# GEOCHEMICAL ASSESSMENT REPORT ON THE ROAM PROJECT

Watson 1-38 (Y029789-Y0123887)

Watson Lake, Liard River Area Liard Mining District, Northern BC/Yukon

NTS 105A/2 59°59'30" N Latitude, 128°38' W Longitude

> for Homegold Resources Ltd. Unit 5 – 2330 Tyner Street, Port Coquitlam, BC V3C 2Z1

by J. T. Shearer, M.Sc., P.Geo. (BC & Ontario)

October 12, 2018

Work Completed between June 1, 2018 and October 12, 2018

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## SUMMARY

Homegold Resources Ltd. has retained J. T. Shearer, M.Sc., P.Geo. to complete a review of the Roam Project and document the fieldwork completed up to 2018. The purpose of this technical report is to document the 2018 work, review the exploration potential of the Roam Project, and to provide recommendations for future work.

The claims are contiguous located on both sides of the Liard River, on the north side of the Yukon – British Columbia border, about 8 air km southeast of the town of Watson Lake, Yukon [Figure I]. The centre of the claim ground lies at 59°59'30" N. latitude, 128'37'45" W. longitude in 104P.098 in British Columbia.

The Main Showing is hosted by units of phyllite, sandstone with quartzite, and black shale. The showing is located on the south bank and consists of lenses of massive, very fine-grained galena and sphalerite, hosted in grey calcareous mudstones. The lenses are 20 cm wide, and exposed above the river for about 10 m in length. A typical assay from these lenses is 8.94 oz./ton Ag, 46.3% Pb, 22.6% Zn. About 100 m east, a zone of silicification at the contact between shales and quartzite contains patches of galena, sphalerite, and tetrahedrite. A channel sample across 0.6 m from this zone returned values of 9.1 oz./ton Ag, 0.2% Cu, 24.95% Pb, and 2.23% Zn. On the north shore opposite the Main Showing, a 15 m thick unit of chert and calcareous grit occur at a shale-sandstone interface. The grit contains rounded chert pebbles and elongate shale clasts in a sandy matrix. Quartz lenses and cross fractures in phyllite are mineralized with argentiferous galena and locally with tetrahedrite.

At the West Showing, zinc and lead sulphide mineralization occurs in a barite vein, oriented at 340°/85°W and with a true thickness of 2.25 metres. Localized, highly irregular patches and streaks of massive brown sphalerite, up to at least 5 cm and medium to coarse galena up to at least 4 cm occurs within the barite. A high grade sample of galena in barite (RW12) assayed 10.8% Pb, 44.2 g/T Ag, and 42.3% Ba. A piece of float containing sphalerite in massive barite assayed 5.80% Zn and 41.3% Ba. On the north side of the river, a boulder (RW20) of massive coarse crystalline galena and barite returned 70.20% Pb and 44.5 g/T Ag.

Five diamond drill holes totalling 748.0 metres (2454 ft.) were completed on the Roam Property during May and June of 1997. Holes 1, 2 & 3 were drilled to test geophysical anomalies along the west side of the Liard Canyon. Holes 4 and 5 were drilled on strike with a barite vein exposed on the south cliff face of the Liard River.

Anomalous Gold Values in soil were detected to the east of the 1997 drilling.

In the B.C. portion of the property mineralization of possible stratiform nature occurs at the Main Showing consisting of bands of lead-zinc sulphides in graphitic slate and silty limestone, which was previously mapped and described by Logan Mines in 1981. Billiton Canada also examined the showing in 1984 and suggested that the area may be close to a sedex vent or feeder zone due to the nature of the veining, alteration, metal ratios and massive, brecciated sulphides. Recent mapping by the B.C. Geological Survey (Ferri et al., 1997) on the opposite side of the river describes veins related to regional folding, but did not rule out the possibility that some of these veins represent a syn-sedimentary feeder system.

Further work on the property should include trenching to expose the zones intersected in Holes 4 and 5, where the overburden appears to be thin. Hole 4, which stopped short of the second and third zones of

mineralization intersected in the fifth hole, should also be deepened. South of the border, the broad gravity anomaly should be further delineated with a survey expanding the area covered by Samarkand's program.

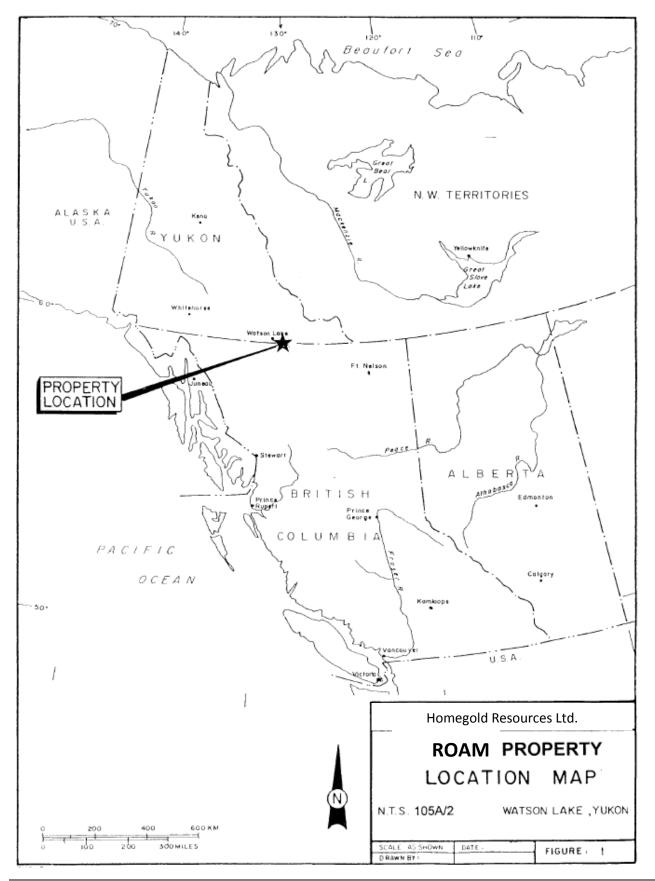
The author and F. Loots conducted a series of reconnaissance mapping surveys on the Roam-Watson claim group. Two different parts of the claim group were examined, the northern portion, which cover the 'Barite Zone, or 'West Zone' and the 'Main Zone' located further to the south, just across the Yukon-BC border, on the BC side. Both of these zones are well exposed along the steep banks of the Liard Canyon.

Rock samples on the southeast portion (samples 1 to 23) are characterized by a variety of rock types, mainly low Zn levels (exceptions are up to >500ppm Zn) but high (up to 24.51% Si) silica.

Rock samples near the main showing (samples 24 to 35) are characterized by high silica (siliceous gneiss) but generally lower Zn. Geochemical primary dispersion is relatively restricted.

Respectfully submitted,

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





#### Photo 1.

Looking up stream (north westerly) on the Liard River from the Alaska Highway approximately 10-11 km south of Watson Lake.

#### INTRODUCTION

Homegold Resources Ltd. has retained J. T. Shearer, M.Sc., P.Geo. to document the 2012 work and complete a review of the Roam Project. The purpose of this technical report is to document the 2018 work, review the exploration potential of the Roam Project, and to provide recommendations for future work.

Information used in the preparation of this report is listed in the section entitled "Item 27: References". Public information used in the preparation of this report includes maps and reports prepared by private geophysical consulting firms, government geologic surveys, assessment reports by private resource companies, and various academic publications.

Previously a short field examination of the Roam Project by Homegold crew was completed in June and August 2011.

A 1997 five-hole diamond drill program totalling 748.0 metres (2,454 ft.) was completed on the Roam Property during May and June of 1997 by KRL Resources Corp. The purpose of this program was to investigate several geophysical anomalies outlined in a previous investigation and to test a barite showing. Prospecting and geological mapping was also conducted during this period, followed by a brief soil geochemistry survey in July west of the grid area. The property is considered prospective for sedex type zinc-lead-silver mineralization.

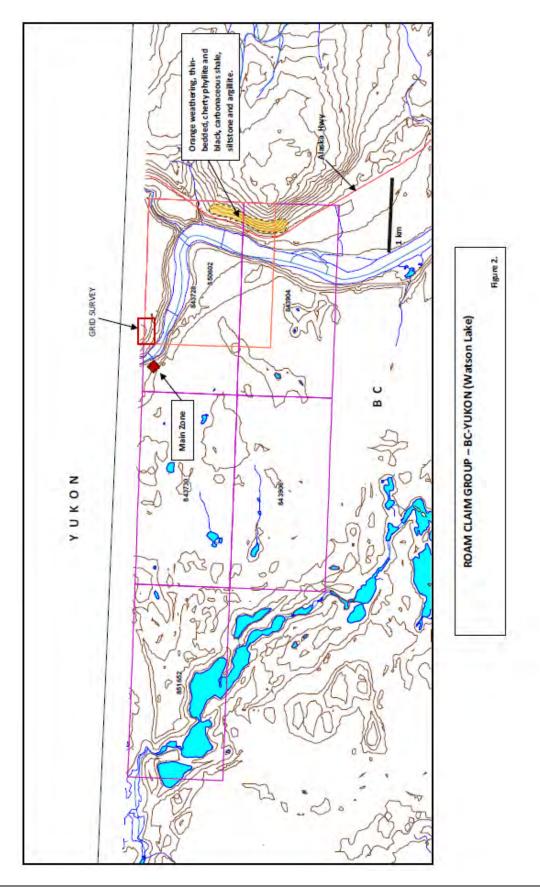
The author and D. G. Cardinal, P.Geo., conducted a series of reconnaissance mapping surveys on the Roam-Watson claim group in 2012. Two different parts of the claim group were examined, the northern portion, which cover the 'Barite Zone, or 'West Zone' and the 'Main Zone' located further to the south, just across the Yukon-BC border, on the BC side. Both of these zones are well exposed along the steep banks of the Liard Canyon. In fact, it is quite likely that G. M. Dawson would have observed the characteristic iron-bleached alteration zones during his mapping expedition down the river in 1887.

Previously in 2012, a helicopter supported base camp was established near the centre of the 2 zones from which, a small exploration crew consisting of 2 experienced prospectors and 1 field assistant, conducted daily field surveys. The camp was conveniently located along a historical (1980-84) caterpillar constructed exploration trail that connects to both zones.

The author was able to easily examine both of the zones from camp, about 1-1.5 hour walk to either zone.

The claims are heavily vegetated with mixed stands of lodge pole pine, poplar and spruce and alder willow with undulating to flat lying (poor drainage) topography. There is essentially no bedrock outcrop on the property other then along the banks of the river. Unfortunately, access is limited to much of the outcrops due to steep and rugged nature of the cliff faces, some access to the bedrock was reached mainly along the river's edge to examine and sample some of the faces. A power boat or zodiac-type of water craft would be advantageous to properly examine the alteration and mineral zones in future exploration work.

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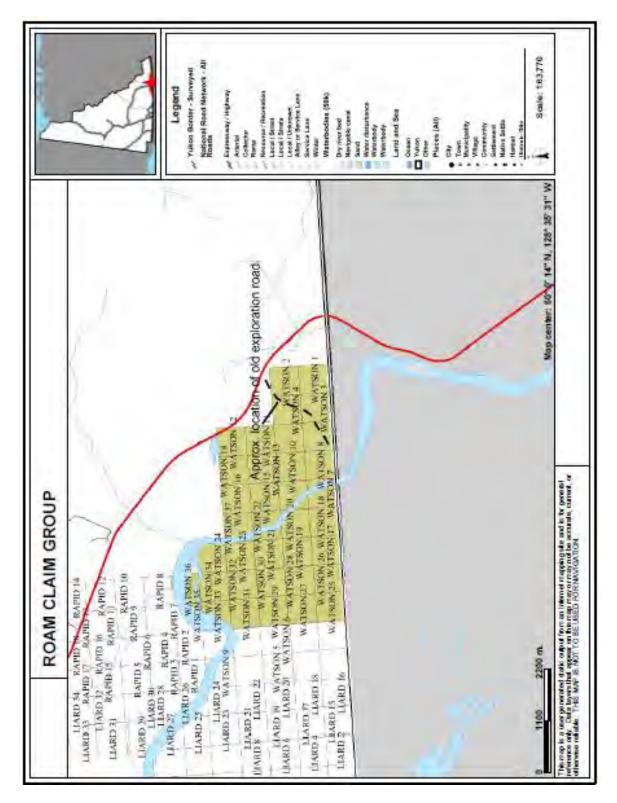


Figure 2b Claim Map

#### LOCATION and ACCESS

The claims are contiguous located on both sides of the Liard River, on the north side of the Yukon – British Columbia border, about 8 air km southeast of the town of Watson Lake, Yukon [Figure I]. The centre of the claim ground lies at 60°01'00" N. latitude, 128'37'45" W. longitude on mapsheet 105A/2 in the Watson Lake Mining District.

The Yukon portion of the Watson Property consists of 37 claims covering an area of approximately 2,167 hectares in the Watson Lake Mining District with the adjacent 3 claims in B.C. covering an area of 468,51 ha. The claims are listed below *in* Table I and illustrated in Figure 2.

TABLE I

Yukon Claims	
Claim Name	Tenure No.
Watson 1-6	YO29789-YO29794
Watson 7-12	YO29795-YO29800
Watson 13-36	YO119077-YO119100
Watson 37	YO123887

37 Claims @ 25 ha each = 925 ha

<b>BC</b> Claims	(104P.098)			
Claim Name	Tenure No.	Current Anniversary Date	Area (ha)	Registered
				Owner
Roam 1	843728	October 18, 2021	129.51	J.T. Shearer
Roam 2	843730	October 18, 2021	16.20	J.T. Shearer
Roam 5	1060170	October 19, 2021	323.80	J.T. Shearer
		Total	469.51 ha	

All the claims are owned 100% by J. T. Shearer

**Environmental Liabilities** 

Currently, there are no known environmental liabilities. The Liard River cuts through the Property, and the majority of the historical exploration work was conducted adjacent to river without any environment impact. Any future work to be conducted would be carried out in approximately the same areas with no expected environmental concerns. The area is generally habited by black bear and ungulates, mainly deer and moose. The topography is relatively flat with the occasional swampy muskeg and small stream.

Permits

Presently, there are no permit applications in place. Any future exploration work such as drilling and ground disturbance (e.g. trenching, etc.), necessary exploration permits would need be applied for through the various Yukon and British Columbia government ministries.

#### Access

Several access options are available. Helicopter out of Watson Lake takes about 5 minutes, with a number of helicopter pads on the property. Road access is available by a 4x4 road from Upper Liard along the south side of the Liard River. The Alaska Highway passes through the northeast corner of the property. The claims can also be reached by boat from Upper Liard along the Liard River, which flows southeasterly through the property.

#### Climate

The climate is typical of northern continental regions, with long cold winters and short warm summers. Temperatures range from about -25" in January to +21° C in July. Total annual snowfall averages 219 cm. Field work is ideally carried out from May to October.

#### Physiography

The Property occurs on the western part of the Liard Plain, a physiographic division of the Interior Plateau, a broad, low lying and relatively flat region through which the Liard River flows. Elevations on the Property range from 600m to 710m. The steep walls of the Liard Canyon are exposed for a distance of 2.5 km on the east side of the property. The terrain is relatively flat with low sand and gravel terraces flanking the river. Much of the property is covered by glacial deposits of silt, sand and gravel up to 50 m thick, producing local eskers and kettles hummocky terrain. These deposits are classified as glaciofluvial and glaciolacustrine in origin, while the terraces adjacent the river are classified as modern alluvial terraces.

Vegetation is light to moderately dense, consisting of mainly lodgepole pine, spruce, poplar, cottonwood and underbrush of willow and ground cover labrador tea. In places, swampy muskeg and meadow areas occur.

The Property is mainly drained by the southeasterly-flowing Liard River as well as some minor tributaries.

The Property is strategically situated, a major transportation corridor – the Alaska Highway, runs along the eastern portion of the claims. Local resources including electrical power and a skilled labour force is readily available from the town of Watson Lake. Historically, the town has and continues to service various mining and exploration companies working in the regional area. The settlement of Lower Post is a short distance to the south.

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#### HISTORY

The following chronology is modified from Rainsford (1984) and Scott (1987). The earliest reference to exploration in the area was made by G.M. Dawson in 1886, who noted argentiferous galena in the lower Liard Canyon. More recent history includes:

1962:	The Jim and Moose claims are staked by F. Lutz to cover 2 showings on the Liard River.
1965-75:	Claims restaked several times under different names. Minor trenching in 1969, 1971 and 1973.
1979:	Restaked as Roman 1-16 claims by Jake Melynchuck and optioned to St. Joseph Exploration. Geological mapping and geochemical soil sampling is performed in the Barite Showing area.
1980:	Logan Mines optioned the property and diamond drilled 2 holes from one set-up totalling 123.1 m at the Barite Showing. A limited EM-16 survey was performed around the Main Showing.
1981:	Logan Mines conducted 9.2 km of soil sampling and magnetic surveying in the Barite and Main Showing areas. Detailed geological mapping and sampling of showings are also performed.
1983:	The Rom and Man claims in the Yukon and the Rom 2 and Vent 19 claims in British Columbia are staked adjacent to the original Roman 1-16 and Rom 50 claims.
1984:	Billiton Canada Ltd. optioned the property and carried out 65 km of grid linecutting, IP, resistivity, VLF-EM, HLEM, magnetometer and gravity surveys over a major part of the property. A geochemical orientation survey was also completed.
1985:	Access road from Lucky Lake on Alaska Highway to the West Showing constructed by J. Melnychuck.
1986:	Samarkand Resources optioned the property and performed 46 km of line cutting, Genie EM (horizontal loop), VLF-EM and proton magnetometer surveying. Geological mapping and sampling are also conducted. JM 1 & 2 claims staked by Melnychuck in British Columbia, to south of existing claim group.
1996:	KRL Resources Corp. restakes the ground and performs airborne and ground geophysics, soil geochemistry, and minor prospecting. The Luck 1-10 and Lee 1-20 claims adjoining KRL's ground are optioned from Nu-Lite Industries. A program of follow-up backhoe trenching is conducted in the fall.
1997:	Diamond drilling by KRL Resources totalling 748m (2,454 ft.) in 5 holes, plus trenching and soil sampling.

Previous Exploration in 2011

The author and D. G. Cardinal, P.Geo., examined and briefly surveyed an eastern portion of the Roam-Watson mineral claims (BC side) in 2011. The reconnaissance surveys consisted of preliminary mapping and sampling.

The surveys were conducted along the eastern banks of the Liard River and across from a mineralized zone referred to in assessment reports as the 'Main Zone' (Figure 2). Both the Main and Barite zones are presently not accessible due to poor road conditions, which will require some brushing and rehabbing in order to access these sites.

A short grid with a base line extending for 200 meters, with cross lines every 50 meters was laid out in order to conduct some preliminary mapping and sampling control. Previous (1980s-90s) work is evident in this area with an old road that leads from the Alaska Highway (Figure 1), a distance of about 2.5 km. A trench and open-cuts are visible and were mapped to the grid.

Surveys were conducted at a scale of 1:1000 with rock outcrops, roads and approximate position of the Liard River plotted on to the grid map (Figure 3). Several weakly mineralized quartz veins hosted in siliceous phyllite rocks were encountered during the mapping, here in referred to as the 'East Zone'.

Rocks underlying the East Zone comprise of 2 main rock types: (i) phyllites and shales which include – characteristically orange weathered phyllite, siliceous phyllite; flaggy, thin-bedded shaley limestone, calcareous shale, black sooty-silty shale and occasional round-shaped stromatolite-like fossils and; (ii) grey, brittle, fine grain, quartzite and carbonaceous quartzite.

Structurally, the sedimentary rocks noted above appear to represent a recumbent fold this is supported by the characteristically shallow dipping nature of the bedding, ranging between 10-15 degrees north easterly. The phyllite unit has experienced ductile deformation while the quartzite and unit has gone brittle deformation and displays numerous quartz unmineralized veinlets. Carbonaceous fault gouge and surface expression of structural features suggest stacked thrust fault slices along recumbent fold limbs of the sedimentary rocks (Figures 3 & 4).

The orange weathered phyllite and iron oxidized shales host cross-cutting, weakly mineral-bearing quartz veins which carry sporadic patches of malachite staining and occasional fine grain galena and tetrahedrite. The largest vein is up to 0.5 meters wide and is traceable for at least 75 meters striking northerly (Figure 3). A second type of vein system was noted along the river bank escarpment. This vein tends to be massive and iron stained and appears to carry only minor pyrite. No other sulphides were noted during the cursory examination of this vein.

Directly across (west side) of the river is the Main Zone (Photo 1). The East and Main zones are related and are of the same alteration and structural controlled mineral system. These 2 zones also appear to be stratabound related, and suggest to be hosted a long more favourable sulphide-bearing horizon.

Limited additional mapping was conducted along the Alaska Highway, along the eastern portion of the claim group and just south of the town of Watson Lake. A small outcrop about 15m by 15m was noted about 4 km south of the town on the north side of the highway. It is composed of mafic to ultramafic greenstone with weak listwanitic alteration. This may be part of a fault slice of Slide Mountain terrane. About 2 kilometers further, cut the highway, is a large section exposing thinly bedded, orange coloured

cherty phyllite and black argillite, shale and shaley limestone. A photo was taken (Photo 2) from this point on the highway, looking up stream to the Main and East zones.

#### 1997 DRILL PROGRAM

Five diamond drill holes totalling 748.0 metres (2454 ft.) were completed on the Watson Property during May and June of 1997. Holes 1, 2 & 3 were drilled to test geophysical anomalies along the west side of the Liard Canyon. Holes 4 and 5 were drilled on strike with a barite vein exposed on the south cliff face of the Liard River.

The dominant rock type intersected in the holes are bedded sequences of dolomitic slates, siltstone, and argillite with lesser sandstone. Sulphide mineralization consists of minor sphalerite and galena mainly within veins and as recrystallized grains in surrounding rocks. Minor disseminated pyrite is also common in all holes within veins and hostrock, and as fine laminations in hole 5.

The drill core was sampled at intermittent intervals, with continuous sampling only within mineralized zones. The standard sample length was approximately 1.5 metres. Samples were split and bagged on site, and taken to Eco-Tech Labs in Kamloops, B.C. for analysis. A multielement ICP analysis was performed on all samples with selected samples also analyzed for gold by fire assayIAA finish and total barium. The remainder of the core was stored in racks at the southern end of the Watson 25 claim.

A summary of observations from each drill hole follows: Hole KW97-1

This hole was abandoned at 45.1 metres in a gravel-filled channel. The hole was targeted at an airborne magnetic high anomaly, adjacent to a soil geochemical gold anomaly on the Watson 29 claim.

#### Holes KW97-2 & 3

These holes were drilled 200 metres apart on the Lee 7 & 9 claims (optioned from Nu-Lite Industries Ltd.), along strike of a coincident magnetic and VLF-EM anomaly. Bedding is folded, which is consistent with observations in the canyon outcrops where intense upright folds occur. A major zone of irregular quartz-carbonate veining was intersected over the entire length of the holes, with intervals up to 60 metres of 15-25% veining, and individual veins up to 1.5 metres core length. These veins are mainly concordant with bedding. Minor sphalerite occurs locally as recrystallized grains in dolomitic veins and beds. The source of the VLF-EM conductor intersected by Hole 2 appears to be a carbonaceous dolomitic siltstone unit from 80.8 - 92.1 metres with abundant graphitic gougy intervals, including a 1.3 metre interval of 90% graphite. The lower part of both holes intersected a metamorphosed argillite/siltstone unit displaying weak magnetism, which is likely the source of the high magnetic anomaly.

#### Hole KW97-4

Hole 4 was drilled on strike with the Barite Showing exposed on the south side of the Liard River. The hole is located on the Watson 17 claim, about 1 km west of the first three holes. The dominant lithologies encountered here are slate, phyllite, argillite, siltstone and lesser sandstone. The upper 25 m of this hole was highly sheared and broken, underlain by shale which grades into slate. At 36.7 m, one metre of barite was intersected, including 0.5 m of massive barite with about 10% sphalerite in stringy patches and coarse crystalline clots up to 3cm by 1.5 cm. The best assay returned 4.04% Zn from a 20 cm sample of this

mineralization. Minor galena is also present as fine disseminations and patches in the barite and within the silicified, pyritic wall rock. The enclosing black slate contains pyrite laminations and minor sphalerite in quartz veinlets. Forty metres below the barite, a clastic (sandstone?) unit containing bluish quartz grains and sulphide clasts was intersected over 3.4 m.

Fourteen samples were analyzed from this hole, representing 15% of the total length of core drilled. Values in zinc range from 29 ppm to 4.04% Zn, with 4 samples from 100-300 ppm, 6 samples from 300-700 ppm, and 3 samples above 700 ppm.

#### Hole KW97-5

Hole 5 was completed as a 200 metre step-out, on strike with Hole 4 to the south. Three zones of interest were intersected in this hole. The barite zone intersected in Hole 4 was projected to occur at an interval of 20.7 to 37.7 metres in this hole, where only 30% of the core was recovered. White staining on fractures may be due to secondary zinc minerals, although no visible sphalerite or barite was recovered. The second zone of interest occurs from 142.6 - 147.7 metres, where sandstone has been silicified and intensely quartz-veined and brecciated. Local seams and coarse-grained patches of sphalerite and galena, as well as trace chalcopyrite occur in this unit. The last 0.5 m of this interval is semi-massive pyrite. Several very thin, altered pyritic quartz porphyritic dykes were also intersected in this zone. A third mineralized interval, from 229.8 - 230.7 m, contains several percent sphalerite in a pyritic breccia of probable hydrothermal origin. The enclosing black slate contains minor sphalerite and galena in quartz veins as well as a broad zone with white staining on fractures. Thin beds of pyritic sandstone similar to that in Hole 4 were intersected at 74 m and 235 m. Fine-grained pyrite laminations in argillite, including beds up to 1.5 cm thick, first appears at 92m.

A total of 78 core samples were analyzed, representing 36% of the total length of core drilled. Twenty-one samples were in the range of 100-300 ppm Zn, 12 samples from 300-700 ppm, and 13 samples were above 700 ppm Zn. Elevated zinc values are associated with samples containing abundant quartz veining and in many of the intervals where white staining was noted.

Hole Number	Grid Co-ord.	Total Length	Interval (m)	Width (m)	Zn (ppm)	Pb (ppm)
	Bearing/Dip	(m)				
KW97-1	3750N, 5350E	44.5				
	090°/-45°					
KW97-2	4600N, 5325E	159.7	116.3-116.8	0.5	4976	
	090°/-45°					
KW97-3	4800N, 5360E	181.4				
	090°/-45°					
KW97-4	4560N, 4340E	106.7	35.6 - 36.7	1.1		2394
	080°/-45°		36.7 – 38.7	2.0	5071	
			includes:			
			36.9 - 37.1	0.2	4.04%	1250
			37.1 – 37.7	0.6	2840	488
KW97-5	4335N, 4375E	255.1	10.7 - 11.9	1.2	390	
	062°/-45°		25.3 – 32.7	7.0	668	
			29.2 – 32.3	3.1	1369	
			59.9 – 60.6	0.7	987	
			122.8 - 123.9	1.1	2763	

Table II: Summary of Previous Drill Results

139.4 - 141.4	2.0	2271	
145.6 - 146.8	1.2	3832	1234
149.6 - 150.2	0.6	4552	
182.9 – 192.9	10.0	314	
191.7 – 192.9	1.2	426	1270
208.0 - 214.0	6.0	454	
217.0 - 220.0	3.0	1003	
222.2 – 232.3	10.1	2803	
222.2 – 226.2	4.0		308
229.8 – 230.7	0.9	2.67%	

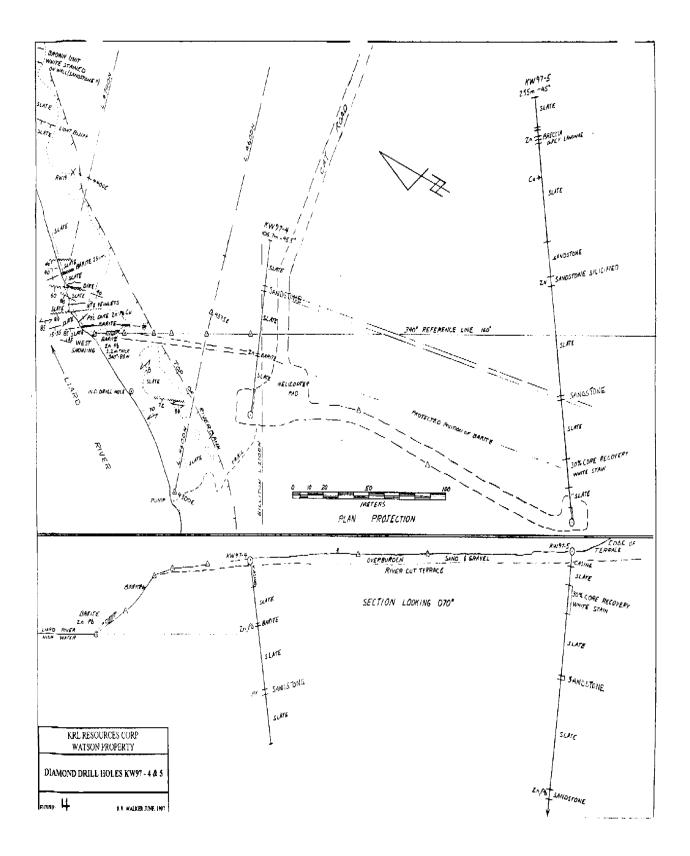


Figure 3 Drill Holes 4 & 5 (Historical Data)

#### **Geological Investigations**

Previously in 2012, several days were spent prospecting and mapping outcrops along the Liard River and particularly around the Main and Barite Showings.

In the area of the Main Showing south of the border, sphalerite and galena occurs along a fault contact between graphitic argillite and an overlying black chert unit. This fault zone, which strikes 090° and dips 35°S., is exposed along an old trench about 80 ft. above the south bank of the river. A chip sample across 1 metre true thickness (RW7A) returned 3.06% Zn and 3.08% Pb, and a selected high grade sample (RW6) produced 7.98% Zn and 5.53% Pb. A sample of pale yellowish-green stain (RW5) which covers large areas of outcrop in the area returned elevated values of 385 ppm Zn, 760 ppm As, and >10% Fe.

Examination of outcrops along the bluffs at the north end of the grid located sandstone containing fine disseminated pyrite with elevated values of 236 ppm Zn and 512 ppm Pb. A chip sample of argillite at the contact with the tuff returned 1159 ppm Zn. Barite veinlets were also noted to occur in sandstone/quartzite.

At the West Showing, zinc and lead sulphide mineralization occurs in a barite vein, oriented at 340°/85°W and with a true thickness of 2.25 metres. Localized, highly irregular patches and streaks of massive brown sphalerite, up to at least 5 cm and medium to coarse galena up to at least 4 cm occurs within the barite. A high grade sample of galena in barite (RW12) assayed 10.8% Pb, 44.2 g/T Ag, and 42.3% Ba. A piece of float containing sphalerite in massive barite assayed 5.80% Zn and 41.3% Ba. On the north side of the river, a boulder (RW20) of massive coarse crystalline galena and barite returned 70.20% Pb and 44.5 g/T Ag.

#### Soil Geochemistry 2012

A previous reconnaissance soil geochemical survey was undertaken in July of 1997 in the southwestern claim area. A 7.5 km grid consisting of three northwest trending lines, spaced 200 m apart was established in the southwestern claim area. A total of 148 soil samples were collected at 50 m intervals. The grid is located to the east of an aeromagnetic high anomaly. This anomaly is approximately 800 m wide by 2,200m long and may represent an intrusive source.

Samples were collected from the "B" horizon by digging a hole with a grub-hoe or round nosed shovel. The soils were placed in a kraft sample bag, and numbered with the grid coordinate location of the sample. The samples were dried before shipping to Acme Analytical Laboratories Ltd. in Vancouver, B.C. for analysis. A 30-element ICP analysis was conducted on all soil samples.

Values in base metals are generally low, with the exception of a few isolated zinc anomalies (Figure 5). Lead values range from <3 to 14 ppm (avg. 7 ppm), zinc from 3 to 158 ppm (avg. 64 ppm), and copper from 2 to 16 (avg. 7 ppm). Silver values are all below detection limit of 0.3 ppm, except for one value at 1.2 ppm. There does not appear to be any correlation between values.

The soil results are plotted on Figures 8 to 14; on 2 grids the samples were not assayed. Results are contained in Appendix III.

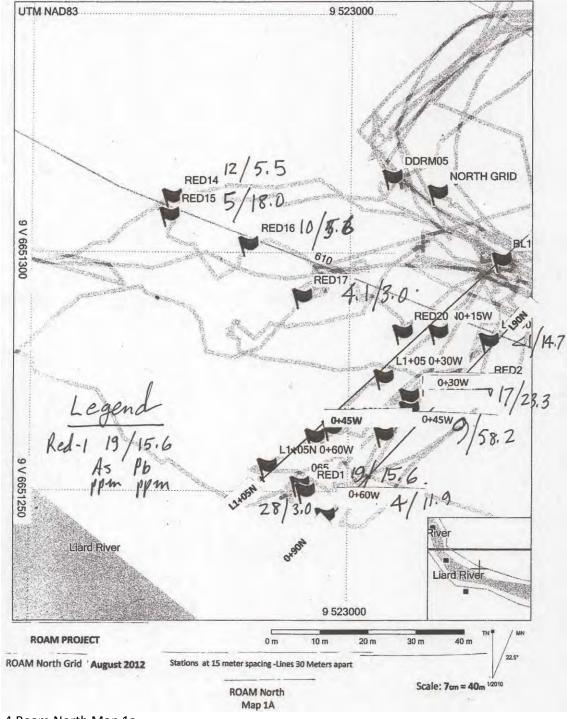


Figure 4 Roam North Map 1a

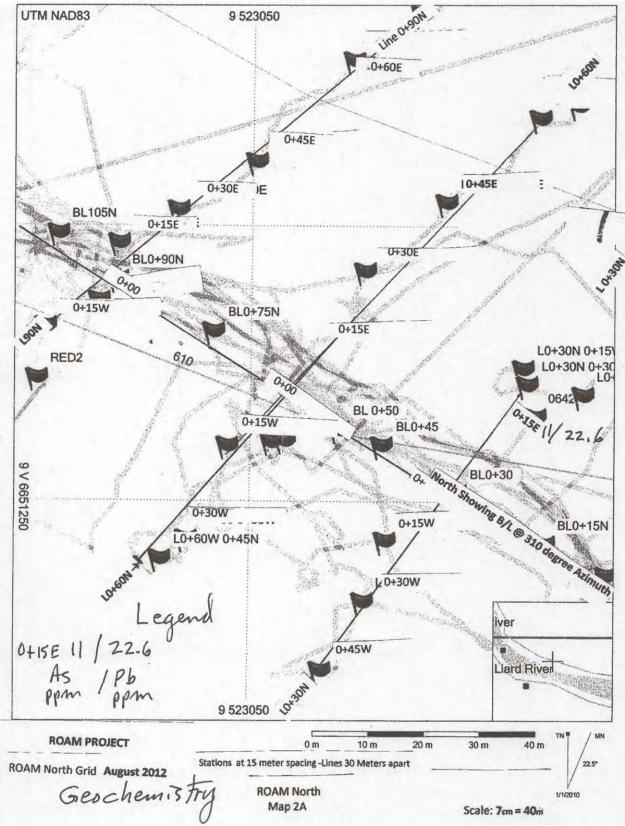


Figure 5 Roam North Map 2a

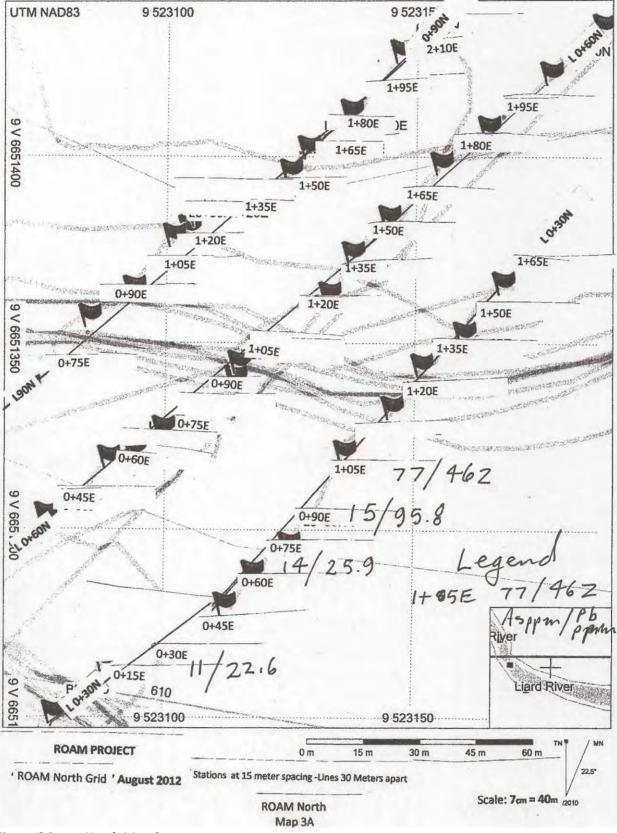
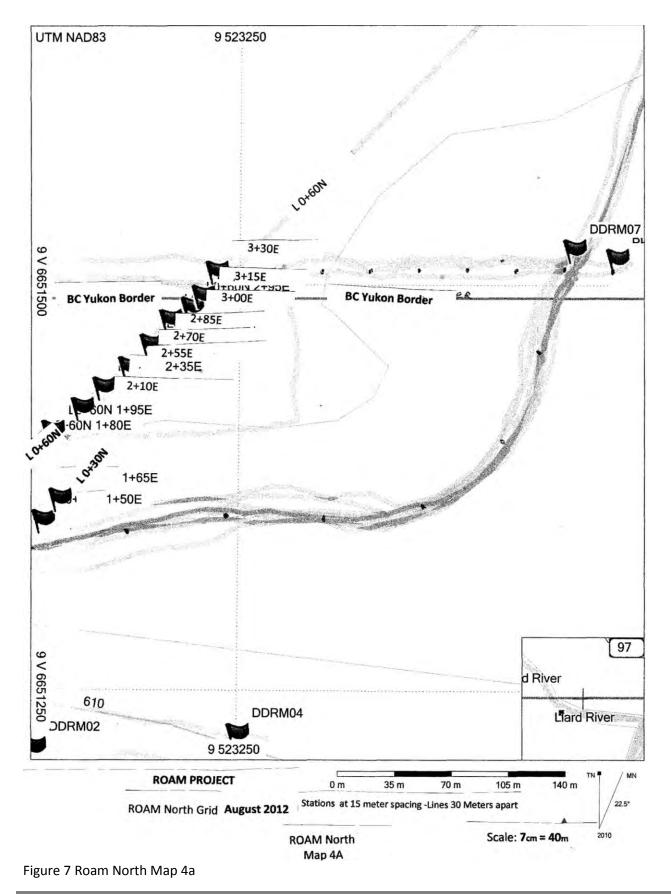


Figure 6 Roam North Map 3a



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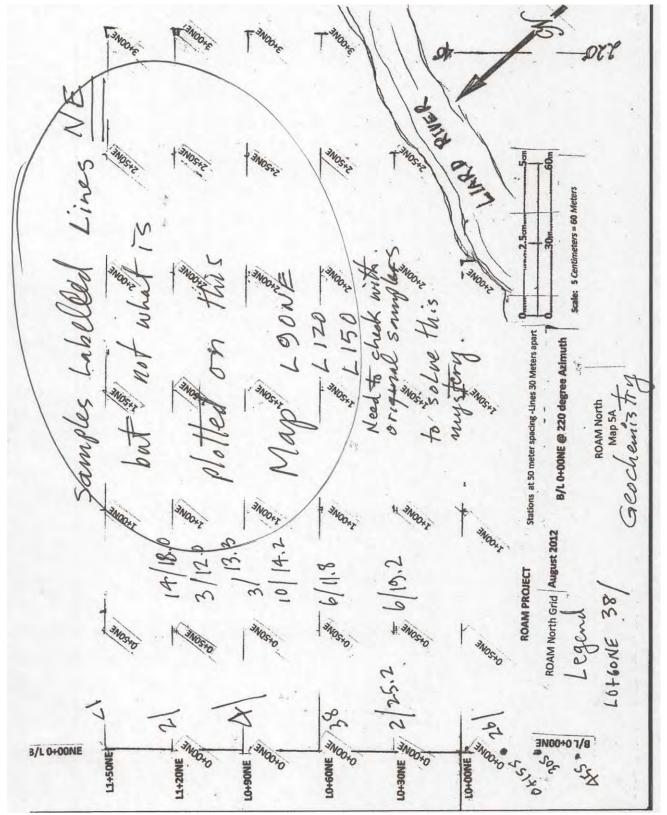
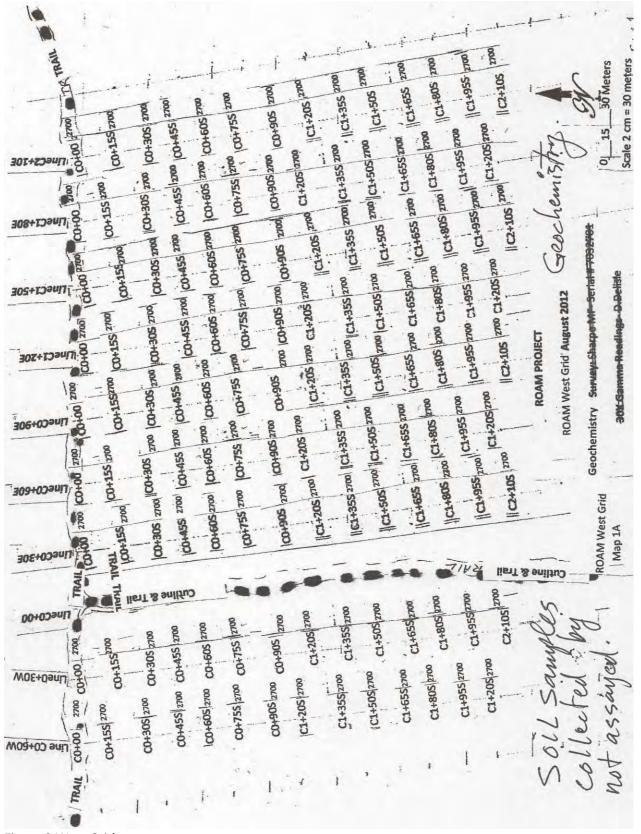


Figure 8 Roam North Map 5a



¥. L3+20S LUARD = RIVER tores. 12+60S L2+905 2+10W Cil 1+80W 305 1+65W 1+65W 1+65W CLEF 1+50W 1+50W 1+50W 1+50W 1+35W 1+35W. 1+35W 1+35W 0+90W 0+90W 0+90W 0+90W 0+90W 0+75W . 0+75W 0+75W 0+75W 0+75W 0+60W . 0+60W. 0+60W L3+50S 0+60W 0+60W L1+405 0+45W . 0+45W 0+45W 0+45W 0+45W L1+705 0+30W . 0+30W 0+30W 0+30W 0+30W 0+15W . 0+15W 0+15W 0+15W 0+15W B/L 0+00 2700 0+00 0+00 B/c 0+00 0+00 0+00 D+CO 0+00 0+15E 12+905 0+15E 0+15E 0+15E 0+30E 0+30E 0+30E 0+30E 0+45E 0+45E 0+45E 0+45E 0+60E 0+60E 0+60E 0+60E soil samples collected by not anssayed 0+75E 0+75E 0+75E 0+75E 0+90E 0+90E 0+90E 0+90E 1+35E 1+35E 1+35E 1+35E 1+20E 1+20E 1+20E 1+20E 1+35E 1+35E 1+35E 1+35E 1+50E 1+50E 1+50E 1+50E 1+65E 1+65E 1+65E 1+65E 1+80E 1+80E 1+80E 1+80E 1+95E 1+95E 1+95E 1+95E 2+10E 2+10E 2+10E 2+10E 2+25E 2+25E 2+25E 11+705 2+40E 2+40E 2+40E L2+30S L2+60E 12+00S **ROAM PROJECT** ROAM Main Grid August 2012 Geochemistry 30 Meters Geochemistry Scale 2 cm = 30 meters **ROAM Main Grid** Map Figure 10 Main Grid

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#### Ground Geophysics 2012

Several grids were ground surveyed with a Sharpe MF Fluxgate Magnetometer Serial #7032709. Readings were collected at 15m interval. Loops were completed throughout the survey period to calculate a diurnal correction.

On both the Roam West Grid and Main Showing Grid all readings were 2700 gammas and as a result the magnetic pattern is flat and featureless.

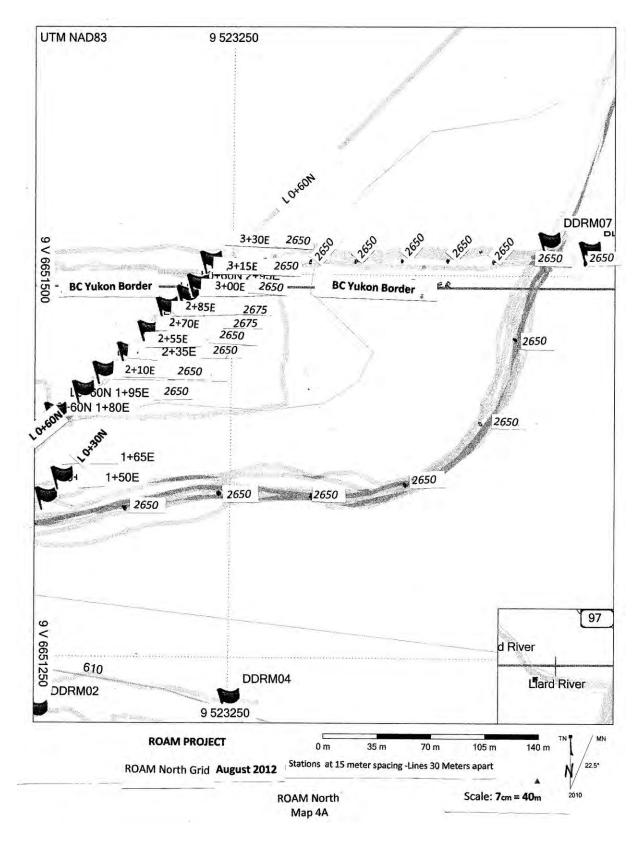


Figure 11 Roam North Map 4a

#### **REGIONAL GEOLOGY**

Regional mapping by H. Gabrielse of the McDame (1963) and Watson Lake (1967) map areas have identified predominantly Proterozoic to Mississippian marine sedimentary rocks with some Jurassic to Tertiary intrusions (Figure 3). The geology is not well understood due to the complex tectonic history of the region and the general lack of bedrock exposure in the broad drift covered plains.

The region lies within the Omineca tectonic belt of the Canadian Cordillera, to the east of the Tintina-Northern Rocky Mountain Trench. The tectonic assemblage compilation map by Wheeler and McFeely (1991) shows 3 different assemblages in the Watson Lake area:

- (1) Cassiar Terrane: Cambrian to Devonian passive continental margin sediments consisting of mainly dolomite, limestone, and shale deposited in platformal and basinal environments; includes the Kechika, Road River, Sandpile, Askin, and McDame Groups. The Cassiar Terrane is considered to be a displaced part of autochthonous North America.
- (2) Earn Group: Devonian to Mississippian fault trough clastic wedge consisting of chert pebble conglomerate, chert quartz sandstone, pebbly mudstone, shale and volcanics.
- (3) Slide Mountain Terrane: Devonian to Triassic oceanic marginal basin volcanics and sediments included in the Sylvester Group, which form a stack of fault-bounded slices emplaced eastward onto the Cassiar Terrane.

Proterozoic and Paleozoic basinal and platformal marine sedimentary rocks are important hosts of sedimentary exhalative lead-zinc-silver deposits worldwide and within the Canadian Cordillera. Some major producers include the Sullivan mine in southeast British Columbia and Faro in the Yukon. Other important occurrences include deposits of the Anvil, Howard's Pass and MacMillan Pass districts in the Yukon, and the Cirque deposit in northeast British Columbia (MacIntyre, 1991). All major sedex deposits known in the Cordillera occur in rocks of ancestral North America, hosted within intracratonic basins and miogeoclines. The most economically important sedex deposits are found in the Selwyn and Purcell basins and in platformal sequences of the Cassiar Terrane and equivalents to the west.

The Earn Group is host to some of the largest sedex deposits including the Tom and Jason of the Macmillan Pass district and the Cirque of the Gataga district. The lower Earn is distinguished regionally by its blue weathering siliceous shale and chert and the upper Earn by mainly brown weathering shale (not highly siliceous) and common bedded chert (Gordy et al., 1982). Coarse clastics consisting of chert pebble conglomerate, quartz-chert sandstone, and conglomeratic mudstone are found in both Upper and Lower Earn groups. Bedded barite occurs within the siliceous shale facies of the lower and possibly upper Earn Group at MacMillan Pass, and sedex zinc-lead-silver-barite deposits occur within clastic facies of the lower Earn Group.

The Road River Group which underlies the Earn Group is also host to several mid- Ordovician to mid-Devonian deposits including Howard's Pass and the Aikie. Black graptolitic mudstone and chert of the Road River Group was deposited throughout the Selwyn Basin and Kechika Trough during mid to late Ordovician time in response to a major marine transgression.

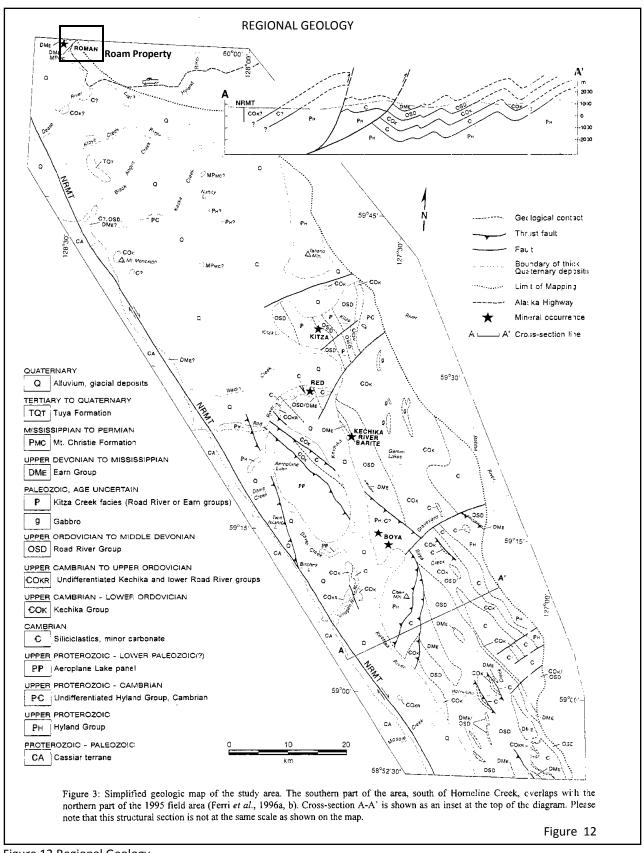
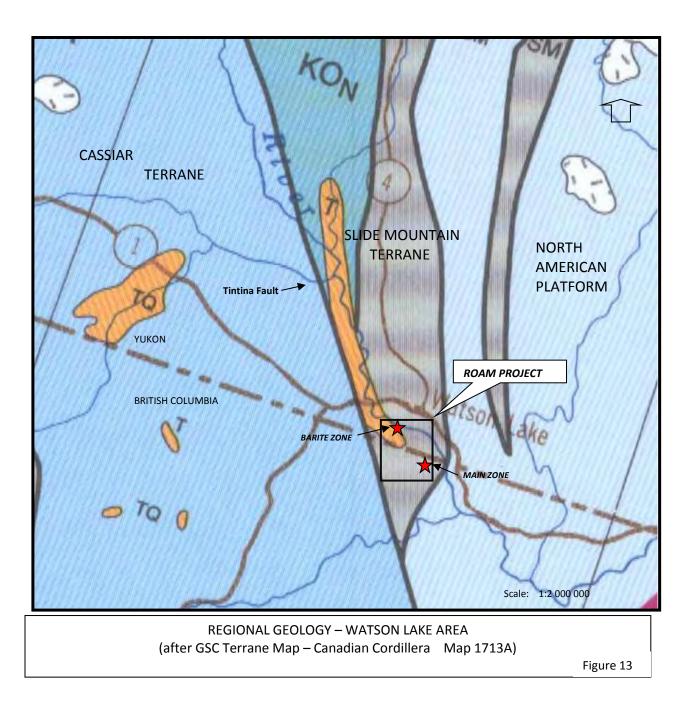


Figure 12 Regional Geology

The region lies within the Omineca tectonic belt of the Canadian Cordillera, to the east of the Tintina-Northern Rocky Mountain Trench. The tectonic assemblage compilation map by Wheeler and McFeely (1991) shows 3 different assemblages in the Watson Lake area (Figure 1):

- (1) Cassiar Terrane: Cambrian to Devonian passive continental margin sediments consisting of mainly dolomite, limestone, and shale deposited in platformal and basinal environments; includes the Kechika, Road River, Sandpile, Askin, and McDame Groups. The Cassiar Terrane is considered to be a displaced part of autochthonous North America.
- (2) Earn Group: Devonian to Mississippian fault trough clastic wedge consisting of chert pebble conglomerate, chert quartz sandstone, pebbly mudstone, shale and volcanics.
- (3) Slide Mountain Terrane: Devonian to Triassic oceanic marginal basin volcanics and sediments included in the Sylvester Group, which form a stack of fault-bounded slices emplaced eastward onto the Cassiar Terrane.



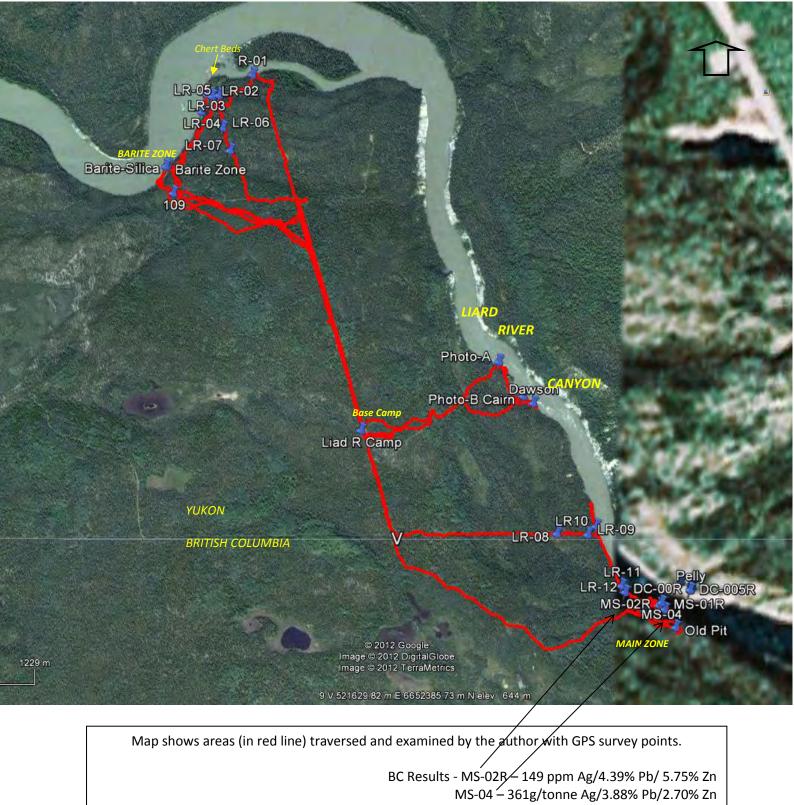


Figure 14

#### **PROPERTY GEOLOGY**

Bedrock exposure on the property is limited to shorelines and in the Liard Canyon, where beds of predominantly shale, argillite, slate, mudstone, and sandstone are well exposed along the steep canyon walls. Outcrops along the canyon on the BC side of the border were first mapped as Sylvester Group by Gabrielse (1963) and described as being similar to the limestone-quartzite-siltstone-slate sequence on the Alaska Highway. The same outcrop in the canyon on the adjoining mapsheet to the north was subsequently mapped by Gabrielse (1967) as Cambro-Ordovician dark grey and black, non-calcareous argillite, slate, and phyllite. Recent mapping by the B.C. Geological Survey has identified Devono-Miss. age Earn Group strata in the Liard Canyon and an overlying chert unit of possible Miss.-Permian age (Ferri et al., 1997).

Previous mapping of the property geology was performed by T. Scott of Samarkand Resources in 1986, as well as detailed mapping of the Barite Showing by St. Joseph Explorations Ltd. in 1979 and the Main Showing just south of the border by Logan Mines Ltd. in 1981. Available reports on property geology are summarized from D.G. Mark (1988), V. Cukor (1981), and D. Rainsford (1984).

At the Barite Showing (also referred to as the West Showing) located in the north central part of the property, carbonaceous black shales with calcareous and siliceous beds, and minor carbonaceous sandstone units are present. A 2 m wide conformable barite lens and a 0.4 m wide cross-cutting barite vein are found in black shales on the south bank of the river. Isolated patches of base metal and silver mineralization is reported within the barite. As well, pyrite occurs as a bedded horizon in excess of 20 m thick within shales and in quartz-barite cemented breccia zones. On the north bank, numerous barite-quartz lenses and veins up to 20 cm wide are also found in black shales.

In the Liard Canyon, rocks are described as intercalated black shale and buff-weathering, phyllitic, grey calcareous mudstone. Half way along the canyon, mudstone with a distinctive ochre to brown weathering is present.

During the author's brief Property examination, evidence of ductile and brittle deformation (D1) structures were noted. Thin bedded phyllites, carbonaceous-calcareous shales and siltstones display predominately shallow (10-15 degrees) dip east, possibly reflecting recumbent folding (F1 & F2). This folding may also be reflecting simple monoclinal folding. More detail structural mapping would be needed to ascertain the types of folds and fault structures on the Property. A series of stacked, sooty-carbonaceous gouges and surface linear features indicate probable shallow east dipping local thrust faults along bedding planes.

Dominate schistosity (S1 & S2) is parallel to fold axis and bedding planes. Regional, lower greenschist facies metamorphism is evident in most rock types which would have manifested during and syn-deformational (D1) tectonic event.



Photo 2 Looking across the Liard River from the East Zone to the Main Zone

#### Barite Zone:

The Barite Zone is located along the north portion of the claim group and partly exposed along the south banks of the Liard Canyon. The author was able to examine the zone by traversing down a steep embankment and walking along the banks of the river. However only small section of the exposed rock face was accessible as the level of the river was still quite high.

The zone is dominantly hosted in intensely contorted, thrust fault-sheared, black-sooty, carbonaceous argillite, limy, flaggy phyllite and lesser shale. The carbonaceous sediments characteristically display sheen slickensides along planes of schistosity and are also characteristically cut by numerous quartz-calcite microveinlets sometimes associated with fine cubic pyrite salvages.

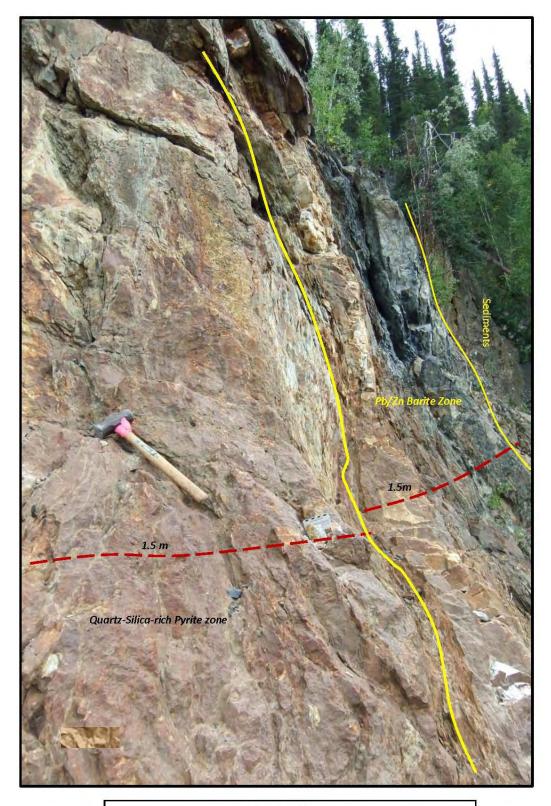
Photo 1 below shows typically exposed rock face and terrain along the river bank.



Looking downstream (easterly) with creamy coloured, bedded chert in fault-contact with intensely, sheared, carbonaceous argillite, phyllite and shale.

Photo 3

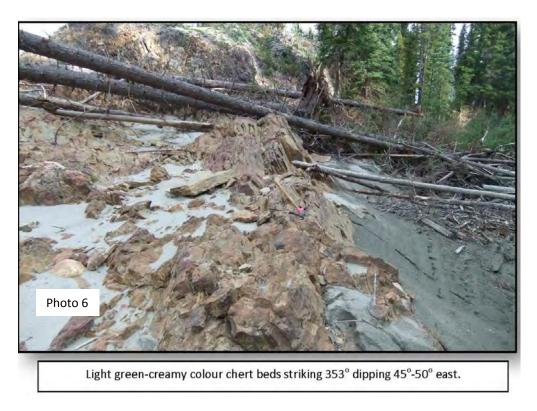
**Mineralization:** The barite zone exposed along the river bank is a northwesterly, steeply dipping zone about 3.0 metres wide. It consists of 1.5 m wide quart-silica-pyrite zone, which structurally underlies 1.5 m thick bed of creamy-white, sugary-textured barite. The barite invariably hosts fine irregular seams, blebs of galena and sphalerite. Several samples including a 1.5 m chip sample were collected from the barite zone (WZ-B01R to WZ-B03R).



**'Barite Zone'** (GPS: 520489N – 6653301E) Photo 4



The bedded chert formation outlined in Photo 1 above (close-up Photo 3) may be part of the same horizon BC Geological Surveyed identified in the Liard Canyon as a Mississippian – Permian age chert unit. This may also be part of allochthonous Slide Mountain Terrane ocean floor.



Main Zone: Access and terrain to reach the Main Zone is very similar with challenge of mapping and sampling the steep rock faces. What is immediately noticeable at this zone is the high degree of alteration and bleached, iron oxidation compared to the Barite Zone. Both zones have very similar structural deformation, shearing and thrust faulting. The author did not observe any barite mineralization however, the zone hosts irregular large patches and structurally controlled seams of galena, silver mineral (argentite), sphalerite and minor chalcopyrite.

The Main Zone is hosted within a more clastic unit of altered fine grain sandstone and siltstone with minor interbeds of carbonaceous shales. The zone, in particular the sandstone unit, is highly silicified hosting a network of quartz veinlets.

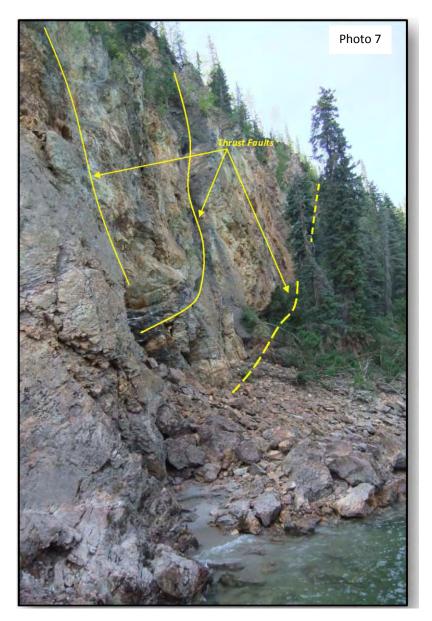
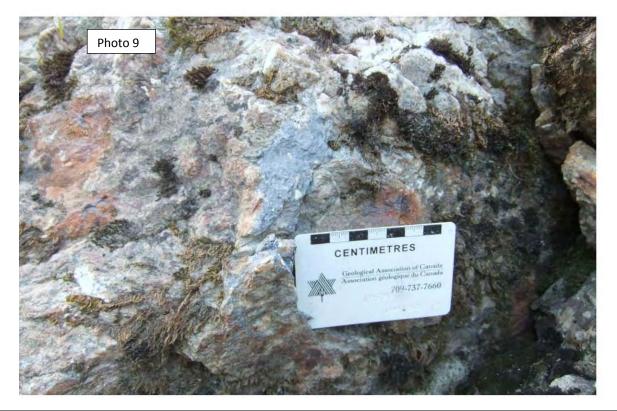


Photo 7 (looking west-northwesterly) shows intense deformation with ductile shearing and stacked thrust faults.

**Mineralization:** Sulphide assemblage is galena (argentite), sphalerite dominate with minor chalcopyrite. The sulphides are hosted in irregular quartz veins with thin, fracture-controlled seams or veinlets of Pb-Zn (Photo 8 below) or sometimes in the form of irregular patches (Photo 9). Several selected grab samples were collected numbered: MS-01R to MS-04R. Sample M-02 assayed 149 g/Ag, 4.39% Pb and 5.65% Zn and also MS-04 assayed 361 g/Ag, 3.88% Pb and 2.70% Zn.





**Deformation:** The Barite and Main zones are hosted in fine (shale-argillite) to coarser (sandstone-siltstone) and limy (calcareous phyllite) basinal clastics deposited along the edge of the North American passive platform. This area was subjected to intense deformation. Initial deformation would have occurred during the docking and accretion of the Cache Creek-Quesnellia-Stikinia superterrane (Jurassic-Cretaceous) and, subsequently (Tertiary), directly impacted by the proximal (located just a few thousand metres to west of property) dextral transpressional movement that formed the Tintina Fault. Evidence of poly-deformational phases can be observed along much of the Liard Canyon, which cuts into, and partly parallels the zone of deformation.



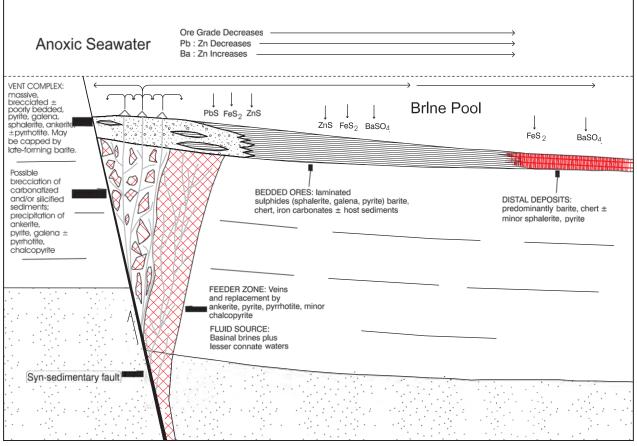


Calcareous argillite with tightly crinkled recumbent folds.

# **DEPOSIT and MODEL CONSIDERATIONS**

The following model best fits the Roam property mineralization, based on the historical data and current field data the author has examined. The Roam mineralization occurs along the northern end of what is referred to as the Kechika basin. The basin is made of thick sedimentary sequences that reflect passive margin setting which is made of Cambrian, Lower Silurian and Upper Devonian strata, in addition to the Earn Group underlying the Property. The Kechika and Selwyn basins are host to several large deposits and numerous prospects listed in the Table 3 below. The Anvil camp alone hosts 5 deposits with a total tonnage of 120.9 million tonnes.

The passive margin-like sediments hosting the lead-zinc-silver mineralization as well as the barite found on the Property, suggests sedex environment much similar to the deposit model described below. The potential exists for discovering a massive, sedimentary-bedded Pb-Zn-Ag sulphide deposit on the Property.



### Sedimentary Exhalative Deposits (SEDEX):

. Schematic representation of a typical sedimentary exhalative mineralizing system in Lower Paleozoic rocks of the Selwyn and Kechika basins. Modified from: Lydon (1996), MacIntyre (1991), Turner et al. (1989). Figure 15.

#### TABLE 3

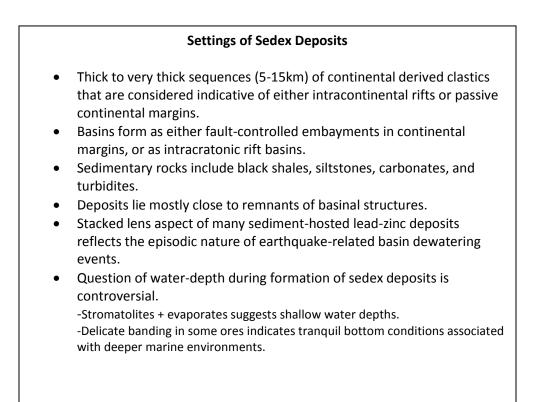
		Size	Zn	Pb	Cu	Ag	Au
Age	Name	(million tonnes)	(per cent)	(per cent)	(per cent)	(grams per	(grams per
						tonne)	tonne)
Cambro-Ordovician	Swim <sup>1</sup>	4.3	4.7	3.8		42	
Cambro-Ordovician	Grum₁	30.8	4.9	3.1		49	
Cambro-Ordovician	Dy <sup>1</sup>	21.1	6.7	5.5	0.12	84	0.95
Cambro-Ordovician	Vangorda <sup>1</sup>	7.1	4.3	3.4		48	
Cambro-Ordovician	Faro <sup>1</sup>	57.6	4.7	3.4		36	
Early Silurian	Howards Pass District <sup>2</sup>	425	5	2		9	
Late Devonian	Cirque	38.5	8	2.2		47.2	
Late Devonian	South Cirque	15.5	6.9	1.4		32	
Late Devonian	Driftpile Creek	2.4	11.9	3.1			
Late Devonian	Tom	15.7	7	4.6		49.1	
Late Devonian	Jason	15.5	6.6	7.1		79	
<sup>1</sup> Anvil District <sup>2</sup> Anniv and XY							
Data from MacIntyre (1991), Lyc	lon (1965), Goodfello	w and Jonsson (19	986)				

# TYPICAL GRADE AND TONNAGES FOR PALEOZOIC SEDEX MASSIVE SULPHIDE DEPOSITS WITHIN THE KECHIKA AND SELWYN BASINS

"Sedimentary exhalative" (sedex) deposits as the name implies, these deposits are believed to have formed in a sedimentary sequence by the exhalation of hot, metalliferous brines along fissures on the seafloor, resulting in precipitation of ore and gangue minerals.

The principal ore minerals are sphalerite and galena (containing silver) which are found with varying amounts of pyrite, barite, pyrrhotite and clastic sedimentary gangue minerals. Copper is rarely present and only in very minor amounts. The deposits are lensoidal and, where it can be recognized, sit above a mineralized stockwork system believed to represent the underground conduits that fed metal-bearing fluids to surface vents (Figure 4).

Some of the key characteristics of sedex deposits:



	Mineralization
•	Multiple stacked lenses of pyrite-galena-sphalerite ore. Majority contain economically important amounts of silver; without exception they contain little or no copper or gold.
•	Lateral extent of mineralization is considerable in the larger deposits and ore zones can extend for several km.
•	Conformable mineralization occurs over vertical interval of up to 650m (e.g. Sullivan and Faro mines).
•	In such cases shale beds are interlayered with massive or semi-massive sulphides.
•	Slow mineralization, several millions of years.
•	Ores are fine-grained; deformation, both syndepositional and post- lithification, produced in some deposits spectacular fold and flowage structures.
•	Certain sedex deposits have significant amounts of barite associated with the ore.
	-However, certain deposits such as the Sullivan is nearly barite free.
•	Ore exhibits zonation of metals in either lateral or vertical directions or both.
	-Sullivan mine, lateral zonation with increasing Zn/Pb ratios towards the margins of orebodies.

### MINERALIZATION

The Main Showing is hosted by units of phyllite, sandstone with quartzite, and black shale have been described. The showing is located on the south bank and consists of lenses of massive, very fine-grained galena and sphalerite, hosted in grey calcareous mudstones. The lenses are 20 cm wide, and exposed above the river for about 10 m in length. A typical assay from these lenses is 8.94 oz./ton Ag, 46.3% Pb, 22.6% Zn. About 100 m east, a zone of silicification at the contact between shales and quartzite contains patches of galena, sphalerite, and tetrahedrite. A channel sample across 0.6 m from this zone returned values of 9.1 oz./ton Ag, 0.2% Cu, 24.95% Pb, and 2.23% Zn. On the north shore opposite the Main Showing, a 15 m thick unit of chert and calcareous grit occur at a shale-sandstone interface. The grit contains rounded chert pebbles and elongate shale clasts in a sandy matrix. Quartz lenses and cross fractures in phyllite are mineralized with argentiferous galena, locally with tetrahedrite.

Mineralization observed elsewhere on the property include traces of galena, sphalerite, chalcopyrite and tetrahedrite, associated with narrow quartz veins and quartz stockwork. These veins generally strike east to northeast and dip steeply, or are concordant with bedding.

A zone of intense, upright folding is coincident with the Liard River canyon. These folds are described as trending south-southeast and plunging gently north. Bedding is generally steep and parallels the canyon walls. West of the canyon, beds dip gently to steeply southwest. Normal faults with minor displacements were observed, as well as some intense fracturing.

Minor intrusive rocks on the property include andesitic dykes, 1 to 5 m wide, striking sub-parallel to the shales at the west end of the Liard Canyon.

### WORK PROGRAM 2018

The 2018 work program on the Roam Project focussed on collecting 35 rock specimens (sample description in Appendix III and assay data in Appendix IV). A jet boat was employed to access the sample sites on the south shore of the Liard River. Locations and results are plotted on Figure 16a and 16b.

Assays were conducted by using an XRF Unit factory calibrated (Cert No. 0154-0557-1) on October 30, 2013, Instrument #540557 Type Olympus DPO-2000 Delta Premium. The instrument was calibrated using Alloy Certified reference materials by ARM1 and NIS5 standards. Only certified operators were employed and that were experienced in XRF assay procedures. Read times were 120 seconds or greater.

Rock samples on the southeast portion (samples 1 to 23) are characterized by a variety of rock types, mainly low Zn levels (exceptions are up to >500ppm Zn) but high (up to 24.51% Si) silica.

Rock samples near the Yukon showing (samples 26 to 35) are characterized by high silica (siliceous gneiss) but generally lower Zn. Geochemical primary dispersion is relatively restricted.

Mapping in 2018 generally confirmed previous observations.

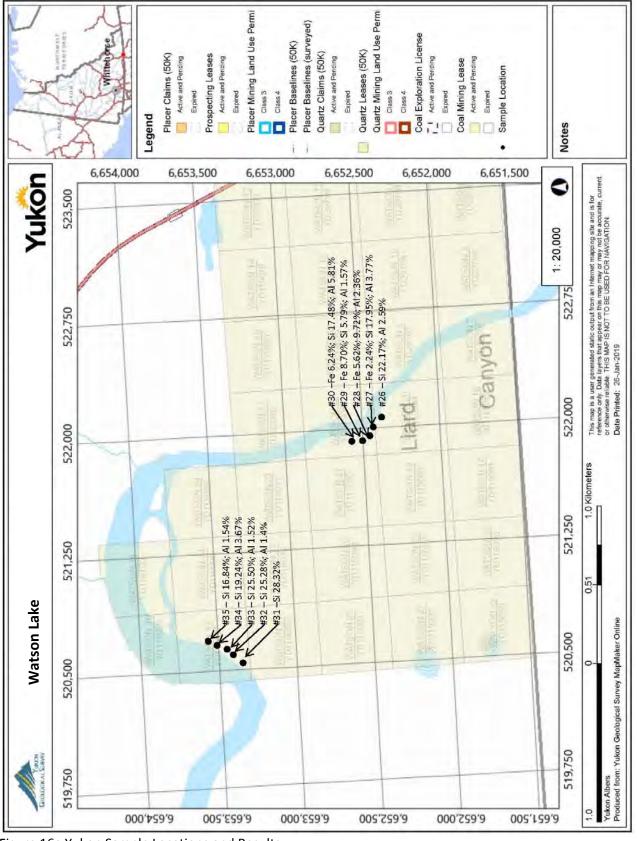


Figure 16a Yukon Sample Locations and Results

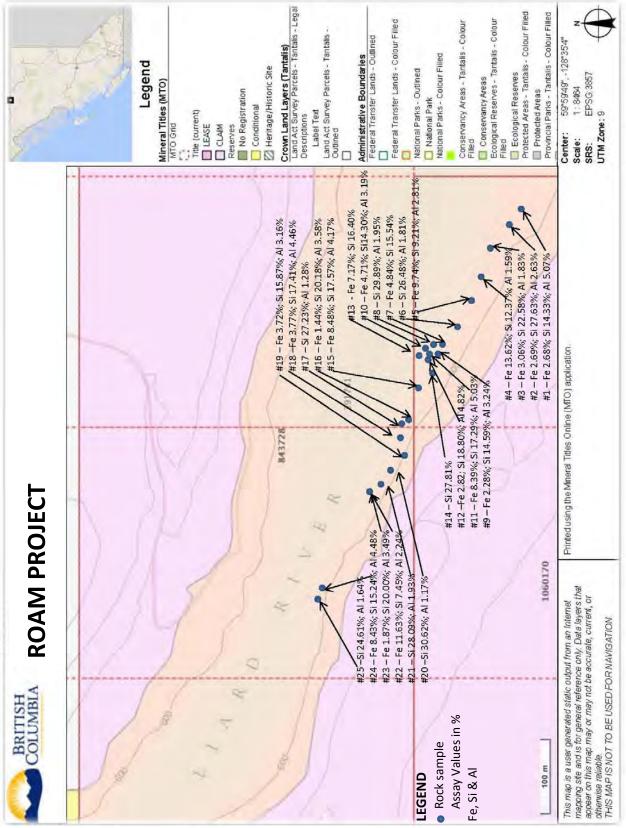


Figure 16b BC Sample Locations and Results

# **CONCLUSIONS and RECOMMENDATIONS**

The sedimentary rock unit mapped characteristically displays passive margin-like setting and is probably part of an assemblage that makes up the Sylvester Group of the thrusted faulted Cassiar platform terrane. The rocks underlying the property are conducive to hosting Sedex mineralization.

The Barite, Main and East zones appear to occur along the same stratigraphic horizon. Although, based on preliminary observations, the East zone hosts epigenetic type quartz mineralization, the phyllitic host rocks do carry fine pyrite mineralization that may suggest some relation to a possible distal, exhalite-syngenetic type environment.

Both structural and stratigraphic mapping of these zones is recommended, in order to interpret their relationship and structural positions, which could be used as a guide to vectoring towards and possibly defining potential Sedex-type massive sulphide mineralization.

Although the drilling on the Roam Project did not intersect stratiform zinc-lead mineralization, there are several indications of an exhalative environment and the potential for nearby sulphide accumulations. Holes 2 and 3 tested coincident airborne and ground geophysical anomalies which are concluded to result from graphitic horizons producing the VLF-EM response and a deeper metamorphosed unit which generated the magnetic high anomaly. The intense quartz carbonate veining found in these two holes and the minor zinc occurrences in the veins suggests a remobilization of sulphides during the folding of the strata. Holes 4 and 5, drilled on strike of the Barite Showing provide further indications of the presence of minerals associated with a sedimentary exhalative environment. Hole 4 intersected sphalerite and galena within the barite vein and within quartz veins and patches in the surrounding slates. Most of the samples from this hole also contained high background levels of zinc in the slate (several hundred ppm). Similarly, hole 5 intersected zinc and lesser galena in several different lithologies, including hydrothermally brecciated sandstone, an andesitic dyke, and a pyritic breccia with about 10% sphalerite. Several large intervals of slate with coatings of possible zinc bloom also produced elevated zinc values of several hundred ppm. Bedded fine-grained pyrite was found in much of the argillite, including locally minor semi-massive pyrite up to 3 cm thick.

Geological mapping and prospecting in the bluffs along the Liard River provided some additional hints to the nature of the geology and mineralization in the property. Outcrops on the south side of the river include units of sandstone and slate with elevated zinc and lead, and veinlets of barite in sandstone. Historical high grade samples from the Barite Showing returned several percent zinc and lead. On the north side of the river across from the showing, a thick unit (> 20m) of fine-grained bedded pyrite in carbonaceous shales was examined, and has been previously described by Scott, 1987. The presence of such mineralization is indicative of restricted basinal conditions which are favourable for sedex deposits. A high-grade boulder of coarse crystalline galena in barite found nearby may have originated from the till above the cliffs, as previous work by St. Joseph's in 1979 recognized basal till ferricrete with barite boulders in this area.

In the B.C. portion of the property mineralization of possible stratiform nature occurs at the Main Showing consisting of bands of lead-zinc sulphides in graphitic slate and silty limestone, which was previously mapped and described by Logan Mines in 1981. Billiton Canada also examined the showing in 1984 and suggested that the area may be close to a sedex vent or feeder zone due to the nature of the veining, alteration, metal ratios and massive, brecciated sulphides. Recent mapping by the B.C. Geological Survey

(Ferri et al., 1997) on the opposite side of the river describes veins related to regional folding, but did not rule out the possibility that some of these veins represent a syn-sedimentary feeder system.

Extensive geophysical surveys by Billiton in 1984 indicated a broad zone of coincident VLF-EM, horizontal loop EM, induced polarization, and resistivity low anomalies from at least the north end of the river extending south across the border over a width of about 700 m. A gravity survey indicated two small anomalies on the southernmost end of the grid, but a subsequent survey by Samarkand Resources in 1987 detected a broader, more subtle anomaly. The discrepancies are due to the use of a different terrain correction factor. It was concluded that the anomaly may consist of one gravity anomaly up to 2 milligals in strength which increases to the north, and may be due to a deep source.

Further work on the property should include trenching to expose the zones intersected in Holes 4 and 5, where the overburden appears to be thin. Hole 4, which stopped short of the second and third zones of mineralization intersected in the fifth hole, should also be deepened. South of the border, the broad gravity anomaly should be further delineated with a survey expanding the area covered by Samarkand's program.

Based on the author's recent Property examination combined with historical exploration data, the Property merits a follow-up exploration program as outlined below.

### Discussion

The Barite and Main zones appear to occur in 2 different lithological, clastic sequences. The Barite zone displays a stratabound-type barite bed, carrying irregular patches and seams of Pb-Zn hosted in fine grain, carbonaceous shale-argillite unit. The Main zone is hosted in coarser clastic, sandstone-siltstone unit.

The sulphide assemblage in both zones are the same and are structurally controlled epigenetic veins, and suggest to have formed during the same mineralizing event. The Main zone hosts abundant mineral-free quartz veinlets however; other larger, irregular quartz veins tend to host the mineralization and may be syn-post dextral, transpressional movement.

In conclusion, the barite horizon, along with the Pb-Zn epigenetic veinlets, is suggestive of a partly remobilized and dismembered and mineralized sedimentary exhalative environment. More work would have to be conducted to unravel the structural complexity of this area.

Rock samples on the southeast portion (samples 1 to 25) are characterized by a variety of rock types, mainly low Zn levels (exceptions are up to >500ppm Zn) but high (up to 24.51% Si) silica.

Rock samples near the main showing (samples 26 to 35) are characterized by high silica (siliceous gneiss) but generally lower Zn. Geochemical primary dispersion is relatively restricted.

Respectfully submitted,

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

# Estimated Cost of the Recommended First-phase Exploration Program

Item	Costs	Accumulated Cost
Wages		
Senior Geologist & Project Manager, 25 days @ \$700/day	\$ 17,500	
2 Geologists; 25 days #@ \$650/day each, including	\$ 32,500	
fieldwork, data manipulation and reporting		
2 Sampling-technicians; 25 days @ \$300/day	\$ 15,000	\$ 65,000
Transport:		
2 1-ton 4x4 pickup trucks, 25 days each	\$ 3,000	
1 all-terrain vehicle (Quad); 25 days	\$ 4,000	
Gasoline and camp fuel	\$ 800	
Boat from Watson Lake	\$ 2,000	\$ 8,800
Camp & Crew Costs		
Accommodation, 100 man days @ \$50/man day	\$ 5 <i>,</i> 000	
Hotel; 20 man nights	\$ 1,000	
Camp Food; 100 man days @ \$30/man day	\$ 3,000	
Meals in transit; 10 man days @ \$50	\$ 500	\$ 9,500
Communications Costs:		
Satellite Phone Rental; 3 weeks	\$ 1,000	
2 FM truck radios; 1 month	\$ 500	\$ 1,500
Sample Analysis		
60 rocks analyzed by ICP @ \$30/sample	\$ 2,100	
40 rocks assayed by fire assay @ \$50/sample	\$ 2,200	
600 Soils analyzed by ICP @ \$35/sample	\$ 21,000	\$ 25,300
Report Costs and Office Expenses:		
Program Management	\$ 8,000	
Digital Map Drafting	\$ 3,000	
Interpretation of Data & Compilation	\$ 7,000	
Physical and Electronic Assessment Report Production Costs	\$ 800	\$ 18,800
Environmental and Compliance Costs:	\$ 10,000	\$ 10,000
Subtotal		\$ 138,900
HST		\$ 16,668
Itemized Budget		\$ 155,568
Contingency; 10% of Itemized Budget		\$ 15,000
Total Estimated Cost		\$ 170,568

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Appendix I

**Statement of Qualifications** 

October 12, 2018

# 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 "Assessment Report on the Roam Project" dated October 12, 2108.
- 6. I have visited the property between August 4 and 11, 2012, supervised the crew in August, 2012 and July 30+31 and August 7+8, 2018. 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 Roam Project by examining in detail the available reports and maps and have discussed previous work with persons knowledgeable of the area.

Dated at Port Coguitlam, British Columbia, this 12<sup>th</sup> day of October, 2018.

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

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Appendix II

**Statement of Costs** 

October 12, 2018

# STATEMENT of COSTS

### Roam Property 2018

Wages	Without HST
J.T. Shearer, M.Sc., P.Geo.,	
July 30+31 and August 7+8, 2018, 4 days @ \$700/day	\$ 2,800.00
W. B. Lennan, B.Sc., P.Geo.	
July 30+31, 2018, 2 days @ \$600/day	\$ 1,200.00
Subtotal	\$ 4,000.00
Expenses	
Transportation:	
Truck #1, fully equipped 4x4, 4 days @ \$120/day	480.00
Fuel	
Jet Boat Rental, 4 days @ \$300	1,200.00
Hotel	440.00
Food & Meals	250.00
Fred Loots, Helper, 4 days @ \$300.00; July 30+31 and August 7+8, 2018	1,200.00
Jimmy Loots, Helper, 4 days @ \$300.00; July 30+31 and August 7+8, 2018	1,200.00
XRF Assays	600.00
Data Compilation	350.00
Report Preparation	1,400.00
Word Process and Reproduction,	350.00
Subtotal	\$ 7,470.00
Total	\$ 11,470.00

Appendix III

Sample Descriptions

October 12, 2018

# APPENDIX IV SAMPLE DESCRIPTIONS

# Roam Sample Descriptions

Waypoint 1	XRF 11	Description	Quartz ric	ch, schist-gneis	ss		
P <sub>2</sub> O <sub>5</sub> %	Fe%	Si%	Ca%	Al%	K%		
	2.68	14.33		5.07	3.30		
	T	1					
Waypoint 2	XRF 36	Description	Fine grained chert				
P <sub>2</sub> O <sub>5</sub> %	Fe%	Si%	Ca%	Al%	Zn ppm		
	2.69	27.63		2.63			
	VDE 40						
Waypoint 3	XRF 13	Description	Quartz br		[_		
P <sub>2</sub> O <sub>5</sub> %	Fe%	Si%	Ca%	Al%	Zn ppm		
	3.06	22.58		1.83	308		
		Description	Coloria				
Waypoint 4	XRF 21	Description		us siltstone – le	ocal source		
P <sub>2</sub> O <sub>5</sub> %	Fe%	Si%	Ca%	Al%			
2.58	13.62	12.37	20.25	1.59			
M/		Descriti	0		· · · · · · · · ·	-talka, I. I	
Waypoint 5	XRF 3	Description	-	orphyry – quar	tzose wacke – v	ein bounded	
	5-04	C:0/	by schist	A 10/			
P <sub>2</sub> O <sub>5</sub> %	Fe%	Si%	Ca%	Al%			
	9.74	9.21	1.39	2.81			
Waypoint 6	XRF 27	Description	Siltstone	chart			
P <sub>2</sub> O <sub>5</sub> %	Fe%	Si%	Ca%	Al%			
F2U570	FE%					+	
		26.48	1.37	1.81		1	
Waypoint 7	XRF 4	Description	Calcite by	– in grey silts	tone		
P <sub>2</sub> O <sub>5</sub> %	Fe%	Si%	Ca%	Al%			
3.33	4.84	15.54	11.92	,,0		1	
2.33		10.0 /	11.52		1	1	
Waypoint 8	XRF 23	Description	Siltstone	- chert			
P <sub>2</sub> O <sub>5</sub> %	Fe%	Si%	Ca%	Al%			
<u> </u>		29.89		1.95		1	
					I	1	
Waypoint 9	XRF 19	Description	Siliceous	schist/gneiss -	- like XRF 1#WP	5	
P <sub>2</sub> O <sub>5</sub> %	Fe%	Si%	Ca%	Al%			
	2.28	14.59		3.24			
	•	·			•	·	
Waypoint 10	XRF 26	Description	Knobby, s	siltstone			
P <sub>2</sub> O <sub>5</sub> %	Fe%	Si%	Ca%	Al%	К%		
	4.71	14.30	1.86	3.19	1.96		
					·	·	
			Chert float - siltstone				
Waypoint 11	XRF 12	Description	Chert floa	at - siltstone			
Waypoint 11 P <sub>2</sub> O <sub>5</sub> %	XRF 12 Fe%	Description Si%	Chert floa Ca%	at - siltstone Al%			

Waypoint 12	XRF 9	Description	Granite float				
P <sub>2</sub> O <sub>5</sub> %	Fe%	Si%	Ca%	Al%	К%		
	2.28	18.80	3.80	4.82	2.74		

Waypoint 13	XRF31	Description	Green fine grained andesite				
P <sub>2</sub> O <sub>5</sub> %	Fe%	Si%	Ca%	Al%	Mg%		
	7.17	16.40	8.96		0.9395		

Waypoint 14	XRF 37	Description	Brownish chert				
P <sub>2</sub> O <sub>5</sub> %	Fe%	Si%	Ca% Al%				
		27.81	1.46				

Waypoint 15	XRF 35	Description	Fine grained intrusive				
P <sub>2</sub> O <sub>5</sub> %	Fe%	Si%	Ca%	Al%			
	8.48	17.57	9.39	4.17			

Waypoint 16	XRF 28	Description	Mottled intrusive?				
P <sub>2</sub> O <sub>5</sub> %	Fe%	Si%	Ca%	% Al% K%			
	1.44	20.18	2.73	3.58	2.85		

Waypoint 17	XRF 6	Description	Sheeted veins in greywacke – highly siliceous				
P <sub>2</sub> O <sub>5</sub> %	Fe%	Si%	Ca%	Al%			
		27.23	212	1.29			

Waypoint 18	XRF 20	Description	ion Boulder – cherty siltstone				
P <sub>2</sub> O <sub>5</sub> %	Fe%	Si%	Ca%	Al%	К%		
	3.77	17.41	6.37	4.46	1.93		

Waypoint 19	XRF 29	Description	Description Mottled intrusive?								
P <sub>2</sub> O <sub>5</sub> %	Fe%	Si%	Ca%	Al%	К%						
	3.77	15.87	3.28	3.16	167						

Waypoint 20	XRF 17	Description	ption Creamy, banded/laminated chert							
P <sub>2</sub> O <sub>5</sub> %	Fe%	Si%	Ca%	Al%						
		30.62		1.17						

Waypoint 21	XRF 16	Description	Brownish chert							
P <sub>2</sub> O <sub>5</sub> %	Fe%	Si%	Ca%	Al%						
		28.09	1.09	1.93						

Waypoint 22	XRF 10	Description	ion Pumice, Lava								
P <sub>2</sub> O <sub>5</sub> %	Fe%	Si%	Ca%	Al%							
	11.63	7.45	13.12	2.24							

Waypoint 23	XRF 30	Description	Cherty siltstone								
P <sub>2</sub> O <sub>5</sub> %	Fe%	Si%	Ca%	Al%	K%						
	1.87	20.00	3.81	3.49	2.12						

Waypoint 24	XRF 18	Description	Pumice/v	esicular lava.	lots of gas cavit	ies
P <sub>2</sub> O <sub>5</sub> %	Fe%	Si%	Ca%	Al%		
1205/0	8.43	15.24	9.40	4.48		
	0.13	13.24	5.40	1.10		
Waypoint 25	XRF 24	Description	Cherty sil	tstone		
P <sub>2</sub> O <sub>5</sub> %	Fe%	Si%	Ca%	Al%		
		24.61	1.01	1.64		
	205500					
Waypoint 26	XRF 33	Description	Mottled i			
P <sub>2</sub> O <sub>5</sub> %	Fe%	Si%	Ca%	Al%		
		22.17	1.66	2.59		
Waypoint 27	XRF 34	Description	Fine grain	ned intrusive		
P <sub>2</sub> O <sub>5</sub> %	Fe%	Si%	Ca%	Al%	K%	
1 205/0	2.24	17.95	3.66	3.72	2.62	
	2.24	17.55	5.00	5.72	2.02	
Waypoint 28	XRF 25	Description	Quartz ve	eined sandstor	ne	
P <sub>2</sub> O <sub>5</sub> %	Fe%	Si%	Ca%	Al%		
3.88	5.62	9.72	1.75	2.36		
				·		
Waypoint 29	XRF 14	Description	Boulder c	alcareous – si	lty limestone	
P <sub>2</sub> O <sub>5</sub> %	Fe%	Si%	Ca%	Al%		
	8.70	5.79	22.40	1.57		
	VD5 22		<u> </u>			
Waypoint 30	XRF 32	Description	Siltstone	410/	1/0/	
P <sub>2</sub> O <sub>5</sub> %	Fe%	Si%	Ca%	Al%	K%	
	6.24	17.48	6.47	5.81	1.50	
Waypoint 31	XRF 15	Description	Boulder –	- greenish, fine	e grained siliced	ous limestone
P <sub>2</sub> O <sub>5</sub> %	Fe%	Si%	Ca%	Al%		
2 5		28.32	2.83			
	-					
Waypoint 32	XRF 8	Description	Float bou	lder –very silio	ceous	
P <sub>2</sub> O <sub>5</sub> %	Fe%	Si%	Ca%	Al%		
		25.28		1.4		
Maynaint 22		Description		mu cilicoouc		
Waypoint 33	XRF 8	Description	-	ggy, siliceous		
P <sub>2</sub> O <sub>5</sub> %	Fe%	Si% 25.50	Ca% 1.15	Al% 1.52		
		23.30	1.13	1.52		
Waypoint 34	XRF 38	Description	Sugary, fi	ne micaceous	gneiss	
P <sub>2</sub> O <sub>5</sub> %	Fe%	Si%	Ca%	Al%	K%	
		19.24	2.16	3.67	2.39	
Waypoint 35	XRF 22	Description			what sheared	
P <sub>2</sub> O <sub>5</sub> %	Fe%	Si%	Ca%	Al%	К%	
		16.84	3.39	1.54		

# Waypoints

		UTM 9	Easting	Northing
1	59.99461°N	128.57731°W	523580.40	6650886.24
2	59.99472°N	128.57780°W	523552.98	6650898.32
3	59.99481°N	128.57834°W	523522.79	6650908.15
4	59.99495°N	128.57914°W	523478.07	6650923.46
5	59.99497°N	128.57970°W	523446.81	6650925.49
6	59.9951°N	128.58019°W	523419.39	6650939.79
7	59.99521°N	128.58066°W	523393.09	6650951.87
8	59.99539°N	128.58072°W	523389.62	6650971.90
9	59.99534°N	128.58090°W	523379.61	6650966.27
10	59.99538°N	128.58110°W	523368.42	6650970.65
11	59.99540°N	128.58114°W	523366.18	6650972.86
12	59.99540°N	128.58128°W	523358.37	6650972.81
13	59.99545°N	128.58114°W	523366.14	6650978.43
14	59.99541°N	128.58163°W	523338.84	6650973.80
15	59.99560°N	128.58195°W	523320.85	6650994.85
16	59.99569°N	128.58268°W	523280.07	6651004.62
17	59.99576°N	128.58272°W	523277.79	6651012.40
18	59.99585°N	128.58311°W	523255.97	6651022.28
19	59.99577°N	128.58367°W	523224.78	6651013.18
20	59.99591°N	128.58383°W	523215.76	6651028.71
21	59.99596°N	128.58428°W	523190.62	6651034.12
22	59.99622°N	128.58470°W	523167.01	6651062.93
24	59.99679°N	128.58710°W	523032.74	6651125.57
25	59.99682°N	128.58730°W	523021.56	6651128.84
26	60.00774°N	128.60285°W	522148.88	6652338.19
27	60.00786°N	128.60360°W	522107.29	6652351.13
28	60.00807°N	128.60443°W	522061.01	6652374.93
29	60.00843°N	128.60533°W	522010.33	6652414.90
30	60.00863°N	128.60559°W	521995.69	6652436.95
31	60.01724°N	128.63130°W	520556.85	6653387.44
32	60.01755°N	128.63060°W	520595.80	6653422.42
33	60.01778°N	128.63009°W	520623.63	6653447.40
34	60.01809°N	128.62958°W	520652.02	6653482.96
35	60.01851°N	128.62906°W	520681.03	6653529.11

Appendix IV

**Assay Certificates** 

October 12, 2018

Date	Waypoint	Mg	Mg +/-	Al	Al +/-	Si	Si +/-	Р	P +/-	S	S +/-	Cl	Cl +/-	К	K +/-	Ca	Ca +/-
29/07/2018	1	ND		5.07	0.09	14.33	0.12	0.3111	0.0222	0.1604	0.0043	ND		3.297	0.0265	0.5838	0.008
29/07/2018	2	ND		2.63	0.05	27.63	0.16	0.8318	0.0228	0.129	0.0033	ND		0.2093	0.0036	0.4106	0.0051
29/07/2018	3	ND		1.8266	0.0451	22.58	0.13	0.4909	0.018	0.1505	0.003	ND		0.1976	0.003	0.5667	0.0051
29/07/2018	4	ND		1.5884	0.0495	12.37	0.09	2.579	0.0371	0.1436	0.0032	ND		0.4056	0.0043	20.25	0.14
29/07/2018	5	ND		2.81	0.06	9.21	0.08	1.0567	0.0218	0.7593	0.0073	ND		0.2132	0.003	1.393	0.0116
29/07/2018	6	ND		1.8063	0.0469	26.48	0.15	0.2881	0.0194	0.2592	0.0039	ND		0.3381	0.004	1.375	0.0094
29/07/2018	7	ND		1.7	0.05	15.54	0.11	3.334	0.0418	0.1558	0.0034	ND		0.6522	0.0058	11.92	0.08
29/07/2018	8	ND		1.954	0.0478	29.89	0.16	0.2487	0.0191	0.1836	0.0036	ND		0.6551	0.0054	0.2049	0.0046
29/07/2018	9	ND		3.24	0.06	14.59	0.09	0.6808	0.0188	0.2633				0.545	0.0047	0.9285	0.0071
29/07/2018	10	ND		3.19	0.06	14.3	0.11	0.3712	0.0188	0.3376	0.0045	ND		1.9628	0.015	1.8637	0.0147
29/07/2018	11	ND		5.03	0.07	17.29	0.12	0.284	0.023	0.0885	0.0031	ND		0.0221	0.0029	9.32	0.06
29/07/2018	12	ND		4.82	0.07	18.8	0.12	0.3276	0.0203	0.1344	0.0033	ND		2.7393	0.0181	3.8042	0.025
29/07/2018	13	0.94	0.28	5.4	0.07	16.4	0.12	0.3927	0.0227	0.084	0.003			0.647	0.0061	8.96	0.06
29/07/2018	14	ND		1.4635	0.0448	27.81	0.15	0.4676	0.0208	0.2246	0.0039	ND		0.1165	0.0033	0.432	0.0051
29/07/2018	15	ND		4.17	0.07	17.57	0.12	0.403	0.023	0.2416	0.0039	ND		0.6538	0.006	9.39	0.06
29/07/2018	16	ND		3.58	0.06	20.18	0.13	0.4978	0.0209	0.4217	0.0048	ND		2.8454	0.0182	2.7334	0.0181
29/07/2018	17	ND		1.29	0.05	27.23	0.17	0.131	0.0216	0.5698	0.0065	ND		0.5296	0.0056	0.0212	0.0044
29/07/2018	18	ND		4.46	0.07	17.41	0.13	0.2195	0.022	0.2412	0.0042	ND		1.931	0.0145	6.3717	0.0448
29/07/2018	19	ND		3.16	0.06	15.87	0.12	0.3852	0.0201	0.2479	0.004	ND		1.6691	0.0127	3.2843	0.024
29/07/2018	20	ND		1.1717	0.0448	30.62	0.17	0.2771	0.0207	0.2039	0.004	ND		0.1531	0.0036	0.1696	0.0044
29/07/2018	21	ND		1.9314	0.048	28.09	0.15	0.4078	0.0208	0.2919	0.0042	ND		0.2682	0.0038	1.0867	0.008
29/07/2018	22	ND		2.24	0.06	7.45	0.07	0.6614	0.0243	0.1371	0.0031	ND		0.5006	0.0052	13.12	0.11
29/07/2018	23	ND		3.49	0.06	20	0.12	0.3642	0.019	0.3509	0.0042			2.1241	0.0134	3.8094	0.0233
29/07/2018	24	ND		4.48	0.08	15.24	0.13	0.4814	0.0271	0.1545	0.004	ND		0.5471	0.0062	9.4	0.08
29/07/2018	25	ND		1.64	0.05	24.61	0.15	0.4138	0.0219	0.22	0.0041	ND		0.1833	0.0037	1.0055	0.0081
29/07/2018	26	ND		2.59	0.05	22.17	0.13	0.4156	0.0203	0.4369	0.005	ND		0.5318	0.005	1.6641	0.0114
29/07/2018	27	ND		3.72	0.06	17.95	0.12	0.4142	0.0197	0.3859				2.6176	0.0172	3.6619	0.0239
29/07/2018	28	ND		2.36	0.06	9.72	0.08	3.8751	0.0451	0.2449	0.0039	ND		0.4732	0.0049	1.7543	0.0145
29/07/2018	29	ND		1.57	0.05	5.79	0.05	0.4596	0.0248	0.1096	0.0029	ND		0.1267	0.0027	22.4	0.17
29/07/2018	30	ND		5.81	0.07	17.48	0.12	0.3786	0.0207	0.0924	0.0029	ND		1.4961	0.0106	6.4731	0.0416
29/07/2018	31	ND		0.9228	0.0411	2.8313	0.0254	0.0887	0.0198	0.1976	0.0027	ND		0.124	0.0021	28.32	0.18
29/07/2018	32	ND		1.4503	0.0475	25.28	0.15	0.4303	0.0209	0.2046	0.0038	ND		0.1993	0.0035	0.9135	0.0072
29/07/2018	33	ND		1.5198	0.0493	25.5	0.15	0.143	0.0195	0.2912	0.0044	ND		0.2347	0.0037	1.1523	0.0086
29/07/2018	34	ND		3.67	0.07	19.24	0.13		0.0212		0.0057	ND		2.3874	0.0166	2.1621	0.0159
29/07/2018	35	ND		1.54	0.06	16.84	0.13	0.2222	0.0226	0.659	0.0072	ND		0.2009	0.0039	3.3927	0.0253

Ti	Ti +/-	V	V +/-	Cr	Cr +/-	Mn	Mn +/-	Fe	Fe +/- Co	o Co +/-	Ni	Ni +/-	Cu	Cu +/-	Zn	Zn +/-
0.4359	0.0241	0.2763	0.0143	ND		0.1601	0.0068	2.6829	0.0297 N	D	ND		0.0122	0.0011	0.0278	0.0012
0.1933	0.016	ND		ND		0.0366	0.0032	2.6858	0.0229 N	D	0.0026	0.0008	0.0038	0.0007	0.0052	0.0005
0.0664	0.0121	ND		ND		0.0829	0.0039	3.0648	0.0243 N	D	ND		0.0023	0.0006	0.0308	0.0009
0.1254	0.0176	0.0469	0.0088	0.0139	0.0042	0.1262	0.006	3.6195	0.0343 N	D	ND		0.0081	0.001	0.0173	0.0009
ND		0.0147	0.0048	ND		0.5217	0.0091	9.74	0.08 N	D	0.0288	0.0017	0.0291	0.0015	0.0533	0.0015
0.0453	0.0133	0.0365	0.0072	ND		0.0262	0.003	0.825	0.0112 N	D	ND		0.0034	0.0006	0.0027	0.0004
0.0658	0.015	0.061	0.0082	ND		0.1238	0.0056	4.8445	0.0413 N	D	ND		0.0066	0.0009	0.0129	0.0008
0.2414	0.0176	0.0282	0.0076	ND		0.0408	0.0034	0.8654	0.0114 N	D	ND		0.0027	0.0006	0.0057	0.0005
0.0855	0.0121	0.0253	0.0059	ND		0.3971	0.0078	2.2761	0.0203 N	D	0.0267	0.0012	0.029	0.0012	0.0594	0.0013
0.4964	0.0212	0.1408	0.0099	ND		0.1535	0.0058	4.7113	0.041 N	D	0.0066	0.001	0.0099	0.001	0.0188	0.0009
0.8056	0.0267	ND		ND		0.1111	0.0054	8.39	0.06 N	D	0.0053	0.0012	0.0088	0.0011	0.0111	0.0008
0.376	0.0206	0.0705	0.009	ND		0.0661	0.0043	2.8247	0.026 N	D	ND		0.0047	0.0008	0.0087	0.0006
0.3937	0.0209	0.0461	0.0083	ND		0.1178	0.0055	7.17	0.06 N	D	0.0057	0.0011	0.0053	0.0009	0.0088	0.0007
0.0945	0.0147	ND		ND		0.0498	0.0036	0.7672	0.0108 N	D	0.0021	0.0007	0.0035	0.0006	0.0032	0.0004
0.4	0.0211	0.0318	0.0081	ND		0.2162	0.0071	8.48	0.07 N	D	0.0081	0.0012	0.0106	0.0011	0.0128	0.0009
0.2886	0.0191	0.0285	0.0081	ND		0.1455	0.0057	1.4409	0.0165 N	D	0.0024	0.0008	0.0054	0.0007	0.0066	0.0005
0.0953	0.0164	0.036	0.0084	ND		0.0115	0.0028	0.6258	0.0106 N	D	ND		0.004	0.0007	ND	
0.5251	0.0247	0.0445	0.0095	ND		0.0847	0.005	3.7718	0.0352 N	D	ND		0.0053	0.0009	0.0077	0.0007
0.3045	0.0189	0.0559	0.0084	ND		0.1081	0.0051	3.7763	0.0341 N	D	0.0047	0.0009	0.0063	0.0009	0.022	0.0009
0.0563	0.0142	ND		ND		0.0151	0.0027	0.2166	0.0057 N	D	ND		0.0035	0.0006	ND	
0.1197	0.0152	ND		ND		0.036	0.0032	0.637	0.0097 N	D	ND		0.0035	0.0006	0.0012	0.0003
0.8532	0.0273	ND		0.0163	0.004	0.1697	0.0067	11.63	0.1 N	D	0.0148	0.0016	0.0139	0.0014	0.0137	0.001
0.2008	0.0164	0.0219	0.0071	ND		0.0531	0.0037	1.8727	0.0185 N	D	0.0029	0.0007	0.0037	0.0007	0.0101	0.0006
0.8811	0.0315	ND		0.0141	0.0044	0.0982	0.006	8.43	0.08 N	D	0.0091	0.0015	0.0113	0.0013	0.0174	0.0011
0.0647	0.0146	ND		ND		0.249	0.0073	0.7535	0.0114 N	D	ND		0.0046	0.0007	0.0021	0.0004
0.1604	0.0161	0.0264	0.0074	ND		0.0535	0.0037	0.9658	0.0125 N	D	ND		0.004	0.0007	ND	
0.2377	0.0177	0.0286	0.0077	0.0133	0.0037	0.0915	0.0047	2.2415	0.0219 N	D	0.0039	0.0008	0.0053	0.0008	0.0079	0.0006
0.2391	0.0157	0.056	0.0071	0.0253	0.0036	0.0783	0.0042	5.621	0.0492 N	D	0.0028	0.0009	0.0166	0.0011	0.0934	0.0019
0.3347	0.0218	0.0509	0.0092	ND		0.4738	0.0112	8.7	0.08 N	D	0.0078	0.0013	0.0107	0.0012	0.0113	0.0009
0.3533	0.0193	0.039	0.0078	ND		0.0857	0.0046	6.2391	0.0472 N	D	0.0093	0.0011	0.0057	0.0009	0.0108	0.0007
0.0669	0.0142	0.0346	0.0077	ND		0.0102	0.0026	0.2367	0.0063 N	D	ND		0.0041	0.0007	0.0015	0.0004
0.0796	0.0143	ND		ND		0.0981	0.0046	0.943	0.0122 N	D	ND		0.0034	0.0006	0.003	0.0004
0.0595	0.0144	ND		ND		0.0944	0.0047	0.3034	0.0069 N	D	ND		0.0031	0.0006	0.0011	0.0003
0.1319	0.0171	ND		ND		0.1182	0.0055	0.8919	0.0132 N	D	ND		0.0053	0.0008	0.0024	0.0004
0.0604	0.0157	0.031	0.0084	ND		0.1717	0.0067	0.7036	0.0121 N	D	0.0038	0.0009	0.0059	0.0008	0.0027	0.0005

As	As +/-	Se Se +/-	Rb	Rb +/-	Sr	Sr +/-	Y	Y +/-	Zr	Zr +/-	Мо	Mo +/-	Ag	Ag +/-	Cd Cd +/	- Sn	Sn +/-
0.0082	0.0005	ND	0.0098	0.0003	0.0072	0.0002	ND		0.0009	0.0002	0.0008	0.0002	ND		ND	ND	
0.0025	0.0002	ND	0.0007	0.0001	0.0033	0.0001	0.0014	0.0001	0.0237	0.0003	ND		ND		ND	ND	
0.016	0.0004	ND	ND		0.0003	0.0001	ND		ND		ND		ND		ND	ND	
0.0035	0.0004	ND	0.0016	0.0002	0.0635	0.0008	0.0094	0.0003	0.0057	0.0003	ND		ND		ND	ND	
0.0035	0.0003	ND	ND		0.0018	0.0001	0.0055	0.0002	ND		0.0007	0.0002	ND		ND	ND	
ND		ND	0.0006	0.0001	0.0004	0.0001	ND		0.0029	0.0002	ND		ND		ND	ND	
0.0074	0.0004	ND	0.0019	0.0002	0.0433	0.0006	0.0048	0.0002	0.0051	0.0003	ND		ND		ND	ND	
0.0008	0.0002	ND	0.003	0.0001	0.0007	0.0001	0.0006	0.0001	0.0122	0.0002	ND		ND		ND	ND	
0.0032	0.0002	ND	0.0007	0.0001	0.0011	0.0001	0.0007	0.0001	ND		ND		ND		ND	ND	
0.046	0.0009	ND	0.0175	0.0004	0.0021	0.0002	0.0018	0.0002	0.02	0.0004	ND		ND		ND	ND	
0.0013	0.0003	ND	ND		0.0205	0.0004	0.0034	0.0002	0.0109	0.0003	ND		ND		ND	ND	
ND		ND	0.0147	0.0003	0.0863	0.0008	0.0008	0.0002	0.0132	0.0004	ND		ND		ND	ND	
ND		ND	0.0017	0.0002	0.0173	0.0004	0.0023	0.0002	0.0065	0.0003	ND		ND		ND	ND	
0.0008	0.0002	ND	ND		0.0003	0.0001	ND		0.0089	0.0002	ND		ND		ND	ND	
0.002	0.0003	ND	0.0006	0.0002	0.0307	0.0005	0.0026	0.0002	0.0055	0.0003	ND		ND		ND	ND	
ND		ND	0.0271	0.0004	0.0114	0.0003	0.0009	0.0002	0.0136	0.0003	ND		ND		ND	0.005	0.0017
0.0037	0.0005	ND	0.0018	0.0001	0.0013	0.0001	ND		0.0019	0.0002	0.0006	0.0002	ND		ND	ND	
0.0009	0.0003	ND	0.0108	0.0003	0.0606	0.0007	0.0023	0.0002	0.0212	0.0005	ND		ND		ND	ND	
0.002	0.0003	ND	0.0085	0.0003	0.079	0.0009	ND		0.0126	0.0004	ND		ND		ND	ND	
ND		ND	ND		ND		ND	ND									
0.0009	0.0002	ND	ND		0.0003	0.0001	ND		0.0044	0.0002	ND		ND		ND	ND	
0.0029	0.0004	ND	0.0019	0.0002	0.0509	0.0008	0.0023	0.0002	0.0143	0.0005	0.0011	0.0002	ND		ND	ND	
ND		ND	0.0095	0.0002	0.0158	0.0003	0.0011	0.0002	0.0064	0.0002	ND		ND		ND	ND	
ND		ND	0.0012	0.0002	0.0419	0.0007	0.0033	0.0003	0.0136	0.0005	0.0009	0.0003	ND		ND	ND	
0.0025	0.0002	ND	ND		0.0004	0.0001	ND		0.0022	0.0002	ND		ND		ND	ND	
ND		ND	ND		0.0008	0.0001	ND		0.0029	0.0002	ND		ND		ND	ND	
ND		ND	0.0151	0.0003	0.0307	0.0004	0.0017	0.0002	0.0109	0.0003	ND		ND		ND	ND	
0.0241	0.0007	ND	0.0024	0.0002	0.018	0.0004	0.0015	0.0002	0.0072	0.0003	0.001	0.0002	ND		ND	ND	
0.0039	0.0004	ND	ND		0.0166	0.0004	0.0036	0.0002	0.0074	0.0003	0.0007	0.0002	ND		ND	ND	
0.0013	0.0003	ND	0.0084	0.0003	0.0218	0.0004	0.0014	0.0002	0.0119	0.0003	ND		ND		ND	ND	
ND		ND	ND		0.004	0.0002	ND		0.0015	0.0002	ND		ND		ND	ND	
0.0008	0.0002	ND	ND		ND		ND		0.0048	0.0002	ND		ND		ND	ND	
ND		ND	0.0007	0.0001	0.0004	0.0001	ND		0.0022	0.0002	ND		ND		ND	ND	
ND		ND	0.0097	0.0003	0.0149	0.0003	0.0007	0.0002	0.0058	0.0002	ND		ND		ND	ND	
ND		ND	0.0005		0.0028				ND		0.0006	0.0002	ND		ND	ND	

Sb	Sb +/-	W	W +/-	Hg	Hg +/-	Pb	Pb +/-	Bi	Bi +/-	Th	Th +/-	U	U +/-	LE	LE +/-
ND		ND		ND		0.0025	0.0004	ND		ND		ND		72.62	0.22
ND		ND		ND		0.0008	0.0003	ND		ND		ND		65.2	0.19
ND		ND		ND		0.0008	0.0002	ND		ND		ND		70.92	0.17
ND		ND		ND		0.0035	0.0004	ND		ND		ND		58.62	0.23
ND		ND		ND		0.0016	0.0004	ND		0.0027	0.0007	ND		74.15	0.2
ND		ND		ND		0.0013	0.0002	ND		ND		ND		68.51	0.17
ND		ND		ND		0.0021	0.0004	ND		ND		ND		61.52	0.23
ND		ND		ND		0.0011	0.0002	ND		ND		ND		65.67	0.18
ND		ND		ND		0.0009	0.0002	ND		ND		0.0009	0.0003	76.85	0.15
ND		ND		ND		0.0015	0.0004	ND		0.0024	0.0007	ND		72.35	0.2
ND		ND		ND		0.0018	0.0004	ND		ND		ND		58.61	0.26
ND		ND		ND		0.0053	0.0004	ND		ND		ND		65.9	0.21
ND		ND		ND		0.0017	0.0004	ND		ND		ND		59.39	0.31
ND		ND		ND		ND		ND		ND		ND		68.56	0.17
ND		ND		ND		0.0013	0.0004	ND		ND		ND		58.36	0.26
ND		ND		ND		0.0038	0.0004	ND		ND		ND		67.76	0.19
ND		ND		ND		0.0131	0.0006	ND		ND		ND		69.43	0.19
ND		ND		ND		0.0018	0.0004	ND		0.0027	0.0008	ND		64.83	0.23
ND		ND		ND		0.0039	0.0004	ND		0.0031	0.0007	ND		71	0.2
ND		ND		ND		ND		ND		ND		ND		67.11	0.18
ND		ND		ND		0.0009	0.0002	ND		ND		ND		67.12	0.18
ND		ND		ND		0.0026	0.0005	ND		ND		ND		63.11	0.27
ND		ND		ND		0.0029	0.0003	ND		ND		ND		67.66	0.18
ND		ND		ND		0.004	0.0005	ND		ND		ND		60.18	0.3
ND		ND		ND		ND		ND		ND		ND		70.85	0.18
ND		ND		ND		0.0009	0.0002	ND		ND		ND		70.98	0.17
ND		ND		ND		0.0052	0.0004	ND		ND		ND		68.55	0.19
ND		ND		ND		0.0105	0.0006	ND		0.002	0.0007	ND		75.38	0.18
ND		ND		ND		0.0025	0.0005	ND		ND		ND		59.92	0.26
ND		ND		ND		0.0025	0.0004	ND		ND		ND		61.48	0.23
ND		ND		ND		0.001	0.0003	ND		ND		ND		67.16	0.16
ND		ND		ND		ND		ND		ND		ND		70.39	0.17
ND		ND		ND		0.0013				ND		ND		70.69	0.17
ND		ND		ND		0.0031	0.0004	ND		ND		ND		70.54	0.19
ND		ND		ND		0.0012	0.0003	ND		ND		ND		76.16	0.17