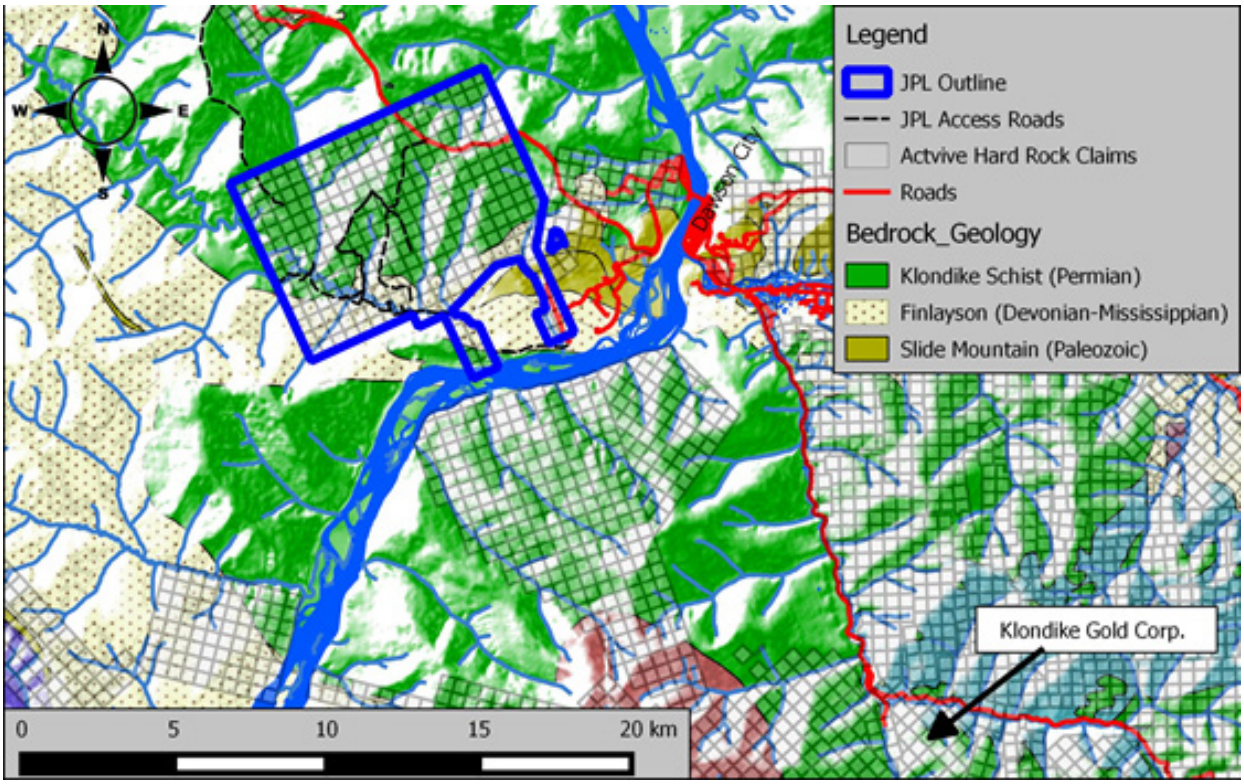

2015 EXPLORATION OF THE JPL HARD-ROCK CLAIMS

Geochemical and Prospecting Report

Claim Name and Num.	Grant Numbers	Claim Owner
JPL 1 - 14	YE79885 - YE79898	Spere Exploration Inc. – 100%
JPL 15-306	YF04005 - YF04296	Spere Exploration Inc. – 100%

Author: Morgan Fraughton

Dawson Mining District

Dates work performed: Aug. 16-27, Aug. 31-Sept 8, (2015)

Mapsheet 116B04

UTM Zone 7

566600 Easting

7104600 Northing

CONTENTS

INTRODUCTION (WITH SPECIFIC OBJECTIVES OF THE SURVEYS)

This report outlines explorations on the 306 JPL quartz claims in the Dawson mining district of Yukon, Canada. The JPL-property (JPL) is located a short distance (~10 km) from Dawson City, Yukon. Most of the property has road/trail access. Spere Exploration Inc. (SpereX) collected 623 soil-samples, 39 Rock samples from 9 prospecting traverses, and cut 2 km of access trails. All work was done Aug. 16th- 27th, Aug. 31st-Sept 8th of 2015. The JPL property is a quartz vein/schist-disseminated gold target hosted in the metavolcanic-Klondike Schist (KS) unit of Yukon Tanana Terrane.

Specific objectives of the 2015 JPL explorations were to:

1. grid soil sample the most prospective areas defined by reconnaissance soil-sampling and prospecting in from 2014
2. conduct more property-wide prospecting and outline a basic geological map of the entire JPL property

SUMMARY OF PREVIOUS INVESTIGATIONS (HISTORY)

SpereX staked the JPL property to its current size of 306 quartz claims in the fall of 2013. Staking was done in order to cover a large area that extended between the original claims JPL 1-14 (2012) and an area of high prospectivity for copper/lead/zinc that was discovered by Cominco Ltd. (Cominco) In 1994 (Pride, 1996). Initially, Cominco had done their own stream sediment survey of the area (unpublished) and stated in their report (Pride, 1996) that the stream sediment collection program results prompted them to stake claims and do some prospecting and B-horizon soil sampling on the property (Pup property). Results from Cominco's 1995 soil sampling program looked to be good and worth a return to the property but in the summer of 1995 a drill hit volcanogenic massive sulfide (VMS) in the Finlayson district of Yukon. Since Cominco had much interest in the Finlayson district this would have been distracting. All of their resources seemed to quickly focus on the Finlayson district and the new VMS discoveries and they dropped their Pup claims by 1996. In the report (Pride, 1996) Cominco never assayed for or even spoke of the possibility of gold on the property.

During late 2013 some prospecting traverses were performed by SpereX and good results were returned in rock sample assays. Highlights in rock samples included up to 9.3g/ton gold, 2538 PPM lead, 1102 PPM zinc, and 3028 PPM copper.

In the summer of 2014 more prospecting was done along with ridge and spur soil sampling. Soil sampling returned areas anomalous in gold, silver, copper, zinc and lead. The best of these areas were the target of this 2015 exploration program.

It must be noted that in previous assessment reports (2012, 2013, 2014) the JPL was referred to a volcanogenic massive sulfide base-metal target. Due to more extensive soil-sampling and prospecting the mineralization model has changed to an orogenic vein/disseminated gold prospect similar to that of the Lone Star property, owned by Klondike Gold Corp., located less than 20km to the southeast. In addition, changes to the names of some of the bedrock units in the area have been made in the last year by Yukon Geological Survey (YGS). What was known as

Anvil Range unit and Nasina unit are now called the Slide Mountain and Finlayson unit, respectively. The Klondike schist unit has retained its original name.

LIST OF CLAIMS WITH GRANT NUMBERS, NAME OF REGISTERED CLAIM HOLDER AND THE OPERATOR WHO PAID FOR THE WORK

The JPL claims are 100% owned by Spere Exploration Inc. of Dawson City, Yukon. For more detailed information, see the claims spreadsheet in the USB stick attached to the hardcopy of this report. (See *JPL Claims Overview*).

Claim name/number	**Grant Number**	**Claim Owner**
JPL 1-14	YE79885 - YE79898	Spere Exploration Inc. – 100%
JPL 15-306	YF04296 - YF04005	Spere Exploration Inc. – 100%

The funds to complete exploration in 2015 came from two sources:

1) privately raised by SpereX of Dawson City, Yukon

2) the Yukon Mineral Exploration Program (YMEP) under the Target Evaluation module for hard-rock exploration. YMEP #15-077.

Figure 1 - JPL Claims Overview map

JPL Claims Overview

Legend

- JPL Claims Outline
- Yukon Quartz Claims
- Usable ATV Road
- Yukon Roads
- Contours (ft)

N
S
E
W

Mapsheet 116B04

Created By: Morgan Fraughton

Date Created: 2016-01-28T00:42:43

1:30,000

CRS: NAD83(CSRS) / UTM zone 7N (EPSG: 3154)

0 1 2 3 4 5 km

560000 561000 562000 563000 564000 565000 566000 567000 568000 569000 570000 571000 572000 573000

7109000 7108000 7107000 7106000 7105000 7104000 7103000 7102000 7101000

REFERENCE TO AVAILABLE GEOLOGY LOCAL AND REGIONAL

REGIONAL GEOLOGY

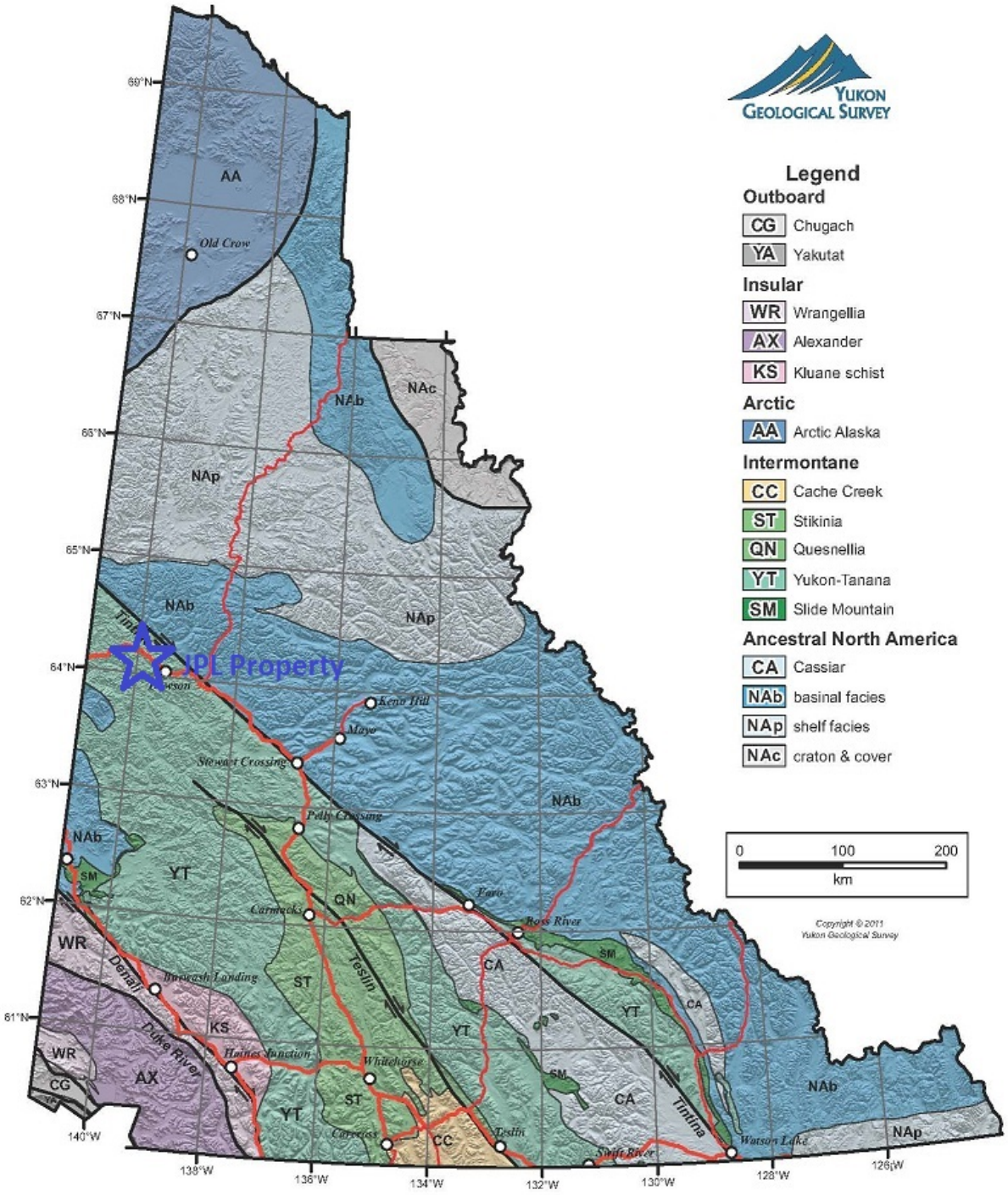

Figure 2 - Yukon Terranes, taken from YGS's website

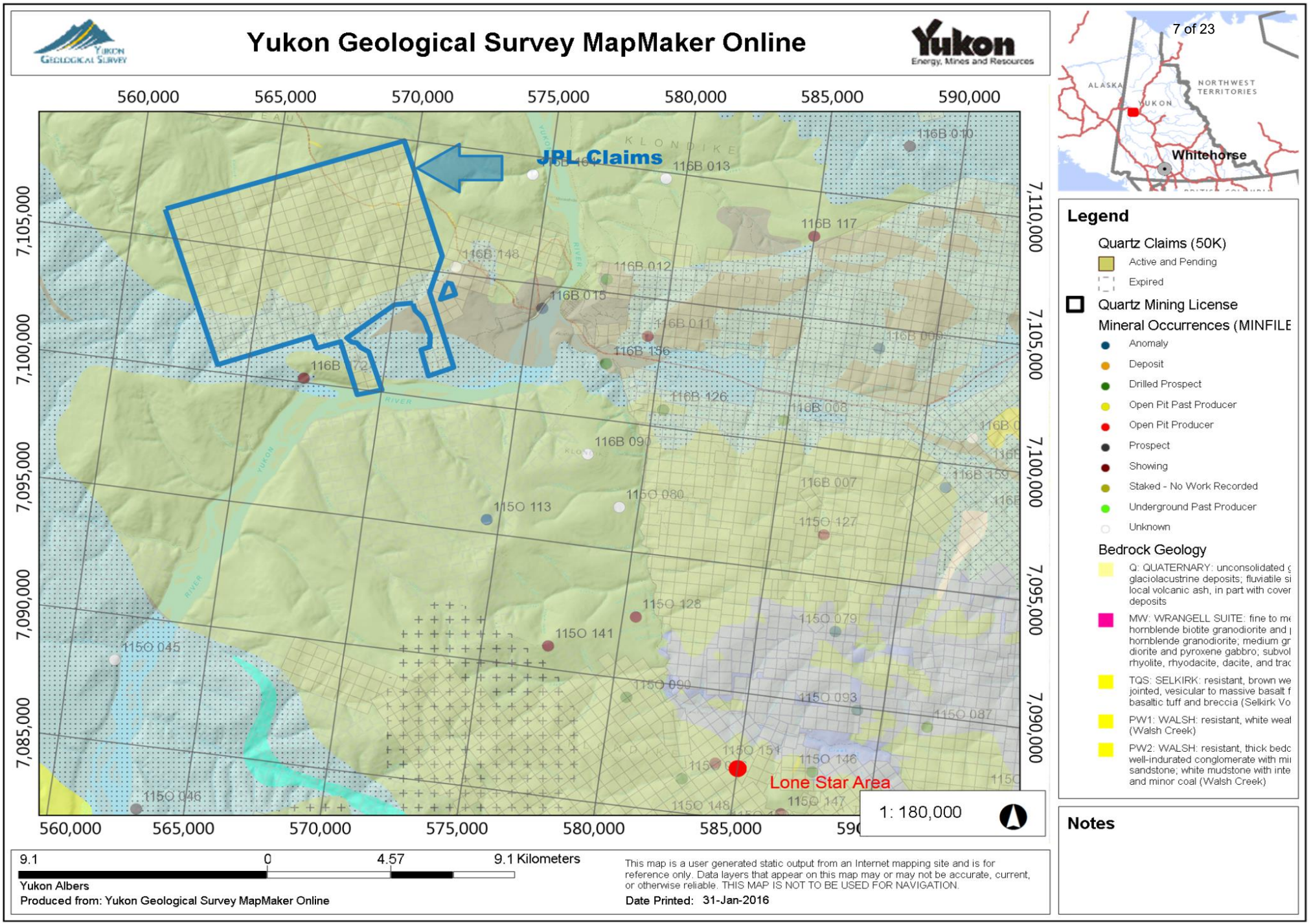

Figure 3 - Bedrock geology around the JPL claims. See legend below.

AGE	reg_name	reg_desc	reg_legend
CARBONIFEROUS AND PERMIAN	Slide Mountain	dominantly oceanic assemblage of mafic volcanics (1), ultramafics (4), chert and pelite (2), limestone (3) and	CPA:Slide Mountain: dominantly oceanic assemblage of mafic volcanics (1), ultramafics (4), chert and pelite (2), limestone (3) and gabbroic rocks (5)
CARBONIFEROUS AND PERMIAN	Klondike Schist	poorly understood assemblage of metamorphosed pelitic/volcanic rocks (1) and minor marble (2), including phyllite of uncertain association (3)	CP: KLONDIKE SCHIST: poorly understood assemblage of metamorphosed pelitic/volcanic rocks (1) and minor marble (2), including phyllite of uncertain association (3)
DEVONIAN, MISSISSIPPIAN AND(?) OLDER	Finlayson	graphitic quartzite and muscovite quartz-rich schist (1), (3)-(5), and(?) (6) with interspersed marble (2) and probable correlative successions (7) - (9)	DMN: Finlayson: graphitic quartzite and muscovite quartz-rich schist (1), (3)-(5), and(?) (6) with interspersed marble (2) and probable correlative successions (7) - (9)

Figure 4 - Geology legend for figure 3 Bedrock geology map around the JPL

Regional bedrock geology associated with the JPL property is best described by (MacKenzie, Craw, & Mortensen, 2008) (page 214)

> The main basement lithologic units of the Klondike District form part of the Yukon-Tanana terrane and include medium-grade metamorphic rocks of the Upper Permian Klondike Schist, carbonaceous schist of the Devonian-Mississippian Finlayson assemblage (Nasina fades), and little-metamorphosed Late Paleozoic greenstone and ultramafic rocks of the Slide Mountain terrane (Fig 1.; Mortensen, 1990, 1996; Mortensen et al., 2007). These units were thrust-imbricated in the Early Jurassic (Mortensen, 1996) resulting in a series of stacked thrust slices that are locally separated by lenses of ultramafic rocks. The uppermost slices are Klondike Schist and consist of complexly interleaved (1- to 100-m-scale) greenschist-fades quartzofeldspathic, chloritic, micaceous and minor carbonaceous schists. The two upper slices of Klondike Schist host significant orogenic gold and are the focus of current research into the structural controls on gold-bearing veins (MacKenzie et al., in press).
>
> The thrust stack was uplifted through the brittle-ductile transition in the Jurassic and unconformable overlain by locally derived sedimentary and volcanic rocks in the Late Cretaceous (Mortensen, 1996). Regional extension and normal faulting continued from Late Cretaceous to early Eocene with initiation of the strike-slip Tintina fault, along which rocks of the Klondike District were offset -450 km from the rest of the Yukon-Tanana terrane (Gabrielse et al., 2006). Minor regional uplift continued in the late Tertiary when erosion produced the Pliocene White Channel Gravels and the world-famous Klondike gold placer deposits (Lowey, 2005). Exposure of basement rocks in the Klondike District is generally poor due to extensive colluvium and permafrost on the tree-covered slopes (Bond and Sanborn, 2006).

Deformation events and mineralization on JPL are best described by (Liverton & Mann, 2011) in their study of Klondike schist south of Dawson City:

> The regional bedrock unit is the Klondike Schist, a widespread Middle to Late Permian unit of the YukonTanana terrane. The greenschist facies siliciclastic metasedimentary and bimodal metavolcanic rocks form a thrust stack (Mortensen, 1990, 1996; Mackenzie et al., 2007; Mackenzie et al., 2008a). These rocks and the coeval Sulphur Creek orthogneiss, located 15 km to the southwest, are remnants of a short-

lived arc overlying the north and west-dipping subduction of the Slide Mountain Ocean (269 to 253 Ma Klondike cycle of Nelson et al., 2006), which represents the last magmatic cycle of Yukon-Tanana terrane before its accretion to the margin of Laurentia. Less than 1 km east of the study area (Fig. 1), a road-cut exposes a thrust slice of Klondike Schist overlying altered ultramafic rocks interpreted as a sliver of Slide Mountain terrane (Mortensen, 1996). The rocks within the study area are structurally near the base of the hanging wall. The dominant lithology is chloritic schist (here referred to as the mafic schist unit), one of the three broad lithologic groupings of the Klondike Schist (Mortensen, 1990, 1996). The structural geology of the Klondike district as described by MacKenzie et al. (2007) hosts four generations of deformation. D1 isoclinal folding (S1) transposes original bedding (S0) such that hinges of this generation appear as intrafolial cm-scale folds. The second ductile deformation event produced isoclinal recumbent folds (Fig. 2a) and pervasive penetrative foliation (S2). Hinges of these folds have decimetre-scale wavelength and are locally apparent within the Klondike Schist and are particularly well developed at the Orekon prospect (Fig. 1). Ductile folding (D3) during thrust stacking produced recumbent folds with a spaced cleavage (S3) that are well developed in the muscovite-rich schist (Fig. 2b). A phacoidal cleavage is exhibited in some thrust fault zones. Folding of D4 generation is of mesoscopic-scale kink or box-fold style that has axial trends from ten to eighty degrees different to those of F3 axes. D3 folding occurred in a ductile regime whereas D4 folding formed near the brittle-ductile transition. Quartz veins were formed locally during D2 to late D4. Only the undeformed late D4 mesothermal quartz veins contain obvious gold mineralization. Younger brittle faults with gouge zones are exposed in several trenches throughout the Klondike. The Klondike region has not been glaciated, and outcrops in the study area are variably oxidized.

JPL seems to be identical to the description above with respect to the KS geology and gold mineralization. It is possible that the rock described in this paper as quartz-augen-schist is this Sulphur Creek orthogneiss described above. This rock type (quartz-augen-schist) exists mostly in the very southern parts of JPL.

LOCAL GEOLOGY

Local JPL geology is mostly underlain by the KS (Permian). In the most southerly section of JPL there is a contact between the Finlayson unit and the KS. The Slide Mountain unit only pokes in to the very west side of JPL and possibly exists at the very northern borders the property as well. The important mineralization zones on JPL exist in the large sections of KS.

In addition to the units described above, there are areas of much younger quartz-feldspar-porphyry (QFP) dykes/sills (of Paleocene age?) that are 1-10 meters thick. Previously reported as dykes previously but quite possibly they are large sills that follow the foliation/bedding in the KS which has been thrust on its side, generally, with strike of ~320 degrees and a dip of ~50 degrees throughout JPL. These dykes/sills have not been observed in any unit other than the Klondike schist. The dykes/sills do not seem to be associated with economic mineralization thus far. Samples of the QFP have been assayed with 36-element ICP-MS and return no elevated values in elements of economic interest. Looking at soil assay results in areas that are known to be underlain by the QFP dykes/sills it is clear that the dyke/sills are consistently higher than the rest of the property nickel (269 PPM), cobalt (21 PPM), manganese (2497 PPM), iron (3%), strontium (541 PPM), antimony (11 PPM), calcium (14%), chromium and magnesium (7.2%) and lowest in barium (22 PPM), potassium (0.002%).

JPL is made up of mafic and felsic KS; majority mafic. Mineralization on JPL seems to come in 3 different styles 1) in mafic (quartz-chlorite-biotite-schist) KS near the contact between the mafic and the felsic KS there seems to be spikes in copper, lead, zinc with elevated gold and silver similar to volcanogenic massive sulfide style mineralization (VMS) 2) in the felsic schists (quartz-muscovite-sericite-schist) D4 event quartz veins have returned the highest gold in rock values on the property. It is also expected that, like the Sheba vein, gold in these quartz veins extends for a short distance (<10 cm) in to the vein wall rock (felsic-KS) 3) Possibly, disseminated bulk tonnage style gold similar to that of the Lone Star mine area? unproven on JPL but entirely possible due to very similar geology.

DESCRIPTION OF DATA COLLECTED (GEOCHEMICAL, GEOLOGICAL, GEOPHYSICAL), METHOD OF COLLECTION, EQUIPTMENT AND PROCEDURES

GRID SOIL SAMPLING PROGRAM

Spere Exploration Inc. (SpereX) collected 623 soil-samples over 12 days (20 man-days) from August 16th – 27th. Two different soil-samplers partook in soil-sample collection. Morgan Fraughton, and Travis Farman both of Dawson City, Yukon. Each day the samplers would come from Dawson with a truck, trailer and ATV's to km 15 on the Top of the World Highway (TWH). Then the ATV's were offloaded and the samplers drove down to the soil grid.

In order to access the soil-sampling grid a section of older overgrown road needed to be cleared so that ATV's could access the grid. Four days (July 6, 8,9,10) (8 man-days) were spent clearing a trail through the overgrowth. Two cutters were employed; Morgan Fraughton and Travis Farmen for all four days. Cutting was very difficult and tedious due to the extremely thick alder growth on the old roads. In addition, fine loess covered the lower parts of brush and mosses which rendered cutting tools dull very quickly. Approximately 2 km of road was cut at a rate of 500 meters per day.

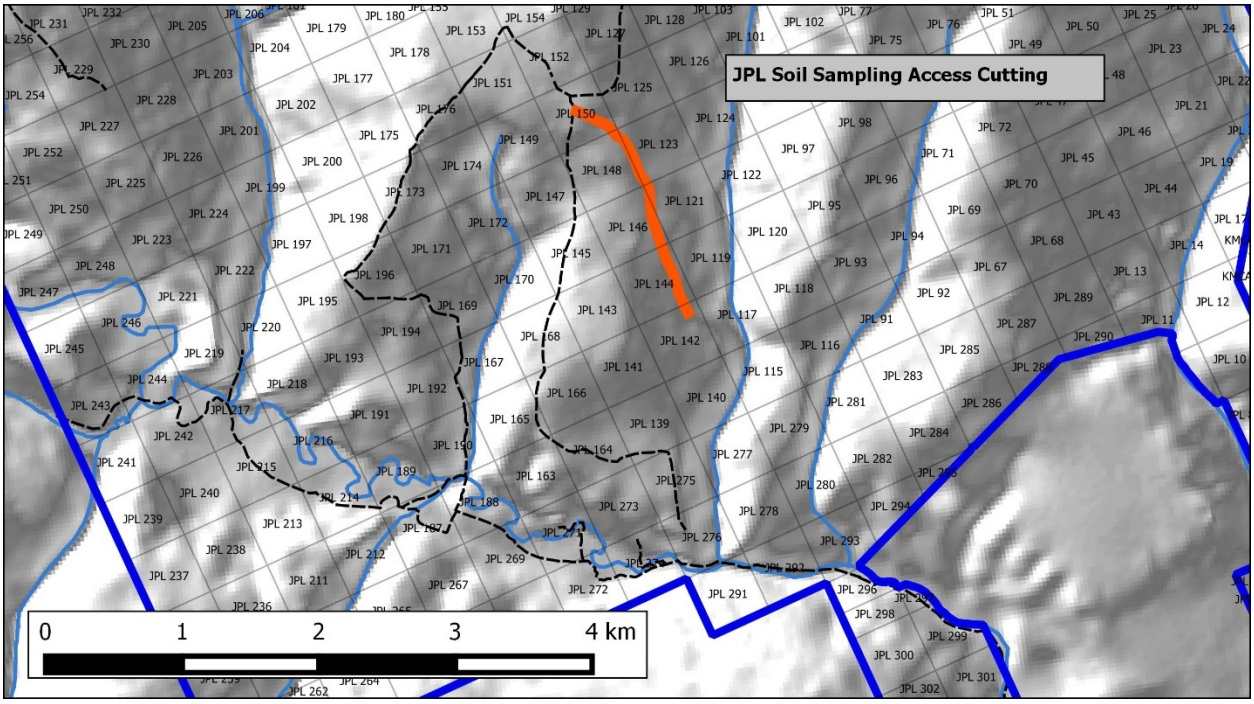

Figure 5 - soil sampling access trail cutting

The soil grid was laid out in a GIS (QGIS, a powerful, free, open source-code GIS) by Morgan Fraughton. Points and lines were transferred to GPS/Data recorder handheld device (Garmin Monterra). The soil grid was designed to have a line spacing of 100 meters and a sample spacing of 50m. Individual sampling lines were 1.5 kilometers long, which made for an average sample collection of 31 samples per man-day.

The samplers' handheld device was used to navigate to each soil sample location and record site-specific information for each soil-sample. In addition to being a powerful Garmin GPS and camera, the Monterra runs on an Android operating system, an open source-code operating system, which makes customization easier than proprietary software with closed source-codes. For data collection, software called Open Data Kit (ODK), an open-source, free, data collection system that streamlines form creation, form filling, and data storage in multiple database/output formats. This system (hardware and software), makes collection, storage, and interpretation of large amounts of subjective (soil color, etc.) data, and objective (GPS Coordinates, etc.) data, including photo's, simple.

Soil samplers used a 1.2m long dutch-auger to collect soil-samples. At every soil-sample site maximum depth was attempted with the auger. As the sampler twists the auger in to the ground and pulls out a plug of soil it is laid out on a 12x18 inch poly sample bag from shallowest to deepest. Once maximum depth is reached the soil from the bottom of the hole is laid on the plastic ore bag and the auger is put back in the hole. The sampler then steps back to take a picture of the sample site, then snaps a photo of the soil-sample and sample tag that is laid out on the ore bag. Next, the sampler scans the barcoded sample tag with handhelds' barcode scanner and fills out the individual soil form on the handheld device, recording observations such as soil color, sample depth, soil horizon, etc. (See sample spreadsheets in the USB stick attached to the hardcopy of this report in order to see the full range of sample records.) Once the soil form is filled out the sampler fills a Kraft paper soil-sample bag with soil from the bottom of the hole and places one sample tag in the bag. The sample bag is folded and tied closed with flagging tape and a sample tag is attached to the outside of the bag. The bag is placed in the samplers' backpack with the

rest of the samples. Lastly, the sampler ties pink flagging and a sample tag to the closest tree branch or bush to the sample hole for easy identification in the future. The sampler navigates to the next site using the GPS.

Figure 6 - Tying flagging and sample tag to the closest tree to the sample hole.

PROSPECTING PROGRAM

Prospecting was done on JPL for a total of 9 days (18 man-days); August 31 – September 8. Prospecting work was performed by Morgan Fraughton and Travis Farmen. Access to the prospecting traverses was made by Truck and trailer on the highway then ATV's off highway. Each day of prospecting was spent walking traverses on the JPL property looking for rock outcrops, float, or anything of interest. In addition to walking reconnaissance style traverses, some of the better 2014 soil and rock sample sites were visited. In places of good 2014 soil a pit would be dug in order to find rock samples near bedrock for assay. The main goal of prospecting was to gather baseline geological data and observe any interesting features or geology.

Typically, when traversing and prospecting, Travis and Morgan split (<50 m) apart from each other but walked in parallel so that more areas of the ground could be seen during traverses. Most of the prospecting traverses were

done on the old roads that wind through the JPL property. It was known this would be the best chance of finding rock on this property that would be in the old road cuts, so they were the first areas to be traversed.

Tools used for prospecting were basic rock hammers, soil augers, hand lenses, compass, (for measuring strike and dip) and mattocks. All notes and observational data was collected with the customized handheld device. A form was created to make prospecting notes and create geotagged photos. The idea was that this would make it easy to display the photos and observations in to a GIS and then used that information to create a geological map of JPL.

Also, on prospecting traverses, rock grab samples were taken. The customized handheld device was used to record the barcoded sample identification, take pictures, record locations, make notes, etc. (see the spreadsheet attached to the USB stick of for more information on all the data that was collected.) After this data was recorded in the handheld the rock sample was placed in to an ore bag with a sample tag. The bag was tied shut with flagging tape and another sample tag was attached to the outside of the sample bag. In addition, example rocks of the type of the sample taken were left at the sample site with orange flagging wrapped around them and the sample tag pus orange flagging was tied to a visible area for future reference.

Figure 7 – Example sample and sample-site pictures taken for each rock sample.

At the end of each prospecting traverse all rock samples collected were stored in Dawson City. At the end of the sampling program the assays were packaged in to rice bags and shipped to Acme Labs (BeuroVeritas) of Whitehorse where they were prepped crushed and sieved and then pulps shipped to Vancouver for assay. All rock samples were assayed using a 36-element ICP-MS. See assay certificates on USB stick for more detailed information.

Once assay results were received they were joined in a spreadsheet with the descriptive data from the sample forms and plotted in a GIS. In the GIS all assay results, notes, and pictures could be viewed by clicking on the respective sample point. With all results organized in to shp files interpretations could be made.

Figure 8 - Soil and rock samples overview map.

2015 Soil and Rock Samples Overview

Legend

- JPL Claims Outline
- Yukon Quartz Claims
- Usable ATV Road
- Yukon Roads
- Contours (ft)
- 2015 Rock Samples
- 2015 Soil Samples

N
W
E
S

1354453
1502071
Swede Creek
1502301
1502302
1502303
1502060
1502061
1502062
1502063
1502059
1502051
1502052
1354165
1502065
1502066
1354448
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Mapsheet 116B04

Created By: Morgan Fraughton

Date Created: 2016-01-28T01:10:43

1:30,000

CRS: NAD83(CSRS) / UTM zone 7N (EPSG: 3154)

0 1 2 3 4 5 km

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7110000 7109000 7108000 7107000 7106000 7105000 7104000 7103000 7102000 7101000

565000 566000 567000

7105000

2015 Soil and Rock Samples

Legend

- Yukon Quartz Claims
- Usable ATV Road
- Contours (ft)
- 2015 Rock Samples
- 2015 Soil Samples

N W E S

7104000

Mapsheet 116B04

Created By: Morgan Fraughton

Date Created: 2016-01-28T01:21:00

Figure 9 - 2015 soil and rock sample numbers

1:7,000

CRS: NAD83(CSRS) / UTM zone 7N (EPSG: 3154)

0 1 2 km

565000 566000 567000

Figure 10 - Gold in soil - areas of high prospectivity

Gold in soil - Areas of high prospectivity

Mapsheet 116B04

Created By: Morgan Fraughton

Date Created: 2016-01-31T14:16:35

Possible larger zone of prospectivity for gold (orange). Samples between the two "pink" zones are all in a heavy layer of frozn/loess/colluvum. Very rarely was "C"-horizon reached in this zone.

Z.hpp

29g/t Au found in rock here.

Area of high prospectivity for more gold in Rock

Legend

- Usable ATV Road
- yukon_roads
- Yukon Quartz Claims
- Contours (ft)

2015 Gold in Soil Samples (PPB)

- 0-2
- 2-10
- 10-20
- 20-25
- >25

N

W E

S

565000 566000 567000

7105000 7104000

1:7,000

CRS: NAD83(CSRS) / UTM zone 7N (EPSG: 3154)

0 1 2 km

2015 Prospecting Traverses, Mapping note locations, and Claim Access

Figure 11 - prospecting traverses, mapping note locations, and claim access

Legend

2015_ProspectingTraverses
- 2015-08-31
- 2015-09-01
- 2015-09-02
- 2015-09-03
- 2015-09-04
- 2015-09-05
- 2015-09-06
- 2015-09-07

Mapping Data Locations
Usable ATV Road
yukon_roads
Yukon Quartz Claims
Contours (ft)

N
W
E
S

Swede Creek

Dawson City

Yukon River

Mapsheet 116B04

Created By: Morgan Fraughton

Date Created: 2016-01-30T21:00:41

1:50,000

CRS: NAD83(CSRS) / UTM zone 7N (EPSG: 3154)

0 1 2 km

555000 556000 557000 558000 559000 560000 561000 562000 563000 564000 565000 566000 567000 568000 569000 570000 571000 572000 573000 574000 575000 576000 577000

7114000 7113000 7112000 7111000 7110000 7109000 7108000 7107000 7106000 7105000 7104000 7103000 7102000 7101000 7100000

DISCUSSION

SOIL SAMPLING DISCUSSION

Data collection forms on the handheld devices were designed by SpereX based on what was thought was relative information to the interpretation of each soil sample after assays were received and joined to sample description tables. Although this was effective for post sampling/assay interpretation. I just recently (late January 2016) found the paper produced in 2013 by the Yukon Geological Survey titled *Property-scale classification of surficial geology for soil geochemical sampling in the unglaciated Klondike Plateau, west-central Yukon, YGS open file 2013-15* (McKillop, Turner, Johnston, & Bond, 2013). This report contains brilliant recommendations for early explorations in the unglaciated Klondike Plateau by helping to understand how different landform soil types (LST's) (12 in total) respond to different testing (landform-soil types) and outline the best methods to use in different LST's. In future explorations SpereX will incorporate all recommendations in this study.

As seen on the map labeled, *Gold in soil – areas of high prospectivity,* grid soil sampling was successful at delineating at least two highly prospective areas for follow-up prospecting and trenching in 2016. From personal conversation with Klondike Gold Corp. personnel it is understood that any soil-sample in the region that was 25 PPB gold or higher would usually return very high gold in rock if a pit was dug down to the bedrock in that area. This will definitely be done in 2016. Trenches will be designed using the positive soil and rock results from this 2016 project. It is quite probable that areas in the two pink circles in the map, *Gold in soil – areas of high prospectivity*, contain more gold bearing veins in the felsic KS. These two areas may be linked (large orange ellipse in the same map). Since both prospective areas (pink ellipses) are separated by a large section of frozen/loess/colluvium that extends past one meter from surface very rarely was a C-horizon soil sample taken in the area in the valley of 20pup between the two pink ellipses. This may layer of frozen/loess/colluvium may serve to mask underlying bedrock geochemical signatures.

In addition, the soil sample grid should be extended on the east half to the north and south. To the north it is known that the area of felsic quartz-muscovite-sericite-schists exists for hundreds of meters to the north-east. This felsic schist is the host for gold bearing D4 style quartz veins. To the south of the soil grid on the eastern half there was a couple higher gold in soil samples. The grid should be extended to the south until the ancient gravel terrace is met with.

More study by SpereX needs to happen on how to understand and interpret a large amount of soil samples that could not reach c-horizon soils, mainly due to frozen/colluvium/loess layers. There may be large sections under these areas that can still be positive exploration targets once the dilution factor is taken in to account. SpereX will strive to understand this before the 2016 field season.

PROSPECTING

The prospecting program was designed to get as much exposure to different areas and geology of the entire JPL property as possible and make grab samples for prospective rocks. As stated above, a handheld device was used to

record geolocated notes and pictures along the traverses. It was hoped that a baseline geological map could be made up so that once the most prospective geological units were understood in the areas that have extensive soil sampling and eventually trenching. Then, once economic mineralization on the JPL was understood, areas of prospective geology throughout the JPL could be better targeted and inspected. The large amount of picture and note data collected has been included in the USB stick attached to the hardcopy of this report. A final geological map interpretation has not been completed in time to submit this report (January 31, 2016). The project will take quite some time and a lot more study to create the proper map. As it stands the data has served to outline geological units under the JPL but without a proper ability to consider 3-dimensional nature of the property anything but a lot of small polygons at existing sites is not possible. SpereX is confident that using the data collected this year as well as the data collected next season, along with hired professional instructions and hopefully some powerful 3d mapping software (leapfrog), a good geological map will be made.

Follow-up prospecting on 2013/2014 results did show a large area of quartz veining in felsic KS that has high potential to host D4 type gold quartz veins. This area had quartz in rock that assayed at almost 1 oz./ton gold (28973.7 PPB). This quartz vein ~0.5 m wide was sticking out of the road cut and likely extends in to the north of the road as well as the south in a 320 degree bearing which is typical for the D4 quartz veins on the Lone Star property of Klondike Gold Corp. This vein should be the first target for trenching in the summer of 2016.

CONCLUSIONS

Grid soil sampling on the JPL property was successful in identifying two areas of high prospectivity for gold rich quartz veins and possible bulk-tonnage, low-grade disseminated gold mineralization in the Klondike Schist. It is entirely like that these two areas of high prospectivity are in fact connected but their geochemical signature in soil samples has been diluted by a layer of frozen colluvium and loess. This large area prospective felsic KS is approximately 2.5 km^2. Areas where soil samples are above 25 PPB gold should be prospected with pits dug by shovel to the bedrock and then the bedrock should be assayed. Trenches should be designed based on positive results.

As stated in the discussion section above the soil sampling grids should also be expanded. If enough funding has been secured, more ridge and spur soil sampling should be done on the remainder of the property. Also, positive results from the ridge and spur program of 2014 that were not grid soil sampled in 2015 should be considered for grid soil sampling in 2016.

Prospecting has been successful at collecting large amounts of geological data[1]; see figure 10 (notes and photos), delineating areas of high prospectivity based on geology, confirming significant gold in quartz vein, and gaining a basic understanding of the local geology of the bedrock under the JPL claims. This information will direct future explorations on the JPL property. The quartz vein where 29 g/t gold was assayed must be the first and most

[1] SpereX has used its' handheld device to collect large amounts of data. It was hoped that this data could be used to create a geological map for the JPL property. Since SpereX was unsure about the YMEP funding till late in the season it hindered this project in that it was planned to hire a geologist for a few days to help with the mapping and interpretation of the data. No geologist was hired this season. A lot of data was collected and is included in the USB stick that is attached to the hardcopy of this report under the folder mapping. SpereX intends to work with a leapfrog specialist in February and use leapfrog modeling software to build a geological map. This map will be passed along to YMEP once work has been completed.

important target for prospecting/trenching in 2016. An excavator should be brought to expose the extent of this vein in early summer 2016. An experienced Klondike schist geologist must be employed early in 2016 to make a property visit and assist with exploration planning and mapping interpretations. Rock samples from 2014, such as the rocks found in the southwest corner of the JPL property on the cliffs of Swede creek that contained high copper numbers and azurite/malachite coloring need to be followed up on by a geologist.

Recommendations for exploration in this part of the Yukon, must be studied and employed for future explorations on the JPL property. These recommendations for exploration in the study by (McKillop, Turner, Johnston, & Bond, 2013) would be very helpful on the JPL property. Specifically, deep sampling techniques could be employed in the large ancient fluvial terrace areas in order to get an idea of bedrock mineralization blow the gravel deposits. It is expected that the mineralized zone extends from the southwest side of 2015 soil grid under these fluvial terrace deposits. (Liverton & Mann, 2011) describe whole rock geochemistry as a better exploration tool for rocks in the Klondike Schist as well as different methods for soil geochemistry interpretation for locating mineralized zones in bedrock. Their recommendations will be followed.

In conclusion, the JPL property has shown to be highly prospective for gold the felsic Klondike Schist. All indications so far have shown striking similarities to the geology in the area of the Lone Star property owned by Klondike Gold Corp. This is significant because of the positive drill results that have been obtained on that property in 2015. Exploration should continue on JPL in 2016

BIBLIOGRAPHY

Liverton, T., & Mann, W. (2011). Quartz vein gold mineralization in the Klondike Schist: The Mitchell-Sheba system, central Klondike district, Yukon. *Yukon Exploration and Geology*, 149-160.

MacKenzie, D., Craw, D., & Mortensen, J. K. (2008). Thrust slices and associated deformation in the Klondike goldfields, Yukon. *Yukon Exploration and Geology, 2007*, p. 199.

McKillop, R., Turner, D., Johnston, K., & Bond, J. (2013). Property-scale classification of surficial geology for soil geochemical sampling in the unglaciated Klondike Plateau, west-central Yukon. *Yukon Geological Survey, Open File 2013-15*, 85 p., including appendices.

Pride, K. (1996). *Assessment Report, Pup Property, Geological and Geochemical Survey.* Whitehorse: Yukon Energy, Mines and Resources Library Catalogue. Retrieved from http://virtua.gov.yk.ca:8080/search/query?term_1=cominco+pup&theme=emr

APPENDIX I: STATEMENT OF EXPENDITURES

Soil Sampling (August 16 - 27), Prospecting, Report Writing (January 2016), and Line Cutting Program (July 6, 8,9,10)				
Wages:		rate	units	total
Soil Sampler (Morgan Fraughton August 16 - 27)	per day	$350.00	12	$4,200.00
Soil Sampler (Travis Farmen August 20 - 27)	per day	$350.00	8	$2,800.00
Line Cutter (Travis Farmen July 6, 8,9,10)	per day	$350.00	4	$1,400.00
Line Cutter (Morgan Fraughton July 6, 8,9,10)	per day	$350.00	4	$1,400.00
Prospector	per day	$350.00	9	$3,150.00
Prospector	per day	$350.00	9	$3,150.00
Field Expenses (per day)				
Field Expenses (Travis Farmen)	per day	$100.00	21	$2,100.00
Field Expenses (Morgan Fraughton)	per day	$100.00	25	$2,500.00
EQUIPTMENT RENTAL (per unit, per day)				
ATV 1	per day	$40.00	25	$1,000.00
ATV 2	per day	$40.00	21	$840.00
Truck	per day	$60.00	25	$1,500.00
Truck Trailer	per day	$16.00	25	$400.00
ATV Tub Trailer	per day	$10.00	25	$250.00
Line Cutting Kit 1	per day	$50.00	4	$200.00
Line Cutting Kit 1	per day	$50.00	4	$200.00
Assay Costs				
Soil Samples - 36 element ICP-MS	Total	$23.37	605	$14,137.05
Rock Samlples - 36 element ICP-MS	Total	$28.84	39	$1,124.71
Report Writing				
Report Writing	Total			$4,000.00
Total 2015 JPL Costs				**$44,351.76**

Total daily field allowance	$4,600.00
Total truck costs	$1,500.00
Total wages paid	$16,100.00
Total light equiptment rental costs	$2,890.00
Total assay/analyses costs	$15,261.76

APPENDIX II: STATEMENT OF QUALIFICATIONS

Morgan Fraughton

Box 1381 Dawson City, Yukon, Y0B1G0

1. I have worked in the exploration industry for 10 years (9 years in the Yukon): diamond/RC drilling (2years), oil sands drilling (1year), project manager (many jobs) for Ground Truth Exploration (5years), prospecting for myself (2years).
2. I am a resident of my home town Dawson City, and have lived all my life in Yukon
3. I compiled and wrote all sections of this report based on information from my explorations and research on the JPL property
4. I did all of the research, organizing and most of the work on all aspects of this exploration program as well as past explorations and staking on the JPL property

Signed January 31, 2016

Morgan Fraugton