ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
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ASSESSMENT REPORT

describing

GEOCHEMICAL SAMPLING, PROSPECTING, GEOLOGICAL MAPPING, REVERSE CIRCULATION PERCUSSION DRILLING, DIAMOND DRILLING AND GEOPHYSICAL SURVEYING

at the

HOPPER PROPERTY

Hopper, Gal and Guy Claims

NTS 115H/02 & 115H/07
Latitude 61°16´N; Longitude 136°52´W

located in the

Whitehorse Mining District
Yukon Territory

prepared by

Archer, Cathro & Associates (1981) Limited

for

BONAPARTE RESOURCES INC.
and
STRATEGIC METALS LTD.

by

S. Eaton, B.Sc. Geology, GIT

February 2012

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INTRODUCTION

The Hopper property covers copper-gold-silver, skarn- and porphyry-style targets located in southwestern Yukon. Bonaparte Resources Inc. can earn a 100% interest in the property, subject to an option agreement with Strategic Metals Ltd.

This report describes a two phase exploration program conducted by Archer, Cathro & Associates (1981) Limited on behalf of Bonaparte. The first phase was completed between June 13 and September 29, 2011 and comprised soil geochemical sampling, prospecting, geological mapping, reverse circulation percussion drilling (1730 m in 58 holes) and diamond drilling (1309.09 m in 6 holes). The second phase comprised helicopter-borne versatile time-domain electromagnetic (VTEM) and magnetic surveys that were flown between December 14 and 20, 2011. The author interpreted data resulting from this work and her Statement of Qualifications appears in Appendix I.

PROPERTY LOCATION, CLAIM DATA AND ACCESS

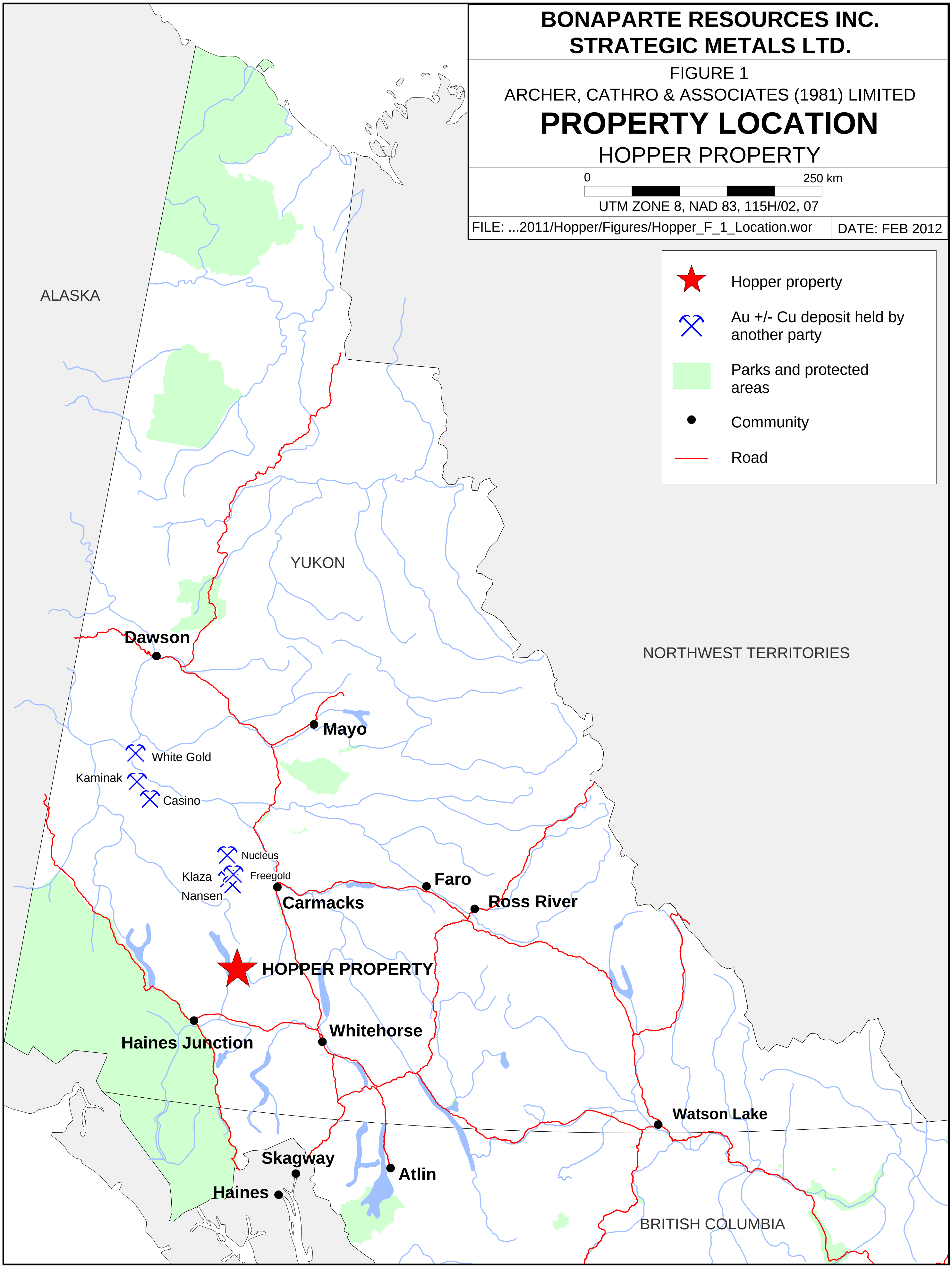
The Hopper property is located in southwestern Yukon at latitude 61º16'N and longitude 136º52'W on NTS map sheets 115H/02 and 115H/07 (Figure 1). It comprises 365 contiguous quartz claims that cover an area of about 7400 (74 km^2). Two hundred and ninety of these claims were acquired prior to the 2011 exploration program, while the remaining claims were staked after positive results were obtained. All of the claims are registered with the Whitehorse Mining Recorder in the name of Archer Cathro, which holds them in trust for Strategic Metals. Specifics concerning claim registration are tabulated below, while the locations of individual claims are shown on Figure 2.

Claim Name	Grant Number	Expiry Date*
Hopper 1-20	YC41091-YC41110	February 15, 2020
21-162	YC47017-YC47158	February 15, 2020
163-168	YC65915-YC65920	February 15, 2020
170	YC47159	February 15, 2018
171-266	YD123011-YD123106	February 15, 2016
267-342	YF28607-YD28682	February 15, 2017
Gal 1-8	YC65907-YC65914	February 15, 2020
Guy 1-16	YC19466-YC19481	February 15, 2020

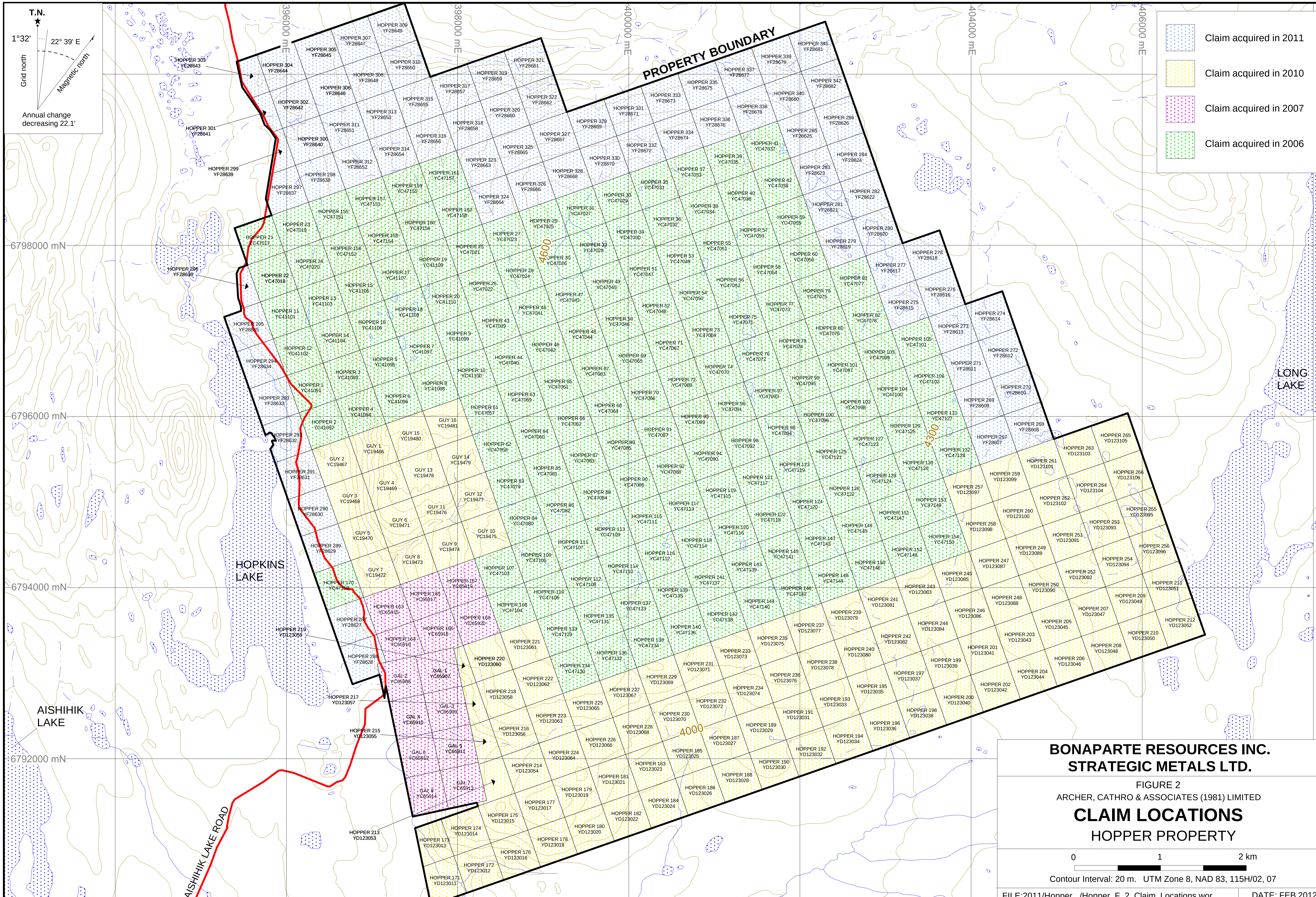
* Expiry dates include 2011 work that has been filed for assessment credit but not yet accepted.

Access to the property in 2011 was via truck from Whitehorse, which lies 120 km southeast of the property and is the nearest supply centre. All personnel stayed at a temporary camp on the property.

The property lies along the Aishihik Lake Road, 52 km north of the Otter Falls cut-off at Km 1602 on the Alaska Highway. A system of bush roads and bulldozer trails extends from the Aishihik Lake Road onto the property. The Alaska Highway is usable in all seasons by two wheel drive vehicles.



BONAPARTE RESOURCES INC.
STRATEGIC METALS LTD.
FIGURE 1
ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
PROPERTY LOCATION
HOPPER PROPERTY
0
250 km
UTM ZONE 8, NAD 83, 115H/02, 07
FILE: ...2011/Hopper/Figures/Hopper_F_1_Location.wor
DATE: FEB 2012
Hopper property
Au +/- Cu deposit held by another party
Parks and protected areas
Community
Road
ALASKA
YUKON
NORTHWEST TERRITORIES
BRITISH COLUMBIA
Dawson
Mayo
White Gold
Kaminak
Casino
Nucleus
Klaza
Freegold
Nansen
Carmacks
Faro
Ross River
HOPPER PROPERTY
Haines Junction
Whitehorse
Watson Lake
Skagway
Atlin
Haines



BONAPARTE RESOURCES INC.
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FIGURE 2

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

CLAIM LOCATIONS

HOPPER PROPERTY

Contour Interval: 20 m. UTM Zone 8, NAD 83, 115H/02, 07

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DATE: FEB 2012

HISTORY AND PREVIOUS WORK

From 1907 to 1967, intermittent, poorly documented, cursory exploration was performed within the area now covered by the Hopper property. Since then, better documented exploration programs were carried out over various parts of the current property by different operators (Figure 3). Table I summarizes these exploration programs.

Table I – Exploration History of the Hopper Property

Year of Work (Report)	Owner/ Operator	Claims	Work Performed	Results
1968 (019089)	Mitsubishi Metal Corporation	AD	Geophysical survey, geological mapping, soil sampling, composite chip sampling	Identified strong Cu-in-soil values and 0.52% Cu over 45.72 m from a composite chip sample.
1970 (060993)	Mitsubishi Metal Corporation	ML	IP survey	Identified a large magnetic anomaly and a widespread area of polarized material likely due to pyrite, chalcopyrite and magnetite.
1976 (090147)	Mitsubishi Metal Corporation	ML	Mapping and prospecting	Rock sample with 0.124% U_3O_8. Follow up work returned <0.001% U_3O_8.
1977 (091325 and 092027)	Whitehorse Copper Mines Ltd.	Hop and Acme	Diamond drilling (1089.1 m in 11 holes)	Significant Cu, Au and Ag results from drilling, including 1.94% Cu, 0.87 g/t Au, 14.6 g/t Ag over 18.6 m.
1978 (092038)	Whitehorse Copper Mines Ltd.	Hop and Acme	Ground magnetic survey, test IP, geological mapping and diamond drilling (697.7 m in 4 holes)	Best drill intersection: 2.42% Cu, 3.051 g/t Au, 16.11 g/t Ag over 0.21 m.
1980 (work reported in 062147)	New Ridge Resources Ltd.	Hop and Acme	EM-16 and magnetometer surveys, percussion drilling (2490.2 m in 46 holes)	Percussion holes were analyzed for Cu only and not all holes were analyzed. Best intervals: 1.52% Cu over 18.3 m.
1981 (062147)	New Ridge Resources Ltd.	Hop and Acme	Review of historical work and recommendation for future work	Recommended two vertical drill holes to test the mineralized horizon.
1989 (092776)	Casau Exploration Limited	Hop and Acme	Diamond drilling (376.12 m in 5 holes)	Best intersections: 1.98% Cu, 0.67 g/t Au, 14.4 g/t Ag over 7.8 m.
2002	Private Group	Guy	No reported work	n/a
2006	Strategic Metals Ltd.	Hopper	Geological mapping, prospecting and soil	Soil sampling outlined a 2300 x 400 m area of strong Cu-in-

			geochemistry	soil geochemistry (up to 1275 ppm). Rock sample values from 0.11 to 1.53% Cu with up to 11.6 g/t Ag.
2007	Strategic Metals Ltd.	Hopper and Gal	Excavator trenching, geophysical surveying and soil geochemistry	Soil sampling returned up to 2810 ppm Cu and 95 ppm Mo. Best chip sampling result was 0.4% Cu over 13 m.
2008	Strategic Metals Ltd.	Hopper and Gal	Airborne VTEM & mag survey	Identified strong mag signature over pluton and four conductors (best over skarn zone within Guy claims).
2010	Strategic Metals Ltd.	Hopper and Gal	Soil sampling	Soil sampling yielded subdued response in vicinity of drill holes on Guy claims; locally elevated Au, Cu and Mo values elsewhere on those claims.

The exploration programs and highlight results are summarized in the following paragraphs, while more detailed descriptions of results are provided in the appropriate sections to follow.

In 1968, Mitsubishi Metal Corporation staked the AD claims to cover a copper showing (Hopkins North Zone) that was identified in the early 1900s (Kikuchi, 1968). The work program comprised airborne geophysical surveys, geological mapping and rock and soil geochemical sampling. Airborne electromagnetic and magnetometer surveys identified a few conductors and areas of strong magnetic response. No detailed explanation of the geophysical features was reported. A number of composite chip samples were taken from bedrock and/or sub-crop across widths of 30.48 to 60.69 m (Figure 3). Values from these chip samples ranged from 0.18 to 0.52% copper. Soil sampling identified copper values up to 2250 ppm that reportedly coincide with the geophysical anomalies. The AD claims lapsed following this work. An Induced Polarization (IP) survey and bulldozer trenching were recommended as follow-up work.

In 1970, Mitsubishi restaked part of the AD claims as the ML property. Although the assessment report for this work only reports an IP survey, a small bulldozer trenching program is thought to have been attempted in the vicinity of the 1968 work (Figure 3). Results from the IP survey showed a widespread area of polarized material likely due to pyrite, chalcopyrite and magnetite (Norgaard, 1970). The bulldozer trenches did not reach bedrock and there is no record of samples taken.

In 1976, Mitsubishi performed mapping and prospecting on the ML property. The focus of this work was intrusive-hosted uranium. A specimen sample reportedly returned 0.124% U_3O_8, but follow up work returned values less than 0.001% U_3O_8. The ML claims were allowed to lapse (Shimizu and Kashiwagi, 1976).

In 1977, Whitehorse Copper Mines Ltd. optioned the Acme claims from two independent prospectors and immediately staked the Hop claims to surround them. Diamond drilling

(1089.1 m in 11 holes) was performed to test a pyrrhotite and chalcopyrite rich calc-silicate skarn horizon (Hopkins South Zone). Drilling successfully identified the skarn horizon at depth and yielded 1.94% copper, 0.87 g/t gold and 14.6 g/t silver over 18.6 m between 23.5 and 42.1 m (Tenney, 1977).

In 1978, Whitehorse Copper returned to the property to perform ground magnetic and IP surveys, geological mapping and follow up diamond drilling (697.7 in four holes) at the Hopkins South Zone. The magnetic survey confirmed that areas underlain by the main intrusion or dykes have a higher magnetic background than those underlain by schist. Strong magnetic highs were identified in the vicinity of magnetite skarns. The IP survey returned low chargeability readings over the intrusive body, but four or five times higher values over the schist country rock. Whitehorse Copper thought that the high chargeability background over the schist likely prevented detection of sulphide mineralization at depth. The diamond drilling program was designed to determine whether a large tonnage copper target could extend from mineralization detected in 1977. The best drill intersection was 0.36% copper over 1.3 m between 170.1 and 171.4 m (Ashton, 1981).

In 1980, New Ridge Resources Ltd. performed EM-16 and magnetometer geophysical surveys and percussion drilling (2490.2 m in 46 holes) within Hopkins South Zone (Ashton, 1981). The most significant interval returned 1.52% copper over 18.3 m between 21.3 and 39.6 m (only analyzed for copper).

In 1989, Casau Exploration Limited performed 376.12 m of diamond drilling in five holes within Hopkins South Zone (Stephen and Feulgen, 1989). The best intersection yielded 1.98% copper, 0.67 g/t gold and 14.4 g/t silver over 7.8 m between 23.1 and 30.9 m.

In 2002, a private group staked the Guy claims to cover the drilled skarn horizon in Hopkins South Zone. No work was reported.

In 2006, Strategic Metals staked the Hopper claims around the Guy property and conducted soil sampling, geological mapping and prospecting in the vicinity of Hopkins North Zone. Soil sampling identified numerous anomalies as discussed in the Soil Geochemistry section. Eight specimens of weakly magnetic granodiorite and diorite yielded between 0.11% and 1.53% copper with an average of 0.65%. Accompanying silver values ranged up to 11.6 g/t silver (Wengzynowski and Smith, 2007). Strategic Metals expanded the claim block in June 2006.

In 2007, Strategic Metals once again expanded the claim block, this time adding the Gal and four more Hopper claims to the south of the Guy property (Figure 3). Work performed in 2007 included soil geochemical sampling, chip and channel sampling, excavator trenching and helicopter-borne versatile time domain electromagnetic (VTEM) and magnetic surveys (Jessen, 2008). Soil sampling better defined and expanded the known anomalies. Chip and sawn channel samples collected from outcrops within Hopkins North Zone returned variable results, the best of which was 0.40% copper over 13 m. Specimen rock sampling within the excavator trenches returned values up to 2.25% copper, but most samples yielded less than 1%. The most significant trench chip sample returned 0.11% copper over 10 m (Figure 3). Results of the VTEM and magnetic surveys are summarized in the Geophysical Surveys section. In addition to the work performed by Strategic Metals, a masters student from the University of Waterloo performed whole rock and sulphur isotope analyses on intrusive rocks collected from the Hopper Pluton in the northwestern part of the property. These analyses returned Late Cretaceous ages between 76.0 ±1.1 and 83.7±1.9 Ma (Blumenthal, 2010).

In 2010, Strategic Metals acquired the Guy claims by way of a joint venture and added more claims to the south of the Hopper property. That year, Strategic Metals performed grid soil sampling in the vicinity of skarn mineralization outlined by percussion and diamond drilling within Hopkins South Zone (Smith, 2011). Results from this work were variable, with samples ranging from 1 to 109 ppb gold, 10 to 913 ppm copper and 1 to 27 ppm molybdenum. Analyses for other elements yielded background to moderately anomalous values. Soil response near the drill holes was subdued.

GEOMORPHOLOGY

The Hopper property is located within the Kluane Plateau physiographic region. The claim block lies between Hopkins Lake to the west and Long Lake to the east. Aishihik Lake is located four kilometres west of the property. The property is drained by creeks that flow into Hopkins and Aishihik lakes, which connect to the Pacific Ocean via the Aishihik, Dezadeash and Alsek rivers, and by creeks that flow into Long Lake, which ultimately connects to the Pacific Ocean via the Nordenskiold and Yukon rivers.

The Kluane Plateau was glaciated during the Late Pleistocene. Glacial movement arced from south to north-northwest in the Aishihik Lake area (Duk-Rodkin, 1999). Local elevations range from 1000 to 1645 m above sea level. The lowest areas are located near the Aishihik Lake Road and exhibit glacial features such as small eskers, kames, kettles and assorted till deposits. These areas are densely forested with stunted spruce, willow, poplar and birch. The uplands begin approximately 800 m east of the road and consist of a broad, grass and buckbrush covered plateau featuring gently undulating knolls, swamps and small lakes. The upland plateau is separated from the lowlands by a steep (30°), moderately vegetated hillside. Treeline is at about 1500 m. Outcrop is most common on the steep hillside and atop glacially scoured knolls in the uplands.

Although the Hopper area is arid and many creeks only flow during seasonal runoff, small lakes and the larger creeks provide sufficient water for camp and drilling purposes throughout summer and fall.

REGIONAL GEOLOGY

The Hopper property is located within Yukon-Tanana Terrane (Figure 4), which represents a continental arc that developed along the ancient Pacific margin of North America from Late Devonian to Permian. Yukon-Tanana Terrane is bordered by the Tintina Fault, 200 km to the northeast, and the Denali-Shakwak Fault, 50 km to the southwest. Both faults are steeply dipping transcurrent structures that have seen hundreds of kilometres of dextral strike-slip offset.

In 1997, the area around the Hopper property (NTS map sheet 115H/07) was mapped at

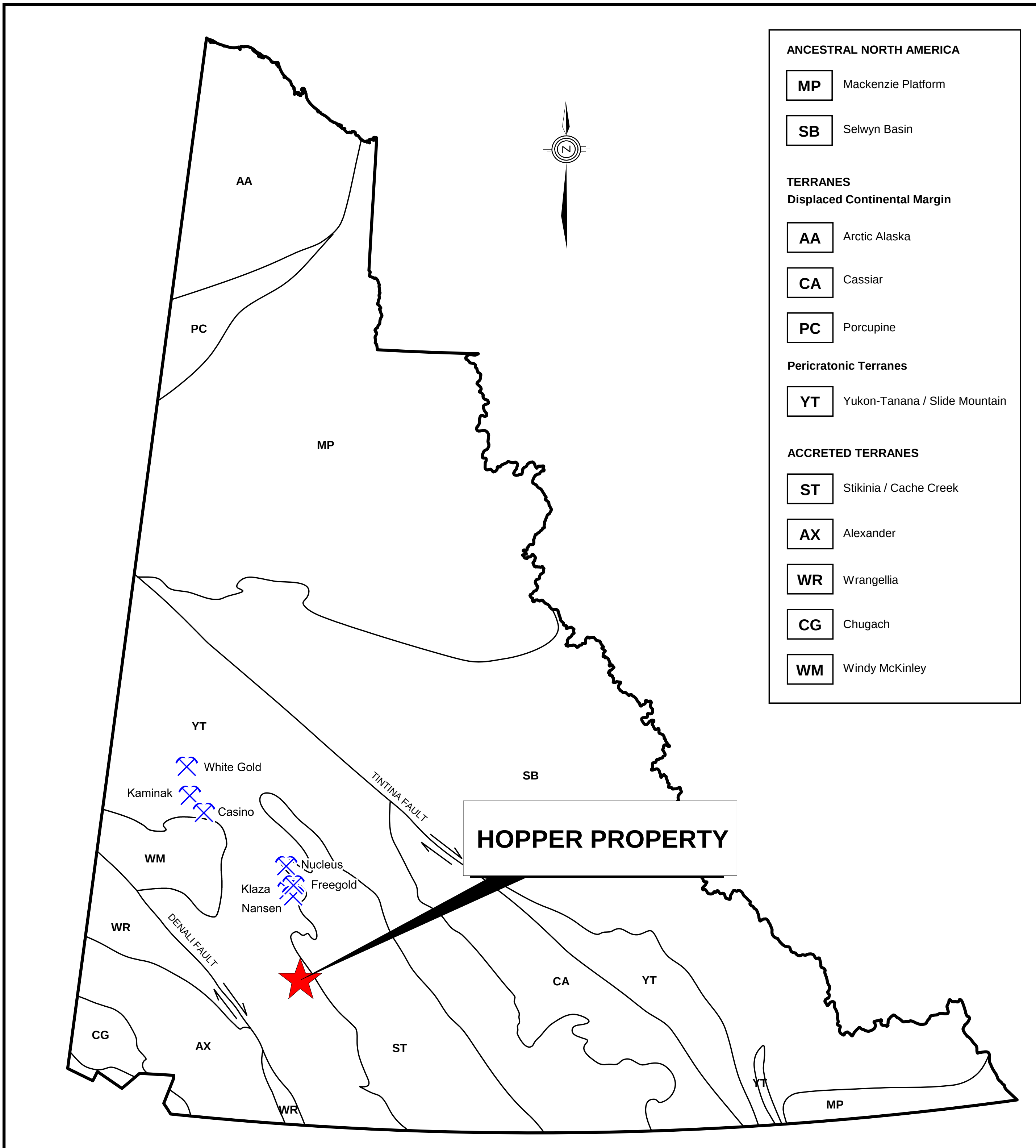

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FIGURE 4

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

TECTONIC SETTING

HOPPER PROPERTY

0 200 km

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1:50,000 scale by Johnston and Timmerman of the Yukon Geological Survey (YGS). Gordey and Makepeace (2003) later completed a Yukon-wide geological compilation, which updated the lithological unit names in the area. Figure 5 illustrates geology as mapped by Johnson and Timmerman and compiled by Gordey and Makepeace. Rock types assigned during 1997 mapping have been re-assigned to equivalent map units from the current YGS geological compilation. The main lithological map suites in the vicinity of the property are described in Table II.

Table II – Lithological Units (*after Gordey and Makepeace, 2003*)

Map Suite	Age	Map Unit	Description
Quaternary	Quaternary	Q	Unconsolidated glacial, glaciofluvial and glaciolacustrine deposits; fluviatile silt, sand and gravel; and local volcanic ash, in part with cover of soil and organic deposits.
Skukum Assemblage	Eocene	IES2	North trending, felsic volcanic dykes, plugs, domes, laccoliths and flows.
Ruby Range Suite	Early Tertiary	ETgN	Biotite-hornblende granodiorite, quartz monzonite, quartz diorite; minor granodiorite-gneiss; hornblende and biotite-hornblende diorite; biotite-quartz-feldspar porphyry and porphyritic biotite-quartz monzonite.
Aishihik Metamorphic Suite	Early Jurassic	EJgA	Medium to coarse grained, foliated biotite-hornblende granodiorite; biotite-rich screens and gneiss schliern; foliated hornblende diorite to monzodiorite with local potassium feldspar megacrysts.
Nisling Range Suite	Late Proterozoic and Paleozoic	PPN1	Dark grey to brown, biotite-muscovite-quartz-feldspar schist, quartzite and micaceous quartzite, garnetiferous felsic chlorite-biotite orthogneiss; minor two-mica gneiss and hornblende-diorite gneiss.
Nisling Range Suite	Late Proterozoic and Paleozoic	PPN2	Bleached white-weathering, white to grey, coarsely crystalline, flow banded, fetid marble; graphite and chert.

PROPERTY GEOLOGY

In 2006 and 2011, geological mapping at a 1:10,000 scale was performed within an approximately 3000 by 2000 m area (Map Area A, Figure 6) in the northwest corner of the property. This map area is roughly centered on porphyry-style copper-gold-silver±molybdenum mineralization (Hopkins North Zone) that was previously explored by Mitsubishi and Strategic Metals (Figure 3). In 2011, mapping was also completed at a 1:5,000 scale within a 1000 by

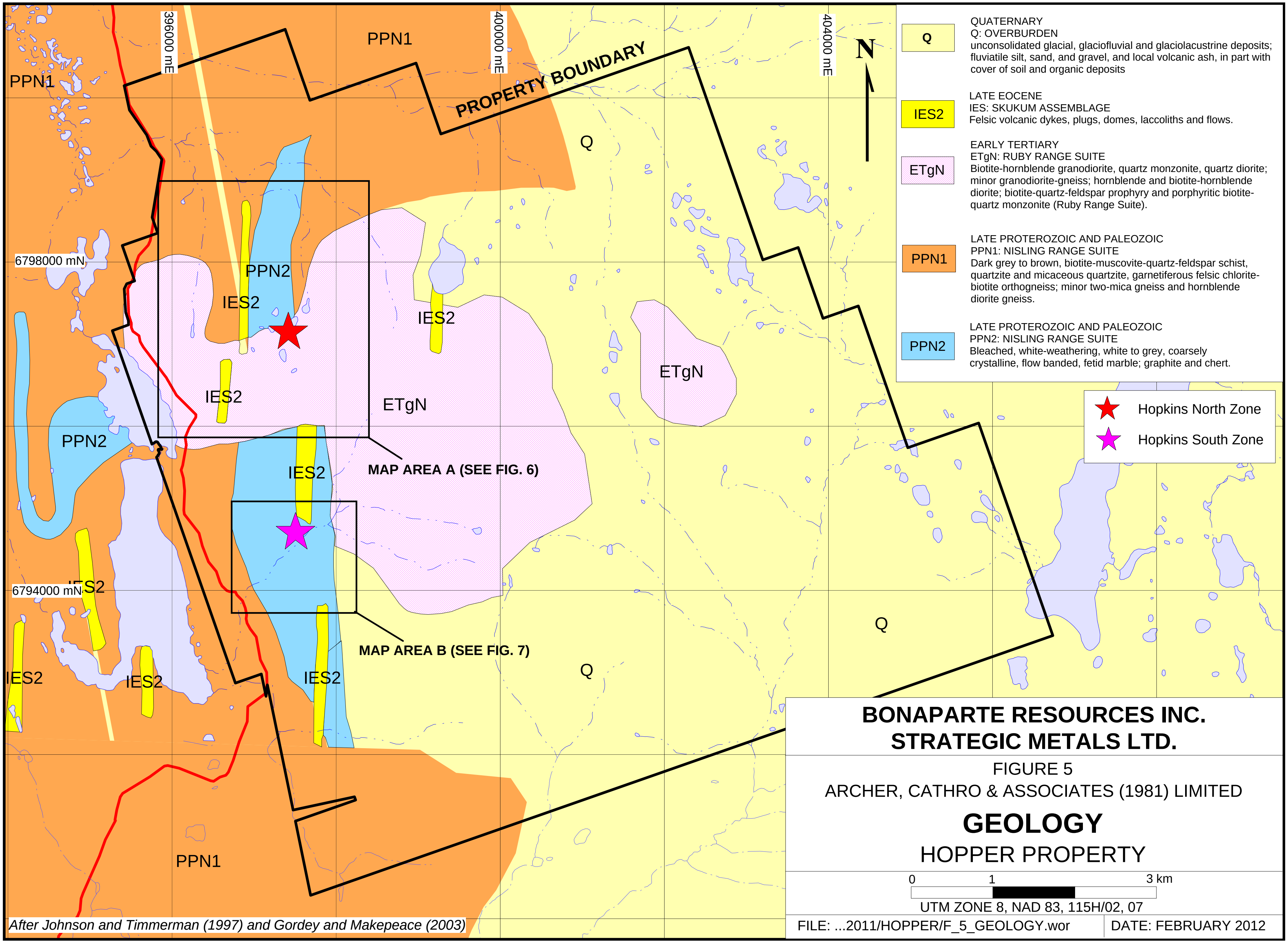

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FIGURE 5
ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
GEOLOGY
HOPPER PROPERTY
0
1
3 km
UTM ZONE 8, NAD 83, 115H/02, 07
FILE: ...2011/HOPPER/F_5_GEOLOGY.wor
DATE: FEBRUARY 2012
Q
QUATERNARY
Q: OVERBURDEN
unconsolidated glacial, glaciofluvial and glaciolacustrine deposits; fluviatile silt, sand, and gravel, and local volcanic ash, in part with cover of soil and organic deposits
IES2
LATE EOCENE
IES: SKUKUM ASSEMBLAGE
Felsic volcanic dykes, plugs, domes, laccoliths and flows.
ETgN
EARLY TERTIARY
ETgN: RUBY RANGE SUITE
Biotite-hornblende granodiorite, quartz monzonite, quartz diorite; minor granodiorite-gneiss; hornblende and biotite-hornblende diorite; biotite-quartz-feldspar prophyry and porphyritic biotite-quartz monzonite (Ruby Range Suite).
PPN1
LATE PROTEROZOIC AND PALEOZOIC
PPN1: NISLING RANGE SUITE
Dark grey to brown, biotite-muscovite-quartz-feldspar schist, quartzite and micaceous quartzite, garnetiferous felsic chlorite-biotite orthogneiss; minor two-mica gneiss and hornblende diorite gneiss.
PPN2
LATE PROTEROZOIC AND PALEOZOIC
PPN2: NISLING RANGE SUITE
Bleached, white-weathering, white to grey, coarsely crystalline, flow banded, fetid marble; graphite and chert.
Hopkins North Zone
Hopkins South Zone
N
PROPERTY BOUNDARY
396000 mE
400000 mE
404000 mE
6798000 mN
6794000 mN
MAP AREA A (SEE FIG. 6)
MAP AREA B (SEE FIG. 7)
PPN1
PPN2
IES2
ETgN
Q
After Johnson and Timmerman (1997) and Gordey and Makepeace (2003)

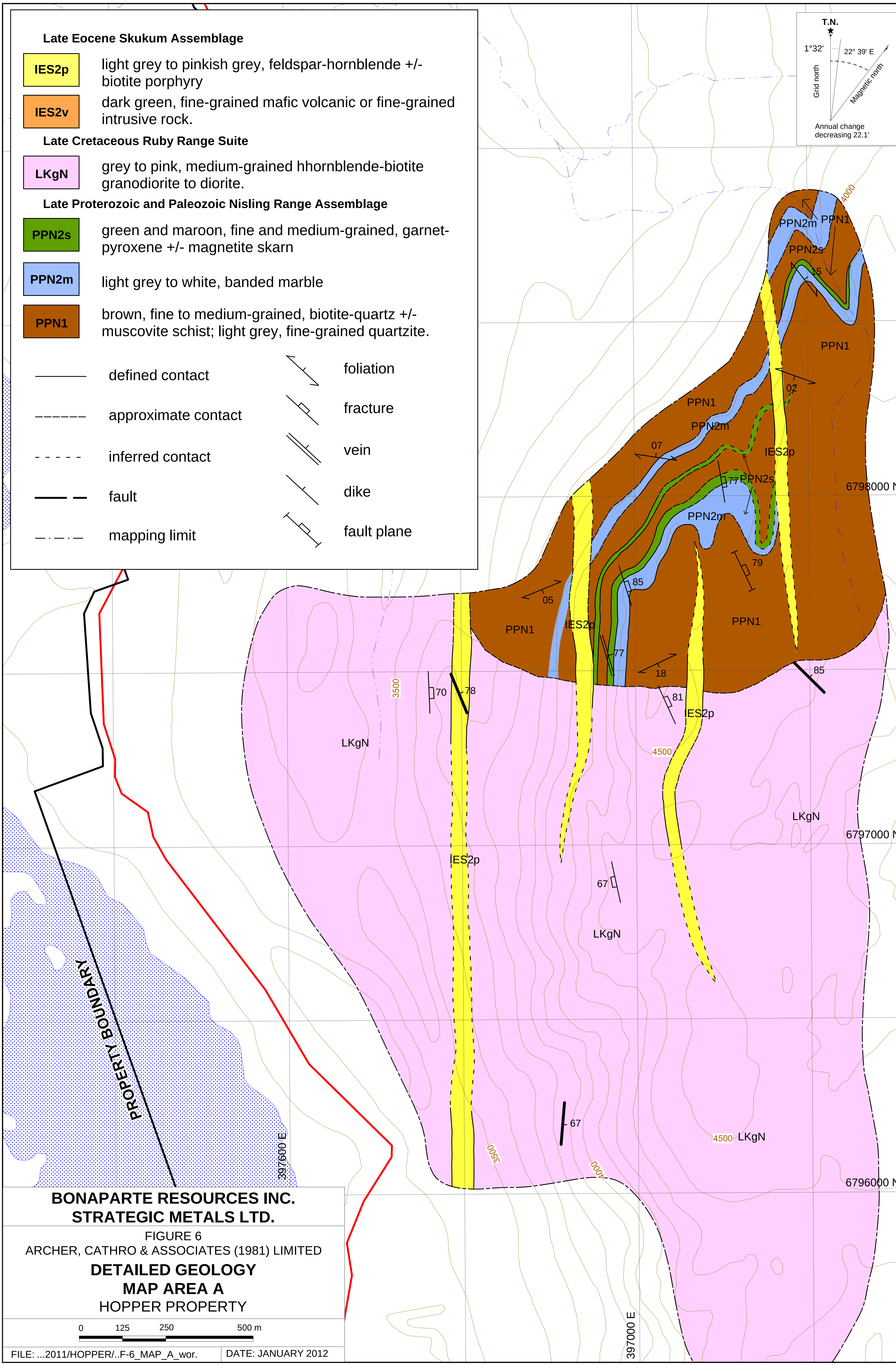
Late Eocene Skukum Assemblage
IES2p light grey to pinkish grey, feldspar-hornblende +/- biotite porphyry
IES2v dark green, fine-grained mafic volcanic or fine-grained intrusive rock.
Late Cretaceous Ruby Range Suite
LKgN grey to pink, medium-grained hhornblende-biotite granodiorite to diorite.
Late Proterozoic and Paleozoic Nisling Range Assemblage
PPN2s green and maroon, fine and medium-grained, garnet-pyroxene +/- magnetite skarn
PPN2m light grey to white, banded marble
PPN1 brown, fine to medium-grained, biotite-quartz +/- muscovite schist; light grey, fine-grained quartzite.
defined contact
approximate contact
inferred contact
fault
mapping limit
foliation
fracture
vein
dike
fault plane
T.N.
1°32'
22° 39' E
Grid north
Magnetic north
Annual change decreasing 22.1'
6798000 N
6797000 N
6796000 N
397600 E
397000 E
PROPERTY BOUNDARY
PPN2m
PPN1
PPN2s
IES2p
LKgN
4000
3500
4500
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FIGURE 6
ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
DETAILED GEOLOGY
MAP AREA A
HOPPER PROPERTY
0 125 250 500 m
FILE: ...2011/HOPPER/..F-6_MAP_A_wor.
DATE: JANUARY 2012

500 m area (Map Area B, Figure 7) in the vicinity of skarn mineralization comprising Hopkins South Zone. Thick glacial overburden restricted detailed mapping over much of the remainder of the property. The following descriptions are based primarily on the 2011 observations.

The oldest rocks in the area comprise schist, quartzite and marble of the Late Proterozoic and Paleozoic Nisling Range Assemblage. This package of rocks is intruded by a Late Cretaceous Ruby Range Suite pluton (76.0 +/- 1.1 and 83.7 +/- 1.9 Ma; Blumenthal, 2010). This pluton is informally called the Hopper Pluton.

Brown to grey, fine to medium grained quartz-biotite +/- muscovite schist dominates the Nisling Range Assemblage in this area (PPN1). Light grey to white, banded marble (PPN2m) and beige, fine-grained biotite-bearing quartzite (PPN1) are intercalated with the schist.

The Nisling Range Assemblage is intruded by a medium-grained, hornblende-biotite granodiorite and lesser diorite pluton that has been historically referred to as the Hopper Pluton (LKgN). The northern contact with the schist is irregular and is further complicated by the presence of large (at least tens of metres in width) xenoliths. Locally, the granodiorite exhibits weak to moderate argillic and propylitic alteration. The southern contact is covered by overburden. A felsic to intermediate, feldspar-rich, mega-porphyritic body is reportedly exposed on a glacially scoured knob in the east-central part of the property (Stroshein, 2011).

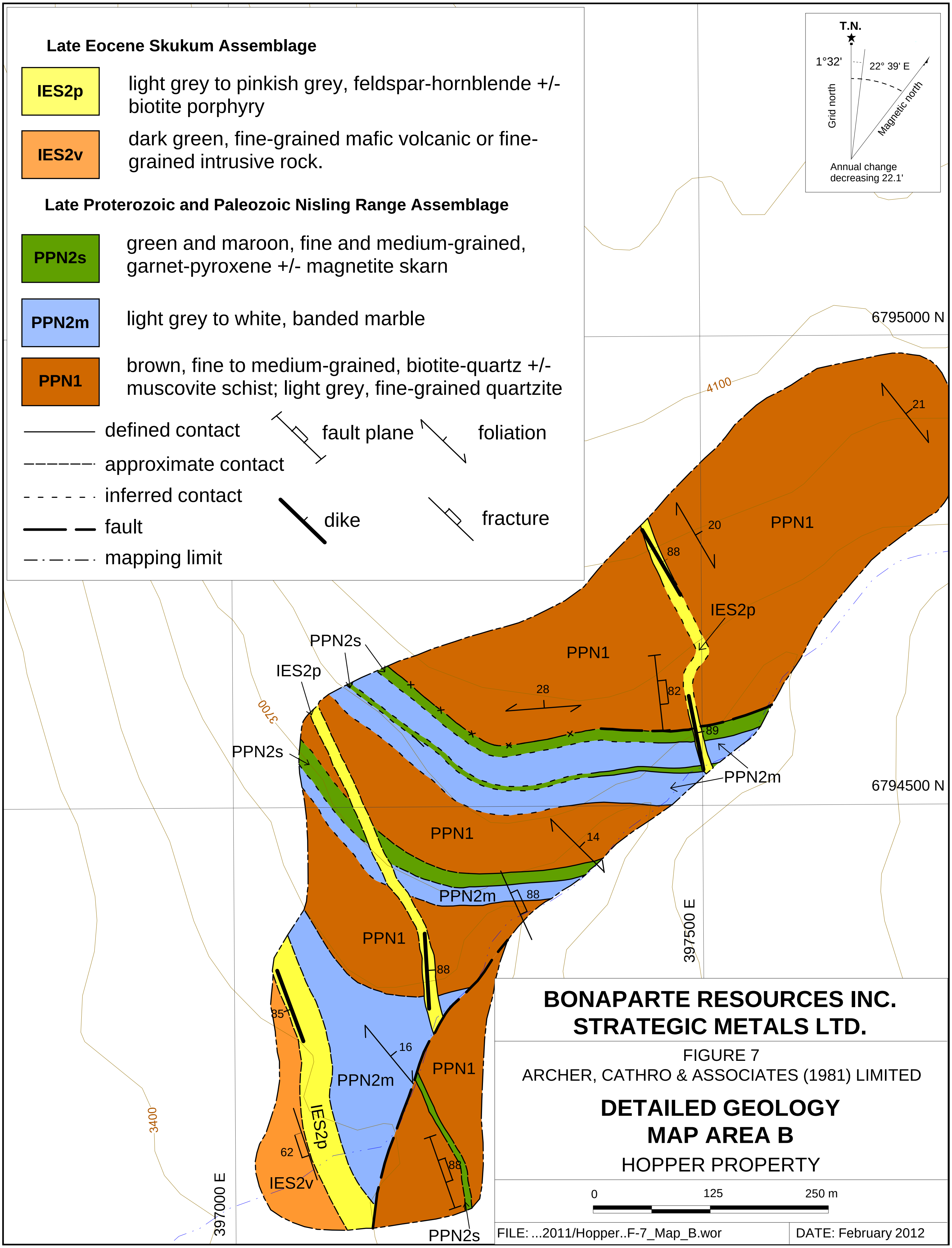
Dominantly north-striking and steeply dipping, light grey to pinkish-grey, feldspar-hornblende +/- biotite porphyritic dykes (IES2p) ranging in thickness from 0.5 to 30 metres cut all units. Minor, dark green, fine grained, mafic to intermediate dykes and possibly volcanic equivalents have also been observed.

Discontinuous skarn horizons are present in close proximity to the Hopper Pluton. They dominantly comprise fine and medium grained actinolite, diopside and garnet and are locally very magnetite rich (PPN2s). Skarn horizons are developed in the metasedimentary units near both the northern and southern contacts of the pluton. Near the southern contact, a creek exposure of a calc-silicate altered marble horizon exhibited radial wollastonite crystals up to 50 cm in diameter.

Layering within the Nisling Range Assemblage is usually sub-horizontal to shallowly east dipping. Structure is dominated by north to north-northeast trending brittle faults and fractures. Locally, quartz-carbonate veins with hydrothermal textures occur adjacent to north striking porphyry dykes.

REGIONAL MINERALIZATION

The Hopper property lies at the southern end of the Dawson Range Gold Belt (DRGB). The DRGB comprises several significant precious metal enriched, porphyry and vein occurrences (including Casino, Kaminak and Mt. Nansen), which are situated along a 250 km long curvilinear trend in southwestern Yukon.



Late Eocene Skukum Assemblage
IES2p
light grey to pinkish grey, feldspar-hornblende +/- biotite porphyry
IES2v
dark green, fine-grained mafic volcanic or fine-grained intrusive rock.
Late Proterozoic and Paleozoic Nisling Range Assemblage
PPN2s
green and maroon, fine and medium-grained, garnet-pyroxene +/- magnetite skarn
PPN2m
light grey to white, banded marble
PPN1
brown, fine to medium-grained, biotite-quartz +/- muscovite schist; light grey, fine-grained quartzite
defined contact
approximate contact
inferred contact
fault
mapping limit
fault plane
foliation
dike
fracture
T.N.
1°32'
22° 39' E
Grid north
Magnetic north
Annual change
decreasing 22.1'
6795000 N
6794500 N
397000 E
397500 E
4100
3700
3400
BONAPARTE RESOURCES INC.
STRATEGIC METALS LTD.
FIGURE 7
ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
DETAILED GEOLOGY
MAP AREA B
HOPPER PROPERTY
0
125
250 m
FILE: ...2011/Hopper..F-7_Map_B.wor
DATE: February 2012

Age dating of the Hopper Pluton performed by Blumenthal (2010) returned Late Cretaceous ages between 76.0 ±1.1 and 83.7±1.9 Ma, which places it in the same metallogenic episode as the Patton Porphyry at the Casino deposit, 190 km to the north-northwest.

The Casino gold-copper-molybdenum porphyry deposit is owned by Western Copper and Gold Corporation. It comprises a measured and indicated mineral reserve of 946 million tonnes (with a copper equivalent cut-off of 0.30%) of 0.21% copper, 0.25 g/t gold, 0.024% molybdenum and 1.77 g/t silver (Corman, 2010). Geology on the Casino property features granitic rocks of the Mid Cretaceous Whitehorse Suite, which has been intruded by a Late Cretaceous stock called the Patton Porphyry. The Patton Porphyry has been assigned by the YGS to the Prospector Mountain Suite (LKgP) and is reportedly the main mineralizing event. Mineralization occurs in fractures and breccia pipes. The Casino Deposit is unglaciated and deeply weathered. Ore grade values are reported within leached cap, supergene oxide, supergene sulphide and hypogene zones.

Kaminak Gold Corporation's Coffee property covers nine known gold zones, of which eight are hosted in metasedimentary units and one (Kona Zone) is in the Mid to Late Cretaceous granitic Coffee Creek Batholith. Gold mineralization on the Coffee property can generally be subdivided into two distinct styles. The highest grades (5 to 60 g/t gold) are associated with hydrothermal breccias exhibiting evidence for several episodes of brecciation. Matrix compositions range from incompetent limonite-clay material to strongly silicified material. The lower grade gold mineralization (2 to 10 g/t) is associated with pervasive hydrothermal alteration. The hydrothermal alteration is characterized by an overall removal of potassium and aluminum with the addition of sulphide and silica (Chartier, 2011). At the Kona Zone, gold is hosted in near-vertical brittle structures within the granite. Mineralization primarily occurs as disseminated pyrite and pyrite veinlets in fractures and shears. High grade gold corresponds with sulphide-matrix fault breccias. In 2010, Kaminak reported significant drill results from the Kona Zone including 2.2 g/t gold over 57 m and 1.9 g/t gold over 23 m. The best drill results from the Kona Zone in 2011 were 5.2 g/t gold over 10.7 m, 2.5 g/t gold over 16.7 m and 4.5 g/t gold over 9.1 m (Carpenter, 2011).

The Mount Nansen Gold Camp has been explored by various operators for more than 100 years. It hosts placer gold workings and more than 30 hard rock mineral occurrences related to epithermal and porphyry systems. The most noteworthy example is the Brown-McDade deposit, which had a pre-production drill-indicated reserve of 600,000 tonnes at 6.1 g/t gold and 55.5 g/t silver. Production from a 500 m long open pit at the Brown-McDade deposit in 1996 and 1997 yielded 16,000 ounces gold and 83,000 ounces silver from 124,000 tonnes of ore (Hart and Langdon, 1997).

Two types of mineralization were mined at the Brown-McDade deposit. The first type is a quartz vein system hosted by a feldspar-porphyry dyke, which intruded along a contact between igneous (Mid-Cretaceous granodiorite of Dawson Range Batholith) and metamorphic rocks (Nasina Assemblage). The second type comprises a pipe-like breccia body within the metamorphic rocks (Stroshein, 1998).

MINERALIZATION

Three types of mineralization have been observed at the Hopper property: 1) intrusive-hosted, disseminated sulphide; 2) sulphide-oxide bearing skarn; and 3) epigenetic veins with sulphide. The mineralization discovered to date is concentrated in two main zones (Hopkins North and Hopkins South), which are located approximately 2000 m apart in the western part of the property.

HOPKINS NORTH ZONE

Hopkins North Zone is situated within Map Area A (Figure 6) and is primarily defined by porphyry-type intrusion-hosted sulphide within a 650 by 2000 m area at the western edge of the Hopper Pluton. Mineralized skarn horizons and veins have also been observed and sampled within this zone. None of the showings in Hopkins North Zone were drill tested prior to 2011.

Granodiorite in the western part of the pluton often hosts trace to moderately abundant chalcopyrite, pyrite, pyrrhotite, magnetite and/or molybdenite, which occur as fine interstitial disseminations and clots. Minor fracture-hosted mineralization is also present and comprises chalcopyrite within hairline to one centimetre wide fractures that are often healed with clear to white quartz. Hydrothermal alteration along vein selvages is minimal. Intense surface oxidation and leaching seen in some porphyry systems elsewhere in Yukon is not evident at the Hopper property.

Epigenetic mineralization in the form of quartz-carbonate veining occurs mostly within the intrusion. Quartz-carbonate veins typically parallel the dominant north trending fracture orientation. The quartz is clear to white to smoky and sometimes exhibits weak banding, drusy cavities and brecciation. The carbonate weathers orange-brown and consists of amorphous to white crystalline calcite. The veins are commonly mineralized with isolated coarse blebs and clots of chalcopyrite and molybdenite. The veins are typically 1 to 10 cm wide.

Skarn horizons and lenses are developed near the contact between the pluton and surrounding metasediments within Hopkins North Zone. Where observed, individual skarn horizons range from 2 to 5 m thick and are composed of either actinolite-diopside or magnetite-garnet. Sulphide mineralization consists of patchy chalcopyrite with lesser pyrite and molybdenite.

Feldspar porphyry dykes and mafic to intermediate dykes are locally mineralized where they are cut by north-striking faults and fractures.

In 1968, Mitsubishi chip sampled 25 mineralized intrusive bedrock exposures. The sampled outcrops returned generally encouraging results, which were better than nearby soil samples. In 2006 and 2007, Strategic Metals collected numerous specimen, chip and channel samples of variably mineralized granodiorite, skarn, dyke and quartz-carbonate vein material within the vicinity of the Mitsubishi samples. The locations of the most anomalous historical samples from Hopkins North Zone are shown on Figure 3, while their results are listed in Table III.

Table III – Significant Historical Rock and Chip Sample Results (Hopkins North Zone)

Rock Type	Year	Sample No.	Sample Type	Cu (%)	Au (g/t)	Ag (g/t)	Mo (ppm)
Granodiorite	1968	4	Chip (30.48 m)	0.10	NA	NA	30
Granodiorite	1968	7	Chip (45.72 m)	0.52	NA	NA	170
Granodiorite	1968	8	Chip (60.96 m)	0.25	NA	NA	200
Granodiorite	1968	10	Chip (60.96 m)	0.18	NA	NA	30
Granodiorite	1968	12	Chip (45.72 m)	0.24	NA	NA	160
Granodiorite	1968	13	Chip (30.48 m)	0.21	NA	NA	270
Granodiorite	2006	C103407	Specimen	1.37	0.084	11.3	99
Granodiorite	2006	C103411	Specimen	1.53	0.61	11.6	27
Skarn	2006	C103416	Chip (2 m)	0.93	0.096	15.1	155
Dyke	2006	C103404	Specimen	1.75	0.163	7.4	109
Dyke	2006	C103417	Specimen	0.92	0.373	12.2	6
Granodiorite	2007	B376020-023	Chip (13 m)	0.40	0.055	1.9	47
Granodiorite	2007	B376027	Chip (3 m)	0.22	0.010	1.6	5
Granodiorite	2007	B376056	Chip (3 m)	0.32	0.004	1.2	21
Granodiorite	2007	B376058	Chip (3 m)	0.54	0.005	1.1	32

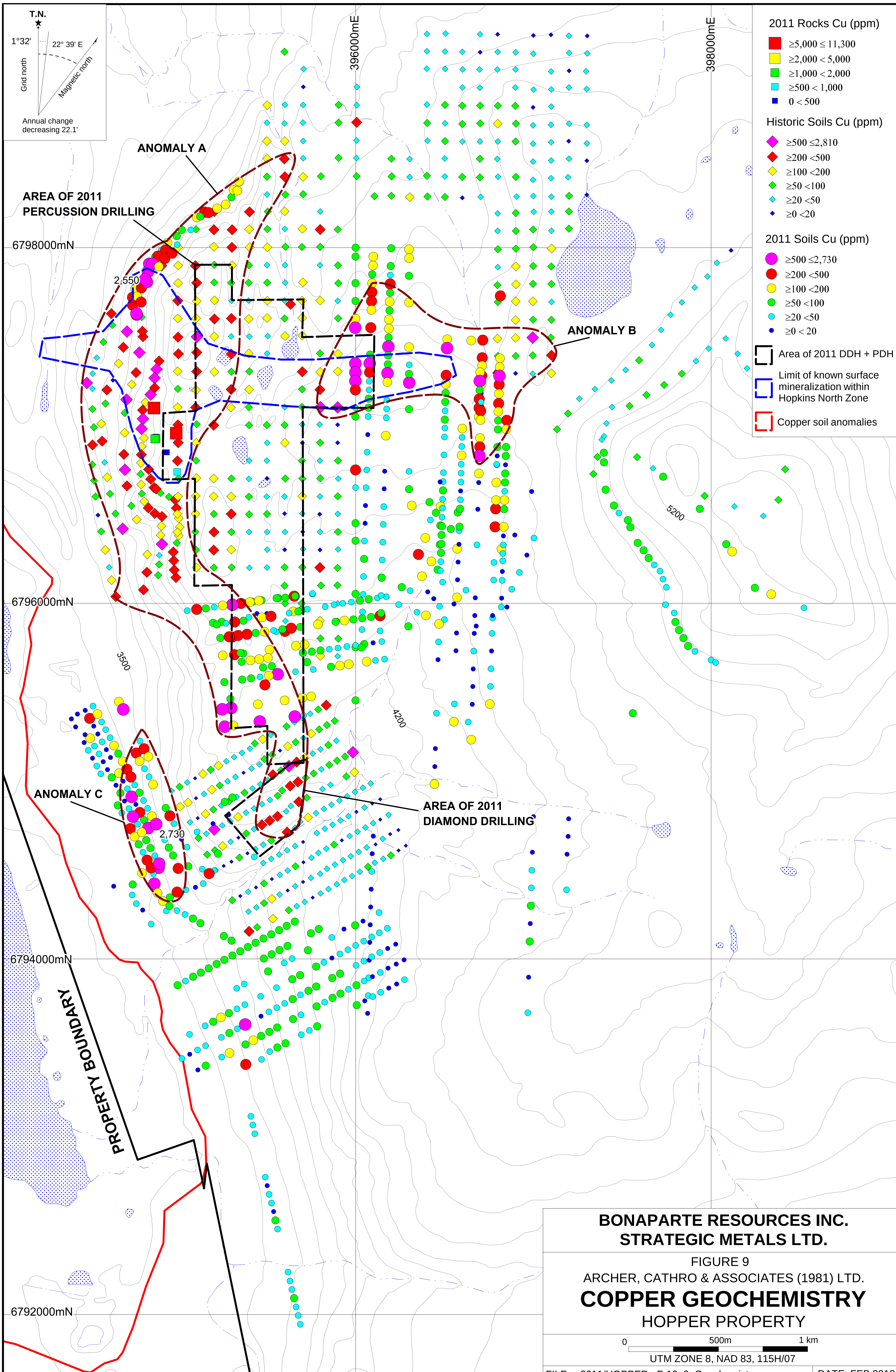
NA = Not analyzed

In 2011, five specimen and five chip samples were collected within Hopkins North Zone. Sample locations are plotted on Figure 8, while results for copper, gold, silver and molybdenum are illustrated thematically on Figures 9 to 12, respectively. Rock Sample Descriptions are provided in Appendix II and Certificates of Analysis are given in Appendix III. Rock geochemical sample sites on the property were marked with orange flagging tape labelled with the sample number. The location of each sample was determined using a handheld GPS unit. Sample preparation and multi-element analyses for rock samples were carried out at ALS Chemex in Whitehorse, Yukon and North Vancouver, B.C. Each sample was dried, fine crushed to better than 70% passing -2mm and a 250 g split was pulverized to better than 85% passing 75 micron. The fine fraction was then analyzed for gold using fire assay followed by inductively coupled plasma-atomic emission spectroscopy analysis (Au-AA24) and for 35 other elements using an aqua regia digestion and inductively coupled plasma-atomic emission spectroscopy analysis (ME-ICP41).

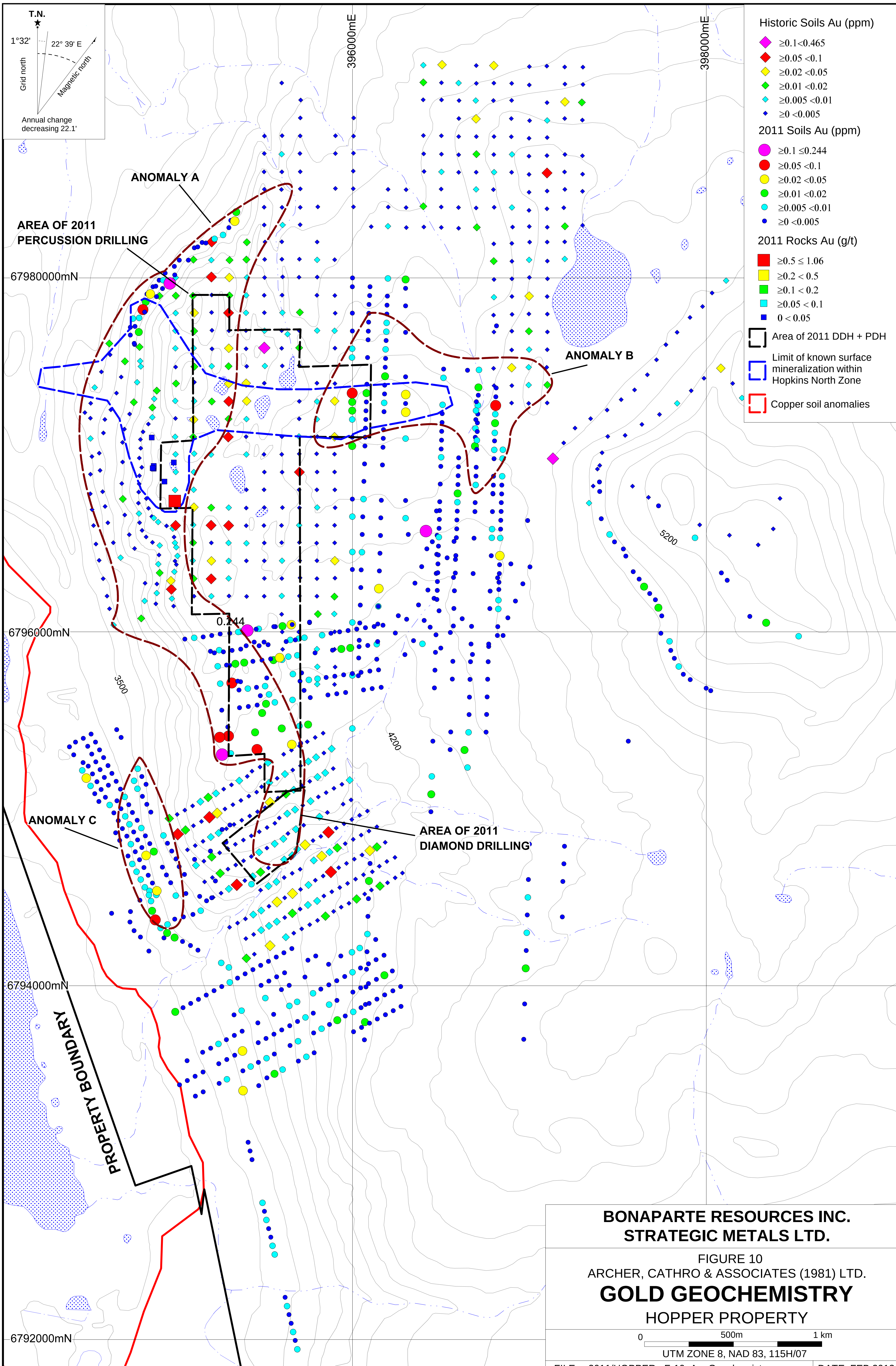
The 2011 samples comprise variably mineralized granodiorite, intermediate-mafic dykes and fault gouge. The best results are listed in Table IV, while the remaining samples yielded low values, up to 365 ppm copper, 0.019 g/t gold, 0.4 g/t silver and 7 ppm molybdenum.

Table IV –Significant 2011 Rock and Chip Sample Results (Hopkins North Zone)

Rock Type	Sample No.	Sample Type	Cu (%)	Au (g/t)	Ag (g/t)	Mo (ppm)
Veined granodiorite	K270701	Specimen	0.91	0.010	3.2	57
Granodiorite	K270702	Specimen	0.10	<0.005	0.9	7
Granodiorite	K270703	Specimen	1.12	0.039	4.7	22



T.N.
1°32'
22° 39' E
Grid north
Magnetic north
Annual change decreasing 22.1'
396000mE
398000mE
6798000mN
6796000mN
6794000mN
6792000mN
ANOMALY A
AREA OF 2011 PERCUSSION DRILLING
ANOMALY B
ANOMALY C
AREA OF 2011 DIAMOND DRILLING
PROPERTY BOUNDARY
2,550
2,730
3500
4200
5200
2011 Rocks Cu (ppm)
≥5,000 ≤ 11,300
≥2,000 < 5,000
≥1,000 < 2,000
≥500 < 1,000
0 < 500
Historic Soils Cu (ppm)
≥500 ≤2,810
≥200 <500
≥100 <200
≥50 <100
≥20 <50
≥0 <20
2011 Soils Cu (ppm)
≥500 ≤2,730
≥200 <500
≥100 <200
≥50 <100
≥20 <50
≥0 < 20
Area of 2011 DDH + PDH
Limit of known surface mineralization within Hopkins North Zone
Copper soil anomalies
BONAPARTE RESOURCES INC.
STRATEGIC METALS LTD.
FIGURE 9
ARCHER, CATHRO & ASSOCIATES (1981) LTD.
COPPER GEOCHEMISTRY
HOPPER PROPERTY
0
500m
1 km
UTM ZONE 8, NAD 83, 115H/07
FILE: ...2011/HOPPER...F-10_9_Geochemistry.wor
DATE: FEB 2012



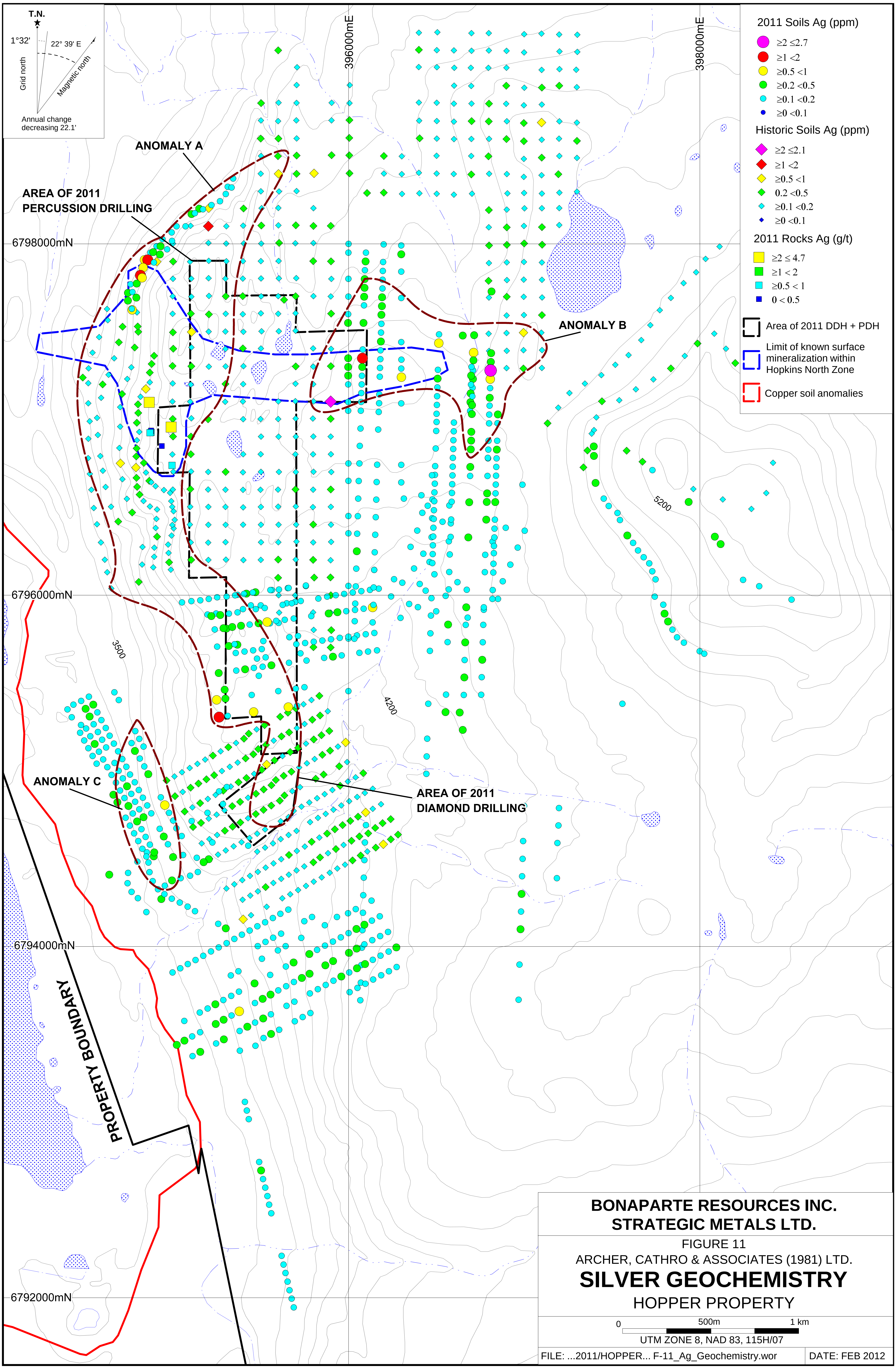
BONAPARTE RESOURCES INC.
STRATEGIC METALS LTD.

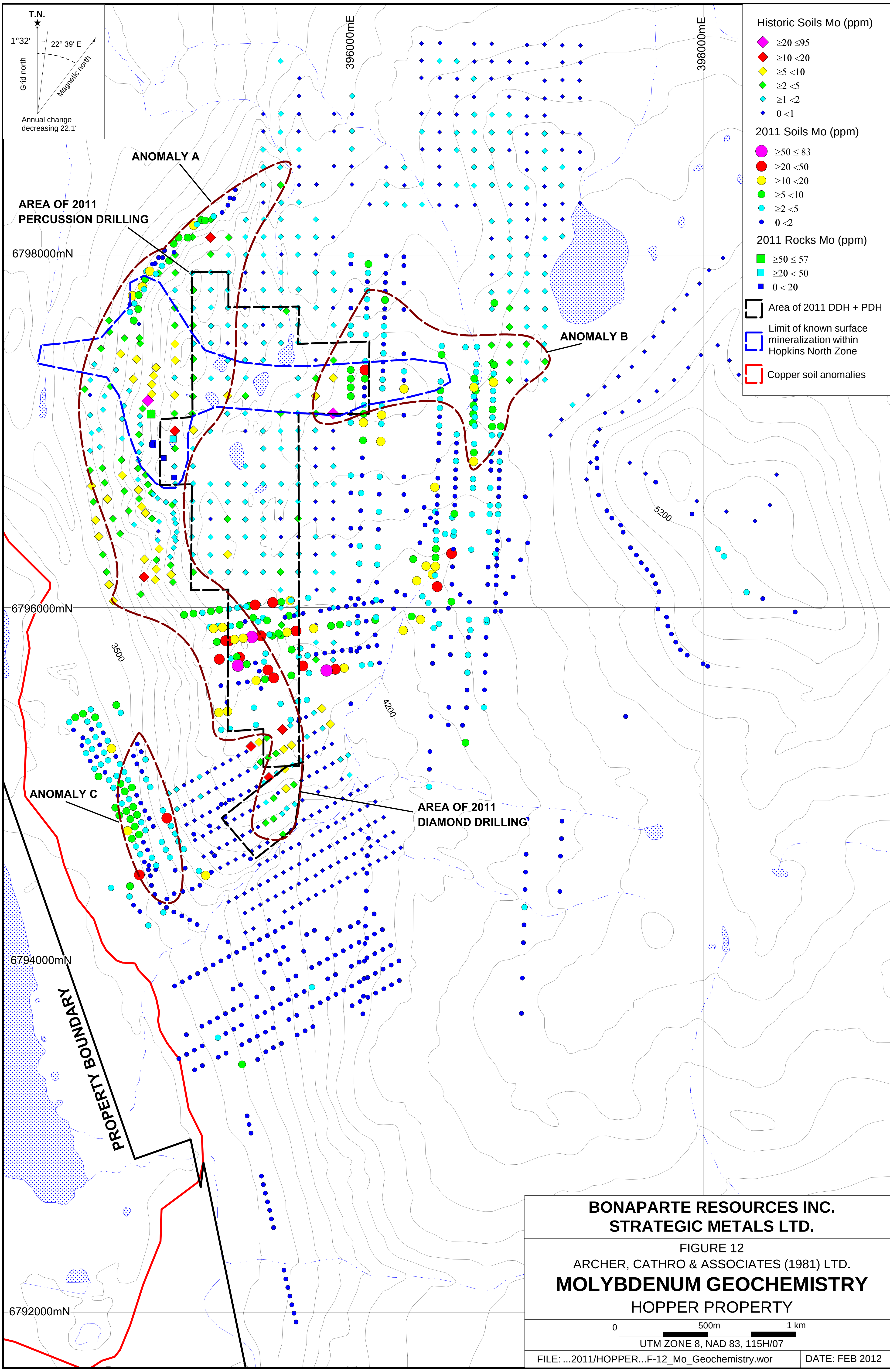
FIGURE 10
ARCHER, CATHRO & ASSOCIATES (1981) LTD.

GOLD GEOCHEMISTRY

HOPPER PROPERTY

FILE: ...2011/HOPPER...F-10_Au_Geochemistry.wor | DATE: FEB 2012


T.N.
1°32'
22° 39' E
Grid north
Magnetic north
Annual change decreasing 22.1'
396000mE
398000mE
6798000mN
6796000mN
6794000mN
6792000mN
ANOMALY A
AREA OF 2011 PERCUSSION DRILLING
ANOMALY B
ANOMALY C
AREA OF 2011 DIAMOND DRILLING
PROPERTY BOUNDARY
3500
4200
5200
2011 Soils Ag (ppm)
≥2 ≤2.7
≥1 <2
≥0.5 <1
≥0.2 <0.5
≥0.1 <0.2
≥0 <0.1
Historic Soils Ag (ppm)
≥2 ≤2.1
≥1 <2
≥0.5 <1
0.2 <0.5
≥0.1 <0.2
≥0 <0.1
2011 Rocks Ag (g/t)
≥2 ≤ 4.7
≥1 < 2
≥0.5 < 1
0 < 0.5
Area of 2011 DDH + PDH
Limit of known surface mineralization within Hopkins North Zone
Copper soil anomalies
BONAPARTE RESOURCES INC.
STRATEGIC METALS LTD.
FIGURE 11
ARCHER, CATHRO & ASSOCIATES (1981) LTD.
SILVER GEOCHEMISTRY
HOPPER PROPERTY
0
500m
1 km
UTM ZONE 8, NAD 83, 115H/07
FILE: ...2011/HOPPER... F-11_Ag_Geochemistry.wor
DATE: FEB 2012



BONAPARTE RESOURCES INC.
STRATEGIC METALS LTD.

FIGURE 12

ARCHER, CATHRO & ASSOCIATES (1981) LTD.

MOLYBDENUM GEOCHEMISTRY

HOPPER PROPERTY

0 500m 1 km

UTM ZONE 8, NAD 83, 115H/07

FILE: ...2011/HOPPER...F-12_Mo_Geochemistry.wor | DATE: FEB 2012

Granodiorite	K270704	Specimen	0.08	1.06	0.7	<1
Gouge	J981401	Chip (5 m)	0.10	0.006	0.5	6

HOPKINS SOUTH ZONE

Limited surface exploration has been conducted at Hopkins South Zone because it lies in a heavily vegetated area. The discovery outcrop is an isolated exposure in a creek canyon. This zone comprises skarn mineralization, which dominantly consists of stacked skarn horizons hosting disseminated to semi-massive magnetite and chalcopyrite. The mineralogy of this zone is described in more detail in the Diamond Drilling section.

SOIL GEOCHEMISTRY

In 1985, the Geological Survey of Canada performed regional stream sediment sampling across the Aishihik Lake Map Sheet (Hornbrook, et al., 1985). Three samples taken from creeks draining the Hopper property returned moderately anomalous copper and lead values to peaks of 51 ppm and 68 ppm respectively, which are in the 95th percentile for the survey area. Results for other elements did not exceed regional background values.

In 2011, a total of 714 grid and contour soil samples were collected in the western part of the property. Sample locations are plotted on Figure 8, while results for copper, gold, silver and molybdenum are illustrated thematically on Figures 9 to 12. Certificates of Analysis are provided in Appendix III. All 2011 soil sample locations were recorded using hand-held GPS units. Sample sites are marked by aluminum tags inscribed with the sample numbers and affixed to 0.5 m wooden lath that were driven into the ground. Soil samples were collected from 20 to 50 cm deep holes using hand-held augers. They were placed into individually pre-numbered Kraft paper bags. The soil samples were sent to ALS Chemex in Whitehorse where they were dried, screened to -180 microns, dissolved in aqua regia and then to North Vancouver where they were analyzed for 35 elements using the inductively coupled plasma-atomic emission spectroscopy technique (ME-ICP41). An additional 30 g charge was further analyzed for gold by fire assay with inductively coupled plasma-atomic emission spectroscopy finish (Au-ICP21).

Soil geochemical surveys conducted on the Hopper property prior to 2011 include grid and contour sampling at varying sample spacings. Prior to 2006, soil samples were only analyzed for copper, but since then they have also been analyzed for gold and a number of other elements. Historical sample results for copper, gold, silver and molybdenum are illustrated thematically along with the 2011 results on Figures 9 to 12. Anomalous thresholds and peak values for all soil samples are listed in Table V.

Table V – Geochemical Data for Soil Samples

Element	Weakly Anomalous	Moderately Anomalous	Strongly Anomalous	Very Strong	Historical Peak	2011 Peak
Copper (ppm)	≥ 50 < 100	≥ 100 < 200	≥ 200 < 500	≥ 500	2810	2730
Gold (ppb)	≥ 10 < 20	≥ 20 < 50	≥ 50 < 100	≥ 100	465	244
Silver (ppm)	≥ 0.2 < 0.5	≥ 0.5 < 1	≥ 1 < 2	≥ 2	2.1	2.7
Molybdenum (ppm)	≥ 5 < 10	≥ 10 < 20	≥ 20 < 50	≥ 50	95	83

Three primary clusters of moderately to very strongly anomalous copper values have been recognized on the property. They are known as Anomalies A, B and C (outlined by red dashed lines on Figures 9 to 12).

Anomaly A is a 3800 m long, 500 m wide band that is mostly confined to a moderately to steeply west-dipping slope. The anomaly is open to the west and north. Although copper mostly defines the anomaly, scattered to locally clustered, moderately to strongly elevated gold, silver and molybdenum values are also present within it. This anomaly encompasses Hopkins South Zone and the western part of Hopkins North Zone. It covers metasedimentary units at both ends and the Hopper Pluton in the middle.

An 800 by 500 m cluster of moderately to strongly anomalous molybdenum values partially overlaps with the southern end of Anomaly A and extends to the east (Figure 12). This is the strongest and most concentrated molybdenum-in-soil anomaly on the property.

Anomaly B lies 600 m east of Anomaly A on the relatively flat, upland plateau. Anomaly B covers an approximately 1000 by 500 m area that includes the eastern portion of Hopkins North Zone. It is partially open to the east and north. Four samples within this copper anomaly also yielded coincident, moderately to strongly elevated gold, silver and molybdenum values. This anomaly likely lies entirely within the Hopper Pluton.

Anomaly C is located 500 m southwest of Anomaly A. It is a 1200 by 250 m area of moderately to very strongly elevated copper with rare, elevated gold and molybdenum. The anomaly is open to the north and locally to the west. It lies within a heavily vegetated area that is downhill from Hopkins South Zone and along strike to the north of skarn and marble horizons that were discovered in 2011.

Soil geochemistry also identified several other isolated, strong copper, silver and molybdenum values within the western part of the property.

DIAMOND DRILLING

HISTORICAL DIAMOND DRILLING

Between 1977 and 1989, a total of 2162.9 m of diamond drilling was completed in 20 holes within Hopkins South Zone. The holes were designed to test magnetic anomalies and skarn mineralization at depth. Only visibly mineralized drill intervals were sampled. Approximate drill hole locations are shown on Figure 3 (re-surveying the holes is not possible due to heavy vegetation and lack of collar markers). Drill hole data and types of mineralization found within the holes are listed in Table VI.

Table VI – Historical Diamond Drill Hole Data and Visual Results

Hole	Year	Azimuth (º)	Dip Angle (º)	Length (m)	Comments and/or Mineralization Type
TH-1	1977	060	-65	215.5	Actinolite-tremolite-diopside-garnet skarn with chalcopyrite ± pyrite ± pyrrhotite.
TH-2	1977	060	-60	77.1	Actinolite-diopside ± magnetite ± tremolite skarn with chalcopyrite + pyrrhotite.
TH-3	1977	240	-70	62.8	Dyke, hole stopped.
TH-4	1977	060	-70	77.1	Actinolite-tremolite-magnetite skarn with chalcopyrite + pyrrhotite.
TH-5	1977	060	-80	46.3	Hole lost due to fault.
TH-6	1977	240	-80	97.5	Tremolite-magnetite ± actinolite-diopside skarn with chalcopyrite + pyrrhotite.
TH-7	1977	240	-80	107.0	Actinolite-tremolite skarn pyrite + pyrrhotite + chalcopyrite.
TH-8	1977	240	-80	96.9	Tremolite-actinolite-diopside(?) skarn with pyrrhotite + magnetite + chalcopyrite.
TH-9	1977	240	-80	88.4	Carbonate-altered dyke with minor chalcopyrite.
TH-10	1977	240	-80	32.3	Dyke, hold stopped.
TH-11	1977	240	-80	188.1	Schist with minor Cu mineralization.
TH-12	1978	-	-90	194.5	Minor Cu at schist-marble contact.
TH-13	1978	-	-90	206.3	Barren magnetite, chalcopyrite + pyrite bearing skarn.
TH-14	1978	-	-90	21.9	Dyke, hole stopped.
TH-15	1978	-	-90	274.9	Schist with minor Cu mineralization.
HA-1	1989	240	-70	105.16	Diopside and actinolite skarn with chalcopyrite ± pyrrhotite.
HA-2	1989	240	-70	72.54	Magnetite ± tremolite skarn with chalcopyrite + pyrrhotite.
HA-3	1989	240	-70	65.22	Diopside and actinolite skarn with chalcopyrite ± pyrrhotite ± malachite.
HA-4	1989	240	-60	72.24	Diopside, actinolite and magnetite skarn with chalcopyrite + pyrrhotite.
HA-5	1989	-	-90	60.96	Actinolite-diopside skarn with chalcopyrite + pyrite.

Most of the holes intersected stacked, variably mineralized skarn horizons of different widths. The primary gangue skarn minerals include actinolite, diopside, tremolite and rare garnet, while ore minerals comprise magnetite, pyrrhotite, chalcopyrite, pyrite and minor sphalerite and bornite. Disseminated to massive magnetite and pyrrhotite are the most abundant of the ore minerals. Disseminated to blebby chalcopyrite and pyrite are less profuse and are typically associated with the magnetite and pyrrhotite. Sphalerite and bornite are relatively rare and are associated with chalcopyrite. A paragenetic study carried out in 1978 (Hureau) determined that magnetite and pyrite formed first, followed by pyrrhotite, then chalcopyrite and sphalerite, and finally bornite.

Mineralized and unmineralized skarn horizons are interbedded with metasedimentary units including schist, quartzite, limestone and marble. All of these units are cut by post-mineralization feldspar porphyry and/or aphanitic, intermediate to mafic dykes. The dykes appear to strike northerly and dip steeply, while bedding strikes northerly and dips shallowly to the east.

The best intervals from the historical holes are listed in Table VII.

Table VII – Historical Diamond Drilling Assay Highlights

Hole	From (m)	To (m)	Interval (m)	Copper (%)	Gold (g/t)	Silver (g/t)
TH-1	15.54	21.00	5.46	0.14	0.14	3.0
TH-1	115.82	119.18	3.35	0.30	0.30	2.3
TH-2	23.53	42.12	18.59	1.94	0.87	14.6
TH-4	54.89	65.32	10.43	1.25	0.65	9.7
TH-6	57.36	70.10	12.74	1.05	NR	NR
TH-7	91.84	97.72	5.88	0.17	0.15	3.7
TH-8	60.81	69.28	8.47	0.76	0.71	7.3
including	62.79	67.09	4.30	1.27	0.81	10.6
TH-9	53.34	66.96	13.62	0.42	0.30	4.8
including	64.07	65.01	0.94	3.06	0.86	20.2
TH-12	143.65	143.86	0.21	2.42	3.0	16.1
TH-12	169.62	170.08	0.46	1.38	1.8	0.8
TH-13	170.08	171.36	1.28	0.36	0.08	NR
TH-15	111.80	114.79	2.99	0.20	0.19	3.4
HA-1	52.38	53.69	1.31	2.70	0.86	35.7
HA-1	59.61	60.71	1.10	3.72	0.80	18.7
HA-1	101.24	104.18	2.94	0.45	0.32	4.4
HA-2	23.09	30.88	7.79	1.98	0.67	14.4
HA-3	14.63	17.51	2.88	0.56	0.20	7.0
HA-4	19.28	20.61	2.29	1.29	0.35	10.5
HA-4	24.95	29.96	5.01	0.62	0.33	13.6
HA-5	22.97	25.08	2.11	0.54	0.23	4.7

NR – not reported

Holes TH-3 and TH-10 were drilled entirely in dykes and Holes TH-4 and TH-9 cut dykes where mineralization was expected (Tenney, 1977). Hole TH-5 was lost prematurely in a fault zone. Weak chalcopyrite was observed in schist and skarn in Holes TH-11 and TH-14, but no significant results were obtained.

2011 DIAMOND DRILLING

In 2011, a six hole, diamond drill program was completed in the vicinity of the historical diamond drill holes at Hopkins South Zone. This program was primarily designed to confirm the nature and extent of the known skarn mineralization.

The first hole was collared on August 18 and the last hole was completed on September 12, 2011. The work was contracted to Elite Drilling Inc. of Vernon, B.C., and was done with a skid-mounted, diesel-powered JKS-300 drill using BTW equipment. A total of 1309.09 m of diamond drilling was completed.

Figures 13 to 15 illustrate historical and 2011 drill collar locations and cross-sections showing lithologies and results. Certificates of Analyses are provided in Appendix III, while Geological and Geotechnical Logs are given in Appendix IV. Key data concerning the 2011 drill holes are listed in Table VIII.

Table VIII – 2011 Diamond Drill Hole Data

Hole	Easting (m)	Northing (m)	Elevation (m)	Azimuth (º)	Dip Angle (º)	Length (m)
DDH-11-01	397455	6794600	1179	250	-70	175.87
DDH-11-02	397450	6794650	1189	250	-70	160.63
DDH-11-03	397497	6794708	1200	250	-70	224.63
DDH-11-04	397660	6794750	1189	250	-70	258.16
DDH-11-05	397280	6794800	1222	250	-70	192.02
DDH-11-06	397710	6795100	1270	250	-70	297.78

The 2011 holes were selectively sampled, based on visible mineralization. Drill core samples were processed in 36 sample batches with each batch including two standard and two blank samples. Analytical work was done by ALS Chemex with sample preparation in Whitehorse and assays and geochemical analyses in North Vancouver. All samples were initially analyzed for gold by fire assay followed by atomic absorption (Au-AA24) and 35 other elements by aqua regia digestion and mass spectrometry (ME-MS41). Over limit copper values were determined using aqua regia digestion with inductively coupled plasma and either atomic emission spectroscopy or atomic absorption spectroscopy (Cu-OG46). All samples passed QAQC reviews.

All of the 2011 holes were drilled west-southwesterly at fairly steep angles to test the shallowly, easterly-dipping skarn horizons and associated geophysical anomalies. All holes intersected stacked skarn, mineralized horizons. There appears to be at least four main stacked horizons, which were traced over a 500 by 300 m area and to a depth of 250 m. The horizons remain open in all directions. The upper horizon on Section C-C' was likely not intersected by any of the holes on Sections A-A' and B-B'. The deeper of the two horizons on Section C-C' may correspond to the upper horizon on the other sections. If that is the case, the holes on Section C-C' did not test the lower stacked horizons that were intersected on the other section lines.

The holes intersected metasedimentary units (schist, marble, limestone, quartzite), intrusive dykes (feldspar porphyry, intermediate to mafic dykes) and skarn horizons (tremolite-actinolite-diopside ± magnetite ± garnet). Observations regarding sulphide/oxide mineralogy confirmed the historical descriptions (see Historical Diamond Drilling sub-section). The best 2011 drill intersections are provided in Table IX.

Table IX – 2011 Diamond Drilling Highlights

Hole	From (m)	To (m)	Interval* (m)	Copper (%)	Gold (g/t)	Silver (g/t)
DDH-11-01	2.95	16.65	13.70	0.41	0.25	3.84
Including	9.69	12.02	2.33	1.24	0.87	12.95
	125.67	142.60	16.93	0.22	1.76	1.75
Including	125.67	133.17	7.50	0.43	3.35	3.55
Including	125.67	127.67	2.00	0.01	9.44	1.04
DDH-11-02	28.01	30.45	2.44	0.52	0.72	4.15
	36.58	39.25	2.67	1.18	0.56	11.62
DDH-11-03	58.28	66.78	8.50	1.62	0.54	9.30
	88.28	90.70	2.42	1.87	0.64	17.74
	130.00	132.45	2.45	0.72	0.18	6.79
DDH-11-04	57.39	62.53	5.15	0.95	0.84	5.64
	174.86	182.87	8.01	1.58	0.84	14.82
DDH-11-05	126.93	128.05	1.12	0.46	1.83	1.74
DDH-11-06	131.80	136.80	5.00	0.50	0.29	2.35
	276.35	278.01	1.66	0.63	0.40	5.21
	279.10	282.93	5.49	0.73	0.59	14.97

* Interval represents the downhole intersection length and true widths are estimated to be approximately 80-90% of the interval.

The highest gold assay (9.44 g/t over 2.00 m) came from a sulphide-deficient, quartz-rich band that directly overlies a sulphide-rich skarn horizon in DDH-11-01. The quarts in this band mostly occurred as microscopic replacement of limestone.

In most skarn horizons, magnetite was wholly or partially replaced by sulphide minerals, but some horizons, particularly in DDH-11-06, were composed of semi-massive, coarse grained, unaltered magnetite.

REVERSE CIRCULATION PERCUSSION DRILLING

HISTORICAL PERCUSSION DRILLING

In 1980, a total of 2490.2 m of percussion drilling was performed in 46 vertical holes. The percussion holes were drilled all within Hopkins South Zone, in the same general areas as the historical diamond drill holes (Figure 3 – locations are approximate due to the poor quality of historical maps). The percussion holes were only analyzed for copper.

Of the 46 holes that were drilled, only parts of 20 holes were sampled. Of these, all but five of yielded at least one interval with elevated copper values. Nine of the 46 holes were drilled entirely within dyke material and were not sampled. Old reports did not explain why the remaining 17 holes were not sampled, but some appear to have been abandoned and redrilled. Drill hole data and the best intervals from this work are provided in Table X (Ashton, 1981).

Table X – 1980 Percussion Hole Data and Results

Hole	Azimuth (º)	Dip Angle (º)	Depth (m)	Significant Results
PH-1	-	-90	40	1.52% Cu over 18.3 m from 21.3 to 39.6 m
PH-1a	-	-90	15	NA
PH-2	-	-90	18	Dyke, NA
PH-3	-	-90	52	Dyke, NA
PH-4	-	-90	37	Dyke, NA
PH-5	-	-90	61	0.23% Cu over 3.0 m from 42.7 to 45.7 m
PH-6	-	-90	9	NA
PH-6a	-	-90	76	< 0.1% Cu
PH-7	-	-90	12	< 0.1% Cu
PH-7a	-	-90	76	NA
PH-8	-	-90	61	< 0.1% Cu
PH-9	-	-90	61	< 0.1% Cu
PH-10	-	-90	61	0.16% Cu over 3.0 m from 12.2 to 15.2 m 0.24% Cu over 15.2 m from 21.3 to 36.6 m
PH-11	-	-90	82	NA
PH-12	-	-90	82	NA
PH-13	-	-90	85	NA
PH-14	-	-90	55	NA
PH-15	-	-90	40	NA
PH-16	-	-90	82	Dyke, NA
PH-17	-	-90	61	0.61% Cu over 15.3 m from 33.5 to 48.8 m
PH-18	-	-90	82	0.73% Cu over 21.3 m from 48.8 to 70.1 m
PH-18a	-	-90	15	Dyke, NA
PH-18b	-	-90	15	Dyke, NA
PH-19	-	-90	85	NA
PH-20	-	-90	15	Dyke, NA
PH-21	-	-90	15	Dyke, NA
PH-22	-	-90	27	NA
PH-23	-	-90	15	Dyke, NA
PH-24	-	-90	73	0.60% Cu over 6.1 m from 45.7 to 51.8 m
PH-25	-	-90	64	0.29% Cu over 3.0 m from 51.8 to 54.8 m
PH-26	-	-90	61	NA
PH-27	-	-90	67	0.21% Cu over 6.1 m from 39.6 to 45.7 m
PH-28	-	-90	85	< 0.1% Cu
PH-29	-	-90	85	NA

PH-30	-	-90	79	NA
PH-31	-	-90	58	0.10% Cu over 3.1 m from 27.4 to 30.5
PH-32	-	-90	76	0.61% Cu over 9.2 m from 39.6 to 48.8 m
PH-33	-	-90	52	NA
PH-34	-	-90	67	0.20% Cu over 6.1 m from 42.7 to 48.8 m
PH-35	-	-90	73	NA
PH-36a	-	-90	49	1.49% Cu over 3.0 m from 42.7 to 45.7 m
PH-37	-	-90	27	NA
PH-38	-	-90	61	0.66% Cu over 21.3 m from 36.6 to 57.9 m
PH-39	-	-90	61	1.44% Cu over 9.2 m from 45.7 to 54.9 m
PH-40	-	-90	64	0.84% Cu over 6.1 m from 57.9 to 64.0 m
PH-41	-	-90	49	NA

NA = Not analyzed

2011 PERCUSSION DRILLING

The 2011 percussion drill program was designed to identify areas with potential for copper-gold porphyry mineralization within and adjacent to Hopkins North Zone. Surface showings and geochemical anomalies were discovered in this area by previous operators, but they were never drill tested. A total of 1729.74 m was drilled in 58 vertical holes, which were mostly spaced 200 m apart and typically tested to depths between 30 to 61 m below surface. The holes are located along seven, parallel, north-south oriented section lines (Figure 16). The first hole was started on June 27 and the last hole was completed on July 25, 2011. The work was contracted to Thorman Drilling Ltd. of Nelson, B.C., and was done with a self-propelled, track mounted reverse circulation percussion drill. The drill was operated by a three person crew on a single 12 hour per day shift.

All holes were sampled continuously from top to bottom. Pulverized cuttings from the holes were automatically split at the collar, resulting in samples containing 12.5% of the cuttings from each 1.52 m interval. The entire sample was sent for analysis, and representative chips from intervals were collected for logging purposes. Certificates of Analysis are given in Appendix III. Drill collar locations and cross-sections showing 2011 drill holes are illustrated on Figure 16. Key data concerning the 2011 drill holes are listed in Table XI.

Table XI – 2011 Percussion Drill Hole Data

Hole	Easting (m)	Northing (m)	Elevation (m)	Azimuth (º)	Dip Angle (º)	Length (m)
PDH-11-01	397303	6795300	1280	-	-90	30.48
PDH-11-02	397301	6795501	1312	-	-90	32.00
PDH-11-03	397299	6795700	1308	-	-90	30.48
PDH-11-04	397298	6795899	1325	-	-90	19.81
PDH-11-05	397303	6796101	1356	-	-90	22.86
PDH-11-06	397302	6796301	1374	-	-90	16.76
PDH-11-07	397312	6796496	1371	-	-90	30.48
PDH-11-08	397301	6796701	1366	-	-90	15.24

PDH-11-09	397298	6796900	1358	-	-90	16.76
PDH-11-10	397297	6797099	1357	-	-90	25.91
PDH-11-11	397299	6797301	1355	-	-90	30.48
PDH-11-12	397304	6797502	1350	-	-90	39.62
PDH-11-13	397298	6797699	1341	-	-90	36.58
PDH-11-14	397302	6797900	1329	-	-90	30.48
PDH-11-15	397102	6797905	1330	-	-90	50.29
PDH-11-16	397101	6797699	1341	-	-90	35.05
PDH-11-17	397132	6797503	1386	-	-90	38.10
PDH-11-18	397099	6797290	1374	-	-90	42.67
PDH-11-19	397094	6797103	1371	-	-90	33.53
PDH-11-20	397104	6796898	1353	-	-90	41.15
PDH-11-21	396912	6796695	1335	-	-90	48.77
PDH-11-22	396937	6796905	1341	-	-90	60.96
PDH-11-23	396922	6797063	1332	-	-90	60.96
PDH-11-24	397098	6796698	1343	-	-90	24.38
PDH-11-25	397097	6796501	1342	-	-90	19.81
PDH-11-26	397097	6796298	1352	-	-90	21.34
PDH-11-27	397105	6796097	1338	-	-90	28.96
PDH-11-28	397502	6795099	1280	-	-90	24.38
PDH-11-29	397503	6795301	1289	-	-90	24.38
PDH-11-30	397498	6795502	1301	-	-90	18.29
PDH-11-31	397502	6795699	1313	-	-90	21.34
PDH-11-32	397498	6795904	1314	-	-90	19.81
PDH-11-33	397500	6796104	1342	-	-90	18.29
PDH-11-34	397498	6796302	1365	-	-90	21.34
PDH-11-35	397502	6796504	1371	-	-90	18.29
PDH-11-36	397501	6796703	1365	-	-90	21.34
PDH-11-37	397502	6796901	1353	-	-90	18.29
PDH-11-38	397504	6797102	1341	-	-90	30.48
PDH-11-39	397502	6797304	1345	-	-90	39.62
PDH-11-40	397501	6797503	1347	-	-90	30.48
PDH-11-41	397499	6797702	1340	-	-90	22.86
PDH-11-42	397702	6797704	1338	-	-90	30.48
PDH-11-43	397699	6797502	1341	-	-90	30.48
PDH-11-44	397902	6797504	1371	-	-90	30.48
PDH-11-45	398102	6797501	1402	-	-90	30.48
PDH-11-46	398099	6797302	1435	-	-90	30.48
PDH-11-47	398102	6797101	1432	-	-90	30.48
PDH-11-48	397703	6797104	1389	-	-90	30.48
PDH-11-49	397699	6796903	1400	-	-90	30.48
PDH-11-50	397702	6796704	1375	-	-90	30.48
PDH-11-51	397699	6796500	1347	-	-90	30.48
PDH-11-52	397698	6796302	1356	-	-90	30.48
PDH-11-53	397703	6796102	1347	-	-90	30.48

PDH-11-54	397702	6795901	1325	-	-90	30.48
PDH-11-55	397701	6795702	1303	-	-90	30.48
PDH-11-56	397698	6795499	1310	-	-90	30.48
PDH-11-57	397701	6795302	1295	-	-90	30.48
PDH-11-58	397702	6795104	1278	-	-90	30.48

Chip samples from all of the 2011 percussion drill holes were examined under a hand lens and later an optical microscope. The chips comprise metasedimentary units (primarily quartz-biotite schist and phyllitic quartzite), skarn horizons (including diopside, epidote and actinolite with trace to minor pyrite and chalcopyrite) and intrusive units (weakly to moderately argillic and propylitic altered, magnetic granodiorite and minor diorite). The observed lithologies within the percussion holes generally support the 2011 surface geological mapping. Reverse Circulation Percussion Drill Logs are provided in Appendix V.

Most of the holes returned background values or sporadic, short intervals of weakly elevated copper, gold and/or silver values. Six holes in the northern part of the percussion drill area yielded moderately to strongly anomalous intervals (Figure 16). These holes largely fall within the area of known surface mineralization that defines Hopkins North Zone. The elevated values were obtained from weakly mineralized phyllitic quartzite (PDH-11-13 and -17); weakly magnetite-, pyrite- and chalcopyrite-bearing skarn (PDH-11-17); and weakly altered granodiorite with trace pyrite ± chalcopyrite (PDH-11-19, -23, -39 and -47). The best intervals from these holes are provided in Table XII.

Table XII – 2011 Percussion Drilling Highlights

Hole	From (m)	To (m)	Interval (m)	Copper (%)	Gold (g/t)	Silver (g/t)
PDH-11-13	33.53	EOH	3.05	0.54	0.278	3.85
PDH-11-17	21.34	EOH	16.76	0.16	0.009	1.27
PDH-11-19	19.81	28.96	9.15	0.36	0.007	2.32
PDH-11-23	42.67	44.20	1.53	0.33	0.005	0.70
PDH-11-39	0	EOH	39.62	0.24	0.055	1.37
Including	28.96	EOH	10.66	0.70	0.195	4.10
PDH-11-47	0	7.62	7.62	0.18	0.018	2.04

*Interval represents the downhole intersection length and true widths are unknown at this time.

Four of the holes listed in Table XII bottomed in mineralization. Two additional holes (PDH-11-45 and -46) in the northern part of the drill area bottomed in weak mineralization (0.10% Cu over 1.52 m in both holes, with background gold and silver).

One or more samples from all percussion holes drilled within the molybdenum-in-soil anomaly at the southern end of Anomaly A (PDH-11-02, -03, -31, -32 and -55) yielded elevated molybdenum values compared to the surrounding holes. The best interval averaged 93.6 ppm molybdenum over 10.67 m between 15.24 and 25.91 m in PDH-11-03.

GEOPHYSICAL SURVEYS

In 2008, Strategic Metals contracted Geotech Ltd. of Aurora, Ontario to fly VTEM and magnetic surveys across an irregularly shaped 6000 by 6000 m grid in the central part of the current Hopper property. Between December 14 and 20, 2011 Bonaparte contracted Geotech Ltd. to expand the VTEM and magnetic surveys by an additional 951.5 line-km. Combined, the 2008 and 2011 surveys cover a 110 km^2 area. Appendix VI contains Geotech's report describing the 2011 survey, along with a CD containing the digital data.

Bonaparte has commissioned Condor Consulting, Inc. to carry out processing and analysis of the combined survey data. This work is currently underway.

A preliminary interpretation of the magnetic survey identified a broad magnetic high that roughly outlines the extent of the Hopper Pluton (Figure 17). Weaker magnetic highs on the northwestern and southwestern edges of the pluton likely correspond to dykes or areas of magnetite- or pyrrhotite-rich skarn. The electromagnetic data shows a resistivity high that corresponds to the pluton (Figure 18). A discrete conductivity high southwest of the pluton coincides with the known mineralized skarn horizons comprising Hopkins South Zone.

DISCUSSION AND CONCLUSIONS

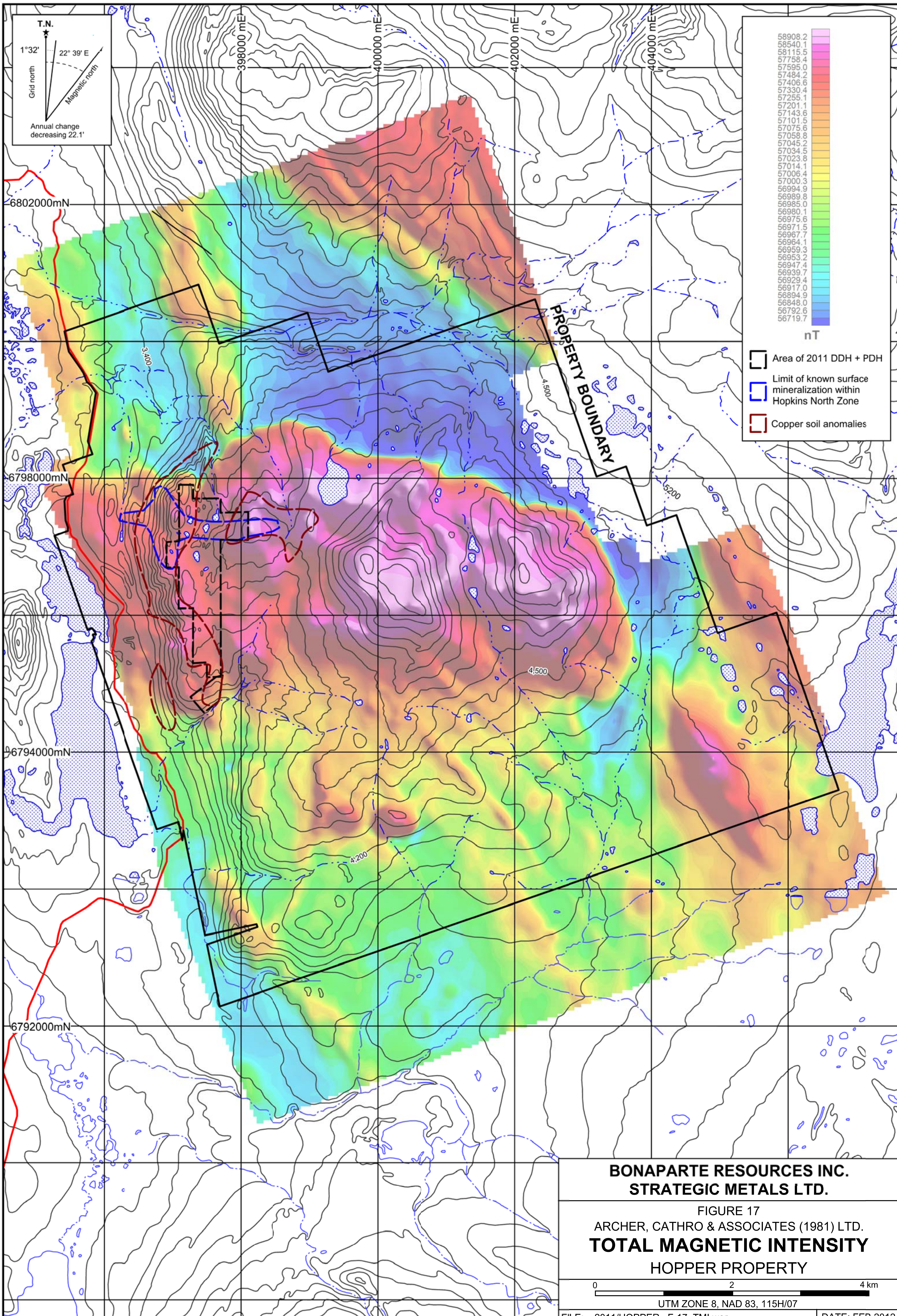
The Hopper property covers two known zones of copper±gold±silver mineralization, which are favourably situated in an area with excellent infrastructure at the southern end of the Dawson Range Gold Belt. Isotopic dating of the Hopper Pluton indicates that the mineralization is the same age as most other intrusion-related deposits elsewhere within this belt.

Bonaparte's comprehensive 2011 exploration program successfully confirmed grade and extent of historical skarn mineralization; recognized specific areas with porphyry potential within the Hopper Pluton; and identified new drill targets where geology, geochemical response and geophysical signatures resemble those at the known skarn showings.

Diamond drilling within Hopkins South Zone identified at least four stacked, mineralized skarn horizons. None of the 2011 holes tested across all four of the prospective horizons, and all of the horizons are open to extension along strike and down dip. In addition to the expected copper-gold mineralization, one of the 2011 holes cut an interval of high grade gold (9.44 g/t over 2.00 m) within a sulphide-deficient, quartz-rich band that overlies one of the sulphide-rich skarn horizons. This may represent an important new type of mineralization that has been overlooked to date on the property.

Widely spaced, shallow percussion drilling returned highly encouraging porphyry grade-grade intervals within Hopkins North Zone, with several of the holes bottomed in mineralization. This zone has never been previously drill tested and is completely open to depth.

A multi-faceted exploration program should be conducted on the Hopper property in 2012 to follow up positive results from diamond and percussion drilling at Hopkins North and South



BONAPARTE RESOURCES INC.
STRATEGIC METALS LTD.

FIGURE 17

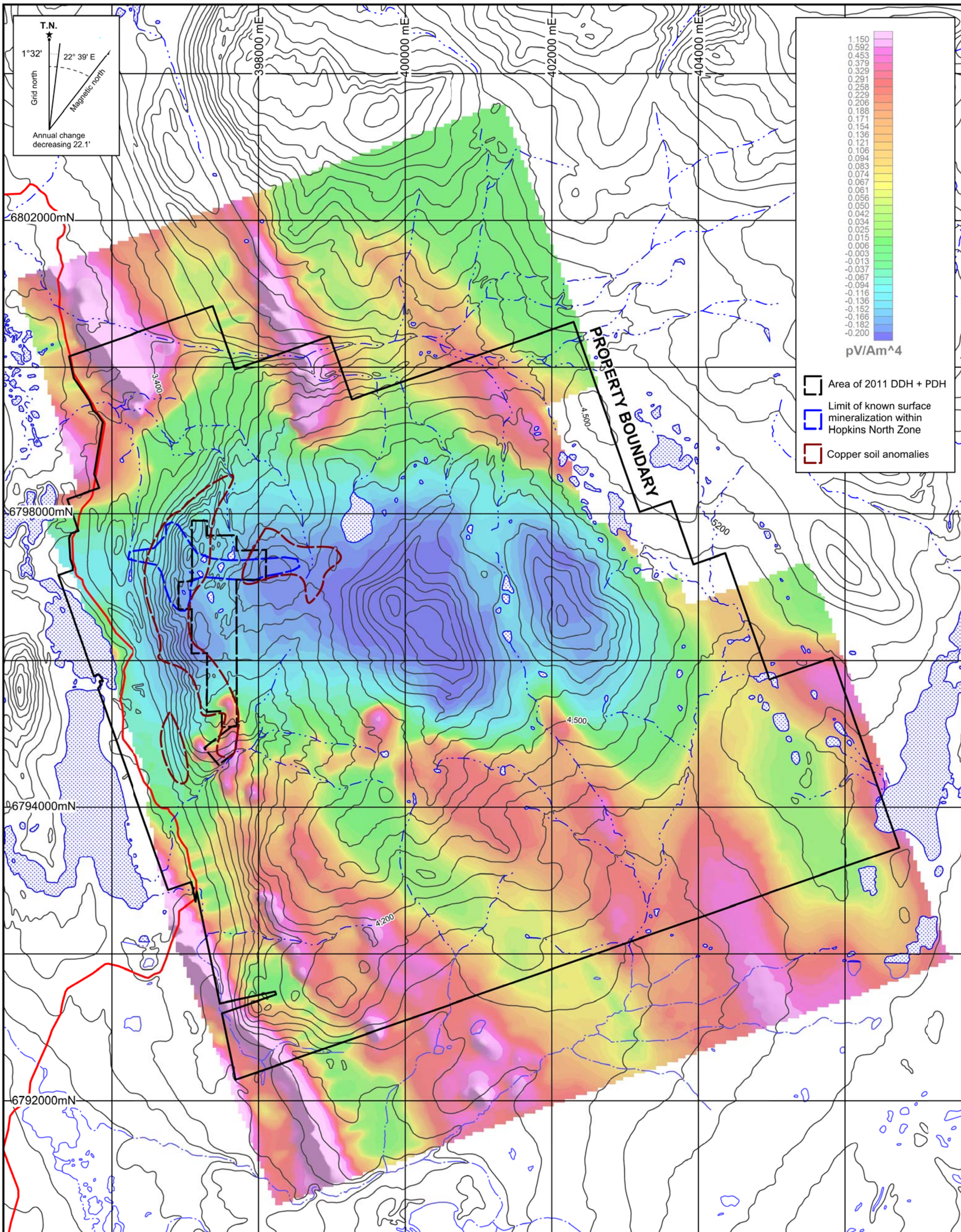
ARCHER, CATHRO & ASSOCIATES (1981) LTD.

TOTAL MAGNETIC INTENSITY

HOPPER PROPERTY

FILE: ...2011/HOPPER...F-17_TMI.wor

DATE: FEB 2012



BONAPARTE RESOURCES INC.
STRATEGIC METALS LTD.

FIGURE 18

ARCHER, CATHRO & ASSOCIATES (1981) LTD.

ELECTROMAGNETIC dB/dT

HOPPER PROPERTY

0 2 4 km

UTM ZONE 8, NAD 83, 115H/07

FILE: ...2011/HOPPER...F-17_EM_dBdT.wor | DATE: FEB 2012 zones; to evaluate other geochemical and geophysical anomalies; and to identify additional prospective targets. The program should include:

1) Soil sampling. Property-wide, reconnaissance-scale contour soil sampling should be carried out, particularly around the periphery of the Hopper Pluton where other mineralized skarn horizons could occur. Soil sampling appears to be an effective tool for detecting recessive weathering mineralization. Detailed grid soil sampling should follow up anomalies from contour soil sampling;
2) Prospecting. Systematic prospecting should be conducted to the north of Hopkins North Zone, along strike from known skarn horizons and within newly identified geochemical and geophysical anomalies;
3) Follow up of geophysical surveys. Areas of interest identified by the detailed interpretation of the VTEM and magnetic surveys should be followed up and induced polarization surveys should be conducted over the Hopkins North Zone.
4) Diamond drilling. At least two deep holes should be drilled below the best percussion drill holes in Hopkins North Zone to test its porphyry potential and at least two additional holes should evaluate skarn targets north of the Hopper Pluton. If funding is available, systematic drilling should be done within Hopkins South Zone to better understand grade continuity and lateral extent of the stacked skarn horizons. Undrilled VTEM conductors and soil geochemical anomalies located along strike or down section from the Hopkins South Zone should also be drill tested.
5) Percussion drilling. Percussion drilling should be completed within other parts of Anomaly B to further assess its porphyry potential. If new soil anomalies are identified in other areas with limited bedrock exposure, percussion drilling should be used to identify buried mineralization.
6) Metallurgical work. A metallurgical study should be conducted to determine if gold and silver will report to a copper concentrate and if magnetite is easily separated from sulphides and other skarn minerals. Iron from magnetite may be an economic co-product if the recovery and shipping costs are low.

Respectfully submitted,

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

S. Eaton, B.Sc. Geology, GIT

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APPENDIX I

STATEMENT OF QUALIFICATIONS

STATEMENT OF QUALIFICATIONS

I, Sarah Eaton, geologist, with business addresses in Whitehorse, Yukon Territory and Vancouver, British Columbia and residential address in Squamish, British Columbia, hereby certify that:

1. I graduated from the University of British Columbia in 2007 with a B.Sc. in Honours Geological Sciences.

2. From 2002 to present, I have been actively engaged in mineral exploration in Yukon Territory, British Columbia and Northwest Territories.

3. I am a Geoscientist in Training (GIT) with the Association of Professional Engineers and Geoscientists of British Columbia (Member Number 154922).

4. I have personally interpreted all data resulting from the work included in this report.

S. Eaton, B.Sc. Geology, GIT

Statement of Expenditures
Gal 1-8, Guy 1-16, Hopper 1-168 & 170-266 Mineral Claims
November 30, 2011

Contract Diamond Drilling

Elite Diamond Drilling Inc.	$169,892.23

RECEIVED
APR 10 2012
MINING RECORDER
WHITEHORSE, YT
Government of Yukon

Statement of Expenditures
Hopper 267 – 342 Mineral Claims
February 17, 2012

Contract VTEM Survey

Geotech Ltd.	$225,011.67

APPENDIX II

ROCK SAMPLE DESCRIPTIONS

Rock Sample Descriptions Project: Hopper Property: Hopper

Sample Number: K270701
Grid East: 396865 E Grid North: 6797098 N Type: grab Dimension:
UTM: E UTM: N Sample Width: Abundance:
Elevation: m
Comments: Seam of sulphide through feldspathic granite- granodiorite altered to clay. Seam 024/78. Alteration appears to be qtz- carb, sulphide seams centimetre scale and bear diss. malachite and coarse clots of pyrite and chalcopyrite. In porphyry area on north tip of granite finger

---

Sample Number: K270702
Grid East: E Grid North: N Type: grab Dimension:
UTM: E UTM: N Sample Width: Abundance:
Elevation: m
Comments: Altered granitic intrusion with sulphide horizon 1-3cm thick bearing malachite, horizon dipping 10 degrees left to horizontal. In porphyry area on west facing slope.

Sample Number: K270703
Grid East: 396990 E Grid North: 6796957 N Type: grab Dimension:
UTM: E UTM: N Sample Width: Abundance:
Elevation: m
Comments: Boulder. 1.5 cm malachite with coarse pyrite in sulphide seam through instrusive rock. Alteration style uncertain. In porphyry area on west facing slope

---

Sample Number: K270704
Grid East: 396995 E Grid North: 6796739 N Type: grab Dimension:
UTM: E UTM: N Sample Width: Abundance:
Elevation: m
Comments: Oxidized portion of coarse magnetite bearing granite-granodiorite. Pyrrhotite clots. In porphyry area on SE facing slope

---

Sample Number: K270705
Grid East: 396937 E Grid North: 6796849 N Type: grab Dimension:
UTM: E UTM: N Sample Width: Abundance:
Elevation: m
Comments: Dark grey coloured fresh, brownish orange coloured weathered massive aphanitic intermediate-mafic dyke in coarse granitic intrusion. Dyke hosts 2-4mm grains of pyrrhotite. In porphyry area on east facing slope

---

Sample Number: J981400
Grid East: E Grid North: N Type: Chip Dimension:
UTM: 396876 E UTM: 6796922 N Sample Width: 5 m Abundance:
Elevation: m
Comments: 5 m chip through orange weathered granite with trace py. Sample also crosses through orange gouge material with chips of qtz. Gouge represents a fault (?) running 352/20

Rock Sample Descriptions

Project: Hopper Property: Hopper

Sample Number:	Grid East:		E	Grid North:		N	Type: Chip	Dimension:	
J981401	UTM:	396876	E	UTM:	6796927	N	Sample Width: 5 m	Abundance:	
	Elevation:		m						

Comments: Chip starts in same orange gouge as 400 for 1 m, then continues into orange weather granite with trace py, cp and mal

Sample Number:	Grid East:		E	Grid North:		N	Type: Chip	Dimension:	
J981402	UTM:	396876	E	UTM:	6796932	N	Sample Width: 5 m	Abundance:	
	Elevation:		m						

Comments: 5 m chip through orange weathere granite with trace py, cp. No visible mal. More qtz rich and competent.

Sample Number:	Grid East:		E	Grid North:		N	Type: Chip	Dimension:	
J981403	UTM:	396876	E	UTM:	6796937	N	Sample Width: 5 m	Abundance:	
	Elevation:		m						

Comments: Same as 402, very competent, no visible mal.

Sample Number:	Grid East:		E	Grid North:		N	Type: Chip	Dimension:	
J981404	UTM:	396876	E	UTM:	6796937	N	Sample Width: 5 m	Abundance:	
	Elevation:		m						

Comments: Orange weathered granite. Contains trace py, cp and mal. More mzn than previous 4 chips.

APPENDIX III

CERTIFICATES 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: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 6- AUG- 2011
This copy reported on 20- OCT- 2011
Account: F

CERTIFICATE

Project:
P.O. No.:

The following have access to data associated with this certificate:

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
CRU- 31	Fine crushing - 70% <2mm
CRU- QC	Crushing QC Test
PUL- QC	Pulverizing QC Test
SPL- 21	Split sample - riffle splitter
PUL- 31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au- AA24	Au 50g FA AA finish	AAS
ME- ICP41	35 Element Aqua Regia ICP- AES	ICP- AES
ME- OG46	Ore Grade Elements - AquaRegia	ICP- AES
Cu- OG46	Ore Grade Cu - Aqua Regia	VARIABLE

To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
ATTN: ALS MINERALS

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

ALS Canada Ltd.

2103 Dollarton Hwy
North Vancouver BC V7H 0A7
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To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 6- AUG- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11124934

Sample Description	Method / Analyte / Units / LOR	WEI- 21 Recvd Wt. kg 0.02	Au- AA24 Au ppm 0.005	ME- ICP41 Ag ppm 0.2	ME- ICP41 Al % 0.01	ME- ICP41 As ppm 2	ME- ICP41 B ppm 10	ME- ICP41 Ba ppm 10	ME- ICP41 Be ppm 0.5	ME- ICP41 Bi ppm 2	ME- ICP41 Ca % 0.01	ME- ICP41 Cd ppm 0.5	ME- ICP41 Co ppm 1	ME- ICP41 Cr ppm 1	ME- ICP41 Cu ppm 1	ME- ICP41 Fe % 0.01
K270501		1.03	<0.005	<0.2	3.50	<2	<10	200	1.0	<2	0.95	<0.5	15	89	83	3.86
K270502		0.21	0.031	0.2	3.08	<2	<10	110	0.8	<2	1.69	<0.5	11	60	236	3.02
K270503		0.25	<0.005	0.2	3.71	<2	<10	150	1.1	<2	1.56	<0.5	12	65	65	3.57
K270504		0.52	<0.005	<0.2	1.38	2	<10	60	0.7	<2	0.62	<0.5	7	41	67	2.39
K270505		0.41	<0.005	<0.2	1.78	<2	<10	130	0.8	<2	1.02	<0.5	9	48	123	2.76
K270506		0.24	0.005	0.2	1.27	2	<10	60	<0.5	<2	1.29	<0.5	11	56	188	2.78
K270507		0.43	0.005	0.3	2.47	2	<10	120	<0.5	<2	3.12	<0.5	25	204	235	4.48
K270508		0.88	0.006	0.3	2.11	<2	<10	150	0.5	<2	2.12	<0.5	22	93	319	4.06
K270509		0.46	<0.005	0.2	2.70	2	<10	180	0.9	<2	1.50	<0.5	13	69	85	3.82
K270510		0.44	<0.005	0.2	1.06	33	<10	50	0.9	<2	3.08	<0.5	13	23	70	3.80
K270511		0.67	0.008	0.3	0.44	72	<10	100	0.5	<2	2.26	<0.5	7	10	37	2.16
K270512		0.56	0.024	0.4	0.71	372	<10	120	1.1	<2	1.53	<0.5	14	15	241	4.00
K270513		0.64	0.011	0.2	0.54	65	<10	520	0.7	<2	2.04	<0.5	8	11	29	2.93
K270514		0.80	0.012	0.2	1.33	9	<10	210	1.0	<2	1.86	<0.5	10	31	196	3.05
K270515		0.50	<0.005	<0.2	1.40	<2	<10	90	0.7	<2	1.00	<0.5	8	35	21	2.83
K270516		0.42	<0.005	<0.2	1.70	<2	<10	120	0.9	<2	0.71	<0.5	10	55	17	3.13
K270517		0.44	<0.005	0.2	1.58	2	<10	180	0.8	<2	1.49	<0.5	13	52	29	3.42
K270518		0.94	<0.005	<0.2	0.70	15	<10	90	0.7	<2	1.13	<0.5	9	13	24	2.91
K270519		1.23	<0.005	<0.2	1.33	6	<10	60	0.8	<2	0.48	<0.5	9	27	21	2.71
K270520		5.00	<0.005	<0.2	1.59	5	<10	120	0.8	<2	0.43	<0.5	9	33	26	2.99
K270521		1.29	0.005	0.2	2.69	<2	<10	150	<0.5	<2	0.79	<0.5	41	228	523	4.00
K270522		0.90	0.014	0.3	1.75	2	<10	60	0.6	<2	0.15	<0.5	6	91	404	4.51
K270523		0.54	0.018	0.2	2.44	2	<10	50	0.7	<2	1.10	<0.5	16	95	702	3.69
K270524		0.77	0.005	0.3	2.47	<2	<10	50	0.7	<2	1.54	<0.5	37	33	679	3.40
K270525		0.40	0.006	<0.2	2.34	5	<10	90	0.5	<2	1.43	<0.5	26	103	394	3.51
K270526		0.74	<0.005	<0.2	2.05	15	<10	90	<0.5	<2	0.94	<0.5	52	263	226	4.38
K270527		0.72	<0.005	0.2	2.54	<2	<10	130	0.7	<2	1.25	<0.5	22	104	186	3.40
K270528		1.13	0.015	0.3	1.93	<2	<10	170	<0.5	<2	1.66	<0.5	30	101	707	4.42
K270529		1.10	<0.005	0.2	1.74	<2	<10	220	<0.5	<2	2.17	<0.5	25	148	267	3.38
K270530		0.82	0.024	0.7	1.52	2	<10	110	<0.5	<2	1.34	<0.5	22	93	681	5.03
K270531		0.87	0.006	0.3	1.91	2	<10	220	0.8	<2	0.70	<0.5	18	157	246	2.87
K270532		0.54	<0.005	<0.2	3.03	<2	<10	230	1.3	<2	0.57	<0.5	17	101	47	3.46
K270533		0.97	<0.005	<0.2	2.49	<2	<10	160	1.1	<2	0.41	<0.5	15	62	80	3.11
K270534		0.98	0.014	0.3	3.32	<2	<10	240	0.9	<2	2.03	<0.5	11	53	324	2.89
K270535		0.58	<0.005	<0.2	3.14	<2	<10	110	1.1	<2	0.82	<0.5	15	65	79	3.72
K270536		0.49	0.007	0.2	3.24	2	<10	100	1.1	<2	1.22	<0.5	11	52	191	3.04
K270537		1.02	0.005	0.2	2.91	<2	<10	130	1.0	<2	0.95	<0.5	10	49	100	2.91
K270538		0.82	0.008	0.2	4.54	<2	<10	100	1.3	<2	2.16	<0.5	14	65	205	3.72
K270539		0.56	0.006	<0.2	3.08	2	<10	120	0.7	<2	1.37	<0.5	15	86	125	3.71
K270540		0.98	0.007	0.3	3.22	<2	<10	90	0.6	<2	1.55	<0.5	18	58	259	4.12

Comments: Additional Au- AA24 check result for sample K270704 is 1.040 ppm.

ALS Canada Ltd.

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ALS Minerals

To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 6- AUG- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11124934

Sample Description	Method / Analyte / Units / LOR	ME- ICP41 Ga ppm 10	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1
K270501		10	1	1.06	20	1.32	401	10	0.13	58	630	5	0.05	<2	9	77
K270502		10	<1	0.57	30	0.74	311	7	0.22	34	370	5	0.16	<2	5	128
K270503		10	<1	1.06	30	0.93	405	3	0.17	30	400	14	0.13	2	9	94
K270504		10	1	0.37	30	0.53	317	4	0.03	19	320	16	0.02	<2	4	18
K270505		10	<1	0.60	30	0.81	363	6	0.05	26	420	10	0.10	2	5	33
K270506		<10	<1	0.17	20	0.69	346	4	0.12	27	620	3	0.21	2	6	36
K270507		10	<1	0.34	10	1.96	561	3	0.22	67	1660	4	0.54	2	13	111
K270508		10	<1	0.54	20	1.22	397	3	0.12	43	870	3	0.80	<2	8	77
K270509		10	<1	1.16	20	0.99	386	2	0.08	37	770	6	0.22	<2	10	59
K270510		<10	<1	0.45	20	0.86	528	7	0.02	30	380	17	0.12	3	8	75
K270511		<10	<1	0.25	20	0.31	295	8	0.01	22	250	8	0.02	3	3	33
K270512		<10	<1	0.31	30	0.13	359	6	0.01	30	540	10	0.02	7	8	21
K270513		<10	<1	0.29	20	0.11	1305	11	0.01	19	620	13	0.02	3	3	23
K270514		<10	<1	0.61	20	0.64	343	2	0.03	27	340	7	0.11	2	6	76
K270515		10	<1	0.60	20	0.71	342	5	0.04	21	190	7	0.05	<2	5	51
K270516		10	<1	0.75	20	0.79	280	3	0.03	34	440	5	0.05	<2	6	39
K270517		10	1	0.71	20	0.93	425	1	0.03	37	400	8	0.09	<2	6	86
K270518		<10	<1	0.32	20	0.57	562	2	0.02	21	190	12	0.07	<2	3	65
K270519		<10	<1	0.59	20	0.52	305	2	0.03	19	130	6	0.04	<2	4	27
K270520		10	<1	0.66	20	0.61	368	3	0.04	22	160	7	0.13	2	4	26
K270521		10	<1	0.58	20	3.02	328	15	0.05	227	1170	2	<0.01	<2	5	30
K270522		10	<1	0.41	20	1.08	176	18	0.04	51	410	2	0.08	<2	8	24
K270523		10	<1	0.25	10	0.75	146	15	0.17	104	490	3	0.72	<2	4	57
K270524		10	<1	0.19	10	0.60	313	5	0.28	66	550	6	1.72	<2	3	81
K270525		10	<1	0.51	10	1.17	231	8	0.25	123	770	6	1.12	<2	3	68
K270526		10	<1	0.59	10	2.96	341	10	0.08	544	1020	2	0.17	2	3	40
K270527		10	1	0.71	30	1.44	306	8	0.18	136	770	4	0.31	<2	7	67
K270528		10	<1	0.74	30	1.56	286	7	0.22	112	2120	3	1.02	<2	4	69
K270529		10	<1	0.55	20	1.87	300	38	0.18	141	3050	<2	0.61	2	5	72
K270530		10	1	0.37	30	0.90	263	44	0.15	67	970	3	1.41	<2	5	46
K270531		10	<1	0.58	20	1.70	243	57	0.08	113	920	2	0.23	<2	5	31
K270532		10	<1	1.10	30	1.72	397	4	0.08	70	980	5	0.02	<2	7	58
K270533		10	<1	0.70	20	1.12	533	5	0.07	36	500	6	0.03	<2	7	63
K270534		10	<1	0.65	20	0.65	322	3	0.17	27	580	3	0.18	<2	6	136
K270535		10	<1	1.16	20	0.95	325	4	0.13	38	530	3	0.16	<2	12	61
K270536		10	<1	0.83	20	0.77	315	6	0.14	27	340	4	0.14	<2	8	105
K270537		10	1	0.80	20	0.83	302	5	0.13	25	320	3	0.12	<2	7	78
K270538		10	1	1.10	30	0.91	444	6	0.21	34	550	5	0.25	<2	11	197
K270539		10	<1	0.93	20	0.99	377	9	0.24	46	750	3	0.17	<2	10	83
K270540		10	<1	0.87	10	1.12	402	11	0.22	49	880	3	0.19	2	11	59

Comments: Additional Au- AA24 check result for sample K270704 is 1.040 ppm.

ALS Canada Ltd.

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To: ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 6- AUG- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11124934

Sample Description	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	Cu- OG46
Analyte	Th	Ti	Tl	U	V	W	Zn	Cu
Units	ppm	%	ppm	ppm	ppm	ppm	ppm	%
LOR	20	0.01	10	10	1	10	2	0.001
K270501	<20	0.24	<10	<10	67	<10	93	
K270502	<20	0.20	<10	<10	45	<10	73	
K270503	<20	0.24	<10	<10	63	<10	187	
K270504	<20	0.04	<10	<10	34	<10	107	
K270505	<20	0.09	<10	<10	48	<10	103	
K270506	<20	0.12	<10	<10	63	<10	50	
K270507	<20	0.23	<10	<10	128	<10	87	
K270508	<20	0.17	<10	<10	80	<10	44	
K270509	<20	0.21	<10	<10	69	<10	110	
K270510	<20	0.02	<10	<10	34	<10	138	
K270511	<20	<0.01	<10	<10	10	<10	110	
K270512	<20	<0.01	<10	<10	22	<10	80	
K270513	<20	<0.01	<10	<10	13	20	63	
K270514	<20	0.05	<10	<10	30	<10	75	
K270515	<20	0.06	<10	<10	30	<10	50	
K270516	<20	0.09	<10	<10	38	<10	49	
K270517	<20	0.08	<10	<10	41	<10	83	
K270518	<20	<0.01	<10	<10	13	<10	94	
K270519	<20	0.07	<10	<10	25	<10	37	
K270520	<20	0.07	<10	<10	29	<10	52	
K270521	<20	0.36	<10	<10	81	<10	69	
K270522	<20	0.16	<10	<10	62	<10	31	
K270523	<20	0.14	<10	<10	42	<10	29	
K270524	<20	0.13	<10	<10	29	<10	32	
K270525	<20	0.20	<10	<10	42	<10	49	
K270526	<20	0.21	<10	<10	57	<10	46	
K270527	<20	0.24	<10	<10	54	<10	44	
K270528	<20	0.43	<10	<10	71	<10	40	
K270529	<20	0.44	<10	<10	64	<10	39	
K270530	<20	0.30	<10	<10	49	70	30	
K270531	<20	0.19	<10	<10	49	10	27	
K270532	<20	0.20	<10	<10	61	<10	54	
K270533	<20	0.14	<10	<10	59	<10	45	
K270534	<20	0.19	<10	<10	48	10	40	
K270535	<20	0.27	<10	<10	70	<10	54	
K270536	<20	0.22	<10	<10	57	20	49	
K270537	<20	0.17	<10	<10	48	10	44	
K270538	<20	0.29	<10	<10	70	20	63	
K270539	<20	0.27	<10	<10	86	<10	53	
K270540	<20	0.28	<10	<10	99	10	43	

Comments: Additional Au- AA24 check result for sample K270704 is 1.040 ppm.

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Finalized Date: 6- AUG- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11124934

Sample Description	Method	WEI- 21	Au- AA24	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41
	Analyte	Recvd Wt.	Au	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	kg	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	0.02	0.005	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
K270541		0.72	0.007	0.2	2.54	<2	<10	190	1.1	<2	0.95	<0.5	17	73	177	3.61
K270542		0.73	0.008	0.2	0.91	2	<10	190	<0.5	<2	0.64	<0.5	7	25	314	2.45
K270543		0.10	0.007	0.3	1.18	<2	<10	240	<0.5	<2	0.80	<0.5	7	26	276	2.62
K270544		0.74	0.005	<0.2	0.77	<2	<10	180	<0.5	<2	0.51	<0.5	5	21	96	1.92
K270545		0.76	0.007	0.3	1.43	<2	<10	270	<0.5	<2	0.38	<0.5	10	43	239	2.82
K270546		0.69	0.007	0.2	0.97	2	<10	210	<0.5	<2	0.49	<0.5	6	22	212	1.93
K270547		0.49	<0.005	<0.2	1.83	<2	<10	250	<0.5	<2	0.82	<0.5	10	151	64	2.40
K270548		0.27	<0.005	<0.2	1.14	<2	<10	210	<0.5	<2	0.70	<0.5	7	70	62	1.93
K270549		0.47	<0.005	<0.2	0.75	<2	<10	130	<0.5	<2	0.54	<0.5	5	32	65	1.76
K270550		0.22	<0.005	0.2	0.88	<2	<10	200	<0.5	<2	0.54	<0.5	5	28	59	2.15
K270551		0.19	<0.005	<0.2	1.37	<2	<10	320	<0.5	<2	0.74	<0.5	7	62	31	2.80
K270552		0.36	<0.005	<0.2	0.70	<2	<10	30	<0.5	<2	0.25	<0.5	3	25	117	1.19
K270553		0.35	0.007	0.2	0.86	<2	<10	40	<0.5	<2	0.23	<0.5	4	33	139	1.49
K270554		0.28	0.005	<0.2	1.58	<2	<10	150	<0.5	<2	0.56	<0.5	9	82	121	2.22
K270555		0.29	<0.005	<0.2	1.72	<2	<10	210	<0.5	<2	0.70	<0.5	11	159	71	2.18
K270556		0.58	<0.005	<0.2	1.31	2	<10	110	0.5	<2	0.29	<0.5	8	53	142	1.97
K270557		0.19	<0.005	<0.2	1.31	2	<10	80	0.5	<2	0.24	<0.5	7	42	94	2.15
K270558		0.36	<0.005	<0.2	2.14	<2	<10	120	0.8	<2	0.43	<0.5	13	56	135	2.86
K270559		0.38	0.023	<0.2	2.21	<2	<10	370	0.5	<2	1.07	<0.5	108	55	672	2.95
K270560		0.46	0.009	<0.2	1.57	<2	<10	390	<0.5	<2	0.79	<0.5	17	21	344	3.11
K270561		0.24	0.017	<0.2	1.90	<2	<10	320	<0.5	<2	1.02	<0.5	13	23	462	3.03
K270562		0.47	0.008	0.2	1.34	4	<10	140	<0.5	<2	0.62	<0.5	9	34	117	2.71
K270563		1.21	0.006	<0.2	1.30	4	<10	160	<0.5	<2	0.54	<0.5	10	25	108	2.31
K270564		0.12	<0.005	<0.2	1.38	2	<10	180	0.5	2	0.39	<0.5	13	17	139	2.54
K270565		0.04	0.007	<0.2	2.39	<2	<10	270	0.8	6	0.32	<0.5	23	14	248	3.64
K270566		0.07	0.006	<0.2	1.68	2	<10	240	0.5	<2	0.35	<0.5	8	19	395	2.82
K270567		0.33	<0.005	<0.2	1.14	<2	<10	180	<0.5	<2	0.32	<0.5	9	17	208	2.32
K270568		0.25	<0.005	<0.2	0.92	<2	<10	220	<0.5	<2	0.29	<0.5	7	18	97	2.35
K270569		0.43	<0.005	<0.2	0.77	<2	<10	150	<0.5	<2	0.35	<0.5	7	19	65	2.05
K270570		0.41	0.008	<0.2	0.75	<2	<10	150	<0.5	<2	0.36	<0.5	6	19	208	2.06
K270571		0.31	0.049	<0.2	0.96	<2	<10	160	<0.5	<2	0.40	<0.5	7	35	562	2.18
K270572		0.83	0.009	<0.2	0.82	<2	<10	270	<0.5	<2	0.36	<0.5	6	29	186	1.96
K270573		2.07	<0.005	<0.2	0.84	<2	<10	510	<0.5	<2	0.35	<0.5	7	21	111	2.14
K270574		0.22	<0.005	<0.2	1.04	<2	<10	180	<0.5	<2	0.39	<0.5	8	31	51	1.87
K270575		0.51	<0.005	<0.2	0.90	3	<10	110	<0.5	<2	0.66	<0.5	8	37	100	2.50
K270576		0.58	<0.005	<0.2	0.89	<2	<10	110	<0.5	<2	0.67	<0.5	7	34	114	2.51
K270577		0.52	<0.005	<0.2	0.78	<2	<10	110	<0.5	<2	0.72	<0.5	8	39	60	2.61
K270578		1.16	<0.005	<0.2	0.85	<2	<10	130	<0.5	<2	0.77	<0.5	7	39	113	2.57
K270579		0.42	<0.005	<0.2	0.89	<2	<10	140	<0.5	<2	0.79	<0.5	7	39	81	2.60
K270580		0.90	<0.005	<0.2	0.81	<2	<10	120	<0.5	<2	0.66	<0.5	7	35	118	2.52

Comments: Additional Au- AA24 check result for sample K270704 is 1.040 ppm.

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To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
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VANCOUVER BC V6B 1L8

Finalized Date: 6- AUG- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11124934

Sample Description	Method Analyte Units LOR	ME- ICP41 Ga ppm 10	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1
K270541		10	<1	1.19	20	1.38	326	8	0.15	39	1590	6	0.22	<2	11	40
K270542		<10	<1	0.28	10	0.61	265	21	0.11	11	790	3	0.04	<2	3	40
K270543		<10	<1	0.43	20	0.67	299	42	0.23	10	830	4	0.04	<2	4	73
K270544		<10	<1	0.35	10	0.49	198	43	0.13	6	630	<2	0.02	<2	2	41
K270545		10	<1	0.90	20	0.86	288	25	0.14	20	470	2	0.10	<2	6	41
K270546		<10	<1	0.49	20	0.60	191	22	0.15	9	580	2	0.06	<2	2	52
K270547		10	<1	0.92	10	1.41	287	8	0.25	65	680	<2	0.06	2	4	90
K270548		<10	<1	0.36	10	0.73	183	2	0.19	28	550	<2	0.21	<2	2	73
K270549		<10	<1	0.14	10	0.45	141	2	0.11	12	500	<2	0.22	<2	1	44
K270550		<10	<1	0.27	10	0.49	192	3	0.17	9	560	<2	0.13	<2	2	49
K270551		<10	<1	0.46	10	0.72	287	3	0.30	18	510	<2	0.08	<2	3	83
K270552		<10	<1	0.28	10	0.40	145	50	0.07	9	80	<2	0.09	<2	3	12
K270553		<10	<1	0.46	10	0.55	161	271	0.07	12	170	<2	0.11	2	4	11
K270554		10	<1	0.83	10	1.11	276	30	0.12	40	600	2	0.10	<2	5	37
K270555		10	<1	0.92	10	1.41	263	16	0.20	66	580	<2	0.06	<2	4	69
K270556		10	<1	0.74	10	1.01	197	94	0.06	30	350	<2	0.15	<2	5	14
K270557		10	<1	0.66	20	0.79	250	133	0.08	19	140	2	0.13	<2	5	15
K270558		10	<1	1.06	20	1.01	287	61	0.11	25	220	2	0.29	<2	9	32
K270559		10	<1	1.24	20	1.50	247	44	0.17	36	1650	3	0.27	<2	6	66
K270560		10	<1	1.24	20	1.48	223	26	0.12	11	2870	<2	0.30	<2	4	38
K270561		10	<1	1.24	20	1.24	226	33	0.13	12	2720	2	0.30	<2	5	55
K270562		<10	<1	0.24	10	0.70	318	5	0.09	17	700	6	0.02	<2	4	40
K270563		<10	<1	0.27	20	0.57	264	4	0.08	11	580	5	0.01	<2	4	37
K270564		<10	<1	0.38	10	0.46	268	4	0.07	6	490	5	0.01	<2	4	34
K270565		10	<1	0.96	20	0.47	724	15	0.12	6	510	14	<0.01	<2	5	42
K270566		<10	<1	0.57	20	0.56	241	2	0.16	5	570	3	<0.01	<2	5	54
K270567		<10	<1	0.29	20	0.61	216	3	0.06	4	570	2	<0.01	<2	4	33
K270568		<10	<1	0.30	20	0.52	236	3	0.08	4	560	3	<0.01	<2	5	36
K270569		<10	<1	0.38	10	0.53	180	2	0.09	4	560	2	<0.01	<2	2	32
K270570		<10	<1	0.35	10	0.49	169	2	0.09	3	550	2	<0.01	<2	2	32
K270571		<10	<1	0.48	10	0.64	185	4	0.11	23	550	8	0.01	<2	3	37
K270572		<10	<1	0.40	10	0.57	186	4	0.09	7	520	3	0.01	<2	2	34
K270573		<10	<1	0.46	10	0.54	200	4	0.11	5	490	3	0.03	<2	2	42
K270574		10	<1	0.77	10	0.89	195	4	0.10	11	630	3	0.01	<2	5	44
K270575		<10	<1	0.18	10	0.59	267	3	0.09	9	770	2	<0.01	<2	2	37
K270576		<10	<1	0.18	10	0.54	273	4	0.10	9	760	2	0.01	<2	2	39
K270577		<10	<1	0.20	10	0.50	271	2	0.12	7	750	<2	<0.01	<2	2	42
K270578		<10	<1	0.23	10	0.53	274	2	0.12	8	760	<2	0.01	<2	2	45
K270579		<10	<1	0.23	10	0.54	280	2	0.13	7	770	2	<0.01	<2	2	51
K270580		<10	<1	0.20	10	0.53	287	2	0.12	6	730	<2	<0.01	<2	2	43

Comments: Additional Au- AA24 check result for sample K270704 is 1.040 ppm.

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VANCOUVER BC V6B 1L8

Finalized Date: 6- AUG- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11124934

Sample Description	Method / Analyte / Units / LOR	ME- ICP41 Th ppm 20	ME- ICP41 Ti % 0.01	ME- ICP41 Tl ppm 10	ME- ICP41 U ppm 10	ME- ICP41 V ppm 1	ME- ICP41 W ppm 10	ME- ICP41 Zn ppm 2	Cu- OG46 Cu % 0.001
K270541		<20	0.39	<10	<10	81	<10	83	
K270542		<20	0.18	<10	<10	69	50	29	
K270543		<20	0.22	<10	<10	73	30	25	
K270544		<20	0.17	<10	<10	57	20	17	
K270545		<20	0.26	<10	<10	70	10	33	
K270546		<20	0.18	<10	<10	57	10	17	
K270547		<20	0.23	<10	<10	71	<10	20	
K270548		<20	0.16	<10	<10	48	10	12	
K270549		<20	0.13	<10	<10	39	10	10	
K270550		<20	0.15	<10	<10	47	10	13	
K270551		<20	0.18	<10	<10	54	<10	15	
K270552		<20	0.07	<10	<10	19	10	10	
K270553		<20	0.11	<10	<10	30	10	14	
K270554		<20	0.18	<10	<10	49	<10	26	
K270555		<20	0.19	<10	<10	59	<10	19	
K270556		<20	0.18	<10	<10	43	10	19	
K270557		<20	0.14	<10	<10	36	10	23	
K270558		<20	0.23	<10	<10	52	30	45	
K270559		<20	0.34	<10	<10	58	850	41	
K270560		<20	0.33	<10	<10	48	70	56	
K270561		<20	0.34	<10	<10	49	60	48	
K270562		<20	0.13	<10	<10	47	10	32	
K270563		<20	0.08	<10	<10	44	20	26	
K270564		<20	0.03	<10	<10	42	<10	21	
K270565		<20	0.01	<10	<10	56	30	31	
K270566		<20	0.07	<10	<10	57	<10	16	
K270567		20	0.06	<10	<10	53	10	15	
K270568		<20	0.08	<10	<10	60	<10	13	
K270569		20	0.15	<10	<10	61	10	11	
K270570		20	0.15	<10	<10	58	<10	10	
K270571		<20	0.16	<10	<10	61	10	26	
K270572		20	0.15	<10	<10	53	10	12	
K270573		20	0.16	<10	<10	58	20	12	
K270574		20	0.19	<10	<10	66	<10	13	
K270575		<20	0.14	<10	<10	71	<10	28	
K270576		<20	0.14	<10	<10	67	<10	24	
K270577		<20	0.14	<10	<10	79	10	19	
K270578		<20	0.15	<10	<10	75	<10	18	
K270579		<20	0.15	<10	<10	76	10	18	
K270580		<20	0.13	<10	<10	69	<10	19	

Comments: Additional Au- AA24 check result for sample K270704 is 1.040 ppm.

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VANCOUVER BC V6B 1L8

Finalized Date: 6- AUG- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11124934

Sample Description	WEI- 21	Au- AA24	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41
Method / Analyte	Recvd Wt.	Au	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
Units	kg	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
LOR	0.02	0.005	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
K270581	0.35	<0.005	<0.2	0.77	<2	<10	220	<0.5	<2	0.69	<0.5	7	37	185	2.52
K270582	0.76	<0.005	<0.2	1.08	<2	<10	130	<0.5	<2	0.70	<0.5	9	53	688	2.70
K270583	0.92	<0.005	<0.2	0.98	<2	<10	130	<0.5	<2	0.84	<0.5	9	45	428	2.58
K270584	0.65	<0.005	<0.2	1.01	<2	<10	170	<0.5	<2	0.74	<0.5	9	56	88	2.26
K270585	0.45	<0.005	<0.2	0.95	<2	<10	200	<0.5	<2	0.66	<0.5	8	51	54	2.29
K270586	0.57	<0.005	<0.2	1.04	<2	<10	170	<0.5	<2	0.83	<0.5	10	60	102	2.46
K270587	0.76	<0.005	<0.2	0.86	<2	<10	120	<0.5	<2	0.86	<0.5	7	37	255	2.45
K270588	1.32	<0.005	0.2	0.93	<2	<10	130	<0.5	2	0.96	<0.5	9	42	601	2.62
K270589	0.61	<0.005	<0.2	0.92	<2	<10	120	<0.5	<2	1.01	<0.5	8	38	426	2.51
K270590	0.78	<0.005	<0.2	0.63	<2	<10	260	<0.5	<2	0.40	<0.5	5	32	15	1.94
K270591	0.16	<0.005	<0.2	0.74	<2	<10	220	<0.5	<2	0.51	<0.5	5	33	15	2.07
K270592	0.54	<0.005	<0.2	0.66	<2	<10	240	<0.5	<2	0.38	<0.5	6	35	62	2.02
K270593	0.45	<0.005	<0.2	0.61	<2	<10	230	<0.5	<2	0.41	<0.5	5	34	33	2.13
K270594	0.64	<0.005	<0.2	0.61	<2	<10	240	<0.5	<2	0.41	<0.5	5	35	88	2.05
K270595	0.43	<0.005	<0.2	0.72	<2	<10	270	<0.5	<2	0.43	<0.5	6	37	74	2.18
K270596	0.77	<0.005	<0.2	0.58	<2	<10	220	<0.5	<2	0.43	<0.5	5	35	49	2.08
K270597	0.46	<0.005	<0.2	0.68	<2	<10	260	<0.5	<2	0.44	<0.5	6	36	24	2.27
K270598	0.60	<0.005	<0.2	0.56	<2	<10	210	<0.5	<2	0.40	<0.5	5	36	21	2.01
K270599	1.09	<0.005	<0.2	0.58	<2	<10	220	<0.5	<2	0.42	<0.5	5	33	18	1.83
K270600	0.53	<0.005	<0.2	0.65	<2	<10	250	<0.5	<2	0.45	<0.5	6	35	17	2.04
K270601	1.19	0.009	<0.2	1.04	28	<10	90	<0.5	<2	0.91	<0.5	8	14	166	2.14
K270602	2.07	<0.005	<0.2	0.81	13	<10	70	<0.5	<2	0.65	<0.5	7	10	138	2.68
K270603	0.85	0.005	<0.2	0.81	17	<10	50	<0.5	<2	0.60	<0.5	7	11	181	2.47
K270604	0.94	<0.005	<0.2	0.82	8	<10	70	<0.5	<2	1.96	<0.5	7	13	142	2.12
K270605	0.49	<0.005	<0.2	1.02	<2	<10	30	<0.5	<2	2.33	<0.5	7	17	69	1.88
K270606	0.58	<0.005	<0.2	0.83	11	<10	30	<0.5	<2	2.41	<0.5	8	11	31	1.65
K270607	0.57	<0.005	<0.2	0.84	8	<10	30	<0.5	<2	1.83	<0.5	7	10	117	1.84
K270608	0.48	<0.005	<0.2	1.07	2	<10	60	0.6	2	2.38	<0.5	8	19	42	2.18
K270609	0.61	<0.005	<0.2	0.66	3	<10	310	<0.5	<2	1.32	<0.5	7	26	29	2.09
K270610	0.51	<0.005	<0.2	0.71	3	<10	370	<0.5	<2	1.09	<0.5	7	33	47	2.30
K270611	0.21	<0.005	<0.2	0.78	<2	<10	410	<0.5	<2	0.74	<0.5	7	32	238	2.19
K270612	0.36	<0.005	<0.2	0.81	5	<10	640	<0.5	<2	0.89	<0.5	7	33	92	2.34
K270613	0.29	<0.005	<0.2	1.48	5	<10	370	0.5	<2	1.55	<0.5	8	32	169	2.32
K270614	0.22	<0.005	<0.2	1.40	<2	<10	300	<0.5	<2	1.86	<0.5	6	28	102	2.21
K270615	0.35	<0.005	<0.2	0.82	4	<10	440	<0.5	<2	1.17	<0.5	7	32	58	2.29
K270616	0.35	<0.005	<0.2	0.80	<2	<10	480	<0.5	<2	1.08	<0.5	7	33	645	2.37
K270617	0.36	<0.005	<0.2	0.72	3	<10	290	<0.5	<2	0.83	<0.5	7	32	677	2.19
K270618	0.42	<0.005	0.2	0.73	<2	<10	290	<0.5	<2	0.76	<0.5	7	31	1160	2.13
K270619	1.92	<0.005	<0.2	0.61	<2	<10	380	<0.5	<2	1.23	<0.5	6	28	346	1.84
K270620	2.95	<0.005	<0.2	0.77	11	<10	190	<0.5	<2	1.16	<0.5	7	29	122	1.92

Comments: Additional Au- AA24 check result for sample K270704 is 1.040 ppm.

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CERTIFICATE OF ANALYSIS WH11124934

Sample Description	Method	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41
	Analyte	Ga	Hg	K	La	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Sc	Sr
	Units	ppm	ppm	%	ppm	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm
	LOR	10	1	0.01	10	0.01	5	1	0.01	1	10	2	0.01	2	1	1
K270581		<10	<1	0.22	10	0.48	247	5	0.12	7	750	<2	0.01	<2	2	48
K270582		10	<1	0.22	10	0.89	312	3	0.12	9	830	<2	0.01	<2	4	45
K270583		<10	<1	0.24	10	0.67	278	2	0.13	9	790	<2	0.01	<2	3	49
K270584		<10	<1	0.25	10	0.69	227	2	0.13	10	700	<2	0.04	<2	2	45
K270585		<10	<1	0.27	10	0.64	224	2	0.15	11	640	<2	0.08	<2	2	45
K270586		<10	<1	0.26	10	0.89	278	2	0.13	10	730	<2	0.05	<2	4	46
K270587		<10	<1	0.21	10	0.60	248	3	0.11	7	790	2	0.03	2	2	49
K270588		<10	<1	0.21	20	0.74	303	3	0.10	8	780	2	0.05	<2	4	47
K270589		<10	<1	0.25	20	0.66	279	5	0.14	7	780	<2	0.05	<2	3	55
K270590		<10	<1	0.27	10	0.40	181	1	0.11	7	510	<2	<0.01	<2	1	31
K270591		<10	<1	0.26	10	0.33	191	2	0.20	7	560	<2	<0.01	<2	1	50
K270592		<10	<1	0.32	10	0.42	178	2	0.12	8	530	<2	<0.01	<2	1	34
K270593		<10	<1	0.26	10	0.35	187	3	0.13	6	530	2	<0.01	<2	1	35
K270594		<10	<1	0.27	10	0.38	177	3	0.11	7	540	<2	0.01	<2	1	33
K270595		<10	<1	0.33	10	0.43	192	10	0.14	8	570	<2	<0.01	<2	1	39
K270596		<10	<1	0.25	10	0.35	175	2	0.11	6	560	<2	<0.01	<2	1	31
K270597		<10	<1	0.30	10	0.40	197	2	0.14	7	550	<2	<0.01	<2	1	37
K270598		<10	<1	0.24	10	0.35	175	2	0.11	6	550	<2	<0.01	<2	1	30
K270599		<10	<1	0.25	10	0.34	151	5	0.11	6	520	<2	<0.01	<2	1	33
K270600		<10	<1	0.28	10	0.39	181	3	0.13	7	590	<2	<0.01	<2	1	37
K270601		<10	<1	0.10	10	0.13	295	3	0.01	9	560	10	0.01	2	5	34
K270602		<10	<1	0.13	10	0.12	319	4	0.01	7	390	8	<0.01	<2	3	27
K270603		<10	<1	0.11	10	0.11	255	4	0.01	8	430	9	0.01	<2	4	25
K270604		<10	<1	0.12	10	0.66	409	3	0.01	8	470	7	0.08	<2	4	163
K270605		<10	<1	0.16	20	0.83	388	2	0.01	6	530	5	0.04	<2	5	199
K270606		<10	<1	0.13	20	0.76	415	1	0.01	9	550	6	0.27	2	5	168
K270607		<10	<1	0.14	10	0.66	381	2	0.01	6	480	5	0.24	<2	4	136
K270608		<10	<1	0.18	20	0.93	495	1	0.02	8	550	5	0.03	3	5	169
K270609		<10	<1	0.21	10	0.62	362	2	0.07	9	510	3	0.01	<2	4	114
K270610		<10	<1	0.24	10	0.61	367	3	0.08	8	530	2	0.01	<2	4	101
K270611		<10	<1	0.26	10	0.49	290	2	0.11	7	480	2	0.03	<2	3	66
K270612		<10	<1	0.28	10	0.47	318	5	0.11	8	520	2	0.03	<2	3	81
K270613		<10	<1	0.26	20	0.66	388	18	0.06	9	550	4	0.04	<2	4	99
K270614		<10	<1	0.28	20	0.80	456	140	0.07	8	500	4	0.03	<2	4	131
K270615		<10	<1	0.25	10	0.56	344	5	0.10	8	530	3	0.01	<2	4	97
K270616		<10	<1	0.23	10	0.56	320	5	0.09	7	560	2	0.09	<2	3	93
K270617		<10	<1	0.24	10	0.50	269	5	0.11	7	510	<2	0.09	<2	3	70
K270618		<10	<1	0.25	10	0.53	262	7	0.10	8	470	2	0.13	2	3	58
K270619		<10	<1	0.19	10	0.58	252	6	0.06	7	440	2	0.05	<2	3	89
K270620		<10	<1	0.20	10	0.61	278	4	0.05	8	460	<2	0.07	<2	4	69

Comments: Additional Au- AA24 check result for sample K270704 is 1.040 ppm.

ALS Canada Ltd.

2103 Dollarton Hwy
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Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 6- AUG- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11124934

Sample Description	Method Analyte Units LOR	ME- ICP41 Th ppm 20	ME- ICP41 Ti % 0.01	ME- ICP41 Tl ppm 10	ME- ICP41 U ppm 10	ME- ICP41 V ppm 1	ME- ICP41 W ppm 10	ME- ICP41 Zn ppm 2	Cu- OG46 Cu % 0.001
K270581		<20	0.15	<10	<10	73	10	16	
K270582		<20	0.16	<10	<10	85	<10	20	
K270583		<20	0.16	<10	<10	80	10	17	
K270584		<20	0.18	<10	<10	68	<10	14	
K270585		<20	0.17	<10	<10	62	10	13	
K270586		<20	0.17	<10	<10	74	<10	18	
K270587		<20	0.15	<10	<10	73	10	15	
K270588		<20	0.11	<10	<10	79	<10	20	
K270589		<20	0.14	<10	<10	75	10	17	
K270590		<20	0.14	<10	<10	49	<10	11	
K270591		<20	0.13	<10	<10	48	10	9	
K270592		<20	0.15	<10	<10	53	<10	8	
K270593		<20	0.14	<10	<10	51	10	8	
K270594		<20	0.14	<10	<10	52	10	8	
K270595		<20	0.15	<10	<10	54	10	9	
K270596		<20	0.14	<10	<10	50	10	8	
K270597		<20	0.15	<10	<10	55	10	9	
K270598		<20	0.13	<10	<10	50	<10	7	
K270599		<20	0.13	<10	<10	51	10	7	
K270600		<20	0.15	<10	<10	53	<10	8	
K270601		<20	<0.01	<10	<10	26	<10	21	
K270602		<20	<0.01	<10	<10	21	<10	25	
K270603		<20	<0.01	<10	<10	21	<10	23	
K270604		<20	<0.01	<10	<10	27	<10	20	
K270605		<20	<0.01	<10	<10	30	<10	19	
K270606		<20	<0.01	<10	<10	24	<10	20	
K270607		<20	<0.01	<10	<10	21	<10	17	
K270608		<20	<0.01	<10	<10	33	<10	21	
K270609		<20	0.04	<10	<10	39	<10	18	
K270610		<20	0.06	<10	<10	46	<10	18	
K270611		<20	0.09	<10	<10	46	<10	16	
K270612		<20	0.09	<10	<10	47	<10	16	
K270613		<20	0.06	<10	<10	47	<10	19	
K270614		<20	0.03	<10	<10	41	<10	17	
K270615		<20	0.05	<10	<10	44	<10	18	
K270616		<20	0.06	<10	<10	46	<10	16	
K270617		<20	0.07	<10	<10	45	<10	13	
K270618		<20	0.07	<10	<10	43	<10	15	
K270619		<20	0.05	<10	<10	38	<10	11	
K270620		<20	0.05	<10	<10	41	<10	13	

Comments: Additional Au- AA24 check result for sample K270704 is 1.040 ppm.

ALS Canada Ltd.

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To: ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 6- AUG- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11124934

Sample Description	WEI-21 Recvd Wt. kg 0.02	Au-AA24 Au ppm 0.005	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1	ME-ICP41 Fe % 0.01
K270621	0.48	0.008	<0.2	1.33	5	<10	210	<0.5	<2	0.79	<0.5	9	33	245	2.63
K270622	0.14	<0.005	<0.2	1.27	2	<10	380	<0.5	<2	1.30	<0.5	8	40	234	2.79
K270623	0.16	<0.005	<0.2	1.18	<2	<10	370	<0.5	<2	1.15	<0.5	9	43	389	2.86
K270624	0.40	<0.005	<0.2	1.18	<2	<10	360	<0.5	<2	1.66	<0.5	9	38	172	2.60
K270625	0.29	<0.005	<0.2	1.23	<2	<10	280	<0.5	<2	1.01	<0.5	8	38	285	2.58
K270626	0.52	<0.005	0.3	0.93	<2	<10	250	<0.5	<2	0.94	<0.5	6	36	277	2.53
K270627	0.80	<0.005	0.2	0.96	2	<10	210	<0.5	<2	1.00	<0.5	7	37	209	2.46
K270628	0.55	<0.005	0.2	0.94	<2	<10	180	<0.5	<2	0.82	<0.5	6	35	197	2.30
K270629	0.34	<0.005	0.3	1.11	<2	<10	220	<0.5	<2	1.54	<0.5	8	39	486	2.67
K270630	0.88	<0.005	0.3	0.93	<2	<10	170	<0.5	<2	0.89	<0.5	7	36	122	2.34
K270631	0.84	<0.005	<0.2	0.80	3	<10	310	<0.5	<2	0.92	<0.5	6	25	120	2.25
K270632	1.77	<0.005	0.2	0.68	<2	<10	560	<0.5	<2	1.30	<0.5	6	24	133	2.16
K270633	0.15	<0.005	<0.2	0.79	<2	<10	600	<0.5	<2	1.09	<0.5	7	30	107	2.55
K270634	0.25	<0.005	0.4	0.54	<2	<10	440	<0.5	<2	1.41	<0.5	6	23	418	2.15
K270635	0.98	<0.005	0.5	0.51	<2	<10	250	<0.5	2	1.74	<0.5	7	15	564	1.89
K270636	0.81	<0.005	0.3	0.62	<2	<10	490	<0.5	<2	0.94	<0.5	6	29	238	2.07
K270637	0.50	<0.005	0.4	0.72	4	<10	390	<0.5	5	1.64	<0.5	7	21	373	2.23
K270638	0.52	<0.005	0.4	0.66	2	<10	560	<0.5	7	1.22	<0.5	7	27	231	2.26
K270639	0.40	0.007	0.2	0.86	2	<10	680	<0.5	<2	1.09	<0.5	7	30	84	2.37
K270640	0.38	<0.005	0.4	0.87	<2	<10	440	0.5	2	1.76	<0.5	6	18	76	2.14
K270641	2.05	<0.005	0.3	0.72	<2	<10	330	0.5	<2	2.10	<0.5	6	15	283	1.85
K270701	0.42	0.010	3.2	0.41	<2	<10	200	<0.5	6	2.22	<0.5	7	6	9080	2.70
K270702	0.22	<0.005	0.9	0.65	<2	<10	50	<0.5	<2	4.21	<0.5	6	6	1020	2.73
K270703	0.54	0.039	4.7	0.75	<2	<10	330	<0.5	4	0.30	<0.5	15	24	>10000	2.83
K270704	0.49	1.060	0.7	0.05	3	<10	30	<0.5	19	1.40	<0.5	2	1	808	3.93
K270705	0.38	0.019	0.4	1.58	2	<10	150	<0.5	<2	1.05	<0.5	16	8	151	2.69

Comments: Additional Au- AA24 check result for sample K270704 is 1.040 ppm.

ALS Canada Ltd.

2103 Dollarton Hwy
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Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 6- AUG- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11124934

Sample Description	Method Analyte Units LOR	ME- ICP41 Ga ppm 10	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1
K270621		<10	<1	0.19	10	0.64	330	5	0.09	15	650	3	0.03	<2	4	51
K270622		<10	<1	0.23	10	0.75	314	8	0.13	14	730	3	0.03	<2	4	81
K270623		10	<1	0.22	10	0.82	274	7	0.12	12	710	2	0.05	<2	3	74
K270624		10	<1	0.21	10	0.90	317	13	0.11	12	640	2	0.03	<2	5	79
K270625		10	<1	0.24	10	0.79	248	72	0.16	11	610	<2	0.04	<2	3	70
K270626		<10	<1	0.16	10	0.67	208	7	0.09	12	600	4	0.04	<2	2	49
K270627		<10	<1	0.14	10	0.66	203	8	0.09	11	650	2	0.03	<2	2	50
K270628		<10	<1	0.14	10	0.60	180	30	0.09	10	610	3	0.03	<2	1	45
K270629		<10	<1	0.19	10	0.76	289	15	0.12	13	680	2	0.06	<2	4	71
K270630		<10	<1	0.13	10	0.70	199	3	0.08	11	620	3	0.02	<2	2	44
K270631		<10	<1	0.21	10	0.52	287	6	0.06	12	630	4	0.06	<2	4	55
K270632		<10	<1	0.26	10	0.58	378	5	0.07	11	530	3	0.04	<2	4	90
K270633		<10	<1	0.29	10	0.64	382	4	0.13	10	470	3	0.03	<2	4	99
K270634		<10	<1	0.23	10	0.70	364	4	0.08	10	500	3	0.07	<2	5	111
K270635		<10	<1	0.20	10	0.78	325	11	0.04	8	510	5	0.14	<2	5	154
K270636		<10	<1	0.26	10	0.60	262	85	0.08	9	520	3	0.06	<2	3	90
K270637		<10	<1	0.24	10	0.77	423	9	0.06	10	570	5	0.14	<2	4	143
K270638		<10	<1	0.29	10	0.73	326	3	0.08	9	530	3	0.10	<2	4	101
K270639		<10	<1	0.33	10	0.70	359	3	0.12	10	520	4	0.06	<2	4	87
K270640		<10	<1	0.33	10	0.77	370	74	0.06	7	470	13	0.08	<2	4	118
K270641		<10	<1	0.29	10	0.88	346	119	0.04	7	480	8	0.06	<2	4	172
K270701		<10	<1	0.22	10	0.73	377	57	0.03	7	320	43	0.99	<2	2	129
K270702		<10	<1	0.27	<10	1.46	461	7	<0.01	6	70	7	0.23	<2	1	233
K270703		<10	<1	0.21	10	0.52	159	22	0.06	14	520	6	0.82	<2	3	46
K270704		<10	<1	0.03	<10	1.14	146	<1	0.01	4	240	2	0.46	<2	<1	6
K270705		10	<1	0.37	10	0.73	115	3	0.22	10	1100	3	0.92	<2	2	125

Comments: Additional Au- AA24 check result for sample K270704 is 1.040 ppm.

ALS Canada Ltd.

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To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 6- AUG- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11124934

Sample Description	Method Analyte Units LOR	ME- ICP41 Th ppm 20	ME- ICP41 Ti % 0.01	ME- ICP41 Tl ppm 10	ME- ICP41 U ppm 10	ME- ICP41 V ppm 1	ME- ICP41 W ppm 10	ME- ICP41 Zn ppm 2	Cu- OG46 Cu % 0.001
K270621		<20	0.12	<10	<10	51	<10	32	
K270622		<20	0.13	<10	<10	69	20	19	
K270623		<20	0.15	<10	<10	73	10	15	
K270624		<20	0.09	<10	<10	67	10	16	
K270625		<20	0.15	<10	<10	67	10	15	
K270626		<20	0.13	<10	<10	64	30	14	
K270627		<20	0.12	<10	<10	63	10	14	
K270628		<20	0.13	<10	<10	59	10	12	
K270629		<20	0.10	<10	<10	64	20	16	
K270630		<20	0.12	<10	<10	61	<10	13	
K270631		<20	0.07	<10	<10	38	<10	26	
K270632		<20	0.04	<10	<10	37	<10	21	
K270633		<20	0.07	<10	<10	46	<10	18	
K270634		<20	0.03	<10	<10	36	<10	16	
K270635		<20	0.01	<10	<10	28	<10	15	
K270636		<20	0.07	<10	<10	44	<10	14	
K270637		<20	0.02	<10	<10	34	<10	21	
K270638		<20	0.06	<10	<10	42	<10	21	
K270639		<20	0.09	<10	<10	49	<10	21	
K270640		<20	0.02	<10	<10	28	<10	16	
K270641		<20	0.02	<10	<10	26	<10	14	
K270701		<20	<0.01	<10	<10	12	<10	18	
K270702		<20	<0.01	<10	<10	22	<10	33	
K270703		<20	0.02	<10	<10	33	<10	30	1.125
K270704		<20	<0.01	<10	<10	2	<10	14	
K270705		<20	0.22	<10	<10	65	<10	15	

Comments: Additional Au- AA24 check result for sample K270704 is 1.040 ppm.

ALS Canada Ltd.

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To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 17- OCT- 2011
This copy reported on 11- JAN- 2012
Account: F

CERTIFICATE WH11171466

Project: Hopper
P.O. No.:
This report is for 12 Rock samples submitted to our lab in Whitehorse, YT, Canada on 28- AUG- 2011.

The following have access to data associated with this certificate:

JOAN MARIACHER	HEATHER SMITH	

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
CRU- 31	Fine crushing - 70% <2mm
CRU- QC	Crushing QC Test
PUL- QC	Pulverizing QC Test
SPL- 21	Split sample - riffle splitter
PUL- 31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au- AA24	Au 50g FA AA finish	AAS
ME- ICP41	35 Element Aqua Regia ICP- AES	ICP- AES

To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
ATTN: JOAN MARIACHER
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

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

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Finalized Date: 17-OCT-2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11171466

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA24 Au ppm 0.005	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1	ME-ICP41 Fe % 0.01
I078451		1.12	<0.005	0.2	3.21	2	<10	60	1.2	<2	2.70	<0.5	37	153	112	3.48
I078452		0.83	0.165	4.4	0.18	3	<10	90	<0.5	29	2.70	0.8	12	4	3790	1.73
I078453		1.63	0.707	19.0	0.05	4	<10	30	<0.5	16	2.57	<0.5	6	2	8740	8.99
I078454		0.75	0.031	1.9	1.35	3	<10	200	<0.5	<2	0.60	<0.5	12	39	3990	2.68
I078455		0.85	<0.005	0.5	5.87	<2	<10	170	1.0	<2	4.06	<0.5	26	32	621	7.97
I078456		1.07	0.065	4.6	0.26	5	<10	20	0.7	<2	4.48	1.5	21	4	4390	5.77
I078457		1.06	<0.005	1.5	0.52	4	<10	20	<0.5	<2	4.71	<0.5	26	1	988	5.43
I078458		1.07	0.055	1.3	1.05	<2	<10	210	<0.5	<2	0.35	<0.5	26	20	1785	2.38
I078459		1.27	0.090	2.4	0.53	3	<10	50	0.5	3	0.69	<0.5	5	36	2850	1.04
I078460		1.21	<0.005	0.2	0.46	<2	<10	120	<0.5	<2	0.28	<0.5	5	13	321	0.98
I078461		0.71	0.008	0.6	0.85	2	<10	460	<0.5	<2	0.84	<0.5	8	42	1755	2.32
I078462		0.96	0.005	0.2	1.41	17	<10	120	0.7	<2	0.34	<0.5	14	62	181	4.11

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To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 17- OCT- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11171466

Sample Description	Method Analyte Units LOR	ME- ICP41 Ga ppm 10	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1
I078451		10	<1	0.23	10	1.01	520	5	0.25	219	2600	5	1.03	<2	5	163
I078452		<10	<1	0.12	<10	0.11	251	119	0.02	11	250	5	0.64	2	<1	19
I078453		<10	<1	0.01	<10	0.25	256	7	0.01	6	370	<2	3.30	<2	<1	11
I078454		10	<1	0.17	10	1.11	180	143	0.09	13	620	2	0.26	<2	4	48
I078455		20	1	0.33	20	0.93	270	2	0.30	42	3980	9	1.23	<2	9	114
I078456		<10	<1	0.01	<10	0.12	1945	5	0.02	6	180	3	0.73	<2	<1	62
I078457		10	<1	0.01	<10	0.29	716	<1	0.02	18	230	3	0.56	<2	<1	22
I078458		10	<1	0.46	10	0.67	108	4	0.13	7	560	3	0.62	<2	4	42
I078459		<10	<1	0.15	30	0.14	70	134	0.09	6	430	4	0.41	<2	3	21
I078460		<10	<1	0.23	10	0.21	87	2	0.08	3	260	2	0.09	<2	1	28
I078461		<10	<1	0.33	10	0.65	245	6	0.12	15	580	2	0.18	<2	4	54
I078462		10	<1	0.43	10	0.88	206	3	0.03	32	600	18	2.09	<2	6	21

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CERTIFICATE OF ANALYSIS WH11171466

Sample Description	Method Analyte Units LOR	ME- ICP41 Th ppm 20	ME- ICP41 Ti % 0.01	ME- ICP41 Tl ppm 10	ME- ICP41 U ppm 10	ME- ICP41 V ppm 1	ME- ICP41 W ppm 10	ME- ICP41 Zn ppm 2
I078451		<20	0.39	<10	<10	62	<10	32
I078452		<20	0.04	<10	<10	3	20	105
I078453		<20	0.01	<10	<10	3	<10	90
I078454		<20	0.12	<10	<10	51	20	28
I078455		<20	0.22	<10	<10	223	<10	71
I078456		<20	0.01	<10	<10	6	<10	189
I078457		<20	0.02	<10	<10	24	<10	41
I078458		<20	0.15	<10	<10	52	10	27
I078459		<20	0.20	<10	20	24	40	33
I078460		<20	0.10	<10	<10	18	10	7
I078461		<20	0.11	<10	<10	57	30	20
I078462		<20	0.10	<10	<10	92	<10	29

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To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 15- AUG- 2011
This copy reported on 11- JAN- 2012
Account: F

CERTIFICATE WH11134772

Project: Hopper
P.O. No.:
This report is for 60 Percussion samples submitted to our lab in Whitehorse, YT, Canada on 16- JUL- 2011.
The following have access to data associated with this certificate:

JOAN MARIACHER	HEATHER SMITH	

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
CRU- 31	Fine crushing - 70% <2mm
CRU- QC	Crushing QC Test
PUL- QC	Pulverizing QC Test
SPL- 21	Split sample - riffle splitter
PUL- 31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au- AA24	Au 50g FA AA finish	AAS
ME- ICP41	35 Element Aqua Regia ICP- AES	ICP- AES

To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
ATTN: JOAN MARIACHER
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

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

ALS Minerals

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Finalized Date: 15- AUG- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11134772

Sample Description	Method	WEI- 21	Au- AA24	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41
	Analyte	Recvd Wt.	Au	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	kg	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	0.02	0.005	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
K270801		0.71	<0.005	<0.2	1.76	2	<10	250	<0.5	<2	1.15	<0.5	11	149	52	2.76
K270802		0.26	0.005	0.2	1.07	5	<10	230	<0.5	<2	0.78	<0.5	6	34	182	2.15
K270803		0.73	<0.005	<0.2	1.01	4	<10	100	<0.5	<2	0.73	<0.5	5	14	157	2.34
K270804		0.29	<0.005	0.3	1.30	5	<10	100	<0.5	<2	1.11	<0.5	9	35	291	2.58
K270805		0.54	<0.005	<0.2	3.90	7	<10	70	0.7	<2	6.00	<0.5	36	331	164	5.42
K270806		0.51	0.006	<0.2	3.28	3	<10	220	0.5	<2	2.51	<0.5	35	170	103	4.59
K270807		1.63	<0.005	0.2	1.23	2	<10	120	<0.5	<2	1.11	<0.5	8	33	100	2.45
K270808		2.06	<0.005	<0.2	1.35	2	<10	160	<0.5	<2	1.00	<0.5	8	83	54	2.37
K270809		2.24	<0.005	0.3	1.09	<2	<10	140	<0.5	<2	0.81	<0.5	6	17	296	2.31
K270810		2.26	<0.005	<0.2	1.44	<2	<10	190	<0.5	<2	1.42	<0.5	9	71	202	2.61
K270811		1.02	<0.005	<0.2	1.36	2	<10	110	<0.5	<2	1.76	<0.5	10	42	202	2.82
K270812		0.75	<0.005	<0.2	1.36	3	<10	110	0.5	<2	1.73	<0.5	10	41	231	2.79
K270813		1.32	<0.005	<0.2	0.96	2	<10	150	<0.5	<2	1.03	<0.5	8	42	199	2.63
K270814		2.09	<0.005	<0.2	0.97	<2	<10	120	<0.5	<2	1.17	<0.5	9	40	296	2.68
K270815		2.18	<0.005	<0.2	3.06	2	<10	300	0.5	<2	3.25	<0.5	29	133	101	4.45
K270816		2.17	<0.005	0.2	2.60	2	<10	290	0.6	<2	2.85	<0.5	24	135	99	3.97
K270817		1.96	<0.005	0.2	0.80	<2	<10	120	<0.5	<2	0.81	<0.5	8	42	118	2.59
K270818		1.61	<0.005	0.2	0.85	<2	<10	110	<0.5	<2	1.04	<0.5	7	42	171	2.65
K270819		1.44	<0.005	<0.2	0.86	<2	<10	150	<0.5	<2	0.79	<0.5	8	43	267	2.63
K270820		0.51	<0.005	<0.2	1.51	3	<10	100	<0.5	<2	0.86	<0.5	9	39	52	2.02
K270821		0.79	<0.005	<0.2	1.71	<2	<10	70	0.5	<2	0.87	<0.5	5	33	49	1.39
K270822		0.39	<0.005	<0.2	1.85	<2	<10	80	0.5	<2	0.63	<0.5	7	42	43	1.72
K270823		0.53	<0.005	<0.2	1.86	<2	<10	60	0.5	<2	0.87	<0.5	5	45	45	1.56
K270824		0.40	0.009	0.2	2.06	3	<10	110	0.5	<2	0.60	<0.5	10	57	395	2.45
K270825		0.29	<0.005	0.2	2.11	2	<10	70	0.5	<2	0.77	<0.5	17	41	457	3.72
K270826		0.48	0.005	<0.2	2.58	3	<10	40	0.8	<2	1.59	<0.5	12	41	290	3.08
K270827		1.11	0.013	<0.2	2.79	2	<10	40	0.8	<2	2.07	<0.5	18	44	375	4.28
K270828		0.73	<0.005	<0.2	2.98	<2	<10	70	0.7	<2	1.53	<0.5	12	47	164	3.07
K270829		0.88	0.005	<0.2	1.90	<2	<10	50	<0.5	<2	1.48	<0.5	17	18	375	3.23
K270830		0.67	0.005	<0.2	1.19	<2	<10	70	<0.5	2	1.09	<0.5	14	19	314	3.03
K270831		0.69	0.011	0.3	1.25	2	<10	100	<0.5	<2	1.01	<0.5	18	20	553	2.90
K270832		1.64	<0.005	<0.2	0.99	2	<10	160	<0.5	<2	0.74	<0.5	11	31	149	2.32
K270833		0.87	<0.005	<0.2	0.92	<2	<10	150	<0.5	<2	0.68	<0.5	6	33	54	2.11
K270834		1.71	<0.005	<0.2	0.84	3	<10	150	<0.5	<2	0.55	<0.5	26	31	50	2.20
K270835		1.05	<0.005	<0.2	0.90	2	<10	120	<0.5	<2	0.65	<0.5	5	36	27	2.14
J981400		1.15	<0.005	<0.2	0.75	<2	<10	510	0.5	<2	2.14	<0.5	10	16	358	2.61
J981401		1.43	0.006	0.5	0.82	2	<10	1350	<0.5	2	2.34	<0.5	10	38	1045	3.05
J981402		1.43	<0.005	<0.2	0.82	3	<10	780	<0.5	<2	1.41	<0.5	8	26	199	2.31
J981403		1.91	<0.005	<0.2	0.95	2	<10	1060	<0.5	2	0.87	<0.5	8	29	192	2.47
J981404		1.91	<0.005	<0.2	0.83	<2	<10	410	<0.5	2	0.84	<0.5	7	34	365	2.22

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Finalized Date: 15- AUG- 2011
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CERTIFICATE OF ANALYSIS WH11134772

Sample Description	Method / Analyte / Units / LOR	ME- ICP41 Ga ppm 10	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1
K270801		10	<1	0.40	10	1.60	329	2	0.18	50	680	7	0.02	2	5	81
K270802		10	<1	0.14	10	0.75	174	2	0.11	11	670	2	0.03	<2	3	53
K270803		10	<1	0.12	10	0.64	146	4	0.09	4	630	2	0.03	<2	3	47
K270804		10	<1	0.12	10	1.17	228	4	0.10	30	860	3	0.04	<2	4	90
K270805		10	1	0.05	10	5.58	1345	1	0.05	215	1670	3	0.03	<2	22	224
K270806		10	1	0.08	10	5.18	736	2	0.10	240	1690	3	0.05	<2	6	131
K270807		10	<1	0.13	10	0.99	224	2	0.11	24	790	5	0.02	<2	3	99
K270808		10	<1	0.31	10	0.97	231	3	0.15	23	690	2	0.02	<2	3	66
K270809		10	<1	0.15	10	0.64	168	5	0.11	6	640	2	0.02	<2	3	53
K270810		10	<1	0.21	10	1.16	338	3	0.13	24	700	<2	0.02	<2	5	73
K270811		10	<1	0.18	20	1.15	441	2	0.09	16	740	2	0.02	<2	5	66
K270812		10	<1	0.19	20	1.16	470	1	0.08	12	750	3	0.03	<2	6	68
K270813		<10	<1	0.28	20	0.81	356	3	0.12	11	750	<2	0.04	<2	4	58
K270814		<10	<1	0.23	10	0.86	385	3	0.11	10	730	2	0.04	<2	5	59
K270815		10	1	0.13	10	4.53	824	2	0.11	181	1580	4	0.07	<2	9	169
K270816		10	<1	0.13	10	3.72	708	2	0.08	135	1370	2	0.04	<2	10	129
K270817		<10	<1	0.21	10	0.70	317	3	0.12	11	720	2	0.03	<2	3	47
K270818		<10	<1	0.22	10	0.74	348	5	0.11	9	740	<2	0.04	<2	3	54
K270819		<10	1	0.27	10	0.69	307	5	0.13	11	730	3	0.04	<2	3	51
K270820		<10	<1	0.18	10	0.71	282	2	0.11	25	620	3	0.05	<2	4	48
K270821		10	1	0.17	10	0.52	163	4	0.14	17	210	4	0.05	<2	4	55
K270822		10	<1	0.52	10	0.75	172	4	0.12	23	230	4	0.08	<2	5	46
K270823		10	<1	0.39	10	0.73	177	3	0.15	22	270	5	0.09	<2	5	57
K270824		10	<1	0.74	20	1.16	192	6	0.12	39	560	3	0.20	<2	6	45
K270825		10	<1	0.62	20	0.90	211	5	0.15	28	930	6	1.50	<2	6	52
K270826		10	<1	0.38	30	1.14	196	5	0.26	30	920	5	1.29	<2	6	115
K270827		10	<1	0.16	30	1.24	294	4	0.25	38	750	5	1.95	<2	6	111
K270828		10	<1	0.61	30	0.98	257	3	0.22	22	420	2	0.77	<2	7	96
K270829		10	<1	0.15	20	0.43	176	4	0.25	15	850	4	1.85	<2	3	130
K270830		<10	<1	0.16	10	0.62	199	6	0.13	25	840	9	1.47	<2	4	68
K270831		<10	<1	0.17	10	0.35	165	5	0.18	17	1080	5	1.26	<2	2	122
K270832		<10	<1	0.18	10	0.47	235	4	0.13	15	760	4	0.36	<2	2	61
K270833		<10	<1	0.16	10	0.51	214	3	0.11	14	620	2	0.18	<2	2	47
K270834		<10	<1	0.15	10	0.45	167	8	0.09	13	570	3	0.38	<2	1	33
K270835		<10	<1	0.14	10	0.53	225	5	0.12	13	590	3	0.06	<2	2	42
J981400		<10	<1	0.26	10	0.85	408	7	0.02	11	590	5	0.50	<2	5	139
J981401		<10	<1	0.27	10	1.06	450	6	0.05	13	620	5	0.20	<2	7	190
J981402		<10	<1	0.22	10	0.61	362	4	0.04	12	640	3	0.05	<2	7	92
J981403		<10	<1	0.26	10	0.78	338	3	0.07	12	600	2	0.05	<2	5	73
J981404		<10	<1	0.23	10	0.69	357	3	0.06	12	620	3	0.06	<2	5	49

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CERTIFICATE OF ANALYSIS WH11134772

Sample Description	Method / Analyte / Units / LOR	ME- ICP41 Th ppm 20	ME- ICP41 Ti % 0.01	ME- ICP41 Tl ppm 10	ME- ICP41 U ppm 10	ME- ICP41 V ppm 1	ME- ICP41 W ppm 10	ME- ICP41 Zn ppm 2
K270801		<20	0.16	<10	<10	82	<10	34
K270802		<20	0.13	<10	<10	40	<10	15
K270803		<20	0.13	<10	<10	36	<10	12
K270804		<20	0.15	<10	<10	51	<10	21
K270805		<20	0.11	<10	<10	177	<10	76
K270806		<20	0.23	<10	<10	124	<10	70
K270807		<20	0.15	<10	<10	44	<10	19
K270808		<20	0.17	<10	<10	56	<10	19
K270809		<20	0.13	<10	<10	39	<10	15
K270810		<20	0.13	<10	<10	63	<10	23
K270811		<20	0.07	<10	<10	71	<10	30
K270812		<20	0.05	<10	<10	73	<10	33
K270813		<20	0.13	<10	<10	75	<10	23
K270814		<20	0.12	<10	<10	78	<10	26
K270815		<20	0.19	<10	<10	132	<10	64
K270816		<20	0.15	<10	<10	116	<10	54
K270817		<20	0.16	<10	<10	77	<10	23
K270818		<20	0.14	<10	<10	81	<10	24
K270819		<20	0.16	<10	<10	78	<10	23
K270820		<20	0.12	<10	<10	45	<10	28
K270821		<20	0.09	<10	<10	30	<10	16
K270822		<20	0.13	<10	<10	35	<10	21
K270823		<20	0.12	<10	<10	36	<10	18
K270824		<20	0.20	<10	<10	49	<10	23
K270825		<20	0.19	<10	<10	40	<10	27
K270826		<20	0.18	<10	<10	60	<10	25
K270827		<20	0.19	<10	<10	52	<10	28
K270828		20	0.21	<10	<10	43	<10	30
K270829		<20	0.16	<10	<10	37	<10	21
K270830		<20	0.14	<10	<10	48	<10	33
K270831		<20	0.15	<10	<10	37	10	25
K270832		<20	0.15	<10	<10	47	<10	17
K270833		<20	0.15	<10	<10	49	<10	15
K270834		<20	0.13	<10	<10	44	<10	13
K270835		<20	0.15	<10	<10	50	<10	15
J981400		<20	0.02	<10	<10	40	<10	19
J981401		<20	0.05	<10	<10	58	10	26
J981402		<20	0.05	<10	<10	51	<10	21
J981403		<20	0.06	<10	<10	55	<10	23
J981404		<20	0.06	<10	<10	50	<10	22

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To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016-510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 15-AUG-2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11134772

Sample Description	WEI-21	Au-AA24	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
Analyte	Recvd Wt.	Au	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
Units	kg	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
LOR	0.02	0.005	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
K270751	0.52	<0.005	<0.2	2.69	53	<10	190	1.5	<2	1.21	<0.5	32	84	196	6.70
K270752	2.51	<0.005	<0.2	1.98	8	<10	100	0.8	<2	2.66	<0.5	15	67	50	4.11
K270753	0.59	<0.005	<0.2	2.62	4	<10	200	0.9	<2	1.59	<0.5	16	85	55	4.34
K270754	0.10	<0.005	<0.2	3.03	3	<10	300	1.1	2	1.05	<0.5	15	96	42	4.24
K270755	0.41	<0.005	0.2	3.18	2	<10	300	1.0	<2	2.28	<0.5	20	88	183	4.37
K270756	0.18	<0.005	0.2	2.21	11	<10	140	1.0	<2	3.13	<0.5	22	61	293	5.49
K270757	1.12	0.006	<0.2	3.65	3	<10	290	0.7	<2	5.41	<0.5	14	69	511	4.70
K270758	0.30	0.005	0.2	2.80	5	<10	340	<0.5	<2	2.04	<0.5	30	143	540	5.25
K270759	0.30	<0.005	<0.2	3.19	4	<10	160	1.2	<2	1.61	<0.5	16	82	99	4.52
K270760	0.18	<0.005	<0.2	2.69	10	<10	120	0.9	<2	1.19	<0.5	13	73	71	3.67
K270761	0.12	<0.005	<0.2	2.63	10	<10	200	0.8	<2	1.44	<0.5	16	91	50	3.47
K270762	0.36	<0.005	<0.2	1.40	4	<10	100	<0.5	2	0.75	<0.5	8	60	37	2.61
K270763	0.65	<0.005	0.2	4.53	2	<10	220	0.5	<2	2.17	<0.5	42	210	305	5.92
K270764	0.22	<0.005	<0.2	2.66	4	<10	230	0.6	<2	1.65	<0.5	12	62	67	3.11
K270765	0.49	<0.005	<0.2	2.19	2	<10	100	0.6	2	0.91	<0.5	7	51	44	2.57
K270766	0.39	<0.005	<0.2	1.74	2	<10	70	0.6	<2	0.73	<0.5	9	55	30	2.58
K270767	0.38	<0.005	<0.2	1.57	3	<10	80	0.5	<2	0.65	<0.5	6	50	32	2.22
K270768	0.25	<0.005	<0.2	3.64	<2	<10	210	0.8	2	1.37	<0.5	18	76	96	4.54
K270769	0.34	<0.005	<0.2	1.47	<2	<10	110	0.5	<2	0.51	<0.5	8	46	47	2.65
K270770	0.17	<0.005	<0.2	4.26	2	<10	240	<0.5	<2	1.93	<0.5	32	231	43	4.85

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VANCOUVER BC V6B 1L8

Finalized Date: 15- AUG- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11134772

Sample Description	Method	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41
	Analyte	Ga	Hg	K	La	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Sc	Sr
	Units	ppm	ppm	%	ppm	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm
	LOR	10	1	0.01	10	0.01	5	1	0.01	1	10	2	0.01	2	1	1
K270751		10	<1	0.36	20	1.32	1015	15	0.04	70	1530	8	0.09	5	14	72
K270752		10	<1	0.30	20	1.16	621	5	0.01	41	370	8	0.15	<2	8	93
K270753		10	<1	0.49	20	1.29	558	4	0.07	42	330	6	0.24	<2	9	77
K270754		10	<1	0.62	20	1.57	504	3	0.14	45	260	10	0.23	<2	8	66
K270755		10	<1	0.58	20	1.23	440	3	0.19	49	590	3	0.68	<2	9	153
K270756		10	<1	0.34	20	1.60	895	5	0.03	50	780	8	1.10	<2	11	131
K270757		10	<1	0.51	10	0.93	926	6	0.16	29	630	2	0.56	<2	8	308
K270758		10	<1	0.80	10	2.17	468	4	0.16	130	1490	2	0.94	<2	6	157
K270759		10	<1	0.47	20	1.40	491	2	0.10	44	400	4	0.30	<2	7	150
K270760		10	<1	0.36	20	1.51	442	3	0.09	36	270	5	0.23	<2	7	65
K270761		10	<1	0.43	20	2.06	488	4	0.11	66	520	5	0.23	<2	7	82
K270762		10	<1	0.24	20	0.96	395	5	0.03	28	200	6	0.27	<2	3	33
K270763		10	<1	1.14	20	3.62	418	3	0.29	223	2420	5	1.64	<2	7	195
K270764		10	<1	0.63	20	1.49	411	5	0.14	34	910	6	0.38	<2	6	79
K270765		10	<1	0.68	10	1.20	330	4	0.12	21	240	5	0.40	<2	6	53
K270766		10	<1	0.45	20	1.02	310	3	0.05	25	280	5	0.19	<2	5	39
K270767		10	<1	0.53	20	0.91	278	4	0.09	19	260	4	0.13	<2	5	31
K270768		10	<1	1.09	20	1.40	393	3	0.18	36	670	8	0.37	<2	12	58
K270769		10	<1	0.40	20	0.84	271	4	0.04	22	200	4	0.18	<2	5	24
K270770		10	<1	2.04	20	4.03	348	4	0.31	192	2280	4	0.34	<2	8	188

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Project: Hopper

CERTIFICATE OF ANALYSIS WH11134772

Sample Description	Method Analyte Units LOR	ME-ICP41 Th ppm 20	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
K270751		<20	0.07	<10	<10	86	<10	124
K270752		<20	0.04	<10	<10	58	<10	74
K270753		<20	0.12	<10	<10	78	<10	77
K270754		<20	0.15	<10	<10	84	<10	78
K270755		<20	0.21	<10	<10	78	<10	62
K270756		<20	0.06	<10	<10	79	<10	93
K270757		<20	0.20	<10	<10	70	30	42
K270758		<20	0.35	<10	<10	123	<10	60
K270759		<20	0.11	<10	<10	82	<10	65
K270760		<20	0.10	<10	<10	65	<10	57
K270761		<20	0.12	<10	<10	74	<10	60
K270762		<20	0.03	<10	<10	38	<10	45
K270763		<20	0.47	<10	<10	119	<10	71
K270764		<20	0.18	<10	<10	65	<10	48
K270765		<20	0.15	<10	<10	42	<10	40
K270766		<20	0.06	<10	<10	42	<10	43
K270767		<20	0.13	<10	<10	39	10	35
K270768		<20	0.25	<10	<10	125	<10	75
K270769		<20	0.07	<10	<10	38	10	37
K270770		<20	0.62	<10	<10	136	<10	63

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To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 17- AUG- 2011
This copy reported on 11- JAN- 2012
Account: F

CERTIFICATE WH11134773

Project: Hopper

P.O. No.:

This report is for 150 Percussion samples submitted to our lab in Whitehorse, YT, Canada on 16- JUL- 2011.

The following have access to data associated with this certificate:

JOAN MARIACHER	HEATHER SMITH	

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
CRU- 31	Fine crushing - 70% <2mm
CRU- QC	Crushing QC Test
PUL- QC	Pulverizing QC Test
SPL- 21	Split sample - riffle splitter
PUL- 31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au- AA24	Au 50g FA AA finish	AAS
ME- ICP41	35 Element Aqua Regia ICP- AES	ICP- AES

To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
ATTN: JOAN MARIACHER
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

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

ALS Canada Ltd.

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Finalized Date: 17- AUG- 2011
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Project: Hopper

CERTIFICATE OF ANALYSIS WH11134773

Sample Description	Method / Analyte / Units / LOR	WEI- 21 Recvd Wt. kg 0.02	Au- AA24 Au ppm 0.005	ME- ICP41 Ag ppm 0.2	ME- ICP41 Al % 0.01	ME- ICP41 As ppm 2	ME- ICP41 B ppm 10	ME- ICP41 Ba ppm 10	ME- ICP41 Be ppm 0.5	ME- ICP41 Bi ppm 2	ME- ICP41 Ca % 0.01	ME- ICP41 Cd ppm 0.5	ME- ICP41 Co ppm 1	ME- ICP41 Cr ppm 1	ME- ICP41 Cu ppm 1	ME- ICP41 Fe % 0.01
K863701		0.49	<0.005	0.3	0.60	7	<10	400	0.7	<2	3.14	<0.5	9	7	771	2.22
K863702		0.52	<0.005	<0.2	0.70	2	<10	1250	0.5	<2	2.64	<0.5	10	20	129	2.68
K863703		0.18	<0.005	<0.2	0.88	<2	<10	500	<0.5	<2	1.02	<0.5	10	39	36	2.89
K863704		0.36	<0.005	<0.2	0.73	<2	<10	610	<0.5	<2	1.17	<0.5	9	39	81	2.78
K863705		0.20	<0.005	<0.2	0.83	<2	<10	460	<0.5	<2	1.24	<0.5	10	39	16	2.81
K863706		0.59	<0.005	<0.2	0.82	2	<10	440	<0.5	<2	2.15	<0.5	10	28	291	2.65
K863707		0.73	<0.005	<0.2	0.74	<2	<10	910	<0.5	<2	1.26	<0.5	10	35	266	2.60
K863708		0.46	<0.005	<0.2	0.78	3	<10	970	<0.5	<2	1.61	<0.5	10	35	66	2.74
K863709		0.81	<0.005	<0.2	0.86	<2	<10	310	<0.5	<2	2.09	<0.5	10	26	167	2.56
K863710		0.90	<0.005	<0.2	0.97	10	<10	210	<0.5	<2	2.40	<0.5	12	19	63	2.44
K863711		1.56	<0.005	<0.2	1.00	9	<10	440	0.5	<2	2.34	<0.5	12	24	210	2.84
K863712		1.48	<0.005	0.2	1.13	4	<10	360	<0.5	<2	2.26	<0.5	11	30	393	2.90
K863713		0.66	<0.005	<0.2	0.86	<2	<10	610	<0.5	<2	0.96	<0.5	9	40	149	2.69
K863714		1.28	<0.005	0.3	0.93	9	<10	360	<0.5	<2	2.87	<0.5	11	20	688	2.62
K863715		1.67	<0.005	0.2	0.85	12	<10	210	<0.5	<2	2.52	<0.5	10	16	515	2.28
K863716		1.11	<0.005	<0.2	0.77	<2	<10	500	<0.5	<2	2.05	<0.5	10	29	60	2.39
K863717		1.79	<0.005	<0.2	0.71	<2	<10	530	<0.5	<2	1.19	<0.5	10	33	141	2.44
K863718		1.31	<0.005	<0.2	0.57	<2	<10	770	0.5	<2	2.79	<0.5	9	12	390	2.20
K863719		1.09	<0.005	<0.2	0.68	9	<10	480	<0.5	<2	2.50	<0.5	10	13	219	2.01
K863720		0.97	<0.005	<0.2	0.63	11	<10	480	<0.5	<2	3.39	<0.5	11	12	232	2.25
K863721		0.90	<0.005	<0.2	0.90	<2	<10	440	<0.5	<2	3.07	<0.5	9	19	70	2.53
K863722		1.06	<0.005	<0.2	0.56	4	<10	530	<0.5	<2	3.40	<0.5	9	8	110	2.20
K863723		1.63	<0.005	<0.2	1.11	<2	<10	340	0.6	<2	2.39	<0.5	10	21	259	2.63
K863724		0.62	<0.005	<0.2	0.71	7	<10	240	<0.5	<2	3.44	<0.5	9	12	267	2.55
K863725		1.62	<0.005	<0.2	0.80	2	<10	610	<0.5	<2	2.15	<0.5	7	24	72	2.40
K863726		0.37	<0.005	<0.2	0.75	5	<10	680	<0.5	<2	2.97	<0.5	7	16	43	2.34
K863727		<0.02	<0.005	<0.2	0.60	4	<10	470	<0.5	<2	2.85	<0.5	7	11	157	1.99
K863728		0.25	<0.005	0.2	0.95	8	<10	420	<0.5	<2	2.12	<0.5	7	23	498	2.46
K863729		0.39	<0.005	<0.2	0.92	2	<10	280	<0.5	<2	1.30	<0.5	7	28	185	2.32
K863730		1.88	<0.005	<0.2	0.72	3	<10	530	<0.5	<2	2.01	<0.5	8	22	105	2.32
K863731		0.49	<0.005	<0.2	0.70	<2	<10	480	<0.5	<2	1.42	<0.5	7	31	221	2.34
K863732		0.62	<0.005	<0.2	0.68	2	<10	330	<0.5	<2	1.47	<0.5	7	31	109	2.46
K863733		0.97	<0.005	<0.2	0.72	<2	<10	540	<0.5	<2	1.53	<0.5	7	29	374	2.44
K863734		0.46	<0.005	<0.2	0.82	3	<10	250	<0.5	<2	0.97	<0.5	8	37	254	2.54
K863735		0.48	<0.005	<0.2	0.83	<2	<10	300	<0.5	<2	1.16	<0.5	7	37	53	2.51
K863736		0.39	<0.005	<0.2	0.82	2	<10	470	<0.5	<2	1.16	<0.5	7	37	65	2.56
K863737		0.62	<0.005	<0.2	0.83	2	<10	1810	0.5	<2	3.08	<0.5	8	20	302	2.50
K863738		0.64	<0.005	<0.2	0.90	<2	<10	340	<0.5	<2	1.85	<0.5	8	35	138	2.64
K863739		0.42	<0.005	<0.2	0.75	<2	<10	520	<0.5	<2	0.71	<0.5	6	35	80	2.47
K863740		0.55	<0.005	<0.2	0.78	<2	<10	320	<0.5	<2	1.04	<0.5	7	36	67	2.56

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CERTIFICATE OF ANALYSIS WH11134773

Sample Description	Method	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41
	Analyte	Ga	Hg	K	La	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Sc	Sr
	Units	ppm	ppm	%	ppm	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm
	LOR	10	1	0.01	10	0.01	5	1	0.01	1	10	2	0.01	2	1	1
K863701		<10	<1	0.26	10	1.12	409	39	0.02	8	590	8	0.19	5	6	128
K863702		<10	<1	0.26	10	1.06	499	18	0.03	11	640	5	0.07	<2	5	149
K863703		<10	<1	0.31	10	0.81	362	6	0.12	13	620	2	<0.01	<2	4	70
K863704		<10	<1	0.27	10	0.76	379	15	0.10	12	680	<2	0.01	<2	4	92
K863705		<10	<1	0.29	10	0.83	367	8	0.11	13	630	2	<0.01	<2	5	81
K863706		<10	<1	0.18	10	0.94	371	27	0.04	13	640	3	0.13	<2	6	137
K863707		<10	<1	0.20	10	0.85	330	48	0.08	13	610	<2	0.05	<2	4	121
K863708		<10	<1	0.26	10	0.84	355	50	0.08	12	670	2	0.10	<2	5	117
K863709		<10	<1	0.23	10	0.92	360	28	0.04	11	640	4	0.12	<2	5	114
K863710		<10	<1	0.14	20	0.86	442	16	0.01	14	660	4	0.23	<2	7	121
K863711		<10	<1	0.21	10	1.01	428	29	0.03	15	680	5	0.24	<2	7	132
K863712		<10	<1	0.22	10	1.07	422	7	0.04	14	660	3	0.16	<2	6	144
K863713		<10	<1	0.30	10	0.72	291	6	0.13	12	650	2	0.02	<2	3	91
K863714		<10	<1	0.11	10	1.02	448	104	0.01	12	650	4	0.26	2	7	171
K863715		<10	<1	0.10	10	0.90	408	17	0.01	12	600	5	0.22	<2	7	161
K863716		<10	<1	0.26	10	0.91	413	10	0.04	11	580	3	<0.01	<2	6	162
K863717		<10	<1	0.31	10	0.83	377	19	0.06	11	550	2	0.01	<2	5	91
K863718		<10	<1	0.24	10	0.98	398	33	0.01	9	570	2	0.06	3	6	155
K863719		<10	<1	0.13	10	0.81	393	13	0.01	10	540	4	0.22	<2	6	156
K863720		<10	<1	0.09	10	1.10	437	6	0.01	13	540	7	0.32	<2	6	225
K863721		<10	<1	0.16	10	1.08	436	7	0.02	9	640	4	0.07	<2	7	258
K863722		<10	<1	0.19	10	1.15	437	40	0.01	8	450	5	0.13	<2	5	226
K863723		<10	<1	0.22	10	1.02	436	30	0.02	11	630	6	0.08	<2	7	206
K863724		<10	<1	0.17	10	1.22	507	8	0.02	15	590	9	0.25	<2	7	210
K863725		<10	<1	0.22	10	0.98	402	7	0.04	10	520	3	0.08	<2	5	168
K863726		<10	<1	0.21	10	1.15	480	5	0.02	9	560	4	0.09	<2	7	215
K863727		<10	<1	0.16	10	0.95	396	39	0.01	8	530	4	0.14	<2	6	200
K863728		<10	<1	0.17	10	0.79	405	18	0.05	12	690	4	0.10	<2	5	110
K863729		<10	<1	0.14	10	0.65	276	5	0.06	11	580	2	0.03	<2	4	65
K863730		<10	<1	0.21	10	0.83	362	4	0.05	10	540	2	0.07	<2	5	109
K863731		<10	<1	0.17	10	0.74	279	8	0.07	11	530	2	0.03	<2	4	81
K863732		<10	<1	0.21	10	0.77	266	5	0.07	11	590	<2	0.02	<2	4	99
K863733		<10	<1	0.24	10	0.78	271	4	0.07	11	580	4	0.05	<2	4	94
K863734		<10	<1	0.15	10	0.74	227	5	0.09	12	610	<2	0.03	<2	3	53
K863735		<10	<1	0.16	10	0.72	237	5	0.09	11	600	<2	0.02	<2	3	58
K863736		<10	<1	0.19	10	0.77	250	3	0.09	12	610	2	0.02	<2	4	70
K863737		<10	<1	0.30	10	1.13	459	3	0.05	10	620	4	0.16	<2	6	213
K863738		<10	<1	0.33	10	0.80	320	5	0.07	11	670	2	0.02	<2	4	105
K863739		<10	<1	0.30	10	0.62	222	3	0.11	10	570	<2	0.02	<2	2	54
K863740		<10	<1	0.26	10	0.75	270	3	0.11	10	590	<2	0.01	<2	4	73

ALS Minerals

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To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 17- AUG- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11134773

Sample Description	Method Analyte Units LOR	ME- ICP41 Th ppm 20	ME- ICP41 Ti % 0.01	ME- ICP41 Tl ppm 10	ME- ICP41 U ppm 10	ME- ICP41 V ppm 1	ME- ICP41 W ppm 10	ME- ICP41 Zn ppm 2
K863701		<20	<0.01	<10	<10	21	<10	23
K863702		<20	0.02	<10	<10	40	<10	35
K863703		<20	0.13	<10	<10	69	<10	25
K863704		<20	0.09	<10	<10	68	<10	25
K863705		<20	0.10	<10	<10	69	<10	25
K863706		<20	0.05	<10	<10	55	<10	27
K863707		<20	0.08	<10	<10	62	10	23
K863708		<20	0.08	<10	<10	59	<10	22
K863709		<20	0.05	<10	<10	51	10	23
K863710		<20	0.01	<10	<10	42	<10	23
K863711		<20	0.04	<10	<10	51	<10	28
K863712		<20	0.05	<10	<10	59	<10	29
K863713		<20	0.13	<10	<10	67	10	20
K863714		<20	0.01	<10	<10	47	<10	34
K863715		<20	<0.01	<10	<10	39	<10	26
K863716		<20	0.06	<10	<10	53	<10	29
K863717		<20	0.09	<10	<10	53	<10	26
K863718		<20	<0.01	<10	<10	26	<10	22
K863719		<20	<0.01	<10	<10	31	<10	26
K863720		<20	<0.01	<10	<10	34	<10	33
K863721		<20	0.01	<10	<10	45	<10	28
K863722		<20	<0.01	<10	<10	24	<10	25
K863723		<20	0.02	<10	<10	45	<10	36
K863724		<20	<0.01	<10	<10	33	<10	37
K863725		<20	0.06	<10	<10	50	<10	30
K863726		<20	0.01	<10	<10	39	<10	29
K863727		<20	<0.01	<10	<10	33	<10	24
K863728		<20	0.05	<10	<10	52	<10	28
K863729		<20	0.08	<10	<10	51	<10	17
K863730		<20	0.02	<10	<10	40	<10	18
K863731		<20	0.07	<10	<10	55	10	15
K863732		<20	0.09	<10	<10	56	10	14
K863733		<20	0.09	<10	<10	54	<10	14
K863734		<20	0.12	<10	<10	63	<10	13
K863735		<20	0.11	<10	<10	64	10	13
K863736		<20	0.11	<10	<10	64	<10	15
K863737		<20	0.02	<10	<10	38	<10	21
K863738		<20	0.09	<10	<10	62	<10	15
K863739		<20	0.15	<10	<10	63	<10	13
K863740		<20	0.10	<10	<10	63	<10	14

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Finalized Date: 17- AUG- 2011
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Project: Hopper

CERTIFICATE OF ANALYSIS WH11134773

Sample Description	WEI-21 Recvd Wt. kg	Au-AA24 Au ppm	ME-ICP41 Ag ppm	ME-ICP41 Al %	ME-ICP41 As ppm	ME-ICP41 B ppm	ME-ICP41 Ba ppm	ME-ICP41 Be ppm	ME-ICP41 Bi ppm	ME-ICP41 Ca %	ME-ICP41 Cd ppm	ME-ICP41 Co ppm	ME-ICP41 Cr ppm	ME-ICP41 Cu ppm	ME-ICP41 Fe %
LOR	0.02	0.005	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
K863741	0.49	<0.005	<0.2	0.70	<2	<10	270	<0.5	<2	0.54	<0.5	6	36	277	2.47
K863742	0.31	<0.005	<0.2	0.76	3	<10	290	<0.5	<2	0.79	<0.5	7	38	166	2.49
K863743	0.53	<0.005	<0.2	0.80	<2	<10	360	<0.5	<2	0.87	<0.5	7	42	129	2.71
K863744	0.76	<0.005	<0.2	0.74	2	<10	440	<0.5	<2	1.53	<0.5	7	34	157	2.51
K863745	0.71	<0.005	<0.2	0.82	2	<10	560	<0.5	<2	1.52	<0.5	7	34	154	2.62
K863746	0.55	<0.005	<0.2	0.73	<2	<10	450	<0.5	<2	0.90	<0.5	6	37	363	2.51
K863747	0.77	<0.005	0.2	0.81	2	<10	860	<0.5	<2	1.79	<0.5	8	34	373	2.61
K863748	0.40	<0.005	<0.2	0.77	2	<10	320	<0.5	<2	0.61	<0.5	6	37	186	2.42
K863749	0.99	<0.005	0.2	0.83	<2	<10	330	<0.5	<2	1.09	<0.5	7	37	308	2.65
K863750	0.62	<0.005	<0.2	0.85	<2	<10	300	<0.5	<2	0.87	<0.5	7	40	297	2.62
K863751	0.93	<0.005	<0.2	0.81	2	<10	310	<0.5	<2	0.84	<0.5	6	38	169	2.56
K863752	0.73	<0.005	<0.2	0.79	<2	<10	300	<0.5	<2	1.28	<0.5	7	35	213	2.54
K863753	1.79	<0.005	<0.2	0.84	<2	<10	420	<0.5	<2	1.29	<0.5	7	32	228	2.51
K863754	1.22	<0.005	<0.2	0.80	<2	<10	310	<0.5	<2	0.86	<0.5	6	38	186	2.51
K863755	1.18	<0.005	<0.2	0.76	<2	<10	360	<0.5	<2	0.89	<0.5	7	37	359	2.41
K863756	1.17	<0.005	<0.2	0.80	2	<10	320	<0.5	<2	0.77	<0.5	6	37	200	2.41
K863757	1.32	<0.005	<0.2	0.69	2	<10	800	<0.5	<2	2.56	<0.5	7	26	206	2.46
K863758	1.81	<0.005	0.3	0.81	<2	<10	410	<0.5	<2	0.81	<0.5	8	39	308	2.59
K863759	1.50	<0.005	<0.2	0.81	<2	<10	470	<0.5	<2	1.55	<0.5	8	34	185	2.57
K863760	2.81	<0.005	0.5	0.75	3	<10	80	0.6	<2	3.00	<0.5	8	13	717	2.34
K863761	2.22	<0.005	0.5	0.87	<2	<10	310	<0.5	<2	1.79	<0.5	8	33	847	2.63
K863762	1.89	<0.005	0.4	0.95	<2	<10	470	<0.5	<2	2.21	<0.5	8	26	1140	2.51
K863763	1.01	<0.005	<0.2	1.42	2	<10	840	<0.5	<2	2.18	<0.5	11	98	151	2.83
K863764	1.86	<0.005	<0.2	0.94	<2	<10	370	<0.5	<2	1.32	<0.5	9	45	294	2.68
K863765	1.59	<0.005	<0.2	0.63	2	<10	540	<0.5	<2	2.38	<0.5	8	24	252	2.49
K863766	0.58	<0.005	0.2	0.75	2	<10	620	<0.5	<2	1.72	<0.5	9	35	499	2.77
K863767	0.50	0.006	<0.2	0.93	<2	<10	350	<0.5	<2	1.06	<0.5	7	40	426	2.73
K863768	0.16	<0.005	0.2	1.13	5	<10	410	0.5	<2	1.18	<0.5	8	29	350	2.63
K863769	1.27	<0.005	0.2	1.10	4	<10	410	<0.5	<2	1.75	<0.5	7	26	260	2.23
K863770	0.93	<0.005	<0.2	1.28	<2	<10	350	<0.5	<2	1.85	<0.5	8	24	185	3.03
K863771	1.94	<0.005	<0.2	1.20	3	<10	320	<0.5	<2	1.99	<0.5	8	31	198	2.83
K863772	1.52	<0.005	<0.2	1.18	3	<10	330	<0.5	<2	2.30	<0.5	9	35	235	2.78
K863773	1.34	<0.005	0.2	0.57	<2	<10	950	0.5	<2	3.79	<0.5	7	11	721	2.24
K863774	1.17	<0.005	<0.2	0.63	<2	<10	1080	0.5	<2	2.38	<0.5	6	16	303	2.10
K863775	0.31	<0.005	0.2	0.63	<2	<10	590	0.6	<2	2.33	<0.5	7	12	342	2.06
K863776	0.21	<0.005	<0.2	0.66	3	<10	380	0.7	<2	2.62	<0.5	7	9	129	2.16
K863777	0.33	0.005	<0.2	0.67	3	<10	480	0.6	<2	2.42	<0.5	7	12	100	2.14
K863778	0.23	<0.005	<0.2	0.58	<2	<10	1250	0.5	<2	2.78	<0.5	6	14	65	2.11
K863779	0.35	<0.005	<0.2	0.66	<2	<10	490	0.6	<2	2.21	<0.5	6	17	37	2.10
K863780	0.56	<0.005	<0.2	0.72	<2	<10	360	0.5	<2	2.45	<0.5	7	19	52	2.12

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Finalized Date: 17- AUG- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11134773

Sample Description	Method / Analyte / Units / LOR	ME- ICP41 Ga ppm 10	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1
K863741		<10	<1	0.24	10	0.51	184	7	0.11	9	600	<2	0.03	<2	1	39
K863742		<10	<1	0.24	10	0.64	218	4	0.11	10	650	<2	0.02	<2	3	52
K863743		<10	<1	0.30	10	0.73	246	4	0.11	11	640	<2	0.02	<2	3	57
K863744		<10	<1	0.23	10	0.82	296	4	0.09	11	630	2	0.03	<2	4	90
K863745		<10	<1	0.25	10	0.79	309	4	0.11	11	630	2	0.03	<2	4	72
K863746		<10	<1	0.22	10	0.63	221	8	0.10	10	610	<2	0.05	<2	3	50
K863747		<10	<1	0.23	10	0.83	302	6	0.07	11	640	2	0.08	<2	4	113
K863748		<10	<1	0.26	10	0.55	173	3	0.10	10	620	<2	0.02	<2	1	38
K863749		<10	<1	0.23	10	0.70	245	4	0.09	11	660	2	0.10	<2	3	66
K863750		<10	<1	0.20	10	0.69	206	4	0.10	11	650	2	0.04	<2	2	54
K863751		<10	<1	0.24	10	0.68	216	4	0.11	10	600	<2	0.02	<2	2	60
K863752		<10	<1	0.23	10	0.78	263	6	0.08	11	610	2	0.06	<2	4	98
K863753		<10	<1	0.29	10	0.83	267	4	0.07	12	590	2	0.08	<2	4	101
K863754		<10	<1	0.22	10	0.64	205	4	0.10	10	620	2	0.03	<2	2	61
K863755		<10	<1	0.21	10	0.63	197	9	0.09	10	620	<2	0.05	<2	2	66
K863756		<10	<1	0.26	10	0.63	199	4	0.11	11	600	<2	0.02	<2	2	57
K863757		<10	<1	0.23	10	1.04	348	6	0.05	11	640	4	0.11	<2	6	244
K863758		<10	<1	0.25	10	0.73	223	5	0.09	11	570	<2	0.04	<2	2	72
K863759		<10	<1	0.23	10	0.77	288	8	0.05	13	570	2	0.14	<2	4	145
K863760		<10	<1	0.23	10	1.21	410	10	0.02	10	590	10	0.26	<2	6	273
K863761		<10	<1	0.23	20	0.98	339	9	0.06	13	630	2	0.11	<2	6	155
K863762		<10	<1	0.25	20	1.13	334	7	0.04	12	630	3	0.17	<2	6	223
K863763		10	<1	0.13	10	1.80	409	3	0.09	37	730	<2	0.07	<2	7	192
K863764		10	<1	0.23	10	1.06	300	6	0.07	15	600	2	0.07	<2	5	105
K863765		<10	<1	0.26	20	1.07	386	5	0.04	12	640	3	0.12	<2	6	245
K863766		<10	<1	0.34	20	1.03	334	22	0.07	13	650	2	0.14	<2	5	162
K863767		10	<1	0.23	10	0.82	250	8	0.11	12	680	2	0.08	<2	3	81
K863768		<10	<1	0.19	20	0.50	367	12	0.07	16	630	4	0.08	<2	5	71
K863769		<10	<1	0.15	10	0.43	362	10	0.06	14	650	5	0.11	<2	4	114
K863770		10	<1	0.17	20	0.73	474	9	0.08	12	960	5	0.08	<2	6	125
K863771		10	<1	0.26	20	0.81	406	7	0.10	15	770	4	0.06	<2	5	119
K863772		10	1	0.26	20	0.98	428	12	0.09	19	800	5	0.12	<2	6	148
K863773		<10	<1	0.24	10	1.36	386	24	0.05	11	480	6	0.24	<2	4	354
K863774		<10	<1	0.20	20	0.88	341	9	0.05	8	600	2	0.19	<2	6	251
K863775		<10	<1	0.22	20	0.95	368	7	0.04	7	630	3	0.19	<2	6	284
K863776		<10	<1	0.29	20	0.99	405	5	0.03	7	570	6	0.58	2	5	322
K863777		<10	<1	0.25	20	0.88	379	6	0.04	8	640	6	0.54	2	5	289
K863778		<10	<1	0.24	20	0.99	433	3	0.05	7	580	5	0.27	<2	6	405
K863779		<10	<1	0.24	20	0.90	402	3	0.05	8	600	4	0.20	<2	6	386
K863780		<10	<1	0.25	20	1.06	445	2	0.05	11	640	10	0.09	<2	6	464

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Sample Description	Method / Analyte / Units / LOR	ME- ICP41 Th ppm 20	ME- ICP41 Ti % 0.01	ME- ICP41 Tl ppm 10	ME- ICP41 U ppm 10	ME- ICP41 V ppm 1	ME- ICP41 W ppm 10	ME- ICP41 Zn ppm 2
K863741		<20	0.15	<10	<10	63	20	10
K863742		<20	0.13	<10	<10	64	10	12
K863743		<20	0.14	<10	<10	72	<10	14
K863744		<20	0.09	<10	<10	58	<10	15
K863745		<20	0.10	<10	<10	59	<10	16
K863746		<20	0.12	<10	<10	64	10	14
K863747		<20	0.08	<10	<10	60	10	17
K863748		<20	0.16	<10	<10	66	10	12
K863749		<20	0.12	<10	<10	64	10	15
K863750		<20	0.14	<10	<10	69	10	13
K863751		<20	0.13	<10	<10	65	10	13
K863752		<20	0.09	<10	<10	59	10	15
K863753		<20	0.11	<10	<10	58	10	17
K863754		<20	0.14	<10	<10	66	10	14
K863755		<20	0.13	<10	<10	63	20	13
K863756		<20	0.14	<10	<10	65	10	13
K863757		<20	0.04	<10	<10	49	<10	17
K863758		<20	0.16	<10	<10	66	10	16
K863759		<20	0.08	<10	<10	58	<10	18
K863760		<20	<0.01	<10	<10	32	<10	21
K863761		<20	0.05	<10	<10	57	10	18
K863762		<20	0.04	<10	<10	49	10	16
K863763		<20	0.07	<10	<10	70	10	26
K863764		<20	0.11	<10	<10	67	<10	18
K863765		<20	0.04	<10	<10	45	<10	18
K863766		<20	0.09	<10	<10	62	<10	19
K863767		<20	0.15	<10	<10	68	10	15
K863768		<20	0.06	<10	<10	46	10	24
K863769		<20	0.05	<10	<10	37	<10	25
K863770		<20	0.07	<10	<10	53	<10	44
K863771		<20	0.11	<10	<10	52	<10	35
K863772		<20	0.09	<10	<10	55	<10	31
K863773		<20	0.01	<10	<10	23	<10	18
K863774		<20	<0.01	<10	<10	29	<10	14
K863775		<20	<0.01	<10	<10	24	<10	18
K863776		<20	<0.01	<10	<10	19	<10	15
K863777		<20	<0.01	<10	<10	22	<10	15
K863778		<20	<0.01	<10	<10	26	<10	18
K863779		<20	0.01	<10	<10	29	<10	16
K863780		<20	<0.01	<10	<10	33	<10	21

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To: ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 17- AUG- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11134773

Sample Description	Method	WEI- 21	Au- AA24	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41
	Analyte	Recvd Wt.	Au	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	kg	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	0.02	0.005	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
K863781		0.53	<0.005	<0.2	0.67	<2	<10	270	0.9	<2	3.88	<0.5	15	17	111	2.82
K863782		1.07	<0.005	<0.2	0.65	<2	<10	1230	0.6	<2	2.63	<0.5	6	11	127	2.02
K863783		0.28	<0.005	<0.2	0.58	2	<10	1020	0.7	<2	2.70	<0.5	6	8	105	2.05
K863784		0.26	0.005	0.3	0.67	3	<10	360	0.7	<2	2.48	<0.5	6	8	246	2.03
K863785		0.50	<0.005	<0.2	0.69	<2	<10	750	0.6	<2	3.04	<0.5	9	17	69	2.18
K863786		0.86	<0.005	0.2	0.78	2	<10	890	0.8	<2	3.98	<0.5	11	27	131	3.03
K863787		0.23	<0.005	<0.2	0.77	<2	<10	1390	0.7	<2	2.89	<0.5	8	19	114	2.23
K863788		0.78	<0.005	<0.2	0.66	<2	<10	1010	0.9	<2	2.39	<0.5	6	12	178	1.77
K863789		0.81	<0.005	<0.2	0.86	<2	<10	490	1.0	<2	2.23	<0.5	8	10	54	2.19
K863790		0.78	<0.005	<0.2	0.65	5	<10	330	1.0	<2	2.47	<0.5	7	6	28	2.00
K863791		0.74	<0.005	<0.2	0.59	2	<10	1870	0.8	<2	2.64	<0.5	6	7	18	1.69
K863792		0.18	<0.005	<0.2	0.54	<2	<10	1300	0.5	<2	2.23	<0.5	5	20	45	1.96
K863793		0.32	<0.005	<0.2	0.53	<2	<10	520	<0.5	<2	1.60	<0.5	6	27	11	2.18
K863794		0.43	<0.005	<0.2	0.50	<2	<10	420	<0.5	<2	1.40	<0.5	6	30	22	2.08
K863795		0.55	<0.005	<0.2	0.57	<2	<10	780	<0.5	<2	1.16	<0.5	6	33	43	2.11
K863796		0.89	0.005	0.7	0.54	<2	<10	490	0.5	<2	1.88	<0.5	8	17	3340	2.18
K863797		0.47	<0.005	<0.2	0.56	<2	<10	310	<0.5	<2	1.40	<0.5	8	27	104	2.10
K863798		0.59	<0.005	<0.2	0.52	2	<10	370	<0.5	<2	1.20	<0.5	7	26	223	2.02
K863799		0.66	<0.005	<0.2	0.53	<2	<10	130	<0.5	<2	2.24	<0.5	8	18	48	2.12
K863800		0.49	<0.005	<0.2	0.59	<2	<10	140	0.5	<2	2.08	<0.5	9	13	58	2.05
K863801		0.78	<0.005	<0.2	0.68	<2	<10	140	<0.5	<2	1.86	<0.5	7	14	260	1.92
K863802		0.92	<0.005	0.2	0.61	<2	<10	500	<0.5	<2	1.56	<0.5	7	24	2230	2.21
K863803		0.87	<0.005	<0.2	0.79	2	<10	190	0.6	<2	1.57	<0.5	9	14	204	1.84
K863804		0.50	<0.005	<0.2	0.66	3	<10	180	0.7	<2	0.79	<0.5	8	6	697	1.45
K863805		0.56	<0.005	<0.2	0.85	<2	<10	130	0.5	<2	0.56	<0.5	7	10	733	1.81
K863806		0.72	<0.005	<0.2	0.65	2	<10	130	0.5	2	1.24	<0.5	6	9	278	1.59
K863807		0.70	<0.005	<0.2	0.84	<2	<10	140	<0.5	<2	1.31	<0.5	8	16	226	1.82
K863808		0.70	<0.005	<0.2	0.74	2	<10	280	<0.5	<2	0.75	<0.5	8	25	299	2.11
K863809		0.51	<0.005	<0.2	0.66	4	<10	220	<0.5	<2	0.48	<0.5	6	22	150	1.94
K863810		0.88	<0.005	<0.2	0.72	<2	<10	310	<0.5	<2	0.47	<0.5	7	27	125	2.19
K863811		0.49	<0.005	<0.2	0.75	<2	<10	390	<0.5	<2	0.76	<0.5	8	25	88	2.20
K863812		0.77	<0.005	<0.2	0.63	<2	<10	370	<0.5	<2	1.30	<0.5	9	23	89	2.18
K863813		0.86	<0.005	<0.2	0.74	<2	<10	450	<0.5	<2	1.41	<0.5	8	23	94	2.23
K863814		0.80	<0.005	<0.2	0.71	<2	<10	700	<0.5	<2	1.68	<0.5	9	23	128	2.22
K863815		0.96	<0.005	<0.2	0.75	<2	<10	340	<0.5	<2	0.70	<0.5	8	31	16	2.37
K863816		2.58	<0.005	<0.2	0.79	<2	<10	480	<0.5	<2	0.63	<0.5	8	30	21	2.25
K863817		0.90	<0.005	<0.2	0.80	<2	<10	370	<0.5	<2	0.69	<0.5	8	28	415	2.28
K863818		0.57	<0.005	<0.2	0.80	3	<10	320	<0.5	<2	0.56	<0.5	8	29	311	2.22
K863819		1.03	<0.005	<0.2	0.78	<2	<10	300	<0.5	<2	0.55	<0.5	8	31	139	2.38
K863820		2.13	<0.005	<0.2	0.80	<2	<10	370	<0.5	<2	0.64	<0.5	9	31	523	2.40

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Finalized Date: 17-AUG-2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11134773

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
K863781		<10	<1	0.33	10	1.71	608	8	0.03	31	750	9	0.73	<2	9	681
K863782		<10	<1	0.26	20	1.02	413	2	0.04	7	600	3	0.20	<2	5	431
K863783		<10	<1	0.28	20	1.03	421	2	0.03	7	580	4	0.34	<2	5	351
K863784		<10	<1	0.32	10	0.93	359	7	0.02	8	510	6	0.62	3	4	333
K863785		<10	<1	0.23	20	1.11	405	5	0.03	14	670	5	0.14	<2	7	496
K863786		<10	<1	0.30	20	1.51	630	8	0.03	21	900	6	0.11	<2	10	671
K863787		<10	<1	0.27	20	1.10	439	9	0.03	11	670	5	0.13	<2	7	522
K863788		<10	<1	0.26	20	0.92	338	41	0.02	7	640	5	0.13	<2	6	419
K863789		<10	<1	0.33	20	0.84	344	4	0.03	9	620	6	0.25	<2	6	368
K863790		<10	<1	0.29	10	0.85	358	4	0.02	6	570	8	0.36	<2	5	292
K863791		<10	<1	0.28	10	0.89	343	4	0.02	6	620	5	0.19	<2	5	265
K863792		<10	<1	0.21	20	0.81	383	4	0.05	7	610	6	0.09	<2	5	243
K863793		<10	<1	0.20	20	0.68	362	2	0.07	8	600	2	0.06	<2	5	206
K863794		<10	<1	0.22	20	0.68	334	15	0.08	8	610	2	0.04	<2	5	174
K863795		<10	<1	0.23	10	0.61	290	8	0.09	9	590	<2	0.06	<2	4	138
K863796		<10	<1	0.20	20	0.70	332	20	0.05	12	630	7	0.36	<2	5	247
K863797		<10	<1	0.20	10	0.65	334	4	0.09	9	610	2	<0.01	<2	4	175
K863798		<10	<1	0.22	10	0.64	310	5	0.08	10	600	<2	0.02	<2	4	155
K863799		<10	<1	0.08	10	0.31	486	9	0.02	8	660	4	<0.01	<2	6	166
K863800		<10	<1	0.11	10	0.11	538	9	0.01	9	650	3	<0.01	<2	6	125
K863801		<10	<1	0.12	10	0.13	434	6	0.01	6	600	3	<0.01	<2	6	123
K863802		<10	<1	0.18	10	0.52	265	5	0.06	9	630	2	0.19	<2	5	162
K863803		<10	<1	0.22	20	0.21	385	4	0.02	7	650	4	<0.01	<2	6	155
K863804		<10	<1	0.21	10	0.15	322	4	0.01	6	570	5	<0.01	<2	5	138
K863805		<10	<1	0.16	10	0.19	150	4	0.01	8	580	5	<0.01	<2	6	128
K863806		<10	<1	0.16	10	0.13	309	6	0.01	5	520	4	<0.01	<2	5	113
K863807		<10	<1	0.13	20	0.12	341	5	0.01	6	710	3	<0.01	<2	6	107
K863808		<10	<1	0.17	10	0.61	217	8	0.07	10	570	<2	<0.01	<2	3	41
K863809		<10	<1	0.18	10	0.45	195	14	0.07	8	470	2	<0.01	<2	2	27
K863810		<10	<1	0.25	10	0.55	219	5	0.09	11	540	<2	<0.01	<2	1	27
K863811		<10	<1	0.29	10	0.64	272	4	0.09	11	500	<2	<0.01	<2	3	43
K863812		<10	<1	0.21	10	0.68	295	7	0.07	10	550	<2	<0.01	<2	4	76
K863813		<10	<1	0.25	10	0.67	297	14	0.07	11	570	2	<0.01	<2	5	79
K863814		<10	<1	0.21	10	0.77	324	11	0.07	12	560	<2	<0.01	<2	4	92
K863815		<10	<1	0.24	10	0.61	247	4	0.11	11	620	<2	<0.01	<2	2	43
K863816		<10	<1	0.28	10	0.70	242	7	0.10	11	570	<2	<0.01	2	2	40
K863817		<10	<1	0.27	10	0.64	231	13	0.10	10	570	<2	0.02	<2	2	42
K863818		<10	<1	0.24	10	0.57	189	12	0.10	10	590	<2	<0.01	<2	1	37
K863819		<10	<1	0.24	10	0.55	199	35	0.10	10	620	<2	<0.01	<2	1	36
K863820		10	<1	0.28	10	0.64	219	9	0.09	11	600	<2	0.03	<2	2	38

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Finalized Date: 17- AUG- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11134773

Sample Description	Method	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41
	Analyte	Th	Ti	Tl	U	V	W	Zn
	Units	ppm	%	ppm	ppm	ppm	ppm	ppm
	LOR	20	0.01	10	10	1	10	2
K863781		<20	<0.01	<10	<10	31	<10	25
K863782		<20	<0.01	<10	<10	22	<10	16
K863783		<20	<0.01	<10	<10	18	<10	16
K863784		<20	<0.01	<10	<10	15	<10	14
K863785		<20	<0.01	<10	<10	32	<10	20
K863786		<20	<0.01	<10	<10	46	<10	30
K863787		<20	<0.01	<10	<10	31	<10	18
K863788		<20	<0.01	<10	<10	25	<10	15
K863789		<20	<0.01	<10	<10	21	<10	16
K863790		<20	<0.01	<10	<10	14	<10	15
K863791		<20	<0.01	<10	<10	20	<10	13
K863792		<20	0.01	<10	<10	32	<10	20
K863793		<20	0.04	<10	<10	40	<10	17
K863794		<20	0.05	<10	<10	44	<10	16
K863795		<20	0.07	<10	<10	46	<10	15
K863796		<20	0.01	<10	<10	33	<10	19
K863797		<20	0.05	<10	<10	46	<10	18
K863798		<20	0.06	<10	<10	45	<10	16
K863799		<20	<0.01	<10	<10	37	<10	16
K863800		<20	<0.01	<10	<10	34	<10	19
K863801		<20	<0.01	<10	<10	31	<10	16
K863802		<20	0.04	<10	<10	44	<10	19
K863803		<20	0.01	<10	<10	28	<10	17
K863804		<20	<0.01	<10	<10	18	<10	14
K863805		<20	<0.01	<10	<10	25	<10	18
K863806		<20	<0.01	<10	<10	22	<10	14
K863807		<20	<0.01	<10	<10	32	<10	15
K863808		<20	0.10	<10	<10	54	<10	14
K863809		<20	0.11	<10	<10	47	<10	13
K863810		<20	0.15	<10	<10	59	<10	16
K863811		<20	0.12	<10	<10	57	10	18
K863812		<20	0.06	<10	<10	51	<10	16
K863813		<20	0.06	<10	<10	50	<10	16
K863814		<20	0.05	<10	<10	49	<10	16
K863815		<20	0.14	<10	<10	64	<10	14
K863816		<20	0.15	<10	<10	63	<10	16
K863817		<20	0.14	<10	<10	60	<10	15
K863818		<20	0.16	<10	<10	62	<10	13
K863819		<20	0.16	<10	<10	65	<10	12
K863820		<20	0.16	<10	<10	65	<10	15

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CERTIFICATE OF ANALYSIS WH11134773

Sample Description	Method Analyte Units LOR	WEI- 21 Recvd Wt. kg 0.02	Au- AA24 Au ppm 0.005	ME- ICP41 Ag ppm 0.2	ME- ICP41 Al % 0.01	ME- ICP41 As ppm 2	ME- ICP41 B ppm 10	ME- ICP41 Ba ppm 10	ME- ICP41 Be ppm 0.5	ME- ICP41 Bi ppm 2	ME- ICP41 Ca % 0.01	ME- ICP41 Cd ppm 0.5	ME- ICP41 Co ppm 1	ME- ICP41 Cr ppm 1	ME- ICP41 Cu ppm 1	ME- ICP41 Fe % 0.01
K863821		2.37	<0.005	<0.2	0.88	<2	<10	390	<0.5	<2	1.20	<0.5	9	29	332	2.42
K863822		2.53	<0.005	<0.2	0.78	3	<10	330	<0.5	<2	0.55	<0.5	8	31	71	2.30
K863823		2.38	<0.005	<0.2	0.81	<2	<10	330	<0.5	<2	0.53	<0.5	8	33	61	2.31
K863824		0.57	<0.005	<0.2	0.78	<2	<10	350	<0.5	<2	0.55	<0.5	10	30	89	2.50
K863825		0.44	<0.005	<0.2	0.75	<2	<10	470	<0.5	<2	0.67	<0.5	8	29	42	2.29
K863826		0.59	<0.005	<0.2	0.92	9	<10	280	<0.5	<2	1.82	<0.5	10	24	129	2.41
K863827		0.29	<0.005	<0.2	1.04	8	<10	470	<0.5	<2	1.32	<0.5	10	28	40	2.50
K863828		0.16	<0.005	<0.2	1.04	7	<10	360	<0.5	<2	1.16	<0.5	9	27	32	2.38
K863829		1.46	<0.005	<0.2	1.44	21	<10	290	0.5	<2	1.95	<0.5	11	24	135	2.55
K863830		1.09	<0.005	<0.2	0.87	2	<10	220	<0.5	<2	0.83	<0.5	8	28	169	2.27
K863831		1.28	<0.005	<0.2	0.88	<2	<10	130	<0.5	<2	0.71	<0.5	7	27	104	2.22
K863832		1.67	<0.005	<0.2	0.78	<2	<10	120	<0.5	<2	0.61	<0.5	8	33	81	2.23
K863833		0.70	<0.005	<0.2	0.82	<2	<10	120	<0.5	<2	0.65	<0.5	8	33	40	2.25
K863834		0.59	<0.005	0.2	0.82	<2	<10	130	<0.5	<2	0.61	<0.5	8	34	331	2.29
K863835		2.06	<0.005	<0.2	0.79	<2	<10	240	<0.5	<2	0.54	<0.5	9	34	86	2.35
K863836		1.81	<0.005	<0.2	0.78	<2	<10	200	<0.5	<2	0.60	<0.5	8	36	24	2.37
K863837		0.25	<0.005	<0.2	0.83	<2	<10	250	<0.5	<2	0.65	<0.5	8	34	114	2.24
K863838		0.13	<0.005	<0.2	0.94	<2	<10	200	<0.5	<2	0.85	<0.5	7	35	179	2.30
K863839		0.44	<0.005	<0.2	0.93	<2	<10	170	<0.5	<2	0.85	<0.5	9	49	67	2.67
K863840		0.42	<0.005	<0.2	0.89	<2	<10	230	<0.5	<2	0.59	<0.5	9	50	29	2.33
K863841		0.36	<0.005	<0.2	0.85	<2	<10	180	<0.5	<2	0.59	<0.5	9	49	30	2.43
K863842		0.61	<0.005	<0.2	0.90	<2	<10	180	<0.5	<2	0.62	<0.5	9	48	37	2.32
K863843		0.09	<0.005	<0.2	1.25	<2	<10	240	<0.5	<2	0.83	<0.5	10	51	74	2.77
K863844		0.37	<0.005	<0.2	1.23	<2	<10	320	<0.5	<2	0.72	<0.5	12	35	164	2.72
K863845		0.54	<0.005	<0.2	1.36	<2	<10	230	<0.5	<2	1.06	<0.5	11	37	42	2.75
K863846		0.15	<0.005	<0.2	1.18	<2	<10	190	<0.5	<2	0.99	<0.5	10	40	86	2.70
K863847		0.44	<0.005	<0.2	0.96	<2	<10	310	<0.5	<2	1.13	<0.5	9	56	398	3.03
K863848		0.47	<0.005	<0.2	1.02	<2	<10	390	<0.5	<2	1.30	<0.5	8	39	208	2.10
K863849		0.37	<0.005	<0.2	0.99	<2	<10	470	<0.5	<2	1.77	<0.5	9	35	44	2.25
K863850		0.61	<0.005	<0.2	0.80	<2	<10	270	<0.5	<2	0.91	<0.5	7	34	15	1.98

ALS Canada Ltd.
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To: ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 17- AUG- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11134773

Sample Description	Method	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41
	Analyte	Ga	Hg	K	La	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Sc	Sr
	Units	ppm	ppm	%	ppm	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm
	LOR	10	1	0.01	10	0.01	5	1	0.01	1	10	2	0.01	2	1	1
K863821		<10	<1	0.25	10	0.69	273	11	0.08	12	560	<2	0.03	<2	3	55
K863822		10	<1	0.23	10	0.64	198	7	0.09	10	570	<2	<0.01	<2	2	38
K863823		<10	<1	0.26	10	0.61	205	8	0.09	11	560	<2	<0.01	<2	1	40
K863824		<10	<1	0.12	10	0.52	309	8	0.07	13	630	<2	<0.01	<2	4	36
K863825		<10	<1	0.20	10	0.55	240	5	0.09	11	620	<2	<0.01	<2	2	43
K863826		<10	<1	0.19	10	0.47	356	7	0.05	12	630	2	<0.01	<2	5	42
K863827		<10	<1	0.29	10	0.63	330	4	0.07	12	600	<2	<0.01	2	4	41
K863828		<10	<1	0.28	10	0.67	347	3	0.11	11	590	4	<0.01	<2	3	48
K863829		10	<1	0.16	20	0.74	432	6	0.04	13	650	2	0.01	<2	6	60
K863830		<10	<1	0.14	10	0.61	297	3	0.09	11	610	<2	<0.01	<2	3	46
K863831		<10	<1	0.10	10	0.58	240	6	0.09	11	610	<2	<0.01	<2	2	39
K863832		<10	<1	0.11	10	0.54	215	2	0.09	11	600	2	0.02	<2	1	32
K863833		<10	<1	0.10	10	0.57	204	5	0.09	10	560	2	0.01	<2	1	33
K863834		<10	<1	0.11	10	0.59	198	4	0.08	10	570	2	0.03	<2	1	31
K863835		<10	<1	0.22	10	0.55	220	3	0.10	11	540	<2	0.02	<2	1	29
K863836		<10	<1	0.16	10	0.55	199	4	0.09	10	570	<2	0.01	<2	1	29
K863837		<10	<1	0.28	10	0.56	215	10	0.10	11	590	<2	0.02	<2	2	33
K863838		<10	<1	0.21	10	0.49	208	16	0.14	10	640	2	0.03	<2	2	52
K863839		<10	<1	0.20	10	0.60	217	5	0.09	14	820	<2	0.01	<2	1	39
K863840		<10	<1	0.36	10	0.67	235	2	0.11	15	660	<2	0.01	<2	2	32
K863841		<10	<1	0.34	10	0.61	240	2	0.12	16	660	<2	0.02	<2	2	34
K863842		<10	<1	0.38	10	0.71	241	2	0.12	17	690	<2	0.01	<2	2	34
K863843		<10	<1	0.43	10	0.82	318	2	0.25	17	670	<2	0.02	<2	3	61
K863844		<10	<1	0.49	10	0.95	270	4	0.13	16	630	<2	0.05	<2	3	36
K863845		<10	<1	0.35	10	1.01	325	4	0.19	17	650	2	0.02	<2	4	55
K863846		<10	<1	0.24	10	0.74	228	16	0.14	13	670	2	0.02	<2	2	52
K863847		<10	<1	0.16	10	0.73	229	15	0.09	13	850	<2	0.04	<2	3	48
K863848		<10	<1	0.21	10	0.69	233	5	0.09	10	600	2	0.02	<2	3	47
K863849		<10	<1	0.25	10	0.68	270	11	0.08	11	590	<2	0.02	<2	4	58
K863850		<10	<1	0.18	10	0.55	179	5	0.09	9	570	2	0.01	<2	2	42

ALS Canada Ltd.

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To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 17- AUG- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11134773

Sample Description	Method	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41
	Analyte	Th	Ti	Tl	U	V	W	Zn
	Units	ppm	%	ppm	ppm	ppm	ppm	ppm
	LOR	20	0.01	10	10	1	10	2
K863821		<20	0.11	<10	<10	61	<10	15
K863822		<20	0.15	<10	<10	65	<10	13
K863823		<20	0.15	<10	<10	64	10	13
K863824		<20	0.04	<10	<10	60	<10	17
K863825		<20	0.13	<10	<10	61	<10	17
K863826		<20	0.06	<10	<10	56	10	19
K863827		<20	0.11	<10	<10	63	<10	21
K863828		<20	0.13	<10	<10	61	<10	25
K863829		<20	0.03	<10	<10	54	<10	29
K863830		<20	0.10	<10	<10	58	<10	23
K863831		<20	0.13	<10	<10	56	<10	19
K863832		<20	0.13	<10	<10	57	<10	19
K863833		<20	0.13	<10	<10	56	10	15
K863834		<20	0.13	<10	<10	59	<10	17
K863835		<20	0.16	<10	<10	61	10	18
K863836		<20	0.15	<10	<10	62	<10	15
K863837		<20	0.14	<10	<10	52	<10	14
K863838		<20	0.12	<10	<10	52	10	13
K863839		<20	0.17	<10	<10	77	<10	17
K863840		<20	0.19	<10	<10	66	<10	21
K863841		<20	0.18	<10	<10	65	<10	20
K863842		<20	0.19	<10	<10	66	<10	21
K863843		<20	0.20	<10	<10	74	<10	22
K863844		<20	0.21	<10	<10	89	<10	27
K863845		<20	0.21	<10	<10	92	<10	22
K863846		<20	0.19	<10	<10	87	<10	17
K863847		<20	0.16	<10	<10	95	<10	15
K863848		<20	0.09	<10	<10	54	<10	14
K863849		<20	0.07	<10	<10	54	<10	16
K863850		<20	0.11	<10	<10	50	<10	12

ALS Canada Ltd.

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To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 15- AUG- 2011
This copy reported on 20- OCT- 2011
Account: F

CERTIFICATE

Project:
P.O. No.:

The following have access to data associated with this certificate:

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
CRU- 31	Fine crushing - 70% <2mm
CRU- QC	Crushing QC Test
PUL- QC	Pulverizing QC Test
SPL- 21	Split sample - riffle splitter
PUL- 31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au- AA24	Au 50g FA AA finish	AAS
ME- ICP41	35 Element Aqua Regia ICP- AES	ICP- AES

To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
ATTN: ALS MINERALS

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

ALS Minerals

ALS Canada Ltd.

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To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016-510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 15-AUG-2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11134774

Sample Description	Method	WEI-21	Au-AA24	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Recvd Wt.	Au	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	kg	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	0.02	0.005	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
K863551		2.63	<0.005	<0.2	1.33	2	<10	170	0.5	3	2.17	<0.5	7	35	7	2.32
K863552		1.89	<0.005	<0.2	1.40	<2	<10	150	0.6	<2	1.89	<0.5	7	33	6	2.17
K863553		1.39	<0.005	<0.2	1.49	<2	<10	130	0.6	<2	1.99	<0.5	7	35	6	2.33
K863554		3.14	<0.005	<0.2	1.47	<2	<10	60	0.5	<2	1.33	<0.5	6	38	8	2.21
K863555		1.41	<0.005	<0.2	1.59	<2	<10	80	0.6	<2	1.52	<0.5	7	40	9	2.37
K863556		2.28	<0.005	<0.2	1.51	<2	<10	70	0.5	<2	1.33	<0.5	7	38	7	2.15
K863557		2.07	<0.005	<0.2	1.03	14	<10	50	0.5	<2	2.74	<0.5	7	20	5	2.33
K863558		1.68	<0.005	<0.2	0.71	21	<10	70	0.6	<2	3.22	<0.5	7	17	6	2.37
K863559		0.83	<0.005	<0.2	1.44	3	<10	100	0.6	<2	1.69	<0.5	7	36	6	2.35
K863560		1.04	<0.005	<0.2	1.32	2	<10	100	0.5	<2	1.31	<0.5	6	35	4	2.06
K863561		1.51	<0.005	<0.2	1.36	<2	<10	140	<0.5	<2	1.42	<0.5	7	41	9	2.15
K863562		0.32	<0.005	<0.2	1.29	<2	<10	150	0.5	<2	1.57	<0.5	8	34	8	2.14
K863563		1.44	<0.005	<0.2	1.21	<2	<10	180	<0.5	<2	1.29	<0.5	7	36	6	2.14
K863564		1.90	<0.005	<0.2	1.31	<2	<10	380	0.5	<2	2.01	<0.5	8	38	5	2.38
K863565		1.91	<0.005	<0.2	1.00	23	<10	500	0.6	<2	2.16	<0.5	13	27	7	2.42
K863566		2.63	0.011	<0.2	0.57	63	<10	330	0.7	<2	3.62	<0.5	9	14	4	2.49
K863567		2.00	<0.005	<0.2	0.90	19	<10	50	0.6	<2	3.30	<0.5	10	17	8	2.52
K863568		1.96	<0.005	<0.2	0.91	34	<10	80	0.6	<2	1.27	<0.5	8	24	46	2.42
K863569		1.67	<0.005	<0.2	0.56	22	<10	400	<0.5	<2	0.65	<0.5	5	24	24	2.13
K863570		2.21	<0.005	<0.2	1.51	6	<10	180	0.6	2	0.94	<0.5	10	49	44	2.36
K863571		1.99	0.009	<0.2	0.41	90	<10	90	0.7	<2	4.32	<0.5	6	8	61	2.99
K863572		0.55	0.038	0.2	0.25	293	<10	170	0.8	<2	3.33	<0.5	7	10	65	4.25
K863573		0.29	0.019	<0.2	0.34	256	<10	50	0.7	<2	6.62	<0.5	8	13	51	5.65
K863574		0.42	0.015	<0.2	0.26	105	<10	20	0.7	2	7.5	<0.5	5	32	20	4.39
K863575		0.38	0.014	<0.2	0.30	126	<10	100	0.8	<2	10.4	<0.5	8	39	39	4.97
K863576		0.58	0.007	<0.2	0.22	99	<10	20	0.8	<2	10.3	<0.5	7	23	25	4.16
K863577		0.46	0.010	0.2	0.22	132	<10	70	1.2	<2	8.9	<0.5	18	13	256	8.19
K863578		3.24	0.048	<0.2	0.21	146	<10	30	0.9	5	8.0	<0.5	4	7	29	23.7
K863579		1.32	0.053	<0.2	0.30	277	<10	40	0.7	5	6.29	<0.5	7	11	28	12.70
K863580		1.63	0.032	0.2	0.22	262	<10	20	<0.5	<2	2.23	<0.5	7	11	43	3.07
K863581		2.11	0.021	<0.2	0.44	194	<10	20	<0.5	<2	2.71	<0.5	9	13	23	2.36
K863582		2.16	0.006	<0.2	0.68	62	<10	10	0.7	<2	2.96	<0.5	11	21	79	4.09
K863583		1.71	<0.005	<0.2	0.72	41	<10	20	0.6	<2	1.10	<0.5	19	17	118	3.71
K863584		1.52	0.013	<0.2	0.59	68	<10	40	0.7	<2	1.81	<0.5	32	12	148	4.01
K863585		1.57	0.005	<0.2	0.34	69	<10	70	<0.5	<2	1.46	<0.5	10	14	92	3.29
K863586		1.59	0.013	<0.2	0.54	194	<10	150	0.6	<2	1.97	<0.5	7	12	41	2.82
K863587		1.19	0.008	<0.2	0.27	49	<10	490	<0.5	<2	2.77	<0.5	4	11	44	2.42
K863588		1.55	0.006	<0.2	0.48	135	<10	390	0.6	<2	1.96	<0.5	5	10	31	2.58
K863589		0.90	0.025	<0.2	0.44	161	<10	120	0.9	<2	3.74	<0.5	10	17	59	7.56
K863590		0.90	0.017	<0.2	0.34	100	<10	110	0.7	2	3.94	<0.5	8	15	55	6.65

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Finalized Date: 15-AUG-2011
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Project: Hopper

CERTIFICATE OF ANALYSIS WH11134774

Sample Description	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
K863551	10	<1	0.15	10	1.00	421	1	0.06	16	560	2	0.01	<2	5	115
K863552	10	<1	0.17	10	0.91	388	1	0.07	13	510	4	<0.01	<2	4	107
K863553	10	<1	0.16	10	0.96	413	1	0.08	14	550	2	<0.01	<2	5	108
K863554	10	<1	0.10	10	0.91	339	2	0.07	14	550	4	<0.01	<2	3	95
K863555	10	<1	0.11	10	0.99	378	2	0.08	15	570	6	0.01	<2	4	110
K863556	10	<1	0.09	10	0.87	318	2	0.08	13	570	5	<0.01	<2	3	95
K863557	<10	<1	0.13	10	0.96	430	1	0.01	13	610	5	0.13	<2	6	129
K863558	<10	<1	0.15	20	1.05	479	1	0.01	12	650	5	0.18	<2	6	140
K863559	<10	<1	0.15	10	0.86	337	2	0.08	13	600	4	0.04	<2	4	104
K863560	<10	<1	0.11	10	0.78	281	1	0.07	11	540	4	0.01	<2	3	83
K863561	10	<1	0.10	10	0.86	290	2	0.08	14	570	4	0.02	<2	3	90
K863562	<10	<1	0.15	10	0.79	297	2	0.10	12	570	6	0.10	<2	3	92
K863563	<10	<1	0.11	10	0.75	270	2	0.08	11	580	5	0.14	2	3	73
K863564	<10	<1	0.16	10	0.86	352	2	0.08	13	590	4	0.10	<2	4	96
K863565	<10	<1	0.19	10	0.83	383	2	0.05	14	600	6	0.52	2	5	107
K863566	<10	<1	0.20	10	1.20	498	2	0.01	18	620	6	0.72	3	7	154
K863567	<10	<1	0.18	20	1.05	464	3	0.01	19	540	14	0.29	2	7	122
K863568	<10	<1	0.25	20	0.47	415	3	0.01	26	490	11	0.21	3	5	57
K863569	<10	<1	0.23	10	0.25	461	4	0.01	21	440	10	0.07	3	3	27
K863570	10	<1	0.59	10	0.81	296	4	0.10	31	690	6	0.35	3	6	68
K863571	<10	<1	0.19	<10	0.88	702	5	0.01	9	410	5	0.01	3	6	165
K863572	<10	<1	0.10	<10	0.25	1380	13	0.01	13	240	14	0.04	10	3	50
K863573	<10	<1	0.12	10	0.95	2040	8	0.01	17	210	5	0.06	7	4	144
K863574	<10	<1	0.13	10	2.03	1655	5	0.02	23	290	5	0.18	5	4	207
K863575	<10	<1	0.14	10	3.16	2330	5	0.01	28	690	6	0.22	6	4	257
K863576	<10	<1	0.12	<10	3.23	1745	3	0.01	42	370	4	0.21	7	5	282
K863577	<10	<1	0.06	<10	1.07	2770	12	0.01	20	240	5	0.10	8	1	135
K863578	<10	<1	0.05	<10	2.21	1545	5	0.01	13	430	6	0.11	4	1	281
K863579	<10	<1	0.13	<10	1.59	2000	4	0.01	18	390	4	0.23	10	3	183
K863580	<10	<1	0.13	10	0.28	933	4	0.01	21	270	6	0.02	8	3	48
K863581	<10	<1	0.20	10	0.19	640	35	0.01	20	2190	6	0.02	5	4	49
K863582	<10	<1	0.16	30	0.59	1875	169	0.01	32	4740	6	0.11	3	7	71
K863583	<10	<1	0.23	10	0.26	2040	9	0.01	43	880	9	0.16	2	6	35
K863584	<10	<1	0.27	20	0.26	2440	12	0.01	61	1070	9	0.12	2	7	65
K863585	<10	<1	0.19	10	0.39	1235	4	0.01	31	750	15	0.41	3	4	59
K863586	<10	<1	0.31	10	0.38	559	4	0.01	27	1140	6	0.26	4	3	54
K863587	<10	<1	0.17	10	0.39	555	6	0.01	15	470	7	0.13	3	2	69
K863588	<10	<1	0.29	10	0.57	534	3	0.01	14	250	11	0.21	4	3	89
K863589	<10	<1	0.26	10	0.80	856	9	0.01	26	450	5	0.05	5	2	139
K863590	<10	<1	0.18	10	1.00	1320	7	0.01	23	380	5	0.11	5	3	152

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To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 15- AUG- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11134774

Sample Description	Method Analyte Units LOR	ME- ICP41 Th ppm 20	ME- ICP41 Ti % 0.01	ME- ICP41 Tl ppm 10	ME- ICP41 U ppm 10	ME- ICP41 V ppm 1	ME- ICP41 W ppm 10	ME- ICP41 Zn ppm 2
K863551		<20	0.03	<10	<10	42	<10	30
K863552		<20	0.04	<10	<10	39	<10	28
K863553		<20	0.05	<10	<10	42	<10	30
K863554		<20	0.09	<10	<10	45	<10	28
K863555		<20	0.10	<10	<10	45	<10	31
K863556		<20	0.10	<10	<10	43	<10	27
K863557		<20	<0.01	<10	<10	38	<10	34
K863558		<20	<0.01	<10	<10	30	<10	32
K863559		<20	0.08	<10	<10	42	<10	26
K863560		<20	0.09	<10	<10	41	<10	24
K863561		<20	0.10	<10	<10	43	<10	25
K863562		<20	0.09	<10	<10	41	<10	37
K863563		<20	0.08	<10	<10	39	<10	37
K863564		<20	0.07	<10	<10	43	<10	45
K863565		<20	0.02	<10	<10	34	<10	26
K863566		<20	<0.01	<10	<10	28	<10	30
K863567		<20	<0.01	<10	<10	25	<10	33
K863568		<20	0.01	<10	<10	33	<10	31
K863569		<20	0.01	<10	<10	28	<10	32
K863570		<20	0.16	<10	<10	74	10	25
K863571		<20	<0.01	<10	<10	16	<10	25
K863572		<20	<0.01	<10	<10	15	<10	35
K863573		<20	<0.01	<10	<10	25	<10	54
K863574		<20	<0.01	<10	<10	25	<10	45
K863575		<20	<0.01	<10	<10	47	<10	80
K863576		<20	<0.01	<10	<10	22	<10	49
K863577		<20	<0.01	<10	<10	30	<10	60
K863578		<20	0.01	<10	<10	19	<10	57
K863579		<20	<0.01	<10	<10	22	<10	47
K863580		<20	<0.01	<10	<10	12	<10	27
K863581		<20	<0.01	<10	<10	23	<10	24
K863582		<20	<0.01	<10	<10	79	<10	31
K863583		<20	<0.01	<10	<10	29	<10	35
K863584		<20	<0.01	<10	<10	26	<10	41
K863585		<20	<0.01	<10	<10	21	<10	47
K863586		<20	<0.01	<10	<10	18	<10	54
K863587		<20	<0.01	<10	<10	10	<10	35
K863588		<20	<0.01	<10	<10	9	<10	70
K863589		<20	<0.01	<10	<10	18	<10	50
K863590		<20	<0.01	<10	<10	16	<10	39

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1016-510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 15-AUG-2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11134774

Sample Description	Method	WEI-21	Au-AA24	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Recvd Wt.	Au	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	kg	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	0.02	0.005	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
K863591		2.06	0.007	<0.2	0.55	75	<10	100	0.7	3	2.47	<0.5	9	11	45	2.78
K863592		1.36	0.005	<0.2	0.45	144	<10	60	1.0	3	4.71	<0.5	15	44	70	3.16
K863593		1.15	0.006	<0.2	0.75	144	<10	40	1.0	3	5.13	0.5	27	93	77	4.81
K863594		0.19	<0.005	<0.2	0.94	60	<10	170	0.6	2	2.43	<0.5	13	44	131	3.16
K863595		3.62	<0.005	<0.2	0.38	16	10	60	0.5	6	5.26	1.3	6	14	33	11.70
K863596		1.23	0.014	<0.2	0.38	67	70	50	<0.5	7	3.71	1.4	6	12	36	17.9
K863597		0.36	<0.005	0.2	0.32	45	<10	20	0.9	2	8.3	0.5	7	28	148	3.91
K863598		0.59	<0.005	0.5	0.38	12	<10	230	0.7	3	4.21	0.5	6	20	315	3.50
K863599		0.47	<0.005	0.9	0.37	7	<10	50	0.8	<2	2.00	<0.5	7	14	547	2.28
K863600		0.64	<0.005	<0.2	0.57	9	<10	150	<0.5	<2	1.56	<0.5	7	15	63	1.74
K863601		0.51	<0.005	<0.2	1.64	8	<10	110	0.9	2	1.81	<0.5	9	40	61	2.45
K863602		0.58	<0.005	<0.2	0.66	7	10	60	0.6	<2	1.94	<0.5	6	21	38	2.42
K863603		0.71	<0.005	<0.2	0.32	10	<10	50	<0.5	<2	1.09	<0.5	4	12	27	1.57
K863604		0.56	<0.005	<0.2	0.38	19	<10	60	0.5	2	0.78	<0.5	9	10	50	2.08
K863605		0.37	<0.005	<0.2	0.33	10	<10	380	<0.5	<2	1.16	<0.5	3	11	63	1.32
K863606		0.48	<0.005	0.5	0.72	7	<10	40	<0.5	5	6.43	0.8	7	12	579	5.70
K863607		0.40	<0.005	0.7	0.55	8	<10	30	<0.5	3	7.6	0.9	9	12	596	6.90
K863608		0.51	0.024	5.1	0.98	14	<10	20	0.5	6	6.08	1.3	18	15	3410	9.55
K863609		0.56	0.020	2.0	0.92	10	<10	20	1.0	9	3.48	1.3	35	18	5350	7.67
K863610		0.37	0.011	0.6	2.05	6	<10	80	0.5	4	8.2	0.6	6	47	714	4.53
K863611		0.65	<0.005	1.2	3.07	7	<10	220	0.6	2	5.73	0.5	13	37	1475	2.65
K863612		0.63	0.008	0.5	1.05	10	<10	310	0.8	4	5.54	0.9	9	13	597	7.21
K863613		1.25	<0.005	0.8	0.79	12	<10	230	0.7	5	6.83	1.3	10	15	1560	11.20
K863614		0.64	0.011	1.0	0.45	94	<10	420	<0.5	2	3.45	1.0	15	11	777	5.32
K863615		0.57	<0.005	0.4	0.35	26	<10	1310	<0.5	<2	5.23	0.5	6	7	155	3.25
K863616		0.31	0.011	1.0	0.68	16	<10	180	0.6	2	1.09	0.7	13	12	1835	3.85
K863617		0.39	<0.005	0.7	0.83	13	<10	150	0.6	2	0.98	<0.5	13	8	1225	2.90
K863618		0.56	<0.005	0.7	0.78	12	<10	200	0.7	2	0.98	0.5	14	6	993	3.62
K863619		0.30	<0.005	<0.2	0.70	5	<10	380	<0.5	<2	1.02	<0.5	7	36	225	3.03
K863620		0.28	<0.005	<0.2	0.66	<2	<10	190	<0.5	<2	0.87	<0.5	7	38	126	2.56
K863621		0.38	<0.005	<0.2	0.90	<2	<10	190	<0.5	<2	1.28	<0.5	8	38	35	2.72
K863622		0.55	<0.005	<0.2	0.78	18	<10	90	0.6	3	2.64	<0.5	11	21	74	3.33
K863623		0.53	<0.005	<0.2	0.89	20	<10	40	0.6	2	3.97	<0.5	10	15	243	3.40
K863624		0.62	<0.005	<0.2	0.68	40	<10	20	<0.5	2	3.26	<0.5	11	15	110	2.87
K863625		0.75	0.005	<0.2	0.83	30	<10	20	<0.5	<2	3.24	<0.5	9	18	435	2.97
K863626		0.56	<0.005	<0.2	0.80	30	<10	90	0.5	<2	2.81	<0.5	12	24	99	3.20
K863628		0.56	<0.005	0.2	0.78	<2	<10	620	0.5	<2	2.29	<0.5	11	93	551	2.79
K863627		0.61	<0.005	<0.2	0.70	4	<10	390	0.6	<2	1.72	<0.5	9	53	37	2.41
K863629		0.85	0.008	0.9	0.95	26	<10	250	0.5	2	2.98	<0.5	9	18	1010	2.86
K863630		0.83	<0.005	0.2	0.86	15	<10	100	0.5	2	3.01	<0.5	10	20	297	2.84

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1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 15- AUG- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11134774

Sample Description	Method Analyte Units LOR	ME- ICP41 Ga ppm 10	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1
K863591		<10	<1	0.24	10	0.66	1000	4	<0.01	27	400	13	0.15	2	4	99
K863592		<10	<1	0.21	20	1.20	931	10	<0.01	65	890	8	0.36	4	7	209
K863593		<10	<1	0.18	30	1.66	1215	6	<0.01	141	1400	10	0.45	2	12	204
K863594		<10	<1	0.19	20	0.85	642	6	0.04	51	850	6	0.19	<2	6	103
K863595		<10	<1	0.10	10	4.28	654	1	0.01	18	630	5	0.04	<2	1	124
K863596		<10	1	0.30	<10	8.15	762	1	0.01	16	790	7	0.06	<2	1	71
K863597		<10	<1	0.13	10	2.74	1195	4	0.01	21	430	5	0.15	6	2	216
K863598		<10	<1	0.05	10	1.68	415	2	0.01	16	300	2	0.30	<2	1	159
K863599		<10	<1	0.05	10	0.79	296	2	0.03	16	390	<2	0.24	<2	2	46
K863600		<10	1	0.17	10	0.42	294	4	0.02	34	430	<2	0.08	<2	4	40
K863601		10	<1	0.48	30	1.04	266	4	0.03	26	810	5	0.08	<2	7	67
K863602		<10	<1	0.22	20	0.60	374	2	0.02	17	340	3	0.13	<2	5	71
K863603		<10	<1	0.17	10	0.35	165	4	<0.01	15	180	4	0.10	<2	2	44
K863604		<10	<1	0.24	10	0.30	159	3	<0.01	26	190	3	0.34	<2	2	30
K863605		<10	<1	0.18	10	0.21	175	5	<0.01	12	180	3	0.06	2	2	30
K863606		10	<1	0.06	10	0.53	1395	4	0.01	12	350	4	0.17	2	2	76
K863607		10	<1	0.02	10	0.46	1800	4	0.01	11	240	2	0.09	<2	1	36
K863608		10	<1	0.02	10	0.50	2070	5	0.01	13	280	3	0.05	<2	3	24
K863609		10	<1	0.02	10	0.67	1435	6	0.01	20	290	3	0.07	<2	3	57
K863610		10	<1	0.10	20	0.69	1270	3	0.11	8	1630	2	0.14	<2	6	138
K863611		10	1	0.17	20	0.61	686	2	0.21	14	1600	<2	0.36	<2	7	276
K863612		10	<1	0.13	20	0.33	1525	8	0.04	11	2850	4	0.06	<2	3	97
K863613		10	1	0.05	10	0.23	2330	10	0.01	11	340	5	0.02	2	3	20
K863614		<10	<1	0.15	10	0.11	2470	19	0.01	14	560	11	0.03	62	9	32
K863615		<10	<1	0.15	10	0.13	908	18	0.01	10	520	16	0.06	23	8	47
K863616		<10	<1	0.14	10	0.17	634	6	0.01	14	720	2	0.04	4	11	28
K863617		<10	<1	0.17	10	0.19	649	5	0.01	10	710	4	0.03	2	10	27
K863618		<10	<1	0.19	10	0.19	804	9	0.01	10	760	4	0.03	<2	10	29
K863619		<10	1	0.19	10	0.70	326	3	0.06	11	720	<2	0.04	<2	3	53
K863620		<10	1	0.22	10	0.51	315	3	0.08	11	720	<2	0.03	<2	3	49
K863621		<10	<1	0.26	20	0.64	357	3	0.08	12	740	<2	0.03	<2	4	79
K863622		<10	<1	0.09	30	0.75	635	13	0.01	15	810	5	0.20	<2	9	110
K863623		<10	<1	0.19	20	0.86	636	16	0.01	14	740	5	0.25	<2	8	117
K863624		<10	<1	0.10	20	1.07	587	9	0.01	14	770	4	0.29	<2	8	117
K863625		<10	<1	0.08	20	1.09	641	29	0.01	12	770	4	0.19	<2	8	144
K863626		<10	<1	0.11	20	0.98	609	9	0.01	20	800	4	0.26	<2	8	120
K863628		<10	<1	0.36	20	1.13	480	4	0.04	29	780	3	0.10	<2	7	165
K863627		<10	<1	0.26	20	0.80	381	3	<0.01	15	730	<2	0.05	<2	6	122
K863629		<10	<1	0.28	20	1.05	581	11	<0.01	10	700	5	0.38	3	6	95
K863630		<10	<1	0.23	20	1.09	595	3	<0.01	9	710	3	0.16	2	7	121

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CERTIFICATE OF ANALYSIS WH11134774

Sample Description	Method Analyte Units LOR	ME- ICP41 Th ppm 20	ME- ICP41 Ti % 0.01	ME- ICP41 Tl ppm 10	ME- ICP41 U ppm 10	ME- ICP41 V ppm 1	ME- ICP41 W ppm 10	ME- ICP41 Zn ppm 2
K863591		<20	<0.01	<10	<10	13	<10	42
K863592		<20	<0.01	<10	<10	35	<10	48
K863593		<20	<0.01	<10	<10	63	<10	75
K863594		<20	0.04	<10	<10	46	<10	43
K863595		<20	0.02	<10	<10	20	<10	47
K863596		<20	0.01	<10	<10	18	<10	61
K863597		<20	<0.01	<10	<10	25	<10	39
K863598		<20	0.01	<10	<10	13	<10	26
K863599		<20	0.03	<10	<10	19	10	18
K863600		<20	0.03	<10	<10	29	<10	15
K863601		<20	0.09	<10	<10	41	<10	27
K863602		<20	0.02	<10	<10	18	<10	20
K863603		<20	<0.01	<10	<10	6	<10	8
K863604		<20	<0.01	<10	<10	6	<10	9
K863605		<20	<0.01	<10	<10	4	<10	6
K863606		<20	0.03	<10	<10	17	30	30
K863607		<20	0.02	<10	<10	14	30	35
K863608		<20	0.04	<10	<10	23	40	54
K863609		<20	0.05	<10	10	30	170	75
K863610		<20	0.07	<10	<10	64	30	38
K863611		<20	0.13	<10	<10	82	10	42
K863612		<20	0.02	<10	<10	48	20	43
K863613		<20	0.03	<10	10	28	60	56
K863614		<20	0.01	<10	<10	23	20	58
K863615		<20	<0.01	<10	<10	21	<10	36
K863616		<20	0.01	<10	<10	34	10	45
K863617		<20	<0.01	<10	<10	28	10	38
K863618		<20	<0.01	<10	<10	31	<10	46
K863619		<20	0.10	<10	<10	58	<10	17
K863620		<20	0.12	<10	<10	60	<10	18
K863621		<20	0.11	<10	<10	66	<10	21
K863622		<20	0.01	<10	<10	50	<10	27
K863623		<20	<0.01	<10	<10	39	<10	31
K863624		<20	<0.01	<10	<10	36	<10	29
K863625		<20	<0.01	<10	<10	42	<10	30
K863626		<20	0.01	<10	<10	48	<10	31
K863628		<20	0.10	<10	<10	62	<10	24
K863627		<20	0.07	<10	<10	57	<10	22
K863629		<20	0.01	<10	<10	32	<10	35
K863630		<20	0.02	<10	<10	39	<10	32

ALS Minerals

ALS Canada Ltd.

2103 Dollarton Hwy
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To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 15- AUG- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11134774

Sample Description	Method / Analyte / Units / LOR	WEI- 21 Recvd Wt. kg 0.02	Au- AA24 Au ppm 0.005	ME- ICP41 Ag ppm 0.2	ME- ICP41 Al % 0.01	ME- ICP41 As ppm 2	ME- ICP41 B ppm 10	ME- ICP41 Ba ppm 10	ME- ICP41 Be ppm 0.5	ME- ICP41 Bi ppm 2	ME- ICP41 Ca % 0.01	ME- ICP41 Cd ppm 0.5	ME- ICP41 Co ppm 1	ME- ICP41 Cr ppm 1	ME- ICP41 Cu ppm 1	ME- ICP41 Fe % 0.01
K863631		0.56	<0.005	<0.2	0.90	7	<10	130	<0.5	<2	1.77	<0.5	11	35	33	2.68
K863632		0.97	<0.005	<0.2	0.79	25	<10	30	0.5	<2	2.23	<0.5	11	21	27	2.97
K863633		0.93	<0.005	0.3	0.94	17	<10	240	<0.5	<2	2.32	<0.5	10	22	1090	2.81
K863634		0.58	<0.005	<0.2	0.67	3	<10	270	<0.5	<2	1.08	<0.5	7	40	191	2.53
K863635		0.71	<0.005	<0.2	1.19	11	<10	450	<0.5	<2	2.12	<0.5	10	32	298	2.81
K863636		0.02	<0.005	<0.2	0.85	19	<10	290	0.5	<2	2.41	<0.5	10	22	668	2.93
K863637		0.84	<0.005	<0.2	0.96	<2	<10	360	0.5	<2	1.89	<0.5	9	34	63	2.71
K863638		1.88	<0.005	<0.2	0.97	9	<10	160	0.6	<2	3.46	<0.5	10	20	133	2.44
K863639		0.70	<0.005	<0.2	0.90	6	<10	400	0.5	<2	2.24	<0.5	13	31	288	2.83
K863640		0.29	<0.005	<0.2	0.83	3	<10	410	<0.5	<2	1.28	<0.5	9	43	37	2.81
K863641		0.61	<0.005	<0.2	0.82	<2	<10	270	<0.5	<2	1.02	<0.5	9	41	308	2.68
K863642		1.33	<0.005	<0.2	0.78	2	<10	140	<0.5	<2	1.23	<0.5	8	40	94	2.62
K863643		1.06	<0.005	<0.2	1.12	<2	<10	120	<0.5	<2	2.02	<0.5	10	41	446	2.81
K863644		1.78	<0.005	<0.2	0.80	<2	<10	160	<0.5	<2	1.15	<0.5	9	40	291	2.66
K863645		2.13	<0.005	<0.2	0.96	<2	<10	390	<0.5	<2	0.96	<0.5	9	44	332	2.94
K863646		0.73	<0.005	<0.2	0.66	<2	<10	550	<0.5	<2	0.94	<0.5	8	41	415	2.49
K863647		0.65	<0.005	<0.2	1.00	2	<10	120	<0.5	<2	0.85	<0.5	11	35	138	2.45
K863648		0.39	<0.005	<0.2	1.13	<2	<10	90	<0.5	<2	0.84	<0.5	11	36	65	2.42
K863649		0.43	<0.005	<0.2	1.22	<2	<10	60	<0.5	<2	1.02	<0.5	16	52	47	2.73
K863650		0.61	<0.005	<0.2	1.29	2	<10	80	<0.5	<2	1.08	<0.5	19	64	96	2.95
K863651		0.66	<0.005	<0.2	0.89	3	<10	210	<0.5	<2	0.93	<0.5	10	50	106	2.50
K863652		0.56	<0.005	<0.2	0.74	<2	<10	420	<0.5	<2	1.09	<0.5	7	40	60	2.28
K863653		0.34	<0.005	<0.2	0.69	<2	<10	1170	<0.5	<2	1.86	<0.5	7	27	40	2.21
K863654		0.58	<0.005	<0.2	0.81	<2	<10	390	<0.5	<2	1.79	<0.5	7	37	13	2.22
K863655		0.55	<0.005	<0.2	0.68	2	<10	370	<0.5	<2	0.80	<0.5	7	40	75	2.28
K863656		0.50	<0.005	<0.2	0.62	<2	<10	250	<0.5	<2	0.61	<0.5	6	43	23	2.21
K863657		0.65	<0.005	<0.2	0.59	<2	<10	260	<0.5	<2	1.60	<0.5	7	31	127	2.13
K863658		0.66	<0.005	<0.2	0.77	3	<10	440	0.5	<2	2.58	<0.5	8	14	224	1.86
K863659		0.58	<0.005	0.3	0.86	<2	<10	920	0.6	<2	2.45	<0.5	8	24	463	2.10
K863660		0.70	0.005	0.9	0.57	5	<10	490	<0.5	2	3.55	<0.5	8	11	2490	2.39
K863661		0.75	<0.005	0.3	0.63	<2	<10	310	<0.5	2	2.37	<0.5	8	26	716	2.24
K863662		0.51	0.008	2.7	0.66	<2	<10	280	0.5	8	3.03	<0.5	7	11	6780	2.36
K863663		0.94	0.007	1.8	0.62	2	<10	460	0.5	4	2.68	<0.5	10	21	1810	2.46
K863664		0.77	0.017	7.2	0.71	4	<10	130	0.5	4	3.46	<0.5	10	16	8690	3.27
K863665		0.55	<0.005	1.0	0.68	<2	<10	210	0.5	2	2.15	<0.5	8	18	1100	1.85
K863666		0.62	<0.005	0.3	0.71	<2	<10	900	<0.5	2	1.31	<0.5	7	31	283	2.10
K863667		0.83	<0.005	<0.2	0.65	<2	<10	300	<0.5	3	0.77	<0.5	7	40	48	2.33
K863668		0.46	<0.005	<0.2	0.65	<2	<10	280	<0.5	3	1.00	<0.5	7	37	34	2.28
K863669		2.79	<0.005	<0.2	0.57	<2	<10	880	0.5	2	2.12	<0.5	7	13	182	1.84
K863670		0.55	<0.005	0.2	0.57	<2	<10	1270	0.5	3	2.25	<0.5	9	11	601	2.06

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1016- 510 W HASTINGS ST
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Finalized Date: 15- AUG- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11134774

Sample Description	Method / Analyte / Units / LOR	ME- ICP41 Ga ppm 10	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1
K863631		<10	<1	0.22	20	0.80	408	3	0.02	11	780	2	0.07	<2	7	106
K863632		<10	<1	0.09	20	0.89	581	4	<0.01	12	800	5	0.30	2	9	109
K863633		<10	<1	0.18	20	0.93	448	7	0.01	10	740	4	0.32	<2	6	97
K863634		<10	<1	0.23	10	0.64	306	4	0.06	10	720	<2	0.03	<2	4	60
K863635		<10	<1	0.28	20	0.96	461	3	0.04	11	750	2	0.19	<2	6	104
K863636		<10	<1	0.18	20	0.93	490	3	0.01	11	780	5	0.41	<2	7	101
K863637		<10	<1	0.29	20	0.88	426	2	0.03	9	730	2	0.05	<2	6	114
K863638		<10	<1	0.30	20	0.63	469	29	<0.01	10	770	4	0.10	<2	7	104
K863639		<10	<1	0.22	20	0.85	429	4	0.02	11	790	2	0.25	2	6	95
K863640		<10	<1	0.19	20	0.78	374	3	0.08	10	820	3	0.08	<2	4	67
K863641		<10	<1	0.22	20	0.73	313	5	0.09	9	790	<2	0.06	<2	3	57
K863642		<10	<1	0.20	20	0.64	354	5	0.05	9	740	2	0.04	<2	3	45
K863643		<10	<1	0.19	20	0.94	475	3	0.05	10	750	2	0.10	<2	4	66
K863644		<10	<1	0.24	20	0.67	344	3	0.06	8	710	2	0.06	<2	3	48
K863645		<10	<1	0.34	20	0.78	375	3	0.13	10	690	<2	0.07	<2	4	68
K863646		<10	<1	0.21	10	0.59	312	3	0.07	8	790	<2	0.07	<2	3	55
K863647		<10	<1	0.13	10	0.77	214	3	0.04	15	600	4	0.01	<2	3	49
K863648		10	<1	0.16	10	0.77	204	1	0.07	14	610	2	<0.01	<2	3	62
K863649		10	<1	0.13	10	0.92	207	2	0.07	24	690	3	<0.01	<2	2	63
K863650		10	<1	0.13	10	1.09	196	4	0.07	27	770	<2	<0.01	<2	2	65
K863651		<10	<1	0.26	10	0.73	213	12	0.06	14	630	<2	0.01	<2	3	50
K863652		<10	<1	0.30	10	0.59	269	31	0.07	11	580	<2	0.01	<2	3	57
K863653		<10	<1	0.29	10	0.68	336	15	0.04	9	630	2	0.03	<2	5	87
K863654		<10	<1	0.27	10	0.65	313	7	0.05	9	600	2	0.01	<2	4	88
K863655		<10	<1	0.29	10	0.56	257	4	0.08	10	590	<2	0.04	<2	3	52
K863656		<10	<1	0.24	10	0.48	237	3	0.08	9	630	<2	0.03	<2	2	39
K863657		<10	<1	0.22	10	0.67	306	8	0.03	8	660	2	0.13	<2	4	90
K863658		<10	<1	0.26	20	0.91	327	15	<0.01	7	650	4	0.21	<2	5	127
K863659		<10	<1	0.34	20	0.80	361	13	0.03	8	660	4	0.19	<2	4	108
K863660		<10	<1	0.28	10	1.18	467	10	0.02	7	530	5	0.43	3	4	108
K863661		<10	<1	0.28	10	0.91	343	8	0.04	9	590	2	0.16	<2	4	84
K863662		<10	<1	0.30	10	1.04	426	15	0.02	6	520	7	0.81	<2	3	96
K863663		<10	<1	0.23	10	1.17	391	16	0.04	15	530	9	0.47	<2	4	106
K863664		<10	<1	0.30	10	1.26	479	28	0.05	11	510	10	1.50	<2	4	126
K863665		<10	<1	0.27	10	0.81	303	10	0.03	8	600	4	0.20	<2	4	107
K863666		<10	<1	0.30	10	0.75	263	11	0.06	10	570	3	0.11	<2	4	89
K863667		<10	<1	0.24	10	0.56	243	6	0.08	10	590	2	0.05	<2	2	48
K863668		<10	<1	0.25	10	0.59	251	2	0.07	9	580	2	0.02	<2	3	65
K863669		<10	<1	0.21	20	0.68	343	6	0.02	7	550	5	0.07	<2	5	171
K863670		<10	<1	0.24	10	0.77	372	8	0.02	7	560	5	0.15	<2	5	197

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Finalized Date: 15- AUG- 2011
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Project: Hopper

CERTIFICATE OF ANALYSIS WH11134774

Sample Description	Method Analyte Units LOR	ME- ICP41 Th ppm 20	ME- ICP41 Ti % 0.01	ME- ICP41 Tl ppm 10	ME- ICP41 U ppm 10	ME- ICP41 V ppm 1	ME- ICP41 W ppm 10	ME- ICP41 Zn ppm 2
K863631		<20	0.06	<10	<10	67	<10	24
K863632		<20	<0.01	<10	<10	51	<10	22
K863633		<20	0.02	<10	<10	48	<10	21
K863634		<20	0.11	<10	<10	66	<10	16
K863635		<20	0.06	<10	<10	61	<10	21
K863636		<20	0.02	<10	<10	45	<10	25
K863637		<20	0.08	<10	<10	65	<10	21
K863638		<20	0.01	<10	<10	44	<10	20
K863639		<20	0.03	<10	<10	60	<10	22
K863640		<20	0.11	<10	<10	76	<10	18
K863641		<20	0.14	<10	<10	74	<10	17
K863642		<20	0.12	<10	<10	68	<10	17
K863643		<20	0.07	<10	<10	71	<10	24
K863644		<20	0.12	<10	<10	73	<10	20
K863645		<20	0.16	<10	<10	81	<10	22
K863646		<20	0.14	<10	<10	71	10	17
K863647		<20	0.10	<10	<10	50	<10	15
K863648		<20	0.14	<10	<10	51	<10	14
K863649		<20	0.16	<10	<10	59	10	15
K863650		<20	0.17	<10	<10	65	<10	15
K863651		<20	0.13	<10	<10	58	50	12
K863652		<20	0.10	<10	<10	51	<10	13
K863653		<20	0.04	<10	<10	39	<10	14
K863654		<20	0.07	<10	<10	49	<10	13
K863655		<20	0.12	<10	<10	53	<10	13
K863656		<20	0.13	<10	<10	53	<10	12
K863657		<20	0.04	<10	<10	40	<10	14
K863658		<20	<0.01	<10	<10	26	<10	12
K863659		<20	0.03	<10	<10	33	<10	16
K863660		<20	<0.01	<10	<10	18	<10	20
K863661		<20	0.04	<10	<10	37	<10	19
K863662		<20	<0.01	<10	<10	18	<10	15
K863663		<20	0.02	<10	<10	27	<10	25
K863664		<20	0.01	<10	<10	28	10	20
K863665		<20	0.01	<10	<10	28	<10	16
K863666		<20	0.07	<10	<10	46	<10	16
K863667		<20	0.12	<10	<10	52	<10	15
K863668		<20	0.09	<10	<10	48	<10	15
K863669		<20	0.01	<10	<10	25	<10	15
K863670		<20	0.01	<10	<10	23	<10	17

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CERTIFICATE OF ANALYSIS WH11134774

Sample Description	Method / Analyte / Units / LOR	WEI- 21 Recvd Wt. kg 0.02	Au- AA24 Au ppm 0.005	ME- ICP41 Ag ppm 0.2	ME- ICP41 Al % 0.01	ME- ICP41 As ppm 2	ME- ICP41 B ppm 10	ME- ICP41 Ba ppm 10	ME- ICP41 Be ppm 0.5	ME- ICP41 Bi ppm 2	ME- ICP41 Ca % 0.01	ME- ICP41 Cd ppm 0.5	ME- ICP41 Co ppm 1	ME- ICP41 Cr ppm 1	ME- ICP41 Cu ppm 1	ME- ICP41 Fe % 0.01
K863671		0.28	<0.005	0.2	0.54	<2	<10	360	<0.5	3	1.10	<0.5	7	36	161	2.14
K863672		0.72	<0.005	0.2	0.47	<2	<10	650	<0.5	2	1.80	<0.5	8	25	107	2.03
K863673		0.02	<0.005	<0.2	0.51	<2	<10	330	<0.5	2	1.24	<0.5	8	32	51	2.18
K863674		0.47	<0.005	0.2	0.54	<2	<10	250	<0.5	2	1.15	<0.5	8	36	77	2.14
K863675		0.71	<0.005	0.2	0.53	<2	<10	270	<0.5	2	1.87	<0.5	9	28	539	2.29
K863676		0.41	<0.005	0.2	0.65	<2	<10	430	<0.5	2	1.18	<0.5	8	40	233	2.26
K863677		0.61	<0.005	<0.2	0.54	<2	<10	240	<0.5	2	1.42	<0.5	7	39	47	2.19
K863678		0.50	<0.005	<0.2	0.55	<2	<10	280	<0.5	2	1.24	<0.5	7	39	136	2.15
K863679		0.53	<0.005	0.2	0.62	<2	<10	210	<0.5	3	1.57	<0.5	8	37	299	2.19
K863680		1.24	<0.005	<0.2	0.81	<2	<10	500	0.7	2	2.56	<0.5	8	21	161	2.05
K863681		0.69	<0.005	<0.2	0.63	2	<10	310	0.5	2	1.82	<0.5	7	27	85	2.07
K863682		1.26	<0.005	<0.2	0.60	<2	<10	240	<0.5	3	1.16	<0.5	8	33	31	2.14
K863683		2.01	<0.005	0.2	0.56	<2	<10	300	<0.5	3	1.36	<0.5	8	28	80	2.07
K863684		0.44	<0.005	0.3	0.68	<2	<10	320	<0.5	4	1.01	<0.5	8	33	604	2.29
K863685		0.43	<0.005	<0.2	0.53	<2	<10	320	<0.5	2	1.29	<0.5	8	30	95	2.25
K863686		2.33	<0.005	0.2	0.49	<2	<10	430	<0.5	2	1.76	<0.5	8	20	109	1.93
K863687		1.98	<0.005	<0.2	0.71	<2	<10	200	0.5	3	1.21	<0.5	8	27	35	2.20
K863688		2.25	<0.005	<0.2	0.47	<2	<10	290	0.6	3	1.74	<0.5	7	15	78	1.69
K863689		2.75	<0.005	<0.2	0.75	<2	<10	150	0.6	2	1.57	<0.5	8	25	29	2.09
K863690		0.57	<0.005	0.8	0.55	<2	<10	280	0.5	3	1.97	<0.5	8	19	257	1.95
K863691		2.11	<0.005	<0.2	0.56	<2	<10	280	<0.5	3	0.87	<0.5	7	39	39	2.12
K863692		2.27	<0.005	0.2	0.49	2	<10	340	<0.5	2	1.62	<0.5	8	24	42	1.93
K863693		1.43	<0.005	0.2	0.44	<2	<10	410	0.5	2	2.09	<0.5	7	17	59	1.79
K863694		2.90	<0.005	<0.2	0.50	<2	<10	320	<0.5	2	1.70	<0.5	8	32	10	2.14
K863695		2.37	<0.005	0.2	0.57	<2	<10	750	<0.5	2	2.50	<0.5	8	31	11	2.11
K863696		0.55	0.007	0.4	0.80	3	<10	150	0.6	3	0.96	<0.5	11	16	694	2.60
K863697		0.36	<0.005	0.2	0.91	<2	<10	260	0.5	2	0.96	<0.5	9	25	449	2.43
K863698		0.39	<0.005	<0.2	0.68	<2	<10	1180	<0.5	2	1.85	<0.5	9	26	85	2.47
K863699		0.44	<0.005	<0.2	0.75	2	<10	920	0.5	<2	3.59	<0.5	9	17	338	2.59
K863700		0.40	<0.005	<0.2	0.77	4	<10	560	0.5	<2	2.90	<0.5	10	20	81	2.61

ALS Canada Ltd.

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To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 15- AUG- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11134774

Sample Description	Method Analyte Units LOR	ME- ICP41 Ga ppm 10	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1
K863671		<10	1	0.27	10	0.60	322	8	0.07	10	470	2	0.05	<2	4	141
K863672		<10	<1	0.23	20	0.73	369	6	0.04	10	520	3	0.04	<2	5	188
K863673		<10	<1	0.25	20	0.64	332	5	0.07	10	540	3	0.02	<2	4	124
K863674		<10	<1	0.25	20	0.63	314	3	0.08	11	510	3	0.01	<2	5	171
K863675		<10	<1	0.25	20	0.92	376	13	0.07	11	570	3	0.08	<2	5	145
K863676		<10	<1	0.30	20	0.74	318	7	0.09	11	540	3	0.04	<2	4	121
K863677		<10	<1	0.23	20	0.80	325	7	0.07	10	550	2	0.01	<2	4	130
K863678		<10	<1	0.25	20	0.73	311	5	0.07	11	530	2	0.02	<2	5	132
K863679		<10	<1	0.22	20	0.79	348	3	0.05	11	550	3	0.04	<2	5	179
K863680		<10	<1	0.22	20	0.93	349	3	0.01	8	520	4	0.03	<2	5	287
K863681		<10	<1	0.19	10	0.54	281	3	0.03	9	580	3	0.02	<2	4	136
K863682		<10	<1	0.24	20	0.59	304	3	0.08	9	590	2	0.01	<2	5	155
K863683		<10	<1	0.25	20	0.67	308	2	0.06	9	510	3	0.02	<2	4	180
K863684		<10	<1	0.33	20	0.68	334	23	0.11	9	530	2	0.09	<2	4	124
K863685		<10	<1	0.24	20	0.70	349	5	0.07	9	580	3	0.03	<2	5	171
K863686		<10	<1	0.21	20	0.82	361	10	0.05	7	510	3	0.04	<2	5	174
K863687		<10	<1	0.23	20	0.68	311	4	0.04	9	560	4	0.02	<2	5	179
K863688		<10	<1	0.20	20	0.72	355	12	0.02	6	470	5	0.05	<2	4	193
K863689		<10	<1	0.21	20	0.75	377	2	0.02	9	590	6	0.04	<2	5	171
K863690		<10	<1	0.20	20	0.85	385	22	0.03	10	490	5	0.06	3	5	228
K863691		<10	<1	0.31	10	0.64	299	15	0.08	10	480	2	0.01	<2	4	113
K863692		<10	<1	0.19	20	0.75	367	3	0.03	9	540	4	0.02	<2	5	248
K863693		<10	<1	0.18	20	0.89	375	8	0.03	6	470	4	0.04	<2	4	253
K863694		<10	<1	0.21	20	0.77	393	4	0.05	9	580	2	0.02	<2	5	276
K863695		<10	<1	0.22	20	0.75	406	3	0.05	9	570	4	0.03	<2	5	396
K863696		<10	<1	0.16	10	0.38	411	9	<0.01	13	610	5	0.11	<2	7	58
K863697		<10	<1	0.14	10	0.43	266	5	<0.01	12	700	5	0.05	<2	8	65
K863698		<10	<1	0.22	10	0.84	374	14	0.04	12	600	4	0.05	<2	5	132
K863699		<10	<1	0.21	10	1.15	492	15	0.01	11	670	7	0.10	2	7	182
K863700		<10	<1	0.19	10	0.97	476	8	0.01	11	720	3	0.06	2	8	159

ALS Canada Ltd.
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1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 15- AUG- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11134774

Sample Description	Method Analyte Units LOR	ME- ICP41 Th ppm 20	ME- ICP41 Ti % 0.01	ME- ICP41 Tl ppm 10	ME- ICP41 U ppm 10	ME- ICP41 V ppm 1	ME- ICP41 W ppm 10	ME- ICP41 Zn ppm 2
K863671		<20	0.06	<10	<10	40	<10	19
K863672		<20	0.03	<10	<10	33	<10	19
K863673		<20	0.06	<10	<10	40	<10	18
K863674		<20	0.05	<10	<10	41	<10	19
K863675		<20	0.04	<10	<10	37	<10	19
K863676		<20	0.08	<10	<10	45	<10	18
K863677		<20	0.05	<10	<10	42	10	18
K863678		<20	0.05	<10	<10	43	<10	18
K863679		<20	0.05	<10	<10	42	<10	19
K863680		<20	<0.01	<10	<10	32	<10	18
K863681		<20	0.04	<10	<10	36	<10	17
K863682		<20	0.06	<10	<10	46	<10	18
K863683		<20	0.06	<10	<10	42	<10	19
K863684		<20	0.08	<10	<10	45	<10	21
K863685		<20	0.03	<10	<10	39	<10	22
K863686		<20	0.02	<10	<10	29	<10	19
K863687		<20	0.04	<10	<10	39	<10	21
K863688		<20	0.01	<10	<10	23	<10	18
K863689		<20	0.03	<10	<10	36	<10	22
K863690		<20	0.01	<10	<10	28	<10	24
K863691		<20	0.09	<10	<10	48	<10	20
K863692		<20	0.02	<10	<10	33	<10	21
K863693		<20	<0.01	<10	<10	25	<10	19
K863694		<20	0.04	<10	<10	41	<10	21
K863695		<20	0.03	<10	<10	38	<10	20
K863696		<20	<0.01	<10	<10	35	<10	21
K863697		<20	0.02	<10	<10	54	<10	23
K863698		<20	0.08	<10	<10	53	<10	24
K863699		<20	0.02	<10	<10	41	<10	27
K863700		<20	0.01	<10	<10	45	<10	24

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To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 18- AUG- 2011
This copy reported on 11- JAN- 2012
Account: F

CERTIFICATE WH11134775

Project: Hopper

P.O. No.:

This report is for 100 Percussion samples submitted to our lab in Whitehorse, YT, Canada on 16- JUL- 2011.

The following have access to data associated with this certificate:

JOAN MARIACHER	HEATHER SMITH	

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
CRU- 31	Fine crushing - 70% <2mm
CRU- QC	Crushing QC Test
PUL- QC	Pulverizing QC Test
SPL- 21	Split sample - riffle splitter
PUL- 31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au- AA24	Au 50g FA AA finish	AAS
ME- ICP41	35 Element Aqua Regia ICP- AES	ICP- AES

To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
ATTN: JOAN MARIACHER
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

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

ALS Canada Ltd.

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To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 18- AUG- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11134775

Sample Description	Method Analyte Units LOR	WEI- 21 Recvd Wt. kg 0.02	Au- AA24 Au ppm 0.005	ME- ICP41 Ag ppm 0.2	ME- ICP41 Al % 0.01	ME- ICP41 As ppm 2	ME- ICP41 B ppm 10	ME- ICP41 Ba ppm 10	ME- ICP41 Be ppm 0.5	ME- ICP41 Bi ppm 2	ME- ICP41 Ca % 0.01	ME- ICP41 Cd ppm 0.5	ME- ICP41 Co ppm 1	ME- ICP41 Cr ppm 1	ME- ICP41 Cu ppm 1	ME- ICP41 Fe % 0.01
K270642		0.83	<0.005	0.3	3.34	3	<10	330	<0.5	<2	3.84	<0.5	26	98	81	4.77
K270643		0.40	<0.005	0.2	3.75	<2	<10	340	<0.5	<2	4.08	<0.5	27	109	82	5.03
K270644		0.20	<0.005	0.3	3.80	<2	<10	350	<0.5	<2	4.15	<0.5	26	126	75	4.94
K270645		0.08	<0.005	<0.2	1.33	2	<10	840	<0.5	<2	1.31	<0.5	10	50	61	2.78
K270646		0.39	<0.005	<0.2	0.98	6	<10	130	<0.5	<2	2.70	<0.5	9	23	48	2.33
K270647		0.28	<0.005	<0.2	0.99	3	<10	170	<0.5	<2	1.78	<0.5	8	27	41	2.29
K270648		0.34	<0.005	<0.2	0.82	2	<10	150	<0.5	<2	2.54	<0.5	7	25	28	2.03
K270649		0.44	<0.005	<0.2	0.73	<2	<10	390	<0.5	<2	1.52	<0.5	8	34	21	2.20
K270650		0.29	<0.005	<0.2	1.23	<2	<10	160	<0.5	<2	2.26	<0.5	12	56	179	2.77
K270651		0.38	<0.005	<0.2	2.39	<2	<10	220	<0.5	<2	3.30	<0.5	18	80	80	3.88
K270652		2.65	<0.005	<0.2	0.76	<2	<10	440	<0.5	<2	0.72	<0.5	8	39	123	2.22
K270653		1.80	<0.005	<0.2	0.92	<2	<10	410	<0.5	<2	1.15	<0.5	8	41	26	2.35
K270654		1.58	<0.005	<0.2	0.85	<2	<10	310	<0.5	<2	1.00	<0.5	7	32	29	2.04
K270655		0.08	<0.005	<0.2	1.19	<2	<10	370	<0.5	<2	1.07	<0.5	9	39	34	2.68
K270656		1.01	<0.005	<0.2	0.84	<2	<10	390	<0.5	<2	0.92	<0.5	7	38	12	2.16
K270657		1.01	<0.005	<0.2	0.79	<2	<10	410	<0.5	<2	0.67	<0.5	7	41	18	2.26
K270658		0.86	<0.005	<0.2	0.74	<2	<10	380	<0.5	<2	0.56	<0.5	7	39	16	2.14
K270659		1.16	<0.005	<0.2	0.23	9	<10	20	<0.5	<2	0.09	<0.5	4	15	304	1.17
K270660		0.28	<0.005	0.3	0.32	40	<10	70	<0.5	<2	0.08	<0.5	8	10	553	1.48
K270661		0.22	<0.005	0.2	0.87	32	<10	160	0.6	<2	0.10	<0.5	7	20	559	2.91
K270662		0.78	<0.005	0.2	0.68	30	<10	70	0.7	<2	1.30	<0.5	20	18	613	2.55
K270663		1.90	<0.005	<0.2	0.52	4	20	60	<0.5	<2	1.60	<0.5	12	22	437	24.5
K270664		1.79	<0.005	<0.2	1.79	<2	20	500	<0.5	<2	0.50	<0.5	12	34	324	16.4
K270665		2.15	<0.005	<0.2	1.19	8	40	220	<0.5	<2	0.74	<0.5	21	15	113	7.90
K270666		2.52	<0.005	<0.2	0.69	3	<10	120	<0.5	<2	1.13	<0.5	9	25	143	3.48
K270667		1.85	<0.005	<0.2	1.64	5	<10	150	0.6	<2	0.74	<0.5	12	40	209	3.72
K270668		1.78	<0.005	<0.2	1.21	2	<10	100	<0.5	<2	0.89	<0.5	10	34	137	2.54
K270669		1.27	<0.005	<0.2	2.00	<2	<10	80	0.7	<2	1.32	<0.5	9	46	65	2.62
K270670		1.09	<0.005	<0.2	2.44	<2	<10	90	0.8	<2	1.40	<0.5	10	49	67	2.55
K270671		0.86	<0.005	<0.2	2.27	<2	<10	80	0.6	<2	0.74	<0.5	8	42	50	2.19
K270672		2.06	<0.005	<0.2	0.95	<2	<10	40	<0.5	<2	0.39	<0.5	6	26	61	1.38
K270673		1.05	<0.005	<0.2	1.49	<2	<10	50	0.6	<2	0.26	<0.5	9	34	43	2.07
K270674		1.40	<0.005	<0.2	0.85	5	<10	40	<0.5	<2	2.36	<0.5	12	13	264	2.87
K270675		1.31	<0.005	<0.2	0.41	10	<10	10	<0.5	<2	3.77	<0.5	6	7	104	3.73
K270676		1.12	<0.005	<0.2	0.57	3	<10	10	<0.5	<2	4.40	<0.5	9	7	139	4.69
K270677		1.01	<0.005	0.2	0.43	3	<10	20	<0.5	2	5.62	<0.5	7	7	109	2.14
K270678		0.98	<0.005	0.2	0.67	2	<10	150	<0.5	<2	3.95	<0.5	9	9	167	1.83
K270679		1.03	<0.005	<0.2	0.82	<2	<10	180	<0.5	<2	0.68	<0.5	9	23	104	1.95
K270680		1.13	<0.005	<0.2	0.36	3	<10	30	<0.5	<2	3.13	<0.5	4	6	78	2.90
K270681		1.34	0.007	<0.2	0.50	3	<10	20	<0.5	<2	4.50	<0.5	6	13	210	4.51

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ALS Minerals

To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016-510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 18-AUG-2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11134775

Sample Description	Ga	Hg	K	La	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Sc	Sr
Method	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
Units	ppm	ppm	%	ppm	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm
LOR	10	1	0.01	10	0.01	5	1	0.01	1	10	2	0.01	2	1	1
K270642	10	1	0.29	10	3.06	801	4	0.30	81	950	20	0.05	<2	10	297
K270643	10	<1	0.30	10	3.28	807	2	0.36	86	970	7	0.04	<2	12	345
K270644	10	<1	0.30	10	3.40	851	2	0.38	76	970	5	0.05	<2	16	376
K270645	<10	<1	0.40	10	0.96	347	4	0.22	18	540	4	0.05	<2	4	133
K270646	<10	<1	0.14	20	0.96	366	30	0.02	17	540	5	0.12	<2	6	158
K270647	<10	<1	0.18	20	0.65	297	19	0.01	12	600	10	0.09	<2	6	84
K270648	<10	<1	0.18	20	0.93	298	11	0.01	9	570	3	0.02	<2	5	147
K270649	<10	<1	0.27	20	0.75	269	4	0.07	10	530	2	0.02	<2	5	105
K270650	<10	<1	0.16	20	1.49	475	4	0.09	23	700	3	0.07	<2	7	122
K270651	10	<1	0.26	10	2.46	650	3	0.18	49	960	4	0.04	<2	11	175
K270652	<10	<1	0.32	10	0.69	216	5	0.10	11	490	<2	0.03	<2	3	55
K270653	<10	<1	0.33	10	0.89	289	9	0.11	12	510	2	0.04	<2	5	74
K270654	<10	<1	0.30	20	0.79	258	9	0.10	9	400	<2	0.04	<2	4	64
K270655	10	<1	0.41	10	0.87	343	6	0.20	12	420	2	0.04	<2	5	79
K270656	<10	<1	0.34	10	0.75	256	4	0.10	10	490	2	0.01	<2	3	66
K270657	<10	<1	0.36	10	0.64	222	6	0.12	10	520	<2	0.02	<2	3	54
K270658	<10	<1	0.35	10	0.60	195	4	0.11	10	530	<2	0.01	<2	2	46
K270659	<10	<1	0.09	10	0.05	106	2	<0.01	14	130	6	<0.01	<2	1	5
K270660	<10	<1	0.18	10	0.04	215	2	<0.01	20	170	13	0.01	2	1	6
K270661	<10	<1	0.31	20	0.10	189	3	0.01	25	320	15	0.16	<2	3	43
K270662	<10	<1	0.26	20	0.24	252	6	0.01	39	450	4	0.58	<2	4	69
K270663	10	<1	0.18	10	5.21	763	1	0.01	25	330	12	0.86	<2	1	70
K270664	10	<1	1.34	<10	7.56	757	<1	0.03	36	330	6	0.50	<2	1	10
K270665	<10	<1	0.72	10	11.20	719	<1	0.02	34	960	4	0.38	<2	1	14
K270666	<10	<1	0.20	10	1.67	359	3	0.04	21	390	3	0.37	<2	3	16
K270667	10	<1	0.61	20	1.97	279	3	0.08	25	380	5	0.55	<2	5	40
K270668	<10	<1	0.37	20	0.91	243	2	0.09	20	730	9	0.48	<2	3	32
K270669	10	<1	0.43	10	0.81	279	3	0.07	22	200	6	0.25	<2	5	68
K270670	10	<1	0.51	20	0.68	272	1	0.13	24	240	6	0.33	<2	6	234
K270671	10	<1	0.43	20	0.67	202	1	0.10	19	130	2	0.23	<2	4	57
K270672	<10	<1	0.21	10	0.42	115	2	0.03	12	160	2	0.19	<2	2	20
K270673	<10	<1	0.33	10	0.65	174	2	0.05	20	130	3	0.25	<2	3	31
K270674	<10	<1	0.15	10	0.65	437	1	0.03	10	400	2	0.68	<2	1	42
K270675	<10	<1	0.02	10	0.14	733	1	0.02	12	200	3	0.24	<2	1	9
K270676	<10	<1	0.04	<10	0.13	1045	1	0.03	8	240	2	0.49	<2	1	11
K270677	<10	<1	0.03	<10	0.05	552	3	0.03	6	210	2	0.23	<2	<1	69
K270678	<10	<1	0.16	10	0.27	369	2	0.07	10	480	3	0.54	<2	3	45
K270679	<10	<1	0.31	10	0.56	293	2	0.13	16	300	5	0.34	<2	4	23
K270680	<10	<1	0.05	10	0.11	560	2	0.03	3	200	3	0.10	<2	<1	11
K270681	<10	<1	0.03	<10	0.12	855	3	0.03	6	250	2	0.25	<2	1	10

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ALS Minerals

To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016-510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 18-AUG-2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11134775

Sample Description	Method Analyte Units LOR	ME-ICP41 Th ppm 20	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
K270642		<20	0.17	<10	<10	148	<10	61
K270643		<20	0.18	<10	<10	162	<10	51
K270644		<20	0.14	<10	<10	167	<10	43
K270645		<20	0.12	<10	<10	65	<10	25
K270646		<20	0.02	<10	<10	43	<10	19
K270647		<20	0.03	<10	<10	45	<10	14
K270648		<20	0.03	<10	<10	43	<10	14
K270649		<20	0.06	<10	<10	50	<10	13
K270650		<20	0.03	<10	<10	70	<10	22
K270651		<20	0.09	<10	<10	116	<10	33
K270652		<20	0.12	<10	<10	57	<10	12
K270653		<20	0.09	<10	<10	56	<10	15
K270654		<20	0.07	<10	<10	46	<10	12
K270655		<20	0.08	<10	<10	50	<10	15
K270656		<20	0.12	<10	<10	54	<10	14
K270657		<20	0.14	<10	<10	57	<10	13
K270658		<20	0.15	<10	<10	55	<10	11
K270659		<20	0.01	<10	<10	8	<10	11
K270660		<20	<0.01	<10	<10	10	<10	37
K270661		<20	0.01	<10	<10	26	<10	43
K270662		<20	0.01	<10	<10	28	<10	29
K270663		<20	0.02	<10	<10	45	<10	66
K270664		<20	0.02	<10	<10	27	<10	56
K270665		<20	0.03	<10	<10	15	<10	50
K270666		<20	0.08	<10	<10	31	10	21
K270667		<20	0.13	<10	<10	39	<10	24
K270668		<20	0.14	<10	<10	41	<10	28
K270669		<20	0.15	<10	<10	43	<10	38
K270670		<20	0.18	<10	<10	48	<10	33
K270671		<20	0.10	<10	<10	36	<10	22
K270672		<20	0.04	<10	<10	15	10	9
K270673		<20	0.05	<10	<10	25	<10	15
K270674		<20	0.04	<10	<10	12	40	17
K270675		<20	0.02	<10	<10	15	10	11
K270676		<20	0.04	<10	<10	11	10	15
K270677		<20	0.04	<10	<10	7	20	12
K270678		<20	0.13	<10	<10	37	10	23
K270679		<20	0.13	<10	<10	48	10	28
K270680		<20	0.04	<10	<10	7	10	12
K270681		<20	0.04	<10	<10	14	20	15

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To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 18- AUG- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11134775

Sample Description	Method	WEI- 21	Au- AA24	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41
	Analyte	Recvd Wt.	Au	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	kg	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	0.02	0.005	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
K270682		0.95	0.009	0.3	0.53	3	<10	70	<0.5	<2	4.00	<0.5	10	12	267	3.33
K270683		0.87	<0.005	<0.2	0.81	<2	<10	350	<0.5	<2	0.68	<0.5	11	18	119	2.82
K270684		1.66	<0.005	<0.2	0.67	<2	<10	300	<0.5	<2	0.51	<0.5	10	17	131	2.59
K270685		1.71	<0.005	0.5	1.02	22	<10	130	<0.5	<2	6.17	<0.5	9	14	388	5.87
K270686		1.74	<0.005	<0.2	0.97	35	<10	170	0.6	<2	1.20	<0.5	13	62	91	2.91
K270687		1.18	<0.005	0.2	0.45	207	<10	80	<0.5	<2	2.44	<0.5	9	20	80	2.55
K270688		0.48	<0.005	<0.2	0.87	14	<10	130	<0.5	<2	0.85	<0.5	8	40	50	2.29
K270689		0.70	<0.005	<0.2	0.42	15	<10	80	<0.5	<2	0.98	<0.5	5	21	35	1.44
K270690		0.55	<0.005	<0.2	1.39	16	<10	250	0.6	<2	3.18	<0.5	10	40	63	2.53
K270691		1.07	<0.005	<0.2	1.87	5	<10	330	<0.5	<2	1.42	<0.5	12	60	64	2.56
K270692		0.56	0.007	0.5	0.96	22	<10	60	<0.5	<2	8.0	<0.5	10	49	404	6.83
K270693		0.63	<0.005	<0.2	0.84	4	<10	330	<0.5	<2	2.60	<0.5	10	16	69	3.10
K270694		0.60	<0.005	<0.2	1.24	6	<10	350	<0.5	<2	1.60	<0.5	11	20	68	3.53
K270695		0.56	<0.005	<0.2	1.31	3	<10	340	<0.5	<2	1.31	<0.5	11	32	53	2.93
K270696		0.43	0.005	0.2	0.54	62	<10	320	0.5	<2	4.76	<0.5	8	14	140	4.48
K270706		0.78	0.026	0.7	0.45	95	<10	80	0.9	<2	5.86	<0.5	10	13	599	7.49
K270707		0.88	0.015	0.4	0.43	47	<10	50	0.5	<2	5.56	<0.5	7	13	279	5.21
K270708		0.65	<0.005	<0.2	0.87	5	<10	330	<0.5	<2	1.68	<0.5	9	27	90	3.06
K270709		0.78	<0.005	<0.2	0.65	5	<10	460	<0.5	<2	2.24	<0.5	9	23	72	2.64
K270710		0.86	<0.005	<0.2	0.48	4	<10	60	<0.5	<2	3.00	<0.5	4	14	27	2.23
K270711		0.60	<0.005	<0.2	0.50	2	<10	120	<0.5	<2	2.50	<0.5	6	14	42	1.41
K270712		0.47	<0.005	<0.2	1.01	<2	<10	130	<0.5	<2	1.71	<0.5	9	36	84	2.48
K270713		0.25	<0.005	<0.2	1.47	14	<10	150	<0.5	<2	1.52	<0.5	16	146	72	2.04
K270714		1.17	<0.005	<0.2	1.28	2	<10	20	<0.5	<2	4.00	<0.5	5	32	70	2.70
K270715		0.87	0.008	<0.2	0.73	<2	20	30	<0.5	2	1.13	<0.5	12	41	189	20.1
K270716		1.06	0.458	6.2	0.29	29	<10	10	<0.5	<2	7.5	<0.5	13	9	8850	35.3
K270717		0.81	0.098	1.5	0.48	6	<10	20	<0.5	2	4.69	<0.5	9	8	1980	31.2
K270718		1.55	0.101	<0.2	0.96	16	<10	150	<0.5	<2	1.00	<0.5	8	25	147	3.08
K270719		1.93	0.010	<0.2	0.93	7	<10	140	<0.5	<2	1.22	<0.5	8	52	99	2.13
K270720		3.14	<0.005	<0.2	0.76	7	<10	140	<0.5	2	3.71	<0.5	6	19	88	4.20
K270721		0.90	<0.005	<0.2	1.05	6	<10	260	<0.5	<2	2.11	<0.5	8	25	97	3.98
K270722		0.66	<0.005	<0.2	0.66	2	<10	200	<0.5	<2	2.65	<0.5	6	16	51	3.06
K270723		0.85	<0.005	<0.2	0.78	8	<10	130	<0.5	<2	3.64	<0.5	10	13	116	4.43
K270724		0.70	<0.005	<0.2	0.71	4	<10	120	<0.5	<2	3.34	<0.5	8	20	86	3.57
K270725		0.91	<0.005	<0.2	1.06	2	<10	110	<0.5	<2	2.21	<0.5	7	86	33	2.03
K270726		0.67	<0.005	<0.2	0.83	23	<10	150	1.0	<2	5.35	<0.5	6	18	49	4.53
K270727		0.48	<0.005	<0.2	0.89	25	<10	160	0.7	<2	3.17	<0.5	8	57	102	2.93
K270728		0.28	<0.005	<0.2	0.73	7	<10	50	0.5	<2	3.69	<0.5	3	31	23	2.18
K270729		0.80	<0.005	<0.2	0.09	3	<10	40	<0.5	<2	3.94	<0.5	3	4	9	0.99
K270730		0.89	<0.005	<0.2	0.27	6	<10	10	<0.5	<2	2.50	<0.5	3	5	12	1.50

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1016-510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 18-AUG-2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11134775

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
K270682		<10	<1	0.08	10	0.20	788	3	0.03	7	290	3	0.49	<2	1	32
K270683		<10	<1	0.33	10	0.46	361	3	0.11	11	530	3	0.39	<2	4	28
K270684		<10	<1	0.32	10	0.48	335	3	0.08	9	520	2	0.39	<2	3	17
K270685		<10	<1	0.04	<10	0.39	1725	1	0.03	17	360	5	0.25	<2	2	23
K270686		<10	<1	0.36	10	0.67	670	6	0.03	69	500	5	0.31	3	5	32
K270687		<10	<1	0.21	10	0.38	766	12	0.01	33	550	6	0.29	9	3	34
K270688		<10	<1	0.25	10	0.56	573	3	0.02	27	490	6	0.36	<2	4	21
K270689		<10	<1	0.15	10	0.27	209	3	0.01	27	570	7	0.17	<2	2	31
K270690		<10	<1	0.38	10	0.74	397	3	0.05	29	540	4	0.45	<2	6	91
K270691		10	<1	0.48	10	0.90	377	3	0.15	44	380	4	0.53	<2	6	44
K270692		<10	<1	0.07	10	0.55	2050	5	0.03	37	390	5	0.47	4	3	134
K270693		<10	<1	0.28	10	0.49	529	2	0.08	10	630	4	0.36	<2	4	51
K270694		10	<1	0.31	10	0.68	659	3	0.07	14	650	4	0.21	<2	8	62
K270695		10	<1	0.42	10	0.74	525	2	0.15	21	610	5	0.41	<2	7	57
K270696		<10	<1	0.14	10	0.70	2060	2	0.02	10	370	6	0.75	3	5	191
K270706		<10	<1	0.06	10	0.74	3370	3	0.02	7	260	3	1.21	3	2	179
K270707		<10	<1	0.06	<10	0.65	2260	2	0.02	7	270	4	0.44	2	2	163
K270708		<10	<1	0.41	10	0.61	938	2	0.06	15	430	4	0.23	<2	7	43
K270709		<10	<1	0.15	10	0.38	880	2	0.04	18	370	5	0.24	<2	5	75
K270710		<10	<1	0.05	<10	0.13	662	3	0.04	14	280	2	0.08	<2	1	37
K270711		<10	<1	0.09	10	0.31	397	2	0.04	22	350	3	0.16	<2	2	30
K270712		<10	<1	0.23	10	0.71	374	4	0.09	33	650	4	0.67	<2	3	49
K270713		<10	<1	0.40	10	1.41	312	4	0.11	163	550	3	0.39	<2	3	44
K270714		<10	1	0.06	10	0.53	650	6	0.04	16	710	5	0.20	<2	2	22
K270715		10	1	0.12	<10	3.15	767	4	0.06	44	740	10	0.59	2	2	21
K270716		20	1	0.01	<10	0.18	983	3	0.03	18	440	23	1.36	5	<1	7
K270717		10	1	0.02	<10	0.35	1035	9	0.03	11	520	16	0.49	4	1	50
K270718		<10	<1	0.14	10	0.52	466	11	0.07	19	580	4	0.06	<2	3	41
K270719		<10	<1	0.19	10	0.68	329	5	0.08	66	530	3	0.04	<2	3	40
K270720		<10	<1	0.07	10	0.50	961	5	0.05	29	370	5	0.04	2	2	31
K270721		10	<1	0.24	10	0.60	826	7	0.06	19	390	6	0.02	<2	5	26
K270722		<10	<1	0.08	10	0.45	881	3	0.06	27	450	2	0.03	<2	3	36
K270723		<10	1	0.04	10	0.46	1285	3	0.05	25	390	3	0.05	<2	2	34
K270724		<10	<1	0.02	10	0.84	976	3	0.05	18	440	4	0.04	<2	2	40
K270725		<10	1	0.07	10	1.12	474	2	0.11	82	520	4	0.02	<2	3	53
K270726		<10	<1	0.05	20	0.62	1395	2	0.04	15	630	3	0.02	2	4	99
K270727		<10	<1	0.10	30	0.79	827	2	0.07	49	880	4	0.04	3	4	80
K270728		<10	<1	0.05	20	1.12	704	1	0.04	18	420	3	0.01	2	2	66
K270729		<10	<1	0.01	<10	0.92	622	1	0.03	8	90	2	0.01	<2	<1	38
K270730		<10	<1	0.01	<10	0.66	401	1	0.03	6	390	3	0.04	<2	<1	28

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Finalized Date: 18- AUG- 2011
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CERTIFICATE OF ANALYSIS WH11134775

Sample Description	Method Analyte Units LOR	ME- ICP41 Th ppm 20	ME- ICP41 Ti % 0.01	ME- ICP41 Tl ppm 10	ME- ICP41 U ppm 10	ME- ICP41 V ppm 1	ME- ICP41 W ppm 10	ME- ICP41 Zn ppm 2
K270682		<20	0.06	<10	<10	22	10	19
K270683		<20	0.18	<10	<10	72	10	30
K270684		<20	0.17	<10	<10	64	10	33
K270685		<20	0.07	<10	<10	22	20	36
K270686		<20	0.03	<10	<10	65	<10	39
K270687		<20	0.01	<10	<10	29	<10	26
K270688		<20	0.03	<10	<10	60	<10	30
K270689		<20	<0.01	<10	<10	37	<10	22
K270690		<20	0.07	<10	<10	64	<10	31
K270691		<20	0.13	<10	<10	81	10	30
K270692		<20	0.07	<10	<10	28	40	42
K270693		<20	0.15	<10	<10	68	10	35
K270694		<20	0.09	<10	<10	70	<10	48
K270695		<20	0.18	<10	<10	64	<10	37
K270696		<20	0.01	<10	<10	21	<10	62
K270706		<20	0.01	<10	<10	12	20	78
K270707		<20	0.02	<10	<10	13	20	57
K270708		<20	0.12	<10	<10	46	<10	48
K270709		<20	0.05	<10	<10	34	10	35
K270710		<20	0.05	<10	<10	12	10	13
K270711		<20	0.07	<10	<10	19	10	20
K270712		<20	0.13	<10	<10	46	10	26
K270713		<20	0.14	<10	<10	50	<10	23
K270714		<20	0.17	<10	<10	37	<10	19
K270715		<20	0.12	<10	<10	36	<10	55
K270716		<20	0.03	<10	10	23	70	85
K270717		<20	0.04	<10	10	23	30	64
K270718		<20	0.08	<10	<10	39	10	28
K270719		<20	0.10	<10	<10	31	<10	25
K270720		<20	0.08	<10	<10	25	<10	21
K270721		<20	0.10	<10	<10	44	<10	31
K270722		<20	0.08	<10	<10	21	<10	21
K270723		<20	0.07	<10	<10	31	<10	21
K270724		<20	0.06	<10	<10	32	<10	26
K270725		<20	0.12	<10	<10	37	<10	22
K270726		<20	0.07	<10	<10	40	<10	32
K270727		<20	0.20	<10	<10	51	<10	28
K270728		<20	0.10	<10	<10	23	<10	19
K270729		<20	0.01	<10	<10	4	<10	14
K270730		<20	0.01	<10	<10	11	<10	15

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CERTIFICATE OF ANALYSIS WH11134775

Sample Description	Method	WEI- 21	Au- AA24	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41
	Analyte	Recvd Wt.	Au	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	kg	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	0.02	0.005	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
K270731		0.96	<0.005	<0.2	0.24	4	<10	10	<0.5	<2	2.16	<0.5	2	4	15	1.20
K270732		1.05	<0.005	<0.2	0.41	2	<10	20	<0.5	<2	1.69	<0.5	2	4	6	0.97
K270733		0.78	<0.005	<0.2	0.38	2	<10	40	<0.5	<2	3.56	<0.5	3	16	5	1.85
K270734		0.77	<0.005	<0.2	1.36	8	<10	50	0.6	<2	0.90	<0.5	8	62	17	1.85
K270735		0.35	<0.005	<0.2	1.65	5	<10	160	0.8	<2	0.38	<0.5	8	56	24	1.91
K270736		0.97	<0.005	<0.2	0.83	5	<10	70	0.5	<2	0.18	<0.5	13	58	124	2.44
K270737		1.10	<0.005	<0.2	1.00	13	<10	110	0.5	<2	0.16	<0.5	9	55	79	2.48
K270738		0.48	<0.005	<0.2	1.49	3	<10	110	<0.5	<2	1.33	<0.5	7	33	24	2.33
K270739		0.06	<0.005	<0.2	1.71	4	<10	170	0.5	<2	1.38	<0.5	7	31	47	2.64
K270740		0.54	<0.005	<0.2	1.55	<2	<10	120	0.5	<2	1.28	<0.5	8	33	7	2.06
K270741		0.53	<0.005	<0.2	1.30	2	<10	330	0.5	<2	3.17	<0.5	7	27	8	2.00
K270742		0.59	<0.005	<0.2	0.67	5	<10	230	0.6	<2	3.51	<0.5	7	11	7	1.99
K270743		0.18	<0.005	<0.2	1.48	<2	<10	110	0.6	<2	1.98	<0.5	8	28	12	2.17
K270744		0.40	<0.005	<0.2	1.69	<2	<10	120	0.5	<2	1.31	<0.5	7	31	8	2.03
K270745		0.40	<0.005	<0.2	1.56	<2	<10	120	0.5	<2	1.90	<0.5	8	33	6	2.19
K270746		1.37	<0.005	<0.2	1.37	<2	<10	130	0.5	<2	2.21	<0.5	8	31	5	2.24
K270747		1.87	<0.005	<0.2	1.52	2	<10	100	0.5	<2	1.29	<0.5	8	33	4	2.05
K270748		1.89	0.005	<0.2	1.33	3	<10	110	0.5	<2	1.68	<0.5	8	33	4	2.14
K270749		0.40	<0.005	<0.2	1.01	4	<10	120	0.5	<2	2.43	<0.5	8	23	7	2.24
K270750		1.22	<0.005	<0.2	1.27	<2	<10	130	0.5	<2	1.79	<0.5	7	35	5	2.25

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To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 18- AUG- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11134775

Sample Description	Method / Analyte / Units / LOR	ME- ICP41 Ga ppm 10	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1
K270731		<10	<1	0.01	10	0.75	336	1	0.03	5	690	3	0.01	<2	1	33
K270732		<10	<1	0.04	10	1.48	252	1	0.03	12	700	2	0.01	<2	<1	38
K270733		<10	1	0.02	<10	1.64	445	1	0.04	11	350	<2	0.03	<2	1	95
K270734		10	<1	0.08	10	0.85	300	1	0.02	38	1250	3	0.02	2	5	29
K270735		10	<1	0.32	10	0.70	288	1	0.02	30	250	6	0.01	<2	6	27
K270736		<10	<1	0.11	10	0.40	167	4	0.02	39	220	6	0.01	<2	4	16
K270737		<10	<1	0.25	10	0.53	226	2	0.02	37	260	4	0.01	2	5	16
K270738		10	1	0.11	10	0.81	357	2	0.09	18	600	3	0.01	<2	3	88
K270739		10	1	0.17	10	0.78	396	1	0.17	15	530	4	0.02	<2	4	115
K270740		10	<1	0.11	10	0.84	327	1	0.10	14	560	3	0.01	<2	4	93
K270741		<10	<1	0.17	10	0.74	408	1	0.06	14	540	4	0.02	<2	4	112
K270742		<10	<1	0.20	20	0.94	509	1	0.04	11	570	4	0.08	<2	5	157
K270743		10	<1	0.18	10	0.82	383	2	0.09	13	570	3	0.03	<2	4	115
K270744		10	<1	0.12	10	0.81	318	1	0.12	12	560	3	0.01	<2	3	113
K270745		10	<1	0.14	10	0.95	374	1	0.09	14	550	3	0.02	<2	4	122
K270746		10	<1	0.13	10	0.88	399	1	0.07	14	560	4	0.03	<2	4	119
K270747		10	<1	0.09	10	0.88	335	1	0.08	14	540	2	0.02	<2	4	95
K270748		10	<1	0.12	10	0.89	365	1	0.06	14	550	3	0.03	<2	5	100
K270749		<10	1	0.13	10	0.88	418	1	0.04	21	570	6	0.12	<2	5	109
K270750		10	<1	0.11	10	0.94	378	2	0.06	17	560	4	0.03	<2	4	102

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VANCOUVER BC V6B 1L8

Finalized Date: 18- AUG- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11134775

Sample Description	Method / Analyte / Units / LOR	ME- ICP41 Th ppm 20	ME- ICP41 Ti % 0.01	ME- ICP41 Tl ppm 10	ME- ICP41 U ppm 10	ME- ICP41 V ppm 1	ME- ICP41 W ppm 10	ME- ICP41 Zn ppm 2
K270731		<20	0.03	<10	<10	8	<10	14
K270732		<20	0.02	<10	<10	4	<10	11
K270733		<20	0.03	<10	<10	17	<10	14
K270734		<20	0.02	<10	<10	70	<10	18
K270735		<20	0.05	<10	<10	68	<10	16
K270736		<20	0.03	<10	<10	84	<10	12
K270737		<20	0.05	<10	<10	69	<10	14
K270738		<20	0.10	<10	<10	41	<10	26
K270739		<20	0.11	<10	<10	42	<10	25
K270740		<20	0.10	<10	<10	42	<10	28
K270741		<20	0.02	<10	<10	33	<10	26
K270742		<20	<0.01	<10	<10	21	<10	24
K270743		<20	0.05	<10	<10	37	<10	27
K270744		<20	0.11	<10	<10	41	<10	26
K270745		<20	0.07	<10	<10	43	<10	29
K270746		<20	0.03	<10	<10	39	<10	29
K270747		<20	0.08	<10	<10	39	<10	28
K270748		<20	0.04	<10	<10	40	<10	29
K270749		<20	0.01	<10	<10	36	<10	32
K270750		<20	0.04	<10	<10	41	<10	31

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To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
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Finalized Date: 24- AUG- 2011
This copy reported on 11- JAN- 2012
Account: F

CERTIFICATE WH11138516

Project: Hopper
P.O. No.:
This report is for 202 Percussion samples submitted to our lab in Whitehorse, YT, Canada on 20- JUL- 2011.

The following have access to data associated with this certificate:

JOAN MARIACHER	HEATHER SMITH	

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
CRU- 31	Fine crushing - 70% <2mm
CRU- QC	Crushing QC Test
PUL- QC	Pulverizing QC Test
SPL- 21	Split sample - riffle splitter
PUL- 31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au- AA24	Au 50g FA AA finish	AAS
ME- ICP41	35 Element Aqua Regia ICP- AES	ICP- AES
ME- OG46	Ore Grade Elements - AquaRegia	ICP- AES
Cu- OG46	Ore Grade Cu - Aqua Regia	VARIABLE

To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
ATTN: JOAN MARIACHER
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This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Colin Ramshaw, Vancouver Laboratory Manager

ALS Minerals

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Finalized Date: 24- AUG- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11138516

Sample Description	Method	WEI- 21	Au- AA24	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41
	Analyte	Recvd Wt.	Au	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	kg	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	0.02	0.005	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
K270836		0.58	<0.005	<0.2	1.63	7	<10	110	0.6	3	0.43	<0.5	9	36	60	2.53
K270837		0.66	<0.005	<0.2	0.91	5	<10	40	<0.5	2	0.18	<0.5	4	21	51	1.53
K270838		0.99	<0.005	<0.2	0.82	4	<10	30	<0.5	2	0.18	<0.5	4	18	60	1.33
K270839		0.45	<0.005	<0.2	1.08	7	<10	40	<0.5	3	0.25	<0.5	5	24	78	1.69
K270840		0.29	<0.005	<0.2	1.46	7	<10	60	0.5	3	0.33	<0.5	7	51	126	2.35
K270841		0.72	0.018	0.4	2.40	8	<10	80	0.8	3	0.83	<0.5	11	58	524	3.07
K270842		1.62	0.048	1.7	2.58	23	<10	100	0.9	4	1.39	<0.5	23	41	1625	4.78
K270843		1.69	0.007	<0.2	2.05	7	<10	210	0.5	3	1.08	<0.5	11	27	265	3.34
K270844		0.33	0.008	<0.2	2.52	4	<10	150	0.7	3	1.46	<0.5	12	28	257	3.05
K270845		1.61	0.008	<0.2	2.11	3	<10	70	0.7	4	0.75	<0.5	14	50	217	3.45
K270846		1.97	0.010	<0.2	1.64	5	<10	130	<0.5	2	0.75	<0.5	21	20	402	3.84
K270847		1.38	0.020	0.2	1.79	7	<10	90	<0.5	3	0.96	<0.5	26	21	652	3.77
K270848		2.29	0.032	0.2	2.01	5	<10	250	<0.5	2	1.05	<0.5	22	11	787	4.56
K270849		2.16	0.012	0.2	1.94	4	<10	160	<0.5	<2	1.00	<0.5	22	13	608	4.34
K270850		1.54	0.005	<0.2	1.00	5	<10	50	<0.5	2	0.90	<0.5	8	20	222	2.06
K270851		0.73	0.005	0.2	1.14	4	<10	40	<0.5	2	0.76	<0.5	12	32	385	2.14
K270852		0.46	<0.005	<0.2	1.38	2	<10	200	<0.5	<2	1.53	<0.5	8	37	69	2.36
K270853		0.89	<0.005	<0.2	1.46	<2	<10	110	0.5	<2	0.97	<0.5	9	50	207	1.83
K270854		0.26	<0.005	<0.2	1.32	<2	<10	70	0.5	<2	0.68	<0.5	8	45	203	1.80
K270855		0.49	<0.005	<0.2	2.52	<2	<10	100	0.6	<2	1.01	<0.5	10	49	142	2.73
K270856		0.72	0.005	<0.2	3.03	<2	<10	190	0.5	<2	1.78	<0.5	19	47	367	3.73
K270857		0.64	0.006	<0.2	2.70	<2	<10	100	1.0	<2	1.09	<0.5	11	42	305	2.72
K270858		0.38	<0.005	<0.2	3.23	3	<10	140	0.9	<2	1.37	<0.5	15	60	147	2.98
K270859		0.89	<0.005	<0.2	1.67	2	<10	70	0.7	<2	0.19	<0.5	8	43	46	2.48
K270860		0.58	<0.005	<0.2	1.39	3	<10	50	<0.5	<2	0.58	<0.5	5	30	53	1.55
K270861		0.81	<0.005	<0.2	1.30	2	<10	40	<0.5	<2	0.51	<0.5	6	30	57	1.66
K270862		0.79	<0.005	<0.2	1.80	<2	<10	70	0.5	<2	0.47	<0.5	16	39	257	3.18
K270863		0.76	<0.005	<0.2	1.30	<2	<10	70	0.5	<2	0.30	<0.5	7	34	71	2.03
K270864		1.34	<0.005	<0.2	1.36	4	<10	150	<0.5	<2	0.90	<0.5	8	36	84	2.31
K270865		2.02	0.010	<0.2	0.80	2	<10	110	<0.5	<2	0.78	<0.5	6	26	304	2.13
K270866		1.12	0.005	<0.2	0.66	<2	<10	110	<0.5	<2	0.69	<0.5	5	19	210	2.04
K270867		0.37	<0.005	<0.2	0.69	<2	<10	140	<0.5	<2	0.57	<0.5	6	20	175	2.25
K270868		0.48	0.011	<0.2	0.68	<2	<10	140	<0.5	<2	0.56	<0.5	6	19	276	2.04
K270869		1.02	<0.005	<0.2	0.74	<2	<10	160	<0.5	<2	0.66	<0.5	5	24	96	2.30
K270870		1.44	<0.005	<0.2	2.74	<2	<10	160	0.9	<2	1.31	<0.5	12	64	190	3.03
K270871		2.21	<0.005	<0.2	2.80	2	<10	210	1.1	<2	1.81	<0.5	11	57	306	2.73
K270872		0.68	0.026	0.3	2.78	<2	<10	130	0.8	<2	1.47	<0.5	13	58	1120	2.95
K270873		2.02	0.035	0.4	2.95	<2	<10	220	0.9	<2	1.37	<0.5	13	73	1255	3.14
K270874		1.92	<0.005	<0.2	2.18	<2	<10	210	0.7	<2	0.95	<0.5	8	49	310	2.34
K270875		2.03	<0.005	<0.2	1.91	<2	<10	190	0.5	<2	0.85	<0.5	8	46	274	2.28

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Finalized Date: 24- AUG- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11138516

Sample Description	Method	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41
	Analyte	Ga	Hg	K	La	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Sc	Sr
	Units	ppm	ppm	%	ppm	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm
	LOR	10	1	0.01	10	0.01	5	1	0.01	1	10	2	0.01	2	1	1
K270836		10	<1	0.36	20	0.71	262	6	0.04	23	550	4	0.04	<2	4	26
K270837		<10	<1	0.17	20	0.43	129	3	<0.01	14	170	4	0.01	<2	2	10
K270838		<10	<1	0.18	20	0.38	140	4	<0.01	12	150	6	<0.01	<2	1	10
K270839		<10	<1	0.41	20	0.51	190	7	0.02	14	280	5	0.09	<2	3	14
K270840		10	<1	0.30	20	0.98	244	8	0.04	29	580	5	0.03	<2	5	19
K270841		10	<1	0.64	30	1.25	340	8	0.12	31	490	7	0.22	<2	8	48
K270842		10	<1	0.28	30	1.61	430	12	0.10	30	2530	4	0.26	2	6	64
K270843		10	<1	0.62	30	1.34	279	8	0.12	16	2810	2	0.17	<2	5	55
K270844		10	<1	0.51	30	1.09	234	8	0.18	22	2030	2	0.54	<2	4	85
K270845		10	<1	0.69	20	1.03	254	8	0.12	31	780	<2	0.78	<2	7	56
K270846		10	<1	0.33	10	0.63	196	8	0.15	14	910	4	1.76	<2	4	101
K270847		10	<1	0.23	20	0.59	205	6	0.15	19	1070	3	1.64	<2	4	105
K270848		10	<1	0.45	20	0.74	379	7	0.20	11	1160	2	0.98	<2	3	156
K270849		10	<1	0.38	10	0.73	262	6	0.19	11	1090	3	1.79	<2	3	133
K270850		<10	<1	0.14	10	0.47	164	6	0.11	11	890	5	0.61	<2	3	66
K270851		10	<1	0.25	10	0.53	147	8	0.07	31	360	<2	0.62	<2	2	37
K270852		<10	<1	0.31	10	0.79	351	2	0.09	19	770	7	0.03	<2	5	54
K270853		<10	<1	0.35	10	0.58	198	5	0.10	28	600	5	0.14	<2	5	39
K270854		<10	<1	0.31	10	0.51	176	18	0.08	29	380	7	0.15	<2	5	25
K270855		10	<1	0.96	20	1.01	235	7	0.14	25	590	5	0.24	<2	7	54
K270856		10	<1	0.94	20	1.25	387	3	0.27	34	1000	5	0.40	<2	9	51
K270857		10	1	0.84	20	0.88	229	5	0.14	24	420	5	0.35	<2	7	50
K270858		10	<1	0.83	10	0.95	241	6	0.16	40	570	8	0.36	<2	8	43
K270859		10	<1	0.60	10	0.67	270	20	0.05	23	140	5	0.15	<2	6	17
K270860		<10	<1	0.33	10	0.43	183	15	0.07	14	140	4	0.16	<2	3	17
K270861		<10	1	0.32	10	0.50	170	6	0.05	15	160	4	0.31	<2	3	25
K270862		10	<1	0.55	10	0.82	190	9	0.08	28	360	4	0.77	3	7	26
K270863		<10	<1	0.42	10	0.50	202	11	0.03	20	150	4	0.12	<2	3	15
K270864		<10	<1	0.28	10	0.73	326	13	0.08	20	750	6	0.03	<2	4	40
K270865		<10	<1	0.20	10	0.54	161	10	0.08	11	700	7	0.11	<2	2	35
K270866		<10	1	0.19	10	0.46	111	25	0.07	8	670	5	0.09	<2	2	29
K270867		<10	<1	0.25	10	0.43	118	5	0.08	8	630	5	0.08	<2	1	37
K270868		<10	<1	0.24	10	0.38	109	10	0.09	7	630	6	0.13	<2	1	35
K270869		<10	<1	0.28	10	0.50	144	7	0.09	7	690	4	0.04	<2	2	51
K270870		10	1	1.05	20	1.52	315	49	0.09	30	340	4	0.23	<2	11	64
K270871		10	1	0.87	20	1.49	297	88	0.08	26	340	6	0.37	<2	10	186
K270872		10	<1	0.91	20	1.23	251	84	0.17	32	430	5	0.69	<2	8	119
K270873		10	<1	1.11	20	1.36	398	42	0.14	37	440	7	0.50	<2	10	113
K270874		10	<1	0.82	10	0.97	291	59	0.13	25	290	9	0.33	<2	8	111
K270875		10	<1	0.81	10	0.99	289	84	0.10	21	260	8	0.27	2	8	83

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To: ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 24- AUG- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11138516

Sample Description	Method Analyte Units LOR	ME- ICP41 Th ppm 20	ME- ICP41 Ti % 0.01	ME- ICP41 Tl ppm 10	ME- ICP41 U ppm 10	ME- ICP41 V ppm 1	ME- ICP41 W ppm 10	ME- ICP41 Zn ppm 2	Cu- OG46 Cu % 0.001
K270836		<20	0.10	<10	<10	39	<10	33	
K270837		<20	0.02	<10	<10	16	<10	20	
K270838		<20	0.01	<10	<10	12	<10	19	
K270839		<20	0.04	<10	<10	19	<10	20	
K270840		<20	0.06	<10	<10	49	<10	25	
K270841		20	0.14	<10	<10	57	<10	39	
K270842		<20	0.14	<10	<10	53	<10	69	
K270843		<20	0.24	<10	<10	50	<10	33	
K270844		<20	0.20	<10	<10	50	<10	29	
K270845		<20	0.17	<10	<10	44	<10	27	
K270846		<20	0.18	<10	<10	72	<10	26	
K270847		<20	0.18	<10	<10	71	<10	29	
K270848		<20	0.25	<10	<10	105	<10	50	
K270849		<20	0.23	<10	<10	94	<10	42	
K270850		<20	0.16	<10	<10	47	<10	23	
K270851		<20	0.08	<10	<10	31	<10	13	
K270852		<20	0.14	<10	<10	48	<10	42	
K270853		<20	0.14	<10	<10	49	20	20	
K270854		<20	0.12	<10	<10	54	<10	23	
K270855		<20	0.23	<10	<10	50	10	37	
K270856		<20	0.32	<10	<10	87	10	49	
K270857		<20	0.21	<10	<10	59	10	35	
K270858		<20	0.21	<10	<10	82	10	28	
K270859		<20	0.13	<10	<10	40	10	31	
K270860		<20	0.08	<10	<10	24	10	19	
K270861		<20	0.07	<10	<10	23	10	18	
K270862		<20	0.12	<10	<10	75	10	30	
K270863		<20	0.09	<10	<10	29	10	15	
K270864		<20	0.13	<10	<10	43	<10	39	
K270865		<20	0.13	<10	<10	56	10	16	
K270866		<20	0.12	<10	<10	57	<10	11	
K270867		<20	0.13	<10	<10	59	20	12	
K270868		<20	0.13	<10	<10	57	30	12	
K270869		<20	0.15	<10	<10	61	10	11	
K270870		<20	0.26	<10	<10	72	<10	45	
K270871		<20	0.21	<10	<10	68	<10	38	
K270872		<20	0.25	<10	<10	69	20	39	
K270873		<20	0.26	<10	<10	89	40	42	
K270874		<20	0.20	<10	<10	61	10	30	
K270875		<20	0.19	<10	<10	59	<10	29	

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1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 24- AUG- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11138516

Sample Description	Method / Analyte / Units / LOR	WEI- 21 Recvd Wt. kg 0.02	Au- AA24 Au ppm 0.005	ME- ICP41 Ag ppm 0.2	ME- ICP41 Al % 0.01	ME- ICP41 As ppm 2	ME- ICP41 B ppm 10	ME- ICP41 Ba ppm 10	ME- ICP41 Be ppm 0.5	ME- ICP41 Bi ppm 2	ME- ICP41 Ca % 0.01	ME- ICP41 Cd ppm 0.5	ME- ICP41 Co ppm 1	ME- ICP41 Cr ppm 1	ME- ICP41 Cu ppm 1	ME- ICP41 Fe % 0.01
K270876		1.06	<0.005	<0.2	1.11	<2	<10	100	<0.5	<2	0.62	<0.5	6	34	229	1.73
K270877		0.45	0.015	<0.2	1.53	<2	<10	190	<0.5	<2	1.02	<0.5	13	156	540	2.24
K270891		0.27	0.005	<0.2	1.26	<2	<10	140	<0.5	<2	0.61	<0.5	7	29	82	2.20
K270892		0.22	<0.005	<0.2	1.35	3	<10	200	<0.5	<2	0.71	<0.5	7	34	86	2.39
K270893		1.58	<0.005	<0.2	0.87	2	<10	430	0.5	<2	1.48	<0.5	7	25	55	2.13
K270894		0.25	<0.005	<0.2	0.68	<2	<10	720	0.5	<2	1.51	<0.5	5	18	103	1.82
K270895		0.14	<0.005	<0.2	1.13	2	<10	330	0.8	<2	2.26	<0.5	6	26	92	2.00
K270896		0.19	<0.005	<0.2	0.88	<2	<10	250	0.6	<2	1.83	<0.5	6	30	16	2.14
K270897		0.24	<0.005	<0.2	0.87	<2	<10	260	0.6	<2	2.48	<0.5	7	37	37	2.20
K270898		0.72	<0.005	<0.2	0.79	<2	<10	170	0.5	<2	2.13	<0.5	8	37	17	2.33
K270899		1.02	<0.005	<0.2	0.69	<2	<10	170	<0.5	<2	2.40	<0.5	7	26	14	2.24
K270900		0.76	<0.005	<0.2	0.91	3	<10	190	0.5	<2	2.67	<0.5	7	25	31	2.22
K270901		0.93	<0.005	0.2	0.68	5	<10	300	0.5	3	2.91	<0.5	8	17	1215	2.16
K270902		1.26	<0.005	<0.2	0.70	2	<10	70	0.5	3	2.98	<0.5	7	22	203	2.20
K270903		0.55	0.008	0.9	0.66	5	<10	230	0.5	4	1.29	<0.5	8	6	737	2.81
K270904		1.16	<0.005	<0.2	1.97	4	<10	280	0.9	4	0.76	<0.5	8	30	170	2.32
K270905		0.75	<0.005	<0.2	1.76	2	<10	270	0.8	2	0.76	<0.5	8	29	300	2.39
K270906		0.29	<0.005	<0.2	0.71	<2	<10	370	<0.5	2	0.48	<0.5	5	35	62	1.85
K270907		0.05	<0.005	<0.2	1.51	6	<10	540	<0.5	2	0.78	<0.5	5	38	38	3.04
K270908		0.26	<0.005	<0.2	0.69	2	<10	600	<0.5	4	0.58	<0.5	5	39	21	2.04
K270909		0.24	<0.005	<0.2	0.78	3	<10	600	<0.5	3	0.71	<0.5	5	36	69	1.97
K270910		0.25	<0.005	<0.2	1.04	4	<10	510	<0.5	2	0.77	<0.5	6	36	247	2.07
K270911		0.14	<0.005	<0.2	0.90	4	<10	460	<0.5	3	0.68	<0.5	6	35	59	2.16
K270912		0.25	<0.005	<0.2	0.73	3	<10	560	<0.5	2	0.70	<0.5	5	33	34	2.03
K270913		0.19	<0.005	<0.2	1.00	6	<10	370	<0.5	2	1.10	<0.5	5	29	43	2.04
K270914		0.31	<0.005	<0.2	0.65	4	<10	310	<0.5	3	0.69	<0.5	5	31	20	1.89
K270915		0.44	<0.005	<0.2	0.68	3	<10	260	<0.5	2	0.56	<0.5	5	36	59	1.96
K270916		0.75	<0.005	<0.2	0.71	<2	<10	300	<0.5	3	0.54	<0.5	5	41	65	2.18
K270917		0.99	0.008	<0.2	1.55	3	<10	210	<0.5	2	1.13	<0.5	8	31	100	2.64
K270918		2.20	<0.005	<0.2	1.56	3	<10	210	<0.5	4	1.31	<0.5	9	38	64	2.61
K270919		1.05	<0.005	<0.2	0.83	2	<10	220	<0.5	2	0.81	<0.5	6	34	39	2.07
K270920		0.40	<0.005	<0.2	0.65	5	<10	250	<0.5	2	0.54	<0.5	8	38	22	2.06
K270921		0.44	<0.005	<0.2	0.65	4	<10	240	<0.5	2	0.51	<0.5	5	36	26	2.05
K270922		0.47	<0.005	<0.2	0.65	<2	<10	240	<0.5	2	0.49	<0.5	5	39	18	2.08
K270923		0.37	<0.005	<0.2	0.68	5	<10	250	<0.5	2	0.49	<0.5	5	38	26	2.04
K270924		0.41	<0.005	<0.2	0.76	<2	<10	220	<0.5	2	0.48	<0.5	6	37	16	2.08
K270925		0.46	<0.005	<0.2	0.75	3	<10	250	<0.5	2	0.61	<0.5	6	38	12	2.08
K270926		0.32	<0.005	<0.2	0.65	5	<10	240	<0.5	2	0.41	<0.5	4	36	19	1.97
K270927		0.13	<0.005	<0.2	0.94	2	<10	200	<0.5	2	0.48	<0.5	5	41	40	2.32
K270928		0.51	<0.005	<0.2	0.70	3	<10	220	<0.5	3	0.65	<0.5	5	37	24	2.07

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CERTIFICATE OF ANALYSIS WH11138516

Sample Description	Method Analyte Units LOR	ME- ICP41 Ga ppm 10	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1
K270876		<10	<1	0.43	10	0.67	204	80	0.08	17	220	6	0.14	<2	5	40
K270877		10	<1	0.58	10	1.59	221	37	0.08	131	470	6	0.22	<2	7	37
K270891		<10	1	0.18	10	0.60	325	5	0.07	16	670	6	0.01	<2	4	34
K270892		<10	<1	0.24	20	0.70	370	3	0.08	17	780	6	0.03	<2	5	37
K270893		<10	<1	0.22	20	0.52	448	4	0.03	11	610	7	0.02	<2	4	142
K270894		<10	<1	0.23	10	0.52	438	9	0.03	8	540	6	0.04	<2	4	129
K270895		<10	<1	0.36	10	0.54	403	26	0.05	9	500	6	0.03	<2	4	150
K270896		<10	1	0.22	20	0.47	405	5	0.05	10	570	6	0.01	<2	5	144
K270897		<10	1	0.22	20	0.56	467	8	0.04	13	610	6	0.02	2	5	134
K270898		<10	<1	0.16	20	0.71	475	3	0.03	14	650	5	<0.01	2	6	173
K270899		<10	<1	0.10	20	0.67	493	3	0.01	10	640	6	0.01	<2	6	203
K270900		<10	<1	0.17	10	0.94	493	3	0.01	11	600	7	0.01	<2	5	264
K270901		<10	<1	0.14	20	1.02	534	12	<0.01	13	600	11	0.16	<2	5	271
K270902		<10	<1	0.13	20	0.94	535	4	<0.01	10	720	8	0.04	<2	7	302
K270903		<10	<1	0.21	10	0.15	726	11	<0.01	9	410	7	0.01	7	4	30
K270904		10	<1	0.19	10	0.66	257	3	<0.01	11	540	2	0.02	<2	4	26
K270905		10	1	0.20	20	0.57	315	4	0.01	11	580	3	0.02	<2	5	25
K270906		<10	<1	0.27	10	0.48	213	2	0.07	9	440	3	0.02	<2	2	34
K270907		10	<1	0.49	10	0.50	376	2	0.32	8	400	8	0.02	<2	3	99
K270908		<10	<1	0.29	10	0.47	250	1	0.08	10	470	3	0.02	<2	2	43
K270909		<10	<1	0.31	10	0.50	232	1	0.07	10	460	2	0.02	<2	2	52
K270910		10	<1	0.28	10	0.59	262	2	0.05	9	480	<2	0.02	<2	2	48
K270911		10	<1	0.33	10	0.48	273	2	0.11	9	470	2	0.02	<2	2	49
K270912		<10	<1	0.30	10	0.47	254	2	0.07	8	450	<2	0.02	<2	2	41
K270913		<10	<1	0.26	20	0.55	241	3	0.04	9	510	3	0.05	<2	3	52
K270914		<10	<1	0.26	10	0.50	236	4	0.08	8	430	2	0.02	<2	2	39
K270915		<10	<1	0.27	10	0.42	202	7	0.09	9	510	<2	0.01	<2	2	34
K270916		<10	<1	0.27	10	0.48	211	3	0.08	9	580	<2	0.02	<2	2	33
K270917		10	<1	0.24	10	0.72	389	4	0.06	15	720	5	0.04	<2	4	51
K270918		10	<1	0.47	20	0.88	394	133	0.07	19	720	4	0.07	<2	6	50
K270919		10	<1	0.27	10	0.56	271	19	0.08	12	600	2	0.02	<2	3	38
K270920		<10	<1	0.26	10	0.45	219	8	0.08	9	610	4	0.01	<2	2	33
K270921		<10	<1	0.26	10	0.45	237	6	0.09	8	590	3	0.01	<2	2	33
K270922		<10	<1	0.27	10	0.46	232	7	0.09	10	590	2	0.01	<2	2	33
K270923		<10	<1	0.28	10	0.48	225	8	0.08	9	590	<2	0.01	<2	2	30
K270924		<10	<1	0.23	10	0.61	281	8	0.07	10	550	2	0.01	<2	2	30
K270925		<10	<1	0.24	10	0.57	274	6	0.07	9	550	<2	0.01	<2	3	34
K270926		<10	<1	0.24	10	0.47	199	4	0.08	9	540	<2	0.01	<2	2	31
K270927		<10	<1	0.24	20	0.65	287	4	0.14	10	600	2	0.01	<2	3	46
K270928		10	<1	0.20	10	0.57	246	3	0.09	9	520	<2	0.01	<2	2	37

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CERTIFICATE OF ANALYSIS WH11138516

Sample Description	Method	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	Cu- OG46
	Analyte	Th	Ti	Tl	U	V	W	Zn	Cu
	Units	ppm	%	ppm	ppm	ppm	ppm	ppm	%
	LOR	20	0.01	10	10	1	10	2	0.001
K270876		<20	0.12	<10	<10	36	10	18	
K270877		<20	0.21	<10	<10	86	10	21	
K270891		<20	0.11	<10	<10	45	<10	30	
K270892		<20	0.12	<10	<10	50	<10	37	
K270893		<20	0.02	<10	<10	37	<10	27	
K270894		<20	0.01	<10	<10	26	<10	22	
K270895		<20	0.02	<10	<10	36	<10	25	
K270896		<20	0.03	<10	<10	42	<10	28	
K270897		<20	0.03	<10	<10	44	<10	29	
K270898		<20	0.03	<10	<10	45	<10	33	
K270899		<20	0.01	<10	<10	44	<10	31	
K270900		<20	<0.01	<10	<10	39	<10	30	
K270901		<20	<0.01	<10	<10	34	<10	34	
K270902		<20	<0.01	<10	<10	43	<10	34	
K270903		<20	<0.01	<10	<10	18	<10	28	
K270904		<20	0.02	<10	<10	41	<10	19	
K270905		<20	0.02	<10	<10	41	<10	19	
K270906		<20	0.12	<10	<10	46	<10	12	
K270907		<20	0.11	<10	<10	47	<10	15	
K270908		<20	0.12	<10	<10	49	<10	14	
K270909		<20	0.11	<10	<10	49	<10	13	
K270910		<20	0.10	<10	<10	49	<10	14	
K270911		<20	0.11	<10	<10	50	<10	15	
K270912		<20	0.11	<10	<10	47	<10	14	
K270913		<20	0.06	<10	<10	42	<10	13	
K270914		<20	0.09	<10	<10	43	<10	12	
K270915		<20	0.11	<10	<10	49	<10	11	
K270916		<20	0.12	<10	<10	56	<10	12	
K270917		<20	0.13	<10	<10	51	<10	41	
K270918		<20	0.16	<10	<10	62	<10	41	
K270919		<20	0.12	<10	<10	49	<10	20	
K270920		<20	0.13	<10	<10	51	50	15	
K270921		<20	0.12	<10	<10	50	<10	15	
K270922		<20	0.13	<10	<10	51	<10	15	
K270923		<20	0.13	<10	<10	52	<10	16	
K270924		<20	0.10	<10	<10	50	<10	17	
K270925		<20	0.10	<10	<10	52	<10	17	
K270926		<20	0.12	<10	<10	50	<10	13	
K270927		<20	0.09	<10	<10	53	<10	16	
K270928		<20	0.10	<10	<10	49	<10	13	

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Project: Hopper

CERTIFICATE OF ANALYSIS WH11138516

Sample Description / Method / Analyte / Units / LOR	WEI- 21 Recvd Wt. kg 0.02	Au- AA24 Au ppm 0.005	ME- ICP41 Ag ppm 0.2	ME- ICP41 Al % 0.01	ME- ICP41 As ppm 2	ME- ICP41 B ppm 10	ME- ICP41 Ba ppm 10	ME- ICP41 Be ppm 0.5	ME- ICP41 Bi ppm 2	ME- ICP41 Ca % 0.01	ME- ICP41 Cd ppm 0.5	ME- ICP41 Co ppm 1	ME- ICP41 Cr ppm 1	ME- ICP41 Cu ppm 1	ME- ICP41 Fe % 0.01
K270929	1.04	<0.005	<0.2	0.84	4	<10	120	0.5	4	0.26	<0.5	7	19	25	2.11
K270930	2.07	<0.005	<0.2	0.84	10	<10	100	<0.5	3	0.98	<0.5	6	14	13	1.81
K270931	0.90	<0.005	<0.2	0.86	5	<10	110	<0.5	2	1.80	<0.5	6	15	12	1.99
K270932	0.32	<0.005	<0.2	0.94	3	<10	80	0.5	3	0.31	<0.5	9	20	6	2.37
K270933	0.44	<0.005	<0.2	1.10	2	<10	90	0.5	2	1.38	<0.5	9	21	6	1.96
K270934	0.36	<0.005	<0.2	1.05	2	<10	150	<0.5	3	3.13	<0.5	6	19	5	2.00
K270935	0.86	<0.005	<0.2	0.85	4	<10	190	<0.5	3	2.00	<0.5	6	18	14	1.46
K270936	2.30	<0.005	<0.2	0.72	4	<10	100	0.5	3	2.65	<0.5	5	17	5	1.67
K270937	1.91	<0.005	<0.2	0.60	5	<10	340	<0.5	<2	1.71	<0.5	7	22	15	1.92
K270938	0.76	<0.005	<0.2	0.63	2	<10	390	<0.5	<2	1.75	<0.5	7	23	7	2.01
K270939	0.84	0.008	<0.2	0.57	<2	<10	390	<0.5	<2	1.13	<0.5	7	27	5	1.99
K270940	0.93	<0.005	<0.2	0.68	<2	<10	360	<0.5	<2	0.90	<0.5	8	30	4	2.11
K270941	0.64	<0.005	<0.2	0.71	24	<10	200	<0.5	<2	2.00	<0.5	7	16	5	2.03
K270942	1.79	<0.005	<0.2	0.76	45	<10	370	<0.5	<2	1.69	<0.5	8	11	10	2.61
K270943	0.61	<0.005	<0.2	0.92	28	<10	280	<0.5	<2	1.36	<0.5	8	23	65	2.31
K270944	0.18	<0.005	<0.2	0.96	2	<10	350	<0.5	<2	0.86	<0.5	8	31	41	2.16
K270945	0.20	<0.005	<0.2	1.20	<2	<10	380	<0.5	<2	0.82	<0.5	8	30	34	2.39
K270946	0.35	<0.005	<0.2	0.71	18	<10	90	<0.5	<2	1.98	<0.5	9	18	144	1.90
K270947	0.21	<0.005	<0.2	1.20	7	<10	190	<0.5	<2	2.01	<0.5	8	24	68	2.12
K270948	0.18	<0.005	<0.2	1.13	16	<10	180	<0.5	<2	1.70	<0.5	8	20	34	2.12
K270949	0.11	<0.005	<0.2	1.42	4	<10	400	<0.5	<2	0.81	<0.5	7	37	15	2.63
K270950	0.16	<0.005	<0.2	0.91	<2	<10	290	<0.5	4	1.00	<0.5	6	36	109	2.30
K976551	0.15	<0.005	<0.2	0.93	3	<10	400	<0.5	<2	1.01	<0.5	7	36	78	2.32
K976552	0.23	<0.005	<0.2	1.01	4	<10	310	<0.5	<2	0.48	<0.5	8	22	41	2.21
K976553	0.27	<0.005	<0.2	0.84	2	<10	190	<0.5	<2	3.85	<0.5	7	20	35	2.22
K976554	0.18	<0.005	<0.2	1.22	13	<10	140	<0.5	<2	2.93	<0.5	8	17	54	2.03
K976555	0.49	<0.005	<0.2	1.60	2	<10	350	<0.5	<2	1.37	<0.5	13	49	55	2.90
K976556	0.72	<0.005	<0.2	0.90	2	<10	270	<0.5	<2	0.65	<0.5	7	36	38	2.14
K976557	0.28	<0.005	<0.2	0.72	<2	<10	210	<0.5	<2	0.71	<0.5	7	36	15	2.17
K976558	0.40	<0.005	<0.2	0.77	<2	<10	290	<0.5	<2	0.52	<0.5	6	36	19	2.20
K976559	0.32	<0.005	<0.2	1.66	<2	<10	200	<0.5	<2	1.90	<0.5	13	63	40	3.26
K976560	0.35	<0.005	<0.2	2.94	<2	<10	290	<0.5	<2	3.51	<0.5	21	103	50	4.76
K976561	0.18	<0.005	<0.2	3.08	2	<10	350	0.5	<2	3.64	<0.5	23	110	52	4.96
K976562	0.25	<0.005	<0.2	2.07	2	<10	240	<0.5	<2	2.28	<0.5	17	84	30	3.63
K976563	0.35	<0.005	<0.2	0.71	<2	<10	270	<0.5	<2	0.74	<0.5	7	36	7	2.11
K976564	0.39	<0.005	<0.2	0.80	<2	<10	400	<0.5	<2	0.97	<0.5	6	34	6	2.18
K976565	0.41	<0.005	<0.2	0.98	2	<10	200	<0.5	<2	0.66	<0.5	12	34	15	1.99
K976566	0.74	<0.005	<0.2	0.99	<2	<10	110	0.7	<2	5.23	<0.5	21	41	36	2.88
K976567	0.40	<0.005	<0.2	0.71	<2	<10	410	<0.5	<2	0.98	<0.5	7	37	8	2.21
K976568	0.54	<0.005	<0.2	0.70	<2	<10	310	<0.5	<2	0.65	<0.5	6	37	10	2.12

ALS Canada Ltd.

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To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 24- AUG- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11138516

Sample Description	Method	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41
	Analyte	Ga	Hg	K	La	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Sc	Sr
	Units	ppm	ppm	%	ppm	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm
	LOR	10	1	0.01	10	0.01	5	1	0.01	1	10	2	0.01	2	1	1
K270929		<10	<1	0.13	20	0.16	244	2	<0.01	11	620	5	<0.01	<2	6	11
K270930		<10	<1	0.13	20	0.15	299	3	<0.01	9	580	5	0.01	<2	5	23
K270931		<10	<1	0.11	20	0.16	355	3	<0.01	10	560	6	0.01	<2	6	39
K270932		<10	<1	0.09	20	0.35	273	2	<0.01	13	660	6	<0.01	<2	6	14
K270933		<10	<1	0.08	20	0.25	297	2	<0.01	13	720	6	<0.01	<2	6	28
K270934		<10	<1	0.13	20	0.16	497	4	<0.01	9	630	5	<0.01	<2	6	60
K270935		<10	<1	0.17	20	0.59	319	5	<0.01	10	540	3	0.05	<2	5	108
K270936		<10	<1	0.18	20	0.98	373	4	0.01	7	500	4	0.02	<2	4	175
K270937		<10	<1	0.22	20	0.74	455	14	0.05	18	490	4	<0.01	<2	5	117
K270938		<10	<1	0.23	20	0.80	410	2	0.05	9	530	2	<0.01	<2	5	170
K270939		<10	<1	0.24	10	0.65	344	1	0.06	8	430	<2	<0.01	<2	4	83
K270940		<10	<1	0.29	10	0.67	340	2	0.08	9	420	2	<0.01	<2	4	79
K270941		<10	<1	0.15	20	0.26	318	3	0.02	7	550	4	<0.01	2	5	47
K270942		<10	<1	0.09	20	0.13	547	2	0.01	9	640	6	<0.01	2	5	37
K270943		<10	<1	0.19	20	0.52	343	5	0.02	12	630	4	0.07	<2	5	62
K270944		<10	<1	0.31	10	0.51	252	1	0.09	9	550	<2	0.04	<2	3	51
K270945		<10	<1	0.32	10	0.55	248	3	0.06	11	560	2	0.04	<2	3	44
K270946		<10	<1	0.09	20	0.64	346	3	0.01	10	650	4	0.15	<2	7	118
K270947		<10	<1	0.19	10	0.77	321	1	0.02	9	620	3	0.06	<2	6	113
K270948		<10	<1	0.18	10	0.65	327	2	0.03	10	570	4	0.14	2	4	88
K270949		10	<1	0.41	10	0.60	327	1	0.25	9	540	<2	<0.01	<2	3	79
K270950		<10	<1	0.21	10	0.63	349	1	0.12	9	570	3	<0.01	<2	3	63
K976551		<10	<1	0.25	10	0.61	305	1	0.14	9	570	2	<0.01	<2	3	70
K976552		<10	<1	0.18	20	0.25	287	2	0.03	10	680	5	<0.01	<2	5	39
K976553		<10	<1	0.12	20	0.15	447	2	0.01	8	670	4	<0.01	<2	6	95
K976554		<10	<1	0.17	20	0.58	322	2	0.01	10	620	4	0.13	<2	5	119
K976555		10	<1	0.13	10	1.26	512	4	0.11	25	830	2	0.03	<2	5	72
K976556		<10	<1	0.17	10	0.62	285	2	0.08	12	660	2	<0.01	2	2	42
K976557		<10	<1	0.20	10	0.53	282	5	0.08	9	630	<2	<0.01	<2	2	43
K976558		<10	<1	0.27	10	0.54	242	1	0.11	8	600	<2	<0.01	<2	2	50
K976559		10	<1	0.15	10	1.68	498	1	0.12	37	1120	5	0.09	<2	5	88
K976560		10	<1	0.08	10	3.12	821	1	0.10	69	1800	5	0.06	<2	10	158
K976561		10	<1	0.11	10	3.25	868	2	0.13	73	1830	4	0.06	2	11	190
K976562		10	<1	0.11	10	2.11	597	1	0.10	48	1280	3	0.03	<2	7	129
K976563		<10	<1	0.22	10	0.54	234	1	0.08	10	640	<2	<0.01	<2	2	75
K976564		<10	<1	0.30	10	0.63	260	1	0.09	10	570	<2	<0.01	<2	3	115
K976565		<10	<1	0.18	20	0.36	148	3	0.01	28	760	3	0.03	<2	6	115
K976566		<10	<1	0.10	20	1.57	904	<1	0.01	57	970	5	0.11	<2	12	282
K976567		<10	<1	0.28	10	0.61	262	1	0.10	12	600	<2	<0.01	<2	2	81
K976568		<10	<1	0.28	10	0.48	205	4	0.09	9	610	<2	<0.01	<2	2	82

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1016- 510 W HASTINGS ST
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Finalized Date: 24- AUG- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11138516

Sample Description	Method Analyte Units LOR	ME- ICP41 Th ppm 20	ME- ICP41 Ti % 0.01	ME- ICP41 Tl ppm 10	ME- ICP41 U ppm 10	ME- ICP41 V ppm 1	ME- ICP41 W ppm 10	ME- ICP41 Zn ppm 2	Cu- OG46 Cu % 0.001
K270929		<20	0.01	<10	<10	31	<10	21	
K270930		<20	<0.01	<10	<10	25	<10	21	
K270931		<20	<0.01	<10	<10	30	<10	23	
K270932		<20	<0.01	<10	<10	33	<10	22	
K270933		20	<0.01	<10	<10	32	<10	25	
K270934		<20	0.01	<10	<10	37	<10	20	
K270935		<20	0.01	<10	<10	31	<10	19	
K270936		<20	0.01	<10	<10	30	<10	16	
K270937		<20	0.04	<10	<10	37	<10	33	
K270938		<20	0.05	<10	<10	41	<10	23	
K270939		<20	0.06	<10	<10	46	<10	19	
K270940		<20	0.09	<10	<10	52	<10	21	
K270941		<20	0.02	<10	<10	32	<10	19	
K270942		<20	<0.01	<10	<10	29	<10	21	
K270943		<20	0.06	<10	<10	41	<10	22	
K270944		<20	0.12	<10	<10	51	<10	17	
K270945		<20	0.11	<10	<10	51	<10	19	
K270946		<20	0.02	<10	<10	42	<10	23	
K270947		<20	0.04	<10	<10	48	<10	22	
K270948		<20	0.04	<10	<10	41	<10	20	
K270949		<20	0.15	<10	<10	61	<10	20	
K270950		<20	0.08	<10	<10	55	<10	19	
K976551		<20	0.10	<10	<10	57	<10	18	
K976552		<20	0.03	<10	<10	38	<10	19	
K976553		<20	0.01	<10	<10	42	<10	20	
K976554		<20	0.01	<10	<10	35	<10	17	
K976555		<20	0.14	<10	<10	73	<10	38	
K976556		<20	0.13	<10	<10	55	<10	24	
K976557		<20	0.14	<10	<10	55	<10	20	
K976558		<20	0.16	<10	<10	56	<10	17	
K976559		<20	0.27	<10	<10	90	<10	31	
K976560		<20	0.39	<10	<10	129	<10	66	
K976561		<20	0.42	<10	<10	138	<10	76	
K976562		<20	0.29	<10	<10	98	<10	50	
K976563		<20	0.13	<10	<10	53	<10	16	
K976564		<20	0.12	<10	<10	51	<10	16	
K976565		<20	0.04	<10	<10	52	<10	19	
K976566		<20	0.01	<10	<10	84	<10	60	
K976567		<20	0.12	<10	<10	58	<10	15	
K976568		<20	0.13	<10	<10	56	<10	13	

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CERTIFICATE OF ANALYSIS WH11138516

Sample Description	WEI-21 Recvd Wt.	Au-AA24 Au	ME-ICP41 Ag	ME-ICP41 Al	ME-ICP41 As	ME-ICP41 B	ME-ICP41 Ba	ME-ICP41 Be	ME-ICP41 Bi	ME-ICP41 Ca	ME-ICP41 Cd	ME-ICP41 Co	ME-ICP41 Cr	ME-ICP41 Cu	ME-ICP41 Fe
Units	kg	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
LOR	0.02	0.005	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
K976569	0.90	<0.005	<0.2	0.65	<2	<10	340	<0.5	<2	0.42	<0.5	7	38	7	2.11
K976570	0.95	<0.005	<0.2	0.63	<2	<10	280	<0.5	<2	0.41	<0.5	6	38	9	2.05
K976571	0.82	<0.005	<0.2	0.59	<2	<10	360	<0.5	<2	0.60	<0.5	6	37	18	2.02
K976572	0.60	<0.005	<0.2	0.62	<2	<10	290	<0.5	<2	0.44	<0.5	6	37	17	2.03
K976573	0.66	<0.005	<0.2	0.82	<2	<10	180	<0.5	<2	2.79	<0.5	8	31	148	2.09
K976574	0.39	<0.005	<0.2	0.87	3	<10	140	<0.5	<2	2.12	<0.5	8	34	19	2.22
K976575	0.97	0.008	0.4	0.84	17	<10	210	0.8	<2	4.28	<0.5	29	12	1015	5.38
K976576	0.71	0.014	0.9	1.62	5	<10	350	0.6	<2	4.36	<0.5	45	26	1930	5.83
K976577	0.99	<0.005	2.4	1.61	7	<10	130	0.5	<2	4.95	<0.5	78	437	2850	6.39
K976578	0.90	<0.005	<0.2	3.05	5	<10	380	0.7	<2	5.16	<0.5	38	139	156	5.73
K976579	0.77	<0.005	<0.2	1.06	45	<10	110	0.7	<2	8.1	<0.5	29	40	298	5.03
K976580	0.78	<0.005	0.4	1.00	111	<10	30	0.8	<2	6.9	<0.5	31	22	858	4.64
K976581	0.98	<0.005	<0.2	2.36	39	<10	70	1.4	<2	5.48	<0.5	37	88	214	5.71
K976582	0.99	<0.005	1.0	1.90	26	<10	120	1.4	<2	6.09	<0.5	35	40	1665	4.68
K976583	1.04	0.008	0.7	2.77	31	<10	230	0.8	<2	3.54	<0.5	36	24	1130	5.68
K976584	1.08	<0.005	0.2	3.36	4	<10	280	0.6	<2	2.22	<0.5	29	64	619	5.40
K976585	0.71	<0.005	<0.2	2.01	32	<10	150	0.8	<2	3.08	<0.5	22	57	229	3.75
K976586	0.70	<0.005	<0.2	1.30	30	<10	260	0.8	<2	3.20	<0.5	18	52	129	3.09
K976587	0.84	<0.005	0.2	2.60	11	<10	240	1.1	<2	4.55	<0.5	34	92	297	6.13
K976588	0.89	<0.005	0.7	0.66	130	<10	320	0.7	<2	6.07	<0.5	26	16	1290	4.48
K976589	0.84	<0.005	0.2	1.10	9	<10	260	0.8	<2	4.71	<0.5	24	12	825	4.81
K976590	1.02	<0.005	0.4	1.72	3	<10	210	0.5	<2	3.22	<0.5	25	23	624	4.99
K976591	0.87	<0.005	0.2	1.38	3	<10	240	<0.5	<2	2.01	<0.5	23	21	482	4.10
K976592	0.54	<0.005	0.3	1.50	2	<10	450	<0.5	<2	1.64	<0.5	22	20	431	4.15
K976593	0.62	0.023	0.3	1.53	5	<10	450	<0.5	<2	5.11	<0.5	20	16	906	4.25
K976594	0.43	0.620	8.8	0.75	5	<10	30	<0.5	<2	4.48	1.3	43	8	>10000	6.49
K976595	0.64	0.617	11.9	1.72	2	<10	20	<0.5	<2	2.22	1.5	50	17	>10000	7.48
K976596	0.28	0.029	1.5	1.71	7	<10	230	0.7	<2	3.82	<0.5	30	14	2740	4.79
K976597	0.43	0.014	1.7	1.56	7	<10	50	<0.5	<2	2.16	<0.5	41	16	3200	4.26
K976598	0.92	0.015	1.1	1.70	3	<10	210	<0.5	<2	2.73	<0.5	34	21	2440	4.36
K976599	0.64	0.024	1.5	1.84	<2	<10	60	<0.5	<2	2.35	<0.5	37	21	3440	5.30
K976600	0.67	0.013	0.4	1.75	<2	<10	140	<0.5	<2	2.04	<0.5	24	22	1375	4.50
K976601	0.97	0.007	<0.2	1.31	7	<10	170	<0.5	<2	0.84	<0.5	10	30	140	2.31
K976602	1.32	<0.005	0.4	0.82	3	<10	290	0.6	<2	1.81	<0.5	8	7	168	2.14
K976603	0.79	<0.005	<0.2	1.00	4	<10	150	0.6	<2	2.54	<0.5	8	6	114	2.62
K976604	0.82	<0.005	<0.2	0.68	4	<10	320	0.7	<2	2.01	<0.5	10	5	102	2.37
K976605	0.28	<0.005	<0.2	0.75	12	<10	900	0.6	<2	3.56	<0.5	8	2	158	1.75
K976606	0.23	<0.005	0.3	0.89	13	<10	540	0.6	<2	4.71	<0.5	10	3	380	2.61
K976607	1.18	<0.005	0.2	0.64	8	<10	860	0.6	<2	3.37	<0.5	10	1	149	1.95
K976608	0.20	<0.005	0.3	0.86	6	<10	560	0.8	<2	4.82	<0.5	9	2	310	2.36

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To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 24- AUG- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11138516

Sample Description	Method / Analyte / Units / LOR	ME- ICP41 Ga ppm 10	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1
K976569		<10	<1	0.28	10	0.44	170	2	0.09	9	620	<2	<0.01	<2	1	54
K976570		<10	<1	0.27	10	0.41	160	10	0.11	8	620	<2	<0.01	<2	1	50
K976571		<10	<1	0.27	10	0.45	177	10	0.09	8	630	<2	<0.01	<2	2	59
K976572		<10	<1	0.28	10	0.41	163	36	0.11	8	610	<2	<0.01	<2	1	50
K976573		<10	<1	0.17	20	0.77	399	126	0.04	12	620	5	0.02	<2	4	289
K976574		<10	<1	0.15	20	0.86	377	2	0.06	10	600	2	<0.01	<2	4	200
K976575		<10	<1	0.15	20	1.49	903	5	0.01	38	1840	3	0.17	6	15	281
K976576		10	<1	0.28	20	2.01	766	6	0.06	67	1690	2	1.05	<2	17	313
K976577		10	<1	0.54	10	3.78	729	20	0.04	547	580	3	1.99	<2	9	476
K976578		10	<1	0.22	10	3.99	949	1	0.17	123	1300	2	0.26	<2	19	509
K976579		<10	<1	0.17	10	3.13	907	5	0.01	77	1260	4	0.33	4	15	560
K976580		<10	<1	0.24	10	2.53	767	9	0.01	68	1230	15	0.36	5	14	394
K976581		10	<1	0.25	10	3.18	1095	4	0.01	112	1380	12	0.19	2	15	277
K976582		10	<1	0.31	20	2.35	944	5	0.01	47	1930	12	0.55	2	19	312
K976583		10	<1	0.73	20	2.34	712	12	0.18	40	2040	4	1.01	4	15	297
K976584		10	<1	0.85	10	2.27	693	5	0.37	36	980	2	0.99	<2	13	288
K976585		10	<1	0.37	10	1.74	651	6	0.08	63	700	6	0.49	5	10	196
K976586		<10	<1	0.37	10	1.89	574	6	0.01	55	540	4	0.32	4	10	157
K976587		10	<1	0.38	10	2.50	1045	7	0.15	73	1180	6	0.89	2	21	366
K976588		<10	<1	0.27	10	2.58	769	25	0.01	33	1340	7	0.66	283	11	228
K976589		<10	<1	0.32	20	2.28	778	4	0.01	17	1710	4	1.04	28	15	258
K976590		10	<1	0.26	20	2.06	721	1	0.08	16	1590	3	0.68	12	13	196
K976591		10	<1	0.19	20	1.26	486	1	0.08	16	1730	3	0.69	<2	6	102
K976592		10	<1	0.46	20	1.22	568	1	0.13	14	1700	2	0.56	<2	5	117
K976593		<10	<1	0.38	20	1.85	963	13	0.06	14	1740	3	0.53	3	14	208
K976594		<10	<1	0.16	10	1.53	473	166	0.02	24	870	2	5.12	<2	6	194
K976595		10	<1	0.16	20	1.83	361	60	0.06	24	1460	<2	4.96	2	9	130
K976596		<10	<1	0.21	20	1.72	495	4	0.03	18	2000	8	1.87	4	15	207
K976597		10	<1	0.27	10	1.36	363	11	0.10	22	1690	3	1.79	4	9	179
K976598		10	<1	0.23	10	1.61	493	14	0.11	21	1750	2	1.49	<2	9	162
K976599		10	<1	0.37	10	1.75	428	4	0.11	28	1770	2	2.41	<2	9	167
K976600		10	<1	0.48	10	1.70	443	1	0.12	18	1790	<2	1.41	<2	8	146
K976601		<10	<1	0.19	10	0.64	378	2	0.07	19	640	4	0.02	<2	5	49
K976602		<10	<1	0.23	10	0.21	387	2	0.01	9	560	5	0.03	<2	4	42
K976603		<10	<1	0.21	10	0.37	324	3	0.03	8	510	5	0.21	<2	3	65
K976604		<10	<1	0.19	10	0.62	318	1	0.03	4	740	5	0.51	<2	4	133
K976605		<10	<1	0.17	10	1.06	330	2	0.02	6	540	6	0.31	<2	4	154
K976606		<10	<1	0.17	10	1.44	526	2	0.02	15	470	5	0.53	<2	3	196
K976607		<10	<1	0.18	10	0.98	327	2	0.03	7	550	6	0.38	2	3	169
K976608		<10	<1	0.22	20	1.51	515	2	0.01	5	490	5	0.53	<2	3	200

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1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 24- AUG- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11138516

Sample Description	Method Analyte Units LOR	ME- ICP41 Th ppm 20	ME- ICP41 Ti % 0.01	ME- ICP41 Tl ppm 10	ME- ICP41 U ppm 10	ME- ICP41 V ppm 1	ME- ICP41 W ppm 10	ME- ICP41 Zn ppm 2	Cu- OG46 Cu % 0.001
K976569		<20	0.14	<10	<10	56	<10	12	
K976570		<20	0.14	<10	<10	56	<10	10	
K976571		<20	0.13	<10	<10	56	<10	11	
K976572		<20	0.14	<10	<10	56	<10	10	
K976573		<20	0.04	<10	<10	46	<10	19	
K976574		<20	0.03	<10	<10	47	<10	16	
K976575		<20	<0.01	<10	<10	109	<10	54	
K976576		<20	0.04	<10	<10	131	10	51	
K976577		<20	0.06	<10	<10	92	10	47	
K976578		<20	0.03	<10	<10	133	<10	73	
K976579		<20	<0.01	<10	<10	81	<10	61	
K976580		<20	<0.01	<10	<10	68	<10	78	
K976581		<20	<0.01	<10	<10	100	<10	107	
K976582		<20	0.03	<10	<10	106	<10	63	
K976583		<20	0.15	<10	<10	179	<10	64	
K976584		<20	0.19	<10	<10	190	<10	60	
K976585		<20	0.05	<10	<10	72	<10	56	
K976586		<20	0.03	<10	<10	74	<10	50	
K976587		<20	0.05	<10	<10	129	<10	85	
K976588		<20	<0.01	<10	<10	41	<10	81	
K976589		<20	0.02	<10	<10	94	<10	46	
K976590		<20	0.06	<10	<10	143	<10	56	
K976591		<20	0.17	<10	<10	129	<10	44	
K976592		<20	0.22	<10	<10	137	<10	48	
K976593		<20	0.09	<10	<10	125	<10	60	
K976594		<20	0.02	<10	<10	48	10	147	1.380
K976595		<20	0.02	<10	<10	101	40	179	2.03
K976596		<20	0.02	<10	<10	106	<10	47	
K976597		<20	0.13	<10	<10	103	10	33	
K976598		<20	0.14	<10	<10	126	10	42	
K976599		<20	0.18	<10	<10	139	30	39	
K976600		<20	0.19	<10	<10	141	20	36	
K976601		<20	0.11	<10	<10	49	<10	34	
K976602		<20	0.01	<10	<10	15	10	20	
K976603		<20	0.01	<10	<10	21	10	20	
K976604		<20	0.02	<10	<10	22	<10	24	
K976605		<20	<0.01	<10	<10	9	<10	22	
K976606		<20	<0.01	<10	<10	14	<10	23	
K976607		<20	<0.01	<10	<10	8	<10	24	
K976608		<20	<0.01	<10	<10	11	<10	24	

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1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 24- AUG- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11138516

Sample Description	Method	WEI- 21	Au- AA24	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41
	Analyte	Recvd Wt.	Au	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	kg	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	0.02	0.005	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
K976609		0.88	<0.005	<0.2	0.89	6	<10	470	0.5	<2	2.20	<0.5	8	11	104	2.05
K976610		0.60	<0.005	<0.2	0.69	<2	<10	380	<0.5	<2	1.47	<0.5	7	14	68	2.09
K976611		0.29	<0.005	<0.2	0.83	5	<10	280	<0.5	<2	1.89	<0.5	9	15	143	2.24
K976612		1.41	<0.005	0.7	0.92	3	<10	200	0.5	<2	2.40	<0.5	8	11	585	1.92
K976613		1.02	<0.005	0.3	0.80	5	<10	290	<0.5	<2	1.69	<0.5	8	14	269	1.95
K976614		0.88	<0.005	<0.2	0.72	4	<10	240	<0.5	<2	1.40	<0.5	8	16	142	1.92
K976615		0.38	<0.005	0.2	0.74	4	<10	500	0.5	<2	1.95	<0.5	9	12	254	1.96
K976616		1.04	<0.005	0.3	0.84	5	<10	60	0.7	<2	2.79	<0.5	7	6	222	1.82
K976617		0.98	<0.005	<0.2	1.27	<2	<10	380	0.9	<2	3.23	<0.5	9	10	118	2.36
K976618		1.17	<0.005	<0.2	0.97	<2	<10	270	0.7	<2	3.51	<0.5	7	6	117	2.17
K976619		1.01	<0.005	<0.2	1.04	<2	<10	740	0.7	<2	2.98	<0.5	7	6	79	2.26
K976620		1.03	<0.005	<0.2	0.83	23	<10	180	0.5	<2	1.73	<0.5	8	8	82	2.23
K976621		0.53	0.005	0.7	1.37	<2	<10	190	<0.5	<2	1.47	<0.5	11	38	611	2.77
K976622		2.37	<0.005	<0.2	1.11	13	<10	150	0.5	<2	3.65	<0.5	11	18	100	3.31
K976623		0.74	<0.005	0.2	2.16	2	<10	290	<0.5	<2	2.44	<0.5	23	65	190	4.14
K976624		0.57	<0.005	<0.2	4.02	5	<10	290	0.8	<2	3.67	<0.5	21	49	130	4.35
K976625		0.68	<0.005	<0.2	2.44	4	<10	330	<0.5	<2	3.02	<0.5	20	28	114	4.99
K976626		0.41	<0.005	<0.2	1.26	10	<10	380	<0.5	<2	3.33	<0.5	19	11	147	4.38
K976627		0.59	<0.005	<0.2	0.66	27	<10	220	0.7	<2	4.63	<0.5	15	5	109	3.85
K976628		0.38	<0.005	<0.2	0.47	41	<10	500	0.5	<2	5.84	<0.5	8	4	51	2.98
K976629		0.70	0.010	0.3	0.63	45	<10	80	0.9	<2	3.46	<0.5	16	3	133	3.12
K976630		0.72	<0.005	0.2	0.69	15	<10	260	0.8	<2	2.41	<0.5	10	4	90	2.06
K976631		0.80	<0.005	<0.2	0.64	10	<10	470	0.6	<2	3.21	<0.5	9	5	71	2.12
K976632		0.56	<0.005	<0.2	0.63	6	<10	230	0.6	<2	2.50	<0.5	9	4	82	1.86
K976633		0.78	<0.005	<0.2	0.58	14	<10	170	0.7	<2	2.32	<0.5	10	4	93	2.02
K976634		0.46	<0.005	<0.2	0.65	14	<10	400	0.8	<2	2.84	<0.5	9	4	105	1.93
K976635		0.78	<0.005	<0.2	0.74	22	<10	210	0.8	<2	4.20	<0.5	14	7	98	3.11
K270878		0.30	0.006	<0.2	1.32	<2	<10	160	<0.5	<2	0.98	<0.5	10	76	241	2.28
K270879		1.49	<0.005	<0.2	0.98	<2	<10	170	<0.5	<2	1.40	<0.5	6	26	72	2.10
K270880		0.07	<0.005	<0.2	1.29	<2	<10	200	<0.5	<2	1.15	<0.5	7	32	77	2.85
K270881		0.17	<0.005	<0.2	0.92	<2	<10	140	<0.5	<2	1.03	<0.5	6	25	105	2.27
K270882		0.36	<0.005	<0.2	0.87	2	<10	90	<0.5	<2	1.59	<0.5	6	22	182	2.03
K270883		0.67	<0.005	<0.2	0.82	<2	<10	110	<0.5	<2	1.06	<0.5	6	23	48	2.11
K270884		0.45	<0.005	<0.2	0.91	<2	<10	150	<0.5	<2	0.87	<0.5	6	23	109	2.24
K270885		0.60	<0.005	<0.2	0.88	2	<10	140	<0.5	<2	1.21	<0.5	7	25	100	2.56
K270886		0.60	<0.005	<0.2	0.89	<2	<10	250	<0.5	<2	1.50	<0.5	7	24	128	2.47
K270887		0.55	<0.005	<0.2	0.69	2	<10	450	<0.5	<2	1.63	<0.5	6	22	97	2.22
K270888		0.38	0.009	<0.2	0.55	<2	<10	350	0.5	<2	2.22	<0.5	6	14	108	1.99
K270889		0.72	<0.005	<0.2	0.61	3	<10	50	0.6	<2	3.54	<0.5	6	11	60	1.91
K270890		0.60	<0.005	<0.2	0.48	3	<10	70	0.7	<2	4.03	<0.5	4	7	160	1.30

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CERTIFICATE OF ANALYSIS WH11138516

Sample Description	Method Analyte Units LOR	ME- ICP41 Ga ppm 10	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1
K976609		<10	<1	0.19	10	0.72	258	3	0.05	8	560	9	0.53	<2	4	109
K976610		<10	<1	0.20	10	0.62	216	4	0.08	5	530	5	0.67	<2	3	100
K976611		<10	<1	0.19	10	0.69	239	2	0.06	7	560	6	0.64	<2	4	121
K976612		<10	<1	0.17	10	0.80	258	3	0.04	5	560	6	0.30	2	4	136
K976613		<10	<1	0.16	10	0.57	240	3	0.07	6	510	7	0.41	<2	4	107
K976614		<10	<1	0.17	10	0.54	226	4	0.08	5	530	4	0.42	<2	3	91
K976615		<10	<1	0.20	10	0.62	252	3	0.06	5	560	5	0.35	<2	4	128
K976616		<10	<1	0.21	10	0.75	284	2	0.02	4	540	9	0.45	<2	3	125
K976617		<10	<1	0.23	10	0.69	258	3	0.03	9	560	8	0.34	<2	4	115
K976618		<10	<1	0.24	10	0.47	191	2	0.03	4	570	8	0.28	<2	3	71
K976619		<10	<1	0.22	10	0.22	229	3	0.02	4	560	7	0.09	<2	3	55
K976620		<10	<1	0.14	20	0.09	280	4	0.01	8	610	7	0.03	2	5	29
K976621		<10	<1	0.19	10	0.91	322	4	0.09	23	780	6	0.19	<2	4	62
K976622		<10	1	0.18	20	1.32	597	3	0.05	17	1350	9	0.09	<2	9	244
K976623		10	1	0.59	10	1.86	543	3	0.21	45	1630	5	0.45	<2	9	253
K976624		10	1	0.39	10	2.06	654	2	0.46	34	1230	9	0.32	2	10	446
K976625		10	<1	0.56	10	2.06	807	2	0.25	20	1510	5	0.33	2	11	272
K976626		<10	<1	0.27	20	1.68	672	2	0.08	12	1340	5	0.56	<2	11	243
K976627		<10	<1	0.27	10	1.77	705	3	0.03	12	1070	8	1.28	2	9	203
K976628		<10	<1	0.22	<10	1.98	680	5	0.02	14	730	6	0.13	3	7	246
K976629		<10	<1	0.28	10	1.14	418	2	0.02	17	1070	12	2.04	6	9	179
K976630		<10	<1	0.24	10	0.85	282	2	0.02	13	570	12	0.82	<2	4	151
K976631		<10	<1	0.20	10	1.09	332	1	0.02	11	460	9	0.57	<2	4	194
K976632		<10	<1	0.22	10	0.83	264	1	0.02	7	530	7	0.67	<2	4	144
K976633		<10	<1	0.25	10	0.77	243	2	0.02	6	500	11	1.12	3	4	147
K976634		<10	1	0.24	10	0.95	288	2	0.01	5	530	8	0.54	<2	4	154
K976635		<10	<1	0.24	20	1.45	572	1	0.01	18	820	7	1.12	3	9	222
K270878		10	<1	0.36	20	1.04	315	29	0.08	57	460	5	0.13	<2	5	41
K270879		<10	<1	0.22	20	0.62	336	8	0.08	11	480	5	0.04	2	4	44
K270880		10	<1	0.36	20	0.61	373	11	0.19	11	430	4	0.04	<2	3	60
K270881		<10	<1	0.21	20	0.63	303	6	0.10	8	450	5	0.02	<2	3	39
K270882		<10	<1	0.16	20	0.67	321	4	0.06	7	460	4	0.05	<2	3	40
K270883		<10	<1	0.18	20	0.63	288	4	0.07	6	470	2	0.04	<2	3	36
K270884		<10	1	0.29	20	0.74	291	73	0.09	6	530	3	0.05	<2	3	40
K270885		<10	<1	0.24	20	0.75	342	13	0.09	7	650	4	0.05	<2	4	46
K270886		<10	<1	0.24	20	0.81	369	20	0.08	6	610	5	0.05	<2	5	56
K270887		<10	<1	0.22	20	0.66	322	38	0.05	11	550	7	<0.01	<2	4	65
K270888		<10	<1	0.19	20	0.66	340	19	0.02	5	500	7	0.01	<2	4	69
K270889		<10	<1	0.25	20	0.90	422	18	<0.01	4	630	5	0.03	<2	3	77
K270890		<10	<1	0.22	20	0.31	462	11	<0.01	4	540	7	0.01	<2	2	85

ALS Canada Ltd.
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To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 24- AUG- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11138516

Sample Description	Method Analyte Units LOR	ME- ICP41 Th ppm 20	ME- ICP41 Ti % 0.01	ME- ICP41 Tl ppm 10	ME- ICP41 U ppm 10	ME- ICP41 V ppm 1	ME- ICP41 W ppm 10	ME- ICP41 Zn ppm 2	Cu- OG46 Cu % 0.001
K976609		<20	0.01	<10	<10	24	<10	17	
K976610		<20	0.05	<10	<10	30	<10	14	
K976611		<20	0.03	<10	<10	32	<10	15	
K976612		<20	0.01	<10	<10	24	<10	21	
K976613		<20	0.02	<10	<10	29	<10	17	
K976614		<20	0.04	<10	<10	33	10	16	
K976615		<20	0.01	<10	<10	24	<10	18	
K976616		<20	<0.01	<10	<10	15	<10	16	
K976617		<20	<0.01	<10	<10	18	<10	15	
K976618		<20	<0.01	<10	<10	16	<10	15	
K976619		<20	<0.01	<10	<10	18	<10	14	
K976620		<20	<0.01	<10	<10	24	<10	16	
K976621		<20	0.12	<10	<10	53	<10	40	
K976622		<20	0.04	<10	<10	62	<10	40	
K976623		<20	0.18	<10	<10	125	<10	45	
K976624		<20	0.11	<10	<10	130	<10	63	
K976625		<20	0.12	<10	<10	140	<10	69	
K976626		<20	0.04	<10	<10	107	<10	45	
K976627		<20	<0.01	<10	<10	40	<10	36	
K976628		<20	<0.01	<10	<10	19	<10	26	
K976629		<20	<0.01	<10	<10	20	<10	39	
K976630		<20	<0.01	<10	<10	12	<10	25	
K976631		<20	<0.01	<10	<10	14	<10	21	
K976632		<20	<0.01	<10	<10	11	<10	18	
K976633		<20	<0.01	<10	<10	9	<10	18	
K976634		<20	<0.01	<10	<10	9	<10	22	
K976635		<20	<0.01	<10	<10	36	<10	37	
K270878		<20	0.11	<10	<10	60	<10	26	
K270879		<20	0.06	<10	<10	43	<10	23	
K270880		<20	0.07	<10	<10	46	<10	20	
K270881		<20	0.05	<10	<10	45	10	21	
K270882		<20	0.04	<10	<10	43	<10	20	
K270883		<20	0.06	<10	<10	46	<10	20	
K270884		<20	0.09	<10	<10	59	<10	20	
K270885		<20	0.08	<10	<10	68	10	23	
K270886		<20	0.07	<10	<10	66	<10	24	
K270887		<20	0.06	<10	<10	59	<10	23	
K270888		<20	0.02	<10	<10	39	<10	18	
K270889		20	<0.01	<10	<10	32	<10	16	
K270890		20	<0.01	<10	<10	16	<10	15	

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Finalized Date: 24- AUG- 2011
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Project: Hopper

CERTIFICATE OF ANALYSIS WH11138516

Sample Description	Method	WEI- 21	Au- AA24	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41
	Analyte	Recvd Wt.	Au	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	kg	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	0.02	0.005	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
J981405		0.49	<0.005	<0.2	0.38	<2	<10	70	<0.5	<2	0.50	<0.5	7	7	2790	0.44
J981406		0.72	0.745	22.4	0.88	11	<10	20	<0.5	9	3.96	<0.5	3	24	>10000	10.95

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CERTIFICATE OF ANALYSIS WH11138516

Sample Description	Method / Analyte / Units / LOR	ME- ICP41 Ga ppm 10	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1
J981405		<10	<1	0.15	10	0.11	140	<1	0.07	6	830	5	<0.01	<2	1	23
J981406		10	<1	0.05	<10	0.19	478	1	0.06	9	550	6	0.97	3	1	30

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CERTIFICATE OF ANALYSIS WH11138516

Sample Description	Method Analyte Units LOR	ME- ICP41 Th ppm 20	ME- ICP41 Ti % 0.01	ME- ICP41 Tl ppm 10	ME- ICP41 U ppm 10	ME- ICP41 V ppm 1	ME- ICP41 W ppm 10	ME- ICP41 Zn ppm 2	Cu- OG46 Cu % 0.001
J981405		<20	0.12	<10	<10	15	<10	49	
J981406		<20	0.06	<10	<10	18	70	81	1.070

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To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
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Finalized Date: 1- SEP- 2011
This copy reported on 11- JAN- 2012
Account: F

CERTIFICATE WH11143501

Project: Hopper
P.O. No.:
This report is for 202 RC Drill Chip samples submitted to our lab in Whitehorse, YT, Canada on 26- JUL- 2011.
The following have access to data associated with this certificate:

JOAN MARIACHER	HEATHER SMITH	

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
CRU- 31	Fine crushing - 70% <2mm
CRU- QC	Crushing QC Test
PUL- QC	Pulverizing QC Test
SPL- 21	Split sample - riffle splitter
PUL- 31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au- AA24	Au 50g FA AA finish	AAS
ME- ICP41	35 Element Aqua Regia ICP- AES	ICP- AES

To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
ATTN: JOAN MARIACHER
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

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.

***** See Appendix Page for comments regarding this certificate *****

Signature:
Colin Ramshaw, Vancouver Laboratory Manager

ALS Minerals

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Finalized Date: 1-SEP-2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11143501

Sample Description	WEI-21	Au-AA24	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
Method / Analyte	Recvd Wt.	Au	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
Units	kg	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
LOR	.02	0.005	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
K863891	0.14	<0.005	<0.2	1.80	4	<10	290	0.5	<2	0.70	<0.5	12	53	115	2.77
K863892	0.78	<0.005	<0.2	2.58	4	<10	420	0.6	<2	3.47	<0.5	24	139	89	4.24
K863893	0.19	<0.005	<0.2	0.78	<2	<10	330	<0.5	<2	1.10	<0.5	7	40	52	2.10
K863894	0.27	<0.005	<0.2	1.26	3	<10	370	<0.5	<2	1.45	<0.5	12	60	87	2.66
K863895	0.37	<0.005	<0.2	2.67	2	<10	340	0.6	<2	3.37	<0.5	24	156	75	4.26
K863896	0.20	<0.005	<0.2	2.71	3	<10	410	0.7	<2	3.49	<0.5	24	132	64	4.44
K863897	0.17	<0.005	<0.2	0.88	<2	<10	210	<0.5	<2	0.85	<0.5	7	41	46	2.21
K863898	0.50	<0.005	<0.2	2.25	3	<10	220	0.5	<2	2.54	<0.5	20	152	64	3.59
K863899	1.24	<0.005	<0.2	1.62	2	<10	200	<0.5	<2	1.21	<0.5	14	86	100	2.81
K863900	0.74	<0.005	<0.2	0.92	<2	<10	170	<0.5	<2	1.07	<0.5	8	42	58	2.21
K975051	1.61	<0.005	<0.2	2.53	<2	<10	190	0.7	<2	1.97	<0.5	25	110	99	4.04
K975052	1.22	<0.005	0.2	2.77	<2	<10	600	0.7	<2	2.76	<0.5	30	110	101	4.28
K975053	0.93	<0.005	<0.2	1.83	4	<10	320	0.6	<2	3.28	<0.5	17	78	104	3.26
K975054	3.16	<0.005	<0.2	2.27	2	<10	600	0.5	<2	3.68	<0.5	24	155	74	3.56
K975055	3.03	<0.005	<0.2	1.31	<2	<10	290	0.5	<2	2.43	<0.5	15	68	107	2.70
K975056	1.66	<0.005	<0.2	0.95	<2	<10	190	<0.5	<2	1.37	<0.5	9	42	100	2.34
K975057	1.45	<0.005	<0.2	2.98	3	<10	450	0.6	<2	4.16	<0.5	27	205	79	4.56
K975058	1.72	<0.005	<0.2	1.65	<2	<10	310	<0.5	<2	1.82	<0.5	14	90	90	2.98
K975059	2.51	<0.005	<0.2	0.89	2	<10	250	<0.5	<2	1.00	<0.5	9	53	105	2.29
K975060	1.77	<0.005	<0.2	0.77	2	<10	210	<0.5	<2	1.73	<0.5	7	33	110	2.06
K975061	0.69	<0.005	<0.2	1.07	3	<10	160	<0.5	<2	0.53	<0.5	8	34	175	2.18
K975062	0.17	<0.005	<0.2	1.06	<2	<10	210	<0.5	<2	0.68	<0.5	7	36	223	2.18
K975063	0.29	<0.005	<0.2	0.69	<2	<10	260	<0.5	<2	0.44	<0.5	6	31	94	1.86
K975064	1.04	<0.005	<0.2	0.69	<2	<10	250	<0.5	<2	0.51	<0.5	7	35	123	1.96
K975065	1.63	<0.005	<0.2	0.68	<2	<10	320	<0.5	<2	0.45	<0.5	7	35	189	2.02
K975066	2.15	<0.005	<0.2	0.72	<2	<10	210	<0.5	<2	0.50	<0.5	7	35	143	1.96
K975067	2.05	<0.005	<0.2	0.78	<2	<10	210	<0.5	<2	0.71	<0.5	7	33	106	2.01
K975068	0.59	<0.005	<0.2	0.64	<2	<10	260	<0.5	<2	0.45	<0.5	6	33	72	1.92
K975069	0.57	<0.005	0.2	0.61	<2	<10	330	<0.5	<2	0.42	<0.5	6	33	214	1.85
K975070	0.46	<0.005	<0.2	0.67	<2	<10	250	<0.5	<2	0.56	<0.5	6	33	130	1.94
K975071	0.69	<0.005	<0.2	0.64	<2	<10	250	<0.5	<2	0.48	<0.5	6	34	161	1.93
K975072	1.58	<0.005	<0.2	0.73	<2	<10	310	<0.5	<2	0.51	<0.5	6	35	137	2.08
K975073	1.54	<0.005	<0.2	0.71	<2	<10	290	<0.5	<2	0.45	<0.5	7	34	194	1.98
K975074	0.98	<0.005	<0.2	0.65	<2	<10	430	<0.5	<2	0.54	<0.5	7	33	146	1.91
K975075	1.70	<0.005	<0.2	0.73	<2	<10	340	<0.5	<2	1.10	<0.5	8	32	153	1.99
K975076	0.37	<0.005	<0.2	0.62	<2	<10	260	<0.5	<2	0.40	<0.5	6	33	88	1.88
K975077	1.76	<0.005	0.2	0.83	2	<10	450	<0.5	<2	0.81	<0.5	9	34	407	2.18
K975078	0.80	<0.005	<0.2	0.73	<2	<10	440	<0.5	<2	0.82	<0.5	8	37	187	2.17
K975079	1.80	<0.005	<0.2	0.84	2	<10	440	<0.5	<2	0.80	<0.5	8	36	190	2.27
K975080	1.21	<0.005	<0.2	0.79	<2	<10	360	<0.5	<2	0.84	<0.5	7	36	90	2.21

***** See Appendix Page for comments regarding this certificate *****

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Finalized Date: 1- SEP- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11143501

Sample Description	Method / Analyte / Units / LOR	ME- ICP41 Ga ppm 10	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1
K863891		10	<1	0.21	20	0.82	414	6	0.07	32	670	7	0.02	<2	6	40
K863892		10	<1	0.16	20	3.35	683	1	0.14	115	1740	5	0.02	<2	12	218
K863893		<10	<1	0.17	10	0.67	225	2	0.08	14	590	3	0.02	<2	3	69
K863894		10	<1	0.15	10	1.25	399	1	0.09	29	750	4	0.02	<2	6	116
K863895		10	<1	0.11	20	3.69	685	1	0.10	107	1670	3	0.03	<2	12	399
K863896		10	<1	0.11	20	3.72	688	1	0.08	93	1670	7	0.03	<2	13	332
K863897		<10	<1	0.18	10	0.69	232	2	0.10	15	660	2	0.01	<2	2	62
K863898		10	<1	0.11	10	3.15	566	1	0.11	101	1400	3	0.01	<2	9	176
K863899		10	<1	0.15	10	1.82	443	1	0.08	50	1000	3	0.01	<2	5	80
K863900		<10	<1	0.16	10	0.70	248	1	0.08	14	630	3	0.01	<2	3	56
K975051		10	<1	0.08	10	3.81	631	1	0.04	107	1820	3	0.01	<2	8	159
K975052		10	<1	0.06	10	4.70	596	1	0.04	152	1990	2	0.03	<2	8	214
K975053		10	<1	0.16	20	2.06	507	1	0.11	65	1520	4	0.01	<2	9	199
K975054		10	<1	0.15	10	3.47	563	1	0.14	134	1560	2	0.02	<2	11	291
K975055		10	<1	0.16	10	1.62	366	1	0.07	53	900	3	0.03	<2	5	104
K975056		<10	<1	0.17	10	0.85	261	1	0.08	15	680	2	0.01	<2	4	72
K975057		10	<1	0.06	10	4.31	733	<1	0.07	116	1810	3	0.02	<2	16	317
K975058		10	<1	0.16	10	2.07	386	1	0.10	49	1120	2	0.01	<2	7	142
K975059		<10	<1	0.21	10	0.83	239	1	0.08	19	620	2	0.01	<2	3	57
K975060		<10	<1	0.20	10	0.49	214	2	0.05	10	610	<2	0.01	<2	3	52
K975061		<10	<1	0.16	10	0.63	261	2	0.07	14	600	3	0.01	<2	3	30
K975062		<10	<1	0.21	10	0.60	234	2	0.12	13	570	3	0.01	<2	3	45
K975063		<10	<1	0.24	10	0.49	181	1	0.08	8	460	3	0.01	<2	1	25
K975064		<10	<1	0.21	10	0.56	208	1	0.08	8	500	<2	0.01	<2	2	26
K975065		<10	<1	0.24	10	0.54	207	1	0.08	9	480	2	<0.01	<2	2	26
K975066		<10	<1	0.19	10	0.54	218	2	0.08	9	490	<2	0.01	<2	2	25
K975067		<10	<1	0.20	10	0.61	242	1	0.07	9	500	<2	<0.01	<2	2	31
K975068		<10	<1	0.23	10	0.44	170	1	0.09	7	470	<2	0.01	<2	1	27
K975069		<10	<1	0.22	10	0.42	152	2	0.08	7	470	<2	0.01	<2	1	26
K975070		<10	<1	0.22	10	0.49	183	1	0.09	8	490	2	0.01	<2	2	31
K975071		<10	<1	0.21	10	0.44	165	1	0.08	8	520	2	0.01	<2	1	28
K975072		<10	<1	0.26	10	0.52	183	1	0.09	8	520	<2	0.01	<2	1	27
K975073		<10	<1	0.27	10	0.49	162	3	0.08	8	480	2	0.02	<2	1	26
K975074		<10	<1	0.27	10	0.52	190	1	0.08	8	480	2	0.01	<2	2	33
K975075		<10	<1	0.28	10	0.49	243	2	0.06	9	520	<2	0.01	<2	3	35
K975076		<10	<1	0.24	10	0.39	157	1	0.10	7	490	<2	0.01	<2	1	28
K975077		<10	<1	0.30	10	0.63	261	4	0.09	13	420	6	0.03	<2	3	41
K975078		<10	<1	0.28	10	0.60	268	2	0.10	9	530	3	0.02	<2	3	49
K975079		<10	<1	0.31	10	0.68	280	7	0.10	10	480	3	0.02	<2	3	50
K975080		<10	<1	0.30	10	0.57	240	2	0.12	9	500	<2	0.01	<2	2	51

***** See Appendix Page for comments regarding this certificate *****

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

To: ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 1- SEP- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11143501

Sample Description	Method Analyte Units LOR	ME- ICP41 Th ppm 20	ME- ICP41 Ti % 0.01	ME- ICP41 Tl ppm 10	ME- ICP41 U ppm 10	ME- ICP41 V ppm 1	ME- ICP41 W ppm 10	ME- ICP41 Zn ppm 2
K863891		<20	0.11	<10	<10	60	<10	45
K863892		<20	0.16	<10	<10	103	<10	61
K863893		<20	0.10	<10	<10	53	<10	13
K863894		<20	0.04	<10	<10	60	<10	27
K863895		<20	0.16	<10	<10	112	<10	58
K863896		<20	0.15	<10	<10	122	<10	59
K863897		<20	0.12	<10	<10	55	<10	15
K863898		<20	0.17	<10	<10	93	<10	42
K863899		<20	0.10	<10	<10	70	<10	25
K863900		<20	0.09	<10	<10	53	<10	14
K975051		<20	0.18	<10	<10	104	<10	49
K975052		<20	0.19	<10	<10	108	<10	56
K975053		<20	0.13	<10	<10	87	<10	32
K975054		<20	0.15	<10	<10	92	<10	42
K975055		<20	0.11	<10	<10	69	<10	24
K975056		<20	0.11	<10	<10	60	<10	16
K975057		<20	0.24	<10	<10	140	<10	62
K975058		<20	0.18	<10	<10	85	<10	32
K975059		<20	0.12	<10	<10	58	<10	15
K975060		<20	0.05	<10	<10	44	<10	13
K975061		<20	0.11	<10	<10	45	<10	25
K975062		<20	0.12	<10	<10	47	<10	18
K975063		<20	0.13	<10	<10	46	<10	12
K975064		<20	0.10	<10	<10	47	<10	14
K975065		<20	0.12	<10	<10	47	<10	13
K975066		<20	0.10	<10	<10	45	<10	15
K975067		<20	0.09	<10	<10	46	<10	15
K975068		<20	0.11	<10	<10	48	<10	11
K975069		<20	0.12	<10	<10	47	10	10
K975070		<20	0.11	<10	<10	47	<10	11
K975071		<20	0.12	<10	<10	46	<10	11
K975072		<20	0.14	<10	<10	50	<10	12
K975073		<20	0.14	<10	<10	50	<10	11
K975074		<20	0.12	<10	<10	47	<10	13
K975075		<20	0.09	<10	<10	46	<10	14
K975076		<20	0.12	<10	<10	47	<10	12
K975077		<20	0.11	<10	<10	51	<10	24
K975078		<20	0.10	<10	<10	50	<10	15
K975079		<20	0.11	<10	<10	53	<10	16
K975080		<20	0.12	<10	<10	51	<10	14

***** See Appendix Page for comments regarding this certificate *****

ALS Canada Ltd.

2103 Dollarton Hwy
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To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016-510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 1-SEP-2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11143501

Sample Description	Method	WEI-21	Au-AA24	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Recvd Wt.	Au	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	kg	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	.02	0.005	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
K975081		1.49	<0.005	<0.2	1.48	3	<10	200	<0.5	<2	1.13	<0.5	9	32	84	2.37
K975082		2.04	<0.005	<0.2	0.89	3	<10	190	0.6	<2	2.09	<0.5	9	30	84	2.23
K975083		0.63	<0.005	<0.2	1.37	<2	<10	390	0.8	<2	2.00	<0.5	14	49	102	3.11
K975084		0.28	<0.005	<0.2	0.79	5	<10	160	0.6	<2	4.64	<0.5	9	29	49	2.37
K975085		0.11	<0.005	<0.2	1.16	3	<10	180	0.7	<2	5.52	<0.5	10	31	37	2.52
K975086		0.27	<0.005	<0.2	1.05	4	<10	250	0.5	<2	4.37	<0.5	13	26	111	2.94
K975087		0.44	<0.005	<0.2	1.43	<2	<10	270	<0.5	<2	2.06	<0.5	14	36	52	2.99
K975088		0.40	<0.005	<0.2	1.24	5	<10	1210	1.0	<2	1.24	<0.5	16	25	568	3.47
K975089		1.24	<0.005	<0.2	1.13	<2	<10	300	0.7	<2	3.01	<0.5	12	27	142	2.86
K975090		1.39	<0.005	<0.2	0.77	<2	<10	190	<0.5	<2	1.07	<0.5	10	37	66	2.76
K975091		1.85	<0.005	<0.2	0.94	<2	<10	180	<0.5	<2	1.14	<0.5	10	39	58	2.66
K975092		1.60	<0.005	<0.2	1.31	<2	<10	210	<0.5	<2	1.12	<0.5	12	39	43	3.02
K975093		1.70	<0.005	<0.2	1.18	2	<10	230	<0.5	<2	1.47	<0.5	12	34	28	2.98
K975094		0.71	<0.005	<0.2	0.69	<2	<10	420	<0.5	<2	2.19	<0.5	9	22	18	2.23
K975095		0.94	<0.005	<0.2	0.82	<2	<10	180	<0.5	<2	1.60	<0.5	10	30	19	2.66
K975096		0.82	<0.005	<0.2	0.81	<2	<10	130	<0.5	<2	1.35	<0.5	11	28	46	3.04
K975097		0.37	<0.005	<0.2	0.81	<2	<10	120	<0.5	<2	1.18	<0.5	10	28	29	3.12
K975098		0.39	<0.005	<0.2	0.93	<2	<10	600	0.6	<2	4.21	<0.5	16	20	32	3.43
K975099		0.36	<0.005	<0.2	0.69	<2	<10	140	0.8	<2	4.16	<0.5	12	13	31	2.82
K975100		Not Recvd														
K863913		0.11	0.006	<0.2	1.78	4	<10	240	0.6	<2	1.19	<0.5	10	36	219	2.93
K863914		0.86	<0.005	<0.2	1.72	3	<10	170	<0.5	<2	1.11	<0.5	11	35	156	2.59
K863915		0.80	<0.005	<0.2	1.71	<2	<10	150	<0.5	<2	1.22	<0.5	10	34	151	2.54
K863916		0.62	0.007	0.3	1.02	<2	<10	180	<0.5	<2	0.85	<0.5	8	22	285	2.06
K863917		0.40	<0.005	<0.2	0.89	<2	<10	140	<0.5	<2	0.74	<0.5	7	38	79	2.23
K863918		0.33	0.005	<0.2	0.91	<2	<10	140	<0.5	<2	0.67	<0.5	8	21	177	2.13
K863919		0.39	<0.005	<0.2	0.81	<2	<10	130	<0.5	<2	0.52	<0.5	7	19	87	2.06
K863920		0.35	0.005	<0.2	0.87	<2	<10	140	<0.5	<2	0.72	<0.5	7	21	134	2.23
K863921		0.42	0.007	0.2	0.80	<2	<10	180	<0.5	<2	0.86	<0.5	8	21	157	2.27
K863922		0.36	<0.005	<0.2	0.66	<2	<10	420	<0.5	<2	1.40	<0.5	7	18	118	2.07
K863923		0.27	<0.005	<0.2	0.50	<2	<10	2200	0.6	<2	2.90	<0.5	6	9	90	1.70
K863924		1.08	0.008	0.2	0.49	2	<10	1990	0.5	<2	3.13	<0.5	6	7	476	1.48
K863925		0.23	<0.005	<0.2	0.62	<2	<10	110	0.5	<2	2.07	<0.5	7	13	134	1.89
K863926		0.58	0.005	0.2	0.59	<2	<10	100	<0.5	<2	2.13	<0.5	6	15	147	2.16
K863927		0.40	0.011	0.2	0.67	<2	<10	140	<0.5	<2	1.70	<0.5	6	17	354	2.22
K863928		1.03	<0.005	0.2	0.79	<2	<10	90	<0.5	<2	1.28	<0.5	7	20	123	2.34
K863929		1.12	0.007	0.2	0.79	<2	<10	110	<0.5	<2	0.83	<0.5	6	22	126	2.23
K863930		0.98	0.009	0.2	0.77	<2	<10	100	<0.5	<2	0.76	<0.5	6	22	209	2.06
K863931		0.54	0.009	0.2	0.78	<2	<10	340	<0.5	<2	1.77	<0.5	6	18	208	1.98
K863932		0.61	<0.005	0.2	0.76	<2	<10	170	<0.5	<2	2.41	<0.5	5	17	64	1.98

***** See Appendix Page for comments regarding this certificate *****

ALS Canada Ltd.
2103 Dollarton Hwy
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To: ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 1- SEP- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11143501

Sample Description	Method Analyte Units LOR	ME- ICP41 Ga ppm 10	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1
K975081		10	<1	0.27	10	0.74	308	2	0.09	19	800	5	0.07	<2	4	64
K975082		<10	<1	0.28	10	0.38	401	8	0.03	15	720	4	0.02	<2	5	40
K975083		<10	1	0.29	10	0.58	712	7	0.03	24	840	4	0.01	<2	8	41
K975084		<10	<1	0.24	20	0.27	508	11	0.01	11	880	5	0.01	<2	8	63
K975085		<10	<1	0.35	20	0.23	594	10	0.01	11	920	6	0.01	<2	11	69
K975086		<10	<1	0.20	10	0.72	592	12	0.05	14	780	4	0.01	<2	7	71
K975087		10	<1	0.26	10	1.31	480	1	0.08	15	1010	3	0.01	<2	8	72
K975088		<10	<1	0.30	20	0.64	4400	15	0.02	14	1020	6	0.01	<2	10	47
K975089		<10	<1	0.23	20	0.45	743	3	0.03	10	1010	5	0.01	<2	10	93
K975090		<10	<1	0.31	20	0.72	456	3	0.08	11	820	6	0.01	<2	4	54
K975091		<10	<1	0.23	10	0.87	426	4	0.09	10	760	10	0.01	<2	4	59
K975092		10	<1	0.36	10	1.14	473	4	0.10	11	800	11	0.02	<2	6	61
K975093		10	<1	0.30	10	1.14	488	4	0.09	10	840	8	0.02	<2	6	70
K975094		<10	<1	0.20	20	0.74	425	5	0.05	7	790	4	0.02	<2	5	69
K975095		<10	<1	0.13	20	0.78	415	4	0.08	8	970	2	0.01	<2	4	62
K975096		<10	<1	0.12	20	0.70	373	1	0.10	6	1090	3	0.01	<2	4	53
K975097		<10	<1	0.14	10	0.64	341	1	0.11	6	1230	2	0.01	<2	3	54
K975098		<10	<1	0.19	20	1.34	748	2	0.05	10	1140	4	0.03	<2	7	136
K975099		<10	<1	0.22	20	1.26	663	4	0.03	6	1300	4	0.01	<2	10	155
K975100																
K863913		10	<1	0.34	20	0.71	622	5	0.12	20	730	6	0.04	<2	6	65
K863914		10	<1	0.37	10	0.90	349	3	0.10	22	1090	5	0.13	<2	5	56
K863915		10	<1	0.38	20	0.89	292	3	0.11	20	820	4	0.17	<2	5	65
K863916		<10	<1	0.35	20	0.78	219	9	0.07	9	540	3	0.05	<2	4	38
K863917		<10	<1	0.44	20	0.68	204	13	0.09	38	530	2	0.02	<2	4	42
K863918		<10	<1	0.51	20	0.73	171	9	0.08	9	570	3	0.03	<2	4	45
K863919		<10	<1	0.49	10	0.68	161	9	0.07	5	480	2	0.02	<2	3	38
K863920		<10	<1	0.44	20	0.71	177	33	0.08	5	540	2	0.07	<2	4	43
K863921		<10	<1	0.37	20	0.65	191	18	0.09	5	550	3	0.07	<2	4	50
K863922		<10	<1	0.20	20	0.60	215	16	0.06	5	530	2	0.07	<2	4	60
K863923		<10	<1	0.21	20	0.66	267	14	0.03	2	550	3	0.11	<2	3	130
K863924		<10	<1	0.21	20	0.55	250	25	0.03	3	510	3	0.17	<2	3	134
K863925		<10	<1	0.21	20	0.54	235	12	0.05	4	570	3	0.08	<2	4	56
K863926		<10	<1	0.20	20	0.77	268	31	0.03	4	540	3	0.04	<2	4	55
K863927		<10	<1	0.21	20	0.65	224	18	0.05	3	560	2	0.07	<2	4	50
K863928		<10	<1	0.27	20	0.76	231	12	0.05	3	560	2	0.05	<2	4	46
K863929		<10	<1	0.37	20	0.68	189	13	0.07	3	530	<2	0.04	<2	4	41
K863930		<10	<1	0.34	10	0.63	180	17	0.07	4	530	2	0.04	<2	3	40
K863931		<10	<1	0.29	20	0.73	238	9	0.05	3	530	<2	0.05	<2	3	61
K863932		<10	<1	0.30	20	0.52	261	11	0.06	3	510	2	0.05	<2	3	106

***** See Appendix Page for comments regarding this certificate *****

ALS Minerals

ALS Canada Ltd.
2103 Dollarton Hwy
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To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 1- SEP- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11143501

Sample Description	Method Analyte Units LOR	ME- ICP41 Th ppm 20	ME- ICP41 Ti % 0.01	ME- ICP41 Tl ppm 10	ME- ICP41 U ppm 10	ME- ICP41 V ppm 1	ME- ICP41 W ppm 10	ME- ICP41 Zn ppm 2
K975081		<20	0.14	<10	<10	47	<10	41
K975082		<20	0.04	<10	<10	42	<10	30
K975083		<20	0.04	<10	<10	54	<10	36
K975084		<20	0.01	<10	<10	42	<10	26
K975085		<20	<0.01	<10	<10	49	<10	28
K975086		<20	0.02	<10	<10	55	10	33
K975087		<20	0.07	<10	<10	84	<10	36
K975088		<20	0.01	<10	<10	48	90	38
K975089		<20	0.01	<10	<10	62	10	33
K975090		<20	0.11	<10	<10	86	<10	38
K975091		<20	0.12	<10	<10	83	<10	41
K975092		<20	0.13	<10	<10	91	<10	46
K975093		<20	0.11	<10	<10	83	<10	44
K975094		<20	0.04	<10	<10	51	<10	29
K975095		<20	0.08	<10	<10	77	<10	28
K975096		<20	0.13	<10	<10	100	<10	27
K975097		<20	0.13	<10	<10	102	<10	25
K975098		<20	0.03	<10	<10	73	<10	46
K975099		<20	<0.01	<10	<10	57	<10	34
K975100								
K863913		<20	0.13	<10	<10	52	10	43
K863914		<20	0.15	<10	<10	51	<10	43
K863915		<20	0.15	<10	<10	53	10	34
K863916		<20	0.10	<10	<10	55	<10	20
K863917		<20	0.13	<10	<10	61	<10	14
K863918		<20	0.14	<10	<10	72	<10	15
K863919		<20	0.15	<10	<10	65	<10	13
K863920		<20	0.14	<10	<10	65	<10	13
K863921		<20	0.10	<10	<10	63	10	13
K863922		<20	0.02	<10	<10	48	10	13
K863923		20	<0.01	<10	<10	24	<10	12
K863924		<20	<0.01	<10	<10	19	<10	9
K863925		<20	0.01	<10	<10	38	<10	12
K863926		<20	0.02	<10	<10	43	<10	14
K863927		<20	0.03	<10	<10	47	10	15
K863928		<20	0.05	<10	<10	58	<10	13
K863929		<20	0.12	<10	<10	65	<10	13
K863930		<20	0.12	<10	<10	60	<10	13
K863931		20	0.07	<10	<10	51	<10	13
K863932		<20	0.05	<10	<10	48	<10	11

***** See Appendix Page for comments regarding this certificate *****

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

To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 1- SEP- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11143501

Sample Description	Method Analyte Units LOR	WEI- 21 Recvd Wt. kg .02	Au- AA24 Au ppm 0.005	ME- ICP41 Ag ppm 0.2	ME- ICP41 Al % 0.01	ME- ICP41 As ppm 2	ME- ICP41 B ppm 10	ME- ICP41 Ba ppm 10	ME- ICP41 Be ppm 0.5	ME- ICP41 Bi ppm 2	ME- ICP41 Ca % 0.01	ME- ICP41 Cd ppm 0.5	ME- ICP41 Co ppm 1	ME- ICP41 Cr ppm 1	ME- ICP41 Cu ppm 1	ME- ICP41 Fe % 0.01
K863933		0.93	0.010	0.2	1.55	2	<10	70	0.5	<2	0.56	<0.5	8	57	190	2.28
K863934		1.39	<0.005	0.2	0.93	<2	<10	30	<0.5	<2	0.83	<0.5	4	37	73	1.53
K863935		2.52	<0.005	<0.2	1.19	<2	<10	40	<0.5	<2	0.90	<0.5	7	45	48	2.05
K863936		0.28	0.008	<0.2	1.74	2	<10	80	0.5	2	0.84	<0.5	10	52	165	2.59
K863937		0.70	0.005	0.2	1.98	2	<10	70	0.6	2	1.19	<0.5	10	60	144	2.80
K863938		0.35	0.006	0.3	3.65	4	<10	60	1.2	2	2.31	<0.5	10	63	212	3.33
K863939		0.57	0.006	0.2	1.85	3	<10	40	0.8	<2	1.62	<0.5	6	41	176	1.83
K863940		0.79	<0.005	<0.2	2.01	6	<10	50	1.0	<2	1.07	<0.5	8	53	81	2.25
K863941		0.60	<0.005	0.2	2.11	4	<10	30	1.2	<2	2.07	<0.5	8	52	79	2.52
K863942		2.34	<0.005	0.2	2.22	4	<10	30	0.9	<2	2.17	<0.5	13	77	104	2.77
K863943		2.09	0.028	5.2	2.54	28	<10	20	1.1	10	5.77	<0.5	18	92	619	4.40
K863944		2.82	<0.005	2.6	1.17	10	<10	20	0.5	5	1.52	<0.5	9	43	225	2.02
K863945		1.45	<0.005	0.4	1.11	9	<10	10	0.6	<2	2.30	<0.5	10	33	256	2.20
K863946		1.81	<0.005	0.4	1.99	18	<10	20	1.1	<2	3.44	<0.5	12	50	229	3.45
K863947		1.61	<0.005	0.2	1.32	5	<10	10	0.7	<2	3.26	<0.5	7	39	92	2.36
K863948		2.58	0.034	0.6	1.94	18	<10	10	1.0	<2	5.26	<0.5	14	62	745	4.47
K863949		1.90	0.032	0.7	1.57	13	<10	10	0.9	<2	4.08	<0.5	12	43	973	3.17
K863950		2.14	0.019	0.3	1.60	5	<10	20	0.9	<2	3.82	<0.5	9	34	311	3.10
K270771		1.40	<0.005	0.3	1.53	3	<10	10	0.6	<2	2.64	<0.5	9	41	161	2.45
K270772		1.88	<0.005	<0.2	1.84	2	<10	40	0.6	<2	1.58	<0.5	9	52	84	2.54
K270773		0.46	<0.005	<0.2	1.84	<2	<10	100	0.8	<2	0.45	<0.5	10	48	99	3.04
K270774		0.13	NSS	0.2	1.84	2	<10	100	0.7	<2	0.77	<0.5	11	50	114	3.06
K270775		0.70	<0.005	<0.2	1.61	<2	<10	80	0.6	2	0.27	<0.5	9	40	68	2.73
K270776		0.70	<0.005	<0.2	2.05	<2	<10	90	0.8	2	0.37	<0.5	11	48	68	3.15
K270777		0.33	<0.005	0.2	1.77	<2	<10	80	0.7	<2	0.36	<0.5	9	50	79	2.94
K270778		0.75	<0.005	0.2	2.09	<2	<10	80	0.8	3	0.46	<0.5	10	50	58	3.01
K270779		0.59	<0.005	<0.2	2.24	<2	<10	70	0.8	<2	0.42	<0.5	11	53	40	3.25
K270780		0.52	<0.005	<0.2	2.64	<2	<10	100	1.0	2	0.28	<0.5	13	58	43	3.70
K270781		0.60	<0.005	<0.2	1.65	<2	<10	100	0.6	<2	0.28	<0.5	8	45	41	2.68
K270782		1.08	0.005	<0.2	3.53	<2	<10	240	0.8	<2	1.40	<0.5	13	59	159	3.38
K270783		0.45	<0.005	<0.2	1.95	<2	<10	100	0.8	<2	0.41	<0.5	16	46	109	3.23
K270784		0.44	<0.005	<0.2	2.89	<2	<10	160	0.9	<2	1.23	<0.5	12	44	94	2.74
K270785		0.33	<0.005	<0.2	1.68	<2	<10	80	0.8	<2	0.28	<0.5	11	36	40	2.54
K270786		0.42	<0.005	<0.2	2.01	<2	<10	90	0.8	<2	0.37	<0.5	13	41	48	3.14
K270787		0.57	0.005	<0.2	1.19	3	<10	50	0.5	<2	0.47	<0.5	14	42	144	2.27
K270788		0.59	0.005	<0.2	1.70	2	<10	120	0.6	<2	0.34	<0.5	12	38	151	2.87
K270789		0.74	<0.005	<0.2	1.74	<2	<10	110	0.8	<2	0.51	<0.5	11	40	31	2.76
K270790		0.77	<0.005	<0.2	2.10	<2	<10	130	1.3	<2	0.39	<0.5	16	41	110	3.55
K270791		1.04	<0.005	<0.2	2.45	<2	<10	180	1.2	<2	0.32	<0.5	15	48	40	3.56
K270792		0.55	<0.005	<0.2	2.17	<2	<10	130	1.0	<2	0.63	<0.5	11	42	54	2.92

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Finalized Date: 1- SEP- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11143501

Sample Description	ME- ICP41 Ga ppm 10	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1
K863933	10	<1	0.35	20	0.74	232	3	0.08	28	350	4	0.10	<2	6	44
K863934	<10	<1	0.19	20	0.45	170	4	0.02	15	140	4	0.06	<2	3	19
K863935	10	<1	0.35	20	0.56	210	3	0.02	19	190	4	0.06	<2	4	24
K863936	10	<1	0.54	20	0.66	204	3	0.07	22	230	4	0.21	<2	6	48
K863937	10	<1	0.72	20	0.95	290	3	0.05	34	410	4	0.21	<2	7	70
K863938	10	<1	0.82	20	1.16	350	5	0.20	25	510	7	0.43	<2	9	149
K863939	10	<1	0.31	20	0.90	207	5	0.09	19	380	5	0.21	2	5	120
K863940	10	<1	0.64	20	1.13	216	5	0.03	26	290	5	0.19	<2	8	86
K863941	10	<1	0.42	20	1.26	294	5	0.02	21	300	6	0.20	2	6	112
K863942	10	<1	0.29	20	1.31	348	4	0.03	24	450	5	0.18	<2	7	120
K863943	10	<1	0.19	10	1.71	797	7	0.01	26	790	52	0.42	3	8	168
K863944	10	<1	0.21	10	0.74	260	3	0.02	16	340	43	0.14	<2	4	47
K863945	<10	<1	0.13	20	0.68	313	3	0.02	17	510	8	0.40	3	3	57
K863946	10	<1	0.26	30	1.29	473	3	0.03	26	460	6	0.46	<2	5	101
K863947	10	<1	0.13	20	1.04	397	3	0.03	19	330	5	0.19	2	3	72
K863948	10	1	0.12	20	1.43	709	3	0.05	32	790	5	0.83	<2	6	103
K863949	10	<1	0.11	20	1.08	452	4	0.04	23	550	6	0.73	<2	4	76
K863950	10	<1	0.11	20	0.90	553	5	0.10	19	700	5	0.59	<2	4	77
K270771	10	<1	0.13	20	0.94	327	2	0.08	19	350	5	0.45	<2	4	58
K270772	10	<1	0.36	20	1.13	323	5	0.06	19	350	6	0.33	<2	6	54
K270773	10	<1	0.67	20	0.84	304	6	0.04	25	290	4	0.14	<2	5	19
K270774	10	<1	0.67	20	0.84	339	6	0.05	25	310	5	0.25	<2	5	29
K270775	10	<1	0.64	10	0.85	316	5	0.03	23	550	5	0.15	<2	5	12
K270776	10	<1	0.86	20	1.12	347	4	0.03	25	470	6	0.19	<2	6	16
K270777	10	<1	0.73	20	0.92	353	4	0.03	24	500	5	0.19	<2	5	14
K270778	10	<1	1.00	20	1.21	371	6	0.05	26	490	3	0.13	<2	7	18
K270779	10	<1	1.06	20	1.24	351	5	0.03	28	450	5	0.10	<2	7	16
K270780	10	<1	1.32	20	1.28	393	3	0.06	29	440	2	0.28	<2	8	34
K270781	10	<1	0.76	20	0.73	293	3	0.05	21	260	5	0.22	<2	6	36
K270782	10	<1	1.40	20	1.47	357	3	0.17	33	1210	14	0.40	<2	10	124
K270783	10	<1	0.85	20	0.84	281	2	0.06	30	340	4	0.57	<2	6	58
K270784	10	<1	0.81	10	0.98	300	2	0.14	24	440	9	0.55	<2	7	111
K270785	10	<1	0.64	10	0.59	270	2	0.05	22	250	3	0.25	<2	4	36
K270786	10	<1	0.75	10	0.71	332	2	0.05	24	330	5	0.35	<2	5	41
K270787	<10	<1	0.29	10	0.59	228	5	0.04	38	230	4	0.48	<2	2	23
K270788	10	<1	0.65	10	0.64	302	4	0.05	29	310	5	0.54	<2	5	36
K270789	10	<1	0.54	10	0.72	307	3	0.05	25	350	6	0.23	<2	3	35
K270790	10	<1	0.76	10	0.82	307	3	0.04	34	210	7	0.69	<2	5	42
K270791	10	<1	0.95	10	0.84	388	2	0.06	30	200	6	0.35	<2	6	59
K270792	10	<1	0.72	20	0.84	408	4	0.06	23	670	6	0.16	2	5	55

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Finalized Date: 1- SEP- 2011
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Project: Hopper

CERTIFICATE OF ANALYSIS WH11143501

Sample Description / Method / Analyte / Units / LOR	ME- ICP41 Th ppm 20	ME- ICP41 Ti % 0.01	ME- ICP41 Tl ppm 10	ME- ICP41 U ppm 10	ME- ICP41 V ppm 1	ME- ICP41 W ppm 10	ME- ICP41 Zn ppm 2
K863933	<20	0.14	<10	<10	49	<10	27
K863934	<20	0.07	<10	<10	26	<10	24
K863935	<20	0.10	<10	<10	32	<10	36
K863936	<20	0.15	<10	<10	45	<10	42
K863937	<20	0.16	<10	<10	49	<10	47
K863938	20	0.21	<10	<10	58	<10	56
K863939	<20	0.11	<10	<10	33	<10	25
K863940	<20	0.11	<10	<10	50	<10	47
K863941	<20	0.08	<10	<10	44	<10	47
K863942	<20	0.06	<10	<10	64	<10	45
K863943	<20	0.01	<10	<10	70	<10	65
K863944	<20	0.03	<10	<10	32	<10	36
K863945	<20	0.03	<10	<10	26	<10	38
K863946	<20	0.05	<10	<10	43	<10	63
K863947	<20	0.04	<10	<10	32	<10	39
K863948	<20	0.06	<10	<10	50	<10	62
K863949	<20	0.02	<10	<10	37	<10	53
K863950	<20	0.12	<10	<10	28	10	41
K270771	<20	0.06	<10	<10	33	<10	36
K270772	<20	0.12	<10	<10	44	<10	41
K270773	<20	0.13	<10	<10	43	<10	35
K270774	<20	0.13	<10	<10	44	<10	41
K270775	<20	0.11	<10	<10	37	<10	40
K270776	<20	0.15	<10	<10	48	<10	50
K270777	<20	0.13	<10	<10	43	<10	48
K270778	<20	0.17	<10	<10	56	<10	52
K270779	<20	0.18	<10	<10	55	<10	57
K270780	<20	0.23	<10	<10	70	<10	70
K270781	<20	0.16	<10	<10	43	<10	42
K270782	<20	0.27	<10	<10	62	<10	55
K270783	<20	0.17	<10	<10	42	<10	34
K270784	<20	0.17	<10	<10	41	<10	33
K270785	<20	0.12	<10	<10	31	<10	29
K270786	<20	0.13	<10	<10	35	<10	39
K270787	<20	0.04	<10	<10	20	<10	28
K270788	<20	0.10	<10	<10	32	<10	48
K270789	<20	0.09	<10	<10	30	<10	30
K270790	<20	0.11	<10	<10	36	<10	33
K270791	<20	0.16	<10	<10	45	<10	58
K270792	<20	0.13	<10	<10	39	<10	51

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ALS Minerals

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CERTIFICATE OF ANALYSIS WH11143501

Sample Description / Method	WEI- 21	Au- AA24	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41
Analyte	Recvd Wt.	Au	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
Units	kg	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
LOR	.02	0.005	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
K270793	0.64	0.007	<0.2	1.51	3	<10	250	0.5	<2	0.95	<0.5	11	46	141	2.54
K270794	0.08	0.007	<0.2	1.47	2	<10	370	0.6	<2	1.00	<0.5	9	50	207	2.80
K270795	0.38	0.006	0.2	0.99	3	<10	370	0.6	2	0.66	<0.5	8	46	99	2.54
K270796	0.30	0.006	<0.2	1.10	<2	<10	440	0.7	<2	1.06	<0.5	9	52	228	2.57
K270797	0.42	0.007	<0.2	0.82	<2	<10	140	<0.5	<2	0.79	<0.5	7	40	159	2.24
K270798	0.37	0.009	<0.2	0.81	<2	<10	210	<0.5	<2	0.74	<0.5	7	41	128	2.40
K270799	0.45	0.006	<0.2	0.72	<2	<10	220	<0.5	<2	0.75	<0.5	6	37	104	2.30
K270800	0.53	0.011	<0.2	0.83	<2	<10	170	<0.5	<2	0.78	<0.5	11	41	130	2.53
K976701	1.06	0.006	<0.2	1.03	2	<10	460	<0.5	<2	1.39	<0.5	11	56	159	2.91
K976702	2.18	<0.005	<0.2	1.22	<2	<10	570	0.5	<2	2.07	<0.5	9	60	147	2.99
K976703	1.47	<0.005	<0.2	1.02	2	<10	450	0.5	<2	2.48	<0.5	8	56	52	2.64
K976704	2.59	<0.005	<0.2	0.91	2	<10	220	<0.5	<2	2.05	<0.5	7	51	51	2.35
K976705	2.23	<0.005	<0.2	1.04	3	<10	170	0.6	<2	3.39	<0.5	9	54	67	2.66
K976706	1.83	<0.005	<0.2	0.78	<2	<10	480	<0.5	<2	1.58	<0.5	6	44	37	2.17
K976707	1.51	<0.005	<0.2	1.05	3	<10	730	0.5	<2	2.40	<0.5	8	51	18	2.56
K976708	0.89	<0.005	<0.2	0.94	2	<10	1240	<0.5	<2	1.91	<0.5	8	47	22	2.45
K976709	1.50	<0.005	<0.2	1.27	<2	<10	340	<0.5	<2	2.53	<0.5	2	7	7	2.76
K976710	1.81	<0.005	<0.2	1.02	<2	<10	1020	0.5	<2	1.74	<0.5	8	44	47	2.55
K976711	1.80	0.006	<0.2	1.08	<2	<10	300	0.5	2	2.63	<0.5	9	51	36	2.71
K863951	0.67	0.015	<0.2	1.07	2	<10	200	<0.5	<2	0.57	<0.5	9	34	41	2.32
K863952	0.13	<0.005	<0.2	1.00	<2	<10	330	<0.5	2	1.44	<0.5	9	38	65	2.32
K863953	0.29	<0.005	<0.2	1.11	<2	<10	340	<0.5	<2	2.12	<0.5	9	37	20	2.18
K863954	0.25	<0.005	<0.2	0.83	<2	<10	350	<0.5	<2	1.26	<0.5	9	36	8	2.16
K863955	0.51	<0.005	<0.2	0.69	<2	<10	290	<0.5	<2	1.05	<0.5	8	36	84	2.09
K863956	0.52	<0.005	<0.2	0.79	<2	<10	210	<0.5	<2	1.94	<0.5	8	31	154	1.84
K863957	0.61	<0.005	<0.2	0.64	<2	<10	360	<0.5	<2	0.79	<0.5	6	34	53	1.96
K863958	0.35	<0.005	<0.2	0.58	2	<10	310	<0.5	<2	0.47	<0.5	5	34	23	1.89
K863959	0.47	<0.005	<0.2	0.66	2	<10	350	<0.5	<2	1.00	<0.5	6	33	7	1.94
K863960	0.21	<0.005	<0.2	0.61	<2	<10	290	<0.5	<2	0.57	<0.5	5	35	23	1.89
K863961	0.42	<0.005	<0.2	0.63	2	<10	250	<0.5	<2	0.74	<0.5	6	36	28	1.96
K863962	0.42	<0.005	<0.2	0.80	2	<10	250	<0.5	<2	1.37	<0.5	7	30	20	1.94
K863963	0.66	<0.005	<0.2	0.88	<2	<10	170	0.5	2	2.10	<0.5	7	26	97	1.92
K863964	1.20	<0.005	<0.2	0.67	<2	<10	250	<0.5	<2	1.23	<0.5	6	29	50	1.91
K863965	0.33	<0.005	<0.2	0.62	2	<10	270	<0.5	<2	1.07	<0.5	5	33	27	1.96
K863966	0.67	<0.005	<0.2	0.62	2	<10	290	<0.5	<2	0.82	<0.5	6	38	64	2.09
K863967	0.95	<0.005	<0.2	0.65	2	<10	270	<0.5	<2	0.94	<0.5	6	37	45	2.01
K863968	0.77	<0.005	<0.2	0.72	<2	<10	150	<0.5	<2	1.19	<0.5	5	35	118	1.76
K863969	1.09	<0.005	<0.2	0.65	3	<10	350	<0.5	<2	0.76	<0.5	5	39	17	2.04
K863970	0.66	<0.005	<0.2	0.77	<2	<10	340	<0.5	<2	1.38	<0.5	6	38	25	2.16
K863971	1.02	<0.005	<0.2	0.88	<2	<10	410	<0.5	<2	1.04	<0.5	7	29	81	2.13

***** See Appendix Page for comments regarding this certificate *****

ALS Canada Ltd.

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

To: ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 1- SEP- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11143501

Sample Description	Method	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41
	Analyte	Ga	Hg	K	La	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Sc	Sr
	Units	ppm	ppm	%	ppm	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm
	LOR	10	1	0.01	10	0.01	5	1	0.01	1	10	2	0.01	2	1	1
K270793		10	<1	0.28	20	0.92	281	1	0.08	23	890	6	0.06	<2	5	56
K270794		10	<1	0.36	20	0.85	286	1	0.17	18	1000	7	0.07	<2	6	77
K270795		10	<1	0.14	10	0.76	302	2	0.08	16	970	15	0.09	<2	5	48
K270796		10	<1	0.11	10	1.00	307	2	0.07	16	1020	7	0.08	<2	7	61
K270797		<10	<1	0.09	10	0.64	211	1	0.07	10	960	6	0.04	<2	3	45
K270798		<10	<1	0.11	10	0.54	197	1	0.08	9	950	8	0.04	<2	2	50
K270799		<10	<1	0.10	10	0.42	166	1	0.07	9	1020	10	0.03	<2	2	46
K270800		<10	<1	0.12	10	0.55	251	1	0.09	12	1030	12	0.03	2	2	45
K976701		10	<1	0.11	10	0.84	327	1	0.08	16	1050	10	0.05	<2	7	80
K976702		10	<1	0.12	20	0.86	379	1	0.08	16	1080	9	0.04	<2	7	101
K976703		10	<1	0.11	20	0.89	390	1	0.08	11	1050	12	0.05	<2	7	106
K976704		10	<1	0.11	10	0.87	322	1	0.07	7	1090	11	0.04	<2	5	79
K976705		<10	<1	0.11	20	0.75	527	3	0.05	9	1110	11	0.04	<2	9	99
K976706		<10	<1	0.11	10	0.65	258	1	0.08	7	1050	12	0.04	<2	4	82
K976707		10	<1	0.10	10	0.99	339	1	0.07	11	980	10	0.08	<2	7	140
K976708		10	<1	0.11	10	0.91	287	1	0.09	10	990	10	0.08	<2	6	142
K976709		10	<1	0.01	20	0.94	330	2	0.06	1	1030	8	0.09	2	8	131
K976710		<10	<1	0.12	10	0.87	261	2	0.09	10	990	9	0.08	<2	5	133
K976711		10	<1	0.11	20	1.12	341	<1	0.08	13	970	9	0.07	<2	8	127
K863951		<10	<1	0.16	10	0.60	350	1	0.07	14	590	2	0.04	<2	4	36
K863952		<10	<1	0.26	10	0.79	399	1	0.12	10	660	<2	0.05	<2	4	71
K863953		<10	<1	0.27	10	0.91	449	<1	0.08	11	590	2	0.03	<2	5	89
K863954		<10	<1	0.27	10	0.74	331	1	0.08	9	580	<2	0.03	<2	4	74
K863955		<10	<1	0.25	10	0.66	294	2	0.09	9	530	2	0.04	<2	4	83
K863956		<10	<1	0.18	20	0.70	376	1	0.06	9	560	3	0.03	2	5	108
K863957		<10	<1	0.26	10	0.54	252	1	0.08	8	520	2	0.02	<2	3	67
K863958		<10	<1	0.25	10	0.46	204	3	0.08	6	510	<2	0.02	<2	1	40
K863959		<10	<1	0.25	10	0.60	298	1	0.08	7	520	<2	0.06	2	3	69
K863960		<10	<1	0.23	10	0.49	230	1	0.10	7	510	<2	0.06	<2	2	49
K863961		<10	<1	0.21	10	0.57	265	1	0.09	7	530	<2	0.03	<2	3	62
K863962		<10	<1	0.22	20	0.64	339	1	0.05	8	520	<2	0.01	<2	4	74
K863963		<10	<1	0.20	20	0.89	454	<1	0.04	8	500	<2	0.01	2	4	109
K863964		<10	<1	0.20	10	0.69	315	<1	0.06	7	480	<2	0.01	<2	3	90
K863965		<10	<1	0.20	10	0.57	271	1	0.07	7	540	<2	<0.01	<2	3	79
K863966		<10	<1	0.21	10	0.61	229	1	0.08	8	590	<2	<0.01	<2	3	64
K863967		<10	<1	0.23	10	0.62	222	1	0.09	9	570	<2	<0.01	<2	3	87
K863968		<10	<1	0.17	10	0.75	255	1	0.08	8	570	<2	<0.01	<2	4	96
K863969		<10	<1	0.30	10	0.58	202	1	0.10	8	580	<2	<0.01	<2	2	80
K863970		<10	<1	0.31	10	0.87	309	<1	0.08	9	580	<2	<0.01	<2	5	131
K863971		<10	<1	0.19	20	0.44	318	2	0.05	12	610	<2	<0.01	<2	4	42

***** See Appendix Page for comments regarding this certificate *****

ALS Minerals
ALS Canada Ltd.
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To: ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 1- SEP- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11143501

Sample Description	Method / Analyte / Units / LOR	ME- ICP41 Th ppm 20	ME- ICP41 Ti % 0.01	ME- ICP41 Tl ppm 10	ME- ICP41 U ppm 10	ME- ICP41 V ppm 1	ME- ICP41 W ppm 10	ME- ICP41 Zn ppm 2
K270793		<20	0.14	<10	<10	60	<10	31
K270794		<20	0.17	<10	<10	81	<10	26
K270795		<20	0.10	<10	<10	77	<10	27
K270796		<20	0.10	<10	<10	87	<10	25
K270797		<20	0.09	<10	<10	76	<10	20
K270798		<20	0.11	<10	<10	76	<10	22
K270799		<20	0.11	<10	<10	75	<10	23
K270800		<20	0.14	<10	<10	80	<10	26
K976701		<20	0.10	<10	<10	90	<10	34
K976702		<20	0.05	<10	<10	89	<10	36
K976703		<20	0.08	<10	<10	89	<10	35
K976704		<20	0.11	<10	<10	86	<10	35
K976705		<20	0.04	<10	<10	84	<10	41
K976706		<20	0.10	<10	<10	77	<10	30
K976707		<20	0.04	<10	<10	81	<10	37
K976708		<20	0.09	<10	<10	79	<10	32
K976709		<20	<0.01	<10	<10	13	<10	2
K976710		<20	0.10	<10	<10	78	<10	29
K976711		<20	0.04	<10	<10	82	<10	34
K863951		<20	0.08	<10	<10	48	<10	23
K863952		<20	0.08	<10	<10	54	<10	16
K863953		<20	0.06	<10	<10	53	<10	17
K863954		<20	0.07	<10	<10	53	<10	17
K863955		<20	0.07	<10	<10	50	<10	15
K863956		<20	0.03	<10	<10	43	<10	15
K863957		<20	0.10	<10	<10	50	<10	15
K863958		<20	0.11	<10	<10	50	<10	13
K863959		<20	0.08	<10	<10	48	<10	17
K863960		<20	0.10	<10	<10	49	<10	14
K863961		<20	0.08	<10	<10	49	<10	15
K863962		<20	0.04	<10	<10	44	<10	20
K863963		<20	0.03	<10	<10	39	<10	23
K863964		<20	0.05	<10	<10	42	<10	17
K863965		<20	0.07	<10	<10	46	<10	14
K863966		<20	0.09	<10	<10	53	<10	12
K863967		<20	0.08	<10	<10	51	<10	11
K863968		<20	0.04	<10	<10	42	<10	18
K863969		<20	0.12	<10	<10	54	<10	10
K863970		<20	0.08	<10	<10	52	<10	13
K863971		<20	0.06	<10	<10	44	<10	21

***** See Appendix Page for comments regarding this certificate *****

ALS Canada Ltd.

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To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 1- SEP- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11143501

Sample Description	Method / Analyte / Units / LOR	WEI- 21 Recvd Wt. kg .02	Au- AA24 Au ppm 0.005	ME- ICP41 Ag ppm 0.2	ME- ICP41 Al % 0.01	ME- ICP41 As ppm 2	ME- ICP41 B ppm 10	ME- ICP41 Ba ppm 10	ME- ICP41 Be ppm 0.5	ME- ICP41 Bi ppm 2	ME- ICP41 Ca % 0.01	ME- ICP41 Cd ppm 0.5	ME- ICP41 Co ppm 1	ME- ICP41 Cr ppm 1	ME- ICP41 Cu ppm 1	ME- ICP41 Fe % 0.01
K863972		0.36	<0.005	<0.2	0.64	<2	<10	440	<0.5	<2	0.96	<0.5	5	32	43	1.96
K863973		0.65	<0.005	<0.2	0.65	<2	<10	390	<0.5	<2	0.92	<0.5	6	33	14	1.99
K863974		1.18	<0.005	<0.2	0.64	<2	<10	590	<0.5	<2	1.06	<0.5	6	39	18	2.09
K863975		1.03	<0.005	<0.2	0.70	<2	<10	570	<0.5	<2	1.96	<0.5	6	28	13	2.03
K863976		1.07	<0.005	<0.2	0.62	<2	<10	460	<0.5	<2	0.99	<0.5	6	33	10	2.01
K863977		1.06	<0.005	<0.2	0.64	<2	<10	710	<0.5	<2	0.88	<0.5	6	36	19	2.05
K863978		0.95	<0.005	<0.2	0.72	<2	<10	400	<0.5	<2	0.82	<0.5	7	40	53	2.17
K863979		1.68	<0.005	1.0	0.59	<2	<10	1480	<0.5	10	3.80	<0.5	6	12	1025	1.95
K863980		1.60	<0.005	<0.2	0.70	<2	<10	390	<0.5	<2	0.65	<0.5	6	34	56	1.99
K863981		1.25	<0.005	<0.2	0.65	2	<10	280	<0.5	<2	0.62	<0.5	6	35	33	1.92
K863982		0.86	<0.005	<0.2	0.67	3	<10	330	<0.5	<2	0.57	<0.5	6	35	28	1.95
K863983		0.50	<0.005	<0.2	0.67	<2	<10	280	<0.5	<2	0.61	<0.5	5	37	15	2.01
K863984		1.93	<0.005	<0.2	0.72	2	<10	360	<0.5	<2	0.48	<0.5	6	37	10	2.07
K863985		0.97	<0.005	<0.2	0.61	<2	<10	300	<0.5	<2	0.57	<0.5	5	36	8	1.99
K863986		0.92	<0.005	<0.2	0.59	<2	<10	260	<0.5	<2	0.49	<0.5	5	36	9	1.93
K863987		0.66	<0.005	<0.2	0.71	<2	<10	240	<0.5	<2	0.80	<0.5	6	36	9	2.00
K863988		0.65	<0.005	<0.2	0.99	<2	<10	200	<0.5	<2	1.32	<0.5	6	36	82	2.00
K863989		1.21	<0.005	<0.2	0.74	<2	<10	510	<0.5	<2	0.84	<0.5	6	38	43	2.06
K863990		0.67	<0.005	<0.2	0.69	<2	<10	360	<0.5	<2	0.69	<0.5	6	37	14	1.99
K863991		0.90	<0.005	<0.2	1.36	<2	<10	410	0.5	<2	0.59	<0.5	8	31	67	2.26
K863992		1.43	<0.005	<0.2	0.59	<2	<10	510	0.5	<2	1.48	<0.5	6	15	103	1.56
K863993		1.14	<0.005	<0.2	0.95	<2	<10	310	<0.5	<2	1.70	<0.5	6	28	45	1.94
K863994		0.43	<0.005	<0.2	0.70	2	<10	300	<0.5	<2	1.11	<0.5	6	33	50	1.98
K863995		Not Recvd														
K863996		0.21	<0.005	0.2	0.72	2	<10	300	<0.5	<2	0.61	<0.5	5	38	34	2.18
K863997		0.32	<0.005	<0.2	0.62	<2	<10	290	<0.5	<2	0.47	<0.5	6	37	47	2.11
K863998		0.31	<0.005	<0.2	0.62	<2	<10	250	<0.5	<2	0.51	<0.5	6	38	50	2.19
K863999		0.35	<0.005	0.2	0.64	2	<10	410	<0.5	<2	0.82	<0.5	6	35	15	1.93
K864000		0.42	<0.005	<0.2	0.73	<2	<10	780	<0.5	<2	1.01	<0.5	6	36	14	2.06
K863901		0.39	<0.005	<0.2	0.65	2	<10	240	<0.5	<2	0.76	<0.5	5	36	11	2.01
K863902		1.10	<0.005	<0.2	0.63	<2	<10	200	<0.5	<2	0.79	<0.5	5	35	37	1.78
K863904		1.43	<0.005	<0.2	0.68	2	<10	330	<0.5	<2	0.77	<0.5	6	38	17	2.05
K863905		1.23	<0.005	<0.2	0.60	<2	<10	230	<0.5	<2	0.64	<0.5	5	36	11	1.89
K863906		1.12	<0.005	<0.2	0.63	<2	<10	410	<0.5	<2	0.73	<0.5	5	35	24	1.97
K863907		1.28	<0.005	<0.2	0.64	2	<10	460	<0.5	<2	1.29	<0.5	6	35	19	2.03
K863908		1.70	<0.005	<0.2	0.71	<2	<10	360	<0.5	<2	1.03	<0.5	6	37	16	2.12
K863909		3.77	<0.005	<0.2	0.75	2	<10	400	<0.5	<2	0.72	<0.5	7	38	15	2.14
K863910		3.80	<0.005	<0.2	0.70	2	<10	340	<0.5	<2	1.12	<0.5	7	33	11	2.03
K863911		2.70	<0.005	<0.2	0.61	<2	<10	860	0.5	<2	3.82	<0.5	6	14	160	1.86
K863912		1.54	<0.005	<0.2	0.89	2	<10	200	<0.5	<2	0.47	<0.5	6	26	66	2.06

***** See Appendix Page for comments regarding this certificate *****

ALS Minerals

ALS Canada Ltd.

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To: ARCHER, CATHRO AND ASSOCIATES (1981)
LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 1- SEP- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11143501

Sample Description / Method / Analyte / Units / LOR	ME- ICP41 Ga ppm 10	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1
K863972	<10	<1	0.21	10	0.47	255	2	0.07	8	590	<2	<0.01	2	3	44
K863973	<10	<1	0.23	10	0.51	261	1	0.08	8	560	<2	<0.01	<2	3	50
K863974	<10	<1	0.22	10	0.48	263	2	0.08	9	610	<2	0.01	2	3	60
K863975	<10	<1	0.24	10	0.70	325	4	0.05	8	610	<2	<0.01	<2	5	94
K863976	<10	<1	0.25	10	0.55	250	2	0.08	8	540	<2	<0.01	<2	3	58
K863977	<10	<1	0.22	10	0.49	243	1	0.08	8	580	2	<0.01	<2	3	56
K863978	<10	<1	0.24	10	0.57	276	1	0.09	9	580	<2	<0.01	2	4	52
K863979	<10	<1	0.28	10	0.59	737	4	0.04	4	480	5	0.11	2	3	120
K863980	<10	<1	0.28	10	0.49	231	1	0.09	7	550	<2	<0.01	<2	2	41
K863981	<10	<1	0.22	10	0.46	200	1	0.10	7	570	<2	<0.01	2	2	39
K863982	<10	<1	0.24	10	0.49	199	1	0.11	7	550	<2	<0.01	2	2	42
K863983	<10	<1	0.24	10	0.51	211	1	0.10	7	570	<2	<0.01	<2	2	45
K863984	<10	<1	0.32	10	0.56	202	1	0.09	7	520	<2	<0.01	<2	2	38
K863985	<10	<1	0.24	10	0.48	197	1	0.09	7	550	<2	<0.01	<2	2	40
K863986	<10	<1	0.23	10	0.42	162	1	0.10	6	590	<2	<0.01	<2	1	38
K863987	<10	<1	0.22	10	0.56	232	1	0.10	7	580	<2	<0.01	<2	3	54
K863988	<10	<1	0.17	10	0.73	268	1	0.06	8	590	<2	<0.01	<2	3	68
K863989	<10	<1	0.26	10	0.55	213	1	0.09	7	560	<2	<0.01	<2	3	61
K863990	<10	<1	0.28	10	0.53	207	1	0.09	8	560	<2	<0.01	2	2	44
K863991	<10	<1	0.15	10	0.51	304	3	0.03	12	640	2	<0.01	2	4	36
K863992	<10	<1	0.15	20	0.17	249	7	0.02	6	560	4	0.04	2	5	29
K863993	<10	<1	0.21	20	0.28	254	5	0.02	13	640	7	<0.01	<2	5	29
K863994	<10	<1	0.21	10	0.43	211	3	0.06	9	560	3	<0.01	<2	2	31
K863995															
K863996	<10	<1	0.25	10	0.41	165	3	0.10	7	590	<2	<0.01	<2	1	35
K863997	<10	<1	0.25	10	0.39	153	2	0.09	6	570	<2	<0.01	<2	1	29
K863998	<10	<1	0.21	10	0.43	155	1	0.08	6	630	<2	<0.01	<2	1	28
K863999	<10	<1	0.16	10	0.47	160	1	0.06	10	600	3	<0.01	<2	1	33
K864000	<10	<1	0.13	10	0.66	216	1	0.06	7	590	4	0.01	<2	2	47
K863901	<10	<1	0.17	10	0.54	186	1	0.07	7	590	2	<0.01	<2	2	31
K863902	<10	<1	0.19	10	0.48	173	1	0.07	7	590	<2	<0.01	<2	2	32
K863904	<10	<1	0.21	10	0.59	193	8	0.08	7	600	2	<0.01	<2	2	37
K863905	<10	<1	0.19	10	0.41	151	2	0.09	7	580	<2	<0.01	<2	1	34
K863906	<10	<1	0.23	10	0.45	177	10	0.08	7	570	<2	<0.01	<2	1	36
K863907	<10	<1	0.22	10	0.53	249	4	0.06	8	590	<2	<0.01	<2	3	54
K863908	<10	<1	0.26	10	0.51	246	1	0.08	7	610	<2	<0.01	<2	2	46
K863909	<10	<1	0.31	10	0.60	228	1	0.08	8	510	<2	<0.01	<2	2	39
K863910	<10	<1	0.24	10	0.51	285	2	0.06	7	550	<2	<0.01	<2	3	48
K863911	<10	<1	0.21	10	0.28	351	5	0.01	5	550	2	<0.01	7	4	109
K863912	<10	<1	0.17	20	0.47	288	1	0.02	7	620	2	<0.01	<2	5	38

ALS Canada Ltd.

2103 Dollarton Hwy
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Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 1- SEP- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11143501

Sample Description	Method / Analyte / Units / LOR	ME- ICP41 Th ppm 20	ME- ICP41 Ti % 0.01	ME- ICP41 Tl ppm 10	ME- ICP41 U ppm 10	ME- ICP41 V ppm 1	ME- ICP41 W ppm 10	ME- ICP41 Zn ppm 2
K863972		<20	0.09	<10	<10	48	<10	13
K863973		<20	0.10	<10	<10	49	<10	13
K863974		<20	0.09	<10	<10	52	<10	13
K863975		<20	0.06	<10	<10	46	<10	14
K863976		<20	0.10	<10	<10	49	<10	12
K863977		<20	0.09	<10	<10	52	<10	12
K863978		<20	0.09	<10	<10	52	<10	15
K863979		<20	0.01	<10	<10	20	<10	19
K863980		<20	0.12	<10	<10	49	<10	14
K863981		<20	0.12	<10	<10	48	<10	11
K863982		<20	0.12	<10	<10	50	<10	11
K863983		<20	0.11	<10	<10	51	<10	12
K863984		<20	0.14	<10	<10	54	<10	12
K863985		<20	0.12	<10	<10	50	<10	10
K863986		<20	0.11	<10	<10	51	<10	9
K863987		<20	0.09	<10	<10	50	<10	12
K863988		<20	0.05	<10	<10	49	<10	13
K863989		<20	0.09	<10	<10	52	<10	12
K863990		<20	0.12	<10	<10	53	<10	11
K863991		<20	0.04	<10	<10	45	<10	18
K863992		<20	<0.01	<10	<10	30	<10	12
K863993		<20	0.03	<10	<10	44	<10	15
K863994		<20	0.10	<10	<10	49	<10	11
K863995								
K863996		<20	0.13	<10	<10	59	<10	9
K863997		<20	0.13	<10	<10	58	<10	9
K863998		<20	0.13	<10	<10	61	<10	9
K863999		<20	0.12	<10	<10	53	<10	10
K864000		<20	0.11	<10	<10	55	<10	10
K863901		<20	0.12	<10	<10	55	<10	9
K863902		<20	0.11	<10	<10	55	<10	9
K863904		<20	0.12	<10	<10	58	<10	11
K863905		<20	0.12	<10	<10	57	10	8
K863906		<20	0.12	<10	<10	54	<10	10
K863907		<20	0.08	<10	<10	50	<10	13
K863908		<20	0.11	<10	<10	54	<10	13
K863909		<20	0.14	<10	<10	56	<10	13
K863910		<20	0.09	<10	<10	48	<10	14
K863911		<20	0.01	<10	<10	26	<10	19
K863912		<20	0.03	<10	<10	37	<10	13

***** See Appendix Page for comments regarding this certificate *****

ALS Canada Ltd.

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To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 1- SEP- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11143501

Sample Description	Method / Analyte / Units / LOR	WEI- 21 Recvd Wt. kg .02	Au- AA24 Au ppm 0.005	ME- ICP41 Ag ppm 0.2	ME- ICP41 Al % 0.01	ME- ICP41 As ppm 2	ME- ICP41 B ppm 10	ME- ICP41 Ba ppm 10	ME- ICP41 Be ppm 0.5	ME- ICP41 Bi ppm 2	ME- ICP41 Ca % 0.01	ME- ICP41 Cd ppm 0.5	ME- ICP41 Co ppm 1	ME- ICP41 Cr ppm 1	ME- ICP41 Cu ppm 1	ME- ICP41 Fe % 0.01
K976712		1.51	<0.005	<0.2	0.96	2	<10	1280	<0.5	<2	1.91	<0.5	6	46	19	2.62
K863903		Not Recvd														

***** See Appendix Page for comments regarding this certificate *****

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Finalized Date: 1- SEP- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11143501

Sample Description	Method / Analyte / Units / LOR	ME- ICP41 Ga ppm 10	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1
K976712		<10	<1	0.13	10	0.88	278	<1	0.07	10	1010	8	0.04	<2	6	145
K863903																

***** See Appendix Page for comments regarding this certificate *****

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Finalized Date: 1- SEP- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11143501

Sample Description	Method Analyte Units LOR	ME- ICP41 Th ppm 20	ME- ICP41 Ti % 0.01	ME- ICP41 Tl ppm 10	ME- ICP41 U ppm 10	ME- ICP41 V ppm 1	ME- ICP41 W ppm 10	ME- ICP41 Zn ppm 2
K976712		<20	0.09	<10	<10	82	<10	32
K863903								

***** See Appendix Page for comments regarding this certificate *****

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To: ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED
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Finalized Date: 1- SEP- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11143501

Method	CERTIFICATE COMMENTS
ALL METHODS	NSS is non- sufficient sample.

ALS Minerals
ALS Canada Ltd.
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North Vancouver BC V7H 0A7
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To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 6- SEP- 2011
This copy reported on 11- JAN- 2012
Account: F

CERTIFICATE WH11146387

Project: Hopper
P.O. No.:
This report is for 142 Percussion samples submitted to our lab in Whitehorse, YT, Canada on 31- JUL- 2011.
The following have access to data associated with this certificate:

JOAN MARIACHER	HEATHER SMITH	

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
CRU- 31	Fine crushing - 70% <2mm
CRU- QC	Crushing QC Test
PUL- QC	Pulverizing QC Test
SPL- 21	Split sample - riffle splitter
PUL- 31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au- AA24	Au 50g FA AA finish	AAS
ME- ICP41	35 Element Aqua Regia ICP- AES	ICP- AES

To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
ATTN: JOAN MARIACHER
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

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

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

To: ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 6- SEP- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11146387

Sample Description	Method Analyte Units LOR	WEI- 21 Recvd Wt. kg .02	Au- AA24 Au ppm 0.005	ME- ICP41 Ag ppm 0.2	ME- ICP41 Al % 0.01	ME- ICP41 As ppm 2	ME- ICP41 B ppm 10	ME- ICP41 Ba ppm 10	ME- ICP41 Be ppm 0.5	ME- ICP41 Bi ppm 2	ME- ICP41 Ca % 0.01	ME- ICP41 Cd ppm 0.5	ME- ICP41 Co ppm 1	ME- ICP41 Cr ppm 1	ME- ICP41 Cu ppm 1	ME- ICP41 Fe % 0.01
K976636		0.39	<0.005	<0.2	1.40	5	<10	280	<0.5	<2	1.08	<0.5	15	27	152	3.23
K976637		0.23	0.020	<0.2	1.66	<2	<10	410	<0.5	<2	1.61	<0.5	21	18	301	3.94
K976638		0.36	0.007	<0.2	1.88	<2	<10	490	<0.5	<2	1.65	<0.5	21	17	213	3.81
K976639		0.41	<0.005	<0.2	1.63	2	<10	460	<0.5	<2	1.38	<0.5	19	17	147	3.82
K976640		0.54	<0.005	<0.2	1.65	<2	<10	400	<0.5	<2	1.44	<0.5	20	16	172	3.67
K976641		0.37	<0.005	<0.2	1.82	<2	<10	520	<0.5	<2	1.60	<0.5	20	18	144	4.02
K976642		0.47	<0.005	<0.2	1.80	<2	<10	420	<0.5	<2	1.72	<0.5	22	21	170	4.35
K976643		0.36	0.006	<0.2	1.66	<2	<10	320	<0.5	<2	1.56	<0.5	21	20	146	4.11
K976644		0.59	0.058	<0.2	1.65	<2	<10	340	<0.5	<2	1.51	<0.5	18	29	117	4.17
K976645		0.54	0.028	<0.2	1.69	<2	<10	330	<0.5	<2	1.60	<0.5	19	30	78	4.84
K976646		0.31	0.006	<0.2	1.56	<2	<10	270	<0.5	<2	1.72	<0.5	18	30	64	5.16
K976647		0.50	<0.005	<0.2	1.51	<2	<10	270	<0.5	<2	1.52	<0.5	17	29	49	5.14
K976648		0.94	0.005	<0.2	1.48	<2	<10	200	<0.5	<2	1.84	<0.5	18	35	115	5.49
K976649		0.72	0.008	<0.2	1.75	<2	<10	220	<0.5	<2	2.11	<0.5	17	20	95	4.67
K976650		0.64	<0.005	<0.2	2.18	<2	<10	470	<0.5	<2	1.99	<0.5	18	17	69	3.86
K976651		0.82	<0.005	<0.2	1.70	<2	<10	420	<0.5	<2	1.38	<0.5	16	15	100	3.18
K976652		0.49	0.005	<0.2	1.76	2	<10	520	<0.5	<2	1.33	<0.5	17	15	93	3.33
K976653		0.35	<0.005	<0.2	1.43	3	<10	240	<0.5	<2	1.31	<0.5	16	14	129	3.27
K976654		0.79	<0.005	<0.2	1.54	2	<10	270	<0.5	<2	1.45	<0.5	17	16	138	3.37
K976655		0.56	<0.005	<0.2	1.59	3	<10	220	<0.5	<2	1.76	<0.5	20	14	201	3.81
K976656		1.31	<0.005	<0.2	1.88	2	<10	280	<0.5	<2	1.00	<0.5	19	16	295	4.23
K976657		0.80	<0.005	<0.2	2.03	6	<10	290	<0.5	<2	1.72	<0.5	18	14	224	4.29
K976658		0.52	<0.005	<0.2	1.96	7	<10	240	<0.5	<2	3.00	<0.5	13	10	175	3.37
K976659		0.53	<0.005	<0.2	1.66	4	<10	310	<0.5	<2	1.78	<0.5	11	9	143	3.03
K976660		0.90	<0.005	<0.2	1.82	3	<10	440	<0.5	<2	1.50	<0.5	13	9	192	3.24
K976661		1.04	<0.005	0.3	1.52	2	<10	370	<0.5	<2	1.33	<0.5	11	8	317	2.73
K976662		1.14	<0.005	<0.2	1.91	5	<10	420	<0.5	<2	2.10	<0.5	14	10	191	3.79
K976663		0.62	<0.005	<0.2	1.56	<2	<10	350	<0.5	<2	1.31	<0.5	15	10	219	3.21
K976664		0.68	<0.005	<0.2	1.59	<2	<10	390	<0.5	<2	1.55	<0.5	15	10	169	3.45
K976665		0.57	<0.005	<0.2	2.12	8	<10	400	<0.5	<2	2.69	<0.5	19	17	250	4.82
K976666		1.13	0.005	<0.2	1.74	<2	<10	440	<0.5	<2	1.16	<0.5	15	14	97	3.67
K976667		0.70	<0.005	<0.2	1.81	7	<10	460	<0.5	<2	1.86	<0.5	16	13	165	4.17
K976668		0.51	<0.005	<0.2	1.68	2	<10	530	<0.5	<2	1.04	<0.5	17	19	146	4.26
K976669		0.52	<0.005	<0.2	1.96	<2	<10	600	<0.5	<2	1.66	<0.5	21	23	167	5.12
K976670		0.44	0.010	0.6	1.63	2	<10	340	<0.5	<2	1.91	<0.5	16	12	676	3.83
K976671		0.64	0.005	0.3	1.68	21	<10	490	<0.5	<2	3.47	<0.5	18	13	434	4.12
K976672		0.97	<0.005	<0.2	1.83	3	<10	670	<0.5	<2	2.01	<0.5	18	18	230	4.63
K976673		0.46	<0.005	<0.2	1.79	5	<10	760	<0.5	<2	1.95	<0.5	16	16	131	4.45
K976674		1.23	<0.005	<0.2	1.83	2	<10	650	<0.5	<2	1.60	<0.5	17	21	110	4.49
K976675		0.79	<0.005	<0.2	1.58	2	<10	490	<0.5	<2	1.45	<0.5	13	13	109	3.60

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1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 6- SEP- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11146387

Sample Description	Method	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41
	Analyte	Ga	Hg	K	La	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Sc	Sr
	Units	ppm	ppm	%	ppm	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm
	LOR	10	1	0.01	10	0.01	5	1	0.01	1	10	2	0.01	2	1	1
K976636		10	<1	0.27	20	0.63	259	2	0.16	12	2460	2	0.21	<2	3	117
K976637		10	<1	0.41	20	0.61	197	1	0.28	11	3990	2	0.40	<2	3	210
K976638		10	1	0.57	20	0.69	197	1	0.36	9	3950	3	0.50	<2	2	252
K976639		10	1	0.57	20	0.66	171	<1	0.28	7	3480	3	0.51	<2	2	201
K976640		10	1	0.55	20	0.64	173	<1	0.29	9	3520	4	0.49	<2	2	209
K976641		10	1	0.56	20	0.71	193	<1	0.33	8	3710	2	0.49	<2	2	268
K976642		10	<1	0.48	20	0.69	211	<1	0.33	10	3900	2	0.59	<2	3	279
K976643		10	1	0.42	20	0.68	219	<1	0.26	8	3630	2	0.63	<2	3	223
K976644		10	<1	0.40	20	0.57	192	<1	0.32	9	3000	2	0.44	<2	3	234
K976645		10	1	0.42	20	0.63	213	<1	0.31	9	3190	2	0.34	<2	3	249
K976646		10	1	0.34	20	0.58	226	<1	0.29	8	3560	3	0.26	<2	4	245
K976647		10	1	0.34	10	0.60	226	<1	0.26	8	3000	<2	0.22	<2	3	207
K976648		10	1	0.28	20	0.55	233	<1	0.26	12	3800	3	0.22	<2	4	209
K976649		10	1	0.26	20	0.69	282	<1	0.28	8	3110	3	0.22	<2	5	248
K976650		10	1	0.45	20	0.83	246	<1	0.37	7	3430	<2	0.29	<2	3	287
K976651		10	<1	0.43	10	0.60	158	1	0.31	13	2590	2	0.40	<2	2	230
K976652		10	<1	0.49	10	0.62	159	<1	0.32	8	2380	<2	0.39	<2	2	229
K976653		<10	<1	0.27	10	0.45	148	1	0.27	8	2440	<2	0.49	<2	2	198
K976654		<10	<1	0.29	10	0.54	173	1	0.30	9	2610	<2	0.52	2	2	216
K976655		10	<1	0.24	10	0.84	280	1	0.21	10	2820	<2	0.69	<2	3	183
K976656		10	<1	0.34	20	1.21	379	2	0.15	11	2240	4	0.05	<2	5	109
K976657		10	<1	0.40	20	1.27	407	2	0.18	9	2380	4	0.26	<2	7	142
K976658		10	<1	0.36	20	1.16	441	2	0.20	7	2340	3	0.24	<2	6	196
K976659		10	<1	0.47	10	0.91	323	2	0.22	6	2280	3	0.20	<2	4	173
K976660		10	<1	0.58	10	0.97	331	3	0.25	5	2060	3	0.26	<2	4	198
K976661		<10	<1	0.49	10	0.72	260	1	0.22	6	2120	4	0.30	<2	3	155
K976662		10	<1	0.49	10	1.14	443	2	0.19	5	2050	5	0.40	<2	6	182
K976663		10	<1	0.48	10	0.90	301	2	0.20	6	2040	3	0.58	<2	4	151
K976664		10	<1	0.47	10	0.99	388	1	0.19	6	1750	2	0.53	<2	5	159
K976665		10	<1	0.46	20	1.51	670	1	0.16	8	2110	4	0.66	<2	9	201
K976666		10	<1	0.56	10	1.09	383	2	0.23	8	1830	2	0.48	<2	4	166
K976667		10	<1	0.46	10	1.22	502	3	0.19	7	1980	<2	0.46	<2	6	167
K976668		10	<1	0.72	10	1.06	353	2	0.21	9	1880	2	0.44	<2	4	141
K976669		10	<1	0.66	10	1.56	545	1	0.16	11	1870	2	0.50	<2	7	147
K976670		10	<1	0.42	10	1.04	408	4	0.16	7	2240	2	0.73	<2	5	142
K976671		10	<1	0.34	20	1.11	559	2	0.12	10	2170	<2	0.60	2	9	210
K976672		10	<1	0.62	10	1.35	573	1	0.17	8	1710	<2	0.46	<2	8	169
K976673		10	<1	0.67	20	1.21	539	2	0.19	8	2140	2	0.34	<2	6	166
K976674		10	<1	0.74	10	1.31	495	2	0.21	9	1710	2	0.15	<2	6	185
K976675		10	<1	0.49	10	1.00	388	2	0.20	6	1760	3	0.11	<2	4	158

ALS Canada Ltd.
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To: ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 6- SEP- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11146387

Sample Description	Th	Ti	Tl	U	V	W	Zn
Method	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41
Units	ppm	%	ppm	ppm	ppm	ppm	ppm
LOR	20	0.01	10	10	1	10	2
K976636	<20	0.13	<10	<10	137	<10	34
K976637	<20	0.18	<10	<10	224	<10	36
K976638	<20	0.19	<10	<10	219	<10	34
K976639	<20	0.18	<10	<10	238	<10	32
K976640	<20	0.18	<10	<10	210	<10	31
K976641	<20	0.19	<10	<10	241	<10	35
K976642	<20	0.19	<10	<10	264	<10	35
K976643	<20	0.18	<10	<10	232	<10	30
K976644	<20	0.18	<10	<10	268	<10	34
K976645	<20	0.18	<10	<10	321	<10	47
K976646	<20	0.18	<10	<10	361	<10	46
K976647	<20	0.18	<10	<10	340	<10	39
K976648	<20	0.18	<10	<10	345	<10	47
K976649	<20	0.17	<10	<10	269	<10	40
K976650	<20	0.20	<10	<10	209	<10	35
K976651	<20	0.16	<10	<10	179	<10	33
K976652	<20	0.18	<10	<10	190	<10	30
K976653	<20	0.13	<10	<10	177	<10	27
K976654	<20	0.14	<10	<10	179	<10	28
K976655	<20	0.15	<10	<10	176	<10	38
K976656	<20	0.23	<10	<10	156	<10	40
K976657	<20	0.22	<10	<10	163	<10	41
K976658	<20	0.16	<10	<10	127	<10	35
K976659	<20	0.21	<10	<10	114	<10	33
K976660	<20	0.23	<10	<10	112	<10	40
K976661	<20	0.20	<10	<10	94	<10	35
K976662	<20	0.19	<10	<10	118	<10	44
K976663	<20	0.22	<10	<10	103	<10	32
K976664	<20	0.19	<10	<10	107	<10	36
K976665	<20	0.20	<10	<10	151	<10	53
K976666	<20	0.22	<10	<10	118	<10	48
K976667	<20	0.19	<10	<10	133	<10	48
K976668	<20	0.27	<10	<10	157	<10	53
K976669	<20	0.30	<10	<10	181	<10	63
K976670	<20	0.19	<10	<10	123	60	44
K976671	<20	0.14	<10	<10	110	<10	47
K976672	<20	0.24	<10	<10	146	<10	59
K976673	<20	0.26	<10	<10	152	<10	60
K976674	<20	0.28	<10	<10	162	<10	72
K976675	<20	0.21	<10	<10	125	<10	46

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1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 6- SEP- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11146387

Sample Description	WEI- 21	Au- AA24	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41
Analyte	Recvd Wt.	Au	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
Units	kg	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
LOR	.02	0.005	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
K976676	Not Recvd														
K976677	Not Recvd														
K976678	0.21	<0.005	<0.2	1.06	4	<10	210	<0.5	<2	0.61	<0.5	8	30	61	2.54
K976679	0.33	<0.005	<0.2	0.76	3	<10	230	<0.5	<2	1.56	<0.5	6	21	74	2.11
K976680	0.44	0.005	0.2	0.45	17	<10	370	0.5	<2	3.83	<0.5	9	6	106	2.71
K976681	0.18	<0.005	<0.2	0.77	6	<10	340	0.7	<2	3.35	<0.5	12	13	110	3.61
K976682	0.31	<0.005	<0.2	0.82	5	<10	220	<0.5	<2	1.68	<0.5	10	21	177	3.35
K976683	0.36	<0.005	<0.2	0.83	3	<10	380	0.6	<2	4.17	<0.5	13	14	118	3.61
K976684	0.59	<0.005	<0.2	0.93	3	<10	210	<0.5	<2	2.45	<0.5	11	20	152	3.59
K976685	0.67	<0.005	<0.2	0.99	4	<10	230	<0.5	<2	1.98	<0.5	11	22	240	3.58
K976686	0.91	<0.005	<0.2	1.11	3	<10	250	<0.5	<2	1.25	<0.5	12	24	210	3.66
K976687	0.69	<0.005	<0.2	1.08	2	<10	250	<0.5	<2	1.09	<0.5	11	23	94	3.52
K976688	0.92	<0.005	<0.2	1.01	<2	<10	230	<0.5	<2	1.05	<0.5	10	24	154	3.47
K976689	0.53	<0.005	<0.2	1.07	2	<10	240	<0.5	<2	1.29	<0.5	12	24	97	3.47
K976690	0.41	<0.005	<0.2	1.45	<2	<10	310	<0.5	<2	4.63	<0.5	13	21	268	3.35
K976691	0.40	<0.005	<0.2	1.41	<2	<10	260	0.5	<2	3.61	<0.5	15	22	284	3.77
K976692	0.50	<0.005	<0.2	1.07	<2	<10	230	<0.5	<2	1.92	<0.5	13	25	73	3.67
K976693	0.81	<0.005	<0.2	1.00	<2	<10	250	<0.5	<2	1.41	<0.5	12	25	72	3.45
K976694	0.68	<0.005	<0.2	0.91	<2	<10	210	<0.5	<2	1.45	<0.5	12	24	84	3.40
K976695	0.52	<0.005	<0.2	0.90	<2	<10	180	<0.5	<2	2.27	<0.5	13	23	72	3.58
K976696	0.42	<0.005	<0.2	1.01	<2	<10	190	<0.5	<2	1.52	<0.5	11	24	142	3.36
K976697	0.58	<0.005	0.2	1.04	<2	<10	200	<0.5	<2	2.39	<0.5	15	22	228	3.69
K976698	0.70	<0.005	0.2	1.36	2	<10	490	<0.5	<2	1.91	<0.5	15	137	281	3.79
K976699	0.31	<0.005	<0.2	1.42	<2	<10	870	<0.5	<2	2.23	<0.5	16	62	241	3.94
K976700	0.54	<0.005	0.2	1.03	<2	<10	10	0.7	<2	5.66	<0.5	19	30	457	3.93
K976501	0.63	0.007	<0.2	1.25	<2	<10	920	<0.5	<2	2.42	<0.5	16	60	416	3.97
K976502	0.32	0.005	<0.2	1.05	<2	<10	500	<0.5	<2	4.12	<0.5	14	49	245	3.56
K976503	0.54	0.009	0.4	1.32	3	<10	940	<0.5	<2	2.21	<0.5	17	117	614	4.01
K976504	0.56	<0.005	<0.2	1.13	<2	<10	890	<0.5	<2	1.46	<0.5	13	81	328	3.68
K976505	0.54	0.007	<0.2	1.00	<2	<10	1340	0.5	<2	2.99	<0.5	14	50	473	3.64
K976506	0.54	0.006	<0.2	0.90	2	<10	1260	0.5	<2	4.27	<0.5	14	35	300	3.54
K976507	0.70	0.007	0.2	1.02	<2	<10	1480	<0.5	<2	1.96	<0.5	13	50	445	3.48
K976508	0.61	<0.005	<0.2	1.07	<2	<10	1720	<0.5	<2	1.95	<0.5	13	49	303	3.62
K976509	0.61	0.005	0.2	0.82	14	<10	50	0.5	<2	4.90	<0.5	17	21	309	3.47
K976510	0.47	0.006	0.3	0.85	7	<10	60	0.7	<2	4.57	<0.5	15	33	529	4.36
K976512	0.60	0.013	0.5	0.82	42	<10	10	0.6	<2	5.79	<0.5	19	11	1135	4.28
K976513	0.55	0.009	0.3	0.87	70	<10	20	0.6	<2	4.70	<0.5	15	15	746	4.22
K976514	0.61	0.009	0.2	0.93	11	<10	10	0.8	<2	5.06	<0.5	16	24	563	4.20
K976515	0.61	0.005	0.2	0.91	19	<10	20	0.7	2	4.77	<0.5	17	19	511	3.46
K976516	0.63	<0.005	0.3	1.56	4	<10	80	1.1	<2	4.64	<0.5	18	41	557	4.36

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1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 6- SEP- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11146387

Sample Description	Method / Analyte / Units / LOR	ME- ICP41 Ga ppm 10	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1
K976676																
K976677																
K976678		<10	<1	0.22	10	0.56	377	3	0.08	11	810	2	0.01	<2	4	36
K976679		<10	<1	0.24	10	0.58	292	3	0.05	8	780	2	0.04	<2	5	49
K976680		<10	<1	0.22	10	1.19	680	9	0.01	5	600	3	0.20	<2	6	105
K976681		<10	<1	0.21	20	0.98	670	7	0.02	6	1050	2	0.02	<2	12	176
K976682		<10	<1	0.28	10	0.88	409	5	0.09	7	970	<2	0.02	<2	6	149
K976683		<10	<1	0.24	20	1.65	658	5	0.03	6	1060	2	0.02	<2	13	378
K976684		<10	<1	0.33	20	1.19	527	3	0.09	7	1020	<2	0.02	<2	8	189
K976685		<10	<1	0.38	10	1.07	511	3	0.10	7	1010	<2	0.03	<2	7	139
K976686		<10	<1	0.50	10	1.02	431	3	0.12	7	1030	2	0.03	<2	4	89
K976687		<10	<1	0.46	10	0.96	381	2	0.11	7	980	2	0.01	<2	4	73
K976688		<10	<1	0.42	10	0.94	345	3	0.11	7	1030	2	0.02	<2	3	74
K976689		<10	<1	0.43	10	0.99	408	3	0.11	11	980	8	0.03	<2	4	88
K976690		10	<1	0.26	20	1.30	934	5	0.07	8	980	4	0.05	<2	9	234
K976691		10	<1	0.37	20	1.52	831	7	0.06	9	1060	3	0.06	<2	12	206
K976692		<10	<1	0.40	10	1.08	558	3	0.11	8	1040	2	0.03	<2	8	139
K976693		<10	<1	0.43	10	0.96	473	2	0.13	7	1010	3	0.02	<2	5	109
K976694		<10	<1	0.36	10	0.95	450	2	0.11	8	1010	2	0.03	<2	6	118
K976695		<10	<1	0.31	10	1.16	575	2	0.09	7	1040	3	0.02	<2	8	171
K976696		<10	<1	0.34	10	1.01	469	2	0.12	7	950	3	0.03	<2	5	101
K976697		<10	<1	0.40	20	1.27	599	2	0.09	10	1010	3	0.05	<2	9	180
K976698		<10	<1	0.52	10	1.63	660	10	0.09	32	1130	2	0.07	<2	8	117
K976699		10	<1	0.49	10	1.60	617	14	0.12	15	1320	3	0.09	<2	10	309
K976700		<10	<1	0.10	20	2.07	1000	21	0.02	21	1220	6	0.38	<2	17	205
K976501		10	<1	0.52	10	1.76	679	16	0.10	12	1120	2	0.13	<2	11	891
K976502		<10	<1	0.36	20	1.83	720	31	0.05	12	1060	3	0.08	<2	11	181
K976503		10	<1	0.66	10	1.78	683	24	0.10	26	1180	<2	0.16	<2	10	272
K976504		<10	<1	0.57	10	1.27	466	22	0.10	15	1160	2	0.12	<2	6	357
K976505		<10	<1	0.48	10	1.58	613	21	0.06	11	1180	3	0.12	<2	10	249
K976506		<10	<1	0.35	20	1.95	726	18	0.03	8	1030	3	0.13	<2	12	262
K976507		<10	<1	0.52	10	1.24	530	11	0.09	9	1000	3	0.12	<2	8	213
K976508		<10	<1	0.51	10	1.25	516	21	0.07	9	1050	3	0.17	2	8	237
K976509		<10	<1	0.13	20	1.73	759	19	0.02	12	1140	8	0.41	<2	14	248
K976510		<10	<1	0.12	20	1.79	813	5	0.02	9	1250	4	0.35	<2	15	189
K976512		<10	1	0.11	20	1.94	894	37	0.02	11	1710	6	0.76	<2	14	236
K976513		<10	<1	0.13	20	1.82	785	18	0.01	10	1330	6	0.65	<2	13	193
K976514		<10	<1	0.16	20	1.66	797	40	0.02	15	1210	5	0.36	<2	16	227
K976515		<10	<1	0.15	20	1.84	812	47	0.01	15	1210	6	0.41	<2	14	199
K976516		<10	<1	0.29	20	2.09	716	45	0.01	18	1450	5	0.26	<2	16	234

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Finalized Date: 6- SEP- 2011
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CERTIFICATE OF ANALYSIS WH11146387

Sample Description	Method	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41
	Analyte	Th	Ti	Tl	U	V	W	Zn
	Units	ppm	%	ppm	ppm	ppm	ppm	ppm
	LOR	20	0.01	10	10	1	10	2
K976676								
K976677								
K976678		<20	0.10	<10	<10	57	<10	28
K976679		<20	0.08	<10	<10	43	<10	23
K976680		<20	0.01	<10	<10	26	<10	32
K976681		<20	0.01	<10	<10	78	<10	34
K976682		<20	0.11	<10	<10	105	<10	23
K976683		<20	0.03	<10	<10	90	<10	33
K976684		<20	0.11	<10	<10	110	<10	30
K976685		<20	0.15	<10	<10	118	<10	33
K976686		<20	0.22	<10	<10	134	<10	36
K976687		<20	0.23	<10	<10	132	<10	34
K976688		<20	0.22	<10	<10	130	<10	29
K976689		<20	0.22	<10	<10	136	<10	38
K976690		<20	0.07	<10	<10	113	<10	37
K976691		<20	0.10	<10	<10	125	10	44
K976692		<20	0.15	<10	<10	132	<10	38
K976693		<20	0.17	<10	<10	127	<10	34
K976694		<20	0.14	<10	<10	118	<10	30
K976695		<20	0.11	<10	<10	115	<10	36
K976696		<20	0.14	<10	<10	124	10	34
K976697		<20	0.13	<10	<10	119	<10	43
K976698		<20	0.21	<10	<10	117	<10	47
K976699		<20	0.17	<10	<10	127	<10	45
K976700		<20	0.01	<10	<10	100	<10	52
K976501		<20	0.15	<10	<10	125	<10	48
K976502		<20	0.09	<10	<10	104	<10	43
K976503		<20	0.20	<10	<10	131	10	50
K976504		<20	0.21	<10	<10	126	10	36
K976505		<20	0.14	<10	<10	114	<10	42
K976506		<20	0.07	<10	<10	87	<10	48
K976507		<20	0.16	<10	<10	110	10	38
K976508		<20	0.15	<10	<10	112	<10	38
K976509		<20	<0.01	<10	<10	81	<10	49
K976510		<20	0.01	<10	<10	101	<10	46
K976512		<20	<0.01	<10	<10	83	<10	56
K976513		<20	<0.01	<10	<10	71	<10	47
K976514		<20	<0.01	<10	<10	85	<10	54
K976515		<20	<0.01	<10	<10	66	<10	47
K976516		<20	0.03	<10	<10	85	<10	52

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CERTIFICATE OF ANALYSIS WH11146387

Sample Description	Method	WEI- 21	Au- AA24	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41
	Analyte	Recvd Wt.	Au	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	kg	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	.02	0.005	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
K976517		0.40	<0.005	0.3	2.05	<2	<10	200	1.2	<2	3.90	<0.5	18	54	713	4.61
K976518		0.58	0.006	0.6	1.32	2	<10	10	0.8	2	5.45	<0.5	17	28	1045	4.53
K976519		0.51	<0.005	<0.2	1.24	3	<10	130	<0.5	<2	0.72	<0.5	8	30	247	2.38
K976520		1.14	0.007	<0.2	2.70	3	<10	390	0.5	<2	4.59	<0.5	21	36	430	4.67
K976521		1.74	<0.005	<0.2	2.34	2	<10	430	<0.5	<2	3.58	<0.5	19	45	308	4.37
K976522		0.19	<0.005	<0.2	3.74	<2	<10	480	<0.5	<2	4.71	<0.5	28	38	214	6.03
K976523		0.38	<0.005	<0.2	3.88	<2	<10	460	0.5	<2	4.24	<0.5	31	33	287	6.29
K976524		0.43	0.014	<0.2	4.27	<2	<10	380	<0.5	<2	3.88	<0.5	31	45	346	6.62
K976525		0.31	0.006	<0.2	3.97	2	<10	420	<0.5	<2	5.71	<0.5	31	23	385	5.87
K976526		0.52	0.007	0.2	3.78	<2	<10	540	<0.5	<2	3.27	<0.5	26	88	485	6.26
K976527		0.56	0.005	0.3	3.32	<2	<10	420	0.5	<2	2.96	<0.5	25	52	355	6.03
K976528		0.70	0.012	0.3	2.73	2	<10	390	<0.5	<2	1.79	<0.5	24	26	794	5.53
K976529		0.57	0.008	0.2	2.26	2	<10	340	<0.5	<2	2.08	<0.5	22	19	628	5.01
K976530		0.42	0.011	0.5	2.53	2	<10	500	<0.5	<2	2.16	<0.5	23	21	991	5.34
K976531		0.72	0.010	0.3	2.59	<2	<10	670	<0.5	<2	1.66	<0.5	24	30	793	6.16
K976532		0.32	0.008	0.2	2.16	3	<10	790	<0.5	<2	1.90	<0.5	22	29	501	6.25
K976533		0.71	<0.005	0.2	2.36	<2	<10	920	0.7	<2	3.69	<0.5	25	51	361	5.85
K976534		0.98	<0.005	0.3	1.99	12	<10	280	0.8	<2	4.61	<0.5	22	109	531	3.81
K976535		0.99	0.009	0.3	1.87	<2	<10	1730	<0.5	<2	3.31	<0.5	21	23	855	5.63
K976536		1.36	0.007	0.2	1.60	<2	<10	890	<0.5	<2	3.40	<0.5	23	24	548	5.90
K976537		0.69	<0.005	<0.2	1.39	<2	<10	610	<0.5	<2	2.46	<0.5	17	30	311	4.57
K976538		0.63	0.010	0.5	2.54	<2	<10	1140	<0.5	<2	3.51	<0.5	33	37	1020	7.34
K863851		1.13	0.027	0.8	1.78	4	<10	630	0.5	<2	2.86	<0.5	20	25	1020	5.02
K863852		2.13	0.052	6.6	0.97	12	<10	190	0.7	6	5.25	0.7	45	18	4060	6.54
K863853		0.64	0.009	2.0	0.79	62	<10	320	0.9	2	4.37	<0.5	22	8	1940	4.45
K863854		0.23	0.011	0.9	2.08	8	<10	790	<0.5	<2	3.39	<0.5	22	23	980	5.94
K863855		0.61	0.017	0.7	2.35	5	<10	450	<0.5	<2	3.29	<0.5	24	27	1025	6.14
K863856		0.91	0.012	0.6	2.46	28	<10	440	<0.5	<2	4.30	<0.5	30	25	880	6.64
K863857		1.00	<0.005	0.3	2.81	<2	<10	330	<0.5	<2	3.09	<0.5	23	36	341	6.23
K863858		1.26	0.009	0.4	2.72	3	<10	220	<0.5	<2	3.02	<0.5	29	40	576	7.15
K863859		1.04	<0.005	0.4	3.03	<2	<10	220	<0.5	<2	2.85	<0.5	23	32	373	6.07
K863860		0.88	<0.005	1.8	2.59	3	<10	330	<0.5	<2	2.46	0.5	30	29	1050	6.26
K863861		1.03	<0.005	0.2	2.31	<2	<10	390	<0.5	<2	2.20	<0.5	23	28	354	5.76
K863862		0.57	<0.005	0.4	2.08	<2	<10	350	<0.5	<2	2.09	<0.5	20	26	281	5.59
K863863		0.57	0.006	0.3	2.19	<2	<10	260	<0.5	<2	2.70	<0.5	22	37	336	6.60
K863864		0.85	<0.005	0.2	2.17	<2	<10	480	<0.5	<2	3.72	<0.5	22	26	246	5.81
K863865		0.99	<0.005	0.3	2.95	2	<10	280	<0.5	<2	3.08	<0.5	22	44	550	5.76
K863866		0.85	0.008	0.2	3.57	2	<10	330	<0.5	<2	3.28	<0.5	24	26	747	5.46
K863867		0.80	<0.005	0.3	3.25	<2	<10	110	<0.5	<2	2.95	<0.5	38	33	538	6.78
K863868		1.01	<0.005	0.4	4.31	<2	<10	740	<0.5	<2	3.24	<0.5	21	28	384	6.01

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Finalized Date: 6- SEP- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11146387

Sample Description	ME- ICP41 Ga ppm 10	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1
K976517	10	<1	0.42	20	1.91	708	59	0.02	14	1440	6	0.20	<2	17	210
K976518	<10	<1	0.11	20	1.98	1065	32	0.01	11	1230	5	0.33	<2	16	206
K976519	<10	<1	0.21	10	0.64	311	4	0.06	16	690	5	0.04	<2	5	42
K976520	10	<1	0.53	10	2.03	917	7	0.09	15	1270	4	0.06	<2	15	168
K976521	10	<1	0.54	10	2.21	837	7	0.10	12	1140	3	0.05	<2	13	136
K976522	10	<1	0.62	10	3.08	1010	25	0.29	17	1220	5	0.08	<2	19	350
K976523	10	<1	0.68	10	3.47	915	14	0.20	18	1950	6	0.07	<2	15	282
K976524	10	<1	0.69	10	2.90	829	11	0.34	21	1820	4	0.06	<2	12	480
K976525	10	<1	0.61	10	2.60	949	47	0.28	17	1720	5	0.13	<2	14	471
K976526	10	<1	0.80	10	3.01	782	39	0.31	26	1930	3	0.11	<2	10	458
K976527	10	<1	0.56	20	3.55	930	26	0.07	16	1740	4	0.10	<2	13	399
K976528	10	<1	0.38	10	3.25	712	173	0.11	15	1370	4	0.17	<2	12	350
K976529	10	<1	0.36	10	2.59	637	116	0.16	12	1310	4	0.13	<2	10	285
K976530	10	<1	0.59	10	2.81	627	194	0.10	12	1480	3	0.18	<2	10	294
K976531	10	<1	0.92	10	2.46	469	162	0.22	15	1940	2	0.12	<2	6	350
K976532	10	<1	0.86	20	1.67	456	217	0.25	13	2560	2	0.14	<2	5	267
K976533	10	<1	0.62	20	1.26	646	55	0.08	33	2490	2	0.14	<2	14	267
K976534	10	<1	0.66	10	2.18	665	32	0.05	79	1460	6	0.15	7	12	312
K976535	10	<1	0.76	20	1.98	703	29	0.15	15	2100	3	0.20	<2	13	365
K976536	10	<1	0.72	20	1.84	752	87	0.15	11	2270	3	0.16	<2	13	278
K976537	10	<1	0.48	10	1.62	642	43	0.14	11	1370	2	0.08	<2	10	220
K976538	10	<1	1.09	10	2.57	823	84	0.27	18	1960	3	0.26	<2	18	483
K863851	10	<1	0.40	20	1.16	724	27	0.15	13	2740	6	0.27	2	12	223
K863852	<10	<1	0.35	20	1.88	1535	46	0.04	15	2650	151	1.84	<2	23	303
K863853	<10	<1	0.30	10	1.68	893	29	0.02	8	2160	24	0.99	16	11	234
K863854	10	<1	0.59	20	1.83	646	6	0.26	10	3170	6	0.51	2	11	380
K863855	10	<1	0.49	20	1.92	595	4	0.27	11	3630	4	0.54	<2	10	421
K863856	10	<1	0.59	20	2.06	643	8	0.26	12	3870	10	0.67	16	10	469
K863857	10	<1	0.31	20	1.49	529	3	0.37	10	4420	6	0.22	<2	5	460
K863858	10	<1	0.20	20	1.88	580	5	0.32	15	4770	5	0.43	<2	7	422
K863859	10	<1	0.18	20	1.70	489	3	0.36	13	3570	7	0.30	<2	6	461
K863860	10	<1	0.30	20	1.51	469	4	0.35	11	3590	6	0.54	<2	5	371
K863861	10	<1	0.30	20	1.20	377	5	0.36	9	3930	5	0.31	<2	4	377
K863862	10	<1	0.20	20	1.16	392	4	0.34	8	3480	6	0.26	<2	4	335
K863863	10	<1	0.14	20	1.21	560	2	0.33	11	4130	6	0.17	<2	6	390
K863864	10	<1	0.21	20	1.21	630	2	0.27	10	3560	3	0.20	<2	5	382
K863865	10	<1	0.16	20	1.27	511	2	0.35	16	3130	3	0.41	<2	5	477
K863866	10	<1	0.24	10	1.45	414	6	0.40	14	3550	3	0.80	<2	3	559
K863867	10	1	0.44	10	1.74	452	6	0.44	16	3510	4	1.32	<2	6	525
K863868	10	<1	0.70	20	1.65	359	3	0.60	10	3840	2	0.42	<2	4	718

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Finalized Date: 6- SEP- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11146387

Sample Description	Method / Analyte / Units / LOR	ME- ICP41 Th ppm 20	ME- ICP41 Ti % 0.01	ME- ICP41 Tl ppm 10	ME- ICP41 U ppm 10	ME- ICP41 V ppm 1	ME- ICP41 W ppm 10	ME- ICP41 Zn ppm 2
K976517		<20	0.08	<10	<10	106	<10	47
K976518		<20	0.01	<10	<10	112	<10	68
K976519		<20	0.11	<10	<10	54	<10	34
K976520		<20	0.12	<10	<10	155	<10	53
K976521		<20	0.15	<10	<10	140	<10	59
K976522		<20	0.18	<10	<10	264	<10	62
K976523		<20	0.19	<10	<10	267	<10	61
K976524		<20	0.22	<10	<10	325	<10	57
K976525		<20	0.14	<10	<10	235	<10	55
K976526		<20	0.28	<10	<10	261	<10	60
K976527		<20	0.22	<10	<10	248	<10	60
K976528		<20	0.30	<10	<10	235	<10	52
K976529		<20	0.29	<10	<10	197	<10	42
K976530		<20	0.30	<10	<10	206	<10	45
K976531		<20	0.32	<10	<10	272	<10	41
K976532		<20	0.31	<10	<10	269	<10	41
K976533		<20	0.18	<10	<10	214	<10	46
K976534		<20	0.09	<10	<10	88	<10	48
K976535		<20	0.22	<10	<10	225	<10	45
K976536		<20	0.22	<10	<10	228	10	49
K976537		<20	0.14	<10	<10	157	20	39
K976538		<20	0.31	<10	<10	291	<10	48
K863851		<20	0.09	<10	<10	149	10	46
K863852		<20	0.01	<10	<10	111	10	101
K863853		<20	<0.01	<10	<10	68	<10	54
K863854		<20	0.13	<10	<10	230	10	35
K863855		<20	0.13	<10	<10	254	<10	36
K863856		<20	0.14	<10	<10	241	<10	42
K863857		<20	0.18	<10	<10	272	<10	45
K863858		<20	0.20	<10	<10	299	10	61
K863859		<20	0.19	<10	<10	254	<10	42
K863860		<20	0.21	<10	<10	230	20	70
K863861		<20	0.19	<10	<10	225	<10	45
K863862		<20	0.19	<10	<10	197	<10	48
K863863		<20	0.15	<10	<10	253	<10	64
K863864		<20	0.13	<10	<10	214	<10	48
K863865		<20	0.13	<10	<10	203	<10	38
K863866		<20	0.16	<10	<10	208	20	33
K863867		<20	0.24	<10	<10	225	10	35
K863868		<20	0.25	<10	<10	238	10	27

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CERTIFICATE OF ANALYSIS WH11146387

Sample Description	Method	WEI- 21	Au- AA24	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41
	Analyte	Recvd Wt.	Au	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	kg	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	.02	0.005	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
K863869		0.91	0.009	0.9	3.04	9	<10	140	0.5	<2	5.33	<0.5	30	28	1125	6.01
K863870		0.73	0.008	0.3	3.52	2	<10	200	<0.5	<2	3.65	<0.5	37	24	932	6.09
K863871		0.46	<0.005	0.2	1.50	5	<10	180	0.5	<2	0.62	<0.5	10	40	168	2.46
K863872		1.33	<0.005	<0.2	1.75	4	<10	80	<0.5	<2	0.93	<0.5	14	90	72	2.53
K863873		0.21	<0.005	<0.2	1.92	4	<10	70	<0.5	<2	1.41	<0.5	17	106	49	2.82
K863874		0.68	<0.005	<0.2	1.92	3	<10	40	0.5	<2	1.42	<0.5	14	113	12	2.57
K863875		0.57	<0.005	<0.2	1.96	4	<10	50	0.5	<2	1.53	<0.5	16	118	12	2.68
K863876		0.71	<0.005	<0.2	1.84	6	<10	50	<0.5	<2	1.47	<0.5	17	125	11	2.74
K863877		0.52	<0.005	<0.2	2.34	4	<10	190	0.8	<2	1.11	<0.5	14	92	43	3.01
K863878		0.83	<0.005	<0.2	1.71	<2	<10	210	0.6	<2	0.63	<0.5	8	58	24	2.34
K863879		0.84	<0.005	<0.2	1.97	29	<10	100	1.2	<2	1.67	<0.5	13	73	17	3.31
K863880		0.78	<0.005	<0.2	2.89	6	<10	140	0.8	<2	1.17	<0.5	11	72	13	2.87
K863881		0.61	<0.005	<0.2	2.24	3	<10	160	0.8	<2	0.68	<0.5	8	68	13	2.61
K863882		0.70	<0.005	<0.2	3.07	17	<10	300	1.3	<2	1.23	<0.5	15	70	36	3.91
K863883		0.78	<0.005	<0.2	3.70	23	<10	160	1.1	<2	1.68	<0.5	24	70	115	5.94
K863884		0.73	<0.005	<0.2	6.84	6	<10	130	2.0	<2	2.77	<0.5	30	164	171	6.18
K863885		0.78	<0.005	<0.2	3.73	4	<10	150	0.8	<2	2.16	<0.5	23	56	208	4.23
K863886		0.66	<0.005	<0.2	2.35	5	<10	120	0.8	<2	1.68	<0.5	27	64	251	5.33
K863887		0.58	<0.005	<0.2	1.44	6	<10	50	0.8	<2	0.99	<0.5	11	33	60	2.73
K863888		0.36	<0.005	<0.2	2.15	3	<10	80	0.8	<2	1.45	<0.5	8	39	28	2.16
K863889		0.62	<0.005	<0.2	1.60	18	<10	30	1.3	<2	6.35	<0.5	14	41	114	6.87
K863890		0.59	<0.005	0.2	1.52	5	<10	20	0.5	<2	5.27	<0.5	14	32	161	5.52

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Sample Description	Method	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41
	Analyte	Ga	Hg	K	La	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Sc	Sr
	Units	ppm	ppm	%	ppm	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm
	LOR	10	1	0.01	10	0.01	5	1	0.01	1	10	2	0.01	2	1	1
K863869		10	<1	0.54	10	2.19	625	4	0.27	16	3150	5	1.29	<2	7	492
K863870		10	1	0.58	10	1.54	412	10	0.47	13	3380	3	1.20	<2	5	585
K863871		10	<1	0.23	10	0.72	315	4	0.07	21	680	7	0.10	<2	4	55
K863872		10	<1	0.12	10	1.20	299	2	0.09	42	680	5	0.11	<2	4	58
K863873		10	<1	0.11	10	1.54	365	3	0.09	49	720	3	0.12	<2	5	92
K863874		10	<1	0.08	<10	1.59	291	2	0.09	56	670	4	0.19	<2	4	92
K863875		10	<1	0.09	10	1.65	308	2	0.10	55	670	<2	0.29	<2	5	98
K863876		10	<1	0.09	10	1.66	316	2	0.10	55	670	<2	0.29	<2	4	85
K863877		10	<1	0.37	10	1.42	323	2	0.10	42	370	<2	0.23	<2	7	75
K863878		10	<1	0.50	10	0.99	254	2	0.08	23	110	2	0.19	<2	6	56
K863879		10	<1	0.39	20	1.46	430	1	0.03	41	120	4	0.10	2	8	132
K863880		10	<1	0.40	10	1.23	371	1	0.16	33	120	2	0.09	<2	7	112
K863881		10	<1	0.67	10	1.16	285	1	0.10	28	120	<2	0.07	<2	7	80
K863882		10	<1	0.44	20	1.62	451	2	0.09	40	230	4	0.34	<2	9	159
K863883		10	<1	0.25	20	1.98	657	4	0.09	53	260	3	2.12	<2	6	178
K863884		20	<1	0.47	20	2.34	416	4	0.28	70	610	2	2.47	<2	10	364
K863885		10	<1	0.17	10	1.14	322	6	0.21	44	170	<2	1.93	<2	3	246
K863886		10	<1	0.23	10	0.94	161	8	0.10	60	190	<2	2.66	<2	4	130
K863887		<10	<1	0.18	10	0.59	180	3	0.03	28	80	2	0.79	<2	2	55
K863888		10	<1	0.22	10	0.74	204	2	0.08	18	140	2	0.49	<2	5	93
K863889		<10	<1	0.10	10	1.23	1305	1	0.03	28	600	3	0.86	<2	5	243
K863890		10	<1	0.04	<10	0.45	850	3	0.03	21	130	<2	0.61	<2	3	78

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To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 6- SEP- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11146387

Sample Description	Method Analyte Units LOR	ME- ICP41 Th ppm 20	ME- ICP41 Ti % 0.01	ME- ICP41 Tl ppm 10	ME- ICP41 U ppm 10	ME- ICP41 V ppm 1	ME- ICP41 W ppm 10	ME- ICP41 Zn ppm 2
K863869		<20	0.09	<10	<10	160	10	33
K863870		<20	0.17	<10	<10	217	10	32
K863871		<20	0.07	<10	<10	54	<10	28
K863872		<20	0.11	<10	<10	51	<10	27
K863873		<20	0.12	<10	<10	58	<10	28
K863874		<20	0.13	<10	<10	53	<10	28
K863875		<20	0.13	<10	<10	55	<10	26
K863876		<20	0.12	<10	<10	56	<10	27
K863877		<20	0.10	<10	<10	67	<10	30
K863878		<20	0.11	<10	<10	49	<10	25
K863879		<20	0.04	<10	<10	66	<10	48
K863880		<20	0.10	<10	<10	63	<10	41
K863881		<20	0.15	<10	<10	59	<10	36
K863882		<20	0.07	<10	<10	78	<10	66
K863883		<20	0.01	<10	<10	59	<10	69
K863884		<20	0.05	<10	<10	102	<10	46
K863885		<20	0.03	<10	<10	49	10	27
K863886		<20	0.01	<10	<10	56	<10	16
K863887		<20	0.01	<10	<10	27	<10	14
K863888		<20	0.03	<10	<10	33	<10	20
K863889		<20	0.02	<10	<10	60	<10	50
K863890		<20	0.08	<10	<10	27	<10	24

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1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 12- OCT- 2011
This copy reported on 11- JAN- 2012
Account: F

CERTIFICATE WH11176164

Project: Hopper

P.O. No.: Batch 1

This report is for 36 Drill Core samples submitted to our lab in Whitehorse, YT, Canada on 30- AUG- 2011.

The following have access to data associated with this certificate:

JOAN MARIACHER	HEATHER SMITH	

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
CRU- 31	Fine crushing - 70% <2mm
SPL- 22Y	Split Sample - Boyd Rotary Splitter
CRU- QC	Crushing QC Test
PUL- QC	Pulverizing QC Test
PUL- 31	Pulverize split to 85% <75 um
LOG- 24	Pulp Login - Rcd w/o Barcode

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au- AA24	Au 50g FA AA finish	AAS
ME- ICP41	35 Element Aqua Regia ICP- AES	ICP- AES
ME- OG46	Ore Grade Elements - AquaRegia	ICP- AES
Cu- OG46	Ore Grade Cu - Aqua Regia	VARIABLE

To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
ATTN: JOAN MARIACHER
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

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

ALS Canada Ltd.

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To: ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 12- OCT- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11176164

Sample Description	WEI- 21 Recvd Wt.	Au- AA24 Au	ME- ICP41 Ag	ME- ICP41 Al	ME- ICP41 As	ME- ICP41 B	ME- ICP41 Ba	ME- ICP41 Be	ME- ICP41 Bi	ME- ICP41 Ca	ME- ICP41 Cd	ME- ICP41 Co	ME- ICP41 Cr	ME- ICP41 Cu	ME- ICP41 Fe
Units	kg	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
LOR	0.02	0.005	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
K975001	1.08	<0.005	<0.2	1.05	4	<10	100	<0.5	<2	0.75	<0.5	5	37	64	1.68
K975002	1.16	0.015	0.4	0.48	<2	<10	80	<0.5	2	0.91	<0.5	4	15	407	1.05
K975003	2.16	0.117	4.0	1.04	5	<10	90	0.5	5	0.66	0.5	9	33	4390	2.10
K975004	3.15	0.127	1.1	1.45	<2	<10	130	0.5	10	0.43	<0.5	22	39	1525	3.93
K975005	2.45	0.139	2.8	0.76	<2	<10	60	<0.5	4	0.84	<0.5	13	22	2890	1.99
K975006	3.74	0.874	12.9	1.20	3	<10	30	<0.5	<2	2.90	1.7	27	24	>10000	5.60
K975007	2.13	<0.005	<0.2	0.03	2	<10	10	<0.5	<2	20.1	<0.5	1	<1	18	0.48
K975008	2.69	0.020	0.5	0.16	<2	<10	200	<0.5	3	1.48	<0.5	15	3	686	2.12
K975009	2.57	<0.005	<0.2	2.00	12	10	60	0.6	<2	1.97	<0.5	5	109	27	1.64
K975010	2.81	0.287	4.8	0.35	3	30	30	<0.5	<2	0.96	0.5	31	4	5220	15.9
K975011	3.57	0.016	0.5	0.08	4	<10	20	0.5	4	5.35	<0.5	4	3	549	1.03
K975012	0.28	0.426	2.2	1.05	111	<10	40	<0.5	<2	0.47	1.1	17	30	4600	4.58
K975013	0.89	0.121	2.4	0.07	35	<10	20	0.7	8	11.1	<0.5	7	9	2680	3.20
K975014	2.80	0.083	0.6	0.30	14	<10	20	0.5	14	4.83	<0.5	23	5	1740	28.5
K975015	3.34	0.153	3.2	0.21	7	<10	40	<0.5	8	1.05	<0.5	58	5	5700	14.5
K975016	1.28	0.024	0.3	0.44	17	<10	110	<0.5	8	1.75	<0.5	22	8	1120	3.79
K975017	1.60	<0.005	<0.2	0.37	17	<10	160	<0.5	<2	1.56	<0.5	5	14	79	1.05
K975018	4.79	<0.005	<0.2	0.51	6	<10	120	<0.5	<2	1.05	<0.5	5	14	113	0.97
K975019	3.21	<0.005	<0.2	0.44	<2	<10	80	<0.5	<2	0.56	<0.5	4	11	95	0.72
K975020	2.90	<0.005	<0.2	1.02	<2	<10	70	<0.5	<2	0.92	<0.5	3	27	12	0.93
K975021	3.88	<0.005	<0.2	0.84	<2	<10	40	<0.5	<2	0.54	<0.5	7	29	80	1.37
K975022	4.36	<0.005	<0.2	0.62	<2	<10	70	<0.5	<2	0.83	<0.5	4	14	61	0.80
K975023	4.16	<0.005	<0.2	0.65	2	<10	80	<0.5	<2	0.86	<0.5	3	15	17	0.62
K975024	2.14	<0.005	0.3	4.30	5	10	30	0.7	<2	4.58	<0.5	12	6	209	1.45
K975025	5.14	<0.005	<0.2	5.59	2	<10	30	0.6	<2	4.83	<0.5	4	3	71	0.54
K975026	0.28	0.414	2.3	1.07	111	<10	40	<0.5	<2	0.50	1.1	17	30	4600	4.73
K975027	3.36	<0.005	<0.2	3.53	2	10	30	0.7	<2	3.65	<0.5	2	5	39	0.61
K975028	3.58	0.006	<0.2	0.36	3	<10	30	<0.5	3	15.4	<0.5	2	6	44	0.45
K975029	1.63	0.010	0.2	1.58	2	10	290	<0.5	<2	1.46	<0.5	7	4	244	1.84
K975030	2.60	0.008	<0.2	0.38	<2	<10	20	<0.5	<2	1.67	<0.5	5	5	162	1.45
K975031	3.64	0.015	<0.2	0.32	2	<10	40	<0.5	<2	13.1	<0.5	<1	6	17	0.82
K975032	2.77	0.056	0.6	0.75	2	<10	40	<0.5	3	3.49	<0.5	31	5	687	5.82
K975033	4.07	0.029	0.2	0.46	9	<10	60	<0.5	3	1.93	<0.5	12	5	149	2.19
K975034	1.26	0.006	<0.2	0.05	<2	<10	20	<0.5	<2	19.8	<0.5	1	1	6	0.47
K975035	3.56	0.014	<0.2	0.35	<2	<10	30	<0.5	2	2.20	<0.5	2	5	11	1.57
K975036	3.72	0.031	<0.2	0.36	2	<10	30	<0.5	<2	3.10	<0.5	5	4	30	2.03

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To: ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 12- OCT- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11176164

Sample Description	Method / Analyte / Units / LOR	ME- ICP41 Ga ppm 10	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1
K975001		10	<1	0.51	20	0.63	183	3	0.05	17	250	14	0.10	<2	4	15
K975002		<10	<1	0.21	20	0.35	173	4	0.06	6	540	9	0.16	<2	3	18
K975003		<10	<1	0.39	10	0.48	166	21	0.03	22	260	5	0.70	<2	4	12
K975004		10	<1	0.68	10	0.70	164	9	0.03	31	310	4	1.51	<2	5	12
K975005		<10	<1	0.17	20	0.23	126	20	0.07	20	290	4	1.17	<2	2	23
K975006		10	<1	0.08	40	0.61	689	2	0.03	20	590	2	3.19	<2	3	35
K975007		<10	<1	0.02	<10	12.30	215	<1	0.02	<1	190	<2	0.13	<2	<1	47
K975008		<10	<1	0.01	<10	1.18	222	2	0.02	17	190	<2	1.08	<2	<1	23
K975009		10	<1	0.10	10	1.48	330	<1	0.09	37	970	2	0.06	<2	5	36
K975010		<10	<1	0.24	<10	5.74	481	<1	0.01	33	160	3	3.01	5	<1	9
K975011		<10	<1	0.01	<10	2.03	351	<1	0.01	5	200	<2	0.20	<2	<1	152
K975012		<10	<1	0.58	10	0.62	498	267	0.03	21	1030	34	2.54	7	7	35
K975013		<10	<1	0.02	<10	4.12	1380	3	0.01	6	160	<2	0.30	3	<1	502
K975014		10	<1	0.11	<10	5.20	729	1	0.01	3	290	<2	3.60	7	1	190
K975015		<10	<1	0.06	<10	1.24	214	4	0.01	23	460	<2	8.06	4	4	24
K975016		<10	<1	0.15	10	0.49	321	3	0.02	15	390	4	1.93	<2	7	86
K975017		<10	<1	0.16	10	0.41	164	5	0.01	41	390	5	0.14	5	4	90
K975018		<10	<1	0.13	10	0.39	148	2	0.08	10	590	5	0.18	<2	2	48
K975019		<10	<1	0.12	10	0.17	96	1	0.09	8	600	5	0.18	<2	1	27
K975020		<10	<1	0.17	10	0.41	130	1	0.11	13	480	5	0.06	<2	3	43
K975021		<10	<1	0.16	10	0.43	126	3	0.04	16	150	3	0.36	<2	2	14
K975022		<10	<1	0.12	10	0.30	126	2	0.11	7	620	6	0.12	<2	2	36
K975023		<10	<1	0.15	10	0.43	139	1	0.08	9	680	7	0.07	<2	2	29
K975024		10	<1	0.12	10	0.60	213	1	0.18	7	1840	7	0.51	2	3	176
K975025		10	<1	0.07	10	0.18	99	4	0.37	4	1910	7	0.19	<2	1	310
K975026		<10	<1	0.56	10	0.63	516	262	0.03	20	1060	37	2.59	8	7	36
K975027		10	<1	0.05	10	0.45	159	7	0.35	2	2110	9	0.08	<2	3	200
K975028		<10	<1	0.07	<10	6.00	436	1	0.04	3	380	3	0.14	<2	<1	104
K975029		<10	<1	1.54	10	5.90	473	<1	0.04	1	380	2	0.40	<2	<1	12
K975030		<10	<1	0.11	10	1.15	467	1	0.03	2	410	5	0.19	<2	<1	14
K975031		<10	<1	0.05	<10	0.06	1050	1	0.06	2	370	3	<0.01	<2	1	39
K975032		<10	<1	0.06	<10	0.08	974	<1	0.02	6	420	<2	2.22	2	1	18
K975033		<10	<1	0.07	<10	0.16	603	1	0.02	5	310	2	0.44	2	<1	20
K975034		<10	<1	0.03	<10	12.10	197	<1	0.02	1	220	<2	0.07	<2	<1	51
K975035		<10	<1	0.04	<10	0.22	666	2	0.02	1	250	2	0.01	<2	<1	20
K975036		<10	<1	0.03	<10	0.23	770	2	0.02	1	260	<2	0.13	<2	<1	26

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To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 12- OCT- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11176164

Sample Description	Method	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	Cu- OG46
	Analyte	Th	Ti	Tl	U	V	W	Zn	Cu
	Units	ppm	%	ppm	ppm	ppm	ppm	ppm	%
	LOR	20	0.01	10	10	1	10	2	0.001
K975001		20	0.16	<10	<10	31	<10	40	
K975002		<20	0.11	<10	<10	27	<10	29	
K975003		20	0.18	<10	<10	30	10	79	
K975004		<20	0.18	<10	<10	39	110	39	
K975005		<20	0.16	<10	<10	14	10	56	
K975006		<20	0.12	<10	<10	42	10	242	1.225
K975007		<20	<0.01	<10	<10	2	<10	15	
K975008		<20	0.01	<10	<10	4	10	23	
K975009		<20	0.19	<10	<10	57	<10	16	
K975010		<20	0.01	<10	10	8	10	102	
K975011		<20	<0.01	<10	<10	6	20	23	
K975012		<20	0.06	<10	<10	83	<10	139	
K975013		<20	<0.01	<10	<10	18	<10	53	
K975014		<20	<0.01	<10	10	14	10	40	
K975015		<20	0.02	<10	10	16	90	58	
K975016		<20	<0.01	<10	<10	26	<10	44	
K975017		<20	<0.01	<10	<10	13	<10	27	
K975018		<20	0.08	<10	<10	22	<10	18	
K975019		<20	0.10	<10	<10	16	<10	15	
K975020		<20	0.13	<10	<10	24	<10	14	
K975021		<20	0.07	<10	<10	16	<10	12	
K975022		<20	0.11	<10	<10	22	<10	15	
K975023		<20	0.12	<10	<10	23	<10	18	
K975024		<20	0.16	<10	<10	39	<10	21	
K975025		<20	0.17	<10	<10	26	<10	16	
K975026		<20	0.06	<10	<10	84	<10	138	
K975027		<20	0.18	<10	<10	40	<10	17	
K975028		<20	0.03	<10	<10	9	<10	19	
K975029		<20	0.04	<10	<10	16	<10	35	
K975030		<20	0.02	<10	<10	3	<10	29	
K975031		<20	0.04	<10	<10	5	<10	14	
K975032		<20	0.05	<10	<10	10	<10	26	
K975033		<20	0.04	<10	<10	5	<10	23	
K975034		<20	<0.01	<10	<10	2	<10	15	
K975035		<20	0.03	<10	<10	4	<10	19	
K975036		<20	0.02	<10	<10	3	<10	18	

ALS Canada Ltd.

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To: ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 11- OCT- 2011
This copy reported on 11- JAN- 2012
Account: F

CERTIFICATE WH11184896

Project: Hopper
P.O. No.: Batch 2 - Hole 1
This report is for 36 Drill Core samples submitted to our lab in Whitehorse, YT, Canada on 11- SEP- 2011.
The following have access to data associated with this certificate:

JOAN MARIACHER	HEATHER SMITH	

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
SPL- 22Y	Split Sample - Boyd Rotary Splitter
LOG- 24	Pulp Login - Rcd w/o Barcode
CRU- QC	Crushing QC Test
PUL- QC	Pulverizing QC Test
CRU- 31	Fine crushing - 70% <2mm
PUL- 31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	
ME- MS41	51 anal. aqua regia ICPMS	
Au- AA24	Au 50g FA AA finish	AAS

To: ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED
ATTN: JOAN MARIACHER
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

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.

***** See Appendix Page for comments regarding this certificate *****

Signature:
Colin Ramshaw, Vancouver Laboratory Manager

ALS Canada Ltd.

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

To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 11- OCT- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11184896

Sample Description	Method	WEI- 21	Au- AA24	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41
	Analyte	Recvd Wt.	Au	Ag	Al	As	Au	B	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr
	Units	kg	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm
	LOR	0.02	0.005	0.01	0.01	0.1	0.2	10	10	0.05	0.01	0.01	0.01	0.02	0.1	1
K975037		4.72	<0.005	0.06	0.61	4.8	<0.2	<10	120	0.20	0.51	2.07	0.11	6.55	4.4	17
K975038		1.71	<0.005	0.28	0.36	5.3	<0.2	<10	70	0.14	1.38	1.71	0.16	1.96	14.9	6
K975039		3.96	0.037	0.94	0.37	3.6	<0.2	<10	60	0.06	2.58	0.80	0.30	1.11	62.7	4
K975040		3.32	0.139	1.20	0.46	57.4	0.4	<10	60	<0.05	2.13	1.34	0.33	1.25	81.4	3
K975041		3.47	0.092	0.25	0.93	6.0	<0.2	<10	60	0.13	0.73	2.13	0.12	11.70	7.1	16
K975042		3.78	<0.005	0.09	1.17	2.5	<0.2	<10	70	0.22	0.14	2.25	0.10	13.00	2.1	57
K975043		4.79	0.019	0.16	0.52	3.4	<0.2	<10	50	0.11	0.36	2.03	0.08	7.43	4.3	14
K975044		2.35	0.046	2.50	0.57	13.3	<0.2	<10	80	0.10	2.20	1.25	0.80	2.92	46.7	4
K975045		4.72	<0.005	0.10	0.29	1.4	<0.2	<10	20	0.06	6.61	2.60	0.09	4.89	1.8	3
K975046		4.66	<0.005	0.19	0.92	7.8	<0.2	<10	120	0.22	0.33	3.06	0.14	15.85	8.6	24
K975047		0.24	0.440	2.19	1.04	108.5	0.5	<10	40	0.40	0.63	0.51	1.02	21.8	16.5	30
K975048		4.88	0.010	0.06	0.48	6.4	<0.2	<10	150	0.21	0.34	1.02	0.06	12.90	4.7	15
K975049		3.51	<0.005	0.21	0.57	8.1	<0.2	<10	300	0.36	0.27	4.87	0.19	12.75	9.1	16
K975050		1.15	0.030	0.05	0.38	198	<0.2	<10	30	0.67	0.44	12.15	0.08	9.26	6.3	14
K975101		3.03	0.061	0.05	0.45	2.4	<0.2	<10	60	0.05	0.53	4.24	0.04	2.15	4.4	10
K975102		1.68	<0.005	<0.01	0.04	6	<0.2	<10	10	<0.05	0.02	19.25	0.05	1.04	1.0	1
K975103		1.97	0.009	0.05	0.49	1.1	<0.2	<10	50	0.14	0.09	0.89	0.08	13.95	2.5	23
K975104		2.88	<0.005	0.04	0.50	7.4	<0.2	<10	<10	<0.05	3.52	6.21	0.06	2.78	1.2	5
K975105		3.42	<0.005	0.05	1.07	3.1	<0.2	<10	40	0.24	1.09	1.59	0.08	12.05	0.9	3
K975106		2.22	<0.005	0.03	0.12	1.0	<0.2	<10	170	0.07	0.09	0.55	0.06	4.55	0.7	14
K975107		3.50	<0.005	0.06	1.44	5.9	<0.2	<10	1260	0.18	0.19	0.69	0.07	12.45	11.7	72
K975108		3.26	<0.005	0.03	0.30	1.4	<0.2	<10	50	0.06	0.52	2.87	0.08	2.44	1.6	11
K975109		3.14	<0.005	0.04	0.45	0.6	<0.2	<10	40	0.09	0.08	9.77	0.16	2.89	0.8	8
K975110		3.91	<0.005	0.05	0.61	5	<0.2	<10	90	0.14	0.06	13.15	0.18	5.75	2.5	14
K975111		0.24	0.468	2.21	1.03	109.0	0.4	<10	40	0.39	0.61	0.50	1.04	21.8	17.5	30
K975112		3.95	<0.005	0.09	2.06	1.8	<0.2	<10	390	0.32	0.12	2.95	1.87	15.10	21.0	204
K975113		3.47	<0.005	0.08	0.56	15	<0.2	<10	40	0.21	0.17	11.65	1.68	4.79	3.6	11
K975114		0.99	<0.005	0.12	0.72	3.0	<0.2	<10	170	0.23	0.26	1.38	0.33	19.10	6.2	26
K975115		4.85	0.005	0.05	0.33	5	<0.2	<10	130	0.13	0.10	10.90	0.20	6.00	2.3	7
K975116		5.34	<0.005	0.05	1.43	6.1	<0.2	<10	530	0.27	0.12	0.79	0.08	20.1	10.7	26
K975117		5.16	<0.005	0.04	1.25	12.2	<0.2	<10	290	0.23	0.11	1.06	0.05	14.15	13.6	69
K975118		3.32	<0.005	0.08	0.57	4.5	<0.2	<10	220	0.19	1.68	0.77	0.08	9.61	10.3	20
K975119		5.29	<0.005	0.03	0.76	10.2	<0.2	<10	20	0.15	3.80	2.78	0.05	9.28	3.4	12
K975120		4.01	0.010	0.03	0.35	14.1	<0.2	<10	20	0.15	0.17	2.65	0.07	1.23	3.0	3
K975121		4.17	9.44	1.04	0.71	15.8	2.1	<10	10	0.21	145.0	1.46	0.11	8.49	6.6	11
K975122		1.44	<0.005	<0.01	0.03	<2	<0.2	<10	10	<0.05	0.14	19.50	0.05	1.82	1.0	1

***** See Appendix Page for comments regarding this certificate *****

ALS Minerals

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CERTIFICATE OF ANALYSIS WH11184896

Sample Description	Method	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41
	Analyte	Cs	Cu	Fe	Ga	Ge	Hf	Hg	In	K	La	Li	Mg	Mn	Mo	Na
	Units	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%
	LOR	0.05	0.2	0.01	0.05	0.05	0.02	0.01	0.005	0.01	0.2	0.1	0.01	5	0.05	0.01
K975037		0.47	41.5	1.87	2.73	0.08	0.06	<0.01	0.071	0.08	3.8	6.3	0.35	676	47.3	0.05
K975038		0.66	293	2.93	1.75	0.09	0.06	<0.01	0.076	0.10	1.1	2.7	0.20	674	1.29	0.02
K975039		0.98	1135	5.51	1.39	0.18	0.06	0.01	0.101	0.08	0.6	1.2	0.16	585	0.34	0.01
K975040		1.07	1345	5.22	1.79	0.26	0.13	0.01	0.160	0.08	0.7	1.1	0.13	634	0.34	0.01
K975041		0.66	207	1.42	3.07	0.12	0.28	<0.01	0.069	0.11	5.4	5.7	0.26	421	3.09	0.12
K975042		0.60	27.2	0.85	3.39	0.07	0.30	<0.01	0.027	0.13	5.8	5.6	0.35	380	7.89	0.21
K975043		0.22	111.5	1.24	2.71	0.10	0.09	<0.01	0.039	0.13	4.0	3.6	0.22	428	12.20	0.03
K975044		0.48	2570	4.12	2.21	0.13	0.17	0.01	0.222	0.12	1.6	3.8	0.32	549	174.5	0.02
K975045		0.41	37.2	0.62	1.28	0.08	0.08	<0.01	0.018	0.04	3.8	6.2	0.95	246	104.0	0.02
K975046		1.97	166.0	3.01	3.16	0.07	0.04	<0.01	0.014	0.27	8.0	11.8	1.55	169	6.60	0.05
K975047		3.03	4580	4.66	4.11	0.12	0.09	0.11	0.055	0.57	10.9	4.3	0.65	525	267	0.02
K975048		0.68	28.8	0.91	2.29	0.06	0.03	<0.01	0.011	0.12	6.6	4.3	0.22	155	1.80	0.03
K975049		1.86	65.5	1.36	1.65	0.05	0.03	<0.01	0.019	0.15	7.1	3.2	0.22	300	4.00	0.03
K975050		1.07	14.1	4.21	1.18	0.06	0.04	0.01	0.161	0.09	6.6	3.3	3.42	2170	15.50	0.01
K975101		0.74	7.1	2.86	2.42	0.18	0.08	<0.01	0.164	0.02	1.4	3.4	0.26	1120	7.46	0.01
K975102		0.50	1.8	0.44	0.17	<0.05	<0.02	<0.01	<0.005	0.02	0.5	0.8	11.95	207	0.19	<0.01
K975103		0.17	4.4	0.58	1.90	0.06	0.43	<0.01	0.009	0.10	6.7	2.8	0.26	161	0.93	0.11
K975104		0.14	4.4	4.81	3.57	0.39	0.11	0.03	0.532	0.01	1.2	1.0	0.12	863	0.44	0.01
K975105		3.82	8.0	0.55	2.87	0.07	0.31	<0.01	0.021	0.07	5.7	2.3	0.11	217	7.84	0.32
K975106		0.16	4.5	0.34	0.65	<0.05	0.03	<0.01	0.006	0.04	2.2	1.4	0.17	107	2.04	0.01
K975107		3.22	58.9	2.34	6.07	0.10	0.04	<0.01	0.015	0.73	6.0	16.8	1.21	297	1.78	0.10
K975108		0.36	15.8	0.78	1.25	0.05	0.04	<0.01	0.026	0.05	1.4	2.9	0.11	377	0.98	0.03
K975109		2.33	7.3	0.42	1.52	0.05	0.06	<0.01	0.026	0.05	1.5	1.4	0.08	966	0.75	0.09
K975110		2.14	15.5	0.39	1.83	<0.05	0.05	<0.01	0.008	0.11	3.2	2.4	0.22	1100	0.81	0.13
K975111		3.08	4560	4.62	4.05	0.13	0.09	0.11	0.056	0.57	11.0	4.4	0.64	520	260	0.02
K975112		5.14	47.5	2.64	6.77	0.11	0.03	0.01	0.019	0.91	7.8	23.9	1.94	296	1.99	0.09
K975113		1.41	25.2	0.37	1.93	<0.05	0.05	<0.01	0.017	0.09	2.6	2.8	0.13	949	2.26	0.11
K975114		1.00	57.0	1.20	2.98	0.05	0.06	<0.01	0.021	0.26	11.6	11.0	0.36	146	3.12	0.04
K975115		1.30	9.7	0.35	1.14	<0.05	0.04	<0.01	0.009	0.08	3.2	1.7	0.18	815	2.14	0.07
K975116		1.90	58.1	2.34	8.03	0.13	0.06	<0.01	0.019	0.50	9.7	11.0	0.70	293	1.72	0.13
K975117		0.98	48.4	1.67	5.24	0.09	0.05	<0.01	0.012	0.29	7.2	13.3	0.99	207	2.68	0.07
K975118		0.33	63.8	1.38	4.02	0.08	0.06	<0.01	0.010	0.09	4.5	5.7	0.29	213	2.02	0.05
K975119		0.18	4.2	1.58	2.91	0.12	0.14	<0.01	0.053	0.03	5.7	6.1	0.54	726	5.45	0.01
K975120		0.30	2.0	1.24	1.48	0.12	0.03	<0.01	0.040	0.01	0.8	4.5	0.49	591	0.25	<0.01
K975121		0.19	111.5	1.92	2.72	0.12	0.09	0.01	0.061	0.03	6.4	13.0	0.91	659	2.86	0.02
K975122		0.22	1.6	0.41	0.10	<0.05	<0.02	<0.01	<0.005	0.02	0.8	1.1	11.70	193	0.11	<0.01

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Sample Description	Method / Analyte / Units / LOR	ME- MS41 Nb ppm 0.05	ME- MS41 Ni ppm 0.2	ME- MS41 P ppm 10	ME- MS41 Pb ppm 0.2	ME- MS41 Rb ppm 0.1	ME- MS41 Re ppm 0.001	ME- MS41 S % 0.01	ME- MS41 Sb ppm 0.05	ME- MS41 Sc ppm 0.1	ME- MS41 Se ppm 0.2	ME- MS41 Sn ppm 0.2	ME- MS41 Sr ppm 0.2	ME- MS41 Ta ppm 0.01	ME- MS41 Te ppm 0.01	ME- MS41 Th ppm 0.2
K975037		0.16	12.4	350	4.2	3.7	0.010	0.13	0.50	1.8	0.5	0.5	59.0	<0.01	0.23	1.0
K975038		0.16	7.4	350	3.8	3.8	0.001	0.95	0.53	0.9	2.7	1.6	27.8	<0.01	0.54	0.9
K975039		0.16	18.8	290	2.5	4.7	<0.001	2.79	0.61	0.6	10.4	0.3	25.5	<0.01	0.87	0.6
K975040		0.27	20.2	370	2.7	5.3	<0.001	2.62	1.02	0.8	11.5	1.0	29.1	<0.01	0.51	0.5
K975041		0.40	5.8	1510	3.9	6.0	0.001	0.16	0.24	1.3	1.0	1.3	90.0	0.01	0.16	1.5
K975042		0.30	5.5	1390	5.2	6.7	0.003	0.02	0.20	1.9	0.4	1.0	123.5	<0.01	0.02	2.2
K975043		0.27	5.7	690	3.4	4.7	0.004	0.11	0.25	1.4	0.5	0.4	25.9	<0.01	0.10	2.1
K975044		0.22	19.3	660	4.1	5.2	0.017	2.03	0.91	1.2	8.6	0.5	22.3	<0.01	0.92	4.1
K975045		0.12	2.7	400	6.2	3.7	0.017	0.04	0.25	0.7	0.4	0.3	19.6	<0.01	3.20	1.3
K975046		0.21	25.6	590	6.3	16.1	0.006	1.66	0.26	1.9	1.5	0.3	46.8	<0.01	0.05	5.4
K975047		0.24	20.8	1060	39.0	31.5	0.695	2.58	6.30	6.3	8.1	2.2	33.9	<0.01	1.11	1.8
K975048		0.28	21.3	550	5.7	7.3	0.002	0.37	0.22	1.5	0.9	0.3	24.6	<0.01	0.10	2.7
K975049		0.18	32.8	390	7.5	7.6	0.005	0.66	0.95	1.7	1.5	0.2	42.3	<0.01	0.10	2.1
K975050		0.13	13.4	350	2.0	4.5	0.007	0.05	5.43	2.9	0.4	0.5	552	<0.01	0.17	1.6
K975101		0.23	3.6	450	1.2	1.6	0.001	0.07	0.31	1.0	0.3	1.1	48.6	<0.01	0.24	0.5
K975102		0.21	2.0	150	1.4	1.9	<0.001	0.01	<0.05	0.3	<0.2	<0.2	46.7	<0.01	0.01	<0.2
K975103		0.56	7.1	610	6.0	3.9	<0.001	0.01	0.23	1.9	0.2	0.4	32.8	<0.01	0.01	5.6
K975104		0.21	1.1	370	2.0	0.5	<0.001	<0.01	0.14	2.4	0.3	3.5	7.0	0.01	1.70	0.4
K975105		0.45	2.0	1310	5.4	2.7	0.004	<0.01	0.19	1.0	0.3	0.9	114.0	0.01	0.45	1.7
K975106		0.34	3.7	280	3.7	2.3	<0.001	<0.01	0.10	0.6	<0.2	0.2	16.8	<0.01	0.02	1.1
K975107		0.20	62.7	750	4.6	42.2	0.001	0.23	0.13	6.1	0.7	0.4	40.9	0.01	0.06	2.5
K975108		0.34	4.5	360	3.2	2.7	<0.001	0.02	0.24	0.7	<0.2	0.3	19.6	<0.01	0.25	0.5
K975109		0.25	2.3	290	4.7	2.3	<0.001	0.01	0.23	0.8	0.2	0.6	48.1	<0.01	0.02	1.1
K975110		0.15	24.4	370	4.1	5.5	0.001	0.09	0.22	1.2	0.4	0.4	44.0	<0.01	0.02	1.4
K975111		0.23	21.8	1040	39.2	31.2	0.700	2.55	6.41	6.6	8.3	2.2	33.2	<0.01	1.16	1.9
K975112		0.14	253	570	4.0	60.7	0.002	0.89	0.12	5.6	1.6	0.4	66.1	<0.01	0.06	3.9
K975113		0.14	8.4	320	6.0	5.7	0.004	0.12	0.19	1.2	0.7	0.3	30.4	<0.01	0.02	1.6
K975114		0.34	31.3	200	8.9	21.4	0.007	0.43	0.11	3.4	1.6	0.3	41.0	<0.01	0.11	4.1
K975115		0.21	4.5	460	4.0	6.1	0.003	0.03	0.14	1.0	0.5	0.3	37.5	<0.01	0.03	0.7
K975116		0.39	19.9	560	4.7	39.4	0.001	0.26	0.15	8.0	0.8	1.1	68.9	0.01	0.04	4.3
K975117		0.24	72.0	420	3.4	23.3	0.005	0.27	0.21	4.8	0.9	0.7	50.0	<0.01	0.03	3.8
K975118		0.47	21.3	470	5.8	7.6	0.001	0.29	0.12	3.7	0.9	0.5	22.9	<0.01	0.60	2.6
K975119		0.32	31.2	580	2.8	2.7	0.007	<0.01	0.99	2.0	0.4	0.8	44.0	<0.01	1.41	1.6
K975120		0.12	4.4	440	2.0	1.3	<0.001	0.16	0.80	0.5	0.4	0.5	20.2	<0.01	0.04	0.5
K975121		0.21	18.6	350	26.0	3.3	0.001	<0.01	0.35	1.0	3.6	1.4	29.4	<0.01	44.1	1.8
K975122		0.19	<0.2	160	1.2	0.9	0.001	<0.01	<0.05	0.4	0.3	<0.2	39.2	<0.01	0.05	<0.2

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Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11184896

Sample Description	Method Analyte Units LOR	ME- MS41 Ti % 0.005	ME- MS41 Tl ppm 0.02	ME- MS41 U ppm 0.05	ME- MS41 V ppm 1	ME- MS41 W ppm 0.05	ME- MS41 Y ppm 0.05	ME- MS41 Zn ppm 2	ME- MS41 Zr ppm 0.5
K975037		0.061	0.03	0.78	14	0.76	7.54	24	1.4
K975038		0.034	0.05	0.84	5	7.20	3.29	31	1.7
K975039		0.021	0.10	0.80	3	0.46	3.03	39	1.9
K975040		0.033	0.13	0.73	6	0.92	10.65	42	4.5
K975041		0.119	0.03	1.04	22	2.88	12.70	23	6.8
K975042		0.151	0.03	1.85	26	0.95	9.22	21	6.9
K975043		0.080	0.03	1.32	11	1.13	6.25	19	2.5
K975044		0.056	0.16	3.47	8	0.85	6.13	93	5.0
K975045		0.018	0.03	2.73	5	1.02	4.39	19	2.5
K975046		0.035	0.45	2.37	18	0.84	6.77	40	0.9
K975047		0.059	0.50	0.62	85	1.88	10.45	144	2.4
K975048		0.039	0.11	1.24	11	0.37	7.05	19	0.9
K975049		0.010	0.14	1.25	8	0.45	8.59	51	0.7
K975050		<0.005	0.04	1.80	17	0.57	12.80	53	1.1
K975101		0.023	0.02	1.02	6	6.43	11.95	23	2.9
K975102		<0.005	<0.02	0.53	1	0.17	0.86	13	<0.5
K975103		0.110	0.02	1.88	21	0.86	4.95	18	13.3
K975104		0.019	<0.02	1.81	12	28.2	18.45	17	3.8
K975105		0.113	0.02	1.08	14	0.96	9.08	17	8.0
K975106		0.027	0.02	1.06	3	0.33	5.14	12	0.8
K975107		0.182	0.33	0.52	63	0.40	7.91	47	1.0
K975108		0.043	0.02	0.48	7	0.39	4.46	21	1.1
K975109		0.033	0.02	0.65	5	0.49	10.05	24	1.6
K975110		0.041	0.04	0.77	7	0.29	11.50	23	1.1
K975111		0.058	0.51	0.62	84	1.31	10.05	145	2.5
K975112		0.126	0.55	1.05	58	0.17	6.69	418	0.7
K975113		0.034	0.05	1.79	8	0.25	11.00	341	1.1
K975114		0.053	0.16	3.78	28	0.36	7.71	90	1.3
K975115		0.038	0.04	1.61	7	0.18	9.12	17	0.9
K975116		0.191	0.24	1.21	53	0.32	12.05	27	0.9
K975117		0.137	0.14	0.92	44	0.41	8.01	19	1.1
K975118		0.117	0.04	0.61	25	0.40	8.89	19	1.1
K975119		0.085	<0.02	1.61	14	0.57	6.55	17	3.6
K975120		0.008	<0.02	2.21	5	1.12	2.43	16	1.1
K975121		0.054	0.02	2.04	9	14.15	6.31	25	2.8
K975122		<0.005	<0.02	0.38	1	0.05	0.92	11	<0.5

***** See Appendix Page for comments regarding this certificate *****

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

To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 11- OCT- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11184896

Method	CERTIFICATE COMMENTS
ME- MS41	Interference: Ca> 10% on ICP- MS As,ICP- AES results shown.
ME- MS41	Gold determinations by this method are semi- quantitative due to the small sample weight used (0.5g).

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To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 5- NOV- 2011
This copy reported on 11- JAN- 2012
Account: F

CERTIFICATE WH11188839

Project: Hopper

P.O. No.: Batch 3, Hole 1,2

This report is for 36 Drill Core samples submitted to our lab in Whitehorse, YT, Canada on 17- SEP- 2011.

The following have access to data associated with this certificate:

JOAN MARIACHER	HEATHER SMITH	

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
CRU- 31	Fine crushing - 70% <2mm
CRU- QC	Crushing QC Test
PUL- QC	Pulverizing QC Test
SPL- 21	Split sample - riffle splitter
PUL- 31	Pulverize split to 85% <75 um
WSH- 21	"Wash" crushers
WSH- 22	"Wash" pulverizers
LOG- 24	Pulp Login - Rcd w/o Barcode

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au- AA24	Au 50g FA AA finish	AAS
ME- MS41	51 anal. aqua regia ICPMS	

To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
ATTN: JOAN MARIACHER
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

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.

***** See Appendix Page for comments regarding this certificate *****

Signature:
Colin Ramshaw, Vancouver Laboratory Manager

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Finalized Date: 5- NOV- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11188839

Sample Description / Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA24 Au ppm 0.005	ME-MS41 Ag ppm 0.01	ME-MS41 Al % 0.01	ME-MS41 As ppm 0.1	ME-MS41 Au ppm 0.2	ME-MS41 B ppm 10	ME-MS41 Ba ppm 10	ME-MS41 Be ppm 0.05	ME-MS41 Bi ppm 0.01	ME-MS41 Ca % 0.01	ME-MS41 Cd ppm 0.01	ME-MS41 Ce ppm 0.02	ME-MS41 Co ppm 0.1	ME-MS41 Cr ppm 1
K975123	3.67	0.383	3.86	0.04	15.3	0.2	<10	20	0.07	42.8	0.91	1.09	2.32	222	<1
K975124	3.45	0.763	5.74	0.05	5.2	5.4	<10	10	0.09	25.4	0.65	1.16	0.13	261	<1
K975125	3.43	1.605	3.59	0.03	1.4	0.9	<10	10	0.11	44.9	0.69	0.98	0.19	130.0	<1
K975126	2.35	2.09	4.78	0.40	11.3	0.9	<10	10	0.12	40.4	0.70	1.34	1.23	156.0	<1
K975127	3.24	1.025	1.72	0.04	16.4	0.5	<10	<10	0.11	42.1	1.14	0.73	0.07	95.2	<1
K975128	1.80	<0.005	0.02	0.03	6	<0.2	<10	10	<0.05	0.18	17.55	0.05	1.12	1.6	<1
K975129	3.50	0.267	0.13	2.35	23.4	0.3	<10	140	0.78	2.65	6.25	0.04	16.40	14.7	211
K975130	5.79	0.450	0.04	3.78	2.6	0.3	<10	180	0.07	1.18	2.36	0.01	8.05	10.1	206
K975131	5.46	0.462	0.05	3.46	2.0	0.3	<10	30	0.18	1.44	2.29	0.03	9.55	9.5	157
K975132	1.71	0.040	0.03	0.97	7.9	<0.2	<10	10	0.41	0.20	5.82	0.02	15.80	5.9	35
K975133	5.41	<0.005	0.04	0.50	1.5	<0.2	<10	90	0.20	0.16	0.98	0.06	21.8	1.6	13
K975134	5.46	<0.005	0.06	0.42	1.4	<0.2	<10	60	0.11	0.11	0.66	0.06	22.7	3.4	13
K975135	4.29	<0.005	0.08	0.46	1.8	<0.2	<10	70	0.13	0.10	0.71	0.07	24.3	7.7	13
K975136	0.24	0.427	2.15	0.99	107.5	0.4	<10	40	0.47	0.56	0.49	0.98	21.9	17.7	28
K975137	5.76	<0.005	0.03	0.75	1.5	<0.2	<10	120	0.13	0.04	0.73	0.03	11.80	4.2	27
K975138	3.63	<0.005	0.04	0.67	0.7	<0.2	<10	170	0.12	0.03	0.58	0.03	12.75	4.2	33
K975139	2.61	<0.005	0.04	0.83	1.0	<0.2	<10	120	0.12	0.06	0.87	0.05	12.10	6.3	20
K975140	3.94	<0.005	0.04	1.50	2.9	<0.2	<10	50	0.26	0.09	1.79	0.08	11.45	7.9	81
K975141	4.08	<0.005	0.03	1.89	1.6	<0.2	<10	40	0.26	0.06	1.99	0.07	11.05	9.6	114
K975142	3.98	<0.005	0.03	1.70	1.0	<0.2	<10	120	0.30	0.05	2.41	0.05	13.85	7.5	108
K975143	2.76	<0.005	0.03	1.86	1.2	<0.2	<10	240	0.39	0.06	3.06	0.06	18.25	9.1	134
K975144	2.18	<0.005	0.06	2.14	3.6	<0.2	<10	310	0.65	0.13	3.98	0.06	19.50	14.3	195
K975145	3.77	0.011	0.20	0.51	118.0	<0.2	<10	300	0.94	0.11	8.56	0.07	25.6	12.4	21
K975146	3.51	<0.005	0.07	1.07	15.7	<0.2	<10	30	0.99	0.09	5.10	0.08	27.9	8.5	10
K975147	4.13	<0.005	0.08	0.87	40.5	<0.2	<10	80	1.01	0.08	5.89	0.07	24.0	12.0	31
K975148	0.25	0.407	2.09	0.96	102.0	0.3	<10	40	0.44	0.56	0.48	0.94	21.3	17.7	27
K975149	3.12	<0.005	0.04	0.42	23	<0.2	<10	860	0.84	0.03	10.95	0.03	19.60	6.2	3
K975150	1.88	<0.005	0.04	0.96	2.1	<0.2	<10	360	0.31	0.05	1.66	0.05	15.90	6.1	23
K975151	5.59														
K975152	2.05														
K975153	2.89														
K975154	0.92														
K975155	2.60														
K975156	2.21														
K975157	0.97														
K975158	2.65														

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Finalized Date: 5- NOV- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11188839

Sample Description	Method / Analyte / Units / LOR	ME- MS41 Cs ppm 0.05	ME- MS41 Cu ppm 0.2	ME- MS41 Fe % 0.01	ME- MS41 Ga ppm 0.05	ME- MS41 Ge ppm 0.05	ME- MS41 Hf ppm 0.02	ME- MS41 Hg ppm 0.01	ME- MS41 In ppm 0.005	ME- MS41 K % 0.01	ME- MS41 La ppm 0.2	ME- MS41 Li ppm 0.1	ME- MS41 Mg % 0.01	ME- MS41 Mn ppm 5	ME- MS41 Mo ppm 0.05	ME- MS41 Na % 0.01
K975123		0.18	6090	19.25	0.90	0.52	<0.02	0.04	0.297	<0.01	1.8	0.8	0.23	377	0.48	0.01
K975124		0.17	6790	19.95	0.80	0.55	<0.02	0.02	0.247	<0.01	<0.2	1.3	0.36	468	0.55	0.01
K975125		0.13	4380	10.60	0.52	0.28	0.02	0.02	0.242	<0.01	<0.2	1.0	0.55	499	1.04	0.01
K975126		0.33	6340	11.45	2.07	0.26	0.02	0.03	0.427	0.03	1.1	7.7	0.67	481	1.20	0.01
K975127		0.21	2800	7.17	0.58	0.20	<0.02	0.05	0.248	<0.01	<0.2	1.3	0.60	409	1.28	0.01
K975128		0.20	15.4	0.48	0.19	0.06	<0.02	<0.01	0.006	0.02	0.5	1.3	11.50	204	0.07	0.01
K975129		8.57	56.4	3.19	6.32	0.13	0.33	0.01	0.089	0.73	8.2	53.2	3.72	781	0.41	0.07
K975130		13.55	4.2	3.21	7.70	0.17	0.39	0.01	0.072	1.54	4.1	92.1	5.51	546	0.09	0.02
K975131		1.45	3.3	3.06	8.27	0.13	0.34	<0.01	0.069	0.12	4.7	107.0	4.68	631	0.13	0.04
K975132		0.14	4.9	2.95	5.00	0.14	0.23	0.01	0.201	0.02	8.9	9.2	0.80	1160	0.15	0.02
K975133		0.27	13.7	0.47	2.33	0.08	0.32	<0.01	0.008	0.14	11.1	3.3	0.19	96	0.18	0.07
K975134		0.17	40.1	0.66	1.80	0.07	0.24	<0.01	0.007	0.09	11.7	3.6	0.19	83	0.35	0.09
K975135		0.22	57.8	0.78	2.02	0.07	0.24	<0.01	0.007	0.11	12.8	4.1	0.20	87	0.32	0.09
K975136		3.12	4240	4.55	4.33	0.14	0.09	0.09	0.050	0.58	10.9	4.7	0.62	490	234	0.03
K975137		0.20	4.2	1.64	3.60	0.07	0.23	<0.01	0.005	0.12	5.8	8.4	0.46	127	1.18	0.14
K975138		0.24	2.6	1.60	3.58	0.07	0.25	<0.01	<0.005	0.17	6.5	9.5	0.45	128	1.25	0.12
K975139		0.28	25.7	1.62	3.61	0.08	0.24	<0.01	0.006	0.12	5.8	8.4	0.49	134	1.13	0.15
K975140		0.41	23.7	1.37	4.97	0.11	0.38	<0.01	0.019	0.10	5.4	16.5	1.08	209	1.27	0.10
K975141		0.37	10.6	1.67	5.84	0.11	0.36	<0.01	0.015	0.09	5.0	20.4	1.40	260	0.84	0.11
K975142		0.90	4.9	1.56	6.19	0.13	0.41	0.01	0.022	0.11	6.2	21.6	1.47	258	0.67	0.08
K975143		2.16	7.8	2.02	7.01	0.13	0.43	0.01	0.034	0.11	8.5	31.1	2.04	344	0.19	0.07
K975144		4.15	16.5	3.02	8.63	0.12	0.34	0.01	0.053	0.13	8.6	54.6	2.90	457	0.89	0.07
K975145		2.90	70.9	2.77	1.36	0.07	0.06	0.01	0.037	0.23	12.4	2.1	3.07	569	1.71	0.01
K975146		2.38	35.6	1.83	2.83	0.06	0.09	0.01	0.022	0.21	14.8	18.5	1.74	335	1.28	0.01
K975147		2.76	70.9	2.64	2.57	0.08	0.10	0.01	0.042	0.16	11.4	14.4	2.13	475	0.85	0.03
K975148		3.11	4160	4.46	4.30	0.13	0.09	0.09	0.048	0.57	10.7	4.7	0.62	479	227	0.03
K975149		3.05	4.3	2.29	1.03	0.06	0.05	0.01	0.012	0.20	10.5	2.1	2.13	506	0.84	0.02
K975150		1.93	3.6	2.09	4.50	0.07	0.20	<0.01	0.009	0.14	8.0	15.0	0.76	210	1.12	0.10
K975151																
K975152																
K975153																
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K975156																
K975157																
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VANCOUVER BC V6B 1L8

Finalized Date: 5- NOV- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11188839

Sample Description	Method / Analyte / Units / LOR	ME- MS41 Nb ppm 0.05	ME- MS41 Ni ppm 0.2	ME- MS41 P ppm 10	ME- MS41 Pb ppm 0.2	ME- MS41 Rb ppm 0.1	ME- MS41 Re ppm 0.001	ME- MS41 S % 0.01	ME- MS41 Sb ppm 0.05	ME- MS41 Sc ppm 0.1	ME- MS41 Se ppm 0.2	ME- MS41 Sn ppm 0.2	ME- MS41 Sr ppm 0.2	ME- MS41 Ta ppm 0.01	ME- MS41 Te ppm 0.01	ME- MS41 Th ppm 0.2
K975123		0.19	37.8	360	8.0	0.4	0.001	8.61	1.54	0.7	30.9	0.8	10.9	<0.01	22.3	<0.2
K975124		0.19	32.9	330	3.5	0.3	0.001	8.70	0.69	0.6	36.6	0.5	18.6	<0.01	10.50	<0.2
K975125		0.10	56.1	260	3.1	0.3	0.001	5.47	0.44	0.6	20.0	0.4	22.1	<0.01	12.10	<0.2
K975126		0.11	196.0	750	7.0	3.2	0.001	6.38	0.75	0.5	15.9	0.6	22.1	<0.01	13.85	<0.2
K975127		0.06	97.8	110	9.0	0.4	0.001	4.18	0.62	0.5	9.6	0.5	23.9	<0.01	18.75	<0.2
K975128		0.17	0.5	210	1.3	1.2	<0.001	0.12	<0.05	0.4	0.2	<0.2	46.8	<0.01	0.06	<0.2
K975129		0.09	71.1	720	1.6	89.3	<0.001	0.14	4.69	13.8	0.5	1.3	218	<0.01	0.88	2.5
K975130		0.12	28.2	990	1.2	178.0	<0.001	0.04	0.40	7.4	0.3	3.6	48.4	<0.01	0.35	3.0
K975131		0.12	25.3	1020	3.0	12.4	<0.001	0.07	0.29	3.9	0.3	1.4	54.1	<0.01	0.48	2.8
K975132		0.18	10.1	840	1.0	1.3	<0.001	0.43	1.30	2.6	0.4	1.7	80.0	0.01	0.02	5.2
K975133		0.52	5.7	760	6.0	4.9	<0.001	0.10	0.15	1.2	0.3	1.0	29.4	<0.01	0.04	8.1
K975134		0.64	14.7	700	5.1	3.1	<0.001	0.22	0.14	1.1	0.4	0.7	34.8	<0.01	0.03	10.1
K975135		0.56	15.6	690	5.3	3.7	<0.001	0.25	0.18	1.2	0.4	0.9	33.9	0.01	0.02	10.1
K975136		0.20	22.2	980	37.2	32.5	0.582	2.53	6.03	7.5	7.5	1.9	34.2	<0.01	0.95	1.8
K975137		0.29	9.1	630	2.7	5.3	<0.001	0.08	0.14	2.1	0.2	0.3	51.6	<0.01	0.01	5.5
K975138		0.30	8.8	570	2.2	7.8	<0.001	0.06	0.14	1.9	0.2	0.3	44.5	<0.01	0.01	6.1
K975139		0.26	10.1	680	3.5	5.1	<0.001	0.16	0.19	2.8	0.3	0.4	73.7	<0.01	0.01	4.2
K975140		0.20	28.2	810	5.6	4.2	<0.001	0.13	0.15	5.3	0.4	0.9	42.2	<0.01	0.03	3.3
K975141		0.13	35.8	890	4.9	3.8	<0.001	0.08	0.13	5.4	0.4	0.6	49.3	<0.01	0.01	2.1
K975142		0.13	34.6	830	4.3	5.5	<0.001	0.06	0.14	7.5	0.4	0.7	63.0	<0.01	0.01	2.9
K975143		0.13	45.9	1190	4.6	6.3	<0.001	0.08	0.15	9.6	0.4	0.8	97.6	<0.01	0.01	2.6
K975144		0.07	77.9	1040	4.7	8.1	<0.001	0.20	0.49	14.3	0.5	0.8	205	<0.01	0.04	2.5
K975145		0.06	52.8	740	6.1	10.6	<0.001	0.22	6.21	9.5	0.8	0.2	405	<0.01	0.04	3.3
K975146		<0.05	14.6	580	6.7	10.1	<0.001	0.24	1.00	7.7	0.5	0.3	212	<0.01	0.01	4.8
K975147		0.07	32.1	750	4.9	8.3	<0.001	0.18	3.20	11.9	0.6	0.4	270	<0.01	0.02	3.5
K975148		0.20	21.7	960	37.2	32.2	0.574	2.44	5.95	7.5	7.5	1.8	34.1	<0.01	0.90	1.8
K975149		0.06	10.1	410	3.6	9.5	0.001	0.16	0.76	5.2	0.5	<0.2	423	<0.01	<0.01	2.7
K975150		0.16	12.5	640	3.6	8.2	<0.001	0.08	0.25	4.2	0.3	0.3	203	<0.01	<0.01	5.1
K975151																
K975152																
K975153																
K975154																
K975155																
K975156																
K975157																
K975158																

***** See Appendix Page for comments regarding this certificate *****

ALS Canada Ltd.

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

To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 5- NOV- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11188839

Sample Description	Method Analyte Units LOR	ME- MS41 Ti % 0.005	ME- MS41 Tl ppm 0.02	ME- MS41 U ppm 0.05	ME- MS41 V ppm 1	ME- MS41 W ppm 0.05	ME- MS41 Y ppm 0.05	ME- MS41 Zn ppm 2	ME- MS41 Zr ppm 0.5
K975123		<0.005	0.09	15.10	2	29.8	1.27	121	<0.5
K975124		<0.005	0.07	0.35	1	2.96	0.85	130	<0.5
K975125		<0.005	0.03	0.26	4	6.66	0.59	114	0.6
K975126		<0.005	0.13	5.73	6	14.55	2.12	164	0.6
K975127		<0.005	0.13	3.57	4	32.3	0.54	95	<0.5
K975128		<0.005	<0.02	0.46	<1	0.13	0.86	14	<0.5
K975129		0.118	0.30	0.75	81	1.35	9.13	41	8.3
K975130		0.160	0.53	1.40	87	1.56	5.72	69	9.0
K975131		0.184	0.04	1.11	73	0.70	5.74	56	8.7
K975132		0.088	0.02	2.40	32	1.54	5.79	27	6.2
K975133		0.112	0.02	1.94	20	1.52	6.73	23	8.2
K975134		0.096	0.02	2.63	17	0.75	6.55	11	6.4
K975135		0.099	0.02	2.33	18	0.74	6.37	12	5.8
K975136		0.055	0.43	0.58	79	1.22	10.65	142	2.3
K975137		0.128	0.03	1.50	45	0.77	4.27	13	7.5
K975138		0.124	0.04	1.62	42	0.63	4.05	14	8.0
K975139		0.130	0.03	1.11	45	1.02	4.66	22	7.4
K975140		0.179	0.02	1.00	53	1.22	6.96	19	11.7
K975141		0.157	0.02	0.64	52	0.97	6.44	25	11.8
K975142		0.161	0.02	0.73	60	1.16	7.26	22	11.0
K975143		0.162	0.03	0.63	75	8.76	8.55	26	10.3
K975144		0.099	0.04	0.43	98	1.86	10.25	33	7.7
K975145		<0.005	0.05	0.55	18	0.47	12.20	26	2.1
K975146		<0.005	0.05	1.03	20	0.25	9.72	26	3.6
K975147		0.007	0.04	0.68	43	0.33	11.95	29	3.6
K975148		0.054	0.44	0.59	78	1.19	10.45	136	2.2
K975149		<0.005	0.05	0.60	9	0.19	8.36	16	2.1
K975150		0.094	0.04	1.24	52	0.47	6.04	17	6.2
K975151									
K975152									
K975153									
K975154									
K975155									
K975156									
K975157									
K975158									

***** See Appendix Page for comments regarding this certificate *****

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

To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 5- NOV- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11188839

Method	CERTIFICATE COMMENTS
ME- MS41	Interference: Ca> 10% on ICP- MS As,ICP- AES results shown.
ME- MS41	Gold determinations by this method are semi- quantitative due to the small sample weight used (0.5g).

ALS Canada Ltd.
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To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 17- NOV- 2011
This copy reported on 11- JAN- 2012
Account: F

CERTIFICATE WH11195670

Project: Hopper
P.O. No.: Batch 4 Hole 2.3
This report is for 36 Drill Core samples submitted to our lab in Whitehorse, YT, Canada on 24- SEP- 2011.
The following have access to data associated with this certificate:

JOAN MARIACHER	HEATHER SMITH	

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
CRU- 31	Fine crushing - 70% <2mm
CRU- QC	Crushing QC Test
PUL- QC	Pulverizing QC Test
SPL- 21	Split sample - riffle splitter
PUL- 31	Pulverize split to 85% <75 um
LOG- 24	Pulp Login - Rcd w/o Barcode

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au- AA24	Au 50g FA AA finish	AAS
ME- OG46	Ore Grade Elements - AquaRegia	ICP- AES
Cu- OG46	Ore Grade Cu - Aqua Regia	VARIABLE
ME- MS41	51 anal. aqua regia ICPMS	

To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
ATTN: JOAN MARIACHER
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

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.

***** See Appendix Page for comments regarding this certificate *****

Signature:
Colin Ramshaw, Vancouver Laboratory Manager

ALS Minerals

ALS Canada Ltd.

2103 Dollarton Hwy
North Vancouver BC V7H 0A7
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To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 17- NOV- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11195670

Sample Description	Method Analyte Units LOR	WEI- 21 Recvd Wt. kg 0.02	Au- AA24 Au ppm 0.005	Cu- OG46 Cu % 0.001	ME- MS41 Ag ppm 0.01	ME- MS41 Al % 0.01	ME- MS41 As ppm 0.1	ME- MS41 Au ppm 0.2	ME- MS41 B ppm 10	ME- MS41 Ba ppm 10	ME- MS41 Be ppm 0.05	ME- MS41 Bi ppm 0.01	ME- MS41 Ca % 0.01	ME- MS41 Cd ppm 0.01	ME- MS41 Ce ppm 0.02	ME- MS41 Co ppm 0.1
K975159		2.01	<0.005		0.04	1.01	20	<0.2	<10	60	1.21	0.25	12.85	0.25	18.70	27.4
K975160		2.87	<0.005		0.02	0.12	14	<0.2	<10	20	0.28	0.12	17.25	0.39	3.49	1.6
K975161		3.78	0.544	1.245	12.30	0.30	24.8	0.2	<10	10	0.31	16.70	4.93	1.89	3.21	57.1
K975162		2.15	0.603	1.040	10.25	0.26	10.8	0.4	30	40	0.09	12.35	2.85	1.16	0.76	42.3
K975163		2.69	0.010		0.10	0.08	7	<0.2	10	10	0.10	0.42	18.75	0.32	1.79	2.1
K975164		2.08	0.017		0.53	0.53	3.8	<0.2	<10	150	0.33	2.31	2.99	0.18	6.94	28.9
K975165		4.95	<0.005		0.04	1.75	11.6	<0.2	<10	120	0.81	0.16	1.95	0.04	50.4	10.3
K975166		1.30	<0.005		0.04	1.47	3.9	<0.2	<10	40	0.60	0.20	6.83	0.05	35.7	8.8
K975167		3.07	0.005		0.28	0.22	20.2	<0.2	<10	10	0.05	1.12	2.62	0.24	0.72	28.4
K975168		1.14	<0.005		0.01	0.04	2	<0.2	<10	10	<0.05	0.03	19.60	0.05	1.02	1.0
K975169		2.50	<0.005		0.04	0.34	4.7	<0.2	<10	110	0.28	0.10	4.92	0.10	4.30	3.5
K975170		2.95	<0.005		0.04	1.03	1.8	<0.2	<10	180	0.49	0.17	0.67	0.04	38.3	8.1
K975171		0.26	0.459		1.91	1.03	107.5	0.3	<10	40	0.47	0.55	0.47	1.05	23.1	18.7
K975172		2.36	<0.005		0.07	0.60	17.5	<0.2	<10	240	0.16	0.18	3.53	0.12	12.70	6.8
K975173		3.88	<0.005		0.12	0.98	2.7	<0.2	<10	410	0.39	0.13	4.08	0.38	12.30	10.5
K975174		6.42	<0.005		0.03	0.66	2.2	<0.2	<10	40	0.26	4.98	2.35	0.07	13.00	1.1
K975175		6.45	0.039		0.33	0.65	4.3	<0.2	<10	20	0.07	20.3	3.35	0.21	6.28	7.9
K975176		6.15	0.006		0.05	3.40	5.4	<0.2	<10	40	0.39	8.64	4.50	0.09	13.40	1.6
K975177		3.19	0.064		8.27	1.22	24.3	0.8	<10	10	0.09	89.5	3.50	1.79	9.65	32.2
K975178		1.66	0.018		0.14	1.22	7.1	<0.2	<10	10	0.08	0.75	4.12	0.04	6.94	15.7
K975179		2.95	0.006		0.05	1.52	2.6	<0.2	<10	50	0.29	0.43	1.87	0.08	15.10	1.5
K975180		2.02	0.005		0.24	1.16	6.3	<0.2	<10	310	0.23	0.38	1.15	0.13	7.76	24.1
K975181		1.86	<0.005		0.03	1.66	1.2	<0.2	<10	100	0.22	0.12	1.92	0.03	16.20	8.9
K975182		3.27	<0.005		0.07	0.78	1.3	<0.2	<10	70	0.32	0.30	2.06	0.10	30.7	14.7
K975183		6.12	<0.005		0.02	1.52	1.4	<0.2	<10	50	0.32	0.09	1.75	0.06	21.1	4.0
K975184		5.95	<0.005		0.04	1.46	1.1	<0.2	<10	100	0.17	0.13	1.63	0.09	19.20	14.2
K975185		5.93	<0.005		0.05	1.39	1.4	<0.2	<10	110	0.16	0.20	1.52	0.07	21.3	18.1
K975186		5.95	<0.005		0.04	1.62	1.0	<0.2	<10	90	0.17	0.11	1.74	0.07	17.75	13.0
K975187		5.57	<0.005		0.05	1.57	1.0	<0.2	<10	90	0.17	0.10	1.71	0.08	17.00	14.8
K975188		0.28	0.436		2.12	0.94	112.0	0.4	<10	40	0.47	0.59	0.47	0.98	22.1	17.8
K975189		3.18	<0.005		0.03	1.17	1.9	<0.2	<10	100	0.20	0.04	1.68	0.04	13.60	6.5
K975190		0.86	0.020		0.34	0.57	1.6	<0.2	<10	100	0.15	0.35	0.46	0.04	22.9	3.8
K975191		3.95	0.012		0.23	2.68	0.8	<0.2	<10	70	0.74	2.13	1.41	0.05	38.3	12.7
K975192		1.16	<0.005		0.06	1.48	9.6	<0.2	<10	50	1.11	41.9	1.64	0.04	61.2	13.0
K975193		2.03	<0.005		<0.01	0.04	<2	<0.2	<10	10	<0.05	0.08	18.95	0.06	1.15	1.5
K975194		2.41	<0.005		0.05	3.20	3.3	<0.2	<10	70	0.89	1.01	1.72	0.04	44.6	20.3

***** See Appendix Page for comments regarding this certificate *****

ALS Canada Ltd.
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North Vancouver BC V7H 0A7
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To: ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 17- NOV- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11195670

Sample Description	Cr	Cs	Cu	Fe	Ga	Ge	Hf	Hg	In	K	La	Li	Mg	Mn	Mo
Method	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41
Units	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm
LOR	1	0.05	0.2	0.01	0.05	0.05	0.02	0.01	0.005	0.01	0.2	0.1	0.01	5	0.05
K975159	10	3.72	74.0	5.86	3.01	0.08	0.05	0.01	0.072	0.33	9.9	8.1	6.41	654	1.10
K975160	5	0.25	46.1	0.63	0.37	<0.05	<0.02	0.01	0.012	0.05	3.2	1.3	7.91	335	0.95
K975161	4	1.00	>10000	16.50	5.09	0.48	0.03	0.12	1.400	0.07	1.8	7.2	3.23	637	1.79
K975162	5	2.75	>10000	17.75	4.39	0.55	0.04	0.15	1.180	0.21	0.5	7.8	6.34	714	8.94
K975163	3	0.33	105.5	0.37	0.45	0.07	0.02	0.05	0.025	0.05	2.1	1.9	9.34	394	0.38
K975164	9	1.11	1215	4.16	2.77	0.16	0.04	<0.01	0.083	0.11	3.9	10.2	1.25	331	10.55
K975165	30	2.27	40.8	2.54	6.05	0.07	0.03	0.01	0.017	0.47	26.3	18.9	0.76	336	0.74
K975166	27	0.85	92.4	2.19	7.05	0.07	0.15	0.11	0.069	0.19	18.8	24.4	2.90	359	1.28
K975167	4	0.44	648	1.80	1.09	0.09	<0.02	0.01	0.036	0.05	0.5	7.4	1.52	189	2.54
K975168	<1	0.16	2.5	0.45	0.13	<0.05	<0.02	<0.01	<0.005	0.02	0.5	0.8	11.90	203	0.05
K975169	6	1.26	66.4	0.93	1.39	0.05	0.05	0.01	0.039	0.04	3.3	8.3	1.50	788	15.95
K975170	21	1.96	82.7	1.99	3.32	0.06	0.02	<0.01	0.008	0.41	20.2	9.4	0.43	110	1.31
K975171	30	3.19	4550	4.51	4.30	0.11	0.08	0.10	0.049	0.57	11.1	4.3	0.61	509	261
K975172	44	0.70	147.0	1.01	2.77	0.07	0.05	0.01	0.022	0.17	6.7	3.8	0.47	323	2.73
K975173	17	2.02	58.7	1.43	3.32	0.05	0.04	<0.01	0.016	0.32	7.3	9.7	0.52	255	2.51
K975174	6	0.51	3.8	0.48	1.99	<0.05	0.05	<0.01	0.009	0.09	9.2	9.9	0.90	189	4.21
K975175	19	0.32	518	2.92	2.77	0.14	0.09	0.02	0.271	0.04	4.4	5.3	0.34	660	8.12
K975176	7	0.75	12.3	1.55	7.87	0.11	0.26	0.01	0.069	0.04	7.0	2.3	0.12	450	14.15
K975177	5	0.18	7470	2.66	5.04	0.20	0.30	0.01	0.454	0.02	5.1	1.0	0.10	496	2.87
K975178	5	0.33	163.5	2.94	5.05	0.30	0.29	<0.01	0.207	0.04	3.5	4.1	0.34	1120	0.30
K975179	4	0.80	25.1	0.60	3.89	0.05	0.34	<0.01	0.008	0.08	8.3	4.6	0.25	224	1.61
K975180	167	2.38	391	2.21	4.83	0.11	0.06	0.01	0.026	0.44	4.0	16.3	1.61	343	4.63
K975181	75	1.01	40.3	1.34	4.27	0.09	0.45	<0.01	0.018	0.10	8.0	12.6	0.91	225	0.65
K975182	16	0.45	184.5	2.23	3.79	0.22	0.50	<0.01	0.043	0.13	27.8	4.5	0.24	393	3.44
K975183	54	0.39	10.3	0.82	4.64	0.07	0.37	<0.01	0.009	0.09	10.0	13.7	0.53	145	2.34
K975184	53	0.21	74.3	1.51	3.95	0.10	0.38	<0.01	0.016	0.16	9.1	8.1	0.83	190	0.60
K975185	43	0.22	139.5	1.74	3.54	0.09	0.32	<0.01	0.015	0.16	9.8	6.4	0.65	164	0.51
K975186	77	0.30	62.4	1.54	4.39	0.10	0.37	<0.01	0.018	0.16	8.5	7.8	0.99	207	0.44
K975187	64	0.26	91.5	1.58	4.26	0.09	0.35	0.01	0.019	0.15	8.1	9.3	0.91	197	1.01
K975188	29	3.11	4270	4.41	4.00	0.08	0.09	0.12	0.051	0.53	11.0	4.3	0.59	491	236
K975189	22	0.54	4.5	2.11	4.95	<0.05	0.31	<0.01	0.013	0.11	6.2	13.2	0.76	192	1.70
K975190	13	0.49	298	1.11	2.75	<0.05	0.67	<0.01	0.022	0.15	12.8	5.3	0.24	139	1.35
K975191	48	2.75	304	2.41	9.96	0.08	0.06	<0.01	0.022	0.69	19.9	15.3	0.63	216	1.28
K975192	31	2.58	82.2	2.55	6.63	0.06	0.05	0.01	0.008	0.40	31.8	14.3	0.54	339	2.21
K975193	1	0.21	2.2	0.42	0.22	<0.05	<0.02	0.01	<0.005	0.02	0.5	1.1	11.40	194	0.09
K975194	62	2.89	99.6	3.43	11.85	0.08	0.05	0.01	0.024	0.83	23.1	22.5	0.83	271	0.58

***** See Appendix Page for comments regarding this certificate *****

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VANCOUVER BC V6B 1L8

Finalized Date: 17- NOV- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11195670

Sample Description	Method	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41
	Analyte	Na	Nb	Ni	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te
	Units	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
	LOR	0.01	0.05	0.2	10	0.2	0.1	0.001	0.01	0.05	0.1	0.2	0.2	0.2	0.01	0.01
K975159		0.02	0.07	18.5	1850	3.1	21.0	0.001	1.78	2.71	15.0	1.3	0.4	289	0.01	0.07
K975160		0.01	0.06	6.7	280	1.3	2.5	<0.001	0.05	1.07	0.9	0.2	0.2	327	<0.01	0.04
K975161		0.01	0.07	24.5	170	3.0	9.6	<0.001	5.54	2.00	0.5	12.2	4.9	116.5	<0.01	10.55
K975162		0.01	0.09	18.5	330	1.9	32.8	0.002	3.80	1.13	1.0	7.4	1.1	14.6	<0.01	8.16
K975163		0.01	0.24	8.4	200	1.6	4.0	0.003	0.09	0.60	1.1	0.5	<0.2	198.0	<0.01	0.10
K975164		0.04	0.12	58.7	680	4.6	7.1	0.005	2.38	0.48	4.3	5.1	0.5	77.2	<0.01	1.23
K975165		0.04	0.16	25.1	240	7.1	32.0	<0.001	0.26	1.08	3.8	0.4	0.8	69.8	<0.01	0.05
K975166		0.04	0.17	19.9	360	4.9	14.4	0.001	0.74	0.50	5.0	0.8	1.5	93.5	<0.01	0.06
K975167		0.02	<0.05	4.6	100	13.2	5.3	0.001	0.92	0.20	0.5	2.1	0.2	24.9	<0.01	0.60
K975168		0.01	0.08	2.6	180	1.8	1.0	<0.001	0.05	<0.05	0.3	<0.2	<0.2	46.1	<0.01	0.01
K975169		0.02	0.06	8.2	330	4.5	3.9	0.004	0.03	2.62	1.0	0.2	0.2	151.5	<0.01	0.03
K975170		0.04	0.14	26.9	540	5.7	23.2	<0.001	0.87	0.19	2.4	0.8	0.3	27.8	<0.01	0.04
K975171		0.03	0.22	24.0	1060	39.1	31.4	0.557	2.59	6.41	7.1	8.6	2.1	32.8	<0.01	1.06
K975172		0.06	0.26	82.7	660	4.5	12.8	0.001	0.27	0.29	1.9	0.9	0.4	44.6	<0.01	0.08
K975173		0.08	0.11	45.4	370	5.5	20.6	0.006	0.77	0.12	3.5	2.0	0.5	59.2	<0.01	0.09
K975174		0.04	0.27	3.3	460	5.7	7.1	0.002	0.03	0.27	0.7	0.2	0.5	31.0	<0.01	2.67
K975175		0.04	0.91	20.8	720	3.3	2.4	0.001	0.27	0.28	1.5	0.8	1.3	17.8	0.01	11.55
K975176		0.46	0.53	5.1	1370	7.7	2.0	<0.001	0.05	0.38	1.3	0.4	2.0	264	0.01	4.02
K975177		0.08	0.41	13.0	840	9.0	1.8	<0.001	1.16	0.61	1.2	5.9	1.8	54.0	<0.01	50.4
K975178		0.06	0.33	7.6	890	1.7	2.9	<0.001	0.05	0.49	1.6	0.3	5.4	48.5	<0.01	0.26
K975179		0.25	0.29	2.7	1350	4.1	6.2	<0.001	0.02	0.35	1.2	0.2	1.2	142.5	<0.01	0.18
K975180		0.06	0.17	180.0	680	4.5	27.3	0.001	0.57	0.27	3.8	2.3	0.5	34.7	<0.01	0.19
K975181		0.27	0.21	56.9	1030	2.2	4.7	<0.001	0.17	0.17	5.9	0.6	0.7	168.0	<0.01	0.05
K975182		0.06	1.59	13.3	650	4.8	6.1	0.006	0.83	0.25	2.6	2.5	2.0	28.1	0.01	0.12
K975183		0.14	0.45	21.1	1200	3.9	4.9	<0.001	0.07	0.16	3.2	0.3	0.7	82.0	<0.01	0.03
K975184		0.26	0.50	59.8	1300	4.6	4.5	<0.001	0.33	0.19	5.4	0.7	0.7	126.5	<0.01	0.06
K975185		0.26	0.57	64.0	1520	4.9	4.4	<0.001	0.59	0.19	4.4	0.9	0.7	143.5	<0.01	0.14
K975186		0.27	0.33	69.9	1230	3.9	5.1	<0.001	0.27	0.18	6.6	0.4	0.6	141.0	<0.01	0.07
K975187		0.24	0.34	60.0	1320	3.7	4.4	<0.001	0.29	0.16	5.3	0.5	0.7	145.0	<0.01	0.04
K975188		0.02	0.27	21.9	1000	35.2	35.2	0.630	2.45	6.03	7.1	7.3	2.0	34.5	<0.01	0.97
K975189		0.20	0.22	14.1	790	2.6	5.2	<0.001	0.06	0.32	5.4	0.4	0.6	99.1	<0.01	<0.01
K975190		0.12	0.49	8.8	520	4.4	10.4	<0.001	0.02	0.18	2.1	0.5	0.7	38.2	<0.01	0.18
K975191		0.17	0.60	32.1	510	4.9	54.1	0.003	0.29	0.08	6.4	0.9	1.1	97.8	0.02	1.10
K975192		0.01	0.23	28.0	200	10.1	35.8	<0.001	0.08	1.35	4.9	0.8	0.7	34.1	0.01	23.0
K975193		0.01	0.12	<0.2	190	1.2	1.2	<0.001	0.02	<0.05	0.7	0.2	<0.2	53.9	<0.01	0.02
K975194		0.17	0.61	60.0	420	5.7	59.5	0.001	0.57	0.14	7.6	1.0	1.3	89.1	0.02	0.46

***** See Appendix Page for comments regarding this certificate *****

ALS Canada Ltd.

2103 Dollarton Hwy
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Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 17- NOV- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11195670

Sample Description	Method Analyte Units LOR	ME- MS41 Th ppm 0.2	ME- MS41 Ti % 0.005	ME- MS41 Tl ppm 0.02	ME- MS41 U ppm 0.05	ME- MS41 V ppm 1	ME- MS41 W ppm 0.05	ME- MS41 Y ppm 0.05	ME- MS41 Zn ppm 2	ME- MS41 Zr ppm 0.5
K975159		1.5	<0.005	0.19	0.90	60	0.58	28.7	105	0.6
K975160		0.4	<0.005	<0.02	1.60	9	0.48	6.01	39	<0.5
K975161		0.2	<0.005	0.14	5.37	8	96.5	6.90	250	1.0
K975162		0.3	0.011	0.13	9.37	14	117.5	4.80	159	1.7
K975163		0.3	<0.005	0.04	4.34	2	4.28	6.09	33	<0.5
K975164		1.1	0.056	0.03	3.41	29	3.16	10.30	34	1.1
K975165		10.4	0.052	0.14	1.52	25	0.27	7.54	50	0.6
K975166		7.2	0.082	0.08	1.94	39	112.0	10.90	26	4.2
K975167		0.3	<0.005	0.03	2.79	3	0.85	0.89	36	0.6
K975168		<0.2	<0.005	<0.02	0.53	2	0.38	0.84	13	<0.5
K975169		1.1	0.021	<0.02	1.47	6	5.37	3.33	32	1.6
K975170		7.8	0.029	0.37	1.29	21	0.30	7.37	23	0.6
K975171		1.8	0.059	0.37	0.59	84	1.27	10.60	144	2.5
K975172		2.5	0.059	0.05	2.16	14	3.97	9.16	17	1.4
K975173		2.2	0.039	0.25	1.78	26	0.29	8.47	79	1.1
K975174		3.2	0.047	0.03	2.76	4	0.31	5.30	16	1.1
K975175		0.5	0.078	<0.02	1.49	13	14.85	8.88	46	3.3
K975176		1.5	0.150	<0.02	1.06	24	7.55	9.28	20	9.1
K975177		1.1	0.106	0.02	0.95	17	2.08	6.53	217	10.3
K975178		0.9	0.102	<0.02	0.76	22	0.56	8.91	18	11.3
K975179		1.5	0.136	<0.02	1.40	21	0.64	7.58	18	11.3
K975180		1.0	0.143	0.16	0.61	32	3.14	6.27	38	1.7
K975181		2.6	0.166	<0.02	0.61	46	0.89	7.11	11	14.8
K975182		3.4	0.177	0.02	2.04	31	1.02	12.50	15	13.6
K975183		2.8	0.179	<0.02	0.60	34	0.90	7.92	12	11.3
K975184		3.1	0.199	<0.02	0.74	48	0.92	8.02	18	12.0
K975185		3.7	0.176	<0.02	0.79	40	0.95	7.21	16	9.9
K975186		2.8	0.196	<0.02	0.55	52	1.36	7.55	17	11.5
K975187		2.8	0.190	<0.02	0.65	49	7.09	7.29	17	11.2
K975188		1.8	0.058	0.43	0.61	79	1.20	10.45	141	2.5
K975189		3.9	0.165	0.02	1.04	67	1.34	6.33	15	8.7
K975190		10.3	0.097	0.05	2.03	22	0.63	5.20	14	24.3
K975191		11.1	0.186	0.34	1.32	40	0.47	7.45	32	1.2
K975192		11.6	0.056	0.19	1.25	29	0.29	8.67	25	0.9
K975193		<0.2	<0.005	<0.02	0.42	2	<0.05	0.97	14	<0.5
K975194		11.9	0.227	0.45	1.78	50	0.42	8.43	47	1.0

***** See Appendix Page for comments regarding this certificate *****

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

To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 17- NOV- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11195670

Method	CERTIFICATE COMMENTS
ME- MS41	Interference: Ca> 10% on ICP- MS As,ICP- AES results shown.
ME- MS41	Gold determinations by this method are semi- quantitative due to the small sample weight used (0.5g).

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To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 21- NOV- 2011
This copy reported on 11- JAN- 2012
Account: F

CERTIFICATE WH11200307

Project: Hopper
P.O. No.: Batch 5, Hole 3
This report is for 36 Drill Core samples submitted to our lab in Whitehorse, YT, Canada on 27- SEP- 2011.
The following have access to data associated with this certificate:

JOAN MARIACHER	HEATHER SMITH	

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
CRU- 31	Fine crushing - 70% <2mm
CRU- QC	Crushing QC Test
PUL- 31	Pulverize split to 85% <75 um
PUL- QC	Pulverizing QC Test
SPL- 21	Split sample - riffle splitter
WSH- 21	"Wash" crushers
WSH- 22	"Wash" pulverizers
LOG- 24	Pulp Login - Rcd w/o Barcode

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au- AA24	Au 50g FA AA finish	AAS
ME- OG46	Ore Grade Elements - AquaRegia	ICP- AES
Cu- OG46	Ore Grade Cu - Aqua Regia	VARIABLE
ME- MS41	51 anal. aqua regia ICPMS	

To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
ATTN: JOAN MARIACHER
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

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.

***** See Appendix Page for comments regarding this certificate *****

Signature:
Colin Ramshaw, Vancouver Laboratory Manager

ALS Minerals

ALS Canada Ltd.

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To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 21- NOV- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11200307

Sample Description	Method	WEI- 21	Au- AA24	Cu- OG46	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41
	Analyte	Recvd Wt.	Au	Cu	Ag	Al	As	Au	B	Ba	Be	Bi	Ca	Cd	Ce	Co
	Units	kg	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
	LOR	0.02	0.005	0.001	0.01	0.01	0.1	0.2	10	10	0.05	0.01	0.01	0.01	0.02	0.1
K975195		3.27	0.009		0.08	0.74	3.9	<0.2	<10	80	0.37	0.12	0.25	0.03	44.3	5.9
K975196		2.44	0.993	2.60	16.25	0.75	4.1	0.4	<10	40	0.16	4.29	0.82	1.58	1.88	40.3
K975197		1.35	0.006		0.01	0.03	<2	<0.2	<10	10	<0.05	0.02	20.2	0.05	1.09	0.7
K975198		3.77	0.431	1.095	9.89	0.29	2.0	0.2	<10	<10	0.20	17.45	1.03	0.93	1.05	25.7
K975199		5.70	0.536	2.14	7.79	0.18	6.8	1.1	20	10	0.25	3.03	0.90	1.01	0.86	35.2
K975200		6.78	0.465	1.385	8.55	0.19	578	0.3	<10	20	0.35	4.62	2.88	1.25	2.02	29.3
I357951		2.11	0.444	1.060	6.44	0.06	517	0.4	<10	20	1.05	4.40	7.58	1.16	1.82	23.3
I357952		3.27	0.045		0.52	0.48	3.3	<0.2	<10	40	0.77	0.62	1.72	0.14	10.20	3.6
I357953		3.86	0.005		0.05	0.85	13.4	<0.2	<10	340	0.21	0.17	0.71	0.09	17.20	11.2
I357954		2.19	<0.005		0.02	0.72	2	<0.2	<10	60	0.20	0.17	10.95	0.21	16.80	5.1
I357955		1.56	<0.005		0.02	0.20	19.8	<0.2	<10	30	0.21	0.04	1.40	0.01	24.0	3.7
I357956		0.23	0.458		2.05	1.06	110.0	0.3	<10	40	0.42	0.65	0.48	1.07	22.2	16.6
I357957		2.07	0.036		0.57	0.58	1580	<0.2	<10	580	0.67	7.10	6.71	0.17	20.5	19.6
I357958		5.97	<0.005		0.03	0.04	11	<0.2	<10	10	0.23	0.05	19.85	0.12	4.17	0.9
I357959		2.25	0.015		0.22	0.62	40.1	<0.2	<10	130	0.68	0.37	8.89	0.15	15.70	4.1
I357960		2.13	0.351		5.15	0.47	5.4	0.2	<10	50	0.11	12.75	3.36	0.99	2.65	26.5
I357961		3.56	0.850	2.83	26.6	0.58	29.5	0.4	<10	20	0.07	7.73	5.44	6.49	3.69	84.4
I357962		1.62	<0.005		0.01	0.05	<2	<0.2	<10	20	0.05	0.03	18.30	0.05	1.41	1.5
I357963		3.13	0.005		0.05	0.40	3	<0.2	<10	60	0.11	0.37	15.10	0.15	5.50	1.0
I357964		2.09	0.055		0.87	0.30	16.4	<0.2	<10	40	0.05	2.89	3.03	0.25	8.54	3.6
I357965		2.36	0.055		1.29	0.35	3.4	<0.2	<10	20	<0.05	2.71	4.32	0.44	2.85	26.4
I357966		2.78	<0.005		0.03	0.45	5.4	<0.2	<10	30	0.63	0.07	4.39	0.05	18.40	1.5
I357967		2.09	0.031		0.62	0.69	8.5	<0.2	<10	100	0.28	0.93	2.03	0.21	17.20	10.1
I357968		2.12	0.011		0.13	0.16	194.0	<0.2	<10	30	0.69	0.16	6.62	0.08	14.45	4.6
I357969		1.44	<0.005		0.04	0.38	1.3	<0.2	<10	70	0.07	0.08	0.53	0.05	10.70	3.7
I357970		4.03	0.009		0.09	0.52	61.3	<0.2	<10	330	0.61	0.67	6.27	0.18	16.80	9.7
I357971		4.09	0.011		0.16	0.23	138.0	<0.2	<10	190	0.62	3.16	6.09	0.12	11.00	7.1
I357972		5.23	0.181		6.79	0.35	17.2	<0.2	<10	50	<0.05	36.9	3.21	1.82	2.34	28.0
I357973		2.35	<0.005		0.04	0.39	0.9	<0.2	<10	470	0.18	0.10	0.63	0.05	8.31	3.0
I357974		1.86	0.005		0.03	1.52	1.9	<0.2	<10	290	0.36	0.16	2.19	0.05	20.5	7.7
I357975		0.26	0.461		2.04	0.99	108.0	0.4	<10	40	0.45	0.62	0.48	0.97	21.6	17.3
I357976		2.04	<0.005		0.06	0.09	2	<0.2	<10	10	<0.05	0.11	14.00	0.15	3.25	1.9
I357977		2.19	<0.005		0.04	0.51	1.9	<0.2	<10	20	0.07	0.22	9.44	0.10	3.40	2.4
I357978		2.08	0.009		0.08	0.47	3.4	<0.2	<10	150	0.14	0.30	2.83	0.11	10.10	4.4
I357979		6.54	0.014		0.25	0.76	3.3	<0.2	<10	90	0.13	0.73	3.28	0.17	5.83	14.9
I357980		4.07	0.006		0.16	0.52	3.3	<0.2	<10	90	0.22	0.39	2.82	0.14	7.49	7.5

***** See Appendix Page for comments regarding this certificate *****

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VANCOUVER BC V6B 1L8

Finalized Date: 21- NOV- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11200307

Sample Description	Method / Analyte / Units / LOR	ME- MS41 Cr ppm 1	ME- MS41 Cs ppm 0.05	ME- MS41 Cu ppm 0.2	ME- MS41 Fe % 0.01	ME- MS41 Ga ppm 0.05	ME- MS41 Ge ppm 0.05	ME- MS41 Hf ppm 0.02	ME- MS41 Hg ppm 0.01	ME- MS41 In ppm 0.005	ME- MS41 K % 0.01	ME- MS41 La ppm 0.2	ME- MS41 Li ppm 0.1	ME- MS41 Mg % 0.01	ME- MS41 Mn ppm 5	ME- MS41 Mo ppm 0.05
K975195		20	1.75	142.5	1.48	2.77	0.06	0.11	<0.01	0.011	0.29	22.9	5.1	0.27	111	2.71
K975196		17	6.23	>10000	19.55	16.55	1.02	0.09	0.15	1.810	0.44	0.9	10.1	2.63	400	1.60
K975197		3	0.20	7.2	0.47	0.13	0.08	<0.02	<0.01	<0.005	0.02	0.5	1.0	12.35	204	<0.05
K975198		2	0.18	>10000	3.36	1.20	0.35	0.03	0.05	0.652	0.01	0.5	5.9	1.00	275	0.50
K975199		4	1.47	>10000	40.2	20.0	2.21	0.06	0.06	2.28	0.08	0.3	4.1	4.38	600	1.20
K975200		3	1.47	>10000	25.8	15.00	1.07	0.04	0.03	1.225	0.09	1.1	4.4	1.87	524	0.80
I357951		3	0.36	>10000	12.65	7.98	0.58	0.05	0.04	1.465	0.01	0.8	4.7	3.01	973	5.53
I357952		5	1.46	602	1.21	2.05	0.11	0.12	0.64	0.072	0.05	5.7	4.6	0.37	339	163.5
I357953		29	2.19	105.0	1.67	3.31	0.06	0.05	<0.01	0.011	0.41	9.1	8.9	0.66	101	5.37
I357954		13	2.16	38.8	1.19	2.71	<0.05	0.11	0.02	0.010	0.35	9.6	10.2	6.00	156	0.98
I357955		8	1.21	33.0	1.17	0.58	<0.05	<0.02	<0.01	<0.005	0.11	11.8	0.9	0.51	161	2.59
I357956		30	3.53	4640	4.55	4.13	0.12	0.10	0.12	0.060	0.59	11.4	5.2	0.65	499	252
I357957		14	2.22	284	3.51	1.33	0.06	0.09	0.02	0.053	0.27	10.5	0.5	2.15	1120	54.2
I357958		5	0.16	5.8	1.04	0.18	<0.05	0.03	0.03	0.009	0.01	3.5	1.0	10.60	956	5.19
I357959		4	2.00	232	2.01	1.90	<0.05	0.11	0.02	0.055	0.11	9.4	10.8	1.08	677	20.0
I357960		4	0.26	5130	5.09	2.15	0.21	0.05	0.10	0.326	0.03	1.9	5.1	0.25	346	2.06
I357961		3	0.16	>10000	7.19	2.99	0.56	0.17	0.14	2.74	0.03	2.4	2.7	0.20	597	1.69
I357962		1	0.83	9.3	0.43	0.18	<0.05	<0.02	<0.01	0.005	0.03	0.6	1.3	11.30	195	0.06
I357963		5	1.59	17.5	0.33	1.15	<0.05	0.05	<0.01	0.009	0.06	3.1	0.9	0.11	618	1.41
I357964		6	0.12	1315	2.56	1.93	0.15	0.14	0.04	0.178	0.05	4.3	1.1	0.07	334	4.54
I357965		3	0.11	1135	2.90	1.78	0.19	0.08	0.02	0.118	0.03	1.9	0.6	0.07	313	0.89
I357966		4	2.31	6.0	0.99	1.05	<0.05	0.11	<0.01	0.010	0.10	8.4	3.7	1.17	278	0.53
I357967		16	1.76	911	1.89	3.00	<0.05	0.11	0.01	0.060	0.13	9.2	8.4	0.58	354	1.06
I357968		12	0.89	121.5	2.50	0.57	<0.05	0.03	0.01	0.018	0.09	9.1	0.5	2.30	844	3.67
I357969		16	0.11	26.8	0.53	1.29	<0.05	0.32	<0.01	<0.005	0.09	5.3	3.6	0.15	75	1.53
I357970		13	3.66	47.6	2.81	1.68	<0.05	0.09	0.02	0.073	0.11	8.4	4.9	0.80	813	1.88
I357971		6	1.07	118.5	3.86	1.23	0.16	0.04	0.09	0.293	0.06	6.6	3.2	0.83	1340	2.65
I357972		5	0.30	7170	4.14	1.86	0.37	0.04	0.58	0.749	0.01	1.7	5.2	0.22	854	3.48
I357973		18	0.75	25.0	0.67	2.53	<0.05	0.03	<0.01	0.006	0.18	3.8	4.7	0.39	119	1.02
I357974		48	2.65	34.1	2.33	5.58	<0.05	0.09	<0.01	0.011	0.70	10.2	17.4	0.68	245	1.61
I357975		30	3.43	4430	4.49	3.76	0.10	0.09	0.10	0.052	0.57	10.2	4.3	0.61	508	241
I357976		3	0.39	50.9	0.50	0.35	<0.05	0.02	0.02	0.010	0.01	2.3	0.2	0.03	852	0.22
I357977		5	0.61	34.2	1.55	2.01	0.34	0.11	0.02	0.113	0.04	1.9	2.5	0.11	659	0.19
I357978		4	1.26	54.3	0.78	1.73	0.08	0.05	0.02	0.035	0.06	6.3	1.6	0.14	226	0.78
I357979		53	1.41	419	2.24	3.07	0.17	0.06	0.02	0.060	0.19	3.1	6.5	0.51	280	7.43
I357980		17	0.72	196.5	1.61	2.37	0.06	0.06	0.01	0.040	0.15	3.9	5.5	0.19	237	16.85

***** See Appendix Page for comments regarding this certificate *****

ALS Canada Ltd.

2103 Dollarton Hwy
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Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 21- NOV- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11200307

Sample Description	Method / Analyte / Units / LOR	ME- MS41 Na % 0.01	ME- MS41 Nb ppm 0.05	ME- MS41 Ni ppm 0.2	ME- MS41 P ppm 10	ME- MS41 Pb ppm 0.2	ME- MS41 Rb ppm 0.1	ME- MS41 Re ppm 0.001	ME- MS41 S % 0.01	ME- MS41 Sb ppm 0.05	ME- MS41 Sc ppm 0.1	ME- MS41 Se ppm 0.2	ME- MS41 Sn ppm 0.2	ME- MS41 Sr ppm 0.2	ME- MS41 Ta ppm 0.01	ME- MS41 Te ppm 0.01
K975195		0.03	0.24	20.8	290	4.5	25.3	0.002	0.06	0.15	2.2	0.4	0.4	14.9	<0.01	0.05
K975196		0.02	0.26	26.4	430	5.0	61.7	0.005	3.54	1.00	1.4	12.8	3.7	11.7	0.01	3.83
K975197		0.01	<0.05	1.9	180	1.3	1.1	<0.001	0.02	<0.05	0.2	<0.2	<0.2	49.1	<0.01	<0.01
K975198		0.01	0.05	19.1	180	5.4	0.9	0.002	2.15	0.42	0.4	10.7	1.2	16.6	<0.01	11.10
K975199		0.01	0.39	18.2	230	1.9	13.1	0.008	2.71	0.46	0.6	5.0	6.1	5.4	<0.01	2.42
K975200		0.02	0.24	57.4	110	2.8	15.0	0.005	2.46	4.18	0.4	8.7	3.6	43.1	<0.01	3.34
I357951		0.01	0.17	26.6	110	2.8	1.4	0.004	1.87	10.80	0.4	5.8	2.9	265	0.01	2.30
I357952		0.08	0.48	9.0	670	4.0	3.5	0.014	0.19	0.31	1.5	0.9	5.0	40.6	0.01	0.30
I357953		0.04	0.10	74.9	1020	3.1	28.7	0.009	0.68	0.09	4.5	3.6	0.3	21.1	0.01	0.09
I357954		0.04	0.23	11.9	330	2.2	26.7	0.006	0.36	0.11	1.9	0.4	0.5	140.0	<0.01	0.04
I357955		0.01	<0.05	10.1	150	3.0	6.6	<0.001	0.06	1.33	1.7	0.2	0.8	74.3	<0.01	0.01
I357956		0.03	0.20	19.3	1030	43.2	31.5	0.607	2.57	5.87	6.8	8.6	2.2	30.8	0.01	1.06
I357957		0.02	0.05	18.0	780	16.1	13.7	0.003	0.52	9.21	8.4	2.1	1.7	175.5	0.01	3.36
I357958		0.02	0.11	2.8	230	2.0	1.0	0.009	0.04	0.71	0.7	0.2	0.2	346	0.01	0.03
I357959		0.02	0.09	3.3	420	7.1	6.6	0.004	0.09	1.03	2.6	0.4	0.7	118.0	0.01	0.13
I357960		0.02	0.13	6.4	320	6.6	1.1	0.008	3.23	1.08	0.7	11.4	0.7	25.7	<0.01	6.71
I357961		0.01	0.29	5.0	460	4.0	1.3	0.003	4.52	0.64	0.9	23.9	1.9	49.4	0.01	3.93
I357962		0.02	0.25	<0.2	170	1.3	2.9	<0.001	0.02	<0.05	0.5	<0.2	<0.2	44.7	<0.01	0.01
I357963		0.09	0.16	<0.2	340	3.4	2.0	0.005	0.02	0.26	1.2	<0.2	0.4	51.0	<0.01	0.16
I357964		0.04	0.57	3.2	360	4.1	2.3	0.002	0.21	0.17	1.6	1.4	0.8	18.0	0.01	1.39
I357965		0.03	0.31	4.5	310	4.3	1.3	0.002	1.21	0.18	1.0	5.6	0.8	28.2	<0.01	1.32
I357966		0.02	0.06	2.0	550	6.6	6.6	<0.001	0.02	0.48	3.9	<0.2	0.4	168.5	<0.01	0.01
I357967		0.06	0.27	20.7	440	4.6	10.7	0.003	0.44	1.36	3.2	1.8	0.4	74.0	<0.01	0.40
I357968		0.02	0.10	19.0	430	7.8	4.8	0.006	0.41	7.12	2.3	0.4	0.6	292	<0.01	0.05
I357969		0.11	0.54	4.1	570	5.0	3.0	<0.001	0.09	0.31	1.0	<0.2	0.3	49.3	<0.01	0.01
I357970		0.05	0.15	18.8	850	6.4	7.4	0.001	0.56	6.94	6.3	0.2	0.7	230	<0.01	0.27
I357971		0.02	0.21	7.7	450	3.0	3.1	0.001	0.08	3.13	3.4	<0.2	1.1	137.5	<0.01	1.66
I357972		0.02	0.28	9.6	440	3.1	0.9	0.005	1.28	0.66	0.7	4.8	0.9	21.9	<0.01	16.65
I357973		0.05	0.38	18.2	500	3.4	13.9	0.001	0.05	0.10	2.7	<0.2	0.4	26.6	<0.01	0.03
I357974		0.10	0.41	29.6	570	4.2	49.4	0.001	0.35	0.10	3.7	0.4	0.5	34.1	<0.01	0.05
I357975		0.04	0.27	20.5	1040	42.2	33.8	0.582	2.55	6.43	6.3	8.0	2.0	33.8	<0.01	0.99
I357976		0.04	0.13	<0.2	340	3.7	0.7	0.001	0.23	0.10	0.6	<0.2	0.2	48.2	<0.01	0.04
I357977		0.06	0.43	1.1	400	3.8	2.6	<0.001	0.18	0.11	1.1	<0.2	1.1	31.4	0.01	0.09
I357978		0.11	0.48	6.7	980	5.2	4.4	0.001	0.18	0.61	0.6	<0.2	0.5	94.6	<0.01	0.09
I357979		0.07	0.34	113.0	450	4.8	16.7	0.003	0.89	0.15	1.4	1.6	0.8	36.8	<0.01	0.34
I357980		0.04	0.38	15.1	260	7.7	12.4	0.005	0.51	0.13	2.1	0.9	1.0	23.8	<0.01	0.15

***** See Appendix Page for comments regarding this certificate *****

ALS Canada Ltd.
2103 Dollarton Hwy
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Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 21- NOV- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11200307

Sample Description	Method / Analyte / Units / LOR	ME- MS41 Th ppm 0.2	ME- MS41 Ti % 0.005	ME- MS41 Tl ppm 0.02	ME- MS41 U ppm 0.05	ME- MS41 V ppm 1	ME- MS41 W ppm 0.05	ME- MS41 Y ppm 0.05	ME- MS41 Zn ppm 2	ME- MS41 Zr ppm 0.5
K975195		10.6	0.043	0.17	2.02	22	0.19	6.30	13	4.0
K975196		0.4	0.038	0.33	1.63	22	68.9	2.78	243	2.6
K975197		<0.2	<0.005	<0.02	0.39	2	0.05	0.90	13	<0.5
K975198		<0.2	0.007	0.06	1.23	3	32.3	1.56	145	0.9
K975199		0.2	0.009	0.11	1.80	14	8.82	1.99	152	1.6
K975200		<0.2	<0.005	0.08	1.69	11	3.13	2.42	180	1.2
I357951		<0.2	<0.005	0.08	8.87	8	0.77	6.48	132	1.1
I357952		0.7	0.110	0.09	1.85	18	470	12.20	23	3.0
I357953		3.8	0.048	0.18	2.52	46	1.01	11.25	46	1.1
I357954		5.6	0.054	0.17	4.56	15	0.99	7.21	25	3.7
I357955		6.5	<0.005	0.04	1.11	5	0.82	4.56	12	<0.5
I357956		2.0	0.060	0.51	0.64	85	1.51	10.95	146	2.7
I357957		5.4	<0.005	0.34	1.64	17	3.58	15.85	34	4.2
I357958		0.3	<0.005	0.04	2.71	10	0.47	8.25	15	0.5
I357959		2.9	0.007	0.15	1.79	9	5.84	10.15	26	6.3
I357960		0.5	0.025	0.14	1.46	4	43.6	5.18	139	2.3
I357961		1.3	0.032	0.04	1.44	5	69.8	7.56	683	5.4
I357962		<0.2	<0.005	0.02	0.47	2	0.09	0.90	11	<0.5
I357963		0.9	0.028	<0.02	1.03	4	0.26	9.41	12	1.1
I357964		1.8	0.040	0.02	1.85	6	33.1	6.71	33	4.8
I357965		0.6	0.024	0.02	1.13	4	12.60	6.83	44	2.8
I357966		5.6	<0.005	0.02	1.59	13	0.16	8.32	9	5.7
I357967		4.4	0.058	0.15	1.68	24	2.25	8.91	36	3.6
I357968		2.6	<0.005	0.12	2.23	17	0.75	15.00	47	0.5
I357969		5.6	0.077	<0.02	1.88	12	0.63	3.82	9	10.7
I357970		2.1	0.009	0.06	0.96	25	4.16	14.10	38	3.3
I357971		1.7	0.006	0.03	1.93	7	54.3	9.08	36	1.5
I357972		0.3	0.016	0.11	1.01	4	460	3.90	166	1.6
I357973		2.0	0.063	0.08	0.84	12	0.99	7.06	13	0.6
I357974		6.9	0.144	0.27	1.60	59	0.41	5.80	34	3.0
I357975		1.8	0.059	0.44	0.61	82	1.40	10.75	135	2.5
I357976		0.2	0.006	<0.02	0.72	1	8.45	6.17	9	0.8
I357977		0.6	0.029	0.02	0.87	6	10.65	10.65	9	3.8
I357978		1.9	0.036	0.03	1.18	4	10.95	8.04	14	1.4
I357979		1.7	0.061	0.09	1.08	17	13.70	7.22	24	1.9
I357980		2.5	0.038	0.07	1.96	16	3.14	8.58	24	2.1

***** See Appendix Page for comments regarding this certificate *****

ALS Canada Ltd.
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To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 21- NOV- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11200307

Method	CERTIFICATE COMMENTS
ME- MS41	Interference: Ca> 10% on ICP- MS As,ICP- AES results shown.
ME- MS41	Gold determinations by this method are semi- quantitative due to the small sample weight used (0.5g).

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To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 20- NOV- 2011
This copy reported on 11- JAN- 2012
Account: F

CERTIFICATE WH11200308

Project: Hopper
P.O. No.: Batch 6 Hole 3, 4
This report is for 36 Drill Core samples submitted to our lab in Whitehorse, YT, Canada on 27- SEP- 2011.

The following have access to data associated with this certificate:

JOAN MARIACHER	HEATHER SMITH	

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
CRU- 31	Fine crushing - 70% <2mm
CRU- QC	Crushing QC Test
PUL- QC	Pulverizing QC Test
SPL- 21	Split sample - riffle splitter
PUL- 31	Pulverize split to 85% <75 um
LOG- 24	Pulp Login - Rcd w/o Barcode

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au- AA24	Au 50g FA AA finish	AAS
ME- OG46	Ore Grade Elements - AquaRegia	ICP- AES
Cu- OG46	Ore Grade Cu - Aqua Regia	VARIABLE
ME- MS41	51 anal. aqua regia ICPMS	

To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
ATTN: JOAN MARIACHER
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

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.

***** See Appendix Page for comments regarding this certificate *****

Signature:
Colin Ramshaw, Vancouver Laboratory Manager

ALS Minerals

ALS Canada Ltd.

2103 Dollarton Hwy
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Finalized Date: 20- NOV- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11200308

Sample Description	Method	WEI- 21	Au- AA24	Cu- OG46	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41
	Analyte	Recvd Wt.	Au	Cu	Ag	Al	As	Au	B	Ba	Be	Bi	Ca	Cd	Ce	Co
	Units	kg	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
	LOR	0.02	0.005	0.001	0.01	0.01	0.1	0.2	10	10	0.05	0.01	0.01	0.01	0.02	0.1
I357981		2.37	0.019		0.67	0.52	11.4	<0.2	<10	30	0.06	4.44	5.26	0.23	8.50	29.7
I357982		2.13	0.041		0.57	1.13	2.4	<0.2	<10	100	0.31	1.73	0.88	0.12	8.46	29.7
I357983		6.51	<0.005		0.03	1.34	3.9	<0.2	<10	<10	0.10	1.02	3.17	0.08	12.15	1.7
I357984		3.92	0.029		0.21	0.56	0.7	<0.2	<10	70	0.15	0.38	0.61	0.07	19.45	3.9
I357985		5.97	0.008		0.09	0.58	0.7	<0.2	<10	100	0.12	0.14	0.60	0.03	15.90	3.3
I357986		6.20	0.014		0.21	0.64	0.6	<0.2	<10	110	0.13	6.07	0.75	0.03	15.65	4.1
I357987		5.88	0.006		0.12	0.79	2.8	<0.2	<10	80	0.26	0.19	1.23	0.03	19.85	4.6
I357988		5.64	0.008		0.28	0.64	1.4	<0.2	<10	90	0.16	0.54	0.96	0.03	17.65	4.4
I357989		7.25	0.007		0.13	0.53	0.6	<0.2	<10	80	0.11	0.17	0.67	0.03	15.90	3.3
I357990		0.25	0.452		2.38	1.15	125.0	0.3	<10	40	0.48	0.60	0.54	1.27	25.7	19.6
I357991		5.35	0.009		0.14	0.54	0.7	<0.2	<10	70	0.12	0.23	0.90	0.04	16.55	3.5
I357992		4.15	0.011		0.11	0.45	0.9	<0.2	<10	70	0.11	1.74	0.64	0.04	16.10	2.7
I357993		5.74	0.035		0.19	1.84	0.7	<0.2	<10	80	0.46	0.49	1.15	0.09	35.2	8.9
I357994		2.77	0.008		0.05	1.99	1.1	<0.2	<10	100	0.61	0.15	1.36	0.07	36.4	7.6
I357995		3.55	0.019		0.07	0.41	5	<0.2	<10	110	0.22	0.19	11.35	0.31	7.04	1.8
I357996		2.42	0.172		0.56	0.54	19.5	0.3	<10	10	0.20	3.87	8.72	0.27	3.30	9.4
I357997		4.25	0.152		1.44	0.60	6.5	<0.2	<10	<10	0.35	7.45	3.49	0.18	3.40	40.4
I357998		1.42	<0.005		0.01	0.17	5	<0.2	<10	30	0.15	0.05	20.1	0.05	1.39	2.0
I357999		2.30	0.018		0.09	0.75	2.0	<0.2	<10	40	0.26	0.41	4.78	0.16	7.48	3.3
I358000		2.71	0.126		0.29	1.95	1.5	<0.2	<10	70	0.47	9.01	1.30	0.09	33.1	12.2
I358001		2.06	0.006		0.09	0.74	0.9	<0.2	<10	50	0.28	0.14	1.01	0.13	35.1	3.6
I358002		0.98	0.010		0.19	0.63	22.5	<0.2	<10	270	0.73	0.20	9.18	0.04	20.6	5.4
I358003		5.46	0.017		0.24	0.75	2.7	<0.2	<10	120	0.29	0.27	1.47	0.06	20.9	5.9
I358004		5.83	0.014		0.22	0.78	7.7	<0.2	<10	80	0.39	0.20	3.40	0.05	22.6	5.7
I358005		3.64	0.017		0.29	0.74	1.3	<0.2	<10	110	0.23	0.35	1.10	0.06	19.60	6.5
I358006		3.66	0.020		0.33	0.81	2.1	<0.2	<10	160	0.23	0.28	1.18	0.06	20.2	7.1
I358007		0.25	0.437		2.12	1.01	108.5	0.3	<10	40	0.40	0.52	0.47	1.10	22.8	16.3
I358008		3.07	0.008		0.18	0.68	7.1	<0.2	<10	60	0.38	0.17	0.86	0.04	31.7	9.5
I358009		1.98	2.27	1.990	11.90	0.44	10.2	0.6	60	10	0.17	2.62	0.61	1.49	3.46	115.5
I358010		2.52	1.060	1.655	10.70	1.23	2.1	0.8	30	40	0.18	2.34	0.98	1.24	2.46	47.7
I358011		0.98	<0.005		0.04	0.04	3	<0.2	<10	10	0.08	0.02	19.90	0.05	1.24	1.6
I358012		4.93	0.095		1.37	0.49	2.0	0.2	10	10	0.12	3.06	0.98	0.20	0.54	13.4
I358013		2.90	0.237		4.81	0.41	2.2	<0.2	<10	10	0.21	2.22	1.29	0.97	1.02	14.2
I358014		3.45	0.020		0.49	0.58	1.6	<0.2	<10	50	0.15	0.18	0.66	0.13	15.50	6.4
I358015		7.48	0.268		3.73	0.65	1.6	0.2	<10	10	0.38	25.9	1.11	0.90	48.1	15.7
I358016		6.55	0.019		0.31	0.36	1.9	<0.2	<10	10	0.40	1.51	1.27	0.38	211	10.6

ALS Canada Ltd.

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To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 20- NOV- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11200308

Sample Description / Method / Analyte / Units / LOR	ME- MS41 Cr ppm 1	ME- MS41 Cs ppm 0.05	ME- MS41 Cu ppm 0.2	ME- MS41 Fe % 0.01	ME- MS41 Ga ppm 0.05	ME- MS41 Ge ppm 0.05	ME- MS41 Hf ppm 0.02	ME- MS41 Hg ppm 0.01	ME- MS41 In ppm 0.005	ME- MS41 K % 0.01	ME- MS41 La ppm 0.2	ME- MS41 Li ppm 0.1	ME- MS41 Mg % 0.01	ME- MS41 Mn ppm 5	ME- MS41 Mo ppm 0.05
I357981	7	0.23	943	5.65	3.84	0.58	0.19	0.04	0.236	0.06	4.5	1.8	0.11	424	26.4
I357982	86	5.23	1365	6.16	4.47	0.24	0.05	0.05	0.028	0.53	4.9	13.2	1.39	209	21.1
I357983	3	0.18	4.8	2.08	6.08	0.21	0.23	0.04	0.811	0.01	6.9	1.8	0.36	561	4.99
I357984	10	0.35	329	1.29	2.45	0.07	0.44	0.01	0.031	0.11	11.0	6.6	0.33	163	1.38
I357985	9	0.34	170.5	1.34	2.45	0.07	0.41	0.01	0.010	0.14	8.6	8.2	0.29	140	2.16
I357986	10	0.50	328	1.60	2.79	0.07	0.37	<0.01	0.013	0.15	8.3	9.6	0.38	143	2.90
I357987	10	0.91	214	1.83	3.45	0.07	0.29	<0.01	0.009	0.14	10.5	11.6	0.49	176	2.39
I357988	10	0.69	256	1.72	2.80	0.07	0.30	<0.01	0.007	0.13	9.3	9.5	0.39	136	1.43
I357989	8	0.30	222	1.45	2.28	0.08	0.38	<0.01	0.005	0.11	8.3	6.3	0.26	99	2.72
I357990	33	3.64	5040	5.04	4.83	0.15	0.08	0.10	0.057	0.62	13.2	5.2	0.70	554	280
I357991	8	0.35	223	1.37	2.21	0.07	0.38	<0.01	0.008	0.11	8.6	7.7	0.29	127	2.07
I357992	8	0.18	142.0	0.94	1.91	0.07	0.43	0.01	0.007	0.10	8.3	5.1	0.20	108	1.16
I357993	43	2.55	333	2.07	7.35	0.11	0.06	0.02	0.039	0.51	17.1	14.6	0.61	171	2.00
I357994	45	2.41	61.9	1.80	8.28	0.09	0.06	<0.01	0.010	0.45	18.7	15.6	0.58	149	2.15
I357995	8	0.20	31.9	0.27	1.64	0.05	0.04	<0.01	<0.005	0.05	5.0	1.0	0.08	593	4.73
I357996	3	0.15	1080	9.59	4.25	1.65	0.03	0.20	0.659	0.02	2.4	3.6	0.21	1220	3.48
I357997	5	0.17	3860	22.7	3.91	1.53	0.13	0.41	0.453	0.01	2.3	3.1	0.10	691	0.96
I357998	9	0.79	12.4	0.52	0.35	0.05	<0.02	<0.01	0.005	0.07	0.7	3.6	12.05	206	0.13
I357999	9	0.66	98.9	0.75	2.21	0.10	0.04	<0.01	0.007	0.11	4.2	2.3	0.11	267	2.77
I358000	39	2.94	649	4.23	7.92	0.18	0.06	0.03	0.079	0.51	17.5	14.0	0.66	354	1.05
I358001	10	0.59	79.0	1.37	3.70	0.11	0.09	<0.01	0.030	0.16	18.6	4.2	0.20	212	0.82
I358002	2	2.60	225	2.13	1.51	0.05	0.09	<0.01	0.016	0.14	11.7	7.0	1.68	556	1.35
I358003	10	1.54	344	1.76	3.15	0.07	0.20	0.01	0.020	0.14	11.3	12.7	0.56	184	3.47
I358004	7	1.48	296	1.73	2.77	0.05	0.22	0.01	0.019	0.13	12.4	12.7	0.65	224	1.97
I358005	9	1.01	409	1.77	3.24	0.07	0.35	<0.01	0.021	0.15	10.6	11.8	0.48	170	2.98
I358006	10	1.15	480	1.91	3.68	0.08	0.30	<0.01	0.022	0.16	10.8	12.7	0.53	152	2.25
I358007	29	3.47	4430	4.45	4.29	0.14	0.08	0.09	0.048	0.55	11.7	4.9	0.61	486	249
I358008	20	0.88	401	1.78	2.64	0.06	0.02	<0.01	0.008	0.27	16.3	4.7	0.22	68	4.35
I358009	9	3.20	>10000	14.50	13.45	0.77	0.08	0.03	1.580	0.25	2.0	4.6	11.45	761	1.91
I358010	22	9.43	>10000	20.7	17.45	1.27	0.17	0.03	1.925	0.85	1.3	5.6	8.28	659	1.05
I358011	<1	0.17	66.7	0.51	0.20	0.06	<0.02	0.01	0.009	0.02	0.6	1.3	11.90	201	0.07
I358012	2	5.29	2330	24.3	11.85	0.99	0.04	<0.01	0.380	0.45	0.2	4.0	5.55	564	0.35
I358013	2	3.07	6540	6.68	6.46	0.49	0.03	<0.01	0.605	0.28	0.5	5.8	4.07	322	3.41
I358014	22	0.19	587	1.00	2.33	0.08	0.43	<0.01	0.041	0.12	8.1	2.1	0.57	130	1.63
I358015	2	0.89	4420	3.74	3.37	0.22	0.13	<0.01	0.420	0.11	29.3	6.6	0.97	138	42.3
I358016	3	0.26	334	1.64	2.82	0.33	0.11	<0.01	0.052	0.04	141.0	3.1	0.44	221	438

***** See Appendix Page for comments regarding this certificate *****

ALS Canada Ltd.

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ALS Minerals

To: ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 20- NOV- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11200308

Sample Description	Method / Analyte / Units / LOR	ME- MS41 Na % 0.01	ME- MS41 Nb ppm 0.05	ME- MS41 Ni ppm 0.2	ME- MS41 P ppm 10	ME- MS41 Pb ppm 0.2	ME- MS41 Rb ppm 0.1	ME- MS41 Re ppm 0.001	ME- MS41 S % 0.01	ME- MS41 Sb ppm 0.05	ME- MS41 Sc ppm 0.1	ME- MS41 Se ppm 0.2	ME- MS41 Sn ppm 0.2	ME- MS41 Sr ppm 0.2	ME- MS41 Ta ppm 0.01	ME- MS41 Te ppm 0.01
I357981		0.02	0.55	12.9	400	4.1	3.4	0.001	2.31	0.43	1.7	5.8	2.4	23.0	0.01	2.48
I357982		0.05	0.21	87.2	390	2.6	59.5	0.009	3.42	0.31	3.2	11.5	0.3	34.4	<0.01	1.07
I357983		0.02	0.61	2.6	550	2.3	0.5	0.003	0.06	1.44	1.6	0.2	2.2	106.0	0.01	0.28
I357984		0.12	0.42	2.3	590	3.0	5.2	<0.001	0.29	0.20	2.0	1.1	0.5	40.9	<0.01	0.16
I357985		0.12	0.54	2.5	610	2.1	7.2	<0.001	0.32	0.12	1.9	1.0	0.6	43.0	<0.01	0.05
I357986		0.12	0.41	3.1	620	1.9	8.3	<0.001	0.46	0.16	2.1	1.4	0.4	49.9	<0.01	3.37
I357987		0.09	0.26	3.7	640	2.4	8.8	<0.001	0.49	0.31	2.9	1.3	0.5	71.6	<0.01	0.09
I357988		0.10	0.37	3.3	620	2.2	7.3	<0.001	0.56	0.27	2.2	1.8	0.4	55.2	<0.01	0.28
I357989		0.11	0.58	2.8	630	2.3	5.5	<0.001	0.51	0.12	1.6	1.5	0.5	43.6	<0.01	0.08
I357990		0.02	0.22	26.2	1150	41.2	36.2	0.698	2.81	6.57	8.4	9.1	2.3	36.6	<0.01	1.11
I357991		0.11	0.52	2.6	610	2.7	5.0	0.001	0.42	0.16	1.9	1.4	0.4	47.6	<0.01	0.10
I357992		0.11	0.64	2.7	590	3.1	4.7	<0.001	0.18	0.21	1.4	0.7	0.5	37.3	<0.01	0.91
I357993		0.17	0.76	32.5	520	4.8	47.4	0.002	0.43	0.19	4.8	1.3	0.8	72.3	0.02	0.20
I357994		0.20	0.70	39.9	500	5.6	42.7	0.001	0.30	0.13	4.8	0.8	0.9	101.0	0.01	0.04
I357995		0.06	0.18	11.6	230	4.7	2.5	0.006	0.04	0.13	1.0	0.4	0.4	54.0	<0.01	0.04
I357996		0.02	0.23	7.1	200	2.8	1.0	0.005	2.11	0.21	2.6	5.3	3.4	26.2	<0.01	1.39
I357997		0.04	0.48	9.9	220	2.9	0.7	0.005	8.10	0.11	1.9	36.6	3.6	7.6	0.01	4.65
I357998		0.03	0.17	8.3	230	1.5	4.2	<0.001	0.10	<0.05	0.7	0.3	<0.2	49.5	<0.01	0.01
I357999		0.11	0.41	13.5	450	6.5	4.7	0.003	0.30	0.10	0.9	1.4	0.4	57.4	<0.01	0.11
I358000		0.17	0.66	22.8	430	5.1	44.0	0.001	1.24	0.09	6.2	3.4	1.1	57.9	0.01	4.46
I358001		0.15	0.87	4.7	1050	9.5	8.3	0.001	0.23	0.15	2.1	0.5	0.6	68.3	0.01	0.04
I358002		0.02	0.06	3.9	430	3.2	8.2	0.010	0.51	2.72	2.9	1.0	0.4	216	<0.01	0.11
I358003		0.07	0.20	4.2	580	3.6	7.8	<0.001	0.43	0.43	3.2	1.9	0.4	87.5	<0.01	0.15
I358004		0.05	0.16	3.9	600	3.8	7.1	0.002	0.39	0.64	3.6	1.7	0.3	110.5	<0.01	0.12
I358005		0.10	0.28	4.0	610	3.6	8.0	0.001	0.47	0.21	2.8	2.1	0.4	63.2	<0.01	0.21
I358006		0.10	0.29	4.1	650	3.3	9.1	0.001	0.55	0.27	3.0	2.6	0.6	67.8	<0.01	0.17
I358007		0.03	0.25	22.2	1000	37.5	32.5	0.614	2.48	6.09	7.0	7.7	2.0	32.7	<0.01	0.93
I358008		0.05	0.16	28.4	230	3.3	21.6	0.001	0.93	0.12	1.9	0.7	0.2	16.5	<0.01	0.07
I358009		0.01	0.33	9.7	260	2.7	50.5	0.002	4.59	0.47	1.5	11.0	1.7	4.8	<0.01	1.76
I358010		0.09	0.27	12.3	440	1.3	140.0	0.001	2.34	0.25	5.9	5.4	2.6	12.7	<0.01	1.81
I358011		0.02	0.09	5.1	180	1.8	1.2	0.001	0.04	<0.05	0.5	0.3	<0.2	44.0	<0.01	0.01
I358012		0.02	0.20	3.5	140	1.0	67.3	<0.001	0.39	0.25	0.9	0.8	1.6	2.8	<0.01	0.36
I358013		0.02	0.05	12.8	200	1.9	46.4	<0.001	1.05	0.47	0.7	3.2	0.6	4.1	<0.01	1.85
I358014		0.13	0.30	22.1	580	3.3	8.7	<0.001	0.17	0.12	2.7	0.7	0.4	30.3	<0.01	0.11
I358015		0.02	0.22	38.8	480	6.1	16.3	0.003	1.13	0.31	0.7	4.5	1.3	9.6	<0.01	21.3
I358016		0.03	0.23	18.7	830	5.8	5.2	0.180	0.68	0.27	0.7	2.2	1.0	10.6	<0.01	0.86

***** See Appendix Page for comments regarding this certificate *****

ALS Canada Ltd.

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To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 20- NOV- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11200308

Sample Description	ME- MS41 Th ppm 0.2	ME- MS41 Ti % 0.005	ME- MS41 Tl ppm 0.02	ME- MS41 U ppm 0.05	ME- MS41 V ppm 1	ME- MS41 W ppm 0.05	ME- MS41 Y ppm 0.05	ME- MS41 Zn ppm 2	ME- MS41 Zr ppm 0.5
I357981	1.7	0.038	0.04	1.92	7	41.5	7.85	30	7.1
I357982	2.7	0.071	0.28	1.60	31	55.9	5.45	25	1.8
I357983	3.7	0.073	0.02	2.61	10	50.4	4.75	19	7.5
I357984	6.6	0.095	0.03	2.00	22	13.55	5.00	13	15.8
I357985	6.3	0.099	0.03	2.03	25	8.95	4.80	9	15.7
I357986	6.4	0.098	0.04	1.99	30	0.36	4.98	10	14.0
I357987	6.3	0.059	0.04	1.85	34	0.34	6.42	10	11.2
I357988	6.4	0.079	0.03	1.85	30	1.18	5.71	8	11.2
I357989	6.5	0.097	0.02	1.97	24	3.18	5.24	7	14.0
I357990	2.0	0.062	0.45	0.69	92	2.75	11.70	157	2.8
I357991	6.3	0.090	0.02	2.00	24	3.12	5.34	9	13.9
I357992	5.8	0.095	0.02	1.94	17	7.44	5.08	8	15.2
I357993	8.3	0.201	0.22	1.31	38	23.4	8.13	22	1.7
I357994	9.3	0.179	0.19	1.65	34	0.79	8.76	19	1.4
I357995	1.8	0.030	<0.02	1.86	4	1.01	10.20	31	1.0
I357996	0.3	0.009	0.03	2.44	4	193.0	7.09	42	1.3
I357997	0.7	0.023	0.05	2.65	7	400	5.05	23	3.4
I357998	<0.2	<0.005	0.02	1.03	2	1.79	1.09	13	<0.5
I357999	1.7	0.060	0.05	0.75	8	2.42	7.21	23	0.9
I358000	6.2	0.177	0.24	1.31	42	29.5	9.60	30	1.4
I358001	4.5	0.102	0.05	1.57	24	0.93	8.06	27	1.7
I358002	4.0	<0.005	0.06	1.61	8	0.47	7.34	12	4.8
I358003	6.3	0.045	0.04	1.80	31	9.89	6.37	15	6.9
I358004	6.2	0.028	0.04	1.76	25	1.05	7.06	14	8.9
I358005	6.3	0.070	0.04	1.80	30	4.99	5.92	15	12.8
I358006	6.2	0.081	0.03	1.83	35	2.98	6.30	14	11.0
I358007	1.8	0.057	0.40	0.60	82	1.35	10.40	136	2.6
I358008	9.9	0.016	0.10	2.37	17	0.21	5.40	8	0.5
I358009	1.6	0.021	0.20	7.13	8	15.40	4.91	234	2.9
I358010	0.4	0.100	0.55	3.94	54	8.22	4.76	193	3.9
I358011	0.2	<0.005	<0.02	0.57	1	0.10	0.91	12	<0.5
I358012	0.2	0.008	0.20	8.46	12	4.02	1.82	46	1.6
I358013	0.2	<0.005	0.16	1.79	5	0.88	1.91	113	1.1
I358014	5.9	0.094	0.02	2.19	21	0.82	4.53	20	15.9
I358015	0.7	0.038	0.07	5.64	8	1.97	7.62	95	4.2
I358016	1.7	0.030	0.04	1.65	8	0.53	8.12	21	3.6

***** See Appendix Page for comments regarding this certificate *****

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

To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 20- NOV- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11200308

Method	CERTIFICATE COMMENTS
ME- MS41	Interference: Ca> 10% on ICP- MS As,ICP- AES results shown.
ME- MS41	Gold determinations by this method are semi- quantitative due to the small sample weight used (0.5g).
ME- MS41	Interference: Mo> 400ppm on ICP- MS Cd,ICP- AES results shown.

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To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 21- NOV- 2011
This copy reported on 11- JAN- 2012
Account: F

CERTIFICATE WH11200393

Project: Hopper
P.O. No.: Batch 7- Hole 4
This report is for 36 Drill Core samples submitted to our lab in Whitehorse, YT, Canada on 30- SEP- 2011.
The following have access to data associated with this certificate:

JOAN MARIACHER	HEATHER SMITH	

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
CRU- 31	Fine crushing - 70% <2mm
CRU- QC	Crushing QC Test
PUL- QC	Pulverizing QC Test
SPL- 21	Split sample - riffle splitter
PUL- 31	Pulverize split to 85% <75 um
LOG- 24	Pulp Login - Rcd w/o Barcode

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au- AA24	Au 50g FA AA finish	AAS
ME- OG46	Ore Grade Elements - AquaRegia	ICP- AES
Cu- OG46	Ore Grade Cu - Aqua Regia	VARIABLE
ME- MS41	51 anal. aqua regia ICPMS	

To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
ATTN: JOAN MARIACHER
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

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.

***** See Appendix Page for comments regarding this certificate *****

Signature:
Colin Ramshaw, Vancouver Laboratory Manager

ALS Canada Ltd.
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Finalized Date: 21- NOV- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11200393

Sample Description	WEI- 21	Au- AA24	Cu- OG46	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41
Analyte	Recvd Wt.	Au	Cu	Ag	Al	As	Au	B	Ba	Be	Bi	Ca	Cd	Ce	Co
Units	kg	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
LOR	0.02	0.005	0.001	0.01	0.01	0.1	0.2	10	10	0.05	0.01	0.01	0.01	0.02	0.1
I358017	0.63	<0.005		0.03	1.69	1.6	<0.2	<10	60	0.57	0.13	0.61	0.03	39.7	8.6
I358018	1.77	0.016		0.06	2.70	187	<0.2	<10	10	1.61	0.07	13.35	0.10	26.7	34.2
I358019	2.31	0.131		1.89	0.49	2.5	<0.2	<10	30	0.21	1.41	4.57	0.47	6.08	13.0
I358020	1.89	<0.005		0.13	0.52	1.2	<0.2	<10	280	0.13	0.10	4.60	0.11	10.30	9.7
I358021	2.19	<0.005		0.05	1.15	1.2	<0.2	<10	100	0.20	0.11	1.44	0.09	17.95	12.7
I358022	4.45	0.085		1.57	0.50	7.9	<0.2	<10	30	0.07	6.41	2.40	0.50	4.58	46.6
I358023	5.67	0.045		1.10	0.58	9.2	<0.2	<10	40	0.11	2.51	3.65	0.38	5.35	27.1
I358024	2.97	0.024		0.82	0.64	5	<0.2	<10	110	0.10	0.41	11.95	0.48	4.86	8.3
I358025	3.61	0.011		0.35	0.24	7.7	<0.2	<10	30	<0.05	0.46	2.29	0.13	2.09	7.1
I358026	3.44	0.008		0.10	0.55	39.8	<0.2	<10	40	0.60	0.08	8.56	0.10	15.30	7.5
I358027	4.59	<0.005		0.10	0.22	2.4	<0.2	<10	30	<0.05	0.26	1.41	0.09	1.38	4.6
I358028	3.85	0.030		0.31	0.56	3.8	<0.2	<10	20	0.06	1.51	7.99	0.19	3.23	23.7
I358029	0.23	0.408		2.09	0.98	113.0	0.4	<10	40	0.35	0.61	0.48	1.05	21.5	17.3
I358030	2.15	0.023		0.57	1.37	1.5	<0.2	<10	60	0.34	27.5	6.99	0.24	11.65	13.0
I358031	4.04	<0.005		0.05	1.33	0.7	<0.2	<10	1410	0.17	0.28	0.63	0.06	20.8	10.6
I358032	2.41	<0.005		0.03	2.96	0.7	<0.2	<10	310	0.21	0.16	1.64	0.05	8.84	23.8
I358033	4.53	0.037		0.93	0.86	6.7	<0.2	<10	100	0.12	1.31	1.31	0.22	4.11	22.6
I358034	2.22	0.375	1.445	13.70	0.32	10.8	<0.2	<10	30	0.08	6.45	0.85	2.66	4.07	47.6
I358035	1.60	<0.005		0.02	0.06	2	<0.2	<10	20	<0.05	0.05	18.40	0.06	1.31	1.3
I358036	3.87	0.085		2.26	0.35	5.6	<0.2	<10	10	0.15	1.59	1.23	0.56	6.70	7.6
I358037	6.93	0.783	1.655	15.45	0.31	28.0	0.3	<10	<10	0.07	12.50	4.46	3.41	4.62	32.0
I358038	4.68	1.945	2.11	20.8	0.37	5.5	0.4	<10	10	<0.05	24.9	8.73	3.19	6.60	50.6
I358039	2.51	0.715	3.00	25.3	0.15	14.4	0.7	<10	<10	0.17	12.75	1.15	3.89	0.40	67.0
I358040	1.46	0.005		0.06	0.04	3	<0.2	<10	20	<0.05	0.14	19.25	0.06	1.44	1.3
I358041	3.21	<0.005		0.16	0.78	1.7	<0.2	<10	40	0.28	0.25	1.03	0.08	16.90	1.8
I358042	5.45	0.005		0.07	1.38	1.1	<0.2	<10	60	0.47	0.38	1.11	0.02	16.65	9.3
I358043	2.44	0.005		0.16	0.29	10.9	<0.2	<10	10	<0.05	3.81	4.43	0.06	1.69	2.1
I358044	2.89	<0.005		0.05	0.46	1.8	<0.2	<10	60	0.11	0.11	0.58	0.06	14.00	2.1
I358045	4.98	0.045		0.56	0.33	2.7	<0.2	<10	10	0.08	1.78	1.66	0.19	2.07	16.6
I358046	3.64	0.053		0.72	0.76	2.4	<0.2	<10	40	0.39	0.51	0.99	0.17	15.35	6.4
I358047	0.23	0.388		2.03	1.00	112.5	0.3	<10	40	0.37	0.63	0.46	1.10	21.6	16.6
I358048	3.13	<0.005		0.04	2.09	1.5	<0.2	<10	70	0.59	0.18	1.26	0.05	34.7	5.8
I358049	2.00	0.129		2.74	0.92	1.9	<0.2	<10	20	0.26	6.23	1.03	0.60	5.48	26.9
I358050	4.98	0.087		0.92	0.80	3.5	<0.2	<10	30	0.23	8.00	2.94	0.23	8.61	14.3
I358101	4.19	0.020		0.16	0.53	78.5	<0.2	<10	20	0.58	0.08	6.64	0.03	18.00	8.2
I358102	5.62	<0.005		0.04	0.85	29.4	<0.2	<10	520	0.74	0.08	5.42	0.03	31.5	9.0

***** See Appendix Page for comments regarding this certificate *****

ALS Canada Ltd.

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To: ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 21- NOV- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11200393

Sample Description	Method / Analyte / Units / LOR	ME- MS41 Cr ppm 1	ME- MS41 Cs ppm 0.05	ME- MS41 Cu ppm 0.2	ME- MS41 Fe % 0.01	ME- MS41 Ga ppm 0.05	ME- MS41 Ge ppm 0.05	ME- MS41 Hf ppm 0.02	ME- MS41 Hg ppm 0.01	ME- MS41 In ppm 0.005	ME- MS41 K % 0.01	ME- MS41 La ppm 0.2	ME- MS41 Li ppm 0.1	ME- MS41 Mg % 0.01	ME- MS41 Mn ppm 5	ME- MS41 Mo ppm 0.05
I358017		31	2.78	92.4	1.80	6.64	0.12	0.04	0.01	0.011	0.71	19.0	9.6	0.98	125	1.53
I358018		196	0.58	39.1	4.81	5.01	0.11	0.07	0.01	0.045	0.08	12.3	35.4	1.20	933	3.03
I358019		14	0.48	2040	2.54	2.81	0.21	0.06	<0.01	0.191	0.05	3.5	4.4	0.30	699	0.94
I358020		10	0.49	63.4	1.53	3.20	0.09	0.06	<0.01	0.009	0.12	4.7	4.1	0.21	437	0.49
I358021		122	1.50	54.3	1.88	4.79	0.12	0.10	<0.01	0.011	0.37	8.8	9.5	0.77	213	1.12
I358022		4	0.36	1775	4.78	2.71	0.40	0.06	0.02	0.265	0.04	2.7	2.0	0.19	623	1.39
I358023		18	0.67	1210	3.83	3.16	0.26	0.06	0.01	0.249	0.07	3.0	4.0	0.44	878	1.54
I358024		15	2.60	839	1.05	2.28	0.16	0.04	<0.01	0.096	0.11	3.4	3.7	0.37	601	1.42
I358025		4	0.30	325	1.63	1.51	0.30	0.03	<0.01	0.135	0.05	1.6	1.9	0.14	371	0.33
I358026		9	1.10	44.1	2.16	1.49	0.06	0.02	<0.01	0.031	0.11	7.3	5.8	1.69	810	0.82
I358027		5	0.84	77.1	1.07	0.98	0.10	0.03	<0.01	0.065	0.02	1.2	2.1	0.14	382	27.3
I358028		6	0.26	446	3.34	2.18	0.20	0.05	0.01	0.162	0.02	2.1	1.4	0.09	578	36.6
I358029		30	3.17	4590	4.57	4.05	0.13	0.08	0.10	0.049	0.55	10.9	4.0	0.61	511	246
I358030		13	1.53	690	1.91	5.01	0.08	0.06	<0.01	0.030	0.19	6.7	6.5	0.33	352	1.14
I358031		23	2.44	75.0	2.64	7.26	0.15	0.04	<0.01	0.035	0.72	9.7	12.9	0.82	510	6.30
I358032		176	3.65	71.9	1.84	5.55	0.11	0.02	<0.01	0.006	0.80	4.8	15.5	1.81	159	1.12
I358033		151	3.72	941	2.63	3.11	0.29	0.08	<0.01	0.081	0.38	2.1	6.6	1.03	344	63.2
I358034		15	0.15	>10000	4.14	1.46	0.21	0.06	0.04	1.055	0.03	2.2	2.8	0.23	364	57.2
I358035		3	0.45	21.2	0.46	0.17	<0.05	<0.02	0.01	0.005	0.04	0.6	1.3	11.50	204	0.57
I358036		2	0.25	2080	1.31	1.60	0.11	0.14	0.01	0.227	0.04	4.3	4.1	0.32	372	67.7
I358037		1	0.15	>10000	6.72	2.97	1.01	<0.02	0.25	1.850	0.01	2.4	1.2	0.27	734	20.3
I358038		1	0.38	>10000	5.23	2.21	0.50	<0.02	0.51	1.575	0.02	5.4	3.4	2.95	446	46.0
I358039		1	0.19	>10000	6.13	0.78	0.36	<0.02	0.34	2.04	0.01	0.2	1.8	0.47	339	39.8
I358040		1	0.36	56.1	0.44	0.15	0.06	<0.02	0.02	0.011	0.03	0.6	1.1	12.00	207	0.27
I358041		10	0.27	123.0	0.74	3.21	0.12	0.40	<0.01	0.019	0.08	8.4	4.9	0.25	235	2.19
I358042		60	2.35	129.5	2.62	7.91	0.11	0.06	<0.01	0.014	0.29	8.1	18.9	0.85	337	2.76
I358043		5	0.09	208	3.71	2.96	1.28	0.04	<0.01	0.663	0.02	1.6	1.1	0.03	534	2.99
I358044		23	0.11	13.4	0.54	1.70	0.08	0.35	0.01	0.007	0.08	7.2	2.9	0.23	104	3.48
I358045		3	0.14	777	3.04	2.35	0.49	0.08	0.05	0.219	0.06	1.1	1.7	0.06	392	222
I358046		14	0.30	732	1.21	2.94	0.16	0.07	0.02	0.073	0.10	8.0	3.6	0.11	189	7.97
I358047		29	3.13	4570	4.44	4.09	0.14	0.08	0.08	0.052	0.55	11.0	4.1	0.60	499	246
I358048		40	1.98	35.6	1.46	8.46	0.14	0.07	<0.01	0.012	0.48	17.4	10.0	0.61	142	3.29
I358049		12	0.27	3000	4.60	3.28	0.19	0.06	0.07	0.256	0.07	3.3	5.8	0.25	323	0.67
I358050		13	0.41	1540	2.02	2.82	0.19	0.05	0.01	0.104	0.08	5.3	2.7	0.11	207	0.79
I358101		8	1.96	11.2	2.10	1.53	0.06	0.05	<0.01	0.014	0.22	9.3	1.4	1.02	431	1.64
I358102		15	2.18	7.1	2.22	2.21	0.06	0.07	<0.01	0.012	0.21	17.4	7.9	1.39	367	1.08

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1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 21- NOV- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11200393

Sample Description	Method / Analyte / Units / LOR	ME- MS41 Na % 0.01	ME- MS41 Nb ppm 0.05	ME- MS41 Ni ppm 0.2	ME- MS41 P ppm 10	ME- MS41 Pb ppm 0.2	ME- MS41 Rb ppm 0.1	ME- MS41 Re ppm 0.001	ME- MS41 S % 0.01	ME- MS41 Sb ppm 0.05	ME- MS41 Sc ppm 0.1	ME- MS41 Se ppm 0.2	ME- MS41 Sn ppm 0.2	ME- MS41 Sr ppm 0.2	ME- MS41 Ta ppm 0.01	ME- MS41 Te ppm 0.01
I358017		0.11	0.43	20.1	250	2.5	59.4	0.001	0.41	0.09	4.0	0.3	0.6	34.2	<0.01	0.05
I358018		0.01	<0.05	131.5	1340	4.3	4.3	<0.001	0.14	16.50	18.8	0.6	0.6	168.0	<0.01	0.01
I358019		0.04	0.19	7.5	520	3.9	3.1	0.001	0.76	0.37	0.9	3.2	0.6	60.1	<0.01	0.97
I358020		0.08	0.41	7.2	660	4.8	9.3	<0.001	0.53	0.10	2.9	1.1	0.4	37.9	<0.01	0.04
I358021		0.13	0.22	14.4	2150	3.2	33.8	<0.001	0.38	0.13	4.4	0.8	0.2	69.4	<0.01	0.03
I358022		0.03	0.34	19.0	590	3.8	2.4	<0.001	1.96	2.75	0.7	7.7	1.6	13.4	<0.01	3.37
I358023		0.03	0.47	35.4	510	3.0	6.8	<0.001	0.93	1.45	0.9	3.7	1.6	54.2	<0.01	1.23
I358024		0.09	0.23	17.2	560	3.9	10.8	<0.001	0.26	0.16	1.1	1.0	0.3	95.7	<0.01	0.18
I358025		0.02	0.15	5.5	330	2.1	4.4	<0.001	0.11	0.18	0.4	0.7	1.3	11.6	<0.01	0.21
I358026		0.01	<0.05	13.4	590	4.0	7.8	<0.001	0.08	1.37	6.6	0.6	0.2	334	<0.01	0.02
I358027		0.04	0.11	4.6	580	3.0	2.0	<0.001	0.05	0.14	0.3	0.3	0.5	16.6	<0.01	0.10
I358028		0.02	0.20	14.3	430	5.0	1.8	<0.001	1.55	0.44	0.5	2.9	0.9	29.8	<0.01	0.85
I358029		0.03	0.21	21.6	1030	39.0	33.1	0.598	2.50	5.77	6.6	8.6	1.9	34.1	<0.01	0.98
I358030		0.11	0.28	16.4	740	11.4	15.6	0.003	0.89	0.24	2.4	2.4	0.3	120.5	<0.01	18.35
I358031		0.12	0.28	16.0	540	4.0	43.3	<0.001	0.21	0.09	8.3	0.5	0.9	28.3	<0.01	0.14
I358032		0.23	0.06	199.5	380	1.6	68.0	0.001	0.41	0.07	4.1	1.1	0.2	102.0	<0.01	0.09
I358033		0.05	0.12	160.0	390	3.8	43.8	0.001	0.93	0.21	1.8	3.6	0.7	25.5	<0.01	0.71
I358034		0.02	0.19	75.0	300	3.6	1.8	0.007	2.30	0.18	0.6	14.4	0.7	14.5	<0.01	4.12
I358035		0.01	0.13	3.5	180	1.4	2.5	<0.001	0.02	0.11	0.5	0.2	<0.2	43.0	<0.01	0.01
I358036		0.04	0.17	6.1	550	5.1	3.2	0.002	0.27	0.17	0.5	1.6	0.6	13.0	<0.01	0.81
I358037		0.02	0.07	18.8	290	2.4	0.6	0.003	2.50	0.18	1.1	11.3	2.7	19.0	<0.01	6.53
I358038		0.02	0.14	19.5	330	2.8	2.8	0.005	3.74	0.27	0.4	15.3	1.9	54.8	<0.01	13.60
I358039		0.02	<0.05	25.0	190	2.8	0.7	0.004	4.30	0.54	0.2	20.1	0.9	18.9	<0.01	8.84
I358040		0.01	0.14	3.0	180	1.3	1.5	<0.001	0.02	0.10	0.5	<0.2	<0.2	38.2	<0.01	0.03
I358041		0.12	0.49	1.8	690	9.1	4.0	<0.001	0.01	0.15	1.1	0.3	0.7	38.2	<0.01	0.06
I358042		0.05	0.16	30.5	340	1.9	33.1	0.001	0.34	0.16	4.8	1.1	0.3	35.7	<0.01	0.19
I358043		0.02	0.17	1.8	200	2.9	1.2	0.003	0.03	0.11	1.2	0.3	4.8	9.6	<0.01	1.88
I358044		0.13	0.49	7.1	540	5.0	3.2	<0.001	0.01	0.22	1.7	<0.2	0.3	37.5	<0.01	0.02
I358045		0.03	0.41	19.6	320	2.8	2.6	0.031	1.01	0.15	0.6	3.5	2.2	11.0	0.01	0.91
I358046		0.11	0.65	15.4	500	5.1	5.8	0.014	0.40	0.16	1.1	1.7	0.7	64.8	<0.01	0.23
I358047		0.03	0.20	21.0	1020	37.9	33.4	0.602	2.48	5.86	6.4	8.4	1.9	34.0	<0.01	1.01
I358048		0.22	0.39	23.7	490	5.0	43.8	0.001	0.07	0.09	4.1	0.6	0.7	68.2	<0.01	0.05
I358049		0.08	0.22	21.0	430	4.2	4.0	0.001	2.42	0.15	1.5	7.5	0.6	31.0	<0.01	2.56
I358050		0.07	0.29	19.1	410	5.0	4.8	0.001	1.06	0.29	0.8	2.4	0.8	43.5	<0.01	5.19
I358101		0.02	<0.05	10.8	580	3.1	12.9	<0.001	0.75	1.31	6.7	0.6	0.2	255	<0.01	0.03
I358102		0.02	<0.05	11.8	770	4.2	13.9	<0.001	0.11	0.63	8.6	0.4	<0.2	248	<0.01	0.01

***** See Appendix Page for comments regarding this certificate *****

ALS Canada Ltd.
2103 Dollarton Hwy
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Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

ALS Minerals

To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 21- NOV- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11200393

Sample Description	Method Analyte Units LOR	ME- MS41 Th ppm 0.2	ME- MS41 Ti % 0.005	ME- MS41 Tl ppm 0.02	ME- MS41 U ppm 0.05	ME- MS41 V ppm 1	ME- MS41 W ppm 0.05	ME- MS41 Y ppm 0.05	ME- MS41 Zn ppm 2	ME- MS41 Zr ppm 0.5
I358017		12.1	0.126	0.29	1.97	31	0.23	7.51	14	0.9
I358018		2.0	<0.005	0.04	0.27	95	0.43	14.15	63	1.3
I358019		1.4	0.040	0.05	0.92	9	14.05	7.22	71	1.4
I358020		1.1	0.130	0.05	0.50	30	0.75	8.03	20	1.5
I358021		2.8	0.193	0.20	0.43	50	0.33	7.43	23	1.5
I358022		1.2	0.028	0.12	1.61	6	22.0	7.74	58	2.1
I358023		1.0	0.049	0.10	1.48	11	26.6	8.08	51	1.9
I358024		0.9	0.047	0.05	1.83	10	15.00	10.45	50	1.1
I358025		0.4	0.016	0.02	1.41	3	13.95	5.35	21	1.3
I358026		1.3	<0.005	0.04	0.41	16	0.48	12.05	36	<0.5
I358027		0.3	0.017	0.02	1.45	2	3.57	4.39	15	1.1
I358028		0.8	0.026	0.20	1.35	3	21.3	8.25	25	1.5
I358029		1.9	0.059	0.46	0.61	85	1.37	10.60	140	2.4
I358030		3.0	0.098	0.15	1.52	18	0.57	11.65	39	1.4
I358031		3.3	0.228	0.25	1.16	61	1.27	10.70	45	0.8
I358032		2.0	0.104	0.38	0.52	47	0.32	2.93	19	0.6
I358033		1.7	0.075	0.22	1.20	20	5.02	6.79	29	2.3
I358034		1.4	0.025	0.06	1.05	6	55.6	4.04	270	1.8
I358035		<0.2	<0.005	0.02	0.60	2	0.15	0.94	15	<0.5
I358036		2.0	0.033	0.02	1.14	4	31.2	3.04	58	3.9
I358037		0.2	<0.005	0.04	2.58	4	360	3.90	299	0.6
I358038		0.2	0.005	0.08	1.74	6	770	4.50	346	0.6
I358039		<0.2	<0.005	0.08	1.31	8	650	0.94	409	<0.5
I358040		<0.2	<0.005	<0.02	0.50	2	1.87	0.77	14	<0.5
I358041		6.4	0.115	<0.02	1.20	13	5.01	4.83	13	12.0
I358042		4.1	0.076	0.16	1.07	75	0.95	8.66	19	1.6
I358043		0.2	0.012	<0.02	1.17	4	14.35	5.81	12	1.6
I358044		5.8	0.095	<0.02	1.98	18	1.06	3.77	12	11.2
I358045		2.1	0.028	0.03	1.91	5	65.3	2.82	20	2.7
I358046		3.3	0.097	0.03	0.96	12	38.3	7.51	27	1.6
I358047		1.9	0.057	0.46	0.59	84	1.17	10.60	132	2.4
I358048		7.2	0.173	0.25	1.55	46	6.85	9.37	20	2.1
I358049		1.6	0.069	0.05	1.00	16	99.6	5.56	67	1.4
I358050		1.7	0.062	0.04	0.92	8	16.90	6.67	38	1.3
I358101		3.6	<0.005	0.12	0.91	13	0.62	7.85	13	2.6
I358102		5.7	<0.005	0.06	1.30	25	0.49	10.60	13	3.1

***** See Appendix Page for comments regarding this certificate *****

ALS Canada Ltd.

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To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 21- NOV- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11200393

Method	CERTIFICATE COMMENTS
ME- MS41	Interference: Ca> 10% on ICP- MS As,ICP- AES results shown.
ME- MS41	Gold determinations by this method are semi- quantitative due to the small sample weight used (0.5g).

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To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
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Finalized Date: 20- NOV- 2011
This copy reported on 11- JAN- 2012
Account: F

CERTIFICATE WH11200394

Project: Hopper
P.O. No.: Batch 9, Hole 6
This report is for 31 Drill Core samples submitted to our lab in Whitehorse, YT, Canada on 30- SEP- 2011.
The following have access to data associated with this certificate:

JOAN MARIACHER	HEATHER SMITH	

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
CRU- 31	Fine crushing - 70% <2mm
CRU- QC	Crushing QC Test
PUL- QC	Pulverizing QC Test
SPL- 21	Split sample - riffle splitter
PUL- 31	Pulverize split to 85% <75 um
LOG- 24	Pulp Login - Rcd w/o Barcode

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au- AA24	Au 50g FA AA finish	AAS
ME- OG46	Ore Grade Elements - AquaRegia	ICP- AES
Cu- OG46	Ore Grade Cu - Aqua Regia	VARIABLE
ME- MS41	51 anal. aqua regia ICPMS	

To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
ATTN: JOAN MARIACHER
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

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.

***** See Appendix Page for comments regarding this certificate *****

Signature:
Colin Ramshaw, Vancouver Laboratory Manager

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Finalized Date: 20- NOV- 2011
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Project: Hopper

CERTIFICATE OF ANALYSIS WH11200394

Sample Description	WEI- 21	Au- AA24	Cu- OG46	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41
Analyte	Recvd Wt.	Au	Cu	Ag	Al	As	Au	B	Ba	Be	Bi	Ca	Cd	Ce	Co
Units	kg	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
LOR	0.02	0.005	0.001	0.01	0.01	0.1	0.2	10	10	0.05	0.01	0.01	0.01	0.02	0.1
I358139	4.21	0.157		2.12	0.25	8.4	<0.2	50	10	0.19	4.02	1.09	0.28	1.13	63.6
I358140	3.56	0.036		0.73	0.26	16.5	<0.2	30	30	0.17	1.20	3.91	0.13	0.65	15.2
I358141	3.81	0.024		0.81	0.28	39	<0.2	<10	20	0.14	1.90	12.20	0.13	1.81	33.1
I358142	2.56	0.011		0.37	1.07	1.5	<0.2	<10	80	0.18	1.76	1.52	0.14	15.75	24.4
I358143	5.87	0.024		0.47	0.27	5.4	<0.2	50	20	<0.05	0.18	0.30	0.15	0.87	23.6
I358144	6.06	0.016		0.46	0.71	7.8	<0.2	50	20	0.09	0.39	0.40	0.08	6.11	21.2
J980845	2.42	<0.005		<0.01	0.03	<2	<0.2	<10	10	<0.05	0.02	19.55	0.05	1.19	1.0
I358146	5.71	0.042		0.68	0.44	11.1	<0.2	10	20	0.14	0.44	1.42	0.28	38.6	4.8
I358147	5.83	0.034		0.28	0.55	2.9	<0.2	<10	30	0.16	0.23	1.85	0.11	211	3.6
I358148	6.48	<0.005		0.26	0.82	6.7	<0.2	<10	40	0.25	0.26	1.43	0.10	51.5	11.2
I358149	6.64	0.087		0.91	0.68	11.8	<0.2	<10	10	0.06	0.60	9.22	0.36	7.31	8.1
I358150	5.45	0.013		0.49	0.65	30.9	<0.2	<10	10	0.05	0.28	8.99	0.26	13.75	3.3
L836001	0.24	8.09	3.44	13.25	1.43	51.1	8.0	<10	30	0.25	2.13	3.18	4.44	13.10	30.5
L836002	3.71	0.005		0.27	0.62	10.8	<0.2	<10	10	0.09	0.31	4.63	0.11	14.95	10.5
L836003	2.91	0.048		0.12	0.81	0.5	<0.2	<10	70	0.25	1.84	7.84	0.12	13.30	7.0
L836004	1.74	0.021		0.13	2.00	4.6	<0.2	<10	260	0.49	1.17	1.39	0.04	38.8	19.5
L836005	3.39	0.005		0.03	0.13	4.1	<0.2	20	<10	<0.05	0.34	0.07	0.02	0.30	76.2
L836006	2.50	<0.005		0.02	0.13	5.2	<0.2	20	<10	<0.05	0.31	0.06	0.02	0.28	86.1
L836007	3.83	<0.005		0.06	1.44	2.3	<0.2	<10	180	0.47	0.27	0.55	0.02	14.80	34.1
L836008	2.70	0.010		0.07	0.34	3.2	<0.2	<10	30	0.11	0.30	2.35	0.08	9.06	3.1
L836009	1.80	0.052		0.51	0.79	1.7	<0.2	<10	40	0.13	0.59	4.29	0.18	9.04	34.7
L836010	1.91	0.010		0.14	0.68	3.6	<0.2	<10	30	0.10	0.18	4.04	0.14	12.65	1.9
L836011	1.51	0.015		0.29	1.19	7	<0.2	<10	20	0.14	0.31	11.25	0.18	4.51	8.5
L836012	1.73	0.022		0.70	1.42	4.4	0.2	<10	20	0.45	0.21	2.56	0.22	40.4	4.5
L836013	2.05	0.046		2.42	0.38	9.3	<0.2	<10	<10	0.05	0.53	8.22	0.58	2.82	10.6
L836014	3.39	0.402		5.21	0.32	5.1	0.2	<10	10	0.19	2.64	0.96	0.76	3.05	103.0
L836015	1.95	0.455		43.7	0.53	2.7	0.4	<10	130	0.24	0.80	1.12	0.93	16.45	25.0
J980846	2.63	<0.005		0.07	0.09	<2	<0.2	<10	30	<0.05	0.37	20.1	0.05	1.20	1.4
L836017	2.92	1.110	1.295	6.98	0.57	2.9	4.3	<10	130	0.25	0.91	0.87	1.64	26.4	37.1
L836018	1.60	0.014		0.30	2.15	0.5	<0.2	<10	120	0.69	0.12	1.77	0.06	20.4	8.5
J980847	0.26	7.79	3.46	12.55	1.51	52.1	8.1	<10	20	0.24	2.14	3.25	4.46	13.65	31.4

***** See Appendix Page for comments regarding this certificate *****

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1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 20- NOV- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11200394

Sample Description	Method	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41
	Analyte	Cr	Cs	Cu	Fe	Ga	Ge	Hf	Hg	In	K	La	Li	Mg	Mn	Mo
	Units	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm
	LOR	1	0.05	0.2	0.01	0.05	0.05	0.02	0.01	0.005	0.01	0.2	0.1	0.01	5	0.05
I358139		4	0.49	3160	36.4	6.40	1.00	0.05	0.01	0.649	0.03	0.6	21.2	8.71	1040	4.93
I358140		6	0.53	636	25.7	3.59	0.59	0.06	0.01	0.483	0.02	0.4	19.6	10.75	1540	0.36
I358141		4	0.42	749	11.85	2.12	0.34	0.07	0.01	0.240	0.02	1.3	4.2	7.88	942	0.52
I358142		14	1.80	561	20.3	10.05	0.55	0.07	<0.01	0.049	0.39	8.2	6.9	1.56	363	0.91
I358143		7	0.69	496	37.1	5.93	0.98	0.02	<0.01	0.244	0.07	0.5	0.6	7.92	1120	0.66
I358144		10	1.21	243	35.8	6.58	0.95	0.03	0.01	0.176	0.14	3.4	4.4	7.49	1020	1.03
J980845		1	0.21	1.7	0.47	0.13	0.05	<0.02	<0.01	0.005	0.02	0.5	0.7	11.80	189	0.06
I358146		8	0.42	482	1.99	2.14	0.15	0.08	<0.01	0.099	0.07	32.6	2.9	1.62	372	0.47
I358147		15	0.38	199.0	3.70	3.92	0.23	0.15	<0.01	0.073	0.04	173.5	2.4	0.30	437	0.34
I358148		13	2.05	297	8.05	4.36	0.30	0.19	<0.01	0.112	0.27	40.1	6.0	1.36	357	0.37
I358149		13	0.44	1005	8.80	4.99	2.24	0.17	0.17	0.622	0.01	3.1	1.1	0.08	1530	183.0
I358150		13	0.16	414	7.80	3.37	0.76	0.17	0.25	0.767	0.02	7.3	1.6	0.10	1500	147.0
L836001		26	1.00	>10000	6.95	4.26	0.21	0.14	0.61	0.392	0.21	6.4	7.6	1.03	566	387
L836002		10	0.20	211	3.87	3.91	0.35	0.20	0.07	0.246	0.04	10.3	2.4	0.28	698	56.1
L836003		23	0.58	179.0	1.13	2.54	0.12	0.06	<0.01	0.017	0.15	7.2	2.9	0.21	464	1.93
L836004		138	5.81	178.0	2.58	6.97	0.21	0.06	<0.01	0.015	0.83	20.4	9.1	1.65	149	2.35
L836005		243	0.10	11.4	4.16	0.45	0.27	<0.02	<0.01	0.012	<0.01	0.2	1.1	14.90	635	0.27
L836006		228	0.08	9.2	4.89	0.44	0.33	<0.02	<0.01	0.015	<0.01	0.2	1.3	17.20	736	0.29
L836007		117	2.48	146.0	2.73	5.10	0.14	<0.02	<0.01	0.012	0.53	7.8	11.6	1.57	114	2.51
L836008		5	0.17	25.8	1.93	1.73	0.13	0.10	0.05	0.199	0.05	6.2	1.5	0.11	354	6.64
L836009		22	0.66	531	1.93	2.50	0.18	0.07	0.01	0.041	0.07	4.7	2.3	0.24	341	0.91
L836010		9	0.27	93.5	2.66	3.88	0.75	0.36	0.02	0.174	0.09	6.4	1.5	0.14	523	0.97
L836011		13	0.58	275	7.06	7.98	1.56	0.17	0.10	0.451	0.02	2.7	5.1	0.77	2010	110.5
L836012		20	0.19	599	1.16	6.81	0.29	0.16	<0.01	0.052	0.06	29.0	5.7	0.30	366	6.27
L836013		<1	0.28	2470	11.40	8.56	3.64	0.02	0.16	0.980	0.01	1.3	3.3	0.56	894	1.52
L836014		4	0.29	6310	21.0	7.82	1.32	0.03	0.01	0.411	0.04	1.6	3.2	1.29	402	2.49
L836015		34	0.28	6670	2.53	2.92	0.20	0.18	0.32	0.997	0.26	8.8	2.6	0.26	259	116.0
J980846		4	0.48	18.1	0.49	0.25	<0.05	<0.02	<0.01	0.005	0.06	0.6	1.5	12.15	202	0.37
L836017		19	0.19	>10000	3.04	2.77	0.19	0.15	0.10	1.945	0.32	15.1	2.7	0.23	265	53.2
L836018		48	2.52	551	1.48	8.43	0.13	0.11	0.01	0.018	0.30	9.6	11.7	0.59	167	7.76
J980847		27	1.01	>10000	7.07	4.42	0.20	0.14	0.61	0.407	0.21	6.5	8.3	1.07	575	399

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Finalized Date: 20- NOV- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11200394

Sample Description	Method	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41
	Analyte	Na	Nb	Ni	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te
	Units	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
	LOR	0.01	0.05	0.2	10	0.2	0.1	0.001	0.01	0.05	0.1	0.2	0.2	0.2	0.01	0.01
I358139		0.01	0.19	11.6	190	3.6	2.6	0.003	4.33	0.94	1.2	6.1	2.1	20.7	<0.01	2.53
I358140		0.01	0.10	3.9	180	1.7	2.3	0.001	0.79	1.15	1.0	1.2	0.9	134.5	<0.01	0.56
I358141		<0.01	0.41	11.3	270	1.8	2.2	0.002	2.95	2.31	0.8	5.7	0.4	298	<0.01	1.01
I358142		0.05	0.82	23.4	690	11.5	31.9	0.003	2.22	0.26	1.8	3.0	1.0	25.1	0.01	1.18
I358143		<0.01	1.05	11.1	440	1.0	9.4	<0.001	0.35	0.51	1.2	0.7	0.6	2.4	<0.01	0.09
I358144		0.03	1.21	9.1	310	13.2	16.0	0.001	0.97	0.52	1.7	2.1	0.6	14.9	<0.01	0.10
J980845		<0.01	0.14	1.9	190	1.1	1.0	<0.001	0.02	<0.05	0.4	0.2	<0.2	39.5	<0.01	<0.01
I358146		0.04	0.13	6.5	430	13.6	7.0	0.001	0.18	0.16	1.1	0.7	0.4	10.0	<0.01	0.05
I358147		0.05	0.37	7.2	400	4.1	3.1	0.001	0.19	0.20	1.3	0.7	1.1	14.6	0.01	0.04
I358148		0.05	0.28	20.1	380	3.6	24.4	0.001	0.80	0.33	1.3	1.4	1.1	14.2	<0.01	0.10
I358149		0.02	0.55	10.5	250	3.1	1.1	0.019	0.53	0.20	4.4	2.0	5.5	6.3	0.01	0.34
I358150		0.01	0.38	6.5	250	2.5	1.2	0.010	0.16	0.17	4.1	0.7	3.5	5.8	0.01	0.08
L836001		0.09	0.23	39.1	990	73.7	8.4	2.60	5.59	42.7	6.0	17.9	1.0	85.5	<0.01	2.07
L836002		0.05	0.65	9.6	400	4.0	3.2	0.010	0.55	0.30	2.1	1.4	2.6	10.7	0.01	0.11
L836003		0.12	0.31	6.7	660	4.7	9.4	0.003	0.44	0.14	1.3	1.1	0.4	53.5	<0.01	1.34
L836004		0.09	0.24	181.0	560	2.6	70.7	0.002	0.88	0.12	4.3	2.1	0.7	27.4	0.01	0.53
L836005		<0.01	0.08	1700	<10	0.7	0.5	<0.001	0.25	0.09	5.9	0.6	0.2	1.1	<0.01	0.17
L836006		<0.01	0.10	1830	<10	0.9	0.4	<0.001	0.27	0.12	8.8	0.6	0.2	1.2	<0.01	0.08
L836007		0.08	0.08	497	390	2.7	40.5	0.004	1.21	0.09	5.6	2.7	0.4	47.6	<0.01	0.20
L836008		0.02	0.38	6.6	490	4.0	3.9	0.001	0.04	0.27	1.5	0.4	1.3	9.3	0.01	0.16
L836009		0.08	0.56	77.6	430	4.9	5.2	0.001	0.88	0.14	1.2	3.8	0.5	58.4	0.01	0.30
L836010		0.11	1.05	5.5	690	8.2	5.1	<0.001	0.05	0.25	2.2	0.5	2.8	34.3	0.02	0.04
L836011		0.01	0.39	20.4	520	4.4	2.8	0.019	0.46	0.62	3.2	0.9	5.2	55.8	0.01	0.05
L836012		0.17	0.69	19.7	540	3.8	4.3	0.001	0.12	0.48	3.1	1.1	1.6	36.7	0.01	0.04
L836013		0.01	0.31	13.0	130	1.9	0.9	0.001	0.87	1.11	2.5	2.0	10.9	6.4	<0.01	0.15
L836014		0.01	0.51	37.8	470	2.6	2.6	0.001	4.38	0.34	0.6	8.4	1.5	5.2	<0.01	2.13
L836015		0.05	3.26	35.6	330	10.1	10.2	0.008	1.34	0.30	2.6	6.4	2.4	31.2	0.01	1.93
J980846		0.01	0.15	2.5	180	1.2	3.1	<0.001	0.03	<0.05	0.6	0.2	<0.2	45.4	<0.01	0.01
L836017		0.06	0.90	27.1	630	12.1	8.7	0.004	2.06	0.39	2.6	11.5	1.6	14.3	0.01	3.36
L836018		0.15	0.38	36.3	600	2.7	34.4	0.003	0.18	0.13	5.7	1.1	0.6	179.5	0.01	0.07
J980847		0.10	0.20	39.7	1030	79.9	8.4	2.70	6.04	42.3	6.2	18.4	1.0	89.2	<0.01	2.18

***** See Appendix Page for comments regarding this certificate *****

ALS Canada Ltd.

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

To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 20- NOV- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11200394

Sample Description	Method / Analyte / Units / LOR	ME- MS41 Th ppm 0.2	ME- MS41 Ti % 0.005	ME- MS41 Tl ppm 0.02	ME- MS41 U ppm 0.05	ME- MS41 V ppm 1	ME- MS41 W ppm 0.05	ME- MS41 Y ppm 0.05	ME- MS41 Zn ppm 2	ME- MS41 Zr ppm 0.5
I358139		0.5	0.013	0.12	7.45	16	6.75	1.52	92	1.1
I358140		0.4	0.009	0.05	6.48	17	1.08	2.24	65	1.4
I358141		0.3	<0.005	0.09	4.46	10	0.44	4.73	57	2.7
I358142		2.7	0.087	0.18	3.62	38	0.40	7.38	47	1.8
I358143		0.2	0.018	0.04	1.51	20	0.43	0.74	107	0.6
I358144		1.5	0.029	0.06	1.04	27	0.67	1.54	67	<0.5
J980845		<0.2	<0.005	<0.02	0.46	1	<0.05	0.77	12	<0.5
I358146		0.9	0.033	0.03	0.81	11	0.36	4.94	37	2.3
I358147		2.0	0.062	<0.02	0.95	20	1.77	8.60	20	3.5
I358148		1.0	0.067	0.10	1.00	31	0.98	8.41	24	5.0
I358149		0.4	0.035	0.03	4.41	15	119.0	11.10	33	7.6
I358150		0.5	0.031	0.03	6.80	11	178.5	11.55	25	7.0
L836001		0.9	0.044	0.31	0.56	78	4.08	10.35	134	3.4
L836002		0.8	0.055	0.04	1.80	25	63.6	12.00	16	7.0
L836003		1.9	0.071	0.07	1.43	10	1.98	10.80	26	1.5
L836004		9.7	0.152	0.37	1.41	57	0.62	8.73	24	1.2
L836005		<0.2	<0.005	<0.02	<0.05	5	0.90	0.13	28	<0.5
L836006		<0.2	<0.005	<0.02	<0.05	4	1.36	0.09	32	<0.5
L836007		3.4	0.085	0.24	1.07	59	0.20	3.69	12	<0.5
L836008		0.5	0.043	0.03	2.16	5	34.6	8.55	17	3.2
L836009		2.1	0.068	0.03	1.39	10	2.47	8.42	22	1.9
L836010		2.6	0.117	0.02	1.85	22	16.10	15.15	19	11.9
L836011		0.5	0.040	0.04	2.81	28	70.3	16.65	38	5.4
L836012		5.4	0.159	0.02	1.30	17	0.99	16.45	28	3.5
L836013		<0.2	<0.005	0.10	2.21	14	114.5	10.40	68	0.6
L836014		0.7	0.016	0.03	1.02	17	6.14	3.78	122	1.1
L836015		7.9	0.167	0.09	4.65	24	211	11.20	178	4.6
J980846		<0.2	<0.005	0.02	0.42	3	0.34	0.93	12	<0.5
L836017		8.7	0.134	0.11	3.62	22	58.3	11.00	318	3.4
L836018		4.2	0.131	0.17	1.62	65	12.40	11.05	14	3.6
J980847		0.9	0.044	0.32	0.56	79	4.15	10.90	134	3.5

***** See Appendix Page for comments regarding this certificate *****

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

To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 20- NOV- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11200394

Method	CERTIFICATE COMMENTS
ME- MS41	Interference: Ca> 10% on ICP- MS As,ICP- AES results shown.
ME- MS41	Gold determinations by this method are semi- quantitative due to the small sample weight used (0.5g).

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To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 23- NOV- 2011
This copy reported on 11- JAN- 2012
Account: F

CERTIFICATE WH11200395

Project: Hopper
P.O. No.: Batch 8- Hole5,6
This report is for 36 Drill Core samples submitted to our lab in Whitehorse, YT, Canada on 30- SEP- 2011.
The following have access to data associated with this certificate:

JOAN MARIACHER	HEATHER SMITH	

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
CRU- 31	Fine crushing - 70% <2mm
CRU- QC	Crushing QC Test
PUL- QC	Pulverizing QC Test
SPL- 21	Split sample - riffle splitter
PUL- 31	Pulverize split to 85% <75 um
LOG- 24	Pulp Login - Rcd w/o Barcode

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au- AA24	Au 50g FA AA finish	AAS
ME- OG46	Ore Grade Elements - AquaRegia	ICP- AES
Cu- OG46	Ore Grade Cu - Aqua Regia	VARIABLE
ME- MS41	51 anal. aqua regia ICPMS	

To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
ATTN: JOAN MARIACHER
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

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.

***** See Appendix Page for comments regarding this certificate *****

Signature:
Colin Ramshaw, Vancouver Laboratory Manager

ALS Canada Ltd.

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Finalized Date: 23- NOV- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11200395

Sample Description	WEI- 21	Au- AA24	Cu- OG46	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41
Analyte	Recvd Wt.	Au	Cu	Ag	Al	As	Au	B	Ba	Be	Bi	Ca	Cd	Ce	Co
Units	kg	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
LOR	0.02	0.005	0.001	0.01	0.01	0.1	0.2	10	10	0.05	0.01	0.01	0.01	0.02	0.1
I358103	1.65	0.059		0.11	1.39	3.4	<0.2	<10	60	0.48	11.85	2.81	0.15	21.0	7.6
I358104	2.97	0.066		0.75	0.42	6.4	<0.2	30	10	0.08	6.99	1.68	0.04	0.91	57.3
I358105	1.57	0.014		0.14	0.11	7	<0.2	20	10	<0.05	4.76	19.15	0.22	2.07	8.7
I358106	2.09	<0.005		0.01	0.05	8	<0.2	10	10	<0.05	0.08	20.6	0.31	2.10	1.3
I358107	2.30	0.109		0.66	0.39	1.6	<0.2	<10	50	0.09	4.63	2.29	0.16	8.01	56.2
I358108	7.19	0.066		1.01	0.16	8.2	<0.2	<10	10	0.05	1.07	4.85	0.10	1.59	4.8
I358109	3.68	0.040		0.06	0.55	2.9	<0.2	<10	20	0.07	2.18	5.51	0.07	3.29	1.1
I358110	1.52	<0.005		0.23	0.58	8.9	<0.2	<10	120	0.21	0.31	5.74	0.48	9.11	5.1
I358111	1.55	<0.005		<0.01	0.03	2	<0.2	<10	10	<0.05	0.02	19.25	0.06	1.28	1.6
I358112	2.39	<0.005		0.14	0.57	7.4	<0.2	<10	720	0.20	0.13	4.37	0.39	10.80	3.9
I358113	2.34	<0.005		0.15	1.34	<2	<0.2	<10	80	0.12	0.21	10.45	0.63	19.95	12.9
I358114	0.23	0.415		2.25	0.95	108.0	0.4	<10	40	0.39	0.53	0.47	1.27	23.7	17.5
I358115	4.33	<0.005		0.07	2.06	4.1	<0.2	<10	270	0.27	0.11	2.74	0.12	25.1	12.2
I358116	5.18	<0.005		0.08	1.42	3.2	<0.2	<10	120	0.28	0.25	2.67	0.11	25.5	14.3
I358117	6.24	0.034		0.04	0.71	16.6	<0.2	<10	310	0.09	0.54	1.15	0.06	6.38	10.4
I358118	5.83	<0.005		0.06	0.34	2.8	<0.2	<10	40	0.09	0.09	5.35	0.16	4.51	1.6
I358119	4.14	0.009		2.87	0.78	2.9	<0.2	<10	30	0.21	1.39	1.40	0.78	8.89	24.8
I358120	2.17	<0.005		0.07	1.21	2.5	<0.2	<10	90	0.39	0.08	1.10	0.07	24.8	5.4
I358121	5.36	<0.005		0.18	0.55	45.0	<0.2	<10	20	0.18	0.11	8.17	0.09	10.40	3.8
I358122	2.39	<0.005		0.09	0.36	89.1	<0.2	<10	210	0.54	0.08	5.45	0.12	25.7	7.9
I358123	2.86	0.016		0.08	0.91	2.9	<0.2	<10	150	0.36	0.70	1.29	0.07	12.50	5.6
I358124	2.06	0.017		0.05	0.31	4.1	<0.2	<10	210	0.24	0.16	2.55	0.06	3.85	4.3
I358125	4.48	<0.005		0.07	1.31	6.2	<0.2	<10	130	0.10	1.73	5.01	0.07	7.37	7.5
I358126	3.41	0.370		0.10	0.46	3.4	0.2	<10	10	0.05	4.30	5.40	0.10	2.70	1.8
I358127	2.78	1.830		1.74	0.10	82.1	2.0	<10	10	0.25	37.8	3.97	0.25	0.70	236
I358128	1.65	<0.005		0.01	0.02	<2	<0.2	<10	10	<0.05	0.08	20.1	0.05	1.41	1.7
I358129	3.71	0.034		0.11	0.24	14	<0.2	<10	90	0.13	1.67	17.70	0.30	5.01	5.4
I358130	1.84	0.042		1.13	0.98	2.9	<0.2	<10	130	0.23	0.32	0.91	0.32	21.8	14.1
I358131	0.23	8.02	3.38	12.25	1.47	46.7	6.3	<10	20	0.24	1.90	3.22	5.03	13.90	31.0
I358132	5.14	0.006		0.44	0.96	3.9	<0.2	<10	80	0.29	0.40	1.60	0.08	29.2	8.6
I358133	1.90	0.007		0.63	0.85	6.6	<0.2	<10	90	0.28	0.90	1.57	0.18	27.4	7.4
I358134	4.69	0.021		0.59	1.05	2.3	<0.2	<10	150	0.37	0.21	1.47	0.13	30.3	8.8
I358135	1.87	0.015		0.33	2.30	1.3	<0.2	<10	40	0.39	0.21	2.01	0.08	32.0	19.2
I358136	3.97	0.008		2.40	0.65	1.1	<0.2	<10	60	0.18	0.15	0.96	0.12	22.1	4.5
I358137	2.09	0.176		2.10	1.38	2.3	<0.2	<10	60	0.49	0.50	0.67	0.41	19.90	23.0
I358138	4.25	0.491		2.71	0.89	6.1	0.2	20	30	0.48	1.40	0.86	0.40	15.40	104.0

***** See Appendix Page for comments regarding this certificate *****

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ALS Minerals

To: ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 23- NOV- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11200395

Sample Description	Method	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41
	Analyte	Cr	Cs	Cu	Fe	Ga	Ge	Hf	Hg	In	K	La	Li	Mg	Mn	Mo
	Units	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm
	LOR	1	0.05	0.2	0.01	0.05	0.05	0.02	0.01	0.005	0.01	0.2	0.1	0.01	5	0.05
I358103		25	5.40	82.4	2.80	6.05	0.14	0.21	0.02	0.081	0.43	11.9	13.4	2.08	636	11.25
I358104		10	1.26	1820	23.7	5.22	0.78	0.05	0.01	0.468	0.08	0.5	9.2	8.75	828	2.95
I358105		4	0.15	242	2.73	0.65	0.19	0.03	0.02	0.120	0.01	1.7	0.7	10.00	691	0.41
I358106		3	0.22	9.4	0.15	0.25	0.21	<0.02	0.01	0.009	0.02	3.2	1.0	9.92	222	0.31
I358107		5	0.34	1810	10.05	2.17	0.30	0.03	0.03	0.070	0.05	4.7	3.5	1.25	236	0.82
I358108		2	0.17	159.0	1.79	1.45	0.16	0.05	0.03	0.348	0.01	1.2	0.7	0.08	1400	0.66
I358109		2	0.62	12.6	2.39	2.78	0.34	0.20	0.03	0.725	0.02	2.2	1.1	0.06	829	1.34
I358110		9	0.38	15.0	0.82	1.33	0.06	0.06	0.20	0.018	0.03	7.0	39.5	2.06	251	0.88
I358111		1	0.51	1.9	0.44	0.19	0.21	<0.02	0.01	0.006	0.02	0.6	0.8	11.75	204	<0.05
I358112		12	0.94	8.3	0.48	0.73	0.08	0.05	0.16	0.014	0.08	8.7	8.4	1.08	196	1.66
I358113		27	1.93	92.0	1.56	3.68	0.10	0.10	0.01	0.008	0.24	11.8	9.2	0.39	180	3.11
I358114		28	3.76	4500	4.55	3.67	0.17	0.10	0.10	0.056	0.55	11.8	4.1	0.61	507	240
I358115		113	2.53	46.5	2.52	6.21	0.14	0.14	<0.01	0.020	0.66	12.7	21.8	1.28	313	4.31
I358116		93	2.08	65.1	1.97	4.87	0.12	0.10	<0.01	0.013	0.38	12.8	13.6	0.92	239	3.51
I358117		103	2.21	22.2	1.40	2.56	0.12	0.05	0.01	0.236	0.29	3.9	7.4	0.88	255	0.85
I358118		9	1.66	17.1	1.28	1.27	0.08	0.06	0.01	0.103	0.03	3.5	2.1	0.16	456	0.57
I358119		22	0.47	2720	7.27	3.64	0.24	0.07	0.01	0.330	0.05	6.2	7.0	0.56	655	1.10
I358120		22	2.51	32.1	1.70	4.22	0.09	0.05	0.01	0.049	0.42	12.3	11.7	0.67	223	3.44
I358121		9	0.63	119.5	8.02	5.05	0.61	0.13	0.08	1.275	0.01	5.3	3.7	0.67	1540	0.43
I358122		12	2.87	30.0	2.59	1.54	0.09	0.04	0.11	0.386	0.12	12.2	1.7	0.58	997	4.43
I358123		15	1.76	46.1	1.07	3.34	0.09	0.09	<0.01	0.019	0.12	6.2	5.7	0.44	404	1.62
I358124		8	1.89	2.6	3.06	1.36	0.11	0.04	<0.01	0.187	0.05	2.6	3.9	1.00	1260	1.46
I358125		41	1.18	29.7	3.04	5.09	0.19	0.23	0.03	0.574	0.09	4.0	7.9	0.90	1100	0.47
I358126		5	0.25	25.2	3.27	2.79	0.38	0.13	0.02	0.545	0.01	2.1	8.7	1.13	1030	0.82
I358127		<1	0.15	4570	23.8	0.80	0.72	0.02	0.35	0.295	0.01	1.0	1.0	0.73	458	7.69
I358128		<1	0.28	7.8	0.51	0.15	0.15	<0.02	0.01	0.006	0.01	0.7	0.6	12.05	219	0.05
I358129		3	0.13	126.5	2.98	1.59	0.22	0.09	0.03	0.373	<0.01	6.2	2.9	3.42	880	2.90
I358130		12	1.06	1390	2.34	5.42	0.13	0.74	0.01	0.040	0.17	11.0	13.2	0.71	148	9.94
I358131		26	1.17	>10000	7.32	4.39	0.24	0.15	0.58	0.444	0.21	6.9	8.1	1.07	600	384
I358132		15	0.84	440	1.99	4.63	0.10	0.62	<0.01	0.018	0.14	15.0	10.9	0.60	195	5.44
I358133		11	0.80	364	1.77	4.03	0.08	0.58	0.01	0.022	0.15	14.5	9.7	0.47	214	3.45
I358134		13	1.10	598	2.11	5.24	0.10	0.71	<0.01	0.025	0.17	15.6	12.7	0.60	188	3.55
I358135		37	0.20	330	3.07	8.34	0.29	0.71	<0.01	0.021	0.06	16.1	15.3	2.10	459	2.55
I358136		18	0.32	133.5	0.93	2.87	0.12	0.48	<0.01	0.015	0.09	11.9	5.9	0.36	155	3.18
I358137		46	1.30	4020	2.17	6.20	0.13	0.05	0.06	0.178	0.27	9.6	14.7	0.91	115	4.96
I358138		12	2.33	7440	18.65	9.69	1.47	0.30	0.01	0.808	0.22	8.7	17.4	5.66	446	5.98

***** See Appendix Page for comments regarding this certificate *****

ALS Minerals

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

To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016-510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 23-NOV-2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11200395

Sample Description	Method / Analyte / Units / LOR	ME-MS41 Na % 0.01	ME-MS41 Nb ppm 0.05	ME-MS41 Ni ppm 0.2	ME-MS41 P ppm 10	ME-MS41 Pb ppm 0.2	ME-MS41 Rb ppm 0.1	ME-MS41 Re ppm 0.001	ME-MS41 S % 0.01	ME-MS41 Sb ppm 0.05	ME-MS41 Sc ppm 0.1	ME-MS41 Se ppm 0.2	ME-MS41 Sn ppm 0.2	ME-MS41 Sr ppm 0.2	ME-MS41 Ta ppm 0.01	ME-MS41 Te ppm 0.01
I358103		0.03	0.11	18.9	380	5.9	62.7	0.003	0.05	0.26	3.2	0.8	0.6	37.7	<0.01	6.63
I358104		0.02	0.16	10.1	220	1.5	11.1	0.003	>10.0	1.25	0.8	8.3	1.0	41.2	<0.01	2.79
I358105		0.02	0.21	4.9	100	0.9	1.2	0.001	1.50	0.08	0.7	0.6	<0.2	115.5	<0.01	2.51
I358106		0.02	0.19	5.6	230	0.7	1.9	0.001	0.04	0.07	0.7	0.2	<0.2	167.5	<0.01	0.02
I358107		0.04	0.35	24.9	480	4.2	3.8	0.004	5.67	0.26	1.9	10.4	0.3	16.5	<0.01	2.96
I358108		0.02	0.13	2.1	210	2.7	0.8	0.001	0.23	0.21	0.5	0.6	1.6	12.5	<0.01	0.30
I358109		0.03	0.28	1.3	370	2.1	1.7	0.002	0.04	0.27	1.3	0.4	2.8	37.6	0.01	0.66
I358110		0.02	<0.05	21.9	320	10.8	0.9	0.001	0.02	7.72	2.0	0.5	0.7	117.0	<0.01	0.04
I358111		0.02	0.19	3.0	160	1.2	2.1	<0.001	0.03	<0.05	0.5	0.2	<0.2	47.3	<0.01	0.01
I358112		0.03	<0.05	16.5	340	6.2	3.7	0.002	0.02	2.89	1.6	0.3	0.4	193.0	<0.01	0.01
I358113		0.16	0.37	13.7	1560	7.1	13.4	0.003	0.81	0.23	1.7	1.9	0.3	288	0.01	0.06
I358114		0.03	0.24	21.8	1020	35.1	32.6	0.604	2.46	6.66	6.8	7.7	2.2	31.4	<0.01	1.03
I358115		0.15	0.20	20.7	2090	4.3	38.5	0.004	0.37	0.22	7.1	1.1	0.4	154.0	0.01	0.03
I358116		0.13	0.19	25.0	2560	4.7	27.3	0.004	0.44	0.14	3.8	1.6	0.4	90.7	0.01	0.07
I358117		0.05	0.06	105.5	430	3.0	22.4	0.002	0.08	0.29	2.6	0.4	0.6	28.7	<0.01	0.09
I358118		0.05	0.20	3.7	490	5.0	2.6	0.001	0.04	0.18	0.7	0.3	0.7	20.5	<0.01	0.03
I358119		0.06	0.54	36.6	970	6.7	3.5	0.001	1.62	0.44	1.2	3.3	1.3	24.8	0.01	0.56
I358120		0.07	0.25	13.8	430	5.5	28.5	0.004	0.24	0.06	3.5	0.4	0.6	20.6	<0.01	0.02
I358121		0.02	0.44	4.2	470	2.2	1.0	0.001	0.21	0.43	1.8	0.6	4.7	25.5	0.01	0.04
I358122		0.01	0.11	33.8	500	4.8	9.0	<0.001	0.23	5.69	6.2	0.5	0.7	83.7	0.01	0.03
I358123		0.07	0.19	16.2	450	5.6	11.4	0.001	0.01	0.28	2.8	0.3	0.5	36.4	<0.01	0.17
I358124		0.03	0.05	11.9	320	3.2	6.9	<0.001	0.01	0.39	1.0	<0.2	0.3	31.7	<0.01	0.02
I358125		0.03	0.27	57.9	620	5.7	10.1	<0.001	0.01	0.44	3.8	0.3	3.0	35.1	0.01	0.57
I358126		0.02	0.18	3.2	260	4.4	1.4	0.001	0.03	0.22	1.1	0.4	3.4	21.4	<0.01	0.66
I358127		0.01	0.70	28.7	460	5.1	0.4	0.008	>10.0	32.0	0.3	30.4	0.7	56.4	<0.01	14.35
I358128		0.02	0.17	2.8	160	1.3	0.8	<0.001	0.05	0.07	0.3	0.2	<0.2	44.6	<0.01	0.02
I358129		0.02	0.28	2.3	590	1.9	0.3	0.001	0.30	0.94	1.4	0.6	2.0	106.5	<0.01	0.15
I358130		0.08	0.16	6.5	620	11.8	12.3	0.007	0.42	0.25	4.6	3.6	0.4	51.8	0.01	0.36
I358131		0.10	0.24	39.3	1030	75.0	9.1	2.56	5.93	43.3	6.2	17.2	1.1	87.6	0.01	1.97
I358132		0.07	0.12	4.9	590	5.8	9.6	0.003	0.36	0.41	5.2	1.4	0.4	82.7	0.01	0.26
I358133		0.06	0.07	4.3	520	11.3	9.3	0.001	0.27	0.29	4.0	1.2	0.4	85.2	<0.01	0.49
I358134		0.07	0.08	6.2	630	4.5	10.2	0.001	0.28	0.37	5.3	1.0	0.4	95.0	<0.01	0.17
I358135		0.09	0.24	71.2	1170	3.3	2.7	0.001	0.11	0.10	5.2	0.8	0.5	76.7	0.01	0.04
I358136		0.10	0.44	8.4	590	4.6	4.7	<0.001	0.08	0.12	3.0	0.4	0.7	41.2	0.01	0.05
I358137		0.08	0.28	48.1	290	3.9	28.3	0.001	1.00	0.14	7.1	3.5	0.4	38.0	0.01	1.03
I358138		0.03	0.60	20.4	540	3.7	23.3	0.004	7.51	0.63	1.9	10.6	1.2	17.7	<0.01	2.65

***** See Appendix Page for comments regarding this certificate *****

ALS Canada Ltd.

2103 Dollarton Hwy
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Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 23- NOV- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11200395

Sample Description	Method / Analyte / Units / LOR	ME- MS41 Th ppm 0.2	ME- MS41 Ti % 0.005	ME- MS41 Tl ppm 0.02	ME- MS41 U ppm 0.05	ME- MS41 V ppm 1	ME- MS41 W ppm 0.05	ME- MS41 Y ppm 0.05	ME- MS41 Zn ppm 2	ME- MS41 Zr ppm 0.5
I358103		7.4	0.075	0.27	2.90	44	39.8	7.07	34	7.0
I358104		0.6	0.013	0.18	4.37	15	19.90	3.75	40	1.7
I358105		0.3	0.005	0.03	3.46	5	12.30	5.65	26	0.8
I358106		0.2	<0.005	0.02	3.79	3	1.36	5.73	24	<0.5
I358107		1.0	0.051	0.03	4.93	20	24.0	5.29	32	0.6
I358108		0.3	0.016	<0.02	1.37	2	20.2	5.33	20	1.9
I358109		0.7	0.037	<0.02	1.55	7	21.4	9.13	14	6.9
I358110		0.9	0.005	0.11	0.76	10	0.75	6.94	82	1.2
I358111		<0.2	<0.005	<0.02	0.50	1	0.08	0.87	12	<0.5
I358112		0.9	0.008	0.46	1.05	6	0.65	6.39	69	0.9
I358113		3.0	0.109	0.09	1.06	18	0.32	9.71	85	1.6
I358114		1.7	0.056	0.46	0.58	82	1.44	10.15	141	2.5
I358115		3.4	0.229	0.25	0.83	77	0.30	9.68	41	1.9
I358116		3.3	0.184	0.17	1.12	50	0.35	9.86	31	1.4
I358117		1.3	0.093	0.21	0.99	28	9.45	5.58	15	1.2
I358118		0.6	0.032	0.02	1.34	6	6.09	9.33	20	1.5
I358119		0.4	0.084	0.17	0.59	19	6.22	3.97	87	1.6
I358120		7.8	0.084	0.21	1.83	21	3.40	6.88	21	1.1
I358121		0.3	0.028	0.05	5.26	11	75.2	18.60	20	4.4
I358122		2.1	<0.005	0.19	1.34	17	1.10	14.40	43	<0.5
I358123		4.0	0.075	0.06	1.22	21	0.76	6.70	20	2.0
I358124		1.0	0.018	0.03	1.18	7	0.44	3.74	36	1.3
I358125		1.1	0.091	0.06	2.47	27	32.8	8.21	17	8.1
I358126		1.1	0.019	0.02	4.42	9	18.65	9.18	16	5.2
I358127		<0.2	<0.005	3.97	0.44	6	4.81	2.38	47	0.6
I358128		<0.2	<0.005	<0.02	0.50	<1	0.10	0.92	13	<0.5
I358129		0.5	0.009	0.04	2.09	6	20.0	11.25	15	3.4
I358130		6.7	0.048	0.08	3.53	45	8.01	6.29	30	26.6
I358131		0.9	0.041	0.34	0.61	84	4.20	9.82	138	3.6
I358132		6.3	0.021	0.06	4.06	41	0.88	7.43	16	22.7
I358133		5.4	0.025	0.06	2.47	32	1.54	6.43	24	20.9
I358134		6.3	0.033	0.07	2.56	44	0.99	7.99	17	26.8
I358135		3.7	0.245	<0.02	1.49	74	0.76	7.82	47	29.8
I358136		7.1	0.092	0.02	2.36	26	2.03	5.42	15	12.5
I358137		8.6	0.073	0.13	1.79	58	57.5	7.27	62	1.0
I358138		2.5	0.044	0.71	5.77	22	4.25	5.69	67	9.3

***** See Appendix Page for comments regarding this certificate *****

ALS Canada Ltd.

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

To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 23- NOV- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11200395

Method	CERTIFICATE COMMENTS
ME- MS41	Interference: Ca> 10% on ICP- MS As,ICP- AES results shown.
ME- MS41	Gold determinations by this method are semi- quantitative due to the small sample weight used (0.5g).

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To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 7- NOV- 2011
This copy reported on 9- NOV- 2011
Account: F

CERTIFICATE WH11209388

Project: Hopper
P.O. No.: Batch 1
This report is for 36 Drill Core samples submitted to our lab in Whitehorse, YT, Canada on 14- OCT- 2011.

The following have access to data associated with this certificate:

JOAN MARIACHER	HEATHER SMITH	

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
FND- 02	Find Sample for Addn Analysis

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
ME- OG46	Ore Grade Elements - AquaRegia	ICP- AES
Cu- OG46	Ore Grade Cu - Aqua Regia	VARIABLE
ME- MS41	51 anal. aqua regia ICPMS	

To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
ATTN: JOAN MARIACHER
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

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

ALS Canada Ltd.

2103 Dollarton Hwy
North Vancouver BC V7H 0A7
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ALS Minerals

To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 7- NOV- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11209388

Sample Description	Method / Analyte / Units / LOR	Cu- OG46	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41
	Analyte	Cu	Ag	Al	As	Au	B	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs
	Units	%	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
	LOR	0.001	0.01	0.01	0.1	0.2	10	10	0.05	0.01	0.01	0.01	0.02	0.1	1	0.05
K975001			0.14	0.97	2.0	<0.2	<10	90	0.35	0.55	0.68	0.34	30.6	5.4	35	1.93
K975002			0.54	0.47	2.3	<0.2	<10	80	0.37	1.83	0.93	0.21	29.1	3.9	14	0.29
K975003			3.98	1.11	2.3	<0.2	<10	90	0.42	6.33	0.72	0.42	26.4	10.9	36	1.11
K975004			1.14	1.58	2.5	<0.2	<10	130	0.40	10.15	0.47	0.14	33.2	23.9	41	3.48
K975005			2.38	0.85	1.7	<0.2	<10	70	0.42	6.48	0.96	0.39	45.7	13.5	25	1.05
K975006		1.240	12.95	1.29	1.8	0.7	<10	30	0.32	11.45	3.15	1.79	70.6	29.6	25	0.59
K975007			0.03	0.04	<2	<0.2	<10	10	<0.05	0.05	20.1	0.06	1.16	1.1	<1	0.15
K975008			0.58	0.17	1.5	<0.2	<10	180	0.26	3.19	1.57	0.17	1.72	16.9	4	0.18
K975009			0.04	1.95	8.0	<0.2	<10	60	0.50	0.16	1.95	0.03	15.45	6.0	106	0.40
K975010			3.55	0.34	3.6	0.2	20	30	0.11	3.32	0.98	0.56	0.41	30.7	4	3.12
K975011			0.46	0.08	3.0	<0.2	<10	20	0.44	2.25	5.31	0.14	0.68	4.4	3	0.34
K975012			2.10	1.19	124.5	0.4	<10	40	0.38	0.70	0.55	0.86	22.4	19.4	33	3.18
K975013			1.86	0.08	37	<0.2	<10	20	0.61	5.08	11.45	0.42	4.93	7.3	10	0.17
K975014			0.78	0.32	10.5	<0.2	<10	20	0.33	11.75	5.04	0.08	3.20	25.6	5	2.24
K975015			3.13	0.23	5.5	<0.2	<10	70	0.14	37.5	1.16	0.35	2.88	61.0	6	0.62
K975016			0.53	0.52	18.9	<0.2	<10	110	0.44	9.62	2.04	0.27	21.8	25.1	8	2.22
K975017			0.07	0.40	17.1	<0.2	<10	170	0.29	0.38	1.63	0.07	13.25	5.7	15	2.31
K975018			0.13	0.56	3.0	<0.2	<10	130	0.24	0.22	1.16	0.10	20.3	5.6	16	0.93
K975019			0.11	0.44	1.1	<0.2	<10	70	0.15	0.98	0.55	0.08	18.00	4.6	10	0.22
K975020			0.04	1.03	1.0	<0.2	<10	70	0.27	0.08	0.95	0.05	23.7	3.4	28	0.63
K975021			0.06	0.89	3.1	<0.2	<10	40	0.32	0.11	0.57	0.04	23.1	7.2	28	0.49
K975022			0.08	0.64	1.2	<0.2	<10	70	0.20	0.46	0.89	0.08	19.20	4.1	15	0.34
K975023			0.07	0.71	1.2	<0.2	<10	80	0.26	1.02	0.97	0.08	20.7	2.5	17	0.32
K975024			0.20	4.47	4.3	<0.2	10	30	0.70	1.27	4.69	0.14	22.1	14.0	6	1.03
K975025			0.09	5.95	2.0	<0.2	<10	30	0.58	0.63	5.03	0.10	19.25	4.6	3	0.58
K975026			1.95	1.07	110.5	0.3	<10	40	0.34	0.60	0.49	0.71	21.5	17.2	29	3.26
K975027			0.06	3.40	1.7	<0.2	<10	30	0.64	0.97	3.50	0.08	24.6	2.4	5	0.32
K975028			0.05	0.34	4	<0.2	<10	30	0.05	1.63	14.65	0.19	3.61	2.4	5	0.40
K975029			0.15	1.50	1.3	<0.2	10	280	0.07	0.15	1.43	0.06	10.65	8.8	4	11.50
K975030			0.14	0.38	1.3	<0.2	<10	20	0.07	0.44	1.60	0.11	13.30	5.7	4	0.86
K975031			0.05	0.32	<2	<0.2	<10	40	0.10	0.42	12.85	0.14	4.79	1.2	6	0.87
K975032			0.55	0.77	2.8	<0.2	<10	40	0.06	3.36	3.54	0.17	2.77	37.1	4	0.34
K975033			0.17	0.48	10.5	<0.2	<10	60	0.14	3.73	1.93	0.11	3.58	15.5	5	0.23
K975034			<0.01	0.06	3	<0.2	<10	20	<0.05	0.04	21.0	0.06	1.18	1.4	1	0.62
K975035			0.04	0.34	0.8	<0.2	<10	30	0.11	2.05	2.11	0.06	3.01	2.7	5	0.14
K975036			0.05	0.36	2.8	<0.2	<10	30	0.07	1.21	2.96	0.04	1.46	4.7	4	0.23

***** See Appendix Page for comments regarding this certificate *****

ALS Canada Ltd.

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

To: ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 7- NOV- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11209388

Sample Description	Method / Analyte / Units / LOR	ME- MS41 Cu ppm 0.2	ME- MS41 Fe % 0.01	ME- MS41 Ga ppm 0.05	ME- MS41 Ge ppm 0.05	ME- MS41 Hf ppm 0.02	ME- MS41 Hg ppm 0.01	ME- MS41 In ppm 0.005	ME- MS41 K % 0.01	ME- MS41 La ppm 0.2	ME- MS41 Li ppm 0.1	ME- MS41 Mg % 0.01	ME- MS41 Mn ppm 5	ME- MS41 Mo ppm 0.05	ME- MS41 Na % 0.01	ME- MS41 Nb ppm 0.05
K975001		58.7	1.65	5.06	0.13	0.06	0.01	0.011	0.47	14.3	10.7	0.59	174	2.67	0.04	0.51
K975002		399	1.02	2.42	0.07	0.51	0.02	0.030	0.19	16.1	3.2	0.34	171	3.52	0.05	0.42
K975003		4470	2.21	5.12	0.15	0.14	0.02	0.305	0.38	13.6	9.2	0.51	172	23.1	0.03	1.22
K975004		1520	4.05	6.11	0.17	0.13	0.10	0.168	0.71	18.0	12.1	0.76	171	9.66	0.03	0.78
K975005		2930	2.14	2.72	0.14	0.32	0.01	0.252	0.18	29.7	4.3	0.25	134	20.4	0.07	1.11
K975006		>10000	5.82	5.55	0.57	0.57	0.01	1.125	0.08	52.8	7.5	0.63	726	2.18	0.03	1.37
K975007		19.0	0.47	0.11	<0.05	<0.02	0.02	0.007	0.02	0.6	0.9	12.50	210	0.10	0.01	0.12
K975008		688	2.24	0.70	0.32	0.04	0.01	0.062	0.01	1.1	6.9	1.24	225	2.56	<0.01	0.05
K975009		24.5	1.60	7.43	0.32	0.64	0.01	0.034	0.09	7.6	25.4	1.46	318	0.19	0.08	0.27
K975010		4660	13.65	4.95	1.07	0.06	0.02	0.639	0.22	0.2	17.1	5.76	464	0.33	0.01	0.12
K975011		500	1.02	0.47	0.17	0.03	0.03	0.101	0.01	0.4	8.5	1.95	345	0.36	0.01	<0.05
K975012		5000	5.03	4.22	0.15	0.09	0.12	0.055	0.62	11.6	4.6	0.70	554	285	0.01	0.16
K975013		2460	3.26	0.50	0.06	0.04	0.02	0.444	0.02	3.0	0.8	4.13	1390	3.51	0.01	0.13
K975014		1615	28.2	7.69	0.62	0.08	0.04	0.206	0.11	1.9	13.1	5.60	756	2.62	0.01	0.22
K975015		5840	14.60	2.19	0.56	0.06	0.11	0.392	0.07	1.5	11.1	1.38	239	5.33	0.01	0.15
K975016		1220	4.32	1.60	0.10	0.04	0.01	0.074	0.16	13.5	2.2	0.57	369	3.80	0.01	0.07
K975017		76.4	1.08	1.14	0.06	0.03	0.01	0.012	0.16	7.4	1.9	0.42	167	5.51	<0.01	0.12
K975018		111.5	1.07	2.24	0.11	0.36	<0.01	0.015	0.13	11.2	5.0	0.42	160	2.50	0.06	0.41
K975019		88.3	0.69	2.02	0.17	0.39	<0.01	0.010	0.11	10.0	2.1	0.17	90	1.41	0.08	0.65
K975020		10.4	0.96	3.62	0.09	0.28	<0.01	0.006	0.16	12.6	9.7	0.42	132	1.25	0.10	0.50
K975021		76.0	1.43	3.36	0.06	0.05	<0.01	0.009	0.16	12.1	12.7	0.45	128	3.32	0.04	0.26
K975022		57.9	0.85	2.58	0.11	0.48	<0.01	0.011	0.11	10.5	4.5	0.31	131	2.45	0.09	0.45
K975023		16.2	0.69	3.10	0.10	0.47	0.01	0.010	0.15	11.0	5.1	0.47	150	0.98	0.07	0.40
K975024		195.5	1.43	11.30	0.16	0.31	0.01	0.022	0.12	12.3	10.4	0.61	219	0.73	0.17	0.22
K975025		63.0	0.57	12.25	0.09	0.23	0.01	0.008	0.07	10.0	5.3	0.19	103	3.69	0.39	0.23
K975026		4420	4.49	3.84	0.17	0.09	0.09	0.051	0.56	11.3	4.3	0.62	494	252	0.02	0.23
K975027		20.5	0.58	9.25	0.10	0.23	<0.01	0.008	0.04	12.9	11.8	0.43	150	6.25	0.34	0.25
K975028		36.3	0.41	1.11	0.06	0.05	0.01	0.008	0.07	2.9	4.2	5.91	421	0.91	0.02	0.23
K975029		216	1.69	4.62	0.15	0.17	<0.01	0.079	1.45	9.3	11.7	5.80	442	0.62	0.02	0.11
K975030		151.5	1.37	1.42	0.07	0.12	<0.01	0.060	0.10	12.3	10.8	1.11	442	1.50	0.01	0.16
K975031		15.1	0.80	1.08	0.07	0.10	0.01	0.090	0.05	3.4	0.9	0.06	1040	1.27	0.05	0.26
K975032		671	5.73	3.42	0.40	0.32	0.01	0.185	0.06	1.8	2.0	0.08	968	0.52	0.01	0.40
K975033		141.0	2.15	2.50	0.14	0.10	0.01	0.074	0.07	2.3	3.5	0.16	598	1.10	0.01	0.18
K975034		4.1	0.50	0.18	<0.05	<0.02	0.01	<0.005	0.04	0.6	1.9	13.15	211	0.06	<0.01	0.14
K975035		10.3	1.48	1.77	0.12	0.07	<0.01	0.068	0.04	2.1	2.3	0.21	633	1.96	0.01	0.12
K975036		21.3	1.91	1.49	0.08	0.05	0.01	0.079	0.03	1.0	1.5	0.22	730	1.60	0.01	0.11

***** See Appendix Page for comments regarding this certificate *****

ALS Minerals

ALS Canada Ltd.

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

To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 7- NOV- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11209388

Sample Description	Method / Analyte / Units / LOR	ME- MS41 Ni ppm 0.2	ME- MS41 P ppm 10	ME- MS41 Pb ppm 0.2	ME- MS41 Rb ppm 0.1	ME- MS41 Re ppm 0.001	ME- MS41 S % 0.01	ME- MS41 Sb ppm 0.05	ME- MS41 Sc ppm 0.1	ME- MS41 Se ppm 0.2	ME- MS41 Sn ppm 0.2	ME- MS41 Sr ppm 0.2	ME- MS41 Ta ppm 0.01	ME- MS41 Te ppm 0.01	ME- MS41 Th ppm 0.2	ME- MS41 Ti % 0.005
K975001		17.4	240	13.2	38.5	<0.001	0.07	0.23	4.0	0.7	1.0	15.1	<0.01	0.40	13.3	0.139
K975002		6.9	530	7.4	7.5	0.002	0.16	0.17	2.3	0.7	1.2	18.4	<0.01	1.76	6.9	0.105
K975003		25.9	270	6.1	26.9	0.002	0.70	0.36	5.5	3.4	2.2	12.6	0.03	3.83	19.2	0.190
K975004		34.9	320	6.7	55.6	0.002	1.56	0.23	6.2	6.4	1.5	10.8	0.02	6.37	15.2	0.190
K975005		22.9	300	5.3	9.1	0.010	1.20	0.29	2.9	3.8	2.2	20.5	0.01	3.17	8.8	0.181
K975006		22.9	590	3.6	5.0	0.001	3.17	0.37	3.9	11.3	5.2	31.9	0.02	6.91	3.4	0.136
K975007		<0.2	180	1.3	0.9	0.001	0.02	<0.05	0.4	0.3	<0.2	43.0	<0.01	0.02	<0.2	<0.005
K975008		19.6	190	3.6	0.7	0.001	1.08	0.38	0.8	4.1	0.3	21.2	<0.01	1.50	0.4	0.011
K975009		41.2	930	3.4	7.5	<0.001	0.02	0.25	7.9	0.5	1.1	34.9	0.01	0.05	2.3	0.183
K975010		33.7	140	2.4	32.9	<0.001	2.80	1.23	1.7	4.8	0.7	7.6	<0.01	1.51	0.3	0.008
K975011		4.3	190	2.6	0.6	<0.001	0.15	0.34	0.7	0.8	0.2	138.0	<0.01	0.88	0.2	<0.005
K975012		25.0	1140	46.1	34.1	0.759	2.77	5.97	7.7	9.5	2.1	33.2	<0.01	0.99	1.9	0.061
K975013		6.9	160	2.0	1.2	0.001	0.24	2.97	0.7	1.4	0.6	483	<0.01	2.02	0.3	<0.005
K975014		11.9	280	1.7	10.0	0.001	3.61	2.87	1.6	2.8	1.3	186.5	<0.01	4.04	0.5	<0.005
K975015		29.0	470	3.2	4.3	0.003	8.53	1.03	4.0	16.7	0.5	21.2	<0.01	19.25	1.1	0.022
K975016		18.6	440	7.1	8.8	0.002	2.17	1.84	8.4	4.5	0.4	90.6	0.01	4.64	2.4	<0.005
K975017		44.4	410	4.8	9.4	0.004	0.11	4.17	5.2	1.2	0.3	83.9	0.01	0.17	2.1	<0.005
K975018		12.0	640	6.9	7.1	0.001	0.15	0.61	3.9	0.9	0.6	49.6	0.01	0.07	7.7	0.077
K975019		8.4	580	6.4	6.5	<0.001	0.15	0.21	3.2	0.8	0.4	28.7	0.02	0.42	7.2	0.091
K975020		14.2	480	6.1	9.3	<0.001	0.03	0.17	3.2	0.4	0.5	36.4	0.01	0.01	8.5	0.127
K975021		17.8	160	4.8	10.0	0.001	0.33	0.14	2.4	0.7	0.4	12.6	<0.01	0.03	8.4	0.070
K975022		8.4	630	7.2	4.4	<0.001	0.09	0.19	2.4	0.6	0.6	32.9	0.01	0.19	7.4	0.111
K975023		9.7	730	9.4	5.8	<0.001	0.04	0.27	2.3	0.4	0.6	25.7	<0.01	0.44	7.2	0.132
K975024		8.1	1860	7.3	14.1	<0.001	0.52	0.29	4.8	1.8	1.0	175.5	0.01	0.46	2.4	0.158
K975025		4.0	1960	7.4	7.4	0.002	0.20	0.14	2.3	0.9	0.8	322	0.01	0.19	2.0	0.175
K975026		22.3	1020	42.3	32.3	0.700	2.47	5.94	7.4	8.2	1.9	30.8	0.01	0.91	1.8	0.057
K975027		2.7	2040	9.0	5.1	0.004	0.08	0.18	3.8	0.7	0.6	192.5	0.01	0.33	2.7	0.161
K975028		1.1	360	3.8	5.7	0.002	0.14	0.17	1.0	0.5	0.2	95.7	<0.01	0.47	0.5	0.026
K975029		2.7	350	2.6	166.0	0.001	0.38	0.26	1.2	1.3	0.5	9.4	<0.01	0.04	1.1	0.041
K975030		2.8	410	5.5	10.9	0.002	0.19	0.28	0.6	1.1	0.6	11.5	<0.01	0.13	0.5	0.023
K975031		1.6	360	4.2	2.8	0.004	0.01	0.14	1.1	0.3	0.9	33.9	<0.01	0.04	0.6	0.039
K975032		9.8	410	2.1	2.7	0.001	2.22	0.53	2.3	6.1	2.5	15.1	0.01	1.35	0.8	0.055
K975033		6.8	310	3.5	3.7	0.002	0.44	0.63	0.9	1.6	0.7	17.8	<0.01	1.53	0.6	0.044
K975034		<0.2	260	1.5	2.6	<0.001	<0.01	<0.05	0.5	0.2	<0.2	48.9	<0.01	0.02	<0.2	<0.005
K975035		1.5	230	2.7	1.8	0.003	0.01	0.32	0.8	0.3	0.5	16.9	<0.01	0.75	0.6	0.030
K975036		1.4	260	1.5	1.4	0.002	0.13	0.47	0.5	0.4	0.5	19.0	<0.01	0.43	0.3	0.023

***** See Appendix Page for comments regarding this certificate *****

ALS Canada Ltd.

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

To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 7- NOV- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11209388

Sample Description	Method / Analyte / Units / LOR	ME- MS41 Tl ppm 0.02	ME- MS41 U ppm 0.05	ME- MS41 V ppm 1	ME- MS41 W ppm 0.05	ME- MS41 Y ppm 0.05	ME- MS41 Zn ppm 2	ME- MS41 Zr ppm 0.5
K975001		0.20	2.63	29	1.10	7.16	39	1.7
K975002		0.05	1.87	27	1.98	5.96	28	12.2
K975003		0.17	3.58	32	14.95	10.15	85	3.6
K975004		0.51	4.26	41	111.0	8.03	39	3.3
K975005		0.06	2.89	16	9.97	10.10	58	6.8
K975006		0.10	2.70	45	7.89	21.9	262	14.6
K975007		<0.02	0.49	2	0.10	0.84	13	<0.5
K975008		0.03	1.37	4	7.42	1.38	23	1.2
K975009		0.03	1.19	56	6.70	8.50	15	21.2
K975010		0.41	8.74	7	8.66	1.32	99	2.3
K975011		<0.02	3.15	6	20.9	2.09	21	0.9
K975012		0.51	0.65	93	1.47	10.60	168	2.5
K975013		0.02	2.27	19	0.90	9.73	59	1.1
K975014		0.40	5.08	12	10.40	2.69	41	2.7
K975015		0.22	4.85	16	91.4	6.80	60	1.4
K975016		0.23	1.38	29	2.20	13.40	49	0.6
K975017		0.06	0.85	13	1.25	7.21	27	0.7
K975018		0.04	2.56	23	0.60	5.97	18	11.3
K975019		0.03	2.73	15	0.59	4.58	14	12.0
K975020		0.06	1.55	25	1.02	5.09	13	8.7
K975021		0.05	1.47	16	1.42	5.71	12	1.6
K975022		0.02	2.61	23	0.66	5.58	15	15.3
K975023		0.02	2.03	25	2.21	6.11	18	13.6
K975024		0.04	0.95	40	0.93	9.31	20	8.4
K975025		0.03	1.06	27	0.81	9.26	14	6.1
K975026		0.47	0.60	83	1.45	9.75	144	2.7
K975027		0.02	0.83	37	0.49	9.48	14	6.1
K975028		0.03	2.95	9	2.43	7.03	17	1.2
K975029		0.63	2.84	14	1.01	5.82	31	4.7
K975030		0.06	1.10	3	2.67	11.15	26	3.6
K975031		0.02	1.14	5	2.31	11.35	12	2.8
K975032		0.04	1.23	9	4.75	15.15	26	9.8
K975033		0.05	0.93	5	1.22	6.56	21	3.0
K975034		0.02	0.67	3	0.06	0.95	14	<0.5
K975035		<0.02	1.16	3	0.77	6.54	17	2.1
K975036		<0.02	0.90	3	2.01	6.79	16	1.7

***** See Appendix Page for comments regarding this certificate *****

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

To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 7- NOV- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11209388

Method	CERTIFICATE COMMENTS
ME- MS41	Interference: Ca> 10% on ICP- MS As,ICP- AES results shown.
ME- MS41	Gold determinations by this method are semi- quantitative due to the small sample weight used (0.5g).

ALS Minerals

ALS Canada Ltd.

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

To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 21- NOV- 2011
This copy reported on 11- JAN- 2012
Account: F

CERTIFICATE WH11220472

Project: Hopper
P.O. No.:
This report is for 8 Drill Core samples submitted to our lab in Whitehorse, YT, Canada on 17- SEP- 2011.

The following have access to data associated with this certificate:

JOAN MARIACHER	HEATHER SMITH	

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
FND- 02	Find Sample for Addn Analysis

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au- AA24	Au 50g FA AA finish	AAS
ME- ICP41	35 Element Aqua Regia ICP- AES	ICP- AES
ME- OG46	Ore Grade Elements - AquaRegia	ICP- AES
Cu- OG46	Ore Grade Cu - Aqua Regia	VARIABLE

To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
ATTN: JOAN MARIACHER
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

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

ALS Canada Ltd.

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

To: ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 21- NOV- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11220472

Sample Description	Au- AA24	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41
Analyte	Au	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga
Units	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm
LOR	0.005	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01	10
K975151	<0.005	<0.2	1.57	25	<10	50	0.5	<2	1.58	<0.5	15	104	24	2.72	<10
K975152	0.008	<0.2	1.29	262	<10	30	<0.5	<2	0.57	<0.5	40	232	10	3.17	<10
K975153	0.028	0.6	0.99	131	<10	190	1.4	<2	4.84	<0.5	32	89	123	5.71	<10
K975154	0.007	0.2	0.72	37	<10	30	0.8	3	3.07	<0.5	8	8	191	2.04	<10
K975155	0.524	0.3	0.54	30	<10	50	0.6	72	2.76	<0.5	5	13	150	1.18	<10
K975156	1.050	10.8	0.57	31	<10	50	0.5	9	5.23	1.1	50	19	>10000	9.59	<10
K975157	<0.005	0.3	0.03	<2	<10	40	<0.5	<2	19.9	<0.5	<1	1	96	0.51	<10
K975158	0.010	0.3	0.40	7	10	60	<0.5	<2	17.7	<0.5	<1	8	175	0.74	<10

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CERTIFICATE OF ANALYSIS WH11220472

Sample Description	Method	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41
	Analyte	Hg	K	La	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Sc	Sr	Th
	Units	ppm	%	ppm	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm
	LOR	1	0.01	10	0.01	5	1	0.01	1	10	2	0.01	2	1	1	20
K975151		<1	0.37	10	1.17	329	1	0.06	76	940	3	0.05	<2	5	45	<20
K975152		<1	0.19	10	2.33	159	<1	0.05	402	850	<2	0.11	<2	2	30	<20
K975153		<1	0.27	10	0.46	869	56	0.01	103	990	5	0.08	10	18	96	<20
K975154		<1	0.24	20	0.42	347	5	<0.01	21	550	5	0.03	4	7	50	<20
K975155		<1	0.23	20	0.28	258	32	0.01	14	250	14	0.06	2	5	68	<20
K975156		<1	0.18	10	2.65	603	11	0.03	21	370	3	3.60	<2	3	181	<20
K975157		<1	0.01	<10	12.35	217	<1	0.01	1	170	3	0.03	<2	<1	47	<20
K975158		<1	0.23	<10	8.62	344	<1	0.01	3	470	2	0.05	<2	1	171	<20

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Project: Hopper

CERTIFICATE OF ANALYSIS WH11220472

Sample Description	Method Analyte Units LOR	ME- ICP41 Ti % 0.01	ME- ICP41 Tl ppm 10	ME- ICP41 U ppm 10	ME- ICP41 V ppm 1	ME- ICP41 W ppm 10	ME- ICP41 Zn ppm 2	Cu- OG46 Cu % 0.001
K975151		0.18	<10	<10	50	<10	35	
K975152		0.08	<10	<10	47	<10	35	
K975153		<0.01	<10	<10	51	<10	39	
K975154		<0.01	<10	<10	22	<10	21	
K975155		<0.01	<10	<10	16	<10	12	
K975156		0.04	<10	<10	31	10	179	1.350
K975157		<0.01	<10	<10	1	<10	15	
K975158		0.01	<10	10	6	<10	25	

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1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 17- DEC- 2011
This copy reported on 11- JAN- 2012
Account: F

CERTIFICATE WH11254735

Project: Hopper

P.O. No.: Batch 6 Hole 3, 4

This report is for 36 Drill Core samples submitted to our lab in Whitehorse, YT, Canada on 6- DEC- 2011.

The following have access to data associated with this certificate:

JOAN MARIACHER	HEATHER SMITH	

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
FND- 02	Find Sample for Addn Analysis

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
ME- OG46	Ore Grade Elements - AquaRegia	ICP- AES
Cu- OG46	Ore Grade Cu - Aqua Regia	VARIABLE
ME- MS41	51 anal. aqua regia ICPMS	

To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
ATTN: JOAN MARIACHER
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

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.

***** See Appendix Page for comments regarding this certificate *****

Signature:

Colin Ramshaw, Vancouver Laboratory Manager

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VANCOUVER BC V6B 1L8

Project: Hopper

CERTIFICATE OF ANALYSIS WH11254735

Sample Description	Method / Analyte / Units / LOR	Cu- OG46 Cu % 0.001	ME- MS41 Ag ppm 0.01	ME- MS41 Al % 0.01	ME- MS41 As ppm 0.1	ME- MS41 Au ppm 0.2	ME- MS41 B ppm 10	ME- MS41 Ba ppm 10	ME- MS41 Be ppm 0.05	ME- MS41 Bi ppm 0.01	ME- MS41 Ca % 0.01	ME- MS41 Cd ppm 0.01	ME- MS41 Ce ppm 0.02	ME- MS41 Co ppm 0.1	ME- MS41 Cr ppm 1	ME- MS41 Cs ppm 0.05
I357981			0.65	0.48	11.1	<0.2	<10	30	<0.05	4.22	4.75	0.22	8.36	24.4	6	0.22
I357982			0.59	1.18	2.4	<0.2	<10	100	0.32	1.82	0.94	0.13	9.39	27.6	89	5.42
I357983			0.03	1.38	4.1	<0.2	<10	<10	0.10	1.11	3.31	0.08	13.30	1.8	4	0.18
I357984			0.22	0.58	0.8	<0.2	<10	80	0.16	0.39	0.63	0.07	19.70	4.2	10	0.36
I357985			0.08	0.59	0.7	<0.2	<10	100	0.13	0.15	0.62	0.03	16.90	3.7	9	0.34
I357986			0.19	0.61	0.6	<0.2	<10	110	0.13	6.52	0.74	0.03	16.45	4.5	10	0.50
I357987			0.10	0.75	2.9	<0.2	<10	80	0.25	0.16	1.20	0.03	18.50	4.7	10	0.88
I357988			0.31	0.64	1.5	<0.2	<10	90	0.18	0.49	1.00	0.04	17.15	4.9	10	0.69
I357989			0.13	0.53	0.6	<0.2	<10	80	0.15	0.19	0.68	0.03	15.75	3.6	8	0.31
I357990			2.35	1.08	115.5	0.5	<10	40	0.40	0.59	0.50	1.15	23.4	16.8	30	3.57
I357991			0.13	0.55	0.8	<0.2	<10	70	0.14	0.23	0.94	0.03	16.40	3.9	9	0.35
I357992			0.11	0.48	1.2	<0.2	<10	70	0.14	1.80	0.69	0.04	17.25	3.1	8	0.20
I357993			0.22	1.96	1.0	<0.2	<10	90	0.51	0.65	1.23	0.11	41.3	10.7	45	3.03
I357994			0.09	2.03	1.5	<0.2	<10	90	0.60	0.15	1.40	0.07	36.1	8.1	45	2.43
I357995			0.07	0.37	7	<0.2	<10	90	0.16	0.20	10.40	0.32	6.51	1.6	8	0.19
I357996			0.53	0.50	17.0	<0.2	<10	10	0.13	3.77	7.80	0.30	3.45	6.6	2	0.15
I357997			1.43	0.60	6.3	<0.2	<10	<10	0.26	7.82	3.52	0.18	4.15	34.3	2	0.19
I357998			0.01	0.15	4	<0.2	<10	30	0.09	0.05	17.85	0.05	1.46	1.3	8	0.79
I357999			0.09	0.71	2.3	<0.2	<10	40	0.27	0.42	4.46	0.18	7.67	3.6	9	0.66
I358000			0.27	1.94	1.8	<0.2	<10	70	0.43	9.26	1.29	0.09	30.5	11.6	37	2.86
I358001			0.10	0.74	0.9	<0.2	<10	50	0.32	0.17	1.04	0.15	37.2	4.1	9	0.63
I358002			0.21	0.66	21.0	<0.2	<10	320	0.57	0.20	8.72	0.04	22.1	4.6	2	2.68
I358003			0.25	0.79	3.1	<0.2	<10	120	0.35	0.27	1.56	0.06	22.7	6.9	10	1.65
I358004			0.22	0.77	7.9	<0.2	<10	80	0.43	0.21	3.37	0.05	21.7	5.8	7	1.46
I358005			0.30	0.74	1.6	<0.2	<10	120	0.23	0.40	1.11	0.06	18.85	7.0	10	0.95
I358006			0.32	0.82	2.1	<0.2	<10	170	0.23	0.25	1.18	0.06	19.60	7.5	10	1.09
I358007			2.15	1.08	116.0	0.3	<10	40	0.37	0.54	0.51	1.13	24.3	16.5	31	3.50
I358008			0.17	0.69	6.6	<0.2	<10	60	0.40	0.18	0.87	0.04	31.1	10.7	21	0.88
I358009		1.930	11.25	0.45	10.6	0.6	60	10	0.18	2.75	0.59	1.35	2.81	105.5	9	2.80
I358010		1.665	9.69	1.31	2.0	0.6	30	40	0.18	2.19	0.96	1.03	2.05	40.9	22	8.04
I358011			0.05	0.04	<2	<0.2	<10	10	<0.05	0.03	19.55	0.05	0.98	1.3	1	0.14
I358012			1.31	0.51	1.9	<0.2	20	10	0.15	3.53	0.90	0.16	0.41	12.5	4	4.37
I358013			4.77	0.41	2.1	<0.2	10	10	0.11	2.22	1.29	0.97	0.91	11.4	2	3.12
I358014			0.45	0.65	1.7	<0.2	<10	60	0.11	0.23	0.68	0.13	14.20	5.5	20	0.18
I358015			3.92	0.70	1.7	<0.2	<10	10	0.24	23.5	1.26	0.89	44.8	14.2	2	0.90
I358016			0.33	0.41	2.0	<0.2	<10	10	0.31	1.60	1.46	0.31	210	9.4	3	0.26

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Finalized Date: 17- DEC- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11254735

Sample Description / Method / Analyte / Units / LOR	ME- MS41 Cu ppm 0.2	ME- MS41 Fe % 0.01	ME- MS41 Ga ppm 0.05	ME- MS41 Ge ppm 0.05	ME- MS41 Hf ppm 0.02	ME- MS41 Hg ppm 0.01	ME- MS41 In ppm 0.005	ME- MS41 K % 0.01	ME- MS41 La ppm 0.2	ME- MS41 Li ppm 0.1	ME- MS41 Mg % 0.01	ME- MS41 Mn ppm 5	ME- MS41 Mo ppm 0.05	ME- MS41 Na % 0.01	ME- MS41 Nb ppm 0.05
I357981	860	5.31	3.27	0.55	0.17	0.06	0.233	0.06	4.4	1.2	0.10	399	31.5	0.03	0.51
I357982	1405	6.59	4.33	0.21	0.05	0.09	0.034	0.56	5.3	12.0	1.49	226	23.9	0.06	0.19
I357983	4.3	2.15	5.92	0.19	0.22	0.07	0.869	0.01	7.4	1.6	0.37	590	5.28	0.01	0.55
I357984	326	1.32	2.45	0.07	0.42	0.02	0.034	0.12	12.3	6.4	0.35	167	1.52	0.13	0.44
I357985	167.5	1.34	2.43	0.07	0.39	0.01	0.013	0.15	10.1	8.4	0.30	141	2.16	0.12	0.53
I357986	322	1.61	2.73	0.08	0.35	<0.01	0.018	0.15	9.0	9.8	0.38	143	3.43	0.11	0.39
I357987	204	1.80	3.13	0.07	0.26	<0.01	0.012	0.14	10.8	10.8	0.48	172	2.32	0.08	0.24
I357988	254	1.73	2.76	0.07	0.29	<0.01	0.010	0.13	9.9	9.6	0.40	137	1.47	0.09	0.38
I357989	217	1.46	2.22	0.07	0.35	0.01	0.008	0.11	9.2	6.6	0.26	101	2.78	0.11	0.53
I357990	4640	4.78	4.11	0.12	0.08	0.12	0.056	0.59	13.1	4.3	0.66	525	272	0.03	0.25
I357991	219	1.41	2.21	0.07	0.36	0.01	0.011	0.11	9.4	7.7	0.30	131	2.19	0.11	0.51
I357992	145.0	0.99	2.00	0.07	0.43	0.01	0.012	0.11	9.7	5.8	0.22	116	1.17	0.11	0.68
I357993	341	2.17	8.09	0.11	0.07	0.04	0.034	0.53	19.7	14.5	0.65	181	2.39	0.17	0.74
I357994	60.4	1.85	8.10	0.09	0.06	<0.01	0.013	0.46	20.2	13.8	0.60	155	2.25	0.19	0.68
I357995	26.2	0.27	1.37	0.05	0.03	<0.01	0.007	0.05	4.7	0.6	0.06	583	4.47	0.05	0.22
I357996	1025	9.18	3.39	1.31	0.03	0.31	0.662	0.02	2.5	1.9	0.19	1140	3.22	0.02	0.20
I357997	3760	23.2	3.30	1.24	0.11	0.75	0.441	0.01	2.7	1.8	0.10	682	0.99	0.03	0.68
I357998	8.1	0.50	0.29	<0.05	<0.02	0.01	0.006	0.07	0.7	1.7	11.30	200	0.15	0.02	0.09
I357999	95.6	0.76	2.17	0.10	0.04	0.01	0.010	0.10	4.2	2.1	0.10	264	2.89	0.10	0.42
I358000	629	4.26	7.48	0.17	0.06	0.04	0.089	0.51	17.5	11.7	0.65	352	0.98	0.16	0.63
I358001	78.1	1.37	3.78	0.10	0.09	<0.01	0.029	0.16	19.2	4.8	0.21	212	0.92	0.15	0.83
I358002	228	2.17	1.41	<0.05	0.09	0.01	0.020	0.15	12.8	4.7	1.67	575	1.36	0.01	0.05
I358003	353	1.87	3.21	0.06	0.21	0.02	0.024	0.15	13.3	12.7	0.58	196	3.51	0.07	0.24
I358004	289	1.71	2.60	0.05	0.22	0.01	0.021	0.13	13.0	11.3	0.63	221	1.91	0.04	0.17
I358005	410	1.88	3.15	0.09	0.30	0.01	0.025	0.16	10.1	10.9	0.48	177	3.12	0.09	0.25
I358006	483	2.00	3.60	0.10	0.27	0.01	0.024	0.17	10.2	12.1	0.53	157	2.13	0.09	0.25
I358007	4590	4.89	4.14	0.15	0.09	0.09	0.057	0.60	12.2	4.2	0.65	532	271	0.03	0.25
I358008	393	1.88	2.49	0.07	0.02	<0.01	0.011	0.28	15.8	4.6	0.22	72	4.27	0.05	0.15
I358009	>10000	16.15	12.35	0.67	0.08	0.03	1.335	0.26	1.6	2.8	11.25	774	2.03	0.01	0.33
I358010	>10000	22.0	15.35	0.84	0.12	0.02	1.520	0.90	1.1	3.2	8.19	656	1.13	0.08	0.42
I358011	60.5	0.50	0.15	<0.05	<0.02	0.01	0.008	0.02	0.5	1.0	12.15	199	<0.05	0.02	0.11
I358012	2750	23.7	13.80	0.97	0.04	0.01	0.301	0.47	0.2	2.3	5.58	560	0.40	0.01	0.30
I358013	6560	6.77	6.18	0.47	0.03	0.01	0.638	0.29	0.5	4.4	4.10	326	3.47	0.01	0.06
I358014	577	1.02	2.14	0.07	0.38	<0.01	0.043	0.15	7.4	2.0	0.57	129	1.53	0.16	0.25
I358015	4690	3.98	3.35	0.20	0.13	0.01	0.452	0.13	27.4	5.6	1.10	155	46.1	0.02	0.19
I358016	346	1.90	2.58	0.30	0.11	0.01	0.052	0.06	138.5	3.1	0.51	261	494	0.04	0.20

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Finalized Date: 17- DEC- 2011
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Project: Hopper

CERTIFICATE OF ANALYSIS WH11254735

Sample Description	Method / Analyte / Units / LOR	ME- MS41 Ni ppm 0.2	ME- MS41 P ppm 10	ME- MS41 Pb ppm 0.2	ME- MS41 Rb ppm 0.1	ME- MS41 Re ppm 0.001	ME- MS41 S % 0.01	ME- MS41 Sb ppm 0.05	ME- MS41 Sc ppm 0.1	ME- MS41 Se ppm 0.2	ME- MS41 Sn ppm 0.2	ME- MS41 Sr ppm 0.2	ME- MS41 Ta ppm 0.01	ME- MS41 Te ppm 0.01	ME- MS41 Th ppm 0.2	ME- MS41 Ti % 0.005
I357981		9.7	360	4.1	3.6	0.002	2.13	0.41	1.4	5.1	2.2	21.3	0.01	2.19	1.6	0.036
I357982		77.3	400	3.1	54.3	0.009	3.33	0.30	2.9	11.7	0.3	35.5	<0.01	1.03	2.9	0.075
I357983		2.4	560	2.5	0.5	0.003	0.06	1.41	1.5	0.3	2.2	106.0	0.01	0.26	4.0	0.076
I357984		2.3	590	3.4	6.1	<0.001	0.29	0.20	2.1	1.2	0.5	40.6	<0.01	0.14	7.2	0.094
I357985		2.5	600	2.3	8.3	<0.001	0.31	0.12	1.9	1.0	0.4	41.8	<0.01	0.05	7.2	0.098
I357986		3.2	600	2.0	9.3	<0.001	0.44	0.16	2.1	1.3	0.3	48.2	<0.01	3.23	6.8	0.093
I357987		3.5	600	2.5	9.2	<0.001	0.46	0.31	2.6	1.3	0.4	65.8	<0.01	0.07	6.7	0.055
I357988		3.3	600	2.4	8.2	<0.001	0.56	0.26	2.2	1.8	0.4	53.9	<0.01	0.22	7.0	0.079
I357989		2.8	630	2.5	6.2	<0.001	0.51	0.11	1.6	1.6	0.4	41.6	<0.01	0.08	7.1	0.092
I357990		20.5	1030	40.2	37.4	0.675	2.62	6.37	6.4	8.1	2.1	31.3	<0.01	0.93	2.0	0.061
I357991		2.6	610	3.0	5.6	<0.001	0.41	0.16	1.9	1.5	0.4	46.1	<0.01	0.10	6.9	0.090
I357992		2.8	600	3.4	5.7	<0.001	0.18	0.20	1.6	0.8	0.6	38.9	<0.01	0.87	6.6	0.099
I357993		35.6	530	6.2	48.0	0.002	0.44	0.16	5.1	1.5	0.9	76.1	0.01	0.24	10.7	0.207
I357994		38.2	490	6.4	38.4	0.002	0.30	0.14	4.7	0.8	0.9	96.6	0.01	0.04	10.3	0.180
I357995		8.6	220	4.8	2.4	0.006	0.04	0.12	0.7	0.3	0.4	46.3	<0.01	0.03	1.3	0.030
I357996		4.2	190	2.9	1.0	0.006	1.98	0.20	1.8	4.5	3.1	24.4	<0.01	1.43	0.2	0.008
I357997		9.0	220	3.1	0.7	0.005	5.07	0.11	2.0	32.8	3.5	7.0	0.01	3.96	0.8	0.022
I357998		3.8	210	1.5	4.1	<0.001	0.03	<0.05	0.4	0.3	<0.2	47.0	<0.01	0.02	<0.2	<0.005
I357999		13.2	430	7.4	5.3	0.003	0.28	0.11	1.0	1.3	0.4	54.2	<0.01	0.10	1.7	0.058
I358000		19.4	420	5.6	47.4	0.001	1.22	0.10	5.4	3.2	1.1	53.7	0.01	3.85	6.5	0.173
I358001		4.7	1060	11.3	10.2	0.001	0.24	0.15	2.3	0.5	0.6	72.3	0.01	0.05	5.2	0.099
I358002		2.6	430	3.8	8.9	0.010	0.51	2.94	2.1	0.9	0.6	213	<0.01	0.10	4.4	<0.005
I358003		4.4	590	4.1	9.2	0.001	0.44	0.45	3.3	2.0	0.4	89.9	<0.01	0.14	7.3	0.048
I358004		3.5	580	4.1	7.6	0.002	0.37	0.66	3.2	1.6	0.3	104.5	<0.01	0.12	6.5	0.029
I358005		4.8	630	4.0	9.0	0.001	0.44	0.23	2.9	2.1	0.4	63.9	<0.01	0.24	6.7	0.063
I358006		4.5	660	3.3	9.4	0.001	0.52	0.26	3.1	2.6	0.5	67.7	<0.01	0.15	6.6	0.078
I358007		22.2	1090	36.6	36.6	0.648	2.59	6.42	6.6	8.6	2.1	36.9	<0.01	1.03	1.8	0.061
I358008		31.6	230	3.4	22.8	0.001	0.90	0.13	2.0	0.6	0.2	17.2	<0.01	0.07	10.5	0.015
I358009		6.7	280	2.6	47.6	0.002	4.97	0.45	1.4	10.9	1.5	4.4	<0.01	1.71	1.5	0.021
I358010		10.4	480	1.2	144.5	0.001	2.47	0.22	4.4	5.3	2.1	11.8	<0.01	1.36	0.3	0.097
I358011		1.6	180	1.3	1.0	0.001	0.08	<0.05	0.3	0.2	<0.2	47.1	<0.01	0.01	<0.2	<0.005
I358012		3.1	150	1.1	76.1	<0.001	0.44	0.20	0.8	0.9	1.3	3.1	<0.01	0.26	0.2	0.009
I358013		11.4	200	1.8	49.2	<0.001	1.01	0.53	0.6	3.2	0.6	4.2	<0.01	1.86	0.2	<0.005
I358014		21.5	590	3.0	8.3	<0.001	0.16	0.12	2.4	0.5	0.3	29.9	<0.01	0.12	5.4	0.086
I358015		38.4	500	5.7	17.4	0.004	1.18	0.34	0.7	4.5	1.3	10.0	<0.01	17.75	0.6	0.036
I358016		18.9	900	5.9	4.9	0.201	0.71	0.29	0.8	2.2	1.0	10.5	<0.01	0.87	1.6	0.029

ALS Minerals

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

To: ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 17- DEC- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11254735

Sample Description	Method	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41
	Analyte	Tl	U	V	W	Y	Zn	Zr
	Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
	LOR	0.02	0.05	1	0.05	0.05	2	0.5
I357981		0.04	1.72	6	34.4	7.41	29	6.1
I357982		0.32	1.84	33	48.7	5.68	25	1.6
I357983		0.02	2.72	11	43.9	5.01	19	7.2
I357984		0.03	2.05	22	12.45	5.23	13	15.1
I357985		0.03	2.09	25	7.05	5.07	9	14.9
I357986		0.04	1.95	29	0.29	5.09	10	12.9
I357987		0.04	1.80	33	0.29	6.22	9	9.8
I357988		0.04	1.91	30	0.92	5.94	8	10.6
I357989		0.03	1.98	24	2.78	5.34	7	12.8
I357990		0.45	0.65	86	1.71	11.15	143	2.5
I357991		0.03	2.03	25	2.61	5.54	9	13.3
I357992		0.02	2.09	19	7.37	5.72	9	15.7
I357993		0.26	1.54	40	24.0	9.20	24	1.7
I357994		0.21	1.71	34	0.66	9.12	19	1.4
I357995		<0.02	1.38	3	0.90	9.11	32	0.9
I357996		0.05	2.04	3	176.5	6.26	42	1.0
I357997		0.08	2.42	6	410	4.87	20	3.1
I357998		0.03	0.70	2	1.34	1.03	13	<0.5
I357999		0.05	0.75	8	2.12	7.04	23	0.9
I358000		0.26	1.26	42	26.0	9.42	30	1.2
I358001		0.05	1.74	24	0.93	8.99	28	1.6
I358002		0.07	1.68	8	0.45	7.51	12	4.5
I358003		0.04	1.98	32	9.21	7.18	16	7.2
I358004		0.04	1.74	25	1.01	7.13	15	8.5
I358005		0.04	1.70	30	4.57	5.40	16	11.1
I358006		0.04	1.77	36	3.28	5.80	14	9.8
I358007		0.45	0.58	86	1.42	10.90	140	2.6
I358008		0.10	2.31	17	0.21	5.08	8	0.5
I358009		0.24	5.29	10	14.85	4.44	237	2.6
I358010		0.49	3.89	55	7.43	4.31	203	3.8
I358011		<0.02	0.52	1	0.10	0.87	12	<0.5
I358012		0.20	8.53	13	3.43	1.90	52	1.7
I358013		0.14	1.69	6	0.90	1.76	110	1.0
I358014		0.02	1.95	20	0.85	3.79	20	14.2
I358015		0.07	4.76	9	1.91	7.29	100	4.1
I358016		0.04	1.54	9	0.64	7.59	23	3.4

***** See Appendix Page for comments regarding this certificate *****

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ALS Canada Ltd.

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

To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 17- DEC- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11254735

Method	CERTIFICATE COMMENTS
ME- MS41	Interference: Ca> 10% on ICP- MS As,ICP- AES results shown.
ME- MS41	Gold determinations by this method are semi- quantitative due to the small sample weight used (0.5g).
ME- MS41	Interference: Mo> 400ppm on ICP- MS Cd,ICP- AES results shown.

ALS Canada Ltd.
2103 Dollarton Hwy
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To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 5- JAN- 2012
This copy reported on 11- JAN- 2012
Account: F

CERTIFICATE WH12001628

Project: Hopper
P.O. No.:
This report is for 8 Drill Core samples submitted to our lab in Whitehorse, YT, Canada on 3- NOV- 2011.
The following have access to data associated with this certificate:

JOAN MARIACHER	HEATHER SMITH	

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
FND- 02	Find Sample for Addn Analysis

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	
ME- MS41	51 anal. aqua regia ICPMS	
ME- OG46	Ore Grade Elements - AquaRegia	ICP- AES
Cu- OG46	Ore Grade Cu - Aqua Regia	VARIABLE

To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
ATTN: JOAN MARIACHER
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

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.

***** See Appendix Page for comments regarding this certificate *****

Signature:
Colin Ramshaw, Vancouver Laboratory Manager

ALS Canada Ltd.

2103 Dollarton Hwy
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Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED
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Finalized Date: 5- JAN- 2012
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH12001628

Sample Description	Method / Analyte / Units / LOR	ME- MS41 Ag ppm 0.01	ME- MS41 Al % 0.01	ME- MS41 As ppm 0.1	ME- MS41 Au ppm 0.2	ME- MS41 B ppm 10	ME- MS41 Ba ppm 10	ME- MS41 Be ppm 0.05	ME- MS41 Bi ppm 0.01	ME- MS41 Ca % 0.01	ME- MS41 Cd ppm 0.01	ME- MS41 Ce ppm 0.02	ME- MS41 Co ppm 0.1	ME- MS41 Cr ppm 1	ME- MS41 Cs ppm 0.05	ME- MS41 Cu ppm 0.2
K975151		0.04	1.57	24.0	<0.2	<10	60	0.48	0.11	1.51	0.05	34.6	17.1	101	2.67	27.0
K975152		0.01	1.31	260	<0.2	<10	40	0.11	0.16	0.61	0.02	19.95	45.6	228	2.28	11.9
K975153		0.35	0.96	130.5	<0.2	<10	200	1.17	0.42	4.57	0.13	31.0	36.2	81	5.18	120.0
K975154		0.11	0.77	40.7	<0.2	<10	50	0.75	4.25	2.96	0.08	49.4	10.0	8	2.78	189.0
K975155		0.21	0.54	33.2	0.3	<10	60	0.64	67.7	2.66	0.09	42.6	6.5	12	2.11	154.5
K975156		10.55	0.58	27.7	6.1	<10	60	0.40	5.51	5.00	1.17	22.1	53.6	18	3.30	>10000
K975157		0.03	0.02	<2	<0.2	<10	50	<0.05	0.04	18.70	0.06	1.26	1.4	<1	0.11	29.6
K975158		0.16	0.38	6	<0.2	10	60	<0.05	0.32	16.55	0.19	3.06	1.7	7	2.46	163.5

***** See Appendix Page for comments regarding this certificate *****

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1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 5- JAN- 2012
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH12001628

Sample Description	Method	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41
	Analyte	Fe	Ga	Ge	Hf	Hg	In	K	La	Li	Mg	Mn	Mo	Na	Nb	Ni
	Units	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm	ppm
	LOR	0.01	0.05	0.05	0.02	0.01	0.005	0.01	0.2	0.1	0.01	5	0.05	0.01	0.05	0.2
K975151		2.63	6.64	0.16	0.09	<0.01	0.023	0.36	18.3	16.4	1.12	311	1.28	0.07	0.21	80.8
K975152		3.13	5.49	0.18	0.05	<0.01	0.014	0.19	11.3	4.2	2.30	165	0.75	0.07	0.09	391
K975153		5.50	2.50	0.16	0.14	0.07	0.062	0.26	16.6	5.0	0.43	805	59.6	0.01	<0.05	104.5
K975154		1.97	2.07	0.13	0.11	0.01	0.024	0.25	24.6	5.6	0.41	336	4.91	0.01	<0.05	23.6
K975155		1.17	1.53	0.11	0.05	0.01	0.016	0.23	20.9	3.0	0.27	249	35.9	0.01	<0.05	17.0
K975156		9.39	3.10	0.29	0.16	0.05	0.449	0.19	13.0	6.2	2.56	580	13.40	0.04	0.23	26.1
K975157		0.47	0.16	0.10	<0.02	0.02	0.005	0.01	0.6	0.7	11.30	202	0.09	0.02	0.05	3.2
K975158		0.70	0.84	0.10	0.05	0.02	0.026	0.22	3.4	7.3	7.84	317	0.43	0.02	<0.05	3.8

***** See Appendix Page for comments regarding this certificate *****

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1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 5- JAN- 2012
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH12001628

Sample Description	Method	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41
	Analyte	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl
	Units	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm
	LOR	10	0.2	0.1	0.001	0.01	0.05	0.1	0.2	0.2	0.2	0.01	0.01	0.2	0.005	0.02
K975151		890	4.0	32.2	<0.001	0.06	0.20	5.5	0.6	0.8	47.3	0.01	0.02	7.1	0.178	0.24
K975152		830	1.3	16.8	<0.001	0.11	0.53	2.9	0.3	0.3	30.8	<0.01	0.06	4.1	0.081	0.14
K975153		950	6.5	16.6	<0.001	0.08	10.00	19.2	1.6	1.2	96.3	0.01	0.17	4.5	<0.005	0.26
K975154		530	6.1	15.1	<0.001	0.04	3.38	7.7	0.9	0.6	51.4	0.01	2.43	12.7	<0.005	0.07
K975155		240	15.1	13.6	0.003	0.07	2.42	6.9	1.2	0.2	73.0	0.01	41.6	14.7	<0.005	0.05
K975156		360	3.5	25.6	0.020	3.51	1.12	3.4	4.6	1.6	181.0	<0.01	2.48	5.3	0.036	0.20
K975157		160	1.2	0.7	<0.001	0.03	<0.05	0.4	0.4	<0.2	50.8	<0.01	0.03	<0.2	<0.005	<0.02
K975158		440	1.6	23.7	0.002	0.05	0.11	1.0	0.3	0.2	165.0	<0.01	0.04	0.4	0.005	0.10

***** See Appendix Page for comments regarding this certificate *****

ALS Minerals

ALS Canada Ltd.

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To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 5- JAN- 2012
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH12001628

Sample Description	Method Analyte Units LOR	ME- MS41 U ppm 0.05	ME- MS41 V ppm 1	ME- MS41 W ppm 0.05	ME- MS41 Y ppm 0.05	ME- MS41 Zn ppm 2	ME- MS41 Zr ppm 0.5	Cu- OG46 Cu % 0.001
K975151		0.71	49	0.40	7.59	35	1.6	
K975152		0.47	46	0.23	2.58	35	0.9	
K975153		2.25	48	1.09	14.30	37	6.5	
K975154		1.22	22	0.42	11.90	20	4.5	
K975155		2.87	15	0.60	12.35	11	1.4	
K975156		6.71	31	10.15	10.15	169	3.1	1.335
K975157		0.71	1	0.05	0.87	14	<0.5	
K975158		3.66	6	0.64	6.91	23	1.5	

***** See Appendix Page for comments regarding this certificate *****

ALS Canada Ltd.

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To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 5- JAN- 2012
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH12001628

Method	CERTIFICATE COMMENTS
ME- MS41	Interference: Ca> 10% on ICP- MS As,ICP- AES results shown.
ME- MS41	Gold determinations by this method are semi- quantitative due to the small sample weight used (0.5g).

ALS Canada Ltd.

2103 Dollarton Hwy
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To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 31- AUG- 2011
This copy reported on 11- JAN- 2012
Account: F

CERTIFICATE WH11135383

Project: Hopper
P.O. No.:
This report is for 133 Soil samples submitted to our lab in Whitehorse, YT, Canada on 16- JUL- 2011.
The following have access to data associated with this certificate:

JOAN MARIACHER	HEATHER SMITH	

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
SCR- 41	Screen to - 180um and save both

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au- ICP21	Au 30g FA ICP- AES Finish	ICP- AES
ME- ICP41	35 Element Aqua Regia ICP- AES	ICP- AES

To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
ATTN: JOAN MARIACHER
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

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.

***** See Appendix Page for comments regarding this certificate *****

Signature:
Colin Ramshaw, Vancouver Laboratory Manager

ALS Canada Ltd.

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ALS Minerals

To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 31- AUG- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11135383

Sample Description	Method / Analyte / Units / LOR	WEI- 21 Recvd Wt. kg .02	Au- ICP21 Au ppm 0.001	ME- ICP41 Ag ppm 0.2	ME- ICP41 Al % 0.01	ME- ICP41 As ppm 2	ME- ICP41 B ppm 10	ME- ICP41 Ba ppm 10	ME- ICP41 Be ppm 0.5	ME- ICP41 Bi ppm 2	ME- ICP41 Ca % 0.01	ME- ICP41 Cd ppm 0.5	ME- ICP41 Co ppm 1	ME- ICP41 Cr ppm 1	ME- ICP41 Cu ppm 1	ME- ICP41 Fe % 0.01
ZZ06751		0.12	<0.001	0.3	1.80	8	<10	230	<0.5	<2	0.42	<0.5	10	31	23	2.64
ZZ06752		0.08	<0.001	<0.2	1.32	18	<10	60	0.5	<2	0.29	<0.5	11	29	43	2.67
ZZ06753		0.08	0.002	<0.2	1.76	9	<10	210	<0.5	<2	0.84	<0.5	9	33	61	2.69
ZZ06754		0.04	0.005	0.2	1.04	2	<10	110	<0.5	<2	1.07	<0.5	6	19	246	1.69
ZZ06755		0.06	0.008	0.3	1.18	4	<10	220	<0.5	<2	6.28	<0.5	8	23	690	1.78
ZZ06756		0.02	NSS	<0.2	0.40	<2	<10	80	<0.5	<2	3.03	<0.5	4	7	112	0.73
ZZ06757		0.06	<0.001	<0.2	1.08	2	<10	120	<0.5	<2	1.31	<0.5	5	24	52	1.78
ZZ06758		0.10	0.004	<0.2	1.05	4	<10	120	<0.5	<2	0.81	<0.5	7	23	38	1.93
ZZ06759		0.10	<0.001	<0.2	1.15	2	<10	110	<0.5	<2	0.70	<0.5	7	27	22	2.48
ZZ06760		0.06	<0.001	<0.2	1.51	<2	<10	140	<0.5	<2	0.39	<0.5	7	27	18	2.73
ZZ06761		0.06	0.001	<0.2	1.58	2	<10	390	<0.5	<2	0.52	1.1	17	27	22	2.89
ZZ06762		0.06	0.004	<0.2	1.82	2	<10	160	<0.5	<2	0.43	<0.5	9	31	20	3.03
ZZ06763		0.02	NSS	0.2	0.30	2	<10	140	<0.5	<2	5.66	<0.5	4	8	27	0.48
ZZ06764		0.10	0.006	<0.2	1.58	5	<10	90	<0.5	<2	0.55	<0.5	8	30	85	2.50
ZZ06765		0.06	<0.001	0.2	1.71	5	<10	100	0.5	<2	0.40	<0.5	58	46	211	2.62
ZZ06766		0.04	<0.001	<0.2	1.92	3	<10	90	<0.5	<2	0.64	<0.5	10	62	34	2.47
ZZ06767		0.06	<0.001	<0.2	1.65	5	<10	80	<0.5	<2	0.42	<0.5	7	31	16	2.42
ZZ06768		0.06	0.005	<0.2	2.00	5	<10	140	0.5	<2	0.57	<0.5	11	38	44	2.91
ZZ06769		0.06	0.002	0.2	1.59	96	<10	100	0.6	3	0.36	<0.5	16	52	268	5.03
ZZ06770		0.08	<0.001	<0.2	1.50	6	<10	80	<0.5	<2	0.69	<0.5	11	33	94	2.63
ZZ06771		0.08	<0.001	<0.2	2.14	4	<10	100	<0.5	<2	0.33	<0.5	12	39	20	3.18
ZZ06772		0.10	0.001	<0.2	1.80	5	<10	130	<0.5	<2	0.48	<0.5	9	34	50	2.48
ZZ06773		0.14	0.001	<0.2	1.56	6	<10	120	<0.5	<2	0.58	<0.5	9	32	39	2.46
ZZ06774		0.08	0.005	<0.2	1.58	6	<10	120	<0.5	<2	0.56	<0.5	11	42	42	2.53
ZZ06775		0.06	0.003	<0.2	1.68	7	<10	120	<0.5	<2	0.55	<0.5	12	40	57	2.67
ZZ06776		0.08	0.004	0.6	2.25	11	<10	600	<0.5	<2	3.31	<0.5	84	112	789	5.72
ZZ06777		0.06	<0.001	0.2	1.85	14	<10	560	0.5	<2	2.36	<0.5	50	77	379	5.54
ZZ06778		0.04	<0.001	0.3	1.45	11	<10	290	<0.5	2	1.50	<0.5	26	53	224	3.48
ZZ06779		0.08	0.008	<0.2	1.85	15	<10	200	<0.5	<2	0.59	<0.5	18	54	168	3.92
ZZ06786		0.06	0.004	0.2	2.39	10	<10	260	0.6	<2	0.94	<0.5	23	107	149	4.12
ZZ06787		0.04	0.003	0.2	0.81	8	<10	160	<0.5	<2	2.30	0.5	9	16	326	1.46
ZZ06788		Not Recvd														
ZZ06789		Not Recvd														
ZZ06801		0.08	0.002	<0.2	0.96	9	<10	150	<0.5	<2	1.60	<0.5	8	28	93	1.86
ZZ06802		0.06	0.007	0.3	1.26	27	<10	200	0.7	2	2.65	<0.5	14	35	227	3.22
ZZ06803		0.04	<0.001	0.2	0.73	6	<10	140	<0.5	<2	3.51	<0.5	7	12	202	1.26
ZZ06804		0.04	0.038	1.4	1.51	28	<10	100	0.5	5	2.17	<0.5	37	17	1350	6.14
ZZ06805		0.04	0.013	0.6	1.47	19	<10	100	<0.5	3	0.82	<0.5	20	34	690	4.07
ZZ06806		0.08	0.052	1.3	1.58	22	10	190	0.6	2	0.94	0.5	32	25	2550	8.04
ZZ06807		0.06	0.005	0.2	1.52	60	<10	160	0.5	<2	0.61	<0.5	26	29	371	4.18

***** See Appendix Page for comments regarding this certificate *****

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To: ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 31- AUG- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11135383

Sample Description	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41
Analyte	Ga	Hg	K	La	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Sc	Sr
Units	ppm	ppm	%	ppm	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm
LOR	10	1	0.01	10	0.01	5	1	0.01	1	10	2	0.01	2	1	1
ZZ06751	10	<1	0.15	10	0.62	374	1	0.02	30	370	8	0.01	<2	4	60
ZZ06752	<10	<1	0.22	10	0.48	297	4	0.02	27	350	19	0.01	<2	3	15
ZZ06753	10	<1	0.16	10	0.74	433	<1	0.04	21	620	5	0.02	<2	5	40
ZZ06754	<10	<1	0.16	10	0.40	261	1	0.04	18	390	5	0.04	<2	2	40
ZZ06755	<10	<1	0.13	10	1.83	406	<1	0.05	49	1030	4	0.05	2	3	133
ZZ06756	<10	<1	0.04	<10	0.25	201	39	0.04	14	590	2	0.37	<2	1	71
ZZ06757	<10	<1	0.13	10	0.49	186	6	0.03	16	930	4	0.11	<2	3	43
ZZ06758	<10	<1	0.12	10	0.48	249	4	0.03	14	990	4	0.02	<2	3	31
ZZ06759	<10	<1	0.18	10	0.59	250	1	0.04	14	1280	4	0.02	<2	3	30
ZZ06760	10	<1	0.11	10	0.49	215	1	0.02	12	450	5	0.02	<2	3	23
ZZ06761	10	<1	0.08	10	0.46	1740	2	0.03	19	460	8	0.02	<2	3	29
ZZ06762	10	<1	0.19	10	0.69	229	1	0.03	16	530	7	0.02	<2	3	21
ZZ06763	<10	<1	0.02	<10	0.12	332	2	0.04	9	930	<2	0.36	<2	<1	98
ZZ06764	<10	<1	0.21	10	0.63	275	1	0.03	16	280	3	0.02	<2	4	26
ZZ06765	10	<1	0.11	10	0.56	645	1	0.03	395	470	5	0.02	<2	3	20
ZZ06766	10	<1	0.42	10	0.78	207	<1	0.05	28	270	3	0.03	<2	4	34
ZZ06767	<10	<1	0.13	10	0.60	240	<1	0.03	16	230	5	0.01	<2	4	21
ZZ06768	10	<1	0.25	10	0.83	399	<1	0.03	25	530	7	0.01	<2	6	29
ZZ06769	<10	<1	0.23	20	0.64	691	18	0.02	49	380	14	0.02	9	8	20
ZZ06770	<10	<1	0.26	10	0.73	585	<1	0.05	19	350	5	0.01	<2	5	30
ZZ06771	10	<1	0.19	10	0.77	266	1	0.02	21	250	7	0.02	<2	4	23
ZZ06772	10	<1	0.13	10	0.69	286	1	0.03	20	400	6	0.02	<2	5	27
ZZ06773	<10	<1	0.20	10	0.70	350	<1	0.04	23	770	4	0.01	<2	5	33
ZZ06774	<10	<1	0.32	10	0.81	339	<1	0.04	40	940	9	0.02	<2	5	31
ZZ06775	10	<1	0.37	10	0.80	410	<1	0.03	43	810	10	0.02	<2	5	30
ZZ06776	10	<1	1.10	<10	3.54	548	2	0.04	124	2420	3	0.09	3	14	152
ZZ06777	10	<1	0.86	10	1.85	664	2	0.03	61	2420	2	0.26	2	10	133
ZZ06778	<10	<1	0.36	10	1.06	305	1	0.04	38	1290	4	0.07	<2	8	76
ZZ06779	10	<1	0.24	10	0.99	375	16	0.03	31	340	5	0.04	<2	5	36
ZZ06786	10	<1	0.33	10	1.47	391	11	0.04	68	900	6	0.13	<2	6	59
ZZ06787	<10	<1	0.06	10	0.31	960	5	0.03	24	900	4	0.19	<2	1	67
ZZ06788															
ZZ06789															
ZZ06801	<10	<1	0.15	10	0.49	618	5	0.05	25	680	4	0.12	<2	3	53
ZZ06802	<10	<1	0.11	10	0.67	754	1	0.03	42	800	7	0.13	<2	6	89
ZZ06803	<10	<1	0.06	10	1.61	375	1	0.04	17	760	3	0.16	<2	1	92
ZZ06804	<10	<1	0.11	10	2.92	775	13	0.03	46	780	6	0.14	2	2	76
ZZ06805	10	<1	0.15	10	1.10	487	8	0.03	34	540	5	0.05	2	5	39
ZZ06806	10	<1	0.26	10	2.05	809	11	0.02	43	820	9	0.07	<2	4	41
ZZ06807	10	<1	0.27	10	1.24	687	6	0.02	35	420	8	0.04	3	4	36

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Project: Hopper

CERTIFICATE OF ANALYSIS WH11135383

Sample Description	Method Analyte Units LOR	ME- ICP41 Th ppm 20	ME- ICP41 Ti % 0.01	ME- ICP41 Tl ppm 10	ME- ICP41 U ppm 10	ME- ICP41 V ppm 1	ME- ICP41 W ppm 10	ME- ICP41 Zn ppm 2
ZZ06751		<20	0.12	<10	<10	62	<10	67
ZZ06752		<20	0.09	<10	<10	45	<10	45
ZZ06753		<20	0.13	<10	<10	56	<10	53
ZZ06754		<20	0.08	<10	<10	34	<10	28
ZZ06755		<20	0.08	<10	<10	44	<10	43
ZZ06756		<20	0.03	<10	10	19	<10	20
ZZ06757		<20	0.07	<10	<10	36	<10	31
ZZ06758		<20	0.09	<10	<10	40	<10	30
ZZ06759		<20	0.11	<10	<10	52	<10	37
ZZ06760		<20	0.11	<10	<10	69	<10	46
ZZ06761		<20	0.12	<10	<10	65	<10	160
ZZ06762		<20	0.13	<10	<10	70	<10	65
ZZ06763		<20	0.02	<10	10	12	<10	16
ZZ06764		<20	0.12	<10	<10	55	<10	42
ZZ06765		<20	0.12	<10	<10	56	<10	52
ZZ06766		<20	0.14	<10	<10	52	<10	34
ZZ06767		<20	0.13	<10	<10	57	<10	37
ZZ06768		<20	0.14	<10	<10	64	<10	47
ZZ06769		<20	0.10	<10	<10	68	<10	61
ZZ06770		<20	0.12	<10	<10	50	<10	45
ZZ06771		<20	0.17	<10	<10	75	<10	53
ZZ06772		<20	0.14	<10	<10	61	<10	44
ZZ06773		<20	0.13	<10	<10	55	<10	44
ZZ06774		<20	0.14	<10	<10	52	<10	51
ZZ06775		<20	0.13	<10	<10	53	<10	53
ZZ06776		<20	0.25	<10	<10	155	<10	49
ZZ06777		<20	0.19	<10	<10	148	<10	62
ZZ06778		<20	0.13	<10	<10	86	<10	37
ZZ06779		<20	0.14	<10	<10	81	<10	46
ZZ06786		<20	0.25	<10	<10	93	<10	71
ZZ06787		<20	0.04	<10	<10	27	<10	39
ZZ06788								
ZZ06789								
ZZ06801		<20	0.08	<10	<10	38	<10	24
ZZ06802		<20	0.07	<10	10	45	<10	53
ZZ06803		<20	0.03	<10	10	17	<10	36
ZZ06804		<20	0.04	<10	10	33	<10	63
ZZ06805		<20	0.10	<10	<10	61	<10	50
ZZ06806		<20	0.07	<10	<10	47	10	86
ZZ06807		<20	0.09	<10	<10	51	<10	52

ALS Minerals

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To: ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED
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Finalized Date: 31- AUG- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11135383

Sample Description	WEI- 21	Au- ICP21	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41
Method / Analyte	Recvd Wt.	Au	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
Units	kg	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
LOR	.02	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
ZZ06808	0.02	NSS	<0.2	0.86	10	10	170	<0.5	<2	2.86	<0.5	16	26	170	2.10
ZZ06809	0.08	<0.001	<0.2	2.76	10	<10	1090	<0.5	<2	2.32	<0.5	127	81	816	7.87
ZZ06810	0.04	0.014	0.3	0.80	29	<10	240	0.7	6	5.12	<0.5	19	23	417	4.19
ZZ06811	0.04	0.004	0.5	1.07	7	<10	120	<0.5	<2	0.33	<0.5	17	17	547	2.25
ZZ06812	0.06	0.003	<0.2	1.39	18	<10	240	0.6	<2	1.00	<0.5	11	27	157	3.07
ZZ06813	0.06	0.001	0.2	0.77	5	<10	150	<0.5	<2	1.90	<0.5	9	14	228	1.61
ZZ06814	0.08	0.196	<0.2	1.32	13	<10	180	0.5	<2	1.19	<0.5	9	45	221	3.18
ZZ06815	0.08	<0.001	<0.2	0.38	5	<10	50	<0.5	<2	0.29	<0.5	5	8	29	1.03
ZZ06816	0.12	0.001	<0.2	1.47	9	<10	240	<0.5	<2	0.65	<0.5	10	32	31	2.84
ZZ06817	0.08	<0.001	<0.2	0.85	<2	<10	110	<0.5	<2	0.51	<0.5	5	19	15	1.68
ZZ06818	0.10	0.001	<0.2	1.84	2	<10	340	<0.5	<2	0.70	<0.5	9	34	92	2.78
ZZ06819	0.06	<0.001	<0.2	1.54	<2	<10	150	<0.5	<2	0.51	<0.5	10	32	79	2.74
ZZ06820	0.12	0.002	<0.2	1.79	2	<10	200	<0.5	<2	0.55	<0.5	11	32	69	2.73
ZZ06821	0.04	<0.001	<0.2	2.52	2	<10	480	0.8	<2	0.84	<0.5	13	31	163	2.72
ZZ06822	0.10	0.166	<0.2	1.42	<2	<10	130	<0.5	<2	0.44	<0.5	8	35	64	2.37
ZZ06823	0.10	<0.001	<0.2	1.81	3	<10	150	<0.5	<2	0.52	<0.5	8	36	36	2.84
ZZ06824	0.12	0.001	<0.2	1.64	2	<10	190	<0.5	<2	0.65	<0.5	9	34	178	2.90
ZZ06825	0.02	NSS	<0.2	0.73	3	<10	60	0.5	<2	1.06	<0.5	6	15	152	1.42
ZZ06826	0.12	0.003	<0.2	1.90	2	<10	240	0.6	<2	0.63	<0.5	12	37	225	2.94
ZZ06828	0.08	0.003	<0.2	1.86	2	<10	180	<0.5	<2	0.51	<0.5	9	33	69	2.60
ZZ06829	0.10	<0.001	<0.2	1.22	<2	<10	140	<0.5	<2	0.71	<0.5	9	26	28	2.11
ZZ06831	0.10	0.001	<0.2	1.54	5	<10	210	<0.5	<2	0.66	<0.5	9	30	74	2.45
ZZ06832	0.08	0.003	<0.2	1.76	2	<10	320	<0.5	<2	0.77	<0.5	8	34	155	2.52
ZZ06833	0.14	0.003	<0.2	1.76	3	<10	250	<0.5	<2	0.63	<0.5	9	35	120	2.72
ZZ06834	0.12	0.004	<0.2	1.47	<2	<10	160	<0.5	<2	0.62	<0.5	8	31	54	2.36
ZZ06835	0.06	0.003	<0.2	1.57	2	<10	200	<0.5	<2	0.58	<0.5	10	33	60	2.78
ZZ06836	0.06	0.001	<0.2	2.82	8	<10	360	0.7	<2	0.62	<0.5	14	46	140	3.83
ZZ06837	0.06	0.002	<0.2	1.98	8	<10	270	0.5	<2	0.68	<0.5	11	38	87	3.16
ZZ06838	0.10	0.001	<0.2	1.54	3	<10	150	<0.5	<2	0.59	<0.5	8	30	23	2.08
ZZ06839	0.10	0.004	<0.2	1.81	4	<10	370	0.5	<2	0.60	<0.5	8	35	138	3.07
ZZ06840	0.12	0.001	<0.2	1.37	2	<10	260	<0.5	<2	0.56	<0.5	7	25	40	1.60
ZZ06841	0.08	<0.001	<0.2	0.97	<2	<10	130	<0.5	<2	0.27	<0.5	5	16	15	1.40
ZZ06842	0.06	0.006	<0.2	1.57	2	<10	290	<0.5	<2	0.67	<0.5	11	31	111	1.94
ZZ06843	0.06	0.003	<0.2	1.98	5	<10	140	0.5	<2	0.37	<0.5	9	31	47	2.99
ZZ06844	0.08	0.001	<0.2	1.09	5	<10	110	<0.5	<2	0.45	<0.5	7	21	16	1.82
ZZ06845	0.06	0.002	<0.2	1.84	5	<10	120	<0.5	<2	0.48	<0.5	10	33	25	2.76
ZZ06846	0.06	0.001	<0.2	1.69	3	<10	290	<0.5	<2	0.60	<0.5	8	32	132	2.68
ZZ06847	0.08	<0.001	<0.2	1.57	3	<10	170	<0.5	<2	0.61	<0.5	15	31	19	2.92
ZZ06848	0.10	0.001	<0.2	1.78	4	<10	180	<0.5	<2	0.61	<0.5	9	34	20	2.62
ZZ06849	0.08	0.002	<0.2	1.33	<2	<10	190	<0.5	<2	0.68	<0.5	7	26	14	1.98

***** See Appendix Page for comments regarding this certificate *****

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CERTIFICATE OF ANALYSIS WH11135383

Sample Description	Method / Analyte / Units / LOR	ME- ICP41 Ga ppm 10	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1
ZZ06808		<10	<1	0.23	10	0.69	348	3	0.03	25	1150	3	0.16	<2	3	104
ZZ06809		10	1	1.64	<10	3.79	550	5	0.03	81	2200	<2	0.32	<2	13	3260
ZZ06810		<10	<1	0.20	10	0.70	1210	7	0.02	32	710	11	0.07	<2	4	140
ZZ06811		<10	<1	0.10	10	0.37	443	3	0.03	13	390	5	0.01	<2	2	24
ZZ06812		10	1	0.10	20	0.56	522	4	0.02	25	760	6	0.05	<2	5	55
ZZ06813		<10	<1	0.06	10	0.47	347	2	0.04	20	800	4	0.07	<2	2	62
ZZ06814		10	<1	0.16	20	0.77	322	7	0.03	29	1030	5	0.05	<2	6	42
ZZ06815		<10	<1	0.04	<10	0.12	97	1	0.03	7	660	<2	0.01	<2	1	18
ZZ06816		10	<1	0.25	20	0.70	405	7	0.03	20	1210	8	<0.01	<2	4	34
ZZ06817		<10	<1	0.09	10	0.40	182	4	0.02	10	920	<2	<0.01	<2	2	27
ZZ06818		10	<1	0.08	20	0.65	352	11	0.03	16	1150	8	0.02	<2	5	43
ZZ06819		10	<1	0.18	20	0.76	297	3	0.02	16	1150	5	<0.01	<2	4	24
ZZ06820		10	<1	0.11	20	0.71	328	1	0.03	18	1020	5	<0.01	<2	4	30
ZZ06821		10	<1	0.16	30	0.72	921	1	0.04	21	850	5	0.05	<2	6	53
ZZ06822		10	<1	0.10	10	0.69	284	<1	0.02	16	750	4	<0.01	<2	3	24
ZZ06823		10	<1	0.13	10	0.79	286	<1	0.02	16	640	6	<0.01	<2	4	28
ZZ06824		10	<1	0.15	20	0.96	314	1	0.02	16	1110	4	<0.01	<2	5	31
ZZ06825		<10	<1	0.07	20	0.27	143	3	0.04	36	470	2	0.07	<2	2	34
ZZ06826		10	<1	0.25	20	0.91	292	5	0.02	16	1100	3	<0.01	<2	6	36
ZZ06828		10	<1	0.11	20	0.69	280	<1	0.02	17	1050	4	<0.01	<2	4	27
ZZ06829		<10	<1	0.17	10	0.55	342	1	0.04	17	1180	4	<0.01	<2	4	42
ZZ06831		10	<1	0.13	10	0.59	357	13	0.02	13	1240	4	<0.01	<2	5	38
ZZ06832		10	<1	0.13	20	0.62	214	10	0.02	15	1110	5	0.04	<2	6	47
ZZ06833		10	1	0.14	10	0.75	332	10	0.03	18	730	7	<0.01	<2	5	39
ZZ06834		10	<1	0.10	10	0.66	323	1	0.03	16	1180	4	<0.01	<2	4	35
ZZ06835		10	<1	0.12	10	0.69	376	1	0.02	16	1120	5	<0.01	<2	4	29
ZZ06836		10	<1	0.17	20	0.90	566	3	0.02	26	530	10	<0.01	<2	7	40
ZZ06837		10	1	0.16	10	0.74	419	4	0.03	21	970	6	<0.01	<2	6	39
ZZ06838		10	<1	0.08	10	0.62	249	2	0.03	15	1120	4	<0.01	<2	4	36
ZZ06839		10	<1	0.11	20	0.67	205	26	0.02	17	900	5	<0.01	<2	7	35
ZZ06840		10	<1	0.07	10	0.51	169	24	0.02	14	660	4	0.01	<2	3	33
ZZ06841		<10	<1	0.05	10	0.26	183	4	0.02	6	370	4	<0.01	<2	2	20
ZZ06842		10	<1	0.10	10	0.60	203	14	0.02	19	990	6	0.01	<2	4	43
ZZ06843		10	<1	0.13	10	0.61	263	3	0.02	20	790	6	<0.01	<2	4	21
ZZ06844		<10	<1	0.09	10	0.38	296	1	0.04	13	670	4	0.02	<2	2	28
ZZ06845		10	<1	0.10	10	0.63	309	1	0.05	17	810	5	0.03	<2	3	32
ZZ06846		10	<1	0.11	10	0.65	218	3	0.04	19	520	4	0.02	<2	5	36
ZZ06847		10	<1	0.17	10	0.78	876	1	0.05	17	970	6	0.01	<2	4	33
ZZ06848		10	<1	0.16	10	0.75	260	<1	0.05	18	720	6	0.02	<2	4	37
ZZ06849		10	<1	0.10	10	0.48	179	<1	0.04	11	440	6	0.02	<2	3	37

***** See Appendix Page for comments regarding this certificate *****

ALS Canada Ltd.

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ALS Minerals

To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 31- AUG- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11135383

Sample Description	Method Analyte Units LOR	ME- ICP41 Th ppm 20	ME- ICP41 Ti % 0.01	ME- ICP41 Tl ppm 10	ME- ICP41 U ppm 10	ME- ICP41 V ppm 1	ME- ICP41 W ppm 10	ME- ICP41 Zn ppm 2
ZZ06808		<20	0.07	<10	<10	49	<10	34
ZZ06809		<20	0.40	<10	<10	193	<10	55
ZZ06810		<20	0.03	<10	<10	41	10	45
ZZ06811		<20	0.07	<10	<10	38	<10	74
ZZ06812		<20	0.07	<10	<10	48	<10	48
ZZ06813		<20	0.05	<10	<10	27	<10	28
ZZ06814		<20	0.11	<10	<10	56	10	64
ZZ06815		<20	0.05	<10	<10	27	<10	18
ZZ06816		<20	0.15	<10	<10	50	<10	64
ZZ06817		<20	0.10	<10	<10	40	<10	37
ZZ06818		<20	0.11	<10	<10	58	<10	65
ZZ06819		<20	0.17	<10	<10	65	<10	40
ZZ06820		<20	0.15	<10	<10	65	<10	44
ZZ06821		<20	0.11	<10	<10	53	<10	55
ZZ06822		<20	0.15	<10	<10	61	<10	38
ZZ06823		<20	0.16	<10	<10	67	<10	51
ZZ06824		<20	0.17	<10	<10	75	<10	39
ZZ06825		<20	0.06	<10	<10	34	<10	21
ZZ06826		<20	0.18	<10	<10	76	<10	47
ZZ06828		<20	0.14	<10	<10	58	<10	43
ZZ06829		<20	0.14	<10	<10	48	<10	48
ZZ06831		<20	0.13	<10	<10	55	<10	91
ZZ06832		<20	0.10	<10	<10	53	<10	111
ZZ06833		<20	0.15	<10	<10	58	<10	71
ZZ06834		<20	0.15	<10	<10	56	<10	44
ZZ06835		<20	0.13	<10	<10	69	<10	43
ZZ06836		<20	0.14	<10	<10	84	<10	65
ZZ06837		<20	0.14	<10	<10	65	<10	51
ZZ06838		<20	0.13	<10	<10	49	<10	45
ZZ06839		<20	0.12	<10	<10	69	<10	78
ZZ06840		<20	0.11	<10	<10	52	<10	44
ZZ06841		<20	0.09	<10	<10	37	<10	25
ZZ06842		<20	0.11	<10	<10	55	<10	60
ZZ06843		<20	0.11	<10	<10	62	<10	53
ZZ06844		<20	0.10	<10	<10	44	<10	52
ZZ06845		<20	0.14	<10	<10	65	<10	53
ZZ06846		<20	0.12	<10	<10	54	<10	53
ZZ06847		<20	0.16	<10	<10	60	<10	57
ZZ06848		<20	0.17	<10	<10	61	<10	67
ZZ06849		<20	0.14	<10	<10	56	<10	44

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1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 31- AUG- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11135383

Sample Description	Method	WEI- 21	Au- ICP21	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41
	Analyte	Recvd Wt.	Au	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	kg	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	.02	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
ZZ06850		0.06	0.001	<0.2	2.23	3	<10	160	0.6	<2	0.92	<0.5	15	33	23	3.33
ZZ06851		0.08	0.004	<0.2	1.45	6	<10	160	<0.5	<2	0.63	<0.5	10	30	28	2.52
ZZ06852		0.10	<0.001	<0.2	1.05	4	<10	120	<0.5	<2	0.53	<0.5	6	23	10	2.03
ZZ06853		0.10	0.001	<0.2	1.70	6	<10	170	<0.5	<2	0.61	<0.5	10	39	20	2.71
ZZ06854		0.04	<0.001	<0.2	1.53	4	<10	190	<0.5	<2	0.83	<0.5	8	34	19	2.53
ZZ06856		0.08	0.003	<0.2	1.59	4	<10	220	<0.5	<2	0.57	<0.5	11	38	99	2.56
ZZ06857		0.12	0.002	<0.2	1.67	3	<10	210	<0.5	<2	0.67	<0.5	9	38	61	2.65
ZZ06858		0.10	0.003	<0.2	1.73	4	<10	230	<0.5	<2	0.66	<0.5	11	41	62	2.83
ZZ06859		0.06	0.005	0.2	1.90	7	<10	130	0.5	<2	0.34	<0.5	10	35	74	2.61
ZZ06860		0.04	0.001	0.2	1.76	4	<10	200	0.5	<2	0.35	<0.5	14	32	88	2.47
ZZ06861		0.04	0.007	<0.2	1.87	6	<10	190	<0.5	<2	0.37	<0.5	11	40	97	3.06
ZZ06862		0.06	0.003	<0.2	1.92	5	<10	120	<0.5	<2	0.40	<0.5	10	37	75	3.17
ZZ06863		0.04	<0.001	<0.2	2.18	5	<10	120	0.5	<2	0.30	<0.5	10	35	50	2.80
ZZ06864		0.04	0.005	<0.2	2.20	7	<10	120	<0.5	<2	0.35	<0.5	10	38	61	3.29
ZZ06865		0.08	0.003	<0.2	2.34	5	<10	170	0.5	<2	0.38	<0.5	11	40	50	3.11
ZZ06866		0.06	0.002	<0.2	0.44	<2	<10	70	<0.5	<2	0.27	<0.5	2	4	25	0.36
ZZ06867		0.06	0.002	<0.2	1.35	3	<10	200	<0.5	<2	0.40	<0.5	7	28	17	2.32
ZZ06868		0.04	0.004	<0.2	1.42	6	<10	140	<0.5	<2	0.30	<0.5	7	30	17	2.41
ZZ06869		0.06	0.006	<0.2	2.23	3	<10	200	0.5	<2	0.31	<0.5	13	61	190	2.99
ZZ06870		0.04	0.005	<0.2	1.64	5	<10	350	<0.5	<2	1.12	<0.5	8	35	82	2.28
ZZ06871		0.06	0.008	<0.2	2.00	3	<10	240	0.5	<2	0.91	<0.5	13	50	228	3.08
ZZ06872		0.04	<0.001	<0.2	0.67	<2	<10	220	<0.5	<2	1.25	<0.5	5	13	54	1.06
ZZ06873		0.04	0.017	<0.2	1.92	7	<10	160	<0.5	<2	0.32	<0.5	9	35	44	2.82
ZZ06874		0.04	0.001	<0.2	2.34	6	<10	150	0.5	<2	0.38	<0.5	11	39	54	3.07
ZZ06875		0.10	NSS	0.4	1.93	4	<10	390	0.7	<2	0.59	<0.5	9	30	444	2.35
ZZ06876		0.06	0.055	0.2	1.99	10	<10	110	0.6	2	0.30	<0.5	12	47	282	3.06
ZZ06877		0.06	0.001	0.3	2.43	3	<10	200	0.6	<2	0.35	<0.5	11	45	62	3.24
ZZ06878		0.06	0.002	<0.2	2.32	7	<10	100	0.7	<2	0.24	<0.5	11	50	90	3.39
ZZ06916		0.14	0.001	<0.2	2.17	3	<10	250	0.5	<2	0.46	<0.5	11	40	70	3.03
ZZ06917		0.08	0.004	<0.2	1.94	7	<10	150	0.5	<2	0.29	<0.5	10	40	47	2.97
ZZ06918		0.12	0.002	<0.2	1.70	5	<10	230	<0.5	<2	0.63	<0.5	9	41	89	2.71
ZZ06919		0.08	0.001	<0.2	1.26	4	<10	130	<0.5	<2	0.48	<0.5	7	29	36	2.02
ZZ06920		0.08	0.001	<0.2	2.35	6	<10	290	0.5	<2	0.34	<0.5	10	41	34	3.19
ZZ06921		0.02	0.004	<0.2	0.36	<2	<10	130	<0.5	<2	0.69	<0.5	2	7	39	0.49
ZZ06922		0.10	0.002	<0.2	1.85	6	<10	150	<0.5	<2	0.34	<0.5	7	36	39	2.55
ZZ06923		0.06	0.029	<0.2	1.59	4	<10	260	<0.5	<2	0.46	<0.5	8	32	386	2.26
ZZ06924		0.06	0.011	<0.2	1.44	3	<10	140	<0.5	<2	0.32	<0.5	6	31	87	2.13
ZZ06925		0.06	0.001	<0.2	1.55	5	<10	120	<0.5	<2	0.30	<0.5	7	27	51	2.35
ZZ06926		0.06	<0.001	<0.2	1.79	4	<10	210	0.5	<2	0.45	<0.5	13	33	122	3.30
ZZ06927		0.06	0.244	<0.2	1.87	6	<10	170	<0.5	2	0.40	<0.5	9	35	112	2.82

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1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 31- AUG- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11135383

Sample Description	Method Analyte Units LOR	ME- ICP41 Ga ppm 10	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1
ZZ06850		10	<1	0.35	10	1.07	668	<1	0.05	18	1620	4	0.04	<2	4	43
ZZ06851		<10	<1	0.19	10	0.65	333	<1	0.05	20	1070	4	0.01	<2	4	36
ZZ06852		<10	<1	0.15	10	0.47	218	<1	0.04	12	1040	6	<0.01	<2	3	25
ZZ06853		10	1	0.16	10	0.77	354	2	0.05	20	690	5	0.01	<2	5	35
ZZ06854		10	<1	0.10	10	0.68	368	3	0.05	15	630	5	0.04	<2	3	48
ZZ06856		10	<1	0.13	10	0.77	276	3	0.05	20	720	5	0.01	<2	5	32
ZZ06857		10	<1	0.10	20	0.75	296	3	0.05	21	830	6	<0.01	<2	5	37
ZZ06858		10	1	0.14	20	0.88	452	5	0.05	20	820	5	0.01	<2	6	40
ZZ06859		10	1	0.09	10	0.66	230	3	0.03	22	390	6	0.01	<2	4	22
ZZ06860		10	<1	0.08	10	0.56	613	9	0.04	16	710	6	0.01	<2	4	26
ZZ06861		10	<1	0.14	10	0.83	346	3	0.04	22	540	6	0.01	<2	4	26
ZZ06862		10	1	0.14	10	0.81	291	7	0.03	19	340	5	0.01	<2	4	25
ZZ06863		10	<1	0.11	10	0.70	256	2	0.03	20	280	6	0.01	<2	4	22
ZZ06864		10	<1	0.14	10	0.85	255	4	0.03	22	710	6	0.01	<2	4	21
ZZ06865		10	<1	0.14	10	0.86	327	3	0.04	24	450	5	0.01	<2	5	25
ZZ06866		<10	<1	0.02	<10	0.08	29	1	0.06	3	660	<2	0.04	<2	<1	17
ZZ06867		10	<1	0.08	10	0.53	394	6	0.03	13	370	3	0.01	<2	3	25
ZZ06868		10	<1	0.12	10	0.62	246	3	0.03	15	340	2	<0.01	<2	3	20
ZZ06869		10	<1	0.07	10	0.92	210	6	0.03	35	320	3	0.01	<2	4	20
ZZ06870		10	1	0.07	10	0.64	248	4	0.04	17	1160	4	0.06	<2	3	58
ZZ06871		10	<1	0.21	20	1.07	424	9	0.06	35	1410	8	0.01	<2	7	51
ZZ06872		<10	<1	0.03	10	0.19	550	12	0.05	6	1410	2	0.12	<2	1	62
ZZ06873		10	<1	0.06	10	0.59	264	5	0.04	18	450	6	0.01	<2	4	22
ZZ06874		10	1	0.13	10	0.83	321	3	0.04	23	580	5	0.01	<2	5	24
ZZ06875		10	<1	0.18	10	0.57	414	31	0.06	23	640	4	0.02	<2	5	36
ZZ06876		10	<1	0.09	10	0.85	238	3	0.04	39	180	12	0.01	<2	4	19
ZZ06877		10	<1	0.04	10	0.62	311	20	0.03	19	230	8	0.01	<2	4	29
ZZ06878		10	<1	0.11	10	0.82	261	58	0.03	27	450	8	0.02	<2	5	18
ZZ06916		10	1	0.10	10	0.77	345	2	0.04	23	430	7	0.01	<2	5	29
ZZ06917		10	1	0.11	10	0.78	236	2	0.03	23	370	5	0.01	<2	4	18
ZZ06918		10	<1	0.12	10	0.79	245	4	0.03	23	820	7	0.02	<2	5	37
ZZ06919		<10	<1	0.06	10	0.59	257	3	0.03	15	620	5	<0.01	<2	3	28
ZZ06920		10	<1	0.18	10	0.85	328	5	0.02	24	330	7	<0.01	<2	5	25
ZZ06921		<10	<1	0.03	<10	0.12	82	1	0.05	4	790	2	0.05	<2	1	44
ZZ06922		10	<1	0.10	10	0.71	267	4	0.02	16	380	5	<0.01	<2	4	25
ZZ06923		<10	<1	0.06	10	0.62	283	11	0.03	18	730	5	<0.01	<2	4	28
ZZ06924		<10	<1	0.07	10	0.66	206	5	0.03	15	290	6	<0.01	<2	3	22
ZZ06925		10	<1	0.11	10	0.57	357	30	0.02	12	240	5	<0.01	<2	3	21
ZZ06926		10	<1	0.07	10	0.61	604	37	0.02	17	410	10	<0.01	2	3	34
ZZ06927		10	<1	0.15	10	0.69	290	2	0.02	18	250	5	<0.01	<2	4	24

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Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11135383

Sample Description / Method / Analyte / Units / LOR	ME- ICP41 Th ppm 20	ME- ICP41 Ti % 0.01	ME- ICP41 Tl ppm 10	ME- ICP41 U ppm 10	ME- ICP41 V ppm 1	ME- ICP41 W ppm 10	ME- ICP41 Zn ppm 2
ZZ06850	<20	0.17	<10	<10	72	<10	76
ZZ06851	<20	0.14	<10	<10	53	<10	54
ZZ06852	<20	0.11	<10	<10	38	<10	42
ZZ06853	<20	0.16	<10	<10	58	<10	50
ZZ06854	<20	0.13	<10	<10	57	<10	58
ZZ06856	<20	0.16	<10	<10	58	<10	46
ZZ06857	<20	0.15	<10	<10	56	<10	47
ZZ06858	<20	0.16	<10	<10	61	<10	48
ZZ06859	<20	0.13	<10	<10	56	<10	36
ZZ06860	<20	0.11	<10	<10	56	<10	51
ZZ06861	<20	0.17	<10	<10	70	<10	53
ZZ06862	<20	0.18	<10	<10	77	<10	59
ZZ06863	<20	0.11	<10	<10	63	<10	45
ZZ06864	<20	0.15	<10	<10	75	<10	59
ZZ06865	<20	0.15	<10	<10	71	<10	53
ZZ06866	<20	0.04	<10	<10	12	<10	7
ZZ06867	<20	0.15	<10	<10	69	<10	44
ZZ06868	<20	0.13	<10	<10	58	<10	43
ZZ06869	<20	0.13	<10	<10	61	<10	33
ZZ06870	<20	0.09	<10	<10	49	<10	38
ZZ06871	<20	0.20	<10	<10	66	<10	59
ZZ06872	<20	0.05	<10	<10	25	<10	16
ZZ06873	<20	0.14	<10	<10	69	<10	43
ZZ06874	<20	0.14	<10	<10	67	<10	55
ZZ06875	<20	0.10	<10	<10	50	<10	38
ZZ06876	<20	0.10	<10	<10	53	<10	38
ZZ06877	<20	0.14	<10	<10	79	<10	53
ZZ06878	<20	0.18	<10	<10	77	<10	59
ZZ06916	<20	0.14	<10	<10	68	<10	54
ZZ06917	<20	0.13	<10	<10	61	<10	42
ZZ06918	<20	0.15	<10	<10	61	<10	48
ZZ06919	<20	0.10	<10	<10	44	<10	34
ZZ06920	<20	0.14	<10	<10	70	<10	58
ZZ06921	<20	0.04	<10	<10	12	<10	9
ZZ06922	<20	0.12	<10	<10	62	<10	42
ZZ06923	<20	0.09	<10	<10	47	<10	34
ZZ06924	<20	0.13	<10	<10	48	<10	32
ZZ06925	<20	0.10	<10	<10	58	<10	34
ZZ06926	<20	0.16	<10	<10	87	<10	69
ZZ06927	<20	0.13	<10	<10	63	<10	44

***** See Appendix Page for comments regarding this certificate *****

ALS Canada Ltd.

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

To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 31- AUG- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11135383

Sample Description	Method Analyte Units LOR	WEI- 21 Recvd Wt. kg .02	Au- ICP21 Au ppm 0.001	ME- ICP41 Ag ppm 0.2	ME- ICP41 Al % 0.01	ME- ICP41 As ppm 2	ME- ICP41 B ppm 10	ME- ICP41 Ba ppm 10	ME- ICP41 Be ppm 0.5	ME- ICP41 Bi ppm 2	ME- ICP41 Ca % 0.01	ME- ICP41 Cd ppm 0.5	ME- ICP41 Co ppm 1	ME- ICP41 Cr ppm 1	ME- ICP41 Cu ppm 1	ME- ICP41 Fe % 0.01
ZZ06928		0.06	0.005	<0.2	2.09	5	<10	160	0.6	<2	0.49	<0.5	11	37	229	3.19
ZZ06929		0.04	0.003	<0.2	3.07	6	<10	200	0.9	<2	0.82	<0.5	9	44	761	2.92
ZZ06930		0.08	0.001	<0.2	1.76	5	<10	140	0.5	<2	0.43	<0.5	7	34	158	2.62
ZZ06931		0.12	<0.001	<0.2	2.22	8	<10	150	<0.5	<2	0.39	<0.5	8	39	33	3.23
ZZ06932		0.08	0.003	<0.2	2.56	7	<10	190	0.6	<2	0.34	<0.5	10	45	93	3.28
ZZ06933		0.20	0.008	<0.2	1.67	5	<10	210	0.5	<2	0.56	<0.5	7	36	283	2.44
ZZ06934		0.08	0.001	<0.2	2.15	8	<10	150	<0.5	<2	0.32	<0.5	8	38	41	3.00
ZZ06935		0.06	0.002	0.4	1.09	4	<10	560	<0.5	<2	2.22	<0.5	17	21	53	1.73
ZZ06936		0.10	<0.001	0.2	1.81	5	<10	250	<0.5	<2	0.44	<0.5	9	32	31	2.73
ZZ06937		0.06	0.003	<0.2	1.79	3	<10	470	0.5	<2	1.49	<0.5	7	34	278	2.44
ZZ06938		0.12	0.002	<0.2	2.20	7	<10	290	0.6	<2	0.46	<0.5	17	39	77	3.13
ZZ06939		0.08	0.004	<0.2	1.66	5	<10	160	0.5	<2	0.34	<0.5	9	36	114	2.46
ZZ06940		0.08	0.004	<0.2	2.17	7	<10	380	0.6	<2	0.61	<0.5	14	42	202	3.04

***** See Appendix Page for comments regarding this certificate *****

ALS Canada Ltd.

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North Vancouver BC V7H 0A7
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To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 31- AUG- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11135383

Sample Description	Method / Analyte / Units / LOR	ME- ICP41 Ga ppm 10	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1
ZZ06928		10	<1	0.11	10	0.79	462	3	0.02	19	630	8	0.01	<2	4	37
ZZ06929		10	<1	0.23	10	0.73	338	4	0.03	28	1200	6	0.06	<2	4	69
ZZ06930		10	<1	0.16	10	0.68	256	5	0.02	19	300	6	<0.01	<2	4	29
ZZ06931		10	<1	0.14	10	0.83	316	6	0.02	21	560	6	<0.01	<2	5	23
ZZ06932		10	<1	0.17	10	1.01	291	4	0.02	29	270	6	<0.01	<2	7	24
ZZ06933		10	<1	0.09	20	0.76	249	7	0.03	20	1030	5	<0.01	<2	5	34
ZZ06934		10	<1	0.07	10	0.68	259	7	0.02	22	480	7	<0.01	<2	4	22
ZZ06935		<10	<1	0.03	10	0.29	667	13	0.03	10	2180	4	0.18	<2	1	113
ZZ06936		10	<1	0.10	10	0.65	526	11	0.02	15	260	7	<0.01	<2	4	31
ZZ06937		10	<1	0.08	40	0.64	183	4	0.03	19	780	6	0.07	<2	5	87
ZZ06938		10	<1	0.09	20	0.69	699	9	0.02	19	390	10	<0.01	<2	6	34
ZZ06939		10	<1	0.10	10	0.77	268	4	0.02	21	650	5	<0.01	<2	4	20
ZZ06940		10	<1	0.09	10	0.79	667	6	0.02	23	580	8	0.01	2	5	43

***** See Appendix Page for comments regarding this certificate *****

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1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 31- AUG- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11135383

Sample Description	Method Analyte Units LOR	ME- ICP41 Th ppm 20	ME- ICP41 Ti % 0.01	ME- ICP41 Tl ppm 10	ME- ICP41 U ppm 10	ME- ICP41 V ppm 1	ME- ICP41 W ppm 10	ME- ICP41 Zn ppm 2
ZZ06928		<20	0.11	<10	<10	73	<10	51
ZZ06929		<20	0.09	<10	10	65	<10	54
ZZ06930		<20	0.14	<10	<10	67	<10	48
ZZ06931		<20	0.15	<10	<10	77	<10	56
ZZ06932		<20	0.17	<10	<10	75	<10	50
ZZ06933		<20	0.11	<10	<10	50	<10	41
ZZ06934		<20	0.14	<10	<10	74	<10	48
ZZ06935		<20	0.03	<10	10	46	<10	21
ZZ06936		<20	0.13	<10	<10	69	<10	59
ZZ06937		<20	0.09	<10	10	56	<10	52
ZZ06938		<20	0.11	<10	<10	75	<10	56
ZZ06939		<20	0.12	<10	<10	48	<10	36
ZZ06940		<20	0.11	<10	<10	71	<10	59

***** See Appendix Page for comments regarding this certificate *****

ALS Canada Ltd.

2103 Dollarton Hwy
North Vancouver BC V7H 0A7
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To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 31- AUG- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11135383

Method	CERTIFICATE COMMENTS
ALL METHODS	NSS is non- sufficient sample.

ALS Canada Ltd.

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

To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 16- SEP- 2011
This copy reported on 11- JAN- 2012
Account: F

CERTIFICATE WH11145982

Project: Hopper
P.O. No.:
This report is for 194 Soil samples submitted to our lab in Whitehorse, YT, Canada on 1- AUG- 2011.
The following have access to data associated with this certificate:

JOAN MARIACHER	HEATHER SMITH	

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
EXTRA- 01	Extra Sample received in Shipment
SCR- 41	Screen to - 180um and save both

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au- ICP21	Au 30g FA ICP- AES Finish	ICP- AES
ME- ICP41	35 Element Aqua Regia ICP- AES	ICP- AES

To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
ATTN: JOAN MARIACHER
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

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.

***** See Appendix Page for comments regarding this certificate *****

Signature:
Colin Ramshaw, Vancouver Laboratory Manager

ALS Canada Ltd.

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

ALS Minerals

To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 16- SEP- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11145982

Sample Description	Method Analyte Units LOR	WEI- 21 Recvd Wt. kg 0.02	Au- ICP21 Au ppm 0.001	ME- ICP41 Ag ppm 0.2	ME- ICP41 Al % 0.01	ME- ICP41 As ppm 2	ME- ICP41 B ppm 10	ME- ICP41 Ba ppm 10	ME- ICP41 Be ppm 0.5	ME- ICP41 Bi ppm 2	ME- ICP41 Ca % 0.01	ME- ICP41 Cd ppm 0.5	ME- ICP41 Co ppm 1	ME- ICP41 Cr ppm 1	ME- ICP41 Cu ppm 1	ME- ICP41 Fe % 0.01
ZZ06563		0.20	0.005	<0.2	1.92	7	<10	260	<0.5	<2	0.86	<0.5	10	40	65	3.04
ZZ06564		0.14	0.004	<0.2	1.88	6	<10	240	<0.5	<2	0.63	<0.5	10	38	41	2.81
ZZ06565		0.18	<0.001	<0.2	1.92	2	<10	200	<0.5	<2	0.72	<0.5	14	44	66	3.83
ZZ06566		0.18	0.001	<0.2	1.87	5	<10	210	<0.5	<2	0.66	<0.5	9	39	53	3.15
ZZ06567		0.26	<0.001	<0.2	1.78	4	<10	200	<0.5	<2	0.59	<0.5	12	40	51	3.05
ZZ06568		0.14	0.003	0.2	2.33	6	<10	300	<0.5	<2	0.58	<0.5	14	47	60	3.24
ZZ06569		0.26	<0.001	<0.2	2.02	5	<10	210	<0.5	<2	0.64	<0.5	9	41	50	3.02
ZZ06570		0.20	0.013	<0.2	1.74	6	<10	190	<0.5	<2	0.65	<0.5	9	39	56	3.79
ZZ06571		0.24	0.001	<0.2	2.19	4	<10	330	<0.5	<2	0.56	<0.5	10	43	41	3.04
ZZ06572		0.20	<0.001	<0.2	2.01	5	<10	260	<0.5	<2	0.58	<0.5	9	41	39	2.78
ZZ06573		0.22	0.018	<0.2	1.61	<2	<10	190	<0.5	<2	0.59	<0.5	8	37	25	2.32
ZZ06574		0.22	0.001	<0.2	2.18	6	<10	210	<0.5	<2	0.54	<0.5	9	40	31	3.06
ZZ06575		0.22	0.001	<0.2	2.04	5	<10	180	<0.5	<2	0.63	<0.5	11	45	39	2.83
ZZ06576		0.22	0.005	<0.2	1.99	5	<10	190	<0.5	<2	0.74	<0.5	14	55	46	3.20
ZZ06577		0.18	0.003	0.2	3.04	5	<10	250	0.7	<2	0.69	<0.5	15	65	86	3.97
ZZ06578		0.20	0.003	0.2	2.63	6	<10	260	0.6	<2	0.76	<0.5	18	63	80	4.05
ZZ06579		0.18	0.008	<0.2	1.80	4	<10	170	<0.5	<2	0.71	<0.5	14	46	52	3.32
ZZ06580		0.24	0.003	<0.2	1.80	4	<10	180	<0.5	<2	0.55	<0.5	12	35	67	3.59
ZZ06581		0.24	0.002	<0.2	1.44	5	<10	140	<0.5	<2	0.55	<0.5	9	29	36	2.88
ZZ06582		0.18	0.001	<0.2	1.98	5	<10	120	<0.5	<2	0.51	<0.5	9	35	29	3.02
ZZ06583		0.14	<0.001	<0.2	1.80	5	<10	160	<0.5	<2	0.49	<0.5	10	36	34	3.11
ZZ06584		0.14	0.002	<0.2	1.62	4	<10	200	<0.5	<2	0.43	<0.5	11	33	71	2.72
ZZ06585		0.18	0.004	<0.2	2.27	7	<10	230	0.5	<2	0.63	<0.5	12	39	126	2.90
ZZ06586		0.14	0.001	0.2	2.06	4	<10	260	<0.5	<2	0.54	<0.5	10	33	122	2.58
ZZ06587		0.14	0.002	<0.2	1.95	<2	<10	190	<0.5	<2	0.40	<0.5	6	35	86	1.90
ZZ06588		0.16	<0.001	0.2	1.40	2	<10	160	<0.5	<2	0.43	<0.5	7	28	112	2.13
ZZ06589		0.14	0.003	0.3	1.89	4	<10	220	<0.5	<2	0.55	<0.5	9	38	201	2.63
ZZ06590		0.18	0.004	0.2	1.48	4	<10	130	<0.5	<2	0.47	<0.5	7	32	202	2.20
ZZ06591		0.20	0.004	<0.2	1.03	4	<10	100	<0.5	<2	0.46	<0.5	9	27	127	2.28
ZZ06592		0.20	0.003	0.3	1.92	9	<10	210	<0.5	<2	0.61	<0.5	13	40	288	3.20
ZZ06593		0.20	0.001	<0.2	1.70	5	<10	180	<0.5	<2	0.67	<0.5	10	34	62	2.72
ZZ06594		0.20	0.015	1.7	1.65	39	<10	170	0.7	<2	0.97	<0.5	19	27	1920	4.58
ZZ06595		0.18	0.004	0.3	2.22	27	<10	270	0.8	<2	1.11	<0.5	23	12	411	7.81
ZZ06596		0.18	<0.001	<0.2	1.77	5	<10	120	<0.5	<2	0.41	<0.5	7	33	26	2.73
ZZ06597		0.16	0.002	<0.2	1.97	7	<10	110	0.5	<2	0.35	<0.5	9	37	37	3.13
ZZ06598		0.14	0.002	<0.2	2.05	3	<10	170	0.5	<2	0.30	<0.5	8	36	54	2.99
ZZ06599		0.20	<0.001	<0.2	1.94	7	<10	150	<0.5	<2	0.40	<0.5	9	35	58	2.72
ZZ06781		0.02	NSS	0.5	0.75	8	<10	70	<0.5	<2	2.76	<0.5	12	14	677	1.63
ZZ06782		0.02	NSS	<0.2	0.32	3	<10	110	<0.5	<2	3.00	<0.5	4	9	72	0.71
ZZ06783		0.06	0.001	<0.2	0.64	7	<10	60	<0.5	<2	1.51	<0.5	5	10	44	1.11

***** See Appendix Page for comments regarding this certificate *****

ALS Canada Ltd.

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North Vancouver BC V7H 0A7
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1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 16- SEP- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11145982

Sample Description	Method	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41
	Analyte	Ga	Hg	K	La	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Sc	Sr
	Units	ppm	ppm	%	ppm	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm
	LOR	10	1	0.01	10	0.01	5	1	0.01	1	10	2	0.01	2	1	1
ZZ06563		10	<1	0.20	10	0.83	333	<1	0.04	21	1020	15	0.05	<2	5	69
ZZ06564		10	<1	0.18	10	0.75	581	<1	0.03	20	770	7	0.03	<2	5	48
ZZ06565		10	<1	0.20	10	0.91	367	<1	0.04	21	1270	5	0.02	<2	5	53
ZZ06566		10	<1	0.15	10	0.80	302	<1	0.03	18	1150	5	0.02	<2	4	52
ZZ06567		10	<1	0.15	10	0.81	352	<1	0.03	18	1080	6	0.02	<2	4	40
ZZ06568		10	<1	0.18	10	0.92	1675	<1	0.03	25	570	7	0.03	<2	6	46
ZZ06569		10	<1	0.14	10	0.83	235	<1	0.02	20	1000	7	0.02	<2	5	44
ZZ06570		10	<1	0.20	10	0.76	330	<1	0.03	18	1240	8	0.04	<2	5	39
ZZ06571		10	<1	0.17	10	0.85	458	<1	0.03	25	780	8	0.02	<2	5	41
ZZ06572		10	<1	0.10	10	0.75	414	<1	0.02	19	900	7	0.05	<2	3	44
ZZ06573		10	<1	0.15	10	0.75	295	<1	0.03	16	1050	6	0.02	<2	4	38
ZZ06574		10	<1	0.14	10	0.85	348	<1	0.03	24	710	7	0.01	<2	5	40
ZZ06575		10	<1	0.23	10	0.84	267	<1	0.03	22	920	7	0.02	<2	6	41
ZZ06576		10	<1	0.31	10	1.02	474	<1	0.03	25	1320	6	0.02	<2	6	45
ZZ06577		10	<1	0.21	10	1.17	611	1	0.02	32	900	9	0.04	<2	7	46
ZZ06578		10	<1	0.30	20	1.17	616	1	0.03	32	1100	10	0.03	<2	8	53
ZZ06579		10	<1	0.25	10	0.91	529	<1	0.04	23	1000	6	0.01	<2	5	47
ZZ06580		10	<1	0.18	10	0.85	392	<1	0.03	20	580	7	0.01	<2	5	39
ZZ06581		<10	<1	0.11	10	0.70	350	<1	0.03	17	820	6	0.01	<2	4	36
ZZ06582		10	<1	0.10	10	0.73	321	<1	0.02	16	720	6	0.02	<2	4	38
ZZ06583		10	<1	0.13	10	0.72	333	1	0.02	18	740	6	0.02	<2	4	40
ZZ06584		10	<1	0.08	10	0.70	397	2	0.03	16	750	4	0.03	<2	4	33
ZZ06585		10	<1	0.08	10	0.75	446	5	0.02	21	1210	5	0.05	<2	5	45
ZZ06586		10	<1	0.08	10	0.63	434	3	0.03	20	1020	5	0.06	<2	5	40
ZZ06587		10	<1	0.07	10	0.59	153	1	0.02	15	930	5	0.05	<2	4	33
ZZ06588		10	<1	0.05	10	0.56	265	2	0.02	13	880	4	0.04	<2	4	33
ZZ06589		10	<1	0.06	10	0.66	355	3	0.02	15	1140	5	0.06	<2	4	47
ZZ06590		<10	<1	0.07	10	0.59	180	1	0.02	15	1190	5	0.03	<2	3	31
ZZ06591		<10	<1	0.08	10	0.51	292	2	0.03	16	1070	4	0.01	<2	3	27
ZZ06592		10	<1	0.09	10	0.88	379	2	0.03	22	830	6	0.03	<2	5	41
ZZ06593		10	<1	0.09	10	0.69	537	3	0.03	18	480	6	0.04	<2	4	49
ZZ06594		10	<1	0.09	20	0.72	661	21	0.02	17	1790	20	0.03	2	9	53
ZZ06595		10	<1	0.13	30	1.02	1775	7	0.01	10	1900	10	0.07	2	19	62
ZZ06596		10	<1	0.08	10	0.59	228	<1	<0.01	18	560	7	0.04	<2	3	32
ZZ06597		10	<1	0.11	10	0.66	308	<1	<0.01	19	530	7	0.03	<2	4	27
ZZ06598		10	<1	0.08	10	0.57	276	4	<0.01	16	350	6	0.02	<2	4	23
ZZ06599		10	<1	0.08	10	0.65	275	6	<0.01	16	350	7	0.02	<2	4	31
ZZ06781		<10	<1	0.07	10	0.60	448	4	0.02	24	710	2	0.17	<2	2	83
ZZ06782		<10	<1	0.05	<10	0.27	226	<1	0.01	10	700	<2	0.18	<2	1	72
ZZ06783		<10	<1	0.05	<10	0.69	389	1	0.02	8	590	2	0.09	<2	1	48

***** See Appendix Page for comments regarding this certificate *****

ALS Canada Ltd.
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ALS Minerals

To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 16- SEP- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11145982

Sample Description	Method Analyte Units LOR	ME- ICP41 Th ppm 20	ME- ICP41 Ti % 0.01	ME- ICP41 Tl ppm 10	ME- ICP41 U ppm 10	ME- ICP41 V ppm 1	ME- ICP41 W ppm 10	ME- ICP41 Zn ppm 2
ZZ06563		<20	0.14	<10	<10	79	<10	72
ZZ06564		<20	0.14	<10	<10	70	<10	71
ZZ06565		<20	0.17	<10	<10	120	<10	64
ZZ06566		<20	0.15	<10	<10	110	<10	67
ZZ06567		<20	0.16	<10	<10	100	<10	72
ZZ06568		<20	0.16	<10	<10	81	<10	75
ZZ06569		<20	0.15	<10	<10	89	<10	62
ZZ06570		<20	0.14	<10	<10	97	<10	66
ZZ06571		<20	0.15	<10	<10	70	<10	67
ZZ06572		<20	0.11	<10	<10	67	<10	66
ZZ06573		<20	0.15	<10	<10	58	<10	61
ZZ06574		<20	0.16	<10	<10	75	<10	74
ZZ06575		<20	0.17	<10	<10	72	<10	72
ZZ06576		<20	0.18	<10	<10	82	<10	69
ZZ06577		<20	0.18	<10	<10	92	<10	78
ZZ06578		<20	0.19	<10	<10	92	<10	85
ZZ06579		<20	0.18	<10	<10	88	<10	72
ZZ06580		<20	0.19	<10	<10	105	<10	62
ZZ06581		<20	0.15	<10	<10	80	<10	50
ZZ06582		<20	0.15	<10	<10	80	<10	56
ZZ06583		<20	0.16	<10	<10	83	<10	63
ZZ06584		<20	0.13	<10	<10	69	<10	64
ZZ06585		<20	0.10	<10	<10	68	<10	71
ZZ06586		<20	0.08	<10	<10	59	<10	70
ZZ06587		<20	0.09	<10	<10	50	<10	48
ZZ06588		<20	0.09	<10	<10	52	<10	44
ZZ06589		<20	0.10	<10	<10	69	<10	46
ZZ06590		<20	0.10	<10	<10	60	<10	40
ZZ06591		<20	0.09	<10	<10	61	<10	35
ZZ06592		<20	0.13	<10	<10	83	<10	58
ZZ06593		<20	0.11	<10	<10	68	<10	42
ZZ06594		<20	0.06	<10	<10	92	<10	56
ZZ06595		<20	0.01	<10	<10	123	<10	65
ZZ06596		<20	0.11	<10	<10	68	<10	45
ZZ06597		<20	0.12	<10	<10	70	<10	49
ZZ06598		<20	0.13	<10	<10	75	<10	44
ZZ06599		<20	0.12	<10	<10	69	<10	43
ZZ06781		<20	0.04	<10	<10	28	<10	32
ZZ06782		<20	0.02	<10	<10	19	<10	15
ZZ06783		<20	0.04	<10	<10	26	<10	29

***** See Appendix Page for comments regarding this certificate *****

ALS Minerals

ALS Canada Ltd.

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To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016-510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 16-SEP-2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11145982

Sample Description	Method	WEI-21	Au-ICP21	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Recvd Wt.	Au	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	kg	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	0.02	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
ZZ06784		0.02	<0.001	<0.2	1.02	11	<10	130	<0.5	<2	2.77	<0.5	12	21	191	2.21
ZZ06785		0.02	NSS	<0.2	0.69	4	<10	30	<0.5	<2	2.37	<0.5	11	8	56	0.91
ZZ06791		0.02	NSS	<0.2	0.63	3	<10	130	<0.5	<2	2.54	0.7	4	10	158	0.94
ZZ06792		0.06	0.011	<0.2	1.35	19	<10	320	0.5	<2	1.40	<0.5	12	28	159	2.28
ZZ06794		0.08	0.035	<0.2	1.48	13	<10	150	0.5	<2	1.25	<0.5	15	39	185	2.94
ZZ06795		0.04	<0.001	<0.2	0.52	12	<10	130	<0.5	<2	2.80	<0.5	5	9	88	1.19
ZZ06796		0.02	0.006	<0.2	1.11	18	<10	130	<0.5	<2	1.98	<0.5	16	23	195	2.47
ZZ06797		0.04	0.007	<0.2	1.51	9	<10	110	0.5	<2	2.05	<0.5	13	53	105	2.48
ZZ06798		0.02	<0.001	<0.2	1.90	29	<10	120	0.6	<2	1.57	<0.5	17	47	247	2.84
ZZ06799		0.04	0.001	<0.2	1.03	8	<10	110	<0.5	<2	0.64	<0.5	8	21	83	2.10
ZZ06880		0.14	0.004	<0.2	1.56	5	<10	130	<0.5	<2	0.71	<0.5	11	59	150	2.47
ZZ06881		0.14	0.005	<0.2	1.77	5	<10	150	<0.5	<2	0.74	<0.5	12	58	177	2.81
ZZ06882		0.18	0.004	<0.2	1.76	5	<10	150	<0.5	<2	0.75	<0.5	12	60	182	2.80
ZZ06883		0.12	0.001	<0.2	2.04	6	<10	160	<0.5	<2	0.74	<0.5	12	47	77	2.99
ZZ06884		0.12	0.005	<0.2	1.97	4	<10	160	<0.5	<2	0.75	<0.5	12	46	74	2.94
ZZ06885		0.10	0.053	<0.2	1.77	4	<10	110	<0.5	<2	0.46	<0.5	10	47	254	2.58
ZZ06887		0.08	0.002	<0.2	2.01	9	<10	130	0.5	<2	0.31	<0.5	10	42	54	2.83
ZZ06889		0.14	0.012	<0.2	1.57	6	<10	90	0.5	<2	0.51	<0.5	10	35	298	2.45
ZZ06941		0.14	0.001	<0.2	2.20	6	<10	140	0.5	<2	0.37	<0.5	11	38	38	2.90
ZZ06942		0.14	0.001	<0.2	0.70	<2	<10	130	<0.5	<2	0.54	<0.5	3	9	69	0.99
ZZ06943		0.12	0.007	<0.2	1.62	5	<10	90	<0.5	<2	0.27	<0.5	8	33	22	2.63
ZZ06944		0.12	0.007	<0.2	2.17	6	<10	150	<0.5	<2	0.37	<0.5	9	35	20	2.96
ZZ06945		0.12	0.001	<0.2	1.75	5	<10	180	<0.5	<2	0.53	<0.5	7	33	32	2.40
ZZ06946		0.12	0.001	<0.2	2.31	8	<10	200	0.6	<2	0.44	<0.5	10	38	41	3.07
ZZ06947		0.14	0.001	<0.2	2.22	6	<10	100	0.5	<2	0.37	<0.5	9	37	20	2.95
ZZ06948		0.14	0.004	<0.2	1.46	5	<10	170	<0.5	<2	0.63	<0.5	9	35	64	2.50
ZZ06949		0.16	0.003	<0.2	2.01	4	<10	240	0.5	<2	0.84	<0.5	10	38	56	2.70
ZZ06950		0.14	0.002	<0.2	2.04	8	<10	140	<0.5	<2	0.48	<0.5	9	40	23	3.10
ZZ06951		0.12	0.001	<0.2	2.47	3	<10	160	0.6	<2	0.43	<0.5	13	48	48	3.36
ZZ06952		0.12	0.006	0.7	3.87	10	<10	630	1.2	<2	0.58	<0.5	15	62	219	4.96
ZZ06953		0.12	<0.001	<0.2	2.04	5	<10	220	<0.5	<2	0.36	<0.5	9	35	53	2.81
ZZ06954		0.14	0.004	<0.2	2.15	6	<10	220	0.5	<2	0.40	<0.5	11	40	58	3.35
ZZ06955		0.10	0.013	<0.2	1.97	3	<10	180	0.5	<2	0.51	<0.5	10	40	54	3.13
ZZ06956		0.10	0.014	0.2	1.70	4	<10	330	<0.5	<2	0.87	<0.5	11	36	112	2.79
ZZ06957		0.10	0.002	0.2	1.98	3	<10	430	0.5	<2	0.92	<0.5	10	39	99	2.82
ZZ06958		0.10	0.004	<0.2	1.76	5	<10	370	0.6	<2	0.92	<0.5	11	36	178	3.00
ZZ06959		0.10	0.008	<0.2	1.57	4	<10	190	<0.5	<2	0.78	<0.5	10	45	91	2.51
ZZ06960		0.20	0.009	<0.2	1.69	6	<10	220	<0.5	<2	0.54	<0.5	9	38	267	2.53
ZZ06961		0.12	0.034	<0.2	1.65	6	<10	130	<0.5	<2	0.32	<0.5	7	32	63	2.59
ZZ06962		0.12	0.002	0.6	2.39	4	<10	140	<0.5	<2	0.33	<0.5	9	37	28	3.09

***** See Appendix Page for comments regarding this certificate *****

ALS Minerals
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To: ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 16- SEP- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11145982

Sample Description	Method Analyte Units LOR	ME- ICP41 Ga ppm 10	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1
ZZ06784		<10	<1	0.08	10	0.66	606	1	0.01	23	840	4	0.19	<2	3	101
ZZ06785		<10	<1	0.04	10	0.18	656	9	0.01	15	940	<2	0.26	<2	1	76
ZZ06791		<10	<1	0.03	10	0.26	598	<1	0.02	13	1080	2	0.17	<2	1	104
ZZ06792		<10	<1	0.08	10	0.47	578	<1	0.01	24	890	7	0.10	<2	4	67
ZZ06794		10	<1	0.08	10	0.70	781	1	0.01	24	840	7	0.08	<2	6	62
ZZ06795		<10	<1	0.03	10	0.20	421	<1	0.02	9	630	5	0.13	2	1	60
ZZ06796		<10	<1	0.07	10	0.48	572	<1	0.01	22	860	9	0.14	3	3	94
ZZ06797		<10	1	0.15	10	0.78	435	3	0.02	37	1060	3	0.14	<2	4	82
ZZ06798		10	<1	0.09	10	0.73	492	6	0.01	36	850	8	0.13	2	5	59
ZZ06799		<10	<1	0.06	10	0.28	189	3	<0.01	15	530	5	0.08	<2	2	39
ZZ06880		10	<1	0.19	20	0.92	292	3	0.02	46	1140	4	0.02	<2	5	42
ZZ06881		10	<1	0.22	20	0.97	329	5	0.02	43	1110	5	0.02	<2	6	47
ZZ06882		10	<1	0.22	20	0.99	321	4	0.03	45	1090	6	0.02	<2	6	47
ZZ06883		10	<1	0.15	20	0.91	497	44	0.02	27	930	7	0.02	<2	6	42
ZZ06884		10	<1	0.17	20	0.89	494	42	0.02	25	970	6	0.02	<2	6	43
ZZ06885		10	<1	0.08	20	0.84	295	4	0.01	30	510	4	0.02	2	5	32
ZZ06887		10	<1	0.11	10	0.74	243	<1	<0.01	24	420	6	0.02	<2	4	23
ZZ06889		<10	<1	0.12	20	0.71	239	<1	0.01	35	820	4	0.02	<2	5	32
ZZ06941		10	<1	0.14	10	0.73	281	<1	<0.01	23	670	6	0.03	<2	4	24
ZZ06942		<10	<1	0.05	10	0.17	75	<1	0.02	6	670	<2	0.05	<2	1	29
ZZ06943		10	<1	0.10	10	0.60	305	1	<0.01	13	360	6	0.02	<2	4	21
ZZ06944		10	<1	0.12	10	0.67	371	<1	<0.01	16	400	6	0.02	<2	4	31
ZZ06945		10	<1	0.09	10	0.67	324	<1	0.01	15	770	5	0.01	<2	5	34
ZZ06946		10	<1	0.15	10	0.76	419	<1	<0.01	20	430	7	0.02	<2	6	34
ZZ06947		10	<1	0.12	10	0.71	348	<1	<0.01	17	500	6	0.02	<2	5	30
ZZ06948		10	<1	0.15	10	0.66	398	<1	0.01	20	1240	4	0.03	<2	3	34
ZZ06949		10	<1	0.15	20	0.71	477	<1	0.02	20	1240	7	0.04	<2	5	56
ZZ06950		10	<1	0.14	10	0.83	299	<1	<0.01	20	300	6	0.02	<2	5	29
ZZ06951		10	<1	0.13	10	0.95	423	<1	<0.01	24	740	7	0.02	<2	6	29
ZZ06952		10	<1	0.18	20	1.04	663	5	0.04	38	910	10	0.01	<2	8	47
ZZ06953		10	<1	0.12	10	0.74	255	1	0.03	21	450	5	<0.01	<2	4	23
ZZ06954		10	<1	0.13	10	0.87	306	3	0.03	22	510	5	<0.01	<2	5	25
ZZ06955		10	<1	0.15	10	0.92	303	2	0.04	22	600	6	<0.01	<2	5	27
ZZ06956		10	<1	0.10	10	0.72	415	5	0.04	20	1280	5	0.03	<2	4	56
ZZ06957		10	<1	0.09	10	0.81	336	6	0.04	20	1080	4	0.02	<2	5	65
ZZ06958		10	<1	0.13	20	0.75	330	11	0.03	20	770	5	<0.01	<2	6	60
ZZ06959		10	<1	0.10	10	0.80	223	21	0.04	20	890	4	<0.01	<2	5	41
ZZ06960		10	<1	0.09	10	0.75	278	16	0.04	21	720	4	<0.01	<2	6	30
ZZ06961		10	<1	0.06	10	0.53	181	7	0.03	15	610	6	<0.01	<2	3	24
ZZ06962		10	<1	0.10	10	0.72	242	2	0.03	20	300	5	<0.01	<2	5	24

***** See Appendix Page for comments regarding this certificate *****

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Project: Hopper

CERTIFICATE OF ANALYSIS WH11145982

Sample Description	Method / Analyte / Units / LOR	ME- ICP41 Th ppm 20	ME- ICP41 Ti % 0.01	ME- ICP41 Tl ppm 10	ME- ICP41 U ppm 10	ME- ICP41 V ppm 1	ME- ICP41 W ppm 10	ME- ICP41 Zn ppm 2
ZZ06784		<20	0.05	<10	<10	33	<10	47
ZZ06785		<20	0.03	<10	<10	16	<10	13
ZZ06791		<20	0.03	<10	<10	19	<10	52
ZZ06792		<20	0.05	<10	<10	42	<10	41
ZZ06794		<20	0.09	<10	<10	55	<10	58
ZZ06795		<20	0.03	<10	<10	18	<10	32
ZZ06796		<20	0.05	<10	<10	35	<10	135
ZZ06797		<20	0.12	<10	<10	53	<10	45
ZZ06798		<20	0.11	<10	<10	54	<10	55
ZZ06799		<20	0.06	<10	<10	49	<10	21
ZZ06880		<20	0.14	<10	<10	51	<10	46
ZZ06881		<20	0.16	<10	<10	58	<10	52
ZZ06882		<20	0.16	<10	<10	58	<10	51
ZZ06883		<20	0.16	<10	<10	65	<10	51
ZZ06884		<20	0.16	<10	<10	64	<10	53
ZZ06885		<20	0.14	<10	<10	55	<10	38
ZZ06887		<20	0.12	<10	<10	61	<10	40
ZZ06889		<20	0.10	<10	<10	40	<10	31
ZZ06941		<20	0.13	<10	<10	62	<10	46
ZZ06942		<20	0.05	<10	<10	27	<10	18
ZZ06943		<20	0.14	<10	<10	68	<10	42
ZZ06944		<20	0.15	<10	<10	73	<10	51
ZZ06945		<20	0.13	<10	<10	58	<10	44
ZZ06946		<20	0.14	<10	<10	71	<10	55
ZZ06947		<20	0.15	<10	<10	72	<10	54
ZZ06948		<20	0.13	<10	<10	59	<10	45
ZZ06949		<20	0.13	<10	<10	61	<10	60
ZZ06950		<20	0.17	<10	<10	77	<10	55
ZZ06951		<20	0.15	<10	<10	78	<10	57
ZZ06952		<20	0.11	<10	<10	103	<10	80
ZZ06953		<20	0.12	<10	<10	62	<10	50
ZZ06954		<20	0.15	<10	<10	76	<10	54
ZZ06955		<20	0.16	<10	<10	64	<10	51
ZZ06956		<20	0.09	<10	10	56	<10	51
ZZ06957		<20	0.10	<10	10	61	<10	50
ZZ06958		<20	0.10	<10	<10	60	<10	45
ZZ06959		<20	0.14	<10	<10	57	<10	43
ZZ06960		<20	0.13	<10	<10	57	<10	42
ZZ06961		<20	0.10	<10	<10	61	<10	35
ZZ06962		<20	0.13	<10	<10	73	<10	51

***** See Appendix Page for comments regarding this certificate *****

ALS Minerals

ALS Canada Ltd.

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

To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 16- SEP- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11145982

Sample Description	Method	WEI- 21	Au- ICP21	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41
	Analyte	Recvd Wt.	Au	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	kg	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	0.02	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
ZZ06963		0.10	0.004	0.2	2.15	5	<10	150	0.5	<2	0.41	<0.5	11	54	144	2.85
ZZ06964		0.12	0.003	<0.2	1.74	5	<10	230	<0.5	<2	0.54	<0.5	19	43	65	3.12
ZZ06965		0.08	0.011	0.3	1.93	3	<10	270	0.6	<2	0.92	<0.5	13	72	396	2.85
ZZ06966		0.12	0.019	0.4	1.79	6	<10	160	0.5	2	0.44	<0.5	12	44	255	2.95
ZZ06967		0.20	0.004	0.2	2.09	6	<10	130	0.5	<2	0.40	<0.5	10	38	387	2.80
ZZ06968		0.14	0.005	<0.2	2.65	7	<10	150	0.6	<2	0.34	<0.5	11	46	84	3.52
ZZ06969		0.18	0.009	<0.2	1.57	5	<10	140	<0.5	<2	0.67	<0.5	9	40	179	2.63
ZZ06970		0.14	0.004	<0.2	2.07	6	<10	140	0.5	<2	0.37	<0.5	10	39	69	2.79
ZZ06971		0.14	0.002	<0.2	1.63	4	<10	220	<0.5	<2	0.48	<0.5	9	35	51	2.57
ZZ06972		0.16	0.005	<0.2	1.71	5	<10	180	<0.5	<2	0.76	<0.5	11	47	126	3.85
ZZ06973		0.20	0.004	<0.2	1.80	3	<10	320	<0.5	<2	0.96	<0.5	9	43	109	2.39
ZZ06974		0.24	0.009	<0.2	1.71	3	<10	240	0.5	<2	0.71	<0.5	11	39	148	2.73
ZZ06975		0.24	0.004	<0.2	1.72	<2	<10	280	<0.5	<2	0.88	<0.5	11	41	77	2.94
ZZ06976		0.18	0.008	<0.2	1.81	4	<10	200	0.5	<2	0.67	<0.5	11	40	80	2.90
ZZ06977		0.18	0.005	<0.2	1.66	5	<10	190	<0.5	<2	0.68	<0.5	9	34	59	2.51
ZZ06978		0.22	0.003	<0.2	1.74	5	<10	260	<0.5	<2	0.71	<0.5	10	38	44	2.97
ZZ06979		0.20	0.003	<0.2	1.74	4	<10	290	<0.5	<2	0.82	<0.5	9	34	40	2.51
ZZ06980		0.24	0.001	<0.2	1.85	5	<10	210	<0.5	<2	0.63	<0.5	9	34	33	2.74
ZZ06981		0.18	0.002	<0.2	1.37	2	<10	140	<0.5	<2	0.69	<0.5	7	28	23	2.22
ZZ06982		0.14	0.001	<0.2	1.46	<2	<10	250	<0.5	<2	0.69	<0.5	7	29	70	2.12
ZZ06983		0.18	0.001	<0.2	1.44	4	<10	110	<0.5	<2	0.43	<0.5	7	29	16	2.58
ZZ06984		0.20	0.001	<0.2	1.89	4	<10	160	<0.5	<2	0.40	<0.5	8	33	40	2.69
ZZ06985		0.20	0.002	<0.2	1.60	4	<10	170	<0.5	<2	0.76	<0.5	9	34	37	2.56
ZZ06986		0.18	0.004	<0.2	1.78	5	<10	230	<0.5	<2	0.84	<0.5	10	39	47	2.92
ZZ06987		0.18	0.004	<0.2	1.76	2	<10	270	0.5	<2	0.97	<0.5	11	41	115	2.88
ZZ06988		0.18	0.003	<0.2	2.15	2	<10	280	0.5	<2	1.06	<0.5	12	50	106	2.80
ZZ06989		0.10	0.004	0.2	2.30	4	<10	480	0.5	<2	1.09	<0.5	14	51	179	2.97
ZZ06990		0.20	0.001	<0.2	1.77	4	<10	200	<0.5	<2	0.71	<0.5	10	47	63	2.43
ZZ06991		0.26	0.001	<0.2	2.38	5	<10	210	0.5	<2	0.44	<0.5	11	41	33	3.10
ZZ06992		0.24	0.008	<0.2	2.08	5	<10	240	0.5	<2	0.55	<0.5	9	42	41	2.80
ZZ06993		0.14	0.009	0.2	2.16	6	<10	200	0.7	<2	0.66	<0.5	12	44	713	2.75
ZZ06994		0.24	0.012	<0.2	2.21	5	<10	160	0.6	<2	0.34	<0.5	11	45	198	2.84
ZZ06995		0.16	0.001	<0.2	1.83	4	<10	230	<0.5	<2	0.59	<0.5	10	35	48	2.65
ZZ06996		0.16	0.002	0.2	1.92	4	<10	250	<0.5	<2	0.81	<0.5	11	41	60	3.07
ZZ06997		0.14	0.002	<0.2	1.85	4	<10	240	<0.5	<2	0.87	<0.5	13	39	65	3.12
ZZ06998		0.12	0.003	0.2	1.98	4	<10	240	0.5	<2	0.95	<0.5	12	41	80	3.02
ZZ06999		0.16	0.002	0.2	1.90	5	<10	170	<0.5	<2	0.49	<0.5	10	39	84	3.18
ZZ07000		0.18	0.001	0.2	1.61	3	<10	200	<0.5	<2	0.73	<0.5	12	34	52	3.11
ZZ19760		0.20	0.002	<0.2	1.21	3	<10	100	<0.5	<2	0.33	<0.5	7	22	15	2.05
ZZ19761		0.24	0.008	0.3	1.66	2	<10	220	<0.5	<2	0.65	<0.5	6	33	129	1.93

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Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11145982

Sample Description	ME- ICP41 Ga ppm 10	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1
ZZ06963	10	<1	0.09	10	1.00	268	21	0.04	43	330	7	<0.01	<2	5	31
ZZ06964	10	1	0.11	10	0.74	1130	83	0.03	18	560	6	<0.01	<2	5	33
ZZ06965	10	<1	0.14	10	1.21	341	17	0.05	48	1100	4	0.02	<2	5	52
ZZ06966	10	1	0.13	10	0.81	394	11	0.03	26	570	11	<0.01	<2	4	27
ZZ06967	10	<1	0.06	20	0.72	361	30	0.03	19	230	4	<0.01	<2	6	30
ZZ06968	10	<1	0.15	10	0.96	282	5	0.03	26	230	5	<0.01	<2	5	25
ZZ06969	10	<1	0.10	20	0.86	291	38	0.05	27	810	4	<0.01	<2	5	39
ZZ06970	10	<1	0.11	10	0.78	292	6	0.03	22	360	6	<0.01	<2	5	25
ZZ06971	10	<1	0.10	10	0.78	267	61	0.03	18	380	5	<0.01	<2	4	25
ZZ06972	10	<1	0.11	10	0.95	291	6	0.06	22	980	3	<0.01	<2	5	45
ZZ06973	10	<1	0.15	20	0.82	298	1	0.05	21	940	6	0.02	<2	6	54
ZZ06974	10	<1	0.24	20	0.86	352	3	0.05	23	800	6	<0.01	<2	6	37
ZZ06975	10	<1	0.18	10	0.87	280	3	0.05	18	1150	6	<0.01	<2	6	46
ZZ06976	10	<1	0.13	20	0.83	395	2	0.05	21	740	5	<0.01	<2	6	38
ZZ06977	10	<1	0.14	10	0.71	379	1	0.05	17	970	5	<0.01	<2	5	39
ZZ06978	10	<1	0.19	10	0.82	466	1	0.05	20	830	6	<0.01	<2	6	38
ZZ06979	10	<1	0.11	10	0.70	382	1	0.04	16	1190	5	0.01	<2	5	49
ZZ06980	10	<1	0.16	10	0.75	391	<1	0.04	21	950	5	<0.01	<2	5	36
ZZ06981	<10	<1	0.10	10	0.59	322	<1	0.05	14	1120	4	<0.01	<2	4	36
ZZ06982	<10	<1	0.11	10	0.56	194	1	0.05	14	1040	5	0.01	<2	5	42
ZZ06983	10	<1	0.11	10	0.65	262	1	0.04	13	510	4	<0.01	<2	4	26
ZZ06984	10	<1	0.12	10	0.72	266	1	0.03	19	340	7	<0.01	<2	4	26
ZZ06985	10	<1	0.11	10	0.70	339	1	0.05	16	1090	5	<0.01	<2	4	41
ZZ06986	10	<1	0.19	20	0.79	434	2	0.05	21	1110	6	<0.01	<2	6	47
ZZ06987	10	<1	0.20	20	0.79	290	3	0.05	24	1020	6	<0.01	<2	6	49
ZZ06988	10	<1	0.13	20	0.92	295	10	0.04	35	1070	10	0.02	<2	6	63
ZZ06989	10	<1	0.10	20	0.90	607	27	0.05	25	1020	9	0.06	<2	7	73
ZZ06990	10	<1	0.06	10	0.84	200	50	0.03	25	980	6	0.02	<2	5	34
ZZ06991	10	<1	0.12	10	0.80	339	2	0.02	23	480	8	<0.01	<2	5	29
ZZ06992	10	<1	0.11	10	0.75	323	9	0.03	22	530	8	<0.01	<2	5	36
ZZ06993	10	<1	0.10	20	0.77	463	36	0.04	28	820	8	<0.01	<2	6	35
ZZ06994	10	<1	0.10	10	0.76	285	5	0.01	36	400	6	<0.01	<2	5	23
ZZ06995	10	<1	0.08	10	0.69	404	10	0.02	18	410	7	<0.01	<2	5	33
ZZ06996	10	<1	0.18	10	0.79	450	<1	0.03	20	990	10	0.05	<2	5	55
ZZ06997	10	<1	0.21	10	0.80	610	<1	0.04	19	970	8	0.04	<2	5	61
ZZ06998	10	<1	0.22	20	0.84	433	<1	0.04	22	920	9	0.04	<2	6	57
ZZ06999	10	<1	0.19	10	0.76	369	1	0.02	19	470	9	0.02	<2	5	36
ZZ07000	10	<1	0.11	10	0.72	456	1	0.03	16	740	8	0.04	<2	4	56
ZZ19760	<10	<1	0.08	10	0.36	246	1	0.03	11	580	6	<0.01	<2	2	25
ZZ19761	<10	<1	0.12	20	0.60	196	4	0.03	14	1110	6	0.04	<2	5	37

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Sample Description	Method Analyte Units LOR	ME- ICP41 Th ppm 20	ME- ICP41 Ti % 0.01	ME- ICP41 Tl ppm 10	ME- ICP41 U ppm 10	ME- ICP41 V ppm 1	ME- ICP41 W ppm 10	ME- ICP41 Zn ppm 2
ZZ06963		<20	0.14	<10	<10	63	<10	43
ZZ06964		<20	0.14	<10	<10	75	<10	108
ZZ06965		<20	0.12	<10	10	61	<10	46
ZZ06966		<20	0.12	<10	<10	59	<10	42
ZZ06967		<20	0.12	<10	<10	68	<10	46
ZZ06968		<20	0.17	<10	<10	78	<10	54
ZZ06969		<20	0.14	<10	<10	55	<10	41
ZZ06970		<20	0.13	<10	<10	59	<10	47
ZZ06971		<20	0.13	<10	<10	55	<10	44
ZZ06972		<20	0.15	<10	<10	55	<10	57
ZZ06973		<20	0.15	<10	<10	61	<10	68
ZZ06974		<20	0.15	<10	<10	56	<10	60
ZZ06975		<20	0.17	<10	<10	65	<10	64
ZZ06976		<20	0.16	<10	<10	63	<10	53
ZZ06977		<20	0.13	<10	<10	54	<10	49
ZZ06978		<20	0.15	<10	<10	64	<10	56
ZZ06979		<20	0.11	<10	<10	54	<10	52
ZZ06980		<20	0.13	<10	<10	57	<10	53
ZZ06981		<20	0.12	<10	<10	48	<10	44
ZZ06982		<20	0.12	<10	<10	50	<10	67
ZZ06983		<20	0.12	<10	<10	59	<10	47
ZZ06984		<20	0.14	<10	<10	59	<10	51
ZZ06985		<20	0.12	<10	<10	56	<10	46
ZZ06986		<20	0.14	<10	<10	62	<10	56
ZZ06987		<20	0.15	<10	<10	65	<10	71
ZZ06988		<20	0.18	<10	<10	65	<10	64
ZZ06989		<20	0.13	<10	10	71	<10	81
ZZ06990		<20	0.14	<10	<10	58	<10	40
ZZ06991		<20	0.15	<10	<10	74	<10	54
ZZ06992		<20	0.13	<10	<10	66	<10	49
ZZ06993		<20	0.12	<10	<10	58	<10	46
ZZ06994		<20	0.12	<10	<10	62	<10	51
ZZ06995		<20	0.12	<10	<10	64	<10	48
ZZ06996		<20	0.14	<10	<10	80	<10	69
ZZ06997		<20	0.14	<10	<10	89	<10	66
ZZ06998		<20	0.16	<10	<10	79	<10	65
ZZ06999		<20	0.15	<10	<10	84	<10	65
ZZ07000		<20	0.13	<10	<10	88	<10	58
ZZ19760		<20	0.10	<10	<10	53	<10	49
ZZ19761		<20	0.10	<10	<10	49	<10	77

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Method	WEI- 21	Au- ICP21	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41
Analyte	Recvd Wt.	Au	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
Units	kg	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
Sample Description / LOR	0.02	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
ZZ19762	0.18	0.005	0.4	1.43	<2	<10	280	<0.5	<2	0.85	0.5	6	24	352	1.35
ZZ19763	0.18	0.004	0.2	1.70	3	<10	320	0.5	<2	0.68	<0.5	8	33	237	2.38
ZZ19764	0.20	<0.001	<0.2	1.20	3	<10	130	<0.5	<2	0.54	<0.5	6	25	20	2.03
ZZ19765	0.14	0.002	<0.2	1.62	3	<10	210	<0.5	<2	0.83	<0.5	8	35	40	2.40
ZZ19766	0.20	0.001	<0.2	2.07	4	<10	220	<0.5	<2	0.76	<0.5	11	38	19	2.85
ZZ19767	0.12	0.002	<0.2	1.72	13	<10	260	<0.5	<2	0.98	<0.5	8	37	27	2.86
ZZ19768	0.14	0.001	<0.2	1.58	<2	<10	200	<0.5	<2	0.91	<0.5	7	33	19	1.86
ZZ19769	0.20	0.001	0.2	1.59	3	<10	200	<0.5	<2	1.01	<0.5	8	32	20	2.43
ZZ19770	0.20	0.003	<0.2	1.21	3	<10	190	<0.5	<2	0.44	<0.5	7	23	22	1.85
ZZ19771	0.16	0.002	<0.2	1.88	5	<10	140	<0.5	<2	0.39	<0.5	13	32	167	2.98
ZZ19772	0.12	0.002	<0.2	1.71	5	<10	100	<0.5	2	0.27	<0.5	9	33	127	3.58
ZZ19773	0.18	0.009	0.2	2.08	3	<10	230	0.5	<2	0.50	<0.5	11	35	686	3.38
ZZ19774	0.16	0.004	<0.2	1.78	4	<10	180	<0.5	<2	0.50	<0.5	10	34	84	2.98
ZZ19775	0.24	0.006	0.2	1.34	4	<10	270	0.6	<2	0.53	<0.5	9	28	486	2.92
ZZ19776	0.22	0.004	0.3	1.75	3	<10	340	<0.5	<2	0.55	<0.5	9	30	314	2.37
ZZ19777	0.24	0.011	<0.2	0.89	3	<10	130	<0.5	<2	0.48	<0.5	6	20	149	2.08
ZZ19778	0.20	0.005	0.3	1.69	3	<10	190	<0.5	<2	0.47	<0.5	6	31	301	2.06
ZZ19779	0.22	0.009	<0.2	1.29	<2	<10	180	<0.5	<2	0.54	<0.5	5	23	112	1.48
ZZ19780	0.24	0.006	<0.2	1.13	3	<10	110	<0.5	<2	0.59	<0.5	5	24	56	1.47
ZZ19781	0.10	0.002	0.3	1.61	2	<10	270	<0.5	<2	0.57	<0.5	11	32	56	2.48
ZZ19782	0.18	0.002	<0.2	1.40	4	<10	110	<0.5	<2	0.40	<0.5	7	27	17	2.23
ZZ19783	0.08	0.003	<0.2	1.69	2	<10	190	<0.5	<2	0.86	<0.5	8	32	56	2.33
ZZ19784	0.20	0.004	<0.2	1.50	<2	<10	190	<0.5	<2	0.64	<0.5	6	26	72	1.73
ZZ19785	0.16	0.003	<0.2	1.48	3	<10	100	<0.5	<2	0.50	<0.5	6	29	22	2.39
ZZ19786	0.14	0.003	<0.2	1.81	3	<10	180	<0.5	<2	0.52	<0.5	9	34	102	2.65
ZZ19787	0.12	0.005	0.3	1.29	3	<10	210	<0.5	<2	0.65	<0.5	9	13	62	1.85
ZZ19788	0.18	0.033	<0.2	2.23	3	<10	380	0.5	<2	0.73	<0.5	8	37	168	2.71
ZZ19789	0.14	0.004	<0.2	0.82	<2	<10	80	<0.5	<2	0.36	<0.5	4	14	17	1.30
ZZ19790	0.18	0.003	<0.2	1.60	<2	<10	180	<0.5	<2	0.63	<0.5	9	31	33	2.64
ZZ19791	0.18	0.002	<0.2	1.73	5	<10	160	<0.5	<2	0.75	<0.5	7	34	22	2.47
ZZ19792	0.20	0.002	<0.2	2.24	3	<10	230	0.5	<2	0.78	<0.5	11	39	38	3.30
ZZ19793	0.18	0.008	<0.2	1.80	4	<10	90	<0.5	<2	0.49	<0.5	10	34	19	2.60
ZZ19794	0.20	0.005	<0.2	2.01	2	<10	180	<0.5	<2	0.69	<0.5	10	39	24	2.38
ZZ19795	0.18	0.001	<0.2	1.65	3	<10	140	<0.5	<2	0.63	<0.5	8	34	12	2.61
ZZ19796	0.18	0.004	<0.2	2.27	14	<10	160	0.5	<2	0.58	<0.5	10	41	23	2.98
ZZ19797	0.08	0.002	0.2	0.77	<2	10	110	<0.5	2	1.91	1.1	12	13	206	1.34
ZZ19798	0.06	NSS	<0.2	0.42	2	<10	140	<0.5	<2	4.48	<0.5	3	7	80	0.67
ZZ19799	0.18	0.003	<0.2	1.88	8	<10	110	<0.5	<2	0.43	<0.5	9	36	31	2.68
ZZ19800	0.14	0.014	<0.2	1.60	<2	<10	130	<0.5	<2	0.31	<0.5	8	29	10	2.70
ZZ19801	0.16	0.001	<0.2	1.47	5	<10	90	<0.5	<2	0.41	<0.5	8	27	32	2.33

***** See Appendix Page for comments regarding this certificate *****

ALS Canada Ltd.
2103 Dollarton Hwy
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ALS Minerals

To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 16- SEP- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11145982

Sample Description	Method / Analyte / Units / LOR	ME- ICP41 Ga ppm 10	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1
ZZ19762		<10	<1	0.14	10	0.41	132	4	0.03	14	720	6	0.05	<2	5	41
ZZ19763		<10	<1	0.18	10	0.63	210	2	0.02	18	550	7	0.01	<2	7	38
ZZ19764		<10	<1	0.11	10	0.48	269	<1	0.03	14	890	5	<0.01	<2	3	36
ZZ19765		10	<1	0.14	10	0.69	320	1	0.02	16	670	7	0.03	<2	4	51
ZZ19766		10	<1	0.11	10	0.77	304	2	0.02	19	710	7	0.02	<2	4	48
ZZ19767		<10	<1	0.20	10	0.70	314	1	0.04	18	1080	7	0.04	<2	5	51
ZZ19768		<10	<1	0.13	10	0.64	404	<1	0.03	14	1040	8	0.05	<2	4	47
ZZ19769		<10	<1	0.11	10	0.62	268	1	0.03	15	860	7	0.05	<2	4	55
ZZ19770		<10	<1	0.11	10	0.44	307	<1	0.04	13	770	6	<0.01	<2	3	29
ZZ19771		10	<1	0.12	10	0.59	341	4	0.02	21	830	8	<0.01	<2	4	22
ZZ19772		10	<1	0.10	10	0.56	273	6	0.01	14	520	8	<0.01	<2	4	18
ZZ19773		10	<1	0.09	10	0.88	519	14	0.02	16	1340	5	0.04	<2	6	33
ZZ19774		10	<1	0.13	10	0.68	388	4	0.03	20	1000	8	0.01	<2	4	30
ZZ19775		<10	<1	0.14	30	0.58	393	7	0.02	13	980	7	<0.01	<2	7	26
ZZ19776		10	<1	0.14	20	0.63	401	5	0.03	15	810	6	0.02	<2	5	33
ZZ19777		<10	<1	0.11	20	0.39	210	9	0.03	11	1060	5	<0.01	<2	3	22
ZZ19778		10	<1	0.15	10	0.67	298	5	0.03	14	450	6	0.01	<2	5	28
ZZ19779		<10	<1	0.15	10	0.51	172	3	0.03	11	1140	6	<0.01	<2	4	25
ZZ19780		<10	<1	0.11	10	0.46	150	1	0.03	12	1010	5	<0.01	<2	4	34
ZZ19781		10	<1	0.07	10	0.48	697	4	0.01	13	1090	9	0.03	<2	2	36
ZZ19782		<10	<1	0.11	10	0.47	241	1	0.02	13	790	5	0.01	<2	3	28
ZZ19783		<10	<1	0.12	10	0.57	488	<1	0.03	15	1400	7	0.04	<2	5	53
ZZ19784		10	1	0.13	20	0.58	218	<1	0.02	11	1230	5	0.01	<2	4	35
ZZ19785		10	<1	0.08	10	0.52	214	1	0.01	10	610	6	0.01	<2	4	33
ZZ19786		10	<1	0.12	10	0.69	321	2	0.02	17	730	6	0.03	<2	4	37
ZZ19787		<10	<1	0.05	10	0.24	533	4	0.04	6	1080	3	0.06	<2	2	42
ZZ19788		10	<1	0.17	10	0.75	229	1	0.02	18	740	8	0.02	<2	8	39
ZZ19789		<10	<1	0.04	10	0.29	159	<1	0.03	5	600	2	0.02	<2	1	25
ZZ19790		10	<1	0.10	10	0.58	375	<1	0.02	15	900	5	0.04	<2	4	44
ZZ19791		10	1	0.09	10	0.68	227	<1	0.02	13	890	5	0.04	<2	3	46
ZZ19792		10	<1	0.21	10	0.87	496	<1	0.02	22	780	7	0.03	<2	5	48
ZZ19793		10	<1	0.14	10	0.64	387	<1	0.02	17	1020	6	0.01	<2	4	33
ZZ19794		10	<1	0.15	10	0.74	247	<1	0.02	19	760	7	0.02	<2	5	40
ZZ19795		10	<1	0.14	10	0.68	307	<1	0.02	14	580	6	0.01	<2	4	39
ZZ19796		10	<1	0.16	10	0.82	348	<1	0.02	21	740	6	0.01	<2	5	38
ZZ19797		<10	<1	0.12	<10	0.34	903	6	0.04	18	1550	2	0.07	<2	2	54
ZZ19798		<10	<1	0.02	<10	0.24	193	9	0.02	10	800	<2	0.41	<2	1	104
ZZ19799		10	1	0.14	10	0.67	274	2	0.01	16	300	8	<0.01	<2	4	24
ZZ19800		10	<1	0.05	10	0.44	245	1	0.01	12	230	7	<0.01	<2	3	20
ZZ19801		10	<1	0.12	10	0.47	258	1	0.01	13	520	6	<0.01	<2	3	23

***** See Appendix Page for comments regarding this certificate *****

ALS Canada Ltd.

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To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 16- SEP- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11145982

Sample Description	Method Analyte Units LOR	ME- ICP41 Th ppm 20	ME- ICP41 Ti % 0.01	ME- ICP41 Tl ppm 10	ME- ICP41 U ppm 10	ME- ICP41 V ppm 1	ME- ICP41 W ppm 10	ME- ICP41 Zn ppm 2
ZZ19762		<20	0.08	<10	<10	41	<10	54
ZZ19763		<20	0.11	<10	<10	57	<10	61
ZZ19764		<20	0.10	<10	<10	48	<10	36
ZZ19765		<20	0.13	<10	<10	61	<10	60
ZZ19766		<20	0.12	<10	<10	69	<10	56
ZZ19767		<20	0.15	<10	<10	67	<10	82
ZZ19768		<20	0.13	<10	<10	48	<10	83
ZZ19769		<20	0.11	<10	<10	55	<10	65
ZZ19770		<20	0.10	<10	<10	43	<10	41
ZZ19771		<20	0.12	<10	<10	70	<10	42
ZZ19772		<20	0.13	<10	<10	85	<10	44
ZZ19773		<20	0.11	<10	<10	86	<10	51
ZZ19774		<20	0.15	<10	<10	72	<10	53
ZZ19775		<20	0.10	<10	<10	64	<10	44
ZZ19776		<20	0.10	<10	<10	60	<10	47
ZZ19777		<20	0.07	<10	<10	45	<10	31
ZZ19778		<20	0.13	<10	<10	49	<10	55
ZZ19779		<20	0.09	<10	<10	37	<10	39
ZZ19780		<20	0.11	<10	<10	44	<10	39
ZZ19781		<20	0.05	<10	<10	53	<10	46
ZZ19782		<20	0.10	<10	<10	55	<10	40
ZZ19783		<20	0.11	<10	<10	56	<10	55
ZZ19784		<20	0.13	<10	<10	47	<10	50
ZZ19785		<20	0.13	<10	<10	63	<10	48
ZZ19786		<20	0.12	<10	<10	61	<10	67
ZZ19787		<20	0.04	<10	<10	40	<10	28
ZZ19788		<20	0.14	<10	<10	66	<10	59
ZZ19789		<20	0.07	<10	<10	32	<10	27
ZZ19790		<20	0.13	<10	<10	68	<10	47
ZZ19791		<20	0.13	<10	10	64	<10	57
ZZ19792		<20	0.19	<10	<10	72	<10	77
ZZ19793		<20	0.14	<10	<10	63	<10	49
ZZ19794		<20	0.13	<10	<10	56	<10	51
ZZ19795		<20	0.16	<10	<10	69	<10	64
ZZ19796		<20	0.15	<10	<10	71	<10	63
ZZ19797		<20	0.06	<10	<10	31	<10	93
ZZ19798		<20	0.02	<10	10	14	<10	9
ZZ19799		<20	0.14	<10	<10	67	<10	64
ZZ19800		<20	0.13	<10	<10	75	<10	65
ZZ19801		<20	0.11	<10	<10	52	<10	59

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1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 16- SEP- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11145982

Sample Description	Method / Analyte / Units / LOR	WEI- 21 Recvd Wt. kg 0.02	Au- ICP21 Au ppm 0.001	ME- ICP41 Ag ppm 0.2	ME- ICP41 Al % 0.01	ME- ICP41 As ppm 2	ME- ICP41 B ppm 10	ME- ICP41 Ba ppm 10	ME- ICP41 Be ppm 0.5	ME- ICP41 Bi ppm 2	ME- ICP41 Ca % 0.01	ME- ICP41 Cd ppm 0.5	ME- ICP41 Co ppm 1	ME- ICP41 Cr ppm 1	ME- ICP41 Cu ppm 1	ME- ICP41 Fe % 0.01
ZZ19802		0.16	0.001	<0.2	1.51	2	<10	110	<0.5	<2	0.42	<0.5	8	29	11	2.41
ZZ19803		0.16	NSS	<0.2	2.08	6	<10	140	<0.5	2	0.36	<0.5	10	36	26	3.07
ZZ19804		0.18	0.002	<0.2	2.07	4	<10	160	0.5	<2	0.50	<0.5	12	39	16	2.93
ZZ19805		0.14	0.002	<0.2	2.32	2	<10	70	<0.5	2	0.80	<0.5	11	32	49	2.62
ZZ19806		0.16	0.003	<0.2	2.03	3	<10	140	<0.5	<2	0.57	<0.5	12	35	23	2.75
ZZ19807		0.16	0.004	<0.2	2.74	5	<10	50	0.7	<2	0.82	<0.5	14	38	37	3.40
ZZ19808		0.10	0.003	<0.2	2.10	6	<10	90	<0.5	<2	0.96	<0.5	7	34	47	2.84
ZZ19809		0.16	0.008	0.2	1.85	7	<10	140	0.5	<2	1.27	<0.5	12	36	179	2.82
ZZ19810		0.08	0.010	0.2	0.35	2	<10	60	0.5	<2	1.70	<0.5	4	6	245	0.74
ZZ19811		0.12	0.001	<0.2	1.88	3	<10	70	<0.5	2	0.70	<0.5	8	34	15	2.69
ZZ19812		0.14	0.003	<0.2	1.76	7	<10	100	<0.5	<2	0.76	<0.5	11	37	14	2.82
ZZ19813		0.18	0.004	<0.2	1.56	7	<10	140	<0.5	2	2.23	<0.5	8	28	108	2.50
ZZ19814		0.10	0.011	0.2	0.79	3	<10	90	<0.5	<2	4.37	<0.5	8	28	396	1.25
ZZ19815		0.10	0.009	<0.2	1.69	9	<10	70	<0.5	2	0.78	<0.5	9	34	112	2.73
ZZ19816		0.12	0.007	<0.2	1.68	4	<10	80	<0.5	<2	2.11	<0.5	8	28	43	2.23
ZZ19817		0.08	0.014	<0.2	1.53	7	<10	100	<0.5	<2	0.82	<0.5	12	31	575	2.54
ZZ19818		0.10	0.053	<0.2	1.61	11	<10	80	0.6	5	0.78	<0.5	11	34	192	3.47
ZZ19819		0.12	0.007	<0.2	1.39	7	<10	80	<0.5	<2	0.81	<0.5	8	30	195	2.39
ZZ19820		0.14	0.012	<0.2	2.10	6	<10	80	0.6	2	0.57	<0.5	11	42	56	3.21
ZZ19821		0.12	0.010	<0.2	1.78	5	<10	100	<0.5	<2	0.56	<0.5	9	34	38	2.68
ZZ19822		0.12	0.004	<0.2	1.56	4	<10	120	<0.5	<2	0.64	<0.5	9	31	39	2.43
ZZ19823		0.12	0.004	<0.2	1.86	5	<10	150	0.5	<2	0.71	<0.5	10	37	52	2.89
ZZ19824		0.10	0.003	<0.2	2.03	6	<10	170	0.5	<2	0.78	<0.5	12	40	62	3.10
ZZ19825		0.12	0.006	<0.2	1.97	7	<10	160	0.5	<2	1.11	<0.5	11	39	86	3.12
ZZ19826		0.10	0.005	0.2	1.76	7	<10	140	<0.5	<2	3.07	<0.5	9	33	74	2.61
ZZ19751		0.28	0.009	0.2	1.63	3	<10	180	<0.5	<2	0.44	<0.5	8	31	304	2.41
ZZ19752		0.18	0.003	<0.2	1.43	<2	<10	220	<0.5	<2	0.41	<0.5	5	28	110	1.72
ZZ19753		0.16	0.005	<0.2	1.50	2	<10	280	<0.5	<2	0.57	<0.5	13	29	91	2.66
ZZ19754		0.24	0.002	<0.2	1.26	<2	<10	190	<0.5	<2	0.44	<0.5	7	28	98	2.01
ZZ19755		0.20	0.003	<0.2	1.26	2	<10	160	<0.5	<2	0.39	<0.5	6	22	77	1.89
ZZ19756		0.20	0.002	<0.2	1.23	<2	<10	90	<0.5	<2	0.43	<0.5	5	22	16	1.71
ZZ19757		0.22	0.002	<0.2	1.19	<2	<10	140	<0.5	<2	0.57	<0.5	5	22	45	1.48
ZZ19758		0.24	0.003	<0.2	1.31	2	<10	130	<0.5	<2	0.46	<0.5	6	25	24	1.80
ZZ19759		0.24	0.003	<0.2	1.84	2	<10	240	<0.5	<2	0.66	<0.5	7	32	121	1.99

***** See Appendix Page for comments regarding this certificate *****

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Finalized Date: 16- SEP- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11145982

Sample Description	Method / Analyte / Units / LOR	ME- ICP41 Ga ppm 10	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1
ZZ19802		10	<1	0.17	10	0.55	314	<1	0.01	14	400	5	<0.01	<2	4	22
ZZ19803		10	<1	0.08	10	0.65	274	<1	0.01	17	750	8	<0.01	<2	4	23
ZZ19804		10	1	0.10	10	0.57	838	<1	0.01	19	580	6	<0.01	2	6	31
ZZ19805		10	<1	0.07	10	2.29	725	<1	0.02	22	250	10	<0.01	<2	4	25
ZZ19806		10	<1	0.07	10	0.61	504	<1	0.01	21	390	5	0.01	<2	4	35
ZZ19807		10	<1	0.11	10	0.50	215	<1	0.03	31	260	8	0.01	<2	5	33
ZZ19808		10	<1	0.08	10	0.63	195	<1	0.02	25	240	6	0.02	<2	5	38
ZZ19809		10	<1	0.17	10	0.73	407	<1	0.02	52	520	5	0.03	<2	5	51
ZZ19810		<10	<1	0.05	10	0.15	383	<1	0.03	40	620	<2	0.07	<2	3	56
ZZ19811		10	<1	0.16	<10	0.61	227	<1	0.01	16	130	5	<0.01	<2	4	33
ZZ19812		10	<1	0.18	10	0.70	274	<1	0.02	19	430	4	0.01	<2	5	35
ZZ19813		<10	<1	0.13	10	0.66	176	<1	0.03	44	660	6	0.11	<2	4	88
ZZ19814		<10	<1	0.05	10	0.37	374	<1	0.02	107	900	2	0.20	2	2	127
ZZ19815		10	<1	0.21	10	0.70	238	1	0.03	18	170	5	0.01	<2	5	36
ZZ19816		10	<1	0.17	10	2.38	434	<1	0.03	20	860	4	0.01	<2	4	49
ZZ19817		10	<1	0.24	10	0.75	414	<1	0.03	32	810	4	0.01	<2	5	41
ZZ19818		10	<1	0.18	10	0.90	930	1	0.02	26	290	6	0.01	<2	6	32
ZZ19819		<10	<1	0.13	10	0.67	257	<1	0.05	20	510	7	0.01	<2	4	38
ZZ19820		10	<1	0.14	10	0.64	262	<1	0.03	22	140	6	<0.01	<2	7	23
ZZ19821		10	<1	0.11	10	0.64	313	1	0.03	15	280	5	<0.01	<2	5	32
ZZ19822		<10	<1	0.11	10	0.61	334	<1	0.04	16	640	5	<0.01	<2	5	35
ZZ19823		10	<1	0.14	10	0.77	378	<1	0.04	22	600	4	<0.01	<2	6	39
ZZ19824		10	<1	0.16	10	0.84	442	<1	0.05	25	680	5	<0.01	<2	6	42
ZZ19825		10	<1	0.18	10	0.97	438	<1	0.05	30	810	5	<0.01	<2	6	53
ZZ19826		10	<1	0.16	10	1.42	412	<1	0.05	25	700	5	<0.01	<2	5	85
ZZ19751		10	<1	0.13	10	0.70	259	7	0.03	15	550	3	0.02	<2	5	28
ZZ19752		10	<1	0.09	10	0.54	181	3	0.02	10	600	4	0.03	<2	4	27
ZZ19753		10	<1	0.09	20	0.69	568	7	0.04	17	950	5	0.03	<2	5	37
ZZ19754		<10	<1	0.12	10	0.57	284	3	0.03	13	830	4	0.01	<2	3	27
ZZ19755		<10	<1	0.10	10	0.46	196	4	0.03	10	740	4	0.01	<2	3	23
ZZ19756		<10	<1	0.09	10	0.44	142	<1	0.03	10	820	3	0.01	<2	2	27
ZZ19757		<10	<1	0.13	10	0.49	156	<1	0.04	10	1070	4	0.01	<2	3	35
ZZ19758		<10	<1	0.08	10	0.50	173	1	0.03	12	840	4	<0.01	<2	4	31
ZZ19759		10	<1	0.12	20	0.65	212	3	0.03	15	1060	5	0.02	<2	5	38

***** See Appendix Page for comments regarding this certificate *****

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Finalized Date: 16- SEP- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11145982

Sample Description	Method Analyte Units LOR	ME- ICP41 Th ppm 20	ME- ICP41 Ti % 0.01	ME- ICP41 Tl ppm 10	ME- ICP41 U ppm 10	ME- ICP41 V ppm 1	ME- ICP41 W ppm 10	ME- ICP41 Zn ppm 2
ZZ19802		<20	0.13	<10	<10	56	<10	66
ZZ19803		<20	0.13	<10	<10	75	<10	105
ZZ19804		<20	0.13	<10	<10	73	<10	60
ZZ19805		<20	0.11	<10	<10	55	<10	61
ZZ19806		<20	0.12	<10	<10	70	<10	45
ZZ19807		<20	0.12	<10	<10	69	<10	46
ZZ19808		<20	0.13	<10	<10	78	<10	53
ZZ19809		<20	0.12	<10	<10	59	<10	63
ZZ19810		<20	0.03	<10	<10	18	<10	13
ZZ19811		<20	0.15	<10	<10	71	<10	37
ZZ19812		<20	0.16	<10	<10	68	<10	45
ZZ19813		<20	0.09	<10	<10	50	<10	49
ZZ19814		<20	0.04	<10	<10	21	<10	16
ZZ19815		<20	0.13	<10	<10	61	<10	43
ZZ19816		<20	0.11	<10	<10	47	<10	53
ZZ19817		<20	0.13	<10	<10	54	<10	67
ZZ19818		<20	0.10	<10	<10	61	<10	47
ZZ19819		<20	0.12	<10	<10	48	<10	45
ZZ19820		<20	0.14	<10	<10	67	<10	42
ZZ19821		<20	0.14	<10	<10	63	<10	42
ZZ19822		<20	0.13	<10	<10	55	<10	40
ZZ19823		<20	0.14	<10	<10	65	<10	48
ZZ19824		<20	0.14	<10	<10	68	<10	53
ZZ19825		<20	0.13	<10	<10	65	<10	56
ZZ19826		<20	0.11	<10	<10	56	<10	57
ZZ19751		<20	0.11	<10	<10	55	<10	59
ZZ19752		<20	0.10	<10	<10	42	<10	34
ZZ19753		<20	0.12	<10	<10	60	<10	51
ZZ19754		<20	0.11	<10	<10	45	<10	45
ZZ19755		<20	0.09	<10	<10	47	<10	32
ZZ19756		<20	0.10	<10	<10	41	<10	34
ZZ19757		<20	0.11	<10	<10	36	<10	39
ZZ19758		<20	0.10	<10	<10	43	<10	34
ZZ19759		<20	0.12	<10	<10	50	<10	85

***** See Appendix Page for comments regarding this certificate *****

ALS Canada Ltd.

2103 Dollarton Hwy
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Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED
1016-510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 16-SEP-2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11145982

Method	CERTIFICATE COMMENTS
ALL METHODS	NSS is non-sufficient sample.

ALS Canada Ltd.

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To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 12- SEP- 2011
This copy reported on 11- JAN- 2012
Account: F

CERTIFICATE WH11145983

Project: Hopper
P.O. No.:
This report is for 206 Soil samples submitted to our lab in Whitehorse, YT, Canada on 1- AUG- 2011.
The following have access to data associated with this certificate:

JOAN MARIACHER	HEATHER SMITH	

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
SCR- 41	Screen to - 180um and save both

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au- ICP21	Au 30g FA ICP- AES Finish	ICP- AES
ME- ICP41	35 Element Aqua Regia ICP- AES	ICP- AES

To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
ATTN: JOAN MARIACHER
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

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

ALS Minerals

ALS Canada Ltd.

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Finalized Date: 12- SEP- 2011
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CERTIFICATE OF ANALYSIS WH11145983

Sample Description	Method	WEI-21	Au-ICP21	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Recvd Wt.	Au	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	kg	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	0.02	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
ZZ06600		0.18	0.002	<0.2	1.23	2	<10	230	<0.5	2	0.66	<0.5	5	27	38	1.60
ZZ06601		0.20	0.003	<0.2	1.79	7	<10	160	<0.5	2	0.45	<0.5	7	32	17	2.74
ZZ06602		0.18	0.002	<0.2	1.70	5	<10	120	<0.5	<2	0.35	<0.5	9	33	22	2.73
ZZ06603		0.16	0.007	<0.2	1.19	3	<10	150	<0.5	<2	0.46	<0.5	7	24	49	1.89
ZZ06604		0.16	0.002	<0.2	1.77	2	<10	230	<0.5	2	0.54	<0.5	7	33	24	2.57
ZZ06605		0.16	0.003	<0.2	1.12	3	<10	130	<0.5	2	0.30	<0.5	6	25	15	2.07
ZZ06606		0.18	0.005	<0.2	1.09	4	<10	150	<0.5	<2	0.62	<0.5	5	23	19	1.84
ZZ06607		0.20	0.001	<0.2	1.83	5	<10	190	<0.5	<2	0.45	<0.5	8	32	31	2.58
ZZ06608		0.16	0.003	0.2	2.53	3	<10	230	0.6	<2	0.39	<0.5	10	37	79	2.85
ZZ06609		0.20	0.004	<0.2	2.16	7	<10	190	0.5	2	0.38	<0.5	9	37	24	3.04
ZZ06610		0.20	0.002	<0.2	2.63	6	<10	200	0.5	2	0.43	<0.5	10	40	36	3.24
ZZ06611		0.18	0.002	<0.2	1.84	5	<10	210	<0.5	2	0.33	<0.5	8	32	36	2.65
ZZ06612		0.18	0.002	<0.2	1.97	6	<10	200	<0.5	<2	0.45	<0.5	9	34	27	2.68
ZZ06613		0.24	0.004	<0.2	1.66	3	<10	170	<0.5	<2	0.67	<0.5	8	36	54	2.51
ZZ06614		0.22	0.006	<0.2	1.29	5	<10	120	<0.5	3	0.43	<0.5	10	30	91	2.78
ZZ06615		0.22	0.003	<0.2	1.50	2	<10	170	<0.5	<2	0.52	<0.5	11	35	54	2.25
ZZ06616		0.18	0.004	<0.2	1.39	6	<10	140	<0.5	<2	0.25	<0.5	6	27	49	2.29
ZZ06617		0.24	0.004	<0.2	1.60	7	<10	210	<0.5	<2	0.55	<0.5	13	35	201	2.95
ZZ06618		0.16	0.005	<0.2	1.91	5	<10	120	<0.5	<2	0.37	<0.5	9	31	56	2.99
ZZ06619		0.14	0.006	0.2	1.90	4	<10	210	<0.5	<2	0.49	<0.5	10	37	128	2.26
ZZ06620		0.12	0.003	0.3	1.00	2	<10	150	<0.5	2	0.36	<0.5	5	19	81	1.73
ZZ06621		0.18	0.006	0.2	1.58	5	<10	230	<0.5	2	0.43	<0.5	12	29	163	2.64
ZZ06622		0.18	0.003	<0.2	1.58	6	<10	130	<0.5	2	0.48	<0.5	14	31	113	3.46
ZZ06623		0.24	0.003	<0.2	1.69	4	<10	180	<0.5	2	0.51	<0.5	7	32	91	2.37
ZZ06624		0.10	0.011	0.4	2.31	9	<10	300	0.5	<2	1.00	<0.5	14	38	846	3.17
ZZ06625		0.14	0.002	<0.2	1.94	5	<10	160	<0.5	2	0.45	<0.5	8	33	50	2.71
ZZ06626		0.14	0.004	<0.2	1.54	5	<10	140	0.5	<2	0.31	<0.5	8	28	95	2.44
ZZ06627		0.18	0.005	<0.2	1.68	10	<10	120	0.5	<2	0.39	<0.5	18	36	1070	3.41
ZZ06628		0.28	0.003	<0.2	2.23	7	<10	210	0.6	<2	0.75	<0.5	23	50	134	3.84
ZZ06629		0.18	0.002	<0.2	1.93	5	<10	160	<0.5	<2	0.51	<0.5	7	38	23	2.97
ZZ06630		0.18	0.001	<0.2	1.90	4	<10	160	<0.5	<2	0.40	<0.5	7	34	39	2.94
ZZ06631		0.16	0.004	<0.2	1.94	5	<10	180	<0.5	3	0.37	<0.5	10	33	23	2.78
ZZ06632		0.18	0.002	<0.2	2.07	6	<10	240	0.5	2	0.71	<0.5	8	38	159	3.02
ZZ06633		0.22	0.001	<0.2	1.94	5	<10	140	<0.5	<2	0.42	<0.5	8	34	16	3.11
ZZ06634		0.16	0.001	<0.2	1.61	3	<10	120	<0.5	2	0.31	<0.5	6	29	14	2.31
ZZ06635		0.14	0.002	<0.2	1.58	3	<10	130	<0.5	2	0.37	<0.5	8	30	36	2.51
ZZ06636		0.16	0.002	<0.2	1.53	3	<10	150	<0.5	2	0.48	<0.5	9	29	23	2.40
ZZ06637		0.16	0.002	<0.2	1.95	5	<10	250	<0.5	2	0.59	<0.5	10	37	30	3.02
ZZ06638		0.16	0.024	<0.2	1.45	5	<10	140	<0.5	<2	0.40	<0.5	8	31	24	2.46
ZZ06639		0.18	0.003	<0.2	1.72	4	<10	270	<0.5	2	0.68	<0.5	9	36	53	2.60

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VANCOUVER BC V6B 1L8

Finalized Date: 12- SEP- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11145983

Sample Description	Method	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41
	Analyte	Ga	Hg	K	La	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Sc	Sr
	Units	ppm	ppm	%	ppm	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm
	LOR	10	1	0.01	10	0.01	5	1	0.01	1	10	2	0.01	2	1	1
ZZ06600		10	1	0.06	10	0.44	266	17	0.02	9	350	6	0.07	<2	3	48
ZZ06601		10	<1	0.10	10	0.64	305	8	0.02	14	400	6	0.03	<2	4	32
ZZ06602		10	<1	0.15	10	0.69	378	<1	0.02	18	590	8	0.02	<2	4	23
ZZ06603		<10	<1	0.06	10	0.48	216	1	0.03	14	990	4	0.01	<2	3	24
ZZ06604		10	1	0.07	10	0.66	279	3	0.02	14	550	7	0.02	<2	4	35
ZZ06605		10	<1	0.09	10	0.45	290	1	0.01	12	550	3	0.01	<2	3	18
ZZ06606		<10	1	0.07	10	0.45	194	1	0.03	11	1000	3	0.01	<2	3	37
ZZ06607		10	1	0.10	10	0.61	409	2	0.02	16	470	5	0.01	<2	4	33
ZZ06608		10	<1	0.13	10	0.76	365	2	0.02	25	500	7	0.01	<2	5	27
ZZ06609		10	<1	0.16	10	0.75	306	1	0.02	21	550	6	0.01	<2	5	27
ZZ06610		10	1	0.15	10	0.83	355	1	0.02	28	670	10	0.01	<2	5	25
ZZ06611		10	<1	0.10	10	0.65	284	1	0.02	18	410	7	0.01	<2	4	23
ZZ06612		10	1	0.12	10	0.68	347	<1	0.02	19	500	5	0.01	<2	4	29
ZZ06613		10	<1	0.12	10	0.70	321	1	0.03	18	950	4	0.01	<2	5	35
ZZ06614		<10	<1	0.11	10	0.56	300	1	0.02	19	1010	6	0.01	<2	3	26
ZZ06615		10	<1	0.08	10	0.75	432	1	0.03	15	990	4	0.03	<2	4	35
ZZ06616		10	1	0.05	10	0.37	140	1	0.01	14	500	5	0.01	<2	3	23
ZZ06617		10	<1	0.10	10	0.66	491	1	0.03	20	1020	4	0.02	<2	5	36
ZZ06618		10	<1	0.07	10	0.58	234	8	0.02	16	810	5	0.02	<2	4	27
ZZ06619		10	<1	0.09	10	0.73	296	1	0.02	20	890	6	0.04	<2	4	32
ZZ06620		10	1	0.04	10	0.31	107	1	0.02	8	680	2	0.04	<2	2	35
ZZ06621		10	1	0.06	10	0.58	552	2	0.02	17	800	5	0.03	<2	4	34
ZZ06622		10	1	0.13	10	0.79	394	2	0.02	15	1110	7	0.02	<2	3	35
ZZ06623		10	1	0.10	10	0.69	199	1	0.02	18	620	5	0.02	<2	4	32
ZZ06624		10	1	0.18	30	0.82	345	3	0.03	30	930	11	0.06	<2	8	69
ZZ06625		10	<1	0.09	10	0.63	275	1	0.02	17	510	4	0.02	<2	4	32
ZZ06626		10	<1	0.06	10	0.47	251	1	0.02	18	550	6	0.02	<2	3	25
ZZ06627		10	1	0.09	10	0.80	440	3	0.02	24	840	3	0.02	<2	5	27
ZZ06628		10	<1	0.23	10	1.09	395	4	0.03	29	1340	5	0.01	<2	9	49
ZZ06629		10	<1	0.13	10	0.69	266	2	0.02	18	490	5	0.03	<2	4	35
ZZ06630		10	1	0.10	10	0.66	291	11	0.02	15	300	7	0.01	<2	4	30
ZZ06631		10	<1	0.11	10	0.63	501	3	0.02	17	420	6	0.01	<2	4	27
ZZ06632		10	<1	0.16	10	0.80	317	11	0.03	23	770	8	0.04	<2	5	42
ZZ06633		10	1	0.11	10	0.65	244	2	0.02	17	350	6	0.01	<2	4	26
ZZ06634		10	<1	0.08	10	0.48	205	1	0.02	13	390	6	0.01	<2	3	25
ZZ06635		10	1	0.13	10	0.59	360	2	0.02	16	520	6	0.01	<2	3	26
ZZ06636		10	1	0.14	10	0.60	396	1	0.02	17	560	5	0.01	<2	4	27
ZZ06637		10	<1	0.15	10	0.78	426	2	0.02	20	490	7	0.02	<2	4	39
ZZ06638		10	<1	0.10	10	0.60	328	2	0.02	19	460	8	0.01	<2	3	26
ZZ06639		<10	<1	0.11	20	0.68	402	1	0.03	23	1020	8	0.01	<2	5	42

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VANCOUVER BC V6B 1L8

Finalized Date: 12- SEP- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11145983

Sample Description	Method / Analyte / Units / LOR	ME- ICP41 Th ppm 20	ME- ICP41 Ti % 0.01	ME- ICP41 Tl ppm 10	ME- ICP41 U ppm 10	ME- ICP41 V ppm 1	ME- ICP41 W ppm 10	ME- ICP41 Zn ppm 2
ZZ06600		<20	0.12	<10	<10	47	<10	29
ZZ06601		<20	0.12	<10	<10	66	<10	46
ZZ06602		<20	0.14	<10	<10	57	<10	56
ZZ06603		<20	0.09	<10	<10	39	<10	31
ZZ06604		<20	0.11	<10	<10	66	<10	46
ZZ06605		<20	0.09	<10	<10	46	<10	37
ZZ06606		<20	0.10	<10	<10	43	<10	32
ZZ06607		<20	0.11	<10	<10	61	<10	47
ZZ06608		<20	0.16	<10	<10	63	<10	53
ZZ06609		<20	0.15	<10	<10	70	<10	53
ZZ06610		<20	0.16	<10	<10	67	<10	62
ZZ06611		<20	0.13	<10	<10	62	<10	45
ZZ06612		<20	0.13	<10	<10	61	<10	47
ZZ06613		<20	0.14	<10	<10	55	<10	44
ZZ06614		<20	0.11	<10	<10	71	<10	38
ZZ06615		<20	0.13	<10	<10	61	<10	71
ZZ06616		<20	0.10	<10	<10	64	<10	25
ZZ06617		<20	0.12	<10	<10	76	<10	41
ZZ06618		<20	0.13	<10	<10	74	<10	46
ZZ06619		<20	0.10	<10	<10	59	<10	57
ZZ06620		<20	0.06	<10	<10	50	<10	24
ZZ06621		<20	0.10	<10	<10	66	<10	40
ZZ06622		<20	0.18	<10	<10	113	<10	57
ZZ06623		<20	0.12	<10	<10	60	<10	43
ZZ06624		<20	0.12	<10	<10	64	<10	64
ZZ06625		<20	0.11	<10	<10	63	<10	42
ZZ06626		<20	0.10	<10	<10	57	<10	33
ZZ06627		<20	0.10	<10	<10	81	<10	49
ZZ06628		<20	0.19	<10	<10	109	<10	61
ZZ06629		<20	0.13	<10	<10	77	<10	59
ZZ06630		<20	0.13	<10	<10	72	<10	46
ZZ06631		<20	0.12	<10	<10	65	<10	48
ZZ06632		<20	0.12	<10	<10	68	<10	71
ZZ06633		<20	0.15	<10	<10	75	<10	46
ZZ06634		<20	0.12	<10	<10	64	<10	38
ZZ06635		<20	0.13	<10	<10	56	<10	79
ZZ06636		<20	0.12	<10	<10	55	<10	48
ZZ06637		<20	0.14	<10	<10	69	<10	65
ZZ06638		<20	0.13	<10	<10	63	<10	51
ZZ06639		<20	0.13	<10	<10	58	<10	51

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CERTIFICATE OF ANALYSIS WH11145983

Sample Description	Method / Analyte / Units / LOR	WEI- 21 Recvd Wt. kg 0.02	Au- ICP21 Au ppm 0.001	ME- ICP41 Ag ppm 0.2	ME- ICP41 Al % 0.01	ME- ICP41 As ppm 2	ME- ICP41 B ppm 10	ME- ICP41 Ba ppm 10	ME- ICP41 Be ppm 0.5	ME- ICP41 Bi ppm 2	ME- ICP41 Ca % 0.01	ME- ICP41 Cd ppm 0.5	ME- ICP41 Co ppm 1	ME- ICP41 Cr ppm 1	ME- ICP41 Cu ppm 1	ME- ICP41 Fe % 0.01
ZZ06640		0.16	0.002	<0.2	1.72	3	<10	150	0.5	2	0.43	<0.5	9	34	38	2.52
ZZ06641		0.16	0.004	<0.2	1.93	5	<10	300	0.5	<2	0.75	<0.5	11	38	56	2.82
ZZ06642		0.20	0.003	<0.2	1.55	4	<10	190	<0.5	<2	0.59	<0.5	9	32	30	2.29
ZZ06643		0.20	0.001	<0.2	1.80	3	<10	180	<0.5	<2	0.55	<0.5	8	29	22	2.59
ZZ06644		0.16	0.002	<0.2	1.34	5	<10	170	<0.5	<2	0.43	<0.5	7	21	15	2.13
ZZ06645		0.18	0.002	<0.2	1.28	3	<10	150	<0.5	<2	0.62	<0.5	7	26	11	2.05
ZZ06646		0.24	0.008	<0.2	1.65	6	<10	160	<0.5	<2	0.50	<0.5	8	31	22	2.41
ZZ06647		0.18	0.003	<0.2	1.56	5	<10	180	<0.5	<2	0.65	<0.5	12	57	27	2.59
ZZ06648		0.24	0.009	0.2	0.93	3	<10	110	<0.5	<2	0.52	<0.5	7	23	56	1.62
ZZ06649		0.16	0.004	<0.2	1.67	2	<10	140	<0.5	<2	0.38	<0.5	6	36	16	2.16
ZZ06650		0.18	0.012	0.2	2.73	5	<10	330	0.7	2	0.73	<0.5	11	57	59	3.05
ZZ06651		0.18	0.001	<0.2	0.83	<2	<10	100	<0.5	2	0.32	<0.5	4	20	12	1.31
ZZ06652		0.20	0.002	<0.2	2.36	6	<10	180	0.5	<2	0.48	<0.5	12	66	30	3.11
ZZ06653		0.20	0.001	<0.2	1.32	5	<10	130	<0.5	<2	0.40	<0.5	7	26	14	2.06
ZZ06654		0.20	0.011	<0.2	1.69	2	<10	180	<0.5	<2	0.58	<0.5	9	43	20	2.67
ZZ06655		0.26	0.003	<0.2	1.90	4	<10	190	<0.5	2	0.50	<0.5	10	41	23	2.74
ZZ06656		0.14	0.003	<0.2	1.65	3	<10	140	<0.5	2	0.38	<0.5	6	30	16	2.29
ZZ06657		0.18	0.002	<0.2	1.95	5	<10	130	<0.5	2	0.48	<0.5	8	33	17	2.65
ZZ06658		0.20	0.003	<0.2	1.48	4	<10	120	<0.5	2	0.31	<0.5	10	28	17	2.61
ZZ06659		0.20	0.005	<0.2	2.07	5	<10	180	<0.5	2	0.34	<0.5	9	34	18	3.08
ZZ06660		0.20	0.002	<0.2	1.69	3	<10	190	<0.5	2	0.55	<0.5	9	31	16	2.43
ZZ06661		0.18	0.001	<0.2	1.95	6	<10	190	<0.5	<2	0.59	<0.5	8	33	20	2.62
ZZ06662		0.20	0.011	<0.2	1.93	4	<10	140	<0.5	<2	0.41	<0.5	10	35	19	2.61
ZZ06663		0.20	0.002	<0.2	1.97	6	<10	220	<0.5	<2	0.45	<0.5	8	33	17	2.89
ZZ06664		0.22	0.004	<0.2	1.33	4	<10	140	<0.5	<2	0.60	<0.5	7	28	18	2.04
ZZ06665		0.24	0.001	<0.2	1.47	3	<10	190	<0.5	3	0.65	<0.5	8	28	12	2.26
ZZ06666		0.14	0.002	<0.2	0.89	<2	<10	90	<0.5	2	0.18	<0.5	3	16	7	1.34
ZZ06667		0.18	0.002	<0.2	1.82	2	<10	120	<0.5	2	0.29	<0.5	8	35	25	2.94
ZZ06668		0.22	0.008	<0.2	1.39	<2	<10	150	<0.5	2	0.41	<0.5	7	26	37	2.14
ZZ06669		0.18	0.003	<0.2	0.99	4	<10	170	<0.5	3	0.46	<0.5	7	25	42	1.94
ZZ06670		0.18	0.002	<0.2	1.31	3	<10	150	<0.5	<2	0.28	<0.5	7	27	25	2.08
ZZ06671		0.22	0.002	<0.2	1.55	4	<10	130	<0.5	2	0.33	<0.5	7	30	22	2.52
ZZ06672		0.20	0.003	<0.2	1.43	5	<10	120	<0.5	2	0.24	<0.5	7	25	29	2.18
ZZ06673		0.22	0.002	<0.2	1.81	<2	<10	190	<0.5	2	0.38	<0.5	9	33	52	2.50
ZZ06674		0.20	0.002	<0.2	1.99	6	<10	190	<0.5	<2	0.52	<0.5	11	37	38	2.93
ZZ06675		0.18	0.008	<0.2	1.75	4	<10	170	<0.5	<2	0.49	<0.5	8	30	44	2.46
ZZ06676		0.18	0.002	<0.2	1.63	3	<10	180	<0.5	<2	0.62	<0.5	9	32	45	2.42
ZZ06677		0.20	0.002	<0.2	2.06	5	<10	180	<0.5	<2	0.51	<0.5	9	33	74	2.64
ZZ06678		0.16	0.002	<0.2	1.32	2	<10	100	<0.5	<2	0.43	<0.5	8	25	53	2.12
ZZ06679		0.18	0.002	<0.2	1.18	2	<10	190	<0.5	<2	0.58	<0.5	5	22	94	1.83

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To: ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED
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VANCOUVER BC V6B 1L8

Finalized Date: 12- SEP- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11145983

Sample Description	Method Analyte Units LOR	ME- ICP41 Ga ppm 10	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1
ZZ06640		10	<1	0.08	10	0.64	343	2	0.02	18	380	9	0.01	<2	4	31
ZZ06641		10	1	0.11	10	0.69	401	2	0.03	23	1010	7	0.03	<2	5	46
ZZ06642		<10	<1	0.10	10	0.64	339	1	0.02	19	950	6	0.01	<2	4	32
ZZ06643		10	<1	0.18	10	0.70	287	<1	0.03	16	760	5	0.01	<2	4	33
ZZ06644		<10	<1	0.09	10	0.42	269	1	0.03	12	540	4	0.01	<2	3	27
ZZ06645		<10	<1	0.15	10	0.61	370	<1	0.03	12	1080	6	<0.01	<2	3	32
ZZ06646		<10	<1	0.16	10	0.64	285	<1	0.03	18	810	6	0.01	<2	4	32
ZZ06647		10	1	0.24	10	0.89	453	<1	<0.01	22	1310	8	<0.01	<2	5	34
ZZ06648		<10	<1	0.12	10	0.43	305	4	<0.01	54	1030	40	<0.01	<2	3	34
ZZ06649		10	<1	0.08	10	0.63	205	<1	<0.01	15	650	8	<0.01	<2	4	27
ZZ06650		10	<1	0.17	20	0.90	319	<1	<0.01	28	970	9	0.01	<2	7	52
ZZ06651		<10	<1	0.06	10	0.33	135	<1	<0.01	9	670	4	<0.01	<2	2	21
ZZ06652		10	1	0.18	10	1.00	412	<1	<0.01	29	1020	9	<0.01	<2	6	28
ZZ06653		<10	<1	0.08	10	0.50	244	<1	<0.01	14	730	7	<0.01	<2	3	26
ZZ06654		10	<1	0.17	10	0.84	503	<1	<0.01	17	780	7	<0.01	<2	5	38
ZZ06655		10	1	0.12	10	0.80	416	<1	<0.01	20	820	8	<0.01	<2	5	31
ZZ06656		10	<1	0.11	10	0.53	233	<1	<0.01	14	490	7	<0.01	<2	4	28
ZZ06657		10	1	0.09	10	0.66	279	<1	<0.01	17	630	7	<0.01	<2	4	33
ZZ06658		10	1	0.14	10	0.53	456	<1	<0.01	13	550	8	<0.01	<2	3	26
ZZ06659		10	<1	0.11	10	0.71	282	<1	<0.01	16	630	8	<0.01	<2	5	23
ZZ06660		10	1	0.09	10	0.64	226	<1	<0.01	17	840	7	<0.01	<2	4	34
ZZ06661		10	1	0.18	10	0.63	278	<1	<0.01	19	700	8	<0.01	<2	4	35
ZZ06662		10	1	0.17	10	0.68	263	<1	<0.01	20	760	6	<0.01	<2	4	27
ZZ06663		10	1	0.14	10	0.72	410	<1	<0.01	15	600	7	<0.01	<2	5	36
ZZ06664		10	1	0.17	10	0.58	248	<1	<0.01	14	1040	6	<0.01	<2	4	36
ZZ06665		10	1	0.15	10	0.60	321	<1	<0.01	15	1130	7	<0.01	<2	3	40
ZZ06666		10	1	0.06	10	0.23	240	<1	<0.01	7	420	7	<0.01	<2	2	21
ZZ06667		10	<1	0.11	10	0.68	267	<1	<0.01	17	250	5	<0.01	<2	4	26
ZZ06668		10	1	0.08	10	0.52	254	<1	<0.01	14	590	6	<0.01	<2	4	23
ZZ06669		<10	<1	0.11	20	0.48	264	<1	<0.01	15	920	6	<0.01	<2	3	25
ZZ06670		10	<1	0.06	10	0.51	298	<1	<0.01	15	300	6	<0.01	<2	3	20
ZZ06671		10	<1	0.09	10	0.57	239	<1	<0.01	15	350	6	<0.01	<2	3	23
ZZ06672		10	1	0.08	10	0.43	203	<1	<0.01	12	390	6	<0.01	<2	3	21
ZZ06673		10	1	0.11	10	0.64	307	<1	<0.01	18	690	6	<0.01	<2	4	28
ZZ06674		10	<1	0.10	10	0.74	415	1	<0.01	21	680	6	0.01	<2	5	33
ZZ06675		10	<1	0.09	10	0.61	247	1	<0.01	16	760	6	0.01	<2	4	28
ZZ06676		10	<1	0.10	10	0.68	327	1	0.01	16	1010	5	0.01	<2	5	38
ZZ06677		10	1	0.13	10	0.73	305	2	<0.01	20	950	7	0.01	<2	5	28
ZZ06678		10	<1	0.08	10	0.55	375	2	<0.01	12	970	4	0.01	<2	3	24
ZZ06679		<10	<1	0.06	10	0.47	182	8	<0.01	12	990	4	0.02	<2	3	32

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Finalized Date: 12- SEP- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11145983

Sample Description	Method / Analyte / Units / LOR	ME- ICP41 Th ppm 20	ME- ICP41 Ti % 0.01	ME- ICP41 Tl ppm 10	ME- ICP41 U ppm 10	ME- ICP41 V ppm 1	ME- ICP41 W ppm 10	ME- ICP41 Zn ppm 2
ZZ06640		<20	0.14	<10	<10	65	<10	71
ZZ06641		<20	0.11	<10	<10	64	<10	50
ZZ06642		<20	0.12	<10	<10	51	<10	45
ZZ06643		<20	0.17	<10	<10	65	<10	53
ZZ06644		<20	0.10	<10	<10	49	<10	43
ZZ06645		<20	0.13	<10	<10	49	<10	48
ZZ06646		<20	0.13	<10	<10	56	<10	53
ZZ06647		<20	0.16	<10	<10	59	<10	54
ZZ06648		<20	0.09	<10	<10	39	<10	72
ZZ06649		<20	0.12	<10	<10	57	<10	48
ZZ06650		<20	0.10	<10	<10	70	<10	69
ZZ06651		<20	0.07	<10	<10	33	<10	31
ZZ06652		<20	0.14	<10	<10	66	<10	63
ZZ06653		<20	0.09	<10	<10	51	<10	39
ZZ06654		<20	0.16	<10	<10	66	<10	60
ZZ06655		<20	0.13	<10	<10	64	<10	62
ZZ06656		<20	0.11	<10	<10	57	<10	44
ZZ06657		<20	0.12	<10	<10	66	<10	50
ZZ06658		<20	0.12	<10	<10	62	<10	58
ZZ06659		<20	0.12	<10	<10	68	<10	58
ZZ06660		<20	0.13	<10	<10	56	<10	53
ZZ06661		<20	0.14	<10	<10	62	<10	58
ZZ06662		<20	0.13	<10	<10	57	<10	51
ZZ06663		<20	0.15	<10	<10	67	<10	55
ZZ06664		<20	0.12	<10	<10	49	<10	51
ZZ06665		<20	0.13	<10	<10	53	<10	51
ZZ06666		<20	0.10	<10	<10	44	<10	33
ZZ06667		<20	0.12	<10	<10	71	<10	49
ZZ06668		<20	0.08	<10	<10	51	<10	38
ZZ06669		<20	0.09	<10	<10	42	<10	38
ZZ06670		<20	0.09	<10	<10	53	<10	35
ZZ06671		<20	0.11	<10	<10	64	<10	43
ZZ06672		<20	0.09	<10	<10	56	<10	34
ZZ06673		<20	0.12	<10	<10	65	<10	44
ZZ06674		<20	0.14	<10	<10	68	<10	50
ZZ06675		<20	0.11	<10	<10	58	<10	44
ZZ06676		<20	0.14	<10	<10	58	<10	48
ZZ06677		<20	0.14	<10	<10	60	<10	46
ZZ06678		<20	0.12	<10	<10	52	<10	33
ZZ06679		<20	0.08	<10	<10	40	<10	47

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Finalized Date: 12- SEP- 2011
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Project: Hopper

CERTIFICATE OF ANALYSIS WH11145983

Sample Description	Method Analyte Units LOR	WEI- 21 Recvd Wt. kg 0.02	Au- ICP21 Au ppm 0.001	ME- ICP41 Ag ppm 0.2	ME- ICP41 Al % 0.01	ME- ICP41 As ppm 2	ME- ICP41 B ppm 10	ME- ICP41 Ba ppm 10	ME- ICP41 Be ppm 0.5	ME- ICP41 Bi ppm 2	ME- ICP41 Ca % 0.01	ME- ICP41 Cd ppm 0.5	ME- ICP41 Co ppm 1	ME- ICP41 Cr ppm 1	ME- ICP41 Cu ppm 1	ME- ICP41 Fe % 0.01
ZZ06680		0.12	0.002	<0.2	1.41	4	<10	230	<0.5	<2	0.54	<0.5	7	27	67	2.13
ZZ06681		0.18	0.002	<0.2	1.14	3	<10	150	<0.5	<2	0.63	<0.5	6	23	35	1.66
ZZ06682		0.16	0.001	<0.2	0.98	2	<10	110	<0.5	<2	0.42	<0.5	4	17	20	1.08
ZZ06683		0.18	0.002	<0.2	1.07	2	<10	80	<0.5	<2	0.30	<0.5	11	23	12	1.78
ZZ06684		0.16	0.001	<0.2	1.01	4	<10	80	<0.5	<2	0.36	<0.5	6	19	27	1.82
ZZ06685		0.20	0.003	<0.2	1.48	2	<10	140	<0.5	<2	0.58	<0.5	7	31	169	2.40
ZZ06686		0.16	0.001	<0.2	2.62	8	<10	100	0.5	<2	0.30	<0.5	11	39	22	3.13
ZZ06687		0.14	0.001	<0.2	1.58	3	<10	170	<0.5	<2	0.72	<0.5	7	31	17	2.33
ZZ06688		0.18	0.002	<0.2	1.67	5	<10	170	<0.5	<2	0.95	<0.5	10	34	27	2.70
ZZ06689		0.22	0.005	<0.2	1.40	4	<10	150	<0.5	<2	0.74	<0.5	8	34	17	2.34
ZZ06690		0.28	0.010	<0.2	1.61	3	<10	180	<0.5	<2	0.57	<0.5	8	27	18	2.38
ZZ06691		0.16	0.003	<0.2	1.63	4	<10	180	<0.5	<2	0.50	<0.5	10	28	182	2.79
ZZ06692		0.16	0.003	<0.2	1.56	6	<10	180	<0.5	<2	0.54	<0.5	11	29	188	2.79
ZZ06693		0.20	0.005	0.5	1.45	5	<10	240	0.5	<2	0.69	<0.5	9	28	976	2.45
ZZ06694		0.20	0.006	<0.2	1.50	7	<10	150	<0.5	<2	0.43	<0.5	11	28	254	2.94
ZZ06695		0.18	0.004	0.2	1.71	6	<10	140	<0.5	<2	0.32	<0.5	9	32	176	3.23
ZZ06696		0.18	0.002	<0.2	1.59	2	<10	190	<0.5	<2	0.44	<0.5	8	32	65	2.82
ZZ06697		0.16	0.003	<0.2	1.80	7	<10	110	0.5	<2	0.41	<0.5	10	35	58	2.95
ZZ06698		0.18	0.001	<0.2	2.10	5	<10	140	<0.5	<2	0.33	<0.5	9	35	22	2.94
ZZ06699		0.20	0.002	<0.2	1.54	2	<10	180	<0.5	<2	0.47	<0.5	6	30	90	2.15
ZZ06700		0.22	0.003	<0.2	2.03	5	<10	340	0.5	<2	0.51	<0.5	8	38	105	2.69
ZZ06701		0.18	0.002	<0.2	1.71	5	<10	160	<0.5	<2	0.46	<0.5	7	31	22	2.63
ZZ06702		0.18	0.002	<0.2	1.66	5	<10	100	<0.5	<2	0.32	<0.5	8	30	34	2.66
ZZ06703		0.18	0.003	<0.2	1.62	5	<10	150	<0.5	<2	0.43	<0.5	10	29	170	2.81
ZZ06704		0.20	0.014	<0.2	1.88	4	<10	130	<0.5	<2	0.40	<0.5	8	33	27	2.69
ZZ06705		0.20	0.006	<0.2	1.69	4	<10	170	<0.5	<2	0.52	<0.5	9	31	37	2.45
ZZ06706		0.18	0.002	<0.2	1.60	7	<10	160	<0.5	<2	0.51	<0.5	8	30	25	2.44
ZZ06707		0.18	0.001	<0.2	1.59	5	<10	90	<0.5	<2	0.39	<0.5	7	28	14	2.36
ZZ06708		0.22	0.002	<0.2	1.52	5	<10	120	<0.5	<2	0.48	<0.5	8	29	21	2.35
ZZ06709		0.18	0.001	<0.2	1.65	3	<10	150	0.5	<2	0.49	<0.5	9	27	83	2.67
ZZ06710		0.16	0.001	<0.2	1.32	<2	<10	190	<0.5	2	0.58	<0.5	4	22	83	1.68
ZZ06711		0.14	0.002	<0.2	1.40	5	<10	100	<0.5	<2	0.44	<0.5	7	25	16	2.09
ZZ06712		0.18	0.001	<0.2	1.68	3	<10	110	<0.5	<2	0.24	<0.5	6	28	13	2.85
ZZ06713		0.20	0.002	<0.2	1.65	2	<10	110	<0.5	<2	0.35	<0.5	7	29	19	2.52
ZZ06714		0.12	0.001	<0.2	1.59	3	<10	160	<0.5	<2	0.66	<0.5	7	31	150	2.79
ZZ06715		0.24	0.002	0.2	1.82	7	<10	140	<0.5	2	0.47	<0.5	9	35	18	2.55
ZZ06716		0.18	0.001	<0.2	1.40	2	<10	170	<0.5	<2	0.73	<0.5	6	28	13	2.16
ZZ06717		0.20	0.003	<0.2	1.29	2	<10	150	<0.5	<2	0.66	<0.5	7	29	22	1.96
ZZ06718		0.14	0.002	0.2	1.78	6	<10	180	<0.5	<2	0.54	<0.5	9	32	114	2.76
ZZ06719		0.16	0.005	0.4	1.29	6	<10	130	<0.5	<2	0.46	<0.5	11	27	217	2.83

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Project: Hopper

CERTIFICATE OF ANALYSIS WH11145983

Sample Description	Method / Analyte / Units / LOR	ME- ICP41 Ga ppm 10	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1
ZZ06680		<10	<1	0.08	10	0.55	286	7	<0.01	13	780	4	0.02	<2	3	35
ZZ06681		<10	<1	0.08	10	0.50	173	10	<0.01	10	970	4	0.01	<2	3	36
ZZ06682		<10	<1	0.05	10	0.33	104	4	<0.01	9	600	3	0.02	<2	2	24
ZZ06683		10	<1	0.05	10	0.39	467	14	<0.01	9	420	7	0.02	<2	2	26
ZZ06684		<10	<1	0.07	10	0.38	367	1	<0.01	13	790	4	0.01	<2	2	20
ZZ06685		10	<1	0.18	10	0.60	235	2	0.01	26	900	4	0.02	<2	4	33
ZZ06686		10	<1	0.10	10	0.70	279	1	<0.01	22	440	5	0.01	<2	5	22
ZZ06687		10	<1	0.11	10	0.59	262	1	<0.01	15	600	5	0.03	<2	3	42
ZZ06688		10	<1	0.20	10	0.77	307	1	0.01	18	1060	5	0.03	<2	5	48
ZZ06689		<10	1	0.20	10	0.70	287	<1	0.02	17	1060	6	0.01	<2	4	42
ZZ06690		10	<1	0.13	10	0.61	268	<1	<0.01	15	880	5	0.01	<2	3	32
ZZ06691		10	<1	0.07	10	0.66	366	2	<0.01	15	880	5	0.03	<2	4	33
ZZ06692		10	1	0.07	10	0.64	412	2	<0.01	16	750	5	0.03	<2	4	34
ZZ06693		10	<1	0.10	20	0.51	341	7	<0.01	18	850	5	0.05	<2	5	45
ZZ06694		10	<1	0.13	10	0.59	342	4	<0.01	19	740	5	0.01	<2	5	22
ZZ06695		10	<1	0.11	10	0.64	250	6	<0.01	18	370	5	0.01	<2	4	20
ZZ06696		10	<1	0.07	10	0.69	296	3	<0.01	15	230	7	0.01	<2	4	29
ZZ06697		10	1	0.09	10	0.62	295	2	<0.01	22	660	5	0.01	<2	4	23
ZZ06698		10	<1	0.09	10	0.77	309	1	<0.01	17	210	5	0.01	<2	5	21
ZZ06699		10	<1	0.10	10	0.63	196	3	<0.01	16	850	7	0.01	<2	4	23
ZZ06700		10	<1	0.10	10	0.68	269	3	<0.01	19	550	9	0.01	<2	6	31
ZZ06701		10	<1	0.11	10	0.63	237	1	<0.01	15	360	6	0.01	<2	4	27
ZZ06702		10	<1	0.12	10	0.57	207	1	<0.01	15	430	6	0.01	<2	4	18
ZZ06703		10	1	0.13	10	0.62	332	3	<0.01	18	740	5	0.01	<2	5	23
ZZ06704		10	<1	0.10	10	0.63	298	1	<0.01	22	550	8	0.01	<2	4	27
ZZ06705		10	<1	0.09	10	0.64	314	1	<0.01	17	840	7	0.01	<2	4	29
ZZ06706		10	<1	0.12	10	0.62	291	<1	<0.01	18	800	5	0.01	<2	4	31
ZZ06707		10	<1	0.09	10	0.51	214	1	<0.01	13	670	5	0.01	<2	3	26
ZZ06708		10	<1	0.07	10	0.56	309	1	<0.01	13	910	6	0.01	<2	3	31
ZZ06709		10	<1	0.14	20	0.67	279	8	<0.01	15	940	5	0.01	<2	5	27
ZZ06710		<10	<1	0.07	10	0.46	184	4	0.04	8	800	5	0.05	<2	3	39
ZZ06711		<10	<1	0.11	10	0.51	289	1	0.03	11	950	4	0.02	<2	3	29
ZZ06712		10	1	0.06	10	0.46	221	1	0.02	10	570	6	0.02	<2	3	19
ZZ06713		10	<1	0.08	10	0.57	258	<1	0.03	12	530	6	0.01	2	3	25
ZZ06714		10	<1	0.11	10	0.65	284	9	0.03	12	390	6	0.02	2	4	39
ZZ06715		10	<1	0.10	10	0.60	288	1	0.03	16	410	8	0.02	2	3	29
ZZ06716		<10	<1	0.10	10	0.61	223	1	0.04	9	760	6	0.03	<2	4	43
ZZ06717		<10	<1	0.15	20	0.60	184	<1	0.03	12	870	6	0.02	<2	4	33
ZZ06718		<10	<1	0.11	10	0.72	331	1	0.03	15	770	5	0.02	<2	5	33
ZZ06719		<10	<1	0.13	10	0.70	337	3	0.03	10	910	5	0.01	<2	4	25

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To: ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 12- SEP- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11145983

Sample Description	ME- ICP41 Th ppm 20	ME- ICP41 Ti % 0.01	ME- ICP41 Tl ppm 10	ME- ICP41 U ppm 10	ME- ICP41 V ppm 1	ME- ICP41 W ppm 10	ME- ICP41 Zn ppm 2
ZZ06680	<20	0.09	<10	<10	48	<10	50
ZZ06681	<20	0.11	<10	<10	43	<10	36
ZZ06682	<20	0.08	<10	<10	32	<10	25
ZZ06683	<20	0.10	<10	<10	55	<10	37
ZZ06684	<20	0.07	<10	<10	43	<10	28
ZZ06685	<20	0.10	<10	<10	52	10	46
ZZ06686	<20	0.15	<10	<10	70	<10	52
ZZ06687	<20	0.10	<10	<10	50	<10	55
ZZ06688	<20	0.16	<10	<10	63	<10	66
ZZ06689	<20	0.15	<10	<10	57	<10	52
ZZ06690	<20	0.13	<10	<10	57	<10	51
ZZ06691	<20	0.11	<10	<10	72	<10	50
ZZ06692	<20	0.10	<10	<10	63	<10	47
ZZ06693	<20	0.08	<10	<10	54	<10	40
ZZ06694	<20	0.11	<10	<10	67	<10	40
ZZ06695	<20	0.12	<10	<10	74	<10	42
ZZ06696	<20	0.15	<10	<10	77	<10	44
ZZ06697	<20	0.11	<10	<10	67	<10	42
ZZ06698	<20	0.15	<10	<10	71	<10	54
ZZ06699	<20	0.11	<10	<10	53	<10	39
ZZ06700	<20	0.12	<10	<10	67	<10	44
ZZ06701	<20	0.13	<10	<10	64	<10	48
ZZ06702	<20	0.13	<10	<10	65	<10	41
ZZ06703	<20	0.11	<10	<10	63	<10	43
ZZ06704	<20	0.14	<10	<10	68	<10	52
ZZ06705	<20	0.12	<10	<10	57	<10	44
ZZ06706	<20	0.12	<10	<10	55	<10	42
ZZ06707	<20	0.12	<10	<10	56	<10	40
ZZ06708	<20	0.11	<10	<10	58	<10	38
ZZ06709	<20	0.11	<10	<10	62	<10	38
ZZ06710	<20	0.08	<10	<10	38	<10	48
ZZ06711	<20	0.10	<10	<10	48	<10	37
ZZ06712	<20	0.13	<10	<10	68	<10	62
ZZ06713	<20	0.13	<10	<10	58	<10	44
ZZ06714	<20	0.14	<10	<10	70	<10	56
ZZ06715	<20	0.11	<10	<10	60	<10	47
ZZ06716	<20	0.11	<10	<10	47	<10	50
ZZ06717	<20	0.11	<10	<10	42	<10	54
ZZ06718	<20	0.11	<10	<10	61	<10	49
ZZ06719	<20	0.13	<10	<10	72	<10	42

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CERTIFICATE OF ANALYSIS WH11145983

Sample Description	WEI- 21 Recvd Wt. kg 0.02	Au- ICP21 Au ppm 0.001	ME- ICP41 Ag ppm 0.2	ME- ICP41 Al % 0.01	ME- ICP41 As ppm 2	ME- ICP41 B ppm 10	ME- ICP41 Ba ppm 10	ME- ICP41 Be ppm 0.5	ME- ICP41 Bi ppm 2	ME- ICP41 Ca % 0.01	ME- ICP41 Cd ppm 0.5	ME- ICP41 Co ppm 1	ME- ICP41 Cr ppm 1	ME- ICP41 Cu ppm 1	ME- ICP41 Fe % 0.01
ZZ06720	0.16	0.011	0.5	1.33	<2	<10	220	<0.5	<2	0.38	<0.5	5	24	224	2.11
ZZ06721	0.18	0.002	0.3	1.57	6	<10	150	<0.5	<2	0.47	<0.5	7	28	184	2.30
ZZ06722	0.18	0.006	<0.2	2.02	4	<10	270	0.5	2	0.51	<0.5	10	37	465	3.14
ZZ06723	0.14	0.002	0.4	1.44	4	<10	180	<0.5	<2	0.35	<0.5	10	26	176	2.46
ZZ06724	0.20	0.004	<0.2	1.59	6	<10	130	<0.5	<2	0.40	<0.5	7	29	18	2.80
ZZ06725	0.18	0.002	<0.2	1.39	3	<10	120	<0.5	<2	0.38	<0.5	5	27	33	2.40
ZZ06726	0.16	0.005	0.2	1.42	5	<10	230	<0.5	<2	0.53	<0.5	7	27	289	2.40
ZZ06727	0.14	0.002	0.2	1.13	2	<10	190	<0.5	<2	0.50	<0.5	4	22	120	1.50
ZZ06728	0.16	0.002	0.2	1.22	4	<10	290	<0.5	2	0.42	<0.5	4	26	181	1.45
ZZ06729	0.16	0.003	0.4	1.84	3	<10	270	<0.5	<2	0.45	<0.5	6	34	273	2.10
ZZ06730	0.12	0.006	0.4	1.95	3	<10	430	0.5	2	0.85	<0.5	6	32	734	3.28
ZZ06731	0.26	0.002	0.2	1.52	3	<10	290	<0.5	<2	0.70	<0.5	7	30	163	1.79
ZZ06732	0.20	0.003	<0.2	1.13	2	<10	130	<0.5	<2	0.55	<0.5	6	23	18	1.61
ZZ06733	0.18	0.004	0.2	1.36	3	<10	120	<0.5	<2	0.44	<0.5	6	25	16	2.07
ZZ06734	0.12	0.002	0.2	1.41	4	<10	100	<0.5	<2	0.50	<0.5	6	24	22	2.04
ZZ06735	0.24	0.001	<0.2	1.84	9	<10	130	0.5	2	0.57	<0.5	9	33	19	2.82
ZZ06736	0.18	0.003	0.2	1.32	3	<10	130	<0.5	<2	0.57	<0.5	6	25	13	2.19
ZZ06737	0.16	0.001	<0.2	0.97	3	<10	130	<0.5	<2	0.64	<0.5	4	17	16	1.47
ZZ06738	0.16	0.002	0.2	1.78	5	<10	250	<0.5	<2	0.90	<0.5	10	34	21	2.72
ZZ06739	0.12	0.002	<0.2	1.11	2	<10	120	<0.5	<2	0.51	<0.5	5	18	15	1.55
ZZ06740	0.14	0.001	0.2	1.42	2	<10	160	<0.5	2	0.81	<0.5	6	27	19	1.74
ZZ06741	0.14	0.006	<0.2	1.13	3	<10	140	<0.5	<2	0.62	<0.5	6	24	13	1.95
ZZ06742	0.20	0.015	0.3	1.93	7	<10	230	<0.5	2	0.91	<0.5	10	38	38	3.09
ZZ06743	0.20	0.005	0.2	1.43	6	<10	200	<0.5	<2	0.39	<0.5	7	27	164	2.63
ZZ06744	0.20	0.004	0.2	1.88	9	<10	280	0.5	<2	0.70	<0.5	13	41	125	3.97
ZZ06745	0.22	0.004	0.3	1.27	10	<10	160	0.5	2	0.62	<0.5	11	37	267	3.30
ZZ06746	0.20	0.004	0.2	1.58	5	<10	190	<0.5	<2	0.51	<0.5	7	27	194	2.62
ZZ06747	0.14	0.003	0.4	1.39	5	<10	170	<0.5	<2	0.40	<0.5	6	24	108	2.53
ZZ06748	0.14	0.095	2.7	1.49	6	<10	160	<0.5	<2	0.47	<0.5	11	27	728	2.97
ZZ06749	0.22	0.005	0.5	1.58	6	<10	120	<0.5	<2	0.42	<0.5	7	29	350	2.34
ZZ06750	0.22	0.010	<0.2	1.78	5	<10	140	<0.5	<2	0.39	<0.5	8	29	146	2.58
ZZ06501	0.16	0.010	<0.2	2.04	5	<10	150	0.5	<2	0.72	<0.5	11	48	162	3.04
ZZ06502	0.14	0.009	<0.2	1.98	6	<10	150	0.5	<2	0.66	<0.5	11	46	161	2.92
ZZ06503	0.10	0.010	<0.2	1.98	6	<10	140	0.6	<2	0.61	<0.5	11	47	171	2.86
ZZ06504	0.14	0.013	<0.2	2.04	5	<10	140	0.5	<2	0.67	<0.5	11	48	178	2.99
ZZ06505	0.12	0.061	0.4	1.05	54	<10	300	1.2	<2	0.35	<0.5	11	15	1030	5.36
ZZ06506	0.12	0.066	0.6	0.96	70	<10	120	0.9	<2	0.26	<0.5	10	11	1110	4.13
ZZ06507	0.06	0.197	1.7	2.15	63	<10	50	0.6	<2	0.50	<0.5	15	32	1900	5.38
ZZ06508	0.06	0.009	<0.2	1.53	6	<10	120	<0.5	<2	0.50	<0.5	10	35	119	2.45
ZZ06509	0.10	0.050	0.6	0.63	55	<10	170	1.7	<2	0.78	<0.5	16	23	569	3.29

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Sample Description	Method Analyte Units LOR	ME- ICP41 Ga ppm 10	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1
ZZ06720		<10	1	0.08	20	0.41	145	3	0.02	7	580	4	0.03	<2	4	30
ZZ06721		<10	<1	0.09	10	0.58	251	2	0.03	13	880	5	0.02	2	4	30
ZZ06722		10	<1	0.11	10	0.77	477	4	0.03	19	500	6	0.02	<2	8	35
ZZ06723		10	<1	0.08	10	0.58	728	5	0.02	6	890	4	0.05	<2	3	23
ZZ06724		10	<1	0.10	10	0.54	242	1	0.02	11	540	6	0.02	2	3	29
ZZ06725		10	<1	0.07	10	0.45	181	2	0.02	6	350	7	0.01	<2	3	27
ZZ06726		10	<1	0.15	20	0.68	207	4	0.03	9	930	5	0.02	<2	6	27
ZZ06727		<10	<1	0.12	10	0.54	151	2	0.02	7	970	4	0.02	<2	3	25
ZZ06728		10	<1	0.07	10	0.54	176	3	0.02	8	390	8	0.02	<2	4	26
ZZ06729		10	<1	0.10	10	0.73	178	7	0.02	12	410	6	0.03	<2	4	31
ZZ06730		10	<1	0.15	20	0.70	186	15	0.04	14	980	5	0.07	<2	7	56
ZZ06731		<10	<1	0.14	10	0.71	187	2	0.05	13	960	5	0.03	<2	5	45
ZZ06732		<10	<1	0.09	10	0.50	159	2	0.04	9	1050	4	0.01	<2	3	30
ZZ06733		<10	1	0.08	10	0.54	238	3	0.03	10	760	4	0.02	2	3	29
ZZ06734		<10	<1	0.08	10	0.46	218	2	0.03	7	530	4	0.03	<2	3	35
ZZ06735		10	<1	0.15	10	0.68	471	1	0.03	16	720	5	0.02	2	4	33
ZZ06736		<10	<1	0.09	10	0.57	188	2	0.03	10	620	4	0.02	<2	3	34
ZZ06737		<10	<1	0.07	10	0.35	143	1	0.04	4	590	3	0.04	<2	2	35
ZZ06738		10	<1	0.20	10	0.76	609	2	0.04	13	1010	4	0.05	2	4	51
ZZ06739		<10	<1	0.11	10	0.40	180	2	0.06	11	480	6	0.01	<2	2	34
ZZ06740		<10	<1	0.10	10	0.56	163	1	0.04	9	1060	5	0.04	<2	4	42
ZZ06741		<10	<1	0.08	10	0.48	258	1	0.03	7	1060	3	0.02	<2	3	35
ZZ06742		10	<1	0.24	20	0.83	427	1	0.05	20	1070	7	0.03	<2	6	50
ZZ06743		<10	<1	0.12	10	0.58	271	7	0.02	11	450	5	0.02	<2	5	26
ZZ06744		10	<1	0.12	20	0.95	404	3	0.03	28	940	5	0.02	<2	12	40
ZZ06745		<10	<1	0.10	20	0.67	379	6	0.02	17	880	4	0.03	<2	6	31
ZZ06746		10	<1	0.11	10	0.63	215	5	<0.01	16	770	5	0.02	<2	6	31
ZZ06747		10	<1	0.09	10	0.49	174	4	<0.01	11	580	5	0.03	<2	4	27
ZZ06748		10	<1	0.11	10	0.52	530	15	<0.01	9	880	6	0.05	<2	4	35
ZZ06749		10	<1	0.10	10	0.61	211	3	<0.01	14	490	5	0.02	<2	4	29
ZZ06750		10	<1	0.10	10	0.59	242	4	<0.01	14	600	5	0.01	<2	4	25
ZZ06501		10	<1	0.16	20	1.01	371	2	0.03	27	760	6	0.01	<2	7	42
ZZ06502		10	<1	0.15	20	0.97	358	2	0.02	27	730	6	0.01	<2	6	38
ZZ06503		10	<1	0.15	20	0.95	346	2	0.02	27	710	6	0.01	<2	6	35
ZZ06504		10	<1	0.16	20	1.00	372	2	0.02	28	750	6	0.01	<2	6	39
ZZ06505		<10	<1	0.12	40	0.12	178	13	<0.01	36	370	14	0.01	<2	4	23
ZZ06506		<10	<1	0.12	30	0.10	113	14	<0.01	34	350	16	0.01	<2	2	19
ZZ06507		10	<1	0.07	10	0.61	289	4	<0.01	21	490	8	0.05	<2	4	19
ZZ06508		10	<1	0.17	10	0.63	298	2	0.01	21	390	5	0.04	<2	4	30
ZZ06509		<10	<1	0.13	20	0.15	449	2	<0.01	44	630	6	0.03	2	16	29

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Sample Description	Method Analyte Units LOR	ME- ICP41 Th ppm 20	ME- ICP41 Ti % 0.01	ME- ICP41 Tl ppm 10	ME- ICP41 U ppm 10	ME- ICP41 V ppm 1	ME- ICP41 W ppm 10	ME- ICP41 Zn ppm 2
ZZ06720		<20	0.09	<10	<10	49	<10	29
ZZ06721		<20	0.09	<10	<10	53	<10	38
ZZ06722		<20	0.10	<10	<10	66	<10	50
ZZ06723		<20	0.06	<10	<10	49	<10	34
ZZ06724		<20	0.14	<10	<10	68	<10	37
ZZ06725		<20	0.12	<10	<10	65	<10	32
ZZ06726		<20	0.11	<10	<10	54	<10	48
ZZ06727		<20	0.11	<10	<10	40	<10	30
ZZ06728		<20	0.10	<10	<10	43	<10	48
ZZ06729		<20	0.12	<10	<10	67	<10	55
ZZ06730		<20	0.10	<10	<10	51	<10	63
ZZ06731		<20	0.13	<10	<10	43	<10	59
ZZ06732		<20	0.11	<10	<10	41	<10	35
ZZ06733		<20	0.10	<10	<10	46	<10	37
ZZ06734		<20	0.10	<10	<10	50	<10	39
ZZ06735		<20	0.13	<10	<10	64	<10	54
ZZ06736		<20	0.10	<10	<10	50	<10	36
ZZ06737		<20	0.08	<10	<10	36	<10	38
ZZ06738		<20	0.16	<10	<10	60	<10	96
ZZ06739		<20	0.08	<10	<10	29	<10	49
ZZ06740		<20	0.10	<10	<10	65	<10	52
ZZ06741		<20	0.10	<10	<10	48	<10	40
ZZ06742		<20	0.16	<10	<10	63	<10	65
ZZ06743		<20	0.10	<10	<10	61	<10	37
ZZ06744		<20	0.08	<10	<10	95	<10	48
ZZ06745		<20	0.10	<10	<10	75	<10	38
ZZ06746		<20	0.09	<10	<10	63	<10	40
ZZ06747		<20	0.11	<10	<10	74	<10	39
ZZ06748		<20	0.09	<10	<10	78	<10	44
ZZ06749		<20	0.12	<10	<10	59	<10	43
ZZ06750		<20	0.12	<10	<10	64	<10	38
ZZ06501		<20	0.17	<10	<10	61	<10	50
ZZ06502		<20	0.16	<10	<10	59	<10	48
ZZ06503		<20	0.16	<10	<10	58	<10	46
ZZ06504		<20	0.17	<10	<10	61	<10	52
ZZ06505		<20	<0.01	<10	<10	28	<10	64
ZZ06506		<20	<0.01	<10	<10	19	<10	69
ZZ06507		<20	0.09	<10	<10	52	<10	58
ZZ06508		<20	0.11	<10	<10	51	<10	38
ZZ06509		<20	<0.01	<10	<10	35	<10	35

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To: ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 12- SEP- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11145983

Sample Description	WEI-21 Recvd Wt. kg 0.02	Au-ICP21 Au ppm 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1	ME-ICP41 Fe % 0.01
ZZ06510	0.10	0.032	0.6	0.76	58	<10	110	1.9	<2	0.86	<0.5	18	26	617	3.91
ZZ06511	0.08	0.002	<0.2	2.33	8	<10	120	0.5	<2	0.30	<0.5	10	37	40	2.77
ZZ06512	0.10	0.003	<0.2	2.01	7	<10	320	<0.5	<2	0.45	<0.5	18	30	97	4.11
ZZ06513	0.12	0.006	0.2	1.52	4	<10	150	<0.5	<2	0.49	<0.5	13	29	99	3.88
ZZ06515	0.14	0.002	0.2	1.41	3	<10	140	<0.5	<2	0.44	<0.5	15	27	78	4.11
ZZ06516	0.10	0.003	0.3	1.67	4	<10	150	<0.5	<2	0.47	<0.5	13	31	107	3.79
ZZ06518	0.10	0.004	<0.2	1.28	2	<10	130	<0.5	<2	0.44	<0.5	15	27	80	4.67
ZZ06519	0.16	0.010	<0.2	2.13	4	<10	160	<0.5	<2	0.87	<0.5	17	36	178	3.74
ZZ06521	0.14	0.006	<0.2	2.25	6	<10	150	0.5	<2	0.36	<0.5	11	37	49	2.90
ZZ06522	0.12	0.004	<0.2	1.15	5	<10	130	<0.5	<2	0.44	<0.5	8	25	75	2.05
ZZ06523	0.14	0.004	<0.2	0.83	3	<10	60	<0.5	<2	0.35	<0.5	9	20	53	2.05
ZZ06524	0.12	0.002	<0.2	1.42	9	<10	110	<0.5	<2	0.40	<0.5	10	31	57	2.68
ZZ06525	0.16	0.005	<0.2	1.33	6	<10	140	<0.5	<2	0.44	<0.5	8	31	114	2.64
ZZ06526	0.14	0.006	0.2	1.59	8	<10	170	<0.5	<2	0.41	<0.5	11	30	507	2.73
ZZ06527	0.14	0.070	0.3	1.77	15	<10	150	0.5	<2	0.59	<0.5	20	33	613	3.78
ZZ06528	0.14	0.010	0.3	1.71	9	<10	280	0.5	<2	1.06	<0.5	19	28	646	4.20
ZZ06529	0.10	0.018	0.4	1.39	12	<10	300	0.5	<2	0.76	<0.5	16	37	682	3.33
ZZ06530	0.16	0.008	<0.2	1.43	3	<10	200	<0.5	<2	0.55	<0.5	10	30	301	2.46
ZZ06531	0.16	0.002	<0.2	2.03	4	<10	130	0.6	<2	0.32	<0.5	12	37	31	3.10
ZZ06532	0.12	0.013	<0.2	1.74	3	<10	100	<0.5	<2	0.28	<0.5	8	27	87	2.21
ZZ06533	0.12	0.004	<0.2	1.79	5	<10	270	<0.5	<2	0.46	<0.5	7	32	200	2.34
ZZ06534	0.14	0.005	<0.2	0.76	2	<10	100	<0.5	<2	0.45	<0.5	5	20	33	1.54
ZZ06535	0.16	0.005	<0.2	1.29	3	<10	190	<0.5	<2	0.49	<0.5	7	29	77	2.03
ZZ06536	0.12	0.004	<0.2	1.13	2	<10	170	<0.5	<2	0.49	<0.5	7	27	65	1.94
ZZ06537	0.12	0.007	<0.2	1.16	4	<10	180	<0.5	<2	0.50	<0.5	7	28	66	1.94
ZZ06538	0.16	0.006	<0.2	1.07	2	<10	170	<0.5	<2	0.48	<0.5	7	28	64	1.95
ZZ06539	0.16	0.005	<0.2	1.08	3	<10	160	<0.5	<2	0.48	<0.5	6	27	62	1.93
ZZ06540	0.20	0.011	<0.2	1.26	4	<10	110	<0.5	<2	0.51	<0.5	9	30	105	2.51
ZZ06541	0.10	0.003	0.2	1.60	7	<10	140	<0.5	<2	0.50	<0.5	12	32	122	2.86
ZZ06542	0.14	0.004	<0.2	1.31	5	<10	110	<0.5	<2	0.36	<0.5	9	32	80	2.56
ZZ06543	0.16	0.004	<0.2	1.15	5	<10	140	<0.5	<2	0.47	<0.5	10	27	124	2.51
ZZ06544	0.10	0.003	<0.2	1.38	5	<10	200	<0.5	<2	0.36	<0.5	7	32	81	2.43
ZZ06545	0.12	0.004	<0.2	1.78	4	<10	230	<0.5	<2	0.55	<0.5	12	38	134	2.84
ZZ06546	0.12	0.037	<0.2	1.68	7	<10	110	<0.5	<2	0.27	<0.5	8	32	43	2.86
ZZ06547	0.12	0.004	<0.2	1.80	5	<10	120	0.5	<2	0.27	<0.5	11	33	78	2.68
ZZ06548	0.14	0.020	0.8	1.36	21	<10	120	0.7	<2	0.31	<0.5	17	19	1320	5.03
ZZ06549	0.14	0.005	<0.2	1.22	5	<10	140	<0.5	<2	0.58	<0.5	9	31	52	2.29
ZZ06550	0.22	0.003	<0.2	1.95	4	<10	210	<0.5	<2	0.59	<0.5	11	41	37	3.09
ZZ06551	0.12	0.006	<0.2	1.56	4	<10	170	<0.5	<2	0.58	<0.5	9	35	52	2.60
ZZ06552	0.10	0.007	<0.2	2.40	5	<10	160	<0.5	<2	0.31	<0.5	10	38	20	3.16

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Finalized Date: 12- SEP- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11145983

Sample Description	Method	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41
	Analyte	Ga	Hg	K	La	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Sc	Sr
	Units	ppm	ppm	%	ppm	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm
	LOR	10	1	0.01	10	0.01	5	1	0.01	1	10	2	0.01	2	1	1
ZZ06510		<10	<1	0.13	20	0.21	415	2	<0.01	51	660	8	0.03	3	17	32
ZZ06511		10	<1	0.14	10	0.74	277	<1	<0.01	26	290	5	0.01	<2	5	21
ZZ06512		10	<1	0.12	10	1.11	535	<1	<0.01	19	700	11	0.04	<2	5	42
ZZ06513		10	<1	0.09	10	0.86	340	1	<0.01	10	1460	3	0.12	<2	6	37
ZZ06515		10	<1	0.09	10	0.91	413	2	<0.01	13	1110	5	0.08	<2	5	31
ZZ06516		10	<1	0.12	10	0.89	309	2	<0.01	28	1200	15	0.08	<2	6	34
ZZ06518		10	<1	0.07	10	0.89	451	3	<0.01	20	1160	10	0.08	2	5	31
ZZ06519		10	<1	0.16	20	0.95	460	1	0.02	23	1450	7	0.07	<2	4	111
ZZ06521		10	<1	0.10	10	0.71	265	1	<0.01	22	460	7	<0.01	<2	5	23
ZZ06522		<10	<1	0.08	10	0.45	246	1	<0.01	19	950	4	<0.01	<2	3	25
ZZ06523		<10	<1	0.05	10	0.32	246	1	<0.01	14	770	4	<0.01	<2	2	18
ZZ06524		10	<1	0.10	10	0.66	349	1	<0.01	19	700	9	0.01	<2	4	23
ZZ06525		10	<1	0.06	10	0.59	252	2	<0.01	16	960	6	0.03	<2	3	29
ZZ06526		10	<1	0.09	10	0.63	298	2	<0.01	18	710	6	0.01	<2	4	25
ZZ06527		10	1	0.10	20	0.94	381	7	<0.01	19	1630	5	0.02	3	5	33
ZZ06528		10	<1	0.10	20	0.76	399	5	<0.01	17	2410	5	0.03	2	8	58
ZZ06529		10	<1	0.09	20	0.64	452	7	<0.01	21	980	6	0.04	<2	9	44
ZZ06530		<10	<1	0.11	10	0.70	345	5	0.01	19	480	4	0.01	<2	5	34
ZZ06531		10	<1	0.17	10	0.79	386	1	<0.01	23	630	9	0.02	<2	4	20
ZZ06532		<10	<1	0.07	10	0.59	212	3	<0.01	19	390	5	0.02	<2	3	20
ZZ06533		10	<1	0.09	10	0.63	217	3	<0.01	17	400	5	0.01	<2	5	28
ZZ06534		<10	<1	0.09	10	0.36	230	1	<0.01	11	960	4	<0.01	<2	2	21
ZZ06535		<10	<1	0.11	20	0.56	222	1	0.01	17	780	6	<0.01	<2	5	25
ZZ06536		<10	<1	0.10	10	0.52	240	1	0.01	14	820	5	<0.01	<2	4	25
ZZ06537		<10	<1	0.11	20	0.53	239	1	0.01	15	820	5	<0.01	<2	4	25
ZZ06538		<10	<1	0.10	10	0.50	243	1	0.01	15	810	5	<0.01	<2	4	24
ZZ06539		<10	<1	0.10	20	0.50	228	1	0.01	15	790	6	<0.01	<2	4	24
ZZ06540		<10	<1	0.07	10	0.53	208	1	0.01	15	1220	5	0.01	<2	3	29
ZZ06541		<10	<1	0.07	10	0.60	256	1	0.01	20	940	6	0.02	<2	4	35
ZZ06542		<10	<1	0.06	10	0.51	239	1	0.01	16	880	5	0.01	<2	3	26
ZZ06543		<10	<1	0.10	10	0.55	297	1	0.01	18	1070	5	0.01	<2	3	26
ZZ06544		<10	<1	0.08	10	0.57	238	1	<0.01	17	440	6	0.01	<2	4	24
ZZ06545		10	<1	0.11	10	0.75	353	1	0.01	23	620	7	0.01	<2	5	36
ZZ06546		<10	<1	0.08	10	0.52	216	2	<0.01	19	510	7	0.02	<2	3	18
ZZ06547		<10	<1	0.09	10	0.59	284	1	<0.01	24	650	7	0.02	<2	3	17
ZZ06548		<10	<1	0.10	20	0.33	592	14	<0.01	14	990	8	0.03	4	4	20
ZZ06549		<10	<1	0.16	20	0.60	322	1	0.01	20	1180	5	<0.01	<2	4	30
ZZ06550		10	<1	0.28	10	0.94	418	<1	0.02	27	810	10	0.01	<2	5	31
ZZ06551		<10	<1	0.18	20	0.76	360	<1	0.02	24	1040	7	0.01	<2	4	30
ZZ06552		10	<1	0.14	10	0.79	309	1	<0.01	22	290	7	<0.01	<2	5	23

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VANCOUVER BC V6B 1L8

Finalized Date: 12- SEP- 2011
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Project: Hopper

CERTIFICATE OF ANALYSIS WH11145983

Sample Description	Method / Analyte / Units / LOR	ME- ICP41 Th ppm 20	ME- ICP41 Ti % 0.01	ME- ICP41 Tl ppm 10	ME- ICP41 U ppm 10	ME- ICP41 V ppm 1	ME- ICP41 W ppm 10	ME- ICP41 Zn ppm 2
ZZ06510		<20	<0.01	<10	<10	42	<10	41
ZZ06511		<20	0.13	<10	<10	62	<10	49
ZZ06512		<20	0.19	<10	<10	135	<10	67
ZZ06513		<20	0.14	<10	<10	156	<10	43
ZZ06515		<20	0.16	<10	<10	169	<10	49
ZZ06516		<20	0.16	<10	<10	166	<10	61
ZZ06518		<20	0.14	<10	<10	197	<10	52
ZZ06519		<20	0.16	<10	<10	142	<10	70
ZZ06521		<20	0.14	<10	<10	70	<10	47
ZZ06522		<20	0.09	<10	<10	47	<10	30
ZZ06523		<20	0.07	<10	<10	47	<10	23
ZZ06524		<20	0.11	<10	<10	61	<10	54
ZZ06525		<20	0.11	<10	<10	71	<10	43
ZZ06526		<20	0.11	<10	<10	63	<10	46
ZZ06527		<20	0.15	<10	<10	90	10	47
ZZ06528		<20	0.12	<10	<10	103	<10	47
ZZ06529		<20	0.08	<10	<10	73	<10	41
ZZ06530		<20	0.10	<10	<10	54	<10	40
ZZ06531		<20	0.13	<10	<10	59	<10	59
ZZ06532		<20	0.10	<10	<10	46	<10	33
ZZ06533		<20	0.09	<10	<10	53	<10	48
ZZ06534		<20	0.07	<10	<10	34	<10	28
ZZ06535		<20	0.11	<10	<10	44	<10	36
ZZ06536		<20	0.10	<10	<10	42	<10	34
ZZ06537		<20	0.11	<10	<10	43	<10	34
ZZ06538		<20	0.10	<10	<10	42	<10	33
ZZ06539		<20	0.10	<10	<10	41	<10	31
ZZ06540		<20	0.09	<10	<10	67	<10	34
ZZ06541		<20	0.09	<10	<10	68	<10	39
ZZ06542		<20	0.08	<10	<10	69	<10	29
ZZ06543		<20	0.09	<10	<10	59	<10	38
ZZ06544		<20	0.11	<10	<10	61	<10	38
ZZ06545		<20	0.12	<10	<10	62	<10	48
ZZ06546		<20	0.11	<10	<10	60	<10	34
ZZ06547		<20	0.09	<10	<10	53	<10	35
ZZ06548		<20	0.02	<10	<10	46	<10	47
ZZ06549		<20	0.12	<10	<10	48	<10	40
ZZ06550		<20	0.17	<10	<10	59	<10	75
ZZ06551		<20	0.14	<10	<10	52	<10	53
ZZ06552		<20	0.15	<10	<10	72	<10	53

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CERTIFICATE OF ANALYSIS WH11145983

Sample Description	Method	WEI- 21	Au- ICP21	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41
	Analyte	Recvd Wt.	Au	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	kg	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	0.02	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
ZZ06553		0.10	0.001	<0.2	2.15	8	<10	140	<0.5	<2	0.30	<0.5	9	35	15	2.95
ZZ06554		0.12	0.002	<0.2	2.24	6	<10	150	0.5	<2	0.30	<0.5	9	36	16	2.93
ZZ06555		0.10	0.001	<0.2	2.38	7	<10	160	<0.5	<2	0.32	<0.5	10	38	19	3.16
ZZ06556		0.12	0.002	<0.2	2.22	5	<10	150	<0.5	<2	0.31	<0.5	9	35	19	2.88
ZZ06557		0.14	0.002	<0.2	2.15	7	<10	130	<0.5	<2	0.32	<0.5	9	34	20	2.78
ZZ06558		0.10	0.003	<0.2	2.05	6	<10	130	<0.5	<2	0.29	<0.5	9	33	19	2.71

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CERTIFICATE OF ANALYSIS WH11145983

Sample Description	Method Analyte Units LOR	ME- ICP41 Ga ppm 10	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1
ZZ06553		10	<1	0.11	10	0.69	344	1	<0.01	18	260	7	<0.01	<2	5	23
ZZ06554		10	<1	0.11	10	0.68	343	1	<0.01	18	290	7	0.01	<2	5	22
ZZ06555		10	<1	0.13	10	0.76	320	1	<0.01	21	310	7	0.01	<2	5	23
ZZ06556		10	<1	0.13	10	0.72	287	1	<0.01	21	430	7	0.01	<2	5	21
ZZ06557		10	<1	0.13	10	0.69	268	<1	<0.01	21	510	12	0.01	<2	4	21
ZZ06558		10	<1	0.12	10	0.67	255	<1	<0.01	20	460	8	0.01	<2	4	19

ALS Minerals

ALS Canada Ltd.

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

To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 12- SEP- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11145983

Sample Description	Method Analyte Units LOR	ME- ICP41 Th ppm 20	ME- ICP41 Ti % 0.01	ME- ICP41 Tl ppm 10	ME- ICP41 U ppm 10	ME- ICP41 V ppm 1	ME- ICP41 W ppm 10	ME- ICP41 Zn ppm 2
ZZ06553		<20	0.15	<10	<10	73	<10	51
ZZ06554		<20	0.14	<10	<10	71	<10	52
ZZ06555		<20	0.15	<10	<10	73	<10	54
ZZ06556		<20	0.13	<10	<10	65	<10	52
ZZ06557		<20	0.13	<10	<10	59	<10	48
ZZ06558		<20	0.12	<10	<10	58	<10	47

ALS Canada Ltd.

2103 Dollarton Hwy
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To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 3- OCT- 2011
This copy reported on 11- JAN- 2012
Account: F

CERTIFICATE WH11163983

Project: Hopper
P.O. No.:
This report is for 220 Soil samples submitted to our lab in Whitehorse, YT, Canada on 18- AUG- 2011.
The following have access to data associated with this certificate:

JOAN MARIACHER	HEATHER SMITH	

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
SCR- 41	Screen to - 180um and save both

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au- ICP21	Au 30g FA ICP- AES Finish	ICP- AES
ME- ICP41	35 Element Aqua Regia ICP- AES	ICP- AES

To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
ATTN: JOAN MARIACHER
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

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.

***** See Appendix Page for comments regarding this certificate *****

Signature:
Colin Ramshaw, Vancouver Laboratory Manager

ALS Minerals
ALS Canada Ltd.
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To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016-510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 3-OCT-2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11163983

Sample Description	Method	WEI-21	Au-ICP21	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Recvd Wt.	Au	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	kg	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	0.02	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
ZZ19501		0.12	0.001	<0.2	1.56	5	<10	150	<0.5	<2	0.60	<0.5	11	31	15	2.43
ZZ19502		0.16	0.006	<0.2	1.66	8	<10	150	<0.5	<2	0.74	<0.5	9	34	51	2.60
ZZ19503		0.14	0.004	<0.2	1.96	6	<10	240	<0.5	<2	0.47	<0.5	12	33	14	2.77
ZZ19504		0.16	0.001	<0.2	1.32	6	<10	140	<0.5	<2	0.64	<0.5	7	26	16	2.17
ZZ19505		0.16	0.002	0.2	1.47	6	<10	230	<0.5	<2	0.92	<0.5	11	29	39	2.33
ZZ19506		0.10	0.001	<0.2	1.56	5	<10	140	<0.5	<2	0.59	<0.5	10	30	21	2.52
ZZ19507		0.16	0.003	<0.2	1.49	11	<10	150	<0.5	<2	0.90	<0.5	8	30	115	2.16
ZZ19508		0.20	0.003	<0.2	1.67	7	<10	150	<0.5	<2	0.78	<0.5	9	33	19	2.56
ZZ19509		0.12	<0.001	<0.2	1.51	6	<10	100	<0.5	<2	0.63	<0.5	9	26	17	2.46
ZZ19510		0.18	0.003	0.3	1.93	25	<10	190	0.7	<2	1.12	0.5	13	40	250	3.07
ZZ19511		0.24	0.001	0.2	1.62	3	<10	90	<0.5	<2	0.44	<0.5	8	32	16	2.34
ZZ19512		0.14	<0.001	<0.2	2.03	5	<10	220	<0.5	<2	0.48	0.7	15	37	16	3.19
ZZ19513		0.18	0.001	<0.2	1.27	7	<10	120	<0.5	<2	0.69	<0.5	6	24	26	1.99
ZZ19514		0.14	0.002	<0.2	1.84	7	<10	190	<0.5	<2	0.60	<0.5	12	35	13	2.77
ZZ19515		0.12	0.002	<0.2	1.32	3	<10	70	<0.5	<2	0.34	<0.5	7	25	13	2.13
ZZ19516		0.10	0.002	<0.2	1.31	9	<10	100	<0.5	<2	0.84	<0.5	9	34	142	2.12
ZZ19517		0.12	0.001	<0.2	1.48	5	<10	110	<0.5	<2	0.88	<0.5	8	27	15	2.16
ZZ19518		0.18	0.005	<0.2	1.37	5	<10	100	<0.5	<2	0.77	<0.5	9	29	41	2.35
ZZ19519		0.10	0.006	0.2	2.06	10	<10	140	0.8	<2	0.96	<0.5	20	41	737	3.41
ZZ19520		0.16	<0.001	<0.2	1.42	4	<10	60	<0.5	<2	0.40	<0.5	7	29	15	2.35
ZZ19521		0.12	0.001	<0.2	2.13	5	<10	130	<0.5	<2	0.39	<0.5	73	52	367	3.68
ZZ19522		0.12	0.002	<0.2	1.63	9	<10	80	<0.5	<2	0.52	<0.5	10	31	80	2.63
ZZ19523		0.12	0.021	0.2	1.27	39	<10	110	0.8	<2	1.37	<0.5	15	40	1415	3.54
ZZ19524		0.16	0.001	<0.2	1.32	5	<10	110	<0.5	<2	0.57	<0.5	7	26	22	2.14
ZZ19525		0.08	0.003	0.4	1.60	13	<10	140	0.7	<2	0.83	0.7	11	30	145	2.63
ZZ19526		0.24	0.002	<0.2	1.49	6	<10	150	<0.5	<2	0.56	<0.5	9	30	39	2.31
ZZ19527		0.18	0.001	<0.2	2.08	7	<10	110	0.6	<2	0.35	<0.5	11	36	23	2.69
ZZ19528		0.10	0.002	<0.2	1.66	8	<10	90	<0.5	<2	0.62	<0.5	8	31	20	2.56
ZZ19529		0.10	0.002	<0.2	1.60	20	<10	160	0.5	<2	1.09	<0.5	16	35	164	2.94
ZZ19530		0.10	0.001	<0.2	1.31	6	<10	100	<0.5	<2	1.04	<0.5	10	29	91	2.10
ZZ19531		0.08	0.003	<0.2	1.47	11	<10	120	<0.5	<2	0.71	<0.5	11	32	160	2.60
ZZ19532		0.12	0.006	<0.2	1.63	7	<10	130	<0.5	<2	0.99	<0.5	10	35	274	2.57
ZZ19533		0.08	0.002	<0.2	1.89	9	<10	160	<0.5	<2	0.71	<0.5	14	44	201	3.25
ZZ19534		0.12	0.001	<0.2	0.87	35	<10	80	0.7	<2	0.44	<0.5	14	16	34	4.38
ZZ19535		0.16	0.004	<0.2	1.33	7	<10	90	<0.5	<2	4.56	<0.5	8	27	55	2.02
ZZ19536		0.10	0.009	<0.2	1.61	11	<10	100	<0.5	<2	0.61	<0.5	10	33	45	2.73
ZZ19537		0.10	0.002	<0.2	1.44	9	<10	80	<0.5	<2	0.49	<0.5	10	33	20	2.60
ZZ19538		0.14	0.002	<0.2	1.56	9	<10	110	<0.5	<2	0.64	<0.5	9	32	104	2.58
ZZ19539		0.10	0.010	<0.2	1.41	9	<10	100	<0.5	<2	1.17	<0.5	19	28	2730	2.23
ZZ19540		0.14	0.002	<0.2	1.52	23	<10	80	<0.5	<2	0.48	<0.5	8	32	28	2.49

***** See Appendix Page for comments regarding this certificate *****

ALS Canada Ltd.

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To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016-510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 3-OCT-2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11163983

Sample Description	Method Analyte Units LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
ZZ19501		10	<1	0.12	10	0.48	711	4	0.03	17	540	5	0.02	<2	4	30
ZZ19502		10	<1	0.26	10	0.71	304	3	0.04	25	890	7	0.02	<2	5	45
ZZ19503		10	1	0.08	10	0.46	732	1	0.02	16	320	8	0.02	<2	4	32
ZZ19504		<10	1	0.18	10	0.51	291	2	0.03	15	530	5	0.02	<2	4	30
ZZ19505		<10	<1	0.14	10	0.56	639	1	0.03	21	870	6	0.03	<2	4	39
ZZ19506		10	<1	0.13	10	0.50	266	2	0.02	16	260	7	0.02	<2	4	24
ZZ19507		10	<1	0.16	10	0.61	230	4	0.03	25	760	6	0.03	<2	4	41
ZZ19508		10	<1	0.22	10	0.69	353	5	0.03	17	740	6	0.03	<2	5	43
ZZ19509		10	<1	0.21	10	0.62	262	5	0.04	13	310	7	0.03	<2	3	33
ZZ19510		10	1	0.23	20	0.73	356	4	0.04	44	580	11	0.04	<2	7	55
ZZ19511		10	<1	0.12	10	0.49	208	1	0.02	16	370	6	0.02	<2	4	25
ZZ19512		10	1	0.10	10	0.59	468	2	0.02	19	570	10	0.02	<2	4	30
ZZ19513		<10	<1	0.19	10	0.52	255	1	0.04	15	790	6	<0.01	<2	3	30
ZZ19514		10	<1	0.09	10	0.60	534	3	0.03	18	370	9	<0.01	<2	4	31
ZZ19515		10	<1	0.10	10	0.43	150	3	0.03	14	250	5	<0.01	<2	3	16
ZZ19516		<10	<1	0.22	10	0.60	287	2	0.04	18	610	6	0.05	<2	4	43
ZZ19517		<10	<1	0.10	10	0.56	520	7	0.04	15	790	7	<0.01	<2	3	60
ZZ19518		<10	<1	0.19	10	0.62	297	8	0.04	19	760	7	<0.01	<2	4	52
ZZ19519		10	<1	0.21	10	0.75	459	4	0.04	54	580	7	0.01	<2	6	49
ZZ19520		<10	<1	0.23	10	0.54	164	5	0.02	15	270	7	<0.01	<2	3	21
ZZ19521		10	1	0.30	10	0.89	375	8	0.03	112	570	5	0.09	<2	6	40
ZZ19522		10	1	0.34	10	1.08	313	3	0.03	18	120	6	<0.01	<2	4	21
ZZ19523		<10	<1	0.20	10	0.58	1005	3	0.04	57	830	7	0.01	2	8	51
ZZ19524		<10	<1	0.15	10	0.51	320	2	0.03	14	470	5	<0.01	<2	3	30
ZZ19525		10	<1	0.14	10	0.52	272	5	0.03	34	310	8	0.01	<2	4	46
ZZ19526		10	<1	0.14	10	0.52	281	3	0.03	19	320	6	<0.01	<2	4	27
ZZ19527		10	<1	0.11	10	0.65	452	<1	0.03	26	250	7	<0.01	<2	5	22
ZZ19528		10	<1	0.14	10	0.54	177	2	0.03	18	150	8	<0.01	<2	3	20
ZZ19529		10	<1	0.22	10	0.73	1380	11	0.04	34	760	9	0.01	2	5	49
ZZ19530		<10	<1	0.22	10	0.66	272	1	0.04	20	570	6	0.01	<2	3	43
ZZ19531		<10	<1	0.23	10	0.68	250	3	0.04	23	960	6	<0.01	<2	5	38
ZZ19532		10	<1	0.21	10	0.71	404	4	0.04	27	540	8	<0.01	<2	5	56
ZZ19533		10	<1	0.51	10	0.94	351	2	0.05	40	410	5	<0.01	<2	6	37
ZZ19534		<10	<1	0.19	20	0.26	466	9	0.02	12	280	8	<0.01	<2	6	19
ZZ19535		<10	<1	0.25	10	2.43	354	<1	0.05	21	650	8	<0.01	<2	4	56
ZZ19536		<10	<1	0.26	10	0.72	334	1	0.03	17	90	8	<0.01	<2	5	25
ZZ19537		<10	<1	0.24	10	0.59	275	1	0.04	13	120	6	<0.01	<2	5	24
ZZ19538		10	<1	0.25	10	0.71	340	<1	0.04	20	250	8	<0.01	<2	4	32
ZZ19539		<10	<1	0.18	10	1.15	336	1	0.04	44	580	6	0.01	<2	3	43
ZZ19540		<10	<1	0.19	10	0.67	273	4	0.03	23	520	6	<0.01	2	4	27

***** See Appendix Page for comments regarding this certificate *****

ALS Canada Ltd.
2103 Dollarton Hwy
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Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 3- OCT- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11163983

Sample Description	Method Analyte Units LOR	ME- ICP41 Th ppm 20	ME- ICP41 Ti % 0.01	ME- ICP41 Tl ppm 10	ME- ICP41 U ppm 10	ME- ICP41 V ppm 1	ME- ICP41 W ppm 10	ME- ICP41 Zn ppm 2
ZZ19501		<20	0.13	<10	<10	57	<10	59
ZZ19502		<20	0.14	<10	<10	60	<10	50
ZZ19503		<20	0.13	<10	<10	77	<10	97
ZZ19504		<20	0.11	<10	<10	51	<10	42
ZZ19505		<20	0.11	<10	<10	51	<10	70
ZZ19506		<20	0.13	<10	<10	62	<10	74
ZZ19507		<20	0.13	<10	<10	53	<10	44
ZZ19508		<20	0.14	<10	<10	57	<10	53
ZZ19509		<20	0.13	<10	<10	59	<10	51
ZZ19510		<20	0.14	<10	<10	59	<10	71
ZZ19511		<20	0.12	<10	<10	59	<10	48
ZZ19512		<20	0.16	<10	<10	82	<10	260
ZZ19513		<20	0.11	<10	<10	37	<10	48
ZZ19514		<20	0.12	<10	<10	67	<10	163
ZZ19515		<20	0.11	<10	<10	52	<10	41
ZZ19516		<20	0.11	<10	<10	44	<10	43
ZZ19517		<20	0.11	<10	<10	45	<10	45
ZZ19518		<20	0.12	<10	<10	53	<10	45
ZZ19519		<20	0.11	<10	<10	59	<10	110
ZZ19520		<20	0.13	<10	<10	58	<10	34
ZZ19521		<20	0.19	<10	<10	87	<10	63
ZZ19522		<20	0.13	<10	<10	53	<10	42
ZZ19523		<20	0.06	<10	<10	50	<10	111
ZZ19524		<20	0.11	<10	<10	50	<10	41
ZZ19525		<20	0.11	<10	<10	56	<10	109
ZZ19526		<20	0.12	<10	<10	54	<10	38
ZZ19527		<20	0.12	<10	<10	61	<10	45
ZZ19528		<20	0.12	<10	<10	59	<10	74
ZZ19529		<20	0.12	<10	<10	59	<10	59
ZZ19530		<20	0.11	<10	<10	43	<10	84
ZZ19531		<20	0.13	<10	<10	59	<10	50
ZZ19532		<20	0.12	<10	<10	61	<10	50
ZZ19533		<20	0.18	<10	<10	67	<10	53
ZZ19534		<20	0.03	<10	<10	44	<10	55
ZZ19535		<20	0.10	<10	<10	45	<10	47
ZZ19536		<20	0.13	<10	<10	53	<10	51
ZZ19537		<20	0.13	<10	<10	56	<10	211
ZZ19538		<20	0.11	<10	<10	53	<10	44
ZZ19539		<20	0.10	<10	<10	44	<10	71
ZZ19540		<20	0.13	<10	<10	60	<10	42

***** See Appendix Page for comments regarding this certificate *****

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1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 3- OCT- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11163983

Sample Description	Method / Analyte / Units / LOR	WEI- 21 Recvd Wt. kg 0.02	Au- ICP21 Au ppm 0.001	ME- ICP41 Ag ppm 0.2	ME- ICP41 Al % 0.01	ME- ICP41 As ppm 2	ME- ICP41 B ppm 10	ME- ICP41 Ba ppm 10	ME- ICP41 Be ppm 0.5	ME- ICP41 Bi ppm 2	ME- ICP41 Ca % 0.01	ME- ICP41 Cd ppm 0.5	ME- ICP41 Co ppm 1	ME- ICP41 Cr ppm 1	ME- ICP41 Cu ppm 1	ME- ICP41 Fe % 0.01
ZZ19541		0.14	0.002	0.3	1.88	5	<10	180	0.7	<2	0.65	<0.5	23	38	73	3.01
ZZ19542		0.10	0.002	<0.2	1.87	8	<10	120	<0.5	<2	0.41	<0.5	16	118	76	3.69
ZZ19543		0.14	<0.001	<0.2	1.60	4	<10	100	<0.5	<2	0.65	<0.5	10	34	22	2.50
ZZ19544		0.14	0.002	<0.2	1.77	3	<10	160	<0.5	<2	0.53	<0.5	12	34	42	2.79
ZZ19545		0.08	0.038	0.2	2.54	9	<10	160	0.6	<2	1.34	<0.5	21	44	603	3.35
ZZ19546		0.10	0.006	<0.2	1.54	67	<10	110	0.5	<2	0.40	<0.5	14	35	59	2.59
ZZ19547		0.12	0.004	<0.2	1.73	34	<10	90	<0.5	<2	0.52	<0.5	17	65	86	2.92
ZZ19548		0.08	0.002	<0.2	1.64	8	<10	100	<0.5	<2	0.69	<0.5	9	31	39	2.57
ZZ19549		0.10	0.003	<0.2	2.04	10	<10	100	<0.5	<2	0.57	<0.5	10	35	42	2.97
ZZ19550		0.10	0.002	<0.2	1.52	7	<10	70	<0.5	<2	0.62	<0.5	9	31	21	2.71
ZZ19551		0.14	0.002	<0.2	1.63	10	<10	130	<0.5	<2	0.67	<0.5	10	33	41	2.67
ZZ19552		0.12	0.006	0.2	1.54	27	<10	110	<0.5	<2	1.71	<0.5	13	32	185	2.58
ZZ19553		0.12	0.009	<0.2	1.97	16	<10	180	<0.5	<2	1.15	<0.5	27	58	304	3.58
ZZ19554		0.10	0.005	<0.2	1.62	25	<10	110	<0.5	<2	1.17	<0.5	10	31	284	2.66
ZZ19555		0.08	0.001	0.2	1.48	17	<10	150	<0.5	<2	1.07	<0.5	10	28	227	2.46
ZZ19556		0.22	0.002	<0.2	1.52	7	<10	130	<0.5	<2	0.69	<0.5	9	30	79	2.63
ZZ19557		0.14	0.003	<0.2	1.50	6	<10	110	<0.5	<2	0.59	<0.5	8	28	23	2.39
ZZ19558		0.10	0.002	0.2	1.54	8	<10	130	<0.5	<2	0.73	<0.5	9	30	201	2.50
ZZ19559		0.08	0.005	0.2	1.57	9	<10	130	<0.5	<2	1.07	<0.5	10	30	159	2.54
ZZ19560		0.12	0.003	<0.2	1.56	6	<10	130	<0.5	<2	0.74	<0.5	8	31	153	2.60
ZZ19561		0.14	0.032	<0.2	1.51	10	<10	100	<0.5	<2	0.87	<0.5	10	30	144	2.69
ZZ19562		0.08	0.001	<0.2	1.68	22	<10	110	<0.5	<2	0.88	<0.5	8	32	102	2.68
ZZ19563		0.10	0.011	0.3	1.55	52	<10	120	<0.5	<2	1.19	<0.5	11	32	525	2.66
ZZ19564		0.12	0.005	<0.2	1.46	8	<10	120	<0.5	<2	1.15	<0.5	9	30	317	2.45
ZZ19565		0.10	0.006	0.3	1.47	16	<10	130	<0.5	<2	1.95	<0.5	9	29	173	2.51
ZZ19566		0.12	<0.001	<0.2	1.57	6	<10	100	<0.5	<2	0.58	<0.5	11	32	31	2.70
ZZ19567		0.12	0.001	<0.2	1.84	6	<10	130	<0.5	<2	0.49	<0.5	13	33	24	2.78
ZZ19568		0.14	0.001	0.2	1.77	12	<10	790	<0.5	<2	1.01	<0.5	16	60	110	5.93
ZZ19569		0.14	0.005	<0.2	2.06	9	<10	90	0.5	2	0.41	<0.5	15	41	53	3.45
ZZ19570		0.10	NSS	0.8	1.44	18	<10	90	<0.5	7	0.45	<0.5	24	27	392	5.45
ZZ19571		0.20	0.001	<0.2	1.42	7	<10	80	<0.5	<2	0.44	<0.5	9	29	21	2.49
ZZ19572		0.12	0.001	<0.2	1.36	7	<10	70	<0.5	<2	0.42	<0.5	7	30	15	2.42
ZZ19573		0.14	0.001	<0.2	1.38	5	<10	80	<0.5	<2	0.35	<0.5	7	27	11	2.31
ZZ19574		0.12	<0.001	<0.2	1.66	8	<10	180	<0.5	2	0.50	<0.5	11	33	23	2.76
ZZ19575		0.14	0.001	<0.2	1.67	8	<10	130	<0.5	<2	0.67	<0.5	9	32	113	2.63
ZZ19576		0.16	0.004	<0.2	1.51	7	<10	120	<0.5	3	1.00	<0.5	9	30	636	2.49
ZZ19577		0.14	0.005	<0.2	1.51	9	<10	110	<0.5	2	0.93	<0.5	10	31	37	2.67
ZZ19578		0.14	0.004	<0.2	1.59	10	<10	140	<0.5	2	0.97	<0.5	11	41	240	2.80
ZZ19579		0.10	<0.001	<0.2	1.63	8	<10	140	0.5	2	0.62	<0.5	19	35	119	3.04
ZZ19580		0.22	0.002	<0.2	1.66	6	<10	190	<0.5	2	0.72	<0.5	10	34	23	2.93

***** See Appendix Page for comments regarding this certificate *****

ALS Canada Ltd.
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ALS Minerals

To: ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 3- OCT- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11163983

Sample Description	Method / Analyte / Units / LOR	ME- ICP41 Ga ppm 10	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1
ZZ19541		10	<1	0.16	10	0.53	592	3	0.03	100	360	9	0.01	2	5	32
ZZ19542		10	<1	0.53	10	0.79	228	3	0.03	71	220	5	0.06	<2	5	27
ZZ19543		<10	<1	0.08	10	0.54	340	<1	0.03	17	310	6	<0.01	<2	5	29
ZZ19544		10	<1	0.32	10	0.58	506	1	0.04	23	300	7	<0.01	<2	4	25
ZZ19545		10	<1	0.42	10	0.82	950	3	0.08	55	590	10	0.01	<2	5	62
ZZ19546		10	<1	0.19	10	0.52	397	3	0.03	36	300	9	<0.01	3	4	24
ZZ19547		10	<1	0.32	10	0.75	377	4	0.03	48	400	6	<0.01	<2	4	25
ZZ19548		10	<1	0.40	10	0.97	296	<1	0.03	20	230	7	0.03	<2	4	28
ZZ19549		10	<1	0.11	10	0.69	366	2	0.02	21	270	7	0.02	<2	4	32
ZZ19550		10	<1	0.24	10	0.62	369	2	0.04	15	310	6	0.02	<2	5	31
ZZ19551		10	<1	0.23	10	0.86	502	2	0.04	21	510	7	0.02	<2	5	34
ZZ19552		10	<1	0.19	10	1.07	552	1	0.04	30	940	7	0.03	2	4	47
ZZ19553		10	1	0.28	10	1.28	349	2	0.05	41	1620	5	0.04	<2	6	54
ZZ19554		10	<1	0.23	10	0.65	241	3	0.04	25	260	8	0.04	<2	4	50
ZZ19555		<10	<1	0.19	10	0.63	318	1	0.04	26	300	5	0.03	<2	4	44
ZZ19556		10	1	0.26	10	0.69	265	30	0.03	17	700	6	0.02	<2	5	38
ZZ19557		10	<1	0.19	10	0.60	308	13	0.03	16	550	6	0.02	<2	4	33
ZZ19558		10	<1	0.27	10	0.70	305	9	0.04	24	800	6	0.02	<2	5	38
ZZ19559		10	<1	0.18	10	0.65	298	10	0.04	22	730	7	0.03	2	4	54
ZZ19560		<10	<1	0.24	10	0.71	280	4	0.04	20	910	6	0.02	<2	5	51
ZZ19561		10	<1	0.23	10	0.75	303	3	0.04	20	590	7	0.02	<2	6	52
ZZ19562		10	<1	0.19	10	0.72	268	2	0.04	18	200	6	0.03	<2	4	39
ZZ19563		<10	<1	0.25	10	0.79	290	1	0.04	26	500	8	0.04	2	4	51
ZZ19564		<10	<1	0.20	10	0.82	364	<1	0.05	33	600	6	0.04	<2	4	42
ZZ19565		10	<1	0.30	10	1.41	359	1	0.04	28	550	6	0.05	<2	3	54
ZZ19566		<10	<1	0.21	10	0.54	291	1	0.03	26	180	8	0.02	<2	5	27
ZZ19567		10	<1	0.11	10	0.54	543	2	0.03	16	280	7	0.02	<2	4	26
ZZ19568		10	<1	0.64	20	0.80	358	3	0.07	42	1500	7	0.45	2	4	124
ZZ19569		10	<1	0.47	10	0.76	444	4	0.03	29	360	9	0.03	<2	5	26
ZZ19570		<10	<1	0.21	10	0.43	729	33	0.03	17	270	7	0.08	<2	4	23
ZZ19571		<10	<1	0.17	10	0.54	240	3	0.03	13	230	5	0.02	<2	4	24
ZZ19572		<10	<1	0.17	10	0.59	285	3	0.03	14	150	6	0.01	<2	4	23
ZZ19573		<10	<1	0.12	10	0.48	233	2	0.02	14	230	5	0.01	<2	3	19
ZZ19574		10	<1	0.18	10	0.57	485	2	0.03	20	310	7	0.01	<2	4	28
ZZ19575		10	<1	0.17	10	0.68	406	8	0.03	21	280	5	0.02	<2	5	38
ZZ19576		<10	1	0.18	10	0.68	354	4	0.03	21	700	4	0.03	<2	5	48
ZZ19577		10	<1	0.29	10	0.71	339	1	0.03	18	350	5	0.02	<2	5	33
ZZ19578		10	<1	0.21	10	0.97	449	1	0.04	44	640	6	0.02	<2	5	45
ZZ19579		10	<1	0.26	10	0.61	612	3	0.03	47	310	8	0.03	<2	4	29
ZZ19580		10	<1	0.20	10	0.76	332	<1	0.04	21	1010	5	0.01	<2	4	43

***** See Appendix Page for comments regarding this certificate *****

ALS Canada Ltd.
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To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 3- OCT- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11163983

Sample Description	Method / Analyte / Units / LOR	ME- ICP41 Th ppm 20	ME- ICP41 Ti % 0.01	ME- ICP41 Tl ppm 10	ME- ICP41 U ppm 10	ME- ICP41 V ppm 1	ME- ICP41 W ppm 10	ME- ICP41 Zn ppm 2
ZZ19541		<20	0.13	<10	<10	66	<10	50
ZZ19542		<20	0.22	<10	<10	92	<10	46
ZZ19543		<20	0.12	<10	<10	56	<10	43
ZZ19544		<20	0.15	<10	<10	59	<10	52
ZZ19545		<20	0.16	<10	<10	73	<10	73
ZZ19546		<20	0.10	<10	<10	57	<10	48
ZZ19547		<20	0.15	<10	<10	59	<10	45
ZZ19548		<20	0.13	<10	<10	56	<10	47
ZZ19549		<20	0.13	<10	<10	70	<10	58
ZZ19550		<20	0.13	<10	<10	53	<10	43
ZZ19551		<20	0.12	<10	<10	56	<10	53
ZZ19552		<20	0.11	<10	<10	50	<10	113
ZZ19553		<20	0.18	<10	<10	78	<10	54
ZZ19554		<20	0.11	<10	<10	53	<10	48
ZZ19555		<20	0.11	<10	<10	46	<10	42
ZZ19556		<20	0.14	<10	<10	59	<10	50
ZZ19557		<20	0.12	<10	<10	53	<10	41
ZZ19558		<20	0.12	<10	<10	56	<10	46
ZZ19559		<20	0.12	<10	<10	59	<10	51
ZZ19560		<20	0.13	<10	<10	55	<10	50
ZZ19561		<20	0.11	<10	<10	54	<10	45
ZZ19562		<20	0.13	<10	<10	55	<10	42
ZZ19563		<20	0.11	<10	<10	48	<10	54
ZZ19564		<20	0.10	<10	<10	45	<10	59
ZZ19565		<20	0.09	<10	<10	46	<10	51
ZZ19566		<20	0.12	<10	<10	58	<10	65
ZZ19567		<20	0.11	<10	<10	65	<10	54
ZZ19568		<20	0.20	<10	<10	80	<10	58
ZZ19569		<20	0.15	<10	<10	74	<10	64
ZZ19570		<20	0.10	<10	<10	47	<10	50
ZZ19571		<20	0.14	<10	<10	58	<10	42
ZZ19572		<20	0.14	<10	<10	58	<10	36
ZZ19573		<20	0.12	<10	<10	55	<10	39
ZZ19574		<20	0.13	<10	<10	64	<10	58
ZZ19575		<20	0.13	<10	<10	61	<10	43
ZZ19576		<20	0.12	<10	<10	55	<10	50
ZZ19577		<20	0.12	<10	<10	55	<10	46
ZZ19578		<20	0.15	<10	<10	58	<10	72
ZZ19579		<20	0.14	<10	<10	61	<10	87
ZZ19580		<20	0.17	<10	<10	65	<10	60

***** See Appendix Page for comments regarding this certificate *****

ALS Canada Ltd.

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To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 3- OCT- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11163983

Sample Description	Method Analyte Units LOR	WEI-21 Recvd Wt. kg 0.02	Au-ICP21 Au ppm 0.001	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1	ME-ICP41 Fe % 0.01
ZZ19581		0.18	<0.001	<0.2	1.69	3	<10	160	<0.5	2	0.51	<0.5	10	36	11	2.88
ZZ19582		0.18	<0.001	<0.2	1.69	5	<10	180	<0.5	2	0.63	<0.5	8	32	18	2.51
ZZ19583		0.14	0.003	<0.2	1.87	5	<10	180	<0.5	<2	0.76	<0.5	10	36	39	2.80
ZZ19584		0.18	0.001	<0.2	1.51	5	<10	170	<0.5	<2	0.69	<0.5	9	30	20	2.45
ZZ19585		0.20	0.002	<0.2	1.46	5	<10	160	<0.5	<2	0.68	<0.5	9	30	12	2.44
ZZ19586		0.20	0.003	<0.2	1.72	5	<10	150	<0.5	<2	0.80	<0.5	11	38	69	2.63
ZZ19587		0.14	0.003	<0.2	3.36	9	<10	460	<0.5	<2	1.00	<0.5	25	186	95	5.39
ZZ19588		0.14	0.006	<0.2	1.65	16	<10	150	<0.5	<2	0.56	<0.5	15	40	33	3.15
ZZ19589		0.14	0.001	<0.2	1.49	5	<10	130	<0.5	<2	0.54	<0.5	10	33	22	2.51
ZZ19590		0.16	0.009	<0.2	2.33	15	<10	200	0.6	<2	1.05	1.3	21	55	65	3.69
ZZ19591		0.14	0.015	0.2	1.59	11	<10	140	<0.5	<2	0.79	<0.5	12	33	54	2.76
ZZ19592		0.16	0.003	<0.2	1.73	21	<10	150	<0.5	<2	0.80	<0.5	11	33	46	2.99
ZZ19593		0.12	0.001	<0.2	1.52	10	<10	190	0.5	<2	1.53	0.6	10	27	30	2.33
ZZ19594		0.14	0.025	<0.2	0.75	191	<10	200	0.5	2	1.99	1.0	28	20	432	22.3
ZZ19595		0.14	<0.001	<0.2	1.95	7	<10	210	<0.5	<2	0.79	<0.5	8	36	19	2.77
ZZ19596		0.20	<0.001	<0.2	1.80	7	<10	210	<0.5	<2	0.73	<0.5	9	35	38	2.74
ZZ19597		0.16	0.003	<0.2	2.04	8	<10	230	<0.5	<2	0.62	<0.5	10	36	21	2.73
ZZ19598		0.16	0.002	<0.2	1.65	6	<10	170	<0.5	<2	0.55	<0.5	9	29	13	2.30
ZZ19599		0.14	0.001	<0.2	1.96	4	<10	100	<0.5	<2	0.28	<0.5	7	31	10	2.82
ZZ19600		0.10	0.001	0.3	2.06	5	<10	140	<0.5	<2	0.41	<0.5	9	40	17	2.63
ZZ19621		0.14	<0.001	<0.2	2.13	6	<10	160	<0.5	<2	0.41	<0.5	10	34	17	2.94
ZZ19622		0.14	0.006	<0.2	2.13	9	<10	180	0.5	<2	0.47	<0.5	9	33	20	2.62
ZZ19623		0.12	<0.001	<0.2	1.41	3	<10	140	<0.5	<2	0.57	<0.5	8	28	17	2.22
ZZ19624		0.16	0.004	<0.2	1.77	8	<10	190	<0.5	<2	0.67	<0.5	11	37	29	2.87
ZZ19625		0.16	<0.001	<0.2	1.99	5	<10	150	<0.5	<2	0.44	<0.5	10	32	18	2.73
ZZ19626		0.12	<0.001	<0.2	1.72	5	<10	240	<0.5	<2	0.71	<0.5	11	33	39	2.66
ZZ19627		0.10	<0.001	<0.2	1.41	6	<10	170	<0.5	<2	0.60	<0.5	8	28	19	2.25
ZZ19628		0.18	0.002	<0.2	2.04	7	<10	230	<0.5	<2	0.66	<0.5	11	46	33	3.10
ZZ19629		0.18	0.001	<0.2	2.17	3	<10	260	0.5	<2	0.61	<0.5	12	44	29	3.12
ZZ19630		0.14	0.002	<0.2	2.05	4	<10	260	<0.5	<2	0.62	<0.5	13	47	32	3.09
ZZ19631		0.16	0.001	<0.2	1.63	3	<10	170	<0.5	<2	0.48	<0.5	9	31	20	2.20
ZZ19901		0.18	<0.001	<0.2	1.57	6	<10	190	<0.5	<2	0.91	<0.5	10	32	16	2.34
ZZ19902		0.20	0.011	<0.2	1.70	5	<10	210	<0.5	<2	0.93	<0.5	11	38	16	2.62
ZZ19903		0.16	0.001	<0.2	1.85	4	<10	200	<0.5	<2	0.86	<0.5	9	37	39	2.67
ZZ19904		0.16	0.001	<0.2	1.91	7	<10	230	<0.5	<2	0.95	<0.5	12	51	29	3.03
ZZ19905		0.10	0.002	0.2	1.80	6	<10	220	<0.5	<2	0.78	<0.5	9	36	41	2.69
ZZ19906		0.14	0.002	0.2	1.85	7	<10	240	<0.5	<2	1.07	<0.5	10	36	36	2.61
ZZ19907		0.10	0.002	0.2	1.83	6	<10	210	<0.5	<2	1.33	<0.5	12	49	55	2.74
ZZ19908		0.12	0.007	0.2	1.68	5	<10	180	<0.5	<2	1.01	<0.5	8	40	76	2.16
ZZ19909		0.10	<0.001	0.3	2.26	4	<10	230	0.6	<2	1.30	<0.5	21	94	94	3.29

***** See Appendix Page for comments regarding this certificate *****

ALS Canada Ltd.

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To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 3- OCT- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11163983

Sample Description	Ga	Hg	K	La	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Sc	Sr
Method	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41
Units	ppm	ppm	%	ppm	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm
LOR	10	1	0.01	10	0.01	5	1	0.01	1	10	2	0.01	2	1	1
ZZ19581	10	<1	0.20	10	0.84	323	<1	0.02	14	620	7	0.02	<2	4	31
ZZ19582	10	<1	0.11	10	0.65	291	<1	0.02	16	620	6	0.02	<2	4	37
ZZ19583	10	<1	0.16	10	0.77	218	<1	0.03	24	680	6	0.03	<2	5	43
ZZ19584	10	<1	0.16	10	0.68	330	<1	0.04	18	860	7	<0.01	<2	4	39
ZZ19585	10	<1	0.14	10	0.71	340	<1	0.04	16	1030	7	<0.01	<2	3	38
ZZ19586	10	<1	0.21	10	0.78	312	<1	0.03	30	710	8	<0.01	<2	5	42
ZZ19587	10	<1	0.88	20	2.56	443	<1	0.03	101	1320	6	0.15	<2	7	63
ZZ19588	10	<1	0.19	10	0.84	495	1	0.02	29	360	10	<0.01	2	4	32
ZZ19589	10	<1	0.22	10	0.68	281	<1	0.03	27	320	6	<0.01	<2	4	30
ZZ19590	10	<1	0.20	10	1.41	376	<1	0.04	39	820	10	0.01	<2	5	43
ZZ19591	<10	<1	0.16	10	0.81	479	<1	0.03	34	460	9	<0.01	<2	5	35
ZZ19592	10	<1	0.15	10	0.64	512	<1	0.03	43	230	14	<0.01	2	5	36
ZZ19593	<10	<1	0.07	10	0.62	455	1	0.03	48	300	13	<0.01	<2	4	39
ZZ19594	<10	<1	0.08	10	0.20	277	8	0.03	33	1000	2	0.21	4	3	75
ZZ19595	10	<1	0.22	10	0.72	349	1	0.04	14	1110	9	0.02	<2	5	44
ZZ19596	10	<1	0.22	20	0.78	336	<1	0.04	22	1120	11	<0.01	<2	5	43
ZZ19597	10	1	0.15	10	0.70	502	<1	0.03	19	950	8	<0.01	<2	5	38
ZZ19598	10	1	0.13	10	0.68	243	<1	0.03	12	910	10	<0.01	<2	4	29
ZZ19599	10	<1	0.07	10	0.48	223	1	0.02	11	350	8	<0.01	<2	4	23
ZZ19600	10	<1	0.11	10	0.60	237	<1	0.03	19	510	6	<0.01	<2	4	25
ZZ19621	10	<1	0.14	10	0.67	279	<1	0.02	17	560	8	<0.01	2	5	28
ZZ19622	10	1	0.14	10	0.67	276	<1	0.03	17	690	9	0.01	<2	3	31
ZZ19623	<10	<1	0.10	10	0.56	347	<1	0.03	14	930	8	<0.01	<2	4	37
ZZ19624	10	<1	0.24	10	0.77	492	<1	0.04	20	1020	9	<0.01	<2	5	42
ZZ19625	10	<1	0.14	10	0.65	355	<1	0.02	16	640	9	<0.01	<2	4	26
ZZ19626	10	<1	0.12	10	0.73	427	<1	0.03	16	970	8	0.01	<2	5	43
ZZ19627	<10	<1	0.16	10	0.53	282	<1	0.04	15	1290	8	<0.01	<2	4	31
ZZ19628	10	<1	0.38	10	0.92	485	<1	0.04	24	1080	11	<0.01	<2	7	39
ZZ19629	10	1	0.22	20	0.86	363	<1	0.04	25	1000	10	<0.01	<2	6	36
ZZ19630	10	<1	0.41	20	1.01	670	<1	0.04	20	1050	11	<0.01	<2	8	33
ZZ19631	10	<1	0.14	10	0.60	336	<1	0.03	16	760	6	<0.01	<2	4	27
ZZ19901	10	<1	0.10	10	0.69	458	<1	0.04	15	910	6	0.01	<2	3	49
ZZ19902	10	<1	0.17	10	0.77	523	<1	0.04	19	900	9	<0.01	2	4	49
ZZ19903	10	<1	0.19	20	0.73	236	<1	0.03	21	940	9	0.03	<2	5	49
ZZ19904	10	<1	0.23	10	0.97	434	<1	0.04	29	810	11	0.01	<2	5	50
ZZ19905	10	<1	0.12	10	0.74	320	<1	0.03	22	560	8	0.01	<2	4	44
ZZ19906	10	<1	0.19	10	0.72	359	<1	0.03	19	990	10	0.05	<2	5	59
ZZ19907	10	<1	0.21	10	0.84	471	<1	0.03	29	890	9	0.05	<2	5	72
ZZ19908	<10	<1	0.16	20	0.71	216	<1	0.03	38	900	7	0.05	<2	4	54
ZZ19909	10	<1	0.19	20	1.23	497	2	0.03	70	1200	7	0.12	<2	6	70

***** See Appendix Page for comments regarding this certificate *****

ALS Canada Ltd.

2103 Dollarton Hwy
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Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 3- OCT- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11163983

Sample Description / Method / Analyte / Units / LOR	ME- ICP41 Th ppm 20	ME- ICP41 Ti % 0.01	ME- ICP41 Tl ppm 10	ME- ICP41 U ppm 10	ME- ICP41 V ppm 1	ME- ICP41 W ppm 10	ME- ICP41 Zn ppm 2
ZZ19581	<20	0.22	<10	<10	77	<10	62
ZZ19582	<20	0.15	<10	<10	62	<10	51
ZZ19583	<20	0.15	<10	<10	67	<10	53
ZZ19584	<20	0.15	<10	<10	55	<10	54
ZZ19585	<20	0.16	<10	<10	57	<10	53
ZZ19586	<20	0.14	<10	<10	57	<10	61
ZZ19587	<20	0.35	<10	<10	128	<10	71
ZZ19588	<20	0.12	<10	<10	62	<10	62
ZZ19589	<20	0.14	<10	<10	52	<10	45
ZZ19590	<20	0.18	<10	<10	82	<10	202
ZZ19591	<20	0.11	<10	<10	57	<10	65
ZZ19592	<20	0.11	<10	<10	60	<10	94
ZZ19593	<20	0.07	<10	<10	49	<10	80
ZZ19594	<20	0.06	<10	<10	53	10	150
ZZ19595	<20	0.17	<10	<10	60	<10	109
ZZ19596	<20	0.17	<10	<10	61	<10	64
ZZ19597	<20	0.16	<10	<10	65	<10	59
ZZ19598	<20	0.15	<10	<10	54	<10	49
ZZ19599	<20	0.15	<10	<10	71	<10	42
ZZ19600	<20	0.14	<10	<10	64	<10	48
ZZ19621	<20	0.13	<10	<10	64	<10	51
ZZ19622	<20	0.12	<10	<10	59	<10	52
ZZ19623	<20	0.12	<10	<10	53	<10	43
ZZ19624	<20	0.16	<10	<10	64	<10	64
ZZ19625	<20	0.14	<10	<10	62	<10	49
ZZ19626	<20	0.14	<10	<10	62	<10	56
ZZ19627	<20	0.12	<10	<10	52	<10	44
ZZ19628	<20	0.18	<10	<10	67	<10	74
ZZ19629	<20	0.16	<10	<10	70	<10	60
ZZ19630	<20	0.18	<10	<10	68	<10	77
ZZ19631	<20	0.13	<10	<10	51	<10	46
ZZ19901	<20	0.15	<10	<10	55	<10	55
ZZ19902	<20	0.16	<10	<10	62	<10	52
ZZ19903	<20	0.14	<10	<10	59	<10	77
ZZ19904	<20	0.18	<10	<10	64	<10	74
ZZ19905	<20	0.12	<10	<10	57	<10	51
ZZ19906	<20	0.12	<10	<10	50	<10	120
ZZ19907	<20	0.13	<10	<10	56	<10	77
ZZ19908	<20	0.11	<10	<10	47	<10	65
ZZ19909	<20	0.12	<10	<10	81	<10	74

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ALS Minerals

To: ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 3- OCT- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11163983

Sample Description	WEI- 21	Au- ICP21	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41
Analyte	Recvd Wt.	Au	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
Units	kg	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
LOR	0.02	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
ZZ19910	0.14	0.008	0.3	1.81	12	<10	190	0.6	<2	1.21	<0.5	15	49	56	3.20
ZZ19911	0.16	<0.001	<0.2	1.91	20	<10	190	0.5	<2	0.97	<0.5	18	123	29	3.29
ZZ19912	0.14	<0.001	<0.2	1.80	4	<10	180	<0.5	<2	0.94	<0.5	26	66	81	3.51
ZZ19913	0.16	0.003	<0.2	1.43	7	<10	150	<0.5	<2	1.07	<0.5	9	33	31	2.25
ZZ19914	0.14	0.002	0.2	1.22	12	<10	190	<0.5	<2	1.42	<0.5	13	31	38	2.63
ZZ19915	0.14	<0.001	0.2	1.72	4	<10	140	<0.5	<2	1.38	<0.5	10	32	22	2.67
ZZ19916	0.12	<0.001	<0.2	1.79	6	<10	160	0.5	<2	1.01	0.6	13	32	18	2.82
ZZ19917	0.12	0.022	0.8	1.70	127	<10	190	0.7	2	1.75	<0.5	17	32	571	3.24
ZZ19918	0.18	0.003	<0.2	1.91	8	<10	130	<0.5	<2	0.80	<0.5	11	38	29	2.91
ZZ19919	0.16	0.003	0.2	1.90	10	<10	180	0.5	<2	1.09	<0.5	13	37	59	3.03
ZZ19920	0.12	0.005	0.3	1.78	7	<10	190	0.6	<2	1.00	<0.5	13	49	89	3.15
ZZ19921	0.12	0.005	0.2	1.55	7	<10	180	<0.5	<2	1.08	<0.5	12	39	59	2.48
ZZ19922	0.18	0.003	<0.2	1.50	5	<10	160	<0.5	<2	0.78	<0.5	10	39	33	2.52
ZZ19923	0.20	0.002	<0.2	1.80	11	<10	130	<0.5	<2	0.61	<0.5	15	51	17	3.17
ZZ19924	0.14	0.003	<0.2	1.53	4	<10	180	<0.5	<2	0.94	<0.5	8	42	28	2.25
ZZ19925	0.14	0.004	<0.2	1.34	3	<10	160	<0.5	<2	0.89	<0.5	8	31	23	2.15
ZZ19926	0.16	0.009	<0.2	1.26	3	<10	120	<0.5	<2	0.83	<0.5	8	28	20	2.09
ZZ19927	0.14	0.003	0.2	1.21	4	<10	170	<0.5	<2	1.08	<0.5	8	26	27	2.01
ZZ19928	0.08	0.003	0.3	1.52	3	<10	230	<0.5	<2	1.18	<0.5	7	29	27	1.96
ZZ19929	0.14	0.003	<0.2	1.50	3	<10	190	<0.5	<2	0.99	<0.5	8	31	45	2.15
ZZ19930	0.22	0.002	<0.2	1.70	5	<10	200	<0.5	<2	0.84	<0.5	11	38	24	2.64
ZZ19931	0.14	0.005	<0.2	1.61	14	<10	170	0.5	<2	0.77	<0.5	14	51	56	3.08
ZZ19932	0.18	0.004	<0.2	1.12	8	<10	120	<0.5	<2	0.63	<0.5	8	30	29	1.99
ZZ19933	0.18	0.001	0.2	1.83	6	<10	110	<0.5	<2	1.82	<0.5	13	26	41	3.34
ZZ19934	0.22	0.004	<0.2	1.55	6	<10	120	<0.5	<2	0.85	<0.5	12	32	49	2.63
ZZ19935	0.22	0.002	<0.2	1.79	6	<10	130	<0.5	<2	0.58	<0.5	11	36	21	2.79
ZZ19936	0.26	0.003	<0.2	1.87	5	<10	130	<0.5	<2	0.66	<0.5	11	38	54	2.97
ZZ19937	0.14	0.007	0.2	1.62	12	<10	140	0.5	<2	1.14	<0.5	11	32	105	2.53
ZZ19938	0.16	0.002	<0.2	1.65	13	<10	100	<0.5	<2	0.95	<0.5	11	33	51	2.76
ZZ19939	0.16	0.004	<0.2	1.86	6	<10	110	0.5	<2	0.65	<0.5	12	35	31	2.85
ZZ19940	0.22	0.002	<0.2	1.32	5	<10	90	<0.5	<2	0.85	<0.5	8	29	22	2.17
ZZ19941	0.14	0.002	0.4	2.13	7	<10	90	1.5	<2	5.36	1.3	10	42	49	2.95
ZZ19942	0.20	0.003	<0.2	1.90	16	<10	140	0.5	<2	0.81	<0.5	12	41	36	3.05
ZZ19943	0.26	0.003	<0.2	2.40	12	<10	180	0.6	<2	0.99	<0.5	16	48	29	3.75
ZZ19944	0.16	0.003	0.3	1.52	9	<10	120	<0.5	<2	1.12	<0.5	10	31	17	2.47
ZZ19945	0.22	0.003	0.3	1.59	5	<10	120	<0.5	2	0.78	<0.5	10	32	45	2.58
ZZ19832	0.18	0.004	<0.2	1.75	5	<10	200	<0.5	3	0.63	<0.5	12	44	41	2.80
ZZ19833	0.14	0.008	<0.2	1.13	4	<10	130	<0.5	3	0.62	<0.5	7	24	13	2.00
ZZ19834	0.14	0.006	<0.2	2.74	6	<10	250	0.6	<2	0.77	<0.5	16	81	60	4.32
ZZ19835	0.16	0.004	<0.2	1.26	5	<10	130	<0.5	<2	0.68	<0.5	9	32	18	2.31

***** See Appendix Page for comments regarding this certificate *****

ALS Canada Ltd.

2103 Dollarton Hwy
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To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 3- OCT- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11163983

Sample Description	Method / Analyte / Units / LOR	ME- ICP41 Ga ppm 10	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1
ZZ19910		10	<1	0.28	20	1.01	389	<1	0.03	53	780	12	0.06	<2	6	91
ZZ19911		10	1	0.30	10	1.22	636	<1	0.05	58	550	40	0.04	<2	4	54
ZZ19912		10	<1	0.20	10	1.03	247	<1	0.03	158	440	5	0.08	<2	4	52
ZZ19913		<10	<1	0.19	10	0.70	318	<1	0.03	38	590	7	0.05	<2	4	46
ZZ19914		<10	<1	0.16	10	0.66	971	<1	0.03	36	730	9	0.08	<2	3	63
ZZ19915		10	<1	0.09	10	0.69	262	<1	0.03	25	320	6	0.04	<2	4	50
ZZ19916		10	<1	0.11	10	0.49	314	1	0.02	24	230	7	0.03	<2	4	39
ZZ19917		<10	<1	0.13	10	0.64	790	<1	0.02	62	460	7	0.06	<2	6	60
ZZ19918		10	<1	0.18	10	0.81	320	1	0.02	27	210	6	0.03	<2	5	34
ZZ19919		10	<1	0.19	10	0.76	575	<1	0.03	51	250	5	0.04	<2	5	43
ZZ19920		10	1	0.17	20	0.90	421	<1	0.03	55	850	12	0.06	<2	6	56
ZZ19921		10	<1	0.16	20	0.71	280	<1	0.03	37	920	8	0.08	<2	4	60
ZZ19922		10	1	0.17	20	0.73	318	<1	0.03	24	890	7	0.06	<2	4	41
ZZ19923		10	1	0.31	10	1.09	463	<1	0.02	29	450	8	0.03	<2	4	29
ZZ19924		10	<1	0.17	10	0.76	249	<1	0.03	24	790	8	0.06	<2	4	45
ZZ19925		10	1	0.16	10	0.61	253	<1	0.03	17	640	5	0.07	<2	3	48
ZZ19926		<10	<1	0.18	10	0.61	302	<1	0.03	17	750	6	0.04	<2	3	39
ZZ19927		<10	1	0.13	10	0.53	271	<1	0.03	17	900	6	0.07	<2	3	54
ZZ19928		<10	1	0.12	10	0.55	215	<1	0.03	15	900	5	0.10	<2	3	67
ZZ19929		10	<1	0.13	10	0.59	178	<1	0.03	20	890	6	0.07	<2	4	47
ZZ19930		10	<1	0.11	10	0.75	409	<1	0.03	22	600	6	0.03	<2	4	44
ZZ19931		10	1	0.20	10	0.92	435	<1	0.03	42	560	8	0.04	<2	4	36
ZZ19932		<10	<1	0.16	10	0.60	278	<1	0.03	21	800	6	0.02	<2	3	31
ZZ19933		10	<1	0.11	10	0.89	368	1	0.04	36	420	6	0.07	<2	5	37
ZZ19934		10	<1	0.18	10	0.69	344	<1	0.02	32	370	7	0.03	<2	4	37
ZZ19935		10	<1	0.18	10	0.78	345	<1	0.03	24	200	5	0.02	<2	5	29
ZZ19936		10	1	0.24	10	0.85	359	<1	0.03	37	220	5	0.02	<2	6	33
ZZ19937		10	<1	0.19	10	0.71	321	<1	0.03	45	410	5	0.04	<2	5	44
ZZ19938		<10	<1	0.16	10	0.70	341	<1	0.02	55	220	7	0.02	<2	5	41
ZZ19939		10	<1	0.11	10	0.60	299	<1	0.02	29	130	8	0.02	<2	4	29
ZZ19940		<10	<1	0.15	10	0.60	257	<1	0.02	18	610	4	0.05	<2	4	35
ZZ19941		10	1	0.05	10	1.05	206	2	0.09	74	670	10	0.09	<2	2	185
ZZ19942		10	1	0.28	10	0.88	312	<1	0.03	34	480	6	0.02	<2	6	37
ZZ19943		10	<1	0.37	10	1.12	413	1	0.04	34	620	8	0.04	<2	7	45
ZZ19944		10	1	0.13	10	0.61	240	<1	0.02	23	620	6	0.05	<2	4	44
ZZ19945		<10	1	0.18	10	0.67	262	<1	0.03	28	650	7	0.02	<2	5	36
ZZ19832		10	<1	0.21	20	0.84	499	<1	0.03	30	640	9	0.03	<2	5	33
ZZ19833		<10	<1	0.12	10	0.51	325	<1	0.03	16	880	6	0.02	<2	3	34
ZZ19834		10	<1	0.45	20	1.62	591	<1	0.03	50	1090	7	0.08	<2	8	41
ZZ19835		<10	1	0.16	10	0.64	436	<1	0.03	20	1000	7	0.02	<2	3	35

***** See Appendix Page for comments regarding this certificate *****

ALS Minerals

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VANCOUVER BC V6B 1L8

Finalized Date: 3- OCT- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11163983

Sample Description	Method Analyte Units LOR	ME- ICP41 Th ppm 20	ME- ICP41 Ti % 0.01	ME- ICP41 Tl ppm 10	ME- ICP41 U ppm 10	ME- ICP41 V ppm 1	ME- ICP41 W ppm 10	ME- ICP41 Zn ppm 2
ZZ19910		<20	0.13	<10	<10	60	<10	65
ZZ19911		<20	0.16	<10	<10	67	<10	82
ZZ19912		<20	0.14	<10	<10	61	<10	53
ZZ19913		<20	0.10	<10	<10	45	<10	61
ZZ19914		<20	0.08	<10	<10	46	<10	53
ZZ19915		<20	0.11	<10	<10	58	<10	49
ZZ19916		<20	0.12	<10	<10	66	<10	78
ZZ19917		<20	0.08	<10	<10	49	<10	41
ZZ19918		<20	0.15	<10	<10	66	<10	50
ZZ19919		<20	0.13	<10	<10	60	<10	59
ZZ19920		<20	0.12	<10	<10	60	<10	85
ZZ19921		<20	0.10	<10	<10	51	<10	88
ZZ19922		<20	0.11	<10	<10	52	<10	68
ZZ19923		<20	0.19	<10	<10	70	<10	103
ZZ19924		<20	0.13	<10	<10	48	<10	58
ZZ19925		<20	0.11	<10	<10	44	<10	68
ZZ19926		<20	0.11	<10	<10	42	<10	65
ZZ19927		<20	0.10	<10	<10	41	<10	54
ZZ19928		<20	0.09	<10	<10	40	<10	83
ZZ19929		<20	0.11	<10	<10	52	<10	74
ZZ19930		<20	0.13	<10	<10	60	<10	61
ZZ19931		<20	0.15	<10	<10	59	<10	64
ZZ19932		<20	0.10	<10	<10	41	<10	47
ZZ19933		<20	0.09	<10	<10	59	<10	64
ZZ19934		<20	0.13	<10	<10	52	<10	53
ZZ19935		<20	0.14	<10	<10	64	<10	47
ZZ19936		<20	0.15	<10	<10	65	<10	51
ZZ19937		<20	0.11	<10	<10	53	<10	47
ZZ19938		<20	0.13	<10	<10	53	<10	95
ZZ19939		<20	0.14	<10	<10	62	<10	52
ZZ19940		<20	0.12	<10	<10	52	<10	44
ZZ19941		<20	0.06	<10	<10	42	<10	72
ZZ19942		<20	0.14	<10	<10	68	<10	58
ZZ19943		<20	0.17	<10	<10	83	<10	72
ZZ19944		<20	0.12	<10	<10	55	<10	65
ZZ19945		<20	0.12	<10	<10	57	<10	67
ZZ19832		<20	0.14	<10	<10	60	<10	59
ZZ19833		<20	0.10	<10	<10	44	<10	41
ZZ19834		<20	0.22	<10	<10	118	<10	90
ZZ19835		<20	0.11	<10	<10	48	<10	53

***** See Appendix Page for comments regarding this certificate *****

ALS Canada Ltd.

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

To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 3- OCT- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11163983

Sample Description	Method / Analyte / Units / LOR	WEI- 21 Recvd Wt. kg 0.02	Au- ICP21 Au ppm 0.001	ME- ICP41 Ag ppm 0.2	ME- ICP41 Al % 0.01	ME- ICP41 As ppm 2	ME- ICP41 B ppm 10	ME- ICP41 Ba ppm 10	ME- ICP41 Be ppm 0.5	ME- ICP41 Bi ppm 2	ME- ICP41 Ca % 0.01	ME- ICP41 Cd ppm 0.5	ME- ICP41 Co ppm 1	ME- ICP41 Cr ppm 1	ME- ICP41 Cu ppm 1	ME- ICP41 Fe % 0.01
ZZ19836		0.16	0.002	<0.2	1.91	4	<10	170	<0.5	3	0.91	<0.5	13	46	22	2.91
ZZ19837		0.18	0.002	<0.2	2.88	9	<10	260	0.5	<2	0.64	<0.5	18	94	63	4.79
ZZ19838		0.18	0.003	<0.2	1.66	5	<10	140	<0.5	2	0.50	<0.5	10	34	27	2.88
ZZ19839		0.18	0.003	<0.2	1.74	9	<10	130	<0.5	4	0.51	<0.5	12	40	44	3.15
ZZ19840		0.08	0.006	<0.2	2.16	7	<10	160	<0.5	2	0.88	<0.5	15	84	50	3.30
ZZ19841		0.18	0.006	<0.2	1.49	12	<10	160	<0.5	3	1.35	<0.5	11	37	32	2.65
ZZ19842		0.22	0.003	<0.2	2.12	4	<10	170	0.5	2	0.94	<0.5	8	46	35	2.70
ZZ19843		0.18	0.001	<0.2	1.88	4	<10	100	<0.5	2	0.21	<0.5	9	34	17	2.55
ZZ19844		0.18	0.001	<0.2	1.72	6	<10	110	<0.5	3	0.53	<0.5	9	32	15	2.63
ZZ19845		0.22	0.002	<0.2	1.76	5	<10	120	<0.5	<2	0.60	<0.5	10	35	32	2.82
ZZ19951		0.14	0.002	0.2	1.63	<2	<10	200	<0.5	2	0.75	<0.5	7	29	18	2.45
ZZ19952		0.16	0.003	<0.2	1.51	5	<10	170	<0.5	2	0.67	<0.5	8	28	17	2.39
ZZ19953		0.16	0.004	<0.2	1.29	<2	<10	140	<0.5	3	0.52	<0.5	7	28	11	1.98
ZZ19954		0.20	0.002	<0.2	1.61	5	<10	170	<0.5	2	0.56	<0.5	11	38	20	2.90
ZZ19955		0.16	0.004	0.2	1.84	5	<10	140	<0.5	2	0.36	<0.5	10	36	19	2.96
ZZ19956		0.18	0.003	0.2	1.80	3	<10	180	<0.5	2	0.83	<0.5	13	38	40	3.09
ZZ19957		0.14	0.005	<0.2	2.14	4	<10	210	0.5	3	0.93	<0.5	13	45	71	3.00
ZZ19958		0.16	0.004	0.2	1.76	7	<10	190	<0.5	3	0.83	<0.5	11	40	33	2.76
ZZ19959		0.14	0.013	<0.2	3.61	2	<10	360	0.5	2	1.11	<0.5	21	165	57	5.68
ZZ19960		0.16	0.003	<0.2	3.80	6	<10	370	0.5	2	0.74	<0.5	23	204	88	5.72
ZZ19961		0.20	0.007	<0.2	1.76	6	<10	150	<0.5	2	0.70	<0.5	11	40	26	2.70
ZZ19962		0.10	0.004	<0.2	1.81	22	<10	190	0.5	3	1.12	<0.5	14	65	59	3.09
ZZ19963		0.18	0.006	<0.2	1.80	8	<10	160	<0.5	4	0.86	<0.5	13	46	39	3.09
ZZ19964		0.12	0.004	<0.2	1.84	12	<10	180	0.5	3	1.03	<0.5	15	51	52	3.30
ZZ19965		0.18	0.004	<0.2	1.59	7	<10	140	<0.5	2	0.89	<0.5	11	31	55	2.46
ZZ19966		0.10	0.005	0.2	1.48	18	<10	150	<0.5	3	1.33	0.6	11	31	51	2.57
ZZ19967		0.14	0.004	<0.2	2.62	7	<10	140	0.6	2	2.15	0.6	12	22	68	3.45
ZZ19968		0.12	0.005	0.2	1.81	18	<10	210	0.8	4	1.48	3.5	16	39	161	3.02
ZZ19969		0.12	0.004	<0.2	1.65	7	<10	150	<0.5	3	0.90	<0.5	10	32	54	2.58
ZZ19970		0.08	0.006	0.2	1.48	5	<10	130	<0.5	2	1.39	0.5	12	33	114	2.25
ZZ19971		0.12	0.003	<0.2	1.69	5	<10	140	<0.5	2	1.01	0.5	10	32	47	2.59
ZZ19972		0.16	0.004	0.2	1.57	11	<10	70	<0.5	<2	0.80	<0.5	10	31	61	2.53
ZZ19973		0.20	0.002	<0.2	1.07	5	<10	50	<0.5	<2	0.54	<0.5	6	19	16	1.98
ZZ19974		0.16	0.001	<0.2	1.59	8	<10	30	<0.5	<2	0.22	<0.5	7	28	13	2.65
ZZ19975		0.18	0.002	<0.2	1.23	4	<10	120	<0.5	<2	0.66	<0.5	8	25	16	2.09
ZZ19976		0.14	0.004	<0.2	1.45	5	<10	50	<0.5	<2	0.32	<0.5	7	27	14	2.24
ZZ19977		0.16	0.006	<0.2	1.49	6	<10	70	<0.5	<2	0.37	<0.5	7	27	17	2.23
ZZ19978		0.14	0.048	<0.2	2.49	34	<10	50	0.5	<2	0.45	<0.5	17	94	42	3.96
ZZ19979		0.14	0.008	<0.2	1.43	13	<10	60	<0.5	<2	0.30	<0.5	8	27	16	2.47
ZZ19980		0.16	0.004	<0.2	1.02	5	<10	50	<0.5	<2	0.51	<0.5	6	22	29	1.74

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To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 3- OCT- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11163983

Sample Description	Method / Analyte / Units / LOR	ME- ICP41 Ga ppm 10	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1
ZZ19836		10	1	0.24	10	1.14	551	<1	0.03	27	620	8	0.04	<2	4	43
ZZ19837		10	<1	0.53	20	1.77	529	1	0.02	47	540	10	0.04	<2	10	33
ZZ19838		10	1	0.23	10	0.79	276	<1	0.03	30	270	6	0.02	<2	4	27
ZZ19839		10	<1	0.41	20	0.89	287	<1	0.02	38	400	5	0.02	<2	4	26
ZZ19840		10	<1	0.28	10	1.49	765	1	0.03	45	520	9	0.04	<2	4	47
ZZ19841		<10	<1	0.24	10	1.17	401	<1	0.04	26	550	9	0.03	<2	4	39
ZZ19842		10	1	0.28	10	1.11	441	<1	0.05	31	600	4	0.02	<2	6	42
ZZ19843		10	1	0.10	10	0.67	259	<1	0.02	19	160	5	0.02	<2	4	18
ZZ19844		10	<1	0.16	10	0.67	324	1	0.02	20	190	5	0.01	<2	4	26
ZZ19845		10	<1	0.23	10	0.76	330	<1	0.03	28	450	5	0.01	<2	5	33
ZZ19951		<10	1	0.16	10	0.65	336	<1	0.03	15	990	5	0.04	<2	3	45
ZZ19952		<10	<1	0.15	10	0.64	279	<1	0.03	15	910	5	0.03	<2	3	42
ZZ19953		10	<1	0.07	10	0.55	308	<1	0.02	12	410	5	0.02	<2	3	34
ZZ19954		10	<1	0.16	10	0.79	372	<1	0.03	22	840	8	0.02	<2	4	32
ZZ19955		10	1	0.15	10	0.63	349	<1	0.02	18	400	11	0.02	<2	4	24
ZZ19956		10	<1	0.21	10	0.78	451	<1	0.03	21	890	9	0.04	<2	5	45
ZZ19957		10	1	0.22	30	0.89	581	<1	0.03	28	600	9	0.04	<2	6	50
ZZ19958		10	1	0.15	10	0.80	490	<1	0.03	23	880	7	0.04	<2	4	47
ZZ19959		10	<1	1.05	30	2.49	536	<1	0.04	68	1640	6	0.28	<2	9	73
ZZ19960		10	<1	1.03	30	2.98	428	1	0.03	100	990	5	0.23	<2	11	47
ZZ19961		10	<1	0.24	10	0.86	354	<1	0.02	24	330	7	0.03	<2	4	36
ZZ19962		10	1	0.11	10	0.84	410	<1	0.02	49	590	6	0.05	<2	7	58
ZZ19963		10	<1	0.21	10	0.96	357	<1	0.03	35	970	16	0.03	<2	4	46
ZZ19964		10	1	0.28	20	0.84	515	1	0.03	42	570	13	0.04	<2	5	52
ZZ19965		10	<1	0.19	10	0.89	263	<1	0.04	31	720	9	0.04	<2	5	44
ZZ19966		<10	1	0.15	10	0.70	426	<1	0.03	32	630	7	0.06	<2	5	51
ZZ19967		10	1	0.10	10	0.50	465	<1	0.06	50	770	15	0.12	<2	3	135
ZZ19968		10	1	0.11	10	0.63	982	<1	0.03	101	570	11	0.04	<2	5	49
ZZ19969		10	<1	0.13	10	0.64	452	<1	0.02	36	310	5	0.03	<2	4	35
ZZ19970		<10	1	0.15	10	0.65	274	<1	0.03	67	540	6	0.05	<2	4	49
ZZ19971		<10	<1	0.12	10	0.62	532	<1	0.02	49	280	6	0.03	<2	4	39
ZZ19972		<10	<1	0.18	10	0.72	249	1	0.02	49	660	9	0.01	<2	5	37
ZZ19973		<10	<1	0.15	10	0.44	187	<1	0.02	16	440	4	0.01	<2	3	25
ZZ19974		10	<1	0.06	10	0.50	133	2	0.01	15	160	7	<0.01	<2	3	14
ZZ19975		<10	<1	0.16	10	0.55	239	<1	0.02	14	790	5	<0.01	<2	4	31
ZZ19976		<10	<1	0.11	10	0.49	186	<1	0.01	16	270	5	<0.01	<2	4	17
ZZ19977		<10	1	0.08	10	0.51	179	<1	0.01	16	370	5	<0.01	2	3	18
ZZ19978		10	<1	0.15	20	1.47	369	2	0.02	37	700	10	0.01	2	5	23
ZZ19979		10	<1	0.12	10	0.52	166	1	0.02	16	470	6	<0.01	<2	3	18
ZZ19980		<10	<1	0.12	10	0.45	192	2	0.02	17	830	3	<0.01	<2	3	27

***** See Appendix Page for comments regarding this certificate *****

ALS Canada Ltd.

2103 Dollarton Hwy
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To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 3- OCT- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11163983

Sample Description	Method / Analyte / Units / LOR	ME- ICP41 Th ppm 20	ME- ICP41 Ti % 0.01	ME- ICP41 Tl ppm 10	ME- ICP41 U ppm 10	ME- ICP41 V ppm 1	ME- ICP41 W ppm 10	ME- ICP41 Zn ppm 2
ZZ19836		<20	0.16	<10	<10	59	<10	96
ZZ19837		<20	0.26	<10	<10	118	<10	103
ZZ19838		<20	0.15	<10	<10	47	<10	42
ZZ19839		<20	0.14	<10	<10	46	<10	44
ZZ19840		<20	0.14	<10	<10	76	<10	99
ZZ19841		<20	0.12	<10	<10	51	<10	56
ZZ19842		<20	0.17	<10	<10	82	<10	45
ZZ19843		<20	0.12	<10	<10	60	<10	41
ZZ19844		<20	0.12	<10	<10	58	<10	41
ZZ19845		<20	0.13	<10	<10	63	<10	50
ZZ19951		<20	0.13	<10	<10	53	<10	85
ZZ19952		<20	0.13	<10	<10	55	<10	65
ZZ19953		<20	0.11	<10	<10	53	<10	42
ZZ19954		<20	0.14	<10	<10	53	<10	53
ZZ19955		<20	0.13	<10	<10	70	<10	102
ZZ19956		<20	0.14	<10	<10	58	<10	84
ZZ19957		<20	0.16	<10	<10	64	<10	64
ZZ19958		<20	0.13	<10	<10	57	<10	63
ZZ19959		20	0.36	<10	<10	128	<10	85
ZZ19960		<20	0.37	<10	<10	141	<10	84
ZZ19961		<20	0.16	<10	<10	60	<10	65
ZZ19962		<20	0.10	<10	<10	63	<10	62
ZZ19963		<20	0.14	<10	<10	60	<10	68
ZZ19964		<20	0.13	<10	<10	54	<10	66
ZZ19965		<20	0.10	<10	<10	48	<10	69
ZZ19966		<20	0.09	<10	<10	50	<10	103
ZZ19967		<20	0.05	<10	<10	36	<10	68
ZZ19968		<20	0.09	<10	<10	54	<10	846
ZZ19969		<20	0.12	<10	<10	59	<10	61
ZZ19970		<20	0.10	<10	<10	45	<10	80
ZZ19971		<20	0.11	<10	<10	53	<10	80
ZZ19972		<20	0.13	<10	<10	54	<10	75
ZZ19973		<20	0.09	<10	<10	41	<10	38
ZZ19974		<20	0.12	<10	<10	67	<10	43
ZZ19975		<20	0.11	<10	<10	47	<10	52
ZZ19976		<20	0.10	<10	<10	52	<10	39
ZZ19977		<20	0.10	<10	<10	51	<10	35
ZZ19978		<20	0.19	<10	<10	84	<10	61
ZZ19979		<20	0.11	<10	<10	58	<10	57
ZZ19980		<20	0.08	<10	<10	37	<10	33

***** See Appendix Page for comments regarding this certificate *****

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ALS Minerals

To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 3- OCT- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11163983

Sample Description	WEI- 21	Au- ICP21	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41
Method / Analyte	Recvd Wt.	Au	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
Units	kg	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
LOR	0.02	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
ZZ19981	0.10	0.002	<0.2	1.54	3	<10	70	<0.5	<2	0.58	<0.5	7	26	25	2.17
ZZ19982	0.16	0.002	0.2	1.81	8	<10	120	<0.5	<2	0.88	<0.5	11	36	14	2.81
ZZ19983	0.08	0.004	0.2	1.20	5	<10	130	<0.5	<2	1.12	<0.5	9	23	82	2.15
ZZ19984	0.22	0.002	0.2	1.34	5	<10	100	<0.5	<2	0.58	<0.5	8	27	22	2.32
ZZ19985	0.22	0.004	<0.2	1.37	7	<10	90	<0.5	<2	0.63	<0.5	13	28	216	2.45
ZZ19986	0.08	0.006	<0.2	1.30	24	<10	110	<0.5	<2	0.92	<0.5	9	26	151	2.15
ZZ19987	0.18	0.005	<0.2	1.37	24	<10	90	<0.5	<2	0.63	<0.5	12	29	84	2.46
ZZ19988	0.10	0.007	<0.2	1.33	5	<10	70	<0.5	<2	0.54	<0.5	19	30	47	2.56
ZZ19989	0.12	0.006	<0.2	1.35	8	<10	50	<0.5	<2	4.50	<0.5	8	22	419	1.93
ZZ19990	0.10	0.008	<0.2	1.40	6	<10	130	<0.5	<2	1.14	<0.5	11	28	201	2.41
ZZ19991	0.14	0.020	0.3	1.41	7	<10	80	<0.5	<2	0.89	<0.5	10	29	1075	2.48
ZZ19992	0.12	0.004	<0.2	1.41	8	<10	90	<0.5	<2	1.14	<0.5	10	22	46	2.05
ZZ19993	0.14	0.003	<0.2	1.37	6	<10	100	<0.5	<2	0.73	<0.5	10	27	50	2.35
ZZ19994	0.10	0.003	<0.2	1.59	9	<10	90	<0.5	<2	0.96	<0.5	9	28	63	2.37
ZZ19995	0.12	0.003	0.2	2.59	22	<10	190	<0.5	<2	1.50	<0.5	77	83	162	6.50
ZZ19996	0.12	0.001	<0.2	2.05	5	<10	100	<0.5	2	0.46	<0.5	12	36	39	3.31
ZZ19997	0.08	0.005	0.2	1.86	14	<10	160	0.6	<2	1.13	<0.5	31	44	982	3.80
ZZ19998	0.18	<0.001	<0.2	1.32	6	<10	40	<0.5	<2	0.34	<0.5	8	26	21	2.31
ZZ19999	0.10	0.003	<0.2	1.43	4	<10	120	<0.5	<2	0.50	<0.5	9	26	14	2.30
ZZ20000	0.14	0.002	<0.2	1.60	7	<10	120	<0.5	<2	0.54	<0.5	9	31	54	2.52

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North Vancouver BC V7H 0A7
Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 3- OCT- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11163983

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
ZZ19981		10	<1	0.22	10	0.62	257	5	0.02	16	840	4	0.04	2	3	38
ZZ19982		10	<1	0.13	10	0.77	308	3	0.02	17	350	7	0.02	2	4	60
ZZ19983		<10	<1	0.18	10	0.53	418	9	0.02	22	800	3	0.04	2	3	68
ZZ19984		<10	<1	0.24	10	0.62	333	7	0.03	18	890	5	<0.01	<2	4	37
ZZ19985		<10	<1	0.23	10	0.63	257	13	0.02	27	830	4	0.01	<2	4	59
ZZ19986		<10	<1	0.25	10	0.61	307	7	0.03	30	590	5	0.03	4	4	71
ZZ19987		<10	<1	0.24	10	0.72	325	2	0.03	34	890	4	<0.01	3	4	50
ZZ19988		<10	<1	0.41	10	0.63	319	3	0.02	23	470	4	0.01	<2	4	28
ZZ19989		<10	<1	0.19	10	2.96	313	1	0.02	21	740	6	0.03	3	3	56
ZZ19990		<10	<1	0.16	10	0.70	394	1	0.04	28	550	5	0.02	<2	4	48
ZZ19991		<10	<1	0.15	10	0.63	356	2	0.02	32	680	5	0.01	3	4	40
ZZ19992		<10	<1	0.05	10	0.40	1070	2	0.03	15	350	9	0.01	<2	3	28
ZZ19993		<10	<1	0.17	10	0.84	396	1	0.03	19	680	5	<0.01	2	4	34
ZZ19994		10	<1	0.26	10	1.69	312	1	0.03	19	270	7	<0.01	2	4	31
ZZ19995		10	<1	0.75	10	1.73	668	7	0.02	49	4320	5	0.03	<2	9	59
ZZ19996		10	<1	0.38	10	0.87	319	6	0.03	21	490	4	0.03	<2	7	35
ZZ19997		10	<1	0.26	20	1.18	755	5	0.03	155	640	6	0.01	<2	13	52
ZZ19998		10	<1	0.17	10	0.53	215	7	0.01	15	290	5	<0.01	2	3	18
ZZ19999		10	<1	0.15	10	0.49	560	3	0.02	14	320	5	<0.01	<2	3	28
ZZ20000		<10	<1	0.15	10	0.62	236	1	0.02	36	390	5	<0.01	2	5	31

***** See Appendix Page for comments regarding this certificate *****

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To: ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 3- OCT- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11163983

Sample Description	Method Analyte Units LOR	ME- ICP41 Th ppm 20	ME- ICP41 Ti % 0.01	ME- ICP41 Tl ppm 10	ME- ICP41 U ppm 10	ME- ICP41 V ppm 1	ME- ICP41 W ppm 10	ME- ICP41 Zn ppm 2
ZZ19981		<20	0.10	<10	<10	44	<10	50
ZZ19982		<20	0.13	<10	<10	67	<10	104
ZZ19983		<20	0.10	<10	<10	46	<10	37
ZZ19984		<20	0.12	<10	<10	50	<10	47
ZZ19985		<20	0.11	<10	<10	51	<10	52
ZZ19986		<20	0.11	<10	<10	46	<10	39
ZZ19987		<20	0.11	<10	<10	53	<10	50
ZZ19988		<20	0.12	<10	<10	59	<10	38
ZZ19989		<20	0.08	<10	<10	39	<10	49
ZZ19990		<20	0.10	<10	<10	48	<10	73
ZZ19991		<20	0.11	<10	<10	53	<10	61
ZZ19992		<20	0.08	<10	<10	38	<10	58
ZZ19993		<20	0.11	<10	<10	47	<10	50
ZZ19994		<20	0.11	<10	<10	49	<10	35
ZZ19995		<20	0.23	<10	<10	177	<10	57
ZZ19996		<20	0.19	<10	<10	82	<10	53
ZZ19997		<20	0.15	<10	<10	82	<10	70
ZZ19998		<20	0.13	<10	<10	57	<10	48
ZZ19999		<20	0.12	<10	<10	53	<10	55
ZZ20000		<20	0.13	<10	<10	55	<10	42

***** See Appendix Page for comments regarding this certificate *****

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To: ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 3- OCT- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11163983

Method	CERTIFICATE COMMENTS
ALL METHODS	NSS is non- sufficient sample.

ALS Canada Ltd.

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To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 9- NOV- 2011
This copy reported on 23- NOV- 2011
Account: F

CERTIFICATE WH11195679

Project: Hopper
P.O. No.:
This report is for 24 Soil samples submitted to our lab in Whitehorse, YT, Canada on 24- SEP- 2011.
The following have access to data associated with this certificate:

JOAN MARIACHER	HEATHER SMITH	

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
SCR- 41	Screen to - 180um and save both

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au- ICP21	Au 30g FA ICP- AES Finish	ICP- AES
ME- ICP41	35 Element Aqua Regia ICP- AES	ICP- AES

To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
ATTN: JOAN MARIACHER
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

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

ALS Minerals

ALS Canada Ltd.

2103 Dollarton Hwy
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To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 9- NOV- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11195679

Sample Description	Method	WEI-21	Au-ICP21	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Recvd Wt.	Au	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	kg	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	0.02	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
ZZ19661		0.14	0.010	<0.2	2.42	18	<10	190	0.5	2	1.03	<0.5	14	50	61	3.96
ZZ19662		0.22	0.002	<0.2	2.47	8	<10	190	0.6	2	0.74	<0.5	13	48	37	3.83
ZZ19663		0.24	0.003	<0.2	2.20	10	<10	180	0.5	<2	0.87	<0.5	11	44	66	3.55
ZZ19664		0.28	0.002	<0.2	2.16	11	<10	180	0.5	2	0.82	<0.5	12	43	64	3.47
ZZ19665		0.20	0.003	<0.2	2.34	12	<10	190	0.5	<2	0.88	<0.5	12	46	69	3.69
ZZ19666		0.14	0.003	<0.2	2.50	12	<10	200	0.6	3	0.98	<0.5	13	50	80	3.90
ZZ19667		0.14	0.002	<0.2	2.46	12	<10	200	0.5	2	0.88	<0.5	14	49	77	3.90
ZZ19668		0.16	0.005	<0.2	2.35	12	<10	190	0.5	<2	0.85	<0.5	13	46	73	3.74
ZZ19669		0.14	0.002	<0.2	2.35	12	<10	190	0.5	<2	0.89	<0.5	12	47	84	3.74
ZZ19670		0.18	0.003	<0.2	2.47	11	<10	200	0.5	<2	0.91	<0.5	13	49	81	3.88
ZZ19671		0.14	0.002	<0.2	2.43	9	<10	190	0.5	2	0.90	<0.5	12	48	79	3.82
ZZ19672		0.14	0.002	<0.2	2.16	8	<10	170	0.5	<2	0.81	<0.5	11	43	69	3.48
ZZ19673		0.14	0.003	<0.2	1.80	8	<10	150	<0.5	<2	0.76	<0.5	9	36	60	2.95
ZZ19674		0.14	0.003	<0.2	2.50	14	<10	200	0.6	<2	0.93	<0.5	13	49	75	3.91
ZZ19675		0.20	0.003	<0.2	2.53	13	<10	200	0.6	2	0.94	<0.5	14	50	78	3.99
ZZ19676		0.14	0.003	<0.2	2.55	12	<10	210	0.6	<2	0.94	<0.5	14	50	76	4.00
ZZ19677		0.16	0.002	<0.2	2.20	9	<10	180	0.5	<2	0.83	<0.5	12	44	73	3.49
ZZ19678		0.18	0.002	<0.2	2.30	12	<10	190	0.5	<2	0.87	<0.5	12	45	77	3.62
ZZ19679		0.18	0.002	<0.2	2.42	12	<10	200	0.5	<2	0.90	<0.5	12	46	80	3.79
ZZ19680		0.16	0.003	<0.2	2.24	14	<10	180	0.5	<2	0.85	<0.5	12	44	75	3.53
ZZ19681		0.20	0.002	<0.2	2.54	12	<10	200	0.6	<2	0.92	<0.5	13	49	80	3.94
ZZ19682		0.16	0.003	<0.2	2.39	13	<10	190	0.5	<2	0.90	<0.5	12	47	81	3.70
ZZ19683		0.20	0.003	<0.2	2.32	7	<10	180	0.5	<2	0.88	<0.5	12	46	69	3.67
ZZ19684		0.12	0.001	<0.2	2.18	9	<10	170	0.5	<2	0.88	<0.5	11	43	66	3.43

ALS Minerals

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To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 9- NOV- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11195679

Sample Description	Method / Analyte / Units / LOR	ME- ICP41 Ga ppm 10	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1
ZZ19661		10	<1	0.27	10	1.14	584	1	0.04	38	460	6	0.03	<2	7	49
ZZ19662		10	<1	0.36	10	1.12	500	1	0.02	40	480	5	0.05	<2	8	38
ZZ19663		10	<1	0.30	10	1.06	444	<1	0.03	43	840	5	0.05	<2	7	47
ZZ19664		10	<1	0.29	10	1.06	450	1	0.03	43	780	5	0.04	<2	7	45
ZZ19665		10	<1	0.31	10	1.14	471	1	0.03	45	810	5	0.04	<2	7	48
ZZ19666		10	<1	0.36	10	1.22	530	1	0.05	52	890	6	0.03	3	8	55
ZZ19667		10	<1	0.33	10	1.22	541	1	0.03	52	810	6	0.01	<2	8	50
ZZ19668		10	<1	0.32	10	1.17	503	<1	0.03	48	800	4	0.02	2	7	47
ZZ19669		10	<1	0.31	10	1.14	520	1	0.03	48	840	4	0.01	<2	7	48
ZZ19670		10	<1	0.32	10	1.21	540	<1	0.05	50	890	6	0.01	2	8	52
ZZ19671		10	<1	0.32	10	1.20	531	<1	0.05	49	850	6	0.01	2	8	51
ZZ19672		10	<1	0.28	10	1.06	446	<1	0.04	43	780	5	0.01	2	7	47
ZZ19673		10	<1	0.24	10	0.87	348	<1	0.04	38	850	5	0.01	3	6	43
ZZ19674		10	<1	0.35	10	1.24	553	<1	0.05	45	860	6	0.01	<2	8	53
ZZ19675		10	<1	0.35	10	1.27	563	<1	0.05	45	850	6	0.01	2	8	54
ZZ19676		10	<1	0.36	10	1.27	575	<1	0.05	46	870	6	0.01	2	8	55
ZZ19677		10	<1	0.29	10	1.07	450	<1	0.05	46	810	6	0.01	<2	7	48
ZZ19678		10	<1	0.30	10	1.11	470	<1	0.05	44	800	5	0.01	<2	7	49
ZZ19679		10	<1	0.32	10	1.17	517	<1	0.05	46	840	6	0.01	2	8	50
ZZ19680		10	<1	0.30	10	1.08	470	<1	0.05	43	820	5	0.01	2	7	47
ZZ19681		10	<1	0.34	10	1.24	520	<1	0.05	47	850	6	0.01	3	8	52
ZZ19682		10	<1	0.32	10	1.15	492	<1	0.05	46	830	6	0.01	<2	8	51
ZZ19683		10	<1	0.31	10	1.14	491	<1	0.05	45	820	5	0.01	3	7	49
ZZ19684		10	<1	0.29	10	1.05	452	<1	0.04	39	830	5	0.01	3	7	49

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To: ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 9- NOV- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11195679

Sample Description	Method Analyte Units LOR	ME- ICP41 Th ppm 20	ME- ICP41 Ti % 0.01	ME- ICP41 Tl ppm 10	ME- ICP41 U ppm 10	ME- ICP41 V ppm 1	ME- ICP41 W ppm 10	ME- ICP41 Zn ppm 2
ZZ19661		<20	0.15	<10	<10	86	<10	70
ZZ19662		<20	0.15	<10	<10	80	<10	69
ZZ19663		<20	0.15	<10	<10	73	<10	73
ZZ19664		<20	0.15	<10	<10	71	<10	70
ZZ19665		<20	0.16	<10	<10	75	<10	75
ZZ19666		<20	0.18	<10	<10	84	<10	80
ZZ19667		<20	0.17	<10	<10	81	<10	79
ZZ19668		<20	0.16	<10	<10	76	<10	74
ZZ19669		<20	0.16	<10	<10	77	<10	70
ZZ19670		<20	0.16	<10	<10	80	<10	74
ZZ19671		<20	0.16	<10	<10	78	<10	73
ZZ19672		<20	0.14	<10	<10	71	<10	65
ZZ19673		<20	0.13	<10	<10	61	<10	60
ZZ19674		<20	0.17	<10	<10	81	<10	77
ZZ19675		<20	0.17	<10	<10	82	<10	79
ZZ19676		<20	0.18	<10	<10	82	<10	79
ZZ19677		<20	0.15	<10	<10	72	<10	66
ZZ19678		<20	0.15	<10	<10	75	<10	67
ZZ19679		<20	0.16	<10	<10	75	<10	70
ZZ19680		<20	0.15	<10	<10	73	<10	67
ZZ19681		<20	0.17	<10	<10	80	<10	75
ZZ19682		<20	0.16	<10	<10	77	<10	71
ZZ19683		<20	0.16	<10	<10	77	<10	72
ZZ19684		<20	0.15	<10	<10	72	<10	67

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To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 4- NOV- 2011
This copy reported on 23- NOV- 2011
Account: F

CERTIFICATE WH11200862

Project: Hopper
P.O. No.:
This report is for 19 Soil samples submitted to our lab in Whitehorse, YT, Canada on 3- OCT- 2011.
The following have access to data associated with this certificate:

JOAN MARIACHER	HEATHER SMITH	

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
SCR- 41	Screen to - 180um and save both

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au- ICP21	Au 30g FA ICP- AES Finish	ICP- AES
ME- ICP41	35 Element Aqua Regia ICP- AES	ICP- AES

To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
ATTN: JOAN MARIACHER
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

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

ALS Canada Ltd.

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North Vancouver BC V7H 0A7
Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 4- NOV- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11200862

Sample Description	Method	WEI- 21	Au- ICP21	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41
	Analyte	Recvd Wt.	Au	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	kg	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	0.02	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
DD008251		0.08	0.003	<0.2	1.54	4	<10	110	<0.5	<2	0.90	<0.5	8	30	25	2.37
DD008252		0.10	0.003	<0.2	2.40	9	<10	170	0.5	<2	1.12	<0.5	13	45	36	3.49
DD008253		0.12	0.003	<0.2	1.56	5	<10	120	<0.5	<2	0.86	<0.5	9	31	23	2.51
DD008254		0.12	0.006	<0.2	1.55	5	<10	120	<0.5	<2	0.92	<0.5	8	30	25	2.37
DD008255		0.14	0.002	0.2	1.57	6	<10	100	<0.5	<2	0.72	<0.5	9	31	15	2.45
DD008256		0.12	0.007	<0.2	2.21	6	<10	150	0.5	<2	0.88	<0.5	13	43	30	3.27
DD008257		0.14	0.004	<0.2	1.56	4	<10	100	<0.5	<2	0.72	<0.5	9	32	22	2.56
DD008258		0.20	0.002	<0.2	1.58	7	<10	100	<0.5	<2	0.65	<0.5	10	32	19	2.58
DD008259		0.12	0.006	<0.2	3.41	11	<10	240	0.7	<2	1.02	<0.5	20	66	62	4.84
DD008260		0.20	0.005	<0.2	2.08	7	<10	160	0.5	<2	1.08	<0.5	12	41	43	3.10
DD008261		0.18	0.004	<0.2	2.07	7	<10	140	0.5	<2	0.78	<0.5	12	41	35	3.11
DD008262		0.20	0.006	<0.2	2.13	8	<10	150	0.5	<2	0.88	<0.5	12	42	38	3.16
DD008263		0.26	0.003	<0.2	2.09	6	<10	150	0.5	<2	0.91	<0.5	12	41	37	3.07
DD008264		0.18	0.002	<0.2	3.16	11	<10	220	0.7	<2	0.93	<0.5	17	60	55	4.54
DD008265		0.20	0.005	<0.2	1.80	7	<10	130	<0.5	<2	0.77	<0.5	10	35	31	2.79
DD008266		0.10	0.001	<0.2	1.75	7	<10	130	<0.5	<2	0.80	<0.5	10	35	28	2.78
DD008267		0.14	0.008	<0.2	1.24	5	<10	100	<0.5	<2	0.59	<0.5	9	25	22	2.18
DD008268		0.14	0.002	<0.2	1.85	7	<10	150	<0.5	<2	0.79	<0.5	12	37	32	2.95
DD008269		0.18	0.002	<0.2	3.10	10	<10	230	0.7	<2	0.89	<0.5	18	61	49	4.52

ALS Canada Ltd.

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ALS Minerals

To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 4- NOV- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11200862

Sample Description	Method / Analyte / Units / LOR	ME- ICP41 Ga ppm 10	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1
DD008251		10	<1	0.16	10	0.59	284	<1	0.02	19	520	3	0.04	<2	4	37
DD008252		10	<1	0.28	10	0.94	420	<1	0.03	29	590	5	0.05	<2	6	47
DD008253		10	<1	0.17	10	0.60	294	<1	0.02	19	410	5	0.04	<2	4	37
DD008254		10	<1	0.15	10	0.58	269	<1	0.02	19	510	4	0.05	<2	4	38
DD008255		10	<1	0.14	10	0.62	253	<1	0.02	17	360	4	0.03	<2	4	33
DD008256		10	1	0.24	10	0.89	393	<1	0.03	26	390	5	0.03	<2	6	40
DD008257		10	<1	0.16	10	0.61	294	<1	0.02	18	360	5	0.03	<2	4	33
DD008258		10	<1	0.16	10	0.64	306	<1	0.02	19	350	5	0.03	<2	4	32
DD008259		10	<1	0.41	10	1.47	597	1	0.04	46	420	9	0.03	<2	11	52
DD008260		10	<1	0.24	10	0.85	453	<1	0.03	29	430	6	0.04	<2	6	45
DD008261		10	<1	0.24	10	0.87	345	<1	0.03	27	550	4	0.02	<2	6	40
DD008262		10	<1	0.25	10	0.89	364	<1	0.03	28	550	5	0.02	<2	6	43
DD008263		10	<1	0.25	10	0.87	364	<1	0.03	29	490	6	0.03	<2	6	44
DD008264		10	1	0.36	10	1.31	524	<1	0.03	41	460	5	0.02	<2	10	49
DD008265		10	<1	0.24	10	0.74	403	<1	0.03	24	510	4	0.02	<2	5	38
DD008266		10	<1	0.22	10	0.71	425	<1	0.02	23	510	5	0.03	<2	5	38
DD008267		<10	<1	0.18	10	0.52	276	1	0.03	20	570	4	0.02	<2	4	29
DD008268		<10	<1	0.24	10	0.75	365	1	0.03	27	560	2	0.02	<2	6	37
DD008269		10	<1	0.35	10	1.27	548	<1	0.03	40	410	4	0.02	4	9	44

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1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 4- NOV- 2011
Account: F

Project: Hopper

CERTIFICATE OF ANALYSIS WH11200862

Sample Description	Method Analyte Units LOR	ME- ICP41 Th ppm 20	ME- ICP41 Ti % 0.01	ME- ICP41 Tl ppm 10	ME- ICP41 U ppm 10	ME- ICP41 V ppm 1	ME- ICP41 W ppm 10	ME- ICP41 Zn ppm 2
DD008251		<20	0.12	<10	<10	55	<10	54
DD008252		<20	0.15	<10	<10	83	<10	71
DD008253		<20	0.12	<10	<10	59	<10	56
DD008254		<20	0.11	<10	<10	57	<10	55
DD008255		<20	0.13	<10	<10	61	<10	51
DD008256		<20	0.15	<10	<10	77	<10	64
DD008257		<20	0.14	<10	<10	63	<10	53
DD008258		<20	0.14	<10	<10	64	<10	48
DD008259		<20	0.20	<10	<10	108	<10	93
DD008260		<20	0.14	<10	<10	73	<10	66
DD008261		<20	0.14	<10	<10	71	<10	57
DD008262		<20	0.14	<10	<10	72	<10	59
DD008263		<20	0.14	<10	<10	70	<10	58
DD008264		<20	0.18	<10	<10	101	<10	80
DD008265		<20	0.13	<10	<10	62	<10	54
DD008266		<20	0.12	<10	<10	63	<10	52
DD008267		<20	0.10	<10	<10	48	<10	43
DD008268		<20	0.13	<10	<10	66	<10	53
DD008269		<20	0.18	<10	<10	100	<10	78

APPENDIX IV

DIAMOND DRILLING GEOLOGICAL AND GEOTECHNICAL LOGS

PROJECT - Hopper

PROPERTY: Hopper

HOLE: 1

Easting	Northing	Elev.	Depth (m)
397456	6794599	1179	175.87

Contractor: Elite drilling
Drill: JKS-300

SURVEY							
Depth (m)	Azimuth	Dip	Method	Depth (m)	Azimuth	Dip	Method
collar	250	-70					

Core size: BTW
Cassing depth: (m) in/out

Drilling dates:

Logged by: R. Phillips

Target: Stacked, mineralized skarn horizons.

SUMMARY				
From (m)	To (m)	Interval	Unit	Coments

SAMPLES

Numbers:

Total:
Date sent:

COMMENTS

PROPERTY: Hopper **HOLE:** DDH-11-01

Struct. Type	Struct. Attitude	LITHOLOGY From (m)	To (m)	Interval (m)	Type	Unit	Texture	Modfier	Notes:	ALT.	MINERALS		SAMPLES From (m)	To (m)	Interval (m)	Sample	Blocks From (m)	To (m)	Intvl. (m)	REC (m)	REC Percent	RQD (m)	RQD Percent	Weathering	Hardness	JOINTS Frequency	Attitude	Shape	Roughness	Infilling
		0.00	1.52	1.52	OVB			BN	Orange to brown weathering qtz-musc schist				0.00	2.13	2.13	K975001	0.00	1.52	1.52	0.20	13	0.00	0	MW	S	-	-	2	3	A
FO	90	1.52	2.13		SCH			GY	Grey/green qtz mica schist with some qtz lenses. Orange weathering around fractures	chl							1.52	2.13	0.61	0.54	88	0.15	24	SW	S	13	80	1	3	A
		2.13	2.95		FEL			PO	Feldspar-hornblende porphyry with trace po + cp (1%, 1%)		po	cp	2.13	2.95		K975002	2.13	5.18	3.05	2.65	87	0.10	3	SW	W	10	80	1	3	A/CB
FO	90	2.95	5.22		SCH			GY	Grey schist. Borderline gneiss. Minor carb alteration. Trace po and cp		po	cp	2.95	5.22		K975003	5.18	8.23	3.05	2.83	92	0.73	24	SW	W	17	85	5	4	A
		5.22	8.23		SCH			GY	Grey qtz-mica schist with minor chl alteration. Oxidation along fractures. Trace P{o	chl	po		5.22	8.23		K975004	8.23	11.28	3.05	2.85	93	2.41	79	FR	W	5	70	1,5	3	A/Li
		8.23	9.69		SKN				Qtz flooded skarn with epidote and magnetite. Po and cp dissem throughout (1%, 1%) and infilling fractures		po	cp	8.23	9.69		K975005	11.28	14.33	3.05	3.05	100	2.12	69	FR	MS	4	45,8	2,3	2,3`	Cb/bk
		9.69	12.02		SKN				Skarn. Tremolite, actinolite, diopside skarn with po and cp (2%, 3%)		cp	po	9.69	12.02		K975006	14.33	17.38	3.05	2.96	97	2.19	72	FR	MS	6	45,6	3,5	1,4	Cy,bk
													Blank			K975007	17.38	20.42	3.05	2.98	98	2.70	89	FR	S	4	80	5	5	A
		12.02	13.51		SKN				Skarn with garnet. Much less po and cp than before (1%, <1%)		po	cp	12.02	13.51		K975008	20.42	23.48	3.06	3.06	100	2.13	75	FR	S	5	80,3	3,5	4	CY,bk,Fe,Qz
		13.51	15.08		FEL				Feldspar-hornblende porphyry dyke.				13.51	15.08		K975009	23.48	26.53	3.04	3.04	100	2.06	68	Sw	Ms	7	85,5	2,5	2,4	Fe,Bk
		15.08	16.65		SKN				Skarn. Coarse magnetite grains. Po and co dissem throughout (1%,1%).		po	cp	15.08	16.65		K975010	26.53	29.56	3.03	3.03	100	2.58	85	FR	S	4	35	2	2	Fe
FX	45	16.65	18.73		SKN			GN	Qtz rich skarn with trace po and cp dissem throughout		po	cp	16.65	18.73		K975011	29.56	32.61	3.05	3.00	98	2.52	83	Fr	S	6	40,8	1	2	Fe, A
													Standard	CDN-CM-7		K975012	32.61	35.66	3.05	3.05	100	1.49	49	Sw	Ms	11	40,8	2,8	3	Fe,A
		18.73	19.44		FEL				Qtz rich, heavily altered rock. Possible relic porphyritic texture. Large voids, very oxidized. Trace cp and po		cp	po	18.73	19.44		K975013	35.66	38.70	3.04	3.00	99	2.12	70	Fr	S	8	45,6	3	2	Fe,Cb
CO	85	19.44	22.90		SKN				Skarn with magnetite grains. Frxx at 80. Some bands of serpentine cutting through. Less cp than above skarn zones. Po and cp (5%, <1%). Relict bedding/fo at 80. High grade from 21.60-27.70		po	cp	19.44	21.00		K975014	38.70	41.76	3.06	2.91	95	2.02	66	Sw	S	8	30,7	2,5	3	Cy,Fe,A
													21.00	22.90		K975015	41.76	44.81	3.05	3.05	100	2.32	76	Fr	S	4	50	3	3	Cb,Fe
		22.90	23.93		SKN				Skarn grading to schist with po and cp (1%, <1%). Oxidation on fractures at 80.		po	cp	22.90	23.93		K975016	44.81	47.85	3.04	3.04	100	2.48	81	Fr	S	1	40	3	4	Cy,A
		23.93	25.10		SCH				Qtz mica schist with orange oxidation on fractures. Low angle calcite stringers (5-20 TCA).				23.93	25.10		K975017	47.85	50.90	3.05	3.05	100	2.51	82	Fr	Ms	3	90	5	4	A
FX	45	25.10	32.20		FEL			Po	Feldspar hornblende porphyry. Minor oxidation on fractures. Frxx running 45 tca. Some feldspar xtrals 1.2 cm large. Naroow (1mm) qtz calcite stringers healing some frxx. Bed of qtz mica schist at 30.30 to 31.00 before back to porphyry. Contact 50 tca				25.10	28.10		K975018	53.95	56.99	3.05	3.00	98	2.87	94	Fr	S	3	40,8	4	4	A
													28.10	30.30		K975019	56.99	60.05	3.06	3.06	100	2.52	83	Fr	S	5	45,8	3	4	A,Cb
													30.30	32.20		K975020	60.05	63.09	3.04	2.93	96	2.59	85	Fr	S	9	45	4	4	A,Cb
		32.20	34.80		SCH				Qtz mica schist. Fractures at 45 and 80. Trace po dissem throughout. 33.15-34.19 - zone of increased frxx and choatic qtz veining.		po		32.20	34.80		K975021	63.09	66.14	3.05	3.05	100	2.23	73	Fr	S	8	45,8	5	3,5	A,Cb
		34.80	40.65		FEL			PO	Contact (10 tca) to feldspar hornblende porphyry. Frxx at 40 and 70. Trace po (<<1%). Minor calcite infilling some frxx		po		34.80	37.80		K975022	66.14	69.19	3.05	3.05	100	2.81	92	Fr	S	3	40,8	5	5	A,Qz
													37.80	40.65		K975023	69.19	72.23	3.04	3.00	98	2.82	93	Fr	S	4	60,7	4	4	A,Qz

PROPERTY: Hopper **HOLE:** DDH-11-01

Struct. Type	Struct. Attitude	LITHOLOGY From (m)	To (m)	Interval (m)	Type	Unit	Texture	Modifier	Notes:	ALT.	MINERALS		SAMPLES From (m)	To (m)	Interval (m)	Sample	Blocks From (m)	To (m)	Intvl. (m)	GEOTECHNICAL REC (m)	REC Percent	RQD (m)	RQD Percent	Weathering	Hardness	JOINTS Frequency	Attitude	Shape	Roughness	Infilling
Co	45	40.65	41.90		Qtz				Qtzite with minor stringers of corroded calcite veins. Frxx at 80 tca. Trace po (<1%)		po		40.65	41.90		K975024	72.23	75.29	3.06	3.00	98	2.92	95	Fr	S	3	40,8	5	4	A
		41.90	46.85		qtz				Qtzite. Less veining than 024. Dissem po throughout (2%). Trace cp as well (<1%). Frxx at 45 and 80.		po		41.90	44.90		K975025	75.29	78.33	3.04	2.94	97	2.22	73	Fr	S	3	40,8	5	3	A
													Standard	CDN-CM-7		K975026	78.33	81.38	3.05	3.03	99	2.45	80	Fr	S	4	40,8	3	3	A
													44.90	46.85		K975027	81.38	84.43	3.05	2.95	97	2.60	85	Fr	Ms	8	80	2	3	A,Cy
		46.85	49.04		Mar				Contact (45) to marble with trace po. Interbedded with barren white qtz mica schist. Minor chl alteration	chl	po		46.85	49.04		K975028	84.43	87.48	3.05	2.99	98	2.48	81	Fr	Ms	4	40,8	4,5	3	A,Cy
		49.04	51.33		SKN				Contact (85) to skarn. Dissem po (2-3%) and trace cp (<1%). Clusters of garnet. Chl alteration. Dark black band of magnetite at 49.50-49.58	chl	po	cp	49.04	50.04		K975029	87.48	90.53	3.05	3.05	100	2.15	70	Sw	Ms	6	40,8	3,4	4	A,Cy,Cb
													50.04	51.33		K975030	90.53	93.57	3.04	2.95	97	2.46	81	Fr	Ms	6	40,8	4,5	4	A
		51.33	53.50		Sch				Qtz mica schist with chl alteration. Trace po)<1%). Contact at 85, frxx at 85.	chl	po		51.33	53.50		K975031	93.57	96.62	3.05	3.04	99	2.64	87	Fr	Ms	5	45,8	4	4	A,Cy
		53.50	57.31		SKN				Contact (85) to skarn with po and cp (2%, <1%) with clusters of garnet. Heavy chl alteration. Frxx at 85	chl	po	cp	53.50	55.00		K975032	96.62	99.66	3.04	3.04	100	2.63	86	Fr	Vs	5	40,8	4,5	4	A
													55.00	57.31		K975033	99.66	102.71	3.05	2.96	97	2.94	96	Fr	Ms	3	45,8	4,5	4	A
													BLANK			K975034	102.71	105.77	3.06	3.05	99	2.37	77	Fr	Ms	4	45,8	3,4	3	A
		57.31	63.80		SKN				Barren skn. Trace po (<1%). Frxx at 45,70. Heavy chl alteration. Some low angle frxx as well (30). Some calcite healing on frxx		po		57.31	59.31		K975035	105.77	108.81	3.04	3.04	100	2.67	88	Fr	Ms	5	45,8	2,3	3	A
													59.31	61.31		K975036 (End of Batch 1)	108.81	111.86	3.05	3.03	99	2.87	94	Fr	Ms	4	85	5,3	4	A
													61.31	63.80		K975037	111.86	114.91	3.05	2.98	98	2.94	96	Fr	Ms	3	30,8	5,2	3	A,Cy
		63.80	68.58		SKN				Skarn with po and cp (3%, 1%). Frxx at 45 and 70. Chl altered. Some calcite healing	chl	po	cp	63.80	64.80		K975038	114.91	117.96	3.05	3.01	99	2.02	66	Fr	Ms	10	70,8	3,5	2	A,Cy
													64.80	66.80		K975039	117.96	121.01	3.05	3.02	99	2.69	88	Fr	Ms	7	70,8	3,5	3	A
													66.80	68.58		K975040	121.01	124.05	3.04	3.01	99	2.83	93	Fr	Ms	5	30,8	3,5	3	A
		68.58	72.95		Rhy?				Fine grained, chl altered competent rock. Appear volcanic, felsic to intermediate. Small calcite stringers running 45 tca. 69.17-69.32 porphyritic feldspar hornblende dyke	chl			68.58	70.58		K975041	124.05	127.10	3.05	3.03	99	2.03	67	Sw	W	13	45,8	5	4	A,Cb
													70.58	72.95		K975042	127.10	130.15	3.05	3.00	98	2.95	97	Sw	W	4	40,7	5	3	A
		72.95	75.84		Sch				Gradational change to qtz mica schist with chl alteration with trace po (<1%). Frxx at 30, 85	chl	po		72.95	75.84		K975043	130.15	133.20	3.05	3.05	100	3.05	100	Sw	W	3	45,8	5	4	A
		75.84	77.23		Skn				Skarn with po and cp (3%, 1%). Frxx at 45		po	cp	75.84	77.23		K975044	133.20	136.25	3.05	2.98	98	2.85	93	Fr	Ms	5	40,8	5	4	A
		77.23	79.83		Skn				Calc-silicated skarn. Trace po. Competent. Frxx 45,70		po		77.23	79.83		K975045	136.25	139.29	3.04	2.99	98	2.33	77	Fr	S	6	45,7	4,5	3	A
		79.83	88.11		Sch				Qtz mica schist with chl alteration. Po in some foliation planes (70 tca). 81.75-82.20 increased po (5%). 83.40-85.25 increased chl alteration.	chl	po		79.83	82.83		K975046	139.29	142.34	3.05	2.96	97	2.45	80	Fr	W	4	45,7	5	3	A
													Standard			K975047	142.34	145.38	3.04	2.99	98	2.77	91	Fr	W	4	20,4	4,5	3	A
													82.83	85.83		K975048	145.38	148.44	3.06	2.96	97	2.43	79	Fr	Ms	7	45,7	2,5	3	A
													85.83	88.11		K975049	148.44	151.49	3.05	3.02	99	2.67	88	Fr	Ms	4	10,4	4,2	3	A
		88.11	88.79		Sch				Zone of intense calcite flooding and micro deformation features (small offsets). Massive calcite xtrals. Borderline breccia texture.				88.11	88.79		K975050	151.49	154.53	3.04	3.04	100	2.96	97	Fr	W	2	30,8	3,4	4	A

Struct. Type	Struct. Attitude	LITHOLOGY From (m)	To (m)	Interval (m)	Type	Unit	Texture	Modifier	Notes:	ALT.	MINERALS		SAMPLES From (m)	To (m)	Interval (m)	Sample	Blocks From (m)	To (m)	Intvl. (m)	GEOTECHNICAL REC (m)	REC Percent	RQD (m)	RQD Percent	Weathering	Hardness	JOINTS Frequency	Attitude	Shape	Roughness	Infilling
		88.79	90.56		Skn				Calc silicate skarn. Heavy chl alteration and garnets. No vis sulphides. Contact 80 frxx at 45 and 80. Garnet clusters around and calcite floods/veins	chl			88.79	90.56		K975101	154.53	157.58	3.05	3.00	98	2.92	96	Fr	W	3	30,4	3	3	A
													Blank			K975102	157.58	160.63	3.05	2.90	95	2.52	83	Fr	W	6	45	3	3	A
		90.56	91.25		Fel			Po	Feldspar-hornblende-biotite porphyry. Contact at 45. Frxx at 70.				90.56	91.25		K975103	160.63	163.68	3.05	3.03	99	2.83	93	Fr	W	5	45,8	3,5	3	A
		91.25	95.15		Skn				Calc-silicate skarn. Heavy ch alteration, garnets around calcite. Frxx at 45, 80. No sulphides	chl			91.25	93.25		K975104	163.68	166.72	3.06	2.90	95	2.69	88	Fr	W	5	30,7	3,5	3	A
													93.25	95.15		K975105	166.72	169.77	3.05	3.00	98	1.75	57	Sw	W	13	40,7	3,5	3	A,Cb,Qz
		95.15	98.70		Sch				Qtz mica schist. Chl altered. Fo at 85. Frxx at 30,45,70. Garnets along fo plane. Calcite stringers at 45. 96.40-94.45 - breccia texture with chl	chl			95.15	96.58		K975106	169.77	172.82	3.05	2.90	95	1.86	61	Hw	VW	15	40,7	3,5	3	A,Cb,Qz
													96.58	98.70		K975107	172.82	175.87	3.05	3.05	100	2.99	98	Fr	W	4	40,7	3,4	3	A,Cb,Qz
		98.70	105.09		Sch				Qtz mica schist. Well foliated (85 tca). Heavy chl alteration. Frxx at 45, 85. Minor calcite stringers infilling frxx	chl			98.70	100.70		K975108														
													100.70	102.70		K975109														
													102.70	105.09		K975110														
													Standard			K975111														
		105.09	107.55		Sch				Contact (80 tca) somewhat gradational into black qtz mica schist with trace po (infilling frxx and dissem, <1%)		po		105.09	107.55		K975112														
		107.55	109.65		Sch				Back into white qtz mica schist with chl alteration. Frxx at 45, fo at 85. 107.98-108.02 - black schist with trace po	chl			107.55	109.65		K975113														
		109.65	110.35		Sch				Black qtz mica schist with trace dissem po. Contact at 45		po		109.65	110.35		K975114														
		110.35	113.37		Sch				White qtz mica schist with heavy chl alteration. Small zones of black schist with trace po. Frxx at 70	chl	po		110.35	113.37		K975115														
		113.37	121.23		Sch				Black qtz mica schist. Fo at 80. Qtz flooding. Frxx at 80, 45. Chl alteration heavy in some areas (118.28-119.00).				113.37	116.37		K975116														
													116.37	119.37		K975117														
													119.37	121.23		K975118														
		121.23	127.67		LS				Silicified limestone, reactive but competent. Heavy chl alteration and qtz flooding. Epidote replacing some calcite. Contact 85. Fractures at 80, 45. Corroded pits	chl			121.23	123.67		K975119														
													123.67	125.67		K975120														
													125.67	127.67		K975121														
													Blank			K975122														
		127.67	134.60		SKN				Skn horizon. Contact is gradational black to green. Frxx at 45,90. Dissem po to massive (10-15%) cp dissem as blebs, often along fractures (2%)	chl	po	cp	127.67	129.17		K975123														
													129.17	130.67		K975124														
													130.67	132.17		K975125														
													132.17	133.17		K975126														
													133.17	134.60		K975127														
													Blank			K975128														

PROPERTY: Hopper **HOLE:** DDH-11-01

Struct. Type	Struct. Attitude	LITHOLOGY From (m)	To (m)	Interval (m)	Type	Unit	Texture	Modifier	Notes:	ALT.		MINERALS	SAMPLES From (m)	To (m)	Interval (m)	Sample	Blocks From (m)	To (m)	Intvl. (m)	GEOTECHNICAL REC (m)	REC Percent	RQD (m)	RQD Percent	Weathering	Hardness	JOINTS Frequency	Attitude	Shape	Roughness	Infilling
		134.60	143.60		Int				Intermediate volcanics (?). Fine grained green rock. Locally has porphyritic texture. Calcite stringers running 45 tca. Frxx at 45,70. Trace po on frxx. Possibly silicified decarbonated limestone.	chl		po	134.60	136.60		K975129														
													136.60	139.60		K975130														
													139.60	142.60		K975131														
													142.60	143.60		K975132														
		143.60	151.82		Fel			Po	Feldspar biotite porphyry with po along fractures (5% on frxx) contact 45. Frxx 45,30. Fairly coarse grained as well			po	143.60	146.60		K975133														
		151.82	158.18		Fel			Po	Feldspar biotite porphyry. Slightly darker than unit above. Frxx at 45, 70				146.60	149.60		K975134														
													149.60	151.82		K975135														
													Standard			K975136														
													151.82	154.82		K975137														
													154.82	156.82		K975138														
													156.82	158.18		K975139														
		158.18	166.80		Int				Intermediate to mafic intrusive. Somewhat porphyritic. Green pyroxenes and actinolite. Frxx at 45 and 70. Calcite infilling along some frxx. Some hematization on frxx as well. Trace po dissem throughout. 165.73-165.85 k-spar alt?	chl	k	po	158.18	160.18		K975140														
													160.18	162.18		K975141														
													162.18	164.18		K975142														
													164.18	165.73		K975143														
													165.73	166.80		K975144														
		166.80	174.84		Fel			Po	Contact 85 to heavily ch altered feldspar porphyry. Chaotic qtz/carb veining and flooding. Clay on frxx surfaces (Trace<1%) po on blebs	carb		po	166.80	168.80		K975145														
													168.80	170.80		K975146														
													170.80	173.10		K975147														
													Standard			K975148														
													173.10	174.84		K975149														
		174.84	175.87		Fel			Po	Black feldspar biotite porphyry. Small calcite stringers at 45.				174.84	175.87		K975150														
									EOH at 175.87 (557 ft)																					

PROJECT

PROPERTY: HOPPER

HOLE: DDH-11-02

Easting	Northing	Elev.	Depth (m)
397450	6794650	1189	160.63

Contractor: Elite Diamond Drilling
Drill: JKS-300

SURVEY							
Depth (m)	Azimuth	Dip	Method	Depth (m)	Azimuth	Dip	Method
collar	250	-70					

Core size:
Cassing depth: (m) in/out

Drilling dates:

Logged by:

Target: Mineralized, stacked skarn horizons

SUMMARY				
From (m)	To (m)	Interval	Unit	Coments

SAMPLES

Numbers:

Total:
Date sent:

COMMENTS

PROPERTY: HOPPER **HOLE:** 11-02

Struct. Type	Struct. Attitude	LITHOLOGY From (m)	To (m)	Interval (m)	Type	Unit	Texture	Modifier	Notes:	ALT.	MINERALS	MINERALS	SAMPLES From (m)	To (m)	Interval (m)	Sample	Blocks From (m)	To (m)	Intvl. (m)	REC (m)	REC Percent	RQD (m)	RQD Percent	Weathering	Hardness	JOINTS Frequency	Attitude	Shape	Roughness	Infilling
		0.00	1.52		OVB				Overburden consisting of grey qtz mica schist								0.00	1.52	1.52	0.57	38	0.00	0	Hw	Ms	15	90	5	2	A
		1.52	5.29		SCH				Grey schist. Frxx at 85/90. FO at 90. Small qtz veins (2mm) cutting at 90.								1.52	2.13	0.61	0.37	61	0.00	0	Hw	Ms	36	85	3,5	2	A
		5.29	10.10		Sch				Grey/brown schist. More frxx and rubbley than above. (at 45, 70 tca). Minor calcite stringers cutting chaoticaly. More weathered than above. Trace po (<1%)		po		5.29	8.55		K975151	2.13	5.18	3.05	2.89	95	0.81	26	Mw	S	17	85	3,5	2	Cy
		10.10	20.20		Sch				Grey/maroon schist. Oxidation on fractures (70,80).				10.10	11.10		K975152	5.18	8.23	3.05	2.70	88	0.26	4	Hw	Ms	18	80	5	2	Cy
		20.20	24.18		Sch				Zone of more oxidized schist. From 21.55-23.57 - very altered. Clay on frxx. Fault zone. Very soft				21.55	23.57		K975153	8.23	11.28	3.05	2.59	85	0.62	20	Hw	Ms	18	85	5	2	Oxi
		24.18	26.10		Sch				Back into grey maroon schist. More calcite stringers, still oxidized on frxx (70)								11.28	14.33	3.05	2.89	94	1.47	48	Mw	Ms	12	85	5	2	Oxi
		26.10	28.01		Sch				More weathered oxidized schist. 27.75-27.90 - rubble zone (fault?)				27.00	28.01		K975154	14.33	17.37	3.04	2.88	94	1.22	40	Mw	Ms	15	80	5,3,	2	Oxi
		28.01	29.52		Sch				Deformed grey schist. Calcite flooding and lenses. Oxidation on frxx.				28.01	29.52		K975155	17.37	20.42	3.05	2.92	96	1.70	50	Sw	Ms	12	80	5,3	2	Oxi
		29.52	30.45		Skn				Green skarn. Contact at 70. Dissem po (10%) and cp (2%). Magnetite clusters. Calcite stringers cutting through at low angles (45).		po	cp	29.52	30.45		K975156	20.42	23.47	3.05	2.65	87	1.69	55	Fw	S	13	45,8	5	2	Oxi
													Blank			K975157	23.47	26.52	3.05	3.04	100	1.75	57	Sw	W	11	80,6	5	2	Cb
		30.45	36.58		Mar				Marble. Some chl ateration on frxx (70 and 45). Stil oxi on frxx as well. Trace po at 34.20-34.30		po		30.45	31.95		K975158	26.52	29.57	3.05	2.55	84	1.13	37	Sw	S	16	80	5,1	2,3	Cb
													34.10	35.10		K975159	29.57	32.61	3.04	2.48	98	2.50	82	Fr	Ms	6	65	3	3	Cb
													35.10	36.58		K975160	32.61	35.66	3.05	2.86	94	1.85	61	Sw	Ms	9	75	5,3	3	Cb
		36.58	39.25		Skn				Skn zone. Contact at 45. Frxx at 45, 70. Po (10%) and cp (3%). Magnetite clusters		po	cp	36.58	38.37		K975161	35.66	38.71	3.04	2.89	95	2.44	80	Fr	S	8	75	5,3	3	Cb
													38.37	39.25		K975162	38.71	41.76	3.05	3.05	100	3.04	99	Fr	Ms	5	55	3	3	Cb
		39.25	41.43		Mar				Marble. Minor chl/epidote alteration and frxx (70)	chl			39.25	40.75		K975163	41.76	44.81	3.05	3.05	100	2.42	79	Fr	Ms	7	75	3,1	2	Qz
		41.43	49.52		Sch				Grey black schist (qtz mica) frxx at 80,45,70. Po along upper contact with marble (gradational)		po		41.43	42.43		K975164	44.81	47.85	3.05	3.05	100	2.42	79	Fr	Ms	8	70,4	3,1	3	Qz
		49.52	51.90		Sch				Schist. Garnets along foliation plane. Some calcite infilling of frxx. Decreased competency				49.52	51.90		K975165	47.85	50.90	3.05	2.96	96	1.46	48	Fr	Ms	14	85	5	2	Qz
		51.90	55.09		Sch				Black qtz mica schist. Frxx at 70								50.90	53.95	3.05	2.93	96	1.92	57	Sw	Ms	14	75	5,1	2	Qz
		55.09	55.61		Fel			Po	Feldspar biotite porphyry. Contact at 85. Frxx at 45 and 85								53.95	57.00	3.05	3.00	98	2.55	84	Sw	S	7	90,4	5,3	2	Qz
		55.61	58.21		Sch				Black qtz mica schist. Same as 51.90-55.09								57.00	60.05	3.05	2.79	91	2.45	80	Sw	S	6	45	5	2	Qz
		58.21	58.90		LS				Chl altered marble/limestone. Some qtz flooding. Contact at 45. Frxx at 45/80. Trace po, especialy along upper and lower contacts				58.21	59.00		K975166	60.05	63.10	3.05	3.03	99	1.69	55	Sw	Ms	10	80	5,3	2	Qz
		58.90	69.56		Mar				Marble. Contact at 90. Frxx at 45/80. Minor chl alteration along some frxx. 64.32-65.68. Zone of trace po (<1%) and increased chl alteration and silicifaction	chl	po		64.32	65.68		K975167	63.10	66.15	3.05	2.95	97	2.55	84	Sw	S	6	80	5,3	2,3	A

PROPERTY: HOPPER **HOLE:** 11-02

Struct. Type	Struct. Attitude	LITHOLOGY From (m)	To (m)	Interval (m)	Type	Unit	Texture	Modifier	Notes:	ALT.			MINERALS				SAMPLES From (m)	To (m)	Interval (m)	Sample			Blocks From (m)	To (m)	Intvl. (m)	GEOTECHNICAL REC (m)	REC Percent	RQD (m)	RQD Percent	Weathering	Hardness	JOINTS Frequency	Attitude	Shape	Roughness	Infilling
		69.56	79.65		Sch				White qtz mica schist. Borderline gneiss. Fo at 70/90. Frxx at 70/90. Minor calcite stringers cutting at 45 (infilling od frxx). Very fresh, unaltered.														66.15	69.19	3.04	3.00	98	2.73	90	Fr	Ms	5	45	5,3	3	Cb
		79.65	93.80		Fel			Po	Feldspar biotite porphyry. Contact at 45. Frxx at 30,90. Some feldspat phenos altered green. Some calcite infilling of frxx. 84.12-93.80 - green altered feldspar, groundmass lighter in colour														69.19	72.24	3.05	2.96	97	2.78	91	Fr	S	6	80	5,3	3	Cb
		93.80	95.04		LS				Silicified limestone/marble. Chl altered. Trace po (<1%) and cp (<1%) contact 45, frxx at 80	chl			po	cp			Blank			K975168			72.24	75.29	3.05	2.91	95	2.42	79	Fr	S	5	80	4,5	3	Qz
																	93.80	95.04		K975169			75.29	78.33	3.04	3.04	100	2.70	84	Fr	S	6	70,8	5,3	3	A
		95.04	96.60		Sch				Dark grey qtz mica schist with trace po (<1%). Frxx 70,45. Contact 80.				po				95.04	96.60		K975170			78.33	81.38	3.05	2.93	96	2.58	84	Fr	Ms	7	90,4	5,4	3	A
		96.60	100.27		Sch				White qtz mica schist. Contact at 80 (somewhat gradational). Frxx at 45,80. 97.78-97.88 - chl alteration with po (1%) and cp (<1%)				po	cp			Standard			K975171			81.38	84.43	3.05	2.92	96	2.25	74	Sw	Ms	3	45	5	3	Qz
																	97.58	98.58		K975172			84.43	87.48	3.05	2.88	94	2.63	86	Fr	S	4	85	5	4	Cb
		100.27	102.70		Sch				Black/grey qtz mica schist with trace po (<1%). Frxx at 70				po				100.27	102.70		K975173			87.48	90.53	3.05	2.66	87	2.00	66	Fr	S	10	90	5,3	3	Cb
		102.70	102.82		Sch				Green qtz mica schist with pink altn on some qtz (kspar?)	chl	k												90.53	93.57	3.05	3.03	99	2.41	79	Fr	S	6	80,4	5,3	3	Cb
		102.82	103.62		Mar				Marble. Contact at 45. Some epidote/chl altn on frxx														93.57	96.62	3.05	2.98	98	2.68	88	Fr	S	5	45,7	5,3	3	Qz
		103.62	106.32		Sch				Green chl altered schist. Pink altn on qtz (kspar?). Frxx at 70,80								103.62	106.62		K975174			96.62	99.67	3.05	3.03	99	2.75	90	Fr	S	5	70	4,3	3,4	Cb
		106.32	112.28		Skn				Skarn/calc silicate limestone. Low sulphides (Po <1%, no vis cp). Garnet clusters. Frxx at 45/70. Contact at 90.	chl			po				106.62	109.32		K975175			99.67	102.72	3.05	2.92	96	2.62	86	Fr	s	5	70	4,3	4	A
																	109.32	112.28		K975176			102.72	105.77	3.05	3.02	99	2.66	87	Fr	s	5	70	5,4	4	A
		112.28	113.84		Sch				Grey schist. Contact at 70. Fo at 70.														105.77	108.81	3.04	2.92	96	2.20	72	Fr	vs	8	50,3	5,4	4	A
		113.84	114.83		Fel			Po	Feldspar hornblende porphyry. Contact at 45.														108.81	111.86	3.05	2.99	98	2.51	82	Fr	s	5	80,4	2,3	4	A
		114.83	117.02		Skn				Skarn interbedded with chl altered white mica schist. mineralization at 115.48-117.02. 1 % po and <1%cp. Frxx at 70,45.				po	cp			115.48	117.02		K975177			111.86	114.91	3.05	3.05	100	2.64	87	Fr	s	4	75	5	3	A
		117.02	118.21		Sch				White qtz mica schist interbedded with fine grained green/chl altered volcanic (?).	chl													114.91	117.96	3.05	2.91	95	2.57	84	Fr	s	4	80	5	3	Cb
		118.21	119.00		Skn				Weathered skn. Lots of voids and clusters of garnet. No visible sulphides								118.21	119.00		K975178			117.96	121.01	3.05	2.97	97	2.24	73	Fr	ms	8	40	5,4	4	Cb
		119.00	121.82		Rhy				Fine grained green volcanic. Chl altered, kspar alteration on qtz. Might be heavily chl altered schist. Frxx at 45,70								119.00	120.50		K975179			121.01	124.05	3.04	2.75	90	2.43	80	Fr	s	7	80	3,4	4	Qz
		121.82	127.78		Sch				White qtz mica schist. Frxx at 80. Slightly chl altered. 124.21-124.30 porphyry dyke cutting through at 20.	chl													124.05	127.10	3.05	2.95	97	2.77	91	Fr	s	6	80	4,3	4	Qz
		127.28	130.60		Sch				Dark grey schist. Slight chl alteration. Frxx at 80, 45. Very minor po dissem throughout (<<1%)	chl			po										127.10	130.15	3.05	2.96	97	2.44	80	Fr	ms	6	45,8	1,3	3,4	A
		130.60	131.00		Skn				Skarn zone. Po and cp dissem throughout (2%, 1%). Contact gradational.				po	cp			130.30	131.30		K975180			130.15	133.20	3.05	2.80	92	2.19	72	Fr	ms	10	85,7	5	3,2	Cy

PROPERTY: HOPPER **HOLE:** 11-02

Struct. Type	Struct. Attitude	LITHOLOGY From (m)	To (m)	Interval (m)	Type	Unit	Texture	Modifier	Notes:	ALT.	MINERALS		SAMPLES From (m)	To (m)	Interval (m)	Sample	Blocks From (m)	To (m)	Intvl. (m)	REC (m)	REC Percent	RQD (m)	RQD Percent	Weathering	Hardness	JOINTS Frequency	Attitude	Shape	Roughness	Infilling
		131.00	138.03		Sch				Black qtz mica schist. More deformed, no distinct foliation but generally at 90. 136.25-138.03 - less deformed, more silicifed. Frxx at 45,70.								133.20	136.25	3.05	3.04	100	2.49	82	Fr	ms	7	75	5,4	2	Cy
		138.03	139.05		Fel			po	Feldspar porphyry. Dark grey/back dissem po (1%)		po		138.03	139.05		K975181	136.25	139.29	3.04	3.02	99	2.68	88	Fr	ms	5	50	4	2,3	Qz
		139.05	140.47		Sch				Ch and kspar altered white qtz mica schist. Contact at 45. Minor dissem po, also concentrated on fractures 80		po		139.05	140.47		K975182	139.29	142.34	3.05	3.01	99	2.84	93	Fr	s	3	45,6	4,3	3	A
		140.47	155.28		Int			po	Fine grained, intermediate rock. Somewhat porphyritic (hornblende phenos and minor feldspar). Trace po (<1%) and py (<1) dissem throughout. Slightly more chl from 140.47-143.48		po	py	140.47	143.47		K975183	142.34	145.39	3.05	3.03	99	2.82	92	Fr	s	4	65,8	3	3	A
													143.47	146.47		K975184	145.39	148.44	3.05	3.05	100	3.00	98	Fr	s	2	90,4	1	4	A
													146.47	149.47		K975185	148.44	151.49	3.05	2.99	98	2.96	97	Fr	s	3	50,4	3,5	4	A
													149.47	152.47		K975186	151.49	154.53	3.04	3.02	99	3.00	99	Sw	s	3	45,3	3,1	4	A
													152.47	155.28		K975187	154.53	157.58	3.05	3.00	98	2.45	80	Fr	s	2	50	1,3	4	A
													Standard			K975188	157.58	160.63	3.05	2.87	94	1.52	50	Fr	s	4	60	1,3	3,4	Qz
		155.28	160.63		Fel			Po	Feldspar biotite porphyry. Grey groundmass. Frxx at 45. Contact at 30. Some hematite on frxx at bottom of run.				158.95	160.63		K975189														
									EOH at 160.63 m																					

PROJECT

PROPERTY: HOPPER

HOLE: DDH-11-03

Easting	Northing	Elev.	Depth (m)
397497	6794708	1200	224.63

Contractor: Elite Diamond Drilling
Drill: JKS-300

SURVEY

Depth (m)	Azimuth	Dip	Method	Depth (m)	Azimuth	Dip	Method
collar	250	-70					

Core size: BTW
Cassing depth: (m) in/out

Drilling dates:

Logged by: R. Phillips

Target: Mineralized, stacked skarn horizons

SUMMARY

From (m)	To (m)	Interval	Unit	Coments

SAMPLES

Numbers:

Total:
Date sent:

COMMENTS

PROPERTY: Hopper **HOLE:** 11_03

Struct. Type	Struct. Attitude	LITHOLOGY From (m)	To (m)	Interval (m)	Type	Unit	Texture	Modifier	Notes:	ALT.	MINERALS		SAMPLES From (m)	To (m)	Interval (m)	Sample	Blocks From (m)	To (m)	Intvl. (m)	GEOTECHNICAL REC (m)	REC Percent	RQD (m)	RQD Percent	Weathering	Hardness	JOINTS Frequency	Attitude	Shape	Roughness	Infilling
		0.00	1.52		OVB				Overburden of feldspar hornblende porphyry. Some feldspar phenos 1.0cm large.								0.00	1.52	1.52	1.27	84	0.66	43	Sw	S	13	45	1	4	A
		1.52	3.95		FEL				Feldspar hornblende porphyry. Some orange oxidation on fractures. 310-3.12 - malachite on feldspars and fractures		mal		2.90	3.95		K975190	1.52	2.13	0.61	0.25	41	0.11	18	Sw	S	10	45	1,5	4	A
		3.95	18.84		Sch				Grey/maroon qtz mica schist. Fractures at 85/70. Fo at 85. Some oxidation on frxx. 9.27-9.31 - clay seam. 14.35-16.55 - chl altered, more silicified.				14.35	16.55		K975191	2.13	5.18	3.05	1.83	60	0.53	17	Fw	ms	20	70,9	5,3	2,3	Cy
		18.84	29.40		Sch				Grey/maroon qtz mica schist. Slightly more foliated than above. Still minor oxi on frxx at 85,45								5.18	8.23	3.05	2.89	95	1.65	54	Fw	ms	15	90,7	5,1	2,3	cy
		29.40	30.10		Sch				Bleached white qtz mica schist with calcite stringers running 70 tca. Very rubbly				29.40	30.10		K975192	8.23	11.28	3.05	2.97	97	1.54	51	Mw	ms	12	85	5,4	2	cy
													BLANK			K975193	11.28	14.33	3.05	2.86	94	1.29	42	mw	ms	16	85	5,3	3	cy
		30.10	32.71		Sch				Grey/maroon schist. Chl alteration on some fo planes (85 TCA). 31.95 - py infilling one frxx (1mm)				31.65	32.71		K975194	14.33	17.37	3.05	2.96	97	2.38	78	sw	ms	9	85,4	5	3	oxi
		32.71	45.58		Sch				Back into grey maroon schist without chl alteration. Frxx at 85, fo at 85. 40.90-41.75 - chl alteration.								17.37	20.42	3.05	2.96	97	2.00	66	sw	ms	16	60	5,3	3,4	A,oxi
		45.58	46.55		Fel			Po	Feldspar biotite porphyry. Contact 60. Frxx at 70,45								20.42	23.47	3.05	2.96	97	1.14	37	sw	ms	19	55	5,4,	3,4	A,oxi
		46.55	51.31		Fel			Po	Feldspar biotite porphyry. Increasing amount of phenos. Contact gradational on top and 90 at bottom. Calcite infilling on some frxx.								23.47	26.52	3.05	3.02	99	1.99	65	sw	ms	20	45	5,3	3	A,oxi
		51.31	51.82		Fel			Po	Feldspar biotite porphyry. Same as 45.58-46.55								26.52	29.57	3.05	2.90	95	0.72	24	sw	ms	19	45	5,3	3,4	A,oxi
		51.82	56.50		Sch				Grey maroon schist. Fo at 85. Frxx at 85. Contact 90. Fairly broken up compared to upper zones.								29.57	32.61	3.05	3.03	99	1.71	56	sw	w	18	30	2,3,	4	A,oxi
		56.50	58.28		Sch				Grey schist. More deformed, foliation undulating with 0.5 cm garnets aong fo planes. 57.05-57.25 feldpsar biotite porphyry.				56.50	58.28		K975195	32.61	35.66	3.05	3.02	99	2.41	79	sw	w	19	45	2,5	3,4	A,oxi
		58.28	58.55		Skn				Black skn zone. 2% po, 10% cp. Chl altered, large magnetite grains. Contact 80.	chl	cp	po	58.28	59.28		K975196	35.66	38.71	3.05	2.98	98	1.65	54	sw	w	23	70	2,5	2,3	A,oxi
													Blank			K975197	38.71	41.76	3.05	2.96	97	2.05	67	sw	w	21	45	2,5	2,3	A,oxi
		58.55	60.99		Skn				Skarn. More green (chl). Less magnetite. Frxx at 80,70. 5% cp, 3% po	chl	cp	po	59.28	60.99		K975198	41.76	44.81	3.05	2.96	97	####	##	sw	ms	17	45,9	2,3	2,3,	A,oxi
		60.99	65.80		Skn				Magnetite rich skarn. Frxx 70,80. 5% cp, 3% po. 64.31-64.60 - calcite flooding, large voids, "breccia", at 45 tca.		cp	po	60.99	63.05		K975199	44.81	47.85	3.05	2.93	96	2.55	84	Sw	ms	17	40,6	3,5	3,4	A,oxi
													63.05	65.80		K975200	47.85	50.90	3.05	2.84	93	2.67	88	sw	ms	10	50,2	2,3	3,4	A,oxi
		65.80	66.40		Skn				Heavily carb flooded area. Large voids of calcite xtrals growing. 5% cp, 5% po		cp	po	65.80	66.78		I357951	50.90	53.95	3.05	3.03	99	1.80	59	sw	ms	22	40,2	2,5	3,4	A,oxi
		66.40	66.78		Skn				Back to magnetite rich skarn. 5% cp, 3% po.		cp	po					53.95	57.00	3.05	2.55	84	1.29	42	sw	ms	22	60	2,3	2,3	A,oxi
		66.78	68.43		Sch				Heavily chl altered schist. Upper contact roughly 90; Frxx at 80,45. Trace po (<1) and cp (<<1%).		po	cp	66.78	68.43		I357952	57.00	60.05	3.05	3.02	99	1.64	54	sw	ms	19	65	2,3	2,3	A,oxi

PROPERTY: Hopper **HOLE:** 11_03

Struct.		LITHOLOGY								ALT.			MINERALS				SAMPLES							Blocks			GEOTECHNICAL						JOINTS				
																											REC		RQD								
Type	Attitude	From (m)	To (m)	Interval (m)	Type	Unit	Texture	Modifier	Notes:								From (m)	To (m)	Interval (m)	Sample				From (m)	To (m)	Intvl. (m)	(m)	Percent	(m)	Percent	Weathering	Hardness	Frequency	Attitude	Shape	Roughness	Infilling
		68.43	71.60		Sch				Grey maroon schist. Frxx at 45,70. Trace po along frxx (<1%)				po				68.43	70.55		I357953				60.05	63.09	3.05	2.91	95	2.56	84	sw	ms	14	45	2,3	2,3	A,oxi
		71.60	72.72		Mar				Marble. Contact 80. Frxx at 45 and 90.															63.09	66.14	3.05	3.00	98	2.90	95	sw	ms	11	45	2,3,	3,2	A,oxi
		72.72	72.85		Fel			Po	Feldspar biotite porphyry. Py along contact with marble (90 tca but undulating).								72.30	73.30		I357954				66.14	69.19	3.05	2.95	97	2.66	87	sw	ms	17	45	2,3,	3,2	A,oxi
		72.85	77.01		Sch				Grey/maroon schist. Contact undulating. Frxx at 70,80. Fo at 70. Some garnets along fo plane. Some low angles as well (30 tca)															69.19	72.24	3.05	2.96	97	2.78	91	sw	ms	15	60	2,3	2,3	A,oxi
		77.01	79.41		Sch				Orange weathered grey schist. Calcite weathering and voids (with calcite precipitating on surfaces)								77.30	78.30		I357955				72.24	75.29	3.05	2.92	96	2.39	78	sw	ms	19	80	2,3	2,3	A,oxi
		79.41	81.02		Sch				Grey schist. Chl altered. Frxx at 70,80,45.															75.29	78.33	3.05	2.89	95	1.95	64	sw	ms	16	65	2,3,	2,3	A,oxi
																	STANDARD			I357956				78.33	81.38	3.05	2.98	98	1.89	62	sw	ms	22	45	3,4,	3,4	A,oxi
		81.02	82.40		Fel			Po	Weathered porphyry, with calcite flooding with breccia texture. Minor chl alteration								81.02	82.40		I357957				81.38	84.43	3.05	2.93	96	1.88	62	sw	fw	19	45,7	3,4,	2,3	Oxi
		82.40	83.43		Fel			Po	Heavily weathered (orange) feldspar porphyry. Frxx at 70, 45.															84.43	87.48	3.05	2.92	96	2.02	66	sw	ms	6	50	3,4	3,4	Oxi/cp
		83.43	86.98		Mar				Marble. Oxidation on frxx at 70, 45. Contact 90. Large voids. Massive py infilling some voids.				py				83.98	86.98		I357958				87.48	90.53	3.05	2.97	97	2.87	94	sw	ms	4	60	3,4	3,4	oxi/cp
		86.98	87.61		Fel			Po	Feldspar porphyry. Feldspar phenos have been atered green. Lots of calcite stringers and flooding.															90.53	93.57	3.05	2.88	94	2.63	86	sw	ms	7	60	3,4	3,4	oxi,A
		87.61	88.28		Sch				White qtz mica schist with chl alteration. Frxx at 45, 70. Contact 15.								86.98	88.28		I357959				93.57	96.62	3.05	3.00	98	2.75	90	sw	ms	6	45	3,4	3,4	oxi
		88.28	90.70		Skn				Skarn. Still has relict schist texture. Contact gradational. Dissem py and cp (3%, 1%). Chl alteration.				po	cp			88.28	89.28		I357960				96.62	99.67	3.05	3.00	98	2.95	97	sw	ms	5	45	3,4,	3,4	oxi
		90.70	92.68		Sch				White qtz mica schist. Minor chl alteration. Contact 90. Frxx at 85								89.28	90.70		I357961				99.67	102.72	3.05	2.96	97	2.89	95	sw	ms	3	70	3,4	3,4	cb
																	Blank			I357962				102.72	105.77	3.05	3.02	99	2.93	96	sw	ms	6	90	2,3	2,3	cb
																	90.70	92.20		I357963				105.77	108.81	3.05	3.01	99	2.80	92	sw	ms	5	45,9	5,3	5,3	cb
		92.68	99.04		Fel			Po	Feldspar biotite hornblende porphyry. Some feldspar phenos altered green. Contact 45. Frxx at 45, 80.															108.81	111.86	3.05	3.02	99	1.66	54	sw	ms	5	60,9	2,3	2,3	cb
		99.04	99.74		Skn				Skarn/ chl altered schist. 1% po, <1% cp. Contact gradational. Mineralized zone is 99.13-99.22				po	cp			99.00	100.00		I357964				111.86	114.91	3.05	2.94	96	1.38	45	sw	ms	11	85	3,4	3,4	cb
		99.74	104.34		Fel			Po	Feldspar biotite hornblende porphyry. Frxx at 30,45,80. Contact at 30.															114.91	117.96	3.05	2.94	96	2.57	84	sw	ms	6	90	3,4	3,4	cb/qz
		104.34	106.30		Sch				Heavily chl altered schist. Contact 30. Frxx at 70. Mineralization (3% po, 1% cp) at 105.62-105.70				po	cp			105.00	106.00		I357965				117.96	121.01	3.05	2.99	98	2.66	87	sw	ms	4	45	5,3	5,3	cb/qz
		106.30	115.75		Fel			Po	Feldspar biotite porphyry. From 107.99-108.45 - slight chl alteration. Frxx at 30,10. At 107.99-108.83 - trace po. 115.00-115.73 - more silicified				po				107.52	108.52		I357966				121.01	124.05	3.05	2.82	93	1.91	63	sw	ms	6	90	5,3,	5,3	cb/az
		115.75	117.10		Fel			Po	Bleached white feldspar biotite porphyry. Frxx at 45.								115.75	117.10		I357967				124.05	127.10	3.05	3.00	98	2.54	83	sw	ms	8	65	5,3	5,3	cb
		117.10	118.72		Sch				Schist. Slight chl alteration. Frxx at 70. 118.35-118.36 - dissem po	chl							117.72	118.72		I357968				127.10	130.15	3.05	3.01	99	2.88	94	sw	ms	7	65	2,3	2,3	cb,cp

PROPERTY: Hopper **HOLE:** 11_03

Struct. Type	Struct. Attitude	LITHOLOGY From (m)	To (m)	Interval (m)	Type	Unit	Texture	Modifier	Notes:	ALT.			MINERALS				SAMPLES From (m)	To (m)	Interval (m)	Sample				Blocks From (m)	To (m)	Intvl. (m)	GEOTECHNICAL REC (m)	REC Percent	RQD (m)	RQD Percent	Weathering	Hardness	JOINTS Frequency	Attitude	Shape	Roughness	Infilling
		118.72	120.17		Fel			po	Feldspar biotite porphyry. Frxx at 45. Some calcite healing															130.15	133.20	3.05	3.01	99	2.62	86	sw	ms	6	30,4	3,4	3,4	cb
		120.17	124.46		Sch				Grey schist. Calcite flooding producing breccia texture at 121.90-122.80. Py accompying calcite in breccia. Frxx at 70 and 45.				py				121.80	122.80		I357969				133.20	136.25	3.05	3.02	99	2.79	92	sw	ms	4	45	3,4	3,4	cb
		124.46	126.02		Sch				White qtz mica schist. Chl altn. Frxx at 30,70.	chl														136.25	139.29	3.05	2.98	98	2.90	95	sw	ms	2	60	2,3	2,3	cb
		126.02	130.00		Sch				Chl altered schist. Trace po (<1%) and cp (<<1%). Contact gradational. Calcite healing along frxx (45,70).	chl			po	cp			126.02	128.02		I357970				139.29	142.34	3.05	3.03	99	2.70	89	sw	ms	5	45	3,4	3,4	cb
		130.00	132.45		Skn				Skn zone. Low grade (<1% po, <1% cp) small garnet clusters. Some hematite on frxx (45, 70). Contact gradational.				po	cp			128.02	130.00		I357971				142.34	145.39	3.05	2.99	98	2.58	85	sw	ms	4	60	3,4	3,4	cb
																	130.00	132.45		I357972				145.39	148.44	3.05	2.99	98	2.78	91	sw	ms	4	50	3,4	3,4	cb
		132.45	135.55		Sch				White chl altered schist grading into a grey schist. Up to 133.35 is heavy chl altered	chl							132.45	133.35		I357973				148.44	151.49	3.05	3.02	99	2.78	91	sw	ms	5	50	3,4	3,4	cb
		135.55	136.23		Fel			Po	Feldspar biotite porphyry. Contact roughly 90. Frxx at 30.								136.00	137.00		I357974				151.49	154.53	3.05	3.01	99	1.73	57	sw	ms	8	30	2,3	2,3	cb
		136.23	136.90		Sch				Grey black schist. Garnets along fo plane (90). Trace po and cp along upper contact. Contact at 90.				po	cp			Standard			I357975				154.53	157.58	3.05	2.93	96	1.72	56	sw	ms	9	45	3,4	3,4	cb
		136.90	152.00		Sch				White qtz mica schist. Fo at 80. Contact at 80. Minor kspar alteration on some frxx (80,45). Minor chl alteration as well.	chl	k													157.58	160.63	3.05	2.97	97	1.98	65	sw	ms	7	50	3,4	3,4	cb
									139.83-139.93 - increased chl altn with po and cp (1%, 1%)				po	cp			139.33	140.33		I357976				160.63	163.68	3.05	2.99	98	2.49	82	sw	ms	3	50	3,4	3,4	cb
									141.55-142.01 - increased chl with trace po				po				141.35	142.35		I357977				163.68	166.73	3.05	2.98	98	2.78	91	sw	ms	5	50	2,3	2,3	cb
									142.54-143.05 - increased chl with trace po				po				142.35	143.35		I357978				166.73	169.77	3.05	3.02	99	2.84	93	sw	ms	5	70,5	2,3	3	cb
									144.33-147.22 - increased chl with trace po and cp				po	cp			144.35	147.35		I357979				169.77	172.82	3.05	2.89	95	2.58	85	sw	ms	8	60,4	2,3	3,4	cb,a
									148.46-149.01 - oncreased chl with trace po and cp				po	cp			148.44	150.62		I357980				172.82	175.87	3.05	2.94	96	2.79	92	sw	ms	8	80,5	2,3	2,3	cb,a
									150.49-150.62 - increased chl with trace po				po											175.87	178.92	3.05	2.96	97	2.87	94	sw	ms	11	60,	3,5	4,	cb,a
									151.30-152.00 - increased chl with trace po				po				151.30	152.30		I357981				178.92	181.97	3.05	3.03	99	2.55	84	sw	ms	9	40,6	3,2	4,3	cb,a
		152.00	152.40		Fel			po	Feldspar biotite porphyry. Contact at 45, frxx at 45.															181.97	185.01	3.05	3.00	98	2.07	68	sw	w	8	60,3	3,5	4,3	cb,a
		152.40	155.04		Sch				White chl altered schist. Frxx at 45. Fo at 80.															185.01	188.06	3.05	2.94	96	2.49	82	sw	ms	11	80,6	3,4	4,3	cb,a
		155.04	156.72		Sch				Grey schist. Slightly silicified. Calcite infiliing on frxx (30, 70)															188.06	191.11	3.05	2.94	96	2.55	84	sw	ms	5	70,8	3,5	4,3	cb,a
		156.72	161.94		Fel			Po	Feldspar biotite (minor hornblende as well). Frxx at 30, 70. Contact 30. Some calcite infilling of frxx.															191.11	194.16	3.05	2.97	97	2.78	91	sw	ms	5	50	3,5	3,4	cb,a
		161.94	163.61		Sch				Chl altered grey schist. Contact 45. 162.70-163.30 - mineralized zone. Lit up with black light (scheelite?). Dissem po, py (5%, 1%) and cp (<1%)	chl			po	py	cp		162.60	163.60		I357982				194.16	197.21	3.05	3.04	100	2.88	94	sw	w	7	65	3	3,4	cb,a

PROPERTY: Hopper **HOLE:** 11_03

Struct. Type	Struct. Attitude	LITHOLOGY From (m)	To (m)	Interval (m)	Type	Unit	Texture	Modifier	Notes:	ALT.	MINERALS	SAMPLES From (m)	To (m)	Interval (m)	Sample	Blocks From (m)	To (m)	Intvl. (m)	REC (m)	REC Percent	RQD (m)	RQD Percent	Weathering	Hardness	JOINTS Frequency	Attitude	Shape	Roughness	Infilling
		163.61	165.04		Fel			Po	Feldspar biotite porphyry. Contact irregular but roughly 90. Frxx at 45. Phenocryst rich. Large feldspar phenos (1.0 cm)							197.21	200.25	3.05	3.04	100	3.01	99	sw	w	4	40	3,5	3,4	cb,a
		165.04	165.78		Fel			po	Feldspar biotite porphyry. Lighter in colour. Contact 45. Frxx at 30.							200.25	203.30	3.05	3.01	99	2.74	90	sw	ms	7	30,4	2,3	2,3	cb,a
		165.78	168.58		Fel				Green, chl altered porphyry (?). Completely overprinted green but suspect relict porphyry texture. Frxx at 30,70. Contact at 30. Calcite infilling on some frxx			165.78	168.58		I357983	203.30	206.35	3.05	3.01	99	2.72	89	sw	ms	6	30,7	3,5	2,3	cb,cp
		168.58	193.20		Fel			Po	Feldspar biotite (hornblende) porphyry. Contact at 70. Frxx at 45, 30, 70. Py and po infilling some frxx (all trace).			171.10	173.10		I357984	206.35	209.40	3.05	3.05	100	2.97	97	sw	ms	4	10	2,3	2,3	cb,cp
									171.10-193.20 - mzn'ed frxx.			173.10	176.10		I357985	209.40	212.45	3.05	3.03	99	2.98	98	sw	ms	4	15	2,3	3,4	cb,a
												176.10	179.10		I357986	212.45	215.49	3.05	2.90	95	1.92	63	sw	w	7	70,5	2,3	2,3	cb,a
												179.10	182.10		I357987	215.49	218.54	3.05	3.04	100	2.73	90	sw	ms	10	75	2,3	2,3	cb,a
												182.10	185.10		I357988	218.54	221.59	3.05	2.92	96	2.38	78	sw	w	6	55,	2,3,	3,4	cb,qz
												185.10	188.10		I357989	221.59	224.64	3.05	3.04	100	3.02	99	sw	w	5	70,6	3,5	3,4	cb,a
												Standard			I357990														
												188.10	191.10		I357991														
												191.10	193.20		I357992														
		193.10	197.58		Sch				White and maroon schist. Contact at 45. Frxx at 80, 90. Trace po dissem throughout (<1%)			193.20	196.20		I357993														
												196.20	197.58		I357994														
		197.58	202.99		Sch				White qtz mica schist. Slight chl altn. Contact 90. Fo at 80, Frxx at 80			201.25	202.99		I357995														
		202.99	205.61		Skn				Skarn zone. Contact at 80. Frxx at 80/45. 5 %po, 2%py, <1%cp. Mzn is dissem throughout			202.99	203.97		I357996														
												203.97	205.66		I357997														
												Blank			I357998														
		205.61	206.67		Sch				Grey qtz mica schist. Fo at 80. Contact at 80. Trace dissem po (1%). Frxx at 80.			205.61	206.67		I357999														
		206.67	208.10		Sch				Black/grey schist with chl altn. Some skarny bands along Fo (80tca). Skarn bands contains po (5%), py (3%), and cp (<1%). Bands at 206.67-207.05, 507.39-207.41, 207.51-207.53, 207.78-207.80, 207.98-208.00.			206.67	208.10		I358000														
		208.10	214.00		Sch				Grey black schist. Trace Po near top of interval (until 209.00). Frxx, fo at 80.			208.10	209.10		I358001														
		214.00	214.88		Fel			Po	Clay altered feldspar porphyry. Very soft, broken up			214.00	214.88		I358002														
		214.88	224.63		Fel			Po	Feldspar-biotite-hornblende porphyry. Minor chl altn. Frxx at 45, 70. Trace po and cp along frxx. 220.43-220.57 - calcite vein/flooding at 30 tca.			214.88	217.88		I358003														
												217.88	220.88		I358004														
												220.88	222.88		I358005														
												222.88	224.63		I358006														

PROJECT

PROPERTY: HOPPER

HOLE: DDH-11-04

Easting	Northing	Elev.	Depth (m)
397632	6794769	1189	258.16

Contractor: Elite Diamond Drilling
Drill: JKS-300

SURVEY							
Depth (m)	Azimuth	Dip	Method	Depth (m)	Azimuth	Dip	Method
collar	250	-70					

Core size: BTW
Cassing depth: (m) in/out

Drilling dates:

Logged by: R. Phillips

Target: Mineralized, stacked skarn horizons

SUMMARY				
From (m)	To (m)	Interval	Unit	Coments

SAMPLES
Numbers:
Total:
Date sent:

COMMENTS

PROPERTY: Hopper **HOLE:** 11_04

Struct. Type	Struct. Attitude	LITHOLOGY From (m)	To (m)	Interval (m)	Type	Unit	Texture	Modfier	Notes:	ALT.	MINERALS	SAMPLES From (m)	To (m)	Interval (m)	Sample	Blocks From (m)	To (m)	Intvl. (m)	GEOTECHNICAL REC (m)	REC Percent	RQD (m)	RQD Percent	Weathering	Hardness	JOINTS Frequency	Attitude	Shape	Roughness	Infilling
		0.00	11.27	11.27	Ovb				Overburden. Sections of granodiorite.Grey schist and white schist. Very cobbley.							0.00	4.57	4.57	-	-	-	-	sw	ms	na	na	2,3	2,3	A,bk
		11.27	15.78		Sch				Grey/maroon schist. Frxx at 90,80. Fo at 80. Some low angle frxx as well at 20. Orange weathering on frxx.							4.57	5.18	0.61	0.56	91.8	0.33	54.1	sw	ms	7	70	2,3	3,4	bx,cb,oxi
		15.78	16.42		Fel			Po	Feldspar porphyry.Very small phenos (1mm). Contact ambigous (very broken) but appears to be 70. Frxx at 70,45. Some calcite healing of frxx			Standard			I358007	5.18	8.23	3.05	0.76	24.9	0.12	3.93	sw	ms	7	55	2,3	3,4	bk,cb
		16.42	57.39		Sch				Grey maroon schist. Frxx at 80,45. Fo at 80. Barren. 22.92-23.52 - chl altn. 25.08-25.19 - qtz vein. 37.00-37.90 - more broken up and slightly brown weathered. 40.23-40.40 chl altn (minor).			55.78-57.28			I358008	8.23	11.28	3.05	1.09	35.8	0.20	6.56	sw	w	12	65	2,3	2,3	bk,cy
		57.39	62.53		Skn				Skarn zone. From 57.39-57.83 - chl altn (contact 70) 10% po, 3% cp dissem throughout. 57.83-59.19 - black, magnetite rich, polished frxx (at 70,90,45) 5% po, 1% cp. Frxx sooty as well. 59.29-62.53 magnetite rich with qtz (camo texture) 2% po, 1%cp. Frxx at 45, 70.			57.39	58.39		I358009	11.28	14.33	3.05	3.04	99.7	1.42	46.6	sw	w	15	70	2,3	3,4	cb,cy
												58.39	59.39		I358010	14.33	17.37	3.05	3.03	99.4	1.63	53.5	sw	w	12	55	2,3	2,3	bk,cb
												Blank			I358011	17.37	20.42	3.05	3.03	99.4	2.27	74.5	sw	ms	10	50	3,4	2,3	cb,oxi
												59.39	61.39		I358012	20.42	23.47	3.05	3.01	98.8	2.49	81.7	sw	ms	12	70	2,3	2,3	cb,oxi
												61.39	62.53		I358013	23.47	26.52	3.05	3.03	99.4	1.79	58.7	sw	ms	13	90	2,3	3,4	cb,oxi
		62.53	64.53		Fel			Po	Feldspar biotite porphyry. Contact roughly 45. Frxx at 45, 70. Some cp+po (<1%, <1%),accompying some clay altn at top of interval			62.53	64.53		I358014	26.52	29.57	3.05	3.03	99.4	2.05	67.3	sw	ms	11	70	2,3	2,3	cb,oxi
		64.53	70.29		Sch/Skn				Heavily chl altered schist/skarn. Contact 45. Frxx at 45,70. Dissem po and cp throughout (1%, 1%), but also concentrated around frxx. Upper contact/frxx very polished.			64.53	67.43		I358015	29.57	32.61	3.05	3.04	99.7	1.40	45.9	sw	ms	13	50	3,4	3,4	oxi,cy
												67.43	70.29		I358016	32.61	35.66	3.05	3.03	99.4	1.71	56.1	sw	ms	13	60	2,3	3,4	oxi,cy
		70.29	78.20		Sch				Grey/maroon schist. Contact 70. Frxx at 70,45. Minor chl altn			70.29	71.79		I358017	35.66	38.71	3.05	3.03	99.4	0.56	18.4	sw	w	18	55	3,4	3,4	bk,oxi
		79.53	84.18		Mar				Marble. Frxx at 80. Green veins (serpentine?) cutting throughout at 45. Upper contact broken up.							38.71	41.76	3.05	3.04	99.7	1.20	39.4	sw	ms	15	50	3,5	4,5	oxi,cb
		84.18	94.32		Sch				White/grey qtz mica schist. Frxx at 45,70. Contact at 70. FO at 70. 87.86-88.20 - chl altn. 89.02-89.50 chl altn.							41.76	44.81	3.05	3.04	99.7	0.58	19	sw	ms	18	55	3,5	3,4	oxi,cb
		94.32	95.25		Fel			Po	Green feldspar porphyry. Contact 30. Some calcite healing along frxx and flooding producing breccia texture			94.32	95.25		I358018	44.81	47.85	3.05	3.02	99.1	2.50	82	sw	ms	7	65	2,3	3,4	oxi,cb
		95.25	104.56		Sch				White maroon qtz mica schist. Minor chl altn. Contact 30. Frxx at 45, 70, 80. 107.25-102.91 - increased chl altn with weak mzn (<1% po, <1%cp). 103.52-104.10 weak po (1%)			102.00	103.00		I358019	47.85	50.90	3.05	3.03	99.4	2.75	90.2	sw	ms	7	75	3,5	3,4	oxi,cb
												103.30	104.30		I358020	50.90	53.95	3.05	3.03	99.4	2.58	84.6	sw	ms	7	50	2,3	3,4	oxi,cb
		104.56	111.25		Sch				Grey green schist. Contact 70. Frxx at 70, 45. Trace po around some frxx.			109.50	110.50		I358021	53.95	57.00	3.05	3.03	99.4	2.68	87.9	sw	ms	5	45	3,5	3,4	oxi.cb
		111.25	116.03		Sch				White qtz mica schist.Minor chl altn. Contact at 70.							57.00	60.05	3.05	3.05	100	2.65	86.9	sw	ms	5	70	2,3	3,4	oxi,cb
		116.03	116.98		Sch				Black, maroon schist. Frxx at 70, 45, fo at 70. Contact at 70.							60.05	63.09	3.05	3.03	99.4	2.06	67.6	sw	w	8	75	2,3	3,4	cb,cp

PROPERTY: Hopper **HOLE:** 11_04

Struct. Type	Struct. Attitude	LITHOLOGY From (m)	To (m)	Interval (m)	Type	Unit	Texture	Modifier	Notes:	ALT.	MINERALS	SAMPLES From (m)	To (m)	Interval (m)	Sample	Blocks From (m)	To (m)	Intvl. (m)	REC (m)	REC Percent	RQD (m)	RQD Percent	Weathering	Hardness	JOINTS Frequency	Attitude	Shape	Roughness	Infilling
		116.98	118.60		Sch				White qtz mica schist. Frxx at 70. Contact gradational.							63.09	66.14	3.05	3.05	100	2.74	89.9	sw	ms	8	40	2,3	2,3	cb,cp
		118.60	122.95		Skn				Skarn zone. Weakly mineraized (1% po, <1% cp_ contact 45. Clusters of garnet.			118.60	120.60		I358022	66.14	69.19	3.05	3.03	99.4	3.02	99.1	sw	ms	5	55	2,3	3,4	cb,cp
												120.60	122.95		I358023	69.19	72.24	3.05	3.05	99.9	2.92	95.8	sw	ms	5	60	2,3	2,3	cb,a
		122.95	133.50		Sch				White/maroon qtz mica schist. Fo at 70. Contact at 70. Chl altered. 126.68-126.82 - increased chl altn with 1% cp. 128.27-129.89 increased chl with trace cp (<1%)			126.58	128.00		I358024	72.24	75.29	3.05	3.03	99.4	2.75	90.2	sw	ms	5	50	2,3	2,3	cb,a
												128.27	129.89		I358025	75.29	78.33	3.05	3.03	99.4	2.63	86.3	sw	ms	7	85	2,3	3,4	cb,a
		133.50	135.35		Sch				Chl altered schist. Calcite flooding producing a breccia texture. Contact gradational.			133.50	135.35		I358026	78.33	81.38	3.05	2.99	98.1	2.30	75.5	sw	ms	7	45	2,3	3,4	cb,a
		135.35	163.22		Sch				Grey maroon schist. Contact gradational. Frxx at 70, 45. Increased chl altn. 138.00-139.44 trace cp (<<1%). 139.80-140.14 - chl altn with trace cp. 141.03-141.46 chl altn with trace po and cp (1%, <1%). 145.35-145.52 - chl altn with po and cp (1%, 1%). 152.60-152.63 - trace cp (<1%). 159.98-161.78 trace po along frxx (<1%)			137.58	139.44		I358027	81.38	84.43	3.05	3.04	99.7	3.01	98.8	sw	ms	6	50	2,3	3,4	cb,qz,a
												139.80	141.46		I358028	84.43	87.48	3.05	3.00	98.4	2.95	96.8	sw	ms	4	60	2,3	3,4	cb,a
												Standard			I358029	87.48	90.53	3.05	3.05	100	2.46	80.7	sw	ms	6	55	2,3	3,4	cb,a
												145.29	146.24		I358030	90.53	93.57	3.05	3.04	99.7	2.95	96.8	sw	ms	6	45	2,3	3,4	cb,a
												159.98	161.78		I358031	93.57	96.62	3.05	3.04	99.7	2.79	91.5	sw	w	5	70	3,5	2,3	a,cb
		163.22	169.06		Fel			Po	Feldspar biotite schist. Contact 45. Frxx at 45, 70. Phenocryst rich.							96.62	99.67	3.05	3.02	99.1	2.96	97.1	sw	ms	6	60	2,3	2,4	cb,a
		169.06	173.00		Sch				Chl altered schist. Contact 70. Frxx at 70. 172.10-172.11 - bleb of cp			171.60	172.60		I358032	99.67	102.72	3.05	3.03	99.4	2.64	86.6	sw	ms	10	90	2,3	2,3	cb,a
		173.00	175.86		Sch				Chl altered schist. Weakly mzned. Contact gradational. 1% po, <1% cp. 174.98-175.86 - stronger mzn. 5% po, 3% cp. Frxx at 80			173.00	174.86		I358033	102.72	105.77	3.05	3.02	99.1	2.39	78.4	sw	ms	5	50	2,3	3,4	cb,a
												174.86	175.86		I358034	105.77	108.81	3.05	3.05	100	2.92	95.8	sw	ms	4	45	2,3	3,4	cb,a
												Blank			I358035	108.81	111.86	3.05	3.05	100	3.01	98.8	sw	ms	5	15	2,3	2,3	a
		175.86	177.11		Sch				Fine grained green rock. Relict schist texture (foliation). Frxx at 70. No contact (gradational). Trace po and cp			175.86	177.58		I358036	111.86	114.91	3.05	3.04	99.7	2.92	95.8	sw	ms	4	40	2,3	2,3	a
		177.11	177.58		Fel			Po	Chl atered feldpsar biotite porphyry. Trace po and cp along low angle frxx (30,10)							114.91	117.96	3.05	3.03	99.4	2.91	95.5	sw	ms	8	50	2,3	3,4	a
		177.58	182.86		Skn				Skarn zone. Contact unclear (broken up). Frxx at 70, 45. 10% po, 5%cp (all disseminated). 180.06-180.32 - marble. 181.45-181.78 - marble			177.58	180.06		I358037	117.96	121.01	3.05	3.05	100	3.00	98.4	sw	ms	4	50	2,3	2,3	cp,a
												180.06	181.91		I358038	121.01	124.05	3.05	3.05	100	2.87	94.2	sw	ms	5	60	2,3	3,4	a,cp
												181.91	182.87		I358039	124.05	127.10	3.05	3.05	100	2.76	90.6	sw	ms	9	50	2,3	3,4	a
												Blank			I358040	127.10	130.15	3.05	3.04	99.7	2.73	89.6	sw	ms	6	55	5,3	2,3	a
		182.86	193.37		Fel			Po	Feldspar biotite porphyry. Contact 45. Chl altn near upper contact. Frxx at 45, 70 plus one low angle (10).			182.87	183.37		I358041	130.15	133.20	3.05	3.05	100	2.53	83	sw	ms	7	45	3,4	2,3	a,cb

PROPERTY: Hopper **HOLE:** 11_04

Struct. Type	Struct. Attitude	LITHOLOGY From (m)	To (m)	Interval (m)	Type	Unit	Texture	Modifier	Notes:	ALT.	MINERALS	SAMPLES From (m)	To (m)	Interval (m)	Sample	Blocks From (m)	To (m)	Intvl. (m)	REC (m)	REC Percent	RQD (m)	RQD Percent	Weathering	Hardness	JOINTS Frequency	Attitude	Shape	Roughness	Infilling
		193.37	210.75		Sch				Grey maroon schist. Contact 45. Calcite stringers running at 10 tca. 1% po and 1% py along frxx. Mzn ends at 196.60. 175.78-176.10 porphyry flood. 199.95-201.85 chl altered. 204.45-205.04 white qtz mica schist with minor qtz flooding. Contact at 80.			193.37	196.37		I358042	133.20	136.25	3.05	3.05	100	3.01	98.8	sw	w	7	60	3,5	2,3	qz,a
		210.75	214.68		Sch				White qtz mica schist. Contact gradational. Minor chl altn. 213.23-213.70 heavy chl altn							136.25	139.29	3.05	3.04	99.7	2.90	95.1	sw	ms	4	70	2,3	3,4	a
		214.68	215.56		Skn				Skn/heavy chl altered schist. Contact at 80. Frxx at 80. Garnet clusters along relict fo planes (80). Trace po (<1%) and cp (<1%)			214.68	215.56		I358043	139.29	142.34	3.05	3.05	100	2.80	91.9	sw	ms	5	60	3,5	3,2	a,py,cb
		215.56	217.18		Fel			Po	Feldspar qtz biotite porphyry. Phenocryst rich. Contact at 80, frxx at 80,30.			215.56	217.18		I358044	142.34	145.39	3.05	3.04	99.7	2.62	86	sw	ms	8	45	3,5	3,2	a,cb
		217.18	220.97		Skn				Skarn. Weak mzn. Contact at 80. Trace po and cp (both <1%).			217.18	219.30		I358045	145.39	148.44	3.05	3.04	99.7	2.93	96.1	sw	ms	2	5	2,	2,3	a,cp
												219.30	220.97		I358046	148.44	151.49	3.05	3.04	99.7	3.03	99.4	sw	ms	5	60	3	2,3	a
												Standard			I358047	151.49	154.53	3.05	3.03	99.4	2.60	85.3	sw	ms	6	75	2,3	2,3	a
		220.97	226.37		Sch				Chl altered grey maroon schist. Contact 80. Trace po (<1%) and cp (<1%). 221.63-221.73 feldspar biotite porphyry contact 45. 222.54-223.48 increased chl and mzn (2% po, <1% cp).			220.97	222.54		I358048	154.53	157.58	3.05	3.05	100	3.04	99.7	sw	ms	5	30	2,3	2,3	a
												222.54	223.48		I358049	157.58	160.63	3.05	3.04	99.7	2.76	90.6	sw	ew	8	90	3,5	2,3	a
												223.48	226.37		I358050	160.63	163.68	3.05	3.05	100	3.05	100	sw	ms	4	45	3,5	3,4	a
		226.37	242.91		Sch				Grey maroon schist. Contact 45, fo at 70. 231.53-231.93 silicified zone, 234.73-235.27 silicified zone. 238.29-238.33 trace po (<1%). 231.00-242.00 trace py on frxx (<1%).							163.68	166.73	3.05	3.05	100	3.03	99.4	sw	ms	5	50	3,2	2,3	a
		242.91	244.48		Sch				Chl altered and carb altered schist. Slightly dermoned. Garnets along fo plane (70). Contact gradational.							166.73	169.77	3.05	3.05	100	3.05	100	sw	ms	4	70	3,2	2,3	a
		244.48	247.38		Sch				Grey/maroon schist. Slight chl altn. Carb stringers running at 30. Frxx at 70.							169.77	172.82	3.05	3.05	100	2.99	98.1	sw	ms	3	20	2,3	2,4	a
		247.38	255.44		Fel			Po	Carb altered feldspar porphyry. Carb (calcite) veins running at 45, 30. Frxx at 45, 30, 70. Feldspars have been altered green. 250.45-252.45 - py with some carb veins. 251.90-252.20 "breccia" texture			250.35	252.60		I358101	172.82	175.87	3.05	3.04	99.7	2.82	92.5	sw	w	3	45	2,3	2,4	cp,a
												252.60	255.44		I358102	175.87	178.92	3.05	2.92	95.8	2.78	91.2	sw	ms	3	90	2,3	2,4	cp,a
		255.44	258.16		Fel			Po	Feldspar biotite porphyry. Darker groundmass, not as altered except for where carb veins cut through (at 45, 255.70-255.85). Contact gradational.							178.92	181.97	3.05	3.05	100	3.04	99.7	sw	ms	3	45	2,3	2,3	cp,a
									EOH at 258.16 (847)							181.97	185.01	3.05	3.05	100	2.58	84.6	sw	ms	4	50	3,5	2,3	cp,a
																185.01	188.06	3.05	3.05	100	3.04	99.7	sw	ms	5	80	3,5	2,3	a
																188.06	191.11	3.05	3.04	99.7	3.03	99.4	sw	ms	4	80	3,2	3	a
																191.11	194.16	3.05	3.03	99.4	2.26	74.1	sw	ms	9	70	3,2	2	a,cb
																194.16	197.21	3.05	3.04	99.7	2.78	91.2	sw	ms	4	75/7	5,3	4,3	a
																197.21	200.25	3.05	3.00	98.4	2.29	75.1	sw	ms	8	60	3,	3	a,cb
																200.25	203.30	3.05	3.03	99.4	3.02	99.1	sw	ms	5	50	3,5	3,4	a,cb,qz
																203.30	206.35	3.05	3.04	99.7	2.59	85	sw	ms	5	60	3,5	3	a,cb,qz
																206.35	209.40	3.05	3.02	99.2	2.50	82	sw	ms	10	70	3,	3	a
																209.40	212.45	3.05	3.05	100	3.05	100	sw	ms	6	10	5,3	4,2	a

PROPERTY: Hopper **HOLE:** 11_04

Struct.		LITHOLOGY								ALT.			MINERALS				SAMPLES						
Type	Attitude	From (m)	To (m)	Interval (m)	Type	Unit	Texture	Modfier	Notes:								From (m)	To (m)	Interval (m)	Sample			

Blocks			GEOTECHNICAL						JOINTS				
			REC		RQD								
From (m)	To (m)	Intvl. (m)	(m)	Percent	(m)	Percent	Weathering	Hardness	Frequency	Attitude	Shape	Roughness	Infilling
212.45	215.49	3.05	3.04	99.7	3.03	99.4	sw	ms	4	75	5,3	3	cp,a
215.49	218.54	3.05	3.04	99.7	2.98	97.8	sw	ms	2	75	5,3	3	a,
218.54	221.59	3.05	3.04	99.7	2.85	93.5	sw	ms	2	5	5,	3,4	a
221.59	224.64	3.05	3.05	100	2.99	98.1	sw	ms	4	10	5	3	a
224.64	227.69	3.05	3.04	99.7	2.67	87.6	sw	ms	5	80	5	2,3	a,cb
227.69	230.73	3.05	3.05	100	2.97	97.4	sw	ms	3	15	3	2,3	a
230.73	233.78	3.05	3.04	99.7	2.81	92.2	sw	ms	6	20	3,5	2,3	qz,a
233.78	236.83	3.05	3.02	99.1	2.85	93.5	sw	ms	5	65	3,5	3	a
236.83	239.88	3.05	3.05	100	3.03	99.4	W	ms	3	45	3,2	3,4	a
239.88	242.93	3.05	3.03	99.4	2.75	90.2	sw	ms	6	50	3,5	2	a
242.93	245.97	3.05	2.98	97.8	2.92	95.8	sw	ms	6	65	3	2,3	a,cb
245.97	249.02	3.05	3.03	99.4	2.35	77.1	sw	ms	10	65	3,5	2,3	a
249.02	252.07	3.05	3.02	99.1	3.02	99.1	sw	ms	3	65	5,3	3,4	a,fe
252.07	255.12	3.05	3.03	99.4	2.95	96.8	sw	ms	6	60	5	5	a
255.12	258.17	3.05	3.02	99.1	2.76	90.6	sw	ms	7	75	5,4	5	a

PROJECT

PROPERTY: HOPPER

HOLE: DDH-11-05

Easting	Northing	Elev.	Depth (m)
397280	6794800	1222	192.02

Contractor: Elite Diamond Drilling
Drill: JKS-300

SURVEY							
Depth (m)	Azimuth	Dip	Method	Depth (m)	Azimuth	Dip	Method
collar	250	-70					

Core size:
Cassing depth: (m) in/out

Drilling dates:

Logged by: R. Phillips

Target: Mineralized, stacked skarn horizons

SUMMARY				
From (m)	To (m)	Interval	Unit	Coments

SAMPLES
Numbers:
Total:
Date sent:

COMMENTS

PROPERTY: Hopper **HOLE:** 11_05

Struct. Type	Struct. Attitude	LITHOLOGY From (m)	To (m)	Interval (m)	Type	Unit	Texture	Modifier	Notes:	ALT.	ALT.	MINERALS	MINERALS	SAMPLES From (m)	To (m)	Interval (m)	Sample	Blocks From (m)	To (m)	Intvl. (m)	GEOTECHNICAL REC (m)	REC Percent	RQD (m)	RQD Percent	Weathering	Hardness	JOINTS Frequency	Attitude	Shape	Roughness	Infilling
		0.00	3.04		Ovb				Overburden. 0% recovery.									0.00	3.04	3.04	0.00	0	0.00	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		3.04	8.37		Sch				Grey schist. Very rubbly. Frxx at 70,80, 10. Orange weathering on frxx surfaces.									3.04	5.18	2.14	1.47	69%	0.62	29%	W	W	5	60	2	2	Fe,Bk,A
		8.37	17.67		Sch				Grey schist. Increased competency. Some frxx surfaces still have orange weathering. Frxx at 80, 45, 30.									5.18	8.22	3.04	3.00	99%	1.23	40%	SW	W	15	80	2,3	2,3	Fe,A
		17.67	21.18		Fel			po	Feldspar biotite porphyry. Contact at 80. Frxx at 45, 10.									8.22	11.27	3.05	3.03	99%	1.58	52%	SW	W	13	60	2,3	2,3	Fe,A
		21.18	22.21		Sch				Chl altered schist. Rubble zone at upper contact. 22.10-22.21 - orange clay.	chl				21.18	22.21		I358103	11.27	14.32	3.05	3.00	98%	1.50	49%	SW	MS	16	70	2,3	3,4	Fe,A
		22.21	23.87		Skn				Magnetite rich skarn/altered limestone. Very black with orange weathering on frxx at 70. Contact at 80. 1% po, no vis cp.	chl		po		22.21	23.87		I358104	14.32	17.37	3.05	3.00	98%	1.23	40%	SW	W/MS	13	55	2,3	3	Fe,A
		23.87	24.65		Mar				Marble. Some magnetite flooding with po (<1%). Contact roughly 80 but somewhat gradational. Frxx at 70, 45.			po		23.87	24.65		I358105	17.37	20.42	3.04	3.01	99%	1.77	58%	SW	MS	12	45	3,5	3	Fe,A
		24.65	27.73		Mar				Marble without magnetite and po. Some green (serpentine) along frxx					26.73	27.73		I358106	20.42	23.46	3.04	3.02	99%	0.87	29%	SW	VW/MS	17	75	3,5	3,4	Cy,Bk,Fe,A
		27.73	28.17		Sch				Grey schist. Contact at 70. Magnetite with po (20%) and trace cp (<1%).			po	cp	27.73	28.73		i358107	23.46	26.51	3.05	3.03	99%	3.00	98%	SW	MS/W	8	50	3,5	3	Qz, Fe,A
		28.17	33.09		Sch				Marble. Contact at 80.									26.51	29.56	3.05	3.03	99%	2.19	72%	SW	MS	10	60	3,5	3	Fe,Qz,A
		33.70	40.20		Sch				Grey schist. Contact at 80. 30.08-30.10 py (5%). Orange weathering along frxx. Frxx at 80,70,10.			py						29.56	32.61	3.05	3.02	99%	2.12	70%	SW	MS	9	60	2,5	3,4	Fe,A
		40.20	41.59		Sch				Grey schist. Chl altn (minor). Frxx at 70,85. Trace py.									32.61	35.66	3.05	3.03	99%	2.10	69%	SW	MS	10	60	2,5,3	4,3	Fe,A
		41.59	45.68		Mar				Marble. Contact at 80. Frxx at 70,80.									35.66	38.70	3.04	2.99	98%	1.67	55%	SW	MS	12	45	3,5	3	Fe,A
		45.68	46.27		Sch				White qtz mica schist. Contact at 80. Frxx at 70.									38.70	41.75	3.05	3.01	99%	1.88	62%	SW	MS	8	70	3,5	3	Fe,A
		46.27	49.05		Sch				White qtz mica schist. Heavy chl altn. No vis sulphides. Contact gradational.	ch				46.27	49.05		I358108	41.75	44.80	3.05	3.04	100%	2.94	96%	SW	MS	6	45	3	3	Qz, Fe,A
		49.05	50.09		Sch				White qtz mica schist. Frxx at 70,80 contact at 90.									44.80	47.85	3.05	3.03	99%	2.75	90%	SW	MS	5	80	3	3	A
		50.09	51.63		Sch				Heavy chl altered schist. Large garnet clusters throughout. No vis sulphides. Contact 90.					50.09	51.63		I358109	47.85	50.90	3.05	3.01	99%	2.74	90%	SW	MS	5	70	3	3	A
		51.63	53.90		Sch				White qtz mica schist. Contact 70. Frxx at 70,45,30. Carb healing on some frxx. Some qtz lenses.									50.90	53.94	3.04	2.99	98%	2.55	84%	SW	MS	7	85/65	3,5	3,4,2	A,Fe
		53.90	56.30		Sch				Heavily carb altered white qtz mica schist. Very rotted/pitted with clay altn and orange weathering as well. Contact 70.	carb	clay			53.90	54.96		I358110	53.94	56.99	3.05	3.02	99%	1.49	49%	SW	VW/MS	16	60	3,5	2,3,5	Fe,A
														Blank			I358111	56.99	60.04	3.05	3.01	99%	2.42	79%	SW	MS	7	65	3,5	2,3	A,Fe
														54.96	56.30		I358112	60.04	63.09	3.05	2.96	97%	1.82	60%	SW	MS	5	90	2,3	3,5	Fe,A
		56.30	59.91		Sch				White qtz mica schist. Contact gradational. Frxx at 70,45,30									63.09	66.14	3.05	3.04	100%	2.96	97%	SW	MS	6	45	5,3	3,5	Fe,A
		59.91	61.30		Sch				Schist. Carb altered. Decreased comptency. Minor pitting/voids.	carb								66.14	69.18	3.04	3.01	99%	2.67	88%	SW	MS	5	70	5,3	3,5	Fe,A
		61.30	65.32		Sch				White qtz mica schist. Contact gradational. Frxx at 70. 64.15-64.33 blebs of po (5%) in chl altered schist.	chl		po		63.75	64.75		I358113	69.18	72.23	3.05	3.02	99%	2.81	92%	SW	MS	7	80	3	3	Fe,A,Qz

PROPERTY: Hopper **HOLE:** 11_05

Struct. Type	Struct. Attitude	LITHOLOGY From (m)	To (m)	Interval (m)	Type	Unit	Texture	Modifier	Notes:	ALT.	MINERALS			SAMPLES From (m)	To (m)	Interval (m)	Sample	Blocks From (m)	To (m)	Intvl. (m)	GEOTECHNICAL REC (m)	REC Percent	RQD (m)	RQD Percent	Weathering	Hardness	JOINTS Frequency	Attitude	Shape	Roughness	Infilling
														Standard			I358114	72.23	75.28	3.05	3.02	99%	2.82	92%	SW	MS	8	45	3,5	3	Fe,A
		65.32	69.55		Sch				Black schist. Trace po along fo plames and some frxx. Frx at 70,80.		po			65.32	67.32		I358115	75.28	78.33	3.05	2.99	98%	2.03	67%	SW	MS	8	90	3,5	3	Fe,A
														67.32	69.55		I358116	78.33	81.38	3.05	3.00	98%	2.30	75%	SW	MS	8	70	3,5	3	Fe,A
		69.55	75.27		Sch				Schist. Chl altered. Qtz flooding as well. No sulphides. Frxx at 80.	chl								81.38	84.42	3.04	2.98	98%	2.02	66%	SW	MS	6	75	3,5	3	A
		75.27	81.89		Sch				Grey schist. Contact at 90. Frxx at 80,70. Some oxidation on frxx surfaces.									84.42	87.47	3.05	2.99	98%	2.64	87%	SW	MS	5	45	3	3,5	A
		81.89	87.41		Sch				Chl altered schist. Minor garnet clusters. No vis sulphides. Frxx at 70,80.	chl				81.89	84.89		I358117	87.47	90.52	3.05	3.01	99%	2.87	94%	SW	MS	5	60	3,5	3,5	A,Fe
														84.89	87.41		I358118	90.52	93.57	3.05	3.00	98%	2.65	87%	SW	MS	6	60	3	3,5	A,Fe
		87.41	89.10		Skn				Skarn. Magnetite rich. 1%cp 1%po frxx at 70, contact 70		cp	po		87.41	89.10		I358119	93.57	96.62	3.05	3.05	100%	2.70	89%	SW	MS	9	50	3,5	3,5	A,Fe
		89.10	91.30		Sch				Schist. Minor chl altn. Frxx 70, contact 70.	chl				89.10	90.10		I358120	96.62	99.66	3.04	3.02	99%	2.68	88%	SW	MS	16	80	3,5	3,5	A
		91.30	93.37		Sch				Heavy chl altered schist. Garnet clusters. Trace py (<1%). Contact 70.	chl				91.30	93.37		I358121	99.66	102.71	3.05	3.05	100%	3.02	99%	SW	MS	6	70	5	3	Fe,A
		93.37	94.76		Sch				Schist.. Orange, heavily weathered. 93.90-94.18 rubble zone. Frxx at 45. Contact irregular.					93.37	94.76		I358122	102.71	105.76	3.05	3.05	100%	3.01	99%	SW	MS	4	65	3,5	3,4	A
		94.76	97.56		Sch				Grey, chl altered schist. Minor calcite infilling of frxx	chl								105.76	108.81	3.05	3.03	99%	2.49	82%	SW	MS	5	80,70	2,5	3	A
		97.59	103.31		Sch				Schist. Chl altered (moderate). Frxx at 70,80,45. Trace py along some frxx (<<1%)	chl	py							108.81	111.86	3.05	3.04	100%	3.04	100%	SW	MS	6	35	2,5	3	A
		103.31	115.73		Sch				White qtz mica schist. Contact gradational. Frxx at 85,70,30. 105.98-106.01 clay seam. 106.84-107.03 feldspar porphyry. Black. Contact 70. 110.33-115.73 darker chl altered.	chl								111.86	114.90	3.04	3.04	100%	3.04	100%	SW	MS	3	55	2,5	3	A
		115.73	118.31		Sch				Rubbly schist. Clay rich/altered. Contact 70. Frxx at 70, 45.									114.90	117.95	3.05	2.86	94%	1.00	33%	SW	VW/MS/W	9	80	2,5	3	A
		118.31	126.93		Sch				Schist. Orange/weathering altn on frxx surfaces. Chl altn as well. 122.53-123.00 hHeavy altn (green/orange + clay)	chl				120.50	122.00		I358123	117.95	121.00	3.05	3.03	99%	1.31	43%	SW	VW/MS/W	11	80	5,2	2,3	A
														122.00	123.00		I358124	121.00	124.05	3.05	3.04	100%	1.42	47%	SW/MW	VW/MS/W	10	55	5,2	3	A
														123.00	125.43		I358125	124.05	127.10	3.05	3.03	99%	2.90	95%	SW/MW	MS	4	70	5,2	3	A,Fe
														125.43	126.93		I358126	127.10	130.14	3.04	3.03	100%	2.59	85%	SW/MW	VW/MS	5	60	5,2	3	Fe,A
		126.93	128.05		Skn				Skarn. Magnetite rich. <1% cp, 3% py, 3% po. Contact 70, frxx at 70.		py	po	cp	126.93	128.05		I358127	130.14	133.19	3.05	3.01	99%	2.19	72%	SW/MW	VW/MS	9	70	3,5	3	A
														Blank			I358128	133.19	136.24	3.05	2.99	98%	2.24	73%	SW	MS	11	65	3,5	3	A
		128.05	129.15		Mar				Orange weathered marble. Contact gradational. Frxx at 70,45.					128.05	129.85		I358129	136.24	139.29	3.05	2.97	97%	2.49	82%	SW	MS	8	70	3,5	3	A
		129.15	129.85		Sch				Chl altered schist. Calcite infilling of frxx and garnet clusters. Contact 85.	chl								139.29	142.34	3.05	2.99	98%	2.25	74%	SW	MS	6	70	3,5	3	A
		129.85	135.30		Mar				Orange weathered marble. Contact 85. Frxx at 70, 80. Some open spaces/voids.									142.34	145.38	3.04	2.93	96%	1.30	43%	SW	MS	12	55	3,5	3	A,Fe
		135.30	148.43		Sch				Black/grey schist. Orange oxidation on frxx surface (70,45,30). 141.79-149.98 - rubble zone. 143.70-143.87 - qtz flooding. 144.83-145.69 - rubble zone. 146.15-146.45 - rubble zone									145.38	148.43	3.05	2.98	98%	1.54	50%	SW	MS	9	85	5,3	3	A

PROPERTY: Hopper **HOLE:** 11_05

Struct. Type	Struct. Attitude	LITHOLOGY From (m)	To (m)	Interval (m)	Type	Unit	Texture	Modifier	Notes:	ALT.	MINERALS	SAMPLES From (m)	To (m)	Interval (m)	Sample
		148.43	162.37		Sch				Grey black schist. Garnet aong fo plane (at 70). Contact gradational. Trace po along some frxx (<<1%)		po				
		162.37	167.67		Sch				Chl altered schist. Contact 70. Frxx at 70,45,30. No vis sulphides.	chl					
		167.67	170.37		Sch				Grey schist. Unaltered. Contact gradational..						
		170.37	171.11		Sch				Chl altered schist. Contact gradational.	chl					
		171.11	174.37		Sch				Grey white schist. Contact gradational. Carb altered from 171.11-171.28 frxx at 70,80 45	carb					
		174.37	174.95		Sch				Chl altered schist. 174.88-174.89 band of po	chl					
		174.95	184.82		Sch				Schist. Dark grey to black. Minor chl atered. Garnets along some fo planes (90). Frxx at 80,45. Trace py along frxx (<1%)	chl					
		184.82	187.54		Fel			Po	Biotite feldspar porphyry. Cay altered. Chl altered. Very broken up and rubbly. Contact at 10.	chl					
		187.54	190.82		Fel			Po	Biotite feldspar porphyry. Same as above but more competent. Frxx at 45, 10						
		190.82	192.02		Sch				Grey/black schist. Contact at 10. Frxx at 85,45.						
									EOH at 192.02 (630 ft)						

Blocks From (m)	To (m)	Intvl. (m)	REC (m)	REC Percent	RQD (m)	RQD Percent	Weathering	Hardness	JOINTS Frequency	Attitude	Shape	Roughness	Infilling
148.43	151.48	3.05	3.01	99%	2.52	83%	SW	MS	6	45	5,3	3	A
151.48	154.53	3.05	3.02	99%	2.60	85%	SW	MS	5	60	5	3	A
154.53	157.58	3.05	3.03	99%	3.03	99%	SW	MS	6	40	5	3	A
157.58	160.62	3.04	3.03	100%	3.00	99%	SW	MS	6	40	5,3	3	A
160.62	163.67	3.05	2.99	98%	2.78	91%	SW	MS	8	60	5,3	3	A
163.67	166.72	3.05	3.01	99%	2.86	94%	SW	MS	5	45	5	3	A
166.72	169.77	3.05	3.02	99%	2.93	96%	SW	MS	5	60	5,3	3	A
169.77	172.82	3.05	3.01	99%	2.85	93%	SW	MS	7	55	3,5	3	A
172.82	175.86	3.04	3.02	99%	2.42	80%	SW	MS	7	90	5	3	A
175.86	178.91	3.05	3.00	98%	2.33	76%	SW	MS	2	60	5	3	A
178.91	181.96	3.05	2.99	98%	2.40	79%	SW	MS	5	70	3,5	3	A,BK
181.96	185.01	3.05	2.93	96%	2.11	69%	SW	MS	6	55,90	3,5	3	A
185.01	188.06	3.05	2.89	95%	0.43	14%	SW	MS	7	20	3,5	3	A,BK
188.06	191.10	3.04	2.95	97%	1.83	60%	SW	MS	12	60	5,3	3	A,BK
191.10	192.02	0.92	0.90	98%	0.70	76%	SW	MS	8	45	5,3	3	A

PROJECT

PROPERTY: HOPPER

HOLE: DDH-11-06

Easting	Northing	Elev.	Depth (m)
397710	6795100	1270	297.78

Contractor: Elite Diamond Drilling
Drill: JKS-300

Core size: BTW
Cassing depth: (m) in/out

Drilling dates:

Logged by: R. Phillips

SURVEY							
Depth (m)	Azimuth	Dip	Method	Depth (m)	Azimuth	Dip	Method
collar	250	-70					

Target: Mineralized, stacked skarn horizons

SUMMARY				
From (m)	To (m)	Interval	Unit	Coments

SAMPLES

Numbers:

Total:
Date sent:

COMMENTS

PROPERTY: Hopper **HOLE:** 11_06

Struct.		LITHOLOGY								ALT.	MINERALS	SAMPLES				Blocks			GEOTECHNICAL						JOINTS				
																			REC		RQD								
Type	Attitude	From (m)	To (m)	Interval (m)	Type	Unit	Texture	Modifier	Notes:			From (m)	To (m)	Interval (m)	Sample	From (m)	To (m)	Intvl. (m)	(m)	Percent	(m)	Percent	Weathering	Hardness	Frequency	Attitude	Shape	Roughness	Infilling
		0.00	2.43		OVB				Overburden. 0% recovery							2.43	5.18	2.75	2.68	97%	0.22	8%	MW	MS	N/A	90	1,3,	3	Fe,A,Bk
		2.43	5.90		Fel			Po	Feldspar biotite porphyry. Very broken up and rubbly. Frxx running 0 tca							5.18	8.22	3.04	2.92	96%	0.40	13%	MW	MS	8	80	3,5	3	A,Bk
		5.90	7.05		Fel			Po	Green biotite porphyry.							8.22	11.27	3.05	2.95	97%	0.36	12%	MW	MS	13	45	3,5	3	A,Bk
		7.05	9.24		Fel			Po	Feldspar biotite porphyry. Very broken up and rubbly.							11.27	14.32	3.05	2.98	97%	0.96	31%	MW/SW	MS	12	50	3,5	3	A,Bk
		9.24	16.37		Fel			Po	Feldspar hornblende porphyry. Still broken up but slightly more competent.							14.32	17.37	3.05	2.89	98%	1.07	35%	MW/SW	MS	7	60	3,5	3	Fe,A,Bk
		16.37	17.58		Fel				Biotite phyric green volcanic. Intermediate. Contact 30 tca. Calcite stringers running chaotically throughout.							17.37	20.42	3.05	2.91	95%	0.91	30%	MW/SW	MS	14	50	3,5	3	Fe,A,Bk
		17.58	41.76		Fel				Feldspar biotite hornblende porphyry. Contact at 30. Frxx at 70,45,10. Orange weathering and oxidation on frxx.							20.42	23.46	3.04	2.87	96%	0.88	29%	MW/SW	MS	13	55	3,5	3,2	Fe,A,Bk
									26.34-26.58 - trace py along qtz flood			27.70	28.70		I358130	23.46	26.51	3.05	2.91	94%	0.90	30%	SW	MS	12	50	3,5	3,2	A
									28.09-28.10 - mal on frxx			STANDARD			I358131	26.51	29.56	3.05	2.99	95%	0.81	27%	SW	MS	12	70	3,5	3	A
									35.03 - mal on frxx			35.00	38.00		I358132	29.56	32.61	3.05	2.97	98%	0.52	17%	SW	MS	14	40	5	3	A,Bk
									37.50 - mal on frxx			38.00	39.22		I358133	32.61	35.66	3.05	2.83	97%	0.00	0%	SW	MS	23	30	5,3	3	A,Bk
									38.95 - mal on frxx			39.22	41.76		I358134	35.66	38.70	3.04	2.93	93%	0.00	0%	SW	W	21	45	3,5	3	A,Bk
									41.40 - mal on frx							38.70	41.75	3.05	2.90	96%	0.32	10%	SW	MS	15	40	3,5	3	A,Bk
		41.76	42.90		Sch				Grey schist. Contact unclear. Weathered. Frxx at 70,80.							41.75	44.80	3.05	2.99	95%	0.00	0%	SW	MS	20	20	5,4,	3	A,Bk
		42.90	45.20		Sch				Grey schist. Clay altered?							44.80	47.85	3.05	2.91	98%	0.19	6%	SW	EW/VW/W/MS	10	50	5,3	3,2	A,Bk,Cy
		45.20	46.93		Fel			Po	Feldspar porphyry. Rubbly, clay rich.							47.85	50.90	3.05	3.01	95%	1.36	45%	SW	MS	11	40	5,3	3,5	A,Bk
		46.93	55.29		Fel			Po	Feldspar biotite porphyrey. Frxx at 45, 85, 30. Some feldspar xtrals 1.2 cm large.							50.90	53.94	3.04	3.01	99%	1.42	47%	SW	MS	8	45	5,3	3	A
		55.29	62.06		Fel			Po	Green maroon schist. Contact 70. Trace py along some frxx. 58.95-59.20 - Magnetite.							53.94	56.99	3.05	3.03	99%	1.12	37%	SW	MS	11	55	5,3	3,2	A
		62.06	72.39		Fel			Po	Qtz feldspar biotite porphyry. Contact 30. Frxx at 45, 30, 70. Trace py along some frxx. Frxx surface weathered orange. 72.26 - mal on frxx							56.99	60.04	3.05	3.01	99%	1.55	51%	SW	MS	8	65	5,3	3,2	A
		72.39	73.28		Int			Po	Green, biotite phyric volcanic. Small biotite xtrals (1-2mm) Intermediate groundmass. Contact 40.			72.00	73.00		I358135	60.04	63.09	3.05	3.02	99%	1.62	53%	SW	MS	13	75	5,3	3	A
		73.48	74.65		Fel			Po	Qtz feldspar frxx at 45, 30, 70.							63.09	66.14	3.05	3.01	99%	2.18	71%	SW	MS	5	80	5,3	3	Fe,A
		74.65	76.60		Int				Green, biotite phyric volcanic. Small biotite xtrals (1-2mm) Intermediate groundmass. Contact 40.							66.14	69.18	3.04	3.03	99%	2.16	71%	SW	MS	12	90/4	5,3	3	A
		76.60	90.78		Fel			Po	Feldspar biotite (+/- hornblende) porphyry. Contact 40. Frxx at 45, 30, 80. Trace py on some frxx.							69.18	72.23	3.05	3.01	99%	0.80	26%	SW	MS	12	65	5,3	3,2	A
		90.78	91.86		Int				Biotite phyric volcanic. Contact at 30. Same as previous volcanics.							72.23	75.28	3.05	3.02	99%	1.98	65%	SW	MS	8	65	5,3	3	A
		91.86	97.52		Fel				Feldspar biotite hornblende porphyry. Trace py up to 93.80			91.86	93.80		I358136	75.28	78.33	3.05	3.00		2.63	86%	SW	MS	8	60	5,3	5,3,	A
		97.52	98.52		Int				Green biotite phyric volcanic. Contact at 40.							78.33	81.38	3.05	3.04	98%	2.66	87%	SW	MS	5	40	5,3	3	A
		98.52	99.23		Fel				Feldspar hornblende biotite porphyry. Contact at 40							81.38	84.42	3.04	3.02	100%	2.46	81%	SW	MS	7	85/5	3,5	3	A
		99.23	100.54		Int				Green biotite phyric volcanic. Intermediate groundmass. Frxx at 30.							84.42	87.47	3.05	3.03	99%	2.16	71%	SW	MS	6	50	3,5	3	A

PROPERTY: Hopper **HOLE:** 11_06

Struct. Type	Struct. Attitude	LITHOLOGY From (m)	To (m)	Interval (m)	Type	Unit	Texture	Modifier	Notes:	ALT.	MINERALS	SAMPLES From (m)	To (m)	Interval (m)	Sample	Blocks From (m)	To (m)	Intvl. (m)	GEOTECHNICAL REC (m)	REC Percent	RQD (m)	RQD Percent	Weathering	Hardness	JOINTS Frequency	Attitude	Shape	Roughness	Infilling
		100.54	101.50		Fel			Po	Feldspar hornblende porphyry. Contact at 40. Barren							87.47	90.52	3.05	3.00	99%	1.64	54%	SW	MS	5	75/4	3,5	3	A,Fe
		101.50	105.68		Sch				Grey maroon schist. Contact 45. Frxx at 45, 70.							90.52	93.57	3.05	3.01	99%	1.96	64%	SW	MS	7	70/5	3,5	3	A
		105.68	106.45		Fel			Po	Feldspar biotite hornblende porphyry. Contact 45.							93.57	96.62	3.05	3.00	98%	2.43	80%	SW	MS	9	70/5	3,5	3	A
		106.45	132.85		Sch				Grey/green schist. Contact 45. Not very well foliated.							96.62	99.66	3.04	2.99	98%	2.43	80%	SW	MS	8	45	3,5	5,3,	A
									112.70-114.10 - silicified zone							99.66	102.71	3.05	3.02	99%	2.01	66%	SW	MS	9	55	3,5	3,5	A
									131.80-132.85 - Trace dissem cp (<1%)			131.80	132.85		I358137	102.71	105.76	3.05	3.00	98%	1.14	37%	SW	MS	13	45	3,5	3	A
		132.85	136.80		Sch				Schist with massive magnetite (20%) and po (10%) and trace cp (<1%). Contact 70.			132.85	134.80		I358138	105.76	108.81	3.05	3.03	99%	1.19	39%	SW	MS	9	60	3,5	3,2	A
												134.80	136.80		I358139	108.81	111.86	3.05	3.04	100%	1.86	61%	SW	MS	13	60	5,3	3	A
		136.80	140.21		Sch				Schist with magnetite. Carb flooding and altn as well. Lesser po (2%). No vis cp.			136.80	138.50		I358140	111.86	114.90	3.04	3.00	99%	2.01	66%	SW	MS	10	70	3,5	3,2	A
												138.50	140.21		I358141	114.90	117.95	3.05	3.05	100%	2.08	68%	SW	MS	6	45	3,5	3,2	A
		140.21	146.75		Sch				Grey maroon schist. Contact gradational. Frxx at 70, 45. Trace py on some frxx.							117.95	121.00	3.05	3.04	100%	2.67	88%	SW	MS	8	55	3,5	3	A
		146.75	147.33		Skn				Magnetite skarn. Camo texture. No vis cp but trace py. Contact 80			146.50	147.50		I358142	121.00	124.05	3.05	3.03	99%	2.44	80%	SW	MS	6	60	3,5	3	A
		147.33	152.70		Sch				Grey maroon schist. Minor chl altn on frxx. Frxx at 80.							124.05	127.10	3.05	3.03	99%	2.37	78%	SW	MS	7	55	3,5	3	A
		152.70	157.70		Skn				Massive magnetite with sepentine along frxx. Trace po and cp as well. Contact at 70.			152.70	155.20		I358143	127.10	130.14	3.04	3.04	100%	2.04	67%	SW	MS	7	60	3,5	3,2	A
		157.70	167.55		Sch				Chl altered schist with trace po and cp (<1%). After 166.70 - no more sulphides.			155.20	157.70		I358144	130.14	133.19	3.05	3.03	99%	2.44	80%	SW	MS	8	60	3,5	3,2	A,Cp
		167.55	190.29		Sch				White qtz mica schist. Contact at 70. Fo at 70 with interbedded with chl altered schist.			Blank			J980845	133.19	136.24	3.05	3.02	99%	1.57	51%	SW	MS	11	45	3,5	3	A,Cp
									170.97-171.22 - chl altn			157.70	160.70		I358146	136.24	139.29	3.05	3.05	100%	2.62	86%	SW	MS	7	50/8	3,5	3,2	A
									175.85-181.40 - chl altn with trace cp			160.70	163.70		I358147	139.29	142.34	3.05	3.05	100%	2.43	80%	SW	MS	7	55	3,5	3	A
									187.50-189.05 - chl altn wit garnets and trace po+cp			163.70	166.70		I358148	142.34	145.38	3.04	3.03	100%	1.67	55%	SW	MS	8	45	3,5	3	A
									189.05-190.29 Chl altn with kspar			175.85	178.85		I358149	145.38	148.43	3.05	3.04	100%	1.75	57%	SW	MS	6	50	3,5	3,2	A
		190.29	223.99		Sch				Grey maroon schist. Contact at 70, fo at 70. Some garnets along fo planes. Minor chl altn.			178.85	181.40		I358150	148.43	151.48	3.05	3.05	100%	1.11	36%	SW	MS	10	90	3,5	3,2	A
									199.05 - bleb of po			STANDARD			L836001	151.48	154.53	3.05	3.03	99%	0.97	32%	SW	MS	12	50	3,5	3,5	A,Cp
									200.01 - bleb of po			187.50	189.05		L836002	154.53	157.58	3.05	3.03	99%	1.07	35%	SW	MS	12	45	3,5	3	A
									194.92-195.10 - chl alteration with trace po +cp			194.92	196.41		L863003	157.58	160.62	3.04	3.03	100%	1.27	42%	SW	MS	11	45	3,5	3,2	A,Cp
									196.01-196.41 - chl altn with trace po and cp							160.62	163.67	3.05	3.00	98%	1.41	46%	SW	MS	8	70	3,5	3	A,Bk
									202.16 - bleb of po							163.67	166.72	3.05	3.02	99%	0.62	20%	SW	MS	12	45	3,5	3	A,Bk
									209.78-209.80 - clay seam							166.72	169.77	3.05	3.03	99%	1.93	63%	SW	MS	12	45	3,5	3	A
									214.40-214.69 chl altern with dissem po (2%)			214.00	215.00		L863004	169.77	172.82	3.05	3.02	99%	0.95	31%	SW	MS	12	60	3,5	3,2	A

PROPERTY: Hopper **HOLE:** 11_06

Struct. Type	Struct. Attitude	LITHOLOGY From (m)	To (m)	Interval (m)	Type	Unit	Texture	Modifier	Notes:	ALT.	MINERALS	SAMPLES From (m)	To (m)	Interval (m)	Sample	Blocks From (m)	To (m)	Intvl. (m)	GEOTECHNICAL REC (m)	REC Percent	RQD (m)	RQD Percent	Weathering	Hardness	JOINTS Frequency	Attitude	Shape	Roughness	Infilling
									219.38-221.38 - lighter colour, silicified zone with chl altn.							172.82	175.86	3.04	3.03	100%	0.96	32%	SW	MS	14	45	3,5	3	A
									222.08 - bleb of po							175.86	178.91	3.05	3.01	99%	1.96	31%	SW	MS	10	45	3,5	3	A
		223.99	226.55		Sch				Maroon schist. More foliated with chl altn. Polished frxx surfaces (45, 20).							178.91	181.96	3.05	3.02	99%	2.42	64%	SW	MS	7	55	3,5	3	A
		226.55	229.80		Sch				Schist with magnetite. Magnetite is very fine grained. No vis sulphides . Horsetail foliation texture.Contact 90			226.55	228.45		L836005	181.96	185.01	3.05	3.03	99%	1.64	79%	SW	MS	8	45	3,5	3,5	A
		229.80	237.65		Sch				Maroon schist. Frxx at 45, 70, 20.Trace po along frxx up to 231.90			228.45	229.80		L836006	185.01	188.06	3.05	3.03	99%	2.58	54%	SW	MS	7	45	3,5	3	A
		237.65	240.69		Fel			Po	Feldspar biotite porphyry. Contact 90. Frxx at 90, 10. Calcite infilling of low angle frxx.			229.80	231.90		L836007	188.06	191.10	3.04	3.04	100%	2.54	85%	SW	MS	7	70	3,5	3,5	A
		240.69	247.99		Sch				Maroon schist. Contact 90. Minor chl altn. 243.82-245.19 - increased chl with trace po and frxx.							191.10	194.15	3.05	3.05	100%	2.90	83%	SW	MS	5	30	3,5	3,2	A
		247.99	255.80		Sch				White qtz mica schist. Contact ambigous (rubble).							194.15	197.20	3.05	3.04	100%	2.87	95%	SW	MS	4	85/5	3,5	3,2	A
									249.21-249.37 - green volcanic.			243.82	245.19		L836008	197.20	200.25	3.05	3.05	100%	2.50	94%	SW	MS	7	55	3,5	3	A
									250.29-250.41 - chl altn with po (5%) and cp (1%).							200.25	203.30	3.05	3.05	100%	2.71	82%	SW	MS	7	35	3,5	3	A
									251.01-251.31 - feldspar hornblende porphyry.			249.80	250.80		L836009	203.30	206.34	3.04	3.02	99%	1.64	89%	SW	MS	3	45	3,5	3,2	A
									251.31-251.68 - chl altn with trace po+cp			251.00	252.00		L836010	206.34	209.39	3.05	3.04	100%	1.79	54%	SW	MS	10	40	3,5	3	A
									254.98-255.80 - chl with trace po+cp			254.98	255.80		L836011	209.39	212.44	3.05	3.05	100%	1.41	59%	SW	MS	7	45	3,5	3	A
		255.80	262.65		Sch				Grey maroon schist. Trace po on some frxx. Frxx at 70, 45.			261.65	262.65		L836012	212.44	215.49	3.05	3.05	100%	2.71	46%	SW	MS	7	45	3,5	3	A
		262.65	276.35		Sch				Chl altered schist. Garnet clusters as well. Frxx at 45, 30. Trace po and cp from 261.65-262.04			274.00	275.00		L836013	215.49	218.54	3.05	3.04	100%	2.67	89%	SW	MS	8	40	3,5	3,2	A
		276.35	278.01		Sch				Sch with magnetite and po (3%) + cp (<1%). Contact 20.			276.35	278.01		L836014	218.54	221.58	3.04	3.01	100%	1.73	88%	SW	MS	9	40	3,5	3,2	A
		278.01	279.10		Sch				Grey maroon schist. Contact gradational. Barren. Fairly broken up.							221.58	224.63	3.05	3.03	99%	1.71	57%	SW	MS	9	70	3,5	3,2	A
		279.10	282.93		Sch				Chl altered schist. Qtz flooded. Trace po + cp (1%, <1%).			279.10	280.61		L836015	224.63	227.68	3.05	3.03	99%	2.44	56%	SW	MS	8	75	3,5	3	A
									280.30-280.61 - rubble/gouge zone. Grey with flecks of cp. This is where the drillers may have burned a bit in.			Blank			J980846	227.68	230.73	3.05	3.04	99%	2.51	80%	SW	MS	7	75	3,5	3	A
												280.61	282.93		L836017	230.73	233.78	3.05	3.05	100%	2.42	82%	SW	MS	7	50	3,5	3	A
		282.93	292.00		Sch				Grey maroon schist. Contact 70 but also somewhat gradational. Fo at 45. Frxx at 45.							233.78	236.82	3.04	2.99	100%	1.81	80%	SW	MS	9	45	3,5	3,2	A
									286.80-286.91 - feldspar biotite hornblende porphyry. Contact irregular.							236.82	239.87	3.05	3.05	98%	1.56	59%	SW	MS	11	90	3,5	3,5	A
									287.24-287.32 - bleb of cp in qtz flooded schist.			286.80	287.80		L836018	239.87	242.92	3.05	3.03	100%	2.30	51%	SW	MS	4	80	3,5	3	A
		292.00	297.78		Fel			Po	Feldspar biotite porphyry. Fresh/unaltered. Contact at 40, frxx at 40. Minor chl altn on some frxx			Standard			J980847	242.92	245.97	3.05	3.05	99%	2.88	75%	SW	MS	6	50	3	3	A
									EOH at 297.78 (977ft)							245.97	249.02	3.05	3.02	100%	2.29	94%	SW	MS	10	75	3	3,5	A
																249.02	252.06	3.04	3.03	99%	2.92	75%	SW	MS	6	60	3	3	A
																252.06	255.11	3.05	3.03	99%	1.89	96%	SW	MS	13	70	3	3	A

PROPERTY: Hopper **HOLE:** 11_06

Struct.		LITHOLOGY								ALT.			MINERALS				SAMPLES							Blocks			GEOTECHNICAL						JOINTS				
																											REC		RQD								
Type	Attitude	From (m)	To (m)	Interval (m)	Type	Unit	Texture	Modifier	Notes:								From (m)	To (m)	Interval (m)	Sample				From (m)	To (m)	Intvl. (m)	(m)	Percent	(m)	Percent	Weathering	Hardness	Frequency	Attitude	Shape	Roughness	Infilling
																								255.11	258.16	3.05	3.05	99%	2.29	62%	SW	MS	4	45	3	3	A
																								258.16	261.21	3.05	3.05	100%	2.68	75%	SW	MS	9	50/8	3,5	3	A
																								261.21	264.26	3.05	3.03	99%	2.28	75%	SW	MS	9	60	3,5	3	A
																								264.26	267.30	3.04	3.04	100%	2.40	79%	SW	MS	3	65	3,5	3,2	A
																								267.30	270.35	3.05	3.05	100%	2.55	84%	SW	MS	7	45	3,5	3,2	A
																								270.35	273.40	3.05	3.03	99%	2.04	67%	SW	MS	6	45	3,5	3	A
																								273.40	276.45	3.05	3.05	100%	2.89	95%	SW	MS	4	45	3,5	3,2	A
																								276.45	279.50	3.05	2.29	100%	1.29	42%	SW	MS	4	40	3,5	3	A,Cp
																								279.50	282.54	3.04	2.12	75%	1.37	45%	SW	MS	4	45	3,5	3	A,Cp
																								282.54	285.59	3.05	2.85	70%	2.58	85%	SW	MS	6	90/6	3,5	2,3,	Cp.A
																								285.59	288.64	3.05	3.04	93%	2.38	78%	SW	MS	6	40	3,5	3,2	Cp.A
																								288.64	291.69	3.05	3.05	100%	3.03	99%	SW	MS	2	45	3,5	3,2	A
																								291.69	294.74	3.05	3.05	100%	3.00	98%	SW	MS	5	50/7	3,5	3	A
																								294.74	297.78	3.04	3.04	100%	2.90	95%	SW	MS	3	65	3,5	3	A

APPENDIX V

REVERSE CIRCULATION PERCUSSION DRILL LOGS

PROJECT: **HOPPER**	PROPERTY : **HOPPER**	HOLE NUMBER : **PDH-11-01**	Pag 1 of 1

Drill hole data			Comment:
	Easting : 397303	**Depth :** 30.48	0.00 - 7.62 m **:phyllitic quartzite**
	Northing : 6795300	**Diameter :**	7.62 - 21.34 : **skarn** with trace pyrite
	Azimuth : 0	**Down hole azimuth/depth :**	21.34 - 30.48 (EOH) **:phyllitic quartzite**
	Dip : -90	**Down hole dip/ depth :**	

From (ft)	To (ft)	From (m)	To (m)	Sample number	Lithology	Colour	Alteration				" Minerals						Assay *								Comment
							Oxidation	Propylitic	Potassic	Argillic	Py	Po	As	Gn	Sp	Cp	Au	Ag	Pb	Cu	Zn	As	Bi	Sb	
0	5	0.00	1.52	K270501	QTE	GY BN											2.5	0.1	5	83	93	1	1	1	Slightly foliated phyllitic quartzite.
5	10	1.52	3.05	K270502													31	0.2	5	236	73	1	1	1	
10	15	3.05	4.57	K270503													2.5	0.2	14	65	187	1	1	2	
15	20	4.57	6.10	K270504													2.5	0.1	16	67	107	2	1	1	
20	25	6.10	7.62	K270505													2.5	0.1	10	123	103	1	1	2	
25	30	7.62	9.14	K270506	SKN	DK	t										5	0.2	3	188	50	2	1	2	Dark green, locally with brown tan, skarn . Minor mineralization
30	35	9.14	10.67	K270507		GN					t						5	0.3	4	235	87	2	1	2	consist of trace pyrite . Calcite ,quartz infill, hairline fractures are
35	40	10.67	12.19	K270508		BN					t					t	6	0.3	3	319	44	1	1	1	common
40	45	12.19	13.72	K270509							t						2.5	0.2	6	85	110	2	1	1	
45	50	13.72	15.24	K270510													2.5	0.2	17	70	138	33	1	3	
50	55	15.24	16.76	K270511													8	0.3	8	37	110	72	1	3	
55	60	16.76	18.29	K270512													24	0.4	10	241	80	372	1	7	
60	65	18.29	19.81	K270513							t						11	0.2	13	29	63	65	1	3	
65	70	19.81	21.34	K270514							t						12	0.2	7	196	75	9	1	2	
70	75	21.34	22.86	K270515	QTE	GY	t										2.5	0.1	7	21	50	1	1	1	Phyllitic quartzite, trace to, locally, strong oxidized. Limonite is often
75	80	22.86	24.38	K270516		BN	s										2.5	0.1	5	17	49	1	1	1	pseudomorph after biotite, more in the last meters of the interval.
80	85	24.38	25.91	K270517													2.5	0.2	8	29	83	2	1	1	
85	90	25.91	27.43	K270518													2.5	0.1	12	24	94	15	1	1	
90	95	27.43	28.96	K270519													2.5	0.1	6	21	37	6	1	1	
95	100	28.96	30.48	K270520													2.5	0.1	7	26	52	5	1	2	
EOH																									

*Au in ppb,all other metals in ppm,except when values are bold which are expressed in % "n=none,t<1%,w=1-3%,f=3-5%,m=5-7%,ms=7-10%,s=10-15%,i=15-20%

PROJECT: **HOPPER**	PROPERTY : **HOPPER**	HOLE NUMBER : **PDH-11-02**	Pag 1 of 1

Drill hole data			
Easting : 397301	**Depth :** 32.00	**Comment:**	
Northing : 6795501	**Diameter :**	0-32 m (EOH) **: schist** with trace to moderate pyrite.	
Azimuth : 0	**Down hole azimuth/depth :**		
Dip : -90	**Down hole dip/ depth :**		

From (ft)	To (ft)	From (m)	To (m)	Sample number	Lithology	Colour	Alteration				" Minerals						Assay *								Comment
							Oxidation	Propylitic	Potassic	Argillic	Py	Po	As	Gn	Sp	Cp	Au	Ag	Pb	Cu	Zn	As	Bi	Sb	
0	5	0.00	1.52	K270521	OVB	OR	m										5	0.2	2	523	69	1	1	1	Overburden, mostly weathered quartzite.
5	10	1.52	3.05	K270522	QTE	LT-BN											14	0.3	2	404	31	2	1	1	Light brown material. Likely quartzite
10	15	3.05	4.57	K270523	SCH	DK											18	0.2	3	702	29	2	1	1	Dark grey, brown schist with quartz and biotite schliern and lesser light
15	20	4.57	6.10	K270524	QTE	GY											5	0.3	6	679	32	1	1	1	green, chlorite, quartzite . Minor mineralization consist of trace to
20	25	6.10	7.62	K270525		BN					t						6	0.1	6	394	49	5	1	1	moderate disseminated pyrite. Occasionally pyrite occurs as euhedral,
25	30	7.62	9.14	K270526		GN											2.5	0.1	2	226	46	15	1	2	1mm, cubic crystals.
30	35	9.14	10.67	K270527							t						2.5	0.2	4	186	44	1	1	1	
35	40	10.67	12.19	K270528							t						15	0.3	3	707	40	1	1	1	
40	45	12.19	13.72	K270529							t						2.5	0.2	1	267	39	1	1	2	
45	50	13.72	15.24	K270530							m						24	0.7	3	681	30	2	1	1	
50	55	15.24	16.76	K270531							m						6	0.3	2	246	27	2	1	1	
55	60	16.76	18.29	K270532							w						2.5	0.1	5	47	54	1	1	1	
60	65	18.29	19.81	K270533							t						2.5	0.1	6	80	45	1	1	1	
65	70	19.81	21.34	K270534							t	t					14	0.3	3	324	40	1	1	1	
70	75	21.34	22.86	K270535							t						2.5	0.1	3	79	54	1	1	1	
75	80	22.86	24.38	K270536							t						7	0.2	4	191	49	2	1	1	
80	85	24.38	25.91	K270537							t						5	0.2	3	100	44	1	1	1	
85	90	25.91	27.43	K270538							t						8	0.2	5	205	63	1	1	1	
90	95	27.43	28.96	K270539													6	0.1	3	125	53	2	1	1	
95	100	28.96	30.48	K270540							t						7	0.3	3	259	43	1	1	2	
100	105	30.48	32.00	K270541	SCH	DK GY BN					t						7	0.2	6	177	83	1	1	1	Quartz-biotite schist with (4) euhedral rutile crystals.
EOH																									

*Au in ppb,all other metals in ppm,except when values are bold which are expressed in %

"n=none,t<1%,w=1-3%,f=3-5%,m=5-7%,ms=7-10%,s=10-15%,i=15-20%

PROJECT: **HOPPER**	PROPERTY : **HOPPER**	HOLE NUMBER : **PDH-11-03**	Pag 1 of 1

Drill hole data	Easting : 397299	**Depth :** 30.48	**Comment:**
	Northing : 6795700	**Diameter :**	
	Azimuth : 0	**Down hole azimuth/depth :**	
	Dip : -90	**Down hole dip/ depth :**	

From (ft)	To (ft)	From (m)	To (m)	Sample number	Lithology	Colour	Alteration: Oxidation	Propylitic	Potassic	Argillic	" Minerals: Py	Po	As	Gn	Sp	Cp	Assay *: Au	Ag	Pb	Cu	Zn	As	Bi	Sb	Comment
0	5	0.00	1.52	K270542	OVB						t						8	0.2	3	314	29	2	1	1	Overburden with schist.
5	10	1.52	3.05	K270543	SCH	GY											7	0.3	4	276	25	1	1	1	Shist with quartz and biotite schliern. Trace pyrite.
10	15	3.05	4.57	K270544		BN											5	0.1	1	96	17	1	1	1	
15	20	4.57	6.10	K270545							t						7	0.3	2	239	33	1	1	1	
20	25	6.10	7.62	K270546							t						7	0.2	2	212	17	2	1	1	
25	30	7.62	9.14	K270547							t						2.5	0.1	1	64	20	1	1	2	
30	35	9.14	10.67	K270548	SCH GRD						w						2.5	0.1	1	62	12	1	1	1	Shist and lesser granodiorite.
35	40	10.67	12.19	K270549	SCH						w						2.5	0.1	1	65	10	1	1	1	Shist with quartz and biotite schliern. Trace pyrite.
40	45	12.19	13.72	K270550													2.5	0.2	1	59	13	1	1	1	
45	50	13.72	15.24	k270551							t						2.5	0.1	1	31	15	1	1	1	
50	55	15.24	16.76	K270552							t						2.5	0.1	1	117	10	1	1	1	
55	60	16.76	18.29	K270553							t						7	0.2	1	139	14	1	1	2	
60	65	18.29	19.81	K270554							t						5	0.1	2	121	26	1	1	1	
65	70	19.81	21.34	K270555							n						2.5	0.1	1	71	19	1	1	1	
70	75	21.34	22.86	K270556							t						2.5	0.1	1	142	19	2	1	1	
75	80	22.86	24.38	K270557							t						2.5	0.1	2	94	23	2	1	1	
80	85	24.38	25.91	K270558							t						2.5	0.1	2	135	45	1	1	1	
85	90	25.91	27.43	K270559							t						23	0.1	3	672	41	1	1	1	
90	95	27.43	28.96	K270560							t						9	0.1	1	344	56	1	1	1	
95	100	28.96	30.48	K270561							t						17	0.1	2	462	48	1	1	1	
EOH																									

*Au in ppb,all other metals in ppm,except when values are bold which are expressed in %

"n=none,t<1%,w=1-3%,f=3-5%,m=5-7%,ms=7-10%,s=10-15%,i=15-20%

PROJECT: **HOPPER**	PROPERTY : **HOPPER**	HOLE NUMBER : **PDH-11-04**	Pag 1 of 1

Drill hole data			
	Easting : 397298	**Depth :** 19.81	**Comment:** Schist and lesser granodiorite.
	Northing : 6795899	**Diameter :**	
	Azimuth : 0	**Down hole azimuth/depth :**	
	Dip : -90	**Down hole dip/ depth :**	

From (ft)	To (ft)	From (m)	To (m)	Sample number	Lithology	Colour	Alteration				" Minerals						Assay *								Comment
							Oxidation	Propylitic	Potassic	Argillic	Py	Po	As	Gn	Sp	Cp	Au	Ag	Pb	Cu	Zn	As	Bi	Sb	
0	5	0.00	1.52	K270562	OVB												8	0.2	6	117	32	4	1	1	Overburden.
5	10	1.52	3.05	K270563	SCH	GY BN											6	0.1	5	108	26	4	1	1	Schist with quartz and biotite.
10	15	3.05	4.57	K270564	SCH												2.5	0.1	5	139	21	2	2	1	Quartz-biotite schist with lesser granodiorite.
15	20	4.57	6.10	K270565	GRD												7	0.1	14	248	31	1	6	1	
20	25	6.10	7.62	K270566													6	0.1	3	395	16	2	1	1	
25	30	7.62	9.14	K270567	GRD												2.5	0.1	2	208	15	1	1	1	Coarse grained granodiorite with biotite and hornblende.
30	35	9.14	10.67	k270568													2.5	0.1	3	97	13	1	1	1	
35	40	10.67	12.19	K270569													2.5	0.1	2	65	11	1	1	1	
40	45	12.19	13.72	K270570													8	0.1	2	208	10	1	1	1	
45	50	13.72	15.24	K270571	SCH												49	0.1	8	562	26	1	1	1	Quartz-biotite schist with lesser granodiorite.
50	55	15.24	16.76	K270572	GRD												9	0.1	3	186	12	1	1	1	
55	60	16.76	18.29	K270573	GRD						t						2.5	0.1	3	111	12	1	1	1	Granodiorite with trace pyrite.
60	65	18.29	19.81	K270574													2.5	0.1	3	51	13	1	1	1	
EOH																									

*Au in ppb,all other metals in ppm,except when values are bold which are expressed in %

"n=none,t<1%,w=1-3%,f=3-5%,m=5-7%,ms=7-10%,s=10-15%,i=15-20%

PROJECT: **HOPPER**	PROPERTY : **HOPPER**	HOLE NUMBER : PDH-11-05	Pag 1 of 1

Drill hole data			
	Easting : 397303	**Depth :** 22.86	**Comment:** Granodiorite and schist lenses.
	Northing : 6796101	**Diameter :**	
	Azimuth : 0	**Down hole azimuth/depth :**	
	Dip : -90	**Down hole dip/ depth :**	

From (ft)	To (ft)	From (m)	To (m)	Sample number	Lithology	Colour	Alteration: Oxidation	Propylitic	Potassic	Argillic	" Minerals: Py	Po	As	Gn	Sp	Cp	Assay *: Au	Ag	Pb	Cu	Zn	As	Bi	Sb	Comment
0	5	0.00	1.52	K270575	OVB												2.5	0.1	2	100	28	3	1	1	Overburden ,granodiorite.
5	10	1.52	3.05	K270576	GRD	GY					t						2.5	0.1	2	114	24	1	1	1	Granodiorite and quartz-biotite schist lenses. Trace pyrite occurs
10	15	3.05	4.57	K270577													2.5	0.1	1	60	19	1	1	1	occasionally .
15	20	4.57	6.10	K270578	GRD SCH												2.5	0.1	1	113	18	1	1	1	
20	25	6.10	7.62	K270579	GRD	GY											2.5	0.1	2	81	18	1	1	1	
25	30	7.62	9.14	K270580							t						2.5	0.1	1	118	19	1	1	1	
30	35	9.14	10.67	K270581													2.5	0.1	1	185	16	1	1	1	
35	40	10.67	12.19	K270582		OR	w										2.5	0.1	1	688	20	1	1	1	
40	45	12.19	13.72	K270583													2.5	0.1	1	428	17	1	1	1	
45	50	13.72	15.24	K270584	SCH	GY											2.5	0.1	1	88	14	1	1	1	
50	55	15.24	16.76	K270585	GRD						t						2.5	0.1	1	54	13	1	1	1	
55	60	16.76	18.29	K270586	SCH	BN					t						2.5	0.1	1	102	18	1	1	1	
60	65	18.29	19.81	K270587	GRD	GY											2.5	0.1	2	255	15	1	1	2	Tracely oxidised and propylitic altered medium grained granodiorite.
65	70	19.81	21.34	K270588		GN	t	t									2.5	0.2	2	601	20	1	2	1	Locally strong octahedral magnetite is present. Epidote and chlorite is
70	75	21.34	22.86	K270589		OR											2.5	0.1	1	426	17	1	1	1	common.
EOH																									

*Au in ppb,all other metals in ppm,except when values are bold which are expressed in %

"n=none,t<1%,w=1-3%,f=3-5%,m=5-7%,ms=7-10%,s=10-15%,i=15-20%

PROJECT: **HOPPER**	PROPERTY : **HOPPER**	HOLE NUMBER : **PDH-11-06**	Pag 1 of 1

Drill hole data			
	Easting : 397302	**Depth :** 16.76	**Comment:** Granodiorite with trace pyrite.
	Northing : 6796301	**Diameter :**	
	Azimuth : 0	**Down hole azimuth/depth :**	
	Dip : -90	**Down hole dip/ depth :**	

From (ft)	To (ft)	From (m)	To (m)	Sample number	Lithology	Colour	Alteration				" Minerals						Assay *								Comment
							Oxidation	Propylitic	Potassic	Argillic	Py	Po	As	Gn	Sp	Cp	Au	Ag	Pb	Cu	Zn	As	Bi	Sb	
0	5	0.00	1.52	K270590	OVB												2.5	0.1	1	15	11	1	1	1	Overburden.
5	10	1.52	3.05	K270591	GRD	GY LT GN		t			t						2.5	0.1	1	15	9	1	1	1	Tracely propylitic altered granodiorite with book biotite and hornblende. Sericite is common, epidot occurs occasionally. Mineralization consist of trace disseminated pyrite.
10	15	3.05	4.57	K270592							t						2.5	0.1	1	62	8	1	1	1	
15	20	4.57	6.10	K270593							t						2.5	0.1	2	33	8	1	1	1	
20	25	6.10	7.62	K270594							t						2.5	0.1	1	88	8	1	1	1	
25	30	7.62	9.14	K270595													2.5	0.1	1	74	9	1	1	1	
30	35	9.14	10.67	K270596							t						2.5	0.1	1	49	8	1	1	1	
35	40	10.67	12.19	K270597							t						2.5	0.1	1	24	9	1	1	1	
40	45	12.19	13.72	K270598							t						2.5	0.1	1	21	7	1	1	1	
45	50	13.72	15.24	K270599							t						2.5	0.1	1	18	7	1	1	1	
50	55	15.24	16.76	K270600							t						2.5	0.1	1	17	8	1	1	1	
EOH																									

*Au in ppb,all other metals in ppm,except when values are bold which are expressed in %

"n=none,t<1%,w=1-3%,f=3-5%,m=5-7%,ms=7-10%,s=10-15%,i=15-20%

PROJECT: **HOPPER**	PROPERTY : **HOPPER**	HOLE NUMBER : PDH-11-07	Pag 1 of 1

Drill hole data			
	Easting : 397312	**Depth :** 30.48	**Comment:** Granodiorite with trace pyrite and chalcopyrite.
	Northing : 6796496	**Diameter :**	
	Azimuth : 0	**Down hole azimuth/depth :**	
	Dip : -90	**Down hole dip/ depth :**	

From (ft)	To (ft)	From (m)	To (m)	Sample number	Lithology	Colour	Alteration				" Minerals						Assay *								Comment
							Oxidation	Propylitic	Potassic	Argillic	Py	Po	As	Gn	Sp	Cp	Au	Ag	Pb	Cu	Zn	As	Bi	Sb	
0	5	0.00	1.52	K270601	OVB	OR	s										9	0.1	10	166	21	28	1	2	Strongly oxidized, clay and clayed granodiorite.
5	10	1.52	3.05	K270602													2.5	0.1	8	138	25	13	1	1	
10	15	3.05	4.57	K270603													5	0.1	9	181	23	17	1	1	
15	20	4.57	6.10	K270604	GRD	GY	t	w									2.5	0.1	7	142	20	8	1	1	Trace to weakly oxidized and propylitic altered granodiorite . Mineralization consist of trace to weak disseminated pyrite and lesser, trace chalcopyrite. Sericite is common.
20	25	6.10	7.62	K270605		GN	w										2.5	0.1	5	69	19	1	1	1	
25	30	7.62	9.14	K270606		YW											2.5	0.1	6	31	20	11	1	2	
30	35	9.14	10.67	K270607							t						2.5	0.1	5	117	17	8	1	1	
35	40	10.67	12.19	K270608													2.5	0.1	5	42	21	2	2	3	
40	45	12.19	13.72	K270609													2.5	0.1	3	29	18	3	1	1	
45	50	13.72	15.24	K270610													2.5	0.1	2	47	18	3	1	1	
50	55	15.24	16.76	K270611													2.5	0.1	2	238	16	1	1	1	
55	60	16.76	18.29	K270612							t						2.5	0.1	2	92	16	5	1	1	
60	65	18.29	19.81	K270613							t						2.5	0.1	4	169	19	5	1	1	
65	70	19.81	21.34	K270614							t						2.5	0.1	4	102	17	1	1	1	
70	75	21.34	22.86	K270615							t						2.5	0.1	3	58	18	4	1	1	
75	80	22.86	24.38	K270616							t						2.5	0.1	2	645	16	1	1	1	
80	85	24.38	25.91	K270617							t					t	2.5	0.1	1	677	13	3	1	1	
85	90	25.91	27.43	K270618							w					w	2.5	0.2	2	1160	15	1	1	2	
90	95	27.43	28.96	K270619												t	2.5	0.1	2	346	11	1	1	1	
95	100	28.96	30.48	K270620							t						2.5	0.1	1	122	13	11	1	1	
EOH																									

*Au in ppb,all other metals in ppm,except when values are bold which are expressed in %

"n=none,t<1%,w=1-3%,f=3-5%,m=5-7%,ms=7-10%,s=10-15%,i=15-20%

PROJECT: **HOPPER**	PROPERTY : **HOPPER**	HOLE NUMBER : PDH-11-08	Pag 1 of 1

Drill hole data			
	Easting : 397301	**Depth :** 15.24	**Comment:** Granodiorite with trace pyrite and chalcopyrite.
	Northing : 6796701	**Diameter :**	
	Azimuth : 0	**Down hole azimuth/depth :**	
	Dip : -90	**Down hole dip/ depth :**	

From (ft)	To (ft)	From (m)	To (m)	Sample number	Lithology	Colour	Alteration: Oxidation	Propylitic	Potassic	Argillic	" Minerals: Py	Po	As	Gn	Sp	Cp	Assay *: Au	Ag	Pb	Cu	Zn	As	Bi	Sb	Comment
0	5	0.00	1.52	K270621	OVB												8	0.1	3	245	32	5	1	1	Overburden.
5	10	1.52	3.05	K270622	GRD	GY GN					t						2.5	0.1	3	234	19	2	1	1	Tracely oxidized and propylitic altered granodiorite with trace pyrite.
10	15	3.05	4.57	K270623													2.5	0.1	2	389	15	1	1	1	Sericite is common.
15	20	4.57	6.10	K270624													2.5	0.1	2	172	16	1	1	1	
20	25	6.10	7.62	K270625													2.5	0.1	1	285	15	1	1	1	
25	30	7.62	9.14	K270626													2.5	0.3	4	277	14	1	1	1	
30	35	9.14	10.67	K270627													2.5	0.2	2	209	14	2	1	1	
35	40	10.67	12.19	K270628													2.5	0.2	3	197	12	1	1	1	
40	45	12.19	13.72	K270629													2.5	0.3	2	486	16	1	1	1	
45	50	13.72	15.24	K270630													2.5	0.3	3	122	13	1	1	1	
EOH																									

*Au in ppb,all other metals in ppm,except when values are bold which are expressed in %

"n=none,t<1%,w=1-3%,f=3-5%,m=5-7%,ms=7-10%,s=10-15%,i=15-20%

PROJECT: **HOPPER**	PROPERTY : **HOPPER**	HOLE NUMBER : PDH-11-09	Pag 1 of 1

Drill hole data	**Easting :** 397298	**Depth :** 16.76	**Comment:** Granodiorite with trace pyrite.
	Northing : 6796900	**Diameter :**	
	Azimuth : 0	**Down hole azimuth/depth :**	
	Dip : -90	**Down hole dip/ depth :**	

From (ft)	To (ft)	From (m)	To (m)	Sample number	Lithology	Colour	Alteration				" Minerals						Assay *								Comment
							Oxidation	Propylitic	Potassic	Argillic	Py	Po	As	Gn	Sp	Cp	Au	Ag	Pb	Cu	Zn	As	Bi	Sb	
0	5	0.00	1.52	K270631	OVB												0	0.1	4	120	26	3	1	1	Overburden consisting of dark grey material and weathered granodiorite.
5	10	1.52	3.05	K270632													0	0.2	3	133	21	1	1	1	
10	15	3.05	4.57	K270633	GRD		t	t			t						0	0.1	3	107	18	1	1	1	Tracely oxidized and propylitic altered granodiorite with occasionally trace pyrite.
15	20	4.57	6.10	K270634													0	0.4	3	418	16	1	1	1	
20	25	6.10	7.62	K270635													0	0.5	5	564	15	1	2	1	
25	30	7.62	9.14	K270636													0	0.3	3	238	14	1	1	1	
30	35	9.14	10.67	K270637													0	0.4	5	373	21	4	5	1	
35	40	10.67	12.19	K270638													0	0.4	3	231	21	2	7	1	
40	45	12.19	13.72	K270639													0	0.2	4	84	21	2	1	1	
45	50	13.72	15.24	K270640													0	0.4	13	76	16	1	2	1	
50	55	15.24	16.76	K270641													0	0.3	8	283	14	1	1	1	
EOH																									

*Au in ppb,all other metals in ppm,except when values are bold which are expressed in %

"n=none,t<1%,w=1-3%,f=3-5%,m=5-7%,ms=7-10%,s=10-15%,i=15-20%

PROJECT: **HOPPER**	PROPERTY : **HOPPER**	HOLE NUMBER : PDH-11-**10**	Pag 1 of 1

Drill hole data			
	Easting : 397297	**Depth :** 25.91	**Comment:** Granodiorite and lesser quartzite.
	Northing : 6797099	**Diameter :**	
	Azimuth : 0	**Down hole azimuth/depth :**	
	Dip : -90	**Down hole dip/ depth :**	

From (ft)	To (ft)	From (m)	To (m)	Sample number	Lithology	Colour	Alteration: Oxidation	Propylitic	Potassic	Argillic	" Minerals: Py	Po	As	Gn	Sp	Cp	Assay *: Au	Ag	Pb	Cu	Zn	As	Bi	Sb	Comment
0	5	0.00	1.52	K270642	OVB	DKGY											2.5	0.3	20	81	61	3	1	1	Overburden.
5	10	1.52	3.05	K270643	QTE	DKGY											2.5	0.2	7	82	51	1	1	1	Dark grey fine grained metaseds. Magnetic
10	15	3.05	4.57	K270644													2.5	0.3	5	75	43	1	1	1	
15	20	4.57	6.10	K270645	GRD	GY	t			w	t						2.5	0.1	4	61	25	2	1	1	Tracely oxidized and weak argillic altered granodiorite. Magnetic. Trace
20	25	6.10	7.62	K270646		YW											2.5	0.1	5	48	19	6	1	1	pyrite.
25	30	7.62	9.14	K270647		BG											2.5	0.1	10	41	14	3	1	1	
30	35	9.14	10.67	K270648													2.5	0.1	3	28	14	2	1	1	
35	40	10.67	12.19	K270649													2.5	0.1	2	21	13	1	1	1	
40	45	12.19	13.72	K270650	QTE	DKGY											2.5	0.1	3	179	22	1	1	1	Dark grey fine grained metaseds. Magnetic
45	50	13.72	15.24	K270651													2.5	0.1	4	80	33	1	1	1	
50	55	15.24	16.76	K270652	GRD	GY					t						2.5	0.1	1	123	12	1	1	1	Coarse grained granodiorite with biotite and 2mm hornblende. Pink
55	60	16.76	18.29	K270653		WH											2.5	0.1	2	26	15	1	1	1	orthoclase occurs in the last 3m . Occasionally trace pyrite. Magnetic.
60	65	18.29	19.81	K270654		PK											2.5	0.1	1	29	12	1	1	1	
65	70	19.81	21.34	K270655													2.5	0.1	2	34	15	1	1	1	
70	75	21.34	22.86	K270656													2.5	0.1	2	12	14	1	1	1	
75	80	22.86	24.38	K270657													2.5	0.1	1	18	13	1	1	1	
80	85	24.38	25.91	K270658													2.5	0.1	1	16	11	1	1	1	
EOH																									

*Au in ppb,all other metals in ppm,except when values are bold which are expressed in %

"n=none,t<1%,w=1-3%,f=3-5%,m=5-7%,ms=7-10%,s=10-15%,i=15-20%

PROJECT: **HOPPER**	PROPERTY : **HOPPER**	HOLE NUMBER : PDH-11-**11**		Pag 1 of 1

Drill hole data			Comment:
	Easting : 397299	**Depth :** 30.48	0.00 - 15.24 m : quartz, mica **schist**
	Northing : 6797301	**Diameter :**	15.24 - 18.29 m: contact **skarn** with **schist.** Trace pyrite present in both units.
	Azimuth : 0	**Down hole azimuth/depth :**	18.29 - 30.48 m (EOH) : **schist**
	Dip : -90	**Down hole dip/ depth :**	

From (ft)	To (ft)	From (m)	To (m)	Sample number	Lithology	Colour	Alteration: Oxidation	Propylitic	Potassic	Argillic	" Minerals: Py	Po	As	Gn	Sp	Cp	Assay *: Au	Ag	Pb	Cu	Zn	As	Bi	Sb	Comment
0	5	0.00	1.52	K270751	SCH	RD	s										2.5	0.1	8	196	124	53	1	5	Quartz-mica schist, strongly oxidized. Pervasive limonite, often pseudomorph after biotite.
5	10	1.52	3.05	K270752	SCH	GY	t										2.5	0.1	8	50	74	8	1	1	Slightly foliated quartz-mica schist, lath mineral is mostly brown-black biotite (90 %). Locally, magnetite occurs as fine grained aggregates , and occasionally euhedral octahedral crystals. Metamorphic rock is fairly magnetic throughout the hole.
10	15	3.05	4.57	K270753		BN											2.5	0.1	6	55	77	4	1	1	
15	20	4.57	6.10	K270754													2.5	0.1	10	42	78	3	2	1	
20	25	6.10	7.62	K270755													2.5	0.2	3	183	62	2	1	1	
25	30	7.62	9.14	K270756													2.5	0.2	8	293	93	11	1	1	
30	35	9.14	10.67	K270757													6	0.1	2	511	42	3	1	1	
35	40	10.67	12.19	K270758													5	0.2	2	540	60	5	1	1	
40	45	12.19	13.72	K270759													2.5	0.1	4	99	65	4	1	1	
45	50	13.72	15.24	K270760													2.5	0.1	5	71	57	10	1	1	
50	55	15.24	16.76	K270761	SCH	GY					t						2.5	0.1	5	50	60	10	1	1	Grey sucrosic quartzite with biotite and lesser muscovite, intercalated with 50-20% dark grey skarnoid. Skarnoid maintains relict structure of intrusive rock, (diorite-granodiorite) with grains of smoked quartz, book biotite and hornblende partially replaced by green pyroxene. Diopside, epidot, lesser chlorite and carbonate (effervesces with HCl) are common in matrix. Trace pyrite occurs disseminated in both rocks.
55	60	16.76	18.29	K270762	SKN	DK GN											2.5	0.1	6	37	45	4	2	1	
60	65	18.29	19.81	K270770	SCH	GY					t						2.5	0.1	4	43	63	2	1	1	Quartzite intercalated with quartz -mica schist. Disseminated trace pyrite.
65	70	19.81	21.34	K270763		BN											2.5	0.2	5	305	71	2	1	1	
70	75	21.34	22.86	K270764													2.5	0.1	6	67	48	4	1	1	
75	80	22.86	24.38	K270765													2.5	0.1	5	44	40	2	2	1	
80	85	24.38	25.91	K270766													2.5	0.1	5	30	43	2	1	1	
85	90	25.91	27.43	K270767													2.5	0.1	4	32	35	3	1	1	
90	95	27.43	28.96	K270768													2.5	0.1	8	96	75	1	2	1	
95	100	28.96	30.48	K270769													2.5	0.1	4	47	37	1	1	1	
EOH																									

*Au in ppb,all other metals in ppm,except when values are bold which are expressed in %

"n=none,t<1%,w=1-3%,f=3-5%,m=5-7%,ms=7-10%,s=10-15%,i=15-20%

PROJECT: **HOPPER**	PROPERTY : **HOPPER**	HOLE NUMBER : **PDH-11-12**	Pag 1 of 1

Drill hole data			
	Easting : 397304	**Depth :** 39.6	**Comment:** Intercalated skarn , phyllitic quartzite and granodiorite with trace to fair sulphides.
	Northing : 6797502	**Diameter :**	
	Azimuth : 0	**Down hole azimuth/depth :**	
	Dip : -90	**Down hole dip/ depth :**	

From (ft)	To (ft)	From (m)	To (m)	Sample number	Lithology	Colour	Alteration				" Minerals						Assay *								Comment
							Oxidation	Propylitic	Potassic	Argillic	Py	Po	As	Gn	Sp	Cp	Au	Ag	Pb	Cu	Zn	As	Bi	Sb	
0	5	0.00	1.52	K270659	QTE	RD	w -										2.5	0.1	6	304	11	9	1	1	Weak to strongly oxidized phyllitic quartzite . Limonite is pervasive. Fracture gouge is present.
5	10	1.52	3.05	K270660		GY	s										2.5	0.3	13	553	37	40	1	2	
10	15	3.05	4.57	K270661													2.5	0.2	15	559	43	32	1	1	
15	20	4.57	6.10	K270662													2.5	0.2	4	613	29	30	1	1	
20	25	6.10	7.62	K270663	SKN	GY					t						2.5	0.1	12	437	66	4	1	1	Green skarn with epidot and diopsid.Strong magnetite, trace disseminated pyrite and chalcopyrite. Lesser phyllitic quartzite (20%).
25	30	7.62	9.14	K270664	QTE	GN					t					t	2.5	0.1	6	324	56	1	1	1	
30	35	9.14	10.67	K270665							t					t	2.5	0.1	4	113	50	8	1	1	
35	40	10.67	12.19	K270666							m					m	2.5	0.1	3	143	21	3	1	1	
40	45	12.19	13.72	K270667	GRD	GY PU	t			w	t						2.5	0.1	5	209	24	5	1	1	Tracely oxidized and argillic altered, grey with a purple tinge granodiorite . Trace pyrite.
45	50	13.72	15.24	K270668							t						2.5	0.1	9	137	28	2	1	1	
50	55	15.24	16.76	K270669							t						2.5	0.1	6	65	38	1	1	1	
55	60	16.76	18.29	K270670	GRD SKN QTE	DK GN					t						2.5	0.1	6	67	33	1	1	1	Skarn (dark green with trace disseminated py) intercalated with quartzite and clay altered granodiorite.
60	65	18.29	19.81	K270671	SCH	DG	t				t						2.5	0.1	2	50	22	1	1	1	Dark grey ,tracely oxidized, foliated quartz -mica schist.
65	70	19.81	21.34	K270672		GY					t						2.5	0.1	2	61	9	1	1	1	
70	75	21.34	22.86	K270673													2.5	0.1	3	43	15	1	1	1	
75	80	22.86	24.38	K270674	SKN	GN					t						2.5	0.1	2	264	17	5	1	1	Dark green skarn with diopside epidote, magnetite and hematite . Trace sulphides and some malachite.
80	85	24.38	25.91	K270675													2.5	0.1	3	104	11	10	1	1	
85	90	25.91	27.43	K270676							m					w	2.5	0.1	2	139	15	3	1	1	
90	95	27.43	28.96	K270677	SKN QTE	GY GN					s					w	2.5	0.2	2	109	12	3	2	1	Skarn with sucrosic quartzite lens.
95	100	28.96	30.48	K270678	SKN GRD						t						2.5	0.2	3	167	23	2	1	1	Intercalated :skarn with lesser granodiorite and quartzite. Trace pyrite occurs in skarn.
100	105	30.48	32.00	K270679	QTE						t						2.5	0.1	5	104	28	1	1	1	
105	110	32.00	33.53	K270680	SKN						s					t	2.5	0.1	3	78	12	3	1	1	Skarn wit disseminated, trace to strong, pyrite.
110	115	33.5	35.1	K270681							m					t	7	0.1	2	210	15	3	1	1	
115	120	35.1	36.6	K270682							t					t	9	0.3	3	267	19	3	1	1	
120	125	36.6	38.1	K270683	GRD	GY		w			t						2.5	0.1	3	119	30	1	1	1	Weakly propylitic altered ,coarse grained granodiorite with hornblende and biotite. Trace pyrite.
125	130	38.1	39.6	K270684	SCH	DKGY											2.5	0.1	2	131	33	1	1	1	Dark grey, foliated quartz-mica schist.

*Au in ppb,all other metals in ppm,except when values are bold which are expressed in %

"n=none,t<1%,w=1-3%,f=3-5%,m=5-7%,ms=7-10%,s=10-15%,i=15-20%

PROJECT: **HOPPER**	PROPERTY : **HOPPER**	HOLE NUMBER : **PDH-11-13**	Pag 1 of 1

Drill hole data			
	Easting : 397298	**Depth :** 36.58	**Comment:** Phyllitic quartzite and skarn with trace pyrite.
	Northing : 6797699	**Diameter :**	
	Azimuth : 0	**Down hole azimuth/depth :**	
	Dip : -90	**Down hole dip/ depth :**	

From (ft)	To (ft)	From (m)	To (m)	Sample number	Lithology	Colour	Alteration				" Minerals						Assay *								Comment
							Oxidation	Propylitic	Potassic	Argillic	Py	Po	As	Gn	Sp	Cp	Au	Ag	Pb	Cu	Zn	As	Bi	Sb	
0	5	0.00	1.52	K270685	OVB						m						2.5	0.5	5	388	36	22	1	1	Overburden : quartzite and lesser skarn fragments with weak pyrite.
5	10	1.52	3.05	K270686							w						2.5	0.1	5	91	39	35	1	3	
10	15	3.05	4.57	K270687	SCH	OR/R	w				t						2.5	0.2	6	80	26	207	1	9	Weakly oxidized quartz-biotite schist with quartzite lenses. Trace disseminated pyrite occurs throughout the interval.
15	20	4.57	6.10	K270688	QTE						t						2.5	0.1	6	50	30	14	1	1	
20	25	6.10	7.62	K270689			t				t						2.5	0.1	7	35	22	15	1	1	
25	30	7.62	9.14	K270690							f						2.5	0.1	4	63	31	16	1	1	
30	35	9.14	10.67	K270691		BK					t						2.5	0.1	4	64	30	5	1	1	
35	40	10.67	12.19	K270692		BK					t						7	0.5	5	404	42	22	1	4	
40	45	12.19	13.72	K270693		BK					t						2.5	0.1	4	69	35	4	1	1	
45	50	13.72	15.24	K270694		BK					t						2.5	0.1	4	68	48	6	1	1	
50	55	15.24	16.76	K270695		BK					t						2.5	0.1	5	53	37	3	1	1	
55	60	16.76	18.29	K270696	SKN	BK											5	0.2	6	140	62	62	1	3	Dark green skarn with epidote and diopside. Trace to weak pyrite : disseminated and a few stringers.
60	65	18.29	19.81	K270706		DKGN					t						26	0.7	3	599	78	95	1	3	
65	70	19.81	21.34	K270707		DKGN					w						15	0.4	4	279	57	47	1	2	
70	75	21.34	22.86	K270708	MET	BK					t						2.5	0.1	4	90	48	5	1	1	Schist.
75	80	22.86	24.38	K270709	SKN	GN											2.5	0.1	5	72	35	5	1	1	Dark green skarn with epidote and diopside.
80	85	24.38	25.91	K270710													2.5	0.1	2	27	13	4	1	1	
85	90	25.91	27.43	K270711													2.5	0.1	3	42	20	2	1	1	
90	95	27.43	28.96	K270712	MET SKN	GN					t						2.5	0.1	4	84	26	1	1	1	Metased. with lesser skarn. Trace dissem py.
95	100	28.96	30.48	K270713							t						2.5	0.1	3	72	23	14	1	1	
100	105	30.48	32.00	K270714	SKN	DK					w						2.5	0.1	5	70	19	2	1	1	Dark green skarn with trace pyrite.
105	110	32.00	33.53	K270715		GN					w						8	0.1	10	189	55	1	2	2	
110	115	33.53	35.05	K270716	QTE	DK					w						458	6.2	23	8850	85	29	1	5	Quartzite and lesser skarn. Trace dissem py.
115	120	35.05	36.58	K270717	SKN	GN					t						98	1.5	16	1980	64	6	2	4	
EOH																									

*Au in ppb,all other metals in ppm,except when values are bold which are expressed in %

"n=none,t<1%,w=1-3%,f=3-5%,m=5-7%,ms=7-10%,s=10-15%,i=15-20%

PROJECT: **HOPPER**	PROPERTY : **HOPPER**	HOLE NUMBER : **PDH-11-14**	Pag 1 of 1

Drill hole data			Comment: Intercalated phyllitic quartzite with skarn.
	Easting : 397302	**Depth :** 30.48	
	Northing : 6797900	**Diameter :**	
	Azimuth : 0	**Down hole azimuth/depth :**	
	Dip : -90	**Down hole dip/ depth :**	

From (ft)	To (ft)	From (m)	To (m)	Sample number	Lithology	Colour	Alteration				" Minerals						Assay *								Comment
							Oxidation	Propylitic	Potassic	Argillic	Py	Po	As	Gn	Sp	Cp	Au	Ag	Pb	Cu	Zn	As	Bi	Sb	
0	5	0.00	1.52	K270718	OVB												101	0.1	4	147	28	16	1	1	Weathered overburden with granodiorite and quartzite.
5	10	1.52	3.05	K270719													10	0.1	3	99	25	7	1	1	
10	15	3.05	4.57	K270720													2.5	0.1	5	88	21	7	2	2	
15	20	4.57	6.10	K270721	QTE	BK					w						2.5	0.1	6	97	31	6	1	1	Black metased. to schist with minor (1-2%) py
20	25	6.10	7.62	K270722	QTE SKN						t						2.5	0.1	2	51	21	2	1	1	Quartzite with lesser skarn.
25	30	7.62	9.14	K270723	QTE						t						2.5	0.1	3	116	21	8	1	1	Phyllitic quartzite
30	35	9.14	10.67	K270724													2.5	0.1	4	86	26	4	1	1	
35	40	10.67	12.19	K270725													2.5	0.1	4	33	22	2	1	1	
40	45	12.19	13.72	K270726	SKN						t						2.5	0.1	3	49	32	23	1	2	Skarn with trace pyrite.
45	50	13.72	15.24	K270727													2.5	0.1	4	102	28	25	1	3	
50	55	15.24	16.76	K270728													2.5	0.1	3	23	19	7	1	2	
55	60	16.76	18.29	K270729													2.5	0.1	2	9	14	3	1	1	
60	65	18.29	19.81	K270730													2.5	0.1	3	12	15	6	1	1	
65	70	19.81	21.34	K270731													2.5	0.1	3	15	14	4	1	1	
70	75	21.34	22.86	K270732	QTE												2.5	0.1	2	6	11	2	1	1	Quartzite.
75	80	22.86	24.38	K270733	SKN												2.5	0.1	1	5	14	2	1	1	Skarn .
80	85	24.38	25.91	K270734	QTE												2.5	0.1	3	17	18	8	1	2	Phyllitic quartzite, 10 % biotite, slightly foliated.
85	90	25.91	27.43	K270735													2.5	0.1	6	24	16	5	1	1	
90	95	27.43	28.96	K270736													2.5	0.1	6	124	12	5	1	1	
95	100	28.96	30.48	K270737													2.5	0.1	4	79	14	13	1	2	
EOH																									

*Au in ppb,all other metals in ppm,except when values are bold which are expressed in %

"n=none,t<1%,w=1-3%,f=3-5%,m=5-7%,ms=7-10%,s=10-15%,i=15-20%

PROJECT: **HOPPER**	PROPERTY : **HOPPER**	HOLE NUMBER : **PDH-11-15**	Pag 1 of 2

Drill hole data			Comment:
	Easting : 397102	**Depth :** 50.29	**Comment:**
	Northing : 6797905	**Diameter :**	0.00 - 45.72 m **: granodiorite**
	Azimuth : 0	**Down hole azimuth/depth :**	45.72 - 50.29 m (EOH) : **quartzite**
	Dip : -90	**Down hole dip/ depth :**	

From (ft)	To (ft)	From (m)	To (m)	Sample number	Lithology	Colour	Alteration: Oxidation	Propylitic	Potassic	Argillic	" Minerals: Py	Po	As	Gn	Sp	Cp	Assay *: Au	Ag	Pb	Cu	Zn	As	Bi	Sb	green tan
0	5	0.00	1.52	K270738	GRD	WH	t	t		t-m							3	0	3	24	26	3	1	1	Coarse to medium grained granodiorite with poor melanocrates, book
5	10	1.52	3.05	K270739		GY											3	0	4	47	25	4	1	1	biotite and occasionally hornblende ,not exceeding 10 %. Rock is
10	15	3.05	4.57	K270740													3	0	3	7	28	1	1	1	propylitic altered, with trace sericite, green tan, and calcite coatings .
15	20	4.57	6.10	K270741													3	0	4	8	26	2	1	1	Effervesces with HCl. From m 38.10 ,granodiorite is moderate argillic
20	25	6.10	7.62	K270742													3	0	4	7	24	5	1	1	altered and bare minor disseminated pyrite.
25	30	7.62	9.14	K270743													3	0	3	12	27	1	1	1	
30	35	9.14	10.67	K270744													3	0	3	8	26	1	1	1	
35	40	10.67	12.19	K270745													3	0	3	6	29	1	1	1	
40	45	12.19	13.72	K270746													3	0	4	5	29	1	1	1	
45	50	13.72	15.24	K270747													3	0	2	4	28	2	1	1	
50	55	15.24	16.76	K270748													5	0	3	4	29	3	1	1	
55	60	16.76	18.29	K270749													3	0	6	7	32	4	1	1	
60	65	18.29	19.81	K270750													3	0	4	5	31	1	1	1	
65	70	19.81	21.34	K863551													3	0	2	7	30	2	3	1	
70	75	21.34	22.86	K863552													3	0	4	6	28	1	1	1	
75	80	22.86	24.38	K863553													3	0	2	6	30	1	1	1	
80	85	24.38	25.91	K863554													3	0	4	8	28	1	1	1	
85	90	25.91	27.43	K863555													3	0	6	9	31	1	1	1	
90	95	27.43	28.96	K863556													3	0	5	7	27	1	1	1	
95	100	28.96	30.48	K863557													3	0	5	5	34	14	1	1	
100	105	30.48	32.00	K863558													3	0	5	6	32	21	1	1	
105	110	32.00	33.53	K863559													3	0	4	6	26	3	1	1	
110	115	33.53	35.05	K863560													3	0	4	4	24	2	1	1	
115	120	35.05	36.58	K863561													3	0	4	9	25	1	1	1	
120	125	36.58	38.10	K863562													3	0	6	8	37	1	1	1	
125	130	38.10	39.62	K863563							t						3	0	5	6	37	1	1	2	
130	135	39.62	41.15	K863564							t						3	0	4	5	45	1	1	1	
135	140	41.15	42.67	K863565							t						3	0	6	7	26	23	1	2	
140	145	42.67	44.20	K863566							t						11	0	6	4	30	63	1	3	
145	150	44.20	45.72	K863567							t						3	0	14	8	33	19	1	2	
150	155	45.72	47.24	K863568	QTE	PU	w				w						3	0	11	46	31	34	1	3	Weakly oxidized, purple- brownish , foliated phyllitic quartzite.Weak
155	160	47.24	48.77	K863569		BN											3	0	10	24	32	22	1	3	pyrite and magnetite is fine disseminated.

*Au in ppb,all other metals in ppm,except when values are bold which are expressed in %

"n=none,t<1%,w=1-3%,f=3-5%,m=5-7%,ms=7-10%,s=10-15%,i=15-20%

160	165	48.77	50.29	K863570													3	0	6	44	25	6	2	3			
EOH																											

*Au in ppb,all other metals in ppm,except when values are bold which are expressed in %

"n=none,t<1%,w=1-3%,f=3-5%,m=5-7%,ms=7-10%,s=10-15%,i=15-20%

PROJECT: **HOPPER**	PROPERTY : **HOPPER**	HOLE NUMBER : **PDH-11-16**	Pag 1 of 1

Drill hole data			
	Easting : 397101	**Depth :** 35.05	**Comment:** Phyllitic quartzite with trace pyrite.
	Northing : 6797699	**Diameter :**	
	Azimuth : 0	**Down hole azimuth/depth :**	
	Dip : -90	**Down hole dip/ depth :**	

From (ft)	To (ft)	From (m)	To (m)	Sample number	Lithology	Colour	Alteration: Oxidation	Propylitic	Potassic	Argillic	" Minerals: Py	Po	As	Gn	Sp	Cp	Assay *: Au	Ag	Pb	Cu	Zn	As	Bi	Sb	Comment
0	5	0.00	1.52	K863571	QTE	YW RD	w										9	0.1	5	61	25	90	1	3	Weakly oxidized, yellowish, locally slightly foliated phyllitic quartzite.
5	10	1.52	3.05	K863572													38	0.2	14	65	35	293	1	10	
10	15	3.05	4.57	K863573													19	0.1	5	51	54	256	1	7	
15	20	4.57	6.10	K863574													15	0.1	5	20	45	105	2	5	
20	25	6.10	7.62	K863575													14	0.1	6	39	80	126	1	6	
25	30	7.62	9.14	K863576													7	0.1	4	25	49	99	1	7	
30	35	9.14	10.67	K863577													10	0.2	5	256	60	132	1	8	
35	40	10.67	12.19	K863578	QTE	GY YW RD	w										48	0.1	6	29	57	146	5	4	Grey, yellowish , occasionally reddish, weakly oxidized, locally foliated phyllitic quartzite. Weak magnetite is fine disseminated in sucrosic quartzose matrix. Hairline quartz-carbonate infill fracture occurs occasionally. Minor trace pyrite is common.
40	45	12.19	13.72	K863579													53	0.1	4	28	47	277	5	10	
45	50	13.72	15.24	K863580													32	0.2	6	43	27	262	1	8	
50	55	15.24	16.76	K863581													21	0.1	6	23	24	194	1	5	
55	60	16.76	18.29	K863582													6	0.1	6	79	31	62	1	3	
60	65	18.29	19.81	K863583							t						2.5	0.1	9	118	35	41	1	2	
65	70	19.81	21.34	K863584													13	0.1	9	148	41	68	1	2	
70	75	21.34	22.86	K863585													5	0.1	15	92	47	69	1	3	
75	80	22.86	24.38	K863586													13	0.1	6	41	54	194	1	4	
80	85	24.38	25.91	K863587													8	0.1	7	44	35	49	1	3	
85	90	25.91	27.43	K863588							t						6	0.1	11	31	70	135	1	4	
90	95	27.43	28.96	K863589													25	0.1	5	59	50	161	1	5	
95	100	28.96	30.48	K863590							t						17	0.1	5	55	39	100	2	5	
100	105	30.48	32.00	K863591													7	0.1	13	45	42	75	3	2	
105	110	32.00	33.53	K863592													5	0.1	8	70	48	144	3	4	
110	115	33.53	35.05	K863593													6	0.1	10	77	75	144	3	2	
EOH																									

*Au in ppb,all other metals in ppm,except when values are bold which are expressed in %

"n=none,t<1%,w=1-3%,f=3-5%,m=5-7%,ms=7-10%,s=10-15%,i=15-20%

PROJECT: **HOPPER**	PROPERTY : **HOPPER**	HOLE NUMBER : **PDH-11-17**	Pag 1 of 2

Drill hole data			Comment
	Easting : 397132	**Depth :** 38.10	**Comment :** Quartzite with occasionally skarn intercalations.
	Northing : 6797503	**Diameter :**	
	Azimuth : 0	**Down hole azimuth/depth :**	
	Dip : -90	**Down hole dip/ depth :**	

From (ft)	To (ft)	From (m)	To (m)	Sample number	Lithology	Colour	Alteration: Oxidation	Phyllic	Potassic	Argillic	" Minerals: Py	Po	As	Gn	Sp	Cp	Assay *: Au	Ag	Pb	Cu	Zn	As	Bi	Sb	Comment
0	5	0.00	1.52	K863594	OVB												2.5	0.1	6	131	43	60	2	1	Overburden
5	10	1.52	3.05	K863595													2.5	0.1	5	33	47	16	6	1	
10	15	3.05	4.57	K863596	QTE SKN	DK GY GN					t				t		14	0.1	7	36	61	67	7	1	Phyllitic quartzite and lesser (40%), white to dark grey greenish skarn with diopside. Fair magnetite occurs interstitial as fine grained aggregate. Red hematite dots are common. Minor mineralization occurs in skarn and consist of trace pyrite and fine grained sulphides .
15	20	4.57	6.10	K863597	QTE	YW BN					t						2.5	0.2	5	148	39	45	2	6	Weakly oxidized, sucrosic quartzite.
20	25	6.10	7.62	K863598													2.5	0.5	2	315	26	12	3	1	
25	30	7.62	9.14	K863599													2.5	0.9	1	547	18	7	1	1	
30	35	9.14	10.67	K863600													2.5	0.1	1	63	15	9	1	1	
35	40	10.67	12.19	K863601													2.5	0.1	5	61	27	8	2	1	
40	45	12.19	13.72	K863602													2.5	0.1	3	38	20	7	1	1	
45	50	13.72	15.24	K863603			w										2.5	0.1	4	27	8	10	1	1	
50	55	15.24	16.76	K863604													2.5	0.1	3	50	9	19	2	1	
55	60	16.76	18.29	K863605													2.5	0.1	3	63	6	10	1	2	
60	65	18.29	19.81	K863606													2.5	0.5	4	579	30	7	5	2	
65	70	19.81	21.34	K863607	QTE SKN	DK GY GN											2.5	0.7	2	596	35	8	3	1	Quartzite and lesser (30%) skarn with diopside. Weak hematite : reddish tinge.
70	75	21.34	22.86	K863608	QTE												24	5.1	3	3410	54	14	6	1	Weakly oxidized quartzite with sucrosic texture. Magnetite and trace fine grained sulphide, occurs interstitial. Trace, spotty malachite is common.
75	80	22.86	24.38	K863609		LT BN	w				t					t	20	2	3	5350	75	10	9	1	
80	85	24.38	25.91	K863610													11	0.6	2	714	38	6	4	1	
85	90	25.91	27.43	K863611	QTE SKN GRD	GN BN	w	s			w					t	2.5	1.2	1	1475	42	7	2	1	Quartzite and lesser skarn with diopside. Weak pyrite and spotty malachite occurs in both units. Strong phyllic altered granodiorite, with sericite, pyrite, quartz, carbonate stringers.(10% of sample)
90	95	27.43	28.96	K863612													8	0.5	4	597	43	10	4	1	Phyllitic quartzite, slightly laminated with pervasive limonite.
95	100	28.96	30.48	K863613													2.5	0.8	5	1560	56	12	5	2	
100	105	30.48	32.00	K863614	QTE	RD BN											11	1	11	777	58	94	2	62	
105	110	32.00	33.53	K863615													2.5	0.4	16	155	36	26	1	23	

*Au in ppb,all other metals in ppm,except when values are bold which are expressed in %

"n=none,t<1%,w=1-3%,f=3-5%,m=5-7%,ms=7-10%,s=10-15%,i=15-20%

110	115	33.53	35.05	K863616													11	1	2	1835	45	16	2	4	
115	120	35.05	36.58	K863617			l										2.5	0.7	4	1225	38	13	2	2	
120	125	36.58	38.10	K863618	QTE GRD	RD BN	s			i							2.5	0.7	4	993	46	12	2	1	Quartzite and lesser (15 %) ,intense argillic altered granodiorite.
EOH																									

*Au in ppb,all other metals in ppm,except when values are bold which are expressed in %

"n=none,t<1%,w=1-3%,f=3-5%,m=5-7%,ms=7-10%,s=10-15%,i=15-20%

PROJECT: **HOPPER**	PROPERTY : **HOPPER**	HOLE NUMBER : **PDH-11-18**	Pag 1 of 1

Drill hole data			
	Easting : 397099	**Depth :** 42.67	**Comment:** Granodiorite with trace sulphides.
	Northing : 6797290	**Diameter :**	
	Azimuth : 0	**Down hole azimuth/depth :**	
	Dip : -90	**Down hole dip/ depth :**	

From (ft)	To (ft)	From (m)	To (m)	Sample number	Lithology	Colour	Alteration: Propyliti	Alteration: c	Alteration: Potassic	Alteration: Argillic	" Minerals: Py	Po	As	Gn	Sp	Cp	Assay *: Au	Ag	Pb	Cu	Zn	As	Bi	Sb	Comment
0	5	0.00	1.52	K863619	GRD	WH GY YW					t					t	2.5	0.1	1	225	17	5	1	1	White ,grey, yellowish, tracely oxidized, weak argyllic altered medium grained granodiorite. Feldspar is partialy clayed, calcite coatings are common. Minor mineralization consist of weak pyrite and weak, very fine grained, sulphides (Pb,Zn,Cu) aggregate.
5	10	1.52	3.05	K863620							t					t	2.5	0.1	1	126	18	1	1	1	
10	15	3.05	4.57	K863621							t						2.5	0.1	1	35	21	1	1	1	
15	20	4.57	6.10	K863622													2.5	0.1	5	74	27	18	3	1	
20	25	6.10	7.62	K863623													2.5	0.1	5	243	31	20	2	1	
25	30	7.62	9.14	K863624													2.5	0.1	4	110	29	40	2	1	
30	35	9.14	10.67	K863625													5	0.1	4	435	30	30	1	1	
35	40	10.67	12.19	K863626													2.5	0.1	4	99	31	30	1	1	
40	45	12.19	13.72	K863627													2.5	0.2	3	551	24	1	1	1	
45	50	13.72	15.24	K863628													2.5	0.1	1	37	22	4	1	1	
50	55	15.24	16.76	K863629													8	0.9	5	1010	35	26	2	3	
55	60	16.76	18.29	K863630													2.5	0.2	3	297	32	15	2	2	
60	65	18.29	19.81	K863631													2.5	0.1	2	33	24	7	1	1	
65	70	19.81	21.34	K863632													2.5	0.1	5	27	22	25	1	2	
70	75	21.34	22.86	K863633			t			w	w				w		2.5	0.3	4	1090	21	17	1	1	
75	80	22.86	24.38	K863634													2.5	0.1	1	191	16	3	1	1	
80	85	24.38	25.91	K863635													2.5	0.1	2	298	21	11	1	1	
85	90	25.91	27.43	K863636													2.5	0.1	5	668	25	19	1	1	
90	95	27.43	28.96	K863637							w					w	2.5	0.1	2	63	21	1	1	1	
95	100	28.96	30.48	K863638													2.5	0.1	4	133	20	9	1	1	
100	105	30.48	32.00	K863639							t						2.5	0.1	2	288	22	6	1	2	
105	110	32.00	33.53	K863640							t						2.5	0.1	3	37	18	3	1	1	
110	115	33.53	35.05	K863641							t						2.5	0.1	1	308	17	1	1	1	
115	120	35.05	36.58	K863642							t						2.5	0.1	2	94	17	2	1	1	
120	125	36.58	38.10	K863643													2.5	0.1	2	446	24	1	1	1	
125	130	38.10	39.62	K863644												t	2.5	0.1	2	291	20	1	1	1	
130	135	39.62	41.15	K863645													2.5	0.1	1	332	22	1	1	1	
135	140	41.15	42.67	K863646													2.5	0.1	1	415	17	1	1	1	
EOH																									

*Au in ppb,all other metals in ppm,except when values are bold which are expressed in %

"n=none,t<1%,w=1-3%,f=3-5%,m=5-7%,ms=7-10%,s=10-15%,i=15-20%

PROJECT: **HOPPER**	PROPERTY : **HOPPER**	HOLE NUMBER : **PDH-11-19**	Pag 1 of 1

Drill hole data			
	Easting : 397094	**Depth :** 33.53	**Comment:** Granodiorite with trace pyrite.
	Northing : 397094	**Diameter :**	
	Azimuth : 0	**Down hole azimuth/depth :**	
	Dip : -90	**Down hole dip/ depth :**	

From (ft)	To (ft)	From (m)	To (m)	Sample number	Lithology	Colour	Alteration				" Minerals						Assay *								Comment
							Oxidation	Propylitic	Potassic	Argillic	Py	Po	As	Gn	Sp	Cp	Au	Ag	Pb	Cu	Zn	As	Bi	Sb	
0	5	0.00	1.52	K863647	OVB												2.5	0.1	4	138	15	2	1	1	Overburden .
5	10	1.52	3.05	K863648	GRD	GY	t			w							2.5	0.1	2	65	14	1	1	1	Tracely oxidized and locally weak argillic altered granodiorite.
10	15	3.05	4.57	K863649		LT											2.5	0.1	3	47	15	1	1	1	Mineralization consist of trace pyrite. Green tinge of feldspar from
15	20	4.57	6.10	K863650		GN					t						2.5	0.1	1	96	15	2	1	1	sericite.
20	25	6.10	7.62	K863651													2.5	0.1	1	106	12	3	1	1	
25	30	7.62	9.14	K863652													2.5	0.1	1	60	13	1	1	1	
30	35	9.14	10.67	K863653													2.5	0.1	2	40	14	1	1	1	
35	40	10.67	12.19	K863654							t						2.5	0.1	2	13	13	1	1	1	
40	45	12.19	13.72	K863655													2.5	0.1	1	75	13	2	1	1	
45	50	13.72	15.24	K863656							t						2.5	0.1	1	23	12	1	1	1	
50	55	15.24	16.76	K863657													2.5	0.1	2	127	14	1	1	1	
55	60	16.76	18.29	K863658							t						2.5	0.1	4	224	12	3	1	1	
60	65	18.29	19.81	K863659							t						2.5	0.3	4	463	16	1	1	1	
65	70	19.81	21.34	K863660							t						5	0.9	5	2490	20	5	2	3	
70	75	21.34	22.86	K863661							t						2.5	0.3	2	716	19	1	2	1	
75	80	22.86	24.38	K863662													8	2.7	7	6780	15	1	8	1	
80	85	24.38	25.91	K863663													7	1.8	9	1810	25	2	4	1	
85	90	25.91	27.43	K863664							t						17	7.2	10	8690	20	4	4	1	
90	95	27.43	28.96	K863665							w						2.5	1	4	1100	16	1	2	1	
95	100	28.96	30.48	K863666													2.5	0.3	3	283	16	1	2	1	
100	105	30.48	32.00	K863667							t						2.5	0.1	2	48	15	1	3	1	
105	110	32.00	33.53	K863668							t						2.5	0.1	2	34	15	1	3	1	
EOH																									

*Au in ppb,all other metals in ppm,except when values are bold which are expressed in %

"n=none,t<1%,w=1-3%,f=3-5%,m=5-7%,ms=7-10%,s=10-15%,i=15-20%

PROJECT: **HOPPER**	PROPERTY : **HOPPER**	HOLE NUMBER : **PDH-11-20**		Pag 1 of 1

Drill hole data			
Easting : 397104	**Depth :** 41.15	**Comment :** Granodiorite with trace sulphides.
Northing : 6796898	**Diameter :**	
Azimuth : 0	**Down hole azimuth/depth :**	
Dip : -90	**Down hole dip/ depth :**	

From (ft)	To (ft)	From (m)	To (m)	Sample number	Lithology	Colour	Alteration: Oxidation	Alteration: Propylitic	Alteration: Potassic	Alteration: Argillic	" Minerals: t	Po	As	Gn	Sp	Cp	Assay *: Au	Ag	Pb	Cu	Zn	As	Bi	Sb	Comment
0	5	0.00	1.52	K863669	OVB												2.5	0.1	5	182	15	1	2	1	Overburden .
5	10	1.52	3.05	K863670	GRD					m							2.5	0.2	5	601	17	1	3	1	Argillic altrered granodiorite.
10	15	3.05	4.57	K863671													2.5	0.2	2	161	19	1	3	1	
15	20	4.57	6.10	K863672	GRD	WH GY	w			w - m							2.5	0.2	3	107	19	1	2	1	Medium grained granodiorite with book biotite(10%), weakly oxidized and weak argillic altered. Limonite is pseudomorph after biotite. Feldspar is weakly clayed. Calcite coatings are common. Trace sericite gives locally a green tinge.
20	25	6.10	7.62	K863673													2.5	0.1	3	51	18	1	2	1	
25	30	7.62	9.14	K863674													2.5	0.2	3	77	19	1	2	1	
30	35	9.14	10.67	K863675													2.5	0.2	3	539	19	1	2	1	
35	40	10.67	12.19	K863676													2.5	0.2	3	233	18	1	2	1	
40	45	12.19	13.72	K863677													2.5	0.1	2	47	18	1	2	1	
45	50	13.72	15.24	K863678													2.5	0.1	2	136	18	1	2	1	
50	55	15.24	16.76	K863679		LT GY	w			w							2.5	0.2	3	299	19	1	3	1	
55	60	16.76	18.29	K863680													2.5	0.1	4	161	18	1	2	1	
60	65	18.29	19.81	K863681													2.5	0.1	3	85	17	2	2	1	
65	70	19.81	21.34	K863682							t						2.5	0.1	2	31	18	1	3	1	
70	75	21.34	22.86	K863683							n						2.5	0.2	3	80	19	1	3	1	
75	80	22.86	24.38	K863684													2.5	0.3	2	604	21	1	4	1	
80	85	24.38	25.91	K863685		LT GY	w			w							2.5	0.1	3	95	22	1	2	1	
85	90	25.91	27.43	K863686													2.5	0.2	3	109	19	1	2	1	
90	95	27.43	28.96	K863687													2.5	0.1	4	35	21	1	3	1	
95	100	28.96	30.48	K863688													2.5	0.1	5	78	18	1	3	1	
100	105	30.48	32.00	K863689													2.5	0.1	6	29	22	1	2	1	
105	110	32.00	33.53	K863690	GRD	BN RD	m			m	t						2.5	0.8	5	257	24	1	3	3	Trace sulphides powders fracture.
110	115	33.53	35.05	K863691	GRD	LT GY	t				t						2.5	0.1	2	39	20	1	3	1	
115	120	35.05	36.58	K863692							n						2.5	0.2	4	42	21	2	2	1	
120	125	36.58	38.10	K863693													2.5	0.2	4	59	19	1	2	1	
125	130	38.10	39.62	K863694													2.5	0.1	2	10	21	1	2	1	
130	135	39.62	41.15	K863695						w							2.5	0.2	4	11	20	1	2	1	
EOH																									

*Au in ppb,all other metals in ppm,except when values are bold which are expressed in %

"n=none,t<1%,w=1-3%,f=3-5%,m=5-7%,ms=7-10%,s=10-15%,i=15-20%

PROJECT: **HOPPER**	PROPERTY : **HOPPER**	HOLE NUMBER : **PDH-11-21**	Pag 1 of 2

Drill hole data			
	Easting : 396912	**Depth :** 33.53	**Comment:** Granodiorite is oxidized and weak argillic altered. Minor mineralization consist of fine grained sulphides.
	Northing : 6796695	**Diameter :**	
	Azimuth : 0	**Down hole azimuth/depth :**	
	Dip : -90	**Down hole dip/ depth :**	

From (ft)	To (ft)	From (m)	To (m)	Sample number	Lithology	Colour	Alteration: Oxidation	Propylitic	Potassic	Argillic	" Minerals: Py	Po	As	Gn	Sp	Cp	Assay *: Au	Ag	Pb	Cu	Zn	As	Bi	Sb	Comment
0	5	0.00	1.52	K863696	OVB	OR											7	0.4	5	694	21	3	3	1	
5	10	1.52	3.05	K863697	GRD	WH YW	m			w							2.5	0.2	5	449	23	1	2	1	Medium grained ,moderately oxidized, argillic altered, granodiorite with book biotite and occasionally hornblende. Limonite is common. Locally : weak sericite. Minor mineralization consist of trace pyrite and occasionally other sulphides.
10	15	3.05	4.57	K863698													2.5	0.1	4	85	24	1	2	1	
15	20	4.57	6.10	K863699													2.5	0.1	7	338	27	2	1	2	
20	25	6.10	7.62	K863700													2.5	0.1	3	81	24	4	1	2	
25	30	7.62	9.14	K863701		WH GY										t	2.5	0.3	8	771	23	7	1	5	
30	35	9.14	10.67	K863702													2.5	0.1	5	129	35	2	1	1	
35	40	10.67	12.19	K863703													2.5	0.1	2	36	25	1	1	1	
40	45	12.19	13.72	K863704							t						2.5	0.1	1	81	25	1	1	1	
45	50	13.72	15.24	K863705													2.5	0.1	2	16	25	1	1	1	
50	55	15.24	16.76	K863706													2.5	0.1	3	291	27	2	1	1	
55	60	16.76	18.29	K863707			t			w	t						2.5	0.1	1	266	23	1	1	1	
60	65	18.29	19.81	K863708							t						2.5	0.1	2	66	22	3	1	1	
65	70	19.81	21.34	K863709							t						2.5	0.1	4	167	23	1	1	1	
70	75	21.34	22.86	K863710													2.5	0.1	4	63	23	10	1	1	
75	80	22.86	24.38	K863711													2.5	0.1	5	210	28	9	1	1	
80	85	24.38	25.91	K863712													2.5	0.2	3	393	29	4	1	1	
85	90	25.91	27.43	K863713		MD GY	t-f			m-w	t						2.5	0.1	2	149	20	1	1	1	Tracely oxidized, weak argillic altered granodiorite. Locally :green sericite. Fine grained sulphides(galena?)
90	95	27.43	28.96	K863714													2.5	0.3	4	688	34	9	1	2	
95	100	28.96	30.48	K863715		WH BN	m			w	t						2.5	0.2	5	515	26	12	1	1	Fracture(?) with moderately oxidized granodiorite. Fine grained sulphides.
100	105	30.48	32.00	K863716		WH GY											2.5	0.1	3	60	29	1	1	1	
105	110	32.00	33.53	K863717													2.5	0.1	2	141	26	1	1	1	
110	115	33.53	35.05	K863718																					
115	120	35.05	36.58	K863719																					
120	125	36.58	38.10	K863720																					
125	130	38.10	39.62	K863721						mw				t											Granodiorite, weak to moderately argillic altered. Trace sulphides.
130	135	39.62	41.15	K863722																					
135	140	41.15	42.67	K863723																					

*Au in ppb,all other metals in ppm,except when values are bold which are expressed in %

"n=none,t<1%,w=1-3%,f=3-5%,m=5-7%,ms=7-10%,s=10-15%,i=15-20%

140	145	42.67	44.20	K863724																					
145	150	44.20	45.72	K863725																					
150	155	45.72	47.24	K863726																					
155	160	47.24	48.77	K863727																					
EOH																									

*Au in ppb,all other metals in ppm,except when values are bold which are expressed in %

"n=none,t<1%,w=1-3%,f=3-5%,m=5-7%,ms=7-10%,s=10-15%,i=15-20%

PROJECT: **HOPPER**	PROPERTY : **HOPPER**	HOLE NUMBER : **22**	Pag 1 of 2

Drill hole data			
	Easting : 396937	**Depth :** 60.96	**Comment:** Granodiorite and a skarn interception at 54.3 m.
	Northing : 6796905	**Diameter :**	
	Azimuth : 0	**Down hole azimuth/depth :**	
	Dip : -90	**Down hole dip/ depth :**	

From (ft)	To (ft)	From (m)	To (m)	Sample number	Lithology	Colour	Alteration: Oxidation	Propylitic	Potassic	Argillic	" Minerals: Py	Po	As	Gn	Sp	Cp	Assay *: Au	Ag	Pb	Cu	Zn	As	Bi	Sb	Comment
0	5	0.00	1.52	K863728	OVB						t						2.5	0.2	4	498	28	8	1	1	Overburden.
5	10	1.52	3.05	K863729	GRD	LT GY	t			w							2.5	0.1	2	185	17	2	1	1	Medium to coarse grained granodiorite with book biotite and
10	15	3.05	4.57	K863730													2.5	0.1	2	105	18	3	1	1	occasionally hornblende. Locally feldspar is fairly clayed
15	20	4.57	6.10	K863731							t						2.5	0.1	2	221	15	1	1	1	(montmorillonit). Mineralization consist of minor pyrite and
20	25	6.10	7.62	K863732							t						2.5	0.1	1	109	14	2	1	1	chalcopyrite.
25	30	7.62	9.14	K863733													2.5	0.1	4	374	14	1	1	1	
30	35	9.14	10.67	K863734													2.5	0.1	1	254	13	3	1	1	
35	40	10.67	12.19	K863735							t						2.5	0.1	1	53	13	1	1	1	
40	45	12.19	13.72	K863736													2.5	0.1	2	65	15	2	1	1	
45	50	13.72	15.24	K863737													2.5	0.1	4	302	21	2	1	1	
50	55	15.24	16.76	K863738												t	2.5	0.1	2	138	15	1	1	1	
55	60	16.76	18.29	K863739												w	2.5	0.1	1	80	13	1	1	1	
60	65	18.29	19.81	K863740													2.5	0.1	1	67	14	1	1	1	
65	70	19.81	21.34	K863741													2.5	0.1	1	277	10	1	1	1	
70	75	21.34	22.86	K863742													2.5	0.1	1	166	12	3	1	1	
75	80	22.86	24.38	K863743							t						2.5	0.1	1	129	14	1	1	1	
80	85	24.38	25.91	K863744													2.5	0.1	2	157	15	2	1	1	
85	90	25.91	27.43	K863745													2.5	0.1	2	154	16	2	1	1	
90	95	27.43	28.96	K863746													2.5	0.1	1	363	14	1	1	1	
95	100	28.96	30.48	K863747													2.5	0.2	2	373	17	2	1	1	
100	105	30.48	32.00	K863748													2.5	0.1	1	186	12	2	1	1	
105	110	32.00	33.53	K863749													2.5	0.2	2	308	15	1	1	1	
110	115	33.53	35.05	K863750							t						2.5	0.1	2	297	13	1	1	1	
115	120	35.05	36.58	K863751							w						2.5	0.1	1	169	13	2	1	1	
120	125	36.58	38.10	K863752	GRD	GY		w			t						2.5	0.1	2	213	15	1	1	1	Weak propylitic altered, tracely oxidized granodiorite. Locally sericite:
125	130	38.10	39.62	K863753													2.5	0.1	2	228	17	1	1	1	green tinge. Spotty hematite is common.
130	135	39.62	41.15	K863754													2.5	0.1	2	186	14	1	1	1	
135	140	41.15	42.67	K863755													2.5	0.1	1	359	13	1	1	1	
140	145	42.67	44.20	K863756													2.5	0.1	1	200	13	2	1	1	
145	150	44.20	45.72	K863757													2.5	0.1	4	206	17	2	1	1	
150	155	45.72	47.24	K863758													2.5	0.3	1	308	16	1	1	1	

*Au in ppb,all other metals in ppm,except when values are bold which are expressed in %

"n=none,t<1%,w=1-3%,f=3-5%,m=5-7%,ms=7-10%,s=10-15%,i=15-20%

155	160	47.24	48.77	K863759	GRD	GY	t				t						2.5	0.1	2	185	18	1	1	1	Weak propylitic altered, tracely oxidized granodiorite. Locally sericite: green tinge. Spotty hematite is common. Trace pyrite is disseminated.
160	165	48.77	50.29	K863760							t						2.5	0.5	10	717	21	3	1	1	
165	170	50.29	51.82	K863761							t						2.5	0.5	2	847	18	1	1	1	
170	175	51.82	53.34	K863762												t	2.5	0.4	3	1140	16	1	1	1	
175	180	53.34	54.86	K863763	GRD SKN (60%)	GY GN	t										2.5	0.1	1	151	26	2	1	1	Dark grey-green skarn with diopside and occasionally biotite. Hairline , calcite infill veinlets are common. Contact with granodiorite.
180	185	54.86	56.39	K863764	GRD												2.5	0.1	2	294	18	1	1	1	Coarse grained granodiorite.
185	190	56.39	57.91	K863765													2.5	0.1	3	252	18	2	1	1	
190	195	57.91	59.44	K863766													2.5	0.2	2	499	19	2	1	1	
195	200	59.44	60.96	K863767													6	0.1	2	426	15	1	1	1	
EOH																									

*Au in ppb,all other metals in ppm,except when values are bold which are expressed in %

"n=none,t<1%,w=1-3%,f=3-5%,m=5-7%,ms=7-10%,s=10-15%,i=15-20%

PROJECT: **HOPPER**	PROPERTY : **HOPPER**	HOLE NUMBER : **23**	Pag 1 of 2

Drill hole data			
	Easting : 396922	**Depth :** 60.96	**Comment:** Granodiorite with trace pyrite.
	Northing : 6797063	**Diameter :**	
	Azimuth : 0	**Down hole azimuth/depth :**	
	Dip : -90	**Down hole dip/ depth :**	

From (ft)	To (ft)	From (m)	To (m)	Sample number	Lithology	Colour	Alteration: Oxidation	Propylitic	Potassic	Argillic	" Minerals: Py	Po	As	Gn	Sp	Cp	Assay *: Au	Ag	Pb	Cu	Zn	As	Bi	Sb	Comment
0	5	0.00	1.52	K863768	OVB						t						2.5	0.2	4	350	24	5	1	1	Overburden.
5	10	1.52	3.05	K863769													2.5	0.2	5	260	25	4	1	1	
10	15	3.05	4.57	K863770	GRD	GY				w							2.5	0.1	5	185	44	1	1	1	Weakly oxidized, weak argillic altered granodiorite. Limonite is pseudomorph after book biotite.Trace sericite and lesser chlorite is common. Feldspar is clayed.Minor pyrite occurs occasionally.
15	20	4.57	6.10	K863771		WH											2.5	0.1	4	198	35	3	1	1	
20	25	6.10	7.62	K863772													2.5	0.1	5	235	31	3	1	1	
25	30	7.62	9.14	K863773													2.5	0.2	6	721	18	1	1	1	
30	35	9.14	10.67	K863774													2.5	0.1	2	303	14	1	1	1	
35	40	10.67	12.19	K863775													2.5	0.2	3	342	18	1	1	1	
40	45	12.19	13.72	K863776													2.5	0.1	6	129	15	3	1	2	
45	50	13.72	15.24	K863777													5	0.1	6	100	15	3	1	2	
50	55	15.24	16.76	K863778													2.5	0.1	5	65	18	1	1	1	
55	60	16.76	18.29	K863779													2.5	0.1	4	37	16	1	1	1	
60	65	18.29	19.81	K863780													2.5	0.1	10	52	21	1	1	1	
65	70	19.81	21.34	K863781													2.5	0.1	9	111	25	1	1	1	
70	75	21.34	22.86	K863782													2.5	0.1	3	127	16	1	1	1	
75	80	22.86	24.38	K863783							t						2.5	0.1	4	105	16	2	1	1	
80	85	24.38	25.91	K863784													2.5	0.3	6	246	14	3	1	3	
85	90	25.91	27.43	K863785													2.5	0.1	5	69	20	1	1	1	
90	95	27.43	28.96	K863786													2.5	0.2	6	131	30	2	1	1	
95	100	28.96	30.48	K863787													2.5	0.1	5	114	18	1	1	1	
100	105	30.48	32.00	K863788												t	2.5	0.1	5	178	15	1	1	1	
105	110	32.00	33.53	K863789													2.5	0.1	6	54	16	1	1	1	
110	115	33.53	35.05	K863790													2.5	0.1	8	28	15	5	1	1	
115	120	35.05	36.58	K863791													2.5	0.1	5	18	13	2	1	1	
120	125	36.58	38.10	K863792													2.5	0.1	6	45	20	1	1	1	Medium to coarse grained ,competent granodiorite.3 , 1mm, yelow garnet is present (grossular?). Euhedral magnetite.
125	130	38.10	39.62	K863793							t						2.5	0.1	2	11	17	1	1	1	
130	135	39.62	41.15	K863794							t						2.5	0.1	2	22	16	1	1	1	
135	140	41.15	42.67	K863795													2.5	0.1	1	43	15	1	1	1	
140	145	42.67	44.20	K863796													5	0.7	7	3340	19	1	1	1	
145	150	44.20	45.72	K863797													2.5	0.1	2	104	18	1	1	1	
150	155	45.72	47.24	K863798	GRD					m							2.5	0.1	1	223	16	2	1	1	Feldspar is clayed, rock is friable.
155	160	47.24	48.77	K863799													2.5	0.1	4	48	16	1	1	1	

*Au in ppb,all other metals in ppm,except when values are bold which are expressed in %

"n=none,t<1%,w=1-3%,f=3-5%,m=5-7%,ms=7-10%,s=10-15%,i=15-20%

160	165	48.77	50.29	K863800													2.5	0.1	3	58	19	1	1	1	
165	170	50.29	51.82	K863801													2.5	0.1	3	260	16	1	1	1	
170	175	51.82	53.34	K863802													2.5	0.2	2	2230	19	1	1	1	
175	180	53.34	54.86	K863803		RD	m			w							2.5	0.1	4	204	17	2	1	1	Moderate to strong oxidized, weak argillic altered, friable granodiorite.
180	185	54.86	56.39	K863804		YW											2.5	0.1	5	697	14	3	1	1	
185	190	56.39	57.91	K863805													2.5	0.1	5	733	18	1	1	1	
190	195	57.91	59.44	K863806													2.5	0.1	4	278	14	2	2	1	
195	200	59.44	60.96	K863807													2.5	0.1	3	226	15	1	1	1	
EOH																									

*Au in ppb,all other metals in ppm,except when values are bold which are expressed in %

"n=none,t<1%,w=1-3%,f=3-5%,m=5-7%,ms=7-10%,s=10-15%,i=15-20%

PROJECT: **HOPPER**	PROPERTY : **HOPPER**	HOLE NUMBER : **PDH-11-24**	Pag 1 of 1

Drill hole data			
	Easting : 397098	**Depth :** 24.38	Comment: Granodiorite.
	Northing : 6796698	**Diameter :**	
	Azimuth : 0	**Down hole azimuth/depth :**	
	Dip : -90	**Down hole dip/ depth :**	

From (ft)	To (ft)	From (m)	To (m)	Sample number	Lithology	Colour	Alteration				" Minerals						Assay *								Comment
							Oxidation	Propylitic	Potassic	Argillic	Py	Po	As	Gn	Sp	Cp	Au	Ag	Pb	Cu	Zn	As	Bi	Sb	
0	5	0.00	1.52	K863808	OVB												2.5	0.1	1	299	14	2	1	1	Overburden
5	10	1.52	3.05	K863809	GRD												2.5	0.1	2	150	13	4	1	1	Coarse grained granodiorite with book biotite and lesser hornblende.
10	15	3.05	4.57	K863810													2.5	0.1	1	125	16	1	1	1	Feldspar is weakly clayed in the last 6 m.
15	20	4.57	6.10	K863811													2.5	0.1	1	88	18	1	1	1	
20	25	6.10	7.62	K863812													2.5	0.1	1	89	16	1	1	1	
25	30	7.62	9.14	K863813													2.5	0.1	2	94	16	1	1	1	
30	35	9.14	10.67	K863814													2.5	0.1	1	128	16	1	1	1	
35	40	10.67	12.19	K863815													2.5	0.1	1	16	14	1	1	1	
40	45	12.19	13.72	K863816													2.5	0.1	1	21	16	1	1	2	
45	50	13.72	15.24	K863817													2.5	0.1	1	415	15	1	1	1	
50	55	15.24	16.76	K863818													2.5	0.1	1	311	13	3	1	1	
55	60	16.76	18.29	K863819													2.5	0.1	1	139	12	1	1	1	
60	65	18.29	19.81	K863820						w							2.5	0.1	1	523	15	1	1	1	
65	70	19.81	21.34	K863821						w							2.5	0.1	1	332	15	1	1	1	
70	75	21.34	22.86	K863822						w							2.5	0.1	1	71	13	3	1	1	
75	80	22.86	24.38	K863823						w							2.5	0.1	1	61	13	1	1	1	
EOH																									

*Au in ppb,all other metals in ppm,except when values are bold which are expressed in %

"n=none,t<1%,w=1-3%,f=3-5%,m=5-7%,ms=7-10%,s=10-15%,i=15-20%

PROJECT: **HOPPER**	PROPERTY : **HOPPER**	HOLE NUMBER : **PDH-11-25**	Pag 1 of 1

Drill hole data			
	Easting : 397097	**Depth :** 19.81	**Comment:** Granodiorite.
	Northing : 6796501	**Diameter :**	
	Azimuth : 0	**Down hole azimuth/depth :**	
	Dip : -90	**Down hole dip/ depth :**	

From (ft)	To (ft)	From (m)	To (m)	Sample number	Lithology	Colour	Alteration: Oxidation	Propylitic	Potassic	Argillic	" Minerals: Py	Po	As	Gn	Sp	Cp	Assay *: Au	Ag	Pb	Cu	Zn	As	Bi	Sb	Comment
0	5	0.00	1.52	K863824	OVB												2.5	0.1	1	89	17	1	1	1	
5	10	1.52	3.05	K863825	GRD												2.5	0.1	1	42	17	1	1	1	Intrusive rock, unaltered
10	15	3.05	4.57	K863826	GRD	RD	s			w							2.5	0.1	2	129	19	9	1	1	Strongly oxidized, weak to moderate argillic altered granodiorite.
15	20	4.57	6.10	K863827		BN											2.5	0.1	1	40	21	8	1	2	Limonite is pervasive ,pseudomorph after book biotite which is
20	25	6.10	7.62	K863828													2.5	0.1	4	32	25	7	1	1	replaced up to 80%.
25	30	7.62	9.14	K863829	GRD	GY	m			w							2.5	0.1	2	135	29	21	1	1	Feldspar is clayed (20%), locally sericite and lesser chlorite gives a
30	35	9.14	10.67	K863830													2.5	0.1	1	169	23	2	1	1	green tinge.
35	40	10.67	12.19	K863831													2.5	0.1	1	104	19	1	1	1	
40	45	12.19	13.72	K863832													2.5	0.1	2	81	19	1	1	1	
45	50	13.72	15.24	K863833													2.5	0.1	2	40	15	1	1	1	
50	55	15.24	16.76	K863834													2.5	0.2	2	331	17	1	1	1	
55	60	16.76	18.29	K863835													2.5	0.1	1	86	18	1	1	1	
60	65	18.29	19.81	K863836													2.5	0.1	1	24	15	1	1	1	
EOH																									

*Au in ppb,all other metals in ppm,except when values are bold which are expressed in %

"n=none,t<1%,w=1-3%,f=3-5%,m=5-7%,ms=7-10%,s=10-15%,i=15-20%

PROJECT: **HOPPER**	PROPERTY : **HOPPER**	HOLE NUMBER : **PDH-11-26**	Pag 1 of 1

Drill hole data			
	Easting : 397097	**Depth :** 21.34	**Comment**: Granodiorite .
	Northing : 6796298	**Diameter :**	
	Azimuth : 0	**Down hole azimuth/depth :**	
	Dip : -90	**Down hole dip/ depth :**	

From (ft)	To (ft)	From (m)	To (m)	Sample number	Lithology	Colour	Alteration				" Minerals						Assay *								Comment
							Oxidation	Propylitic	Potassic	Argillic	Py	Po	As	Gn	Sp	Cp	Au	Ag	Pb	Cu	Zn	As	Bi	Sb	
0	5	0.00	1.52	K863837	OVB												2.5	0.1	1	114	14	1	1	1	Overburden.
5	10	1.52	3.05	K863838	GRD	WH				w							2.5	0.1	2	179	13	1	1	1	White-ish with green tinge (sericite and lesser chlorite) weak argillic
10	15	3.05	4.57	K863839		GN											2.5	0.1	1	67	17	1	1	1	altered medium grained granodiorite.
15	20	4.57	6.10	K863840													2.5	0.1	1	29	21	1	1	1	
20	25	6.10	7.62	K863841													2.5	0.1	1	30	20	1	1	1	
25	30	7.62	9.14	K863842													2.5	0.1	1	37	21	1	1	1	
30	35	9.14	10.67	K863843													2.5	0.1	1	74	22	1	1	1	
35	40	10.67	12.19	K863844													2.5	0.1	1	164	27	1	1	1	
40	45	12.19	13.72	K863845													2.5	0.1	2	42	22	1	1	1	
45	50	13.72	15.24	K863846													2.5	0.1	2	86	17	1	1	1	
50	55	15.24	16.76	K863847													2.5	0.1	1	398	15	1	1	1	
55	60	16.76	18.29	K863848													2.5	0.1	2	208	14	1	1	1	
60	65	18.29	19.81	K863849													2.5	0.1	1	44	16	1	1	1	
65	70	19.81	21.34	K863850													2.5	0.1	2	15	12	1	1	1	
EOH																									

*Au in ppb,all other metals in ppm,except when values are bold which are expressed in %

"n=none,t<1%,w=1-3%,f=3-5%,m=5-7%,ms=7-10%,s=10-15%,i=15-20%

PROJECT: **HOPPER**	PROPERTY : **HOPPER**	HOLE NUMBER : **PDH-11-27**	

Drill hole data			Comment: Granodiorite with quartzite lenses.
	Easting : 397105	**Depth :** 28.96	
	Northing : 6796097	**DiaQTEer :**	
	Azimuth : 0	**Down hole azimuth/depth :**	
	Dip : -90	**Down hole dip/ depth :**	

From (ft)	To (ft)	From (m)	To (m)	Sample number	Lithology	Colour	Alteration				" Minerals						Assay *								Comment
							Oxidation	Propylitic	Potassic	Argillic	Py	Po	As	Gn	Sp	Cp	Au	Ag	Pb	Cu	Zn	As	Bi	Sb	
0	5	0.00	1.52	K270801	OVB												2.5	0.1	7	52	34	2	1	2	Overburden
5	10	1.52	3.05	K270802	GRD	GY					t					t	5	0.2	2	182	15	5	1	1	Medium grained ,with smoked euhedral quartz , granodiorite. Minor
10	15	3.05	4.57	K270803													2.5	0.1	2	157	12	4	1	1	mineralization consist of trace pyrite and chalcopyrite.
15	20	4.57	6.10	K270804	QTE GRD	GY OL- GN	t	w									2.5	0.3	3	291	21	5	1	1	Phyllitic quartzite (70%). Weak propylitic altered , with sericite and epidote , granodiorite. Locally,epidote forms thin crust.
20	25	6.10	7.62	K270805	QTE	GN,											2.5	0.1	3	164	76	7	1	1	Phyllitic quartzite with carbonate infill fractures.
25	30	7.62	9.14	K270806		BK											6	0.1	3	103	70	3	1	1	
30	35	9.14	10.67	K270807	GRD	GY GN		w									2.5	0.2	5	100	19	2	1	1	Propylitic altered granodiorite, sericite locally pervasive.
35	40	10.67	12.19	K270808	QTE	DK GY											2.5	0.1	2	54	19	2	1	1	Phyllitic quartzite with carbonate infill fractures.
40	45	12.19	13.72	K270809	GRD	GY		w									2.5	0.3	2	296	15	1	1	1	Propylitic altered granodiorite, sericite is locally pervasive.
45	50	13.72	15.24	K270810		GN											2.5	0.1	1	202	23	1	1	1	
50	55	15.24	16.76	K270811	QTE GRD	BK					t						2.5	0.1	2	202	30	2	1	1	Quartzite with lesser granodiorite.
55	60	16.76	18.29	K270812	GRD												2.5	0.1	3	231	33	3	1	1	Tracely clayed granodiorite.
60	65	18.29	19.81	K270813													2.5	0.1	1	199	23	2	1	1	
65	70	19.81	21.34	K270814													2.5	0.1	2	296	26	1	1	1	
70	75	21.34	22.86	K270815	QTE	BK					t						2.5	0.1	4	101	64	2	1	1	Phyllitic quartzite with trace pyrite.
75	80	22.86	24.38	K270816													2.5	0.2	2	99	54	2	1	1	
80	85	24.38	25.91	K270817	GRD												2.5	0.2	2	118	23	1	1	1	Granodiorite.
85	90	25.91	27.43	K270818													2.5	0.2	1	171	24	1	1	1	
90	95	27.43	28.96	K270819													2.5	0.1	3	267	23	1	1	1	
EOH																									

*Au in ppb,all other metals in ppm,except when values are bold which are expressed in %

"n=none,t<1%,w=1-3%,f=3-5%,m=5-7%,ms=7-10%,s=10-15%,i=15-20%

PROJECT: **HOPPER**	PROPERTY : **HOPPER**	HOLE NUMBER : **PDH-11-28**	Pag 1 of 1

Drill hole data			
	Easting : 397502	**Depth :** 24.38	**Comment:** Phyllitic quartzite with lesser granodiorite.
	Northing : 6795099	**Diameter :**	
	Azimuth : 0	**Down hole azimuth/depth :**	
	Dip : -90	**Down hole dip/ depth :**	

From (ft)	To (ft)	From (m)	To (m)	Sample number	Lithology	Colour	Alteration: Oxidation	Alteration: Propylitic	Alteration: Potassic	Alteration: Argillic	" Minerals: Py	Po	As	Gn	Sp	Cp	Assay *: Au	Ag	Pb	Cu	Zn	As	Bi	Sb	Comment
0	5	0.00	1.52	K270820	OVB												2.5	0.1	3	52	28	3	1	1	Overburden.
5	10	1.52	3.05	K270821	QTE	GY											2.5	0.1	4	49	16	1	1	1	Phyllitic quartzite, slightly foliated with trace to weak pyrite.
10	15	3.05	4.57	K270822		BK											2.5	0.1	4	43	21	1	1	1	
15	20	4.57	6.10	K270823		BK											2.5	0.1	5	45	18	1	1	1	
20	25	6.10	7.62	K270824							t						9	0.2	3	395	23	3	1	1	
25	30	7.62	9.14	K270825							t						2.5	0.2	6	457	27	2	1	1	
30	35	9.14	10.67																						
30	35	9.14	10.67	K270826													5	0.1	5	290	25	3	1	1	
35	40	10.67	12.19	K270827													13	0.1	5	375	28	2	1	1	
40	45	12.19	13.72	K270828							n						2.5	0.1	2	164	30	1	1	1	
45	50	13.72	15.24								w														
45	50	13.72	15.24	K270829							w						5	0.1	4	375	21	1	1	1	
50	55	15.24	16.76	K270830		GY					w						5	0.1	9	314	33	1	2	1	
55	60	16.76	18.29	K270831		GY					t						11	0.3	5	553	25	2	1	1	
60	65	18.29	19.81		QTE GRD						w														Contact: phyllitic quartzite with medium grained granodiorite. Trace pyrite is disseminated.
60	65	18.29	19.81	K270832	QTE	GY					w						2.5	0.1	4	149	17	2	1	1	Phyllitic quartzite, slightly foliated with trace to weak pyrite.
65	70	19.81	21.34	K270833	GRD			t			t						2.5	0.1	2	54	15	1	1	1	Tracely propylitic altered granodiorite.
70	75	21.34	22.86	K270834													2.5	0.1	3	50	13	3	1	1	
75	80	22.86	24.38	K270835													2.5	0.1	3	27	15	2	1	1	
EOH																									

*Au in ppb,all other metals in ppm,except when values are bold which are expressed in %

"n=none,t<1%,w=1-3%,f=3-5%,m=5-7%,ms=7-10%,s=10-15%,i=15-20%

PROJECT: **HOPPER**	PROPERTY : **HOPPER**	HOLE NUMBER : **PDH-11-29**	Pag 1 of 1

Drill hole data			
	Easting : 397503	**Depth :** 24.38	**Comment:** Phyllitic quartzite and lesser granodiorite.
	Northing : 6795301	**Diameter :**	
	Azimuth : 0	**Down hole azimuth/depth :**	
	Dip : -90	**Down hole dip/ depth :**	

From (ft)	To (ft)	From (m)	To (m)	Sample number	Lithology	Colour	Alteration: Oxidation	Propylitic	Potassic	Argillic	" Minerals: Py	Po	As	Gn	Sp	Cp	Assay *: Au	Ag	Pb	Cu	Zn	As	Bi	Sb	Comment
0	5	0.00	1.52	K270836	OVB												2.5	0.1	4	60	33	7	3	1	Overburden
5	10	1.52	3.05	K270837	QTE	GY											2.5	0.1	4	51	20	5	2	1	Phyllitic quartzite.
10	15																								
10	15	3.05	4.57	K270838													2.5	0.1	6	60	19	4	2	1	
15	20	4.57	6.10	K270839													2.5	0.1	5	78	20	7	3	1	
20	25	6.10	7.62																						
20	25	6.10	7.62	K270840													2.5	0.1	5	126	25	7	3	1	
25	30	7.62	9.14	K270841													18	0.4	7	524	39	8	3	1	
30	35	9.14	10.67	K270842													48	1.7	4	1625	69	23	4	2	
35	40	10.67	12.19	K270843													7	0.1	2	265	33	7	3	1	
40	45	12.19	13.72																						
40	45	12.19	13.72	K270844													8	0.1	2	257	29	4	3	1	
45	50	13.72	15.24	K270845													8	0.1	1	217	27	3	4	1	
50	55	15.24	16.76	K270846							t						10	0.1	4	402	26	5	2	1	
55	60	16.76	18.29		Q TE GRD	GY RD	m																		Contact : quartzite/granodiorite. Met. Is moderately oxidized with limonite pseudomorph after biotite.
55	60	16.76	18.29	K270847	GRD	GY					t						20	0.2	3	652	29	7	3	1	Granodiorite with some sericite.
60	65	18.29	19.81	K270848													32	0.2	2	787	50	5	2	1	
65	70	19.81	21.34	K270849	MET	GY					w						12	0.2	3	608	42	4	1	1	Phyllitic quartzite with trace pyrite.
70	75	21.34	22.86	K270850							t						5	0.1	5	222	23	5	2	1	
75	80	22.86	24.38	K270851													5	0.2	1	385	13	4	2	1	
EOH																									

*Au in ppb,all other metals in ppm,except when values are bold which are expressed in %

"n=none,t<1%,w=1-3%,f=3-5%,m=5-7%,ms=7-10%,s=10-15%,i=15-20%

PROJECT: **HOPPER**	PROPERTY : **HOPPER**	HOLE NUMBER : **PDH-11-30**	Pag 1 of 1

Drill hole data			
Easting : 397498	**Depth :** 18.29	**Comment:** Phyllitic quartzite with trace pyrite.	
Northing : 6795502	**Diameter :**		
Azimuth : 0	**Down hole azimuth/depth :**		
Dip : -90	**Down hole dip/ depth :**		

From (ft)	To (ft)	From (m)	To (m)	Sample number	Lithology	Colour	Alteration: Oxidation	Propylitic	Potassic	Argillic	" Minerals: Py	Po	As	Gn	Sp	Cp	Assay *: Au	Ag	Pb	Cu	Zn	As	Bi	Sb	Comment
0	5	0.00	1.52	K270852	OVB												2.5	0.1	7	69	42	2	1	1	Overburden.
5	10	1.52	3.05	K270853	QTE						t						2.5	0.1	5	207	20	1	1	1	Brown with green tinge phyllitic quartzite. Disseminated trace pyrite.
10	15	3.05	4.57	K270854													2.5	0.1	7	203	23	1	1	1	
15	20	4.57	6.10	K270855							t						2.5	0.1	5	142	37	1	1	1	
20	25	6.10	7.62								t														
20	25	6.10	7.62	K270856							t						5	0.1	5	367	49	1	1	1	
25	30	7.62	9.14	K270857							t						6	0.1	5	305	35	1	1	1	
30	35	9.14	10.67	K270858							t						2.5	0.1	8	147	28	3	1	1	
35	40	10.67	12.19	K270859													2.5	0.1	5	46	31	2	1	1	
40	45	12.19	13.72								t														
40	45	12.19	13.72	K270860													2.5	0.1	4	53	19	3	1	1	
45	50	13.72	15.24	K270861													2.5	0.1	4	57	18	2	1	1	
50	55	15.24	16.76	K270862							w						2.5	0.1	4	257	30	1	1	3	
55	60	16.76	18.29								t														
55	60	16.76	18.29	K270863							w						2.5	0.1	4	71	15	1	1	1	
EOH																									

*Au in ppb,all other metals in ppm,except when values are bold which are expressed in %

"n=none,t<1%,w=1-3%,f=3-5%,m=5-7%,ms=7-10%,s=10-15%,i=15-20%

PROJECT: **HOPPER**	PROPERTY : **HOPPER**	HOLE NUMBER : **PDH-11-31**	Pag 1 of 1

Drill hole data			
Easting : 397502	**Depth :** 21.34	**Comment:** Granodiorite and quartzite with trace pyrite.	
Northing : 6795699	**Diameter :**		
Azimuth : 0	**Down hole azimuth/depth :**		
Dip : -90	**Down hole dip/ depth :**		

From (ft)	To (ft)	From (m)	To (m)	Sample number	Lithology	Colour	Alteration				" Minerals						Assay *								Comment
							Oxidation	Propylitic	Potassic	Argillic	Py	Po	As	Gn	Sp	Cp	Au	Ag	Pb	Cu	Zn	As	Bi	Sb	
0	5	0.00	1.52	K270864	OVB												2.5	0.1	6	84	39	4	1	1	Overburden.
5	10	1.52	3.05	K270865	GRD	GY	t			w							10	0.1	7	304	16	2	1	1	Equigranular, grey with green tan, argillic altered granodiorite. Minor
10	15	3.05	4.57	K270866		GN											5	0.1	5	210	11	1	1	1	mineralization consist of trace pyrite.
15	20	4.57	6.10	K270867													2.5	0.1	5	175	12	1	1	1	
20	25	6.10	7.62	K270868													11	0.1	6	276	12	1	1	1	
25	30	7.62	9.14	K270869													2.5	0.1	4	96	11	1	1	1	
30	35	9.14	10.67	K270870	QTE	GY					t						2.5	0.1	4	190	45	1	1	1	Phyllitic quartzite with trace pyrite.
35	40	10.67	12.19	K270871		BN											2.5	0.1	6	306	38	2	1	1	
40	45	12.19	13.72	K270872													26	0.3	5	1120	39	1	1	1	
45	50	13.72	15.24	K270873													35	0.4	7	1255	42	1	1	1	
50	55	15.24	16.76	K270874													2.5	0.1	9	310	30	1	1	1	
55	60	16.76	18.29	K270875													2.5	0.1	8	274	29	1	1	2	
60	65	18.29	19.81	K270876	GRD					w	t						2.5	0.1	6	229	18	1	1	1	Weak argillic altered granodiorite with trace pyrite.
65	70	19.81	21.34	K270877													15	0.1	6	540	21	1	1	1	
EOH																									

*Au in ppb,all other metals in ppm,except when values are bold which are expressed in %

"n=none,t<1%,w=1-3%,f=3-5%,m=5-7%,ms=7-10%,s=10-15%,i=15-20%

PROJECT: **HOPPER**	PROPERTY : **HOPPER**	HOLE NUMBER : **PDH-11-32**	Pag 1 of 1

Drill hole data			
	Easting : 397498	**Depth :** 19.81	**Comment:** Granodiorite .
	Northing : 6795904	**Diameter :**	
	Azimuth : 0	**Down hole azimuth/depth :**	
	Dip : -90	**Down hole dip/ depth :**	

From (ft)	To (ft)	From (m)	To (m)	Sample number	Lithology	Colour	Alteration				" Minerals						Assay *								Comment
							Oxidation	Propylitic	Potassic	Argillic	Py	Po	As	Gn	Sp	Cp	Au	Ag	Pb	Cu	Zn	As	Bi	Sb	
0	5	0.00	1.52	K270878	OVB												6	0.1	5	241	26	1	1	1	
5	10	1.52	3.05	K270879	GRD	GY	w			t-m							2.5	0.1	5	72	23	1	1	2	Fairly oxidized,trace argillic altered, monmorillonitic type, medium grained granodiorite. Occasionally rock is friable. Limonite is common.
10	15	3.05	4.57	K270880		YW											2.5	0.1	4	77	20	1	1	1	
15	20	4.57	6.10	K270881													2.5	0.1	5	105	21	1	1	1	
20	25	6.10	7.62	K270882													2.5	0.1	4	182	20	2	1	1	
25	30	7.62	9.14	K270883													2.5	0.1	2	48	20	1	1	1	
30	35	9.14	10.67	K270884													2.5	0.1	3	109	20	1	1	1	
35	40	10.67	12.19	K270885													2.5	0.1	4	100	23	2	1	1	
40	45	12.19	13.72	K270886													2.5	0.1	5	128	24	1	1	1	
45	50	13.72	15.24	K270887													2.5	0.1	7	97	23	2	1	1	
50	55	15.24	16.76	K270888													9	0.1	7	108	18	1	1	1	
55	60	16.76	18.29	K270889													2.5	0.1	5	60	16	3	1	1	
60	65	18.29	19.81	K270890													2.5	0.1	7	160	15	3	1	1	
EOH																									

*Au in ppb,all other metals in ppm,except when values are bold which are expressed in %

"n=none,t<1%,w=1-3%,f=3-5%,m=5-7%,ms=7-10%,s=10-15%,i=15-20%

PROJECT: **HOPPER**	PROPERTY : **HOPPER**	HOLE NUMBER : **PDH-11-33**	Pag 1 of 1

Drill hole data			
	Easting : 397500	**Depth :** 18.29	**Comment:** Granodiorite.
	Northing : 6796104	**Diameter :**	
	Azimuth : 0	**Down hole azimuth/depth :**	
	Dip : -90	**Down hole dip/ depth :**	

From (ft)	To (ft)	From (m)	To (m)	Sample number	Lithology	Colour	Alteration: Oxidation	Propylitic	Potassic	Argillic	" Minerals: Py	Po	As	Gn	Sp	Cp	Assay *: Au	Ag	Pb	Cu	Zn	As	Bi	Sb	Comment
0	5	0.00	1.52	K270891	OVB												5	0.1	6	82	30	1	1	1	Overburden.
5	10	1.52	3.05	K270892	GRD		t										2.5	0.1	6	86	37	3	1	1	Tracely to locally strongly oxidized, moderately argillic altered granodiorite. Feldspar is clayed. Some calcite coatings effervesces with HCl. Rock is friable.
10	15	3.05	4.57	K270893		GN, OR	t										2.5	0.1	7	55	27	2	1	1	
15	20					RD BN	s			m															
15	20	4.57	6.10	K270894													2.5	0.1	6	103	22	1	1	1	
20	25	6.10	7.62	K270895													2.5	0.1	6	92	25	2	1	1	
25	30	7.62	9.14			RD BN	s			m															
25	30	7.62	9.14	K270896													2.5	0.1	6	16	28	1	1	1	
30	35	9.14	10.67	K270897													2.5	0.1	6	37	29	1	1	2	
35	40	10.67	12.19	K270898													2.5	0.1	5	17	33	1	1	2	
40	45	12.19	13.72	K270899													2.5	0.1	6	14	31	1	1	1	
45	50	13.72	15.24			WH GY				m															
45	50	13.72	15.24	K270900		MN/PK											2.5	0.1	7	31	30	3	1	1	
50	55	15.24	16.76	K270901													2.5	0.2	11	1215	34	5	3	1	
55	60	16.76	18.29			WH GY				m															
55	60	16.76	18.29	K270902													2.5	0.1	8	203	34	2	3	1	
EOH																									

*Au in ppb,all other metals in ppm,except when values are bold which are expressed in %

"n=none,t<1%,w=1-3%,f=3-5%,m=5-7%,ms=7-10%,s=10-15%,i=15-20%

PROJECT: **HOPPER**	PROPERTY : **HOPPER**	HOLE NUMBER : **PDH-11-34**	Pag 1 of 1

Drill hole data			
	Easting : 397498	**Depth :** 21.34	**Comment:** Granodiorite.
	Northing : 6796302	**Diameter :**	
	Azimuth : 0	**Down hole azimuth/depth :**	
	Dip : -90	**Down hole dip/ depth :**	

From (ft)	To (ft)	From (m)	To (m)	Sample number	Lithology	Colour	Alteration: Oxidation	Propylitic	Potassic	Argillic	" Minerals: Py	Po	As	Gn	Sp	Cp	Assay *: Au	Ag	Pb	Cu	Zn	As	Bi	Sb	Comment
0	5	0.00	1.52	K270903	OVB												8	0.9	7	737	28	5	4	7	Overburden with granodiorite .
5	10	1.52	3.05	K270904	GRD					w							2.5	0.1	2	170	19	4	4	1	Grey, medium grained ,weak argillic altered granodiorite.
10	15	3.05	4.57	K270905													2.5	0.1	3	300	19	2	2	1	
15	20	4.57	6.10	K270906													2.5	0.1	3	62	12	1	2	1	
20	25	6.10	7.62	K270907													2.5	0.1	8	38	15	6	2	1	
25	30	7.62	9.14	K270908													2.5	0.1	3	21	14	2	4	1	
30	35	9.14	10.67	K270909													2.5	0.1	2	69	13	3	3	1	
35	40	10.67	12.19	K270910													2.5	0.1	1	247	14	4	2	1	
40	45	12.19	13.72	K270911													2.5	0.1	2	59	15	4	3	1	
45	50	13.72	15.24	K270912													2.5	0.1	1	34	14	3	2	1	
50	55	15.24	16.76	K270913													2.5	0.1	3	43	13	6	2	1	
55	60	16.76	18.29	K270914													2.5	0.1	2	20	12	4	3	1	
60	65	18.29	19.81	K270915													2.5	0.1	1	59	11	3	2	1	
65	70	19.81	21.34	K270916													2.5	0.1	1	65	12	1	3	1	
EOH																									

*Au in ppb,all other metals in ppm,except when values are bold which are expressed in %

"n=none,t<1%,w=1-3%,f=3-5%,m=5-7%,ms=7-10%,s=10-15%,i=15-20%

PROJECT: **HOPPER**	PROPERTY : **HOPPER**	HOLE NUMBER : **PDH-11-35**	Pag 1 of 1

Drill hole data			
	Easting : 397502	**Depth :** 18.29	**Comment:** GRD with book biotite and hornblende.
	Northing : 6796504	**Diameter :**	
	Azimuth : 0	**Down hole azimuth/depth :**	
	Dip : -90	**Down hole dip/ depth :**	

From (ft)	To (ft)	From (m)	To (m)	Sample number	Lithology	Colour	Alteration: Oxidation	Propylitic	Potassic	Argillic	" Minerals: Py	Po	As	Gn	Sp	Cp	Assay *: Au	Ag	Pb	Cu	Zn	As	Bi	Sb	Comment
0	5	0.00	1.52	K270917	OVB	BLK											8	0.1	5	100	41	3	2	1	Overburden with metased.
5	10	1.52	3.05	K270918													2.5	0.1	4	64	41	3	4	1	
10	15	3.05	4.57	K270919	GRD												2.5	0.1	2	39	20	2	2	1	Granodiorite with book biotite and hornblende. Occasionally sericite is present
15	20	4.57	6.10	K270920													2.5	0.1	4	22	15	5	2	1	
20	25	6.10	7.62	K270921													2.5	0.1	3	26	15	4	2	1	
25	30	7.62	9.14	K270922													2.5	0.1	2	18	15	1	2	1	
30	35	9.14	10.67	K270923													2.5	0.1	1	26	16	5	2	1	
35	40	10.67	12.19	K270924													2.5	0.1	2	16	17	1	2	1	
40	45	12.19	13.72	K270925													2.5	0.1	1	12	17	3	2	1	
45	50	13.72	15.24	K270926													2.5	0.1	1	19	13	5	2	1	
50	55	15.24	16.76	K270927													2.5	0.1	2	40	16	2	2	1	
55	60	16.76	18.29	K270928													2.5	0.1	1	24	13	3	3	1	
EOH																									

*Au in ppb,all other metals in ppm,except when values are bold which are expressed in %

"n=none,t<1%,w=1-3%,f=3-5%,m=5-7%,ms=7-10%,s=10-15%,i=15-20%

PROJECT: **HOPPER**	PROPERTY : **HOPPER**	HOLE NUMBER : **PDH-11-36**	Pag 1 of 1

Drill hole data			
	Easting : 397501	**Depth :** 21.34	**Comment:** Argillic altered granodiorite.
	Northing : 6796703	**Diameter :**	
	Azimuth : 0	**Down hole azimuth/depth :**	
	Dip : -90	**Down hole dip/ depth :**	

From (ft)	To (ft)	From (m)	To (m)	Sample number	Lithology	Colour	Alteration: Oxidation	Propylitic	Potassic	Argillic	" Minerals: Py	Po	As	Gn	Sp	Cp	Assay *: Au	Ag	Pb	Cu	Zn	As	Bi	Sb	Comment
0	5	0.00	1.52	K270929	OVB												2.5	0.1	5	25	21	4	4	1	Overburden with granodiorite fragments.
5	10	1.52	3.05	K270930	GRD	WH	t			w							2.5	0.1	5	13	21	10	3	1	Tracely oxidized moderately weak argillic altered granodiorite. Feldspar
10	15	3.05	4.57	K270931		YW											2.5	0.1	6	12	23	5	2	1	is clayed, locally rock is friable.
15	20	4.57	6.10	K270932													2.5	0.1	6	6	22	3	3	1	
20	25	6.10	7.62	K270933													2.5	0.1	6	6	25	2	2	1	
25	30	7.62	9.14	K270934													2.5	0.1	5	5	20	2	3	1	
30	35	9.14	10.67	K270935													2.5	0.1	3	14	19	4	3	1	
35	40	10.67	12.19	K270936		LT				w							2.5	0.1	4	5	16	4	3	1	Weak argillic altered granodiorite. Sericite is pervasive(pale green
40	45	12.19	13.72	K270937		GY											2.5	0.1	4	15	33	5	1	1	color), calcite coatings are common, effervesces with HCl.
45	50	13.72	15.24	K270938		GN											2.5	0.1	2	7	23	2	1	1	
50	55	15.24	16.76	K270939													8	0.1	1	5	19	1	1	1	
55	60	16.76	18.29	K270940													2.5	0.1	2	4	21	1	1	1	
60	65	18.29	19.81	K270941													2.5	0.1	4	5	19	24	1	2	
65	70	19.81	21.34	K270942		GY RD	i			w							2.5	0.1	6	10	21	45	1	2	Intense oxidized, reddish granodiorite. Limonite pervasive, locally pseudomorph after biotite
EOH																									

*Au in ppb,all other metals in ppm,except when values are bold which are expressed in %

"n=none,t<1%,w=1-3%,f=3-5%,m=5-7%,ms=7-10%,s=10-15%,i=15-20%

PROJECT: **HOPPER**	PROPERTY : **HOPPER**	HOLE NUMBER : **PDH-11-37**	Pag 1 of 1

Drill hole data			
	Easting : 397502	**Depth : 18.29**	**Comment:** Granodiorite.
	Northing : 6796901	**Diameter :**	
	Azimuth : 0	**Down hole azimuth/depth :**	
	Dip : -90	**Down hole dip/ depth :**	

From (ft)	To (ft)	From (m)	To (m)	Sample number	Lithology	Colour	Alteration				" Minerals						Assay *								Comment
							Oxidation	Propylitic	Potassic	Argillic	Py	Po	As	Gn	Sp	Cp	Au	Ag	Pb	Cu	Zn	As	Bi	Sb	
0	5	0.00	1.52	K270943	OVB												2.5	0.1	4	65	22	28	1	1	Overburden.
5	10	1.52	3.05	K270944	GRD	WH	m			w							2.5	0.1	1	41	17	2	1	1	Moderately oxidized and weak argillic altered granodiorite. Calcite
10	15	3.05	4.57	K270945		RD											2.5	0.1	2	34	19	1	1	1	coatings are common.
15	20	4.57	6.10	K270946													2.5	0.1	4	144	23	18	1	1	
20	25	6.10	7.62	K270947													2.5	0.1	3	68	22	7	1	1	
25	30	7.62	9.14	K270948													2.5	0.1	4	34	20	16	1	2	
30	35	9.14	10.67	K270949													2.5	0.1	1	15	20	4	1	1	
35	40	10.67	12.19	K270950													2.5	0.1	3	109	19	1	4	1	
40	45	12.19	13.72	K976551													2.5	0.1	2	78	18	3	1	1	
45	50	13.72	15.24	K976552	GRD DIO	WH GY GN				t-w							2.5	0.1	5	41	19	4	1	1	Coarse grained, granodiorite and lesser medium grained, grey-green diorite. Diorite has 40% melanocrates :book biotite, hornblende, augite.
50	55	15.24	16.76	K976553	GRD					w							2.5	0.1	4	35	20	2	1	1	Weak argillic altered granodiorite.
55	60	16.76	18.29	K976554													2.5	0.1	4	54	17	13	1	1	
EOH																									

*Au in ppb,all other metals in ppm,except when values are bold which are expressed in %

"n=none,t<1%,w=1-3%,f=3-5%,m=5-7%,ms=7-10%,s=10-15%,i=15-20%

PROJECT: **HOPPER**	PROPERTY : **HOPPER**	HOLE NUMBER : **PDH-11-38**	Pag 1 of 1

Drill hole data			
	Easting : 397504	**Depth : 30.48**	**Comment:** Granodiorite and lesser skarn.
	Northing : 6797102	**Diameter :**	
	Azimuth : 0	**Down hole azimuth/depth :**	
	Dip : -90	**Down hole dip/ depth :**	

From (ft)	To (ft)	From (m)	To (m)	Sample number	Lithology	Colour	Alteration				" Minerals						Assay *								Comment
							Oxidation	Propylitic	Potassic	Argillic	Py	Po	As	Gn	Sp	Cp	Au	Ag	Pb	Cu	Zn	As	Bi	Sb	
0	5	0.00	1.52	K976555	OVB	DKBL					w						2.5	0.1	2	55	38	2	1	1	Overburden.
5	10	1.52	3.05	K976556	GRD												2.5	0.1	2	38	24	2	1	2	Granodiorite
10	15	3.05	4.57	K976557		GY											2.5	0.1	1	15	20	1	1	1	
15	20	4.57	6.10	K976558													2.5	0.1	1	19	17	1	1	1	
20	25	6.10	7.62	K976559	GRD MET	BK					t						2.5	0.1	5	40	31	1	1	1	Granodiorite and lesser phyllitic quartzite.
25	30	7.62	9.14	K976560	SKN	GN					t						2.5	0.1	5	50	66	1	1	1	Dark green skarn with calcite coatings on hairline fractures. Trace
30	35	9.14	10.67	K976561							t					t	2.5	0.1	4	52	76	2	1	2	disseminated pyrite and hematite.
35	40	10.67	12.19	K976562							t						2.5	0.1	3	30	50	2	1	1	
40	45	12.19	13.72	K976563	GRD												2.5	0.1	1	7	16	1	1	1	
45	50	13.72	15.24	K976564													2.5	0.1	1	6	16	1	1	1	
50	55	15.24	16.76	K976565													2.5	0.1	3	15	19	2	1	1	
55	60	16.76	18.29	K976566	GRD SKN		t			m							2.5	0.1	5	36	60	1	1	1	Granodiorite. Feldspar is clayed (gouge), biotite is leached, oxidized.
60	65	18.29	19.81	K976567	GRD												2.5	0.1	1	8	15	1	1	1	Weak argillic altered granodiorite. Sericite is pervasive(pale green
65	70	19.81	21.34	K976568													2.5	0.1	1	10	13	1	1	1	color), calcite coatings are common, effervesces with HCl.
70	75	21.34	22.86	K976569													2.5	0.1	1	7	12	1	1	1	
75	80	22.86	24.38	K976570													2.5	0.1	1	9	10	1	1	1	
80	85	24.38	25.91	K976571													2.5	0.1	1	18	11	1	1	1	
85	90	25.91	27.43	K976572												t	2.5	0.1	1	17	10	1	1	1	
90	95	27.43	28.96	K976573													2.5	0.1	5	148	19	1	1	1	
95	100	28.96	30.48	K976574						w							2.5	0.1	2	19	16	3	1	1	
EOH																									

*Au in ppb,all other metals in ppm,except when values are bold which are expressed in %

"n=none,t<1%,w=1-3%,f=3-5%,m=5-7%,ms=7-10%,s=10-15%,i=15-20%

PROJECT: **HOPPER**	PROPERTY : **HOPPER**	HOLE NUMBER :**PDH 11-39**		Pag 1 of 2

Drill hole data			Comment
	Easting : 397502	**Depth :** 39.62	**Comment:** Trace to weakly altered granodiorite bearing trace pyrite and chalcopyrite.
	Northing : 6797304	**Diameter :**	
	Azimuth : 0	**Down hole azimuth/depth :**	
	Dip : -90	**Down hole dip/ depth :**	

From (ft)	To (ft)	From (m)	To (m)	Sample number	Lithology	Colour	Alteration				" Minerals						Assay *								Comment
							Oxidation	Propylitic	Potassic	Argillic	Py	Po	As	Gn	Sp	Cp	Au	Ag	Pb	Cu	Zn	As	Bi	Sb	
0	5	0.00	1.52	K976575																					
5	10	1.52	3.05	K976576																					no recovery
10	15	3.05	4.57	K976577																					
15	20	4.57	6.10	K976578	GRD	GY				tw	t						2.5	0.1	2	156	73	5	1	1	Equigranular, fine grained, fair magnetic, granodiorite. Fair magnetite occurs as very fine grained aggregate. Trace pyrite occurs disseminated as either euhedral solitaire crystal, or fine grained aggregate. Trace ,weak argillic alteration : calcite coatings on fractures (effervesces with HCl), clay minerals powders feldspar.
20	25	6.10	7.62	K976579													2.5	0.1	4	298	61	45	1	4	
25	30	7.62	9.14	K976580													2.5	0.4	15	858	78	111	1	5	no recovery
30	35	9.14	10.67	K976581													2.5	0.1	12	214	107	39	1	2	
35	40	10.67	12.19	K976582	GRD APL	GY WH YW	w		t	w m	t						2.5	1	12	1665	63	26	1	2	Strong ,weak to moderate argillic altered, white -yellowish, weakly oxidized, medium grained granodiorite. Biotite is bleached, relict foliation still present. Aphanitic, grey, aplite dike comprises fine disseminated pyrite.
40	45	12.19	13.72	K976583													8	0.7	4	1130	64	31	1	4	
45	50	13.72	15.24	K976584													2.5	0.2	2	619	60	4	1	1	no recovery
50	55	15.24	16.76	K976585													2.5	0.1	6	229	56	32	1	5	
55	60	16.76	18.29	K976586	GRD APL QzVN	YW WH GN	f		w	w m	t		t sk ?				2.5	0.1	4	129	50	30	1	4	Weak, moderate argillic and potassic altered, fairly oxidized, medium grained granodiorite. Limonite is pseudomorph after magnetite, reddish aggregate, no magnetism present. Aplite dike carry fine disseminated pyrite. In quartz vein, minor mineralization consist of ,< 2mm, silvery metallic aggregate (skutterudite?) and disseminated trace pyrite.
60	65	18.29	19.81	K976587													2.5	0.2	6	297	85	11	1	2	
65	70	19.81	21.34	K976588													2.5	0.7	7	1290	81	130	1	##	
70	75	21.34	22.86	K976589													2.5	0.2	4	825	46	9	1	28	no recovery
75	80	22.86	24.38	K976590													2.5	0.4	3	624	56	3	1	12	
80	85	24.38	25.91	K976591													2.5	0.2	3	482	44	3	1	1	

*Au in ppb,all other metals in ppm,except when values are bold which are expressed in %

"n=none,t<1%,w=1-3%,f=3-5%,m=5-7%,ms=7-10%,s=10-15%,i=15-20%

85	90	25.91	27.43	K976592	GRD	MD GY		w			t						2.5	0.3	2	431	48	2	1	1	Equigranular, medium to coarse grained, fair magnetic, granodiorite. Mineralization consist of trace pyrite, disseminated fine grained aggregate, and occasionally skutterudite . Locally ,sericite is present: green tan. Red hematite occurs as very fine aggregate.
90	95	27.43	28.96	K976593	GRD	DK GY	t	w			t			?			23	0.3	3	906	60	5	1	3	Equigranular, medium to coarse grained, weak magnetic, granodiorite. Mineralization consist of trace pyrite and galena, disseminated fine grained aggregate. Locally ,sericite is present: green tan.
95	100	28.96	30.48	K976594													620	8.8	2	13800	147	5	1	1	no recovery
100	105	30.48	32.00	K976595													617	12	1	20300	179	2	1	2	
105	110	32.00	33.53	K976596													29	1.5	8	2740	47	7	1	4	
110	115	33.53	35.05	K976597													14	1.7	3	3200	33	7	1	4	
115	120	35.05	36.58	K976598	GRD	GY GN	t	f			w					t	15	1.1	2	2440	42	3	1	1	Equigranular, grey with green tan, propylitic altered , weakly magnetic , granodiorite. Minor mineralization consist of weak pyrite and, occasionally chalcopyrite.
120	125	36.58	38.10	K976599													24	1.5	2	3440	39	1	1	1	no recovery
125	130	38.10	39.62	K976600	GRD	GY GN		t			w					t	13	0.4	1	1375	36	1	1	1	Equigranular, grey with green tan, propylitic altered , weakly magnetic , granodiorite. Minor mineralization consist of weak pyrite and, occasionally chalcopyrite.
EOH																									

*Au in ppb,all other metals in ppm,except when values are bold which are expressed in %

"n=none,t<1%,w=1-3%,f=3-5%,m=5-7%,ms=7-10%,s=10-15%,i=15-20%

PROJECT: **HOPPER**	PROPERTY : **HOPPER**	HOLE NUMBER :**PDH 11-40**	

Drill hole data			Comment
	Easting : 397501	**Depth :** 30.48	Comment: Argillic altered granodiorite. Trace pyrite occurs throughout the interval.
	Northing : 6797503	**Diameter :**	
	Azimuth : 0	**Down hole azimuth/depth :**	
	Dip : -90	**Down hole dip/ depth :**	

From (ft)	To (ft)	From (m)	To (m)	Sample number	Lithology	Colour	Alteration				" Minerals						Assay *								Comment
							Oxidation	Propylitic	Potassic	Argillic	Py	Po	As	Gn	Sp	Cp	Au	Ag	Pb	Cu	Zn	As	Bi	Sb	
0	5	0.00	1.52	K976601	OVB												7	0.1	4	140	34	7	1	1	Overburden
5	10	1.52	3.05	K976602	GRD	GY		t			t						2.5	0.4	5	168	20	3	1	1	Grey with green tinge, tracely oxidized and propylitic altered ,
10	15	3.05	4.57	K976603		GN					w						2.5	0.1	5	114	20	4	1	1	medium grained granodiorite . Calcite coatings effervesces with HCl.
15	20	4.57	6.10	K976604													2.5	0.1	5	102	24	4	1	1	Sericite is common. Chlorite occurs occasionally. Minor mineralization
20	25	6.10	7.62	K976605													2.5	0.1	6	158	22	12	1	1	consist of trace to weak pyrite disseminated and lesser stringers.
25	30	7.62	9.14	K976606													2.5	0.3	5	380	23	13	1	1	
30	35	9.14	10.67	K976607													2.5	0.2	6	149	24	8	1	2	
35	40	10.67	12.19	K976608													2.5	0.3	5	310	24	6	1	1	
40	45	12.19	13.72	K976609													2.5	0.1	9	104	17	6	1	1	
45	50	13.72	15.24	K976610													2.5	0.1	5	68	14	1	1	1	
50	55	15.24	16.76	K976611													2.5	0.1	6	143	15	5	1	1	
55	60	16.76	18.29	K976612													2.5	0.7	6	585	21	3	1	2	
60	65	18.29	19.81	K976613													2.5	0.3	7	269	17	5	1	1	
65	70	19.81	21.34	K976614													2.5	0.1	4	142	16	4	1	1	
70	75	21.34	22.86	K976615													2.5	0.2	5	254	18	4	1	1	
75	80	22.86	24.38	K976616													2.5	0.3	9	222	16	5	1	1	
80	85	24.38	25.91	K976617													2.5	0.1	8	118	15	1	1	1	
85	90	25.91	27.43	K976618													2.5	0.1	8	117	15	1	1	1	
90	95	27.43	28.96	K976619													2.5	0.1	7	79	14	1	1	1	
95	100	28.96	30.48	K976620	GRD	RD	s	w		m							2.5	0.1	7	82	16	23	1	2	Strongly oxidized, moderate argillic altered, reddish granodiorite. Calcite coatings effervesces with HCL. Limonite is pervasive. Initial structure is hidden by alteration.
EOH																									

*Au in ppb,all other metals in ppm,except when values are bold which are expressed in %

"n=none,t<1%,w=1-3%,f=3-5%,m=5-7%,ms=7-10%,s=10-15%,i=15-20%

PROJECT: **HOPPER**	PROPERTY : **HOPPER**	HOLE NUMBER :**PDH 11-41**	

Drill hole data			
Easting : 397499	**Depth :** 22.86	**Comment :** Argillic altered granodiorite.	
Northing : 6797702	**Diameter :**		
Azimuth : 0	**Down hole azimuth/depth :**		
Dip : -90	**Down hole dip/ depth :**		

From (ft)	To (ft)	From (m)	To (m)	Sample number	Lithology	Colour	Alteration: Oxidation	Propylitic	Potassic	Argillic	" Minerals: Py	Po	As	Gn	Sp	Cp	Assay *: Au	Ag	Pb	Cu	Zn	As	Bi	Sb	Comment
0	5	0.00	1.52	K976621	OVB												5	0.7	6	611	40	1	1	1	Overburden
5	10	1.52	3.05	K976622													2.5	0.1	9	100	40	13	1	1	
10	15	3.05	4.57	K976623	SKN	GY GN	t				t						2.5	0.2	5	190	45	2	1	1	Grey -greenish skarnoid (?) . Calcite coatings effervesces with HCl, trace chlorite occurs occasionally in book biotite. Trace pyrite occurs disseminate
15	20	4.57	6.10	K976624	GRD												2.5	0.1	9	130	63	5	1	2	Granodiorite.
20	25	6.10	7.62	K976625													2.5	0.1	5	114	69	4	1	2	
25	30	7.62	9.14	K976626													2.5	0.1	5	147	45	10	1	1	
30	35	9.14	10.67	K976627		WH RD	f			s	w						2.5	0.1	8	109	36	27	1	2	Strong argillic and phyllic altered, fairly oxidized granodiorite . Rock is bleached, with carbonate envelopes, effervesces with HCl.Feldspar is clayed. Quartz -pyrite stringers are common.
35	40	10.67	12.19	K976628													2.5	0.1	6	51	26	41	1	3	
40	45	12.19	13.72	K976629													10	0.3	12	133	39	45	1	6	
45	50	13.72	15.24	K976630													2.5	0.2	12	90	25	15	1	1	
50	55	15.24	16.76	K976631													2.5	0.1	9	71	21	10	1	1	
55	60	16.76	18.29	K976632													2.5	0.1	7	82	18	6	1	1	
60	65	18.29	19.81	K976633													2.5	0.1	11	93	18	14	1	3	
65	70	19.81	21.34	K976634													2.5	0.1	8	105	22	14	1	1	
70	75	21.34	22.86	K976635													2.5	0.1	7	98	37	22	1	3	
EOH																									

*Au in ppb,all other metals in ppm,except when values are bold which are expressed in %

"n=none,t<1%,w=1-3%,f=3-5%,m=5-7%,ms=7-10%,s=10-15%,i=15-20%

PROJECT: **HOPPER**	PROPERTY : **HOPPER**	HOLE NUMBER :**PDH 11-42**	Pag 1 of 1

Drill hole data			
Easting : 397702	**Depth :** 30.48	**Comment:** Skarn bearing weak pyrite.
Northing : 6797704	**Diameter :**	
Azimuth : 0	**Down hole azimuth/depth :**	
Dip : -90	**Down hole dip/ depth :**	

From (ft)	**To (ft)**	**From (m)**	**To (m)**	**Sample number**	**Lithology**	**Colour**	**Alteration**				**" Minerals**						**Assay ***								**Comment**
							Oxidation	**Propylitic**	**Potassic**	**Argillic**	**Py**	**Po**	**As**	**Gn**	**Sp**	**Cp**	**Au**	**Ag**	**Pb**	**Cu**	**Zn**	**As**	**Bi**	**Sb**	
0	5	0.00	1.52	K976636	GRD	GY											2.5	0.1	2	152	34	5	1	1	Moderately oxidized granodiorite with pervasive, interstitial limonite .
5	10	1.52	3.05	K976637	SKN	YW											20	0.1	2	301	36	1	1	1	With depth skarn is dominant.
10	15	3.05	4.57	K976638	SKN	DK					w						7	0.1	3	213	34	1	1	1	Dark grey-green skarn with diopside, biotite, actinolite, occasionally
15	20	4.57	6.10	K976639		GY											2.5	0.1	3	147	32	2	1	1	hornblende. Biotite occurs either as schliern, or euhedral ,maroon-
20	25	6.10	7.62	K976640		GN											2.5	0.1	4	172	31	1	1	1	black. Minor mineralization consist of weak pyrite: disseminated as
25	30	7.62	9.14	K976641													2.5	0.1	2	144	35	1	1	1	euhedral solitaire crystals or fine grained intergranular aggregate.
30	35	9.14	10.67	K976642													2.5	0.1	2	170	35	1	1	1	Occasionally pyrite is pseudomorph after biotite in tin lath hexagonal
35	40	10.67	12.19	K976643													6	0.1	2	146	30	1	1	1	aggregates.
40	45	12.19	13.72	K976644													58	0.1	2	117	34	1	1	1	
45	50	13.72	15.24	K976645													28	0.1	2	78	47	1	1	1	
50	55	15.24	16.76	K976646													6	0.1	3	64	46	1	1	1	
55	60	16.76	18.29	K976647													2.5	0.1	1	49	39	1	1	1	
60	65	18.29	19.81	K976648													5	0.1	3	115	47	1	1	1	
65	70	19.81	21.34	K976649													8	0.1	3	95	40	1	1	1	
70	75	21.34	22.86	K976650													2.5	0.1	1	69	35	1	1	1	
75	80	22.86	24.38	K976651													2.5	0.1	2	100	33	1	1	1	
80	85	24.38	25.91	K976652													5	0.1	1	93	30	2	1	1	
85	90	25.91	27.43	K976653													2.5	0.1	1	129	27	3	1	1	
90	95	27.43	28.96	K976654													2.5	0.1	1	138	28	2	1	2	
95	100	28.96	30.48	K976655													2.5	0.1	1	201	38	3	1	1	
EOH																									

*Au in ppb,all other metals in ppm,except when values are bold which are expressed in %

"n=none,t<1%,w=1-3%,f=3-5%,m=5-7%,ms=7-10%,s=10-15%,i=15-20%

PROJECT: **HOPPER**	PROPERTY : **HOPPER**	HOLE NUMBER :**PDH 11-43**	Pag 1 of 1

Drill hole data			
	Easting : 397699	**Depth :** 30.48	**Comment:** Skarn bearing weak pyrite.
	Northing : 6797502	**Diameter :**	
	Azimuth : 0	**Down hole azimuth/depth :**	
	Dip : -90	**Down hole dip/ depth :**	

From (ft)	To (ft)	From (m)	To (m)	Sample number	Lithology	Colour	Alteration				" Minerals						Assay *								Comment
							Oxidation	Propylitic	Potassic	Argillic	Py	Po	As	Gn	Sp	Cp	Au	Ag	Pb	Cu	Zn	As	Bi	Sb	
0	5	0.00	1.52	K976656	SKN	DK					w						2.5	0.1	4	295	40	2	1	1	Dark grey-green skarn with diopside, biotite, actinolite, occasionally
5	10	1.52	3.05	K976657		GY											2.5	0.1	4	224	41	6	1	1	hornblende. Biotite occurs either as schliern, or euhedral ,maroon-
10	15	3.05	4.57	K976658		GN											2.5	0.1	3	175	35	7	1	1	black. Minor mineralization consist of weak pyrite: disseminated as
15	20	4.57	6.10	K976659													2.5	0.1	3	143	33	4	1	1	euhedral solitaire crystals or fine grained intergranular aggregate.
20	25	6.10	7.62	K976660													2.5	0.1	3	192	40	3	1	1	Occasionally pyrite is pseudomorph after biotite in tin lath hexagonal
25	30	7.62	9.14	K976661													2.5	0.3	4	317	35	2	1	1	aggregates.
30	35	9.14	10.67	K976662													2.5	0.1	5	191	44	5	1	1	
35	40	10.67	12.19	K976663													2.5	0.1	3	219	32	1	1	1	
40	45	12.19	13.72	K976664													2.5	0.1	2	169	36	1	1	1	
45	50	13.72	15.24	K976665													2.5	0.1	4	250	53	8	1	1	
50	55	15.24	16.76	K976666													5	0.1	2	97	48	1	1	1	
55	60	16.76	18.29	K976667													2.5	0.1	1	165	48	7	1	1	
60	65	18.29	19.81	K976668													2.5	0.1	2	146	53	2	1	1	
65	70	19.81	21.34	K976669													2.5	0.1	2	167	63	1	1	1	
70	75	21.34	22.86	K976670													10	0.6	2	676	44	2	1	1	
75	80	22.86	24.38	K976671													5	0.3	1	434	47	21	1	2	
80	85	24.38	25.91	K976672													2.5	0.1	1	230	59	3	1	1	
85	90	25.91	27.43	K976673													2.5	0.1	2	131	60	5	1	1	
90	95	27.43	28.96	K976674													2.5	0.1	2	110	72	2	1	1	
95	100	28.96	30.48	K976675													2.5	0.1	3	109	46	2	1	1	
EOH																									

*Au in ppb,all other metals in ppm,except when values are bold which are expressed in %

"n=none,t<1%,w=1-3%,f=3-5%,m=5-7%,ms=7-10%,s=10-15%,i=15-20%

PROJECT: **HOPPER**	PROPERTY : **HOPPER**	HOLE NUMBER :**PDH 11-44**		Pag 1 of 1

Drill hole data			
	Easting : 397902	**Depth :** 30.48	**Comment:** Granodiorite, locally strong altered. Minor chalcopyrite occurs as fine grained aggregate.
	Northing : 6797504	**Diameter :**	
	Azimuth : 0	**Down hole azimuth/depth :**	
	Dip : -90	**Down hole dip/ depth :**	

From (ft)	To (ft)	From (m)	To (m)	Sample number	Lithology	Colour	Alteration				" Minerals						Assay *								Comment
							Oxidation	Propylitic	Potassic	Argillic	Py	Po	As	Gn	Sp	Cp	Au	Ag	Pb	Cu	Zn	As	Bi	Sb	
0	5	0.00	1.52	K976678	GRD	LT	t	t									2.5	0.1	2	61	28	4	1	1	Coarse grained, fairly magnetic, tracely oxidized and propylitic altered, equigranular granodiorite with book biotite and occasionally hornblende. Occasionally : epidot, chlorite, garnet.
5	10	1.52	3.05	K976679		GY											2.5	0.1	2	74	23	3	1	1	
10	15	3.05	4.57	K976680	GRD	YW	m-			f							5	0.2	3	106	32	17	1	1	Granodiorite is friable, moderate-strong oxidized, fair argillic altered, monmorillonitic type. Feldspar is partly leached, or gouge. Alteration decreases with depth.
15	20	4.57	6.10	K976681			s			w							2.5	0.1	2	110	34	6	1	1	
20	25	6.10	7.62	K976682			m										2.5	0.1	1	177	23	5	1	1	
25	30	7.62	9.14	K976683													2.5	0.1	2	118	33	3	1	1	
30	35	9.14	10.67	K976684	GRD	YW	f			t							2.5	0.1	1	152	30	3	1	1	Equal quantities of fresh and oxidized granodiorite. Minor mineralization consist of trace pyrite and chalcopyrite : very fine grained aggregate in fresher rock.
35	40	10.67	12.19	K976685		GY	w			t						t	2.5	0.1	1	240	33	4	1	1	
40	45	12.19	13.72	K976686			t				t						2.5	0.1	2	210	36	3	1	1	
45	50	13.72	15.24	K976687	GRD	GY											2.5	0.1	2	94	34	2	1	1	Weak propylic altered, grey with locally green tan (sericite, chlorite), granodiorite. Calcite coatings are present, effervesces with HCl. At the bottom of hole trace chalcopyrite occurs as very fine grained, <1mm , aggregate.
50	55	15.24	16.76	K976688													2.5	0.1	2	154	29	1	1	1	
55	60	16.76	18.29	K976689													2.5	0.1	8	97	38	2	1	1	
60	65	18.29	19.81	K976690													2.5	0.1	4	268	37	1	1	1	
65	70	19.81	21.34	K976691													2.5	0.1	3	284	44	1	1	1	
70	75	21.34	22.86	K976692													2.5	0.1	2	73	38	1	1	1	
75	80	22.86	24.38	K976693													2.5	0.1	3	72	34	1	1	1	
80	85	24.38	25.91	K976694													2.5	0.1	2	84	30	1	1	1	
85	90	25.91	27.43	K976695													2.5	0.1	3	72	36	1	1	1	
90	95	27.43	28.96	K976696													2.5	0.1	3	142	34	1	1	1	
95	100	28.96	30.48	K976697												t	2.5	0.2	3	228	43	1	1	1	
EOH																									

*Au in ppb,all other metals in ppm,except when values are bold which are expressed in % "n=none,t<1%,w=1-3%,f=3-5%,m=5-7%,ms=7-10%,s=10-15%,i=15-20%

PROJECT: **HOPPER**	PROPERTY : **HOPPER**	HOLE NUMBER :**PDH 11-45**		Pag 1 of 1

Drill hole data			
	Easting : 398102	**Depth :** 30.48	**Comment:** Propylitic altered granodiorite bearing trace sulphides throughout the hole.
	Northing : 6797501	**Diameter :**	
	Azimuth : 0	**Down hole azimuth/depth :**	
	Dip : -90	**Down hole dip/ depth :**	

From (ft)	To (ft)	From (m)	To (m)	Sample number	Lithology	Colour	Alteration: Oxidation	Propylitic	Potassic	Argillic	" Minerals: Py	Po	As	Gn	Sp	Cp	Assay *: Au	Ag	Pb	Cu	Zn	As	Bi	Sb	Comment
0	5	0.00	1.52	K976698	GRD	YW GY	w										2.5	0.2	2	281	47	2	1	1	Weakly oxidized granodiorite.
5	10	1.52	3.05	K976699	GRD	YW GY	w	w			t	t		t		t	2.5	0.1	3	241	45	1	1	1	Weakly oxidized, weakly propylitic altered granodiorite. Minor mineralization consist of trace pyrite, pyrrhotite, chalcopyrite, galena (?).Sulphide occurs as very fine grained aggregate, walling quartz infill fracture, <2mm. Pyrite is tracely disseminated in matrix. Locally , rock is strongly oxidized: limonite is pseudomorph after pyrite, malachite replace chalcopyrite.
10	15	3.05	4.57	K976700	GRD	WH YW	s			s							2.5	0.2	6	457	52	1	1	1	White-yellowish ,strong oxidized, strong argillic altered granodiorite. Biotite is bleached, relict structure still in place, limonite is pervasive, interstitial.
15	20	4.57	6.10	K976501	GRD	GY GN											7	0.1	2	416	48	1	1	1	Grey, locally with green tan granodiorite. Propylitic alteration increases with depth. Sericite is locally pervasive, green tan. Trace pyrite occurs occasionally throughout the interval. Trace arsenopyrite occurs as either solitaire crystals, or stringers from 20.5 m to end of hole.
20	25	6.10	7.62	K976502													5	0.1	3	245	43	1	1	1	
25	30	7.62	9.14	K976503													9	0.4	1	614	50	3	1	1	
30	35	9.14	10.67	K976504													2.5	0.1	2	328	36	1	1	1	
35	40	10.67	12.19	K976505													7	0.1	3	473	42	1	1	1	
40	45	12.19	13.72	K976506													6	0.1	3	300	48	2	1	1	
45	50	13.72	15.24	K976507				t									7	0.2	3	445	38	1	1	1	
50	55	15.24	16.76	K976508													2.5	0.1	3	303	38	1	1	2	
55	60	16.76	18.29	K976509							t						5	0.2	8	309	49	14	1	1	
60	65	18.29	19.81	K976510							r						6	0.3	4	529	46	7	1	1	
65	70	19.81	21.34	K976512				w			a						13	0.5	6	###	56	42	1	1	
70	75	21.34	22.86	K976513							c						9	0.3	6	746	47	70	1	1	
75	80	22.86	24.38	K976514							e						9	0.2	5	563	54	11	1	1	
80	85	24.38	25.91	K976515									t				5	0.2	6	511	47	19	2	1	
85	90	25.91	27.43	K976516									t				2.5	0.3	5	557	52	4	1	1	
90	95	27.43	28.96	K976517									t				2.5	0.3	6	713	47	1	1	1	
95	100	28.96	30.48	K976518													6	0.6	5	###	68	2	2	1	
EOH																									

*Au in ppb,all other metals in ppm,except when values are bold which are expressed in %

"n=none,t<1%,w=1-3%,f=3-5%,m=5-7%,ms=7-10%,s=10-15%,i=15-20%

PROJECT: **HOPPER**	PROPERTY : **HOPPER**	HOLE NUMBER :**PDH 11-46**	Pag 1 of 1

Drill hole data			Comment
	Easting : 398099	**Depth :** 30.48	**Comment:** Hole comprises granodiorite with small skarn intercalation. Minor mineralization consist of occasionally trace chalcopyrite, pyrite and magnetite.
	Northing : 6797302	**Diameter :**	
	Azimuth : 0	**Down hole azimuth/depth :**	
	Dip : -90	**Down hole dip/ depth :**	

From (ft)	To (ft)	From (m)	To (m)	Sample number	Lithology	Colour	Alteration: Oxidation	Propylitic	Potassic	Argillic	" Minerals: Py	Po	As	Gn	Sp	Cp	Assay *: Au	Ag	Pb	Cu	Zn	As	Bi	Sb	Comment
0	5	0.00	1.52	K976519	GRD	GY	n-	f									2.5	0.1	5	247	34	3	1	1	Fair propylitic altered, grey -greenish, coarse grained granodiorite.
5	10	1.52	3.05	K976520		GN	w										7	0.1	4	430	53	3	1	1	Weak sericite is pervasive. Locally rock is weakly oxidized, limonite
10	15	3.05	4.57	K976521													2.5	0.1	3	308	59	2	1	1	stains quartz and feldspar. Euhedral book biotite is not altered.
15	20	4.57	6.10	K976522													2.5	0.1	5	214	62	1	1	1	Occasionally, very fine grained hematite aggregate occurs in quartzose
20	25	6.10	7.62	K976523													2.5	0.1	6	287	61	1	1	1	stringers, <2mm. Granodiorite is fairly magnetic throughout the hole.
25	30	7.62	9.14	K976524													14	0.1	4	346	57	1	1	1	
30	35	9.14	10.67	K976525													6	0.1	5	385	55	2	1	1	
35	40	10.67	12.19	K976526	GRD	GY GN		w			t					t	7	0.2	3	485	60	1	1	1	Minor mineralization consist of trace chalcopyrite, very fine grained aggregate, and trace pyrite, disseminated cubic crystals.
40	45	12.19	13.72	K976527	GRD	GY	n-	f									5	0.3	4	355	60	1	1	1	Fair propylitic altered, grey -greenish, coarse grained granodiorite.
45	50	13.72	15.24	K976528		GN	w										12	0.3	4	794	52	2	1	1	Weak sericite is pervasive. Locally rock is weakly oxidized, limonite
50	55	15.24	16.76	K976529													8	0.2	4	628	42	2	1	1	stains quartz and feldspar. Euhedral book biotite is not altered.
55	60	16.76	18.29	K976530													11	0.5	3	991	45	2	1	1	Occasionally very fine grained hematite aggregate occurs in quartzose
60	65	18.29	19.81	K976531													10	0.3	2	793	41	1	1	1	stringers, <2mm.
65	70	19.81	21.34	K976532													8	0.2	2	501	41	3	1	1	
70	75	21.34	22.86	K976533													2.5	0.2	2	361	46	1	1	1	
75	80	22.86	24.38	K976534	SK GRD	DK GY GN	t	w									2.5	0.3	6	531	48	12	1	7	Dark grey-greenish, microcrystalline, granoblastic skarn (?), in contact with friable (grains of quartz ,feldspar and flakes of biotite in sample), propylitic altered, granodiorite.
80	85	24.38	25.91	K976535	GRD	GY		f									9	0.3	3	855	45	1	1	1	Fair propylitic altered, grey -greenish, coarse grained granodiorite.
85	90	25.91	27.43	K976536		GN											7	0.2	3	548	49	1	1	1	Weak sericite is pervasive. Euhedral book biotite is not altered. Weak
90	95	27.43	28.96	K976537													2.5	0.1	2	311	39	1	1	1	chlorite, calcite coatings (effervesces with HCl) is present locally.
95	100	28.96	30.48	K976538	GRD	GY GN		f			w Mg					t	10	0.5	3	1020	48	1	1	1	Same granodiorite comprises minor mineralization. Weak magnetite occurs as medium grained (euhedral crysts.) aggregate, with interstitial very fine grained chalcopyrite.
EOH																									

*Au in ppb,all other metals in ppm,except when values are bold which are expressed in %

"n=none,t<1%,w=1-3%,f=3-5%,m=5-7%,ms=7-10%,s=10-15%,i=15-20%

PROJECT: **HOPPER**	PROPERTY : **HOPPER**	HOLE NUMBER :**PDH 11-47**	Pag 1 of 1

Drill hole data			
	Easting : 398102	**Depth :** 30.48	**Comment:** Granodiorite with trace pyrite and occasionally trace chalcopyrite.
	Northing : 6797101	**Diameter :**	
	Azimuth : 0	**Down hole azimuth/depth :**	
	Dip : -90	**Down hole dip/ depth :**	

From (ft)	To (ft)	From (m)	To (m)	Sample number	Lithology	Colour	Alteration				" Minerals						Assay *								Comment
							Oxidation	Propylitic	Potassic	Argillic	Py	Po	As	Gn	Sp	Cp	Au	Ag	Pb	Cu	Zn	As	Bi	Sb	
0	5	0.00	1.52	K863851	QTE GRD	GY	m										27	0.8	6	1020	46	4	1	2	Overburden : granodiorite and quartzite fragments.
5	10	1.52	3.05	K863852	GRD	YW	s			m	m					t	52	6.6	151	4060	101	12	6	1	Strongly oxidized and moderately argillic altered granodiorite.
10	15	3.05	4.57	K863853													9	2	24	1940	54	62	2	16	Moderate pyrite, solitaire crystals, and trace chalcopyrite , very fine grained aggregate, occurs disseminated in matrix. Occasionally malachite is present around chalcopyrite .
15	20	4.57	6.10	K863854	GRD	GY GN		w			trace - weak						11	0.9	6	980	35	8	1	2	Grey, with green tan, weak propylitic altered, medium grained granodiorite. Minor mineralization consist of trace to weak pyrite and, occasionally, trace chalcopyrite (24 m).
20	25	6.10	7.62	K863855													17	0.7	4	1025	36	5	1	1	
25	30	7.62	9.14	K863856													12	0.6	10	880	42	28	1	16	
30	35	9.14	10.67	K863857													2.5	0.3	6	341	45	1	1	1	
35	40	10.67	12.19	K863858													9	0.4	5	576	61	3	1	1	
40	45	12.19	13.72	K863859													2.5	0.4	7	373	42	1	1	1	
45	50	13.72	15.24	K863860													2.5	1.8	6	1050	70	3	1	1	
50	55	15.24	16.76	K863861													2.5	0.2	5	354	45	1	1	1	
55	60	16.76	18.29	K863862													2.5	0.4	6	281	48	1	1	1	
60	65	18.29	19.81	K863863													6	0.3	6	336	64	1	1	1	
65	70	19.81	21.34	K863864													2.5	0.2	3	246	48	1	1	1	
70	75	21.34	22.86	K863865													2.5	0.3	3	550	38	2	1	1	
75	80	22.86	24.38	K863866													8	0.2	3	747	33	2	1	1	
80	85	24.38	25.91	K863867													2.5	0.3	4	538	35	1	1	1	
85	90	25.91	27.43	K863868													2.5	0.4	2	384	27	1	1	1	
90	95	27.43	28.96	K863869													9	0.9	5	1125	33	9	1	1	
95	100	28.96	30.48	K863870													8	0.3	3	932	32	2	1	1	
EOH																									

*Au in ppb,all other metals in ppm,except when values are bold which are expressed in %

"n=none,t<1%,w=1-3%,f=3-5%,m=5-7%,ms=7-10%,s=10-15%,i=15-20%

PROJECT: **HOPPER**	PROPERTY : **HOPPER**	HOLE NUMBER :**PDH 11-48**	Pag 1 of 1

Drill hole data		
	Easting : 397703	**Depth :** 30.48
	Northing : 6797104	**Diameter :**
	Azimuth : 0	**Down hole azimuth/depth :**
	Dip : -90	**Down hole dip/ depth :**

Comment: Argillic and propylitic altered granodiorite ,with occasionally trace pyrite.

From (ft)	To (ft)	From (m)	To (m)	Sample number	Lithology	Colour	Alteration: Oxidation	Propylitic	Potassic	Argillic	" Minerals: Py	Po	As	Gn	Sp	Cp	Assay *: Au	Ag	Pb	Cu	Zn	As	Bi	Sb	Comment
0	5	0.00	1.52	K863871	GRD	WH				w	t						2.5	0.2	7	168	28	5	1	1	Weakly argillic altered, granodiorite with trace disseminated pyrite.
5	10	1.52	3.05	K863872		GY											2.5	0.1	5	72	27	4	1	1	
10	15	3.05	4.57	K863873													2.5	0.1	3	49	28	4	1	1	
15	20	4.57	6.10	K863874													2.5	0.1	4	12	28	3	1	1	
20	25	6.10	7.62	K863875													2.5	0.1	1	12	26	4	1	1	
25	30	7.62	9.14	K863876	GRD	GY		f			t						2.5	0.1	1	11	27	6	1	1	Fairly propylitic altered ,grey with green tan, medium grained granodiorite. Disseminated pyrite occurs occasionally. Trace to weak sericite is pervasive.
30	35	9.14	10.67	K863877		GN											2.5	0.1	1	43	30	4	1	1	
35	40	10.67	12.19	K863878													2.5	0.1	2	24	25	1	1	1	
40	45	12.19	13.72	K863879													2.5	0.1	4	17	48	29	1	2	
45	50	13.72	15.24	K863880													2.5	0.1	2	13	41	6	1	1	
50	55	15.24	16.76	K863881													2.5	0.1	1	13	36	3	1	1	
55	60	16.76	18.29	K863882													2.5	0.1	4	36	66	17	1	1	
60	65	18.29	19.81	K863883													2.5	0.1	3	115	69	23	1	1	
65	70	19.81	21.34	K863884													2.5	0.1	2	171	46	6	1	1	
70	75	21.34	22.86	K863885													2.5	0.1	1	208	27	4	1	1	
75	80	22.86	24.38	K863886													2.5	0.1	1	251	16	5	1	1	
80	85	24.38	25.91	K863887													2.5	0.1	2	60	14	6	1	1	
85	90	25.91	27.43	K863888													2.5	0.1	2	28	20	3	1	1	
90	95	27.43	28.96	K863889													2.5	0.1	3	114	50	18	1	1	
95	100	28.96	30.48	K863890													2.5	0.2	1	161	24	5	1	1	
EOH																									

*Au in ppb,all other metals in ppm,except when values are bold which are expressed in %

"n=none,t<1%,w=1-3%,f=3-5%,m=5-7%,ms=7-10%,s=10-15%,i=15-20%

PROJECT: **HOPPER**	PROPERTY : **HOPPER**	HOLE NUMBER :**PDH 11-49**	Pag 1 of 1

Drill hole data			
	Easting : 397699	**Depth :** 30.48	**Comment:** Tracely altered granodiorite.
	Northing : 6796903	**Diameter :**	
	Azimuth : 0	**Down hole azimuth/depth :**	
	Dip : -90	**Down hole dip/ depth :**	

From (ft)	To (ft)	From (m)	To (m)	Sample number	Lithology	Colour	Alteration: Oxidation	Propylitic	Potassic	Argillic	" Minerals: Py	Po	As	Gn	Sp	Cp	Assay *: Au	Ag	Pb	Cu	Zn	As	Bi	Sb	Comment
0	5	0.00	1.52	K863951	GRD	WH	t			t-							15	0.1	2	41	23	2	1	1	Leucocratic , bleached, tracely oxidized and argillic altered (monmorillonitic) , coarse grained granodiorite. Melanocrates , book biotite and trace hornblende, are less than 10%. Locally limonite is pseudomorph after biotite. In the last third of hole chlorite flakes are common.
5	10	1.52	3.05	K863952		LT GY				w							2.5	0.1	1	65	16	1	2	1	
10	15	3.05	4.57	K863953													2.5	0.1	2	20	17	1	1	1	
15	20	4.57	6.10	K863954													2.5	0.1	1	8	17	1	1	1	
20	25	6.10	7.62	K863955													2.5	0.1	2	84	15	1	1	1	
25	30	7.62	9.14	K863956													2.5	0.1	3	154	15	1	1	2	
30	35	9.14	10.67	K863957													2.5	0.1	2	53	15	1	1	1	
35	40	10.67	12.19	K863958													2.5	0.1	1	23	13	2	1	1	
40	45	12.19	13.72	K863959													2.5	0.1	1	7	17	2	1	2	
45	50	13.72	15.24	K863960													2.5	0.1	1	23	14	1	1	1	
50	55	15.24	16.76	K863961													2.5	0.1	1	28	15	2	1	1	
55	60	16.76	18.29	K863962													2.5	0.1	1	20	20	2	1	1	
60	65	18.29	19.81	K863963													2.5	0.1	1	97	23	1	2	2	
65	70	19.81	21.34	K863964													2.5	0.1	1	50	17	1	1	1	
70	75	21.34	22.86	K863965													2.5	0.1	1	27	14	2	1	1	
75	80	22.86	24.38	K863966													2.5	0.1	1	64	12	2	1	1	
80	85	24.38	25.91	K863967													2.5	0.1	1	45	11	2	1	1	
85	90	25.91	27.43	K863968													2.5	0.1	1	118	18	1	1	1	
90	95	27.43	28.96	K863969													2.5	0.1	1	17	10	3	1	1	
95	100	28.96	30.48	K863970													2.5	0.1	1	25	13	1	1	1	
EOH																									

*Au in ppb,all other metals in ppm,except when values are bold which are expressed in %

"n=none,t<1%,w=1-3%,f=3-5%,m=5-7%,ms=7-10%,s=10-15%,i=15-20%

PROJECT: **HOPPER**	PROPERTY : **HOPPER**	HOLE NUMBER :**PDH 11-50**	Pag 1 of 1

Drill hole data			
Easting : 397702	**Depth :** 30.48	**Comment:** Bleached granodiorite. Quartz veinlet bearing weak pyrite and chalcopyrite occurs in the interval 12-14 m.	
Northing : 6796704	**Diameter :**		
Azimuth : 0	**Down hole azimuth/depth :**		
Dip : -90	**Down hole dip/ depth :**		

From (ft)	To (ft)	From (m)	To (m)	Sample number	Lithology	Colour	Alteration: Oxidation	Alteration: Propylitic	Alteration: Potassic	Alteration: Argillic	" Minerals: Py	Po	As	Gn	Sp	Cp	Assay *: Au	Ag	Pb	Cu	Zn	As	Bi	Sb	Comment
0	5	0.00	1.52	K863971	GRD	WH GY											2.5	0.1	1	81	21	1	1	1	Leucocratic , bleached, trace to weakly oxidized and argillic altered (monmorillonitic) , medium grained granodiorite. Melanocrates , book biotite and trace hornblende, are less than 10%. Locally limonite is pseudomorph after biotite. Trace, pale green, sericite.
5	10	1.52	3.05	K863972													2.5	0.1	1	43	13	1	1	2	
10	15	3.05	4.57	K863973													2.5	0.1	1	14	13	1	1	1	
15	20	4.57	6.10	K863974													2.5	0.1	1	18	13	1	1	2	
20	25	6.10	7.62	K863975													2.5	0.1	1	13	14	1	1	1	
25	30	7.62	9.14	K863976													2.5	0.1	1	10	12	1	1	1	
30	35	9.14	10.67	K863977													2.5	0.1	2	19	12	1	1	1	
35	40	10.67	12.19	K863978													2.5	0.1	1	53	15	1	1	2	
40	45	12.19	13.72	K863979	GRD QZ VN	LT RD	m			w	w					w	2.5	1	5	1025	19	1	10	2	3mm quartz veinlet, in moderate oxidized granodiorite, includes weak pyrite (stringer) and chalcopyrite ,fine grained aggregate, bordered by malachite.
45	50	13.72	15.24	K863980													2.5	0.1	1	56	14	1	1	1	Leucocratic , bleached, trace to weakly oxidized and argillic altered (monmorillonitic) , medium grained granodiorite. Melanocrates , book biotite and trace hornblende, are less than 10%. Locally limonite is pseudomorph after biotite. Weak, pale green, sericite.
50	55	15.24	16.76	K863981													2.5	0.1	1	33	11	2	1	2	
55	60	16.76	18.29	K863982													2.5	0.1	1	28	11	3	1	2	
60	65	18.29	19.81	K863983													2.5	0.1	1	15	12	1	1	1	
65	70	19.81	21.34	K863984													2.5	0.1	1	10	12	2	1	1	
70	75	21.34	22.86	K863985													2.5	0.1	1	8	10	1	1	1	
75	80	22.86	24.38	K863986													2.5	0.1	1	9	9	1	1	1	
80	85	24.38	25.91	K863987													2.5	0.1	1	9	12	1	1	1	
85	90	25.91	27.43	K863988													2.5	0.1	1	82	13	1	1	1	
90	95	27.43	28.96	K863989													2.5	0.1	1	43	12	1	1	1	
95	100	28.96	30.48	K863990													2.5	0.1	1	14	11	1	1	2	
EOH																									

*Au in ppb,all other metals in ppm,except when values are bold which are expressed in %

"n=none,t<1%,w=1-3%,f=3-5%,m=5-7%,ms=7-10%,s=10-15%,i=15-20%

PROJECT: **HOPPER**	PROPERTY : **HOPPER**	HOLE NUMBER :**PDH 11-51**	Pag 1 of 1

Drill hole data			
	Easting : 397699	**Depth :** 30.48	**Comment:** Altered granodiorite
	Northing : 6796500	**Diameter :**	
	Azimuth : 0	**Down hole azimuth/depth :**	
	Dip : -90	**Down hole dip/ depth :**	

From (ft)	To (ft)	From (m)	To (m)	Sample number	Lithology	Colour	Alteration: Oxidation	Propylitic	Potassic	Argillic	" Minerals: Py	Po	As	Gn	Sp	Cp	Assay *: Au	Ag	Pb	Cu	Zn	As	Bi	Sb	Comment
0	5	0.00	1.52	K863991	GRD/ GRN	LT RD	s			w							2.5	0.1	2	67	18	1	1	2	Strong oxidized weak argillic altered (monmorillonitic), coarse grained, felsic intrusive rock (granodiorite/granite). Limonite is pervasive.
5	10	1.52	3.05	K863992													2.5	0.1	4	103	12	1	1	2	
10	15	3.05	4.57	K863993	GRD/ GRN	WH											2.5	0.1	7	45	15	1	1	1	Leucocratic , bleached, trace to weakly oxidized and argillic altered (monmorillonitic) , coarse to medium grained granodiorite/granite. With depth, plagioclase presence increases. Melanocrates , book biotite and trace hornblende, are less than 10%. . Trace, pale green, sericite.
15	20	4.57	6.10	K863994													2.5	0.1	3	50	11	2	1	1	
20	25	6.10	7.62	K863996													2.5	0.2	1	34	9	2	1	1	
25	30	7.62	9.14	K863997													2.5	0.1	1	47	9	1	1	1	
30	35	9.14	10.67	K863998	GRD												2.5	0.1	1	50	9	1	1	1	
35	40	10.67	12.19	K863999													2.5	0.2	3	15	10	2	1	1	
40	45	12.19	13.72	K864000													2.5	0.1	4	14	10	1	1	1	
45	50	13.72	15.24	K863901													2.5	0.1	2	11	9	2	1	1	
50	55	15.24	16.76	K863902													2.5	0.1	1	37	9	1	1	1	
55	60	16.76	18.29	K863904													2.5	0.1	2	17	11	2	1	1	
60	65	18.29	19.81	K863905													2.5	0.1	1	11	8	1	1	1	
65	70	19.81	21.34	K863906													2.5	0.1	1	24	10	1	1	1	
70	75	21.34	22.86	K863907													2.5	0.1	1	19	13	2	1	1	
75	80	22.86	24.38	K863908													2.5	0.1	1	16	13	1	1	1	
80	85	24.38	25.91	K863909	GRD	WH LT RD	f										2.5	0.1	1	15	13	2	1	1	Locally ,fairly oxidized granodiorite with limonite stains.
85	90	25.91	27.43	K863910													2.5	0.1	1	11	14	2	1	1	
90	95	27.43	28.96	K863911													2.5	0.1	2	160	19	1	1	7	
95	100	28.96	30.48	K863912													2.5	0.1	2	66	13	2	1	1	
EOH																									

*Au in ppb,all other metals in ppm,except when values are bold which are expressed in %

"n=none,t<1%,w=1-3%,f=3-5%,m=5-7%,ms=7-10%,s=10-15%,i=15-20%

PROJECT: **HOPPER**	PROPERTY : **HOPPER**	HOLE NUMBER :**PDH 11-52**	Pag 1 of 2

Drill hole data			
	Easting : 397698	**Depth :** 30.48	**Comment:** Skarn and lesser granodiorite.
	Northing : 6796302	**Diameter :**	
	Azimuth : 0	**Down hole azimuth/depth :**	
	Dip : -90	**Down hole dip/ depth :**	

From (ft)	To (ft)	From (m)	To (m)	Sample number	Lithology	Colour	Alteration: Oxidation	Propylitic	Potassic	Argillic	" Minerals: Py	Po	As	Gn	Sp	Cp	Assay *: Au	Ag	Pb	Cu	Zn	As	Bi	Sb	Comment
0	5	0.00	1.52	K863891	SKN	DK GY	t										2.5	0.1	7	115	45	4	1	1	Dark grey-greenish, medium grained skarn with actinolite, lesser biotite , very fine grained magnetite aggregates and weak epidote.
5	10	1.52	3.05	K863892		GN											2.5	0.1	5	89	61	4	1	1	
10	15	3.05	4.57	K863893	GRD	WH GY PK	w			w							2.5	0.1	3	52	13	1	1	1	Weakly oxidized and argillic altered (montmorillonit), with some pink orthoclase, coarse grained granodiorite. Limonite stains are common.
15	20	4.57	6.10	K863894	SKN	DK		t									2.5	0.1	4	87	27	3	1	1	Dark grey-greenish, medium grained skarn with actinolite, lesser biotite , very fine grained magnetite aggregates and weak epidote.
20	25	6.10	7.62	K863895		GY											2.5	0.1	3	75	58	2	1	1	
25	30	7.62	9.14	K863896		GN											2.5	0.1	7	64	59	3	1	1	
30	35	9.14	10.67	K863897	GRD	WH GY PK	w			w							2.5	0.1	2	46	15	1	1	1	Weakly oxidized and argillic altered (montmorillonit), with pink orthoclase, coarse grained granite. Limonite stains are common.
35	40	10.67	12.19	K863898	GRD SKN					t							2.5	0.1	3	64	42	3	1	1	Dark grey -greenish skarn (50- 80%0 and lesser coarse grained , tracely altered granodiorite.
40	45	12.19	13.72	K863899						t							2.5	0.1	3	100	25	2	1	1	
45	50	13.72	15.24	K863900						t							2.5	0.1	3	58	14	1	1	1	
50	55	15.24	16.76	K975051													2.5	0.1	3	99	49	1	1	1	
55	60	16.76	18.29	K975052	SKN												2.5	0.2	2	101	56	1	1	1	Skarn.
60	65	18.29	19.81	K975053	GRD	WH LT RD	w			w							2.5	0.1	4	104	32	4	1	1	Weakly oxidized and argillic altered (montmorillonit), coarse grained granodiorite. Limonite stains are common.
65	70	19.81	21.34	K975054	GRN SKN	WH DK GN GY	t	w									2.5	0.1	2	74	42	2	1	1	Tracely oxidized, weakly propylitic altered granodiorite(90%), with locally strong epidot and calcite coatings.
70	75	21.34	22.86	K975055	SKN	DK											2.5	0.1	3	107	24	1	1	1	Skarn (80%) with lesser coarse grained granodiorite.Epidote and calcite occurs on hairline fracture plans.
75	80	22.86	24.38	K975056	GRD	GY											2.5	0.1	2	100	16	1	1	1	
80	85	24.38	25.91	K975057		GN											2.5	0.1	3	79	62	3	1	1	
85	90	25.91	27.43	K975058		WH	w										2.5	0.1	2	90	32	1	1	1	
90	95	27.43	28.96	K975059													2.5	0.1	2	105	15	2	1	1	

*Au in ppb,all other metals in ppm,except when values are bold which are expressed in %

"n=none,t<1%,w=1-3%,f=3-5%,m=5-7%,ms=7-10%,s=10-15%,i=15-20%

95	100	28.96	30.48	K975060													2.5	0.1	1	110	13	2	1	1	
EOH																									

*Au in ppb,all other metals in ppm,except when values are bold which are expressed in %   "n=none,t<1%,w=1-3%,f=3-5%,m=5-7%,ms=7-10%,s=10-15%,i=15-20%

PROJECT: **HOPPER**	PROPERTY : **HOPPER**	HOLE NUMBER :**PDH 11-53**		Pag 1 of 1

Drill hole data			
	Easting : 397703	**Depth :** 30.48	**Comment:** Altered granodiorite .
	Northing : 6796102	**Diameter :**	
	Azimuth : 0	**Down hole azimuth/depth :**	
	Dip : -90	**Down hole dip/ depth :**	

From (ft)	To (ft)	From (m)	To (m)	Sample number	Lithology	Colour	Alteration: Oxidation	Propylitic	Potassic	Argillic	" Minerals: Py	Po	As	Gn	Sp	Cp	Assay *: Au	Ag	Pb	Cu	Zn	As	Bi	Sb	Comment
0	5	0.00	1.52	K975061	GRD	WH	t	t									2.5	0.1	3	175	25	3	1	1	Tracely oxidized and propylitic altered, white with locally green pale (sericite) patches , coarse grained , granodiorite. Calcite coatings are common, effervesces with HCl. Melanocrates , book biotite , are less than 10 %.
5	10	1.52	3.05	K975062		GY											2.5	0.1	3	223	18	1	1	1	
10	15	3.05	4.57	K975063													2.5	0.1	3	94	12	1	1	1	
15	20	4.57	6.10	K975064													2.5	0.1	1	123	14	1	1	1	
20	25	6.10	7.62	K975065													2.5	0.1	2	189	13	1	1	1	
25	30	7.62	9.14	K975066													2.5	0.1	1	143	15	1	1	1	
30	35	9.14	10.67	K975067													2.5	0.1	1	106	15	1	1	1	
35	40	10.67	12.19	K975068													2.5	0.1	1	72	11	1	1	1	
40	45	12.19	13.72	K975069													2.5	0.2	1	214	10	1	1	1	
45	50	13.72	15.24	K975070													2.5	0.1	2	130	11	1	1	1	
50	55	15.24	16.76	K975071													2.5	0.1	2	161	11	1	1	1	
55	60	16.76	18.29	K975072													2.5	0.1	1	137	12	1	1	1	
60	65	18.29	19.81	K975073													2.5	0.1	2	194	11	1	1	1	
65	70	19.81	21.34	K975074	GRD MET	WH GY											2.5	0.1	2	146	13	1	1	1	Granodiorite, same as above, with, 5% enclave : strong magnetic metasediment, very fine grained, quartzose with octahedral magnetite crystals.
70	75	21.34	22.86	K975075	GRD	WH	t	t -		t-							2.5	0.1	1	153	14	1	1	1	Tracely oxidized and propylitic altered, white with locally green pale (sericite) patches , coarse grained , granodiorite. Calcite coatings are common, effervesces with HCl. Melanocrates , book biotite , are less than 10 %.
75	80	22.86	24.38	K975076		GN		s		w							2.5	0.1	1	88	12	1	1	1	
80	85	24.38	25.91	K975077													2.5	0.2	6	407	24	2	1	1	
85	90	25.91	27.43	K975078													2.5	0.1	3	187	15	1	1	1	
90	95	27.43	28.96	K975079													2.5	0.1	3	190	16	2	1	1	
95	100	28.96	30.48	K975080													2.5	0.1	1	90	14	1	1	1	
EOH																									

*Au in ppb,all other metals in ppm,except when values are bold which are expressed in %

"n=none,t<1%,w=1-3%,f=3-5%,m=5-7%,ms=7-10%,s=10-15%,i=15-20%

PROJECT: **HOPPER**	PROPERTY : **HOPPER**	HOLE NUMBER :**PDH 11-54**	Pag 1 of 1

Drill hole data			Comment:
	Easting : 397702	**Depth :** 30.48	Argillic altered granodiorite with occasionally trace pyrite.
	Northing : 6795901	**Diameter :**	
	Azimuth : 0	**Down hole azimuth/depth :**	
	Dip : -90	**Down hole dip/ depth :**	

From (ft)	To (ft)	From (m)	To (m)	Sample number	Lithology	Colour	Alteration: Oxidation	Propylitic	Potassic	Argillic	" Minerals: Py	Po	As	Gn	Sp	Cp	Assay *: Au	Ag	Pb	Cu	Zn	As	Bi	Sb	Comment
0	5	0.00	1.52	K975081	GRD	WH	t	t- s		w-							2.5	0.1	5	84	41	3	1	1	Trace to strong propylitic altered, white with locally green pale (sericite) patches , coarse grained , granodiorite. Calcite coatings are common, effervesces with HCl. Melanocrates: book biotite decreases with depth. Moderate level of argillic alteration affects rock : biotite is bleached, fine grained hematite aggregate are common, gauge present. Trace pyrite occurs @ m22.
5	10	1.52	3.05	K975082		GN				m							2.5	0.1	4	84	30	3	1	1	
10	15	3.05	4.57	K975083													2.5	0.1	4	102	36	1	1	1	
15	20	4.57	6.10	K975084													2.5	0.1	5	49	26	5	1	1	
20	25	6.10	7.62	K975085													2.5	0.1	6	37	28	3	1	1	
25	30	7.62	9.14	K975086													2.5	0.1	4	111	33	4	1	1	
30	35	9.14	10.67	K975087													2.5	0.1	3	52	36	1	1	1	
35	40	10.67	12.19	K975088													2.5	0.1	6	568	38	5	1	1	
40	45	12.19	13.72	K975089													2.5	0.1	5	142	33	1	1	1	
45	50	13.72	15.24	K975090													2.5	0.1	6	66	38	1	1	1	
50	55	15.24	16.76	K975091													2.5	0.1	10	58	41	1	1	1	
55	60	16.76	18.29	K975092													2.5	0.1	11	43	46	1	1	1	
60	65	18.29	19.81	K975093													2.5	0.1	8	28	44	2	1	1	
65	70	19.81	21.34	K975094													2.5	0.1	4	18	29	1	1	1	
70	75	21.34	22.86	K975095							t						2.5	0.1	2	19	28	1	1	1	
75	80	22.86	24.38	K975096													2.5	0.1	3	46	27	1	1	1	
80	85	24.38	25.91	K975097													2.5	0.1	2	29	25	1	1	1	
85	90	25.91	27.43	K975098													2.5	0.1	4	32	46	1	1	1	
90	95	27.43	28.96	K975099													2.5	0.1	4	31	34	1	1	1	
EOH																									

*Au in ppb,all other metals in ppm,except when values are bold which are expressed in %

"n=none,t<1%,w=1-3%,f=3-5%,m=5-7%,ms=7-10%,s=10-15%,i=15-20%

PROJECT: **HOPPER**	PROPERTY : **HOPPER**	HOLE NUMBER :**PDH 11-55**	Pag 1 of 1

Drill hole data			Comment:
	Easting : 397701	**Depth :** 30.48	
	Northing : 6795702	**Diameter :**	
	Azimuth : 0	**Down hole azimuth/depth :**	
	Dip : -90	**Down hole dip/ depth :**	

From (ft)	To (ft)	From (m)	To (m)	Sample number	Lithology	Colour	Alteration				" Minerals						Assay *								Comment
							Oxidation	Propylitic	Potassic	Argillic	Py	Po	As	Gn	Sp	Cp	Au	Ag	Pb	Cu	Zn	As	Bi	Sb	
0	5	0.00	1.52	K863913	DIO QTE	GY											6	0.1	6	219	43	4	1	1	Medium grained mesocratic diorite and phyllitic , foliated quartzite with biotite.
5	10	1.52	3.05	K863914	QTE	LT GY											2.5	0.1	5	156	43	3	1	1	Foliated phyllitic quartzite, sucrosic texture, with biotite as lath mineral.
10	15	3.05	4.57	K863915	GRD	WH	t	f									2.5	0.1	4	151	34	1	1	1	Tracely oxidized, fairly propylitic altered, white with pale green patches ,coarse grained granodiorite. Locally weak sericite stains feldspar. Limonite occurs occasionally.
15	20	4.57	6.10	K863916		GN											7	0.3	3	285	20	1	1	1	
20	25	6.10	7.62	K863917													2.5	0.1	2	79	14	1	1	1	
25	30	7.62	9.14	K863918													5	0.1	3	177	15	1	1	1	
30	35	9.14	10.67	K863919													2.5	0.1	2	87	13	1	1	1	
35	40	10.67	12.19	K863920													5	0.1	2	134	13	1	1	1	
40	45	12.19	13.72	K863921													7	0.2	3	157	13	1	1	1	
45	50	13.72	15.24	K863922													2.5	0.1	2	118	13	1	1	1	
50	55	15.24	16.76	K863923													2.5	0.1	3	90	12	1	1	1	
55	60	16.76	18.29	K863924													8	0.2	3	476	9	2	1	1	
60	65	18.29	19.81	K863925													2.5	0.1	3	134	12	1	1	1	
65	70	19.81	21.34	K863926													5	0.2	3	147	14	1	1	1	
70	75	21.34	22.86	K863927													11	0.2	2	354	15	1	1	1	
75	80	22.86	24.38	K863928													2.5	0.2	2	123	13	1	1	1	
80	85	24.38	25.91	K863929													7	0.2	1	126	13	1	1	1	
85	90	25.91	27.43	K863930													9	0.2	2	209	13	1	1	1	
90	95	27.43	28.96	K863931													9	0.2	1	208	13	1	1	1	
95	100	28.96	30.48	K863932													2.5	0.2	2	64	11	1	1	1	
EOH		EOH																							

*Au in ppb,all other metals in ppm,except when values are bold which are expressed in %

"n=none,t<1%,w=1-3%,f=3-5%,m=5-7%,ms=7-10%,s=10-15%,i=15-20%

PROJECT: **HOPPER**	PROPERTY : **HOPPER**	HOLE NUMBER :**PDH 11-56**	

Drill hole data			
	Easting : 397698	**Depth :** 30.48	**Comment:** Minor mineralization consist of trace pyrite.
	Northing : 6795499	**Diameter :**	
	Azimuth : 0	**Down hole azimuth/depth :**	
	Dip : -90	**Down hole dip/ depth :**	

From (ft)	To (ft)	From (m)	To (m)	Sample number	Lithology	Colour	Alteration: Oxidation	Propylitic	Potassic	Argillic	" Minerals: Py	Po	As	Gn	Sp	Cp	Assay *: Au	Ag	Pb	Cu	Zn	As	Bi	Sb	Comment
0	5	0.00	1.52	K863933	QTE	LT	t										10	0.2	4	190	27	2	1	1	Light grey quartzite, bearing trace pyrite.
5	10	1.52	3.05	K863934		GY											2.5	0.2	4	73	24	1	1	1	
10	15	3.05	4.57	K863935													2.5	0.1	4	48	36	1	1	1	
15	20	4.57	6.10	K863936	QTE	GY					t						8	0.1	4	165	42	2	2	1	Slightly foliated quartzite with biotite schliern and lesser propylitic
20	25	6.10	7.62	K863937	GRD	GN											5	0.2	4	144	47	2	2	1	altered granodiorite (5%). Granodiorite has a pale green tan ,from
25	30	7.62	9.14	K863938													6	0.3	7	212	56	4	2	1	weak sericite. Trace pyrite is disseminated in quartzite.
30	35	9.14	10.67	K863939													6	0.2	5	176	25	3	1	2	
35	40	10.67	12.19	K863940													2.5	0.1	5	81	47	6	1	1	
40	45	12.19	13.72	K863941	QTE	GY					t						2.5	0.2	6	79	47	4	1	2	Foliated phyllitic quartzite with occasionally green gauge. Trace pyrite
45	50	13.72	15.24	K863942													2.5	0.2	5	104	45	4	1	1	occurs either disseminated ,or as stringers in sucrosic quartzose
50	55	15.24	16.76	K863943													28	5.2	52	619	65	28	10	3	matrix. Barren milky quartz lenses are common.
55	60	16.76	18.29	K863944													2.5	2.6	43	225	36	10	5	1	
60	65	18.29	19.81	K863945													2.5	0.4	8	256	38	9	1	3	
65	70	19.81	21.34	K863946													2.5	0.4	6	229	63	18	1	1	
70	75	21.34	22.86	K863947													2.5	0.2	5	92	39	5	1	2	
75	80	22.86	24.38	K863948													34	0.6	5	745	62	18	1	1	
80	85	24.38	25.91	K863949													32	0.7	6	973	53	13	1	1	
85	90	25.91	27.43	K863950													19	0.3	5	311	41	5	1	1	
90	95	27.43	28.96	K270771													2.5	0.3	5	161	36	3	1	1	
95	100	28.96	30.48	K270772													2.5	0.1	6	84	41	2	1	1	
EOH																									

*Au in ppb,all other metals in ppm,except when values are bold which are expressed in %

"n=none,t<1%,w=1-3%,f=3-5%,m=5-7%,ms=7-10%,s=10-15%,i=15-20%

PROJECT: **HOPPER**	PROPERTY : **HOPPER**	HOLE NUMBER :**PDH 11-57**	Pag 1 of 2

Drill hole data			
Easting : 397701	**Depth :** 30.48	**Comment:**	
Northing : 6795302	**Diameter :**		
Azimuth : 0	**Down hole azimuth/depth :**		
Dip : -90	**Down hole dip/ depth :**		

From (ft)	To (ft)	From (m)	To (m)	Sample number	Lithology	Colour	Alteration: Oxidation	Propylitic	Potassic	Argillic	" Minerals: Py	Po	As	Gn	Sp	Cp	Assay *: Au	Ag	Pb	Cu	Zn	As	Bi	Sb	Comment
0	5	0.00	1.52	K270773	SCH	GY											2.5	0.1	4	99	35	1	1	1	Foliated quartz-mica schist. Lath mineral is mainly, brown to black biotite.
5	10	1.52	3.05	K270774													2.5	0.2	5	114	41	2	1	1	
10	15	3.05	4.57	K270775													2.5	0.1	5	68	40	1	2	1	
15	20	4.57	6.10	K270776													2.5	0.1	6	68	50	1	2	1	
20	25	6.10	7.62	K270777													2.5	0.2	5	79	48	1	1	1	
25	30	7.62	9.14	K270778													2.5	0.2	3	58	52	1	3	1	
30	35	9.14	10.67	K270779													2.5	0.1	5	40	57	1	1	1	
35	40	10.67	12.19	K270780													2.5	0.1	2	43	70	1	2	1	
40	45	12.19	13.72	K270781													2.5	0.1	5	41	42	1	1	1	
45	50	13.72	15.24	K270782													5	0.1	14	159	55	1	1	1	
50	55	15.24	16.76	K270783													2.5	0.1	4	109	34	1	1	1	
55	60	16.76	18.29	K270784													2.5	0.1	9	94	33	1	1	1	
60	65	18.29	19.81	K270785													2.5	0.1	3	40	29	1	1	1	
65	70	19.81	21.34	K270786													2.5	0.1	5	48	39	1	1	1	
70	75	21.34	22.86	K270787													5	0.1	4	144	28	3	1	1	
75	80	22.86	24.38	K270788													5	0.1	5	151	48	2	1	1	
80	85	24.38	25.91	K270789													2.5	0.1	6	31	30	1	1	1	
85	90	25.91	27.43	K270790													2.5	0.1	7	110	33	1	1	1	
90	95	27.43	28.96	K270791													2.5	0.1	6	40	58	1	1	1	
95	100	28.96	30.48	K270792													2.5	0.1	6	54	51	1	1	2	
EOH																									

*Au in ppb,all other metals in ppm,except when values are bold which are expressed in %

"n=none,t<1%,w=1-3%,f=3-5%,m=5-7%,ms=7-10%,s=10-15%,i=15-20%

PROJECT: **HOPPER**	PROPERTY : **HOPPER**	HOLE NUMBER :**PDH 11-58**		Pag 1 of 1

Drill hole data			
	Easting : 397702	**Depth :** 30.48	**Comment**: Weakly propylitic altered , tracely oxidized, monzonite and granodiorite. Minor mineralization occurs in granodiorite and consist of trace disseminated pyrite.
	Northing : 6795104	**Diameter :**	
	Azimuth : 0	**Down hole azimuth/depth :**	
	Dip : -90	**Down hole dip/ depth :**	

From (ft)	To (ft)	From (m)	To (m)	Sample number	Lithology	Colour	Alteration				" Minerals						Assay *								Comment
							Oxidation	Propylitic	Potassic	Argillic	Py	Po	As	Gn	Sp	Cp	Au	Ag	Pb	Cu	Zn	As	Bi	Sb	
0	5	0.00	1.52	K270793	MNZ	LT GY	t	w									7	0.1	6	141	31	3	1	1	Medium to coarse grained, tracely oxidized, weakly propylitic altered, quartz monzonite. Calcite coatings are present on fractures, effervesces with HCl. Chlorite affects biotite. Sericite is common. Feldspar is slightly clayed. Rock is magnetic. Weak magnetite occurs disseminated as solitaire euhedral crystals, occasionally is oxidized to hematite.
5	10	1.52	3.05	K270794													7	0.1	7	207	26	2	1	1	
10	15	3.05	4.57	K270795													6	0.2	15	99	27	3	2	1	
15	20	4.57	6.10	K270796													6	0.1	7	228	25	1	1	1	
20	25	6.10	7.62	K270797	GRD	GY	t	w			t						7	0.1	6	159	20	1	1	1	Quartz increases, orthoclase decreases to granodiorite composition. Rock is medium grained, weakly propylitic altered and tracely oxidized. Magnetite is disseminated throughout the interval, locally being replaced by hematite. Biotite is partly replaced by chlorite. Calcite coatings are common. Minor pyrite is disseminated . Occasionally quartz shows recrystalization, fine sucrosic texture.
25	30	7.62	9.14	K270798													9	0.1	8	128	22	1	1	1	
30	35	9.14	10.67	K270799													6	0.1	10	104	23	1	1	1	
35	40	10.67	12.19	K270800													11	0.1	12	130	26	1	1	2	
40	45	12.19	13.72	K270801													6	0.1	10	159	34	2	1	1	
45	50	13.72	15.24	K270802													2.5	0.1	9	147	36	1	1	1	
50	55	15.24	16.76	K270803													2.5	0.1	12	52	35	2	1	1	
55	60	16.76	18.29	K270804													2.5	0.1	11	51	35	2	1	1	
60	65	18.29	19.81	K270805													2.5	0.1	11	67	41	3	1	1	
65	70	19.81	21.34	K270806													2.5	0.1	12	37	30	1	1	1	
70	75	21.34	22.86	K270807													2.5	0.1	10	18	37	3	1	1	
75	80	22.86	24.38	K270808													2.5	0.1	10	22	32	2	1	1	
80	85	24.38	25.91	K270809													2.5	0.1	8	7	2	1	1	2	
85	90	25.91	27.43	K270810													2.5	0.1	9	47	29	1	1	1	
90	95	27.43	28.96	K270811													6	0.1	9	36	34	1	2	1	
95	100	28.96	30.48	K270812													2.5	0.1	8	19	32	2	1	1	
EOH																									

*Au in ppb,all other metals in ppm,except when values are bold which are expressed in %

"n=none,t<1%,w=1-3%,f=3-5%,m=5-7%,ms=7-10%,s=10-15%,i=15-20%

APPENDIX VI

REPORT ON HELICOPTER-BORNE VERSATILE TIME DOMAIN ELECTROMAGNETIC (VTEM) AND AEROMAGNETIC GEOPHYSICAL SURVEY

REPORT ON A HELICOPTER-BORNE VERSATILE TIME DOMAIN ELECTROMAGNETIC (VTEM) AND AEROMAGNETIC GEOPHYSICAL SURVEY

Hopper and Hooch Properties

Haines Junction, Yukon Territory

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Survey flown during November to December 2011

Project 11354

January, 2012

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REPORT ON A HELICOPTER-BORNE VERSATILE TIME DOMAIN ELECTROMAGNETIC (VTEM) and AEROMAGNETIC SURVEY

Hooch and Hopper Properties
Haines Junction, Yukon Territory

Executive Summary

During November 22nd, 2011 to January 12th, 2012 Geotech Ltd. carried out a helicopter-borne geophysical survey over the Hooch and Hopper Properties located near Haines Junction, Yukon Territory, Canada.

Principal geophysical sensors included a versatile time domain electromagnetic (VTEM) system, and a cesium magnetometer. Ancillary equipment included a GPS navigation system and a radar altimeter. A total of 2083 line-kilometres of geophysical data were acquired.

In-field data quality assurance and preliminary processing were carried out on a daily basis during the acquisition phase. Preliminary and final data processing, including generation of final digital data and map products were undertaken from the office of Geotech Ltd. in Aurora, Ontario.

The processed survey results are presented as the following maps:

- Total Magnetic Intensity
- B-Field Z Component Channel grid
- Calculated Time Constant (TAU)
- Electromagnetic stacked profiles of the B-field Z component
- Electromagnetic stacked profiles of the dB/dt Z component

Digital data includes all electromagnetic and magnetic products, ancillary data and the VTEM waveform.

The survey report describes the procedures for data acquisition, processing, final image presentation and the specifications for the digital data set.

1. INTRODUCTION

1.1 General Considerations

Geotech Ltd. performed a helicopter-borne geophysical survey over the Hooch and Hopper Properties located near Haines Junction, Yukon Territory, Canada (Figure 1 & 2).

Matt Turner represented Bonaparte Resources Inc during the data acquisition and data processing phases of this project.

The geophysical surveys consisted of helicopter borne EM using the versatile time-domain electromagnetic (VTEM) system with Z component measurements and aeromagnetics using a cesium magnetometer. A total of 2083 line-km of geophysical data were acquired during the survey.

The crew was based out of Haines Junction, Yukon Territory for the acquisition phase of the survey. Survey flying started on November 22nd, 2011 and was completed on January 12th, 2012.

Data quality control and quality assurance, and preliminary data processing were carried out on a daily basis during the acquisition phase of the project. Final data processing followed immediately after the end of the survey. Final reporting, data presentation and archiving were completed from the Aurora office of Geotech Ltd. in January, 2012.

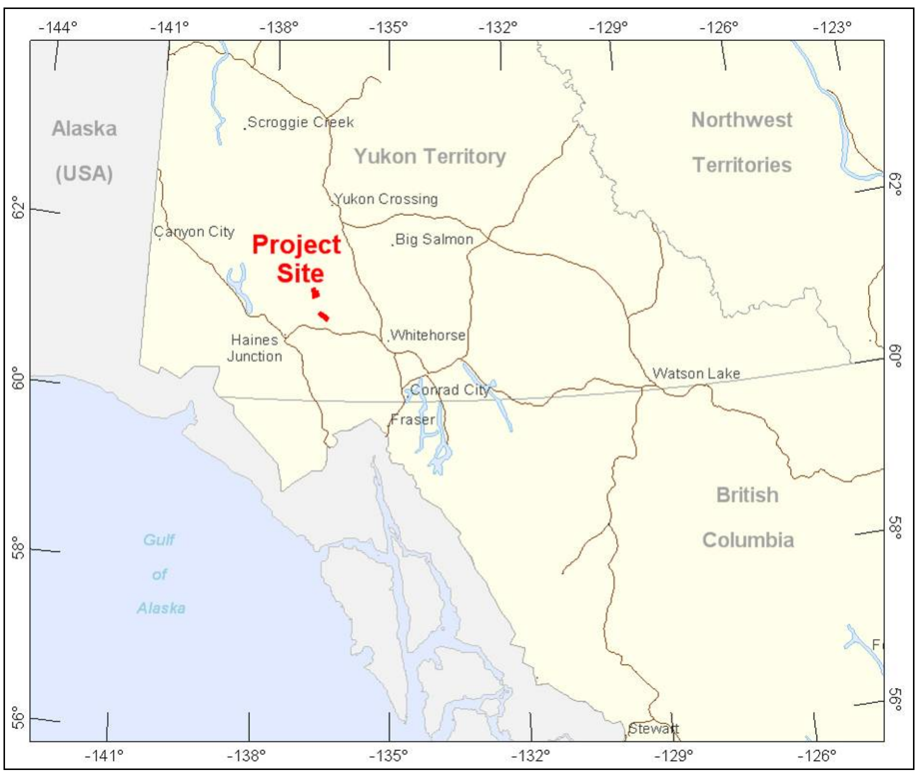


Figure 1: Property Location

1.2 Survey and System Specifications

The Blocks are located northeast of Haines Junction, Yukon Territory (Figure 2).

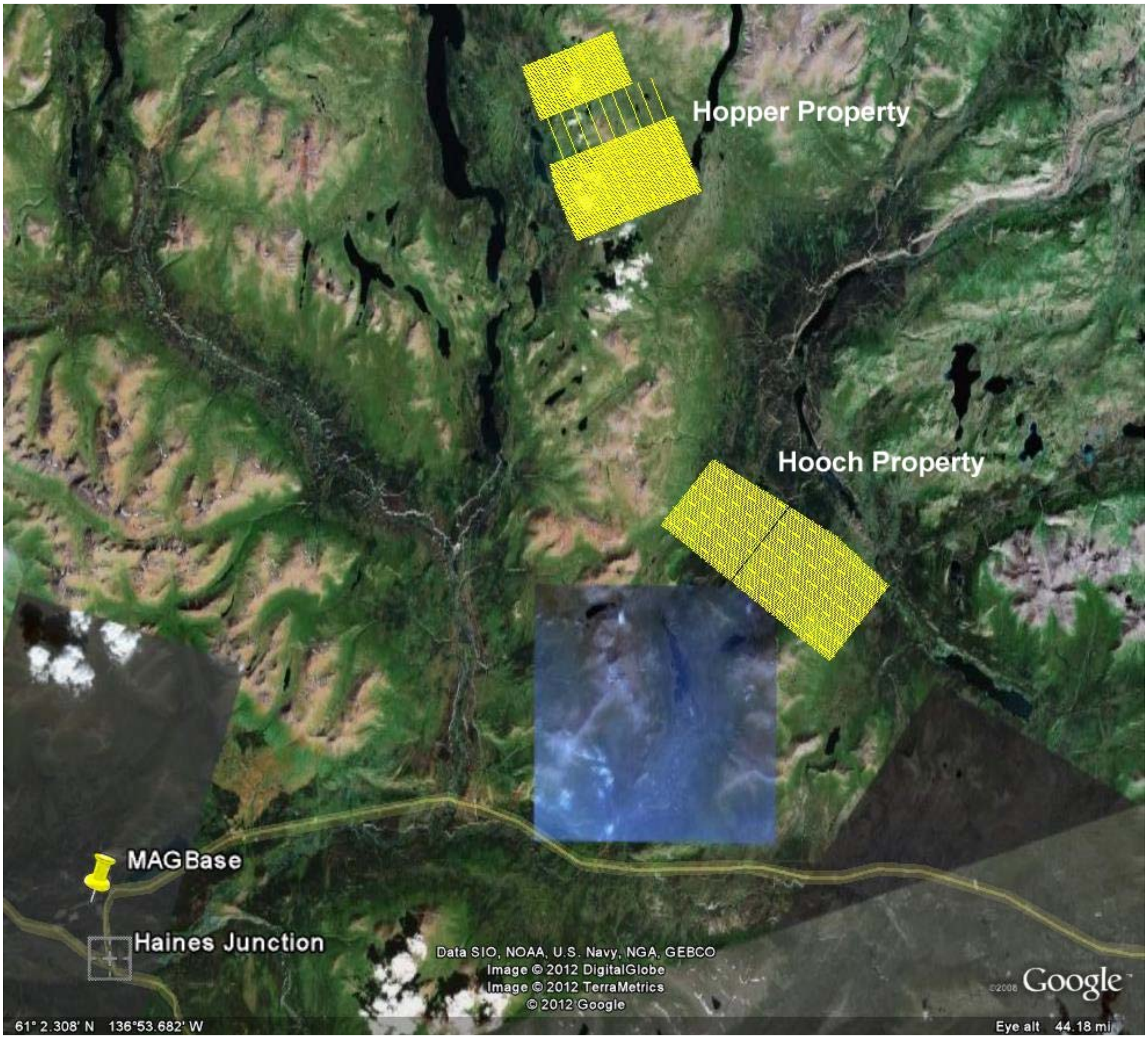


Figure 2: Survey area location on Google Earth

The Hooch block was flown in a southwest to northeast (N 40° E azimuth) direction with traverse line spacing of 100 metres as depicted in Figure 4. Tie lines were flown perpendicular to the traverse lines at a spacing of 1000 metres (N 130° E azimuth).

The Hopper block was flown in a southwest to northeast (N 70° E azimuth) direction with traverse line spacing of 100 metres as depicted in Figure 4. Tie lines were flown perpendicular to the traverse lines at a spacing of 1000 metres (N 160° E azimuth).

For more detailed information on the flight spacing and direction see Table 1.

1.3 Topographic Relief and Cultural Features

Topographically, the blocks exhibit a high relief with elevations ranging from 972 to 1622 metres above mean sea level over an area of 216 square kilometres (Figure 3 & 4).

There are various rivers and streams running through the survey area which connect various lakes and wetlands. There are visible signs of culture such as roads and a power line which run along the west side of the Hopper Property.

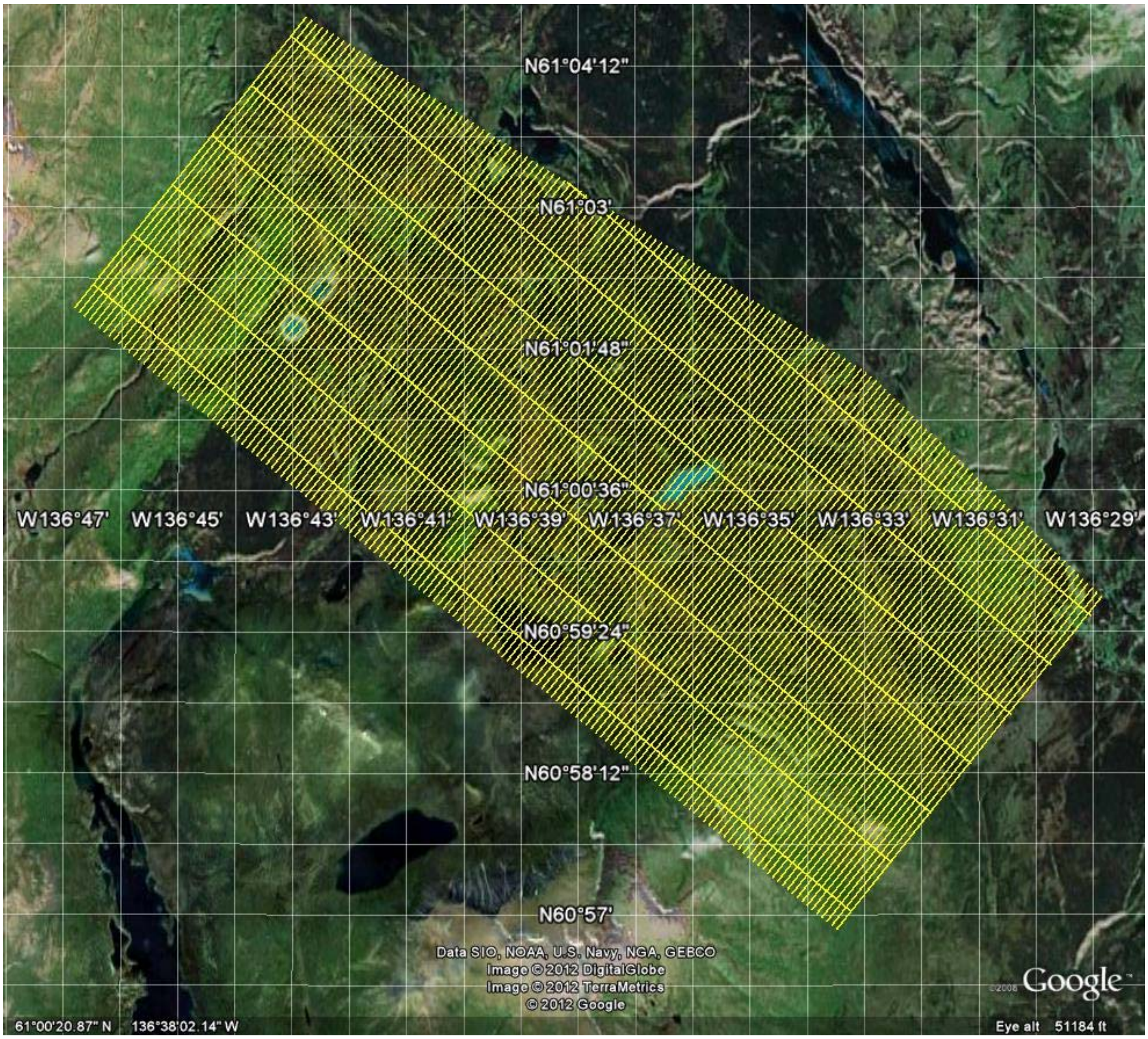


Figure 3 - Hooch Property Flight path over a Google Earth Image

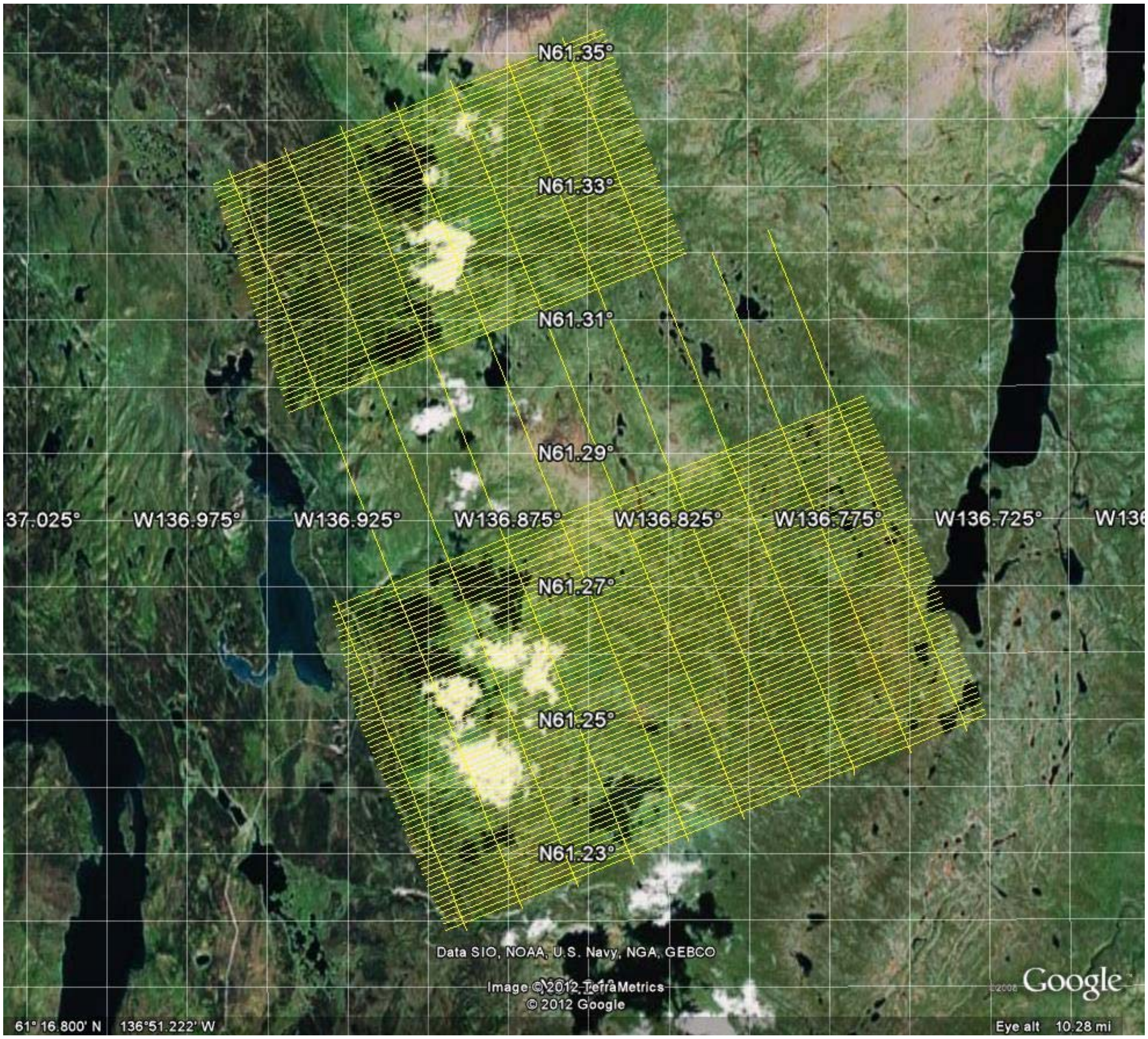


Figure 4: - Hopper Property Flight path over a Google Earth Image

2. DATA ACQUISITION

2.1 Survey Area

The survey blocks (see Figure 4 and Appendix A) and general flight specifications are as follows:

Table 1: Survey Specifications

Survey block	Traverse Line spacing (m)	Area (Km^2)	Planned[1] Line-km	Actual Line-km	Flight direction	Line numbers
Hooch	Traverse: 100	103	1138	1132	N 40° E / N 220° E	L3000-L4550
	Tie: 1000				N 130° E / N 310° E	T4800-T4860
Hopper	Traverse: 100	113	1239	951	N 70° E / N 250° E	L1000-T2300
	Tie: 1000				N 160° E / N 340° E	T2800-T2890
TOTAL		216	2378	2083		

Survey block boundaries co-ordinates are provided in Appendix B.

2.2 Survey Operations

Survey operations were based out of Haines Junction from November 22nd, 2011 to January 12th, 2012. The following table shows the timing of the flying.

Table 2: Survey schedule

Date	Flight #	Flow km	Block	Crew location	Comments
22-Nov-2011				Haines Junction,YT	Crew mobilized
23-Nov-2011				Haines Junction,YT	Crew delayed due to weather
24-Nov-2011				Haines Junction,YT	Crew arrived
25-Nov-2011				Haines Junction,YT	System assembly commenced
26-Nov-2011				Haines Junction,YT	System assembly
27-Nov-2011				Haines Junction,YT	System assembly completed
28-Nov-2011				Haines Junction,YT	Testing not done due to weather
29-Nov-2011				Haines Junction,YT	Testing started
30-Nov-2011				Haines Junction,YT	Testing
1-Dec-2011				Haines Junction,YT	Testing
2-Dec-2011				Haines Junction,YT	Testing
3-Dec-2011				Haines Junction,YT	Testing
4-Dec-2011	1	6	hooch	Haines Junction,YT	6km flown limited production due to weather
5-Dec-2011				Haines Junction,YT	No production due to weather
6-Dec-2011	2,3	232	hooch	Haines Junction,YT	232km flown
7-Dec-2011	4	205	hooch	Haines Junction,YT	205km flown
8-Dec-2011	5	215	hooch	Haines Junction,YT	215km flown
9-Dec-2011				Haines Junction,YT	No production due to technical issues
10-Dec-2011	6	107	hooch	Haines Junction,YT	107km flown

[1] Note: Actual Line kilometres represent the total line kilometres in the final database. These line-km normally exceed the Planned line-km, as indicated in the survey NAV files. However, the survey was stopped early as per the client.

Date	Flight #	Flow km	Block	Crew location	Comments
11-Dec-2011	7,8	169	hooch	Haines Junction,YT	169km flown
12-Dec-2011				Haines Junction,YT	No production due to weather
13-Dec-2011	9	67	hooch	Haines Junction,YT	67km flown limited production due to weather
14-Dec-2011	10,11	207	hopper	Haines Junction,YT	207km flown
15-Dec-2011				Haines Junction,YT	No production due to weather
16-Dec-2011	12,13	241	hopper	Haines Junction,YT	241km flown
17-Dec-2011	14,15	246	hopper	Haines Junction,YT	246km flown
18-Dec-2011				Haines Junction,YT	No production due to weather
19-Dec-2011	16	175	hopper	Haines Junction,YT	175km flown
20-Dec-2011	17,18	212	hopper	Haines Junction,YT	212km flown
21-Dec-2011				Haines Junction,YT	No production due to weather
22-Dec-2011				Haines Junction,YT	Holiday break until Jan 3 2012
3-Jan-2012				Haines Junction,YT	Crew mobilized
4-Jan-2012				Haines Junction,YT	Crew arrived
5-Jan-2012				Haines Junction,YT	Reassembly of system
6-Jan-2012				Haines Junction,YT	System testing
7-Jan-2012				Haines Junction,YT	System testing limited due to weather
8-Jan-2012				Haines Junction,YT	System testing limited due to weather
9-Jan-2012				Haines Junction,YT	No production due to weather
10-Jan-2012				Haines Junction,YT	No production due to weather
11-Jan-2012				Haines Junction,YT	No production due to weather
12-Jan-2012				Haines Junction,YT	No production due to weather – job terminated as per client

2.3 Flight Specifications

During the survey the helicopter was maintained at a mean altitude of 76 metres above the ground with a nominal survey speed of 80 km/hour. This allowed for a nominal EM bird terrain clearance of 41 metres and a magnetic sensor clearance of 63 metres.

The on board operator was responsible for monitoring the system integrity. He also maintained a detailed flight log during the survey, tracking the times of the flight as well as any unusual geophysical or topographic features.

On return of the aircrew to the base camp the survey data was transferred from a compact flash card (PCMCIA) to the data processing computer. The data were then uploaded via ftp to the Geotech office in Aurora for daily quality assurance and quality control by qualified personnel.

2.4 Aircraft and Equipment

2.4.1 Survey Aircraft

The survey was flown using a Eurocopter Aerospatiale (Astar) 350 B3 helicopter, registration C-GTEQ. The helicopter is owned and operated by Geotech Aviation. Installation of the geophysical and ancillary equipment was carried out by a Geotech Ltd crew.

2.4.2 Electromagnetic System

The electromagnetic system was a Geotech Time Domain EM (VTEM) system. VTEM, with the serial number 17 had been used for the survey. The configuration is as indicated in Figure 6.

The VTEM Receiver and transmitter coils were in concentric-coplanar and Z-direction oriented configuration. The EM bird was towed at a mean distance of 35 metres below the aircraft as shown in Figure 6 and Figure 7. The receiver decay recording scheme is shown diagrammatically in Figure 5.

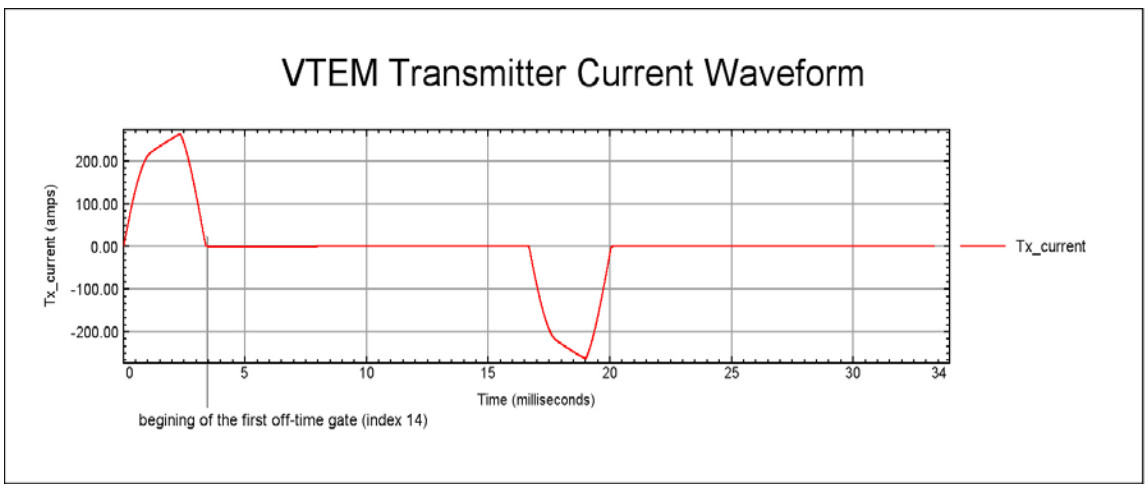


Figure 5 - VTEM Waveform

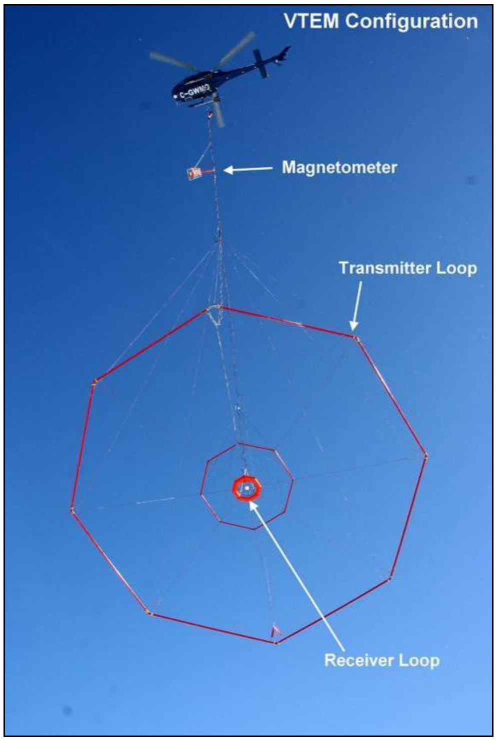


Figure 6: VTEM Configuration, with magnetometer.

The VTEM decay sampling scheme is shown in Table 3 below. Thirty-two time measurement gates were used for the final data processing in the range from 0.096 to 7.036 msec.

Table 3: Off-Time Decay Sampling Scheme

VTEM Decay Sampling Scheme			
Index	**Middle**	**Start**	**End**
Milliseconds			
14	0.096	0.090	0.103
15	0.110	0.103	0.118
16	0.126	0.118	0.136
17	0.145	0.136	0.156
18	0.167	0.156	0.179
19	0.192	0.179	0.206
20	0.220	0.206	0.236
21	0.253	0.236	0.271
22	0.290	0.271	0.312
23	0.333	0.312	0.358
24	0.383	0.358	0.411
25	0.440	0.411	0.472
26	0.505	0.472	0.543
27	0.580	0.543	0.623
28	0.667	0.623	0.716
29	0.766	0.716	0.823
30	0.880	0.823	0.945
31	1.010	0.945	1.086
32	1.161	1.086	1.247
33	1.333	1.247	1.432
34	1.531	1.432	1.646
35	1.760	1.646	1.891
36	2.021	1.891	2.172
37	2.323	2.172	2.495
38	2.667	2.495	2.865
39	3.063	2.865	3.292
40	3.521	3.292	3.781
41	4.042	3.781	4.341
42	4.641	4.341	4.987
43	5.333	4.987	5.729
44	6.125	5.729	6.581
45	7.036	6.581	7.560

Z Component: 14-45 time gates
X Component: 20-45 time gates.

VTEM system specification:

Transmitter

- Transmitter coil diameter: 17.6 m
- Number of turns: 4
- Effective coil area: 973 m^2
- Transmitter base frequency: 30 Hz
- Peak current: 260 A
- Pulse width: 3.40 ms
- Wave form shape: trapezoid
- Peak dipole moment: 253,016 nIA
- Nominal EM Bird terrain clearance: 41 metres above the ground

Receiver

- Z-Coil coil diameter: 1.2 m
- Number of turns: 100
- Effective coil area: 113.04 m^2

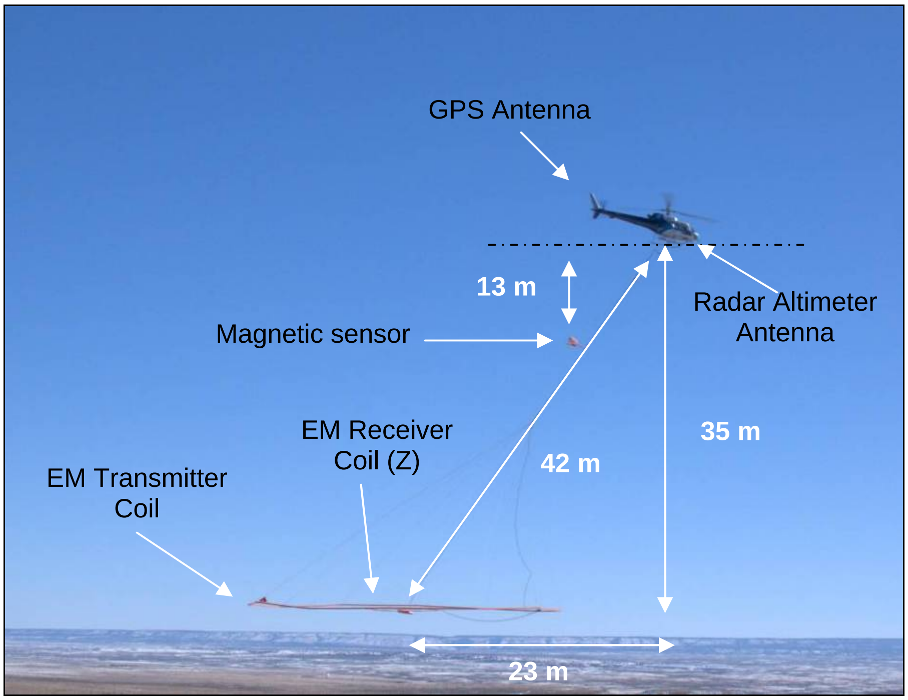


Figure 7: VTEM System Configuration

2.4.3 Airborne magnetometer

The magnetic sensor utilized for the survey was Geometrics optically pumped cesium vapour magnetic field sensor mounted 13 metres below the helicopter, as shown in Figure 7. The sensitivity of the magnetic sensor is 0.02 nanoTesla (nT) at a sampling interval of 0.1 seconds.

2.4.4 Radar Altimeter

A Terra TRA 3000/TRI 40 radar altimeter was used to record terrain clearance. The antenna was mounted beneath the bubble of the helicopter cockpit (Figure 7).

2.4.5 GPS Navigation System

The navigation system used was a Geotech PC104 based navigation system utilizing a NovAtel's WAAS(Wide Area Augmentation System) enable OEM4-G2-3151W GPS receiver, Geotech navigate software, a full screen display with controls in front of the pilot to direct the flight and an NovAtel GPS antenna mounted on the helicopter tail (Figure 7). As many as 11 GPS and two WAAS satellites may be monitored at any one time. The positional accuracy or circular error probability (CEP) is 1.8 m, with WAAS active, it is 1.0 m. The co-ordinates of the block were set-up prior to the survey and the information was fed into the airborne navigation system.

2.4.6 Digital Acquisition System

A Geotech data acquisition system recorded the digital survey data on an internal compact flash card. Data is displayed on an LCD screen as traces to allow the operator to monitor the integrity of the system. The data type and sampling interval as provided in Table 4.

Table 4: Acquisition Sampling Rates

Data Type	Sampling
TDEM	0.1 sec
Magnetometer	0.1 sec
GPS Position	0.2 sec
Radar Altimeter	0.2 sec

2.5 Base Station

A combined magnetometer/GPS base station was utilized on this project. A Geometrics Cesium vapour magnetometer was used as a magnetic sensor with a sensitivity of 0.001 nT. The base station was recording the magnetic field together with the GPS time at 1 Hz on a base station computer.

The base station magnetometer sensor was installed at Haines Junction airport in wooded area (60º 47.3879'N, 137º 32.2584'W); away from electric transmission lines and moving ferrous objects such as motor vehicles. The base station data were backed-up to the data processing computer at the end of each survey day.

3. PERSONNEL

The following Geotech Ltd. personnel were involved in the project.

Field:

Project Manager:	Darren Tuck (office)
Data QA/QC:	Emilio Schein (office)
Crew Chief:	Benjamin Bruder
System Operators:	Claudiu Chirigel

The survey pilot and the mechanical engineer were employed directly by the helicopter operator – Geotech Aviation.

Pilot:	Guy Poirier
Mechanical Engineer:	Greg Hynes

Office:

Preliminary Data Processing:	Emilio Schein
Final Data Processing:	ZiHao Han
Final Data QA/QC:	Alexander Prikhodko
Reporting/Mapping:	Wendy Acorn

Data acquisition phase was carried out under the supervision of Andrei Bagrianski, P. Geo, Chief Operations Officer. The processing and interpretation phase was under the supervision of Alexander Prikhodko, P. Geo, Ph.D. The overall contract management and customer relations were by Mandy Long.

4. DATA PROCESSING AND PRESENTATION

Data compilation and processing were carried out by the application of Geosoft OASIS Montaj and programs proprietary to Geotech Ltd.

4.1 Flight Path

The flight path, recorded by the acquisition program as WGS 84 latitude/longitude, was converted into the NAD83 Datum, UTM Zone 8 North coordinate system in Oasis Montaj.

The flight path was drawn using linear interpolation between x, y positions from the navigation system. Positions are updated every second and expressed as UTM easting's (x) and UTM northing's (y).

4.2 Electromagnetic Data

A three stage digital filtering process was used to reject major sferic events and to reduce system noise. Local sferic activity can produce sharp, large amplitude events that cannot be removed by conventional filtering procedures. Smoothing or stacking will reduce their amplitude but leave a broader residual response that can be confused with geological phenomena. To avoid this possibility, a computer algorithm searches out and rejects the major sferic events.

The signal to noise ratio was further improved by the application of a low pass linear digital filter. This filter has zero phase shift which prevents any lag or peak displacement from occurring, and it suppresses only variations with a wavelength less than about 1 second or 15 metres. This filter is a symmetrical 1 sec linear filter.

The results are presented as stacked profiles of EM voltages for the time gates, in linear - logarithmic scale for the B-field Z component and dB/dt responses in the Z. B-field Z component time channel recorded at 2.021 milliseconds after the termination of the impulse is also presented as a color image. Calculated Time Constant (TAU) with anomaly contours of Calculated Vertical Derivative of TMI is presented in Appendix C and E. Tau was calculated for B-Field and dB/dt. Resistivity Depth Image (RDI) is also presented in Appendix C and F.

VTEM receiver coil orientation Z-axis coil is oriented parallel to the transmitter coil axis and is horizontal to the ground. Generalized modeling results of VTEM data, are shown in Appendix D.

Z component data produce double peak type anomalies for "thin" subvertical targets and single peak for "thick" targets.

The limits and change-over of "thin-thick" depends on dimensions of a TEM system the system's height and depth of a target. For example see Appendix D, Fig.D-16.

4.3 Magnetic Data

The processing of the magnetic data involved the correction for diurnal variations by using the digitally recorded ground base station magnetic values. The base station magnetometer data was edited and merged into the Geosoft GDB database on a daily basis. The aeromagnetic data was corrected for diurnal variations by subtracting the observed magnetic base station deviations.

Tie line levelling was carried out by adjusting intersection points along traverse lines. A micro-levelling procedure was applied to remove persistent low-amplitude components of flight-line noise remaining in the data.

The corrected magnetic data was interpolated between survey lines using a random point gridding method to yield x-y grid values for a standard grid cell size of approximately 25 metres at the mapping scale. The Minimum Curvature algorithm was used to interpolate values onto a rectangular regular spaced grid.

5. DELIVERABLES

5.1 Survey Report

The survey report describes the data acquisition, processing, and final presentation of the survey results. The survey report is provided in two paper copies and digitally in PDF format.

5.2 Maps

Final maps were produced at scale of 1:20,000 for best representation of the survey size and line spacing. The coordinate/projection system used was NAD83 Datum, UTM Zone 8 North. All maps show the mining claims, flight path trace and topographic data; latitude and longitude are also noted on maps.

The preliminary and final results of the survey are presented as EM profiles, a late-time gate gridded EM channel, and a color magnetic TMI contour map. The following maps are presented on paper;

- VTEM dB/dt profiles Z Component, Time Gates 0.220 – 7.036 ms in linear – logarithmic scale.
- VTEM B-Field profiles Z Component, Time Gates 0.220 – 7.036 ms in linear – logarithmic scale.
- VTEM B-Field late time Z Component colour image.
- Total Magnetic Intensity (TMI) colour image and contours.
- VTEM dB/dt & B-Field Calculated Time Constant (TAU) with contours of anomaly areas of the Calculated Vertical Derivative of TMI

5.3 Digital Data

- Two copies of the data and maps on DVD were prepared to accompany the report. Each DVD contains a digital file of the line data in GDB Geosoft Montaj format as well as the maps in Geosoft Montaj Map and PDF format.

- DVD structure.

Data	contains databases, grids and maps, as described below.
Report	contains a copy of the report and appendices in PDF format.

Databases in Geosoft GDB format, containing the channels listed in Table 5.

Table 5: Geosoft GDB Data Format

Channel name	Units	Description
X:	metres	UTM Easting NAD83 Zone 8 North
Y:	metres	UTM Northing NAD83 Zone 8 North
Z:	metres	GPS antenna elevation (above Geoid)
Longitude:	Decimal Degrees	WGS 84 Longitude data
Latitude:	Decimal Degrees	WGS 84 Latitude data
Radar:	metres	helicopter terrain clearance from radar altimeter
Radarb:	metres	Calculated EM bird terrain clearance from radar altimeter
DEM:	metres	Digital Elevation Model
Gtime:	Seconds of the day	GPS time
Mag1:	nT	Raw Total Magnetic field data
Basemag:	nT	Magnetic diurnal variation data
Mag2:	nT	Diurnal corrected Total Magnetic field data
Mag3:	nT	Levelled Total Magnetic field data
SFz[14]:	pV/(A*m^4)	Z dB/dt 96 microsecond time channel
SFz[15]:	pV/(A*m^4)	Z dB/dt 110 microsecond time channel
SFz[16]:	pV/(A*m^4)	Z dB/dt 126 microsecond time channel
SFz[17]:	pV/(A*m^4)	Z dB/dt 145 microsecond time channel
SFz[18]:	pV/(A*m^4)	Z dB/dt 167 microsecond time channel
SFz[19]:	pV/(A*m^4)	Z dB/dt 192 microsecond time channel
SFz[20]:	pV/(A*m^4)	Z dB/dt 220 microsecond time channel
SFz[21]:	pV/(A*m^4)	Z dB/dt 253 microsecond time channel
SFz[22]:	pV/(A*m^4)	Z dB/dt 290 microsecond time channel
SFz[23]:	pV/(A*m^4)	Z dB/dt 333 microsecond time channel
SFz[24]:	pV/(A*m^4)	Z dB/dt 383 microsecond time channel
SFz[25]:	pV/(A*m^4)	Z dB/dt 440 microsecond time channel
SFz[26]:	pV/(A*m^4)	Z dB/dt 505 microsecond time channel
SFz[27]:	pV/(A*m^4)	Z dB/dt 580 microsecond time channel
SFz[28]:	pV/(A*m^4)	Z dB/dt 667 microsecond time channel
SFz[29]:	pV/(A*m^4)	Z dB/dt 766 microsecond time channel
SFz[30]:	pV/(A*m^4)	Z dB/dt 880 microsecond time channel
SFz[31]:	pV/(A*m^4)	Z dB/dt 1010 microsecond time channel
SFz[32]:	pV/(A*m^4)	Z dB/dt 1161 microsecond time channel
SFz[33]:	pV/(A*m^4)	Z dB/dt 1333 microsecond time channel
SFz[34]:	pV/(A*m^4)	Z dB/dt 1531 microsecond time channel
SFz[35]:	pV/(A*m^4)	Z dB/dt 1760 microsecond time channel
SFz[36]:	pV/(A*m^4)	Z dB/dt 2021 microsecond time channel
SFz[37]:	pV/(A*m^4)	Z dB/dt 2323 microsecond time channel
SFz[38]:	pV/(A*m^4)	Z dB/dt 2667 microsecond time channel
SFz[39]:	pV/(A*m^4)	Z dB/dt 3063 microsecond time channel
SFz[40]:	pV/(A*m^4)	Z dB/dt 3521 microsecond time channel
SFz[41]:	pV/(A*m^4)	Z dB/dt 4042 microsecond time channel
SFz[42]:	pV/(A*m^4)	Z dB/dt 4641 microsecond time channel
SFz[43]:	pV/(A*m^4)	Z dB/dt 5333 microsecond time channel
SFz[44]:	pV/(A*m^4)	Z dB/dt 6125 microsecond time channel
SFz[45]:	pV/(A*m^4)	Z dB/dt 7036 microsecond time channel
BFz	(pV*ms)/(A*m^4)	Z B-Field data for time channels 14 to 45
PLM:		60 Hz power line monitor
CVG	nT/m	Calculated Magnetic Vertical Gradient
TauSF	milliseconds	Time Constant (Tau) calculated from dB/dt data
TauBF	milliseconds	Time Constant (Tau) calculated from B-Field data
Nchan_BF		Last channel where the Tau algorithm stops calculation, B-Field data
Nchan_SF		Last channel where the Tau algorithm stops calculation, dB/dt data

Electromagnetic B-field and dB/dt Z component data is found in array channel format between indexes 14 – 45.

- Database of the VTEM Waveform "11354_waveform_final.gdb" in Geosoft GDB format, containing the following channels:

Time:	Sampling rate interval, 5.2083 milliseconds
Rx_Volt:	Output voltage of the receiver coil (Volt)
Tx_Current:	Output current of the transmitter (Amp)

- Grids in Geosoft GRD format, as follows:

TMI:	Total Magnetic Intensity (nT)
BFz36:	B-Field Z Component Channel 36 (Time Gate 2.021 ms)
TAUSFz:	dB/dt Calculated Time Constant (TAU)
TAUBFz:	B-Field Calculated Time Constant (TAU)
CVG:	Calculated Vertical Derivative of TMI (CVG)
DEM:	Digital Elevation Model

A Geosoft .GRD file has a .GI metadata file associated with it, containing grid projection information. A grid cell size of 25 metres was used.

- Maps at 1:20,000 in Geosoft MAP format, as follows:

11354_20K_dBdt_bb:	dB/dt profiles Z Component, Time Gates 0.220 – 7.036 ms in linear – logarithmic scale.
11354_20K_Bfield_bb:	B-field profiles Z Component, Time Gates 0.220 – 7.036 ms in linear – logarithmic scale.
11354_20K_BFz36_bb:	B-Field late time Z Component Channel 36, Time Gate 2.021 ms colour image.
11354_20K_TMI_bb:	Total Magnetic Intensity (TMI) colour image and contours.
11354_20K_TauSF_bb:	dB/dt Calculated Time Constant (TAU) with contours of anomaly areas of the Calculated Vertical Derivative of TMI

Where bb represents the block name ie 11354_20k_TMI_Hooch

Maps are also presented in PDF format.

- 1:50,000 topographic vectors were taken from the NRCAN Geogratis database at; http://geogratis.gc.ca/geogratis/en/index.html.

- A Google Earth file *11354_Bonaparte.kml* showing the flight path of the block is included. Free versions of Google Earth software from: http://earth.google.com/download-earth.html

6. CONCLUSIONS AND RECOMMENDATIONS

A helicopter-borne versatile time domain electromagnetic (VTEM) geophysical survey has been completed over the Hooch and Hopper Properties near Haines Junction, Yukon Territory.

The total area coverage is 216 km^2. Total survey line coverage is 2083 line kilometres. The principal sensors included a Time Domain EM system and a magnetometer. Results have been presented as stacked profiles, and contour color images at a scale of 1:20,000. A formal Interpretation has not been included or requested.

Based on the geophysical results obtained, a number of TEM anomalies were identified across the properties. These anomalies are considered as low to moderate conductive targets.

The Hopper Property

Four of EM anomaly zones in the block with high time constants (TAU dB/dt) are outlined by blue rectangles in Figure 8.

Two of them are situated in the north part of the block and conform to the (N20°W) direction (along 2820T line – NW zone and along 2840T line – NE zone). The targets are considered as dipping plate similar conductors with estimated depths to the tops less than 50 meters below the surface (See Appendix C RDI L1110). The conductive zones lengths are about 2 km along the magnetic sources. Sometimes association with local magnetic anomalies is visible (See Appendix C TAU-CVG map). The NW zone is going beyond of the block border to the north but cut by the last line.

A long anomalous zone with strong EM response oriented NNW along magnetic anomaly is located at the south-west edge of the block T2800 line). The boundary is open to both directions of its strike. The target is considered as structural conductors with top of the conductive unit near surface (See Appendix C RDI’s L1920 & L2130).

The fourth anomalous zone lies about 1 km east and oriented in NW direction crossing magnetic sources, with about 3 km in length. The target is considered as a gently dipping to the east lithological conductor.

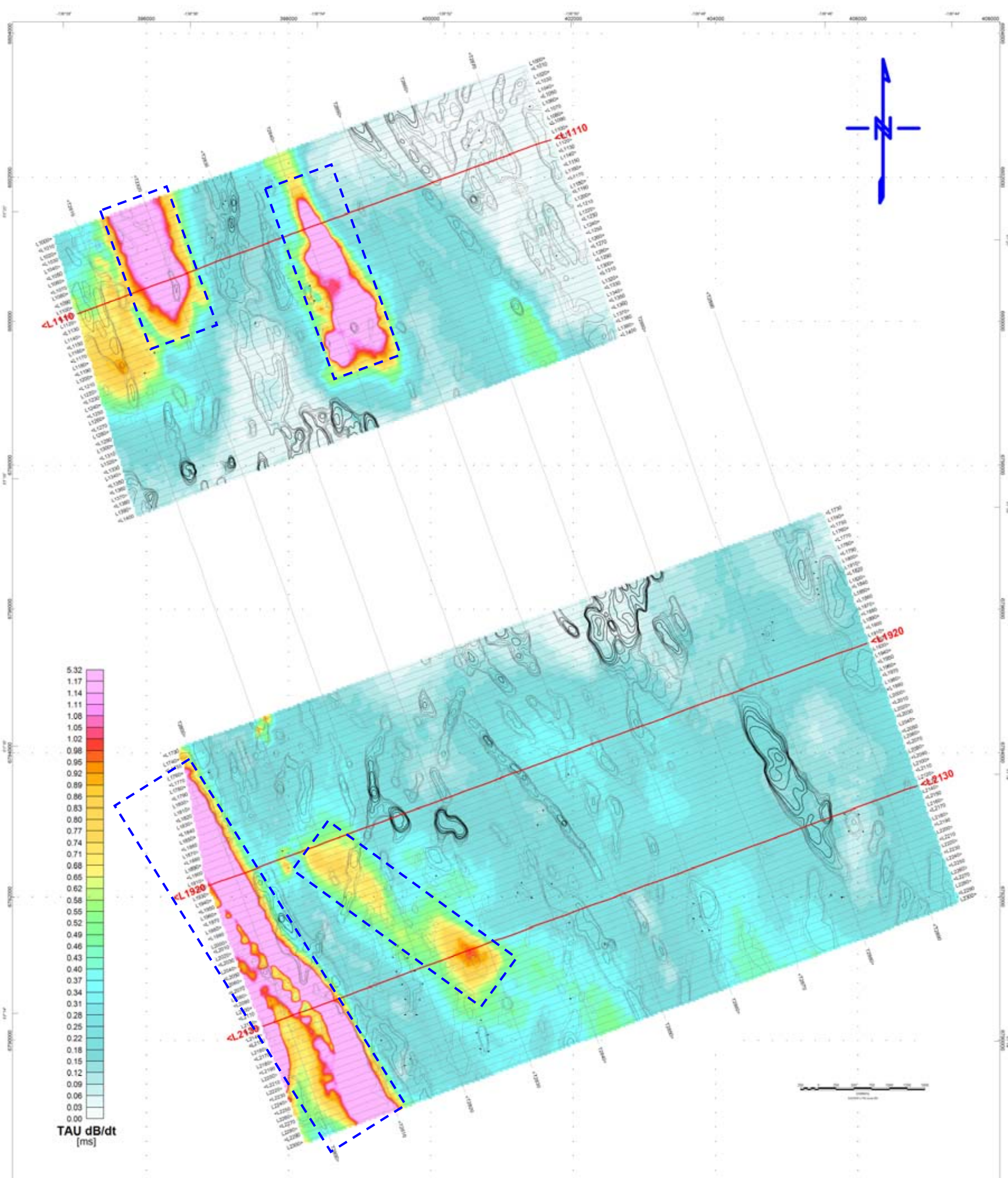


Figure 8 - TAU (dB/dt) grid overlain by CVG contours with lines chosen for RDI sections (Hopper Block)

The Hooch Property

There are several long EM anomalous zones (Zone A, B and C) and two of them traverse the whole block in NW direction (Zone B and C) along the magnetic anomaly sources (Figure 9).

Zone A is situated in the central area of the block with 6.5 km length. 4-5 EM local anomalies are in or close to this zone. The estimated depths of the targets are about 100m (See Appendix C RDI L3840).

In Zone B, there are 5 anomalies have relative larger size and higher time constant (TAU dB/dt) values. According to the RDIs, the depths of these targets are from near surface to about 100m (See Appendix C RDI L3260, L3840 and L4290).

Zone C is located along the east border of the survey area. The boundaries of the two anomalies along this zone are open.

If the conductors correspond to an exploration model, it is recommended picking anomalies with conductance grading and center localization of the targets, detail resistivity depth imaging, magnetic 3D inversion and plate Maxwell modelling prior to ground follow up and drill testing.

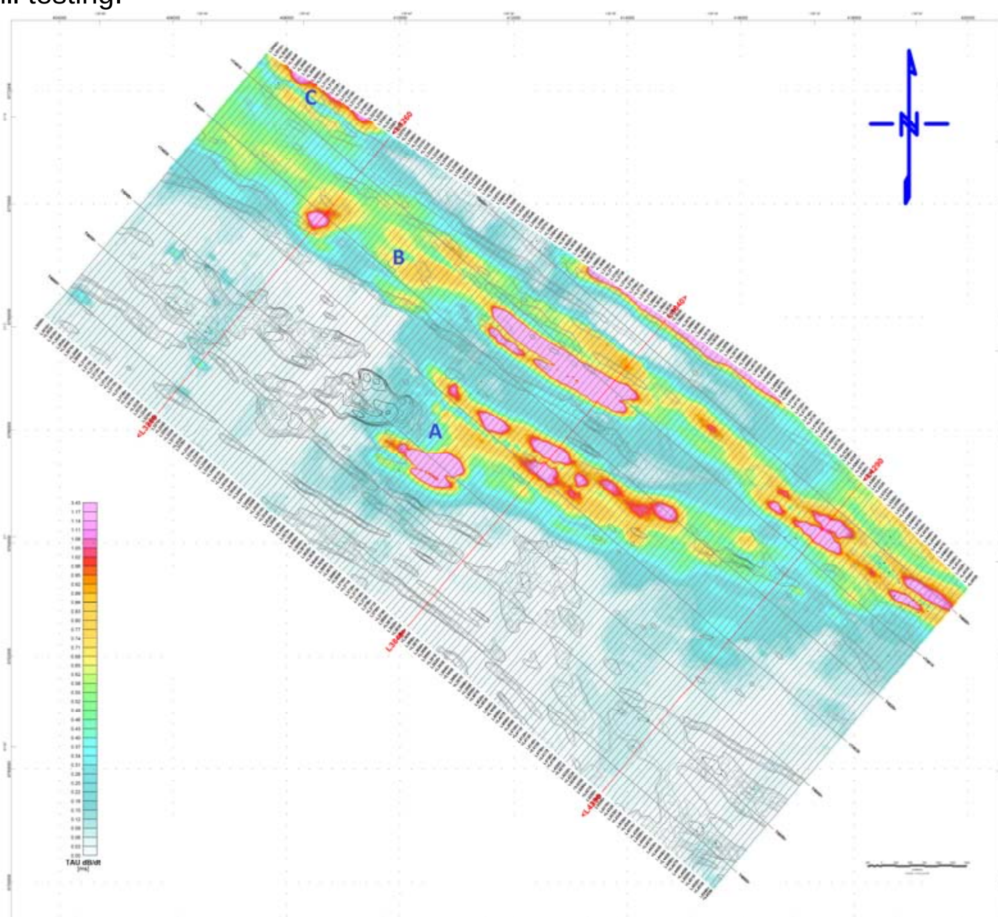


Figure 9 - TAU (dB/dt) grid overlain by CVG contours with lines chosen for RDI sections (Hooch Block)

Respectfully submitted[6],

Emilio Schein
Geotech Ltd.

ZiHao Han
Geotech Ltd.

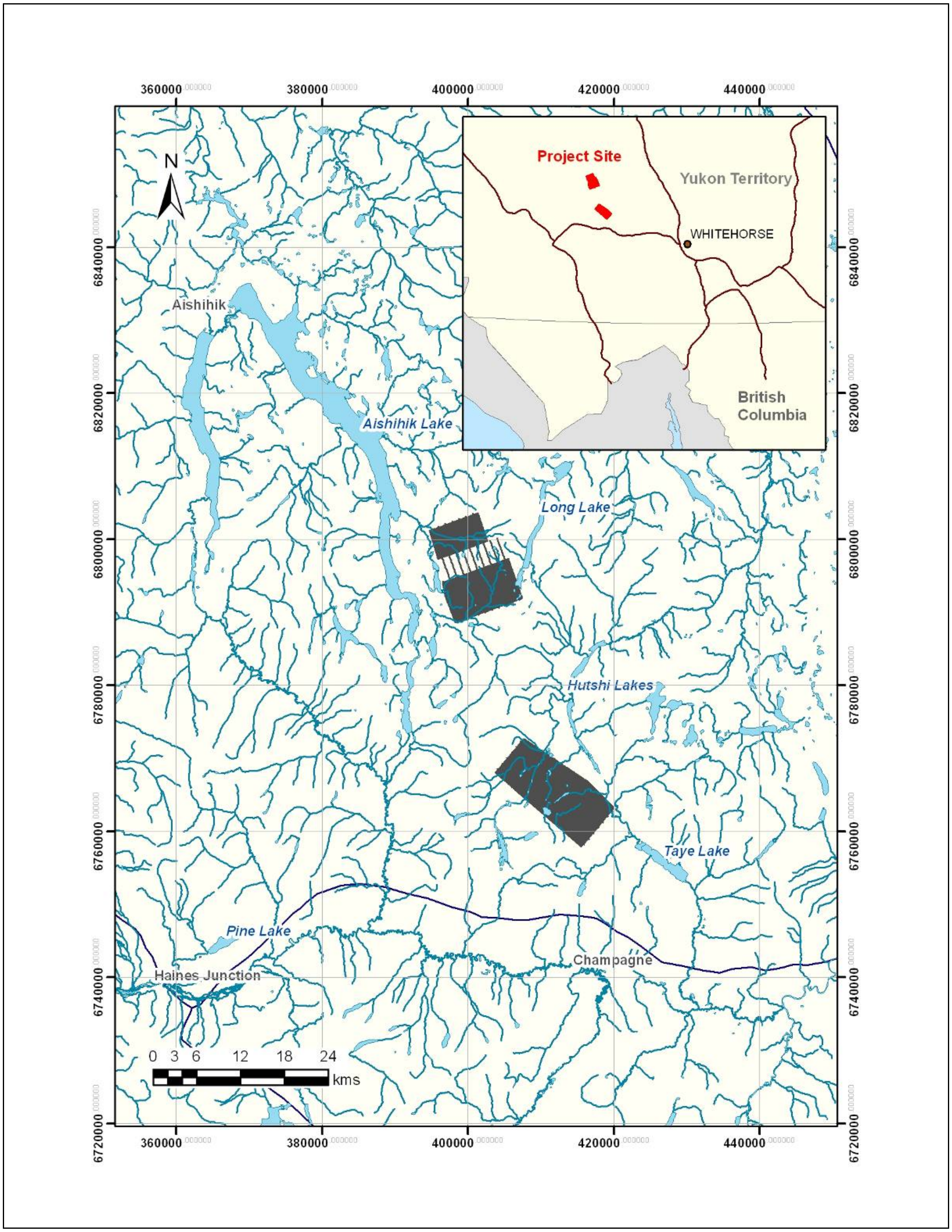
Alexander Prikhodko, P. Geo
Geotech Ltd.

January 2012

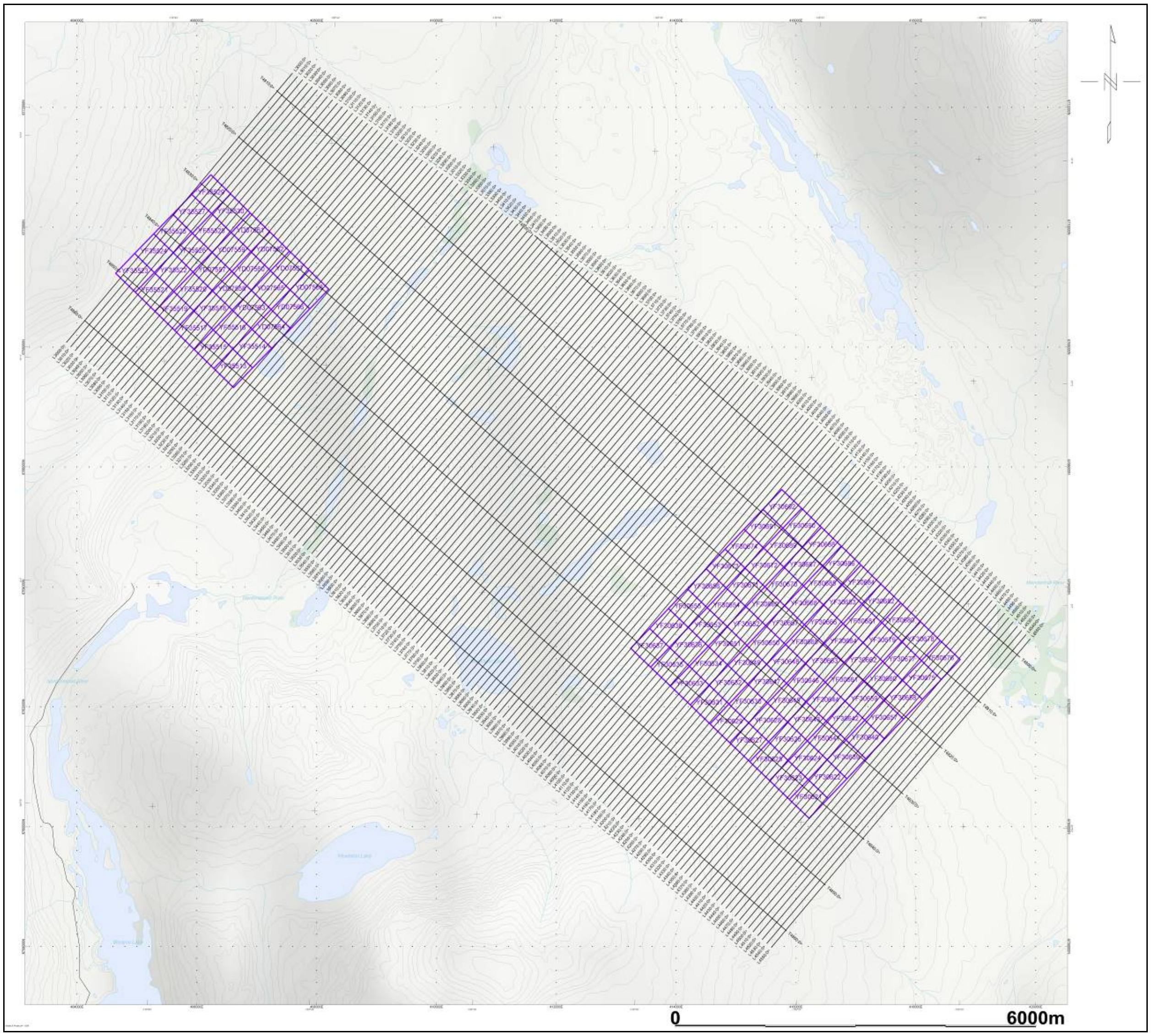
[6] Final data processing of the EM and magnetic data were carried out by Emilio Schein and ZiHao Han, from the office of Geotech Ltd. in Aurora, Ontario, under the supervision of Alexander Prikhodko, P.Geo., PhD, Senior Geophysicist, VTEM Interpretation Supervisor.

APPENDIX A

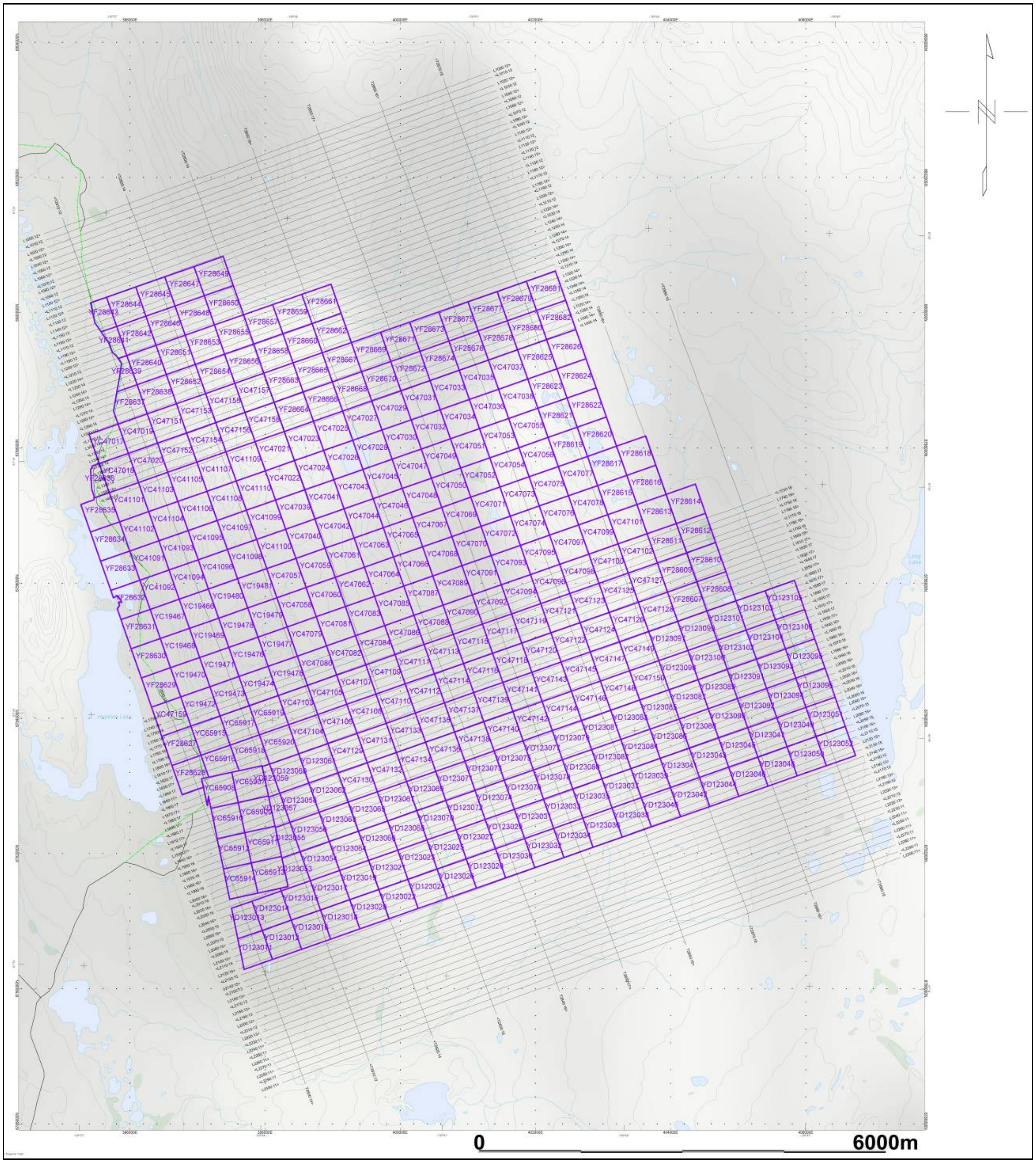
SURVEY BLOCK LOCATION MAP



Survey Overview of the Block



Mining Claims - Hooch Property



Mining Claims - Hopper Property

APPENDIX B

SURVEY BLOCK COORDINATES
(WGS 84, UTM Zone 8 North)

Hopper Property

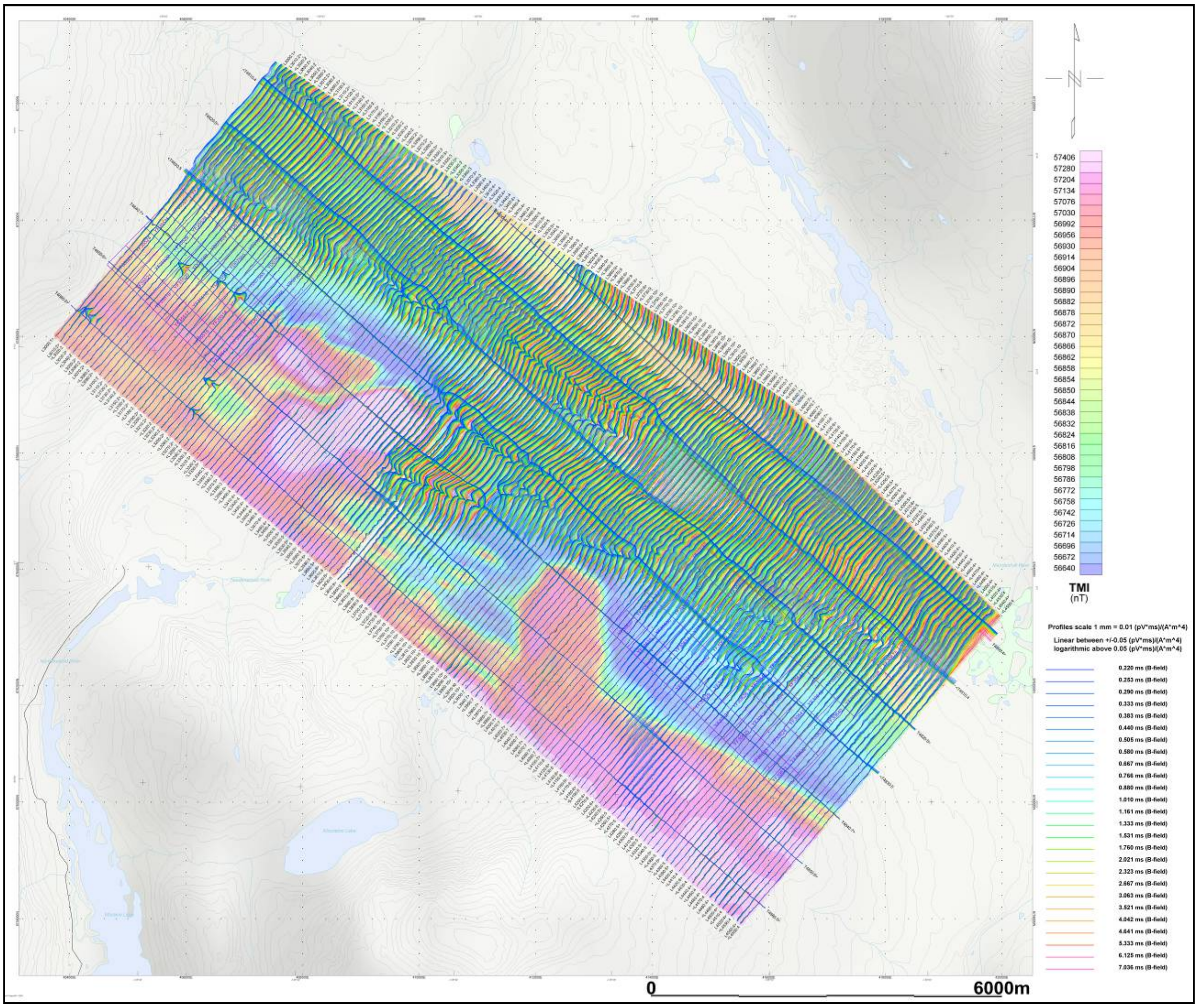
X	Y
394818.7	6801196.9
401236.7	6803532.9
402593.5	6799533
404384.4	6800170.3
407301.5	6791906
398342.6	6788644.2
396952.1	6792283.4
395976	6797314.4

Hooch Property

X	Y
403819.2	6768071.4
407580	6772580
416328.8	6766722.6
419952.9	6763082.4
415595	6757977.9

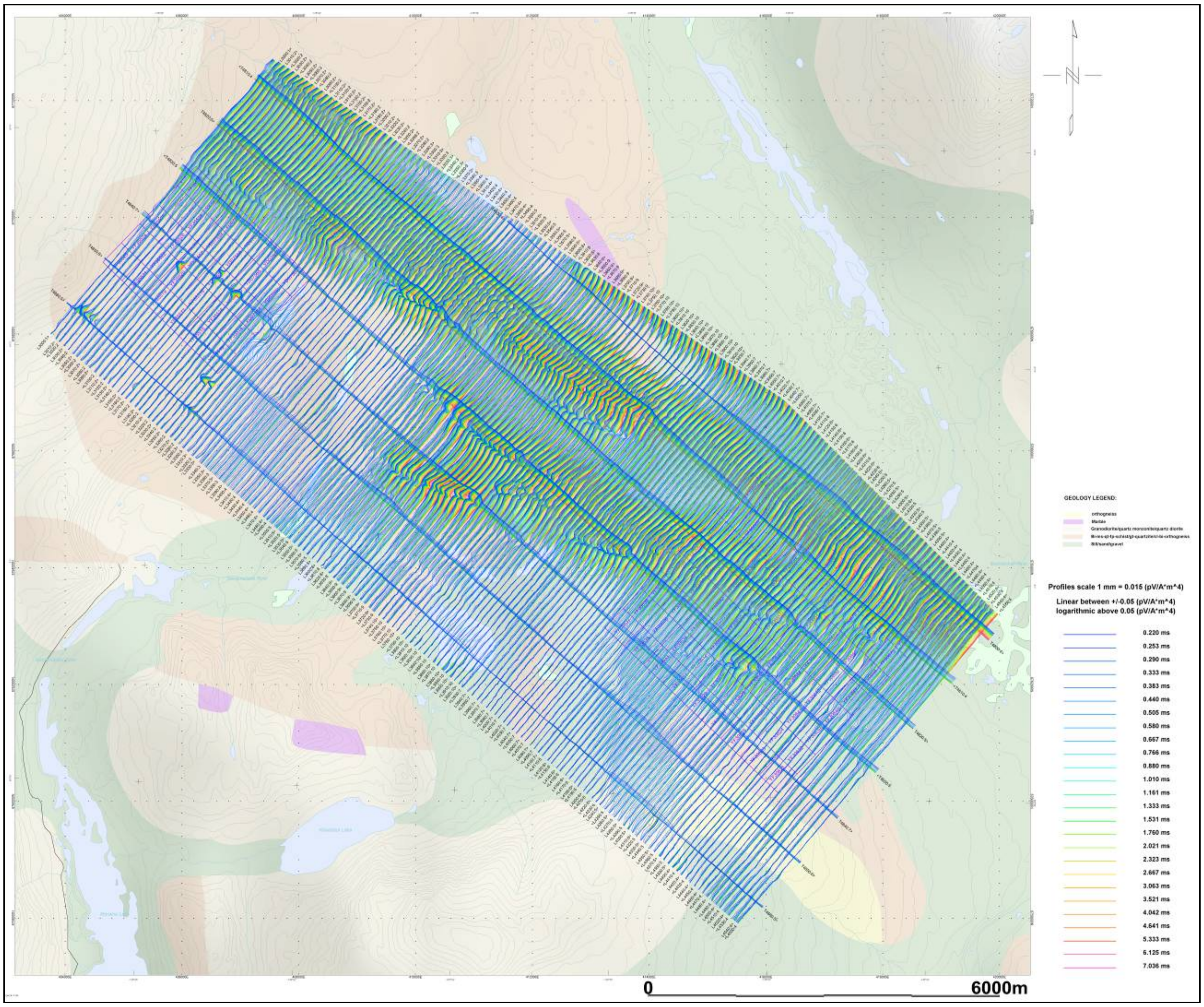
APPENDIX C

GEOPHYSICAL MAPS[1]

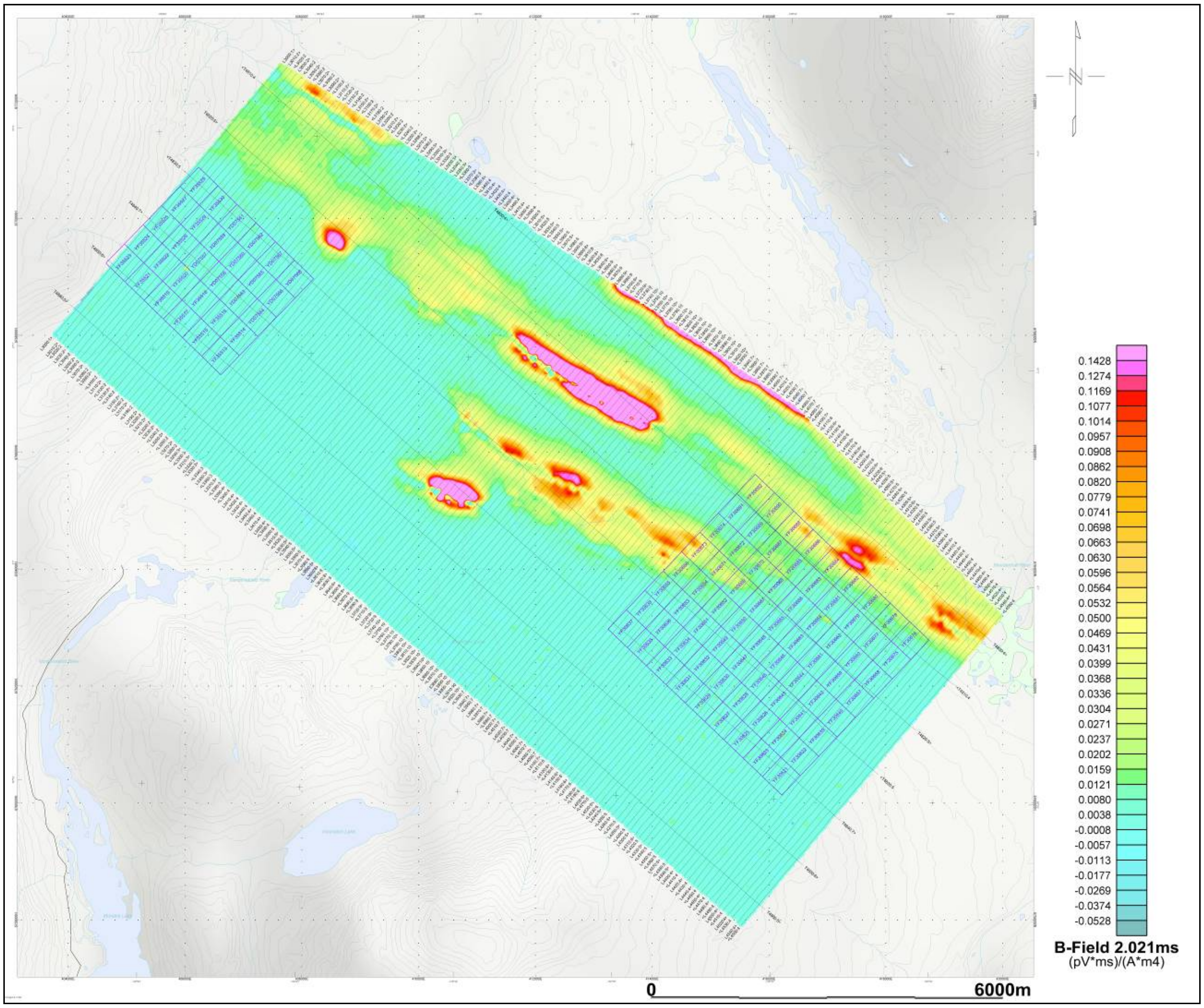


Hooch Property - VTEM B-Field Z Component Profiles, Time Gates 0.220 to 7.036 ms

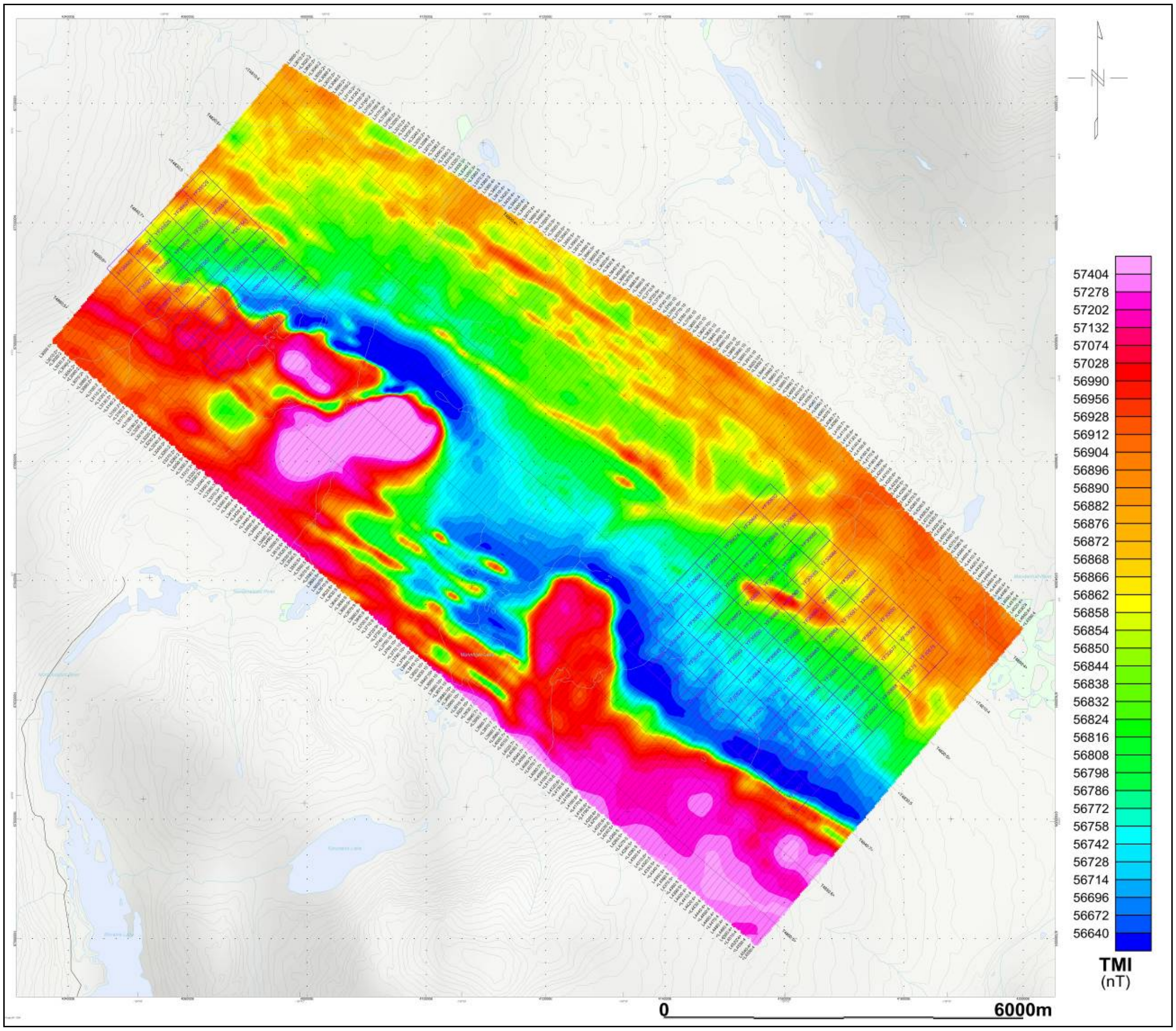
[1] Full size geophysical maps are also available in PDF format on the final DVD



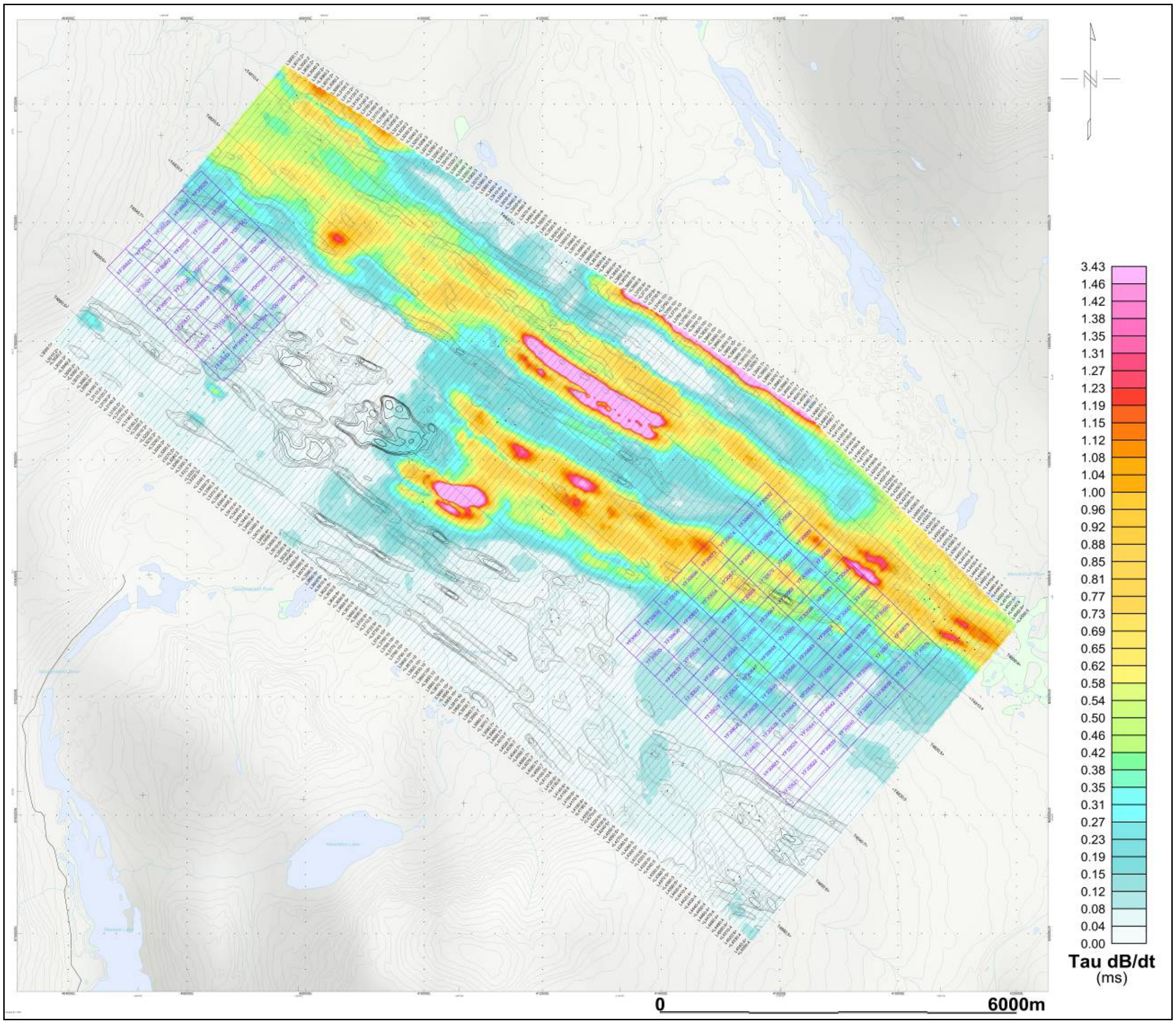
Hooch Property - VTEM dB/dt Z Component Profiles, Time Gates 0.220 to 7.036 ms



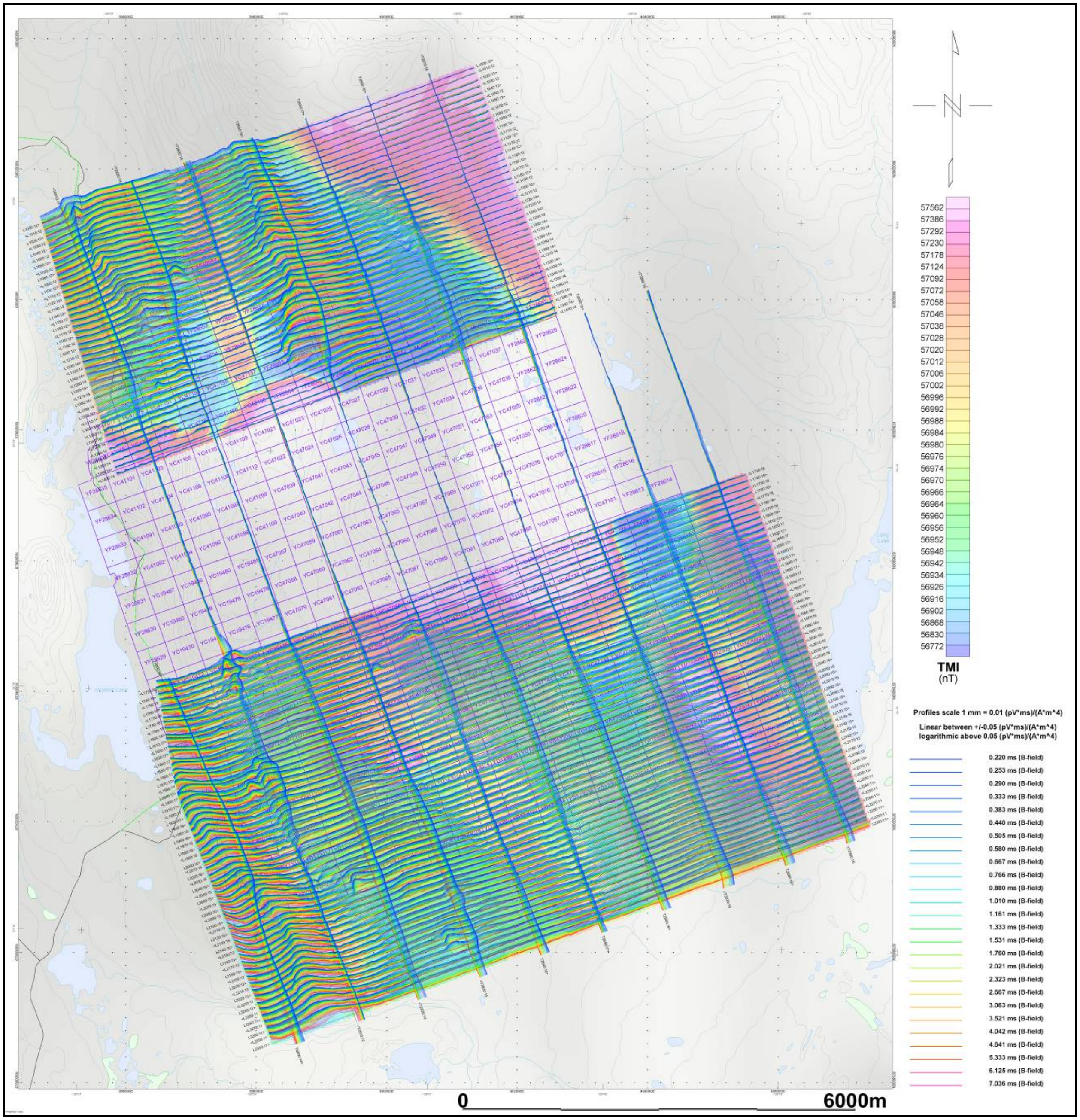
Hooch Property - VTEM B-Field Channel 36, Time Gate 2.021 ms



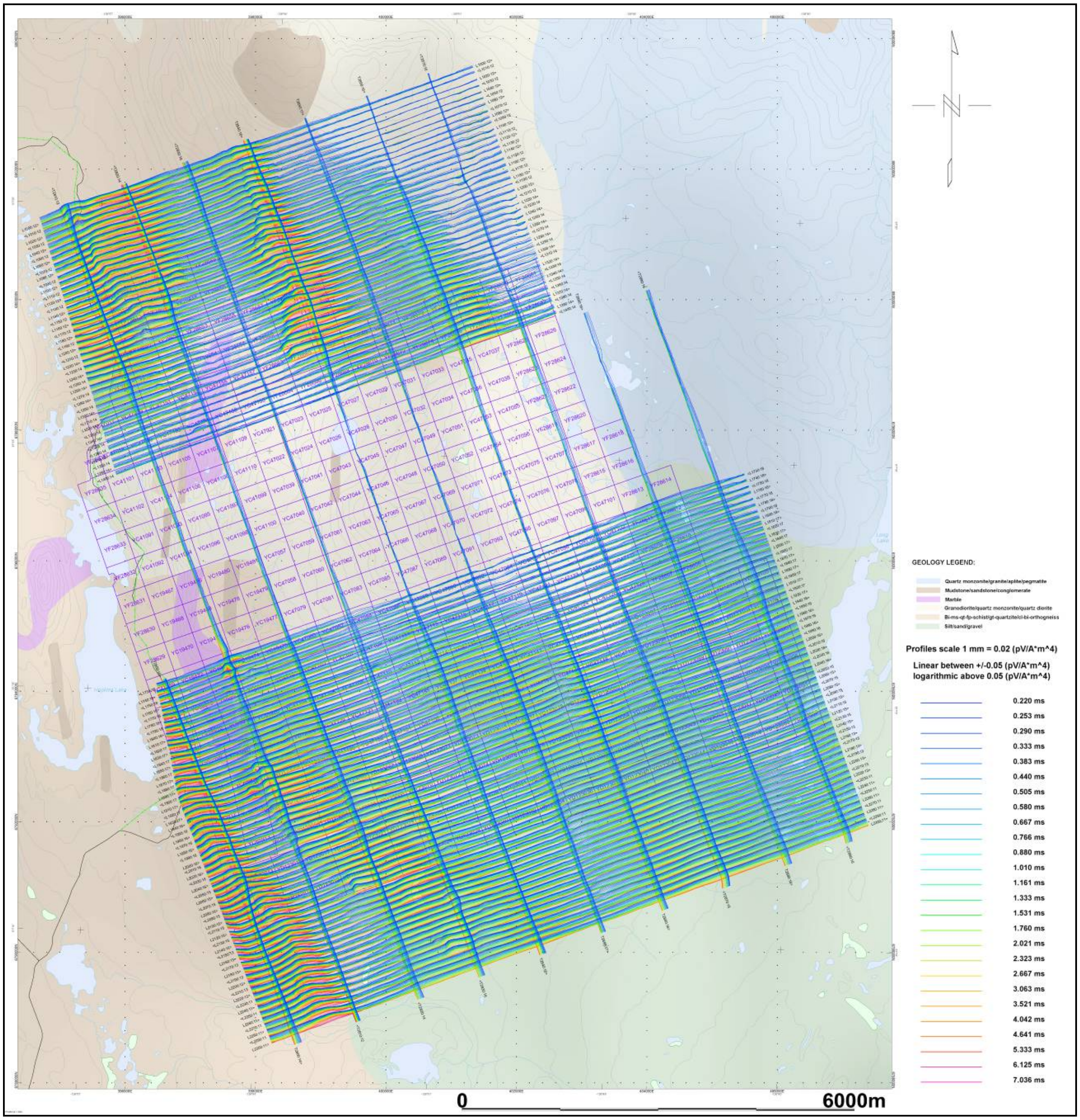
Hooch Property - Total Magnetic Intensity



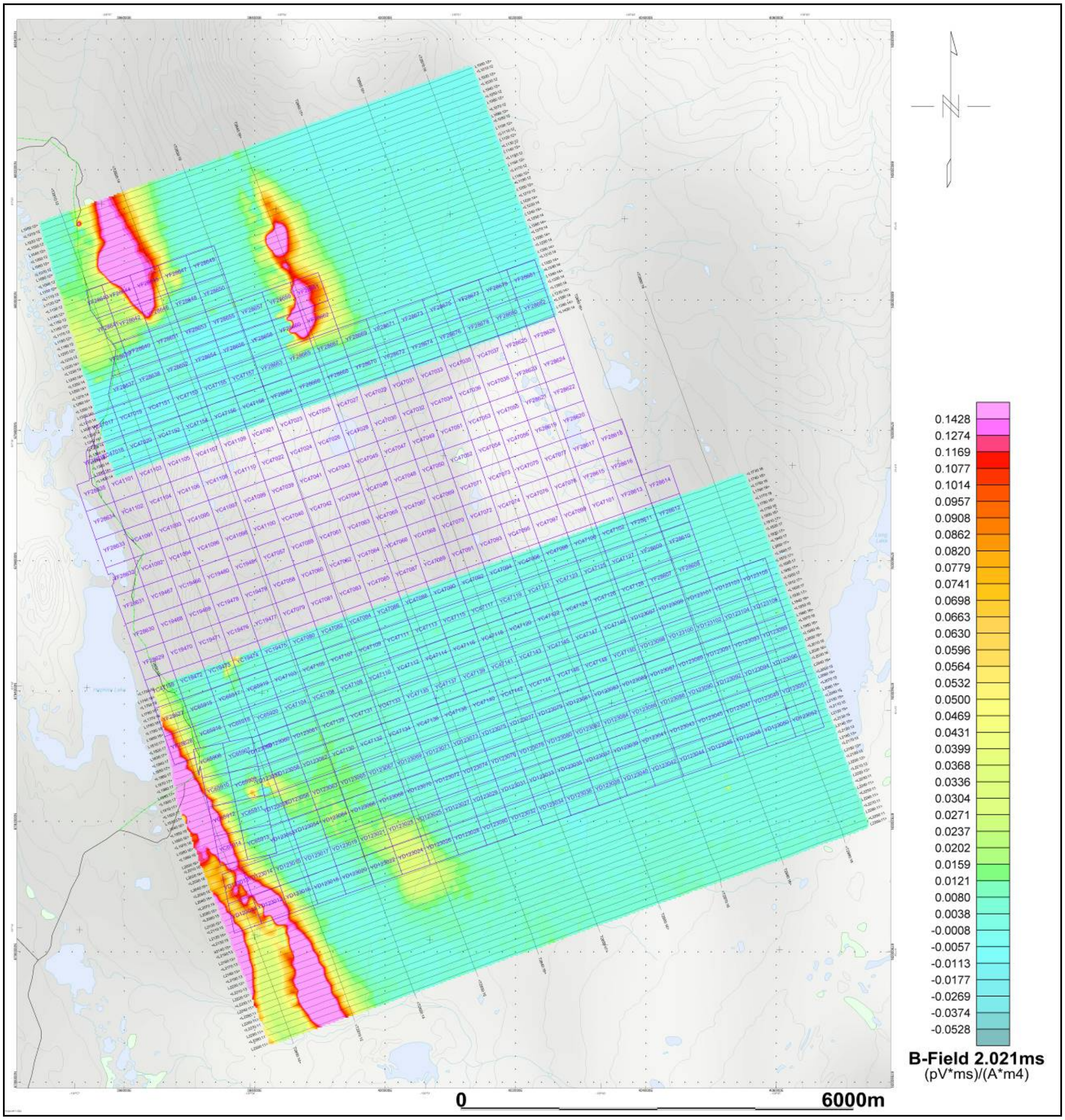
Hooch Property - VTEM dB/dt Calculated Time Constant (TAU) with contours of anomaly areas of the Calculated Vertical Derivative of TMI



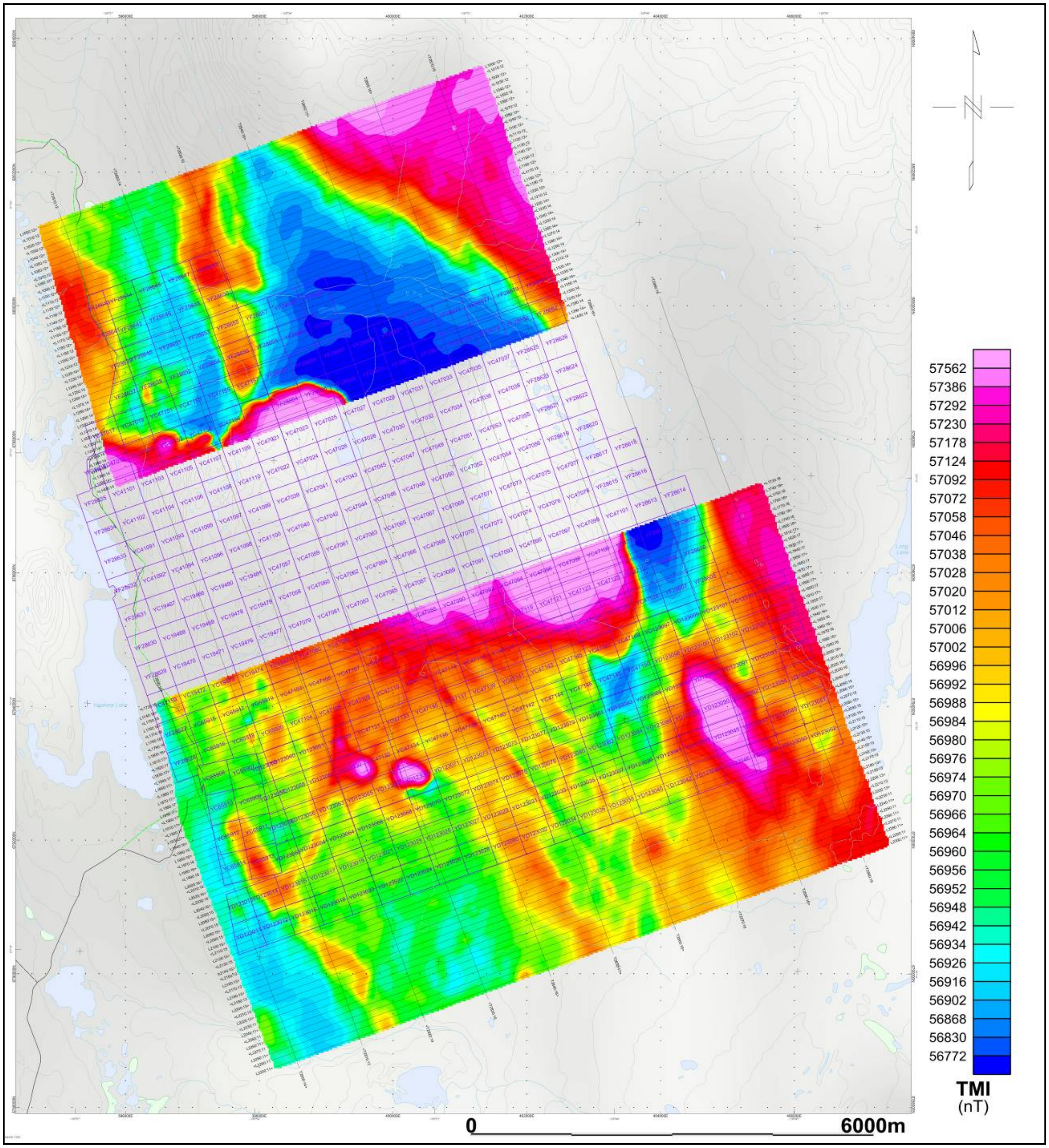
Hopper Property - VTEM B-Field Z Component Profiles, Time Gates 0.220 to 7.036 ms



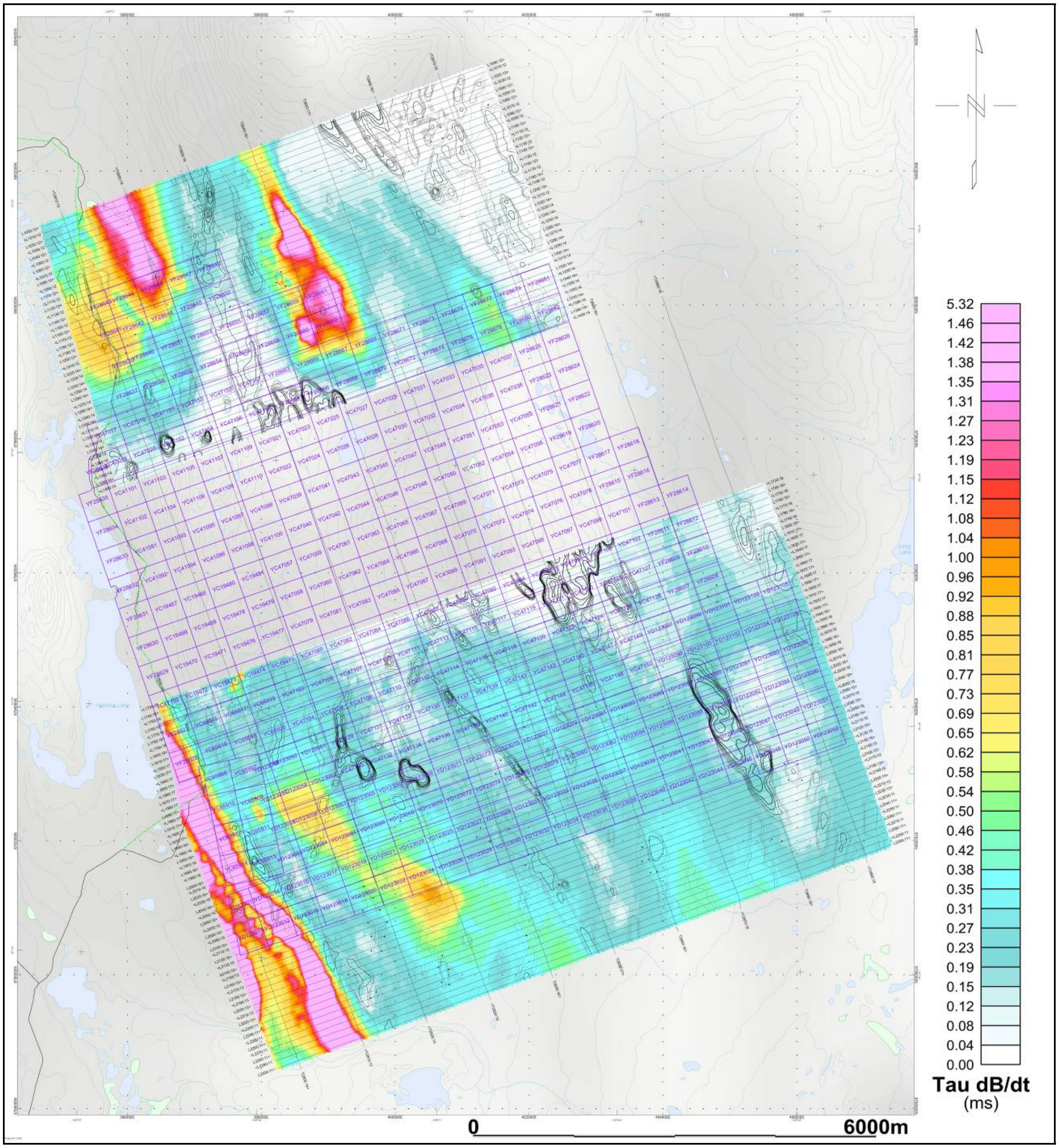
Hopper Property - VTEM dB/dt Z Component Profiles, Time Gates 0.220 to 7.036 ms



Hopper Property - VTEM B-Field Channel 36, Time Gate 2.021 ms

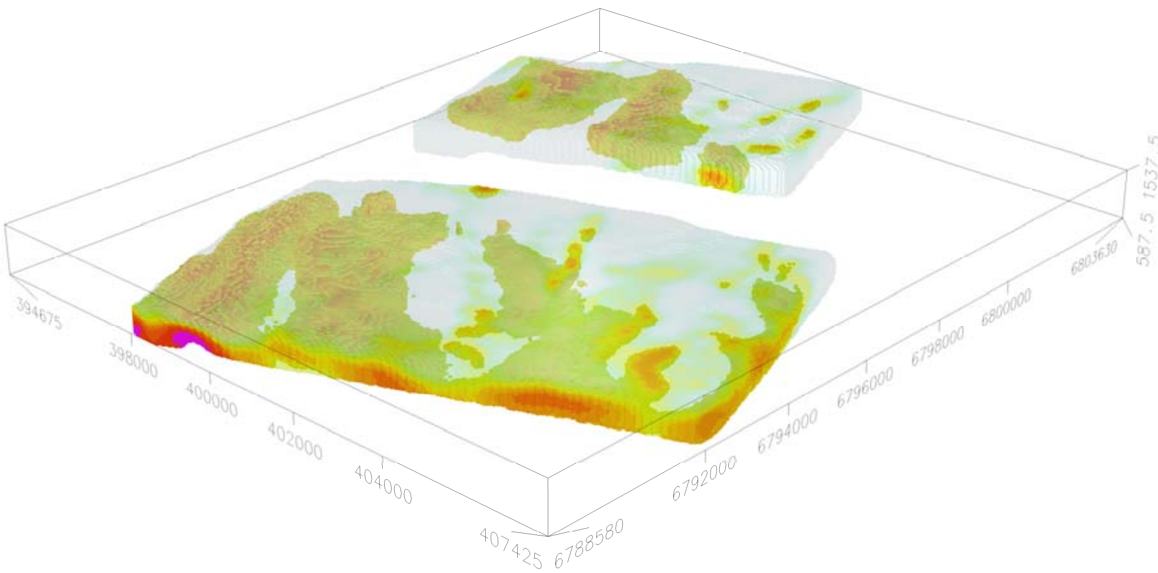


Hopper Property - Total Magnetic Intensity

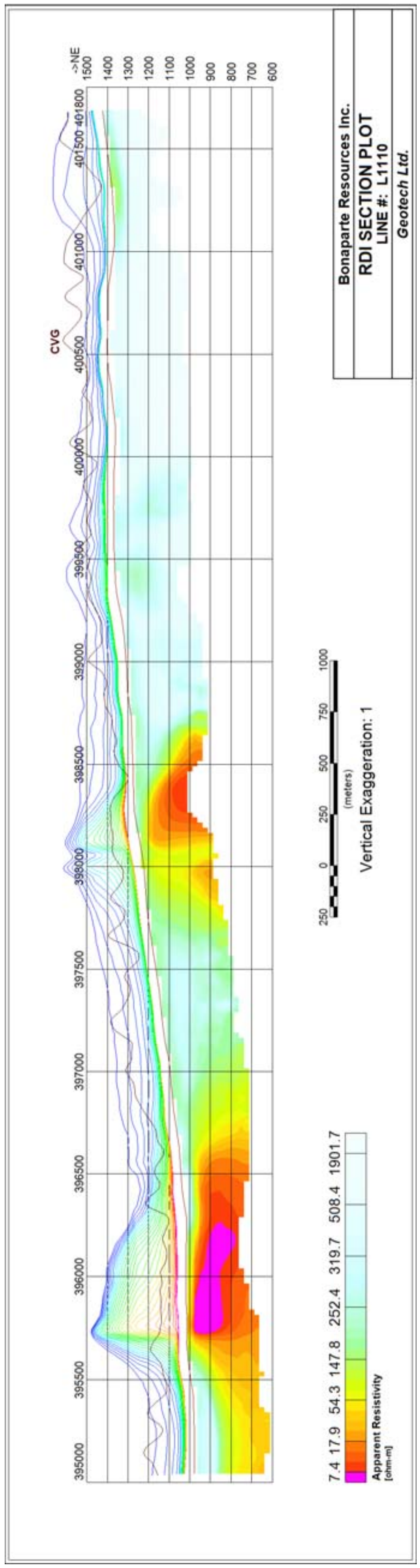


Hopper Property - VTEM dB/dt Calculated Time Constant (TAU) with contours of anomaly areas of the Calculated Vertical Derivative of TMI

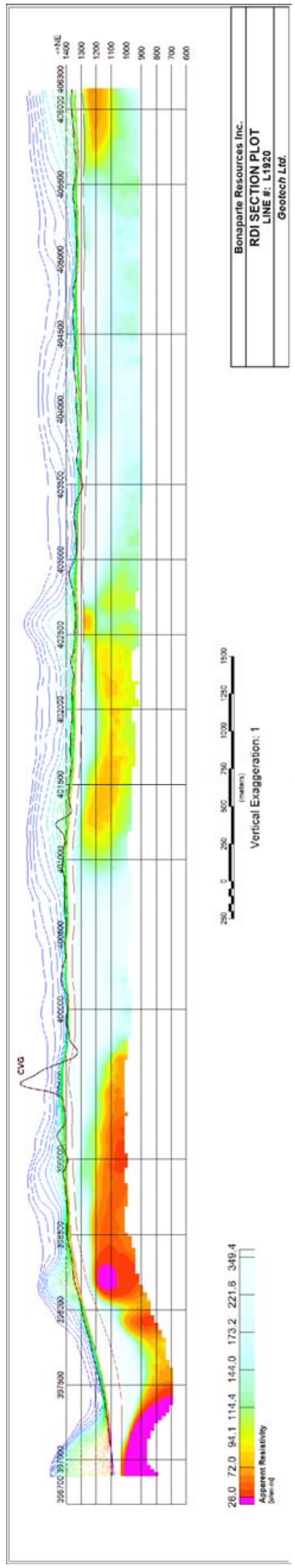
Resistivity Depth Image (RDI) MAPS



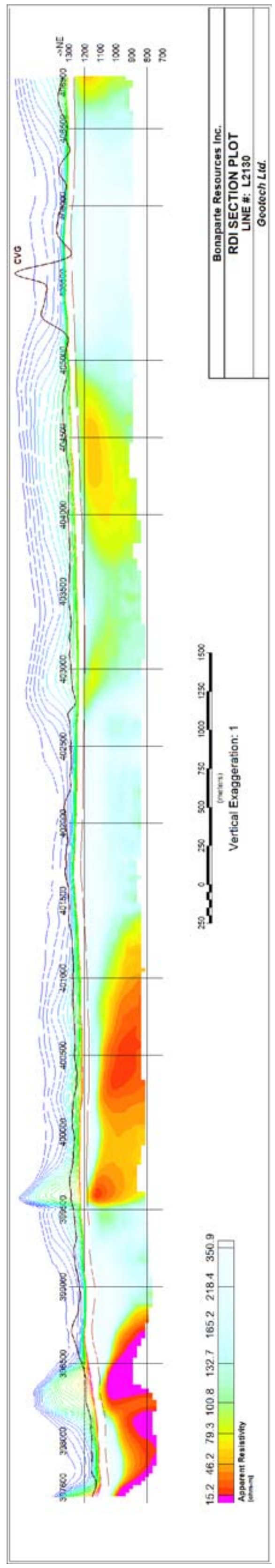
3D Resistivity-Depth Image (RDI) – Hopper Property



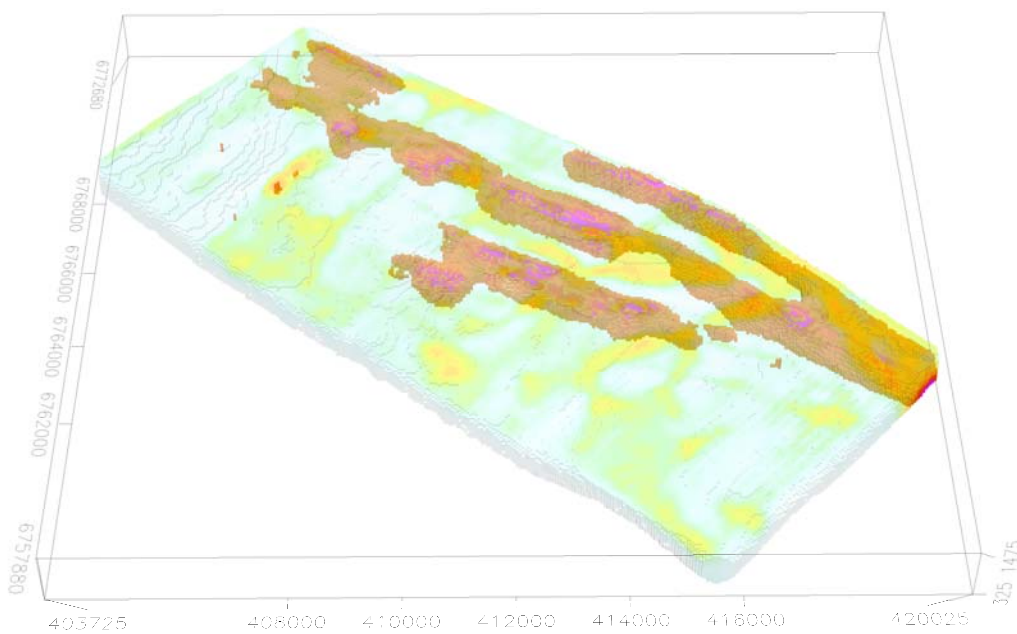
Line 1110 – Hopper Property



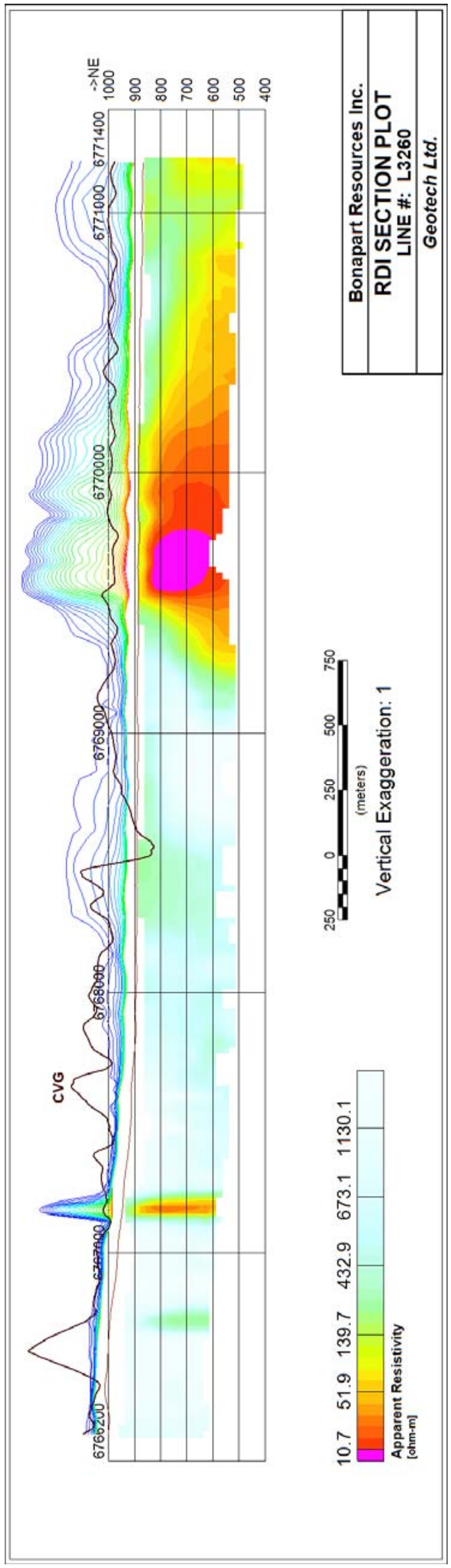
Line 1920 – Hopper Property



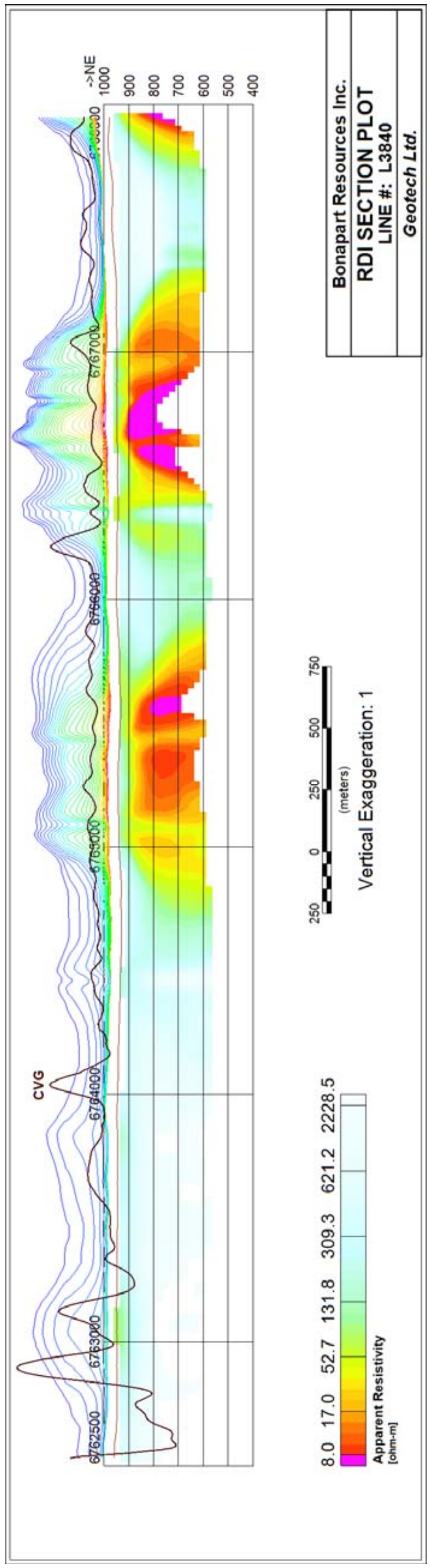
Line 2130 – Hopper Property



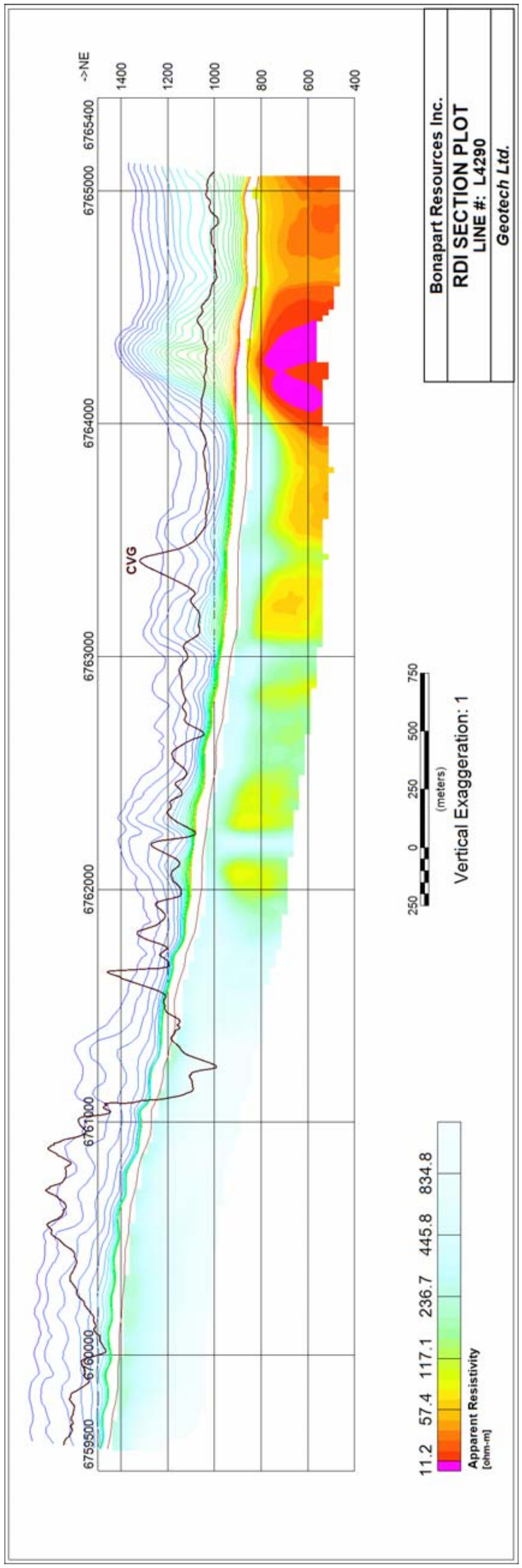
3D Resistivity-Depth Image (RDI) – Hooch Property



Line 3260 – Hooch Property



Line 3840 – Hooch Property



Line 4290 – Hooch Property

APPENDIX D

GENERALIZED MODELING RESULTS OF THE VTEM SYSTEM

Introduction

The VTEM system is based on a concentric or central loop design, whereby, the receiver is positioned at the centre of a transmitter loop that produces a primary field. The wave form is a bi-polar, modified square wave with a turn-on and turn-off at each end.

During turn-on and turn-off, a time varying field is produced (dB/dt) and an electro-motive force (emf) is created as a finite impulse response. A current ring around the transmitter loop moves outward and downward as time progresses. When conductive rocks and mineralization are encountered, a secondary field is created by mutual induction and measured by the receiver at the centre of the transmitter loop.

Efficient modeling of the results can be carried out on regularly shaped geometries, thus yielding close approximations to the parameters of the measured targets. The following is a description of a series of common models made for the purpose of promoting a general understanding of the measured results.

A set of models has been produced for the Geotech VTEM® system dB/dT Z and X components (see models D1 to D15). The Maxwell ™ modeling program (EMIT Technology Pty. Ltd. Midland, WA, AU) used to generate the following responses assumes a resistive half-space. The reader is encouraged to review these models, so as to get a general understanding of the responses as they apply to survey results. While these models do not begin to cover all possibilities, they give a general perspective on the simple and most commonly encountered anomalies.

As the plate dips and departs from the vertical position, the peaks become asymmetrical.

As the dip increases, the aspect ratio (Min/Max) decreases and this aspect ratio can be used as an empirical guide to dip angles from near 90º to about 30º. The method is not sensitive enough where dips are less than about 30º.

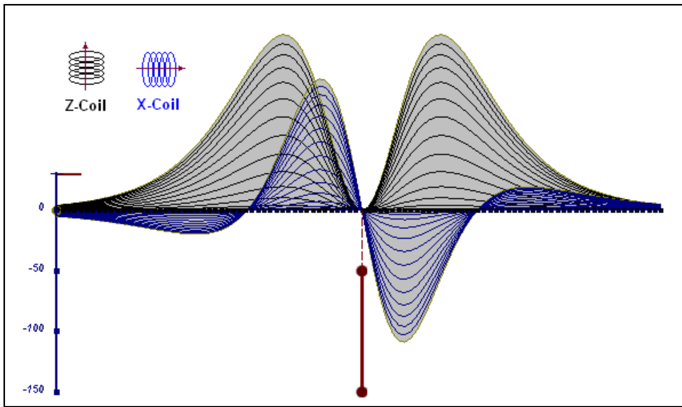


Figure D-1: vertical thin plate

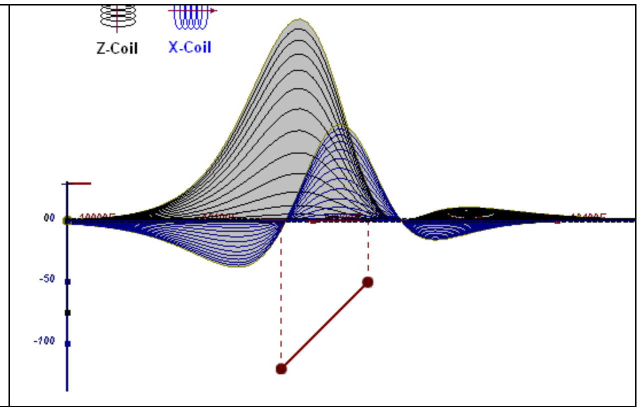


Figure D-2: inclined thin plate

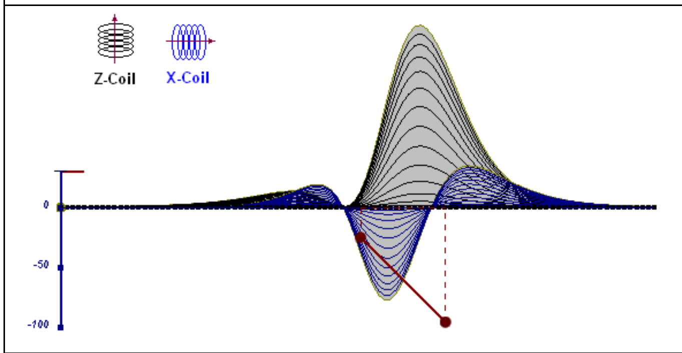


Figure D-3: inclined thin plate

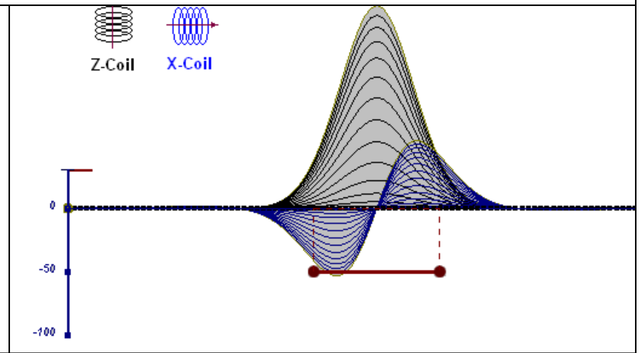


Figure D-4: horizontal thin plate

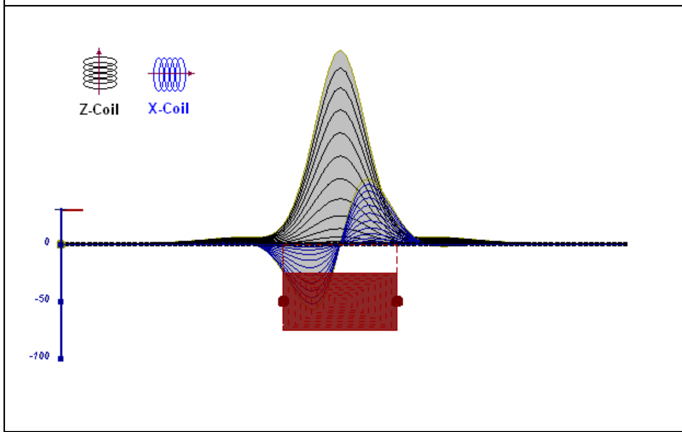


Figure D-5: horizontal thick plate (linear scale of the response)

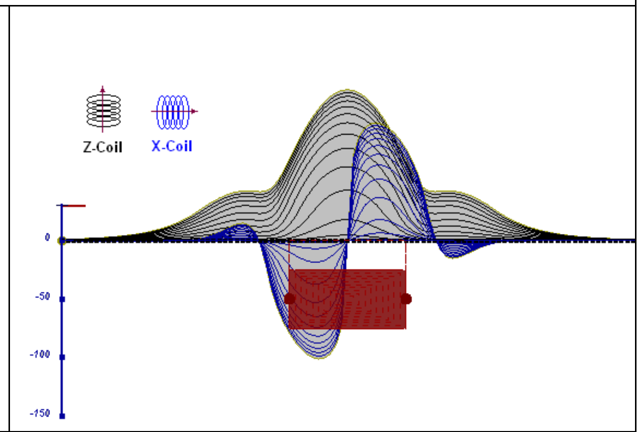


Figure D-6: horizontal thick plate (log scale of the response)

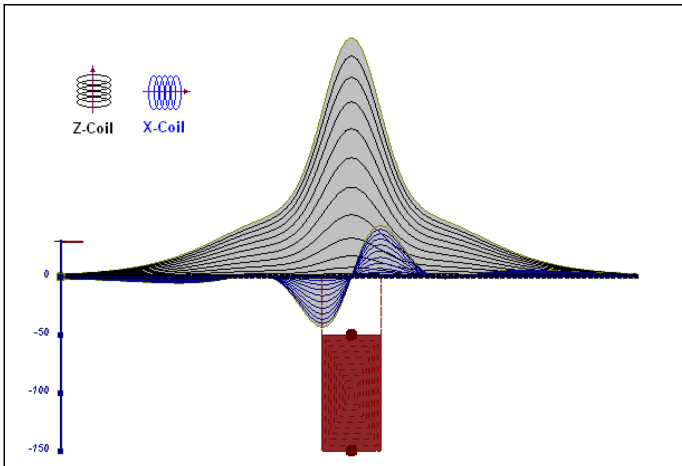


Figure D-7: vertical thick plate (linear scale of the response). 50 m depth

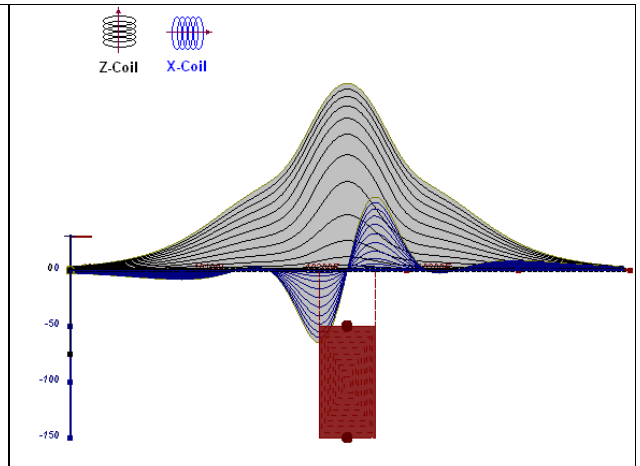


Figure D-8: vertical thick plate (log scale of the response). 50 m depth

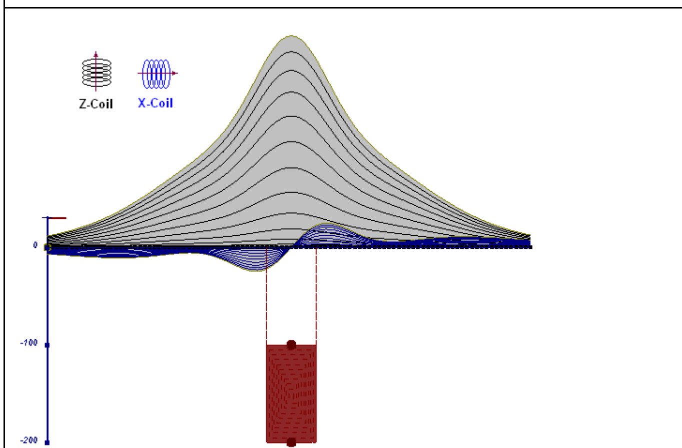


Figure D-9: vertical thick plate (linear scale of the response). 100 m depth

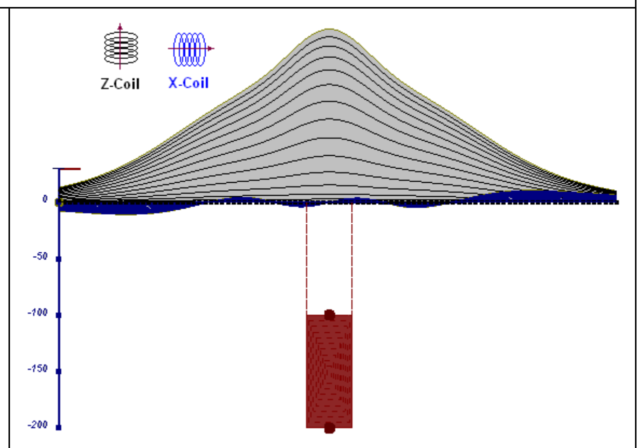


Figure D-10: vertical thick plate (linear scale of the response). Depth/hor.thickness=2.5

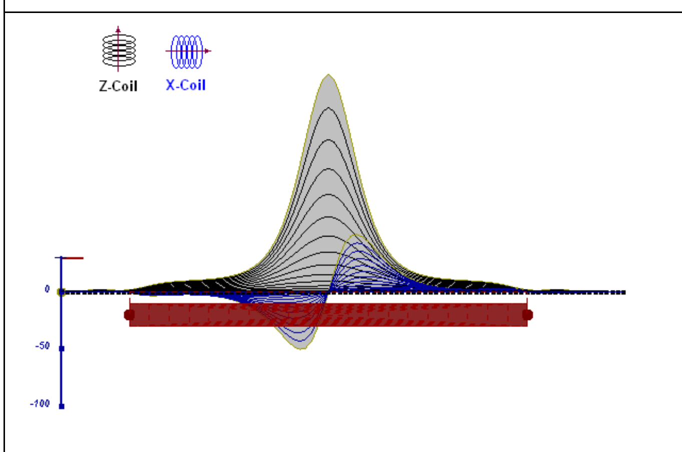


Figure D-10: horizontal thick plate (linear scale of the response)

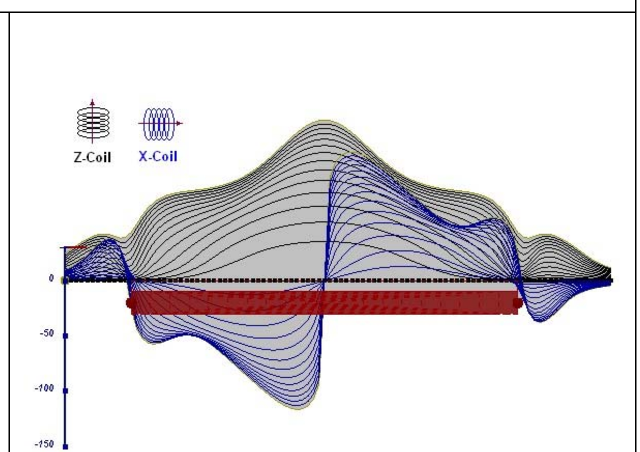


Figure D-11: horizontal thick plate (log scale of the response)

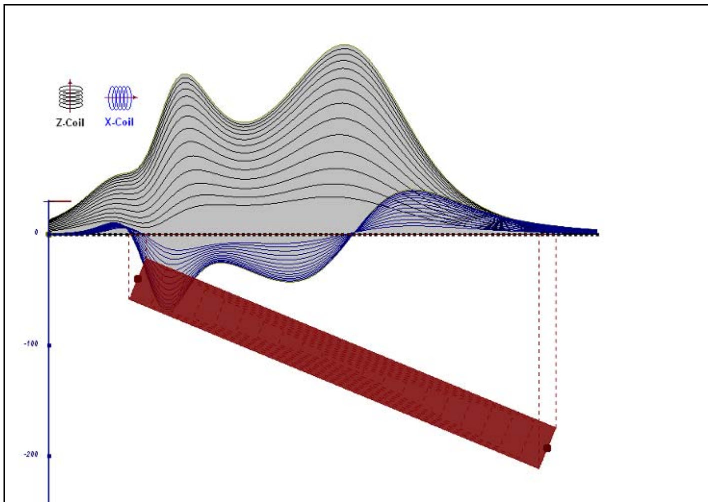


Figure D-12: inclined long thick plate

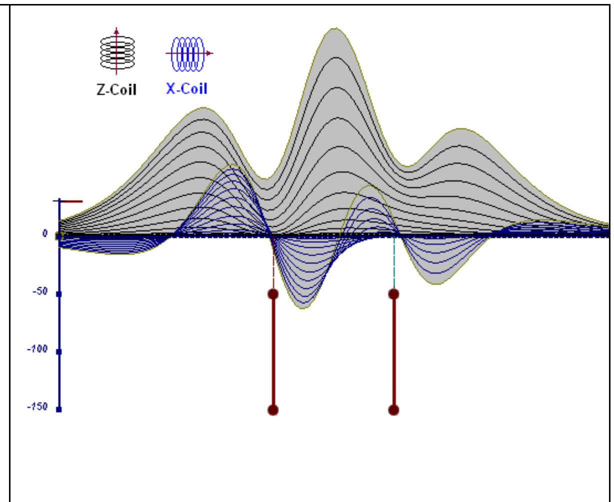


Figure D-13: two vertical thin plates

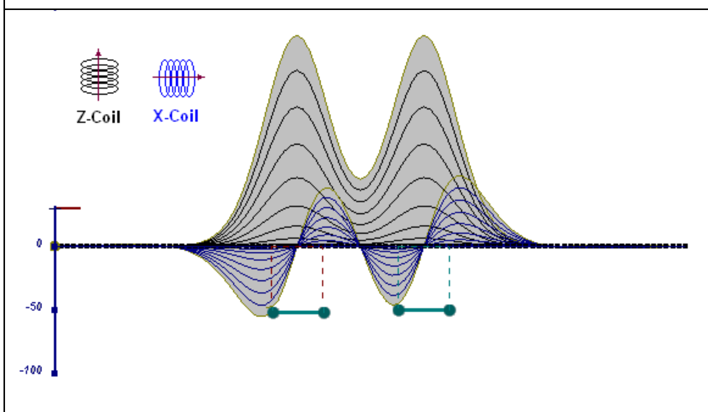


Figure D-14: two horizontal thin plates

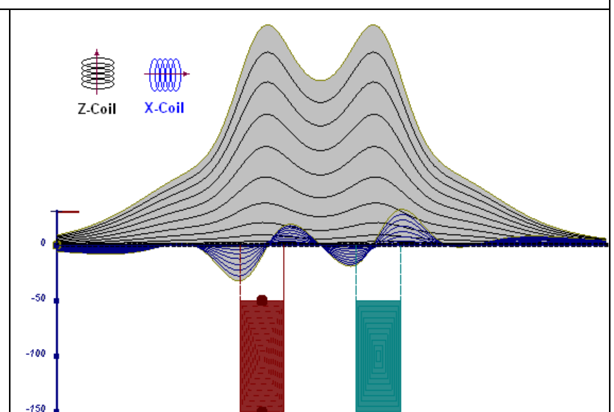


Figure D-15: two vertical thick plates

The same type of target but with different thickness, for example, creates different form of the response:

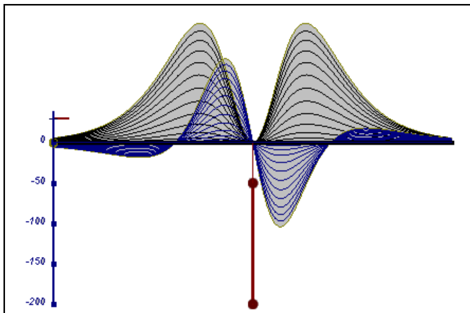
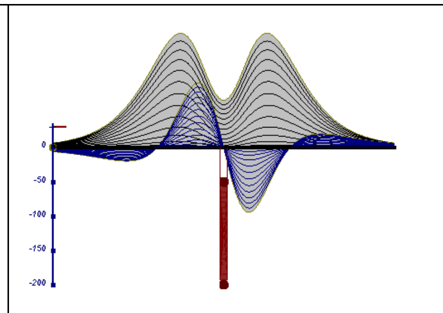
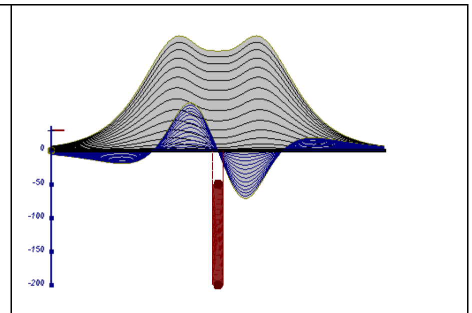
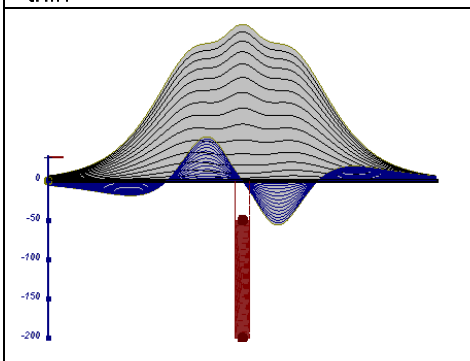
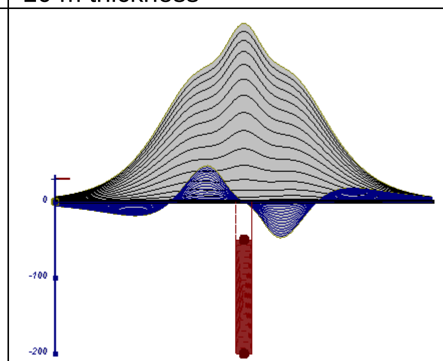
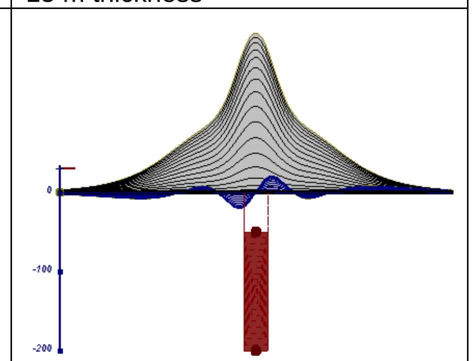
		
"thin"	10 m thickness	15 m thickness
		
18 m thickness	20 m thickness	30 m thickness

Figure D-16: Conductive vertical plate, depth 50 m, strike length 200 m, depth extend 150 m.

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September 2010

APPENDIX E

EM TIME CONSTANT (TAU) ANALYSIS

Estimation of time constant parameter[1] in transient electromagnetic method is one of the steps toward the extraction of the information about conductances beneath the surface from TEM measurements.

The most reliable method to discriminate or rank conductors from overburden, background or one and other is by calculating the EM field decay time constant (TAU parameter), which directly depends on conductance despite their depth and accordingly amplitude of the response.

Theory

As established in electromagnetic theory, the magnitude of the electro-motive force (emf) induced is proportional to the time rate of change of primary magnetic field at the conductor. This emf causes eddy currents to flow in the conductor with a characteristic transient decay, whose Time Constant (Tau) is a function of the conductance of the survey target or conductivity and geometry (including dimensions) of the target. The decaying currents generate a proportional secondary magnetic field, the time rate of change of which is measured by the receiver coil as induced voltage during the Off time.

The receiver coil output voltage (**e_0**) is proportional to the time rate of change of the secondary magnetic field and has the form,

$$e_0 \; \alpha \; (1 / \tau) \; e^{-(t/\tau)}$$

Where,
τ = L/R is the characteristic time constant of the target (TAU)
R = resistance
L = inductance

From the expression, conductive targets that have small value of resistance and hence large value of τ yield signals with small initial amplitude that decays relatively slowly with progress of time. Conversely, signals from poorly conducting targets that have large resistance value and small τ, have high initial amplitude but decay rapidly with time[1] (Figure E-1).

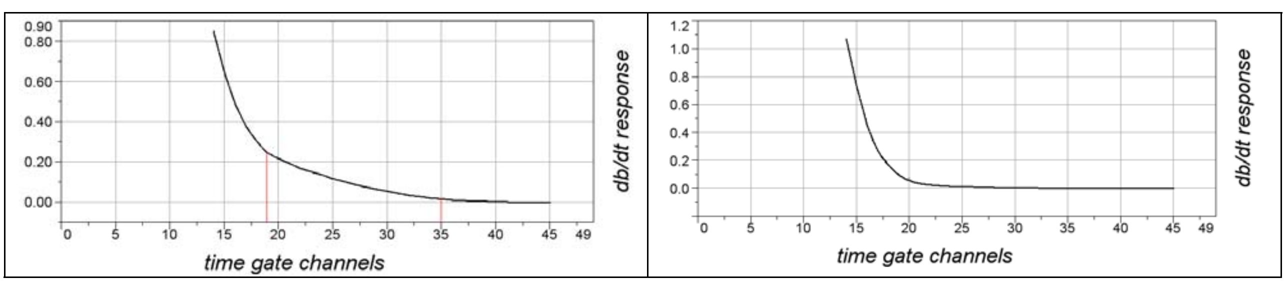

Figure E-1: Left – presence of good conductor, right – poor conductor.

[1] McNeill, JD, 1980, "Applications of Transient Electromagnetic Techniques", Technical Note TN-7 page 5, Geonics Limited, Mississauga, Ontario.

EM Time Constant (Tau) Calculation

The EM Time-Constant (TAU) is a general measure of the speed of decay of the electromagnetic response and indicates the presence of eddy currents in conductive sources as well as reflecting the "conductance quality" of a source. Although TAU can be calculated using either the measured dB/dt decay or the calculated B-field decay, dB/dt is commonly preferred due to better stability (S/N) relating to signal noise. Generally, TAU calculated on base of early time response reflects both near surface overburden and poor conductors whereas, in the late ranges of time, deep and more conductive sources, respectively. For example early time TAU distribution in an area that indicates conductive overburden is shown in Figure 2.

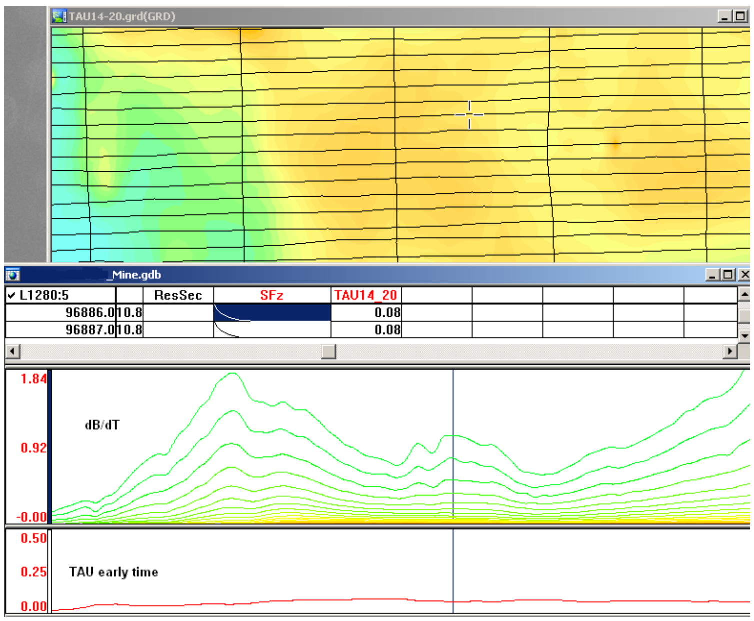

Figure E-2: Map of early time TAU Area with overburden conductive layer and local sources.

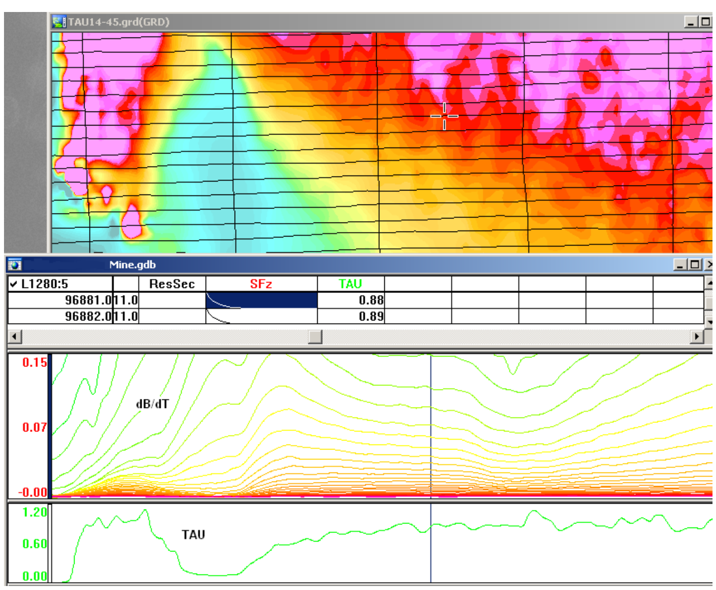

Figure E-3: Map of full time range TAU with EM anomaly due to deep highly conductive target.

There are many advantages of TAU maps:

- TAU depends only on one parameter (conductance) in contrast to response magnitude;
- TAU is integral parameter, which covers time range and all conductive zones and targets are displayed independently of their depth and conductivity on a single map.
- Very good differential resolution in complex conductive places with many sources with different conductivity.
- Signs of the presence of good conductive targets are amplified and emphasized independently of their depth and level of response accordingly.

In the example shown in Figure 4 and 5, three local targets are defined, each of them with a different depth of burial, as indicated on the resistivity depth image (RDI). All are very good conductors but the deeper target (number 2) has a relatively weak dB/dt signal yet also features the strongest total TAU (Figure 4). This example highlights the benefit of TAU analysis in terms of an additional target discrimination tool.

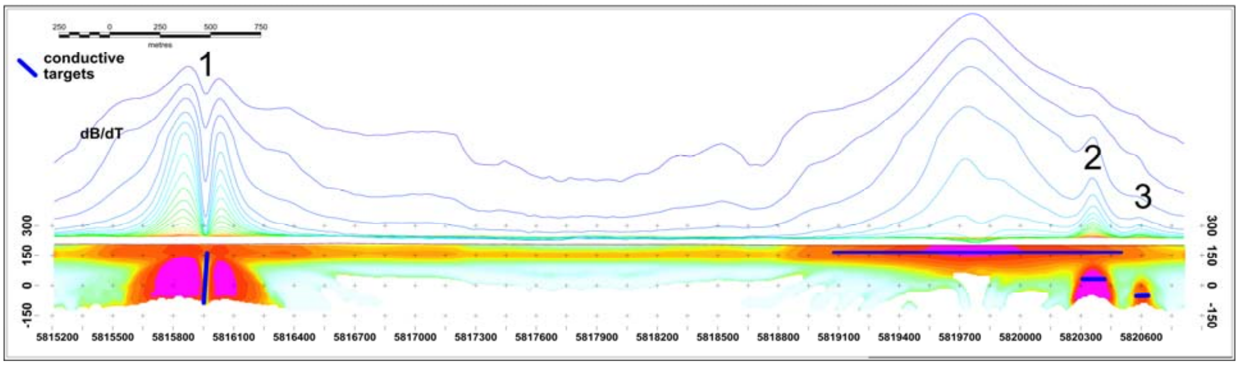

Figure E-4: dB/dt profile and RDI with different depths of targets.

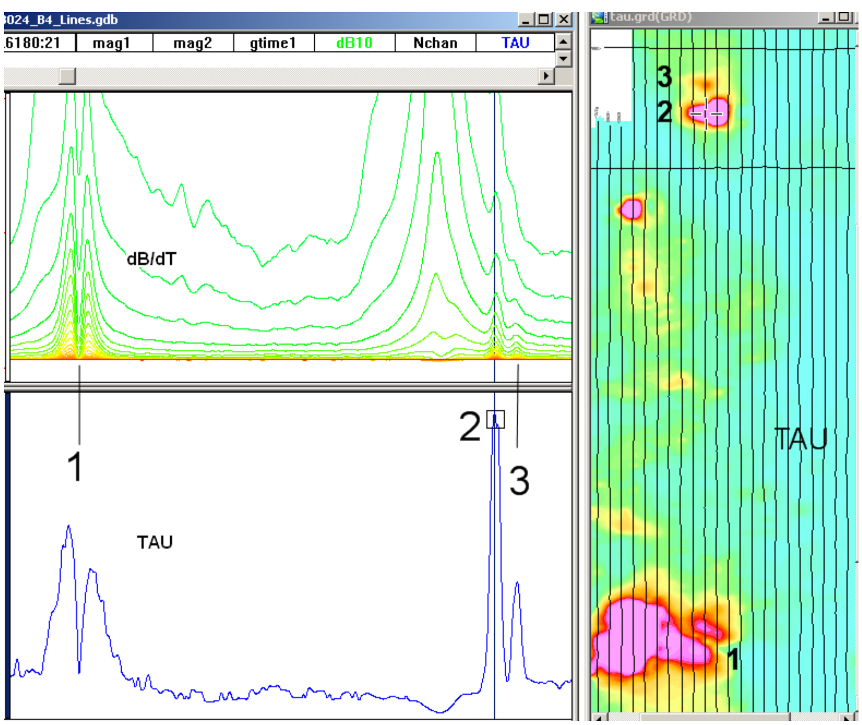

Figure E-5: Map of total TAU and dB/dt profile.

The EM Time Constants for dB/dt and B-field were calculated using the "sliding Tau" in-house program developed at Geotech[2]. The principle of the calculation is based on using of time window (4 time channels) which is sliding along the curve decay and looking for latest time channels which have a response above the level of noise and decay. The EM decays are obtained from all available decay channels, starting at the latest channel. Time constants are taken from a least square fit of a straight-line (log/linear space) over the last 4 gates above a pre-set signal threshold level (Figure E-6). Threshold settings are pointed in the "label" property of TAU database channels. The sliding Tau method determines that, as the amplitudes increase, the time-constant is taken at progressively later times in the EM decay. Conversely, as the amplitudes decrease, Tau is taken at progressively earlier times in the decay. If the maximum signal amplitude falls below the threshold, or becomes negative for any of the 4 time gates, then Tau is not calculated and is assigned a value of "dummy" by default.

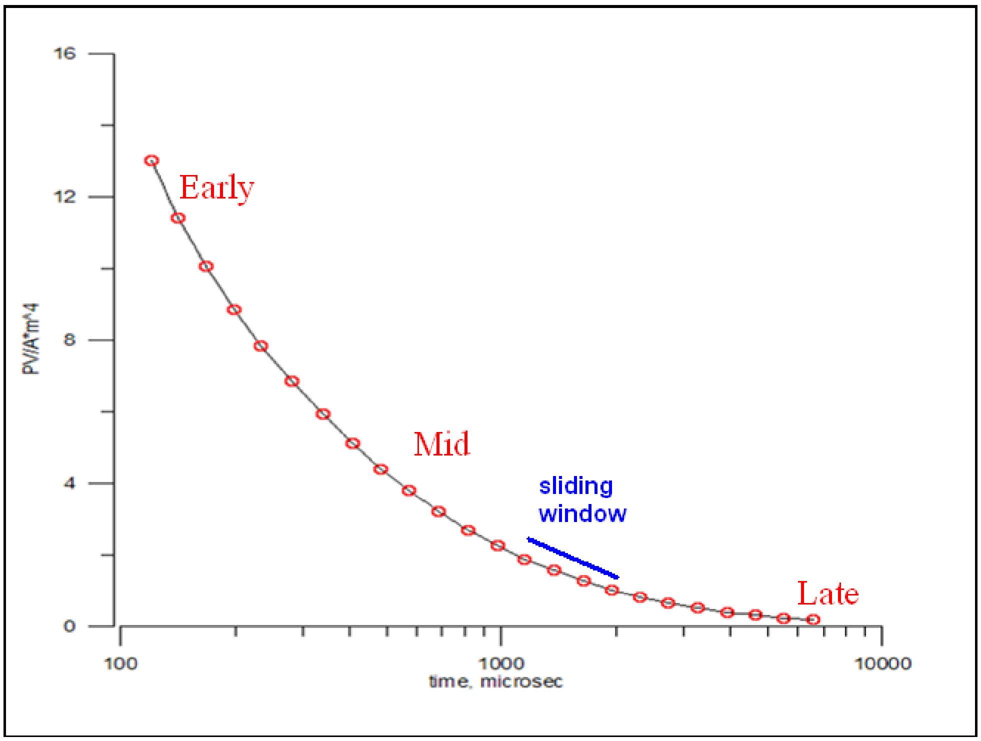

Figure E-6: Typical dB/dt decays of VTEM data

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[2] by A.Prikhodko

APPENDIX F

TEM RESISTIVITY DEPTH IMAGING (RDI)

Resistivity depth imaging (RDI) is technique used to rapidly convert EM profile decay data into an equivalent resistivity versus depth cross-section, by deconvolving the measured TEM data.
The used RDI algorithm of Resistivity-Depth transformation is based on scheme of the apparent resistivity transform of Maxwell A.Meju (1998)[1] and TEM response from conductive half-space. The program is developed by Alexander Prikhodko and depth calibrated based on forward plate modeling for VTEM system configuration (Fig. 1-10).

RDIs provide reasonable indications of conductor relative depth and vertical extent, as well as accurate 1D layered-earth apparent conductivity/resistivity structure across VTEM flight lines. Approximate depth of investigation of a TEM system, image of secondary field distribution in half space, effective resistivity, initial geometry and position of conductive targets is the information obtained on base of the RDIs.

Maxwell forward modeling with RDI sections from the synthetic responses (VTEM system)

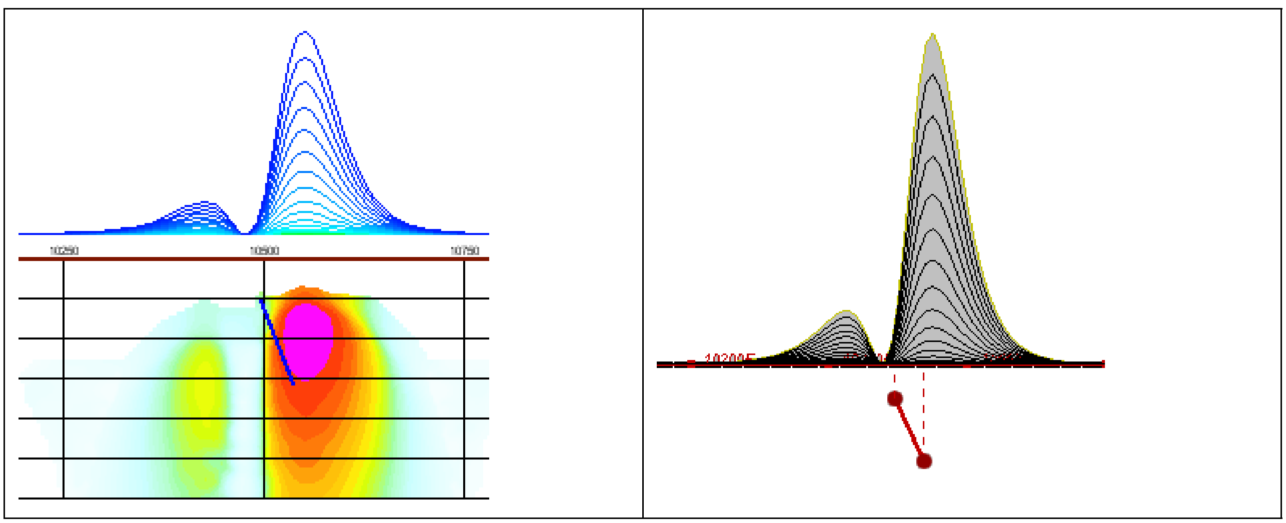


Figure F-1: Maxwell plate model and RDI from the calculated response for conductive "thin" plate (depth 50 m, dip 65 degree, depth extend 100 m).

[1] Maxwell A.Meju, 1998, Short Note: A simple method of transient electromagnetic data analysis, Geophysics, **63**, 405–410.

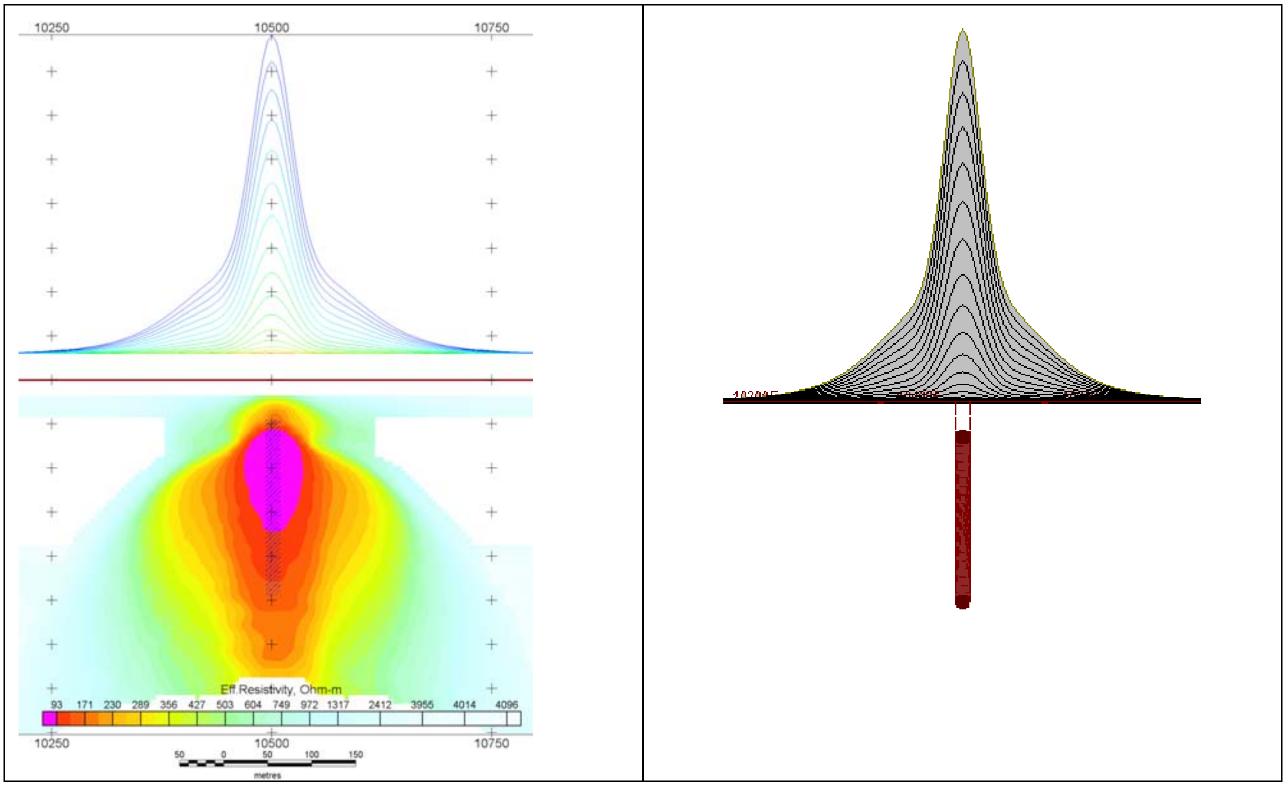


Figure F-2: Maxwell plate model and RDI from the calculated response for "thick" plate 18 m thickness, depth 50 m, depth extend 200 m).

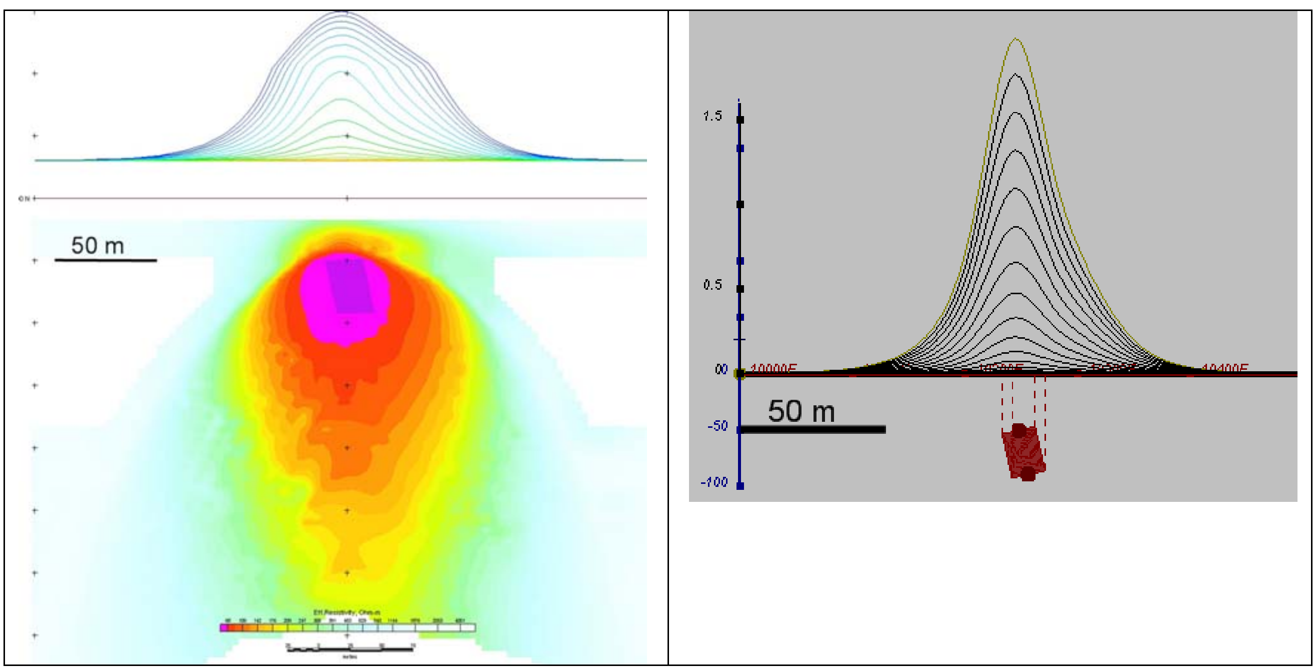


Figure F-3: Maxwell plate model and RDI from the calculated response for bulk ("thick") 100 m length, 40 m depth extend, 30 m thickness

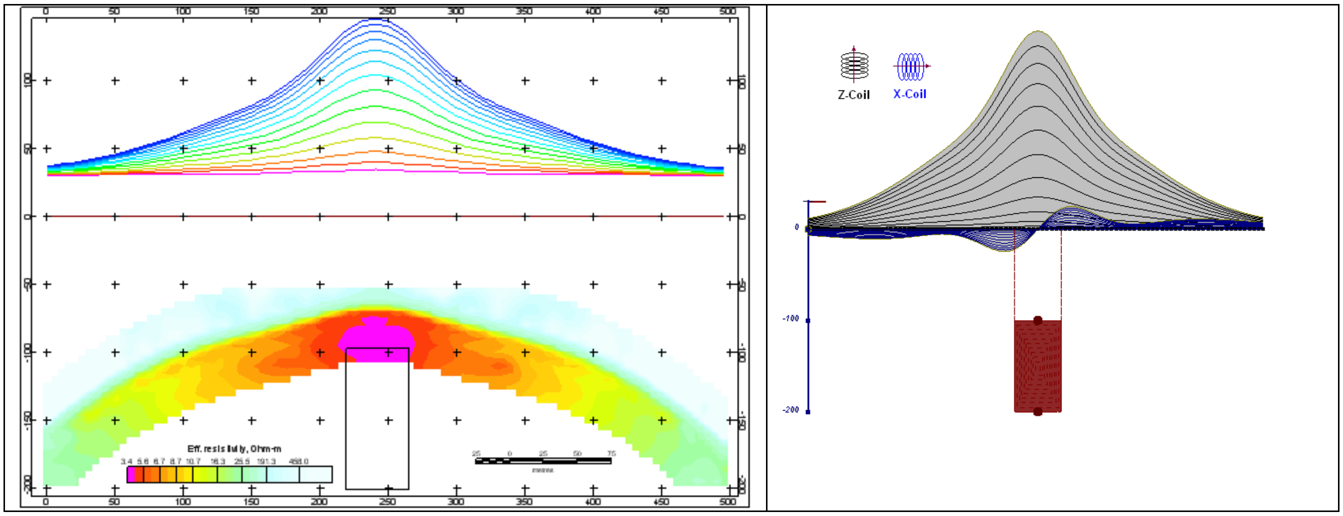


Figure F-4: Maxwell plate model and RDI from the calculated response for “thick” vertical target (depth 100 m, depth extend 100 m). 19-44 chan.

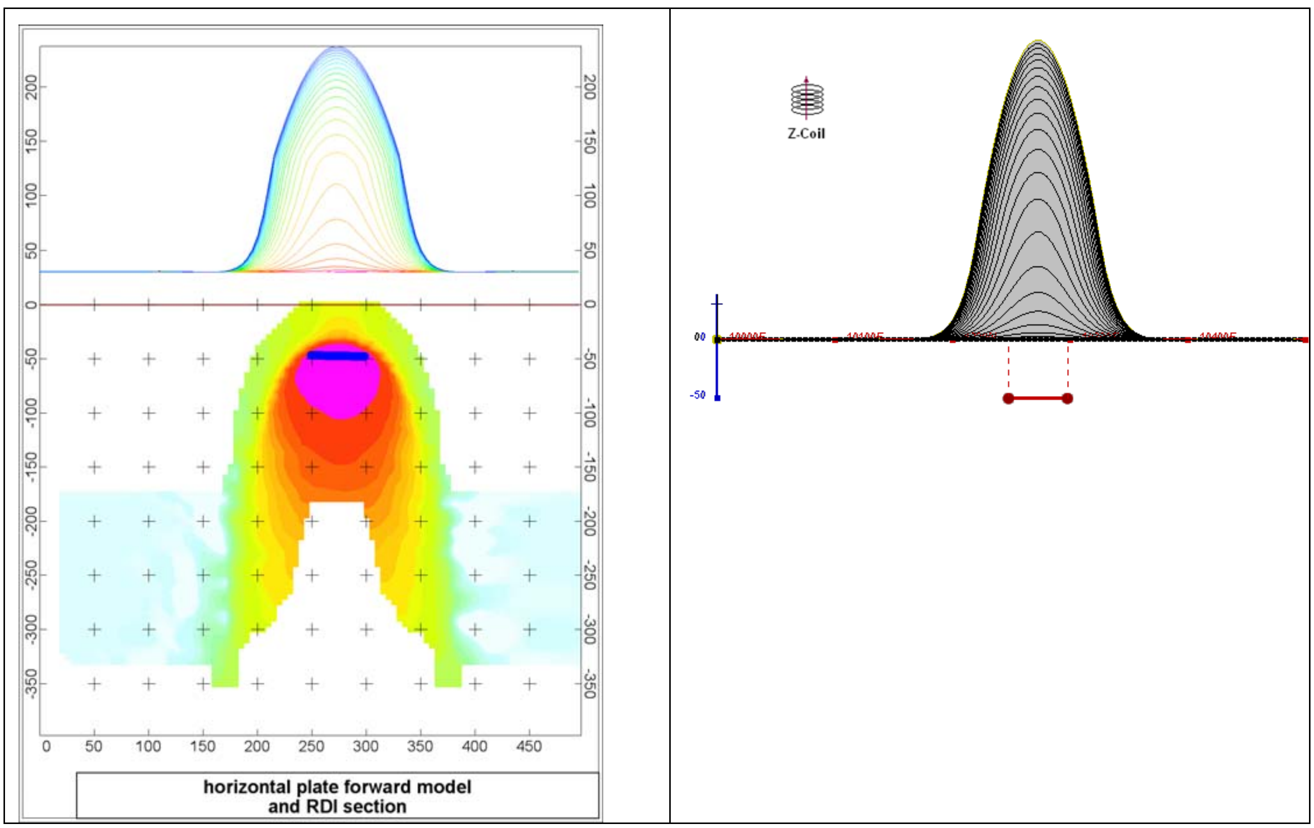


Figure F-5: Maxwell plate model and RDI from the calculated response for horizontal thin plate (depth 50 m, dim 50x100 m). 15-44 chan.

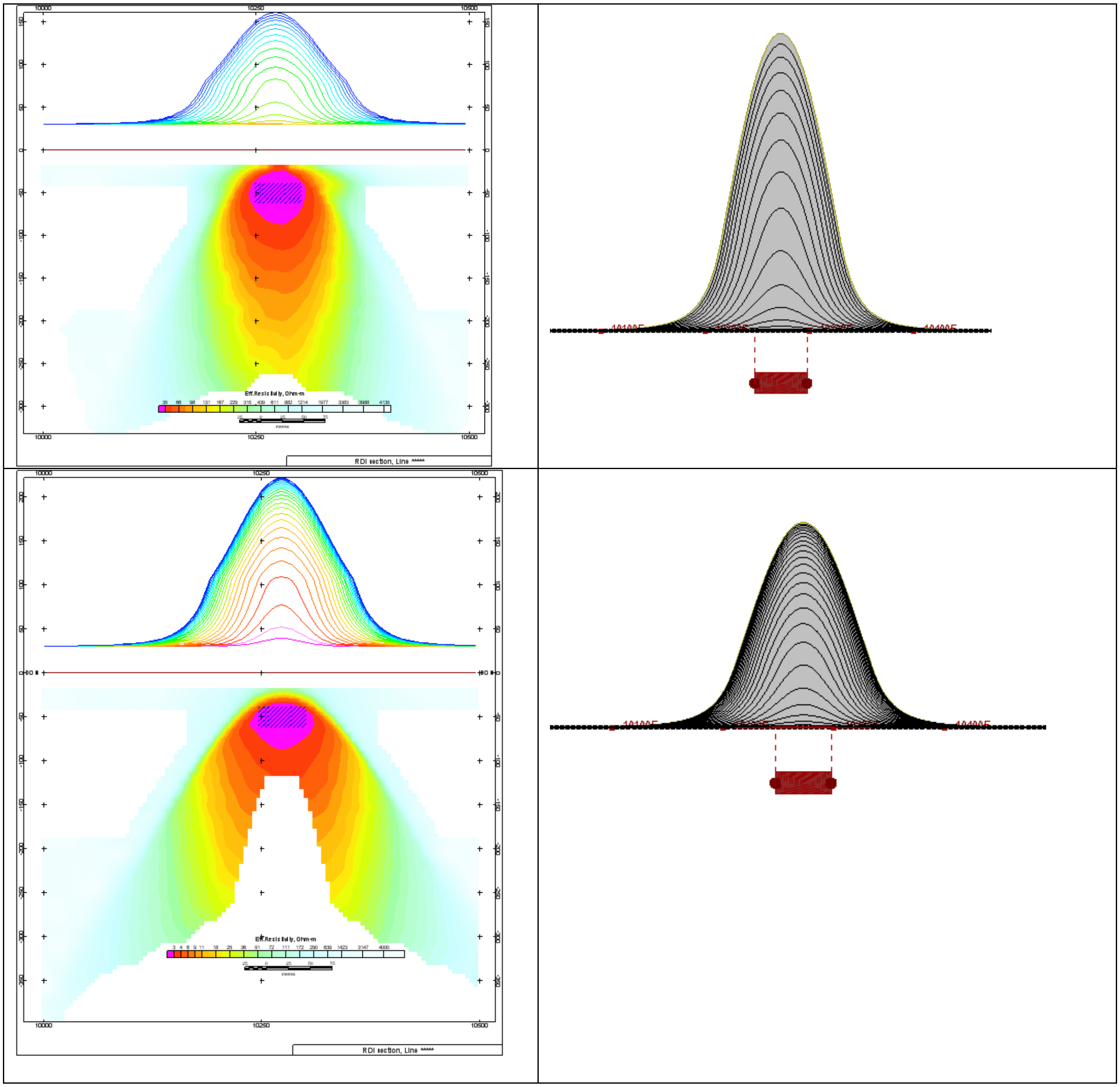


Figure F-6: Maxwell plate model and RDI from the calculated response for horizontal thick (20m) plate – less conductive (on the top), more conductive (below)

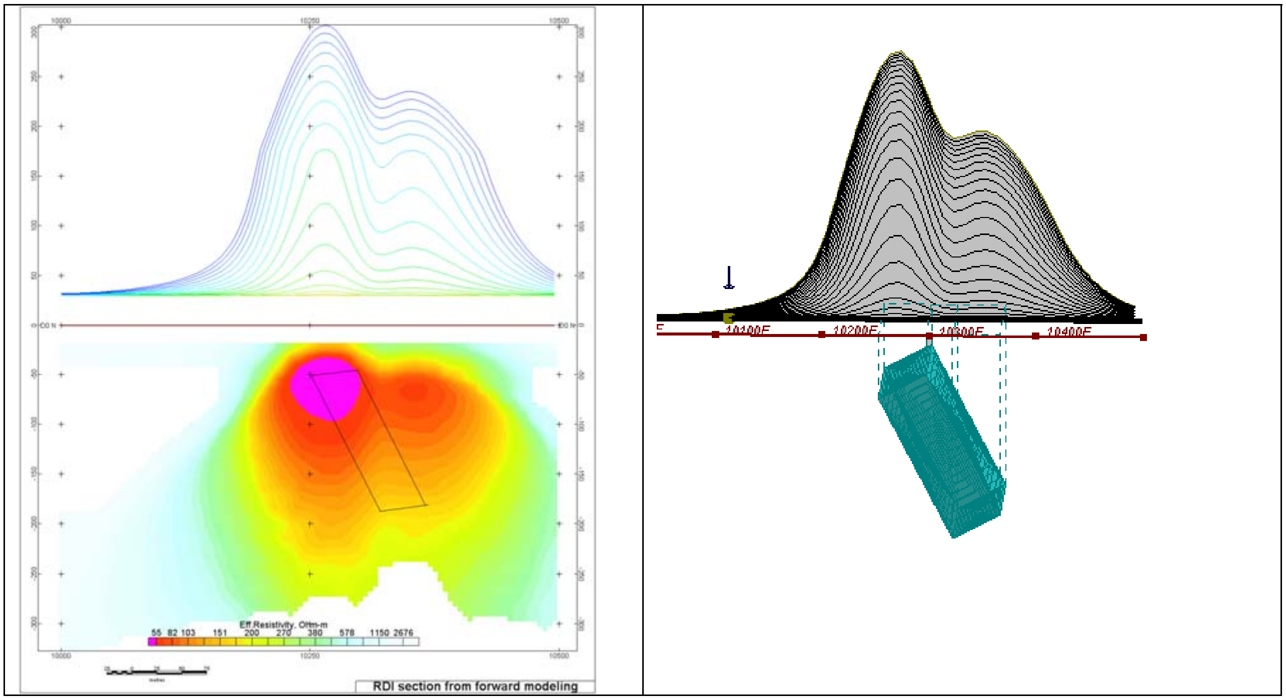


Figure G-7: Maxwell plate model and RDI from the calculated response for inclined thick (50m) plate. Depth extends 150 m, depth to the target 50 m.

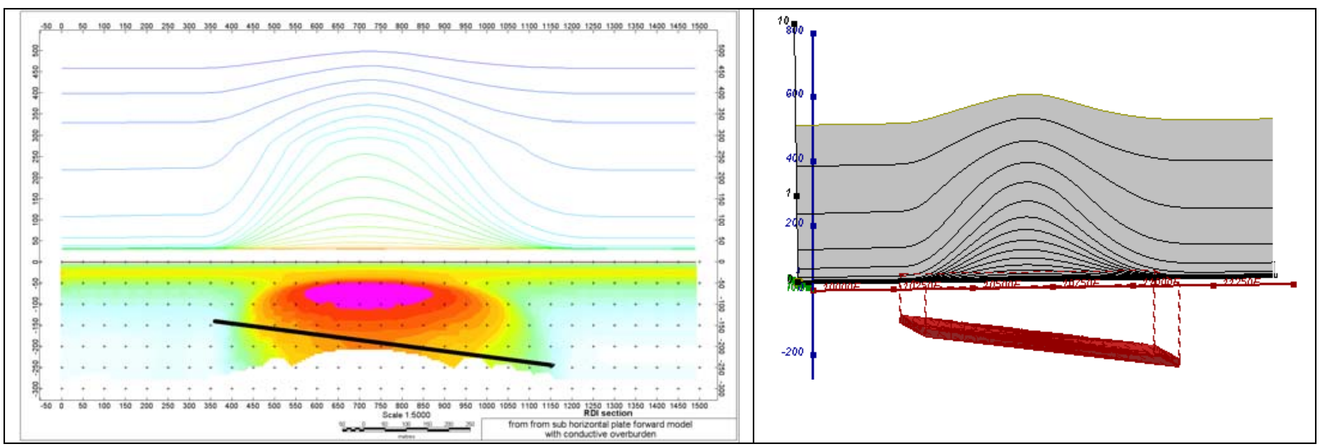


Figure F-8: Maxwell plate model and RDI from the calculated response for the long, wide and deep subhorizontal plate (depth 140 m, dim 25x500x800 m) with conductive overburden.

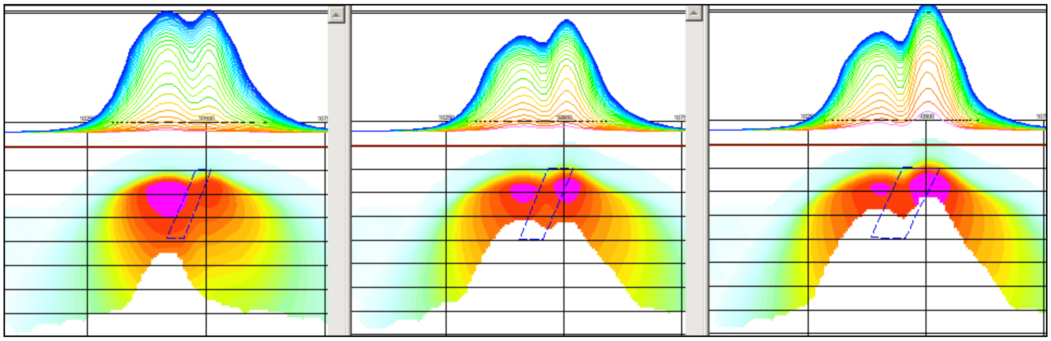


Figure F-9: Maxwell plate models and RDIs from the calculated response for “thick” dipping plates (35, 50, 75 m thickness), depth 50 m, conductivity 2.5 S/m.

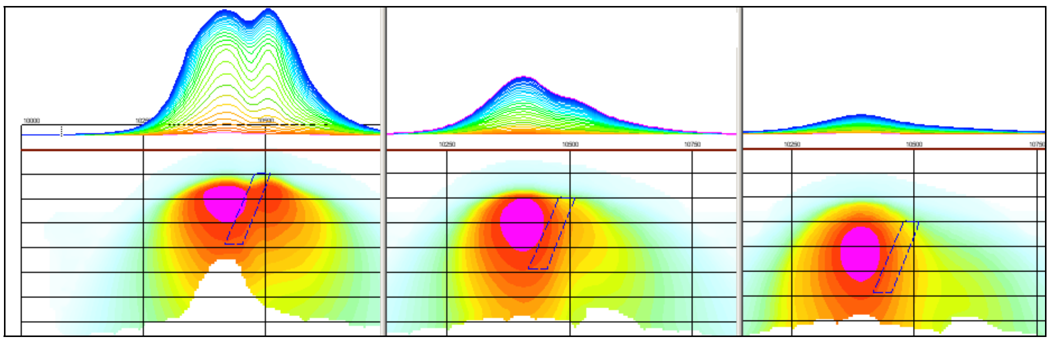


Figure F-10: Maxwell plate models and RDIs from the calculated response for “thick” (35 m thickness) dipping plate on different depth (50, 100, 150 m),, conductivity 2.5 S/m.

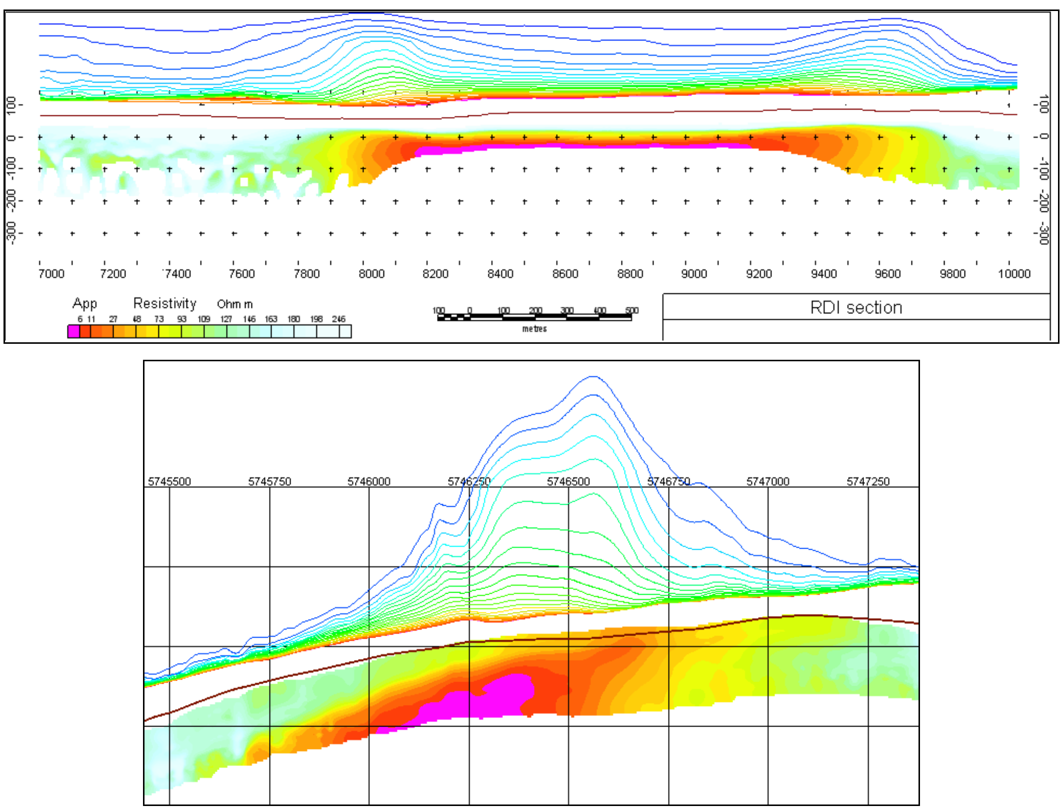
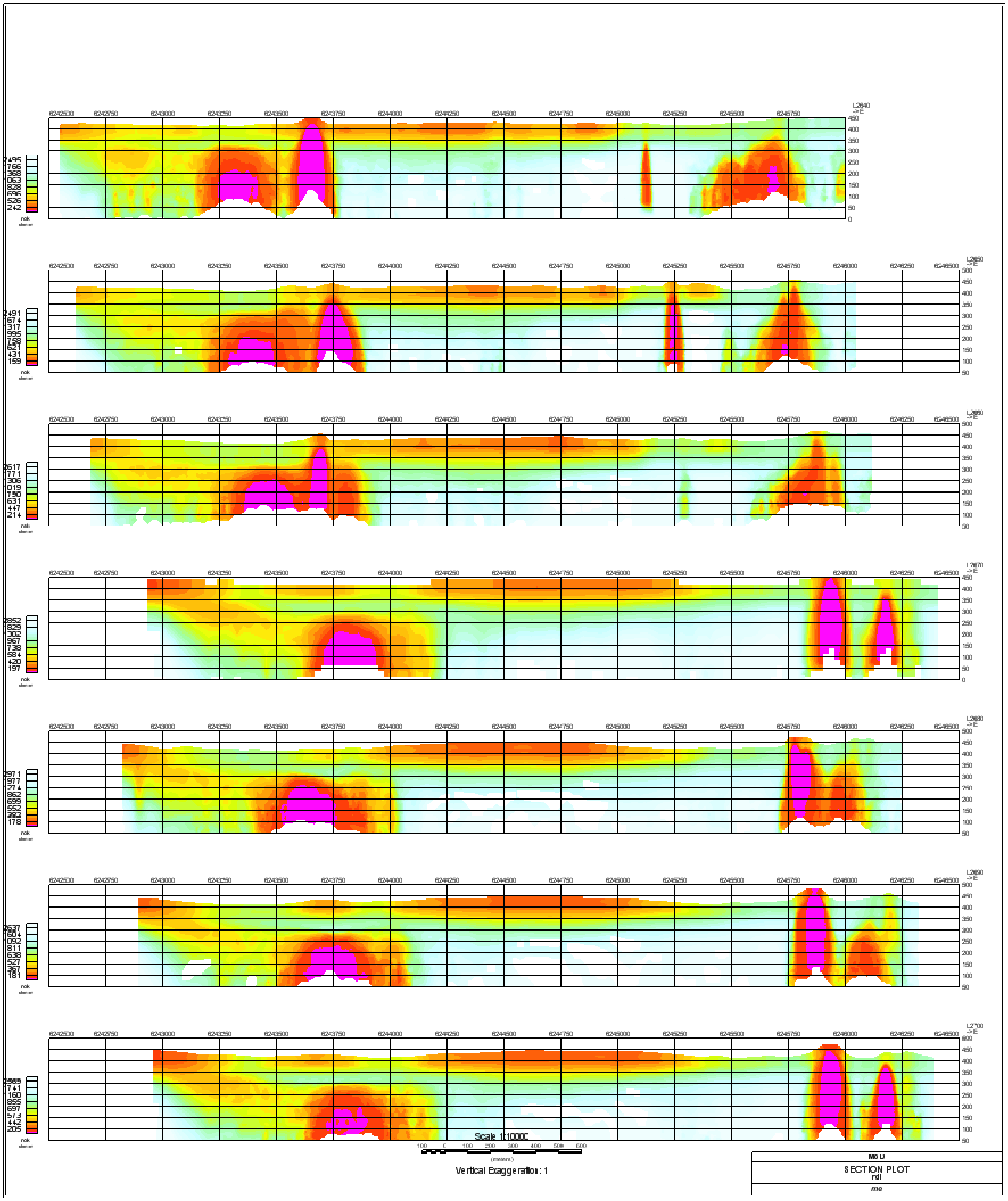


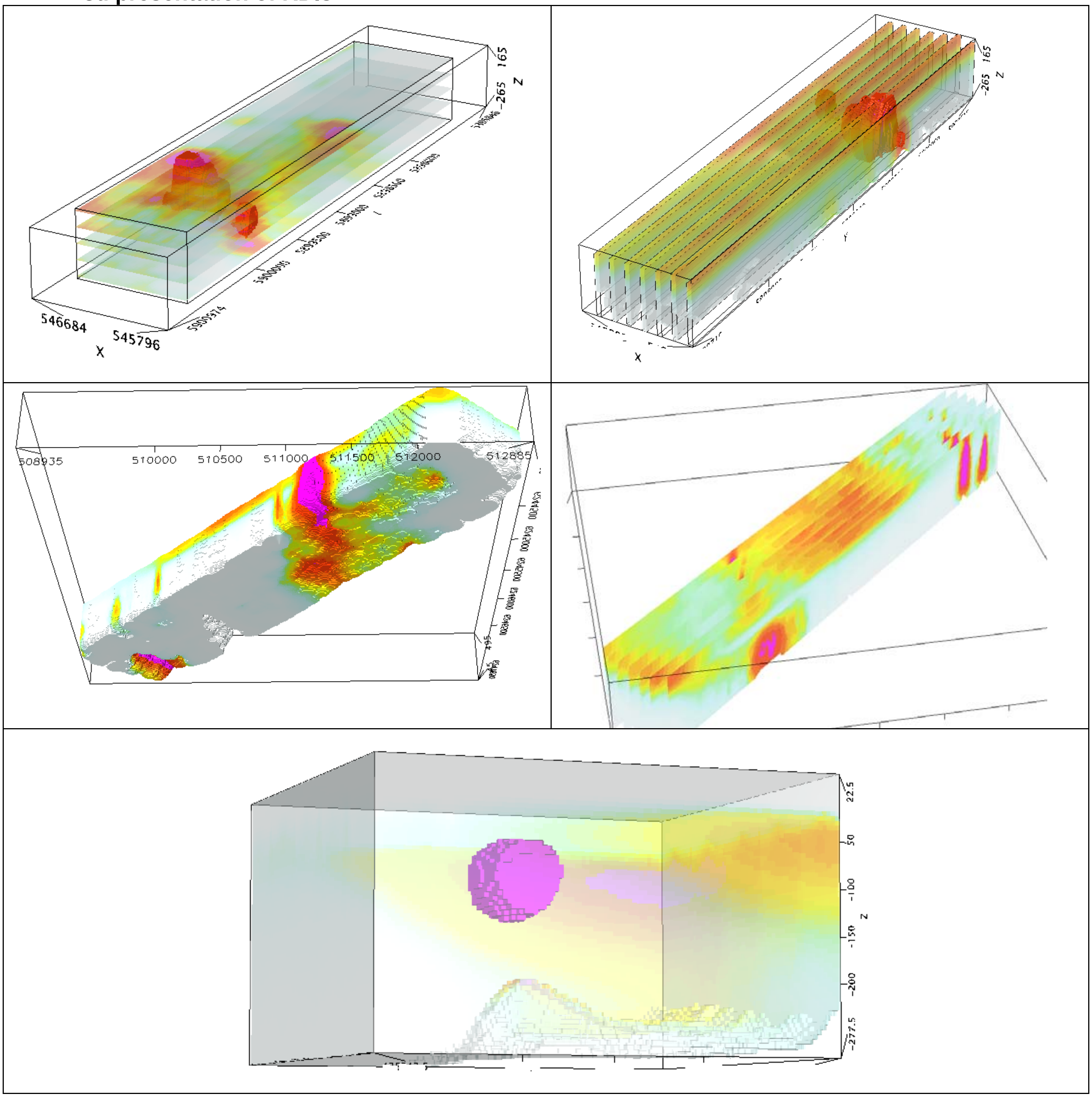
Figure F-11: RDI section for the real horizontal and slightly dipping conductive layers

FORMS OF RDI PRESENTATION

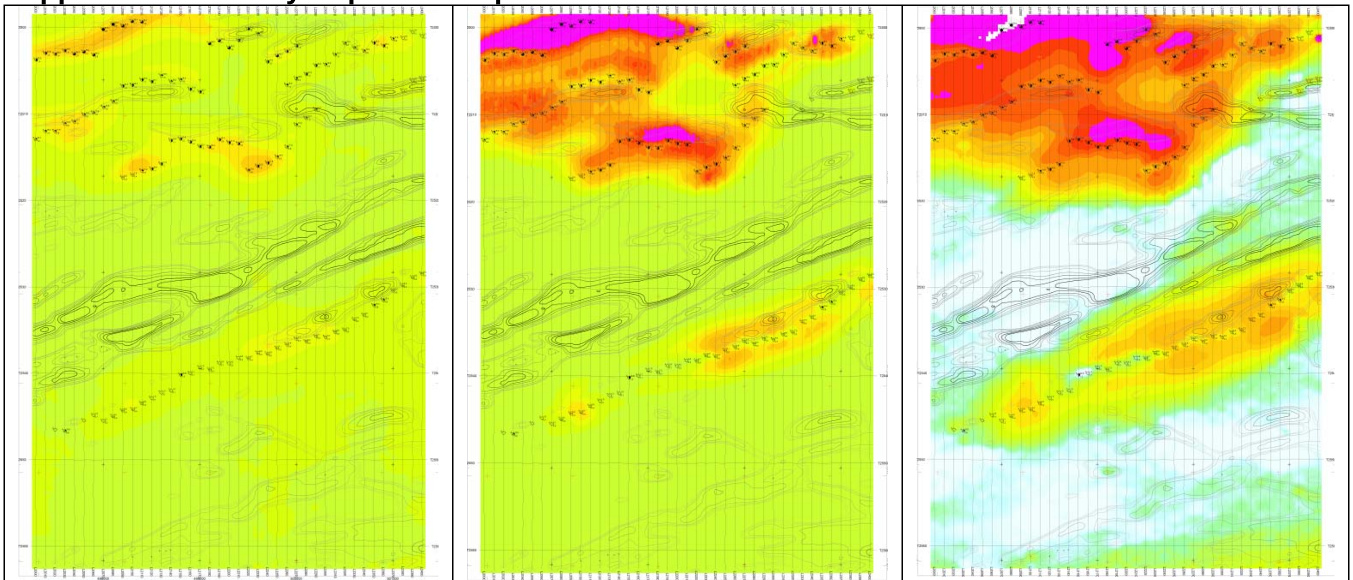
Presentation of series of lines



3d presentation of RDIs

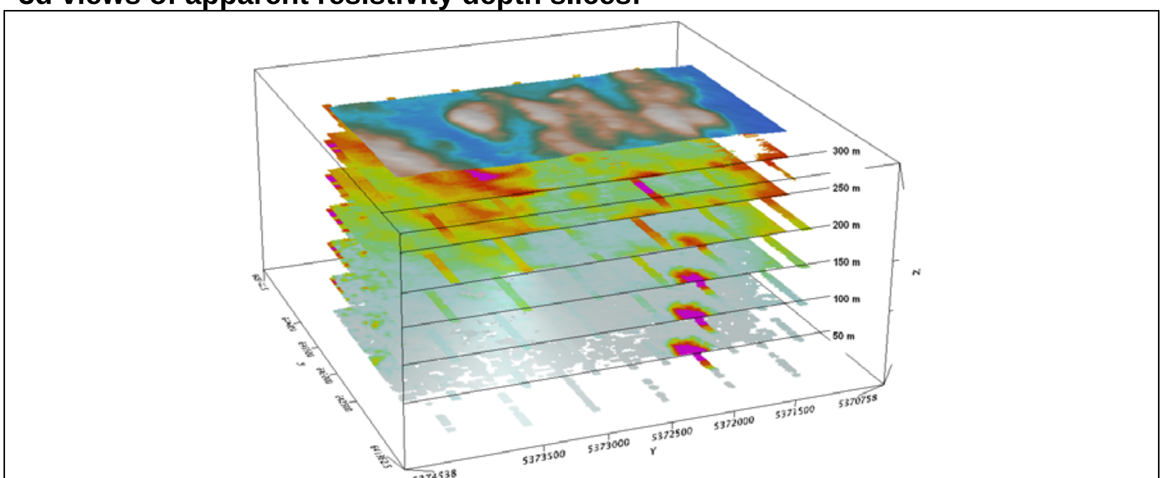


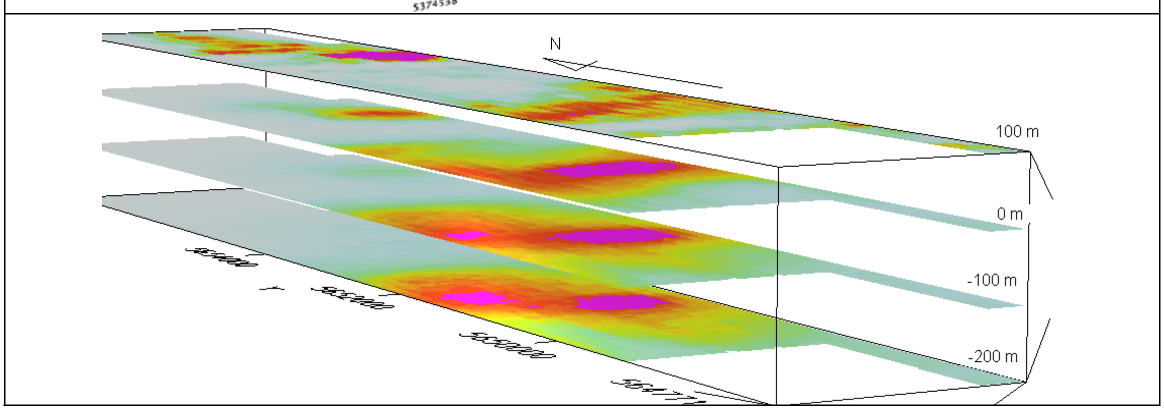
Apparent Resistivity Depth Slices plans:



0 m (surface)	-100 m	-200 m

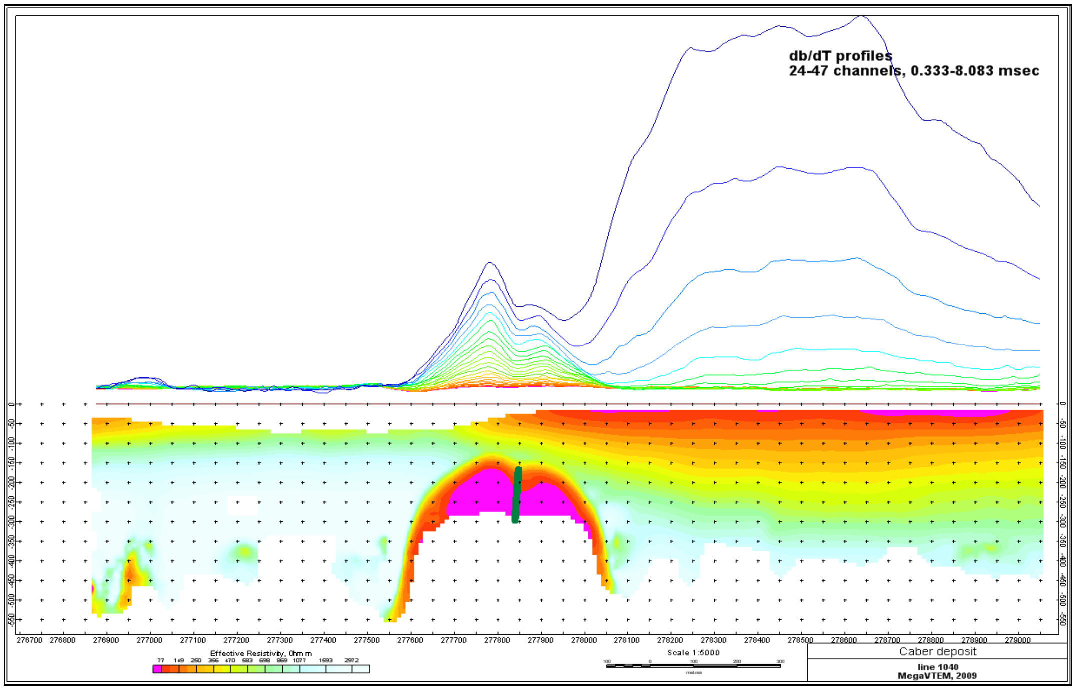
3d views of apparent resistivity depth slices:



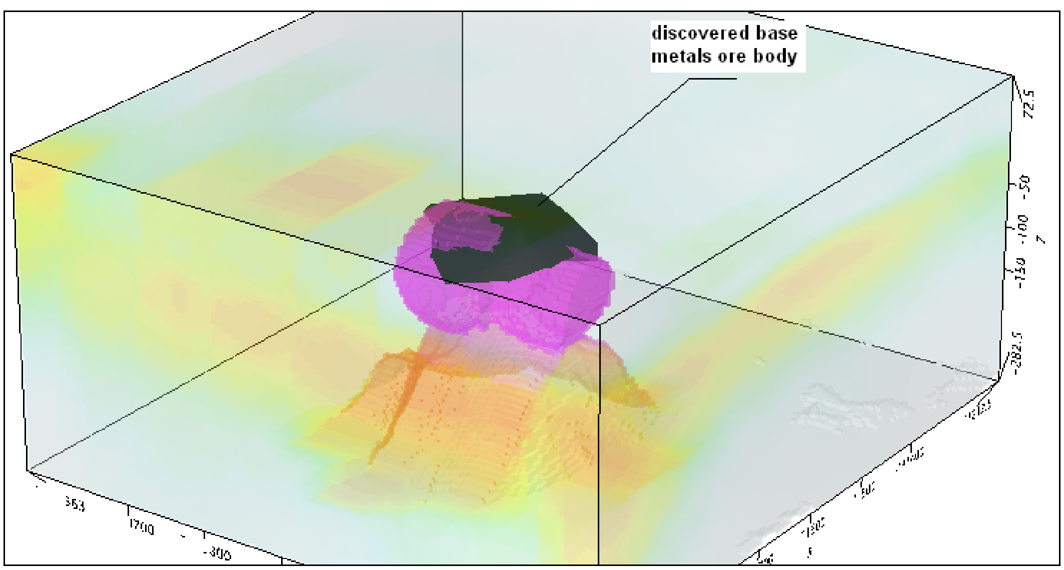


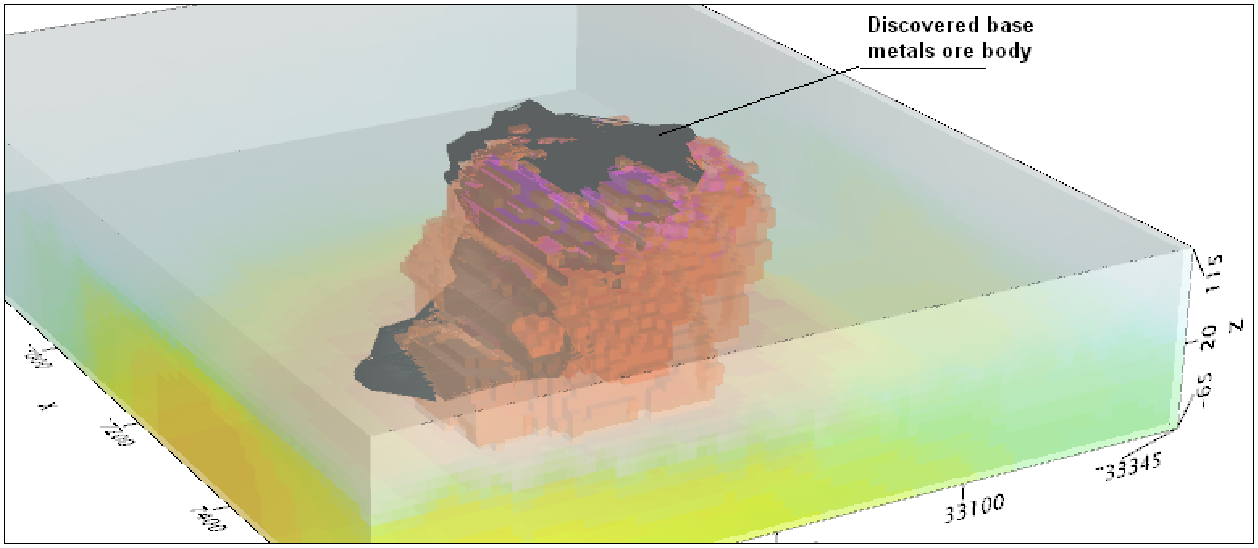
Real base metal targets in comparison with RDIs:

RDI section of the line over Caber deposit ("thin" subvertical plate target and conductive overburden).

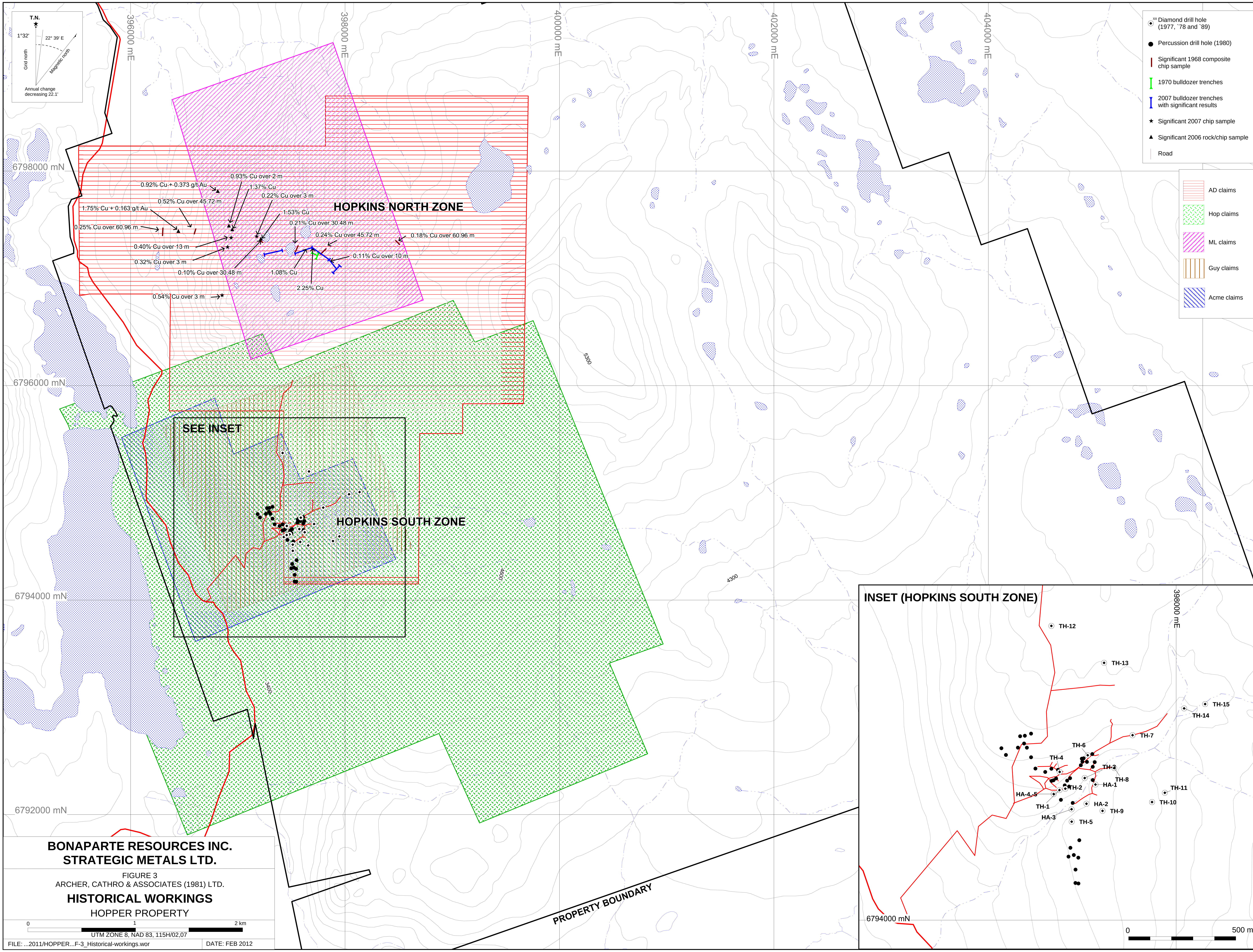


3d RDI voxels with base metals ore bodies (Middle East):





Alexander Prikhodko, PhD, P.Geo
Geotech Ltd.
April 2011



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STRATEGIC METALS LTD.

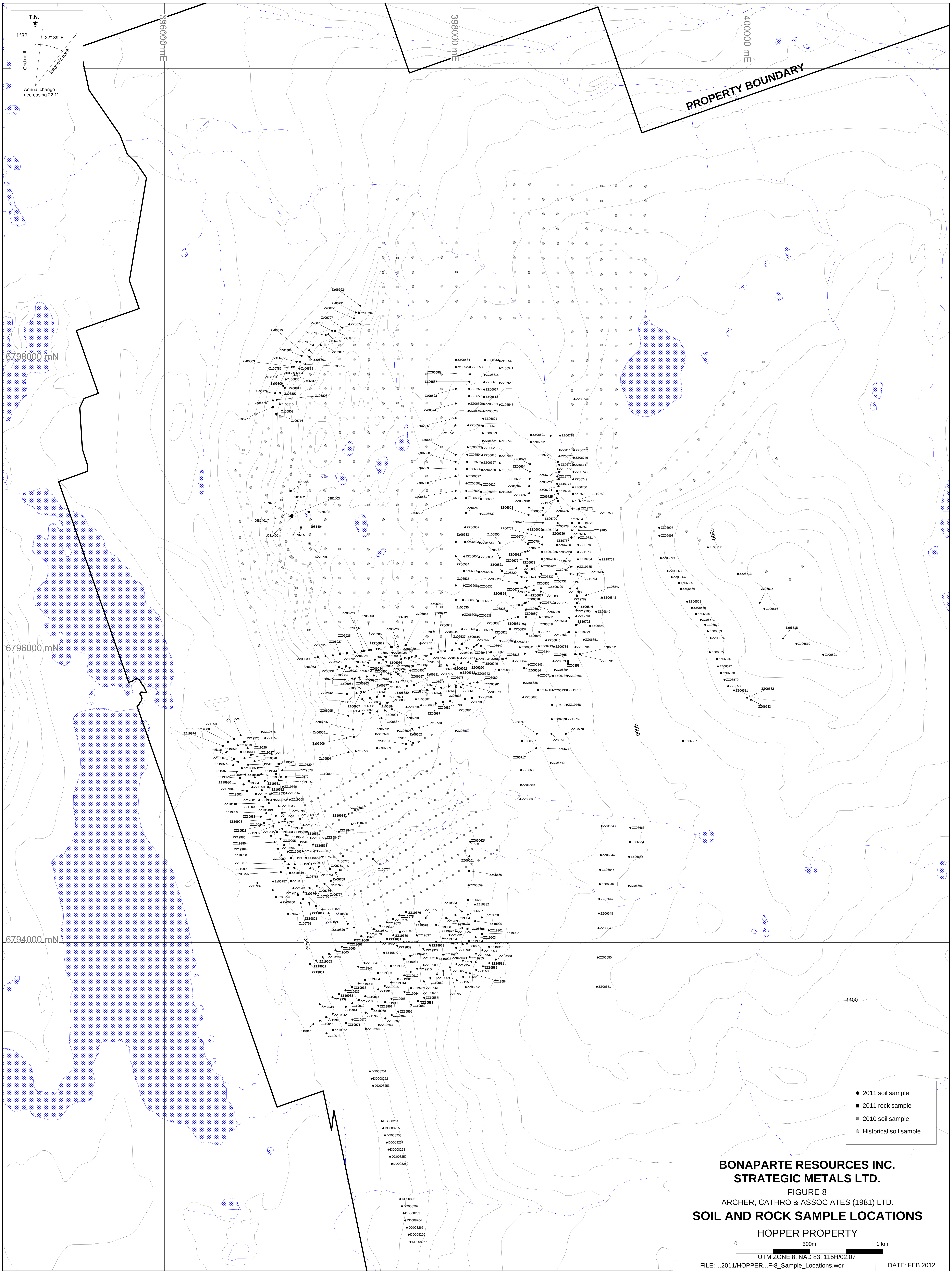
FIGURE 3
ARCHER, CATHRO & ASSOCIATES (1981) LTD.

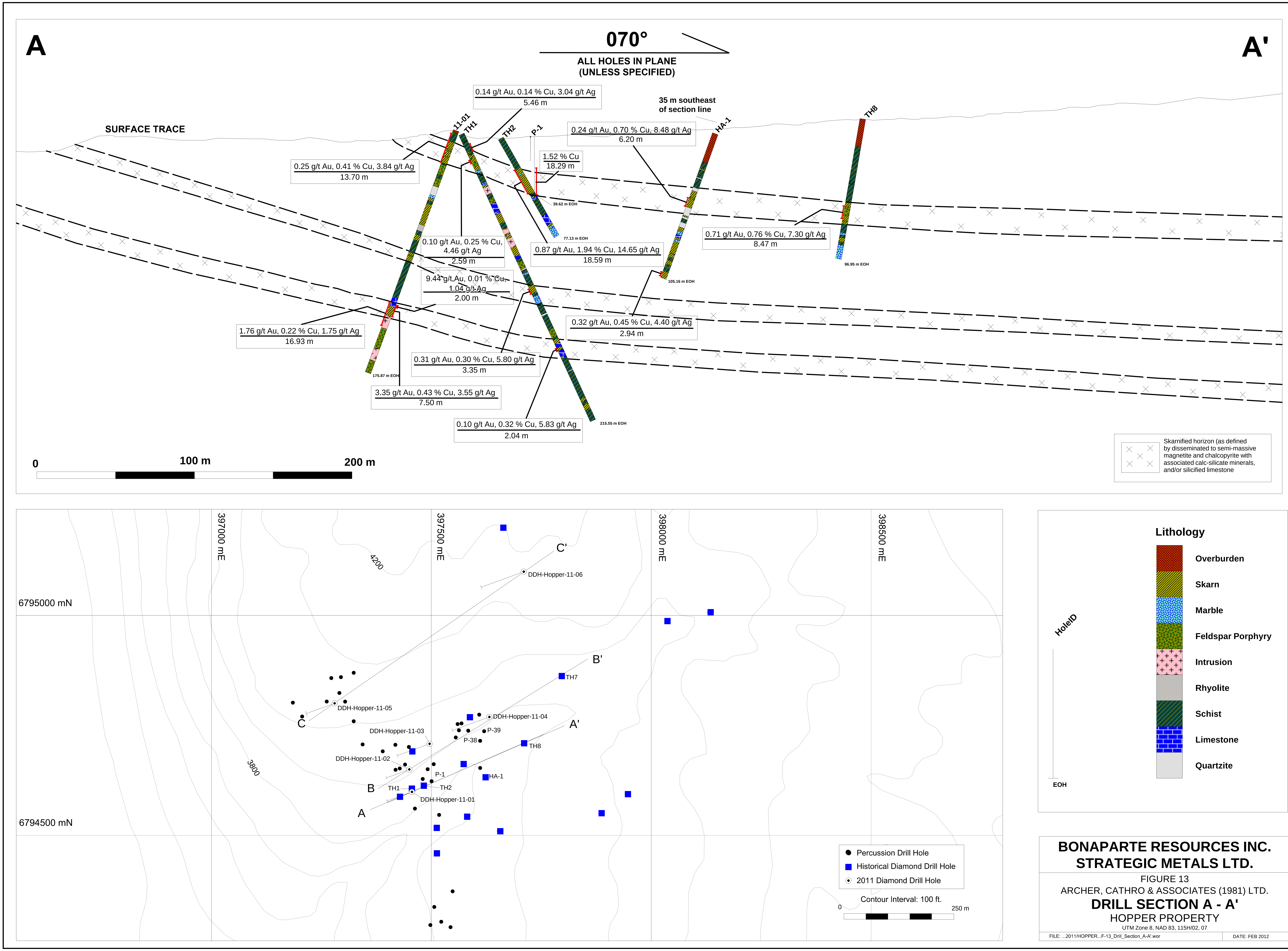
HISTORICAL WORKINGS

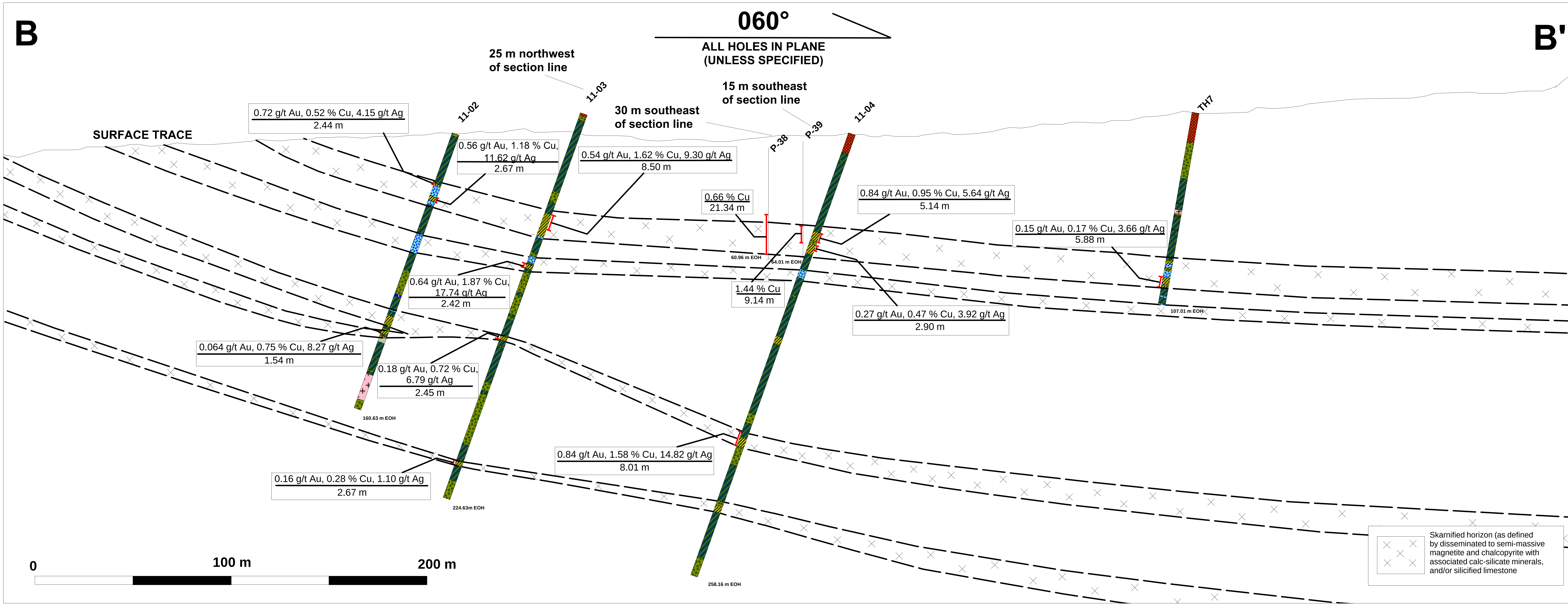
HOPPER PROPERTY

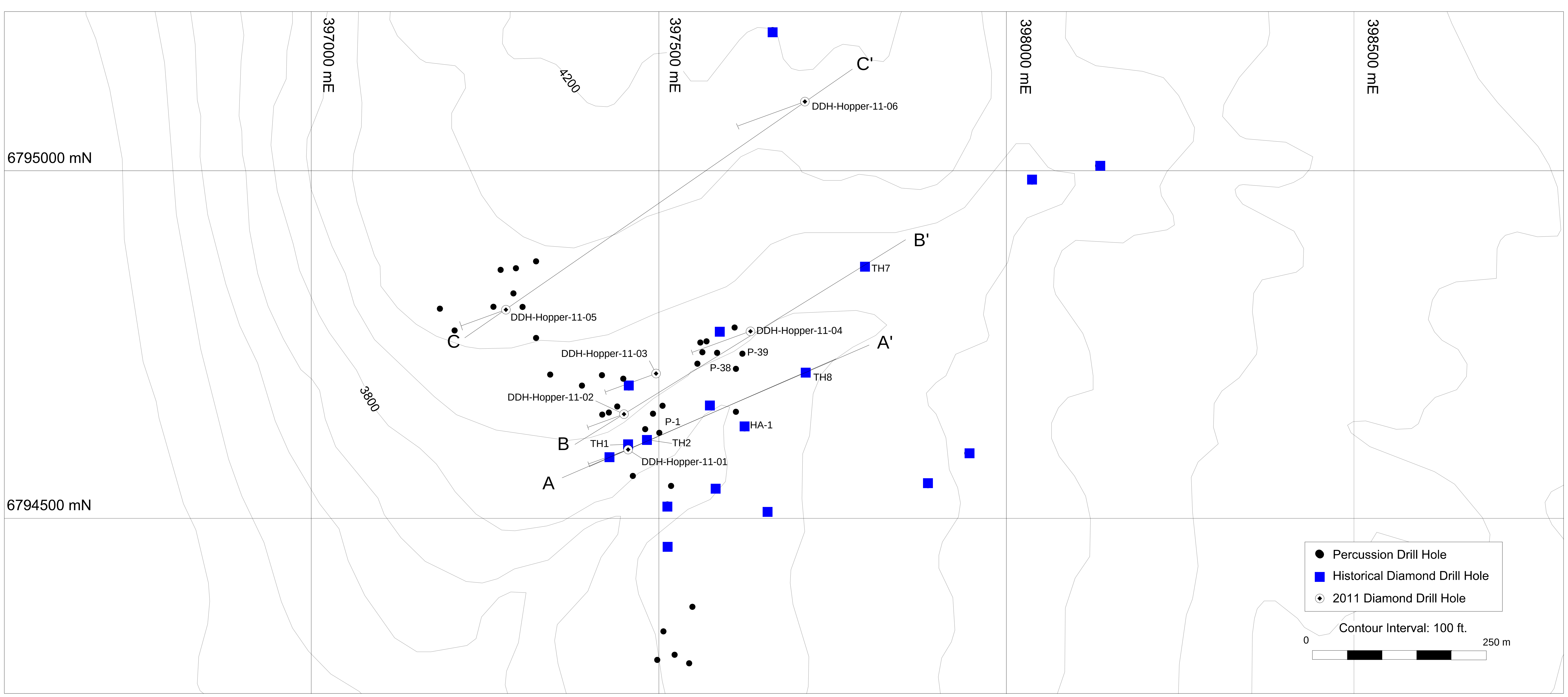
0 1 2 km
UTM ZONE 8, NAD 83, 115H/02,07

FILE: ...2011/HOPPER...F-3_Historical-workings.wor DATE: FEB 2012


T.N.
1°32'
22° 39' E
Grid north
Magnetic north
Annual change decreasing 22.1'
396000 mE
398000 mE
400000 mE
PROPERTY BOUNDARY
6798000 mN
6796000 mN
6794000 mN
5300
4600
3400
4400
2011 soil sample
2011 rock sample
2010 soil sample
Historical soil sample
BONAPARTE RESOURCES INC.
STRATEGIC METALS LTD.
FIGURE 8
ARCHER, CATHRO & ASSOCIATES (1981) LTD.
SOIL AND ROCK SAMPLE LOCATIONS
HOPPER PROPERTY
0
500m
1 km
UTM ZONE 8, NAD 83, 115H/02,07
FILE: ...2011/HOPPER...F-8_Sample_Locations.wor
DATE: FEB 2012


A
A'
070°
ALL HOLES IN PLANE
(UNLESS SPECIFIED)
SURFACE TRACE
35 m southeast
of section line
11-01
TH1
TH2
P-1
HA-1
TH8
0.14 g/t Au, 0.14 % Cu, 3.04 g/t Ag
5.46 m
0.24 g/t Au, 0.70 % Cu, 8.48 g/t Ag
6.20 m
1.52 % Cu
18.29 m
0.25 g/t Au, 0.41 % Cu, 3.84 g/t Ag
13.70 m
0.71 g/t Au, 0.76 % Cu, 7.30 g/t Ag
8.47 m
0.10 g/t Au, 0.25 % Cu,
4.46 g/t Ag
2.59 m
0.87 g/t Au, 1.94 % Cu, 14.65 g/t Ag
18.59 m
9.44 g/t Au, 0.01 % Cu,
1.04 g/t Ag
2.00 m
0.32 g/t Au, 0.45 % Cu, 4.40 g/t Ag
2.94 m
1.76 g/t Au, 0.22 % Cu, 1.75 g/t Ag
16.93 m
0.31 g/t Au, 0.30 % Cu, 5.80 g/t Ag
3.35 m
3.35 g/t Au, 0.43 % Cu, 3.55 g/t Ag
7.50 m
0.10 g/t Au, 0.32 % Cu, 5.83 g/t Ag
2.04 m
39.62 m EOH
77.13 m EOH
105.16 m EOH
96.95 m EOH
175.87 m EOH
215.55 m EOH
0
100 m
200 m
Skarnified horizon (as defined by disseminated to semi-massive magnetite and chalcopyrite with associated calc-silicate minerals, and/or silicified limestone
397000 mE
397500 mE
398000 mE
398500 mE
6795000 mN
6794500 mN
4200
3800
C
C'
B
B'
A
A'
DDH-Hopper-11-06
DDH-Hopper-11-05
DDH-Hopper-11-04
DDH-Hopper-11-03
DDH-Hopper-11-02
DDH-Hopper-11-01
TH7
TH8
P-39
P-38
P-1
HA-1
TH1
TH2
Percussion Drill Hole
Historical Diamond Drill Hole
2011 Diamond Drill Hole
Contour Interval: 100 ft.
0
250 m
Lithology
HoleID
EOH
Overburden
Skarn
Marble
Feldspar Porphyry
Intrusion
Rhyolite
Schist
Limestone
Quartzite
BONAPARTE RESOURCES INC.
STRATEGIC METALS LTD.
FIGURE 13
ARCHER, CATHRO & ASSOCIATES (1981) LTD.
DRILL SECTION A - A'
HOPPER PROPERTY
UTM Zone 8, NAD 83, 115H/02, 07
FILE: ...2011/HOPPER...F-13_Drill_Section_A-A'.wor
DATE: FEB 2012





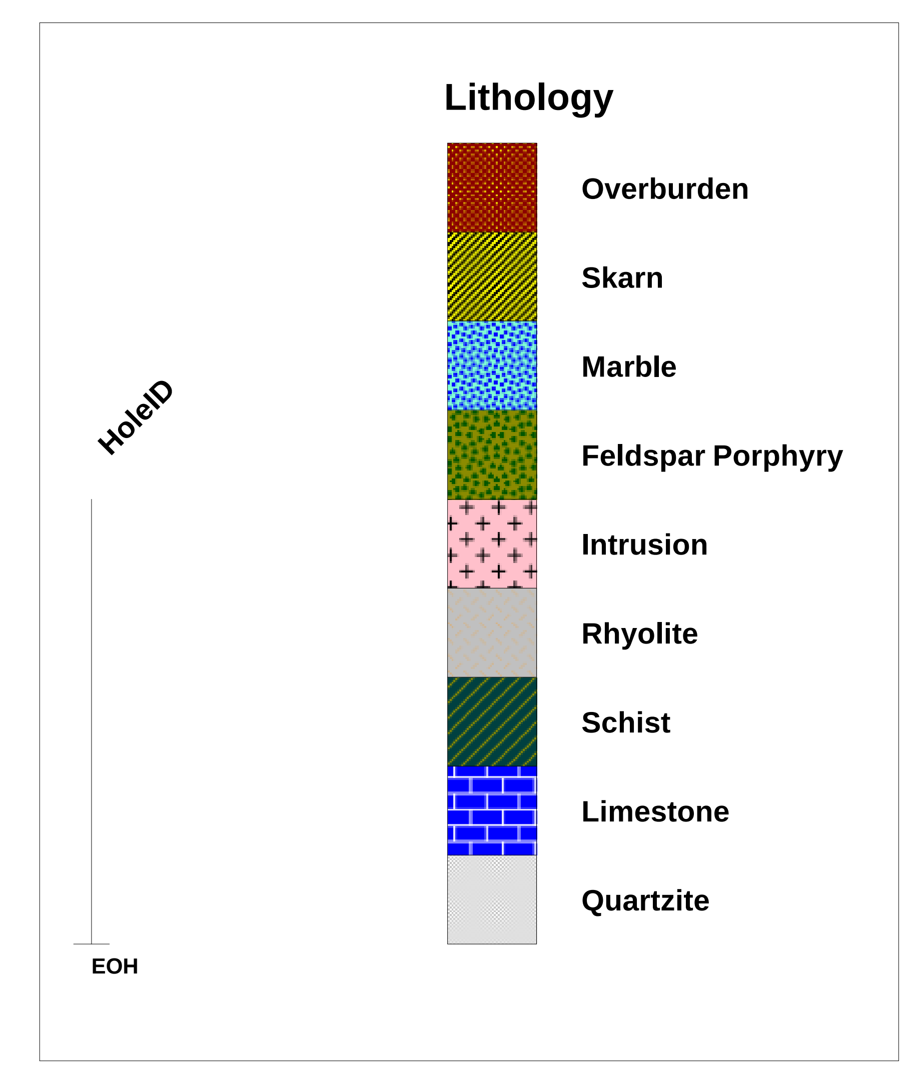


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FIGURE 14

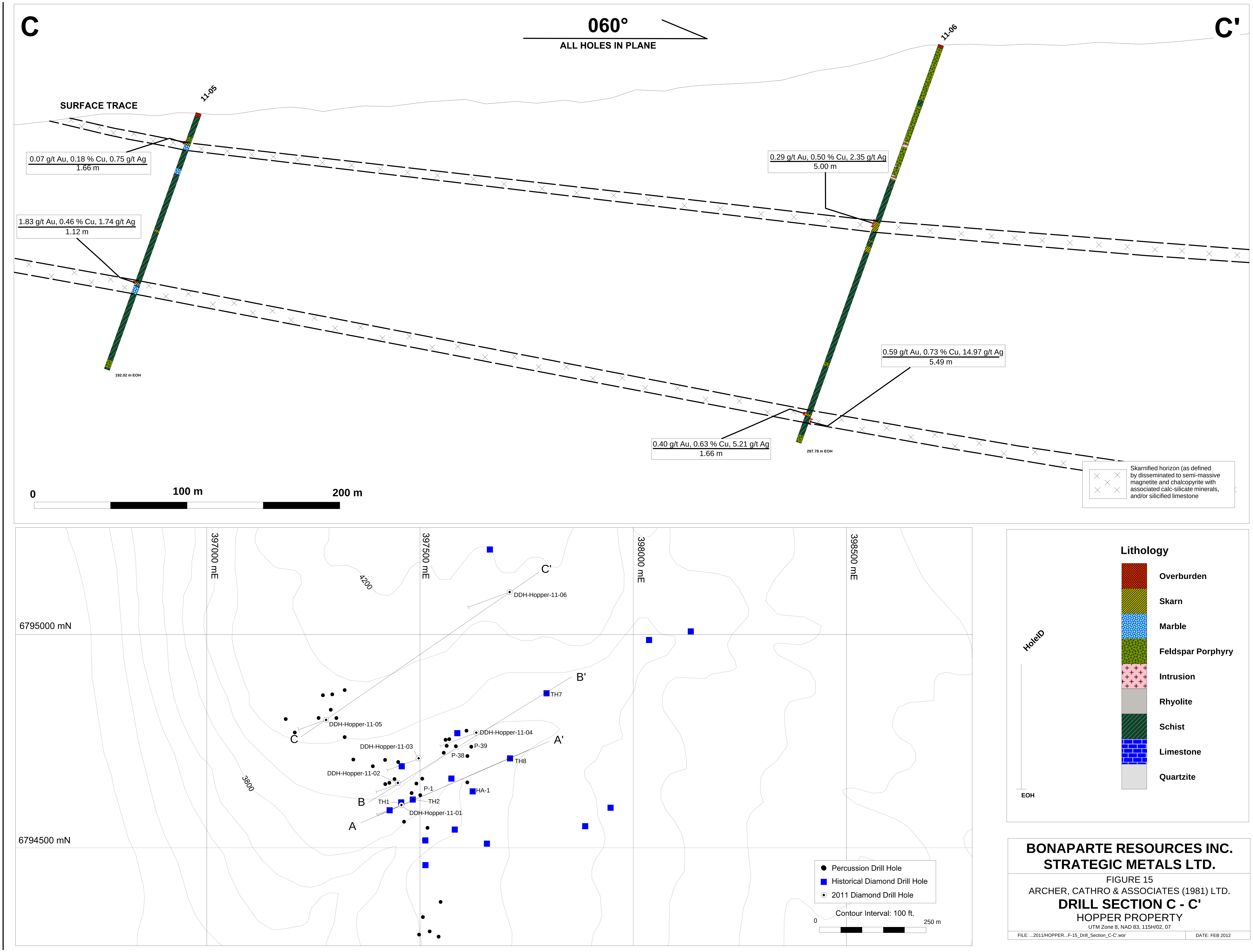
ARCHER, CATHRO & ASSOCIATES (1981) LTD.

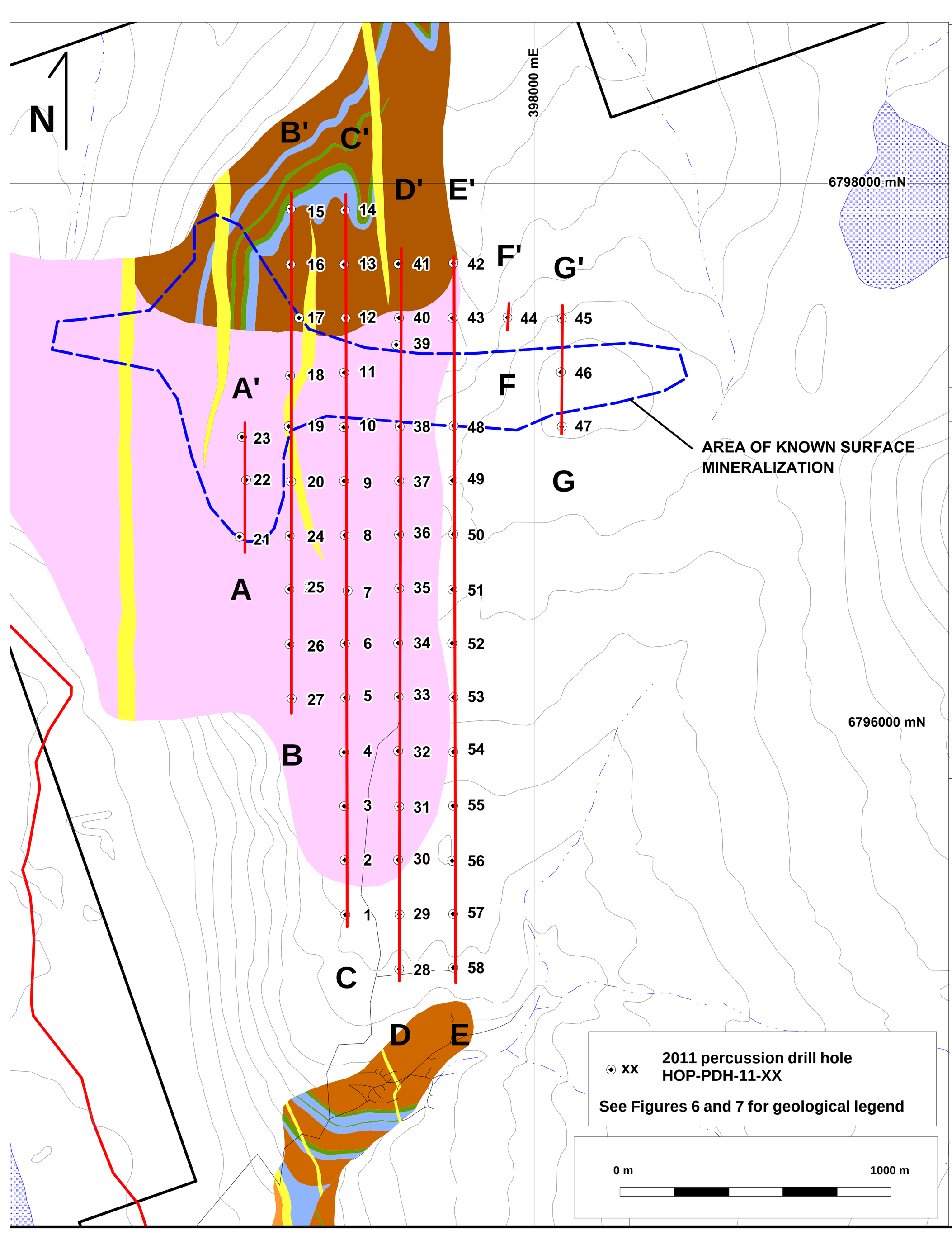
DRILL SECTION B - B'

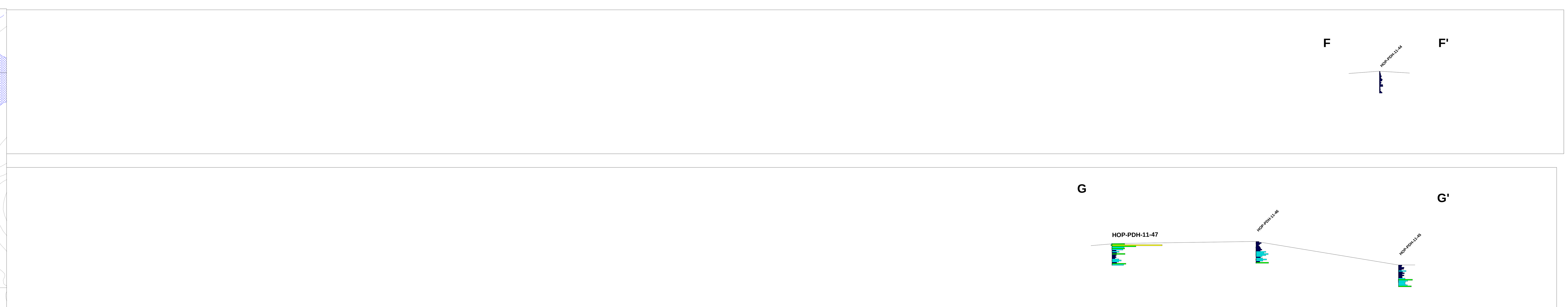
HOPPER PROPERTY

UTM Zone 8, NAD 83, 115H/02, 07

FILE: ...2011/HOPPER...F-14_Drill_Section_B-B'.wor | DATE: FEB 2012


C
C'
060°
ALL HOLES IN PLANE
11-05
11-06
SURFACE TRACE
0.07 g/t Au, 0.18 % Cu, 0.75 g/t Ag
1.66 m
1.83 g/t Au, 0.46 % Cu, 1.74 g/t Ag
1.12 m
0.29 g/t Au, 0.50 % Cu, 2.35 g/t Ag
5.00 m
0.59 g/t Au, 0.73 % Cu, 14.97 g/t Ag
5.49 m
0.40 g/t Au, 0.63 % Cu, 5.21 g/t Ag
1.66 m
192.02 m EOH
297.78 m EOH
0
100 m
200 m
Skarnified horizon (as defined by disseminated to semi-massive magnetite and chalcopyrite with associated calc-silicate minerals, and/or silicified limestone
397000 mE
397500 mE
398000 mE
398500 mE
6795000 mN
6794500 mN
4200
3800
C
C'
B
B'
A
A'
DDH-Hopper-11-06
DDH-Hopper-11-05
DDH-Hopper-11-04
DDH-Hopper-11-03
DDH-Hopper-11-02
DDH-Hopper-11-01
TH7
TH8
TH1
TH2
HA-1
P-39
P-38
P-1
Percussion Drill Hole
Historical Diamond Drill Hole
2011 Diamond Drill Hole
Contour Interval: 100 ft.
0
250 m
Lithology
Overburden
Skarn
Marble
Feldspar Porphyry
Intrusion
Rhyolite
Schist
Limestone
Quartzite
HoleID
EOH
BONAPARTE RESOURCES INC.
STRATEGIC METALS LTD.
FIGURE 15
ARCHER, CATHRO & ASSOCIATES (1981) LTD.
DRILL SECTION C - C'
HOPPER PROPERTY
UTM Zone 8, NAD 83, 115H/02, 07
FILE: ...2011/HOPPER...F-15_Drill_Section_C-C'.wor
DATE: FEB 2012





SECTIONS LOOKING WEST

Hole #	Cu (ppm)	Au (g/t)
Au (g/t) / Cu (ppm)	≥10000 < 20301	≥0.5 < 0.64
	≥5000 < 10000	≥0.2 < 0.5
	≥2000 < 5000	≥0.1 < 0.2
	≥1000 < 2000	≥0.05 < 0.1
	≥500 < 1000	≥0.01 < 0.05
	≥0 < 500	≥0 < 0.01

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FIGURE 16
ARCHER, CATHRO AND ASSOCIATES (1981) LTD.

PERCUSSION DRILL SECTIONS

HOPPER PROPERTY

0 — 200m
UTM ZONE 8, NAD 83, 115H/07

FILE: ...2011/HOPPER/Basemaps/Sections | DATE: FEB 2012