ASSESSMENT REPORT – 2004 EXPLORATION PROGRAM
Volume 2

KEMESS PROPERTY:

KEMESS DIAMOND DRILL PROGRAM

(DUNC 3, LAKE 1, LAKE 2, ALISON 1, MINING LEASE 410732, DUNC 5)

OMINECA MINING DIVISION
BRITISH COLUMBIA

CENTERED ON:

LATITUDE: 57° 02' North
LONGITUDE: 126° 47' West

BCGS 094E006, 094E007, 094E016, 094E017 and 094E097

- Owned and Operated By -

Northgate Minerals Corporation
Kemess Mines Ltd.
815 Hornby Street, Suite 404
Vancouver, British Columbia
V6Z 2E6, Canada

March 2005

F.C. Edmunds
M.Sc. P.Geol.

R. Konst
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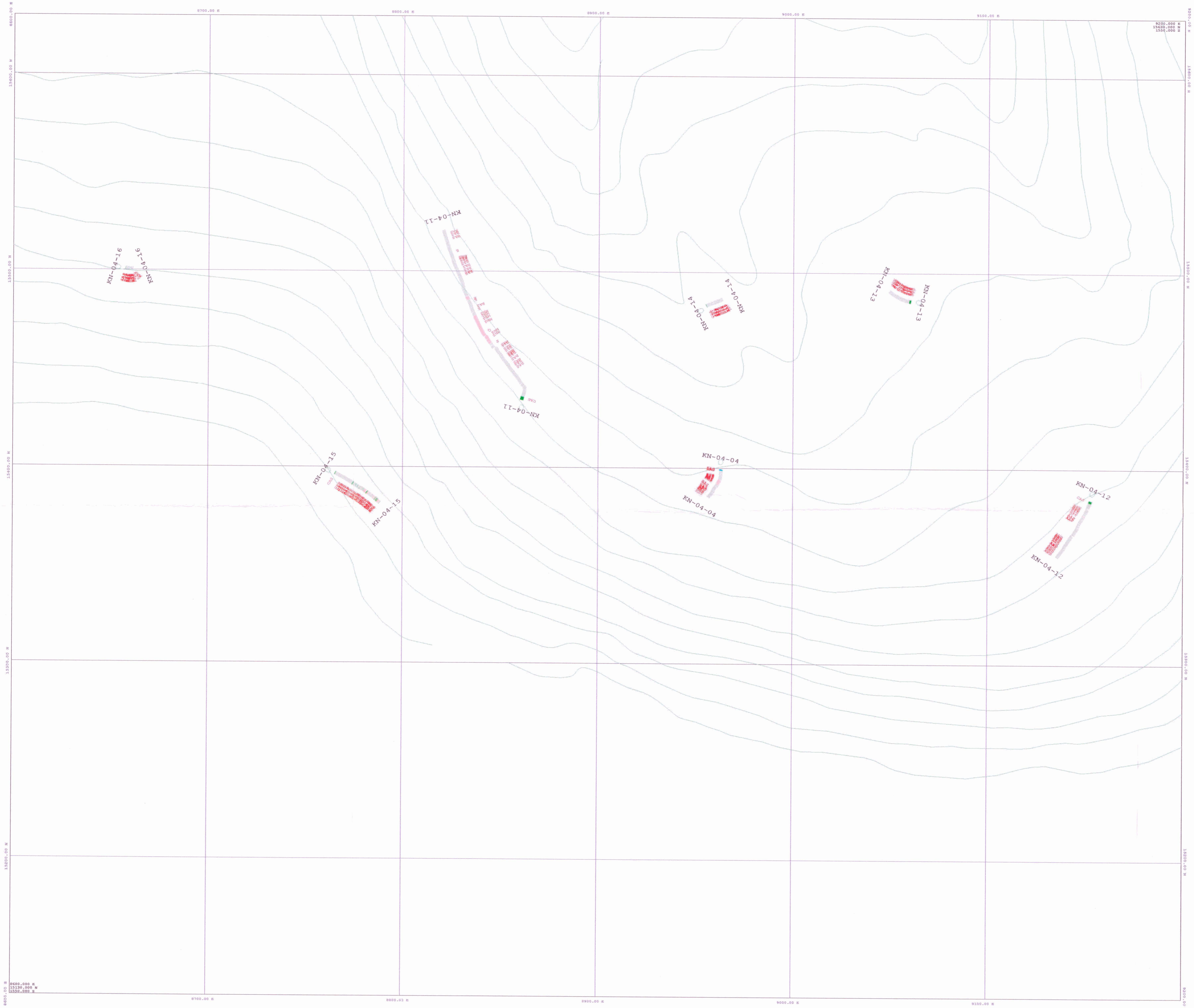
Kemess Property 2004
Appendix 4
Nugget Zone DDH Plan



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Layer: KTOPO_05
Object: *

Triangulations

Grid lines
Absolute

Horizontal Scale
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METRE
1 cm = 10.00 m

Northgate Minerals Corp

Nugget DDH Plan

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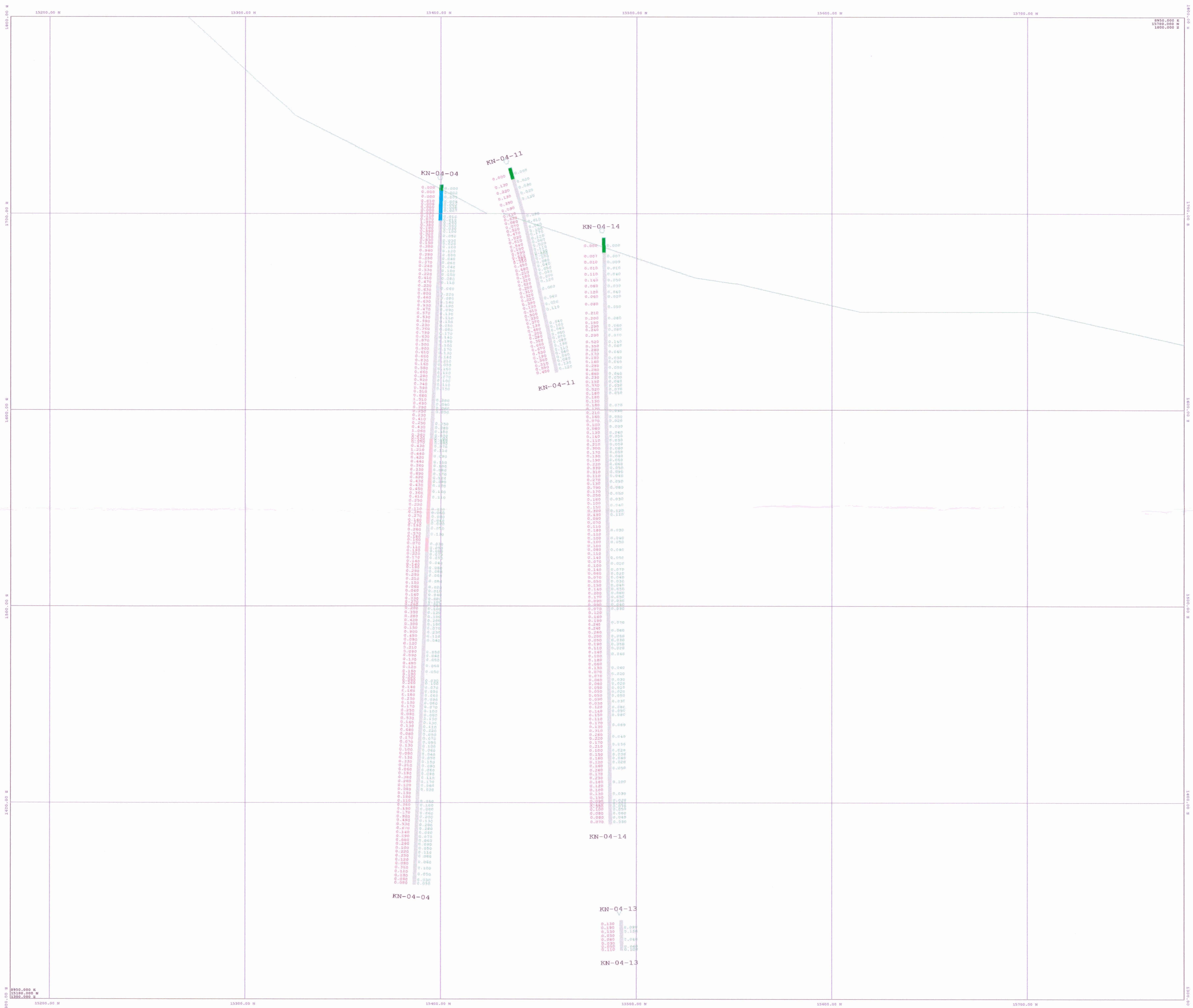
Date:05-Mar-2005	
Project:KMS	
Drawn By:FCE	
Checked:	
Approved:	
Drawing No.	



Northgate Minerals Corp

Nugget DDH Cross Section

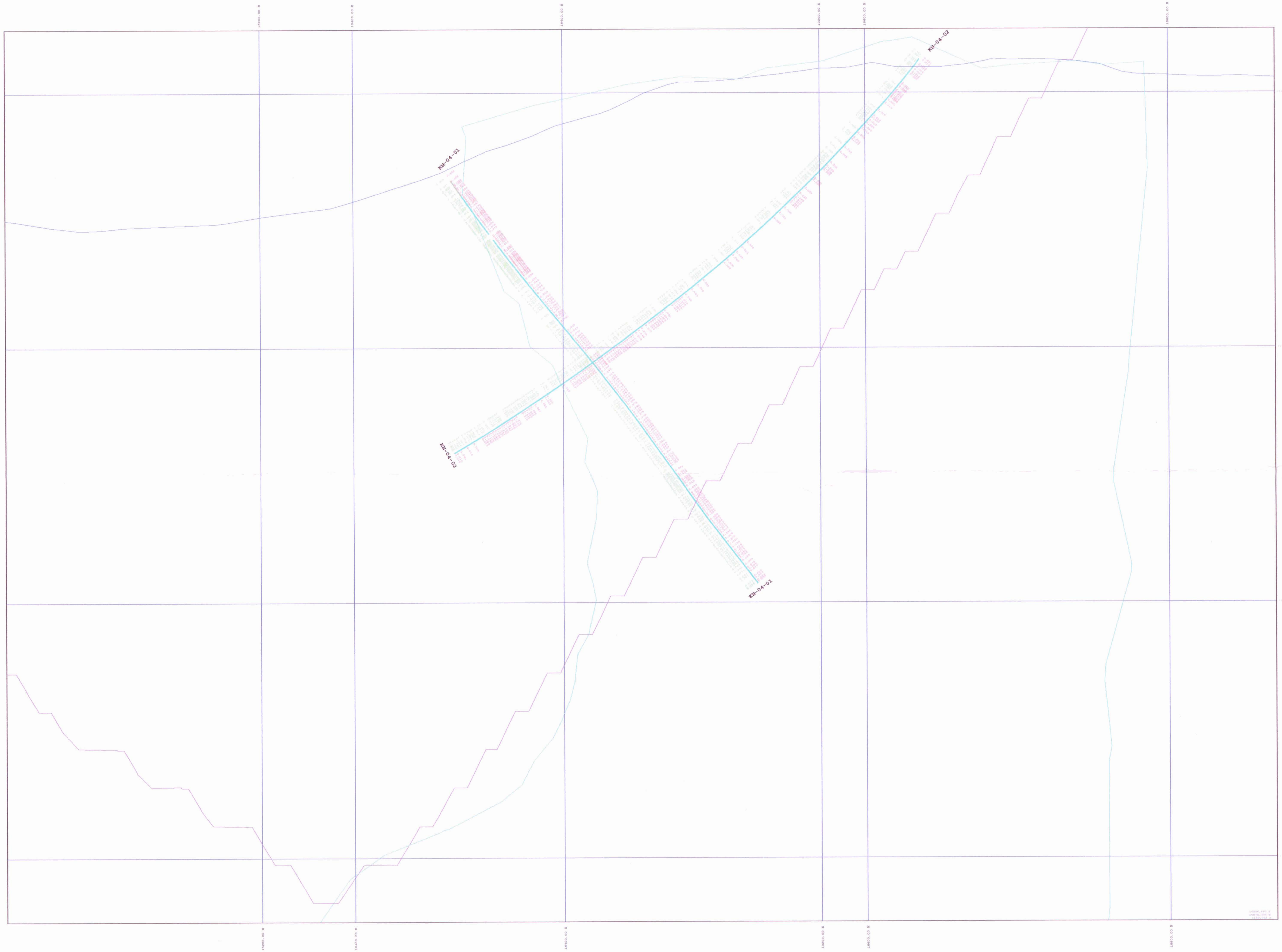
Scale:1:1000
Date:05-Mar-2005
Project:KMS
Drawn By:FCE
Checked:
Approved:
Drawing No.

Northgate Minerals Corp

Nugget DDH Long Section

Scale:1:1000	
Date:05-Mar-2005	
Project:KMS	
Drawn By:FCE	
Checked:	
Approved:	
Drawing No.	

Kemess Property 2004
Appendix 4a
Waste Characterization DDH Section



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KNTOPO.00T
G_2DOG_64N.00T

Grid lines
Absolute

Horizontal Scale
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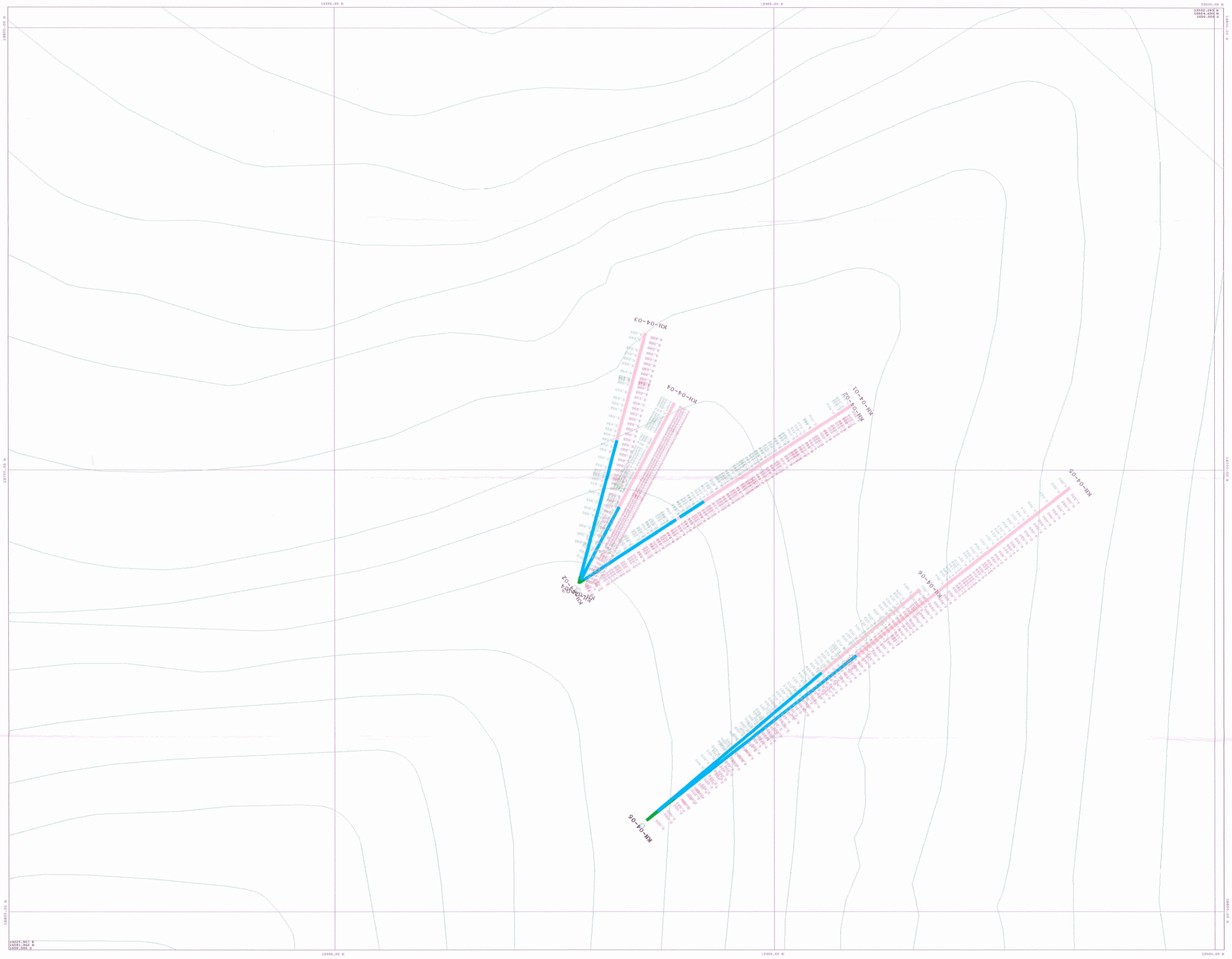
METRE
1 cm = 20.00 m

Northgate Minerals Corp

DDH Section
Waste Characterization
Drill Holes KN-04-01 & 2

Scale:1:2000
Date:04-Mar-2005
Project:KMS
Drawn By:Mar 20
Checked:
Approved:FCE
Drawing No.
10277

Kemess Property 2004
Appendix 5
Hilda DDH Plan & Sections



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Enter extents symbol

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Non-logged intervals displayed (Value NOT LOGGED)

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Trace and tick scheme GROUP
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Digitized drafting

File: KMSBC.DGD
Layer: KTOPO_05
Object: *

Triangulations

KMS_TOPO_04.00T

Grid lines

Absolute

Horizontal Scale
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METRE
1 cm = 4.00 m

Northgate Minerals Corp

Hilda DDH Plan

KH-04-01 to 06

Scale:1:400
Date:05-Mar-2005
Project:KMS
Drawn By:FCE
Checked:
Approved:
Drawing No.

GEOLOGICAL SURVEY BRANCH
ASSESSMENT REPORT
27,675

Northgate Minerals Corp

Hilda DDH Section

KH-04-01 & 02

Az 055

Scale:1:400	
Date:04-Mar-2005	
Project:KMS	
Drawn By:FCE	
Checked:	
Approved:	
Drawing No.	

Northgate Minerals Corp

Hilda DDH Section

KH-04-03 & 04

Az 022

Scale:1:400	
Date:05-Mar-2005	
Project:KMS	
Drawn By:FCE	
Checked:	
Approved:	
Drawing No.	

Northgate Minerals Corp

Hilda DDH Section

KH-04-05 & 06

Az 055

Scale:1:400
Date:05-Mar-2005
Project:KMS
Drawn By:FCE
Checked:
Approved:
Drawing No.

Kemess Property 2004
Appendix 6
Petrographic Report – Graben Petrographics

GRABEN PETROGRAPHICS

2674 Ingala Place
Prince George, B.C.
Canada V2K 4B7
(250)-962-9333
graben@bcgroup.net
graben-petrographics.com

KEMESS 2004 PETROGRAPHIC REPORT

To:	Carl Edmunds, Exploration Geologist	**Date:**	December 6, 2004
	Northgate Minerals Corporation	**Phone:**	604-681-4004
	815 Hornby Street, Suite 404	**Fax:**	
	Vancouver, B.C.	**e-mail**	cedmunds@northgateminerals.com
	V6Z 2E6	**Job#:**	KM 04-108

Introduction

A suite of 4 drill core samples from 4 diamond drill holes was submitted for petrographic examination. Detailed petrographic descriptions of the samples are provided in the following report.

The samples are as follows:

1	KH-04-02	93.9m	Strongly brecciated and recemented quartz vein containing quartz vein fragments within a brecciated quartz-chlorite matrix. Common sphalerite with lesser chalcopyrite, galena and pyrite.
2	KH-04-03	41.8m	Quartz-pyrite-hematite vein that has been brecciated and mineralized with rare gold; subsequent calcite-rare gypsum veinlets cross-cut the vein.
3	KH-04-05	74.7m	Strongly sheared porphyry(dacitic to andesitic?) with common hematite and gypsum alteration.
4	KN-04-16	203.1m	Quartz-pyrite-magnetite-garnet vein with later stages of alteration and mineralization, which include minor chalcopyrite and very rare molybdenite.

Isobel Wolfson
M.Sc., P.Geo.(B.C.)

Sample Code:	KH-04-02 93.9m	**REF:** KM-04-108
Sample Type:	Drill core	
Section Type:	Polished thin section	
Report Reference:	KM-108 / KH-04-02	
Summary:	Strongly brecciated and recemented quartz vein containing very fine to coarse quartz vein fragments within a brecciated quartz-chlorite matrix. Common sphalerite with lesser chalcopyrite, galena and pyrite are disseminated throughout the sample.	

General Description

The heavy core is composed of very fine- to coarse-grained and irregular to rounded quartz vein fragments within a dark green, aphanitic to medium-grained matrix of chlorite and brecciated quartz fragments. On the outside of the core the vein fragments appear an opaque white-grey; on the cut surfaces they appear a translucent white to grey. Common fine- to medium-grained calcite, sphalerite(honey-brown and black) and lesser chalcopyrite, galena and pyrite are distributed throughout both fragments and matrix.

Both fragments and matrix are cross-cut by discontinuous hair veinlets of calcite.

Mineralogy

Fragments

Although the core contains a number of fine- to coarse-grained fragments, the polished thin section hosts one large(2 cm), equant fragment and several smaller, irregular fragments(600 – 2,000 microns). Contacts with the surrounding matrix are sharp and irregular; several small fissures in the large fragment are infilled with the chlorite-rich matrix. Due to the small size of the core sample, the quantity of fragments estimated should be used with caution.

The fragments are composed mainly of quartz grains that have been strongly brecciated and locally milled to <2 microns in size. The larger grains are highly strained, with local development of sub- and new grains. Most quartz is anhedral and of varying shapes, from equant to elongate to irregular; a small percentage exhibit subhedral hexagonal or prismatic shapes. Contacts range from straight to serrate to lobate. A minority of grains also contain very fine-grained disseminated hematite. Minor very fine-grained(≤10 microns) sphalerite, pyrite and hematite are disseminated along quartz grain boundaries.

Calcite occurs as irregularly-shaped clots and sinuous, discontinuous hair veinlets(≤200 microns) throughout the fragments. Pale green aggregates(10 – 680 microns in size) of intergrown chlorite flakes typically contain very fine-grained disseminated rutile(?).

Pyrite occurs as both very fine-grained(<40 microns), anhedral, irregularly-shaped, subangular grains and as larger, anhedral to subhedral equant grains with pitted surfaces. The larger grains exhibit weak to moderate fractures and may have formed later than the main brecciation event. A portion of the fractures are infilled with chalcopyrite, galena or sphalerite. Contacts with these sulphides are typically sharp and irregular.

Sphalerite grains are typically anhedral(rarely subhedral) and irregularly-shaped with straight to ragged grain boundaries. In core, the larger sphalerite grains have yellow-brown interiors("honey sphalerite") with black rims and fracture surfaces. Within the polished thin section, they have pale yellow interiors and thin selvedges of indigo blue to black. Very fine-grained chalcopyrite inclusions(<2 microns) are unevenly distributed throughout. A few sphalerite grains contain inclusions or intergrowths of rare galena(up to about 80 microns). Several grains are fractured with calcite infill.

Chalcopyrite occurs as anhedral, irregularly-shaped grains within the brecciated quartz fragments. They are found as solitary grains or as very fine-grained inclusions within sphalerite("chalcopyrite disease"). Where in contact with sphalerite, boundaries range from straight to curved to irregular.

Galena is anhedral and irregularly-shaped, occurring as solitary grains, rare intergrowths with sphalerite and chalcopyrite, or as fracture fillings in pyrite.

Matrix

The matrix has similar mineralogy to that of the quartz fragments, but with more chlorite. It has a vague fabric, defined by the orientation of chlorite, quartz and a small percentage of sulphides.

Quartz forms anhedral and subrounded to elongate brecciated fragments supported within chlorite. A few rare hexagonal cross-sections also occur(some of which are zoned). Rare hematite and very rare apatite(?) and zircon(?) inclusions were also observed.

Calcite occurs as anhedral clots and sinuous, discontinuous veinlets. Larger grains appear slightly strained. One rare rhomb of pale to dark tan siderite(?) was found in the matrix.

Chlorite is found as individual flakes between quartz grains and as intergrown fibrous aggregates up to 400 microns in size.

Pyrite occurs as anhedral. subangular fragments and as subhedral to euhedral cubes with pitted surfaces and local weak fracturing.

Sphalerite forms anhedral, subangular and irregularly-shaped grains; a few rare grains are subhedral and equant. They occur as solitary grains and as intergrowths with pyrite, chalcopyrite and galena; contacts range from sharp to irregular. Very fine-grained inclusions of chalcopyrite are unevenly distributed throughout. In the matrix, chlorite flakes and the finer-grained quartz fragments abut and wrap around the larger sphalerite grains, suggesting the sphalerite existed before the main brecciation event.

Anhedral grains of chalcopyrite occur as: very fine-grained inclusions in sphalerite; solitary grains within the matrix, and; as rare infillings in fractured pyrite. A small portion is also intergrown with sphalerite or galena.

Galena is typically intergrown with sphalerite or infills fractures within pyrite.

Modal Analysis

Note: due to the small sample size, estimation of fragment and matrix quantities are to be used with caution.

Sample: KH-04-02 93.9m

Mineral	Estimated modal %	Size Range (microns)
Quartz Fragments	15 - 20	600 - 20 mm
which contain:		
Quartz	60	<2 - 1.48 mm
Calcite	10	300 - 1.0 mm
Chlorite	1 - 2	<10 - 20
Rutile	rare	<10 - 120
Hematite	rare	<5 - 40
Pyrite	7	<2 - 2.0 mm
Sphalerite	17 - 20	10 - 2.4 mm
Chalcopyrite	0.5 - 1	<2 - 480
Galena	trace	<10 - 200
Matrix	80 - 85	
which contains		
Quartz	52	<2 - 740
Calcite	7	20 - 1.5 mm
Siderite(?) – 1 grain	v. rare	270
Chlorite	17 – 22	<10 - 20
Hematite	rare	≤50
Zircon(?)	v. rare	≤50
Apatite(?)	v. rare	≤50
Pyrite	5 - 7	<10 - 2.0 mm
Sphalerite	13 – 15	<10 - 2.8 mm
Chalcopyrite	0.5 – 1	<2 - 2.0 mm
Galena	0.5	<10 - 680

<u>Micrographs</u>

Rept figures KH-04-02 93.9m.pdf

Sample Code:	KH-04-03 41.8m	**REF:**	KM-04-108
Sample Type:	Drill core		
Section Type:	Polished thin section		
Report Reference:	KM-108 / KH-04-03		
Summary:	Quartz-pyrite-hematite vein that has been brecciated and mineralized with rare gold; subsequent calcite-rare gypsum veinlets cross-cut the vein.		

General Description

The small piece of core consists of a vein at least 34mm wide, with one-half that is quartz rich; the other half is rich in pyrite with minor hematite. Part of the quartz-rich and all of the pyrite-rich sides of the vein have been strongly brecciated, forming a fabric subparallel to the contact between the quartz- and pyrite-rich zones. Rare clots of gold occur within the pyrite-rich half of the vein, some of which infill fractured pyrite. Before the core was sectioned, about five gold grains were observed, all less than 0.5mm in size. In the polished thin section, six grains were observed, ranging in size from <2 to 170 microns.

Anastomosing calcite-gypsum veinlets cross-cut the vein's structure.

It is suggested the gold was precipitated after brecciation and before calcite veining took place.

Mineralogy

Anhedral, rarely euhedral quartz makes up about one-half of the vein. Where furthest from the pyrite side, quartz is coarser-grained and slightly to moderately strained. On approach to the pyrite-rich side, quartz grain size decreases with a concomitant change in contacts from straight to irregular to sutured. Slightly coarser, elongate "augens"' of quartz surrounded by very fine-grained, milled quartz are found both in the quartz-rich side of the vein and to a lesser extent within the pyrite-rich side.

Rare books and radial sprays of muscovite occur within fractures and pore spaces within quartz; a smaller portion are found intergrown with calcite. One euhedral prism of apatite was observed within quartz.

Less than 10 very small(≤80 microns) grains of chalcopyrite were observed included within quartz grains. One 30 micron grain is intergrown with galena.

Pyrite occurs as angular to rounded, slightly to strongly pitted fragments on one side of the vein. Although mainly anhedral, a small portion are subhedral squares and rectangles. Coarser grains are typically surrounded by milled fragments of pyrite, quartz and lesser hematite. In parts of the section, pyrite appears broken or crushed in place with little dislocation; in other areas of the section, sinuous and elongate trails of crushed pyrite occur within brecciated quartz.

Hematite forms lamellar books closely associated with pyrite. Most have been brecciated along with the pyrite, sitting within a brecciated quartz-pyrite matrix or inundated by the later-stage calcite veinlets.

Gold forms anhedral grains, subequant to elongate in shape. They are typically in contact with brecciated pyrite or hematite grains; contacts range from straight to slightly curved. Several grains infiltrate the fractures of pyrite, suggesting the gold precipitated after brecciation occurred.

Calcite is found in late-stage anastomosing veinlets which cross-cut strained and brecciated quartz, pyrite and hematite. It is intergrown with a trace amounts of pale brown(pale pink in core) gypsum. The veinlets range from <15 microns to about 1.2mm in width.

Chlorite is a very rare constituent of the calcite veinlets, forming very fine aggregates ≤50 microns in size. Rutile is also a rare mineral in the veinlets, occurring as colourless to dark brown and equant grains.

Modal Analysis **Sample:** KH-04-03 41.8m

Mineral	Estimated modal %	Size Range (microns)
Quartz	55	<10 - 3.0mm
Muscovite	rare	30 - 500
Apatite (1 grain)	v. rare	≤180
Chalcopyrite	v. rare	≤20 - 80
Galena (1 grain with chalcopyrite)	v. rare	15
Pyrite	30 - 35	<<5 - 3.0mm
Hematite	1.5 – 2	20 - 1.0mm
Gold	v. rare	<2 - 170
Calcite	7 – 10	20 - 800
Gypsum	rare - trace	20 - 250
Chlorite	v. rare	≤50
Rutile	rare	≤40

<u>Micrographs</u>

Rept figures KH-04-03 41.8m.pdf

Sample Code:	KH-04-05 74.7m	**REF:** KM-04-108
Sample Type:	Drill core	
Section Type:	Polished thin section	
Report Reference:	KM-108 / KH-04-05	
Summary:	Strongly sheared porphyry with common hematite and gypsum alteration. Possibly a dacitic to andesitic porphyry.	

General Description

The core consists of fine- to medium-grained plagioclase laths and lenticular rock fragments, both stained pale to deep reddish-orange in colour. The phenocrysts and fragments are separated by irregular dark green to black aphanitic zones of magnetite, hematite, chlorite and rutile.

Discontinuous fractures infilled with pale to medium orange gypsum±calcite are themselves cross-cut by white calcite veinlets. Calcite also infills irregular-shaped pores. The core is strongly fractured and porous.

The sample contains intermediate plagioclase phenocrysts, acicular feldspar(plagioclase?), altered biotite phenocrysts and fragmented magnetite with included apatite; this suggests the original rock was a type of intermediate porphyry(dacitic to andesitic) that had suffered extensive shearing and partial alteration to gypsum with disseminated hematite.

Mineralogy

Lenticular to augen-shaped fragments contain a heterogeneous intergrowth of strained to brecciated and milled grains of subequant feldspar(plagioclase?) and quartz; minor acicular needles of feldspar are disseminated throughout. The strained silicates are composed of subgrains with sutured contacts. Irregular clots and zones of gypsum, chlorite and calcite appear to be a later stage of mineral development. The fragments are separated from each other by sutured, stylolitic aggregates of dark reddish brown to opaque black iron oxides/hydroxides, fragmented magnetite, green chlorite and pale tan rutile.

Phenocrysts of plagioclase range from subhedral stubby laths to broken crystals. They occur as solitary grains and minor intergrowths within the larger rock fragments; grain contacts range from straight(rare) to moderately serrate. Albite twinning is common with sharp, distinct twin planes. The crystals are typically slightly fractured with slight offsets and appear to represent remnant phenocrysts within a major shear zone. Several poorly oriented phenocrysts were used for plagioclase determinations using extinction angle measurements; three measurements were in the An_{35-41} range(andesine).

Biotite forms rare phenocrysts that are almost completely altered to chlorite with rutile along cleavage planes. The flakes are typically crenulated to deformed.

Rare apatite prisms occur within quartz, feldspar and magnetite grains. Several grains occur as fractured inclusion trails within gypsum-rich zones. Epidote forms subrounded grains, typically surrounded by a halo of dark reddish-brown iron oxides/hydroxides.

Rutile is found within the fragments, the stylolitic contacts between fragments and along cleavage planes of altered biotite phenocrysts. It forms subequant, subhedral to anhedral grains in loose- to tight-knit aggregates up to 200 microns in size.

Magnetite occurs as equant, subhedral to anhedral grains and as subangular fragments. The larger grains are typically moderately fractured. Rare apatite and very rare pyrite are included within magnetite.

Hematite occurs as acicular needles and as very fine-grained dustings within plagioclase phenocrysts and finer-grained feldspars within the fragments. One prismatic grain of ilmenite(?) was observed in the polished thin section.

Gypsum occurs as very pale brown to reddish-brown(pale orange in core) subhedral prisms, typically forming intergrown aggregates(± feldspar ± quartz) up to about 5mm in size. Gypsum also occurs with or without calcite as discontinuous fracture fillings.

Pyrite is a very minor constituent of the sample, occurring as subequant grains and subangular, fractured fragments with rare chalcopyrite infill. It occurs within the larger fragments and along the sutured contacts. Chalcopyrite is very rare. It is associated with fractured pyrite, gypsum zones and the sutured contacts around fragments.

Calcite forms irregularly-shaped clots, discontinuous fracture fillings and thin(up to 1mm wide) hair veinlets throughout the sample.

Modal Analysis

Note: due to the strongly sheared nature of the sample, use modal estimations with caution

Sample: KH-04-05 74.7m

Mineral	Estimated modal %	Size Range (microns)
Fragments	62 - 72	20 - 7.5 mm
consisting of intergrown Quartz & Feldspar		<2 - 360
Plagioclase Phenocrysts	5 - 7	600 - 5 mm
Biotite Phenocrysts (almost completely altered to chlorite-rutile)	rare	300 - 2.5 mm
Chlorite	3 - 5	≤10 - 150
Apatite	rare	<10 - 300
Epidote(?)	rare	10 - 30
Rutile	0.5	<10 - 200
Magnetite	3 - 4	<5 - 1 mm
Hematite	2 – 3	<10 - 40
Ilmenite(?)	v. rare	≤220
Gypsum	10 - 12	<10 - 500
Pyrite	trace	<5 - 100
Chalcopyrite	v. rare	<10 - 50
Calcite	5 - 7	40 - 1 mm

Micrographs

Rept figures KH-04-05 74.7m.pdf

Sample Code:	KN-04-16 203.1m	**REF:** KM-04-108
Sample Type:	Drill core	
Section Type:	Polished thin section	
Report Reference:	KM-108 / KN-04-16	
Summary:	Quartz-pyrite-magnetite-garnet vein with later stages of alteration and mineralization, which include minor chalcopyrite and very rare molybdenite.	

General Description

The drill core contains part of a quartz-pyrite-magnetite-garnet vein in sharp contact with a dark green and very fine-grained volcanic rock(not sectioned). Greyish-white translucent quartz is intergrown with pyrite, magnetite and minor vitreous orange-brown grandite garnet, forming sublinear masses along the length of the vein. The inner contact of the vein contains minor pale pink gypsum and bright green epidote. Pyrite, magnetite, garnet and epidote are fractured and brecciated; they are partially surrounded and infilled with white calcite and minor chalcopyrite, alunite and chlorite. Magnetite is partially altered to lamellar hematite.

Mineralogy

Quartz forms anhedral and polygonal grains that are slightly strained and which are intergrown with pyrite, magnetite, chalcopyrite, epidote and calcite. It is locally cross-cut by thin calcite veinlets.

Pyrite is typically anhedral to subhedral in shape with rare squares and hexagons. The grains are intergrown to form elongate masses up to at least 30mm long by 9mm wide. It is found intergrown with magnetite, chalcopyrite, quartz and calcite. Pyrite varies from slightly fractured to strongly brecciated; the interstices are infilled with variable calcite, chlorite, alunite and chalcopyrite, suggesting the vein underwent a period of fracturing and subsequent mineralization.

Magnetite forms relatively large, anhedral and irregularly-shaped grains which are partially altered to lamellar hematite. Magnetite forms mutually curving boundaries with both pyrite and chalcopyrite. Several smaller magnetite grains are partially enclosed by pyrite, suggesting some pyrite may have formed later than(and at the expense of?) magnetite.

Vitreous, orange-brown grains of garnet appear pale to medium yellowish-green in section. Based on the colour, garnet is within the grossular-andradite subspecies("grandite"). The grains are anhedral, subequant and poikilitic, typically including rounded quartz. The grains are also typically fractured with calcite infill. Minor pyrite and chalcopyrite are in slightly curved contact with garnet.

Epidote is typically found along the inner vein selvedge, forming anhedral, subequant granular aggregates up to 1mm in size. A smaller portion is also found intergrown with chlorite and magnetite. Epidote is locally brecciated with calcite infill.

Pale to medium-brown(pale pink in core) gypsum occurs along the inner vein selvedge, forming irregular zones of intergrown grains and subhedral prisms. It is locally intergrown with calcite.

Anhedral, slightly strained grains of calcite occur as intergrown masses enveloping and infiltrating fractured pyrite and magnetite and as minor veinlets cross-cutting quartz . It is closely associated with chalcopyrite and alunite and is believed to represent a later stage of fluid infiltration into a pre-existent quartz-pyrite-magnetite vein.

Alunite flakes are intergrown with chalcopyrite and calcite and locally infill fractured pyrite.

Chlorite flakes and less common intergrown masses are intergrown with calcite and epidote and locally infill fractured pyrite.

Chalcopyrite occurs as anhedral, subequant to irregularly-shaped grains. It partially to wholly rims magnetite and pyrite(curved contacts) and locally infills fractured pyrite and garnet. Chalcopyrite is also intergrown with alunite within calcite.

One folded flake of molybdenite was observed within a calcite grain.

Modal Analysis

Note: Because the polished thin section sampled only a part of the vein, modal estimates are based on both core and section observations.

Sample: KN-04-16 203.1m

Mineral	Estimated modal %	Size Range (microns)
Quartz	60	<40 - 1.0 mm
Pyrite	20	<10 - 620
Magnetite (partially altered to hematite)	6	<10 - 2.6 mm
Hematite (altered from magnetite into lamellar plates)	2	<10 - 40 x 1,000
Garnet	trace	<10 - 5.0 mm
Epidote	1	30 - 600
Gypsum	2	40 - 680
Calcite	8	40 - 1.4 mm
Alunite	trace	40 - 280
Chlorite	trace	80 - 1.1 mm
Chalcopyrite	1	<10 - 1.0 mm
Molybdenite (1 flake observed)	v. rare	60

<u>Micrographs</u>

(none included)

Figure 4. KH-04-02 93.9m. Zoned sphalerite grains with a yellow-brown interior("honey sphalerite") and almost opaque sphalerite("blackjack") along edges and fractures. They sit within the chlorite-rich quartz breccia.
Plane polarized transmitted light. 5x objective.

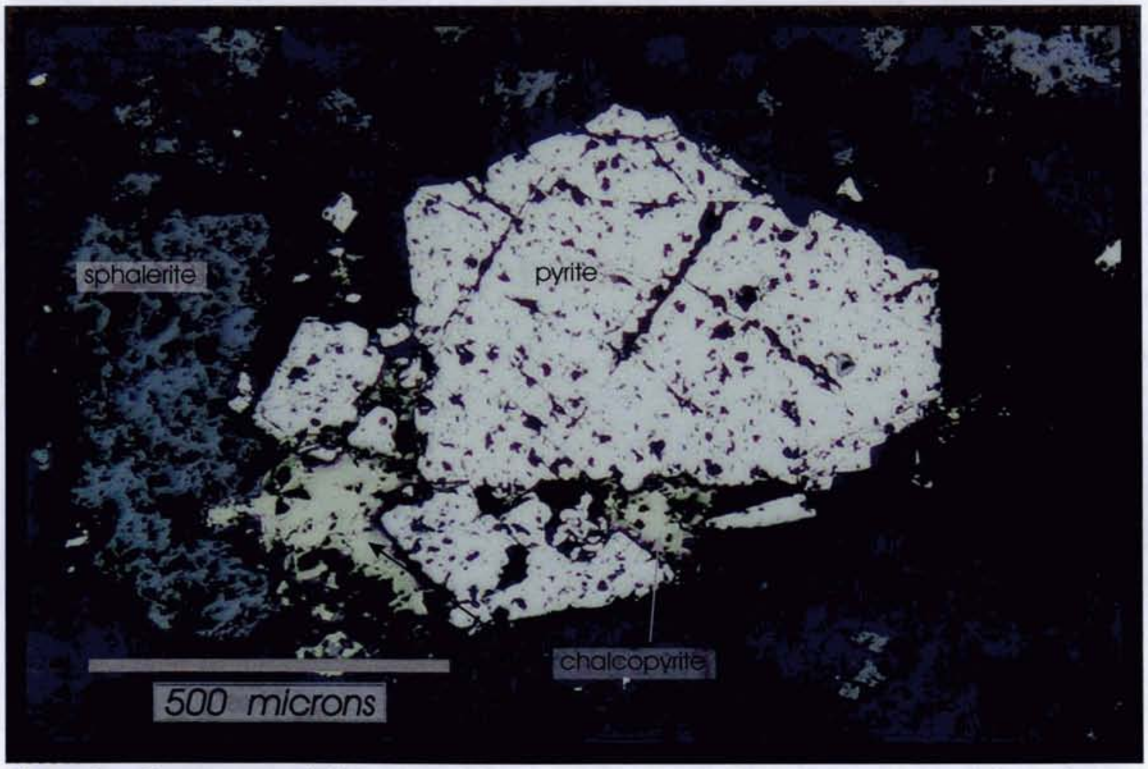

Figure 5. Intergrown sulphides within the largest quartz-rich fragment. Irregular chalcopyrite partially surrounds and intrudes slightly fractured pyrite. Dark blue-grey sphalerite is the most common sulphide in the sample.
Plane polarized reflected light. 5x objective.

Figure 6. KH-04-02 93.9m. Intergrown galena-chalcopyrite-sphalerite within the chlorite-rich quartz breccia.
Plane polarized reflected light. 10x objective.

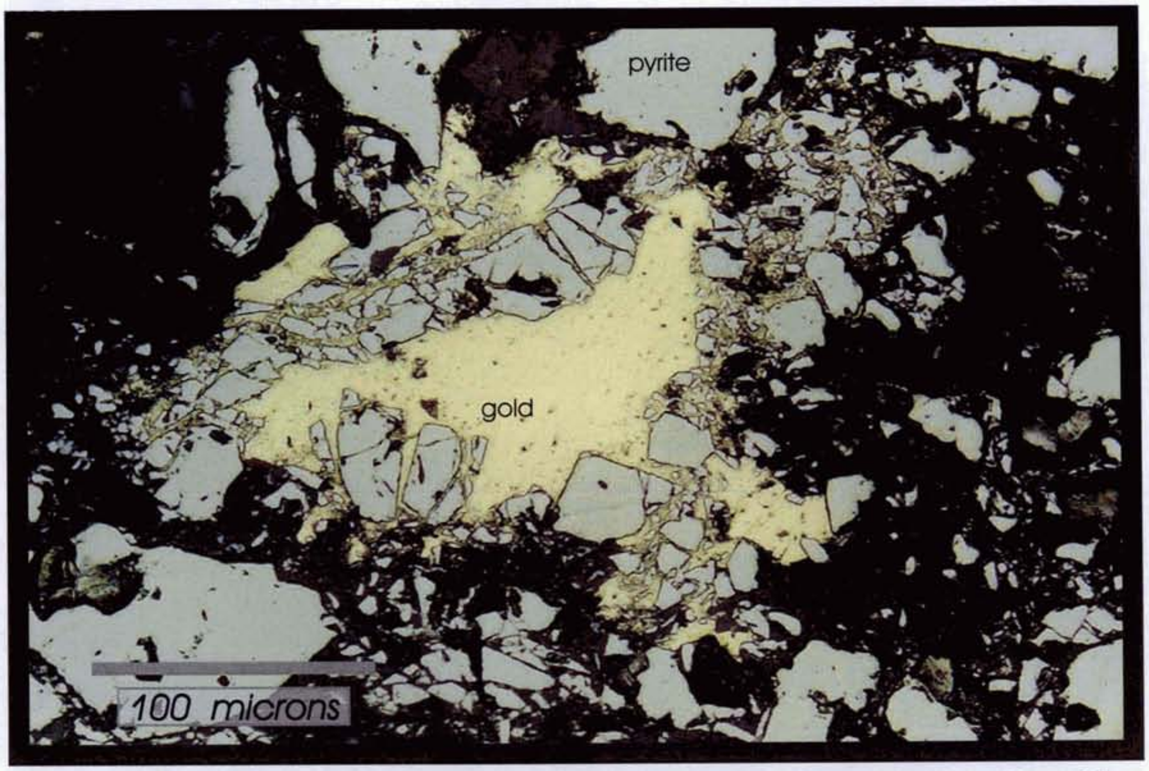

Figure 7. KH-04-03 41.8m. Brecciated pyrite grains partially to completely enclosed by gold. Gold is found only within the brecciated pyrite-rich area of the quartz-pyrite vein. Plane polarized reflected light. 20x objective.

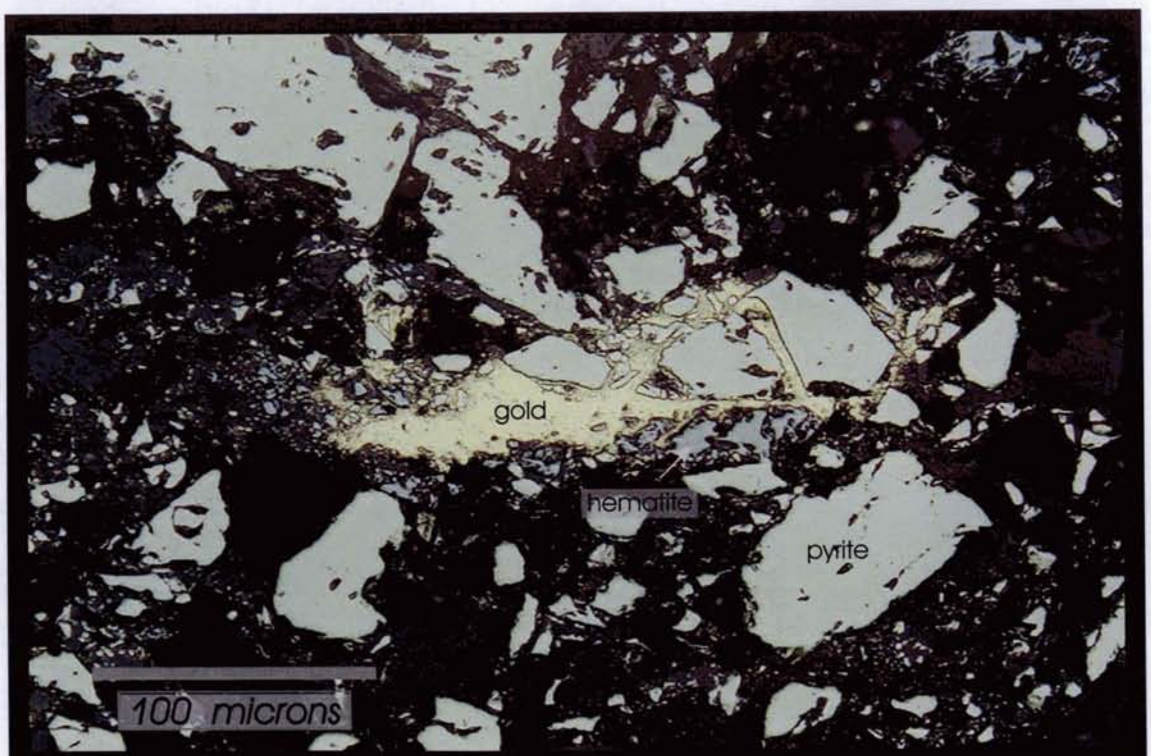

Figure 8. Other grains of gold partially to completely enclose fragments of pyrite and hematite. Brecciated fragments of quartz make up the rest of the gangue. Plane polarized reflected light. 20x objective.

Figure 9. KH-04-05 74.7m. Sawn blank of a strongly sheared and altered porphyry. Most of the irregularly-shaped orange fragments are hematitic, gypsum-rich intergrowths of brecciated feldspar and quartz which lie in a dark green aphanitic matrix of chlorite, magnetite, hematite, rutile and milled silicates. Minor remnant phenocrysts of plagioclase are slightly fractured and stained with hematite.

Figure 10. Lenticular and hematitic fragments of intergrown feldspar and quartz bordered by dark reddish-brown zones of hematite, magnetite, chlorite, rutile and milled silicates. Plane polarized transmitted light. 5x objective.

Kemess Property 2004
Appendix 7
Statement of Expenditure

Analytical (ALS Chemex)

2096 Samples (ICP and Au Fire Assay) $45019

Number		Certificate
33		VA04053509
63		VA04053509
37		VA04053509
35		VA04053509
27		VA04056480
16		VA04056419
50		VA04056480
45		VA04056419
150		VA04050717
75		VA04050718
50		VA04052188
150		VA04052567
55		VA04053507
75		VA04064622
75		VA04066479
35		VA04066590
104		VA04070876
90		VA04070877
73		VA04070877
26		VA04070878
69		VA04072029
125		VA04072350
22		VA04074701
25		VA04074702
139		VA04074701
51		VA04072350
139		VA04074703
158		VA04074702

Results		1992
Repeats		20
Control		84
Total Samples		2096
COST	$ 21.48	$ 45,019

Diamond Drilling

Britton Brothers Diamond Drilling 07-20-04 to 10-17-2004 4198m $304,923

HoleID		Depth		Cost
KH-04-01		112.8	$	6,906
KH-04-02		152.4	$	8,489
KH-04-03		97.5	$	5,431
KH-04-04		149.9	$	8,450
KH-04-05		182.9	$	10,188
KH-04-06		149.4	$	6,283
KN-04-01		429.8	$	31,729
KN-04-02		499.9	$	37,395
KN-04-04		356.6	$	21,419
KN-04-11		387.1	$	28,170
KN-04-12		350.5	$	23,540
KN-04-13		374.9	$	27,510
KN-04-14		298.7	$	49,413
KN-04-15		353.6	$	22,750
KN-04-16		301.8	$	17,251
Total	15	4197.8	$	304,923

Helicopter (Canadian Helicopters – Long Ranger)

160.9 Hours 07-20-2004 to 10-17-2004 for $132,107

Date	Invoice #	Hours	Account	Invoice Chg
7/20/04	P271438	0.2	KMX	$ 198
7/21/04	P271442	1.1	KMX	$ 1,090
7/23/04	P271446	2.9	KMX	$ 2,874
7/31/04	P266193	0.4	KMX	$ 396
8/1/04	P271538	0.3	KMX	$ 297
8/2/04	P271540	1.6	KMX	$ 1,586
8/3/04	P271542	0.2	KMX	$ 198
8/4/04	P271544	0.8	KMX	$ 793
8/5/04	P271548	0.9	KMX	$ 892
8/6/04	P271550	0.3	KMX	$ 297
8/7/04	P271678	1.4	KMX	$ 1,387
8/8/04	P271682	0.3	KMX	$ 297
8/8/04	P271682	1.3	KMX	$ 1,288
8/9/04	P271685	0.4	KMX	$ 396
8/10/04	P271467	3.2	KMX	$ 3,171
8/11/04	P271472	0.8	KMX	$ 630
8/12/04	P271475	2.8	KMX	$ 2,206
8/13/04	P271706	3	KMX	$ 2,973
8/14/04	P271710	2.8	KMX	$ 2,775
8/15/04	P271714	2.2	KMX	$ 2,180
8/16/04	P271718	1.4	KMX	$ 1,387
8/17/04	P271721	0.2	KMX	$ 198
8/18/04	P271376	0.4	KMX	$ 396
8/18/04	P271376	0.8	KMX	$ 793
8/20/04	P271666	1.1	KMX	$ 867
8/21/04	P271668	1.4	KMX	$ 1,103
8/21/04	P271667	1.6	KMX	$ 1,261
8/22/04	P271669	0.4	KMX	$ 315
8/22/04	P271398	0.4	KMX	$ 396
8/23/04	P271580	0.4	KMX	$ 396
8/24/04	P271583	0.6	KMX	$ 595
8/25/04	P271588	0.3	KMX	$ 297
8/26/04	P271592	0.4	KMX	$ 396
8/28/04	P271606	1.5	KMX	$ 1,327
8/31/04	P271617	0.9	KMX	$ 709
9/7/04	P272055	0.6	KMX	$ 473
9/8/04	P272058	1.5	KMX	$ 1,182
9/9/04	P272060	1	KMX	$ 788
9/10/04	P271558	1.1	KMX	$ 867
9/11/04	P271561	1.3	KMX	$ 1,024
9/12/04	P271563	1.2	KMX	$ 946
9/13/04	P271565	0.3	KMX	$ 236
9/13/04	P271567	0.9	KMX	$ 709
9/14/04	P271569	2.3	KMX	$ 1,812
9/15/04	P271572	2	KMX	$ 1,576
9/16/04	P271575	1.6	KMX	$ 1,261
9/17/04	P272078	2	KMX	$ 1,576
9/18/04	P272080	2	KMX	$ 1,576
9/19/04	P272085	1.1	KMX	$ 867
9/19/04	P272082	1.5	KMX	$ 1,182
9/20/04	P272090	4.8	KMX	$ 3,782
9/21/04	P272091	3.1	KMX	$ 2,443
9/22/04	P272093	3.7	KMX	$ 2,916
9/23/04	P272095	4	KMX	$ 3,152
9/24/04	P272096	4.3	KMX	$ 3,388
9/25/04	P272099	1.8	KMX	$ 1,418
9/26/04	P272100	2.7	KMX	$ 2,128
9/26/04	P272100	2.9	KMX	$ 2,285
9/27/04	P272126	2.3	KMX	$ 1,812
9/28/04	P272128	2.4	KMX	$ 1,891
9/29/04	P272130	2	KMX	$ 1,576
9/29/04	P272130	3.4	KMX	$ 2,679
9/30/04	P272132	0.9	KMX	$ 709
9/30/04	P272132	4.9	KMX	$ 3,861
10/1/04	P272133	1.1	KMX	$ 867
10/1/04	P272133	3.6	KMX	$ 2,837
10/2/04	P272134	3	KMX	$ 2,364
10/3/04	P272135	5.1	KMX	$ 4,019
10/4/04	P272136	1.6	KMX	$ 1,261
10/5/04	P272137	3.1	KMX	$ 2,443
10/6/04	P272139	3.3	KMX	$ 2,600
10/7/04	P272142	2.7	KMX	$ 2,128
10/8/04	P272143	4.2	KMX	$ 3,310
10/9/04	P272144	3.8	KMX	$ 2,994
10/10/04	P272146	3.1	KMX	$ 2,443
10/11/04	P272148	3.4	KMX	$ 2,679
10/12/04	P272149	2.7	KMX	$ 2,128
10/13/04	P272150	3.9	KMX	$ 3,073
10/14/04	P272151	3.3	KMX	$ 2,600
10/15/04	P272227	1.2	KMX	$ 946
10/15/04	P272152	2.5	KMX	$ 1,970
10/16/04	P272228	3.2	KMX	$ 2,522
10/17/04	P272229	3.1	KMX	$ 2,443
TOTAL		161		$ 132,108