

Ministry of Energy & Mines  
Energy & Minerals Division  
Geological Survey Branch

**ASSESSMENT REPORT  
TITLE PAGE AND SUMMARY**

TITLE OF REPORT [type of survey(s)] <u>Geochemical + Prospecting</u>		TOTAL COST <u>\$ 8,000</u>
AUTHOR(S) <u>J.T. Shearer M.Sc. P. Geol.</u>	SIGNATURE(S) <u>[Signature]</u>	
NOTICE OF WORK PERMIT NUMBER(S)/DATE(S)		YEAR OF WORK <u>2012</u>
STATEMENT OF WORK - CASH PAYMENT EVENT NUMBER(S)/DATE(S)		<u>EVENT #5393403</u>
PROPERTY NAME <u>Copper Queen North</u>		
CLAIM NAME(S) (on which work was done) <u>Copper Queen Five, Copper Queen Six Copper Queen Nine</u>		
COMMODITIES SOUGHT <u>Au/Ag</u>		
MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN		
MINING DIVISION		NTS <u>82M/1</u>
LATITUDE <u>51° 14'</u>	LONGITUDE <u>118° 12'</u> (at centre of work)	
OWNER(S)		
1) <u>J.T. Shearer</u>		2)
MAILING ADDRESS <u>Unit 5-2330 Tyler St Pt Cowichan BC V3C 2R1</u>		
OPERATOR(S) [who paid for the work]		
1) <u>As Above</u>		2)
MAILING ADDRESS <u>As Above</u>		
PROPERTY GEOLOGY KEYWORDS (lithology, age, stratigraphy, structure, alteration, mineralization, size and attitude): <u>NE dipping succession of grey weathering dolostone and limestone (Badshot Fm) and overlying black graphitic phyllite, rusty quartzite and green phyllite of the Index Fm (Cambrian), immediately Northwest of the JTL Gold Mine</u>		
REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS <u>Access Rpt 6235, (1977)</u>		

TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (IN METRIC UNITS)	ON WHICH CLAIMS	PROJECT COSTS APPORTIONED (incl. support)
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GEOLOGICAL (scale, area)

Ground, mapping \_\_\_\_\_

Photo interpretation \_\_\_\_\_

GEOPHYSICAL (line-kilometres)

Ground

Magnetic \_\_\_\_\_

Electromagnetic \_\_\_\_\_

Induced Polarization \_\_\_\_\_

Radiometric \_\_\_\_\_

Seismic \_\_\_\_\_

Other \_\_\_\_\_

Airborne \_\_\_\_\_

GEOCHEMICAL  
(number of samples analysed for ...)

Soil \_\_\_\_\_

Silt \_\_\_\_\_

Rock \_\_\_\_\_

Other \_\_\_\_\_

# 8,000

DRILLING  
(total metres; number of holes, size)

Core \_\_\_\_\_

Non-core \_\_\_\_\_

RELATED TECHNICAL

Sampling/assaying \_\_\_\_\_

Petrographic \_\_\_\_\_

Mineralographic \_\_\_\_\_

Metallurgic \_\_\_\_\_

PROSPECTING (scale, area) \_\_\_\_\_

PREPARATORY/PHYSICAL

Line/grid (kilometres) \_\_\_\_\_

Topographic/Photogrammetric  
(scale, area) \_\_\_\_\_

Legal surveys (scale, area) \_\_\_\_\_

Road, local access (kilometres)/trail \_\_\_\_\_

Trench (metres) \_\_\_\_\_

Underground dev. (metres) \_\_\_\_\_

Other \_\_\_\_\_

TOTAL COST # 8,000

**GEOCHEMICAL ASSESSMENT REPORT  
on the  
COPPER QUEEN NORTH PROPERTY  
SOUTHEAST BRITISH COLUMBIA  
CANADA**

**NTS 82M/1  
51°14'N Latitude, 118°12'W Longitude  
EVENT # 5393403**

**BC Geological Survey  
Assessment Report  
33791**

for

**SIGNATURE RESOURCES LTD.**

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Vancouver, British Columbia  
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by

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**July 10, 2012**

**Work completed between January 15 and July 11, 2012**

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## SUMMARY

The Columbia Queen Property is located in the Big Bend area of the northern Selkirk Mountains of southeastern British Columbia, approximately 30 kilometres north of the town of Revelstoke. The property is centered at 51°14'N latitude and 118°12'W longitude on NTS map sheet 82M/1 in the Revelstoke Mining Division. The northern part of the property is accessible via logging roads that connect to the Carnes Creek forest service road.

The main mineral occurrence on the Columbia Queen property is the old Copper Queen showing that was probably found by prospectors in the early 1900's. This showing is hosted by Late Proterozoic or Early Paleozoic metasedimentary and metavolcanic rocks. The Copper Queen mineralization consists of stratabound disseminations and lenses of chalcopyrite, sphalerite, pyrite, malachite and azurite in weakly to moderately calcareous, quartz-biotite +/- muscovite schist, quartz hornblende-biotite schist and minor chlorite schist.

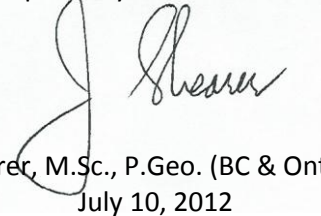
In August 2010, Signature Resources contracted Geotech Inc. to fly a helicopter-borne Versatile Time Domain Electromagnetic (VTEM) and aeromagnetic geophysical survey over the property. This work defined 3 areas of anomalous conductivity referred to in this report as the northeast, central and southeast anomalies. In early September the author and a two-person geochemical sampling crew under the direction of Craig Lynes of Rich River Exploration spent 6 days prospecting and soil, silt and rock geochemical sampling in the area covered by these anomalies. Although this work failed to locate any new showings or produce any significant soil anomalies that correspond with the area of elevated conductivity as defined by the VTEM survey, there is extensive cover in the area of the central and southeast anomalies and the possibility of a hidden or "blind" deposit that does not come to surface cannot be ruled out. The northeast anomaly appears to be due to the presence of Index Formation graphitic schists. The central and southeast anomalies are not as easily explained. No conductive rocks were noted on surface and the cause of the elevated conductivity remains unknown. More work is required to fully evaluate these areas.

Work in 2012 consisted of soil sampling and prospecting the south slope of the Columbia Queen North Claims. Access with through the J+L road system.

Only one sample returned any anomalous values (sample QUDS10) which returned 190ppm As and 17ppb Au.

No rock exposures were noted on the traverses at lower elevations.

Respectfully submitted



J. T. Shearer, M.Sc., P.Geo. (BC & Ontario)  
July 10, 2012



## INTRODUCTION

This Assessment Report has been prepared at the request of Signature Resources Ltd. The author has been asked to review all data pertaining to the property and to prepare a technical report that describes historical work completed on the property, reviews the results of recent airborne geophysical and geochemical surveys and makes recommendations for further work if warranted.

In preparing this report, the author has reviewed the geological, geophysical and geochemical reports, maps and miscellaneous papers listed in the References section of this report. Information used in the preparation of this report includes a number of publically available reports filed by Orphan Boy Resources Inc. ("Orphan Boy") for assessment credit with the B.C. Ministry of Energy, Mines and Petroleum Resources. These reports contain detailed information on the results of diamond drilling, prospecting, lithochemical and soil geochemical sampling conducted on the property.



## **PROPERTY DESCRIPTION and LOCATION**

The Columbia Queen Property is located in the Big Bend area of the northern Selkirk Mountains of southeastern British Columbia, approximately 30 kilometres north of the town of Revelstoke. The property is centered at 51°14'N latitude and 118°12'W longitude on NTS map sheet 82M/1 in the Revelstoke Mining Division.

## MINERAL TENURES

The mineral tenures comprising the Columbia Queen property are shown in Figure 2 and listed in Table 1. The claim map shown in Figure 2 was generated from GIS spatial data downloaded from the Government of BC, Integrated Land Management Branch (ILMB), Land and Resource Data Warehouse (LRDW) data discovery and retrieval system (<http://archive.ilmb.gov.bc.ca/lrdw/>). These spatial layers are generated by the Mineral-Titles-Online (MTO) electronic staking system that is used to locate and record mineral tenures in British Columbia.

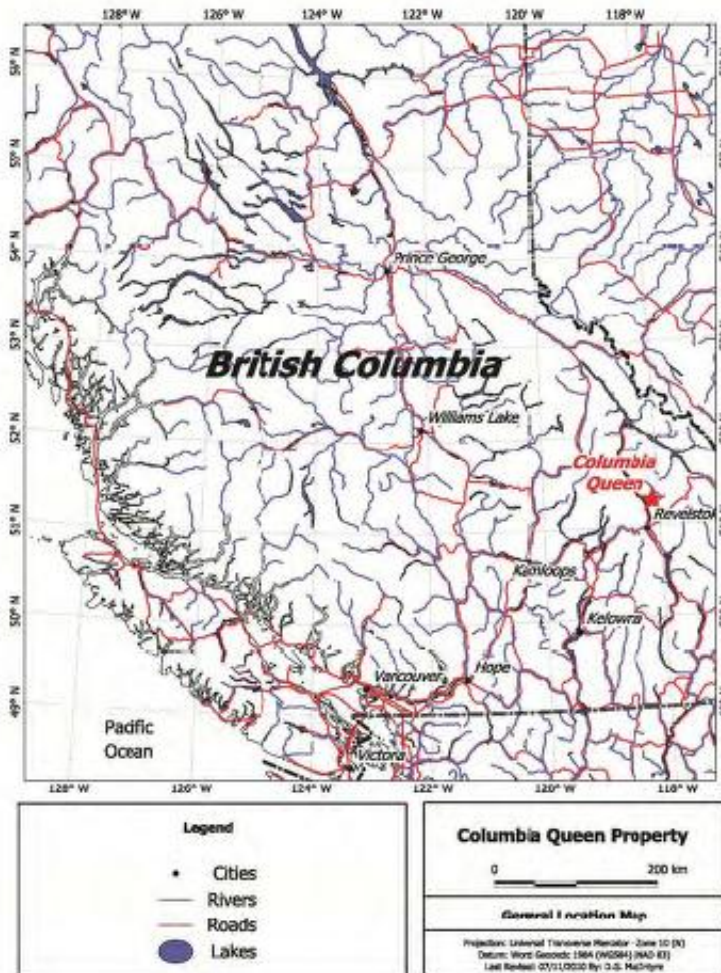


Figure 1. General location map, Columbia Queen Property, southern British Columbia.

Claim details given in Table 1 were obtained using an online mineral tenure search engine available on the Province of BC Mineral Tenures Online web site. All claims listed in the table are in the Revelstoke Mining Division within NTS map sheet 82M/01E and BC Map Sheets 82M029, 82M030 and 82M040.

**TABLE 1**  
**List of Claims**

<b>Claim Name</b>	<b>Tenure Number</b>	<b>Area (ha)</b>	<b>Date Located</b>	<b>Current Anniversary Date</b>	<b>Owner</b>
Copper Queen Nine	832503	242.41	August 31, 2010	July 31, 2017	J. T. Shearer
Copper Queen Five	685063	484.97	December 14, 2009	July 31, 2018	J. T. Shearer
Copper Queen Six	696143	20.21	January 7, 2010	July 31, 2018	J. T. Shearer

Total 747.59 ha

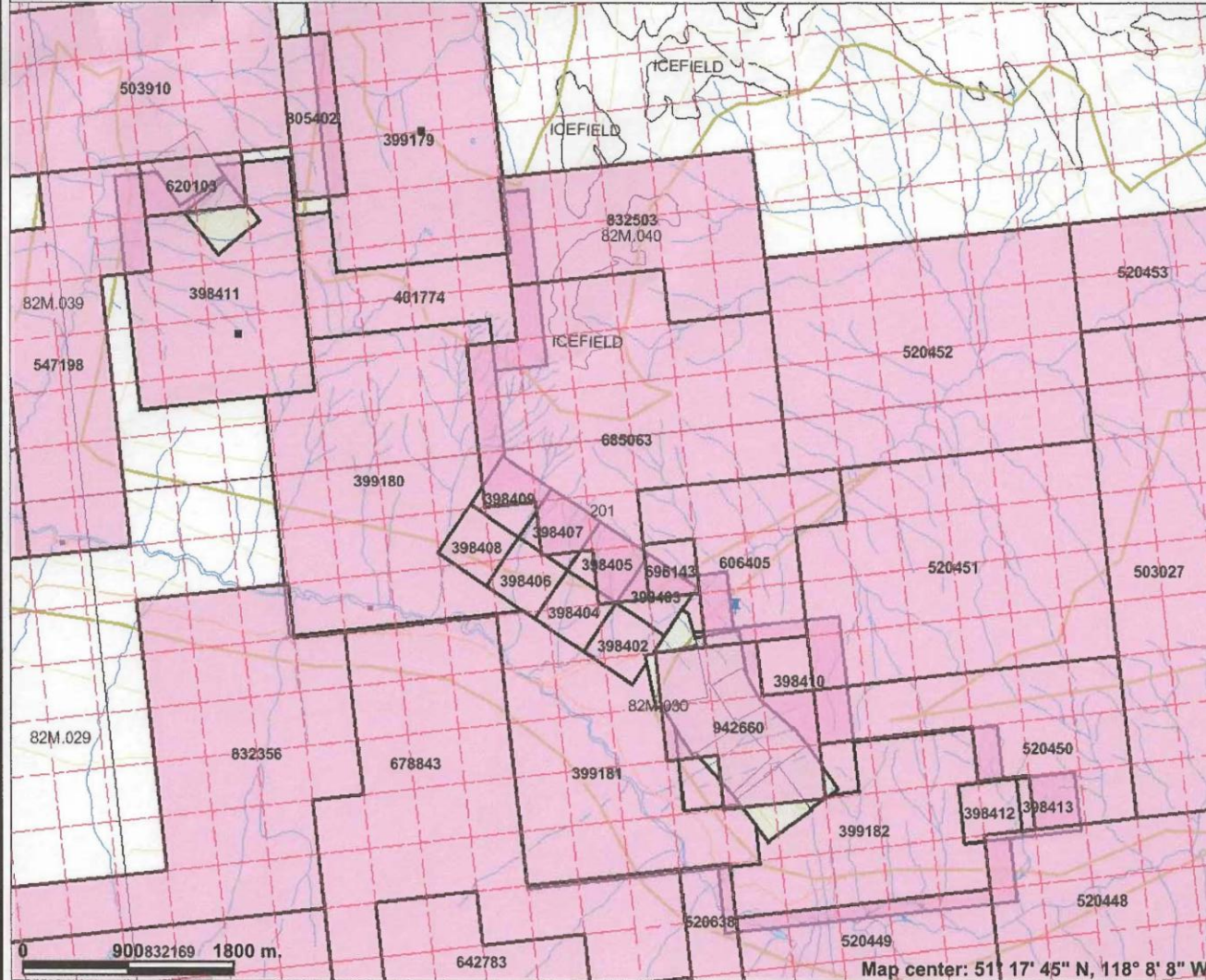
Under the present status of mineral claims in British Columbia, the consideration of industrial minerals requires careful designation of the product end use. An industrial mineral is a rock or naturally occurring substance that can be mined and processed for its unique qualities and used for industrial purposes (as defined in the *Mineral Tenure Act*). It does not include "Quarry Resources". Quarry Resources includes earth, soil, marl, peat, sand and gravel, and rock, rip-rap and stone products that are used for construction purposes (as defined in the *Land Act*). Construction means the use of rock or other natural substances for roads, buildings, berms, breakwaters, runways, rip-rap and fills and includes crushed rock. Dimension stone means any rock or stone product that is cut or split on two or more sides, but does not include crushed rock.

Claims require \$4 of assessment work per ha (or cash-in-lieu) each of the first three years and \$8 per ha each year after.

#### Environmental Liabilities

There has not been any mining or other exploration related physical disturbances, such as trenching or road building, done on the Columbia Queen property to date. Any previous clearings for drill sites have long since grown over. All of the roads on the property have been built to support logging activities and are not the responsibility of the tenure holders. The author is not aware of any environmental issues or liabilities related to historical exploration activities that would have an impact on future exploration of the property.

# Columbia Queen North Claims



## Legend

- MINFILE Status**
- ✦ Producer
  - ✦ Past Producer
  - ✦ Developed Prospect
  - All others
- Mineral Reserves (current)**
- Placer Claim Designation
  - Placer Lease Designation
  - No Staking Reserve
  - Conditional Reserve
  - Release Required Reserve
  - Surface Restriction
  - Recreation Area
  - Others
- Mineral Reserves (current)**
- First Nations Treaty Related Lands
  - First Nations Treaty Lands
  - Survey Parcels
  - BCGS Grid
  - Contours (1:250K)
  - Contour - Index
  - Contour - Intermediate
- Other Land Status**
- Indian Reserves
  - National Parks
  - Conservancy Areas
  - Parks
  - Federal Transfer Lands
  - MTO Grid (MTO)
  - Mineral Tenure (current)
  - Mineral Claim
  - Mineral Lease

This map is a user generated static output from an Internet mapping site and is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. THIS MAP IS NOT TO BE USED FOR NAVIGATION.

## **ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY**

The Copper Queen Property is located in the Big Bend area of the northern Selkirk Mountains of southeastern British Columbia, approximately 30 kilometres north of the town of Revelstoke. Revelstoke is on the Transcanada Highway about 6 hours driving time from Vancouver, British Columbia. Access from Revelstoke is via the Big Bend Highway (Highway 23) past La Forme Creek where logging roads provide access to the southwestern part of the property and northward to the next major drainage of Carne Creek where a network of logging roads provides access to the northernmost claims.

The geochemical sampling that was done in September 2010 as a follow up to the airborne VTEM survey flown by Geotech required helicopter support. Helicopters are based at Revelstoke, a flying distance of 27 kilometres from the Copper Queen showing.

The property is situated in the interior rain belt which supports dense stands of cedar, hemlock, balsam and spruce with local areas of dense slide alder and devils club.

Temperatures range from -15°C in the winter to +30°C in the summer. Thick accumulations of snow occur from November to May.

## HISTORY

The following description of the history of the Columbia Queen North property is modified from an earlier technical report by Dr. Peter Christopher (Christopher, 1999).

The Mastodon zinc-lead-silver deposits, about 4 km southeast of the Copper Queen North prospect, were discovered in 1898, and prospectors of the time probably knew of the malachite stained cliff at the Copper Queen. The first work on the Copper Queen was reported in the early 1900's, and sometime before 1965 three drill holes tested the showings, but no records of the results of this work were recorded.

In 1966, the S Group, consisting of 60 two-post claims, was staked for Clearwater Mines Ltd. of Bathurst, N.B. Clearwater used five diamond drill holes, totalling 434.34 metres (1,425 feet), to test the occurrence. Holes CQ-1 and CQ-2 were collared on a bench approximately 300m to the east of the showings, but apparently failed to reach bedrock. Holes CQ-3, CQ-4, and CQ-5 were collared at an old drill site just above the main showings and fan drilled on a N20°W section line from a single setup. All three holes had intersections of copper and zinc mineralization over significant core lengths. Hole CQ-3 (a vertical hole) was reported to be well mineralized from 34.14m (112ft) to about 62.8m (206ft), but only visual estimates of grade were reported (George Cross Newsletter No. 114, June 14, 1966; Certificate of Work filed Feb. 7, 1967). Hole CQ-4 contained intersections from 51.8m to 62.5m (170ft to 205ft) and 68.6m to 82.3m (225ft to 270ft ) averaging 0.6% Cu and 0.47% Cu, respectively (George Cross Newsletter No. 131, July 8, 1966). Hole CQ-5 was reported to contain a 29.9m (98ft) section between 57.0m to 86.9m (187ft to 285ft) with grades running between 0.45% Cu and 1.14% Cu (George Cross Newsletter No. 137, July 18, 1966). This intersection was reported to have a true width of 18.3m (60ft). Grid drilling, reported to be planned by Clearwater, was never undertaken.

In 1976 Kerr Addison Mines Ltd. held the property and conducted a program of soil and silt sampling and geological mapping which defined a northwest-southeast trending coincident copper, zinc and lead soil anomaly with a 600 metre length on the CC9 claim. The anomalous trend was open to the southeast. The Copper Queen showing was mapped as a 6 metre thick layer of calcareous metavolcanic rocks with malachite, sphalerite, chalcopyrite, and pyrite mineralization (Lund and Hajek, 1976). Kerr Addison drilled four BQ holes totalling 775.3 metres on units 13 and 14 of the CC9 claim, but specific locations and results were not reported (Exploration in B.C. 1977, pp. E66-E67).

In 1999, the management of Orphan Boy Resources Inc. recognized that the Copper Queen prospect was unstaked. The CQ 1 and CQ 2 claims were staked in July for Orphan Boy and Crest Geological Consultants retained to conduct an exploration program. During the period July to October 1999, an exploration program, consisting of 8.5 km of flagged grid lines with 25m stations on lines spaced at 50m to 150m, collection and analyzing of 312 soil samples and 16 rock samples, limited geological mapping and prospecting, was conducted at a cost of \$32,500 (Payne, 1999). Geochemical samples were analyzed for 36 elements by ICP and mass spectrometry techniques at Acme Analytical Laboratories Ltd. This sampling resulted in the delineation of strong Cu and Zn soil anomalies down slope from the Copper Queen showings.

## REGIONAL GEOLOGY

The following description of the regional geology is extracted from an earlier qualifying report by Dr. P.A. Christopher (1999).

The Big Bend area of the Northern Selkirk Mountains, part of the eastern marginal area of the Omineca Tectonic Belt, is situated between the fold and thrust-fault belt of the southern Canadian Rockies on the East, and the Shuswap Metamorphic Complex in the west (Figure 3). The Big Bend area is underlain by strongly deformed Neoproterozoic to Late Paleozoic metasedimentary and metavolcanic rocks of the Kootenay Terrane which have been intruded by a number of granitic plutons. The Shuswap Complex is separated from the rocks of the Big Bend area by the east-dipping normal Columbia River fault zone, a major extensional fault of Eocene age.

The northern Selkirk Mountains form part of a large, tectonically transported block (allochthon) that was displaced eastward along the Monashee decollement (shallow slide or fault zone) for 200 to 300 kilometres (Brown et al., 1986). The sliding resulted in a complex pattern of folding and faulting that is dominated to the east of the Downie Creek and Standfast Creek faults by the northwest trending Selkirk fan structure. The Selkirk fan is terminated in the Rocky Mountain fold and thrust belt by the northeast-verging Purcell thrust.

The majority of the known mineral occurrences in the Big Bend area are situated west of the Selkirk Fan structure axis and to the west of the Downie Creek and Standfast fault systems. Recent government mapping studies (Logan and Drobe, 1994; Logan et al., 1995, 1996) and university thesis projects (Lane, 1977 and 1984; McKinlay, 1987) have provided definition to the areas stratigraphy as outlined by earlier workers (Gunning, 1929; Wheeler, 1965; and Höy, 1979). The stratigraphy of the zone has been summarized by Logan and Colpron (1995) as shown in Figure 4. Proterozoic rocks are represented by metasedimentary rocks of the Horsethief Creek Group, and Lower Paleozoic rocks are represented by metasedimentary and metavolcanic rocks of the Hamill Group overlain by Badshot Formation and in turn by metasedimentary and metavolcanic rocks of the Lardeau Group. The lithologic similarities between the Horsethief Creek, Hamill and Lardeau groups, and intense deformation and metamorphism have complicated both local and regional correlation.

The Horsethief Creek Group in the northern Selkirk Mountains has been subdivided into three members by Brown et al. (1977, 1978): the lower pelitic, middle marble, and upper pelitic members with further subdivision of the upper pelitic member into three assemblages.

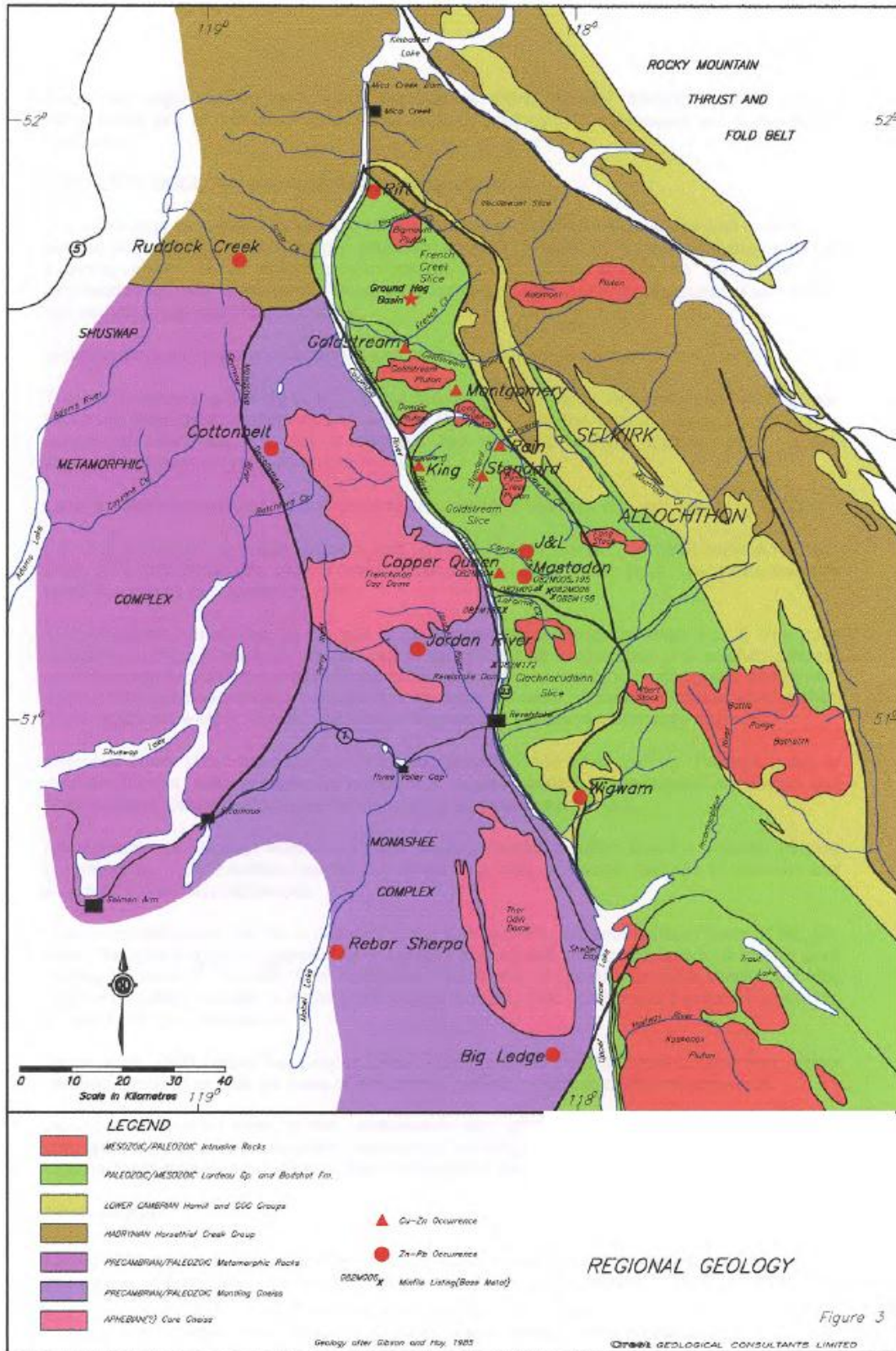


Figure 3. Regional geology, Columbia Queen (Copper Queen) Property. Geology after Gibson and Höy, 1985. Cartography by Crest Geological Consultants Ltd. for Orphan Boy Resources Inc.



# BIG BEND STRATIGRAPHY

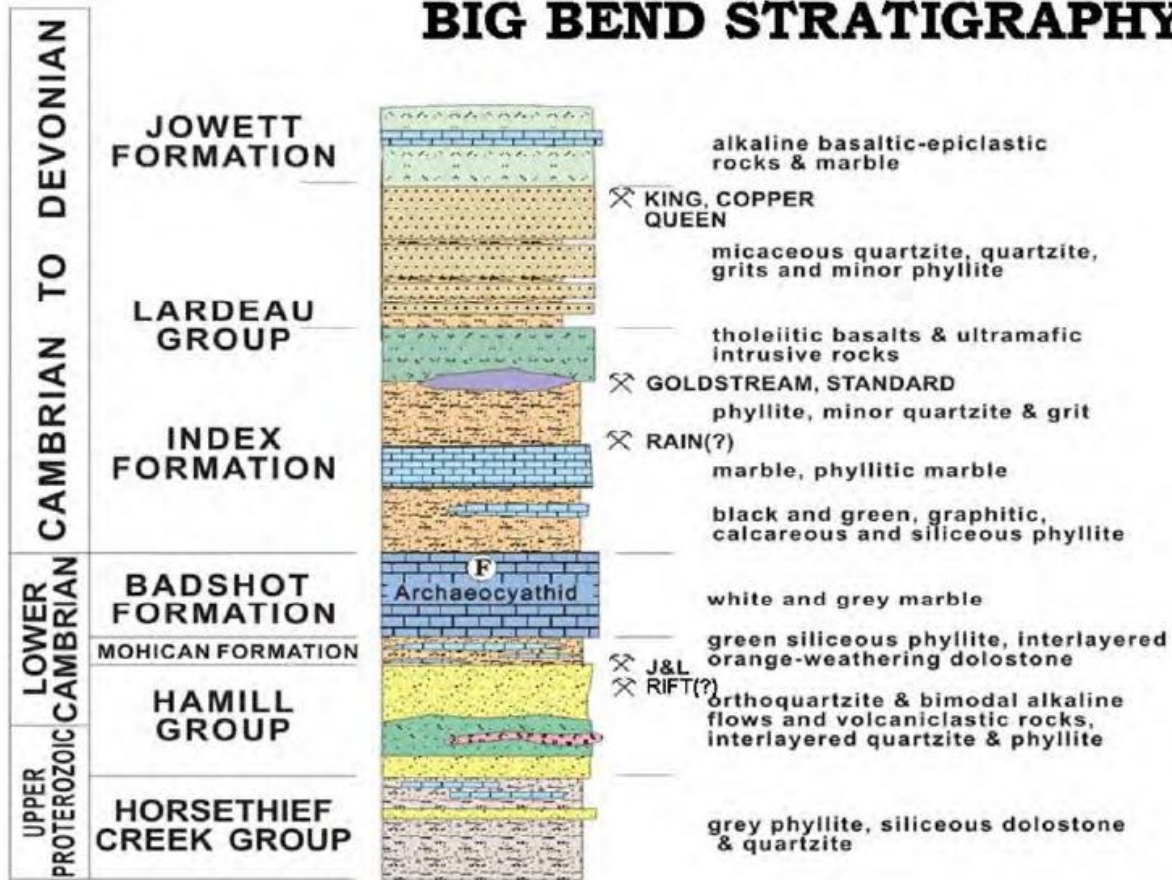


Figure 4. Stratigraphic column for the Big Bend area showing possible stratigraphic position of major mineral occurrences.

The early Cambrian or Eocambrian Hamill Group in the northern Selkirk Mountains has been separated by Devlin (1989) into three stratigraphic divisions - a lower sandstone unit; a greenstone and graded sandstone unit; and an upper sandstone unit. The lower two divisions were mapped by Logan and Calpron (1995) in the core of four southwest-verging synclines in the eastern half of the Goldstream River map area.

The late Lower Cambrian Badshot Formation consists of massive white and grey marble, and buff dolostone. The massive carbonate exposed in the core of the Goldstream anticline, west of the Goldstream mine, is considered by Logan and Calpron (1995) to be similar to and possibly correlative with Archaeocyathid-bearing Badshot Formation which has been mapped in the Lardeau area to the south (Wheeler, 1963; Read and Brown, 1979). The massive carbonate forming Downie Peak was mapped by Wheeler (1965) as Badshot Formation, but stratigraphy and facing directions lead Logan and Drobe (1994) to map this carbonate as part of the younger Index Formation.

The Lardeau Group conformably overlies the Badshot Formation and is unconformably overlain by the Milford Group (Read and Wheeler, 1976). In the Ferguson-Trout Lake Area, Fyles and Eastwood (1962) have recognized six formations within the Lardeau Group and in ascending stratigraphic order these are: dark grey and green phyllite of the Index Formation; black siliceous argillite of the Triune Formation; grey quartzite of the Ajax Formation; grey siliceous argillite of the Sharon Creek Formation; volcanic rocks of the Jowett Formation; and grey and green quartz-feldspar grit and phyllite of the Broadview Formation. In the Big Bend Area, Logan et al., (1995, 1996) and Logan and Rees (1997) have mapped stratigraphy which

correlates with the Index Formation, Jowett Formation, and possibly Broadview Formation. Black phyllite and quartzite overlain by micaceous quartzite, quartzite and grit occupy the stratigraphic interval between the Index Formation and Jowett Formation in the Downie Creek Area, but are not lithological equivalent to the Triune, Ajax or Sharon Creek formations which occupy this stratigraphic interval in Kootenay terrane to the south (Logan et al., 1996).

Paleozoic intrusive rocks include the Downie Creek Gneiss and the Clachnacudainn Gneiss. The gneissic intrusive rocks have been subjected to all three phases of deformation and were dated by U-Pb in zircon at about 360 Ma.

A number of Mesozoic plutons have been intruded in to the Big Bend Area, and include the Battle Range batholith, Albert stock, Fang stock, Plass Creek pluton, Goldstream pluton, and Adamant pluton. The Mesozoic plutons are compositionally similar and coeval with the Bayonne Plutonic Suite of southeastern British Columbia (Logan and Rees, 1997).

Three phases of folding and numerous major fault structures have affected the Big Bend area. The structure of the Goldstream area is dominated by tight isoclinal north-trending Phase 2 folds (Höy, 1979). The Phase 2 folds may have developed in an inverted panel of rocks which may be the underlimb of an earlier Phase 1 nappe (faulted overturned fold). Phase 3 fold structures generally consist of minor small-scale chevron and kink folds with the exception of the Goldstream Mine area where a large scale Phase 3 fold forms a Z shaped map pattern (Gibson, 1999).

The existence of Phase 1 fold structures is based on a number of top determinations in grits (Lane, 1977) which indicate an inverted stratigraphic panel. A number of features within the Goldstream deposit on the north limb of the Phase 2 Downie antiform suggested to Höy (1979) that the deposit is inverted, and part of the underlimb of an early (Phase 1) nappe.

Placer gold deposits in the Big Bend area have been worked along the Columbia River near the junction of the Goldstream River (B.C. MI 82M-92; 97), along the Goldstream River and its southwest flowing tributaries including Graham (B.C. MI 82M-79), McCulloch (B.C. MI 82M-81), and French (B.C. MI 82M-103) creeks. Placer gold was also discovered in Carnes Creek which drains the area of the precious metal enhanced J & L (B.C. MI-82M-3) massive sulphide deposit and Roseberry gold prospect (B.C. MI-82M-91).

Paleozoic rocks, host to most of the numerous volcanogenic massive sulphide (VMS) and replacement zinc-lead deposits in the Big Bend area, occur in a NNW trending zone situated between the Columbia River fault and the Downie Creek-Standfast Creek fault system. Major mineral deposits of the area are stratabound, and similar to the Besshi deposits of Japan and the Kieslager or bedded cupriferous iron sulphide class (Höy et al., 1984). Others such as the Rift and J&L have similarities to the sedimentary exhalative (SEDEX) class of deposits, particular those of the Irish subclass. The Mastodon carbonate replacement deposits have similarities to the Mississippi Valley type Pb-Zn deposits.

The Index Formation has been recognized as the host formation for the Goldstream Mine, and Montgomery, Brew, Rain and Standard VMS prospects. The J & L deposit has been mapped at the contact of Hamill Group and Mohican Formation rocks with replacement zinc-lead deposits like Mastodon occurring in the Badshot Formation. Stratigraphic locations of mineral deposits of the Big Bend area are summarized on Figure 4.

In the Goldstream area, a spessartine garnet-bearing, pyrrhotite-rich, thinly laminated graphitic unit, called the "garnet-zone", occurs in the structural hanging wall of the massive sulphide layer. It is interpreted by Höy et al. (1984) to be a metamorphosed exhalite manganese-iron-rich seafloor hydrothermal precipitate. Iron-manganesesilica-rich horizons and the metamorphic equivalents are important exploration guides in the Big Bend area which adds manganese to base and precious metals as pathfinders for VMS deposits of the Big Bend area.

## PROPERTY GEOLOGY

The geology of the Columbia Queen property has been mapped by Lund and Hajek (1976); Logan et al. (1996); Logan and Rees (1997); and Payne (1999). Much of this was incorporated into a compilation map by Logan et al. (1996a). This map is shown in Figure 5.

According to mapping by Payne (1999), the Copper Queen showing area of the Columbia Queen property is underlain by a north to northwest striking, shallow to moderately east to northeast dipping sequence consisting of 6 metamorphic units which have been intruded by a small granitic plug (Figure 6). The metamorphic rocks consist of quartz-feldspar gneiss/schist (Unit 1) which is overlain by a thick sequence consisting of quartz amphibole schist (Unit 3), quartz chlorite schist (Unit 4), and quartz biotite schist (Unit 5) schist with interbeds and lenses of marble (Unit 2). The above sequence is overlain by and intercalated with quartz rich sericite-muscovite +/-chlorite schist (Unit 6). A small plug of porphyritic biotite hornblende quartz monzonite (Unit 9) has been mapped between grid lines 101 and 102N (Payne, 1999).

The stratigraphic position of the Copper Queen occurrence has been placed by Logan et al. (1996a) in the Cambrian to Devonian, Upper Lardeau Group at or near the base of the Jowett Formation (Figure 4).

The sequence of rocks is offset by east-northeast oriented fault structures, and in the northeast corner of the grid, structural readings indicate a synform with an axis plunging to the northeast (Payne, 1999).

## MINERALIZATION

As mentioned above, the Copper Queen occurrence consists of disseminations and lenses of chalcopyrite, sphalerite, pyrite, malachite and azurite in weakly to moderately calcareous, quartz-biotite +/- muscovite schist, quartz hornblende-biotite schist and minor chlorite schist.

There are two important mineral properties adjoining the Columbia Queen property. These are the J&L property to the east and the Mastodon property to the southeast.

The J&L property, which is road accessible via the Carnes Creek forest service road, has two known and significant polymetallic mineral deposits. The Main Zone is a stratiform structurally controlled polymetallic base and precious metal (Zn-Pb-Ag-Au-As) massive sulphide deposit which has been known since 1912. The Yellowjacket Zone discovered in 1991 is a very siliceous Zn-Pb-Ag stratabound deposit that sub parallels and is in the immediate hangingwall of the Main Zone (Makepeace, 2007).

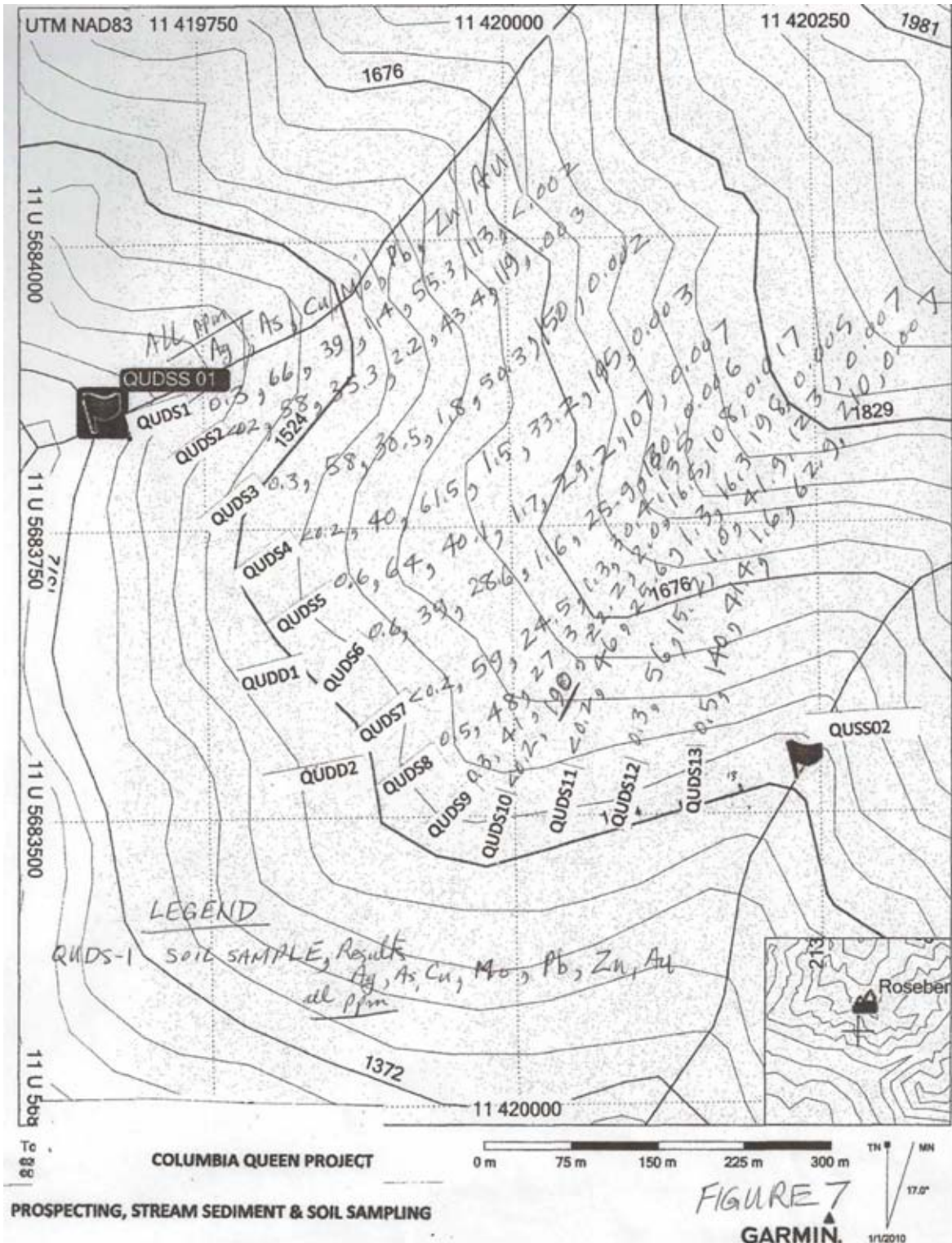
The Main Zone has an historic resource estimate, which was prepared by Equinox Resources Ltd. in 1991, of 1.7 million tonnes grading 7.38 g/t gold, 75.9 g/t silver, 2.64 % lead and 4.43 %. The Yellowjacket has an historic resource estimate also completed by Equinox of 693,000 tonnes grading 52.3 g/t silver, 2.45 % lead and 7.06 % zinc. These resource estimates predate National Instrument 43-101 and do not comply with current NI 43-101 requirements for mineral resource estimation (Makepeace, 2007). Consequently these resource estimates cannot be relied upon.

Merit Mining Corp., 100% owners of the J&L property, announced on November 4, 2010 that they will commence a minimum 2,000 metre underground diamond drilling program in mid-November. The purpose of this work will be to verify historic drilling and historic resources on the Main Zone.

The Mastodon Mine is 5 kilometers to the south of the J & L deposit. It is a group of deposits and showings which include the Mastodon (082M 005), Mastodon North (082M195), Lead King (082M 094), Little Slide (082M 006) and Little Slide No. 3 (082M 196). The area is a series of polymetallic (Zn, Pb, Cd, Ag, Au, Cu) breccia, replacement type bodies that are tabular (Mastodon - 90 x 60 x 3 meters) in Badshot Limestone which may be structurally controlled. Teck-Cominco had the property up until 1992.

The Mastodon massive sulphide bodies lie on the west side of a lenticular mass of Lower Cambrian limestone and dolomite of the Badshot Formation in contact, both east and west, with dark-grey and green phyllites of the Lower Cambrian and younger Lardeau Group. The rocks are isoclinally folded and strongly sheared. Several northwest trending faults cut across the stratigraphy and dip at moderate angles to the northeast parallel to foliation. These faults appear to be the primary control for zinc mineralization. The mineralized zones are replacements of limestone, dolomite and phyllite mainly by sphalerite and occasionally galena and tetrahedrite. The sphalerite, ranging in colour from light yellowish-brown to dark brown, is disseminated and massive within the limestone and occurs as the matrix of breccia associated with the faults. Some mineralized zones are in folds or in banding related to cleavage, both of which are cut by the faults. The massive sulphide bodies dip to the northeast and rake to the north. They are tabular or lenticular and commonly split or branch. This orientation of the Mastodon deposits is important because the southeast VTEM anomaly on the Columbia Queen property appears to be on strike with this trend.

The Mastodon Mine has recorded production for the years 1926, 1952 and 1960 (MINFILE database). Total ore mined was 28,975 tonnes yielding 190,133 gms. Ag, 249 gms. Au, 2,681,451 kg. Zn, 81,798 kg. Pb and 11,654 kg. Cd.



## EXPLORATION

Signature Resources Ltd. entered into a contract with Geotech Ltd. to conduct a helicopter-borne geophysical survey over the Columbia Queen property. This work was done in the time period August 15<sup>th</sup> to 19<sup>th</sup>, 2010. Principal geophysical sensors included a versatile time domain electromagnetic (VTEM) system, and a caesium magnetometer. Ancillary equipment included a GPS navigation system and a radar altimeter. A total of 318.1 line kilometres covering an area of 56.87 square kilometres was flown at a before HST cost of \$67,994.44.

The survey operations were based out of the town of Revelstoke, British Columbia. In-field data quality assurance and preliminary processing were carried out on a daily basis during the acquisition phase. Preliminary and final data processing, including generation of final digital data and map products were undertaken from the office of Geotech Ltd. in Aurora, Ontario.

The processed survey results are presented as electromagnetic stacked profiles of the B-field Z Component and dB/dt Z and X Components, and as colour grids of a B-Field Z Component Channel, and Total Magnetic Intensity (TMI). In addition, EM anomaly picking, Time Constant (Tau), calculated vertical magnetic derivative, Resistivity Depth Sections and Maxwell plate modelling was performed.

### 2012 PROGRAM

The 2012 initial program consisted of soil sampling and prospecting the south slope of the Columbia Queen North Claims. Access with through the J+L road system.

Only one sample returned any anomalous values (sample QUDS10) which returned 190ppm As and 17ppb Au.

No rock exposures were noted on the traverses at lower elevations.

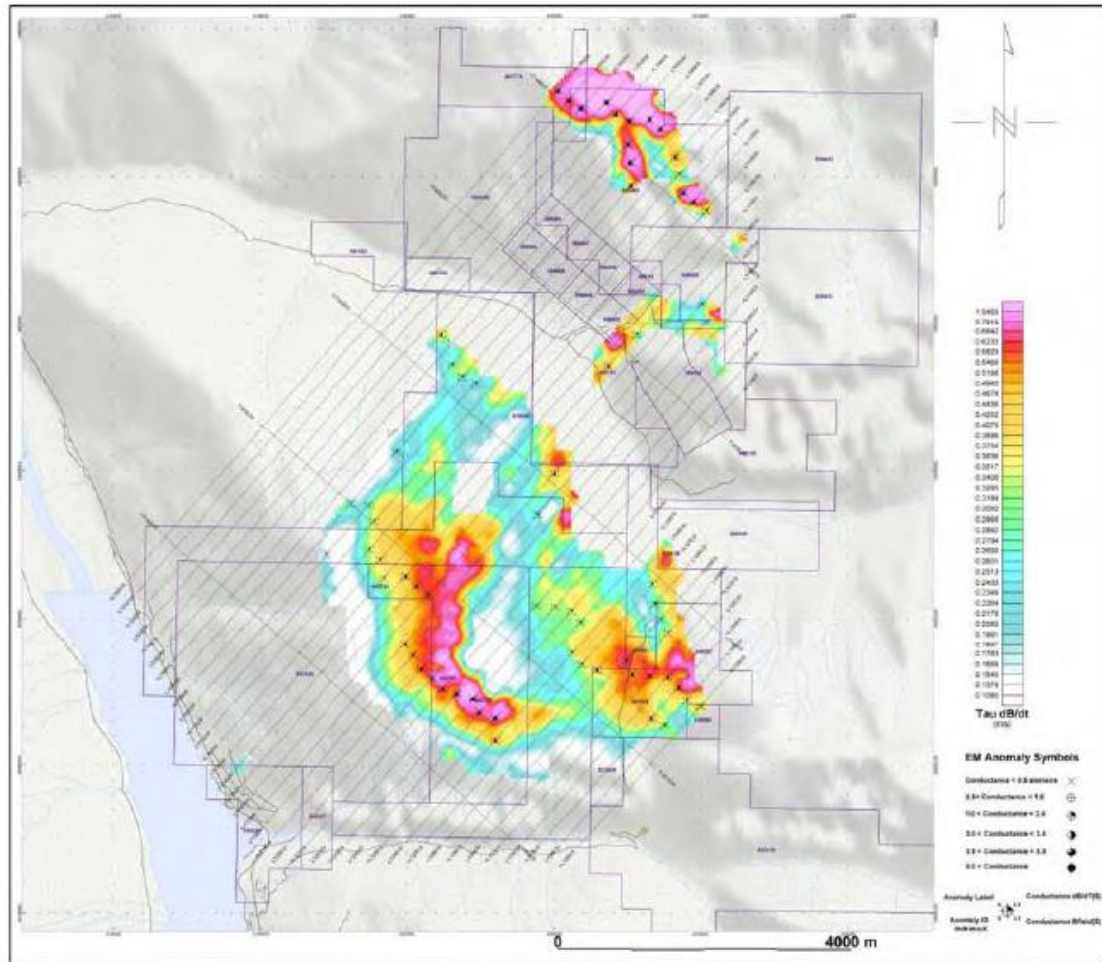
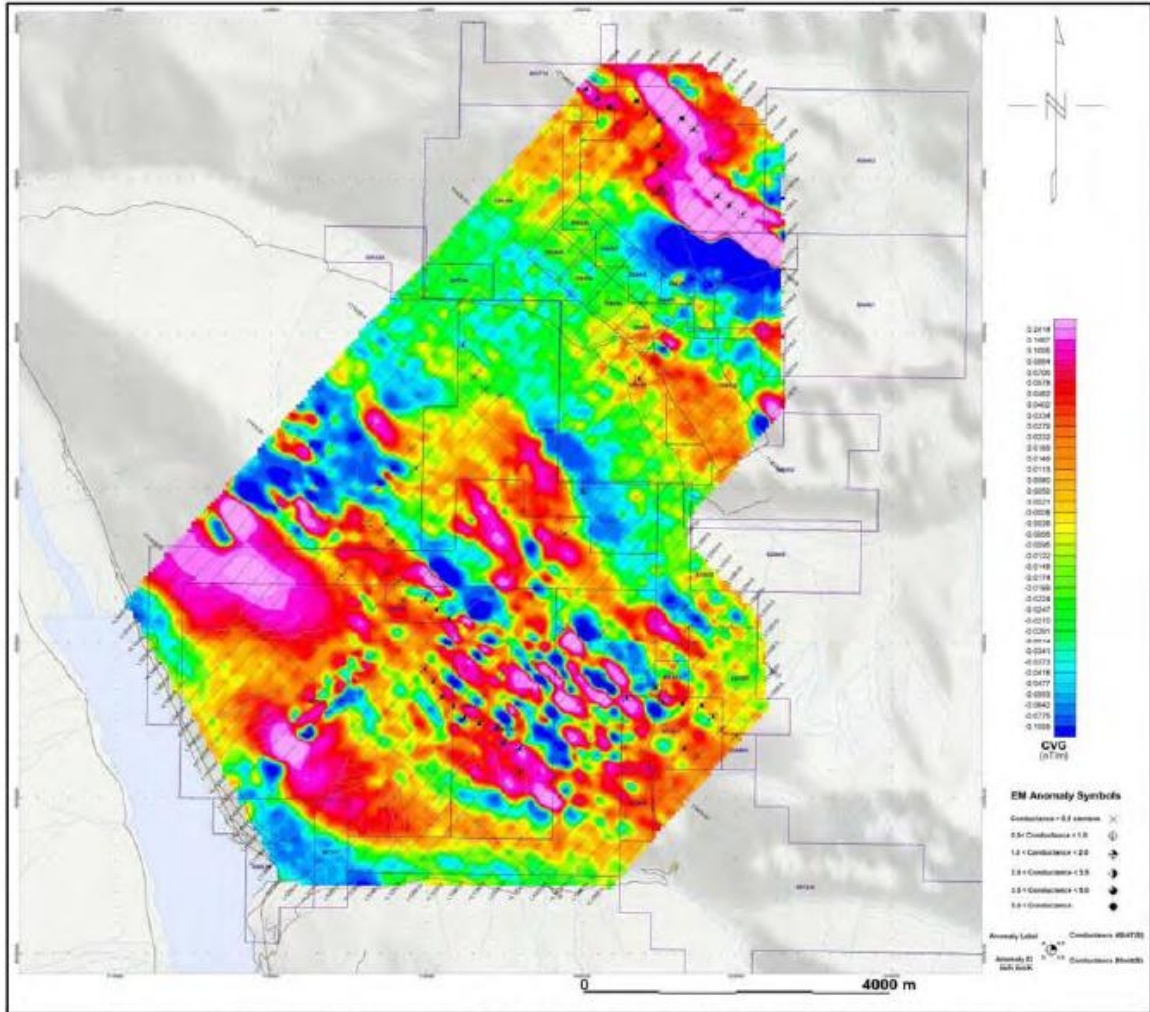


Figure 8. VTEM dB/dt X component calculated time constant (Tau) anomaly map, Columbia Queen Property. This figure is extracted from a Geotech Inc. report prepared by Venter and Prikhodko (2010).

A summary interpretation, in support of the EM anomaly picking, Time Constant (Tau), calculated vertical magnetic derivative, Resistivity Depth Sections and Maxwell plate modelling that were performed is included in the report.

Geotech concludes that “The survey was successful in delineating EM anomaly sources which correspond to flat-lying horizons with low conductivity in the central part of the area and dipping targets on the N-E corner of the area. The anomalous area is recommended for drill testing on the basis of RDI section and Maxwell modelling as it may represent most likely mineralized zone with disseminated sulphides” (Venter and Prikhodko, 2010).





*Figure 9. Calculated vertical magnetic gradient (CVG) map, Columbia Queen property. This figure is extracted from a Geotech Inc. report prepared by Venter and Prikhodko (2010).*

There is a strong magnetic high associated with the VTEM anomaly in the northeast corner of the survey grid. The elevated magnetic response may be due to disseminated pyrrhotite in rusty weathering quartzites and black graphitic phyllites that underlie this area. Alternatively there may be an intrusive body at depth that is contributing to the elevated magnetic response. The adjoining magnetic low corresponds to the Badshot limestone.

#### Northeast VTEM Anomaly

An area of anomalous conductivity occurs in the northeast corner of the VTEM survey grid (Figure 10). This area is covered by mineral tenures 685063 and 832503. The author, accompanied by Mr. Craig Lynes, did one day of geologic mapping and geochemical sampling as a follow up to the airborne geophysical survey.

The area of the anomaly covers extensive outcrops along a north trending ridge. The east side of the ridge is a bowl shaped cirque valley drained by an east flowing creek (Figure 11). A north trending line of soil samples collected at 50m intervals was done to test for possible mineralization associated with the VTEM

anomaly. The soil samples were collected on a steep east facing slope just below massive outcrops forming the top of a north trending ridge (Figure 11). These rocks are part of a moderately, northeast dipping succession comprised of massive, grey-weathering dolostone and limestone of the Badshot Formation and overlying black graphitic phyllite, rusty weathering micaceous quartzite and green phyllite of the Index Formation.

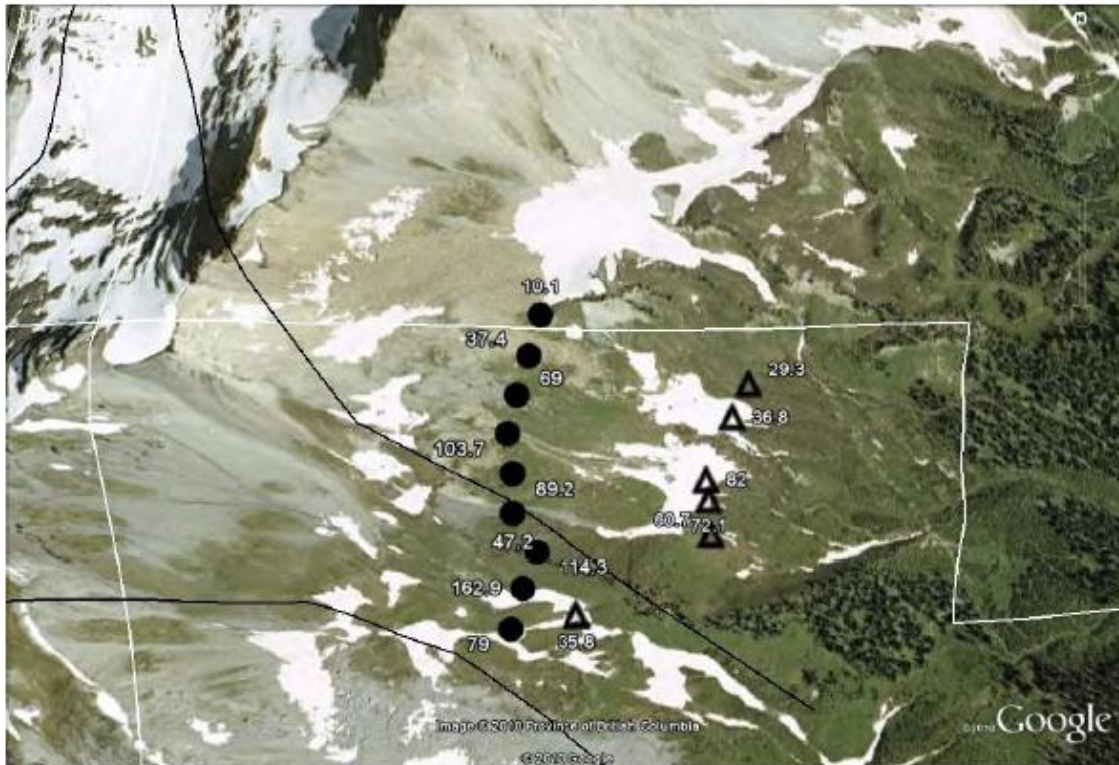


Figure 11. Google Earth image showing locations of previous soil and silt samples collected in the northeast VTEM anomaly area in 2010. Values shown are ppm Pb.

The elevated conductivity detected by the VTEM survey may be due to the presence of the graphitic phyllite unit which is approximately 150 metres thick where it is exposed in outcrop along the ridge crest. Alternatively the quartzite unit, which is rusty weathering, possibly due to the presence of disseminated sulphides, may also be contributing to the anomalous conductivity. One sample (RCQ10-001), collected from a strongly oxidized bed approximately one metre thick (Plate 2) within the quartzite unit, gave elevated Cu (270 ppm) and Zn (481) values.

Most of the samples collected along the soil sample line were comprised of talus fines and poorly developed B-horizon soils. Results for selected elements are given in Table 5. Statistically the soil samples are anomalous in Cu, Zn and Pb compared to samples collected from other parts of the property. Samples exceeding the 95th percentile, as calculated for soil samples collected in 2010, are highlighted in bold. The source of the elevated metal values is not known at this time but may be coming from the black graphitic phyllite unit or gossanous zones within the quartzite unit such as sample site RCQ10-01. Pelitic rocks are known to have elevated background concentrations of base metals due to adsorption of metals by clay minerals. There are no known mineral occurrences in the vicinity of the samples.

Six samples were collected from creeks draining the area of the northeast VTEM anomaly (Table 6). These creeks contained very little silt size material. The two “silt” samples collected were mostly comprised of sand size material with lesser amounts of silt. Four moss mat samples were also collected and analyzed. As shown in Table 5, a number of these samples contained statistically anomalous Cu and Zn values. Samples exceeding the 95<sup>th</sup> percentile values for the 1,219 Regional Geochemical Survey (RGS) silt samples for map sheet 82M that were recently reanalyzed as part of a Geoscience BC project (Jackaman and Reichheld, 2010) are highlighted in bold in Table 5.

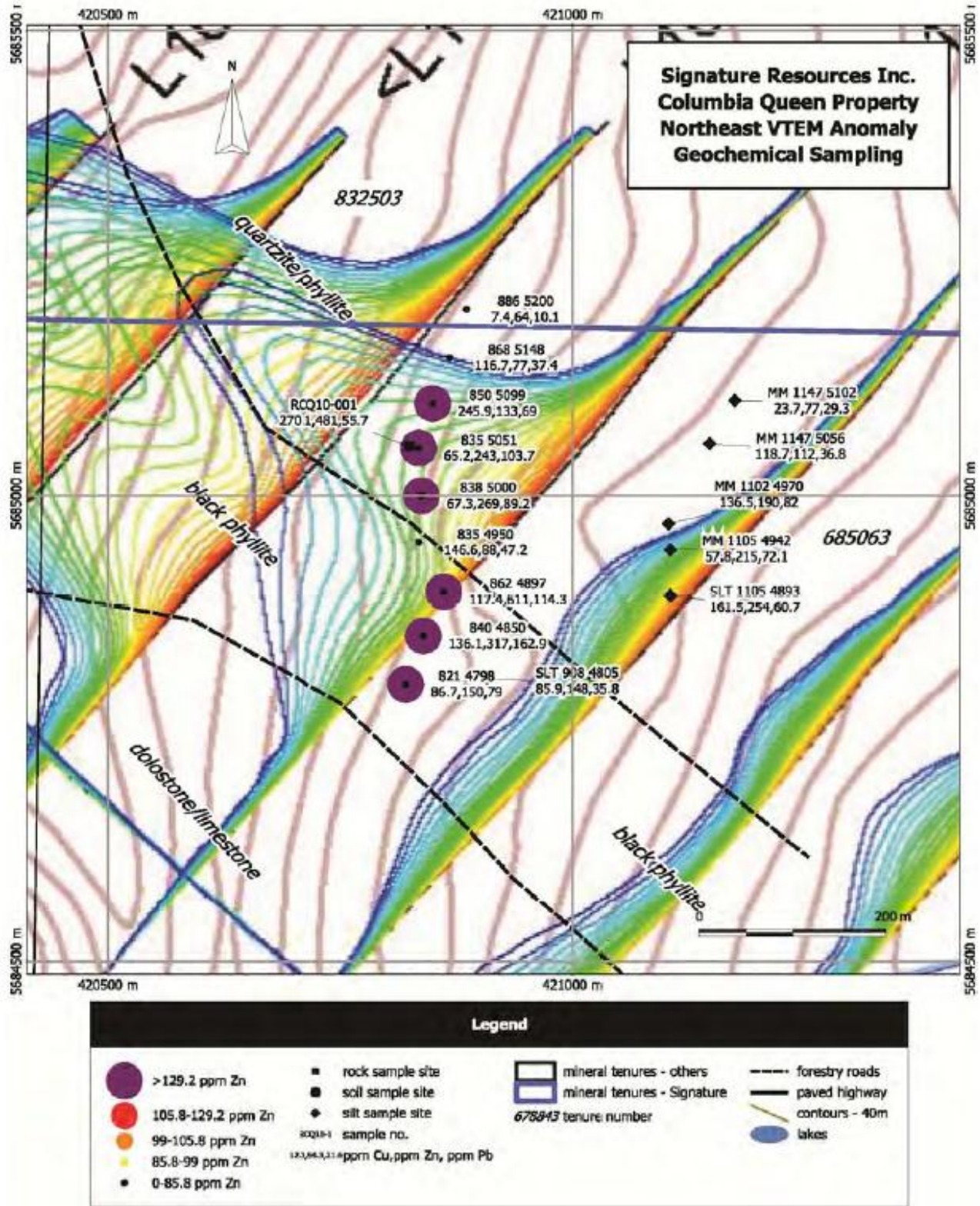


Figure 12. Geochemical sample sites, northeast VTEM anomaly area.

Figure 12 shows the location of soil and silt samples and associated values for Cu, Zn and Pb relative to flight lines showing dB/dT profiles for the VTEM survey. Analytical results for soil and silt samples are shown in Tables 4 and 5 respectively. Soil samples with values greater than the 95th percentile for the samples analyzed in 2010 are highlighted in bold. Note that most of the samples are statistically anomalous with the most anomalous value being 611 ppm Zn in soil sample no. 862 4897.

Table 5. Analytical results for soil samples, northeast anomaly area.

Sample No.	UTM E	UTM N	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Au ppb	As ppm
821 4798	420821	5684798	86.7	79	150	0.5	3.7	32.4
835 4950	420835	5684950	146.6	47.2	88	0.6	12.8	6.3
835 5051	420835	5685051	65.2	103.7	243	0.3	1.9	15.6
838 5000	420838	5685000	67.3	89.2	269	0.2	<0.5	8.9
840 4850	420840	5684850	136.1	162.9	317	0.5	16.6	9.6
850 5099	420850	5685099	245.9	69	133	0.2	2.1	15.6
862 489	420862	5684897	117.4	114.3	611	0.7	3.2	23.1
868 5148	420868	5685148	116.7	37.4	77	0.2	1.2	16.8
95 <sup>th</sup> ptile	----	----	84.5	68.75	29.5	0.9	2.05	11.75

Table 6. Analytical results for silt and moss mat samples, northeast anomaly area.

Sample No	Type	UTM E	UTM N	Cu ppm	Pb ppm	Zn ppm	Ag ppm	As ppm	Au ppb
MM 1102 4970	Moss	421103	5684970	136.5	82	190	0.2	14.1	2.1
MM 1105 4942	Moss	421105	5684942	57.8	72.12	215	0.3	11.4	1.1
MM 1147 5056	Moss	421147	5685056	118.7	36.8	112	0.1	8.7	3.1
MM 1147 5102	Moss	421174	5685102	23.7	29.3	77	<0.1	7.7	0.8
SLT 908 4805	Silt	420908	5684805	85.9	35.8	148	0.3	14.8	6.4
SLT 1105 4893	Silt	421105	5684893	161.5	60.7	254	0.7	6.8	4.8
RGS 95 <sup>th</sup> ptile (RGS)	Silt	----	----	51.4	28.9	108.6	0.25	14.04	8.6

## CONCLUSIONS and RECOMMENDATIONS

### VTEM Survey Results

Geotech concludes that the helicopter-borne VTEM survey “was successful in delineating EM anomaly sources which correspond to flat-lying horizons with low conductivity in the central part of the area and dipping targets on the N-E corner of the area. The anomalous area is recommended for drill testing on the basis of RDI section and Maxwell modelling as it may represent most likely mineralized zone with disseminated sulphides” (Venter et al, 2010).

The interpretation that the elevated conductivity is due to a flat-lying body, at least in the central part of the claims, is interesting. Bedding attitudes observed in this area suggest the strata are striking northwest and dipping moderately to the northeast. They are definitely not flat lying. Therefore, if the Geotech interpretation is correct, it suggests the elevated conductivity is not bedding related and is due to some other, more flat-lying source. It is not possible to say with any degree of certainty what this source might be since there is very little surface and subsurface information available for this part of the claims. Although Geotech recommends a drilling program to test the VTEM anomalies, the author feels this would be very premature and does not concur with this recommendation.

### Northeast VTEM Anomaly

In the author’s opinion the extent of outcrop in the area covered by the northeast VTEM anomaly and the fact that this area is fairly close to the J&L deposit and has probably been extensively prospected in the past minimizes the likelihood of finding new mineral occurrences in this area. The source of the northeast VTEM conductivity anomaly and elevated metal values in soil and silt samples is most likely the black graphitic phyllite unit of the Index Formation. Although regionally this is a prospective unit, it is the author’s opinion that additional work in this part of the property has a low probability of success and is not justified at this time.

### Recommendations

The Columbia Queen property is of sufficient merit to warrant additional exploration expenditures. A success contingent staged exploration program is recommended. Projected expenditures for this program are given in Table 11. The Stage 1 program would involve grid soil sampling, ground geophysics, geological mapping and prospecting of the southeast VTEM anomaly and the area of massive sulphide float located in 2010. A surficial geologist would be contract to assist in evaluation of the latter. Of secondary importance would be the expansion of soil sampling grids across the central VTEM anomaly and the area of gossanous soils located along Highway 23. More work should also be done on the main Copper Queen showings, specifically expansion of the soil sampling grid done in 1999 further to the northwest. Work on the southeast and central VTEM anomalies and extension of the soil sampling grid northwest of the Copper Queen showings would be helicopter supported. Projected cost for the Stage 1 program is \$220,000.

Contingent on the success of the Stage 1 program, a Stage 2 program would drill test any new targets defined by the Stage 1 work. Projected costs for 2,000 metres of drilling would be \$480,000.

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# **Appendix I**

## **Statement of Qualifications**

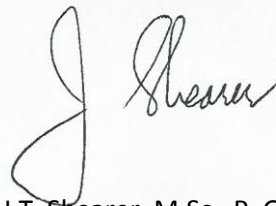
**July 10, 2012**

## STATEMENT of QUALIFICATIONS

I, Johan T. Shearer of Unit 5 – 2330 Tyner Street, in the City of Port Coquitlam, in the Province of British Columbia, do hereby certify:

1. I graduated in Honours Geology (B.Sc., 1973) from the University of British Columbia and the University of London, Imperial College, (M.Sc. 1977).
2. I have practiced my profession as an Exploration Geologist continuously since graduation and have been employed by such mining companies as McIntyre Mines Ltd., J.C. Stephen Explorations Ltd., Carolin Mines Ltd. and TRM Engineering Ltd. I am presently employed by Homegold Resources Ltd.
3. I am a fellow of the Geological Association of Canada (Fellow No. F439). I am also a member of the Canadian Institute of Mining and Metallurgy, the Geological Society of London and the Mineralogical Association of Canada. I am a member in good standing of the Association of Professional Engineers and Geoscientists of British Columbia (P.Geo., Member Number 19,279).
4. I am an independent consulting geologist employed since December 1986 by Homegold Resources Ltd. At Unit #5 2330 Tyner Street, Port Coquitlam, British Columbia.
5. I am the author of the report entitled “Summary Report on the Copper Queen North Property” dated July 10, 2012.
6. I have visited the property July 7, 8 and 9, 2012 and supervised the crew in 2012. I have carried out mapping and sample collection and am familiar with the regional geology and geology of nearby properties. I have become familiar with the previous work conducted on the Columbia Queen Gold Project by examining in detail the available reports and maps and have discussed previous work with persons knowledgeable of the area.

Dated at Port Coquitlam, British Columbia, this 10<sup>th</sup> day of July, 2012.



J.T. Shearer, M.Sc., P. Geo.

# **Appendix II**

## **Statement of Costs**

**July 10, 2012**

Copper Queen North  
Statement of Costs

Wages	Total not incl. HST
J. T. Shearer, M.Sc., P.Geo (BC & Ont.), Geologist 2.5 days @ \$700/day, July 7, 8 + 9, 2012	\$ 1,750.00
D. G. Cardinal, P.Geo. 2.5 days @ \$650/day, July 7, 8 + 9, 2012	1,625.00
Subtotal	\$ 3,025.00
Expenses	
Transportation:	
Truck, Fully equipped 4x4, 2.5 days @ \$120/day	300.00
Gas for Truck	385.00
Hotel, 7.5 man days @ \$94/per night	705.00
Meals & Food, 7.5 man days @ \$60/man day	450.00
Supplies (GPS mapping, digital files, etc.)	120.00
D. Delisle, 2.5 days @ \$350/day, July 7, 8 + 9, 2012	875.00
Analytical, 13 soil samples @ \$28 ea.	364.00
Report Preparation	1,400.00
Word Processing	450.00
Subtotal	\$ 5,049.00
Total	\$ 8,074.00

Event #           5393403  
 Work Filed       \$8,000.00  
 PAC Filed        \$2,908.52  
 Recorded         July 12, 2012

**Appendix III**

**Analytical Certificates**

**July 10, 2012**

12V620102

**CLIENT NAME: HOMEGOLD RESOURCES LTD.  
UNIT# 5-2330 TYNER STREET  
PORT COQUITLAM, BC V3C2Z1  
(604) 696-1022**

**ATTENTION TO: JO SHEARER**

**PROJECT NO: COLUMBIA QUEEN**

**AGAT WORK ORDER: 12V620102**

**SOLID ANALYSIS REVIEWED BY: Kevin Motomura, ICP Supervisor**

**DATE REPORTED: Aug 09, 2012**

**PAGES (INCLUDING COVER): 26**

Should you require any information regarding this analysis please contact your client services representative at (905) 501-9998

**\*NOTES**

All samples are stored at no charge for 90 days. Please contact the lab if you require additional sample storage time.



# Certificate of Analysis

AGAT WORK ORDER: 12V620102  
PROJECT NO: COLUMBIA QUEEN

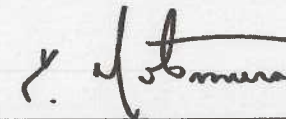
5623 McADAM ROAD  
MISSISSAUGA, ONTARIO  
CANADA L4Z 1N9  
TEL (905)501-9998  
FAX (905)501-0589  
<http://www.agatlabs.com>

CLIENT NAME: HOMEGOLD RESOURCES LTD.

ATTENTION TO: JO SHEARER

Aqua Regia Digest - Metals Package, ICP-OES finish (201073)														
DATE SAMPLED: Jul 13, 2012	DATE RECEIVED: Jul 12, 2012					DATE REPORTED: Aug 09, 2012					SAMPLE TYPE: Soil			
Analyte:	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cu	Fe
Unit:	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%
RDL:	0.2	0.01	1	5	1	0.5	1	0.01	0.5	1	0.5	0.5	0.5	0.01
Sample Description														
QUDS 1	0.3	1.22	66	<5	143	0.6	<1	0.41	0.6	57	19.6	16.0	39.0	3.55
QUDS 2	<0.2	1.11	58	<5	123	<0.5	<1	0.55	<0.5	53	18.1	14.4	35.3	4.11
QUDS 3	0.3	1.75	58	<5	89	0.6	<1	0.22	<0.5	61	21.0	16.3	30.5	4.31
QUDS 4	<0.2	2.95	40	<5	120	0.9	<1	0.14	<0.5	63	20.6	27.0	61.5	4.89
QUDS 5	0.6	1.70	64	<5	138	0.5	<1	0.11	<0.5	46	15.1	22.0	40.1	3.76
QUDS 6	0.6	3.89	39	<5	220	0.9	<1	1.10	<0.5	29	15.6	16.9	28.6	3.98
QUDS 7	<0.2	1.80	59	<5	140	0.6	<1	0.13	<0.5	36	15.7	17.8	24.5	4.30
QUDS 8	0.5	2.27	48	<5	112	0.7	<1	0.31	<0.5	27	9.1	9.8	27.3	2.73
QUDS 9	0.3	4.31	41	<5	129	1.1	<1	0.11	0.9	32	9.9	9.2	22.2	2.62
QUDS 10	<0.2	1.85	190	<5	91	0.7	<1	0.11	<0.5	83	20.1	17.5	25.6	4.72
QUDS 11	<0.2	2.60	46	<5	85	0.8	<1	0.25	<0.5	49	11.6	10.5	15.2	3.46
QUDS 12	0.3	0.67	56	<5	59	<0.5	<1	0.60	<0.5	47	17.0	8.1	26.8	2.89
QUDS 13	0.5	1.21	140	<5	88	<0.5	<1	0.58	<0.5	50	22.7	13.0	41.4	3.98
QUDS 14	<0.2	1.43	2	<5	25	<0.5	2	0.01	<0.5	83	16.2	22.8	40.2	3.45
QUDS 15	0.2	1.45	3	<5	37	<0.5	<1	0.08	<0.5	77	18.2	22.6	40.7	3.07
QUDS 16	<0.2	0.97	3	<5	28	<0.5	<1	0.11	<0.5	47	15.1	17.0	32.2	2.41
QUDS 17	<0.2	1.16	2	<5	26	<0.5	<1	0.09	<0.5	59	13.3	18.1	29.2	2.62
QUDS 18	<0.2	1.20	5	<5	39	<0.5	<1	0.10	<0.5	74	15.4	22.0	35.0	2.57
QUDS 19	<0.2	1.22	2	<5	31	<0.5	<1	0.13	<0.5	60	14.0	19.1	33.8	2.88
QUDS 20	<0.2	1.00	4	<5	38	<0.5	<1	0.12	<0.5	57	15.5	19.2	36.0	2.61
QUDS 21	<0.2	1.06	4	<5	46	<0.5	<1	0.15	<0.5	56	16.9	20.5	37.1	2.80
QUDS 22	0.2	1.04	3	<5	29	<0.5	<1	0.08	<0.5	46	13.3	18.3	27.5	2.50
QUDS 23	<0.2	1.29	3	<5	36	<0.5	<1	0.15	<0.5	48	13.5	17.8	31.4	3.17
QUDS 24	<0.2	1.78	6	<5	48	<0.5	<1	0.10	<0.5	88	17.3	37.7	38.0	4.77
QUDS 25	<0.2	1.87	4	<5	38	<0.5	<1	0.10	<0.5	38	10.2	37.5	21.6	6.53
QUDS 26	<0.2	1.29	3	<5	40	<0.5	<1	0.07	<0.5	44	7.2	23.9	27.4	3.57
QUDS 27	<0.2	2.76	3	<5	43	0.7	<1	0.07	<0.5	54	9.1	18.6	29.8	4.07
QUDS 28	0.3	2.12	<1	<5	19	<0.5	<1	0.02	<0.5	20	3.2	9.7	11.7	1.57
QUDS 29	<0.2	2.21	3	<5	40	0.5	<1	0.05	<0.5	65	8.9	30.1	22.0	5.23
QUDS 30	<0.2	1.51	2	<5	27	0.5	<1	0.03	<0.5	22	3.5	9.1	17.8	4.43
QUDS 31	<0.2	1.50	10	<5	60	0.6	<1	0.14	<0.5	96	15.9	17.0	31.5	6.08
QUDS 32	<0.2	1.88	1	<5	41	0.5	<1	0.04	<0.5	24	3.5	18.4	12.1	4.32

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# Certificate of Analysis

AGAT WORK ORDER: 12V620102  
PROJECT NO: COLUMBIA QUEEN

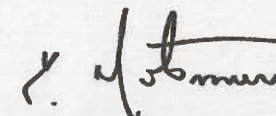
5623 McADAM ROAD  
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TEL (905)501-9998  
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CLIENT NAME: HOMEGOLD RESOURCES LTD.

ATTENTION TO: JO SHEARER

Aqua Regia Digest - Metals Package, ICP-OES finish (201073)														
DATE SAMPLED: Jul 13, 2012	DATE RECEIVED: Jul 12, 2012					DATE REPORTED: Aug 09, 2012					SAMPLE TYPE: Soil			
Analyte:	Ga	Hg	In	K	La	Li	Mg	Mn	Mo	Na	Ni	P	Pb	Rb
Unit:	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm	ppm	ppm	ppm
RDL:	5	1	1	0.01	1	1	0.01	1	0.5	0.01	0.5	10	0.5	10
Sample Description														
QUDS 1	8	<1	<1	0.09	24	12	0.29	2390	1.4	<0.01	33.0	1210	55.3	37
QUDS 2	6	<1	<1	0.13	22	11	0.32	1720	2.2	<0.01	26.6	1170	43.4	39
QUDS 3	9	2	<1	0.08	24	17	0.36	2240	1.6	<0.01	29.2	1360	50.3	30
QUDS 4	12	1	<1	0.07	25	20	0.48	1330	1.5	<0.01	44.7	1050	33.2	32
QUDS 5	8	<1	<1	0.08	20	13	0.42	2310	1.7	<0.01	26.4	839	29.2	30
QUDS 6	12	<1	<1	0.06	11	15	0.34	1190	1.6	0.01	25.3	6180	25.9	20
QUDS 7	10	<1	<1	0.07	14	16	0.37	2460	1.3	<0.01	19.4	1090	30.4	28
QUDS 8	10	<1	<1	0.05	12	11	0.19	752	2.0	0.01	15.6	1760	16.5	21
QUDS 9	12	<1	<1	0.05	12	10	0.17	929	1.3	0.01	12.4	3220	16.3	16
QUDS 10	7	<1	<1	0.13	31	16	0.51	912	1.0	<0.01	29.8	988	41.9	40
QUDS 11	9	<1	<1	0.07	17	15	0.29	795	1.0	<0.01	16.7	1690	27.9	22
QUDS 12	6	<1	<1	0.10	20	7	0.28	1080	0.6	<0.01	29.4	1030	43.0	22
QUDS 13	8	<1	<1	0.13	21	13	0.39	2030	1.6	<0.01	34.9	1500	62.9	32
QUDS 14	8	<1	<1	0.03	27	11	0.47	809	0.7	<0.01	29.2	695	23.7	13
QUDS 15	7	<1	<1	0.03	25	11	0.52	867	0.9	<0.01	37.3	650	24.8	<10
QUDS 16	6	<1	<1	0.02	18	9	0.48	623	<0.5	<0.01	32.5	647	18.7	<10
QUDS 17	6	<1	<1	0.03	20	10	0.51	681	0.7	<0.01	31.8	748	16.8	<10
QUDS 18	7	<1	<1	0.04	25	10	0.56	757	0.7	<0.01	38.2	785	18.2	<10
QUDS 19	5	<1	<1	0.03	21	11	0.59	740	0.8	<0.01	34.0	830	16.0	<10
QUDS 20	5	<1	<1	0.04	27	11	0.61	825	0.6	<0.01	39.7	695	18.3	<10
QUDS 21	5	<1	<1	0.04	28	11	0.67	883	<0.5	<0.01	40.7	707	16.5	<10
QUDS 22	7	<1	<1	0.03	16	9	0.45	789	0.6	<0.01	29.2	804	19.6	<10
QUDS 23	6	<1	<1	0.04	19	11	0.60	743	0.7	<0.01	30.9	766	17.4	<10
QUDS 24	8	<1	<1	0.05	25	16	0.73	1180	1.4	<0.01	39.8	1320	29.3	16
QUDS 25	12	<1	<1	0.06	15	11	0.48	780	2.9	<0.01	19.7	4170	35.4	16
QUDS 26	10	<1	<1	0.04	15	7	0.27	383	1.1	0.01	22.1	1060	18.8	14
QUDS 27	16	<1	<1	0.05	17	11	0.34	1010	1.8	<0.01	21.9	1260	26.7	13
QUDS 28	5	1	<1	0.02	8	4	0.04	134	0.9	<0.01	6.4	557	9.0	<10
QUDS 29	12	<1	<1	0.03	19	14	0.51	477	<0.5	<0.01	23.5	1320	17.4	16
QUDS 30	11	<1	<1	0.02	10	5	0.04	310	1.8	0.01	10.1	1230	13.3	10
QUDS 31	9	<1	<1	0.04	42	8	0.24	1950	1.5	<0.01	32.7	987	37.1	19
QUDS 32	12	<1	<1	0.03	10	6	0.13	245	1.3	<0.01	9.0	4440	19.6	12

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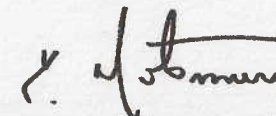
CLIENT NAME: HOMEGOLD RESOURCES LTD.

ATTENTION TO: JO SHEARER

## Aqua Regia Digest - Metals Package, ICP-OES finish (201073)

DATE SAMPLED: Jul 13, 2012	DATE RECEIVED: Jul 12, 2012											DATE REPORTED: Aug 09, 2012			SAMPLE TYPE: Soil	
Analyte:	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl	U	V	W		
Unit:	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm		
RDL:	0.005	1	0.5	10	5	0.5	10	10	5	0.01	5	5	0.5	1		
Sample Description																
QUDS 1	0.043	<1	1.0	<10	<5	25.8	<10	<10	<5	0.02	<5	<5	24.9	2		
QUDS 2	0.033	3	<0.5	<10	<5	26.3	<10	<10	<5	0.03	<5	<5	26.7	2		
QUDS 3	0.032	3	0.7	<10	<5	13.0	<10	<10	<5	0.02	<5	<5	29.4	2		
QUDS 4	0.019	2	2.1	<10	<5	11.0	<10	<10	<5	0.07	<5	<5	25.0	<1		
QUDS 5	0.024	3	0.9	<10	<5	10.6	<10	<10	<5	0.04	<5	<5	37.9	3		
QUDS 6	0.034	1	1.1	<10	<5	55.1	<10	<10	<5	0.09	<5	<5	25.5	1		
QUDS 7	0.028	2	1.0	<10	<5	9.2	<10	<10	<5	0.06	<5	<5	35.0	1		
QUDS 8	0.026	4	1.3	<10	<5	14.7	<10	<10	<5	0.07	<5	<5	33.7	2		
QUDS 9	0.034	3	1.4	<10	<5	11.6	<10	<10	<5	0.10	<5	<5	22.0	1		
QUDS 10	0.009	3	2.0	<10	<5	12.6	<10	<10	6	0.04	<5	<5	29.1	1		
QUDS 11	0.029	3	0.9	<10	<5	14.8	<10	<10	<5	0.05	<5	<5	21.4	2		
QUDS 12	0.053	1	1.6	<10	<5	26.0	<10	<10	<5	0.02	<5	<5	16.4	6		
QUDS 13	0.050	3	1.9	<10	<5	31.1	<10	<10	<5	0.02	<5	<5	25.9	3		
QUDS 14	0.011	2	1.2	<10	<5	2.7	<10	<10	10	0.02	<5	<5	16.3	2		
QUDS 15	0.010	<1	1.3	<10	<5	4.4	<10	<10	12	0.01	<5	<5	12.5	<1		
QUDS 16	0.007	<1	0.8	<10	<5	6.0	<10	<10	9	0.01	<5	<5	10.4	<1		
QUDS 17	<0.005	<1	1.0	<10	<5	5.8	<10	<10	6	0.02	<5	<5	12.4	1		
QUDS 18	<0.005	1	1.1	<10	<5	12.2	<10	<10	9	0.02	<5	<5	12.5	<1		
QUDS 19	0.005	<1	0.9	<10	<5	15.9	<10	<10	6	0.02	<5	<5	11.0	1		
QUDS 20	<0.005	<1	1.1	<10	<5	10.3	<10	<10	7	0.01	<5	<5	11.0	1		
QUDS 21	<0.005	<1	1.1	<10	<5	12.8	<10	<10	9	0.01	<5	<5	11.5	<1		
QUDS 22	0.008	2	0.7	<10	<5	6.1	<10	<10	6	0.02	<5	<5	13.4	<1		
QUDS 23	0.008	2	0.8	<10	<5	8.3	<10	<10	<5	0.02	<5	<5	12.2	1		
QUDS 24	0.013	<1	0.9	<10	<5	9.0	<10	<10	5	0.03	<5	<5	18.8	2		
QUDS 25	0.027	3	<0.5	12	<5	7.0	<10	<10	<5	0.04	<5	<5	30.1	3		
QUDS 26	0.021	3	<0.5	<10	<5	5.7	<10	<10	<5	0.06	<5	<5	29.3	2		
QUDS 27	0.023	4	1.1	<10	<5	4.7	<10	<10	<5	0.12	<5	<5	32.2	2		
QUDS 28	0.019	1	0.6	<10	<5	1.8	<10	<10	<5	0.06	<5	<5	18.2	1		
QUDS 29	0.017	<1	0.6	10	<5	5.8	<10	<10	<5	0.05	<5	<5	30.9	2		
QUDS 30	0.017	2	<0.5	11	<5	5.5	<10	<10	<5	0.10	<5	<5	37.2	3		
QUDS 31	0.017	2	2.2	<10	<5	13.9	<10	<10	<5	0.05	<5	<5	27.7	3		
QUDS 32	0.024	2	<0.5	<10	<5	5.0	<10	<10	<5	0.07	<5	<5	26.8	2		

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PROJECT NO: COLUMBIA QUEEN

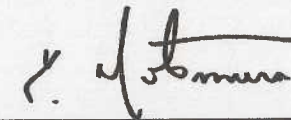
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ATTENTION TO: JO SHEARER

Aqua Regia Digest - Metals Package, ICP-OES finish (201073)					
DATE SAMPLED: Jul 13, 2012		DATE RECEIVED: Jul 12, 2012		DATE REPORTED: Aug 09, 2012	SAMPLE TYPE: Soil
Sample Description	Analyte: Unit: RDL:	Y ppm 1	Zn ppm 0.5	Zr ppm 5	
QUDS 1		9	113	<5	
QUDS 2		4	119	<5	
QUDS 3		8	150	<5	
QUDS 4		6	195	<5	
QUDS 5		4	107	<5	
QUDS 6		5	130	8	
QUDS 7		3	136	<5	
QUDS 8		5	108	<5	
QUDS 9		7	103	6	
QUDS 10		8	198	<5	
QUDS 11		6	134	<5	
QUDS 12		11	123	<5	
QUDS 13		14	210	<5	
QUDS 14		11	60.2	6	
QUDS 15		11	70.0	<5	
QUDS 16		7	58.5	<5	
QUDS 17		8	57.3	<5	
QUDS 18		9	67.5	<5	
QUDS 19		8	61.2	<5	
QUDS 20		12	69.4	<5	
QUDS 21		11	74.7	<5	
QUDS 22		6	56.2	<5	
QUDS 23		8	60.3	<5	
QUDS 24		7	82.9	6	
QUDS 25		3	69.6	<5	
QUDS 26		4	43.1	<5	
QUDS 27		5	48.6	6	
QUDS 28		3	18.5	<5	
QUDS 29		4	56.6	5	
QUDS 30		2	20.2	6	
QUDS 31		25	60.6	<5	
QUDS 32		2	26.4	<5	

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CLIENT NAME: HOMEGOLD RESOURCES LTD.

ATTENTION TO: JO SHEARER

## Fire Assay - Trace Au, AAS finish (202051)

DATE SAMPLED: Jul 13, 2012

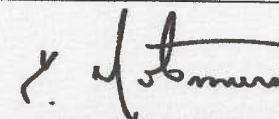
DATE RECEIVED: Jul 12, 2012

DATE REPORTED: Aug 09, 2012

SAMPLE TYPE: Soil

Sample Description	Analyte:	Sample Login Weight	Au
	Unit: RDL:	kg 0.01	ppm 0.002
QUDS 1		0.29	<0.002
QUDS 2		0.23	0.003
QUDS 3		0.29	0.002
QUDS 4		0.45	0.003
QUDS 5		0.34	0.007
QUDS 6		0.31	0.006
QUDS 7		0.33	0.017
QUDS 8		0.23	0.006
QUDS 9		0.21	0.012
QUDS 10		0.48	0.011
QUDS 11		0.30	<0.002
QUDS 12		0.32	0.007
QUDS 13		0.32	0.007
QUDS 14		0.48	<0.002
QUDS 15		0.48	<0.002
QUDS 16		0.64	0.011
QUDS 17		0.58	0.002
QUDS 18		0.48	<0.002
QUDS 19		0.49	0.002
QUDS 20		0.52	0.003
QUDS 21		0.49	<0.002
QUDS 22		0.44	0.009
QUDS 23		0.39	<0.002
QUDS 24		0.38	0.004
QUDS 25		0.41	0.002
QUDS 26		0.32	<0.002
QUDS 27		0.31	<0.002
QUDS 28		0.33	0.002
QUDS 29		0.33	<0.002
QUDS 30		0.31	<0.002
QUDS 31		0.38	0.002

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# **Appendix IV**

## **Soil Descriptions**

**July 10, 2012**

**Appendix IV  
Soil Descriptions**

					cut by quartz. Pyritic, 1 mm pyrite crystal.	
QUDD2	Rock/float				SAMPLE FROM CRUSHER J&L	
<b>Creek Sediment</b>	sample					
QUSS01	Sediment				float in creek rusty quartz and Limestone. Stream is 340 degree Azimuth	
QUSS02	Sediment					419876E 5682283N
<b>Soil Sample</b>	<b>Type "B"</b>	<b>Depth</b>	<b>color</b>	<b>Texture</b>	<b>Comments</b>	
QUDS1	Soil	25 cm	brown	clay/sand	in cedar trees of 30' diameter	
QUDS2	Soil	25	brown	clay/sand	cedar trees	
QUDS3	Soil	25 cm	brown	clay/sand	cedar trees	
QUDS4	Soil	25 cm	brown	clay/sand	float	
QUDS5	Soil	25 cm	brown	clay/sand	shists	
QUDS6	Soil	25 cm	brown	clay/sand	micaceous shist	
QUDS7	Soil	25 cm	brown	clay/sand	micaceous shist- greenstone shist	
QUDS8	Soil	25 cm	brown	clay/sand	micaceous shist	
QUDS9	Soil	25 cm	brown	clay/ sand	micaceous shist	
QUDS10	Soil	25 cm	brown	clay/sand		
QUDS11	Soil	25 cm	brown	clay / gravel		
QUDS12	Soil	25 cm	brown	sandy gravel		
QUDS13	Soil	25 cm	brown	sandy gravel		