

Prospecting Report on the Sylvia Project

Omineca Mining Division
Tenure Numbers:
896175, 932249, 932269, 999627, 1011233

093E/14

UTM Zone 09 (NAD 83)
617000E 5966500 N

BC Geological Survey
Assessment Report
33972

Work performed July 28-November 25, 2012
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Item 1: Summary

The Sylvia property consists of five claims totalling 1755.54ha located 90km south of Houston. Access to the property is by a network of logging roads, which connects to the provincial highway system at Houston. Alternatively, the Property is accessible year round by helicopter from Smithers, Houston or Terrace.

The region is host to numerous porphyry copper-gold deposits and prospects near the Property. The currently producing Huckleberry mine is situated 20km to the south and is a major producer of copper, molybdenum, silver and gold. The mine has been in production since October, 1997 and has produced 404.2 million kilograms of copper, 3.5 million kilograms of molybdenum, 4.9 million grams (143,855 ounces) of gold and 93.2 million grams (2.7 million ounces) of silver from 94.4 million tonnes of ore milled to the end of 2011. For the first 9 months of 2012, production was 11.86 million kilograms copper, 2071 kilograms of molybdenum, 66,709 grams (1946 ounces) of gold and 4.77 million grams (139,155 ounces) of silver (Imperial Metals website, February 20, 2013). The Berg project, 558 million tonnes grading 0.30% Cu, 0.037% Mo, 0.11opt (3.77ppm) Ag (Terrane Metals website, February 20, 2013) lies 17km to the west of the Property.

The Sylvia showing (Minfile 093E 089) consists of a single percussion hole intercept that was drilled in 1974 by Hudson Bay Oil and Gas on the south edge of a granodiorite stock. The hole drilled into porphyry-style mineralization that reportedly assayed 0.33% copper and 0.02% molybdenum over the entire 63m (200') drilled using rotary air blast (RAB) drilling equipment. This included values as high as 0.635% copper, 0.132% molybdenum and 15ppm silver over 3.05m (10') (Kilby, 1974). The zone is at the inside edge of a crescent-shaped pyritic zone which has a maximum width of 400 to 500m and an arc length of about 2000m. This zone, which contains 1-5 per cent pyrite as fracture fillings and disseminations, straddles the south contact of the granodiorite stock. Volcanics adjacent to the stock are variably hornfelsed and locally cut by numerous fine-grained monzonite/quartz monzonite dikes. Subsequent diamond drilling in 1996 intersected similar widths but somewhat lower grades of mineralization in a four hole, 608m program. Twinning of percussion hole S-8 returned values of 0.19% Cu, 0.004% Mo, 1.8 ppm Ag over a 65m interval from 17.7-82.7m (Belik, 1996).

The Tara showing (Minfile 093E 091) consists of low grade porphyry-style mineralization hosted by a Tertiary felsic stock and occurs within the central part of a broad quartz-sericite-pyrite alteration zone. The best interval from drilling assayed 0.12 per cent copper over 3 metres (Belik, 1975). Chalcopyrite, molybdenite, magnetite and pyrite occur as fracture fillings and disseminations.

Quest West surveys completed over the area have identified magnetic and gravity anomalies with striking similarities to those present at both the nearby Berg and Bergette deposits.

Exploration over much of the area is greatly hampered by widespread, glacial overburden. Exploration in 2012 consisted of limited prospecting on the newly added tenures to the property. These claims covered much of the magnetic and gravity low target identified by the Quest West surveys.

The claims are 100% owned by the author, in partnership with Shawn Turford and Ralph Keefe of Francois Lake.

It is the author's opinion that high potential exists for significant porphyry-style copper-molybdenum mineralization on the Property, in which bedrock exposures have been obscured by Quaternary glacial-derived sediment cover. Evidence of similarities in the Property to significant Porphyry deposits include: similar aged intrusive rocks, through-going structure related to major deposits, similar magnetic signatures and anomalous geochemical signatures.

Consequently a two-stage exploration program is recommended to test the potential of the property. Establish a grid to conduct geochemical surveys to expand the anomalies discovered in 2011 at the Sylvania showing and for geophysical, Induced Potential (IP) and magnetic surveys to map the areas of higher sulphide content. A second grid should be established over the Tara Minfile showing area where copper mineralization has been noted by Noranda Exploration and other companies. Contingent second-stage work will include follow-up geochemistry, trenching of areas with shallower overburden and drilling.

Item 2: Introduction

This report is being prepared for the owners for the purposes of filing assessment on the claims comprising the Sylvania property.

2.1 Qualified Person and Participating Personnel

Mr. Kenneth D. Galambos, P.Eng. supervised and, with the assistance of Ralph Keefe and Shawn Turford, conducted the current exploration program in order to do a preliminary evaluation of the expanded property and to make recommendations for the next phase of exploration work in order to test the economic potential of the area.

This report describes the property in accordance with the guidelines specified in National Instrument 43-101 and is based on historical information and an examination and evaluation of the property by the author, Ralph Keefe and Shawn Turford. The program was conducted between July 28-November 25, 2012.

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: arsenic (As), bismuth (Bi), cadmium (Cd), copper (Cu), gold (Au), molybdenum (Mo), silver (Ag), tellurium (Te), zinc (Zn); chalcopyrite (Cpy), pyrite (Py).

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, R. Keefe and S. Turford from July 28-November 25, 2013.

2.4 Limitations, Restrictions and Assumptions

The author has assumed that the previous documented work in the area of the property is valid and has not encountered any information to discredit such work. The author directly supervised work on the project in 2012.

2.5 Scope

This report describes the 2012 exploration program, geology, previous exploration history and mineral potential of the Sylvia Project. Research included a review of the historical work that related to the immediate and surrounding areas including that related to the Huckleberry mine and the Berg deposit. 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

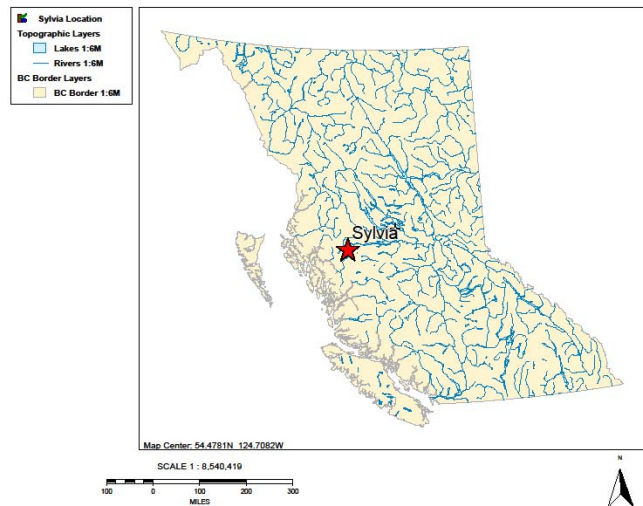
and evaluated by Ken Galambos, Ralph Keefe and Shawn Turford. Work consisted of limited geological mapping, prospecting, rock sampling between July 28 and November 25, 2011.

Item 3: Reliance on Other Experts

Some data referenced in the preparation of this report was compiled by geologists employed by various companies in the mineral exploration field. These individuals would be classified as “qualified persons” today, although that designation did not exist when some of the historic work was done. The author believes the work completed and results reported historically to be accurate but assumes no responsibility for the interpretations and inferences made by these individuals prior to the inception of the “qualified person” designation.

Item 4: Property Description and Location

The author controls five claims totalling 1755.54ha located 90km south of Houston, BC, in north central British Columbia. The claims are located 7km southwest of Nadina Lake. The centre of the Property lies at approximately latitude 53°51'01"N and longitude 127°10' 51"W, on mapsheet 93E/14 in the Omineca Mining Division.



A listing of the tenures covering the Sylvia project is contained in Table 1 below.

Figure 1: Property Location Map

Upon acceptance of this report for assessment purposes, the highlighted tenure will have Expiry dates moved to August 05, 2014.

Table 1: Claim Data

Tenure #	Claim name	Issue date	Expiry date	Area in ha	Owner
896175	Sylvia	2011/sep/07	2016/dec/06	476.89	Galambos, Ken 100%
932249	Sylvia South	2011/nov/25	2014/aug/05	477.06	Galambos, Ken 100%
932269	Sylvia South	2011/nov/25	2014/aug/05	286.32	Galambos, Ken 100%
999627	Sylvia 4	2012/jun/21	2014/aug/05	438.94	Galambos, Ken 100%
1011233	Sylvia	2012/jul/16	2014/aug/05	<u>76.33</u>	Galambos, Ken 100%
			Total area	1755.54	

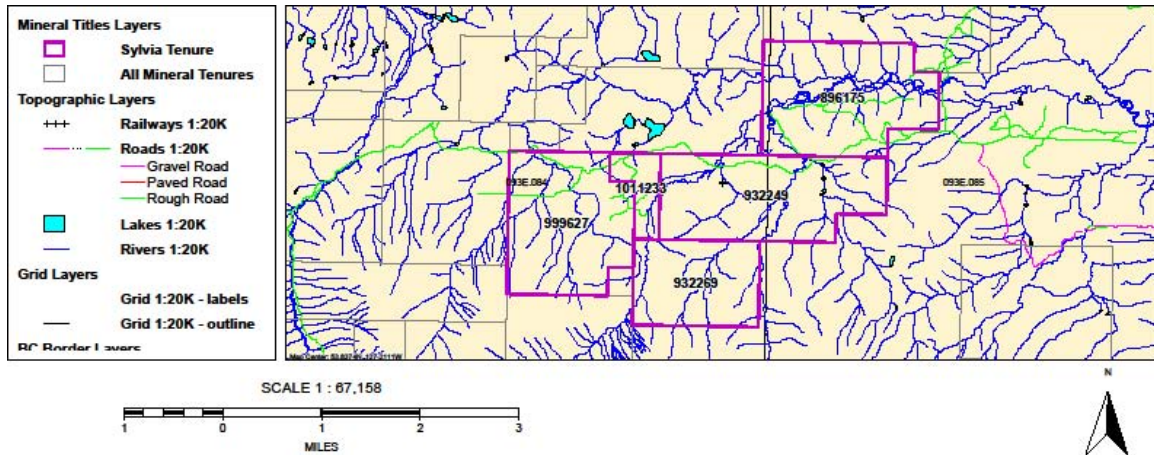


Figure 2: Project Claim map

The claims comprising the Sylvia property are being held as an exploration target for possible hardrock mining activities which may or may not be profitable. Any exploration completed will be subject to the application and receipt of necessary Mining Land Use Permits for the activities recommended in this report. There is no guarantee that this application process will be successful.

The Claims lie in the Traditional territories of a number of local First Nations and to date no dialog has been initiated with these First Nations regarding the property. There is no guarantee that approval for the proposed exploration will be received.

Item 5: Accessibility, Climate, Local Resources, Infrastructure and Physiography

The Sylvia project area is situated in west-central British Columbia on mapsheet 93E14 approximately 20 km north of the Huckleberry mine site and 105km south of the community of Smithers, BC. The Property is accessible by a network of private logging roads to the west of the main access road into the area. The turnoff

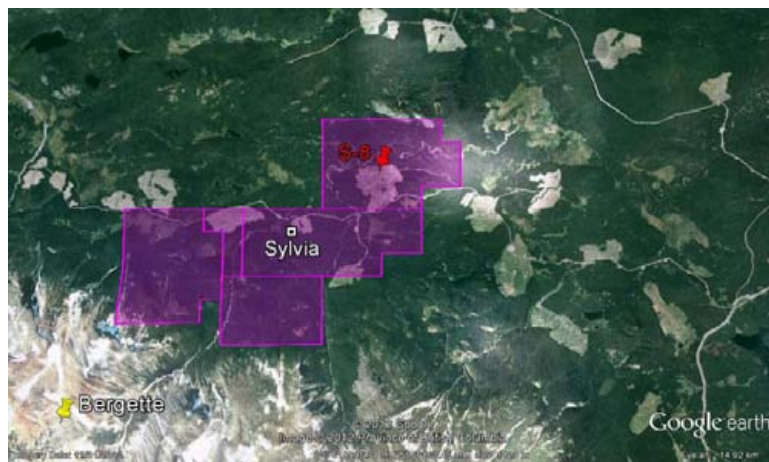


Plate 1 Satellite image showing the Sylvia claims.

to the Sylvia property is at km 100.5 of the Huckleberry mine road. These secondary roads are usable during spring to fall, but are not reliably maintained when snow-covered. Connection from the provincial highway system is at Houston, BC, 65km east of Smithers and 307km west of Prince George.

Alternatively, the Property is accessible year-round by helicopter from Smithers, Houston or Burns Lake. The claims lie within the Omineca Mining Division and are administered out of Smithers, BC.

Climate is transitional between that of the Coast Ranges and that of the Central Interior, with short cool summers, and long relatively mild winters. Annual temperature variation in the region is approximately -25 to +25 degrees Celsius. Snowpack in the winter ranges from approximately 1 to 4 metres, but has reached a maximum of 10 metres during the past 20 years. The operating season for ground based activities such as geological mapping, surface sampling and geophysical surveys would extend from approximately May to October.



Plate 2: Trapper's cabin near Sylvia property

The property is situated along the north flank of the Sibola Range. Relief within the claim area is gentle to moderate. Elevations range from approximately 1040m to 1640m. The property is covered in part by mature stands of spruce, pine and balsam with interspersed swampy meadows. The central part of the property has been extensively logged and replanted over the past 20 years.

Lodging, groceries and helicopter charter are available in the small community of Houston while nearby centers such as Smithers and Terrace host regional airports serviced from Vancouver and businesses such as helicopter charter companies and building supply stores. Both communities support diamond drilling and exploration service companies and a pool of labour skilled in mining trades and professions. The immediate area to the project site contain adequate space for concentrator site, tailing ponds or waste dumps required in any contemplated mine operation. Power is available along the Huckleberry mine access road, 8km to the east.

Item 6: History

Prospecting activity in the Tahtsa District dates back to the early 1900's and lead to the discovery of a number of polymetallic, precious metal vein and shear zone occurrences which were worked intermittently into the 1960's. A few of these deposits saw limited production.

During the porphyry exploration boom in the 1960's and early 1970's, numerous companies carried out large scale, helicopter-supported, regional prospecting and stream sediment sampling programs in the Tahtsa District which lead to the discovery of a large number of deposits including Huckleberry (91 million tonnes

grading 0.52% Cu, 0.014% Mo), the Berg (506 million tonnes grading 0.30% Cu, 0.037% Mo), Bergette, Troitsa, Coles Creek, Poplar Lake, Whiting Creek, Ox Lake, Red Bird, Lucky Ship and Nanika.

In 1972 Hudson Bay Oil and Gas Limited completed an airborne magnetic survey covering about 1000 square miles including the area presently covered by the Sylvania and Pam claims. This survey was followed up the same year with preliminary reconnaissance mapping and geochemical sampling. Magnetic highs concealed by overburden were the primary targets selected for follow-up work by HBOG.

In 1973, HBOG carried out a large scale, reconnaissance IP survey to evaluate a number of magnetic features in a broad, low-relief area around the northern and eastern flanks of the Sibola Range. As a result of this work, HBOG staked a number of claim blocks including the Sylvania and Pam claim blocks which covered separate, coincident induced polarization/magnetic anomalies.

During 1974 and 1975 HBOG carried out follow-up geological, geochemical and geophysical surveys on the Slide, Sylvania and Pam claims and drilled 56 small-diameter percussion holes totalling 9,815 feet. This drilling led to the discovery of low-grade, porphyry-type, Cu/Mo mineralization on both the Sylvania and Pam claims.

The best drill hole on the Sylvania occurrence averaged 0.33% Cu and 0.02% Mo

over the entire bedrock interval of 63m. In 1976, Rio Tinto Canadian Exploration Limited carried out a four-line detailed induced polarization/magnetic survey over part of the Sylvania claims. This survey, which was carried out as an orientation-type study over the significant mineralization intersected in the HBOG drill hole, confirmed the presence of a broad, very strong, easterly-trending, chargeability anomaly extending beyond the area tested by drilling. No further work was carried out by Rio Tinto or HBOG.

The area was staked in February, 1991 and optioned by Kingsvale Resources Limited who conducted a preliminary geological and geochemical sampling program. No further work was completed and the claims lapsed in 1993.

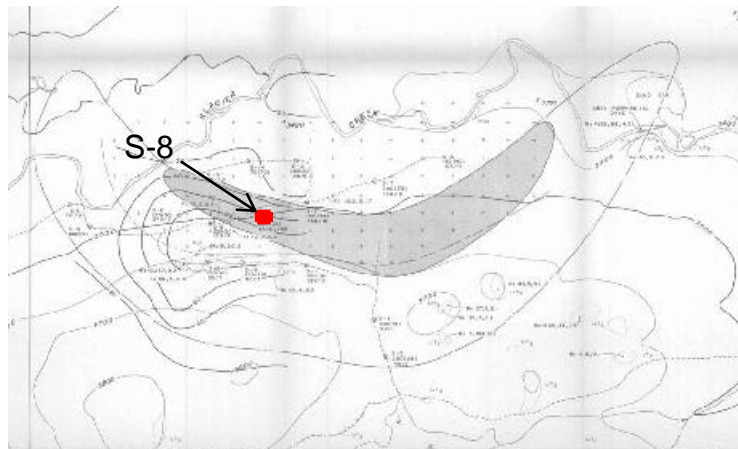


Figure 3: Copper zone and pyrite halo outlined by Hudson Bay Oil and Gas

Westley Technologies Ltd. of Vancouver was granted an option on the claim group in 1995 and the company completed a short, 4 hole (608m), diamond drill program to follow up on earlier results. Hole #1, a twin of historic percussion hole S-8, intersected a mineralized section that averaged 0.19% Cu, 0.004% Mo, 1.8 ppm Ag over 65m from 17.7-82.7m. Holes 2 and 3 were drilled from the same collar location at an angle of -47° to the north and south respectively. Hole 2 intersected weakly disseminated chalcopyrite throughout most of the hole, while hole 3 contained an interval averaging 0.11% Cu over 85m. The hole contained anomalous gold (790ppb) over a width of 5.0m in intrusive rocks at the contact with pyritic hornfelsed volcanics. Hole 4 drilled 160m to the east of S-8 intersected 0.1% Cu and 0.011% Mo over 82.5m, with lower grade copper and molybdenite mineralization over the entire 167.2 metres drilled.

Noranda Exploration's Tara claims were located immediately east of HBOG's Slide claim group and were drilled in 1975 following the discovery of copper mineralization in a creek canyon. The company followed up the discovery with the drilling of five holes totalling m. A number of short intervals from drilling returned anomalous base metal values, with the best reported as 0.12% Cu over 3m. Noranda did not assay samples for precious metals during the 1975 program. Sampling of the surface mineralization by Westley Technologies in 1995 returned best values of 0.13% Cu, 137ppb Au and 42.7ppm Ag from select grab samples.

The property was held by a number of individuals prior to the staking of the property by the author in September, 2011. That same year, humus and MMI samples were collected in two transects across the property. Both lines were run in a north-south direction across the previously identified pyritic and chalcopyrite zone of the porphyry system to test which sample medium gave the best response to the mineralization near the Sylvia showing. The first line was located approximately 100m east of the S-8 percussion hole. The second line was run a further 400m to the east to test the strike extension to the copper mineralization. MMI samples were collected on the western line across the area disturbed by logging activities while both MMI and humus samples were collected in the timbered area to the east.

Results from the MMI sampling program were very encouraging. Response Ratios, the ratio between the values obtained and background values, showed a very strong anomaly over the suspected mineralized area and suggest mineralization exists over a width of at least 100m and over a minimum strike length of 500m (i.e. from Sylvia S-8 drill hole to line 20075E MMI anomaly). Exact dimensions of the area of anomalous soils are limited only by the extent of the survey itself. MMI Response Ratios from approximately 100m east of percussion hole S-8 returned molybdenum, copper and tungsten values of up to 144, 45 and 36 times background respectively. The intrusion appears geochemically anomalous in all of the elements, especially uranium when compared to the overlying volcanics to the south of the copper zone.

A further 400m to the east MMI sampling returned Response Ratios of 6, 4 and 12 times background for the same elements.

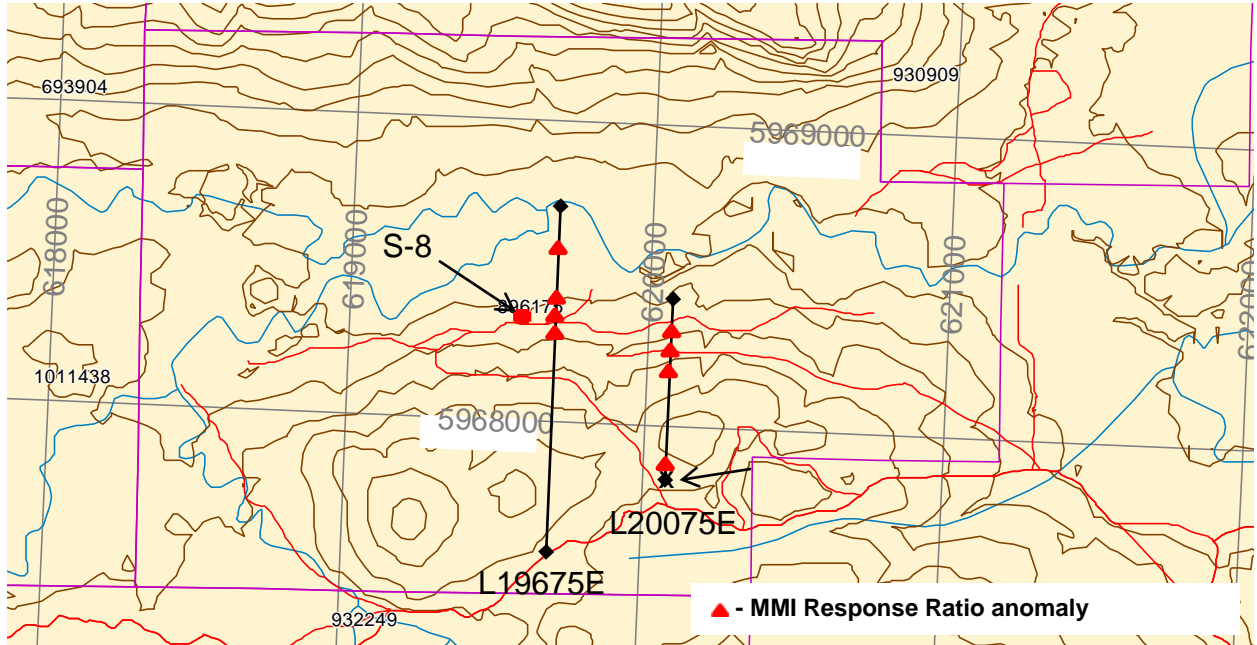


Figure 4: MMI Sample Location Map

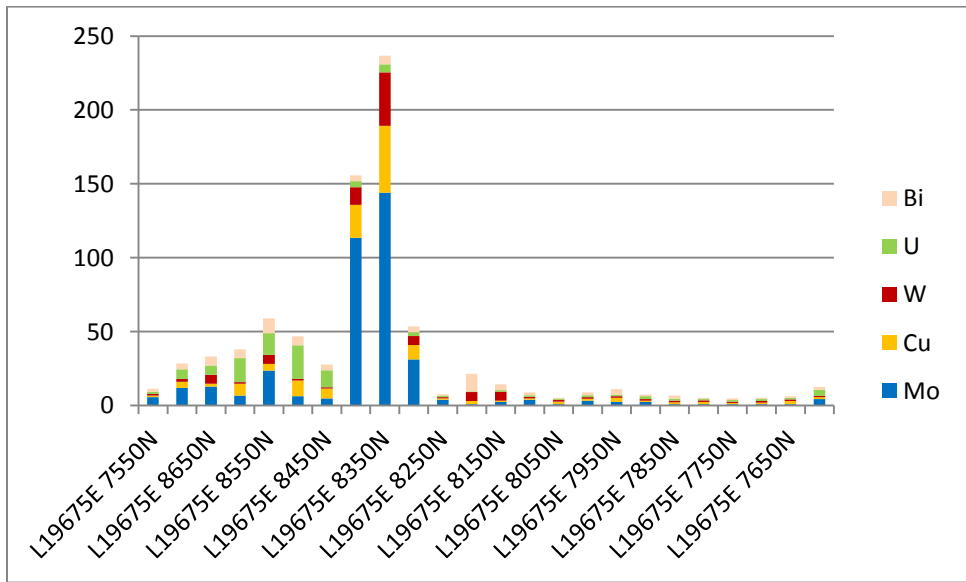


Figure 5: Stacked MMI Response Ratios L19675E

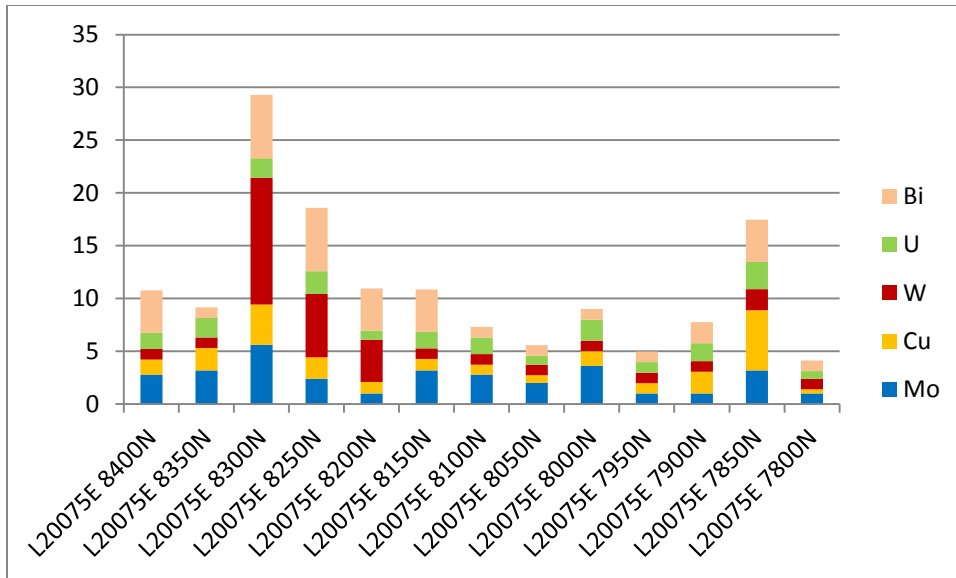


Figure 6: Stacked MMI Response Ratios L20075E

Results from the humus sampling confirmed the MMI anomalies on the second test line located approximately 500m to the east of the S-8 percussion hole. Response Ratios for the Ah samples were much more pronounced for some elements and were up to 6 for Cu, 3.2 for Au, 23.1 for Ag. Indicator elements such as Fe, As, Sb and Bi returned RRS of 9.9, 4.4, 5.4 and 4.7 respectively while many of the Rare Earth Elements returned very anomalous values from over the projected extension of the copper mineralization. Response Ratios for the Ah sampling also confirmed the presence of the narrow anomaly near the southern end of L20075E.

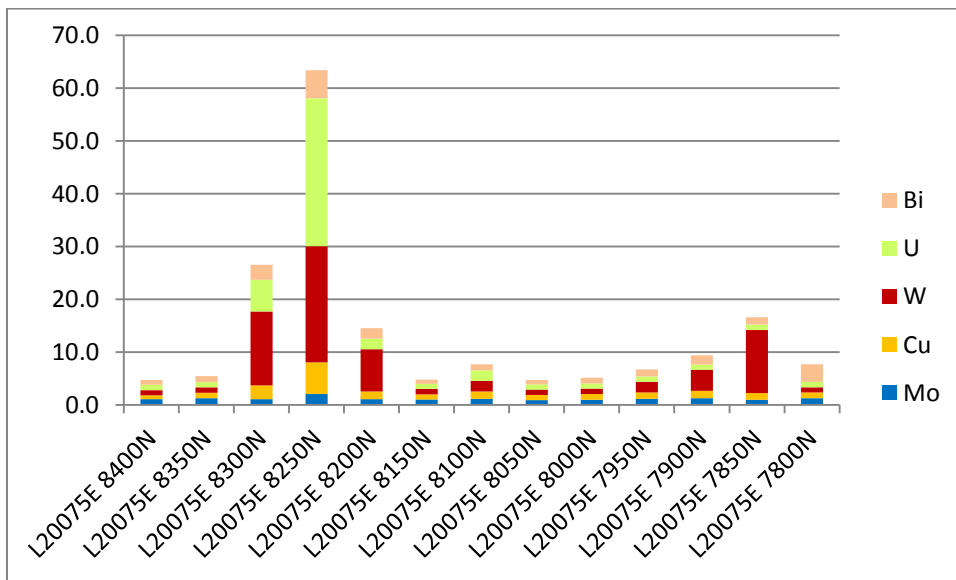


Figure 7: Stacked Ah Response Ratios - Base Metals

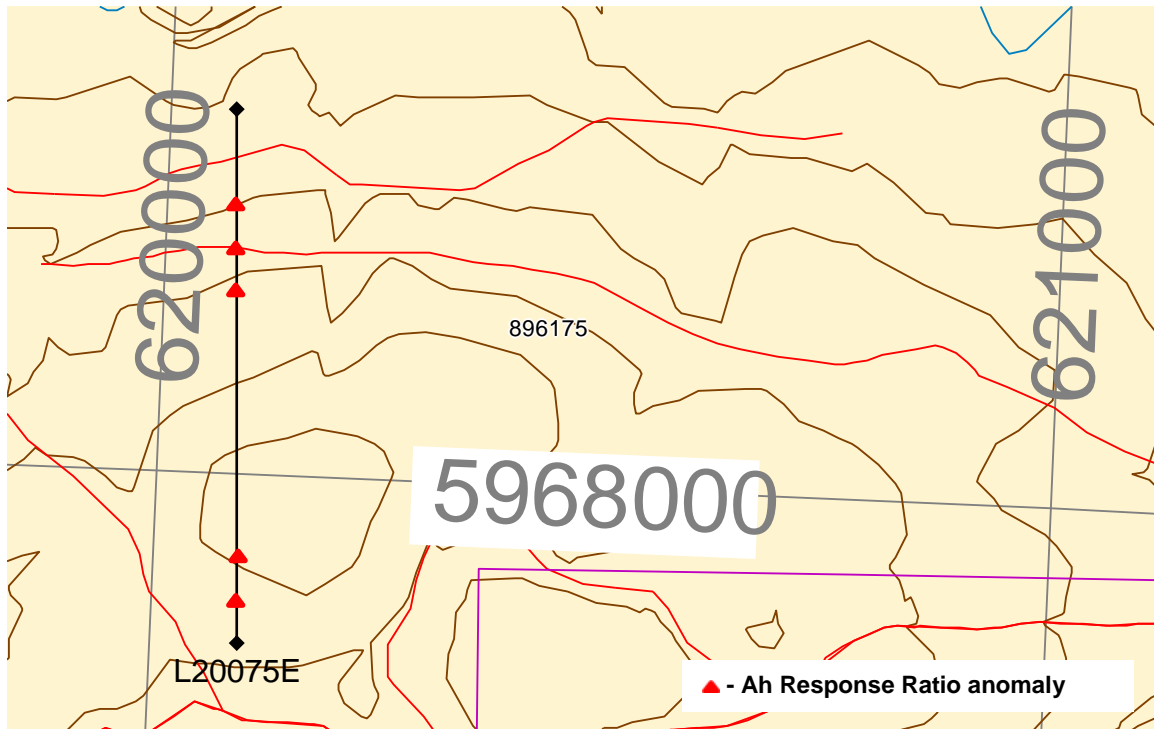


Figure 8: Detail of Humus Sampling L20075E

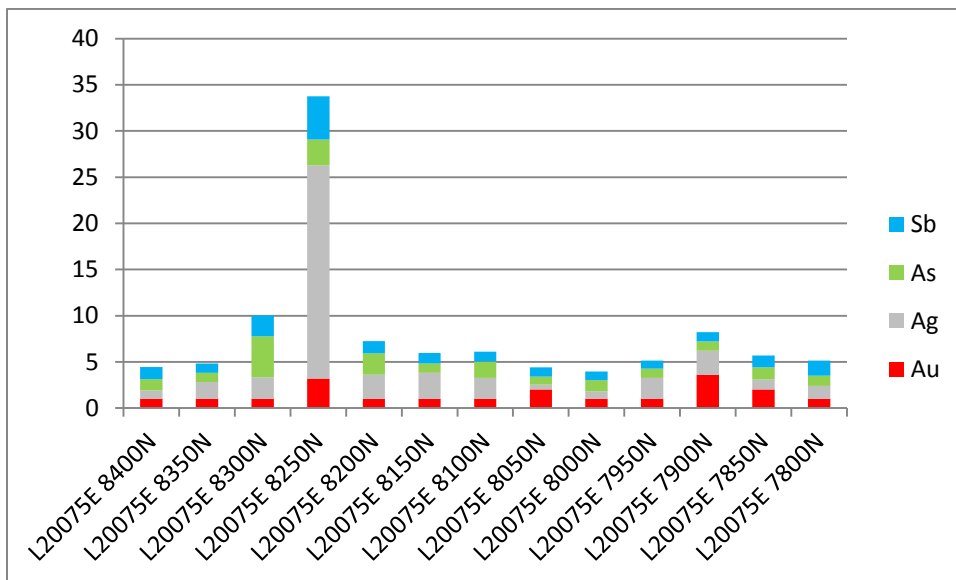


Figure 9: Stacked Ah Response Ratios - Precious Metals

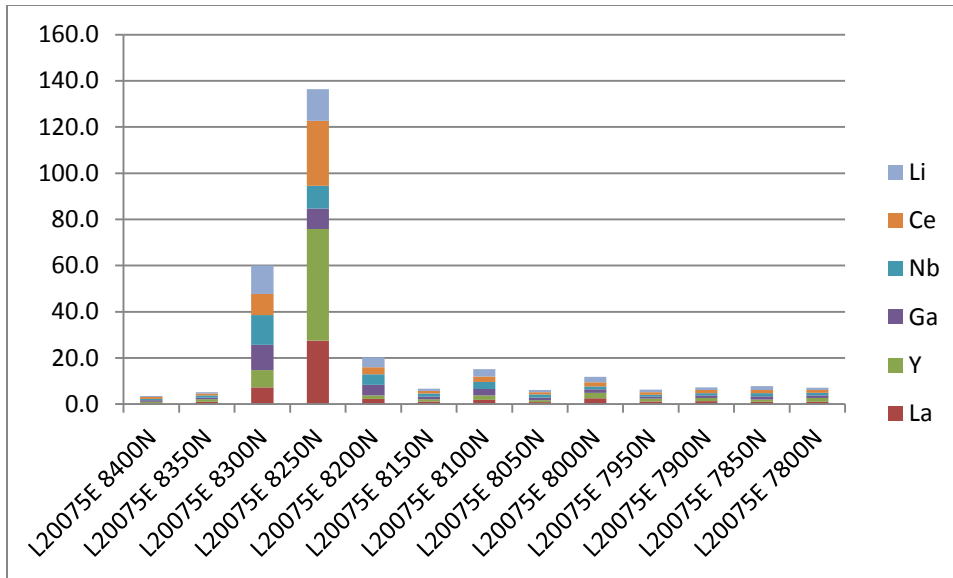


Figure 10: Stacked Ah Response Ratios - REE

Item 7: Geological Setting and Mineralization

7.1 Regional Geology

The Property occurs within the Tahtsa Porphyry District. The district contains a number of significant calc-alkaline, porphyry Cu/Mo deposits which occur within and adjacent to small stocks which intrude Jurassic and Cretaceous volcanic and sedimentary rocks. The deposits are accompanied by extensive pyrite halos and generally well developed concentric zones of hydrothermal alteration from potassic at the core through phyllic, argillic and propylitic. Most of the deposits in the Tahtsa District have been radiometrically dated and have yielded ages of 74 Ma to 80 Ma (Late Cretaceous) with the exception of the Berg deposit which has been dated at 50.2 Ma (Eocene).

A strong north-easterly structural fabric is suggested by numerous lineaments and the northeast trend of many lakes and valleys in the Tahtsa District. Seraphim and Hollister postulate that a strong system of northeast-trending tensional faults and fracture zones developed in the Tahtsa region between major northwesterly through going shear zones and that these tensional features controlled subsequent emplacement of the porphyry intrusions.

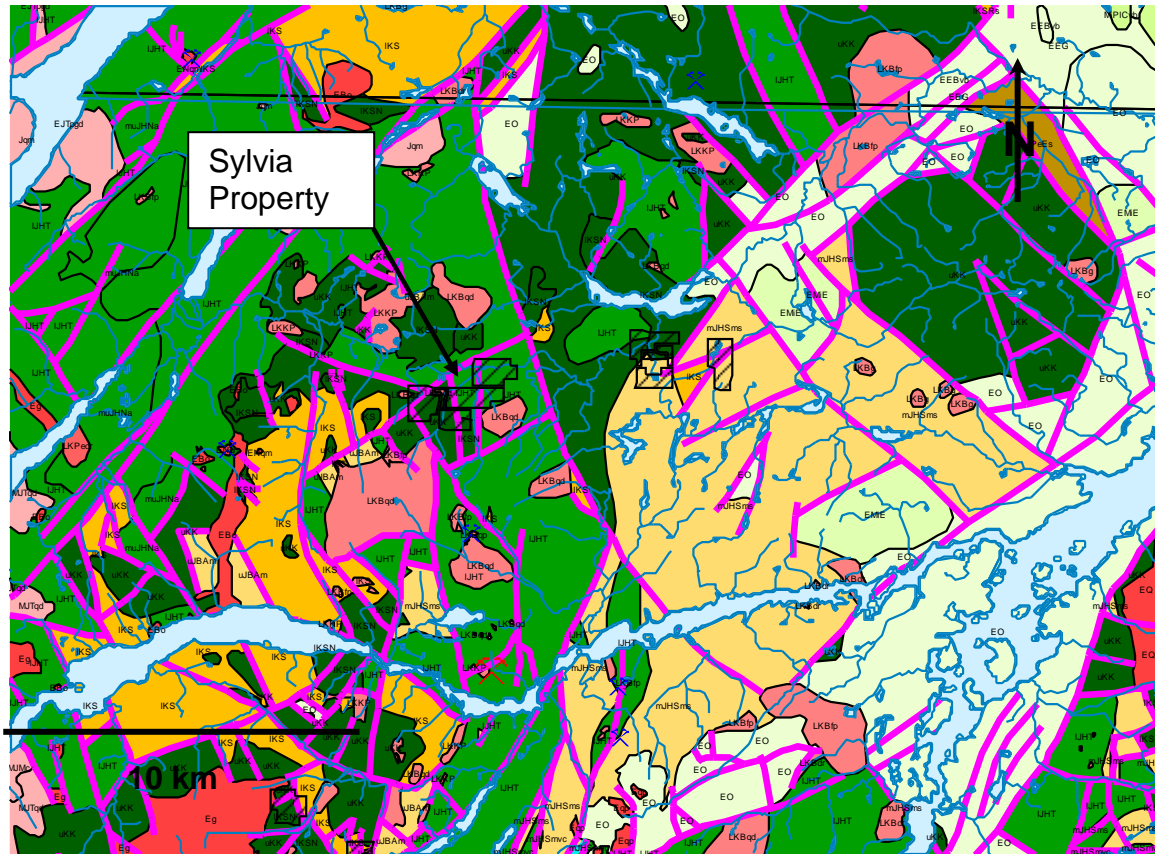


Figure 11: Regional Geology map


Geology Legend

Bounding Box: North: 54.018 South: 53.703 West: -127.593 East: -126.473

NTS Mapsheets: 093L, 093E

Eocene to Lower Miocene

Endako Group

 **EMiE** basaltic volcanic rocks

Eocene


 **EBo** **Boundary Stock:** granodioritic intrusive rocks

 **Eqp** high level quartz phyric, felsitic intrusive rocks

 **EEG** **Goosly Lake Formation:** alkaline volcanic rocks

 **EEBvb** **Buck Creek Formation:** basaltic volcanic rocks


Nanika Plutonic Suite

 **ENqm** quartz monzonitic intrusive rocks


Ootsa Lake Group

 **EO** rhyolite, felsic volcanic rocks


Quanchus Plutonic Suite

 **EQ** feldspar porphyritic intrusive rocks

Paleocene to Eocene

 **PeEs** undivided sedimentary rocks

Late Cretaceous to Paleocene

 **LKPedr** dioritic intrusive rocks


Cretaceous


Kasalka Group


 **uKK** andesitic volcanic rocks


Late Cretaceous


Bulkley Plutonic Suite

 **LKBdr** dioritic intrusive rocks


 **LKBfp** feldspar porphyritic intrusive rocks

 **LKBqp** high level quartz phyric, felsitic intrusive rocks

 **LKBg** intrusive rocks, undivided


 **LKBqd** quartz dioritic intrusive rocks

Kasalka Plutonic Suite

 **LKKP** granodioritic intrusive rocks


Lower Cretaceous

Skeena Group

 **IKS** undivided sedimentary rocks

 **IKSN** **Mt. Ney Volcanics:** undivided volcanic rocks

Jurassic

 **Jqm** quartz monzonitic intrusive rocks

Upper Jurassic

Bowser Lake Group


 **uJBAm** **Ashman Formation:** mudstone, siltstone, shale fine clastic sedimentary rocks

Middle Jurassic to Upper Jurassic

Hazelton Group


 **muJHNa** **Nanika Volcanics:** rhyolite, felsic volcanic rocks

Middle Jurassic

 **mJHSms** **Smithers Formation:** undivided sedimentary rocks

Early Jurassic

Topley Plutonic Suite

 **EJTpgd** granodioritic intrusive rocks

Lower Jurassic

Hazelton Group

 **IJHT** **Telkwa Formation:** calc-alkaline volcanic rocks

[Ministry of Energy and Mines](#)
[BC Geological Survey](#)

7.2 Regional Geophysics

The regional geophysics from the Quest West surveys show striking similarities between the Berg, Bergette and Sylvia properties on the 1st Vertical Derivative gravity maps. Gravity surveys reveal large magnetic low areas at each of the Minfile showings. The gravity low anomalies are probably reflecting the specific gravity differences between lighter intrusive bodies and areas of thicker volcanic and sedimentary rocks. A group of gravity low anomalies appears to be controlled by the later northeast trending faulting as shown below. The expanded Sylvia property, including the Tara Minfile showing, covers the furthest northeast of these gravity low features.

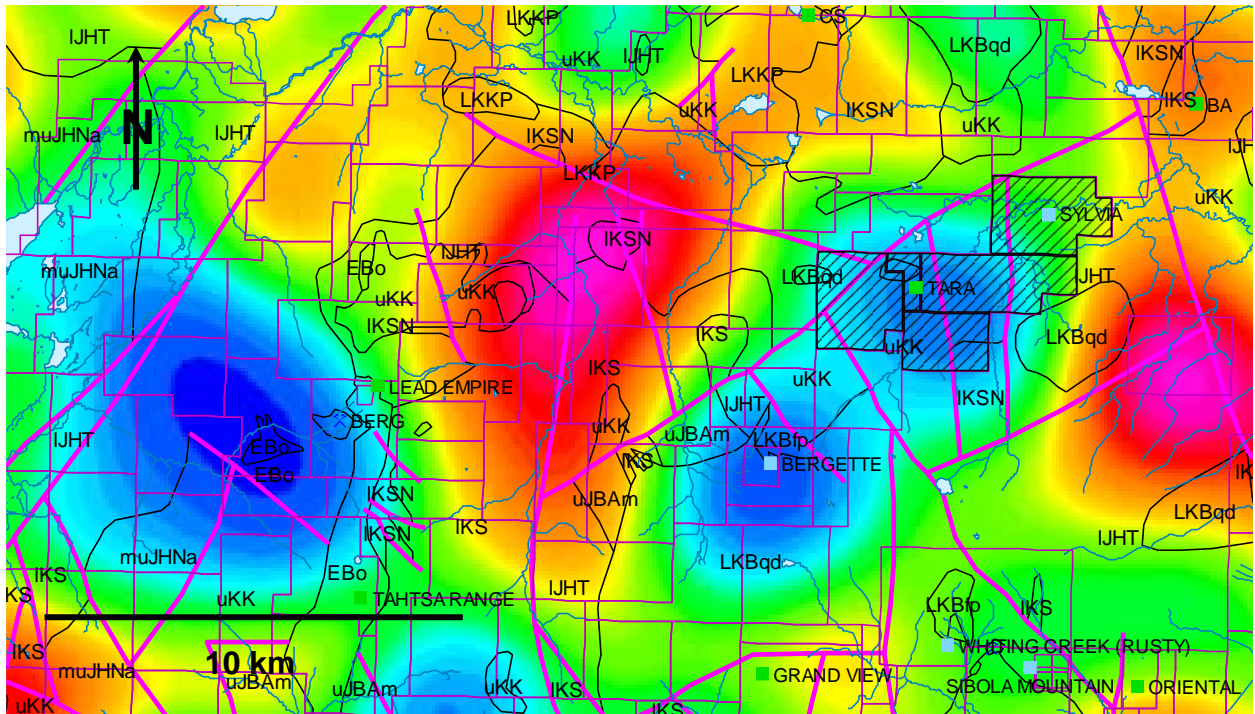


Figure 12: Regional Geophysics 1st Vertical Derivative Gravity map

Magnetic surveys conducted as part of the Quest West project also show similarities on the 1st Vertical Derivative Magnetic maps. The three properties sit on the flanks of large magnetic low anomalies surrounded partially by more magnetic rocks. The areas of higher magnetism possibly reflect pyrrhotite hornfels on the margins and possibly overlying the intrusive centres outlined by the gravity low anomalies shown above. The exception to this is the Sylvia showing where intrusive rocks are not outcropping. The large magnetic low anomalies possibly reflect the same buried intrusive centres as suggested by the 1st Vertical Derivative gravity anomalies.

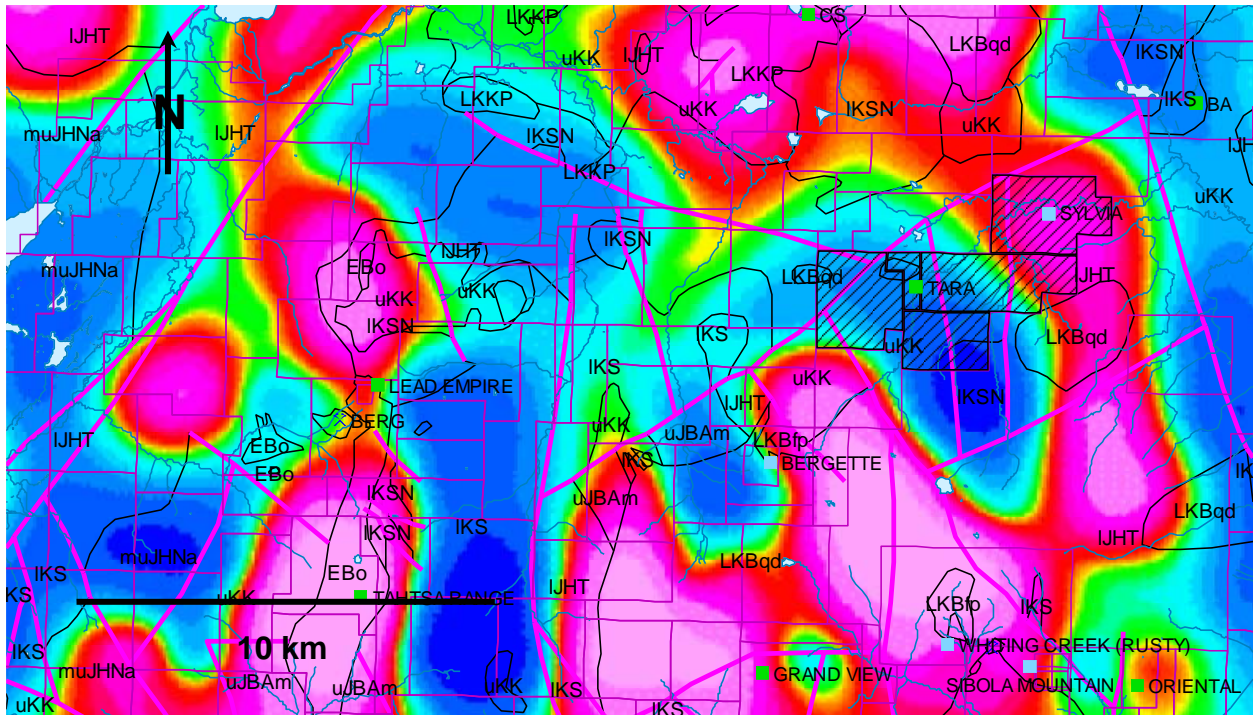


Figure 13: Regional Geophysics 1st Derivative Magnetic map

7.3 Property Geology

The area of the Sylvia Minfile showing is underlain by an elliptical stock about 1.5 km long and 1.0 km wide that intrudes Hazelton Group epidote-rich tuffs and andesitic to basaltic volcanic fragmental rocks. This stock is not shown on government maps as it is not outcropping. The northern and central parts of the stock consist of fresh, medium-to coarse-grained, hornblende-biotite granodiorite +/- quartz monzonite with minor disseminated pyrite. The southern margin contains an early, biotite-rich, fine-grained border phase that is locally strongly pyritic, variably altered and cut by medium- to coarse-grained granodiorite to quartz monzonite dykes. Volcanics adjacent to the stock are variably hornfelsed and locally cut by numerous fine-grained monzonite/quartz monzonite dykes. A well-developed, crescent-or boomerang-shaped pyritic zone, which contains 1%-10% pyrite as fracture fillings and disseminations, straddles the south contact. This pyrite halo has a maximum width of 400 to 500 metres and an apparent arc length of about 2,000m.

The initial percussion drill program carried out by HBOG in 1974 intersected widespread pyrite mineralization along the south edge of the granodiorite/quartz monzonite stock and adjacent volcanics. One hole, S-8, intersected significant porphyry-type Cu/Mo mineralization along the inside edge of the pyrite halo. This hole, which was only 230 feet deep, averaged 0.33% Cu and 0.02% Mo with higher grade intervals grading up to 0.635% Cu and 0.132% Mo. According to the HBOG drill log, mineralization occurs within a medium-grained granodiorite and fine-grained quartz monzonite with up to 10% felted biotite which is probably secondary. Thin sections of this material reportedly show feldspars partly altered

to clay and sericite. Follow-up drilling by HBOG in 1975 failed to extend the mineralization beyond hole S-8, however, several critical holes failed to reach bedrock due to thick overburden (Belik 1996).

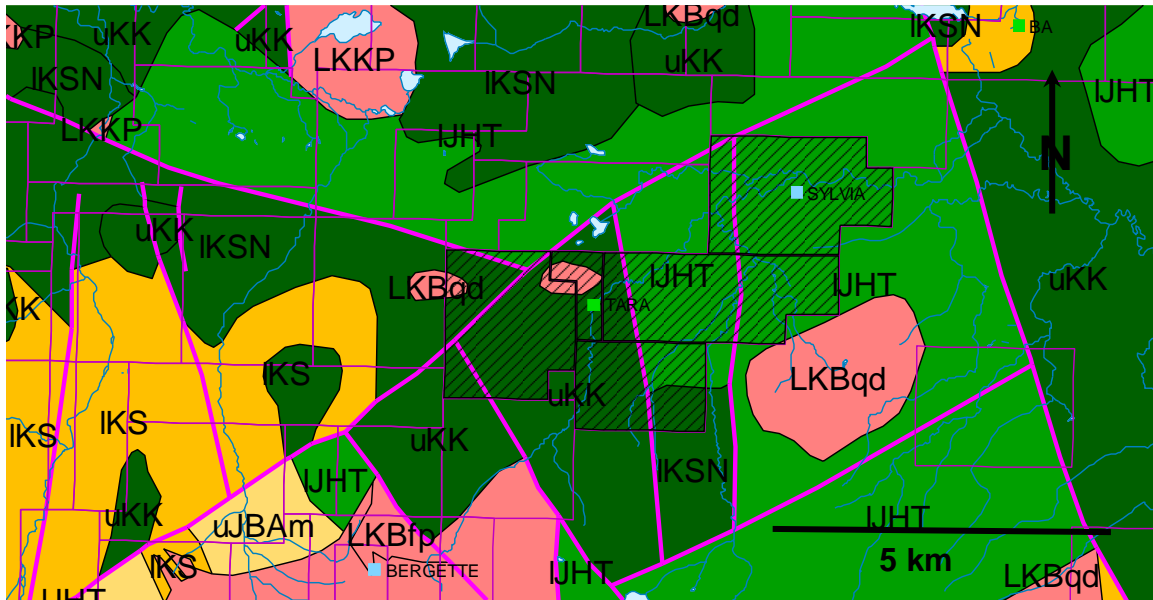


Figure 14: Property Geology map

The diamond drill program, conducted by Westley Technologies Limited, intersected grey, strongly fractured, fine-grained, granular granodiorite with up to 30% very fine-grained (secondary?) biotite. Some fractures in the intrusive rocks were noted to have K-spar alteration envelopes. Drilling of the contact with the volcanics to the south, in hole #3, intersected a 5.0m zone of bleached strongly pyrite, quartz-sericite alteration that was strongly anomalous in gold, averaging 790ppb.

The property hosts numerous northwest trending faults which have been cut by younger northeast trending structures. Mapping by government geologists, as seen on the property geology map, have also identified a number of unmapped northeast trending faults such as on the northern margin of the Late Cretaceous Biotite-quartz-diorite (LKBqd) where a northeast trending creek separates intrusive and volcanic rocks. This structure crosscuts the mapped northwest faults and suggests a possible connection between the Bergette, Tara and Sylvia showings. It is evident that the rocks at the Bergette showing have been uplifted relative to those on the Sylvia property. The mineralization on the Sylvia reflects the top of a somewhat deeper mineralized porphyry system.

Surface exposures near the Tara showing were limited to strongly jointed rhyolite intrusive rocks mapped to the northwest of historic exploration and coarse fragmental volcanic rocks, probably of Cretaceous age, and belonging to the Kasalka Group. These outcrops were located north of the Tara along the Berg

access road.

7.4 Mineralization

Evidence of a mineralized porphyry system on the Sylvia property comes primarily from drill results. Initial percussion drilling on the property by Hudson Bay Oil and Gas intersected 3350ppm Cu and 206ppm Mo over 63m, the entire length of hole S-8. Subsequent diamond drilling



Plate 3: Kasalka fragmental volcanics near the Tara

returned wide intercepts

of lower grade material such as 0.19% Cu, 0.004% Mo and 1.8ppm Ag from a twin of S-8, 0.11% Cu over 85m, including a 5m section that assayed 790ppb Au at the southern contact of the intrusion with the overlying volcanics. DDH hole 4, located 160m to the east of S-8, intersected 0.10% Cu, 0.011% Mo over 82.5m

At the Tara, drilling in 1975, by Noranda, returned best results of 0.12% Cu over 3m. Noranda did not assay samples for precious metals during the program. Sampling of the surface mineralization by Westley Technologies in 1995 returned best values of 0.13% Cu, 137ppb Au and 42.7ppm Ag from select grab samples.

Item 8: Deposit Types

The most important mineral occurrences in the area of the Property are gold-bearing porphyry copper deposits associated with the late Cretaceous Bulkley Plutonic Suite granodiorite and quartz diorite intrusive rocks and Eocene Nanika Plutonic Suite quartz monzonite intrusions. The nearby, Huckleberry mine and many major prospects are located in the same assemblage of rocks as the Property. There is also low sulphidation epithermal VMS potential with silver-lead-zinc mineralization similar to that at the New Moon prospect in Lower-Middle Jurassic Hazelton Group rocks. The formerly producing Silver Queen mine is classified as a polymetallic Ag/Pb/Zn +/- Au vein and occurs in upper Cretaceous to Eocene Endako Group volcanics associated with late Cretaceous Bulkley Plutonic Suite felsic to basaltic dykes and sills.

The most important focus for exploration on the Property is for calcalkaline porphyry copper-gold deposits.

8.1 Calcalkaline Porphyry Copper-Gold Deposits

According to Panteleyev (1995), Volcanic-type Calcalkaline Porphyry Copper-gold deposits are characterized by stockworks of quartz veinlets and veins, closely spaced fractures, disseminations and breccias, containing pyrite and chalcopyrite with lesser molybdenite, bornite and magnetite, occurring in large zones of economically bulk mineable mineralization, in or adjoining porphyritic stocks, dikes and related breccia bodies. Intrusions compositions range from calcalkaline quartz diorite to granodiorite and quartz monzonite. Commonly there are multiple emplacements of successive intrusive phases and a wide variety of breccias. The mineralization is spatially, temporally and genetically associated with hydrothermal alteration of the host rock intrusions and wallrocks. Propylitic alteration is widespread and generally flanks early, centrally located potassic alteration which is commonly well mineralized. Younger mineralized phyllic alteration commonly overprints the early mineralization. Barren advanced argillic alteration is rarely present as a late, high-level hydrothermal carapace. Ore controls include igneous contacts, both internal between intrusive phases, and external with wallrocks; dike swarms, breccias, and zones of most intense fracturing, notably where there are intersecting multiple mineralized fracture sets.

Porphyry Cu-Au deposits have been the major source of copper for British Columbia, and a significant source of gold. Median values for 40 B.C. deposits with reported reserves are: 115 Mt with 0.37 % Cu, 0.01 % Mo, 0.3g /t Au and 1.3 g/t Ag.

8.2 High And Low Sulphidation VMS Deposits

Analogous to epithermal precious metal deposits, volcanogenic massive sulphide (VMS) deposits are recently recognized to occur in two associations: high- and low sulphidation. High sulphidation VMS have been only recently recognized in the geological record, and are notable for their exceptionally high grades of gold and silver, in addition to their base metal content.

8.2.1 Low Sulphidation VMS Deposits

Based on the mineralogical classification used for epithermal deposits, the majority of volcanogenic massive sulphide (VMS) deposits, could be classified as low sulphidation. These VMS deposits formed from an ore fluid that was dominated by modified seawater, and as with low sulphidation epithermal deposits, evidence for magmatic contributions to these systems is limited.

8.2.2 High Sulphidation VMS Deposits

Certain VMS deposits and seafloor occurrences contain mineralogy that suggests that a high sulphidation classification is appropriate. These high sulphidation VMS deposits probably formed from magmatic hydrothermal systems that were active in submarine settings. High sulphidation deposits form in magmatic-hydrothermal systems according to Thompson (2007). In a similar manner, Dubé et al. (2007) describe a class of deposits that are a subtype of both volcanogenic massive sulphide (VMS) and lode gold deposits, namely gold-

rich VMS deposits. Like most VMS deposits, they consist of semi-massive to massive, concordant sulphide lenses underlain by discordant stockwork feeder zones. They have diverse geochemical signatures dominated by Au, Ag, Cu and Zn and often accompanied by elevated concentrations of As, Sb, Pb, Te and Hg.

Figures 15 and 16 demonstrate schematically the geological and spatial characteristics of these types of VMS deposits. High-sulphidation VMS deposits can also be described as shallow submarine hot spring deposits. They are represented by stratiform Au-Ag barite deposits, pyritic Cu-Au stockworks, and auriferous polymetallic sulfides.

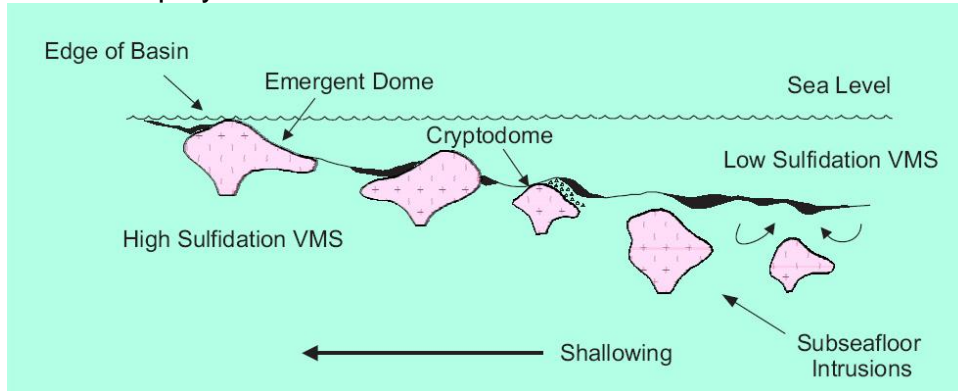


Figure 15: Development of high-sulphidation versus low-sulphidation hydrothermal systems in a submarine setting in relation to the depth of emplacement of associated sub-volcanic intrusions (from Dubé et al., 2007; after Hannington et al., 1999)

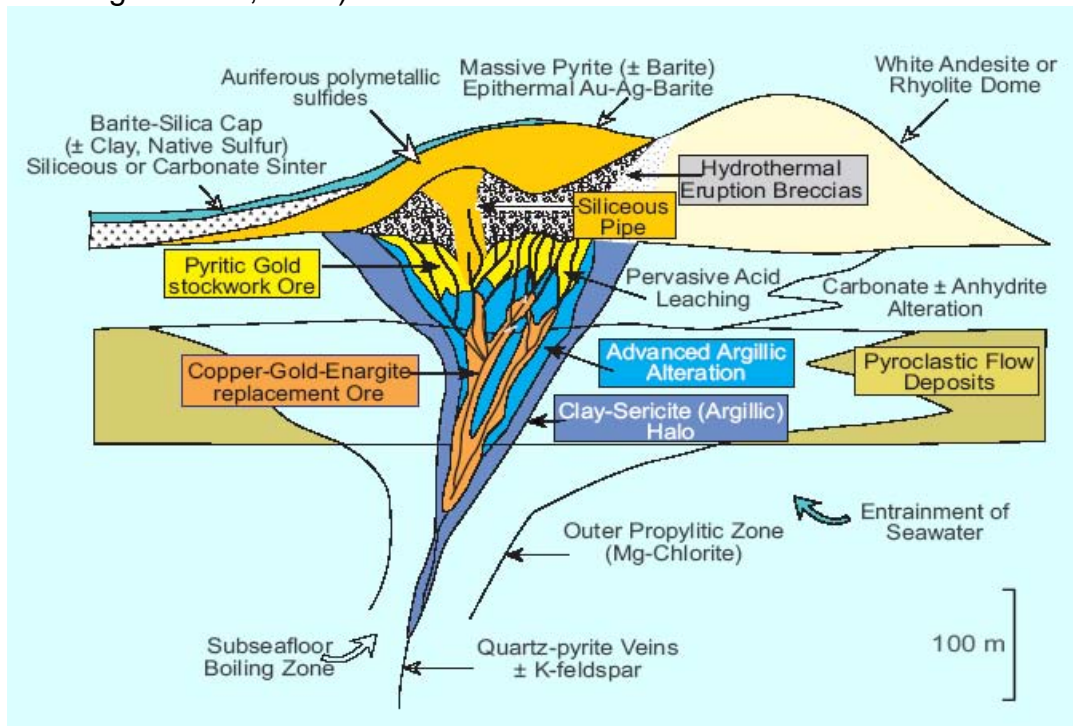


Figure 16: Geological setting of Au-rich high sulphidation VMS systems (from Dubé et al., 2007).

Item 9: Exploration

9.1 Current Evaluation Program

Exploration on the Sylvia property in 2012 consisted of one prospecting trip into the area to make an initial assessment of the expanded Sylvia property and to locate historic access of the 1975 drill sites. The area has been logged since the early exploration programs and little evidence exists for the drill trails used at that time. As a result, prospecting consisted of examining available outcrop, traversing the existing logging roads and sampling of any mineralized float found. Two bulk silt samples were collected from creeks draining the area for analysis of the -230 mesh fraction. GPS locations were recorded for each sample site. Sample descriptions are located in Table 3.



Plate 4: The author examining one of the rhyolite domes on the claims

Table 3 Sample Descriptions

Sample #	GPS Easting	GPS Northing	Sample description
1043967	617543	5967160	bulk silt
1043968	615169	5967099	rhyolite with strong jointing
1043969	618876	5967130	bulk silt
1043970	619714	5967574	felsic volcanic float, 2-3% Py, tr Cpy
1043971	618080	5967260	Rusty, rough semi-rounded boulder of quartz-veining with 5-7% Py, tr Cpy

Results from the rock sampling program returned anomalous values in molybdenum from sample 1043971. The sample returned results of 226ppm Mo and 452ppm Co. Copper, gold and silver values were uniformly low. The -230 mesh fraction of the bulk silt from the creek draining the historical Tara showing returned highly anomalous base metal and precious metal values of 15.9ppm Mo, 328.7ppm Cu, 380ppm Zn, 0.6ppm Ag and 44.7ppb Au.



Plate 5: Sample 1043971

Item 10: Drilling

No drilling was completed as part of the exploration program.

Item 11: Sample Preparation, Analyses and Security

All rock samples collected were placed in clean 12x20 poly bags with a sample tag and tied closed with flagging tape. Bulk silt samples were collected and placed in clean plastic sample bags. A large sample was collected to ensure enough material was available for analysis of -230 mesh fraction.

All samples were transported to Francois Lake where they were placed into woven rice bags and sealed with a zip tie. Samples were transported to Victoria, BC prior to being shipped to the Acme Analytical facilities in Vancouver, B.C.



Plate 6: Ralph Keefe and Shawn Turford on the Sylvia

Rocks were prepared using R200-250 methods where the sample was crushed to 80% passing 10 mesh. A 250g sub-sample was split and pulverized to 85% passing 200 mesh. Samples were analyzed using Acme's 1D01 package which uses Aqua Regia digestion followed by ICP-ES methods. Gold values were determined using Fire Assay Fusion - AAS Finish of a 30g sample.

Silt samples were prepared using the SS230 code whereby the samples were dried at 60°C and then sieved to -230 mesh prior to analyses by ultra-trace multi-element chemistry by ICP and ICP-MS methods (1DX3). The package utilizes a 30g sample for analysis, eliminating the need for traditional fire assay for accurate gold determinations. The ultra-trace package has a 0.5ppb Au detection limit which is adequate for first pass exploration.

Item 12: Data Verification

No data verification was completed as part of the exploration program.

Item 13: Mineral Processing and Metallurgical Testing

No mineral processing or metallurgical testing was completed as part of the exploration program.

Item 14: Mineral Resource Estimates

No mineral resource estimates were completed as part of the exploration program

Item 15: Adjacent Properties**15.1 Huckleberry (Minfile 093E 037, rev. Meredith-Jones, 2012)**

At the Huckleberry deposit, 190km to the southwest, porphyry copper and molybdenum mineralization is associated with a near elliptical stock of Upper Cretaceous age granodiorite porphyry (Bulkley Intrusions) measuring approximately 670 by 425 metres. The stock intrudes fine-grained crystal tuff of the Lower-Middle Jurassic Hazelton Group. Tuffs adjacent to the intrusion have been hornfelsed.

Mineralization consists of chalcopyrite and minor molybdenite in fractures, principally in the hornfelsed volcanics but also in the stock. Minerals accompanying chalcopyrite are quartz, orthoclase and pyrite with probably later calcite, gypsum and zeolite. Magnetite occasionally accompanies chalcopyrite. Disseminated chalcopyrite also occurs. Molybdenite usually occurs with quartz in hairline fractures. The mineralization generally occurs around the stock contact but the extent outward from the contact and the grade vary greatly. The best mineralization occurs on the east side of the stock. Potassic, pyrite and chlorite alteration haloes surround the stock.

The ore zones at Huckleberry are enclosed by an easterly-oriented zone of alteration approximately 4 kilometres long and 1 kilometre to 2 kilometres wide. The Main zone occurs along the eastern periphery of a sub-circular stock located in the western part of the alteration zone and is further centred on an apophysis of the stock. Most of the mineralization occurs in an arc measuring 500 metres by 100 metres. The East zone occurs within and surrounding a similar porphyritic stock in the eastern part of the system and is approximately 900 metres by 300 metres and remains open at depth. The East zone appears to be centred on an apophysis of the East zone.

The Huckleberry mine has been in production since October, 1997. Published reserves for the deposit in 2010 were Proven and Probable reserves totaling 14.01 million tonnes grading 0.362% Cu, 0.005% Mo, Measured and Indicated reserves of 182.9M tonnes grading 0.321% Cu and Inferred reserves of 45.4M tonnes grading 0.288% Cu. Reserves were calculated with 0.20% Cu cut-off grade.

15.2 Berg (Minfile 093E 046, rev. Flower, 2009)

The area of the Berg porphyry copper-molybdenum deposit, situated 175km to the south, is underlain by massive and clastic volcanic and sedimentary rocks of the Lower-Middle Jurassic Hazelton Group. These rocks have been intruded by an elongate body of quartz diorite and a circular quartz monzonite porphyry stock (Berg Stock) approximately 800 metres in diameter. A breccia pipe and quartz latite porphyry dikes postdate the stock. Volcanic and sedimentary rocks adjacent to the stock have been metamorphosed to biotite hornfels. Mineralization is associated with the Eocene age porphyry stock.

The most common forms of primary mineralization are fracture-controlled and disseminated pyrite and chalcopyrite with quartz stockworks of pyrite, molybdenite and chalcopyrite. Less commonly, quartz and quartz-carbonate veins contain pyrite, sphalerite, galena, chalcopyrite and sulphosalt minerals. Secondary copper sulphides, with chalcocite being the most important, are found in an enrichment blanket over most of the deposit. Primary ore minerals are most abundant in an asymmetrical annular zone around the quartz monzonite stock.

In general, the best molybdenum mineralization is within and adjacent to the stock while the highest copper values are normally 70 metres or more beyond the contact. The best developed mineralization occurs along the eastern side of the stock.

A pyrite halo extends 300 to 600 metres beyond the stock contact. Potassic, phyllic, propylitic and argillic alteration types are all present at Berg.

The deposit has a recently published 43-101 compliant measured & indicated resource of 557.8.5 million tonnes, grading 0.30% Cu and 0.037% Mo and 3.77g/t Ag and an inferred resource of 159.4 million tonnes grading 0.23% Cu, 0.033% Mo and 2.5 g/t Ag using a 0.30% copper equivalent cut-off grade.

15.3 Poplar (Minfile 093L 239, rev. Duffett, 1988)

The Poplar deposit is located 155km south of the Property, where Lower-Middle Jurassic Hazelton Group volcanics are intruded by a Middle-Late Cretaceous Bulkley Intrusions. The Hazelton rocks are comprised of massive andesite, tuff, lapilli tuff, agglomerate, flow breccia with narrow bands and interbedded argillite. This group is overlain by Juro-Cretaceous sediments which are estimated to be 400 metres thick. The basal unit is comprised of gritty argillite overlain by sorted to unsorted medium to coarse-grained sandstone and conglomerate. The average bedding strikes 035 degrees and dips 60 degrees to the southeast.

The Bulkley Intrusions are comprised of a granodiorite to biotite monzonite porphyry which is aplitic near the contact margins. The stock is weakly mineralized with chalcopyrite, molybdenite and pyrite in fracture-fillings. As well, the biotite porphyry hosts an estimated 1.5 per cent of disseminated sulphides, mainly pyrite with minor chalcopyrite.

A 200-metre wide dike swarm associated with the biotite porphyry stock crosscuts the volcanics which have undergone considerable fracturing/faulting and hornfelsing throughout. Mineralization in the quartz veins and dike swarms is comprised of pyrite with minor chalcopyrite.

There is a well-developed hydrothermal alteration facies concentric to the biotite porphyry which includes potassic, phyllic, argillic and propylitic zones. There is weak hornfelsing throughout the volcanics and it is strongest near the contact

with the granodiorite stock. Mineralization in the hornfelsed aureole consists mainly of disseminated pyrite with very minor chalcopyrite.

Lions Gate Metals of Vancouver has filed the new 43-101 report on April 5, 2012 with an updated resource for the Poplar deposit. The property has a new indicated resource of 171.3 million tonnes grading 0.28% Cu, 0.008% Mo, 0.08 g/t Au and 2.30 g/t Ag (0.40% CuEq), plus an inferred resource of 209.0 million tonnes grading 0.23% Cu, 0.004% Mo, 0.06 g/t Au and 3.62 g/t Ag (0.33% CuEq) using a 0.15% Cu cut-off.

15.4 Ox Lake (Minfile 093E 004, rev. Barlow, 1998)

The Ox Lake porphyry copper-molybdenum deposit occurs in an area underlain by felsic tuff, andesitic tuff, sandstone and siltstone of the Lower-Middle Jurassic Hazelton Group. Intruding the sequence is a 400 by 600 metre granodiorite porphyry plug of Upper Cretaceous age. Volcanic tuffs marginal to the porphyry plug are hornfelsed and pyritized in a halo up to about 300 metres wide. Intrusive breccias occur along the southwestern side of the plug.

Copper and molybdenum mineralization occur in a peripheral zone around the plug and is concentrated in hornfels immediately west of the plug. The highest grades occur at the porphyry-hornfels contact and gradually decline in the hornfels away from the contact. On the porphyry side of the contact the grade of mineralization falls sharply.

The main host to mineralization is an intense stockwork of veins and fractures in the hornfels zone. In general, copper mineralization is most prominent in the hornfels while molybdenum is concentrated in porphyry dikes with small amounts in the hornfels. Nine vein types are developed in four stages that form part of the stockwork. The most common metallic minerals are pyrite, chalcopyrite, bornite, hematite, magnetite, pyrrhotite and molybdenite. Very minor late veins contain some sphalerite and galena.

Potassic, albitic, propylitic, sericitic and argillic alteration are evident at the deposit and are defined by biotite, chlorite, sericite, epidote, albite, magnetite and hematite alteration mineralogy.

Drilling by Goldreach Resources in 2011, at the newly discovered West Seel deposit, intersected 566m of 0.51% copper equivalent. The company recently released an independent resource calculation at Seel of 28.13 million tonnes (indicated) at 0.40% copper equivalent and 214.78 million tonnes (inferred) at 0.33% copper equivalent using a 0.2% copper equivalent cut off.

15.5 Equity Silver (Minfile 093L 001, rev. Robinson, 2009)

Silver, copper and gold were produced from the Equity Silver deposit, located 150km to the southeast of the Property.

The mineral deposits are located within an erosional window of uplifted Cretaceous age sedimentary, pyroclastic and volcanic rocks near the midpoint of the Buck Creek Basin. Strata within the inlier strike 015 degrees with 45 degree west dips and are in part correlative with the Lower-Upper Skeena(?) Group. Three major stratigraphic units have been recognized. A lower clastic division is composed of basal conglomerate, chert pebble conglomerate and argillite. A middle pyroclastic division consists of a heterogeneous sequence of tuff, breccia and reworked pyroclastic debris. This division hosts the main mineral deposits. An upper sedimentary-volcanic division consists of tuff, sandstone and conglomerate. The inlier is flanked by flat-lying to shallow dipping Eocene andesitic to basaltic flows and flow breccias of the Francois Lake Group (Goosly Lake and Buck Creek formations).

Intruding the inlier is a small granitic intrusive (57.2 Ma) on the west side, and Eocene Goosly Intrusions gabbro-monzonite (48 Ma) on the east side.

The chief sulphides at the Equity Silver mine are pyrite, chalcopyrite, pyrrhotite and tetrahedrite with minor amounts of galena, sphalerite, argentite, minor pyrargyrite and other silver sulphosalts. These are accompanied by advanced argillic alteration clay minerals, chlorite, specularite and locally sericite, pyrophyllite, andalusite, tourmaline and minor amounts of scorzalite, corundum and dumortierite. The three known zones of significant mineralization are referred to as the Main zone, the Southern Tail zone and the more recently discovered Waterline zone. The ore mineralization is generally restricted to tabular fracture zones roughly paralleling stratigraphy and occurs predominantly as veins and disseminations with massive, coarse-grained sulphide replacement bodies present as local patches in the Main zone. Main zone ores are fine-grained and generally occur as disseminations with a lesser abundance of veins. Southern Tail ores are coarse-grained and occur predominantly as veins with only local disseminated sulphides. The Main zone has a thickness of 60 to 120 metres while the Southern Tail zone is approximately 30 metres thick. An advanced argillic alteration suite includes andalusite, corundum, pyrite, quartz, tourmaline and scorzalite. Other zones of mineralization include a zone of copper-molybdenum mineralization in a quartz stockwork in and adjacent to the quartz monzonite stock and a large zone of tourmaline-pyrite breccia located to the west and northwest of the Main zone.

Alteration assemblages in the Goosly sequence are characterized by minerals rich in alumina, boron and phosphorous, and show a systematic spatial relationship to areas of mineral deposits. Aluminous alteration is characterized by a suite of aluminous minerals including andalusite, corundum, pyrophyllite and scorzalite. Boron-bearing minerals consisting of tourmaline and dumortierite occur within the ore zones in the hanging wall section of the Goosly sequence. Phosphorous-bearing minerals including scorzalite, apatite, augelite and svanbergite occur in the hanging wall zone, immediately above and intimately

associated with sulphide minerals in the Main and Waterline zones. Argillic alteration is characterized by weak to pervasive sericite-quartz replacement. It appears to envelope zones of intense fracturing, with or without chalcopyrite/tetrahedrite mineralization.

The copper-silver-gold mineralization is epigenetic in origin. Intrusive activity resulted in the introduction of hydrothermal metal-rich solutions into the pyroclastic division of the Goosly sequence. Sulphides introduced into the permeable tuffs of the Main and Waterline zones formed stringers and disseminations which grade randomly into zones of massive sulphide. In the Southern Tail zone, sulphides formed as veins, fracture-fillings and breccia zones in brittle, less permeable tuff. Emplacement of post-mineral dikes into the sulphide-rich pyroclastic rocks has resulted in remobilization and concentration of sulphides adjacent to the intrusive contacts. Remobilization, concentration and contact metamorphism of sulphides occurs in the Main and Waterline zones at the contact with the postmineral gabbro-monzonite complex.

The Southern Tail deposit has been mined out to the economic limit of an open pit. With its operation winding down, Equity Silver Mines does not expect to continue as an operating mine after current reserves are depleted. Formerly an open pit, Equity is mined from underground at a scaled-down rate of 1180 tonnes-per-day. Proven and probable ore reserves at the end of 1992 were about 286,643 tonnes grading 147.7 grams per tonne silver, 4.2 grams per tonne gold and 0.46 per cent copper, based on a 300 grams per tonne silver-equivalent grade. Equity has also identified a small open-pit resource at the bottom of the Waterline pit which, when combined with underground reserves, should provide mill feed through the first two months of 1994 (Northern Miner - May 10, 1993).

Equity Silver Mines Ltd. was British Columbia's largest producing silver mine and ceased milling in January 1994, after thirteen years of open pit and underground production. Production totaled 2,219,480 kilograms of silver, 15,802 kilograms of gold and 84,086 kilograms of copper, from over 33.8 Million tonnes mined at an average grade of 0.4 per cent copper, 64.9 grams per tonne silver and 0.46 gram per tonne gold.

15.6 Emerald Glacier (Minfile 093E 001, rev. Sweene, 2009)

The Emerald Glacier mine area is underlain by the Lower-Middle Jurassic Hazelton Group which consists of a sedimentary member of feldspathic sandstone with minor siltstone and silty tuffaceous shale, and an overlying volcanic member of andesitic and dacitic breccias, tuffs and some massive volcanic rocks. Mineralization is hosted primarily by sedimentary rocks in a zone of transition between the two members. These rocks include intercalated sandstone, tuff, tuffaceous sandstone, siltstone and shale. Dacite, basalt and rhyolite dikes cut the stratified rocks.

En echelon quartz veining extends for at least 1200 metres and is associated with shears striking about 170 degrees and dipping 60 degrees to 75 degrees east. The main mineralization occurs in one of these shears and is associated with quartz veining up to 3 metres wide that is variously stockwork, massive, banded, brecciated and drusy in form. Sulphide mineralization includes galena, sphalerite, chalcopyrite and pyrite in order of decreasing abundance. Smaller veins in the vicinity are dominated by sphalerite.

Unclassified reserves are 40,800 tonnes grading 355 grams per tonne silver, 8.23 per cent lead, 9.49 per cent zinc and 1.13 grams per tonne gold (CIM Special Volume 37, page 186).

Item 16: Other Relevant Data and Information

There is no other relevant data or information other than that included in this report.

Item 17: Interpretation and Conclusions

Significant initial drill results of 0.335% copper and 0.021% molybdenum over 63m, in percussion hole S-8 identified a significant mineralized porphyry system. Twinning of the hole returned results of 0.19% Cu, 0.004% Mo and 1.8ppm Ag over 65m, in DDH-1. DDH-3, at the same collar location but drilled to the south, intersected 0.11% Cu over 85m, including 5m of 790ppb Au at the intrusive/volcanic contact. DDH-4, located 160m east of S-8 intersected 0.10% Cu, 0.011% Mo over 82.5m.

An IP survey completed in 1973 by HBOG the Sylvia claim identified the presence of a broad, very strong, easterly-trending, chargeability anomaly which was only partially tested by later drilling. A second reconnaissance IP survey over part of the Sylvia claim suggests that the chargeability anomaly plunges to the west and is more complex than previously believed.

The mineralization and intrusive host do not outcrop at the Sylvia showing and any attempts at delineating the mineralization will have to be done remotely. Glacial till where encountered by drilling is highly variable, from 1-24m thick and would generally mask any local mineralization. Traditional B-horizon soil sampling would not be an effective exploration technique in this environment.

In 2011, the author completed orientation surveys to test the effectiveness of alternative geochemical survey techniques in an effort to “see through” the glacial till. Results from the both the MMI and Ah sampling programs were very encouraging. MMI Response Ratios showed a very strong anomaly over the suspected mineralized area, on line L19675E, and suggest mineralization exists over a width of at least 100m and over a minimum strike length of 500m (i.e. from Sylvia S-8 drill hole to line 20075E MMI anomaly). MMI Response Ratios from approximately 100m east of percussion hole S-8 returned molybdenum, copper and tungsten values of up to 144, 45 and 36 times background respectively. A

further 400m to the east MMI sampling returned Response Ratios of 6, 4 and 12 times background for the same elements. Humus sampling confirmed the MMI anomalies on second test line located approximately 500m to the east of the S-8 percussion hole. Ah Response ratios on the eastern line were higher contrast than the MMI ratios and returned RRs of up to 6 for Cu, 3.2 for Au, 23.1 for Ag. Indicator elements such as Fe, As, Sb and Bi returned RRs of 9.9, 4.4, 5.4 and 4.7 respectively while many of the Rare Earth Elements returned very anomalous values such as 48.3 x background for Y. Both techniques appear to give good definition to underlying mineralization however humus samples may be difficult to collect over the extensive area of disturbance caused by logging that has been completed over the claims since the area was initially explored in the mid-1970s.

Recent airborne geophysical surveys conducted as part of the Quest West program show a northeast trending zone of gravity low and magnetic low anomalies. One anomaly may identify a large buried intrusive centre to the southwest of the Sylvia Minfile location. This anomaly is covered by the expanded Sylvia property and includes the Tara Minfile showing. The gravity and magnetic anomalies are very similar to that which hosts the nearby Berg deposit.

It is the author's opinion that the Sylvia property is a property that has not been adequately tested and has a high potential for new discoveries and as such is a property of merit, worthy of further exploration expenditures.

Item 18: Recommendations

The logical first steps in the exploration of the Sylvia property should involve updated geophysical and geochemical surveys in an attempt to see through the potentially thick blanket of glacial till present over much of the area. Magnetic surveys should be completed in an effort to outline the granodiorite intrusive and map any structural complications. Induced Potential (IP) chargeability and resistivity surveys would hope to identify areas of sulphide concentration and silicification. Geochemical MMI and/or humus-Ah surveys over the claim would focus further exploration to areas of higher copper, molybdenum and gold potential. Line cutting would be required to allow access for the various surveys in areas that have not been previously logged.

Project Geologist (20 days @ 600/day)	\$12,000
Prospector/sampler (20 days @ \$400/day) x 2	16,000
Line-cutting (30km @\$1500/km)	45,000
Geochemical Ah surveys (700 samples @ \$30/sample)	21,000
Geophysical surveys mag/IP (30km @ \$2500/km)	75,000
Mob/demob and vehicle rental	10,000
Room and board (220 person days @ \$130/day)	28,600
Reporting	<u>10,000</u>
	subtotal \$217,600
Contingency (15%)	<u>32,640</u>
	\$250,240

Dependent 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.
February 22, 2013

Item 19: References

- Belik, G.D., 1991, Geological and Geochemical Report on the Sibola Property, Omineca Mining Division, for Kingsvale Resources Limited, MEMPR Assessment Report# 21969.
- Belik, G.D., 1996, Diamond Drill Report on the Sibola 1 Mineral Claim, Omineca Mining Division, for Westley Technologies Limited, MEMPR Assessment Report# 24260.
- Galambos, K.D., 2011, Technical Report on the Sylvia Project, Omineca Mining Division, MEMPR Assessment Report (under review)
- Hall, G.I., 1974, Hudson's Bay Oil and Gas Company Limited Report on Percussion Drilling Sylvia 1 Group, Omineca Mining Division, MEMPR Assessment Report# 05054.
- Hall, G.I., 1975, Hudson's Bay Oil and Gas Company Limited Report on Percussion Drilling Sylvia Claims, Omineca Mining Division, MEMPR Assessment Report# 05670.
- Hall, G.I., 1975, Hudson's Bay Oil and Gas Company Limited Report on Magnetometer Survey, Sylvia Claims, Omineca Mining Division, MEMPR Assessment Report# 05671.
- Hodder, R.W. and MacIntyre. D.G., 1979, Place and Time of Porphyry Type Copper-Molybdenum Mineralization in Upper Cretaceous Caldera Development. Tahtsa Lake, B.C. In: Papers on Mineral Deposits of Western North America. Nevada Bureau of Mines and Geology. Report 37, pp. 175-184.
- Kilby, D.B., 1974, Hudson's Bay Oil and Gas Company Limited Report on Percussion Drilling Programme Sylvia No. 1 Group, Omineca Mining Division, MEMPR Assessment Report# 05213.
- Lefebure, D.V. and Church, B.N., 1996, Polymetallic Veins Ag-Pb-Zn+/-Au, in Selected British Columbia Mineral Deposit Profiles, Volume 2 - Metallic Deposits, Lefebure, D.V. and Høy, T., Editors, British Columbia Ministry of Energy of Employment and Investment, Open File 1996-13, pages 67-70.
- MacIntyre. D.G., 1976, Evolution of Upper Cretaceous Volcanic and Plutonic Centres and Associated Porphyry Copper Occurrences. Tahtsa Lake Area. B.C. Ph.D. Thesis, Univ. of British Columbia.

MacIntyre, D.G., 1985, Geology and Mineral Deposits of the Tahtsa Lake District, West Central British Columbia. B.C. Ministry of Energy, Mines and Petroleum Resources. Bulletin 75.

McCance, J.A., 1976, Sylvia Claims-H.B.O.G., Report on Induced Polarization and Magnetometer Surveys, Omineca Mining Division, MEMPR Assessment Report# 06078.

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.

Panteleyev, A., 1996, Epithermal Au-Ag: Low Sulphidation, *in* Selected British Columbia Mineral Deposit Profiles, Volume 2 - Metallic Deposits, Lefebure, D.V. and Höy, T., Editors, British Columbia Ministry of Employment and Investment, Open File 1996-13, pages 41-44.

Schroeter, T., Pardy, J and Cathro, M., 2004, Significant British Columbia Porphyry Cu-Au Resources. Geofile 2004-11, BC Ministry of Energy and Mines.
<http://www.empr.gov.bc.ca/Mining/Geoscience/PublicationsCatalogue/GeoFiles/Documents/2004/Geofile2004-11.pdf>

van der Heyden. P., 1982, Geology of the West-Central Whitesail Lake Area, B.C. M.Sc. Thesis, Univ. of British Columbia.

Item 20: Date and Signature Page

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 Sylvia Project”, dated February 22, 2013.

2) I am a graduate of the University of Saskatchewan in Saskatoon, Saskatchewan with a Bachelor’s Degree in Geological Engineering (1982). I began working in the mining field in 1974 and have more than 30 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 2010.

4) This report is based upon the author’s personal knowledge of the region, a review of additional pertinent data and a 2012 work program on the property.

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

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

7) I am partners with Ralph Keefe and Shawn Turford on the Sylvia 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.

8) I consent to the use of this report by Ralph Keefe and Shawn Turford 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 29th day of February 22, 2013.

“Signed and Sealed”

Ken Galambos, P.Eng. (APEY Reg. No. 0916, APEGBC license 35364)
KDG Exploration Services
1535 Westall Ave.
Victoria, British Columbia V8T 2G6

Item 21 Statement of Expenditures
for the period of July 28-November 25, 2012

July 28-30, 2012

Personnel

Shawn Turford 2 days @ \$350/day	\$700.00
Ralph Keefe 2 days @ \$350/day	\$700.00
Ken Galambos 2 days @ \$600/day	\$1200.00

Transportation and Camp costs

Truck 2 days @ \$100/day x 3 trucks	\$600.00
Mileage 280km @ \$0.50/km x 3 trucks	\$420.00
Trailer 2 days @ \$50/day	\$100.00
ATV 2 days @ \$75/day x 2 ATVs	\$300.00
Food 6 person days @ \$35/day	\$210.00
Cabin rental 1 day @ \$50/night	\$50.00

Analysis costs

silt samples 2 @ \$30/ea	\$60.00
rock samples 3 @ \$45/ea	\$135.00
shipping	\$25.00

October 2, 2012

Francois Lake to Victoria, BC

Personnel

Ken Galambos 1 day @ \$600/day	\$600.00
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Transportation

Truck 1 day @ \$100/day	\$100.00
Mileage 1023km @ \$0.50/km	\$512.00
Food 1 person days @ \$35/day	\$35.00
Ferry Tsawwassen to Swartz Bay	\$55.00

Report

3 days @ \$600/day	<u>\$1800.00</u>
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TOTAL = \$6,867.00

Item 22: Software Used in the Program

Microsoft Windows 7
Microsoft Office 2010
Adobe Reader 8.1.3
Adobe Acrobat 9
Internet Explorer
Google Earth

Item 23
Appendices

Appendix A

Assay Certificates Rock Samples



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Acme Analytical Laboratories (Vancouver) Ltd.

PHONE (604) 253-3158

Client: **KDG Exploration Services**
1535 Westall Ave.
Victoria BC V8T 2G6 Canada

Submitted By: Ken Galambos
Receiving Lab: Canada-Vancouver
Received: December 14, 2012
Report Date: January 09, 2013
Page: 1 of 3

CERTIFICATE OF ANALYSIS

VAN12005821.1

CLIENT JOB INFORMATION

Project: Babine
Shipment ID: KDG-002
P.O. Number
Number of Samples: 30

SAMPLE DISPOSAL

DISP-PLP Dispose of Pulp After 90 days
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.

Invoice To: KDG Exploration Services
1535 Westall Ave.
Victoria BC V8T 2G6
Canada

CC: Ralph Keefe

SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Method Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
R200-250	30	Crush, split and pulverize 250 g rock to 200 mesh			VAN
G601	30	Lead Collection Fire - Assay Fusion - AAS Finish	30	Completed	VAN
1D01	30	1:1:1 Aqua Regia digestion ICP-ES analysis	0.5	Completed	VAN

ADDITIONAL COMMENTS



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. Results apply to samples as submitted. *** asterisk indicates that an analytical result could not be provided due to unusually high levels of interference from other elements.



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Acme Analytical Laboratories (Vancouver) Ltd.

PHONE (604) 253-3158

Client: **KDG Exploration Services**
 1535 Westall Ave.
 Victoria BC V8T 2G6 Canada

Project: Babine
 Report Date: January 09, 2013

Page: 2 of 3

Part: 1 of 1

CERTIFICATE OF ANALYSIS

VAN12005821.1

Method	WGHT	G6	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	
Analyte	Wgt	Au	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	
Unit	kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	
MDL	0.01	0.005	1	1	3	1	0.3	1	1	2	0.01	2	2	2	1	0.5	3	3	1	0.01	
G1	Prep Blank	<0.005	<1	<1	<3	45	<0.3	3	4	552	1.90	<2	<2	3	55	<0.5	<3	<3	36	0.42	
G1	Prep Blank	<0.005	<1	<1	<3	45	<0.3	3	4	549	1.92	<2	<2	4	63	<0.5	<3	<3	36	0.45	
42453	Rock	0.35	0.011	3	<1	<3	<1	<0.3	<1	<1	18	0.29	6	<2	15	11	<0.5	<3	<3	<1	0.02
42460	Rock	1.62	0.005	<1	8	4	40	<0.3	2	17	427	3.44	<2	<2	<2	70	<0.5	<3	<3	85	2.80
42461	Rock	1.01	0.006	<1	40	<3	53	<0.3	30	23	372	4.13	<2	<2	<2	111	<0.5	<3	<3	105	1.84
42462	Rock	1.63	<0.005	<1	45	5	74	<0.3	13	23	587	5.26	<2	<2	<2	135	<0.5	<3	<3	134	1.87
42463	Rock	0.50	0.008	3	380	8	61	0.7	15	7	267	4.88	43	<2	3	30	<0.5	<3	<3	98	0.30
42464	Rock	1.53	0.106	6	2767	4	63	1.5	63	11	231	2.96	3	<2	4	44	<0.5	<3	<3	30	1.15
42465	Rock	0.70	0.224	4	3390	11	256	1.5	115	70	937	3.92	5	<2	3	37	1.0	<3	<3	78	1.17
42466	Rock	1.62	<0.005	<1	10	4	73	<0.3	<1	14	771	4.89	<2	<2	<2	25	<0.5	<3	<3	74	2.06
45234	Rock	0.84	0.006	<1	121	<3	69	0.5	40	29	1077	6.14	<2	<2	<2	10	<0.5	<3	<3	295	3.12
45235	Rock	0.44	0.005	<1	82	5	49	<0.3	53	28	1658	5.12	7	<2	<2	218	0.6	<3	<3	162	13.31
192235	Rock	1.01	0.044	4	5	<3	15	1.2	<1	<1	31	0.58	201	<2	6	3	<0.5	<3	<3	2	<0.01
192236	Rock	1.40	<0.005	<1	9	4	42	<0.3	11	5	490	1.60	<2	<2	<2	15	<0.5	<3	<3	18	0.34
192237	Rock	1.23	0.024	4	22	13	41	44.1	<1	<1	29	1.42	11	<2	<2	6	<0.5	<3	<3	2	0.02
192238	Rock	1.75	0.014	10	2	<3	30	<0.3	<1	<1	130	0.72	161	<2	7	4	<0.5	<3	<3	<1	0.04
192239	Rock	0.78	<0.005	3	2	<3	16	<0.3	<1	<1	72	1.25	7	<2	10	19	<0.5	<3	<3	<1	0.04
192240	Rock	1.43	0.038	14	1	<3	11	0.6	<1	<1	159	0.62	64	<2	3	14	<0.5	<3	<3	1	0.17
192241	Rock	1.24	<0.005	<1	45	<3	140	0.3	83	27	896	5.12	6	<2	<2	51	<0.5	<3	<3	105	1.69
192242	Rock	0.68	0.119	45	2	6	16	1.3	<1	<1	17	1.18	362	<2	4	9	<0.5	<3	<3	<1	<0.01
192243	Rock	1.62	0.007	2	2	<3	34	<0.3	<1	<1	17	0.57	49	<2	8	5	<0.5	<3	<3	<1	0.04
192244	Rock	0.38	0.043	8	<1	<3	11	0.5	<1	<1	25	0.34	77	<2	6	3	<0.5	<3	<3	<1	<0.01
192245	Rock	0.85	<0.005	<1	1	3	66	<0.3	1	<1	1064	0.59	<2	<2	<2	10	<0.5	<3	<3	2	0.25
192246	Rock	2.58	0.014	<1	21	4	114	<0.3	9	12	1478	3.89	5	<2	<2	26	<0.5	<3	<3	68	5.33
1043968	Rock	1.85	0.013	<1	<1	7	36	0.5	<1	<1	623	0.52	<2	<2	3	32	<0.5	<3	<3	2	0.22
1043970	Rock	0.99	0.014	<1	3	7	98	<0.3	4	7	1116	3.08	28	<2	<2	56	0.6	<3	<3	16	1.89
1043971	Rock	2.40	0.032	226	6	5	5	0.4	16	452	204	6.41	15	<2	<2	4	<0.5	<3	<3	2	1.22
1043985	Rock	1.03	0.007	1	31	8	54	<0.3	59	23	1417	4.04	<2	<2	5	42	<0.5	<3	<3	34	3.81
1043986	Rock	1.15	<0.005	<1	2	5	54	<0.3	26	8	1035	1.96	<2	<2	<2	67	1.1	<3	<3	20	1.98
1043987	Rock	1.27	<0.005	2	<1	14	86	<0.3	<1	<1	415	1.47	6	<2	4	5	<0.5	<3	<3	<1	0.04

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Project: Babine
Report Date: January 09, 2013

Page: 2 of 3

Part: 2 of 1

CERTIFICATE OF ANALYSIS

VAN12005821.1

Method	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	
Analyte	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Tl	Hg	Ga	S	Sc	
Unit	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	
MDL	0.001	1	1	0.01	1	0.001	20	0.01	0.01	0.01	2	5	1	5	0.05	5	
G1	Prep Blank	0.080	8	9	0.58	230	0.124	<20	0.93	0.07	0.49	<2	<5	<1	<5	<5	
G1	Prep Blank	0.076	8	8	0.59	234	0.126	<20	0.99	0.09	0.52	<2	<5	<1	6	<0.05	<5
42453	Rock	0.004	18	4	<0.01	201	<0.001	<20	0.20	<0.01	0.29	<2	<5	<1	<5	0.11	<5
42460	Rock	0.134	5	3	1.17	50	0.134	<20	2.72	0.13	0.07	<2	<5	<1	8	<0.05	5
42461	Rock	0.105	5	26	1.84	47	0.119	<20	3.13	0.29	0.08	<2	<5	<1	9	0.73	<5
42462	Rock	0.145	7	10	1.75	71	0.161	<20	3.66	0.33	0.09	<2	<5	<1	11	0.07	<5
42463	Rock	0.126	19	50	1.61	332	0.102	<20	1.80	0.06	0.34	<2	<5	<1	8	0.60	6
42464	Rock	0.100	3	14	0.61	200	0.002	<20	0.44	0.04	0.20	<2	<5	<1	<5	1.82	<5
42465	Rock	0.148	34	39	1.17	193	0.005	<20	1.38	0.03	0.24	<2	<5	<1	8	1.59	<5
42466	Rock	0.240	10	<1	1.59	29	0.139	<20	2.84	0.06	0.06	<2	<5	<1	14	<0.05	8
45234	Rock	0.051	2	79	2.81	74	0.465	<20	3.68	0.06	0.02	<2	<5	<1	15	<0.05	35
45235	Rock	0.229	12	137	2.95	38	0.015	<20	3.00	<0.01	0.17	<2	<5	<1	13	<0.05	15
192235	Rock	0.004	25	9	0.02	31	0.004	<20	0.19	0.01	0.21	<2	<5	<1	<5	0.29	<5
192236	Rock	0.038	10	10	0.35	89	0.049	<20	0.85	0.03	0.16	<2	<5	<1	<5	<0.05	<5
192237	Rock	0.003	11	9	0.01	22	<0.001	<20	0.16	<0.01	0.11	<2	<5	<1	<5	0.74	<5
192238	Rock	0.025	19	4	<0.01	34	0.001	<20	0.16	0.04	0.08	<2	<5	<1	<5	0.29	<5
192239	Rock	0.011	29	3	0.01	163	0.002	<20	0.26	0.03	0.13	<2	<5	<1	<5	0.35	<5
192240	Rock	0.005	20	6	0.07	266	<0.001	<20	0.25	<0.01	0.17	<2	<5	<1	<5	<0.05	<5
192241	Rock	0.216	10	190	3.10	140	0.178	<20	3.39	0.08	0.03	<2	<5	<1	17	0.19	5
192242	Rock	0.006	25	3	<0.01	74	<0.001	<20	0.18	<0.01	0.22	<2	<5	<1	<5	1.04	<5
192243	Rock	0.007	26	3	<0.01	26	0.002	<20	0.15	0.04	0.08	<2	<5	<1	<5	<0.05	<5
192244	Rock	0.004	21	8	<0.01	47	0.001	<20	0.18	<0.01	0.20	<2	<5	<1	<5	<0.05	<5
192245	Rock	0.015	20	5	0.16	170	<0.001	<20	0.50	0.04	0.16	<2	<5	<1	<5	<0.05	<5
192246	Rock	0.068	13	18	0.70	35	0.003	<20	0.81	0.03	0.08	<2	<5	<1	5	0.18	11
1043968	Rock	0.014	3	2	0.01	166	<0.001	<20	0.28	0.03	0.18	<2	<5	<1	<5	<0.05	<5
1043970	Rock	0.113	18	5	0.85	116	<0.001	<20	1.21	0.04	0.13	<2	<5	<1	6	2.50	<5
1043971	Rock	0.002	<1	15	0.13	9	0.007	<20	0.75	<0.01	0.01	<2	<5	<1	<5	6.67	<5
1043985	Rock	0.120	17	43	1.31	121	<0.001	<20	2.61	0.04	0.12	<2	<5	<1	7	<0.05	<5
1043986	Rock	0.016	2	12	0.67	24	0.003	<20	1.02	<0.01	0.01	<2	<5	<1	<5	<0.05	<5
1043987	Rock	<0.001	47	10	<0.01	24	0.006	<20	0.51	0.06	0.15	<2	<5	<1	<5	0.06	<5

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.



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Project: Babine
Report Date: January 09, 2013

Page: 3 of 3

Part: 1 of 1

CERTIFICATE OF ANALYSIS

VAN12005821.1

Method	WGHT	G6	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	
Analyte	Wgt	Au	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	
Unit	kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	
MDL	0.01	0.005	1	1	3	1	0.3	1	1	2	0.01	2	2	2	1	0.5	3	3	1	0.01	
1043988	Rock	1.53	<0.005	<1	14	<3	5	<0.3	<1	<1	18	0.51	19	<2	5	8	<0.5	<3	<3	<1	0.02
1043989	Rock	0.39	0.027	15	1	<3	<1	0.4	<1	<1	34	0.31	35	<2	5	7	<0.5	<3	<3	1	0.02



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Victoria BC V8T 2G6 Canada

Project: Babine
Report Date: January 09, 2013

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CERTIFICATE OF ANALYSIS

VAN12005821.1

Method	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	
Analyte	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Tl	Hg	Ga	S	Sc	
Unit	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	
MDL	0.001	1	1	0.01	1	0.001	20	0.01	0.01	0.01	2	5	1	5	0.05	5	
1043988	Rock	0.006	31	3	<0.01	97	<0.001	<20	0.21	<0.01	0.23	<2	<5	<1	<5	<0.05	<5
1043989	Rock	0.005	23	3	<0.01	63	<0.001	<20	0.21	<0.01	0.19	<2	<5	<1	<5	<0.05	<5



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QUALITY CONTROL REPORT

VAN12005821.1

Method	WGHT	G6	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	
Analyte	Wgt	Au	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	
Unit	kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	
MDL	0.01	0.005	1	1	3	1	0.3	1	1	2	0.01	2	2	2	1	0.5	3	3	1	0.01	
Pulp Duplicates																					
192242	Rock	0.68	0.119	45	2	6	16	1.3	<1	<1	17	1.18	362	<2	4	9	<0.5	<3	<3	<1	<0.01
REP 192242	QC			45	2	8	16	1.3	<1	<1	18	1.18	365	<2	3	8	<0.5	<3	<3	<1	0.01
192245	Rock	0.85	<0.005	<1	1	3	66	<0.3	1	<1	1064	0.59	<2	<2	<2	10	<0.5	<3	<3	2	0.25
REP 192245	QC		<0.005																		
Core Reject Duplicates																					
1043971	Rock	2.40	0.032	226	6	5	5	0.4	16	452	204	6.41	15	<2	<2	4	<0.5	<3	<3	2	1.22
DUP 1043971	QC		0.025	226	7	3	5	0.3	17	433	222	6.17	15	<2	<2	5	<0.5	<3	<3	3	1.19
Reference Materials																					
STD DS9	Standard			12	106	129	331	1.6	39	7	571	2.40	28	<2	6	71	2.5	5	6	40	0.72
STD OREAS45EA	Standard			2	718	24	30	0.4	399	53	408	24.38	10	<2	7	4	<0.5	<3	<3	314	0.03
STD OXG99	Standard		0.971																		
STD OXG99	Standard		1.010																		
STD OXG99	Standard		1.017																		
STD OXK94	Standard		3.309																		
STD OXK94	Standard		3.531																		
STD DS9 Expected				12.84	108	126	317	1.83	40.3	7.6	575	2.33	25.5	0.118	6.38	69.6	2.4	4.94	6.32	40	0.7201
STD OREAS45EA Expected				1.78	709	14.3	30.6	0.311	357	52	400	22.65	11.4	0.053	10.7	4.05				295	0.032
STD OXK94 Expected				3.562																	
STD OXG99 Expected				0.932																	
BLK	Blank			<1	<1	<3	<1	<0.3	<1	<1	<2	<0.01	<2	<2	<2	<1	<0.5	<3	<3	<1	<0.01
BLK	Blank		<0.005																		
BLK	Blank		<0.005																		
BLK	Blank		0.005																		
BLK	Blank		<0.005																		
BLK	Blank		<0.005																		
Prep Wash																					
G1	Prep Blank		<0.005	<1	<1	<3	45	<0.3	3	4	552	1.90	<2	<2	3	55	<0.5	<3	<3	36	0.42
G1	Prep Blank		<0.005	<1	<1	<3	45	<0.3	3	4	549	1.92	<2	<2	4	63	<0.5	<3	<3	36	0.45

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.



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Project: Babine
Report Date: January 09, 2013

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QUALITY CONTROL REPORT

VAN12005821.1

Method		1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	
Analyte		P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Tl	Hg	Ga	S	
Unit		%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	
MDL		0.001	1	1	0.01	1	0.001	20	0.01	0.01	0.01	2	5	1	5	0.05	
Pulp Duplicates																	
192242	Rock	0.006	25	3	<0.01	74	<0.001	<20	0.18	<0.01	0.22	<2	<5	<1	<5	1.04	<5
REP 192242	QC	0.006	25	5	<0.01	73	0.001	<20	0.18	<0.01	0.22	<2	<5	<1	<5	1.02	<5
192245	Rock	0.015	20	5	0.16	170	<0.001	<20	0.50	0.04	0.16	<2	<5	<1	<5	<0.05	<5
REP 192245	QC																
Core Reject Duplicates																	
1043971	Rock	0.002	<1	15	0.13	9	0.007	<20	0.75	<0.01	0.01	<2	<5	<1	<5	6.67	<5
DUP 1043971	QC	0.002	<1	13	0.14	10	0.008	<20	0.77	<0.01	0.01	<2	<5	<1	<5	6.35	<5
Reference Materials																	
STD DS9	Standard	0.084	12	117	0.63	331	0.107	<20	0.95	0.08	0.41	3	<5	<1	<5	0.17	<5
STD OREAS45EA	Standard	0.030	7	933	0.09	161	0.095	<20	3.07	0.03	0.05	<2	<5	<1	8	<0.05	87
STD OXG99	Standard																
STD OXG99	Standard																
STD OXG99	Standard																
STD OXK94	Standard																
STD OXK94	Standard																
STD DS9 Expected		0.0819	13.3	121	0.6165	330	0.1108		0.9577	0.0853	0.395	2.89	5.3	0.2	4.59	0.1615	2.5
STD OREAS45EA Expected		0.029	8.19	849	0.095	148	0.106		3.32	0.027	0.053			0.34	11.7	0.044	78
STD OXK94 Expected																	
STD OXG99 Expected																	
BLK	Blank	<0.001	<1	<1	<0.01	<1	<0.001	<20	<0.01	<0.01	<0.01	<2	<5	<1	<5	<0.05	<5
BLK	Blank																
BLK	Blank																
BLK	Blank																
BLK	Blank																
BLK	Blank																
Prep Wash																	
G1	Prep Blank	0.080	8	9	0.58	230	0.124	<20	0.93	0.07	0.49	<2	<5	<1	<5	<0.05	<5
G1	Prep Blank	0.076	8	8	0.59	234	0.126	<20	0.99	0.09	0.52	<2	<5	<1	6	<0.05	<5

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Appendix B

Assay Certificates Silt Samples



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Acme Analytical Laboratories (Vancouver) Ltd.

PHONE (604) 253-3158

Client: **KDG Exploration Services**
1535 Westall Ave.
Victoria BC V8T 2G6 Canada

Submitted By: Ken Galambos
Receiving Lab: Canada-Vancouver
Received: December 14, 2012
Report Date: January 09, 2013
Page: 1 of 2

CERTIFICATE OF ANALYSIS

VAN12005823.1

CLIENT JOB INFORMATION

Project: Babine
Shipment ID: KDG-002
P.O. Number
Number of Samples: 4

SAMPLE DISPOSAL

DISP-PLP Dispose of Pulp After 90 days
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.

Invoice To: KDG Exploration Services
1535 Westall Ave.
Victoria BC V8T 2G6
Canada

CC: Ralph Keefe

SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Method Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
S230	2	Sieve soil to 230 mesh			VAN
1DX3	2	1:1:1 Aqua Regia digestion ICP-MS analysis	30	Completed	VAN
DISP2	2	Heat treatment of Soils and Sediments			VAN

ADDITIONAL COMMENTS



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. Results apply to samples as submitted. *** asterisk indicates that an analytical result could not be provided due to unusually high levels of interference from other elements.



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PHONE (604) 253-3158

Client: **KDG Exploration Services**
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Project: Babine
Report Date: January 09, 2013

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CERTIFICATE OF ANALYSIS

VAN12005823.1

	Method Analyte Unit MDL	WGHT	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30
		Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P
		kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	%	%
		0.01	0.1	0.1	0.1	1	0.1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01
143967	Silt	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.
143969	Silt	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.
1043967	Silt		15.9	328.7	43.1	380	0.6	16.6	25.3	1405	4.54	19.7	44.7	5.8	93	1.9	1.1	2.7	84	0.59	0.112
1043969	Silt		1.8	48.9	26.8	184	0.2	28.7	16.5	1190	3.86	19.6	16.3	1.8	39	1.1	0.7	0.6	71	0.54	0.076



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Part: 2 of 1

CERTIFICATE OF ANALYSIS

VAN12005823.1

Method	Analyte	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30
		La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te
		ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
		MDL	1	1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5
143967	Silt	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.
143969	Silt	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.
1043967	Silt	11	27	0.71	185	0.081	2	1.86	0.030	0.21	2.0	0.03	5.3	0.2	0.22	6	0.8	0.7
1043969	Silt	9	24	0.83	125	0.063	2	1.84	0.048	0.09	0.3	0.03	5.8	<0.1	<0.05	6	<0.5	<0.2



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QUALITY CONTROL REPORT

VAN12005823.1

Method	WGHT	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30
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	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	
MDL	0.01	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001	
Pulp Duplicates																					
1043969	Silt	1.8	48.9	26.8	184	0.2	28.7	16.5	1190	3.86	19.6	16.3	1.8	39	1.1	0.7	0.6	71	0.54	0.076	
REP 1043969	QC	1.8	47.5	27.0	188	0.2	30.1	16.8	1232	4.00	19.7	7.3	1.8	41	1.1	0.7	0.5	73	0.56	0.076	
Reference Materials																					
STD DS9	Standard	12.4	104.7	121.4	300	1.5	38.3	7.2	552	2.22	24.5	114.4	6.3	72	2.5	5.1	6.1	39	0.67	0.084	
STD DS9 Expected		12.84	108	126	317	1.83	40.3	7.6	575	2.33	25.5	118	6.38	69.6	2.4	4.94	6.32	40	0.7201	0.0819	
BLK	Blank	<0.1	0.3	<0.1	<1	<0.1	<0.1	<0.1	<1	0.02	<0.5	<0.5	<0.1	<1	<0.1	<0.1	<0.1	<2	<0.01	<0.001	



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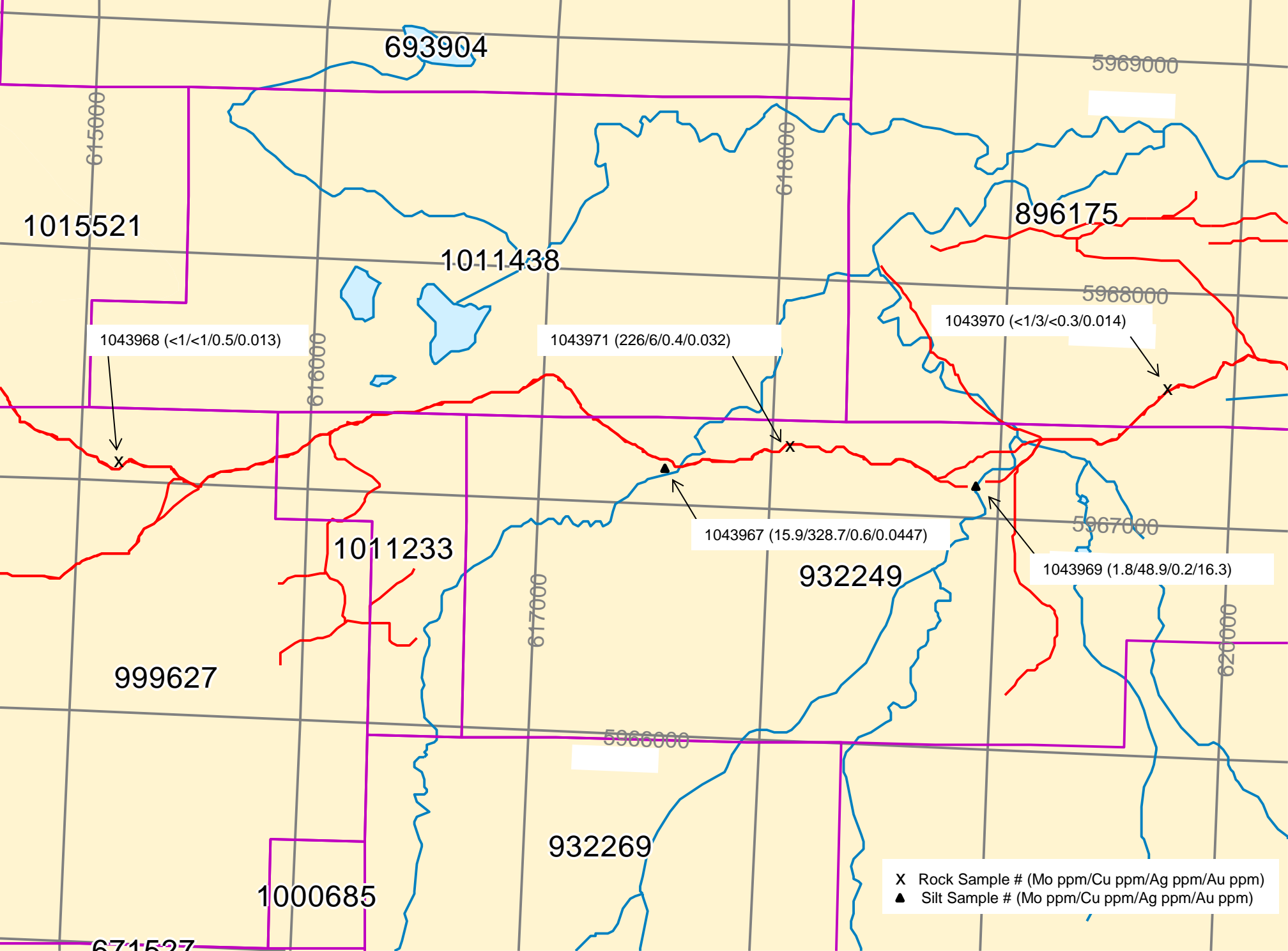
QUALITY CONTROL REPORT

VAN12005823.1

Method	Analyte	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	
		La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te
Unit		ppm	ppm	%	ppm	%	ppm	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	
MDL		1	1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.05	1	0.5	0.2	
Pulp Duplicates																		
1043969	Silt	9	24	0.83	125	0.063	2	1.84	0.048	0.09	0.3	0.03	5.8	<0.1	<0.05	6	<0.5	<0.2
REP 1043969	QC	9	25	0.82	126	0.067	1	1.88	0.047	0.10	0.2	0.02	6.0	<0.1	<0.05	6	0.7	0.2
Reference Materials																		
STD DS9	Standard	13	116	0.60	287	0.113	3	0.88	0.076	0.37	2.6	0.18	2.4	4.9	0.15	4	5.1	4.8
STD DS9 Expected		13.3	121	0.6165	295	0.1108		0.9577	0.0853	0.395	2.89	0.2	2.5	5.3	0.1615	4.59	5.2	5.02
BLK	Blank	<1	<1	<0.01	<1	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2

Appendix C

Sample Location Map



X Rock Sample # (Mo ppm/Cu ppm/Ag ppm/Au ppm)
▲ Silt Sample # (Mo ppm/Cu ppm/Ag ppm/Au ppm)