ASSESSMENT REPORT TITLE PAGE AND SUMMARY

TITLE OF REPORT:
2018 PROSPECTING GEOLOGICAL, GEOPHYSICAL, AND PHYSICAL WORK

TOTAL COST: $ 3,072.14

AUTHOR(S): **David J. Piggin, RPF, Prospector**
SIGNATURE(S): **David J. Piggin, RPF, Prospector (Owner)**

NOTICE OF WORK PERMIT NUMBER(S)/DATE(S): **Not Applicable**

STATEMENT OF WORK EVENT NUMBER(S)/DATE(S):
EVENT 5718616 dated November 7, 2018: November 25, 2017 to November 6, 2018
EVENT 5721066 dated November 29, 2018: November 7, 2017 to November 28, 2018
EVENT 5722281 dated December 8, 2018: November 29, 2018 to December 8, 2018

YEAR OF WORK: **2018**
PROPERTY NAME: **WEST AFTON** (North Group)
CLAIM NAME(S) (on which work was done): 1056644 – AKILA
COMMODITIES SOUGHT: **Gold, Silver, Chromium, Copper, Molybdenum, Lead, Nickle, Zinc,**

MINERAL INVENTORY MINFILE NUMBER(S),IF KNOWN: **MINFILE 092INE085 – AKILA is close to, or withinTenure 1056644**. (not found during field work)

MINING DIVISION: **KAMLOOPS**
NTS / BCGS: **92I067**:
LATITUDE: **50** ° **39** ' **5.97** "
LONGITUDE: **120** ° **38** ' **19.65** " (at centre of work)
UTM Zone: **10** **666913.4** EASTING: **5613749.6** NORTHING:

OWNER(S):
David J. Piggin, RPF, Prospector

OPERATOR(S) [who paid for the work]:
David J. Piggin, RPF, Prospector

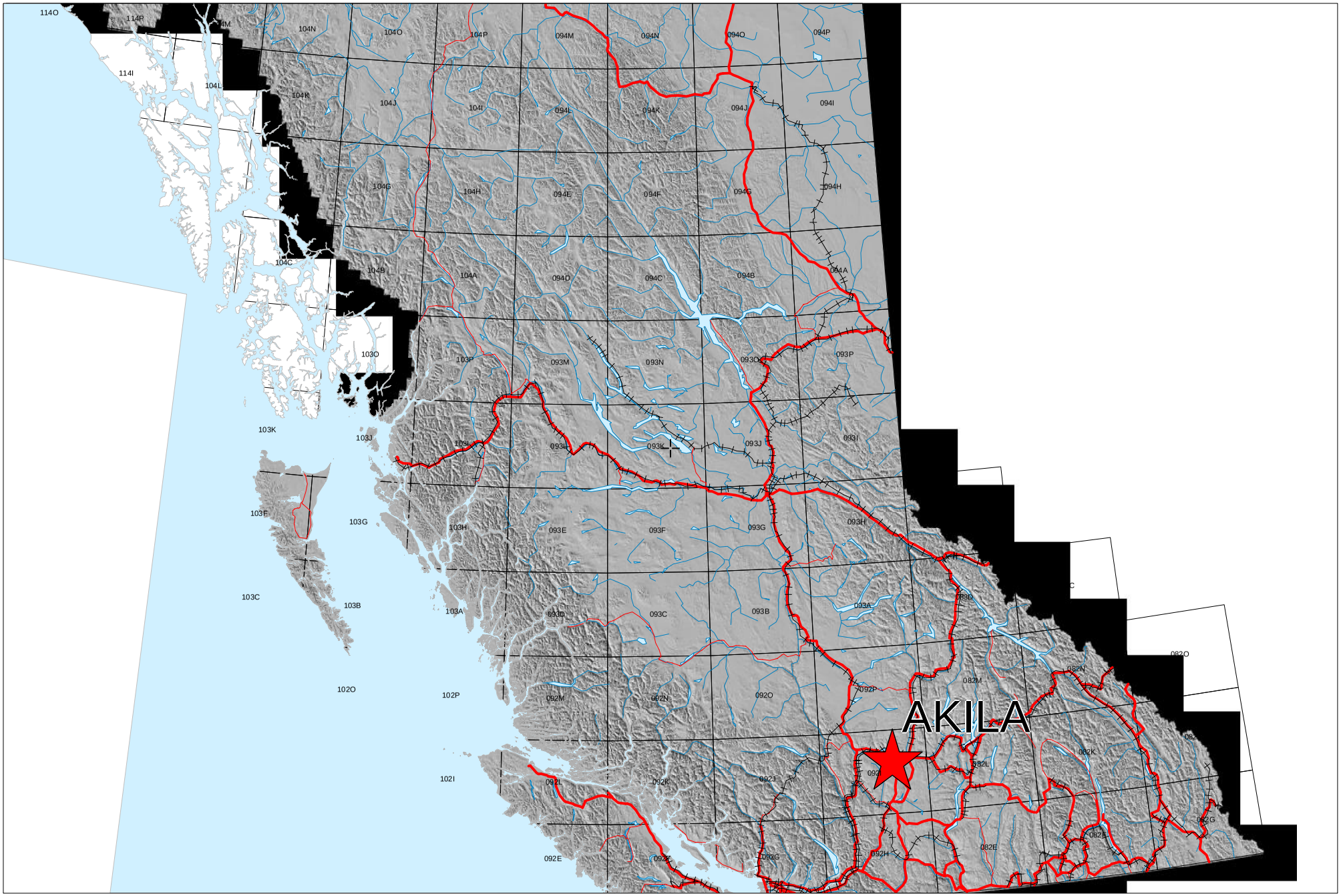
REPORT KEYWORDS (lithology, age, stratigraphy, structure, alteration, mineralization, size and attitude. **Do not use abbreviations or codes**)
Jurassic; Upper Triassic; Upper Triassic Nicola Group; Greenstone Mountain Assemblege; Iron Mask Batholith, Iron Mask Assemblege; Alkalic Intrusive Complex; Nicola Group; Nicola Volcanics; basaltic volcanic rocks; mafic breccia and tuff; Afton; Quesnel Terrane; Quest South; Cherry Creek Fault; New Afton;

West Afton; 1995 Iron Mask Geophysical Survey, Chromite Nickle Deposit.

REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS:
02147, 02262, 03941, 03593, 03658, 03659, 03801, 03824, 03890, 04007, 04010, 04016, 04017, 04055, 04156, 04157, 05852, 05961, 06245, 06249, 07180, 07850A, 07850B, 08031, 08473, 09070, 09426, 09610, 12056A, 12056B, 17788, 20220, 20679, 22404, 22630, 23035, 23111, 23380, 23390, 23420, 24017, 24195, 25916, 26271, 27374, 28238, 28425, 28993, 29880, 30237, 31413, 32363, 34352, 35143; 36031; 36454.

TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (in metric units)	ON WHICH CLAIMS	PROJECT COSTS APPORTIONED (incl. support)
GEOLOGICAL (scale, area)			
Ground, mapping			
Photo interpretation		**1056644**	**$ 300.00**
GEOPHYSICAL (line-kilometres)			
Ground			
Magnetic			
Electromagnetic			
Induced Polarization			
Radiometric			
Seismic			
Other			
Airborne		**1056644**	**$ 400.00**
GEOCHEMICAL (number of samples analysed for …)			
Soil			
Silt			
Rock	**2 Rock Samples**	**1056644**	**$ 180.14**
Other			
DRILLING (total metres, number of holes, size, storage location)			
Core			
Non-core			
RELATED TECHNICAL			
Sampling / Assaying		**1056644**	**$ 892.00**
Petrographic			
Mineralographic			
Metallurgic			
PROSPECTING (scale/area)	**102.4238 hectares**	**1056644**	**$ 1,000.00**
PREPATORY / PHYSICAL			
Line/grid (km)			
Topo/Photogrammetric (scale, area)			
Legal Surveys (scale, area)			
Road, local access (km)/trail			
Trench (number/metres)			
Underground development (metres)			
Other	**Literature General Research, database, First Nation, etc**	**1056644**	**$ 300.00**
		TOTAL COST	**$ 3,072.14**

TENURE 1056644 - AKILA



SCALE 1 : 6,701,975

100 0 100 200 300

MILES

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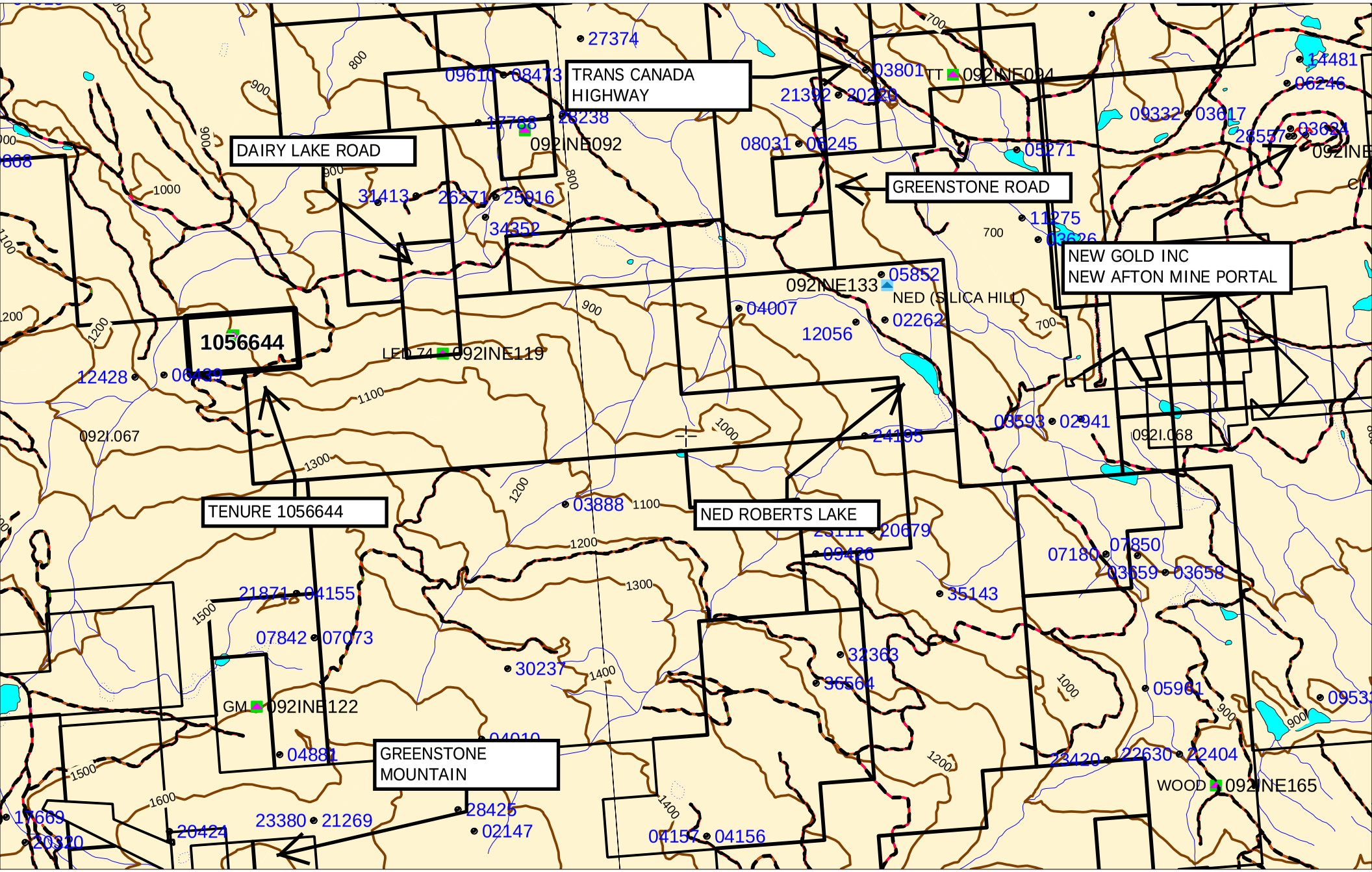
TENURE 1056644 - AKILA



SCALE 1 : 40,000

2,000 0 2,000 4,000 6,000

FEET

N

MapPlace.ca

Mineral Titles Online Report

Click on Tenure Numbers for more information.

Click column headings to sort results.

Download to Excel

Tenure Number	Type	Claim Name	Good Until	Area (ha)
1056644	Mineral	AKILA	20221202	40.9774

Total Area: 40.9774 ha

BCGW Metadata

Mineral Title Online
BC Geological Survey
British Columbia Ministry of Energy and Mines
Last updated in April 2007

2018 PROSPECTING, GEOCHEMICAL, GEOLOGICAL, AND GEOPHYSICAL, WORK

ASSESSMENT REPORT FOR TENURE 1056644

David J. Piggin, R.P.F., Prospector and Owner

KAMLOOPS MINING DIVISION, BRITISH COLUMBIA, CANADA.

Peridotite - Cr Ni Mg Fe Ca Al Ti
Tenure 1056644 – AKILA: 40.9774 hectares
Map Sheets: 092I067

Latitude 50 deg-39 min-5.97 sec N; Longitude 120 deg-38 min 19.65 sec W
Latitude 50.6517 deg; Longitude -120.6388 deg
UTM NAD 83 Zone 10. 666913.4 Easterly. 5613749.6 Northerly.

17 Km West of KAMLOOPS, BRITISH COLUMBIA, CANADA
8.5 Km West of the NEW GOLD INC, NEW AFTON MINE - Portal

5 Km South West of the Trans-Canada Highway, 5 Km West of Ned Roberts Lake;
0.1 Km East of Beaton Creek; 0.4 Km South of the Dairy Lake FSR (9746.01).

Event No.	Date	Tenure Numbers	Gross Area (hectares)	Total Value of Work($)	PAC Account ($)	Total Applied Work Value($)
5718616	**November 7, 2018**	**1056644 - AKILA**	**40.9774**	**$ 2,182.00**	**$ 940.89**	**$ 1,241.11**
5721066	**November 29, 2018**	**1056644 - AKILA**	**40.9774**	**$ 847.09**	**$ 596.17**	**$250.92**
5722281	**December 8, 2018**	**1056644 – AKILA**	**40.9774**	**$ 43.05**	**$ 0.95**	**$ 42.10**
		ASSESSMENT REPORT SUMMARY	**40.9774 hectares**	**$ 3,072.14**	**$ 1,538.01**	**$ 1,534.13**

PREPARED BY:
David J. Piggin, R.P.F., Free Miner 140689,
5-2363 DeMamiel Drive, Sooke, British Columbia, V9Z 1K3

SUMMARY

Exploration work was completed by David J. Piggin from November 25, 2017 to December 7, 2018. The Total Value of Work was $ 3,072.14 was recorded for Events 5718616, 5721066, and 5722281. Tenure 1056644 - AKILA is located 17 km west of Kamloops, British Columbia, Canada. The claim is situated in the QUESNEL TERRANE within the Jurrassic – Alkalic Intrusive Complex referred to as the Greenstone Mountain Assemblege **[JGM]** – diorite and dirorite intrusive (Bergey 2017) and Beaton Lake Assemblege **[JBL]** – mainly heterolithic intrusive breccia (Bergey 2017); and is also described as **uTrNE** Mesozoic – Nicola Group – Eastern Facies basaltic volcanic rocks; mafic breccia and tuff with augite and hornblende-phyric clasts; local intercalated argillite (GeoFile). The claim is on the lower slope of Greenstone Mountain and is in close proximity of the New Gold Inc – New Afton Mine and over 70+ MINFILE Occurrences. It is west of the Cherry Creek Fault and the claim is bisected by the Alkali Creek Fault.

Exploration dates back to the 1880's. In 1896, Cu Au Fe was discovered at the IRON MASK Mine. Companies such as Granby Consolidated Mining, Smelting and Power Company, Limited (1916); Consolidated Mining and Smelting Company of Canada Limited (1928); Berens River Mines Limited (1952); Cominco Limited (1980s); and Teck Corporation (1970s-1980s) explored the area. Recently, the area was explored by Green Valley Mines Inc, Lakewood Mining Company Ltd, Tower Resources Ltd, and New Gold Inc. No historic drilling has been recorded on the claim.

The following is a brief summary of the works completed:

EXPENDITURES, AND RESULTS: The Total Value of Work was $ 3,072.14 on 40.9974 hectares. Prospecting, mapping, and sampling were done; 2 ultramafic peridotite rocks were collected and assayed; and anomalous results are shown in bold.

10E41486_AK18F1: Au <0.001 ppm; Ag 0.03 ppm; **Al 2.72 percent**; Ba 272 ppm; **Ca 4.04 percent**; Co 83.5 ppm; **Cr 1330 ppm**; Cu 62.2 ppm; **Fe 6.51 percent**; **Mg 16.95 percent**; **Mn 1180 ppm**; Mo 0.26 ppm; **Ni 1260 ppm**; Pt 0.007 ppm; Pd 0.006 ppm; **Ti 0.148 percent**; Zn 59 ppm.

10E41487_AK18F2: Au <0.001 ppm; Ag 0.02 ppm; **Al 2.65 percent**; Ba 390 ppm; **Ca 4.08 percent**; Co 83.7 ppm; **Cr 1350 ppm**; Cu 58.3 ppm; **Fe 6.28 percent**; **Mg 17.4 percent**; **Mn 1120 ppm**; Mo 0.24 ppm; **Ni 1305 ppm**; Pt 0.008 ppm; Pd 0.006 ppm; **Ti 0.146 percent**; Zn 60 ppm.

Ultramafic peridotite rocks with Cr Ni, or Cr Ni Mg Fe Ca Al signature are not common in the **[JGM]** and nearby rock types.

GEOLOGICAL FEATURES: Cherry Creek Tectonic Zone is 11 km to the east, and trends in a NW to SE direction separating the **[JGM]** and **[JBL]** from the Iron Mask Batholith. Local faults run in a SW to NE direction and intersect with the Cherry Creek Tectonic Zone at an acute angle. The Alkali Creek Fault separates the **[JBL]** (north) from the **[JGM]** (south); and runs along Beaton Creek, in a southwest to north east direction within 150 metres of the NW corner of Tenure 1056644. The estimated ice direction, based on drumlins, was 118 degrees azimuth.

GEOPHYSICAL FEATURES:

1995 IRON MASK Airborne Geophysical Survey: Geophysical features (lows and highs) on the 1995 IRON MASK Geophysics – Magnetic Total Field (nT) maps were coincidental with some geological features. The Alkali Creek Fault matches up with the linear magnetic low feature which trends W to E near the claim. The deep magnetic low feature west of Tenure 1056644 is coincidental with the Alkali Creek Fault. The Cherry Creek Tectonic Zone (magnetic trough) separates the magnetic high feature of the Iron Mask Batholith from the **[JBL]** and **[JGM]**. The **[JGM]** south of the Alkali Creek Fault appears to feature a magnetic low.

QUEST – SOUTH Airborne Gravity Survey - First Vertical Derivative of Bouguer Anomaly map indicated the Iron Mask Batholith and **[JGM]** were gravity highs. The northern tip of the IRON MASK Batholith gravity high hosts the New Gold Inc – New Afton Mine. Tenure 1056644 is situated just north of the northern finger of a Greenstone Mountain – Bouguer Gravity high. Opposite this gravity high finger is a large gravity high associated with the IRON MASK Batholith. These two gravity highs (Greenstone Mountain versus IRON MASK Batholith) are separated by a gravity low or trough that encompasses the Alkali Creek Fault, Cherry Creek Fault and Cherry Creek Tectonic Zone. The Alkali Creek Fault area appears as a W to E gravity low trough.

RESEARCH: Conducted literature/research related to Cr Ni deposits, ARIS Reports, MINFILES, BC Geological Survey and Geoscience BC reports, the Greenstone Mountain Assemblege, and IRON MASK Batholith, and mining companies.

FIRST NATIONS LETTER 2018: A First Nations information letter/package was completed and submitted to each First Nation. Follow-up letters, emails, and phone calls were completed.

RECOMMENDED EXPLORATION: A five year exploration program of $90,000 was recommended commencing 2019/2020; and would include geological mapping, locating MINFILE 092INE085 AKILA, outcrop sampling, geochemical/geophysical surveys, trenching and drilling, and First Nations information sharing.

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H. ASSAY CERTIFICATE: COA_VA18271401 and COA_VA18305198

I - INTRODUCTION:

The purpose of this report is to provide a summary of the exploration work completed by by David J. Piggin from November 25, 2017 to December 7, 2018 on Tenure 1056644 - AKILA. The Total Value of Work was $ 3,072.14. The Mineral Claim Exploration and Development Work/Expiry Date MTOnline documents were recorded for Events 5718616, 5721066, and 5722281. A Mineral Tenures Online (MTOnline) map showing the assessment report area is given in APPENDIX A. The claim was staked on November 25, 2017.

The claim is located 17 km west of Kamloops, B.C (http://www.kamloops.ca) . The claim is situated 5 km south of the Trans-Canada Highway, 5 km west of Ned Roberts Lake, 0.1 km east of Beaton Creek, and 0.4 km south of the Dairy Lake Forest Service Road (FSR 9746.01). The onsite arterial access is via the Greenstone Public Road (PR); and the Dairy Lake FSR which goes through the claim. The logging road frequency for the Dairy Lake FSR is RR17.

The history of exploration just south of Kamloops dates back over a century to the 1880's (taken from Kuhl and Kozak 2008). In 1896, Copper, gold and iron mineralization were discovered at the IRON MASK Mine - MINFILE 092INE010. Over the years various companies such as Granby Consolidated Mining, Smelting and Power Company, Limited (1916); Consolidated Mining and Smelting Company of Canada Limited (1928); Berens River Mines Limited (1952); Cominco Limited (1980s); and Teck Corporation (1970s-1980s) explored the area.

More recently, exploration was done by various individual prospectors and companies such as Green Valley Mines Inc, Lakewood Mining Company Ltd, and Tower Resources Ltd.

The focus of this report was as follows:

- Conduct a thorough review of MINFILE; ARIS Reports; BC Geological Survey data; Geoscience BC, consider published literature; map the geology; map geophysical surveys; and map geological and geophysical data from Exploration Assistant, Orthophotos, ARIS Map Builder, and the BC iMap layers.
- Review published information from the New Gold Inc's – New Afton Mine, Teck Corp's – Afton Mine, and the proposed KGHM AJAX Mine.
- Map and draw subjective lineaments from orthophotos, geological mapping, airborne geophysics, faults, and breccia areas to consider targets for field prospecting and sampling.
- Complete First Nations information sharing to establish traditional areas (ownership, shared areas, traditional use).
- Conduct personal communications with various experienced geologists (e.g. Bill Bergey; Leo Lindinger) to gain expert knowledge related to previous exploration and geological mapping.
- Complete initial reconnaissance, prospecting, collect samples, report results and complete an ARIS Report.

A. LOCATION, ACCESS, INFRASTRUCTURE, FACILITIES:

The City of Kamloops (pop. 90,280 – 2016, regional population 132,663) is located in the south central part of British Columbia at the junction of the Trans Canada Highway (Hwy), Yellowhead Hwy (No. 5), Coquihalla Hwy, and Highway 97 which is the confluence of the South Thompson and North Thompson Rivers. (See the ILLUSTRATIONS below and maps in APPENDIX).

ILLUSTRATION # 1: Tenure 1056644 Claim Overview Map (not to scale).

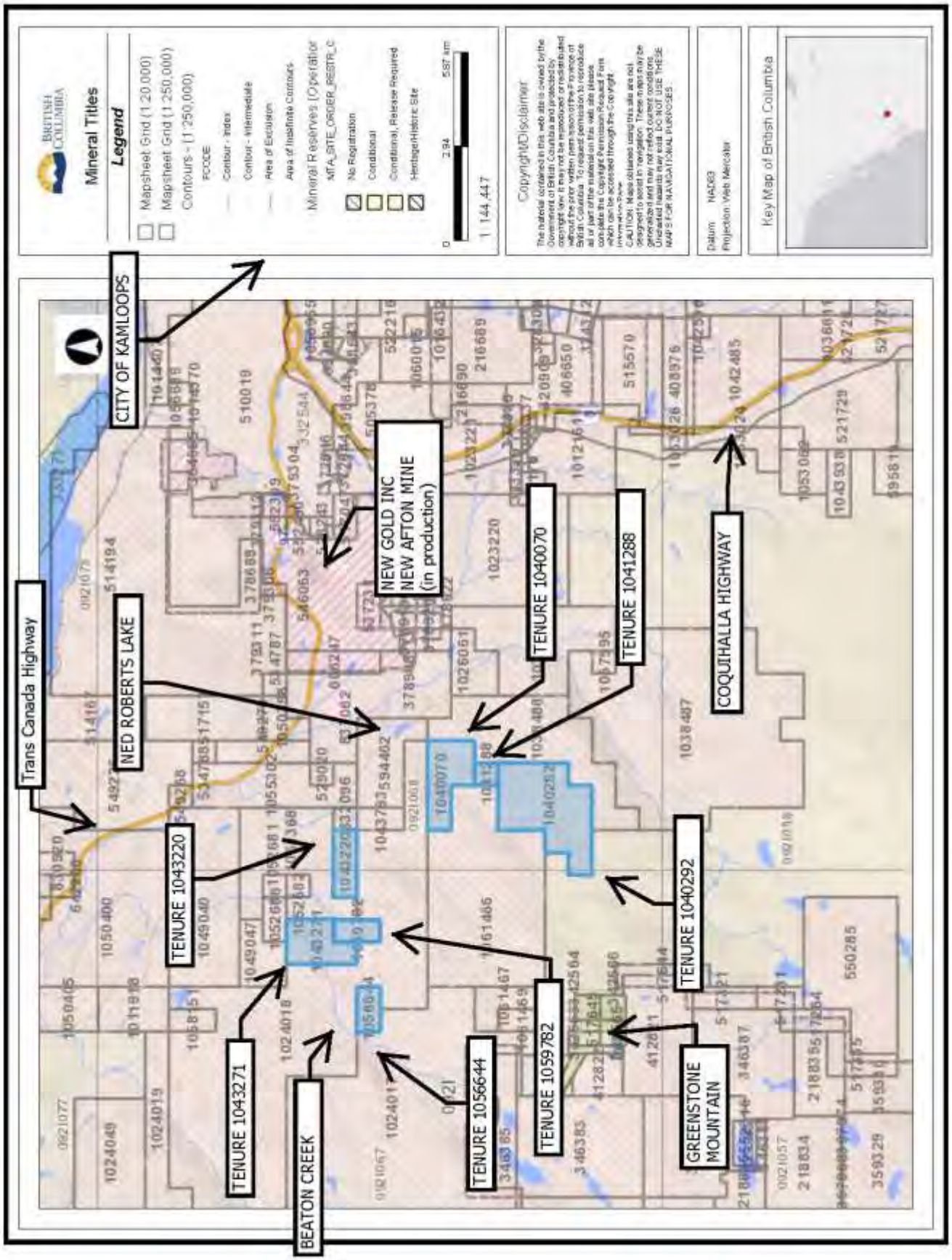
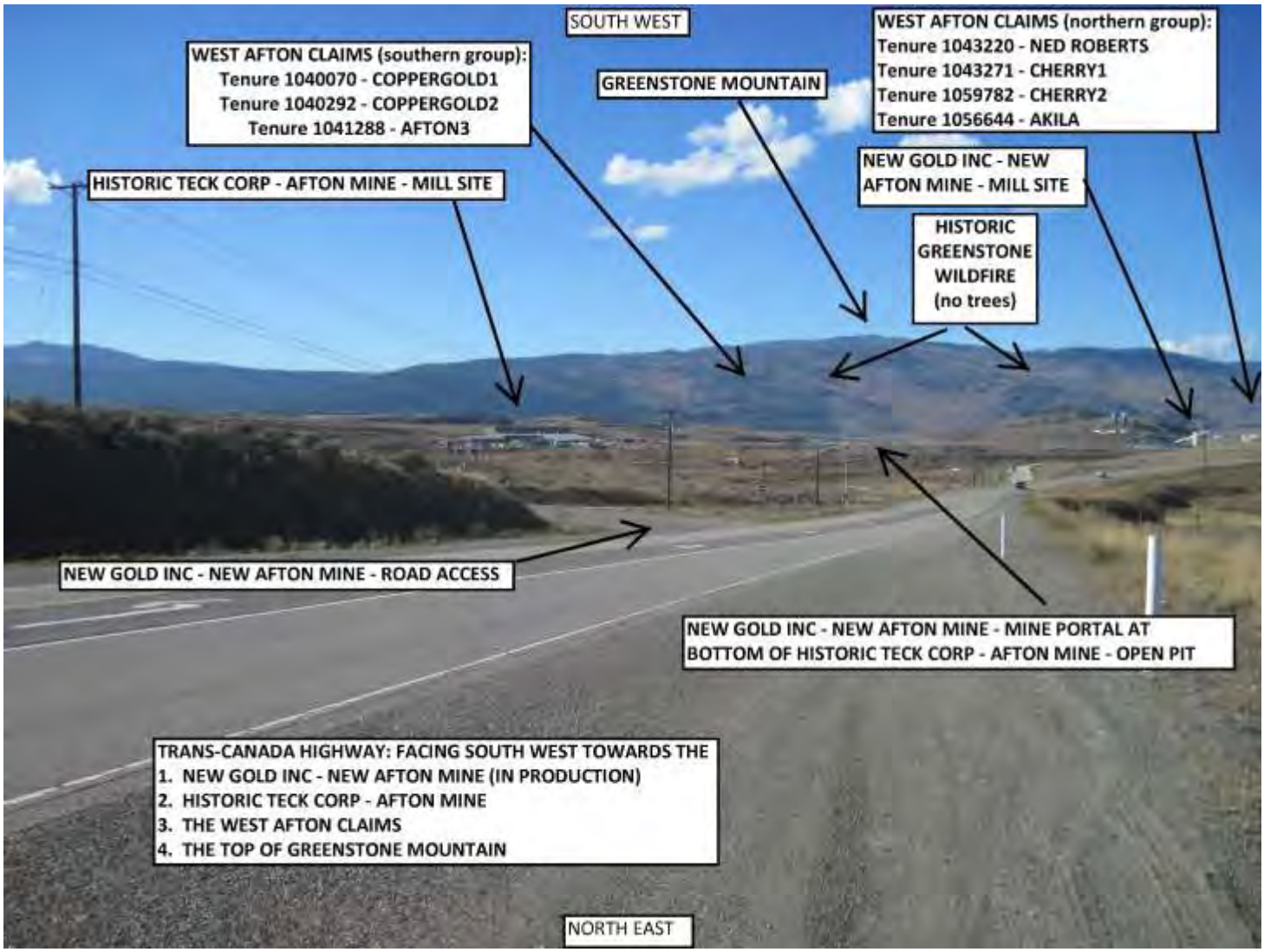


ILLUSTRATION # 2: Overview of claims area. Showing the NEW GOLD INC – NEW AFTON MINE and historic TECK CORP – AFTON MINE. Taken in a southwesterly direction. (IMG_2186 with text Nov 11 2018.pdf)



The Greenstone Mountain FSR is the main access road to the claims. Travel west from Kamloops (PetroCanada station) 15 km and turn left on to the Greenstone Road (also 0.0 km sign on the Greenstone Mountain FSR – UTM Zone 10. 672139.625E. 5615677.67N; 601 metres ASL). Then stay right on the Dairy Lake FSR, and this road passes about 0.4 km north of the north east corner of Tenure 1056644. An old logging road provides direct access to the south east corner of Tenure 1056644. There are old logging roads, and recreation and motorbike trails within and adjacent to 1056644.

B. PROPERTY STATUS:

The claim is in good standing; and is currently held by David J. Piggin (100 %).

C. PHYSIOGRAPHY AND CLIMATE:

The property is located within the southern interior Thompson Plateau; and the Central Very Dry Climatic Moisture Regime (Lloyd et al 1990). More specifically, 1056644 is within the Interior Douglas-fir (IDFxh2) and (IDFdk1) Biogeoclimatic Zones (BGCZ). In terms of physiography, the IDFxh2 is located adjacent to and lower in elevation than the IDFdk1.

The Interior Douglas-fir Zone has a continental climate with warm dry summers, a relatively long growing season with cool winters; and low to moderate snow fall. Moisture deficits are common in the growing season and frost is common throughout June and late August. Soils are typically Orthic or Dark Gray Luvisols, and Eutric or Dystric Brunisols. Humus forms are typically thin (2-5 cm).

IDFxh2: Mean annual precipitation is 379 mm and the mean snowfall is 128 cm. The mean frost free period is 92 days.
IDFdk1: Mean annual precipitation is 438 mm and the mean snowfall is 155 cm. The mean frost free period is 86 days.

Tenure 1056644 is located in the IDFxh2 with a small portion in the south west corner mapped in the IDFdk1. The slope position is near the foot of Greenstone Mountain on the north west side; and in a somewhat north facing slope position due to a large outcrop located in the middle of the claims, and therefore, the aspect is quite variable. Proximity to the large body of water in Kamloops Lake; and a winter snowpack on Greenstone Mountain may also influence climatic conditions especially in the spring and fall.

The area has been old logged roads, spur roads, and trails. Some of the logging roads have been blocked to limit public access. Tenure 1056644 is located 0.2 km east of Beaton Creek. The average elevation is about 1000 metres (900 – 1050 metres). Slopes are moderate to steep/vertical near the large central outcrop; with some flat terraces on the north central portion.

D. LOCAL INFRASTRUCTURE:

The following is a brief overview summary of the local infrastructure:

1. Deep Sea Port: The nearest deep sea port is at Vancouver, B.C. about 350 km southwest of Kamloops.
2. Airport: A full service airport is located at Kamloops with Air Canada, Westjet, and other Regional Carriers providing service to the public. Helicopter and fixed wing aircraft available for local or contract hire.
3. Railroad: The Canadian National Railway (CNR) and Canadian Pacific Railway (CPR) mainline are at Kamloops.
4. Utility Distibution Lines:
   - A major power distribution line runs along the Trans-Canada Highway about 5 km northeast of the claim. Also, a power distribution line runs from the Trans-Canada Hwy to the top of Greenstone Mountain to power various communication towers on Greenstone Mountain.
   - Telephone: There is land line telephone service to homes along the Trans-Canada Hwy.
5. Cellphone: There is cellphone coverage throughout most of the claim.
6. Forest Service Recreation Sites: There are three public recreation sites on the Dairy Lake FSR; and the area is used by ATV and motorbike enthusiasts.
7. Provincial Parks: There is a small Provincial Park located at the top of Greenstone Mountain.
8. Community Recreation: Mountain biking, motor biking, and hiking are common throughout the area.
9. Roads and Logging Companies: The Thompson Rivers Forest District administers forest tenures in the claims area (250-371-6500). The primary road is the Greenstone Mountain/Dairy Lake FSR, and the road frequency is RR17. These roads are maintained when logging operations are active. They may not be ploughed in the winter.
10. Emergency Facilities:
    There is a regional hospital with heliport in Kamloops including police, ambulance, and search and rescue. Active logging operations and mining operations will have industrial first aid attendants on site.
11. Education: There are numerous schools in Kamloops. Thompson Rivers University in Kamloops has various degree programs; and a geology faculty.

E. HISTORY:

The following section is divided into 5 parts as follows:.

1. Producers and Past Producers
2. Advanced Development Projects
3 MINFILE Occurrences and Recent Showings, Assessment Reports, Historic Drilling.
4. Regional Stream Sediment, and Geochemical Surveys.

1. Producers and Past Producers:

A number of operating mines, past producers, and developed deposits are located in the immediate vicinity of the claim. In the interest of brevity a synopsis is given here; and detailed information is available in the MINFILE database search website (https://minfile.gov.bc.ca/), or on mining company websites as follows:

From a regional perspective:

(a) The former, AFTON MINE (Teck Corp; aka Afton Mines Ltd) an open pit producer, was located 8.5 km to the east of Tenure 1056644. This copper gold mine was in production for 20+ years from 1977 to 1991. See also the following MINFILES for more detailed information.

MINFILEs 092INE023 NEW AFTON (AFTON) (See also the next bullet below.)
MINFILE 092INE012 AJAX WEST
MINFILE 092INE013 AJAX EAST
MINFILE 092INE026 CRESCENT (AFTON)

(b) New Gold Inc.'s – New Afton Project (www.newgold.com) located 8.5 km to the east of Tenure 1056644 at the former AFTON MINE; and started production in July 2012. The mine is being developed as an underground block cave at 11,000 tonnes per day.
Proven and probable reserves are Au 1.1 million ounces, Cu 941 million pounds, Ag 3.5 million ounces.
2015 Production: Au 105,000 oz., Cu 86 million lbs.
2016 Production: Au 98,000 oz., Cu 87 million lbs.
2017 Production: Au 86,000 oz., Cu 91 million lbs. Deposit Type: LO3: Alkalic Porphyry Cu Au
MINFILE 092INE023 – NEW AFTON (aka AFTON, AFTON MINE, etc)
http://www.newgold.com/operations/new-afton/default.aspx

MINFILEs 092INE023 NEW AFTON (AFTON) (See also the bullet above.)

(c) The HIGHLAND VALLEY COPPER (Teck Resources Ltd - 100%) near Logan Lake, is located 30 km to the southwest of Tenure 1056644. This mine is the largest mine in Canada and produces Cu and Mo.
2015 Production: 152,000 tonnes of copper.
The mine is expected to close in 2028. http://www.teck.com/operations/canada/operations/highland-valley-copper/

Also, see the following MINFILES for more detailed information.

MINFILE 092ISE001 BETHLEHEM
MINFILE 092ISE002 BETHLEHEM (EAST JERSEY)
MINFILE 092ISE004 BETHLEHEM (HUESTIS)
MINFILE 092ISE005 BETHLEHEM (SNOWSTORM)
MINFILE 092ISE006 BETHELHEM (IONA)
MINFILE 092ISE013 HIGHMONT
MINFILE 092ISE149 JA
MINFILE 092ISW012 HIGHLAND VALLEY COPPER
MINFILE 092ISW036 HIGHMONT (WEST)

MINFILE 092ISW045 LORNEX

(d) Miscellaneous and Historic Past Producers: The following is a partial list of historic past producers in the immediate vicinity of WEST AFTON:

Iron Mask Mine MINFILE 092INE010
Galaxy Copper MINFILE 092INE007
Copper King MINFILE 092INE024

2. Advanced Development Projects:

From a regional perspective, there are a number of active advanced development projects near WEST AFTON and the following is a partial list:

(a) Proposed AJAX MINE, which is a joint venture between Abacus Mining and Exploration Corp (www.amemining.com), and KGHM AJAX Mining Inc (http://ajaxmine.ca/). It is situated beneath the former AJAX Pits at the former AFTON MINE (Teck Corp) just south of Kamloops. For details see the following MINFILES (https://minfile.gov.bc.ca/):

MINFILE 092INE012 AJAX WEST
MINFILE 092INE013 AJAX EAST

A recent Ni-43-101 compliant Preliminary Economic Assessment Report (June 22, 2009) indicated the Ajax copper-gold project proposes a 60,000 tonne per day operation producing an average of 110 million pounds of Cu and 100,000 ounces of Au in concentrate per year. Preliminary economic assessments, environmental assessment processes, geotechnical and hydrogeological studies, First Nations studies, and drilling have been done. The environmental assessment has not been approved and a mine permit has not been issued..

(b) The **Harper Deposit** (MINFILE 082M 009) 20 km to the north, is currently being developed by Yellowhead Mining Inc. (www.yellowheadmining.com) and they have identified a 43-101 compliant resource of over 569 million tonnes grading Cu 0.32% and an inferred resource of 62.7 million tonnes grading Cu 0.33%. The company has proposed a 70,000 ton per day open pit mine with a 28 year mine life. Preliminary economic assessments, environmental assessment processes, geotechnical and hydrogeological studies, and First Nations studies were in progress; and have a been stopped at this time.

(c) Developed Prospect: The RAINBOW Zone (RAINBOW MINFILE 092INE028) and DM Zone (MINFILE 092INE030 DM) of Abacus Mining and Exploration Corp (www.amemining.com) are two important developed prospect of significance 6 km due east of WEST AFTON. The RAINBOW Zone (Cu 0.2 percent cut off) has an estimated 50.1 million tonnes grading Cu 0.339 percent, Au 0.083 g/t for a total of Cu 374.5 million lbs and Au 133,400 oz. The DM Zone has an estimated 44.3 million tonnes grading Cu 0.29 percent, Au 0.143 g/t for a total of Cu 283.2 million lbs and Au 203,186 oz.

3. MINFILE Occurrences; Assessment Reports, Showings, Historic Drilling.

The history of exploration just south of Kamloops in the vicinity of the IRON MASK Batholith dates back over a century to the 1880's (taken from Kuhl and Kozak 2008). In 1896, Copper, gold and iron mineralization were discovered at the IRON MASK Mine - MINFILE 092INE010. Over the ensuing years, work continued on the MONTE CARLO claim, WHEAL TAMAR, and AJAX with diamond drilling and underground exploration by various companies such as Granby Consolidated Mining, Smelting and Power Company, Limited (1916); Consolidated Mining and Smelting Company of Canada Limited (1928); and Berens River Mines Limited (1952). In 1954, Cominco Limited entered into option agreements and explored the area until 1980.

In 1973, Afton Mines Ltd completed drilling and exploration work on the MONTE CARLO claim, WHEAL TAMAR, and AJAX; and in 1980 Cominco Limited completed additional drilling and exploration work. Then in 1986, Afton Operating Corporation (TECK Corporation) obtained a 70% interest in the property; and commenced production in 1989 at AJAX. After production ceased, Abacus Mining and Exploration Corp acquired the AFTON property from Teck Cominco in 2002; and conducted extensive drilling and exploration programs. Abacus is currently in a joint venture at AJAX with KGHM AJAX Mining Inc. on the AJAX deposit.

Separately, TECK Corporation operated the AFTON open pit mine from 1977 to 1997 (Bergen, Krutzelmann, Rennie 2008). Then in 1999, DRC Resources Corporation acquired and/or optioned the AFTON Deposit from TECK Corp and others; and was subsequently acquired by New Gold Inc. Subsequent exploration under the AFTON Deposit defined a new deposit referred to as the NEW AFTON Deposit. New Gold Inc. constructed a new mine (underground – block cave) and mill facility; and commenced operations in July 2012. The NEW AFTON Mine is currently in production.

(a) MINFILE Occurrences and Recent Showings within, or near WEST AFTON Claims:

OTHER HISTORIC EXPLORATION: The area within and adjacent to the IRON MASK BATHOLITH has numerous MINFILE Occurrences and showings which have been discovered by various prospectors and mining companies. Although there are no MINFILES within the claim, an ocular estimate suggests there are at least 70+ MINFILES within 20 km of the claim.

The following is a partial list of selected MINFILE Occurrences just outside claim. In the interest of brevity they are not discussed here. For additional detail please refer to the MINFILE database at the following link: https://minfile.gov.bc.ca/ .

1. A number of high priority MINFILES are shown in bold below.

MINFILE 092INE023 (NEW AFTON, AFTON, AFTON MINE, POTHOOK, COQUIHALLA WEST, CLIF [L.899], DOMINION [L.1595): Copper, Gold, Silver Molybdenum, Palladium; L03 Alkalic porphyry Cu-Au.
MINFILE 092INE120 (DM 62, COQUIHALLA EAST): Copper, Gold, Palladium; L03 Alkalic porphyry Cu-Au.
MINFILE 092INE028 (RAINBOW, CHIEFTAIN, SUGARLOAF HILL, LONE TREE [L.883], 17, RAINBOW NO. 3, NO. 17, NO. 2, NO. 22, AFTON): Copper, Gold, Silver Molybdenum, Palladium; L03 Alkalic porphyry Cu-Au.
MINFILE 092INE166 (KAM, RICH): Copper; L03 Alkalic porphyry Cu-Au.
MINFILE 092INE150 (NED, GG, LED, GIL, GM): Copper; L04 Alkalic porphyry Cu+/-Mo+/- Au.
MINFILE 092INE122 (GM, LED 31): Copper; Molybdenum, Lead; L04 Alkalic porphyry Cu-Au; IO5: Polymetallic veins Ag Pb Zn+/-Au.

2. The following MINFILE occurrences are located on or immediately adjacent to the claims.

MINFILE 092INE085 (AKILA, NED, BLU): Copper, Silver, Molybdenum, Gold; L04 Alkalic porphyry Cu+/-Mo+/- Au.
Based on the MINFILE data this is within the claim boundary.
MINFILE 092INE092 (BEATON): Copper; L03 Alkalic porphyry Cu-Au; 2.9 km to the north.
MINFILE 092INE119 (LED 74, JEFF: Copper; L04 Porphyry Cu +/- Mo+/- Au; 1.8 km to the east.

MINFILE 092INE133 (NED [SILCIA HILL], NED, SILICA HILL, KON, WIN): Copper; L03 Alkalic porphyry Cu-Au; 5.4 km to the east.
MINFILE 092INE149 (YR): Copper; Copper; L03 Alkalic porphyry Cu-Au; 3.2 km to the north
MINFILE 092INE094 (TT): Copper; L03 Alkalic porphyry Cu-Au.

3. The following are additional MINFILE occurrences of interest.

MINFILE 092INE022 (CLIFF [L.899], GIFT L.4798, MAGNET, ANVIL): Magnetite, Iron, Gold Copper; L03 Alkalic porphyry Cu-Au and K03: Fe skarn; 6.4 km to the east.
MINFILE 092INE132 (KAREN): Copper; L03 Alkalic porphyry Cu-Au; 7.5 km to the east.
MINFILE 092INE165 (WOOD, HANK, SHELLY, JIM): Copper; L03 Alkalic porphyry Cu-Au; 6.1 km to the southeast.

(b) Assessment Reports Information System (ARIS): There are at least 40+ ARIS Reports in the vicinity of the claim. In the interest of brevity a detailed discussion of the results of this work is not included in this report. The reports can be downloaded from the following website if additional information is required. http://www.empr.gov.bc.ca/Mining/Geoscience/ARIS/Pages/default.aspx .

Based on ARIS Reports, the most recent and significant exploration work in the general vicinity was done by:

- Green Valley Mines Limited and Lakewood Mining Company Limited as part of their BEATON and WOOD areas.
- Tower Resources Ltd – Rabbit North Project a Copper Gold Porphyry target.
- New Gold Inc as part of the New Afton Mine exploration work.

The following is a partial list of these ARIS Reports:

- 02147 E.O. Chisholm (NED Claims); T.L. Sadlier-Brown and E.O.Chisholm - December 1969; $2550.00
- 02262 Concorde Explorations Ltd (KON and WIN Claims); F Halcapek - February 22, 1970; $ no costs given
- 03941 Concorde Explorations Ltd (KON and WIN Claims); R.H.D. Philp - March 26, 1971; $ no costs given
- 03593 Agilis Exploration Services Ltd (KON, WIN, ZIP, KEN Claims); Sandner Associates; April 1, 1972; $4,800.00
- 03658 Granite Mountain Mines Ltd, Exeter Mines Ltd (BILL and Gal Claims); W.Meyer & Assoiciates Ltd – May 25, 1972; $ 3,544.09
- 03659 Granite Mountain Mines Ltd, Exeter Mines Ltd (BILL and Gal Claims); A.W. Mullan, David K. Fountain; April 17 1972; $ 3,395.04
- 03801 Torwest Resources Ltd (BEV 1-12); A.I. Betmanis – August 21, 1972; $ 8453.00. Soil and Geophysical Surveys.
- 03824 Northair Mines Ltd (TT Claim Group); T.R.B. Dundas and J.E. Wyder – May 1972; $15,120.51. Geophysical and IP Survey.
- 03890 Northair Mines Ltd (TT Claim Group); C. Miller – July 24, 1972; $28,500.00. Percussion Drilled 4 holes for 850 feet, Magnetometer Survey, IP Survey,
- 04007 Bow River Resources Ltd (BOW Claims); J. W. Hogan – October 26, 1972; no cost; Soil Sampling.
- 04010 Tanzilla Explorations Ltd (QQ Claims); J.M. Dawson - July 1972; $12,201.00
- 04016 Rocket Mines Ltd (KM, BW, ROCK Claims); P.P. Nielsen and G.C. Gutrath; June 1972; $4,860.00. Magnetometer.
- 04017 Minestone Mines Ltd, Monterey Petroleum Corporation Ltd (Shelly Claims); Atled Exploration Management Ltd - December 1972; $ 5,686.14
- 04055 Coast Interior Ventures Limited (Shelly Claims); W.G. Timmins; May 15, 1972; $ 5,460.00
- **04155 Avino Mines and Resources Ltd and Moneta Porcupine Mines Ltd; G.C. Butrath; January 1973; $28,915.00**
- 04156 Delta International Minerals Ltd; Sandner Associates; A.Mlcuch - February 14, 1973; $ no cost given Helicopter born Magnetometer Survey.
- 04157 Delta International Minerals Ltd (AT Claim Group); D.A. Chapman & Associates Ltd; November 1972; $ no cost given
- 05852 Afton Mines Ltd (Hughes 1-6); A.J. Reed – April 21, 1976; $ 13,147.00. Soil Samples – 276 samples.
- 05961 Mabee Minerals Incorporated (Jim 1 Claim); Geotronics Surveys Ltd - August 26, 1976; $ 2,300.00
- 06245 Afton Mines Ltd (NED1 Claim); A.J. Reed – April 13, 1977; $ 1,412.50.

Drilled percussion hole Q-245, 300 feet

- **06439 Charles Boitard (Doreen Group) John B. Davies – September 1977; $ 1,600.00. Magnetic, VLF-EM, Scintillometer Survey – 12,805 metres.**
- 07073 Barriere Reef Resources Ltd (Gil claims), John R. Kerr – January 12, 1979; $1,750.60
- 07842 Barriere Reef Resources Ltd (Gil Claims), John R. Kerr – December 30, 1979; $2,546.25.
- 07180 Dorado Resources Ltd (DAVE and A Claims); Donald W. Tully- March 16, 1979; $3,093.84
- 07850A Dorado Resources Ltd (DAVE and A Claims), Donald W. Tully- October 15, 1979; $ $32,455.77 Drilling.
- 07850B Dorado Resources Ltd (DAVE and A Claims); Donald W. Tully; April 17, 1979; $ 6,129.35
- 08031 Afton Mines Ltd (NED3 Claim); A.J. Reed – May 15, 1980; $4,700.00. Drilled 4 Vertical Rotary holes (16cm), total 72 metres.
- 08473 J. De Latre (RED 1-4 Claims); Asarco Exploration Company of Canada Ltd; October 29, 1980; $1,615.00. Magnetometer Survey 9 lineal km.
- **09070 Lester Charles Marlow and Cory Grave (Chalco, Cite, Pipe, Les Beaton Claims); Peter Folk and Peter Holbeck – Teck Corp; February 1981; $9,816.88. 984 soil samples, 46 km flagged, magnetometer, VLF survey, mapping.**
- 09610 Blackmist Resources Inc (RED 1-4 Claims); C.T. Pasieka; August 4, 1981; $10,050.00. Drilling 4 holes, 1100 feet 2.25" bit. Maximum depth 350 feet.
- 09426 Anita Resources Ltd (DAVE and DP Claims); W.G. Timmins Exploration & Development Ltd – July 23, 1981; $ 41,350.00. Soil Geochemistry. Soil Geochemistry.
- 12056A and 12056B: Acheron Resources Ltd, Daiwan Engineering Limited (WIN KEN Claim Group); Ager, Berreta & Ellis – February 1984; $5,200.00 and $2,718.15. Resistivity and Percent Frequency Effect Survey.

- **12428 De Baca Resources Ltd (AKILA Claim) – D.T. Pasieka, November 10, 1983; $5,614.00.**

  1. Diamond Drill Hole (DDH 83-1) 30.3 metres (strike 340 degrees at declination of 50 degrees) to section sheer zone, and intersection at 12.72 metres.
  Targeting a silicified fault striking at 070 degrees.
  Assays: Au 0.001 oz/ton; Ag 0.01 oz/ton; Cu 0.2 percent over 1 metre; and also, at 21.6 metre depth Au 0.001 oz/ton; Ag 0.02 oz/ton; Cu 0.01 percent.

  2. Shaft observed 22.12 metres, and dewatered.
  Au 0.043 oz/ton; Ag 0.64 oz/ton; Cu 0.4 percent; Mo 0.002 percent over 1.4 metres at 10 metres depth.
  1983 select sample collected: Au 0.025 oz/ton; Ag 1.92 oz/ton; Cu 2.18 percent; Mo 0.002percent.
  1 metre siliceous portion of sheer zone yielded Au 0.001 oz/ton; Ag 1.62 oz/ton; and Cu 1.62 percent.
  At bottom of shaft (non-saliceious) Au 0.001 oz/ton; Ag 0.1 oz/ton and Cu 0.40 percent.

- 17788 Vic Doucet (BEATON 1-7 Group, Maskam Claims) - Charles Boitard; John P. Larue - August 5, 1988; $ 30,650.00. 17 km survey lines, 15 km Induced Polarization Survey.
- 20220 Menika Mining Ltd (MASKAM Claim); David L. Cooke – September 8 1989; $51,367.20. Drilling 3 holes for 971.6 metres.
- 20679 Rhino Resources Inc (NED Claim); A.B.L. Whittles, Geonics Consulting Services Ltd; $8,300.00.
- **20868 Pharlap Resources Ltd, Richard Lodmell and Dirk Moraal – Oct 19, 1990; $4,640.00.**
- 21392 Vic Doucet; Menika Mining Ltd (MASKAM Claim); J. P. LaRue and L. Sookochoff – May 29, 1991; $ 50,398.60. Diamond Drilling 2 holes, for 382.3 metres; 9 km of IP survey.
- 21871 C.R.C. Exploration Limited (GM 1, GM 2 Claims), Craig Payne – November 29, 1991; $9,886.65.
- 22404 Charles Boitard and Vic Doucet (WOOD Group); John P. Larue - April 15, 1992; $ 51,714.00
- 22630 Charles Boitard (WOOD Group) – Green Valley Mine Incorporated and Lakewood Mining Co. Ltd; Laurence Sookochoff - July 15, 1992; $ 18,241.00.
- 23035 Charles Boitard (BEATON 1-2) – Green Valley Mines Inc; P. Reynolds --September 8, 1993; $16,601.00;

Drilling 9 percussion holes, 342.06 metres vertical: PDH92-1 - 91.46 m, PDH92-2 - 97.56 m, PDH92-3 – 118.90 m, PDH92-4 - 100.61 m, PDH92-5 – 45.73 m, PDH92-6 – 121.95 m, PDH92-7 – 125.00 m, PDH92-8 – 118.90 m, PDH92-9 – 121.95 m.

- 23111 Rhino Resources Inc (NED Claims); A.B.L. Whittles, Geonics Consulting Services Ltd; $20,380.00 Geophysics
- 23380 C.R.C. Explorations Limited (GM1 GM2 Claims); Craig W. Payne, Crest Geological Consultants Limited May 31, 1994; $9,568.15
- 23390 Charles Boitard (BEATON 2-7 Claims, Rose 1-11, MASKAM) – Green Valley Mines Inc; P. Reynolds -May 31, 1994; $ 36,052.00. Drilled 3 holes, vertical, 93-1 – 125 m, 93-2 – 125 m, 93-3 – 101 m.
- 23420 Charles Boitard and Victor Doucet (WOOD Group) – Green Valley Mines Inc; P. Reynolds – June 22, 1994; $ 56,703.00
- 24017 Charles Boitard and Victor Doucet (WOOD Group) – Green Valley Mines Inc; P. Reynolds – August 11, 1994; $ 42,208.00
- 24195 Rhino Resources Inc (NED Claims); A.B.L. Whittles, Geonics Consulting Services Ltd – November 1995; $118,910.00 Drilling
- **25916 Charles Boitard (BEATON 1-7 Claims, Rose 1-11, Duffy); Charles Boitard – May 28, 1999; $3,793.84. Soil Samples 33, Grid 1.6 km.**
- **26271 Charles Boitard (BEATON 1-7 Claims, Rose 1-7, Duffy); Charles Boitard – June 19, 2000; $13,640.18. MMI Survey – 182 samples.**
- **27374 Green Valley Mines Incorporated and Lakewood Mining Co. Ltd (BEATON 1-2 Claims, Rose 1-7, Snow 1-4, Duffy, Randy, Jeff, Snow Zone and Ice Lake Zone); David G. Mark, Geotronics Survey Ltd – March 7, 2004; $11,400.00. Induced Polarization (IP) and Resistivity Survey – 4800 metres.**
- **28238 Green Valley Mines Incorporated and Lakewood Mining Co. Ltd (BEATON 1-4, Snow 1-4, Randy, Jeff Claims); David G. Mark, Geotronics Survey Ltd – April 6, 2006; $19,214.00. Snow and Ice Lake Zones, MMI soil sampling survey 198 samples,**
- 28425 Gary Robert Brown (Greenstone Mountain Claims); William R Bergey – June 10, 2006; $7,445.00
- 28993 Green Valley Mines Incorporated and Lakewood Mining Co. Ltd (BEATON Group); David G. Mark, Geotronics Survey Ltd – February 18, 2007; $ 4,998.00 Drill Sites?
- **29880 Green Valley Mines Incorporated and Lakewood Mining Co. Ltd (AFTON AREA Claims); Joseph E.L. Lindinger – April 18, 2008; $ 220,832.96**
- 30237 Dore Mining Corporation (Greenstone Project); S.J.V. Consultants Ltd, E.Trent Prezzot – September 5, 2008; $ 156,840.00
- **31413 Green Valley Mines Incorporated (Beaton 2, Snow 1-4); David G. Mark, Geotronics Survey Ltd – March 22, 2010 updated; $ 17,426.00. MMI Soil Sampling – 28 samples.**
- 32363 Green Valley Mines Incorporated (WOOD Group); David G. Mark, Geotronics Survey Ltd – June 6, 2009; $ 19,696.00
- **34352 Green Valley Mines Incorporated (2 Beaton Claims); David G. Mark, Geotronics Survey Ltd – December 17, 2013; $4,790.00. MMI Soil Sampling – 24 samples.**
- 35143 Green Valley Mines Incorporated (WOOD Group); David G. Mark, Geotronics Survey Ltd – February 11, 2015; $ 26,939.00
- 34869 Green Valley Mines Incorporated; David G. Mark – October 3, 2013; $9,238.00.
- **36031 Green Valley Mines Incorporated (WOOD Group); William R. Bergey – April 1, 2016; $ 35,450.00. William R. Bergey reports his new geological mapping for Greenstone area and beyond.**
- **36564 David J. Piggin (WEST AFTON Claims); David J. Piggin - January 30, 2017; $16,149.17.**
- 37273 Charles R. Boitard; David G. Mark – currently confidential.

(c) Historic Drilling: As per ARIS 12428 and MINFILE 92INE085 AKILA, there has been historic drilling and a decline shaft on or adjacent to Tenure 1056644. Field work has not confirmed the location of drilling and shaft. A review of various ARIS reports has indicated a number of drill holes were located outside the boundaries of the claim. Drilling results are limited and therefore, additional research and field work will be required.

4. Regional Stream and Geochemical Surveys.

There are two regional scale RGS - steam sediment locations in the vicinity of the claim as follows:

a) **Sample 92I811189:** Located at UTM Zone 10.673288E.5612962N. Located 6.0 km east of Tenure 1056644. **Sample 92I811189** is anomalous for Cu (Mo).

b) **Sample 92I811187 and Sample 92I811188:** Located at 10.666906E.5614533N. Located 0.5 metres north of Tenure 1056644, and anomalous for Au Cu Hg Ni.

Based on ARIS reports, no Regional Soil Geochemical Surveys have been conducted in the area. There is a need for additional regional scale stream sediment and soil geochemical surveys in the Greenstone Mountain area.

II – TECHNICAL DATA AND INTERPRETATION

2018 EXPLORATION PROGRAM

The property geology described here is based on BC Geological Survey – GeoFiles; BC Geological Survey – Open File publications; Geoscience BC publications; and various ARIS Reports (e.g. William R. Bergey April 1, 2016; and various Personal and Email Communications with William R. Bergey 2017). For detailed information, consult the above references and additional references given in LITERATURE CITED.

A. PROPERTY GEOLOGY AND GEOPHYSICS:

This section is discussed in 2 parts: **Geology**, and **Geophysics**:

1. GEOLOGY:

The property is located north of Greenstone Mountain in the QUESNEL TERRANE within a Jurassic – Alkalic Intrusive Complex (W. R. Bergey April 1, 2016 and W.R. Bergey January 28, 2017) referred to as the (see maps/legend below):

(a) Greenstone Mountain Assemblege **[JGM] –** diorite and diorite intrusive breccia.
(b) Beaton Lake Assemblege **[JBL] –** mainly heterolithic intrusive breccia.
(c) Roper Lake Granitic Intrusions **[Kg]** have been mapped on both sides of the Alkali Creek Fault.

Faults: The Alkali Creek Fault separates the **[JGM]** and **[JBL]** with the **[JGM]** on the south side and the **[JBL]** on the north.

- This fault runs along Beaton Creek, in a southwest to north east direction, along the west boundary of Tenure 1056644, and comes within an estimated 150 metres of the northwest corner of Tenure 1056644.
- At this point, the fault turns sharply to the east following Beaton Creek, in a west to east direction, just north (estimate 1 km) of the north boundary of Tenure 1056644.
- A number of north south (southwest to northeast) oriented faults which follow major creeks (e.g. Ned Roberts Creek) are located perpendicular to the west east trending portion of the Alkali Creek Fault.
- An unnamed (south to north trending) fault runs somewhat parallel to the southwest to northeast trending portion of the Alkali Creek Fault. This unnamed fault is about 3.5 kilometres to the east; and about 1 kilometre east of Tenure 1056644.

- The Cherry Creek Fault is located 11 km to the east of Tenure 1056644; and is also referred to as the Cherry Creek Tectonic Zone. This major fault zone appears to form part of the contact between the **[JGM]** and **[JBL];** and the Iron Mask Assemblege **[JIM]** (e.g. Iron Mask Batholith).

Greenstone Mountain Breccia Area (See map below): A large area of Greenstone Mountain breccia pipes, with generally sub-circular in vertical relief, appears on the north slope and lower slope of Greenstone Mountain. It appears that a number of massive intrusive breccia events have overprinted on early events making the generally topography very hilly, rocky and locally steep. In some cases, the breccia pipes, steep pitches, and the Greenstone Wildfire (vegetation burned off) have created large or massive area of breccia outcrop.

Nicola Volcanics: Separately, this area is described as **uTrNE** Mesozoic – Nicola Group – Eastern Facies basaltic volcanic rocks; mafic breccia and tuff with augite and hornblende-phyric clasts; local intercalated argillite.

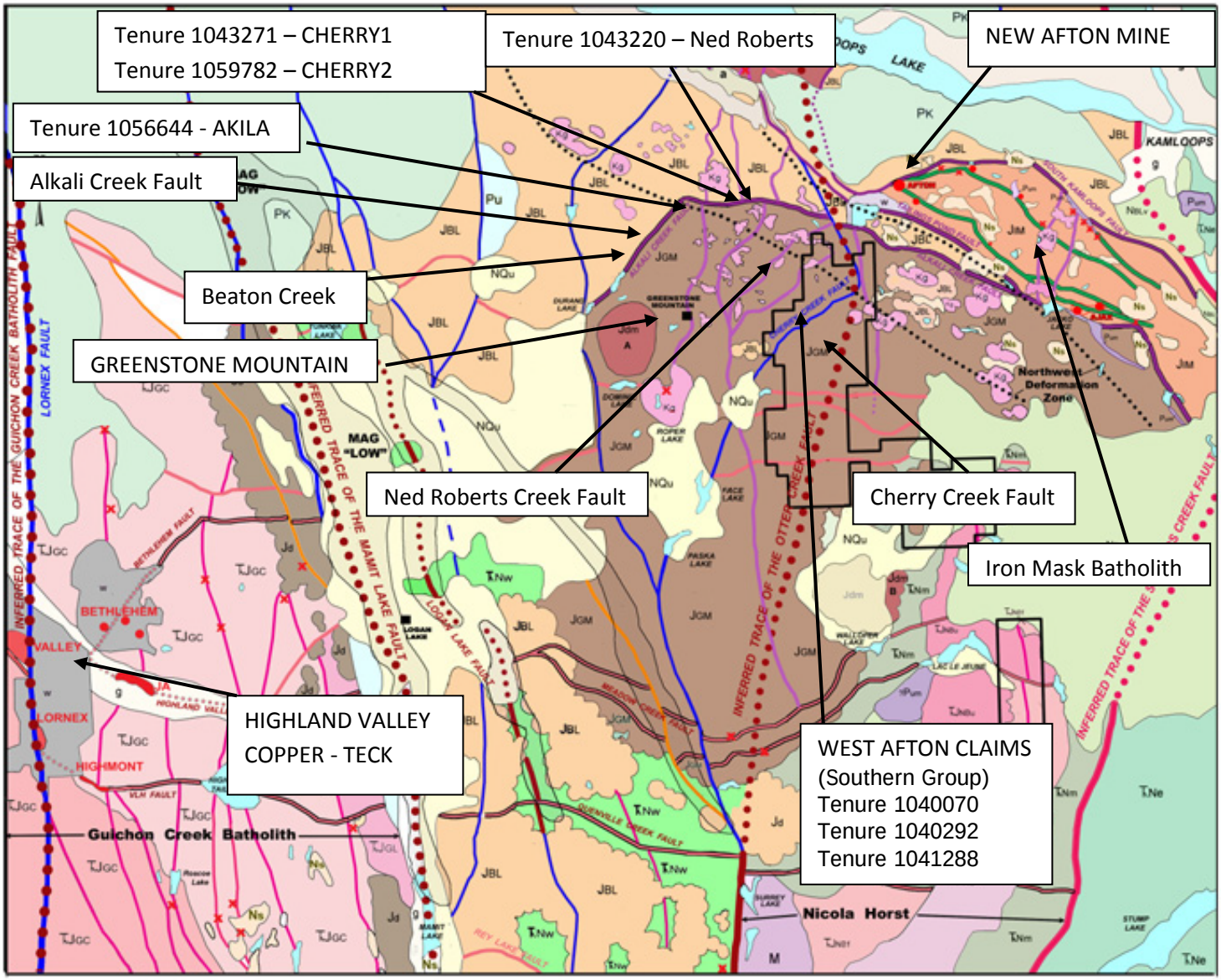
A number of important airborne geophysical surveys, geophysical projects, and geochemical projects have been completed in the vicinity of Tenure 1056644 and the following is a partial list:

- BCMEM Open File 2005-16 and GSC Open File 2817 (Shives and Carson 2005)
  http://www.empr.gov.bc.ca/Mining/Geoscience/MapPlace/thematicmaps/Pages/IronMask.aspx

- Geoscience BC: QUEST SOUTH Project.
  http://www.geosciencebc.com/s/Quest-South.asp

An understanding of the geophysics of the property is important to interpret geology, structure, and anomalies; and can be very important for exploration projects. A detailed discussion of geophysics is beyond the scope of this report although some geophysics maps were used during this exploration project.

ILLUSTRATION # 3 and #4 and #5: Regional Geology of the Greenstone Mountain and Logan Lake area (southwest of Kamloops and including the eastern portion of the Highland Valley) by William R. Bergey, P.Eng. (Bergey April 1, 2016 and Bergey January 28, 2017). See the map legend on the following page; and also the close-up view. Claims are located on the east west Alkali Creek Fault at the contact between the **[JGM]** and **[JBL]**.



GEOLOGY OF THE KAMLOOPS - HIGHLAND VALLEY AREA

SCALE 1: 300.000

0 5 10 15 20

Kilometres

Note: Geology derived in part by photo-geological & aeromagnetic interpretations

FIGURE 3

ILLUSTRATION # 4: Legend for ILLUSTRATION #3 and #5. (Bergey April 1, 2016 and Bergey January 28, 2017)

FIGURE 4

<u>ILLUSTRATION # 5</u>: WEST AFTON Claims – Close up of Geology (not to scale) (Bergey April 1, 2016 and Bergey January 28, 2017)**.**

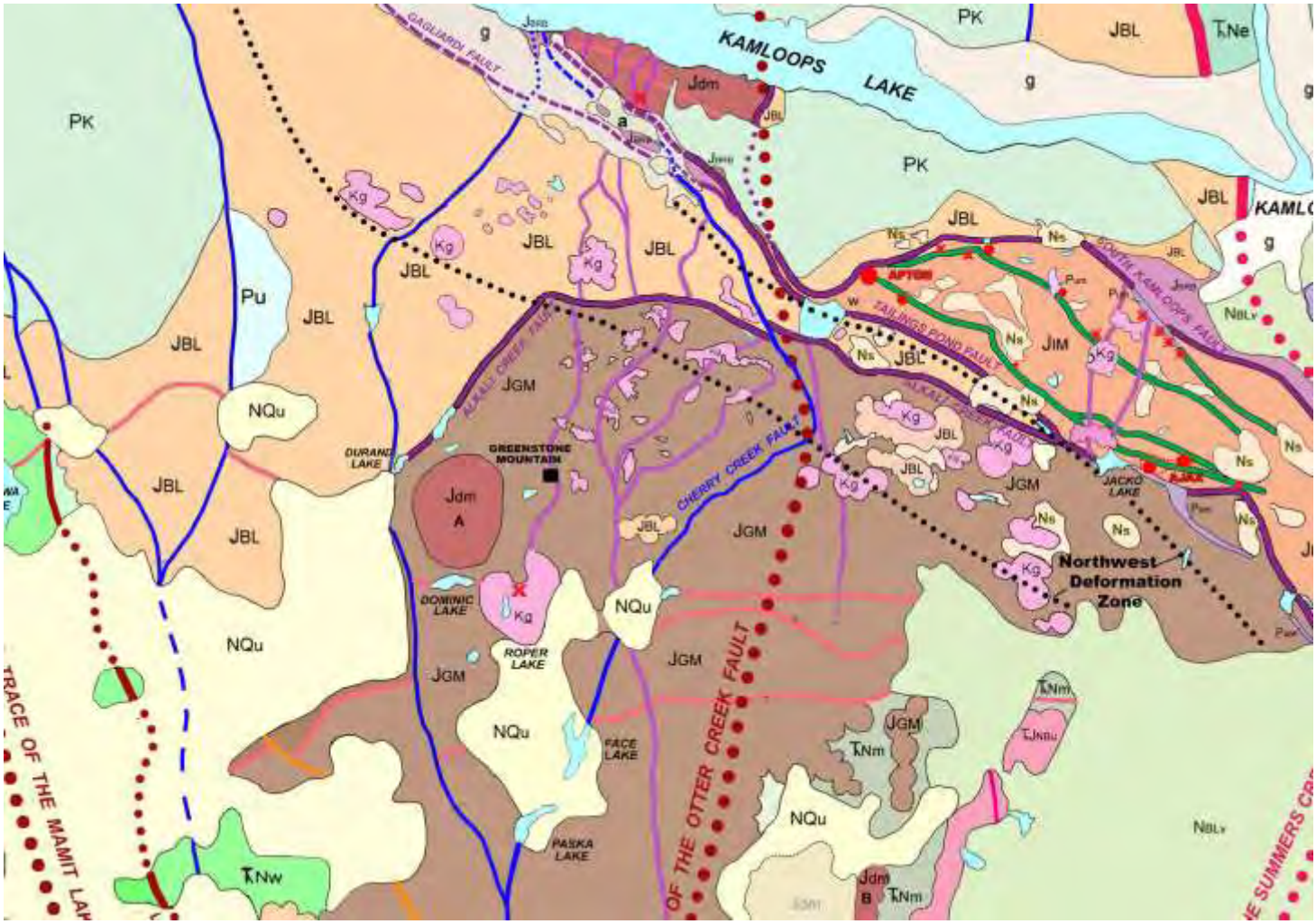
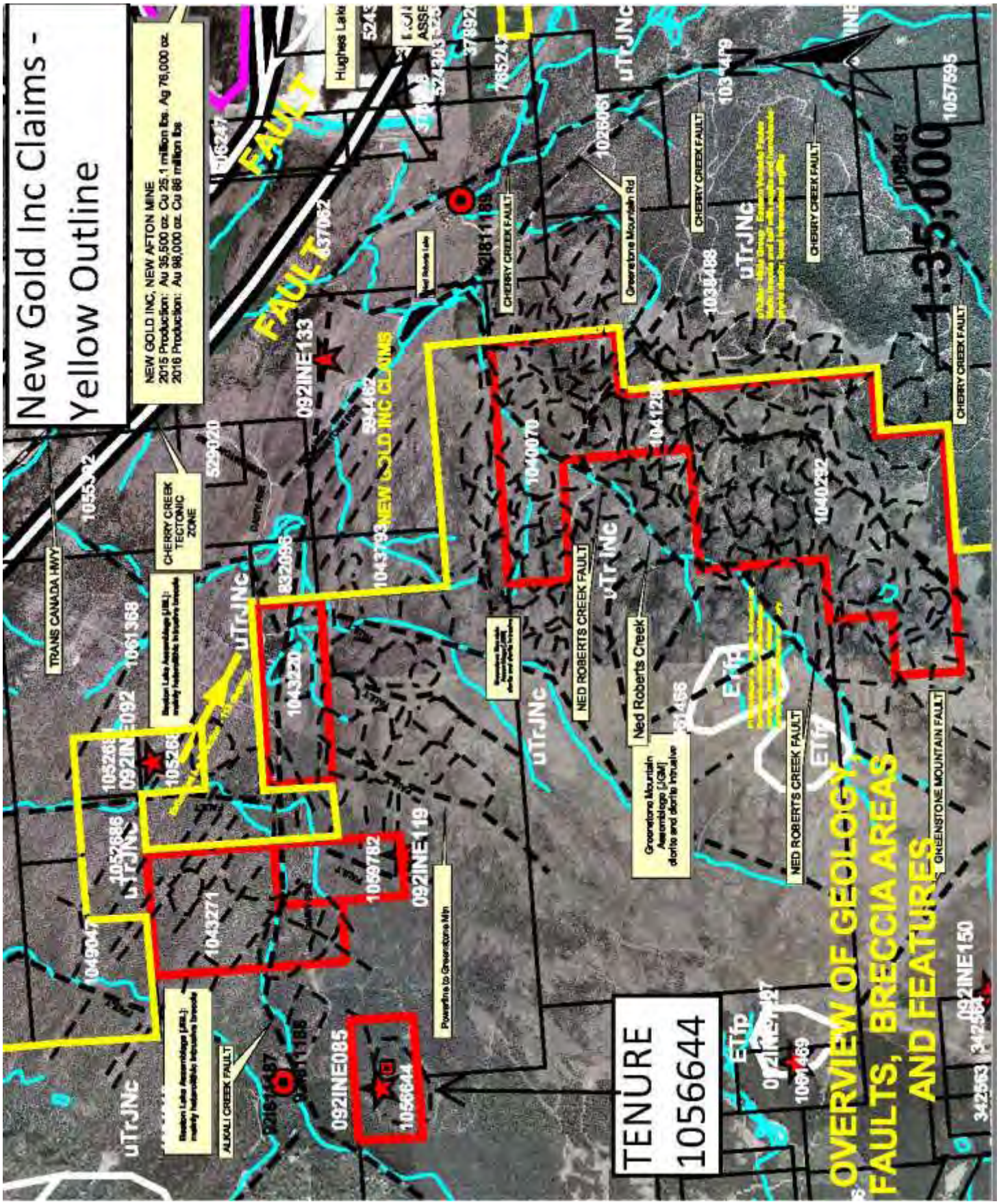


ILLUSTRATION # 6: Overview Map showing the Tenures, Geology, Faults, Breccia Areas, and Features based on digital files and Orthographic Interpretations. (NOT TO SCALE)



2. GEOPHYSICS:

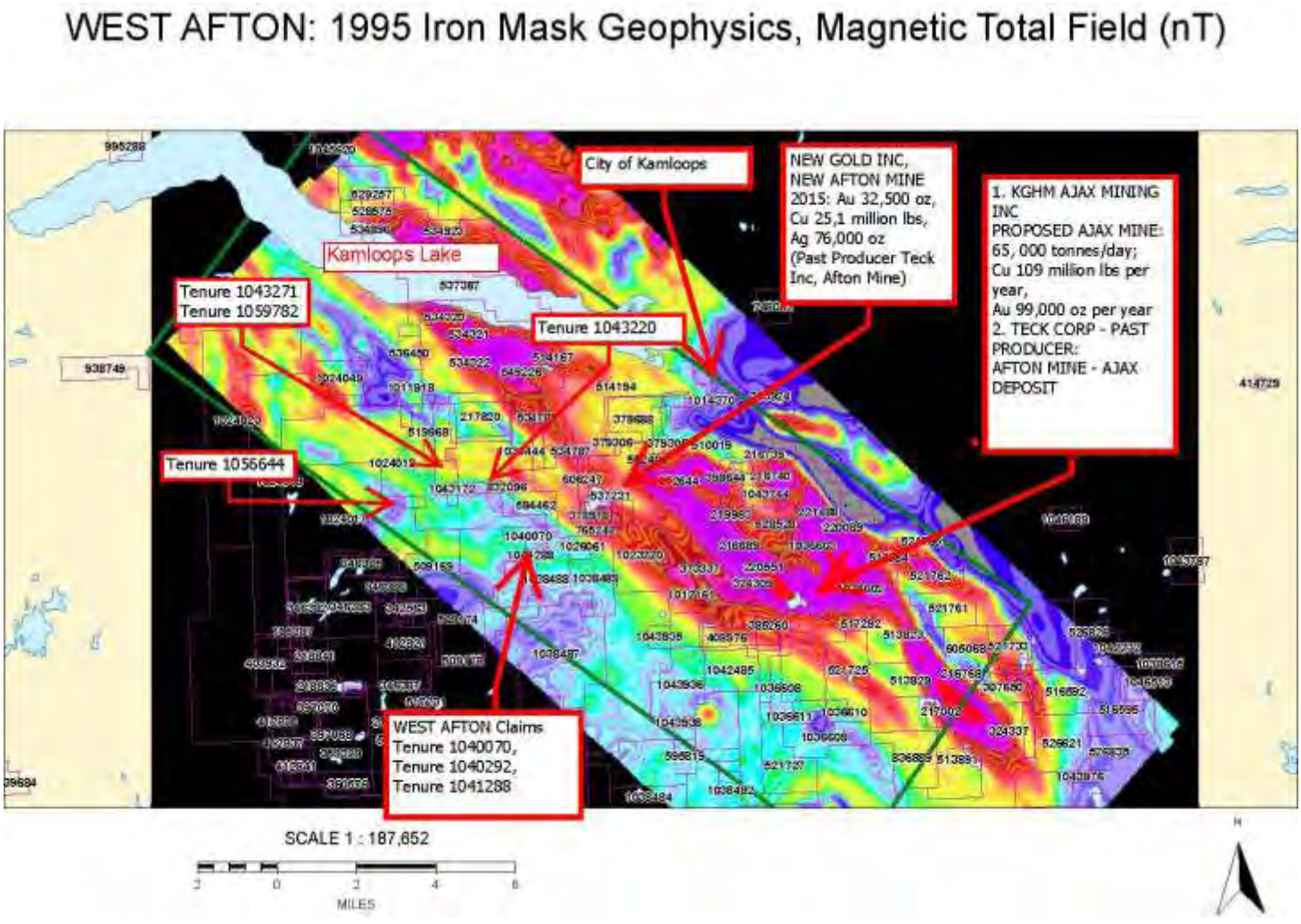
BC Geological Survey:

The 1995 IRON MASK Geophysical Survey, BCMEM Open File 2005-16 and GSC Open File 2817 (Shives and Carson 2005) covers Tenure 1056644. A number of useful products were created including various themed layers; and georeferenced TIFF files in various projections, and in PNG files. See the attached links.
http://www.empr.gov.bc.ca/Mining/Geoscience/PublicationsCatalogue/OpenFiles/2005/Pages/2005-13.aspx

http://www.empr.gov.bc.ca/Mining/Geoscience/MapPlace/thematicmaps/Pages/IronMask.aspx

ILLUSTRATION # 7: Tenure 105664 in relation to the 1995 IRON MASK Geophysical Survey – BCMEM Open File 2005-16 and GSC Open File 2817 (Shives and Carson 2005). Map is not to scale.

http://webmap.em.gov.bc.ca/mapplace/minpot/IronMask.cfm



Open File 2006-12 (Logan, Mihalynuk, Lowe 2006) created PDF printed maps from Open File 2005-16. Unfortunately, Open File 2006-12 did not include Tenures 1056644 within the PDF map sheets as they are just off the western edge of the maps.
http://www.empr.gov.bc.ca/Mining/Geoscience/PublicationsCatalogue/OpenFiles/2006/Pages/2006-12.aspx .

Open File 2006-11 (Logan, Mihalynuk, Ulrich, Friedman 2006) mapped the geology of the IRON MASK Batholith and was derived from Open File 2005-16. Again, Tenures 1043220 and Tenure 1043271 are just outside the west edge of the mapped area.
http://www.empr.gov.bc.ca/Mining/Geoscience/PublicationsCatalogue/OpenFiles/2006/Pages/2006-11.aspx

Geoscience BC:

Geoscience BC initiated the QUEST – South Project in 2009 (http://www.geosciencebc.com/s/Quest-South.asp) and part of this work encompassed the WEST AFTON Claims . QUEST – South included geophysical and geochemical data.

ILLUSTRATION # 8: QUEST – South Map. For reference purposes this is taken from the publication *QUEST – South Geophysics: New Airborne Gravity Survey in Southern British Columbia (Parts of NTS 093A, B, 092 H, I O, P, 082A, E)* by K.A. Simpson, Geoscience BC, Open File Report 2010-1.

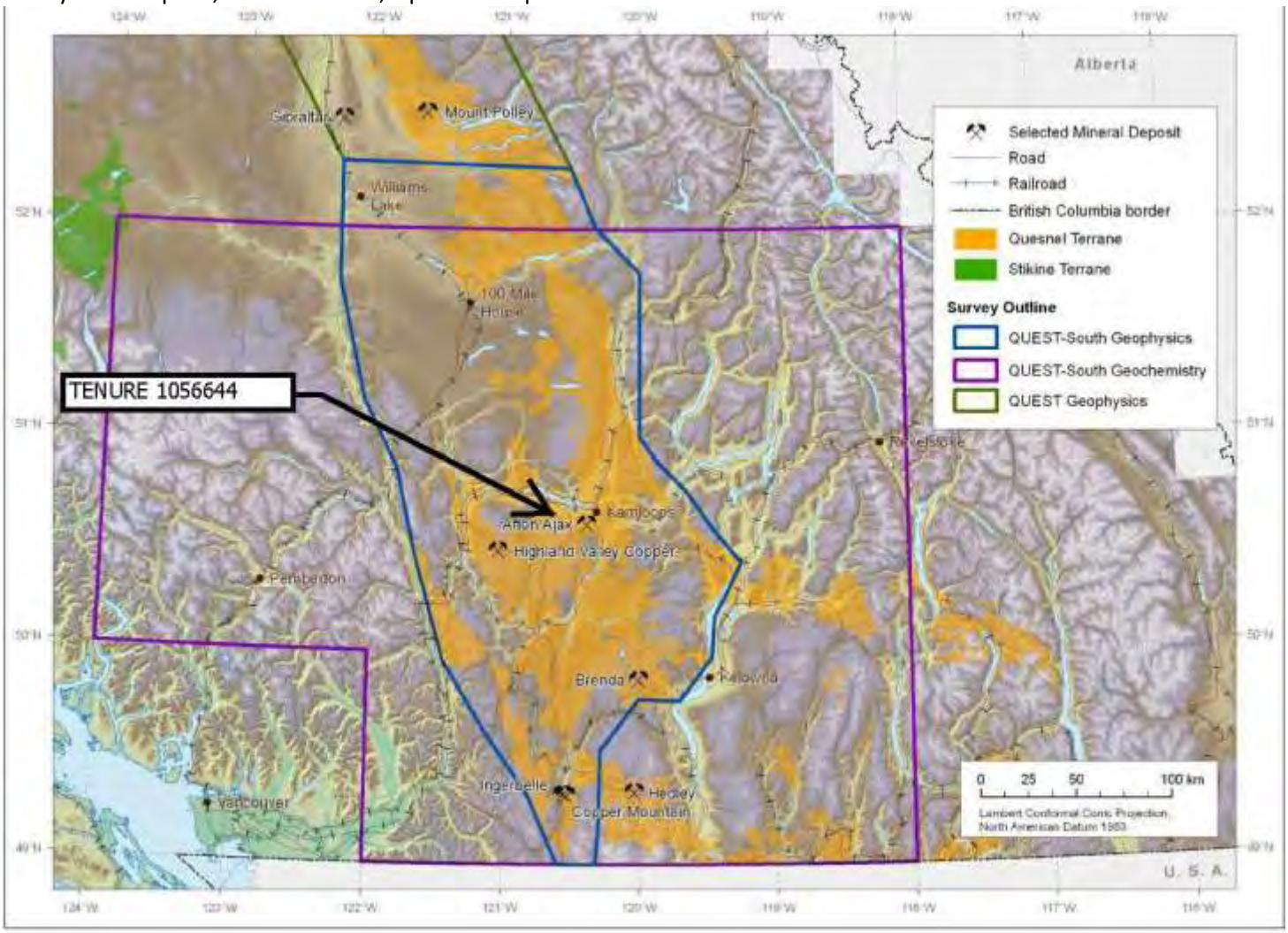


Figure 1. Location of Geoscience BC's QUEST-South geophysical and geochemical surveys. The green outline to the north shows the area of the adjoining QUEST geophysical surveys. Data from Canadian Council on Geomatics (2004), Massey et al. (2005), Natural Resources Canada (2007) and MINFILE (2009).

In 2010, an Airborne Gravity Survey QUEST – South, British Columbia was completed by Geoscience BC (Sander Geophysics 2010 – Report 2010-6) http://www.geosciencebc.com/s/2010-006.asp . In general terms, the area of the survey covered from just north of 150 Mile House to the Canada/USA border in the southern interior of BC. The WEST AFTON Claims are approximately in the center of the survey area. Open File deliverables included technical reports, Geosoft Grids, digital terrain, and various gravity maps. The following maps were taken from this report, and presented for overview purposes.

ILLUSTRATION # 9: QUEST – South Map – Airborne Gravity Bouguer Anomaly by Sanders Geophysics Ltd (Geoscience BC – Open File 2010-6). Map download file name QS_Map_GBC_BOU_GRAV.PDF showing location of WEST AFTON Claims.

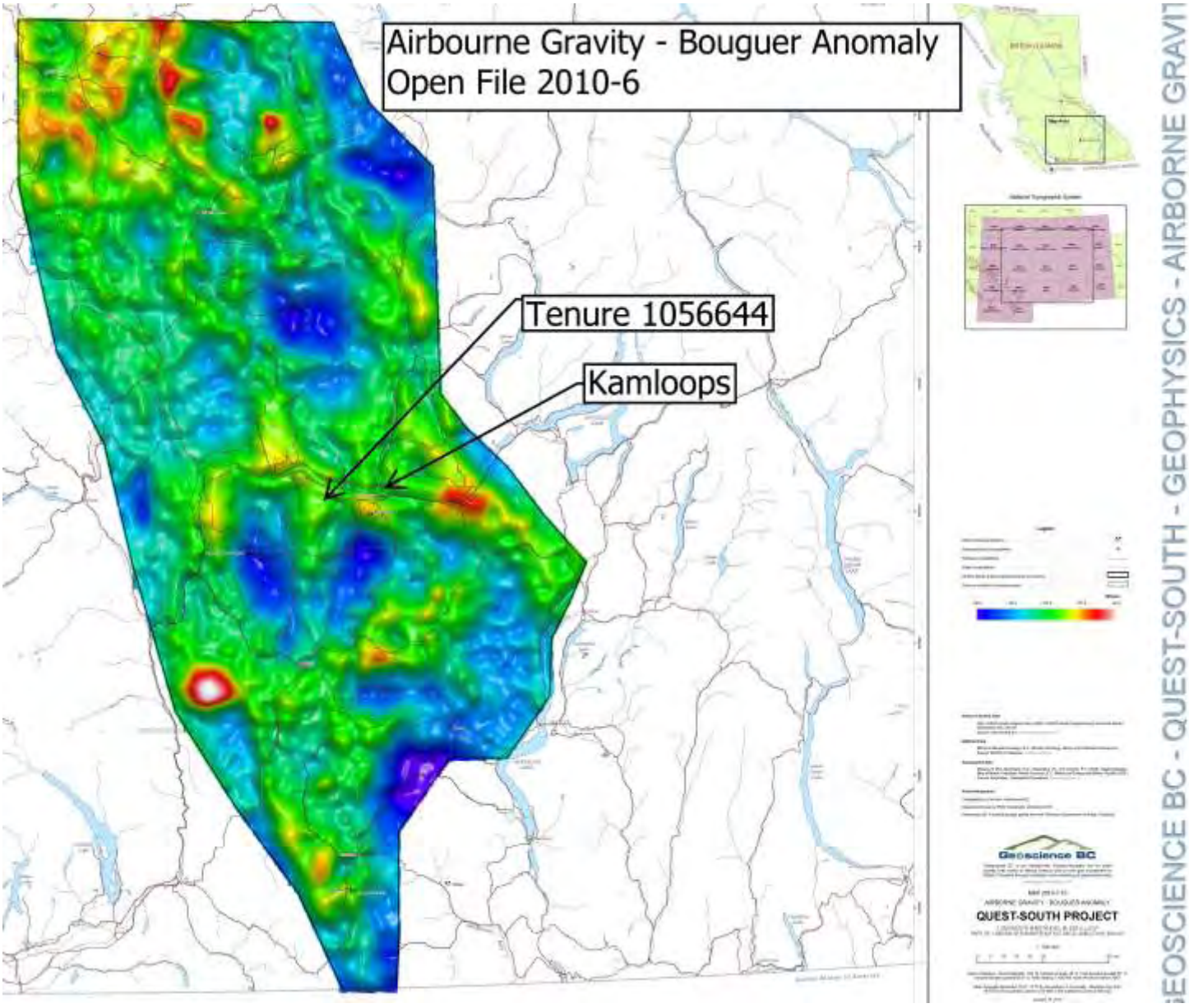
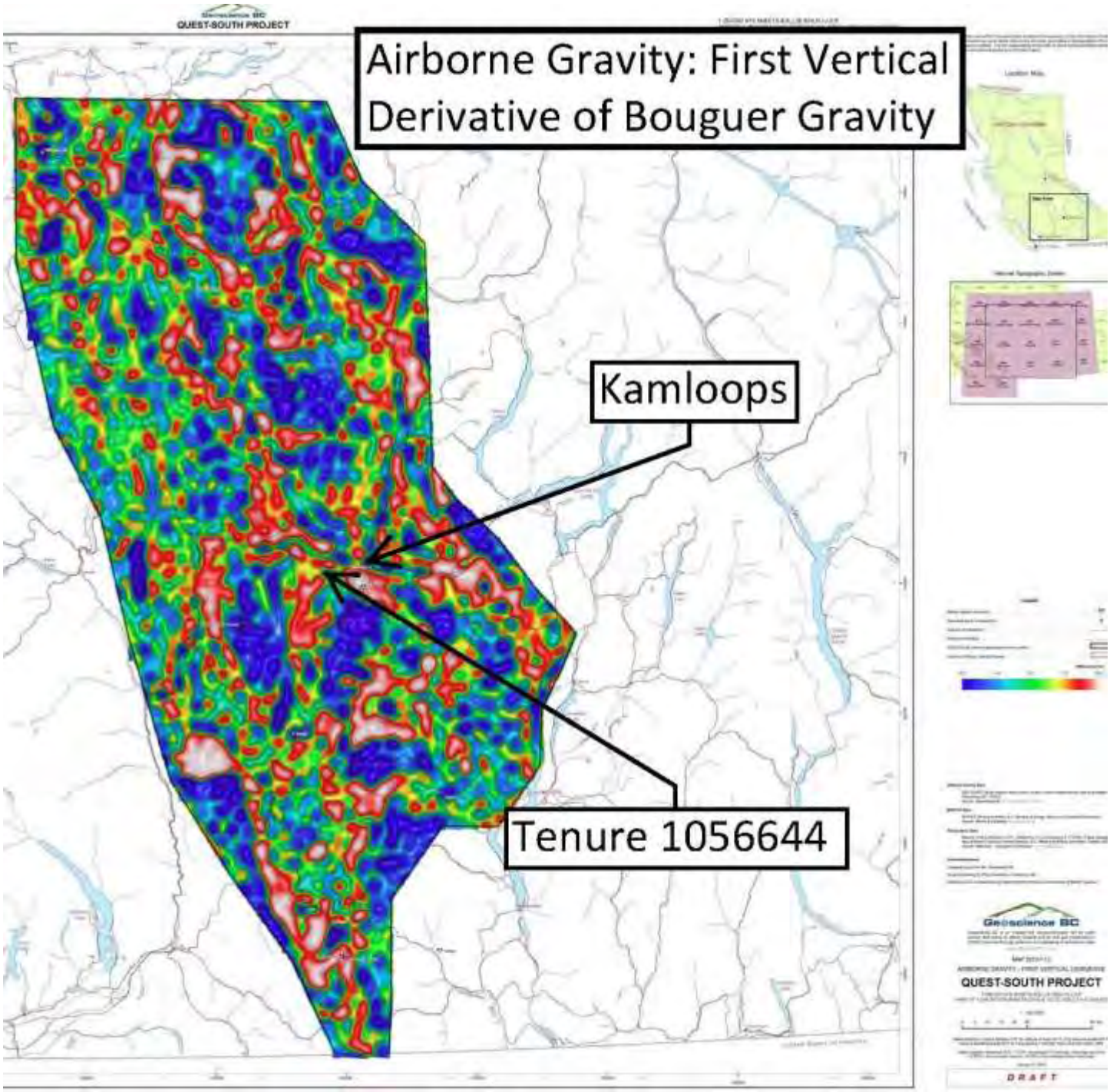


ILLUSTRATION # 10: QUEST – South Map – Airborne First Vertical Derivative of Gravity Bouguer Anomaly by Sanders Geophysics Ltd (Geoscience BC – Open File 2010-6). Map download file name QS_Map_GBC_1VD_GRAV.PDF showing location of WEST AFTON Claims.



3. GEOCHEMISTRY: The QUEST – South Geochemical Projects in Open File 2010-4 (Jackaman 2010) and Open File 2010-13 (Jackman 2010) did not include samples from WEST AFTON. See the attached links

http://www.geosciencebc.com/s/2010-004.asp and http://www.geosciencebc.com/s/2010-013.asp.

See also Geoscience BC - Open File 2010-1.

B. 2018 EXPLORATION OBJECTIVES, METHODS, WORKS AND RESULTS:

In 2018, prospecting was done on Tenure 1056644, and two rock samples were collected, described, photographed, and assayed for this report. Additional field work is required to locate MINFILE 092INE085 AKILA. The claim was staked in November 25, 2017. A fresh start was required to review and assemble all the related historic exploration work, exploration reports, literature, and to establish targets and proposed works.

The WEST AFTON area; which includes Beaton Creek, Pendleton Creek, Ned Roberts Creek, Cherry Creek, and Greenstone Mountain; was prospected as one project to optimize the exploration opportunities and knowledge. Since all seven claims were not contiguous the costs associated with each area were tracked separately, and separate ARIS Reports have been completed for contiguous claims.

WEST AFTON – South Group of Claims:

- Tenure 1040070, 1040292, 1041288 (continguous)

WEST AFTON – North Group of Claims:

- Tenure 1043220
- Tenure 1043271 and 1059782 (contiguous)
- **Tenure 1056644** is 0.5 km west of Tenure 1043271 and 1059782; 2 km west of Tenure 1043220, and 3.3 km north west Tenures 1040070, 1040292, and 1041288..

Sampling methods, works and objectives are discussed in the following section:

Sampling Methods and Analysis Procedures:

Sample locations were marked with winter weight survey ribbon, and/or an aluminum tag or white Tyvek tag. In most circumstances the interval between sample locations was marked with "candy stripe orange & black" survey ribbon, and each sample site was marked with florescent orange or florescent pink ribbon.
A Garmin 60CSx was used to collect Global Position System (GPS) waypoints. GPS data was collected using the Universal Transverse Mercator Grid (UTM) in NAD 83 (or WGS84) and usually 4 or more satellites were used for waypoints unless narrow gullies, ravines, and heavy timber made waypoint collection problematic. Where the sample location was problematic, in terms of satellite reception (i.e. deep gully, forest cover), and only 2 satellites were obtained the UTM coordinates were interpolated from 3 adjacent waypoints by an iterative process, or by hip chain and compass bearing. Adjusted waypoints were confirmed by referencing the sample location on an orthographic map, at a scale of 1:5000, and/or re-confirming the location with prospecting field notes.
Sample waypoints were named according to the following naming convention:

- The WA claims had a prefix of "WA18__"; and the second 2 digits give the year.
- Stream sediment sample waypoints – "_SS_" (i.e. WA18SS__).
- Moss Mat sediment sample waypoints – "_MM_" (i.e. WA18MM__).
- Soil or Till sample waypoints – "_T_" or "__T" (i.e. WA18T__ or (i.e. "WA18__T".
- Float Rock sample waypoints – "_FT_ " (i.e. WA18FT__) or (i.e. WA18FL__).
- Rock or Grab Rock sample waypoints – "_R_" (i.e. WA18_R__) and are associated with talus or outcrops.
- Certain Grab sample waypoints – "_GR_" (i.e. WA18_GR__")
- Channel sample waypoints– "_CH_ " (i.e. WA18CH__)
- Quartz Veins waypoints – "_Q_" or "_QZ_" or "_QTZ_" (i.e. WA_QZ__) or (i.e. WA_QZ__")
- Limestone waypoints "_LIM_" or "_QLIM_" for quartz limestone.

Important samples sites were photographed with a digital camera for future reference. Rocks, outcrops and sample sites were photographed in the field, and then at home a close up of each sample rock (macro zoom) was taken before being assayed. A free app called COZY MAGNIFIER was used to take macro pictures. Also, a Tasco (brand)

digital microscope and related software (BOP USP PC Camera) were used to take extreme close-up pictures. Before sealing the sample bag for assay, a voucher specimen piece was taken from the sample bag, and marked and securely stored for future reference.

(a) Rock Samples:

Rock samples were collected using a geotul, rock hammer, sledge hammer or grub hoe. In certain cases small prospecting hand trenches (i.e. 0.5m x 0.5m x0.4m) were made to collect the sample. All samples were broken to a suitable size and collected in plastic samples bags secured with survey ribbon. The plastic bags were permanently marked for identification purposes and survey ribbon (sample no.) was placed inside the bag just in case the markings on the bag were rubbed off.

The location was GPS'd. The collection site and rocks were photographed with a digital camera, and again (macro zoom) prior to being sent to the assay lab for processing. Where necessary, field notes described the location of the samples and rough sketch maps were made of rock faces showing the detailed sample location. Care was taken to note if samples were a random sample, selective sample, channel sample, grab sample, glacial float sample, stream float sample, or from outcrop. Some rocks were collected, observed and not assayed. These rocks were discarded in a sensitive manner.

(b) Assay and Analytical Procedures:

Assay and analytical work are done by ALS Minerals Canada following international certification practices. Samples were hand delivered to the lab in North Vancouver. In the interest of brevity, refer to their website (http://www.alsglobal.com/en/Our-Services/Minerals) for more specific assay criterion; and also the information provided in the APPENDIX.

Summary of 2018 Exploration and Results:

Exploration work was completed by David J. Piggin with the assistance of Judy Burr. The Total Value of Work was $ 3,072.14 and was recorded under Event 5718616 as shown in the following table. A detailed cost summary is at the end of this report just before the APPENDICIES.

TABLE 1: Cost Summary by EVENT Number: A cost summary is presented at the end of this report before the APPENDIX.

Event No.	Date	Gross Area (hectares)	Total Value of Work($)	PAC Account ($)	Total Applied Work Value($)
5718616	November 7, 2018	40.9774	$ 2,182.00	$ 940.89	$ 1,241.11
5721066	November 29, 2018	40.9774	$ 847.09	$ 596.17	$250.92
5722281	December 8, 2018	40.9774	$ 43.05	$ 0.95	$ 42.10
		40.9774 hectares	$ 3,072.14	$ 1,538.01	$ 1,534.13

2018 Detailed Exploration and Results:

Discussion of the 2018 exploration work is provided here. Rock samples were collected and assayed; and no stream or soil samples were collected.

1. **Rock Samples.**
2. **Mapping Geological Features.**
3. **Geophysical Features.**
   1995 IRON MASK Geophysical Survey
   QUEST SOUTH – Gravity Survey.
4. **Recreations Sites.**
5. **First Nations.**
6. **Research.**

Geological features and certain broad geophysical structures were investigated at a property scale. In depth geophysical discussions are beyond the scope of this report; and beyond the expertise of the author. The following is a summary of the investigations and work completed to date. (See also maps in the APPENDICIES).

1. Rock Samples:

A total of 2 rock samples, **10E41486_AK18F1** and **10E41487_AK18F2** were collected and assayed. No soil or stream sediment samples were collected. These ultramafic peridotite samples (T. Fuller Dec 4, 2018) were collected from massive boulders at the base of a massive outcrop which stands above the local topography.

Assay results for samples **10E41486_AK18F1** and **10E41487_AK18F2** are as follows, and anomalous results are shown in bold text. A subsequent assay was completed for Au Pt Pd (PGM-ICP23) due to the elevated Cr and Ni, the ultramafic nature of the rock, and reasonable cost incurred.

Sample Tag	Zone	Easterly	Northerly	Elevation (metres)	Comments and Results
10E41486_AK18F1	10	667002.574	5613756.800	964.561	Peridotite, ultramafic greenstone boulder in talus with massive boulders, magnetic no sulfides visible
Assay Certificates: VA18271401; VA18305198 (PGM-ICP23)					**Results:** Au <0.001 ppm; Ag 0.03 ppm; Al 2.72 percent; Ba 272 ppm; Ca 4.04 percent; Co 83.5 ppm Cr 1330 ppm; Cu 62.2 ppm; Fe 6.51 percent; Mg 16.95 percent; Mn 1180 ppm; Mo 0.26 ppm; Ni 1260 ppm; Pt 0.007 ppm; Pd 0.006 ppm; Ti 0.148 percent; Zn 59 ppm
					Anomalous Results: Al 2.72 percent; Ca 4.04 percent; Cr 1330 ppm; Fe 6.51 percent; Mg 6.95 percent; Mn 1180 ppm; Ni 1260 ppm; Ti 0.148 percent
10E41487_AK18F2	10	666990.235	5613772.908	972.973	Periodite, ultramafic greenstone boulder in talus with massive boulders, magnetic no sulfides visible
Assay Certificate: VA18271401; VA18305198 (PGM-ICP23)					**Results:** Au <0.001 ppm; Ag 0.02 ppm; Al 2.65 percent; Ba 390 ppm Ca 4.08 percent; Co 83.7 ppm; Cr 1350 ppm; Cu 58.3 ppm; Fe 6.28 percent; Mg 17.4 percent; Mn 1120 ppm; Mo 0.24 ppm; Ni 1305 ppm; Pt 0.008 ppm; Pd 0.006 ppm; Ti 0.146 percent; Zn 60 ppm
					Anomalous Results: Al 2.65 percent; Ca 4.08 percent; Cr 1350 ppm; Fe 6.28 percent; Mg 17.4 percent; Mn 1120 ppm; Ni 1305 ppm; Ti 0.146 percent

ILLUSTRATION # 11: Sample and Rock Outcrop Location Map – Google Earth Image (Tenure 1056644 Google Earth Nov 29x 2018 markup.jpg).

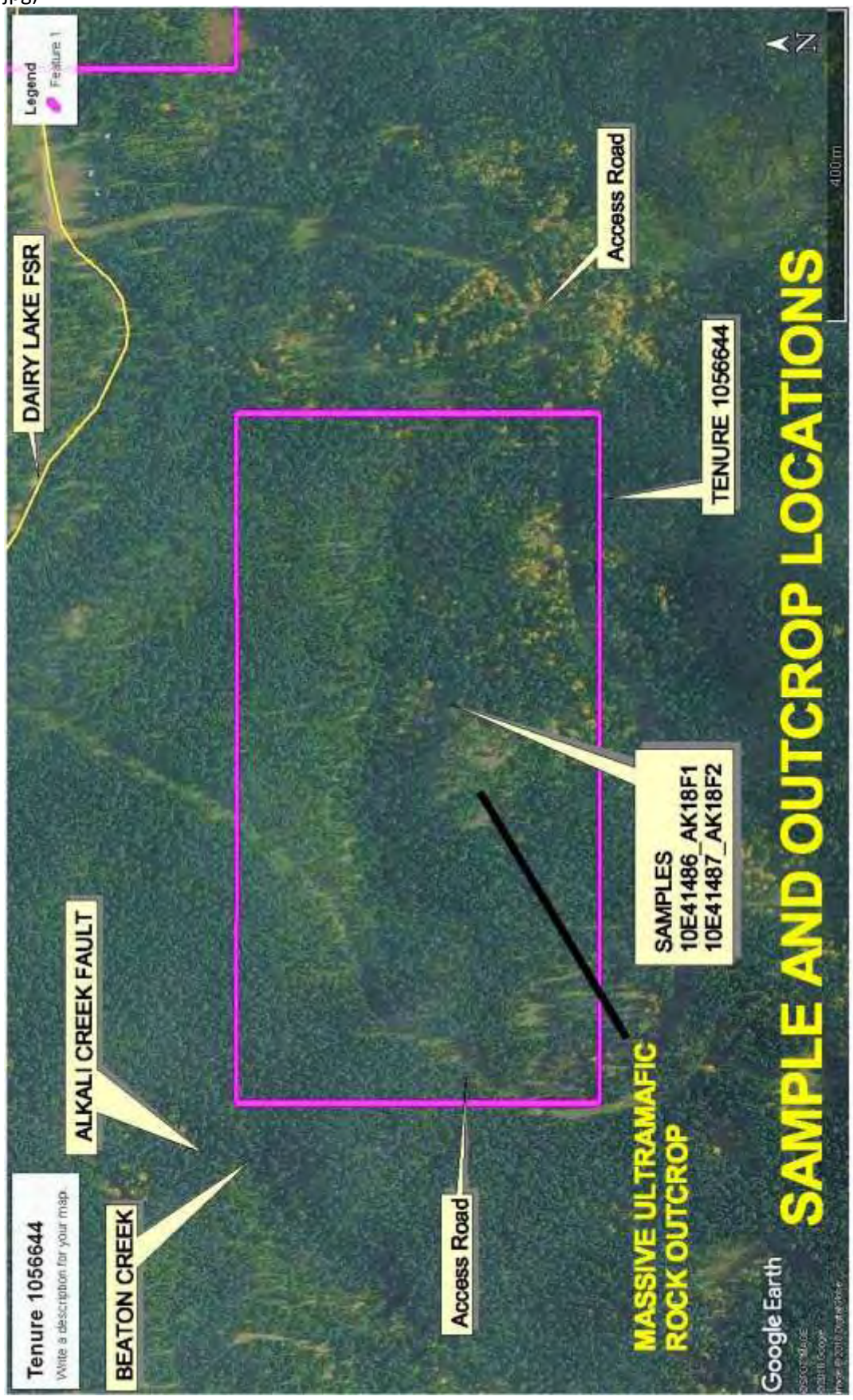


ILLUSTRATION # 12: Massive ultramafic peridotite boulders at sample site **10E41486_AK18F1** Au <0.001 ppm; Ag 0.03 ppm; Al 2.72 percent; Ba 272 ppm; Ca 4.04 percent; Co 83.5 ppm Cr 1330 ppm; Cu 62.2 ppm; Fe 6.51 percent; Mg 16.95 percent; Mn 1180 ppm; Mo 0.26 ppm; Ni 1260 ppm; Pt 0.007 ppm; Pd 0.006 ppm; Ti 0.148 percent; Zn 59 ppm. A massive rock outcrop is just out of the picture in the upper left corner hidden by the trees and brush. David Piggin in foreground. (IMG_2630.jpg)

Assay results indicate a Cr Ni Mg Fe Ca Al signature which suggests this is a Cr-Ni ultramafic peridotite outcrop within the Greenstone Mountain Assemblege. Further field work is required to determine the extent, shape, and size of this ultramafic outcrop. Cr Al Fe and Ti enrichment in chromite is discussed in Open File 1990-27 by Kirk D. Hancock (March 1990). Also, a number of other chromite prospects in South Central – British Columbia are also discussed (MINFILE 092INW001, MINFILE 092INW035, MINFILE 092P090, MINIFILE 092INW004, and 092INW002. See the following link https://minfile.gov.bc.ca/).

A brief literature review and related research indicated ultramafic peridotite rocks with Cr Ni signatures are not a common feature or occurrence in the Greenstone Mountain Assemblege and nearby rock assembleges.

Note: The author gratefully acknowledges the assistance of Ted Fuller, MSc. P.Eng/P.Geo, Senior Mineral Assessment Geoscientist of the Geological Survey Branch in the identification of the rock samples (T. Fuller Dec 4, 2018).

ILLUSTRATION # 13: Overview picture of sample **10E41486_AK18F1** Au <0.001 ppm; Ag 0.03 ppm; Al 2.72 percent; Ba 272 ppm; Ca 4.04 percent; Co 83.5 ppm Cr 1330 ppm; Cu 62.2 ppm; Fe 6.51 percent; Mg 16.95 percent; Mn 1180 ppm; Mo 0.26 ppm; Ni 1260 ppm; Pt 0.007 ppm; Pd 0.006 ppm; Ti 0.148 percent; Zn 59 ppm. (IMG_2267 AK18F1.jpg)

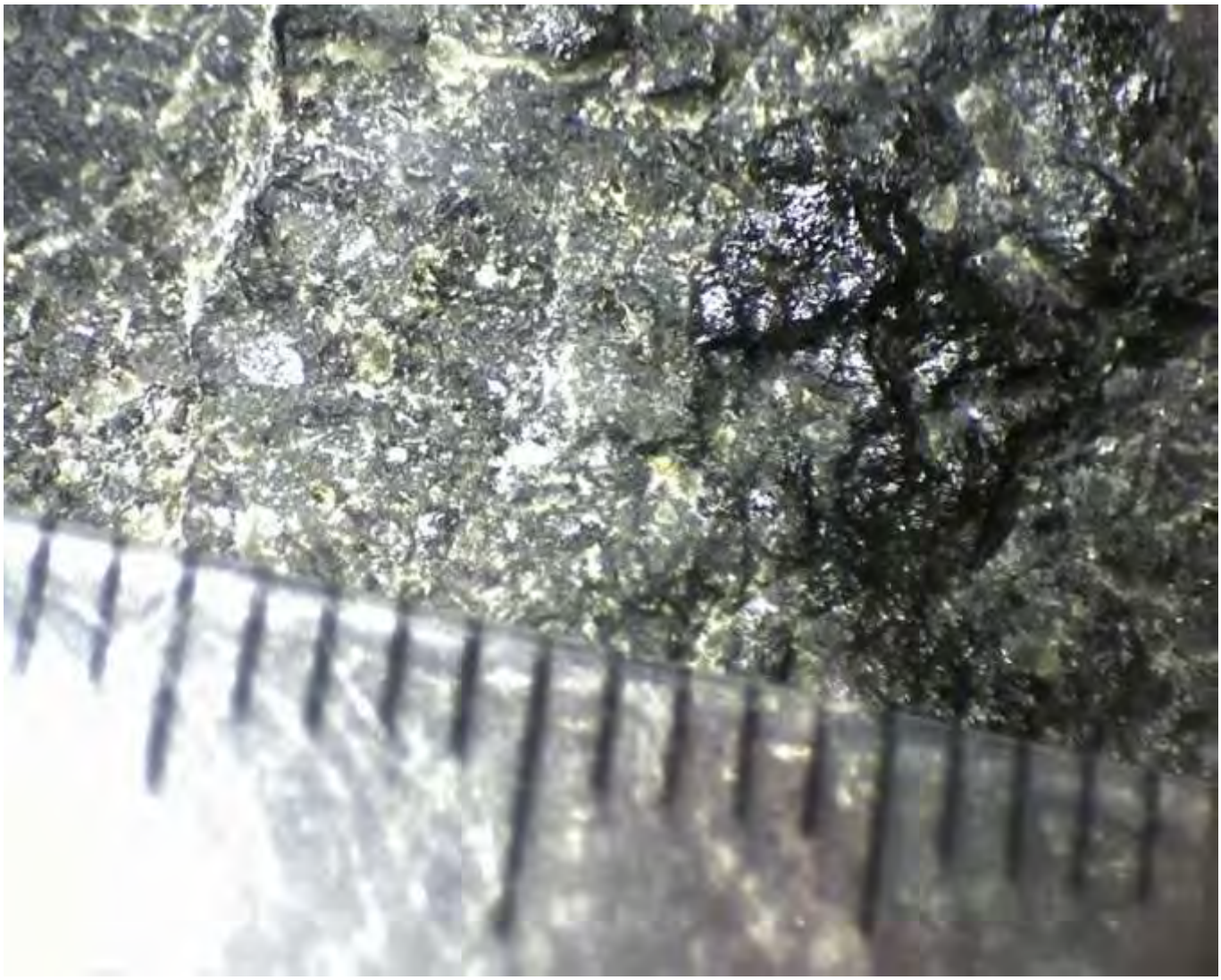
ILLUSTRATION # 14: Close up of peridotite sample **10E41486_AK18F1** Au <0.001 ppm; Ag 0.03 ppm; Al 2.72 percent; Ba 272 ppm; Ca 4.04 percent; Co 83.5 ppm Cr 1330 ppm; Cu 62.2 ppm; Fe 6.51 percent; Mg 16.95 percent; Mn 1180 ppm; Mo 0.26 ppm; Ni 1260 ppm; Pt 0.007 ppm; Pd 0.006 ppm; Ti 0.148 percent; Zn 59 ppm. (IMG_2266 AK18F1.jpg)

ILLUSTRATION # 15: Digital Microscopy close up of peridotite sample **10E41486_AK18F1** Au <0.001 ppm; Ag 0.03 ppm; Al 2.72 percent; Ba 272 ppm; Ca 4.04 percent; Co 83.5 ppm Cr 1330 ppm; Cu 62.2 ppm; Fe 6.51 percent; Mg 16.95 percent; Mn 1180 ppm; Mo 0.26 ppm; Ni 1260 ppm; Pt 0.007 ppm; Pd 0.006 ppm; Ti 0.148 percent; Zn 59 ppm. A 1 millimetre scale in the bottom right hand corner. (Still0071 AK18F1.jpg)

ILLUSTRATION # 16: Overview picture of peridotite sample **10E41487_AK18F2:** Au <0.001 ppm; Ag 0.02 ppm; Al 2.65 percent; Ba 390 ppm Ca 4.08 percent; Co 83.7 ppm; Cr 1350 ppm; Cu 58.3 ppm; Fe 6.28 percent; Mg 17.4 percent; Mn 1120 ppm; Mo 0.24 ppm; Ni 1305 ppm; Pt 0.008 ppm; Pd 0.006 ppm; Ti 0.146 percent; Zn 60 ppm (IMG_2270 AK18F2.jpg)

ILLUSTRATION # 17 Closeup picture of peridotite sample **10E41487_AK18F2:** Au <0.001 ppm; Ag 0.02 ppm; Al 2.65 percent; Ba 390 ppm Ca 4.08 percent; Co 83.7 ppm; Cr 1350 ppm; Cu 58.3 ppm; Fe 6.28 percent; Mg 17.4 percent; Mn 1120 ppm; Mo 0.24 ppm; Ni 1305 ppm; Pt 0.008 ppm; Pd 0.006 ppm; Ti 0.146 percent; Zn 60 ppm. (CM181009-171657006 10E41487_AK18F2.jpg)

ILLUSTRATION # 18: Digital microscope picture of peridotite sample **10E41487_AK18F2:** Au <0.001 ppm; Ag 0.02 ppm; Al 2.65 percent; Ba 390 ppm Ca 4.08 percent; Co 83.7 ppm; Cr 1350 ppm; Cu 58.3 ppm; Fe 6.28 percent; Mg 17.4 percent; Mn 1120 ppm; Mo 0.24 ppm; Ni 1305 ppm; Pt 0.008 ppm; Pd 0.006 ppm; Ti 0.146 percent; Zn 60 ppm. A 1 millimetre scale in bottom of photograph (Still0075 AK18F2.jpg).



2. Mapping Geological Features:.

Ice Direction: Based on orthophoto maps taken from iMAP (georeferenced *.jpg files), ARIS orthophoto maps, GOOGLE Earth, and observed drumlin features an estimated ice direction of 118 degrees azimuth was calculated. Field surveys of outcrop (ice) striations will be required to confirm this map calculated value; and to assess the impact of multiple glaciations on future geochemical surveys (soil and stream).

Faults: Regionally, Tenure 1056644 (also Tenure 1043220; Tenure 1043271, and Tenure 1059782) is located west of the Cherry Creek Tectonic Zone (and also the Cherry Creek Fault), which runs in a northwest to southeast direction, and separates the Greenstone Mountain Assemblege and the Beaton Lake Assemblege from the Iron Mask Batholith (aka Iron Mask Assemblege).

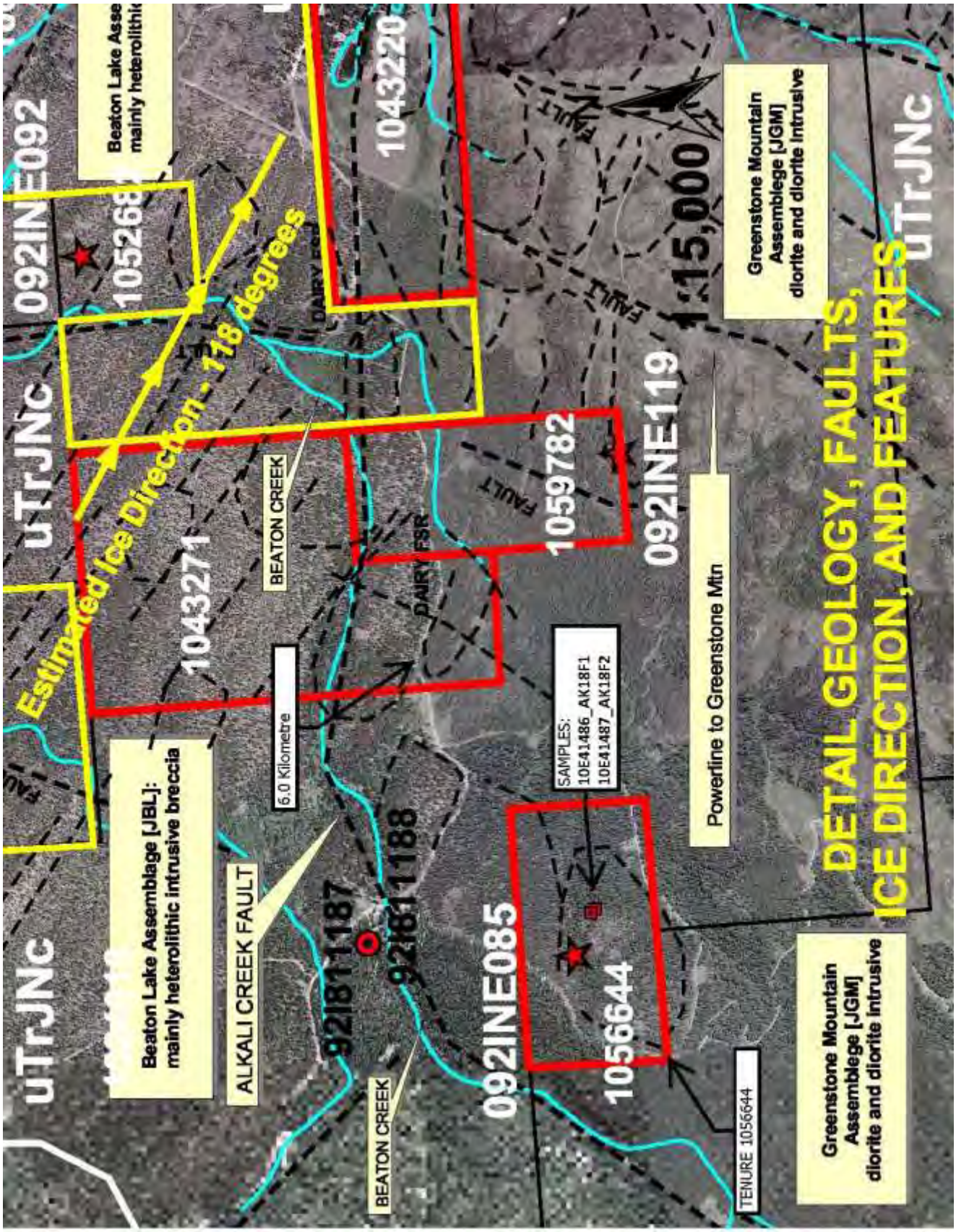
In the immediate vicinity of Tenure 1056644 the dominant local faults (e.g. Alkali Creek Fault) are in a southwest to northeast direction along Beaton Creek. This fault is within 200 metres of the northwest corner of Tenure 1056644. Just north of Tenure 1056644, the Aklaki Creek Fault trends in a west to east direction perpendicular to Beaton Creek.

The Alkali Creek Fault separates the Beaton Lake Assemblege (northside) from the Greenstone Mountain Assembege (southside). The Alkali Creek Fault runs in the vicinity of Tenure 1043220, Tenure 1043271, and Tenure 1059782 in a west to east direction; and bisects the SW to NE trending local faults at a sub-perpendicular angle. Other local faults run in a southwest to northeast direction and intersect with the Alkali Creek Fault and Cherry Creek Tectonic Zone at an acute angle.

Orthophoto lineaments south of the Alkali Creek Fault appear to be sub-circular (i.e. breccia zone – short steep hills) shapes with some drumlin overprinting and cross faulting which is sub-perpendicular to local faulting. North of the Alkali Creek Fault there are linear features formed by NW to SE trending drumlin shapes trending at 118 degrees azimuth.

The following map shows the (subjective) locations of various faults, ice direction drumlins, and breccia features of interest.

ILLUSTRATION # 19: Map of geological features observed on Orthophotos (iMAP) such as faults, breccia pipes and geology; and investigated in the field. (NOT TO SCALE)



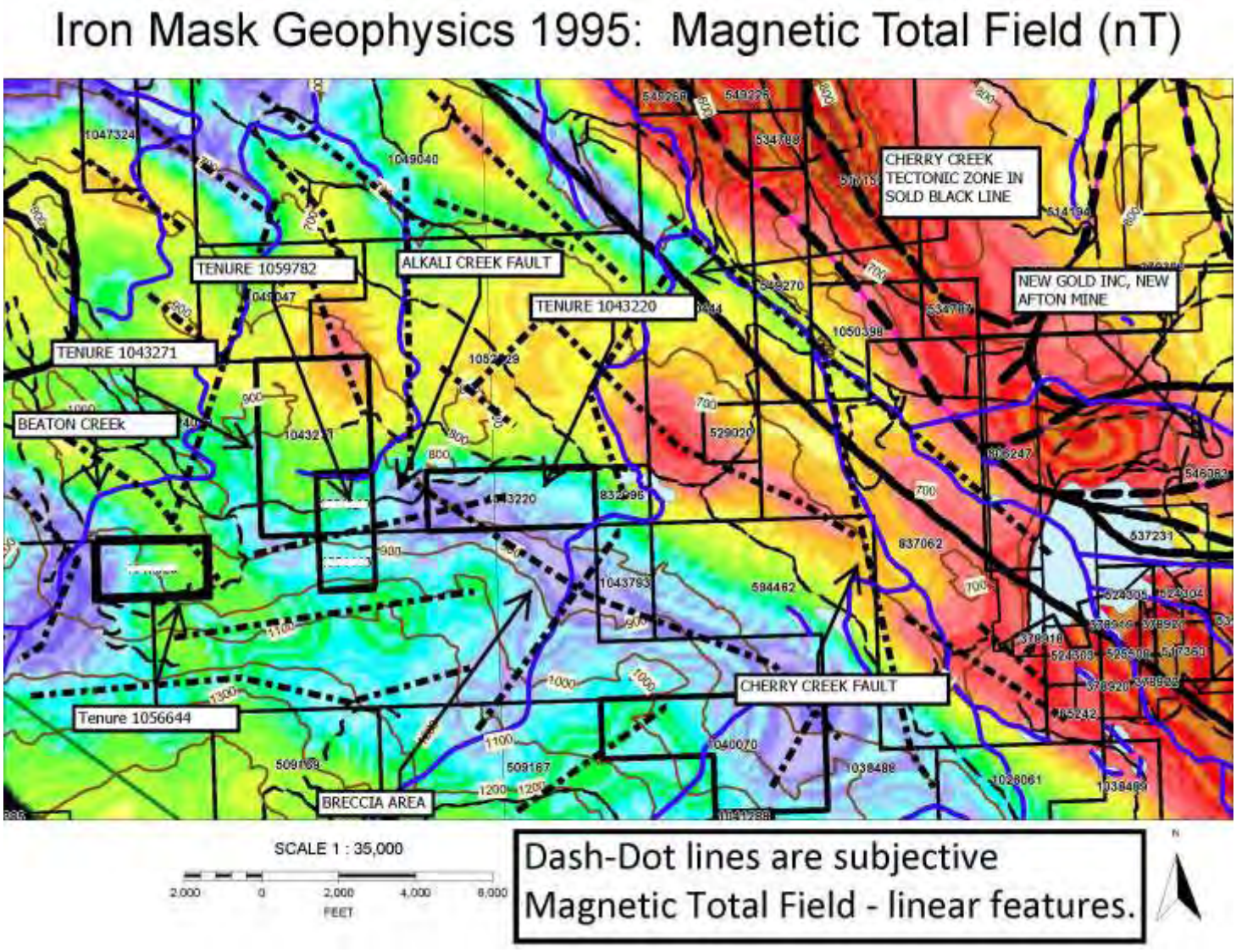
3. Mapping Geophysical Features: (e.g. 1995 IRON MASK Survey, and Geoscience BC Gravity Survey)

A general discussion of published geological and geophysical data is given here. A detailed discussion is beyond the scope of this report, and is beyond the expertise of the author.

(a) IRON MASK GEOPHYSICAL SURVEY:

The 1995 IRON MASK Geophysical Survey, BCMEM Open File 2005-16 and GSC Open File 2817 (Shives and Carson 2005) http://www.empr.gov.bc.ca/Mining/Geoscience/MapPlace/thematicmaps/Pages/IronMask.aspx was used (Exploration Assistant) to create an overview map showing geophysical features, structure and lines of interest. The following map shows the 1995 IRON MASK – Magnetic Total Field (nT) survey; and the authors subjective interpretation of the some property scale geophysical linear features useful in mineral exploration.

ILLUSTRATION #20: 1995 IRON MASK Geophysical Survey – Magnetic Total Field (nT) from BCMEM Open File 2005-16 and GSC Open File 2817 (Shives and Caron 2005) showing the claims and subjective linear anomalies associated with magnetic lows and highs.



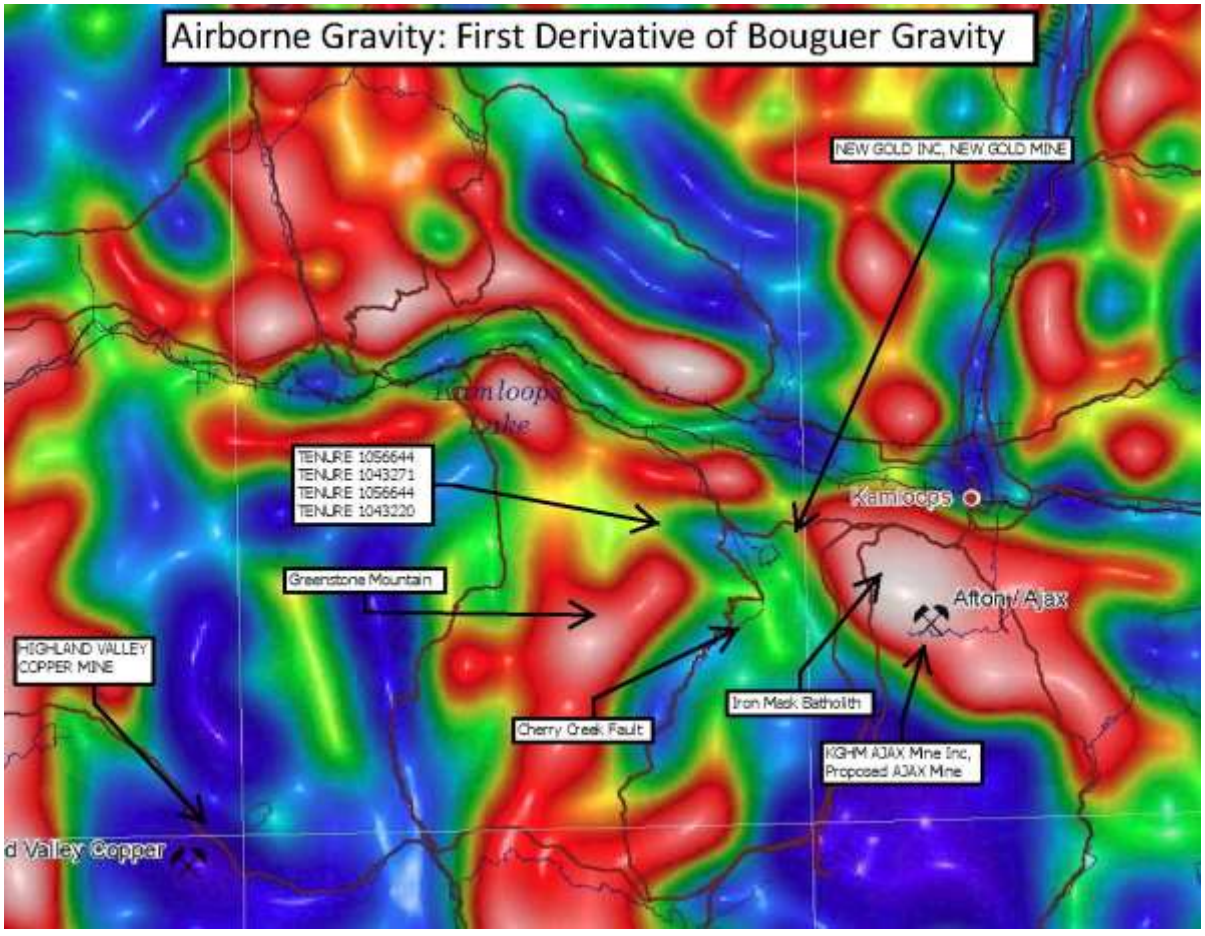
When considering the geophysical features (lows and highs) from the 1995 IRON MASK Geophysics – Magnetic Total Field (nT) maps, there are clearly a number of coincidental geological features.

- The Alkali Creek Fault matches up with the strong linear magnetic low feature which trends from the west to east through Tenures 1056644, 1043271, 1059782, and 1043220.
- A coincidental magnetic (deep) low crescent shaped feature is situated immediately west of Tenure 1056644.
- The Cherry Creek Tectonic Zone separates the magnetic high feature of the Iron Mask Assemblege from the Beaton Lake Assemblege and Greenstone Mountain Assemblege. The Greenstone Mountain Assemblege in the vicinity of the Alkali Creek Fault appears to feature a magnetic low.

(b) QUEST SOUTH – Regional Scale Airborne Gravity Survey – First Vertical Derivative of Bouguer Anomaly: (see also Geophysical – Regional Gravity Map in previous section)

The regional scale Geoscience BC – QUEST SOUTH gravity survey indicated a number of regional scale anomalies.

ILLUSTRATION # 21: QUEST – South Map – EXCERPT FROM: Airborne Gravity First Vertical Derivative of Bouguer Anomaly by Sanders Geophysics Ltd (Geoscience BC – Open File 2010-6). Map download file name QS_Map_GBC_1VD_GRAV.PDF showing location of WEST AFTON Claims, New Gold Inc – New Afton Mine, KGHM AJAX Mining Inc – Proposed AJAX Mine, and the Teck Resources Ltd - Highland Valley Copper Mine



The Airborne Gravity - First Vertical Derivative of Bouguer Anomaly map indicated the Iron Mask Batholith and Greenstone Mountain Assemblege were gravity high. Separately, the Alkali Creek Fault area appears as a west to east gravity low trough. The Beaton Lake Assemblege appears gravity moderate.

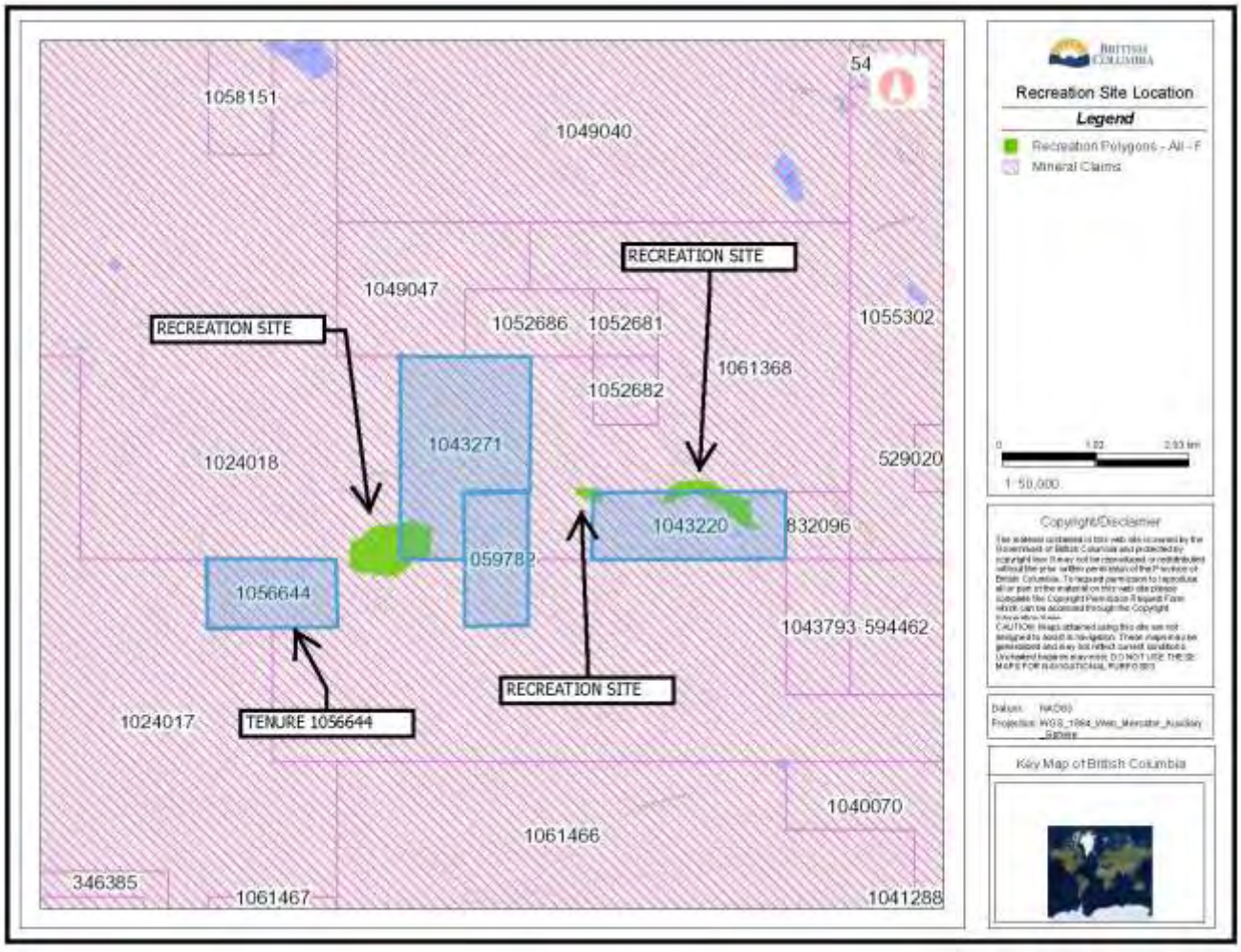
It appears, based on the First Vertical Derivative of Bouguer Anomaly maps, that the claims are situated a short distance north of the northern finger of a large Greenstone Mountain – Bouguer Gravity high. Opposite this Bouguer Gravity high finger is a large Bouguer Gravity high associated with the IRON MASK Batholith. The northern tip of the IRON MASK Batholith gravity high hosts the New Gold Inc – New Afton Mine.

These 2 First Derivative Bouguer Gravity highs (Greenstone Mountain versus IRON MASK Batholith) are separated by a gravity low or trough that encompasses the Alkali Creek Fault, Cherry Creek Fault and Cherry Creek Tectonic Zone.

4. RECREATIONS SITES:

A number of recreation sites were noted northeast and east of Tenure 1056644; also a number of well used recreation trails were observed within and adjacent to Tenure 1056644. No prospecting or exploration work will be done in recreation sites.

ILLUSTRATION # 22: Recreation Site Location Map (iMAP – not to scale).



5. FIRST NATIONS:

Prior to the commencement of field work in the Greenstone Mountain area, in August 2016, an information sharing letter was sent to each First Nation with interests in the claim area. A total of 14 First Nations information letters (emails) were sent, and numerous replies or information letters were received. In one case a shape file (*.shp) was received defining an area of interest.

The list of First Nations contacted was based on government contact information provided by BC Mineral Titles Online, and input from First Nations. Follow-up phone calls, emails, and letters were sent/received from each First Nations group. In certain cases, further follow-up telephone conference calls were scheduled and/or completed.

In May 2018, a follow-up letter and maps were sent to First Nations; and a number of replies were received. A number of follow-up phone calls were also made. First Nations were advised the proposed work was "hand prospecting"; and no mechanical site disturbance was planned therefore, a Notice of Work was not being submitted for approval.

The purpose of the letter was to share information, share contact information, schedule face-to-face meetings if required; and to determine First Nations traditional areas, land ownership, traditional use area, areas of concerns, and economic opportunities. Proposed mineral exploration works were described and listed in detail; and Mineral Title maps, a Google Earth map, and a road/contour map were provided.

6. RESEARCH: (General and Literature)

A literature research and general research was conducted to gain information and data relevant to the claims, and adjacent geology and exploration work. Searches included ARIS Reports (40+); MINFILE Occurrences (50+); BC Geological Survey projects, Open Files and publications; Geoscience BC projects, as well as searches related to the Beaton Lake Assemblege, Greenstone Mountain Assemblege, IRON MASK Batholith., and adjacent mining companies. See also the LITERATURE CITED section.

Also, a number of personal communications with Bill Bergey completed. Bill is a geologist with extensive experience mapping in the Beaton Lake, Afton Mine, Cherry Creek and Highland Valley area. Bill provided the author with his digital (*.PDF) unpublished geology maps of the Beaton Lake, Cherry Creek, Greenstone area. I wish to gratefully acknowledge Bill's expertise and input.

III – CONCLUSIONS AND RECOMMENDATIONS:

The following conclusions and recommendations were made based on the exploration work completed by David J. Piggin, from November 25, 2017 to December 7, 2018. The Total Value of Work was $ 3,072.14 under Events 5718616, 5721066, and 5722281.

PROGRAM RECOMMENDED: A five year exploration program of $90,000 is recommended commencing 2019/2020 based on the follow:

- The anomalous Cr Ni Mg Fe Ca Al Ti results from 2 ultramafic samples taken from a large mafic/ultramafic outcrop.
- The potential for mineralization in the near the Alkali Creek Fault and SW to NE trending local cross faults.
- Maps and data from the 1995 IRON MASK Geophysical Survey, BCMEM Open File 2005-16 and GSC Open File 2817 (Shives and Carson 2005) – Total Magnetic Field (nT), and other geophysical data;
- Proximity to the New Gold Inc – New Afton Mine, and numerous nearby MINFILE Occurrences (70+);

Exploration should include as follows:

- Prospecting; sampling; map the mafic/ultramafic outcrop; identify areas of mineralization, and geological features such as faults, rock types, and intrusive bodies; and locate MINFILE 092INE085 AKILA.
- Assess the relationship between the Alkali Creek Fault and local cross faults.
- Ground truth Airborne Geophysical Survey results and interpretations with geology mapping.
- Complete a property wide soil grid and roadside soil lines.
- Complete geological mapping of the property;
- Prepare and maintain a spatial database management.
- Complete ground geophysics surveys, and follow-up trenching and drilling.
- Information sharing and consultation with all First Nations.

SUMMARY: EXPLORATION WORK COMPLETED NOVEMBER 25, 2017 TO NOVEMBER 6, 2018:

EXPENDITURES, AND RESULTS: The Total Value of Work was $ 3,072.14 on 40.9974 hectares. Prospecting, mapping, and sampling were done; 2 ultramafic peridotite rock samples (T. Fuller Dec 4, 2018) were collected and assayed; and anomalous results are shown in bold. A subsequent assay was completed for Au Pt Pd (PGM-ICP23) due to the elevated Cr and Ni, and ultramafic nature of the rock.

10E41486_AK18F1: Au <0.001 ppm; Ag 0.03 ppm; **Al 2.72 percent**; Ba 272 ppm; **Ca 4.04 percent**; Co 83.5 ppm; **Cr 1330 ppm**; Cu 62.2 ppm; **Fe 6.51 percent**; **Mg 16.95 percent**; **Mn 1180 ppm**; Mo 0.26 ppm; **Ni 1260 ppm**; Pt 0.007 ppm; Pd 0.006 ppm; **Ti 0.148 percent**; Zn 59 ppm.

10E41487_AK18F2: Au <0.001 ppm; Ag 0.02 ppm; **Al 2.65 percent**; Ba 390 ppm; **Ca 4.08 percent**; Co 83.7 ppm; **Cr 1350 ppm**; Cu 58.3 ppm; **Fe 6.28 percent**; **Mg 17.4 percent**; **Mn 1120 ppm**; Mo 0.24 ppm; **Ni 1305 ppm**; Pt 0.007 ppm; Pd 0.006 ppm; **Ti 0.146 percent**; Zn 60 ppm.

A brief literature review and related research indicated ultramafic peridotite rocks with Cr Ni, or Cr Ni Mg Fe Ca Al signatures are not a common feature, or occurrence in the Greenstone Mountain Assemblege and nearby rock assembleges.

The author gratefully acknowledges the assistance of Ted Fuller, MSc. P.Eng/P.Geo, Senior Mineral Assessment Geoscientist of the Geological Survey Branch in the identification of the rock samples.

GEOLOGICAL FEATURES: Cherry Creek Tectonic Zone is 11 km to the east, and trends in a NW to SE direction separating the **[JGM]** and **[JBL]** from the Iron Mask Batholith. Local faults run in a SW to NE direction and intersect with the Cherry Creek Tectonic Zone at an acute angle. The Alkali Creek Fault separates the **[JBL]** (north) from the **[JGM]** (south); and runs along Beaton Creek, in a southwest to north east direction within 150 metres of the NW corner of Tenure 1056644. The estimated ice direction, based on drumlins, was 118 degrees azimuth.

GEOPHYSICAL FEATURES:

1995 IRON MASK Airborne Geophysical Survey: Geophysical features (lows and highs) on the 1995 IRON MASK Geophysics – Magnetic Total Field (nT) maps were coincidental with some geological features. The Alkali Creek Fault matches up with the linear magnetic low feature which trends W to E near the claim. The deep magnetic low feature west of Tenure 1056644 is coincidental with the Alkali Creek Fault. The Cherry Creek Tectonic Zone (magnetic trough) separates the magnetic high feature of the Iron Mask Batholith from the **[JBL]** and **[JGM]**. The **[JGM]** south of the Alkali Creek Fault appears to feature a magnetic low.

QUEST – SOUTH Airborne Gravity Survey - First Vertical Derivative of Bouguer Anomaly map indicated the Iron Mask Batholith and **[JGM]** were gravity highs. The northern tip of the IRON MASK Batholith gravity high hosts the New Gold Inc – New Afton Mine. Tenure 1056644 is situated just north of the northern finger of a Greenstone Mountain – Bouguer Gravity high. Opposite this gravity high finger is a large gravity high associated with the IRON MASK Batholith. These two gravity highs (Greenstone Mountain versus IRON MASK Batholith) are separated by a gravity low or trough that encompasses the Alkali Creek Fault, Cherry Creek Fault and Cherry Creek Tectonic Zone. The Alkali Creek Fault area appears as a W to E gravity low trough.

RESEARCH: Conducted literature/research related to Cr Ni deposits, ARIS Reports, MINFILES, BC Geological Survey and Geoscience BC reports, the Greenstone Mountain Assemblege, and IRON MASK Batholith, and mining companies.

Reports and publications of the British Columbia Geological Survey (BCGS), Geoscience BC, Geological Survey of Canada, MINFILE and ARIS Reporting Systems, Mining Company websites and reports (e.g. 43-101) all provided invaluable information for this report and exploration project. Their work is acknowleged; was greatly appreciated and highly valued.

FIRST NATIONS LETTER 2018: A First Nations information letter/package was completed and submitted to each First Nation. Various follow-up letters, emails, and phone calls were completed.

RECOMMENDED EXPLORATION: A five year exploration program of $90,000 was recommended commencing 2019/2020; and would include geological mapping, locating MINFILE 092INE085 AKILA, outcrop sampling, geochemical/geophysical surveys, and trenching and drilling

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AUTHORS QUALIFICATIONS

The author has been a prospector since 1997 and has the following qualifications:

- Registered Professional Forester (2412) since 1990. Retired in 2009 from the Ministry of Forests and Range, Southern Interior Forest Region with 35 years of meritorious service. Certified Incident Commander for forest fires in 2009.
- Past Director, Past Vice President, and active Member of the Kamloops Exploration Group (KEG).
- Plan, organized or participated in KEG Conventions in Kamloops since 1997 - 2015.
- Attend the Cordilleran Roundup (Vancouver 1998 to 2018) and maintained a prospector's booth for most years.
- Attend the KEG (Kamloops 1997 to 2018) and maintained a prospector's booth for most years.
- KEG Prospectors Course (University College of the Cariboo) in 1997.
- Attended numerous KEG and Geoscience BC short courses or field trips for prospecting, geochemistry, (basic) geophysics, mineralization, ore bodies, and formations such as the Nicola Volcanics.
- Attended numerous KEG and Geoscience BC field trips to Afton (Abacus), New Gold Inc (underground), Gibraltar, Mount Polley, Highland Valley Copper, Samatosum, Copper Mountain, and etc.
- Conducted field tours of properties with company geologists, and government geologists.
- Completed Prospectors Assistance Grant #98/99 P94.
- Completed contract staking; and completed contracts on 80+ line kilometers of soil surveys for companies.
- Collected 3000+ of soil samples for assay by exploration companies.
- Collected 500+ prospecting soil samples; 400+ moss mats/stream sediments samples; and 400+ rock samples.
- Completed advanced courses in Mathematics and Physics in the 1970s; and Forest Sciences such as Forest Hydrology, Forest Soils, Forest Ecology, Statistics, and Forest Mensuration in the 1980s.
- First Nations Cultural Awareness Workshops, Project Management Courses, Continuous Improvement, Conflict Resolution, Coaching & Facilitating (meetings and teams), and business processes.
- First Nations consultation on mineral claims including information sharing, meetings, conflict resolution.
- Member of Provincial Working Groups related to government initiatives.
- Budgeted and implemented up to $ 1.1 million per year of forestry related contracts.
- Contracted and supervised professionals and technicians working to a scientific standard.
- Completed Assessment Reports (ARIS) as follows:
  29378: SPAPILEM CREEK (aka HONEYMOON) - July 4, 2007; $ 6,375.11.
  29407: HONEYMOON CREEK (aka HONEYMOON)- November 18, 2007; $ 11,040.10.
  29709: CAMGLORIA (aka HONEYMOON) - December 20, 2007; $ 7,037.87.
  29960: HONEYMOON - March 1, 2008; $ 25,177.09.
  30869: HONEYMOON - June 2, 2009; $ 29,959.06.
  32076: HONEYMOON - for Astral Mining Corporation, June 7, 2011, $ 78,250.27;
  32383: BARRIERE RIDGE for Astral Mining Corporation, August 21, 2011; $ 21,824.78.
  33190: HONEYMOON and BARRIERE RIDGE for Astral Mining Corporation, July 18, 2012, $ 344,154.71.
  33744: HONEYMOON and BARRIERE RIDGE for Astral Mining Corporation; March 27, 2016. $ 97,303.43.
  33202: SASKUM BEAR for David J. Piggin, August 11, 2012; $ 9,411.98.
  33216: BENDGOLD for David J. Piggin, August 28, 2012; $ 37,007.66.
  34324: BENDGOLD for David J. Piggin, December 12, 2016; $ 17,706.83.
  34651: David J. Piggin. March 18, 2014. BARRIERE RIDGE; $ 39,377.26.
  35500: David J. Piggin. August 29, 2016. BARRIERE RIDGE; $ 46,111.09.
  36263: David J. Piggin. January 30, 2017. BARRIERE RIDGE; $ 16,149.17.
  36628: David J. Piggin. February 9, 2017. SPAPILEMGOLD; $1,900.00
  36629: David J. Piggin. February 9, 2017. CAMGLORIA; $1,900.00
- Optioned/sold the MAGNUM CLAIMS (near Ajax Pit at Afton) to New Gold Inc, near Kamloops, British Columbia.
- Optioned the HONEYMOON CLAIMS to Acrex Ventures Ltd., Vancouver, British Columbia.
- Optioned the HONEYMOON CLAIMS to Astral Mining Corporation, Vancouver, British Columbia.
- Optioned the BARRIERE RIDGE CLAIMS to Astral Mining Corporation, Vancouver, British Columbia.
- Optioned/sold the HONEYMOON CLAIMS to SolidusGold Inc,Vancouver, British Columbia.
- Optioned BARRIERE RIDGE Claims to Mantra Resources Ltd, Vancouver, British Columbia.

Software Programs Used In Support of this Report

The following computer software and equipment used in support of the exploration and development work, and in the preparation of this report.

1. Microsoft Office 2010: EXCEL, WORD, OUTLOOK, ACCESS.
2. Internet Explorer (version 10).
3. Mineral Tenures Online mapping software.
4. ARIS MapBuilder, Exploration Assistant.
5. MINFILE, Ministry of Energy and Mines BC Geological Survey – Open Files and related publications.
6. Geoscience BC – Open Files and related publications.
7. COZY Microscope App for cellphones.
8. Tasco digital microscope and software.
9. UDIG spatial software.
10. Arcview 3.2a.
11. Google Earth Pro.
12. Adobe Acrobat 9 Pro and Adobe Acrobat Distiller.
13. Trackmaker version 16.1 (freeware) for GPS download.
14. DNR Garmin GPS download.
15. Garmin 12XL – Global Positioning Unit.
16. Garmin GPSmap 60CSx – Global Positioning Unit.
17. Canon A630 and A1100 digital camera, Samsung cellphone with digital camera and microscope app.
18. ICOM road radio and hand held radio for safety.
19. Stone Blaze, belt chain, surveying tool.
20. Hand held Ranger Silva Compass, Azimuth.
21. Clinometer, Sunnto, (degrees, %).
22. Iwamoto Hand lens.
23. Survey ribbon (various colours), metal tags, and tyvek tags with wire.
24. Rock hammer, geotul, and various sledge hammers, shovels, soil auger, and trowels.
25. Gold pan, black, for collecting sediment samples prior to bagging.
26. Black plastic door screen (0.1 inch square mesh) for screening stream sediment samples.
27. Samples were collected with plastic bags (rock), stream sediments/soil (kraft bags), moss mats (linen bags).
28. 2 Trapper Nelson pack boards with sacks.
29. Ford, F150 4x4 pickup, with canopy/boat racks.
30. Shindawa powersaw, Husqvarna 55 Chainsaw, Poulan 4218 chainsaw.
31. 1 hand tank pumps (fire), fire extinguishers, shovels, pulaskis for fire prevention.
32. First aid kit for safety, and bear spray.

COST SUMMARY

COST SUMMARY: TENURE 1056644

Event	Dates	Total Value of Work	Total Applied Work Value	PAC	
EVENT 5718616	November 7, 2018	$ 2,182.00	$ 1,241.11	$ 940.89	
EVENT 5721066	November 28, 2018	$ 847.09	$ 250.92	$ 596.17	
EVENT 5722281	December 8, 2018	$ 43.05	$ 42.10	$ 0.95	
		$ 3,072.14	$ 1,534.13	$ 1,538.01	TOTAL

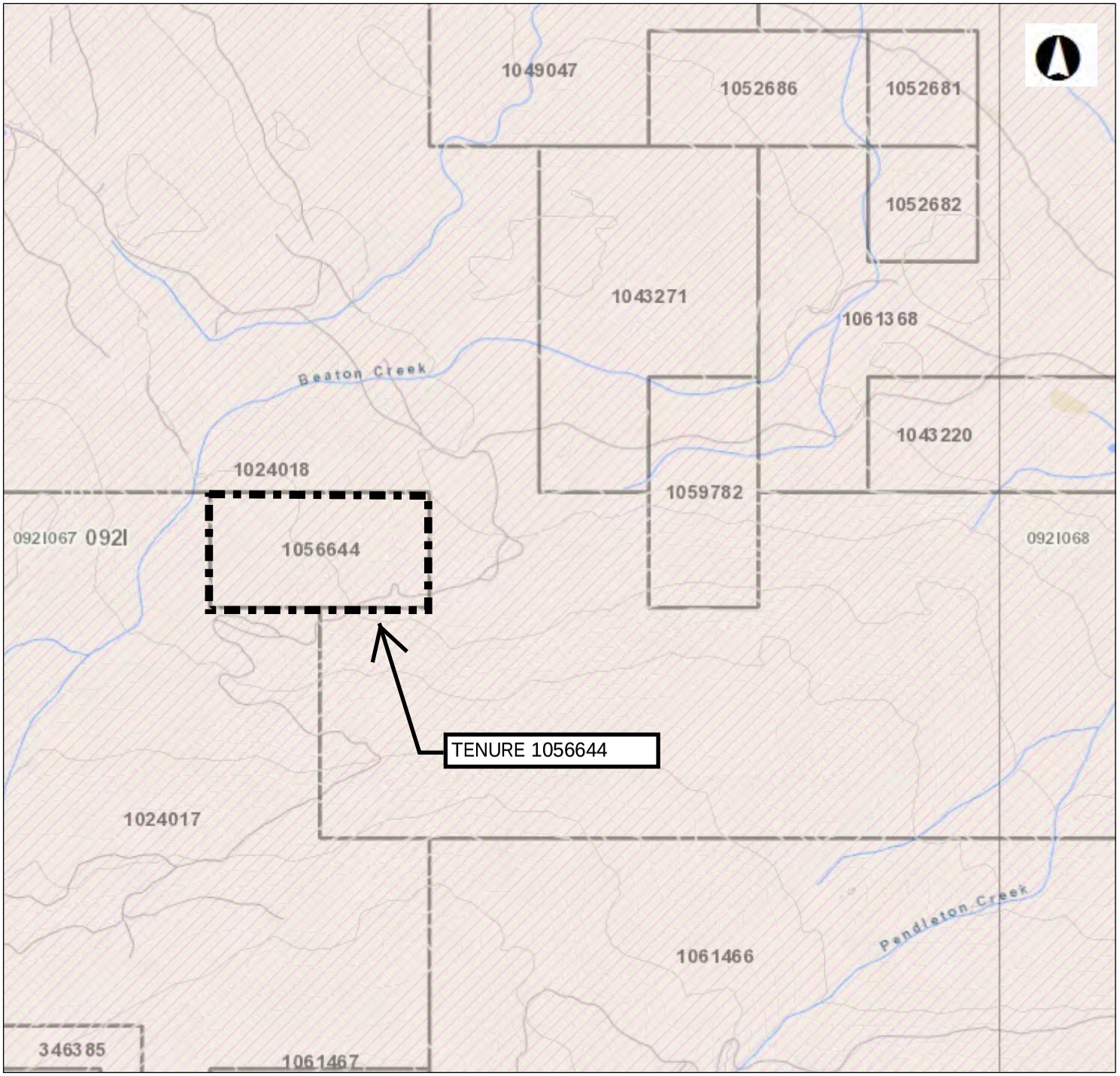
Exploration Work type	**Comment**	**Days**			**Totals**
Personnel (Name)* / Position	**Field Days (list actual days)**	**Days**	**Rate**	**Subtotal***	
David Piggin, RPF, Prospector	September 17, 2018	1	$400.00	$400.00	
Judy Burr, Prospector	September 17, 2018	1	$400.00	$400.00	
				$800.00	**$800.00**
Office Studies	**List Personnel (note - Office only, do not include field days**				
Literature search	David Piggin, RPF. Prospector	1.0	$400.00	$400.00	
Database compilation	David Piggin, RPF. Prospector	0.5	$400.00	$200.00	
Computer modelling			$0.00	$0.00	
Reprocessing of data			$0.00	$0.00	
General research	David Piggin, RPF. Prospector	0.5	$400.00	$200.00	
General research					
Report preparation	David Piggin, RPF. Prospector	2.0	$400.00	$800.00	
Other (specify): Mapping Orthophoto Lines, Geophysical Structures (1995 IRON MASK Geophysical Survey), Faults, Breccia Pipes, and geophysical anomalies	David Piggin, RPF. Prospector	0.5	$400.00	$200.00	
Other (specify) First Nations ownership and notification, information sharing.	David Piggin, RPF. Prospector	0.2	$400.00	$80.00	
Other (specify)		0.0	$0.00	$0.00	
				$1,880.00	**$1,880.00**

Airborne Exploration Surveys	**Line Kilometres / Enter total invoiced amount**				
Aeromagnetics			$0.00	$0.00	
Radiometrics			$0.00	$0.00	
Electromagnetics			$0.00	$0.00	
Gravity			$0.00	$0.00	
Digital terrain modelling			$0.00	$0.00	
Other (specify)			$0.00	$0.00	
				$0.00	**$0.00**
Remote Sensing	**Area in Hectares / Enter total invoiced amount or list personnel**				
Aerial photography			$0.00	$0.00	
LANDSAT			$0.00	$0.00	
Other (specify)				$0.00	
				$0.00	**$0.00**
Ground Exploration Surveys	**Area in Hectares/List Personnel**				
Geological mapping				$0.00	
Regional		*note: expenditures here*		$0.00	
Reconnaissance		*should be captured in Personnel*		$0.00	
Prospect		*field expenditures above*		$0.00	
Underground	Define by length and width			$0.00	
Trenches	Define by length and width			$0.00	
				$0.00	**$0.00**
Ground geophysics	**Line Kilometres / Enter total amount invoiced list personnel**				
Radiometrics				$0.00	
Magnetics				$0.00	
Gravity				$0.00	
Digital terrain modelling				$0.00	
Electromagnetics	*note: expenditures for your crew in the field*			$0.00	
SP/AP/EP	*should be captured above in Personnel*			$0.00	
IP	*field expenditures above*			$0.00	
AMT/CSAMT				$0.00	
Resistivity				$0.00	
Complex resistivity				$0.00	
Seismic reflection				$0.00	
Seismic refraction				$0.00	
Well logging	Define by total length			$0.00	
Geophysical interpretation				$0.00	
Petrophysics				$0.00	
Other (specify)				$0.00	
				$0.00	**$0.00**
Geochemical Surveying	**Number of Samples**	**No.**	**Rate**	**Subtotal**	

Drill (cuttings, core, etc.)			$0.00	$0.00	
Stream sediment			$0.00	$0.00	
Soil			$0.00	$0.00	
Soil			$0.00	$0.00	
Rock	**Certificate VA18271401** 10E41486_AK18F1; 10E41487_AK18F2	2.0	$68.54	$137.09	
Rock	**Certificate VA18305198 for PGM-ICP23 Pt, Pd, Au only** 10E41486_AK18F1; 10E41487_AK18F2	2.0	$21.53	$43.05	
Water			$0.00	$0.00	
Biogeochemistry			$0.00	$0.00	
Whole rock			$0.00	$0.00	
Petrology			$0.00	$0.00	
Other (specify)			$0.00	$0.00	
				$180.14	**$180.14**
Drilling	**No. of Holes, Size of Core and M**	**No.**	**Rate**	**Subtotal**	
Diamond			$0.00	$0.00	
Reverse circulation (RC)			$0.00	$0.00	
Rotary air blast (RAB)			$0.00	$0.00	
Other (specify)			$0.00	$0.00	
				$0.00	**$0.00**
Other Operations	**Clarify**	**No.**	**Rate**	**Subtotal**	
Trenching			$0.00	$0.00	
Bulk sampling			$0.00	$0.00	
Underground development			$0.00	$0.00	
Other (specify)			$0.00	$0.00	
				$0.00	**$0.00**
Reclamation	**Clarify**	**No.**	**Rate**	**Subtotal**	
After drilling			$0.00	$0.00	
Monitoring			$0.00	$0.00	
Other (specify)			$0.00	$0.00	
				$0.00	**$0.00**
Transportation		**No.**	**Rate**	**Subtotal**	
Airfare			$0.00	$0.00	

Taxi			$0.00	$0.00	
truck rental		1.00	$75.00	$75.00	
kilometers		40.00	$0.55	$22.00	
ATV			$0.00	$0.00	
fuel			$0.00	$0.00	
Helicopter (hours)			$0.00	$0.00	
Fuel (litres/hour)			$0.00	$0.00	
Ferry		0.00	$0.00	$0.00	
Other					
				$97.00	**$97.00**
Accommodation & Food	**Rates per day**				
Hotel			$0.00	$0.00	
Hotel, D. Piggin at Brothers Place		1.00	$50.00	$50.00	
Camp			$0.00	$0.00	
Meals	day rate	1.00	$45.00	$45.00	
Meals	day rate or actual costs-specify			$0.00	
				$95.00	**$95.00**
Miscellaneous					
Telephone		0.00		$0.00	
Other (Specify)	Field Supplies	0.00	$0.00	$0.00	
Other (Specify)				$0.00	
				$0.00	**$0.00**
Equipment Rentals					
Field Gear (Specify)				$0.00	
Other (Specify)	Chainsaw Husky 55	0.00	$0.00	$0.00	
Other (Specify)	Chainsaw Shindaiwa	0.00	$0.00	$0.00	
				$0.00	**$0.00**
Freight, rock samples					
Deliver to ALS North Vancouver		1.0	$20.00	$20.00	
			$0.00	$0.00	
				$20.00	**$20.00**
TOTAL Expenditures					**$3,072.14**

APPENDICIES



BRITISH COLUMBIA

Mineral Titles 1056644

Legend

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- Mapsheet Grid (1:250,000)
- Contours - (1:20,000)
  - FCODE
  - Contour - Index
  - Contour - Index Indefinite
  - Contour - Index Depression
  - Contour - Index Depression Inde
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  - Contour - Intermediate Depress
  - Contour - Intermediate Depress
- Mineral Reserves (Operatio
  - MTA_SITE_ORDER_RESTR_C

0 0.73 1.47 km

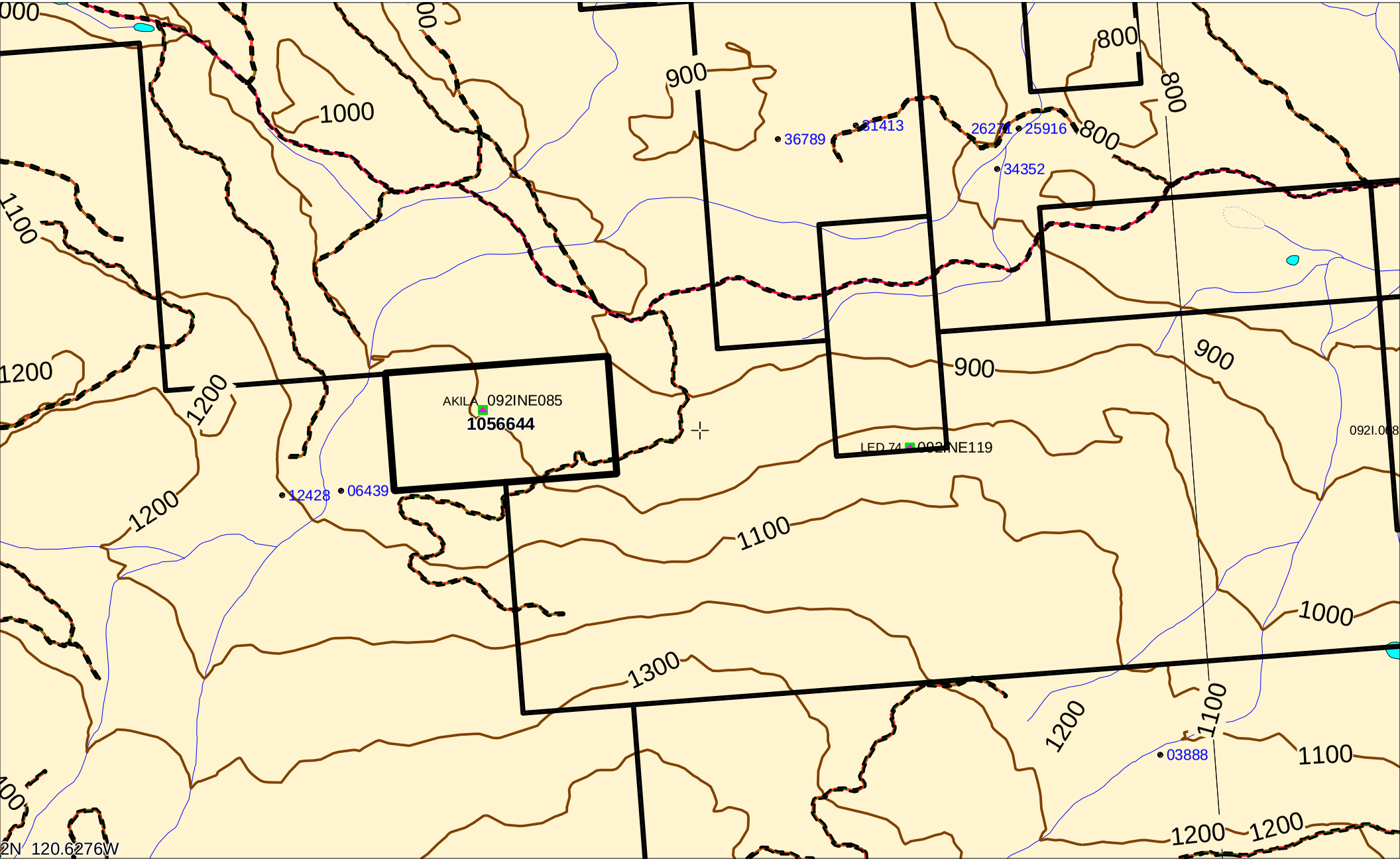
1: 36,111

Copyright/Disclaimer

Datum: NAD83
Projection: Web Mercator

Key Map of British Columbia

TENURE 1056644 - AKILA



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FEET

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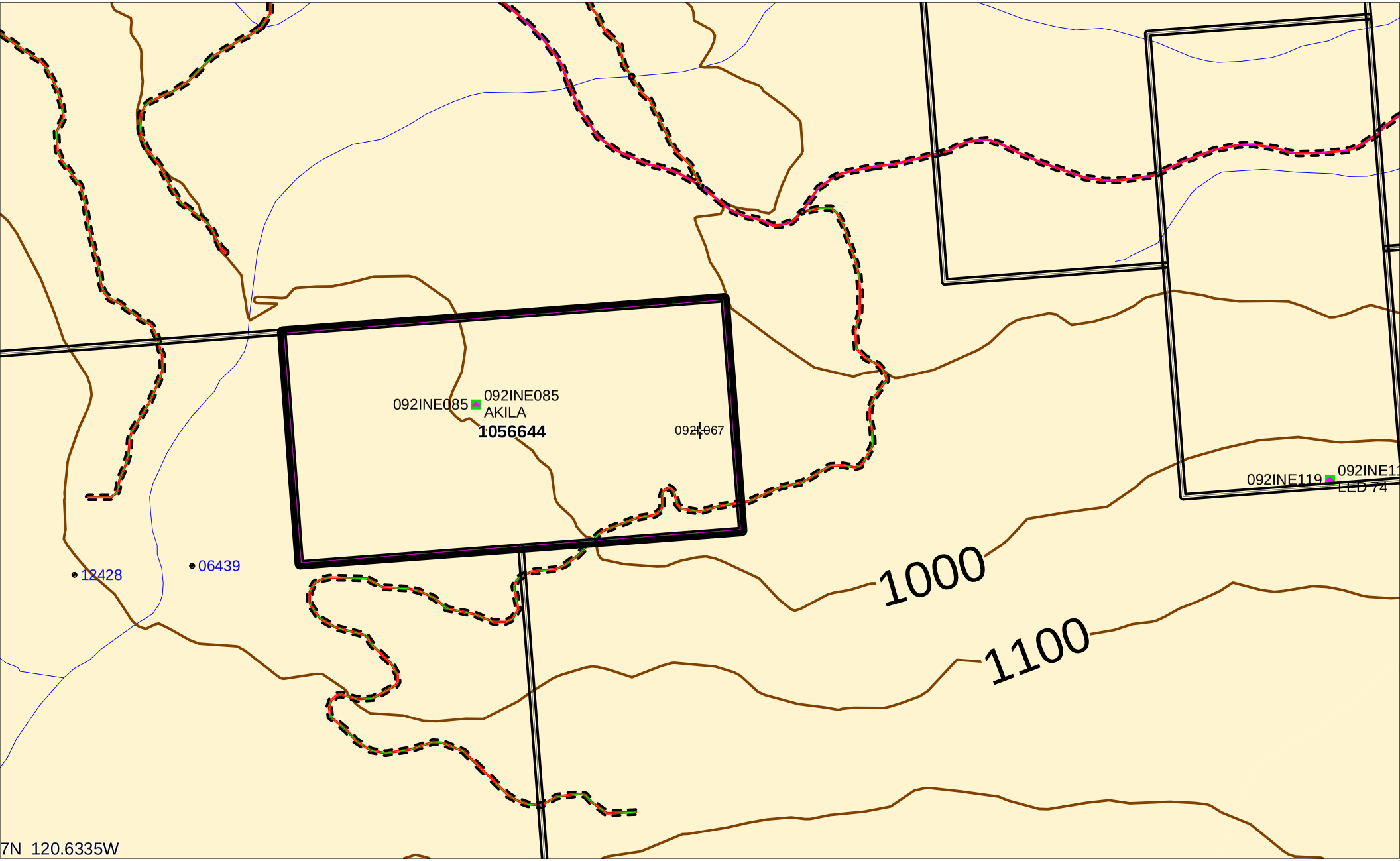
TENURE 1056644 - AKILA



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FEET

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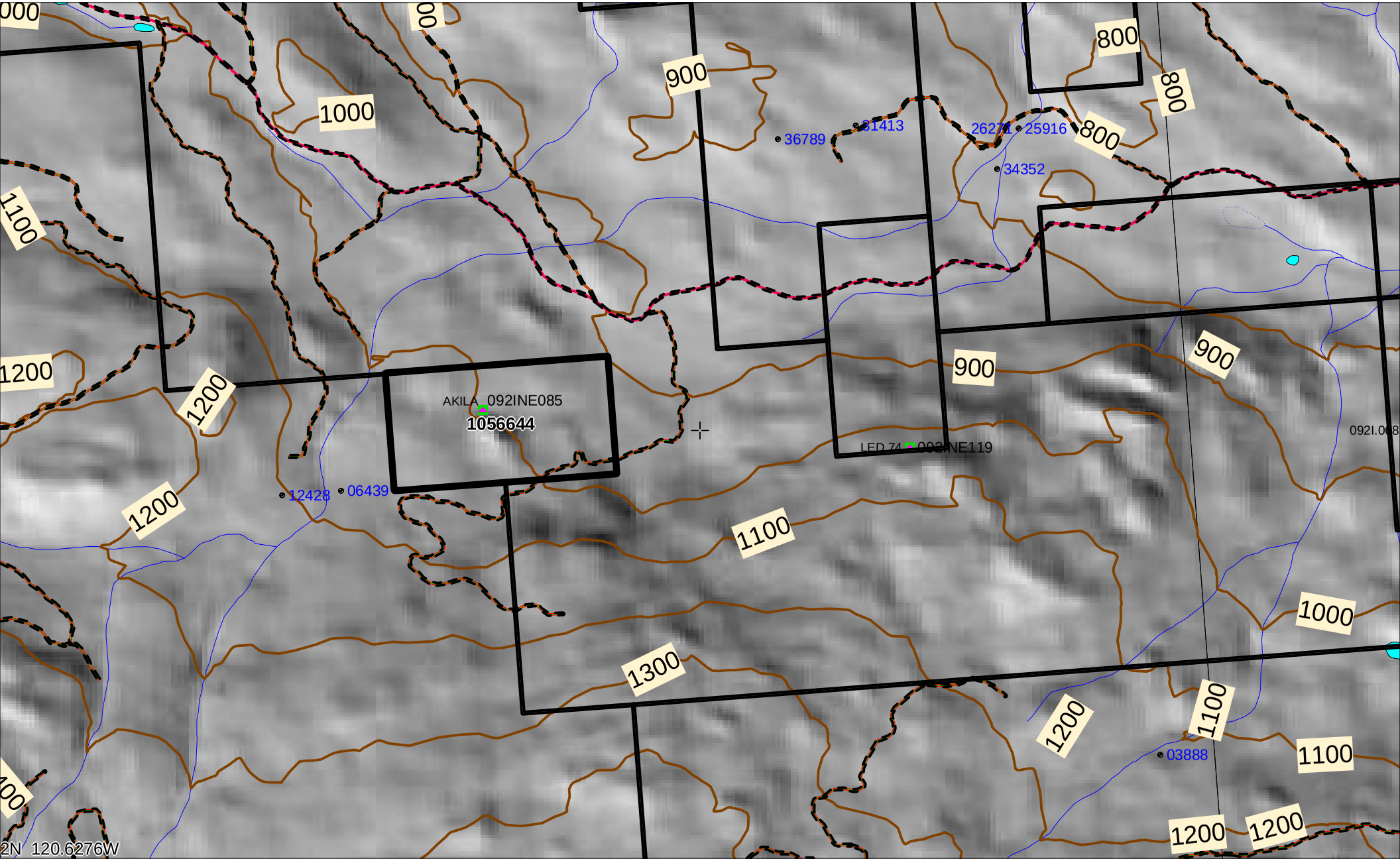
TENURE 1056644 - AKILA



SCALE 1 : 20,000

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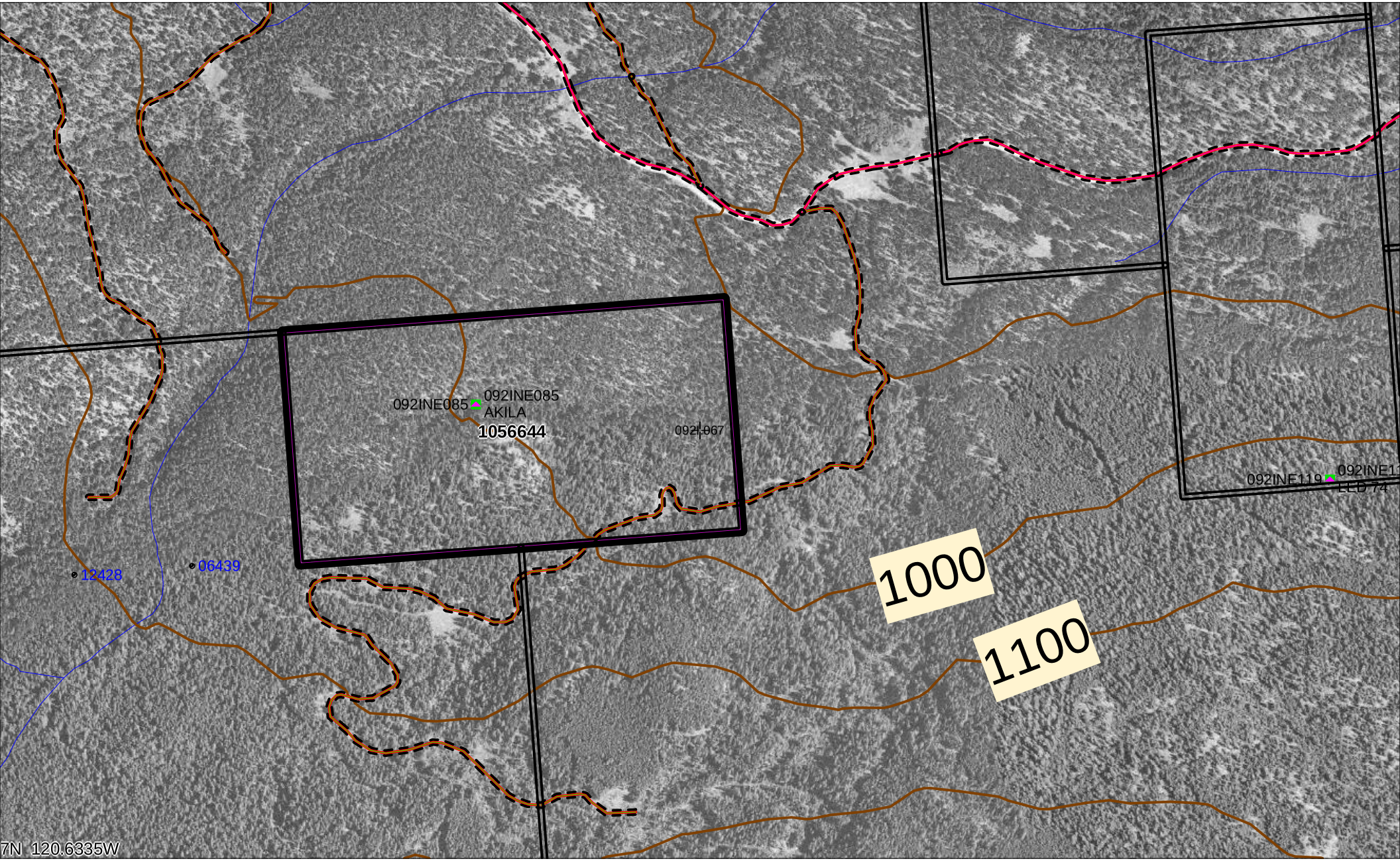
FEET

N

TENURE 1056644 - AKILA



SCALE 1 : 10,000

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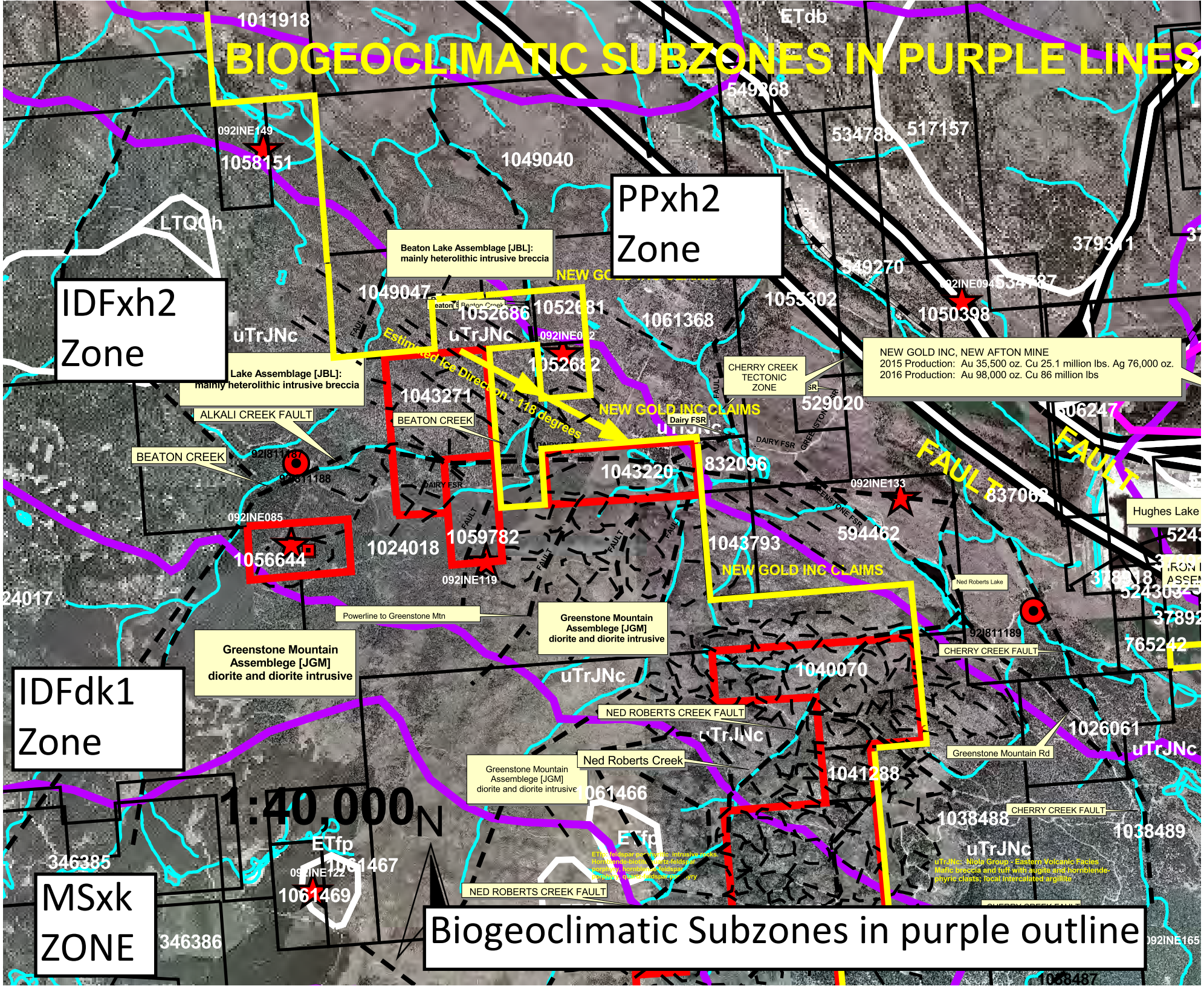
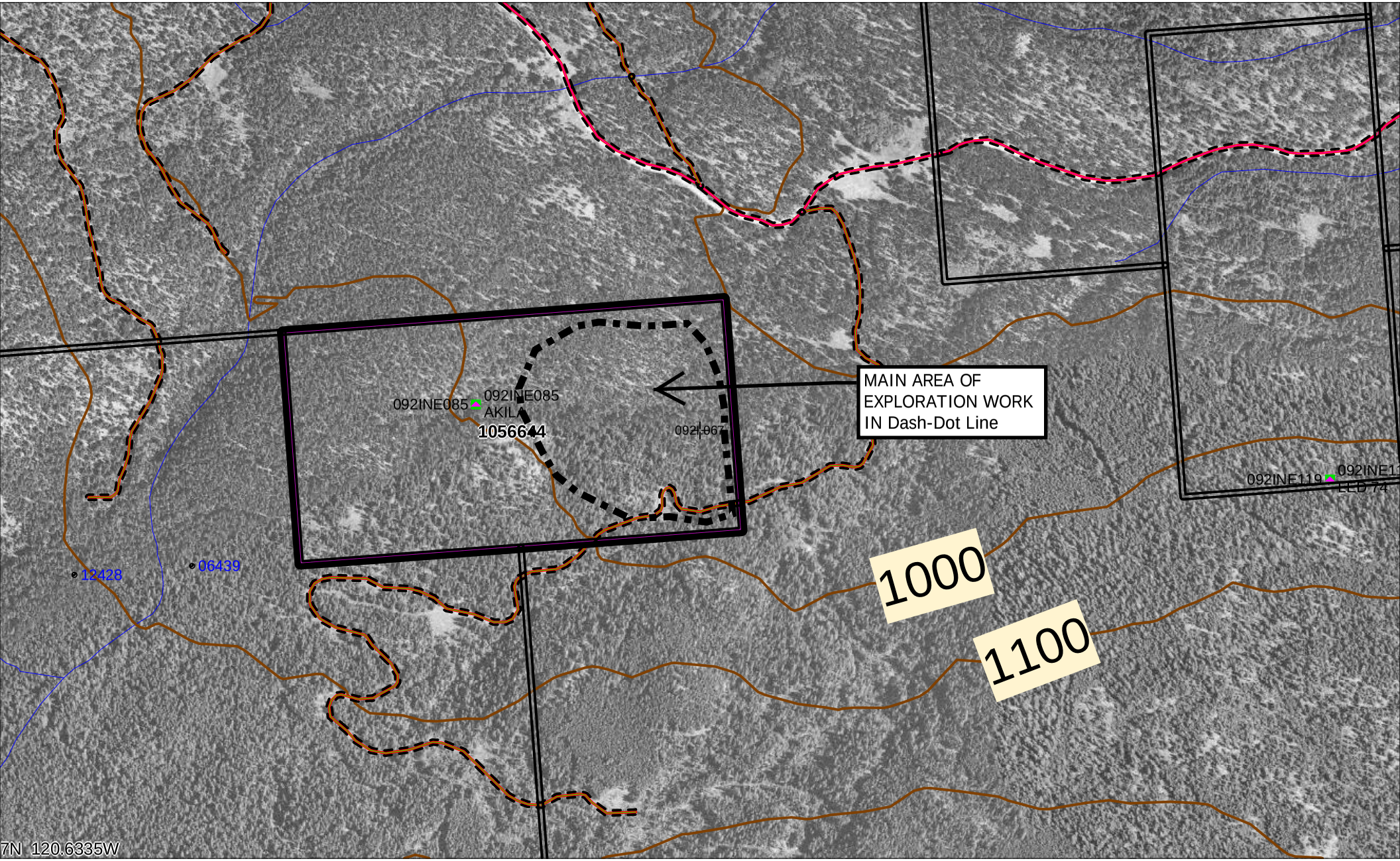
FEET

N


BIOGEOCLIMATIC SUBZONES IN PURPLE LINES
PPxh2 Zone
IDFxh2 Zone
IDFdk1 Zone
MSxk ZONE
Biogeoclimatic Subzones in purple outline
1:40,000
Beaton Lake Assemblage [JBL]: mainly heterolithic intrusive breccia
Greenstone Mountain Assemblage [JGM] diorite and diorite intrusive
ALKALI CREEK FAULT
BEATON CREEK
Estimated Ice Direction - 118 degrees
NEW GOLD INC CLAIMS
CHERRY CREEK TECTONIC ZONE
NEW GOLD INC, NEW AFTON MINE
2015 Production: Au 35,500 oz. Cu 25.1 million lbs. Ag 76,000 oz.
2016 Production: Au 98,000 oz. Cu 86 million lbs
DAIRY FSR
GREENSTONE FSR
FAULT
Hughes Lake
Ned Roberts Lake
Powerline to Greenstone Mtn
CHERRY CREEK FAULT
NED ROBERTS CREEK FAULT
Ned Roberts Creek
Greenstone Mountain Rd
uTrJNc
ETfp
uTrJNc: Nicola Group - Eastern Volcanic Facies
Mafic breccia and tuff with augite and hornblende-phyric clasts; local intercalated argillite
092INE149
092INE085
092INE119
092INE122
092INE133
092INE094
092I811187
092I811188
092I811189
1011918
1058151
1049040
1049047
1052686
1052681
1052682
1061368
1053302
1050398
1043271
1043220
832096
1059782
1024018
1056644
1040070
1041288
1061466
1061467
1061469
1026061
1038488
1038489
549868
534788
517157
549270
534787
529020
837062
594462
765242
346385
346386
24017

TENURE 1056644 - AKILA



SCALE 1 : 10,000

1,000 0 1,000 2,000 3,000

FEET

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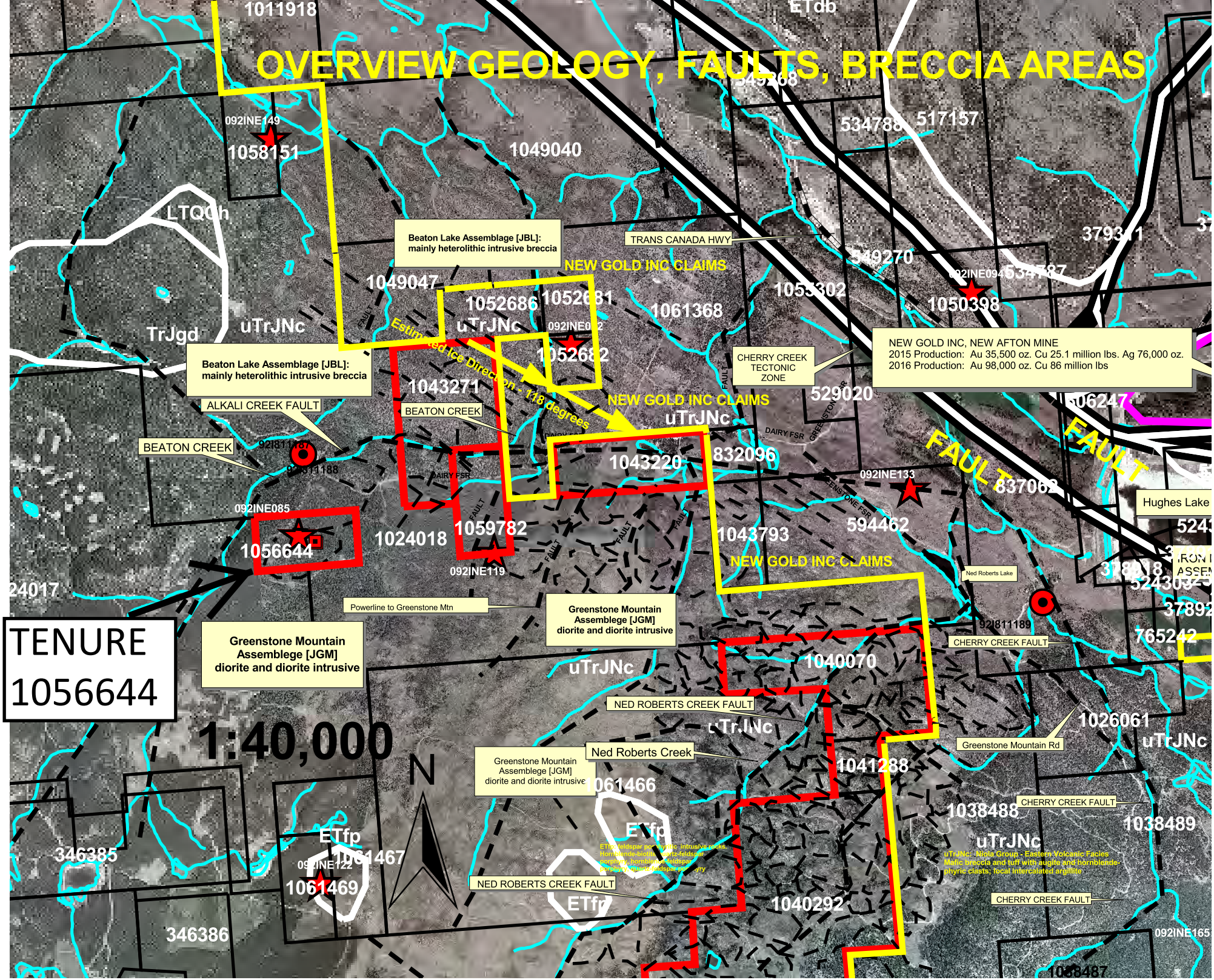
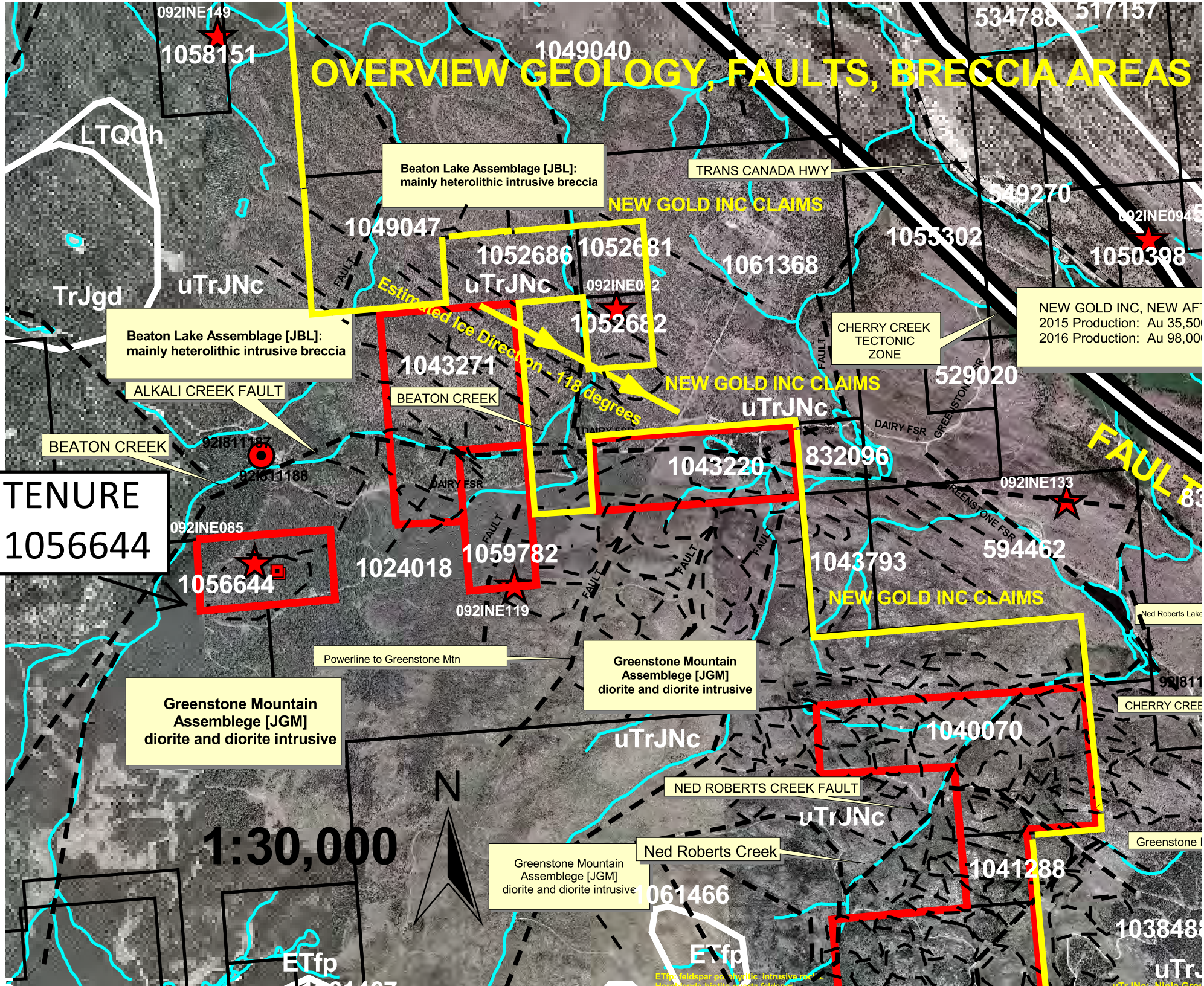
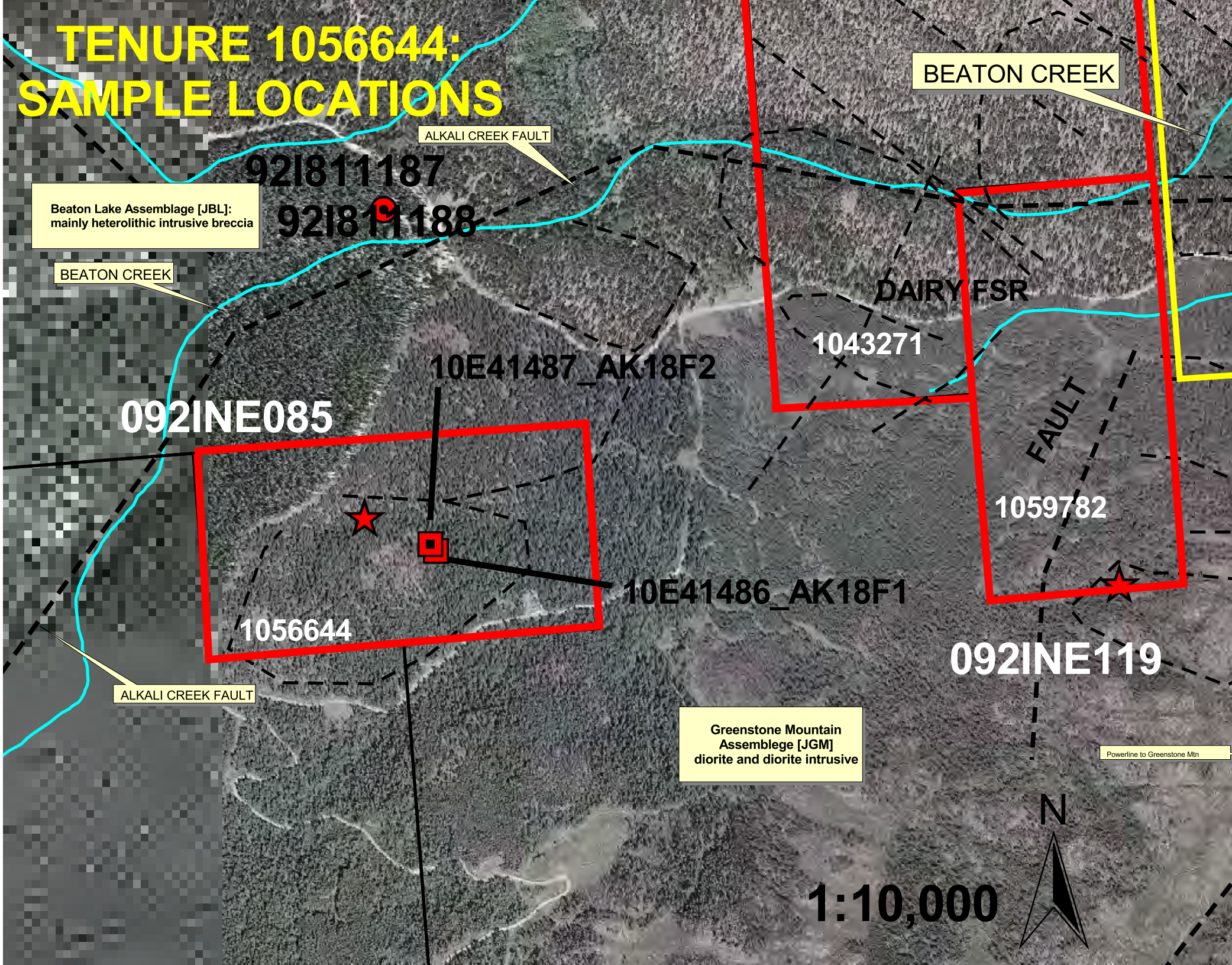
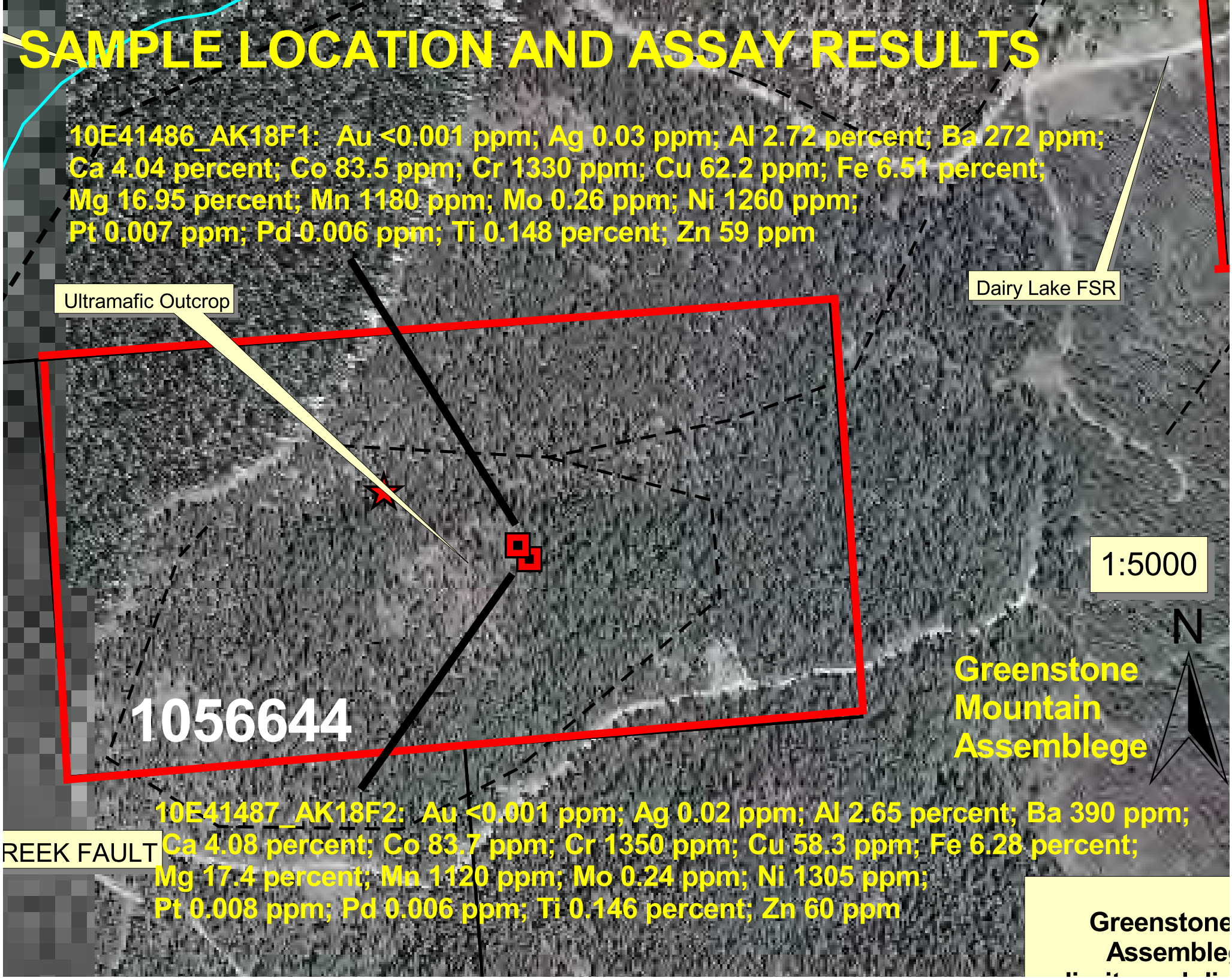
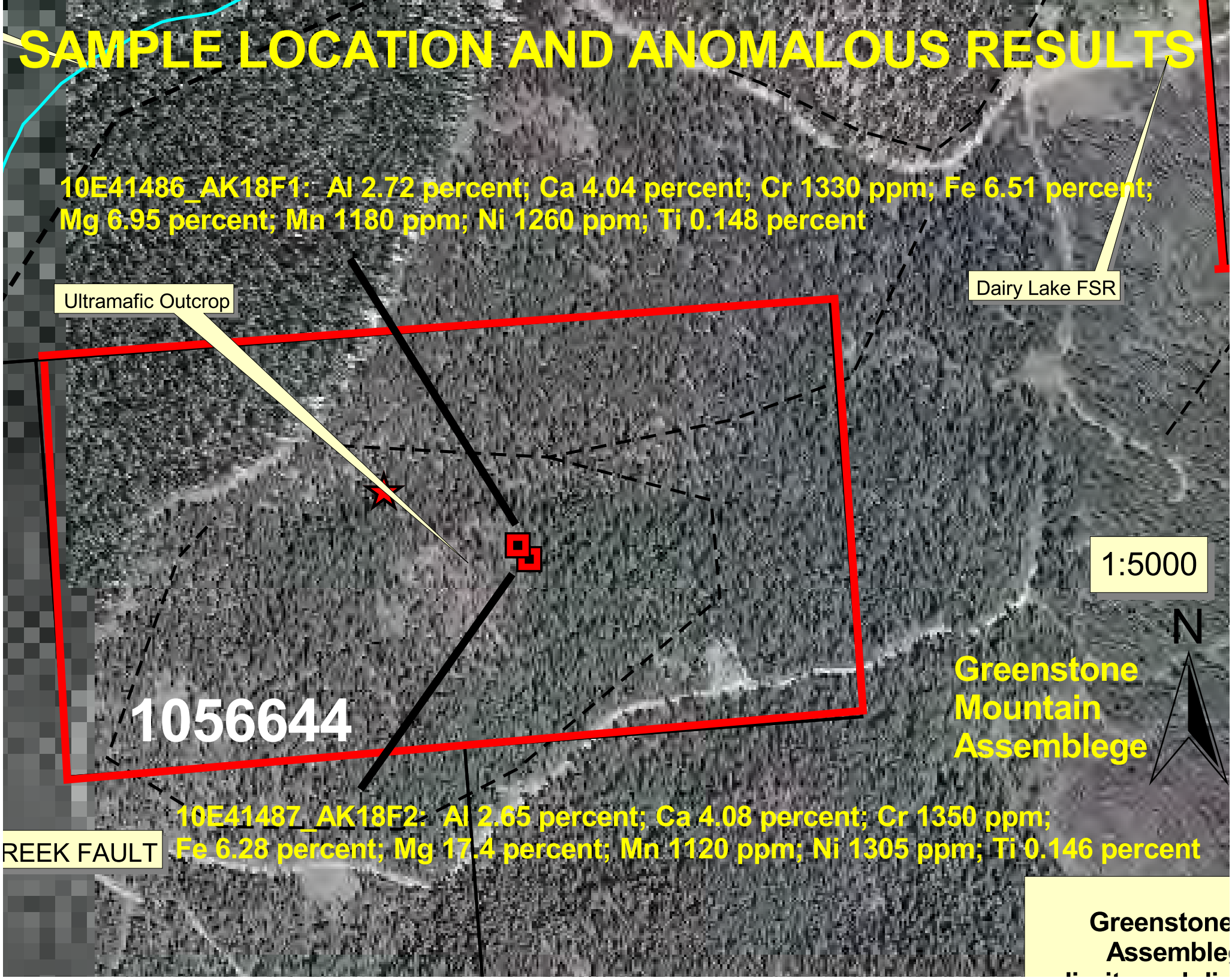

OVERVIEW GEOLOGY, FAULTS, BRECCIA AREAS
TENURE
1056644
1:40,000
N
092INE149
1058151
1049040
LTQCh
Beaton Lake Assemblage [JBL]: mainly heterolithic intrusive breccia
TRANS CANADA HWY
NEW GOLD INC CLAIMS
1049047
1052686
1052681
1061368
1053302
1050398
092INE094
534787
517157
534788
TrJgd
uTrJNc
092INE002
1052682
Estimated Ice Direction - 118 degrees
CHERRY CREEK TECTONIC ZONE
NEW GOLD INC, NEW AFTON MINE
2015 Production: Au 35,500 oz. Cu 25.1 million lbs. Ag 76,000 oz.
2016 Production: Au 98,000 oz. Cu 86 million lbs
529020
ALKALI CREEK FAULT
BEATON CREEK
1043271
1043220
832096
092INE133
837062
FAULT
Hughes Lake
092INE085
1056644
1024018
1059782
092INE119
1043793
594462
DAIRY FSR
GREENSTONE FSR
Ned Roberts Lake
092I811189
CHERRY CREEK FAULT
765242
Powerline to Greenstone Mtn
Greenstone Mountain Assemblage [JGM] diorite and diorite intrusive
1040070
NED ROBERTS CREEK FAULT
Greenstone Mountain Rd
1026061
Ned Roberts Creek
1041288
1061466
1038488
1038489
ETfp
1061467
092INE122
1061469
346385
346386
1040292
092INE165
1038487
uTrJNc: Nicola Group - Eastern Volcanic Facies
Mafic breccia and tuff with augite and hornblende-phyric clasts; focal intercalated argillite

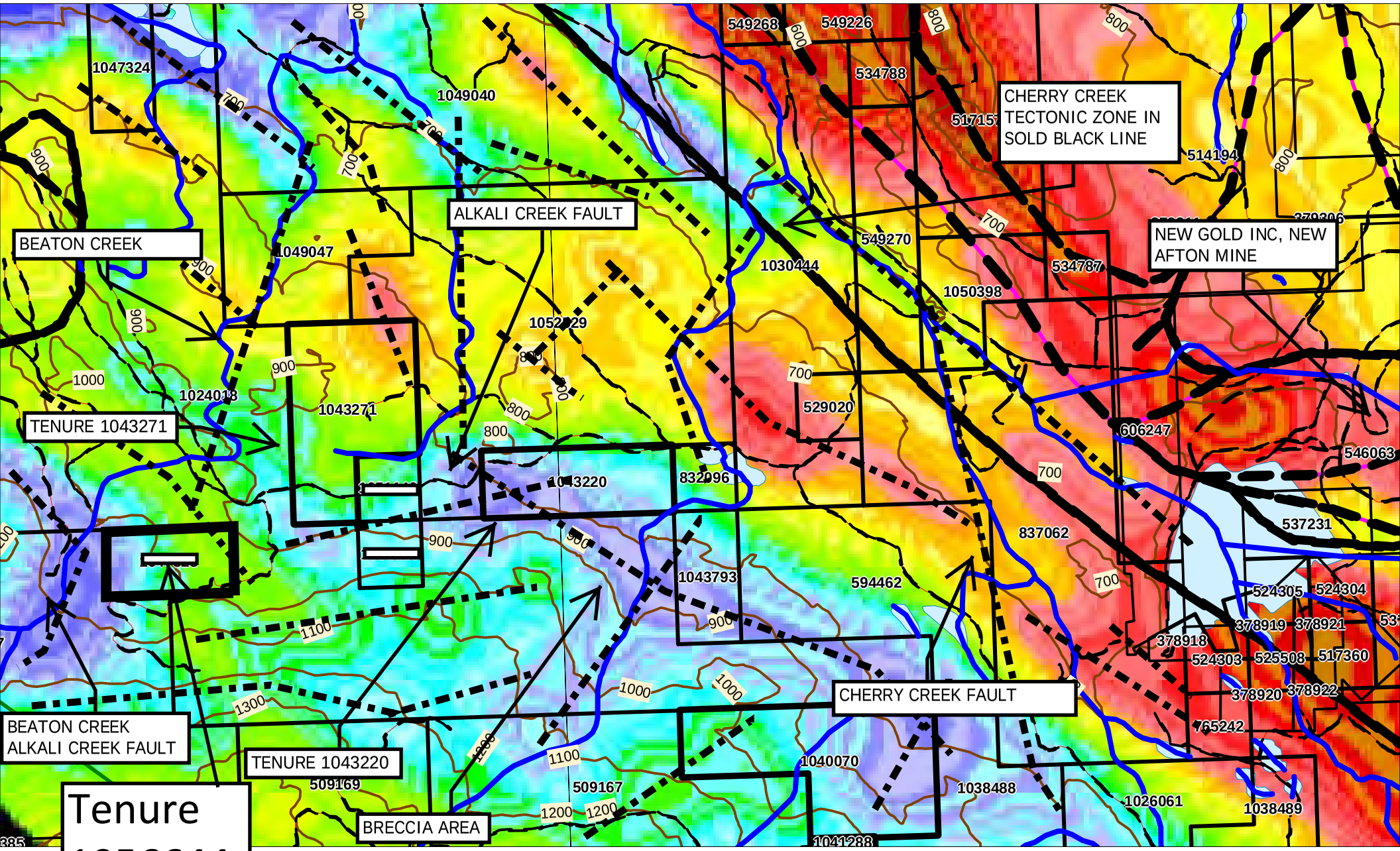

OVERVIEW GEOLOGY, FAULTS, BRECCIA AREAS
TENURE
1056644
1:30,000
N
092INE149
1058151
1049040
534788
517157
LTQCh
TrJgd
uTrJNc
Beaton Lake Assemblage [JBL]: mainly heterolithic intrusive breccia
TRANS CANADA HWY
NEW GOLD INC CLAIMS
1049047
1052686
1052681
1053302
549270
092INE094
1050398
1061368
092INE0
1052682
Estimated Ice Direction - 118 degrees
CHERRY CREEK TECTONIC ZONE
NEW GOLD INC, NEW AF
2015 Production: Au 35,50
2016 Production: Au 98,00
Beaton Lake Assemblage [JBL]: mainly heterolithic intrusive breccia
1043271
ALKALI CREEK FAULT
BEATON CREEK
NEW GOLD INC CLAIMS
529020
uTrJNc
DAIRY FSR
GREENSTONE FSR
FAULT
BEATON CREEK
92I811187
92I811188
1043220
832096
092INE133
092INE085
1024018
1059782
1043793
594462
1056644
092INE119
NEW GOLD INC CLAIMS
Ned Roberts Lake
Powerline to Greenstone Mtn
Greenstone Mountain Assemblege [JGM] diorite and diorite intrusive
Greenstone Mountain Assemblege [JGM] diorite and diorite intrusive
CHERRY CREE
1040070
uTrJNc
NED ROBERTS CREEK FAULT
uTrJNc
Ned Roberts Creek
Greenstone
1041288
1061466
Greenstone Mountain Assemblege [JGM] diorite and diorite intrusive
ETfp
ETfp
uTrJNc


TENURE 1056644:
SAMPLE LOCATIONS
BEATON CREEK
ALKALI CREEK FAULT
92I811187
92I811188
Beaton Lake Assemblage [JBL]:
mainly heterolithic intrusive breccia
BEATON CREEK
DAIRY FSR
1043271
10E41487_AK18F2
092INE085
FAULT
1059782
10E41486_AK18F1
1056644
092INE119
ALKALI CREEK FAULT
Greenstone Mountain
Assemblege [JGM]
diorite and diorite intrusive
Powerline to Greenstone Mtn
N
1:10,000


SAMPLE LOCATION AND ASSAY RESULTS
10E41486_AK18F1: Au <0.001 ppm; Ag 0.03 ppm; Al 2.72 percent; Ba 272 ppm;
Ca 4.04 percent; Co 83.5 ppm; Cr 1330 ppm; Cu 62.2 ppm; Fe 6.51 percent;
Mg 16.95 percent; Mn 1180 ppm; Mo 0.26 ppm; Ni 1260 ppm;
Pt 0.007 ppm; Pd 0.006 ppm; Ti 0.148 percent; Zn 59 ppm
Ultramafic Outcrop
Dairy Lake FSR
1056644
1:5000
N
Greenstone
Mountain
Assemblege
10E41487_AK18F2: Au <0.001 ppm; Ag 0.02 ppm; Al 2.65 percent; Ba 390 ppm;
Ca 4.08 percent; Co 83.7 ppm; Cr 1350 ppm; Cu 58.3 ppm; Fe 6.28 percent;
Mg 17.4 percent; Mn 1120 ppm; Mo 0.24 ppm; Ni 1305 ppm;
Pt 0.008 ppm; Pd 0.006 ppm; Ti 0.146 percent; Zn 60 ppm
REEK FAULT
Greenstone
Assemble


SAMPLE LOCATION AND ANOMALOUS RESULTS
10E41486_AK18F1: Al 2.72 percent; Ca 4.04 percent; Cr 1330 ppm; Fe 6.51 percent; Mg 6.95 percent; Mn 1180 ppm; Ni 1260 ppm; Ti 0.148 percent
Ultramafic Outcrop
Dairy Lake FSR
1056644
1:5000
N
Greenstone Mountain Assemblege
10E41487_AK18F2: Al 2.65 percent; Ca 4.08 percent; Cr 1350 ppm; Fe 6.28 percent; Mg 17.4 percent; Mn 1120 ppm; Ni 1305 ppm; Ti 0.146 percent
REEK FAULT
Greenstone Assemble

Iron Mask Geophysics 1995: Magnetic Total Field (nT)



ALS Minerals

SAMPLE PREPARATION PACKAGE

PREP- 31

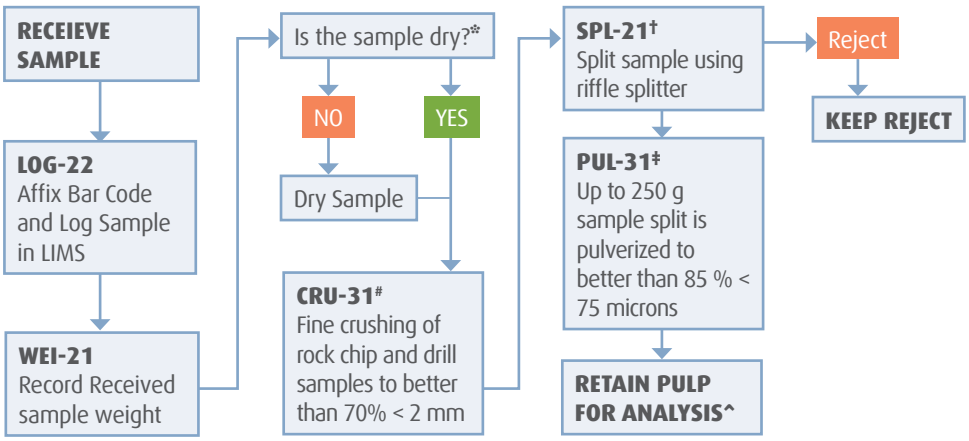
STANDARD SAMPLE PREPARATION: DRY, CRUSH, SPLIT AND PULVERIZE

Sample preparation is the most critical step in the entire laboratory operation. The purpose of preparation is to produce a homogeneous analytical sub-sample that is fully representative of the material submitted to the laboratory.

The sample is logged in the tracking system, weighed, dried and finely crushed to better than 70 % passing a 2 mm (Tyler 9 mesh, US Std. No.10) screen. A split of up to 250 g is taken and pulverized to better than 85 % passing a 75 micron (Tyler 200 mesh, US Std. No. 200) screen. This method is appropriate for rock chip or drill samples.

METHOD CODE	DESCRIPTION
LOG-22	Sample is logged in tracking system and a bar code label is attached.
DRY-21	Drying of excessively wet samples in drying ovens. This is the default drying procedure for most rock chip and drill samples.
CRU-31	Fine crushing of rock chip and drill samples to better than 70% of the sample passing 2 mm.
SPL-21	Split sample using riffle splitter.
PUL-31	A sample split of up to 250 g is pulverized to better than 85% of the sample passing 75 microns.

FLOW CHART - SAMPLE PREPARATION PACKAGE – PREP-31 STANDARD SAMPLE PREPARATION: DRY, CRUSH, SPLIT AND PULVERIZE



*If samples air-dry overnight, no charge to client. If samples are excessively wet, the sample should be dried to a maximum of 120°C. (**DRY-21**)

#QC testing of crushing efficiency is conducted on random samples (**CRU-QC**).

†The sample reject is saved or dumped pending client instructions. Prolonged storage (> 45 days) of rejects will be charged to the client.

‡QC testing of pulverizing efficiency is conducted on random samples (**PUL-QC**).

^Lab splits are required when analyses must be performed at a location different than where samples received.

ALS Minerals

SAMPLE PREPARATION PACKAGE

PREP- 41

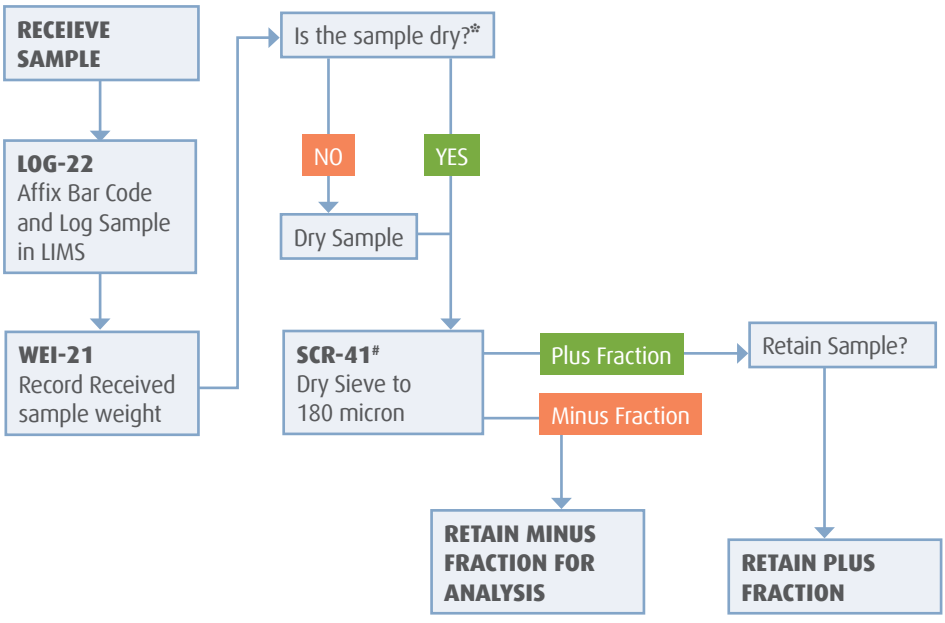
STANDARD PREPARATION: DRY SAMPLE AND DRY- SIEVE TO –180 MICRON

Sample preparation is the most critical step in the entire laboratory operation. The purpose of preparation is to produce a homogeneous analytical sub-sample that is fully representative of the material submitted to the laboratory.

An entire sample is dried and then dry-sieved using a 180 micron (Tyler 80 mesh) screen. The plus fraction is retained unless disposal is requested. This method is appropriate for soil or sediment samples up to 1 kg in weight.

METHOD CODE	DESCRIPTION
LOG-22	Sample is logged in tracking system and a bar code label is attached.
DRY-22	Low temperature drying of excessively wet samples where the oven temperature is not to exceed 60°C. This method is suitable for more soil and sediment samples that are analyzed for volatile elements.
SCR-41	Sample is dry-sieved to – 180 micron and both the plus and minus fractions are retained.

SAMPLE PREPARATION FLOWCHART PACKAGE –PREP- 41



*If samples air-dry overnight, no charge to client. If samples are excessively wet, the sample should be dried to a maximum of 120°C. (**DRY-21**)

#The plus fraction is the material remaining on the screen. The minus fraction is the material passing through the screen.

†The plus fraction is retained unless disposal is requested.

ALS Minerals

FIRE ASSAY PROCEDURE

Au-ICP21 and Au-ICP22

FIRE ASSAY FUSION ICP-AES FINISH

SAMPLE DECOMPOSITION

Fire Assay Fusion (FA-FUSPG1 & FA-FUSPG2)

ANALYTICAL METHOD

Inductively Coupled Plasma – Atomic Emission Spectrometry (ICP-AES)

A prepared sample is fused with a mixture of lead oxide, sodium carbonate, borax, silica and other reagents as required, inquarted with 6 mg of gold-free silver and then cupelled to yield a precious metal bead.

The bead is digested in 0.5 mL dilute nitric acid in the microwave oven. 0.5 mL concentrated hydrochloric acid is then added and the bead is further digested in the microwave at a lower power setting. The digested solution is cooled, diluted to a total volume of 4 mL with de-mineralized water, and analyzed by inductively coupled plasma atomic emission spectrometry against matrix-matched standards.

METHOD CODE	ELEMENT	SYMBOL	UNITS	SAMPLE WEIGHT (G)	LOWER LIMIT	UPPER LIMIT	DEFAULT OVERLIMIT METHOD
Au-ICP21	Gold	Au	ppm	30	0.001	10	Au-AA25
Au-ICP22	Gold	Au	ppm	50	0.001	10	Au-AA26

ALS Minerals

FIRE ASSAY PROCEDURE

Au- SCR21

PRECIOUS METALS ANALYSIS – SCREEN METALLICS GOLD, DOUBLE MINUS

SAMPLE DECOMPOSITION

Fire Assay Fusion

ANALYTICAL METHOD

Gravimetric

1000 g of the final prepared pulp is passed through a 100 micron (Tyler 150 mesh) stainless steel screen to separate the oversize fractions. Any +100 micron material remaining on the screen is retained and analyzed in its entirety by fire assay with gravimetric finish and reported as the Au(+)fraction result. The –100 micron fraction is homogenized and two sub-samples are analyzed by fire assay with AAS finish (Au-AA25 and Au-AA25D). The average of the two AAS results is taken and reported as the Au (-) fraction result. All three values are used in calculating the combined gold content of the plus and minus fractions.

In the fire assay procedure, the sample is fused with a mixture of lead oxide, sodium carbonate, borax, silica and other reagents as required in order to produce a lead button. The lead button, containing the precious metals, is cupelled to remove the lead and the resulting precious metal bead is parted in dilute nitric acid, annealed and weighed to determine gold content.

The gold values for both the +100 and -100 micron fractions are reported together with the weight of each fraction as well as the calculated total gold content of the sample.

Calculations

$$\text{Au – avg} = \frac{\text{Au – (1)} + \text{Au –(2)}}{2}$$

$$\text{AuTotal (g / t)} = \frac{(\text{Au – avg (g/t)} \times \text{Wt.Minus(g)} \times 10^{-6}\ \text{t /g}) + (\text{Weight Au in Plus(mg)} \times 10^{-3}\ \text{g/mg})}{(\text{Wt.Minus(g)} + \text{Wt.Plus(g)}) \times 10\ \text{–6 t / g}}$$

Au- SCR21

FIRE ASSAY

Density = Specific gravity x Density of water (at temperature (t°C))

Factors for converting specific gravity to density are tabulated below:

DETERMINATION	DESCRIPTION	DETECTION LIMIT	UPPER LIMIT	UNITS
Au Total (+)(-) Combined	Total gold content of sample as determined by metallics calculation above.	0.05	0.05	ppm
Au (+) Fraction	Gold content of plus fraction determined by Au-GRA21.	0.05	0.05	ppm
Au (-) Fraction	Gold content of minus fraction. Reported as average of two subsamples.	0.05	0.05	ppm
Au-AA25	Gold content of first minus fraction subsample.	0.05	0.05	ppm
Au-AA25D	Gold content of second minus fraction subsample.	0.05	0.05	ppm
Au (+) mg	Weight of gold in plus fraction.	0.001	0.001	mg
WT. (+) Fraction Entire	Weight of plus fraction.	0.01	0.01	g
WT. (-) Fraction Entire	Weight of minus fraction.	0.1	0.1	g

ALS Minerals

GEOCHEMICAL PROCEDURE

Au-TL43, Au-TL44

DETERMINATION OF TRACE LEVEL GOLD BY SOLVENT EXTRACTION – GRAPHITE FURNACE AAS OR ICPMS FINISH

SAMPLE DECOMPOSITION

Aqua regia gold digestion (GEO-AuAR01/02)

ANALYTICAL METHOD

Inductively coupled mass spectrometry (ICPMS) or Atomic absorption spectrometry (AAS)

A finely pulverised sample (25 – 50 g) is digested in a mixture of 3 parts hydrochloric acid and 1 part nitric acid (aqua regia). This acid mixture generates nascent chlorine and nitrosyl chloride, which will dissolve free gold and gold compounds such as calaverite, $AuTe_2$.

The dissolved gold is complexed and extracted with Kerosene/DBS and determined by graphite furnace AAS. Alternatively gold is determined by ICPMS directly from the digestion liquor. This method allows for the simple and economical addition of extra elements by running the digestion liquor through the ICPAES or ICPMS.

NOTE: Samples high in sulphide or carbon content may lead to low gold recoveries unless they are roasted prior to digestion.

METHOD CODE	ELEMENT	SYMBOL	UNITS	SAMPLE MASS (G)	LOWER LIMIT	UPPER LIMIT	DEFAULT OVERLIMIT METHOD
Au-TL43	Gold	Au	ppm	25	0.001	1	Au-OG43
Au-TL44	Gold	Au	ppm	50	0.001	1	Au-OG44

ALS Minerals

GEOCHEMICAL PROCEDURE

ME- MS41

ULTRA- TRACE LEVEL METHODS USING ICP- MS AND ICP- AES

SAMPLE DECOMPOSITION

Aqua Regia Digestion (GEO-AR01)

ANALYTICAL METHOD

Inductively Coupled Plasma-Atomic Emission Spectroscopy (ICP-AES)
Inductively Coupled Plasma - Mass Spectrometry (ICP-MS)

A prepared sample (0.50 g) is digested with aqua regia in a graphite heating block. After cooling, the resulting solution is diluted to with deionized water, mixed and analyzed by inductively coupled plasma-atomic emission spectrometry. Following this analysis, the results are reviewed for high concentrations of bismuth, mercury, molybdenum, ment spectral interferences.

ELEMENT	SYMBOL	UNITS	LOWER LIMIT	UPPER LIMIT
Silver	Ag	ppm	0.01	100
Aluminum	Al	%	0.01	25
Arsenic	As	ppm	0.1	10 000
Gold	Au	ppm	0.2	25
Boron	B	ppm	10	10 000
Barium	Ba	ppm	10	10 000
Beryllium	Be	ppm	0.05	1 000
Bismuth	Bi	ppm	0.01	10 000
Calcium	Ca	%	0.01	25
Cadmium	Cd	ppm	0.01	1 000
Cerium	Ce	ppm	0.02	500
Cobalt	Co	ppm	0.1	10 000
Chromium	Cr	ppm	1	10 000
Cesium	Cs	ppm	0.05	500
Copper	Cu	ppm	0.2	10 000
Iron	Fe	%	0.01	50
Gallium	Ga	ppm	0.05	10 000
Germanium	Ge	ppm	0.05	500
Hafnium	Hf	ppm	0.02	500

ALS Minerals

ME- MS41

ELEMENT	SYMBOL	UNITS	LOWER LIMIT	UPPER LIMIT
Mercury	Hg	ppm	0.01	10 000
Indium	In	ppm	0.005	500
Potassium	K	%	0.01	10
Lanthanum	La	ppm	0.2	10 000
Lithium	Li	ppm	0.1	10 000
Magnesium	Mg	%	0.01	25
Manganese	Mn	ppm	5	50 000
Molybdenum	Mo	ppm	0.05	10 000
Sodium	Na	%	0.01	10
Niobium	Nb	ppm	0.05	500
Nickel	Ni	ppm	0.2	10 000
Phosphorus	P	ppm	10	10 000
Lead	Pb	ppm	0.2	10 000
Rubidium	Rb	ppm	0.1	10 000
Rhenium	Re	ppm	0.001	50
Sulphur	S	%	0.01	10
Antimony	Sb	ppm	0.05	10 000
Scandium	Sc	ppm	0.1	10 000
Selenium	Se	ppm	0.2	1 000
Tin	Sn	ppm	0.2	500
Strontium	Sr	ppm	0.2	10 000
Tantalum	Ta	ppm	0.01	500
Tellurium	Te	ppm	0.01	500
Thorium	Th	ppm	0.2	10000
Titanium	Ti	%	0.005	10
Thallium	Tl	ppm	0.02	10 000
Uranium	U	ppm	0.05	10 000
Vanadium	V	ppm	1	10 000
Tungsten	W	ppm	0.05	10 000
Yttrium	Y	ppm	0.05	500
Zinc	Zn	ppm	2	10 000
Zirconium	Zr	ppm	0.5	500

NOTE: In the majority of geological matrices, data reported from an aqua regia leach should be considered as representing only the leachable portion of the particular analyte.

ALS Minerals

GEOCHEMICAL PROCEDURE

ME-ICP61

TRACE LEVEL METHODS USING CONVENTIONAL ICP- AES ANALYSIS

SAMPLE DECOMPOSITION

HNO_3 -$HClO_4$ -HF-HCl digestion, HCl Leach (GEO-4ACID)

ANALYTICAL METHOD

Inductively Coupled Plasma - Atomic Emission Spectroscopy (ICP - AES)

A prepared sample (0.25 g) is digested with perchloric, nitric, hydrofluoric and hydrochloric acids. The residue is topped up with dilute hydrochloric acid and the resulting solution is analyzed by inductively coupled plasma-atomic emission spectrometry. Results are corrected for spectral interelement interferences.

NOTE: Four acid digestions are able to dissolve most minerals; however, although the term "*near- total*" is used, depending on the sample matrix, not all elements are quantitatively extracted.

ELEMENT	SYMBOL	UNITS	LOWER LIMIT	UPPER LIMIT	DEFAULT OVER-LIMIT METHOD
Silver	Ag	ppm	0.5	100	Ag-OG62
Aluminum	Al	%	0.01	50	
Arsenic	As	ppm	5	10,000	
Barium	Ba	ppm	10	10,000	
Beryllium	Be	ppm	0.5	1,000	
Bismuth	Bi	ppm	2	10,000	
Calcium	Ca	%	0.01	50	
Cadmium	Cd	ppm	0.5	500	
Cobalt	Co	ppm	1	10,000	Co-OG62
Chromium	Cr	ppm	1	10,000	
Copper	Cu	ppm	1	10,000	Cu-OG62
Iron	Fe	%	0.01	50	
Gallium	Ga	ppm	10	10,000	
Potassium	K	%	0.01	10	
Lanthanum	La	ppm	10	10,000	
Magnesium	Mg	%	0.01	50	
Manganese	Mn	ppm	5	10,0000	

ME-ICP61

ELEMENT	SYMBOL	UNITS	LOWER LIMIT	UPPER LIMIT	DEFAULT OVER-LIMIT METHOD
Molybdenum	Mo	ppm	1	10,000	Mo-OG62
Sodium	Na	%	0.01	10	
Nickel	Ni	ppm	1	10,000	Ni-OG62
Phosphorus	P	ppm	10	10,000	
Lead	Pb	ppm	2	10,000	Pb-OG62
Sulphur	S	%	0.01	10	
Antimony	Sb	ppm	5	10,000	
Scandium	Sc	ppm	1	10,000	
Strontium	Sr	ppm	1	10,000	
Thorium	Th	ppm	20	10,000	
Titanium	Ti	%	0.01	10	
Thallium	Tl	ppm	10	10,000	
Uranium	U	ppm	10	10,000	
Vanadium	V	ppm	1	10,000	
Tungsten	W	ppm	10	10,000	
Zinc	Zn	ppm	2	10,000	Zn-OG62

ELEMENTS LISTED BELOW ARE AVAILABLE UPON REQUEST

ELEMENT	SYMBOL	UNITS	LOWER LIMIT	UPPER LIMIT	DEFAULT OVER-LIMIT METHOD
Lithium	Li	ppm	10	10,000	
Niobium	Nb	ppm	5	2,000	
Rubidium	Rb	ppm	10	10,000	
Selenium	Se	ppm	10	1,000	
Tin	Sn	ppm	10	10,000	
Tantalum	Ta	ppm	10	10,000	
Tellurium	Te	ppm	10	10,000	
Yttrium	Y	ppm	10	10,000	
Zirconium	Zr	ppm	5	500	

ALS Minerals

GEOCHEMICAL PROCEDURE

ME- MS61

ULTRA- TRACE LEVEL METHOD USING ICP- MS AND ICP- AES

SAMPLE DECOMPOSITION

HF-HNO_3 -$HClO_4$ acid digestion, HCl leach (GEO-4A01)

ANALYTICAL METHOD

Inductively Coupled Plasma-Atomic Emission Spectroscopy (ICP-AES)
Inductively Coupled Plasma - Mass Spectrometry (ICP-MS)

A prepared sample (0.25 g) is digested with perchloric, nitric, hydrofluoric and hydrochloric acids. The residue is topped up with dilute hydrochloric acid and analyzed by inductively coupled plasma- atomic emission spectrometry. Following this analysis, the results are reviewed for high concentrations of bismuth, mercury, molybdenum, silver and tungsten and diluted accordingly. Samples meeting this criterion are then analyzed by inductively coupled plasma-mass spectrometry. Results are corrected for spectral interelement interferences.

NOTE: Four acid digestions are able to dissolve most minerals; however, although the term "*near- total*" is used, depending on the sample matrix, not all elements are quantitatively extracted.

ELEMENT	SYMBOL	UNITS	LOWER LIMIT	UPPER LIMIT
Silver	Ag	ppm	0.01	100
Aluminum	Al	%	0.01	50
Arsenic	As	ppm	0.2	10,000
Barium	Ba	ppm	10	10,000
Beryllium	Be	ppm	0.05	1,000
Bismuth	Bi	ppm	0.01	10,000
Calcium	Ca	%	0.01	50
Cadmium	Cd	ppm	0.02	1,000
Cerium	Ce	ppm	0.01	500
Cobalt	Co	ppm	0.1	10,000
Chromium	Cr	ppm	1	10,000
Cesium	Cs	ppm	0.05	500
Copper	Cu	ppm	0.2	10,000
Iron	Fe	%	0.01	50
Gallium	Ga	ppm	0.05	10,000
Germanium	Ge	ppm	0.05	500
Hafnium	Hf	ppm	0.1	500

ALS Minerals

ME- MS61

ELEMENT	SYMBOL	UNITS	LOWER LIMIT	UPPER LIMIT
Indium	In	ppm	0.005	500
Potassium	K	%	0.01	10
Lanthanum	La	ppm	0.5	10,000
Lithium	Li	ppm	0.2	10,000
Magnesium	Mg	%	0.01	50
Manganese	Mn	ppm	5	100,000
Molybdenum	Mo	ppm	0.05	10,000
Sodium	Na	%	0.01	10
Niobium	Nb	ppm	0.1	500
Nickel	Ni	ppm	0.2	10,000
Phosphorous	P	ppm	10	10,000
Lead	Pb	ppm	0.5	10,000
Rubidium	Rb	ppm	0.1	10,000
Rhenium	Re	ppm	0.002	50
Sulphur	S	%	0.01	10
Antimony	Sb	ppm	0.05	10,000
Scandium	Sc	ppm	0.1	10,000
Selenium	Se	ppm	1	1,000
Tin	Sn	ppm	0.2	500
Strontium	Sr	ppm	0.2	10,000
Tantalum	Ta	ppm	0.05	100
Tellurium	Te	ppm	0.05	500
Thorium	Th	ppm	0.2	10,000
Titanium	Ti	%	0.005	10
Thallium	Tl	ppm	0.02	10,000
Uranium	U	ppm	0.1	10,000
Vanadium	V	ppm	1	10 000
Tungsten	W	ppm	0.1	10,000
Yttrium	Y	ppm	0.1	500
Zinc	Zn	ppm	2	10,000
Zirconium	Zr	ppm	0.5	500

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ASSAY PROCEDURE

ME- OG62

ORE GRADE ELEMENTS BY FOUR ACID DIGESTION USING CONVENTIONAL ICP- AES ANALYSIS

SAMPLE DECOMPOSITION

HNO_3 -$HClO_4$ -HF-HCl Digestion (ASY-4A01)

ANALYTICAL METHOD

Inductively Coupled Plasma - Atomic Emission Spectroscopy (ICP - AES)*

Assays for the evaluation of ores and high-grade materials are optimized for accuracy and precision at high concentrations. Ultra high concentration samples (> 15 -20%) may require the use of methods such as titrimetric and gravimetric analysis, in order to achieve maximum accuracy.

A prepared sample is digested with nitric, perchloric, hydrofluoric, and hydrochloric acids, and then evaporated to incipient dryness. Hydrochloric acid and de-ionized water is added for further digestion, and the sample is heated for an additional allotted time. The sample is cooled to room temperature and transferred to a volumetric flask (100 mL). The resulting solution is diluted to volume with de-ionized water, homogenized and the solution is analyzed by inductively coupled plasma - atomic emission spectroscopy or by atomic absorption spectrometry.

***NOTE:** ICP-AES is the default finish technique for ME-OG62. However, under some conditions and at the discretion of the laboratory an AA finish may be substituted. The certificate will clearly reflect which instrument finish was used.

ELEMENT	SYMBOL	UNITS	LOWER LIMIT	UPPER LIMIT
Silver	Ag	ppm	1	1,500
Arsenic	As	%	0.01	30
Bismuth	Bi	%	0.01	30
Cadmium	Cd	%	0.0001	10
Cobalt	Co	%	0.001	20
Chromium	Cr	%	0.002	30
Copper	Cu	%	0.001	40
Iron	Fe	%	0.01	100
Manganese	Mn	%	0.01	50
Molybdenum	Mo	%	0.001	10
Nickel	Ni	%	0.001	30
Lead	Pb	%	0.001	20
Zinc	Zn	%	0.001	30

ALS Minerals

Technical Note

LOW LEVEL SAMPLE PREPARATION PROCEDURES

New facilities and procedures with Super Trace detection limits

Recent upgrades at the Townsville and Orange laboratories as well as new sample preparation facilities in Darwin and Perth now provide dedicated low-level soil and stream sediment preparation areas and equipment to ensure a contamination free environment for sieving and pulverisation of geochemical, soil, sediment and lag samples.

ALS Minerals recommends carrying out an orientation survey to optimise sampling parameters such as soil horizon, size fraction, preparation, digestion and analysis.

Unless otherwise specified by its clients, ALS Minerals will adopt the following procedures when preparing soil, sediment and lag samples:

- Any samples submitted to the laboratory identified as soil, stream sediment or lag will be logged under a separate workorder if submitted with other sample types
- Samples will be dried either in the paper packets they are received in or transferred to dedicated stainless steel or aluminium trays
- ALS Minerals recommends sieving of samples instead of pulverising to reduce the possibility of steel contamination inherent with pulverising bowls. Samples can be sieved in the field, or ALS Minerals can provide this service in our dedicated low level sample preparation areas. A range of sieve sizes is available depending on individual client requirements. Where sample sieving is required to a minus 80 mesh or finer fraction, samples will not be pulverised and the oversize fraction will automatically be retained and stored
- Where pulverising is required for bulk soils or fractions coarser than 80 mesh, a maximum 250g split will be finely pulverised with the remaining unpulverised portion being retained and stored. All bulk residues will be stored in sealed plastic bags and in a designated soil/sediment storage area
- Samples with significant clay content can be problematic when pulverising; and bowl cleaning between each sample may not be effective with vacuum and compressed air. In such cases a barren wash containing high silica content will be used between each sample
- Dedicated 400cc capacity low chromium steel bowls will be used for sample pulverisation. Pulverising any sample in a steel bowl has the potential to contribute trace levels of certain metals to the sample due to the composition of the steel bowls and their inherent wear rates.

Recommended analysis procedures include aqua regia digestion with analysis of gold by method Au-ST43 and base metals by method ME-MS41L. Both methods can be provided in package ST43L-PKG:

ANALYTICAL METHODS

Detection limits in (ppm) unless otherwise stated

Analytes			Method Description	Method Code
Au (0.0001)			Up to a 25g, aqua regia extraction, with ICPMS finish	ST43L-PKG
Ag (0.002)	**Hf** (0.02)	**Sb** (0.005)	Aqua regia digestion, ICPAES and ICPMS finish, providing Super Trace detection limits	
Al (0.01%)	**Hg** (0.005)	**Sc** (0.1)		
As (0.02)	**In** (0.005)	**Se** (0.1)		
B (10)	**K** (0.01%)	**Sn** (0.2)		
Ba (0.5)	**La** (0.2)	**Sr** (0.2)		
Be (0.05)	**Li** (0.1)	**Ta** (0.01)		
Bi (0.01)	**Mg** (0.01%)	**Te** (0.01)		
Ca (0.01%)	**Mn** (1)	**Th** (0.1)		
Cd (0.01)	**Mo** (0.01)	**Ti** (0.001%)		
Ce (0.02)	**Na** (0.01%)	**Tl** (0.02)		
Co (0.1)	**Nb** (0.05)	**U** (0.05)		
Cr (0.5)	**Ni** (0.1)	**V** (1)		
Cs (0.05)	**P** (10)	**W** (0.01)		
Cu (0.01)	**Pb** (0.01)	**Y** (0.05)		
Fe (0.01%)	**Rb** (0.1)	**Zn** (0.1)		
Ga (0.05)	**Re** (0.001)	**Zr** (0.5)		
Ge (0.05)	**S** (0.01%)			

A range of other methods is also available. To discuss your soil sampling program and analytical requirements, please contact your nearest ALS Minerals laboratory or email alsminerals.brisbane@alsglobal.com or alsminerals.perth@alsglobal.com

ALS Canada Ltd.
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www.alsglobal.com/geochemistry

To: DAVID PIGGIN
5- 2363 DEMAMIEL DRIVE
SOOKE BC V9Z 1K3

Finalized Date: 18- NOV- 2018
This copy reported on
19- NOV- 2018
Account: DAVIPI

CERTIFICATE VA18271401

Project: WEST AFTON

This report is for 5 Rock samples submitted to our lab in Vancouver, BC, Canada on 26- OCT- 2018.

The following have access to data associated with this certificate:

DAVID PIGGIN		

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
PUL- QC	Pulverizing QC Test
CRU- 31	Fine crushing - 70% <2mm
SPL- 21	Split sample - riffle splitter
PUL- 31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	
ME- MS61	48 element four acid ICP- MS	
Au- ICP21	Au 30g FA ICP- AES Finish	ICP- AES

ONLY SAMPLES:
10E41486_AK18F1
and
10E41487_AK18F2

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 Ramshaw, Vancouver Laboratory Manager

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To: DAVID PIGGIN
5- 2363 DEMAMIEL DRIVE
SOOKE BC V9Z 1K3

Finalized Date: 18- NOV- 2018
Account: DAVIPI

Project: WEST AFTON

CERTIFICATE OF ANALYSIS VA18271401

Sample Description	Method	WEI-21	Au-ICP21	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61
	Analyte	Recvd Wt.	Au	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu
	Units	kg	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm
	LOD	0.02	0.001	0.01	0.01	0.2	10	0.05	0.01	0.01	0.02	0.01	0.1	1	0.05	0.2
10E41496_WA18QZDH		1.14	0.002	0.15	7.79	10.6	640	0.59	0.03	6.41	0.69	19.45	29.5	66	1.63	275
10E41497_WA18QZN		1.68	<0.001	0.02	0.14	1.4	6360	<0.05	0.02	1.35	0.05	0.50	0.8	29	0.05	9.5
10E41498_WA18QZU		1.82	0.001	0.02	2.53	4.8	1280	0.28	0.02	4.89	0.07	3.80	10.5	28	0.16	15.9
10E41486_AK18F1		1.34	<0.001	0.03	2.72	1.3	270	0.30	0.02	4.04	0.05	2.85	83.5	1330	1.82	62.2
10E414487_AK18F2		1.64	<0.001	0.02	2.65	0.3	390	0.31	0.02	4.08	0.03	3.57	83.7	1350	1.54	58.3

ONLY SAMPLES:
10E41486_AK18F1
and
10E41487_AK18F2

***** See Appendix Page for comments regarding this certificate *****

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To: DAVID PIGGIN
5- 2363 DEMAMIEL DRIVE
SOOKE BC V9Z 1K3

Finalized Date: 18- NOV- 2018
Account: DAVIPI

Project: WEST AFTON

CERTIFICATE OF ANALYSIS VA18271401

Sample Description	Method	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61
	Analyte	Fe	Ga	Ge	Hf	In	K	La	Li	Mg	Mn	Mo	Na	Nb	Ni	P
	Units	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm	ppm	ppm
	LOD	0.01	0.05	0.05	0.1	0.005	0.01	0.5	0.2	0.01	5	0.05	0.01	0.1	0.2	10
10E41496_WA18QZDH		6.38	16.15	0.13	0.8	0.071	1.22	9.2	36.8	2.85	1320	0.33	2.81	2.0	29.4	1630
10E41497_WA18QZN		0.52	0.43	0.05	<0.1	<0.005	0.03	<0.5	1.9	0.06	260	1.87	0.03	0.1	1.9	20
10E41498_WA18QZU		3.10	6.20	0.07	0.2	0.015	0.20	1.8	10.4	1.17	724	1.73	0.59	0.5	6.5	410
10E41486_AK18F1		6.51	5.67	0.07	0.4	0.027	0.57	1.3	8.7	16.95	1180	0.26	0.09	0.3	1260	510
10E414487_AK18F2		6.28	5.38	0.07	0.4	0.026	0.82	1.7	10.8	17.40	1120	0.24	0.09	0.3	1305	600

ONLY SAMPLES:
10E41486_AK18F1
and
10E41487_AK18F2

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SOOKE BC V9Z 1K3

Finalized Date: 18- NOV- 2018
Account: DAVIPI

Project: WEST AFTON

CERTIFICATE OF ANALYSIS VA18271401

Sample Description	Method	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61
	Analyte	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl	U
	Units	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm
	LOD	0.5	0.1	0.002	0.01	0.05	0.1	1	0.2	0.2	0.05	0.05	0.01	0.005	0.02	0.1
10E41496_WA18QZDH		3.9	22.4	<0.002	0.01	4.30	35.7	<1	0.8	483	0.10	<0.05	1.12	0.495	0.11	0.5
10E41497_WA18QZN		<0.5	0.7	<0.002	0.17	0.55	0.8	<1	<0.2	244	<0.05	<0.05	0.04	0.006	<0.02	<0.1
10E41498_WA18QZU		1.6	3.6	<0.002	0.03	1.98	7.6	<1	0.2	272	<0.05	<0.05	0.26	0.106	<0.02	0.1
10E41486_AK18F1		1.8	16.3	<0.002	<0.01	0.17	19.1	<1	0.2	183.5	<0.05	<0.05	0.19	0.148	0.02	0.1
10E414487_AK18F2		1.9	21.5	<0.002	<0.01	0.12	19.3	<1	0.2	174.0	<0.05	<0.05	0.21	0.146	0.02	0.1

ONLY SAMPLES:
10E41486_AK18F1
and
10E41487_AK18F2

***** See Appendix Page for comments regarding this certificate *****

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To: DAVID PIGGIN
5- 2363 DEMAMIEL DRIVE
SOOKE BC V9Z 1K3

Finalized Date: 18- NOV- 2018
Account: DAVIPI

Project: WEST AFTON

CERTIFICATE OF ANALYSIS VA18271401

Sample Description	Method / Analyte / Units / LOD	ME- MS61 V ppm 1	ME- MS61 W ppm 0.1	ME- MS61 Y ppm 0.1	ME- MS61 Zn ppm 2	ME- MS61 Zr ppm 0.5
10E41496_WA18QZDH		296	0.6	15.8	149	17.0
10E41497_WA18QZN		7	<0.1	0.7	6	0.8
10E41498_WA18QZU		117	0.5	4.6	39	3.2
10E41486_AK18F1		126	0.1	5.1	59	11.4
10E414487_AK18F2		121	0.1	5.2	60	12.1

ONLY SAMPLES:
10E41486_AK18F1
and
10E41487_AK18F2

***** See Appendix Page for comments regarding this certificate *****

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To: DAVID PIGGIN
5- 2363 DEMAMIEL DRIVE
SOOKE BC V9Z 1K3

Finalized Date: 18- NOV- 2018
Account: DAVIPI

Project: WEST AFTON

CERTIFICATE OF ANALYSIS VA18271401

CERTIFICATE COMMENTS

ANALYTICAL COMMENTS

Applies to Method: REE's may not be totally soluble in this method.
ME- MS61

LABORATORY ADDRESSES

Applies to Method: Processed at ALS Vancouver located at 2103 Dollarton Hwy, North Vancouver, BC, Canada.

Au- ICP21	CRU- 31	LOG- 22	ME- MS61
PUL- 31	PUL- QC	SPL- 21	WEI- 21

ONLY SAMPLES:
10E41486_AK18F1
and
10E41487_AK18F2

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To: **DAVID PIGGIN**
5-2363 DEMAMIEL DRIVE
SOOKE BC V9Z 1K3

Finalized Date: 7-DEC-2018
Account: DAVIPI

CERTIFICATE VA18305198

Project: WEST AFTON

This report is for 3 Rock samples submitted to our lab in Vancouver, BC, Canada on 30-NOV-2018.

The following have access to data associated with this certificate:

DAVID PIGGIN

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
FND-02	Find Sample for Addn Analysis

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
PGM-ICP23	Pt, Pd, Au 30g FA ICP	ICP-AES

ONLY SAMPLES:
10E41486_AK18F1
and
10E41487_AK18F2

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 Ramshaw, Vancouver Laboratory Manager

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To: DAVID PIGGIN
5-2363 DEMAMIEL DRIVE
SOOKE BC V9Z 1K3

Finalized Date: 7-DEC-2018
Account: DAVIPI

Project: WEST AFTON

CERTIFICATE OF ANALYSIS VA18305198

Sample Description	Method Analyte Units LOD	PGM-ICP23 Au ppm 0.001	PGM-ICP23 Pt ppm 0.005	PGM-ICP23 Pd ppm 0.001
10E41486_AK18F1		<0.001	0.007	0.006
10E414487_AK18F2		<0.001	0.008	0.006
10E41493_WA18QZB		0.067	<0.005	0.001

ONLY SAMPLES:
10E41486_AK18F1
and
10E41487_AK18F2

***** See Appendix Page for comments regarding this certificate *****

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To: **DAVID PIGGIN**
5-2363 DEMAMIEL DRIVE
SOOKE BC V9Z 1K3

Finalized Date: 7-DEC-2018
Account: DAVIPI

Project: WEST AFTON

CERTIFICATE OF ANALYSIS VA18305198

CERTIFICATE COMMENTS

LABORATORY ADDRESSES

Applies to Method: Processed at ALS Vancouver located at 2103 Dollarton Hwy, North Vancouver, BC, Canada.
FND-02 PGM-ICP23

ONLY SAMPLES:
10E41486_AK18F1
and
10E41487_AK18F2