

GEOCHEMICAL AND WORK REPORT ON THE JPL CLAIMS

Claim Name and Number	Grant Number	Grouping Cert. #	Registered Owner
JPL 1 – 14	YE79885 – YE79898	HD03448	Spere Exploration Inc. – 100%
JPL 15 – 306	YF04005 – YF04296	HD03448	Spere Exploration Inc. – 100%

<u>Location:</u>	<u>Dates Work Performed:</u>
Dawson Mining District	Oct. 23 – 28, 2013
NTS Mapsheet 116B04	May 28 – June 1, 2014
UTM Zone 7	June 3, 2014
566000 Easting	July 8 – 11, 2014
710600 Northing	Aug. 1 – 5, 2014
	Aug. 13 – 16, 2014

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1 SUMMARY

This report outlines work done on the JPL property between renewal periods Oct. 23, 2013 to Oct. 22, 2014. This project received funding from Yukon Mineral Exploration Program (YMEP) for the period March 31, 2013 – March 31 2014 under the Target Evaluation Module. There was one section of this project that falls outside the approved YMEP dates, (prospecting done October 23 – 28, 2013) it is included in this assessment report but is not included under the YMEP funded portion of the project.

The work project for Oct. 23, 2013 – Oct. 22, 2014 consisted of rock and stream sediment prospecting, soil sampling, and trail clearing. A total of 19 stream sediment samples, 54 rock samples and 342 soil samples were taken on the JPL property. Also, to provide better access, over 8 km of road was brushed and reopened for use by an ATV or small truck.

All data, such as sample locations, descriptions, pictures, and assays, for all rock soil and stream sediments, have been included with the submission of this report on an accompanying USB stick. The data is in excel spread-sheets and jpg format for easy viewing and plotting in a GIS.

The JPL property is made up of 306 quartz claims that overlie mafic and felsic meta-volcanic units and meta-intrusive and intrusive dykes and sills of the Yukon Tanana Terrane (YTT) within the Dawson Mining District of Yukon, Canada. The total area of the JPL property is approximately 6000 hectares. Recent investigations on the JPL property and its surrounding areas were done by Spere Exploration Inc. (SpereX) and OK Creek Mining and Exploration Inc. (OK Creek) in 2012 and 2013. More distantly (1995), a small geochemical and mapping program was completed by Cominco Ltd. and other exploration groups did work previous to 1995 which is further described in this paper.

The specific objectives of the work completed on the JPL claims for this reporting period were three fold: (1) to follow-up on past geochemical surveys by Cominco Inc. that showed Cu-Pb-Zn-Ag VMS potential with reconnaissance style ridge and spur soil samples in order to develop grid soil sampling targets. (2) Find favorable VMS mineralization within rocks of the JPL property. (3) Clear old roads of overgrowth (willow/alder) so that the property would be more accessible with an ATV or a small truck.

Prospecting and soil sampling have returned rocks and soil that show that mineralization and geology of the JPL property is very similar VMS deposits of the Finlayson district. These two regions, Klondike area and Finlayson district, would have been connected to each other before the 490 km shift along the Tintina Fault. Given good values from soil and rock for Cu-Pb-Zn-Au-Ag further investigation on

the JPL property is warranted to determine if mineable massive sulfide lenses like that of the Finlayson district exist on the JPL property.

The work program was successful at identifying four target areas for follow-up with grid soil sampling and proved that anomalous concentrations of Cu-Pb-Zn-Au-Ag exist on the JPL property in soil, silt, and rocks. Highlights from the geochemical analysis include rocks with up to 0.3% Cu, 0.3% Pb, 0.1% Zn, 9g/t Au. One soil sample was as high as 0.2% Cu, 0.08% Pb, and 0.3% Zn. The stream sediment values were also high in the areas of anomalous rock and soil samples which indicate that there is high potential of Volcanogenic Massive Sulfide (VMS) within the boundary of the JPL property.

2 LOCATION AND ACCESS

The JPL property is located in Yukon, Canada in UTM Zone 7 in, NTS mapsheet 116B-04, with approximate central coordinates of 567000 Easting and 7105000 Northing. The JPL property is accessible by small bush roads from the Top of the World Highway and is in close proximity to the Yukon's second largest community, the historic Klondike Gold Rush town; Dawson City. Dawson City is accessible year round via the Klondike highway which connects to the Alaska Highway and the rest of the major road networks in North America. Dawson City also has an international airport with year round commercial airplane access from Whitehorse. Road access to the JPL property from Dawson City is northwest via the Top of the World Highway (13km) and then down a network of old mining roads (8km) which give access

to most of the property for ATV or Small Truck. By helicopter, the eastern edge of the JPL property is 10km away from the Trans North Helicopters base.



Figure 1: Overview of JPL property on google earth

3 HISTORY

Mineral investigations in the area of the JPL property date back over a century and started before the Klondike Gold Rush of 1898. Various MINFILE occurrences exist in the area of the JPL property under the Yukon Geological Survey's (YGS) Minfile collection. MINFILE's such as #116B 015 and #116B 072 describe small investigations that went back to 1897 and through to 1995. The area has been considered a promising host to Cu-Pb-Zn VMS style mineralization within the interlayered meta-volcanic units, Klondike Schist and Nasina, but little work has actually been done to determine the mineralized source of stream sediment, rock and soil anomalies of the past. Past investigation has focused on gold within quartz

veins and quartz feldspar porphyry dykes (QFP's) by other companies but did not turn up economic results. The highlight of previous work done within the boundary of the JPL property was a two day contour soil sampling program done by Cominco Ltd. (Now Teck Resources Ltd.) in 1995 which was recorded in Yukon Assessment Report #093496. This program followed up on previous stream sediment anomalies which had been collected by Cominco but unreported to the public. Although good results were obtained from the 1995 Cominco program there was no follow-up by the company. It seems that all their efforts were turned to the Yukon Tanana Terrane (YTT) of the Finlayson District because of VMS discoveries that were made there and which now hosts multiple polymetallic VMS deposits like Wolverine and Kudze Ze Kayah.

The current JPL claims were originally staked as JPL 1-14 in 2012 by OK Creek. One day of hard rock prospecting work was done in 2012 by Jean Pautler (P. Geo) who traversed the 14 claim property and helped OK Creek determine which rocks to send to the lab for analysis. In the fall of 2013 after a small work program and a partnership agreement with SpereX and OK Creek the JPL claims were expanded to JPL 1-306 and all JPL claims were transferred over to SpereX as per the agreement. Assessment reports on the JPL property from the years 2012 and 2013 have been submitted to the Yukon Mining Recorders office in Dawson City, Yukon.

4 TENURE

Currently, the JPL claims are owned by SpereX (See Figure 24 in appendix I) Claims Map and Appendix III for a list of the claims)

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JPL 1 – 14	YE79885 – YE79898	HD03448	Spere Exploration Inc. – 100%
JPL 15 – 306	YF04005 – YF04296	HD03448	Spere Exploration Inc. – 100%

Table 1: JPL claims tenure

5 GEOLOGY

The JPL Claims are located on the Northern part the North American Cordillera on the Intermontane belt. The Intermontane belt is mainly composed of magmatic arc rocks and their related sedimentary deposits. In addition to the accreted terranes of the Intermontane, many post-accretionary plutonic suites intrude through it. This is especially true on the JPL property and area which is made up of Yukon Tanana Terrane (YTT). Significant VMS deposits such as the Wolverine Deposit (MINFILE #105G 072)

and Kudz Ze Kayah (KZK) (MINFILE #105G 117) deposit have been discovered in YTT of the Finlayson district. Since the Klondike region and the Finlayson district would have been attached to each other at one point the Klondike region has a high potential for deposits similar to that of the Finlayson district (Figure 2).

5.1 Regional Geology

The regional scale geology of the JPL property is dominated by the terranes of the Intermontane belt (Figure 2). Fifteen kilometers north of the JPL property lies the crustal scale, dextral strike-slip fault, known as the Tintina Fault which has had 490km of dextral movement. Typically, the fault cuts the boundary between the Ancestral North America belt to the north and the Intermontane belt to the south. In Yukon the Intermontane belt is composed of five terranes. When it comes to the area around the JPL property the dominant terrane is Yukon-Tanana terrane (YTT).

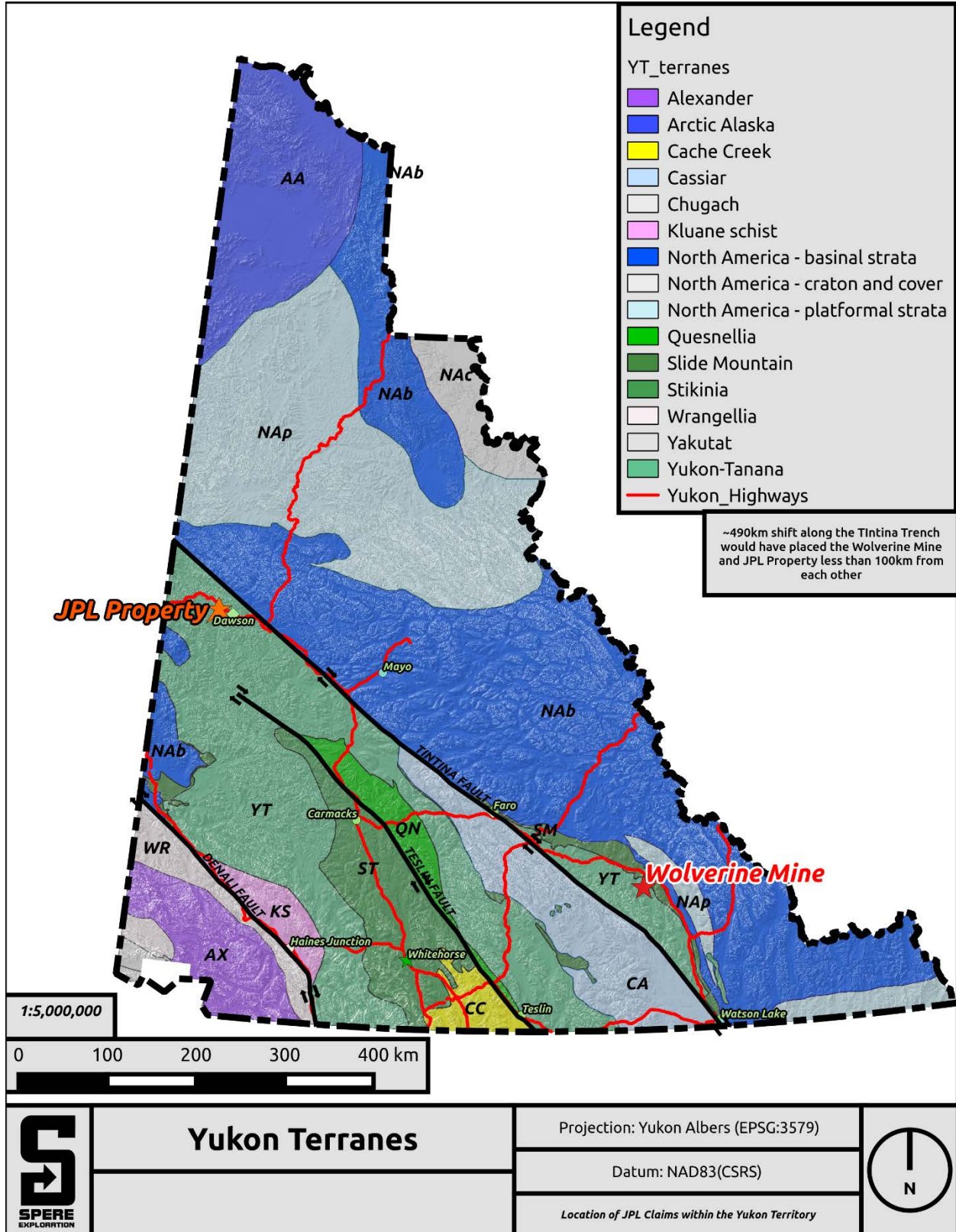


Figure 2: Terranes of the Yukon

YTT is an intensely deformed variably metamorphosed and sheared sedimentary, volcanic and intrusive package of rocks with a Proterozoic to Mesozoic age (2.5 billion years to 65 million years). Much of the YTT escaped Pleistocene glaciation and is characterized by less than 1% outcrop by area. Surface weathering commonly extends to depths of greater than 75m. Weathering, as in many cases, removed all obvious signs of mineralization and resulted in the dispersion of soluble metals near the surface.

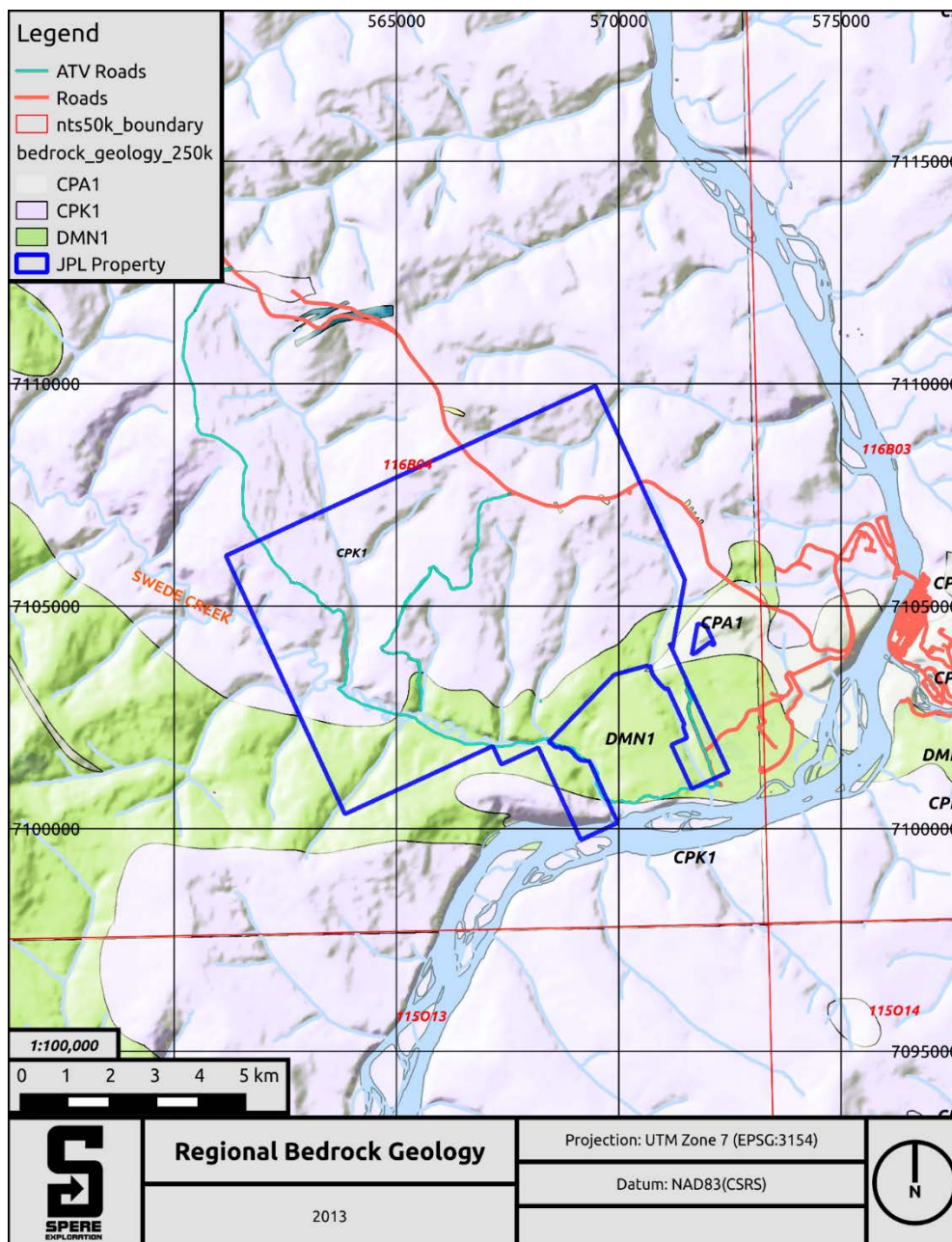


Figure 3: Regional/Property Geology

5.2 Property Geology and Mineralization

Official property geology on the JPL property is limited to the Yukon Geological Survey (YGS) descriptions which is very general and is broken down mostly in to two units on the JPL property, Nasina (DMN1) and Klondike Schist (CPK1), with a third unit, Anvil (CPA1) (see Figure 3). Below, in Table 2, are official descriptions of these rock units given by the YGS and a map (Figure 3) of the rock units as they relate to the JPL property:

AGE	UNIT	NAME	DESCRIPTION
DEVONIAN, MISSISSIPPIAN AND(?) OLDER	DMN1	DMN: NASINA	dark grey to black, fine grained graphitic and non-graphitic quartzite, grey micaceous quartzite and quartz muscovite (chlorite; feldspar augen) schist, locally garnetiferous; minor graphitic stretched metaconglomerate and metagrit (Nasina assem.)
CARBONIFEROUS AND PERMIAN	CPK1	CPK: KLONDIKE SCHIST	tan to rusty and black weathering muscovitic and/or chloritic quartzite and quartz-muscovite-chlorite schist; quartz and/or feldspar augen-bearing quartz-muscovite (chlorite) schist; includes augen gneiss and amphibolite (Klondike Schist)
CARBONIFEROUS AND PERMIAN	CPA1	CPA: ANVIL	variably altered and foliated, locally augite-phyric basalt (local pillows), diorite and gabbro, chloritic greenstone, amphibolitic greenstone and amphibolite; minor metachert, siliceous argillite or siltstone, greywacke, tuff, and siliceous limestone

Table 2: Bedrock units under the JPL property

The work done by SpereX to date on the JPL property indicates that Cu-Pb-Zn-Au-Ag mineralization favorable for the VMS deposit model exists mainly in the felsic Klondike Schist unit within the JPL property, see Figures of Mineralization in appendix 1

5.2.1 Anvil Unit (CPA1)

The Anvil range unit that exists in the JPL property as a narrow band entering from the east and is well described by the YGS description given above in Table 2. When it comes to mineralization, the Anvil unit shows elevated values for gold (up to 158 PPB) and copper (up to 336 PPM) in rocks with larger quartz veins, some elevated copper in a rock that seems to be a brecciated contact between



Figure 4: Typical Anvil unit rock

the Anvil unit and the Nasina unit. Also, visible magnetite is very common in the Anvil unit rocks, especially

around quartz veins. The Anvil unit does contain elevated Au and Cu in rock and soil and is an interesting part of the property but this unit is not thought of as the host for potential VMS mineralization.



Figure 6: Elevated Au (158 PPB), Cu (335 PPM)



Figure 5: Contact breccia elevated in Cu (228 PPM)

5.2.2 Nasina Unit (DMN1)

Nasina rock units are located on the JPL property and are usually easily determined by the black nature of the rock or soil. The Nasina unit appears very graphitic black usually with large platy sheets of black graphitic mica with quartz veining crosscutting foliation and running along foliation. The Nasina unit quite often contains <5% pyrite cubes that can be as large as 1cm² (Seen left: sample #1463142). Although



these Nasina rocks contain pyrite, assaying has proved that they do not contain economic mineral concentrations. As indicated in Figure 3, the Nasina is located on the southern end of the property and the Nasina unit's border runs in an east west fashion. Below, Figure 8, shows the graphitic schist interbedded with the lighter colored Klondike Schist from a viewpoint on Swede Creek.

Figure 7: Typical Nasina unit rock with Py



Figure 8: View of Klondike Schist Overlaying Nasina unit

In the photo above (Figure 8) a large quartz vein in the middle of the photo cross cuts foliation of the graphitic schist. The hornfels bordering this vein contain the highest concentrations of Molybdenum (Mo) found on the property at 89 g/t. Generally, Mo exists in elevated quantities when black graphitic Nasina rocks are found in soil with rusty orange rock chips. This quartz vein, seen in the photo above and close up in the photo below is evidence of hydrothermal alteration. Sample #1463409 was a direct sample of the quartz vein pictured below (Figure 9), the assays returned no exceptionally high values of any element except barium (3930 PPM). Pb, Zn, Cu, Au, Ag were all slightly elevated from background values.



Figure 9: Large quartz vein running through the Nasina unit



Figure 10: Typically elevated Mo in Nasina when rust is seen in graphitic black soil

5.2.3 Klondike Schist Unit (CPK1)

On the JPL property it is the Klondike Schist unit (CPK1) that is the most interesting and is most prospective to host VMS mineralization. The CPK1 unit on the JPL property is mainly a felsic quartz-sericite-schist with +/- chlorite; a meta-volcanic tuff with meta-dykes. Also, included in the CPK1 unit are syngenetic foliated rhyolite dykes that have nice copper mineralization to them (up to 0.3% Cu). (Sample #1463273, Figure 12)



Figure 11: Typical rock of the Klondike Schist unit

Geological mapping in 1995 done by Cominco Ltd. determined that Cu-Pb-Zn-Ag anomalies were sourced by a quartz-sericite-schist-meta-tuff and meta-rhyolite. Also, a chalcopyrite vein was sourced by Cominco and appeared to parallel layering in felsic-meta-tuffs. Cominco did a Pb-isotope analysis on one lead-bearing soil sample that gave a Mississippian age (approx. 354 – 323 m.a.) for Pb mineralization. Cominco Ltd. also did whole rock geochemistry of strongly foliated quartz-muscovite and quartz-sericite-

schist, confirmed field observation that these rocks represent felsic volcanic rocks (rhyolite, ash tuffs and crystal tuffs).

Seen below are four examples of mineralized rocks found in the CPK1 unit. When higher Pb-Zn-Ag-Au values are obtained in rock assay the CPK1 seems more silicified with visibly increased quartzite (Figures 13 and 14). These rocks are meta-tuffs with syngenetic mineralization that is indicated by the mineralized bands within the schist, this is another indicator of potential VMS mineralization on the JPL property. When copper is at its highest in rocks Pb-Zn values are not relatively elevated. These high Copper rocks (Figure 12) may be meta-dykes syngenetic to the tuff? Many quartz veins have been assayed on the JPL property but only one piece of quartz vein float was found that had a significant amount of gold (9 g/t Au) (Figure 15). This gold in quartz vein does not indicate VMS mineralization but it is possible that the gold has been remobilized from Au rich VMS and deposited in the younger quartz veins?



Figure 12: Schist with 0.3% Cu, visible calcite, and surprisingly low in Pb and Zn. Meta-rhyolite dyke syngenetic with surrounding meta-tuff?



Figure 13: Silicified schist with Cu (182 PPM), Pb (2538 PPM), Zn (1102 PPM)



Figure 14: Weathered, silicified quartz-sericite-schist with elevated Cu (163 PPM), Pb (3332 PPM), Zn (682 PPM)



Figure 15: Quartz float with 9 g/t Gold, and malachite/azurite staining.

Other observations of the CPK1 are large areas of brightly colored reds and oranges in the soil and rocks underneath. The bright orange running for almost 200m until the abrupt change to the bright red color which then continues for over 150m along the soil sampling line. The rock mixture within the soil is a decomposed quartz-sericite-schist. Only one section of these bright colored soils were elevated in Cu and were not elevated with other minerals of interest, which was interesting because it was along a structure which made for an abrupt change in topography (a fault?).



Figure 16: Bright limonitic colored soil. Chert? Ochre? Dolomite-ankerite?



Figure 17: Bright red colored soil. Chert? Ochre? Dolomite-ankerite?



Figure 18: Large outcropping of the rock type (red quartz-sericite-schist) that makes the red soils.

In the middle of the property around the areas that lie in an area without a clear mag high or low there is a large area in the CPK1 of extremely soapy feeling, light greenish-yellow colored rock (sample #1463269 in Figure 19) and soil. A long stretch of over 600m here exists a zone of anomalous Cu-Pb-Zn-Au-Ag (See Figures. A talc-sericite-chlorite-schist mineralization based on the soapy feel? Some literature indicates a contorted talc-sericite-chlorite schist alteration can be included in the alteration zone of VMS structures.



Figure 19: Rocks with talc and elevated in Cu-Pb-Zn-Au-Ag. Soapy feel. Possible footwall alteration zone?

Other geological features discovered while exploring the JPL claims are series of quartz-feldspar-porphyry (QFP) dykes. These felsic dykes have only been seen inside the CPK1 unit. Since these dykes are not foliated it indicates that they are of a much younger age than the felsic tuffs in the area. Cominco Ltd. (1995) reported these dykes to be of tertiary age.

Ebony Gold Inc. (1992) reported that the dykes and sills range in nature from diabase to rhyolite and that they have been dated as tertiary to early quaternary in age (< 65m ma). Ebony says that what intrudes the gneiss and schist are quartz feldspar porphyries, probably dykes.



Figure 20: Felsic dykes. Rhyolite domes? Quartz Feldspar Porphyry's?

These felsic dykes (seen above in Figure 20) show up on government mag maps as mag lows. If one were to infer that all mag lows in the area are these QFP dykes then it is possible that in some cases they can run continuously, starting from the Swede Creek Valley more than 20km in a northwest fashion where they seem to disperse and fade out. If it proves that these mag lows are in fact only the QFP dykes then they can be as wide as 1km in some spots (See Figure 21 below). According to assessment report #092941 by Ebony Gold Ltd (1990), these dykes are of tertiary to early quaternary age. These dykes correspond perfectly to the Mag lows in a recent 200m line spacing YGS airborne mag survey which was recently made public. Interestingly in almost all cases of Cu-Pb-Zn mineralization on the property seem to exist near the borders of these mag high/lows (contacts with the QFP dykes). This sample shown above, sample #1307721, does not contain any significant mineralization. Interestingly, the highest values for Cu-Pb-Zn in soil come from sample #1463426, which exists in an area of no abrupt mag high/low. It is possible that an EM survey may light some interesting structures in this area. Although these felsic dykes are young (tertiary) and don't contain mineralization, their size and quantity indicate they may be overprinting in a area that has seem much volcanic activity and where large conduit systems exist in the area.

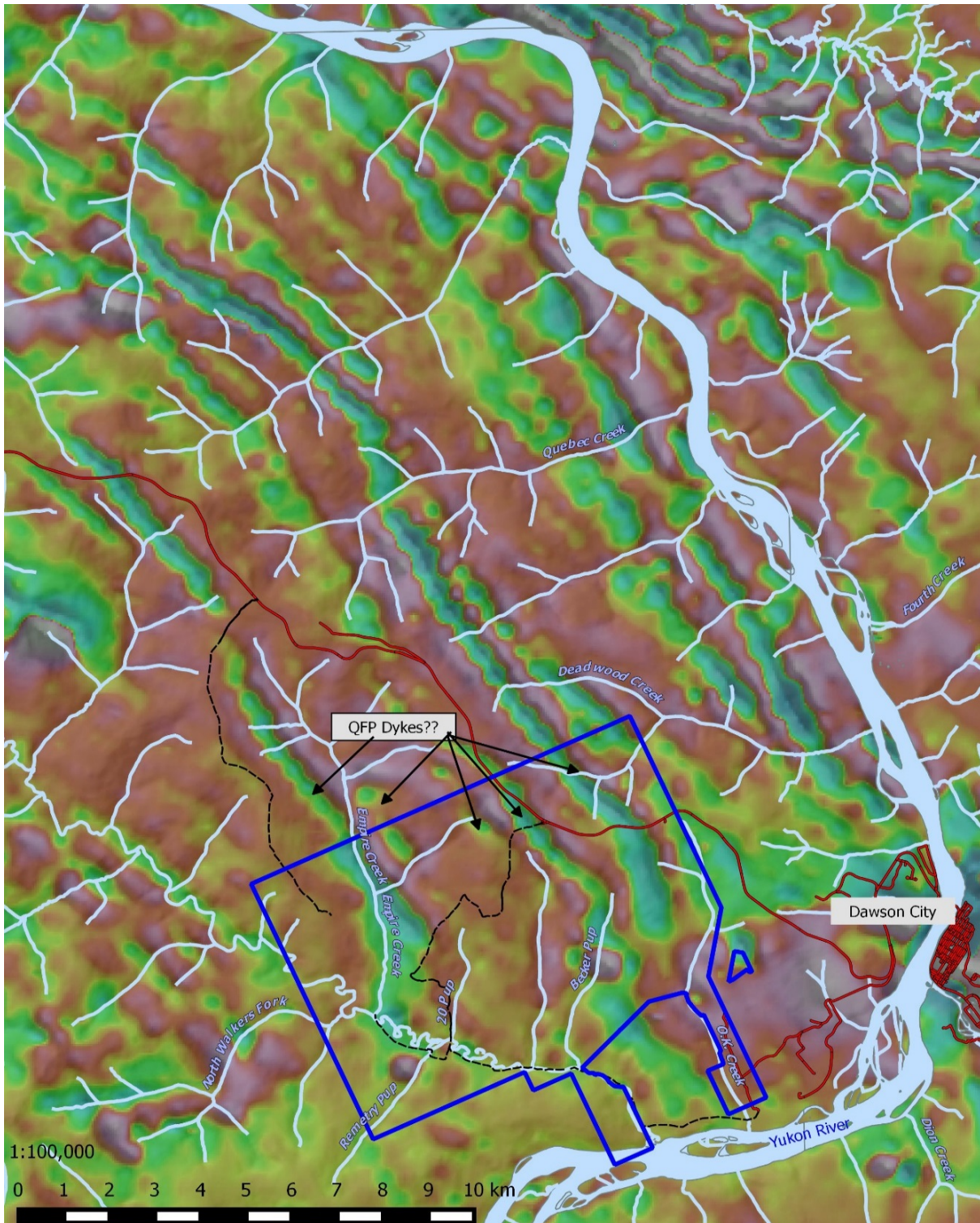


Figure 21: 200m line spacing EM survey done by the CGS in 2014. Generally the larger linear mag lows are thought to correspond to tertiary aged felsic quartz-feldspar-porphyry-dykes and the mag highs next to them are thought to consist mainly of felsic meta-tuff.

Mafic rocks found as float on a talus slide of the same rocks may indicate a series of basalt flows as sills or dykes exist on the property as well. (Figure 22) Further investigation is needed.



Figure 22: Mafic basalt flow? Much weathered out py vugs. Slightly foliated.

According to a 1995 mapping survey by Cominco there is a basaltic sill that exists on the north-west corner of the property. I have found these basaltic rocks in Empire Creek as transported alluvial material only.

6 WORK PROGRAMS

6.1 Work Timelines

All work encompassed by this report was completed between the date of Oct 23, 2013 and Oct 22, 2014. Spere Exploration received a Yukon Mineral Exploration Program (YMEP) grant for work done on the JPL from March 1, 2013 to March 1, 2014. The JPL work program qualified under the Target Evaluation module of the YMEP which meant it was eligible for reimbursement of 50% of approved expenditures up to a maximum of \$16,000. From the period Oct 22, 2013 to Oct 23, 2014 there are four distinct explorations which are outlined below. Since approved YMEP funding was for the work done between March 1, 2013 and March 1, 2014 only three of these explorations were eligible under the YMEP. Below is a timeline and brief description of the different explorations on the JPL property:

1. Prospecting Traverses (Oct 23 – 27, 2013, NOT YMEP Funded)

- 21 rock and 15 stream sediment samples were taken along each traverse by a prospector

2. ATV Trail Clearing (May 28 – June 1, 2014, YMEP Funded)

- two labourers worked for 5 days on clearing overgrowth from the old road network on the JPL property

3. Prospecting Traverse (June 3, 2014, YMEP Funded)

- 5 Rock, 1 soil and 2 stream sediment samples were taken along a traverse by a prospector

4. Soil Sampling/Prospecting (July 8-11, Aug 1-5, Aug 13-16, 2014, YMEP Funded)

- Soil sampling/prospecting along ridges and spurs for a total of 13 man-days, 349 soil samples, 24 rock samples and 2 stream sediment samples

6.2 Methods, Equipment and Procedures

Geochemical analysis were completed on rock, stream sediment, and soil samples. Besides geochemical analysis done on JPL there was a small trail clearing program which cleared out old roads where there was overgrowth.

Rock samples were collected from the property in the form of grab samples while prospecting, passing by an outcrop or soil sampling etc. Once collected, rocks were tagged with a unique identifying tag. One tag was left in the field where the sample was taken, one tag was placed on the inside of the sample bag, and one tag was placed on the outside of the sample bag. All samples were photographed along with the sample site. Descriptive data on the rock was recorded with SpereX's data collection device which has the ability to collect geolocation, pictures, as well as any other customizable form data that can

later be downloaded and stored on a personal computer. At the end of each day the rock samples collected were brought back to basecamp. Once enough rock samples were collected they were sent to Acme Labs of Whitehorse to be processed to pulps and then on to Acme Labs of Vancouver where the pulps were assayed. Rocks were crushed, split and pulverized to 200 mesh. All rocks were assayed with a 0.5g 36-element Aqua Regia digestion ICP-MS analysis and a 30g Fire assay fusion Au by ICP-ES.

Stream sediment samples were collected on most creeks on the property as well as up Swede Creek, the main tributary on JPL, at 500 meter intervals for the first few kilometers. Sampling at 500m up Swede Creek was mostly done in the late fall of 2013. Sediment samples were taken from the current flow of the creek, typically on the downstream side of an obstacle such as a rock or tree. The goal was to sample areas that may trap heavies in the creek such as gold, copper, lead etc. Typically, samples were taken from the creek with a spade or by hand in some cases. Samples were then tagged with one tag left in the field, one placed on the sample bag and one placed in the sample bag. Once collected samples and sample site were photographed. Notes were taken along with the location coordinates. All samples were shipped to Whitehorse Acme Labs for processing and then on to Vancouver for analysis. All stream sediment samples were dried at 60 degrees Celsius then 100 grams was sieved to a -80 mesh. Then 15g of -80mesh material was analyzed by Aqua Regia digestion ICP-MS analysis for 36 different elements.

Soil samples were collected from the "C Horizon" using a 1.2m long Dutch spoon-style handheld soil auger. The scope of this soil program was to do reconnaissance style soil sampling every 50 meters along ridges and spurs of the property in order to find targets to later overlay a larger soil grid. Unfortunately, all ridges and spurs could not be sampled because of funding constraints so only a select few were done on the western side of the property. Maximum possible depth with the auger was attempted each time. If the auger was sunk up to 1.2m without reaching the C or lower B horizon then the sample was photographed but not taken in for analysis because of poor data confidence and limited funds to do assays. If the sample was determined to be C horizon it was laid out on a plastic bag and photographed with the sample tag which contains a unique sample ID. Once photographed, data is collected on the sample and site, including the sample location, the sample was bagged in a small paper Kraft bag and sealed with a flagging tape tie. Soil samples were sent to Acme Labs in Whitehorse to be prepped and then were shipped to Vancouver Acme Labs to be analyzed. All soil samples were dried at 60 degrees Celsius then 100 grams was sieved to a -80 mesh. Then 15g of -80mesh material was analyzed by Aqua Regia digestion ICP-MS analysis for 36 different elements.

As outline previously, above there was a trail clearing program which focused on the existing road network that exists on the JPL Property. In total about 8km of the trail were to be cleared and reopened. This was effective to avoid the use of helicopters during the sampling programs and to create lasting access for years to come. Tools used to clear the roads were machetes, axes, chainsaws and handheld rotary brush cutters. Two labourers worked together for a total of 5 days. This was a labour intensive job. Not all of the sections of road needed clearing as some were still open.

7 INTERPRETATIONS/CONCLUSIONS/RECOMMENDATIONS

Results from soil, sediment, and rock sampling have turned up anomalous values of Cu-Pb-Zn-Au-Ag mineralization on the JPL property and have defined at least four zones which need to be followed-up (see Figure 25 to 31). Highlights from the geochemical analysis include rocks with up to 0.3% Cu, 0.3% Pb, 0.1% Zn, 9g/t Au. One soil sample was as high as 0.2% Cu, 0.08% Pb, and 0.3% Zn. The stream sediment values were also high in the areas of anomalous rock and soil samples which indicate that there is high potential of Volcanogenic Massive Sulfide (VMS) within the boundary of the JPL property. These positive geochemical results indicate potential for a mineable VMS source within the JPL property boundary. Rock geology of the property, graphitic Nasina unit of Mississippian-Devonian age underlies the thrust emplaced units, felsic Klondike Schist (Permian) and the greenstone Anvil unit (Permian). It is clear on this property that the potential host for the source of mineralization is in the felsic Klondike Schist unit of Permian age. Evidence shows that Cu-Pb-Zn-Au-Ag mineralization is syngenetic with the felsic quartz-sericite-schist of the Klondike Schist package.

Since this area of the Yukon has not seen recent (Pleistocene) glaciation "C horizon" grid soil sampling is be a very effective tool in narrowing in on massive mineralization in soil and which can then target the bedrock source of mineralization in soil. Also, needed on the JPL property is a detailed geological map. Since there is less than 1% outcrop on the JPL property it is known that the best places to find rock in its original setting is to search the creek valleys. The best way to search the creek valleys is to have a prospecting/mapping team search all creek valleys for outcropping and map the geology as well as the strike dip in order to make a comprehensive geological map of the property. This geological map will go a long way in narrowing on targets for potential VMS mineralized sources as VMS deposits have a well-defined exploration model and knowing the geology will help find the mineralized source.

There are still a fair amount of roads that can be opened up using the same methods used in this program. Further work on the JPL property should include and in fact start with clearing the remainder of

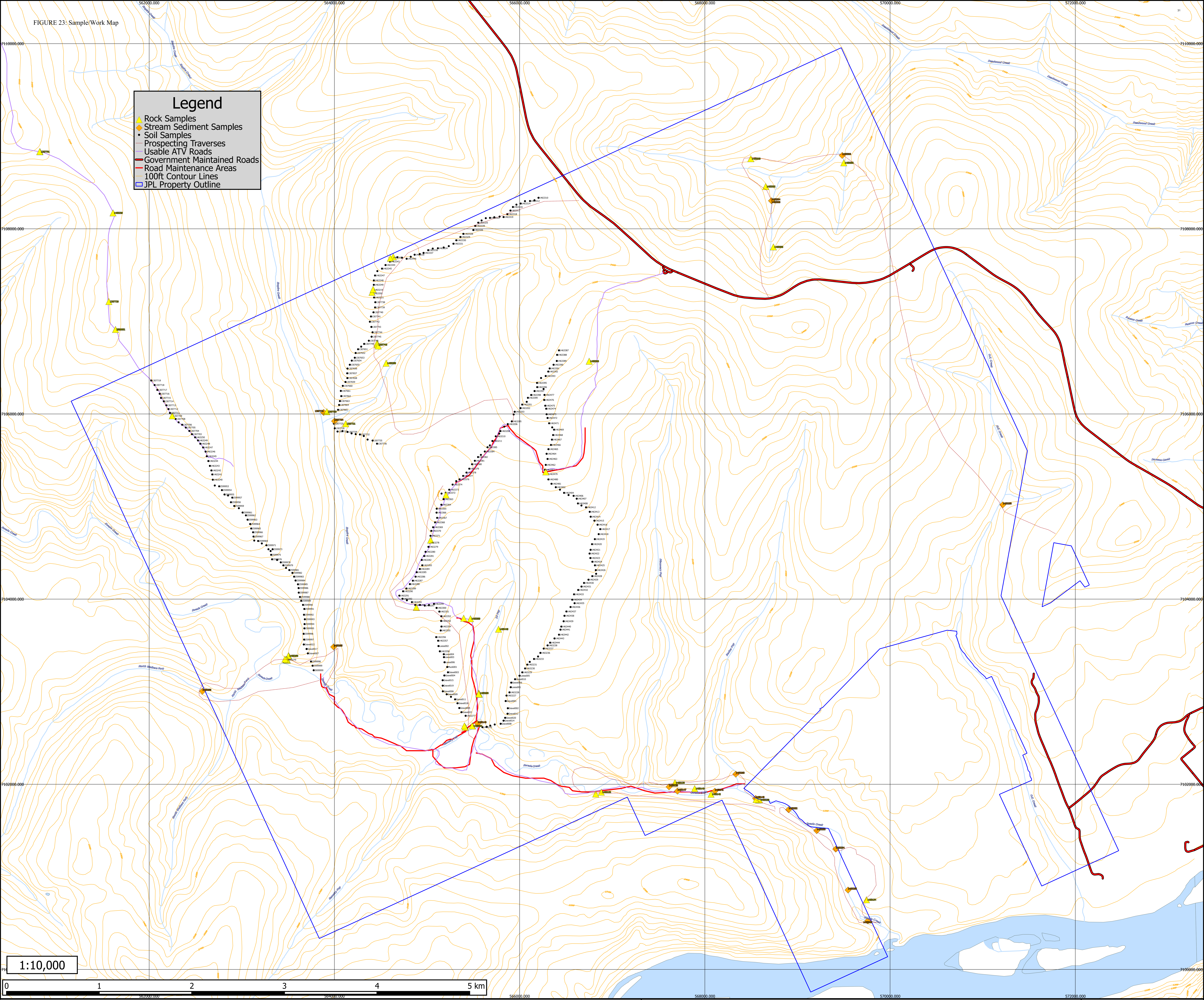
these roads to make the property even more accessible for soil sampling, prospecting and eventually trenching and drilling. Another benefit of opening these older roads is that they are the best place to find bedrock as the road cut in a lot of places scrapes along bedrock. This is a bonus for geological mapping in such a densely covered area.

Once grid soil sampling has been completed then the defined target areas should be trenched with an excavator to reveal the bedrock source for the soil anomalies. Once the trenches reveal bedrock they should be systematically sampled and mapped in order to define drill and/or EM/IP geophysics targets.

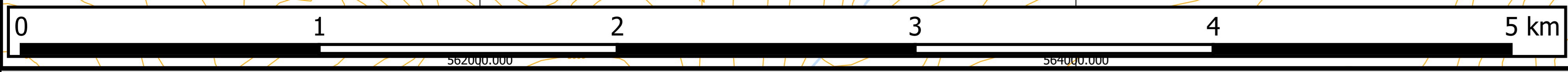
There is still a fair amount of work to be done on the JPL property in order to define drill targets but the work done so far has been encouraging and has shown that there is potential for VMS within the boundaries of the JPL property.

APPENDIX I: APPENDIX FIGURES

FIGURE 23: Sample/Work Map



1:10,000



Geochemical/Work Program on the JPL Property

Projection: UTM Zone 7 (EPSG:3154)

Datum: NAD83(CSRS)

Author: Morgan Fraughton

Soil Samples, Stream Sediment Samples, Rock Samples, ATV Road Maintenance, Prospecting Traverses

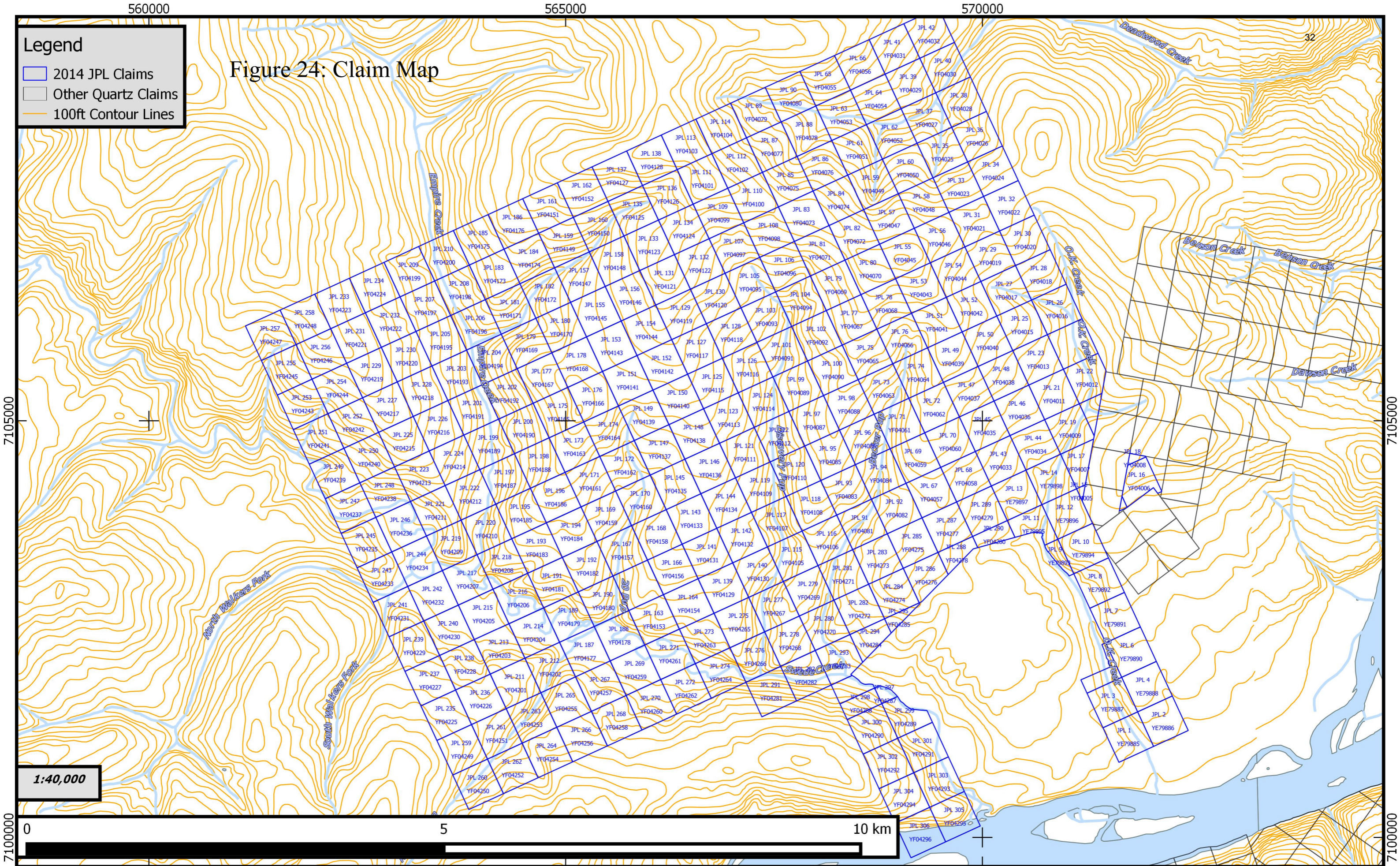
All work done between Oct. 23 2013 and Oct. 22, 2014



Figure 24: Claim Map

Legend

- 2014 JPL Claims
- Other Quartz Claims
- 100ft Contour Lines



1:40,000



JPL Claims Map (2014)

Author: Morgan Fraughton

Claim Names and Grant Numbers

Projection: UTM Zone 7 (EPSG:3154)

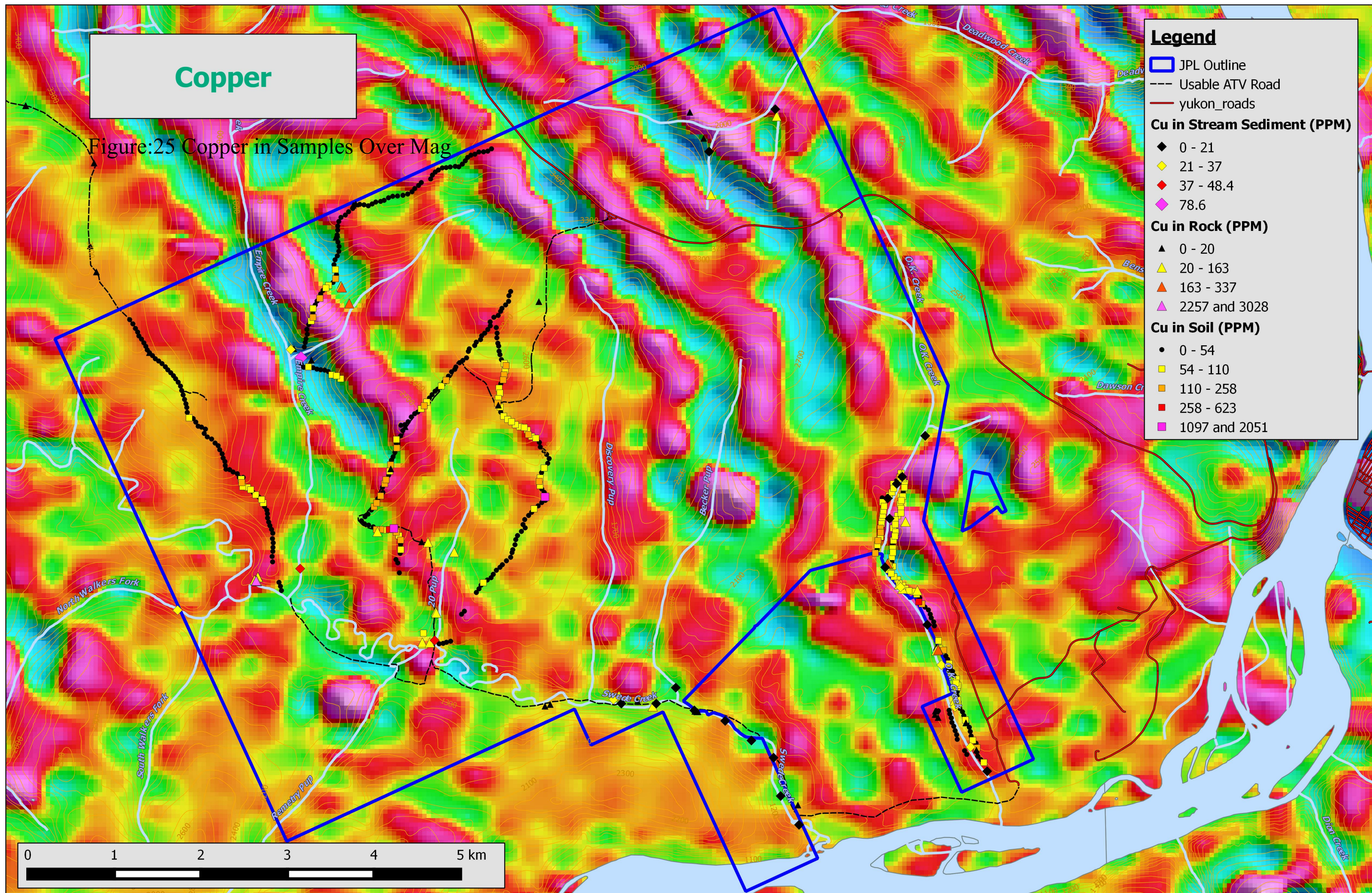
Datum: NAD83(CSRS)

JPL Claims As of December 7, 2014



Copper

Figure:25 Copper in Samples Over Mag

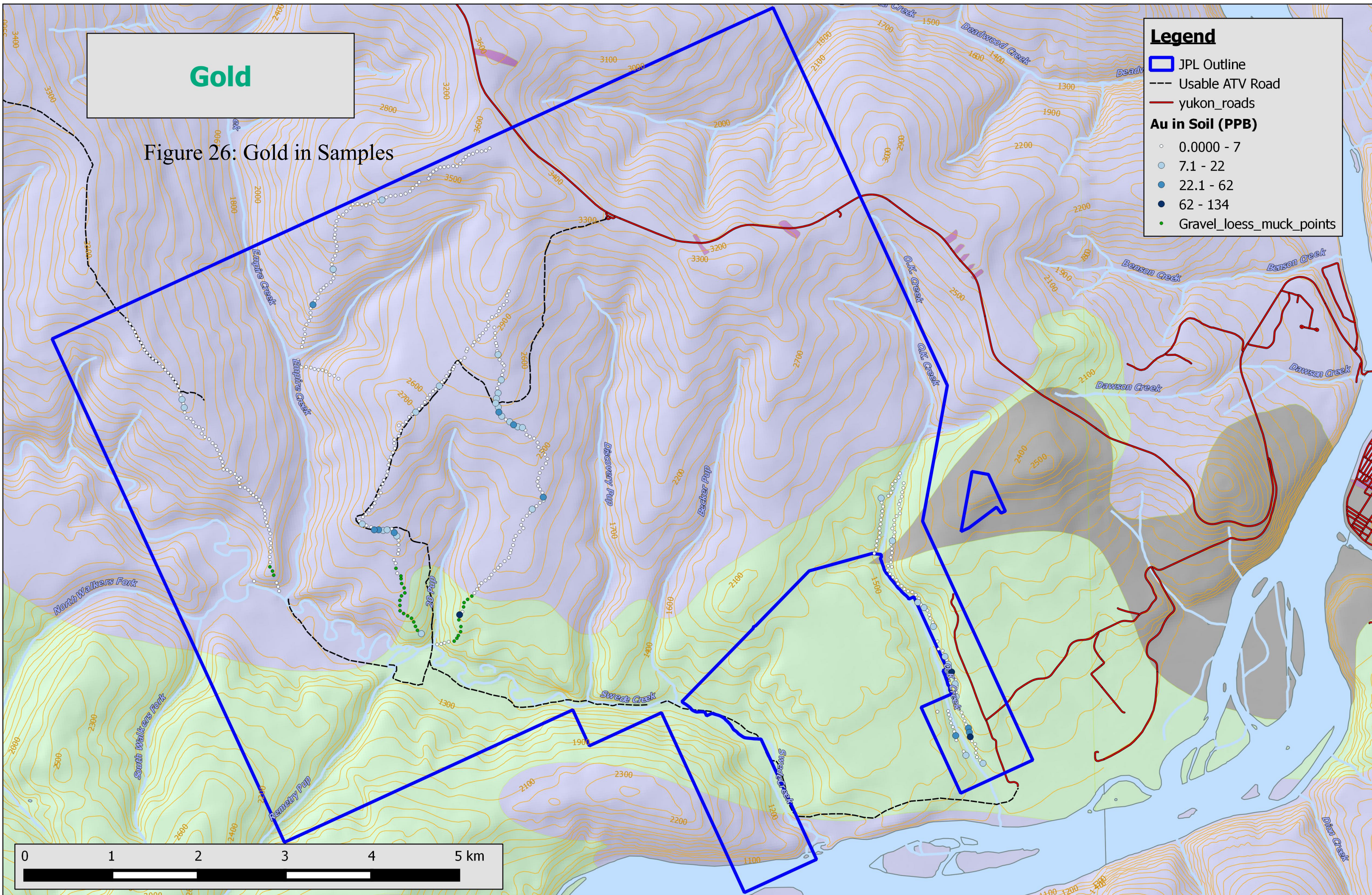


Gold

Figure 26: Gold in Samples

Legend

- JPL Outline
- Usable ATV Road
- yukon_roads
- Au in Soil (PPB)**
- 0.0000 - 7
- 7.1 - 22
- 22.1 - 62
- 62 - 134
- Gravel_loess_muck_points



Lead

Figure 27: Lead in Samples

Legend

- JPL Outline
- Usable ATV Road
- yukon_roads

Pb in Stream Sediment

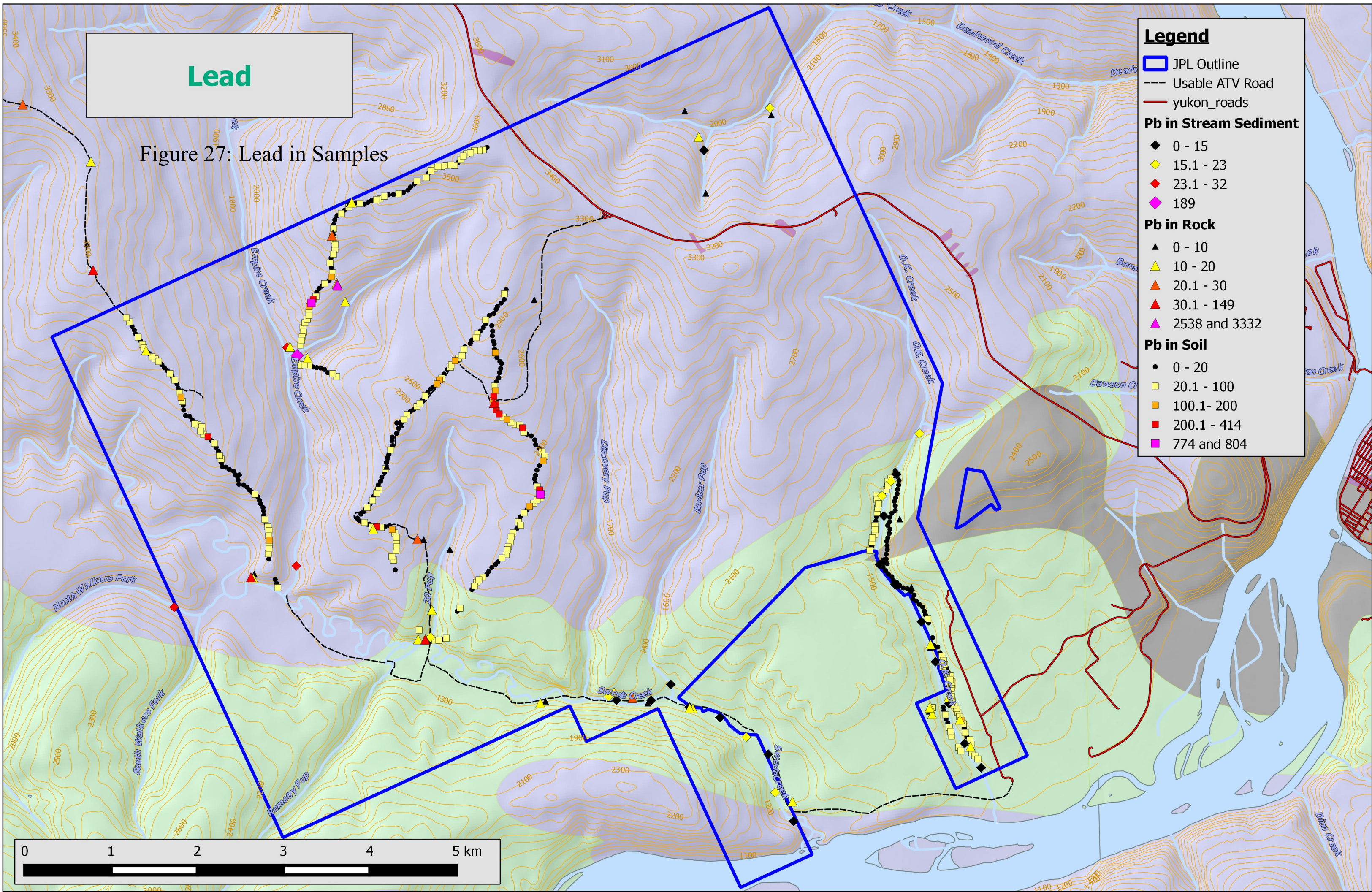
- 0 - 15
- 15.1 - 23
- 23.1 - 32
- 189

Pb in Rock

- 0 - 10
- 10 - 20
- 20.1 - 30
- 30.1 - 149
- 2538 and 3332

Pb in Soil

- 0 - 20
- 20.1 - 100
- 100.1 - 200
- 200.1 - 414
- 774 and 804



Silver

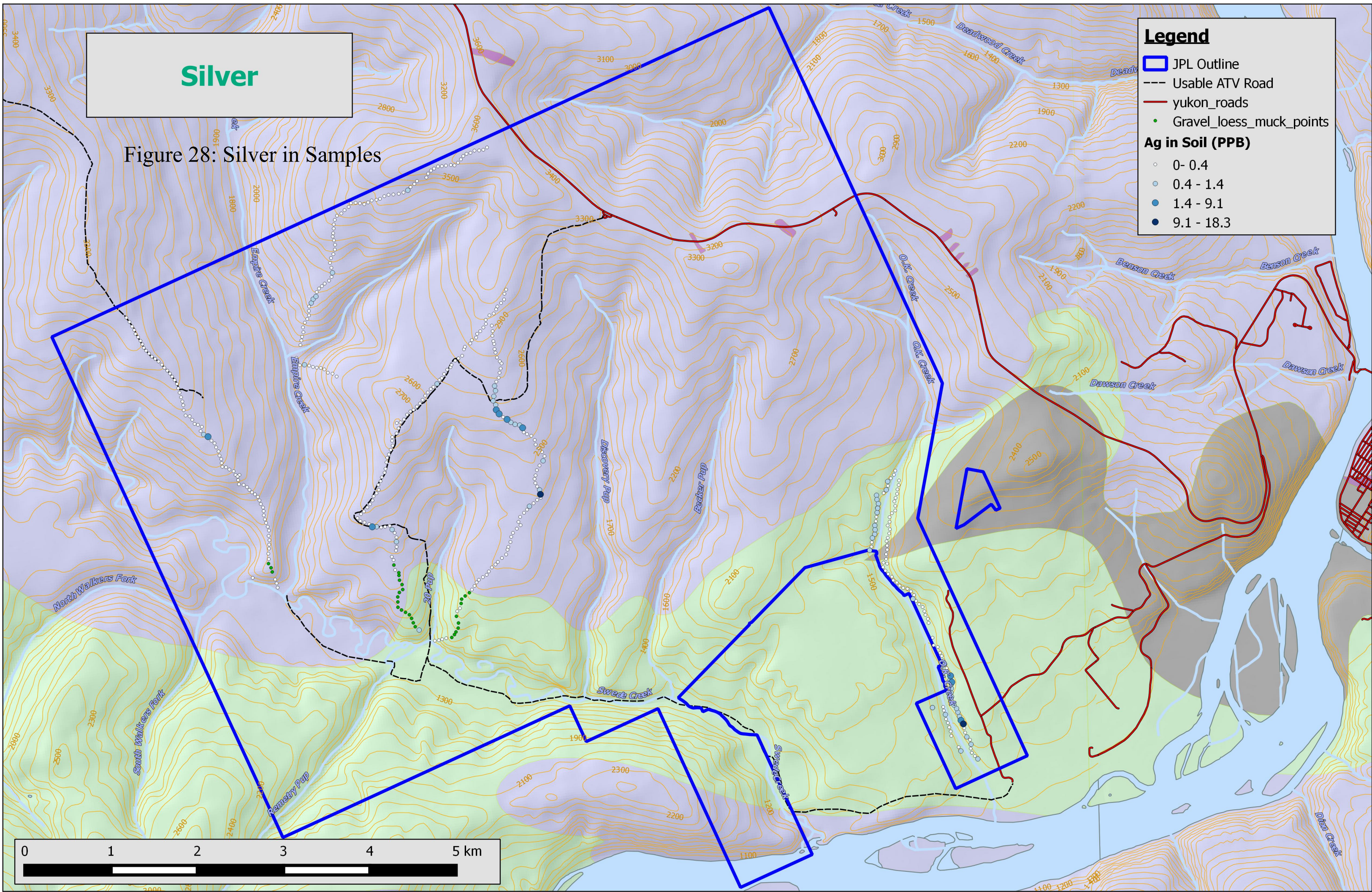
Figure 28: Silver in Samples

Legend

- JPL Outline
- Usable ATV Road
- yukon_roads
- Gravel_loess_muck_points

Ag in Soil (PPB)

- 0 - 0.4
- 0.4 - 1.4
- 1.4 - 9.1
- 9.1 - 18.3



Zinc

Figure 29: Zinc in Samples

Legend

- JPL Outline
- Usable ATV Road
- yukon_roads

Zn in Stream Sediment

- 0 - 72
- 72.1 - 108
- 109.1 and 127
- 189

Zn in Rock

- 0 - 26
- 26.1 - 108
- 109 - 207
- 544 and 682
- 1102

Zn in Soil

- 0 - 58
- 54 - 110
- 110.1 - 200
- 200.1 - 788
- 3169

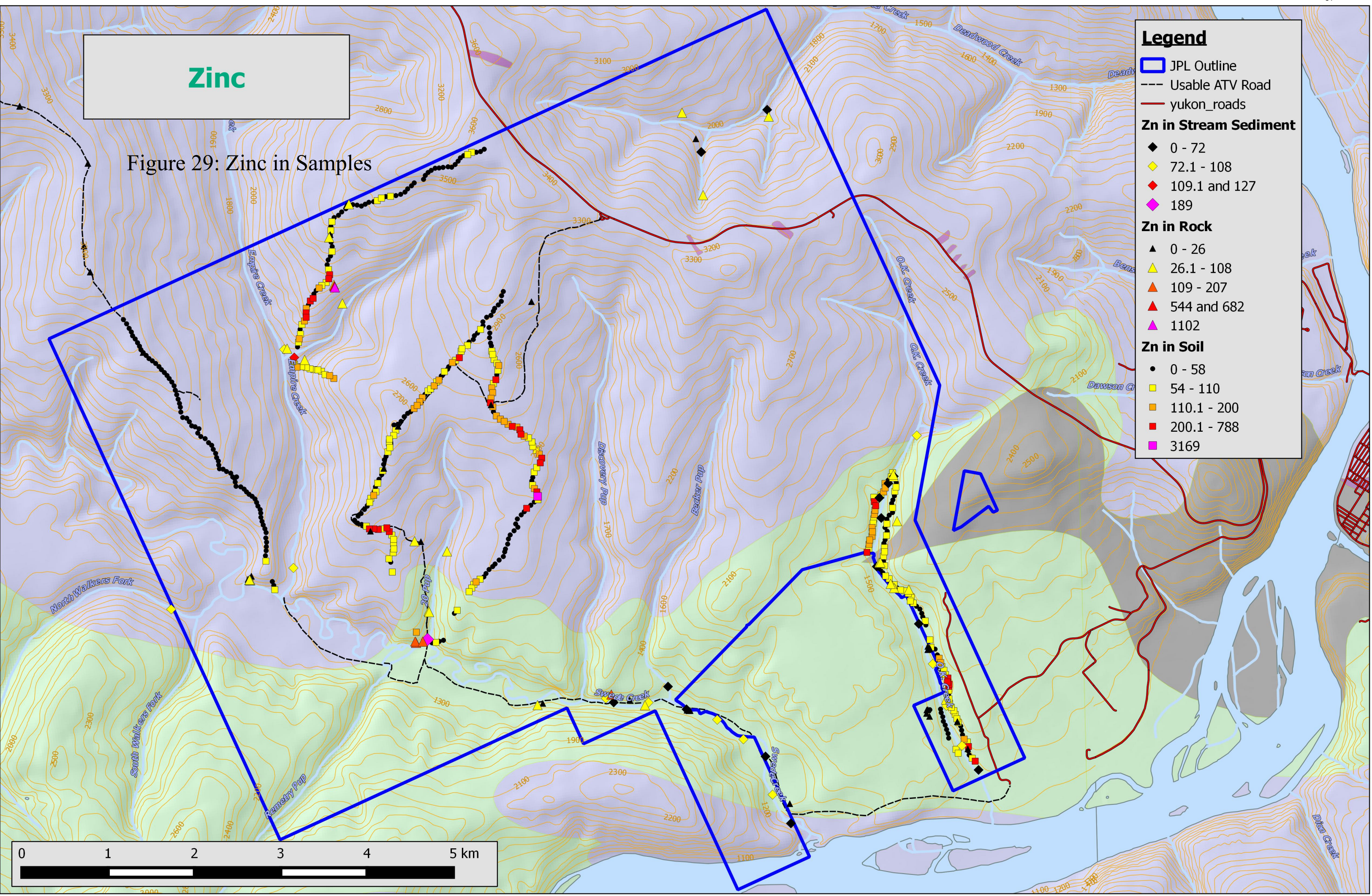
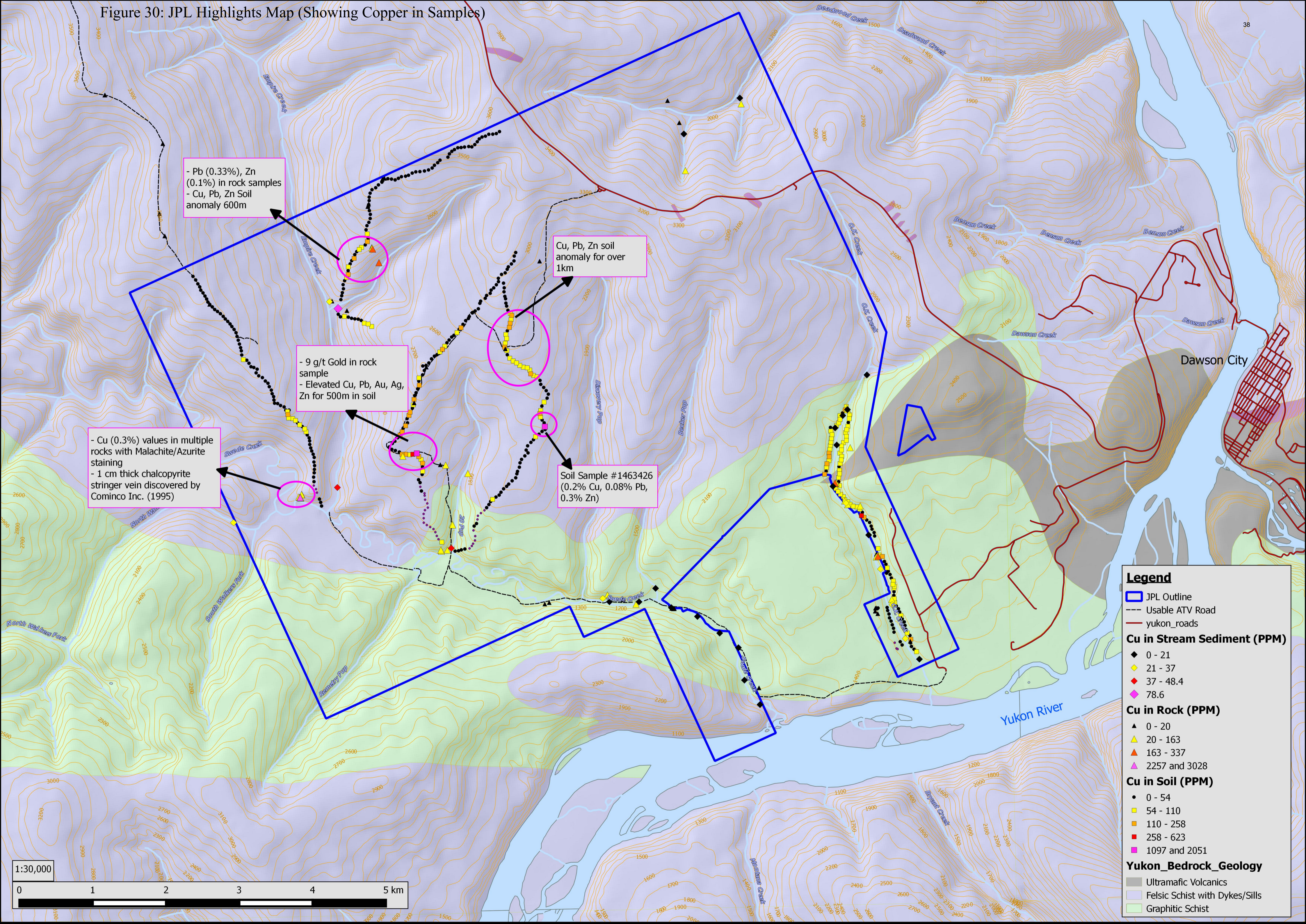


Figure 30: JPL Highlights Map (Showing Copper in Samples)



- Pb (0.33%), Zn (0.1%) in rock samples
- Cu, Pb, Zn Soil anomaly 600m

Cu, Pb, Zn soil anomaly for over 1km

- 9 g/t Gold in rock sample
- Elevated Cu, Pb, Au, Ag, Zn for 500m in soil

- Cu (0.3%) values in multiple rocks with Malachite/Azurite staining
- 1 cm thick chalcoprite stringer vein discovered by Cominco Inc. (1995)

Soil Sample #1463426
(0.2% Cu, 0.08% Pb, 0.3% Zn)

Legend

- JPL Outline
- Usable ATV Road
- yukon_roads

Cu in Stream Sediment (PPM)

- 0 - 21
- 21 - 37
- 37 - 48.4
- 78.6

Cu in Rock (PPM)

- 0 - 20
- 20 - 163
- 163 - 337
- 2257 and 3028

Cu in Soil (PPM)

- 0 - 54
- 54 - 110
- 110 - 258
- 258 - 623
- 1097 and 2051

Yukon_Bedrock_Geology

- Ultramafic Volcanics
- Felsic Schist with Dykes/Sills
- Graphitic Schist

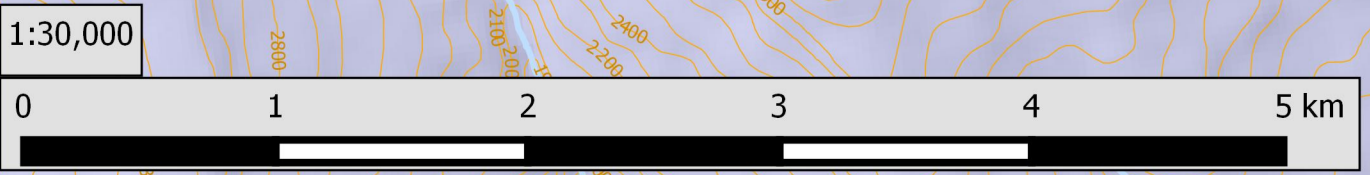
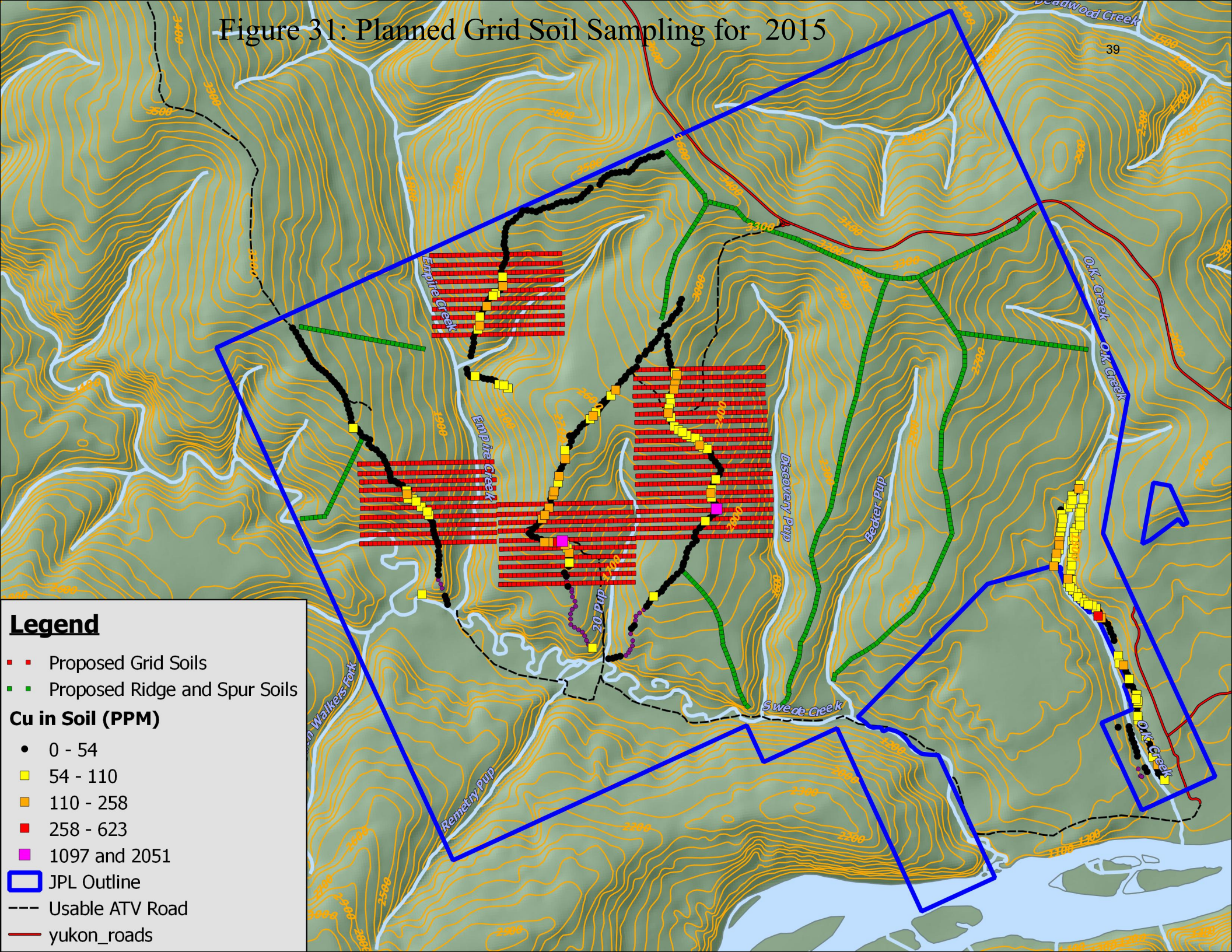


Figure 31: Planned Grid Soil Sampling for 2015



Legend

- Proposed Grid Soils
- Proposed Ridge and Spur Soils

Cu in Soil (PPM)

- 0 - 54
- 54 - 110
- 110 - 258
- 258 - 623
- 1097 and 2051

JPL Outline

Usable ATV Road

yukon_roads

APPENDIX II: LIST OF EXPENDITURES

Prospecting from Oct. 23 - 28, 2013						\$ 4,144.20
Expenditure	Date	Units	Unit Costs	Per	Cost	
Prospector	Oct. 23 - 28, 2013	5	\$ 350.00	manday	\$ 1,750.00	
Truck Rental	Oct. 23 - 28, 2013	5	\$ 60.00	day	\$ 300.00	
ATV	Oct. 23 - 28, 2013	5	\$ 50.00	day	\$ 250.00	
Truck Trailer	Oct. 23 - 28, 2013	5	\$ 16.00	day	\$ 80.00	
Field Expenses	Oct. 23 - 28, 2013	5	\$ 100.00	day	\$ 500.00	
Stream Sediment Assays	Jan. 7, 2014	15	\$ 22.40	sample	\$ 336.00	
Rock Assays	March 11, 2014	21	\$ 44.20	sample	\$ 928.20	

ATV Trail Clearing from May 28 - June 1, 2014						\$ 4,630.00
Expenditure	Date	Units	Unit Costs	Per	Cost	
Labourer	May 28-Jun 1, 2014	5	\$ 275.00	manday	\$ 1,375.00	
Labourer	May 28-Jun 1, 2014	5	\$ 275.00	manday	\$ 1,375.00	
Truck Rental	May 28-Jun 1, 2014	5	\$ 60.00	day	\$ 300.00	
ATV	May 28-Jun 1, 2014	5	\$ 50.00	day	\$ 250.00	
ATV	May 28-Jun 1, 2014	5	\$ 50.00	day	\$ 250.00	
Truck Trailer	May 28-Jun 1, 2014	5	\$ 16.00	day	\$ 80.00	
Field Expenses	May 28-Jun 1, 2014	10	\$ 100.00	manday	\$ 1,000.00	

Prospecting on Jun 3, 2014						\$ 1,087.38
Expenditure	Date	Units	Unit Costs	Per	Cost	
Prospector	June 3, 2014	1	\$ 350.00	manday	\$ 350.00	
Truck Rental	June 3, 2014	1	\$ 60.00	day	\$ 60.00	
ATV	June 3, 2014	1	\$ 50.00	day	\$ 50.00	
ATV	June 3, 2014	1	\$ 50.00	day	\$ 50.00	
Truck Trailer	June 3, 2014	1	\$ 16.00	day	\$ 16.00	
Field Expenses	June 3, 2014	1	\$ 100.00	manday	\$ 100.00	
Soil/Sed. Assays	July 17, 2014	3	\$ 23.52	sample	\$ 70.56	
Rock Assays	July 18, 2014	8	\$ 48.85	sample	\$ 390.82	

Soil Sampling/Prospecting July 8 -11, Aug 1-5, Aug. 13-16, 2014						\$ 16,807.64
Expenditure	Date	Units	Unit Costs	Per	Cost	
Soil Tech./Prospector	July 8 -11, Aug 1-5, Aug. 13-16, 2014	13	\$ 350.00	manday	\$ 4,550.00	
Truck Rental	July 8 -11, Aug 1-5, Aug. 13-16, 2014	13	\$ 60.00	day	\$ 780.00	
ATV	July 8 -11, Aug 1-5, Aug. 13-16, 2014	13	\$ 50.00	day	\$ 650.00	
Truck Trailer	July 8 -11, Aug 1-5, Aug. 13-16, 2014	13	\$ 16.00	day	\$ 208.00	
Field Expenses	July 8 -11, Aug 1-5, Aug. 13-16, 2014	13	\$ 100.00	manday	\$ 1,300.00	
Soil/Sed. Assays	Oct. 2, 2014	321	\$ 25.88	sample	\$ 8,308.28	
Rock Assays	Oct. 2, 2014	24	\$ 42.14	sample	\$ 1,011.36	

JPL Assesment Report						\$ 2,600.00
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TOTAL EXPENDITURES	\$	29,269.22
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APPENDIX III: STATEMENT OF QUALIFICATIONS

I, Morgan Fraughton, of Spere Exploration Inc., Box 1381, Dawson, Yukon, Canada
DO HEREBY CERTIFY that:

1. I have been employed in the mineral exploration industry in Western Canada for the past 11 years.
2. I have been a prospector in the Yukon for the last 6 years.
3. I am the president of exploration services company Spere Exploration Inc.
4. This report is based upon knowledge of the JPL property gained from a review of existing industry and government reports as well as firsthand work done on the property.
5. Completed BCIT prospector level 1 course

Signed and dated this ____ day of _____

Morgan Fraughton
President/CEO
Spere Exploration Inc.

APPENDIX IV: LIST OF CLAIMS

Grant Number	Claim Name	Claim Number	Claim Owner	Recording Date	Staking Date	Expiry Date
YF04291	JPL	301	Spere Exploration Inc. - 100%	22/10/2013	26/09/2013	22/10/2015
YF04292	JPL	302	Spere Exploration Inc. - 100%	22/10/2013	26/09/2013	22/10/2015
YF04293	JPL	303	Spere Exploration Inc. - 100%	22/10/2013	26/09/2013	22/10/2015
YF04294	JPL	304	Spere Exploration Inc. - 100%	22/10/2013	26/09/2013	22/10/2015
YF04295	JPL	305	Spere Exploration Inc. - 100%	22/10/2013	26/09/2013	22/10/2015
YF04296	JPL	306	Spere Exploration Inc. - 100%	22/10/2013	26/09/2013	22/10/2015

APPENDIX V: ASSAY CERTIFICATES

CERTIFICATE OF ANALYSIS

WHI14000037.1

CLIENT JOB INFORMATION

Project: JPL
Shipment ID:
P.O. Number
Number of Samples: 3

SAMPLE DISPOSAL

DISP-PLP Dispose of Pulp After 90 days
DISP-RJT-SOIL Immediate Disposal of Soil Reject

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

Invoice To: Spere Exploration Inc.
Box 1381
Dawson City YT Y0B 1G0
CANADA

CC:

SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Procedure Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
Dry at 60C	3	Dry at 60C			WHI
SS80	3	Dry at 60C sieve 100g to -80 mesh			WHI
AQ201	3	1:1:1 Aqua Regia digestion ICP-MS analysis	15	Completed	VAN

ADDITIONAL COMMENTS





www.acmelab.com

Bureau Veritas Commodities Canada Ltd.

9050 Shaughnessy St Vancouver BC V6P 6E5 CANADA

PHONE (604) 253-3158

Client: **Spere Exploration Inc.**
 Box 1381
 Dawson City YT Y0B 1G0 CANADA

Project: JPL
 Report Date: July 31, 2014

Page: 2 of 2

Part: 1 of 2

CERTIFICATE OF ANALYSIS

WHI1400037.1

Method	Analyte	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
		Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La
Unit		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	%	%	ppm	
MDL		0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	2	0.01	0.001	1	
1463270	Soil	1.2	101.8	25.2	107	0.1	4.5	6.2	367	3.20	6.0	0.8	42.1	60	0.7	0.2	0.3	<2	0.96	0.026	43
1463265	Sediment	1.2	37.2	31.4	109	0.1	17.4	11.0	536	2.33	7.3	3.0	8.1	39	0.3	0.6	0.3	27	0.34	0.071	24
1463266	Sediment	1.2	21.7	27.0	107	<0.1	25.0	10.2	584	2.27	7.2	2.5	9.2	40	0.4	0.5	0.3	25	0.53	0.055	31



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Bureau Veritas Commodities Canada Ltd.

9050 Shaughnessy St Vancouver BC V6P 6E5 CANADA

PHONE (604) 253-3158

Client: **Spere Exploration Inc.**
 Box 1381
 Dawson City YT Y0B 1G0 CANADA

Project: JPL
 Report Date: July 31, 2014

Page: 2 of 2

Part: 2 of 2

CERTIFICATE OF ANALYSIS

WHI1400037.1

Method	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
Unit	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
MDL	1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.1	0.05	1	0.5	0.2
1463270	Soil	2	0.04	125	<0.001	<1	0.40	0.026	0.19	<0.1	0.03	2.9	<0.1	1.05	<1	0.9	<0.2
1463265	Sediment	25	0.67	290	0.031	<1	0.97	0.015	0.08	<0.1	1.38	2.7	<0.1	0.10	3	1.6	<0.2
1463266	Sediment	33	0.74	284	0.041	2	1.01	0.008	0.14	<0.1	0.03	2.4	0.1	0.07	3	<0.5	<0.2



www.acmelab.com

Bureau Veritas Commodities Canada Ltd.
 9050 Shaughnessy St Vancouver BC V6P 6E5 CANADA
 PHONE (604) 253-3158

Client: **Spere Exploration Inc.**
 Box 1381
 Dawson City YT Y0B 1G0 CANADA

Project: JPL
 Report Date: July 31, 2014

Page: 1 of 1

Part: 1 of 2

QUALITY CONTROL REPORT

WHI1400037.1

Method	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
Analyte	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	
Unit	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	
MDL	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001	1	
Reference Materials																					
STD DS10 Standard	16.3	163.1	157.6	406	2.1	79.4	13.7	947	2.99	50.2	183.7	8.0	80	2.8	10.3	12.7	48	1.19	0.080	21	
STD OXC109 Standard	1.7	36.5	11.8	43	<0.1	76.6	20.3	437	3.05	<0.5	195.9	1.6	166	<0.1	<0.1	<0.1	50	0.83	0.107	14	
STD DS10 Expected	14.69	154.61	150.55	370	2.02	74.6	12.9	875	2.7188	43.7	91.9	7.5	67.1	2.49	8.23	11.65	43	1.0625	0.073	17.5	
STD OXC109 Expected										201											
BLK Blank	<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<1	<0.01	<0.5	<0.5	<0.1	<1	<0.1	<0.1	<0.1	<2	<0.01	<0.001	<1	

QUALITY CONTROL REPORT

WHI1400037.1

Method	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
Analyte	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te	
Unit	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	
MDL	1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2	
Reference Materials																	
STD DS10	Standard	60	0.84	395	0.093	7	1.15	0.065	0.36	3.5	0.30	3.2	5.3	0.31	5	3.0	5.7
STD OXC109	Standard	62	1.54	61	0.405	2	1.63	0.703	0.42	0.2	<0.01	1.0	<0.1	<0.05	6	<0.5	<0.2
STD DS10 Expected		54.6	0.775	359	0.0817		1.0259	0.067	0.338	3.32	0.3	2.8	5.1	0.29	4.3	2.3	5.01
STD OXC109 Expected																	
BLK	Blank	<1	<0.01	<1	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2

CERTIFICATE OF ANALYSIS

WHI14000190.1

CLIENT JOB INFORMATION

Project: JPL
Shipment ID:
P.O. Number
Number of Samples: 24

SAMPLE DISPOSAL

DISP-PLP Dispose of Pulp After 90 days
PICKUP-RJT Client to Pickup Rejects

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

Invoice To: Spere Exploration Inc.
Box 1381
Dawson City YT Y0B 1G0
CANADA

CC:

SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Procedure Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
PRP70-250	24	Crush, split and pulverize 250 g rock to 200 mesh			WHI
FA330-Au	24	Fire assay fusion Au by ICP-ES	30	Completed	VAN
AQ200	24	1:1:1 Aqua Regia digestion ICP-MS analysis	0.5	Completed	VAN

ADDITIONAL COMMENTS



CERTIFICATE OF ANALYSIS

WHI14000190.1

Method	WGHT	FA330	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200
Analyte	Wgt	Au	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	
Unit	kg	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	
MDL	0.01	2	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	
1307701	Rock	1.35	<2	1.6	4.1	20.9	6	0.2	0.8	0.7	35	2.76	2.4	<0.5	7.5	4	<0.1	0.6	<0.1	<2	<0.01
1307702	Rock	1.32	<2	0.1	0.9	1.6	1	<0.1	0.8	0.3	31	0.28	0.6	<0.5	0.5	2	<0.1	<0.1	<0.1	<2	<0.01
1307710	Rock	2.13	<2	4.7	6.5	10.9	6	0.2	0.4	0.3	37	1.31	11.5	0.7	15.1	6	<0.1	0.2	0.2	<2	<0.01
1307720	Rock	2.44	<2	<0.1	0.9	1.6	<1	<0.1	0.4	<0.1	24	0.22	<0.5	<0.5	0.3	<1	<0.1	<0.1	<0.1	<2	<0.01
1307721	Rock	0.84	<2	1.1	4.8	18.2	69	<0.1	1.9	4.1	420	2.95	6.4	0.7	14.6	5	0.2	0.3	<0.1	6	0.08
1307723	Rock	0.94	<2	0.3	2.7	18.4	38	<0.1	2.9	3.9	289	1.58	0.6	<0.5	19.4	39	<0.1	0.1	0.1	4	0.32
1307747	Rock	0.80	<2	0.4	9.8	14.2	61	<0.1	5.1	6.1	413	1.92	1.4	0.5	9.2	14	<0.1	<0.1	0.2	6	2.06
1307748	Rock	1.06	30	2.9	163.1	3331.5	682	6.7	1.1	0.7	98	6.31	269.2	26.7	4.6	4	2.0	5.8	0.5	2	0.04
1463151	Rock	0.79	<2	0.2	5.2	20.0	58	0.3	3.1	1.7	48	0.84	14.9	1.4	9.6	6	<0.1	0.4	2.1	<2	0.02
1463152	Rock	1.25	<2	0.2	0.7	3.0	7	<0.1	1.0	0.3	57	0.45	2.6	<0.5	0.6	2	<0.1	<0.1	<0.1	<2	<0.01
1463220	Rock	1.22	<2	<0.1	6.9	25.1	30	<0.1	4.1	5.0	300	1.14	<0.5	<0.5	11.7	7	0.1	<0.1	<0.1	2	0.11
1463239	Rock	1.46	<2	0.2	1.6	11.2	5	<0.1	1.3	0.7	267	0.41	<0.5	1.1	1.1	2	<0.1	<0.1	<0.1	<2	0.05
1463359	Rock	1.38	<2	0.2	56.0	4.9	6	<0.1	0.5	2.9	260	0.28	<0.5	<0.5	0.2	49	<0.1	<0.1	0.2	<2	0.02
1463360	Rock	1.65	7	10.5	7.1	101.0	6	0.4	0.9	0.4	37	1.01	8.0	5.5	3.7	19	<0.1	0.2	0.3	<2	0.01
1463361	Rock	1.75	2	0.2	5.6	1.1	19	<0.1	3.4	1.1	293	0.96	<0.5	<0.5	0.2	3	<0.1	<0.1	<0.1	<2	0.03
1463386	Rock	1.69	<2	0.2	2.3	2.7	7	<0.1	1.1	0.4	80	0.39	<0.5	0.6	0.2	2	<0.1	<0.1	<0.1	<2	0.03
1463409	Rock	1.28	<2	1.5	20.4	6.3	37	5.3	8.2	0.9	239	0.52	4.3	1.4	0.3	72	0.7	5.0	<0.1	4	1.11
1463410	Rock	0.70	<2	3.6	22.8	5.5	169	0.2	93.4	27.6	1237	6.39	30.0	<0.5	1.6	211	1.8	1.9	<0.1	149	4.26
1463445	Rock	1.30	<2	4.2	21.4	3.4	84	0.2	33.6	6.9	169	2.61	<0.5	0.8	2.3	22	0.7	0.2	<0.1	29	0.09
1463448	Rock	1.06	<2	0.1	0.6	0.7	1	<0.1	0.8	0.2	40	0.25	<0.5	<0.5	<0.1	1	<0.1	<0.1	<0.1	<2	0.01
1463449	Rock	0.91	<2	<0.1	4.6	17.6	27	<0.1	2.9	2.6	135	0.96	<0.5	<0.5	13.1	19	<0.1	<0.1	<0.1	3	0.16
1463450	Rock	0.75	<2	<0.1	1.1	2.1	5	<0.1	1.6	0.5	141	0.41	<0.5	<0.5	0.5	1	<0.1	<0.1	<0.1	<2	0.02
2598910	Rock	0.90	<2	1.7	90.9	148.1	544	0.2	1.7	1.0	168	19.69	5.0	2.8	11.5	9	0.3	0.7	0.2	5	0.02
2599951	Rock	0.43	<2	1.4	3.5	41.4	10	<0.1	1.1	1.2	42	1.75	3.4	0.8	10.3	3	<0.1	0.8	0.2	<2	<0.01

CERTIFICATE OF ANALYSIS

WHI14000190.1

Method	Analyte	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200
		P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te	
Unit		%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	
MDL		0.001	1	1	0.01	1	0.001	20	0.01	0.001	0.01	0.01	0.1	0.01	0.1	0.05	1	0.5	0.2	
1307701	Rock	0.006	21	2	0.01	5190	0.002	<20	0.20	0.003	0.10	<0.1	<0.01	0.7	<0.1	0.12	<1	<0.5	<0.2	
1307702	Rock	0.004	1	2	<0.01	21	<0.001	<20	0.03	0.004	0.01	<0.1	<0.01	0.1	<0.1	<0.05	<1	<0.5	<0.2	
1307710	Rock	0.006	29	1	0.02	818	<0.001	<20	0.32	0.002	0.17	<0.1	<0.01	0.5	<0.1	<0.05	<1	<0.5	<0.2	
1307720	Rock	<0.001	<1	1	<0.01	13	<0.001	<20	0.02	<0.001	0.02	<0.1	<0.01	0.2	<0.1	<0.05	<1	<0.5	<0.2	
1307721	Rock	0.070	40	2	0.05	87	0.002	<20	0.32	0.025	0.23	<0.1	<0.01	5.8	<0.1	<0.05	2	<0.5	<0.2	
1307723	Rock	0.043	45	3	0.37	88	0.014	<20	0.46	0.019	0.39	<0.1	<0.01	1.5	0.2	<0.05	1	<0.5	<0.2	
1307747	Rock	0.049	28	5	0.30	153	0.002	<20	0.77	0.019	0.15	<0.1	<0.01	2.5	<0.1	<0.05	3	<0.5	<0.2	
1307748	Rock	0.035	12	2	0.01	95	<0.001	<20	0.14	0.011	0.08	<0.1	1.40	1.0	<0.1	<0.05	<1	2.1	<0.2	
1463151	Rock	0.011	9	1	0.14	170	<0.001	<20	0.43	0.004	0.31	<0.1	0.04	1.9	0.3	<0.05	1	<0.5	<0.2	
1463152	Rock	0.002	<1	2	<0.01	165	<0.001	<20	0.02	<0.001	0.01	<0.1	<0.01	0.2	<0.1	<0.05	<1	<0.5	<0.2	
1463220	Rock	0.040	22	3	0.55	167	0.004	<20	0.75	0.008	0.19	<0.1	<0.01	1.1	<0.1	<0.05	2	<0.5	<0.2	
1463239	Rock	0.008	1	2	0.16	42	<0.001	<20	0.14	0.002	0.02	<0.1	<0.01	0.3	<0.1	<0.05	<1	<0.5	<0.2	
1463359	Rock	0.011	<1	2	<0.01	3234	<0.001	<20	0.03	0.002	0.02	<0.1	0.02	0.2	<0.1	0.08	<1	<0.5	<0.2	
1463360	Rock	0.021	11	2	0.02	141	0.003	<20	0.13	0.103	0.10	<0.1	0.21	0.4	<0.1	0.24	<1	1.0	<0.2	
1463361	Rock	0.002	1	3	<0.01	195	<0.001	<20	0.05	0.003	<0.01	<0.1	<0.01	0.4	<0.1	<0.05	<1	<0.5	<0.2	
1463386	Rock	0.017	<1	2	0.03	58	0.002	<20	0.07	<0.001	0.02	<0.1	<0.01	0.2	<0.1	<0.05	<1	<0.5	<0.2	
1463409	Rock	0.005	<1	3	0.53	3930	<0.001	<20	0.18	0.002	0.01	<0.1	0.10	0.8	<0.1	0.14	<1	<0.5	<0.2	
1463410	Rock	0.189	19	89	3.24	327	0.003	<20	3.86	0.015	0.07	<0.1	0.11	18.1	<0.1	<0.05	12	1.3	<0.2	
1463445	Rock	0.072	9	39	0.90	171	0.006	<20	1.18	0.014	0.11	<0.1	0.01	2.1	<0.1	<0.05	4	4.5	<0.2	
1463448	Rock	0.006	<1	1	0.01	16	<0.001	<20	0.02	0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2	
1463449	Rock	0.040	34	4	0.24	262	0.015	<20	0.56	0.017	0.35	<0.1	<0.01	0.7	0.1	<0.05	2	<0.5	<0.2	
1463450	Rock	0.010	1	2	0.04	30	<0.001	<20	0.07	0.002	0.03	<0.1	<0.01	0.2	<0.1	<0.05	<1	<0.5	<0.2	
2598910	Rock	0.081	18	6	0.16	103	0.014	<20	0.74	0.007	0.16	0.1	0.04	1.8	<0.1	0.09	3	<0.5	<0.2	
2599951	Rock	0.024	12	1	0.01	67	0.001	<20	0.24	0.001	0.12	<0.1	0.09	0.4	<0.1	<0.05	<1	<0.5	<0.2	

QUALITY CONTROL REPORT

WHI14000190.1

Method	WGHT	FA330	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200
Analyte	Wgt	Au	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	
Unit	kg	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	
MDL	0.01	2	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	
Pulp Duplicates																					
1463152	Rock	1.25	<2	0.2	0.7	3.0	7	<0.1	1.0	0.3	57	0.45	2.6	<0.5	0.6	2	<0.1	<0.1	<0.1	<2	<0.01
REP 1463152	QC		<2																		
2599951	Rock	0.43	<2	1.4	3.5	41.4	10	<0.1	1.1	1.2	42	1.75	3.4	0.8	10.3	3	<0.1	0.8	0.2	<2	<0.01
REP 2599951	QC			1.4	3.5	41.0	9	<0.1	1.0	1.3	44	1.78	3.5	0.9	10.4	3	<0.1	0.9	0.1	<2	<0.01
Core Reject Duplicates																					
1463359	Rock	1.38	<2	0.2	56.0	4.9	6	<0.1	0.5	2.9	260	0.28	<0.5	<0.5	0.2	49	<0.1	<0.1	0.2	<2	0.02
DUP 1463359	QC		<2	0.1	44.2	3.7	5	<0.1	0.6	2.3	220	0.26	<0.5	<0.5	<0.1	43	<0.1	<0.1	0.1	<2	0.02
Reference Materials																					
STD DS10	Standard			14.0	152.0	155.2	355	2.2	76.2	12.5	856	2.73	44.2	74.1	7.8	67	2.9	8.3	13.9	42	1.10
STD OREAS45EA	Standard			1.7	659.4	14.0	29	0.3	367.2	49.0	382	22.74	10.9	62.1	10.0	4	<0.1	0.3	0.4	285	0.03
STD OXD108	Standard		418																		
STD OXI121	Standard		1801																		
STD OXD108 Expected			414																		
STD OXI121 Expected			1834																		
STD DS10 Expected			14.69	154.61	150.55	370	2.02	74.6	12.9	875	2.7188	43.7	91.9	7.5	67.1	2.49	8.23	11.65	43	1.0625	
STD OREAS45EA Expected			1.39	709	14.3	28.9	0.26	381	52	400	23.51	9.1	53	10.7	3.5	0.02	0.2	0.26	303	0.036	
BLK	Blank		<2																		
BLK	Blank		<2																		
BLK	Blank		<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<1	<0.01	<0.5	<0.5	<0.1	<1	<0.1	<0.1	<0.1	<2	<0.01	
Prep Wash																					
G1-WHI	Prep Blank		<2	0.5	4.2	9.3	40	<0.1	0.8	3.3	475	1.70	2.0	<0.5	2.0	29	<0.1	<0.1	<0.1	21	0.58
G1-WHI	Prep Blank		2	0.3	4.1	1.3	37	<0.1	0.6	3.2	503	1.77	0.9	<0.5	2.0	26	<0.1	<0.1	<0.1	21	0.56

QUALITY CONTROL REPORT

WHI14000190.1

Method		AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	
Analyte		P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te	
Unit		%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	
MDL		0.001	1	1	0.01	1	0.001	20	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2	
Pulp Duplicates																				
1463152	Rock	0.002	<1	2	<0.01	165	<0.001	<20	0.02	<0.001	0.01	<0.1	<0.01	0.2	<0.1	<0.05	<1	<0.5	<0.2	
REP 1463152	QC																			
2599951	Rock	0.024	12	1	0.01	67	0.001	<20	0.24	0.001	0.12	<0.1	0.09	0.4	<0.1	<0.05	<1	<0.5	<0.2	
REP 2599951	QC	0.025	12	2	0.01	67	0.001	<20	0.24	0.001	0.12	<0.1	0.09	0.5	<0.1	<0.05	<1	<0.5	<0.2	
Core Reject Duplicates																				
1463359	Rock	0.011	<1	2	<0.01	3234	<0.001	<20	0.03	0.002	0.02	<0.1	0.02	0.2	<0.1	0.08	<1	<0.5	<0.2	
DUP 1463359	QC	0.008	<1	2	<0.01	2829	<0.001	<20	0.02	0.002	0.02	<0.1	0.02	0.2	<0.1	0.07	<1	<0.5	<0.2	
Reference Materials																				
STD DS10	Standard	0.076	18	54	0.76	418	0.079	<20	1.02	0.066	0.32	2.9	0.30	2.8	5.1	0.29	4	1.9	4.8	
STD OREAS45EA	Standard	0.026	7	784	0.09	133	0.091	<20	3.05	0.017	0.05	<0.1	0.01	70.4	<0.1	<0.05	11	0.6	<0.2	
STD OXD108	Standard																			
STD OXI121	Standard																			
STD OXD108 Expected																				
STD OXI121 Expected																				
STD DS10 Expected		0.073	17.5	54.6	0.775	359	0.0817		1.0259	0.067	0.338	3.32	0.3	2.8	5.1	0.29	4.3	2.3	5.01	
STD OREAS45EA Expected		0.029	6.57	849	0.095	148	0.0875		3.13	0.02	0.053			78	0.072	0.036	11.7	0.6	0.07	
BLK	Blank																			
BLK	Blank																			
BLK	Blank	<0.001	<1	<1	<0.01	<1	<0.001	<20	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2	
Prep Wash																				
G1-WHI	Prep Blank	0.036	5	2	0.43	59	0.069	<20	0.94	0.075	0.09	0.1	<0.01	2.5	<0.1	<0.05	4	<0.5	<0.2	
G1-WHI	Prep Blank	0.041	5	2	0.45	50	0.069	<20	0.94	0.072	0.08	0.2	<0.01	2.6	<0.1	<0.05	4	<0.5	<0.2	

CERTIFICATE OF ANALYSIS

WHI14000036.1

CLIENT JOB INFORMATION

Project: JPL
Shipment ID:
P.O. Number
Number of Samples: 8

SAMPLE DISPOSAL

DISP-PLP Dispose of Pulp After 90 days
DISP-RJT Dispose of Reject After 90 days

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

Invoice To: Spere Exploration Inc.
Box 1381
Dawson City YT Y0B 1G0
CANADA

CC:

SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Procedure Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
PRP70-250	8	Crush, split and pulverize 250 g rock to 200 mesh			WHI
FA330-Au	8	Fire assay fusion Au by ICP-ES	30	Completed	VAN
AQ200	8	1:1:1 Aqua Regia digestion ICP-MS analysis	0.5	Completed	VAN
BAT01	8	Batch charge of <20 samples			VAN

ADDITIONAL COMMENTS





www.acmelab.com

Bureau Veritas Commodities Canada Ltd.

9050 Shaughnessy St Vancouver BC V6P 6E5 CANADA

PHONE (604) 253-3158

Client: **Spere Exploration Inc.**
 Box 1381
 Dawson City YT Y0B 1G0 CANADA

Project: JPL
 Report Date: July 31, 2014

Page: 2 of 2

Part: 1 of 2

CERTIFICATE OF ANALYSIS

WHI14000036.1

Method	WGHT	FA330	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	
Analyte	Wgt	Au	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	
Unit	kg	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	
MDL	0.01	2	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	
1463267	Rock	1.85	26	0.2	138.9	4.4	17	<0.1	1.3	3.4	278	0.45	0.6	27.2	2.1	55	0.3	<0.1	0.1	<2	1.15
1463268	Rock	0.50	19	0.3	30.7	9.6	9	<0.1	1.2	0.5	54	0.83	2.9	13.3	20.3	18	<0.1	<0.1	1.0	<2	0.94
1463269	Rock	1.27	20	1.8	55.8	11.7	56	<0.1	2.9	3.8	303	1.94	6.5	19.5	14.0	56	0.2	0.4	0.2	<2	2.02
1463271	Rock	1.84	4	1.5	43.5	9.4	25	<0.1	1.1	1.8	388	1.05	1.4	6.0	15.6	51	<0.1	<0.1	0.1	<2	1.27
1463273	Rock	1.66	3	0.8	3028.2	5.0	29	0.1	8.4	17.9	102	1.41	51.4	5.3	17.1	33	0.2	0.4	0.4	<2	0.86
1463274	Rock	1.69	3	0.6	2257.3	6.4	41	<0.1	8.1	35.7	725	0.64	37.0	2.7	4.9	116	1.3	0.5	0.2	<2	2.56
1463275	Rock	1.73	4	0.9	135.6	57.0	4	1.2	3.1	8.0	254	0.98	11.7	6.2	2.3	79	0.2	<0.1	3.8	<2	1.38
1463272	Rock	0.70	3	0.4	45.0	3.6	2	<0.1	1.1	0.8	39	0.69	52.9	1.0	4.7	56	0.2	<0.1	0.2	<2	3.36

CERTIFICATE OF ANALYSIS

WHI14000036.1

Method	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200
Analyte	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te	
Unit	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	
MDL	0.001	1	1	0.01	1	0.001	20	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2	
1463267	Rock	<0.001	5	5	0.02	54	<0.001	<20	0.06	0.005	0.02	<0.1	<0.01	0.3	<0.1	0.20	<1	<0.5	<0.2
1463268	Rock	0.004	13	3	0.03	269	0.001	<20	0.35	0.032	0.30	<0.1	0.02	0.8	<0.1	0.72	<1	<0.5	<0.2
1463269	Rock	0.015	12	3	0.03	602	<0.001	<20	0.28	0.020	0.21	<0.1	0.04	1.2	<0.1	1.13	<1	1.0	<0.2
1463271	Rock	0.006	28	2	0.54	563	0.001	<20	0.28	0.019	0.24	<0.1	0.05	1.1	<0.1	0.25	<1	<0.5	<0.2
1463273	Rock	0.031	15	4	0.03	304	0.002	<20	0.56	0.027	0.31	<0.1	0.06	1.0	<0.1	1.03	<1	1.8	<0.2
1463274	Rock	0.023	8	3	0.02	321	<0.001	<20	0.26	0.018	0.13	<0.1	0.03	0.9	<0.1	0.50	<1	<0.5	<0.2
1463275	Rock	0.044	3	3	0.01	90	0.001	<20	0.12	0.048	0.05	<0.1	<0.01	0.6	<0.1	0.66	<1	0.9	<0.2
1463272	Rock	0.022	4	3	<0.01	109	<0.001	<20	0.08	0.036	0.07	<0.1	<0.01	0.2	<0.1	2.83	<1	<0.5	0.7

QUALITY CONTROL REPORT

WHI14000036.1

Method	WGHT	FA330	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200
Analyte	Wgt	Au	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	
Unit	kg	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	
MDL	0.01	2	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	
Pulp Duplicates																					
1463269	Rock	1.27	20	1.8	55.8	11.7	56	<0.1	2.9	3.8	303	1.94	6.5	19.5	14.0	56	0.2	0.4	0.2	<2	2.02
REP 1463269	QC	21																			
1463272	Rock	0.70	3	0.4	45.0	3.6	2	<0.1	1.1	0.8	39	0.69	52.9	1.0	4.7	56	0.2	<0.1	0.2	<2	3.36
REP 1463272	QC	0.5 43.0 3.5 2 <0.1 1.2 0.7 38 0.68 51.9 4.4 4.7 53 0.3 <0.1 0.2 <2 3.25																			
Reference Materials																					
STD DS10	Standard	15.2 169.9 161.4 371 2.1 79.3 13.3 966 2.90 46.6 121.8 8.0 77 2.8 9.8 11.9 44 1.14																			
STD OREAS45EA	Standard	1.7 713.0 14.1 30 0.3 420.2 54.6 443 23.44 11.4 55.5 10.1 4 <0.1 0.4 0.5 317 0.04																			
STD OXD108	Standard	405																			
STD OXD108	Standard	429																			
STD DS10 Expected		14.69 154.61 150.55 370 2.02 74.6 12.9 875 2.7188 43.7 91.9 7.5 67.1 2.49 8.23 11.65 43 1.0625																			
STD OREAS45EA Expected		1.39 709 14.3 28.9 0.26 381 52 400 23.51 9.1 53 10.7 3.5 0.02 0.2 0.26 303 0.036																			
STD OXD108 Expected		414																			
BLK	Blank	3																			
BLK	Blank	<0.1 <0.1 <0.1 <1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.01 <0.5 <0.5 <0.1 <1 <0.1 <0.1 <0.1 <2 <0.01																			
BLK	Blank	<2																			
Prep Wash																					
G1-WHI	Prep Blank	<2 0.2 2.0 3.7 45 <0.1 2.8 4.1 588 1.99 0.6 2.5 7.9 82 <0.1 <0.1 <0.1 39 0.52																			

QUALITY CONTROL REPORT

WHI14000036.1

Method	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	
Analyte	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te	
Unit	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	
MDL	0.001	1	1	0.01	1	0.001	20	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2	
Pulp Duplicates																			
1463269	Rock	0.015	12	3	0.03	602	<0.001	<20	0.28	0.020	0.21	<0.1	0.04	1.2	<0.1	1.13	<1	1.0	<0.2
REP 1463269	QC																		
1463272	Rock	0.022	4	3	<0.01	109	<0.001	<20	0.08	0.036	0.07	<0.1	<0.01	0.2	<0.1	2.83	<1	<0.5	0.7
REP 1463272	QC	0.023	4	3	<0.01	99	<0.001	<20	0.08	0.036	0.07	<0.1	0.01	0.2	<0.1	2.76	<1	<0.5	0.5
Reference Materials																			
STD DS10	Standard	0.084	20	60	0.85	447	0.086	<20	1.15	0.069	0.36	3.5	0.32	3.2	5.6	0.30	5	1.6	4.6
STD OREAS45EA	Standard	0.027	7	876	0.09	143	0.102	<20	3.40	0.019	0.05	<0.1	<0.01	81.8	<0.1	<0.05	12	1.0	<0.2
STD OXD108	Standard																		
STD OXD108	Standard																		
STD DS10 Expected		0.073	17.5	54.6	0.775	359	0.0817		1.0259	0.067	0.338	3.32	0.3	2.8	5.1	0.29	4.3	2.3	5.01
STD OREAS45EA Expected		0.029	6.57	849	0.095	148	0.0875		3.13	0.02	0.053			78	0.072	0.036	11.7	0.6	0.07
STD OXD108 Expected																			
BLK	Blank																		
BLK	Blank	<0.001	<1	<1	<0.01	<1	<0.001	<20	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2
BLK	Blank																		
Prep Wash																			
G1-WHI	Prep Blank	0.081	16	6	0.53	181	0.143	<20	1.10	0.126	0.56	0.1	0.02	3.1	0.3	<0.05	5	<0.5	<0.2

CERTIFICATE OF ANALYSIS

WHI13000572.2

CLIENT JOB INFORMATION

Project: JPL
Shipment ID:
P.O. Number
Number of Samples: 21

SAMPLE DISPOSAL

DISP-PLP Dispose of Pulp After 90 days
DISP-RJT Dispose of Reject After 90 days

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

Invoice To: OK Creek Mining
#105-7466 Beverly Blvd
Los Angeles 90036
USA

CC:

SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Procedure Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
R200-250	21	Crush, split and pulverize 250 g rock to 200 mesh			WHI
3B03	21	Fire assay fusion Au Pt Pd by ICP-MS	30	Completed	VAN
FA430	1	Lead Collection Fire - Assay Fusion - AAS Finish	30	Completed	VAN
AQ201	21	1:1:1 Aqua Regia digestion ICP-MS analysis	15	Completed	VAN

ADDITIONAL COMMENTS

Version 2 : FA430 & AQ201 included.



CERTIFICATE OF ANALYSIS

WHI13000572.2

Method	Analyte	WGHT	FA130	FA130	FA130	FA430	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	
		Wgt	Au	Pt	Pd	Au	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	
Unit	MDL	kg	ppb	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	
MDL		0.01	1	0.1	0.5	0.005	0.1	0.1	0.1	1	0.1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1
1463134	Rock	1.50	1	0.5	<0.5		0.5	8.4	14.4	15	0.2	4.8	0.9	283	0.81	2.6	<0.5	1.5	35	0.1	0.1	
1463138	Rock	1.60	3	0.7	0.5		0.4	25.1	17.7	112	0.1	92.0	21.0	499	0.56	15.8	1.8	1.1	23	0.5	1.2	
1463140	Rock	1.79	1	0.6	<0.5		0.6	9.1	22.1	26	0.2	4.6	0.6	52	0.71	36.6	<0.5	10.2	23	<0.1	0.5	
1463142	Rock	0.57	3	1.2	2.7		3.4	29.8	3.6	42	0.4	19.2	3.6	105	1.20	17.1	0.6	1.5	36	0.6	1.6	
1463143	Rock	1.41	<1	0.3	<0.5		<0.1	9.2	7.1	4	<0.1	1.0	0.3	32	0.37	0.9	<0.5	8.2	3	<0.1	0.3	
1463144	Rock	1.37	>1000	0.2	<0.5	4.847	0.2	69.3	19.8	23	11.7	2.1	0.4	48	0.49	71.3	9270.1	0.4	36	0.8	58.3	
1463145	Rock	1.93	72	0.3	<0.5		0.2	13.7	29.8	39	0.1	2.9	0.8	72	0.52	1.6	<0.5	9.5	4	<0.1	0.3	
1463149	Rock	1.45	15	0.5	<0.5		0.7	4.7	9.2	13	0.1	2.8	0.6	42	0.72	7.0	6.0	7.8	7	<0.1	0.4	
1463150	Rock	1.88	4	0.2	<0.5		<0.1	2.9	15.7	18	0.2	1.5	0.6	52	0.48	19.7	<0.5	11.0	7	0.1	0.2	
1463251	Rock	1.56	6	0.3	<0.5		1.4	4.2	14.1	13	0.1	1.6	0.2	26	0.60	8.2	4.9	7.1	8	<0.1	0.2	
1463257	Rock	1.30	22	0.4	<0.5		3.9	182.4	2538.6	1102	7.2	2.8	2.0	226	7.65	259.5	20.1	6.1	6	3.1	2.4	
1463258	Rock	1.48	6	4.2	2.2		0.4	177.5	18.7	61	0.2	21.5	19.8	352	4.07	9.8	6.7	1.0	8	0.1	0.2	
1463260	Rock	1.56	13	4.0	4.4		1.2	59.5	9.8	36	0.4	7.2	2.1	1426	3.10	131.3	12.2	1.5	51	0.7	5.1	
1463261	Rock	1.63	5	1.3	3.1		0.6	37.6	10.5	70	0.2	25.3	3.9	194	2.55	2.5	<0.5	4.2	15	<0.1	1.0	
1463262	Rock	1.51	2	0.3	<0.5		0.4	3.7	1.8	5	<0.1	1.5	0.5	54	0.53	1.8	<0.5	0.2	2	<0.1	0.1	
1463264	Rock	1.81	20	3.8	6.6		89.4	85.5	18.6	207	1.6	73.0	13.4	294	4.35	83.0	0.9	4.5	99	1.0	6.6	
1463301	Rock	0.74	4	2.0	4.1		16.5	25.9	11.1	109	0.4	39.3	8.1	767	2.33	51.5	<0.5	2.6	139	2.1	4.9	
1463302	Rock	1.02	1	0.3	<0.5		0.2	1.4	10.7	15	<0.1	0.9	0.3	41	0.40	1.1	<0.5	12.0	3	<0.1	<0.1	
1463303	Rock	0.89	1	0.4	0.6		0.3	14.9	6.1	74	<0.1	13.2	9.8	723	3.35	2.0	<0.5	7.7	16	0.2	<0.1	
1463305	Rock	1.66	1	0.2	<0.5		<0.1	2.5	7.5	6	<0.1	1.6	0.3	428	0.30	0.6	<0.5	2.6	176	0.5	<0.1	
1463307	Rock	1.56	2	0.2	<0.5		0.2	2.8	38.1	18	0.4	2.4	0.7	205	0.67	<0.5	<0.5	3.2	59	<0.1	0.1	

CERTIFICATE OF ANALYSIS

WHI13000572.2

Method	Analyte	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
		Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se
Unit		ppm	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	
MDL		0.1	2	0.01	0.001	1	1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.05	1	0.5	
1463134	Rock	0.1	<2	0.82	0.009	5	6	0.12	127	0.001	1	0.13	0.009	0.10	<0.1	<0.01	0.9	<0.1	<0.05	<1	<0.5
1463138	Rock	0.2	3	0.10	0.036	4	7	0.10	141	0.001	<1	0.17	0.013	0.04	<0.1	<0.01	0.5	<0.1	<0.05	<1	<0.5
1463140	Rock	0.2	2	0.02	0.020	37	3	0.03	164	0.002	2	0.27	0.021	0.30	<0.1	0.04	0.5	<0.1	<0.05	<1	<0.5
1463142	Rock	<0.1	13	0.49	0.133	3	11	0.38	159	0.002	3	0.44	0.006	0.10	<0.1	0.07	1.0	<0.1	0.52	1	2.1
1463143	Rock	<0.1	<2	<0.01	0.001	9	3	<0.01	120	<0.001	1	0.18	0.007	0.20	<0.1	<0.01	1.5	<0.1	<0.05	<1	<0.5
1463144	Rock	58.3	<2	<0.01	0.004	1	6	0.01	2039	<0.001	2	0.05	0.002	0.03	<0.1	2.82	0.3	<0.1	0.06	<1	<0.5
1463145	Rock	<0.1	<2	0.02	0.003	21	4	0.02	335	<0.001	<1	0.16	0.052	0.08	<0.1	<0.01	1.5	<0.1	<0.05	<1	<0.5
1463149	Rock	0.3	<2	<0.01	0.007	23	4	0.01	354	0.001	<1	0.19	0.022	0.27	<0.1	0.02	0.7	<0.1	<0.05	<1	<0.5
1463150	Rock	0.2	<2	0.06	0.003	30	2	0.05	177	<0.001	1	0.27	0.026	0.27	<0.1	<0.01	0.6	<0.1	0.23	<1	<0.5
1463251	Rock	<0.1	<2	<0.01	0.005	20	3	0.02	458	<0.001	1	0.19	0.016	0.28	<0.1	<0.01	0.6	<0.1	0.11	<1	<0.5
1463257	Rock	1.2	3	0.05	0.041	12	4	0.02	160	<0.001	<1	0.23	0.017	0.14	<0.1	3.73	1.1	<0.1	<0.05	<1	1.1
1463258	Rock	<0.1	56	0.34	0.047	3	34	1.49	63	0.002	<1	2.08	0.027	0.14	<0.1	0.02	5.8	<0.1	0.11	5	<0.5
1463260	Rock	<0.1	43	0.25	0.106	8	22	0.41	89	0.006	<1	0.77	0.011	0.03	<0.1	0.22	2.2	<0.1	0.08	4	5.5
1463261	Rock	0.1	20	0.09	0.046	11	26	0.94	553	0.003	<1	1.34	0.004	0.20	<0.1	0.05	1.6	<0.1	<0.05	4	0.8
1463262	Rock	<0.1	<2	0.01	0.003	<1	6	<0.01	29	<0.001	<1	0.03	0.001	<0.01	<0.1	0.01	0.1	<0.1	<0.05	<1	<0.5
1463264	Rock	0.2	62	1.56	0.258	4	17	0.21	103	0.001	<1	0.60	0.008	0.17	1.0	0.44	2.3	0.2	0.95	3	6.6
1463301	Rock	<0.1	32	3.18	0.063	3	10	0.98	243	<0.001	2	0.32	0.003	0.15	0.3	0.18	2.8	<0.1	0.51	<1	2.0
1463302	Rock	<0.1	<2	0.02	0.005	27	3	0.02	128	<0.001	<1	0.28	0.033	0.24	<0.1	<0.01	1.2	<0.1	<0.05	<1	<0.5
1463303	Rock	<0.1	31	0.21	0.086	29	24	1.43	357	0.004	<1	1.87	0.069	0.20	<0.1	<0.01	4.7	<0.1	<0.05	8	<0.5
1463305	Rock	<0.1	<2	3.78	0.010	8	5	0.02	100	<0.001	<1	0.12	0.005	0.10	<0.1	<0.01	0.7	<0.1	<0.05	<1	<0.5
1463307	Rock	0.2	<2	1.33	0.001	4	5	0.61	76	<0.001	<1	0.13	0.015	0.06	<0.1	0.02	0.6	<0.1	0.16	<1	0.9



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9050 Shaughnessy St Vancouver BC V6P 6E5 CANADA
PHONE (604) 253-3158

Client: **OK Creek Mining**
#105-7466 Beverly Blvd
Los Angeles 90036 USA

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Project: JPL
Report Date: March 09, 2014

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Part: 3 of 3

CERTIFICATE OF ANALYSIS

WHI13000572.2

Method	AQ201
Analyte	Te
Unit	ppm
MDL	0.2
1463134	Rock <0.2
1463138	Rock <0.2
1463140	Rock <0.2
1463142	Rock <0.2
1463143	Rock <0.2
1463144	Rock <0.2
1463145	Rock <0.2
1463149	Rock <0.2
1463150	Rock <0.2
1463251	Rock <0.2
1463257	Rock <0.2
1463258	Rock <0.2
1463260	Rock <0.2
1463261	Rock <0.2
1463262	Rock <0.2
1463264	Rock <0.2
1463301	Rock <0.2
1463302	Rock <0.2
1463303	Rock <0.2
1463305	Rock <0.2
1463307	Rock <0.2



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Client: **OK Creek Mining**
 #105-7466 Beverly Blvd
 Los Angeles 90036 USA

Project: JPL
 Report Date: March 09, 2014

Page: 1 of 1

Part: 1 of 3

QUALITY CONTROL REPORT

WHI13000572.2

Method	WGHT	FA130	FA130	FA130	FA430	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
Analyte	Wgt	Au	Pt	Pd	Au	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	
Unit	kg	ppb	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	
MDL	0.01	1	0.1	0.5	0.005	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	
Pulp Duplicates																					
1463251	Rock	1.56	6	0.3	<0.5		1.4	4.2	14.1	13	0.1	1.6	0.2	26	0.60	8.2	4.9	7.1	8	<0.1	0.2
REP 1463251	QC						1.4	4.3	14.8	12	0.1	1.5	0.3	26	0.61	7.3	3.4	7.3	8	<0.1	0.2
Reference Materials																					
STD CDN-PGMS-19	Standard		220	109.5	474.5																
STD DS10	Standard					15.3	159.1	134.2	358	2.0	78.4	13.1	865	2.74	45.8	81.8	6.7	63	2.3	9.0	
STD OXC109	Standard				0.199																
STD OXC109	Standard					1.5	36.6	9.8	40	<0.1	74.2	19.4	407	2.84	0.6	172.0	1.3	139	<0.1	<0.1	
STD OXI96	Standard				1.812																
STD OXL93	Standard				5.864																
STD PD1	Standard		555	473.2	567.3																
STD PD1 Expected			542	456	563																
STD CDN-PGMS-19			230	108	476																
STD OXI96 Expected					1.802																
STD OXL93 Expected					5.841																
STD DS10 Expected						14.69	154.61	150.55	352.9	1.96	74.6	12.9	861	2.7188	43.7	91.9	7.5	67.1	2.48	7.8	
STD OXC109 Expected					0.201										201						
BLK	Blank		1	0.2	<0.5																
BLK	Blank		2	0.2	0.5																
BLK	Blank				<0.005																
BLK	Blank				<0.005																
BLK	Blank					<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<1	<0.01	<0.5	<0.5	<0.1	<1	<0.1	<0.1	
Prep Wash																					
G1-WHI	Prep Blank		1	0.2	<0.5	0.1	5.4	3.1	43	<0.1	3.5	3.9	541	1.87	0.7	0.9	5.3	53	<0.1	<0.1	
G1-WHI	Prep Blank		<1	0.3	<0.5	<0.1	4.0	2.8	43	<0.1	3.5	3.9	536	1.86	<0.5	<0.5	4.9	54	<0.1	<0.1	



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 Los Angeles 90036 USA

Project: JPL
 Report Date: March 09, 2014

Page: 1 of 1

Part: 2 of 3

QUALITY CONTROL REPORT

WHI13000572.2

Method	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
Analyte	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	
Unit	ppm	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	
MDL	0.1	2	0.01	0.001	1	1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	
Pulp Duplicates																					
1463251	Rock	<0.1	<2	<0.01	0.005	20	3	0.02	458	<0.001	1	0.19	0.016	0.28	<0.1	<0.01	0.6	<0.1	0.11	<1	<0.5
REP 1463251	QC	<0.1	<2	0.01	0.005	21	3	0.02	469	<0.001	1	0.19	0.017	0.28	<0.1	0.02	0.5	<0.1	0.11	<1	<0.5
Reference Materials																					
STD CDN-PGMS-19	Standard																				
STD DS10	Standard	10.5	45	1.06	0.067	16	55	0.77	341	0.079	7	1.05	0.068	0.33	3.2	0.31	2.8	4.9	0.28	4	2.6
STD OXC109	Standard																				
STD OXC109	Standard	<0.1	49	0.67	0.099	12	58	1.43	54	0.382	2	1.53	0.697	0.42	0.2	<0.01	0.9	<0.1	<0.05	5	<0.5
STD OXI96	Standard																				
STD OXL93	Standard																				
STD PD1	Standard																				
STD PD1 Expected																					
STD CDN-PGMS-19																					
STD OXI96 Expected																					
STD OXL93 Expected																					
STD DS10 Expected		11.65	43	1.0355	0.073	17.5	54.6	0.7651	349	0.0817		1.0259	0.0638	0.3245	3.34	0.289	2.8	4.79	0.2743	4.3	2.3
STD OXC109 Expected																					
BLK	Blank																				
BLK	Blank																				
BLK	Blank																				
BLK	Blank																				
BLK	Blank	<0.1	<2	<0.01	<0.001	<1	<1	<0.01	<1	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5
Prep Wash																					
G1-WHI	Prep Blank	<0.1	36	0.50	0.071	12	7	0.48	170	0.120	2	0.96	0.109	0.50	<0.1	<0.01	2.3	0.3	<0.05	5	<0.5
G1-WHI	Prep Blank	<0.1	37	0.52	0.075	10	7	0.48	159	0.115	1	1.02	0.104	0.49	<0.1	<0.01	2.0	0.3	<0.05	5	<0.5

QUALITY CONTROL REPORT

WHI13000572.2

Method	AQ201	
Analyte	Te	
Unit	ppm	
MDL	0.2	
Pulp Duplicates		
1463251	Rock	<0.2
REP 1463251	QC	<0.2
Reference Materials		
STD CDN-PGMS-19	Standard	
STD DS10	Standard	5.2
STD OXC109	Standard	
STD OXC109	Standard	<0.2
STD OXI96	Standard	
STD OXL93	Standard	
STD PD1	Standard	
STD PD1 Expected		
STD CDN-PGMS-19		
STD OXI96 Expected		
STD OXL93 Expected		
STD DS10 Expected		4.89
STD OXC109 Expected		
BLK	Blank	
BLK	Blank	
BLK	Blank	
BLK	Blank	
BLK	Blank	<0.2
Prep Wash		
G1-WHI	Prep Blank	<0.2
G1-WHI	Prep Blank	<0.2

CERTIFICATE OF ANALYSIS

WHI13000573.1

CLIENT JOB INFORMATION

Project: JPL
Shipment ID:
P.O. Number
Number of Samples: 15

SAMPLE DISPOSAL

DISP-PLP Dispose of Pulp After 90 days
DISP-RJT-SOIL Immediate Disposal of Soil Reject

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

Invoice To: OK Creek Mining
#105-7466 Beverly Blvd
Los Angeles 90036
USA

CC: Morgan Fraughton

SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Procedure Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
Dry at 60C	15	Dry at 60C			WHI
SS80	15	Dry at 60C sieve 100g to -80 mesh			WHI
1DX2	15	1:1:1 Aqua Regia digestion ICP-MS analysis	15	Completed	VAN

ADDITIONAL COMMENTS



CERTIFICATE OF ANALYSIS

WHI13000573.1

Method	Analyte	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15
		Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La
Unit		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	%	%	ppm	
MDL		0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	2	0.01	0.001	1	
1463139	Sediment	1.1	24.4	17.4	86	0.1	26.7	10.0	579	2.09	13.9	2.9	7.1	28	0.2	0.7	0.2	26	0.28	0.061	22
1463141	Sediment	0.8	20.2	14.3	75	0.1	24.0	9.1	413	1.97	10.8	1.3	7.0	20	0.2	0.6	0.2	26	0.24	0.058	20
1463146	Sediment	3.4	48.4	20.7	189	0.3	170.0	113.1	>10000	2.41	40.7	9.4	4.7	112	2.9	3.0	0.3	30	1.09	0.051	16
1463147	Sediment	0.8	16.4	11.2	58	0.2	17.6	6.8	220	1.60	9.5	2.0	6.1	18	0.1	0.7	0.1	22	0.22	0.074	18
1463148	Sediment	0.9	16.8	12.4	62	<0.1	18.6	6.9	271	1.60	9.1	1.6	6.6	19	0.2	0.5	0.2	22	0.24	0.073	20
1463252	Sediment	0.9	18.4	13.0	73	0.1	21.1	8.1	358	1.83	11.1	35.9	6.1	19	0.2	0.5	0.1	22	0.24	0.056	19
1463253	Sediment	0.7	20.1	15.7	76	0.1	22.9	8.9	402	1.94	10.8	2.6	6.7	22	0.2	0.6	0.2	25	0.29	0.065	21
1463254	Sediment	0.8	19.7	13.1	68	0.4	22.1	8.6	414	1.81	10.4	2618.4	6.2	17	0.2	0.6	0.2	25	0.22	0.055	19
1463255	Sediment	0.9	20.9	15.8	81	0.1	22.5	8.8	390	1.96	10.9	2.5	6.7	25	0.2	0.7	0.2	26	0.30	0.063	23
1463256	Sediment	1.3	20.7	22.4	89	0.2	31.8	14.7	637	2.94	10.6	2.3	6.6	62	0.3	0.5	0.2	41	0.58	0.082	25
1463263	Sediment	0.4	10.2	10.0	54	<0.1	14.6	6.2	289	1.56	4.1	1.6	4.9	59	0.1	0.3	0.1	26	0.53	0.064	20
1463304	Sediment	0.7	9.6	21.7	69	0.1	12.5	7.9	591	1.93	4.3	1.2	9.1	27	0.4	0.2	0.2	23	0.28	0.063	35
1463306	Sediment	0.8	11.5	22.7	57	0.1	11.7	8.0	471	1.85	7.3	2.4	8.0	33	0.3	0.4	0.1	25	0.33	0.053	29
1463308	Sediment	0.6	9.4	13.9	46	<0.1	14.7	7.3	344	1.71	3.8	5.0	5.3	18	0.2	0.2	0.1	31	0.29	0.061	24
1463309	Sediment	0.9	19.7	14.3	71	0.2	21.4	8.5	376	1.78	10.5	237.7	6.1	18	0.3	0.5	0.2	26	0.26	0.064	19

CERTIFICATE OF ANALYSIS

WHI13000573.1

Method	Analyte	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	
		Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te
Unit		ppm	%	ppm	%	ppm	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	
MDL		1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.05	1	0.5	0.2	
1463139	Sediment	22	0.49	180	0.032	3	0.88	0.009	0.09	<0.1	0.48	2.6	0.1	<0.05	2	0.7	<0.2
1463141	Sediment	23	0.52	186	0.038	2	0.83	0.009	0.10	<0.1	0.02	2.3	0.1	<0.05	3	0.6	<0.2
1463146	Sediment	24	0.59	556	0.026	4	1.08	0.014	0.09	0.1	0.10	3.1	<0.1	<0.05	3	2.1	<0.2
1463147	Sediment	15	0.37	140	0.027	2	0.53	0.005	0.06	<0.1	0.47	1.6	<0.1	0.05	2	<0.5	<0.2
1463148	Sediment	18	0.41	164	0.031	2	0.68	0.006	0.07	<0.1	0.09	2.0	<0.1	<0.05	2	0.6	<0.2
1463252	Sediment	19	0.43	176	0.030	1	0.70	0.005	0.08	<0.1	0.48	2.0	<0.1	<0.05	2	0.7	<0.2
1463253	Sediment	23	0.50	188	0.040	2	0.84	0.008	0.10	<0.1	0.24	2.6	<0.1	<0.05	3	<0.5	<0.2
1463254	Sediment	20	0.48	168	0.036	3	0.77	0.005	0.10	<0.1	0.36	1.9	<0.1	<0.05	2	<0.5	<0.2
1463255	Sediment	22	0.49	212	0.036	2	0.83	0.007	0.09	0.1	0.02	2.5	0.1	<0.05	3	0.8	<0.2
1463256	Sediment	39	0.71	377	0.061	2	1.19	0.012	0.06	0.1	0.02	3.7	<0.1	<0.05	4	0.8	<0.2
1463263	Sediment	19	0.47	413	0.045	2	0.96	0.014	0.07	0.2	0.02	2.9	<0.1	<0.05	3	<0.5	<0.2
1463304	Sediment	18	0.53	295	0.037	2	0.93	0.009	0.10	0.1	0.02	2.3	<0.1	<0.05	3	0.7	<0.2
1463306	Sediment	14	0.46	210	0.027	1	0.80	0.007	0.09	0.2	0.03	2.6	<0.1	<0.05	3	<0.5	<0.2
1463308	Sediment	21	0.52	353	0.030	<1	0.95	0.010	0.06	0.2	0.02	2.1	<0.1	<0.05	3	0.6	<0.2
1463309	Sediment	20	0.46	170	0.030	1	0.78	0.005	0.08	0.1	0.04	2.0	<0.1	<0.05	2	<0.5	<0.2

QUALITY CONTROL REPORT

WHI13000573.1

Method	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	
Analyte	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	
Unit	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	
MDL	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001	1	
Pulp Duplicates																					
1463309 Sediment	0.9	19.7	14.3	71	0.2	21.4	8.5	376	1.78	10.5	237.7	6.1	18	0.3	0.5	0.2	26	0.26	0.064	19	
REP 1463309 QC	0.9	19.4	14.7	78	0.1	21.3	8.8	367	1.88	10.1	<0.5	6.3	19	0.3	0.6	0.1	25	0.27	0.064	20	
REP 1463309 QC	0.9	19.4	15.0	78	0.1	22.9	9.2	396	1.92	10.2	3.1	6.6	22	0.2	0.6	0.2	26	0.28	0.062	21	
Reference Materials																					
STD DS10 Standard	15.8	154.1	156.9	362	2.1	76.1	13.4	881	2.85	45.9	72.3	8.5	75	2.4	9.8	14.1	46	1.12	0.079	20	
STD DS10 Standard	14.2	161.9	148.3	338	1.9	71.8	12.7	841	2.71	43.4	68.9	7.3	66	2.8	8.9	11.0	45	1.03	0.078	17	
STD OXC109 Standard	1.5	36.1	11.4	41	<0.1	72.6	19.9	391	2.89	0.9	191.1	1.6	159	<0.1	<0.1	<0.1	49	0.74	0.105	13	
STD OXC109 Standard	1.5	37.9	10.7	38	<0.1	73.0	19.5	385	2.75	<0.5	188.8	1.5	125	<0.1	<0.1	<0.1	44	0.63	0.103	12	
STD DS10 Expected	14.69	154.61	150.55	352.9	1.96	74.6	12.9	861	2.7188	43.7	91.9	7.5	67.1	2.48	7.8	11.65	43	1.0355	0.073	17.5	
STD OXC109 Expected											201										
BLK Blank	<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<1	<0.01	<0.5	<0.5	<0.1	<1	<0.1	<0.1	<0.1	<2	<0.01	<0.001	<1	
BLK Blank	<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<1	<0.01	<0.5	<0.5	<0.1	<1	<0.1	<0.1	<0.1	<2	<0.01	<0.001	<1	

QUALITY CONTROL REPORT

WHI13000573.1

Method		1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15
Analyte		Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te
Unit		ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
MDL		1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2
Pulp Duplicates																	
1463309	Sediment	20	0.46	170	0.030	1	0.78	0.005	0.08	0.1	0.04	2.0	<0.1	<0.05	2	<0.5	<0.2
REP 1463309	QC	20	0.45	178	0.030	1	0.73	0.005	0.08	<0.1	0.27	2.3	<0.1	<0.05	2	0.8	<0.2
REP 1463309	QC	21	0.48	209	0.036	<1	0.81	0.006	0.09	<0.1	1.02	2.5	<0.1	<0.05	2	0.7	<0.2
Reference Materials																	
STD DS10	Standard	60	0.79	386	0.093	9	1.10	0.071	0.35	3.4	0.31	3.4	5.0	0.26	5	2.8	4.6
STD DS10	Standard	54	0.79	351	0.083	7	1.00	0.062	0.32	2.9	0.31	2.9	5.0	0.27	4	2.1	5.0
STD OXC109	Standard	60	1.44	58	0.399	3	1.52	0.666	0.39	0.2	<0.01	1.2	<0.1	<0.05	5	<0.5	<0.2
STD OXC109	Standard	54	1.41	56	0.363	3	1.46	0.630	0.42	0.2	<0.01	0.8	<0.1	<0.05	5	<0.5	<0.2
STD DS10 Expected		54.6	0.7651	349	0.0817		1.0259	0.0638	0.3245	3.34	0.289	2.8	4.79	0.2743	4.3	2.3	4.89
STD OXC109 Expected																	
BLK	Blank	<1	<0.01	<1	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2
BLK	Blank	<1	<0.01	<1	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2