ASSESSMENT REPORT TITLE PAGE AND SUMMARY

TITLE OF REPORT: Assessment Report for Flan-Consolidated Group (Tenures 507295*, 509012*, 513281, 543699, 553495*, 590156, 943829, and 1013900) ;Field work, petrology, lithochemistry, SWIR, and hemlock twig biogeochemistry focusing on south west facing slope of Mt Adam

TOTAL COST: 27000.00

AUTHOR(S): Mikkel Schau PhD PGeo
SIGNATURE(S):

NOTICE OF WORK PERMIT NUMBER(S)/DATE(S):N/A
STATEMENT OF WORK EVENT NUMBER(S)/DATE(S): SOW-M(5538772)2015/JAN/17 13:47:51

YEAR OF WORK: 2013-2015

PROPERTY NAME:FLAN Consolidated

CLAIM NAME(S) (on which work was done):507295*, 509012*, 553495*

COMMODITIES SOUGHT:Au

MINERAL INVENTORY MINFILE NUMBER(S),IF KNOWN:
Minfile Showings 092L-288, -289, -395, -396, -397, -398, -399
MINING DIVISION: Nanaimo
NTS / BCGS:
LATITUDE: ____50_____° _____06____' ___09_____"
LONGITUDE: ___126_____° ___15_____' __26_____" (at centre of work)
UTM Zone: EASTING: NORTHING:

OWNER(S):Mikkel Schau

MAILING ADDRESS:
3919 Woodhaven Terrace
Victoria, BC V8N 1S7
OPERATOR(S) [who paid for the work]:Mikkel Schau
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919 Woodhaven Terrace
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REPORT KEYWORDS (lithology, age, stratigraphy, structure, alteration, mineralization, size and attitude. **Do not use abbreviations or codes**)
Granodiorite, chert, diabase, Mesozoic, contact microbreccia, quartz-illite-Fe-chlorite-pyrite, 30 m chip sample, Au, pyrite, arsenopyrite, gossan, size not known

REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS:
23546,26793, 27311, 28382, 29360, 29551, 30009, 30471, 31046, 31679, 31786, 32654, 33661, 34353

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					
GEOPHYSICAL (line-kilometres)					
Ground					
Magnetic					
Electromagnetic					
Induced Polarization					
Radiometric					
Seismic					
Other					
Airborne					
GEOCHEMICAL (number of samples analysed for …)					
Soil					
Silt	3		GEO4	507295, 509012, 553495	200
Rock Sampling with rope assist & following trails & roads. Grab sampling. ACME Labs	29+10		GEO4	507295, 509012, 553495	13000
Biogeochemistry: Hemlock Twigs Actlabs	47		INAA	507295, 509012, 553495	4800
DRILLING (total metres, number of holes, size, storage location)					
Core					
Non-core					
RELATED TECHNICAL					
Sampling / Assaying	30 m chip sample down cliff	10	ACMELabs ICP-MS + FA for AU, Pt and Pd	553495	5500
Petrographi	Thinsection reports	6	Petrographic report	553495	1500
InfraRed Mineralogy, Heberlein	selected samples	28	PIMA	553495	1000
Whole Rock Anlyses		13	ACME 4A + B	553495	1000
PROSPECTING					

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		
	TOTAL COST	27000

Assessment Report for Flan-Consolidated Group

(Tenures 507295*, 509012*, 513281, 543699, 553495*, 590156, 943829, and 1013900)

Field work, petrology, lithochemistry, SWIR, and hemlock twig biogeochemistry

focusing on

south west facing slope of Mt Adam

at 50 deg 06 min 9 sec North and 126 deg 15 min 27 sec West

in

092L/01

Nanaimo Mining Division

for

Mikkel Schau,

by

Mikkel Schau, P.Geo.

for

January 25, 2015

Submitted April 25, 2015

Revised Dec 9, 2015

SUMMARY

New field work confirms presence of gold showings on the SW slope of Mt Adams and places them in a geologic context. Disseminated and vein pyrite carry up to 6 gm/mt gold over 30 m in a brecciated zone straddling the contact with a Jurassic granodiorite (The Heart zone)..

The Flan-Consolidated claims cover several gold showing.

A/ The Heart showing, an *in situ*, mainly dacite/fine grained granodiorite contact breccia, with sericite/illite-Fe-chlorite-pyrite alteration, returns 2 gm/mt Au across a 30 m chip sample (this work). Including one sample carrying 5 gm/mt Au over 3 m.

B/ Several nearby localities with *in situ* grab samples with up to 6 gm Au/mt in breccia and host rocks in Heart region. (AR33661, AR34353 and this work)

C/ *In situ* local thin massive sulphide layers and alteration products with up to 6 gm Au/mt in nearby Rubicon region. (AR 32654 and this work)

D/ A cobble of pyrite veined diabase carrying 20.5 ppm Au found in creek below locality C (AR32654)

E/ Down hill, and downstream, *in situ*, near junction of Jackpot Creek and Schoen Creek, small polymetallic veins with anomalous gold. (AR from 2009 and before)

F/ A 50 m wide surficial section along a logging road, with local boulder sized fragments of gabbro breccia in basal till, with up to 135 gm/mt Au in pyrrhotite/pyrite/chalcopyrite. (AR29360 and AR30009) Similar samples from this locality collected this year carry 35.5 and 18.8 gm/mt Au.

G/ Several polymetallic veins and mineralized shear zones are found elsewhere on property.

The claims are located within the Schoen Creek drainage basin, south of Schoen Lake Provincial Park in northern Vancouver Island. Claims are reached by active logging roads, both from the road to Gold River and by logging roads up the Kokummi Creek in White River drainage. It is near deep water ports at Kelsey Bay and Port McNeil, and a short distance from truck transportation along Highway 19.

Mineral rights to the claims covering 3336.284 ha. are held by Mikkel Schau, free miner 142134.

New work reported herein is mainly verification of and follow-up work on 2012 campaign (AR33661) Continuous gold mineralization averaging 1.5 ppm over 21 m was re-sampled with a longer more detailed chip sample (30 m) which averages 2 ppm. Later laboratory work is concentrated on the mineralogy and alteration on samples collected mainly during the 2013 season. These include whole rock and ultra trace elements, and PIMA analyses of selected samples. A suite of hemlock twigs has also been analysed in an attempt to trace mineralization through the forest cover. Locality F, above, continued to yield gold bearing sulphide fragments from the till.

These new data indicate the alteration of the gold bearing rocks on the south west facing slopes of Mt Adam are possibly suggestive of the uppermost part of a porphyry system. The source of the high grade samples collected from the original basal till showing, located below these slopes, remains to be located.

The claims continue to have merit and a comprehensive exploration effort is recommended.

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Introduction

Ongoing work in the Flan-Consolidated Claim Block, which covers the Schoen Creek drainage basin south of Schoen Lake Provincial Park, on Northern Vancouver Island, is concentrating on the locating and characterizing of *in situ* mineralized contact breccias on the southwest facing slopes of Mt Adam. This report focuses on analytical and mineralogical constitution of new samples collected in summer of 2013 and placing them in a geological context. In late 2014, some follow up work along newly cut logging roads was performed.

Property location, access and title

The Flan-Consolidated Group claims are located about 30 km east-southeast of Woss, on Vancouver Island B.C. (Figure 1). The original Flan Showing (recently accorded Minfile Status 092L-396) is found in tenure 509012 and the newer Heart showings on Mount Adam (now accorded Minfile 092L-399) are found in tenure 553495 within the Flan-Consolidated Claims located on Northern Vancouver Island and in the Nanaimo Mining District jurisdiction. Presently, there are 7 MinFiles within the claims: (092L-288, -289, -395, -396, -397, -398, -399). They are located in the Vancouver Island Ranges within NTS 092L/01 (or 92L019 and 92L009), and cover the drainage area of most of the Schoen Creek valley, being centred on approximately 50 deg 06 min 9 sec North and 126 deg 15 min 27 sec min West (Fig. 2, 3).

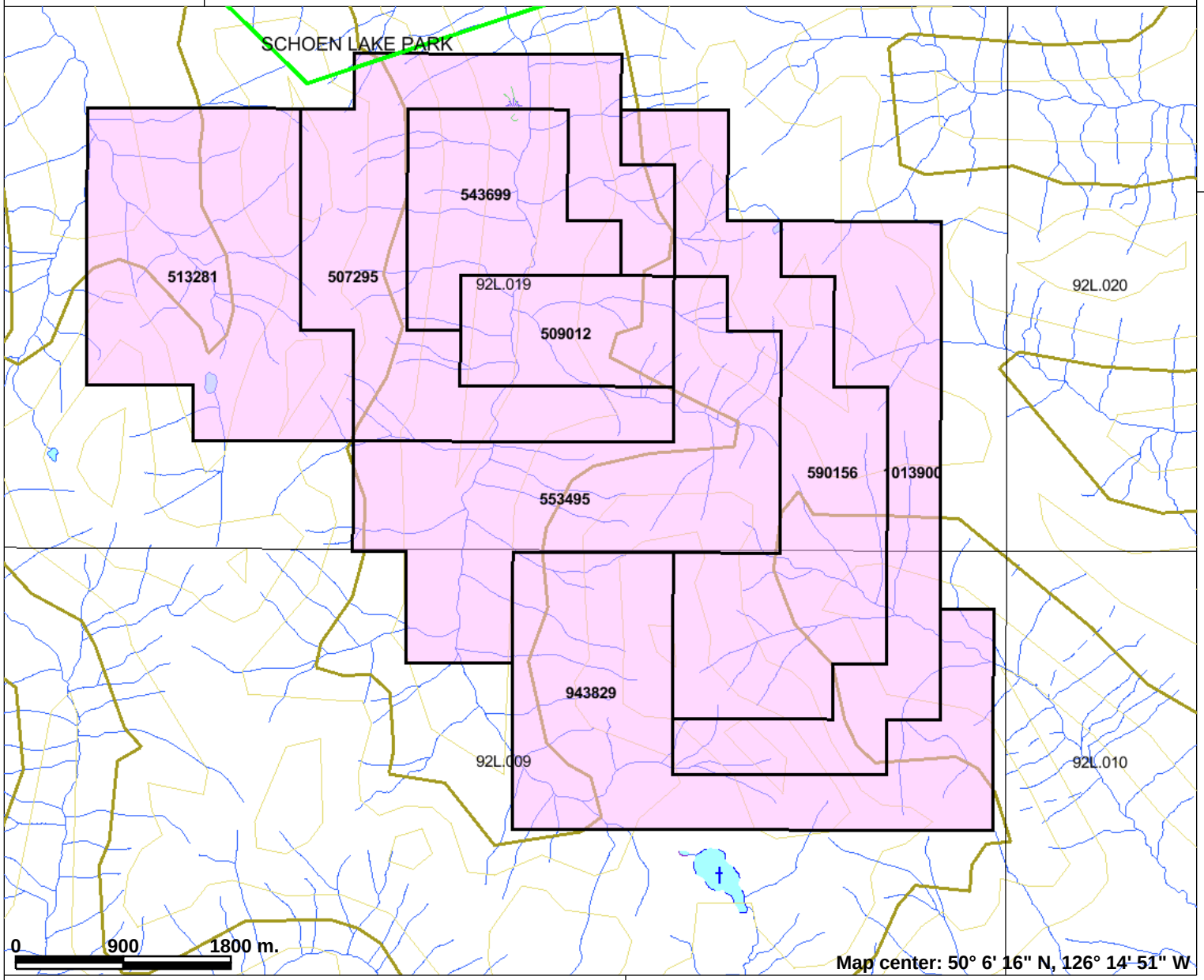
Access to the claims can be had via two different routes. ***One***, the more convenient, is via a logging main (towards Gold River) branching off the Island Highway and continuing along subsidiary logging roads south of Davies River, passing through Schoen Lake Provincial Park, south of the lake, into the area of interest. This road proceeds south (upstream) along the west side of the creek until, several km along, the road splits and several parts of the claims are accessible, The western part of the claim block is entered before the park is traversed, up the logging main labelled “Club” road. ***Another*** way to access the claims is via the upper White River Main logging road system, eventually driving up a side road to the head of Kokummi Creek. This road is well constructed, save a washed out bridge near the mouth of Kokummi Creek, but is passable with a four wheel drive vehicle. This route is probably the best for accessing the higher parts of the eastern section of the claim block.

Claims of FLAN-Consolidated:

Tenure Number	New Good to Date	Ownership	Area, ha.
507295	10/10/2018	100% Schau	517.912
509012	11/18/2019	100% Schau	165.753
513281	10/10/2019	100% Schau	497.218
543699	05/10/2019	100% Schau	227.868
553495	01/10/2019	100% Schau	518.106
590156	01/10/2019	100% Schau	518.087
943829	01/28/2018	100%Schau	518.3
1013900	10/22/2018	100% Schau	373.04

MineralTitles OnlineBC

Fig 1: Location and Claims



Legend

MINFILE Status
- Producer
- Past Producer
- Developed Prospect
- All others

Parks

Mineral Tenure (current)
- Mineral Claim
- Mineral Lease

BCGS Grid

Contours (1:250K)
- Contour - Index
- Contour - Intermediate
- Areaof Exclusion
- Areaof Indefinite Contours

Water - Points (TRIM)
- Rapids
- Dam
- Flooded Land - Inundated
- Marsh
- Swamp
- Sand/Gravel Bar
- Flow Arrow
- Arrowhead
- Island - Definite
- Island - Position Approximate
- Water Level
- Sinkhole

Water - Lines (TRIM)
- Canal
- Dam
- Dam - Beaver
- Ditch
- Falls

N

Scale: 1:50,000

The area of tenures totals 3,336.284 ha.. The claims have been held since 2000 and are currently held 100% by Mikkel Schau, (BC Free Miner 142134). Interwest Enterprises were once part owners but have returned their portion of the claims to me, the original owner.

The land situation is typical of BC; I have claimed the mineral rights in a lawful manner. According to the MTOnline website:

"...Any subsequent activities, permits, approvals or decisions related to exploration or development work on mineral or placer claims will require the Province British Columbia to meet applicable legal obligations to consult with, and if appropriate, accommodate, affected First Nations". There is no record, available to me, that this provincial consultation has been carried out for these claims.

To the best of my knowledge the Land Claim Treaty Process has not directly discussed these lands although they are under general claim by several groups. The SOI of 'Namgis Nation covers the lands within the Nimpkish River watershed wherein Schoen Creek and the majority of the claim group are located. The lands near and east of the height of land including Mt Adam are subject to a competing SOI of the several First Nations to the east. Contact has been made with all the nations as recommended by the Ministry. In particular, I have been in contact with the Treaty Office of the 'Namgis; they are fully aware of details of my current work. They informed me (late last fall) that the Ministry has made no contact with them as yet.

There has been no impediment to my claiming or working the land to time of writing. Local people have told me they would like there to be more exploration, and possibly mining in the region, to shore up their local economy.

Previous work

This section is an *update* of similar material presented in previous assessment reports for this area. There are many similarities with earlier reports written by the author, but this version is the most up to date. Earliest reports from this area reported locations in NAD27, later ones, including this one, report locations in NAD83. All locations are found in UTM Zone 9. The geology as shown on MapPlace is shown on Figure 2.

The general area has had a sparse history of mineral exploration. Previous mapping by government sponsored regional mapping programs conducted and summarized by Geological Survey of Canada (J.E. Muller et al. (1974)) has been made available in modified digital form by BC Geological Survey (N.W. Massey et al (1995, 2004)). A provincial government sponsored regional geochemical survey (RGS23) indicates that creeks in the Schoen Lake watershed are anomalous, showing moss values up to 160 ppb Au. (MapPlace, 2011). An adjacent creek valley and a hill crest to the west of the Schoen Creek valley were staked in 1993 and shown to carry anomalous concentrations of several economic elements, including Cu, Zn, Ag, Pb, Mo and Au (AR 23546). An in situ rock sample with 1 gm/mt Au was recorded at this time. Those claims have since lapsed. Claims to the east of Mount Adam have been explored by me over the years, and have recently been dropped by another prospector.

In 2000, the current owner, funded in part by the Prospector's Assistance Program, found a sample with about 60 gm/mt gold while prospecting for precious metals. It was staked as the FLAN showing in late 2000 based on results of this assay. A two mica granite stock was recognized in the course of later mapping and an area was staked to cover the apparent edges of this granite. Several stream sediment surveys prompted the staking of the complete watershed. The current owner is conducting grass-roots exploration to move the showings along to be a viable prospect. Previous assessment work, totalling $226,125.04 has been done by this owner(s) on the claims as listed below:

AR Number	Date off confidential	Operator	Exploration Expenditures (original dollars)
34353	*2014-10-19*	*Self*	*$6,000.00*
33661	*2014-01-24*	*Self and Interwest Enterprises*	*$40,500.00*
32654	*2012-10-20*	*Self and Interwest Enterprises*	*$20,400.00*
31786	*2011-08-20*	*Self and Interwest Enterprises*	*$6,135.61*
31679	*2011-06-24*	*Self and Interwest Enterprises*	*$95,025.67*
31046	*2010-10-09*	*Self*	*$6,150.00*
30471	*2009-06-30*	*Self*	*$16,200.00*
30009	*2009-03-02*	*Self*	*$950.00*
29551	*2008-10-18*	*Self*	*$12,000.00*
29360	*2008-07-28*	*Self*	*$5,200.00*
28382	*2007-02-14*	*Self*	*$6,600.00*
27311	*2004-08-26*	*Self*	*$3,563.55*
26793	*2002-11-15*	*Self*	*$7,400.21*

AR 26793 produced data on the surrounds of the original gold discovery location.

AR 27311 discussed veins in a nearby, hitherto unknown, 2 mica granite thought to be a possible source of mineralization

AR 28382 added geological information on basalts and veins on on the west side of Maquilla Ridge.

AR 29360 focused on new selected high grade sulphide samples from basal till at the original location. “Metallic” gold assays on 500 gm samples yielded up to 135gm/mt from pyrrhotite rich copper bearing basal till boulders.

AR 29551 discussed alteration on the claims and conclude that low grade regional metamorphism affected Triassic basalts and shales. Local phyllic alteration has affected the 2 mica pluton, showing a local chlorite rich zone and a sericite rich zone. The granite was thought to have been emplaced in a high strain zone. The west of the creek was possibly displaced with regard to the east side.

AR30009 presents evidence that the gold in the sulphide rich till samples of the original Flan Showing is found in small grains of electrum (range 5 to 72 micron grains; median and mode is 15 microns) along with small grains of BiTe in chalcopyrite, and with a few grains in pyrrhotite and sphalerite.

AR300471 provided more instances of mineralized boulders as well as locating in situ copper rich zones located within the sediment-sill unit to the north of Flan. These rocks were compared with other mineralized black shales.

AR31046 presented a lineament study of a high quality orthophoto, and added more assay values from the area. Provided graphite analyzes of black shales.

AR31679 presented results of a large program of prospecting, geological, geophysical and geochemical surveys which located two distinct “potential exploration” targets based on geochemical anomalies.

AR31786 presented evidence that the White River granodioritic rocks extend up Kokummi Creek into the eastern claims well beyond locations shown on previous maps. The upper anomaly on Jackpot Creek is thus favoured as a target.

AR32654 presented evidence that tributary creeks on North side of Jackpot Creek contained talus and in situ gold bearing samples.

AR33661 reported on two new in situ gold sample areas; one with a 21 m chip sample carrying 1.5 gm Au/mt.

AR34353 provided more analytic data and showed the prevalence of illite-Fe-Chlorite-pyrite alteration in the gold bearing specimens of the Heart and Rubicon Showings.

Summary of new work

The work reported herein consists of field work carried out during August 2013, and relevant laboratory work on samples performed mainly in the spring of 2014. Notification of new logging roads in area, caused a short inspection and sampling survey to be carried out in late 2014.

This work was done in tenures 507295, 509012, 553495 and 590156, and is applied to tenures 513281, 543699, 943829 and 1013900.

Rock Assays Appendix A-1

: Table A with 29 in situ sample locations and rock types and selected elements from Acme Certificate VAN13003504.2.

Figure 4 shows locations of 31 samples with whole and partial rock analyses (29 in situ; 2 talus) and Figure 5 shows the values of Au (FA), Bi and As for aqua regia soluble portions of samples. Figure 6 shows the distribution of Na2O, K2O and S in whole rock analyses to show the effects of alteration on the rocks.

Secondary media Appendix A-2

Actlabs reports results on 47 hemlock twigs sampled in order to test distribution of pathfinder elements or mineralized materials under forest cover. Hemlock twig survey results are reported in certificate Actlabs A13-10704.

Secondary media results (including fragments from till locality and a soil/silt sample from new road) are also from AcmeLabs VAN14003664.1 and VAN14003664A.1. The location and values of Au are shown on Figures 7.

Figure 8 shows location of hemlock twig samples, and Figure 9 the distribution of As, a pathfinder element for Au.

Petrographic Descriptions are recorded in **Appendix B**

Six thin sections produced by Van Petrographic are described in the appendix and located on Figure 10,

Plates 1 and 2 show a picture of “the nose” in the Heart Showing, a typical handspecimen, and 6 selected photomicrographs of thin sections

PIMA result are reported in Appendix C

Heberlein report KH208 describes 28 results on 14 discreet samples.

Figure 11 shows locations of samples analyzed with PIMA.

Original Assay documents (listed above) are found in **Appendix D**

AcmeLabs VAN13003504.2

AcmeLabs VAN14003664.1

AcmeLabs VAN14003664A.1

Actlabs A13-10704

Detailed data and interpretation

Purpose

The work recorded herein presents new information on the composition of alteration minerals of gold bearing rocks previously located on the southwest slopes of Mount Adam along tributaries of Jackpot Creek.

A new logging road near valley bottom was prospected in late 2014; further logging roads will be explored as they open up previously forested lands.

Regional Surficial Geology

This section is a brief updated summary taken from previous assessment reports.

The claims are mainly located in the Schoen Creek drainage basin. The mineralized boulders (FLAN showing) are located about the junction of a modified U shaped valley with a sharply incised tributary from the south east (informally called “Jackpot Creek” by logging companies) with the main U-shaped Schoen Creek valley.

The eastern and western ridge of the main creek is largely steep and rugged and shows outcrop near the mountain tops. The valleys are filled with downward thickening glacial deposits and post glacial stream and talus deposits. The mapped road outcrops are technically subcrops; only a few knobs of bedrock crop out on the lower slopes; only at the upper steeper slopes are cliff forming outcrops. Very large blocks of material from the upper slopes have cascaded down the hill. In virgin forest such blocks are difficult to distinguish from actual outcrop. The depth of till generally increases downhill, as does colluvium. The bottoms of the valleys are occupied by creeks cutting through their own, earlier fluvial sediments.

According to Howes (1981, 1983) there are two glacial periods and interglacials recorded on northern Vancouver Island. The earliest glacial episode occurred some 50,000 years ago, and is said to

have left only sporadic evidence of its presence, but it was probably as extensive as the Fraser Glaciation. Only limited dated interglacial sediments have been preserved (ibid). The later Fraser Glaciation was widespread and consisted of three stages. An early stage (prior to 25,000 years before present) includes glaciers forming in valleys draining the Vancouver Island Ranges. At maximum (some 16,000 years ago, the ice from the coast mountains, on the mainland, spread over the the early valley glaciers of Vancouver Island and spread southwestward. At deglaciation, starting at 12,000 years ago, the valley glaciers re-established themselves to fade away by 9000 years before the present. Later streams reworked the tills and outwash materials in the valley bottoms.

In the general area, glacial striae on subcrops indicate that the valley glacier in the Schoen Creek drainage scraped debris from south to north, toward Schoen Lake. On the other hand, Howes (1981) reports that on the nearby Mount Victoria, at 1550 m elevation, probably glacial striae linked with the Fraser maximum, flowed from NE to SW.

The Flan showing is on the western side of the Schoen Creek, on the northern edge of a small subsidiary creek (called “Jackpot Creek,” according to local logging lore). Glacial debris was likely carried along this smaller creek to join with the debris from the Schoen Creek valley ice flow somewhat to the west of the current surface. Striae were noted on the southern most subcrops near the Flan showing, where the surficial debris had been washed away after the road had been pushed through. Striae indicated ice movement was parallel with the valley wall and to the north, down valley, toward Schoen Lake. Presumably these striae mark early, pre-maximum glaciation and indicate that up-ice for glacial basal till boulders would be at the headwaters of Schoen Creek or its tributaries (cf Hicock, 1986).

An examination of the distribution of hornblende biotite granodiorite boulders and cobbles in the till indicates the largest boulders (up to two metres across) are found immediately north of the north flowing junction of Jackpot creek and Schoen Creek. The size and proportion of granodiorite boulders diminish northward. South of the junction with Jackpot Creek, along Schoen Creek itself, although sparingly exposed, till showed no boulders or cobbles of granodiorite. Schoen Creek itself carries both the local Muscovite biotite granite cobbles as well as hornblende granodiorite cobbles at the bridge well north of the previously mentioned junction. Although it is possible some of the more sub-angular boulders near Jackpot Creek are in part alluvial, the majority of the granodiorite boulders seen were firmly set in a grey clayey diamicton. The most probable source of the granodiorite is an amphitheatre of poorly exposed granodiorite at the headwaters of Jackpot Creek

It is concluded that a glacial tributary descended Jackpot Creek to join with a main valley glacier flowing in Schoen Creek. And, that the mineralized basal till observed at Flan is associated with merging of the valley glaciers and not with a late, short lived Fraser Glaciation Maximum ice cover. This is relevant, because the direction of ice flow is important for tracing the mineralized boulders back to source (Proudfoot et al, 1995).

Jackpot Creek itself is cut deeply into broken bedrock, and has created a deep chasm as it descends towards Schoen Creek. There is a hint of a U shaped hanging valley visible in the steep sides and flattening bottom, but the current creek is a incised into the “flatter creek bottom”. It is inferred that a fault zone is being rapidly eroded since the last glaciation.

Very steep creeks that drain the south side of Mount Adam, and empty into Jackpot Creek also clearly postdate the latest glaciation. The “Heart” Creek area consists of a creek that splits into an eastern segment that bifurcates upward, and is locally called the “Rubicon” Creek and an western segment which characterized by a vegetation kill zone in the crude shape of a heart through which the western strand of the “Heart” Creek passes. The samples discussed in this report come from these cliffs.

The high grade till samples of the original Flan showing are located in the interface between bedrock and basal till. The samples are loose and are part of the basal till package. "...*most studies on gold dispersal trains show that distances of transport of detectable materials are rather short.* ..." (p. 45, Plouffe, 1995) and Proudfoot et al, (1995) indicates that till fragments rise in the glacier as the distance from the source increases. Fragments, such as those at Flan, which are at the base of the till, are said to be very close to the source.(ibid, p.25).

The road cuts in the till and soil at the showing are unstable, and between the summer of 2007 and 2014, several ten or so metres wide slides brought down trees, soil and till over previously exposed till and bedrock sections. Erosion has thus continuously exposed new sulphide rich fragments the surface. These mineralized fragments quickly disappear since the pyrrhotite is quickly oxidized to porous and loosely consolidated rusty material and fine talus.

Regional Geology

This section is a brief summary modified from Assessment 34353. The geology reported herein differs from that shown on government maps. Figure 2 is the geology according to MapPlace , compare with Figure 3.

The regional geology was mapped by Muller et al 1974, prior to the construction of current logging roads, and as such, suffers from not having access to the subcrops now exposed. Observations gained while prospecting in the region, after the logging roads were available, indicate that the valleys contain different units than those encountered on the sub-alpine ridges. The latest digital compilation (Massey et al 2005) has not included information gathered by industry and is thus also deficient. In particular, a small two mica granite stock crops out in Schoen Creek valley. The contacts of this stock are seen in several places, both intrusive and faulted, and its general elongate shape can be deduced from distribution of talus and subcrops in the region. The valley and adjacent areas are part of a large NS fault zone system and is generally, but differently, portrayed by Massey (2005) and Mueller (1974) to be along the higher eastern ridges see Figure 2.

Recent work has extended the outcrops of a Jurassic hornblende-biotite-granodiorite batholith, from a contact previously postulated to be near the headwaters of the White River, to a contact in the headwaters of Kokummi creek and into the claims in the Jackpot Creek head-water area. New mapping has located outcrops of contact granodiorite and adjacent hornfels om the southwest facing, middle elevation slopes of Mt Adam and include the new mineralized area The outline of the aeromagnetic anomaly (from MapPlace) and the outline of this magnetic pluton now seem more closely related. Forest cover precludes accurate contacts.

Regional geology of the immediate area is generally simple. Late Paleozoic limestone is exposed in low lying areas east of the claims. They are overlain by the informally named "Daonella beds", a middle Triassic unit of black shale and siliceous tuffaceous cherts which in turn is overlain by the Triassic (lower Karnian) Karmutsen basalts, a thick pile of pillowed and massive sub-aqueous to sub-aerial lavas. Intrusive rocks include Triassic gabbro sills (mainly emplaced in the Daonella beds), and later, large Jurassic granodiorite plutons to the northwest , (northeast?) and to the southeast as well as a stock of two mica granite in the main Schoen Creek valley (called the Schoen Creek stock).

Regional faults affect area. Although there is not a single north directed fault surface, as shown on government maps there is a wide heavily fracture cleaved and complexly veined zone trending in that direction (called Lacy rocks as a field term). The apparent sense of movement on the mostly steeply east dipping north-south faults is west side up, but associated slickensides indicate largely horizontal displacement. It would appear that regionally, Jurassic plutons postdate some of the NS faulting since they cut some fault zones and are largely undeformed. The two mica granite (Schoen Creek Stock), on the other hand, is faulted both in NS and EW directions. Small dykes are seen to extend from eastern parts of the stock. Steep, later?, east west faults are associated with abundant alteration and a possible dextral sense of displacement. Local, later, Tertiary? dykes that cross the east west faults, and stocks are noted within this same general region (near Mt Cain). Although transverse faulting is indicated by the prevalence of sub-horizontal slicken lines, in a few locations down dip slickenlines have been located. The tectonic history is complex, overprinted as it is by later regional dextral movements.

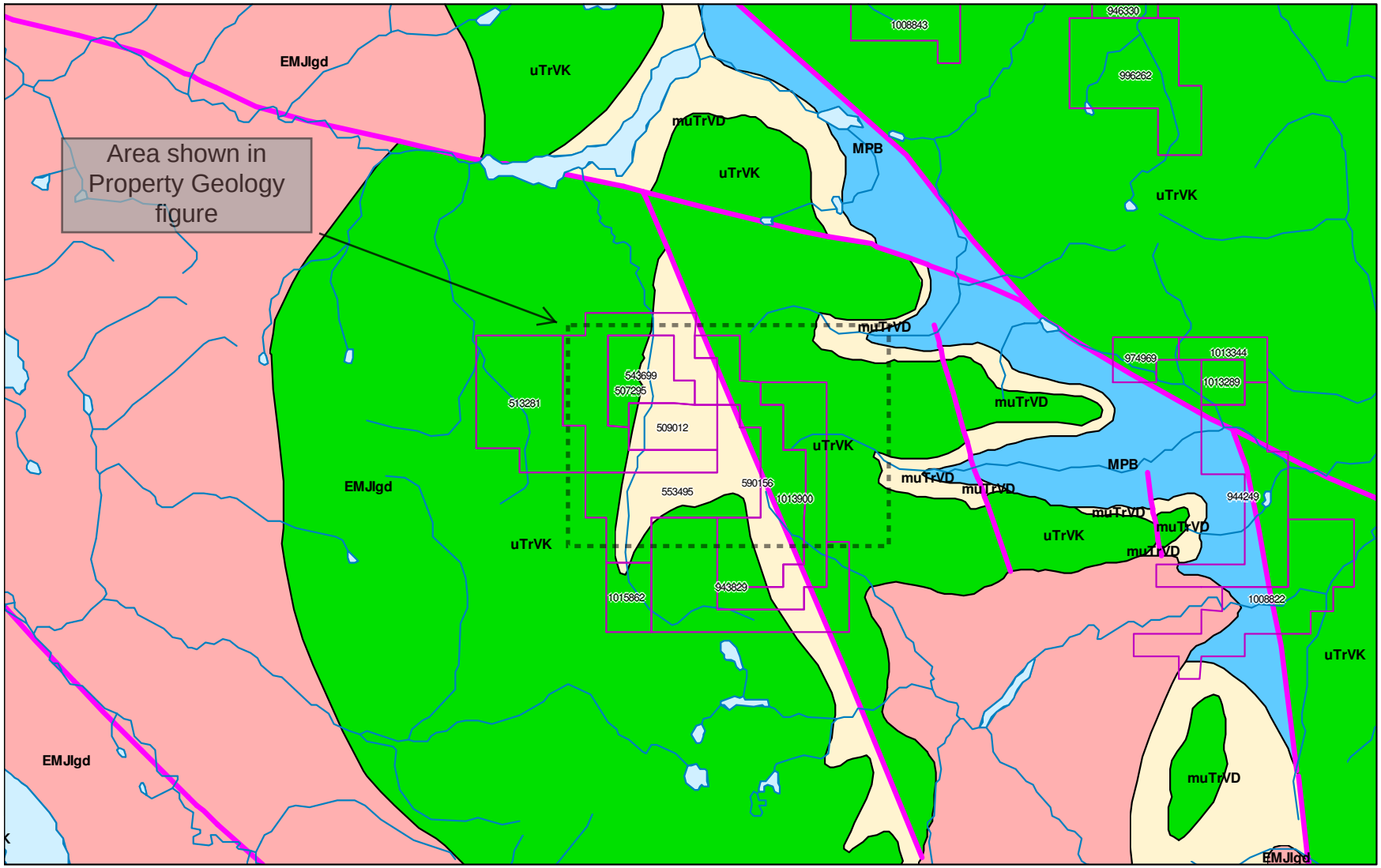


Figure 2: Regional Geology

BCGS 2005 from MapPlace

Regional Geophysics

Aeromagnetic maps released half a century ago show a positive regional anomaly, largely explained by the presence of a magnetite bearing granodiorite, to the southeast over Kokummi Creek area, and in a few instance by magnetite skarns. No further work was done on magnetic properties in this report.

Property geology

The following part is a brief summary of the geology of the property taken from report AR 34353, and includes an updated geological map of part of the Claim Group.(Figure 3)

Figure 3 shows the preliminary updated geology for the south-eastern tenures of the Flan-consolidated claims. A south draining creek is called Heart Junction Creek for the heart shaped pattern of a vegetation kill zone displayed at the junction of two ("Heart" and "Rubicon") gullies halfway up hillside, and it drains a now known gold bearing area. It joins the Jackpot creek which in turn runs into Schoen Creek.

As shown on the preliminary map the geology of these claims is relatively simple. The stratigraphy sequence is sediment-sill unit (also known as Daonella Beds) overlain by Karmutsen basalts. A muscovite-biotite granite (Schoen Creek Stock) is found underlying the Schoen Creek valley The headwaters of Jackpot and Kokummi Creeks show the continuance of a large granodiorite Jurassic pluton into the claims from its previously mapped contact to the southeast near White River. Faulting within the stock is complex and directed both northerly and easterly. It appears to be more deformed than the hornblende biotite granodiorite.

Karmutsen basalts occupy the tops of ridges including the long one culminated by Mt Adam. Pillows are locally developed. Diabase (finegrained gabbro) massive flow centres or sills are noted near the top of the ridge. A particularly distinctive axiolitic basalt with few microphenocrysts and rare amygdales is noted near the base.

Cherts and siltstones and silicified tuffs of the sediment and sill unit (the "Daonella" beds) act as hosts to thick (in excess of 200 m) diabase (very fine grained gabbro) similarly textures as those emplaced in the basalts above. The bedding in the siltstones is mm to cm thick and pyrite is locally concentrated along certain thin beds. Pyritic cross veins (of different composition) also traverse rock ,particularly in the Jackpot creek area,.

The structure of the sediment and sill unit and the overlying basalt on the west flank of Mt Adam is that of gentle eastward dips. Much faulting has disrupted the rock and these intersecting northerly trending fault surfaces are marked by zeolite and clay veins giving rise the the "lacy" rock unit. The result is that rocks that are dark when fresh end up looking white from a distance because the rock splits along the fracture planes. Very deceiving rocks

GEOLOGIC UNITS near Heart showing

The Heart showing is located at the complex contact of country rock (mTr "sediment sill unit" and mJur "Island granodiorite")

youngest

Leaching and alteration (limonite (goethite), jarosite, gypsum, zeolite/kaolinite/nontronite)
Later veins and alteration (mainly pyrite, local calcite)
(illite-chlorite-pyrite+/-quartz)

Sheared microbreccia
(altered to pervasive illite-chlorite-pyrite+/-quartz)
(consisting of crushed mixtures of older rocks, may include porphyry dacite phase)

Island Intrusive Granodiorite (breccia phase at contact?)

Karmutsen Basalt (topographically above showing)

Diabase sills in cherty siltstones "sediment and sill unit"(host to granodiorite and microbreccia)

oldest

695000 m 696000 m 697000 m 698000 m 699000 m 700000 m 701000 m

5557000 m
5556000 m
5555000 m
5554000 m
5553000 m

Sill-and-Sed
Heart Creek
Karmutsen
Hb-Bio-GRND
Hb-Bio-GRND
Hb-Bio-GRND
Sill-and-Sed
2 mica granite
Sill-and-Sed
Hb-Bio-GRN
Jackpot Creek
Schoen Creek
N
0
1600 m

Geologic units
- Hb-Bio-GRND
- 2 mica granite
- Karmutsen
- Sill-and-Sed

- lineament
- lineament (ext)
- shearzone
- Q-S-P alteration
- claim boundary
- FSR
- lakes
- rivers
- 100m contours

695000 m 696000 m 697000 m 698000 m 699000 m 700000 m 701000 m

Projection/Datum: UTM 9(N) NAD83 scale: 1:20000 0 1600 m	**THE FLAN PROJECT** **April 2015**	**Figure 3:** **Property Geology**

The Heart area is complex, but to first approximation, an “intrusive” breccia at the contact with the hornblende-biotite and the bounding chert and diabase sill section has been further deformed by a variably imposed cataclastic event. The net result is that the Nose (A brown stained outcrop of the altered breccia) and the containing granodiorite is sandwiched between two slices of country rock, locally cracked and zeolite bearing, the so called “lacy” unit.

Alteration of the nose and adjacent rocks (documented in petrology section) is that of quartz-sercite/illite-Fe-chlorite-pyrite alteration near the Heart, and magnetite and sulphide bearing skarn/hornfels alteration, as well as small outcrops of massive granodiorite at the nearby Rubicon showing. Topographically and stratigraphically above this argillic alteration has been noted and the Karmutsen host rocks in immediate region show low grade regional metamorphic grade. Later faults contain low temperature alteration such as zeolite and smectites.

Mineralization

The following part is a brief summary of in situ mineralization in the Flan claims taken from AR34353:

The mineralization is of several types:

At the Heart showing

Mineralized breccias, some with dacitic /crushed granodiorite clasts were located up south draining tributaries of Jackpot Creek. The Heart showing with grades up to 6 ppm was found in tributaries to Jackpot Creek on the southwest facing slopes of Mount Adam and a 21 m chip sample averaged 1.5 gm/mt Au (2012) was collected down a rusty exposed cliff face in the forest.

At the Rubicon showing

Thin lenses of massive sulphides and deeply weathered material interlayered with hornfels and skarn are locally mineralized. .Sulphidic rock carrying up to 4 gm/t Au have been located in situ, above a talus fragment assaying 21.5 gm/t Au.

Near Flan (till) showing, east of the Schoen Creek:

At Green vein:location I/ Early, green, poly-metallic, epidote-chlorite-sulphide veins (the green vein) with irregular pods of quartz, and tens of cm wide, replace a fault zone cutting a gabbro sill. Sphalerite, chalcopyrite and pyrite are common sulphides, but analyzes suggest molybdenite and galena are present in small measure as well. Gold is variably anomalous.

II/ A later, thin, white weathering, apparently cross cutting, quartz-sulphide (pyrite and chalcopyrite) vein assemblage with local Au concentration developed in gabbro. Seems to carry best gold values near the earlier “green” veins.

At Jackpot south showing (south of Flan and the creek) the matrix of a fault breccia with angular granite fragments is composed of various proportions of chlorite, quartz, chalcopyrite, sphalerite and minor galena. The structure seems to project toward and along strike to the Green Vein.

At Jackpot south extension, located in Jackpot Creek, quartz rich veins and fault zones in granite carry irregularly distributed chalcopyrite. Gold is variably anomalous. This fault zone possibly extends along Jackpot Creek and shows very little apparent off set, although the hand specimen structures indicate a shear zone.

Exploration Target

The exploration is at early stages and fixing on a single mineral deposit model is premature.

Previously, although there are a number of possibilities; one mineral deposit model seemed to be favoured by the limited amount of information then available. It was the *INTRUSION RELATED Au PYRRHOTITE VEINS* selected from the BC Mineral Deposit Suite: category I02.

With new information garnered the last few years, it seems now that a preferred model is a *PORPHYRY* related model selected from the BC Mineral Deposit Suite: category L04 and related models. The presence of Au and Cu, spatially associated with intrusives and the location of Au mineralized brecciated termination of a granodiorite contact/dacitic dyke altered to quartz-sericite/illite-Fe-chlorite-pyrite seem positive indications that a form of the upper part of a porphyry model might be more appropriate.

On the other hand the presence of As and Bi in gold bearing specimens may still be an indication that the first model is preferable.

Detailed sampling results

New Results:

The new data is contained in the appendices with tables and figures listed below.

Appendix (table)	Figure with locations	Figure with data
A-1a 29 samples analysed for Au by FA and ICP-ES (Acme Geo4 package) and 13 of those analysed by Acme Whole Rock Analysis (4A and B, majors and minors) of in situ rock	Figure 4	Figure 5, Figure 6
A-2 3 talus fragments, 9 till fragment and 3 soil/silt sample	Figure 7	Figure 7
A2 47 Hemlock twigs (Actlabs)	Figure 8	Figure 9
B Petrology section, 6 thin section descriptions	Figure10	Plate 1 c- 2d
C Heberlein -PIMA report on 28 samples	Figure 11	Not applicable
D Original Assay certificates	Not applicable	Not applicable

Interpretations and conclusions

Work during 2013 and 2014 reported here includes follow up to 2012 field season results in particularly near Heart and Rubicon Showings (AR33661). A chip sample and more grab samples selected from the mineralized locations were collected and studied as shown below. An attempt was made to use biogeochemistry to discern anomalous areas under the forest cover, and later in 2014, a new logging road was prospected and locally sampled.

Primary (In situ) Media

Results from lithogeochemical sampling of in situ samples

29 in situ samples collected largely in the Heart and Rubicon showings were submitted for analysis by ACME Geo4 package. The complete analyses is found in Appendix D, significant results are discussed below.

Table below lists the nature of gold mineralization by noting the behaviour of copper and two common pathfinder trace elements as well as sulphur.

Sample	Descriptor	Au ppb *FA*	Cu ppm *AR-sol*	S%	Bi ppm *AR-sol*	As ppm *AR-sol*
1593101	Brown stained altered dark mafic chloritic rock with Fe Chlorite, yellow sulphides, and local magnetite	***4721***	1411	5.75/ 5.39	14	28
1593102	Light coloured and crumbly rock just below the nose	***145***	417	0.2	<3	44
1593103	Grey broken rock with sulphides just below nose; (Potassic) Altered, granodiorite composed of illite chlorite and trace Carbonate and silica, sulphides	***523***	331	2.56/ 2.44	<3	101
1593104	Sample from contact of brown nose material and blocky grey lacy material	*570*	324	2.88	<3	54
1593105	Sample from contact of brown nose material and blocky grey lacy material, with visible pyrite	***1027***	402	3.18	4	136
1593106	Grey broken rock with sulphides with local small black stained nodules	***551***	455	1.6	<3	112
1593109	Grey broken rock with sulphides with local black stained blocks (Potassic) Altered Granodiorite with Hi-X illite, Fe Chlorite tr Kaolinite with sulphide	***1924***	916	6.13/ 6.35	7	127
1593110	Grey broken rock with sulphides with local black stained blocks; (Potassic) altered Granodiorite with Hi-X illite, Fe Chlorite tr Kaolinite trace sulphide	***1623***	481	3.9 /3.66	<3	71
1593151	Grey clayey rocks with local Fe Chlorite well developed	***307***	699	6.00/ 4.52	6	47
1593152	Grey broken and clayey rocks with local Fe Chlorite well developed	***4008***	2251	4.25	22	>10000
1593153	Altered,mafic rock, Hi-X illite, plagioclase, Fe Chlorite tr Kaolinite, ilmenite/magnetite, arsenopyrite and yellow sulphides	***5667***	2456	5.00/ 4.88	33	>10000
1593154	Altered mafic rock, Hi-X illite, carbonate, Fe Chlorite, after Hornblende or pyroxene magnetite/ilmenite, tr Kaolinite	***1334***	412	1.23	<3	157
1593155	Altered granodiorite with Hi-X illite, Fe Chlorite tr Kaolinite	*3815*	905	2.55	<3	184

Sample	Descriptor	Au ppb *FA*	Cu ppm *AR-sol*	S%	Bi ppm *AR-sol*	As ppm *AR-sol*
	HEART CHIP SAMPLE *(each over 3 m)*					
1593156	Rusted, broken and crumbly altered granodiorite with Clays, after mica and plagioclase, carbonate local Arsenopyrite?	*2415*	273	0.15	<3	>10000
1593157	Rusty less crumbly, limonite, no obvious pyrite.	*182*	164	0.09	10	996
1593158	Reddish coloured, with small patches of white and yellow clays; (Potassic) Altered granodiorite with Silica, illite, kaolin, local pyrite and arsenopyrite, later alteration:jarosite	*4997*	848	1.2	12	>10000
1593159	Rock very dark red and solid, Fe Chlorite	*2021*	169	0.86	10	>10000
1593160	Rusty surface, but interior grey with visible pyrite	*2376*	315	1.05	<3	>10000
1593161	Rusty surface, but interior grey with visible pyrite; Altered Granodiorite, composed of Hi-X illite, carbonate tr Kaolinite, Jarosite	*663*	221	0.36	4	3093
1593162	Rock is more weathered/crumbly, and carries less pyrite than above	*2764*	217	0.71	11	1946
1593163	Very broken rock, with yellow and white clays present(Potassic) Altered granodiorite, with dark chloritic rock, Hi-X illite, carbonate tr Kaolinite, minor yellow sulphide, later alteration :Jarosite	*4026*	1024	3.3	5	266
1593164	Weathered, clay rich very yellow, and local pyrite	*1198*	299	1.41	<3	367
1593165	Grades from Red clay to chalk white illite, Fe Chlorite tr Kaolinite near 1593155.	*169*	422	0.31	<3	1286
	RUBICON Area					
1593107	Barren Granodiorite, in base of gully, sides are dark country rock; Plagioclase, Amphibole and tr chlorite After biotite	***13***	312	0.47/ 0.46	<3	7
1593166	Sample near 16559 of last year, *above* the middle of rusty layer dipping northeasterly. It appears to be grey diabase	*10*	104	0.1	<3	34

Sample	Descriptor	Au ppb *FA*	Cu ppm *AR-sol*	S%	Bi ppm *AR-sol*	As ppm *AR-sol*
1593167	This sample was taken to replicate 16559; Mafic rock with amphibole, magnetite and local carbonate, very little sulphide present here	*10*	66	0.12	<3	125
1593168	Mafic rock, similar to 1593166 taken below 1593167	*12*	44	<0.05	<3	31
1593169	This sample is from same horizon as 1593167; Mafic rock with magnetite and local carbonate	*1516*	528	1.05	19	166
1593170	This sample is from same horizon as 1593167; Mafic rock with magnetite and local carbonate Fe-Chlorite	*287*	323	0.13	6	480

Gold **is not** directly related to tenor of copper but gold **is** elevated if either or both of the pathfinder elements (bismuth or arsenic) is elevated. Sulphur is usually elevated when gold is elevated, but see 1593156 in which gold and arsenic are elevated. To a first appearances if Bi is elevated, the gold tenor is most elevated, if As is elevated then Au tenor is also elevated, but less so.

The samples to replicate the mineralization found in 2012 in the Rubicon area show generally low gold values although one sample carries a bit of gold.

The 13 whole rock analyzed are presented in Appendix A and D. The table below shows elements relatively resistant to alteration, that is TiO2,Sr, Zr, along with Au.t

Sample	Descriptor	TiO2% Total	Sr ppm Total	Zr ppm Total	Zr/TiO2	Au ppb *FA,*
HEART AREA						
1593101	Altered andesitic? basic	1.27	7.4	72.5	***57***	***4721***
1593103	Altered, grnd/dacite	0.32	9.5	121.1	***378***	***523***
1593109	Altered, grnd/dacite	0.31	8.1	108.1	***349***	***1924***
1593110	Altered grnd/dacite	0.33	28.7	127.4	***386***	***1623***
1593153	Altered, basaltic	1.47	5.3	97.4	***66***	***5667***
1593155	Altered, grnd/dacite	0.34	9.3	117.9	*347*	*3815*
from Heart chip sample 1593156-65						
1593156	altered grnd/dacite	0.3	10.8	113.6	*378*	*2415*
1593158	altered granodiorite / dacite microbreccia (but see thin section	0.38	5.7	135.5	*370*	*4997*
1593161	altered grnd/dacite	0.44	16.1	111.9	*254*	*663*
1593163	altered grnd/dacite	0.31	15.8	112.5	*362*	*4026*

Sample	Descriptor	TiO2% Total	Sr ppm Total	Zr ppm Total	Zr/TiO2	Au ppb *FA*,
	RUBICON AREA					
1593107	Granodiorite	0.59	495.1	150.8	*255*	***13***
1593167	Possibly basaltic	0.58	174.3	25.8	*44*	*10*
1593169	Altered, basaltic	0.67	2.4	31.5	***47***	*1516*

Approximate values for typical* samples of various relatively fresh samples are shown in the table below.

Typical Sample	TiO2 %	Sr ppm	Zr ppm	Zr/TiO2
Typical Karmutsen basalt	2.5-1.80	250	150-95	*50-60*
Typical dolorite sill	1.7-0.9	250-60	90-45	*50-54*
Chert/siltstone/shale	0.96-62	63-200	110-80	*120-130*
Granodiorite	0.55-0.59	495-350	95-255	*170-255*
Two mica granite	0.10-0.08	164-140	74-50	*400-740*

*drawn from various sources in literature

The Zr(ppm)/TiO2% ratio, consisting of elements considered to be immobile during alteration clearly separates the mafic rocks from more salic rocks. The higher ratio for 2 mica granite also is easily distinguishable. Clearly, 2 mica granite is not involved in the majority of the material sampled from the Heart area. The distinction between granodiorite/dacite and fine grained sediments is less clear, although the ratio is larger for the granodiorite. Au appears in both basic and felsic rocks.

The next table list the Na2O%, K2O%, and S of the rocks with whole rock analyses. In these felsic rocks, Na is diminished by alteration. K, on the other hand is typically enhanced (to form illite or sericite. S% indicates how much pyrite was added. The two values of sulphur are determined from the aqua regia aliquot and the “whole rock” aliquot.

Sample	Descriptor	Au ppb *FA*	Na2O %	K2O %	S% AR sol, WR
	HEART AREA				
1593101	Altered, abundant sulphides	***4721***	0.01	0.61	5.75/5.39
1593103	Altered, potassic, sulphides	***523***	0.07	2.95	2.56/2.44
1593109	Altered, potassic, abundant sulphides	***1924***	0.07	3.05	6.13/6.35
1593110	Altered, potassic, sulphides	***1623***	0.08	3.43	3.9 /3.66
1593153	Altered,abundant sulphides	***5667***	0.02	0.88	5.00/4.88
1593155	Altered, potassic, sulphides	*3815*	0.06	2.96	2.55
	HEART CHIP SAMPLE				
1593156	Altered, potassic	*2415*	0.07	3.59	0.15
1593158	Altered, potassic, minor sulphides	*4997*	0.08	4.13	1.2

Sample	Descriptor	Au ppb *FA*	Na2O %	K2O %	S% AR sol, WR
1593161	Altered, potassic	*663*	0.17	2.9	0.36
1593163	Altered, potassic, sulphides	*4026*	0.05	2.76	3.3
	RUBICON				
1593107	Not altered?	***13***	4.56	0.65	0.47/0.46
1593167	Not altered	*10*	1.27	0.2	<0.05
1593169	altered	*1516*	<0.01	0.02	0.13

Clearly, high Au content is associated with altered soda depleted rock, and mainly in rocks with added potash and sulphide.

Results from Petrography

Six thin-sections were examined, integrating new PIMA and whole rock analytical information provided within this report. They are described in Appendix B, their location shown in Figure 10, and selected photomicrographs of well defined fabrics are shown in Plates 1 and 2.

Sample	Descriptor	Au ppb *FA*
	HEART AREA	
1593103	Potassic Altered, granodiorite with illite chlorite tr carbonate and silica	***523***
1593153	Altered basic rock ,Hi-X illite, Fe Chlorite tr Kaolinite	***5667***
	HEART CHIP SAMPLES	
1593156	Potassic Altered granodiorite in breccia	*2415*
1593158	Altered Diabase fragment in breccia	*4997*
1593159	Altered chert fragment in breccia	*663*
1593163	(Potassic) Altered brecciated granodiorite with sulphides	*4096*

The thin sections have been chosen to give an appreciation of the various rock types encountered in the breccias.

A summary of rock types at the Heart and Rubicon showings includes:

Sediment and sill unit is the oldest (probably middle Triassic in age and consists of chert, siltstone, some of which is carbonaceous, as well as sandy acid tuffs. Chert is seen to be a very fine grained complex of intergrown polycrystalline quartz and other unresolved very fine grained clayey materials. (they have been described and figured previously in AR 30471).

Dolerite sills , probably related to the overlying Karmutsen basalts, shows typical but fine grained intersertal diabasic textures.

Karmutsen basalts of Karnian, (or lower Upper Triassic) age form the high ridges in claims and consist thousands metre thick accumulations of pillow basalts and massive flow centres/or diabase

sills.. Locally pyrite veining affects these rocks if they are near a pluton. Diabase is difficult to distinguish from coarser massive basalts.

Fine grained, locally microporphyritic, granodiorite near host rock at contact and/or dacite dyke intrusion/breccia is located in the Heart showing. The exact nature of the original rock is uncertain, because the microbreccia has been subsequently variably modified by later cataclasis. Fragments within this complex breccia are themselves breccias with sharp angular corners and probably were brecciated prior to the tectonic event.

A summary of the local alteration as determined here and in previous reports, is given below:

Regional metamorphism: Low grade regional metamorphism is seen in hosting mafic rocks.

Contact metamorphism has resulted in chert carrying cm thick beds or lenses of magnetite (skarn) and very fine grained to cryptocrystalline aggregates (felsic hornfels). Semimassive sulphides in layers replace matrix while preserving quartz grains inside cellular fabric. These sulphides are probably associated with skarn formation. Diabase are locally recrystallized to form hornfelsic diabases.

Hydrothermal alteration is best manifested in the quartz-sericite/illite-Fe-Chlorite-pyrite alteration which has affected the complex breccia at Heart Showing.

Cataclastic deformation is seen as affecting Heart and Rubicon area in a variable manner.

Plates 1 and 2 show various manifestations of rock types and deformation.

Veins of pyrite as well as illite-chlorite veins and local quartz veins are associated with hydrothermal event. Scarce veinlets with arsenopyrite accompany the much more abundant pyrite veinlets and disseminations. Some veins are deeply leached and now carry limonite. A few remnants of carbonate veinlets have been noted. In the surrounding region, anastomosing veins of zeolite and montmorillonite are common in fractured diabase areas (giving rise to the “lacy” unit). Later calcite veins are locally noted.

Weathering of sulphide materials is best shown at the Rubicon showing where partially to completely weathered sulphides now are seen as gouge, or semi-gouge consisting of “limonite and locally, gypsum/anhydrite. Examples of weathering mineralogy at Heart showing also include limonite, jarosite and gypsum/anhydrite as well as montmorillonite. Montmorillonite and kaolinite is found in some gouges and weathered feldspars.

Results from PIMA

PIMA spectral analyzes of 14 offcuts and grab samples resulting in 28 distinct spectral determinations gave weak to moderately good results. Results are shown in a report in Appendix C and locations of samples are shown in Figure 11.

Minerals found include: illite, chlorite, amphibole, kaolinite, jarosite, anhydrite/gypsum, probable carbonate and silica.

Illite is “normal” composition (See “2200 wave”). Crystallinity ranges from moderately to highly crystalline (“sericitic”).

Chlorite is Fe rich in composition (wavelengths above 2255 nm; see “2250 wave”)

One PIMA sample showed probable amphibole (sample 1593107) in a chloritized biotite-hornblende granodiorite. The absorption feature shape and wavelengths (2323/2395nm) are closer to hornblende (see “2300 wave”) than either tremolite/actinolite, but there is no strong indication of Fe present. There is also more water in the profile than expected. Chlorite may also be present in trace amounts.

PIMA results confirm the alteration to be (quartz) illite-iron chlorite-pyrite association. Secondary products include iron (hydroxy) oxides, and local anhydrite/gypsum and jarosite.

A possible time line (paragenesis) is shown below:

Timing	Structural event	Metamorphic events	Rock Units
	Faulting (reactivation of old steep NS faults	Zeolite and montmorillonite	
	Faulting generally northeast south west	Faulting with zeolite, montmorillonite and prehnite	cutting granodiorite plutons
		Mineralizing event(s) presumably late in intrusive history of plutons	Local faulting and low temperature hydrothermal event with sulphides emplaced
Middle Jurassic		Local hornfels, amphibolite, halleflinta and skarn formation	Hornblende Biotite Granodiorite (unnamed and Nimpkish batholith
	North south faulting	Chlorite, after biotite, illite and kaolin alteration of feldspars	
			Schoen Creek Stock (2 mica granite)
Unknown	Regional readjustment	Regional low grade metamorphism	
Karnian (Upper Triassic)			Karmutsen basalts
Middle Triassic			Sediment and sill unit

Summary

The recognition of complex intrusive/faulting relationships and the quartz-sericite/illite-Fe-chlorite-pyrite +/- carbonate alteration of a breccia of granodiorite /dacitic dyke contact with hosting cherts and diabase sills in the Heart Complex and the bounding magnetite and sulphide skarn deposit of Rubicon constitutes a valuable addition to knowledge database to help focus the ongoing exploration program at Flan. The association of gold with elevated bismuth and arsenic is encouraging.

Secondary Media

Till fragments from original FLAN showing Site and nearby silt/soil

Samples collected from the continuously weathering and slumping till road cut yielded mixed results. The three fragments below returned the best assays. The complete set of results is in Appendix A-2

ID	Rock type	utme	utmn	Au ppb or g/mt	Ag ppm	Cu%	Fe%	S %
1415776	Large Till fragment, rusty chloritic gossan with relic yellow sulphides with bounding gabbro ,	696572	5554966	**18.6 g/mt**	16.6	3032	16.05	3.39
1415777	Till fragment, rusty chloritic gossan with relic yellow sulphides with bounding gabbro ,	696572	5554966	**35.6 g/mt**	31.3	> 1%	21.88	9.4
1415778	Till fragment, rusty chloritic gossan with relic yellow sulphides with bounding gabbro ,	696572	5554966	3505	4.4	2163	15.66	1.77

The results show that as fragments are released from the enclosing basal till, the sulphides are weathered and oxidized, and the precious metals are dissolved and leave.

Result from silt /soil samples taken in same vicinity provide confirmation of previous sampling in the area. Complete data set is in Appendix A-2. The sample locations and Au values are shown on Figure 7.

Results from biogeochemistry: (hemlock twigs)

In an effort to establish the presence of a larger area of possible mineralization under the forest cover, western hemlock twigs were collected and analysed at ACTLabs in Ancaster. The results are given is assay tables in Appendix D.

Inspection of Figure 9 shows that a faint elevation of As content is noted all along the south facing slope of Jackpot creek in vicinity and down stream of the Heart Showing.. ***Further exploration, all along this valley face is recommended.***

Recommendations for future work

Mineral deposit Models

The exploration is at early stages and fixing on a single mineral deposit model is premature.

Previously, although there are a number of possibilities; a limited amount of information favoured the *INTRUSION RELATED Au PYRRHOTITE VEINS* selected from the BC Mineral Deposit Suite: category I02. The local presence of As, and Bi as locally abundant pathfinder trace elements may be an indication that this model is preferable.

Another possible model is a *PORPHYRY* related model (cf BCGS Mineral deposit model L04) The presence of Au and Cu, spatially associated with felsic intrusives and the location of Au mineralized brecciated termination of a dacitic/granodioritic dyke altered to quartz-sericite/illite-Fe-chlorite-pyrite seems a possible indication that a version of the porphyry model might be appropriate.

New work this year may favour the latter model. But finding that the Mt Adam showings are part of a brecciated dacite/finegrained granodiorite and adjacent contact rock could fit either model. The importance of Bi and As has been noted in determining Au tenor.

Magnetic and electromagnetic surveys

Previous work has established that the granodiorite is magnetic, the 2 mica granite is diamagnetic, the country rock is very weakly magnetic, the pyrrhotite veins are variably magnetic and shear zones are less magnetic than country rocks. Magnetite from areas contact skarns should be recognizable.

Massive sulphide will respond in an EM survey. These attributes would make an integrated airborne geophysical survey an ideal method to help focus attention to hidden accumulations of magnetic and conductive bodies hidden below the temperate rain forest cover..

Future Exploration:

Current mineralization is has largely been located near logging roads or in exposed locations on the mountain side. Arsenic anomalies in hemlock twigs suggest that the rocks under the forest cover along the south facing slopes of Jackpot Creek are very suggestive of having been altered as well.

A junior company is a good candidate to commission a regional, integrated airborne geophysical survey including magnetic as well as conductivity responses. Such an aerial survey would designate areas of interest based on measured physical parameters *rather than on ease of access in heavily wooded area*. After analysis of geophysical results, such a company could perform larger, more systematic geochemical and geophysical surveys on well established grids to explore the identified anomalous regions from such a survey. The gold bearing exposures outlined in report are almost ready to be probed by exploratory drilling.

Budget

No budget is provided as the project can be configured in many different ways depending on available resources and personnel.

Recommendation

This is a project of **merit** and continued exploration is recommended.

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Author's qualifications

I, Mikkel Schau

have been a rock hound, prospector and geologist for over 55 years. My mineral exploration experience has been with Shell, Texas Gulf Sulphur, Kennco, Geophoto, Cogema and several smaller public and private mining junior companies. I have worked 10 years in southern BC and spent 23 years with the GSC as a field officer focused on regional mapping in northeastern Arctic Canada before retiring. For the last 22 years I have consulted, mapped and prospected in Nunavut, Nunavik, Yukon, Ontario and BC.

reside at 3919 Woodhaven Terrace, Victoria, BC, V8N 1S7

was educated as a geologist, graduating with an honours B.Sc. In 1964, and a Ph.D. in Geology in 1969, both, from UBC.

My experience in geochemical exploration spans half a century. I was on a follow up crew for a province wide Kennco geochemical survey in the early sixties. Later I was a teaching assistant to Dr Delavault's Exploration Geochemistry course at UBC. Subsequently, I was the geochemist for a major exploration focused geochemical survey in NE BC. Since, I have lectured on the subject of Aqueous Geochemistry, a fourth year course at University of Manitoba. I currently use geochemical methods in my exploration work.

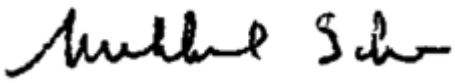
I am a P.Geo (APEGBC 25977) in BC.

I am a BC Free Miner, # 142134 in good standing.

All mineral rights to FLAN Claims totalling 3336.284 ha. are held by Mikkel Schau.

I am the author of the report entitled :Assessment Report for Flan-Consolidated Group (Tenures 507295*, 509012*, 513281, 543699, 553495*, 590156, 943829 and 1013900); Field work, petrology, lithochemistry, SWIR, and hemlock twig biogeochemistry focusing on south west facing slope of Mt Adam. at 50 deg 06 min 9 sec North and 126 deg 15 min 27 sec West in 092L/01, Nanaimo Mining Division

Signed



Mikkel Schau, P.Geo

Statement of costs

This statement does not include GST.

Field Component	
Schau, P.Geo. August 23-27, 2013, and Sept 30, 2014 @600.00, Field 6 days	4200.00
Contractor (Tebbutt, team leader (6 days), Till prospector and climber (6 days), and Gibson prospector and climber (8 days) and expenses 20 Field days total distributed over Aug 20-27, 2013	11040.00
Tebbutt, Field sampler Sept 30, 2014	250.00
Data collection, analysis and Report preparation	
Schau 7 days between September and Jan 2015. @500/day	3500.00
contract GiS and database maintenance	2500.00
Geochemical Assays	
31 analyses ICP-MS + 31 FA for Au, Pd, and Pt ACMELabs	986.91
13 Whole rock analyses ACMELabs	687.96
47 Hemlock Twig Analyses (ActLABS)	1358.30
12 rock (till samples) Acme labs and 1 soil Acme	461.73
Petrological studies	
6 Thin sections, by Vancouver Petrographics 13829/prorated (6 of 17)	183.88
6 petrographic Reports (150/report)	900.00
14 samples PIMA studies by K. Heberlein P.Geo. (Inv KH131025)	430.86
Freight	
Van Petrographic	15.23
ActLabs (via UPS to Ancaster)	127.25
Heberlein	11.97
Acme Labs (2 sets)	50.00
Supplies	
Miscellaneous office supplies (ink, paper)	96.00
TOTAL	**27,000.00**

Appendix A-sample descriptions, locations and selected assays

Appendix A-1 Table of locations, descriptions and selected assay values for in situ samples. Sample locations for *in situ* rocks are shown in Figure 4 and Au, Bi and As are shown in Figure 5. Na2O,, K2O, and S values are shown in Figure 6.

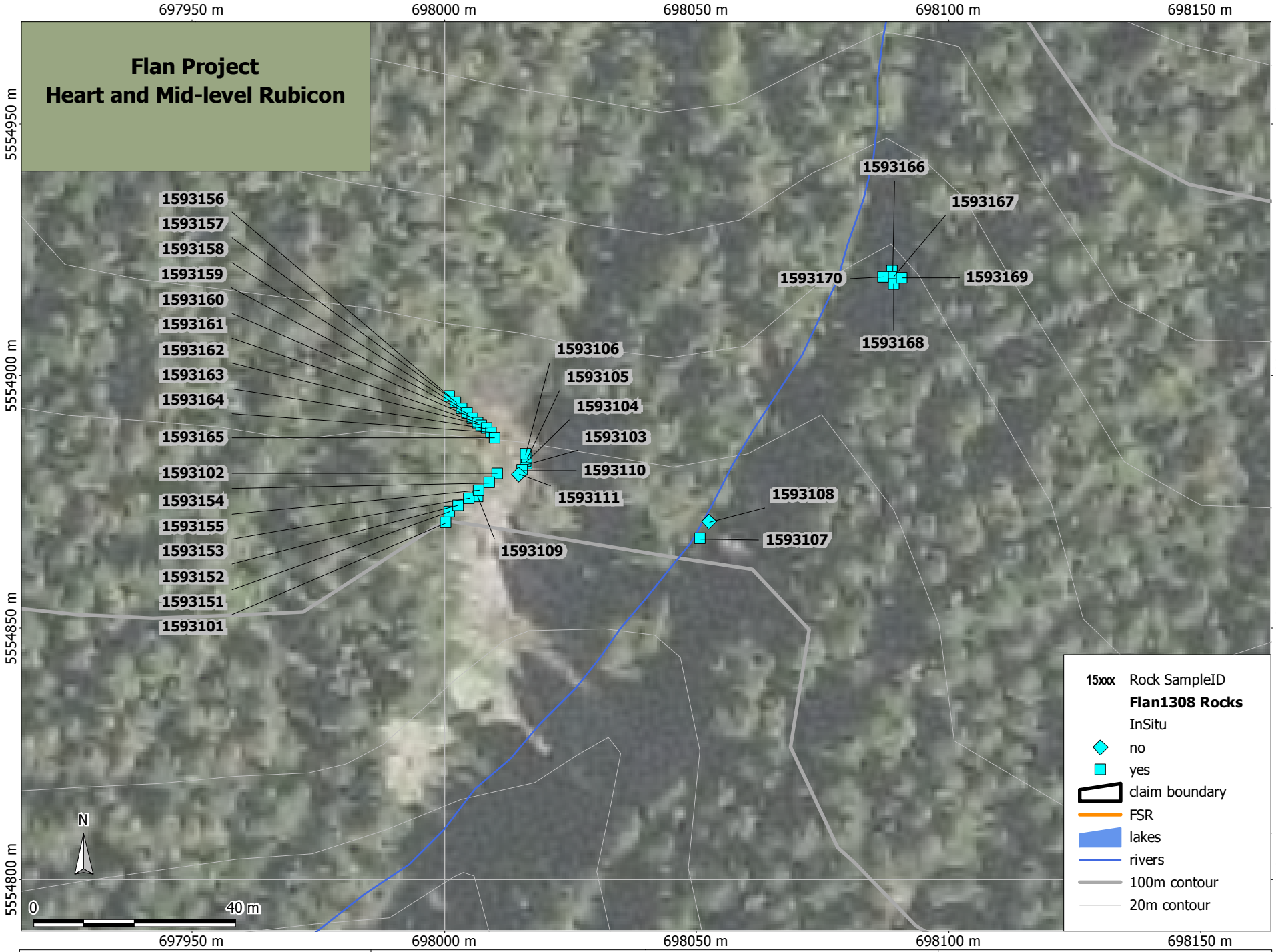
Appendix A-2 Tables of locations for secondary media (till fragments, talus, soil, silt) and hemlock twigs. Sample locations and gold values for secondary media are shown in Figure 7. Hemlock sample locations and arsenic values, a pathfinder element, are shown in Figures 8 and 9.

Appendix A-1

Table of *in situ* samples:

Sample	Descriptor	UTME NAD83	UTMN NAD83	Au ppb *Fire Assay,*
1593101	Altered dark mafic chloritic rock with Fe Chlorite, yellow sulphides, and local magnetite	698000	5554871	***4721***
1593102	Light coloured and crumbly rock just below the nose	698010	5554881	***145***
1593103	Grey broken rock with sulphides just below nose; (Potassic) Altered, granodiorite composed of illite chlorite and trace Carbonate and silica, sulphides	698016	5554882	***523***
1593104	Sample from contact of brown nose material and blocky grey lacy material	698016	5554883	*570*
1593105	Sample from contact of brown nose material and blocky grey lacy material, with visible pyrite	698016	5554884	***1027***
1593106	Grey broken rock with sulphides with local small black stained nodules	698016	5554884	***551***
1593109	(Potassic) Altered Granodiorite with Hi-X illite, Fe Chlorite tr Kaolinite with sulphide	698007	5554876	***1924***
1593110	Grey broken rock with sulphides with local black stained blocks; (Potassic) altered Granodiorite with Hi-X illite, Fe Chlorite tr Kaolinite trace sulphide	698016	5554881	***1623***
1593151	Grey clayey rocks with local Fe Chlorite	698001	5554873	***307***
1593152	Grey broken and clayey rocks with local Fe Chlorite	698003	5554874	***4008***
1593153	Altered,mafic rock, Hi-X illite, plagioclase, Fe Chlorite tr Kaolinite, ilmenite/magnetite, arsenopyrite and yellow sulphides	698005	5554876	***5667***
1593154	Altered mafic rock, Hi-X illite, carbonate, Fe Chlorite, after Hornblende or pyroxene magnetite/ilmenite, tr Kaolinite	698009	5554879	***1334***
1593155	Altered granodiorite with Hi-X illite, Fe Chlorite tr Kaolinite	698007	5554877	*3815*

Sample	Descriptor	UTME NAD83	UTMN NAD83	Au ppb *Fire Assay*,
HEART CHIP SAMPLES (each spanning 3 m.)				
1593156	Rusted, broken and crumbly Altered granodiorite with Clays, after mica and plagioclase, carbonate local Arsenopyrite?	698001	5554896	*2415*
1593157	Rusty less crumbly, limonite rich, no obvious pyrite.	698002	5554895	*182*
1593158	Reddish coloured, with small patches of white and yellow clays;(Potassic) Altered granodiorite with Silica, illite, kaolin, local pyrite and arsenopyrite, later alteration:jarosite (see thin section and plate 2-b	698003	5554893	*4997*
1593159	Rusty surface, but interior grey with visible pyrite;Rock very dark red and solid, with abundant Fe Chlorite see plate 2-c	698005	5554892	*2021*
1593160	Rusty surface, but interior grey with visible pyrite	698006	5554891	*2376*
1593161	Altered Granodiorite, composed of Hi-X illite, carbonate tr Kaolinite, Jarosite	698007	5554891	*663*
1593162	Rock is more weathered/crumbly, and carries less pyrite than above	698007	5554890	*2764*
1593163	Very broken rock, with yellow and white clays present((Potassic) Altered granodiorite, with dark chloritic rock, Hi-X illite, carbonate tr Kaolinite, minor yellow sulphide, later alteration :Jarosite	698008	5554889	*4026*
1593164	Weathered, clay rich very yellow, and local pyrite	698009	5554889	*1198*
1593165	Grades from Red clay to chalk white illite, Fe Chlorite tr Kaolinite	698010	5554888	*169*
RUBICON Area				
1593107	Barren Granodiorite, in base of gully, sides of gully are dark country rock of barren Granodiorite, Plagioclase, Amphibole and tr chlorite after biotite	698051	5554868	***13***
1593166	Sample near 16559 of last year, *above* the middle of rusty layer dipping northeasterly. It appears to be grey diabase	698089	5554921	*10*
1593167	This sample was taken to replicate 16559; Mafic rock with amphibole, magnetite and local carbonate, very little sulphide present here	698089	5554920	*10*
1593168	Mafic rock, similar to 1593166 taken below 1593167	698089	5554918	*12*
1593169	This sample is from same horizon as 1593167; Mafic rock with magnetite and local carbonate Somewhat more encouraging	698091	5554919	*1516*
1593170	This sample is from same horizon as 1593167; Mafic rock with magnetite and local carbonate Fe-Chlorite	698087	5554920	*287*



Projection/Datum: UTM 9(N) NAD83 0 scale: 1:1000 40 m	**THE FLAN PROJECT** **April 2015**	**Figure 4** **Location of Rock Samples**

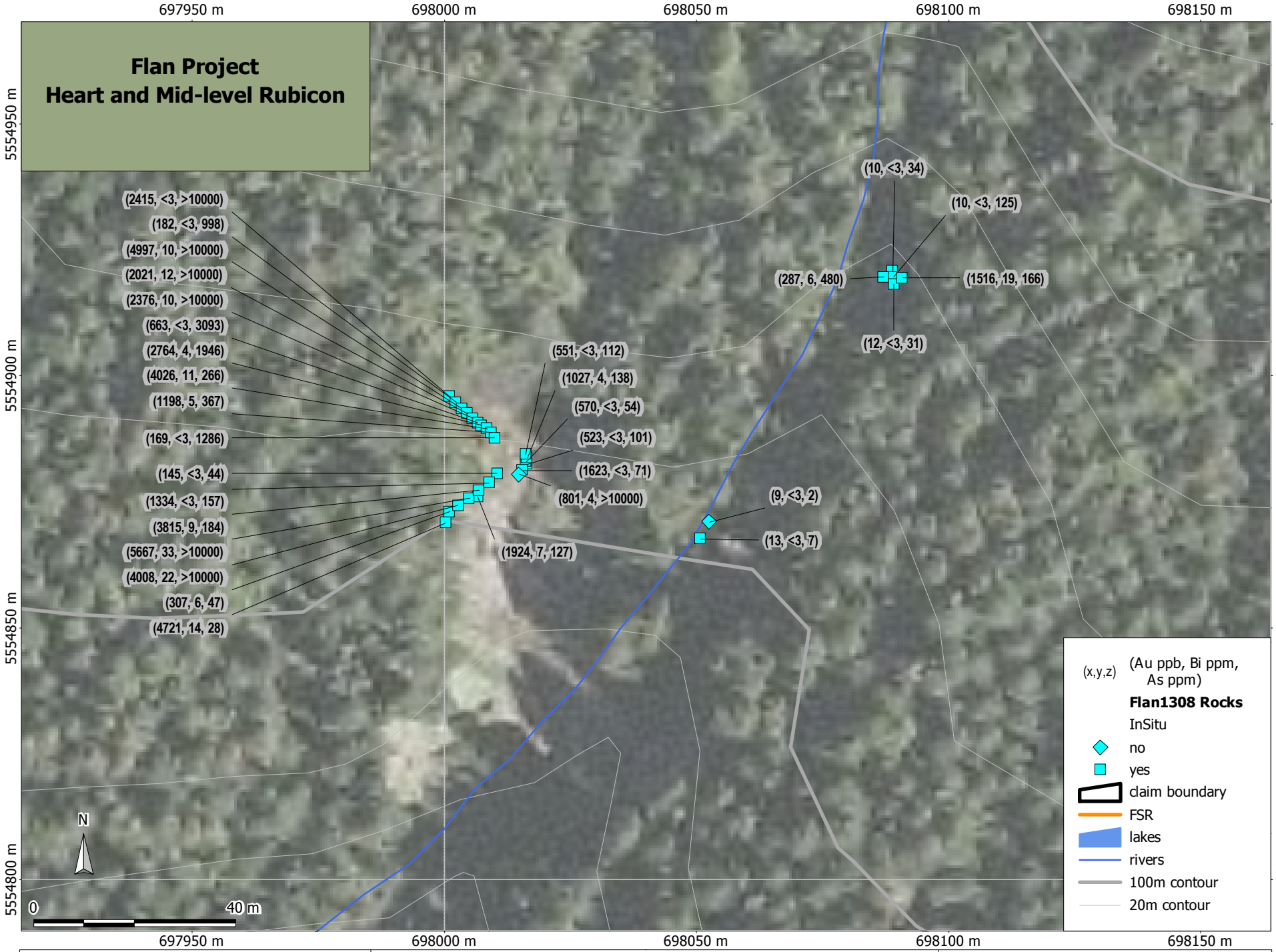


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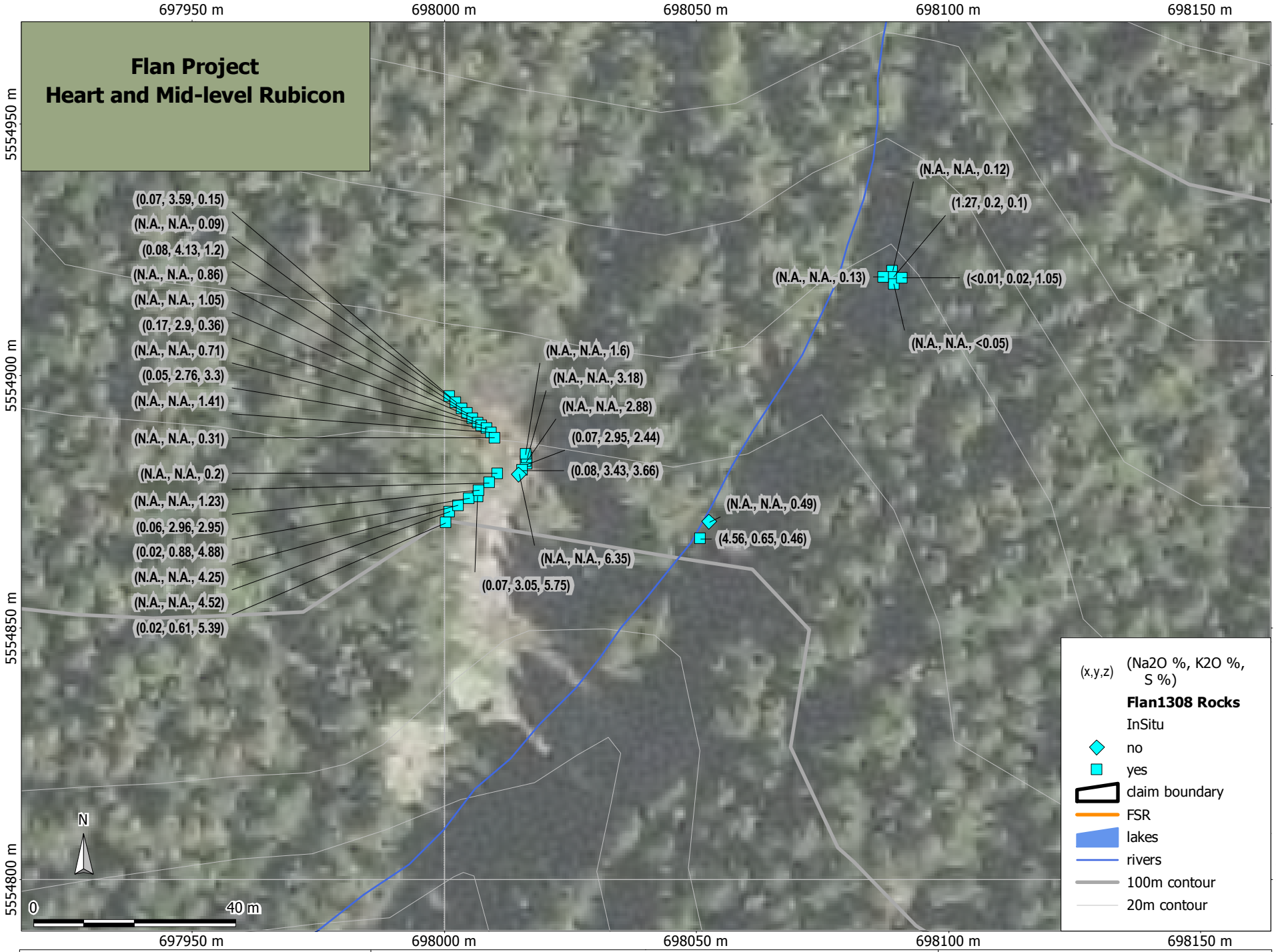
Figure 5
Au, Bi, As in Rock Samples



Projection/Datum: UTM 9(N) NAD83
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Figure 6
Na2O, K2O, S in Rock Samples

Appendix A-2

Table with till fragments and talus (secondary media)

ID	Rock type	UTME NAD83	UTMN NAD83	Au ppb or g/mt	Ag ppm	Cu%	Fe%	S %
1415770	Most probably in place, but possibly talus of muddy outcrop of 2 mica granite	696233	5554498	5	<0.3	156	3.38	<0.05
1415771	Fragment of rusty chloritic gossan from basal till	696572	5554966	136	1.8	843	16.13	2.42
1415772	Fragment of rusty chloritic gossan from basal till	696572	5554966	1147	3.3	1526	14.89	1.81
1415773	Fragment of rusty chloritic gossan from basal till	696572	5554966	76	2.9	985	16.88	1.17
1415774	Fragment of rusty chloritic gossan from basal till	696572	5554966	89	1.5	572	14.68	1.57
1415775	Fragment of rusty chloritic gossan from basal till	696572	5554966	166	2.4	1074	15.56	1.46
1415776	Large Till fragment, rusty chloritic gossan with relic yellow sulphides with bounding gabbro ,	696572	5554966	**18.6 g/mt**	16.6	3032	16.05	3.39
1415777	Till fragment, rusty chloritic gossan with relic yellow sulphides with bounding gabbro ,	696572	5554966	**35.6 g/mt**	31.3	> 1%	21.88	9.4
1415778	Till fragment, rusty chloritic gossan with relic yellow sulphides with bounding gabbro ,	696572	5554966	3505	4.4	2163	15.66	1.77
166689	Talus fragments dark gossan from basal till	696572	5554966	54	1.7	772	16.05	0.51
1593108	Rubicon granite fragment	698053	5554871	9	0.4	619	2.65	0.49
1593111	Talus of rusty and rubbly white granite from below nose	698015	5554880	801	1.1	253	13.83	6.35

Table with silt/soil samples (secondary media)

ID	Rock Type	utme	utmn	Au ppb	Ag ppm	Cu %	Fe%	S%
1415780	Silt from small stream bed uphill from new road, 15% org, good silt sample	696337	5554841	19	<0.3	111	3.49	<0.05
1415781	Soil from basal till site	696572	5554966	140	0.3	157	3.5	0.05
1415782	Silt sample from Jackpot Creek, 30 m upstream of new bridge, good dry silt sample	696410	5554960	11	<0.3	161	3.56	0.06

Table with locations of hemlock twig sample sites

ID	UTME NAD83	UTMN NAD83	Tree height (m)	Trunk diam (cm)	As ppm
FAH13-01	696637	5554894	4	7.5	0.42
FAH13-02	696673	5554915	4.5	8	0.13
FAH13-03	696690	5554925	4	6.5	0.09
FAH13-04	696717	5554931	5	10	0.06
FAH13-05	696740	5554942	3.5	9	0.05
FAH13-06	696754	5554993	4	11	0.08
FAH13-07	696809	5554952	5	12	0.06
FAH13-08	696224	5551551	4.5	11	0.03
FAH13-09	696210	5551522	4	10	0.05
FAH13-10	696133	5551332	3	7	0.05
FAH13-11	696133	5551332	5	8	0.03
FAH13-12	696076	5551430	5	11	0.04
FAH13-13	696632	5554869	5	11	0.05
FAH13-14	696653	5554866	4.5	11	0.05
FAH13-15	696674	5554843	6	11	0.03
FAH13-16	696672	5554813	4	7	0.05
FAH13-17	696686	5554785	2.5	6	0.05
FAH13-18	696649	5554795	3.5	9	0.02
FAH13-19	696611	5554888	6	13	0.03
FAH13-20	696612	5554864	5.5	11	0.06
FAH13-21	696604	5554908	6.5	13	0.03
FAH13-22	696586	5554926	5.5	12	0.05
FAH13-23	696584	5554922	6	13	0.04

ID	UTME NAD83	UTMN NAD83	Tree height (m)	Trunk diam (cm)	As ppm
FAH13-24	696633	5554921	5	11	0.05
FAH13-25	696616	5554938	6	11	< 0.01
FAH13-26	696620	5554950	6	15	0.03
FAH13-27	696659	5554949	6.5	15	0.03
FAH13-28	696651	5554963	6.5	13	< 0.01
FAH13-29	696639	5554980	6.5	15	0.04
FAH13-30	696623	5555000	5	11	0.03
FAH13-31	696612	5555033	5	11	0.04
FAH13-32	696602	5555054	5	11	0.07
FAH13-33	696613	5554967	4	11	< 0.01
FAH13-34	696565	5554866	55	11	< 0.01
FAH13-35	696558	5555037	6	11	0.02
FAH13-36	696545	5554957	6	15	< 0.01
FAH13-37	696726	5555031	3.5	9	< 0.01
FAH13-38	696710	5555044	3.5	10	< 0.01
FAH13-39	696836	5554949	3.5	11	< 0.01
FAH13-40	696822	5554937	4	13	< 0.01
FIH13-01	698107	5554525	3	10	0.17
FIH13-02	697756	5554596	4	15	0.13
FIH13-03	697656	5554575	5	16	0.09
FIH13-04	697464	5554673	6	20	0.2
FIH13-05	697291	5554673	5	14	0.15
FIH13-06	697104	5554714	3.5	10	0.15
FIH13-07	696970	5554840	2.75	9.5	0.14

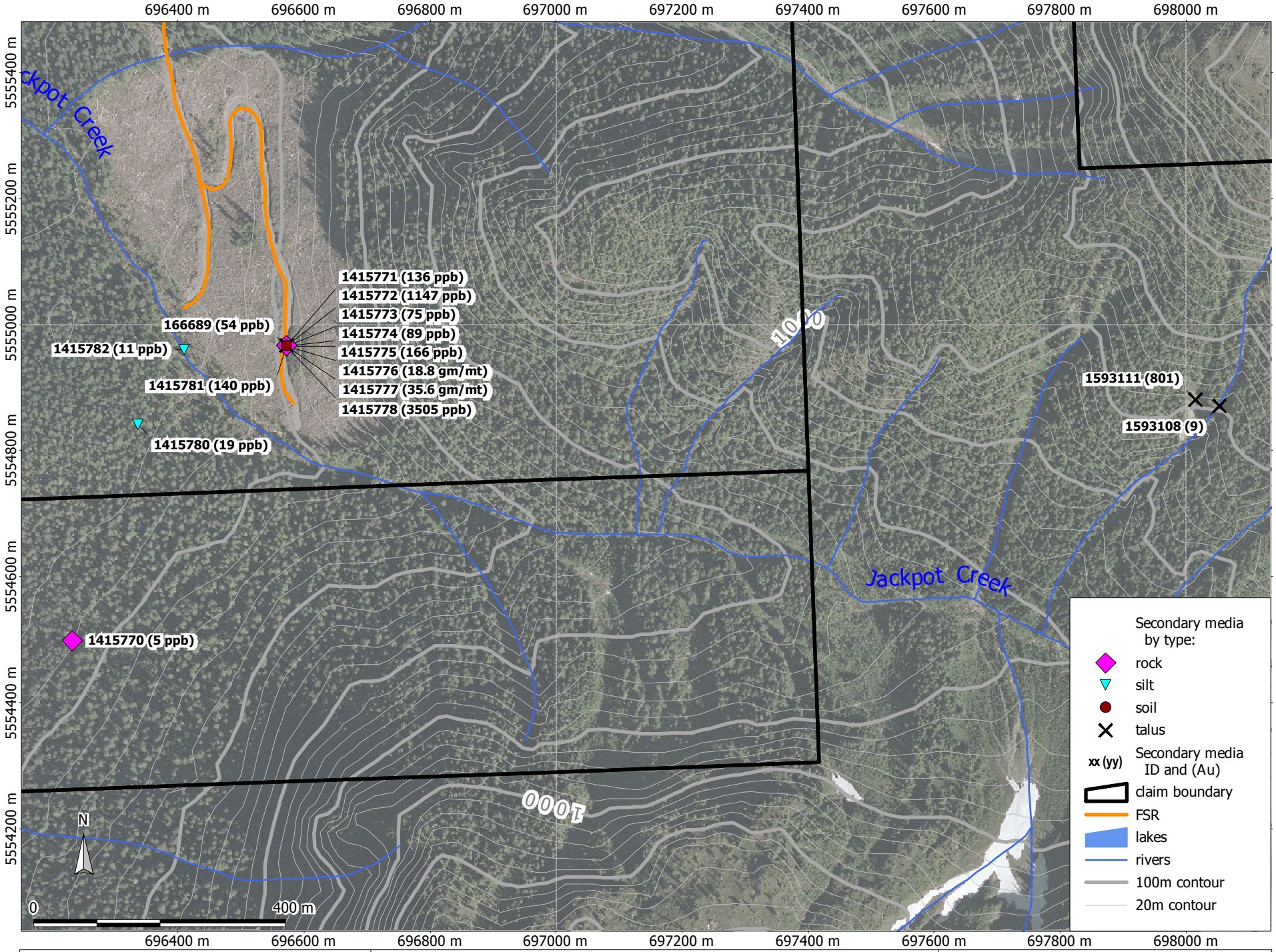

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Figure 7
Location & Gold for Secondary Media

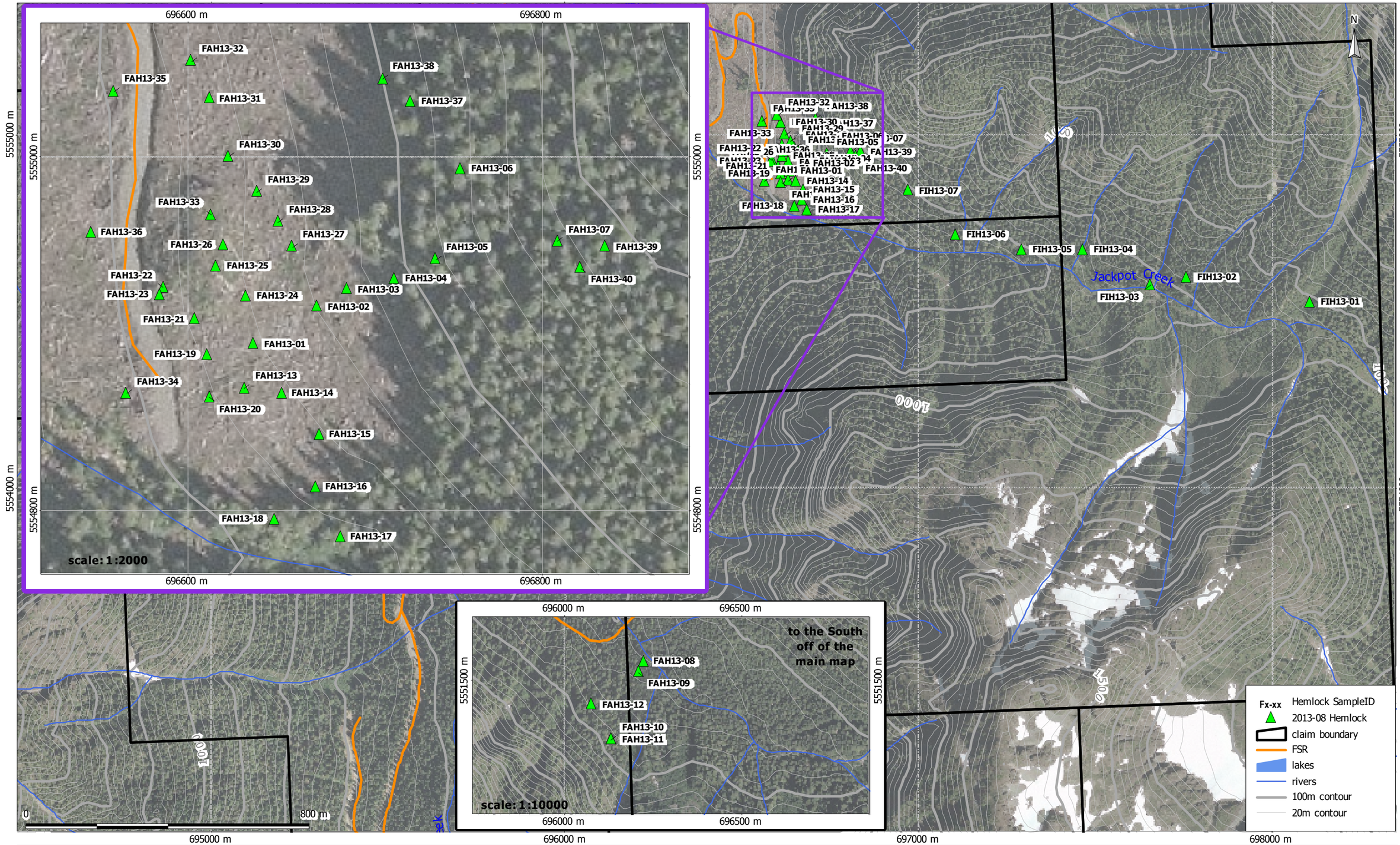

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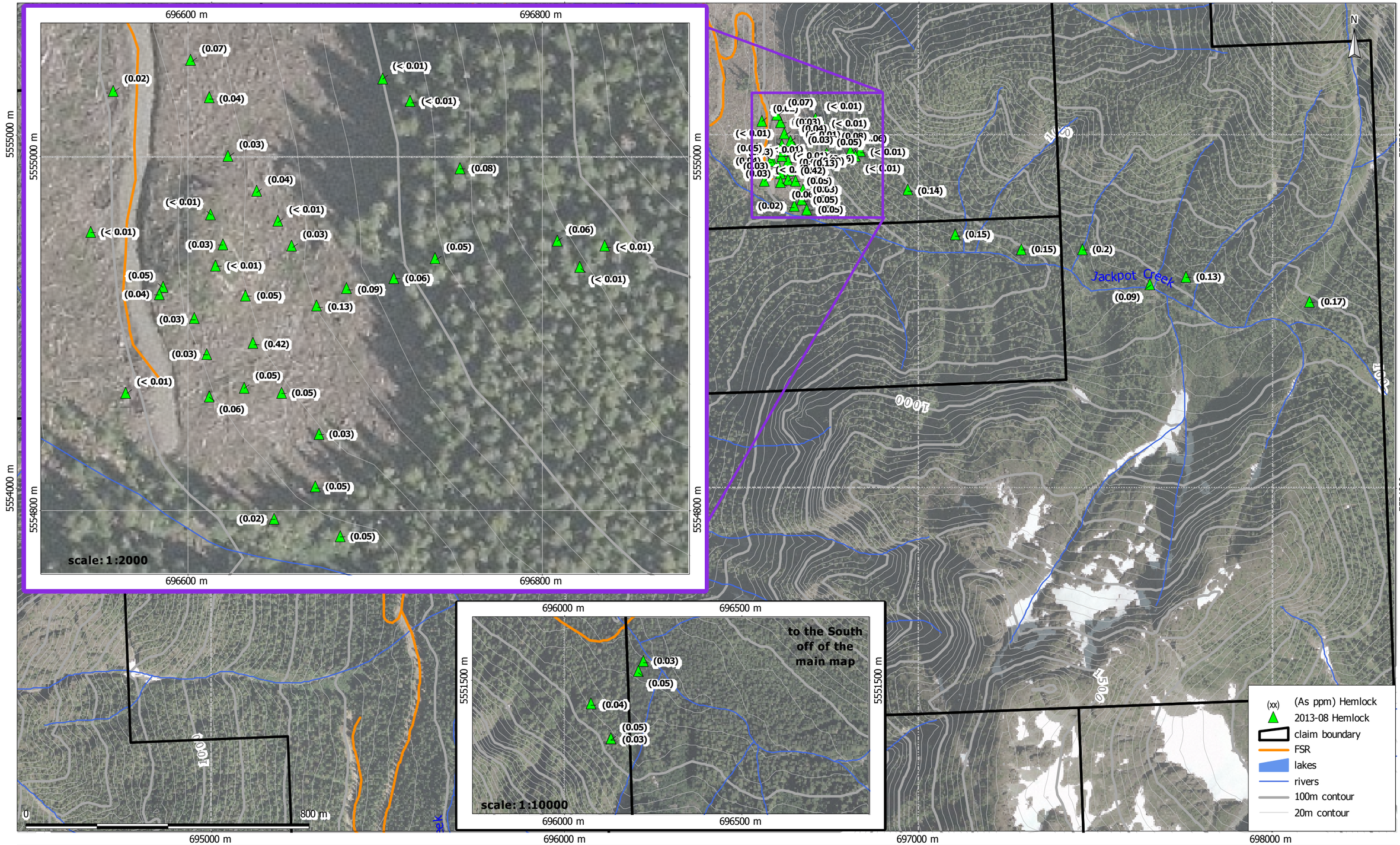
Figure 8

Location of Hemlock Twig Samples



Projection/Datum: UTM 9(N) NAD83
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Figure 9
Assays of As, a pathfinder element, in Hemlock Twig Samples

Appendix B: Petrology

Reports on six selected thin sections are given below. Locations are shown in Figure 10.

At the Heart showing, the brown stained block (called “The Nose”) (see PLATE 1 a) is largely composed of rock as shown in PLATE 1 b: a largely granodioritic microbreccia with scattered fragments of country rock such as diabase or chert. These various manifestations are shown in six photomicrographs on PLATES 1 c to 2 d.

Notes

These petrology samples have been exposed to surface weathering for many decades, hence it is expected that minerals unstable in the weathering environment will have become at least partially weathered. Examples so attacked (and dissolved) include iron carbonate, pyrite, feldspars, volcanic groundmasses. Limonite replaces a lot of these minerals. In particular, in some local more acid situations jarosite forms. Another result is that some kaolin, for example, may be hypogene, other might be supergene.

Mineralogical comments

Minerals with a * beside them have been confirmed by SWIR. See Appendix 4.

Quartz is generally crystalline whereas chalcedony contains water as seen by SWIR and/or is cryptocrystalline ,.

Carbonate is indicated by SWIR, by fizzing in HCl and/or by optical determination.

Kaolin is low relief, grey birefringent often exceedingly fine grained

Illite and smectite are slightly higher relief and show higher grey birefringences.

Sericite shows second order birefringence colours

“Limonite” is largely hematite if red, goethite if brownish and jarosite if yellowish. But mixtures are abundant. And the composition is hard to judge from colour alone.

The rocks contain about 2 times the amount of K20 that fresh granodiorite usually contains. A search for (secondary) potash feldspar was initiated, but no potash feldspar was located at all. There are some very small grains with lower? relief than quartz which might be potash feldpars but more sophisticated techniques would be needed to demonstrate that conclusively. In Hydrothermal regimes, the natural breakdown reaction is biotite going to chlorite and potash felspar, and so would be expected in rocks such as these. Additional potash feldspar might have been added as adularia to the breccia matrix, but is not currently recognized as such.

On the other hand, there is an abundance of limonite which is often intermingled with jarosite. The presence of jarosite has been confirmed by PIMA in several samples, and is possibly to e found more commonly in the more yellowish coloured limonite.

Sample Number 1593103 TS Number CA-02 Collector RT
NAD83, Zone 9 UTME: 698016 UTMN: 5554882

Field sample notes Part of lower west-east line starting with 1593102 and ending at base of nose at 1593106; from contact between brown nose and lacy material in waterfall, just above talus debris, grey and easily broken, local sulphides.

Handspecimen Notes The rock comes from a cataclastic fault zone with cm to decimeter sized slickensided fragments of country rock are loosely cemented by rust and in fresher places by pyrite veinlets.

The sample is a slickensided fragment composed of a locally cohesive mainly heterogeneous and poorly sorted (microbreccia) breccia with variable amounts of disseminated patches, veinlets and stringers of sulphides

Thin Section Notes

Lithologic observations Pervasively and strongly altered variably crushed granodiorite rich microbreccia.

Mineralogy

Primary

quartz 20% aggregates of primary quartz are variably preserved
plagioclase (40%)(pseudomorphed by clay and f.g quartz
mafic minerals (12%) altered to patches of chlorite
magnetite/ilmenite (3%) now present as small grains of titanium minerals, and magnetite largely part replaced by pyrite

Secondary

quartz 10% very fine grained masses associated with relic feldspar alteration
illite * 25% very fine grained masses associated with relic feldspar alteration
Fe-Chlorite* 15% in inchoate masses, replacing mafic silicates
pyrite 5% disseminated in patches and replacing mafic minerals ?

Weathering

Limonite, 15% widely distributed as staining and coating

Fabric (See plate 1-c) poorly sorted (microbreccia) breccia with variable amounts of disseminated patches, veinlets and stringers of sulphides

Veins 10% of pyrite and variable amounts of carbonate and silica, chlorite and clay selvages; also soft white veinlets

Sample Number 1593153 TS Number CA-07 Collector IG
NAD83, Zone 9 UTME: 698005 UTMN: 5554876

Field sample notes Part of upper west-east line starting with 102 and ending at base of nose at 106; from contact between brown nose and lacy material in waterfall, just above talus debris, grey and easily broken, local sulphides

Handspecimen Notes The rock comes from a cataclastic fault zone with cm to decimeter sized slickensided fragments of country rock are loosely cemented by rust and in fresher places by pyrite veinlets.

The sample is a slickensided fragment composed of a locally cohesive mainly heterogeneous and poorly sorted breccia (up to ½ cm across) with variable amounts of disseminated patches, veinlets and stringers of sulphides, It is magnetic, dense, grey, with softer darker patches and crackled with dark veins.

Thin Section Notes

Lithologic observations Pervasively altered variably crushed diabase? rich microbreccia, only a few quartzofeldspathic grains noted.

Mineralogy

Primary

plagioclase (55%)(pseudomorphed by clay and f.g quartz
mafic minerals (30%) altered to patches of chlorite
magnetite/ilmenite (5%) now present as small grains titanium minerals, and magnetite only partially replaced by pyrite

Secondary

quartz 10% very fine grained masses associated with relic feldspar alteration
HiX-illite * 50% very fine grained masses associated in part with relic feldspar laths (1 mm long)
Fe-Chlorite* 30% in inchoate masses, replacing mafic silicates
pyrite 10% cubes, and finer grained disseminated in matrix and patches

Weathering

Limonite, 5% as stain and coating
kaolin* result of weathering of silicated by pyrite solutions
silica*result of weathering of silicated by pyrite solutions

Fabric (See PLATE 1-d) poorly sorted mafic breccia fragment with variable amounts of disseminated patches, veinlets and stringers of sulphides

Veins 10% of pyrite, minor chalcopyrite and scattered prisms of arsenopyrite with local chlorite and clay selvages; minor white soft veins.

Sample Number 1593156 TS Number CA-10 Collector IG
NAD83, Zone 9 UTME: 698001 UTMN: 5554896

Field sample notes Beginning, at top, of vertical chip line, Outcrop along the spine of the nose.

Handspecimen Notes The rock comes from a cataclastic fault zone with cm to decimeter sized slickensided fragments of country rock are loosely cemented by rust and little visible pyrite noted

The sample is a slickensided fragment composed of a locally cohesive mainly heterogeneous and poorly sorted (microbreccia) breccia with variable amounts of disseminated patches, veinlets and stringers of sulphides,

Thin Section Notes

Lithologic observations Strongly and pervasively altered variably crushed granitoid rich microbreccia, fragments of quartzofeldspathic grains up to ½ cm and individual quartz grains to 1 mm set in mach finer dark matrix.

Mineralogy

Primary

quartz 20% aggregates of primary quartz are variably preserved in mm sized clasts of quartzofeldspathic fragments
plagioclase (40%)(pseudomorphed by clay and f.g quartz
mafic minerals (10%) altered to patches of chlorite
magnetite/ilmenite (5%) now present as small grains of titanium minerals, and magnetite in part replaced by pyrite

Secondary

quartz 10% very fine grained masses associated with relic feldspar alteration
illite * 30% very fine grained masses associated with relic feldspar alteration intergrown with chlorite in the matrix
Fe-Chlorite* 10% rimming fragments, in platy masses (replacing biotite) and as inchoate masses, and disseminations in matrix and sparingly in altered feldspar masses.
pyrite trace % and altered to limonite in disseminated patches and replacing mafic minerals ?
Carbonate in fresher parts as microveins and disseminations

Weathering

Limonite, 20% , deeply leached
Kaolinite part of leach products results

Fabric (See plate 2-a) poorly sorted (microbreccia) breccia with variable amounts of disseminated patches, veinlets and stringers of limonite altered sulphides

Veins 10% of many episodes of veining limonite-pyrite (trace arsopyrite prisms)and variable amounts of carbonate and silica, also thin local chlorite veins

Sample Number 1593158 TS Number CA-11 Collector IG
NAD83, Zone 9 UTME: 698003 UTMN: 5554893

Field sample notes Part of the vertical chip sample. This specimen is from the third section of the chip sample going down the cliff.

Handspecimen Notes The rock comes from a cataclastic fault zone with cm to decimeter sized slickensided fragments of country rock loosely cemented by rust and in fresher places by pyrite veinlets. (See PLATE 1-b)

The sample is a slickensided fragment composed of a locally cohesive mainly heterogeneous and poorly sorted breccia with cm sized with variable amounts of disseminated patches, veinlets and stringers of sulphides, The rock is mainly white and yellow stained locally hard (quartzose) rock with locally dark and magnetic fragments. Thin section is from a dark fragment.

Thin Section Notes

Lithologic observations Variably crushed but pervasively altered texturally coherent diabase fragment in microbreccia

Mineralogy

Primary

plagioclase (55%)(pseudomorphed by clay and f.g quartz, shows interlocking lath texture
mafic minerals (25%) in interstices, altered to patches of chlorite
magnetite/ilmenite (5%) now present as small grains titanium minerals, and magnetite only partially replaced by pyrite

Secondary

quartz 15% very fine grained masses associated with relic feldspar alteration and in breccia matrix
HiX-illite * 40% very fine grained masses associated in part with relic feldspar laths (1 mm long) and in matrix
Fe-Chlorite* 30% in inchoate masses, and disseminated through matrix
pyrite 5% cubes, and finer disseminations in patches

Weathering

Jarosite* and Limonite, 5 % as stains and coating
kaolin* result of weathering of silicate by pyrite solutions
silica*result of weathering of silicates by pyrite solutions

Fabric (See plate 2-b) poorly sorted mafic breccia with variable amounts of disseminated patches, veinlets and stringers of sulphides

Veins 5% of pyrite and variable amounts of carbonate and silica, chlorite and clay selvages;

Notes

This rock comes from chip sampled 3 m section and the analytical result shows that the bulk sample rock is quite potassic. The handspecimen shown in PLATE 1-b shows a granitoid brecciated rock with much pyrite veining and local patches of dark. This thin section (CA-11) comes from a darker portion of the figured handspecimen rock. PLATE 2-b shows the diabasic nature of the thin section. The contrast between bulk chemistry and thin section is striking, but less so if the larger figured handspecimen is considered. It is also interesting that PIMA results from a third small witness sample returned Jarosite , a potassic iron sulfate weathering mineral

Sample Number 1593159 TS Number CA-12 Collector IG
NAD83, Zone 9 UTME: 698005 UTMN: 5554892

Field sample notes Sample comes from the fourth sample section of the chip line down the cliff.

Handspecimen Notes The rock comes from a cataclastic fault zone with cm to decimeter sized slickensided fragments of country rock are loosely cemented by rust and in fresher places by pyrite veinlets.

The surface of this small sample is very red in colour (and hosts a thin crust of lichen) yet is pale green on fresh surfaces , it is mildly magnetic, and is vaguely layered.

Thin Section Notes

Lithologic observations Strongly and pervasively altered variably crushed chert-siltstone and matrix of microbreccia The matrix is much softer than the elongate fragments/ruptured bedngs plates.

Mineralogy

Primary

quartz 40% aggregates of very fine grained primary quartz in moderately different sizes in cm thick bedding
plagioclase (5%)(pseudomorphed by clay and f.g quartz
mafic minerals (5%) altered to patches of chlorite
magnetite/ilmenite (5%) now present as small grains of titanium minerals, and magnetite in part replaced by pyrite

Secondary

quartz 5% very fine grained masses associated with relic feldspar alteration
clay 5% very fine grained masses associated with relic feldspar alteration
Fe-Chlorite* 25 % in disseminations
pyrite 2% disseminated in patches and replacing mafic minerals ?

Weathering

Limonite, 18% stains and coats deeply leached veins.

Fabric (See plate 2-c) poorly sorted (microbreccia) breccia with mainly chert fragment and variable amounts of disseminated patches, veinlets and stringers of sulphides. Limonitic rich section shows development of stylolites, indicating loss of volume, during the alteration.

Veins 5% of pyrite and local arsenopyrite grains and variable amounts of carbonate and silica, chlorite and clay selvages;

Sample Number 1593163 TS Number CA-14 Collector IG
NAD83, Zone 9 UTME: 698008 UTMN: 5554889

Field sample notes: Sample comes from the fourth sample section of the chip line down the cliff.

Handspecimen Notes The rock comes from a cataclastic fault zone with cm to decimeter sized slickensided fragments of country rock are loosely cemented by rust and in fresher places by pyrite veinlets.

The sample is a slickensided fragment white, yellow stained hard rock cut by veins, and composed of a locally cohesive mainly heterogeneous and poorly sorted (microbreccia) breccia with variable amounts of disseminated patches, veinlets and stringers of limonite and sulphides

Thin Section Notes

Lithologic observations Pervasively altered variably crushed granodiorite rich microbreccia, with sulphide veins in fragments, cut by later sulphide veins. Quartzofeldspathic fragments up to to1/2 cm in size set in very fine grained matrix.

Mineralogy

Primary

quartz 30% with primary igneous as wwell as fragments aggregates
plagioclase (40%) (pseudomorphed by clay and f.g quartz
mafic minerals (12%) altered to patches of chlorite
magnetite/ilmenite (3%) now present as small grains of titanium minerals, and magnetite largely replaced by pyrite

Secondary

quartz 10% very fine grained masses associated with relic feldspar alteration
illite * 30% very fine grained masses associated with relic feldspar alteration
Fe-Chlorite* 25% in inchoate masses, replacing mafic silicates
pyrite 5% disseminated in patches and replacing mafic minerals ?

Weathering

Limonite, 8% replacing pyrite and staining rock

Fabric (See plate 2-d) poorly sorted (microbreccia) breccia with variable amounts of disseminated patches, veinlets and stringers of sulphides. Of particular interest in this sample is the evidence of several sets of sulphide veining.

Veins 10% of pyrite and minor chalcopyrite along with variable amounts of carbonate and silica, chlorite and clay selvages;

Projection/Datum: UTM 9(N) NAD83
0 scale: 1:1000 40 m

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Figure 10
Location of Thin Sections

PLATE 1

Plate 1 a: Outcrop of Heart Showing illustrating the brown nose shaped alteration surface

Plate 1 b: Handspecimen 1593158, showing nature of brecciation (sample is 16 cm long)

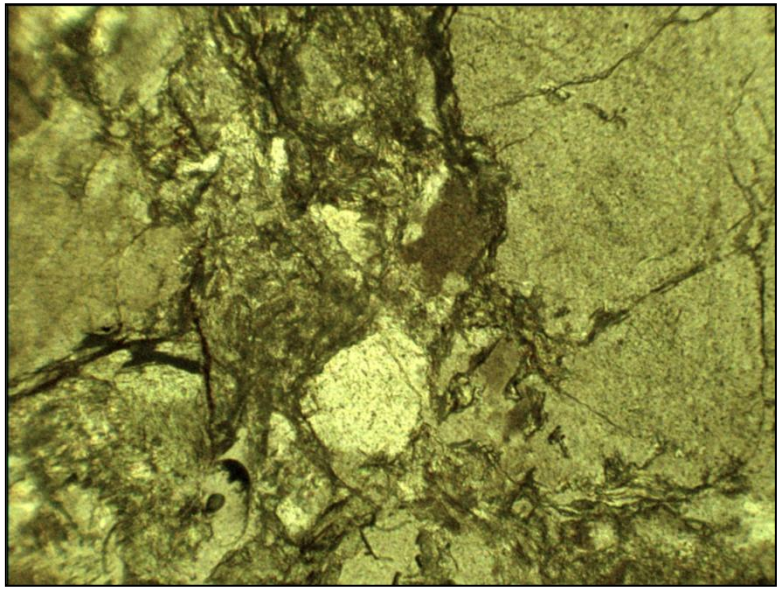

Plate 1 c: Thinsection 1593103, granodioritic breccia (FOV 1 mm, Plane polarized light)

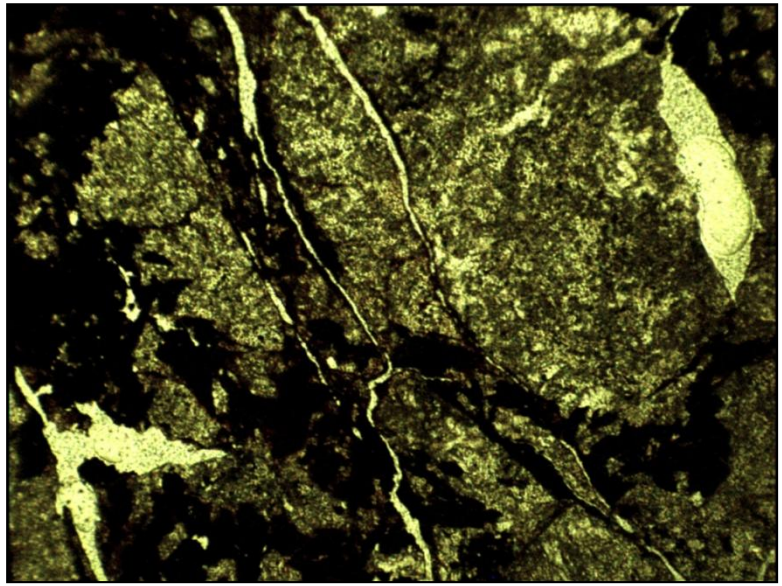

Plate 1 d: Thinsection 1593153, diabasic rich breccia (FOV 4 mm, Plane polarized light)

PLATE 2

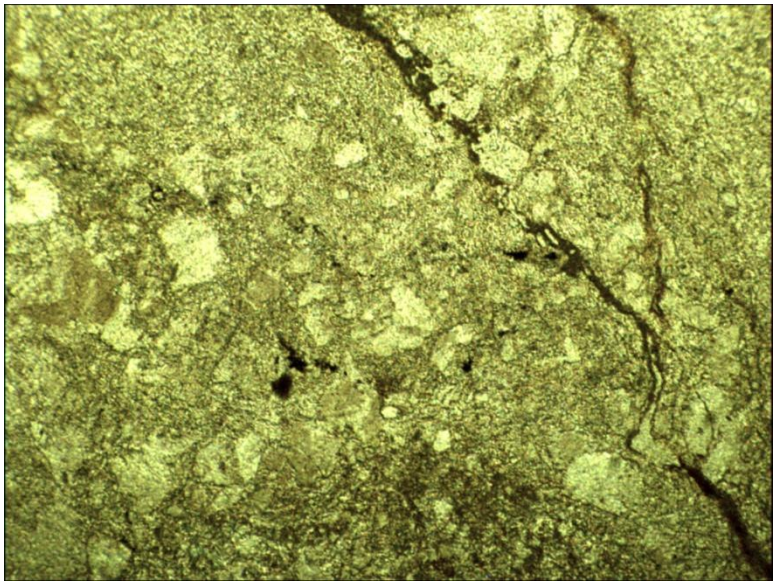

Plate 2 a: Thinsection 1593156, microbreccia of felsic fragments (FOV 4 mm, Plane polarized light)

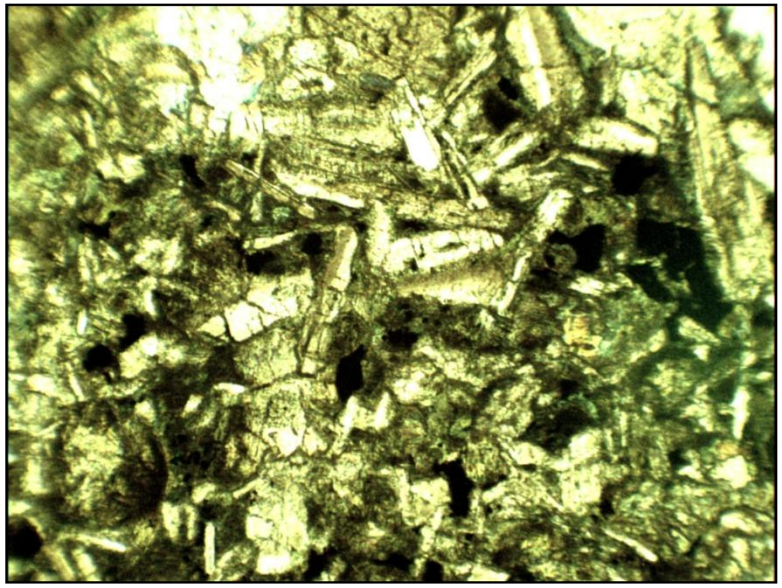

Plate 2 b: Thinsection 1593158, diabase fragment in microbreccia (FOV 1 mm, Plane polarized light)

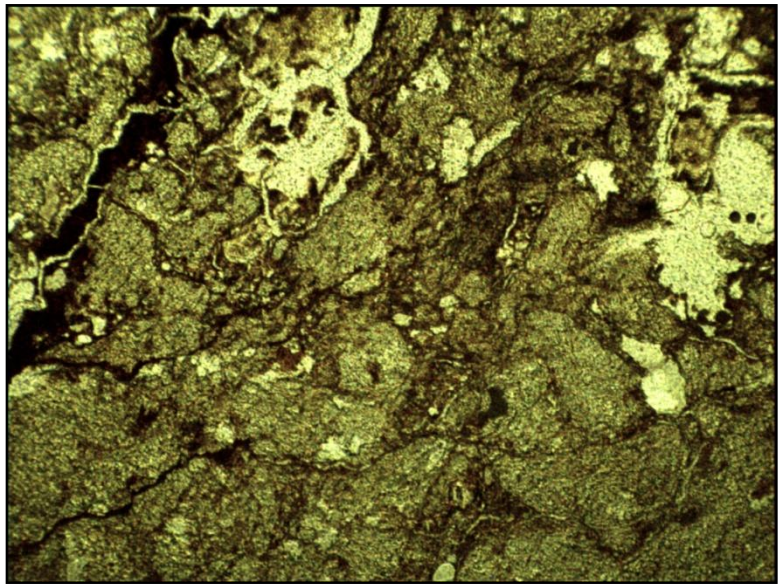

Plate 2 c: Thinsection 1593159, cherty fragments in breccia (FOV 4 mm, Plane polarized light)

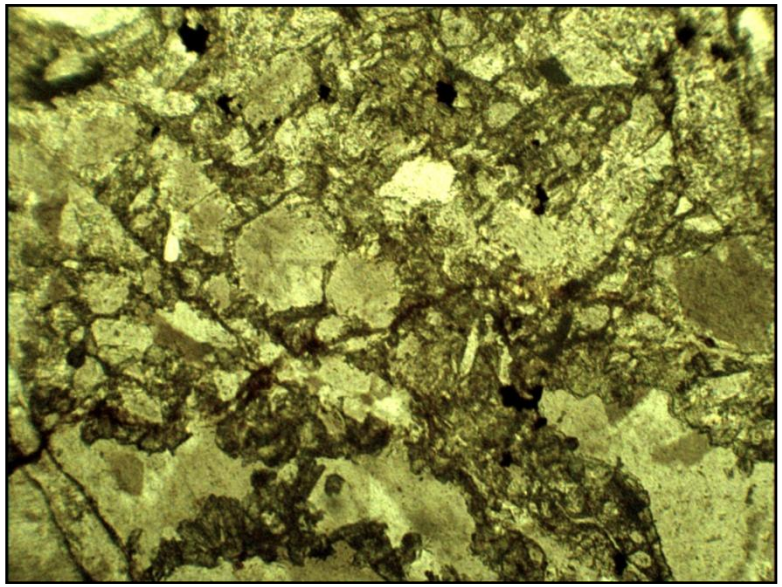

Plate 2 d: Thinsection 1593163, granodioritic breccia (FOV 1 mm, Plane polarized light)

Appendix C PIMA results (SWIR data)

Results of mineralogical studies using infrared technology (PIMA) to study hydrous alteration minerals.

Results provided by Kim Heberlein, P.Geo are presented below and locations are shown on Figure 11

Kim Heberlein
21146 Stonehouse Avenue
Maple Ridge, B.C.
Canada
V2X 8L9
Tel: 778-228-5231
604-466-2087

23rd October 2013

Mikkel Schau
3919 Woodhaven Terrace
Victoria, BC
V8N 1S7 Canada

Attn: Mikkel Schau
Re: PIMA spectral analysis (KH208)

PIMA spectral analyses of 14 rock samples gave weak to moderately good results. The results are shown on the attached excel spreadsheet. The raw spectra are attached as .fos files. The spectra are also shown as a stacked plot below. Many of the spectra are quite noisy, likely due to the presence of disseminated sulphides or to abundant limonite. Minerals identified are listed in order of spectral importance.

Minerals found include: illite, chlorite, amphibole, kaolinite, jarosite, gypsum, probable carbonate and silica. Illite-chlorite is the dominant mineralogy throughout.

PIMA SPECTRAL ANALYSIS
(KH208)

SAMPLE ID	SPECTRUM	2200 WAVE	2250 WAVE	2300 WAVE	Hi-Xln ILL	ILL	KAO	CHL	CAR	AMP	JAR	GYP	SIL	COMMENTS	Manual ID_1	Manual ID-2	Manual ID_3
1593101	1593101a		2260	2353				X						Dk grey mod soft gm	Fe Chlorite		
	1593101b		2260	2355				X	?					White speck/qv?	Fe Chlorite		
1593103	1593103a	2205	2260	2355		X		x						Lt greybrown mod soft gm	Illite	Fe Chlorite	
	1593103b	2213	2261	2354		tr		x	x?				X?	Whitish area/stringer?	Silica?	Fe Chlorite	Tr Illite
1593107	1593107a		2251	2323/2396				tr		X				Greybrown strong FeOx. Possible hornblende?	Amphibole		Tr Chlorite
	1593107b		2255	2327/2394				tr		X				Greybrown strong FeOx. Possible hornblende?	Amphibole		Tr Chlorite
1593109	1593109a	2208	2260	2355	X		tr	x						Grey mod soft, offwhite dusting	Illite_HiX	Fe Chlorite	Tr Kaolinite
	1593109b	2207	2260	2352	X		tr	tr						Dk grey mod soft	Illite_HiX	Tr Chlorite	Tr Kaolinite
1593110	1593110a	2207	2260	2352	X		tr	tr						Greybrown mod soft	Illite_HiX	Tr Chlorite	Tr Kaolinite
	1593110b	2207	2264	2347	X		tr	tr						Greybrown mod soft	Illite_HiX	Tr Chlorite	Tr Kaolinite
1593151	1593151a		2263	2353				X						Dk grey/brown soft, strongly FeOx	Fe Chlorite		
	1593151b		2264	2361				X						Brown area	Fe Chlorite		
1593153	1593153a	2204	2266	2361	X		tr	x					x?	Lt/dk grey brown soft. Noisy spectra	Illite_HiX	Fe Chlorite	Tr Kaolinite
	1593153b		2261	2355				X						Darker grey brown soft. Noisy spectra	Fe Chlorite		
1593154	1593154a	2205	2260	2350		X	tr	x						Grey/white mod hard	Illite	Fe Chlorite	Tr Kaolinite
	1593154b	2207	2257	2354	X			tr						Grey/white mod hard	Illite_HiX		Tr Chlorite
1593155	1593155a	2207	2258	2357		X		x						Offwhite/grey/brown mottled hard	Illite_HiX	Fe Chlorite	
	1593155b	2207	2266	2349		X	tr	tr				tr		Offwhite/grey/brown mottled hard	Illite_HiX	Tr Chlorite	Tr Kaolinite
1593158	1593158a	2207	2266	2352		x					tr		X	Browngrey qzy, hard, strong FeOx	Silica?	Illite	Tr Jarosite
	1593158b	2206	2267	2355		x	tr		?		tr		X	Browngrey qzy, hard, strong FeOx	Silica?	Illite	Tr Kaolinite
1593159	1593159a		2260	2347				X						Lt greengrey v. soft, leached, limonitic fill	Fe Chlorite		
	1593159b		2257	2348				X						Lt greengrey v. soft, leached, limonitic fill	Fe Chlorite		
1593161	1593161a	2207	2256	2346	X			?			?		x?	Offwhite/grey/brown mottled hard	Illite_HiX		
	1593161b	2207		2353		X	tr						x?	Offwhite/grey/brown mottled hard	Illite_HiX		Tr Kaolinite
1593165	1593165a	2206	2266	2351		x	tr	?			?		X?	Grey/brown strong FeOx throughout. Strong water features related to limonite?	Illite		Tr Kaolinite
	1593165b	2207	2261	2355		x		x					X?	Grey/brown strong FeOx throughout. Strong water features related to limonite?	Illite	Chlorite	Tr Kaolinite
1593170	1593170a		2261	2352				X					x?	Greengrey soft/strong FeOx throughout. Strong water features	Fe Chlorite		
	1593170b		2261	2350				X					x?	Greengrey soft/strong FeOx throughout. Strong water features	Fe Chlorite		

X = Major component; x = minor; tr = trace; x? = probably present

Projection/Datum: UTM 9(N) NAD83
0 scale: 1:1000 40 m

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April 2015

Figure 11
Location of PIMA analyses

Appendix D-1: Assay certificates

Rock

VAN13003504.2 includes both aqua regia extractions and whole rock analyses

VAN14003664.1 includes both aqua regia extractions

VAN14003664A.1 includes aqua regia extractions analyses

Hemlock twigs (ActLabs)

A13-10704

Acme Analytical Laboratories (Vancouver) Ltd.
9050 Shaughnessy St Vancouver BC V6P 6E5 CANADA
PHONE (604) 253-3158

www.acmelab.com

Client: **Schau, Mikkel**
3919 Woodhaven Terrace
Victoria BC V8N 1S7 Canada

Submitted By: Mikkel Schau
Receiving Lab: Canada-Vancouver
Received: September 06, 2013
Report Date: October 21, 2013
Page: 1 of 3

CERTIFICATE OF ANALYSIS VAN13003504.2

CLIENT JOB INFORMATION

Project: FLAN
Shipment ID: Flan Rock A&B
P.O. Number
Number of Samples: 31

SAMPLE DISPOSAL

STOR-PLP Store After 90 days Invoice for Storage
STOR-RJT Store After 90 days Invoice for Storage

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

SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Procedure Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
R200-250	31	Crush, split and pulverize 250 g rock to 200 mesh			VAN
GEO4	31	FA fusion Au Pt Pd; 1:1:1 AR digestion ICP-ES analysis	30	Completed	VAN
4AB1	13	Whole Rock Analysis Majors and Trace Elements	0.2	Completed	VAN

ADDITIONAL COMMENTS

Version 2 : 4AB1 included.

Invoice To: Schau, Mikkel
3919 Woodhaven Terrace
Victoria BC V8N 1S7
Canada

CC: Alec Tebbutt

BRITISH COLUMBIA CERTIFIED ASSAYER
RAYMOND CHAN
CHIEF ASSAYER

Acme Analytical Laboratories (Vancouver) Ltd.
9050 Shaughnessy St Vancouver BC V6P 6E5 CANADA
PHONE (604) 253-3158

www.acmelab.com

Client: **Schau, Mikkel**
3919 Woodhaven Terrace
Victoria BC V8N 1S7 Canada

Project: FLAN
Report Date: October 21, 2013

CERTIFICATE OF ANALYSIS VAN13003504.2

	Method	WGHT	3B	3B	3B	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D
	Analyte	Wgt	Au	Pt	Pd	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi
	Unit	kg	ppb	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
	MDL	0.01	2	3	2	1	1	3	1	0.3	1	1	2	0.01	2	2	2	1	0.5	3	3
1593101	Rock	0.97	4721	5	15	<1	1411	6	123	4.5	93	39	1482	16.60	28	6	<2	3	1.5	<3	14
1593102	Rock	0.63	145	<3	<2	<1	417	<3	25	0.6	<1	2	674	2.78	44	<2	4	15	0.5	<3	<3
1593103	Rock	0.65	523	<3	<2	<1	331	<3	19	0.5	<1	2	366	6.42	101	<2	6	5	<0.5	<3	<3
1593104	Rock	0.51	570	<3	<2	<1	324	<3	16	0.4	<1	<1	300	6.01	54	<2	6	2	<0.5	<3	<3
1593105	Rock	1.00	1027	<3	<2	<1	402	<3	21	0.7	<1	2	359	6.94	138	<2	5	4	<0.5	<3	4
1593106	Rock	0.98	551	<3	<2	<1	455	<3	24	0.6	<1	<1	397	6.19	112	<2	5	22	<0.5	<3	<3
1593107	Rock	1.25	13	<3	<2	<1	312	<3	22	0.5	<1	9	184	2.83	7	<2	3	71	<0.5	<3	<3
1593108	Rock	0.94	9	<3	<2	<1	253	<3	21	0.4	<1	6	190	2.65	2	<2	2	36	<0.5	<3	<3
1593109	Rock	1.04	1924	<3	<2	<1	916	<3	28	1.7	<1	<1	336	9.89	127	3	3	5	<0.5	<3	7
1593110	Rock	1.15	1623	<3	<2	<1	481	<3	20	0.8	<1	1	302	6.40	71	<2	5	22	<0.5	<3	<3
1593111	Rock	1.06	801	3	10	<1	619	<3	86	1.1	45	54	679	12.83	>10000	<2	<2	<1	<0.5	6	4
1593151	Rock	0.72	307	4	16	<1	699	<3	114	1.8	90	18	1636	17.17	47	<2	<2	3	0.6	<3	6
1593152	Rock	0.91	4008	4	13	<1	2251	<3	131	5.1	53	87	1320	16.03	>10000	6	<2	1	1.8	<3	22
1593153	Rock	1.18	5667	5	16	<1	2456	<3	167	6.2	80	269	1513	19.68	>10000	8	<2	2	2.0	15	33
1593154	Rock	0.58	1334	<3	<2	<1	412	<3	23	0.6	<1	1	424	5.03	157	<2	4	7	0.6	<3	<3
1593155	Rock	0.69	3815	<3	<2	<1	905	<3	28	1.4	<1	<1	391	7.81	184	3	4	6	<0.5	<3	9
1593156	Rock	1.63	2415	<3	<2	<1	273	<3	4	1.5	<1	<1	60	5.64	>10000	3	6	7	<0.5	4	<3
1593157	Rock	1.09	182	<3	<2	<1	164	<3	12	0.3	<1	<1	205	4.36	998	<2	5	<1	<0.5	<3	<3
1593158	Rock	1.85	4997	<3	<2	<1	848	4	16	2.8	<1	10	144	5.56	>10000	5	5	1	<0.5	11	10
1593159	Rock	1.04	2021	<3	<2	<1	169	<3	16	0.9	<1	10	256	6.03	>10000	<2	5	4	<0.5	6	12
1593160	Rock	1.24	2376	<3	<2	<1	315	<3	11	1.3	<1	8	158	5.94	>10000	2	5	2	<0.5	6	10
1593161	Rock	0.90	663	<3	5	<1	221	<3	8	1.0	4	<1	125	11.95	3093	3	4	5	<0.5	<3	<3
1593162	Rock	0.99	2764	<3	<2	<1	217	<3	9	1.3	<1	2	212	6.62	1946	3	5	10	<0.5	<3	4
1593163	Rock	1.15	4026	<3	<2	2	1024	<3	27	2.2	<1	2	306	10.07	266	5	4	13	<0.5	<3	11
1593164	Rock	1.02	1198	<3	<2	<1	299	<3	14	0.8	<1	2	329	6.71	367	<2	4	23	<0.5	<3	5
1593165	Rock	1.32	169	<3	8	<1	422	<3	49	0.7	27	24	1012	4.75	1286	<2	3	35	0.6	<3	<3
1593166	Rock	0.66	10	13	12	<1	104	<3	36	<0.3	283	33	193	1.63	34	<2	<2	108	0.8	<3	<3
1593167	Rock	1.10	10	13	13	<1	66	<3	136	<0.3	313	39	500	3.48	125	<2	<2	112	1.0	<3	<3
1593168	Rock	0.65	12	8	7	<1	44	<3	54	<0.3	186	18	232	1.66	31	<2	<2	399	<0.5	<3	<3
1593169	Rock	0.65	1516	8	8	<1	528	29	269	2.4	219	10	2002	21.05	166	4	<2	2	1.8	<3	19

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Project: FLAN
Report Date: October 21, 2013

CERTIFICATE OF ANALYSIS VAN13003504.2

	Method	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	4A-4B	4A-4B	4A-4B	4A-4B
	Analyte	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	S	Sc	Ga	SiO2	Al2O3	Fe2O3	MgO
	Unit	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	%	ppm	ppm	%	%	%	%
	MDL	1	0.01	0.001	1	1	0.01	1	0.01	20	0.01	0.01	0.01	2	0.05	5	5	0.01	0.01	0.04	0.01
1593101	Rock	218	1.06	0.039	3	127	2.27	20	0.08	<20	4.63	<0.01	0.06	<2	5.39	19	11	46.12	10.57	24.83	4.25
1593102	Rock	7	2.40	0.043	7	1	0.35	100	0.02	<20	1.30	0.01	0.23	<2	0.20	<5	<5				
1593103	Rock	8	0.33	0.038	5	2	0.38	90	0.03	<20	1.99	0.01	0.20	<2	2.44	<5	<5	68.01	12.59	10.33	0.93
1593104	Rock	5	0.14	0.039	5	1	0.32	143	0.02	<20	1.56	0.01	0.28	<2	2.88	<5	<5				
1593105	Rock	6	0.19	0.036	5	<1	0.36	102	0.02	<20	1.78	<0.01	0.21	<2	3.18	<5	<5				
1593106	Rock	7	0.25	0.039	4	1	0.41	116	0.02	<20	2.07	0.01	0.22	<2	1.60	<5	<5				
1593107	Rock	15	0.69	0.076	11	2	0.58	55	0.18	<20	1.40	0.12	0.05	<2	0.46	5	<5	65.35	16.72	4.48	1.13
1593108	Rock	14	0.66	0.065	6	1	0.54	30	0.12	<20	1.13	0.10	0.05	<2	0.49	6	<5				
1593109	Rock	7	0.15	0.038	4	1	0.30	85	0.01	<20	1.66	<0.01	0.20	<2	5.75	<5	<5	62.39	12.22	14.37	0.77
1593110	Rock	5	0.36	0.036	5	<1	0.30	100	0.02	<20	1.67	0.01	0.20	<2	3.66	<5	<5	63.94	13.66	11.34	0.84
1593111	Rock	126	0.10	0.017	<1	50	1.90	3	0.04	<20	2.80	<0.01	<0.01	<2	6.35	9	8				
1593151	Rock	233	0.41	0.052	3	143	2.53	29	0.13	<20	5.05	<0.01	0.08	<2	4.52	21	13				
1593152	Rock	187	0.21	0.051	2	111	1.87	47	0.08	<20	4.56	<0.01	0.11	<2	4.25	14	9				
1593153	Rock	226	0.18	0.055	3	135	2.19	32	0.06	<20	5.08	<0.01	0.08	<2	4.88	18	13	44.09	12.19	26.97	3.93
1593154	Rock	8	0.31	0.041	6	2	0.37	102	0.02	<20	1.79	<0.01	0.22	<2	1.23	<5	<5				
1593155	Rock	8	0.23	0.039	4	1	0.36	81	0.02	<20	2.02	<0.01	0.18	<2	2.95	<5	<5	64.29	12.98	12.50	0.91
1593156	Rock	5	0.01	0.039	10	2	0.06	105	<0.01	<20	0.69	0.01	0.22	<2	0.15	<5	<5	67.97	12.30	9.12	0.39
1593157	Rock	4	0.01	0.033	7	<1	0.20	91	0.02	<20	1.03	<0.01	0.19	<2	0.09	<5	<5				
1593158	Rock	4	0.03	0.032	5	<1	0.14	100	0.01	<20	0.85	<0.01	0.22	<2	1.20	<5	<5	64.94	13.99	9.34	0.57
1593159	Rock	6	0.06	0.037	4	<1	0.25	89	0.03	<20	1.23	<0.01	0.20	<2	0.86	<5	<5				
1593160	Rock	5	0.03	0.036	4	<1	0.16	99	0.01	<20	0.89	<0.01	0.22	<2	1.05	<5	<5				
1593161	Rock	32	0.07	0.036	5	21	0.21	284	0.06	<20	0.98	0.02	0.18	<2	0.36	<5	<5	57.87	11.07	17.89	1.17
1593162	Rock	5	0.08	0.036	4	1	0.18	108	0.02	<20	1.24	<0.01	0.22	<2	0.71	<5	<5				
1593163	Rock	7	0.13	0.038	4	<1	0.26	96	0.03	<20	1.82	<0.01	0.19	<2	3.30	<5	<5	62.77	11.70	14.55	0.68
1593164	Rock	6	0.11	0.038	5	1	0.23	133	<0.01	<20	1.26	<0.01	0.21	<2	1.41	<5	<5				
1593165	Rock	95	1.22	0.047	6	53	1.18	111	0.06	<20	2.34	0.02	0.18	<2	0.31	9	5				
1593166	Rock	32	2.09	0.018	<1	162	0.94	20	0.04	<20	3.98	0.40	0.04	<2	0.12	<5	6				
1593167	Rock	84	2.49	0.017	<1	339	2.34	30	0.05	<20	5.00	0.40	0.04	<2	0.10	11	7	47.95	14.63	10.85	10.70
1593168	Rock	29	1.61	0.016	2	205	1.42	106	0.06	<20	3.04	0.14	0.10	<2	<0.05	<5	5				
1593169	Rock	297	0.06	0.025	<1	978	7.72	<1	0.10	<20	8.33	<0.01	<0.01	<2	1.05	37	22	24.91	17.51	29.45	13.74

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CERTIFICATE OF ANALYSIS VAN13003504.2

	Method	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B
	Analyte	CaO	Na2O	K2O	TiO2	P2O5	MnO	Cr2O3	Ni	Sc	LOI	Sum	Ba	Be	Co	Cs	Ga	Hf	Nb	Rb	Sn
	Unit	%	%	%	%	%	%	%	ppm	ppm	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
	MDL	0.01	0.01	0.01	0.01	0.01	0.01	0.002	20	1	-5.1	0.01	1	1	0.2	0.1	0.5	0.1	0.1	0.1	1
1593101	Rock	1.82	0.02	0.61	1.27	0.10	0.25	0.023	102	25	9.8	99.67	222	2	41.7	<0.1	19.0	1.8	5.7	11.2	<1
1593102	Rock																				
1593103	Rock	0.52	0.07	2.95	0.32	0.09	0.06	0.003	<20	6	3.9	99.80	1266	1	3.2	0.2	13.6	3.3	5.2	57.7	<1
1593104	Rock																				
1593105	Rock																				
1593106	Rock																				
1593107	Rock	4.36	4.56	0.65	0.59	0.16	0.03	<0.002	<20	10	1.8	99.82	447	2	8.5	0.1	16.0	3.6	5.4	16.0	<1
1593108	Rock																				
1593109	Rock	0.23	0.07	3.05	0.31	0.09	0.05	0.002	<20	6	6.2	99.73	1263	<1	2.8	0.3	14.6	2.9	4.6	58.8	1
1593110	Rock	0.59	0.08	3.43	0.33	0.09	0.05	0.003	<20	6	5.4	99.74	1504	<1	3.1	0.4	15.3	3.3	5.2	64.5	<1
1593111	Rock																				
1593151	Rock																				
1593152	Rock																				
1593153	Rock	0.38	0.02	0.88	1.47	0.12	0.25	0.023	80	29	9.2	99.52	360	1	235.3	<0.1	16.8	2.7	7.3	16.6	<1
1593154	Rock																				
1593155	Rock	0.36	0.06	2.96	0.34	0.09	0.06	<0.002	<20	6	5.2	99.72	1256	1	2.1	0.2	14.5	2.8	4.4	57.3	<1
1593156	Rock	0.03	0.07	3.59	0.30	0.09	0.02	<0.002	<20	6	5.9	99.80	1417	1	1.0	0.3	13.1	2.9	4.6	67.3	<1
1593157	Rock																				
1593158	Rock	0.08	0.08	4.13	0.36	0.07	0.02	<0.002	<20	6	6.1	99.68	1632	<1	11.2	0.3	15.8	3.9	5.5	74.7	2
1593159	Rock																				
1593160	Rock																				
1593161	Rock	0.66	0.17	2.90	0.44	0.09	0.03	0.007	<20	8	7.5	99.78	1398	<1	4.6	0.2	14.4	2.8	5.0	56.4	<1
1593162	Rock																				
1593163	Rock	0.22	0.05	2.76	0.31	0.09	0.04	<0.002	<20	6	6.6	99.74	1096	<1	4.2	0.2	13.2	2.7	4.7	53.5	1
1593164	Rock																				
1593165	Rock																				
1593166	Rock																				
1593167	Rock	9.17	1.27	0.20	0.58	0.05	0.16	0.135	427	39	4.0	99.73	101	<1	60.9	<0.1	11.8	0.8	0.7	4.2	<1
1593168	Rock																				
1593169	Rock	0.30	<0.01	0.02	0.67	0.06	0.28	0.150	236	39	12.5	99.63	5	<1	15.3	<0.1	22.8	0.9	0.9	<0.1	<1

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CERTIFICATE OF ANALYSIS VAN13003504.2

	Method	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B
	Analyte	Sr	Ta	Th	U	V	W	Zr	Y	La	Ce	Pr	Nd	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm
	Unit	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
	MDL	0.5	0.1	0.2	0.1	8	0.5	0.1	0.1	0.1	0.1	0.02	0.3	0.05	0.02	0.05	0.01	0.05	0.02	0.03	0.01
1593101	Rock	7.4	0.4	0.5	0.3	255	1.5	72.5	19.9	7.4	15.5	2.24	11.1	2.95	0.96	3.40	0.59	4.11	0.71	1.97	0.29
1593102	Rock																				
1593103	Rock	9.5	0.4	5.9	2.2	21	1.2	121.1	18.6	14.5	28.1	3.36	13.7	2.88	0.27	2.94	0.47	2.99	0.60	1.92	0.33
1593104	Rock																				
1593105	Rock																				
1593106	Rock																				
1593107	Rock	495.1	0.4	2.8	1.2	20	0.9	150.8	22.9	15.1	31.9	4.04	18.1	3.84	1.40	4.12	0.63	3.94	0.80	2.41	0.37
1593108	Rock																				
1593109	Rock	8.1	0.3	4.1	1.5	16	0.8	108.1	16.5	13.2	26.4	3.22	13.3	2.83	0.30	2.77	0.44	2.95	0.53	1.71	0.27
1593110	Rock	28.7	0.4	6.3	2.4	18	1.9	127.4	15.4	17.2	32.1	3.83	14.9	3.16	0.27	3.29	0.46	3.00	0.56	1.69	0.24
1593111	Rock																				
1593151	Rock																				
1593152	Rock																				
1593153	Rock	5.3	0.5	1.3	1.0	271	1.8	97.4	17.1	8.2	17.4	2.31	11.1	2.42	0.51	2.55	0.41	2.76	0.58	1.62	0.29
1593154	Rock																				
1593155	Rock	9.3	0.4	4.1	1.7	20	1.3	117.9	16.1	14.3	28.0	3.49	14.7	3.16	0.36	3.12	0.46	2.97	0.55	1.53	0.26
1593156	Rock	10.8	0.3	5.4	2.0	19	0.8	113.6	9.2	11.2	21.4	2.54	10.0	2.10	0.30	1.77	0.26	1.78	0.33	1.09	0.16
1593157	Rock																				
1593158	Rock	5.7	0.4	6.1	2.2	22	0.8	133.5	16.7	14.9	27.2	3.24	12.9	2.69	0.39	2.70	0.41	2.80	0.58	1.69	0.28
1593159	Rock																				
1593160	Rock																				
1593161	Rock	16.1	0.3	4.9	1.4	60	1.5	111.9	10.9	10.8	18.8	2.30	9.1	1.91	0.24	1.87	0.28	1.87	0.38	1.14	0.19
1593162	Rock																				
1593163	Rock	15.8	0.3	4.9	1.4	16	0.8	112.5	16.3	13.3	25.4	3.05	11.7	2.60	0.43	2.60	0.40	2.67	0.52	1.64	0.26
1593164	Rock																				
1593165	Rock																				
1593166	Rock																				
1593167	Rock	174.3	<0.1	<0.2	<0.1	253	<0.5	25.8	15.3	1.4	3.0	0.54	2.7	1.20	0.46	1.87	0.37	2.58	0.57	1.75	0.25
1593168	Rock																				
1593169	Rock	2.4	<0.1	0.2	0.2	298	1.0	31.5	11.1	1.2	1.5	0.27	1.4	0.45	0.09	0.87	0.19	1.73	0.39	1.18	0.17

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CERTIFICATE OF ANALYSIS VAN13003504.2

Method		4A-4B	4A-4B	2A Leco	2A Leco	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX
Analyte		Yb	Lu	TOT/C	TOT/S	Mo	Cu	Pb	Zn	Ni	As	Cd	Sb	Bi	Ag	Au	Hg	Tl	Se
Unit		ppm	ppm	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm
MDL		0.05	0.01	0.02	0.02	0.1	0.1	0.1	1	0.1	0.5	0.1	0.1	0.1	0.1	0.5	0.01	0.1	0.5
1593101	Rock	1.78	0.24	0.25	5.75	0.5	1447.2	7.6	123	93.7	26.5	0.6	<0.1	11.5	3.5	2530.8	<0.01	<0.1	1.4
1593102	Rock																		
1593103	Rock	2.36	0.37	0.03	2.56	0.6	320.5	1.5	19	1.1	95.3	<0.1	<0.1	3.3	0.5	524.4	<0.01	<0.1	1.3
1593104	Rock																		
1593105	Rock																		
1593106	Rock																		
1593107	Rock	2.50	0.41	<0.02	0.47	0.8	293.8	0.7	22	0.9	5.7	0.1	<0.1	0.1	0.2	5.7	<0.01	<0.1	0.9
1593108	Rock																		
1593109	Rock	1.78	0.26	<0.02	6.13	0.6	897.1	2.0	28	0.7	119.5	0.4	<0.1	9.1	1.7	2797.7	<0.01	<0.1	2.3
1593110	Rock	1.74	0.27	<0.02	3.90	0.6	519.8	1.6	24	0.6	79.1	0.2	0.1	3.4	1.0	2867.0	<0.01	<0.1	1.2
1593111	Rock																		
1593151	Rock																		
1593152	Rock																		
1593153	Rock	1.96	0.34	<0.02	5.00	0.6	2301.5	4.2	154	75.7	>10000	1.7	13.5	32.3	5.1	5022.9	<0.01	<0.1	6.2
1593154	Rock																		
1593155	Rock	1.55	0.29	<0.02	3.08	0.6	883.0	1.9	30	0.5	184.0	0.3	0.1	11.1	1.6	2960.2	<0.01	<0.1	1.4
1593156	Rock	1.27	0.23	0.19	0.16	1.0	278.1	1.7	6	0.3	>10000	0.1	3.1	6.7	1.4	2851.6	<0.01	<0.1	1.3
1593157	Rock																		
1593158	Rock	1.96	0.32	0.09	1.23	0.6	836.8	2.5	15	0.2	>10000	0.3	9.1	14.1	3.5	5557.6	<0.01	<0.1	3.5
1593159	Rock																		
1593160	Rock																		
1593161	Rock	1.40	0.24	0.28	0.35	1.1	223.6	2.6	11	6.4	3153.3	<0.1	0.8	3.9	0.7	675.9	<0.01	<0.1	1.0
1593162	Rock																		
1593163	Rock	1.86	0.30	0.11	3.22	2.2	1015.7	5.3	30	0.4	269.1	0.4	<0.1	16.5	2.4	4087.0	<0.01	<0.1	2.4
1593164	Rock																		
1593165	Rock																		
1593166	Rock																		
1593167	Rock	1.63	0.27	0.23	0.12	0.1	68.0	3.5	131	318.9	128.3	0.5	0.1	0.2	<0.1	3.3	<0.01	<0.1	<0.5
1593168	Rock																		
1593169	Rock	1.32	0.22	0.24	1.16	0.5	522.1	37.1	230	207.1	150.9	0.7	0.2	15.8	2.0	1771.4	<0.01	<0.1	1.6

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Method		WGHT	3B	3B	3B	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D
Analyte		Wgt	Au	Pt	Pd	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi
Unit		kg	ppb	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
MDL		0.01	2	3	2	1	1	3	1	0.3	1	1	2	0.01	2	2	2	1	0.5	3	3
1593170	Rock	0.66	287	10	12	<1	323	36	412	0.7	237	13	1952	21.00	480	2	<2	3	2.7	<3	6

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	Method	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	4A-4B	4A-4B	4A-4B	4A-4B
	Analyte	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	S	Sc	Ga	SiO2	Al2O3	Fe2O3	MgO
	Unit	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	%	ppm	ppm	%	%	%	%
	MDL	1	0.01	0.001	1	1	0.01	1	0.01	20	0.01	0.01	0.01	2	0.05	5	5	0.01	0.01	0.04	0.01
1593170	Rock	257	0.21	0.020	1	952	5.88	3	0.14	<20	6.43	<0.01	0.02	<2	0.13	34	17				

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Project: FLAN
Report Date: October 21, 2013

CERTIFICATE OF ANALYSIS VAN13003504.2

	Method	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B
	Analyte	CaO	Na2O	K2O	TiO2	P2O5	MnO	Cr2O3	Ni	Sc	LOI	Sum	Ba	Be	Co	Cs	Ga	Hf	Nb	Rb	Sn
	Unit	%	%	%	%	%	%	%	ppm	ppm	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
	MDL	0.01	0.01	0.01	0.01	0.01	0.01	0.002	20	1	-5.1	0.01	1	1	0.2	0.1	0.5	0.1	0.1	0.1	1
1593170	Rock																				

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CERTIFICATE OF ANALYSIS VAN13003504.2

	Method	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B
	Analyte	Sr	Ta	Th	U	V	W	Zr	Y	La	Ce	Pr	Nd	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm
	Unit	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
	MDL	0.5	0.1	0.2	0.1	8	0.5	0.1	0.1	0.1	0.1	0.02	0.3	0.05	0.02	0.05	0.01	0.05	0.02	0.03	0.01
1593170	Rock																				

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Method	4A-4B	4A-4B	2A Leco	2A Leco	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX
Analyte	Yb	Lu	TOT/C	TOT/S	Mo	Cu	Pb	Zn	Ni	As	Cd	Sb	Bi	Ag	Au	Hg	Tl	Se
Unit	ppm	ppm	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm
MDL	0.05	0.01	0.02	0.02	0.1	0.1	0.1	1	0.1	0.5	0.1	0.1	0.1	0.1	0.5	0.01	0.1	0.5
1593170 Rock																		

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QUALITY CONTROL REPORT VAN13003504.2

	Method	WGHT	3B	3B	3B	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D
	Analyte	Wgt	Au	Pt	Pd	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi
	Unit	kg	ppb	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
	MDL	0.01	2	3	2	1	1	3	1	0.3	1	1	2	0.01	2	2	2	1	0.5	3	3
Pulp Duplicates																					
REP G1	QC					<1	2	<3	41	<0.3	2	3	558	1.90	<2	<2	5	56	<0.5	<3	<3
1593107	Rock	1.25	13	<3	<2	<1	312	<3	22	0.5	<1	9	184	2.83	7	<2	3	71	<0.5	<3	<3
REP 1593107	QC		13	<3	<2																
1593169	Rock	0.65	1516	8	8	<1	528	29	269	2.4	219	10	2002	21.05	166	4	<2	2	1.8	<3	19
REP 1593169	QC																				
Core Reject Duplicates																					
1593164	Rock	1.02	1198	<3	<2	<1	299	<3	14	0.8	<1	2	329	6.71	367	<2	4	23	<0.5	<3	5
DUP 1593164	QC		1224	<3	<2	<1	301	<3	13	0.8	<1	2	328	6.78	360	<2	4	23	<0.5	<3	<3
Reference Materials																					
STD CDN-PGMS-19	Standard		239	107	469																
STD CDN-PGMS-19	Standard		219	109	466																
STD DS10	Standard																				
STD DS9	Standard					13	104	124	321	1.6	40	7	584	2.32	27	<2	6	69	2.3	4	6
STD GS311-1	Standard																				
STD GS910-4	Standard																				
STD OREAS45EA	Standard					1	689	10	31	0.5	385	47	399	23.94	13	4	10	3	<0.5	<3	<3
STD OREAS45EA	Standard																				
STD PD1	Standard		550	464	571																
STD PD1	Standard		553	471	564																
STD SO-18	Standard																				
STD SO-18	Standard																				
STD DS9 Expected						12.84	108	126	317	1.83	40.3	7.6	575	2.33	25.5	0.118	6.38	69.6	2.4	4.94	6.32
STD PD1 Expected			542	456	563																
STD CDN-PGMS-19			230	108	476																
STD GS311-1 Expected																					
STD GS910-4 Expected																					
STD DS10 Expected																					
STD OREAS45EA Expected						1.39	709	14.3	28.9	0.26	381	52	400	23.51	9		10.7	3.5			

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	Method	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	4A-4B	4A-4B	4A-4B	4A-4B
	Analyte	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	S	Sc	Ga	SiO2	Al2O3	Fe2O3	MgO
	Unit	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	%	ppm	ppm	%	%	%	%
	MDL	1	0.01	0.001	1	1	0.01	1	0.01	20	0.01	0.01	0.01	2	0.05	5	5	0.01	0.01	0.04	0.01
Pulp Duplicates																					
REP G1	QC	36	0.49	0.071	10	5	0.49	165	0.12	<20	0.97	0.10	0.48	<2	<0.05	<5	<5				
1593107	Rock	15	0.69	0.076	11	2	0.58	55	0.18	<20	1.40	0.12	0.05	<2	0.46	5	<5	65.35	16.72	4.48	1.13
REP 1593107	QC																				
1593169	Rock	297	0.06	0.025	<1	978	7.72	<1	0.10	<20	8.33	<0.01	<0.01	<2	1.05	37	22	24.91	17.51	29.45	13.74
REP 1593169	QC																	24.86	17.44	29.57	13.76
Core Reject Duplicates																					
1593164	Rock	6	0.11	0.038	5	1	0.23	133	<0.01	<20	1.26	<0.01	0.21	<2	1.41	<5	<5				
DUP 1593164	QC	6	0.12	0.038	5	1	0.23	127	<0.01	<20	1.23	0.01	0.20	<2	1.47	<5	<5				
Reference Materials																					
STD CDN-PGMS-19	Standard																				
STD CDN-PGMS-19	Standard																				
STD DS10	Standard																				
STD DS9	Standard	40	0.71	0.083	12	117	0.61	325	0.10	<20	0.93	0.08	0.39	<2	0.16	<5	<5				
STD GS311-1	Standard																				
STD GS910-4	Standard																				
STD OREAS45EA	Standard	319	0.03	0.030	6	864	0.09	144	0.09	<20	3.28	0.02	0.06	<2	<0.05	84	10				
STD OREAS45EA	Standard																				
STD PD1	Standard																				
STD PD1	Standard																				
STD SO-18	Standard																	58.15	14.09	7.62	3.37
STD SO-18	Standard																	58.65	13.91	7.49	3.29
STD DS9 Expected		40	0.7201	0.0819	13.3	121	0.6165	330	0.1108		0.9577	0.0853	0.395	2.89	0.1615	2.5	4.59				
STD PD1 Expected																					
STD CDN-PGMS-19																					
STD GS311-1 Expected																					
STD GS910-4 Expected																					
STD DS10 Expected																					
STD OREAS45EA Expected		303	0.036	0.029	6.57	849	0.095	148	0.0875		3.13	0.02	0.053		0.036	78	11.7				

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	Method	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B
	Analyte	CaO	Na2O	K2O	TiO2	P2O5	MnO	Cr2O3	Ni	Sc	LOI	Sum	Ba	Be	Co	Cs	Ga	Hf	Nb	Rb	Sn
	Unit	%	%	%	%	%	%	%	ppm	ppm	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
	MDL	0.01	0.01	0.01	0.01	0.01	0.01	0.002	20	1	-5.1	0.01	1	1	0.2	0.1	0.5	0.1	0.1	0.1	1
Pulp Duplicates																					
REP G1	QC																				
1593107	Rock	4.36	4.56	0.65	0.59	0.16	0.03	<0.002	<20	10	1.8	99.82	447	2	8.5	0.1	16.0	3.6	5.4	16.0	<1
REP 1593107	QC																				
1593169	Rock	0.30	<0.01	0.02	0.67	0.06	0.28	0.150	236	39	12.5	99.63	5	<1	15.3	<0.1	22.8	0.9	0.9	<0.1	<1
REP 1593169	QC	0.30	<0.01	<0.01	0.66	0.06	0.28	0.148	228	39	12.5	99.62	7	<1	15.2	<0.1	24.0	1.1	1.0	<0.1	<1
Core Reject Duplicates																					
1593164	Rock																				
DUP 1593164	QC																				
Reference Materials																					
STD CDN-PGMS-19	Standard																				
STD CDN-PGMS-19	Standard																				
STD DS10	Standard																				
STD DS9	Standard																				
STD GS311-1	Standard																				
STD GS910-4	Standard																				
STD OREAS45EA	Standard																				
STD OREAS45EA	Standard																				
STD PD1	Standard																				
STD PD1	Standard																				
STD SO-18	Standard	6.31	3.70	2.13	0.70	0.80	0.40	0.556	46	24	1.9	99.74	488	<1	25.0	6.4	18.1	9.2	19.7	28.1	14
STD SO-18	Standard	6.33	3.70	2.11	0.68	0.77	0.39	0.541	47	23	1.9	99.76	461	<1	24.4	6.3	17.3	8.9	17.9	27.1	14
STD DS9 Expected																					
STD PD1 Expected																					
STD CDN-PGMS-19																					
STD GS311-1 Expected																					
STD GS910-4 Expected																					
STD DS10 Expected																					
STD OREAS45EA Expected																					

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	Method	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B
	Analyte	Sr	Ta	Th	U	V	W	Zr	Y	La	Ce	Pr	Nd	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm
	Unit	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
	MDL	0.5	0.1	0.2	0.1	8	0.5	0.1	0.1	0.1	0.1	0.02	0.3	0.05	0.02	0.05	0.01	0.05	0.02	0.03	0.01
Pulp Duplicates																					
REP G1	QC																				
1593107	Rock	495.1	0.4	2.8	1.2	20	0.9	150.8	22.9	15.1	31.9	4.04	18.1	3.84	1.40	4.12	0.63	3.94	0.80	2.41	0.37
REP 1593107	QC																				
1593169	Rock	2.4	<0.1	0.2	0.2	298	1.0	31.5	11.1	1.2	1.5	0.27	1.4	0.45	0.09	0.87	0.19	1.73	0.39	1.18	0.17
REP 1593169	QC	2.5	<0.1	0.2	0.1	304	1.1	33.5	11.0	0.7	1.4	0.19	1.2	0.39	0.09	0.92	0.19	1.49	0.39	1.22	0.18
Core Reject Duplicates																					
1593164	Rock																				
DUP 1593164	QC																				
Reference Materials																					
STD CDN-PGMS-19	Standard																				
STD CDN-PGMS-19	Standard																				
STD DS10	Standard																				
STD DS9	Standard																				
STD GS311-1	Standard																				
STD GS910-4	Standard																				
STD OREAS45EA	Standard																				
STD OREAS45EA	Standard																				
STD PD1	Standard																				
STD PD1	Standard																				
STD SO-18	Standard	396.4	6.9	9.4	15.2	204	14.3	293.7	29.2	12.0	25.2	3.05	12.5	2.58	0.81	2.82	0.44	2.94	0.58	1.64	0.23
STD SO-18	Standard	384.6	6.4	9.3	15.4	199	14.0	281.7	29.3	11.9	25.0	3.15	12.4	2.62	0.79	2.84	0.44	2.64	0.56	1.57	0.25
STD DS9 Expected																					
STD PD1 Expected																					
STD CDN-PGMS-19																					
STD GS311-1 Expected																					
STD GS910-4 Expected																					
STD DS10 Expected																					
STD OREAS45EA Expected																					

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		Method	4A-4B	4A-4B	2A Leco	2A Leco	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX
		Analyte	Yb	Lu	TOT/C	TOT/S	Mo	Cu	Pb	Zn	Ni	As	Cd	Sb	Bi	Ag	Au	Hg	Tl	Se
		Unit	ppm	ppm	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm
		MDL	0.05	0.01	0.02	0.02	0.1	0.1	0.1	1	0.1	0.5	0.1	0.1	0.1	0.1	0.5	0.01	0.1	0.5
Pulp Duplicates																				
REP G1	QC																			
1593107	Rock	2.50	0.41	<0.02	0.47	0.8	293.8	0.7	22	0.9	5.7	0.1	<0.1	0.1	0.2	5.7	<0.01	<0.1	0.9
REP 1593107	QC																			
1593169	Rock	1.32	0.22	0.24	1.16	0.5	522.1	37.1	230	207.1	150.9	0.7	0.2	15.8	2.0	1771.4	<0.01	<0.1	1.6
REP 1593169	QC	1.29	0.21	0.25	1.18															
Core Reject Duplicates																				
1593164	Rock																			
DUP 1593164	QC																			
Reference Materials																				
STD CDN-PGMS-19	Standard																			
STD CDN-PGMS-19	Standard																			
STD DS10	Standard						12.4	150.2	155.1	354	72.0	40.0	2.4	7.0	11.7	2.0	62.6	0.25	4.9	2.2
STD DS9	Standard																			
STD GS311-1	Standard			0.99	2.43															
STD GS910-4	Standard			2.68	8.02															
STD OREAS45EA	Standard																			
STD OREAS45EA	Standard						1.5	644.9	14.4	27	355.3	8.7	<0.1	0.3	0.3	0.3	45.8	<0.01	<0.1	0.7
STD PD1	Standard																			
STD PD1	Standard																			
STD SO-18	Standard	1.72	0.25																	
STD SO-18	Standard	1.53	0.25																	
STD DS9 Expected																				
STD PD1 Expected																				
STD CDN-PGMS-19																				
STD GS311-1 Expected				1.02	2.35															
STD GS910-4 Expected				2.65	8.27															
STD DS10 Expected						14.69	154.61	150.55	352.9	74.6	43.7	2.48	9.51	11.65	1.96	91.9	0.289	4.79	2.3	
STD OREAS45EA Expected						1.39	709	14.3	28.9	381	9.1	0.02	0.2	0.26	0.26	53		0.072	0.6	

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		WGHT Wgt kg 0.01	3B Au ppb 2	3B Pt ppb 3	3B Pd ppb 2	1D Mo ppm 1	1D Cu ppm 1	1D Pb ppm 3	1D Zn ppm 1	1D Ag ppm 0.3	1D Ni ppm 1	1D Co ppm 1	1D Mn ppm 2	1D Fe % 0.01	1D As ppm 2	1D Au ppm 2	1D Th ppm 2	1D Sr ppm 1	1D Cd ppm 0.5	1D Sb ppm 3	1D Bi ppm 3
STD SO-18 Expected																					
BLK	Blank		6	<3	<2																
BLK	Blank		8	<3	<2																
BLK	Blank					<1	<1	<3	<1	<0.3	<1	<1	<2	<0.01	<2	<2	<2	<1	<0.5	<3	<3
BLK	Blank		6	<3	<2																
BLK	Blank		7	<3	<2																
BLK	Blank																				
BLK	Blank																				
BLK	Blank																				
Prep Wash																					
G1	Prep Blank		6	<3	<2																
G1	Prep Blank		7	<3	<2	<1	2	3	44	<0.3	2	3	587	1.98	<2	<2	6	60	<0.5	<3	<3
G1	Prep Blank					<1	2	<3	41	<0.3	2	3	555	1.89	<2	<2	6	56	<0.5	<3	<3

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		1D V ppm 1	1D Ca % 0.01	1D P % 0.001	1D La ppm 1	1D Cr ppm 1	1D Mg % 0.01	1D Ba ppm 1	1D Ti % 0.01	1D B ppm 20	1D Al % 0.01	1D Na % 0.01	1D K % 0.01	1D W ppm 2	1D S % 0.05	1D Sc ppm 5	1D Ga ppm 5	4A-4B SiO2 % 0.01	4A-4B Al2O3 % 0.01	4A-4B Fe2O3 % 0.04	4A-4B MgO % 0.01
STD SO-18 Expected																		58.47	14.23	7.67	3.35
BLK	Blank																				
BLK	Blank																				
BLK	Blank	<1	<0.01	<0.001	<1	<1	<0.01	<1	<0.01	<20	<0.01	<0.01	<0.01	<2	<0.05	<5	<5				
BLK	Blank																				
BLK	Blank																				
BLK	Blank																				
BLK	Blank																				
BLK	Blank																	<0.01	<0.01	<0.04	<0.01
Prep Wash																					
G1	Prep Blank																				
G1	Prep Blank	38	0.53	0.078	11	5	0.52	174	0.12	<20	1.01	0.10	0.50	<2	<0.05	<5	<5				
G1	Prep Blank	36	0.49	0.072	10	6	0.49	167	0.12	<20	0.96	0.10	0.48	<2	<0.05	<5	<5				

Acme Analytical Laboratories (Vancouver) Ltd.
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PHONE (604) 253-3158

www.acmelab.com

Client: **Schau, Mikkel**
3919 Woodhaven Terrace
Victoria BC V8N 1S7 Canada

Project: FLAN
Report Date: October 21, 2013

QUALITY CONTROL REPORT VAN13003504.2

		4A-4B CaO % 0.01	4A-4B Na2O % 0.01	4A-4B K2O % 0.01	4A-4B TiO2 % 0.01	4A-4B P2O5 % 0.01	4A-4B MnO % 0.01	4A-4B Cr2O3 % 0.002	4A-4B Ni ppm 20	4A-4B Sc ppm 1	4A-4B LOI % -5.1	4A-4B Sum % 0.01	4A-4B Ba ppm 1	4A-4B Be ppm 1	4A-4B Co ppm 0.2	4A-4B Cs ppm 0.1	4A-4B Ga ppm 0.5	4A-4B Hf ppm 0.1	4A-4B Nb ppm 0.1	4A-4B Rb ppm 0.1	4A-4B Sn ppm 1
STD SO-18 Expected		6.42	3.71	2.17	0.69	0.83	0.39	0.55	44	25			514		26.2	7.1	17.6	9.8	21.3	28.7	15
BLK	Blank																				
BLK	Blank																				
BLK	Blank																				
BLK	Blank																				
BLK	Blank																				
BLK	Blank																				
BLK	Blank																				
BLK	Blank	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.002	<20	<1	0.0	<0.01	<1	<1	<0.2	<0.1	<0.5	<0.1	<0.1	<0.1	<1
Prep Wash																					
G1	Prep Blank																				
G1	Prep Blank																				
G1	Prep Blank																				

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3919 Woodhaven Terrace
Victoria BC V8N 1S7 Canada

Project: FLAN
Report Date: October 21, 2013

QUALITY CONTROL REPORT VAN13003504.2

		4A-4B Sr ppm 0.5	4A-4B Ta ppm 0.1	4A-4B Th ppm 0.2	4A-4B U ppm 0.1	4A-4B V ppm 8	4A-4B W ppm 0.5	4A-4B Zr ppm 0.1	4A-4B Y ppm 0.1	4A-4B La ppm 0.1	4A-4B Ce ppm 0.1	4A-4B Pr ppm 0.02	4A-4B Nd ppm 0.3	4A-4B Sm ppm 0.05	4A-4B Eu ppm 0.02	4A-4B Gd ppm 0.05	4A-4B Tb ppm 0.01	4A-4B Dy ppm 0.05	4A-4B Ho ppm 0.02	4A-4B Er ppm 0.03	4A-4B Tm ppm 0.01
STD SO-18 Expected		407.4	7.4	9.9	16.4	200	14.8	280	31	12.3	27.1	3.45	14	3	0.89	2.93	0.53	3	0.62	1.84	0.27
BLK	Blank																				
BLK	Blank																				
BLK	Blank																				
BLK	Blank																				
BLK	Blank																				
BLK	Blank																				
BLK	Blank																				
BLK	Blank	<0.5	<0.1	<0.2	<0.1	<8	<0.5	0.3	<0.1	<0.1	<0.1	<0.02	<0.3	<0.05	<0.02	<0.05	<0.01	<0.05	<0.02	<0.03	<0.01
Prep Wash																					
G1	Prep Blank																				
G1	Prep Blank																				
G1	Prep Blank																				

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Project: FLAN
Report Date: October 21, 2013

QUALITY CONTROL REPORT VAN13003504.2

		4A-4B Yb ppm 0.05	4A-4B Lu ppm 0.01	2A Leco TOT/C % 0.02	2A Leco TOT/S % 0.02	1DX Mo ppm 0.1	1DX Cu ppm 0.1	1DX Pb ppm 0.1	1DX Zn ppm 1	1DX Ni ppm 0.1	1DX As ppm 0.5	1DX Cd ppm 0.1	1DX Sb ppm 0.1	1DX Bi ppm 0.1	1DX Ag ppm 0.1	1DX Au ppb 0.5	1DX Hg ppm 0.01	1DX Tl ppm 0.1	1DX Se ppm 0.5
STD SO-18 Expected		1.79	0.27																
BLK	Blank																		
BLK	Blank																		
BLK	Blank																		
BLK	Blank																		
BLK	Blank																		
BLK	Blank			<0.02	<0.02														
BLK	Blank					<0.1	0.3	<0.1	<1	<0.1	<0.5	<0.1	<0.1	<0.1	<0.1	<0.5	<0.01	<0.1	<0.5
BLK	Blank	<0.05	<0.01																
Prep Wash																			
G1	Prep Blank																		
G1	Prep Blank																		
G1	Prep Blank																		

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Client: **Schau, Mikkel**
3919 Woodhaven Terrace
Victoria BC V8N 1S7 Canada

Submitted By: Mikkel Schau
Receiving Lab: Canada-Vancouver
Received: November 10, 2014
Report Date: December 03, 2014
Page: 1 of 2

CERTIFICATE OF ANALYSIS VAN14003664.1

CLIENT JOB INFORMATION

Project: None Given
Shipment ID:
P.O. Number
Number of Samples: 14

SAMPLE DISPOSAL

STOR-PLP Store After 90 days Invoice for Storage
DISP-RJT Dispose of Reject After 90 days

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

SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Procedure Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
BAT01	1	Batch charge of <20 samples			VAN
PRP70-250	12	Crush, split and pulverize 250 g rock to 200 mesh			VAN
FA330	12	Fire assay fusion Au Pt Pd by ICP-ES	30	Completed	VAN
AQ300	12	1:1:1 Aqua Regia digestion ICP-ES analysis	0.5	Completed	VAN
DRPLP	12	Warehouse handling / disposition of pulps			VAN
DRRJT	12	Warehouse handling / Disposition of reject			VAN
FA530	2	Lead collection fire assay 30G fusion - Grav finish	30	Completed	VAN

ADDITIONAL COMMENTS

Invoice To: Schau, Mikkel
3919 Woodhaven Terrace
Victoria BC V8N 1S7
Canada

CC:

BRITISH COLUMBIA CERTIFIED ASSAYER
MARCUS LAU
Geochemical Laboratory Manager

This report supersedes all previous preliminary and final reports with this file number dated prior to the date on this certificate. Signature indicates final approval; preliminary reports are unsigned and should be used for reference only.
All results are considered the confidential property of the client. Acme assumes the liabilities for actual cost of analysis only. Results apply to samples as submitted.
"*" asterisk indicates that an analytical result could not be provided due to unusually high levels of interference from other elements.

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

Client: **Schau, Mikkel**
3919 Woodhaven Terrace
Victoria BC V8N 1S7 Canada

Project: None Given
Report Date: December 03, 2014

CERTIFICATE OF ANALYSIS VAN14003664.1

	Method	WGHT	FA330	FA330	FA330	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300
	Analyte	Wgt	Au	Pt	Pd	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Th	Sr	Cd	Sb	Bi	V
	Unit	kg	ppb	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
	MDL	0.01	2	3	2	1	1	3	1	0.3	1	1	2	0.01	2	2	1	0.5	3	3	1
1415769	Rock	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.
1415770	Rock	0.20	5	4	18	1	156	4	47	<0.3	39	12	328	3.38	7	<2	50	<0.5	<3	<3	121
1415771	Rock	0.32	136	3	31	1	843	10	258	1.8	34	43	3147	16.13	26	<2	2	<0.5	<3	<3	470
1415772	Rock	0.67	1147	3	31	1	1525	8	401	3.3	24	34	3016	14.89	19	<2	2	2.1	<3	<3	455
1415773	Rock	0.45	75	3	30	2	985	9	247	2.9	29	37	3372	16.88	19	<2	4	<0.5	<3	<3	522
1415774	Rock	1.25	89	3	32	1	572	9	280	1.5	32	36	3148	14.68	16	<2	3	0.7	<3	<3	469
1415775	Rock	0.45	166	4	33	2	1074	9	385	2.4	27	32	3380	15.56	12	<2	2	1.1	<3	<3	497
1415776	Rock	0.90	>10000	8	26	2	3032	8	383	16.6	20	59	3053	16.05	6	<2	2	2.5	<3	<3	464
1415777	Rock	3.31	>10000	12	26	2	>10000	35	3206	31.3	44	145	2541	21.88	14	<2	1	39.0	<3	6	360
1415778	Rock	0.56	3505	6	31	1	2163	23	407	4.4	33	42	3448	15.66	6	<2	2	2.9	<3	<3	486
1415779	Rock	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.
1415780	Rock	1.04	19	<3	10	1	111	6	58	<0.3	45	55	863	3.49	3	<2	31	<0.5	<3	<3	133
1415782	Rock	0.97	11	5	14	2	161	3	63	<0.3	47	17	449	3.56	19	<2	68	<0.5	<3	<3	136
166689	Rock	0.59	54	4	35	2	772	9	259	1.7	30	34	3560	16.05	15	<2	3	<0.5	<3	<3	537

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Client: **Schau, Mikkel**
3919 Woodhaven Terrace
Victoria BC V8N 1S7 Canada

Project: None Given
Report Date: December 03, 2014

CERTIFICATE OF ANALYSIS VAN14003664.1

Method		AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	FA530
Analyte		Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	S	Hg	Tl	Ga	Sc	Au
Unit		%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	%	ppm	ppm	ppm	ppm	gm/t
MDL		0.01	0.001	1	1	0.01	1	0.001	20	0.01	0.01	0.01	2	0.05	1	5	5	5	0.9
1415769	Rock	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	
1415770	Rock	1.22	0.072	4	37	0.90	57	0.292	<20	3.51	0.13	0.05	<2	<0.05	<1	<5	10	6	
1415771	Rock	0.40	0.133	8	3	2.83	21	0.151	<20	5.83	<0.01	0.12	<2	2.42	<1	<5	<5	26	
1415772	Rock	0.32	0.129	7	4	2.70	14	0.110	<20	5.61	<0.01	0.06	<2	1.81	<1	<5	<5	26	
1415773	Rock	0.40	0.134	9	2	2.97	17	0.170	<20	6.13	0.01	0.08	<2	1.17	<1	<5	<5	31	
1415774	Rock	0.38	0.132	8	2	2.72	25	0.174	<20	5.73	<0.01	0.13	<2	1.57	<1	<5	9	27	
1415775	Rock	0.37	0.137	8	2	3.01	22	0.156	<20	6.31	<0.01	0.10	<2	1.46	<1	<5	<5	29	
1415776	Rock	0.37	0.112	7	1	2.66	4	0.207	<20	5.37	<0.01	0.02	<2	3.39	<1	<5	<5	26	18.8
1415777	Rock	0.26	0.089	5	<1	2.12	<1	0.156	<20	4.40	<0.01	0.01	6	9.40	<1	<5	<5	21	35.6
1415778	Rock	0.33	0.124	7	<1	2.83	11	0.158	<20	5.93	<0.01	0.06	<2	1.77	<1	<5	<5	29	
1415779	Rock	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	
1415780	Rock	1.16	0.038	3	65	1.08	34	0.363	<20	2.26	0.15	0.06	<2	<0.05	<1	<5	6	7	
1415782	Rock	1.76	0.072	4	69	1.25	57	0.327	<20	2.72	0.17	0.06	<2	0.06	<1	<5	7	8	
166689	Rock	0.48	0.134	9	<1	2.86	14	0.241	<20	6.23	<0.01	0.10	<2	0.51	<1	<5	5	27	

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Client: **Schau, Mikkel**
3919 Woodhaven Terrace
Victoria BC V8N 1S7 Canada

Project: None Given
Report Date: December 03, 2014

QUALITY CONTROL REPORT VAN14003664.1

	Method	WGHT	FA330	FA330	FA330	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300
	Analyte	Wgt	Au	Pt	Pd	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Th	Sr	Cd	Sb	Bi	V
	Unit	kg	ppb	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
	MDL	0.01	2	3	2	1	1	3	1	0.3	1	1	2	0.01	2	2	1	0.5	3	3	1
Pulp Duplicates																					
1415778	Rock	0.56	3505	6	31	1	2163	23	407	4.4	33	42	3448	15.66	6	<2	2	2.9	<3	<3	486
REP 1415778	QC					2	2267	24	418	2.7	34	43	3576	16.33	6	<2	2	2.7	<3	<3	505
Reference Materials																					
STD AGPROOF	Standard																				
STD CDN-PGMS-19	Standard		231	111	486																
STD DS10	Standard					13	165	159	397	1.9	79	12	916	2.84	48	7	72	2.8	10	12	47
STD OREAS45EA	Standard					2	754	12	33	0.6	407	50	432	26.02	16	9	4	<0.5	<3	<3	321
STD SP49	Standard																				
STD SQ70	Standard																				
STD CDN-PGMS-19			230	108	476																
STD AGPROOF Expected																					
STD SP49 Expected																					
STD SQ70 Expected																					
STD DS10 Expected						14.69	154.61	150.55	370	2.02	74.6	12.9	875	2.7188	43.7	7.5	67.1	2.49	8.23	11.65	43
STD OREAS45EA Expected						1.39	709	14.3	28.9	0.26	381	52	400	23.51	9	10.7	3.5				303
BLK	Blank		<2	<3	<2																
BLK	Blank		2	<3	<2																
BLK	Blank																				
BLK	Blank					<1	<1	<3	<1	<0.3	<1	<1	<2	<0.01	<2	<2	<1	<0.5	<3	<3	<1
Prep Wash																					
ROCK-VAN	Prep Blank		<2	<3	<2	<1	3	<3	31	<0.3	<1	3	471	1.93	<2	<2	22	<0.5	<3	<3	27
ROCK-VAN	Prep Blank		<2	<3	<2	<1	3	<3	31	<0.3	<1	4	475	1.98	<2	<2	23	<0.5	<3	<3	28

Bureau Veritas Commodities Canada Ltd.
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Client: **Schau, Mikkel**
3919 Woodhaven Terrace
Victoria BC V8N 1S7 Canada

Project: None Given
Report Date: December 03, 2014

QUALITY CONTROL REPORT VAN14003664.1

	Method	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	FA530
	Analyte	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	S	Hg	Tl	Ga	Sc	Au
	Unit	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	%	ppm	ppm	ppm	ppm	gm/t
	MDL	0.01	0.001	1	1	0.01	1	0.001	20	0.01	0.01	0.01	2	0.05	1	5	5	5	0.9
Pulp Duplicates																			
1415778	Rock	0.33	0.124	7	<1	2.83	11	0.158	<20	5.93	<0.01	0.06	<2	1.77	<1	<5	<5	29	
REP 1415778	QC	0.34	0.128	8	1	2.94	13	0.168	<20	6.11	<0.01	0.06	<2	1.80	<1	<5	<5	30	
Reference Materials																			
STD AGPROOF	Standard																		<0.9
STD CDN-PGMS-19	Standard																		
STD DS10	Standard	1.13	0.080	17	58	0.82	425	0.076	<20	1.08	0.07	0.35	2	0.31	<1	<5	<5	<5	
STD OREAS45EA	Standard	0.03	0.031	7	934	0.10	155	0.101	<20	3.37	0.03	0.06	<2	<0.05	<1	<5	<5	86	
STD SP49	Standard																		18.2
STD SQ70	Standard																		39.9
STD CDN-PGMS-19																			
STD AGPROOF Expected																			0
STD SP49 Expected																			18.34
STD SQ70 Expected																			39.62
STD DS10 Expected		1.0625	0.073	17.5	54.6	0.775	359	0.0817		1.0259	0.067	0.338	3.32	0.29	0.3	5.1	4.3	2.8	
STD OREAS45EA Expected		0.036	0.029	6.57	849	0.095	148	0.0875		3.13	0.02	0.053		0.036			11.7	78	
BLK	Blank																		
BLK	Blank																		
BLK	Blank																		<0.9
BLK	Blank	<0.01	<0.001	<1	<1	<0.01	<1	<0.001	<20	<0.01	<0.01	<0.01	<2	<0.05	<1	<5	<5	<5	
Prep Wash																			
ROCK-VAN	Prep Blank	0.59	0.045	5	8	0.46	55	0.073	<20	0.90	0.07	0.07	<2	<0.05	<1	<5	6	<5	
ROCK-VAN	Prep Blank	0.59	0.046	5	10	0.47	57	0.073	<20	0.93	0.08	0.08	<2	<0.05	<1	<5	<5	<5	

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Client: **Schau, Mikkel**
3919 Woodhaven Terrace
Victoria BC V8N 1S7 Canada

Submitted By: Mikkel Schau
Receiving Lab: Canada-Vancouver
Received: November 10, 2014
Report Date: November 27, 2014
Page: 1 of 2

CERTIFICATE OF ANALYSIS VAN14003664A.1

CLIENT JOB INFORMATION

Project: None Given
Shipment ID:
P.O. Number
Number of Samples: 1

SAMPLE DISPOSAL

STOR-PLP Store After 90 days Invoice for Storage
DISP-RJT-SOIL Immediate Disposal of Soil Reject

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

SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Procedure Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
Dry at 60C	1	Dry at 60C			VAN
SS80	1	Dry at 60C sieve 100g to -80 mesh			VAN
FA330	1	Fire assay fusion Au Pt Pd by ICP-ES	30	Completed	VAN
AQ300	1	1:1:1 Aqua Regia digestion ICP-ES analysis	0.5	Completed	VAN

ADDITIONAL COMMENTS

Invoice To: Schau, Mikkel
3919 Woodhaven Terrace
Victoria BC V8N 1S7
Canada

CC:

BRITISH COLUMBIA CERTIFIED ASSAYER
MARCUS LAU
Geochemical Laboratory Manager

This report supersedes all previous preliminary and final reports with this file number dated prior to the date on this certificate. Signature indicates final approval; preliminary reports are unsigned and should be used for reference only.
All results are considered the confidential property of the client. Acme assumes the liabilities for actual cost of analysis only. Results apply to samples as submitted.
"*" asterisk indicates that an analytical result could not be provided due to unusually high levels of interference from other elements.

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Client: **Schau, Mikkel**
3919 Woodhaven Terrace
Victoria BC V8N 1S7 Canada

Project: None Given
Report Date: November 27, 2014

CERTIFICATE OF ANALYSIS VAN14003664A.1

	Method	FA330	FA330	FA330	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300
	Analyte	Au	Pt	Pd	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Th	Sr	Cd	Sb	Bi	V	Ca
	Unit	ppb	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%
	MDL	2	3	2	1	1	3	1	0.3	1	1	2	0.01	2	2	1	0.5	3	3	1	0.01
1415781	Soil	140	<3	13	2	157	6	60	0.3	15	10	147	3.50	5	<2	11	0.9	<3	<3	93	0.21

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

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Client: **Schau, Mikkel**
3919 Woodhaven Terrace
Victoria BC V8N 1S7 Canada

Project: None Given
Report Date: November 27, 2014

CERTIFICATE OF ANALYSIS VAN14003664A.1

	Method	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300
	Analyte	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	S	Hg	Tl	Ga	Sc
	Unit	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	%	ppm	ppm	ppm	ppm
	MDL	0.001	1	1	0.01	1	0.001	20	0.01	0.01	0.01	2	0.05	1	5	5	5
1415781	Soil	0.054	5	35	0.25	46	0.176	<20	5.24	0.01	0.02	<2	0.19	<1	<5	<5	6

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3919 Woodhaven Terrace
Victoria BC V8N 1S7 Canada

Project: None Given
Report Date: November 27, 2014

QUALITY CONTROL REPORT VAN14003664A.1

		Method	FA330	FA330	FA330	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300
		Analyte	Au	Pt	Pd	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Th	Sr	Cd	Sb	Bi	V	Ca
		Unit	ppb	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%
		MDL	2	3	2	1	1	3	1	0.3	1	1	2	0.01	2	2	1	0.5	3	3	1	0.01
Pulp Duplicates																						
1415781	Soil		140	<3	13	2	157	6	60	0.3	15	10	147	3.50	5	<2	11	0.9	<3	<3	93	0.21
REP 1415781	QC		90	<3	14	2	159	6	60	0.3	15	10	147	3.47	5	<2	12	1.0	<3	<3	92	0.20
Reference Materials																						
STD CDN-PGMS-23	Standard		461	470	2069																	
STD DS10	Standard					11	153	143	368	1.8	66	11	859	2.64	44	7	61	2.5	8	11	39	1.06
STD OREAS45EA	Standard					2	627	11	27	<0.3	340	41	361	22.24	10	10	3	<0.5	<3	<3	277	0.03
STD CDN-PGMS-23			496	456	2032																	
STD DS10 Expected						14.69	154.61	150.55	370	2.02	74.6	12.9	875	2.7188	43.7	7.5	67.1	2.49	8.23	11.65	43	1.0625
STD OREAS45EA Expected						1.39	709	14.3	28.9	0.26	381	52	400	23.51	9	10.7	3.5				303	0.036
BLK	Blank		<2	<3	<2																	
BLK	Blank					<1	<1	<3	<1	<0.3	<1	<1	<2	<0.01	<2	<2	<1	<0.5	<3	<3	<1	<0.01

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Client: **Schau, Mikkel**
3919 Woodhaven Terrace
Victoria BC V8N 1S7 Canada

Project: None Given
Report Date: November 27, 2014

QUALITY CONTROL REPORT VAN14003664A.1

		Method	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300
		Analyte	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	S	Hg	Tl	Ga	Sc
		Unit	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	%	ppm	ppm	ppm	ppm
		MDL	0.001	1	1	0.01	1	0.001	20	0.01	0.01	0.01	2	0.05	1	5	5	5
Pulp Duplicates																		
1415781	Soil		0.054	5	35	0.25	46	0.176	<20	5.24	0.01	0.02	<2	0.19	<1	<5	<5	6
REP 1415781	QC		0.054	5	34	0.26	45	0.176	<20	5.18	0.01	0.02	<2	0.19	<1	<5	<5	6
Reference Materials																		
STD CDN-PGMS-23	Standard																	
STD DS10	Standard		0.070	14	50	0.75	403	0.069	<20	0.96	0.06	0.31	3	0.30	<1	<5	<5	<5
STD OREAS45EA	Standard		0.026	7	812	0.09	141	0.089	<20	2.86	0.02	0.05	<2	<0.05	<1	<5	7	75
STD CDN-PGMS-23																		
STD DS10 Expected			0.073	17.5	54.6	0.775	359	0.0817		1.0259	0.067	0.338	3.32	0.29	0.3	5.1	4.3	2.8
STD OREAS45EA Expected			0.029	6.57	849	0.095	148	0.0875		3.13	0.02	0.053		0.036			11.7	78
BLK	Blank																	
BLK	Blank		<0.001	<1	<1	<0.01	<1	<0.001	<20	<0.01	<0.01	<0.01	<2	<0.05	<1	<5	<5	<5

Quality Analysis ... *Innovative Technologies*

Date Submitted: 04-Sep-13
Invoice No.: A13-10704
Invoice Date: 30-Sep-13
Your Reference:

Mikkel Schau
1007 Barkway Terrace
Brentwood Bay BC V8M 1A4
Canada

ATTN: Mikkel Schau

CERTIFICATE OF ANALYSIS

47 Vegetation samples were submitted for analysis.

The following analytical package was requested: Code 2B-15g Vegetation INAA(INAAGEO)

REPORT **A13-10704**

Notes:

CERTIFIED BY :

Emmanuel Eseme , Ph.D.
Quality Control

ACTIVATION LABORATORIES LTD.

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LAB 266
LAB 266
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Activation Laboratories Ltd. Report: A13-10704

Analyte Symbol	Au	Ag	As	Ba	Br	Ca	Co	Cr	Cs	Fe	Hg	Hf	Ir	K	Mo	Na	Ni	Rb	Sb	Sc	Se	Sr	Ta	Th
Unit Symbol	ppb	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppb	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	0.1	0.3	0.01	5	0.01	0.01	0.1	0.3	0.05	0.005	0.05	0.05	0.1	0.01	0.05	1	2	1	0.005	0.01	0.1	100	0.05	0.1
Analysis Method	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA
FAH13-01	1.4	< 0.3	0.42	< 5	0.86	0.32	1.1	0.7	0.13	0.019	< 0.05	< 0.05	< 0.1	0.85	< 0.05	322	< 2	7	0.245	0.04	< 0.1	< 100	< 0.05	< 0.1
FAH13-02	< 0.1	< 0.3	0.13	< 5	0.41	0.47	0.7	0.7	< 0.05	0.009	< 0.05	< 0.05	< 0.1	0.96	< 0.05	71	< 2	3	0.068	0.02	< 0.1	< 100	< 0.05	< 0.1
FAH13-03	0.7	< 0.3	0.09	< 5	0.33	0.35	0.2	0.9	0.05	0.006	< 0.05	< 0.05	< 0.1	1.14	< 0.05	49	< 2	5	0.043	0.02	< 0.1	< 100	< 0.05	0.1
FAH13-04	0.6	< 0.3	0.06	< 5	0.41	0.50	0.2	0.5	0.10	0.009	< 0.05	< 0.05	< 0.1	0.85	< 0.05	54	< 2	4	0.029	0.02	< 0.1	< 100	< 0.05	< 0.1
FAH13-05	< 0.1	< 0.3	0.05	< 5	0.85	0.59	0.4	0.6	0.09	0.006	< 0.05	< 0.05	< 0.1	0.90	< 0.05	41	< 2	7	0.024	0.02	< 0.1	< 100	< 0.05	< 0.1
FAH13-06	0.4	< 0.3	0.08	< 5	2.02	0.46	0.3	0.6	< 0.05	0.009	< 0.05	< 0.05	< 0.1	0.82	< 0.05	58	< 2	3	0.024	0.04	< 0.1	< 100	< 0.05	< 0.1
FAH13-07	< 0.1	< 0.3	0.06	< 5	1.12	0.58	0.3	0.6	0.12	0.007	< 0.05	< 0.05	< 0.1	0.70	< 0.05	39	< 2	4	0.028	0.02	< 0.1	< 100	< 0.05	< 0.1
FAH13-08	< 0.1	< 0.3	0.03	< 5	1.20	0.82	0.6	0.4	0.05	0.006	< 0.05	< 0.05	< 0.1	0.81	< 0.05	40	< 2	2	0.013	0.02	< 0.1	< 100	< 0.05	< 0.1
FAH13-09	< 0.1	< 0.3	0.05	< 5	0.48	0.60	0.6	0.7	0.25	0.005	< 0.05	< 0.05	< 0.1	0.69	< 0.05	46	< 2	8	0.022	0.01	< 0.1	< 100	< 0.05	< 0.1
FAH13-10	< 0.1	< 0.3	0.05	< 5	2.17	0.44	0.3	0.8	< 0.05	0.008	0.05	< 0.05	< 0.1	0.78	< 0.05	90	< 2	2	0.015	0.02	< 0.1	< 100	< 0.05	< 0.1
FAH13-11	< 0.1	< 0.3	0.03	< 5	1.82	0.71	0.6	0.4	< 0.05	0.006	0.06	< 0.05	< 0.1	0.77	< 0.05	47	< 2	2	0.012	0.02	< 0.1	< 100	< 0.05	< 0.1
FAH13-12	< 0.1	< 0.3	0.04	< 5	1.09	0.55	0.8	0.6	0.22	0.007	< 0.05	< 0.05	< 0.1	0.78	< 0.05	39	< 2	5	0.014	0.02	< 0.1	< 100	< 0.05	< 0.1
FAH13-13	< 0.1	< 0.3	0.05	< 5	0.32	0.42	0.3	0.5	0.08	0.006	< 0.05	< 0.05	< 0.1	0.79	< 0.05	32	< 2	4	0.009	0.02	< 0.1	< 100	< 0.05	< 0.1
FAH13-14	< 0.1	< 0.3	0.05	< 5	0.33	0.42	0.2	0.3	0.09	0.006	< 0.05	< 0.05	< 0.1	0.75	< 0.05	33	< 2	6	0.008	0.02	< 0.1	< 100	< 0.05	< 0.1
FAH13-15	< 0.1	< 0.3	0.03	< 5	0.26	0.47	0.2	0.5	0.05	0.007	< 0.05	< 0.05	< 0.1	0.75	< 0.05	32	< 2	4	0.006	0.02	< 0.1	< 100	< 0.05	< 0.1
FAH13-16	< 0.1	< 0.3	0.05	< 5	0.37	0.49	0.2	0.6	0.06	0.008	< 0.05	< 0.05	< 0.1	0.79	< 0.05	36	< 2	4	0.010	0.02	< 0.1	< 100	< 0.05	< 0.1
FAH13-17	< 0.1	< 0.3	0.05	< 5	1.15	0.71	0.2	0.5	< 0.05	0.007	< 0.05	< 0.05	< 0.1	0.78	< 0.05	44	< 2	1	0.025	0.04	< 0.1	< 100	< 0.05	< 0.1
FAH13-18	< 0.1	< 0.3	0.02	< 5	0.74	0.69	0.2	0.9	< 0.05	0.011	< 0.05	< 0.05	< 0.1	0.87	< 0.05	49	< 2	3	0.008	0.05	< 0.1	< 100	< 0.05	< 0.1
FAH13-19	< 0.1	< 0.3	0.03	< 5	0.30	0.33	0.3	0.4	0.06	0.007	< 0.05	< 0.05	< 0.1	0.82	< 0.05	33	< 2	3	0.009	0.02	< 0.1	< 100	< 0.05	< 0.1
FAH13-20	< 0.1	< 0.3	0.06	< 5	0.34	0.30	0.3	0.6	0.06	0.013	< 0.05	< 0.05	< 0.1	0.98	< 0.05	43	< 2	6	0.012	0.04	< 0.1	< 100	< 0.05	0.1
FAH13-21	< 0.1	< 0.3	0.03	< 5	0.32	0.42	0.3	0.5	0.13	0.006	< 0.05	< 0.05	< 0.1	0.81	< 0.05	41	< 2	5	0.009	0.02	< 0.1	< 100	< 0.05	< 0.1
FAH13-22	1.0	< 0.3	0.05	< 5	0.41	0.41	0.4	0.4	0.06	0.007	< 0.05	< 0.05	< 0.1	0.70	< 0.05	48	< 2	4	0.013	0.02	< 0.1	< 100	< 0.05	0.1
FAH13-23	< 0.1	< 0.3	0.04	< 5	0.37	0.59	0.4	0.4	0.14	0.009	< 0.05	< 0.05	< 0.1	0.76	< 0.05	40	< 2	5	< 0.005	0.02	< 0.1	< 100	< 0.05	< 0.1
FAH13-24	< 0.1	< 0.3	0.05	< 5	0.36	0.42	0.2	0.4	< 0.05	0.006	< 0.05	< 0.05	< 0.1	0.81	< 0.05	46	< 2	2	0.018	0.02	< 0.1	< 100	< 0.05	< 0.1
FAH13-25	0.5	< 0.3	< 0.01	< 5	0.56	0.47	0.3	0.6	0.09	0.008	< 0.05	< 0.05	< 0.1	0.83	< 0.05	47	< 2	4	0.009	0.02	< 0.1	< 100	< 0.05	< 0.1
FAH13-26	< 0.1	< 0.3	0.03	< 5	0.37	0.32	0.3	< 0.3	< 0.05	0.006	< 0.05	< 0.05	< 0.1	0.83	< 0.05	39	< 2	3	0.008	0.02	< 0.1	< 100	< 0.05	< 0.1
FAH13-27	< 0.1	< 0.3	0.03	< 5	0.33	0.41	0.2	0.3	0.08	0.005	< 0.05	< 0.05	< 0.1	0.82	< 0.05	33	< 2	5	< 0.005	0.02	< 0.1	< 100	< 0.05	< 0.1
FAH13-28	< 0.1	< 0.3	< 0.01	< 5	0.46	0.52	0.2	0.3	< 0.05	0.008	< 0.05	< 0.05	< 0.1	0.85	< 0.05	37	< 2	3	< 0.005	0.02	< 0.1	< 100	< 0.05	< 0.1
FAH13-29	< 0.1	< 0.3	0.04	< 5	0.36	0.50	0.3	0.5	0.09	0.006	< 0.05	< 0.05	< 0.1	0.92	< 0.05	35	< 2	5	0.007	0.02	< 0.1	< 100	< 0.05	< 0.1
FAH13-30	< 0.1	< 0.3	0.03	< 5	0.46	0.39	0.3	0.3	< 0.05	0.005	< 0.05	< 0.05	< 0.1	0.67	< 0.05	49	< 2	4	0.011	0.03	< 0.1	< 100	< 0.05	< 0.1
FAH13-31	< 0.1	< 0.3	0.04	< 5	0.36	0.39	0.3	0.6	< 0.05	0.007	< 0.05	< 0.05	< 0.1	0.69	0.28	34	< 2	3	< 0.005	0.03	< 0.1	< 100	< 0.05	< 0.1
FAH13-32	< 0.1	< 0.3	0.07	< 5	0.32	0.34	0.2	0.4	< 0.05	0.007	< 0.05	< 0.05	< 0.1	0.73	< 0.05	36	< 2	3	0.005	0.03	< 0.1	< 100	< 0.05	< 0.1
FAH13-33	< 0.1	< 0.3	< 0.01	8	0.56	0.63	0.3	0.6	0.10	0.008	< 0.05	< 0.05	< 0.1	0.77	< 0.05	62	< 2	3	0.010	0.03	< 0.1	< 100	< 0.05	< 0.1
FAH13-34	< 0.1	< 0.3	< 0.01	< 5	0.36	0.52	0.3	0.7	0.05	0.007	< 0.05	< 0.05	< 0.1	0.67	< 0.05	40	< 2	4	0.014	0.03	< 0.1	< 100	< 0.05	< 0.1
FAH13-35	< 0.1	< 0.3	0.02	< 5	0.47	0.65	2.3	0.6	< 0.05	0.007	< 0.05	< 0.05	< 0.1	0.64	< 0.05	47	< 2	3	0.005	0.03	< 0.1	< 100	< 0.05	< 0.1
FAH13-36	< 0.1	< 0.3	< 0.01	< 5	0.32	0.51	0.4	0.4	0.05	0.005	< 0.05	< 0.05	< 0.1	0.75	< 0.05	46	< 2	4	0.008	0.03	< 0.1	< 100	< 0.05	< 0.1
FAH13-37	< 0.1	< 0.3	< 0.01	< 5	1.28	0.50	0.3	0.7	0.17	0.012	< 0.05	< 0.05	< 0.1	0.78	< 0.05	89	< 2	7	< 0.005	0.03	< 0.1	< 100	< 0.05	< 0.1
FAH13-38	< 0.1	< 0.3	< 0.01	< 5	1.20	0.63	0.4	0.6	0.17	0.007	0.05	< 0.05	< 0.1	0.75	< 0.05	67	< 2	3	0.007	0.03	< 0.1	< 100	< 0.05	< 0.1
FAH13-39	< 0.1	< 0.3	< 0.01	< 5	3.04	0.52	0.3	0.4	< 0.05	0.011	0.08	< 0.05	< 0.1	0.80	< 0.05	109	< 2	4	< 0.005	0.04	< 0.1	< 100	< 0.05	< 0.1
FAH13-40	< 0.1	< 0.3	< 0.01	< 5	2.98	0.48	0.4	0.8	< 0.05	0.011	0.05	< 0.05	< 0.1	0.64	< 0.05	101	< 2	2	0.012	0.05	< 0.1	< 100	< 0.05	< 0.1
F1H13-01	< 0.1	< 0.3	0.17	< 5	0.52	0.48	0.2	0.3	< 0.05	0.007	< 0.05	< 0.05	< 0.1	0.65	< 0.05	56	< 2	6	0.009	0.03	< 0.1	< 100	< 0.05	< 0.1
F1H13-02	< 0.1	< 0.3	0.13	< 5	0.79	0.62	0.8	0.3	0.10	0.007	< 0.05	< 0.05	< 0.1	0.76	< 0.05	43	< 2	6	0.008	0.03	< 0.1	< 100	< 0.05	< 0.1
F1H13-03	< 0.1	< 0.3	0.09	< 5	0.43	0.36	0.3	0.3	0.07	0.007	< 0.05	< 0.05	< 0.1	0.77	< 0.05	40	< 2	6	0.009	0.03	< 0.1	< 100	< 0.05	< 0.1
F1H13-04	< 0.1	< 0.3	0.20	< 5	2.16	0.59	0.3	0.4	< 0.05	0.008	0.05	< 0.05	< 0.1	0.76	< 0.05	161	< 2	2	0.011	0.04	< 0.1	< 100	< 0.05	< 0.1
F1H13-05	< 0.1	< 0.3	0.15	< 5	2.50	0.46	0.7	0.3	< 0.05	0.010	< 0.05	< 0.05	< 0.1	0.64	0.19	53	< 2	3	0.018	0.04	< 0.1	< 100	< 0.05	< 0.1
F1H13-06	< 0.1	< 0.3	0.15	< 5	1.53	0.44	0.3	0.4	0.05	0.007	< 0.05	< 0.05	< 0.1	0.97	< 0.05	113	< 2	1	0.011	0.03	< 0.1	< 100	< 0.05	< 0.1
F1H13-07	< 0.1	< 0.3	0.14	< 5	1.87	0.57	0.4	0.6	< 0.05	0.010	< 0.05	< 0.05	< 0.1	0.70	< 0.05	55	< 2	3	0.012	0.03	< 0.1	< 100	< 0.05	< 0.1

Analyte Symbol	U	W	Zn	La	Ce	Nd	Sm	Eu	Tb	Lu	Yb	Mass
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	g
Detection Limit	0.01	0.05	2	0.01	0.1	0.3	0.001	0.05	0.1	0.001	0.005	
Analysis Method	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA
FAH13-01	< 0.01	0.37	15	0.09	0.2	< 0.3	0.014	< 0.05	< 0.1	< 0.001	< 0.005	15.4
FAH13-02	< 0.01	0.23	13	0.06	< 0.1	< 0.3	0.007	< 0.05	< 0.1	< 0.001	< 0.005	15.2
FAH13-03	< 0.01	0.14	21	0.06	< 0.1	< 0.3	0.009	< 0.05	< 0.1	< 0.001	< 0.005	15.3
FAH13-04	< 0.01	0.57	10	0.05	< 0.1	< 0.3	0.008	< 0.05	< 0.1	< 0.001	< 0.005	15.1
FAH13-05	< 0.01	0.08	13	0.06	< 0.1	< 0.3	0.008	< 0.05	< 0.1	< 0.001	< 0.005	15.3
FAH13-06	< 0.01	0.11	12	0.06	0.2	< 0.3	0.009	< 0.05	< 0.1	< 0.001	< 0.005	15.1
FAH13-07	< 0.01	0.06	11	0.06	0.2	< 0.3	0.008	< 0.05	< 0.1	< 0.001	< 0.005	15.4
FAH13-08	< 0.01	< 0.05	13	0.05	< 0.1	< 0.3	0.005	< 0.05	< 0.1	< 0.001	< 0.005	15.1
FAH13-09	< 0.01	0.07	12	0.05	< 0.1	< 0.3	0.005	< 0.05	< 0.1	< 0.001	< 0.005	15.1
FAH13-10	< 0.01	< 0.05	23	0.07	< 0.1	< 0.3	0.009	< 0.05	< 0.1	< 0.001	< 0.005	15.1
FAH13-11	< 0.01	< 0.05	14	0.06	< 0.1	< 0.3	0.008	< 0.05	< 0.1	< 0.001	< 0.005	15.1
FAH13-12	< 0.01	< 0.05	18	0.05	0.1	< 0.3	0.008	< 0.05	< 0.1	< 0.001	< 0.005	15.1
FAH13-13	< 0.01	< 0.05	12	0.05	0.2	< 0.3	0.007	< 0.05	< 0.1	< 0.001	< 0.005	15.2
FAH13-14	< 0.01	0.13	13	0.05	0.1	< 0.3	0.007	< 0.05	< 0.1	< 0.001	< 0.005	15.1
FAH13-15	< 0.01	0.12	13	0.05	0.1	< 0.3	0.008	< 0.05	< 0.1	< 0.001	< 0.005	15.2
FAH13-16	< 0.01	0.08	11	0.04	< 0.1	< 0.3	0.007	< 0.05	< 0.1	< 0.001	< 0.005	15.3
FAH13-17	< 0.01	0.07	13	0.06	0.1	< 0.3	0.010	< 0.05	< 0.1	< 0.001	< 0.005	15.2
FAH13-18	< 0.01	0.08	20	0.05	< 0.1	< 0.3	0.009	< 0.05	< 0.1	< 0.001	< 0.005	15.3
FAH13-19	< 0.01	0.20	8	0.06	0.2	< 0.3	0.007	< 0.05	< 0.1	< 0.001	< 0.005	15.4
FAH13-20	< 0.01	0.22	11	0.08	0.2	< 0.3	0.012	< 0.05	< 0.1	< 0.001	< 0.005	15.3
FAH13-21	< 0.01	0.12	6	0.06	0.1	< 0.3	0.009	< 0.05	< 0.1	< 0.001	< 0.005	15.3
FAH13-22	< 0.01	0.12	7	0.07	< 0.1	< 0.3	0.010	< 0.05	< 0.1	< 0.001	< 0.005	15.1
FAH13-23	< 0.01	0.06	11	0.05	< 0.1	< 0.3	0.005	< 0.05	< 0.1	< 0.001	< 0.005	15.4
FAH13-24	< 0.01	< 0.05	13	0.05	< 0.1	< 0.3	0.008	< 0.05	< 0.1	< 0.001	< 0.005	15.4
FAH13-25	< 0.01	0.19	11	0.06	0.2	< 0.3	0.010	< 0.05	< 0.1	< 0.001	< 0.005	15.1
FAH13-26	< 0.01	0.12	12	0.05	< 0.1	< 0.3	0.009	< 0.05	< 0.1	< 0.001	< 0.005	15.4
FAH13-27	0.03	0.17	12	0.06	0.2	< 0.3	0.005	< 0.05	< 0.1	< 0.001	< 0.005	15.4
FAH13-28	< 0.01	1.18	15	0.06	0.2	< 0.3	0.007	< 0.05	< 0.1	< 0.001	< 0.005	15.3
FAH13-29	< 0.01	0.06	12	0.06	< 0.1	< 0.3	0.010	< 0.05	< 0.1	< 0.001	< 0.005	15.0
FAH13-30	< 0.01	0.09	15	0.05	< 0.1	< 0.3	0.010	< 0.05	< 0.1	< 0.001	< 0.005	15.1
FAH13-31	< 0.01	< 0.05	12	0.05	< 0.1	< 0.3	0.008	< 0.05	< 0.1	< 0.001	< 0.005	15.2
FAH13-32	< 0.01	< 0.05	18	0.05	0.1	< 0.3	0.006	< 0.05	< 0.1	< 0.001	< 0.005	15.4
FAH13-33	< 0.01	< 0.05	14	0.07	< 0.1	< 0.3	0.010	< 0.05	< 0.1	< 0.001	< 0.005	15.1
FAH13-34	< 0.01	< 0.05	11	0.05	0.1	< 0.3	0.007	< 0.05	< 0.1	< 0.001	< 0.005	15.3
FAH13-35	< 0.01	< 0.05	17	0.07	< 0.1	< 0.3	0.008	< 0.05	< 0.1	< 0.001	< 0.005	15.0
FAH13-36	< 0.01	< 0.05	18	0.04	0.3	< 0.3	0.007	< 0.05	< 0.1	< 0.001	< 0.005	15.2
FAH13-37	< 0.01	0.05	13	0.07	< 0.1	< 0.3	0.007	< 0.05	< 0.1	< 0.001	< 0.005	15.2
FAH13-38	< 0.01	< 0.05	13	0.05	0.3	< 0.3	0.008	< 0.05	< 0.1	< 0.001	< 0.005	15.2
FAH13-39	< 0.01	0.11	12	0.07	0.1	< 0.3	0.011	< 0.05	< 0.1	< 0.001	< 0.005	15.2
FAH13-40	< 0.01	< 0.05	15	0.08	0.3	0.4	0.014	< 0.05	< 0.1	< 0.001	< 0.005	15.0
F1H13-01	< 0.01	< 0.05	17	0.05	< 0.1	< 0.3	0.008	< 0.05	< 0.1	< 0.001	< 0.005	15.4
F1H13-02	< 0.01	< 0.05	22	0.04	0.3	< 0.3	0.007	< 0.05	< 0.1	< 0.001	< 0.005	15.1
F1H13-03	< 0.01	< 0.05	20	0.04	< 0.1	< 0.3	0.007	< 0.05	< 0.1	< 0.001	< 0.005	15.2
F1H13-04	< 0.01	< 0.05	22	0.07	< 0.1	< 0.3	0.007	< 0.05	< 0.1	< 0.001	< 0.005	15.4
F1H13-05	< 0.01	< 0.05	18	0.08	< 0.1	< 0.3	0.013	< 0.05	< 0.1	< 0.001	< 0.005	15.1
F1H13-06	< 0.01	< 0.05	18	0.04	< 0.1	< 0.3	0.007	< 0.05	< 0.1	< 0.001	< 0.005	15.5
F1H13-07	< 0.01	< 0.05	14	0.04	0.3	< 0.3	0.008	< 0.05	< 0.1	< 0.001	< 0.005	15.4

Quality Control

Analyte Symbol	Au	Br	Ca	Co	Fe	K	Na	Sb	Sc	Zn	La	Ce	Sm
Unit Symbol	ppb	ppm	%	ppm	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	0.1	0.01	0.01	0.1	0.005	0.01	1	0.005	0.01	2	0.01	0.1	0.001
Analysis Method	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA
L-STD-4 Meas	20.0	5.55	3.77	0.8	0.112	1.63	370	0.161	0.24	31	0.82	1.4	0.130
L-STD-4 Cert	20.0	5.60	3.67	0.600	0.110	1.24	365	0.160	0.240	32.0	0.800	1.41	0.130

Appendix D-2: Gold assay comparisons

Several samples (VAN13003504.2 had multiple Au determinations performed on the same powder sample. Results are shown below:

Sample	Au ppb *FA*,	Au ppm ICP-ES	Au ppb ICP-MS
1593101	***4721***	6	2530
1593102	***145***	<2	na
1593103	***523***	<2	524
1593104	*570*	<2	na
1593105	***1027***	<2	na
1593106	***551***	<2	na
1593107	***13***	<2	5.7
1593108	***9***	<2	
1593109	***1924***	3	2797.7
1593110	***1623***	<2	2867
1593111	***801***	<2	na
1593151	***307***	<2	na
1593152	***4008***	6	na
1593153	***5667***	8	5022.9
1593154	***1334***	<2	na
1593155	*3815*	3	2960.2
1593156	*2415*	3	2851.6
1593157	*182*	<2	na
1593158	*4997*	5	5557.6
1593159	*2021*	<2	na
1593160	*2376*	2	na
1593161	*663*	3	675.9
1593162	*2764*	3	na
1593163	*4026*	5	4087
1593164	*1198*	<2	na
1593165	*169*	<2	na
1593166	*10*	<2	na
1593167	*10*	<2	3.3

Sample	Au ppb *FA*,	Au ppm ICP-ES	Au ppb ICP-MS
1593168	*12*	<2	na
1593169	*1516*	4	1771.4
1593170	*287*	2	na

Sample	Au ppb *FA*	Au ppm ICP-ES	Au ppb ICP-MS
1593107	13	<2	5.7
1593107 repeat	13	<2	
1593164	1198	<2	
1593164 repeat	1224	<2	
PGMS-19 standard-result	239		
PGMS-19 standard-result	219		
PGMS-19 standard expected	230		
PD1 standard result	550		
PD1 standard result	553		
PD1 standard expected	542		
BLK		<2	0.5
DS10 result			62.6
DS10 expected			91.9
OREAS45EA result			45.8
OREAS45EA expected			53

Inspection of the tables, which shows three separate determinations of Au on the same powder sample show some scatter. It is important to note that the fire assay samples were determined on 30 gm samples, whereas the ICP-ES was done on Aqua Regia Soluble portion of a 1/2 gm aliquot of powder, and the ICP-MS sample was done an a powder which had been totally dissolved. The three methods are not sampling the same material.

The accuracy and precision results are scattered, and indicate a certain amount of difference in type and quality of sampling as well as a possible nugget effect. These results are adequate for exploration purposes but not for proper assessment purposes.