

**YMEP 2017 – 059**  
**TARGET EVALUATION REPORT**

**REPORT ON EXCAVATOR TRENCHING**  
**WY GULCH, SIXTY MILE DISTRICT**  
**MERCURY – GOLD TARGET**

**DAWSON MINING DISTRICT**

**CLAIMS**

ANDREA 1 - 4 (YC96100 – YC96097)  
ANDREA 5 – 24 (YD44201- YD44220)

**NTS 116C/ 02**

**UTM NAD 83, ZONE 7: 508500E, 7098000N**

**BY: ROGER HULSTEIN, P. GEO. (CONSULTING GEOLOGIST)**

**FOR: MR. JAYCE MURTAGH (CLAIM OWNER)**

**JANUARY, 11, 2018**

**CONTENTS**

Summary ..... 1  
Introduction, Location, Access and Topography ..... 3  
Claim Status..... 5  
Permitting ..... 5  
Exploration History..... 5  
2017 Program ..... 7  
Geology and Mineralization ..... 8  
    Geophysics ..... 13  
    Rock and Soil Geochemistry ..... 14  
2017 Exploration Program Results..... 14  
Conclusions and Recommendations..... 16  
References..... 18  
Statement of Qualifications..... 20

**LIST OF FIGURES**

Figure 1. Location ..... 4  
Figure 2. Claim Map ..... 6  
Figure 3. Regional Geology..... 9  
Figure 4. Property Geology and Legend (on following page)..... Pocket  
Figure 5. Trench Sample Locations & Gold Geochemistry ..... Pocket  
Figure 6. Trench Sample Locations & Mercury Geochemistry..... Pocket  
Figure 7. Trench 17-2 And 17-3 & Mercury Geochemistry..... Pocket  
Figure 8. Trench 17-1 & Mercury Geochemistry ..... Pocket

**LIST OF TABLES**

Table 4. List of Claims ..... 5

**LIST OF APPENDICES**

- Appendix A. Analytical Certificates
- Appendix B. Rock and Soil Sample Descriptions
- Appendix C. Field Station Descriptions
- Appendix D. Digital Data

## SUMMARY

This target evaluation report is submitted to fulfill requirements of Yukon Mineral Exploration Program (YMEP) 2107 – 059. This project covers the Andrea 1 – 24 claims located in the Sixty Mile district, on NTS 116C/2. The initial exploration plan was twofold; to explore WY Gulch for lode gold deposits associated with cinnabar (mercury) and to further explore the gold bearing Thrust Fault Zone. Unfortunately due to time constraints the Thrust Fault Zone, a zone of orogenic gold – vein mineralization that extends for approximately 8 km, was not explored in 2017.

WY Gulch is a known source of placer cinnabar nuggets that are found with placer gold in Miller Creek. Soil sampling by Layfield Resources located a significant Hg in soil anomaly in the upper section of WY Gulch. It is thought that significant north trending fault structure(s) cut through the WY Gulch drainage. The drainage is also the locale for lithological contacts between the Carmacks Group andesite volcanics, early Jurassic granitoids and older Paleozoic rock. The faulting and or lithological contacts may be the lode source for the placer gold and cinnabar nuggets.

A program of excavator trenching, using a Hitachi ZX300, geological mapping, geochemical sampling (rock and soils) was carried out August 31<sup>st</sup> – September 2<sup>nd</sup>, 2017. The trenching program in the WY Gulch drainage was successful in locating cinnabar mineralization in old pre-1980(?) bulldozer trenches that were opened up and deepened. Cinnabar mineralization as hairline veinlets and disseminations accompanied rhodochrosite, calcite and quartz - carbonate veining and calcite overprint altered biotite schist and leucogranite. Minor sericite, weak bleaching, weak limonite and hematite replacement and staining are also associated with areas anomalous in mercury (>1 ppm Hg). Two trenches totalling 315 linear meters were excavated along the bottom of the bulldozer trenches to depths varying from 0.5 m to 3.0 m in 2017. Permafrost hindered trenching as WY Gulch was approached from the west.

Work in 2017 confirms that the WY Gulch drainage basin is a source area of placer cinnabar nuggets found in Miller Creek below its confluence with WY Gulch. All three trenches (2 excavator and 1 old bulldozer trench) returned numerous anomalous values of over 1 ppm Hg and up to 20.8 ppm Hg in rock samples and 60.8 ppm Hg in soil samples. A total of 34 rock samples and 25 soil samples were collected in 2017. Geochemical results returned low to background values for gold and silver. No correlation could be made between Au, Ag and anomalous Hg values. Anomalous mercury values are correlated with an increase in calcite values and locally antimony (up to 4.43 ppm Sb).

Six of the 34 rock samples were collected from bedrock exposed in a placer cut in Miller Creek below its confluence with WY Gulch and returned low to background values for gold, silver and mercury.

Although significant gold – silver values were not obtained in 2017 the overall area tested by trenching within the WY Gulch drainage is relatively small. The cinnabar hairline veinlets and disseminated specks indicate that the trenches are likely located on the margin of the source area of the millimeter to centimeter size placer cinnabar nuggets found in Miller Creek. Given the sharp geochemical gradients commonly associated with structurally controlled mineralization it is possible that gold – silver mineralization may yet be found in WY Gulch.

A complete lack of natural outcrop, permafrost, black muck and locally thick (>2 m – 5+ m) alluvium are the biggest hindrances to exploring the WY Gulch drainage. To overcome these obstacles a program of auger or other overburden type drilling is proposed to test the WY Gulch area. A series of east – west lines spaced 100 m apart, extending 300 m either side of WY Gulch with sample stations spaced 50 m apart is recommended.

In addition to the overburden drilling program, sampling by conventional soil auger, prospecting/mapping and geochemical sampling, where possible, may yield additional information on possible fault controlled cinnabar - gold deposits in WY Gulch.

## INTRODUCTION, LOCATION, ACCESS AND TOPOGRAPHY

The WY Gulch mercury – gold target is covered by 24 quartz claims owned by Mr. Jayce Murtagh of Dawson City. These claims cover WY Gulch and Miller Creek, both placer gold and cinnabar nugget bearing drainages. This group of quartz claims covers both an orogenic type gold target, the Thrust Fault Zone, similar in style to the White Gold deposit, and a possible structurally controlled gold – cinnabar target. This summary report describes the 2017 trenching program, its results, and makes conclusions and recommendations for further exploration.

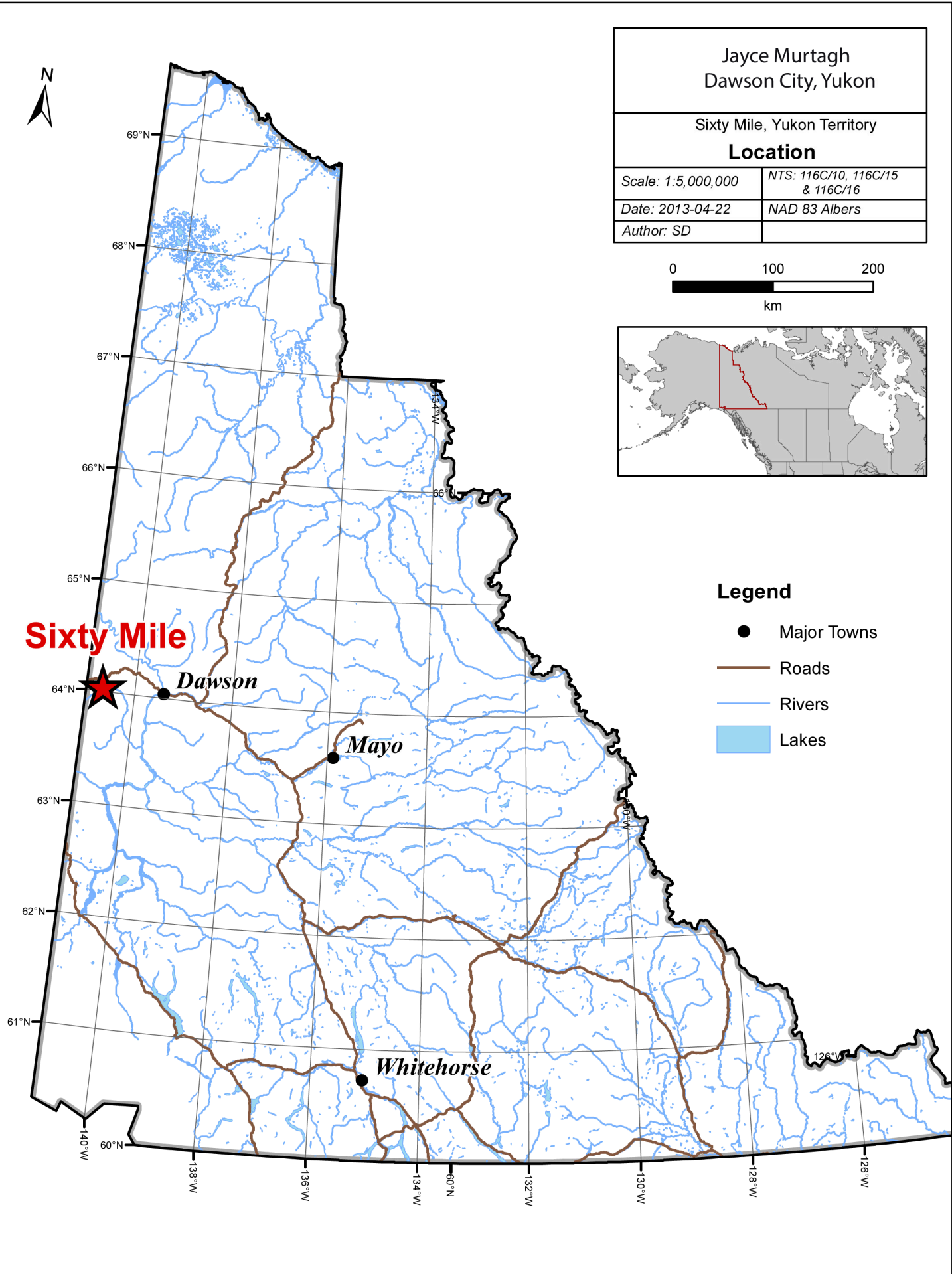
The property is located approximately 75 km due west of Dawson, adjacent to the Yukon-Alaska border (Figure 1). Access to the claims is by the 15-km long Sixty Mile road, from the Top of the World Highway, where the turn off is posted.

Topography in the region is typical of an incised peneplain with steep hillsides and rounded crests. The area was beyond the limits of the last two continental glacial events and minor evidence of glaciations in the region is a result of localized alpine glaciers. Alluvium in the valleys is mostly locally derived. Hillsides are covered with a veneer of colluvium also locally derived. Elevation ranges from 2,100 feet (640 m) in the Sixty Mile valley to approximately 4,700 feet (1433 m) on the west ridge near the Alaska – Yukon border. Permafrost (often as frozen black muck) is locally a serious hindrance to exploration on the hillsides, particularly northerly facing slopes and in poorly drained areas,

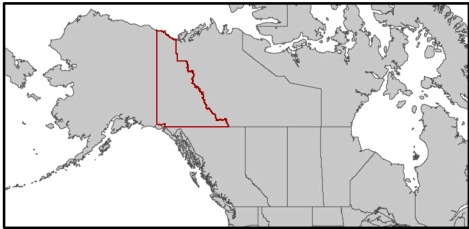
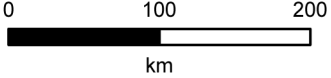
Rock outcrop in the area is restricted to ridges, small cliffs, creek bottoms and along road and trench cuts.

Vegetation in the valley bottoms consists of alder, dwarf birch, balsam fir, white and black spruce. Ground cover in areas of thin tree cover consists of alpine plants, 'buckbrush' (alder), dwarf willow and moss. Hillsides and ridges are covered with pine, spruce, birch and poplar on well-drained slopes and stunted black spruce in areas of permafrost. Treeline is at approximately 3,500 feet (1070 m). Vegetation is generally more abundant on east and south facing slopes. Grizzly and black bears as well as moose frequent the valley bottom, attracted by young vegetation on the placer tailings.

Climate is characterized by low precipitation and a wide temperature range. Winters are cold and temperatures of  $-30^{\circ}\text{C}$  to  $-45^{\circ}\text{C}$  are common. Summers are moderately cool with daily highs of  $10^{\circ}\text{C}$  to  $25^{\circ}\text{C}$ . Thunders showers are a common occurrence. Smoke from forest fires can be thick at certain times. The seasonal window for prospecting is from late May to mid-September.



Jayce Murtagh Dawson City, Yukon	
Sixty Mile, Yukon Territory	
<b>Location</b>	
Scale: 1:5,000,000	NTS: 116C/10, 116C/15 & 116C/16
Date: 2013-04-22	NAD 83 Albers
Author: SD	



**Legend**

- Major Towns
- Roads
- Rivers
- Lakes

## CLAIM STATUS

The Andrea 1 – 24 claims (Table 1), that cover the WY Gulch mercury – gold target and the Thrust Fault Zone, are owned by Mr. Jayce Murtagh of Dawson City. All claims were staked according to the Yukon Quartz Mining Act and are located in the Dawson Mining District (Figure 2). They are shown on claim sheet 116C/2. Roger Hulstein, the author of this application report and agent for Mr. Murtagh, has no interest in the claims. Roger Hulstein supervised and helped carry out the 2017 program described in this report.

**Table 1. List of Claims**

CLAIM NAME	GRANT	NUMBER	No.	REGISTERED OWNER	NTS Map	EXPIRY DATE
Andrea 1 -4	YC96100	- 96097	4	Jayce Murtagh	116C02	31/03/2018
Andrea 5- 24	YD44201	- 44220	20	Jayce Murtagh	116C02	31/03/2018

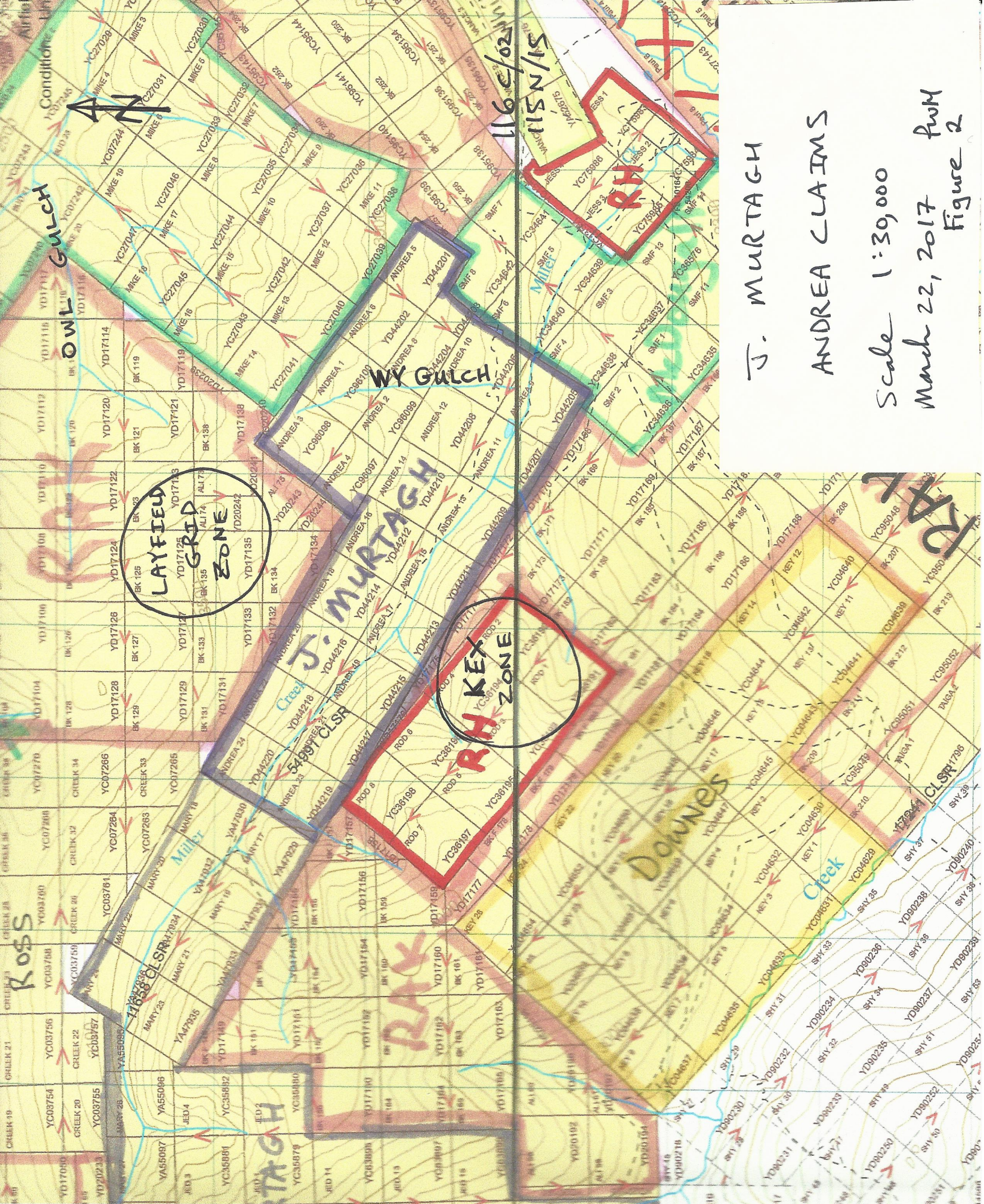
## PERMITTING

To carry out the trenching program a Class 2 Quartz Mining Land Notification was applied for in late March 2017 and received (File No: LQ00467), subject to certain conditions, on August 1, 2017.

## EXPLORATION HISTORY

Various companies and several well know Yukon prospectors explored portions of the property from the 1970's onward for bedrock sources of the placer gold found in Miller Creek. Companies included; Norada, Homestake Mining, Esso Minerals, Teck Corporation and Madrona Mining Ltd. although generally only surface work was carried out. In 1989 Layfield Resources diamond drilled seven holes (410.7 m) on what is now part of the Thrust Fault Zone (Layfield Grid) to follow up on anomalous gold in soil samples.

Layfield Resources also examined and partially constrained, through a soil sampling program, the source of the placer cinnabar in WY Gulch, a tributary of Miller Creek although the ground covered by the Andrea claims was not part of Layfield's land package (Keyser, 1989). Some of the better placer gold found in Miller Creek and Sixtymile River occurs with placer cinnabar nuggets up to centimeter size. In 2015 Mike McDougall found placer cinnabar nuggets in his placer gold concentrates in excavations at the mouth of Owl Gulch, located north of WY Gulch. This indicates that a northerly trending gold – cinnabar mineralized fault structure, or a lithological contact, possibly controls mineralization between Miller and Glacier Creeks.



J. MURTAGH

ANDREA CLAIMS

Scale 1:30,000

March 22, 2017 from Figure 2

27



Although WY Gulch was the focus on previous exploration programs as evidenced by existing un-reclaimed roads and trenches, most of this work was prior to the early 1980's and the results are not available. Included in this work are a series of subparallel bulldozer trenches (from the 1960's – 1970's?) in the range of 100 – 200 m long, excavated along contour, just west of WY Gulch. These trenches and the WY Gulch drainage basin were not explored by either Kennecott (1997 -1999) or Radius Gold (2010 – 2012) as the claims were not part of Kennecott's property and Radius was focused on other zones within their large claim package. It is for this reason that WY Gulch drainage basin and the bulldozer trenches were the focus of the 2017 program.

Soil sampling by Kennecott defined the Thrust Fault Zone with several arsenic/gold anomalies, including a coherent 1.5 km x 2 km-diameter, gold-arsenic soil anomaly, now the Kennecott Grid on the south side of lower Miller Creek (Hulstein and Zuran, 1999). Excavator trenching at the southern edge of this anomaly revealed north easterly striking sheeted mesothermal quartz veins. Rock chip samples returned 1.6 g/t gold over a 13 meter interval in Trench 99-6. After a ten year hiatus in 2010 Radius Gold Inc. resumed exploration in the area and carried out airborne and ground geophysics, diamond, RAB and auger drilling plus trenching and surface geochemical surveys until 2011.

Results of the work by Radius Gold Inc. extended the Thrust Fault Zone north of the Kennecott grid (south of Miller Creek) to the Layfield grid and onto Glacier Creek by diamond drilling, RAB and auger drilling plus additional soil sampling and geological mapping. Drill hole results from the 2010 - 2011 drilling programs included drill hole intersections of up to 0.507 g/t Au over 105.3 m (DDH11-18, Kennecott or KEX Zone) including 1.57 g/t Au over 24.07 m (Hulstein and Clark, 2011 and 2012).

Taken together this work identified the continuance of the northerly trending Thrust Fault Zone from south of Miller Creek through to Glacier Creek for a minimum length of 8 km as defined by geology, geochemistry and geophysics.

## 2017 PROGRAM

The 2107 WY Gulch exploration excavator trenching program commenced on August, 29, 2017 and was completed by September 2, 2017 with final reclamation and equipment demobilization by September 8, 2017. Initial work on August 31<sup>st</sup> focused on identifying a suitable route for the EX300 Hitachi excavator to the old trenches and examining, prospecting and sampling them. The excavator was 'walked' from Jayce Murtagh's camp to the base of

WY Gulch on the same day. Trenching commenced on September 1<sup>st</sup> and was completed by September 2<sup>nd</sup> along with mapping and sampling. Concurrently photos and video were taken by a drone to facilitate route section and to locate old trails and trenches (this proved most useful). A few hours were also spent on August 31<sup>st</sup> and September 1<sup>st</sup> examining and sampling the bedrock temporarily exposed in the placer cut on the north bench of Miller Creek below its confluence with WY Gulch.

Trenching was restricted to opening up and excavating the old bulldozer trenches that are approximately 3 m or more wide and anywhere from 1 – 3 m deep on the upslope or cut side. The 2017 excavator trenches were approximately 1 m wide and anywhere from 0.5 m to 3 m deep, depending on bedrock, overburden and frost. Trenches were backfilled, organic cover, such as it was, restored and the excavator demobilized by September 8, 2017. Permafrost and black muck curtailed the attempts to extend the original bulldozer trenches to the east.

Field stations describing the geology and cultural features are included in Appendix C.

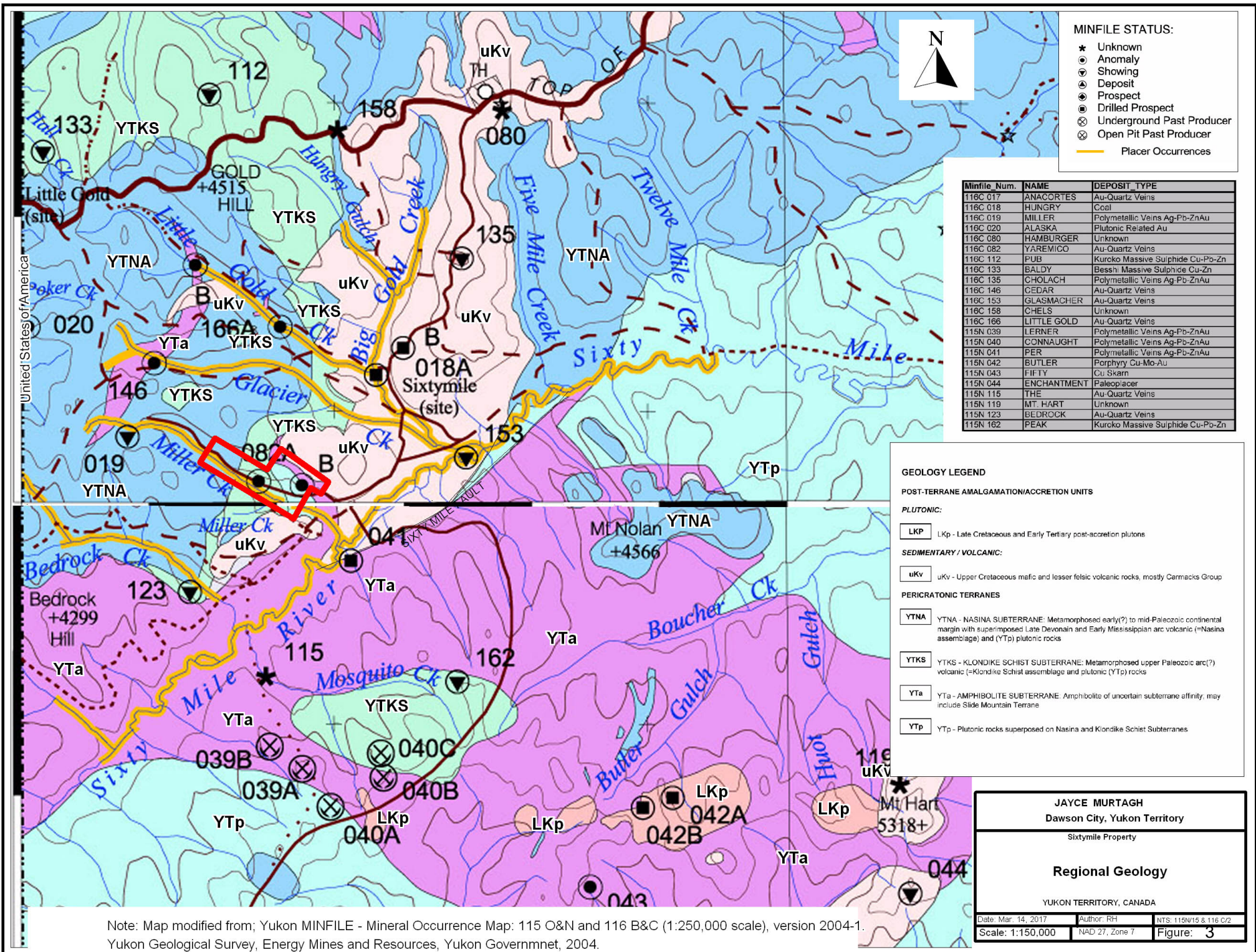
## GEOLOGY AND MINERALIZATION

The first geological investigation of the Sixty Mile River area was by J. E. Spurr in 1896-97 (Spurr and Goodrich, 1898), followed by Cockfield in 1917 (Cockfield, 1921). More recently the area was mapped at 1:250,000 scale by Tempelman-Kluit in 1970-1972 (Tempelman-Kluit, 1973), Green in 1961 (Green, 1972) and Mortenson (1988, 1996). Integrated mineral exploration programs that include large areas of the placer district include: Hulstein and Zuran (1999), Hulstein and Clark (2011 and 2012).

The property lies between the Tintina and Denali Faults within the Ominica Belt (Wheeler and McFeely, 1991, Gordy and Makepeace, 2001). The area is underlain by two distinct lithotectonic (pre-accretion) assemblages: 1) medium to high grade, polydeformed metasedimentary and meta-igneous rocks of the Yukon-Tanana Terrane (YTNA and YTKS); and 2), deformed and metamorphosed rocks of the Slide Mountain Terrane (YT<sub>a</sub>) (Mortenson, 1988, 1996) (Figure 3). Both are mainly Paleozoic in age and were juxtaposed by regional scale thrust faults in early Mesozoic time, a period of terrane accretion that affected much of the northern Cordillera.

Most of the property is underlain by foliated Paleozoic metasedimentary rocks, minor Jurassic felsic intrusives and nonfoliated latest Cretaceous age Carmacks Group intermediate volcanics and felsic to intermediate intrusives (Figure 4). Minor amounts of various altered ultramafic rocks of the Paleozoic Slide Mountain Terrane (YT<sub>a</sub>) are found on the property. Of most interest are altered ultramafic rocks found a meter scale discrete zones within faults.

Therefore ultramafic rocks commonly denote thrust (and normal?) fault locations, are partially to wholly serpentinized and locally exhibit quartz-carbonate alteration.



Note: Map modified from; Yukon MINFILE - Mineral Occurrence Map: 115 O&N and 116 B&C (1:250,000 scale), version 2004-1. Yukon Geological Survey, Energy Mines and Resources, Yukon Government, 2004.

Jurassic quartz monzonite bodies intrude the Yukon Tanana Terrane and are mapped at the mouth of both WY and Owl Gulches, in the WY Gulch drainage and on the access road at the head of WY Gulch. Mortenson (1996) noted that field relationships indicate that they intruded prior to both Early (?) Jurassic regional thrust imbrication and Early Cretaceous normal faulting.

Post accretion units of the Carmacks Group unconformably overly rocks of the Tanana Terrane and Slide Mountain Terrane. These units consist of a sequence of unmetamorphosed sedimentary and volcanic rocks of middle (?) and Late Cretaceous age (unit uKv) (Mortenson, 1996). The lower part of the unit typically consists of sandstone and pebble to cobble conglomerate that is overlain by massive andesitic flows and breccias that are correlated with the (68-76Ma) Carmacks Group.

The claims included in this report cover the western boundary of the Carmacks Group, Early Jurassic granites and Palaeozoic schists. The boundary between these units may be complicated by faults. Near the western boundary – contact of the Carmacks Group andesites, in the WY Gulch drainage, anomalous mercury in soil and rocks have been detected and the Gulch area is the source area of the placer cinnabar nuggets found in Miller Creek.

Radius Gold Inc. identified two separate targets on their, at the time, large property, the Thrust Fault Zone, an orogenic gold target hosted by foliated Paleozoic metasedimentary rocks and the Graben Fault Zone, a latest Cretaceous age porphyry - epithermal target hosted by Carmacks volcanics and granitoids. As the Graben Zone is located over three kilometers to the east of the property it will not be discussed further. WY Gulch is considered to be the eastern margin of the northerly trending Thrust Fault Zone.

### **WY Gulch**

Previous exploration identified the continuance of the Thrust Fault Zone from the ridge south of Miller Creek through to Glacier Creek for a minimum length of 8 km as defined by geology, geochemistry and geophysics (see above section “Exploration History” for additional details) (Hulstein and Zuran, 1999; Hulstein and Clark, 2011 and 2012). WY Gulch lies on the eastern side of the NNW trending Thrust Fault Zone and is subparallel to it. This Gulch is the source of the placer cinnabar found downstream in Miller Creek below its confluence with WY Gulch.

It is thought that northerly trending fault zones provides the structural control and deposition sites for the cinnabar mineralization. Along with faulting Early Jurassic granites may play a key part in the cinnabar mineralization story as they are restricted to small outcrops mapped at the base of WY Gulch (where they are cut by arsenopyrite – barite veinlets), in WY Gulch (in the

2017 trenches sand older bulldozer trenches), at the top of the drainage (along the access road to the Layfield Grid Zone) and at the mouth of Owl Gulch in Glacier Creek.

In 2017 three trenches on located on the west side of the WY Gulch drainage were mapped and sampled (Figures 5 – 8). Most of the bedrock and 'C' horizon rubble exposed in the three trenches consist of quartz – feldspar - biotite (+/- hornblende) schist, in contact with a leucocratic granite that is in turn locally cut by coarser grained dyke like bodies. The type of geological contact, intrusive or fault, is unknown at present. Approximately 20 m of calcite veined and altered andesite subcrop, locally pinkish in color, with trace disseminated pyrite was found in the western portion of TR17-2. Rock samples from this section contained greater than 1 ppm Hg (samples 122667 and 122669) (Figure 7).

Cinnabar mineralization in the 2017 trenches is restricted to rare hairline cinnabar veinlets in calcite – quartz veins (float sample 122721) and as disseminations in weakly sericitized altered leucocratic granite (sample 122714) (Figure 7). Samples anomalous in mercury, but without visible cinnabar, consist of quartz – feldspar - biotite (+/- hornblende) schist and the aforementioned granite, crosscut by calcite +/- rhodochrosite +/- quartz veinlets. The above biotite schist where it is anomalous for mercury, in soil or rock samples, has a strong calcite overprint, forming a halo around the better veining and grades into barren biotite schist with little to no calcite. Only very minor fine grained disseminated pyrite was noted in the schist and veining. Limonite and hematite staining of rock and soil accompanies the areas anomalous in mercury. Hematite staining was noted to be more peripheral to the areas of veining and mercury anomalous zones.

The excavator trenching and resulting rubble outcrop – subcrop did not allow for measurements of vein, contact or lithology attitudes. Fracture planes, minor shear zones and rare slickensides were noted cutting all rock types. Most of the rock exposed by trenching was highly fractured and broken and appeared to have been subjected to brittle faulting. The calcite veins appear to be late stage and in some case described as gash vein filling.

### ***The Thrust Fault Zone***

The west side of the Andrea 1 – 24 claims covers the section of the Thrust Fault Zone between the Kennecott and Layfield Zones (Figure 4). Although no work was carried out in this area in 2017 a brief description of the zone is given below to present a complete picture of the gold mineralization found in the area.

The Thrust Fault Zone is one of the sources for the extensive placer gold deposits that has been mined from the creeks that cut this unit. The host units are extensive with multiple beds

of quartzite hosting cross cutting, gold bearing veins. The Mineral Deposit Research Unit (MDRU) of the University of British Columbia concluded that the bedrock source for most of the placer gold is from orogenic type quartz veins. Anomalous gold values from trenches and diamond drill holes on the Thrust Fault Zone, delineate the zone as extending from north of Glacier Creek to south of Miller Creek, a distance of approximately 8.0 km.

Radius drilled eight diamond drill holes (2368.9 m), on the Thrust Fault Zone in 2010 and 2011 plus carried out RAB drilling, auger drilling, mechanized trenching and induced polarization - resistivity (IP) surveys over portions of the Zone (Hulstein and Clark, 2011 & 2012). The most significant drill hole to date was drilled at the Kennecott Grid; DDH11-18 contained 507 ppb Au over 105.3 m including 1.57 g/t Au over 24.07 m. The regional geology, geochemical signature and structural setting points to an orogenic gold source similar to Kinross Gold Corporation's White Gold deposit (<http://www.kinross.com/operations/dp-white-gold,-yukon.aspx>).

## GEOPHYSICS

In 2010 Precision GeoSurveys Inc. of Vancouver, BC was contracted to fly a helicopter magnetic and radiometric survey over the property. A total of 1902 line km were flown over the entire property. Lines were flown north – south, spaced 200 m, with Thrust Fault Zone, Sixty Mile Valley and bounding Sixty Mile Fault flown at a line spacing of 100 m. Sensor height was approximately 30 m. The full report by Precision on the survey is included as Appendix D in the 2010 assessment report (Hulstein and Clark, 2011).

The WY Gulch drainage basin and the 2017 trench area, is within a quiet magnetic area of magnetic susceptibility on the margin of the Carmacks Group andesites that have a mottled appearance of mixed high and low magnetic susceptibility.

The helicopter borne radiometric survey measured the radiation (total count) emanated by the radioactive elements potassium (K), uranium (U) and thorium (Th). The Thrust Fault Zone can be picked out as a weaker northeast trending band near the headwaters of Miller and Glacier Creeks. The Thrust Fault Zone is most clearly identified on maps of K/Th, where it is clearly and sharply delineated (See Figure 13 in Hulstein and Zuran, 1999). Given the overburden and cover in WY Gulch radiometrics cannot be expected to yield meaningful results.

In April 2012, Rackla Metals received a report from Aurora Geosciences Ltd. detailing the results of the geophysics (IP and EM) carried out over the area of the Thrust Fault Zone that was drill tested by Radius in 2011 (Hulstein and Clark, 2012). The report concluded that the best drilling results obtained to date, 1.57 gpt Au over 24.07 m (141.93 m - 166.00 m) in DDH11-18, is found at the margin of a chargeable zone which is offset from a conductive zone. It is thought that this margin represents a contact or thrust plane which acted as a fluid contact.

The report recommended that this contact be tested with additional drill holes along strike to the southeast. Additional geophysics and drilling was recommended to test this kilometer scale target model.

## ROCK AND SOIL GEOCHEMISTRY

Keyser (1989), identified a coherent Hg anomaly (>100 ppb Hg and up to 9200 ppb Hg) in soils at the headwaters of WY Gulch drainage. As the ground now covered by the Andrea claims was not part of the Layfield exploration program most of WY Gulch was not explored then or subsequently by Kennecott or Radius. Geochemical results (Au and Hg) from previous exploration, except Layfield's, are included in Figures 5 and 6. Most of the area has only been sparsely sampled.

A total of 34 rock samples and 25 soil samples were collected in 2017 and sample numbers are shown on Figures 5, 7 and 8. All samples were submitted to ALS Canada Ltd. for gold analysis by fire assay (30 gram sub-sample ) and ICP-AES finish (code AU-ICP21). A 0.5 gram sub-sample was also analysed by ultra trace aqua regia ICP-MS analysis (code ME-MS41) 0.5 gram) for an additional 50 elements including mercury. Analytical certificates are included in Appendix A.

A visual scan of the geochemical results show that the geochemical signature of other elements accompanying the anomalous mercury values (> 1 ppm Hg) is very subdued. No correlation can be made between Au, Ag and anomalous Hg values. Anomalous mercury values are correlated with in an increase in calcite values and locally antimony (up to 4.43 ppm Sb).

Results are further discussed above under "WY Gulch" in "Geology and Mineralization" and "2017 Exploration Results" below. Rock and soil sample descriptions, locations and geochemical results are provided in Appendix B.

## 2017 EXPLORATION PROGRAM RESULTS

A linear total of 315 m of excavator trenching was carried out in 2017 in two trenches (TR17-02 and TR17-03) (Figure 7). A third pre-existing bulldozer trench (TR17-01) was also sampled (Figure 8). Results for gold were disappointing with a high of 0.008 ppm for rock samples and 0.046 ppm from a soil sample (sample 122745 in TR17-03). Results for mercury in rocks



ranged up to 20.8 ppm with another 21 samples returning values between 1.0 ppm – 10.8 ppm Hg. The highly anomalous samples coincide with mapped cinnabar, rhodochrosite and calcite veinlets cutting granite and biotite schist. A soil sample (122730) from the lower trench (TR17-03) returned a high of 61.5 ppm. An additional 14 samples returned between 1.0 ppm to 16.55 ppm.

Trench TR17-2 has two zones of calcite alteration and veining accompanied by anomalous mercury values on either side of a granite unit. From east to west the trench can be summarized as 50 m of biotite schist with weak calcite veining followed by 40 m of granite and then biotite schist with a 10 m section crosscut by more abundant calcite – quartz veins, themselves containing (cross cutting?) rare cinnabar veinlets (sample 122721).

Trench TR17-3 only has a narrow (<15 m) granite section and sampling over it and the adjacent biotite schist defines a 40 m long section anomalous in mercury.

Wide spaced (20 m) soil samples from the upper trench TR17-3 returned consistently anomalous values in the range of >1 – 4.72 ppm Hg over both biotite schist and granite float and 'C' horizon rubble.

Taken together, the three 2017 trenches define wide areas weakly mineralized with mercury. In all three trenches mercury values increase going east and permafrost encountered in all three trenches hindered additional trenching going east.

Bedrock samples from the placer cut in Miller Creek, below its confluence with WY Gulch, returned background values for gold and mercury.

## CONCLUSIONS AND RECOMMENDATIONS

Work in 2017 confirms that the WY Gulch drainage basin is a source area of placer cinnabar nuggets found in Miller Creek below its confluence with WY Gulch. The 2017 excavator trenching program on WY Gulch was successful in locating cinnabar mineralization in old pre-1980(?) bulldozer trenches that were opened up and deepened. Undoubtedly the previous workers identified the same mineralization and accompanying carbonate veining and calcite overprint alteration but this knowledge was lost. Two trenches totalling 315 linear meters were excavated along the bottom of the bulldozer trenches to depths varying from 0.5 m to 3.0 m in 2017. Permafrost hindered trenching as WY Gulch was approached from the west.

No significant gold or silver values were returned from any samples collected in 2017. There does not appear to be any correlation between anomalous mercury values and gold – silver values.

All three trenches returned numerous anomalous values of over 1 ppm and up to 20.8 ppm in rock samples and 60.8 ppm in soil samples. Bedrock and 'C' horizon rubble exposed in the trenches consisted of quartz – feldspar - biotite (+/- hornblende) schist, leucocratic granite and coarser grained dyke like bodies and andesite. The andesite was only observed in the west end of trench TR17-2.

Rock samples of all three rock types returned anomalous (>1 ppm Hg) values where cut by cinnabar, rhodochrosite, quartz - calcite and calcite veins. Cinnabar was noted in two locations; in trench TR-2 as hairline veinlets in a 20 cm cobble of quartz – carbonate float (sample 122721) and in trench TR17-3 as cinnabar veinlets cutting granite subcrop (sample 122714). The anomalous mercury values in rock and soil samples are accompanied by a calcite overprint alteration, local sericite and weak bleaching and weak limonite and hematite replacement and staining. There is abundant evidence in the form of fractures, shear zones and slickensides that the area has been subjected to brittle faulting. Locally the calcite veins locally appear to be late stage and can, in some cases, be described as gash vein filling.

It is thought that significant fault structures probably lie in the WY Gulch drainage. This area is delineated by the scattered Early Jurassic granites found between Miller and Glacier Creeks, and the contact between the Carmacks Group andesite volcanics and the older Paleozoic rocks, although this last fact may be merely a coincidence.

Although significant gold – silver values were not returned in 2017 the overall area tested by trenching within the WY Gulch drainage was relatively small. The cinnabar hairline veinlets and disseminated specks indicate that the trenches are likely located on the margin of the source area of the millimeter to centimeter size placer cinnabar nuggets found in Miller Creek. Given

the sharp geochemical gradients commonly associated with structurally controlled mineralization it is possible that gold – silver mineralization may yet be found in WY Gulch.

A complete lack of natural outcrop, permafrost, black muck and locally thick (>2 m – 5+ m) alluvium are the biggest hindrances to exploring the WY Gulch drainage. To overcome these obstacles a program of auger or other overburden type drilling is proposed to test the WY Gulch area. A series of east – west lines spaced 100 m apart, extending 300 m either side of WY Gulch with sample stations spaced 50 m apart is recommended.

In addition to the overburden drilling program, sampling by conventional soil auger, prospecting/mapping and geochemical sampling, where possible, may yield additional information on possible fault controlled cinnabar - gold deposits in WY Gulch.

## REFERENCES

- Allan, M.M., Mortenson, J.K., Hart, C.J. and Bailey, L.A., 2012. Timing, Nature, and Distribution of Jurassic Orogenic Gold Systems in the West – Central Yukon; *in* Yukon Gold Project Final Technical Report; Allan, M.M., Hart, C.J. and Mortenson, J.K., Editors, Mineral Deposit Research Unit, University of British Columbia, 196 p.
- Allan, M.M. and Mortenson, J.K., 2012. Structure and Mineralization of the Sixtymile – Pika Fault System; *in* Yukon Gold Project Final Technical Report; Allan, M.M., Hart, C.J. and Mortenson, J.K., Editors, Mineral Deposit Research Unit, University of British Columbia, 196 p.
- Cockfield, W.E., 1921. Sixty Mile and Ladue Rivers Area, Yukon. Geological Survey of Canada, Mem. 123.
- Duk-Rodkin, A., 1996. Surficial Geology, Dawson, Yukon Territory; Geological Survey of
- Green, L.H., 1972. Geology of Nash Creek, Larsen, and Dawson Map Areas, Yukon Territory. Geological Survey of Canada Memoir 364.
- Hulstein, R. and Zuran, R., 1999. Report on the Geological, Geochemical and Geophysical Work on the the Sixty Mile Project. Yukon Energy, Mines & Resources. Assessment Report No. 094055.
- Hulstein, R. and Clark, D., 2011. Report on the Sixtymile Property, 2010 Geological, Geochemical, Geophysical, Auger, RAB and Diamond Drilling. Yukon Energy, Mines & Resources. Assessment Report No. 096208.
- Hulstein, R. and Clark, D., 2012. Report on the Sixtymile Property, 2011 Geophysical Survey and Diamond Drilling. Yukon Energy, Mines & Resources. Assessment Report No. 096256.
- Keyser, H.J., 1989. Report on the 1988 Geological and Geochemical Assessment Work on the Headwaters Project. Yukon Energy, Mines & Resources. Assessment Report No. 092692.
- LeBarge, W., 2006. Placer Geology and Prospective Exploration Targets of Sixty Mile River Area, West-Central Yukon. In: Yukon Exploration and Geology 2005, D.S. Emond, G.D. Bradshaw, L.L. Lewis and L.H. Weston (eds.), Yukon Geological Survey, p. 155-174.
- Mortenson, J.K., 1988. Geology, Southwestern Dawson Map Area, Yukon, 1:250,000 scale map. Geological Survey of Canada, Open File 1927.
- Mortenson, J.K., 1996. Geological Compilation Maps of the Northern Stewart River Map Area, Klondike and Sixty Mile Districts, 1:50,000 scale. Indian and Northern Affairs Canada, Northern Affairs: Yukon Region, Open File 1996-1G.

Mortenson, J.K., Chapman, R., LeBarge, W. and Crawford, E., 2006. Compositional Studies of Placer Gold and Lode Gold from Western Yukon: Implications for Lode Sources. *In: Yukon Exploration and Geology 2005*, D.S. Emond, G.D. Bradshaw, L.L. Lewis and L.H. Weston (eds.), Yukon Geological Survey, p. 247-255.

Smuk, K., 1999. Metallogeny of Epithermal Gold and base Metal Veins of the Southern Dawson Range, Yukon. Unpublished Thesis, McGill University, Montreal. Available at; Yukon Energy, Mines and Resources library, Whitehorse, Yukon.

Spurr, J.E., and Goodrich, H.B., 1898. Geology of the Yukon Gold District, Alaska. U.S. Geological Survey, Eighteenth Annual Report, 1896-97, Pt. III.

Tempelman-Kluit, 1973. Reconnaissance Geology of Aishihik Lake, Snag and Part of Stewart River Map-Areas, West Central Yukon. Geological Survey of Canada, Paper 73-41.

Wheeler, J.O. and McFeely, P. 1991. Tectonic assemblage map of the Canadian Cordillera and adjacent parts of the United States of America; Geological Survey of Canada, Map 1712A, scale 1:20,000,000.

Yukon MINFILE – A database of mineral occurrences. Available digitally: [www.geology.gov.yk.ca/databases/download/html](http://www.geology.gov.yk.ca/databases/download/html)

## STATEMENT OF QUALIFICATIONS

I, Roger W. Hulstein, of:  
106 Wilson Drive  
Whitehorse, Yukon Territory  
Y1A 0C9,

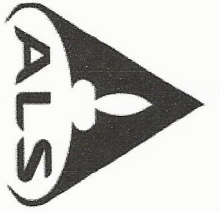
do hereby certify that:

1. I am a mineral exploration geologist with over 30 years of experience working in the Yukon.
2. I am a graduate of Saint Mary's University, Halifax, with a degree in geology (B.Sc., 1981) and have been involved in geology and mineral exploration continuously since 1978.
3. I am a fellow of the Geological Association of Canada (F3572).
4. I am registered as a professional geoscientist (No. 19127) with the Association of Professional Engineers and Geoscientists of the Province of British Columbia.
5. I am the author of this report on the exploration program on the Andrea 1 – 24 Claims in the Sixtymile Placer District, in the Dawson Mining District, Yukon. The report is based on personal examination of the ground starting in 1987 with the last significant work carried out between August 31 and September 2, 2017 and on referenced sources.

Roger Hulstein, B.Sc., FGAC, P.Geo.

January 11, 2018

**APPENDIX A**  
**Analytical Certificates**



ALS Canada Ltd.  
 2103 Dollarton Hwy  
 North Vancouver BC V7H 0A7  
 Phone: +1 (604) 984 0221 Fax: +1 (604) 984 0218  
 www.alsglobal.com/geochemistry

To: HULSTEIN GEOLOGICAL SERVICES  
 106 WILSON DRIVE  
 WHITESHORSE YT Y1A 0C9

Page: 1  
 Total # Pages: 2 (A - D)  
 Plus Appendix Pages  
 Finalized Date: 16 - OCT - 2017  
 Account: HULGEO

**CERTIFICATE WH17191005**

Project: Sixtymile2017 JM

This report is for 34 Rock samples submitted to our lab in Whitehorse, YT, Canada on 5-SEP-2017.

The following have access to data associated with this certificate:

ROGER HULSTEIN

JAYCE MURTAGH

**SAMPLE PREPARATION**

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
CRU- QC	Crushing QC Test
PUL- QC	Pulverizing QC Test
CRU- 31	Fine crushing - 70% < 2mm
SPL- 21	Split sample - riffle splitter
PUL- 32	Pulverize 1000g to 85% < 75 um
BAG- 01	Bulk Master for Storage

**ANALYTICAL PROCEDURES**

ALS CODE	DESCRIPTION	ICP- AES
ME- MS41	Ultra Trace Aqua Regia ICP- MS	
Au- ICP21	Au 30g FA ICP- AES Finish	

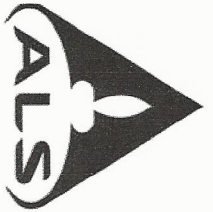
To: HULSTEIN GEOLOGICAL SERVICES  
 ATTN: ROGER HULSTEIN  
 106 WILSON DRIVE  
 WHITESHORSE YT Y1A 0C9

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.  
 \*\*\*\*\* See Appendix Page for comments regarding this certificate \*\*\*\*\*

**Signature:**

Colin Ramsshaw, Vancouver Laboratory Manager





ALS Canada Ltd.  
 2103 Dollarton Hwy  
 North Vancouver BC V7H 0A7  
 Phone: +1 (604) 984 0221 Fax: +1 (604) 984 0218  
 www.alsglobal.com/geochemistry

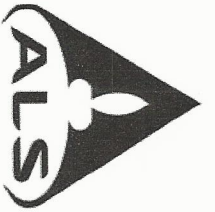
TO: HULSTEIN GEOLOGICAL SERVICES  
 106 WILSON DRIVE  
 WHITESHORSE YT Y1A 0C9

Page: 2 - A  
 Total # Pages: 2 (A - D)  
 Plus Appendix Pages  
 Finalized Date: 16-OCT-2017  
 Account: HULGEO

Project: Sixtymile2017 JM

CERTIFICATE OF ANALYSIS WH17191005

Sample Description	Method Analyte Units LOR	WEI- 21 Recd/ Wt. Kg	Au-ICP21 Au ppm	ME-MS41 Ag ppm	ME-MS41 Al %	ME-MS41 As ppm	ME-MS41 Au ppm	ME-MS41 B ppm	ME-MS41 Ba ppm	ME-MS41 Be ppm	ME-MS41 Bi ppm	ME-MS41 Ca %	ME-MS41 Cd ppm	ME-MS41 Ce ppm	ME-MS41 Co ppm	ME-MS41 Cr ppm
122711		1.46	<0.001	0.07	2.18	2.0	<0.02	<10	310	0.49	0.30	1.80	0.08	18.95	17.2	107
122712		1.43	<0.001	0.02	0.32	1.0	<0.02	<10	240	0.15	0.02	7.06	0.05	9.79	2.7	14
122713		0.80	<0.001	0.05	0.91	4.5	<0.02	20	1720	0.70	0.04	10.55	0.16	24.9	9.5	10
122714		0.51	<0.001	0.07	0.70	1.9	<0.02	<10	150	0.14	0.02	1.94	0.06	15.25	2.4	10
122715		2.16	<0.001	0.24	0.67	20.4	<0.02	<10	270	0.54	0.16	0.32	0.55	19.65	13.8	28
122716		2.13	<0.001	0.02	0.09	13.4	<0.02	<10	20	0.05	0.07	0.04	0.03	3.10	1.8	18
122717		1.91	<0.001	0.34	0.80	11.7	<0.02	<10	370	0.61	0.20	0.46	0.67	26.5	16.2	48
122718		2.27	<0.001	0.55	0.51	17.6	<0.02	<10	490	1.07	0.16	0.48	5.65	94.9	6.6	27
122719		2.12	<0.001	0.12	1.37	2.2	<0.02	<10	210	0.33	0.10	3.89	0.10	75.0	7.8	28
122720		1.54	<0.001	0.09	0.26	1.5	<0.02	<10	410	0.11	0.04	1.92	0.04	51.8	2.0	7
122721		1.78	<0.001	0.01	0.26	2.0	<0.02	10	360	0.55	0.01	17.40	0.22	27.8	5.8	2
122722		2.17	<0.001	0.04	0.31	0.5	<0.02	<10	270	0.19	0.03	1.73	0.03	24.0	3.8	13
122723		2.31	<0.001	0.04	0.48	0.4	<0.02	<10	540	0.27	0.02	2.34	0.03	27.4	6.8	20
122657		1.37	<0.001	0.03	0.38	1.2	<0.02	<10	250	0.17	0.02	3.05	0.12	18.10	1.4	9
122658		1.60	<0.001	0.02	0.34	0.8	<0.02	<10	120	0.14	0.01	2.43	0.04	14.40	1.5	8
122659		2.94	<0.001	0.24	0.63	10.0	<0.02	<10	260	0.32	0.35	0.16	2.70	43.7	13.2	23
122660		1.03	<0.001	0.21	1.16	33.6	<0.02	<10	60	0.34	0.49	0.27	1.28	24.1	23.8	10
122661		0.88	<0.001	0.02	0.72	0.9	<0.02	<10	240	0.29	0.04	0.88	0.03	8.00	3.8	9
122662		0.94	<0.001	0.02	0.38	0.8	<0.02	<10	100	0.19	0.04	1.39	0.03	6.29	1.9	6
122663		1.63	0.008	0.48	1.51	4.2	<0.02	<10	340	0.37	0.11	5.87	0.19	85.4	9.3	39
122664		1.70	<0.001	0.03	1.11	1.2	<0.02	<10	160	0.39	0.14	5.00	0.10	28.0	6.5	35
122665		2.42	<0.001	0.01	0.29	0.5	<0.02	<10	230	0.22	0.02	1.89	0.02	3.07	1.2	5
122666		1.50	<0.001	0.04	0.36	0.7	<0.02	<10	240	0.26	0.04	2.67	0.06	40.5	5.4	10
122667		1.44	<0.001	0.03	0.29	1.5	<0.02	<10	170	0.17	0.02	1.86	0.04	11.15	4.1	6
122668		1.07	<0.001	0.02	0.33	0.4	<0.02	<10	170	0.26	0.02	1.87	0.03	10.75	5.1	6
122669		1.18	<0.001	0.04	0.35	0.9	<0.02	<10	210	0.26	0.02	2.76	0.05	14.80	5.1	11
122670		1.23	<0.001	0.01	0.32	0.3	<0.02	<10	160	0.18	0.03	2.18	0.04	12.60	4.0	6
122671		1.98	<0.001	0.02	2.10	1.3	<0.02	<10	330	0.37	0.07	2.83	0.08	33.1	13.0	103
122672		1.31	<0.001	0.01	0.76	0.7	<0.02	<10	240	0.27	0.01	2.10	0.03	9.46	2.3	4
122673		1.64	<0.001	0.04	1.02	1.0	<0.02	<10	1020	0.46	0.11	7.83	0.19	35.4	6.5	31
122674		1.66	<0.001	0.04	0.61	2.7	<0.02	20	1410	0.51	0.04	5.88	0.16	23.1	7.0	11
122675		2.58	<0.001	0.01	0.43	1.0	<0.02	<10	150	0.16	0.01	1.83	0.04	11.40	1.9	10
122676		1.49	<0.001	0.01	0.27	0.4	<0.02	<10	100	0.15	0.01	4.37	0.03	8.73	1.3	8
122677		1.33	<0.001	0.04	0.25	1.9	<0.02	<10	2370	0.32	0.05	8.83	0.06	39.9	1.3	3



ALS Canada Ltd.  
 2103 Dollarton Hwy  
 North Vancouver BC V7H 0A7  
 Phone: +1 (604) 984 0221 Fax: +1 (604) 984 0218  
 www.alsglobal.com/geochemistry

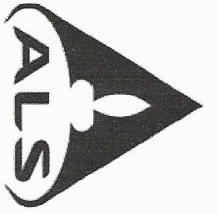
TO: HULSTEIN GEOLOGICAL SERVICES  
 106 WILSON DRIVE  
 WHITESHORSE YT Y1A 0G9

Page: 2 - B  
 Total # Pages: 2 (A - D)  
 Plus Appendix Pages  
 Finalized Date: 16- OCT- 2017  
 Account: HULGEO

Project: Sixtymile2017 JM

CERTIFICATE OF ANALYSIS WH17191005

Sample Description	Method Analyte Units LOR	ME-MS41 Cs ppm	ME-MS41 Cu ppm	ME-MS41 Fe %	ME-MS41 Ga ppm	ME-MS41 Ge ppm	ME-MS41 HF ppm	ME-MS41 Hg ppm	ME-MS41 In ppm	ME-MS41 K %	ME-MS41 La ppm	ME-MS41 Li ppm	ME-MS41 Mg %	ME-MS41 Mn ppm	ME-MS41 Mo ppm	ME-MS41 Na %
122711		3.20	24.8	3.71	7.43	0.13	0.09	2.36	0.016	0.76	9.4	24.2	1.94	597	0.19	0.04
122712		0.91	3.8	1.04	1.46	0.07	<0.02	1.33	0.006	0.06	4.9	4.0	0.22	1040	0.26	<0.01
122713		2.54	9.5	3.27	2.99	0.08	0.02	4.76	0.010	0.24	11.7	7.8	1.00	1580	0.44	<0.01
122714		0.64	24.8	1.24	4.45	0.08	<0.02	5.59	0.014	0.20	8.1	8.1	0.29	233	0.23	0.13
122715		7.10	54.6	1.64	1.95	0.09	0.02	0.10	0.028	0.26	9.7	2.5	0.06	77	7.18	<0.01
122716		0.48	9.6	0.95	0.40	0.06	<0.02	0.02	<0.005	0.02	1.9	1.1	0.30	98	0.63	<0.01
122717		9.24	51.1	2.21	3.08	0.10	0.03	0.07	0.033	0.27	11.5	4.6	0.02	478	4.35	0.01
122718		6.03	77.5	1.57	2.25	0.17	0.06	<0.01	0.026	0.18	43.0	3.8	0.09	146	6.86	0.01
122719		3.13	25.6	3.11	8.12	0.12	0.05	1.96	0.034	0.21	39.8	16.1	1.00	580	0.10	0.03
122720		0.97	9.7	1.16	1.27	0.09	0.08	1.85	<0.005	0.10	27.6	1.3	0.52	278	0.20	0.05
122721		0.53	1.6	4.12	1.04	0.09	0.04	20.8	0.009	0.09	15.3	1.6	0.91	2700	0.10	<0.01
122722		1.33	13.6	1.15	1.09	0.07	0.06	1.10	0.008	0.13	13.5	1.1	0.54	260	0.16	0.05
122723		3.68	17.8	1.70	1.66	0.08	0.06	0.36	0.015	0.19	14.5	1.8	0.60	386	1.8	0.04
122657		0.97	20.9	0.97	2.93	0.08	<0.02	9.87	0.013	0.12	9.7	3.2	0.16	325	0.16	0.07
122658		0.57	6.5	0.94	2.79	0.07	<0.02	3.92	0.008	0.09	6.9	3.4	0.15	267	0.14	0.07
122659		10.35	52.3	1.06	2.10	0.11	0.03	0.08	0.034	0.24	23.8	1.8	0.05	40	1.60	0.01
122660		7.15	18.4	3.11	3.31	0.14	0.03	0.22	0.010	0.37	11.0	3.2	0.17	84	1.40	0.01
122661		1.22	6.3	1.32	2.29	0.06	0.02	0.74	0.008	0.14	4.7	4.9	0.28	307	0.14	0.04
122662		1.09	2.6	0.83	1.45	0.06	<0.02	1.38	0.012	0.09	3.4	5.5	0.51	172	0.14	0.06
122663		1.37	12.8	3.06	6.91	0.12	0.05	9.62	0.034	0.25	44.9	18.7	1.20	768	0.15	0.02
122664		1.75	9.5	2.10	5.86	0.08	0.03	0.78	0.027	0.20	15.2	12.6	1.44	537	0.05	0.05
122665		0.94	2.4	0.84	1.23	0.06	<0.02	0.99	0.005	0.14	1.5	0.7	0.66	221	0.14	0.07
122666		0.88	5.2	1.60	1.83	0.08	0.09	1.95	0.018	0.15	22.3	1.9	0.98	395	0.13	0.05
122667		0.60	8.2	1.18	1.16	0.06	0.15	2.06	0.006	0.12	5.4	1.5	0.68	275	0.25	0.07
122668		1.24	6.6	1.40	1.38	0.07	0.02	0.21	0.009	0.10	5.2	1.8	0.53	302	0.12	0.05
122669		1.39	12.5	1.40	1.50	0.06	0.10	1.00	0.012	0.12	8.2	1.7	1.02	386	0.24	0.05
122670		1.07	6.5	1.20	1.28	0.07	0.04	0.42	0.007	0.10	6.3	1.8	0.74	286	0.12	0.05
122671		1.88	9.5	3.35	8.23	0.10	0.04	1.69	0.030	0.39	17.4	29.3	2.02	736	0.18	0.03
122672		3.19	2.5	1.27	4.82	0.07	0.02	2.28	0.013	0.30	4.6	5.9	0.52	377	0.15	0.05
122673		2.00	15.8	2.01	4.66	0.09	0.04	10.80	0.016	0.16	19.9	10.7	0.85	667	0.15	0.03
122674		3.81	10.4	3.03	1.69	0.09	0.04	2.51	0.012	0.28	11.5	3.2	0.74	979	0.26	0.01
122675		0.60	4.4	1.07	3.27	0.07	<0.02	4.50	0.006	0.13	5.5	4.5	0.23	253	0.17	0.07
122676		0.33	3.0	1.01	2.09	0.06	<0.02	1.15	0.009	0.07	4.8	2.6	0.19	339	0.12	0.05
122677		0.95	6.8	0.97	1.03	0.09	0.07	0.45	<0.005	0.14	22.8	0.7	0.08	399	0.36	0.02



ALS Canada Ltd.  
 2103 Dollarton Hwy  
 North Vancouver BC V7H 0A7  
 Phone: +1 (604) 984 0221 Fax: +1 (604) 984 0218  
 www.alsglobal.com/geochemistry

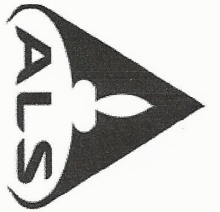
To: HULSTEIN GEOLOGICAL SERVICES  
 106 WILSON DRIVE  
 WHITESHORSE YT Y1A 0C9

Page: 2 - C  
 Total # Pages: 2 (A - D)  
 Plus Appendix Pages  
 Finalized Date: 16-OCT-2017  
 Account: HULGEO

Project: Sixtymile2017 JM

**CERTIFICATE OF ANALYSIS WH17191005**

Sample Description	Method Analyte Units LOR	ME-MS41 Nb ppm	ME-MS41 Ni ppm	ME-MS41 P ppm	ME-MS41 Pb ppm	ME-MS41 Rb ppm	ME-MS41 Re ppm	ME-MS41 S %	ME-MS41 Sb ppm	ME-MS41 Sc ppm	ME-MS41 Se ppm	ME-MS41 Sn ppm	ME-MS41 Sr ppm	ME-MS41 Ta ppm	ME-MS41 Te ppm	ME-MS41 Th ppm
122711		0.09	29.2	320	5.6	38.4	<0.001	0.01	3.64	11.7	<0.2	0.8	55.2	<0.01	0.01	5.0
122712		<0.05	3.8	70	3.0	3.2	<0.001	0.01	2.77	1.9	0.2	0.4	242	<0.01	0.02	1.0
122713		<0.05	9.6	230	9.7	11.7	<0.001	0.05	3.68	5.8	0.6	0.4	469	<0.01	0.02	2.7
122714		<0.05	2.7	280	5.0	7.1	<0.001	0.02	4.70	2.1	<0.2	0.6	61.0	<0.01	<0.01	0.9
122715		<0.05	37.2	1070	16.1	16.8	0.012	0.50	0.31	7.0	5.1	0.5	32.4	<0.01	0.08	4.2
122716		<0.05	5.9	110	0.9	1.4	<0.001	0.01	0.18	0.8	0.3	0.5	1.2	<0.01	0.01	0.4
122717		<0.05	32.6	790	11.3	18.1	0.012	0.93	0.32	8.7	3.2	0.7	13.3	<0.01	0.09	4.3
122718		<0.05	52.5	1960	9.2	11.0	0.011	0.44	0.26	4.9	8.4	0.6	14.4	<0.01	0.11	2.8
122719		<0.05	9.9	690	4.1	12.8	<0.001	0.21	2.88	6.6	<0.2	0.8	81.9	<0.01	<0.01	8.9
122720		0.05	1.8	20	5.4	4.0	<0.001	<0.01	1.10	2.0	<0.2	0.6	97.6	<0.01	<0.01	11.2
122721		<0.05	0.9	160	8.7	4.0	<0.001	<0.01	1.40	3.5	<0.2	0.2	719	<0.01	<0.01	2.1
122722		<0.05	5.2	100	2.4	6.2	<0.001	0.02	0.56	2.4	<0.2	0.4	60.3	<0.01	<0.01	7.8
122723		<0.05	8.6	140	3.0	10.1	<0.001	<0.01	0.42	5.9	<0.2	0.4	87.5	<0.01	<0.01	5.6
122657		0.07	1.5	90	4.7	4.3	<0.001	<0.01	4.43	4.2	<0.2	0.5	400	<0.01	<0.01	1.3
122658		<0.05	1.7	90	3.6	3.5	<0.001	<0.01	1.21	3.2	<0.2	0.4	93.5	<0.01	<0.01	0.9
122659		<0.05	32.6	480	19.8	15.1	0.005	0.69	0.12	5.9	10.7	0.5	63.0	<0.01	0.08	5.4
122660		<0.05	16.9	1040	19.0	20.2	0.004	2.85	0.45	5.6	26.8	0.8	6.2	<0.01	0.12	3.4
122661		<0.05	5.5	120	5.2	6.6	<0.001	<0.01	0.76	2.6	<0.2	0.3	33.2	<0.01	<0.01	1.0
122662		<0.05	2.8	130	3.4	4.6	<0.001	<0.01	0.20	1.6	<0.2	0.3	45.6	<0.01	<0.01	0.8
122663		<0.05	13.1	600	6.5	11.2	<0.001	0.28	1.85	8.4	0.2	0.6	221	<0.01	<0.01	10.6
122664		<0.05	8.0	320	6.0	10.4	<0.001	<0.01	1.06	5.2	<0.2	0.7	327	<0.01	<0.01	2.8
122665		<0.05	1.2	80	2.6	6.1	<0.001	<0.01	0.65	0.7	<0.2	0.3	49.6	<0.01	<0.01	0.4
122666		<0.05	7.3	190	7.2	6.9	<0.001	0.01	1.19	3.2	<0.2	0.4	105.5	<0.01	0.01	7.7
122667		<0.05	5.6	90	6.7	4.2	<0.001	0.02	2.03	2.7	<0.2	0.3	82.1	<0.01	<0.01	1.8
122668		<0.05	7.7	110	2.4	3.9	<0.001	<0.01	0.38	3.3	<0.2	0.3	77.6	<0.01	<0.01	0.7
122669		<0.05	7.1	130	4.7	5.4	<0.001	0.01	1.59	3.5	<0.2	0.3	130.5	<0.01	<0.01	2.2
122670		<0.05	5.4	100	2.9	4.1	<0.001	<0.01	0.24	2.2	<0.2	0.3	92.5	<0.01	<0.01	2.1
122671		0.06	22.5	320	3.5	19.8	<0.001	<0.01	2.72	11.2	<0.2	0.8	74.3	<0.01	<0.01	3.8
122672		0.12	1.4	380	2.4	15.0	<0.001	<0.01	0.72	1.3	<0.2	0.5	68.5	<0.01	<0.01	0.8
122673		<0.05	8.7	200	7.3	7.1	<0.001	<0.01	2.77	6.9	<0.2	0.5	175.0	<0.01	0.01	3.2
122674		<0.05	6.6	240	6.0	13.0	<0.001	0.01	4.23	4.2	<0.2	0.3	220	<0.01	<0.01	3.5
122675		<0.05	2.3	120	3.7	5.2	<0.001	<0.01	0.89	2.2	<0.2	0.5	75.8	<0.01	<0.01	0.9
122676		<0.05	1.0	170	2.6	3.0	<0.001	<0.01	0.53	2.8	<0.2	0.4	195.0	<0.01	<0.01	0.5
122677		<0.05	0.6	40	11.4	6.0	<0.001	0.03	1.10	1.5	<0.2	0.3	560	<0.01	<0.01	6.2



ALS Canada Ltd.  
 2103 Dollarton Hwy  
 North Vancouver BC V7H 0A7  
 Phone: +1 (604) 984 0221 Fax: +1 (604) 984 0218  
 www.alsglobal.com/geochemistry

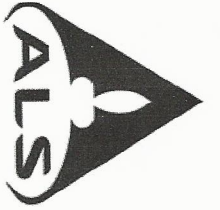
To: HULSTEIN GEOLOGICAL SERVICES  
 106 WILSON DRIVE  
 WHITESHORSE YT Y1A 0C9

Page: 2 - D  
 Total # Pages: 2 (A - D)  
 Plus Appendix Pages  
 Finalized Date: 16- OCT - 2017  
 Account: HULGEO

Project: Sixtymile2017 JM

**CERTIFICATE OF ANALYSIS WH17191005**

Sample Description	Method Analyte Units LOR	ME-MS41 TI %	ME-MS41 TI ppm	ME-MS41 U ppm	ME-MS41 V ppm	ME-MS41 W ppm	ME-MS41 Y ppm	ME-MS41 Zn ppm	ME-MS41 Zr ppm
122711		0.088	0.20	0.70	78	0.06	6.17	57	1.2
122712		<0.005	0.02	0.29	13	0.35	10.80	13	<0.5
122713		<0.005	0.08	1.81	28	0.46	22.7	61	0.6
122714		0.010	0.05	0.22	21	0.05	3.94	20	<0.5
122715		<0.005	0.30	2.06	45	0.05	10.75	109	1.4
122716		<0.005	0.02	0.22	5	0.06	2.03	8	0.6
122717		0.008	0.37	1.61	49	<0.05	10.15	143	1.5
122718		<0.005	0.25	3.78	64	0.12	27.4	205	2.6
122719		0.017	0.08	0.58	64	0.22	16.55	65	0.6
122720		<0.005	0.02	0.72	8	<0.05	8.42	11	1.9
122721		<0.005	0.03	1.73	28	0.30	26.0	77	1.4
122722		<0.005	0.04	2.66	14	<0.05	6.29	16	1.5
122723		0.007	0.07	0.83	28	<0.05	10.65	27	1.5
122657		0.007	0.03	2.08	12	<0.05	10.00	13	<0.5
122658		<0.005	0.03	0.46	11	<0.05	5.66	23	<0.5
122659		<0.005	0.82	5.28	45	<0.05	16.35	189	1.2
122660		0.007	0.72	1.30	38	<0.05	5.12	37	1.2
122661		<0.005	0.08	0.33	15	0.08	4.24	20	0.6
122662		<0.005	0.06	0.49	10	0.06	2.14	24	<0.5
122663		0.015	0.07	2.77	55	0.11	22.6	58	0.9
122664		0.018	0.06	0.68	41	<0.05	9.80	41	0.6
122665		<0.005	0.05	0.45	3	<0.05	1.93	16	<0.5
122666		<0.005	0.04	1.54	23	<0.05	6.50	37	2.8
122667		<0.005	0.03	2.19	12	<0.05	4.43	20	3.8
122668		<0.005	0.03	1.49	13	<0.05	5.70	21	0.6
122669		<0.005	0.04	3.24	16	<0.05	6.60	21	2.8
122670		<0.005	0.03	1.78	12	<0.05	5.73	19	1.2
122671		0.029	0.11	0.54	75	0.06	12.30	51	0.6
122672		0.027	0.10	0.77	20	0.06	4.03	31	0.5
122673		0.008	0.05	3.78	32	<0.05	17.25	40	0.7
122674		<0.005	0.11	1.32	19	0.24	12.00	63	0.8
122675		0.007	0.04	0.57	12	<0.05	4.48	26	<0.5
122676		<0.005	0.03	0.82	17	0.06	5.68	18	<0.5
122677		<0.005	0.04	9.16	1	<0.05	18.50	14	2.3



ALS Canada Ltd.  
 2103 Dollarton Hwy  
 North Vancouver BC V7H 0A7  
 Phone: +1 (604) 984 0221 Fax: +1 (604) 984 0218  
 www.alsglobal.com/geochemistry

To: HULSTEIN GEOLOGICAL SERVICES  
 106 WILSON DRIVE  
 WHITEHORSE YT Y1A 0C9

Page: Appendix 1  
 Total # Appendix Pages: 1  
 Finalized Date: 16- OCT- 2017  
 Account: HULGEO

Project: Sixtymile2017 JM  
**CERTIFICATE OF ANALYSIS WH17191005**

**CERTIFICATE COMMENTS**

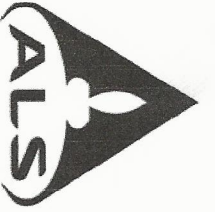
**ANALYTICAL COMMENTS**

Applies to Method: Gold determinations by this method are semi- quantitative due to the small sample weight used (0.5g).  
 ME- MS41

**LABORATORY ADDRESSES**

Applies to Method: Processed at ALS Whitehorse located at 78 Mt. Sima Rd, Whitehorse, YT, Canada.  
 BAC- 01 CRU- 31  
 PUL- 32 PUL- QC  
 Au- ICP21  
 Processed at ALS Vancouver located at 2103 Dollarton Hwy, North Vancouver, BC, Canada.  
 ME- MS41

LOG- 22  
 WEI- 21



ALS Canada Ltd.  
 2103 Dollarton Hwy  
 North Vancouver BC V7H 0A7  
 Phone: +1 (604) 984 0221 Fax: +1 (604) 984 0218  
 www.alsglobal.com/geochemistry

To: HULSTEIN GEOLOGICAL SERVICES  
 106 WILSON DRIVE  
 WHITESHORSE YT Y1A 0C9

Page: 1  
 Total # Pages: 2 (A - D)  
 Plus Appendix Pages  
 Finalized Date: 20-SEP-2017  
 This copy reported on  
 21-SEP-2017  
 Account: HULGEO

**CERTIFICATE WH17191007**

Project: Sixtymile2017 JM

This report is for 25 Soil samples submitted to our lab in Whitehorse, YT, Canada on 7-SEP-2017.

The following have access to data associated with this certificate:

ROGER HULSTEIN      JAYCE MURTAGH

To: HULSTEIN GEOLOGICAL SERVICES  
 ATTN: ROGER HULSTEIN  
 106 WILSON DRIVE  
 WHITESHORSE YT Y1A 0C9

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.  
 \*\*\*\*\* See Appendix Page for comments regarding this certificate \*\*\*\*\*

**SAMPLE PREPARATION**

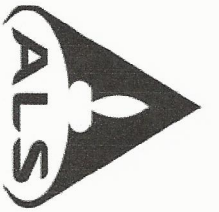
ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
SCR-41	Screen to - 180um and save both

**ANALYTICAL PROCEDURES**

ALS CODE	DESCRIPTION	INSTRUMENT
Au- ICP21	Au 30g FA ICP- AES Finish	ICP- AES
ME- MS41	Ultra Trace Aqua Regia ICP- MS	

**Signature:**

  
 Colin Ramshaw, Vancouver Laboratory Manager



ALS Canada Ltd.  
 2103 Dollarton Hwy  
 North Vancouver BC V7H 0A7  
 Phone: +1 (604) 984 0221 Fax: +1 (604) 984 0218  
 www.alsglobal.com/geochemistry

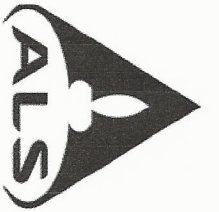
To: HULSTEIN GEOLOGICAL SERVICES  
 106 WILSON DRIVE  
 WHITEHORSE YT Y1A 0C9

Page: 2 - A  
 Total # Pages: 2 (A - D)  
 Plus Appendix Pages  
 Finalized Date: 20-SEP-2017  
 Account: HULGEO

Project: Sixtymile2017 JM

**CERTIFICATE OF ANALYSIS WH17191007**

Sample Description	Method Analyte Units LOR	WEI-21 Recvd Wt. Kg	Au-ICP21 Au ppm	ME-MS41 Ag ppm	ME-MS41 Al %	ME-MS41 As ppm	ME-MS41 Au ppm	ME-MS41 B ppm	ME-MS41 Ba ppm	ME-MS41 Be ppm	ME-MS41 Bi ppm	ME-MS41 Ca %	ME-MS41 Cd ppm	ME-MS41 Ce ppm	ME-MS41 Co ppm	ME-MS41 Cr ppm
122726		0.51	<0.001	0.03	0.49	5.6	<0.02	<10	690	2.00	0.06	2.34	0.09	67.4	4.5	5
122727		0.57	0.004	0.08	0.38	10.0	<0.02	<10	560	1.05	0.29	0.34	0.09	133.5	5.4	10
122728		0.52	<0.001	0.02	0.67	1.7	<0.02	<10	930	1.32	0.06	5.89	0.17	118.0	9.9	4
122729		0.45	<0.001	0.02	0.70	3.7	<0.02	<10	1280	1.24	0.04	7.45	0.10	42.2	11.0	15
122730		0.68	<0.001	0.13	2.68	3.7	<0.02	<10	1130	1.00	0.12	3.29	0.23	159.5	23.8	128
122731		0.58	<0.001	0.13	3.19	4.9	<0.02	<10	550	1.05	0.17	0.67	0.17	104.0	27.0	156
122732		0.63	<0.001	0.06	0.75	0.8	<0.02	<10	1260	1.47	0.07	5.59	0.10	48.3	18.2	58
122733		0.59	<0.001	0.14	0.58	1.0	<0.02	<10	770	1.12	0.12	5.09	0.07	52.4	18.7	55
122734		0.59	<0.001	0.17	0.53	0.8	<0.02	<10	300	0.81	0.11	4.79	0.14	36.9	14.3	56
122735		0.51	<0.001	0.06	0.62	6.8	<0.02	10	330	1.23	0.08	1.91	0.08	59.0	10.9	28
122736		0.56	<0.001	0.08	0.90	2.7	<0.02	<10	710	1.03	0.13	2.06	0.08	77.0	10.2	25
122737		0.61	<0.001	0.04	0.43	1.2	<0.02	<10	340	0.59	0.11	3.75	0.06	12.10	5.4	15
122738		0.52	<0.001	0.07	0.65	6.1	<0.02	<10	730	1.28	0.13	0.77	0.12	85.5	7.7	5
122739		0.45	<0.001	0.44	1.55	6.4	<0.02	<10	770	1.14	0.34	0.94	0.19	146.0	11.5	30
122740		0.44	<0.001	0.12	2.73	35.3	<0.02	<10	570	0.82	0.18	1.51	0.11	59.1	23.5	123
122741		0.28	0.002	0.04	1.80	8.3	<0.02	<10	470	0.84	0.17	0.45	0.06	31.6	12.9	29
122742		0.46	<0.001	0.11	1.30	4.9	<0.02	<10	460	1.17	0.18	0.62	0.11	69.2	11.4	34
122743		0.57	<0.001	0.35	0.57	3.7	<0.02	<10	410	1.12	0.31	2.52	0.18	54.3	13.1	27
122744		0.50	<0.001	0.16	1.02	7.2	<0.02	<10	400	1.58	0.20	0.43	0.12	98.9	12.7	24
122745		0.44	0.046	0.10	0.72	2.8	0.02	<10	340	1.80	0.07	0.53	0.10	89.5	3.9	9
122746		0.62	0.002	0.04	0.54	3.2	<0.02	10	160	0.48	0.07	0.28	0.03	8.19	2.3	9
122747		0.43	<0.001	0.03	0.46	3.9	<0.02	10	140	0.90	0.06	0.33	0.02	16.70	3.7	3
122748		0.50	<0.001	0.05	0.46	3.7	<0.02	<10	250	0.98	0.09	4.16	0.10	26.8	16.9	26
122749		0.55	<0.001	0.08	2.65	5.8	<0.02	<10	560	1.07	0.12	1.43	0.14	90.5	25.4	142
122750		0.44	<0.001	0.03	3.94	8.4	<0.02	<10	220	1.10	0.28	0.18	0.16	46.5	18.9	138



ALS Canada Ltd.  
 2103 Dollarton Hwy  
 North Vancouver BC V7H 0A7  
 Phone: +1 (604) 984 0221 Fax: +1 (604) 984 0218  
 www.alsglobal.com/geochemistry

TO: HULSTEIN GEOLOGICAL SERVICES  
 106 WILSON DRIVE  
 WHITESHORSE YT Y1A 0C9

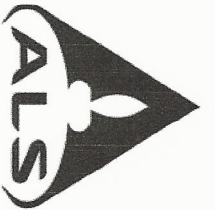
Project: Sixtymile2017 JM

**CERTIFICATE OF ANALYSIS WH17191007**

Page: 2 - B  
 Total # Pages: 2 (A - D)  
 Plus Appendix Pages  
 Finalized Date: 20-SEP-2017  
 Account: HULGEO

Sample Description	Method Analyte Units LOR	ME-MS41 Cs ppm 0.05	ME-MS41 Cu ppm 0.2	ME-MS41 Fe % 0.01	ME-MS41 Ga ppm 0.05	ME-MS41 Ge ppm 0.05	ME-MS41 Hf ppm 0.02	ME-MS41 Hg ppm 0.01	ME-MS41 In ppm 0.005	ME-MS41 K % 0.01	ME-MS41 La ppm 0.2	ME-MS41 Li ppm 0.1	ME-MS41 Mg % 0.01	ME-MS41 Mn ppm 5	ME-MS41 Mo ppm 0.05	ME-MS41 Na % 0.01
122726		963	7.9	2.39	1.74	0.06	0.03	0.17	0.021	0.17	30.4	1.0	0.11	1000	0.67	<0.01
122727		4.17	31.5	1.62	1.44	0.11	0.08	0.39	0.016	0.14	66.5	2.4	0.08	309	3.48	<0.01
122728		14.45	3.0	4.67	3.00	0.13	0.05	0.92	0.037	0.38	62.1	2.8	0.33	1130	0.41	<0.01
122729		15.30	5.8	3.50	2.48	0.06	0.03	2.74	0.023	0.25	20.9	4.6	0.87	1020	0.45	0.01
122730		9.84	45.6	5.28	12.10	0.26	0.12	61.5	0.075	0.64	74.1	34.1	2.18	1140	0.34	0.01
122731		11.80	38.8	5.94	13.00	0.21	0.13	11.85	0.052	0.41	41.3	48.0	2.88	1140	0.61	0.01
122732		19.15	20.5	4.40	3.78	0.14	0.08	0.77	0.043	0.40	27.7	1.9	1.60	1080	0.80	0.01
122733		17.75	28.0	3.86	3.12	0.12	0.06	0.38	0.042	0.31	28.4	1.6	1.08	870	0.94	0.01
122734		12.75	90.6	3.13	3.23	0.12	0.07	1.73	0.033	0.28	21.0	1.7	1.13	638	0.53	0.01
122735		5.26	17.5	3.98	2.40	0.15	0.05	13.90	0.036	0.26	33.0	1.4	0.77	526	0.48	0.01
122736		14.65	11.6	4.20	4.54	0.17	0.09	10.95	0.050	0.39	38.6	3.4	0.39	742	0.42	0.01
122737		4.79	8.5	1.72	1.73	0.08	0.03	2.14	0.016	0.17	6.6	1.7	0.86	439	0.24	0.01
122738		9.47	13.2	3.31	4.16	0.16	0.05	4.72	0.062	0.18	45.1	2.3	0.18	1000	0.42	<0.01
122739		6.25	23.2	4.66	7.92	0.24	0.09	7.13	0.058	0.21	86.6	13.5	0.75	736	0.75	0.01
122740		5.38	40.9	5.04	9.70	0.22	0.10	11.55	0.051	0.91	30.9	28.2	2.35	671	0.45	0.02
122741		4.26	16.5	3.28	5.64	0.11	0.11	0.28	0.036	0.07	15.8	12.0	0.51	430	0.69	0.02
122742		9.14	20.7	4.18	5.90	0.16	0.08	0.46	0.050	0.43	42.5	6.9	0.53	682	0.71	0.01
122743		13.85	58.2	3.46	3.08	0.12	0.06	4.72	0.148	0.28	25.7	1.5	0.63	827	0.23	<0.01
122744		13.90	35.7	4.78	6.46	0.19	0.08	0.74	0.057	0.44	53.1	3.8	0.40	732	0.57	<0.01
122745		11.85	18.3	2.70	3.98	0.15	0.07	2.33	0.056	0.24	45.9	1.8	0.15	776	0.15	<0.01
122746		2.25	5.7	0.98	1.62	0.07	0.04	1.44	0.010	0.10	4.2	2.6	0.14	82	0.30	0.01
122747		30.1	3.4	1.43	1.63	0.10	0.02	2.15	0.030	0.19	9.1	1.2	0.10	168	0.08	<0.01
122748		12.30	24.3	4.18	2.31	0.10	0.03	0.91	0.060	0.24	14.2	2.6	0.94	780	0.25	0.01
122749		8.20	42.8	6.21	12.35	0.20	0.10	16.55	0.079	0.59	31.8	33.9	2.11	1420	0.75	0.01
122750		2.72	54.6	6.53	14.95	0.12	0.04	0.43	0.075	0.23	15.2	43.6	2.49	798	0.68	0.01





ALS Canada Ltd.  
 2103 Dollarton Hwy  
 North Vancouver BC V7H 0A7  
 Phone: +1 (604) 984 0221 Fax: +1 (604) 984 0218  
 www.alsglobal.com/geochemistry

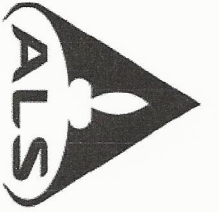
To: HULSTEIN GEOLOGICAL SERVICES  
 106 WILSON DRIVE  
 WHITESHORSE YT Y1A 0C9

Project: Sixtymile2017JM

**CERTIFICATE OF ANALYSIS WH17191007**

Page: 2 - C  
 Total # Pages: 2 (A - D)  
 Plus Appendix Pages  
 Finalized Date: 20-SEP-2017  
 Account: HULGEO

Sample Description	Method Analyte Units LOR	ME-MS41 Nb ppm	ME-MS41 Ni ppm	ME-MS41 P ppm	ME-MS41 Pb ppm	ME-MS41 Rb ppm	ME-MS41 Re ppm	ME-MS41 S %	ME-MS41 Sb ppm	ME-MS41 Sc ppm	ME-MS41 Se ppm	ME-MS41 Sn ppm	ME-MS41 Sr ppm	ME-MS41 Ta ppm	ME-MS41 Te ppm	ME-MS41 Th ppm
122726		0.06	4.0	550	21.2	13.3	<0.001	0.01	1.29	4.2	1.0	0.2	33.4	<0.01	<0.01	14.3
122727		0.10	8.5	260	13.7	8.6	<0.001	0.01	2.39	3.5	0.8	0.2	33.8	<0.01	0.01	24.4
122728		0.12	2.1	2130	9.6	26.4	<0.001	0.01	1.39	10.8	1.1	0.2	84.7	<0.01	<0.01	18.9
122729		0.09	10.1	930	7.4	28.5	<0.001	0.02	2.50	8.5	0.6	0.2	165.0	<0.01	<0.01	7.7
122730		0.45	34.0	1150	11.5	40.5	<0.001	0.01	5.89	30.4	0.8	1.4	118.0	<0.01	0.01	16.8
122731		0.66	43.8	760	12.0	36.7	0.001	<0.01	7.02	27.2	1.0	1.2	31.2	<0.01	0.01	12.1
122732		0.21	24.1	460	5.3	33.2	0.001	0.02	1.08	18.6	0.5	0.8	168.0	<0.01	0.01	8.7
122733		0.13	24.9	490	7.3	29.7	0.001	0.04	1.40	19.0	0.6	0.7	117.5	<0.01	0.01	9.9
122734		0.22	22.4	540	5.9	22.1	<0.001	<0.01	1.44	14.3	0.5	0.5	97.9	0.01	0.02	9.5
122735		0.08	17.7	1020	7.2	16.6	<0.001	<0.01	2.36	13.3	0.5	0.2	62.1	<0.01	0.01	11.3
122736		0.30	10.0	1570	8.1	31.9	<0.001	0.01	1.96	14.0	0.6	0.5	86.5	<0.01	0.01	16.2
122737		0.14	6.9	390	6.6	14.1	<0.001	<0.01	1.82	4.8	0.2	0.2	103.5	<0.01	0.01	2.0
122738		0.18	6.4	1310	15.3	17.1	<0.001	<0.01	1.44	8.5	0.8	0.6	35.7	<0.01	0.01	17.0
122739		0.72	13.6	790	19.5	18.5	0.001	0.10	3.83	21.0	2.0	1.0	45.7	<0.01	0.01	20.0
122740		0.73	31.5	720	7.6	50.6	0.001	0.01	3.09	21.7	0.7	1.9	67.0	<0.01	0.01	11.0
122741		0.63	17.3	520	9.2	8.6	<0.001	<0.01	0.44	11.2	0.6	0.6	33.6	<0.01	0.02	3.5
122742		1.83	20.3	1030	9.7	44.2	<0.001	<0.01	1.05	10.7	0.8	0.9	35.9	<0.01	0.01	13.8
122743		0.17	13.8	910	7.1	23.9	<0.001	0.03	2.60	12.3	1.1	1.3	99.8	<0.01	0.01	12.3
122744		1.21	22.9	940	17.3	42.3	<0.001	<0.01	1.08	13.4	1.2	0.8	27.8	0.01	0.02	20.8
122745		0.09	6.9	970	20.5	22.7	<0.001	<0.01	1.44	7.3	0.7	0.4	38.3	<0.01	0.01	16.0
122746		0.30	5.3	470	4.8	6.6	<0.001	<0.01	1.34	2.1	<0.2	<0.2	14.1	<0.01	<0.01	1.1
122747		<0.05	4.8	680	3.8	19.7	<0.001	<0.01	1.01	4.4	0.3	0.2	32.7	<0.01	<0.01	5.3
122748		<0.05	16.0	1240	8.8	16.9	<0.001	<0.01	1.06	21.6	0.5	0.2	109.5	<0.01	0.02	3.4
122749		0.62	39.2	890	16.9	37.4	<0.001	<0.01	5.77	34.9	0.7	1.1	87.5	<0.01	<0.01	12.9
122750		1.33	29.5	250	15.0	21.4	<0.001	<0.01	2.73	15.7	0.5	5.1	14.6	<0.01	<0.01	8.3



ALS Canada Ltd.  
 2103 Dollarton Hwy  
 North Vancouver BC V7H 0A7  
 Phone: +1 (604) 984 0221 Fax: +1 (604) 984 0218  
 www.alsglobal.com/geochemistry

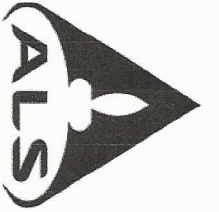
To: HULSTEIN GEOLOGICAL SERVICES  
 106 WILSON DRIVE  
 WHITESHORSE YT Y1A 0C9

Page: 2 - D  
 Total # Pages: 2 (A - D)  
 Plus Appendix Pages  
 Finalized Date: 20-SEP-2017  
 Account: HULGEO

Project: Sixtymile2017 JM

**CERTIFICATE OF ANALYSIS WH17191007**

Sample Description	Method Analyte Units LOR	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41
		TI %	TI ppm	U ppm	V ppm	W ppm	Y ppm	Zn ppm	Zr ppm	
122726		<0.005	0.12	0.89	15	0.13	23.4	64	1.4	
122727		<0.005	0.06	1.97	10	0.19	19.10	52	3.1	
122728		0.022	0.19	2.19	60	0.42	31.2	96	1.9	
122729		0.008	0.14	1.37	32	0.13	17.15	62	1.2	
122730		0.071	0.22	1.30	123	0.19	34.7	95	1.9	
122731		0.065	0.21	1.17	135	0.39	22.4	94	2.9	
122732		0.015	0.22	1.35	68	0.10	21.3	65	1.8	
122733		0.007	0.17	1.37	64	0.05	20.5	61	1.5	
122734		0.007	0.16	1.00	52	<0.05	16.45	60	2.4	
122735		<0.005	0.15	1.18	49	0.28	19.60	74	1.7	
122736		0.028	0.22	1.61	70	0.32	20.9	93	2.8	
122737		<0.005	0.08	0.94	20	0.09	6.57	52	0.8	
122738		0.006	0.14	0.92	49	0.11	31.0	120	2.0	
122739		0.026	0.12	1.60	71	0.18	49.8	89	3.0	
122740		0.114	0.36	0.84	102	0.54	22.6	71	2.5	
122741		0.047	0.11	0.64	84	0.18	11.10	59	5.6	
122742		0.073	0.27	1.22	63	0.13	24.3	100	3.4	
122743		0.005	0.16	1.44	43	0.16	22.5	84	2.0	
122744		0.058	0.29	1.55	54	0.13	33.2	124	3.8	
122745		0.005	0.16	1.57	46	0.40	17.45	112	3.6	
122746		0.013	0.06	0.27	18	0.10	3.14	30	2.0	
122747		<0.005	0.25	0.62	11	0.74	10.95	34	0.8	
122748		<0.005	0.22	0.53	88	0.22	18.70	66	0.5	
122749		0.083	0.25	1.04	124	0.17	24.8	116	2.1	
122750		0.055	0.13	0.85	113	0.72	7.27	119	1.2	



ALS Canada Ltd.  
 2103 Dollarton Hwy  
 North Vancouver BC V7H 0A7  
 Phone: +1 (604) 984 0221 Fax: +1 (604) 984 0218  
 www.alsglobal.com/geochemistry

To: HULSTEIN GEOLOGICAL SERVICES  
 106 WILSON DRIVE  
 WHITESHORSE YT Y1A 0C9

Page: Appendix 1  
 Total # Appendix Pages: 1  
 Finalized Date: 20-SEP-2017  
 Account: HULGEO

Project: Sixtymile2017 JM

CERTIFICATE OF ANALYSIS WH17191007

**CERTIFICATE COMMENTS**

**ANALYTICAL COMMENTS**

Applies to Method: Gold determinations by this method are semi- quantitative due to the small sample weight used (0.5g).  
 ME- MS41

**LABORATORY ADDRESSES**

Applies to Method: Processed at ALS Whitehorse located at 78 Mt. Sima Rd, Whitehorse, YT, Canada.  
 LOG- 22 SCR- 41 WEI- 21  
 Applies to Method: Processed at ALS Vancouver located at 2103 Dollarton Hwy, North Vancouver, BC, Canada.  
 Au- ICP21 ME- MS41

**APPENDIX B**  
**Rock and Soil Sample**  
**Location & Descriptions**

ROCK SAMPLE LOCATIONS, DESCRIPTIONS AND GEOCHEMISTRY

Sample	Date	Time	Grid	Datum	Zone	East	North	Elevation	m	Sample_ID	Location	Sampler	Type1	Type2	Description	Au_ppb_ICP21	Ag_ppm	Al%	As_ppm
122657	31-Aug-17	4:34:21PM	UTM	NAD83	7W	508412	7097890	808	m	122657	Wy Gulch	FA	rock grab	float	fg sucrosic qz rich , mafic poor granite w qz+cb flooding of groundmass; mm qv stwk & rhodocrosite veinlets	0.001	0.03	0.38	1.2
122658	31-Aug-17	5:10:32PM	UTM	NAD83	7W	508416	7097899	830	m	122658	Wy Gulch	FA	rock grab	float	2m west of 657; cb altered qz granite; massive habit, not lineated	0.001	0.02	0.34	0.8
122659	31-Aug-17	6:41:14PM	UTM	NAD83	7W	509305	7097023	724	m	122659	Miller Ck bench	FA	rock chip	bedrock	dk gy sulfide rich gouge w qz frags; sheeted veins apparent trend 040/70 W	0.001	0.24	0.63	10
122660	1-Sep-17	9:57:42AM	UTM	NAD83	7W	509293	7097026	722	m	122660	Miller Ck bench	FA	rock chip	bedrock	ms clay wxd schist w scorodite? Surface stain; 2% diss sx in sample; adjacent to mass opaque qv	0.001	0.21	1.16	33.6
122661	1-Sep-17	11:52:07AM	UTM	NAD83	7W	508219	7098027	885	m	122661	Wy Gulch trench	FA	rock grab	colluvium	subcrop? of qz rich feldspathic lineated granite; mm or/bn calcareous veinlets + qz veinlets filling network fract in narrow altered andesite dyke	0.001	0.02	0.72	0.9
122662	1-Sep-17	11:51:45AM	UTM	NAD83	7W	508221	7098027	893	m	122662	Wy Gulch trench	FA	rock grab	colluvium	subcrop? of qz rich feldspathic lineated granite; bleached silicfd, textures destroyed; stwk mm glassy qvlets w yw selvages; no sx seen	0.001	0.02	0.38	0.8
122663	1-Sep-17	1:57:12PM	UTM	NAD83	7W	508410	7098007	845	m	122663	Wy Gulch trench	FA	rock grab	bedrock	0.5 m wide grab of kspr+calcite flooded chlorite altered bi-gneiss; tr-1% diss py assoc w mm calcite veinlets; pink hematite hue to groundmass; starts at 29.5m trench 2	0.008	0.48	1.51	4.2
122664	1-Sep-17	4:26:24PM	UTM	NAD83	7W	508403	7097996	841	m	122664	Wy Gulch trench	FA	rock chip	bedrock	1.5m wide chip as 663 w cm wide x 12 cm length calcite filled gashes (tectonic or en echelon?); fract surfaces show hem coated slickensides; starts at 40.5m trench 2	0.001	0.03	1.11	1.2
122665	1-Sep-17	4:15:20PM	UTM	NAD83	7W	508378	7097946	846	m	122665	Wy Gulch trench	FA	rock chip	bedrock	5m wide pale tan to white compact massive qz rich feldspathic unit w no mafics; hairline cb fract & tr fg py; angular blocky breaking; qzte? Starts at 92m trench 2	0.001	0.01	0.29	0.5
122666	1-Sep-17	4:12:51PM	UTM	NAD83	7W	508346	7097917	846	m	122666	Wy Gulch trench	FA	rock grab	bedrock	pinkish tan massive unit dominantly feldspar w rectangular glassy qz lenses & or/bn limonite fracturing; 143.5m trench 2	0.001	0.04	0.36	0.7
122667	1-Sep-17	4:23:46PM	UTM	NAD83	7W	508338	7097913	846	m	122667	Wy Gulch trench	FA	rock grab	bedrock	pinkish tan massive unit, possibly andesite w 1% diss fg sx; 148.5m trench 2	0.001	0.03	0.29	1.5
122668	1-Sep-17	4:54:15PM	UTM	NAD83	7W	508331	7097907	852	m	122668	Wy Gulch trench	FA	rock chip	bedrock	2m wide zone of pinkish andesite w minor sx; starts at 158m trench 2	0.001	0.02	0.33	0.4
122669	1-Sep-17	4:56:45PM	UTM	NAD83	7W	508328	7097910	847	m	122669	Wy Gulch trench	FA	rock grab	bedrock	pink/tan andesite cut by mm glassy qv; 164 m trench 2	0.001	0.04	0.35	0.9
122670	1-Sep-17	5:19:45PM	UTM	NAD83	7W	508326	7097902	850	m	122670	Wy Gulch trench	FA	rock grab	bedrock	pinkish colour-hematite dusting to qv? No sx; 169m trench 2	0.001	0.01	0.32	0.3
122671	2-Sep-17	10:19:07AM	UTM	NAD83	7W	508429	7097912	821	m	122671	Wy Gulch trench	FA	rock grab	bedrock	3m random grab friable calcareous bi-gneiss w mm-cm glassy qv scale & mm white calcite veinlets subparallel fol; starts at 20m trench 3	0.001	0.02	2.1	1.3
122672	2-Sep-17	10:33:52AM	UTM	NAD83	7W	508432	7097912	823	m	122672	Wy Gulch trench	FA	rock grab	bedrock	2m grab tan to lt yw/bn feldspathic gneiss; bleached bi-gneiss due to silicification; starts at 23m trench 3	0.001	0.01	0.76	0.7
122673	2-Sep-17	10:39:27AM	UTM	NAD83	7W	508429	7097899	832	m	122673	Wy Gulch trench	RH	rock grab	float	rubble, C horizon, at 32 m station in lower trench. Biotite, hornblende schist, variably carb altered with limonite, crosscut by pink coarse grained granite. Rare rhodochrosite, calcite and limonite veinlets cross cutting biotite - hornblende schist. Sample site at margin of hematite weathering 'fresh' biotite - hornblende granite to east.	0.001	0.04	1.02	1
122674	2-Sep-17	11:16:17AM	UTM	NAD83	7W	508415	7097890	827	m	122674	Wy Gulch trench	RH	rock grab	float	grab from bottom of 2 m deep trench, subcrop of bleached limonitic granodiorite cross cut by occasional calcite limonite stringer - veinlets.	0.001	0.04	0.61	2.7
122675	2-Sep-17	11:23:51AM	UTM	NAD83	7W	508413	7097904	830	m	122675	Wy Gulch trench	FA	rock chip	bedrock	3.5m chip siliceous aphanitic angular blocky breaking pinkish tan andesite dyke w sheeted mm cb+qz veinlets & yw clay selvages; rare separate cc & qz vn to cm scale; no sx; starts at 51.5m trench 3	0.001	0.01	0.43	1
122676	2-Sep-17	11:29:37AM	UTM	NAD83	7W	508416	7097885	831	m							0.001	0.01	0.27	0.4
122677	2-Sep-17	12:17:51PM	UTM	NAD83	7W	508399	7097840	837	m	122677	Wy Gulch trench	FA	rock grab	colluvium	megacrystic calcite vn w open space & drusy qz selvage in pale gy to buff andesite; no sx; starts at 94m trench 3	0.001	0.04	0.25	1.9
122711										122711	Miller Creek - WY Gulch	RH	rock grab	float	float or east end of trench or biotite granodiorite cross cut by rare hairline fractures of hematite (Hg??) veinlets. Pink qtz - minor hematite on fractures. Carbonate altered (CC on folia, frac and diss). Other float in trench of bleached granodiorite with strong carbonate alteration.	0.001	0.07	2.18	2
122712	31-Aug-17	3:50:20PM	UTM	NAD83	7W	508421	7097899	834	m	122712	Miller Creek - WY Gulch	RH	rock grab	float	Float from upper bank of brecciated grey - white and minor green qtz, hairline fractures with limonite. Other float of bleached sericite altered biotite granodiorite and tan muscovite schist.	0.001	0.02	0.32	1

ROCK SAMPLE LOCATIONS, DESCRIPTIONS AND GEOCHEMISTRY

Sample	Au_ppm_MS41	B_ppm	Ba_ppm	Be_ppm	Bi_ppm	Ca%	Cd_ppm	Ce_ppm	Co_ppm	Cr_ppm	Cs_ppm	Cu_ppm	Fe%	Ga_ppm	Ge_ppm	Hf_ppm	Hg_ppm	In_ppm	K%	La_ppm	Li_ppm	Mg%	Mn_ppm	Mo_ppm	Na%	Nb_ppm
122657	0.02	10	250	0.17	0.02	3.05	0.12	18.1	1.4	9	0.97	20.9	0.97	2.93	0.08	0.02	9.87	0.013	0.12	9.7	3.2	0.16	325	0.16	0.07	0.07
122658	0.02	10	120	0.14	0.01	2.43	0.04	14.4	1.5	8	0.57	6.5	0.94	2.79	0.07	0.02	3.92	0.008	0.09	6.9	3.4	0.15	267	0.14	0.07	0.05
122659	0.02	10	260	0.32	0.35	0.16	2.7	43.7	13.2	23	10.35	52.3	1.06	2.1	0.11	0.03	0.08	0.034	0.24	23.8	1.8	0.05	40	1.6	0.01	0.05
122660	0.02	10	60	0.34	0.49	0.27	1.28	24.1	23.8	10	7.15	18.4	3.11	3.31	0.14	0.03	0.22	0.01	0.37	11	3.2	0.17	84	1.4	0.01	0.05
122661	0.02	10	240	0.29	0.04	0.88	0.03	8	3.8	9	1.22	6.3	1.32	2.29	0.06	0.02	0.74	0.008	0.14	4.7	4.9	0.28	307	0.14	0.04	0.05
122662	0.02	10	100	0.19	0.04	1.39	0.03	6.29	1.9	6	1.09	2.6	0.83	1.45	0.06	0.02	1.38	0.012	0.09	3.4	5.5	0.51	172	0.14	0.06	0.05
122663	0.02	10	340	0.37	0.11	5.87	0.19	85.4	9.3	39	1.37	12.8	3.06	6.91	0.12	0.05	9.62	0.034	0.25	44.9	18.7	1.2	768	0.15	0.02	0.05
122664	0.02	10	160	0.39	0.14	5	0.1	28	6.5	35	1.75	9.5	2.1	5.86	0.08	0.03	0.78	0.027	0.2	15.2	12.6	1.44	537	0.05	0.05	0.05
122665	0.02	10	230	0.22	0.02	1.89	0.02	3.07	1.2	5	0.94	2.4	0.84	1.23	0.06	0.02	0.99	0.005	0.14	1.5	0.7	0.66	221	0.14	0.07	0.05
122666	0.02	10	240	0.26	0.04	2.67	0.06	40.5	5.4	10	0.88	5.2	1.6	1.83	0.08	0.09	1.95	0.018	0.15	22.3	1.9	0.98	395	0.13	0.05	0.05
122667	0.02	10	170	0.17	0.02	1.86	0.04	11.15	4.1	6	0.6	8.2	1.18	1.16	0.06	0.15	2.06	0.006	0.12	5.4	1.5	0.68	275	0.25	0.07	0.05
122668	0.02	10	170	0.26	0.02	1.87	0.03	10.75	5.1	6	1.24	6.6	1.4	1.38	0.07	0.02	0.21	0.009	0.1	5.2	1.8	0.53	302	0.12	0.05	0.05
122669	0.02	10	210	0.26	0.02	2.76	0.05	14.8	5.1	11	1.39	12.5	1.4	1.5	0.06	0.1	1	0.012	0.12	8.2	1.7	1.02	336	0.24	0.05	0.05
122670	0.02	10	160	0.18	0.03	2.18	0.04	12.6	4	6	1.07	6.5	1.2	1.28	0.07	0.04	0.42	0.007	0.1	6.3	1.8	0.74	286	0.12	0.05	0.05
122671	0.02	10	330	0.37	0.07	2.83	0.08	33.1	13	103	1.88	9.5	3.35	8.23	0.1	0.04	1.69	0.03	0.39	17.4	29.3	2.02	736	0.18	0.03	0.06
122672	0.02	10	240	0.27	0.01	2.1	0.03	9.46	2.3	4	3.19	2.5	1.27	4.82	0.07	0.02	2.28	0.013	0.3	4.6	5.9	0.52	377	0.15	0.05	0.12
122673	0.02	10	1020	0.46	0.11	7.83	0.19	35.4	6.5	31	2	15.8	2.01	4.66	0.09	0.04	10.8	0.016	0.16	19.9	10.7	0.85	667	0.15	0.03	0.05
122674	0.02	20	1410	0.51	0.04	5.88	0.16	23.1	7	11	3.81	10.4	3.03	1.69	0.09	0.04	2.51	0.012	0.28	11.5	3.2	0.74	979	0.26	0.01	0.05
122675	0.02	10	150	0.16	0.01	1.83	0.04	11.4	1.9	10	0.6	4.4	1.07	3.27	0.07	0.02	4.5	0.006	0.13	5.5	4.5	0.23	253	0.17	0.07	0.05
122676	0.02	10	100	0.15	0.01	4.37	0.03	8.73	1.3	8	0.33	3	1.01	2.09	0.06	0.02	1.15	0.009	0.07	4.8	2.6	0.19	339	0.12	0.05	0.05
122677	0.02	10	2370	0.32	0.05	8.83	0.06	39.9	1.3	3	0.95	6.8	0.97	1.03	0.09	0.07	0.45	0.005	0.14	22.8	0.7	0.08	399	0.36	0.02	0.05
122711	0.02	10	310	0.49	0.3	1.6	0.08	18.95	17.2	107	3.2	24.8	3.71	7.43	0.13	0.09	2.36	0.016	0.76	9.4	24.2	1.94	597	0.19	0.04	0.09
122712	0.02	10	240	0.15	0.02	7.05	0.05	9.79	2.7	14	0.91	3.8	1.04	1.46	0.07	0.02	1.33	0.006	0.06	4.9	4	0.22	1040	0.26	0.01	0.05

ROCK SAMPLE LOCATIONS, DESCRIPTIONS AND GEOCHEMISTRY

Sample	Ni_ppm	P_ppm	Pb_ppm	Rb_ppm	Re_ppm	S_%	Sb_ppm	Sc_ppm	Se_ppm	Sn_ppm	Sr_ppm	Ta_ppm	Te_ppm	Ti%	Th_ppm	Tl_ppm	U_ppm	V_ppm	W_ppm	Y_ppm	Zn_ppm	Zr_ppm	Certificate
122657	1.5	90	4.7	4.3	0.001	0.01	4.43	4.2	0.2	0.5	400	0.01	0.01	1.3	0.007	0.03	2.08	12	0.05	10	13	0.5	WH17191005
122658	1.7	90	3.6	3.5	0.001	0.01	1.21	3.2	0.2	0.4	93.5	0.01	0.01	0.9	0.005	0.03	0.46	11	0.05	5.66	23	0.5	WH17191005
122659	32.6	480	19.8	15.1	0.005	0.69	0.12	5.9	10.7	0.5	63	0.01	0.08	5.4	0.005	0.82	5.28	45	0.05	16.35	189	1.2	WH17191005
122660	16.9	1040	19	20.2	0.004	2.85	0.45	5.6	26.8	0.8	6.2	0.01	0.12	3.4	0.007	0.72	1.3	38	0.05	5.12	37	1.2	WH17191005
122661	5.5	120	5.2	6.6	0.001	0.01	0.76	2.6	0.2	0.3	33.2	0.01	0.01	1	0.005	0.08	0.33	15	0.08	4.24	20	0.6	WH17191005
122662	2.8	130	3.4	4.6	0.001	0.01	0.2	1.6	0.2	0.3	45.6	0.01	0.01	0.8	0.005	0.06	0.49	10	0.06	2.14	24	0.5	WH17191005
122663	13.1	600	6.5	11.2	0.001	0.28	1.65	8.4	0.2	0.6	221	0.01	0.01	10.6	0.015	0.07	2.77	55	0.11	22.6	58	0.9	WH17191005
122664	8	320	6	10.4	0.001	0.01	1.06	5.2	0.2	0.7	327	0.01	0.01	2.8	0.018	0.06	0.68	41	0.05	9.8	41	0.6	WH17191005
122665	1.2	80	2.6	6.1	0.001	0.01	0.65	0.7	0.2	0.3	49.6	0.01	0.01	0.4	0.005	0.05	0.45	3	0.05	1.93	16	0.5	WH17191005
122666	7.3	190	7.2	6.9	0.001	0.01	1.19	3.2	0.2	0.4	105.5	0.01	0.01	7.7	0.005	0.04	1.54	23	0.05	6.5	37	2.8	WH17191005
122667	5.6	90	6.7	4.2	0.001	0.02	2.03	2.7	0.2	0.3	82.1	0.01	0.01	1.8	0.005	0.03	2.19	12	0.05	4.43	20	3.8	WH17191005
122668	7.7	110	2.4	3.9	0.001	0.01	0.38	3.3	0.2	0.3	77.6	0.01	0.01	0.7	0.005	0.03	1.49	13	0.05	5.7	21	0.6	WH17191005
122669	7.1	130	4.7	5.4	0.001	0.01	1.59	3.5	0.2	0.3	130.5	0.01	0.01	2.2	0.005	0.04	3.24	16	0.05	6.6	21	2.8	WH17191005
122670	5.4	100	2.9	4.1	0.001	0.01	0.24	2.2	0.2	0.3	92.5	0.01	0.01	2.1	0.005	0.03	1.78	12	0.05	5.73	19	1.2	WH17191005
122671	22.5	320	3.5	19.8	0.001	0.01	2.72	11.2	0.2	0.8	74.3	0.01	0.01	3.8	0.029	0.11	0.54	75	0.06	12.3	51	0.6	WH17191005
122672	1.4	380	2.4	15	0.001	0.01	0.72	1.3	0.2	0.5	68.5	0.01	0.01	0.8	0.027	0.1	0.77	20	0.06	4.03	31	0.5	WH17191005
122673	8.7	200	7.3	7.1	0.001	0.01	2.77	6.9	0.2	0.5	1750	0.01	0.01	3.2	0.008	0.05	3.78	32	0.05	17.25	40	0.7	WH17191005
122674	6.6	240	6	13	0.001	0.01	4.23	4.2	0.2	0.3	220	0.01	0.01	3.5	0.005	0.11	1.32	19	0.24	12	63	0.8	WH17191005
122675	2.3	120	3.7	5.2	0.001	0.01	0.89	2.2	0.2	0.5	75.8	0.01	0.01	0.9	0.007	0.04	0.57	12	0.05	4.48	26	0.5	WH17191005
122676	1	170	2.6	3	0.001	0.01	0.53	2.8	0.2	0.4	195	0.01	0.01	0.5	0.005	0.03	0.82	17	0.06	5.68	18	0.5	WH17191005
122677	0.6	40	11.4	6	0.001	0.03	1.1	1.5	0.2	0.3	560	0.01	0.01	6.2	0.005	0.04	9.16	1	0.05	18.5	14	2.3	WH17191005
122711	29.2	320	5.6	38.4	0.001	0.01	3.64	11.7	0.2	0.8	55.2	0.01	0.01	5	0.088	0.2	0.7	78	0.06	6.17	57	1.2	WH17191005
122712	3.8	70	3	3.2	0.001	0.01	2.77	1.9	0.2	0.4	242	0.01	0.02	1	0.005	0.02	0.29	13	0.35	10.8	13	0.5	WH17191005

ROCK SAMPLE LOCATIONS, DESCRIPTIONS AND GEOCHEMISTRY

Sample	Date	Time	Grid	Datum	Zone	East	North	Elevation	m	Sample_ID	Location	Sampler	Type1	Type2	Description	Au_ppb_ICP21	Ag_ppm	Al%	As_ppm
122713	31-Aug-17	3:52:43PM	UTM	NAD83	7W	508427	7097906	836	m	122713	Miller Creek - WY Gulch	RH	rock grab	float	Float from botom of Cat trench and bank. Qtz - carb veined carb altered, limonite replaced - coated, bleached granodiorite? Brecciated?	0.001	0.05	0.91	4.5
122714	31-Aug-17	4:25:30PM	UTM	NAD83	7W	508416	7097886	828	m	122714	Miller Creek - WY Gulch	RH	rock grab	float	Tan weathering tan light grey - bleached weakly sericite altered fine grained granite cross cut by hairline black weathering and fresh red (specks) of cinnabar. Veinlets have minor bleached selvege and wall rock is strongly carbonate altered.	0.001	0.07	0.7	1.9
122715	31-Aug-17	6:35:27PM	UTM	NAD83	7W	509300	7097019	726	m	122715	Miller Creek	RH	rock chip	outcrop	35 cm grab - chip across grey and FeOx decomposed vein - fault with abundant clay gouge, minor grey fine crystalline qtz with 1-3% fine grained disseminated py. Vein trend 038/70E.	0.001	0.24	0.67	20.4
122716	1-Sep-17	9:12:30AM	UTM	NAD83	7W	509264	7097025	728	m	122716	Miller Creek	RH	rock grab	outcrop	grab of tan weathering quartzite - white - clear qtz veining. Minor weathered out pyrite. Foliated qtzite 000/20E	0.001	0.02	0.09	13.4
122717	1-Sep-17	9:30:00AM	UTM	NAD83	7W	509341	7096997	732	m	122717	Miller Creek	RH	rock grab	outcrop	clay - decomposed grey muscovite schist bedrock, minor bands of light foliaform grey qtz, minor FeOx, limonite.	0.001	0.34	0.8	11.7
122718	1-Sep-17	9:49:45AM	UTM	NAD83	7W	509383	7096944	717	m	122718	Miller Creek	RH	rock grab	outcrop	grab of decomposed muscovite schist with clay (gouge?) and white - grey qtz lenses in schist - qtzite bands. Foliation 138/steep?	0.001	0.55	0.51	17.6
122719	1-Sep-17	2:08:40PM	UTM	NAD83	7W	508414	7098005	848	m	122719	Miller Creek - WY Gulch	RH	rock chip	outcrop	in middle trench, 31.2-34.6m west. Biotite - qtz- feld schist gneiss overprinted with carb - qtz alteration, cross cut but calcite veinlets, < /= 1% diss py in flooded sections. Hematite on fractures.	0.001	0.12	1.37	2.2
122720	1-Sep-17	3:08:58PM	UTM	NAD83	7W	508400	7097975	848	m	122720	Miller Creek - WY Gulch	RH	rock chip	outcrop	Pink coarse grained qtz- feldspar granite (dyke?) about 1.5 m wide, biotite schist either side, minor qtz veinlets, weak calcite alteration.	0.001	0.09	0.26	1.5
122721	1-Sep-17	4:28:22PM	UTM	NAD83	7W	508362	7097926	841	m	122721	Miller Creek - WY Gulch	RH	rock grab	outcrop	At 128 m station, middle trench. 15-20cm wide qtz - calcite vein boulder, 1-2% diss specks cinnabar.	0.001	0.01	0.26	2
122722	1-Sep-17	5:21:11PM	UTM	NAD83	7W	508321	7097910	866	m	122722	Miller Creek - WY Gulch	RH	rock grab	float	subcrop of massive qtz veining in rubble of clay decomposed schist.	0.001	0.04	0.31	0.5
122723	1-Sep-17	5:35:13PM	UTM	NAD83	7W	508319	7097898	862	m	122723	Miller Creek - WY Gulch	RH	rock grab	float	Sample from rubble outcrop in middle trench, 182.5-185.0 m station, of altered biotite schist - now bleached and sericite clay altered.	0.001	0.04	0.48	0.4



ROCK SAMPLE LOCATIONS, DESCRIPTIONS AND GEOCHEMISTRY

Sample	Au_ppm_MS41	B_ppm	Ba_ppm	Be_ppm	Bi_ppm	Ca%	Cd_ppm	Ce_ppm	Co_ppm	Cr_ppm	Cs_ppm	Cu_ppm	Fe%	Ga_ppm	Ge_ppm	Hf_ppm	Hg_ppm	In_ppm	K%	La_ppm	Li_ppm	Mg%	Mn_ppm	Mo_ppm	Na%	Nb_ppm
122713	0.02	20	1720	0.7	0.04	10.55	0.16	24.9	9.5	10	2.54	9.5	3.27	2.99	0.08	0.02	4.76	0.01	0.24	11.7	7.8	1	1580	0.44	0.01	0.05
122714	0.02	10	150	0.14	0.02	1.94	0.06	15.25	2.4	10	0.64	24.8	1.24	4.45	0.08	0.02	5.59	0.014	0.2	8.1	8.1	0.29	233	0.23	0.13	0.05
122715	0.02	10	270	0.54	0.16	0.32	0.55	19.65	13.8	28	7.1	54.6	1.64	1.95	0.09	0.02	0.1	0.028	0.26	9.7	2.5	0.06	77	7.18	0.01	0.05
122716	0.02	10	20	0.05	0.07	0.04	0.03	3.1	1.8	18	0.48	9.6	0.95	0.4	0.06	0.02	0.02	0.005	0.02	1.9	1.1	0.02	98	0.63	0.01	0.05
122717	0.02	10	370	0.61	0.2	0.46	0.67	26.5	16.2	48	9.24	51.1	2.21	3.08	0.1	0.03	0.07	0.033	0.27	11.5	4.6	0.3	478	4.35	0.01	0.05
122718	0.02	10	490	1.07	0.16	0.48	5.65	94.9	6.6	27	6.03	77.5	1.57	2.25	0.17	0.06	0.01	0.026	0.18	43	3.8	0.09	146	6.86	0.01	0.05
122719	0.02	10	210	0.33	0.1	3.89	0.1	75	7.8	28	3.13	25.6	3.11	8.12	0.12	0.05	1.96	0.034	0.21	39.8	16.1	1	580	0.1	0.03	0.05
122720	0.02	10	410	0.11	0.04	1.92	0.04	51.8	2	7	0.97	9.7	1.16	1.27	0.09	0.08	1.85	0.005	0.1	27.6	1.3	0.52	278	0.2	0.05	0.05
122721	0.02	10	360	0.55	0.01	17.4	0.22	27.8	5.8	2	0.53	1.6	4.12	1.04	0.09	0.04	20.8	0.009	0.09	15.3	1.6	0.91	2700	0.1	0.01	0.05
122722	0.02	10	270	0.19	0.03	1.73	0.03	24	3.8	13	1.33	13.6	1.15	1.09	0.07	0.06	1.1	0.008	0.13	13.5	1.1	0.54	260	0.16	0.05	0.05
122723	0.02	10	540	0.27	0.02	2.34	0.03	27.4	6.8	20	3.68	17.8	1.7	1.66	0.08	0.06	0.36	0.015	0.19	14.5	1.8	0.6	386	0.18	0.04	0.05

ROCK SAMPLE LOCATIONS, DESCRIPTIONS AND GEOCHEMISTRY

Sample	Ni_ppm	P_ppm	Pb_ppm	Rb_ppm	Re_ppm	S_%	Sb_ppm	Sc_ppm	Se_ppm	Sn_ppm	Sr_ppm	Ta_ppm	Te_ppm	Ti%	Th_ppm	Tl_ppm	U_ppm	V_ppm	W_ppm	Y_ppm	Zn_ppm	Zr_ppm	Certificate
122713	9.6	230	9.7	11.7	0.001	0.05	3.68	5.8	0.6	0.4	469	0.01	0.02	2.7	0.005	0.08	1.81	28	0.46	22.7	61	0.6	WH17191005
122714	2.7	280	5	7.1	0.001	0.02	4.7	2.1	0.2	0.6	61	0.01	0.01	0.9	0.01	0.05	0.22	21	0.05	3.94	20	0.5	WH17191005
122715	37.2	1070	16.1	16.8	0.012	0.5	0.31	7	5.1	0.5	32.4	0.01	0.08	4.2	0.005	0.3	2.06	45	0.05	10.75	109	1.4	WH17191005
122716	5.9	110	0.9	1.4	0.001	0.01	0.18	0.8	0.3	0.5	1.2	0.01	0.01	0.4	0.005	0.02	0.22	5	0.06	2.03	8	0.6	WH17191005
122717	32.6	790	11.3	18.1	0.012	0.93	0.32	8.7	3.2	0.7	13.3	0.01	0.09	4.3	0.008	0.37	1.61	49	0.05	10.15	143	1.5	WH17191005
122718	52.5	1960	9.2	11	0.011	0.44	0.26	4.9	8.4	0.6	14.4	0.01	0.11	2.8	0.005	0.25	3.78	64	0.12	27.4	205	2.6	WH17191005
122719	9.9	690	4.1	12.8	0.001	0.21	2.88	6.6	0.2	0.8	81.9	0.01	0.01	8.9	0.017	0.08	0.58	64	0.22	16.55	65	0.6	WH17191005
122720	1.8	20	5.4	4	0.001	0.01	1.1	2	0.2	0.6	97.6	0.01	0.01	11.2	0.005	0.02	0.72	8	0.05	8.42	11	1.9	WH17191005
122721	0.9	160	8.7	4	0.001	0.01	1.4	3.5	0.2	0.2	719	0.01	0.01	2.1	0.005	0.03	1.73	28	0.3	26	77	1.4	WH17191005
122722	5.2	100	2.4	6.2	0.001	0.02	0.56	2.4	0.2	0.4	60.3	0.01	0.01	7.8	0.005	0.04	2.66	14	0.05	6.29	16	1.5	WH17191005
122723	8.6	140	3	10.1	0.001	0.01	0.42	5.9	0.2	0.4	87.5	0.01	0.01	5.6	0.007	0.07	0.83	28	0.05	10.65	27	1.5	WH17191005

SOIL SAMPLE LOCATIONS, DESCRIPTIONS AND GEOCHEMISTRY

Station	Date	Time	Grid	Datum	Zone	East	North	Elevation	m	Sample_ID	Location	Sampler	Type1	Description
122726	2-Sep-17	12:19:21PM	UTM	NAD83	7W	508393	7097852	836	m	122726	Miller Cr. - WY Gulch	RH	soil	Lower trench, 106 m station, sandy soil, minor clay. Float - subcrop colluvium of quartzite - altered granodiorite. Possible andesite as well. 5 m from west end of trench.
122727	2-Sep-17	12:21:01PM	UTM	NAD83	7W	508393	7097854	835	m	122727	Miller Cr. - WY Gulch	RH	soil	Lower trench, 95 m station, sandy light tan soil. Float - subcrop of tan quartzite.
122728	2-Sep-17	11:50:49AM	UTM	NAD83	7W	508408	7097885	837	m	122728	Miller Cr. - WY Gulch	RH	soil	Lower trench, 65 m station, bototm of trench, limonitic sandy soil. Float of biotite - hornblende schist, bleached biotite to sericite. OK sample, about 2 m deep, B-C horizon.
122729	2-Sep-17	11:00:33AM	UTM	NAD83	7W	508414	7097891	825	m	122729	Miller Cr. - WY Gulch	RH	soil	Lower trench, 49 m station, limonitic sandy soil with minor clay and decomposed schist. OK sample, about 2 m deep, B-C horizon.
122730	2-Sep-17	10:28:07AM	UTM	NAD83	7W	508427	7097895	833	m	122730	Miller Cr. - WY Gulch	RH	soil	Lower trench, 40 m station, sandy pebble colluvium. OK sample, about 2 m deep, float of biotite hornblende schist with minor calcite - limonite.
122731	2-Sep-17	10:13:20AM	UTM	NAD83	7W	508435	7097913	835	m	122731	Miller Cr. - WY Gulch	RH	soil	Lower trench, 20 m, sandy pebble colluvium, below black muck and sand. Well above bedrock. OK sample, about 2 m deep, float of biotite hornblende schist.
122732			UTM	NAD83	7W	508309	7097896			122732	Miller Cr. - WY Gulch	RH	soil	Middle trench, 190 m station, tan - hematite - orange sandy - clay soil, bands visible in photo.
122733	1-Sep-17	4:51:44PM	UTM	NAD83	7W	508325	7097896	847	m	122733	Miller Cr. - WY Gulch	RH	soil	Middle trench, 170 m station, tan - brown clay - sandy soil, 1.8 m deep in trench bottom, boulder of silica carbonate veining.
122734	1-Sep-17	4:05:24PM	UTM	NAD83	7W	508344	7097910	848	m	122734	Miller Cr. - WY Gulch	RH	soil	Middle trench, 150 m station, tan - grey sandy soil, 1.22- 1.52 m deep in trench bottom.
122735	1-Sep-17	3:57:17PM	UTM	NAD83	7W	508354	7097923	854	m	122735	Miller Cr. - WY Gulch	RH	soil	Middle trench, 133m station, dense clay - silt pebble rich soil - colluvium, frozen hump in trench, about 1.22 m deep.
122736	1-Sep-17	3:49:47PM	UTM	NAD83	7W	508362	7097928	852	m	122736	Miller Cr. - WY Gulch	RH	soil	Middle trench, 125m station, brown - orange sandy soil, altered biotite schist float, C and lesser B horizon.
122737	1-Sep-17	2:21:21PM	UTM	NAD83	7W	508378	7097958	854	m	122737	Miller Cr. - WY Gulch	RH	soil	Middle trench, 100m station, sandy, light tan soil, dense fine - med grained tan granite (no biotite), C horizon, about 2.0 m deep in trench.

SOIL SAMPLE LOCATIONS, DESCRIPTIONS AND GEOCHEMISTRY

Station	Sample_ No.	Au_ppb _ICP21	Ag_ppm	Al%	As_ppm	Au_ppm _MS41	B_ppm	Ba_ppm	Be_ppm	Bi_ppm	Ca%	Cd_ppm	Ce_ppm	Co_ppm	Cr_ppm	Cs_ppm	Cu_ppm	Fe%	Ga_ppm
122726	122726	0.001	0.03	0.49	5.6	0.02	10	690	2	0.06	2.34	0.09	67.4	4.5	5	9.63	7.9	2.39	1.74
122727	122727	0.004	0.08	0.38	10	0.02	10	560	1.05	0.29	0.34	0.09	133.5	5.4	10	4.17	31.5	1.62	1.44
122728	122728	0.001	0.02	0.67	1.7	0.02	10	930	1.32	0.06	5.89	0.17	118	9.9	4	14.45	3	4.67	3
122729	122729	0.001	0.02	0.7	3.7	0.02	10	1280	1.24	0.04	7.45	0.1	42.2	11	15	15.3	5.8	3.5	2.48
122730	122730	0.001	0.13	2.68	3.7	0.02	10	1130	1	0.12	3.29	0.23	159.5	23.8	128	9.84	45.6	5.28	12.1
122731	122731	0.001	0.13	3.19	4.9	0.02	10	550	1.05	0.17	0.67	0.17	104	27	156	11.8	38.8	5.94	13
122732	122732	0.001	0.06	0.75	0.8	0.02	10	1260	1.47	0.07	5.59	0.1	48.3	18.2	58	19.15	20.5	4.4	3.78
122733	122733	0.001	0.14	0.58	1	0.02	10	770	1.12	0.12	5.09	0.07	52.4	18.7	65	17.75	28	3.86	3.12
122734	122734	0.001	0.17	0.53	0.8	0.02	10	300	0.81	0.11	4.79	0.14	36.9	14.3	56	12.75	90.6	3.13	3.23
122735	122735	0.001	0.06	0.62	6.8	0.02	10	330	1.23	0.08	1.91	0.08	59	10.9	28	5.26	17.5	3.98	2.4
122736	122736	0.001	0.08	0.9	2.7	0.02	10	710	1.03	0.13	2.06	0.08	77	10.2	25	14.65	11.6	4.2	4.54
122737	122737	0.001	0.04	0.43	1.2	0.02	10	340	0.59	0.11	3.75	0.06	12.1	5.4	15	4.79	8.5	1.72	1.73

SOIL SAMPLE LOCATIONS, DESCRIPTIONS AND GEOCHEMISTRY

Station	Ge_ppm	Hf_ppm	Hg_ppm		K%	La_ppm	Li_ppm	Mg%	Mn_ppm	Mo_ppm	Na%	Nb_ppm	Ni_ppm	P_ppm	Pb_ppm	Rb_ppm	Re_ppm	S_%	Sb_ppm	Sc_ppm
122726	0.06	0.03	0.17	0.021	0.17	30.4	1	0.11	1000	0.67	0.01	0.06	4	550	21.2	13.3	0.001	0.01	1.29	4.2
122727	0.11	0.08	0.39	0.016	0.14	66.5	2.4	0.08	309	3.48	0.01	0.1	8.5	260	13.7	8.6	0.001	0.01	2.39	3.5
122728	0.13	0.05	0.92	0.037	0.38	62.1	2.8	0.33	1130	0.41	0.01	0.12	2.1	2130	9.6	26.4	0.001	0.01	1.39	10.8
122729	0.06	0.03	2.74	0.023	0.25	20.9	4.6	0.87	1020	0.45	0.01	0.09	10.1	930	7.4	28.5	0.001	0.02	2.5	8.5
122730	0.26	0.12	61.5	0.075	0.64	74.1	34.1	2.18	1140	0.34	0.01	0.45	34	1150	11.5	40.5	0.001	0.01	5.89	30.4
122731	0.21	0.13	11.85	0.052	0.41	41.3	48	2.88	1140	0.61	0.01	0.66	43.8	760	12	36.7	0.001	0.01	7.02	27.2
122732	0.14	0.08	0.77	0.043	0.4	27.7	1.9	1.6	1080	0.8	0.01	0.21	24.1	460	5.3	33.2	0.001	0.02	1.08	18.6
122733	0.12	0.06	0.38	0.042	0.31	28.4	1.6	1.08	870	0.94	0.01	0.13	24.9	490	7.3	29.7	0.001	0.04	1.4	19
122734	0.12	0.07	1.73	0.033	0.28	21	1.7	1.13	638	0.53	0.01	0.22	22.4	540	5.9	22.1	0.001	0.01	1.44	14.3
122735	0.15	0.05	13.9	0.036	0.26	33	1.4	0.77	526	0.48	0.01	0.08	17.7	1020	7.2	16.6	0.001	0.01	2.36	13.3
122736	0.17	0.09	10.95	0.05	0.39	38.6	3.4	0.39	742	0.42	0.01	0.3	10	1570	8.1	31.9	0.001	0.01	1.96	14
122737	0.08	0.03	2.14	0.016	0.17	6.6	1.7	0.86	439	0.24	0.01	0.14	6.9	390	6.6	14.1	0.001	0.01	1.82	4.8

SOIL SAMPLE LOCATIONS, DESCRIPTIONS AND GEOCHEMISTRY

Station	Se_ppm	Sn_ppm	Sr_ppm	Ta_ppm	Te_ppm	Ti%	Th_ppm	Tl_ppm	U_ppm	V_ppm	W_ppm	Y_ppm	Zn_ppm	Zr_ppm	Certificate
122726	1	0.2	33.4	0.01	0.01	14.3	0.005	0.12	0.89	15	0.13	23.4	64	1.4	WH17191007
122727	0.8	0.2	33.8	0.01	0.01	24.4	0.005	0.06	1.97	10	0.19	19.1	52	3.1	WH17191007
122728	1.1	0.2	84.7	0.01	0.01	18.9	0.022	0.19	2.19	60	0.42	31.2	96	1.9	WH17191007
122729	0.6	0.2	165	0.01	0.01	7.7	0.008	0.14	1.37	32	0.13	17.15	62	1.2	WH17191007
122730	0.8	1.4	118	0.01	0.01	16.8	0.071	0.22	1.3	123	0.19	34.7	95	1.9	WH17191007
122731	1	1.2	31.2	0.01	0.01	12.1	0.065	0.21	1.17	135	0.39	22.4	94	2.9	WH17191007
122732	0.5	0.8	168	0.01	0.01	8.7	0.015	0.22	1.35	68	0.1	21.3	65	1.8	WH17191007
122733	0.6	0.7	117.5	0.01	0.01	9.9	0.007	0.17	1.37	64	0.05	20.5	61	1.5	WH17191007
122734	0.5	0.5	97.9	0.01	0.02	9.5	0.007	0.16	1	52	0.05	16.45	60	2.4	WH17191007
122735	0.5	0.2	62.1	0.01	0.01	11.3	0.005	0.15	1.18	49	0.28	19.6	74	1.7	WH17191007
122736	0.6	0.5	86.5	0.01	0.01	16.2	0.028	0.22	1.61	70	0.32	20.9	93	2.8	WH17191007
122737	0.2	0.2	103.5	0.01	0.01	2	0.005	0.08	0.94	20	0.09	6.57	52	0.8	WH17191007

## SOIL SAMPLE LOCATIONS, DESCRIPTIONS AND GEOCHEMISTRY

Station	Date	Time	Grid	Datum	Zone	East	North	Elevation	m	Sample_ID	Location	Sampler	Type1	Description
122738	1-Sep-17	2:29:05PM	UTM	NAD83	7W	508396	7097970	867	m	122738	Miller Cr. - WY Gulch	RH	soil	Middle trench, 75m station, sandy, light tan soil, float of tan granite (no biotite), C horizon, about 1.5 m deep in trench.
122739	1-Sep-17	1:55:48PM	UTM	NAD83	7W	508414	7097991	852	m	122739	Miller Cr. - WY Gulch	RH	soil	Middle trench, 50m station, sandy decomposed biotite schist outcrop and float, C horizon, about 1.5 m deep in trench, brown soil.
122740	1-Sep-17	1:48:41PM	UTM	NAD83	7W	508417	7098015	849	m	122740	Miller Cr. - WY Gulch	RH	soil	Middle trench, 25m station, sandy decomposed biotite schist, about 2 m deep in trench.
122741	1-Sep-17	12:09:05PM	UTM	NAD83	7W	508197	7098028	895	m	122741	Miller Cr. - WY Gulch	RH	soil	25m west of 122748, 20 m west of trench, brown silty sand.
122742	1-Sep-17	12:02:02PM	UTM	NAD83	7W	508336	7098130	878	m	122742	Miller Cr. - WY Gulch	RH	soil	Next to KEX sample site, B-C horizon, minor organics, possible ash - loess but good sample quality, biot schist - granodiorite pebbles.
122743	1-Sep-17	11:53:29AM	UTM	NAD83	7W	508331	7098111	885	m	122743	Miller Cr. - WY Gulch	RH	soil	0.35 m deep in bottom of rocky trench about 1.52 m deep, tan brown decomposed schist, real C horizon.
122744	1-Sep-17	11:47:03AM	UTM	NAD83	7W	508310	7098088	884	m	122744	Miller Cr. - WY Gulch	RH	soil	0.25 m deep in bottom of rocky trench about 1.22 m deep, C horizon, biotite rich brown pebble (rounded) B or C horizon.
122745	1-Sep-17	11:38:46AM	UTM	NAD83	7W	508296	7098063	883	m	122745	Miller Cr. - WY Gulch	RH	soil	0.25 m deep in bottom of rocky trench about 0.9 m deep, C horizon, < 3m from KEX flag VR83180 and 181 (Dup).
122746	1-Sep-17	11:30:39AM	UTM	NAD83	7W	508271	7098043	882	m	122746	Miller Cr. - WY Gulch	RH	soil	0.2 m deep in bottom of rocky trench about 1.22 m deep, C horizon, float of bleached granite crosscut by limonite veinlets and minor qtz veinlets.
122747	1-Sep-17	11:18:44AM	UTM	NAD83	7W	508248	7098035	889	m	122747	Miller Cr. - WY Gulch	RH	soil	0.4 m deep, below trench. Sandy decomposed muscovite schist, float of brecciated, hairline fractured limonitic - tan granodiorite.
122748	1-Sep-17	11:08:08AM	UTM	NAD83	7W	508225	7098029	885	m	122748	Miller Cr. - WY Gulch	RH	soil	0.4 m deep, below trench. Sandy decomposed muscovite schist, float of brecciated, hairline fractured limonitic - tan granodiorite.
122749	31-Aug-17	4:37:56PM	UTM	NAD83	7W	508419	7097885	828	m	122749	Miller Cr. - WY Gulch	RH	soil	Soil from where altered granodiorite with cinnabar veinlets and rhodochrosite veins were found. Sandy biotite rich soil with abundant pebbles of granodiorite, B-C horizon.
122750	31-Aug-17	3:04:00PM	UTM	NAD83	7W	508504	7098147	849	m	122750	Miller Cr. - WY Gulch	RH	soil	Light brown loamy soil, good B-C horizon on patch of ground between forks of WY Gulch. Pebbles of biot granodiorite with biotite going to sericite.

SOIL SAMPLE LOCATIONS, DESCRIPTIONS AND GEOCHEMISTRY

Station	Sample_ No.	Au_ppb _ICP21	Ag_ppm	Al%	As_ppm	Au_ppm _MS41	B_ppm	Ba_ppm	Be_ppm	Bi_ppm	Ca%	Cd_ppm	Ce_ppm	Co_ppm	Cr_ppm	Cs_ppn	Cu_ppm	Fe%	Ga_ppm
122738	122738	0.001	0.07	0.65	6.1	0.02	10	730	1.28	0.13	0.77	0.12	85.5	7.7	5	9.47	13.2	3.31	4.16
122739	122739	0.001	0.44	1.55	6.4	0.02	10	770	1.14	0.34	0.94	0.19	146	11.5	30	6.25	23.2	4.66	7.92
122740	122740	0.001	0.12	2.73	35.3	0.02	10	570	0.82	0.18	1.51	0.11	59.1	23.5	123	5.38	40.9	5.04	9.7
122741	122741	0.002	0.04	1.8	8.3	0.02	10	470	0.84	0.17	0.45	0.06	31.6	12.9	29	4.26	16.5	3.28	5.64
122742	122742	0.001	0.11	1.3	4.9	0.02	10	460	1.17	0.18	0.62	0.11	69.2	11.4	34	9.14	20.7	4.18	5.9
122743	122743	0.001	0.35	0.57	3.7	0.02	10	410	1.12	0.31	2.52	0.18	54.3	13.1	27	13.85	58.2	3.46	3.08
122744	122744	0.001	0.16	1.02	7.2	0.02	10	400	1.58	0.2	0.43	0.12	98.9	12.7	24	13.9	35.7	4.78	6.46
122745	122745	0.046	0.1	0.72	2.8	0.02	10	340	1.8	0.07	0.53	0.1	89.5	3.9	9	11.85	18.3	2.7	3.98
122746	122746	0.002	0.04	0.54	3.2	0.02	10	160	0.48	0.07	0.28	0.03	8.19	2.3	9	2.25	5.7	0.98	1.62
122747	122747	0.001	0.03	0.46	3.9	0.02	10	140	0.9	0.06	0.33	0.02	16.7	3.7	3	30.1	3.4	1.43	1.63
122748	122748	0.001	0.05	0.46	3.7	0.02	10	250	0.98	0.09	4.16	0.1	26.8	16.9	26	12.3	24.3	4.18	2.31
122749	122749	0.001	0.08	2.65	5.8	0.02	10	560	1.07	0.12	1.43	0.14	90.5	25.4	142	8.2	42.8	6.21	12.35
122750	122750	0.001	0.03	3.94	8.4	0.02	10	220	1.1	0.28	0.18	0.16	46.5	18.9	138	2.72	54.6	6.53	14.95



SOIL SAMPLE LOCATIONS, DESCRIPTIONS AND GEOCHEMISTRY

Station	Ge_ppm	Hf_ppm	Hg_ppm		K%	La_ppm	Li_ppm	Mg%	Mn_ppm	Mo_ppm	Na%	Nb_ppm	Ni_ppm	P_ppm	Pb_ppm	Rb_ppm	Re_ppm	S_%	Sb_ppm	Sc_ppm
122738	0.16	0.05	4.72	0.062	0.18	45.1	2.3	0.18	1000	0.42	0.01	0.18	6.4	1310	15.3	17.1	0.001	0.01	1.44	8.5
122739	0.24	0.09	7.13	0.058	0.21	86.6	13.5	0.75	736	0.75	0.01	0.72	13.6	790	19.5	18.5	0.001	0.1	3.83	21
122740	0.22	0.1	11.55	0.051	0.91	30.9	28.2	2.35	671	0.45	0.02	0.73	31.5	720	7.6	50.6	0.001	0.01	3.09	21.7
122741	0.11	0.11	0.28	0.036	0.07	15.8	12	0.51	430	0.69	0.02	0.63	17.3	520	9.2	8.6	0.001	0.01	0.44	11.2
122742	0.16	0.08	0.46	0.05	0.43	42.5	6.9	0.53	682	0.71	0.01	1.83	20.3	1030	9.7	44.2	0.001	0.01	1.05	10.7
122743	0.12	0.06	4.72	0.148	0.28	25.7	1.5	0.63	827	0.23	0.01	0.17	13.8	910	7.1	23.9	0.001	0.03	2.6	12.3
122744	0.19	0.08	0.74	0.057	0.44	53.1	3.8	0.4	732	0.57	0.01	1.21	22.9	940	17.3	42.3	0.001	0.01	1.08	13.4
122745	0.15	0.07	2.33	0.056	0.24	45.9	1.8	0.15	776	0.15	0.01	0.09	6.9	970	20.5	22.7	0.001	0.01	1.44	7.3
122746	0.07	0.04	1.44	0.01	0.1	4.2	2.6	0.14	82	0.3	0.01	0.3	5.3	470	4.8	6.6	0.001	0.01	1.34	2.1
122747	0.1	0.02	2.15	0.03	0.19	9.1	1.2	0.1	168	0.08	0.01	0.05	4.8	680	3.8	19.7	0.001	0.01	1.01	4.4
122748	0.1	0.03	0.91	0.06	0.24	14.2	2.6	0.94	780	0.25	0.01	0.05	16	1240	8.8	16.9	0.001	0.01	1.06	21.6
122749	0.2	0.1	16.55	0.079	0.59	31.8	33.9	2.11	1420	0.75	0.01	0.62	39.2	890	16.9	37.4	0.001	0.01	5.77	34.9
122750	0.12	0.04	0.43	0.075	0.23	15.2	43.6	2.49	798	0.68	0.01	1.33	29.5	250	15	21.4	0.001	0.01	2.73	15.7

SOIL SAMPLE LOCATIONS, DESCRIPTIONS AND GEOCHEMISTRY

Station	Se_ppm	Sn_ppm	Sr_ppm	Ta_ppm	Te_ppm	Ti%	Th_ppm	Tl_ppm	U_ppm	V_ppm	W_ppm	Y_ppm	Zn_ppm	Zr_ppm	Certificate
122738	0.8	0.6	35.7	0.01	0.01	17	0.006	0.14	0.92	49	0.11	31	120	2	WH17191007
122739	2	1	45.7	0.01	0.01	20	0.026	0.12	1.6	71	0.18	49.8	89	3	WH17191007
122740	0.7	1.9	67	0.01	0.01	11	0.114	0.36	0.84	102	0.54	22.6	71	2.5	WH17191007
122741	0.6	0.6	33.6	0.01	0.02	3.5	0.047	0.11	0.64	84	0.18	11.1	59	5.6	WH17191007
122742	0.8	0.9	35.9	0.01	0.01	13.8	0.073	0.27	1.22	63	0.13	24.3	100	3.4	WH17191007
122743	1.1	1.3	99.8	0.01	0.01	12.3	0.005	0.16	1.44	43	0.16	22.5	84	2	WH17191007
122744	1.2	0.8	27.8	0.01	0.02	20.8	0.058	0.29	1.55	54	0.13	33.2	124	3.8	WH17191007
122745	0.7	0.4	38.3	0.01	0.01	18	0.005	0.16	1.57	46	0.4	17.45	112	3.6	WH17191007
122746	0.2	0.2	14.1	0.01	0.01	1.1	0.013	0.06	0.27	18	0.1	3.14	30	2	WH17191007
122747	0.3	0.2	32.7	0.01	0.01	5.3	0.005	0.25	0.62	11	0.74	10.95	34	0.8	WH17191007
122748	0.5	0.2	109.5	0.01	0.02	3.4	0.005	0.22	0.53	88	0.22	18.7	66	0.5	WH17191007
122749	0.7	1.1	87.5	0.01	0.01	12.9	0.083	0.25	1.04	124	0.17	24.8	116	2.1	WH17191007
122750	0.5	5.1	14.6	0.01	0.01	8.3	0.055	0.13	0.85	113	0.72	7.27	119	1.2	WH17191007

**APPENDIX C**  
**Field Station**  
**Location & Descriptions**

Field Stations

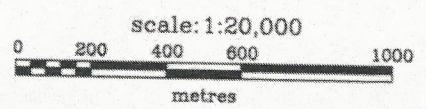
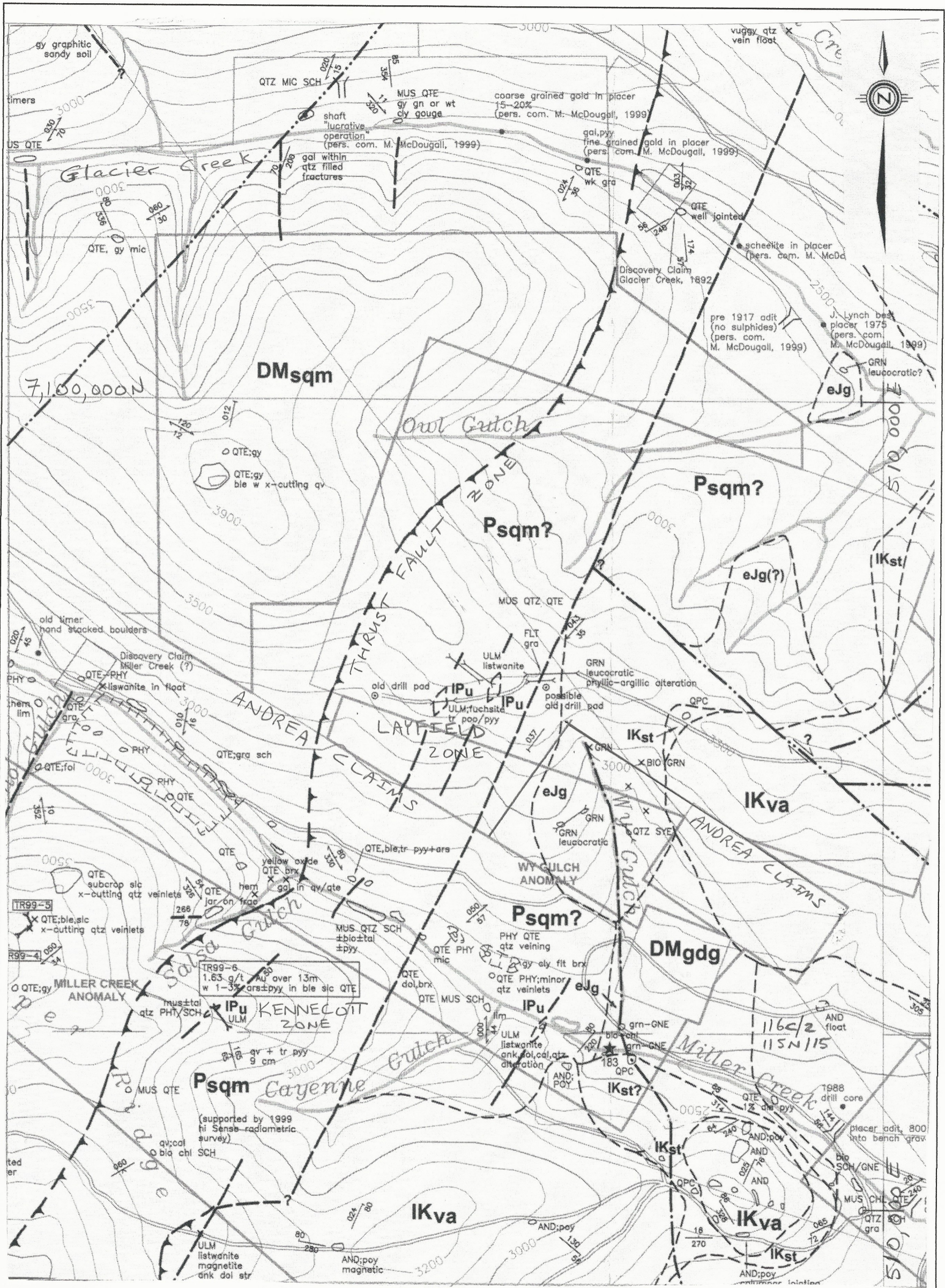
Station	Date	Time	Grid	Datum	Zone	East	North	Elevation	m	Location	Sampler	Description
End_Trail_1	31-Aug-17	11:32:05AM	UTM	NAD83	7W	508224	7097786	840		Miller Ck - WY Gulch		
K952892	2-Sep-17	5:55:48PM	UTM	NAD83	7W	512165	7097244	673	m	Miller Ck - WY Gulch		
RH17SM004	31-Aug-17	11:39:09AM	UTM	NAD83	7W	508161	7097798	846	m	Miller Ck - WY Gulch	RH	Placer claim posts No.2 # P-19506 and Post No. 1, P-19507 on N-S line.
RH17SM005	31-Aug-17	11:50:10AM	UTM	NAD83	7W	508101	7097856	861	m	Miller Ck - WY Gulch	RH	Angular float, 25 x 25 cm, coarse grained calcite veining with minor limonite on fracture. Apparent trend 174/steep.
RH17SM006	31-Aug-17	12:14:02PM	UTM	NAD83	7W	508228	7098030	897	m	Miller Ck - WY Gulch	RH	West end of old dozer trench, Float of ankerite - calcite veined bleached light tan weathering light grey granite (Jur?) old KEX samples: soil VR83231 and rock float VR83182.
RH17SM007	31-Aug-17	1:06:34PM	UTM	NAD83	7W	508297	7098064	883	m	Miller Ck - WY Gulch	RH	In trench, KEX soil samples (DUP) VR83180, 181); granite with minor chlorite.
RH17SM008	31-Aug-17	1:11:17PM	UTM	NAD83	7W	508351	7098131	882	m	Miller Ck - WY Gulch	RH	E end of trench. Granite with mafic.
RH17SM009	31-Aug-17	1:21:48PM	UTM	NAD83	7W	508347	7098081	873	m	Miller Ck - WY Gulch	RH	Very old diggings, looks like a pond? 5x5m, gravel of amphibole - granite. Jur granodiorite with unidentified mafic.
RH17SM010	31-Aug-17	1:35:46PM	UTM	NAD83	7W	508420	7098019	842	m	Miller Ck - WY Gulch	RH	East end of trench. Fine to med grained brownish grey foliated biot granite, 10-15% qt, mostly feldspar. Wet ground, willow and alders.
RH17SM011	31-Aug-17	2:02:29PM	UTM	NAD83	7W	508305	7097883	854	m	Miller Ck - WY Gulch	RH	West end of trench in Willow and spruce, Near east end (<= 20 m ) hand sample of biotite hornblende granodiorite cross cut by pink coarse grained granodiorite, fractured with coatings of hematite and ??
RH17SM012	31-Aug-17	3:29:32PM	UTM	NAD83	7W	508436	7097921	836	m	Miller Ck - WY Gulch	RH	East end of lower (3rd) trench. Terminates as does middle trench in swampy wet frozen ground to east. Float at east end of fairly fresh more mafic rich biotite granodiorite. Hand sample of bleached sericite altered granodiorite.
RH17SM013	31-Aug-17	4:55:42PM	UTM	NAD83	7W	508398	7097837	837	m	Miller Ck - WY Gulch	RH	West end of lower third trench and start of ditch going west.
RH17SM014	1-Sep-17	2:37:58PM	UTM	NAD83	7W	508407	7097981	846	m	Miller Ck - WY Gulch	RH	Pink granite - alteration?, thin section?
RH17SM015	2-Sep-17	10:10:04AM	UTM	NAD83	7W	508451	7097926	833	m	Miller Ck - WY Gulch	RH	East end of bottom trench (#3), first 20 m going west is black frozen muck.

Field Stations

Station	Date	Time	Grid	Datum	Zone	East	North	Elevation	m	Location	Sampler	Description
Trail?	31-Aug-17	12:03:30PM	UTM	NAD83	7W	508134	7098026	896	m			
Trail_cutoff	31-Aug-17	12:53:09PM	UTM	NAD83	7W	508110	7098032	897	m			
Trail_start	31-Aug-17	11:02:25AM	UTM	NAD83	7W	508419	7097464	790	m			
Trail1	31-Aug-17	10:42:59AM	UTM	NAD83	7W	508421	7097466	784	m			
Trl2	31-Aug-17	11:32:12AM	UTM	NAD83	7W	508223	7097784	841	m			
Trl3	31-Aug-17	11:45:14AM	UTM	NAD83	7W	508095	7097840	857	m			
Trl4	31-Aug-17	12:03:04PM	UTM	NAD83	7W	508115	7098075	896	m			
Trl5	31-Aug-17	12:51:45PM	UTM	NAD83	7W	508111	7098034	896	m			

**APPENDIX D**  
**Digital Data**

## MAP POCKET



Jayce Murtagh  
 Dawson City, Yukon Territory

PROPERTY GEOLOGY  
 ANDREA CLAIMS & SURROUNDING AREA

Date: Jan 8, 2018 NTS: 115N/15 & 116C/2  
 Grid Datum: UTM, NAD27, Zone 7

*Note: Claims not accurate* FIGURE 4

Figure after: Hulstein and Zuran, 1999; Yukon Assessment Report 094055



# ABBREVIATIONS

AND	andesite	ank	ankerite
BAS	basalt	bio	biotite
DAC	dacite	cal	calcite
GRD	granodiorite	cdy	chaicedony
GRN	granite	chl	chlorite
LAT	latite	dol	dolomite
MRB	marble	fel	feldspar
PHY	phyllite	flu	fluorite
QTE or QZT	quartzite	gra	graphite
SLS	siltstone	hem	hematite
SYE	syenite	jar	jarosite
TUF	tuff	lim	limonite
SCH	schist	mdl	molybdenite
ULM	ultramafic	mic	mica
AP	axial plane	mus	muscovite
FA	fold axis	qtz	quartz
TR	trench	ser	sericite
		tal	talc
arg	argillic alteration	ars	arsenopyrite
ble	bleached	gal	galena
clay	clay	poo	pyrrhotite
mnx	manganese oxide	pyy	pyrite
oxi	oxidized	sph	sphalerite
sic	silicified		
stn	stained		
abx	auto-breccia	gn	green
alt	altered	gy	grey
brx or bxa	breccia	wt	white
cog	coarse grained	yw	yellow
def	deformed		
dis	disseminated		
flt	fault	dk	dark
fol	foliated	lt	light
mas	massive		
poy	porphyritic	w	with
pyr	pyroclastic	tr	trace
str	stringers	qv	quartz vein
swk	stockwork		
ven	vein		

# SYMBOL LEGEND

---	GEOLOGICAL CONTACT (APPROXIMATE)
-.-.-	AIR PHOTO LINEAR (FAULT?)
-.-.-.-	GEOPHYSICS LINEAR (FAULT?) (Interpreted from 1999 Hi Sense Magnetics, Radiometrics Airborne Survey)
▲-▲-▲-▲	THRUST FAULT (INTERPRETED, APPROXIMATE)
———	FAULT (APPROXIMATE)
———	CLAIM BOUNDARY K.C.E.I.
———	CLAIM BOUNDARY (OTHER)
———	CREEK
====	4X4 ROAD, TRAIL
———	K.C.E.I. TRENCH - 1999, OTHER
⊥	PIT
ADIT	ADIT
○	EXTENT OF OUTCROP
○	FLOAT
⊕	FOSSILS
⊙	DRILL HOLE
★ 17.2	AGE DATE IN MA (J.K. MORTENSEN, pers. comm.)
■ PER	YUKON MINFILE OCCURRENCE
21/25	VEIN (INCLINED)
270	JOINT (INCLINED, VERTICAL)
30/35	BEDDING (INCLINED, VERTICAL)
35/35	FOLIATION (INCLINED, VERTICAL)

# LITHOLOGY LEGEND

\* Kennecott rock codes in brackets.

PALEOCENE - EOCENE

**eTst**  
Grey, dark grey to steel blue grey cross bedded siltstone (SLS); light greyish, well bedded grit and sandstone (SST). Local plant fossils noted. Ash tuff (?) (TUF), olivine basalt (?) also noted.

**CARMACKS GROUP**

LATE CRETACEOUS

**IKcsi**  
Greenish grey calcareous tremolite-actinolite skarn like or calc-silicate rock.

**IKvi**  
Greyish hypabyssal porphyritic latite/dacite (LAT). Medium coarse phenocrysts of plagioclase, lesser ones of hornblende, minor ones of quartz, and apatite in a fine grained ground mass.

**IKva**  
Grey to brownish rusty and purplish grey porphyritic andesite and rare dacite (?); (AND, DAC). Medium to coarse grained phenocrysts of plagioclase with lesser hornblende/augite and rare quartz.

**IKst**  
White to light grey, subrounded to rounded, quartz pebble conglomerate.

**IKgdr**  
Off white to greenish grey, fine to medium grained granodiorite (GRD), dominated by plagioclase with lesser quartz, much less abundant K-feldspar, biotite, and accessory pyrite and apatite.

EARLY JURASSIC

**eJg**  
Off white, fine to coarse grained, leucocratic, metamorphosed, locally foliated, quartz monzonite to granite (GRN) with minor biotite and muscovite. Includes abundant apatite and pegmatitic phases. Also named "alaskite" (ALK).

**IPu**  
Tan and light rusty weathering carbonatized ultramafic rock (ULM) and talc muscovite-phyllites and schists (TAL MUS PHY/SCH). Local fuchshite noted.

**KLONDIKE SCHIST ASSEMBLAGE**  
MIDDLE TO LATE PERMIAN

**Psqm**  
Grey to rusty weathering quartz muscovite schist (QTZ MUS SCH) and phyllite (PHY).

**NASINA ASSEMBLAGE**  
LATE (?) DEVONIAN TO EARLY MISSISSIPPIAN

**DMc**  
Grey to brown grey recrystallized limestone (LST) and marble (MRB).

**DMsqm**  
Grey, pale green, to locally rusty weathering, fine grained, predominantly non-graphitic, muscovite (+/- chlorite) quartzite (MUS CHL QTE), quartz muscovite schist (QTZ MUS SCH) and phyllite (PHY).

**DMsqc**  
Grey to dark grey, fine grained, predominantly graphitic, muscovite quartzite (GRA MUS QTE), quartz muscovite schist (QTZ MUS SCH) and phyllite (PHY).

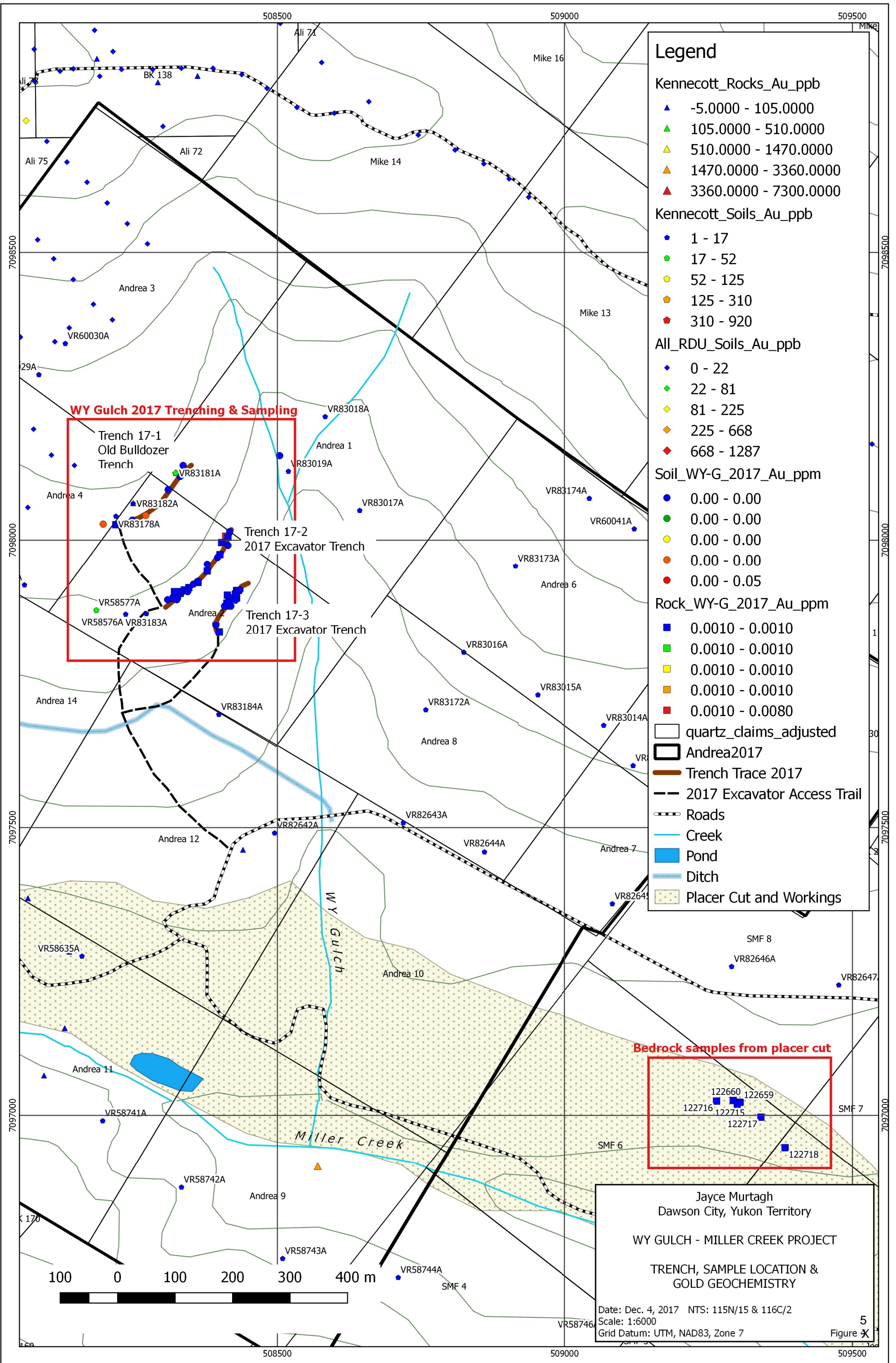
**DMasc**  
Medium to dark green chlorite +/- biotite schist (CHL BIO SCH). Magnetic meta-mafic volcanic rock.

**DMs**  
Dark grey, medium to coarse grained mica schist. Micas include: muscovite +/- biotite +/- phlogopite +/- chlorite with local porphyroblastic textures.

**DMgdg**  
Pinkish tan, medium grained, massive to strongly foliated, local augen textured dioritic to granodioritic gneiss (GNE).

# DAWSON / CLINTON CK. ASSEMBLAGE (SLIDE MTN. TERRANE)

MIDDLE OR UPPER PALEOZOIC



**WY Gulch 2017 Trenching & Sampling**

Trench 17-1  
Old Bulldozer Trench

Trench 17-2  
2017 Excavator Trench

Trench 17-3  
2017 Excavator Trench

**Bedrock samples from placer cut**

122660 122659

122716 122715

122717

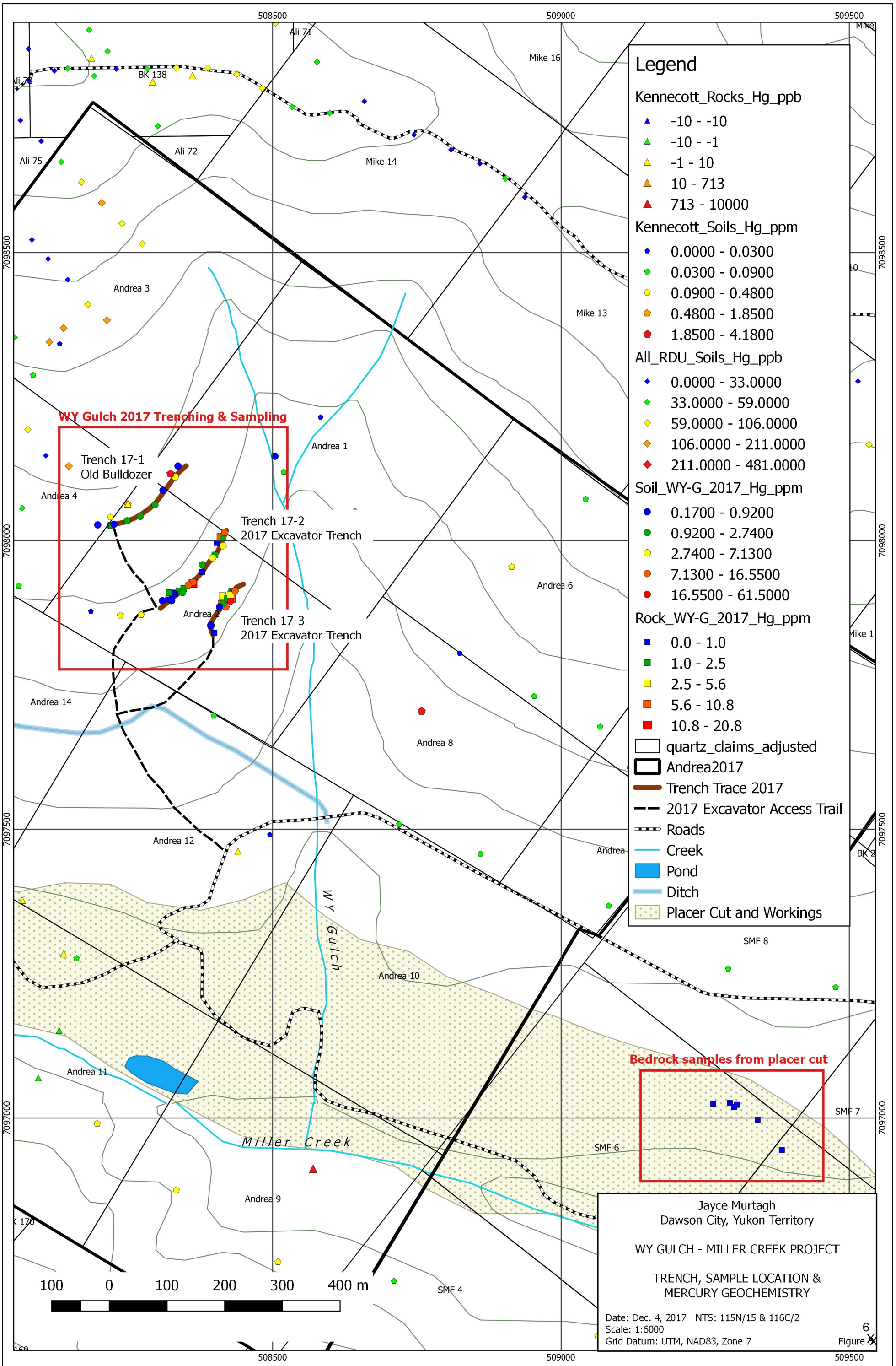
122718

Jayce Murtagh  
Dawson City, Yukon Territory

WY GULCH - MILLER CREEK PROJECT

TRENCH, SAMPLE LOCATION &  
GOLD GEOCHEMISTRY

Date: Dec. 4, 2017 NTS: 115N/15 & 116C/2  
Scale: 1:6000  
Grid Datum: UTM, NAD83, Zone 7



**Legend**

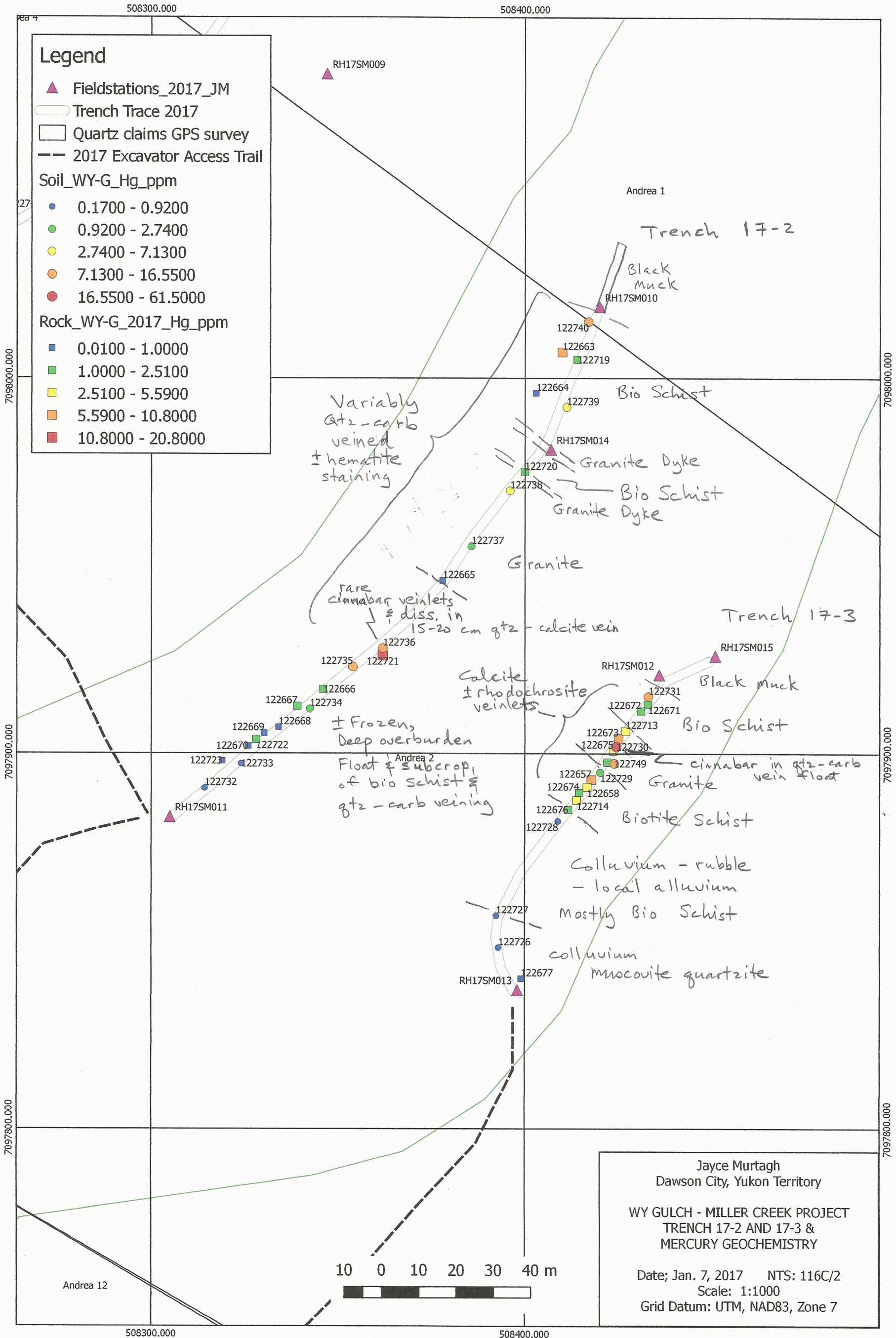
- ▲ Fieldstations\_2017\_JM
- Trench Trace 2017
- Quartz claims GPS survey
- 2017 Excavator Access Trail

**Soil\_WY-G\_Hg\_ppm**

- 0.1700 - 0.9200
- 0.9200 - 2.7400
- 2.7400 - 7.1300
- 7.1300 - 16.5500
- 16.5500 - 61.5000

**Rock\_WY-G\_2017\_Hg\_ppm**

- 0.0100 - 1.0000
- 1.0000 - 2.5100
- 2.5100 - 5.5900
- 5.5900 - 10.8000
- 10.8000 - 20.8000

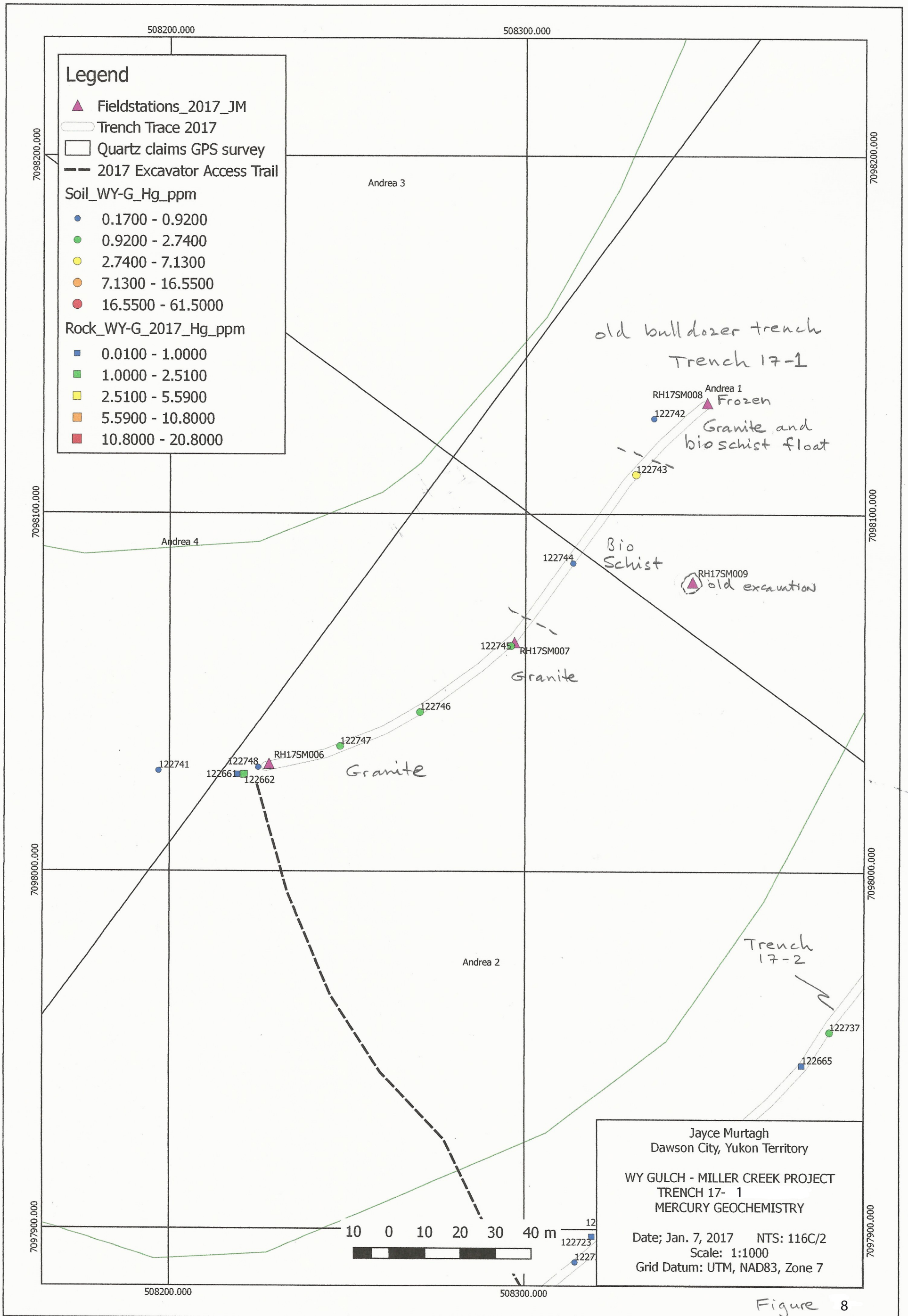


Jayce Murtagh  
 Dawson City, Yukon Territory

WY GULCH - MILLER CREEK PROJECT  
 TRENCH 17-2 AND 17-3 &  
 MERCURY GEOCHEMISTRY

Date; Jan. 7, 2017 NTS: 116C/2  
 Scale: 1:1000  
 Grid Datum: UTM, NAD83, Zone 7

Figure 6x 7



Jayce Murtagh  
 Dawson City, Yukon Territory

WY GULCH - MILLER CREEK PROJECT  
 TRENCH 17- 1  
 MERCURY GEOCHEMISTRY

Date; Jan. 7, 2017 NTS: 116C/2  
 Scale: 1:1000  
 Grid Datum: UTM, NAD83, Zone 7

Figure 8