Prospecting Report on the Bear Hill Project

Omineca Mining Division
Tenure Numbers:
595838

NTS: 093M/08E
Latitude 55° 22' N Longitude 126° 02'W

UTM Zone 09 (NAD 83)
Northing 6138901
Easting 688286

Work performed October 1-25, 2010
by
Ken Galambos and Ralph Keefe

For
Ken Galambos
1535 Westall Ave.
Victoria, British Columbia
V8T 3G6

Ken Galambos, P.Eng.
KDG Exploration Services
1535 Westall Ave.
Victoria, British Columbia
V8T 3G6

January 17, 2011

1.0 EXECUTIVE SUMMARY

The Bear Hill property was explored from October 1-2, 2010. A temporary camp was established near the western boundary of the property and daily traverses were made to the property. The main zone and the west zone were successfully located and sampled. Drill hole BH82-2 was also located with its GPS coordinates accurately recorded.

Genesis of the mineralization at Bear Hill is unknown. Quartz/barite veins up to 10cm and baritic volcanics were located at both the West and Main showings indicating a possible epithermal association for the mineralization, while potassic alteration associated with the veins hint at a possible porphyry source. Structural preparation of the host rocks has played a key role in concentrating mineralization into localized zones. NW, NE and fairly flat shears and joints all host copper and silver mineralization. Only minor malachite staining of the volcanic rocks was noted as evidence of any economic mineralization present on the property. No sulphide minerals were recognized.

Sampling returned values as high as 1.29% Cu and 389gm/t Ag from grab samples at the West showing. Chip sampling at the lower Main showing returned 1.06% Cu and 182gm/t Ag over 2m.

Table of Contents

Page

List of Illustrations

List of Tables

List of Photographs

2.0 INTRODUCTION AND TERMS OF REFERENCE

2.1 Participating Personnel

This report describes the property and is based on historical information and an examination and evaluation of the property by Ken Galambos and Ralph Keefe on October 1-2, 2010.

2.2 Terms, Definitions and Units

- All costs contained in this report are denominated in Canadian dollars.
- Distances are primarily reported in metres (m) and kilometers (km) and in feet (ft) when reporting historical data.
- GPS refers to global positioning system.
- Minfile showing refers to documented mineral occurrences on file with the British Columbia Geological Survey.
- The term ppm refers to parts per million, equivalent to grams per metric tonne (g/t).
- ppb refers to parts per billion.
- The abbreviation oz/t refers to troy ounces per imperial short ton.
- The symbol % refers to weight percent unless otherwise stated. 1% is equivalent to 10,000ppm.
- Elemental and mineral abbreviations used in this report include: gold (Au), pyrite (Py) chalcopyrite (Cpy) and molybdenite (Mo).

2.3 Source Documents

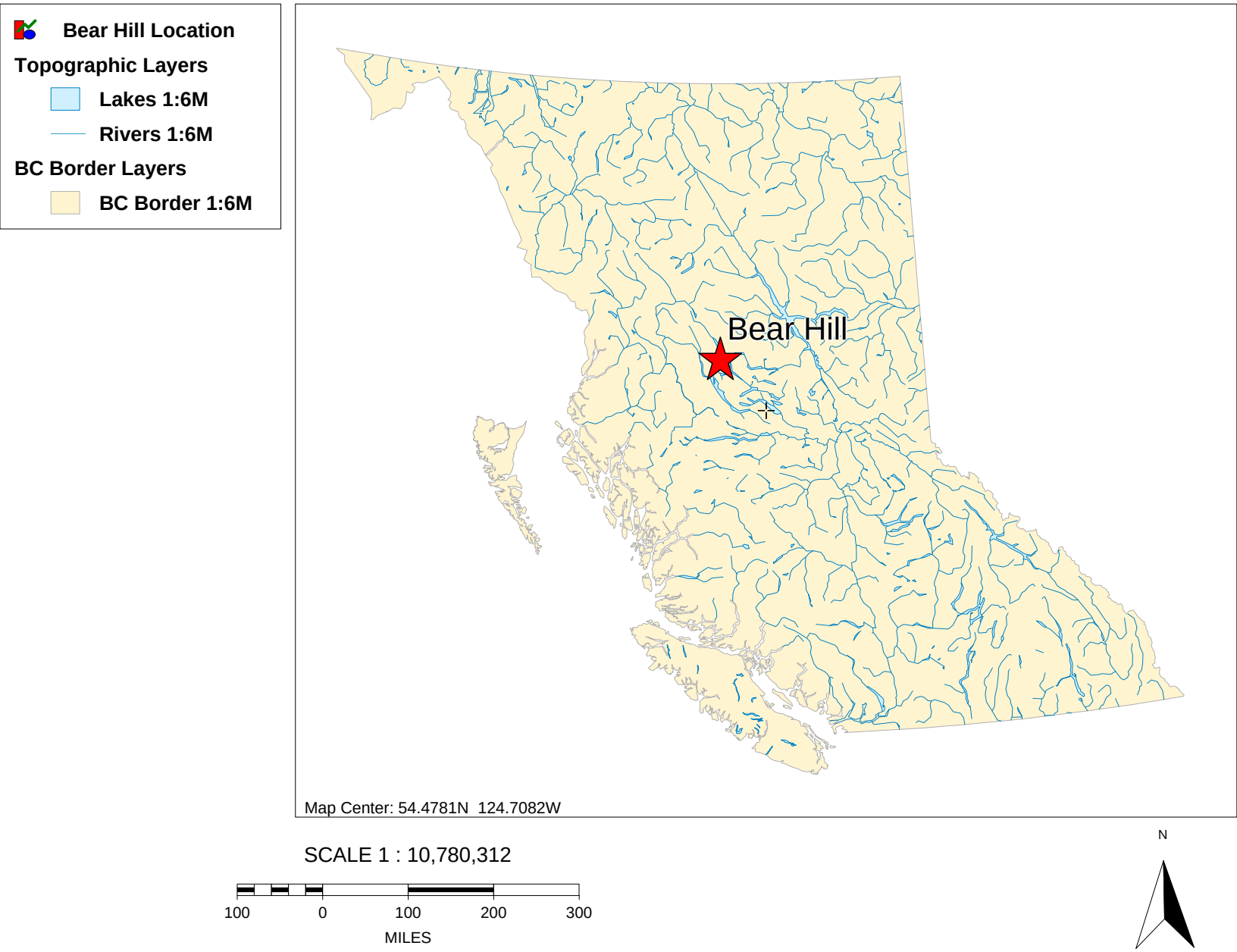
Sources of information are detailed below and include the available public domain information and private company data.

- Research of the Minfile data available for the area at http://www.empr.gov.bc.ca/Mining/Geoscience/MINFILE/Pages/default.aspx
- Research of mineral titles at https://www.mtonline.gov.bc.ca/mtov/home.do
- Review of company reports and annual assessment reports filed with the government at http://www.empr.gov.bc.ca/Mining/Geoscience/ARIS/Pages/default.aspx
- Review of geological maps and reports completed by the British Columbia Geological Survey at http://www.empr.gov.bc.ca/Mining/Geoscience/MapPlace/MainMaps/Pages/default.aspx .
- Published scientific papers on the geology and mineral deposits of the region and on mineral deposit types.
- Work on the property by K. Galambos and R. Keefe October 1-2, 2010.

2.4 Scope

This report describes the July prospecting program, geology, previous exploration history and mineral potential of the Bear Hill Project. Research included a review of the historical work that related to the immediate and

Bear Hill Location Map



surrounding area of the property. Regional geological data and current exploration information have been reviewed to determine the geological setting of the mineralization and to obtain an indication of the level of industry activity in the area. The property was examined and evaluated by Ken Galambos and Ralph Keefe and consisted of limited geological mapping, rock and geochemical sampling of the available bedrock.

3.0 PROPERTY DESCRIPTION AND LOCATION

3.1 Location and Access

The Bear Hill project area lies on the west side of Takla Lake in central British Columbia. The centre of the property lies approximately 14 km south of the community of Takla Landing on mapsheet 093M08E. A rail line is situated less than 12.5km from the property on the east shore of Takla Lake, a major power line lies within 10km to the north. Logging has occurred on the western boundary of the property. The property is currently accessed via rough 2wd road from the barge landing on Babine Lake across from Topley Landing. The claims lie within the Omineca Mining Division and are administered out of Smithers, BC.

3.2 Physiography and Vegetation

The property is situated within the northern most part of the Nechako Plateau, close to the southwestern border of the Omineca Mountains. The property covers a large hill five km north of the west arm of Takla Lake with elevations between 780 and 900m elevation. The 0.3 by 1.2 kilometer knoll is very steep-sided with cliff-forming rock faces on the east side. The crown of the hill is flatly rounded with hummocky rock exposures. The configuration of the hill crudely simulates a crag and tail shape with indications that glaciation moved south-southeast over the hill. The property is covered by fairly thick coniferous forest, with more open mainly deciduous forest on south facing slopes and open swamps along flatter valley bottoms to the east and west.

3.3 Land Tenure

The Bear Hill property consists of a single quartz claim consisting of 6 cells and covering an area of 110.33ha. A listing of the tenures covering the Bear Hill project is contained in Table 1 below. Upon acceptance of this report for assessment purposes, the highlighted tenure will have Expiry date moved to August 28, 2016. The property is situated in the Omineca Mining Division.

Table 1: Claim Data

Tenure #	Claim name	Issue date	Expiry date	Registered Owner
595838	Bear Hill	11-Dec-2008	10-Mar-2016	Galambos, Kenneth D

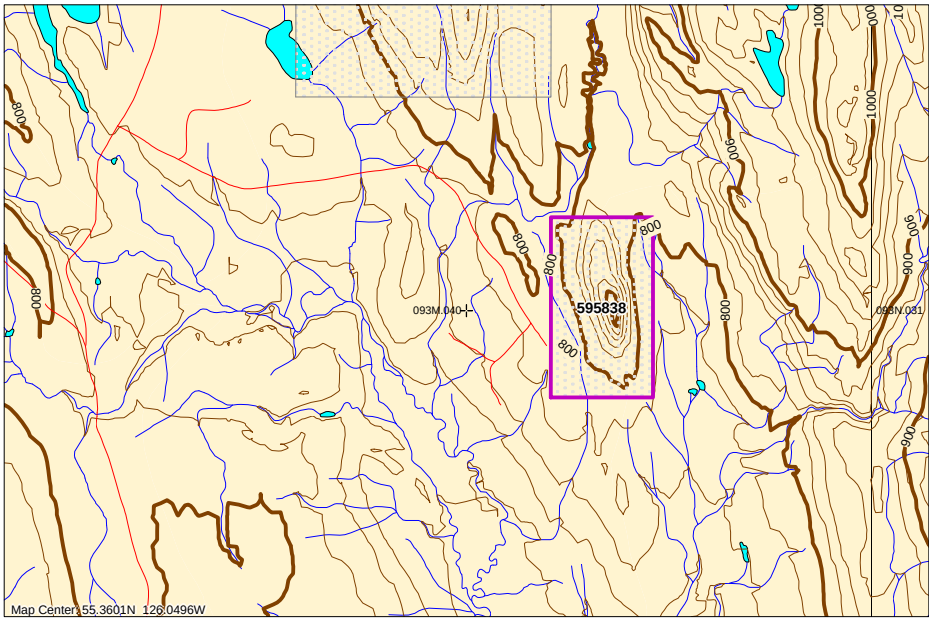
Bear Hill Claim Map

Mineral Titles Layers

- **Bear Hill Tenure**
- **All Mineral Tenures**

Topographic Layers

- **Railways 1:20K**
- **Digital Road Atlas (<250K)**
  - Freeway
  - Highway
  - Ramp
  - Arterial
  - Collector
  - Local
  - Lane
  - Strata
  - Recreation
  - Trail



SCALE 1 : 58,538

1 0 1 2 3

MILES

N

4.0 HISTORY

The first documented exploration in the area around the Bear Hill property was by BP Minerals Limited in 1980 however the copper/silver mineralization has apparently be known to the local first nation people for many years. Following the BP "discovery" the company staked the Grunt 1-3 claims and in 1981 conducted extensive geological mapping and geochemical surveys involving both soil and rock sampling. A total of 263 soil and 167 rock chip samples were collected from a nine line-km grid established over the property. Placer Development optioned the property and in 1982 conducted further geochemical surveys that expanded on the earlier grid.

Plate 1: Remnants of drill platform BH-82-2

The company collected 1794 soil and silt samples were collected as part of the geochemical surveys on Bear Hill. A total of 35 rock chip samples were cut from several targets. Placer also completed 22 line-km of Magnetic and VLF-EM and 3.7 line km of Induced Polarity (IP) geophysical surveys over a selected area of the grid. Two holes totaling 396.24m were drilled to test a weak IP anomaly near on the eastern side of the hillside. Neither hole tested extensions of mineralization from the Main showing.

Plate 2: Deteriorating drill core from BH 82-2

The property has been held by a number of individuals since that time until being acquired by the author on December 11, 2008.

5.0 GEOLOGICAL SETTING

5.1 Regional Geology

Geology of Takla Lake region has Upper Triassic Takla Group and Lower Jurassic Telkwa Formation volcanic rocks and metasediments intruded by Lower

Jurassic to Upper Cretaceous acidic batholiths and stocks. These rocks are, in turn, locally overlain by Late Cretaceous conglomerate and sandstone of the Sustut Group and volcanic rocks of the same and younger ages.

More locally in the Bear Hill valley, regional geology consists of Tertiary or possibly older Upper Cretaceous volcanic rocks down-faulted into Sustut conglomerate and sandstone. Small quartz diorite and feldspar porphyry plugs locally intrude the conglomerate. The more important volcanic rocks of the Bear Hill sequence are subaerial dacitic to basaltic porphyritic flow rocks and coarse to fine fragmental volcaniclastics. These volcanic rocks are exposed as a series of topographic knolls that are aligned along a 20 kilometer north-trending extensional graben structure. This structure is locally cross-cut by NW and possibly NE faults.

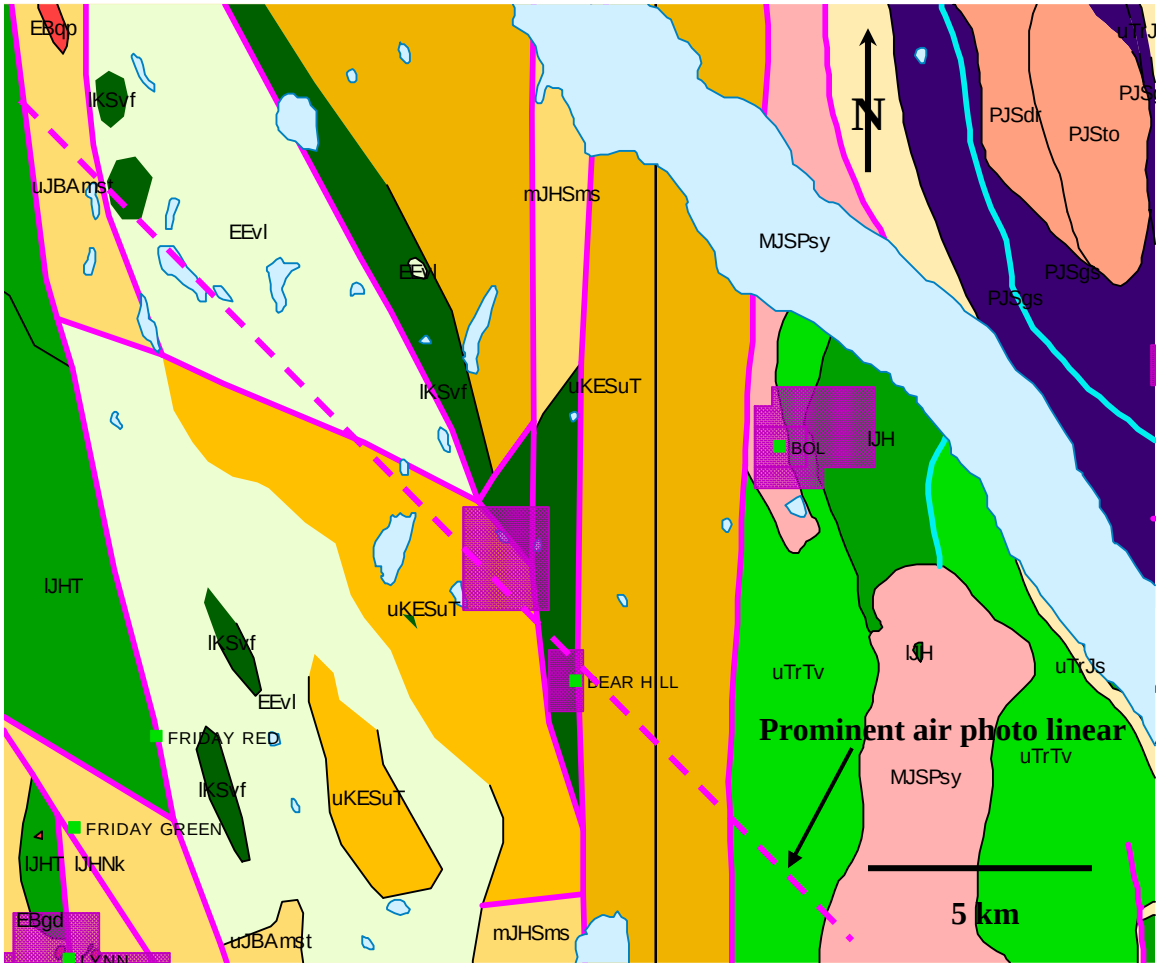


Figure 3: Regional Geology

Geology Legend

Bounding Box: *North: 55.479 South: 55.298 West: -126.330 East: -125.824*
NTS Mapsheets: 093M, 093N

Eocene

Babine Plutonic Suite

EBgd **Biotite-Feldspar Porphyritic Phase:** granodioritic intrusive rocks

EBqd **Quartz Diorite to Granodiorite Phase:** quartz dioritic intrusive rocks

Nechako Plateau Group

EON **Newman Formation:** andesitic volcanic rocks

EONvb **Newman Formation - Porphyritic Flows Member:** basaltic volcanic rocks

EEvl **Endako Formation:** coarse volcaniclastic and pyroclastic volcanic rocks

Late Cretaceous to Eocene

LKdr dioritic intrusive rocks

Upper Cretaceous to Eocene

Sustut Group

uKESuT **Tango Creek Formation:** undivided sedimentary rocks

Late Cretaceous

Early Cretaceous

Skeena Group

lKSvf **Felsic Volcanics:** rhyolite, felsic volcanic rocks

Middle to Late Jurassic

Bowser Lake Group

uJBAmst **Ashman Formation:** argillite, greywacke, wacke, conglomerate turbidites

uJBT **Trout Creek Formation:** conglomerate, coarse clastic sedimentary rocks

Middle Jurassic

Hazelton Group

mJHSms **Smithers Formation:** marine sedimentary and volcanic rocks

Spike Peak Intrusive Suite

MJSPsy syenitic to monzonitic intrusive rocks

Early to Middle Jurassic

Hazelton Group

lmJHSHvb **Saddle Hill Formation - Mafic Submarine Volcanic Member:** basaltic volcanic rocks

lmJHSH **Saddle Hill Formation:** undivided volcanic rocks

Spike Peak Intrusive Suite

EMJSPd dioritic intrusive rocks

Early Jurassic

Hazelton Group

lJH andesitic volcanic rocks

lJHT **Telkwa Formation - Felsic to Intermediate Volcanic Member:** andesitic volcanic rocks

lJHNk **Nilkitkwa Formation:** argillite, greywacke, wacke, conglomerate turbidites

lJHT **Telkwa Formation - Mafic Volcanic Member:** basaltic volcanic rocks

Lower Jurassic

lJHNk **Nilkitkwa Formation:** undivided sedimentary rocks

Late Triassic to Early Jurassic

uTrJs undivided sedimentary rocks

Sitlika Assemblage

uTrJSs **Clastic Unit:** undivided sedimentary rocks

Late Triassic

Takla Group

uTrTv undivided volcanic rocks

Early Permian to Early Triassic

Sitlika Assemblage

PJSto tonalite intrusive rocks

Late Permian to Early Triassic

PJSgs greenstone, greenschist metamorphic rocks

Early Permian to Early Triassic

PJSdr dioritic intrusive rocks

PJSgs **Volcanic Unit:** greenstone, greenschist metamorphic rocks

---

Ministry of Forests, Mines and Lands
BC Geological Survey

5.2 Property Geology

Bear Hill is underlain by dacite and andesite flows and volcaniclastic rocks interbedded with limestone at the south end of the knoll. Volcaniclastic rocks include tuff and volcanic breccia, locally with clasts up to 30 cm across. Flows commonly contain feldspar phenocrysts up to several mm across and can form as much as 20% of the rock. Outcrops of porphyritic volcanics with unusually abundant feldspar phenocrysts are exposed in the vicinity of the galena showings on the northwest end of Bear Hill and may represent small subvolcanic intrusions. Volcaniclastic rocks underlie most of the south end of Bear Hill and flows of generally more mafic composition, locally interbedded with volcaniclastics, form most of the remainder of the hill. At the Main showing, the volcanics are cut by abundant white barite-quartz lenses, pods and less regular bodies commonly a few cm thick which locally forms several percent of the rock.

5.2.1 Structure

Flow banding in dacite in the vicinity of the Main Showing shows an east to southeast strike and dip steeply to the north to moderate southwest. The volcanics are typically cut by moderate to close spaced joints and fractures. Numerous small, <1m, shear zones were noted during the 2010 visit with variable trends from NW to NE. Dacite with unusually high silver/copper values, at the Main showing, locally shows a pervasive small scale angular brecciation which appears to be of secondary origin. The mineralization at the Main Showing forms a northwest trending, apparently steep dipping zone approximately 30 m wide which is exposed over the full height of outcrop at the east side of Bear Hill, indicating a minimum vertical dimension of approximately 60 m. At the time of the initial programs, the zone did not appear to have any stratigraphic or structural association. Recent air photo and satellite interpretation has identified a strong NW trending linear that passes through the main showing area and has a minimum strike length of 30km.

5.2.2 Alteration

The volcanic rocks at Bear Hill exhibits widespread weak clay alteration. Obvious silicification is uncommon, but was observed along the southeast crest of the hill, south of the Main Showing, where dacite contains abundant fine grained quartz in small veinlets and irregular patches which are locally stained brick red with fine grained iron oxides.

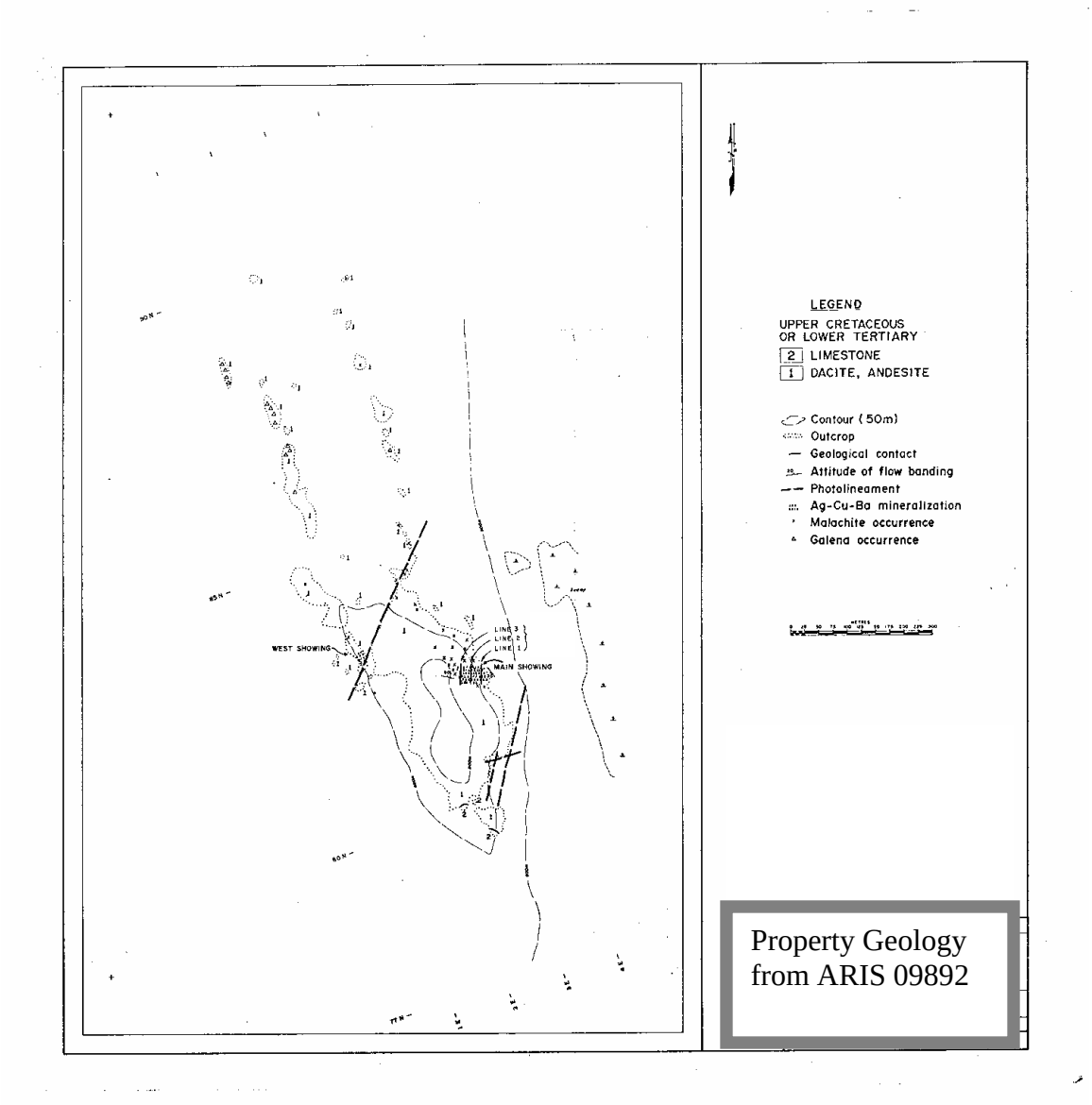


Figure 4: Property Geology map

5.3 Regional Geophysics

The volcanic rocks coincide with a strong magnetic high over the entire property that clearly shows the location of the bounding graben faults. A prominent northwest trending air photo linear that passes near the Main showing, appears to offset the magnetic anomaly to the west slightly.

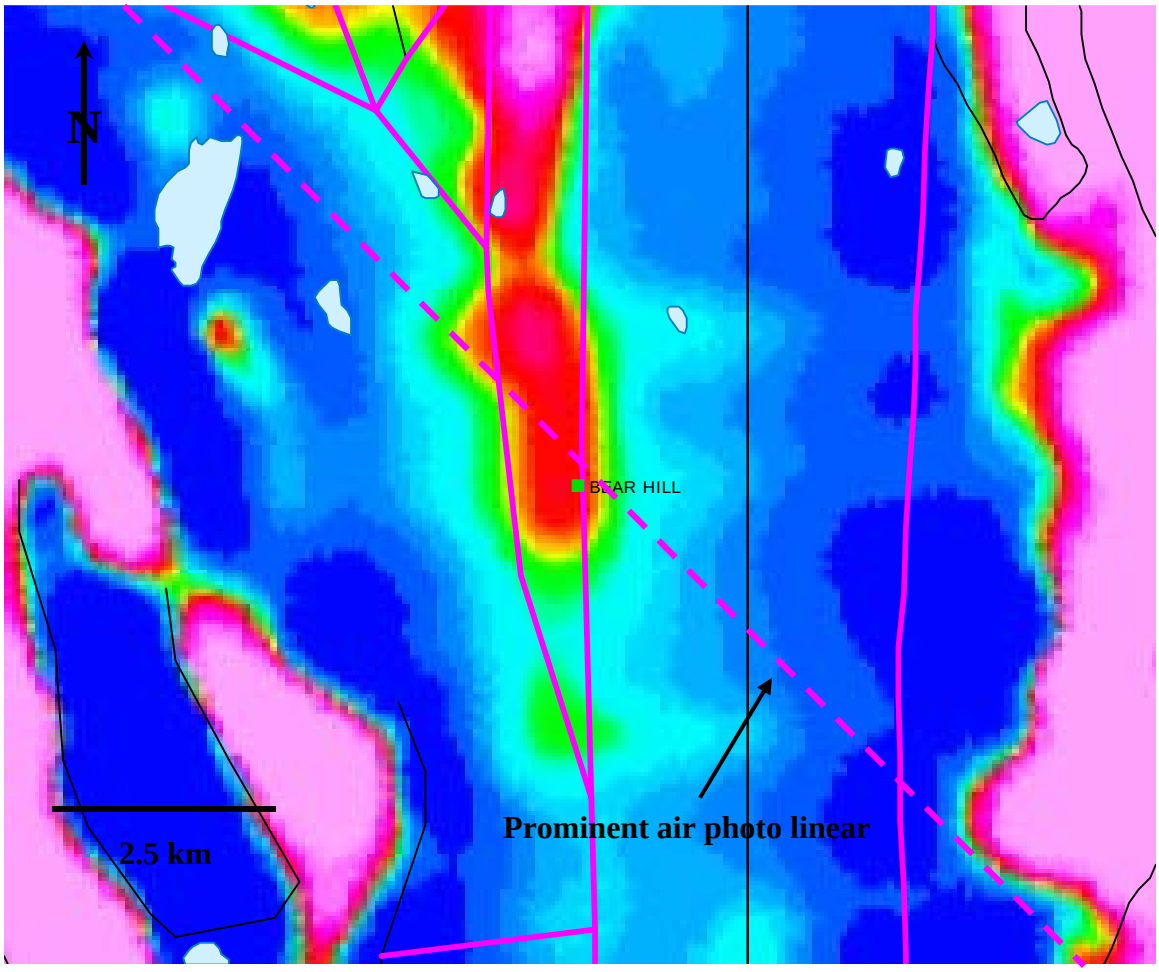


Figure 5: 1st Derivative Magnetic map

6.0 MINERALIZATION

(From Findlay et al 1981)

At the Main Showing, mineralization occurs in malachite stained volcanic rocks that contain sparse fine grained sulphides and abundant barite. High silver and copper values in un-weathered rock occur primarily as very fine grained disseminated chalcopyrite, locally accompanied by bornite and a very fine grained black sulphide mineral, possibly chalcocite or a silver sulphosalt such as tetrahedrite. These sulphides typically form less than 2% of the rock and are often most abundant both within and immediately adjacent to barite-quartz bodies. Dacite with unusually high silver/copper values is associated with pervasive small scale angular brecciation. Sulphide minerals at the Main Showing are extensively weathered with development of malachite and locally

azurite and Tenorite (?). The mineralization forms a northwest trending, apparently steep dipping zone approximately 30 m wide which is exposed over the full height of outcrop on the east side of Bear Hill, indicating a minimum vertical extent of the showing of 60 m**.** Average metal values for the whole zone and for the high grade lowest line are 0.1% Cu, 8.5 gm/ton Ag; and 0.2% Cu, 19.9 gm/ton Ag, respectively. Results from other samples of oxidized bedrock from the mineralized zone at the Main Showing likely understate the true metal values by an unknown factor due to the extensive weathering of the sulphide minerals. The degree to which these values understate the true tenor of the zone is not known, but is probably substantial. It is thought by previous operators that the true tenor of the richer parts of the zone may approximate the values obtained for the 'high grade' samples with largely un-weathered sulphide. Sample results for two composite rock chips of selected high grade, substantially un-weathered, sulphide material collected in 1981 returned values of 5976ppm Cu, 47ppm Ag and 7.15% Ba and 6931ppm Cu, 70ppm Ag and 0.14% Ba. It was also found that the highest grade material occurs near the base of the zone.

Plate 3: Blasted section of lower Main Showing

At the West Showing, abundant malachite, both disseminated and along fractures, occurs in rubble crop over a surface area of approximately 30 m by 20 m. Copper values are accompanied by high Ag, Pb, Zn and Mn values, A few grains of fine grained disseminated chalcopyrite were also observed accompanied by an unidentified very fine grained black sulphide mineral. Barite/quartz lenses and pods are locally abundant. A composite rock chip sample collected at the West Showing of selected malachite stained rock with fine grained sulphide (BM 1946) contains 2% Cu and 180 gm/t Ag.

At the Galena Showing, further to the north on the west side of Bear Hill, minor amounts of galena, accompanied locally by sphalerite and malachite are widely distributed within altered andesite in the small outcrops and rubble crop exposed. Galena occurs as disseminated aggregates, typically a few mm across, in andesite with clots of coarse green chlorite. Manganese oxides, earthy hematite, and calcite both disseminated in narrow veinlets are abundant. Weathering has converted primary copper minerals to malachite and has probably also partly destroyed originally more abundant sphalerite. Galena is generally unaltered and shows an erratic distribution with local accumulations of up to 5% but generally is less than 1%. Sample results for composite rock chips of selected high grade

material show high values for Pb, Zn, Cu, Mn and Ba, but rather low Ag values. Values reach as high as 2.3% Pb, 0.98% Zn, 0.12% Cu and 12.7 gm/t Ag.

7.0 PREVIOUS EXPLORATION

An extensive amount of work has been completed on Bear Hill and is of sufficient quality to use with new interpretations for the property. BP Minerals Limited "discovered" copper and silver mineralization in 1980. The mineralization was apparently known to the local first nation people for many years. In 1981, the company conducted extensive geological mapping and geochemical surveys involving both soil and rock sampling. A nine line-km grid was established over the property and a total of 263 soil and 167 rock chip samples were collected. Placer Development optioned the property in late 1981 and the following year conducted further geochemical surveys that expanded on the earlier grid. The company collected 1794 soil and silt samples were collected as part of the geochemical surveys on Bear Hill. A total of 35 rock chip samples were cut from several targets. Placer also completed 22 line-km of Magnetic and VLF-EM and 3.7 line km of Induced Polarity (IP) geophysical surveys over a selected area of the Bear Hill grid. Two holes totaling 396.24m were drilled to test a weak IP anomaly near on the eastern side of the hillside. Neither hole tested extensions of mineralization from the Main showing.

7.1 Sampling Method and Approach

Both BP conducted soil geochemical surveys using mattocks. Samples were collected from the B1 soil horizon at a depth of 3 – 40cm. It was felt that at times some C horizon soil was also incorporated. Sample sites where only A horizon soils were available were avoided.

Rock samples were collected from available outcrop and sub-crop. Continuous chip sampling of the Main Showing was completed by clearing overburden from the planned sample sites.

7.2 Sample Preparation, Analysis and Security

The 1981 program utilized ACME Analytical for sample analyses. Geochemical analyses for Ag*, Bi*, Cd*, *Co,* Cu, Fe, Mn, Mo, Ni, Pb, Sb*, V and Zn were completed using a 0.5g sample size. Gold analysis using Atomic Absorption methods was done with a 10.0g sample size.

The 1982 Placer Development program samples were analyzed in-house at the Placer Development Limited Metallurgical Laboratory and at the Placer Development Limited Geochem Lab. No methodologies or assay certificates were provided. Neither program details any security measures taken to ensure chain of custody from the field to the lab.

7.3 Results

Soil geochemical surveys have outlined a significant multi-element anomaly overlying Bear Hill. Previous interpretations suspecting a north-south trend to

mineralization, parallel to the bounding graben faults, has led to the operators to contour the results using this bias, resulting in locally high but spotty and discontinuous anomalies. Values returned from the initial BP surveys were as high as 1210ppm Cu, 17ppm Ag, 2000ppm Zn, 1400ppm Pb and 4200ppm Ba. Results for the much larger 1982 survey returned values up to 2280ppm Cu, 6.4ppm Ag, 2800ppm Zn, 800ppm Pb, 6200ppm Ba. Background for these elements were calculated to be 20ppm for Cu, 0.2ppm Ag, 200ppm for Zn, 6ppm for Pb and 600ppm for Ba.

Rock chip sampling at Bear Hill has outlined a 30m wide x 60m high exposure of silver/copper mineralization. Average metal values for the whole zone and for the high grade lowest line are 0.1% Cu, 8.5 gm/t Ag; and 0.2% Cu, 19.9 gm/t Ag, respectively from oxidized bedrock. Sample results for two composite rock chips of selected high grade, substantially un-weathered, sulphide material returned values of 0.6% Cu, 47gm/t Ag and 7.15% Ba and 0.7%ppm Cu, 70gm/t Ag and 0.14% Ba. Grade appears to be increasing with depth on the Main Showing.

Composite chip sampling at the West Showing has returned of malachite stained rock with fine disseminated sulphide contained 2% Cu and 180 gm/t Ag.

At the Galena showing, rock chip sampling reached maximum values of 2.3% Pb, 0.98% Zn, 0.12% Cu and 12.7 gm/t Ag.

8.0 CURRENT EXPLORATION PROGRAM

8.1 Prospecting Survey Method and Approach

Two days of intensive exploration were conducted on the Bear Hill property in 2010. From a temporary trailer camp on the western border of the claim group, daily traverses were made to the property in an effort to locate the various mineralized zones identified in previous exploration. The lack of visible sulphides greatly hampered prospecting efforts. Drill site, BH-82-2 was found and its position recorded. Deteriorating logs forming the drill platform and the stack of nearby core is the only evidence of the site. The second drill site, BH-82-1 was never located.

Plate 4: Temporary exploration camp

Plate 5: Malachite staining on 2m chip sample

Using the position of the drill site as a reference point, very minor malachite was located in talus below the lower exposure of the Main Showing. Evidence of blasting of the bedrock was apparent in hollowed areas at the base of the steep cliff exposure. A 2m chip sample of weakly malachite stained volcanics were sampled below the blasted section. A number of grab samples were collected of malachite stained volcanics at the top of the Main Showing.

An area roughly 200m south of the West Showing was prospected and sampled during the 2010 exploration program. Neither the West Showing nor the Galena Showing was visited during the program.

Plate 6: Prospector Ralph Keefe with historic claim posts

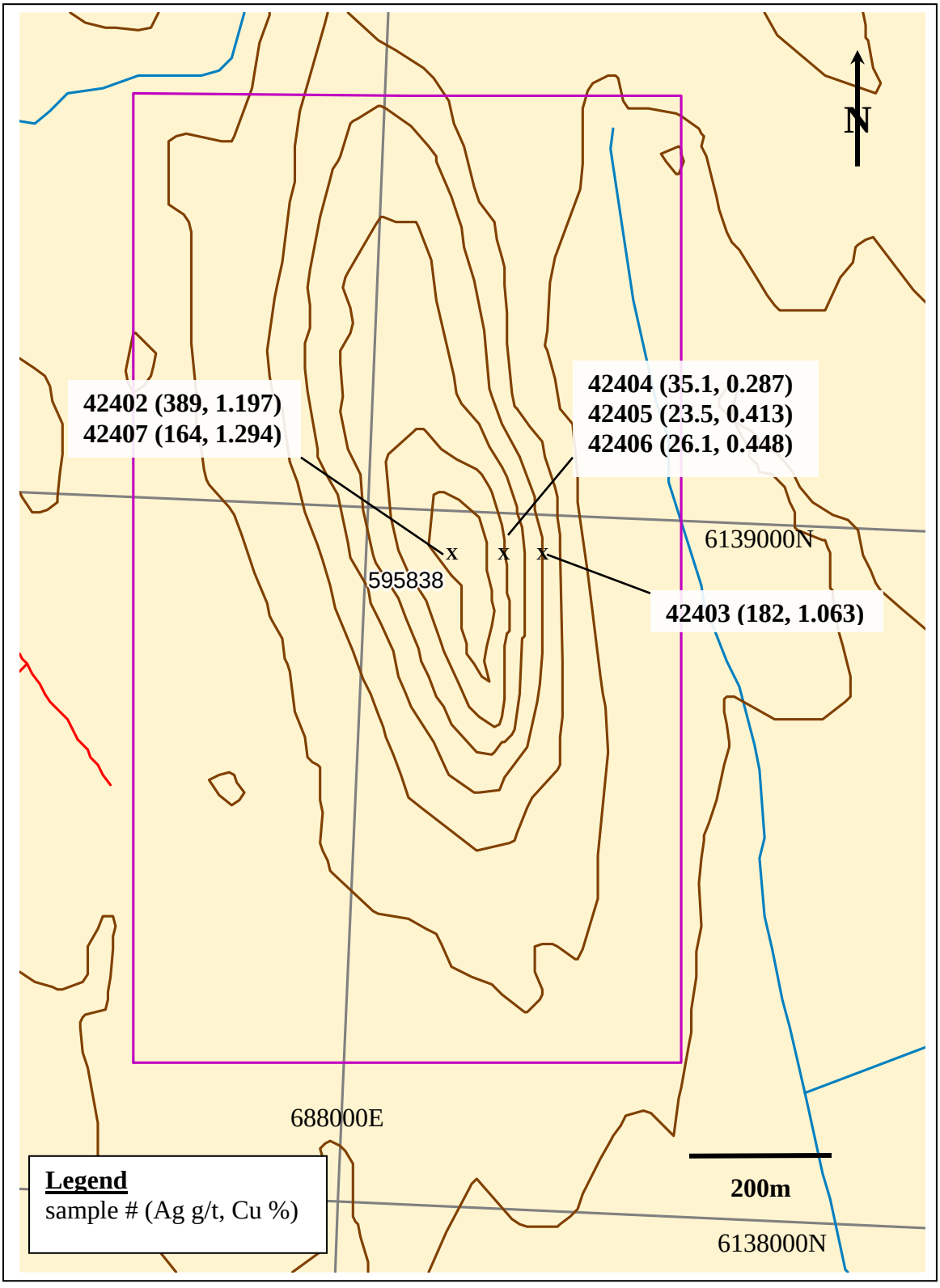


Figure 6 Sample Location Map

Table 3 Sample Descriptions

Sample #	GPS Northing	GPS Easting	Sample description
42402	688110	6138849	Grab - malachite in maroon grey volcanic
42403	688256	6138954	2m chip – weak malachite stain in grey volcanics
42404	688192	6138952	Grab - malachite stained volcanics
42405	688192	6138952	Grab - malachite stained volcanics
42406	688192	6138952	Grab - malachite stained volcanics
42407	688108	6138846	Grab - malachite stained volcanics

8.2 Sample Preparation, Analysis and Security

Six grab and chip samples were collected bagged and assigned unique labels of 042402 - 042407 in the field. The samples were shipped to the ACME Analytical prep-laboratory in Smithers for crushing and then to Vancouver for multi-element chemistry by ICP and ICP-MS methods (1D01). Gold analyses were determined by fire assay (G601) using a 30g sample. A description of analytical techniques and detection limits can be found in Appendix B

8.3 Prospecting Survey Results

All samples collected during the 2010 program returned values greater than 0.28% Cu with significant silver values. Sampling on the west side of Bear Hill, approximately 200m south of the West showing returned up to 1.29% Cu, 389gm/t Ag and 0.2% Ba from grab samples of malachite stained maroon/grey volcanic rock. Chip sampling of the lower Main Showing returned 1.06% Cu and 182gm/t Ag over a 2m interval of weak malachite staining. Grab samples from the upper Main Showing at the crest of the steep hillside returned values as high as 0.44%Cu, 35.1gm/t Ag and 0.33% Ba.

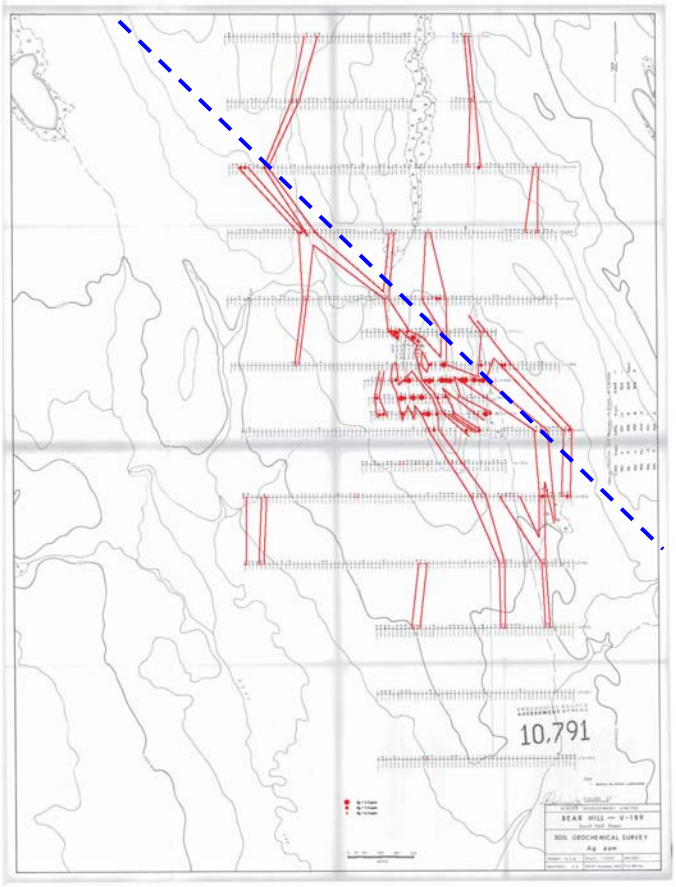


Figure 7: Silver soil geochemistry from 1982

9.0 INTERPRETATION AND CONCLUSIONS

Bear Hill represents an intriguing mineralized target exhibiting significant copper and

silver grades in an apparently weak structural environment. Silver and copper geochemical anomalies with strike lengths in excess of 3500m and widths of up to 400m with an associated air photo linear that cuts across late Cretaceous to Tertiary faulting hint that mineralization at Bear Hill is related to a younger geological event than the rocks that are present on the property. The trend of the Main Showing and the fact that higher grades of copper and silver mineralization are characterized by micro-breccia zones and “tension gash” barite mineralization supports this theory. The presence of weak pervasive clay alteration and locally moderate silica alteration along with the mineral associations present, Cu, Ag, Ba, Mn, Fe (Pb, Zn) suggests that mineralization is related to an epithermal environment however there is no appreciable As or Sb in the system. Regionally, government lake and stream sediment sampling returned anomalous values for both epithermal (Ag, Sb, As, Ba, Fl, Hg) and porphyry (Cu, Fe, Mo) elements as well as Au, suggesting that there may be an overlap of deposit types present in the area. Mineralization at Bear Hill does not fit comfortably with either model but, in the authors opinion, is clearly structurally controlled.

10.0 RECOMMENDATIONS AND BUDGET

The property should be expanded to cover areas anomalous in copper and silver identified in the 1982 soil surveys. An effort should be made to identify the source(s) of anomalous lake and stream sediment samples that exist in the immediate area. A systematic program of mapping and prospecting should be completed over the expanded property in an effort to identify structures responsible for the copper and silver mineralization present. Alternative geochemical survey methods (Ah or MMI) should be completed over Bear Hill and surrounding areas, especially over the existing Ag and Cu anomalies to the NW and SE of the known mineralization in an effort to see potential mineralization at depth. These surveys should be completed over a new cut-grid with its baseline oriented at approximately 135˚ Az. An effort should be made to collect the raw data for both the 1982 magnetic and IP surveys and new interpretations be made using a NW bias to the information. If this is not possible, a new magnetic survey should be completed in an effort to map the suspected NW trending faults followed by an IP survey to measure the abundance of sulphide material present at depth. These geochemical and geophysical surveys should be completed prior to conducting any further physical work in the area.

Project Geologist (25 days @ 600/day)	$15000
Geologist (20 days @ $500/day)	10000
Prospector/sampler (20 days @ $400/day)	8000
Cook/First Aid Person (25 days @ $400/day)	10000
Line-cutting (30km @$1500/km)	45000
Geochemical Ah surveys (700 samples @ $50/sample)	35000
Geophysical surveys mag/IP (30km @ $2500/km)	75000
Mob/demob and vehicle rental	10000
Camp costs (190 person days @ $100/day)	19000
Reporting	10000
Contingency (15%)	35550
	$272550

Contingent on the results obtained from these surveys, additional trenching or diamond drilling should target favorable anomalies.

Respectfully submitted,

Ken Galambos P.Eng.
KDG Exploration Services

Victoria, BC.
January 17, 2011

11.0 REFERENCES

COX, D.P., SINGER, D.A. Editors (1986): Mineral Deposit Models, U.S. GEOLOGICAL SURVEY BULLETIN 1693

Findlay, A.R. and Hoffman, A.J. (1981): Geological and Geochemical Report on the Takla Lake Property, BP Minerals Limited Assessment report 09892.

Gareau, M.B. and Kimura, E.T. (1982): Diamond Drilling report on the Bear Hill Property, Placer Development Limited Assessment report 10790.

Kimura, E.T., Cannon, R.W. and Gareau, M.B. (1982): Geochemical and Geophysical reports on the Bear Hill Property, Placer Development Limited Assessment report 10791.

Panteleyev, A. (1995): Porphyry Cu-Au: Alkalic, in Selected British Columbia Mineral Deposit Profiles, Volume 1 - Metallics and Coal, Lefebure, D.V. and Ray, G.E., Editors, British Columbia Ministry of Energy of Employment and Investment, Open File 1995-20, pages 83-86.

Panteleyev, A. (1995): Porphyry Cu+/-Mo+/-Au, in Selected British Columbia Mineral Deposit Profiles, Volume 1 - Metallics and Coal, Lefebure, D.V. and Ray, G.E., Editors, British Columbia Ministry of Energy of Employment and Investment, Open File 1995-20, pages 87-92.

Urqueta, E., Kyser, T.K., Clark, A.H., Stanley, C.R., Oates C.J. (2009): Lithogeochemistry of the Collahuasi porphyry Cu–Mo and epithermal Cu–Ag (–Au) cluster, northern Chile: Pearce element ratio vectors to ore, *Geochemistry: Exploration, Environment Analysis*, Vol. 9 2009, pp. 9–17, 2009 AAG/Geological Society of London

12.0 STATEMENT OF COSTS

Personnel	
Ralph Keefe (October 1-3, 2011) 3 day @ $350/day	$1050.00
Ken Galambos (October 1-2, 2011) 2 days @ $600/day	$1200.00
Transportation	
Truck 2 days @ $100/day	$200.00
Trailer 2 days @ $50/day	$100.00
ATV 2 days @ $75/day	$150.00
Analyses	
6 Rock samples @ $40.36/sample	$242.16
shipping	$30.00
Report	
2 days @ $600/day	$1200.00
**TOTAL = **	**$4172.16**

13.0 CERTIFICATION, DATE AND SIGNATURE

1) I, Kenneth Daryl Galambos of 1535 Westall Avenue, Victoria, British Columbia am self-employed as a consultant geological engineer, authored and am responsible for this report entitled "Prospecting Report on the Bear Hill Project", dated January 17, 2011.

2) I am a graduate of the University of Saskatchewan in Saskatoon, Saskatchewan with a Bachelors Degree in Geological Engineering (1982). I began working in the mining field in 1974 and have more than 26 years mineral exploration and production experience, primarily in the North American Cordillera. Highlights of this experience include the discovery and delineation of the Brewery Creek gold deposit, near Dawson City, Yukon for Noranda Exploration Ltd.

3) I am a registered member of the Association of Professional Engineers of Yukon, registration number 0916 and have been a member in good standing since 1988. I am a registered Professional Engineer with APEGBC, license 35364, since December, 2010.

4) I have visited the subject mining property of this report and am a "Qualified Person" in the context of and have read and understand National Instrument 43-101 and the Companion Policy to NI 43-101.

5) This report is based upon a site visit to the property on October 1-2, 2010 by the author and Ralph Keefe (partner), the author's personal knowledge of the region and a review of additional pertinent data.

6) As stated in this report, in my professional opinion the property is of potential merit and further exploration work is justified.

7) To the best of my knowledge this report contains all scientific and technical information required to be disclosed so as not to be misleading.

8) I am partners with Ralph Keefe on the Bear Hill property and a number of other properties in British Columbia. My professional relationship is as a non-arm's length consultant, and I have no expectation that this relationship will change.

9) I consent to the use of this report by Ralph Keefe for such assessment and/or regulatory and financing purposes deemed necessary, but if any part shall be taken as an excerpt, it shall be done only with my approval.

Dated at Victoria, British Columbia this 17th day of January, 2011.
"Signed and Sealed"

Ken Galambos, P.Eng. (APEY Reg. No. 0916, APEGBC license 35364)
KDG Exploration Services
1535 Westall Ave.
Victoria, British Columbia V8T 3G6

14.0 Software used in support of this exploration program

Microsoft Windows XP-Pro Version 2002
Microsoft Office 2004
Adobe Reader 8.1.3
Adobe Acrobat 9
Internet Explorer
Google Earth

Bootcamp

15.0 Appendices

Appendix A

Assay Certificates

Acme Analytical Laboratories (Vancouver) Ltd.
1020 Cordova St. East Vancouver BC V6A 4A3 Canada

www.acmelab.com

Client: **Ken Galambos**
1535 Westfall Ave.
Victoria BC V8T 3G6 Canada

Submitted By: Ken Galambos
Receiving Lab: Canada-Smithers
Received: October 18, 2010
Report Date: November 18, 2010
Page: 1 of 2

CERTIFICATE OF ANALYSIS SMI10000722.1

CLIENT JOB INFORMATION

Project: Babine
Shipment ID:
P.O. Number
Number of Samples: 20

SAMPLE DISPOSAL

RTRN-PLP Return
DISP-RJT Dispose of Reject After 90 days

Acme does not accept responsibility for samples left at the laboratory after 90 days without prior written instructions for sample storage or return.

SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Method Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
R200-250	20	Crush, split and pulverize 250 g rock to 200 mesh			SMI
1D01	20	1:1:1 Aqua Regia digestion ICP-ES analysis	0.5	Completed	VAN
G601	20	Fire Assay fusion Au by ICP-ES	30	Completed	VAN
G6Gr	3	Lead collection fire assay 30G fusion - Grav finish	30	Completed	VAN
7AR	3	1:1:1 Aqua Regia Digestion ICP-ES Finish	0.4	Completed	VAN

ADDITIONAL COMMENTS

Invoice To: Ken Galambos
1535 Westfall Ave.
Victoria BC V8T 3G6
Canada

CC: Ralph Keefe

BRITISH COLUMBIA CERTIFIED ASSAYER
CLARENCE LEONG
GENERAL MANAGER

This report supersedes all previous preliminary and final reports with this file number dated prior to the date on this certificate. Signature indicates final approval; preliminary reports are unsigned and should be used for reference only.
All results are considered the confidential property of the client. Acme assumes the liabilities for actual cost of analysis only.
"*" asterisk indicates that an analytical result could not be provided due to unusually high levels of interference from other elements.

Acme Analytical Laboratories (Vancouver) Ltd.
1020 Cordova St. East Vancouver BC V6A 4A3 Canada
Phone (604) 253-3158 Fax (604) 253-1716
www.acmelab.com

Client: **Ken Galambos**
1535 Westfall Ave.
Victoria BC V8T 3G6 Canada

Project: Babine
Report Date: November 18, 2010

CERTIFICATE OF ANALYSIS SMI10000722.1

	Method	WGHT	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D
	Analyte	Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P
	Unit	kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%
	MDL	0.01	1	1	3	1	0.3	1	1	2	0.01	2	2	2	1	0.5	3	3	1	0.01	0.001
42402	Rock	1.62	2	>10000	<3	241	>100	<1	2	659	2.22	<2	<2	<2	203	<0.5	<3	<3	11	0.08	0.033
42403	Rock	2.86	<1	>10000	6	278	>100	1	7	1188	2.40	<2	<2	<2	217	<0.5	<3	<3	13	0.08	0.035
42404	Rock	1.98	<1	2874	1170	213	35.1	<1	3	1103	2.56	<2	<2	<2	21	<0.5	<3	<3	18	0.09	0.034
42405	Rock	2.13	<1	4132	11	244	23.5	<1	2	733	1.71	<2	<2	<2	243	<0.5	<3	<3	10	0.11	0.031
42406	Rock	2.28	<1	4476	28	304	26.1	<1	4	1008	2.09	<2	<2	<2	227	<0.5	<3	<3	13	0.11	0.032
42407	Rock	1.13	<1	>10000	244	305	>100	<1	1	800	1.48	<2	<2	<2	333	0.7	<3	<3	13	0.11	0.025

Acme Analytical Laboratories (Vancouver) Ltd.
1020 Cordova St. East Vancouver BC V6A 4A3 Canada
Phone (604) 253-3158 Fax (604) 253-1716
www.acmelab.com

Client: **Ken Galambos**
1535 Westfall Ave.
Victoria BC V8T 3G6 Canada

Project: Babine
Report Date: November 18, 2010

CERTIFICATE OF ANALYSIS SMI10000722.1

	Method	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	G6	G6Gr	7AR
	Analyte	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	S	Sc	Ga	Au	Ag	Cu
	Unit	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	%	ppm	ppm	gm/t	gm/t	%
	MDL	1	1	0.01	1	0.001	20	0.01	0.01	0.01	2	0.05	5	5	0.005	50	0.001
42402	Rock	8	2	0.14	1987	0.055	<20	0.36	0.02	0.11	<2	0.17	5	<5	0.010	389	1.197
42403	Rock	7	3	0.59	1140	0.014	<20	0.78	0.02	0.11	<2	0.26	6	8	0.008	182	1.063
42404	Rock	5	3	0.35	1234	0.020	<20	0.67	<0.01	0.17	<2	<0.05	<5	5	<0.005		
42405	Rock	8	5	0.32	3281	0.017	<20	0.49	0.02	0.13	<2	0.12	<5	6	<0.005		
42406	Rock	8	4	0.50	3180	0.014	<20	0.73	0.02	0.14	<2	0.10	<5	8	0.007		
42407	Rock	4	3	0.14	1253	0.059	<20	0.36	<0.01	0.08	<2	0.19	6	<5	<0.005	164	1.294

Acme Analytical Laboratories (Vancouver) Ltd.
1020 Cordova St. East Vancouver BC V6A 4A3 Canada
Phone (604) 253-3158 Fax (604) 253-1716
www.acmelab.com

Client: **Ken Galambos**
1535 Westfall Ave.
Victoria BC V8T 3G6 Canada

Project: Babine
Report Date: November 18, 2010

QUALITY CONTROL REPORT SMI10000722.1

	Method	WGHT	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D
	Analyte	Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P
	Unit	kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%
	MDL	0.01	1	1	3	1	0.3	1	1	2	0.01	2	2	2	1	0.5	3	3	1	0.01	0.001
Pulp Duplicates																					
42403	Rock	2.86	<1	>10000	6	278	>100	1	7	1188	2.40	<2	<2	<2	217	<0.5	<3	<3	13	0.08	0.035
REP 42403	QC		<1	>10000	6	283	>100	2	7	1196	2.45	<2	<2	<2	228	<0.5	<3	<3	13	0.08	0.035
42408	Rock	1.54	15	157	<3	24	<0.3	10	9	248	2.73	<2	<2	7	42	<0.5	<3	<3	68	0.31	0.088
REP 42408	QC																				
Core Reject Duplicates																					
42414	Rock	2.63	255	1271	<3	32	<0.3	14	8	158	2.77	<2	<2	6	24	<0.5	<3	<3	80	0.42	0.103
DUP 42414	QC		209	1478	<3	34	<0.3	14	8	165	2.90	2	<2	6	24	<0.5	<3	<3	82	0.41	0.100
Reference Materials																					
STD AGPROOF	Standard																				
STD CDN-ME-3	Standard																				
STD DS7	Standard		24	125	71	434	0.9	58	9	656	2.49	53	<2	5	79	6.6	4	6	86	1.01	0.079
STD DS7	Standard		20	104	63	409	1.0	53	8	615	2.33	49	<2	4	69	5.9	6	4	77	0.91	0.074
STD GC-7	Standard																				
STD OREAS45PA	Standard		4	629	13	119	<0.3	306	114	1135	18.22	<2	<2	7	14	<0.5	<3	<3	221	0.25	0.037
STD OREAS45PA	Standard		<1	554	13	116	0.4	265	101	1068	15.45	4	<2	7	13	<0.5	<3	<3	206	0.24	0.033
STD OXH66	Standard																				
STD OXH66	Standard																				
STD OXK79	Standard																				
STD OXK79	Standard																				
STD R4A	Standard																				
STD OXH66 Expected																					
STD OXK79 Expected																					
STD GC-7 Expected																					
STD R4A Expected																					
STD CDN-ME-3 Expected																					
STD AGPROOF Expected																					
STD DS7 Expected			21	109	71	411	0.9	56	10	627	2.39	50	0.07	4	72	6.4	5	5	84	0.93	0.08
STD OREAS45PA Expected			0.9	600	19	119	0.3	281	104	1130	16.559	4.2	0.043	6	14	0.09	0.13	0.18	221	0.2411	0.034

Acme Analytical Laboratories (Vancouver) Ltd.
1020 Cordova St. East Vancouver BC V6A 4A3 Canada
Phone (604) 253-3158 Fax (604) 253-1716
www.acmelab.com

Client: **Ken Galambos**
1535 Westfall Ave.
Victoria BC V8T 3G6 Canada

Project: Babine
Report Date: November 18, 2010

QUALITY CONTROL REPORT SMI10000722.1

	Method	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	G6	G6Gr	7AR
	Analyte	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	S	Sc	Ga	Au	Ag	Cu
	Unit	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	%	ppm	ppm	gm/t	gm/t	%
	MDL	1	1	0.01	1	0.001	20	0.01	0.01	0.01	2	0.05	5	5	0.005	50	0.001
Pulp Duplicates																	
42403	Rock	7	3	0.59	1140	0.014	<20	0.78	0.02	0.11	<2	0.26	6	8	0.008	182	1.063
REP 42403	QC	7	6	0.60	1646	0.015	<20	0.80	0.02	0.13	<2	0.28	6	9			
42408	Rock	10	19	0.65	855	0.124	<20	0.88	0.08	0.40	<2	<0.05	<5	<5	<0.005		
REP 42408	QC														<0.005		
Core Reject Duplicates																	
42414	Rock	8	25	0.72	197	0.131	<20	0.87	0.07	0.32	<2	0.19	<5	<5	0.087		
DUP 42414	QC	8	23	0.74	209	0.137	<20	0.91	0.07	0.33	<2	0.21	<5	<5	0.114		
Reference Materials																	
STD AGPROOF	Standard															96	
STD CDN-ME-3	Standard															266	
STD DS7	Standard	13	216	1.09	434	0.125	43	1.09	0.11	0.48	3	0.22	<5	<5			
STD DS7	Standard	11	194	1.03	412	0.111	40	0.98	0.09	0.45	3	0.20	<5	<5			
STD GC-7	Standard																0.554
STD OREAS45PA	Standard	17	844	0.11	193	0.134	<20	3.63	<0.01	0.08	<2	<0.05	55	<5			
STD OREAS45PA	Standard	15	757	0.09	179	0.114	<20	2.94	<0.01	0.06	<2	<0.05	49	14			
STD OXH66	Standard														1.284		
STD OXH66	Standard														1.255		
STD OXK79	Standard														3.447		
STD OXK79	Standard														3.595		
STD R4A	Standard																0.505
STD OXH66 Expected															1.285		
STD OXK79 Expected															3.532		
STD GC-7 Expected																	0.555
STD R4A Expected																	0.502
STD CDN-ME-3 Expected																276	
STD AGPROOF Expected																94	
STD DS7 Expected		13	192	1.05	410	0.124	39	1.0195	0.089	0.44	3	0.19	2.5	4.6			
STD OREAS45PA Expected		16.2	873	0.095	187	0.124		3.34	0.011	0.0665	0.011	0.03					

Acme Analytical Laboratories (Vancouver) Ltd.
1020 Cordova St. East Vancouver BC V6A 4A3 Canada
Phone (604) 253-3158 Fax (604) 253-1716
www.acmelab.com

Client: **Ken Galambos**
1535 Westfall Ave.
Victoria BC V8T 3G6 Canada

Project: Babine
Report Date: November 18, 2010

QUALITY CONTROL REPORT SMI10000722.1

		WGHT Wgt kg 0.01	1D Mo ppm 1	1D Cu ppm 1	1D Pb ppm 3	1D Zn ppm 1	1D Ag ppm 0.3	1D Ni ppm 1	1D Co ppm 1	1D Mn ppm 2	1D Fe % 0.01	1D As ppm 2	1D Au ppm 2	1D Th ppm 2	1D Sr ppm 1	1D Cd ppm 0.5	1D Sb ppm 3	1D Bi ppm 3	1D V ppm 1	1D Ca % 0.01	1D P % 0.001
BLK	Blank		<1	<1	<3	<1	<0.3	<1	<1	<2	<0.01	<2	<2	<2	<1	<0.5	<3	<3	<1	<0.01	<0.001
BLK	Blank																				
BLK	Blank																				
BLK	Blank																				
BLK	Blank																				
BLK	Blank																				
BLK	Blank																				
BLK	Blank																				
BLK	Blank		<1	<1	<3	<1	<0.3	<1	<1	<2	<0.01	<2	<2	<2	<1	<0.5	<3	<3	<1	<0.01	<0.001
Prep Wash																					
G1	Prep Blank		<1	2	<3	49	<0.3	3	4	599	2.02	<2	<2	6	58	<0.5	<3	<3	40	0.56	0.085
G1	Prep Blank		<1	3	3	51	<0.3	3	4	602	2.05	<2	<2	6	54	<0.5	<3	<3	41	0.54	0.086

Acme Analytical Laboratories (Vancouver) Ltd.
1020 Cordova St. East Vancouver BC V6A 4A3 Canada
Phone (604) 253-3158 Fax (604) 253-1716
www.acmelab.com

Client: **Ken Galambos**
1535 Westfall Ave.
Victoria BC V8T 3G6 Canada

Project: Babine
Report Date: November 18, 2010

QUALITY CONTROL REPORT SMI10000722.1

		1D La ppm 1	1D Cr ppm 1	1D Mg % 0.01	1D Ba ppm 1	1D Ti % 0.001	1D B ppm 20	1D Al % 0.01	1D Na % 0.01	1D K % 0.01	1D W ppm 2	1D S % 0.05	1D Sc ppm 5	1D Ga ppm 5	G6 Au gm/t 0.005	G6Gr Ag gm/t 50	7AR Cu % 0.001
BLK	Blank	<1	<1	<0.01	<1	<0.001	<20	<0.01	<0.01	<0.01	<2	<0.05	<5	<5			
BLK	Blank														<0.005		
BLK	Blank														<0.005		
BLK	Blank														<0.005		
BLK	Blank														<0.005		
BLK	Blank																<0.001
BLK	Blank															<50	
BLK	Blank															<50	
BLK	Blank	<1	<1	<0.01	<1	<0.001	<20	<0.01	<0.01	<0.01	<2	<0.05	<5	<5			
Prep Wash																	
G1	Prep Blank	11	8	0.58	187	0.133	<20	0.97	0.09	0.53	<2	<0.05	<5	<5	<0.005		
G1	Prep Blank	13	8	0.57	196	0.132	<20	0.94	0.08	0.53	<2	<0.05	<5	<5	<0.005		

Appendix B

Analytical Procedures and Detection Limits

AcmeLabs
CARECOMMITMENTPERFORMANCE

METHOD SPECIFICATIONS
GROUP 1D AND 1F – GEOCHEMICAL AQUA REGIA DIGESTION

Package Codes: 1D01 to 1D03, 1DX1 to 1DX3, 1F01 to 1F07
Sample Digestion: HNO3-HCl acid digestion
Instrumentation Method: ICP-ES (1D), ICP-MS (1DX, 1F)
Applicability: Sediment, Soil, Non-mineralized Rock and Drill Core

Method Description:

Prepared sample is digested with a modified Aqua Regia solution of equal parts concentrated HCl, HNO3 and DI H2O for one hour in a heating block of hot water bath. Sample is made up to volume with dilute HCl. Sample splits of 0.5g, 15g or 30g can be analyzed.

Element	Group 1D Detection	Group 1DX Detection	Group 1F Detection	Upper Limit
Ag	0.3 ppm	0.1 ppm	2 ppb	100 ppm
Al*	0.01%	0.01%	0.01%	10%
As	2 ppm	0.5 ppm	0.1 ppm	10000 ppm
Au	2 ppm	0.5 ppb	0.2 ppb	100 ppm
B*^	20 ppm	20 ppm	20 ppm	2000 ppm
Ba*	1 ppm	1 ppm	0.5 ppm	10000 ppm
Bi	3 ppm	0.1 ppm	0.02 ppm	2000 ppm
Ca*	0.01%	0.01%	0.01%	40%
Cd	0.5 ppm	0.1 ppm	0.01 ppm	2000 ppm
Co	1 ppm	0.1 ppm	0.1 ppm	2000 ppm
Cr*	1 ppm	1 ppm	0.5 ppm	10000 ppm
Cu	1 ppm	0.1 ppm	0.01 ppm	10000 ppm
Fe*	0.01%	0.01%	0.01%	40%
Ga*	-	1 ppm	0.1 ppm	1000 ppm
Hg	1 ppm	0.01 ppm	5 ppb	50 ppm
K*	0.01%	0.01%	0.01%	10%
La*	1 ppm	1 ppm	0.5 ppm	10000 ppm
Mg*	0.01%	0.01%	0.01%	30%
Mn*	2 ppm	1 ppm	1 ppm	10000 ppm
Mo	1 ppm	0.1 ppm	0.01 ppm	2000 ppm
Na*	0.01%	0.001%	0.001%	5%
Ni	1 ppm	0.1 ppm	0.1 ppm	10000 ppm
P*	0.001%	0.001%	0.001%	5%
Pb	3 ppm	0.1 ppm	0.01 ppm	10000 ppm
S	0.05%	0.05%	0.02%	10%

Element	Group 1D Detection	Group 1DX Detection	Group 1F Detection	Upper Limit
Sb	3 ppm	0.1 ppm	0.02 ppm	2000 ppm
Sc	-	0.1 ppm	0.1 ppm	100 ppm
Se	-	0.5 ppm	0.1 ppm	100 ppm
Sr*	1 ppm	1 ppm	0.5 ppm	10000 ppm
Te	-	0.2 ppm	0.02 ppm	1000 ppm
Th*	2 ppm	0.1 ppm	0.1 ppm	2000 ppm
Ti*	0.01%	0.001%	0.001%	5%
Tl	5 ppm	0.1 ppm	0.02 ppm	1000 ppm
U*	8 ppm	0.1 ppm	0.05 ppm	2000 ppm
V*	1 ppm	2 ppm	2 ppm	10000 ppm
W*	2 ppm	0.1 ppm	0.05 ppm	100 ppm
Zn	1 ppm	1 ppm	0.1 ppm	10000 ppm
Be*	-	-	0.1 ppm	1000 ppm
Ce*	-	-	0.1 ppm	2000 ppm
Cs*	-	-	0.02 ppm	2000 ppm
Ge*	-	-	0.1 ppm	100 ppm
Hf*	-	-	0.02 ppm	1000 ppm
In	-	-	0.02 ppm	1000 ppm
Li*	-	-	0.1 ppm	2000 ppm
Nb*	-	-	0.02 ppm	2000 ppm
Rb*	-	-	0.1 ppm	2000 ppm
Re	-	-	1 ppb	1000 ppb
Sn*	-	-	0.1 ppm	100 ppm
Ta*	-	-	0.05 ppm	2000 ppm
Y*	-	-	0.01 ppm	2000 ppm
Zr*	-	-	0.1 ppm	2000 ppm
Pt*	-	-	2 ppb	100 ppm
Pd*	-	-	10 ppb	100 ppm
Pb_{204}	-	-	0.01 ppm	10000 ppm
Pb_{206}	-	-	0.01 ppm	10000 ppm
Pb_{207}	-	-	0.01 ppm	10000 ppm
Pb_{208}	-	-	0.01 ppm	10000 ppm

* Solubility of some elements will be limited by mineral species present.
^Detection limit = 1 ppm for 15g / 30g analysis.

Limitations:

Au solubility can be limited by refractory and graphitic samples.

AcmeLabs
CARECOMMITMENTPERFORMANCE

METHOD SPECIFICATIONS
GROUP 3B AND G6 – PRECIOUS METALS BY FIRE ASSAY FUSION

Package Codes: 3B01 to 3B04, G601 to G614
Sample Digestion: Lead-collection fire assay fusion
Instrumentation Method: ICP-ES (3B, G6), ICP-MS (3B-MS), AA (3B, G6), Gravimetric (G6)
Applicability: Rock, Drill Core

Method Description:

Prepared sample is custom-blended with fire-assay fluxes, PbO litharge and a Ag inquart. Firing the charge at 1050 ^{o}C liberates Ag ± Au ± PGEs that report to the molten Pb-metal phase. After cooling the Pb button is recovered, placed in a cupel and fired at 950 ^{o}C to render a Ag ± Au ± PGEs dore bead. The bead is digested for ICP analysis or weighed and parted in ACS grade HNO_3 to dissolve Ag leaving a Au sponge. Au is weighed for Gravimetric determination; ACS grade HCl is added dissolving the Au ± PGE sponge for Instrument determination.

Element	3B Detection	3B Upper Limit	3B-MS Detection	3B-MS Upper Limit
Au	2 ppb	10 ppm	1 ppb	10 ppm
Pt	3 ppb	10 ppm	0.1 ppb	10 ppm
Pd	2 ppb	10 ppm	0.5 ppb	10 ppm

Element	G6 (Inst) Detection	G6 (Inst) Upper Limit	G6 (Grav) Detection	G6 (Grav) Upper Limit
Ag	--	--	5 g/t	1 ton
Au	0.005 g/t	10 ppm	0.17 g/t	1 ton
Pt	0.01 g/t	100 ppm	--	--
Pd	0.01 g/t	100 ppm	--	--

Note:
*Sulphide-rich samples require a 15g or smaller sample for proper fusion.