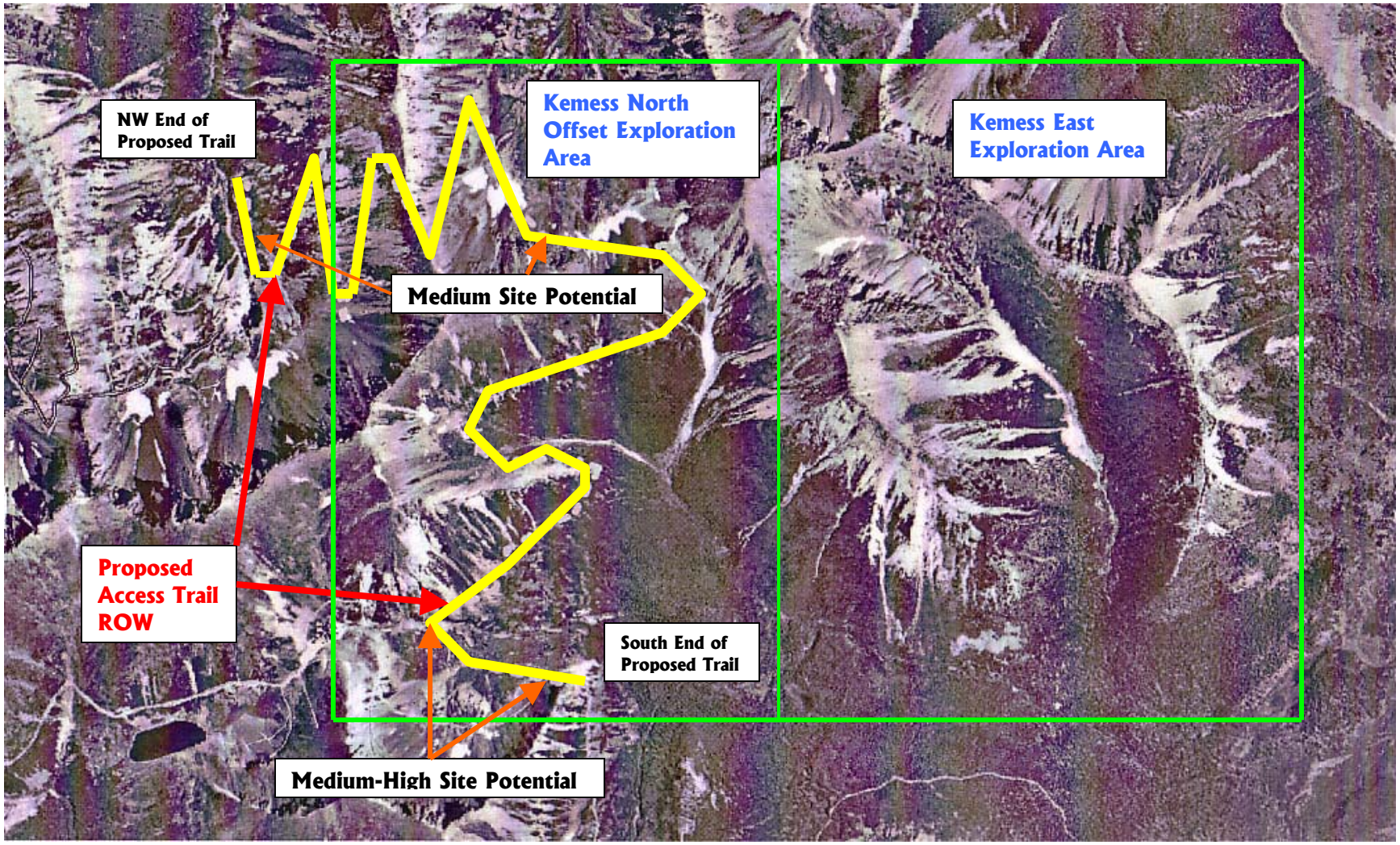

Figure 1. Location of proposed Kemess North Pit Access Trail R-O-W (yellow), and study area boundaries (green). The entire route was subjected to a systematic ground surface inspection by 8 crew members. Three areas of medium or greater site potential also indicated.

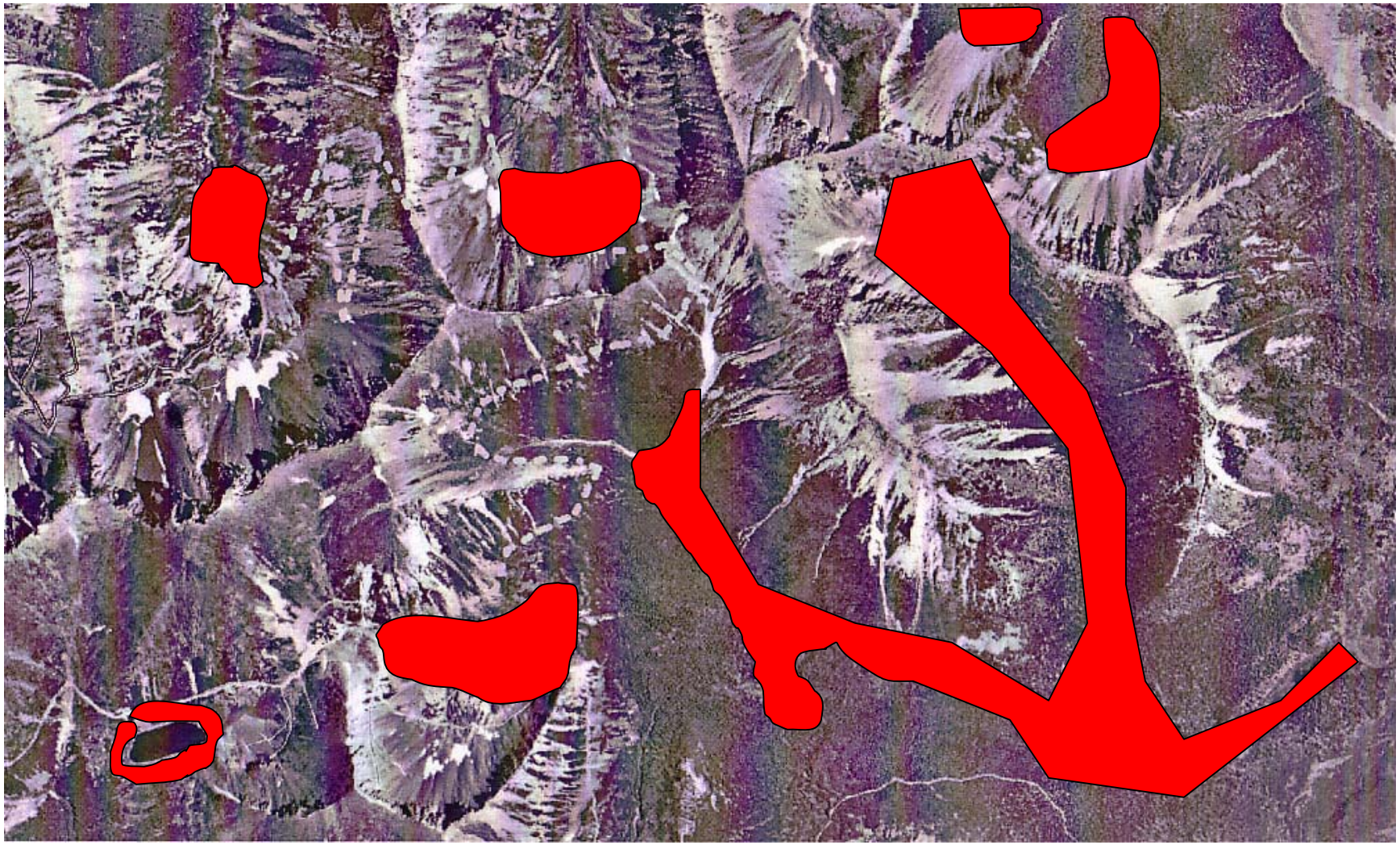

Figure 2. Specific selected areas (access trail excluded) considered to have overall medium or greater site potential that were subjected to ground surface visual inspections.

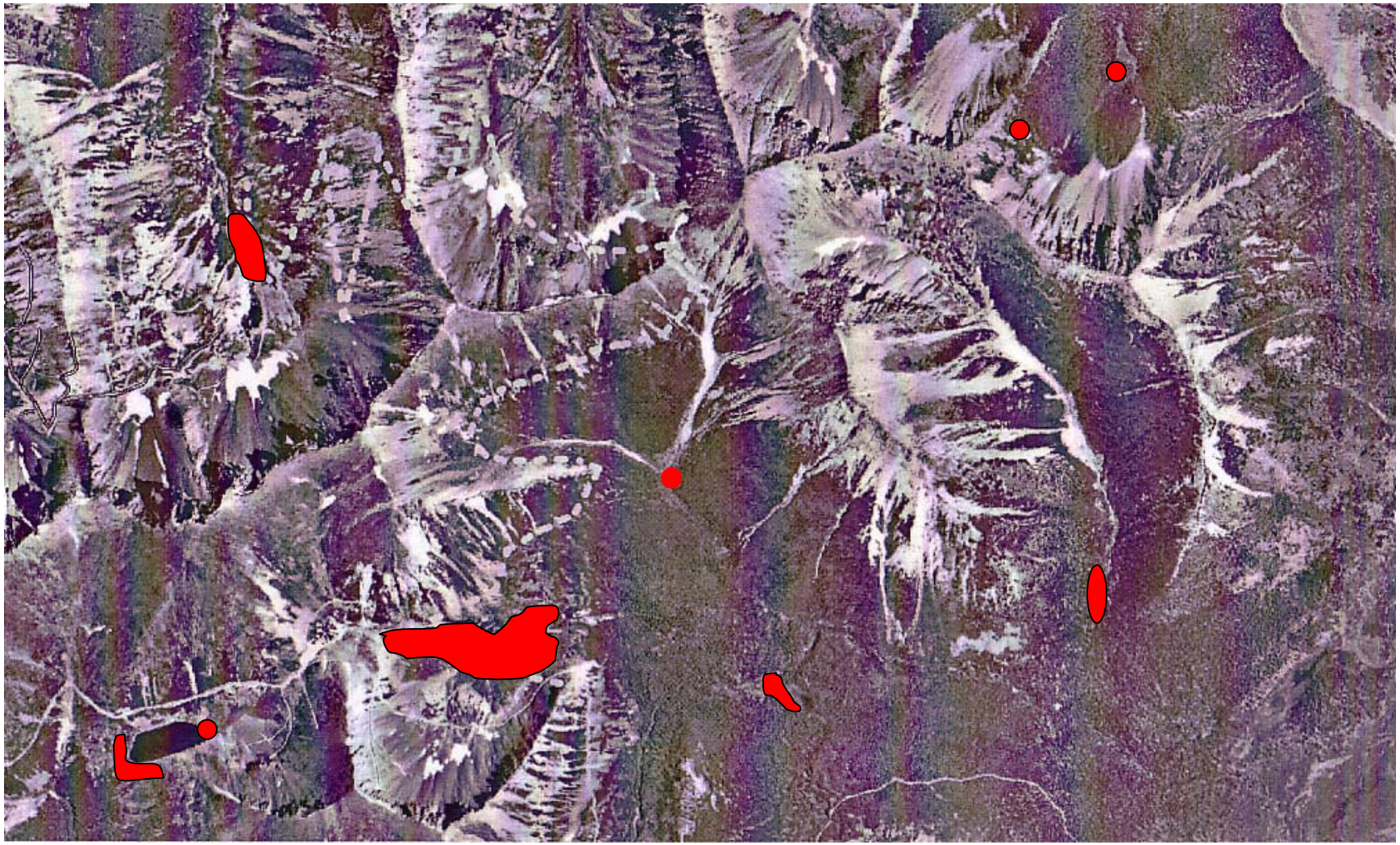

Figure 3. General areas subjected to judgmental shovel testing (indicated in red).

Figure 4. General view of the proposed south end of the access trail R-O-W (moderately sloping area in the center of the photo), looking southeast. The entire area in the lower 2/3 of the photo was subjected to a systematic ground surface visual inspection and systematic shovel testing program with negative results.

Figure 5. A general view of the northwest upland aspect of "Kemess North Offset Area" where the proposed access trail will pass from the lower left of the photo to upper right, looking east. This entire area was subjected to a systematic ground surface inspection with negative results. Shovel testing was not conducted in this area, as ground exposure was excellent, and soil accumulation is minimal.

Figure 6. General view of the west end of the access trail route that will "switch-back" along the steep slope in upper left of photo, and end in the light green area in the center of the photo, looking southeast.

Figure 7. General view of the western end of the proposed access trail on the northern edge of the Kemess North pit, looking northwest. A systematic ground surface inspection was conducted for the entire area in the lower half of the photo, and a judgmental shovel testing program was initiated in the light green areas beside the creek in the center of the photo. No sites were identified.

No archaeological/heritage sites were identified within, or immediately adjacent to, the proposed Kemess North Pit access trail R-O-W lying within the Kemess North Offset Exploration Area during the AIA field inspection. In our opinion, the ground surface survey and shovel testing programs were adequately undertaken to confidently determine presence or absence of any archaeological sites. **Consequently, we provisionally recommend that trail construction be allowed to proceed as planned without any concern for heritage concerns lying within the R-O-W impact zone.**

Kemess North Offset Exploration Area

This area contains the majority of the proposed access trail (see above), and much of the southern and central aspects of this area were considered to have several areas of medium or greater site potential (Figures 2, 3, 7 and 9). While there are several proposed drill holes lying within this area, most of them lie in areas with nil or low heritage site potential. The area of greatest site potential is shown in the lower half of Figure 8, however, an intensive systematic ground surface inspection and shovel testing in this area failed to identify any archaeological sites.

Figure 8. General view of the southern aspect of the Kemess North Offset Exploration area, looking east. The entire area in the lower half of the photo was subjected to a complete systematic ground surface inspection, and extensive shovel testing was conducted in selected areas on both sides of the creek in the center of the photo. Archaeological site visibility in this area is considered good, but no sites were identified.

Figure 9. View of the gently sloping terrain in the south-central aspect of the "Kemess North Offset Area", looking south. The area in the center of the photo where two small streams meet was subjected to a systematic ground surface inspection, and judgmental shovel testing, but no sites were identified.

No archaeological/heritage sites were identified within the proposed "Kemess North Offset Exploration Area" during the AIA field inspection. In our opinion, the ground surface survey and shovel testing programs were adequately undertaken to confidently determine presence or absence of any significant archaeological sites. Since no sites were found, **we provisionally recommend that trail construction and exploration activities (i.e., drilling and other land-alteration) be allowed to proceed as planned without any concern for heritage concerns.**

Kemess East Exploration Area

The majority of this area (northern 2/3) is occupied by steep-sided mountains, and marshy open meadows lie in the south (Figures 1, 10 and 12). Nevertheless, it contains several areas of medium site potential that lie immediately along two creek systems in the south, and along the shore of a small shallow lake in the very southwestern corner of this area (Figures 10 and 11). Several areas were subjected to systematic ground surface inspections (e.g., along the main creeks and around the small lake), and shovel testing was conducted along the west side of the small lake, and beside the creek in the east-central aspect of this exploration area (Figures 3, 10 and 11).

Figure 10. A general view of the southeastern aspect of the "Kemess North Offset Exploration Area" (foreground), and the southern aspect of the "Kemess East Exploration Area" (distant center), looking east. Note small lake in center that marks the southwestern corner of the Kemess East Exploration Area.

Figure 11. A small lake located in the southern aspect of the "Kemess North Offset" area, looking north. The western shoreline (left) of this lake was considered to have medium or greater site potential, and two areas were subjected to shovel testing, but no sites were identified.

Figure 12. General view of the headwaters of the N-S flowing creek system in the central aspect of the Kemess East Exploration Area. This entire area was subjected to a systematic ground surface inspection with negative results.

In the northeastern aspect of the Kemess East Exploration Area, there are two small glacial "cirques" that were also subjected to ground surface inspections, and shovel testing was conducted along the shoreline of a small sub-alpine pond in the easternmost cirque. No sites were found in these cirque features.

No archaeological/heritage sites were identified within the proposed "Kemess East Exploration Area" during the AIA field inspection. In our opinion, the ground surface survey and shovel testing programs were adequately undertaken to confidently determine presence or absence of any significant archaeological sites. Since no sites were found, **we provisionally recommend that exploration activities (i.e., drilling and other land-alteration) should be allowed to proceed as planned without any further concern for impacting any heritage concerns.**

Preliminary Recommendations and Closing Comments

The AIA conducted by Antiquus from August 3 to 7, 2006 failed to identify any archaeological or other heritage sites within the study area as defined for the "Kemess North Offset", and "Kemess East" Exploration Areas. This includes the proposed trail R-O-W as shown in Figure 1. Upon collective consideration of the field inspection

results, **it is our opinion and recommendation that all proposed land-altering activities should be allowed to proceed within the study areas without any further concern for impacts to any archaeological/heritage resources.** This same management recommendation will be presented in the final report along with greater details concerning the field inspection and proposed development activities.

It is important to note that Antiquus does **not** have the authority to approve any land-altering development to proceed, and formal permission to do so must be obtained from the appropriate governing ministries in Victoria pending their review of the final report. Our final detailed AIA report will be prepared and submitted to all interested agencies within the next few months.

If you have any questions regarding the field inspection or this interim report, please contact me at your earliest convenience. On behalf of our company, I thank you for retaining us to conduct this study.

Sincerely,

Mike Rousseau,
Antiquus Archaeological Consultants Ltd.

cc: Ray Kenny and Jim Pike, Archaeology Branch, Victoria, B.C.