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Ministry of Energy and Mines
BC Geological Survey

Assessment Report
Title Page and Summary

TYPE OF REPORT [type of survey(s)]: Geology, Geochemistry, Prospecting

TOTAL COST: $332,325.34

AUTHOR(S): Christopher O. Naas **SIGNATURE(S):**

NOTICE OF WORK PERMIT NUMBER(S)/DATE(S): MX-13-240 **YEAR OF WORK:** 2012

STATEMENT OF WORK - CASH PAYMENTS EVENT NUMBER(S)/DATE(S): 5414400

PROPERTY NAME: Cathedral

CLAIM NAME(S) (on which the work was done): 684224, 684225, 684227, 684229, 684230, 684243, 684244, 684246, 688823, 688843, 688863, 688883, 688930, 689828, 689843, 689866, 689926, 837059, 837064, 837067, 837069, 837071, 877909, 942662, 942663, 955712, 966709, 1011480

COMMODITIES SOUGHT: Cu, Au, Ag

MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN: 094C-135, 094C-010, 094C-071, 094C-072, 094C-133, 094C-016, 094C-123

MINING DIVISION: Omineca **NTS/BCGS:** 094C03, 094C04, 094C05

LATITUDE: 56 ° 07 ' 57 " **LONGITUDE:** 125 ° 32 ' 05 " **(at centre of work)**

OWNER(S):

1) Thane Minerals Inc. 2)

MAILING ADDRESS:

2130-21331 Gordon Way
Richmond BC V6W 1J9

OPERATOR(S) [who paid for the work]:

1) Thane Minerals Inc. 2)

MAILING ADDRESS:

2130-21331 Gordon Way
Richmond BC V6W 1J9

PROPERTY GEOLOGY KEYWORDS (lithology, age, stratigraphy, structure, alteration, mineralization, size and attitude):

Property is mainly underlain by early Jurassic Hogem batholith comprised of quartz monzonites, diorites and syenites. The intrusives are in contact with the Upper Triassic Takla Group volcanics, comprised of volcanic flows, breccias and agglomerates. Copper mineralization is documented in many occurrences over much of the property, typically chalcopyrite along with malachite/azurite staining on rock surfaces. Alteration is mainly propylitic with potassic alteration associated with veining.

REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS:

04599, 14192, 17742, 17743, 21419, 21425, 21426, 26530A, 29112, 32106, 33099, 33294

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TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (IN METRIC UNITS)	ON WHICH CLAIMS	PROJECT COSTS APPORTIONED (incl. support)
GEOLOGICAL (scale, area)			
Ground, mapping	1:10,000 1,525 hectares	684227, 684229, 684230, 684244, 684	$89,285.11
Photo interpretation			
GEOPHYSICAL (line-kilometres)			
Ground			
Magnetic			
Electromagnetic			
Induced Polarization			
Radiometric			
Seismic			
Other			
Airborne			
GEOCHEMICAL (number of samples analysed for...)			
Soil	785 (785 analyzed by XRF)	688823, 688843, 689828, 689843, 689	$144,891.69
Silt	36 (14 analyzed by XRF)	688823, 688843, 942662	$6,644.71
Rock	749 (159 analyzed by XRF, 13 by Fire Assay)	684224, 684225, 684227, 684229, 684	$91,503.83
Other			
DRILLING (total metres; number of holes, size)			
Core			
Non-core			
RELATED TECHNICAL			
Sampling/assaying			
Petrographic			
Mineralographic			
Metallurgic			
PROSPECTING (scale, area)			
PREPARATORY / PHYSICAL			
Line/grid (kilometres)			
Topographic/Photogrammetric (scale, area)			
Legal surveys (scale, area)			
Road, local access (kilometres)/trail			
Trench (metres)			
Underground dev. (metres)			
Other			
		TOTAL COST:	$332,325.34

ASSESSMENT REPORT
GEOLOGY AND GEOCHEMISTRY
of the
Cathedral Mineral Claims

(684224, 684225, 684227, 684229, 684230, 684243, 684244, 684246, 688823, 688843, 688863, 688883, 688930, 689828, 689843, 689866, 689926, 837059, 837064, 837067, 837069, 837071, 877909, 942662, 942663, 955712, 966709, 1011480
Omineca Mining Division, British Columbia, Canada

Owner: Thane Minerals Inc.
Operator: Thane Minerals Inc.

by
Christopher O. Naas, *P.Geo.*
CME Consultants Inc.
January 30, 2013

NTS 094C03, 094C04, 094C05, 094C06
Latitude: 56°09'30"N
Longitude: 125°36'37"W

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1.0 INTRODUCTION

The Cathedral property (the "Property") is centred at latitude 56° 10' N and longitude 125° 38' W, approximately 65 kilometres northwest of Germansen Landing. The Property is located in the Omineca Mining Division of north-central British Columbia, Canada. (The Property has been previously referred to as the 'Thane' or 'Thane Creek' property.)

This report discusses exploration carried out on the Property between July 1 to July 17 and August 13 to September 7, 2012. Exploration was completed at multiple areas of the Property including the Tenakihi, Link, Osilinka, Cathedral, Gail, Cirque, and Lake zones. Exploration consisted of silt sampling, soil and talus fine sampling (contour and gridded), rock sampling, and geological mapping. A total of 36 silt samples, 785 soil and talus fine samples, and 749 rock samples were collected during this period. Approximately 1,525 hectares were geologically mapped at 1:10,000 scale. Analyses of soil and talus fine samples and selected rock and silt samples have been carried out by x-ray fluorescence (XRF). Gold analysis has been performed on a select group of 12 rock samples from the Cathedral East Showing in the Cathedral Zone. Laboratory analyses of all other samples are pending as of the date of this report.

A list of definitions, abbreviations and conversion factors are presented in Appendix I.

1.1 ACCESS

Road access to the Property from Prince George, BC is by Highway 97 North to the Finlay Forest Service Road (FSR). At approximately 173 kilometres along the Finlay FSR, continue onto the Finlay-Osilinka FSR for another 46 kilometres that brings to the junction of the Tenakihi and the Osilinka FSR. At this junction is a logging camp. Several kilometres along the Osilinka FSR is the Uslika Lake forest recreation campsite. The Tenakihi mainline road continues northward to the Kemess Mine Road. The Kemess mine site is approximately 160 kilometres from the Tenakihi/Osilinka road junction. Alternatively, helicopter charters can be obtained from Smithers or Fort St. James. An airstrip is noted on maps and seen in satellite imagery 3.5 kilometres north of the logging camp along the Tenakihi mainline.

1.2 PHYSIOGRAPHY

The property is located in Osilinka Ranges of the Omineca Mountains. The property is characterized by steep mountainous terrain. Elevations range from 960 metres in the Osilinka River valley along the southwestern boundary of the property to 2,360 metres above sea level at the mountain peaks. Numerous small tarns are found in the many cirques. Drainage is dendritic with a general flow to the southeast.

modified from Hancock *et al*, Open File 2008-1

LEGEND

- Cathedral property
- Producing mine
- Proposed mine development
- Major exploration project

0 100km

THANE MINERALS INC.

PROPERTY LOCATION MAP
Cathedral Project

Cathedral Project
Omineca M.D., British Columbia, Canada

Project No:	C122	By:	TV
Scale:	1:3,000,000	Drawn:	TV
Figure:	1	Date:	January 2013

CME

1.3 PROPERTY

The 29,277 hectare Property consists of 78 MTO cell claims. All mineral tenures are owned by Thane Minerals Inc. The claims are subject to a 1% NSR to the original claim owner. A plan map of the mineral tenures is presented in Figure 2. Mineral tenure details are listed in Table 1.

Table 1: List of Mineral Tenures

Tenure Number	Area (ha)	Owner	Tenure Type	Good To Date	Worked On
684223	432.3316	Thane Minerals Inc.	MTO Cell	2015/nov/01	
684224	432.5979	Thane Minerals Inc.	MTO Cell	2015/nov/01	Y
684225	450.6116	Thane Minerals Inc.	MTO Cell	2015/nov/01	Y
684227	450.6105	Thane Minerals Inc.	MTO Cell	2015/nov/01	Y
684229	450.5886	Thane Minerals Inc.	MTO Cell	2015/nov/01	Y
684230	432.862	Thane Minerals Inc.	MTO Cell	2015/nov/01	Y
684243	450.8407	Thane Minerals Inc.	MTO Cell	2015/nov/01	Y
684244	414.7706	Thane Minerals Inc.	MTO Cell	2015/nov/01	Y
684246	414.7606	Thane Minerals Inc.	MTO Cell	2015/nov/01	Y
684247	360.8007	Thane Minerals Inc.	MTO Cell	2015/nov/01	
684248	252.555	Thane Minerals Inc.	MTO Cell	2015/nov/01	
684249	360.5609	Thane Minerals Inc.	MTO Cell	2015/nov/01	
684263	431.6254	Thane Minerals Inc.	MTO Cell	2015/nov/01	
684264	431.6224	Thane Minerals Inc.	MTO Cell	2015/nov/01	
684265	215.8128	Thane Minerals Inc.	MTO Cell	2015/nov/01	
684266	395.9435	Thane Minerals Inc.	MTO Cell	2015/nov/01	
684267	215.8139	Thane Minerals Inc.	MTO Cell	2015/nov/01	
688803	180.0289	Thane Minerals Inc.	MTO Cell	2015/nov/01	
688823	450.1158	Thane Minerals Inc.	MTO Cell	2015/nov/01	Y
688843	450.1199	Thane Minerals Inc.	MTO Cell	2015/nov/01	Y
688863	450.1089	Thane Minerals Inc.	MTO Cell	2015/nov/01	Y
688883	395.9113	Thane Minerals Inc.	MTO Cell	2015/nov/01	Y
688903	359.9095	Thane Minerals Inc.	MTO Cell	2015/nov/01	
688904	450.1039	Thane Minerals Inc.	MTO Cell	2015/nov/01	
688905	450.3414	Thane Minerals Inc.	MTO Cell	2015/nov/01	
688923	450.3466	Thane Minerals Inc.	MTO Cell	2015/nov/01	
688924	450.3581	Thane Minerals Inc.	MTO Cell	2015/nov/01	
688925	450.3554	Thane Minerals Inc.	MTO Cell	2015/nov/01	
688926	450.5812	Thane Minerals Inc.	MTO Cell	2015/nov/01	
688927	450.5786	Thane Minerals Inc.	MTO Cell	2015/nov/01	
688928	414.5194	Thane Minerals Inc.	MTO Cell	2015/nov/01	

Table 1: List of Mineral Tenures *(cont'd)*

Tenure Number	Area (ha)	Owner	Tenure Type	Good To Date	Worked On
688929	270.3141	Thane Minerals Inc.	MTO Cell	2015/nov/01	
688930	432.7332	Thane Minerals Inc.	MTO Cell	2015/nov/01	Y
688943	431.7776	Thane Minerals Inc.	MTO Cell	2015/nov/01	
688944	359.9417	Thane Minerals Inc.	MTO Cell	2015/nov/01	
688983	449.6325	Thane Minerals Inc.	MTO Cell	2015/nov/01	
689343	215.8346	Thane Minerals Inc.	MTO Cell	2015/nov/01	
689344	431.4197	Thane Minerals Inc.	MTO Cell	2015/nov/01	
689345	287.7401	Thane Minerals Inc.	MTO Cell	2015/nov/01	
689346	450.1055	Thane Minerals Inc.	MTO Cell	2015/nov/01	
689347	359.9105	Thane Minerals Inc.	MTO Cell	2015/nov/01	
689348	359.9369	Thane Minerals Inc.	MTO Cell	2015/nov/01	
689349	450.1547	Thane Minerals Inc.	MTO Cell	2015/nov/01	
689350	287.9798	Thane Minerals Inc.	MTO Cell	2015/nov/01	
689351	449.752	Thane Minerals Inc.	MTO Cell	2015/nov/01	
689363	179.897	Thane Minerals Inc.	MTO Cell	2015/nov/01	
689826	433.0388	Thane Minerals Inc.	MTO Cell	2015/nov/01	
689828	451.2893	Thane Minerals Inc.	MTO Cell	2015/nov/01	Y
689843	415.3282	Thane Minerals Inc.	MTO Cell	2015/nov/01	Y
689845	451.2932	Thane Minerals Inc.	MTO Cell	2015/nov/01	
689847	433.0691	Thane Minerals Inc.	MTO Cell	2015/nov/01	
689863	451.2791	Thane Minerals Inc.	MTO Cell	2015/nov/01	
689866	451.1081	Thane Minerals Inc.	MTO Cell	2015/nov/01	Y
689905	325.0417	Thane Minerals Inc.	MTO Cell	2015/nov/01	
689923	451.2822	Thane Minerals Inc.	MTO Cell	2015/nov/01	
689926	360.8033	Thane Minerals Inc.	MTO Cell	2015/nov/01	Y
689983	431.5325	Thane Minerals Inc.	MTO Cell	2015/nov/01	
699423	323.8649	Thane Minerals Inc.	MTO Cell	2015/nov/01	
699443	71.9028	Thane Minerals Inc.	MTO Cell	2015/nov/01	
699464	431.3494	Thane Minerals Inc.	MTO Cell	2015/nov/01	
699465	233.7708	Thane Minerals Inc.	MTO Cell	2015/nov/01	
837059	162.6033	Thane Minerals Inc.	MTO Cell	2015/nov/01	Y
837064	451.361	Thane Minerals Inc.	MTO Cell	2015/nov/01	Y
837067	72.2301	Thane Minerals Inc.	MTO Cell	2015/nov/01	Y
837069	252.8936	Thane Minerals Inc.	MTO Cell	2015/nov/01	Y
837071	433.2248	Thane Minerals Inc.	MTO Cell	2015/nov/01	Y
837073	216.6435	Thane Minerals Inc.	MTO Cell	2015/nov/01	
837077	72.1912	Thane Minerals Inc.	MTO Cell	2015/nov/01	
877909	252.8778	Thane Minerals Inc.	MTO Cell	2015/nov/01	Y
942662	449.8854	Thane Minerals Inc.	MTO Cell	2015/nov/01	Y
942663	234.138	Thane Minerals Inc.	MTO Cell	2015/nov/01	Y
955712	378.6751	Thane Minerals Inc.	MTO Cell	2015/nov/01	Y
955713	216.4505	Thane Minerals Inc.	MTO Cell	2015/nov/01	
966689	432.3900	Thane Minerals Inc.	MTO Cell	2015/nov/01	

Table 1: List of Mineral Tenures *(cont'd)*

Tenure Number	Area (ha)	Owner	Tenure Type	Good To Date	Worked On
966709	162.1000	Thane Minerals Inc.	MTO Cell	2015/nov/01	Y
1011479	899.38	Thane Minerals Inc.	MTO Cell	2015/dec/13	
1011480	936.30	Thane Minerals Inc.	MTO Cell	2015/dec/13	Y
1011507	72.04	Thane Minerals Inc.	MTO Cell	2015/dec/13	

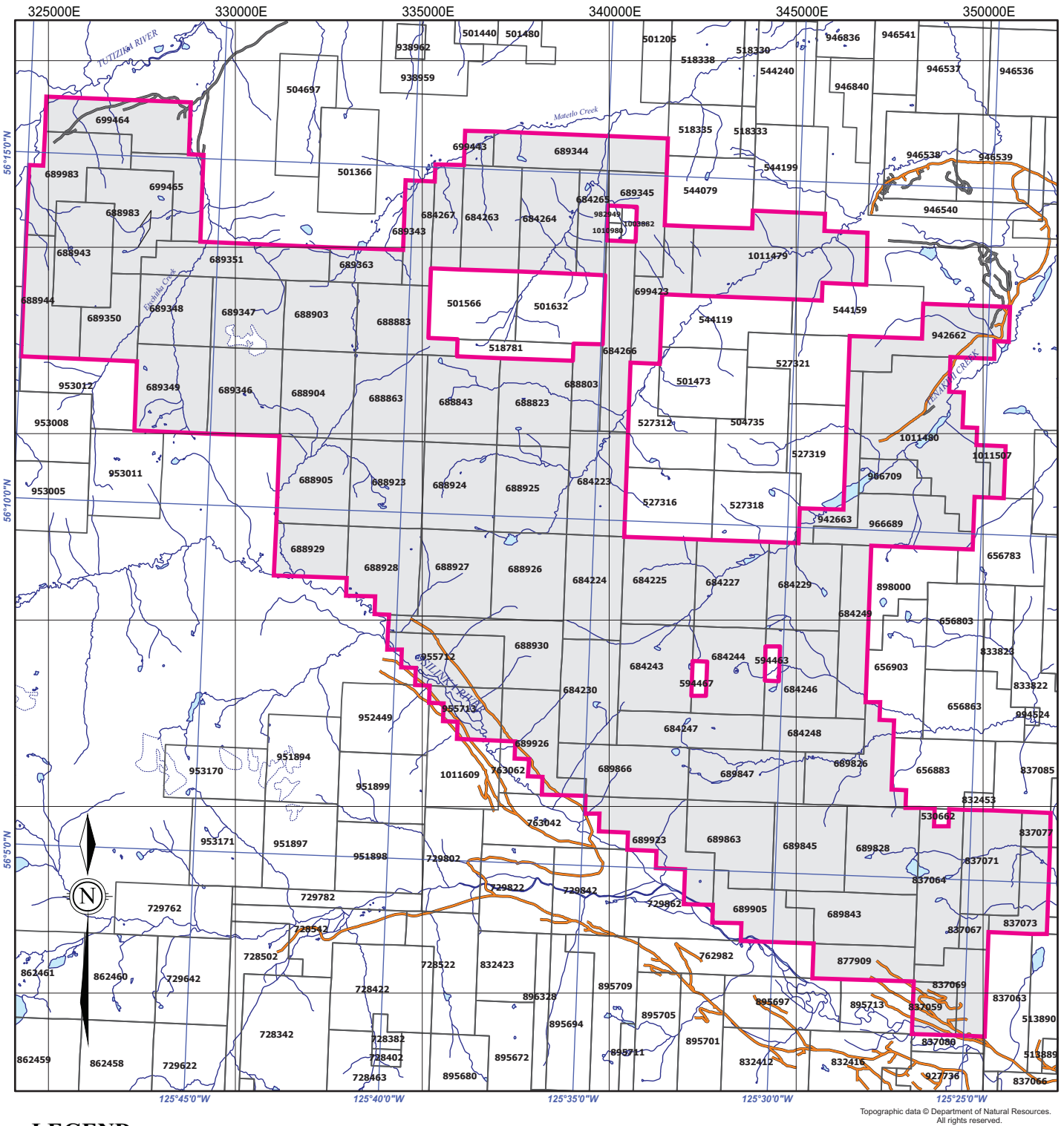
The Property lies within a belt of several significant copper and/or copper-gold showings, prospects and deposits including Lorraine, Kemess South and Mt. Milligan. Locations of these and other notable occurrences are shown on Figure 3.

The Lorraine deposit is the closest to the Property, located approximately 16 kilometres south of the southern boundary of the Property (Figure 3). The deposit is hosted within rocks assigned to the Middle Jurassic Duckling Creek Syenite Complex, part of the Hogem intrusive suite. The most recent resource estimate included only the Upper Main and Bishop Zones. The Upper Main zone resource was estimated at 11.89 Mt grading 0.71% copper and 0.26 g/t gold of measured and indicated and 3.96 Mt grading 0.70% copper and 0.25 g/t gold inferred. The Bishop zone resource was estimated at 7.72 Mt grading 0.64% copper and 0.07 g/t gold measured and indicated and 2.87 Mt grading 0.62 % copper and 0.05 g/t gold inferred (Garratt and Lindinger, 2009).

2.0 WORK HISTORY

The Property has been subject to a number of preliminary regional exploration projects with only localized detailed exploration and sampling in specific areas.

Exploration of the Hogem batholith and surrounding area was initiated in the late 1800's with placer gold being discovered in the district in 1868. During the 1930's Consolidated Mining and Smelting Ltd. explored the margins of the Hogem batholith and conducted underground exploration on several properties for gold, silver, lead and mercury. Kennco Explorations Ltd. explored and staked portions of the Hogem batholith near Duckling Creek in the 1940's. In the early 1970's, mineralization on the Lorraine property discovered by Kennco and subsequently held by Granby Mining Company represented the only significant mineralization found to that date. At the time it was estimated that the Lorraine deposit contained a maximum of 10 million tons grading 0.70% copper.



LEGEND

- Cathedral property
- Tenure boundaries (as of August 3, 2012)
- Gravel road (not all roads and trails shown)
- Watercourse
- Waterbody

0 5km

NAD83 UTM Zone 10 North
NTC 094C03,04,05,06

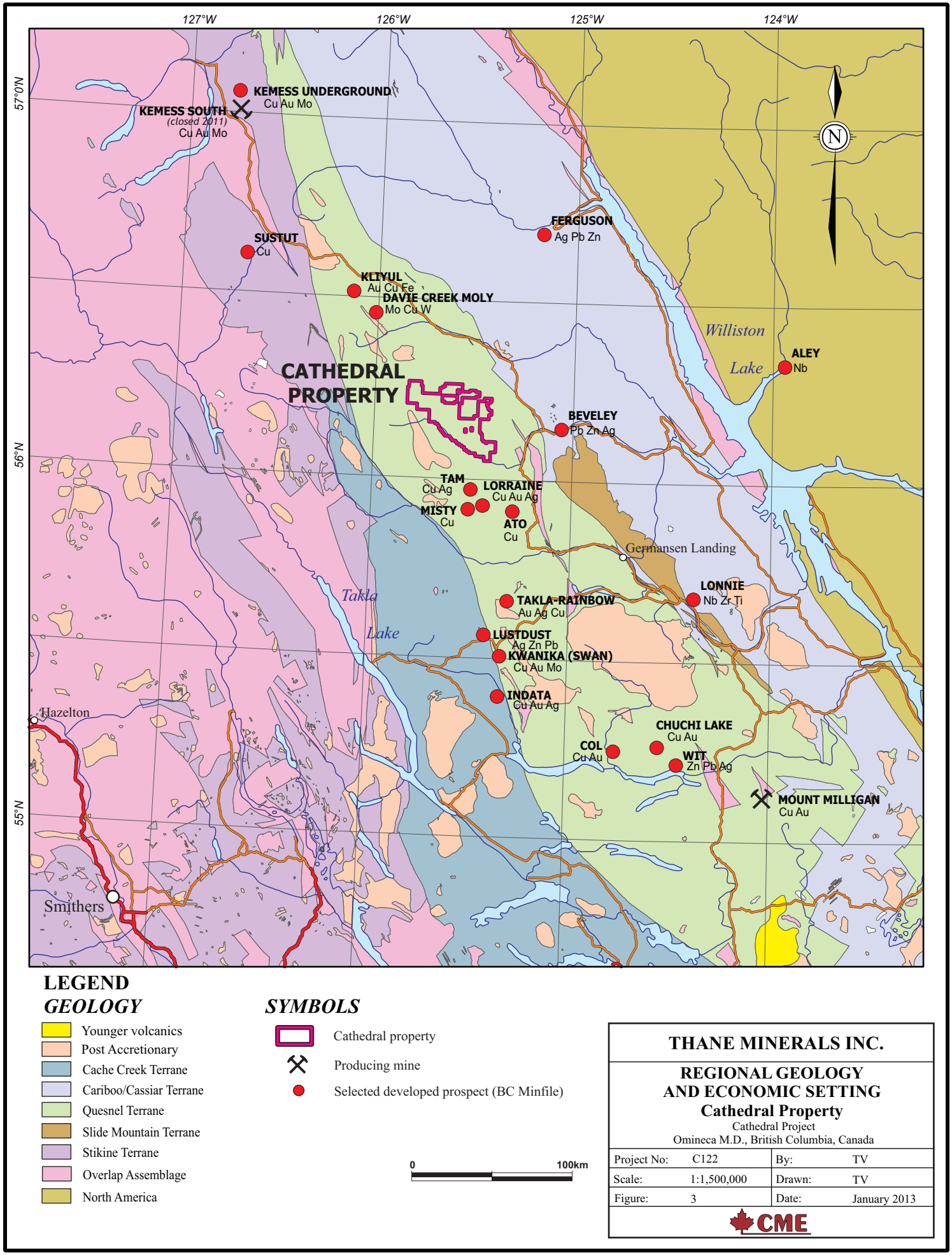
THANE MINERALS INC.

MINERAL TENURE MAP
Cathedral Property

Cathedral Project
Omineca M.D., British Columbia, Canada

Project No:	C122	By:	TV
Scale:	1:150,000	Drawn:	TV
Figure:	2	Date:	January 2013

CME



LEGEND

GEOLOGY

- Younger volcanics
- Post Accretionary
- Cache Creek Terrane
- Cariboo/Cassiar Terrane
- Quesnel Terrane
- Slide Mountain Terrane
- Stikine Terrane
- Overlap Assemblage
- North America

SYMBOLS

- Cathedral property
- Producing mine
- Selected developed prospect (BC Minfile)

0 100km

THANE MINERALS INC.

REGIONAL GEOLOGY AND ECONOMIC SETTING
Cathedral Property
Cathedral Project
Omineca M.D., British Columbia, Canada

Project No:	C122	By:	TV
Scale:	1:1,500,000	Drawn:	TV
Figure:	3	Date:	January 2013

CME

In the late 1960's and early 1970's the Belgian company, Union Miniere Exploration and Mining Corp. Ltd (UMEX) of Montreal conducted extensive regional exploration in north-central British Columbia, over the Property and surrounding areas. Regional work, carried out by Dolmage Campbell & Associates Ltd., included aeromagnetic surveying and silt sampling (Kalhert, 2006). The aeromagnetic survey outlined three anomalies along the northeast flank of the Hogem batholith. The silt sampling revealed anomalous copper values at the headwaters of Matetlo Creek. Further investigation found low-grade copper mineralization in fractures and disseminated in both the volcanic and intrusive rocks. In 1970, a soil sample grid was established over what was known as the western half of the Mate 2 claim. An open-ended east-west trending copper anomaly (>l00 ppm) measuring 1500 by 750 meters was outlined. Anomalous copper values were found in silts in the headwaters of the south fork of Matetlo Creek.

Stevenson (1991a) reports that during the summer of 1971, Amoco Canada conducted a reconnaissance stream sediment sampling-mapping program over the Hogem batholith in search of porphyry copper-molybdenum deposits. A total of 7,376 silts, water, rock and soil samples were collected from an area of approximately 2,400 square kilometers and analyzed for copper and molybdenum. Amoco did not assay for gold in any of these samples. Numerous areas with anomalous copper and/or molybdenum in stream sediments were detected. Four areas were staked and worked by Amoco during 1972 and 1974. These areas were known as the Tyger, Needle, Oy and Hawk properties. Property work consisted of reconnaissance and detailed soil sampling and geological mapping. The latter three properties were restaked by Cyprus in 1990 and named the Steele, Ten and Hawk properties, respectively. It is unclear how much overlap is between the Oy property and the subsequent Ten property. The former, based on limited information appears to have been located east of the Ten area, in and around the current OY occurrence (Minfile 094C 071). Geology and Exploration and Mining (1973) describes this as an area of monzodiorite and diorite, invaded by numerous dykes and apophyses of fine-grained quartz monzonite and monzonite which are in contact with Takla Group rocks Chalcopyrite occurs as fracture coatings, coarse grains in quartz veins, and minor disseminations over the whole property. Mineralization includes chalcopyrite and specular hematite. No reports of the results of work undertaken are known.

In 1971, Fortune Island Mines Ltd. located several copper occurrences proximal to the earlier UMEX showings. Chip samples from disseminated and fracture-controlled mineralization in propylitized intrusive assayed up to 0.23% and 0.38% copper over 50 and 30 feet respectively. A chip sample across the core of a six foot wide quartz-vein assayed 2.18% copper over 3.5 feet. A six inch chip sample from a four foot wide quartz-vein returned 3.52% copper and 0.02 oz/ton gold and represents the only gold assay reported. Four aeromagnetic positive anomalies were identified on and adjacent to the Mate property.

In 1972, Noranda Exploration Company, Limited staked the Gail Group claims encompassing a copper-molybdenum prospect located in a small north-facing cirque at the headwaters of Tenakihi Creek. Work on the Gail Group in 1973, included line cutting, soil sampling (40), rock geochemistry (30 talus chips representing a 200 foot section of the contour sampling traverse line), prospecting and mapping at a scale of 1"=400'. Soil and talus samples were analyzed for copper, molybdenum and zinc in Noranda's company laboratory in Vancouver,

British Columbia. It was noted that in soils, zinc values were erratic and didn't correlate well with either copper or molybdenum, both of which were considered to be anomalous over the entire grid. The talus chips were noted as having values consistent with observed copper mineralization in the cirque walls to the south and southeast and its noted absence on the walls to the west.

Major General Resources Ltd. (now Commander Resources Ltd.) acquired the extensive UMEX database when UMEX closed its Canadian operations in the early 1980's. With the discovery of the Mt. Milligan deposit and favorable metal prices, interest in copper-gold porphyry deposits resurged in the late 1980's.

In 1990, Cyprus Gold (Canada) Ltd. investigated several properties in the Thane Creek area. These included the Ten claims encompassing the Gail Zone area and the ET claims encompassing the ET Zone, both on the current Property, as well as the OS, Hawk and Steele claim groups located south of the Property. All prospects were explored for potential gold mineralization.

Work done on the Ten and the ET claims included reconnaissance style geological mapping, soil sampling, rock sampling and proton magnetometer surveying. All soil and rock samples were analyzed for gold and copper.

On the Ten property there were no significant gold values returned from the analyses and as such, no further work was recommended for gold exploration. It was noted that the property did host several broad, moderate to strong copper anomalies associated with strongly potassic-altered syenites. Some of these anomalies were traced for greater than 1,400 metres along strike and up to 400 metres in width, with copper values ranging from 300 ppm to 600 ppm and a high noted at 1,200 ppm copper. From these significantly anomalous copper results, it was recommended that the property should be investigated further for its porphyry copper potential.

Soil and rock geochemistry results from the ET property yielded low gold values with a single high gold-in-soil value of 25 ppb and the highest gold value in rocks being 315 ppb. In terms of copper, several rock samples yielded results of >5000 ppm with the highest value being 1.9% copper found in float and 1.1% copper returned from an outcrop. Soil samples generally outline broad anomalous copper zones associated with the anomalous rock sample values. The largest anomalous zone measures 600 metres by 300 metres and has soil values ranging from 300 ppm to 500 ppm copper. Further exploration for gold on the ET property was dissuaded, however, as the property hosts several significant copper soil anomalies, further exploration of the property's porphyry copper potential was recommended.

The TK 1 and TK 2 mineral claims were staked by Electrum Resource Corporation in June of 1990 and subsequently worked on in the 1991 and 1992 field seasons. In 1992, preliminary mapping was done at a scale of 1:15,000 and 19 rock chip samples and 1 heavy mineral stream sediment sample were collected and analyzed. The highest copper value to come out of the 1992 work was 2,907 ppm copper from a piece of intensely calcified Takla volcanic

float. The setting indicated that the float is locally derived and that further work was needed in order to define where the sample originated.

In 1991, Major General utilized the UMEX data to select specific porphyry targets within the Hogem batholith. Major General staked and subsequently explored number of properties, including the Mate property encompassed by the current Property.

Also in 1990 and1991 a program of prospecting and sampling was performed around the Link claims which included rock, silt and soil samples. Disseminated chalcopyrite, magnetite and pyrite were noted in rock samples. Soil samples returned anomalous copper up to 261 ppm copper and a rock sample returned 1,547 ppm copper (Ethier, 1991, BC Minfile 094C 123).

Regional mapping in 1991 by BC Geological Survey crews (Ferri, 1991) resulted in the defining of several new occurrences on and around the Mate property, which have been added to the provincial mineral occurrence database (MINFILE). These include 094C 113 (Yak), 114 (Koala), 115 (Intrepid), 116 (Bill), 117 (Yeti) and 118 (Dragon).

During the 1991 and 1992 field season, Major General's Mate property was explored under an option agreement with Swannell Minerals Corporation. Prospecting, silt sampling and geological mapping, followed by grid-controlled soil sampling over the previously identified soil anomaly, were carried out. Mapping noted that Takla volcanics on the property were intruded by a monzonite stock in the central portion of the then current Mate property and by the Hogem batholith in the south. Narrow granodioritic dykes cut Takla volcanics proximal to the monzonite stock. Mineralization occurred as disseminated magnetite and pyrite in monzonite and volcanics; fracture-controlled malachite, azurite with or without minor chalcopyrite, and, magnetite and pyrite in monzonite; magnetite veins up to 15 cm wide with rare chalcopyrite and quartz veins with azurite, malachite and rare bornite. While extensive propylitic or potassic alteration was not found, two areas of significant copper mineralization were identified. Of particular note was malachite-azurite in quartz monzonite traced in talus for 200 metres along the base of a slope.

Lithogeochemical response from the work on the Mate claims include 7 samples of greater than 1,000 ppm copper with a maximum 3.08% copper and 0.039 oz/ton gold. Gold response was generally <15 ppb with the exception of one other sample that ran 175 ppb gold and 2135 ppm copper and two with 107 and 500 ppb gold, both with copper <65 ppm. A total of 228 soil samples were collected. Copper ranged from 14 to 468 ppm. Gold ranged from 1 to 152 ppb. Material sampled was primarily talus fines and stream sediment. Additional work including detailed mapping and sampling was recommended on the Mate property. However, interest in porphyry targets waned and shortly thereafter a major decline occurred in the provincial mineral sector leading to the inability to raise exploration funds to pursue the targets and the property was allowed to lapse.

Swannell Minerals Corporation was also working on an area designated as the Aten group of claims, partially encompassed by the current northeastern portion of the Property, and enclosing three Minfile showings: Gail, Ten and Tenakihi Creek. In 1991, Swanell contracted Reliance Geological Services Inc. to explore the Aten group of claims for its alkalic porphyry

copper-gold potential. During October 1991, a program of rock sampling (11 samples), stream sediment sampling (31 samples) and reconnaissance geological mapping at a scale of 1:10,000 was carried out. Two rock samples returned copper values of 2.82% and 2.83%. Based these values and on anomalous results from stream drainages, three target areas were identified. From there, further work was recommended consisting of grid establishment, detailed geological mapping, soil sampling, and talus fines sampling.

In 1993, Swanell Minerals Corporation worked on the Aten property encompassing the Tenakihi Creek Minfile occurrence. Fieldwork was designed to follow-up the anomalous rock and soil geochemistry identified in earlier exploration. Fieldwork consisted of a surveyed grid laid out over the north-central area of the property, geological mapping on the gridded area at a scale of 1:10,000, collection of 23 rock samples and 88 soil samples both analyzed for copper and gold. Lithogeochemistry results includes 9 samples of >1,000 ppm copper with a maximum of 3.20% copper. Gold response was lower and erratic, with 4 samples greater than 100 ppb gold and a maximum of 205 ppb gold and 3,599 ppm copper. Gold response from the 88 soil samples collected was noted as being below the 5 ppb detection limit, the only exceptions being two high values of 28 and 32 ppb gold. Further work was recommended targeting three specific areas on the property.

During 1994, a regional geochemical survey was carried out by the BCGS sampling drainages throughout the 1:250,000 scale NTS map area, 94C (Mesilinka River). A total of 1068 sites were visited. Anomalous samples collected from the Property area included 302 ppm copper from a creek draining the ET area, 246, 258 and 270 ppm copper from creeks draining the Mate/Mat areas, and 216 ppm, 220 ppm and 246 ppm copper draining areas in the Ten/Gail area. Several strong gold-in-silt anomalies were also noted particularly in the north of the property (154 ppb gold) from a creek draining into Matetlo Creek. In the Ten area a sample yielded 86 ppb gold and associated with copper values greater than 200 ppm.

Phelps Dodge Corporation staked claims in the area in late 1999 after completing a regional silt sampling and prospecting program consisting of collecting 16 rock samples and 8 silt samples.

The following year, Phelps Dodge Corporation conducted preliminary soil, bedrock and silt sampling and geological mapping in the Tenakihi Creek area, located near the eastern part of the property. A total of 83 bedrock and float samples, 15 chip samples and 25 silt samples were collected from the claim area and an additional 36 rock, 8 soil and 29 silt samples collected outside the claim area. Of the grab samples collected, 23 returned greater than 0.5% copper, and 8 samples returned greater than 2% copper (Kula, 2001). This preliminary evaluation of the Tenakihi claims identified widespread disseminated chalcopyrite, chalcopyrite-bornite-malachite-magnetite veins and chalcopyrite-bearing quartz-carbonate veins. Numerous anomalous copper zones appear to be hosted in monzonitic intrusions of the Hogem batholith and are locally associated with prominent but discontinuous east-west trending faults and shear zones within the intrusions. Results from the work of Phelps Dodge were deemed favourable, warranting a follow-up program of detailed mapping, soil sampling and trenching as well as additional prospecting outside the claim boundaries.

In 2005, renewed interest in porphyry copper-molybdenum occurrences, inspired by increased metal prices, prompted Commander Resources to review their in-house data and former projects of the entire area. The Mate property, the Aten property, and four other prospective areas were acquired. In August 2005, a short prospecting program was completed on the Mate with 31 soil samples and 2 rock samples taken. From this cursory program further recommendations were made. These were that a detailed soil and induced polarization survey be completed, that all showings were to be re-sampled and assayed for gold and that drilling be done on any IP chargeability highs outlined in the follow-up.

On the Aten property, Commander Resources conducted a limited soil surveying and prospecting in August 2005. A total of 11 soil samples and 17 rock samples were collected while prospecting the property. This short program was successful in discovering a new high-grade copper prospect called the CJL Zone, located in the southern part of the property. The CJL Zone is hosted in highly altered, foliated syenite, not previously noted on the Aten property. Float samples were noted with values ranging as high as 12.4% copper. A program of detailed geological mapping, prospecting, gridding and magnetics surveying was recommended for follow-up, as well as diamond drilling on the CJL Zone should it warrant further work.

Also during 2005, Geoscience BC sponsored a program of increasing the ASTER imagery dataset for the BC Ministry of Mines, Energy and Petroleum Resources. Four alteration images for each scene were prepared using combinations of the standard ASTER bands. The images are designed to map the relative abundances of siliceous rocks, iron oxides, sericite and illite, and alunite and/or kaolinite (Kilby and Kilby, 2006). This work includes coverage over the current Property.

In 2006, Geoinformatics Exploration Canada Ltd (Geoinformatics) acquired a large tract of land totaling 126,664 hectares in the Mesilinka area of the Hogem batholith through staking and option agreements with Commander Resources and Norwest Enterprises. Commander conducted a regional exploration and data compilation on the ground, focusing on porphyry copper and copper-gold skarn potential within central to northern Quesnel Terrane. The fieldwork followed an extensive phase of digital data capture, integration and interpretation, and subsequent regional target generation. The data captured and compiled included 3,168 stream sediment samples, 4,491 rock samples (and rock chip samples), and 1,455 soil samples. Of the stream samples, 226 of the were collected over the southern portion of their project area during the 2006 field season due to insufficient data available in the public domain on that particular area. In addition to the stream sediment sample collection, a two hole diamond drill campaign totaling 751.5 metres on the previously drilled Kliyul copper-gold skarn located north of the Property, aimed to further evaluate the skarn potential.

From the work done on the Mesilinka project in the 2006 season, the regional stream sediment sample program identified a number of strongly anomalous catchments to focus the 2007 field program and validate copper-gold targets identified through the data compilation process. This both confirmed the significance of known copper-gold prospects and Minfile occurrences, and identified new target areas.

Follow-up work in 2007 by Geoinformatics involved geological mapping and diamond drilling on several prospects derived from the data gathered in the previous year's work. Within the greater area of their project, four main areas were investigated through detailed geological mapping and subsequent diamond drilling. These prospects were Norwest, Abe, Aten and Pal prospects with the Aten and Pal prospects closest to the current Property area. Two (2) diamond drill holes totaling 885.4 metres were drilled on Aten and three (3) diamond drill holes totaling 510.9 metres were drilled on Pal. Results at the Aten and Pal prospects were deemed insignificant and no further work was recommended.

Also during 2007, Geoscience BC commissioned airborne geophysical surveys including magnetics and gravity surveys as part of the QUEST Project. The surveys covered ground of the Quesnel Terrane from Williams Lake to Mackenzie, BC. The Property lies at the extreme northwestern edge of the survey coverage. Processed gravity data is available as images that cover the entire Property. Magnetic surveying did not completely cover the Property area so complete gridded coverage is not available.

During 2010, CME Consultants Inc. carried out a comprehensive compilation program of the Property and the surrounding area using data from assessment reports as well as public domain sources of geochemical, geophysical and geological data. This compilation led to identify four areas of interest. Three of the four areas of interest were visited over four days in August and September 2010. Exploration consisted of prospecting, rock sampling (69 samples) and stream sediment sampling (10 samples). In Area 1, rock sampling identified numerous anomalous samples (>0.1%) with copper and/or gold mineralization of up to 13.9% copper, and 23.6 g/t gold (also 27.6 g/t Ag). Other highlights included 1.23% copper and 0.65% copper. In Area 2, rock sampling also identified numerous samples of anomalous copper and/or gold mineralization including 2.85% copper and 265 ppb gold and 1.08% copper and 435 ppb gold. Significant results in Area 3 included 0.84% copper and 195 ppb gold and 0.54% copper and 45 ppb gold (Naas, 2011).

Follow-up exploration by CME during 2011 focused on the Cathedral Zone and the Link Zone in the southern portion of the Property. The Cathedral Zone has been previously referred to as Area 1 (Naas, 2011). The Link Zone is in the area of the BC Minfile showing 094C 123 (Link). Geochemical sampling consisted of rock, silt and soil sampling. Numerous high-grade rock samples of over 1% copper and 1 g/t gold were collected from a variety of locations in the explored area. Sampling at the Cathedral Zone in the vicinity of a high-grade copper-gold sample collected the previous year (13.9% copper, 23.6 g/t gold) returned another high-grade rock samples grading 3.29% copper and 20.1 g/t gold. Silt samples yielded strongly anomalous copper values of up to 419 ppm copper in the northwest portion of the Cathedral Zone, an area which remains relatively unexplored. Silt samples from a creek draining the eastern portion of the Cathedral Zone yielded anomalous gold values of up to 80 ppb gold. Soil sample analysis by a hand-held XRF unit returned anomalous copper values in the area of the Link Zone and suggest several parallel to sub-parallel zones of greater than 100 ppm copper striking in a north-north west direction with lengths of up to 500 metres and widths of up to 150 metres.

Work in 2012 between May 16 and June 30 has been reported in Naas (2012), a report filed for assessment credit. During that period Fieldwork was carried out in the area of the OY occurrence (Minfile 094C 071) on the north side of Tenakihi Lakes and river. Exploration consisted of geological mapping, prospecting and rock sampling. An area of covering some 500 ha was prospected, and approximately 110 hectares geologically mapped. A total of 67 rock samples and 146 contour soil samples were collected during the exploration program. Analytical results had not been completed at the time of this report.

3.0 GEOLOGY

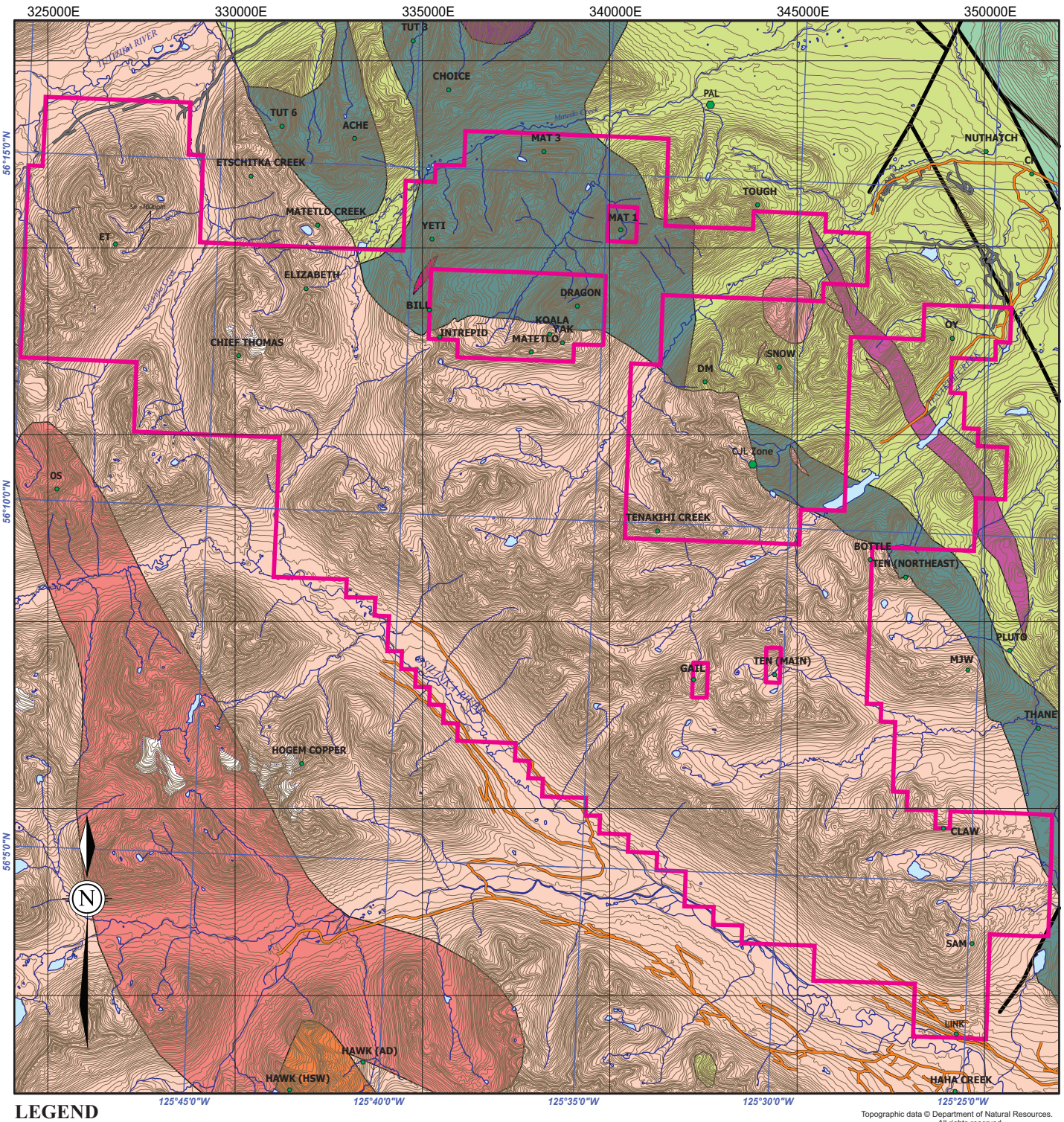
3.1 REGIONAL GEOLOGY

The Property is situated within the Quesnel Terrane, on the eastern flank of the northern end of the Hogem batholith (Figure 3). The Quesnel Terrane is an accreted Mesozoic volcanic arc terrane that forms a north-south trending linear belt of rocks approximately 1,600 kilometres long along the eastern margin of the Canadian Cordillera. The terrane is dominantly Upper Triassic to Lower Jurassic volcano-sedimentary sequences that include the Takla, Nicola and Stuhini groups. Coeval and post-accretionary Cretaceous intrusions are scattered throughout this terrane. The Cretaceous Hogem multi-phase batholith is the largest of these intrusions, forming the spine for this island arc allochthonous, intermontane superterrane. The Hogem batholith is composed of a peripheral zone of dioritic plutons, such as the Thane and Detni intrusives, surrounding a central granodioritic (Hogem granodiorite) and syenitic (Duckling Creek Complex) core. The Hogem is intruded and crosscut by early to mid-Cretaceous granitic plutons, such as the Mesilinka Intrusive and the Osilinka Intrusive. The northwest-trending elongate Hogem batholith extends for approximately 120 kilometres from Chuchi Lake at the southernmost limits, to the Mesilinka River at the northern limit. It is bound on the west by the Pinchi Fault and on the east by the Upper Triassic to Lower Jurassic Takla volcanics.

3.2 PROPERTY GEOLOGY

The Property is predominantly underlain by intrusive rocks of the Hogem Plutonic Suite. Intermediate volcanic rocks of the Takla Group are in contact with the Hogem intrusives in northeastern portion of the Property (Figure 4). Numerous dykes, sills and small stocks are noted in both the main geological units. These small intrusions are generally related to the Hogem intrusive.

Geological mapping is very incomplete over much of the Property, due to limited exposure but also due to very limited prospecting over large areas between the known showings. Geological mapping of the zones is often conflicting, as different unit names or intrusive descriptions may have been applied to similar rocks. Not enough detail is present in the source reports to adequately reconcile these units. The most detailed mapping is from the Ten area and the Aten property, north of the Ten area and off-Property.



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LEGEND

GEOLOGY

- Takla Group - sediments; volcanics
- Lay Range Assemblage - volcaniclastics

Hogem Plutonic suite

- Quartz monzonites
- Granite
- Duckling Creek syenite

- Unnamed - quartz monzonitic intrusive rocks (associated with Cu-porphyry systems such as Mt. Milligan, BP-Chuchi, and Tas)
- Tenakihi Intrusive Complex - diorite intrusive rocks
- Aiken Lake Intrusive Complex - gabbro-diorite

SYMBOLS

- GAIL — BC Minfile or other mineral occurrence
- Cathedral property (as of June 30, 2012)
- Gravel road
- Contour (100 foot interval)
- Watercourse
- Waterbody

0 5km

NAD83 UTM Zone 10 North
NTC 094C03,04,05,06

THANE MINERALS INC.

GEOLOGY PLAN MAP
Cathedral Property

Cathedral Project
Omineca M.D., British Columbia, Canada

Project No:	C122	By:	TV
Scale:	1:150,000	Drawn:	TV
Figure:	4	Date:	January 2013

CME

Descriptions of the units are presented below. These have been collated from the historical exploration as reported in the assessment reports. Future fieldwork would attempt to identify and reconcile the lithologies to present a unified geological legend for the Property. Whole rock analysis of the major oxides should be considered to assign the correct rock classification for the intrusive units.

Hogem Plutonic Suite

From historical work done on and around the Property, there are numerous phases of the Hogem batholith including: granite; granodiorite; hornblende granodiorite; quartz diorite; microdiorite; diorite; monzodiorite; quartz monzonite; monzonite; and, syenite.

The dominant intrusives types reported based on field mapping are monzonites, monzodiorites, diorites and syenites. Granites, granodiorites and other intrusives mapped tend to be smaller dyke-like units within the main intrusive types.

Diorite

Diorites are noted over many parts of the property and through review of the geology and results suggest that these intrusives are most intimately tied to copper mineralization.

The majority of the OS area (Figure 4) is underlain by diorite. The diorite is coarse grained massive and dark green-black in color. These rocks can host local minor quartz veins and stockworks. Minor malachite was locally observed and alteration consists of none to locally minor epidote and limonite. These rocks also contain minor to locally abundant magnetite (Stevenson, 1991c).

The ET area, currently the very northwest corner of the Property (Figure 4) is entirely underlain by a medium to coarse-grained, massive, dark green-black diorite (Stevenson, 1991b).

In the Ten (or Gail) area, diorite observed is fine to coarse-grained, dark grey to black with abundant biotite and hornblende. Minor chloritic, potassic, epidotic and limonitic alteration is present. Very minor disseminated pyrite is present. Magnetite is quite rare to absent (Stevenson, 1991a).

Monzonite

On the current property, monzonites have been mapped in the Ten area (Figure 4). This monzonite is a fine to coarse-grained light grey rock. Compositionally it consists of minor to moderate biotite and hornblende with equal amounts of orthoclase and plagioclase. Minor disseminated magnetite is present (Stevenson, 1991a).

Monzonites are also described from work on the Mate and Aten properties of Commander Resources. The former property is fully encompassed by the Property while the latter borders the eastern edge (Figure 4).

Mapping in the Aten area recognized two monzonitic units:

- a coarse grained monzonite, which weathers to a light brown-pink colour with a rough surface texture. The monzonite is massive with coarse blocky jointing. It is weakly magnetic. Mineral constituents include 80% coarse, milky grey to green, feldspar crystals with interstitial black biotite and amphibole; and,
- a fine-grained monzonite, which is typically light grey to pink and contains equal amounts of fine grained alkali feldspar and plagioclase (85%) with interstitial mafic minerals giving the rock a pepper-like texture (Leriche, 1993).

The monzonite noted in the Mate area is a coarse-grained, equigranular monzonite, which locally may vary as fine or medium grained. The monzonite generally contains 30-50% subhedral to euhedral hornblende, with the remainder being composed of plagioclase and potassium feldspars with minor quartz (Leriche *et al*, 1993).

Monzodiorite

The monzodiorite mapped in the Gail Zone is similar to the monzonite but is coarser grained, light to dark grey and contains a higher percentage of biotite and hornblende. These rocks locally contain minor disseminated and fracture fill pyrite and chalcopyrite. Minor to moderate epidote, chlorite and limonite alteration is observed throughout. Locally, very weak potassic alteration is also present. Magnetite content is very minor (Stevenson, 1991a).

Earlier mapping describes a medium to coarse-grained monzodiorite with varying feldspar/mafics ratios and heterogeneous textures. The mafic mineral in fresh rock is hornblende but complete biotitization and/or chloritization of fresh hornblende crystals have occurred. Locally, intense K-feldspar alteration has affected these rocks giving them a salmon-pink overtone. Through irregular concentration of mafics these rocks grade into hornblende-diorites, appinites, feldspathic hornblendites, and finally, hornblendites. The end product is a holomafic holocrystalline rock containing fine-grained hornblende prisms - some varieties have an almost pure epidote groundmass cementing the hornblende grains together. Epidote is common in all rock types both as fine stringers or irregularly concentrated clots. Fine-grained granitic or syenitic lithologies are present as small dykes. Generally discordant structural relationships exist between all phases and gradations of the Hogem rocks such as breccias, xenoliths and wallrock assimilation, multiphase dyking. Sulphide mineralization consists of pyrite, chalcopyrite, molybdenite, and bornite as irregularly distributed blebs and smears in quartz veins or as sporadic disseminated mineralization adjacent to them (Pearse, 1973).

Quartz Monzodiorite

Recent mapping (2007) in the Aten area (off-Property) identifies the main lithology as being quartz monzodiorite. Earlier work by Leriche (1993) classified the rocks of this area as monzonites (as described above). A geological map of the 2007 work was not included in the report so a comparison of the mapped areas was not possible.

The quartz monzodiorite are described as equigranular and characterized by 2 to 5 mm euhedral to subhedral plagioclase (30-40%), 1 to 3 mm K-feldspar (10-20%), 1 to 4 mm hornblende (20- 40%) and 0.5 to 2 mm quartz (5-15%). Diorites are present locally as are

porphyritic varieties of the quartz monzodiorites. Zones of magmatic compositional zoning in the coarse-grained, equigranular quartz monzodiorites are observed apparently due to syn-magmatic segregation of the granitic melt. Strong brick-red colouration of feldspars is typical in all phases of quartz monzodiorites (Mair and Bidwell, 2008).

Syenite

In the Ten area of the Property two syenites are mapped; a leucocratic and mesocratic variety. The former is fine to coarse-grained, massive, and light orange-grey to bright orange in colour. Compositionally it consists of orthoclase with very minor quartz and less than 20% biotite and hornblende. These rocks at times show local intense potassic alteration. No magnetite was observed with these rock types. Local minor disseminated pyrite and chalcopyrite occurs and, along with the monzodiorite (described above), are the likely source for the anomalous copper values that rim the cirque at the Gail Zone and the Ten Northeast area. The mesocratic syenite is similar to the leucocratic syenite except being darker in colour, which is likely due to the higher mafic content. This unit also does not exhibit much sulphide mineralization but does contain minor disseminated magnetite (Stevenson, 1991a). Spatially these syenites are mapped near the contact of the Takla volcanics.

Off-property, north of the Ten area, another syenite unit was mapped in limited dyke-like exposures. It appears as a light pink rock, found within both monzonitic units. Mineral constituents include 80% pink alkali feldspars and 20% dark green, fine-grained amphiboles with minor epidote (Leriche, 1993).

Granite

Granite is observed sparingly on the Property. A fine-grained, white to pale pink granite with only a few percent mafic minerals was observed in the northern (Nevin, 1971). On the western boundary of the Property, in the area of the former OS claims, medium grained, massive, light green to white granite intrusives are also noted. These rocks contain locally minor quartz veining and stockworking that may have minor disseminated pyrite, chalcopyrite and bornite. No magnetite was observed in these rocks (Stevenson, 1991c). Further west, off the Property regional mapping notes a large granitic body trending generally N-S along the regional trend (BC Open File 2005-1) (Figure 4). This body appears to be reflective of the OS area granites.

Granodiorite

Granodiorite has been noted around Elizabeth occurrence located in the central-northern portion (Figure 4) of the property but no detailed field description is available.

Hornblende Granodiorite

The area around the head of the south fork of the Matetlo River is underlain by a monotonous hornblende granodiorite. It is coarse-grained (2 mm to 7 mm) and generally equigranular, and contains about 10% ragged hornblende grains and about 1% biotite (Nevin, 1971).

Quartz Diorite

Quartz diorite has been noted at the Chief Thomas and Elizabeth occurrences.

Feldspar Porphyritic Dykes

Feldspar porphyry dykes are noted in the Ten area of the Property. These porphyritic dykes are very fine grained, massive and light grey to chocolate brown in color. Mineralogically they consist of numerous irregular phenocrysts of orthoclase and plagioclase in a groundmass that is too fine grained to be identified. These dykes are less than 2 metres thick and tend to occur in small northerly trending swarms. (Stevenson, 1991a).

To the north of the Ten area, feldspar porphyry occurs as sub-vertical dykes up to 10 metres wide. Dykes consist of light grey to white, medium-grained subhedral plagioclase laths (up to 1 cm) in a light grey, fine-grained silicic matrix (Leriche, 1993). Minor quartz-phyric feldspar porphyry dykes are noted by Mair and Bidwell (2008) and intrude the equigranular quartz monzodiorite. They are characterized by 1 to 3 mm quartz phenocrysts (10-15%) and 2 to 4 mm feldspar phenocrysts (30-40%) in an aphanitic groundmass.

Takla Group - Volcanics

Takla Group volcanics are exposed in outcrop on the northern and northeastern areas of the Property. These volcanics occur as massive andesite, andesite-augite porphyries, andesitic tuffs and breccias, and fragmental volcanics. Brief description are presented below and collated from the various assessment reports. All descriptions are from work carried out on ground not currently part of the Property.

Massive Andesitic Augite Porphyry:

At the Mat 1 showing (BC Minfile 094C 099, Figure 4), a massive, medium-grained augite andesite outcrops below a fragmental volcanic. The augite andesite is very uniform in composition and appearance. The matrix of the rock is pale grey feldspathic in which are randomly distributed crystals of augite about 1 mm by 3 mm to a proportion of about 10% of the rock. The lower reaches of the valley in which most of the showings occur are underlain by this rock type (Weishaupt, 1998). Although not part of the current Property, this area is fully encompassed by the property.

Mapping carried out in the Mate area, notes andesite augite porphyry. The andesite is a fine to medium-grained grey-green to greenish grey rock composed of 15-20% mafics and 80-85% plagioclase. The mafics consist of subhedral to euhedral dark green augite phenocrysts and fine-grained biotite (Leriche *et a*l, 1993). This area is fully encompassed by the current Property.

Over on the Aten area this unit is noted to weather to a dark brown to green color. Mineral constituents include 20% (range 10% to 40%) subhedral to euhedral dark green augite phenocrysts in a fine-grained matrix of plagioclase and biotite. This unit typically occurs as both dykes and flows. Distinctive rusty weathering quartz-ankerite zones are common (Leriche, 1993).

Subsequent work in the Aten area describes these rocks as being characterized by 2-5 mm augite phenocrysts in an aphanitic groundmass and variable strain fabrics. Deformation is characterized by flattened and/or asymmetrically-strained augite phenocrysts as well as localized zones of compositional banding due to mylonitization. (Mair and Bidwell, 2008).

Andesite Tuffs and Breccias

Andesite tuffs are noted on the Mate and Aten areas and described as fine grained, dark green, massive plagioclase crystal ash tuffs with crystals up to 2 mm in length (Leriche and Luckman, 1991a; Leriche *et al*, 1993).

Breccias are noted briefly in the Mate area. At the Aten area, contact zones between andesite and quartz monzodiorite are irregular and characterized by mega-breccias with large fragments of andesite cemented by quartz monzodiorite intrusive. Limited mapping suggests that the zone of contact breccia is 1 to 5 metres in width (Mair and Bidwell, 2008).

Fragmental Volcanics

Fragmental volcanics of the Takla Group are only noted in mapping from the Mat area (Figure 4) and are typically found at higher elevations in this area. Fragments are similar to the matrix material and the fragmental texture being developed by slight compositional and grain size variations. Randomly oriented angular blocks up to 0.5 metres in diameter with much variation in size and ratio of fragments to matrix are noted. Average matrix grain size is fine, compositionally is quite siliceous and colour grades from dark green to greenish white (Weishaupt, 1998).

Takla Group - Sediments

No instances of the sediments of the Takla Group are noted in any reports to date. Regional mapping does show the possibility of the presence of Takla sediments to occur in the northern area of the property (Figure 4).

The sediments are described as mudstones and laminate fine clastic sedimentary rocks (BC GeoFile 2005-1)

4.0 EXPLORATION

4.1 INTRODUCTION

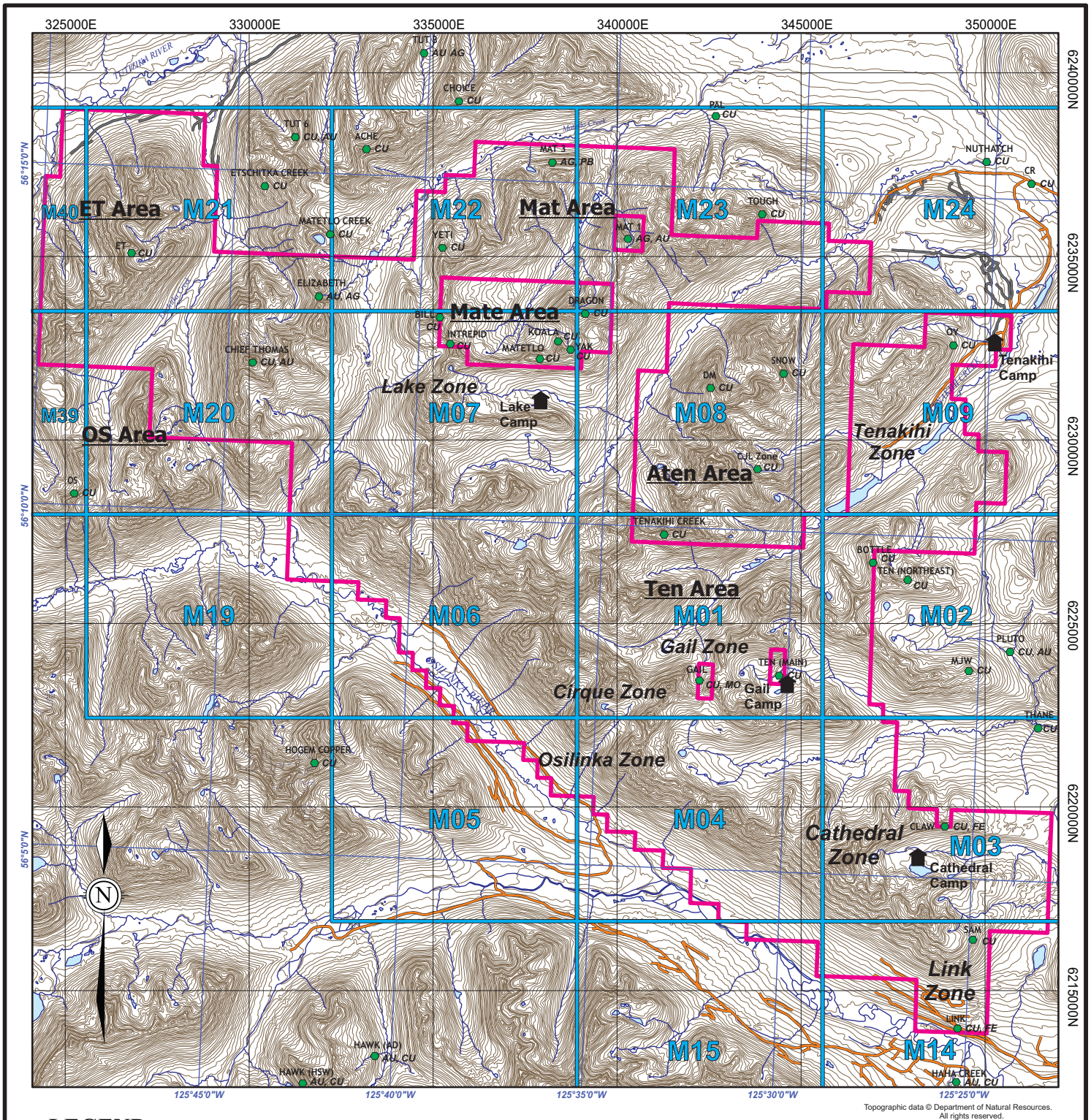
Fieldwork was carried out in two stages: between June 19 and July 17, 2012; and, between August 13 and September 7, 2012.

Exploration in the first stage focused on areas of the Property in the lower elevations due to the heavy snowpack. These consisted of the Tenakihi Zone, Link Zone and Osilinka Zone. A base camp was established near the Tenakihi Lakes, near the end of the Tenakihi Forest Service Road (Figure 5). All field work was based out of this camp during this stage. Access to the mapping and sampling areas was by foot or truck.

Fieldwork totals for this period are:

- Tenakihi Zone
  - Silt sampling: 16 samples;
  - Contour soil sampling: 4 lines, 146 samples;
  - Rock sampling: 89 samples; and,
  - Geological mapping: 500 hectares.
- Link Zone
  - Grid Establishment: 8.28 line-km (7.05 line-km cross-line, 1.23 line-km base-line, 320 sample stations);
  - Gridded soil sampling: 267 samples;
  - Contour soil sampling: 1 line, 30 samples;
  - Rock sampling: 90 samples; and,
  - Geological mapping: 225 hectares.
- Osilinka Zone
  - Soil sampling: 2lines, 25 samples,
  - Rock sampling: 25 samples
  - Geological mapping: 300 hectares

The second stage later in the summer was able to access the higher elevations of the Property. The Cathedral Zone, Gail Zone, Cirque Zone and Lake Zone were all explored during this time. A mobile field camp was set up initially in the Cathedral Zone then moved to the Gail Zone and lastly to the Lake Zone (Figure 5). Access and camp support was provided by Canadian Helicopters Ltd. of Smithers, BC using a Eurocopter AS350 B2 AStar.



LEGEND

GAIL AU, CU — BC Minfile or other mineral occurrence, with main commodities

AU Gold **AG** Silver **CU** Copper **FE** Iron **MO** Molybdenum

- Cathedral property
- M01 — 1:10,000 index map
- Gravel road (not all roads and trails shown)
- Contour (100 foot interval)
- Watercourse
- Waterbody

0 5km

NAD83 UTM Zone 10 North
NTC 094C03,04,05,06

THANE MINERALS INC.

PROPERTY AREA REFERENCE AND INDEX MAP
Cathedral Property

Cathedral Project
Omineca M.D., British Columbia, Canada

Project No:	C122	By:	TV
Scale:	1:150,000	Drawn:	TV
Figure:	5	Date:	January 2013

CME

Fieldwork totals for this period are:

- Cathedral Zone
  - Grid Establishment: 2.73 line-km (2.24 line-km cross-line, 0.49 line-km baseline, 110 sample stations;
  - Gridded soil sampling: 109 samples;
  - Contour soil sampling: 3 lines, 223 samples;
  - Rock sampling: 203 samples; and,
  - Geological mapping: 100 hectares.
- Gail Zone
  - Rock sampling: 295 samples; and,
  - Geological mapping: 400 hectares.
- Cirque Zone
  - Rock sampling: 9 samples.
- Lake Zone
  - Silt sampling: 22 samples;
  - Talus fine sampling: 1 line, 15 samples; and,
  - Rock sampling: 136 samples.

Geology and sample location and geochemistry plan maps for the various zones are presented in Figures 6 to 18. Geological observations of each zone visited are presented in section 9.5. Soil and silt sample details including location coordinates and results are presented in Appendix II. Rock sample descriptions are presented in Appendix III.

4.2 SILT SAMPLING

Silt sampling was undertaken in the Tenakihi and Lake Zones (Figures 6 and 9, respectively). Samples were collected from the fine-grained clay rich streambeds.

Approximately 3 to 5 kilograms of material were collected by sieving the sediment through a #10 sieve. This ensured sufficient fine fraction material was gathered at each site. Sediment samples were placed in labeled 10" x 17" Hubco Sentry bags. Sample tags were placed in each bag prior to tie-locking the bag for security. Field observations regarding sample media, sample site and location were recorded on waterproof sheets in the field and later entered into a master database back in the office. GPS readings were also taken at each sample site whenever possible using a Garmin GPS 60 handheld receiver.

All samples were transported by CME personnel from the field to CME's field office in Vavenby, BC. Prior to analysis by x-ray fluorescence (XRF), silt samples were sorted, dried, and then sieved to -80 mesh. Samples were then transferred into a plastic sandwich bag. The bag was shaken to move the fines to the bottom of the bag which would be the media analyzed (this is the recommended method for collecting readings by XRF). Analysis was performed with a Delta Handheld XRF Premium. Periodically during analysis, a control sample, consisting of pulp sample of known copper concentration or a blank (quartz sand) was analyzed to monitor the calibration of the XRF unit. The XRF unit was set to use 2

beams (beams 1 and 2) which are adequate for determination of most base metals. One 10 second reading was obtained for each sample.

4.2.1 Tenakihi Zone

Silt sampling in the Tenakihi Zone was focused on the drainage from the north where historical silt sampling (heavy mineral) identified significant anomalous gold (up to 2,635 ppb Au) and copper (up to 531 ppm Cu). Current sampling (Figure 6) was done at a detailed level, with samples collected at 50 or 100 metre intervals. A total of 16 samples were collected. Sample locations are presented in Figure 6. Copper and arsenic results are presented on Figures 7 and 8, respectively.

Results

Detailed silt sampling returned several anomalous copper +/- arsenic from the eastern tributary. Sample 328 returned the highest copper value of 826 ppm Cu. Sample 329 taken above returned 345 ppm Cu and samples 326 and 325, collected downstream returned 377 and 346 ppm Cu respectively. These latter samples also demonstrated elevated arsenic concentrations of 479 ppm As and 252 ppm As, respectively. Sample 331, collected between 326 and 325 returned the highest arsenic value of 572 ppm As.

4.2.2 Lake Zone

Silt sampling in the Lake Zone was focused on the main east-flowing creek and its tributaries (Figure 7). Historical silt sampling in this area has returned anomalous copper and gold values of up to 562 ppm Cu and 27 ppb Au. A total of 22 samples were collected.

Results

As of the date of this report all Lake Zone silt sample analyses are pending.

4.3 SOIL AND TALUS FINE SAMPLING

Soil sampling was carried out at the Tenakihi, Link, Osilinka and Cathedral zones. Soil sampling consisted of both gridded (Link and Cathedral zones only) and contour soil and/or talus fine sampling. At the Osilinka Zone soil samples were collected adjacent and parallel to two creeks.

Soil samples were collected from the B horizon at approximately 20 to 30 centimetre depth. Talus fine samples were collected from a similar depth in areas of no soil development. Samples were placed in labeled kraft sample bags.

Samples were delivered to CME's field office in Vavenby, BC for drying and analysis by x-ray fluorescence (XRF). Soil and talus fine samples were dried prior to XRF analysis. A

handheld moisture meter was utilized to determine the moisture content of the sample prior to XRF analysis. Analysis was performed only where moisture content was 15% or less. Analysis of rock samples utilized all 3 beams. Three 10 second readings were taken at random points on each sample. These readings were then averaged to produce the final value.

Soil samples were transferred from the kraft sample bags into a plastic sandwich bag. Analysis by XRF then followed the same methods as reported for the silt samples.

Multiple elements are detected during XRF analysis, but only copper and/or arsenic are being considered at this time. The lower detection limits for gold and silver are too high to be useful for determining concentrations in soils. Historical rock samples have noted that high arsenic may accompany high gold concentrations and therefore could be useful as a pathfinder element. For calculation of statistics, samples that reported below detection limit ("<LOD") were assigned a concentration of one half the lowest quantitative concentration. Presentation of the various copper and/or arsenic ranges for the soils were calculated based on the entire soil dataset (2011 and 2012 samples).

Table 2: Statistical Analysis, XRF Soil and Talus Fine Analyses

Element	Sample Pass*	No. Samples	Minimum	Maximum	Mean	Standard Deviation
Copper (ppm)	*Pass 1*	1,132	6	3,661	195	255
	Pass 2	1,099	6	692	163	128
Arsenic (ppm)	*Pass 1*	814	17	1,478	62	103
	Pass 2	791	17	257	48	40

** Pass 2 is a calculated by using the mean + 2 standard deviation from Pass 1 as the maximum allowable value.*

4.3.1 Tenakihi Zone

A total of 146 soil sample sites were established on four (4) contour soil sample lines in the work area. Two lines, one at 1,400 metres and a second at 1,450 metres elevation tested the hill slopes around the main creek draining toward the southeast, past the field camp (Figure 6). Historical sampling in the headwaters of this creek had identified anomalous copper and gold in silt samples. Geologically, the two lines are located entirely within basalts of the Takla volcanics.

Two other lines, one at 1,450 metres and the second at 1,600 metres elevation, were located to the southwest and designed to traverse the Tenakihi Intrusive Complex diorite (Figure 6).

Sample locations are presented in Figure 6. Copper and arsenic results are presented on Figures 7 and 8, respectively.

Results

The most promising soil results are noted from the southwest lines, 1600m, and 1450m-S. A series of elevated copper values are noted (>180 ppm Cu) and are broadly correlated with the diorite intrusive of the Tenakihi Intrusive complex and the bounding margins of the volcanic

and sediments of the Takla Group. In particular, samples 184 to 188 (1600m line) show a persistent elevated copper anomaly the southern margin sediments with copper values ranging from 331 ppm to 553 ppm Cu. Samples 193 and 194 along the same line, and further within the intrusive, returned 433 and 460 ppm Cu respectively. Near the eastern margin of the intrusive, copper continues to be elevated with up to 438 ppm Cu (sample 207). The 1450m-S line below shows a similar, albeit weaker copper response. Sampling did not continue far enough to completely traverse the western margin of the intrusive complex. Additional sampling is recommended.

The other contour lines to the northeast (1400m and 1450m-N) returned generally weaker copper values. A consecutive set of samples returned 576 and 335 ppm Cu (samples 143 and 144).

Arsenic results show several point anomalies and no clear correlation to elevated copper. Sample 194 returned 473 ppm As along with 460 ppm Cu. Other high values include 353 ppm As (sample 211, line 1600m) and 410 ppm As (samples 166, line 1450m-N).

4.3.2 Link Zone

Additional (uncut) soil lines were established to augment the survey grid established in 2011. New survey grid lines consist of three east-west cross-lines (6.9 line-km) and one north-south baseline (1.4 line-km) of baseline. One cross line (20800N) was placed as an infill line and two additional cross lines (21100N and 21300N) were located north of the 2011 grid. A short eastern extension of the cross line 20900N (175 metres) was also placed and sampled. The baseline at 5700E was extended 1,000 metres north of 21300N. Gridded soil samples on cross lines were collected at every 25 metre grid station unless the site was unsuitable (i.e. road, creek or swamp). Samples were collected at 50 metres spacing along the baseline. A total of 267 samples were collected from 320 stations.

A single contour soil line was placed northeast of the gird along the 1,300 metre elevation. A total of 30 samples were collected at a spacing of 50 or 100 metres.

Sample locations are presented on Figure 11. Copper results are presented on Figure 12.

Results

Soil sampling has identified broad anomalous copper zones, particularly on line 21300N, the most northerly east-west line. One zone is noted from station 4825E to 5050E with copper values ranging from 303 ppm to 565 ppm. A second zone to the east along this line is noted from 5175E to 5475E with several highly anomalous copper values of 3,184 ppm Cu (5225E), 856 ppm Cu (5400E) and 444 ppm Cu (5425E). There is no readily apparent continuation of these anomalous zones on line 21100N, 200 metres south although at these wide line spacings, and with little geological and structural information, the anomaly could be trending at a highly oblique angle to the grid lines.

Further west along line 21300N is a point anomaly of 1025 ppm Cu (4025E). A pair of anomalous values are noted on 21100N to the southeast of 354 and 639 ppm Cu (4225E and 4250E) that may be related. Infill sampling at 100 metres or even 50 metres would be needed to verify this.

Line 20800N returned point anomalies of 639 ppm Cu (5275E) and430 ppm (5675E).

The 5700N baseline extended north to the Sam Minfile (094C 132) occurrence returned several non-contiguous anomalous copper values including 517 ppm Cu (21550E), 509 ppm Cu (21900N), and 808 ppm Cu (22000N). Little can be ascertained from this single line, but does represent another area to follow-up. As sampling was completed at 50 metre spacings here, infill samples at 25 metres are recommended to bracket these anomalous samples. Additional north-south grid lines, or a series of contour soil lines could also be placed to further examine this area. Completion of rock sample analysis will also be helpful with determining the prospectivity of this area.

4.3.3 Osilinka Zone

Samples in the Osilinka Zone were collected parallel to two creeks at approximately 100 metre spacing. A total of 25 samples were collected, 12 from the northern creek and 13 from the southern creek.

Sample locations are presented in Figure 13. Copper results are presented on Figure 14.

Results

With the limited analytical data available for this area, no conclusions can be readily drawn at this time. Three samples reported over 200 ppm Cu, with a high of 609 ppm Cu (sample 267) from the northern creek.

4.3.4 Cathedral Zone

An uncut survey grid was established west of the main lake in the Cathedral Zone. The survey grid consisted of a single 500 metre baseline (5000E) oriented at 350°. Six perpendicular cross-lines were established at 100 metre spacings (34900N to 35400N) for a total of 2.25 line-km. A total of 109 soil samples were collected from 110 stations.

Three contour soil lines were placed in the Cathedral Zone. The main line was at the 1,600 metre elevation following the base of the south-facing slopes of the main valley, and wrapping around the head of the valley toward the main lake for a total of 4.15 km, with 169 samples collected at 25 metre spacing. Another line was located along the 1,700 metre contour in the area of the survey grid. A total of 34 samples were collected over approximately 800 metres. A final line was placed across a notch in northern mountain ridge. This line is not a true contour sample line as it ranged from approximately 1,870 metres to 1,750 metres in elevation. Twenty samples were collected at over a linear distance of 400 metres.

Sample locations are presented in Figure 15. Copper and arsenic results are presented on Figures 16 and 17, respectively.

Results

Copper-in-soil results from the Cathedral Zone show several broadly anomalous zones, particularly from the contour soil samples. The most pronounced zones occur on the 1600m contour line along the south to southeast facing slopes. The larger zone is some 800 metres wide with numerous sample results greater than 300 ppm Cu. The western end of this zone shows seven continuous samples greater than 500 ppm Cu, with three samples returning 1,986 ppm Cu, 1,027 ppm Cu, and 1,475 ppm Cu (samples 488, 486, 381, respectively). Elsewhere in this zone, copper results include 1264 ppm Cu (sample 393), and 637 ppm Cu (sample 404). Coincident with this copper zone is elevated anomalous arsenic. Arsenic values include 1,182 ppm As and 1,478 ppm As (samples 386 and 387, respectively).

A second zone along the 1600 metre contour line occurs to the west. The zone is approximately 400 metres wide and is bracketed by samples of 1,535 ppm Cu and 2,118 ppm Cu (samples 525 and 507, respectively). Within this zone are samples of 1544 ppm Cu (sample 514) and 1717 ppm Cu (sample 511). As with the aforementioned anomalous zone there is a coincident arsenic anomaly, though a bit subdued compared to the previous zone. Within the zone, two consecutive arsenic values of 241 ppm As (sample 515) and 297 ppm As (sample 514), are associated with 650 pm Cu and 1,544 ppm Cu, respectively.

The soil line placed approximately 250 northwest across the gap in the ridge at the 1760 to 1850 metre elevations also yielded anomalous copper +/- arsenic. Notable copper results include 1,865 ppm Cu (sample 618), 648 ppm Cu (sample 627), and 654 ppm Cu (sample 615). Consecutive samples 619 to 624 returned greater than 400 ppm As, ranging from 467 ppm As to 878 ppm As.

Another copper anomalous zone is noted along the 1600 metre contour line on the north facing slopes west of the main lake. A series of three consecutive samples returned copper values of 1,131, 781 and 773 ppm Cu (samples 563 to 565). The Cathedral grid line up-slope some 25 metres in elevation (line 35400N) also returned a series of consecutive anomalous copper values of 915, 423 and 685 ppm Cu (station 5250E to 5300E). Both sets of value brackets a small watercourse draining to the north.

Further east along the contour line two consecutive samples returned 1,422 and 636 ppm Cu (samples 572 and 573).

In the gridded area, several copper point anomalies are noted. The most interesting are highly anomalous values 2,235, 927, and 3,661 ppm Cu each located at the last station of lines 34900N, 35000N and 35100N, respectively. These are located along the eastern side of another north-flowing watercourse. Rock sampling in the area noted abundant gossanous alteration. Further down the watercourse, the western end sample of line 35400N returned 428

ppm Cu (station 4900E). Contour samples from further down the creek also returned values of 634 ppm Cu and 452 ppm Cu (samples 546 and 547).

The soil sampling throughout the Cathedral Zone has demonstrated significant zones of copper, coincident copper-arsenic zones. Historical rock sampling in the Cathedral East Showing, identified elevated arsenic values associated with anomalous gold. The use of Arsenic may be useful as a pathfinder element for determining areas of potential gold enrichment. Should this be the case the large copper-arsenic zone along the 1600 metre contour sample line which is approximately 700 metres southeast of the Cathedral East Showing represents a high-priority target for follow-up. Laboratory analysis for gold should be prioritized for the contour soil samples in this zone. Further field work should include an additional contour soil line should be located above the 1600 metre contour at the 1700 metre elevation. Rock sampling and geological mapping is also recommended in this area.

Additional contour soil sampling is also recommended along the 1700 metre elevation to the west to ascertain if the anomalous copper values near the notch in the northern ridge are continuous down to the anomalous copper values returned from the 1600 metre contour line.

4.3.5 Lake Zone

Fifteen (15) talus fine samples were obtained from a single line approximately along the 1,760 metre contour in the Lake Zone. Samples were taken 100 metres apart except in one instance where the samples were 200 metres apart.

Sample locations are presented in Figure 9. Copper XRF results are presented on Figure 10.

Results

With the limited analytical data available for this area, no conclusions can be readily drawn at this time. A series of five consecutive samples, TF-15 to TF-19, all returned greater than 300 ppm Cu, with a high of 932 ppm Cu (TF-16). This represents 500 metre wide zone of elevated copper-in-soil. Additional contour soil or talus fine sampling as well as infill sampling along the current line is recommended.

4.4 ROCK SAMPLING

Rock sampling was carried out in all zones explored. Samples were collected from outcrop wherever possible, but float and sub-crop samples were also collected. A total of 749 samples were collected during the work period. A breakdown of the rock samples by zone is presented in Table 5.

Rock sample descriptions are presented in Appendix III. All samples are currently stored at CME's field office in Vavenby, BC. Sawn off-cuts were taken from each sample for descriptive purposes and are currently located at CME's Richmond office.

Sample locations for each zone are presented in Figure 6 (Tenakihi Zone), 9 (Lake Zone), 11 (Link Zone), 13 (Osilinka and Cirque Zones), 15 (Cathedral Zone), and 18 (Gail Zone).

Table 3: Rock Sampling Summary

Zone	No. Samples
Tenakihi	14
Link	62
Osilinka	25
Cathedral	203
Gail	295
Cirque	9
Lake	141

Rock samples were placed in thick polyethylene sample bags, labeled and sealed. Samples were delivered to CME's field office in Vavenby, BC analysis by x-ray fluorescence (XRF).

As of the date of this report, a total of 159 samples have been analyzed by XRF and 12 samples have been analyzed for gold by fire assay. All analyzed samples are from the Cathedral Zone.

Other than ensuring dryness of the sample, no preparation of rock samples prior to XRF analysis was undertaken. XRF analysis of the rock samples utilized all 3 beams. Three 10 second readings were taken at random points on each sample. These readings were then averaged to produce the final value.

Multiple elements are detected during XRF analysis, but only copper and arsenic are being considered at his time. The lower detection limits for gold and silver are too high to be useful for determining their concentrations. Previous rock sampling has noted that arsenic may accompany anomalous gold concentrations and therefore may be useful as a pathfinder element. Samples that reported below detection limit ("<LOD") were assigned a concentration of one half the lowest quantitative concentration.

A single group of samples from the Cathedral Zone (samples 1254 to 1261) were selected for geochemical analysis. Samples were delivered to ALS Minerals' laboratory in North Vancouver, BC. Rock samples were crushed through a jaw crusher and cone or roll crusher to –10 mesh. The sample was then split through a Jones riffle until a –250 gram sub sample was achieved. The sub sample was pulverized in a ring and puck pulverizer to 95% -140 mesh. The sample was then rolled to homogenize for analysis.

Samples were analyzed for gold by fire assay with AA finish. Certificates of analysis are presented in Appendix IV.

ALS sample analysis techniques include:

- Gold analysis: a prepared sample is fused with a mixture of lead oxide, sodium carbonate, borax , silica and other reagents as required, inquarted with 6 micrograms of gold-free silver and then cupelled to yield a precious metal bead. The bead is

digested in 0.5 millilitres dilute nitric acid in the microwave oven, 0.5 millilitres of concentrated hydrochloric acid is then added and the bead is further digested in the microwave over at a low power setting. The digested solution is cooled, diluted to a total volume of 4 millilitres with de-mineralized water and analyzed by atomic absorption spectroscopy against matrix matched standards. Results are reported in parts per million (ppm).

Standard reference material (SRM) was obtained from CDN Resource Labs of Delta, BC. A single SRM CDN-CGS-22 was included with the samples submitted to ALS. This certified copper-gold SRM has a recommended value of 0.725±0.028% Cu and 0.64±0.06 g/t Au. The analyzed value of the SRM showed acceptable results.

Results

XRF results of rock samples collected from the gossanous gully along the western edge of the Cathedral grid show many elevated copper values that appear to verify the copper-in-soil response. Outcrop samples from along this gully returned highly anomalous values of 6,044 ppm Cu (sample 1369), 24,116 ppm Cu (sample 1343) and 151,369 ppm Cu (sample 1334).

Elsewhere in the Cathedral Zone, numerous other highly anomalous copper values are noted, including: 276,143 ppm Cu (sample 1287); 81,163 ppm Cu (sample 1286); and 54,651 ppm Cu (sample 1390). Sample 1287 also reports elevated arsenic (1,895 ppm).

Other highly anomalous arsenic (>2,000 ppm As) samples, outside of the Cathedral East Showing area include samples 1223, 1374, 1359 and 1336. These represent potential for further gold mineralization.

XRF analysis of the remaining rock samples is pending. Laboratory analysis of rock samples for copper and gold (as well as multi-elements) is highly recommended, with priority to the Cathedral Zone samples.

In the Cathedral East Showing, of the twelve samples selected for gold assay, four samples returned anomalous gold with two samples returning significant gold values of 13.95 g/t Au and 3.47 g/t Au (samples 1255 and 1257, respectively (Table 4). The two high gold samples were collected from outcrop and are located 47 metres from each other (Figure 16, 17).

Table 4: Anomalous Rock Samples, *Cathedral East Showing*

Sample No.	Sample Type	Gold (g/t) Fire Assay	Arsenic (ppm) XRF
1254	Subcrop	0.757	1,302
1255	Outcrop	13.95	18,113
1256	Outcrop	0.440	11,785
1257	Outcrop	3.470	340,510

Copper and arsenic results for the Cathedral Zone are presented on Figures 16 and 17, respectively. Geochemical gold results from the Cathedral East Showing samples are presented on both Figures 16 and 17.

4.5 GEOLOGICAL MAPPING

Geological mapping, at a scale of 1:10,000, along with rock sampling was undertaken in the Tenakihi, Link, Osilinka, Cathedral, and Gail zones. Formal mapping was not carried out in the Cirque or Lake zones and geological descriptions of these areas are based on collected rock specimens.

As few analytical geochemical analyses have yet been completed, descriptions of mineralization are based on visual inspection of the rock specimens and field observations. Laboratory analysis of several samples in the Cathedral East Showing for gold have been completed at this time and are referred to in the appropriate section.

4.5.1 Tenakihi Zone

The Tenakihi Zone is located in the central-eastern portion of the Property (Figures 4, 6). This zone covers rocks mainly of the Takla Group, both volcanics and sediments. The Tenakihi Intrusive Complex intrudes Takla Group rocks (Figures 4, 6), striking sub-parallel to the contact of the Takla Group and the Hogem Plutonic Suite to the west.

Takla Group

Volcanics

Takla Group volcanics are the dominant rock type throughout the Tenakihi Zone (Figure 4). These volcanics occur primarily as basalts. They are dark grey-green in colour and in the northeast portion of the Tenakihi area these basalts are olivine and plagioclase-phyric. Olivine phenocrysts are up to 3mm in diameter with white (presumably plagioclase) phenocrysts ranging up to 1mm in size combining to make up approximately 1% of the rock. Moving to the southwest, both olivine and plagioclase phenocrysts decrease in abundance and size with the volcanic becoming aphanitic in texture. Black phenocrysts are noted locally; possibly pyroxene and/or amphibole. These phenocrysts are generally less than 1mm in size but were observed up to 2mm. Vesicles were noted occasionally, typically less than 1mm in size with quartz amygdules observed ranging from trace to 1% in abundance. Weak effervescence of the groundmass is noted suggesting calcite is present but is not present everywhere. Quartz and calcite veinlets are noted in multiple areas, often ranging from 0.5 to 2mm and rarely observed up to 1cm in thickness. Disseminated magnetite up to 1% in abundance is noted throughout the volcanics.

Alteration is principally chlorite, which varies in strength from subtle to moderate. Weak silicification is noted in samples 1035, 1036, and 1037. Calcite is likely secondary and observed in the groundmass as well as in veinlets with quartz.

Sulphide mineralization is weak throughout the Takla volcanics. Where observed, very fine grained disseminated pyrite the most common sulphide followed by pyrrhotite. Pyrite ranges from trace to 1% in abundance. Pyrrhotite was observed in a several samples (1029, 1049,

1052, 1056, 1075, and 1200) as very fine grained disseminations ranging from trace to less than 1% in abundance and on one occasion (sample 1056) as stringers. Copper mineralization was only observed in one sample (1200) with a trace amount of malachite.

Sediments

Sediments of the Takla Group are only noted occurring at sample 1054 along a river to the southwest. These rocks are strongly weathered and gossanous with an orange to brown colouration with a pale green to weakly bluish fresh surface. Texture is obscured throughout the sediments with grains typically ranging from silt- to sand-size. Compositionally quartz primarily the remaining grains in the matrix (due to weathering) with calcite a component of the cement. Quartz and calcite (iron carbonate locally) veins are noted ranging <1mm to 6mm in width. No magnetite is observed in any of the sediment samples.

Sulphide mineralization, where noted, consists primarily of very fine grained disseminated pyrite less than 1% in abundance. Copper mineralization (malachite) was observed in sample 1211.

Hogem Plutonic Suite

From historical work done on and around the Property, there are numerous phases of the Hogem batholith, including: granite; granodiorite; hornblende granodiorite; quartz diorite; microdiorite; diorite; monzodiorite; quartz monzonite; monzonite; and, syenite. The dominant intrusives types reported based on field mapping in the Tenakihi Lakes area are quartz monzonite, diorite, and feldspar porphyry dykes.

Quartz Monzonite

Mapping in the Tenakihi Lakes area identified three locations of quartz monzonite. Sample 1047 is located in the central portion of the map situated within the Tenakihi Intrusive Complex. Sample 1064 is south of the Complex and may be a continuation of the intrusive body but due to the amount of vegetation cover this could not be tested. The quartz monzonite is fine- to medium-grained and - light to medium grey in colour. Compositionally it contains 1-3mm white to pale pink feldspar (60-70%), 1-3mm pale grey quartz (5-20%), and 1-2mm black mafics (10-30%) including amphibole and lesser amounts of biotite. Magnetite (<1-3%) is observed with crystals up to 5mm in size.

Alteration is fairly weak within the quartz monzonite. Subtle to weak potassic alteration along with chlorite and epidote alteration is observed locally. Weak effervescence is noted in the groundmass in samples 1047 and 1197. No sulphides are observed in this unit.

Diorite

The diorite is part of the Tenakihi Intrusive Complex and is located in the central portion of the mapping area cross-cutting the Takla Group (volcanics and sediments). It is coarse grained and generally equigranular, ranging in colour from a dark grey/black to dark green, depending on strength of alteration. Compositionally it contains 30-40% black to dark green mafics (primarily amphibole), 50-60% plagioclase, and very minor quartz. Magnetite is

strong within this unit comprising up to 20%. Quartz veining is noted throughout, typically ranging from <1 to 1mm thick, but may occasionally be up to 4mm.

Alteration includes calcite and epidote. Calcite is generally weak and is observed within quartz veins as well as in the groundmass. Epidote alteration is moderate, locally altering the feldspars.

Pyrite is the dominant sulphide observed within the diorite occurring primarily as very fine grained disseminations (trace to 1%). No copper minerals were noted in any samples. Copper mineralization was observed in samples 1202 and 1210. Sample 1202 contains less than 1% chalcopyrite as localized blebs while sample 1210 shows trace amounts of malachite.

Feldspar Porphyritic Dykes

Feldspar porphyry dykes are noted in four locations within the Tenakihi Zone. These porphyritic dykes are very fine-grained, massive and light grey to dark green-grey in colour. Mineralogically they consist of numerous irregular phenocrysts of orthoclase and plagioclase in a groundmass that is too fine-grained to be identified. These dykes are generally up to 2 metres thick but can be as large as 10 to 15 metres and appear to be north-south trending. These dykes occur in two types: a megacrystic variety; and a feldspar-phyric variety. In the south central portion of the mapping area (sample 1023) the megacrystic type is present. It is medium grey in colour with white feldspar phenocrysts up to 2cm long and 1cm wide comprising 30-40% of the rock. Alteration is not present in this sample. Very fine grained disseminated pyrite (1%) is noted within the groundmass. A contact between the dyke and Takla volcanics is measured at 168°/30°W. To the north, this megacrystic dyke is also present which suggests a possible continuation of the dyke, or perhaps multiple dykes of this nature.

The second type of feldspar porphyry dyke does not contain the megacrysts of feldspar but rather much smaller phenocrysts. These units are located in the southern portion of the mapping area. Composed of black phenocrysts up to 1mm in size (possibly amphibole) along with rectangular to oval, white phenocrysts of feldspar up to 5mm long and 3mm wide are present within a dark green grey aphanitic groundmass. The groundmass contains black mafics and quartz. Weak localized magnetism is observed. Alteration consists of epidote (e.g. sample 1031) and weak chlorite alteration in the groundmass. No effervescence is noted. Sulphide mineralization consists of <1% pyrite as very fine grained disseminations.

Structure

Structure observed thus far in the Tenakihi Zone consists of intruding rocks of the Hogem Plutonic Suite, southward trending feldspar porphyritic dykes cross-cutting Takla Group volcanics, and the northwest trending Tenakihi Intrusive Complex.

4.5.2 Link Zone

The Link Zone lies within the Hogem Intrusive Complex (Figures 4, 11). The dominant intrusives types reported based on field mapping in the Link Zone quartz monzonite,

monzonite, feldspar porphyritic dykes, and possible syenite and granodiorite. Volcanics are represented by andesite dykes trending south and dipping east.

Hogem Plutonic Suite

Quartz Monzonite

Quartz monzonite is the dominant rock type throughout the Link zone (Figure 11). It is medium grey, ranging from medium to coarse grained and generally equigranular. Quartz monzonite consist of pale pink to white feldspar (60-80%) varying from 50-75% plagioclase and 25-50% potassic feldspar. Mafic minerals constitute 10-15% and made up of amphibole with varying amounts of biotite. Quartz ranges from 5-20%. Magnetite abundance averages 3-5% but increases locally up to 7-15%. Quartz +/- calcite veins and veinlets are observed throughout the quartz monzonite in the Link Zone, commonly with epidote selvage and less commonly, potassic alteration.

Alteration is generally weak throughout the Link Zone, with subtle potassic alteration the most commonly distributed. Epidote alteration is largely selective to selvages of calcite and/or quartz veinlets (<1-3mm wide) and veins (<1.5cm) but is also observed altering feldspar. Calcite is occasionally noted within the matrix of quartz monzonite.

The dominant sulphide in the Link Zone is pyrite (<1%). It is observed mainly as fine grained disseminations and rarely observed as blebs or within quartz +/- calcite veins. Copper mineralization is noted in three samples; 1104, 1143 and 1147. Sample 1104 is a black aphanitic vein with chalcopyrite (<1) precipitating within. Sample 1143 has <1% malachite on weathered surface. Sample 1147 consists of very fine grained, disseminated chalcopyrite (trace) as well as malachite. Molybdenite is noted in sample 1096 within a 2mm wide quartz vein. Specularite is observed as fracture-fill in samples 1097 and 1099 and as a vein in sample 1148.

Monzonite

Monzonite is primarily located in the southern portion of the Link Zone (Figure 8) which includes 1062, 1063, 1081, 1082, 1084, 1087, and 1089. It is medium grey in colour with interstitial pink phenocrysts. It is medium to coarse grained (up to 5mm in diameter) and equigranular consisting of feldspar (70-80%), pale grey quartz (5-15%) and mafic minerals (5-10%) including biotite and amphibole. Mafic minerals are slightly smaller than the feldspar and quartz. Magnetite is variable within this unit averaging 5-7% but locally as weak as 1% and as strong as 7-15% and precipitating as disseminations or blebs.

Alteration is fairly weak within the monzonite. Subtle to weak potassic alteration dominates with localized epidote alteration. Iron oxidation is persistent on the weathered surfaces of the samples commonly giving them an orange-brown colouration.

Sulphide mineralization is only observed in one sample (1081) and consists of 1-3% very fine grained disseminated pyrite.

Feldspar Porphyritic Dykes

A feldspar porphyritic dyke was noted in one location in the northeast area of the Link Zone and was part of a large rock fall 200 by 100 metres in size (sample 1153) (Figure 8). Multiple lithologies are present within the rock fall which suggests this sample may or may not be from the area. Sample 1153 has a medium to dark green, aphanitic matrix composed of quartz, feldspar, and mafic minerals. Feldspar and quartz phenocrysts are white to peachy pink in colour, up to 2 centimetres long and 1.5 centimetres wide, comprising 5% of the rock. No magnetite is present.

Alteration includes a strong chlorite and epidote altered matrix with potassically altered feldspar and interstitial calcite. No sulphides noted within this sample.

Syenite

One sample collected in the southern area of the Link Zone may be a syenite (sample 1088). It is fine-grained and salmon pink in colour and comprised of 90% feldspar (dominated by potassium feldspar) and 10% unidentified mafic minerals. The rock is moderately magnetic with disseminated magnetite (1-3%). Alternately this sample may be a strongly potassic altered monzonite but further analysis via thin section or whole rock analysis is needed to confirm. No alteration or sulphides are noted within this sample.

Granodiorite

Granodiorite was tentatively identified in the northeast area of the Link Zone. Three samples (1155, 1158, and 1159) are similar to quartz monzonite but compositionally appear to have increased quartz content. These samples consist of 50 to 70% feldspar, 15 to 25% quartz, and 10 to 20% mafics. Magnetite is abundant within this unit averaging 5 to 7% as disseminations and blebs. Thin section and/or whole rock analysis is required to confirm modal abundances and rock type. This unit is generally unaltered with no sulphides observed.

Volcanics

Andesite dykes

Andesite dykes are feldspar-phyric with an aphanitic matrix. Feldspar are white to pale green, 1 to 2 mm in size, and comprise 5 to 10% of the unit. The matrix ranges from greyish green to black in colour. Black crystals (amphibole?) are less than 1mm in size, and observed in samples 1090, 1143, and 1145 along with feldspar. These dykes trend north-south, with a westward dip. The size of the andesite dykes average 1 to 2 metres thick but can be as small as 10 cm. Magnetite is strong within the majority of samples, ranging from 15-30%.

Alteration consists of weakly epidote and locally potassic altered feldspar. Calcite is noted within the matrix and as stringers in sample 1149. Chlorite alteration is low only being observed in samples 1167 and 1168.

Sulphides consist of fine grained disseminated pyrite (<1%) in samples 1090, 1128, 1143, and 1145. Copper mineralization is confined to sample 1143 as malachite (<1%).

Mineralization

Massive magnetite is noted in a pair of samples: sample 1080 is float from a large angular boulder; and, sample 1091 is from an outcrop approximately 10 metres wide by 5 metres high. Both exhibit acicular magnetite crystals and are located in the southern area of the Link Zone (Figure 8).

Copper mineralization occurs in three samples; 1104, 1143, 1147. Chalcopyrite (trace to <1%) is observed in samples 1104 and 1147 associated with white to pale grey quartz +/- calcite veins. Malachite is observed in samples 1143 and 1147. Molybdenite (<1%) is noted in one sample (1096) precipitating in a 2-to 3mm wide quartz vein. Pyrite mineralization is observed in eleven (11) of the 90 samples taken in the area, including andesite dykes, quartz monzonites, quartz +/- calcite veins, and monzonites. Pyrite occurs as very fine grained disseminated grains as well as in veins, in concentrations of up to 1%. Specularite (1-3%) is noted in three samples (1097, 1099, and 1148) within veins and as fracture-fill. Magnetite is abundant throughout the Link Zone with the majority of quartz monzonite samples averaging 3 to 5% while andesites consist of 15 to 30% and massive magnetite is observed in the south.

Structure

Structurally, the Link Zone shows fractures that strike NNE and dip WSW. Measurements of fracture planes range from 190° to 200° and dip 40 to 60°. Andesitic dykes up to 1 to 2 metres thick occur generally striking south and dipping east.

4.5.3 Osilinka Zone

The Osilinka Zone is wholly within the Hogem Intrusive Suite (Figures 4, 13). The intrusives types noted are granodiorite, quartz monzonite, and quartz diorite. No dykes were observed in this area.

Hogem Plutonic Suite

Granodiorite

Granodiorite is the dominant rock type in the Osilinka Zone. It is light grey, coarse grained, and equigranular. Compositionally it consists of 30 to 40% quartz, 30 to 50% feldspar and 5 to 20% biotite with minor amphibole. Magnetite disseminations range from 1 to 3%. Alteration is subtle and with potassic and epidote locally observed. No sulphides are noted in this unit.

Quartz Diorite

Quartz diorite is the second most abundant intrusive in the mapped area (Figure 10) and occurs as sill-like bodies that intrude the granodiorite, becoming increasingly abundant to the northeast (Figure 10). This unit is salt and pepper in colour, coarse-grained, and composed of 20 to 30% quartz, 40 to 50% mafic minerals, and 20 to 30% feldspar. Magnetite increases in this unit averaging 3 to 5%. Both mafic minerals and magnetite have a parallel fabric to one another. Amphibole crystals are up to 1cm in size.

Alteration is weakly present in this unit with a few samples exhibiting subtle epidote and potassically-altered feldspar.

Sulphide mineralization is restricted to pyrite and observed in two samples of quartz diorite (1180 and 1184). Pyrite abundance is less than 1%.

Quartz Monzonite

Quartz monzonite is identified in two samples (1181 and 1196). It is medium grey in colour and medium to coarse -grained. Compositionally it contains 20 to 40% mafics, 50 to 70% feldspar, and 5 to 15% quartz. Subtle potassic and epidote alteration and no sulphides are observed. In sample 1196, pale grey quartz +/- calcite veins cross-cut the unit and are up to 5mm wide. Magnetite (1%) is observed as disseminations.

Unknown Rock Type

One example (sample 1194) of volcanics is observed in the Osilinka Zone. It is medium green and coarse-grained. It is composed of 10 to 20% quartz, 10 to 20% feldspar, and 10 to 20% mafics with the remaining composition consisting of a dark green unidentifiable matrix. Strong weathering and alteration along with quartz veining hinder identification. Magnetite is 1% in abundance with moderate chlorite alteration throughout the sample.

Structure

Structurally, the Osilinka Zone appears to have sill-like bodies of quartz diorite intruding granodiorite but due to poor outcrop exposure, orientations could not be ascertained. The structure of the Osilinka Zone remains poorly understood.

4.5.4 Cathedral Zone

The Cathedral Zone is wholly located within the Hogem Intrusive Suite (Figures 4, 15). Mapping identified quartz monzonite, monzonite, syenite, feldspar-phyric dykes as well as volcanic dykes. Sulphide mineralization is common including chalcopyrite, pyrite, magnetite, and specularite.

Hogem Plutonic Suite

Quartz Monzonite

Quartz monzonite is the dominant rock type throughout the Cathedral zone. It is medium grey to salmon pink in colour and is medium to coarse-grained and equigranular. Quartz monzonite consist of 55 to 70% pale pink to white feldspar, 10 to 20% quartz, and 10 to 20% mafic minerals made up of amphibole and biotite. Veinlets (<3mm wide) are observed throughout the Cathedral Zone, comprised of quartz +/- calcite and may host sulphides. Malachite stains are prevalent throughout the area.

Potassic alteration is pervasive and the most common alteration observed in the area. It ranges from subtle to strong, giving the quartz monzonite the salmon pink colour. Potassic alteration appears to be stronger in the northern half of the mapped area which weakly coincides with increased presence of copper mineralization. Calcite is also consistently observed interstitially as well as along fracture surfaces and in veins. Chloritization is sporadic and may be present as veinlets or altering mafic minerals. Epidote is present as veins or selvage to quartz veinlets. In the western portion of the Cathedral Zone epidote veins (1mm, up to 10cm) are more common and are found as selvage to quartz veins.

Sulphide mineralization is abundant in the quartz monzonite. Chalcopyrite is the dominant copper bearing mineral, commonly associated with malachite and azurite that may be present as large (1 x 1 metre) stains on the side of cliff faces. Chalcopyrite ranges from <1 to 1% in abundance. It is most notably located in the western portion of the mapped area. Chalcopyrite was observed as fine grained disseminations, larger blebs, fracture-fill, quartz-calcite veins, hairline stringers, and massive. Specularite (samples 1421, 1422, 1424, 1425, and 1430) was identified in the eastern area of the Cathedral Zone, appearing as veins or massive lenses. Malachite, and less commonly azurite, were noted as well. As noted earlier. they appear as stains of cliff faces but on a smaller scale are seen interstitially within gossanous samples. Arsenopyrite was identified in the northern part of the Cathedral Zone (sample 1257) during a one day traverse. It was observed as blebs located along fracture surfaces (3-5%). Analytical results from this sample returned 3.47 g/t Au. Arsenopyrite is also noted in sample 1223 as veinlets. Pyrite was observed as disseminated, fracture-fill, blebs, in veins, stringers, and massive.

Monzonite

Monzonite in the Cathedral Zone is much less frequent than the quartz monzonite. It is noted in four samples (1217, 1262, 1267 and 1272). The weathered surface of the monzonite is medium grey and pink in colour, while the fresh surface is light grey to light pink. Grain size ranges from fine to coarse-grained. The monzonite is composed of 10 to 15% mafics (biotite and amphibole with magnetite alteration), 5 to 20% quartz and 70 to 85% feldspar (plagioclase and potassium feldspar).

Alteration generally consists of weak iron oxide and rarely strong potassic alteration. Magnetite is not always present, but can be up to 5%.

Sulphide mineralization is rare in the monzonite and is only observed in sample 1272. Chalcopyrite is disseminated at 1-3% and malachite/azurite staining is 1-3%. No sulphides are noted in the other three monzonite samples from the Cathedral Zone.

Syenite

One occurrence of syenite is noted in the Cathedral Zone (sample 1384). The syenite is weathered to brown with a salmon pink to orange fresh surface. The rock is fine-grained and equigranular. Compositionally, the rock contains greater than 80% potassium feldspar (no plagioclase is noted), 5 to 10% mafics and 10% quartz. The pink colour could suggest potassic alteration of a monzonite, but the colour in this sample is very strong and homogeneous, therefore most likely potassium feldspar.

Minor amounts (<1%) of disseminated pyrite and magnetite are noted in this unit.

Feldspar-phyric Dyke

Feldspar-phyric dykes were identified in two locations in the Cathedral Zone (samples 1302 and 1303). Weathered surfaces are orange to light brown and the fresh surface is purple grey to blue grey. The dyke has a porphyritic texture with feldspar phenocrysts. Both plagioclase and potassium feldspar are present and the phenocrysts are tabular and up to 1cm in size. There are very fine to fine-grained epidote crystals that are about 1% in abundance. The groundmass is aphanitic and composition cannot be determined visually. Biotite is very fine grained and also about 1% in abundance. Magnetite is up to 3%. These dykes can be silica-blasted and show weak iron oxidation. No mineralization is noted in the feldspar-phyric dykes.

Volcanics

Porphyritic Rhyolite

One occurrence of porphyritic rhyolite is noted in the Cathedral Zone (sample 1283). It is dark brown and grey in colour on the weathered surface with fresh surface being purplish grey. The rock has a porphyritic texture with a fine-grained to aphanitic groundmass. Porphyroblasts are composed of 3 to 5% fine grained black mafics, 1% pale pink feldspar and 3 to 5% white feldspar. Magnetite alteration comprises 5 to 7% and local epidote alteration is noted, but subtle. No sulphides are noted in the porphyritic rhyolite.

Volcanic Dyke

Within the Cathedral Zone there are two occurrences of a volcanic dyke (samples 1296 and 1330). These two dykes were measured at 175/66 and 272/62 respectively. Some gossanous weathering is associated with these dykes. The volcanic dykes are dark grey/green in colour and aphanitic in texture. Composition cannot be determined as the grain size is too small. Calcite veinlets are present, up to 2mm wide with no preferred orientation. Magnetite alteration is 5-7%. Mineralization in the volcanic dykes is minor with pyrite is present in trace amounts and associated with the calcite veining. Trace amounts of chalcopyrite are noted.

Mineralization

Massive sulphide mineralization is present in the Cathedral Zone. One float sample (1287) contained massive chalcopyrite. It was taken from a rock fall consisting of numerous massive chalcopyrite pieces that appeared to break off an unreachable crevice in the side of the cliff face. Massive pyrite is also noted within sample 1256. Massive magnetite is common throughout the area (e.g. samples 1240, 1309, 1361, 1391, 1420). Massive magnetite is present in samples 1421 and 1422 and massive specularite is seen in sample 1430.

Mineralization in the Cathedral Zone is generally not controlled by lithology. The quartz monzonite contains the most sulphide mineralization in any of the rock types, however the majority of the mineralization is controlled by structure and alteration. Gossanous fracture

planes are striking approximately north-south and dipping to the west. These fracture planes often contain trace to 1% chalcopyrite and up to 5% pyrite. Malachite staining is also noted and can be trace to semi-massive. Malachite stains on cliff faces (up to 50cm by 1m) are noted in several areas in the Cathedral Zone. Arsenopyrite is noted in sample 1257.

In the northern portion of the Cathedral Zone (over the northern ridge of the valley) there is a gossanous area with abundant stockwork quartz veining. Historical results from this area have demonstrated high concentrations of gold and copper mineralization. Four of the twelve samples collected during the current program returned significant gold grades (see section 9.4.1). Structural measurements in this area were difficult to obtain as outcrops and veining were inconsistent and fracture planes and contacts were not sharp or clear. The quartz veining which appears to contain the mineralization strikes NW/SE in one sample (1251).

Structure

The Cathedral Zone contains fracture systems that frequently host sulphide mineralization, particularly chalcopyrite. These fractures strike approximately south (160-190 degrees) and dip to the west (averaging 40-60 degrees). Measurements were taken on the small scale (microfractures) as well as the large scale with fractures a few metres wide within cliff faces. Quartz +/- calcite veins are pervasive ranging from <1-3mm wide. Volcanic dykes intrude the host quartz monzonite. Sample 1283 is taken from a 3 metre wide porphyritic rhyolite that is oriented 288/88. Samples 1286 and 1330 represent aphanitic volcanic dykes that are 1-2 metres and 10 metres wide respectively. Sample 1286 is oriented at 175/66 and no orientation was able to be measured on sample 1330. Feldspar-phyric dykes are measured at 224/62, but cannot be measured in all instances.

4.5.5 Gail Zone

The Gail Zone lies wholly within the rocks of the Hogem Plutonic Suite (Figures 4, 18). The lithologies are dominated by granodiorite and quartz monzonite. Quartz diorite, diorite, monzonite and feldspar breccia are also present along with minor occurrences of volcanic and rhyolite/dacite dykes (Figure 18).

Hogem Plutonic Suite

Granodiorite

Granodiorite is the most common lithology identified within the Gail Zone. It is light grey in colour on the fresh surface and ranges from medium to very coarse grained. The granodiorite is composed of 10 to 30% mafics (biotite with lesser amphibole), 20% quartz, and 50 to 60% feldspar (mostly plagioclase). Iron oxide alteration in the granodiorite is subtle. Subtle to weak potassic alteration is noted as well. Magnetite alteration ranges from 1 to 3%

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Sulphide mineralization is inconsistent throughout the granodiorite occurring mainly as disseminated pyrite and chalcopyrite. Visually, pyrite ranges from trace to 1% while chalcopyrite occurs only in trace amounts.

Quartz Monzonite

Quartz monzonite is next most common lithology observed in the Gail Zone. The weathered surface ranges from gossanous (red/orange to brown) to grey in colour. The fresh surface is white, pink and black in colour and, depending on alteration, can be salmon pink and dark green. Texturally, it is medium to coarse-grained and mainly equigranular. Compositionally, the rock contains 10 to 25% mafics (including both biotite and amphibole), 5 to 15% quartz and 60 to 80% feldspar. Potassic alteration is subtle to strong. Chlorite alteration is moderate to strong and principally alters the mafic component. For the most part the quartz monzonite is non-magnetic though variations with up to 5% magnetite were observed

Pyrite is trace to 1% on average but can be up to 3%. Malachite staining is present on weathered surfaces and is less than or equal to 1%. Rarely malachite is up to 5%. Chalcopyrite is noted in about half the samples and visually comprises less than 1%. The majority of the chalcopyrite occurs disseminated, but fracture-fill is also noted. Rare quartz and epidote veining is observed (samples 1691 and 1695) that contains trace to 1% malachite, pyrite and/or chalcopyrite.

Quartz Diorite/Diorite

Quartz diorite/diorite is found in two samples in the Gail Zone. Sample 1497 is more a quartz diorite while sample 1526 is probably a diorite. These samples are grey and black in colour and are coarse grained. Composition is not always clear but, on average, consist of 40 to 50% mafics (biotite and amphibole), 10 to 20% quartz, and 30 to 50 feldspar (predominantly plagioclase). Magnetite ranges from 1 to 5%. Subtle potassic alteration, weak to moderate iron oxidation and weak epidote alteration are also seen.

Pyrite and chalcopyrite are both noted as fine-grained disseminations or blebs along fractures. Pyrite is and chalcopyrite are typically less than. Trace disseminations of malachite are also present.

Monzonite

The monzonite often appears gossanous giving the weathered surface an orange brown colour. The fresh surface is medium grey (with pink) to dark grey and coarse-grained. The percentage of mafics (biotite and amphibole) varies greatly between samples, ranging from 5 to 30% in abundance. The rest of the composition is 70 to 80% feldspar and minor (<5%) quartz. Alteration in the monzonite is dominated by potassic with lesser epidote and chlorite. Potassic alteration is subtle to strong. Epidote alteration is subtle in samples 1534 and 1567. Chlorite is strong in samples 1693, 1745 and 1748. In sample 1567 quartz/calcite veinlets are 1mm in width. Magnetite is not consistently noted, but can be up to 5% (sample 1745); associated with chlorite alteration.

Sulphide mineralization is inconsistent in the monzonite. Pyrite is very fine grained and disseminated (up to 1%). Chalcopyrite is rare (trace amounts in samples 1534 and 1535). Malachite staining is noted on weathered surfaces.

Feldspar Breccia

A feldspar breccia unit is quite common within the Gail Zone. It consists of light pink feldspar grains up to 1cm in size set in a dark grey to black groundmass. Occasionally, quartz grains are visible (e.g. samples 1559 and 1572). Magnetite was not noted in the majority of the feldspar breccias, but one example (sample 1562) is strongly magnetic. Silicification is seen in one sample (1569). Otherwise alteration is generally very weak to non-existent. The only structure noted that is associated with the feldspar breccia is a fracture plane at 154/66 from which sample 1541 was taken.

Pyrite is the most commonly noted sulphide and is locally disseminated and blebby. Pyrite is approximately 1% in abundance. Chalcopyrite is less than pyrite (trace to 1%) and is not noted in every sample. Malachite staining is quite rare.

Volcanics

Volcanic dykes

Two volcanic dykes are noted in the Gail Zone in samples 1449 and 1479. Volcanic dykes are weathered to beige to orange with a green fresh surface. The original composition in these samples cannot be determined due to aphanitic texture and alteration. Rare feldspar crystals are noted in sample 1449 (tabular and <3mm long). Magnetite is weak but up to 1% locally. Sample 1449 contains calcite in the groundmass. These dykes are oriented at 212/60 (1449) and 282/55 (1479).

Mineralization in the volcanic dykes is very weak. Pyrite is trace and disseminated within the fresh rock. No chalcopyrite is noted. On the gossanous surfaces pyrite can be up to 3-5%.

Rhyolite/Dacite Dykes

A possible rhyolite or dacite (felsic) dyke is noted in one sample (1519) in the Gail Zone. The dyke is ~1-2m wide and is oriented at 342/82. The weathered surface is light brown and the fresh surface is medium grey. The <1mm mafics (biotite and amphibole), feldspar (plagioclase with possible potassium feldspar) and quartz are all set within a grey aphanitic groundmass. Potassic alteration is subtle. Magnetite is 1-3%.

Sulphide mineralization is not noted in the felsic dyke.

Mineralization

Mineralization in the Gail Zone is contained within the quartz monzonite, quartz diorite and monzonite. The mineralization in these three units is fairly weak. Chalcopyrite and pyrite are disseminated and <1-1% (with pyrite being generally higher than chalcopyrite). The volcanic rocks in the Gail Zone have weak mineralization. Gossanous rock in the Gail Zone does not always contain mineralization. Some light orange rock that looks gossanous is composed of quartz and calcite and contains no sulphides. Mineralization can be found in gossanous zones, but not nearly as consistently as in the Cathedral Zone.

Structure

Structure in the Gail Zone is noted along the contacts of dykes. The feldspar breccia is oriented at 154/66 in a fracture plane within the host rock (sample 1541). The volcanic dykes measure 212/60 (1449) and 282/55 (1479). The rhyolite/dacite dyke (sample 1519) is oriented at 342/82. There does not seem to be any consistency with the orientations measured in the Gail Zone.

4.5.6 Cirque Zone

The Cirque Zone lies wholly within the rocks of the Hogem Plutonic Suite (Figures 4, 13 or 18). One day of field mapping and rock sampling was done in the Cirque Zone. Granodiorite, quartz diorite, quartz monzonite and aplite were found in this zone.

Hogem Plutonic Suite

Granodiorite

Granodiorite is the most abundant lithology found in the Cirque Zone (8 samples). The weathered surface is generally gossanous (orange-brown) and the fresh surface is light to dark grey. The texture of the granodiorite ranges anywhere from very fine to very coarse grained. Composition is generally mafic dominant. Mafics are 20-70% (biotite and amphibole), quartz is 20-30% and feldspar is 30-50% (plagioclase dominant). Granodiorite is fairly unaltered. Sample 1509 contains quartz veinlets and calcite and epidote in the matrix. Magnetite ranges from 0-3%.

Sulphide mineralization is present in five of the samples. Chalcopyrite is very fine grained, disseminated and trace to 1%. Pyrite is only in samples 1468 and 1509 and disseminated (up to 1%). Malachite staining is 1-3% in samples 1462 and 1465.

Quartz diorite

The quartz diorite is found in five samples in the Cirque Zone. Medium grey to black in colour and fine to coarse grained. Quartz diorite is composed of 30-40% mafic minerals, 20% quartz and 40-50% feldspar (mostly plagioclase). Potassic alteration is very weak and local with subtle epidote alteration and epidote veinlets (<1mm). Magnetite is present as disseminations and blebs and is 1-7%. Sulphides in the quartz diorite include chalcopyrite and pyrite, disseminated and up to 1%. Chalcopyrite is found as stringers in sample 1512 and malachite is <1% in sample 1500.

Quartz monzonite

Quartz monzonite is found in one sample in the Cirque Zone (sample 1506). Texture is very fine grained. It is composed of 10-20% mafics, 10% quartz and 70-80% feldspar. Sulphides consist of very fine grained and disseminated chalcopyrite and malachite.

Aplite

Aplite is found in two samples in the Cirque Zone (samples 1502 and 1503). Weathered to orange/brown with a light pink to pale grey fresh surface. Texture is fine grained, almost sugary. Too fine grained to tell composition but is felsic in colour. Potassic alteration is weak and iron oxidation is weak and on the weathered surface mainly. Magnetite is ~1% and in sample 1502 there are magnetite fragments up to 4cm in length. Sulphide mineralization includes very fine to fine grained chalcopyrite and lesser pyrite.

Unidentified (Aphanitic mafic rock?)

One sample was taken of an unidentified lithology found in outcrop (sample 1466). No contacts with the surrounding rock type were visible. The weathered surface is dark grey/brown and the fresh surface is grey/black. The rock is aphanitic and there is quartz/calcite veining less than or equal to 4mm wide as well as very fine-grained quartz in the groundmass. About 1% of the rock is magnetic.

Very fine-grained to fine-grained disseminated pyrite as well as trace disseminated chalcopyrite.

Mineralization

Controls on mineralization in the Cirque Zone are not clear. Sulphides are often found in the host rock. Chalcopyrite is present in most of the samples from the Cirque Zone as very fine grained disseminations up to 1% in abundance. Malachite staining can be up to 1-3% (in the granodiorite).

Samples 1504, 1507 and 1508 are black in colour and comprised of semi-massive magnetite. These samples contain <1% disseminated chalcopyrite as well as pyrite.

4.5.7 Lake Zone

The Lake Zone lies wholly within the rocks of the Hogem Plutonic Suite (Figures 4, 9). Quartz monzonite and monzonite make up the most abundant lithologies in this area, along with lesser granodiorite and diorite. Volcanic lithologies are also noted including volcanic dykes, feldspar porphyritic dykes, Takla volcanics and andesite dykes.

Hogem Plutonic Suite

Granodiorite

Granodiorite is found in ten samples within the Lake Zone. Weathered surface is medium to dark grey and the fresh surface is black and beige (sometimes with a slight pink colour). Texture is coarse to very coarse grained. The granodiorite contains 10-30% mafics, 10-30% quartz and 60-80% feldspar. Magnetite is strong within the granodiorite. On average magnetite is 3-5%, but in samples 1773 and 1894 it is much higher (15-30% and 7-15% respectively). Iron oxidation is subtle to weak. Potassic alteration is present in samples 1759, 1824 and 1894 and is variable.

Sulphides are present throughout the samples of granodiorite. Pyrite is trace and disseminated. Chalcopyrite is disseminated and fracture fill up to 1% in abundance. Malachite staining is present mostly on the weathered surface and is trace to 1% (1-3% in sample 1772). Sample 1896 contains a blob of magnetite (2x1cm) with iron oxidation on the rim. This blob contains disseminated and blebby chalcopyrite. This sample (1896) also contains an aplite dyke which has <1% malachite and 1% very fine grained, disseminated chalcopyrite.

Quartz Monzonite

In the Lake Zone, quartz monzonite is the most commonly found lithology. The quartz monzonite varies greatly in colour due to alteration. The fresh surface is mostly black, white and pink. Grain size ranges from fine to very coarse grained. Composition varies a lot within the quartz monzonite. Mafic minerals range in percentage anywhere from 10-40%, feldspar is 50-80% and quartz is 5-10%. Even with low feldspar contents, all were determined to be quartz monzonite due to their quartz:feldspar ratio. Iron oxide, potassic and epidote alteration are all common (generally weak to moderate) and calcite is noted occasionally in the groundmass or as veinlets. Magnetite is present in almost all samples of the quartz monzonite. Magnetite percentage fluctuates, but on average is 3-7%. Sample 1853 has a semi-massive magnetic crust (1-2cm thick).

Sulphide mineralization in the quartz monzonite is dominated by <1% disseminated pyrite. Chalcopyrite is quite common and is <1% disseminated. Chalcopyrite in samples 1802 and 1850 is 1-3% in abundance. Malachite is noted as staining on the weathered surface and disseminated in trace amounts to 1%. In sample 1843 malachite is 5-7% (fracture fill), in sample 1856 malachite is 3-5% and in sample 1863 malachite is 1-3%. Sample 1866 contains ~1% malachite staining, <1% disseminated chalcopyrite and 1% molybdenite.

Monzonite

Monzonite is the second most abundant lithology in the Lake Zone. It has slightly gossanous weathering (red/orange to brown) and the fresh surface is pale grey to black and pink. Medium to coarse grained and usually composition can be determined except in rare occasions. Percentage of mafics is highly variable, anywhere from 5% to 50%. Feldspar is strong when mafics are weak, so also varies quite a bit (20-90%). Feldspar percentage is generally higher than mafics. Quartz is low, less than or equal to 5%. Alteration is dominated by potassic, epidote and chlorite. Potassic alteration varies greatly from subtle to intense. Epidote is less frequent but when present is subtle to moderate and often found in veinlets (<2mm). Chlorite alteration is infrequent and alters mafic minerals. Magnetite is very inconsistent and ranges from 0-15%.

Mineralization is present in the majority of samples of the monzonite. Pyrite is disseminated and trace to 1%. Malachite staining is generally either <1% or 3-5% in abundance and is present on the weathered surface (rarely disseminated in the groundmass). Mineralization is sometimes associated with epidote and/or quartz veining. Chalcopyrite is <1% and very fine grained, disseminated. In sample 1797 chalcopyrite is 1-3%. Sample 1803 contains a 1mm wide, silver, metallic vein that has a red streak (probably specularite).

Diorite

There are eight occurrences of diorite found in the Lake Zone. The diorite is dark green to black in colour and medium to coarse grained. Samples 1878 and 1887 are black and white in colour on the fresh surface. Composition on average is 60-70% mafics (biotite and amphibole), 30-40% feldspar (mostly plagioclase) and no quartz is noted. Alteration in the diorite is relatively weak. Chlorite alters the mafics and calcite is occasionally present in the matrix. Magnetite is 5-7% in most cases, but is almost semi-massive (15-50%) in samples 1829 and 1830. Magnetite is often altering the mafic minerals.

Sulphide mineralization is noted in every diorite sample except 1887. Disseminated chalcopyrite and is trace to 1%. In sample 1830, chalcopyrite is 1-3%. Malachite disseminations and blebs are trace to 1%.

Volcanics

Volcanic dykes

Three volcanic dykes are noted in the Lake Zone (including samples 1893 and 1910). They are weathered to brown with a dark grey/green fresh surface. They are aphanitic in texture and contain feldspar phenocrysts (sometimes faint) up to 7mm in size and approximately 25-30% in abundance. Magnetite alteration is 1%. Pervasive moderate to intense chlorite alteration is noted. Pyrite is very fine grained to fine grained, disseminated and 1%. No chalcopyrite is noted.

Feldspar Porphyritic Dyke

Feldspar porphyritic dykes are found in two locations in the Lake Zone (samples 1818 and 1861). They are dark green in colour with a porphyritic texture. The matrix is aphanitic in texture. Porphyroblasts consist of light grey to pinkish feldspar (up to 6mm in length) and lesser light grey quartz (up to 4mm in size). Phenocrysts are up to 50% of the rock. Very fine grained black mafic minerals are noted. Chlorite alteration of the matrix is pervasive and strong. Calcite is present in sample 1861 as <1mm wide veinlets. Magnetite is inconsistent with sample 1818 containing 5-7% magnetite while sample 1861 is non-magnetic.
Sulphides consist only of very fine grained, trace disseminated pyrite.

Takla Volcanic

The Takla volcanics found in the Lake Zone are dark grey/green to black and aphanitic to very fine grained. The weathered surface is occasionally gossanous (orange/brown). Composition is often difficult to determine due to alteration and blurring of grain boundaries. Interstitial light grey to light pink grains are sometimes visible. Quartz grains make up the most of the remaining visible grains that have not been altered or blurred. Quartz grains are 5-10% in abundance. Magnetite is generally strong at 5-15%. Mauve specks and stringers (possibly titanite?) are present in three samples (1819, 1813 and 1836). Calcite is present in the matrix and chlorite alteration is moderate to strong.

Mineralization is inconsistent in the Takla volcanics. Sulphides include up to 1% fine grained, disseminated pyrite, trace disseminated chalcopyrite and trace malachite. Sample 1810 contains 1% disseminated and blebby chalcopyrite.

Andesite

Possible andesite is found in two occurrences in the Lake Zone in samples 1834 and 1837. The andesite is medium to dark grey with an aphanitic matrix. Pale grey feldspar phenocrysts and black chloritized phenocrysts are noted. Feldspar phenocrysts are up to 2mm long and are 20-30% in abundance. Non-magnetic. Calcite/quartz veinlets (<0.5mm) are noted in both samples.

Mineralization is poor in the andesite with mostly fine grained, cubic, disseminated pyrite (<1%). Trace, disseminated chalcopyrite is noted in sample 1837.

Mineralization

The controls on mineralization in the Lake Zone are unclear. Most of the mineralization is found within the host rock and does not seem to be contained by structure or alteration. Mineralization does appear to be somewhat linear cutting through the valley striking to the NW/SE. There is no obvious structure noted to support this theory, so more information is needed. The diorite unit appears to be the most consistent in terms of good mineralization with most samples containing malachite and/or chalcopyrite.

Structure

Structural measurements in the Lake Zone were mostly taken on the contacts of dykes with the host rock. One andesite dyke is measured at 242/48 with another measuring 268/90. Orientation of dykes is fairly inconsistent.

Respectfully Submitted,

Christopher O. Naas, *P.Geo.*
CME Consultants Inc.
January 30, 2013.

6.0 REFERENCES

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BC Minfile http://minfile.gov.bc.ca/searchbasic.aspx
BC Mineral Titles Online https://www.mtonline.gov.bc.ca/mtov/home.do
BC ASTER imagery archive http://webmap.em.gov.bc.ca/mapplace/minpot/aster.asp
Geoscience BC http://www.geosciencebc.com/s/Home.asp
Land and Resource Data Warehouse http://www.lrdw.ca/

7.0 CERTIFICATE

I, Christopher O. Naas, *P.Geo.*, do hereby certify that:

1. I am a graduate in geology of Dalhousie University (*B.Sc.*, 1984); and have practiced in my profession continuously since 1987;
2. Since 1987, I have been involved in mineral exploration for precious and/or base metals in Canada, United States of America, Chile, Venezuela, Ghana, Mali, Nigeria, and Democratic Republic of the Congo (Zaire); for diamonds in Venezuela; and for rare metals in Nigeria. I have also been involved in the determination of base metal and gold resources for properties in Canada and Ghana, respectively, and the valuation of properties in Canada and Equatorial Guinea.
3. I am a member in good standing of the Association of Professional Engineers and Geoscientists of British Columbia (Registration Number 20082);
4. I am presently a Consulting Geologist and have been so since November 1987;
5. The opinions and conclusions contained herein are based on a review of previous records and the results of the current exploration program;
6. I have visited the Cathedral Property on several occasions during the course of the exploration program;

Dated at Richmond, British Columbia, this 30th day of January, 2013.

Christopher O. Naas, *P.Geo.*

8.0 STATEMENT OF COSTS

		Days	Rate	Total	
Field Personnel					
	Chris Naas	23.50	1,000.00	23,500.00	
	Alice Brunner	43.00	700.00	30,100.00	
	Kyle Gallot	50.00	400.00	20,000.00	
	Larry Crittenden	42.00	500.00	21,000.00	
	Sandra Naas	1.50	400.00	600.00	
	Spencer Plugoway	56.25	400.00	22,500.00	
	Ainsley Burrow	44.00	700.00	30,800.00	
	Halley Keevil	24.00	700.00	16,800.00	
	Mat Osborne	39.75	700.00	27,825.00	
Total Personnel					**$ 193,125.00**
Equipment					
	Truck - ED 6208	18.00	140.00	2,520.00	
	Truck - DE 8421	56.00	140.00	7,840.00	
	Truck - DB 7115	26.00	140.00	3,640.00	
	Truck - CM 7901	28.00	140.00	3,920.00	
	Utility trailer	26.00	25.00	650.00	
	ATV - 400 Artic Cat	15.00	60.00	900.00	
	Portable XRF	15.25	135.00	2,058.75	
	Rock Saw	3.00	45.00	135.00	
	GPS	2.00	105.00	210.00	
	Computer - Field	21.00	50.00	1,050.00	
Total Equipment					**$ 22,923.75**
Expenses					
	Accommodation & Food			3,343.67	
	Analysis			895.00	
	Camp Supplies			10,336.25	
	Groceries			3,517.91	
	Conferences			1,725.00	
	Catering and Camp			483.43	
	Helicopter			35,117.40	
	Garbage Disposal			105.00	
	Courier, Shipping & Postage			341.75	
	Field Supplies			7,919.77	
	Fuel - Camp			1,128.00	
	Fuel - Truck			4,152.62	
	Fuel - Helicopter			755.12	
	Medical			0.00	
	Office Supplies			0.00	
	Propane			44.60	
	Repairs & Maintenance - Vehicle			160.00	
	Reproductions & Printing			0.00	
	Telephone, Fax, Internet			4,667.30	
	Travel			4,493.77	
Total Expenses					**$ 79,186.59**
Total Field Work					**$ 295,235.34**

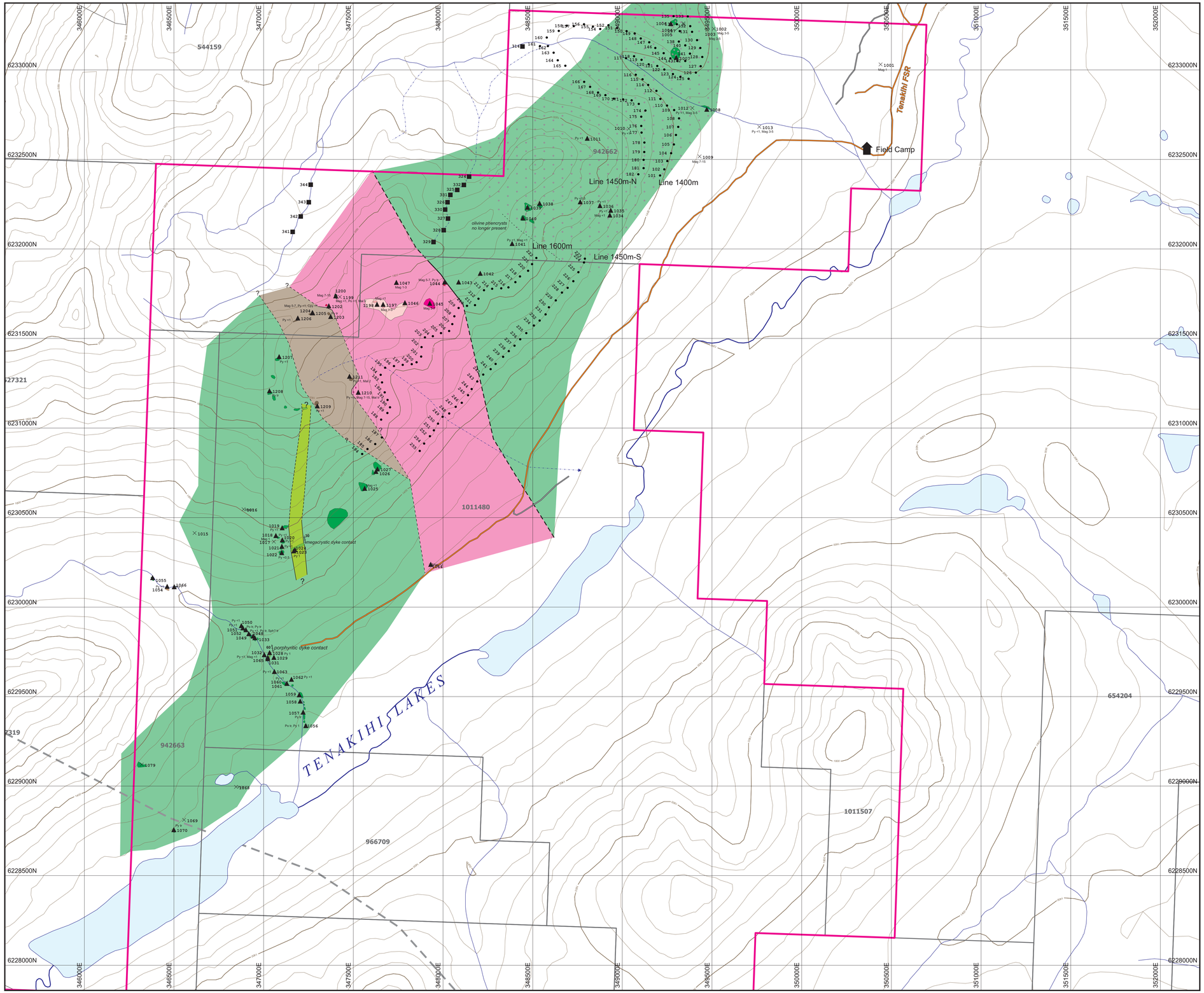
continued over…

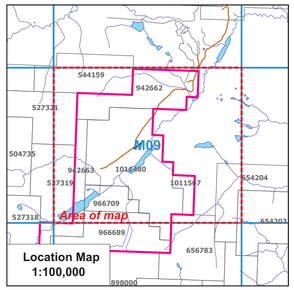
Office (Field Support and Report Preparation)		Days			
Personnel			Rate	Total	
	Ainsley Burrow	20.00	700.00	14,000.00	
	Ted VanderWart	27.75	700.00	19,425.00	
	Chris Naas	2.00	1,000.00	2,000.00	
Total Personnel					**$ 35,425.00**
Equipment					
	Computer - Office	27.75	60.00	1,665.00	
Total Equipment					**$ 1,665.00**
Total Office Work					**$ 37,090.00**
Total Project					**$ 332,325.34**

9.0 LIST OF SOFTWARE USED

In the preparation of this report the following software was used:

Microsoft	Word 2007
	Excel 2007
Corel	CorelDraw x6
Adobe	Acrobat version 10
Micromine	Micromine version 12.5.5





LEGEND

GEOLOGY

Outcrop / Interpreted

Dykes
- Feldspar porphyritic dyke, may be megacrystic
- Andesite(?) dyke
- Aplite dyke

Intrusives
- Quartz monzonite
- Granite, granodiorite
- Quartz diorite, diorite
- Monzonite

Volcanics
- Basalt, aphanitic
- Basalt, olivine and plagioclase-phyric

Sediments
- Undifferentiated, locally gossanous

Alteration
- Gossan

SYMBOLS

- Gravel road
- Rough road
- Contour (40 m interval)
- Watercourse: permanent, intermittent
- Lake or pond
- Outcrop/subcrop
- Cathedral property boundary
- 942662 Tenure and ID number
- Contact: defined; inferred
- Fault trace
- Thrust fault
- Joint/fracture
- Vein
- Dyke

2012 Sampling
- 1173 ▲ ✕ Rock sample site: outcrop/sub-crop, float
- 314 ■ Silt sample site
- 288 ● Contour soil/talus fine sample site
- 197000N / 3500E Grid line
- Grid station

Abbreviations

aspy	arsenopyrite	bn	bornite
cp	chalcopyrite	az	azurite
gal	galena	mal	malachite
mag	magnetite	tr	trace
po	pyrrhotite	spec	specularite
py	pyrite		
sl	sphalerite		
moly	molybdenite		

Number or number range following each mineral represents visual estimate of amount in percent

N

0 500 1000 Metres

NAD83, UTM Zone 10 North
Mapsheets: NTS 094C03

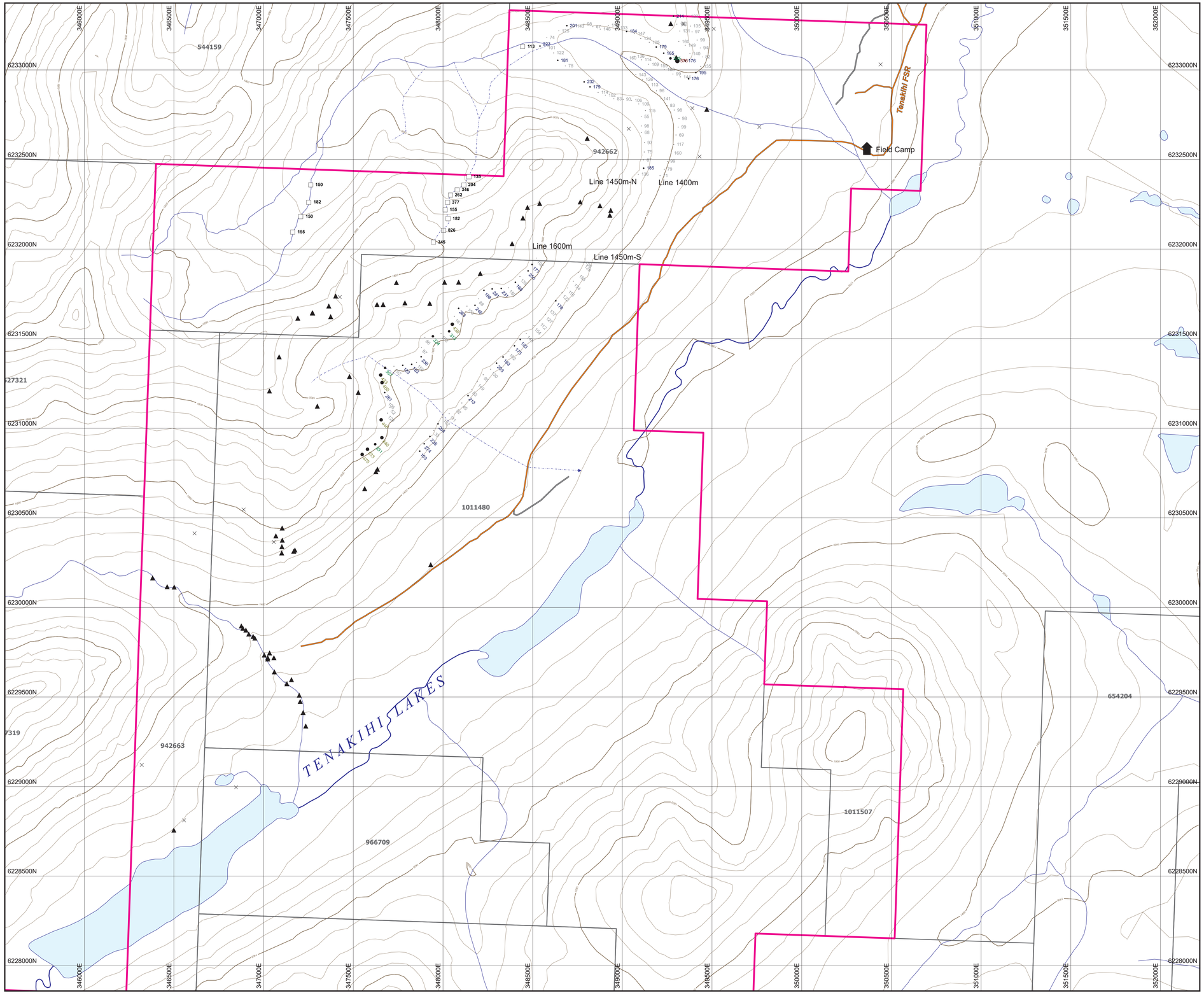
THANE MINERALS INC.

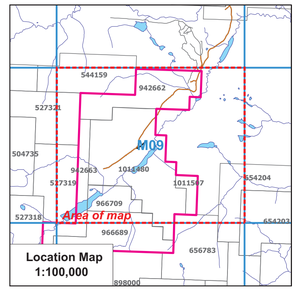
GEOLOGY AND
SAMPLE LOCATION MAP
Tenakihi Zone

Cathedral Project
Omineca Mining Division, British Columbia, Canada

Project No:	C122	By:	MO, AB
Scale:	1:10,000	Drawn:	TV
Figure No:	6	Date:	January 2013

CME





LEGEND

SYMBOLS

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- Rough road
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- Cathedral property boundary
- 942662 Tenure and ID number

GEOCHEMISTRY

Rock samples (ALL ANALYSES PENDING)

- ▲ × Outcrop/sub-crop, float
  - Black: analysis pending
  - White: XRF analysis
  - Red: XRF analysis and gold assay analysis
- 224 Cu ppm (XRF analysis)
- 0.440 ppm Au Au ppm (gold assay analysis)

Silt samples

- ■ Sample site and number
  - Black: analysis pending
  - White: XRF analysis
- 359 Cu ppm (XRF analysis)

Soil/talus fine samples

Contour samples

- ● Sample location
- 137 Copper (ppm, XRF analysis)
- NS No sample

Copper ranges (XRF analysis)

- · < 163 ppm Cu
- • 163 - 290 ppm Cu
- • 291 - 418 ppm Cu
- ● 418 - 546 ppm Cu
- ● ≥ 547 ppm Cu

Grid samples

- Cu (ppm, XRF analysis)
- 19700N Grid line (2012 lines are high-lighted)
- Grid station

N

0 500 1000Metres

NAD83, UTM Zone 10 North
Mapsheets: NTS 094C03

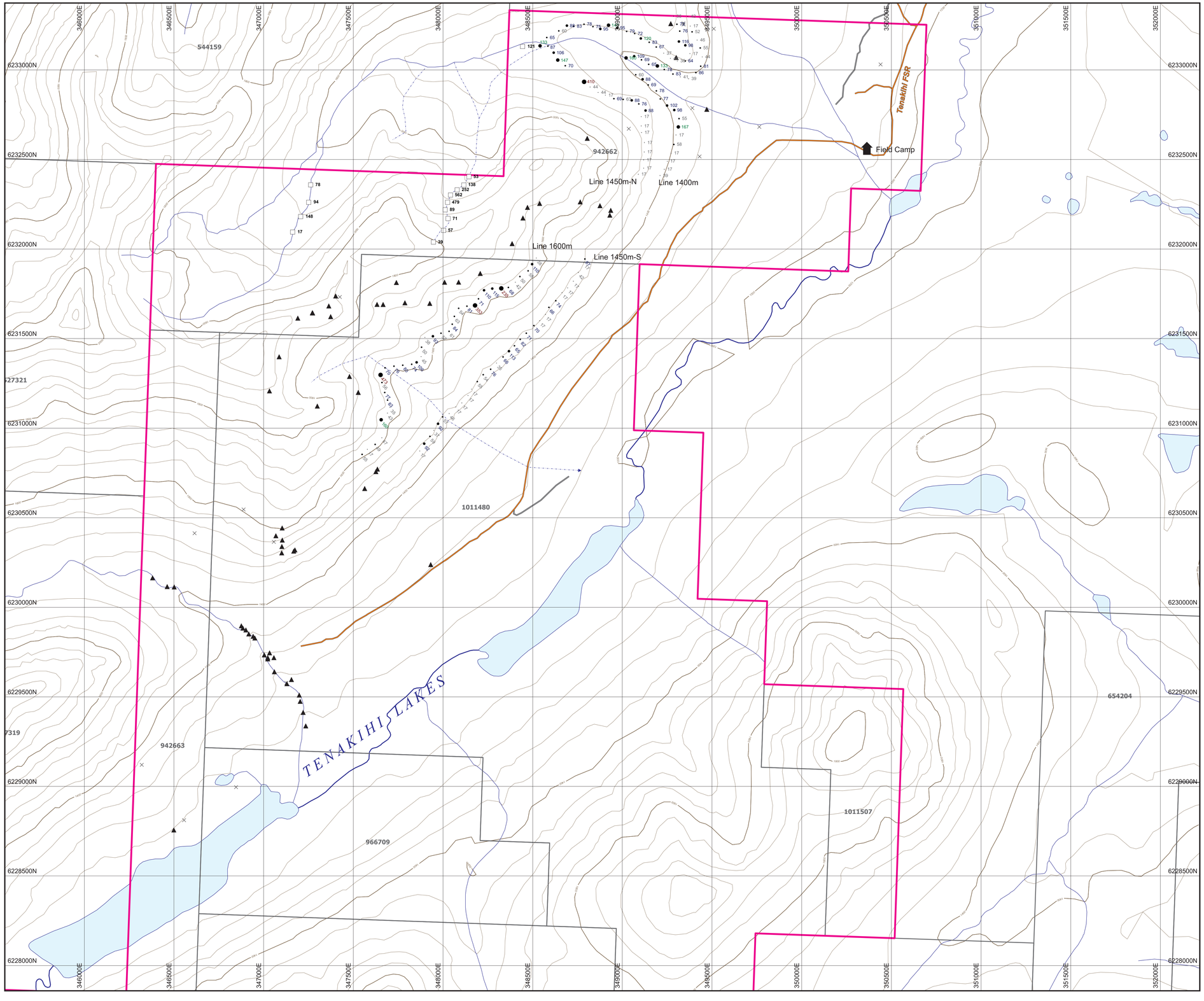
THANE MINERALS INC.

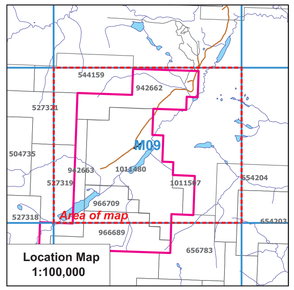
GEOCHEMISTRY PLAN MAP
COPPER
Tenakihi Zone

Cathedral Project
Omineca Mining Division, British Columbia, Canada

Project No:	C122	By:	MO, AB
Scale:	1:10,000	Drawn:	TV
Figure No:	7	Date:	January 2013

CME





LEGEND

SYMBOLS

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- Rough road
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Silt samples

- ■ Sample site
  - Black: analysis pending
  - White: XRF analysis
- 359 As ppm (XRF analysis)

Soil/talus fine samples

Contour samples

- ● Sample location
- 137 Arsenic (ppm, XRF analysis)
- NS No sample

Arsenic ranges (XRF analysis)

- · < 48 ppm As
- • 48 - 87 ppm As
- • 88 - 127 ppm As
- ● 128 - 167 ppm As
- ● ≥ 168 ppm As

Grid samples

- As (ppm, XRF analysis)
- 19700N Grid line (2012 lines are high-lighted)
- Grid station

N

0 500 1000 Metres

NAD83, UTM Zone 10 North
Mapsheets: NTS 094C03

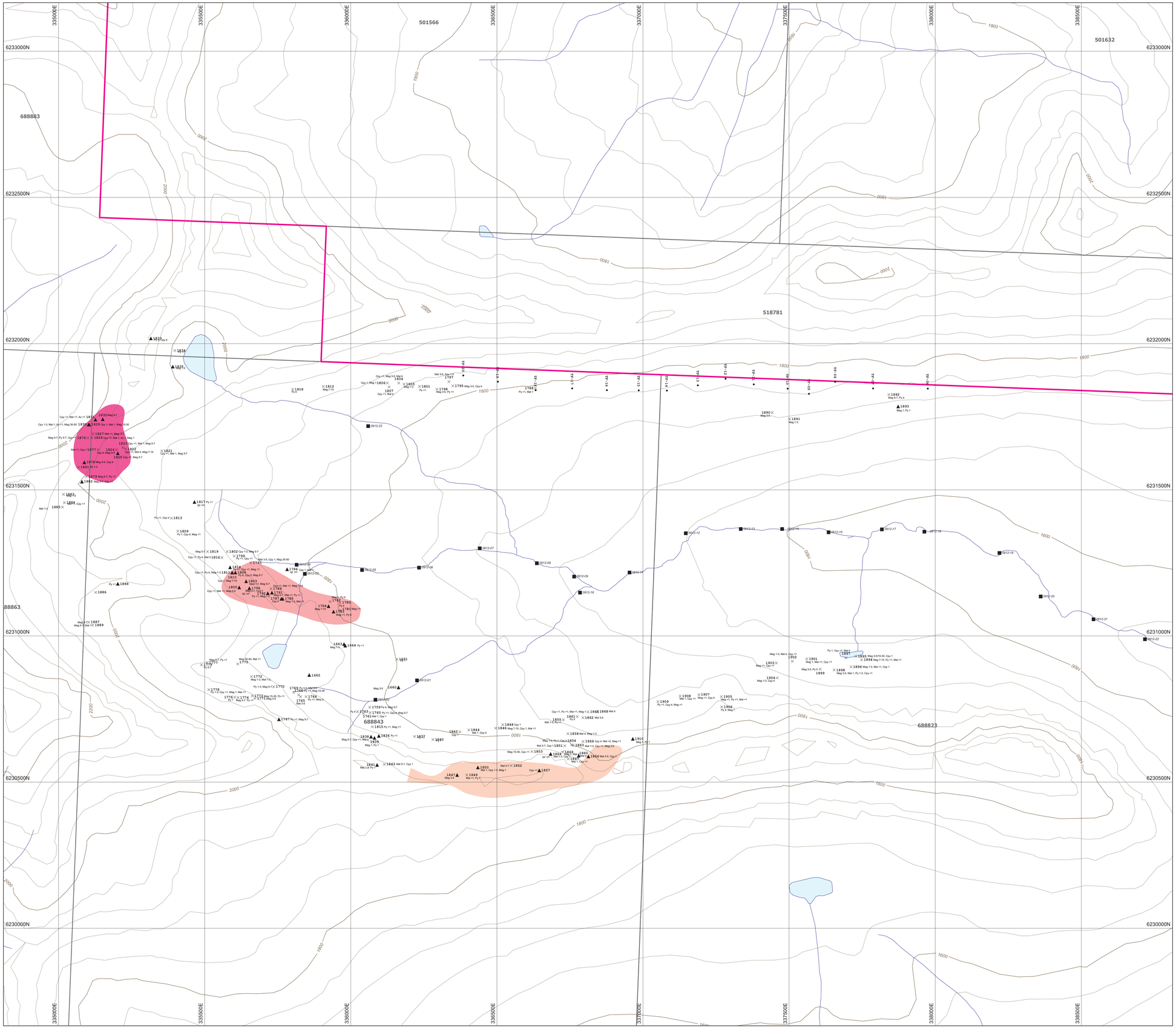
THANE MINERALS INC.

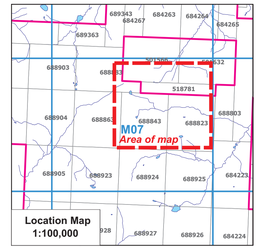
GEOCHEMISTRY PLAN MAP
ARSENIC
Tenakihi Zone

Cathedral Project
Omineca Mining Division, British Columbia, Canada

Project No:	C122	By:	MO, AB
Scale:	1:10,000	Drawn:	TV
Figure No:	8	Date:	January 2013

CME





LEGEND

GEOLOGY

Outcrop / Interpreted

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Alteration
- Gossan

SYMBOLS

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- Rough road
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- Watercourse: permanent, intermittent
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- Cathedral property boundary
- 942662 — Tenure and ID number
- Contact: defined; inferred
- Fault trace
- Thrust fault
- Joint/fracture
- Vein
- Dyke

2012 Sampling
- 1173 ▲ ✕ — Rock sample site: outcrop/sub-crop, float
- 314 ■ — Silt sample site
- 288 ● — Contour soil/talus fine sample site

Abbreviations

aspy	arsenopyrite	bn	bornite
cp	chalcopyrite	az	azurite
gal	galena	mal	malachite
mag	magnetite	tr	trace
po	pyrrhotite	spec	specularite
py	pyrite		
sl	sphalerite		
moly	molybdenite		

Number or number range following each mineral represents visual estimate of amount in percent

0 100 200 400 600 500m

NAD83, UTM Zone 10 North
NTS 094C/04, 03

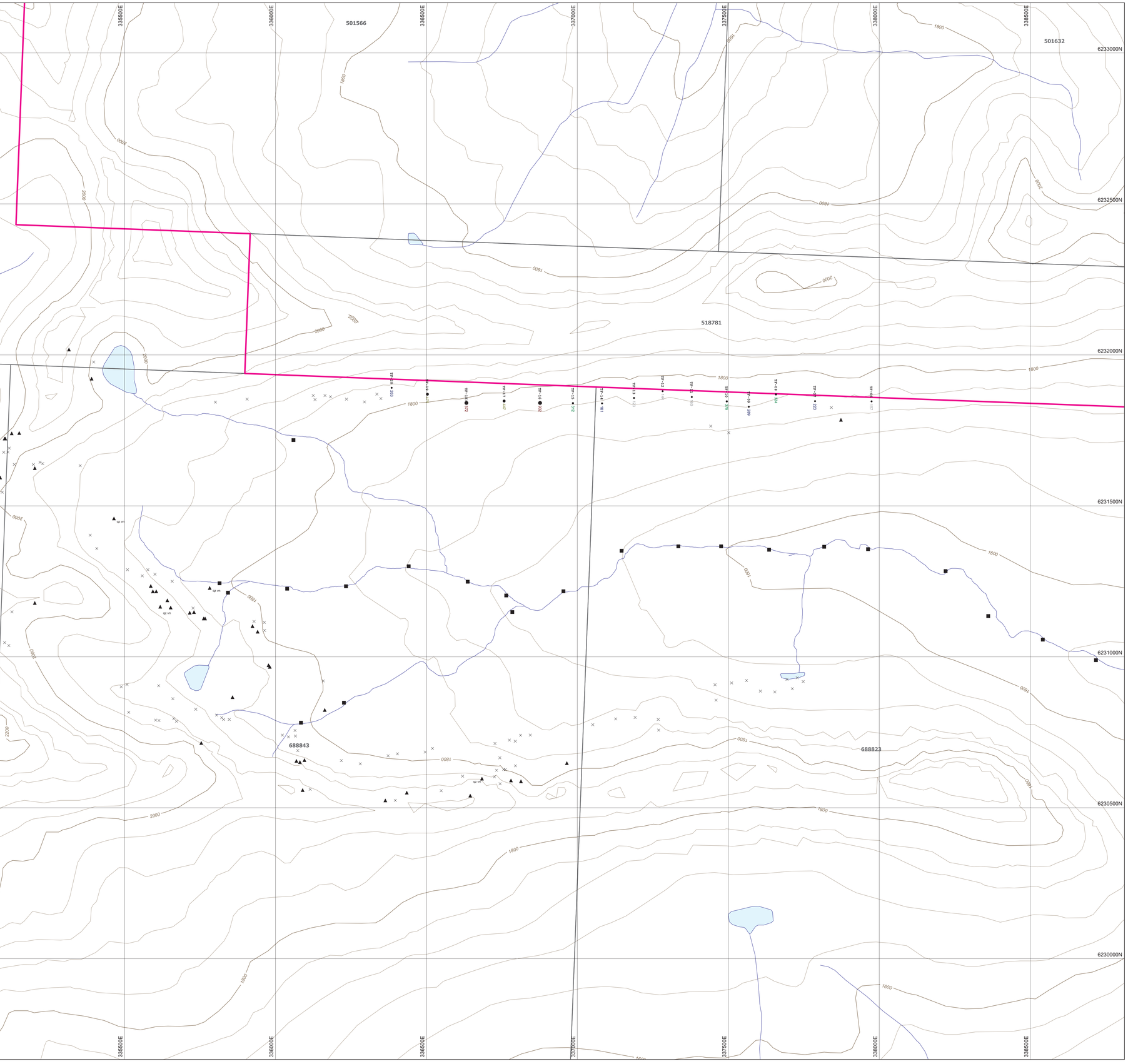
THANE MINERALS INC.

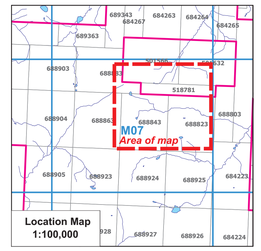
GEOLOGY AND
SAMPLE LOCATION MAP
Lake Zone

Cathedral Project
Omineca M.D., British Columbia, Canada

Project No:	C122	By:	AB
Scale:	1:5,000	Drawn:	TV
Figure No:	9	Date:	January 2013

CME





LEGEND

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- 0.440 ppm Au Au ppm (gold assay analysis)

Silt samples (ALL ANALYSES PENDING)

- ■ Sample site and number
  - Black: analysis pending
  - White: XRF analysis
- 359 Cu ppm (XRF analysis)

Soil/talus fine samples

Contour samples

- ● Sample location
- 137 Copper (ppm, XRF analysis)

Copper ranges (XRF analysis)

- · < 163 ppm Cu
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- ● 418 - 546 ppm Cu
- ● ≥ 547 ppm Cu

Grid samples

- Cu (ppm, XRF analysis)
- 19700N Grid line (2012 lines are high-lighted)
- Grid station

N

0 100 200 400 600 500m

NAD83, UTM Zone 10 North
NTS 094C/04, 03

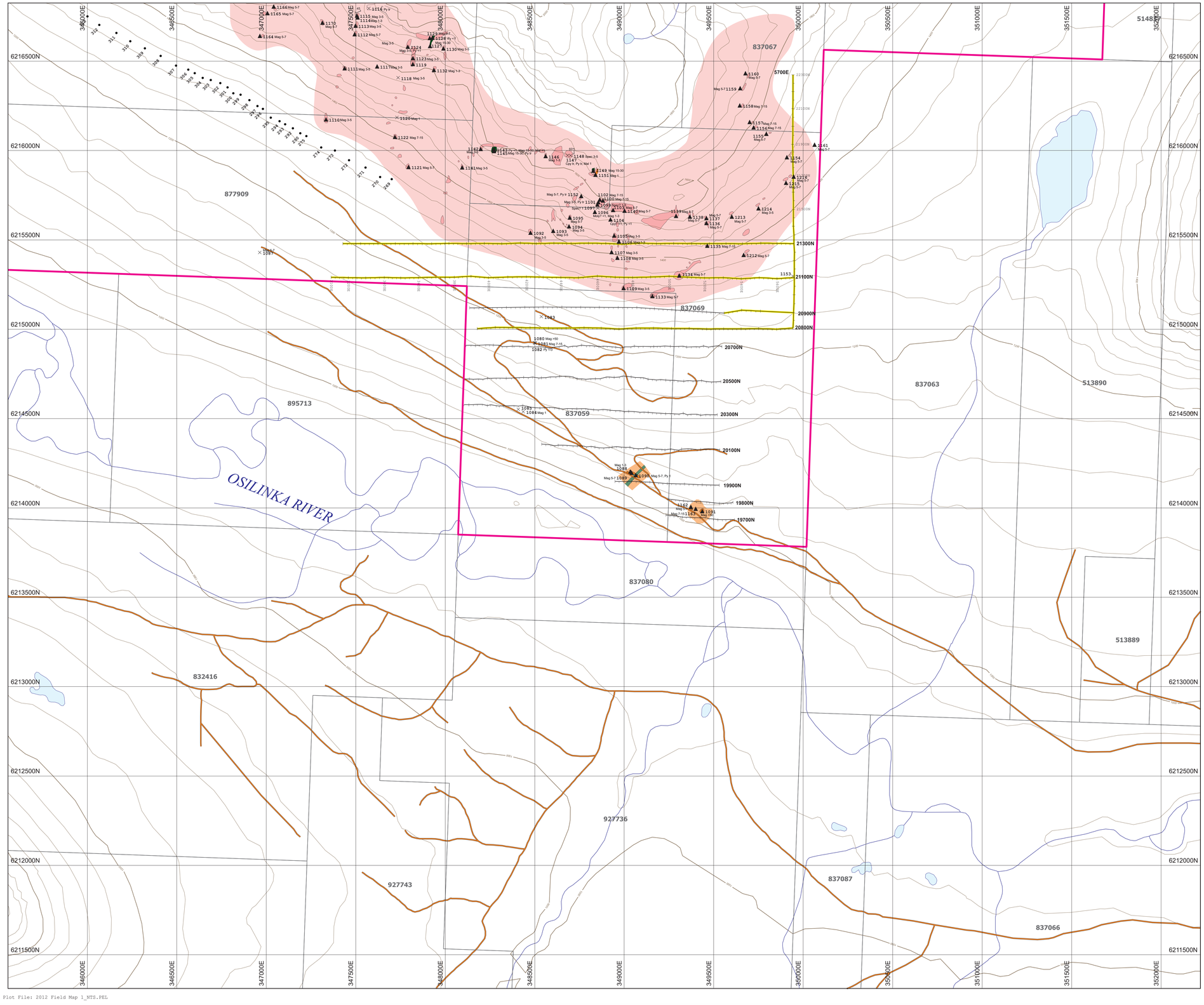
THANE MINERALS INC.

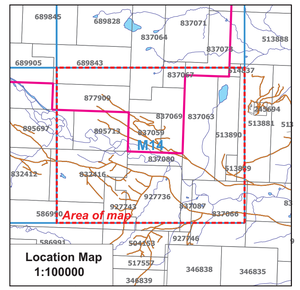
GEOCHEMISTRY PLAN MAP
COPPER
Lake Zone

Cathedral Project
Omineca M.D., British Columbia, Canada

Project No:	C122	By:	AB
Scale:	1:5,000	Drawn:	TV
Figure No:	10	Date:	January 2013

CME





LEGEND

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moly	molybdenite		

Number or number range following each mineral represents visual estimate of amount in percent

N

0 500 1000 Metres

NAD83, UTM Zone 10 North
Mapsheets: NTS 094C03

THANE MINERALS INC.

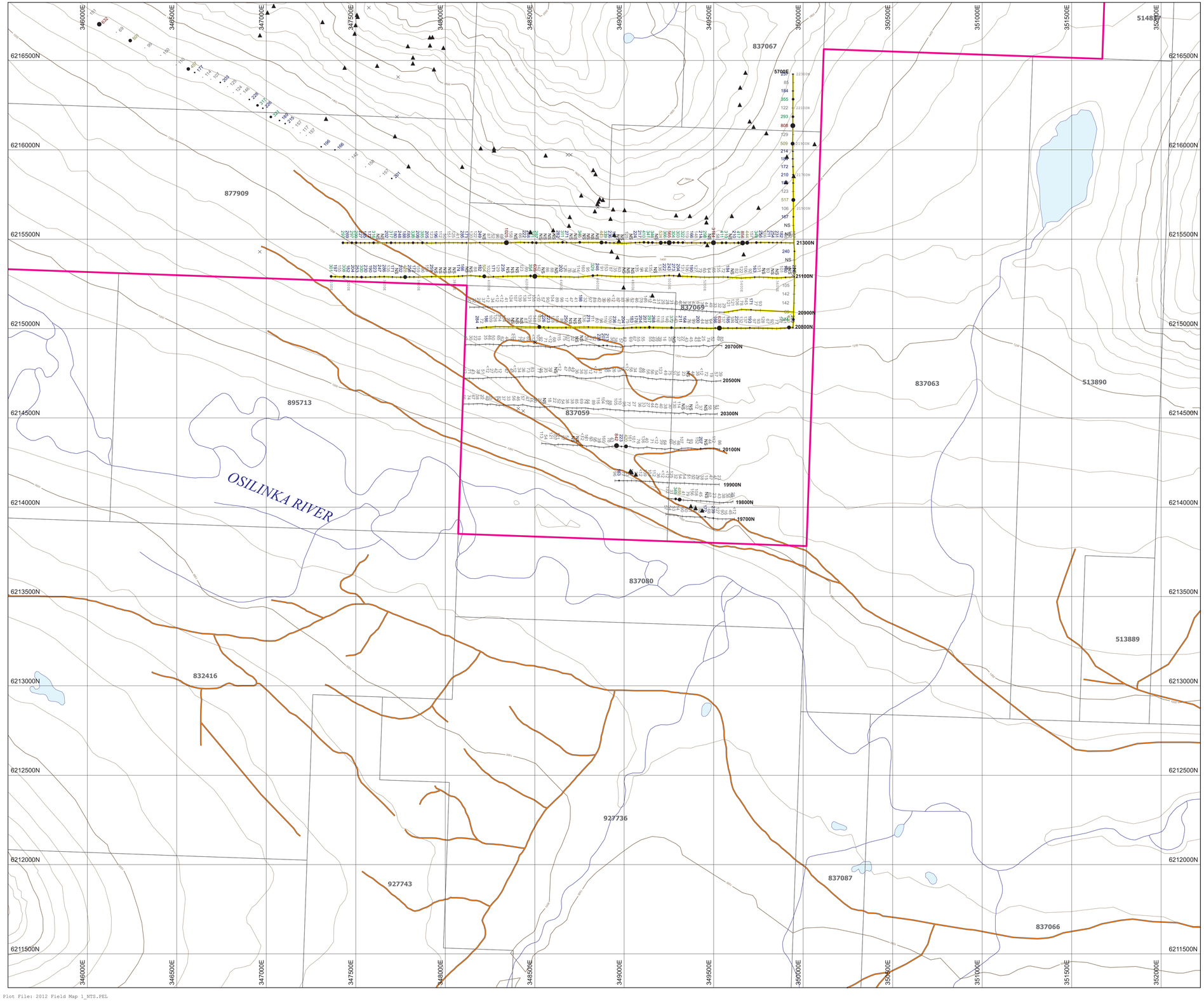
GEOLOGY AND
SAMPLE LOCATION MAP
Link Zone

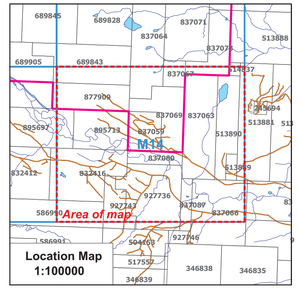
Cathedral Project
Omineca Mining Division, British Columbia, Canada

Project No:	C122	By:	MO, AB
Scale:	1:10,000	Drawn:	TV
Figure No:	11	Date:	January 2013

CME

Plot File: 2012 Field Map 1_NTS.PEL





LEGEND

SYMBOLS

- Gravel road
- Rough road
- Contour (40 m interval)
- Watercourse: permanent, intermittent
- Lake or pond
- Outcrop/subcrop
- Cathedral property boundary
- 942662 Tenure and ID number

GEOCHEMISTRY

Rock samples (ALL ANALYSES PENDING)

- ▲ × Outcrop/sub-crop, float
  - Black: analysis pending
  - White: XRF analysis
  - Red: XRF analysis and gold assay analysis
- 224 Cu ppm (XRF analysis)
- 0.440 ppm Au Au ppm (gold assay analysis)

Silt samples

- ■ Sample site and number
  - Black: analysis pending
  - White: XRF analysis
- 359 Cu ppm (XRF analysis)

Soil/talus fine samples

Contour samples

- ● Sample location
- 137 Copper (ppm, XRF analysis)
- NS No sample

Copper ranges (XRF analysis)

- · < 163 ppm Cu
- • 163 - 290 ppm Cu
- • 291 - 418 ppm Cu
- • 418 - 546 ppm Cu
- ● ≥ 547 ppm Cu

Grid samples

- Cu (ppm, XRF analysis)
- 19700N Grid line (2012 lines are high-lighted)
- Grid station

0 500 1000 Metres

NAD83, UTM Zone 10 North
Mapsheets: NTS 094C03

THANE MINERALS INC.

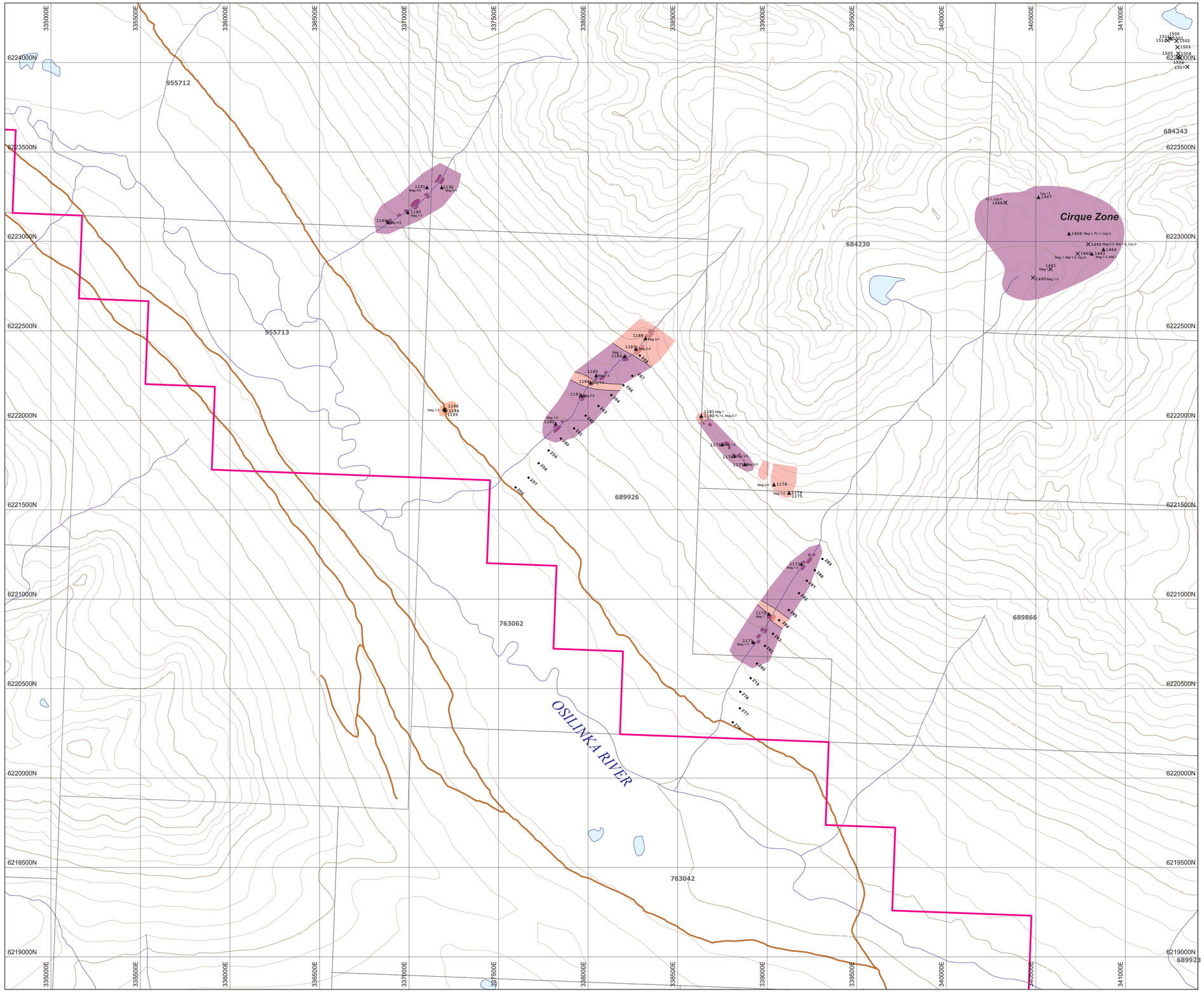
GEOCHEMISTRY PLAN MAP
COPPER
Link Zone

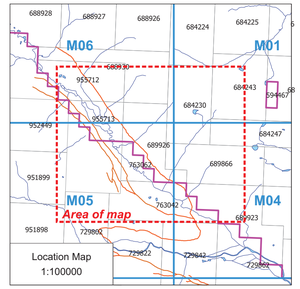
Cathedral Project
Omineca Mining Division, British Columbia, Canada

Project No:	C122	By:	MO, AB
Scale:	1:10,000	Drawn:	TV
Figure No:	12	Date:	January 2013

CME

Plot File: 2012 Field Map 1_NTS.PEL





LEGEND

GEOLOGY

Outcrop / Interpreted

Dykes
- Feldspar porphyritic dyke, may be megacrystic
- Andesite(?) dyke
- Aplite dyke

Intrusives
- Quartz monzonite
- Granite, granodiorite
- Quartz diorite, diorite
- Monzonite

Volcanics
- Basalt, aphanitic
- Basalt, olivine and plagioclase-phyric

Sediments
- Undifferentiated, locally gossanous

Alteration
- Gossan

SYMBOLS

- Gravel road
- Rough road
- Contour (40 m interval)
- Watercourse: permanent, intermittent
- Lake or pond
- Outcrop/subcrop
- Cathedral property boundary
- 942662 — Tenure and ID number
- Contact: defined; inferred
- Fault trace
- Thrust fault
- Joint/fracture
- Vein
- Dyke

2012 Sampling
- 1173 ▲ × — Rock sample site: outcrop/sub-crop, float
- 314 ■ — Silt sample site
- 288 ● — Contour soil/talus fine sample site
- 19700N — Grid line
- Grid station

Abbreviations

aspy	arsenopyrite	bn	bornite
cp	chalcopyrite	az	azurite
gal	galena	mal	malachite
mag	magnetite	tr	trace
po	pyrrhotite	spec	specularite
py	pyrite		
sl	sphalerite		
moly	molybdenite		

Number or number range following each mineral represents visual estimate of amount in percent

0 500 1000 Metres

NAD83, UTM Zone 10 North
Mapsheets: NTS 094C03

THANE MINERALS INC.

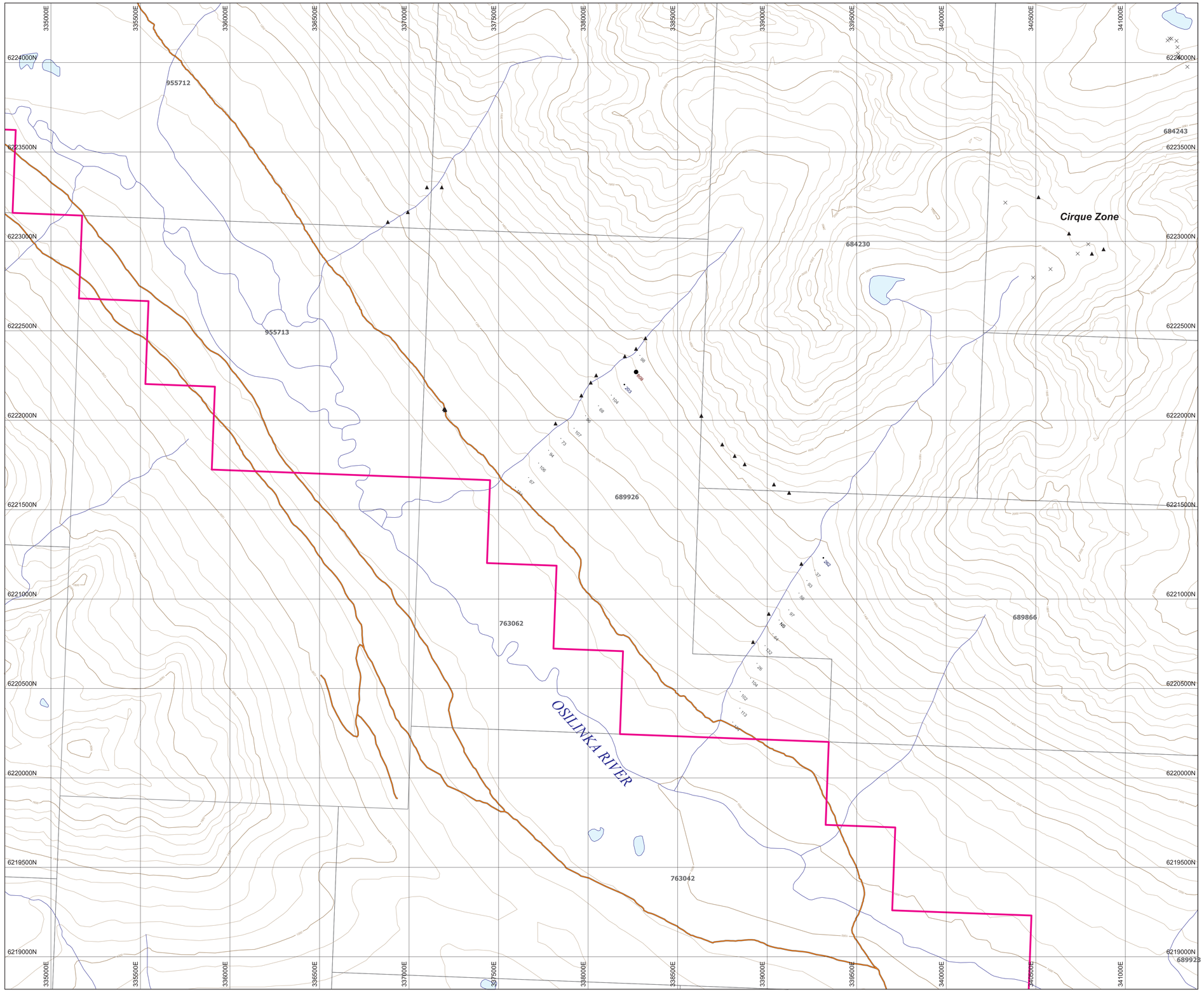
GEOLOGY AND
SAMPLE LOCATION MAP
Osilinka and Cirque Zones

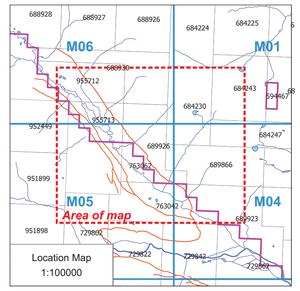
Cathedral Project
Omineca Mining Division, British Columbia, Canada

Project No:	C122	By:	MO, AB
Scale:	1:10,000	Drawn:	TV
Figure No:	13	Date:	January 2013

CME

Plot File: 2012 Field Map 1_NTS.PEL





LEGEND

SYMBOLS

- Gravel road
- Rough road
- Contour (40 m interval)
- Watercourse: permanent, intermittent
- Lake or pond
- Outcrop/subcrop
- Cathedral property boundary
- 942662 — Tenure and ID number

GEOCHEMISTRY

Rock samples (ALL ANALYSES PENDING)

- ▲ × Outcrop/sub-crop, float
  - Black: analysis pending
  - White: XRF analysis
  - Red: XRF analysis and gold assay analysis
- 224 — Cu ppm (XRF analysis)
- 0.440 ppm Au — Au ppm (gold assay analysis)

Silt samples

- ■ Sample site and number
  - Black: analysis pending
  - White: XRF analysis
- 359 — Cu ppm (XRF analysis)

Soil/talus fine samples

Contour samples

- ● Sample location
- 137 — Copper (ppm, XRF analysis)
- NS — No sample

Copper ranges (XRF analysis)

- · < 163 ppm Cu
- • 163 - 290 ppm Cu
- • 291 - 418 ppm Cu
- ● 418 - 546 ppm Cu
- ● ≥ 547 ppm Cu

Grid samples

- Cu (ppm, XRF analysis)
- 19700N — Grid line (2012 lines are high-lighted)
- Grid station

N

0 500 1000 Metres

NAD83, UTM Zone 10 North
Mapsheets: NTS 094C03

THANE MINERALS INC.

GEOCHEMISTRY PLAN MAP
COPPER
Osilinka and Cirque Zones

Cathedral Project
Omineca Mining Division, British Columbia, Canada

Project No:	C122	By:	MO, AB
Scale:	1:10,000	Drawn:	TV
Figure No:	14	Date:	January 2013

CME

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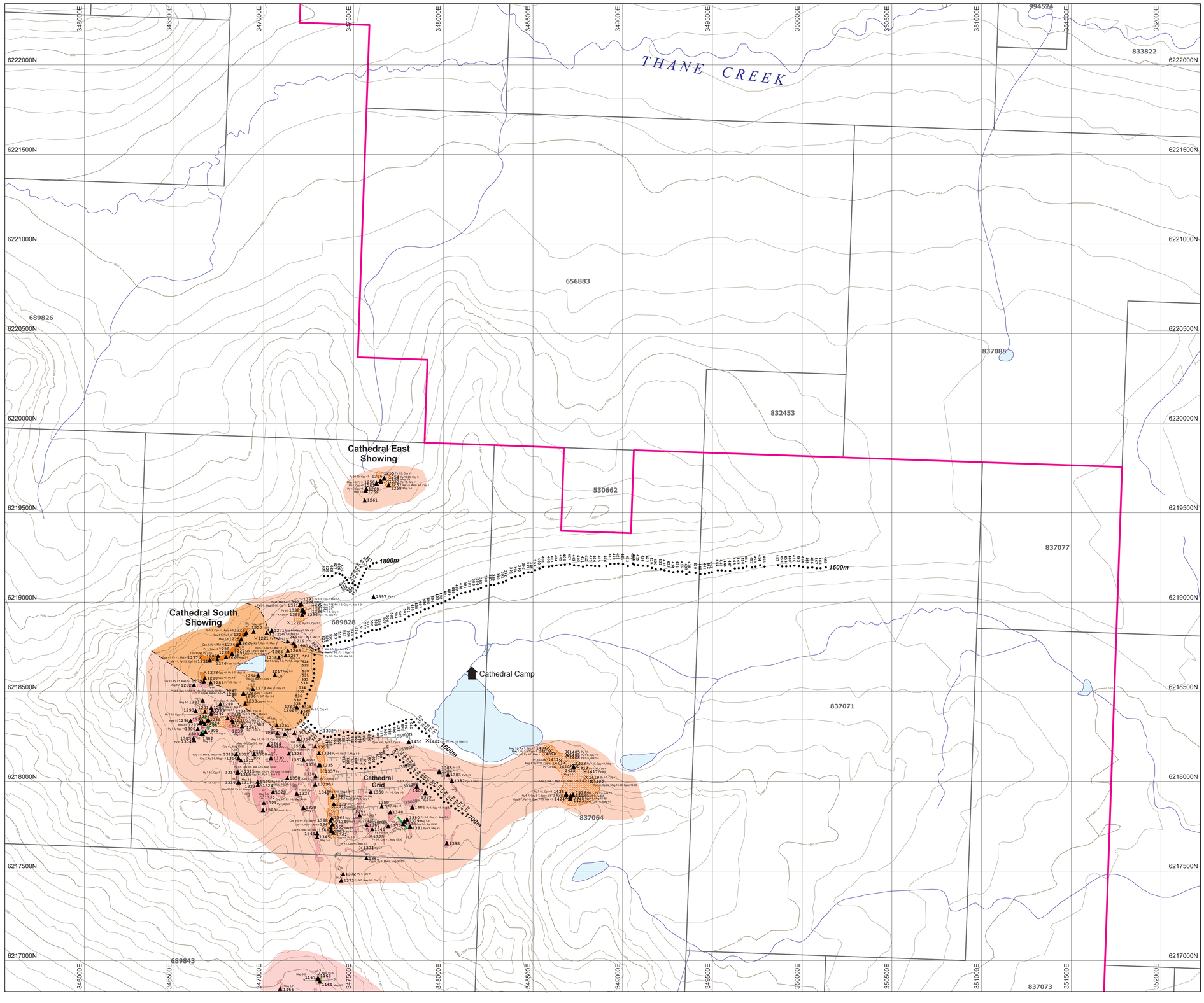


LEGEND

GEOLOGY

Outcrop / Interpreted

Dykes
- Feldspar porphyritic dyke, may be megacrystic
- Andesite(?) dyke
- Aplite dyke

Intrusives
- Quartz monzonite
- Granite, granodiorite
- Quartz diorite, diorite
- Monzonite

Volcanics
- Basalt, aphanitic
- Basalt, olivine and plagioclase-phyric

Sediments
- Undifferentiated, locally gossanous

Alteration
- Gossan

SYMBOLS

- Gravel road
- Rough road
- Contour (40 m interval)
- Watercourse: permanent, intermittent
- Lake or pond
- Outcrop/subcrop
- Cathedral property boundary
- 942662 Tenure and ID number
- Contact: defined; inferred
- Fault trace
- Thrust fault
- Joint/fracture
- Vein
- Dyke

2012 Sampling
- 1173 Rock sample site: outcrop/sub-crop, float
- 314 Silt sample site
- 288 Contour soil/talus fine sample site
- 197000N Grid line
- Grid station

Abbreviations

aspy	arsenopyrite	bn	bornite
cp	chalcopyrite	az	azurite
gal	galena	mal	malachite
mag	magnetite	tr	trace
po	pyrrhotite	spec	specularite
py	pyrite		
sl	sphalerite		
moly	molybdenite		

Number or number range following each mineral represents visual estimate of amount in percent

0 500 1000 Metres

NAD83, UTM Zone 10 North
Mapsheets: NTS 094C03

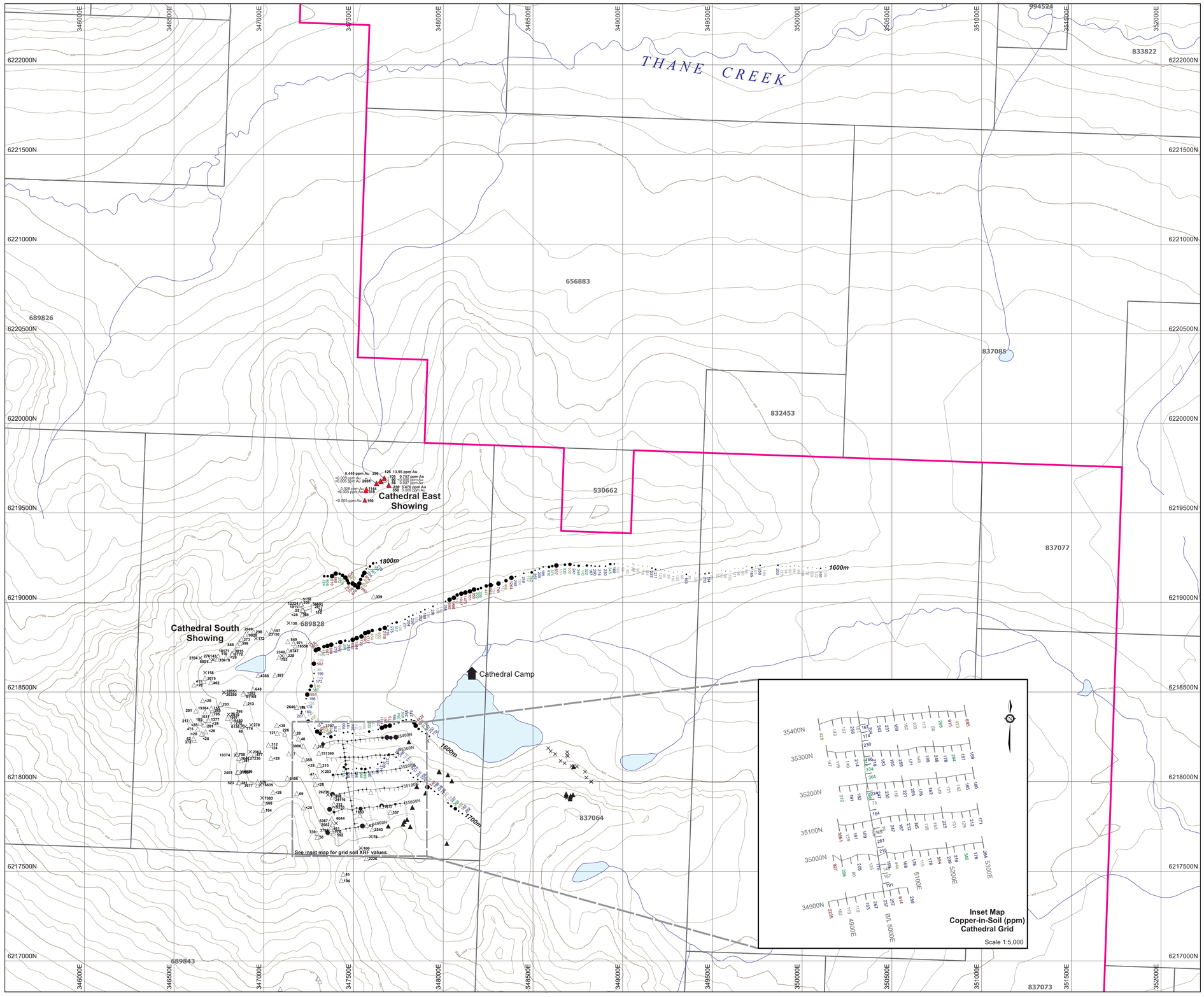
THANE MINERALS INC.

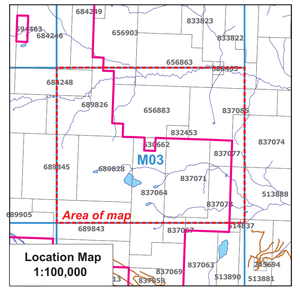
GEOLOGY AND SAMPLE LOCATION MAP
Cathedral Zone

Cathedral Project
Omineca Mining Division, British Columbia, Canada

Project No:	C122	By:	MO, AB
Scale:	1:10,000	Drawn:	TV
Figure No:	10	Date:	January 2013

CME





LEGEND

SYMBOLS

- Gravel road
- Rough road
- Contour (40 m interval)
- Watercourse: permanent, intermittent
- Lake or pond
- Outcrop/subcrop
- Cathedral property boundary
- 942662 — Tenure and ID number

GEOCHEMISTRY

Rock samples

- ▲ × — Outcrop/sub-crop, float
  - Black: analysis pending
  - White: XRF analysis
  - Red: XRF analysis and gold assay analysis
- 224 — Cu ppm (XRF analysis)
- 0.440 ppm Au — Au ppm (gold assay analysis)

Silt samples

- ■ — Sample site and number
  - Black: analysis pending
  - White: XRF analysis
- 359 — Cu ppm (XRF analysis)

Soil/talus fine samples

Contour samples

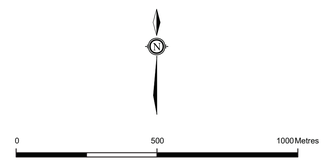
- ● — Sample location
- 137 — Copper (ppm, XRF analysis)
- NS — No sample

Copper ranges (XRF analysis)

- · < 163 ppm Cu
- • 163 - 290 ppm Cu
- • 291 - 418 ppm Cu
- • 418 - 546 ppm Cu
- ● ≥ 547 ppm Cu

Grid samples

- Cu (ppm, XRF analysis)
- 19700N — Grid line (2012 lines are high-lighted)
- Grid station



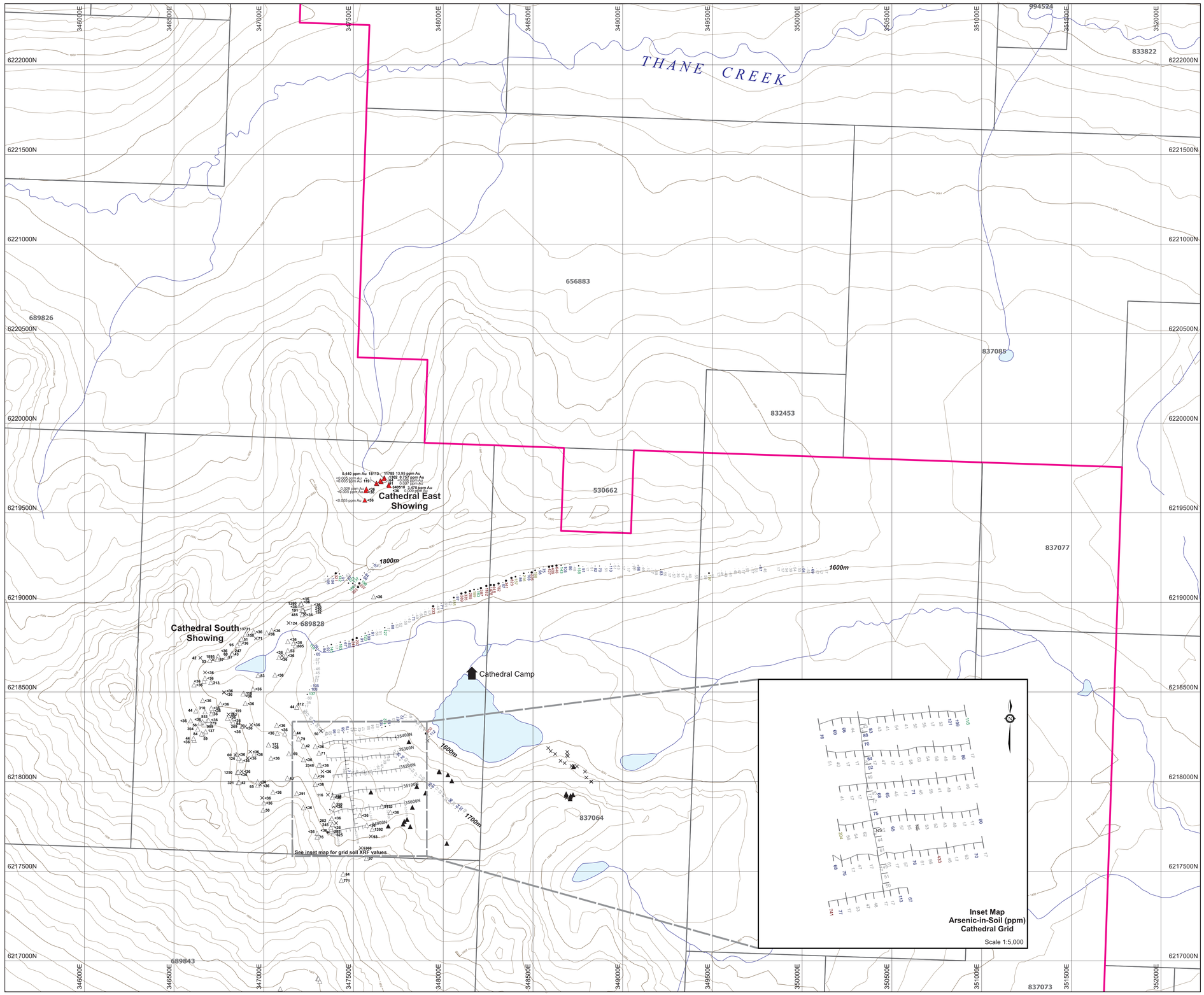
THANE MINERALS INC.

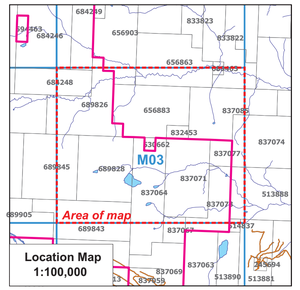
GEOCHEMISTY PLAN MAP
COPPER
Cathedral Zone

Cathedral Project
Omineca Mining Division, British Columbia, Canada

Project No:	C122	By:	MO, AB
Scale:	1:10,000	Drawn:	TV
Figure No:	16	Date:	January 2013

CME





LEGEND

SYMBOLS

- Gravel road
- Rough road
- Contour (40 m interval)
- Watercourse: permanent, intermittent
- Lake or pond
- Outcrop/subcrop
- Cathedral property boundary
- 942662 — Tenure and ID number

GEOCHEMISTRY

Rock samples

- ▲ × — Outcrop/sub-crop, float
  - Black: analysis pending
  - White: XRF analysis
  - Red: XRF analysis and gold assay analysis
- 224 — As ppm (XRF analysis)
- 0.440 ppm Au — Au ppm (gold assay analysis)

Silt samples

- ■ — Sample site
  - Black: analysis pending
  - White: XRF analysis
- 359 — As ppm (XRF analysis)

Soil/talus fine samples

Contour samples

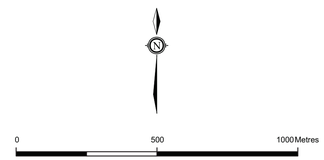
- ● — Sample location
- 137 — Arsenic (ppm, XRF analysis)
- NS — No sample

Arsenic ranges (XRF analysis)

- · < 48 ppm As
- • 48 - 87 ppm As
- • 88 - 127 ppm As
- ● 128 - 167 ppm As
- ● ≥ 168 ppm As

Grid samples

- As (ppm, XRF analysis)
- 19700N — Grid line (2012 lines are high-lighted)
- Grid station



NAD83, UTM Zone 10 North
Mapsheets: NTS 094C03

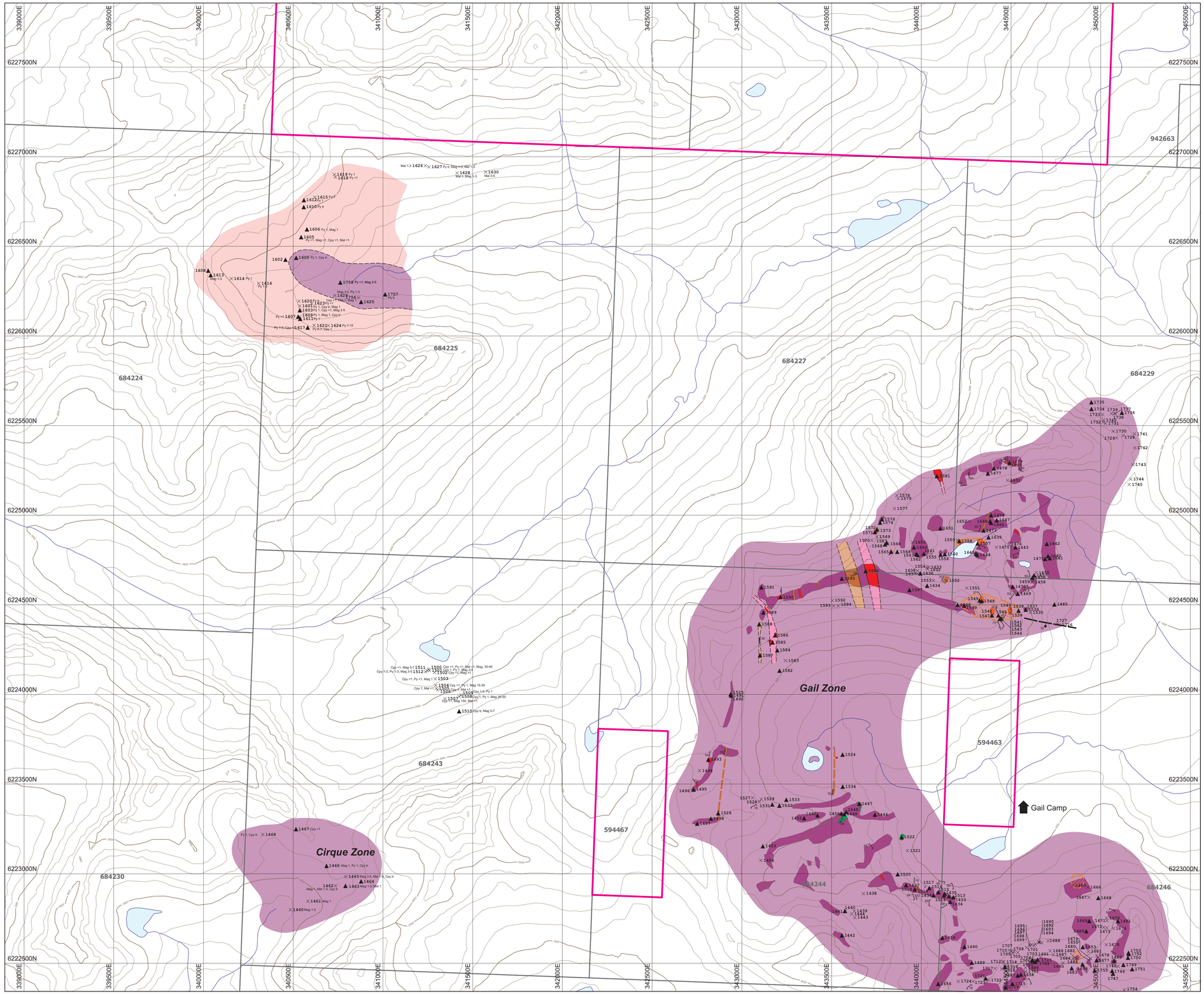
THANE MINERALS INC.

GEOCHEMISTY PLAN MAP
ARSENIC
Cathedral Zone

Cathedral Project
Omineca Mining Division, British Columbia, Canada

Project No:	C122	By:	MO, AB
Scale:	1:10,000	Drawn:	TV
Figure No:	17	Date:	January 2013

CME



Location Map
1:100,000

LEGEND

GEOLOGY

Outcrop / Interpreted

Dykes

- ▨ Feldspar porprhyritic dyke, may be megacrystic
- ▨ Andesite(?) dyke
- ▨ Aplite dyke

Intrusives

- ▨ Quartz monzonite
- ▨ Granite, granodiorite
- ▨ Quartz diorite, diorite
- ▨ Monzonite

Volcanics

- ▨ Basalt, aphanitic
- ▨ Basalt, olivine and plagioclase-phyric

Sediments

- ▨ Undifferentiated, locally gossanous

Alteration

- ▨ Gossan

SYMBOLS

- Gravel road
- Rough road
- Contour (40 m interval)
- Watercourse: permanent, intermittent
- Lake or pond
- Outcrop/subcrop
- Cathedral property boundary
- 942662 Tenure and ID number
- Contact: defined; inferred
- 60 Fault trace
- Thrust fault
- 60 Joint/fracture
- 85 Vein
- 60 Dyke

2012 Sampling (ALL ANALYSES PENDING)

- 1173 ▲ × Rock sample site: outcrop/sub-crop, float
- 314 ■ Silt sample site
- 288 ● Contour soil/talus fine sample site
- 19700N Grid line
- 4700E ← Grid station

Abbreviations

aspy	arsenopyrite	bn	bornite
cp	chalcopyrite	az	azurite
gal	galena	mal	malachite
mag	magnetite	tr	trace
po	pyrrhotite	spec	specularite
py	pyrite		
sl	sphalerite		
moly	molybdenite		

Number or number range following each mineral represents visual estimate of amount in percent

N

0 500 1000 Metres

NAD83, UTM Zone 10 North
Mapsheets: NTS 094C03

THANE MINERALS INC.

GEOLOGY AND SAMPLE LOCATION MAP
Gail Zone

Cathedral Project
Omineca Mining Division, British Columbia, Canada

Project No:	C122	By:	MO, AB
Scale:	1:10,000	Drawn:	TV
Figure No:	18	Date:	January 2013

CME

APPENDIX I

ABBREVIATIONS AND CONVERSION FACTORS

ABBREVIATIONS

Elements		**Abbreviations**	
Ag	Silver	Az	azimuth
As	Arsenic	CDN$	Canadian dollars
Au	Gold	ppm	parts per million
Ba	Barium	ppb	parts per billion
Cd	Cadmium	g/t	grams per metric tonne
Cu	Copper	oz/T	troy ounces per ton
Mo	Molybdenum	tpd	metric tonnes per day
Pb	Lead	Eq. Au	Gold equivalent
Sb	Antimony	UTM	Universal Transverse Mercator
Ti	Titanium	NAD83	North American Datum 1983
Zn	Zinc	°/ ‘ / “	degree/minute/second of arc

CONVERSION FACTORS

Length			
1 millimetre (mm)	0.03937 inches (in)	1 inch (in)	25.40 millimetre (mm)
1 centimetre (cm)	0.394 inches(in)	1 inch (in)	2.540 centimetres (cm)
1 metre (m)	3.281 feet (ft)	1 foot (ft)	0.3048 metres (m)
1 kilometre (km)	0.6214 mile (mi)	1 mile (mi)	1.609 kilometres (km)
Area			
1 sq. centimeter (cm^2)	0.1550 sq. inches (in^2)	1 sq inch (in^2)	6.452 sq. centimetres (cm^2)
1 sq. metre (m^2)	10.76 feet (ft^2)	1 foot (ft)	0.0929 sq. metres (m^2)
1 hectare (ha) (10,000 m^2)	2.471 acres	1 acre	0.4047 hectare (ha)
1 hectare (ha)	0.003861 sq. miles (m^2)	1 sq. mile (m^2)	640 acres
1 hectare (ha)	0.01 sq. kilometre (km^2)	1 sq. mile (m^2)	259.0 hectare (ha)
1 sq. kilometre (km^2)	0.3861 sq. miles (mi^2)	1 sq. mile (m^2)	2.590 sq. kilometres (km^2)
Volume			
1 cu. centimetre (cc)	0.06102 cu. inches (in^3)	1 cu. inch (in^3)	16.39 cu. centimetres (cm^3)
1 cu. metre (m^3)	1.308 cu. yards (yd^3)	1 cu. yard (yd^3)	0.7646 cu. metres (m^3)
1 cu. metre (m^3)	35.310 cu. feet (ft^3)	1 cu. foot (ft^3)	0.02832 cu. metres (m^3)
1 litre (l)	0.2642 gallons (U.S.)	1 gallon (U.S.)	3.785 litres (l)
1 litre (l)	0.2200 gallons (U.K.)	1 gallon (U.K.)	4.546 litres (l)
Weights			
1 gram (g)	0.03215 troy ounce (20dwt)	1 troy ounce (oz)	31.1034 grams (g)
1 gram (g)	0.6430 pennyweight (dwt)	1 pennyweight (dwt)	1.555 grams (g)
1 gram (g)	0.03527 oz avoirdupois	1 oz avoirdupois	28.35 grams (g)
1 kilogram (g)	2.205 lb avoirdupois	1 lb avoirdupois	0.4535 kilograms (kg)
1 tonne (t) (metric)	1.102 tons (T) (short ton)	1 ton (T) (short ton) (2000 lb)	0.9072 tonnes (t)
1 tonne (t)	0.9842 long ton	1 long ton (2240 lb)	1.016 tonnes (t)
Miscellaneous			
1 cm/second	0.01968 ft/min	1 ft/min	50.81 cm/second
1 cu. m/second	22.82 million gal/day	1 million gal/day	0.04382 m^3/second
1 cu. m/minute	264.2 gal/min	1 gal/min	0.003785 m^3/minute
1 g/cu. m	62.43 lb/ cu. ft	1 lb/cu. ft^3	0.01602 g/m^3
1 g/cu. m	0.02458 oz/cu. yd	1 oz/cu. yd	40.6817 g/m^3
1 Pascal (Pa)	0.000145 psi	1 psi	6985 Pascal
1 gram/tonne (g/t)	0.029216 troy ounce/ short ton (oz/T)	1 troy ounce/short ton (oz/T)	34.2857 grams/tonne (g/t)
1 g/t	0.583 dwt/short ton	1 dwt/short ton	1.714 g/t
1 g/t	0.653 dwt/long ton	1 dwt/long ton	1.531 g/t
1 g/t	0.0001 %		
1 g/t	1 part per million (ppm)		
1 %	10,000 part per million (ppm)		
1 part per million (ppm)	1,000 part per billion (ppb)		
1 part per billion (ppb)	0.001 part per million (ppm)		

APPENDIX II

SILT AND SOIL SAMPLES

Cathedral Property

Silt Samples

Location (UTM Zone 10 North NAD83)		Sample	Zone	Map	Tenure	XRF Analysis	
Easting	Northing					Cu (ppm)	As (ppm)
348446	6233135	314	Tenakihi	M09	942662	113	121
348147	6232408	324	Tenakihi	M09	942662	135	53
348081	6232334	325	Tenakihi	M09	942662	346	252
348027	6232264	326	Tenakihi	M09	942662	377	479
348030	6232174	327	Tenakihi	M09	942662	182	71
348005	6232108	328	Tenakihi	M09	942662	826	57
347949	6232042	329	Tenakihi	M09	942662	345	39
348014	6232223	330	Tenakihi	M09	942662	155	89
348043	6232305	331	Tenakihi	M09	942662	262	562
348117	6232361	332	Tenakihi	M09	942662	204	138
336229	6230850	0912-01	Lake	M07	688843	*pending*	
336087	6230784	0912-02	Lake	M07	688843	*pending*	
335845	6231215	0912-03	Lake	M07	688843	*pending*	
335817	6231241	0912-04	Lake	M07	688843	*pending*	
336041	6231228	0912-05	Lake	M07	688843	*pending*	
336236	6231236	0912-06	Lake	M07	688843	*pending*	
336444	6231302	0912-07	Lake	M07	688843	*pending*	
336639	6231251	0912-08	Lake	M07	688843	*pending*	
336767	6231205	0912-09	Lake	M07	688843	*pending*	
336956	6231219	0912-11	Lake	M07	688843	*pending*	
337149	6231354	0912-12	Lake	M07	688823	*pending*	
337337	6231368	0912-13	Lake	M07	688823	*pending*	
337536	6231368	0912-14	Lake	M07	688823	*pending*	
337617	6231344	0912-15	Lake	M07	688823	*pending*	
336787	6231150	0912-16	Lake	M07	688843	*pending*	
337820	6231359	0912-17	Lake	M07	688823	*pending*	
338024	6231359	0912-18	Lake	M07	688823	*pending*	
338222	6231286	0912-19	Lake	M07	688823	*pending*	
338363	6231137	0912-20	Lake	M07	688823	*pending*	
338544	6231059	0912-21	Lake	M07	688823	*pending*	
338720	6230991	0912-22	Lake	M07	688823	*pending*	
336062	6231720	0912-23	Lake	M07	688843	*pending*	

Cathedral Property

Soil Samples

Location (UTM Zone 10 North NAD83)		Sample	Grid Coordinates		Contour Line	Zone	Map	Tenure	XRF Analysis	
Easting	Northing		Line	Station					Cu (ppm)	As (ppm)
349210	6232410	101			1400m	Tenakihi	M09	942662	71	39
349234	6232445	102			1400m	Tenakihi	M09	942662	79	17
349251	6232491	103			1400m	Tenakihi	M09	942662	99	17
349272	6232535	104			1400m	Tenakihi	M09	942662	160	17
349287	6232584	105			1400m	Tenakihi	M09	942662	117	58
349299	6232637	106			1400m	Tenakihi	M09	942662	69	17
349312	6232681	107			1400m	Tenakihi	M09	942662	99	167
349316	6232729	108			1400m	Tenakihi	M09	942662	98	55
349289	6232776	109			1400m	Tenakihi	M09	942662	98	98
349249	6232801	110			1400m	Tenakihi	M09	942662	83	102
349212	6232838	111			1400m	Tenakihi	M09	942662	141	77
349190	6232883	112			1400m	Tenakihi	M09	942662	96	78
349144	6232916	114			1400m	Tenakihi	M09	942662	113	69
349113	6232948	115			1400m	Tenakihi	M09	942662	126	88
349075	6232973	116			1400m	Tenakihi	M09	942662	143	60
349021	6233066	117			1400m	Tenakihi	M09	942662	160	160
349066	6233076	118			1400m	Tenakihi	M09	942662	136	109
349107	6233057	119			1400m	Tenakihi	M09	942662	114	69
349147	6233031	120			1400m	Tenakihi	M09	942662	109	65
349195	6233022	121			1400m	Tenakihi	M09	942662	159	133
349234	6233002	122			1400m	Tenakihi	M09	942662	160	78
349282	6232977	123			1400m	Tenakihi	M09	942662	99	83
349324	6232961	124			1400m	Tenakihi	M09	942662	144	41
349369	6232951	125			1400m	Tenakihi	M09	942662	176	39
349410	6232985	126			1400m	Tenakihi	M09	942662	195	86
349437	6233020	127			1400m	Tenakihi	M09	942662	135	81
349446	6233073	128			1400m	Tenakihi	M09	942662	82	44
349435	6233123	129			1400m	Tenakihi	M09	942662	94	55
349417	6233167	130			1400m	Tenakihi	M09	942662	99	46
349389	6233213	131			1400m	Tenakihi	M09	942662	97	52
349379	6233245	132			1400m	Tenakihi	M09	942662	135	17
349365	6233299	133			1400m	Tenakihi	M09	942662	123	42
349286	6233300	135			1450m-N	Tenakihi	M09	942662	214	35
349304	6233255	136			1450m-N	Tenakihi	M09	942662	162	72
349320	6233217	137			1450m-N	Tenakihi	M09	942662	131	76
349315	6233158	138			1450m-N	Tenakihi	M09	942662	160	116
349351	6233137	140			1450m-N	Tenakihi	M09	942662	149	98
349377	6233091	141			1450m-N	Tenakihi	M09	942662	140	17
349351	6233050	142			1450m-N	Tenakihi	M09	942662	176	64
349307	6233050	143			1450m-N	Tenakihi	M09	942662	576	36
349268	6233064	144			1450m-N	Tenakihi	M09	942662	335	46
349231	6233093	145			1450m-N	Tenakihi	M09	942662	165	37
349189	6233128	146			1450m-N	Tenakihi	M09	942662	179	67
349150	6233154	147			1450m-N	Tenakihi	M09	942662	105	83
349103	6233175	148			1450m-N	Tenakihi	M09	942662	124	120
349069	6233203	149			1450m-N	Tenakihi	M09	942662	147	72
349024	6233216	150			1450m-N	Tenakihi	M09	942662	184	79
348971	6233234	151			1450m-N	Tenakihi	M09	942662	133	95
348923	6233249	152			1450m-N	Tenakihi	M09	942662	112	141
348877	6233228	154			1450m-N	Tenakihi	M09	942662	148	95
348836	6233241	155			1450m-N	Tenakihi	M09	942662	67	75
348786	6233255	156			1450m-N	Tenakihi	M09	942662	98	78
348730	6233244	157			1450m-N	Tenakihi	M09	942662	143	83
348691	6233247	158			1450m-N	Tenakihi	M09	942662	201	88
348646	6233218	159			1450m-N	Tenakihi	M09	942662	125	60
348579	6233181	160			1450m-N	Tenakihi	M09	942662	74	65
348541	6233134	161			1450m-N	Tenakihi	M09	942662	223	133
348585	6233134	162			1450m-N	Tenakihi	M09	942662	101	87
348617	6233096	163			1450m-N	Tenakihi	M09	942662	122	106
348640	6233054	164			1450m-N	Tenakihi	M09	942662	181	147
348682	6233023	165			1450m-N	Tenakihi	M09	942662	78	70

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Soil Samples

Location (UTM Zone 10 North NAD83)		Sample	Grid Coordinates		Contour Line	Zone	Map	Tenure	XRF Analysis	
Easting	Northing		Line	Station					Cu (ppm)	As (ppm)
348787	6232934	166			1450m-N	Tenakihi	M09	942662	232	410
348820	6232905	167			1450m-N	Tenakihi	M09	942662	179	44
348865	6232874	168			1450m-N	Tenakihi	M09	942662	114	44
348906	6232859	169			1450m-N	Tenakihi	M09	942662	102	17
348953	6232839	170			1450m-N	Tenakihi	M09	942662	83	69
349005	6232836	171			1450m-N	Tenakihi	M09	942662	93	63
349052	6232830	172			1450m-N	Tenakihi	M09	942662	106	88
349092	6232810	173			1450m-N	Tenakihi	M09	942662	109	76
349129	6232773	174			1450m-N	Tenakihi	M09	942662	115	88
349105	6232739	175			1450m-N	Tenakihi	M09	942662	55	17
349105	6232687	176			1450m-N	Tenakihi	M09	942662	98	17
349107	6232650	177			1450m-N	Tenakihi	M09	942662	68	17
349123	6232594	178			1450m-N	Tenakihi	M09	942662	97	17
349122	6232542	179			1450m-N	Tenakihi	M09	942662	75	17
349119	6232498	180			1450m-N	Tenakihi	M09	942662	87	17
349119	6232452	181			1450m-N	Tenakihi	M09	942662	185	17
349089	6232417	182			1450m-N	Tenakihi	M09	942662	136	17
347549	6230854	184			1600m	Tenakihi	M09	1011480	470	55
347579	6230882	185			1600m	Tenakihi	M09	1011480	533	17
347622	6230910	186			1600m	Tenakihi	M09	1011480	331	49
347659	6230947	187			1600m	Tenakihi	M09	1011480	440	47
347655	6231047	188			1600m	Tenakihi	M09	1011480	448	160
347690	6231084	189			1600m	Tenakihi	M09	1011480	128	43
347705	6231116	190			1600m	Tenakihi	M09	1011480	52	35
347691	6231157	191			1600m	Tenakihi	M09	1011480	106	83
347675	6231200	192			1600m	Tenakihi	M09	1011480	281	77
347660	6231255	193			1600m	Tenakihi	M09	1011480	460	56
347652	6231297	194			1600m	Tenakihi	M09	1011480	433	473
347677	6231337	195			1600m	Tenakihi	M09	1011480	307	70
347727	6231346	196			1600m	Tenakihi	M09	1011480	152	76
347776	6231352	197			1600m	Tenakihi	M09	1011480	183	80
347826	6231356	199			1600m	Tenakihi	M09	1011480	183	74
347853	6231367	200			1600m	Tenakihi	M09	1011480	156	106
347878	6231399	201			1600m	Tenakihi	M09	1011480	236	45
347881	6231452	202			1600m	Tenakihi	M09	1011480	97	50
347899	6231506	203			1600m	Tenakihi	M09	1011480	86	38
347943	6231512	204			1600m	Tenakihi	M09	1011480	324	93
347989	6231530	205			1600m	Tenakihi	M09	1011480	103	52
348034	6231541	206			1600m	Tenakihi	M09	1011480	313	61
348052	6231580	207			1600m	Tenakihi	M09	1011480	438	84
348064	6231624	208			1600m	Tenakihi	M09	1011480	161	63
348087	6231670	209			1600m	Tenakihi	M09	1011480	263	54
348134	6231682	210			1600m	Tenakihi	M09	1011480	153	81
348179	6231686	211			1600m	Tenakihi	M09	1011480	246	353
348198	6231722	212			1600m	Tenakihi	M09	1011480	88	71
348229	6231770	213			1600m	Tenakihi	M09	1011480	188	110
348274	6231778	214			1600m	Tenakihi	M09	1011480	281	115
348325	6231780	215			1600m	Tenakihi	M09	1011480	231	235
348365	6231785	216			1600m	Tenakihi	M09	1011480	159	68
348404	6231815	217			1600m	Tenakihi	M09	1011480	168	42
348429	6231847	218			1600m	Tenakihi	M09	1011480	139	50
348475	6231878	220			1600m	Tenakihi	M09	1011480	250	58
348497	6231915	221			1600m	Tenakihi	M09	1011480	171	110
348521	6231949	222			1600m	Tenakihi	M09	942662	102	38
348791	6231945	223			1450m-S	Tenakihi	M09	942662	108	67
348786	6231924	224			1450m-S	Tenakihi	M09	1011480	128	17
348755	6231870	225			1450m-S	Tenakihi	M09	1011480	155	42
348727	6231820	226			1450m-S	Tenakihi	M09	1011480	134	17
348695	6231783	227			1450m-S	Tenakihi	M09	1011480	116	17
348664	6231757	228			1450m-S	Tenakihi	M09	1011480	122	17
348629	6231712	229			1450m-S	Tenakihi	M09	1011480	178	74

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Soil Samples

Location (UTM Zone 10 North NAD83)		Sample	Grid Coordinates		Contour Line	Zone	Map	Tenure	XRF Analysis	
Easting	Northing		Line	Station					Cu (ppm)	As (ppm)
348591	6231675	230			1450m-S	Tenakihi	M09	1011480	137	66
348572	6231635	231			1450m-S	Tenakihi	M09	1011480	127	17
348539	6231600	232			1450m-S	Tenakihi	M09	1011480	112	17
348507	6231572	234			1450m-S	Tenakihi	M09	1011480	154	70
348465	6231530	235			1450m-S	Tenakihi	M09	1011480	148	71
348431	6231495	236			1450m-S	Tenakihi	M09	1011480	193	82
348399	6231460	237			1450m-S	Tenakihi	M09	1011480	173	65
348367	6231429	238			1450m-S	Tenakihi	M09	1011480	162	113
348335	6231398	239			1450m-S	Tenakihi	M09	1011480	163	66
348299	6231363	240			1450m-S	Tenakihi	M09	1011480	203	35
348266	6231329	241			1450m-S	Tenakihi	M09	1011480	130	76
348224	6231299	242			1450m-S	Tenakihi	M09	1011480	95	54
348191	6231261	243			1450m-S	Tenakihi	M09	1011480	149	55
348160	6231217	244			1450m-S	Tenakihi	M09	1011480	53	17
348140	6231183	245			1450m-S	Tenakihi	M09	1011480	213	17
348105	6231141	246			1450m-S	Tenakihi	M09	1011480	45	17
348071	6231118	247			1450m-S	Tenakihi	M09	1011480	52	17
348035	6231082	248			1450m-S	Tenakihi	M09	1011480	111	46
347998	6231062	249			1450m-S	Tenakihi	M09	1011480	102	57
347972	6231024	250			1450m-S	Tenakihi	M09	1011480	204	92
347949	6230988	251			1450m-S	Tenakihi	M09	1011480	33	37
347927	6230954	252			1450m-S	Tenakihi	M09	1011480	235	59
347895	6230913	254			1450m-S	Tenakihi	M09	1011480	274	92
347871	6230873	255			1450m-S	Tenakihi	M09	1011480	163	17
337595	6221624	256			Creek 2	Osilinka	M05	689926	151	17
337668	6221679	257			Creek 2	Osilinka	M05	689926	67	17
337724	6221760	258			Creek 2	Osilinka	M05	689926	106	17
337780	6221831	259			Creek 2	Osilinka	M05	689926	94	17
337848	6221897	260			Creek 2	Osilinka	M05	689926	73	17
337922	6221955	261			Creek 2	Osilinka	M05	689926	107	17
337986	6222025	262			Creek 2	Osilinka	M05	689926	96	17
338058	6222080	263			Creek 2	Osilinka	M05	689926	68	17
338130	6222140	264			Creek 2	Osilinka	M05	689926	104	17
338203	6222200	266			Creek 2	Osilinka	M05	689926	203	17
338268	6222270	267			Creek 2	Osilinka	M05	689926	609	17
338289	6222362	268			Creek 2	Osilinka	M06	689926	98	17
347701	6215839	269			1300m	Link	M14	877909	201	17
347636	6215852	270			1300m	Link	M14	877909	157	17
347555	6215905	271			1300m	Link	M14	877909	158	17
347463	6215946	272			1300m	Link	M14	877909	142	17
347384	6216000	273			1300m	Link	M14	877909	166	17
347307	6216017	274			1300m	Link	M14	877909	196	17
347224	6216081	275			1300m	Link	M14	877909	157	17
338808	6220311	276			Creek 1	Osilinka	M05	689926	134	17
338848	6220390	277			Creek 1	Osilinka	M05	689926	113	17
338850	6220482	278			Creek 1	Osilinka	M05	689926	102	17
338908	6220558	279			Creek 1	Osilinka	M04	689926	104	17
338943	6220640	280			Creek 1	Osilinka	M04	689926	26	37
338988	6220739	281			Creek 1	Osilinka	M04	689866	132	17
339033	6220806	283			Creek 1	Osilinka	M04	689866	64	17
339121	6220939	285			Creek 1	Osilinka	M04	689866	97	17
339178	6221033	286			Creek 1	Osilinka	M04	689866	56	17
339222	6221103	287			Creek 1	Osilinka	M04	689866	93	17
339267	6221161	288			Creek 1	Osilinka	M04	689866	37	17
339314	6221230	289			Creek 1	Osilinka	M04	689866	262	17
347190	6216096	290			1300m	Link	M14	877909	117	17
347149	6216124	292			1300m	Link	M14	877909	157	17
347106	6216147	293			1300m	Link	M14	877909	215	17
347074	6216165	294			1300m	Link	M14	877909	189	17
347025	6216183	295			1300m	Link	M14	877909	321	17
346981	6216233	296			1300m	Link	M14	689843	226	17

Cathedral Property

Soil Samples

Location (UTM Zone 10 North NAD83)		Sample	Grid Coordinates		Contour Line	Zone	Map	Tenure	XRF Analysis	
Easting	Northing		Line	Station					Cu (ppm)	As (ppm)
346951	6216249	297			1300m	Link	M14	689843	317	17
346906	6216282	298			1300m	Link	M14	689843	228	46
346857	6216312	299			1300m	Link	M14	689843	146	17
346816	6216321	300			1300m	Link	M14	689843	124	17
346784	6216354	301			1300m	Link	M14	689843	125	17
346743	6216377	302			1300m	Link	M14	689843	203	17
346690	6216394	303			1300m	Link	M14	689843	107	17
346645	6216407	304			1300m	Link	M14	689843	114	17
346600	6216433	305			1300m	Link	M14	689843	177	17
346564	6216453	306			1300m	Link	M14	689843	457	17
346496	6216476	307			1300m	Link	M14	689843	110	17
346410	6216529	308			1300m	Link	M14	689843	150	17
346322	6216571	309			1300m	Link	M14	689843	99	40
346240	6216611	310			1300m	Link	M14	689843	501	71
346163	6216658	311			1300m	Link	M14	689843	69	17
346067	6216703	312			1300m	Link	M14	689843	632	80
346001	6216750	313			1300m	Link	M14	689843	151	17
348124	6219055	381			1600m	Cathedral	M03	689828	1475	335
348149	6219062	382			1600m	Cathedral	M03	689828	761	285
348172	6219072	383			1600m	Cathedral	M03	689828	858	189
348193	6219074	384			1600m	Cathedral	M03	689828	305	163
348210	6219080	385			1600m	Cathedral	M03	689828	356	387
348240	6219092	386			1600m	Cathedral	M03	689828	447	1182
348264	6219097	387			1600m	Cathedral	M03	837064	565	1478
348282	6219098	389			1600m	Cathedral	M03	837064	134	448
348308	6219105	390			1600m	Cathedral	M03	837064	745	782
348333	6219112	391			1600m	Cathedral	M03	837064	112	67
348350	6219121	392			1600m	Cathedral	M03	837064	449	341
348380	6219137	393			1600m	Cathedral	M03	837064	1264	823
348403	6219143	394			1600m	Cathedral	M03	837064	259	187
348428	6219148	395			1600m	Cathedral	M03	837064	106	86
348449	6219162	396			1600m	Cathedral	M03	837064	218	216
348475	6219167	397			1600m	Cathedral	M03	837064	152	103
348493	6219167	398			1600m	Cathedral	M03	837064	342	226
348512	6219180	399			1600m	Cathedral	M03	837064	287	198
348537	6219188	400			1600m	Cathedral	M03	837064	205	98
348558	6219198	401			1600m	Cathedral	M03	837064	185	75
348589	6219198	402			1600m	Cathedral	M03	837064	410	437
348608	6219202	403			1600m	Cathedral	M03	837064	371	409
348631	6219206	404			1600m	Cathedral	M03	837064	637	646
348657	6219207	405			1600m	Cathedral	M03	837064	153	143
348678	6219210	406			1600m	Cathedral	M03	837064	335	105
348706	6219212	407			1600m	Cathedral	M03	837064	505	86
348730	6219207	409			1600m	Cathedral	M03	837064	241	48
348755	6219204	410			1600m	Cathedral	M03	837064	346	158
348779	6219199	411			1600m	Cathedral	M03	837064	145	91
348800	6219206	412			1600m	Cathedral	M03	837064	322	17
348825	6219204	413			1600m	Cathedral	M03	837064	167	51
348846	6219203	414			1600m	Cathedral	M03	837064	290	82
348871	6219203	415			1600m	Cathedral	M03	837064	274	70
348905	6219203	416			1600m	Cathedral	M03	837064	230	51
348931	6219214	417			1600m	Cathedral	M03	837064	345	110
348954	6219215	418			1600m	Cathedral	M03	837064	168	51
348975	6219216	420			1600m	Cathedral	M03	837064	102	43
349002	6219213	421			1600m	Cathedral	M03	837064	98	17
349029	6219202	422			1600m	Cathedral	M03	837064	80	17
349057	6219216	423			1600m	Cathedral	M03	837064	79	17
349064	6219210	424			1600m	Cathedral	M03	837064	84	36
349086	6219208	425			1600m	Cathedral	M03	837064	95	66
349113	6219204	426			1600m	Cathedral	M03	837064	119	46
349139	6219202	427			1600m	Cathedral	M03	837064	141	17

Cathedral Property

Soil Samples

Location (UTM Zone 10 North NAD83)		Sample	Grid Coordinates		Contour Line	Zone	Map	Tenure	XRF Analysis	
Easting	Northing		Line	Station					Cu (ppm)	As (ppm)
349163	6219192	429			1600m	Cathedral	M03	837064	223	17
349184	6219185	430			1600m	Cathedral	M03	837064	211	58
349212	6219184	431			1600m	Cathedral	M03	837064	129	83
349233	6219179	432			1600m	Cathedral	M03	837064	94	59
349258	6219173	433			1600m	Cathedral	M03	837064	80	17
349282	6219168	434			1600m	Cathedral	M03	837064	116	57
349307	6219171	435			1600m	Cathedral	M03	837064	100	39
349332	6219171	436			1600m	Cathedral	M03	837064	66	17
349355	6219158	437			1600m	Cathedral	M03	837064	163	42
349373	6219169	438			1600m	Cathedral	M03	837064	78	40
349407	6219164	439			1600m	Cathedral	M03	837064	146	55
349433	6219158	440			1600m	Cathedral	M03	837071	83	17
349459	6219160	441			1600m	Cathedral	M03	837071	212	58
349481	6219164	442			1600m	Cathedral	M03	837071	194	197
349497	6219168	443			1600m	Cathedral	M03	837071	69	17
349530	6219179	444			1600m	Cathedral	M03	837071	92	17
349551	6219179	445			1600m	Cathedral	M03	837071	59	45
349573	6219175	446			1600m	Cathedral	M03	837071	86	49
349599	6219175	447			1600m	Cathedral	M03	837071	152	61
349625	6219189	448			1600m	Cathedral	M03	837071	111	45
349647	6219191	449			1600m	Cathedral	M03	837071	94	47
349671	6219192	450			1600m	Cathedral	M03	837071	60	17
349691	6219201	451			1600m	Cathedral	M03	837071	98	57
349721	6219194	452			1600m	Cathedral	M03	837071	165	17
349740	6219199	453			1600m	Cathedral	M03	837071	91	53
349766	6219207	454			1600m	Cathedral	M03	837071	250	67
349791	6219200	455			1600m	Cathedral	M03	837071	144	45
349865	6219207	457			1600m	Cathedral	M03	837071	203	17
349889	6219201	458			1600m	Cathedral	M03	837071	123	17
349911	6219201	459			1600m	Cathedral	M03	837071	94	54
349934	6219203	460			1600m	Cathedral	M03	837071	90	39
349957	6219205	461			1600m	Cathedral	M03	837071	69	54
349982	6219202	462			1600m	Cathedral	M03	837071	99	53
350005	6219198	464			1600m	Cathedral	M03	837071	158	64
350031	6219193	465			1600m	Cathedral	M03	837071	70	52
350057	6219194	466			1600m	Cathedral	M03	837071	126	69
350081	6219191	467			1600m	Cathedral	M03	837071	122	17
350103	6219190	468			1600m	Cathedral	M03	837071	191	17
350132	6219195	469			1600m	Cathedral	M03	837071	136	17
348107	6217822	470			1700m	Cathedral	M03	689828	282	46
348086	6217836	471			1700m	Cathedral	M03	689828	182	82
348067	6217849	472			1700m	Cathedral	M03	689828	497	64
348044	6217862	473			1700m	Cathedral	M03	689828	308	39
348027	6217881	474			1700m	Cathedral	M03	689828	237	96
348004	6217887	475			1700m	Cathedral	M03	689828	139	53
347987	6217909	476			1700m	Cathedral	M03	689828	110	41
347971	6217928	477			1700m	Cathedral	M03	689828	226	57
347952	6217945	478			1700m	Cathedral	M03	689828	228	17
347932	6217962	479			1700m	Cathedral	M03	689828	188	81
347912	6217970	480			1700m	Cathedral	M03	689828	740	95
347890	6217987	481			1700m	Cathedral	M03	689828	154	17
347873	6218000	482			1700m	Cathedral	M03	689828	221	60
347859	6218012	483			1700m	Cathedral	M03	689828	256	17
347833	6218024	484			1700m	Cathedral	M03	689828	228	17
347819	6218048	485			1700m	Cathedral	M03	689828	177	51
348101	6219049	486			1600m	Cathedral	M03	689828	1027	389
348077	6219042	487			1600m	Cathedral	M03	689828	517	97
348059	6219026	488			1600m	Cathedral	M03	689828	1986	185
348036	6219016	489			1600m	Cathedral	M03	689828	690	52
348013	6219006	491			1600m	Cathedral	M03	689828	238	61
347989	6218995	492			1600m	Cathedral	M03	689828	143	71

Cathedral Property

Soil Samples

Location (UTM Zone 10 North NAD83)		Sample	Grid Coordinates		Contour Line	Zone	Map	Tenure	XRF Analysis	
Easting	Northing		Line	Station					Cu (ppm)	As (ppm)
347969	6218990	493			1600m	Cathedral	M03	689828	105	48
347943	6218978	494			1600m	Cathedral	M03	689828	281	233
347919	6218967	495			1600m	Cathedral	M03	689828	124	17
347898	6218960	496			1600m	Cathedral	M03	689828	168	63
347875	6218947	497			1600m	Cathedral	M03	689828	202	60
347852	6218940	498			1600m	Cathedral	M03	689828	158	49
347831	6218930	499			1600m	Cathedral	M03	689828	256	71
347809	6218920	501			1600m	Cathedral	M03	689828	204	45
347788	6218905	502			1600m	Cathedral	M03	689828	231	59
347761	6218893	503			1600m	Cathedral	M03	689828	126	52
347740	6218888	504			1600m	Cathedral	M03	689828	317	53
347716	6218883	505			1600m	Cathedral	M03	689828	275	88
347692	6218869	506			1600m	Cathedral	M03	689828	219	17
347674	6218859	507			1600m	Cathedral	M03	689828	2118	127
347647	6218850	508			1600m	Cathedral	M03	689828	500	51
347628	6218846	509			1600m	Cathedral	M03	689828	117	56
347604	6218843	510			1600m	Cathedral	M03	689828	456	91
347583	6218835	511			1600m	Cathedral	M03	689828	1717	109
347565	6218829	512			1600m	Cathedral	M03	689828	590	123
347544	6218810	513			1600m	Cathedral	M03	689828	720	91
347518	6218801	514			1600m	Cathedral	M03	689828	1544	297
347496	6218792	515			1600m	Cathedral	M03	689828	650	241
347475	6218783	516			1600m	Cathedral	M03	689828	263	85
347453	6218786	517			1600m	Cathedral	M03	689828	293	67
347426	6218778	518			1600m	Cathedral	M03	689828	692	163
347404	6218771	519			1600m	Cathedral	M03	689828	218	17
347376	6218765	520			1600m	Cathedral	M03	689828	604	145
347355	6218757	521			1600m	Cathedral	M03	689828	567	92
347335	6218754	522			1600m	Cathedral	M03	689828	467	94
347305	6218741	523			1600m	Cathedral	M03	689828	607	78
347290	6218733	525			1600m	Cathedral	M03	689828	1535	119
347283	6218709	526			1600m	Cathedral	M03	689828	149	65
347280	6218678	528			1600m	Cathedral	M03	689828	129	57
347279	6218658	529			1600m	Cathedral	M03	689828	582	17
347282	6218626	530			1600m	Cathedral	M03	689828	86	46
347281	6218604	531			1600m	Cathedral	M03	689828	196	45
347278	6218578	532			1600m	Cathedral	M03	689828	139	57
347273	6218560	533			1600m	Cathedral	M03	689828	173	17
347264	6218533	534			1600m	Cathedral	M03	689828	516	105
347255	6218512	535			1600m	Cathedral	M03	689828	387	108
347243	6218487	536			1600m	Cathedral	M03	689828	951	137
347236	6218463	537			1600m	Cathedral	M03	689828	196	60
347230	6218438	538			1600m	Cathedral	M03	689828	128	36
347218	6218418	539			1600m	Cathedral	M03	689828	178	17
347211	6218390	540			1600m	Cathedral	M03	689828	180	45
347209	6218382	541			1600m	Cathedral	M03	689828	207	52
347231	6218357	542			1600m	Cathedral	M03	689828	145	17
347248	6218338	543			1600m	Cathedral	M03	689828	435	45
347264	6218318	544			1600m	Cathedral	M03	689828	157	74
347284	6218299	545			1600m	Cathedral	M03	689828	174	56
347298	6218279	546			1600m	Cathedral	M03	689828	634	63
347315	6218267	547			1600m	Cathedral	M03	689828	452	63
347336	6218252	548			1600m	Cathedral	M03	689828	165	46
347355	6218246	549			1600m	Cathedral	M03	689828	76	17
347374	6218250	550			1600m	Cathedral	M03	689828	538	50
347397	6218260	551			1600m	Cathedral	M03	689828	218	98
347420	6218260	552			1600m	Cathedral	M03	689828	151	49
347445	6218272	553			1600m	Cathedral	M03	689828	190	68
347469	6218277	554			1600m	Cathedral	M03	689828	191	76
347495	6218269	555			1600m	Cathedral	M03	689828	264	43
347514	6218271	556			1600m	Cathedral	M03	689828	117	17

Cathedral Property

Soil Samples

Location (UTM Zone 10 North NAD83)		Sample	Grid Coordinates		Contour Line	Zone	Map	Tenure	XRF Analysis	
Easting	Northing		Line	Station					Cu (ppm)	As (ppm)
347536	6218269	557			1600m	Cathedral	M03	689828	53	42
347559	6218273	558			1600m	Cathedral	M03	689828	160	17
347587	6218279	560			1600m	Cathedral	M03	689828	322	55
347609	6218287	561			1600m	Cathedral	M03	689828	135	54
347638	6218292	562			1600m	Cathedral	M03	689828	216	57
347658	6218301	563			1600m	Cathedral	M03	689828	1131	106
347678	6218309	564			1600m	Cathedral	M03	689828	781	122
347702	6218313	565			1600m	Cathedral	M03	689828	773	90
347727	6218322	566			1600m	Cathedral	M03	689828	195	53
347751	6218331	567			1600m	Cathedral	M03	689828	354	67
347774	6218338	568			1600m	Cathedral	M03	689828	409	72
347794	6218345	569			1600m	Cathedral	M03	689828	265	17
347822	6218346	570			1600m	Cathedral	M03	689828	279	61
347838	6218331	572			1600m	Cathedral	M03	689828	1422	53
347847	6218312	573			1600m	Cathedral	M03	689828	636	59
347863	6218294	574			1600m	Cathedral	M03	689828	317	56
347882	6218280	575			1600m	Cathedral	M03	689828	197	41
347904	6218269	576			1600m	Cathedral	M03	689828	250	850
347924	6218253	577			1600m	Cathedral	M03	689828	178	112
347804	6218062	591			1700m	Cathedral	M03	689828	200	51
347792	6218089	592			1700m	Cathedral	M03	689828	95	41
347779	6218107	593			1700m	Cathedral	M03	689828	171	63
347759	6218120	594			1700m	Cathedral	M03	689828	148	76
347738	6218136	595			1700m	Cathedral	M03	689828	246	75
347715	6218151	596			1700m	Cathedral	M03	689828	166	47
347691	6218148	597			1700m	Cathedral	M03	689828	227	50
347672	6218130	598			1700m	Cathedral	M03	689828	209	39
347656	6218108	599			1700m	Cathedral	M03	689828	211	47
347635	6218098	601			1700m	Cathedral	M03	689828	168	61
347615	6218082	602			1700m	Cathedral	M03	689828	76	17
347592	6218077	603			1700m	Cathedral	M03	689828	180	17
347565	6218070	604			1700m	Cathedral	M03	689828	299	17
347544	6218072	605			1700m	Cathedral	M03	689828	350	17
347517	6218074	606			1700m	Cathedral	M03	689828	276	46
347494	6218069	607			1700m	Cathedral	M03	689828	161	62
347471	6218073	609			1700m	Cathedral	M03	689828	199	71
347447	6218081	610			1700m	Cathedral	M03	689828	375	56
347628	6219221	611			1800m	Cathedral	M03	689828	279	43
347609	6219218	612			1800m	Cathedral	M03	689828	391	67
347591	6219201	613			1800m	Cathedral	M03	689828	361	54
347571	6219187	614			1800m	Cathedral	M03	689828	234	17
347561	6219165	615			1800m	Cathedral	M03	689828	654	84
347551	6219149	616			1800m	Cathedral	M03	689828	440	66
347540	6219127	617			1800m	Cathedral	M03	689828	427	159
347532	6219106	618			1800m	Cathedral	M03	689828	1865	257
347525	6219085	619			1800m	Cathedral	M03	689828	878	303
347508	6219097	620			1800m	Cathedral	M03	689828	754	166
347496	6219106	621			1800m	Cathedral	M03	689828	730	137
347472	6219108	622			1800m	Cathedral	M03	689828	517	123
347464	6219123	623			1800m	Cathedral	M03	689828	467	67
347455	6219138	624			1800m	Cathedral	M03	689828	616	61
347438	6219151	625			1800m	Cathedral	M03	689828	509	91
347422	6219159	626			1800m	Cathedral	M03	689828	372	142
347401	6219162	627			1800m	Cathedral	M03	689828	648	321
347381	6219147	628			1800m	Cathedral	M03	689828	910	104
347356	6219146	629			1800m	Cathedral	M03	689828	408	108
347337	6219146	630			1800m	Cathedral	M03	689828	324	17
337974	6231847	TF-06				Lake	M07	688823	157	17
337787	6231848	TF-07				Lake	M07	688823	223	17
337658	6231870	TF-08				Lake	M07	688823	324	17
337568	6231829	TF-09				Lake	M07	688823	289	46

Cathedral Property

Soil Samples

Location (UTM Zone 10 North NAD83)		Sample	Grid Coordinates		Contour Line	Zone	Map	Tenure	XRF Analysis	
Easting	Northing		Line	Station					Cu (ppm)	As (ppm)
337495	6231847	TF-10				Lake	M07	688823	379	17
337379	6231861	TF-11				Lake	M07	688823	160	17
337283	6231881	TF-12				Lake	M07	688823	144	17
337188	6231858	TF-13				Lake	M07	688823	123	17
337082	6231840	TF-14				Lake	M07	688823	181	17
336986	6231841	TF-15				Lake	M07	688843	312	17
336877	6231841	TF-16				Lake	M07	688843	932	17
336758	6231848	TF-17				Lake	M07	688843	447	17
336633	6231841	TF-18				Lake	M07	688843	572	17
336504	6231871	TF-19				Lake	M07	688843	475	17
336386	6231892	TF-20				Lake	M07	688843	263	17
348179	6215004		20800N	3900E		Link		837059	284	17
348204	6215006		20800N	3925E		Link		837059	72	17
348230	6215008		20800N	3950E		Link		837059	186	17
348255	6215009		20800N	3975E		Link		837059	109	17
348280	6215011		20800N	4000E		Link		837059	126	17
348305	6215011		20800N	4025E		Link		837059	114	17
348329	6215011		20800N	4050E		Link		837059	104	17
348354	6215010		20800N	4075E		Link		837059	56	17
348378	6215010		20800N	4100E		Link		837059	NS	NS
348402	6215010		20800N	4125E		Link		837059	NS	NS
348426	6215010		20800N	4150E		Link		837059	NS	NS
348450	6215009		20800N	4175E		Link		837059	87	17
348474	6215009		20800N	4200E		Link		837059	129	17
348500	6215009		20800N	4225E		Link		837059	148	17
348526	6215008		20800N	4250E		Link		837059	435	17
348551	6215008		20800N	4275E		Link		837059	226	17
348577	6215007		20800N	4300E		Link		837059	223	17
348602	6215007		20800N	4325E		Link		837059	128	17
348626	6215007		20800N	4350E		Link		837059	109	17
348651	6215007		20800N	4375E		Link		837059	80	17
348675	6215007		20800N	4400E		Link		837059	250	17
348700	6215008		20800N	4425E		Link		837059	NS	NS
348726	6215008		20800N	4450E		Link		837059	NS	NS
348751	6215009		20800N	4475E		Link		837059	NS	NS
348776	6215009		20800N	4500E		Link		837059	136	17
348800	6215009		20800N	4525E		Link		837059	275	17
348824	6215008		20800N	4550E		Link		837059	111	17
348848	6215008		20800N	4575E		Link		837059	80	17
348872	6215007		20800N	4600E		Link		837059	94	17
348897	6215006		20800N	4625E		Link		837059	116	17
348922	6215005		20800N	4650E		Link		837059	109	17
348946	6215003		20800N	4675E		Link		837059	236	17
348971	6215002		20800N	4700E		Link		837059	47	17
348995	6215003		20800N	4725E		Link		837059	204	17
349019	6215005		20800N	4750E		Link		837059	75	17
349043	6215006		20800N	4775E		Link		837059	183	17
349067	6215007		20800N	4800E		Link		837059	178	52
349091	6215007		20800N	4825E		Link		837059	204	108
349116	6215007		20800N	4850E		Link		837059	207	56
349140	6215007		20800N	4875E		Link		837059	297	176
349164	6215007		20800N	4900E		Link		837059	268	17
349189	6215007		20800N	4925E		Link		837059	116	17
349214	6215006		20800N	4950E		Link		837059	115	17
349239	6215006		20800N	4975E		Link		837059	140	17
349264	6215005		20800N	5000E		Link		837059	372	17
349289	6215005		20800N	5025E		Link		837069	143	192
349314	6215005		20800N	5050E		Link		837069	211	17
349338	6215005		20800N	5075E		Link		837069	164	17
349363	6215005		20800N	5100E		Link		837069	76	17
349388	6215004		20800N	5125E		Link		837069	99	17

Cathedral Property

Soil Samples

Location (UTM Zone 10 North NAD83)		Sample	Grid Coordinates		Contour Line	Zone	Map	Tenure	XRF Analysis	
Easting	Northing		Line	Station					Cu (ppm)	As (ppm)
349412	6215004		20800N	5150E		Link		837069	200	17
349437	6215003		20800N	5175E		Link		837069	44	17
349461	6215002		20800N	5200E		Link		837069	39	17
349485	6215002		20800N	5225E		Link		837069	64	17
349509	6215003		20800N	5250E		Link		837069	166	17
349532	6215003		20800N	5275E		Link		837069	639	17
349556	6215003		20800N	5300E		Link		837069	137	17
349580	6215003		20800N	5325E		Link		837069	185	17
349605	6215003		20800N	5350E		Link		837069	104	17
349629	6215003		20800N	5375E		Link		837069	231	17
349653	6215003		20800N	5400E		Link		837069	132	17
349678	6215003		20800N	5425E		Link		837069	137	17
349702	6215004		20800N	5450E		Link		837069	193	17
349727	6215004		20800N	5475E		Link		837069	97	17
349751	6215004		20800N	5500E		Link		837069	93	17
349776	6215003		20800N	5525E		Link		837069	128	17
349802	6215003		20800N	5550E		Link		837069	67	17
349827	6215002		20800N	5575E		Link		837069	92	17
349852	6215001		20800N	5600E		Link		837069	77	17
349875	6215003		20800N	5625E		Link		837069	147	17
349898	6215004		20800N	5650E		Link		837069	61	17
349920	6215006		20800N	5675E		Link		837069	430	17
349943	6215007		20800N	5700E		Link		837069	263	17
349945	6215050		20850N	5700E		Link		837069	374	17
349583	6215095		20900N	5325E		Link		837069	121	17
349607	6215099		20900N	5350E		Link		837069	121	17
349632	6215103		20900N	5375E		Link		837069	106	17
349656	6215107		20900N	5400E		Link		837069	78	17
349682	6215106		20900N	5425E		Link		837069	145	17
349709	6215105		20900N	5450E		Link		837069	171	17
349735	6215103		20900N	5475E		Link		837069	77	17
349761	6215102		20900N	5500E		Link		837069	93	17
349946	6215093		20900N	5700E		Link		837069	69	17
349948	6215143		20950N	5700E		Link		837069	142	17
349949	6215193		21000N	5700E		Link		837069	142	17
349950	6215241		21050N	5700E		Link		837069	105	17
347362	6215291		21100N	3100E		Link		877909	301	56
347386	6215291		21100N	3125E		Link		877909	197	41
347410	6215290		21100N	3150E		Link		877909	155	17
347434	6215290		21100N	3175E		Link		877909	308	57
347458	6215289		21100N	3200E		Link		877909	182	17
347483	6215289		21100N	3225E		Link		877909	204	50
347507	6215289		21100N	3250E		Link		877909	253	42
347532	6215288		21100N	3275E		Link		877909	300	17
347556	6215288		21100N	3300E		Link		877909	230	51
347582	6215289		21100N	3325E		Link		877909	190	43
347608	6215289		21100N	3350E		Link		877909	223	17
347633	6215290		21100N	3375E		Link		877909	247	17
347659	6215290		21100N	3400E		Link		877909	286	17
347682	6215290		21100N	3425E		Link		877909	135	36
347705	6215289		21100N	3450E		Link		877909	171	35
347728	6215289		21100N	3475E		Link		877909	NS	NS
347751	6215288		21100N	3500E		Link		877909	202	17
347776	6215288		21100N	3525E		Link		877909	428	17
347801	6215289		21100N	3550E		Link		877909	258	17
347825	6215289		21100N	3575E		Link		877909	172	17
347850	6215289		21100N	3600E		Link		877909	159	17
347875	6215290		21100N	3625E		Link		877909	86	17
347899	6215291		21100N	3650E		Link		877909	159	17
347924	6215291		21100N	3675E		Link		877909	259	17
347948	6215292		21100N	3700E		Link		877909	NS	NS

Cathedral Property

Soil Samples

Location (UTM Zone 10 North NAD83)		Sample	Grid Coordinates		Contour Line	Zone	Map	Tenure	XRF Analysis	
Easting	Northing		Line	Station					Cu (ppm)	As (ppm)
347974	6215292		21100N	3725E		Link		877909	NS	NS
347999	6215292		21100N	3750E		Link		877909	NS	NS
348025	6215292		21100N	3775E		Link		877909	NS	NS
348050	6215292		21100N	3800E		Link		877909	NS	NS
348074	6215293		21100N	3825E		Link		877909	174	17
348097	6215295		21100N	3850E		Link		877909	166	42
348121	6215296		21100N	3875E		Link		877909	NS	NS
348144	6215297		21100N	3900E		Link		837069	NS	NS
348169	6215295		21100N	3925E		Link		837069	88	17
348193	6215293		21100N	3950E		Link		837069	182	52
348218	6215291		21100N	3975E		Link		837069	504	41
348242	6215289		21100N	4000E		Link		837069	102	17
348269	6215290		21100N	4025E		Link		837069	171	17
348296	6215291		21100N	4050E		Link		837069	129	17
348323	6215292		21100N	4075E		Link		837069	235	83
348350	6215293		21100N	4100E		Link		837069	NS	NS
348376	6215293		21100N	4125E		Link		837069	NS	NS
348402	6215294		21100N	4150E		Link		837069	NS	NS
348428	6215294		21100N	4175E		Link		837069	123	17
348454	6215294		21100N	4200E		Link		837069	99	17
348477	6215294		21100N	4225E		Link		837069	354	38
348501	6215293		21100N	4250E		Link		837069	639	33
348524	6215293		21100N	4275E		Link		837069	142	17
348547	6215292		21100N	4300E		Link		837069	NS	NS
348572	6215292		21100N	4325E		Link		837069	86	17
348597	6215291		21100N	4350E		Link		837069	88	17
348621	6215291		21100N	4375E		Link		837069	NS	17
348646	6215290		21100N	4400E		Link		837069	202	36
348671	6215290		21100N	4425E		Link		837069	126	17
348695	6215290		21100N	4450E		Link		837069	76	17
348720	6215289		21100N	4475E		Link		837069	76	17
348744	6215289		21100N	4500E		Link		837069	114	17
348771	6215291		21100N	4525E		Link		837069	160	17
348797	6215294		21100N	4550E		Link		837069	95	17
348824	6215296		21100N	4575E		Link		837069	329	17
348850	6215298		21100N	4600E		Link		837069	246	17
348875	6215297		21100N	4625E		Link		837069	91	17
348900	6215295		21100N	4650E		Link		837069	153	17
348925	6215294		21100N	4675E		Link		837069	87	17
348950	6215292		21100N	4700E		Link		837069	35	17
348974	6215292		21100N	4725E		Link		837069	63	17
348999	6215291		21100N	4750E		Link		837069	NS	NS
349023	6215291		21100N	4775E		Link		837069	NS	NS
349047	6215290		21100N	4800E		Link		837069	NS	NS
349072	6215291		21100N	4825E		Link		837069	135	17
349098	6215292		21100N	4850E		Link		837069	94	69
349123	6215292		21100N	4875E		Link		837069	94	17
349148	6215293		21100N	4900E		Link		837069	135	17
349174	6215294		21100N	4925E		Link		837069	NS	NS
349200	6215295		21100N	4950E		Link		837069	136	83
349225	6215296		21100N	4975E		Link		837069	222	17
349251	6215297		21100N	5000E		Link		837069	243	17
349276	6215296		21100N	5025E		Link		837069	273	17
349302	6215295		21100N	5050E		Link		837069	204	17
349327	6215293		21100N	5075E		Link		837069	131	17
349352	6215292		21100N	5100E		Link		837069	106	17
349376	6215291		21100N	5125E		Link		837069	190	17
349401	6215290		21100N	5150E		Link		837069	127	17
349425	6215289		21100N	5175E		Link		837069	72	17
349449	6215288		21100N	5200E		Link		837069	65	17
349475	6215288		21100N	5225E		Link		837069	64	17

Cathedral Property

Soil Samples

Location (UTM Zone 10 North NAD83)		Sample	Grid Coordinates		Contour Line	Zone	Map	Tenure	XRF Analysis	
Easting	Northing		Line	Station					Cu (ppm)	As (ppm)
349502	6215289		21100N	5250E		Link		837069	65	17
349528	6215289		21100N	5275E		Link		837069	135	17
349554	6215289		21100N	5300E		Link		837069	72	17
349579	6215288		21100N	5325E		Link		837069	184	17
349604	6215286		21100N	5350E		Link		837069	NS	NS
349629	6215285		21100N	5375E		Link		837069	82	17
349654	6215283		21100N	5400E		Link		837069	122	17
349679	6215285		21100N	5425E		Link		837069	106	17
349704	6215286		21100N	5450E		Link		837069	92	17
349729	6215288		21100N	5475E		Link		837069	163	17
349754	6215289		21100N	5500E		Link		837069	131	17
349779	6215288		21100N	5525E		Link		837069	NS	NS
349804	6215287		21100N	5550E		Link		837069	83	17
349829	6215285		21100N	5575E		Link		837069	NS	NS
349854	6215284		21100N	5600E		Link		837069	NS	NS
349878	6215285		21100N	5625E		Link		837069	101	17
349902	6215287		21100N	5650E		Link		837069	180	17
349926	6215288		21100N	5675E		Link		837069	NS	NS
349950	6215289		21100N	5700E		Link		837069	226	
349950	6215289		21100N	5700E		Link		837069	NS	17
349950	6215337		21150N	5700E		Link		837069	NS	NS
349950	6215384		21200N	5700E		Link		837069	NS	NS
349951	6215432		21250N	5700E		Link		837069	240	17
347428	6215480		21300N	3100E		Link		877909	297	61
347453	6215480		21300N	3125E		Link		877909	269	58
347478	6215480		21300N	3150E		Link		877909	297	81
347502	6215480		21300N	3175E		Link		877909	299	50
347527	6215480		21300N	3200E		Link		877909	227	90
347551	6215480		21300N	3225E		Link		877909	185	17
347576	6215480		21300N	3250E		Link		877909	172	17
347600	6215480		21300N	3275E		Link		877909	316	42
347624	6215480		21300N	3300E		Link		877909	NS	NS
347648	6215480		21300N	3325E		Link		877909	NS	NS
347673	6215480		21300N	3350E		Link		877909	202	75
347697	6215480		21300N	3375E		Link		877909	317	17
347721	6215480		21300N	3400E		Link		877909	180	48
347746	6215480		21300N	3425E		Link		877909	248	66
347771	6215480		21300N	3450E		Link		877909	188	131
347795	6215480		21300N	3475E		Link		877909	185	190
347820	6215480		21300N	3500E		Link		877909	338	17
347846	6215480		21300N	3525E		Link		877909	208	17
347872	6215480		21300N	3550E		Link		877909	385	17
347898	6215479		21300N	3575E		Link		877909	205	17
347924	6215479		21300N	3600E		Link		877909	123	17
347948	6215480		21300N	3625E		Link		877909	196	17
347973	6215480		21300N	3650E		Link		877909	112	17
347997	6215481		21300N	3675E		Link		877909	50	17
348021	6215481		21300N	3700E		Link		877909	151	17
348046	6215481		21300N	3725E		Link		877909	125	17
348070	6215481		21300N	3750E		Link		877909	41	17
348095	6215480		21300N	3775E		Link		877909	285	332
348119	6215480		21300N	3800E		Link		877909	171	164
348144	6215480		21300N	3825E		Link		837069	120	17
348169	6215481		21300N	3850E		Link		837069	122	17
348193	6215481		21300N	3875E		Link		837069	249	17
348218	6215481		21300N	3900E		Link		837069	NS	NS
348243	6215481		21300N	3925E		Link		837069	87	17
348267	6215480		21300N	3950E		Link		837069	52	64
348292	6215480		21300N	3975E		Link		837069	96	17
348316	6215479		21300N	4000E		Link		837069	69	17
348342	6215480		21300N	4025E		Link		837069	1025	116

Cathedral Property

Soil Samples

Location (UTM Zone 10 North NAD83)		Sample	Grid Coordinates		Contour Line	Zone	Map	Tenure	XRF Analysis	
Easting	Northing		Line	Station					Cu (ppm)	As (ppm)
348368	6215481		21300N	4050E		Link		837069	158	17
348394	6215482		21300N	4075E		Link		837069	NS	NS
348420	6215483		21300N	4100E		Link		837069	66	17
348442	6215482		21300N	4125E		Link		837069	222	34
348465	6215482		21300N	4150E		Link		837069	208	105
348487	6215481		21300N	4175E		Link		837069	321	47
348509	6215480		21300N	4200E		Link		837069	297	56
348534	6215481		21300N	4225E		Link		837069	NS	NS
348558	6215481		21300N	4250E		Link		837069	NS	NS
348583	6215482		21300N	4275E		Link		837069	NS	NS
348607	6215482		21300N	4300E		Link		837069	NS	NS
348631	6215482		21300N	4325E		Link		837069	282	46
348655	6215482		21300N	4350E		Link		837069	311	44
348679	6215481		21300N	4375E		Link		837069	271	224
348703	6215481		21300N	4400E		Link		837069	NS	NS
348727	6215481		21300N	4425E		Link		837069	NS	NS
348752	6215482		21300N	4450E		Link		837069	346	136
348776	6215482		21300N	4475E		Link		837069	NS	NS
348800	6215482		21300N	4500E		Link		837069	NS	NS
348824	6215482		21300N	4525E		Link		837069	NS	NS
348849	6215482		21300N	4550E		Link		837069	NS	NS
348873	6215481		21300N	4575E		Link		837069	443	85
348897	6215481		21300N	4600E		Link		837069	339	60
348920	6215480		21300N	4625E		Link		837069	236	92
348943	6215479		21300N	4650E		Link		837069	197	43
348965	6215478		21300N	4675E		Link		837069	NS	NS
348988	6215477		21300N	4700E		Link		837069	NS	NS
349013	6215478		21300N	4725E		Link		837069	125	17
349038	6215480		21300N	4750E		Link		837069	NS	NS
349062	6215481		21300N	4775E		Link		837069	224	39
349087	6215482		21300N	4800E		Link		837069	217	42
349110	6215482		21300N	4825E		Link		837069	410	63
349134	6215481		21300N	4850E		Link		837069	341	75
349157	6215481		21300N	4875E		Link		837069	346	56
349180	6215480		21300N	4900E		Link		837069	NS	NS
349204	6215480		21300N	4925E		Link		837069	524	17
349228	6215481		21300N	4950E		Link		837069	366	53
349252	6215481		21300N	4975E		Link		837069	565	72
349276	6215481		21300N	5000E		Link		837069	304	56
349301	6215481		21300N	5025E		Link		837069	303	17
349327	6215481		21300N	5050E		Link		837069	322	44
349352	6215480		21300N	5075E		Link		837069	119	17
349377	6215480		21300N	5100E		Link		837069	166	17
349402	6215480		21300N	5125E		Link		837069	148	17
349427	6215480		21300N	5150E		Link		837069	214	17
349451	6215480		21300N	5175E		Link		837069	298	44
349476	6215480		21300N	5200E		Link		837069	NS	NS
349499	6215480		21300N	5225E		Link		837069	3184	83
349523	6215480		21300N	5250E		Link		837069	58	17
349546	6215480		21300N	5275E		Link		837069	411	74
349569	6215480		21300N	5300E		Link		837069	310	68
349592	6215480		21300N	5325E		Link		837069	NS	NS
349615	6215480		21300N	5350E		Link		837069	210	17
349638	6215479		21300N	5375E		Link		837069	417	17
349661	6215479		21300N	5400E		Link		837069	856	47
349687	6215480		21300N	5425E		Link		837069	444	40
349712	6215481		21300N	5450E		Link		837069	157	49
349738	6215481		21300N	5475E		Link		837069	349	17
349763	6215482		21300N	5500E		Link		837069	256	17
349786	6215482		21300N	5525E		Link		837069	106	17
349809	6215482		21300N	5550E		Link		837069	211	17

Cathedral Property

Soil Samples

Location (UTM Zone 10 North NAD83)		Sample	Grid Coordinates		Contour Line	Zone	Map	Tenure	XRF Analysis	
Easting	Northing		Line	Station					Cu (ppm)	As (ppm)
349831	6215481		21300N	5575E		Link		837069	254	17
349854	6215481		21300N	5600E		Link		837069	231	17
349878	6215481		21300N	5625E		Link		837069	182	17
349903	6215481		21300N	5650E		Link		837069	96	17
349927	6215480		21300N	5675E		Link		837069	102	17
349948	6215480		21300N	5700E		Link		837069	107	17
349948	6215529		21350N	5700E		Link		837069	NS	NS
349945	6215577		21400N	5700E		Link		837069	NS	NS
349945	6215625		21450N	5700E		Link		837069	167	17
349945	6215672		21500N	5700E		Link		837069	106	17
349945	6215720		21550N	5700E		Link		837069	517	131
349944	6215768		21600N	5700E		Link		837069	123	42
349944	6215815		21650N	5700E		Link		837069	189	17
349944	6215861		21700N	5700E		Link		837069	210	17
349943	6215906		21750N	5700E		Link		837069	172	17
349942	6215950		21800N	5700E		Link		837069	184	17
349942	6215993		21850N	5700E		Link		837069	214	17
349941	6216035		21900N	5700E		Link		837069	509	90
349942	6216086		21950N	5700E		Link		837069	129	45
349942	6216136		22000N	5700E		Link		837067	808	72
349942	6216186		22050N	5700E		Link		837067	293	17
349942	6216235		22100N	5700E		Link		837067	122	17
349943	6216283		22150N	5700E		Link		837067	355	56
349943	6216330		22200N	5700E		Link		837067	184	17
349943	6216377		22250N	5700E		Link		837067	85	17
349943	6216424		22300N	5700E		Link		837067	237	49
347356.21	6217715.57		34900N	4850E		Cathedral		689828	2235	741
347380.81	6217720.05		34900N	4875E		Cathedral		689828	162	77
347405.4	6217724.52		34900N	4900E		Cathedral		689828	119	17
347430	6217729		34900N	4925E		Cathedral		689828	119	53
347458	6217737		34900N	4950E		Cathedral		689828	163	47
347480	6217740		34900N	4975E		Cathedral		689828	267	48
347508	6217744		34900N	5000E		Cathedral		689828	237	17
347526	6217747		34900N	5025E		Cathedral		689828	257	17
347550	6217753		34900N	5050E		Cathedral		689828	614	113
347575	6217754		34900N	5075E		Cathedral		689828	258	67
347506	6217764		34925N	5000E		Cathedral		689828	191	50
347502	6217791		34950N	5000E		Cathedral		689828	157	51
347498	6217816		34975N	5000E		Cathedral		689828	148	49
347367	6217845		35000N	4875E		Cathedral		689828	927	68
347392	6217829		35000N	4900E		Cathedral		689828	296	75
347416	6217838		35000N	4925E		Cathedral		689828	80	17
347435	6217846		35000N	4950E		Cathedral		689828	205	47
347467	6217848		35000N	4975E		Cathedral		689828	135	17
347493	6217842		35000N	5000E		Cathedral		689828	176	17
347517	6217853		35000N	5025E		Cathedral		689828	199	61
347539	6217850		35000N	5050E		Cathedral		689828	444	17
347563	6217853		35000N	5075E		Cathedral		689828	168	57
347587	6217859		35000N	5100E		Cathedral		689828	178	76
347609	6217857		35000N	5125E		Cathedral		689828	115	61
347632	6217861		35000N	5150E		Cathedral		689828	178	56
347657	6217864		35000N	5175E		Cathedral		689828	594	433
347685	6217865		35000N	5200E		Cathedral		689828	239	46
347704	6217869		35000N	5225E		Cathedral		689828	219	17
347733	6217874		35000N	5250E		Cathedral		689828	340	63
347759	6217878		35000N	5275E		Cathedral		689828	176	70
347785	6217881		35000N	5300E		Cathedral		689828	264	17
347491	6217864		35025N	5000E		Cathedral		689828	215	61
347485	6217894		35050N	5000E		Cathedral		689828	261	44
347480	6217917		35075N	5000E		Cathedral		689828	NS	NS
347383	6217929		35100N	4900E		Cathedral		689828	3661	204

Cathedral Property

Soil Samples

Location (UTM Zone 10 North NAD83)		Sample	Grid Coordinates		Contour Line	Zone	Map	Tenure	XRF Analysis	
Easting	Northing		Line	Station					Cu (ppm)	As (ppm)
347403	6217928		35100N	4925E		Cathedral		689828	159	56
347424	6217932		35100N	4950E		Cathedral		689828	191	54
347449	6217937		35100N	4975E		Cathedral		689828	189	62
347475	6217942		35100N	5000E		Cathedral		689828	160	48
347500	6217949		35100N	5025E		Cathedral		689828	76	17
347527	6217953		35100N	5050E		Cathedral		689828	247	65
347551	6217956		35100N	5075E		Cathedral		689828	187	57
347573	6217957		35100N	5100E		Cathedral		689828	212	55
347595	6217958		35100N	5125E		Cathedral		689828	NS	NS
347622	6217958		35100N	5150E		Cathedral		689828	139	53
347646	6217961		35100N	5175E		Cathedral		689828	153	52
347672	6217964		35100N	5200E		Cathedral		689828	225	43
347699	6217964		35100N	5225E		Cathedral		689828	131	40
347726	6217966		35100N	5250E		Cathedral		689828	129	17
347748	6217969		35100N	5275E		Cathedral		689828	212	17
347772	6217974		35100N	5300E		Cathedral		689828	171	80
347470	6217968		35125N	5000E		Cathedral		689828	164	75
347465	6217997		35150N	5000E		Cathedral		689828	73	17
347460	6218020		35175N	5000E		Cathedral		689828	224	45
347385	6218037		35200N	4925E		Cathedral		689828	310	41
347413	6218039		35200N	4950E		Cathedral		689828	191	17
347434	6218042		35200N	4975E		Cathedral		689828	182	17
347463	6218045		35200N	5000E		Cathedral		689828	380	17
347489	6218046		35200N	5025E		Cathedral		689828	247	68
347512	6218047		35200N	5050E		Cathedral		689828	230	65
347536	6218050		35200N	5075E		Cathedral		689828	116	45
347562	6218050		35200N	5100E		Cathedral		689828	221	17
347584	6218055		35200N	5125E		Cathedral		689828	265	71
347605	6218055		35200N	5150E		Cathedral		689828	178	46
347633	6218058		35200N	5175E		Cathedral		689828	182	59
347657	6218060		35200N	5200E		Cathedral		689828	149	41
347683	6218062		35200N	5225E		Cathedral		689828	121	49
347711	6218067		35200N	5250E		Cathedral		689828	152	17
347735	6218071		35200N	5275E		Cathedral		689828	165	46
347759	6218074		35200N	5300E		Cathedral		689828	180	17
347458	6218070		35225N	5000E		Cathedral		689828	364	49
347456	6218095		35250N	5000E		Cathedral		689828	334	92
347454	6218117		35275N	5000E		Cathedral		689828	166	64
347351	6218135		35300N	4900E		Cathedral		689828	147	51
347375	6218132		35300N	4925E		Cathedral		689828	119	40
347402	6218133		35300N	4950E		Cathedral		689828	140	17
347427	6218136		35300N	4975E		Cathedral		689828	214	17
347452	6218137		35300N	5000E		Cathedral		689828	318	55
347476	6218137		35300N	5025E		Cathedral		689828	219	17
347501	6218138		35300N	5050E		Cathedral		689828	183	47
347526	6218137		35300N	5075E		Cathedral		689828	195	17
347550	6218136		35300N	5100E		Cathedral		689828	259	17
347577	6218139		35300N	5125E		Cathedral		689828	171	58
347600	6218146		35300N	5150E		Cathedral		689828	148	63
347624	6218148		35300N	5175E		Cathedral		689828	189	54
347649	6218148		35300N	5200E		Cathedral		689828	248	58
347674	6218148		35300N	5225E		Cathedral		689828	178	46
347697	6218151		35300N	5250E		Cathedral		689828	294	49
347723	6218153		35300N	5275E		Cathedral		689828	187	86
347749	6218157		35300N	5300E		Cathedral		689828	169	17
347448	6218161		35325N	5000E		Cathedral		689828	230	70
347446	6218185		35350N	5000E		Cathedral		689828	174	88
347441	6218206		35375N	5000E		Cathedral		689828	167	43
347329	6218210		35400N	4900E		Cathedral		689828	428	76
347365	6218222		35400N	4925E		Cathedral		689828	143	69
347391	6218228		35400N	4950E		Cathedral		689828	157	66

Cathedral Property

Soil Samples

Location (UTM Zone 10 North NAD83)		Sample	Grid Coordinates		Contour Line	Zone	Map	Tenure	XRF Analysis	
Easting	Northing		Line	Station					Cu (ppm)	As (ppm)
347415	6218228		35400N	4975E		Cathedral		689828	258	44
347439	6218229		35400N	5000E		Cathedral		689828	161	42
347465	6218226		35400N	5025E		Cathedral		689828	204	83
347490	6218231		35400N	5050E		Cathedral		689828	242	43
347512	6218232		35400N	5075E		Cathedral		689828	231	41
347537	6218235		35400N	5100E		Cathedral		689828	169	54
347564	6218238		35400N	5125E		Cathedral		689828	162	41
347589	6218240		35400N	5150E		Cathedral		689828	103	50
347614	6218242		35400N	5175E		Cathedral		689828	110	55
347637	6218245		35400N	5200E		Cathedral		689828	68	17
347661	6218245		35400N	5225E		Cathedral		689828	295	52
347687	6218247		35400N	5250E		Cathedral		689828	915	101
347707	6218244		35400N	5275E		Cathedral		689828	423	109
347736	6218248		35400N	5300E		Cathedral		689828	685	118

APPENDIX III

ROCK SAMPLE DESCRIPTIONS

Cathedral Property
Rock Sample Descriptions

Location (UTM Zone 10 North NAD 83)							Description					XRF Analysis		Fire Assay
Easting	Northing	Map	Zone	Tenure	Sample No.	Sample Type	Lithology	Alteration	Sulphides (%)	Mineralization Style	Field Sample Descriptions	Structure	Cu ppm	As ppm	Au ppm
348496	6214850	M14	Link	837059	1080	Float	Massive magnetite	none	Mag >50	N/A	Found a bunch of angular boulders at 348503E, 6214927N that likely came off of the mountain. Took three different samples. This sample is a massive magnetite boulder. All that is visible in the rock is flaky/needly soft magnetite. There is possible plagioclase visible in a few areas, but could not tell for sure.				
348503	6214927	M14	Link	837059	1081	Float	Monzonite	pot 1, clay 3, sil 3	Mag 7-15	N/A	Same coordinates as 1080 (348503E, 6214927N) – came from the same group of boulders. This sample contains 70% plagioclase and potassium feldspar (could be potassic altered plagioclase – could not tell for sure), and 30% mafic minerals, much of which includes magnetite. The plagioclase grains are up to 5mm in diameter. The rock is coarse-grained and mostly equigranular, although the plagioclase grains are slightly bigger than the mafic minerals.				
348503	6214927	M14	Link	837059	1082	Float	Host rock is likely intrusive (monzonite?) but it is just gossanous float	FeOxid 4, Epi 1, Pot 1	Py 1-3	Py D	This sample is also from the same group of angular boulders at 348503E, 6214927N. It is too weathered to definitively tell what it is – it is very gossanous and contains 1-3% pyrite. The rock is also very magnetic (about 3-5% magnetite). There is subtle epidote and potassic alteration. It could be the same monzonite as sample 1081 but it's too gossanous and weathered to tell for sure.				
348543	6215080	M14	Link	837059	1083	Float	Quartz and Kspar-phyric granite	Clay 3, Pot 1	none	N/A	Angular boulder at 348543E, 6215080N. It is a felsic porphyritic igneous rock with large potassium feldspar phenocrysts over 2cm long and 1cm wide. There are some quartz phenocrysts as well, up to 1cm in diameter. Feldspar phenocrysts take up about 5% of the rock, and quartz phenocrysts take up 1-3% of the rock. The groundmass contains about 70% plagioclase (and either potassium feldspar or potassically altered plagioclase) and 30% quartz. Non-magnetic and non-effervescent. Possible advanced argillic alteration as well, and the rock seems sausseritized.				
348430	6214542	M14	Link	837059	1084	Float	Monzonite	Epi 2, Pot 3	Mag 1	N/A	Found a subangular boulder on the side of the road at 348430E, 6214542N. Boulder is about 2.5m by 1m and sitting in a cluster of much smaller boulders near some till. It is distinct from the other pebble-sized boulders around it because it is larger and angular, so we took a sample. It is a coarse-grained equigranular monzonite similar to sample 1081. Moderate potassic and epidote alteration and weakly magnetic (not as much as seen in the other monzonites today). No sulphides present. Composition: 70-80% feldspar (a lot of alteration, can't tell between plagioclase and potassium feldspar), 5% mafics (including biotite), and ~5-10% quartz.				
348413	6214554	M14	Link	837059	1085	Float	Weathered siliceous intrusive with aplitic texture?	FeOxid 2, Pot 3, Sil 3	none	N/A	In the same till-rich area on the side of the road beside 1084, found another smaller angular boulder about half a metre in diameter at 348413E, 6214554N. This boulder was still larger and more angular than all the others around it (with the exception of 1084 and another large monzonite boulder), so we sampled it. The rock has a dark pink hue and contains hornblende phenocrysts up to 4mm in size. There are also some quartz phenocrysts up to 3mm in diameter. Generally the rock has a weak aplitic texture and is gossan weathered and very siliceous. Gossan weathering is present along fracture planes. No sulphides are seen in the sample and it is non-magnetic.				
346972	6215431	M14	Link	877909	1087	Float	Monzonite	FeOxid 3, Pot 4, Epi 3	Mag 5-7	N/A	At the end of the road at 346972E, 6215431N, found a large gossanous angular boulder about 3m long and 1.5m wide. It is very magnetic and has extensive potassic alteration and weak to moderate epidote alteration. The rock is coarse-grained and equigranular. It looks similar to 1085 (a monzonite, possibly a monzodiorite). No sulphides are present. Mostly contains plagioclase and mafics.				
349032	6214189	M14	Link	837059	1088	Outcrop	Syenite	FeOxid 1	Mag 1-3	N/A	Found some subcrop/possible outcrop on the side of the road of the Link Property at 349032E, 6214189N. The outcrop is only about 2m wide and 1m high, sticking out of the hillside beside the road. It is a fine-grained syenite with ~90% potassium feldspar (unless it is plagioclase altered to K-spar) and ~10% unidentified mafic minerals. The rock is moderately magnetic. The unit seams to be sitting within a monzonite dominant zone so is possibly a sill or a potassic altered monzonite.				
349032	6214189	M14	Link	837059	1089	Subcrop	Monzonite	FeOxid 3, Pot 2	Mag 5-7	N/A	Directly beside 1088 (same coordinates: 349032E, 6214189N) is a coarse-grained equigranular rock with quite altered mafics. This rock could be subcrop but is likely just a boulder sticking out of the hill on the side of the road. If this is subcrop or outcrop, then there is a contact right here striking roughly north-south. The rock contains about 20% mafics (altered to magnetite – about 5-7% magnetite). The remainder of the rock consists of feldspar with minor quartz. Of the feldspar, there is local potassic alteration and approximately 45% plagioclase with ~30% Kspar. No sulphides are present.				
349064	6214168	M14	Link	837059	1090	Outcrop	Feldspar-amphibole-phyric andesite dyke	Epi 2, Pot 2	Mag 5-7, Py 1	Py D	Found a contact between the potassically altered monzonite and a volcanic rock with moderate epidote alteration at 349064E, 6214168N. However, there is still monzonite on the other side of the volcanic rock, so this could just be a small volcanic dyke of some sort. Sample 1090 is the volcanic rock. It is filled with plagioclase phenocrysts about 1-2mm in size, some of which just look like epidote after alteration. The rock is strongly magnetic with less than 1% fine-grained sulphides (likely just pyrite). It consists of ~5% plagioclase phenocrysts, 1% mafic phenocrysts about 1mm in size or less, and the rest of the rock is just aphanitic blue-grey groundmass.	??			
349427	6213972	M14	Link	837069	1091	Outcrop	Massive magnetite	FeOxid 5	Mag >50	N/A	At 349427E, 6213972N, found outcrop about 10m wide and ~5m high on the side of the road that looks like someone trenched it out in the past (the Link showing?). The sample taken is just massive magnetite within monzonite. It is strongly gossanous (weathered red-orange-brown) and extremely magnetic. Needly magnetite grains are visible throughout all fresh surfaces of the sample. Cannot see much fresh surface due to weathering.				
348477	6215541	M14	Link	837069	1092	Outcrop	Quartz Monzonite	Pot 1, FeOxid 1	Mag 3-5	N/A	Found an outcrop at 348536E, 6215527N. The outcrop is ~35m tall (up the hill) and ~25m wide (roughly east-west). It is located up the mountain to the northwest of where the last road ends in the Link area. Moderately magnetic quartz monzonite with 3-5% magnetite. The rock is medium grey in colour and coarse-grained with 20-30% mafics (biotite and hornblende – about 10% biotite, the rest hornblende), 40% quartz, and 20% plagioclase. On a scale of 1 to 5, it is a 1 for potassic alteration. No sulphides are noted and there is little to no alteration on the fresh surface. There is a small amount of iron carbonate (1 out of 5) on the weathered surface.				
348601	6215549	M14	Link	837069	1093	Outcrop	Quartz Monzonite	Pot 1, FeOxid 1	Mag 3-5	N/A	Took another sample from a different but similar outcrop farther up the ridge, at 348600E, 6215542N. As described in sample 1092.				
348696	6215577	M14	Link	837069	1094	Outcrop	Quartz Monzonite	Pot 1, FeOxid 1	Mag 3-5	N/A	Outcrop at 348696E, 6215577N that is in the middle of a rock fall. The outcrop is about 2x2m and the rock type is as described in 1092. Most of the rocks in the fall are the same lithology, with only some that look slightly different (likely from a different rock type farther up the mountain).				
348698	6215623	M14	Link	837069	1095	Outcrop	Quartz Monzonite	Epi 1, Pot 1, FeOxid 1	Mag 5-7	N/A	Outcrop at 348797E, 6215636N, farther up the hill and slightly to the east of the last sample. It is about 40m tall by 15-20m wide and contains 3-5% magnetite. It is very similar to the other lithologies seen today (1092-1094).				
348836	6215656	M14	Link	837069	1096	Subcrop	Quartz Vein with Epidote Selvage in Host Quartz Monzonite	Epi 2	Mo <1?, Mag 1-3	Mo Vein	Found an angular boulder at 348830E, 6215656N. The boulder was found within a rock fall and contains a vein with epidote alteration. The rock contains 1-3% magnetite, 70-80% feldspar (some potassically altered), 10-20% mafics, and less than 5% quartz. Contains a quartz vein with epidote pistachio green coloured alteration. The vein is 2-3mm wide and there is possible molybdenite in the vein (silvery and very fine-grained, less than 1%). The sulphide is associated with the vein (it could possibly be galena).				
348853	6215678	M14	Link	837069	1097	Float	Gossanous Float	FeOxid 5	Spec(?) 1	Spec FF	Huge outcrop at least 70m up the hill and 100-150m across to the east. Took a sample at 348868E, 6215675N, from float in the rockfall below the outcrop. This angular boulder contains possible galena and gossanous weathering. Silver, soft (hardness of 2) metallic lustered mineral along fracture plane 5mm wide. Scratches a reddish colour (possibly specularite). When rubbed with fingers, gets a silvery-grey powder on fingertips. (Possible galena?)				
348852	6215698	M14	Link	837069	1099	Outcrop	Gossanous Outcrop	FeOxid 5	Spec(?) 1-3	Spec FF	At the same place as 1097 (348868E, 6215675N), took a sample from the outcrop itself. It has gossanous weathering (orange/brown) and galena(?) is present again. There are sections of gossanous material which are either veins or fracture systems. The magnetite content also seems to be increased here (we are probably on the magnetic high from the geophysical map). The fracture system has a strike and dip of *200/58* . Possible magnetite veins. Similar to 1097 - same metallic silver mineral as described in 1097. Original rock type obscured.	Fractures (200/58)			
348881	6215719	M14	Link	837064	1100	Outcrop	Quartz Monzonite	FeOxid 1, Epi 1?	Mag 7-15	N/A	Took a sample from the top of the outcrop at 348880E, 6215692N. It is moderately magnetic and has slight gossanous weathering. Appears to have more mafic minerals than seen in 1092-1095. Medium-grained and equigranular. Medium to dark grey in colour. The sample contains 10-15% quartz, 40% mafics, remainder plagioclase. This sample should be the host rock.				
348856	6215712	M14	Link	837064	1101	Outcrop	Gossanous Outcrop	FeOxid 5	Mag 3-5, Py tr	Py D	Took a sample slightly below sample 1100 from the outcrop on the hill, at 348872E, 6215684N. It is a gossanous, weathered sample. Original rock type is obscured.				
348864	6215725	M14	Link	837064	1102	Outcrop	Gossanous outcrop	FeOxid 5	Mag 7-15	N/A	At the same spot as 1101 (348872E, 6215684N), took a sample from the fracture where the strike and dip were taken (200/58). Still on the large outcrop. Gossanous outcrop taken from fracture plane between the host quartz monzonite. Approximately 3cm wide and appears to be a quartz vein with predominantly magnetite (7-15%), empty gossanous vugs within vein (possible weathered sulphides), otherwise the original rock type is obscured.				

Cathedral Property
Rock Sample Descriptions

Location (UTM Zone 10 North NAD 83)							Description					XRF Analysis		Fire Assay
Easting	Northing	Map	Zone	Tenure	Sample No.	Sample Type	Lithology	Alteration	Sulphides (%)	Mineralization Style	Field Sample Descriptions	Structure	Cu ppm	As ppm	Au ppm
348938	6215667	M14	Link	837069	1103	Outcrop	Quartz Monzonite	Epi 2, Pot 2	Mag 5-7	N/A	Farther along the outcrop at the bottom of one of the rock falls, took a sample at 348920E, 6215610N. It contains ~20% mafics, 5-7% of them being magnetite altered (the rest of the mafics consist of amphibole with minor biotite). The rock is pale green and contains ~20-30% mineral that is possibly epidote-altered feldspar. 20-30% of a pinkish mineral that could be potassic-altered feldspar. The fresh surface is difficult to tell quartz content in. 2/5 for epidote alteration and 2/5 for potassic alteration. No sulphides visible.				
348924	6215615	M14	Link	837069	1104	Outcrop	Fracture plane/vein of unknown composition	FeOxid 3, CaCb 1	Cpy? <1%, Py <1%	Cpy Vein, Py Vein	Took a sample from a vein or dyke running through the outcrop at 348921E, 6215610N. It is a black aphanitic vein with similar strike and dip to the fracture plane from sample 1102. It is much more erosive than the igneous rock around it. It is non-magnetic. (Not sure what it is.) Contains calcite.				
348945	6215524	M14	Link	837069	1105	Outcrop	Quartz Monzonite	CaCb 2	Mag 3-5	N/A	Took a sample from an outcrop on the way down the mountain, at 348927E, 6215550N. The outcrop is about 20x15m in size. Contains intergranular calcite but otherwise as described in 1095.				
348970	6215492	M14	Link	837069	1106	Outcrop	Quartz Monzonite	Pot 1, FeOxid 2	Mag 1-3	N/A	Took a sample from an outcrop beside 1105 (~15m away from it), at 348938E, 6215534N. It is about 20x15m in size. Contains 15-20% mafic minerals, ~70% feldspar (can't decipher between Kspar and plagioclase), remainder quartz.				
348931	6215433	M14	Link	837069	1107	Outcrop	Quartz Monzonite	FeOxid 3	Mag 3-5	N/A	Took a sample from an outcrop at 348952E, 6215474N. The outcrop is about 10x5m in size and was found farther down the mountain to the southeast. Rock composition is as described in 1092-1095.				
348960	6215400	M14	Link	837069	1108	Outcrop	Quartz Monzonite	CaCb 1	Mag 3-5	N/A	As described in 1092-1095.				
348921	6215250	M14	Link	837069	1109	Outcrop	Quartz Monzonite	none	Mag 3-5	N/A	Coarse-grained and equigranular, otherwise as described in 1092-1095.				
347335	6216176	M14	Link	877909	1110	Subcrop	Quartz Monzonite	Chl 1, Pot 1	Mag 3-5	N/A	Rockfall on the way up to the outcrop we are heading to. 10-15% mafics (biotite and hornblende, with 3-5% altered by magnetite up to 6mm long), 10% quartz, 75-80% feldspar (mostly plagioclase). Chlorite vein present 3mm wide.				
347438	6216461	M14	Link	689843	1111	Subcrop	Quartz Monzonite	Pot 1	Mag 3-5	N/A	Sample is from an angular boulder within a rockfall that is 5m wide and 20m tall and is likely subcrop. It is a coarse grained, equigranular, and medium grey in colour. It consists of subtle potassic alteration and is comprised of 65-80% feldspar, 10-15% mafics with the majority made up by amphibole (hornblende?) and minor biotite. Quartz makes up 10-20% on the weathered surface but on a fresh surface it looks like it could be much higher. Not really sure if this is on the monzonite side of things or is infact a granodiorite. Whole rock sampling would be helpful for this area. Magnetite comprises 3-5% and is associated with the mafics likely an alteration (secondary) rather than primary. No sulphides were noted.				
347493	6216651	M14	Link	689843	1112	Outcrop	Quartz Monzonite	FeOxid 2	Mag 5-7	N/A	Outcrop that is medium grey in colour, coarse grained, equigranular. Very similar to samples 1110 and 1111. Consists of 60-80% feldspar (40-50% plag and 20-30% kspar, 10-20% quartz, 10-15% mafics. Alteration includes iron oxidation on the weathered surface but otherwise the rock is unaltered. Magnetite altered mafics 5-7%. No sulphides noted.				
347499	6216699	M14	Link	689843	1113	Outcrop	Quartz Monzonite	Pot 1	Mag 3-5	N/A	Outcrop that lies above 1112. Fractured, some gossanous parts. Fracture plane lies at 198/42. The outcrop is ~8m wide by ~10m tall. Weathered surface is light grey/pinkish. Fresh surface is white/grey. Sample is coarse grained and equigranular. Composition is 3-5% magnetite, ~70% plagioclase, 20% mafic minerals (biotite and amphibole) and 5-10% quartz. Some of the plagioclase is mildly altered to pink (potassic). No sulphides noted.				
347509	6216745	M14	Link	689843	1114	Outcrop	Quartz Monzonite		Mag 1-3	N/A	More outcrop further up the ridge ~5m tall and 10m wide. Could be a continuous outcrop from 1113, but there is fall between. Sample 1114 is a dyke cutting through the monzonite at *238/45* . Could be a different rock type, or because of fracturing, could just be an area of different fluid alteration (potassic alteration). Weathered surface is yellowish. Fresh surface is light pinkish grey. Medium to coarse grained, equigranular with a few larger biotite crystals (up to 7mm) and quartz and plagioclase. Contains 10% mafics (mostly biotite, possible hornblende, and some magnetite 1-3%), 20% quartz, and 70% plagioclase and k-feldspar (cannot determine whether the pink grains are k-feldspar or potassic altered plagioclase). No sulphides noted.	Dyke (238/45)			
347506	6216755	M14	Link	689843	1115	Outcrop	Quartz Monzonite	Pot 1	Mag 3-5	N/A	As described in sample 1113. Dyke (sample 1114) goes through this outcrop.				
347573	6216796	M14	Link	689843	1116	Float	Gossanous float	FeOxid 1	Py tr	Py D	Gossanous float on the way up to the outcrop at the top of the hill. Angular boulder. Gossanous vugs are present (likely weathered sulphides). The rock is an orange-reddish-brown colour and there are tarnished sulphides (possibly pyrite but very weathered and hard to identify). No magnetite is present in this rock.				
347620	6216470	M14	Link	689843	1117	Subcrop	Quartz Monzonite	FeOxid 1	Mag 3-5	N/A	Taken from an angular boulder from rock fall. Weathered surface is orangey red with iron oxide alteration. Fresh surface is medium grey, equigranular and medium-coarse grained. Sample contains 3-5% magnetite, 5-10% biotite, 5-10% amphibole, 10-20% quartz, and 60-70% feldspar.				
347711	6216412	M14	Link	689843	1118	Float	Quartz Monzonite	Epi 2	Mag 3-5 (only within host unit)	N/A	Angular float taken from rock fall area. There is a pale grey quartz vein about 1.5cm wide with an epidote selvage. The selvage is ~0.5cm wide on either side. The vein cross-cuts the host quartz monzonite unit.				
347818	6216483	M14	Link	689843	1119	Outcrop	Quartz Monzonite	FeOxid 1	none	N/A	As described in sample 1117.				
347731	6216185	M14	Link	877909	1120	Float	Monzonite	None	Mag 1	N/A	Angular boulder from rock fall area. Fine-to-medium grained sample with magnetite localized into larger blebs up to 4mm (about 1%). Rock contains 10-15% mafic minerals (predominantly biotite), 20% quartz, and 70% feldspar (mostly plagioclase). It almost looks like a granodiorite.				
347800	6215908	M14	Link	877909	1121	Subcrop	Quartz Monzonite	FeOxid 1	Mag 5-7	N/A	Rock fall on the way up the mountain to the outcrops. Approximately 300m southeast from sample 1120. The rock fall is ~20m wide by 20m tall. Contains 20-30% mafic minerals, 20% quartz, and 50-60% feldspar. Coarse-grained, equigranular rock. No acid reaction. Medium grey in colour.				
347719	6216075	M14	Link	877909	1122	Subcrop	Quartz Monzonite	Pot 1, Chl 1	Mag 7-15	N/A	Sample taken from more rock fall on the way up the hill. The fall is approximately 10m by 10m. Contains ~10% mafic minerals (equal hornblende and biotite, 7-15% magnetite), 5-10% quartz, and 70-80% feldspar (about equal amounts of plagioclase and feldspar). The rock is pinkish white and coarse-grained with no acid reaction and no sulphides noted.				
347821	6216517	M14	Link	689843	1123	Outcrop	Quartz Monzonite	FeOxid 1	Mag 3-5		Medium grey, coarse-grained equigranular rock with little to no alteration of primary minerals. Quartz veins less than 1cm wide locally in outrop with epidote and potassic selvages ~3cm wide.				
347789	6216581	M14	Link	689843	1124	Outcrop	Quartz Monzonite	FeOxid 1	Mag 3-5, <1% py (on oxidized, weathered surface)	Py D	Outcrop on the ridge, ~30m high and 20m wide. Rock fall below outcrop. The sample is weathered to white-orange and the fresh surface is light grey. Coarse-grained, equigranular sample. Contains ~70% plagioclase, 15% mafics (mostly biotite, possibly some amphibole), 15% quartz. Pyrite is seen (<1%) on the oxidized, weathered surface.				
347799	6216635	M14	Link	689843	1126	Outcrop	Quartz Monzonite	Epi 1	Mag 3-5	N/A	Outcrop (basically the whole of the top of the ridge from here is outcrop), about 5m high and 10m east-west. Fresh surface is light grey, weathered surface is yellow grey. Medium-grained quartz monzonite. Contains ~10% mafics (biotite & amphibole), ~10% quartz, ~75% feldspar (mostly plagioclase?). No sulphides visible. 3-5% magnetite.				
347914	6216583	M14	Link	689843	1127	Outcrop	Aphanitic volcanic dyke (andesite)	FeOxid 1	Mag 15-30	N/A	Along the ridge to the southeast is an outcrop that is about 20m high and ~10m wide. Took a sample from a volcanic rock that is ~1m wide and striking 188/44 through the host quartz monzonite. The rock is grey/green and aphanitic. The rock is dark grey to black and likely contains ~5-10% feldspar (plagioclase?). Cannot tell rest of composition.				
347929	6216633	M14	Link	689843	1128	Outcrop	Volcanic dyke (andesite)	None	Py <1%	Py D	Large outcrop (~35m high by 60-70m wide east-west, maybe more if it continues into other outcrops). Took a sample of the volcanic rock that is still striking 188, right above sample 1127. The volcanic and the monzonite have sharp contacts - it could be an andesite dyke post-dating the batholith. One dyke is about 1 foot wide, the other about 1m wide. Can clearly see the contact within both. Rock is dark grey and looks similar to 1127 except there are plagioclase crystals up to 1mm in size (about 10% of the rock). Cannot tell the rest of the composition as the rock is fine-grained. There is less than 1% fine-grained disseminated pyrite throughout the rock.				
347914	6216630	M14	Link	689843	1129	Outcrop	Quartz Monzonite	Pot 1	Mag 5-7	N/A	Same coordinates as 1128. Took a sample of the host quartz monzonite next to the volcanic dyke. Medium-to-coarse grained sample with pink hue. Contains ~20% mafics (biotite & hornblende, magnetite 5-7%), ~20% quartz, ~60% feldspar.				
347989	6216575	M14	Link	689843	1130	Outcrop	Quartz Monzonite	Epi 2, FeOxid 1	Mag 3-5	N/A	Took a sample from a moderately-sized outcrop about 5m by 3m, surrounded by rock fall. Looks to be the same quartz monzonite as most samples in this area. Fresh surface is medium grey with a pale greenish hue. The weathered surface is light to dark brown. Alteration includes weak epidote altering feldspars and iron oxidized on weathered surface. Very coarse grained with 20% mafics, 15-20% quartz, and 60% feldspar. Magnetite is 3-5%. No sulphides noted.				
347931	6216448	M14	Link	689843	1132	Outcrop	Quartz Monzonite	Epi 2	Mag 1-3	N/A	Outcrop along the whole ridge down the mountain, ~50m up by 20m wide. Weathered surface is light brown. Very similar to sample 1130 but the grain size is slighlty smaller generally coarse grained rather than very coarse. Magnetite is 1-3%. No sulphides noted.				

Cathedral Property
Rock Sample Descriptions

Location (UTM Zone 10 North NAD 83)							Description					XRF Analysis		Fire Assay
Easting	Northing	Map	Zone	Tenure	Sample No.	Sample Type	Lithology	Alteration	Sulphides (%)	Mineralization Style	Field Sample Descriptions	Structure	Cu ppm	As ppm	Au ppm
349158	6215187	M14	Link	837069	1133	Outcrop	Quartz Monzonite	Pot 2, Epi 1, FeOxid, 2	Mag 5-7	N/A	Took a sample from outcrop that is coming out of the moss in three places. Each is ~1m by 0.5m in size. The mafics are fine-to-medium grained and comprise 10-15% of the rock. Quartz and feldspar grains are medium-to-coarse grained. Quartz comprises ~20% of the rock and feldspars 60-70%. The rock is medium-to-dark grey with a light pinkish hue and no sulphides noted.				
349309	6215301	M14	Link	837069	1134	Outcrop	Quartz Monzonite	FeOxid 1	Mag 5-7	N/A	An outcrop situated above 1133, about 5m by 15m in size. Generally coarse grained with finer grained mafic minerals. Compostitionally similar to 1133 but lacking potassic and epidote alteration. No sulphides noted.				
349463	6215465	M14	Link	837069	1135	Outcrop	Quartz Monzonite	Pot 3, FeOxid	Mag 7-15	N/A	Large outcrop farther up the hill and to the northeast. Approximately 20m wide and 15m up the hill. The sample appears to be a quartz monzonite as well. Locally strong potassic alteration appearing as blotches within the rock. Medium grained, medium grey with pink blotches. Compositionally very similar to 1133. No sulphides noted.				
349460	6215596	M14	Link	837069	1136	Outcrop	Quartz Monzonite	Pot 1, Epi 1	Mag 5-7	N/A	Sample taken from outcrop at the top of the ridge. Behind this outcrop there is another ridge about 35m tall with a gully in between filled with rock fall. This outcrop is ~10-15m tall and 30-40m wide. The rock looks like the same quartz monzonite (see sample 1133 for description). Grey, medium-grained rock with no sulphides noted.				
349458	6215622	M14	Link	837069	1137	Outcrop	Quartz Monzonite	Pot, 1 Epi 1	Mag 5-7	N/A	Outcrop across the gully with rock fall. ~35m tall by ~50m wide. Same quartz monzonite as sample 1133. Addionally noted are black hairline veinlets or fractures <0.5mm wide (likely magnetite) running approximately parallel to one another. No sulphides noted.				
349367	6215631	M14	Link	837069	1138	Outcrop	Quartz Monzonite/Monzonite	none	Mag 5-7	N/A	Continuation of outcrop along the ridge from 1137. Compositionally similar to sample 1133 but lacks potassic and epidote alteration similar to 1134. A very fresh unaltered version of this rock type. Another outcrop extends up the ridge with quartz monzonite present as well.				
349288	6215633	M14	Link	837069	1139	Outcrop	Quartz Monzonite	Pot 3, Epi 1	Mag 5-7	N/A	This could possibly be part of the same outcrop as 1138, as it looks mostly continuous along the hill. This particular rock appears different than the quartz monzonites described from 1133-1138. Potassic alteration has increased to moderate whereas the previously described rocks are sublte to weak. Compostionally it appears 70-80% feldspar (40-50% kspar and 30-40% plag), 15-20% mafics with 5-10% quartz. This rocks appears to be a monzonite rather than a quartz monzonite. One part of the outcrop contains a quartz vein about 4 inches wide that has epidote selvage. No sulphides are noted.				
349003	6215664	M14	Link	837069	1140	Outcrop	Quartz Monzonite	none	Mag 5-7	N/A	Outcrop up the ridge that extends ~40m up and 20m across. It is ~120 feet east of sample 1103, taken on June 30-12. Compostionally similar to samples 1133-1138. However, quartz content may be decreased in this sample ranging from 5-10%. There is a pink (potassic?) crust from weathering but other than that the rock is unaltered. No sulphides noted.				
348094	6215907	M14	Link	877909	1141	Outcrop	Quartz Monzonite/Monzonite	Pot 1, Epi 1	Mag 3-5	N/A	~5-10m high and 20m wide. Sample appears to be a quartz monzonite. It is very coarse grained and medium grey with a weak pale yellow hue. Compositonaly the rock includes 10-15% mafics (3-5% magnetite altered), 5-10% quartz, 75-80% feldspar. Epidote coloured hairline veinlets or fractures are noted with potassice selvage (<1mm wide). Not sure if epidote comprised the vein or it is made up of some other mineral. Overall generally unaltered.				
348200	6216009	M14	Link	837064	1142	Outcrop	Quartz Monzonite/Monzonite	Pot 3, Epi 1	Mag 3-5	N/A	Up the hill the to NE from sample 1141. It is ~30m high by 20m wide. It is coarse grained and medium grey with a pink hue. Alteration consists of subtle epidote and moderate potassic. Mafics comprise 10-15% with 3-5% altered to magnetite, feldspar comprise 70-80% (plag and kspar in equal amounts), and 10-15% quartz. No sulphides are noted.				
348270	6216003	M14	Link	837064	1143	Outcrop	Andesite dyke	Epi 1	Py <=1%, Mag 15-30%, Mal <1	Py blebs	Conitinuing along the ridge contour. Outcrop appears to be continuous from the previous on noted (348298E, 6216019N) as it extends along the whole ridgetop. It is at least 45m up and 20m across. Here there is a contact between a volcanic rock and the quartz monzonite. The sample is grey with a bluish hue, aphanitic with small black blebby phenocrysts and pale grey (plag?) epidote altered phenocrysts. It is strongly magnetic (15-30% magnetite). Sulphides appear as blebs or clumps <= 0.5mm wide. Malachite is also noted but chalcopyrite is not visible. This may be a andesite dyke cross-cutting the quartz monzonite. Average thickness of volcanic dyke is ~10cm. It does not look similar to the Takla volcanics observed in the Tenakihi Zone.				
348270	6216007	M14	Link	837064	1145	Outcrop	Contact between andesite dyke and quartz monzonite	FeOxid 1	Mag 15-30%, Py tr	Py D	Sample of the contact between the volcanic and the quartz monzonite. Both are very magnetic. The quartz monzonite in this sample resembles previous ones taken (1142). The volcanic the is same as described in 1143. The contact between the two rock types is sharp but with the irregularity of the strike it is difficult to get a mearsurement.				
348559	6215971	M14	Link	837064	1146	Outcrop	Quartz Monzonite	Pot 1, Epi 2	Mag 1-3	N/A	Another outcrop along the ridge along contour. Outcrop is ~15m up and 10m across. Possible epidote alteration (weak). Quartz monzonite with potassic altered "crust" 1-2mm thick. Plag is epidote altered. Medium to coarse grained and greenish grey in colour. Compositionallly consists of 20% mafics, 15% quartz, with the remainder made up of feldspar (predominately plagioclase up to 1cm in size). Veinlets up to 1mm wide of greenish black mineral (unidentified), possibly magnetite. Sulphides not present. Magnetite is much weaker than previously seen samples today.				
348684	6215971	M14	Link	837064	1147	Float	Quartz Monzonite with quartz vein	Epi 3, Pot 3	Cpy tr, Py tr, Mal 1	Cpy D, Py D	Float in a rockfall on the way across the ridge contour. Potassic altered, malachite is present. The rock consists of a pale grey quartz vein cross-cutting quartz monzonite as described in 1146 with epidote selvage. Possible chalcopyrite is noted near the malachite and tarnished to a bluish purple but is very fine grained and difficult to make certain.				
348698	6215972	M14	Link	837064	1148	Float	Volcanic?	FeOxid 4	Spec/Hematite 3-5	Spec Vein	Float from same rockfall as 1147. Looks volcanic, possible specularite/hematite veins. They are silver, metallic lustred and streak red. No magnetism is associated with the sample. It is strongly weathered with the host rock very difficult to identify but a few spots point to it being possible part of a volcanic dyke identified in sample 1143.				
348827	6215888	M14	Link	837064	1149	Outcrop	Andesite dyke	CaCb 2, Epi 2	Mag 15-30	N/A	Volcanic dyke approximately 50cm wide with a sharp, wavy contact ("snakes its way along") Volcanic is grey/green in colour, with an aphanitic groundmass. Feldspar phenocrysts are noted up to 1mm in size and comprise 5-10% of the rock. Magnetite is strong (15-30%). Alteration consists of weak epidote altered feldspars, calcite in the matrix and as white stringers. No sulphides are noted. The approximate orientation of the contact is *182/60* .	Contact (182/60)			
348828	6215886	M14	Link	837064	1151	Outcrop	Monzonite/Quartz Monzonite	Pot 4, Epi 4	Mag 1	N/A	Host rock for 1149 dyke. Outcrop is ~20m tall by ~10m across. There are multiple veins with epidote altered selvage throughout the outcrop ranging in size from 3mm to 5cm. They appear to be quartz veins that have caused the epidote alteration. Also noted were multiple boulders in the rockfall below the outcrop with epidote veins. Epidote is also noted at the contact between the qtz monzonite and volcanic dyke. The host qtz monzonite is salmon pink and pistacio green and very coarse grained. Compositionally it contains 10-15% mafics, and with the strong alteration identifying quartz has becomed difficult and may infact be replaced through the alteration. It appears to contain 80-90% feldspar and only minor quartz. Strong potassic and epidote alteration is noted. Magnetite is 1%. No sulphides noted.				
348752	6215732	M14	Link	837064	1152	Outcrop	Monzonite/Quartz Monzonite	Pot 3, Epi 3	Mag 5-7, Py tr	Py D	Outcrop with quartz monzonite 5m wide by 50m down the hill. The rock less potassic and epidote altered than sample 1151. The rock is a light grey to pale pinkish green colour and coarse grained. Compositionally is 20% mafics, 75% feldspar and 5% quartz. Alteration includes moderate potassic and epidote altered feldspars. Magnetite comprises 5-7%. Sulphides include trace amounts of pyrite, disseminated.				
349945	6215298	M14	Link	837069	1153	Float	Megacrystic quartz and feldspar-phyric andesite	CaCb 2, Epi 3, Pot 2, Chl 3	none	N/A	Rockfall with sub-angular to sub-rounded boulders of multiple lithologies (Qtz monzonite, diorite, porphyritic dyke). ~200m tall by 100m across. Sample is from a sub-rounded boulder (took because of its uniqueness). Medium to dark green, aphanitic groundmass. Feldspar and quartz phenocrysts up to 2cm long and 1.5cm wide, comprise 5% of rock, are whtite to peachy pink in colour. No magnetite is noted. ALteration includes moderate to strong chlorite, moderate epidote, and weak calcite and potassic. Groundmass appears to be made up of quartz, feldspar and mafics.				
349908	6215963	M14	Link	837069	1154	Outcrop	Quartz Monzonite	Pot 2	Mag 5-7	N/A	Sample taken from an outcrop along a ridge with rockfall below (~20m wide). Outcrop is 2m tall and 5m wide. It is medium grey and fine to medium grained. Compositionally it consists of 20% quartz, 10-15% mafics, and 65-70% feldspar. It is locally potassic altered, magnetite is 5-7%. No sulphides noted.				
349796	6216095	M14	Link	837067	1155	Outcrop	Granodiorite/ Quartz Monzonite	Pot 1	Mag 5-7	N/A	Likely outcrop but could be a very large boulder. Possibly more quartz rich than 1154. Possibly granodiorite. Medium to coarse grained and medium grey in colour. Composition consists of 25% quartz, 25% mafics, and 50% feldspar. Magnetite is 5-7% with local subtle potassic altered feldspar. No sulphides noted.				
349734	6216133	M14	Link	837067	1156	Subcrop	Quartz Monzonite/ Monzonite	Pot 3	Mag 7-15	N/A	Subcrop in the middle of a rockfall/boulder field area. ~2x2m in size. Rockfall area extends much further. Appears to have more mafics than 1154. Sample is medium grey and very coarse grained. Alteration includes moderate potassic. Magentite ranges from 7-15%. Composition consists of 10-15% mafics, 70-80% feldspar (equal amounts of kspar and plag), and 10-15% quartz. No sulphides are noted.				
349716	6216158	M14	Link	837067	1157	Subcrop	Quartz Monzonite/ Monzonite	None	Mag 7-15	N/A	Subcrop, partially moss covered, jutting out of the hill. 2m wide x 3m up the hill. Sample is very similar to sample 1156 as it is very coarse grained with a strong magnetite signature as well as compositionally but lacks the potassic alteration.				

Cathedral Property
Rock Sample Descriptions

Location (UTM Zone 10 North NAD 83)							Description						XRF Analysis		Fire Assay
Easting	Northing	Map	Zone	Tenure	Sample No.	Sample Type	Lithology	Alteration	Sulphides (%)	Mineralization Style	Field Sample Descriptions	Structure	Cu ppm	As ppm	Au ppm
349658	6216250	M14	Link	837067	1158	Outcrop	Granodiorite/ Quartz Monzonite	FeOxid 1	Mag 7-15	N/A	Outcrop taken in an area with multiple outcrops along the hillside that are soaked in water and very weathered. The sample is taken from the least weathered of the outcrops, and is 5m wide by 3m tall. It is medium grey, medium to coarse grained with magnetite 7-15%. It appears to be quite quartz rich possibly up to 25% but difficult to tell, similar to sample 1155. Mafics comprise 15-20% with feldspar making up the rest at about 40-45%. No sulphides are noted.				
349662	6216344	M14	Link	837067	1159	Outcrop	Granodiorite/Quartz Monzonite	Pot 1	Mag 5-7	N/A	Outcrop 5m tall by 20m wide. Medium to coarse grained. Medium grey. Sublte potassic alteration. Magnetite is 5-7%. Compositionallly it appears to be in the quartz monzonitic range. 5-10% mafics, 10-20% quartz, and 70-85% feldspar. No sulphides are noted.				
349689	6216425	M14	Link	837067	1160	Outcrop	Monzonite/Quartz Monzonite	Pot 3	Mag 5-7	N/A	Outcrop at the possible "SAM" showing. It is 0.5m tall by 3m wide. It is medium grey to peachy pink locally and coarse grained. Mafics comprise of 10-15%, feldspar 70-80% and quartz 5-15%. Magentite is 5-7%. No sulphides noted. Potassic alteration is locally moderately present.				
350065	6216033	M14	Link	837069	1161	Float	Monzonite/Quartz Monzonite	None	Mag 5-7	N/A	Angular boulders along bottom of a ridge. 1m x 0.5m. As described in 1160 but lacking potassic alteration.				
349380	6213990	M14	Link	837069	1162	Outcrop	Quartz Monzonite	Pot 2	Mag 5-7	N/A	Sample is taken near magnetite showing. It is medium grey with local pink colouration. Medium to coarse grained. Compositionally it consists of 10% mafics (biotite and amphibole), 20-25% quartz, and 65-70% feldspar. Magnetite is 5-7% with weak potassic alteartion. No sulphides are noted.				
349400	6213980	M14	Link	837069	1163	Outcrop	Monzonite/Quartz Monzonite	None	Mag 7-15	N/A	Sample is taken near magnetite showing. Weathered surface is yellow. Fresh surface is medium grey. It is fine to medium grained. 15% mafics, 70-80% feldspar, 5-15% quartz. Magnetite represent 7-15%. No alteration or sulphides are noted.				
346988	6216644	M14	Link	689843	1164	Outcrop	Quartz Monzonite	FeOxid 1	Mag 5-7	N/A	Outcrop is at least 15m tall and 10m wide in the far NW area of the Link Zone. A rockfall below is 5m tall by 10m wide. Multiple rockfalls on the way up the mountain. Sample is medium grey, fine to coarse grained, generally similar to quartz monzonites noted in the area. There are 10-15% mafics, 20% quartz,and 65-70% feldspar. Magnetite represents 5-7%. No sulphides are noted. A sublte iron oxidized weathered surface is present.				
346991	6216783	M14	Link	689843	1165	Outcrop	Quartz Monzonite	FeOxid 1	Mag 5-7	N/A	Outcrop further up the ridge to the north, 20m tall and 20m across. Rockfall between samples 1164 and 1165 and to the east in the gully. Sample taken is as described in 1164.				
347060	6216835	M03	Link	689843	1166	Outcrop	Quartz Monzonite	FeOxid 1	Mag 5-7	N/A	Large outcrop further along contour to the northeast, 50m tall by 20m wide. As described in 1164.				
347287	6216881	M03	Link	689843	1167	Outcrop	Feldspar phyric dyke	Chl 1	Mag 3-5	N/A	Large outcrop across the valley from 1166. It is 40m tall and 100m along the valley. Outcrop has an andesite dyke within the quartz monzonite host rock. Fractured surface measures *193/48* near the contact and the contact appears to run up the hill approximately at *266 degrees* . This sample taken is a fresh piece of the andesite. The andesite is approximately 2-3m wide with a wavy and sharp contact. The sample has a light grey groundmass with white, pale pink, and black phenocrysts approximately 0.5-4mm in size. Phenocrysts appear to be plagioclase, potassium feldspar and amphibole comprising approximately 40% of the rock. SUbtle chlorite alteration is associated with amphibole. Magnetite is 3-5%. No sulphides are noted. Appears to be a plag and amphibole-phyric andesite dyke.	Fracture surface (193/48), Contact possibly runs 266 degrees.			
347298	6216892	M03	Link	689843	1168	Outcrop	Feldspar phyric dyke	Pot 2, Epi 3, Ser 1, Chl 1	Mag 15-30	N/A	This sample is also from the andesite as mentioned in 1167 consisting of the same composition but with elevated levels of alteration. Potassic altered feldspars increase in abundance as well as what appears to be some plagioclase partially sausseritized. There is also strong epidote alteration locally in a 1 to 1.5 cm crust? It may be that the groundmass is epidote altered as phenocrysts are visible within. No sulphides are noted. Magnetite is also kicked up a notch at 15-30%.				
347315	6216880	M03	Link	689843	1169	Outcrop	Quartz Monzonite	None	Mag 5-7	N/A	Sample of host quartz monzonite around andesite from samples 1167 and 1168. As decribed in 1164. No sulphides noted.				
347315	6216715	M14	Link	689843	1170	Outcrop	Quartz Monzonite	None	Mag 5-7	N/A	Outcrop further along the ridge down to the south. Outcrop is 2m tall by 4m wide. As described in 1164.				
338921	6220760	M04	Osilinka	689866	1171	Outcrop	Granite/ Granodiorite	None	Mag 1-3	N/A	Walking up the river in the M05 zone. Outcrop along the river 2m high by 4m wide. Also outcrop on the other side of the river. Very coarse grained, light grey. 30-40% quartz, 5-10% biotite, 40-50% feldspar, and minor amphibole. Magnetite is approximately 1-3%. No alteration noted. Biotite phenocrysts are quite large (<=5mm) and are the largest we've seen mapping this project. Biotite dominates mafics. No sulphides noted.				
339009	6220918	M04	Osilinka	689866	1172	Outcrop	Granite	Pot 2, Epi 2	Mag 1	N/A	Outcrop on both sides of the river. 15m tall by 20m along. Fine to coarse grained, light grey with a peachy pink and light green hues locally. Very similar compositionally to 1171 but lack the large biotite phenocrysts (biotite still present but small phenocrysts). Also magnetite percent is slightly decreased. Potassic and epidote alteration is also present and leads me to believe this is a granite with approximately equal amounts of kspar and plagioclase. This may be true for sample 1171 as well but the lack of alteration makes identifying feldspars difficult. No sulphides noted.				
339191	6221197	M04	Osilinka	689866	1173	Outcrop	Granite/ Granodiorite	None	Mag 1-3	N/A	Outcrop 2m tall and 4m along. Outcrop on the opposite side of river is 2m high and 40m along. Light grey and coarse grained. As described in sample 1171 but with biotite phenocrysts only up to 2mm in size.				
339122	6221595	M04	Osilinka	689866	1174	Subcrop	Quartz diorite	None	Mag 3-5	N/A	Large rockfall (above which there is outcrop but is too high and steep to get to. It is ~200m high by 100m wide. There appears to be different phases of a similar looking rock type (diorite?) from fine to coarse grained samples. This sample may infact be a quartz diorite. It has 3-5% magnetite. Taken from an angular boulder. Medium grey in colour. Compositionally in contains quite a bit of quartz for a rock that looks dioritic as in almost 50/50 grey and black in colour. Quartz is about 30-40%, mafics 30-40%, and feldspar 20-30%. The mafics and magnetite appear to be slightly aligned parallel to one another, possibly giving indication of how it cooled? No sulphides.				
339122	6221595	M04	Osilinka	689866	1175	Subcrop	Quartz diorite/ diorite?	None	Mag 1-3	N/A	Taken from the same rockfall as sample 1174, possibly a different rock type?. It is very coarse grained. Taken from an angular boulder. Texturally this rock is interesting as part of it is very coarse grained while another part is fine grained. Could this be the way it cooled? Or two different rock types? Amphibole phenocrysts are large (<=1cm). Composition consists of 25-30% quartz, 40-50% mafics, 20-30% feldspar. No alteration is observed as well as no sulphides.				
339037	6221641	M04	Osilinka	684230	1176	Subcrop	Quartz diorite/ diorite?	None	Mag 3-5	N/A	Sample taken from the northwest side of the rockfall. This sample is medium grey and fine grained. It looks like the small area on sample 1175 where it is fine grained. It still appears dioritic in nature and has that salt and pepper look. Composition includes 20-30% quartz, 40-50% mafics, 20-30% feldspar. Magnetite is 3-5%. No sulphides noted.				
338874	6221754	M05	Osilinka	684230	1177	Outcrop	Granodiorite/ granite	Pot 1, Epi, 1	Mag 3-5	N/A	Along the hillside, 2m across by 1m high. Light grey, fine to medium grained. As described compositionally in 1172. Alteration slightly less than 1172. Magnetite is 3-5%. No sulphides noted.				
338818	6221801	M05	Osilinka	684230	1178	Outcrop	Granodiorite/ granite	Pot 1	Mag 3-5	N/A	1m across by 0.75m high. Light grey, fine to coarse grained. As described compositionally in 1172. Potassic alteration is subtle with no epidote. Magnetite is 3-5%. No sulphides noted.				
338749	6221865	M05	Osilinka	684230	1179	Outcrop	Granodiorite/ granite	Pot 2	Mag 1-3	N/A	More outcrop along contour similar to 1172, 1176 and 1177. Light grey and fine to coarse grained. 1m high by 3m long.				
338632	6222025	M05	Osilinka	689926	1180	Outcrop	Diorite	Chl 2	Py <1, Mag 5-7	Py D	1m by 3m long. There appears to be two rock types here. Possible contact? This sample is medium green and fine grained. Sample taken only appears to be from an area that is 1m wide with samples similar to 1177-1179 in compostion on either side. Is possibly a fine grained diorite as 50-60% is made up of chloritized and non-chloritized mafic minerals and 40-50% is made up of plagioclase. Magnetite is 5-7%. Very fine grained disseminated pyrite is also present.				
338632	6222025	M05	Osilinka	689926	1181	Outcrop	Quartz monzonite?	Pot 1, Epi 1	Mag 1	N/A	Sample appears to be much less quartz rich than samples 1177-1179. Taken from outcrop beside 1180. Medium grey in colour and medium to coarse grained. Compositionally it contains 30-40% mafics, 40-50% feldspar, and 5-15% quartz. May more monzonitic in nature. Sublte potassic and epidote alteration. No sulphides noted.				
337818	6221982	M05	Osilinka	689926	1182	Outcrop	Granodiorite/ granite	None	Mag 1-3	N/A	6m along the river by 1.5m tall. Outcrop across the river also, 10m long and 1.5m high. Sample is medium grey and coarse grained. Composition consists of 20-30% mafics, 30-40% quartz, and 30-50% feldspar. Very similar to sample 1172 from yesterday. Magnetite is 1-3%. No alteration or sulphides are noted.				
337962	6222139	M05	Osilinka	689926	1183	Outcrop	Granodiorite/ granite	None	Mag 3-5	N/A	Outcrop on both sides of the river extending quite a ways. ~40m long by 2m high. Outcrop is very weathered (due to river) and hard to get a good sample. Light grey in colour, fine to coarse grained. Very similar texturally to 1182 but compositionally has 15-20% mafics, 30-45% quartz and 30-45% feldspar. The weathered surface has plucked out the mafic minerals leaving vugs. Magnetite is 3-5%. No aleration or sulphides noted.				
338014	6222211	M05	Osilinka	689926	1184	Outcrop	Quartz diorite?	Pot 1	Mag 3-5	Py D	8m along by 2m high with a similar one on the opposite side. Medium grey and very coarse grained. Pretty even in both black and pale grey to white phenocrysts (possible quartz diorite?). Compositoin consists of 30-40% mafics, 40-50% feldspar, and 10-20% quartz. Magnetite is 3-5%. Very subtle and local potassic alteration. Found 1 speck of very very fine grained pyrite. Vaguely similar to sample 1175 but stronger magnetism.				
338045	6222251	M05	Osilinka	689926	1185	Outcrop	Granodiorite/ granite	Pot 1, Epi 1	Mag 1-3	N/A	3m along by 1m high. Light grey, fine to very coarse grained. Essentially identical to sample 1171 with large biotite phenocrysts and a strong amount of quartz. No sulphides noted.				

Cathedral Property
Rock Sample Descriptions

Location (UTM Zone 10 North NAD 83)							Description					XRF Analysis		Fire Assay
Easting	Northing	Map	Zone	Tenure	Sample No.	Sample Type	Lithology	Alteration	Sulphides (%)	Mineralization Style	Field Sample Descriptions	Structure	Cu ppm	As ppm	Au ppm
338205	6222358	M06	Osilinka	689926	1186	Outcrop	Granodiorite/ granite	None	Mag 1	N/A	10m along and 5m high. White/light grey and fine grained. Composition consists of 30-50% quartz, 15-20% mafics, and 30-50% feldspar. Magnetite is 1%. Sample appears to be a fine grained version of the granodiorite/granite rocks we have seen along the rivers in this zone. No sulphides noted.				
338267	6222400	M06	Osilinka	689926	1187	Outcrop	Quartz diorite?	None	Mag 3-5	N/A	Outcrop on both sides. Sample taken from one 1.5m high and 10m along. The outcrop on the other side is 5m high and extends 20m along. Outcrop with sample appears to have different phases within it similar to rockfall. This is a strange sample as it almost appears porphyritic in nature. There are rounded pale grey quartz phenocrysts up to 5mm in size, white feldspar up to 4mm and fine grained mafics and magnetite set within a dark grey groundmass. Some feldspar look weakly sausseritized. Possibly a quartz diorite? Just not sure. Magnetite is 3-5%. No sulphides noted.				
338320	6222459	M06	Osilinka	689926	1188	Outcrop	Quartz diorite?	Epi 1?	Mag 5-7	N/A	Outcrop at large waterfall. Extends 25m along and 15m up. Rocks is salt and pepper (equal amounts of black and pale grey/white). Very coarse grained. Composition includes 30-40% mafics, 40-50% feldspar, and 10-20% quartz, with 5-7% magnetite. Looks very similar to sample 1184. Subtle epidote locally? or may be moss. No sulphides noted.				
336881	6223109	M06	Osilinka	955712	1189	Outcrop	Granodiorite/ granite	Epi 1?	Mag 3-5	N/A	At the third river, finally found first outcrop. Outcrop is on both sides of the river here, 1-2m high and extends ~30m along. White and dark green/black in colour and coarse to very coarse grained. Composition consists of 30% mafics with the majority being biotite with lesser amphibole, 30% quartz and 40% feldspar. Magnetite is 3-5%. Alteration includes possible epidote? No sulphides noted.				
336993	6223164	M06	Osilinka	955712	1190	Outcrop	Granodiorite/ granite	Epi 1?	Mag 1-3	N/A	More outcrop along the river on both sides. Outcrop is 1-2m high and ~10m along the river. As described in 1189 except for a decrease in magnetite. No sulphides noted.				
337099	6223303	M06	Osilinka	955712	1191	Outcrop	Granodiorite/ granite	Epi 1?	Mag 3-5	N/A	Outcrop along both sides again. ~2m high by 4m long. As described in 1189. No sulphides noted.				
337182	6223303	M06	Osilinka	688930	1192	Outcrop	Granodiorite/ granite	Epi 1?	Mag 3-5	N/A	Outcrop along both sides of the creek. Big canyon, hard to get samples. Outcrop is ~15-20m tall by 20m along the river on both sides. Very similar to samples 1189 to 1191 but finer grained (medium to coarse). No sulphides noted.				
337202	6222061	M05	Osilinka	689926	1193	Outcrop	Granite?	Epi 2, Pot 1	Mag 3-5	N/A	Outcrop along the road ~3m wide by 2m tall with potentially two different rock types. Looks very similar to 1172 but with slightly larger mafics. White with a green and pink hue along with dark green mafics. Grain size is medium to very coarse. Compositionally it contains 50-70% feldspar, 15-20% mafics, 10-30% quartz. 3-5% magnetite. Alteration includes weak epidote and subtle potassic. No sulphides noted.				
337202	6222061	M05	Osilinka	689926	1194	Outcrop	Dacite? Or porphyritic diorite?	FeOxid 3, Chl 3?	Mag 1	N/A	Possible different rock type ~1m wide, in same outcrop as 1193. Medium green and medium to coarse grained. This sample is strongly weathered with quartz veining making it very difficult to determine rock type. It may be a different phase or strongly weathered and altered version of the granodiorite/granite rocks we've been seeing. Quartz is 10-20%, feldspar 10-20%, mafics, 10-20%, with the remainder an altered groundmass of dark green and unidentifiable. THere also appears to be gossanous parts to the rock associated with the quartz veins. Magnetite is 1%. Alteration includes moderate iron oxidation and possible chloritization. No sulphides noted.				
337202	6222061	M05	Osilinka	689926	1196	Subcrop	Monzonite to diorite?	Pot 4, Epi 1	Mag 1	N/A	Angular pieces (boulders) with veins sitting with the outcrop at 1193. Pinkish/orange and black in colour and coarse grained. Composition consists of 20% mafics, 70% feldspar (unable to tell plag from ksapr), and 10% quartz. Pale grey quartz veins cross-cut sample up to 5mm and snake through rock. Very minor calcite within the veins that consist of cavities of weathered out material and appear gossanous. Magnetite is 1%. Alteration includes strong potassic, and subtle epidote. No sulphides noted.				
347681	6231695	M09	Tenakihi	1011480	1197	Outcrop	Quartz Monzonite	Chl 1, CaCb 1	Mag 1-3	N/A	Outcrop on ridge just past where sample 1046 was taken. Outcrop is very small (~0.5m wide by 1m tall). Sample is light grey, fine to medium grained. Locally the rock is light green, possibly epidote but difficult to tell. Contains 10-15% mafics, 10-30% quartz and 55-80% feldspar. Magnetite is 1-3%. Mafics are primarily amphibole. Subtle chlorite alteration with possible epidote. Calcite is present in the groundmass. No sulphides noted. Overall this sample is very similar to 1047.				
347613	6231703	M09	Tenakihi	1011480	1198	Outcrop	Takla Volcanic	CaCb 3, FeOxid 3, Chl 3	Mag <1	N/A	Another small outcrop on the way up to the top. 3m wide by 2m tall. Possible volcanic? Could be the contact on the other side of the diorite. Sample is brownish green in colour and very fine grained. Groundmass consists of pale grey feldspar (30-40%), dark green to black mafics (5-10%) and green aphanitic material (50-65%). Possible quartz amygdules. Moderate calcite in the groundmass. Moderate iron oxide alteration. Moderate chlorite alteration. Magnetite is <1%. Gossanous material on fresh and weathered surfaces. No sulphides noted. Likely a Talka volcanic, altered due to surrounding intrusive bodies.				
347428	6231733	M09	Tenakihi	942662	1199	Outcrop	Diorite	CaCb 2, Epi 1	Mag 7-15	N/A	Outcrop further up at the top of the ridge, ~5m up by ~3m across. There is megacrystic feldspar dyke in subcrop here as well, but did not find it in outcrop. Sample is salt and pepper (dark grey/black to dark green) in colour and medium grained. Contains 50% mafics and 50% feldspar (plagioclase). Minor quartz present. Calcite and quartz veining, up to 4mm in size, no preference in orientation. Appears to contain epidote alteration. Magnetite is 7-15%. Weak calcite alteration. No sulphides noted.				
347415	6231717	M09	Tenakihi	942662	1200	Subcrop/Outcrop	Takla Volcanic (gossanous)	FeCb 3, FeOxid 4, Chl 3	Mag <1, Po <1, Mal Tr	Po D	Subcrop with a bunch of small outcrops. Angular boulders, pebble to boulder sized. Some gossanous ones. Sulphides noted. Very close to sample 1199. Sample is dark green/grey in colour. Largely aphanitic with white blebs of possible iron carbonate. Appears to represent Takla volcanic with composition largely obscured and too fine grained to identify, due to alteration and gossanous material. Quartz and carbonate veinlets 1mm in size. Strong iron oxidation with moderate chlorite. Magnetism is ~1%, possibly magnetite and pyrrhotite. Trace malachite observed.				
347365	6231682	M09	Tenakihi	942662	1202	Outcrop	Diorite	FeOxid 3, Chl 4	Mag 5-7, Py <1, Cpy <1	Py Blebs, Cpy Blebs	Outcrop further up from 1200. Sulphides noted. Outcrop is ~5m by 4m. Dark green in colour. Due to alteration and gossan, the majority of the original texture is obscured, but in a few places it appears to be similar to sample 1199 (medium to coarse grained diorite). Alteration includes moderate iron oxidation and strong chlorite. Magnetite is 5-7%. Sulphides include <1% pyrite and <1% chalcopyrite in localized blebs.				
347356	6231631	M09	Tenakihi	942662	1203	Outcrop	Takla sediment?	CaCb 4	Py Tr	Py D	Outcrop at the top of the ridge. 5m by 5m on the top. Sample is brownish to bluish in colour. Mud to silt sized grains. Dark grey to creamy yellow coloured quartz veinlets up to 2mm in size, possibly along fractures. Rock was very hard to hit, but scratches fairly easily in some areas, but in others is very hard. Strongly effervescent, not certain whether it is the matrix, calcite blebs or fracture surfaces that are reacting. Trace pyrite present. No magnetism. Appears to be a Takla sediment, but not sure whether it could be a chert or limestone. Due to softness and effervescence, could be a limestone. However, due to local hardness, fracture patterns and resistance to being broken off the outcrop it could also be a chert.				
347269	6231639	M09	Tenakihi	942662	1204	Outcrop	Gossanous material (Takla sediment?)	CaCb 4, FeOxid 4	None	N/A	Outcrop on the way to the cirque, ~20m wide by 2m up. Outcrop has gossanous weathering, within the volcanic. Sample is gossanous with quartz veining. Small outcrops within the large area are ~1m by 2m. Sample is orangey brown on the weathered surface and greeny blue on the fresh surface. Strong calcite alteration. Strong gossanous material obscures the majority of the rock. The few small, fresh surfaces weakly resemble sample 1203, but difficult to be certain. Non-magnetic and no sulphides noted.				
347269	6231639	M09	Tenakihi	942662	1205	Outcrop	Gossanous material	FeOxid 5	None	N/A	Increased quartz veining (compared to 1204) and gossanous. From the same outcrop as 1204. Extremely weathered and gossanous. Orange brown in colour, texture obscured. Quartz and calcite veining, up to 5mm and no prefered orientation. No sulphides noted.				
347179	6231598	M09	Tenakihi	942662	1206	Outcrop	Takla sediment?	CaCb 3, FeOxid 3	Py <1	Py D	Extremely weathered, gossanous outcrop. ~10m along by 2m up. Lots of gossanous subcrop around it too. Strongly oxidized weathered surface, giving the rock an orangey brown colour. Fresh surface is grey blue and very fine grained. ~1% very fine grained unidentified black grains. Possible quartz in the matrix. <= 1mm quartz and calcite veins with no preference in orientation. Calcite is moderate. Non-magnetic. Very fine grained disseminated pyrite, <1% in abundance.				
347083	6231349	M09	Tenakihi	1011480	1207	Outcrop	Talka volcanic?	FeOxid 3, CaCb 2	Py <1	Py D	Outcrop within the cirque. ~5m up by 5m across. Appears volcanic? Grey blue in colour and very fine grained. Brown on weathered surface (appears slighlty gossanous locally). Quartz veining up to 3mm along fractures, with no preference in orientation. Similar in appearance to sample 1198 except finer grained. Very fine grained pyrite noted, <1%. This sample does not have the amount of calcite that the previous ones did (1203-1206). No magnetite. Moderate iron oxide and weak calcite.				
347049	6231199	M09	Tenakihi	1011480	1208	Outcrop	Takla volcanic?	CaCb 2	Py Tr	Py D	More outcrop along the top of the cirque. ~20m up by ~5m across. Very weathered, hard to get a good sample. Medium grey with a greenish hue and fine grained. Composed of 5% unidentified black grains, also appears to be quartz and plagioclase in the groundmass but cannot identify percentages. Rounded, light grey clasts make up about 1-5% of the rock. These clasts contain black mafics, quartz and subtle calcite and appear to be vesicular (pumice-like appearance). Non-magnetic. Trace very fine grained pyrite noted. Calcite alteration is weak.				

Cathedral Property
Rock Sample Descriptions

Location (UTM Zone 10 North NAD 83)							Description					XRF Analysis		Fire Assay
Easting	Northing	Map	Zone	Tenure	Sample No.	Sample Type	Lithology	Alteration	Sulphides (%)	Mineralization Style	Field Sample Descriptions	Structure	Cu ppm	As ppm	Au ppm
347291	6231130	M09	Tenakihi	1011480	1209	Outcrop/subcrop	Takla sediment? (Gossanous)	CaCb 3, FeOxid 4	Py <1	Py D	Gossanous outcrop and subcrop extending ~50m across and ~50m down. Outcrops within the subcrop are <1m by <1m in size. Sample is orange and weathered. Quartz veining up to 6mm with no prefered orientation. Moderate calcite alteration. Fresh surface is light grey and locally green. Very fine grained, angular to sub-rounded grains. Possibly contains clasts as in sample 1208. Very fine grained, disseminated pyrite, <1%. No magnetite.				
347514	6231203	M09	Tenakihi	1011480	1210	Outcrop	Diorite	Epi 3	Py <1, Mag 7-15, Mal Tr	Py D	Outcrop on the ridge down from the cirque. ~5m up by 2m wide, two small outcrops of the same size. Dark green/black in colour and medium grained. Contains 60% mafics and 40% feldspar (likely plagioclase). Very magnetic, 7-15%. Moderate epidote alteration. Pyrite is <1%. Trace malachite.				
347489	6231263	M09	Tenakihi	1011480	1211	Outcrop	Gossanous Material	CaCb 4, FeOxid 5	Py <1, Mal 2	Py D	Large, gossanous outcrop on the way down the ridge further. ~15m high by ~15m wide. Very, very weathered, hard to tell rock type. Orange in colour, texture obscured by weathering. Quartz veining up to 2mm in width, no prefered orientation. Malachite 1%. Calcite alteration is strong. Very fine grained, disseminated pyrite, <1%.				
349677	6215427	M14	Link	837069	1212	Outcrop	Quartz Monzonite	Pot 1	Mag 5-7	N/A	On the way up the hill in the east side of the Link Zone. Small outcrop, ~5m wide by 2m up. Lots of rockfall on the way up to this point, mostly moss covered. Sample is medium grey with a pale pink hue and medium to coarse grained. It contains 10-15% mafics, 10-20% quartz and 65-80% feldspar. Magnetite is 5-7%. There is subtle potassic alteration. No sulphides noted.				
349597	6215644	M14	Link	837069	1213	Outcrop	Quartz Monzonite	none	Mag 5-7	N/A	On the ridge before rockfall and the big ridge. Outcrop on the north side, ~5m along and 2m up. As described in 1212 but with no potassic alteration. Magnetite percent is the same (5-7%).				
349745	6215692	M14	Link	837069	1214	Outcrop	Quartz Monzonite	none	Mag 3-5	N/A	Outcrop along the same ridge ~150m east of sample 1213. Outcrop is ~8m long by 2m high. As described compositionally in 1212 but with less magnetite (3-5%) and finer grained (fine to medium grained). Also no potassic alteration.				
349899	6215835	M14	Link	837069	1215	Outcrop	Quartz Monzonite	none	Mag 5-7	N/A	Outcrop along the ridge further to the northeast. Outcrop is ~8m wide by ~5m tall. Similar to 1214. No potassic alteration.				
349932	6215857	M14	Link	837069	1216	Outcrop	Quartz Monzonite	Pot 2	Mag 5-7	N/A	Outcrop on the hill below 1215. ~5m across by 1m tall. Looks to have more feldspar. Has a slight pink hue. Still pretty magnetic. As previously described in 1212.				
347060	6218593	M03	Cathedral	689828	1217	Outcrop	Monzonite	Pot 4	Mag 3-5	N/A	Salmon pink in colour and coarse grained. Composition consists of 70-80% feldspar, 5% quartz, 5-10% mafics (biotite and amphibole), 3-5% magnetite. Alteration includes strong potassic. No sulphides are observed. This sample is taken from a potassic altered fracture zone approximately 20cm wide. Overall the rock appears to be similar in composition to sample 1262. Fracture surface is 291/44.	Fracture surface - 291/44	387	<36	
347082	6218690	M03	Cathedral	689828	1218	Outcrop	Gossanous outcrop (monzonite?)	FeOx 4 Pot 4	Mal 1-3 Cpy 1-3 Py 1-3 Mag <1	Cpy D, Py D	Outcrop with fracture plane (168/42). Gossanous, orangey brown, original rock type appears to be rich in potassic alteration. Difficult to tell composition. Approximately 60-70% feldspar (potassium feldspar and plagioclase), 20% mafics and 10% quartz. <1% magnetite. Sulphides include chalcopyrite and pyrite. Malachite and azurite are present as well. 1-3% malachite/azurite, 1-3% chalcopyrite and 1-3% pyrite.	Fracture plane - 168/42	753	<36	
347163	6218770	M03	Cathedral	689828	1219	Outcrop	Quartz monzonite?	Pot 2 FeOx 4	Mal 3-5 Cpy 1-3 Py <1	Cpy D, Py D	Large outcrop ~40m tall by 20m wide. Malachite staining on the face of the outcrop (picture). Stain is ~1m high by 20cm wide. Gossanous outcrop around stain is ~5m wide. Could be a fracture plane as orientation looks correct, but cannot get a measurement. Weathered surface is tealy blue. Fresh suface is light pink. Fine to meduim grained. 3-5% magnetite. Mineralization includes 3-5% malachite/azurite, 1-3% chalcopyrite, and less than 1% pyrite. There are black hairline fractures/veinlets which appear to be associated with mineralization. Composition is approximately 20% quartz, 10-15% mafics, and 55-70% feldspar. Could be a quartz monzonite?		971	<36	
347173	6218756	M03	Cathedral	689828	1220	Outcrop	Gossanous outcrop (monzonite?)	FeOxid 5	Mal/Az 3-5, Py 1, Cpy 1-3	Cpy D and Blebs	Lower down on the same outcrop as 1219. Gossanous (rock type obscured by weathering). Quartz veins are less than 1cm with pyrite and chalcopyrite along the edges (disseminated). Non-magnetic and orange-brown in colour. Pyrite and chalcopyrite are disseminated throughout in blebs less than 1mm, mostly concentrated around the quartz.		18550	605	
346954	6218797	M03	Cathedral	689828	1221	Float (subcrop - talus slope)	Gossanous float		Py 5-7, Cpy 1	Py D, Cpy D	Gossanous angular float taken within a talus slope. Orange-brown in colour and rock type is mostly obscured, although is is likely the same monzonite seen in this area. Appears to be a quartz monzonite or a monzonite (as seen in sample 1262 and others). Sulphides include pyrite and chalcopyrite.		172	71	
346941	6218835	M03	Cathedral	689828	1222	Outcrop	Quartz monzonite	FeOxid 2	Mag 5-7	N/A	Medium grey in colour and fine to medium grained. Appears to be an unaltered version of quartz monzonite we have been finding in the area. Composition includes 10-20% quartz, 10% mafics, 60-70% feldspar and 5-7% magnetite. No alteration other than brown weathered surface. No sulphides noted.		298	<36	
346901	6218829	M03	Cathedral	689828	1223	Outcrop	Gossanous outcrop	FeOxid 5, Chl 2	Py 1-3, Cpy <1, ArsPy 3-5	Py Veins and D, Cpy Veins and D, ArsPy - Vein	At the bottom of the huge cliffs to the north of the cirque, this sample was taken. The outcrop is approximately 100m tall or more and there is a gossanous fracture plane about 75cm wide where this sample was taken. The fracture runs at 215/38. The sample is orange-brown to greenish in colour and the weathered surface is very gossanous. The fresh surface is grey-green and still fairly weathered. Rock type may be different from previous monzonites, or may just be too altered to tell. It is grey-green with plagioclase crystals (?) but difficult to tell. There are veinlets of pyrite as well as disseminations. Chalcopyrite is present along with pyrite. There are also some veins made up of a shiny gray, almost purple minerals (could be biotite, but some look more cubic - also could be arsenopyrite, but doesn't seem to be silver enough). Not sure!	Fracture plane runs at 215/38	2949	13731	
346895	6218819	M03	Cathedral	689828	1224	Subcrop	Gossanous rock	FeOxid 4, Chl 5	Cpy 3-5, Py 7-15	Cpy D and Blebs, Py D and Blebs	Reddish to orangish brown weathered surface with a dark green fractured, fresh surface. Sample is angular. Original host rock obscured due to intense alteration and weathering. Alteration includes intense chlorite and strong iron oxidation. A few quartz phenocrysts are visible as the only remnants of host rock. This sample was taken directly below gossanous outcrop on the ground so it is likely from same source. Sulphides comprise 15-30% of the rock with pyrite 7-15% and chalcopyrite 3-5% and disseminated blebs and bordering on semi-massive. No magnetite is present.		9828	158	
346873	6218793	M03	Cathedral	689828	1225	Outcrop	Quartz monzonite	Pot 2	Mag 1-3	N/A	Along the ridge the outcrop is still over 100m tall. The sample taken is brown-grey on the weathered surface and the fresh surface is light greyish-pink. It is medium-to-coarse-grained and contains 10-15% mafics (mostly biotite), 20-25% quartz, and 60-70% feldspar. No sulphides noted. Contains 1-3% magnetite and looks like a quartz monzonite.		273	51	
346864	6218771	M03	Cathedral	689828	1226	Subcrop	Monzonite/Quartz Monzonite	Pot 2, FeOxid 3	Py 1, Cpy <1, Mag 1	Py D, Cpy D	Rustic orange/brown weathered surface. Pale pinkish grey on fresh surface. Coarse grained. Composition includes 15-20% quartz, 15-20% mafics (biotite and amphibole), and 60-70% feldspar. Alteration is subtle potassic and moderate iron oxide. Sulphides include 1% pyrite and <1% chalcopyrite disseminated. 1% magnetite.		398	<36	
346821	6218715	M03	Cathedral	689828	1227	Outcrop	Gossanous outcrop (monzonite?)	Pot 1, FeOxid 4	Cpy 1, Py 1, Mal <1	Cpy FF and D, Py FF and D	Dark reddish brown weathered surface with a fresh surface mostly obscured due to weathering and oxidation. Original host rock does have small remnants of what appears to be host monzonite/quartz monzonite. Hairline, black (chlorite?) veinlets are throughout in no distinct orientation. Sample was taken from a strongly oxidized fracture zone ~1m wide. Sulphides include 1% chalcopyrite, 1% pyrite and also include <1% malachite. No magnetite is noted.		3815	247	
346787	6218693	M03	Cathedral	689828	1228	Outcrop	Quartz monzonite	CaCb 2, Pot 3, Epi 1	Mag 5-7	N/A	Outcrop along the same ridge is very white on the surface and effervescent - looks like a calcite crust along the entire side of the ridge in this area. The outer weathered surface is white and grey, where the fresh surface is a pale pink. The white crust is very likely calcite because it effervesces so much. There is malachite staining present along the outcrop but we could not reach a sample of the malachite (too high up on the outcrop). One stain is ~1m high by 10cm across, and the larger one is 2m high by 1m across the outcrop. The sample is coarse-grained and contains 20-25% mafics, 5-10% quartz and 65-75% feldspar (K-spar + plag). No sulphides are noted. Contains 5-7% magnetite and has potassic (could be just K-spar? not sure) and epidote alteration.		<28	57	
346743	6218699	M03	Cathedral	689828	1229	Outcrop	Quartz monzonite	CaCb 2, Pot 1	none	N/A	Took a sample of the host rock around a large malachite stain with a calcium carbonate crust. The rock type appears to be as described in sample 1228, but is extremely weathered so is hard to tell. No sulphides are visible.		116	60	
346743	6218699	M03	Cathedral	689828	1230	Subcrop	Gossanous subcrop	CaCb 4, FeOxid 4	Py 1, Cpy <1	Py D, Cpy D	Gossanous subcrop. Weathered to orange-brown. Contains 1-3% magnetite and 1-3% malachite. Also contains ~1% pyrite and <1% chalcopyrite. The whole rock is effervescent except for the areas of extreme iron oxidation.		10171	<36	
346697	6218676	M03	Cathedral	689828	1231	Outcrop	Gossanous outcrop	Pot 2, FeOxid 3, CaCb 2	Mal <1, Py 1-3, Cpy 3-5	Py Blebs and D, Cpy Blebs and D	Around the corner and up the ridge from the large malachite stain, took a sample in a wide fracture zone (~2m). The sample is gossanous and orange-brown to yellow with weathering. There are vugs from where sulphides and/or carbonates were. The fresh surface is a medium grey with local light pink. It is fine-to-medium-grained and looks bleached. The composition is unclear but seems to have ~20% quartz, 60-70% feldspar, 10-20% mafics, <1% malachite, 3-5% chalcopyrite, 1-3% pyrite, and is potasically altered as well as calcite and iron oxide altered. Sample is non-magnetic.		8851	53	
346895	6218434	M03	Cathedral	689828	1233	Outcrop	Quartz monzonite	Pot 4, FeOxid 1	Cpy <1, Py <1	Cpy D, Py D	Large outcrop about 30m across by 30m high. Sample taken from gully in the middle of the outcrop. Malachite staining in thin fractures about 8mm wide. The rock is brown to pink on the weathered surface and salmon pink on the fresh surface. Medium-to-coarse-grained and composed of 10-15% mafics, 70-80% feldspar and 5-20% quartz. Sulphides are only noted around malachite staining (less than 1% chalcopyrite and less than 1% pyrite).		213	<36	
346826	6218378	M03	Cathedral	689828	1234	Float	Gossanous float	FeOxid 5	Py 1, Cpy <1	Cpy D, Py D	Gossanous float taken within rockfall. The original rock type is obscured by weathering. It is weathered to orange-brown and is purple in spots.		286	119	
346802	6218373	M03	Cathedral	689828	1235	Float	Gossanous float	FeOxid 5	Py 1-3, Cpy 1, Mal <1	Cpy D, Py D	Gossanous float with the original rock type obscured by weathering and alteration. Orange-brown in colour and very oxidized.		2810	382	

Cathedral Property
Rock Sample Descriptions

Location (UTM Zone 10 North NAD 83)							Description					XRF Analysis		Fire Assay
Easting	Northing	Map	Zone	Tenure	Sample No.	Sample Type	Lithology	Alteration	Sulphides (%)	Mineralization Style	Field Sample Descriptions	Structure	Cu ppm	As ppm	Au ppm
346796	6218352	M03	Cathedral	689828	1236	Outcrop	Gossanous outcrop	FeOxid 5	Mal 1, Py 1, Cpy <1	Cpy D, Py D	Part of the large outcrop that spans the top of the ridge. Southwest-trending fracture plane that is gossanous and ~1m wide. There is a malachite stain 3 inches by 3 inches on the face of the outcrop. Gossanous outcrop with the original rock type obscured. Orange-brown in colour. Malachite is ~1%. Very oxidized sample.	Southwest-trending fracture plane ~1m wide	1687	<36	
346821	6218340	M03	Cathedral	689828	1237	Outcrop	Gossanous outcrop	FeOxid 3	Py 1, Cpy <1, FeOxid 3	Cpy D, Py D	Taken along the large outcrop at the top of the ridge that is 50-100 m tall. There was a malachite stain on the wall ~15cm wide by 5cm tall. Some gossanous weathering. Red-brown to teal blue in colour. The original rock type is obscured but could be the same monzonite seen in this area. It is very weathered and crumbles when hit with hammer. (Another large gossan with malachite staining was approximately 2 feet by 2 feet and too high to reach.)		9450	<36	
346826	6218329	M03	Cathedral	689828	1238	Outcrop	Gossanous outcrop	FeOxid 3, Chl 2, CaCb 4	Mag 1-3, Py 1-3, Cpy <1	Py Veins and D, Cpy Veins and D	Gossanous fracture plane. No orientation measurement available. It appears to have the same orientation as the previous fracture planes, but can't definitively tell. Also cannot tell the width. It is weathered red-orange to purple and the fresh surface is grey-green in colour. Can't tell texture, but could have been monzonite that has been calcite and chlorite altered so it's hard to tell. Magnetite is present and concentrated in veinlets (about 1-3%), and pyrite (1-3%) is in veinlets and also disseminated on the gossanous crust. There is less than 1% chalcopyrite in the rock as well.		233	94	
346877	6218307	M03	Cathedral	689828	1239	Outcrop	Quartz Monzonite	Pot 1 (could be K-spar), Epi 1, Mag 1-3	Mag 1-3	N/A	Outcrop sample taken from the same ridge. The rock is weathered to grey-yellow and the fresh surface is white and black (slightly pink in spots too). It is medium-grained and composed of ~20% mafics (biotite, amph & mag), ~65% feldspar (mostly plag, ~10% K-spar), and 15% quartz. Contains about 1-3% magnetite, otherwise no sulphides noted.		46	<36	
346880	6218309	M03	Cathedral	689828	1240	Float	Gossanous float	FeOxid 4	Py 1, Mal + Az 1	Py D	Gossanous float in large rockfall just below outcrop. Orange-brown to purple in colour. Rock type is obscured by weathering. The exposed surface is very magnetic (black and slightly shiny). Magnetite content is at least 50%. There are also vugs that are likely from weathered out pyrite. Very oxidized.		6136	269	
346894	6218306	M03	Cathedral	689828	1241	Float	Possible contact between monzonite and massive magnetite	Pot 1, FeOxid 2	Py 1, Cpy 1	Py D and FF, Cpy D and FF	Float within rockfall. Rock is blue/black and orange/white (half and half). It appears to be a contact between massive magnetite and possible monzonite as seen before (example: 1239). The possible monzonite part of the rock is very altered and has veins through it - it is hard to tell the original composition. Magnetite veinlets are present (less than 2mm in size in the monzonite part of the rock) and appear to have sulphides associated with them. Within the massive magnetite there is pyrite and chalcopyrite (disseminated and as fracture fill?).		774	<36	
347024	6218203	M03	Cathedral	689828	1242	Outcrop	na	Pot 1	Py <1	Py D	Outcrop on the opposite side of the valley from samples 1237-1241. The outcrop is very large (can't see the other side). The weathered surface is grey to dark grey and the fresh surface is pale grey to slightly pink. The rock is medium-to-coarse-grained and contains 20-25% mafics, 5-10% quartz and 65-75% feldspar. There is a small amount of disseminated sulphides as well.		312	<36	
347024	6218203	M03	Cathedral	689828	1244	Outcrop	Gossanous outcrop	FeOxid 4	Mag 1-3 (localized),Py 1-3, Cpy <1	Py D, Cpy D	Gossanous, blackened part of the same outcrop as sample 1242. The weathered surface is dark red/orange and the fresh surface is half black and half light orange (seems to be a contact). The black part of the rock is aphanitic and the orange part looks like possible weathered monzonite, but it is too altered to tell. The original rock type is obscured by weathering. Very oxidized (iron oxidation 4/5). Magnetite is present (localized, about 1-3% in the rock) and there is a quartz vein between the monzonite (?) and the black part. The quartz vein is about 4mm wide. There are sulphides present in the monzonite (?) but not in the black part of the rock. The black part was not identified - it is not magnetic but looks like the massive magnetite in sample 1241. It also scratches. Contains 1-3% pyrite and less than 1% chalcopyrite. NOTE: There are cliff outcrops to the east of samples 1242 and 1244 (around 347083, 6218206) that are monzonitic and contain potassic and epidote alteration. Epidote is present in veins less than or equal to 5cm wide. The fracture planes on these outcrops appear to be oriented in the same way as the previous gossanous outcrops from the past few days (approximately 200/40), but here none of them are gossanous (around the small lake in the valley most of the fracture planes are gossanous). There is also very little gossanous material in the float below the outcrops.		124	172	
347073	6218268	M03	Cathedral	689828	1245	Outcrop	Quartz Monzonite	None	None noted	N/A	Sample taken from outcrop about 15m wide and 2m high. No gossan visible. The sample is weathered to medium grey and the fresh surface is light grey. The rock is medium-grained and contains 3-5% magnetite, 10-15% mafics, 5-10% quartz, and 75-85% feldspar (predominantly plagioclase). It appears to be unaltered and no sulphides are noted. The rock almost looks like a diorite, but is most likely a monzonite.		121	<36	
346886	6218491	M03	Cathedral	689828	1246	Outcrop	Gossanous outcrop	Pot 2, FeOxid 4, Chl 2	Py 1, Cpy <1	Py Veins and D, Cpy Veins and D	Outcrop with small gossanous areas. The outcrop is ~10m long by 2m high. Could not get an orientation on the gossan. The sample is orange-brown on the weathered surface and grey-green on the fresh surface. The original rock type is mostly obscured, but there are areas of potassic and chlorite alteration. The surrounding rock appears to be quartz monzonite with potassic alteration. The sulphides are in veinlets up to 2mm wide and also disseminated within the rock.		1282	118	
346776	6218497	M03	Cathedral	689828	1247	Float	Gossanous float	CaCb 4, Chl 2, FeOxid 2	Py 3-5, Cpy 1, Mal <1, Mag 1-3 and locally 30-50	Py ??, Cpy ??	Float taken from rockfall. Angular and black rock. The fresh surface contains mostly calcite and has chlorite alteration as well. Can't tell original rock type. Locally magnetite is 30-50%, in the rest of the rock is is 1-3%.		32051	<36	
346776	6218495	M03	Cathedral	689828	1248	Float	Gossanous float	FeOxid 4, CaCb 1, Chl 3(?)	Py Tr, Cpy Tr, Mal/Az 3-5	Cpy D, Py D	Angular float taken from rock fall area right near sample 1247. The weathered surface is orange to dark red and the fresh surface is both orange and green. The original rock type is obscured. Chlorite alteration is present in the non-gossanous parts of the rock. Pyrite and chalcopyrite are present disseminated within the malachite and azurite.		36380	<36	
347628	6219662	M03	Cathedral East	689828	1250	Outcrop	Quartz Monzonite	FeOxid 1, Pot 1	Mag 1-3, Py Tr	Py D	Sample of outcrop taken around where sample 6047 from last year was taken (that sample was gossanous float). Took this sample for lithology - no sulphides noted. The weathered surface is brown and the fresh surface is grey to dark grey. Sample is coarse-grained and equigranular and contains 65-70% feldspar, 20-25% mafics, and 5-15% quartz. Also contains 1-3% magnetite with trace pyrite.				<0.005
347628	6219662	M03	Cathedral East	689828	1251	Outcrop	Possible volcanic?	Chl 4, CaCb 3	Py 1, Cpy <1	Cpy FF, Py D	Possible vein system, Qz veins up to 2mm wide. Striking NW-SE. Weathered surface is light brown and fresh surface is green-grey. Groundmass is aphanitic. There are white veinlets less than 2mm wide that are composed of quartz and calcite. The sulphides appear to be concentrated in the veins, but are also disseminated throughout the rock. Pyrite is fine-grained, disseminated and in about 1% of the rock. Chalcopyrite is fracture-fill and less than 1%. White feldspar (plag?) crystals are less than or equal to 3mm wide. The rock is non-magnetic and chlorite altered. It is a possible volcanic dyke and looks similar to later samples 1284, 1285 and 1286.		2081	119	0.005
347650	6219675	M03	Cathedral East	689828	1252	Outcrop	Quartz Monzonite	Pot 1	Mag 1-3	N/A	Host rock with mineralization. The weathered surface is orange-brown and the fresh surface is light grey. Fine-to-medium-grained non-equigranular rock that contains ~20% mafics, ~5-10% quartz, and 70-75% quartz. Contains 1-3% magnetite and no sulphides are visible.		90	64	<0.005
347652	6219672	M03	Cathedral East	689828	1253	Outcrop	Altered monzonite?	Silica 4, Chl 2, FeOxid 3	Py <1, Cpy <1	Py D, Cpy D	Sample taken from a gossanous vein system. Weathered surface is orange-brown, fresh surface is green-blue. Pervasively silica-altered with quartz veinlets and stringers. Very altered with silica and with chlorite.		56	91	0.007
347647	6219677	M03	Cathedral East	689828	1254	Subcrop	Gossanous Qz-rich subcrop	FeOxid 3	Py 15-30, Cpy Tr	Py Blebs	Gossanous rock fall with sulphides. Weathered surface is brown and slightly orange. The fresh surface is mostly reddish-orange with bits of white. The rock is composed of predominantly quartz with cubes of pyrite less than or equal to 2mm. Pyrite is 15-30% and chalcopyrite is not seen.		105	1302	0.757
347670	6219693	M03	Cathedral East	689828	1255	Outcrop	Gossanous outcrop	FeOxid 3, Chl 3	Py 1-3, Cpy <1	Py Veins, Cpy D	Weathered surface is dark red to purple, fresh surface is dark green/blue. Rock is non-magnetic and there is no acid reaction. The original rock type is unknown due to veining and alteration. Contains sub-parallel veinlets of quartz (2-4mm) much of which has pyrite and vugs from remnant pyrite. On weathered surface, vein may have been ~2cm wide, but now is friable and vuggy, so hard to tell. Iron oxide alteration is moderate, as well as chlorite. Pyrite is concentrated in veinlets and is 1-3%. <1% chalcopyrite is disseminated in the groundmass.		125	18113	13.95
347667	6219689	M03	Cathedral East	689828	1256	Outcrop	Gossanous outcrop	FeOxid 5, Chl 3	Py 30-50, Cpy <1	Py SM, Cpy D	Gossanous weathering. Weathered surface is dark red/brown to almost purple. Fresh surface is dark green/blue. Original rock type obscured by weathering and sulphides. Appears to be mainly composed of quartz. Non-magnetic. Pyrite is semi-massive (30-50%) and chalcopyrite is <1%.		296	11785	0.44
347694	6219654	M03	Cathedral East	689828	1257	Outcrop	Gossanous outcrop	FeOxid 5, Chl 3	Py 3-5, Aspy 3-5, Cpy 1	Py Blebs and D, Cpy D, Arsy Blebs and D	Gossanous. Weathered to dark purple/red. Fresh surface is dark green/blue. Composition obscured by alteration and weathering. Pyrite cubes are <1mm and disseminated in groundmass 3-5%. Arsenopyrite is disseminated and blebby in the groundmass at 3-5%. Chalcopyrite is about 1%.		230	340510	3.47
347696	6219650	M03	Cathedral East	689828	1258	Outcrop	Quartz monzonite	None	Mag 3-5	N/A	Weathered surface is whitish pink. Fresh surface is light grey/pink. Coarse grained. Contains 20% quartz, 10% mafics (biotite, amphibole and magnetite) and 70% feldspar. Magnetite is 3-5%. No sulphides are noted. No alteration.		350	<36	0.009
347566	6219622	M03	Cathedral East	689828	1259	Outcrop	Quartz monzonite	Pot 2, CaCb 2	Mag 1-3	N/A	Weathered surface is pale brown. Fresh surface is pinky grey. Coarse grained. Contains 20-30% quartz, 10% mafics and 60-70% feldspar. 1-3% magnetite. No sulphides observed.		319	<36	<0.005

Cathedral Property
Rock Sample Descriptions

Location (UTM Zone 10 North NAD 83)							Description					XRF Analysis		Fire Assay
Easting	Northing	Map	Zone	Tenure	Sample No.	Sample Type	Lithology	Alteration	Sulphides (%)	Mineralization Style	Field Sample Descriptions	Structure	Cu ppm	As ppm	Au ppm
347569	6219631	M03	Cathedral East	689828	1260	Outcrop	Altered quartz monzonite	Chl 4, CaCb 2	Py <1, Cpy <1	Py D, Cpy D	Weathered surface is light to medium brown. Fresh surface is greeny grey. Looks like an altered version of 1259. Texture is mostly obscured by alteration. No magnetism. Faint outlines of quartz and feldspar are visible. The majority of the groundmass is strongly chloritized. Very fine grained, disseminated chalcopyrite is <1% and pyrite is <1%.		1144	<36	0.028
347561	6219569	M03	Cathedral East	689828	1261	Outcrop	Gossanous outcrop	CaCb 2, FeOxid 5	None	N/A	Weathered to light orange. Fresh surface is the same colour. Texture and composition are completely obscured by alteration and weathering. Quartz is the only mineral left, all other original minerals have been destroyed. No magnetism. No sulphides visible.		150	<36	<0.005
347182	6218413	M03	Cathedral	689828	1262	Outcrop	Monzonite	FeOxid 1	None	N/A	Outcrop ~3m tall by 6m across. Weathered surface is greyish pink and fresh surface is light grey. Coarse-grained rock containing 10-15% mafics (biotite, amphibole and magnetite), 50-60% plagioclase, 10% K-spar, 20-25% quartz.		194	44	
347182	6218413	M03	Cathedral	689828	1263	Outcrop	Gossanous outcrop (monzonite?)	FeOxid 5	Py 5-7, Cpy <1.	Py ??, Cpy ??	Fracture plane within outcrop (1262) that is gossanous and reddish-orange to brown in colour. The fracture surface is ~30cm wide and dipping 30 degrees, striking 202. The original rock type is obscured but is likely the same monzonite as 1262. Non-magnetic.	Fracture surface 202/30.	2646	812	
346966	6218590	M03	Cathedral	689828	1264	Outcrop	Gossanous outcrop	Pot 3	Py 3-5, Mal <1, Cpy 1	Py D, Cpy FF	Another fracture plane - strike and dip not apparent here. Extremely weathered and difficult to tell the original rock type. It appears to be an altered version of 1262, but non-magnetic. The host rock surrounding is the same as 1262. Outcrop is ~5m high and ~20m long. The fracture is ~25cm wide. Contains malachite and chalcopyrite.		4368	83	
347099	6218700	M03	Cathedral	689828	1265	Float	Gossanous float	Pot 3, FeOxid 3	Py 5-7, Cpy 1-3, Mal <1	Py D, Cpy D	Float with gossanous weathering. Malachite and chalcopyrite are present as well as pyrite. There are blebs of sulphides ~5mm by 5mm surrounded by malachite. Sulphides are disseminated. The rock type appears to be the same as 1262. Non-magnetic. The mafics appear to be predominantly amphibole. (There is also a small outcrop nearby that is ~3x2m and appears to be the same as 1262 but unmineralized.)		2349	<36	
347120	6218702	M03	Cathedral	689828	1267	Outcrop	Monzonite	Pot 2	Mag 1-3, no sulphides noted	N/A	Outcrop ~5m long by 1m tall. Rock does not appear to have any gossanous fracture planes. The weathered surface is grey to pink and the fresh surface is light grey to pink. The rock is medium-grained and contains 5-10% quartz, 10-15% mafics, 75-85% feldspar (K-spar>plag). Joints run at ~209, 306 and 190 degrees.	Joints in the outcrop run at ~209, 306 and 190 degrees.	228	<36	
347132	6218729	M03	Cathedral	689828	1268	Subcrop	Gossanous subcrop	FeOxid 4, Pot 3	Py 1-3, Cpy 3-5, Mal 1-3	Py FF, Cpy FF	Gossanous subcrop. 4 feet away is a gossanous fracture plane in outcrop that is most likely where this subcrop came from. The fracture plane is ~50cm wide but cannot get an orientation. The sample is orange-brown and the host rock appears to be the same monzonite as sample 1262.		8747	53	
347132	6218780	M03	Cathedral	689828	1269	Outcrop	Gossanous fracture plane	FeOxid 5	Cpy 1, Py 1, Mal <1	Cpy FF, Py FF	Another gossanous fracture plane in outcrop. Plane is about 3m wide and there are parallel similar gossanous structures across the ravine 20 degree to the north. Contains malachite, azurite, chalcopyrite and pyrite. Fracture plane at 192/40.	Fracture plane strike and dip: 192/40	849	<36	
347136	6218883	M03	Cathedral	689828	1270	Float	Gossanous float	Pot 2 (locally), FeOxid 4	Py 1-3, Cpy 1-3	Py D, Cpy D	Angular gossanous float that is purple to orange-brown in colour. The original rock type is too altered to determine. (Outcrop was seen after this on the northern ridge at 347066E, 6218883N. No gossan was noted on this outcrop, which is coarse-grained and similar in composition to sample 1262. No sulphides noted. The outcrop is ~6m high by ~15m wide and is a monzonite. No sample was taken here.)		138	124	
347042	6218841	M03	Cathedral	689828	1271	Outcrop	Quartz Monzonite	Pot 3	Mag 1-3, Cpy <1, Mal <1	Cpy D	Outcrop just above where high grade float samples were taken in 2011. Approximately 5m high by 3m across and weathered grey/pink. Fresh surface is pink. The rock is medium-to-coarse-grained and contains 5-10% mafics (biotite, amphibole and magnetite), 10-20% quartz, and 70-85% feldspar (plag & K-spar, K-spar>plag). Sulphides noted in this rock.		197	<36	
347014	6218828	M03	Cathedral	689828	1272	Outcrop	Monzonite	Pot 3, FeOxid 4	Cpy 1-3, Mal 1-3	Cpy D	Outcrop around where a high grade sample was taken in 2011. Another gossanous fracture plane ~1m wide. The outcrop is ~8m high by ~3m across and is a fine-to-medium-grained gossanous monzonite (as in sample 1262). It contains malachite, chalcopyrite, and possible azurite. Fracture plane is oriented 190/36.	Fracture plane is oriented 190/36	23150	<36	
346938	6218515	M03	Cathedral	689828	1273	Outcrop	Gossanous fracture plane	FeOx 4	Mag <1, Cpy <1	Cpy D	Gossanous fracture plane - narrow compared to what we have been seeing today (~10-15cm wide). The surrounding rock is monzonite similar to 1262 with epidote veins (>=5cm) that have potassic alteration on either side (~5cm wide) similar to what was seen in the top of the Link Zone. Gossanous sample has less than 1% chalcopyrite. The fracture plane is oriented 178/44, the epidote vein is oriented 200/60, and the sample is too weathered to tell the host rock but it is possibly medium grey in colour. Magnetite present. Sample is orange brown to purple with white possible clay.	Fracture plane is oriented 178/44, epidote vein is oriented 200/60	648	<36	
346850	6218760	M03	Cathedral	689828	1274	Outcrop	Gossanous material	FeOxid 5, CaCb 2	Cpy 1, Py 1, Mal <1	Py Stringers D, Cpy Stringers and D	Taken along fracture surface of highly gossanous material approximately 75cm wide and 10m long. The structure is 302/36. Varies from limonitic yellow to rustic red/brown throughout the rock. Original host rock obscured. Within fracture zone there is white chalky substance (Calcite). Sulphides include <1% Py and 1% Cpy as stringers and disseminations. Malachite is observed as trace. Non-magnetic.	Fracture plane (302/36)	888	95	
346822	6218711	M03	Cathedral	689828	1275	Outcrop	Monzonite/Quartz Monzonite	FeOxid 4, Pot 4, CaCb 2	Mal <1, Py tr, Cpy <1	Py Stringers and D, Cpy Stringers and D	Sample taken along localized rustic zone with malachite staining on weathered surface approximately 5x5cm in size. Sample is rustic red/orange brown on weathered surface and salmon pink on fractured fresh surface. Medium to coarse grained. Composed of 10-20% mafics (mainly amphibole +/- biotite), 70-80% feldspar, 10-20% quartz. Non-magnetic. Alteration includes strong potassic and iron oxidation with weak calcite. Malachite is <1%, Cpy <1%, Py trace as stringers and disseminations.		6772	43	
346739	6218680	M03	Cathedral	689828	1276	Outcrop	Gossanous outcrop (monzonite?)	FeOxid 4, Pot 2, CaCb 3	Cpy 3-5, Py 1, Mal 1-3	Py Stringers and D, Cpy Stringers and D	Taken within fracture surface that juts ~1m into the cliff face and is 75cm wide. Original host rock is difficult to see due to strong alteration. Locally it does appear similar to monzonite rocks observed within proximity. Weathered surface is rustic red/orange to brown and yellow with local malachite green. Internally it is slightly bleached with a pale pink grey colour. Alteration includes weak potassic, strong iron oxidation, and moderate calcite. Sulphides include 3-5% Cpy, 1% Py, 1-3% malachite as stringers and disseminations, and blebs.		10419	87	
346644	6218688	M03	Cathedral	689828	1277	Float	Gossanous angular float	Pot 1, FeOxid 3, Epidote <1	Cpy <1, Py <1, Mal <1	Cpy D, Py D	Dark orangish brown weathered surface. Medium grey to locally pale pink fresh surface and medium to coarse grained. Composed of 10-20% quartz, 30-40% potassium feldspar, 30-40% plagioclase, and 10% mafics. Alteration includes subtle potassic, moderate iron oxidation, and trace epidote. Magnetite is 3-5% and appears to be associated with hairline fractures and not throughout rock (sporadically emplaced). Sulphides include <1% malachite, <1% Cpy, and <1% Py. Possible pyrrhotite as well. Joint measurement 138/86.		2704	42	
346671	6218607	M03	Cathedral	689828	1278	Float	Gossanous angular float	FeOxid 3	Cpy <1, Py 5-7, Mag <1	Cpy D, FF, and Blebs, Py D, FFand Blebs	Orangish brown weathered surface and medium grey fresh surface. Black hairline fractures throughout with no preference in orientation. Compositionally it consists of 20% quartz, 10% mafics, and 70% feldspar. Fine to medium grained. Sulphides are fracture fill and sporadic blebs (<=1mm) and fine grained disseminations of Cpy (<1%) and Py (5-7%). Subtle magnetite.		158	<36	
346665	6218558	M03	Cathedral	689828	1279	Outcrop	Monzonite/Quartz Monzonite	FeOxid 2	Cpy <1, Py <1, Mag 5-7	Cpy D, Py D	Sample taken from a locally iron oxidized portion of outcrop. Weathered surface is orangish brown and fresh surface is light grey. Similar description as 1275. Medium to coarse grained. Magnetite is 5-7%. Sulphides include <1% Cpy, <1% Py as very fine grained disseminations.		411	<36	
346670	6218575	M03	Cathedral	689828	1280	Outcrop	Gossanous outcrop (monzonite?)	FeOxid 5, Pot 4	Cpy <1, Py 3-5	Py Blebs, Cpy D	Continuation of weathered/oxidized surface along outcrop from sample 1279. This sample however does not have magnetite and original texture is for the most part obscured. Throughout the rock it has orangish brown colour and a white bleaching. Alteration includes intense iron oxidation and strong potassic. Sulphides include 3-5% Py as cubic porphyroblasts (<1mm) and very fine grained Cpy <1%.		2075	<36	
346703	6218551	M03	Cathedral	689828	1281	Outcrop	Gossanous outcrop in fracture (Monzonite?)	FeOxid 5, Pot 3	Py 3-5, Cpy <1	Py CH and D, Cpy CH and D	Red rustic brown weathered surface and black locally. Weathered through entire sample. Composition obscured. Alteration is intense iron oxidation and moderate potassic. Sulphides are Py 3-5% and Cpy <1% as locallized chunks and disseminations. Fracture surface is 344/44/	Fracture plane (344/44	462	213	
346609	6218538	M03	Cathedral	689828	1282	Outcrop	Granodiorite/Quartz Monzonite?	Epi 2	Mag 5-7	N/A	Weathered surface is pale grey/white. Fresh surface is pale grey and coarse grained. Composed of 15-20% mafics (primarily amphibole) and 20-30% quartz, and 50-60% feldspar. Throughout outcrop and in sample there are hairline to 1mm in size fractures of quartz with epidote selvage and have no preference in orientation. Rock appears more quartz rich than samples near high grade rocks. Magnetite is 5-7%. Alteration is weak epidote. No sulphides observed.		<28	<36	
346657	6218451	M03	Cathedral	689828	1283	Outcrop	Porphyritic rhyolite	none	Mag 5-7	N/A	Dark brown grey weathered surface. Pale purplish grey fresh surface. Porphyritic in texture. Fine grained black mafics (3-5%), pale pink feldspar (1%), white feldspar (3-5%) set within a pale purplish grey groundmass. Locally an epidote green is present but not sure if epidote or not. Magnetite 5-7%. No sulphides noted. Likely a dyke in host monzonite/quartz monzonite.	288/88	<28	<36	

Cathedral Property
Rock Sample Descriptions

Location (UTM Zone 10 North NAD 83)							Description					XRF Analysis		Fire Assay
Easting	Northing	Map	Zone	Tenure	Sample No.	Sample Type	Lithology	Alteration	Sulphides (%)	Mineralization Style	Field Sample Descriptions	Structure	Cu ppm	As ppm	Au ppm
346684	6218338	M03	Cathedral	689828	1284	Outcrop	Gossanous outcrop (Altered)	Chl 4, FeOxid 5, CaCb 3	Py <1, Cpy <1	Py D, Cpy D	Rustic red brown through rock. Dark grey and locally dark green on one fresh surface. Original rock not identifiable. Gossanous zone is 5m wide. Disseminated sulphides <1% Py and <1 % Cpy. Limonitic locally. Alteration is strong chlorite and intense iron oxidation.		<28	279	
346691	6218339	M03	Cathedral	689828	1285	Outcrop	Gossanous outcrop (Altered)	Chl 4, FeOxid 4	Py 3-5, Cpy 1	Py Stringers and D, Cpy Stringers and D	Gossanous outcrop of possible volcanic origin. Dark rustic red to orange/brown weathered surface and dark grey to locally dark green fresh surface. Local quartz veining <=2mm wide. Strong chlorite alteration. Sulphides are 3-5% pyrite and 1% Cpy as stringers and disseminations. May be an andesite as dark grey surface is aphanitic in texture.		1377	<36	
346882	6218488	M03	Cathedral	689828	1286	Outcrop	Gossanous outcrop (Altered)	Chl 3, Sil 3, FeOxid 3	Py 5-7, Cpy 3-5	Py D and Blebs, Cpy D and Blebs	Dark red/brown weathered surface. Dark green grey fresh surface. Looks to be an altered volcanic similar to 1284 and 1285. Alteration includes silica 3, chlorite 3, and iron oxide 3. Hairline qtz veinlets with no preference in orientation. Magnetite is 1-3% as sporadic blebs. Sulphides: Py 5-7%, Cpy 3-5% as disseminated and blebs.		81168	<36	
346715	6218679	M03	Cathedral	689828	1287	Float	Massive sulphide	Chl 5, FeOxid 4	Cpy 30-50, Py 7-15	Cpy SM, Py SM	Massive sulphide in float taken directly below a gossanous fracture zone that cannot be reached to get an outcrop sample. The original host rock is presumed to be monzonite/qtz monzonite as that is the host rock in the vacinity. Intense chlorite alteration and strong iron oxidation has removed the original host rock texture. There is 30-50% chalcopyrite and 7-15% pyrite in the sample		276143	1895	
346756	6218431	M03	Cathedral	689828	1288	Outcrop	Quartz monzonite	FeOxid 3, CaCb 1	Py Tr, Cpy <1, Mal/Az 1	Cpy Veins, Py ??	The outcrop this sample was taken from is ~5m high by 5m wide. The weathered surface is orange brown and the fresh surface is grey and slightly orange. The rock is medium-to-coarse-grained and contains ~10% mafics, ~10-20% quartz, and ~70-80% feldspar (mostly plag?). Malachite and azurite are both present around 1%, and there is trace pyrite and less than 1% chalcopyrite. Chalcopyrite is present in veinlets less than 1mm in size, and the rock is a quartz monzonite.		203	<36	
346710	6218395	M03	Cathedral	689828	1289	Outcrop	Quartz monzonite	Pot 2?	Mag 3-5	N/A	Pale grey to pinkish white weathered surface and medium grey to light pink fresh surface. Composition includes 10-15% mafics, 20-30% potassium feldspar, 30-40% plagioclase and 15-20% quartz. It is coarse grained with 3-5% magnetite. No sulphides are noted. Possible potassic alteration may be present but difficult to tell if alteration or feldspar.		289	<36	
346705	6218409	M03	Cathedral	689828	1290	Outcrop	Monzonite/Quartz monzonite	Pot 3, FeOxid 3	Cpy <1, Mal <1	Cpy Stringers, FF and D	Similar to sample 1288. Orangish red weathered surface and salmon pink fresh surface. It is coarse grained and its composition is 10-15% mafics,, 70-80% feldspar and 5-10% quartz. Malachite and azurite is <1% and localized on the crust of the sample. Alteration is moderate potassic and moderate iron oxidation. Chalcopyrite is <1% as stringers, fracture fill, and disseminated and also localized near the crust.		755	<36	
346671	6218388	M03	Cathedral	689828	1291	Outcrop	Gossanous outcrop	FeOxid 5, CaCb 2, Chl 2(?)	Py 1, Cpy 1	Cpy D and Py D	Sample taken from gossanous fracture zone within outcrop ~20m wide by ~5m tall. The fracture is ~20cm wide and has an unclear orientation. The rock is purple-brown to orange on the weathered surface and greenish grey on the fresh surace. It is hard to get a fresh surface because it's so weathered, though. The original rock type is obscured by weathering. Sulphides are only visible on fresh surfaces. Pyrite is present in about 1% of the rock, and so is chalcopyrite. The sulphides are very fine-grained and disseminated.		19384	310	
346705	6218377	M03	Cathedral	689828	1292	Outcrop	Gossanous outcrop (quartz monzonite?)	FeOxid 5, Chl 5	Py 7-15, Cpy <1	Py D and Stringers, Cpy D and Stringers	Strongly altered gossanous zone ~1m wide. Dark reddish brown weathered surface and dark grey to dark green fractured surface. Original host rock is obscured but is presumed to be monzonite/quartz monzonite. Alteration includes intense chlorite, and iron oxidation. Sulphides include 7-15% pyrite, <1% chalcopyrite as disseminations and stringers. The structure of the fracture gossanous zone is 282/70.	Fracture gossanous zone (282/70)	705	36	
346619	6218393	M03	Cathedral	689828	1293	Outcrop	Quartz monzonite	FeOxid 2, Pot 2	None seen	N/A	Sample taken from gossanous zone in an outcrop that is about 10m wide by 4m high. There is a ~3m by 5m gossanous face of the rock where this sample was taken. There is epidote veining throughout the entire outcrop (less than or equal to 10cm wide), some of which have a potassically altered selvege around them. The rock is weathered to dark red, some purple. The fresh surface of the rock is grey/pink. The sample is medium-grained and there is local magnetism (about 1% of the rock). Contains ~70% feldspar (plag + K-spar), ~15-20% mafics, and ~10-15% quartz. No sulphides were noted in the rock but a sample from the exact same spot taken in 2011 showed medium grades for copper (~0.2%).		201	44	
346590	6218338	M03	Cathedral	689828	1294	Outcrop	Quartz monzonite	Pot 2	Mag 1-3	N/A	Sample taken from the top of the outcrop in the centre of the large cirque. Outcrop at the top is ~5m by 5m. The weathered surface is pink to dark grey and the fresh surface is light grey/pink. The rock is coarse to very coarse-grained and contains ~20% mafics (biotite, amphibole & magnetite), ~10-15% quartz, and ~65-70% feldspar (plag + K-spar). The K-spar seen in the sample could be potassic alteration, but not entirely sure. No sulphides were noted in the rock.		217	<36	
346656	6218332	M03	Cathedral	689828	1295	Outcrop	Gossanous outcrop	CaCb 4, FeOxid 3	Py <1, Cpy <1	Py Stringers, Cpy Stringers	Sample of gossanous outcrop. The gossanous area is ~4m wide, but cannot get an orientation of it because it is not linear. The weathered surface is orange-brown and the fresh surface is light grey. Contains calcite and chlorite. Rock is non-magnetic and contains stringers of chalcopyrite and pyrite less than 1mm wide (less than 1% of the rock).		1031	853	
346646	6218329	M03	Cathedral	689828	1296	Outcrop	Possible volcanic dyke	Chl 4, FeOxid 1	Py Tr, Mag 5-7	Py D	Sample from a dyke within the monzonitic host rock. The dyke appears to be ~1-1.5m wide and is oriented at 175/66. The contact between the host rock and the dyke appears to be sharp. The sample is dark grey/slightly green in colour and contains calcite veinlets less than 2mm wide with no preferred orientation. The rock is aphanitic and seems to be volcanic, but can't definitively tell. Trace amounts of disseminated pyrite are seen and the rock also contains 5-7% magnetite. The dyke seems to have gossanous float associated with it, but none on the outcrop itself.	Dyke oriented 175/66	105	<36	
346642	6218326	M03	Cathedral	689828	1297	Outcrop	Quartz monzonite	Pot 1	Mag 3-5, no sulphides seen	N/A	Sample taken from outcrop of quartz monzonite around the seemingly volcanic dyke (sample 1296). The weathered surface is brownish grey and the fresh surface is light pink. The rock is coarse-grained and contains ~5-10% mafics (amphibole + magnetite mostly), ~10% quartz, and ~80-85% feldspar (plag + K-spar, although some of the pink could be potassic alteration). There is ~3-5% magnetite in the rock and no sulphides were noted.		<28	56	
346669	6218320	M03	Cathedral	689828	1298	Outcrop	Gossanous outcrop (quartz monzonite?)	FeOxid 4, Chl 4	Py 3-5, Cpy <1, Mag 3-5	Cpy D and Stringers, Py D and Stringers	Sample taken from gossanous fracture zone ~40cm wide. Rustic reddish brown weathered surface. Grey green to dark green broken surface. Within monzonitic host rocks so is likely an altered version. Sample is similar to samples 1284-1286. Alteration is strong chlorite and iron oxidation. Local strong magnetism (1-3% overall). Sulphides include <1% chalcopyrite and 3-5% pyrite as disseminations and stringers.		281	989	
346630	6218292	M03	Cathedral	689828	1300	Outcrop	Gossanous outcrop (quartz monzonite?)	Sil 3, FeOxid 3	Py 3-5, Cpy <1	Cpy D and Stringers, Py D and Stringers	Sample from a 30cm wide gossanous zone along a fracture plane. Original rock is obscured. The weathered surface is reddish orange and the fresh surface is pale greenish grey. Alteration includes moderate silica and iron oxidation. Sulphides consist of 3-5% pyrite and <1% chalcopyrite as very fine grained disseminations and stringers.		475	304	
346674	6218277	M03	Cathedral	689828	1301	Outcrop	Gossanous outcrop (quartz monzonite?)	CaCb 3, Chl 3, FeOxid 3	Py 1-3%, Cpy tr	Py D, Cpy D	Rustic red and orange on weathered surface and dark greenish grey on fractured fresh surface. Similar to 1300 and 1298 the original host rock is obscured due to alteration. The fracture/gossanous zone is ~2m wide. Alteration includes moderate calcite, chlorite and iron oxidation. Sulphides consist of 1-3% pyrite and trace chalcopyrite.		<28	137	
346660	6218261	M03	Cathedral	689828	1302	Outcrop	Weakly feldspar-phyric dyke.	Sil 3, FeOxid 3,	Mag 1-3	N/A	Similar to sample 1296. Orange/brown weathered surface and bluish grey/green on fresh surface. Weakly porphyritic with <= 2mm plagioclase phenocrysts (5-7%) set within the bluish grey/green groundmass. Magnetite is 1-3%. Alteration includes strong silica and weak iron oxidation.		<28	59	
346651	6218265	M03	Cathedral	689828	1303	Outcrop	Megacrystic feldspar-phyric dyke	Pot 3, FeOxid 1, CaCb 2	None seen	N/A	Sample taken of feldspar-phyric dyke within the quartz monzonite. Can't get an orientation, as the dyke seems to be popping out of the hill and is not continuous between outcrops. The weathered surface is light brown and the fresh surface is pale purple/pink to grey. The K-spar crystals are salmon pink, tabular and less than or equal to 1cm long. There are also epidote(?) crystals present (about 1%) that are very fine-grained to fine-grained. Groundmass is aphanitic and cannot determine composition. Biotite is present in about 1% of the rock and is very fine-grained.		<28	84	
346610	6218228	M03	Cathedral	689828	1304	Outcrop	Gossanous calcite veining	FeOxid 4, CaCb 3	Py Tr	Py D	Sample taken from fracture about 3cm wide. The fracture is ~3cm wide and is oriented at 284/60. The rock is weathered to orange-brown and the fresh surface is limey-green/grey. The rock type is obscured by weathering. There is maroon-coloured staining along the veins as well. The veins are less than 1mm to 2mm wide. Non-magnetic rock with trace pyrite.	Fracture plane (284/60)	372	<36	
346606	6218239	M03	Cathedral	689828	1305	Outcrop	Quartz monzonite	Pot 1, Epi 1, FeOxid 1	None seen	N/A	Sample taken from outcrop on part of the ridge along the talus slope, ~3-5m tall. The weathered surface is yellow-brown and the fresh surface is grey. The rock is medium-grained and equigranular and contains ~70% plag (some K-spar, but could be potassic alteration), ~20% mafics, and ~5-10% quartz. Also contains 3-5% magnetite. No sulphides are noted in the rock.		62	44	
346928	6218315	M03	Cathedral	689828	1307	Float	Quartz monzonite	FeOxid 3, CaCb 2, Pot 4	Cpy <1, Mal tr, Mag 1	Cpy D	Rustic re/orange weathered surface. Salmon pink with interstitial black minerals. Fine to coarse grained. 70-80% feldspar (looks dominately potassium feldspar but is likely alteration), 15-20% mafics, and 5-10% quartz. Alteration is strong potassic, weak calcite (in groundmass and veinlets), and moderate iron oxidation. Magnetite is 1%. Sulphides include fine grained disseminated chalcopyrite (<1%) and trace malachite.		270	<36	
346944	6218151	M03	Cathedral	689828	1308	Outcrop	Quartz Monzonite	CaCb 2, Pot 3	Mag 3-5	N/A	Light grey weathered surface. Salmon pink with interstitial black grains. Composed of 20% quartz, 10% mafics (including coarse grained biotite possibly as a result of potassic alteration?), and 70% feldspar (due to potassic alteration can't distinguish type). Fine to coarse grained. Moderate potassic alteration and weak calcite. No sulphides noted.		477	<36	

Cathedral Property
Rock Sample Descriptions

Location (UTM Zone 10 North NAD 83)							Description					XRF Analysis		Fire Assay
Easting	Northing	Map	Zone	Tenure	Sample No.	Sample Type	Lithology	Alteration	Sulphides (%)	Mineralization Style	Field Sample Descriptions	Structure	Cu ppm	As ppm	Au ppm
346908	6218129	M03	Cathedral	689828	1309	Float	Gossanous Float	FeOxid 2, CaCb 2	Py 3-5, Cpy 3-5, Mal 7-15, Mag 30-50	Py Blebs and D, Cpy Blebs and D	Float in rockfall. Weathered surface is orangey brown and teal green. Original composition obscured by weathering. Magnetite 30-50%. Malachite/azurite are 7-15%. Chalcopyrite is 3-5% and pyrite is 3-5%. The rest of the rock looks to be a quartz monzonite, but cannot tell from the sample. Sample taken from the location of sample 6275 from 2011. Malachite staining appears to be concentrated around magnetite within the float samples around it.		27236	<36	
346923	6218165	M03	Cathedral	689828	1310	Angular float	Massive magnetite	None	Mag >50, Cpy 3-5, Mal 1	Cpy D	Black on outside. When broken chalcopyrite, malachite, and azurite is present. Magnetite is >50% with chalcopyrite 3-5%, and 1% malachite and azurite. Calcite is disseminated and along fractures.		2363	<36	
346871	6218116	M03	Cathedral	689828	1311	Outcrop	Gossanous quartz monzonite	Pot 1, FeOxid 1	Py <1	Py ??	Small gossanous area on the side of the outcrop. Gossan extends ~30cm by 30cm. Weathered surface is red/orange to brown. Fresh surface is light grey to white. Coarse grained. Non-magnetic. Contains 10-20% mafics (biotite and amphibole), 10% quartz, and 70-80% feldspar (could be plagioclase and potassium feldspar or could be potassic alteration.		397	<36	
346845	6218151	M03	Cathedral	689828	1312	Outcrop	Semi-massive magnetite	Epi 2, CaCb 3	Cpy <1, Mag 30-50	Cpy D	Found along cliff face with a fracture surface 176/64 approximately 10cm wide. Original host rock consumed by magnetite. 30-50% magnetite with calcite throughout rock. Chalcopyrite as very fine grained disseminations <1%. Epidote alteration associated with calcite veinlet.	Fracture surface (176/64)	758	<36	
346840	6218147	M03	Cathedral	689828	1313	Angular float	Quartz monzonite	Pot 3, CaCb 3, Epi 2	Cpy 3-5, Mal 1, Mag 7-15	Cpy D and Blebs	Similar in composition to 1307 and 1308 but has a 4cm wide magnetite vein cross-cutting with chalcopyrite and malachite associated. Magnetite is 7-15%. Alteration includes calcite, potassic and epidote as weak to moderate. Calcite veinlets are noted throughout. Chalcopyrite is 3-5%, malachite is 1% as disseminations and blebs associated with magnetite vein.		10374	60	
346858	6218129	M03	Cathedral	689828	1314	Outcrop	Gossanous fracture (quartz monzonite?)	FeOxid 3, CaCb 1, Sil 3	Cpy 1, Py 3-5, Mag 1-3	Cpy D and Blebs, Py D and Blebs	Host rock obscured but quartz monzonite is in the vacinity. Taken from a fracture surface 15-30cm wide with a structure of 184/62. The fresh surface is a bluish grey. Alteration includes silica, calcite and iron oxide. Sporadic magnetite is present as 1-3%. Sulphides include 3-5% pyrite and 1% chalcopyrite as very fine grained disseminations and blebs up to 2mm wide	Fracture surface (184/62)	1641	126	
346875	6218055	M03	Cathedral	689828	1315	Angular float	Gossanous float	FeOxid 3, Pot 1, Chl 1	Mag 3-5, Py 3-5, Cpy 1-3, Mal 1	Py and Cpy ??	Gossanous, angular float. Weathered to orange red. Fresh surface is dark grey green and pink. Medium grained and equigranular. Contains 65-70% feldspar (plagioclase and potassium feldspar), 25% mafics (biotite and amphibole) and 5-10% quartz. Magnetite is 3-5%. Fractured along gossanous plane which contains pyrite and chalcopyrite. No sulphides noted in host rock. Pyrite is 3-5% and chalcopyrite is 1-3%. Malachite staining is 1%.		6629	<36	
346856	6217993	M03	Cathedral	689828	1316	Outcrop	Gossanous outcrop	FeOxid 4, Chl 2(?), Pot 2	Py 1-3, Cpy <1	Cpy D, Py D	Gossanous fracture in outcrop. Could not get an orientation on fracture plane. The plane was about 20cm wide and the fractures appear to be striking and dipping the same as on the ridge to the north. Measurement off of one fracture is 184/44. The weathered surface is orange-brown, sometimes purple, and the fresh surface is dark green and pale orange. The host rock is largely obscured but appears to be a quartz monzonite. Sulphides are disseminated throughout.	One of the fractures is 184/44	523	321	
346850	6218049	M03	Cathedral	689828	1317	Outcrop	Gossanous fracture (quartz monzonite?)	Chl 5, FeOx 4, Cal 1	Py 7-15, Cpy 1	Py Blebs and D, Cpy Blebs and D	Taken from gossanous fracture but no orientation could be taken. The rock is extremely altered and the original texture is obliterated. Alteration includes intense chlorite, strong iron oxidation and possible calcite. Sulphides consist of pyrite (7-15%), and chalcopyrite (1%) as blebs up to 5mm wide and disseminations.		2403	1250	
346855	6218051	M03	Cathedral	689828	1318	Outcrop	Gossanous fracture (quartz monzonite?)	Pot 3, FeOxid 3, CaCb 2	Cpy 3-5, Py 1-3, Mal 1-3	Cpy D, Py D	Taken near another gossanous fracture but this sample shows host rock with sulphides and malachite. Although strongly altered this sample differs from 1317 as chlorite alteration does not pervasively destroy original texture. Original texture is only partly obscured and the host monzonite phenocrysts are weakly visible. Alteration inlcudes potassic, iron oxidation and calcite. Black veinlets (possible chlorite?) cross-cut sample. Sulphides include chalcopyrite (3-5%) and pyrite (1-3%) as very fine grained disseminations along with malachite and azurite (1-3%.		27027	<36	
346860	6217993	M03	Cathedral	689828	1319	Outcrop	Quartz Monzonite	Unaltered	Mag 3-5	N/A	Sample of outcrop of mostly unaltered host rock. The weathered surface is light brown to grey and the fresh surface is light grey. Sample is coarse-grained and contains ~10-15% mafics (biotite and amphibole), ~10-20% quartz, and ~65-80% feldspar (mostly plagioclase). Magnetite is present in ~3-5% of the rock and no sulphides are noted.		281	42	
346994	6217839	M03	Cathedral	689828	1320	Outcrop	Quartz Monzonite	Pot 2, Epi 2, FeOxid 1, Chl 1	Cpy <1, Py <1	Cpy D, Py D	Taken in an area with abundant epidote present associated with quartz veining up to 1cm wide. Potassic selvage is associated with these veins. Composition of sample is 10% mafics (primarily amphibole, the biotite present in 1308 is no longer within this part of the quartz monzonite), 70-80% feldspar, and 10% quartz. Magnetite is localized (1%). It is coarse grained. ALteration is weak epidote, weak potassice, subtle iron oxidation and locally weak chlorite. Sulphides include <1% chalcopyrite and pyrite.		104	50	
346998	6217879	M03	Cathedral	689828	1321	Outcrop	Quartz Monzonite	Pot 5, Epi 2, CaCb 1	Py Tr, Cpy Tr	Cpy D, Py D	Sample of outcrop with potassic alteration. The weathered surface is brown to pink and the fresh surface is salmon pink. The rock is fine-to-medium-grained and contains ~80% K-spar (could be just potassic altered), ~10-15% mafics, and ~5-10% quartz. There are two sub-parallel epidote veins in the sample that are less than 1mm in diameter. There is trace pyrite and chalcopyrite throughout the rock (disseminated) and 1-3% magnetite.		508	<36	
346989	6217907	M03	Cathedral	689828	1322	Float	Semi-massive magnetite	FeOxid 2, CaCb 2	Cpy 5-7, Py 1-3, Mag 30-50	Cpy ??, Py ??	Black to locally reddish orange. Dark grey to black fresh surface. Taken in a relatively flat talus area of a large angular rock half buried by smaller talus pieces. There is an abundance of rock similar to this sample taken in the area which suggests close proximity to outcrop. However we could not locate. Due to location and angularity the talus area we are standing on may be burying the outcrop we seek. The look of the area suggests a very short travel distance for this sample. The sample is 30-50% magnetite, 5-7% chalcopyrite, 1-3% pyrite and 1% malachite and azurite. Alteration is iron oxidation and calcite. Also noted within the rock this sample was taken from is magnetite breccia with feldspar phenocrysts and a magnetite matrix.		7383	<36	
346964	6217979	M03	Cathedral	689828	1323	Outcrop	Gossanous outcrop	FeOxid 1, CaCb 3	Mag 30-50, Py <1, Cpy <1	Cpy D, Py D	Sample from a gossanous fracture plane. The weathered surface is red-orange and the fresh surface is a medium grey/blue. Rock is medium-to-coarse-grained and contains ~30-50% magnetite, and ~30-40% plagioclase. The magnetite is semi-massive and the composition of the rock is mostly obscured by magnetite and calcium carbonate alteration. Chalcopyrite and pyrite are disseminated throughout the groundmass in less than 1% of the rock. Parallel to the fracture plane there is strong potassic alteration on the bottom (SE) side (50cm in places). The rest of the surrounding rock (apart from the potassically altered areas) is quartz monzonite.		3677	65	
346978	6217981	M03	Cathedral	689828	1324	Float	Gossanous float	FeOxid 4	Mal/Az 3-5, Py 1, Cpy 1	Cpy D, Py D	Sample of gossanous float within rockfall. Contains large malachite stains. The weathered surface is red/orange/brown and the fresh surface is pinkish grey. The original texture is obscured by weathering and alteration. Contains 3-5% malachite and azurite, and about 1% pyrite and chalcopyrite.		16635	<36	
346963	6217997	M03	Cathedral	689828	1325	Outcrop	Quartz Monzonite	Pot 1, Chl 1, CaCb 1, Epi 1	Mag 1-3, Py Tr	Py D	Sample taken from outcrop about 10m wide, 25m long and 2m high. The weathered surface is beige/grey and the fresh surface is greyish-pink. The rock si fine-to-medium-grained and (the mafic minerals are all fine-grained). The rock contains ~75% feldspar (plagioclase more than K-spar), ~5-10% mafics, and ~5-10% quartz. There is trace disseminated pyrite as well, and magnetite is present in ~1-3% of the rock. The matrix effervesces slightly with acid. There are a few epidote veinlets in the sample less than 1mm wide with a potassic selvege for ~1cm on either side of the veinlets.		175	<36	
347138	6218154	M03	Cathedral	689828	1326	Outcrop	Gossanous outcrop	FeOx 2	None seen	N/A	Took sample from a fracture plane with gossanous weathering within quartz monzonite rock. The plane is oriented at 190/40. It is about 30cm wide and then tapers out. The rock is weathered to orange-brown and the fresh surface is white/orange. It appears to be composed of quartz and is non-magnetic. No sulphides are noted. There are black nonmagnetic veinlets in the sample that are unidentifiable.	Fracture plane 190/40	37	269	
347182	6217932	M03	Cathedral	689828	1327	Outcrop	Gossanous Quartz Monzonite	FeOxid 2, Pot 1, Chl 1(?)	Py 3-5, Cpy 1	Py & Cpy D	Sample from a fracture plane at 184/68. It has gossanous weathering and the fracture plane is ~2m wide with gossan being inconsistent through that. The sample is red-brown in colour and the fresh surface is all sulphides and a pinkish-white colour. The original composition is mostly obscured but seems to have had quartz and feldspar, so it is most likely a quartz monzonite like the surrounding rock. It is non-magnetic and contains about 3-5% pyrite and 1% chalcopyrite. There is also float around the outcrop that is black/purple in colour, magnetic and has calcite in it (however none of the immediate outcrop seems to be this composition).	Fracture plane 184/68	69	291	
347219	6217853	M03	Cathedral	689828	1328	Outcrop	Quartz Monzonite	None seen	Mag 3-5	N/A	Walked along the ridge by the huge ravie and could not find any gossanous areas or malachite staining to the south along the ridge. The fractures in this area are still oriented the same as the others in the area (N-S strike and ~40-60 degree dip) but could not see any gossanous ones. There may be some too high up on the cliff that we can't see because they are oriented parallel to the cliff and dipping into it. Took a sample of the lithology (host rock) from the cliff. The weathered surface is light brown/grey and the fresh surface is medium to light grey. The rock is medium-to-coarse-grained and contains ~20-25% mafics (mostly amphibole by the looks of it), ~20% quartz, and ~55-60% feldspar (mostly plagioclase). There is also 3-5% magnetite in the rock and no alteration or sulphides are noted.		<28	<36	
347049	6217939	M03	Cathedral	689828	1329	Outcrop	Quartz Monzonite	Pot 2	Mag 3-5	N/A	Took sample from a potassically altered fracture plane at 168/66. Sample is weathered to grey-brown and the fresh surface is black, white and pink. The sample is coarse-grained and contains ~65-70% feldspar (plag and K-spar, but could be potassic alteration instead of K-spar?), ~20% mafics (amphibole, biotite and magnetite), ~10-15% quartz, and ~3-5% magnetite. No acid reaction is present. Potassic alteration 2/5 and no sulphides observed.		<28	<36	

Cathedral Property
Rock Sample Descriptions

Location (UTM Zone 10 North NAD 83)							Description						XRF Analysis		Fire Assay
Easting	Northing	Map	Zone	Tenure	Sample No.	Sample Type	Lithology	Alteration	Sulphides (%)	Mineralization Style	Field Sample Descriptions	Structure	Cu ppm	As ppm	Au ppm
347038	6218129	M03	Cathedral	689828	1330	Outcrop	Possible volcanic dyke	Chl 4, FeOxid 2, CaCb 3	Py 1, Cpy Tr	Py & Cpy in veinlets	Took a sample of a possibly volcanic (?) dyke with gossanous weathering within the host quartz monzonite. The weathered surface is orange-brown and the fresh surface is grey-green. The dyke appears to be about 10m wide but is not consistent. It appears to be an interfingering contact (not sharp with the quartz monzonite). The potassic alteration is mostly on the north side of the dyke in the host rock and is about 1m wide on this side. Took a measurement of 272/62. Pyrite is present along calcite veinlets in about 1% of the rock, and there is trace chalcopyrite as well.	Fracture plane at 272/62	<28	<36	
347316	6218281	M03	Cathedral	689828	1332	Float	Gossanous float (altered Qz Monzonite)	FeOxid 3, Pot 3	Py 1-3	Py D and in Qz veinlets	Took a sample from float by the river at the base of the huge ravine. The float was sub-rounded to sub-angular and approximately 50cm by 75cm. Three quarters of the rock is potasically altered quartz monzonite and about one quarter of the rock was very gossanous. Took a sample from the very gossanous area. The weathered surface is purple-red to orange and the fresh surface is pink-orange-grey. It is a fine-grained potasically altered monzonite with ~75% K-spar (could be just potassic alteration), ~20% mafics, and ~5% quartz. Pyrite is disseminated within the groundmass as well as along quartz veins less than 2mm in diameter. No acid reaction and non-magnetic.		3707	50	
347285	6218194	M03	Cathedral	689828	1333	Outcrop	Quartz Monzonite	FeOxid 1, Pot 2	None seen	N/A	Took a sample from an outcrop of potassically altered quartz monzonite trending NW-SE along the west side of the huge ravine. The weathered surface is orange-brown and the fresh surface is grey-pink. The rock contains ~70-75% plagioclase and K-spar (although the K-spar is likely a lot of potassic alteration rather than original K-spar), ~10-15% quartz, and ~15% mafics. The mafic minerals look like biotite and amphibole. The rock is non-magnetic and no sulphides are noted.		219	<36	
347305	6218157	M03	Cathedral	689828	1334	Outcrop	Gossanous outcrop	FeOxid 5	Py <1, Mal 5-7, Mag 1-3	Py D	Gossanous outcrop ~5m long by 3m up. Host rock is potassic altered quartz monzonite. Sample is weathered to orange/brown. Original rock type is obscured by weathering. Probably quartz monzonite. Magnetite is 1-3%. Malachite is 5-7%. Disseminated pyrite is <1%.		151369	71	
347312	6218089	M03	Cathedral	689828	1335	Outcrop	Quartz Monzonite	FeOxid 1, Pot 2, CaCb 1, Chl 1(?)	None seen	N/A	Took a lithosample of a potassically-altered quartz monzonite. The weathered surface is brown-grey and the fresh surface is pink/grey. The rock is medium-to-coarse-grained and contains ~70-75% plag and K-spar (the K-spar could just be alteration), ~20% mafics, and ~5-10% quartz. The rock contains ~3-5% magnetite throughout the rock and no sulphides are noted. Slightly effervesces with acid.		215	<36	
347305	6218089	M03	Cathedral	689828	1336	Outcrop	Gossanous outcrop	FeOxid 4, Chl 2	Py Tr-1	Py D	Gossanous outcrop. Surrounding host rock is quartz monzonite. Sample is weathered to orange/brown, almost purple in places. Fresh surface is green/ Possibly chlorite altered. Appears to be a fracture plane, but cannot be certain. Cannot get an orientation. Pyrite is trace to 1%. There are vugs in the weathered/gossanous surface where pyrite probably used to be.		<28	2348	
347325	6218055	M03	Cathedral	689828	1337	Float	Gossanous float	FeOxid 4	Py 1	Py D	Gossanous float from right below gossanous outcrop (measuring ~1m wide by 2m tall). Cannot get and orientation as the outcrop is just a lump sticking out of the ground. Most likely this float sample came from this outcrop. Sample is orange brown and appears to be all quartz. Non-magnetic. Sulphides are disseminated throughout. Pyrite is 1%.		203	<36	
347287	6218029	M03	Cathedral	689828	1338	Outcrop	Gossanous outcrop	FeOxid 4, Pot 1, CaCb 3, Chl 4(?)	None seen	N/A	Took a sample from a gossanous fracture zone that strikes and dips 262/40. Could not get a good measurement on the fracture zone where the sample is from, so took one on another gossanous fracture zone that seems mostly parallel to it. The weathered surface is orange and the fresh surface is green-blue. The original composition is obscured by weathering and alteration, but is likely a weathered and altered quartz monzonite. It looks like it was fine-to-medium-grained but is hard to tell. No sulphides are noted in the sample, and no magnetite either. The fracture zone was approximately half a foot wide.	Fracture plane runs at 262/40	47	<36	
347285	6217983	M03	Cathedral	689828	1339	Outcrop	Gossanous outcrop	FeOxid 3, CaCb 1, Sil 3	Py Tr	Disseminated in quartz vein	Took a sample of gossanous subcrop (semi-attached to outcrop, very fractured) from a small area of gossan sticking out of the ground. The west side of the ravine likely has minimal gossanous outcrops because the orientation has them dipping into the mountain (whereas the other side of the ravine has lots of gossanous outcrops). The outcrop is surrounded by at least 2m of potassically altered quartz monzonite with some iron oxide staining. The weathered surface of the sample is orange and the fresh surface is white and grey. Most of the original composition is obscured by weathering and alteration, but there is a quartz vein running through the sample that varies from 1 to 3cm wide with grey aphanitic non-magnetic rock around it (chlorite altered?). There is trace disseminated pyrite within the quartz vein as well.		<28	<36	
347355	6217925	M03	Cathedral	689828	1340	Float	Gossanous float	FeOxid 4	Mal 7-15, Mag 1-3	Mal staining	Malachite/gossanous float sample. Orange red and teal blue/green in colour. Sample taken from gossanous rock fall where malachite can clearly be seen on many rocks. Original rock type obscured.		26236	116	
347383	6217918	M03	Cathedral	689828	1342	Outcrop	Gossanous outcrop	FeOxid 4	Mal 7-15, Mag 1-3, Cpy 1	Cpy D	Gossanous outcrop. Similar to where 1340 was taken (below on the hill) there is malachite staining all over the place in the rockfall. One part of the outcrop with malachite is sticking out. No orientation available. Sample is as described in 1340. Malachite is 7-15%. Magnetite is 1-3%, locally 3-5%. Chalcopyrite is 1% and disseminated. More malachite in outcrop is found above this sample. Whole outcrop is ~3m high by 3m wide.		998	<36	
347380	6217909	M03	Cathedral	689828	1343	Outcrop	Gossanous outcrop	FeOxid 3	Mal 1-3, Py 1, Cpy 1	Py D, Cpy D	Outcrop that is grey with gossanous areas and malachite staining. Quartz monzonite. Sample is orange brown. Original rock type obscured, but potentially from quartz monzonite as it is all around. No orientation available again. Possibly the fracture surface is parallel to the hill. Hill is at ~190/30, which fits with the other fracture planes previously measured and might explain why a measurement cannot be taken because I am standing on the fracture surface. Sample has 1-3% malachite, 1% disseminated pyrite and 1% disseminated chalcopyrite.		24116	<36	
347295	6217709	M03	Cathedral	689828	1344	Outcrop	Gossanous outcrop	FeOxid 3	None	N/A	Outcrop on the other side of the ravine. Gossanous fracture plane. Cannot get and orientation. Sample is weathered to orange. Fresh surface is bluish white. Composed of 15% mafics, 5% quartz and 80% feldspar. Not sure where the bluish colour comes from. No sulphides noted. Non-magnetic.		739	<36	
347295	6217689	M03	Cathedral	689828	1345	Outcrop		Chl 2	Mag 3-5	N/A	Outcrop of volcanic dyke. Contact is fairly sharp with surrounding quartz monzonite. Rock is weathered green and green on fresh surface. Plagioclase phenocrysts are <5mm and some tabular. Small, black mafic grains are 5-10%. Magnetite is 3-5%. No sulphides noted. Dyke orientation is 340/39.		58	76	
347602	6217732	M03	Cathedral	689828	1346	Outcrop	Gossanous outcrop	Chl 4, FeOxid 3, CaCb 1, Sil 2	Py 3-5, Cpy 1-3	Disseminated and in quartz vein	Took sample from a gossanous fracture about 5 inches wide within quartz monzonite. The fracture runs at 170/44 and it is right above another similar fracture zone about 8 inches wide (with 1m in between fractures). The sample was taken from the fracture zone on top. The weathered surface is red-brown and the fresh surface is dark green-grey with pyrite and veins of quartz less than 5mm wide. The original composition is obscured by weathering. It is pervasively chlorite altered and also very oxidized. The rock is non-magnetic and contains 3 to 5% pyrite disseminated and some within vugs in the quartz vein. Chalcopyrite is present in ~1-3% of the3 rock.	Fracture zone runs at 170/44	2543	1392	
347533	6217810	M03	Cathedral	689828	1347	Outcrop	Gossanous outcrop	Chl 1	Mal 1, Cpy 1	Cpy D and blebby	Outcrop of slightly chloritized quartz monzonite with gossanous area 20cm by 30cm and cannot take an orientation. Weathered to red/brown, black in areas. Original rock type obscured. Non-magnetic. Malachite is 1% and disseminated and blebby chalcopyrite is 1%.		1853	<36	
347703	6217827	M03	Cathedral	689828	1348	Outcrop	Quartz monzonite	FeOxid 1, Pot 3, Chl 1, CaCb 2	None	N/A	Sample of the host rock, quartz monzonite. Weathered brown/grey. Fresh surface is grey pink. Medium grained. Magnetite is 3-5%. Contains 65-70% feldspar (plagioclase and potassium feldspar (possibly potassic alteration), 20% mafics (more amphibole that biotite) and 10-15% quartz. No sulphides are noted.		357	<36	
347401	6217767	M03	Cathedral	689828	1349	Float	Gossanous float	FeOxid 3, CaCb 3, Pot 2	Mal 1-3, Py 1-3, Cpy <1, Mag 5-7	Py D, Cpy D	Angular float, gossanous. Potassic quartz monzonite as seen on fresh surface. Cannot tell composition still through due to weathering. Quartz monzonite surface is 5-7% magnetite. Iron oxidized surface is 1-3% magnetite. Magnetite is associated with the malachite. Malachite/azurite is 1-3%, pyrite is 1-3% and chalcopyrite is <1%.				
347595	6217939	M03	Cathedral	689828	1350	Outcrop	Gossanous quartz monzonite	FeOxid 3, Pot 1, Chl 3	Py 1-3, Cpy 1-3	Py D and fracture fill, Cpy D and in veinlets	Took a sample from a gossanous stained area on a fracture plane in the host quartz monzonite. The weathered surface is orange-red and the fresh surface is dark grey with chalcopyrite veinlets. The composition is hard to tell because it is weathered and very chloritized, but from the semi-fresh surfaces you can roughly see that it is ~70% feldspar (plagioclase and K-spar that could just be potassic alteration), ~20-25% mafic minerals and ~5-10% quartz. Pyrite is present in about 1-3% of the rock (disseminated and semi-massive with fracture fill and along the oxidized surface of the sample), and there is 1-3% chalcopyrite in veinlets less than 1mm in diameter. The chalco is also disseminated in spots. No acid reaction and no magnetism. NOTE: In the same outcrop that this sample was taken from, there are a lot of randomly oriented epidote and chlorite veins less than or equal to 3cm in diameter.	Fracture plane runs at 198/50			
347070	6218312	M03	Cathedral	689828	1351	Outcrop	Altered monzonite?	Pot 3, Chl 4, FeOxid 3	Cpy 1, Py 1, Mag <1	Cpy - chunky localized to crust, Py - diss and chunky near crust	Sample taken from a gossanous fracture zone about 15cm wide with an orange-brown weathered surface. Dark green to locally pink fresh surface. Mafic minerals are gone (chloritized?). Feldspar have potassic alteration. Sulphides include 1% chalcopyrite localized to crustal part of sample as chunky. Pyrite is 1% disseminated in matrix and chunky near crust.		<28	<36	
347115	6218265	M03	Cathedral	689828	1352	Outcrop	Quartz Monzonite	Pot 2	Mag <1	Mag - diss	Light grey weathered surface and grey to light pink fresh surface. Fine to coarse grained. 5-10% mafics that are finer grained vs. other phenocrysts (biotite and amphibole noted), quartz 10-20%, >= 70% feldspar. The majority of feldspar are light pink suggesting potassic alteration as this sample is near an area of strong potassically altered rock. Plagioclase is visible as coarser grained than other minerals (up to 3mm). Alteration includes potassic. Magnetite is <1%. No sulphides are noted.		226	<36	

Cathedral Property
Rock Sample Descriptions

Location (UTM Zone 10 North NAD 83)							Description					XRF Analysis		Fire Assay
Easting	Northing	Map	Zone	Tenure	Sample No.	Sample Type	Lithology	Alteration	Sulphides (%)	Mineralization Style	Field Sample Descriptions	Structure	Cu ppm	As ppm	Au ppm
347168	6218269	M03	Cathedral	689828	1353	Outcrop	Altered host rock	Chl 3, CaCb 2, Silica 2	Cpy 1	Cpy - stringers	Rustic red/brown weathered surface, varies from dark green to pale grey and pink locally. Original host rock texture is wiped out. Alteration includes strong chlorite, calcite veinlets and in matrix, and weak silica. Sulphides are chalcopyrite (1%) as <1mm stringers. Also there is a deep red mineral, possibly tarnished pyrite? and would be good to XRF. No magnetite.		28	44	
347192	6218237	M03	Cathedral	689828	1354	Outcrop	Altered host rock or possible dyke?	CaCb 2, Sil 2	Cpy 1-3, Py 1-3	Cpy and Py - ff, veinlets/stringers	Reddish orange weathered surface. Bluish grey fresh surface. Aphanitic texture (possible dyke?) Alteration is calcite as veinlets, silica (rock appears bleached). Sulphides include chalcopyrite (1-3%) and pyrite (1-3%) both as fracture fill or in veinlets/stringers <= 1mm wide. Sample taken in a gossanous zone ~3m wide. Very rough guess orientation of 138/40-60.		46	79	
347219	6218197	M03	Cathedral	689828	1355	Outcrop	Quartz monzonite	CaCb 3, Pot 4	Cpy , Mal 1, Py <1	Cpy, Mal, Py - blebs and localized to crust.	Composition similar to quartz monzonite described in the area with a slight increas in mafics. Fine to coarse grained. Reddish orange to locally green and blue. Strong potassic, moderate calcite. Increased magnetite locally but 1-3% overall. Sulphides include 1% chalcopyrite, 1% malachite and azurite, <1% pyrite all appear to be localized to crust area with chalcopyrite and malachite forming a crustal layer as well as noted as blebs <= 4mm.		3906	42	
347219	6218121	M03	Cathedral	689828	1357	Outcrop	Quartz Monzonite	Pot 1	Mag 1-3	Mag - diss	Whitish grey weathered surface and pale grey with interstitial black and pale pink grains. Coarse grained and equigranular. Composed of 10-15% mafics (biotite and amphibole), 70-80% feldspar (~40-50% plag and 30% kspar), and 5-10% quartz. Magnetite is 1-3%. May be very subtle potassic alteration. No sulphides noted.		355	<36	
347129	6218017	M03	Cathedral	689828	1358	Outcrop	Altered host rock	Chl 3, Pot 1, CaCb 3, Epi 1	Cpy 1-3, Mal 1, Py 1-3, Mag 5-7	Cpy, Mal, Py - diss	Orangish red to dark grey weathered surface. Dark grey green fresh surface. Host rock/original rock type is unidentifiable. Vague outlines of possible feldspar and quartz. Majority of groundmass is chloritized. Surrounding the sample is quartz monzonite as described in the area. Alteration includes chlorite, potassic, calcite, and epidote. Magnetite is 5-7%. Sulphides include chalcopyrite (1-3%), malachite and azurite (1%), and pyrite (1-3%) all of which appears disseminated.		6456	49	
347656	6217860	M03	Cathedral	689828	1359	Outcrop	Gossanous altered host rock	FeOxid 5, Chl 4, Sil 3	Py 5-7, Cpy <1	Py - diss, stringers, blebs/chunks, Cpy - blebs/chunks	Light brown to orangish dark brown throughout rock sample. A few fresh surfaces not oxidized are dark green/black. The host rock is entirely obscured due to alteration inlcuding intense iron oxidation along with silification, and chlorite. Sulphides are dominately pyrite (5-7%) as disseminations, stringers (<=1mm wide) and blebs/chunks (up to 1cm). Chalcopyrite (<1%) is observed in pyrite dominated blebs/chunks. No magnetite detected.		1677	5153	
347572	6217755	M03	Cathedral	689828	1360	Outcrop	Quartz monzodiorite?	Chl 1, Pot 1	Py <1, Cpy <1, Mag 5-7	Py - diss, Cpy - diss	Brown weathered surface. Medium to dark grey with interstitial light pink grains locally. Coarse grained and composed of 20-30% mafics, 70% feldspar, and 5-10% quartz. Magentite is 5-7%. Sulphides include very fine grained dissemination of pyrite and chalcopyrite appearing to be localized to mafic minerals. This rock appears more mafic than quartz monzonites described to the west and northwest. Very similar to sample 1381. Joint measurement for sample collected of 088/82.	Joint (088/82)	63	<36	
347570	6217570	M03	Cathedral	689843	1361	Outcrop	Semi-massive magnetite	Chl 4, CaCb 2, FeOxid2	Cpy tr, Py 1, Mal tr, Mag 30-50	Cpy - diss, Py - diss and blebs	Brown weathered surface and bluish grey fresh surface. Host rock texture is lost due to pervasive alteration. Alteration includes pervasive chlorite, calcite locally as veinlets, and iron oxidation. Sample dominated by magnetite with disseminated and blebby pyrite (1%), trace disseminated chalcopyrite, and trace malachite. Sample collected along a joint plane of 184/40.	Joint (184/40)	2226	97	
347386	6217712	M03	Cathedral	689828	1362	Outcrop	Altered quartz monzonite	Pot 3, FeOxid 3	Cpy <1, Py 5-7	Py - diss and blebby, Cpy - diss	Dark reddish orange weathered surface. Dark grey with interstitial salmon pink grains. Coarse grained. Composed of 20% quartz, >= 70% feldspar (large % is potassic altered), 5-10 mafics. Strong alteration overprints much of the original grains. No magnetite detected. Sulphides include 5-7% pyrite, and <1% chalcopyrite both disseminated with pyrite also blebby.		592	625	
347375	6217722	M03	Cathedral	689828	1363	Outcrop	Altered quartz monzonite	Chl 5, Pot 3	Cpy <1, Py 7-15	Py - stringers and diss, Cpy - stringers	Dark rustic red to orange weathered surface and dark green fresh surface. Original texture for the most part is wiped out with remnants of it noted locally including potasic altered feldspar and translucent quartz. Mafics are gone. Pervasive intense chlorite alteration throughout with moderate potassic. Quartz veinlets are noted <1mm wide. Sulphides include 7-15% pyrite as <1mm stringers up to 3mm wide chunky stringers and as very fine grained disseminations. Cpy <1% precipiating with pyrite stringers. Total sulphides border on semi-massive.		776	285	
347373	6217730	M03	Cathedral	689828	1364	Outcrop	Gossanous fracture/Altered quartz monzonite?	Pot 4, CaCb 3, FeOxid 3	Cpy <1, Mag 5-7, Mal 1	Cpy - diss	Dark rustic red to brown weathered surface and salmon pink and black grains with a black crust on the fresh surface. Similar in composition and texture to parts of sample 1363 (areas unchloritized). Strong potassic alteration throughout feldspar comprising >=70% of rock. 10-15% mafics and 5-15% quartz. Sample has a crust ~2cm thick where the majority of sulphides and malachite/azurite is located. The sample appears to be the contact where magnetite and sulphides came in along the fracture intruding into the host quartz monzonite. Sulphides include <1% chalcopyrite as disseminations localized near crust as is 1% malachite/azurite. Magnetite is 5-7%. Alteration includes potassic, calcite, and iron oxidation. The joint of the gossanous fracture measures 112/30.	Fracture (112/30)	3795	<36	
347371	6217743	M03	Cathedral	689828	1365	Outcrop	Quartz monzonite	Pot 1	Mag 3-5	N/A	Light grey weathered surface and medium to dark grey fresh surface. Coarse grained and generally equigranular. Composed of feldspar (70-80%) with plagioclase appearing to vary from a milky white to a grey colour and kspar mainly light pink (equal amounts of each). Mafics include biotite and amphibole (10%) with quartz as 20%. Magnetite is 3-5%. Potassic alteration appears localized to the crust. No sulphides are noted.		461	<36	
347381	6217759	M03	Cathedral	689828	1367	Outcrop	Altered quartz monzonite	FeOxid 5, CaCb 1	Cpy <1, Py 5-7, Mal 1	Cpy - diss, Py - diss and blebs	Deep red to orange to locally yellow throughout the rock. No remnant original texture is visible. Gossanous and limonitic throughout the sample. Alteration includes intense iron oxidation and subtle calcite. Sulphides include pyrite and chalcopyrite as disseminations and blebs with malachite and azurite. The gossanous fracture is 209/72.	Fracture (209/72)	2082	245	
347369	6217780	M03	Cathedral	689828	1368	Outcrop	Altered quartz monzonite	Chl 5, Pot 4, FeOxid 4, CaCb1	Cpy 3-5, Py 3-5, Mal <1	Cpy - diss, blebs, veinlets, Py - diss and veinlets	Rustic red/orange weathered surface and dark green grey to gossanous fresh surface. Sparse remnants of original texture are noted locally with pervasive alteration obliterating most of the texture. Alteration includes intense chlorite, strong potassic and iron oxidation, and subtle calcite. Sulphides consist of 3-5% chalcopyrite as disseminations in matrix, in quartz veinlets, and as blebs. Pyrite is 3-5% as disseminations and in veinlets. Malachite <1%. No magnetite detected.		5367	202	
347377	6217792	M03	Cathedral	689828	1369	Outcrop	Altered quartz monzonite	FeOxid 4, CaCb 3, Chl 2	Cpy - 1-3, Mal 1	Cpy - diss	Along the ravine for approximately 5m following this sample is intense potassic alteration that is sandwitched between two gossanous zones with one sample from this location and another (CN-7) from the other gossanous zone. Beige weathered surface and dark greenish grey fresh surface with the majority of original texture destroyed. Alteration includes iron oxidation, calcite, and chlorite. Sulphides include chalcopyrite as disseminations (1-3%) and malachite as blotches similar to watermarks.	Joint (116/20)	6044	<36	
347387	6217859	M03	Cathedral	689828	1370	Float	Altered quartz monzonite	Chl 5, Pot 5, FeOxid 5	Cpy 3-5, Py 5-7	Cpy and Py - diss and blebs	Purplish red weathered surface and dark green with interstitial salmon pink grains on the fresh surface. Taken from an area with with just a pile of similar types of rocks in a rubble. Outcrop looks to have weathered and eroded out. Technically float but from the amount and way these rocks are emplaced borders on subcrop. Alteration includes intense chlorite, potassic, and iron oxidation. Sulphides appear to border on semi-massive with Chalcopyrite (3-5%) and pyrite (5-7%) as disseminations and blebs up to 2mm wide.		9276	<36	
347388	6217873	M03	Cathedral	689828	1371	Outcrop	Altered quartz monzonite	Chl 4, Pot 4, FeOxid 3	Cpy 1-3, Py 7-15	Cpy - diss, Py - diss and chunky	Orangish brown wethered surface and greenish grey with salmon pink interstitial grains on the fresh surface. Groundmass is largely altered with potassically altered feldspar. Alteration includes chlorite, potassic, and iron oxidation. Magnetite is 3-5%. Sulphides include pyrite (7-15%) and disseminated and chunky and chalcopyrite (1-3%) as disseminations. Again sample borders on semi-massive.		332	350	
347440	6217482	M03	Cathedral	689843	1372	Outcrop	Gossanous outcrop (possible monzodiorite??)	FeOxid 3	Py 1, Cpy tr	Py and Cpy - diss	Orangish brown weathered surface and dark grey to black fresh surface. Looks a bit dioritic in composition. 20-30% mafics, 70% feldspar (with most appearing predominately plagioclase) and minor quartz. Sulphides consist of disseminated pyrite (<1%) and possible chalcopyrite trace. Sulphides appear associated and precipitating with the mafic grains. Alteration includes iron oxidation.		45	64	
347430	6217446	M03	Cathedral	689843	1373	Outcrop	Gossanous outcrop	Chl 4, FeOxid 4, CaCb 1	Py 5-7, Mag 3-5, Cpy tr?	Py diss	Purplish red weathered surface and dark grey fresh surface. Host rock is wiped out. Alteration includes chlorite, iron oxidation and calcite. Magnetite is 3-5%. Py is disseminated. No chalcopyrite but is possible.		194	771	
347539	6217627	M03	Cathedral	689828	1374	Float	Gossanous material	FeOxid 5, Chl 4	Py 5-7	Py - diss	Taken on a large talus slope with abundant similar looking rocks. Possible outcrop this sample is from cannot be reached. Purplish red/orange weathered surface and dark green to black fresh surface. Pervasivley altered throughout with iron oxidation and chlorite. No magnetite detected. Pyrite is 7-15%, no chalcopyrite noted.		100	5368	
347595	6217692	M03	Cathedral	689828	1375	Float	Angular gossanous float	Chl 5, FeOxid 4	Py 5-7, Cpy <1, Mag 15-30	Py and Cpy - diss	Pervasive chlorite alteration destroyed most of original texture. Reddish orange weathered surface and dark green to black fresh surface. Pyrite and chalcopyrite is disseminated. Alteration includes chlorite and iron oxidation. Very strong magnetite bordering on semi-massive (15-30%.		79	93	

Cathedral Property
Rock Sample Descriptions

Location (UTM Zone 10 North NAD 83)							Description						XRF Analysis		Fire Assay
Easting	Northing	Map	Zone	Tenure	Sample No.	Sample Type	Lithology	Alteration	Sulphides (%)	Mineralization Style	Field Sample Descriptions	Structure	Cu ppm	As ppm	Au ppm
		M03	Cathedral		1376	Float	Quartz monzonite	FeOxid 4, Chl 2, Pot 1	Py 5-7, Cpy tr, Mag 5-7	Py - diss and blebs, Cpy - blebs with Py	Reddish orange to brown weathered surface with a light orange to pale grey with interstital light pink grains on the fresh surface. Fine to coarse grained and composed of 10-15% mafics, 5-10% quartz, and 65-75% feldspar. The feldspar appear as white to pale grey plagioclase and light pink feldspar approximately in equal amounts. Alteration includes strong iron oxidation, weak chloritization of mafics, and subtle potassic. Sulphides appear as disseminations and blebs throught the sample. Dominated by pyrite (5-7%) as very fine grains and blebs up to 3mm wide. Chalcopyrite is in trace amounts located with pyrite blebs. Magnetite is locally strong and is approximately 5-7% overall.		1781	59	
347691	6217750	M03	Cathedral	689828	1377	Outcrop	Quartz monzonite/granodiorite ?	None	Mag 1-3	N/A	Light grey weathered surface and medium grey fresh surface. Fine to coarse grained. Magnetite is 1-3%. Composition is 10-15% mafics, 15-25% quartz (may be more quartz in this sample than previous quartz monzonitic samples), 60-70% feldspar. No sulphides noted. No alteration (very fresh).				
347774	6217761	M03	Cathedral	689828	1378	Outcrop	Gossanous rock (possible dyke?)	Chl 5, FeOxid 3	Cpy 3-5, Py 15-30	Cpy - diss, veinlets, blebs, Py - blebs and diss	Purplish red to orange weathered surface. Dark green fresh surface. Original texture pervasively chloritized. The surrounding rock is quartz monzonite. Alteration includes intense chlorite and moderate iron oxidation. No magnetite. Sulphides include 15-30% pyrite and disseminations, 3-5% chalcopyrite as disseminations, hairline veinlets with both Py and Cpy as blotches or blebs. Borders on semi-massive. This sample is a possible dyke running 144 degress and 2m wide.				
347781	6217776	M03	Cathedral	689828	1379	Outcrop	Quartz monzonite	Pot 1	Mag 1-3	N/A	Light grey weathered and fresh surface. Fine grained. Composition includes >=80% feldspar (equal amounts of both types), 5% mafics, and 5-10% quartz. Alteration includes subtle potassic. Magnetite is 1-3%. No sulphides noted. This sample may be of a possible chill margin between dyke and coarser grained phase of quartz monzonite.				
347796	6217787	M03	Cathedral	689828	1380	Outcrop	Quartz monzonite	Chl 5, FeOxid 4	Py 3-5, Cpy <1, Mag 5-7	Cpy - diss and blebs, Py - diss, blebs and veinlets.	Similar to 1378. Host rock destroyed (original texture). Rustic red/orange weathered surface and dark green fresh surface. Alteration includes intense chlorite with iron oxidation. Magnetite is 5-7%. Sulphides include pyrite (3-5%) as disseminations, veinlets and blebs (<=1mm) and chalcopyrite (<1%) as disseminations and blebs with pyrite.				
347814	6217747	M03	Cathedral	689828	1381	Outcrop	Quartz monzodiorite?	Chl 2, Pot 2, CaCb 1	Py <1, Mag <1	Py - diss	Orangish brown weathered surface and dark grey with interstitial light pink grains. Coarse grained with 20-25% mafics, 10-20% quartz, and 50-70% feldspar. Alteration includes chlorite, potassic, and calcite in the matrix. Magnetite is <1%. Sulphides include very fine grained pyrite (<1%) disseminated and seem to be associated with mafics. Sample apppears to have more mafic minerals than the quartz monzonites noted to the west and northwest.				
348046	6218002	M03	Cathedral	689828	1382	Outcrop	Gossanous (Altered quartz monzonite)	CaCb 3, FeOxid 5	Cpy 1, Mal 3-5	Cpy - diss	Host rock has lost its texture. Blue/green and reddish orange weathered surface and throughout sample. Surrounding rock is quartz monzonite. Alteration includes calcite and iron oxidation. Sulphides include 1% chalcopyrite along with 3-5% malachite and azurite. Outcrop was too high to hit with hammer so I through pieces of rock to break it off.				
348024	6218036	M03	Cathedral	689828	1383	Outcrop	Gossanous (Altered quartz monzonite)	FeOxid 5, Chl 4	Py 7-15	Py - diss	Red/orange to bright yellow weathered surface. Dark grey/green to black locally but generally iron oxidized throughout. Original host rock texture is obscured. Alteration includes iron oxidation and chlorite. Sulphides consist of 7-15% disseminated pyrite. No chalcopyrite noted.				
347976	6218052	M03	Cathedral	689828	1384	Outcrop	Syenite	None	Py tr	Py - diss	Brown weathered surface and salmon pink to orange fresh surface. Fine grained. Composed of >80% potassium feldspar (plagioclase not noted), 5-10% mafics, and 10% quartz. This rock may be potassic altered but the deeper orange and pink colours differ from potassically altered monzonites as this sample is very homogenous in nature. No alteration is noted. Possible trace sulphides, very fine grained pyrite. <1% magnetite present.				
347975	6218055	M03	Cathedral	689828	1385	Outcrop	Gossanous outcrop	Chl 4, Sil 3	Py 5-7	Py - diss and blebby	Dark orange to brown and locally light yellow weathered surface and dark green to black fresh surface. Original host rock texture obliterated due to strong alteration. Pervasive intense chlorite alteration throughout sample along with silicification. Sample is a gossanous piece of outcrop. Sulphides include disseminated and blebby pyrite (5-7%).				
347221	6218948	M03	Cathedral	689828	1386	Outcrop	Gossanous outcrop	FeOxid 3, Chl 3, CaCb 1	Py 1-3, Cpy Tr	Py D, Cpy D	Sample of gossanous outcrop. The weathered surface is red-orange and the fresh surface is dark blue-green to grey. The composition of the rock is obscured by weathering but it is dark blue-green and aphanitic with a quartz vein about 1cm wide throughout it and 1-3% disseminated pyrite throughout the groundmass (which is likely chlorite). There is also trace chalcopyrite. No magnetism is noted and there is a slight acid reaction.		115	152	
347221	6218949	M03	Cathedral	689828	1387	Outcrop	Quartz Monzonite	FeOxid 1, Pot 4, Epi 1	Mag 5-7	N/A (no sulphides). Magnetite present in veins and in groundmass	Sample of the host rock. The weathered surface is orange-brown and the fresh surface is pink-grey. The rock contains ~80% K-spar (could be alteration), ~15% mafic minerals (too fine-grained to tell what they are), and ~5% quartz. The mafic minerals are fine-grained and the K-spar is coarse-grained. There are magnetite veinlets present that are 1mm to 7mm in diameter, and there is also magnetite in the groundmass (in total about 5-7% of the rock). No sulphides are noted.		34	<36	
347210	6218953	M03	Cathedral	689828	1388	Outcrop	Gossanous outcrop	FeOxid 5, Chl 2(?)	Py 3-5	Py blebby	Sample of gossanous outcrop. The weathered surface is yellow-orange and the fresh surface is almost totally obscured by weathering and alteration but seems to have quartz and possible chlorite. There is no acid reaction and no magnetism noted. Pyrite is present in blebs throughout the sample.		53	191	
347218	6218953	M03	Cathedral	689828	1389	Outcrop	Gossanous outcrop	FeOxid 3, Epi 1	Mag 7-10	Mag 7-10, Py Tr	Sample of gossanous outcrop. The weathered surface is orange/brown/yellow and the fresh surface is dark grey-green. The composition is obscured but looks like chlorite alteration (dark green/black, aphanitic and no magnetism). It is at least partially magnetite (about 7-10% of most of the rock is magnetic). There is trace disseminated pyrite and no chalcopyrite is noted. There is also no acid reaction. There is iron oxide alteration and epidote alteration. The rest is unknown.		2817	<36	
347216	6218954	M03	Cathedral	689828	1390	Outcrop	Gossanous outcrop	FeOxid 3	Mag 7-15, Py 1-3, Cpy <1, Mal 1-3	Py D (concentrated in FeOx crust), Cpy D, Mal staining	The weasthered surface is pale to medium brown with malachite staining, and there is no fresh surface (it is all very weathered). The original rock type is obscured by weathering but the rock is magnetic (about 7-15% magnetite) and there is malachite staining in 1-3% of the rock. There is also pyrite (about 1-3%) that appears to be concentrated in the oxidized sections of the rock (fracture planes?). It looks like it is mostly on the oxidized crust. There is less than 1% chalcopyrite in the rock as well.		54651	<36	
347199	6218979	M03	Cathedral	689828	1391	Outcrop	Gossanous outcrop	FeOxid 5	Py 5-7, Mag 30-50, Cpy <1	Py D and semi-massive along magnetic zones, Cpy D	Sample of gossanous outcrop with the weathered surface orange-red in colour. There is no fresh surface (can sort of see pyrite and magnetite but that's it). The composition is unknown but there is at least 30-50% magnetite in the rock as well as fine-grained disseminated pyrite (about 5-7%) that is disseminated and semi-massive along the magnetic zones. The rock also contains less than 1% chalcopyrite.		12324	1380	
347199	6218983	M03	Cathedral	689828	1392	Outcrop	Gossanous quartz monzonite	Pot 3, FeOxid 2	Py <1, Mal 1-3	Py D, Mal staining	Weathered surface is orange-brown and fresh surface is pale pink. This is a sample of quartz monzonite with a gossanous crust. The rock is medium-to-coarse-grained and contains ~20-25% mafic minerals, ~70% feldspar (plag and K-spar that could be alteration), and ~5-10% quartz. The oxidized/gossanous surfae has malachite in it where it meets the quartz monzonite. There is about 1-3% malachite in the sample and less than 1% pyrite in the host rock.		1911	<36	
347207	6218991	M03	Cathedral	689828	1393	Outcrop	Quartz Monzonite	FeOxid 4, Pot 1, CaCb 1	Py 1-3, Cpy 1, Mal 3-5	Py D, Cpy D, Mal staining	The weathered surface is orange-brown with malachite staining and the fresh surface is grey-pink. The rock is a quartz monzonite as described in sample 1392 etc. It is coarse-grained and there is magnetite in 7-15% of the rock (locally there is 30-50% magnetite). It reacts slightly with acid and contains about 1-3% disseminated pyrite as well as 1% disseminated chalcopyrite. Malachite is also present in about 3-5% of the rock (staining).		5158	<36	
347206	6218989	M03	Cathedral	689828	1394	Outcrop	Quartz Monzonite	Pot 2, Chl 3, FeOxid 1, CaCb 2	Mag 1-3	N/A	Sample of the potassically altered host rock (quartz monzonite). The weathered surface is red/grey and the fresh surface is green/grey/pink. The rock is composed of ~75% feldspar (chloritized and potassically altered), ~25% mafic minerals (can't tell what they are as they are very fine-grained) and ~5% quartz. No sulphides are noted. There is magnetite in 1-3% of the host rock. Reacts slightly with acid.		208	<36	
347212	6218930	M03	Cathedral	689828	1395	Outcrop	Gossanous outcrop	FeOxid 4, Pot 1, Chl 2, CaCb 2	Py 1-3, Cpy <1	Py D and in vicinity of quartz veinlets (not in the veinlets), Cpy <1	Sample of a gossanous outcrop that looks like a quartz monzonite but the composition is mostly obscured by weathering and a black aphanitic mineral (likely chlorite alteration). The weathered surface is orange-red to purple and the fresh surface is black/grey and pink. The composition is obscured but looks like it is half potassically and chlorite altered and half black (chloritized?) with quartz veining and associated sulphides. The sulphides present are pyrite (1-3%, disseminated in black groundmass and in the vicinity of quartz veining), and less than 1% chalcopyrite. There are no sulphides seen in the monzonitic part of the rock and there is no magnetism.		<28	485	
347226	6218930	M03	Cathedral	689828	1396	Float	Gossanous Qz Monzonite	FeOxid 3, Pot 1	Py 7-15, Cpy 1-3	Py, Cpy both disseminated and massive	Gossanous float sample that is half quartz monzonite (~65-70% feldspar - plag and some K-spar, ~20% mafics and ~10-15% quartz) and almost half semi-massive pyrite and chalcopyrite within massive magnetite. No acid reaction. There is also a small amount of pyrite (<1% of the rock) disseminated within the host rock, but most is massive and associated with surrounding fine-grained magnetite. Looks like magnetite and pyrite flooded through the rock.		59	<36	

Cathedral Property
Rock Sample Descriptions

Location (UTM Zone 10 North NAD 83)							Description					XRF Analysis		Fire Assay
Easting	Northing	Map	Zone	Tenure	Sample No.	Sample Type	Lithology	Alteration	Sulphides (%)	Mineralization Style	Field Sample Descriptions	Structure	Cu ppm	As ppm	Au ppm
347610	6219030	M03	Cathedral	689828	1397	Outcrop	Quartz Monzonite	FeOxid 1, Pot 1, Chl 1(?)	Py <1	Py disseminated in groundmass and along weathered crust	Weathered surface brown-grey, fresh surface grey-pink. Looks like a magnetite-rich quartz monzonite that has been potasically altered. Contains ~65-70% plag and K-spar, ~20% mafics and ~10-15% quartz. Magnetite is present in ~3-5% of the rock. There is a bit of pyrite (<1%) disseminated along the weathered crust. "Taken with host rock, strike 38 degrees, dip 310@44."		339	<36	
348018	6217653	M03	Cathedral	689828	1398	Outcrop	Quartz monzonite	None	None	N/A	Outcrop of quartz monzonite. On the way up to the outcrop in the rockfall there are boulders of feldspar porphyritic dyke (pink, tabular, <10cm feldspars) but cannot find it in outcrop as we can't go any higher. Sample is weathered to brown/white. Fresh surface is dark grey. Contains 20% mafics, 20% quartz and 60% feldspar (mostly plagioclase). Unaltered. No sulphides noted.				
347899	6217934	M03	Cathedral	689828	1399	Outcrop	Gossanous altered rock	FeOxid 4	Py Tr to <1	Py D	Outcrop of gossanous rock that is 1m by 0.5m. Sample is weathered to red/brown. Original rock type is obscured by weathering and alteration. Very small fresh surfaces appear green. Pyrite is trace to <1%. Non-magnetic.				
347850	6217971	M03	Cathedral	689828	1400	Outcrop	Gossanous altered rock	FeOxid 4, Chl 4	Py 5-7, Cpy Tr	Py and Cpy FF and some D	Gossanous fracture plane at 156/48. Cannot tell width. Weathered to orange brown. Fresh surface is blue/green. Original texture and composition obscured. No magnetite. No acid reaction. Pyrite (5-7%) and chalcopyrite (trace) are fracture fill and some disseminated.	Fracture plane 158/48			
347826	6217855	M03	Cathedral	689828	1401	Outcrop	Quartz monzonite	Chl 3, Pot 2, Epi 1, CaCb 1, Sil 2, FeOxid 2	Py 1, Cpy <1, Mag 5-7	Py D, Cpy D	Outcrop along the top of the ridge. Weathered surface is light orange to brown. Fresh surface is half blue/grey and half pinkish grey. The pinkish grey is quartz monzonite host which is medium grained but hard to tell composition. The blue/grey part is chlorite flooded. Magnetite is 5-7% concentrated in the quartz monzonite section and in veinlets within the quartz monzonite <1cm. Pyrite (1%) and chalcopyrite (<1%) are disseminated within the host rock.				
347910	6218226	M03	Cathedral	689828	1402	Float	Gossanous altered rock	CaCb 2, FeOxid 4, Chl 3	Cpy 5-7, Py 1-3, Mal 1-3	Cpy D and blebby, Py D, Mal staining	Took a sample from gossanous float below the cliffs just to the south of the lake next to camp. Weathered surface purple-brown, fresh surface grey-green. Original rock composition is mostly obscured by weathering and chlorite flooding, but plagioclase may be visible. The rock is non-magnetic and reacts slightly with acid.				
348583	6218185	M03	Cathedral	837064	1404	Float	Gossanous altered rock	FeOxid 4, Chl 4	Mag 1-3, Py 1, Cpy <1	Py D, Cpy D	The weathered surface is red-purple to brown, and the fresh surface is dark green-blue. The original composition is obscured by oxidation and chloritization. Pyrite is disseminated in about 1% of the rock in grains less than 0.5mm in side. Chalcopyrite is disseminated in less than 1% of the rock. The texture looks aphanitic but the rock is very altered so it is hard to tell. Magnetite is present locally in ~1-3% of the rock, and there is no acid reaction.				
348689	6218163	M03	Cathedral	837064	1405	Float	Quartz Monzodiorite	Pot 1, Epi 1, Chl 1(?)	Py <1	Py D	The weathered surface is brown-grey and the fresh surface is grey-pink. It is a fine-grained intrusive rock composed of ~65% mafics (too fine-grained to tell which mafics are present), ~25-30% feldspar (mostly K-spar, some plagioclase), and ~5-10% quartz. The K-spar could be alteration, but it is abundant and homogeneous throughout the rock so it could very well be the original rock composition. No magnetism is observed, and there is no acid reaction. Pyrite is disseminated in less than 1% of the groundmass (up to 2mm wide crystals, but most are too small to even seen without a hand lens), and no chalcopyrite is observed. There is one large quartz grain almost 1cm wide, but the rest of the quartz is in the fine-grained groundmass.				
348688	6218145	M03	Cathedral	837064	1406	Float	Quartz Monzodiorite	Pot 2, Epi 2, FeOxid 2	Py 1-3, Cpy <1	Py D and blebby, Cpy D and blebby(?)	The weathered surface is red-purple to orange and the fresh surface is dark grey/pink with some epidote green. The rock is a coarse-grained, oxidized quartz monzodiorite containing ~60-65% mafic minerals, ~30% feldspar (mostly K-spar, some plagioclase), and ~5-10% quartz. Pyrite is disseminated in 1-3% of the groundmass and is also present in blebs on the oxidized surface of the sample. Chalcopyrite has the same form as pyrite but is present in less than 1% of the rock. The sample is non-magnetic and there is no acid reaction.				
348597	6218168	M03	Cathedral	837064	1407	Float	Gossanous altered rock	FeOxid 3, Chl 4	Mag ~1, Py 3-5, Cpy <1	Py D and in stringers <1mm in diameter, Cpy same as Py	The weathered surface is dark red-brown and the fresh surface is dark blue-green. The groundmass looks aphanitic but it is very altered and the original rock composition is obscured. Pyrite is present in ~3-5% of the rock, disseminated and in stringers less than 1mm in diameter. Chalcopyrite is present in less than 1% of the rock and has the same form as the pyrite. Weak magnetism is observed locally (in ~1% of the rock), and no acid reaction is observed.				
348692	6218140	M03	Cathedral	837064	1408	Float	Gossanous altered rock	FeOxid 4, Chl 4	Py 5-7, Cpy 1-3	Py and Cpy D and SM	Weathered surface is red-purple to orange. Fresh surface is dark green to black. Original composition obscured by alteration (mostly chlorite) and oxidation. Looks aphanitic because of weathering but not sure of original texture. No magnetism. No acid reaction. Pyrite is disseminated 5-7% and semi-massive along one side of the oxidized crust. Chalcopyrite is 1-3% and the mineralization style is the same as the pyrite.				
348621	6218152	M03	Cathedral	837064	1409	Float	Gossanous altered rock	Chl 3, Sil 4, FeOxid 2	Cpy 5-7, Py 5-7, Mag 1	Cpy and Py - diss, blebs, stringers	Dark red to brown weathered surface and dark grey to dark green fresh surface. Original host rock texture lost due to alteration dominated by pervasive chlorite and silica. Sulphides consist of disseminated, blebby, and stringers of chalcopyrite (5-7%) and pyrite (5-7%). Magnetite comprises ~1%.				
348713	6218085	M03	Cathedral	837064	1410	Float	Gossanous altered rock	FeOxid 4, Chl 4	Py 1-3, Cpy 1	Py and Cpy D and blebby	Exact same description as 1408 except pyrite is 1-3% disseminated and blebby, chalcopyrite is ~1% disseminated and blebby. Alteration and everything else is the same.				
348652	6218114	M03	Cathedral	837064	1411	Float	Gossanous altered rock	FeOxid 3, Chl 4, Sil 1, CaCb 2	Py 3-5, Cpy 1	Py and Cpy D and blebby	Gossan (chloritized). Weathered surface is purple/red to brown/orange. Fresh surface is dark blue/green. Looks mostly aphanitic and the original composition is obscured except for quartz blebs <1mm in diameter (likely secondary). Pyrite is 3-5% disseminated and blebby. Chalcopyrite is ~1% and the same as pyrite. No magnetism. CaCb stringers (1 or 2).				
348724	6218081	M03	Cathedral	837064	1412	Outcrop	Quartz Monzodiorite	FeOxid1, CaCb 1, Chl 1?	Mag 3-5, no sulphides seen	N/A	Host rock. Weathered surface is orange to brown. Fresh surface is dark grey. Texture is medium (mafics) to coarse grained, composed of mostly mafics and plagioclase. Contains ~50% mafics (medium grained, what looks like biotite and amphibole and ~3-5% magnetite on all the rock), ~40-45% plagioclase (doesn't seem to have any potassium feldspar at all), and ~5-10% quartz. Plagioclase and quartz are coarse grained. No sulphides seen. Magnetite is 3-5%. Calcium carbonate is along friable edges. Possible chlorite alteration as some of the plagioclase looks a bit green. Note: seems like a hybrid between the quartz monzonite and quartz monzodiorite, but it is closer to the quartz monzodiorite, so calling it that.				
348675	6218101	M03	Cathedral	837064	1413	Float	Gossanous altered rock	FeOxid 3, Chl 4, Sil 3, CaCb 1	Mag ~1, Py 7-15, Cpy Tr	Py semi-massive in parts but mostly D and blebby, Cpy D	Weathered surface is purple/red to bright orange. Fresh surface is dark green/blue with small quartz lenses (<1mm). The original composition is mostly obscured by oxidation, chloritization and silicification. Pyrite is present in 7-15% of the rock, almost semi-massive in some parts of the rock but mostly disseminated and blebby. There are a couple of stringers of calcium carbonate (much less than 1mm in diameter), but no calcite is present in the groundmass. There is trace disseminated chalcopyrite as well. Magnetism is very local and only in ~1% of the rock.				
348743	6218083	M03	Cathedral	837064	1414	Float	Gossanous altered rock	Chl 5, FeOxid 4	Py 7-15, Cpy tr	Py - diss, stringers, veinlets, quartz vein, chunky	Dark rustic red to orange weathered surface. Fresh surface is dark green. This sample is similar to 1425 with pervasive chlorite alteration obliterating the original host rock texture. No magnetite detected. Pyrite is the dominant sulphide as disseminations, in stringers, veinlets (<1mm) to veins (with quartz <-2mm), and chunky. Chalcopyrite is in trace amounts in location with a 1x2cm wide chunk of pyrite.				
348721	6217925	M03	Cathedral	837064	1416	Outcrop	Gossanous altered rock	FeOxid 3, Chl 4, CaCb 1, Sil 2	Mag ~1, Py 1-3, Cpy <1	Py D and in quartz vein, Cpy D and in quartz vein	The weathered surface is orange-red to brown, and the fresh surface is dark green-blue. The original composition is obscured by oxidation and chloritization. Pyrite is disseminated in 1-3% of the rock and in a quartz vein less than 3mm wide. Chalcopyrite is present in less than 1% of the rock, also disseminated and a bit in the quartz vein. Magnetite is local and present in ~1% of the rock. There is a very weak acid reaction in the rock.				
348788	6218054	M03	Cathedral	837064	1417	Float	Quartz monzodiorite?	Chl 4, Pot 1, FeOxid 3	Py 3-5	Py - diss	Dark orange to rustic red and brown weathered surface. Dark greenish grey to black fresh surface. Medium to coarse grained and composed of 30-40% mafics, 10-15% quartz and 55-60% feldspar. Alteration includes chlorite throughout the groundmass. Subtle potassic is generally located near the crust and sporadically on the fresh surfaces. This sample is weakly similar to samples 1360, 1381, and 1425 has weaker potassic alteration and appears increased in chlorite alteration. Disseminated coarse grained pyrite dominates the sulphide content with no chalcopyrite visible. No magnetite detected.				
348708	6217919	M03	Cathedral	837064	1418	Outcrop	Gossanous altered rock	Chl 4, Sil 4, FeOxid 3	Cpy 5-7, Py 5-7	Cpy - diss, blebs, Py - diss, blebs	Very similar to samples 1409 and 1419. Again pervasive chlorite and silica alteration are present throughout. Sulphides consist of disseminated and blebs of chalcopyrite (5-7%) and pyrite (5-7%). No magnetite detected.				
348796	6218021	M03	Cathedral	837064	1419	Float	Gossanous altered rock	Chl 4, Sil 3, FeOxid 2	Py 5-7, Cpy <1	Cpy - diss, veins, Py - diss, stringers, veins, blebs	Similar to samples 1409 with pervasive chlorite alteration, silicification and abundant sulphides. Sulphides include pyrite as disseminations, stringers, veins (<=3mm wide), and blebby. Chalcopyrite is present in veins with pyrite and disseminations. Magnetite is 1% in abundance.				
348706	6217912	M03	Cathedral	837064	1420	Outcrop	Semi-massive magnetite (Volcanic dyke?)	CaCb 1, Sil 1	Cpy <1, Mag 15-30	Cpy - diss	Dark grey to black throughout. A possible volcanic? Magnetite has replaced the majority of the rock bordering on semi-massive in nature. No grain texture is visible. Very fine grained disseminated chalcopyrite is disseminated throughout the sample (<1%).				

Cathedral Property
Rock Sample Descriptions

Location (UTM Zone 10 North NAD 83)							Description					XRF Analysis		Fire Assay
Easting	Northing	Map	Zone	Tenure	Sample No.	Sample Type	Lithology	Alteration	Sulphides (%)	Mineralization Style	Field Sample Descriptions	Structure	Cu ppm	As ppm	Au ppm
348823	6217999	M03	Cathedral	837064	1421	Float	Semi-massive magnetite and specularite	CaCb 3	Cpy 1, Mal 1, Mag 7-15, Spec 7-15	Cpy - quartz/calcite/spec veins	Dark grey on the weathered and fresh surface of this sample. A 7mm wide specularite vein runs through one piece of the sample with quartz and calcite veining in another piece. Patches of malachite are observed. Chalcopyrite appears associated with specularitie and quartz/calcite veining. Specularite and magnetite dominate sample approximately semi-massive in nature.				
348823	6217997	M03	Cathedral	837064	1422	Float	Massive magnetite and specularite	Chl 5, FeOxid 4	Py 3-5, Cpy tr, Mag 15-30, Spec 15-30	Py - diss, stringers, Cpy - diss	Dark green to metallic silver on both weathered and fresh surfaces. Pervasive chlorite along with magnetite and specularite dominate this sample. Pyrite is also noted as disseminations and stringers. Trace chalcopyrite as disseminations.				
348705	6217902	M03	Cathedral	837064	1423	Outcrop	Quartz monzodiorite?	Chl 3, Pot 2, FeOxid 1	Py <1, Cpy tr?, Mag <1	Py - diss and blebby, Cpy - diss?	Medium grey weathered surface. The fresh surface is coarse grained with a dark grey with interstitial light pink colouration. It is very similar to samples 1360 and 1381. Compositionally it consists of 30-40% mafics, 40-50% feldspar, and 10% quartz. Alteration includes weak to moderate potassic, chlorite, and calcite in the groundmass. Sulphides include fine grained disseminated to blebby (<=1mm) pyrite (1%). Possible very fine grained chalcopyrite? <1% magnetite observed.				
348686	6217907	M03	Cathedral	837064	1424	Float	Gossanous altered rock	CaCb 2, Sil 3 FeOxid 2	Cpy 5-7, Py 1-3, Spec 7-15, Mal <1	Cpy - blebs, diss, stringers, Py - diss, blebs	Rustic red to orange weathered surface and bluish grey fresh surface. Original host rock is obliterated. Specularite is pervasive throughout sample (7-15%). Alteration includes silica, calcite, and iron oxidation. Chalcopyrite (5-7%) is present in blebs, disseminations, and stringers. Pyrite is in less abundance as disseminations and blebs. Malachite is sporadic.				
348682	6217922	M03	Cathedral	837064	1425	Outcrop	Gossanous altered rock	Chl 5, FeOxid 4	Py 5-7, Cpy 5-7, Spec 1-3	Cpy - diss, blebs, Py - diss, blebs	Deep red to orange and brown weathered surface. Dark green fresh surface with original texture obliterated. Pervasive chlorite alteration along with strong iron oxidation dominates the rock. Sulphides consist of disseminated and blebby pyrite (5-7%) and chalcopyrite (3-5%). A silvery, metalic lustred mineral is visible that doesn't appear to be moly, arseno, or galena - is likely specularite - ~1-3%.				
348683	6217930	M03	Cathedral	837064	1426	Outcrop	Gossanous altered rock	Chl 4, Sil 4, FeOxid 3	Py 7-15, Cpy <1	Py - diss, blebs, stringers, Cpy - diss	Similar to 1409, 1418, and 1419. Strong chlorite and silica alteration. Sulphides include primarily pyrite as disseminations, blebs, and stringers with disseminated chalcopyrite associated with blebs of pyrite or in the groundmass. No magnetite detected.				
348725	6218086	M03	Cathedral	837064	1428	Float	Gossanous altered rock	Chl 4, Sil 3, FeOxid 2	Py 7-15, Cpy <1, Mag <1	Py - diss, Cpy - diss	As described in 1426 but has <1% magnetite. Sulphides include disseminated fine to coarse grained pyrite and chalcopyrite.				
		M03	Cathedral		1429		Granodiorite	Pot 5, Epi 1, CaCb 1	Mag 1-3, Cpy 1	Cpy vfg D	Weathered surface is grey-green and fresh surface is salmon pink. Fine-to-medium grained intrusive rock with ~10% mafics, ~15-20% quartz and ~65-70% feldspar (can't tell between plag and K-spar). Mag is present in ~1-3% of the rock.				
347806	6218220	M03	Cathedral	689828	1430	Outcrop	Massive specularite	FeOxid 3,	Spec >50, Py 1-3, Cpy tr	Spec - massive, Py - diss, Cpy - diss	Dark brown weathered surface. Sample is massive specularitie with disseminated pyrite and possibly chalcopyrite but it is very fine grained. Joint measurement 175/54.	Joint (175/54)			
		M03	Cathedral		1431	na	Altered gossanous outcrop/float(?)	Chl 3, FeOxid 2, Epi 1	Mag 1-3 locally in chloritized part, Mal 1, Cpy 1	Mal staining in oxidized area, Cpy D	Weathered surface is dark grey, fresh surface is partially dark green, partially light orange-brown and partially white (different colour bands). The dark green part looks like chlorite-altered granodiorite and the white part just looks like quartz with small chlorite veins through it. The composition is obscured by alteration but it looks like it could be a granodiorite. The chlorite-rich section has magnetite in 1-3%, and the other part of the rock is non-magnetic. There is malachite staining around the oxidized area (about 1%), and 1% chalcopyrite within the quartz-rich area (seems to be associated with the chloritized part, disseminated).				
		M03	Cathedral		1432	na	Gossanous outcrop/float(?)	Chl 2, FeOxid 4	Mal 1, Py 5-7, Cpy 3-5	Mal staining, Py D on oxidized surfaces, Cpy D	Weathered surface is red-brown to dark brown and fresh surface is medium grey. The rock is non-magnetic and from the little fresh surfaces seen it looks like it has ~20% mafics, ~20% quartz and ~60% feldspar (extremely obscured, so it's a very rough estimate). It appears to be chlorite-altered and malachite is present in ~1% of the rock (as staining). Pyrite is disseminated in ~5-7% of the rock, mostly on the oxidized surfaces. On the fresh surfaces it looks to be more chalcopyrite (about 3-5%).				
344178	6222868	M01	Gail	684246	1433	Outcrop	Granodiorite	Pot 1	Mag <1	N/A	Lithology sample: Light grey weathered surface and light grey to medium grey fresh surface. Coarse grained and composed of 10-15% mafics (biotite and amphibole), 20-25% quartz, and 60-70% feldspar. Magnetite is <1%. No sulphides noted.				
344161	6222844	M01	Gail	684246	1434	Outcrop	Granodiorite	Pot 2, FeOxid 1	Mag <1	Mag local D	LITHO Outcrop on the ridge south of camp. Outcrop extends all along the ridge top. No gossan here. Host rock is weathered brown to grey. Fresh surface is white to light pink. Coarse to very coarse grained. Contains 10-15% mafics (biotite more than amphibole), 20-30% quartz, and 55-70% feldspar (mostly plagioclase). No sulphides are noted.				
344130	6222888	M01	Gail	684246	1435	Subcrop	Gossanous subcrop (aplite)	FeOxid 3	Py ~1, Cpy <1	Py D, Cpy D	Subcrop of gossanous material. Orange to brown on the weathered surface. Fresh surface light grey to white. Composition obscured but appears to be a much finer grained version of 1434. Aplitic texture. Non-magnetic. No acid reaction. Pyrite is very fine grained and disseminated ~1%. Chalcopyrite is <1%, very fine grained and disseminated.				
344068	6222879	M01	Gail	684244	1436	Outcrop	Gossanous outcrop	Pot 2	Py 1, Cpy Tr	Py D and FF, Cpy D	Outcrop of slightly gossanous material in a small gully. Weathered to beige/brown. Fresh surface is orangey pink. Composition is mostly obscured but can see mafics and seems quartz rich. Non-magnetic. Pyrite is 1%, very fine grained and fracture fill in a veinlet <1mm wide. Trace chalcopyrite is very fine grained, disseminated.				
343916	6222935	M01	Gail	684244	1437	Outcrop	Granodiorite	Pot 1, FeOxid 1	Mag 1, Cpy Tr	Cpy D	Outcrop along the top of the ridge. Slightly gossanous, but barely. Gossanous rocks on the way up the rockfall contained no sulphides or very fine grained, trace, disseminated pyrite. Sample is weathered beige/brown. Fresh surface is white to light grey. Medium grained. Contains 10% mafics, 20% quartz and 70% feldspar (mostly plagioclase). Magnetite is 1%. Trace chalcopyrite is disseminated.				
343678	6222889	M01	Gail	684244	1438	Float	Gossanous Float	FeOxid 3, CaCb 1	Cpy 7-15, Py 1-3, Mal 3-5	Cpy D and blebby, Py D, Mal staining	Gossanous float. Weathered to orange brown. Fresh surface is light grey. Fine grained. Quartz rich (>50%) but cannot tell percentage of mafics and plagioclase due to fine grain size and alteration. Chalcopyrite is 5-7%, disseminated and blebby. Pyrite is 1-3% disseminated. Malachite is 3-5%, in veins and as staining.				
343626	6222792	M01	Gail	684244	1439	Float	Gossanous float	Chl 2, FeOxid 1	Cpy 1	Cpy D	Gossanous float. Weathered to purplish brown. Fresh surface is blue/green. Texture appears aphanitic. Possible plagioclase crystals, none tabular. Appears to be chlorite altered. Very fine grained, disseminated chalcopyrite throughout the groundmass. Possibly some chalcopyrite in fractures too. Chalcopyrite is 1%.				
343578	6222791	M01	Gail	684244	1440	Float	Granodiorite	FeOxid 3, Pot 1, Chl 1	Mag 1-3, Py 3-5, Cpy 1-3	Py D and semi-massive on oxidized surface, Cpy blebby and D	Took a float sample from area just underneath the ridge (could be subcrop). The weathered surface is orange-red and the fresh surface is grey-pink. The rock is weathered but the composition can be seen - ~15-20% quartz, ~30-35% mafics (biotite with some amphibole), and ~40-50% feldspar (mostly plagioclase with some K-spar, although the K-spar could be alteration). Magnetite is present locally in ~1-3% of the rock, and pyrite is present on the oxidized surface in ~3-5% of the rock. Chalcopyrite is present (blebby and disseminated) in ~1-3% of the rock as well.				
343574	6222791	M01	Gail	684244	1441	Outcrop	Granodiorite	FeOxid 3, Pot 1, Chl 1	Mag 1-3, Py 1	Py D in groundmass	Took a sample from the ridge near float sample 1440. The weathered surface is beige and the fresh surface is grey-pink. The rock is composed of ~15-20% quartz, ~30-35% mafics (biotite, some amphibole), and ~40-50% plagioclase. There is magnetite present in 1-3% of the rock and pyrite is disseminated in about 1% of the groundmass.				
343557	6222655	M01	Gail	684244	1442	Outcrop	Granodiorite	FeOxid 1	Py 1, Cpy Tr	Py stringer and D, Cpy stringer	Outcrop on the southern side of the cirque with high grade sample. Within the rockfall there are feldspar porphyritic dyke boulders, aplitic boulders and granodiorite boulders. Some gossanous boulders, but not many. Sample is brown/beige weathered and grey on the fresh surface. Coarse grained. Mafics are 20-25%, quartz is 20% and feldspar is 55-60% (mostly plagioclase). Pyrite and chalcopyrite are present in a stringer <1mm wide. Pyrite is also disseminated throughout. Pyrite is 1% and chalcopyrite is trace.				
343630	6222755	M01	Gail	684244	1443	Float	Gossanous Float	FeOxid 3, Chl 4	Py 7-15, Cpy 7-15	Py D and in bands, Cpy D and partially blebby	Took a sample from gossanous sulphide-rich float below the large ridge, near where a historical sample was taken that graded at 1.39% copper. The weathered surface is dark red to orange and the fresh surface is dark green to black. The original composition is mostly obscured by weathering, as the rock is very oxidized, chloritized and has semi-massive pyrite and chalcopyrite. There is a section that isn't as weathered and it looks like the same composition as samples 1440 and 1441. It is not magnetic. Pyrite is present in ~7-15% of the rock and is disseminated but mostly concentrated along two bands less than or equal to 1cm in width. Chalcopyrite is present in ~7-15% of the rock as well, mostly disseminated.				
343612	6222774	M01	Gail	684244	1444	Float	Malachite-rich float	FeOxid 1, CaCb 2	Mal 7-15, Py 1, Cpy 1	Mal staining, Py D, Cpy D	Took another sample from a gossanous malachite-rich boulder below the same large ridge (near sample 1443). The weathered surface is dark grey to black (beige in parts), and the fresher surface is a light grey-pink, but hardly any of it is fresh. From the small bits of fresh surface, it looks to be an aplitic rock with ~70% feldspar (mostly plagioclase), ~20% quartz and ~10% mafics (but this is very rough, as the sample is extremely weathered). Malachite is present in ~7-15% of the rock, mostly as staining on the weathered surface. Pyrite and chalcopyrite are both present in ~1% as disseminations throughout the rock. No magnetism is noted.				

Cathedral Property
Rock Sample Descriptions

Location (UTM Zone 10 North NAD 83)							Description						XRF Analysis		Fire Assay
Easting	Northing	Map	Zone	Tenure	Sample No.	Sample Type	Lithology	Alteration	Sulphides (%)	Mineralization Style	Field Sample Descriptions	Structure	Cu ppm	As ppm	Au ppm
343741	6223329	M01	Gail	684244	1446	Outcrop	Granodiorite	Pot 1	Mag 1-3	N/A	LITHO Outcrop to the west of camp along the ridge. ~5m tall and extends up the whole ridge. Sample is weathered to beige/pink. Fresh surface is white and black. Coarse to very coarse grained. Magnetite is 1-3%. Contains 30% mafics, 20-25% quartz and 45-50% feldspar (mostly plagioclase). No sulphides noted.				
343654	6223390	M01	Gail	684244	1447	Outcrop	Aplite Dyke	Pot 2	None	N/A	Outcrop further up the ridge. Weathered surface is light pink to grey. Fresh surface is light pink/white. Aplitic dyke ~30cm wide. Striking 177 and almost flat lying. Aplitic texture. Composition unclear because so fine grained, but quartz rich and possible plagioclase. No sulphides noted.				
343581	6223344	M01	Gail	684244	1448	Outcrop	Gossanous Outcrop	Pot 4, Chl 3	Mal 1, Py 1-3, Cpy 1	Py D, Cpy D	On the top of the ridge with historical sample (0.81 and 0.05). Gossanous fracture in outcrop. Cannot get a measurement. Weathered to red/orange. Fresh surface is purpley to dark green. Original texture and composition obscured. Malachite staining is 1%. Pyrite is disseminated, 1-3%. Chalcopyrite is 1% disseminated.				
343570	6223332	M01	Gail	684244	1449	Outcrop	Chloritized volcanic dyke	CaCb 4, Epi 3, Chl 3, FeOxid 1	Py 3-5 in oxidized zones, Tr in fresh rock	Py D	Took a lithosample from an outcrop of a chloritized volcanic dyke oriented at 212/60. The weathered surface is beige to orange and the fresh surface is green. The original composition is obscured by alteration. It appears aphanitic and is non-magnetic. There is calcite in the groundmass. It does not seem silica-rich (it scratches easily). There is disseminated pyrite in about 3-5% of the sample locally around gossanous areas. In the fresh rock pyrite is trace and disseminated.	Dyke running at 212/60			
343554	6223335	M01	Gail	684244	1450	Outcrop	Gossanous outcrop	FeOxid 5, Chl 1	Mal 3-5, Py 3-5, Cpy 1-3	Mal staining, Py D and blebby (possible FF), Cpy D and blebby (possible FF)	Took a sample from an outcrop with gossanous weathering and malachite staining in fractures on the surface. The weathered surface is purple to brown and there is no fresh surface, but the surrounding rock type is all granodiorite similar to sample 1446, so the rock is likely granodiorite. It is non-magnetic and contains malachite, pyrite and chalcopyrite.				
343421	6223325	M01	Gail	684244	1451	Outcrop	Mineralized quartz vein	FeOxid 2	Py Tr, Cpy 1, Mal 1-3, Gal 1-3	Py D, Cpy D, Mal staining, Gal blebby and in veins	Took an outcrop sample farther west along the top of the ridge. There is a gossanous stain ~50cm wide by 30cm tall where this sample was taken, along the edge of a quartz vein. The weathered surface is orangey brown and the fresh surface is white to light grey (mostly quartz). There is trace disseminated pyrite in the sample and about 1% disseminated chalcopyrite. Galena is present in blebs and veins in about 1-3% of the sample, and malachite staining is present in 1-3% of the sample. The quartz vein that the sample was taken from is trending north-south and is almost vertical.				
343347	6223310	M01	Gail	684244	1452	Outcrop	Gossanous aplitic outcrop	FeOxid 5, Epi 1, Pot 1	Py 1	Py D	Took a sample where a historical sample was taken (grading 1.04 and 0.40). It was taken from a small outcrop along the top of a ridge ~5m long by ~3m wide. The weathered surface is orange-brown and the fresh surface is white to light orange. The texture is aplitic and it is very quartz-rich. There is very fine-grained disseminated pyrite in ~1% of the sample.				
343117	6223153	M01	Gail	684244	1453	Outcrop	Granodiorite	Pot 2	None seen	N/A	LITHO Took a sample of outcrop along the north side of the ridge we climbed. The weathered surface is pink to brown and the fresh surface is light grey. The rock is coarse-grained with an aplitic section. It contains ~15-20% mafics, ~30% quartz, and ~50-55% feldspar (plagioclase). It is potasically altered and non-magnetic with no sulphides noted.				
343106	6223073	M01	Gail	684244	1454	Float	Granodiorite	Sil 1, CaCb 3, FeOxid 1	Mag 3-5, Mal 1	Mal staining	Took a float sample next to a historical sample found on the ground (very old flagging tape). The weathered surface is white/grey to beige/orange and the fresh surface is dark grey. It is coarse to very coarse-grained and contains ~20% quartz, ~50% mafics (biotite mostly with some amphibole), and ~30% plagioclase. It also contains ~3-5% magnetite.				
344640	6224679	M01	Gail	684229	1455	Float	Gossanous float	FeOxid 4, Chl 3	Py 3-5, Cpy <1	Py D and FF, Cpy D	Gossanous float sample. The weathered surface is orange-brown or purple and the fresh surface is white to green. The original texture is obscured but is possibly a volcanic. Quartz is present in the groundmass. Pyrite is present in 3-5% of the rock (disseminated and fracture-fill), and chalcopyrite is disseminated with pyrite in less than 1% of the rock. The rock is non-magnetic.				
344619	6224652	M01	Gail	684229	1456	Outcrop	Gossanous outcrop	FeOxid 4, Chl 4	Py <1, Cpy 3-5	Py D, Cpy blebby and D	Took an outcrop sample with a gossanous stain ~20cm by 20cm. The weathered surface is orange-brown and the fresh surface is dark green. The original rock composition is obscured by weathering/oxidation. Pyrite is disseminated in less than 1% of the groundmass and chalcopyrite is blebby and disseminated in ~3-5% of the sample. It is non-magnetic and the surrounding host rock is granodiorite with ~20-25% quartz, ~30% mafics and ~45-50% plagioclase.				
344628	6224664	M01	Gail	684229	1457	Outcrop	Gossanous outcrop (granodiorite)	Pot 3, FeOxid 2	Mal 1-3, Py 1, Cpy 1	Mal staining, Py D, Cpy D	Took a sample almost next to sample 1456 (about 2m to the west). It is a sample of the host rock with malachite and pyrite in it. The weathered surface is brown/grey and the fresh surface is a pale pink to teal. The original composition is mostly obscured but it appears to be a quartz-rich granodiorite. It is medium-grained and non-magnetic. It contains ~1-3% malachite, ~1% chalcopyrite (disseminated) and ~1% pyrite (disseminated).				
344619	6224626	M01	Gail	684246	1458	Float	Gossanous float	N/A	Mal 1, Py 1, Cpy 1	Mal staining, Py D, Cpy D and small veins	Took a slightly gossanous float sample. Can see granodiorite composition and texture beneath the weathering. The weathered surface is light brown and the fresh surface is light grey. The rock is medium-to-coarse-grained and is non-magnetic. Contains ~1% malachite, ~1% disseminated pyrite and ~1% chalcopyrite.				
344615	6224627	M01	Gail	684246	1459	Float	Gossanous float (granodiorite)	Pot 1, FeOxid 3	Py 1, Cpy <1	Py D and blebby, Cpy D	Took a float sample directly underneath an outcrop of granodiorite. It is angular and gossanous and the weathered surface is light to dark brown while the fresh surface is light grey to green. It is coarse-grained and from the limited fresh surface it appears to contain ~30% mafics, ~20% quartz, and ~50% feldspar (plagioclase). It is non-magnetic and contains ~1% disseminated and blebby pyrite and less than 1% disseminated chalcopyrite. Took a joint measurement at this outcrop at 166/58. It is a slightly gossanous fracture but can't get a sample at this point.	Joint measurement from outcrop near float sample at 166/58			
340484	6222798	M01	Cirque	684243	1460	Float	Granodiorite	Pot 2	Mag 1-3	N/A	Took a float sample next to where multiple float samples were taken in 2011. The weathered surface is beige-white and the fresh surface is light grey. The sample is coarse-grained and contains ~20% mafics (mostly biotite), ~30% quartz, and ~50% feldspar (more plagioclase than K-spar). About 1-3% of the sample is magnetic and there are no sulphides noted.				
340582	6222845	M01	Cirque	684243	1461	Float	Fine-grained granodiorite	FeOxid 2	Mag 1	N/A	Took a float sample next to where a sample was taken in 2011 that graded 0.86 and 0.07. The weathered surface is orange-brown and the fresh surface is light to dark grey. It is very fine-grained and the majority contains ~20-25% mafic minerals, ~20% quartz, and ~55-60% feldspar (it's hard to tell between quartz and feldspar as it is so fine-grained). Part of the rock is almost 100% mafics. There are no sulphides noted in the rock, and about 1% of the sample is magnetic.				
340735	6222932	M01	Cirque	684243	1462	Float	Fine-grained granodiorite	FeOxid 2	Mag 1, Mal 1-3, Cpy Tr	Mal staining, Cpy D	As described in sample 1461 except that this rock has malachite staining in about 1-3% of the sample and trace disseminated chalcopyrite.				
340813	6222932	M01	Cirque	684243	1463	Outcrop	Granodiorite	FeOxid 1, Pot 1	Mag 1-3, Mal 1	Mal staining	Took a sample of an outcrop right next to where a sample grading 0.53 and 0.12 was supposedly taken in 2011. The weathered surface is black and white and the fresh surface is dark grey to black. It is very coarse-grained and contains ~60-70% mafic minerals (biotite and amphibole), ~60-70% quartz, and ~20-30% feldspar. About 1-3% of the rock is magnetic and there is malachite staining on ~1% of the sample.				
340878	6222956	M01	Cirque	684243	1464	Outcrop	na				Took a sample of an outcrop to the northeast of sample 1463 (a different outcrop directly behind that one).				
340793	6222983	M01	Cirque	684243	1465	Float	Granodiorite	FeOxid 2, Pot 1	Mag 3-5, Mal 1-3, Cpy Tr	Mal staining, Cpy D	Took a float sample across the ridge from sample 1464. This sample is gossanous and the weathered surface is orange-brown while the fresh surface is light grey. It is coarse- to very coarse-grained and contains ~50% mafic minerals (biotite and amphibole), ~15-20% quartz, and ~30-35% feldspar (mostly plagioclase). About 3-5% of the rock is magnetic and there is malachite staining in ~1-3% of the sample as well as trace disseminated chalcopyrite.				
340685	6223044	M01	Cirque	684243	1466	Outcrop	Aphanitic mafic outcrop (?)	CaCb 2	Mag 1, Py 1, Cpy Tr	Py D, Cpy D	Took an outcrop sample to the northwest of sample 1465 along the same ridge. The weathered surface is dark grey/brown and the fresh surface is grey/black. The rock is very fine-grained (aphanitic) and there is quartz/calcite veining less than or equal to 4mm wide as well as very fine-grained quartz in the groundmass. About 1% of the rock is magnetic and there is very fine-grained to fine-grained disseminated pyrite in the sample as well as trace disseminated chalcopyrite. Can't tell exactly what the rock type is because most of it is just black and aphanitic (chlorite weathered?).				
340515	6223248	M01	Cirque	684243	1467	Outcrop	Granodiorite	Epi 1, Chl 1	Cpy <1	Cpy D (vfg)	Took a sample of an outcrop up the ridge to the northwest of sample 1466. The weathered surface is greenish brown and the fresh surface is white and greenish black. It is coarse- to very coarse-grained and contains ~50% mafics (biotite and amphibole), ~30-35% feldspar (plagioclase), and ~15-20% quartz. About 1-3% of the rock is magnetic and there is very fine-grained disseminated chalcopyrite in less than 1% of the sample.				
340330	6223218	M01	Cirque	684243	1468	Float	Granodiorite	FeOxid 3, Epi 1, Chl 1	Py 1, Cpy Tr	Py D, Cpy D	Took a float sample right next to where a sample from 2011 was taken that graded 0.02 and 0.02. NOTE: None of these samples were found (no flagging tape etc.), but we sampled gossanous areas with the same GPS coordinates, assuming these were the samples taken. Sample is as described in 1467 except it is more weathered and contains more sulphides (about 1% disseminated pyrite and trace disseminated chalcopyrite). No magnetism is noted.				

Cathedral Property
Rock Sample Descriptions

Location (UTM Zone 10 North NAD 83)							Description					XRF Analysis		Fire Assay
Easting	Northing	Map	Zone	Tenure	Sample No.	Sample Type	Lithology	Alteration	Sulphides (%)	Mineralization Style	Field Sample Descriptions	Structure	Cu ppm	As ppm	Au ppm
344538	6224561	M01	Gail	684246	1469	Outcrop	Calcite-quartz gossan	CaCb 4, FeOxid 1	None	N/A	Took sample from a large orange fracture on the top of the ridge. Thought it was gossan, but it is just an altered orange calcite-rich rock. It may contain a small amount of quartz as well. The weathered surface is orange and the fresh surface is light orange. No sulphides are noted and a measurement was taken at 217/62. There also might be an old sample ehre, as there is blue flagging tape around a rock right near the sample.	217/62			
344509	6224601	M01	Gail	684246	1470	Outcrop	Granodiorite	Pot 1	Py Tr, Cpy 1	Py D, Cpy D (vfg)	Took a sample of an outcrop to the south of the small lake. The weathered surface is dark green and the fresh surface is light grey. The sample was taken from a fracture plane that is not gossanous. It is coarse-grained and contains ~15-20% mafics (mostly biotite), ~15% quartz, and ~65-70% feldspar (mostly plagioclase). It is non-magnetic and is fairly unaltered. It contains very fine-grained chalcopyrite (in about 1% of the sample) and trace disseminated pyrite.				
344418	6224821	M01	Gail	684229	1471	Float	Aplite/very fine-grained granodiorite?	FeOxid 2, Pot 1	Mal 1	Mal staining	Took a sample of float between two granodiorite outcrops. It is under some gossan, but could not get a piece of outcrop. The weathered surface is gossanous and orange-brown, and the fresh surface is light grey to white. It appears to be aplitic or a very very fine-grained version of granodiorite, but can't tell the composition due to the fine grain size. It is non-magnetic and contains about 1% malachite.				
344346	6224915	M01	Gail	684229	1473	Outcrop	Gossanous outcrop (granodiorite?)	FeOxid 4	Py <1, Cpy Tr, Mal 1-3	Py D, Cpy D, Mal staining	Took a sample of a gossanous stain on an outcrop (the stain is only ~10cm by 10cm). The weathered surface is red-brown and the fresh surface is grey with a slight pink tint. It is coarse-grained and the exact composition could not be determined but it looks like other granodiorite samples found in the area. It is non-magnetic and contains ~1-3% malachite staining, less than 1% disseminated pyrite and trace disseminated chalcopyrite.				
344389	6224999	M01	Gail	684229	1474	Outcrop	Gossanous outcrop	FeOxid 5	Py 1-3, Cpy 5-7	Py D, Cpy D	Took a sample from a gossanous outcrop. The weathered surface is red-brown to orange and the fresh surface is dark grey. The original composition is obscured by weathering and oxidation, but it is dark grey and aphanitic and appears to have a lot of plagioclase and some quartz. It is non-magnetic and contains ~5-7% chalcopyrite (disseminated) and ~1-3% pyrite (disseminated). It was taken from a fracture zone about 6 inches wide with coarse-grained granodiorite all around it.				
344690	6224757	M01	Gail	684229	1475	Outcrop	Gossanous outcrop (granodiorite)	FeOxid 4	Mal/Az 3-5	Mal/Az staining	Took a sample from outcrop along the northeast side of the small lake. Took it from a gossanous stain ~10cm wide by ~30cm up. The weathered surface is dark brown/orange to purpley, and the small amount of fresh surface looks like the rock is a granodiorite (all of the rock surrounding it is granodiorite as well). Malachite/azurite is in about 3-5% of the rock as staining.				
344488	6224831	M01	Gail	684229	1476	Float	Gossanous Float	FeOxid 2, Pot 2, CaCb 1	Mal <1, Py <1, Mag 7-15	Py D	Float sample taken just below large fracture thought to be gossanous, but mainly orange quartz/calcite. Sample is weathered to red/orange. Fresh surface is dark grey. Very coarse grained. 60% mafics (mostly biotite and magnetite, some amphibole), 30% feldspar (plagioclase and potassium feldspar), and 10% quartz. 7-15% magnetite. Pyrite is disseminated <1% and contained in the oxidized crust and potassic vein.				
344371	6225233	M01	Gail	684229	1477	Outcrop	Granodiorite	Pot 2, FeOxid 1	Mag 5-7	N/A	LITHO Outcrop along the ridge. No mineralization along the entire ridge so far, some gossan but way too high to climb to. Sample is weathered to brown. Fresh surface is beige/grey. Coarse grained. Magnetite 5-7%. Mafics are 20-25% (bio and amph), feldspar 55-60% and quartz 20%. No sulphides noted.				
344405	6225262	M01	Gail	684229	1478	Outcrop	Fine-grained granodiorite	Pot 3, Epi 3	Mag 1, Mal 1, Cpy 1, Py <1	Mal staining, Cpy D, Py D	Took sample from outcrop of what appears to be a section of finer-grained rock than the stuff around it (but it is not aplitic). There are two small malachite stains ~5cm x 5cm each. The weathered surface is white/green and the fresh surface is light salmon pink. It is fine-to-medium-grained and consists of ~15-20% mafics, ~70% feldspar (can't tell if it's plag or K-spar because of potassic alteration), and ~10-15% quartz. Magnetite is present in about 1% of the sample (disseminated locally and malachite staining is present in ~1% of the sample. There is very fine-grained disseminated pyrite and chalcopyrite as well.				
344491	6225293	M01	Gail	684229	1479	Outcrop	Possible volcanic dyke	FeOxid 2, Chl 2	Mag <1, Py Tr	Py D	Took a sample from outcrop on the side of a large, eroded gully. The gully is very orange (silt within and parts along the edges). It is oriented at roughly 282/55 and it's difficult to tell the width due to erosion. The weathered surface is orange and light brown while the fresh surface is blue-green. It appears to be a volcanic dyke with an aphanitic texture. Plagioclase crystals are visible (tabular and less than 3mm long). Magnetite is present in ~1% of the sample and there is trace disseminated pyrite in the groundmass.	Dyke oriented at 282/55			
344844	6222933	M01	Gail	684246	1480	Float	Gossanous float (granodiorite?)	FeOxid 3, Pot 1	Mal 1, Py Tr, Cpy Tr	Mal staining, Py D, Cpy D	Took a gossanous float sample with the surrounding host rock being coarse-grained magnetic granodiorite. The weathered surface is orange-brown and the fresh surface is grey/pink. The composition is mostly obscured by weathering/alteration but it appears to be a granodiorite like the surrounding outcrop. It is non-magnetic and malachite staining is present in ~1% of the sample. Pyrite and chalcopyrite are both disseminated in trace amounts.				
345095	6222735	M01	Gail	684246	1481	Outcrop	Potassic altered rock	Pot 5	Mal 1-3	Mal staining	Took a sample of outcrop with malachite staining. The weathered surface is pink and black and the fresh surface is pinkish orange. Cannot tell the entire composition due to pervasive potassic alteration, but it looks like mafics are present in ~10% of the rock. It is non-magnetic and about 1-3% of the sample contains malachite/azurite.				
345074	6222515	M01	Gail	684246	1483	Outcrop	Granodiorite	Epi 3, Pot 4	Mag 1-3	N/A	LITHO - Took a sample up where Chris wanted to see if there was a different rock type. It is an epidote and potassic-altered granodiorite with no sulphides noted. On the way up there was a very black rock with gossan that had chalcopyrite veinlets - could be from the top of the ridge. Couldn't get a large enough sample to take one, though. This sample contains ~20% mafics, ~10-15% quartz and ~65-70% feldspar. About 1-3% of the rock is magnetic.				
344866	6222526	M01	Gail	684246	1484	Float	Gossanous float	Epi 5	Mal 1, Py <1, Cpy <1	Mal staining, Py D, Cpy D	Took a gossanous float sample within rockfall below the ridge. It appears to be an epidote vein. The weathered surface is red/orange and the fresh surface is pistachio green. There's a non-magnetic black mineral, and it is non-magnetic. Malachite staining is present in ~1% of the sample, and pyrite and chalcopyrite are both disseminated in less than 1% of the sample.				
344742	6224503	M01	Gail	684246	1485	Subcrop	Gossanous granodiorite	FeOxid 3	Mal <1, Cpy 1, Py <1	Mal staining, Cpy vfg-fg D, Py D	The weathered surface is grey or red/brown and the fresh surface is light grey. The rock is coarse-grained and contains ~15-20% mafics, ~15% quartz, and ~65-70% feldspar (mostly plagioclase).				
344581	6222475	M01	Gail	684246	1486	Float	Gossanous float	FeOxid 2, Epi 4	Mal 1-3, Py <1, Cpy 1	Mal staining, Py D, Cpy D	Took a float sample from rockfall below the ridge. There is malachite staining on the outside and it is gossanous within. The weathered surface is pistachio green and red/orange, while the fresh surface is grey/green. The original composition is almost completely obscured, but from the outside of the boulder it appears to be a coarse-grained granodiorite similar to other rocks around it. It is non-magnetic and has malachite staining in ~1-3% of the sample, as well as disseminated pyrite (less than 1%) and chalcopyrite (~1%).				
344537	6222432	M01	Gail	684246	1487	Outcrop	Gossanous outcrop (granodiorite)	CaCb 1	Mal/Az 3-5, Py 1, Cpy 1	Mal/Az staining, Py D, Cpy D	Took a sample from outcrop with a fracture plane running through the coarse-grained granodiorite at 155/40. The weathered surface is beige and the original texture is obscured but it is potentially a granodiorite as all of the surrounding rock is. It is non-magnetic and effervesces slightly with acid. Malachite and azurite are both staining the rock in ~3-5% of the sample, and there is disseminated pyrite and chalcopyrite (about 1% each) in the oxidized crust.	Fracture plane running at 155/40			
344919	6222679	M01	Gail	684246	1488	Outcrop	Gossanous granodiorite	FeOxid 3, Pot 3	Py 1, Cpy <1	Py D, Cpy D	Took a sample from a gossanous stain on an outcrop. The stain is ~20cm by 20cm wide. The weathered surface of the rock is orange/brown and it appears to be a fine-grained, potassically-altered granodiorite (like the surrounding rock, which is not as potassic). The rock is non-magnetic and contains ~1% disseminated pyrite and less than 1% disseminated chalcopyrite.				
344281	6222503	M01	Gail	684246	1489	Outcrop	Granodiorite	Pot 4	Mag <1, Py Tr	Py D	LITHO - Took a sample from outcrop with strong to intense potassic alteration. The weathered surface is brown with pink and the fresh surface is salmon pink. The rock is coarse-grained and contains ~15-20% mafics, ~65-75% feldspar, and ~10-15% quartz. Magnetite is present locally in less than 1% of the rock, and there is trace disseminated pyrite as well.				
344240	6222592	M01	Gail	684246	1490	Subcrop	Granodiorite	FeOxid 1, Pot 4	Cpy <1	Cpy D	Took a sample of subcrop below a large outcrop. It is a potassically-altered granodiorite as described in sample 1489. The sample has slight reddish weathering to it.				
342939	6223993	M01	Gail	684244	1491	Outcrop	Granodiorite	Pot 1, FeOxid 3	Cpy <1	Cpy - diss	Rustic red to orange locally on weathered surface of light pink to white. Fresh surface is light pink to white. Texture is mainly coarse grained with fine/aplitic locally. Composition is as described in 1525. Alteration includes subtle potassic and moderate iron oxidation. Sulphides are very fine grained disseminations of chalcopyrite (<1%). No magnetite detected.				
342937	6223989	M01	Gail	684244	1492	Float	Gossanous altered rock (possibly host granodiorite?)	FeOxid 4, Pot 3	Cpy <1	Cpy - quartz vein	Dark red to to orange throughout sample. Strongly gossanous with the majority of host rock texture difficult to identify. Locally mafic grains, feldspar and quartz are visible and appear to resemble granodiorite. Alteration includes strong iron oxidation and moderate potassic. Sulphide mineralization includes chalcopyrite in a quartz vein 3mm wide. No magnetite detected.				
342813	6223637	M01	Gail	684244	1493	Outcrop	Aplite Dyke with granodiorite	Intrusive - Pot 5, CaCb 2 Aplite - Pot 2, Sil 4, CaCb 3	Cpy and Py combined <1	Cpy and Py - diss	Strike and dip (006/54) a rough estimate as no clear plane to measure from. ~50c, wide and similar in description and composition to samples 1516 etc. Calcite veinlets <0.5 mm are within the aplite in random orientation. Sulphide mineralization includes very fine grained disseminations, possibly both pyrite and chalcopyrite. One piece of the sample is in contact with a strongly potassic altered intrusive (or possibly a syenite) but is likely the former. Calcite in groundmass of intrusive. No magnetite detected.	Aplite dyke (006/54)			

Cathedral Property
Rock Sample Descriptions

Location (UTM Zone 10 North NAD 83)							Description					XRF Analysis		Fire Assay
Easting	Northing	Map	Zone	Tenure	Sample No.	Sample Type	Lithology	Alteration	Sulphides (%)	Mineralization Style	Field Sample Descriptions	Structure	Cu ppm	As ppm	Au ppm
342764	6223574	M01	Gail	684244	1494	Float	Quartz vein in host granodiorite	Intrusive - Pot 5, CaCb 1	Cpy 1-3, Moly 1-3, Mal 1	Cpy - diss and chunky, Moly - diss and chunky	A 2cm wide quartz vein in a strongly potassically altered intrusive. The quartz vein has chalcopyrite, malachite, and molybdenite. The intrusive is similar to the one from sample 1493. A bit into the selvage of the intrusive chalcopyrite and molybdenite are noted. The quartz vein is pale grey and massive in nature with sulphides disseminated and also appear as blebs. Chalcopyrite (1-3%), molybdenite (1-3%), malachite (1%). No magnetite detected.				
342731	6223470	M01	Gail	684244	1495	Outcrop	Granodiorite	Pot 3, CaCb 2, FeOxid 1	Mag <1	N/A	Lithology sample: Dark orange to brown locally and white to light peach weathered surface and medium grey with black interstitial grains locally. Composition consists of 20% mafics (mainly biotite), 20-30% quartz, and 50-60% feldspar. Alteration includes moderate potassic, calcite in groundmass, and subtle iron oxidation. No sulphides noted. Magnetite is <1%.				
342723	6223462	M01	Gail	684244	1496	Float	Granodiorite	Pot 5, CaCb 2, FeOxid 2	Cpy 1, Mal 1	Cpy - diss	Salmon pink weathered and fresh surface. Altered host granodiorite with malachite and azurite staining. Composition is generally similar to sample 1495 with chalcopyrite, malachite and azurite. Alteration includes strong potassic, with calcite and iron oxidation. Sulphides include disseminated chalcopyrite localized to the crust. Malachite and azurite look similar to water marks. No magnetite detected.				
342751	6223278	M01	Gail	684244	1497	Outcrop	Tonalite/Quartz diorite?	Pot 1, FeOxid 2, CaCb 1	Cpy 1, Py <1, Mal tr	Cpy - diss, fracture surface blebs, Py - diss, fracture surface blebs	Lithology sample: Grey to black throughout. Coarse grained and composed of 40-50% mafics (biotite and amphibole), 10-20% quartz, and 30-50 feldspar (predominatley plagioclase). Magnetite comprises 3-5%. Alteration includes subtle potassic and weak iron oxidation. Sulphides include disseminated and blebs along fracture surface (1% chalcopyrite, and <1% pyrite). Trace specks of malachite are noted as well. This sample is much more mafic than previous ones observed. It may be a dyke or a new intrusive body. 10m down ridge and 20m along contour in both directions.				
342827	6223306	M01	Gail	684244	1498	Outcrop	Granodiorite	Pot 1	None	N/A	Lithology sample: Very similar to sample 1495. Moss covered weathered surface and medium grey with black interstitial grains on the fresh surface. Coarse grained with 20-30% quartz, 10-15% mafics, 55-65% feldspar. Subtle potassic alteration but otherwise unaltered. No sulphides noted. No magnetite detected.				
341254	6224140	M01	Gail	684243	1500	Float	Tonalite/Quartz diorite? And magnetite vein	CaCb 1	Cpy <1, Py <1, Mal <1, Mag, 30-50%	Cpy - diss and blebs, Py - diss and blebs	Hit off a boulder 1m wide. Sample is medium grey to black. It consists of a magnetite vein in contact with an intrusive. The intrusive is composed of 30-40% mafics, 20% quartz, and 40-50% feldspar (possibly predominately plagioclase). Looks a bit similar to sample 1497. No alteration is associated with the intrusive body but does have 5-7% magnetite. The magnetite vein is up to 5cm wide. Chalcopyrite (<1%) and pyrite (<1%) mineralization is present in both the intrusive and magnetite vein as disseminations and blebs (<=1mm). Malachite (<1%) is also observed associated with both the intrusive and magnetie.				
341258	6224134	M01	Gail	684243	1501	Float	Tonalite/Quartz diorite?	Epi 2	Cpy 1, Py 1, Mag 3-5	Cpy - diss, Py - diss	Medium grey to black. Fine to coarse grained. Looks similar in composition to intrusive in sample 1500. Sample is cross-cut by <1mm epidote veins. Alteration is generally not present except for a few areas of light pink which may be potassic alteration or potassium feldspar. Sulphides include disseminated chalcopyrite (1%) and pyrite (1%). Magnetite is 3-5%.				
341287	6224121	M01	Gail	684243	1502	Float	Aplite (possible dyke)	Pot 2	Cpy <1, Mag <1 (in aplitic areas)	Cpy - diss	Light pink to pale grey throughout sample. Fine grained almost sugary texture very similar to samples 1513, 1516, and 1522. Felsic rich. Within the sample fragments of magnetite are present almost a breccia in nature. Alteration includes weak potassic. This sample may be a dyke that has cross-cut massive magnetite somewhere considering the fragments. A fragment of a host intrusive is also present but unidentifiable. The magnetite fragments range from 1x1cm to 2x4cm. Fine grained disseminated chalcopyrite is present throught the sample within the aplitic areas.				
341291	6224087	M01	Gail	684243	1503	Float	Aplite	FeOxid 2	Cpy <1, Py <1, Mag 1	Cpy - diss, Py - diss	Orangish brown weathered surface and light grey fresh surface. Another example of a fine grained/sugary rock observed in the area. Other than iron oxidation generally fresh overall. Very fine grained disseminated sulphides that appear to include both chalcopyrite and pyrite but grain size makes identification difficult. Magnetite is 1%.				
341294	6224050	M01	Gail	684243	1504	Float	Gossanous rock bordering on semi-massive magnetite	FeOxid 3, Chl 1	Cpy <1, Py 1, Mag 15-30	Cpy - diss, Py - diss	Orange to brown weathered surface and generally black fresh surface. The majority of the host rock appears wiped out due to magnetite flooding the sample. Possible subtle chlorite alteration is present. Sulphides include disseminated chalcopyrite (<1%) and pyrite (1%) with magnetite 15-30% of rock.				
341297	6224033	M01	Gail	684243	1505	Float	Quartz vein in an intrusive body	FeOxid 3, Pot 3, Epi 3, CaCb 1	Cpy 1, Mal <1	Cpy - diss, blebs	Orange to brown and grey weathered surface and grey on fresh surface. This sample is an intrusive body (can't identify) cross-cut by quartz veins. Alteration from quartz veins include potassic and epidote. Chalcopyrite is present disseminted into the wall rock as well as within the quartz vein. Malachite and azurite are also present. No magnetite detected.				
341305	6224026	M01	Gail	684243	1506	Float	Quartz monzonite?	Pot 4, FeOxid 2, CaCb 2	Cpy 1, Mal <1	Cpy - diss	Small float sample of a fine grained intrusive with very fine grained disseminated chalcopyrite along with malachite. Intrusive is composed of 10-20% mafics, 10% quartz, and 70-80% feldspar.				
341346	6223976	M01	Gail	684243	1507	Float	Massive magnetite with aplitic veins	Epi 1, FeOxid 1	Cpy <1, Mag >50, Mal <1	Cpy - diss	Black throughout sample. Massive magnetite with 5mm wide white aplitic veins cross-cutting. Aplitic veins have epidote alteration associated in some cases. Veins have no distinct orientation. Disseminated chalcopyrite is observed in both the aplitic veins and magnetite. Random patches of malachite and azurite are also noted.				
341424	6223988	M01	Gail	684243	1508	Float	Semi-massive magnetite	FeOxid 2	Cpy 1, Py 1, Mag 30-50	Cpy - diss, Py - diss	Grey to black colouration throughout. Sample is semi-massive magnetite with disseminated chalcopyrite and pyrite.				
341434	6223994	M01	Gail	684243	1509	Float	Granodiorite?	CaCb 2, Epi 1, FeOxid 2	Cpy 1-3, Py 1	Cpy - diss, Py - diss	Gossanous weathered surface and dark grey to black fresh surface. Not really sure what this sample is. It is fine grained with quartz (20-30%), mafics (30-40%), and feldspar (30-50%). Veinlets of quartz cross-cut the sample. Calcite is present in the matrix and epidote is noted locally. Sulphides include fine grained disseminated chalcopyrite and pyrite in both the veins and groundmass. No magnetite detected.				
341424	6223906	M01	Gail	684243	1510	Outcrop	Tonalite/Quartz diorite?	Epi 1, Pot 1, FeOxid 2	Cpy tr, Mag 5-7	Cpy - diss	Litholgoy sample: Mainly grey to black with patches of iron oxidation throughout. Compositionally it looks similar to samples 1497 and 1500 (intrusive part). Mafic rich with a strong amount of quartz and mainly plagioclase. Alteration includes epidote and potassic locally. Chalcopyrite is very fine grained and disseminated but in trace amounts. Magnetite is 5-7%.				
341246	6224133	M01	Gail	684243	1511	Float	Tonalite/Quartz diorite?	Epi 3, FeOxid 1	Cpy <1, Mag 5-7	Cpy - diss	As described compositionally in sample 1497. Chunks of magnetite are present locally. Patches of epidote are noted on the weathered surface. Fine grained disseminations of chalcopyrite (<1%) are throughout the sample.				
341237	6224126	M01	Gail	684243	1512	Float	Tonalite/Quartz diorite? With aplite	FeOxid 3, Epi 2, CaCb 1	Cpy 1-3, Py 1-3, Mag 3-5	Cpy - diss, stringers, blebs, chunks, Py - diss, blebs	Orangish brown weathered surface and medium grey fresh surface. Sample is taken off a large boulder and appears to be a combination of both tonalite/quartz diorite and aplitic veins. Sulphides include chalcopyrite as stringers, disseminations and blebby, with pyrite as disseminations and blebs. Magnetite is present throughout but is stronger with the tonalite portion of the sample.				
344154	6222874	M01	Gail	684246	1513	Outcrop	Aplite	CaCb 1, FeOxid 1, Ser 1, Pot 1	Cpy <1, Mal tr	Cpy - diss	Grey weathered surface and light grey fresh surface. Fine grained (resembles aplitic texture). Felsic in nature with 40-50% quartz and 40-50% feldspar and minor mafics. Alteration includes subtle calcite, iron oxidation, sericite, and potassic. Weakly sausseritized feldpar. Sulphides are made up of very fine grained, disseminated chalcopyrite (<1%) and trace amounts of malachite.				
344126	6222879	M01	Gail	684246	1514	Outcrop	Altered granodiorite	Chl 3, CaCb 1	Py <1	Py - diss	Taken beside quartz veining. Grey/brown weathered surface and medium grey fresh surface. Appears to be altered host rock described in 1433. Mafic minerals are chloritized with calcite in the groundmass. Sulphides are disseminated and very fine grained predominately pyrite (<1%). Joint measurement taken 162/68.	Joint (162/68)			
344095	6222896	M01	Gail	684244	1515	Outcrop	Granodiorite	FeOxid 1, Pot 1	Cpy <1	Cpy - diss, blebs	Medium grey weathered surface and fresh surface and coarse grained. Composed of 20% mafics (primarily biotite), 30-40% quartz, and 30-40% feldspar. No alteration other than iron oxidation and subtle potassic. Sulphides include fine grained blebs (<2mm) of chalcopyrite as well as disseminated.				
344044	6222920	M01	Gail	684244	1516	Outcrop	Aplite	Pot 1, CaCb 1	Py and Cpy <1	Py - diss, Cpy - diss	Sample from a 20cm fracture surface. Most grains not visible, sample is either silicified or very quartz rich. It varies from salmon pink on the weathered surface to pinky grey on the fresh surface. Sulphides include very fine grained disseminated pyrite and possibly chalcopyrite? but difficult to tell due to such small nature of grains. Malachite was noted in one area of the fracture surface but a sample could not be attained. Pyrite and chalcopyrite combined is <1% of rock. The strike and dip of the fracture surface is 004/60.	Fracture (004/60)			
344021	6222926	M01	Gail	684244	1517	Float	Altered dyke?	Chl 4, Sil 3?	Cpy 5-7	Cpy - diss, blebs	Angular float. Brown and forest green on weathered surface and dark green to black on fresh surface. Fine grained and pervasively chloritized. Sample is predominately made up of biotite and quartz. The sample is a possible dyke as there is a contact with the host granodiorite with the sample. Alteration includes strong chlorite and possible silicification. Sulphides consist of disseminated and blebby chalcopyrite up to 1mm wide.				
343973	6222913	M01	Gail	684244	1518	Float	Granodiorite	Pot 2, CaCb 1	Cpy <1, Py <1, Mal tr	Cpy - diss, Py - diss	Light brown weathered surface and light pink grey fresh surface. Coarse grained, consisting of 20% mafics (biotite and amphibole), 20% quartz, and 60% feldspar. Alteration includes weak potassic and subtle calcite. No magnetite detected. Sulphides include very fine grained disseminated chalcopyrite and pyrite. Trace malachite is also noted. A joint measurement beside the sample is 164/68.	Joint (164/68)			

Cathedral Property
Rock Sample Descriptions

Location (UTM Zone 10 North NAD 83)							Description					XRF Analysis		Fire Assay
Easting	Northing	Map	Zone	Tenure	Sample No.	Sample Type	Lithology	Alteration	Sulphides (%)	Mineralization Style	Field Sample Descriptions	Structure	Cu ppm	As ppm	Au ppm
343963	6222912	M01	Gail	684244	1519	Outcrop	Dyke (rhyolite or dacite?)	Pot 1	Mag 1-3	N/A	A dyke cross-cutting ~1-2 metres wide with a strike and dip of 342/82. Light brown weathered surface and medium grey fresh surface. Composed of <1mm plagioclase, amphibole, biotite, possible potassium feldspar, and quartz set within a grey groundmass. Alteration includes potassic with magnetite 1-3%. No sulphides noted. This could be a felsic dyke therefore in the rhyolite or dacite vacinity.	Strike and dip of dyke (342/82)			
343868	6222996	M01	Gail	684244	1520	Outcrop	Granodiorite	FeOxid 1	Py <1, Cpy tr	Py - diss, Cpy? - diss	Light grey to orange brown weathered surface and light grey with black interstitial grains on fresh surface. Coarse grained with 20% mafics, 20-30% quartz, and 50-60% feldspar. Little to no alteration other that iron oxidation. Sulphides include very fine grained disseminated pyrite and possibly chalcopyrite <1% total. Magnetite is <1%.				
343923	6223128	M01	Gail	684244	1521	Float	Altered host rock with quartz/calcite vein	Pot 3, CaCb2	Cpy 1, Py tr	Cpy - diss, Py - diss	Sample taken from a boulder the size of a smart car with a 3cm wide quartz+calcite vein cross-cutting. Due to hardness of rock and flat surface the vein itself could not be broken off but the part sampled is the selvage of the vein. The vein is made up of quartz and calcite with disseminated chalcopyrite with malachite and azurite. Picture was taken. The sample is potassically altered and composed of similar composition as samples 1433, 1515, 1518, and 1520. Sulphides includ disseminated chalcopyrite (1%) and possible pyrite (tr). No magnetite is detected.				
343890	6223204	M01	Gail	684244	1522	Outcrop	Aplite	Pot 2, CaCb 1, Sil 3??	Cpy <1, Mal tr	Cpy - diss	Simiar to samples 1513 and 1516. Light grey to salmon pink weathered surface and fresh surface. Aplitic texture and felsic in nature. Fine grained composed of 30% quartz, 60% feldspar and 5-10% mafics. Alteration includes potassic, calcite, possibly silica? (although could just be composition). The colouration of the rock is not homogenous with patches of both light grey (more silica rich?) and salmon pink (more feldspar rich?) but not sure what it means. Sulphides include very fine to fine grained disseminated chalcopyrite and trace malachite.				
343561	6223664	M01	Gail	684244	1524	Outcrop	Quartz monzonite?	Pot 1	Mag <1	N/A	Lithology sample: Medium grey weathered surface and light pink to white with interstitial biotite on fresh surface. Coarse grained with 20-30% mafics (biotite with minor amphibole), 10% quartz, and 60-70% feldspar. Subtle potassic alteration. No sulphides noted. Magnetite is <1%. This sample appears less quartz rich and increased in biotite.				
342937	6224002	M01	Gail	684244	1525	Outcrop	Granodiorite	Pot 1	Mag <1	N/A	Colour is light grey to light pink with interstitial black grains. Coarse grained with 15-20% quartz, 15-20% mafics, and 60-70% feldspar. Biotite is much less than in sample 1524 with amphibole the same amount as biotite. Subtle potassic alteration. No sulphides with <1% magnetite				
342868	6223338	M01	Gail	684244	1526	Outcrop	Diorite?	FeOxid 3, Epi 2	Cpy <1, Py <1, Mag 1-3	Cpy - diss, Py - diss	Lithology sample: Predominately black with a few feldspar grains visible. Cross-cut by a felsic volcanic dyke (rhyolite?). Moderate iron oxidation and weak epidote. 1-3% magnetite. Very fine grained disseminated sulphides; <1% chalcopyrite and pyrite <1%.				
343060	6223423	M01	Gail	684244	1527	Float	Granodiorite	FeOxid 1, CaCb 1	Cpy <1	Cpy - diss	Host granodiorite described previously with fine grained disseminated chalcopyrite. No magnetite detected.				
343096	6223401	M01	Gail	684244	1528	Float	Granodiorite with aplite and quartz veins	FeOxid 2, Pot 2, Epi 2, CaCb 1	Cpy 1, Mal <1	Cpy - diss	Host granodiorite described previously with aplitic and quartz veins approximately 1cm in width. Iron oxidation along with potassic and epidote alteration. Aplitic veins are similar to aplites described above. Mineralization includes fine grained disseminated chalcopyrite within the host rock, aplite veins and quartz veins. Malachite and azurite is noted locally. No magnetite detected.'				
343108	6223416	M01	Gail	684244	1529	Float	Gossanous granodiorite	FeOxid 5	Cpy 3-5, Py 1-3	Cpy - diss, chunky band, Py - diss, chunky band	Strongly iron oxidized host granodiorite. No magnetite detected. Mineralization includes 3-5% chalcopyrite and 1-3% pyrite as chunky bands as well as disseminated.				
343169	6223386	M01	Gail	684244	1531	Subcrop	Altered host granodiorite	CaCb 2, FeOxid 2	Cpy 3-5, Mal 1	Cpy - band	From an eroded fracture, all rubble beneath have malachite/azurite/chalcopyrite and look the same. Fracture 208/66 30cm. Host rock is altered but surrounding the fracture is granodiorite. Mineralization seems to be localized to a 2cm band of solid chalcopyrite (3-5%). Malachite and azurite is also noted locally.				
343209	6223380	M01	Gail	684244	1532	Outcrop	Granodiorite	FeOxid 2, Pot 4	Cpy <1	Cpy - diss	Potassically altered granodiorite. Chalcopyrite is present as fine grained disseminations and along the crust of the sample (<1%).				
343248	6223412	M01	Gail	684244	1533	Outcrop	Quartz monzonite/granodiorite	Pot 3, Epi 2, CaCb 3	Cpy <1, Py tr, Mag <1	Cpy - diss, Py - diss	Lithology sample: Bordering on quartz monzonite and granodiorite in composition. Coarse grained with mafics comprised of both amphibole and biotite is equal amounts (10% total mafics), 70-80% feldspar, and 10-20% quartz. Calcite is present in the matrix. Potassic and epidote alteration are also present. Fine grained disseminated sulphides including chalcopyrite and pyrite. Magnetite is <1%.				
343562	6223485	M01	Gail	684244	1534	Outcrop	Monzonite	Pot 2, Epi 1, FeOxid 2	Cpy tr, Py tr	Cpy - diss, Py - diss	Litholgoy sample: Coarse grained with 20-30% mafics dominated by amphibole, 70-80% feldspar and minor quartz. Potassic and subtle epidote alteration. No magnetite detected. Very fine grained disseminated sulphides but difficult to discern if either pyrite or chalcopyrite.				
344607	6224457	M01	Gail	684246	1535	Float	Monzonite?	Pot 4, FeOxid 2, CaCb 1	Cpy <1, Py tr, Mag <1, Mal tr	Cpy - diss, Py - diss	Pale pink to white and locally orange brown on weathered surface and salmon pink with interstitial black grains on fresh surface. Coarse grained with 5-10% mafics (fine grained biotite with coarse grained amphibole), 70-80% feldspar (majority are potassically altered), and minor quartz. Magnetite is <1%. Alteration includes strong potassic. Sulphides inlcude fine grained disseminated chalcopyrite along with trace malachite. Mineralization is generally locallized towards the crust.				
344582	6224473	M01	Gail	684246	1536	Outcrop	Granodiorite	Pot 3	Cpy tr	Cpy - diss	Lithology sample: Light grey with interstitial black grains. Coarse grained with 10-15% mafics (biotite dominant), 20-30% quartz, and 55-65% feldspar. Subtle potassic alteration noted near the crust. Magnetite is 1%. No sulphides noted other than 1 speck (<0.5mm) of chalcopyrite attached to a feldspar grain.				
344579	6224479	M01	Gail	684246	1537	Float	Gossanous material (possible quartz vein)	FeOxid 5, Sil 4, CaCb 1	Cpy 3-5, Py 1	Cpy - band, chunk	Strongly gossanous sample with possible quartz vein and silicification but overprinted with gossanous material. Calcopyrite is presnt as bands or chunks up to 1.5cm wide as well as disseminated into silicified portion of rock.				
344542	6224467	M01	Gail	684246	1538	Subcrop	Strongly gossanous (possible quartz vein association)	FeOxid 5	Cpy 3-5, Mal 3-5	Cpy - chunky, diss, vein?	Sitting under dirt attached to what appears to be outcrop. The majority of the area is strongly eroded away. Possible quartz vein but can't get an orientation. Host rock is wiped out and unidentifiable. Malachite and azurite (some of the most azurite I've seen) is throughout the rock as well as chalcopyrite. Disseminated and chunky and possibly vein associated chalcopyrite. No magnetite detected.				
344496	6224456	M01	Gail	684246	1539	Float	Quartz and calcite veins	FeOxid 5, Clay 4	Py <1, Cpy tr	Py - vein, Cpy - vein	Strong gossanous area (5m wide) on eroded hillside with abundant float samples of quartz and calcite veining (<=5mm in width). Sulphide mineralization consists of pyrite and lesser chalcopyrite situated in veins. Host rock is strongly weathered and grain texture is lost.				
344498	6224476	M01	Gail	684246	1540	Float	Quartz and calcite veins	FeOxid 5, Clay 4	None	N/A	As described in sample 1539. No sulphides visible but strong gossanous material indicate possibility.				
344446	6224422	M01	Gail	684246	1541	Outcrop	Feldspar breccia?	Pot 1, CaCb 2, FeOxid 4	Mal <1	N/A	Taken along a fracture plane with quartz veins <= 5mm wide. Structure of fracture is 154/66. Sample appears somewhat brecciated as light pink grains (feldspar) up to 1cm in size are set within a dark grey to black groundmass. Malachite and lesser azurite are noted locally. No chalcopyrite is visible.	Fracture (154/66)			
344449	6224425	M01	Gail	684246	1542	Float	Altered granodiorite	Pot 4, FeOxid 1, CaCb 1	Cpy 1, Py <1, Mal 1	Cpy - chunky, diss, Py - diss	Pink with interstital black grain. Strongly potassically altered host intrusive. Malachite and azurite are both present. Chalcopyrite is observed as chunks and disseminations while pyrite is disseminated. No magnetite present.				
344444	6224423	M01	Gail	684246	1543	Outcrop	Feldspar breccia?	Pot 1, CaCb 2, FeOxid 3	Cpy 1, Mal <1	Cpy - diss	Similar to sample 1541. Light pink grains (feldspar) within a dark grey to black groundmass. Chalcopyrite is very fine grained and disseminated (oxidized purple). Malachite is also noted.				
344437	6224421	M01	Gail	684246	1544	Outcrop	Altered granodiorite	Pot 4, FeOxid 4, CaCb 2	Mal 1	N/A	Taken from a gossanous fracture 10-15 cm wide. Structure of fracture is 159/70. Strongly potassically altered and gossanous host rock (granodiorite). Mainly malachite and lesser azurite detected with no chalcopyrite observed. No magnetite detected.	Fracture (159/70)			
344429	6224441	M01	Gail	684246	1545	Outcrop	Silicified host granodiorite	Sil 5, FeOxid 2	Cpy <1, Py <1	Cpy - diss, Py - diss	Similar to sample 1582. 4cm wide vein and silicified selvage. Orientation of 186/60. Bleached and silicified host rock with quartz vein. Original host rock texture obliterated. Very fine grained disseminated pyrite and chalcopyrite throughout sample. No magnetite detected.	Vein (186/60)			
344393	6224442	M01	Gail	684246	1546	Outcrop	Altered granodiorite	Pot 4, FeOxid 3, CaCb 2	Cpy 1-3, Mal 1-3	Cpy - diss, blebs, stringers	Similar to samples 1542 and 1544. Salmon pink with black phenocrysts. Cross-cut partially by a quartz and calcite vein1.5cm wide. Chalcopyrite is present as disseminations, stringers, and blebs. Malachite and azurite are also noted. No magnetite detected.				
344395	6224443	M01	Gail	684246	1547	Float	Quartz and calcite veins	FeOxid 5, Clay 3, CaCb3	Cpy <1, Bornite? <1	Cpy - diss, Bornite - diss	Taken in a 20m wide gossanous zone along the rigde simliar to the one where samples 1539 and 1540 are located. Abundant quartz and calcite veining and epidote alteration in the vacinity of the veins. Quartz veins and gossanous rock similar to samples 1539 and 1540. Malachite and azurite noted locally. Sulphides include chalcopyrite (<1%) and possible bornite (but may just be oxidized chalcopyrite).				
344336	6224521	M01	Gail	684246	1548	Outcrop	Quartz and calcite veins	FeOxid 5, Clay 4, CaCb 4	None	N/A	Quartz and calcite veining in a 10m wide gossanous zone similar to where samples 1539 and 1540 are located. Orientation of quartz veins is 232/60. Quartz veins are 1-5mm wide. No sulphides noted but the amount of gossanous material suggests so. No magentite detected. Intense iron oxidation, strong clay/argillic, and calcite in groundmass.	Vein (232/60)			
344324	6224525	M01	Gail	684246	1549	Outcrop	Altered granodiorite	FeOxid 5, Pot 2, CaCb 2	Py <1, Mal 1	Py - diss	Malachite and azurite staining on weathered surface. Fracture where sample taken from is 146/37 and 30cm wide. Similar to samples 1542, 1544, 1546. Malachite and azurite noted throughout. No magnetite detected. Very fine grained disseminated pyrite, no chalcopyrite detected.	Fracture (146/37)			

Cathedral Property
Rock Sample Descriptions

Location (UTM Zone 10 North NAD 83)							Description					XRF Analysis		Fire Assay
Easting	Northing	Map	Zone	Tenure	Sample No.	Sample Type	Lithology	Alteration	Sulphides (%)	Mineralization Style	Field Sample Descriptions	Structure	Cu ppm	As ppm	Au ppm
344253	6224593	M01	Gail	684246	1551	Float	Altered host rock	FeOxid 4, Clay 4, CaCb 3	None	N/A	Gossanous float as outcrop not reachable. Original host rock too altered to identify. Veins of quartz <5mm wide along with silification of host rock. Calcite in matrix. No sulphides visible but the amount of gossanous material in sample leads to the assumption there may be some too fine grained to see. No magnetite detected.				
344140	6224635	M01	Gail	684244	1552	Float	Feldspar breccia?	FeOxid 5, Pot 3	Py 7-15, Arseno or galena?? tr	Py - chunky to semi-massive, Arseno or galena - diss	Similar to samples 1541 and 1543. Possible feldspar grains up to 1cm in size within a dark grey to black groundmass. Pyrite is the dominant sulphide with possible arsenopyrite?? Or galena??. No chalcopyrite noted. No magnetite noted.				
344066	6224635	M01	Gail	684244	1553	Float	Gossanous material (possible quartz vein)	FeOxid 4, Sil 4	Cpy <1, Py <1	Cpy - diss, Py - diss	Similar to sample 1537. Silicified with quartz vein(s) but again strong overprint of gossanous material. Disseminated pyrite and chalcopyrite are noted.				
344031	6224708	M01	Gail	684227	1554	Float	Granodiorite	FeOxid 3, Pot 3, Epi 2	Cpy <1, Py <1	Cpy - diss, Py - diss	Host granodiorite with a crust of sulphides. Potassic and epidote alteration is present. Disseminated sulphides are also present within the host granodiorite. Pyrite is <1%, and chalcopyrite is <1%. No magnetite is observed.				
344056	6224784	M01	Gail	684227	1555	Float	Altered granodiorite	Pot 4, Epi 3, FeOxid 3	Cpy 1, Py 3-5	Cpy - diss, chunky, stringers, Py - chunky, diss	Pink with orangey brown colouration locally. Similar to sample 1542 but lacks malachite and azurite. Strong potassic alteration throughout sample along with epidote. Black hairline veinlets (chlorite?) throughout sample along with a slightly brecciated look. Sulphides inlclude chunky pyrite and possibly chalcopyrite along with disseminations and stringers. Non magnetic.				
344107	6224780	M01	Gail	684227	1556	Outcrop	Altered granodiorite	FeOxid 5, Pot 4, CaCb1	Cpy 1, Py 1-3, Mal <1	Cpy - diss, blebs, Py - diss, blebs	10m wide gossanous zone and eroded hillside. Sample taken from a small (<1m) sized outcrop jutting out of the hill. Strong iron oxidation and potassic alteration within host granodiorite siliar to samples 1542. Malachite and azurite noted locally. Blebby and disseminated chalcopyrite and pyrite. No magnetite detected.				
344313	6224842	M01	Gail	684229	1557	Outcrop	Quartz and calcite veins	FeOxid 4, Clay 4	None	N/A	Similar to samples 1539 and 1540. Quartz and calcite veins up to 1.5cm in width cross-cutting strongly alterted host rock. Original host rock obliterated. No sulphides or magnetite detected.				
344211	6224855	M01	Gail	684229	1558	Outcrop	Quartz and calcite veins	FeOxid 5, Clay 4	Mag <1	N/A	Similar to samples 1539 and 1540. Quartz and calcite veins up to 3mm. Weakly magnetitic locally. Strong gossanous material give indication of possible sulphides eroded away.				
344202	6224861	M01	Gail	684229	1559	Float	Altered granodiorite or Feldspar breccia?	FeOxid 4, Pot 4	Cpy <1, Py <1, Mal <1	Cpy - diss, Py - diss	Orange to dark brown weathered surface with pink feldspar and pale grey quartz grains within a dark grey to black groundmass. Similar to samples 1541, 1543, and 1552 but the feldspar are not as big and quartz is visible in this sample. Malachite and lesser azurite are noted. No magnetite detected. Sulphide mineralization includes disseminations of pyrite and chalcopyrite.				
344131	6224783	M01	Gail	684227	1560	Outcrop	Altered granodiorite	Pot 4, FeOxid 4	Cpy 1-3, Py <1	Cpy - chunky or blebs, diss, Py - diss	Similar to samples 1542, 1544, 1555, etc. Strong potassic and iron oxidation with malachite and chalcopyrite in granodiorite. Chalcopyrite generally localized to crustal area of rock with blebby to almost chunky style of mineralization.				
344014	6224785	M01	Gail	684227	1561	Outcrop	Altered granodiorite or possible more monzonitic?	Pot 3, Epi 3	Cpy 1, Mal <1	Cpy - diss	Dark brown weathered surface. Light green to pale pink with interstitial mafic minerals on fresh surface. Composition inlcudes 10-15% mafics (primarily amphibole), 70-80% feldspar and minor quartz. However potassic and epidote alteration make identification difficult. Malachite noted locally. Chalcopyrite can be seen disseminated throughout rock and appears to be localized near mafic minerals. No magnetite detected. Not really sure about the composition of this rock whether it is a granodiorite, as it appears less quartz rich and increased in feldspar.				
343978	6224778	M01	Gail	684227	1562	Outcrop	Massive magnetite feldspar breccia	Pot 4, FeOxid 3	Cpy <1, Py 1, Mag 30-50	Cpy - diss, chunky, Py - diss, chunky, stringer	Taken from what appears to be a magnetite vein cross-cutting granodiorite with strong potassic and epidote selvage. Very similar to feldspar breccias described above, but this samples' groundmass is strongly magnetic? Pink feldspar grains and pale grey quartz veins are within the magnetite groundmass. Sulphide mineralization consists of pyrite and chalcopyrite generally localized to the crust. One veinlet/stringer of pyrite (but very fine grained and could be chalcpyrite).				
343971	6224782	M01	Gail	684227	1563	Outcrop	Granodiorite	FeOxid 3, Pot 3	Cpy tr, Mal <1, Mag 1	Cpy - diss	Taken off of a fracture surface but cannot get orientation. Coarse granodiorite described above with sulphides localized to the crustal area of the sample (approximately 2cm thick). Malachite and azurite in small amounts. Sulphides are sparse and present disseminated within mafic grains.				
343866	6224796	M01	Gail	684227	1564	Outcrop	Monzonite	None	None	N/A	Lithology sample: Taken along the ridge and suggests a possible change in intrusive with this sample much less quartz rich than granodiorites described to the south. It is coarse grained with mafics composing 10% of primarily amphibole, feldspar compose >85% and only minor quartz. The feldspar grains appear to be about equal in potassic feldspar and plagioclase based on the light and white colourations but potassic alteration could be playing a role as well. No magnetite or sulphides noted.				
343832	6224797	M01	Gail	684227	1565	Outcrop	Quartz and calcite veins	FeOxid 4, Clay 4	None	N/A	Gossanous quartz and calcite veins. A very rough estimate of orientation is 236/56. Similar to ones described above. Veins up to 1cm wide.	Vein (236/56)			
343813	6224839	M01	Gail	684227	1566	Float	Granodiorite	Pot 3, FeOxid 1, Epi 2	Cpy <1, Mal <1	Cpy - diss	Medium grained granodiorite with composition as described above with very fine grained disseminated sulphides and malachite. Sulphides in this case are not mainly tied to mafic minerals but are observed throughout the rock with no preference in location.				
343808	6224846	M01	Gail	684227	1567	Outcrop	Monzonite?	Pot 3, Epi 2, FeOxid 2	Cpy tr, Py <1	Cpy - diss, stringer, Py - diss, stringer	Local iron oxidation present on the weathered surface. Cross-cut by 1mm quartz and calcite veinlets with epidote and potassic selvage. Composition look similar to sample 1564. Sulphides are disseminated within mafic grains, and in stringers.				
343798	6224836	M01	Gail	684227	1568	Outcrop	Silicified host granodiorite	Sil 5, FeOxid 2	Cpy and Py combined <1	Cpy - diss, Py - diss	Similar to sample 1545 and 1582. Light brown weathered surfcae. Medium grey fresh surface with texture bleached due to pervasive silicification of host rock likely from quartz veins. Very fine grained disseminated sulphides along with malachite and azurite locally. No magnetite noted.				
343753	6224879	M01	Gail	684227	1569	Float	Feldspar breccia?	Sil 4, FeOxid 3	Cpy <1, Py 1-3	Cpy - diss, Py - diss	Similar to samples described as feldspar breccias above. Pervasive silicification is throughout the sample. Potassic altered feldspar are within a dark grey to black groundmass.Pyrite and lesser chalcopyrite are disseminated and blebby. No magnetite detected.				
343724	6224859	M01	Gail	684227	1570	Float	Quartz vein and silicified host	FeOxid 4, Sil 4	Py <1	Py - vein	2cm wide pale grey quartz vein cutting through sample along with silicification and gossanous material. Indicates possible mineralization. Pyrite noted associated with quartz vein and possible chalcopyrite. Host rock texture obscured. No magnetite.				
343741	6224905	M01	Gail	684227	1571	Outcrop	Quartz veins in aplite	FeOxid 3, Pot 3, Sil 3	Py <1, Cpy tr	Py - diss, Cpy - diss	Orange and brown on weathered surface. Salmon pink with interstitial black grains on fresh surface. Multipe <=3mm pale grey quartz veins in potassically altered aplite. Aplite is strongly felsic (>50% quartz). Very fine grained disseminated sulphides of both pyrite and chalcopyrite. Could not get an orientation on the veins.				
343753	6224921	M01	Gail	684227	1572	Outcrop	Feldspar breccia?	FeOxid 2, Sil 3, Pot 3	Py 1, Cpy tr	Py - diss, blebs, Cpy - diss	Dark grey to black with pale pink feldspar and grey quartz grains. Not really sure what to make of this rock. The closest thing it resembles is the feldspar breccias. Fine grained disseminated and blebby sulphides are present throughout. Pyrite dominates with trace chalcopyrite. No magnetite detected.				
343756	6224914	M01	Gail	684227	1573	Float	Feldspar breccia?	FeOxid 5, Pot 2	Py 1	Py - chunky	Taken in an area with abundant float samples with a similar look up to 50cm boulders. Similar to sample 1552. Feldspar are a light orange to orangy pink. Pyrite is the dominant sulphide with no chalcopyrite spotted. Pyrite is localized more or less to a 2cm chunk. No magnetite detected.				
343770	6224959	M01	Gail	684227	1574	Outcrop	Altered granodiorite and extremely gossanous material	FeOxid 5	Cpy 1, Py 1, Mal 1	Cpy - diss, bleby, Py - diss, blebs	1m wide gossanous zone. An historic sample was taken here. Extremely gossanous sample with weathered out vugs (removed sulphides?) along with disseminations and blebs of chalcopyrite. One piece of sample is of lesser gossanous material showing host rock with malachite staining.				
343780	6224977	M01	Gail	684227	1576	Outcrop	Granodiorite	Pot 2, Epi 2	Mag 1	N/A	Lithology sample: Pink to white along with black phenocrysts make up fresh surface of the rock. It is coarse grained with the composition consisting of 10-15% mafics (primarily amphibole), 30% quartz, and 55-60% feldspar. Magnetite is 1%. Subtle potassic alteration and epidote mainly along more weathered fractured surface. No sulphides noted.				
343850	6225037	M01	Gail	684227	1577	Float	Altered granodiorite	Pot 2, Epi 2, FeOxid 1	Py 1	Py - chunky	Taken right below (1m from) outcrop so really couldn't be from anywhere else as this is the top of the hill but still technically float. A 1cm pale grey, massive quartz vein cross-cuts the sample. Host rock appears granodiorite but is strongly altered and difficult to tell. Potassic and epidote alteration is observed. Sulphides are localized near the quartz vein with pyrite the main constituent. No magnetite detected.				
343864	6225110	M01	Gail	684227	1578	Float	Gossanous material (possible aplite)	FeOxid 5, Pot 2	Py 5-7, Cpy tr	Py - blebs, chunks	Dark orange to brown weathered surface and throughout in colour. Strongly gossanous and oxidized. Weakly visible texture looks to be fine grained/aplitic. Sulphide mineralization is dominated by pyrite as blebs or chunks with trace chalcopyrite. Although with the strength of iron oxidation there may be more chalcopyrite. No magnetite.				

Cathedral Property
Rock Sample Descriptions

Location (UTM Zone 10 North NAD 83)							Description					XRF Analysis		Fire Assay
Easting	Northing	Map	Zone	Tenure	Sample No.	Sample Type	Lithology	Alteration	Sulphides (%)	Mineralization Style	Field Sample Descriptions	Structure	Cu ppm	As ppm	Au ppm
343871	6225092	M01	Gail	684227	1579	Float	Silicified material	FeOxid 4, Sil 5	Py 1, Cpy tr	Py - diss, Cpy - diss	Orange to brown on weathered surface and pale grey on fresh surface. Similar to sample 1568 and others with similar silicification. Original host texture is bleached and obscured. Disseminated fine grained pyrite and chalcopyrite. Voids or vugs present that indicate weathered out sulphides.				
344087	6225218	M01	Gail	684227	1581	Outcrop	Aplite	Hem <1, Sil 3	Cpy and Py combined <1	Cpy - diss, Py - diss	Taken where the historic sample was indicated. The sample is within a 15m wide aplitic dyke that cross-cuts the ridge. A 2m wide gossanous zone is within the dyke where the sample was taken. No orientation could be taken. Light brown weathered surface and a medium grey fresh surface. Hematite is noted along fresh surfaces. Texture is very fine grained (aplitic). Weak potassic alteration. Trace disseminated sulphides appears chalcopyrite but so small difficult to dicepher. No magnetite detected.				
343210	6224132	M01	Gail	684244	1582	Outcrop	Silicified host granodiorite	Sil 5, FeOxid 2	Cpy <1, Py <1	Cpy - diss, chunky, Py - diss, chunky	Orange and brown weathered surface and white fresh surface. Silicified with grain texture too fine grained and bleached to see. Appears to be a silicified portion of the host rock. Weathered out sulphides (vugs) are present as well as disseminated and chunky chalcopyrite (<1%) and pyrite (<1%). The host rock nearby is granodiorite with large (<=5mm) biotite. No magnetite present.				
343244	6224188	M01	Gail	684244	1583	Float	Granodiorite	FeOxid 1	Cpy <1, Mal <1	Cpy - diss, blebs	White weathered and light grey fresh surface. Appears to be a fine grained version of granodiorite. Alteration is not apparent (fresh rock) other than locally a orange brown spot. The majority of mineralization is located in the 5x5 and 2cm (into rock) area with malachite and chalcopyrite (<1%). Chalcopyrite is also noted as very fine grained disseminations in host.				
343197	6224247	M01	Gail	684244	1584	Outcrop	Quartz vein in host granodiorite	Pot 4, Epi 4	Cpy <1, Mal 1	Cpy - quartz vein	A 1.5 cm wide pale grey quartz vein cross-cutting granodiorite. Strong potassic and epidote alteration are associated with the vein. Malachite and azurite staining are present. Very fine grained disseminated chalcopyrite is within the quartz vein. No magnetite detected.				
343171	6224290	M01	Gail	684244	1585	Outcrop	Aplite dyke	Pot 2, CaCb 2	Cpy and/or Py combined <1	Cpy or Py - diss	3m wide and oriented 170/72. Aplitic texture and pale pink in colour. Quartz rich. Very fine grained disseminated sulphides. Malachite locally.	Dyke (170/72)			
343185	6224330	M01	Gail	684244	1586	Outcrop	Aplite dyke	FeOxid 3, Pot 2, CaCb 2	Cpy and/or Py combined <1	Cpy or Py - diss	1m wide couldn't get an orientation. As described in sample 1585.				
343101	6224217	M01	Gail	684244	1587	Outcrop	Quartz vein in host granodiorite	Pot 2, FeOxid 3	Py 1, Cpy tr	Py - diss, Cpy - diss	Granodiorite with 5mm wide pale grey quartz vein cross-cutting. Potassic selvage assoicated with vein. Very fine grained sulphides are precipitated within vein as well as localized towards the crustal part of the sample. Appears to be primarily pyrite with trace chalcopyrite. No magnetite detected.				
343096	6224392	M01	Gail	684244	1588	Subcrop	Feldspar breccia?	Pot 2, Epi 2	Cpy <1, Py <1	Cpy - diss, blebs, Py - diss, blebs	Some sort of feldspar (pink grains) breccia within host granodiorite or possibly the granodiorite intruded into the breccia. Very similar to samples 1541, 1552, 1569, 1572, and 1573. Very fine grained disseminations as well as blebby sulphides in black groundmass. Epidote alteration noted locally and with a vein/fracture cross-cutting sample.				
343120	6224457	M01	Gail	684244	1589	Outcrop	Quartz veins in granodiorite	Pot 3, Sil 2	None	N/A	2 pale grey quartz veins <=5mm intruding medium grained granodiorite. Potassic alteration is present throughout. Sample does not have visible sulphides but was taken to test the quartz veins.				
343215	6224542	M01	Gail	684244	1590	Outcrop	Quartz Vein	None	None	N/A	2m wide pale grey, massive quartz vein perpendicular to ridge. No sulphides visible.				
343108	6224597	M01	Gail	684244	1591	Outcrop	Granodiorite	Pot 2	Py tr	Py - veins	Quartz veins (6) in granodiorite ranging from <1mm to 6mm in width. Outcrop has abundant quartz veins <=1cm in width generally striking N/S and dipping west. Potassic selvage is associated with veins. Trace vein hosted sulphides are observed. No magnetite.	Approximately N/S and dipping west			
343504	6224525	M01	Gail	684244	1592	Float	Unknown	Epi 4, CaCb 2	Mal <1, Py tr	Py - diss	Taken where historic samples believed to be. A few specks of azurite noted and tracae sulphides. Strong epidote alteration. Original host rock is obscured and cannot be identified. No magnetite.				
343511	6224493	M01	Gail	684244	1593	Float	Feldspar breccia?	FeOxid 4, Pot 1	Py tr	Py - diss	Taken where historic samples believed to be. Although strongly weathered it appears to be similar to the feldspar breccias described above. Gossanous and vuggy where it indicates weathered out sulphides. No magnetite detected.				
343537	6224494	M01	Gail	684244	1594	Float	Unknown	FeOxid 2, CaCb 2	Cpy <1	Cpy - diss	Taken where historic samples believed to be. Similar to sample 1592 in that the original texture is either obscured or too fine grained to see. A cavity of calcite is present apon breaking open. Very fine grained disseminated chalcopyrite observed. No magnetite detected.				
343557	6224646	M01	Gail	684244	1595	Outcrop	Altered granodiorite	FeOxid 3, CaCb 3	Cpy <1, Py <1, Mal <1	Cpy - diss, Py - diss	Granodiorite with disseminated pyrite and chalcopyrite along with malachite. Taken at a spot where overhanging the cliff is a 50cm wide malachite and azurite stain that could not be reached (picture taken).				
343690	6224688	M01	Gail	684227	1596	Outcrop	Aplite dyke	Sil 3, FeOxid 4	Py <1	Py - diss, stringers	Colour is dark orange to brown on the weathered side and medium grey on the fresh side. 10-15m wide aplitic area trending N/S but couldn't get a dip. Sample is silicified and bleached which obscures the texture. Sulphides are primarily disseminated pyrite as well as stringers. Sample is a silicified or bleached aplite.				
343933	6224583	M01	Gail	684244	1597	Outcrop	Granodiorite	Pot 1	Mag 1-3	N/A	Lithology sample: Fine to coarse grained with amphibole the primary mafic mineral and overall is granodiorite in composition. Subtle potassic alteration near crust. Magnetite is 1-3%.				
344202	6224500	M01	Gail	684246	1598	Outcrop	Feldspar breccia?	Pot 4, CaCb 3	Mal 1, Mag 1	N/A	Similar to samples including 1541, etc. Malachite staining locally. Magnetite locally within sample and 1% overall.				
344239	6224495	M01	Gail	684246	1599	Outcrop	Quartz and calcite veins	FeOxid 3	None	N/A	Quartz veins are <=1.5cm in host granodiorite. Gossanous outcrop with veins cross-cutting. Similar to what was described in samples 1539, 1540, 1557, and 1558. No sulphides or magnetite detected.	Quartz veins (240/78)			
340516	6226436	M01	Gail North	684225	1600	Outcrop	Granodiorite	Pot 2, Chl 1, FeOx 1	Py 1, Cpy tr	Py and Cpy D	Light brown weathered surface and medium grey fresh surface. <1cm wide quartz veins with blocky crystals and sulphides. Crosscutting granodiorite (medium grained). Localized weak potassic alteration. Sulphides are mainly hosted in the quartz veins and some disseminated with 1% pyrite and trace chalcopyrite.				
340536	6226167	M01	Gail North	684225	1601	Float	Gossanous Float	FeOxid 2	Py 1, Cpy Tr, Mag 1	Py D, Cpy D	Gossanous float. Extremely rich in mafics, difficult to tell original composition. Amphibole and biotite present. Coarse grained. Magnetite locally 1%. Weathered to orange brown or grey. Fresh surface is black. Pyrite is 1% and disseminated. Chalcopyrite is trace and disseminated.				
340457	6226425	M01	Gail North	684225	1602	Outcrop	Diorite?	FeOxid 3	None	N/A	Took sample from a gossanous fracture plane (couldn't get a measurement). About 3 inches wide. Right near spot that graded 0.42 historically, but couldn't find sulphides. Very coarse grained with mafics (amphibole?) up to 1cm wide. Non-magnetic. About 50% mafics and about 50% plagioclase.				
340536	6226143	M01	Gail North	684225	1603	Outcrop	Quartz monzonite	FeOx 2, Chl 1	Py 1, Cpy <1, Mag 3-5	Py and Cpy D	Outcrop of host rock with mineralization. Weathered to brown. Fresh surface is grey/green. Medium to coarse grained. Contains 15-20% mafics, 70% feldspar and 10-15% quartz. Magnetite is 3-5%. Quartz/calcite veins are <1mm wide. Pyrite is 1% disseminated and chalcopyrite is <1% also disseminated.				
340544	6226551	M01	Gail North	684225	1605	Outcrop	Quartz monzonite	Pot 4, Epi 1	Py <1, Mag <1, Cpy <1, Mal <1	Py and Cpy D	Malachite and azurite staining with rustic orange/red weathered surface. Fresh surface is beige to salmon pink. Coarse grained. Composed of 80% feldspar, 5-10% mafics and 10-15% quartz. Potassic alteration is strong, epidote is weak. Pyrite is disseminated, fine grained and <1%. Pyrite is concentrated in the altered portion of the rock. Malachite is <1%. Chalcopyrite is very fine grained and disseminated. Magnetite <1%.				
340576	6226595	M01	Gail North	684225	1606	Subcrop	Quartz monzonite	Chl 1, Pot 1	Py 1, Mag 1	Py D	At the bottom of the hill ~30m from the outcrop. Sample taken off a 1m sized boulder. Has to come from outcrop. Sample is weathered to orange brown. Fresh surface is light greyish orange. Medium to coarse grained. Magnetite is 1%. Composed of 20% mafics, 70% feldspar and 10% quartz. Very weak chlorite and potassic alteration. Pyrite is 1% and disseminated in quartz veins (<2mm wide). No chalcopyrite noted.				
340527	6226107	M01	Gail North	684225	1607	Outcrop	Quartz monzonite	Pot 3	Py <1	Py BL	Outcrop. Weathered to brown, fresh surface is pale to medium pink. Medium grained and composed of 15% mafics (appear to be amphibole), 5-10% quartz and 75-80% feldspar. Potassic alteration is moderate. Pyrite is blebby and <1%. No chalcopyrite noted.				
340026	6226364	M01	Gail North	684224	1608	Outcrop	Aplite Dyke	Pot 1, CaCb 1	None	N/A	LITHO- Looks like an aplite dyke or big ridge that looked gossanous from down below, but up on the ridge it just looks orange and like a lot of it is aplite. Fine grained, can't tell composition but seems to have a lot of plagioclase (maybe some potassium feldspar or potassic alteration) and small specks of mafics. Easily scratched, non-magnetic. Surrounding rock looks like granodiorite. No sulphides seen.				
340536	6226106	M01	Gail North	684225	1609	Float	Gossanous quartz monzonite	Pot 3	Py 1, Mag 1, Cpy tr	Py and Cpy D	Gossanous float right below outcrop. Chalcopyrite and pyrite present. Weathered surface is red/brown in colour. Fresh surface is light to medium pink. Medium to coarse grained. 20% mafics, 10% quartz and 70% feldspar. Potassic alteration is moderate to locally strong. Pyrite is disseminated and 1% and chalcopyrite is trace, very fine grained and disseminated. Sulphides appear to be associated with mafics. Magnetite is 1%.				
340558	6226720	M01	Gail North	684225	1610	Outcrop	Gossanous quartz monzonite	FeOx 1	Py Tr	Py D	LITHO- Weathered to orange. Fresh surface is medium grey and medium to coarse grained. This rock appears to have more quartz than others in this area. Composed of 15-20% mafics (amphibole and biotite), 15-20% quartz and 60-70% feldspar. Very fine grained, disseminated pyrite is trace. 1% magnetite. Iron oxide is weak.				
340539	6226095	M01	Gail North	684225	1611	Outcrop	Gossanous quartz monzonite	Pot 3, Epi 4	Py 1	Py D	Gossanous outcrop. Weathered to red/orange and brown. Fresh surface is very pale green. Mafics are 20-25%, quartz is 10% and feldspar is 65-70% in abundance. Potassic alteration is moderate and epidote is strong. Pyrite is fine grained and disseminated. Pyrite is 1%. No chalcopyrite noted. Non-magnetic.				
340559	6226758	M01	Gail North	684225	1612	Outcrop	Quartz vein	FeOx 4	Py 1	Py D	Taken from a 13cm wide quartz vein with orientation 116/72 roughly. Gossanous. Weathered to orange/brown. Fresh surface is orange and reddish. Quartz vein ~1cm wide. Original composition obscured. Non-magnetic. Iron oxide alteration is strong. Pyrite is disseminated and ~1%, mostly on weathered surface.	116/72			

Cathedral Property
Rock Sample Descriptions

Location (UTM Zone 10 North NAD 83)							Description						XRF Analysis		Fire Assay
Easting	Northing	Map	Zone	Tenure	Sample No.	Sample Type	Lithology	Alteration	Sulphides (%)	Mineralization Style	Field Sample Descriptions	Structure	Cu ppm	As ppm	Au ppm
340040	6226339	M01	Gail North	684224	1613	Outcrop	Quartz monzonite	Chl 2, Pot 2	Mag 1-3	N/A	LITHO- Chloritized granodiorite on the ridge right near contact with another, smaller aplite dyke striking ~254. Could not determine dip. Weathered surface is dark green. Fresh surface is beige and greenish black. Medium to coarse grained. Mafics are 15-20% (amphibole>biotite), feldspar is 70%, and quartz is 10-15%. Mafics are altered by chlorite. Potassic alteration is subtle. No sulphides noted. Magnetite is 1-3%.	254			
340155	6226319	M01	Gail North	684224	1614	Float	Gossanous float	Chl 5, Epi 3, Pot 2	Py 1	Py D	Gossanous float below the ridge. Weathered to dark red/brown. Fresh surface is light and dark green. Original composition is obscured by alteration. Chlorite alteration is strong to intense. Epidote and potassic alteration are moderate. Pyrite is 1% and diseminated on the weathered surfaces. Non-magnetic.				
340620	6226773	M01	Gail North	684225	1615	Float	Gossanous float	Chl 4, Pot 4, FeOx 3	Py 1	Py D	Weathered to brown. Fresh surface is green. Strong chlorite alteration. Feldspar still visible and about 50-60%, but the rest of the composition is obscured by chlorite and potassic alteration. Potassic alteration is moderate to strong. Iron oxide alteration is moderate. Pyrite is 1% and diseminated, associated with iron oxide. Non-magnetic.				
340308	6226293	M01	Gail North	684224	1616	Float	Volcanic?	Chl 5	Py 1-3	Py D	Weathered to red/brown. Fresh surface is dark green and aphanitic. Chlorite alteration is intense. Quartz veins are up to 5mm wide and contain sulphide mineralization. Non-magnetic. Pyrite is 1-3% and present within quartz veins and very fine grained, disseminated in groundmass. No chalcopyrite noted. Original composition is obscured by alteration.				
340580	6226046	M01	Gail North	684225	1617	Outcrop	Gossanous quartz monzonite	Pot 3, Epi 3, Chl 1	Py 1-3, Cpy <1	Py and Cpy D	Outcrop with gossan. Weathered to red/brown. Fresh surface is salmon pink and black. Medium grained. Contains 15-20% mafics, 70% feldspar and 10-15% quartz. Subtle chlorite alters mafics. Potassic and epidote alteration are moderate. Pyrite 1-3% and chalcopyrite <1%, both disseminated.				
340734	6226887	M01	Gail North	684225	1618	Float	Quartz monzonite	Chl 3, Pot 2	Py <1	Py D	As described in 1615, but there is more feldspar in this sample. Feldspar is 70%. Sulphides include <1% disseminated pyrite. Some pyrite is disseminated in quartz veins up to 3mm wide.				
340729	6226900	M01	Gail North	684225	1619	Float	Gosanous quartz monzonite	Chl 4, Pot 2, Epi 2	Py 1	Py D	Weathered and fresh surfaces are red/brown or dark green. Composition is somewhat obscured. Mafics are ~20%, feldspar is 70% and quartz is 10%. Chlorite is locally intense. Potassic alteration is weak. Pyrite is contained within iron oxide alteration. Pyrite is 1% in abundance.				
340532	6226194	M01	Gail North	684225	1620	Float	Gosanous quartz monzonite	Chl 3, Pot 3	Py Tr	Py D	Weathered to orange brown. Fresh surface is dark pink and greenish black. Mafics are ~20%, feldspar is 70% and quartz is 10%. Magnetite is 1-3%. Pyrite is trace and disseminated. Chlorite and potassic alteration are moderate.				
340616	6226058	M01	Gail North	684225	1621	Float	Gossanous Float	FeOx 2, Chl 1, Pot 3, Epi 2	Py 5-7, Cpy 1	Py and Cpy D	Gossanous float. As described in sample 1617. Pyrite is 5-7% and chalcopyrite is 1%, both disseminated.				
340603	6226181	M01	Gail North	684225	1623	Float	Gossanous quartz monzonite	FeOx 1, Chl 2, Epi 2, Pot 2	Py <1	Py D	Gossanous float taken from a huge angular boulder (~3x2m, way bigger than most other boulders around it). The boulder is a coarse grained , non-magnetic granodiorite with some aplite veining and a gossanous stained area ~6 inches wide where the sample was taken from. As described in 1617, but here there is a zone of epidote alteration. Pyrite is disseminated (mostly with mafics) and <1%.				
340695	6226057	M01	Gail North	684225	1624	Float	Gossanous Float	Epi 5, Pot 2	Py 7-15	Py D and blebby	Gossanous float with some sort of silvery gold mineral (mostly likely pyrite, could contain some muscovite?). Within an epidote vein. Pistachio green to reddish pink in colour. Surrounding rock is potassic altered granodiorite. Vein contains 7-15% pyrite, disseminated and blebby.				
340878	6226190	M01	Gail North	684225	1625	Outcrop	Monzonite	Chl 4, Pot 1	None	N/A	LITHO- Coarse grained granodiorite(?) from a big outcrop. Lots of mafics, ~3-5% magnetite and large biotite flakes. Fresh and weathered surfaces are dark grey green. Very coarse grained. Mafics are ~25-30%, feldspar is 70% and quartz is ~5%. No sulphides noted. Chlorite alteration is strong, altering mafics and feldspars.				
341236	6226949	M01	Gail North	684225	1626	Float	Quartz monzonite	Chl 2, Pot 1	Mal 1-3	Mal blebby	This sample seems to be low in mafics compared to most in the same area. Weathered to white and light pink. Fresh surface is white and black. Composed of 5% mafics, 80% felspar and 15% quartz. Chlorite has altered the mafics. Potassic alteration is subtle. Malachite staining is blebby, <2mm in size and throughout the rock ~1-3%.				
341256	6226943	M01	Gail North	684225	1627	Float	Gossanous float	FeOx 3, Pot 3, Chl 1	Py Tr, Mag 1-3, Mal 1-3	Py D, Mal staining	Weathered to reddish brown. Fresh surface is orangey green. Composition mostly obscured but weathering and alteration. Iron oxide is moderate, potassium is moderate and chlorite is weak. Malachite staining is present on the weathered surface at 1-3%. Trace pyrite is disseminated. Magnetite is locally 1-3%.				
341413	6226909	M01	Gail North	684225	1628	Float	Monzonite	Chl 2, FeOx 3	Mal 1, Mag 1-3	Mal staining	Weathered to red brown, fresh surface is light to medium grey. Medium grained. Contains 5-10% mafics, 5-10% quartz and 80-90% feldspar. Chlorite alteration is subtle and iron oxide is moderate. Malachite staining is ~1% on the weathered surface. No sulphides noted. Magnetite is 1-3%.				
340731	6226225	M01	Gail North	684225	1629	Float	Gossanous granodiorite?	Chl 4, Pot 2	Mag 3-5, Py 1-3	Py blebs	As previously described in sample 1615. Here there are blebs of magnetite with pyrite. Magnetite is 3-5% and pyrite is 1-3%. Chlorite alteration is strong and potassic is subtle to moderate.				
341572	6226914	M01	Gail North	684225	1630	Float	Monzonite	Pot 2	Mal 3-5	Mal blebs and staining	Weathered to brown/beige, fresh surface is beige. Fine to medium grained. Mafics are 5-10%, quartz is minimal at <5% and feldspar is 85-90%. Potassic alteration is subtle. Malachite is present in blebs in the groundmass and as staining on the weathered surface. Malachite is 3-5%. No sulphides noted.				
344481	6225194	M01	Gail	684229	1631	Float	Quartz monzonite	Pot 3, Chl 4	Cpy 1-3, Mal <1	Cpy D, Mal staining	Weathered to red/brown or pinkish green. Fresh surface is salmon pink and green. Medium to coarse grained. Difficult to tell composition as there is a lot of alteration. Roughly 30% mafics, 5% quartz and 65% feldspar. Potassic alteration is moderate to strong and chlorite is strong. Chalcopyrite is disseminated and 1-3%. Possible malachite staining, <1% on weathered surface.				
344035	6224699	M01	Gail	684227	1632	Float	Gossanous volcanic?	Chl 5	Py 1, Cpy Tr	Py D and B, Cpy D	Weathered to red/brown. Fresh surface is dark green. Original composition is obscured by alteration. Chlorite alteration is intense. Some feldspar visible, difficult to get a percentage. Pyrite is disseminated, banded and ~1%. Possible trace, disseminated chalcopyrite. Non-magnetic.				
344040	6224710	M01	Gail	684227	1633	Float	Quartz monzonite	FeOx 1, Pot 2, Chl 3	Py <1%	Py D	Weathered to brown/red. Fresh surface is red and black. Medium to coarse grained. Composed of 20% mafics (altered by chlorite), 10% quartz and 70% feldspar (cannot determine between plagioclase and potassium feldspar due to potassic alteration). Chlorite alteration is moderate and potassic alteration is subtle. Non-magnetic. Pyrite is very fine grained and disseminated, <1%. Pyrite is concentrated with iron carbonate alteration mostly.				
344032	6224606	M01	Gail	684244	1634	Float	Volcanic?	Chl 5	Py 1, Cpy Tr	Py B, Cpy D	As described in 1632, except here there are less plagioclase crystals visible (<10% approximately). Dark green with intense chlorite alteration. Non-magnetic. Pyrite is banded, up to 3mm wide and 1% in abundance. Chalcopyrite is trace and disseminated with pyrite bands.				
344487	6225279	M01	Gail	684229	1635	Outcrop	Quartz vein	FeOx 3	Mal 1-3	Mal staining and blebs	Weathered to orange and beige. Fresh surface is beige to pale grey. Appears to be a quartz vein. Feldspar present within vein (probably plagioclase). Iron carbonate is moderate. Malachite staining is present on the weathered surface, and rarely within the vein as blebs. Malachite is 1-3%.				
343994	6224675	M01	Gail	684227	1636	Float	Volcanic	Chl 5	Py 3-5, Cpy Tr	Py B, Cpy D	As previously described in sample 1634. Pyrite banding is <5mm thick and 3-5%. Trace chalcopyrite disseminated in pyrite bands.				
343977	6224672	M01	Gail	684244	1637	Outcrop	Granodiorite?	Chl 3, Pot 2	Py Tr	Py FF	Weathered to brown, fresh surface is white and green. Medium to coarse grained. Composition difficult to tell but, mafics ~10% (mostly biotite), quartz 20% and feldspar 70%. Chlorite alteration is moderate and potassic alteration is subtle. Trace pyrite noted in fractures.				
343979	6224690	M01	Gail	684227	1638	Float	Quartz monzonite	Chl 3, Pot 4, FeOx 3	Py 1	Py D	As described in sample 1633. Chlorite alteration is moderate and potassic alteration is strong. Iron carbonate alteration is moderate and mostly in fractures. Pyrite is disseminated and 1%, fine to medium grained. No chalcopyrite noted.				
344374	6224877	M01	Gail	684229	1639	Outcrop	Chlorite and epidote altered rock	Chl 3, Epi 3, FeOx 1	Py <1	Py D	Weathered to light beige/green. Fresh surface is light green. Chlorite and epidote alteration are moderate. Difficult to tell composition due to alteration. Weak iron carbonate in fractures. Pyrite is disseminated and <1%.				
344706	6224772	M01	Gail	684229	1640	Outcrop	Gossanous malachite-rich fine-grained granodiorite	FeOxid 2, Pot 1 in parts of sample	Mal 3-5, Py 1	Mal staining, Py D in old quartz vein/vugs	Took an outcrop sample of what looked to be potassically-altered granodiorite with brown staining, but when it was hit open it had significant malachite in it. The weathered surface is red-pink to brown-grey and the fresh surface is dark grey (the rock looks mafic-rich). It looks like an altered fine-to-medium-grained mafic-rich igneous rock composed of ~35% mafics , ~50% plagioclase (no K-spar seen), and ~25% quartz. There is only a small amount of magnetite on an oxidized corner (about 1% in total). No pyrite was seen in the groundmass, but there is a bit of pyrite disseminated in red-purple vugs that look like they have remnant quartz in then, maybe old quartz veins ~1cm wide or so (the pyrite is only in about 1% of the sample). Malachite staining is all over the sample in ~3-5% of the rock. No acid reaction was seen, even on the malachite surfaces.				
344716	6224760	M01	Gail	684229	1641	Outcrop	Granodiorite(?)	FeOxid 1, Pot 1, Chl 1(?)	Mag 1-3	N/A	LITHO - Took a sample of outcrop on the same ridge/knoll that trends north-south that sample 1640 was taken on. The weathered surface is brown-grey and the fresh surface is light grey to pink. It seems to be slightly different than sample 1640, possibly just because of less alteration. It is a fine-to-medium-grained intrusive rock with larger mafic minerals than felsic minerals. It contains ~50% plagioclase (some K-spar that could be alteration), ~25-30% mafic minerals (amphibole and tabular biotite crystals oriented in all directions - looks like the melt could have been quenched or something), and ~20-25% quartz. There are no sulphides noted, although there are small gossanous areas around the crust that could contain weathered out sulphides that are invisible. It contains ~1-3% magnetite and there is no acid reaction. There are a few green circles in the sample as well that look like quartz eyes but are scratchable. Could be chlorite alteration.				

Cathedral Property
Rock Sample Descriptions

Location (UTM Zone 10 North NAD 83)							Description						XRF Analysis		Fire Assay
Easting	Northing	Map	Zone	Tenure	Sample No.	Sample Type	Lithology	Alteration	Sulphides (%)	Mineralization Style	Field Sample Descriptions	Structure	Cu ppm	As ppm	Au ppm
344699	6224840	M01	Gail	684229	1642	Outcrop	Malachite-rich gossanous outcrop	FeOxid 4, Pot 1 on a piece of unoxidized crust, CaCb 1 (mostly reacts near mal/az)	Mal/Az 7-15	Mal/Az staining	Took a sample from a gossanous stained part of an outcrop that looks like it could be a fracture zone about 3 inches thick. The weathered surface is red-orange to purple and there isn't really a fresh surface (mostly green from malachite staining and then black), but there is a small section of fresh surface that looks like a coarse-grained granodiorite similar to sample 1453 from yesterday and from other samples seen today (coarser-grained than samples 1640 and 1641 though). The original composition is mostly obscured by weathering and alteration. It contains malachite/azurite staining in ~7-15% of the sample, and no pyrite is seen but it's likely that there is weathered pyrite in the orange to purple crust of the sample. No magnetism is noted.				
344524	6224820	M01	Gail	684229	1643	Outcrop	Very coarse-grained granodiorite	FeOxid 1, Pot 2, CaCb 3, Chl 1(?)	Mag 7-15	N/A	LITHO - Walked north along the ridge of granodiorite that had some malachite-stained gossanous material, and then west along another granodiorite outcrop with no gossanous areas (some small aplitic areas). Took a lithosample of a coarse-grained, potassically-altered, coarse-grained granodiorite from outcrop on the northwest side of the small lake. The weathered surface is beige-orange and the fresh surfaec is dark grey/black to pink. It is very coarse-grained and contains ~40% mafics (biotite, some amphibole and magnetite), ~45-50% plagioclase and ~10-15% quartz. There is magnetite in about 7-15% of the sample and there is a strong acid reaction (possibly because the rock is along a fracture zone). No sulphides are noted. A fracture measurement was taken from the cleaner fracture surface just to the north of the fracture where the sample was taken, and it ran at 070/65.	Fracture measurement at 070/65.			
344312	6224778	M01	Gail	684229	1644	Outcrop	Gossanous granodiorite	FeOxid 2, Pot 2, CaCb 1	Mag 1, Mal 1, Cpy 1-3, Py 1	Mal staining, Cpy D and blebby (semi-massive on the oxidized crust), Py D (not in groundmass)	Took a sample from a gossanous stained area of rock ~1m high and ~1/2m wide under an overhand in a coarse-grained potassically altered granodiorite. The weathered surface is red-purple and the fresh surface is pink-grey. Some of the original composition is obscured but it looks like it has ~20% mafics (mostly biotite, some amphibole possibly), ~60% feldspar (mostly K-spar but it could be alteration), and ~15% quartz. It is medium-to-coarse-grained and the groundmass is non-magnetic but there is some magnetite in what looks like veinlets (in about 1% of the rock in total). Malachite staining is present in ~1% of the rock, and chalcopyrite blebs are present as well. There is about 1% disseminated pyrite, but none in the groundmass.				
344304	6224785	M01	Gail	684229	1645	Outcrop	Gossanous outcrop	FeOxid 3, Pot 1, CaCb 1	Mal 1-3, Py 1-3, Cpy Tr, Possible Bornite Tr	Mal staining, Py D and concentrated in oxidized crust, Cpy D and concentrated in oxidized crust, Bornite one speck(?)	Took a sample from a gossanous stained outcrop a few metres northwest of sample 1644. The gossanous stained area is ~2m high by ~1m wide. The weathered surface is red-purple to orange and the "fresh" surface (not very much of it at all) is dark grey to pink. The original composition is obscured by weathering and oxidation but it is likely the same as sample 1644. Malachite staining is present in ~1-3% of the sample, and pyrite is disseminated and concentrated in the oxidized crust in ~1% of the sample. There is trace chalcopyrite as well. The rock is non-magnetic and there are small crystals of calcite as well as CaCb alteration in the groundmass. There is also possible trace bornite (purple areas of the rock).				
344389	6224957	M01	Gail	684229	1646	Outcrop	Gossanous granodiorite	FeOxid 2, Pot 1, Chl 1	Py ~1, Cpy Tr	Py on oxidized crust, Cpy D on crust	Took a sample from a gossanous zone of outcrop ~10 inches wide and ~20 inches high. The weathered surface is orange to red and the fresh surface is a medium grey colour. It looks like a fine-to-medium-grained granodiorite with ~20-25% mafics (mostly biotite, some amphibole, some magnetite), ~60-65% feldspar (mostly plagioclase, some K-spar that could be alteration), and ~10-20% quartz. Magnetite is present in ~1-3% of the groundmass (none on the oxidized crust), and pyrite is present in about 1% of the rock but only on the oxidized crust (none in the groundmass). There is also possible trace chalcopyrite. (Both samples 1646 and 1647 are in a dip between two ridges of coarse-grained granodiorite, so this is the main rock type in the area.)				
344420	6224972	M01	Gail	684229	1647	Outcrop	Gossanous outcrop	FeOxid 5, Chl 1	Py 1-3, Cpy 1-3	Py D, Cpy D	Took a sample from an irregular gossanous fracture zone (couldn't get a good measurement, too irregular) that is about 1 foot wide and goes up at least 3 metres. The sample was taken just to the northeast of sample 1646 (same outcrop likely - just on the other side of the little gully). The weathered surface is dark red-purple to orange and the fresh surface (what's left of it) is dark grey-green, aphanitic and non-magnetic. The original composition is obscured by weathering and alteration but all around it is coarse-grained granodiorite and a small chloritized volcanic dyke is near it as well. Pyrite is disseminated in ~1-3% of the groundmass and chalcopyrite (the purple stuff I think is weathered chalcopyrite) is disseminated in ~1-3% of the groundmass as well. Possibly granodiorite.				
344384	6224966	M01	Gail	684229	1648	Outcrop	Gossanous outcrop	FeOxid 4, Chl 3(?)	Py 3-5, Cpy 1	Py D and in veinlets, Cpy D and in veinlets	Took a sample from a gossanous fracture plane ~4-5cm wide - the fracture plane measures at 190/80 (very steeply dipping, just popping out of the knoll between the two ridges near where 1646 and 1647 were taken). The weathered surface is red-purple to orange and the fresh surface is dark green-grey (looks chloritized). The original composition is obscured by weathering and alteration but it's aphanitic, chloritized and scratchable. No magnetism is noted and there is no acid reaction present. There is fine-grained pyrite disseminated in ~3-5% of the sample and in veinlets. Chalcopyrite is the same but there is ~1% or less of it. No malachite or azurite are seen in the sample. (Note: all around it looks like a chloritized volcanic before it's granodiorite again.)				
343959	6224820	M01	Gail	684227	1649	Outcrop	Gossanous granodiorite	FeOxid 3, Pot 2, CaCb 1, Chl 1(?)	Mag 3-5, Mal 1	Mal staining	Took a sample from an outcrop right around where a sample was taken historically that graded 0.54/0.05 (the only gossanous outcrop seen in the surrounding area). The weathered surface is beige to orange-red and the fresh surface is grey-pink. It is a coarse-grained granodiorite with ~25% mafics, ~60% feldspar (mostly K-spar, although it could be alteration), and ~15% quartz. There is magnetite present in ~3-5% of the groundmass and ~1% malachite staining. No sulphides are noted.				
343952	6224849	M01	Gail	684227	1650	Float	Gossanous float (granodiorite)	FeOxid 3, Pot 3, CaCb 3	Mag 1, Mal 3-5, Cpy 1-3, Py Tr	Mal staining, Cpy blebby and D, Py blebby and D	Took a float sample (likely subcrop, as it is right under a ridge, but could not figure out where on the small ridge it was coming from) w/ a coarse-grained potassically altered granodiorite on the west side/ridge. The weathered surface is dark red-purple to orange and there isn't really a fresh surface but it seems to be grey-pink, similar to sample 1649. The original composition is mostly obscured by weathering and alteration but it seems to be a coarse-grained, potassically altered granodiorite (the same as sample 1649). There is at least an inch of dark red gossanous crust on the sample. Magnetism is only very local and in about 1% of the sample. There is malachite staining in ~3-5% of the sample and chalcopyrite is present in large blebs (~1cm by 3cm) and is also very fine-grained and concentrated in the groundmass near the oxidized crust (~1-3% of the sample). Pyrite is trace and in the same form as chalcopyrite.				
344106	6224927	M01	Gail	684227	1651	Outcrop	Gossanous outcrop (granodiorite)	FeOxid 3, Pot 3	Py 1-3, Cpy 3-5, Mal 1-3	Py D, Cpy D and in veinlets, Mal staining	Took a sample from a gossan-stained area of outcrop (the stained area is about 1m wide by 2m tall) within variably potassic coarse-grained granodiorite. The weathered surface is orange-red and the fresh surface is grey to pink. The original composition is mostly obscured by weathering and oxidation but it seems to be a medium-grained, non-magnetic potassic version of the coarse-grained granodiorite all around it (similar to sample 1649). There is no magnetism noted and no acid reaction. Pyrite is disseminated in ~1-3% of the sample and chalcopyrite is disseminated and in veinlets in ~3-5% of the sample as well. Malachite staining is present in ~1-3% of the sample.				
344266	6224966	M01	Gail	684229	1652	Float	Gossanous float	FeOxid 3, Epi 2, CaCb 1	Mag 1, Mal/Az 1-3, Py Tr, Cpy Tr	Mal/Az staining. Py D, Cpy D	Took a gossanous float sample from a boulder with quartz veins 2-3 inches thick throughout that are stained pink to bright red. Someone has hit this rock open before, but no flagging tape was left so not sure if it was our group or someone in the past (took a sample anyways). The original rock type can only vaguely be seen on the lichen-covered crust, and it looks like an extremely mafic-rich intrusive rock (likely still granodiorite, as that is what's all around this sample). The weathered surface is orange-red and there isn't really a fresh surface but it looks dark (mafic-rich) and a small epidote vein ~5mm wide is visible throughout. About 1% of the sample is magnetic. Malachite/azurite are both present in ~1-3% of the sample, and there is trace disseminated pyrite and chalcopyrite.				
344900	6222590	M01	Gail	684246	1653	Outcrop	Gosssanous granodiorite	FeOxid 2, Pot 2	Mag 1, Py 5-7, Cpy 1, Mal 1	Py D on oxidized crust, Cpy D on oxidized crust, Mal staining	Took a sample from a small gossanous stained area of outcrop below the ridge. The weathered surface is dark red purple to orange and the fresh surface is grey and pink. The original composition can be seen - it is a very coarse-grained intrusive rock with ~35% mafics, ~50% feldspar (mostly plagioclase but there are some pink-stained areas that are likely alteration), and ~15% quartz. It contains about 1% magnetite and there are no sulphides seen in the groundmass but there is about 5-7% pyrite on the oxidized crust (disseminated), as well as about 1% chalcopyrite. Malachite staining is present in ~1% of the sample.				
344898	6222494	M01	Gail	684246	1654	Outcrop	Granodiorite	Pot 1	Mag 3-5	N/A	LITHO - Took a sample from a mound of what looks like granodiorite that is near where Chris said a contact might be. It is coarse-grained and composed of ~20% mafics (amphibole, some biotite, magnetite), ~50% quartz (very hard rock, slightly different from other granodiorites seen in the area), and ~30% plagioclase (only a tiny bit of K-spar which could be alteration). Magnetite is present in ~3-5% of the sample and no sulphides are seen in the groundmass.				

Cathedral Property
Rock Sample Descriptions

Location (UTM Zone 10 North NAD 83)							Description					XRF Analysis		Fire Assay
Easting	Northing	Map	Zone	Tenure	Sample No.	Sample Type	Lithology	Alteration	Sulphides (%)	Mineralization Style	Field Sample Descriptions	Structure	Cu ppm	As ppm	Au ppm
344943	6222526	M01	Gail	684246	1655	Float	Gossanous float	FeOxid 4, Chl 3(?)	Py 3-5, Cpy 1-3	Py blebby and semi-massive/disseminated on oxidized crust, Cpy blebby	Took a float sample from just under one of the mounds of granodiorite below the ridge. It was taken near a recent sample from our group (flagging tape seen nearby). This sample was taken after walking the ridge trying to find the contact that Chris mentioned seeing from camp, but all that was seen was variably altered coarse-grained granodiorite. The weathered surface is red-orange, and there isn't really a fresh surface but it looks dark green to black and is aphanitic and scratchable (with granodiorite outcrops all around). Chalcopyrite is present as blebs in the groundmass (~1-3% of the sample), and pyrite is present in ~3-5% of the sample as blebs and is also semi-massive and disseminated on the oxidized crusts. No magnetism is noted and no acid reaction.				
344094	6222385	M01	Gail	684246	1656	Outcrop	Granodiorite	Pot 1, CaCb 1	Mag 3-5, Py Tr	Py D	LITHO - Took a sample from an outcrop of granodiorite near large ridge. It is coarse-grained and the weathered surface is beige to grey while the fresh surface is grey-pink. It is coarse to very coarse-grained and contains ~25% mafics (biotite, some amphibole and some magnetite), ~20% quartz and ~55% feldspar (mostly plagioclase, one stripe about an inch thick of pervasive potassic alteration). The sample contains ~3-5% magnetite and there is possible trace pyrite disseminated in the groundmass.				
344555	6222436	M01	Gail	684246	1658	Outcrop	Granodiorite	FeOxid 1, Pot 1, Chl 1	Mag 5-7	N/A	LITHO - Took a sample from an outcrop of granodiorite (part of the large ridge). Until this point, walking west along the ridge the only differences seen in the rock type were alteration differences (variably potassic and chloritized), as well as variable magnetism. The rock type generally seems to be a coarse-grained granodiorite all across the ridge. The other lithosample (1654) seemed to be more quartz-rich, so decided to take a lithosample here as well because it was farther down the ridge. The weathered surface of the sample is beige to orange and the fresh surface is grey. It is coarse-grained and contains ~25% mafics (looks like amphibole, biotite and magnetite), ~65% feldspar (looks like mostly plagioclase but some of it is pink and could just be alteration), and ~10% quartz. It is likely still the same granodiorite seen all along the ridge with slight differences in composition/alteration. Magnetite is present in ~5-7% of the sample and no sulphides are seen in the groundmass. No acid reaction.				
344117	6222642	M01	Gail	684246	1659	Outcrop	Gossanous granodiorite	Chl 3, Pot 2, FeOxid 1	Mag 1, Py Tr	Py D and FF, Cpy D	Took a sample from a small gossanous stained area of outcrop within outcrop of granodiorite (the stained area is about 10cm by 10cm). The weathered surface is red/orange and the fresh surface is light pink to green. Magnetite is present locally in ~1% of the sample. The rock contains ~65% feldspar, ~25% mafics (some chloritized, could be chloritized biotite), and ~10% quartz. There is trace disseminated and fracture-fill pyrite present as well.				
336163	6230824		Lake	688843	1660	Outcrop	Granodiorite	Pot 2	Mag 3-5	N/A	LITHO- Outcrop just to the west of camp. Cannot see any gossan so far. Litho sample taken. Weathered to medium grey. Fresh surface is light pink. Very coarse grained. Magnetite is 3-5%. Contains 20% mafics, 5-10% quartz and 70-75% feldspar (mostly plagioclase with potassic alteration). No sulphides noted.				
336158	6230920		Lake	688843	1661	Float	Gossanous granodiorite	FeOx 2, Chl 2	Py 1	Py D	Float sample. Slightly gossanous. Original rock type appears to be the same as 1660. Mafic rich (>50%), cannot tell the rest of the composition. Very coarse grained. Pyrite is present in the gossanous parts, disseminated and 1%.				
335977	6230972		Lake	688843	1663	Outcrop	Volcanic dyke	Epi 1	Mag 1-3	N/A	LITHO- Outcrop with a large volcanic dyke in it (~2m wide). Contact with host (like 1660) is not always sharp or linear, but is approximately 237/79. Weathered to grey/brown. Fresh surface is blue/grey. Very fine grained groundmass which appears to consist of quartz, feldspar and mafics, but cannot tell percentages. Plagioclase phenocrysts are white, tabular to sub-rounded, <5mm in length and are 15-20% in abundance. Magnetite is 1-3%. Biotite crystals are 5% and <1mm. No mineralization noted. There appear to be many dykes here, possibly offshoots of the first, main one.				
335981	6230967		Lake	688843	1664	Outcrop	Volcanic dyke	Chl 4	Py <1	Py D and FF	Outcrop of another volcanic dyke. Cannot tell orientation. This dyke is aphanitic with plagioclase phenocrysts (1-3%, <2mm, white/cream and tabular to sub-rounded). Weathered to green grey. Fresh surface is dark green. Non-magnetic. Pyrite is <1%, disseminated and some fracture fill.				
335858	6230866		Lake	688843	1665	Outcrop	Volcanic dyke	Chl 3	None	N/A	LITHO- Volcanic dyke extends across the entire valley and can be tracked. It appears to be ~1.5-2m mostly (thinning to ~0.75m to the south where it is lost). Trending at ~345 and almost vertically dipping most of the time. Sample is weathered to dark grey/green. Fresh surface is dark green. Aphanitic texture. No composition available, but plagioclase is rarely present as phenocrysts. No sulphides noted. Non-magnetic.				
344928	6222924	M01	Gail	684246	1666	Float	Quartz vein	Pot 4, Chl 3	Mal 1-3	Mal FF	Quartz vein within potassic and chlorite altered granodiorite. Weathered to grey and beige. Fresh surface is grey/green (quartz vein) and salmon pink and black. Coarse to very coarse grained. Calcite vein (up to 8mm wide) running along the edge of the quartz vein. Granodiorite is composed of 20-25% mafics (chlorite altered), 20% quartz and 55-60% feldspar. Potassic alteration is strong and chlorite alteration is moderate. Non-magnetic. No sulphides noted in granodiorite. Malachite present in quartz vein along fractures. Malachite is 1-3%.				
344934	6222867	M01	Gail	684246	1667	Float	Granodiorite?	Pot 3, Chl 3, FeOx 3	Py 1-3, Mal 1-3	Py blebby, Mal staining	Weathered to red/brown and brown. Fresh surface is pale red/brown. Composition is difficult to tell. Quartz is ~20%, mafics appear to be very low and altered by chlorite. Mafics are ~5%. Cannot tell feldspar percentage well, ~75%. Non-magnetic. Chlorite and potassic alteration are moderate. Iron oxide is moderate within quartz and on weathered surface. Pyrite is blebby and 1-3% in abaundance. No chalcopyrite noted. Malachite staining is 1-3% on weathered surface and within matrix.				
344986	6222864	M01	Gail	684246	1668	Outcrop	Gossanous Outcrop	FeOx 4, Chl 2	Py 3-5, Cpy Tr	Py blebby, Cpy D	Dark red/brown in colour on fresh and weathered surfaces. Alteration has obscured the original texture. Iron oxide alteration is strong to intense. Chlorite alteration is subtle to moderate. Can see some quartz grains, but cannot tell percentage. Possibly the same rock type as 1667, but difficult to tell. Pyrite is 3-5% and blebby or disseminated. Possible trace chalcopyrite, disseminated around pyrite.				
344935	6222736	M01	Gail	684246	1669	Outcrop	Granodiorite	Chl 2, Pot 2, FeOx 3	Py <1	Py D	Weathered to dark red/brown. Fresh surface is pale orange and dark green. Medium to coarse grained. Mafics are 10-15%, quartz is 20-25% and feldspar is 60-70%. Grains are angular and interlocking. Non-magnetic. Chlorite is subtle and altering mafics. Potassic alteration is subtle and iron oxide is moderate. Pyrite is <1% and disseminated on the weathered surface.				
345033	6222752	M01	Gail	684246	1670	Float	Granodiorite	Chl 2, Pot 2, FeOx 3	Py 1	Py FF and D	As previously described in sample 1669. Dolomite (?) vein, 8mm wide. Pyrite present within fractures and between grains. Pyrite is 1%. No chalcopyrite noted. Vein has no mineralization.				
345035	6222737	M01	Gail	684246	1671	Float	Chlorite altered granodiorite?	Chl 5, FeOx 2	Py 1-3, Mag 1	Py D	Weathered surface is reddish orange. Fresh surface is dark green. Difficult to tell composition due to intense chlorite alteration. Quartz is ~20-25% in abundance. Groundmass has been wipe out by chlorite. Pyrite is 1-3% and disseminated, very fine to medium grained. Magnetite is local and ~1%.				
345016	6222700	M01	Gail	684246	1672	Float	Quartz and epidote dominant	Epi 4, FeOx 2	Mal 1	Mal staining	Weathered to red/brown and pale green. Fresh surface is pale green. Quartz rich, but cannot tell percentage. Epidote alteration is strong. Iron oxide alteration is subtle. Malachite staining is present mostly on weathered surface but also within the groundmass. Malachite is ~1%. No sulphides noted.				
345034	6222698	M01	Gail	684246	1673	Float	Volcanic?	Chl 5, FeOx 1	Mag 3-5, Py 1, Cpy <1	Py and Cpy D	Weathered to orange/brown. Fresh surface is dark green. Aphanitic groundmass with feldspar phenocrysts (possibly some are quartz as well). Feldspar crystals are ~3-5% in abundance and up to 3mm long. Chlorite is intense and throughout the groundmass. Magnetite is 3-5%. Pyrite is disseminated and 1%. Chalcopyrite is <1% and disseminated with pyrite.				
345071	6222695	M01	Gail	684246	1674	Float	Chlorite altered granodiorite?	Chl 4-5, Pot 1	Py 1	Py D and blebby	Weathered to brown or beige. Fresh surface is cream to dark green in colour. Chlorite alteration is strong and locally intense. Chlorite alters between quartz in fractures and blebs. Cannot tell original rock type. Quartz is ~50%. Potassic alteration is weak. Pyrite is present mostly on the weathered surface. Pyrite is disseminated and ~1% in abundance. Pyrite increases in the areas with intense chlorite alteration and becomes blebby.				
344978	6222542	M01	Gail	684246	1676	Float	Chlorite altered granodiorite?	Chl 5, Pot 1	Py 5-7, Cpy <1	Py B, Cpy D	Appears to be the same rock as sample 1674. Chlorite alteration is stronger here than in the previous sample (intense). Potassic alteration is weak. 3-5% magnetite. Pyrite is banded, 1.2 cm wide and about 5-7% in abundance. Chalcopyrite is <1% and disseminated within pyrite bands.				
344976	6222516	M01	Gail	684246	1677	Outcrop	Granodiorite	Pot 3, FeOx 3, Epi 1, Chl 1	Py 1-3, Cpy <1	Py D, Cpy D	Both fresh and weathered surfaces are pinkish orange. Fine grained. Composed of 5% mafics, 20% quartz and 75% feldspar. Potassic alteration is moderate. Iron oxide is moderate and mostly on weathered surface. Also on the weathered surface, there is subtle epidote alteration. Non-magnetic. Pyrite is very fine to fine grained and disseminated at about 1-3%. Chalcopyrite is disseminated and <1% in abundance.				
345031	6222603	M01	Gail	684246	1678	Float	Grandiorite	Pot 2, Chl 3	Py <1	Py D	Weathered to red/brown and orange. Fresh surface is black and white. Coarse grained. Contains 20% mafics, 10% quartz and 70% feldspar. Potassic alteration is subtle and chlorite is moderate (present mostly in mafics). Non-magnetic. <1%, very fine grained pyrite, present on weathered surfaces.				
344943	6222526	M01	Gail	684246	1679	Float	Chlorite altered granodiorite?	Chl 4, Pot 3	Py 1-3, Cpy 1, Mal 1	Py, Cpy and Mal D	As previously described in sample 1674. Can see feldspar in this sample, ~50%. Quartz is slightly less at ~30%. Chlorite alteration is strong, potassic alteration is moderate. Non-magnetic. Pyrite is 1-3% and disseminated. Chalcopyrite is also very ine grained and disseminated, 1% in abundance. Malachite is disseminated and ~1%.				
344931	6222518	M01	Gail	684246	1680	Float	Granodiorite	Pot 4, FeOx 1, Chl 2	Py <1	Py D	As previously described in sample 1678. This sample has stronger potassic alteration (strong). Pyrite is <1% in abundance and appears to be associated with the mafics and/or chlorite alteration.				
344931	6222566	M01	Gail	684246	1681	Float	Quartz monzonite?	Pot 4, Chl 3	Py 1-3, Cpy 1	Py and Cpy D	Weathered to orange/red. Fresh surface is salmon pink and dark green. Medium grained. Contains 10% mafics, 5% quartz and 85% feldspar. Potassic alteration is strong to intense. Chlorite alteration is moderate (altering mafics mostly). Non-magnetic. Pyrite is 1-3% and very fine grained, disseminated. Chalcopyrite is very fine grained and disseminated, about 1% in abundance.				

Cathedral Property
Rock Sample Descriptions

Location (UTM Zone 10 North NAD 83)							Description					XRF Analysis		Fire Assay
Easting	Northing	Map	Zone	Tenure	Sample No.	Sample Type	Lithology	Alteration	Sulphides (%)	Mineralization Style	Field Sample Descriptions	Structure	Cu ppm	As ppm	Au ppm
344855	6222530	M01	Gail	684246	1682	Float	Gossanous Float	FeOx 5	Cpy 3-5, Mal 1-3	Cpy B, Mal staining	Weathered to red/brown. Original rock type is obscured by gossanous weathering. Iron oxide alteration is intense. Malachite staining is 1-3%. Chalcopyrite is 3-5% and banded up to 1mm wide.				
344838	6222473	M01	Gail	684246	1683	Outcrop	Quartz monzonite?	Pot 5, Chl 3	Py 1-3	Py B and D	Weathered to orange/red. Fresh surface is salmon pink and dark green. Medium grained. Contains 10% mafics, 5% quartz and 85% feldspar. Potassic alteration is intense. Chlorite alteration is moderate (altering mafics mostly). Non-magnetic. Pyrite is 1-3%, banded and disseminated.				
344845	6222527	M01	Gail	684246	1684	Float	Quartz monzonite?	Pot 5, Chl 4	Py 1	Py D	Weathered to brown. Fresh surface is salmon pink and dark green. Coarse to very coarse grained. Contains 10% mafics, 10% quartz and 80% feldspar. Potassic alteration is intense. Chlorite alteration is strong (altering mafics mostly). Non-magnetic. Pyrite is 1% and disseminated.				
344789	6222502	M01	Gail	684246	1685	Float	Potassic altered rock	Pot 5, Chl 2	Cpy 1-3, Py <1, Mal 1	Cpy FF, Py FF, Mal staining	Reddish pink in colour on fresh and weathered surfaces. Original rock type is completely obscured by alteration. Potassic alteration is intense and pervasive. Some large feldspar crystals visible, up to 1.5cm in size and concentrated in one spot. Chlorite is present in fractures. Non-magnetic. Chalcopyrite is 1-3% and fracture fill. Pyrite is <1% and fracture fill with chalcopyrite. Malachite staining is 1% and present near to the chalcopyrite.				
344718	6222569	M01	Gail	684246	1686	Float	Granodiorite	Pot 3, Chl 4	Py 5-7	Py blebby and D	Weathered to grey/brown. Fresh surface is dark green and locally beige. Coarse grained. Original composition is unclear because of alteration. Approximate composition is 20-25% mafics, 15% quartz and 60-65% feldspar. Potassic alteration is moderate and chlorite alteration is strong. Pyrite is blebby and disseminated and 5-7%. No chalcopyrite noted.				
344736	6222548	M01	Gail	684246	1687	Float	Quartz monzonite?	Pot 2, Chl 3, Epi 1	Py 1-3	Py D	Weathered to brown/red. Fresh surface is light pink and dark green. Medium grained. Contains 10-15% mafics, 5% quartz and 80-85% feldspar. Potassic alteration is weak to moderate. Chlorite alteration is moderate (altering mafics mostly). Possible epidote alteration. Non-magnetic. Pyrite is 1-3% locally and very fine grained, disseminated. Chalcopyrite not noted.				
344707	6222625	M01	Gail	684246	1688	Float	Quartz monzonite?	Pot 2, Chl 3	Mal 3-5	Mal D and blebby	Weathered to grey. Fresh surface is grey with pinkish white. Fine grained and coarse grained locally. Feldspar crystals up to 6mm across are present. Composed of approximately 5-10% mafics, 10% quartz and 80-85% feldspar. Potassic alteration is subtle. Chlorite alteration is moderate. Malachite is present on the weathered surface as disseminations and blebs, about 3-5%. On the fresh surface malachite is trace.				
344671	6222614	M01	Gail	684246	1690	Float	Quartz monzonite?	FeOx 2, Pot 3	Py <1, Cpy <1, Mal 3-5	Py D, Cpy D, Mal staining	As previously described in 1684. Gossanous section that is surrounded by malachite staining. No sulphides can be seen in the quartz monzonite (?) portion of the rock, but in the center of the gossanous blob there is <1% pyrite and <1% chalcopyrite, disseminated. Malachite is 3-5%. Iron oxide is subtle and potassium is moderate.				
344663	6222534	M01	Gail	684246	1691	Float	Quartz monzonite?	Chl 3, Pot 2, Epi 2	Mal <1, Cpy Tr	Mal and Cpy D	As described in sample 1684. Quartz and epidote vein (?) present that contains malachite and chalcopyrite. Malachite is disseminated and <1%. Chalcopyrite is trace and disseminated within malachite.				
344659	6222615	M01	Gail	684246	1692	Float	Quartz monzonite?	Pot 5, Chl 4	Mag 1-3, Py <1	Py D	Weathered to brown. Fresh surface is salmon pink and dark green. Coarse to very coarse grained. Contains 10-15% mafics (biotite and amphibole), 10% quartz and 75-80% feldspar. Potassic alteration is intense. Chlorite alteration is strong (altering mafics mostly). Magnetite is 1-3%. Pyrite is <1% and disseminated (within mafics).				
344656	6222619	M01	Gail	684246	1693	Float	Monzonite	Pot 1, Chl 4, Dol (?) 1	Py Tr	Py D	Weathered to brown and beige. Fresh surface is green and pinkish beige. Coarse grained. Quartz is <5%, mafics are 20-25% and feldspar is 70-75%. Potassic alteration is subtle. Chlorite alteration is strong. Possible dolomite idioblasts? Trace, very fine grained and diseminated pyrite.				
344655	6222616	M01	Gail	684246	1694	Float	Granodiorite	Pot 2, Chl 1	Cpy 1, Mal <1	Cpy FF, Mal staining	Weathered to grey and beige. Fresh surface is pinkish beige. Fine grained. Composed of <5% mafics, 30% quartz and 65% feldspar. Potassic alteration is subtle. Chlorite alteration is present in fractures. Non-magnetic. Chalcopyrite is fracture fill with chlorite and 1% in abundance. Small amount of malachite staining on weathered surface.				
344636	6222608	M01	Gail	684246	1695	Float	Quartz monzonite?	Pot 3, Chl 2, Epi 1	Py <1, Mal <1, Cpy Tr	Py D, Mal D, Cpy D	As described in sample 1684. Quartz and epidote vein (?) present that contains pyrite, malachite and chalcopyrite. Pyrite is disseminated and <1%. Malachite is also disseminated and <1%. Chalcopyrite is trace and disseminated.				
344629	6222598	M01	Gail	684246	1696	Float	Quartz monzonite?	Pot 1, Chl 2	Mal <1, Cpy 1	Mal staining, Cpy D and FF	Weathered to dark green or brown. Fresh surface is beige and greenish black. Coarse grained. 20-25% mafics, 10% quartz and 65-70% feldspar. Potassic alteration is weak. Chlorite is subtle and alters mafics. Malachite staining is subtle (<1% and only on weathered surface). Chalcopyrite is 1% and present in fractures (up to 1mm) and disseminated.				
344615	6222603	M01	Gail	684246	1697	Float	Quartz and epidote vein?	Epi 5, Chl 1	Mal 1, Cpy <1	Mal D, Cpy D and blebby	Sample taken from a very large boulder. Epidote and quartz. Not certain whether it is a vein or not. Weathered to pale green. Fresh surface is pistachio green. Quartz is ~50%. The rest of the composition is obscured by strong to intense epidote alteration. Malachite is disseminated throughout at 1%. Chalcopyrite is disseminated and blebby and <1%.				
344605	6222597	M01	Gail	684246	1698	Float	Quartz and epidote vein?	Epi 5	Mal 3-5, Cpy <1	Mal staining, Cpy D	Sample taken from a massive boulder. As described in sample 1697. Here there is more malachite (staining and 3-5%) and chalcopyrite is only noted on the weathered surface.				
344604	6222604	M01	Gail	684246	1699	Float	Quartz and epidote vein?	Epi 5	Mal 1-3, Cpy Tr, Py <1	Mal staining, Py blebby, Cpy D	Epidote and quartz. Not certain whether it is a vein or not. Weathered to pale green. Fresh surface is pistachio green. Quartz is ~50%. The rest of the composition is obscured by strong epidote alteration. Malachite staining is on the weathered surface and is 1-3%. Chalcopyrite is trace and disseminated within blebby, <1% pyrite.				
344636	6222507	M01	Gail	684246	1700	Outcrop	Granodiorite?	Chl 4, Epi 1	Py 1, Cpy Tr, Mal Tr	Py D and blebby, Cpy and Mal D	Weathered to light brown. Fresh surface is dark green and beige. Mafics are higher than previous in this area. Composed of 30-40% chlorite altered mafics, 10-15% quartz and 45-60% feldspar. Chlorite alteration is strong. Weak epidote alteration. Pyrite is 1%, disseminated within groundmass and blebby on weathered surface. Chalcopyrite and malachite are trace and disseminated.				
344586	6222588	M01	Gail	684246	1701	Float	Quartz and feldspar vein?	Chl 4, Pot 4	Py <1	Py blebby	Appears to be a potassic altered feldspar and quartz vein with chlorite altered, quartz rich selvage. Potassic alteration is strong to intense within vein. Chlorite alteration is intense in selvage. Feldspar is ~70% and quartz is ~25%. Mafics are <5% in abundance. Pyrite is blebby and <1%.				
344638	6222513	M01	Gail	684246	1702	Float	Quartz Monzonite?	Pot 1, Chl 2	Mal <1, Cpy Tr, Py <1	Mal staining and D, Cpy D, Py D	Weathered to light to dark brown. Fresh surface is beige/pink and greenish black. Medium to coarse grained. 20% mafics, 10% quartz and 70% feldspar. Potassic alteration is weak to subtle. Chlorite is subtle and alters mafics. Malachite is <1%, staining on weathered surface and disseminated on fresh surface. Chalcopyrite is trace and disseminated. Pyrite is <1% and disseminated.				
344625	6222517	M01	Gail	684246	1703	Float	Quartz vein	FeOx 2, Cal 1	Cpy 1, Mal <1	Cpy and Mal blebby	Quartz vein with iron oxide filling fractures and along the edges. Calcite is present with the iron oxide. Chalcopyrite blebs are present within the vein (1%). Malachite staining is blebby and <1%.				
344617	6222519	M01	Gail	684246	1704	Outcrop	Quartz monzonite?	Pot 3, Epi 4	Cpy 1, Mal <1	Cpy blebby and D, Mal staining	Weathered to pinkish brown. Fresh surface is salmon pink and pistachio green. Ranges from fine to coarse grained. Difficult to tell percentages due to alteration. Approximate composition is 80% feldspar, 10-15% quartz and 5-10% mafics. Potassic alteration is locally strong, but overall is moderate. Epidote alteration is strong. Chalcopyrite is present in blebs and disseminations and is ~1% in abundance. Small amount of malachite (<1%) associated with the chalcopyrite on the weathered surface.				
344538	6222560	M01	Gail	684246	1705	Float	Quartz monzonite	Pot 4	Py Tr, Mag 3-5	Py D	Weathered and fresh surface are both salmon pink, white and black. Coarse grained. Composed of 20-25% mafics, 15% quartz and 60-65% feldspar. Magnetite is 3-5%. Potassic alteration is strong. Trace pyrite is disseminated locally.				
344621	6222513	M01	Gail	684246	1706	Outcrop	Quartz monzonite	Chl 2	Py 3-5	Py D and blebby	Weathered to green/brown. Fresh surface is medium grey. Medium to coarse grained. Contains 20-25% mafics, 10% quartz and 65-70% feldspar. Chlorite alteration is subtle. Pyrite is disseminated and blebby, ~3-5%. No chalcopyrite noted.				
344502	6222568	M01	Gail	684246	1707	Float	Quartz monzonite	Pot 4	Cpy <1, Mal Tr	Cpy D and FF, Mal D	As described in sample 1705. Mafics are slightly less (~15%). Non-magnetic. Chalcopyrite is very fine grained and disseminated, also fracture fill in one spot. Chalcopyrite is <1%. Malachite is trace and present surrounding chalcopyrite.				
344518	6222564	M01	Gail	684246	1708	Float	Epidote altered quartz vein?	Pot 2, Epi 1	None	N/A	Sample of a vein. Possible quartz rich area of the rock. Quartz is ~70%. Potassic alteration is subtle and epidote is weak. Mafics are ~5%. No sulphides noted. Non-magnetic.				
344510	6222557	M01	Gail	684246	1709	Float	Quartz monzonite	Pot 3, Epi 3	Cpy 1, Mal 1-3	Cpy D, Mal staining	Weathered to grey and brown. Fresh surface is half pale salmon pink and half pistachio green. Medium grained. This appears to be a quartz rich, epidote altered area of the rock as described in 1708. The host rock is as described in 1706. Chalcopyrite is disseminated and 1% in abundance. Malachite staining is present on the weathered surface (~1-3%).				
344490	6222573	M01	Gail	684246	1710	Float	Quartz monzonite	Pot 2, Epi 4	Cpy 1-3, Mal 1	Cpy D and FF, Mal staining	As previously described in sample 1709. Potassic alteration is locally moderate. Epidote alteration is moderate to strong. Malachite staining is 1% on the weathered surface. Chalcopyrite is 1-3% and disseminated and fracture fill.				
344581	6222454	M01	Gail	684246	1711	Float	Quartz monzonite	Chl 2, Pot 3	Cpy 1	Cpy D and FF	As described in 1705. Non-magnetic. Chlorite alteration is subtle. Potassic alteration is moderate. Chalcopyrite is disseminated and fracture fill and 1% in abundance.				

Cathedral Property
Rock Sample Descriptions

Location (UTM Zone 10 North NAD 83)							Description					XRF Analysis		Fire Assay
Easting	Northing	Map	Zone	Tenure	Sample No.	Sample Type	Lithology	Alteration	Sulphides (%)	Mineralization Style	Field Sample Descriptions	Structure	Cu ppm	As ppm	Au ppm
344455	6222510	M01	Gail	684246	1712	Float	Quartz monzonite	Pot 4	Py 1	Py D	Weathered and fresh surface are both salmon pink, white and black. Coarse grained. Composed of 20-25% mafics, 15% quartz and 60-65% feldspar. Non-magnetic. Potassic alteration is strong. 1% pyrite is disseminated.				
344459	6222507	M01	Gail	684246	1714	Float	Quartz monzonite	Pot 4	Py Tr	Py D	Weathered and fresh surface are both salmon pink, white and black. Coarse grained. Composed of 20-25% mafics, 15% quartz and 60-65% feldspar. Magnetite is <1%. Potassic alteration is strong. Trace pyrite is disseminated.				
344508	6222385	M01	Gail	684246	1715	Outcrop	Granodiorite	Pot 2	Mag 1, Py <1	Py D	Weathered to dark grey. Fresh surface is dark grey and beige. Coarse grained. Quartz is 15-20%, mafics are 20% and feldspar is 60-65%. Potassic alteration is subtle. Magnetite is 1%. Very fine grained pyrite is <1% and disseminated.				
344466	6222479	M01	Gail	684246	1716	Outcrop	Quartz monzonite	Pot 3	Mag <1, Py Tr	Py D	Weathered and fresh surface are both salmon pink, white and black. Medium to coarse grained. Composed of 20-25% mafics, 15% quartz and 60-65% feldspar. Magnetite is <1%. Potassic alteration is moderate to strong. Trace pyrite is disseminated.				
344411	6222472	M01	Gail	684246	1717	Float	Granodiorite	Pot 4	Py Tr	Py D	Weathered and fresh surface are both salmon pink, beige and black. Coarse grained. Composed of 10% mafics, 20% quartz and 70% feldspar. Non-magnetic. Potassic alteration is strong. Trace pyrite is disseminated.				
344448	6222468	M01	Gail	684246	1718	Float	Granodiorite	Pot 3	None	N/A	As described in sample 1717, but potassic alteration is less (moderate). No sulphides noted.				
344470	6222366	M01	Gail	684246	1719	Outcrop	Quartz vein	Chl 3	Cpy Tr, Mal Tr	Cpy and Mal D	Dark grey in colour. Quartz vein. Chlorite alteration on selvages. Chalcopyrite is trace and disseminated within vein and selvage. Trace malachite present disseminated with chalcopyrite.				
344358	6222415	M01	Gail	684246	1721	Outcrop	Granodiorite	Pot 2	Mag <1, Py Tr	Py D	Weathered and fresh surface are both salmon pink, beige and black. Coarse grained. Composed of 10% mafics, 20% quartz and 70% feldspar. Magnetite is <1%. Potassic alteration is subtle. Trace pyrite is disseminated within mafics.				
344374	6222405	M01	Gail	684246	1722	Float	Calcite vein	FeOx 2	Cpy 1, Py <1, Mal <1	Cpy and Py D, Mal staining	Gossanous weathering with malachite staining and chalcopyrite along the edges of a calcite vein. Light grey in colour. Iron oxide is moderate. Vein appears to run through granodiorite. Malachite staining in selvage (<1%). Chalcopyrite and pyrite are disseminated within gossanous selvage. Chalcopyrite is 1% and pyrite is <1%.				
344289	6222399	M01	Gail	684246	1723	Float	Potassic altered igneous rock	Pot 5	Cpy <1, Mal 1	Cpy and Mal D	Weathered to brownish pink. Fresh surface is pale salmon pink. Fine grained. Very few mafics. Composed of 1% mafics, 40% quartz and 60% feldspar. Potassic alteration is intense. Very fine grained, chalcopyrite is disseminated <1%. Malachite is 1%, disseminted on the weathered surface.				
344206	6222399	M01	Gail	684246	1724	Float	Granodiorite	Pot 3	Py <1, Mal <1	Py D, Mal staining	Weathered and fresh surface are both salmon pink, beige and black. Coarse grained. Composed of 20% mafics, 20% quartz and 60% feldspar. Magnetite is <1%. Potassic alteration is moderate. <1% pyrite is disseminated. Malachite is <1% on the weathered surface.				
344648	6222520	M01	Gail	684246	1725	Outcrop	Chlorite altered igneous rock	Chl 3, Epi 3, Pot 1	Cpy Tr, Mal Tr	Cpy D, Mal staining	Weathered to brown. Fresh surface is pale and dark green. Fine to medium grained. Quartz vein running through the center of the sample is 6mm wide and contains no sulphides. Composition is difficult to tell due to alteration. Chlorite and epidote alteration are moderate and potassic is weak. Chalcopyrite is trace and disseminated within groundmass. Trace malachite staining is present on the weathered surface.				
344769	6224388	M01	Gail	684246	1726	Float	Granodiorite	FeOxid 4	Mag 1 (locally 5-7), Mal <1, Py <1, Cpy <1	Mal staining, Py D, Cpy D	The weathered surface is red/brown and the fresh surface is beige. The rock is coarse-grained and contains ~25% mafics, ~20% quartz, and ~55-60% feldspar. Magnetite is present in ~1% of the sample - locally towards one end of the sample mag is about 5-7% and mafics increase to over 50%. Malachite is present in less than 1% of the sample and chalcopyrite and pyrite are both disseminated in less than 1% of the sample.				
344758	6224393	M01	Gail	684246	1727	Float	Granodiorite	Pot 3, Chl 2, Epi 1	Mag 3-5, Cpy 1	Cpy vfg D	The weathered surface is beige-brown and the fresh surface is pale pink. The rock is coarse-grained and contains ~20% mafics, ~60-70% feldspar, and ~10-20% quartz. Magnetism is present in ~3-5% of the sample and very fine-grained disseminated chalcopyrite is present in ~1% of the sample (often seems to be associated with mafics).				
345125	6225444	M01	Gail	684229	1728	Float	Granodiorite	Pot 3, Chl 2	Cpy <1	Cpy blebby	Weathered to grey/brown. Fresh surface is grey. Medium to coarse grained. Mafics are 20-30%, quartz is 15% and feldspar is 55-65%. Potassic alteration is moderate. Chlorite alteration is subtle. There is an epidote vein running through the center of the sample. Epidote vein is up to 7mm wide and has a white quartz and feldspar selvage (5mm wide on either side). Mineralization is only noted within the selvage of the vein. Chalcopyrite is blebby and <1%.				
345088	6225431	M01	Gail	684229	1729	Float	Volcanic?	Cal 3	Cpy 1-3 (locally 5-7), Mal 1	Cpy D and blebby, Mal D and staining	Weathered to dark grey. Fresh surface is dark and light grey. Aphanitic, cannot tell composition. Possible quartz and feldspar phenocrysts, but difficult to tell. Calcite alteration is moderate. There is a quartz/calcite vein, 2cm wide that contains 5-7% blebby chalcopyrite and 1% malachite staining. Host rock contains fine grained, disseminated chalcopyrite (1-3%) and very fine grained, disseminated malachite (1%).				
345070	6225468	M01	Gail	684229	1730	Float	??	Chl 4, Epi 3, Cal 3	Cpy <1, Mal <1	Cpy and Mal D	Weathered to dark green. Fresh surface is banded white and dark and light green. Cannot tell what the original rock type was due to banding and alteration. Chlorite is strong, epidote is moderate and calcite is moderate. <1% chalcopyrite is disseminated with <1% malachite.				
345027	6225512	M01	Gail	684229	1731	Float	Volcanic?	Chl 5, FeOx 1	Py 5-7, Cpy Tr, Mag 7-15	Py D and blebby, Cpy D	Weathered to pale grey and red/brown. Fresh surface is dark grey in colour. Aphanitic groundmass with very vague outlines of feldspar or quartz. Very hard to see. Chlorite alteration is intense. Magnetite is 7-15%. Pyrite is disseminated and blebby, 5-7% in abundance. Possible trace chalcopyrite along the edges of pyrite, but hard to tell.				
345015	6225519	M01	Gail	684229	1732	Float	Volcanic?	Chl 5, FeOx 1	Mag 1-3, Py 1	Py FF	As described in sample 1731. Quartz and feldspar phenocrysts are slightly more visible, but still hard to get a percentage (maybe 5%). Magnetite is not nearly as strong as in sample 1731, here it is 1-3%. Iron oxide idioblasts are 1%. Pyrite is fracture fill in fracture up to 2mm wide. Pyrite is 1% in abundance. No chalcopyrite noted.				
345009	6225561	M01	Gail	684229	1733	Float	Feldspar vein??	Chl 1, FeOx 1	Mal 1	Mal FF	Weathered to light brown with some gossanous areas. Fresh surface is medium grey. Looks like quartz vein, but is soft and unreactive with acid, so probably feldspar. Malachite present along fractures, 1%. No sulphides noted.				
344948	6225592	M01	Gail	684229	1734	Outcrop	Volcanic?	Chl 4, Epi 3, Pot 1	Cpy 1	Cpy D	Weathered to green/brown. Fresh surface is pale and dark green. Aphanitic texture. Composition is difficult to tell due to alteration. Chlorite is strong and epidote alteration is moderate. Potassic alteration is weak. Chalcopyrite is 1% and disseminated within groundmass.				
344947	6225630	M01	Gail	684229	1735	Outcrop	Granodiorite	Pot 2	Mag 3-5	N/A	LITHO - Weathered to dark grey. Fresh surface is light grey. Medium to coarse grained. Contains 10% mafics, 15-20% quartz, and 70-75% feldspar (looks like mostly plagioclase). Potassic alteration is subtle. No sulphides noted. Magnetite is 3-5%.				
345117	6225571	M01	Gail	684229	1736	Outcrop	Granodiorite	None	Mag 5-7	N/A	LITHO - Weathered surface is brown/grey. Fresh surface is black and white. Coarse grained. Composed of 20% mafics, 25% quartz and 55% feldspar. Un-altered. No sulphides noted. 5-7% magnetite.				
345082	6225567	M01	Gail	684229	1737	Float	Volcanic?	Chl 5, FeOx 1	Py 1, Mag 5-7	Py D	As described in sample 1731. Iron oxide idioblasts are present. 1%, disseminated pyrite present on the weathered surface. 5-7% magnetite.				
345074	6225567	M01	Gail	684229	1738	Float	Volcanic?	Chl 5	Py 1-3	Py D	As described in 1731. There are more feldspars visible here, but mainly chlorite altered groundmass. Pyrite is 1-3% and disseminated. No chalcopyrite noted.				
345060	6225567	M01	Gail	684229	1739	Float	Chlorite altered	Chl 5	Mag 5-7	N/A	Weathered to dark grey. Fresh surface is dark grey with white. Cannot tell composition well because there is strong to intense chlorite alteration. Can see ~10% feldspar and ~10% quartz. The rest of the composition is undeterminable. Magnetite is 5-7%. No sulphides noted.				
345015	6225529	M01	Gail	684229	1740	Float	Chlorite altered	Chl 5	Mal <1	Mal staining	As described in 1731. There are more feldspars visible here, but mainly chlorite altered groundmass. Malachite staining is <1%. No chalcopyrite noted.				
345188	6225453	M01	Gail	684229	1741	Float	Chlorite altered	Chl 5	Py 1-3	Py blebby	Weathered to grey with red/orange fractures. Fresh surface is grey/green. Cannot tell composition due to chlorite alteration. As described in 1739. Pyrite is blebby and 1-3%. No chalcopyrite noted.				
345189	6225375	M01	Gail	684229	1742	Float	Granodiorite	Pot 2	Mag 5-7	N/A	Weathered to grey and fresh surface is light grey and slightly pinkish. Fine to medium grained. Composed of 10-15% mafics, 15-20% quartz and 65-75% feldspar. 5-7% magnetite. Potassic alteration is subtle. No sulphides noted.				
345179	6225282	M01	Gail	684229	1743	Float	Altered fine grained intrusive	Pot 1	Mag 3-5	N/A	Weathered to beige/brown. Fresh surface is light grey. Difficult to tell composition, feldspar rich. Appears to be rich in dolomite as well. Magnetite is 3-5%. Very fine grained, and the grain boundaries are difficult to distinguish. Possibly a monzonite due to the high feldspar content. Mafics are low, but appear to be mostly biotite. No sulphides noted.				
345167	6225201	M01	Gail	684229	1744	Float	Monzonite	Pot 2	Mag 1	N/A	Orange/brown in colour. Fine grained, the grain boundaries are slightly blended together making it difficult to tell composition. Approximately 15-20% mafics, 5% quartz and 75-80% feldspar. Potassic alteration is weak. Magnetite is 1%. No sulphides noted.				
345159	6225170	M01	Gail	684229	1745	Float	Monzonite	Pot 2, Chl 4	Mag 3-5	N/A	Dark grey in colour. Very fine gained with grain boundaries blurred. Composition difficult to distinguish. Feldspar rich, suggesting monzonite. Potassic alteration is weak and chlorite alteration is strong. Magnetite is 3-5%. No sulphides noted.				
345063	6222457	M01	Gail	684246	1746	Outcrop	Granodiorite	Pot 3	Mag 3-5	N/A	LITHO - Weathered to pale brown. Fresh surface is beige, pink and black. Coarse grained. Magnetite is 3-5%. Mafics are 20%, quartz is 15-20% and feldspar is 60-65%. Potassic alteration is moderate. No sulphides noted.				

Cathedral Property
Rock Sample Descriptions

Location (UTM Zone 10 North NAD 83)							Description					XRF Analysis		Fire Assay
Easting	Northing	Map	Zone	Tenure	Sample No.	Sample Type	Lithology	Alteration	Sulphides (%)	Mineralization Style	Field Sample Descriptions	Structure	Cu ppm	As ppm	Au ppm
345068	6222442	M01	Gail	684246	1747	Outcrop	Chlorite and potassic altered igneous rock	Pot 3, Chl 3	None	N/A	Dark green to orange pink in colour on the weathered surface. Fresh surface is dark grey to pale salmon pink. Non-magnetic. Partially very mafic rich with intense chlorite alteration. Partially very coarse grained with large feldspar crystals (up to 1cm). Potassic alteration is moderate. Chlorite alteration is also moderate overall. No sulphides are visible.				
345096	6222484	M01	Gail	684246	1748	Float	Monzonite	Chl 4, FeOx 2	Mal 1, Mag 1	Mal staining	Weathered to brown or greenish. Some gossanous weathering with malachite staining. Fresh surface is dark grey/green. Chlorite is strong, iron oxide is weak. Difficult to tell composition. Feldspar rich. Quartz <5%. Magnetite is 1%. No sulphides noted. Malachite staining is only on the weathered surface and ~1%.				
345126	6222491	M01	Gail	684246	1749	Outcrop	Quartz monzonite	Chl 4	Mag 1-3	N/A	Weathered to brown, fresh surface is beige and greenish black. Coarse grained. 20-25% mafics, 10% quartz and 65-70% feldspar. Chlorite alteration is strong. No sulphides noted. Magnetite is 1-3%.				
345151	6222531	M01	Gail	684246	1750	Outcrop	Granodiorite	Chl 1	Mag 1	N/A	Weathered to brown, fresh surface is beige and greenish black. Coarse grained. 15% mafics, 20% quartz and 65% feldspar. Chlorite alteration is subtle. No sulphides noted. Magnetite is 1%.				
345175	6222467	M01	Gail	684246	1751	Outcrop	Granodiorite??	Chl 4	Py Tr?	Py FF	As described in sample 1730. Possible trace pyrite, but very hard to tell. Composition is difficult to tell due to the alteration. Quartz rich.				
345156	6222552	M01	Gail	684246	1752	Outcrop	Granodiorite	Pot 4, Chl 2	Py 1, Cpy <1	Py and Cpy D	Weathered surface is brown to gossanous. Fresh surface is orange/pink and black. Coarse grained. 20-30% mafics, 20% quartz and 50-60% feldspar. Potassic alteration is strong and chlorite alteration is weak. Pyrite is 1% and disseminated. Chalcopyrite is <1% and disseminated.				
345155	6222558	M01	Gail	684246	1753	Outcrop	Granodiorite	Chl 4	Py 1	Py FF	Weathered to light brown. Fresh surface is dark grey. Chlorite is strong. Medium grained. Approximate percentages are 50% mafics, 20% quartz and 30% feldspar. Pyrite is 1% and fracture fill. No chalcopyrite noted.				
345131	6222345	M01	Gail	684246	1754	Float	Quartz monzonite	Pot 4, Chl 3	Mal Tr	Mal staining	Sample taken from the top of a large hump. Weathered surface is dark grey/brown. Fresh surface is orangey pink and black. Medium to coarse grained. 30% mafics, 60% feldspar and 5-10% quartz. Potassic alteration is strong to intense and chlorite is moderate. Calcite vein up to 1cm in size. Trace malachite staining on the weathered surface.				
344966	6222460	M01	Gail	684246	1755	Outcrop	Aplite dyke?	Pot 4, FeCb 2	Mal 1	Mal staining	Weathered to beige/brown or slightly gossanous. Fresh surface is dark grey or pink. Pink part could be small aplite dyke as there are no mafics, it is very fine grained and quartz rich. Potassic alteration in the aplite dyke is strong. The dark grey/green portion is aphanitic with a few feldspar crystals. Possible weak to moderate iron carbonate alteration, but unclear. No sulphides noted. Malachite staining on weathered and fresh surface. Malachite is 1%.				
340864	6226214	M01	Gail North	684225	1756	Float	Granodiorite	Pot 1	Cpy <1, Mal 1, Mag 1	Cpy D, Mal staining	Float containing malachite. Weathered surface is light grey. Fresh surface is medium grey, black and white. Coarse grained. Contains ~50% mafics, 10% quartz and 40% feldspar. Sample is relatively unaltered. Potassic alteration is subtle. Magnetite is 1%. Malachite staining is 1%, mostly on the weathered surface. Chalcopyrite is disseminated and <1%.				
341012	6226232	M01	Gail North	684225	1757	Subcrop	Granodiorite	CaCb 1	Py Tr	Py D	Orangey gossanous subcrop from below an orange stained area of granodiorite outcrop. Looks like the quartz/calcite we have been seeing. Mostly quartz, some calcite and a bit of pyrite too. Appears to have dolomite alteration (idioblasts). Dolomite alteration is weak. Quartz is ~50%, feldspar is ~45% and mafics are 5%. Calcite present on the weathered surface and in small (<3mm) veins. Pyrite is trace and disseminated.				
340762	6226298	M01	Gail North	684225	1758	Outcrop	Gossanous granodiorite	FeOx 1	Py <1, Mag 3-5	Py D	Slightly gossanous outcrop. Weathered to orange/brown. Fresh surface is black, grey and white. Appears fairly unaltered. Iron oxide is subtle. Coarse grained. Composed of 40% mafics, 30% quartz and 30% feldspar. Magnetite is 3-5%. Pyrite is present on the weathered surface in a small gossanous blob. Pyrite is <1%.				
336065	6230756	M07	Lake	688843	1759	Float	Granodiorite	Pot 4, Epi 2	Py Tr, Mag 5-7	Py D	Weathered surface is grey. Fresh surface is pink and black. One side of the sample has strong to intense epidote alteration (vein running along where the rock fractured). Potassic alteration is strong. Magnetite is 5-7%. Composed of 10-15% mafics, 5-10% quartz and 75-80% feldspar. Pyrite is trace and disseminated, often associated with mafics. No chalcopyrite noted.				
336066	6230737	M07	Lake	688843	1760	Float	Quartz monzonite	Pot 2, Chl 2, Epi 2, FeOx 3	Py <1, Cpy Tr, Mag 5-7	Py D, Cpy D	Weathered to beige and grey. Fresh surface is pale green and black. Coarse grained. Composed of 20-25% mafics, 5-10% quartz and 65-75% feldspar. Magnetite is 5-7%. Chlorite, epidote and potassic alteration are weak. Iron oxide alteration is weak to moderate. Pyrite is <1% and disseminated in areas where there is gossanous weathering. Chalcopyrite is trace and disseminated within the host rock.				
336043	6230735	M07	Lake	688843	1761	Float	Quartz and epidote vein	Epi 2	Mal 1, Cpy 1	Mal and Cpy D	Large boulder with a quartz vein 10mm wide. Quartz vein is vuggy and contains epidote alteration. Vein is within granodiorite host rock. Epidote alteration is weak. Malachite and chalcopyrite are present within the vein. Malachite is disseminated and 1%. Chalcopyrite is disseminated and 1%.				
336023	6230741	M07	Lake	688843	1763	Float	Epidote altered granodiorite?	Epi 4, Chl 2, FeOx 1	Py Tr	Py D	Weathered to light brown. Fresh surface is pale pistachio green. Epidote alteration is strong. Chlorite alteration is weak. Difficult to tell composition due to alteration. Quartz is approximately 15% and feldspar appears to be about 60%. Cannot tell the rest. Non-magnetic. Pyrite is disseminated in trace amounts with iron oxide rims.				
335847	6230792	M07	Lake	688843	1764	Float	Chlorite altered granodiorite?	Chl 5, Pot 2	Py <1, Moly Tr	Py D, Moly FF	Weathered and fresh surfaces are dark green in colour. Quartz and feldspar are present but difficult to tell exact composition due to alteration. Approximately 20% feldspar and 5% quartz. Chlorite alteration is intense. Potassic alteration is weak. Pyrite is associated with a thin quartz vein (up to 5mm wide) and is disseminated, <1%. Possible trace molybdenite (?), purpley mineral in fracture.				
335828	6230792	M07	Lake	688843	1765	Float	Quartz vein	Pot 4	Mal 3-5	Mal FF	Float with quartz vein along the edge that has malachite. Cannot get a piece off, just little chips. Pinkish orange in colour. Potassic alteration is strong. Quartz vein has ~5% feldspar and 1% mafics. Malachite is in fractures and is 3-5%.				
335822	6230798	M07	Lake	688843	1766	Float	Mafic rich igneous rock	Chl 3, FeOx 3	Py <1, Mag 15-30	Py and Mag D	Float. Weathered to dark grey and purple. Fresh surface is black and dark purple. Hard to tell composition. Mafics are >50% and cannot tell the rest of the composition. Magnetite is strong, 15-30%. Pyrite is <1% and disseminated. Chlorite alteration is moderate. The purple colour looks like the colour of titanite, but could also be red iron oxide that looks purple against the black/green. Cannot be certain.				
335754	6230715	M07	Lake	688843	1767	Outcrop	Quartz monzonite?	Epi 3	Py <1, Mag 5-7	Py D	Greenish grey in colour. Medium to coarse grained. Composed of 50% mafics, 5% quartz and 45% feldspar. Magnetite is 5-7%. Epidote alteration is moderate. Pyrite is <1% and disseminated.				
335805	6230807	M07	Lake	688843	1769	Float	Gossanous granodiorite	Pot 2	Py 1-3, Mag 5-7	Py D and blebby	Grey green in colour. Quartz veins (up to 1.5cm wide). Veins have strong potassic alteration and moderate iron oxide alteration. Host rock is medium to coarse grained. Mafics are ~40%, quartz is 5-10% and feldspar is 50-55%. Magnetite is 5-7%. Potassic alteration in the host rock is weak. Pyrite is only present within the quartz veins, disseminated and blebby and 1-3%.				
335736	6230826	M07	Lake	688843	1770	Float	Gossanous monzonite?	FeOx 3, Epi 3	Py 3-5, Mal 3-5	Py blebby, Mal staining and D	Float. Epidote and gossan with pyrite and malachite. Orangey brown on the weathered surface and pale green and light orange on the fresh surface. Coarse grained. Mafics are 10-15%, quartz is 5% and feldspar is ~80-85%. Very rough estimate of the composition. Iron oxide is moderate, mostly on the weathered surface. Epidote alteration is also moderate. Pyrite is present on the weathered, gossanous surface. Pyrite is 3-5% and blebby. Malachite staining is on the weathered surface while malachite is disseminated within the groundmass. Malachite is 3-5%.				
335672	6230786	M07	Lake	688843	1771	Float	Quartz monzonite	Pot 5	Mag 3-5	N/A	Weathered and fresh surfaces are salmon pink and black. Coarse grained. Composed of 15-20% mafics, 5-10% quartz and 70-80% feldspar. Potassic alteration is intense. Narrow epidote vein (~3mm). No sulphides noted. Magnetite is 3-5%.				
335660	6230861	M07	Lake	688843	1772	Float	Granodiorite	FeOx 1	Mag 1-3, Mal 1-3,	Mal D	Float of granodiorite with malachite staining. Weathered to dark grey. Fresh surface is black and beige. Coarse grained. Contains 15-20% mafics, 20-25% quartz and 55-65% feldspar. Iron oxide alteration is subtle. Magnetite is 1-3%. Malachite is disseminated throughout and 1-3%.				
335663	6230795	M07	Lake	688843	1773	Float	Granodiorite	None	Mag 15-30, Py <1	Py D	Weathered surface is black. Fresh surface is black with some beige. Coarse grained. Very rich in mafics. Composed of approximately 60% mafics, 10% quartz and 30% feldspar. Magnetite is very strong (15-30%). Small amount of pyrite disseminated along the edge of a fracture. Pyrite is <1%.				
335614	6230789	M07	Lake	688843	1774	Float	Granodiorite	FeOx 2	Mag 5-7, Py <1	Py D	Weathered to dark grey. Fresh surface is black and beige. Coarse grained. Contains 25-30% mafics, 10-15% quartz and 55-65% feldspar (plagioclase). Iron oxide alteration is weak. Magnetite is 5-7%. <1% pyrite disseminated on weathered surface.				
335613	6230904	M07	Lake	688843	1775	Float	Semi-massive magnetite	FeOx 2	Mag 30-50, Mal <1	Mal D	Float. Semi-massive magnetite contact with granodiorite. Black in colour. Malachite is disseminated in an iron oxide altered feldspar crystal. Malachite is <1%. Magnetite is 30-50%. Iron oxide alteration is weak.				
335603	6230790	M07	Lake	688843	1776	Float	Chlorite altered	Chl 5, Cal 2	Py 1	Py D	Weathered to grey with some gossanous areas. Fresh surface is dark grey/green. Aphanitic texture. Cannot tell composition as rock is too fine grained. Chlorite alteration is intense. Calcite and quartz veins that have pyrite along the edges. Pyrite is disseminated and 1%.				
335508	6230908	M07	Lake	688843	1777	Float	Gossanous quartz monzonite	Pot 2, FeOx 3	Mag 5-7, Py <1	Py D	Gossanous float. Weathered surface is reddish brown. Fresh surface is dark grey and light orange. Coarse to very coarse grained. Contains 40-45% mafics, 50% felsdpar and 5-10% quartz. Potassic alteration is weak. Iron oxide alteration is moderate. Magnetite is 5-7% (locally up to 15-30%). Pyrite is fine grained and disseminated, <1%.				

Cathedral Property
Rock Sample Descriptions

Location (UTM Zone 10 North NAD 83)							Description						XRF Analysis		Fire Assay
Easting	Northing	Map	Zone	Tenure	Sample No.	Sample Type	Lithology	Alteration	Sulphides (%)	Mineralization Style	Field Sample Descriptions	Structure	Cu ppm	As ppm	Au ppm
335514	6230816	M07	Lake	688843	1778	Float	Chlorite altered igneous rock	Epi 4, Chl 3, FeOx 1	Py 1-3, Cpy <1, Mag 1, Mal <1	Py D, Cpy D, Mal staining	Weathered and fresh surfaces are pale and dark green. Epidote and chlorite alteration are moderate to strong. Original composition obscured due to alteration. Magnetite is local and 1%. Pyrite is disseminated throughout and 1-3%, very fine grained. Chalcopyrite is disseminated and <1%. Malachite staining is present on the weathered surface.				
335489	6230901	M07	Lake	688843	1779	Float	Chlorite altered with gossanous weathering	Chl 3, Pot 2-4	Py 5-7	Py D and blebby	Gossanous float. Lots of pyrite! Weathered to red/brown. Fresh surface is green or orangey. Dificult to tell composition due to alteration. Chlorite alteration is moderate. Potassic alteration is locally strong. Non-magnetic. Pyrite is disseminated and blebby. Pyrite is 5-7%.				
335963	6231114	M07	Lake	688843	1780	Float	Potassic altered rock	Pot 4, Epi 2	Py Tr	Py D	Peach in colour, cannot tell composition due to strong potassic alteration and because it is very fine grained. Epidote is present in the fractures within the potassic vein (?). Pyrite is trace and disseminated.				
335964	6231087	M07	Lake	688843	1781	Float	Monzonite	Pot 4, Epi 1	Mag <1	N/A	Weathered to dark brown. Fresh surface is dark grey. Coarse to very coarse grained. Composed of 30-40% mafics, <5% quartz and 60% feldspar (cannot determine plagioclase and potassium feldspar ratio due to potassic alteration). Magnetite is <1%. Potassic alteration is strong. Epidote alteration is subtle. No sulphides noted.				
335929	6231117	M07	Lake	688843	1782	Float	Gossanous quartz monzonite	Epi 4, Pot 3	Mag 1, Py Tr	Py D	Slightly gossanous weathering. Fresh surface is green with some pink. Composed of roughly 15% mafics, 10% quartz and 75% feldspar. Epidote alteration is strong. Potassic alteration is moderate. Pyrite is trace and disseminated in the epidote rich or gossanous areas. Magnetite is 1%.				
335941	6231083	M07	Lake	688843	1783	Subcrop	Monzonite	Pot 5, Epi 4	Mag <1, Py Tr	Py D	Dark, salmon pink in colour with pistachio green veinlets. Composition largely obscured by intense potassic and epidote alteration. Apporximately 40% mafics, 55% feldspar and <5% quartz. Magnetite is <1%. Trace amounts of pyrite disseminated.				
335924	6231102	M07	Lake	688843	1784	Subcrop	Monzonite	Pot 4, Epi 1	Mag 7-15	N/A	Weathered to dark grey. Fresh surface is black and pink. Coarse grained. Composed of 30% mafics, <5% quartz and 65% feldspar. Potassic alteration is strong. Epidote alteration is subtle and local. Magnetite is 7-15% (locally semi-massive at 30-50%). No sulphides noted.				
335767	6231127	M07	Lake	688843	1785	Outcrop	Potassic altered monzonite	Pot 5	Mag 1-3, Mal <1	Mal staining	Weathered to red/brown. Fresh surface is dark salmon pink. Potassic alteration is pervasive and intense. Very fine grained. Magnetite is 1-3%. Mafics are <5%, quartz is 5% and feldspar is 90%. Malachite is <1% on weathered surface.				
335782	6231228	M07	Lake	688843	1786	Outcrop	Quartz vein	Pot 2	Cpy 1, Mal 1	Cpy D, Mal staining	Outcrop! Malachite staining on the surface. Epidote and quartz vein with malachite and chalcopyrite around and within it. Oriented roughly at 040/58. Dark grey in colour with feldspar phenocrysts. Composition difficult to tell. Mafics are ~60-70%. Feldpar phenocrysts are pink and beige and 20-30% in abundance. Chalcopyrite is disseminated and associated mostly with the quartz and epidote veining. Malachite staining os present on the weathered surface.	040/58			
335762	6231127	M07	Lake	688843	1787	Outcrop	Potassic altered monzonite	Pot 5	Cpy Tr	Cpy D	Weathered to red/brown. Fresh surface is dark salmon pink. Potassic alteration is pervasive and intense. Very fine grained. Non-magnetic. Mafics are 5%, quartz is 5% and feldspar is 90%. Chalcopyrite is trace and disseminated.				
336632	6231847	M07	Lake	688843	1788	Float	Gossanous epidote vein	Epi 5, Chl 4, FeOx 3	Py <1, Mal 1	Py D, Mal staining	Weathered to red/brown. Fresh surface is light to dark green. Epidote is intense. Non-magnetic. Malachite staining is 1% on weathered surface. Pyrite is disseminated and <1%. Part of the sample is not a vein, but cannot tell composition due to the strong epidote, chlorite and iron oxide alteration.				
335727	6231161	M07	Lake	688843	1789	Float	Mafic rich igneous rock	FeOx 1	Cpy <1, Mal <1, Mag 7-15	Cpy D, Mal D	Float sample with quartz vein with chalcopyrite and a small amount of malachite in it. Cpy <1%. Black in colour. Contains mostly mafics. Composed of 85-90% mafics with tabular feldspar crystals ~10-15%. Magnetite is 7-15%. Malachite is disseminated within the groundmass and <1%.				
335730	6231148	M07	Lake	688843	1791	Subcrop	Monzonite	Pot 3	Mag 5-7, Mal <1, Py <1	Py D, Mal staining	Medium grey with an orangey tint. Medium to coarse grained. Composed of 15% mafics, 5% quartz and 80% feldspar. Potassic alteration is moderate. Magnetite is 5-7%. Malachite staining is <1%. Pyrite is <1% and disseminated.				
335716	6231146	M07	Lake	688843	1792	Subcrop	Monzonite?	Pot 2	Py <1, Mag 1-3	Py D	Weathered to light brown. Fresh surface is dark grey. Appears to be strong in mafics, giving it the dark colour. Feldspar is ~20-30% and quartz is <5%. 1-3% magnetite. Potassic alteration is weak. Epidote veinlets are up to 2mm in width. Pyrite is disseminated and <1%, associated with the epidote veins.				
335658	6231250	M07	Lake	688843	1793	Float	Semi-massive magnetite	Cal 3, FeOx 2	Mal 3-5, Cpy 1, Mag 30-50	Mal staining, Cpy D	Black, 30-50% magnetite. Calcite alteration in blebs is moderate. Some feldspar visible, but only 5-10%. Malachite staining is 3-5%. Chalcopyrite is disseminated 1%.				
336349	6231855	M07	Lake	688843	1795	Float	Mafic rich igneous rock	Epi 3	Mag 3-5, Cpy Tr	Cpy D	Dark grey to black in colour. Fine to medium grained. Mafics are dominant (~80%). Feldspar is rare, cannot get a percentage due to alteration. Trace, very fine grained disseminated chalcopyrite. Epidote alteration is moderate.				
335653	6231163	M07	Lake	688843	1796	Outcrop	Calcite vein in monzonite	Pot 3, Epi 1, Cal 2	Mag 5-7, Cpy 1	Cpy D and B	Calcite and epidote vein in fine grained monzonite. Calcite vein is 8mm wide, epidote runs through and along the edge of vein. Host rock is black and pink, fine grained and contains 40-45% mafics, 50-55% feldspar and <5% quartz. Magnetite is 5-7%. Potassic alteration is moderate to strong. Chalcopyrite is disseminated and banded within the calcite and epidote vein. Chalcopyrite is 1%.				
336336	6231870	M07	Lake	688843	1797	Float	Monzonite	Pot 3, Epi 1	Mal 3-5, Cpy 1-3	Mal and Cpy D	Weathered to dark grey or black. Fresh surface is dark grey with some pink. Coarse grained. Non-magnetic. Contains ~50% mafics, <5% quartz and 45-50% feldspar. Potassic alteration is moderate. Epidote is present in thin (up to 1mm) veinlets. Malachite is disseminated and 3-5%. Chalcopyrite is disseminated, fine grained and 1-3%.				
336295	6231844	M07	Lake	688843	1798	Float	Monzonite	Pot 3, Epi 1	Mag 3-5, Py <1	Py D	This sample is much paler in colour than the ones preceding it. Feldspar dominated instead of mafics dominated. Light pink to beige in colour. Contains 5-10% mafics, 5-10% quartz and 80-90% feldspar. Magnetite is 3-5%. Potassic alteration is weak to moderate. Epidote alteration is present along one edge of the sample (probably broke along an epidote filled fracture). Epidote vein contains <1% disseminated pyrite.				
335601	6231273	M07	Lake	688843	1799	Float	Quartz vein in granodiorite or aplite	FeOx 2	Py <1, Cpy <1	Py and Cpy D	Gossanous quartz vein in float. Pyrite and chalcopyrite present. Light in colour, white with an orange tint. Fine grained. Quartz vein present. Mafics are 5-10%, quartz is 30-35% and feldspar is 55-60% (feldspar appears to be mostly plagioclase). Non-magnetic. Iron oxide alteration is weak. Pyrite and chalcopyrite are disseminated and <1% in abundance.				
335618	6231166	M07	Lake	688843	1800	Outcrop	Monzonite/ Monzodiorite	Pot 2, Chl 4, FeOxid 1	Cpy <1, Mal <1, Mag 3-5	Cpy D	Malachite veining. Dark grey to black with large, cream to pale pink feldspar phenocrysts (up to 1cm). Borders on pegmatitic. Very coarse grained. Composed of 70-80% feldspar and 20% mafics along with disseminated and blebby magnetite (3-5%). Mafics included amphibole and biotite and are chlorite altered. Feldspar have weak to moderate potassic alteration. Sulphide mineralization includes <1% chalcopyrite. Malachite is also present (<1%) on weathered surface.				
336235	6231853	M07	Lake	688843	1801	Float	Quartz monzonite/ Quartz monzodiorite	Chl 3, Epi 1, Pot 3	Py <1	Py D	Very coarse grained with dark green to black, salmon pink, white and light grey phenocrysts. All phenocrysts have irregularly shaped grain boundaries. 40-50% feldspar (up to 1cm in size), 5% quartz, 40% mafic minerals (biotite and amphibole), 7-15% magnetite. Chlorite alteration throughout mafic minerals, potassic is spotty and appears selective (may indicate kspar vs plagioclase?). Very fine grained, disseminated pyrite (<1%). Similar to sample 1800 with increased quartz.				
335577	6231288	M07	Lake	688843	1802	Float	Quartz monzonite (Gossan)	Chl 3, Albite 3, FeOxid 3	Cpy 1-3, Mag 5-7	Cpy D	Gossanous float. Appears somewhat chlorite altered. Orangish red weathered surface and dark grey fresh surface. Medium grained and pervasive alteration has overprinted grains making identification difficult. Compositionally quartz is the easiest to identify comprising approximately 10-20%, 50-60% feldspar and 20-30% mafic minerals. Strong magnetism with 5-7% magnetite. Alteration includes pervasive chlorite, possible albitization?, iron oxidation persists along grain boundaries as well as strongly present on weathered surface. Sulphide mineralization is dominated by fine grained disseminated chalcopyrite (1-3%).				
335642	6231187	M07	Lake	688843	1803	Subcrop	Monzonite	Chl 2, Pot 5, Ser 1	Spec <1, Mag 5-7	N/A	Fine to medium grained and salmon pink with interstitial dark green to black mafic minerals. Composed of 70-80% feldspar, 10-20% mafics and minor quartz. Feldspar is strongly potassically altered with subtle spotty sericite alteration of a few feldspar grains. Mafic minerals are weakly chloritized. Magnetite comprises 5-7%. A 1mm wide, silver, metallic, streak red (specularite) vein cross-cuts sample. No sulphides noted. Very similar to sample 1808.				
336164	6231865	M07	Lake	688843	1804	Float	Quartz monzonite	Chl 2, Pot 3, Epi 1	Cpy <1, Mag 3-5, Mal tr	Cpy Vein	Very coarse grained with dark green to black, salmon pink, white and light grey phenocrysts. All phenocrysts have irregularly shaped grain boundaries. 40-50% feldspar (up to 1cm in size), 5% quartz, 40% mafic minerals (biotite and amphibole), 3-5% magnetite. Epidote and calcite +/-quartz veinlets cross-cut sample. Very similar to sample 1801. Weaker chlorite alteration. Sulphides include chalcopyrite (1%) precipitationg with calcite veinlet and malachite is also present along selvage of veinlet.				
336182	6231861	M07	Lake	688843	1805	Float	Quartz monzonite/ Quartz monzodiorite	Chl 3, Epi 2, Pot 2	Mag 1-3	N/A	Very coarse grained with dark green to black, light pink, white and light grey phenocrysts. Very similar to samples 1801 and 1804. Epidote and potassic altered feldspar, chlorite alteration locally. 1-3% magnetite disseminated. No suphides noted.				
336125	6231865	M07	Lake	688843	1806	Float	Quartz monzonite/ Quartz monzodiorite	Chl 4, Pot 1	Cpy 1, Mag 1	Cpy D	Dark green to black, fine to coarse grained. Very similar to samples 1801 and 1807. Pervasive alteration obscures the majority of grains. Comprised of 5% quartz, 50% mafics (biotite and amphibole), 40-50% feldspar. Chlorite alteration overprints sample with spotty potassic. Magnetite is disseminated ~1%. Very fine grained disseminated chalcopyrite and trace specks of malachite.				

Cathedral Property
Rock Sample Descriptions

Location (UTM Zone 10 North NAD 83)							Description					XRF Analysis		Fire Assay
Easting	Northing	Map	Zone	Tenure	Sample No.	Sample Type	Lithology	Alteration	Sulphides (%)	Mineralization Style	Field Sample Descriptions	Structure	Cu ppm	As ppm	Au ppm
336131	6231852	M07	Lake	688843	1807	Float	Monzonite/ Quartz monzonite	Chl 3, Bio 4, Epi 2, Pot 1	Cpy <1, Mal tr	Cpy D	Grey to dark green, fine to coarse grained. Compositionally difficult to determine as alteration has blasted sample. Biotite dominates mafic minerals (possible biotitization?), feldspar and minor quartz also present. Based on colour and feldspar present sample may be a monzonite/quartz monzonite? Pervasive chloritization and biotititzation, and patchy epidote, potassic alteration blurs grain boundaries. Magnetite is 5-7%. Sulphides include disseminated, fine grained chalcopyrite (1%) with trace malachite noted.				
335605	6231217	M07	Lake	688843	1808	Outcrop	Monzonite	Chl 3, Pot 4, Epi 3	Py tr, Cpy tr, Mag 5-7	Py D, Cpy D	Dark grey with a salmon pink overtone. Medium to coarse grained. Compositionally it contains approximately 70% feldspar and 30% mafic minerals. Magnetite is disseminated and associated with mafic minerals (5-7%). Mafic minerals are comprised of amphibole with lesser biotite and are pervasively chlorite altered. Feldspar are strongly potassic altered. Epidote veinlets cross-cut sample (<1mm in width). Trace pyrite and chalcopyrite disseminations. Possibly a finer grained version of sample 1800?				
335408	6231358	M07	Lake	688843	1809	Float	Quartz diorite/ Granodiorite?	Chl 4, Epi 4, Pot 1	Py 1, Cpy tr, Mag <1	Py D and CH, Cpy D	Gossanous float. Rich in epidote. Gossanous crust contains pyrite. Appears to be granodiorite(?) with epidote vein. Dark green with light green veinlets and patches (epidote). Medium to coarse grained. Pervasive alteration obscures a large majority of the texture especially the mafic minerals. Quartz comprises 10%, feldspar 10-15%, and 60-80% mafic minerals including amphibole and minor biotite. Chlorite and epidote alteration dominate sample with subtle potassic locally. Magnetite is disseminated and <1%. Sulphides include fine grained disseminated and chunky pyrite (1%) and trace disseminated chalcopyrite.				
335594	6231214	M07	Lake	688843	1810	Float	Takla Volcanic?	Chl 4, Pot 2,	Cpy 1, Mag 7-15	Cpy D, Blebs	Dark green to black with interstitial light grey phenocrysts. Medium to coarse grained. Composed of 10-15% quartz with the majority of remaining grains obscured due to magnetite and alteration. 60-70% of sample is dark grey to black with salmon pink colouring locally. Magnetite abundance is 7-15%. Sulphides consist of 1% disseminated/blebby chalcopyrite. The weathered surface appears basaltic as it is vuggy. Quartz may be secondary amygdules??				
335594	6231217	M07	Lake	688843	1811	Outcrop	Granite/ Quartz monzonite	Pot 3, Epi 1, Ser 1	Cpy <1, Py tr, Mag 1-3	Cpy D, Py D	Fine to medium grained equigranular and grey to salmon pink colour. Composed of 60-70% feldspar, 10-20% mafics, and 10-15% quartz. Has a weak fabric with grains weakly stretched and appear to be parallel to one another (possible cooling indication?) Pervasive potassic alteration throughout, subtle epidote and sericite, generally not altered much. Magnetite is 3-5% disseminated. Sulphides include very fine grained disseminations of chalcopyrite (<1%) and pyrite (trace).				
335906	6231853	M07	Lake	688843	1812	Float	Quartz monzonite/ Quartz monzodiorite	Pot 2, Chl 3, Epi 1, FeOxid 1	Mag 7-15	N/A	Fine to coarse grained with black, white, salmon pink and pale grey phenocrysts. Similar to samples 1801, 1804, and 1805. Composed of 60-70% feldspar, 10-30% mafics minerals (amphibole and biotite), and 5% quartz. Chlorite and potassic alteration is pervasive throughout, with spotty epidote. Magnetite is 7-15% as blebs and disseminated. No sulphides noted.				
335386	6231403	M07	Lake	688843	1813	Float	Takla Volcanic (Gossan)	Pot 2, Chl 3, Ser 1, Tit 1, CaCb 3	Py <1, Cpy tr	Py D and Blebs, Cpy D	Slighthly gossanous float. ~1% pyrite within, cubic. Dark grey to black with pale pink to pale grey interstitial grains. Grain boundaries are blurred due to alteration. Compositionally consisting of 50% mafic minerals (amphibole and biotite), 30-50% feldspar and 5% quartz. Alteration includes calcite in matrix, potassic, chlorite, subtle sericite. There are very fine grained mauve specks (titanite?). No magnetite noted. Sulphides includes fine to medium grained disseminated pyrite (<1%) and trace chalcopyrite.				
335587	6231235	M07	Lake	688843	1814	Outcrop	Quartz diorite??	Chl 4, Pot 1, Sil 2	Py <1, Cpy <1, Mag <1	Py D, Cpy D	Dark green to black. Fine to coarse grained. Composed of predominately mafic minerals (60-70%) including amphibole up to 6mm long as well as biotite. Quartz is present (10-15%) and also as a vein. Feldpar (20-30%), fine grained. Pervasive chlorite alteration, with weak silicification. Subtle potassic alteration locally. Magnetite is disseminated and <1%. Sulphides include very fine grained disseminated chalcopyrite and pyrite.				
336074	6230689	M07	Lake	688843	1815	Float	Monzonite/ Quartz monzonite	Pot 4, Chl 2, Epi 1	Py <1, Mag <1	Py D	Very coarse grained with salmon pink, white and black phenocrysts. Very similar to samples 1801, 1804, and 1805. 60-70% feldspar, 20-30% mafic minerals, and minor quartz. <1% disseminated magnetite. Potassic and chlorite alteration with epidote veinlets. Sulphides include fine grained disseminated pyrite (<1%).				
335559	6231268	M07	Lake	688843	1816	Float	Quartz monzonite	Bio 4, Epi 3, Pot 1	Cpy <1, Py tr, Mal tr	Cpy D, Py D	Dark green grey with patches of light green (epidote). Coarse grained, equigranular and composed of 40-50% mafic minerals (predominately biotite and minor amphibole), 10-15% quartz and 40-50% feldspar.Patchy epidote alteration. Sample may include biotitization as there is a surprisingly large amount of biotite in what appears to be a monzonite. Sublte potassic alteration. No magnetite. Sulphides include trace pyrite and <1% chalcopyrite both of which are very fine grained disseminations. Trace malachite also noted.				
335465	6231458	M07	Lake	688843	1817	Outcrop	Fault healed breccia??/ Quartz vein	Chl 2, Hem 2	Py <1	Py Band	Orange, gossanous outcrop. Quartz rich and bluish in colour. Quartz veins (and calcite?). Pyrite veins are parallel to quartz veins. 1% pyrite is fracture fill. Gossanous stain on outcrop is ~1x2m. Brown weathered surface and grey fresh surface. Has what appears to be possible bedding or a fabric associated that is parallel to the 2mm quartz vein going through sample. Also there is a 1cm wide zone of possible brecciation as there are <=1mm grains within a pale green grey cement. Locally rock appears phylitic with foliations? visible. Sample may be taken from a fault. Compositionally difficult to determine as the majority of grain size is aphanitic with quartz visible and a possible component of brecciated material. Weak chloritization overprints rock with hematite visible locally. Pyrite (<1%) is the only sulphide visible and present in a band parallel to foliations? and quartz vein. No magnetite present.				
335801	6231843	M07	Lake	688843	1818	Float	Feldspar porphyritic dyke	Chl 3, Sil 3	Py tr	Py D	Light grey to white feldspar (1-6mm) and light grey quartz (1-4mm) phenocrysts comprise 50% of sample in an aphanitic dark green matrix. Very fine grained black mafic minerals noted (biotite). Possible silicification of matrix. Pervasive chlorite. Magnetite is disseminated 5-7%. Trace, disseminated, very fine grained pyrite.				
335510	6231288	M07	Lake	688843	1819	Float	Takla Volcanic	Chl 4, Epi 3, Tit 3, CaCb 3	Mag 5-7	Py D	Dark grey to black and aphanitic. Mauve specks and wisps (titanite?). Magnetite is 5-7%. Epidote and chlorite alteration throughout. Calcite is matrix. Vuggy weathered surface. No sulphides noted.				
335353	6231633	M07	Lake	688843	1821	Float	Diorite	Chl 2, CaCb 3	Cpy <1, Mal 1, Mag 5-7	Cpy D	Float with malachite. Biotite and amphibole rich. Dark green to black and medium to coarse grained. Composed of 60-70% mafics (bio and amph) and 30% plagioclase. Magnetite appears as blebs and disseminations 5-7%. Chlorite is weakly altering mafic minerals. Chalcopyrite appears as blebs and stringers as does malachite.				
335229	6231639	M07	Lake	688843	1822	Float	Takla Volcanic?	Chl 4	Cpy <1, Mal tr, Mag 7-15	Cpy D	Float with trace malachite and chalcopyrite(?) and pyrite. Dark green to black. Dominated by fine grained biotite and amphibole with oval/stretched quartz (amygdules??) up to 6mm long comprising 5%. Strong magnetite 7-15%. Pervasive chlorite alteration throughout. Sulphides include trace disseminated chalcopyrite. Trace malachite also noted.				
335220	6231644	M07	Lake	688843	1823	Float	Diorite	Chl 1, CaCb 3	Cpy <1, Mal 1, Mag 5-7	Cpy D	Dark green to black and coarse grained. Similar to sample 1821. Mafic minerals (bio and amph) comprise 60-70% of sample. Plagioclase makes up 20-30%. Magnetite is 5-7% as blebs up to 2mm wide. Weakly chloritized mafic minerals. Cross-cut by two calcite veinlets (<=1mm wide). Very fine grained, disseminated chalcopyrite with malachite as patches and stringers.				
335198	6231637	M07	Lake	688843	1824	Float	Granodiorite	Chl 2, Pot 1	Cpy tr, Mag 3-5	Cpy FF	Very coarse grained with a salt and pepper look. Composed of 30-40% quartz, 30-40% feldspar, and 15-20% mafic minerals (bio and amph). Grain sizes range from 1-7mm for mafics, 1-5mm for feldspar and quartz. Magnetite disseminations are associated within mafic grains (3-5%). Chlorite altered mafics. Potassica alteration on weathered surface. Trace sulphides present in a hairline fracture, very fine grained, and difficult to distinguish. Appears to be chalcopyrite.				
335203	6231625	M07	Lake	688843	1825	Outcrop	Diorite	Chl 1, Pot 1, Epi 1	Cpy <1, Mag 5-7	Cpy D	Dark green to black with pale grey to white interstitial grains. Coarse grained. Appears to have a weak linear fabric with feldspar phenocrysts elongated parallel to one another. 30-40% feldspar phenocrysts with 60-70% mafic minerals including biotite and amphibole. similar to samples 1821 and 1823. Subtle chlorite, potassic and epidote noted. Disseminated and blebby magnetite 5-7% localized to mafic grains. Sulphide mineralization includes <1% disseminated chalcopyrite.				
335114	6231678	M07	Lake	688843	1826	Float	Quartz monzonite	Pot 2, FeOxid 3, CaCb 2	Cpy <1, Mal 1, Azu 1, Mag 1 (30-50)	Cpy D	Malachite and azurite staining on weathered surface. Weakly grey with salmon pink grains on fresh surface. Fine grained and composed of 70-80% feldspar, 10-20% mafics, and 5-10% quartz. Potassically altered feldspar, subtle epidote. Disseminated magnetite (1%) on one piece of sample. A second piece has a band of magnetite that is semi-massive. Chalcopyrite is disseminated. Malachite is also noted as stringers on fresh surface.				
335118	6231691	M07	Lake	688843	1827	Float	Diorite	CaCb 2	Mal <1, Mag, 5-7	N/A	Float. Slightly gossanous with malachite staining. Dark grey to black and fine to coarse grained. Biotite and amphibole dominant with 20-30% feldspar. Magnetite ranges 5-7% as disseminations and blebs. Generally unaltered except with influx of calcite fludis. No sulphides noted. Malachite is patchy only on weathered surface.				
335105	6231723	M07	Lake	688863	1829	Outcrop	Diorite	CaCb 3, Epi 1	Cpy 1, Mal 1, Mag 15-30	Cpy D	Similar to sample 1827. Dark grey to black and medium grained. Composition dominated by biotite and amphibole with 20-30% feldspar. Calcite within matrix. Very strong magnetite 15-30%. Sample blasted with magnetite which has obscurs majority of original texture. Malachite is present on both the weathered surface and intergranularly (1%). Disseminated, fine grained chalcopyrite (1%).				

Cathedral Property
Rock Sample Descriptions

Location (UTM Zone 10 North NAD 83)							Description						XRF Analysis		Fire Assay
Easting	Northing	Map	Zone	Tenure	Sample No.	Sample Type	Lithology	Alteration	Sulphides (%)	Mineralization Style	Field Sample Descriptions	Structure	Cu ppm	As ppm	Au ppm
335103	6231723	M07	Lake	688863	1830	Outcrop	Diorite	Chl 3, CaCb 2	Cpy 1-3, Mal 1, Azu <1, Mag 30-50	Cpy D	Malachite and azurite staining on weatered surface. Dark grey to black. Coarse grained. Bordering on semi-massive magnetite. Grains difficult to distinguish as magnetite overprints sample. Pervasive chlorite alteration throughout. Contact on one piece of sample with semi-massive magnetite bearing rock in contact with medium grey, fine grained, non-magnetic rock. Sulphides are also less abundant in non-magnetic area. Sulphide mineralization includes 1-3% disseminated chalcopyrite. Malachite persists interstitially as stringers.				
335126	6231740	M07	Lake	688843	1831	Outcrop	Quartz monzonite	Epi 4, CaCb 3, Sil 3, Pot 1, FeOxid 2	Cpy <1, Mal <1, Azu <1	Cpy D	Malachite and azurite staining on weathered surface. Light green (epidote) to pale grey (quartz) and light pink (feldspar) locally on weathered surface. Grain boundaries blurred due to strong alteration. Composed of 15-20% quartz, 70-80% feldspar, and minor mafics (if they were present in greater abundance they're gone now). Pervasive epidote alteration throughout. Localized potassic. Calcite veinlets. No magnetite. Sulphides include <1% disseminated chalcopyrite. Malachite and azurite localized along fractures or veinlets.				
335151	6231741	M07	Lake	688843	1832	Outcrop	Quartz diorite/ Possible tonalite??	N/A	Mag 5-7	N/A	LITHO- Outcrop litho sample on the top on the ridge. A lot of the boulders below look to be almost schistose, but this rock from outcrop does not. Medium to dark grey, coarse grained. Composed of 20-30% quartz, 20-30% feldspar, and 40-50% mafic minerals. Magnetite is 5-7%, disseminated. Generally unaltered. No sulphides noted.				
335316	6232018	M07	Lake	688883	1833	Subcrop	Monzonite/ Quartz Monzonite	Chl 2, Pot 2, Ser 2, CaCb 1	Py tr, Cpy tr	Py Vein, Cpy Vein	Similar to 1835. Coarse grained with pale grey to white and light pink feldspar (50-60%), dark green to black mafic minerals (40-50%), and minor pale grey quartz. Calcite +/- quartz veinlets. Chlorite altered mafics, potassic and sericite altered feldspar. Magnetite (1%) disseminated. Almost appears to be a contact between dark green to black diorite (very amphibole and biotite rich with little feldspar) and feldspar abundant monzonite? Could also be different cooling phases. Sulphides are minor with pyrite and possibly chalcopyrite but is very fine grained and precipitating in veinlet.				
335398	6231976	M07	Lake	688883	1834	Float	Andesite	CaCb 1	Py <1	Py D	Float of volcanic dyke with <1% to 1% pyrite. Dark grey to black aphanitic matrix and pale grey feldspar-phyric. Feldspar are up to 2mm long and comprise ~20-30% of sample with matrix comprising the remainder. Two hairline veinlets of calcite +/- quartz. No magnetite detected. Sulphides include <1%, very fine grained, disseminated pyrite.				
335391	6231921	M07	Lake	688843	1835	Outcrop	Quartz monzonite/ Quartz monzodiorite	Chl 2, Pot 2, Ser 1	Mag 1-3	N/A	Light salmon pink and white feldspar, pale grey quartz and dark green to black mafic minerals. Fine to coarse grained. Composed of 50% mafics, 10-15% quartz and 30-40% feldspar. Subtle sericitization as well as potassic altered feldspar. Weakly chloritized mafics. 1-3% disseminated magnetite. No sulphides noted.				
336096	6230658	M07	Lake	688843	1836	Subcrop	Takla volcanic??	FeOxid 3, CaCb 4, Sil 2	Py <1	Py D	Orangish brown weathered and medium grey fresh surface. Bleached, aphanitic texture obscures grains making them difficult to distinguish. Abundant hairline fractures and veinlets cross cut sample that includes carbonate and quartz. Calcite in matrix. Light mauve stringers and specks (titanite?). No magnetite. Compositionally grains are unidentifiable. Fine grained pyrite cubes precipitated with calcite.				
336218	6230656	M07	Lake	688843	1837	Float	Andesite	Chl 2, CaCb 1	Py <1	Py D	Float of volcanic dyke. Feldspar rich, non-magnetic. Possible trace, disseminated chalcopyrite, but cannot be certain. Medium grey with porphyritic black (chloritized) phenocrysts in an aphanitic matrix. Calcite veinlets (<0.5mm). Fine grained, disseminated, cubic pyrite (<1%).				
336069	6230655	M07	Lake	688843	1838	Subcrop	Granodiorite	Pot 3, FeOx 3	Mag 5-7, Cpy <1, Mal Tr	Cpy and Mal D	Weathered to red/orange (in gossanous areas) or very light pink. Fresh surface is orangey pink. Coarse to very coarse grained. Composed of 25-30% quartz, 10-15% mafics and 55-65% feldspar. Potassic alteration is moderate, iron oxide alteration is moderate. Magnetite is 5-7%. Trace disseminated malachite. <1% disseminated chalcopyrite.				
336081	6230651	M07	Lake	688843	1839	Subcrop	Monzonite	Pot 1	Mag 1, Py 1	Py D	Some gossanous weathering, mostly just grey. Fresh surface is black and white. Coarse grained. Mafics are ~25%, quartz is 5% and feldspar is 70%. Potassic alteration is subtle. Magnetite is 1%. Pyrite is 1% and disseminated, fine grained.				
336281	6230645	M07	Lake	688843	1840	Float	Gossanous monzonite?	Epi 4, Pot 3	Py 1	Py D	Gossanous float with epidote alteration. Weathered surface is red/brown. Fresh surface is pistachio green. Medium to coarse grained. Difficult to tell composition due to alteration. Non-magnetic. Approximate composition is 20% mafics, <5% quartz and 75% feldspar. Epidote alteration is strong. Potassic alteration is moderate. Pyrite is disseminated and 1%.				
336090	6230559	M07	Lake	688843	1841	Subcrop	Monzodiorite or Diorite?	FeOx 2	Mal 1-3, Py 1	Mal D, Py D	Malachite stain is 10m above on cliff. Gossanous weathering and malachite staining. Fresh surface is dark grey and white. Coarse grained (locally fine grained). Mafics are 40% and feldspar is 60%. Quartz is present but in a very small amount. Feldspar appears to be mostly plagioclase. Magnetite is 5-7%. Iron oxide alteration is weak. Pyrite is present in the areas with iron oxide, 1%, disseminated and very fine grained. Malachite is disseminated throughout, very very fine grained and 1-3%.				
336373	6230672	M07	Lake	688843	1842	Float	Mafic rich quartz monzonite?	Pot 2, FeOx 1	Cpy 1	Cpy D	Dark grey to black float. Fine to medium grained. Rich in mafics. Composition is difficult to tell. Approximately 70-80% mafics, 20-25% mafics and <5% quartz. There are blobs of calcite that are 5-10% of the rock. Potassic alteration to feldspar grains is weak. Iron oxide is subtle. Chalcopyrite disseminated and 1%. Non-magnetic.				
336115	6230561	M07	Lake	688843	1843	Float	Quartz vein in quartz monzonite	Pot 3, Epi 4, FeOx 1	Mal 5-7, Cpy 1	Mal and Cpy FF	Weathered to pistachio green and gossanous orange/brown. Quartz vein is ~2cm wide and light orange in colour. Fresh surface is salmon pink and pistachio green. Composition is largely obscured due to alteration, but approximately 10% mafics, 10% quartz and 80% feldspar. Potassic alteration is moderate. Epidote alteration is strong. Iron oxide alteration is subtle. Malachite staining is in fractures and is 5-7% in the host rock. The quartz vein contains fracture fill chalcopyrite that is 1%.				
336404	6230678	M07	Lake	688843	1844	Float	Quartz monzonite	Pot 3	Mal 1, Cpy Tr	Mal staining, Cpy D	Very slightly gossanous float, mainly looks to be quartz monzonite. Black, pink and white on fresh surface. Coarse grained. Compoaed of 20% mafics, 15% quartz and 65% feldspar. Potassic alteration is weak to moderate. Contains malachite staining (~1%) and trace, disseminated chalcopyrite.				
336496	6230684	M07	Lake	688843	1846	Float	Chlorite altered igneous rock	Chl 4	Mag 7-15, Cpy 1, Mal <1	Cpy and Mal D	Float sample, appears chlorite altered (4). Plagioclase rich. Cannot tell composition due to alteration and grain boundaries are blended together. Fine to medium grained. Magnetite is 7-15%. Very fine grained, disseminated chalcopyrite (1%) and disseminations of malachite (<1%).				
336364	6230524	M07	Lake	688843	1847	Outcrop	Quartz monzonite	Pot 2	Mag 3-5	N/A	LITHO - Weathered to grey/brown. Fresh surface is black and pinkish white. Coarse grained. Mafics are 20-30%, quartz is 5-10% and feldspar is 60-75%. Magnetite is 3-5%. Potassic alteration is weak. No sulphides noted.				
336520	6230696	M07	Lake	688843	1848	Float	Quartz vein	FeOx 2	Cpy 1	Cpy D and blebby	Float with quartz vein on the edge. Quartz vein is >10cm wide (cannot see how wide because can only see one side). White and massive. Contains gossanous weathering in blobs on the surface and in fractures. Chalcopyrite present in these blobs. Chalcopyrite disseminated and blebby, 1%. Very hard to get a good chunk for sample.				
336397	6230524	M07	Lake	688843	1849	Float	Quartz vein	FeOx 2	Mal <1, Py 1	Mal staining, Py D	Malachite 20m up on outcrop above. White and massive. Iron oxide alteration in fractures is weak. Malachite staining is <1%. Disseminated pyrite is 1%.				
336435	6230550	M07	Lake	688843	1850	Subcrop	Quartz monzonite	FeOx 1	Mal 1, Cpy 1-3, Mag 1	Mal staining, Cpy D	Large rock with 1x1m malachite stain on flat side. As described in sample 1847. Magnetite is 1%. Malachite staining is 1% and chalcopyrite is blebby and 1-3%.				
336732	6230624	M07	Lake	688843	1851	Float	Chlorite altered igneous rock	Chl 4, FeOx 3	Mal 5-7, Cpy 1	Mal staining, Cpy D	Large boulder with malachite staining all on one side (~1mx1.5m). Difficult to get a sample as it is on the fracture surface. Rock type appears igneous, but cannot tell original composition because so altered. Chlorite alteration is strong. Malachite staining is 5-7%. Chalcopyrite is 1% and very fine grained, disseminated.				
336549	6230556	M07	Lake	688843	1852	Float	Monzonite	Epi 4	Mal 5-7	Mal D and staining	Weathered to light green. Fresh surface is pale beige. Medium to coarse grained. Composed of 15% mafics, <5% quartz and 80% feldspar (mainly plagioclase). Epidote alteration is moderate to strong. Non-magnetic. Malachite staining is 5-7%, also disseminated in host rock.				
336620	6230604	M07	Lake	688843	1853	Float	Magnetic crust on quartz monzonite	FeOx 1	Mag 15-30, Cpy <1	Cpy D	Weathered to dark grey and brown. Fresh surface is dark grey with beige. Fine grained surrounding coarse grained. For 1-2cm in from the weathered surface the sample is very fine grained and composition cannot be determined as the grain boundaries are blended and there is strong alteration. The center looks as described in 1847. Outer rim is very magnetic (15-30%) while the center is only ~3-5% magnetite. <1% disseminated chalcopyrite along the boundary between the magnetic crust and the quartz monzonite.				
336756	6230627	M07	Lake	688843	1854	Float	Gossanous monzonite? or quartz monzonite?	FeOx 2, Chl 4, Cal 2	Mag 1-3, Py 1, Cpy Tr	Py D, Cpy D	Gossanous float. Weathered to orangey brown. Fresh surface is dark green/grey. Fine to coarse grained. Some calcite veining, up to 3mm wide. Original composition obscured due to alteration. Can see feldspar and not much quartz so most likely a monzonite/quartz monzonite. Chlorite alteration is strong. 1-3% magnetite. Pyrite is disseminated and 1%. Trace, disseminated chalcopyrite.				
336727	6230713	M07	Lake	688843	1855	Float	Monzonite	Pot 4, Epi 3	Mal 1-3, Py <1	Mal staining, Py D	Gossanous weathering, fresh surface is green and orange. Non-magnetic. Coarse grained. Difficult to tell composition. Approximately 15-20% mafics, <5% quartz and 75-80% feldspar. Potassic alteration is strong. Epidote is moderate and in veinlets. Malachite staining is 1-3%. <1% disseminated pyrite.				
336813	6230588	M07	Lake	688843	1856	Outcrop	Quartz monzonite	Pot 3	Mal 3-5, Cpy 1	Mal staining and D, Cpy D	As previously described in litho sample 1847. Potassic alteration is moderate. Non-magnetic. Malachite staining is 3-5%. Malachite is also disseminated in the groundmass. Chalcopyrite is disseminated and 1%.				
336645	6230540	M07	Lake	688843	1857	Outcrop	Quartz monzonite	Pot 3, Epi 2	Cpy <1	Cpy D	As described in 1847. Epidote veinlet up to 1mm wide. Non-magnetic. <1% chalcopyrite disseminated around the edges of the epidote veins.				

Cathedral Property
Rock Sample Descriptions

Location (UTM Zone 10 North NAD 83)							Description					XRF Analysis		Fire Assay
Easting	Northing	Map	Zone	Tenure	Sample No.	Sample Type	Lithology	Alteration	Sulphides (%)	Mineralization Style	Field Sample Descriptions	Structure	Cu ppm	As ppm	Au ppm
336743	6230665	M07	Lake	688843	1858	Float	Quartz monzonite	Pot 2, FeOx 3, Epi 1	Mal Tr, Mag 1-3	Mal staining	Slighthly gossanous float. Weathered surface is brownish green. Fresh surface is light orange and black. Coarse grained. Contains 10-15% mafics, 5% quartz and 80-85% feldspar. Potassic alteration is weak. Iron oxide alteration is moderate. 1-3% magnetite. Malachite staining is trace.				
336780	6230590	M07	Lake	688843	1860	Outcrop	Monzonite or monzodiorite	FeOx 2	Mal Tr	Mal staining	Black and yellowish in colour. Medium to coarse grained. Rich in mafics (~60-70%). Feldspar is 20-25% and quartz is 0-5%. Feldspar appears to be mostly plagioclase. Non-magnetic. Iron oxide alteration is weak. Rock is fairly unaltered. Trace malachite staining on weathered surface.				
336775	6230724	M07	Lake	688843	1861	Float	Feldspar porphyritic dyke	CaCb 3, Chl 3, Pot 3, Epi 1	Py tr	Py D	Dark green aphanitic matrix with greysih pink porphyritic feldspar. Feldspar range up to 6mm in length. Calcite within matrix and as <1mm veinlets. Chlorite altered groundmass. No magnetite. Very fine grained, disseminated pyrite (trace).				
336794	6230720	M07	Lake	688843	1862	Float	Monzonite?	Chl 4, Epi 3	Mal 3-5	Mal staining	Light and dark green in colour. Original composition obscured by alteration. Chlorite alteration is strong and epidote alteration is moderate. Igneous rock, probably a monzonite due to the fact that it seems feldspar rich. Malachite staining is 3-5%. No sulphides noted.				
336761	6230626	M07	Lake	688843	1863	Float	Quartz monzonite	Pot 2, FeOx 3	Mal 1-3, Cpy <1, Mag 3-5	Mal staining, Cpy D	Slighthly gossanous float. Weathered surface is brownish green. Fresh surface is light orange and black. Coarse grained. Contains 10-15% mafics, 5% quartz and 80-85% feldspar. Potassic alteration is weak. Iron oxide alteration is moderate. 3-5% magnetite. Malachite staining is 1-3%. <1% chalcopyrite disseminated within the gossanous/malachite crust.				
336684	6230596	M07	Lake	688843	1864	Outcrop	Potassic altered quartz vein	Pot 3, FeOx 2	Mal 1-3, Cpy 1	Mal staining and FF, Cpy FF	Weathered surface is orange brown. Fresh surface is light pink and light grey. Quartz vein with moderate potassic alteration. Very small amount of of mafics (1%). Non-magnetic. Malachite and azurite staining on the weathered surface. Malachite/azurite and chalcopyrite are present within fractures in the vein. Malachite is 1-3% and chalcopyrite is 1%.				
336812	6230740	M07	Lake	688843	1865	Float	Quartz monzonite	CaCb 2, Pot 1, Ser 1	Cpy <1, Py <1, Mal <1, Mag 1	Cpy D, Py D	Very similar to sample 1835. Light pink to white feldspar, pale grey quartz and dark grey to black mafic minerals. Fine to coarse grained. 50-60% feldspr, 30-40% mafics, 5-15% quartz. 1% disseminated magnetite. Potassic and subtle sericite. Sulphides include fine grained, disseminated pyrite and chalcopyrite. Malachite staining is present on weathered surface.				
336795	6230639	M07	Lake	688843	1866	Float	Quartz monzonite (Gossan)	Pot 3, Chl 1, CaCb 1	Cpy tr, Mal <2, Mag <1	Cpy D	Gossanous float. Malachite staining ~1% and molybdenite 1%. Chalcopyrite is <1-1% and disseminated. Salmon pink, pale grey and dark green to black phenocrysts. Composed of 40-50% feldspar, 5-10% quartz, and 40-50% mafic minerals. Potassica altered feldspar and patchy iron oxidation on weathered surface. Malachite noted on fresh surface (<1%). Trace, disseminated, very fine grained sulphides; possibly chalcopyrite? Magnetite is fine grained and disseminated (<1%).				
336744	6230579	M07	Lake	688843	1867	Float	Quartz monzonite	Pot 2, FeOx 3	Mal 1, Cpy <1	Mal staining and D, Cpy D	Slighthly gossanous float. Weathered surface is brownish green. Fresh surface is light orange and black. Coarse grained. Contains 20-25% mafics, 5% quartz and 70-75% feldspar. Potassic alteration is weak. Iron oxide alteration is moderate. Non-magnetic. Malachite staining is 1%. <1% chalcopyrite disseminated within the gossanous/malachite crust.				
336844	6230741	M07	Lake	688843	1868	Float	Quartz monzonite	Pot 2, FeOx 2, Epi 1, Cal 1	Mal Tr	Mal staining	Slighthly gossanous float. Weathered surface is brownish orange. Fresh surface is light pink and black. Coarse grained. Contains 20-25% mafics, 5-10% quartz and 65-75% feldspar. Potassic alteration is weak. Iron oxide alteration is weak. Non-magnetic. Epidote/calcite vein up to 1mm wide. Malachite staining is trace.				
336725	6230602	M07	Lake	688843	1869	Float	Quartz monzonite	Pot 2, FeOx 1	Mag 1, Mal Tr	Mal staining	Weathered surface is light green/brown. Fresh surface is light pink, light green and black. Coarse grained. Contains 20-25% mafics, 5-10% quartz and 65-75% feldspar. Potassic alteration is weak. Iron oxide alteration is subtle. 1% magnetite. Malachite staining is trace.				
335100	6231677	M07	Lake	688863	1876	Float	Gossanous float	FeOx 5, Epi 3, Pot 2	Mag 5-7, Py 5-7, Cpy <1	Py and Cpy D	Gossanous float. Orangey red to brown in colour. Original composition obscured by alteration and weathering. Iron oxide alteration is intense. Epidote alteration is moderate and potassic alteration is weak. Magnetite is 5-7%. Pyrite is disseminated and 5-7%. Chalcopyrite is <1% and very fine grained, disseminated.				
335135	6231637	M07	Lake	688843	1877	Float	Chlorite altered igneous rock	Chl 5, Epi 4	Mal <1, Cpy 1	Mal staining and D, Cpy D and FF	Dark and light green in colour. Original composition is obscured by alteration. Appears to be an igneous rock, from the faint outlines of the grains. Chlorite alteration is strong to intense. Epidote alteration is strong. Malachite staining is <1%. Chalcopyrite is 1% and disseminated and fracture fill.				
335088	6231594	M07	Lake	688863	1878	Outcrop	Diorite	FeOx 1	Mag 3-5, Cpy Tr	Cpy D	Weathered to black and light orange. Fresh surface is black and white. Coarse to very coarse grained. This rock almost appears to have a slight metamorphic texture as the minerals appear to be slightly banded. Composed of 50-60% mafics and 40-50% feldspar. No quartz noted. Relatively unaltered, iron oxide is very subtle on the weathered surface. Magnetite is 3-5%. Trace, disseminated chalcopyrite.				
335095	6231545	M07	Lake	688863	1879	float	Chlorite altered igneous rock	Chl 5, Cal 1	Mag 5-7, Py <1	Py D	Dark grey/green in colour. Original composition is obscured by alteration. Appears to be an igneous rock, from the faint outlines of the grains. Chlorite alteration is strong to intense. Calcite alteration is subtle. Magnetite is 5-7%. Pyrite is <1% and disseminated.				
335068	6231577	M07	Lake	688863	1881	Float	Quartz/calcite veins	FeOx 3	Py 1-3	Py D	Weathered to purplish red or grey. Fresh surface is light grey. Quartz and calcite veins with some gossanous monzonite (?) between. Quartz veins are at least 2cm wide. Non-magnetic. Pyrite is 1-3%, disseminated and concentrated in the host rock portion of the sample. Quartz and calcite veins have no sulphides noted.				
335080	6231528	M07	Lake	688863	1882	Outcrop	Chlorite altered igneous rock	Chl 5, Cal 1	Mag 5-7, Cpy <1	Cpy D	Dark grey/green in colour. Original composition is obscured by alteration. Appears to be an igneous rock, from the faint outlines of the grains. Chlorite alteration is strong to intense. Calcite alteration is subtle. Magnetite is 5-7%. Chalcopyrite is <1% and disseminated.				
335017	6231484	M07	Lake	688863	1883	Float	Chlorite altered igneous rock	Chl 5	Mag 1-3	N/A	Dark green in colour. Cannot tell original composition because it is obscured by alteration. Can see ~20% feldspar crystals. Chlorite alteration is intense. Non-magnetic. No sulphides noted.				
335020	6231456	M07	Lake	688863	1884	Float	Chlorite altered igneous rock	Chl 5, Cal 1, Pot 2	Mal <1, Cpy <1	Mal and Cpy D	Dark grey/green in colour. Original composition is obscured by alteration. Appears to be an igneous rock, from the faint outlines of the grains. Chlorite alteration is strong to intense. Calcite alteration is subtle. Potassic altered quartz vein. Magnetite is 3-5%. Malachite and chalcopyrite are each <1% and disseminated along the edges of the quartz vein.				
335013	6231440	M07	Lake	688863	1885	Float	Quartz vein	Pot 2	Mal 1-3	Mal staining and FF	White to light grey in colour. Potassic alteration is weak. Malachite staining on the weathered surface and in fractures is 1-3%. No sulphides noted.				
335127	6231149	M07	Lake	688843	1886	Float	Quartz vein	FeOx 3	None	N/A	Gossanous quartz vein within monzonite (?). White to light orange in colour. Non-magnetic. Iron oxide alteration is moderate. No sulphides noted.				
335103	6231047	M07	Lake	688843	1887	Float	Diorite	FeOx 1	Mag 5-7	N/A	Black and white in colour. Coarse grained. Composed of 30% mafics, <5% quartz and 65% feldspar (plagioclase). Magnetite is 5-7%. Rock is mostly unaltered. Iron oxide is subtle. No sulphides noted.				
335203	6231178	M07	Lake	688843	1888	Outcrop	Chlorite altered igneous rock	Chl 5, Epi 4	Py <1	Py D	Dark and light green in colour. Original composition is obscured by alteration. Appears to be an igneous rock, from the faint outlines of the grains. Chlorite alteration is strong to intense. Epidote alteration is strong. Very fine grained, disseminated pyrite is <1%.				
335117	6231037	M07	Lake	688843	1889	Float	Monzonite	FeOx 2	Mag 5-7, Mal 1	Mal staining	Black and light orange in colour. Coarse grained. Composed of 40% mafics, <5% quartz and 55% feldspar (plagioclase). Magnetite is 5-7%. Rock is mostly unaltered. Iron oxide is weak. Malachite staining is 1%. No sulphides noted.				
337442	6231764	M07	Lake	688823	1890	Float	Monzonite	FeOx 1	Mag 3-5	N/A	Black and light orange in colour. Medium to coarse grained. Composed of 20% mafics, 5% quartz and 75% feldspar (plagioclase). Magnetite is 3-5%. Rock is mostly unaltered. Iron oxide is subtle. No sulphides noted.				
337501	6231742	M07	Lake	688823	1891	Float	Monzonite	Pot 2	Mag 1-3	N/A	Black, white and pink in colour. Medium to coarse grained. Composed of 20-30% mafics, <5% quartz and 65-75% feldspar. Potassic alteration is weak. Magnetite is 1-3%. Iron oxide alteration is weak. No sulphides noted.				
337841	6231825	M07	Lake	688823	1892	Float	Quartz monzonite	Pot 2	Mag 5-7, Py Tr	Py D	Weathered light to medium grey. Fresh surface is black and pink. Fine to medium grained. Mafics are 30-40%, quartz is 5-10% quartz and 50-55% feldspar. Potassic alteration is weak to moderate. Magnetite is 5-7%. Trace, disseminated pyrite on weathered, slighlty gossanous surface.				
337873	6231785	M07	Lake	688823	1893	Outcrop	Volcanic	Chl 2	Mag 1, Py 1	Py D	Weathered surface is brown. Fresh surface is grey green. Very fine grained (aphanitic). Cannot tell composition, but can see feldspar phenocrysts (up to 7mm in size and 25-30% in abundance). Magnetite is 1%. Very fine grained, disseminated pyrite is 1%.				
337748	6230918	M07	Lake	688823	1894	Float	Granodiorite	Pot 1, FeOx 2	Mag 7-15, Py <1, Mal <1	Mal staining, Py <1	Black and beige in colour. Medium to coarse grained. Contains 20% mafics, 20% quartz and 60% feldspar. Potassic alteration is subtle. Iron oxide alteration is weak. 7-15% magnetite. Disseminated pyrite is <1%. Malachite staining is <1% on the weathered surface.				
337728	6230930	M07	Lake	688823	1895	Float	Granodiorite	Pot 2, Chl 2	Mag 3-5/15-30, Cpy 1	Cpy D	Some sort of contact? Half the rock looks like a granodiorite as described in sample 1894 and half the rock is very fine grained and dark grey and strongly magnetic. Cannot tell composition of this portion, appears to be a deformed and altered version of the granodiorite. Magnetite is 3-5% in the granodiorite and 15-30% in the other portion. Chalcopyrite is disseminated near the boundary between the two different portions of the rock. Chalcopyrite is 1%.				
337712	6230894	M07	Lake	688823	1896	Float	Granodiorite	Pot 2, FeOx 2	Mag 1-3, Mal <1, Cpy 1	Mal staining, Cpy D and blebby	Granodiorite with an aplite dyke. Black and light pink in colour, medium to coarse grained. Contains 20% mafics, 25% quartz and 55% feldspar. Potassic alteration is weak. Iron oxide alteration is weak. Magnetite is 1-3%. There is a magnetite blob that is 2x1cm, has iron oxide alteration around the edge and contains disseminated and blebby chalcopyrite. the aplite dyke contains <1% malachite staining and 1% very fine grained disseminated chalcopyrite.				

Cathedral Property
Rock Sample Descriptions

Location (UTM Zone 10 North NAD 83)							Description						XRF Analysis		Fire Assay
Easting	Northing	Map	Zone	Tenure	Sample No.	Sample Type	Lithology	Alteration	Sulphides (%)	Mineralization Style	Field Sample Descriptions	Structure	Cu ppm	As ppm	Au ppm
337694	6230928	M07	Lake	688823	1897	Float	Quartz vein	Pot 4, Epi 3	Py 1, Cpy <1, Mal Tr	Py, Cpy and Mal D	Potassic and epidote altered quartz vein. Salmon pink and pistachio green. Massive. Potassic alteration is strong and pervasive and epidote alteration is moderate and fills fractures. Trace amounts of malachite are disseminated. Pyrite is 1% and disseminated. Chalcopyrite is disseminated and <1%.				
337654	6230883	M07	Lake	688823	1898	Float	Gossanous quartz monzonite	FeOx 3	Mag 3-5, Mal 1, Py 1-3, Cpy <1	Mal staining, Py D, Cpy D	Gossanous weathering with malachite staining and chalcopyrite. Fresh surface is black and light orange. Coarse grained. Composed of 20% mafics, 5% quartz and 75% feldspar. Iron oxide alteration is moderate. Magnetite is 3-5%. Malachite staining is on the weathered surface and is 1%. 1-3% pyrite, disseminated. Cpy is <1% and disseminated as well.				
337606	6230886	M07	Lake	688823	1899	Float	Epidote vein	Epi 5	Mag 3-5, Py Tr	Py D	Pistachio green in colour. Quartz and mafics are present. Epidote alteration is intense and pervasive. Magnetite is 3-5%. Trace, very fine grained, disseminated pyrite.				
337560	6230921	M07	Lake	688823	1901	Float	Monzonite	Pot 3	Mag 1, Mal <1, Cpy <1	Mal staining and D, Cpy C	Slight gossanous weathering. Fresh surface is black and pink. Medium to coarse grained. Contains 5-10% mafics, <5% quartz and 85-90% feldspar. Magnetite is 1%. Potassic alteration is moderate. Malachite staining on the weathered surface is <1%. Chalcopyrite is <1% and disseminated.				
337511	6230913	M07	Lake	688823	1902	Float	Monzonite	Pot 3	Mag 1-3, Mal Tr, Cpy <1	Mal staining, Cpy D	Black and pink in colour. Mafics are ~50%, feldspar is 45% and quartz is <5%. Potassic alteration is moderate. Magnetite is 1-3%. Trace amounts of malachite staining and <1% disseminated chalcopyrite.				
337456	6230907	M07	Lake	688823	1903	Float	Monzonite	Pot 5, Epi 2	Mag <1, Cpy <1	Mal staining, Cpy D	Fresh surface is black and pink. Medium to coarse grained. Contains 5-10% mafics, <5% quartz and 85-90% feldspar. Magnetite is <1%. Potassic alteration is intense. Malachite staining on the weathered surface is trace. Chalcopyrite is <1% and disseminated.				
337459	6230856	M07	Lake	688823	1904	Float	Monzonite	Pot 2	Mag 1-3, Cpy Tr	Cpy D	Weathered to medium and dark grey. Fresh surface is black or very pale pink. 15-20% mafics, 5% quartz and 75-80% feldspar. Potassic alteration is weak to moderate. Magnetite is 1-3%. Trace, disseminated chalcopyrite.				
337268	6230792	M07	Lake	688823	1905	Float	Quartz monzonite	FeOx 2, Epi 2	Mag <1, Py <1, Mal <1	Py D, Mal staining	Greenish in colour. Medium grained. Difficult to tell composition due to alteration. Approximately 30% mafics, 5-10% quartz and 60-65% feldspar. Iron oxide alteration is weak. Epidote alteration is weak. Magnetite is <1%. Pyrite is disseminated and <1%. Malachite staining is <1%.				
337269	6230757	M07	Lake	688823	1906	Float	Monzonite (?)	Chl 1, FeOx 3	Py Tr, Mag 1	Py D	Weathered to orangey brown. Fresh surface is pale grey/green. Cannot tell texture or composition due to alteration. Seems feldspar rich, so probably a monzonite? Chlorite alteration is subtle. Iron oxide alteration is moderate to strong. 1% magnetite. Trace, very fine grained, disseminated pyrite.				
337191	6230799	M07	Lake	688823	1907	Float	Monzonite	Pot 1	Mag <1, Cpy Tr	Cpy D	Weathered to light brown. Fresh surface is black and pinkish beige. Medium to coarse grained. Contains 15-20% mafics, 80% feldspar (mostly plagioclase) and <5% quartz. Potassic alteration is subtle. Magnetite is <1%. Quartz vein up to 6mm wide. Trace, very fine grained and disseminated chacopyrite within the quartz vein.				
337127	6230794	M07	Lake	688823	1908	Float	Quartz vein	FeOx 1, Epi 2	Mal 1, Cpy <1	Mal staining, Cpy D	Quartz vein with epidote alteration. Massive and light to medium grey in colour. Epidote is in fractures and weak. Iron oxide alteration is subtle. Malachite staining is 1%. Chalcopyrite is <1% and disseminated.				
337051	6230775	M07	Lake	688823	1909	Float	Potassic altered granodiorite	Pot 5	Py <1, Cpy Tr, Mag <1	Py and Cpy D	Intense potassic alteration, very few mafics. Salmon pink in colour. Composed of approximately 5% mafics, 60-70% quartz (very hard) and 25-35% feldspar. Magnetite is <1%. Pyrite is disseminated and <1%. Chalcopyrite is trace and disseminated.				
336965	6230648	M07	Lake	688843	1910	Outcrop	Chlorite altered volcanic	Chl 5	Mag 1, Py 1	Py D	Dark green in colour. Aphanitic with very subtle feldspar crystals. Pervasive and intense chlorite alteration. Original composition is obscured by alteration. Feldspar phenocrysts are ~ 25%. Magnetite is 1%. 1% fine grained, disseminated pyrite.				

APPENDIX IV

CERTIFICATE OF ANALYSIS

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: CME CONSULTANTS INC
#2130-21331 GORDON WAY
RICHMOND BC V6W 1J9

Finalized Date: 31-OCT-2012
Account: CMECON

CERTIFICATE VA12248767

Project: Cathedral

P.O. No.: P70-1

This report is for 13 Rock samples submitted to our lab in Vancouver, BC, Canada on 19-OCT-2012.

The following have access to data associated with this certificate:

CHRIS NAAS	TED VANDERWART	

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
CRU-QC	Crushing QC Test
PUL-QC	Pulverizing QC Test
LOG-21	Sample logging - ClientBarCode
CRU-31	Fine crushing - 70% <2mm
SPL-21	Split sample - riffle splitter
PUL-31	Pulverize split to 85% <75 um
LOG-23	Pulp Login - Rcvd with Barcode

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au-AA23	Au 30g FA-AA finish	AAS
Au-GRA21	Au 30g FA-GRAV finish	WST-SIM

To: CME CONSULTANTS INC
ATTN: TED VANDERWART
#2130-21331 GORDON WAY
RICHMOND BC V6W 1J9

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:

Colin Ramshaw, Vancouver Laboratory Manager

Comments: Samples must be grouped and analyzed by dispatch number. Each dispatch number to be on a separate certificate

ALS Canada Ltd.
2103 Dollarton Hwy
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To: CME CONSULTANTS INC
#2130-21331 GORDON WAY
RICHMOND BC V6W 1J9

Finalized Date: 31-OCT-2012
Account: CMECON

Project: Cathedral

CERTIFICATE OF ANALYSIS VA12248767

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	Au-GRA21 Au ppm 0.05
1249		0.08	0.619	
1250		0.94	<0.005	
1251		2.24	0.005	
1252		1.56	<0.005	
1253		1.66	0.007	
1254		1.14	0.757	
1255		0.86	>10.0	13.95
1256		0.88	0.440	
1257		1.24	3.47	
1258		0.42	0.009	
1259		1.24	<0.005	
1260		0.88	0.028	
1261		1.28	<0.005	

Comments: Samples must be grouped and analyzed by dispatch number. Each dispatch number to be on a separate certificate