Renewal Report for Work Filed:
September 19th, 2012

"IN" Grouping #HD03216

For work done:

August 17-18 (2 days), August 20- September 4th (15 days),
Sept. 9th (1 day) - 2012

On claims:

Fuc1(YD11928)

{FucO12(YD11946), FucS(YD89572), FucT(YD89570), FucI(YD89569),
FucC(YD89567), FucF(YD89565), FucU(YD89566)
Eight10(YD90434), Eight3(YD90437), Eight4(YD90438),
Eight7(YD90441), Eight9(YD90443)} (test trenches)

Map#'s 116B03 & 115O14
Dawson City
Mouth of Hunker Creek; Bear to Henry Creeks

Bedrock Sampling & Mapping
Prospecting of Group to Define Targets.

Dawson District: Map# 116B03
Utm to Access, (behind Bear Creek):
07V 0586300/ 7101000
(At the mouth of Hunker Creek Road)

Claims Owner: Sylvain Montreuil
Report Compiled by: Erini Petroutsas

Grouping Info and claim tag numbers

To renew

Fuchite, Waste Vein & IN properties

Fuc1 - 2	YD11928 - 929	
Fuc3 - 5	YD129018 - 9020	
Fuc6	YD89575	
Fuc7	YD89573	
Fuc8	YD89576	
Fuc9	YD89574	
Fuc10	YD11950	
Fuc11	YD11948	
Fuc12	YD89589	
Fuc13	YD11949	
Fuc14	YD89595	
Fuc15 - 16	YD89593 - 594	
Fuc17	YD89592	17 claims
FucF	YD89565	
FucU	YD89566	
FucC	YD89567	
FucH	YD89568	
FucI	YD89569	
FucT	YD89570	
FucE	YD89571	7 claims
Fuc O2- Fuc O8	YD89578 - 584	
Fuc O11	YD11947	
Fuc O12	YD11946	
Fuc O13	YD89597	
FucO14	YD89596	
FucO15- FucO16	YD89590 - 591	
FUCOX	YE71341	
FUCMIN	YE71342	14 claims
Eight 0 - Eight 9	YD90434 - 443	
EightGap	YE71379	
LIND 3	YD129021	
LIND 5	YD129022	13 claims

51 claims in grouping # HD03218

Not Grouped yet: Eight18-24 (8); FucGulch, Henry, MIN, Ox (4)

63 claims

IN1	YD92490
IN2 -IN10	YD92492-YD92500
IN11 - IN36	YD93401-YD93426
IN37 - IN46	YD93487-YD93496
IN47 - IN48	YD93499-YD93500
IN49 - IN50	YD90471-YD90472
IN 51-IN66	*2012 staking*
IN67 - IN74	YD129040-YD129047
IN75 - IN83	YD93469-YD93477
IN84 - IN98	YD93427-YD93441
IN99	YD93450
IN100 - IN107	YD93442-YD93449
IN108 - IN125	YD93451-YD93468
IN126 - IN134	YD93478-YD93486
IN135 - IN143	YD90473-YD90481
IN144 - IN156	YD92251-YD92263
IN157 - IN166	YD129001 - YD129010
IN167 - IN173	YD129001-YD129017
INDEPEN - DANCE(fractions)	YD93497-YD93498

175 claims. Plus new 2012 staking…

Currently Grouped with:

Waste 1-33	YD90401-YD90433
Waste34	YD92489
WasteSuprise35	YD102301
W36	YE71377
Waste37	YE71315
WasteLCF(Last Chance fraction)	YE71380
WF(38)	YE71378

38 claims

197 claims in grouping #HD03216 (2011)

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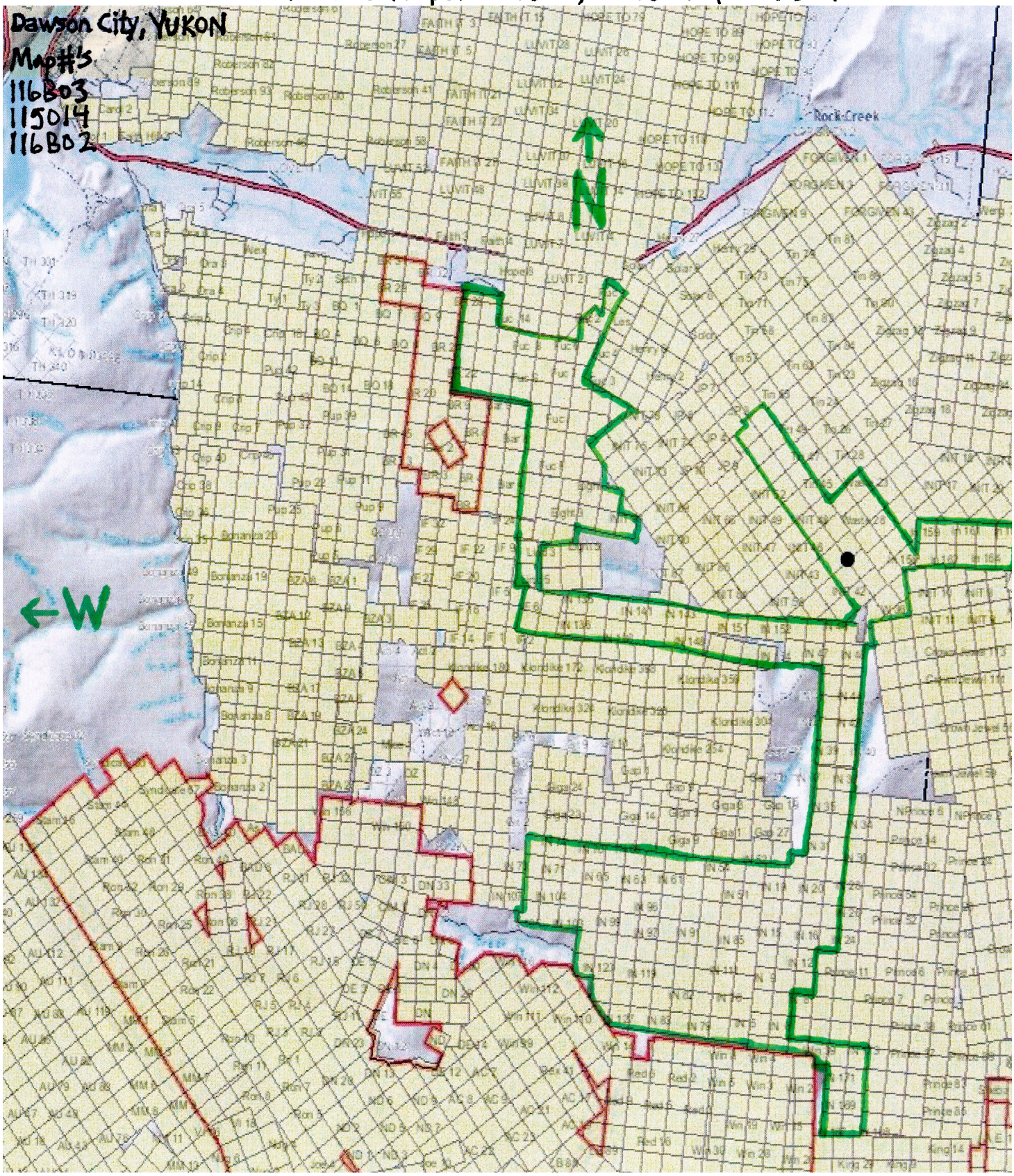
Appendix: Chromium Fuchsite and it's possible relationship to faulting and hydrothermal activity in the Klondike. Possible chomitite bedrock layer-Last Chance Creek area. 73-78

Claims Maps: 116B03, 116B02 & 115014

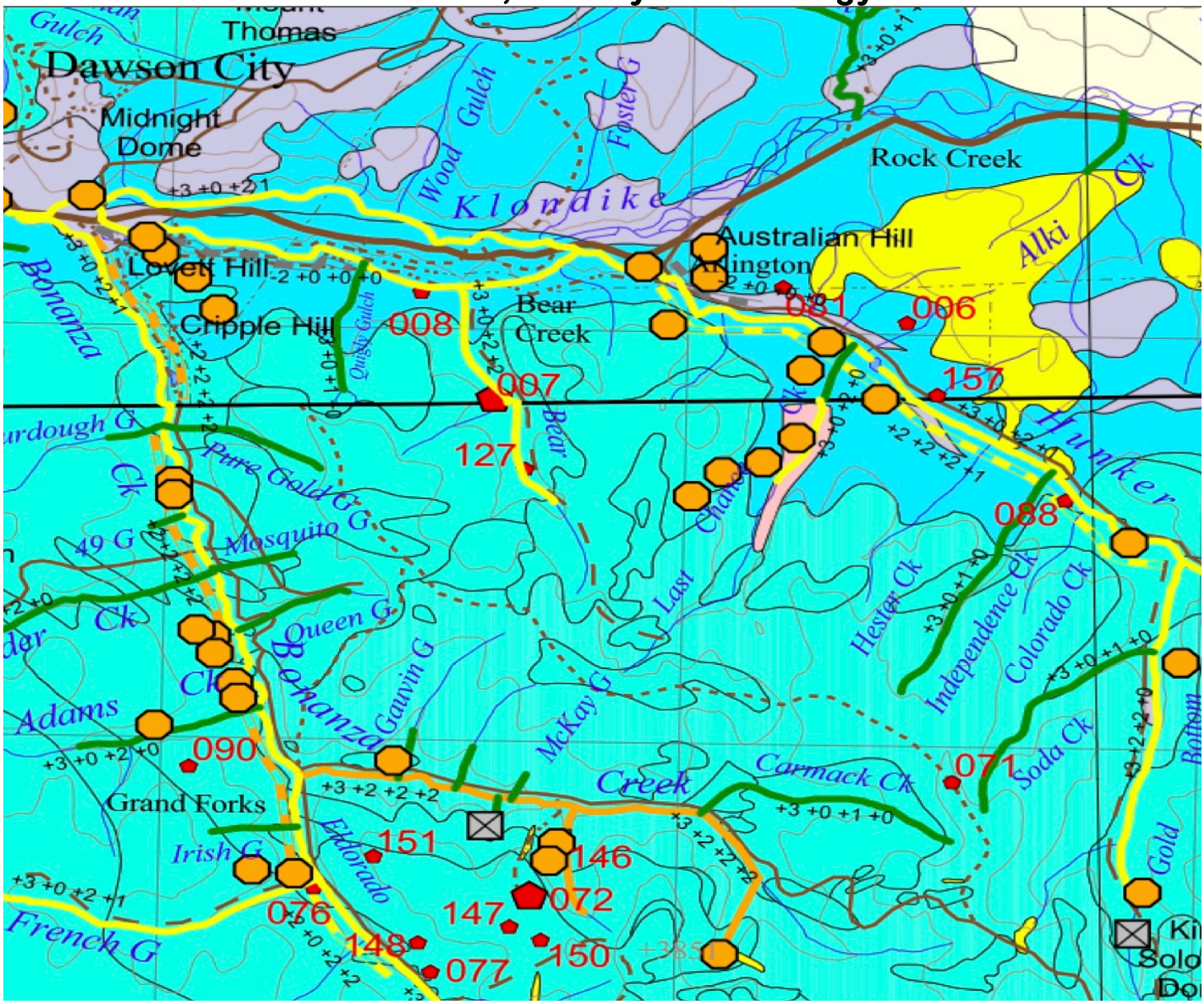


Bear to Last Chance Creeks.

Hester Creek & Volcanic Intrusive contact zone.

Continues south up Colorado & Independence Creeks to Carmacks Fork.

(Lone Star Occurrence #072 min-file; directly south West.)



Blue- Nasina Subterrrane- Metamorphosed Paleozoic continental margin with superposed Late Devonian and Early Mississipian arc volcanic and plutonic rocks.

Green- Klondike Schist Subterrane- Metamorphosed upper Paleozoic arc volcanic rocks.

Yellow- TVS- Tertiary felsic to mafic volcanic rocks with interbedded terrestial sedimentary rocks.

Pink- uKv- Upper Cretaceous mafic and lesser felsic volcanic rocks, mostly Carmacks Group

The "yellow" body north of Hunker at Tinhorn is a large intrusive volcanic dyke; Rhyollite tuf See photo next page.Historically, Klondike Schist Subterrane has been the predominant hos for lode occurrences on the Klondike Plateau.

(2002 Gold Potential Appraisal Map. Lowey, Deforest & Lipovsky. Stuart River Placer Project)

Quartz claims in this group cover: Head of Gold Bottom Creek, Soda & Carmack Creeks. All of Independence & Hester Creeks and most of Last Chance to Bear Creeks.

This is the Heart of gold country in the Yukon. Also largely unexplored with regards to hard rock mining. As the placer has been so plentiful here, no noticeably significant effort has really been made to track anything below surface, (except for King Solomon's Dome and the Lone Star Occurrence which were a load gold producers).

(See Mineral Occurence Map 2004. Yukon Geological Survey. Yukon Government.)
Official MinFile Report excerpts: (EMR Yukon, online Library)

Drilled Prospect -157- Mouth of Tinhorn Gulch. Ben Levy. Au Vein. Waste23-25

"The area is underlain by strongly sheared and deformed carbonaceous phyllite and phyllitic quartzite (Devonian Nasina Series), and imbricate thrust slices of altered ultramafic rocks. On the northeast side of the property, the phyllites are intruded by a large body (or intense dyke swarm) of quartz-feldspar porphyry (Early Eocene age). Immediately southwest of Hunker Creek, phyllite and ultramafic rocks are cut by scattered mafic dykes. The ultramafic rocks show intense silica-carbonate alteration and now consist largely of quartz, ferroan carbonate and chrome-mica. The alteration predated the latest shearing in the area.
The Ben Levy occurrence consists of a vein at least 5 m thick, which cuts carbonatized serpentinite on the northeast side of Hunker Creek. The vein appears to dip moderately t the northeast and consists of 1-5 mm bands of comb-textured iron carbonate with rare interbands of clear fine-grained quartz. Vuggy cavities lined with quartz crystals occur locally, and angular fragments of carbonatized serpentinite and carbonaceous schist occ within the vein.
Newspaper accounts of 1901-02 report that the adit and inclined shaft cut a quartz vein 1 m thick at three different levels to a maximum depth of 50 m below the surface of the hil Vein material was reported to assay from 29.8 to 270.2 g/t Au and up to 54.9 g/t Ag."
LATITUDE: 64° 0' 3"
LONGITUDE: 139° 3' 39'
The BenLevy occurance was re-located this summer and we are waiting for results from the sampling shown below. The area consists of highly hydrothermaly altered and carbonate altered greenstone. See sample locations page 51.

Anomaly-159- Stutter- Trace commodities of Antimony,Arsenic, Barite, Gold. Ore 36. (2012 staking target.)
"Both the veins and the associated alteration zones are considered to be the products of an epithermal system of Quaternary age." DIAND (Exploration statement 1985)

Showing -88 - Trilby- Vein. Independance Creek. Waste34

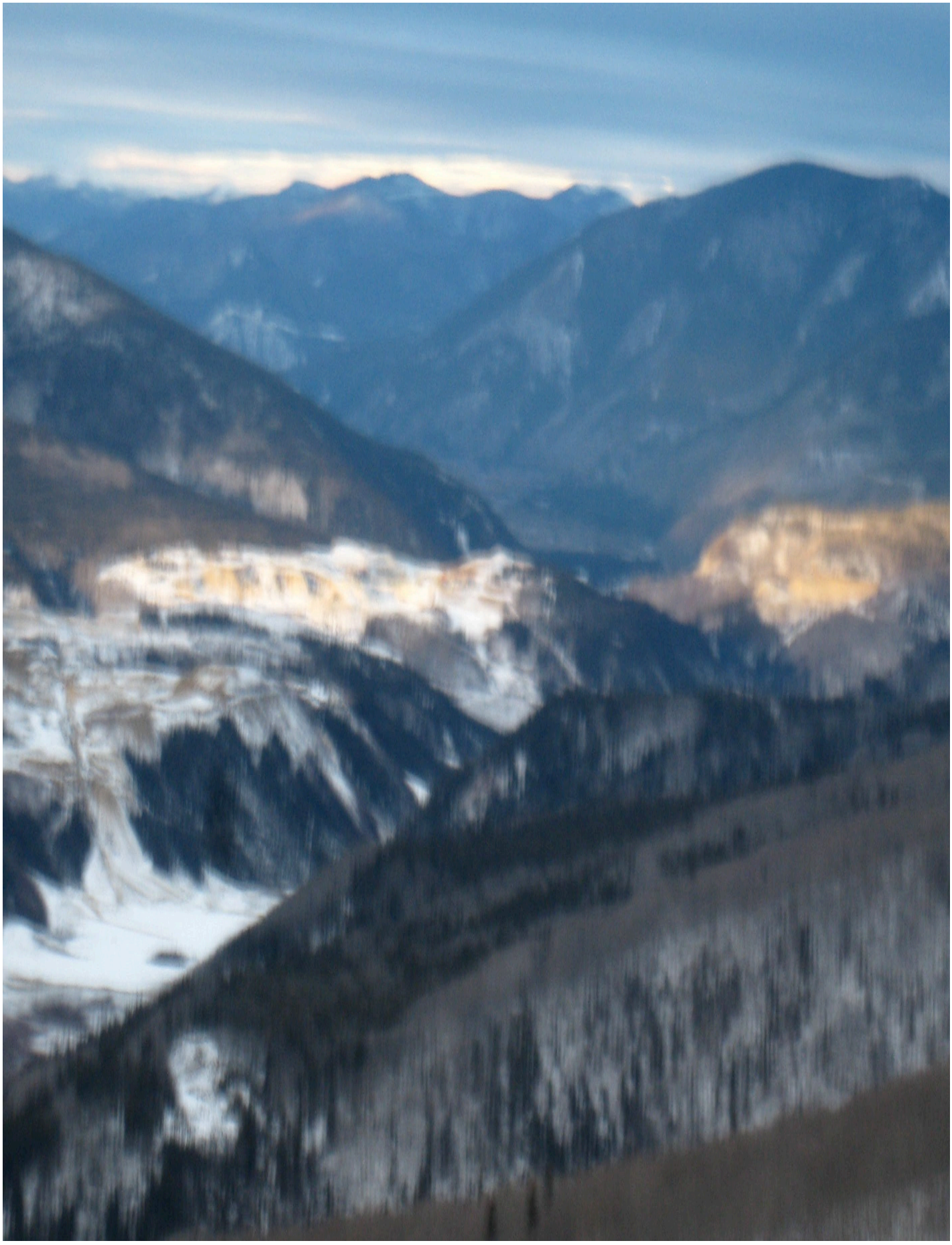
"The area is underlain by strongly sheared and deformed Nasina series carbonaceous phyllite and fine-grained quartzite (DMsqc) containing abundant barren quartz stringers and local disseminations of pyrite. Immediately south of the occurrence, a thrust fault

places mid Permian Klondike schist assemblage chlorite schist and micaceous quartzite (unit Psc) onto the carbonaceous sequence.
Early work was directed toward gold-bearing quartz veins. An 1899 newspaper account reported that an assay of 92.6 g/t Au had been obtained from a quartz vein on the Marguerite claim but this was never substantiated.
The 1984 drilling intersected 6.1 m grading 0.37 g/t Au and 8.4 g/t Ag on the Hun 144 cl but other holes returned low values. Faith Mines directed its efforts towards a northwest trending thrust fault, which is thought to be a possible conduit for placer gold in the area A total of 150 soil samples were collected at 25 m spacing from two lines located on top o a bench overlooking Hunker Creek. The area directly over the thrust fault was not sample due to placer activity. Each sample was tested by fire assay for Au and by 32-element ICP None of the samples returned anomalous values. "
***This claim has been actively mined by placer miners continuously for the past 100 years**

Waste "vein"- On hillside near Hester Creek. Waste 7.
Previously unrecorded anomaly. Uncovered by extensive placer activity to bedrock, and further trenching done by claim holder Sylvain Montreuil, 2011 & 2012. See also report "Waste Vein 2011".

Granite/Basalt from the top of Tinhorn Gulch. Parameter of yellow colored Hunker intrusive.

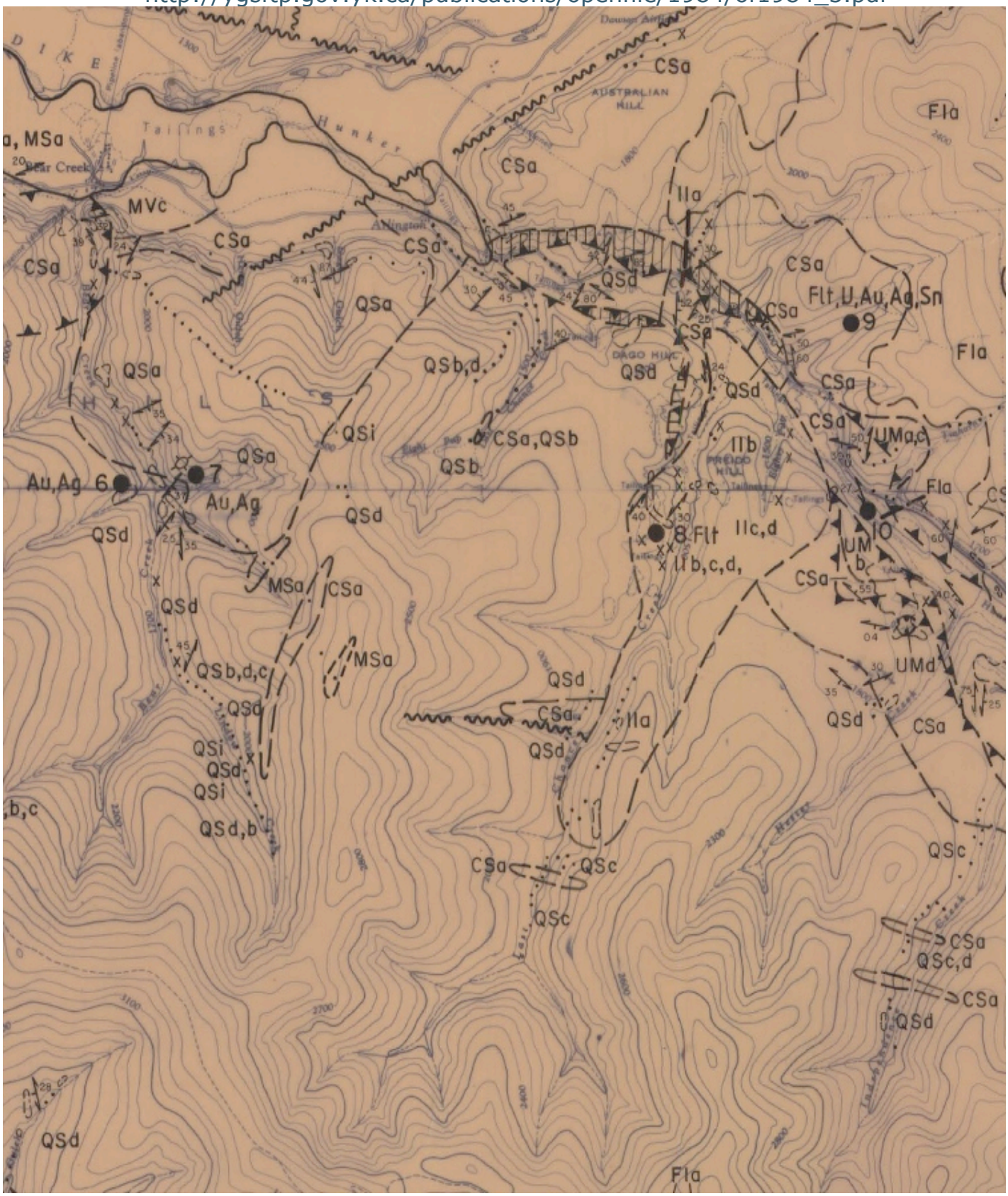




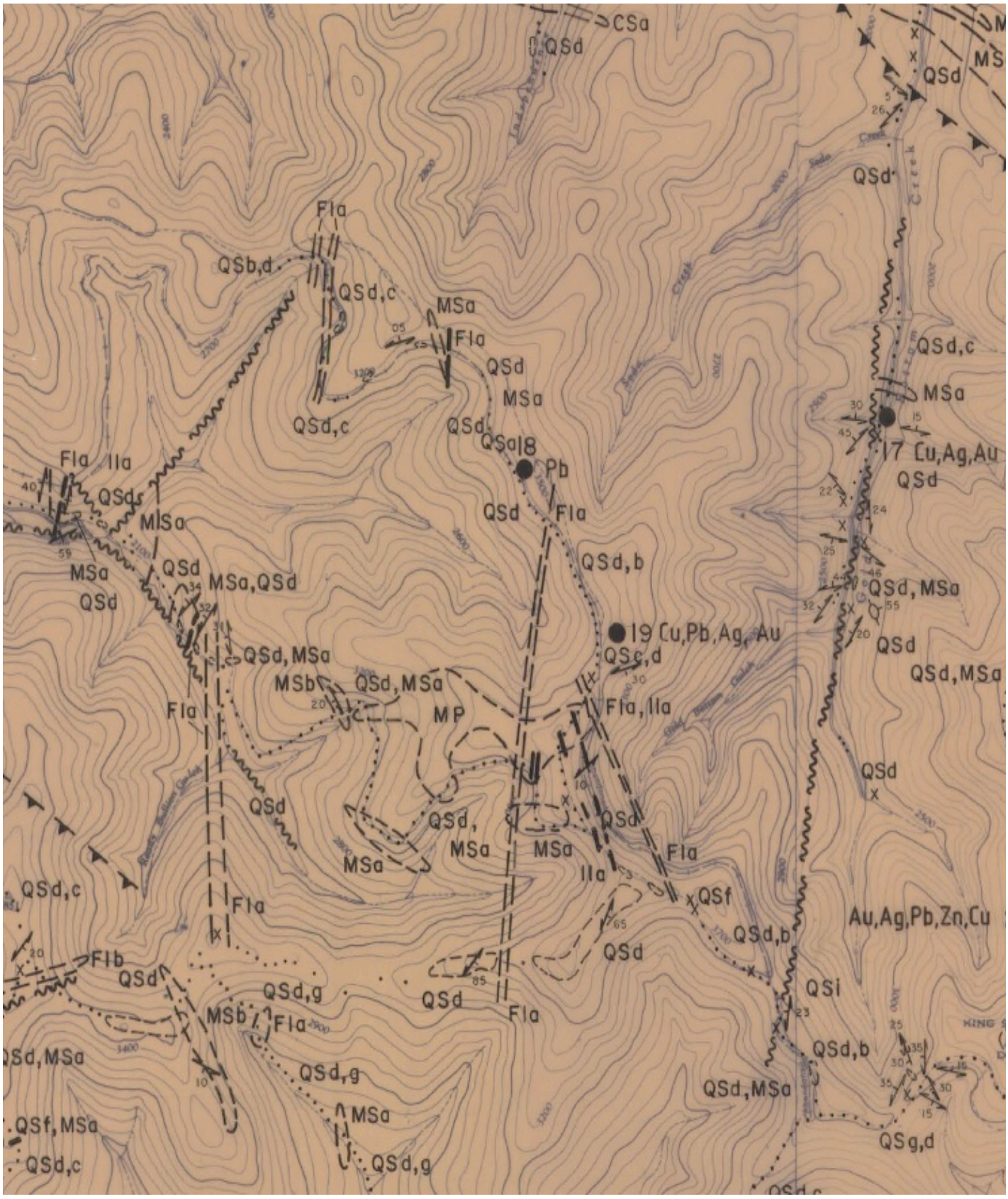
Waste claims, (named for the overburden or waste already removed), stretch south from Hunker & cover Nugget & Paradise Hills. Picture from the top of TinHorn Gulch.

Please follow link to see complete map and descriptions of the 35 "known" mineral occurrences in the Klondike area as of 1983 by R.L. Debicki.

http://ygsftp.gov.yk.ca/publications/openfile/1984/of1984_3.pdf



FUC H & U claims covers recorded mineral occurrence **7** - **Gordon** (*malachite, azurite iron, chalcopyrite & galena in both quartz and schist*) and border **6** - Virgin Jean where quartz is recorded running at 25.5 g/t Au. Please see full information at bottom of above linked map.



IN6 borders - **19** - **Boxcar** (*on Shawn Ryan's Prince 47*) where a sample of galena bearing schist collected in 1983 contained 202 g/t Ag and 8.77% Cu.

Pictures of malachite/azurite ores shown next page, are from the border of the Prince claims with claim IN133*, at the southern edge of the block*).

18 - **Keynote** - On claim **IN13**, is "*a massive white quartz vein with galena*."

Occurrence **9- Unexpected** - On claim TIN52, bordering **Waste 22**. "*Quartz feldspar porphry contains traces of purple flourite, uranium anomalies and Au*", though it doesn't state how much.

8- Bremner- On claim Ore 51, "*Andesitic lava flows, argillic alteration hots veinlets of bluish chalcedony, banded flourite, moderately anomalous amounts of mercury and barium*."

*****Also see occurrences **088** & **157** described better in **Waste7 Vein Report, 2011**.





Head of Soda Creek, In Claims

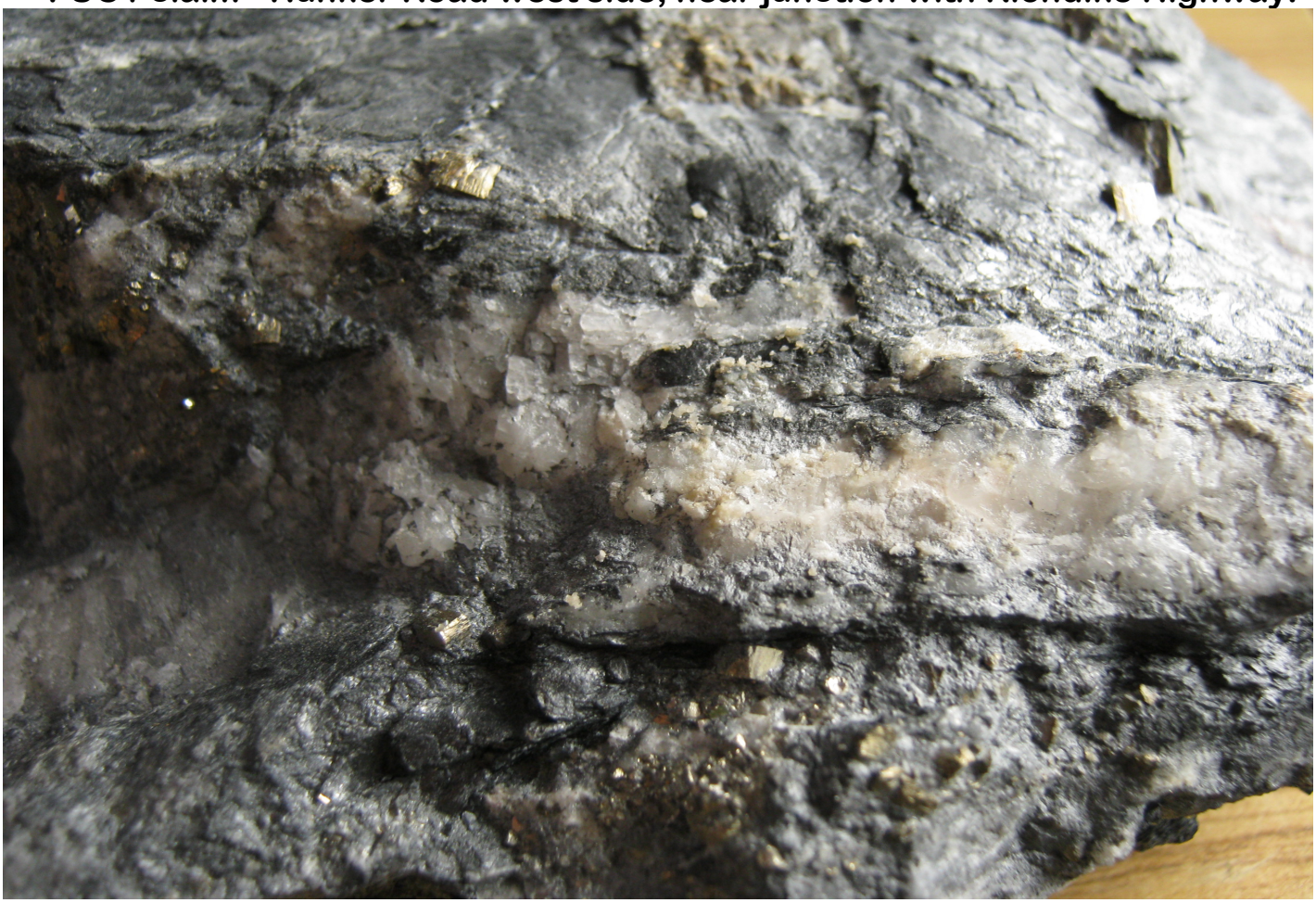


The Klondike Goldfields, unique as an area that has not undergone glaciation during the la 3 ice ages. Leaving the smoothly rolling hills, comprised of broken quartz, to have been formed through uplift alone. Due to proximity near the Tintina Fault (border seen in pictu above ~ mountains of the Tombstone Range**). Our hypothesis is that continuous fault activit is what has been circulating the gold rich fluids through the hard-rock of this particular region.**



Waste 7 claim. **Initial outcrop discovery**. Geological similarities exist between this Hester showing and the **mouth of Hunker Creek ~ "Fuc1 claim"** 2012. Sampling results of which are shown the following pages.

FUC1 claim - Hunker Road west side, near junction with Klondike Highway.





Bedrock samples taken at placer pit on claim **FUC1**, (2011 assay result sample **11-F2Graph- 49ppbAU**) mouth of Hunker; Graphitic fault composition very similar to **Waste7** vein, Shown with more detail in the "Waste Vein" Reports 2011 & 2012.

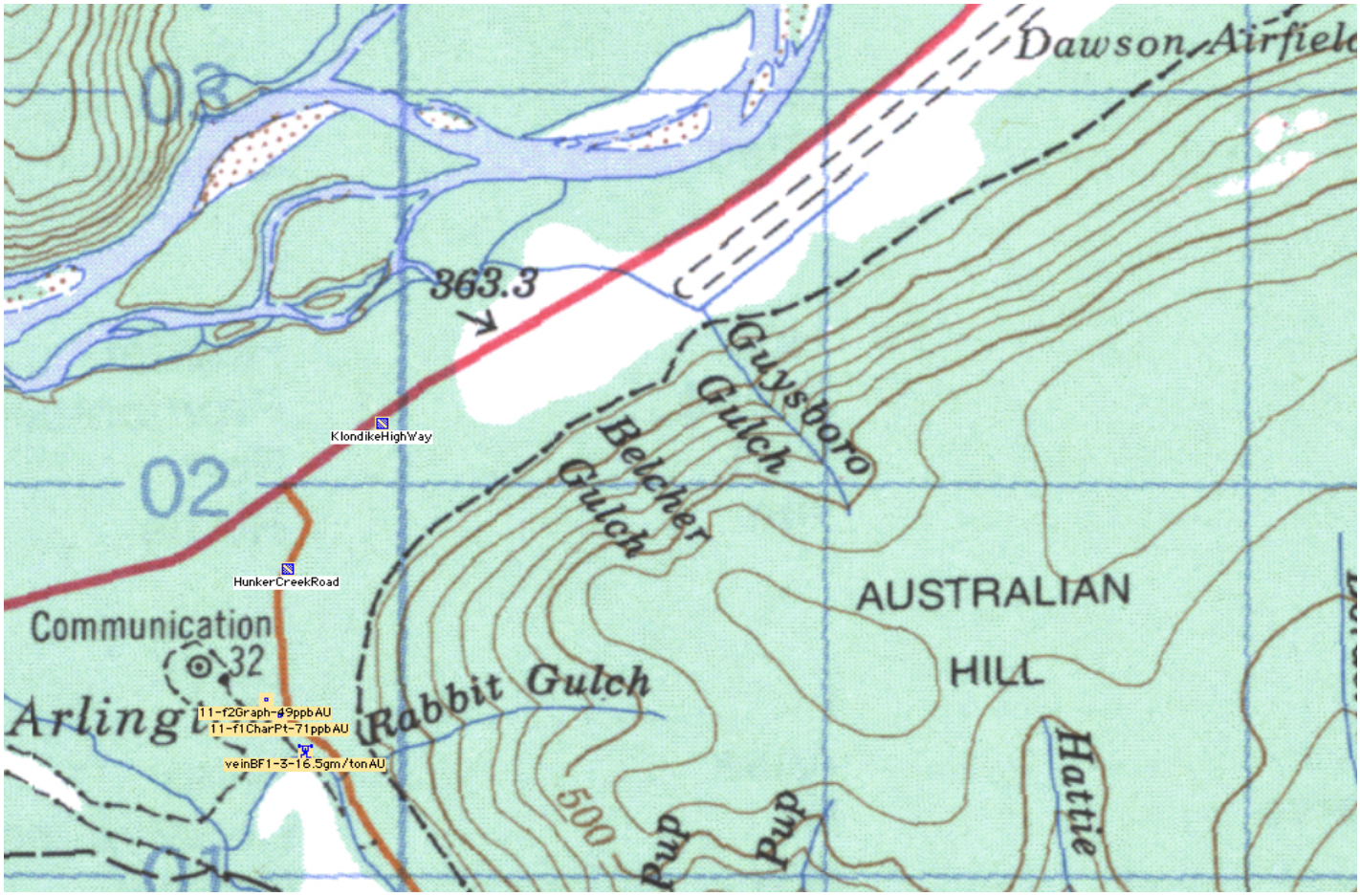


Copper & gold colored pyrites from graphitic bedrock of claim **FUC2** - sample **11-Fuc1CharPtGraph ~71ppbAU - rock**. 2011 "IN" results.

Fuc1: Bottom of placer pit (Morrister, 2011, assay results).

F1CharPt - Quartz veining with sulfides & calcite through graphite hosting large pyrite cubes. (As at Waste7.). **~ 71 ppbAu - rock**

F2Graph - Graphite schist with large pyrite cubes. Calcite & quartz veining. **~ 49 ppbAu - rock**



Results of sampling done August 17-18, 2012—with PhD Geo. Boris Molak present.

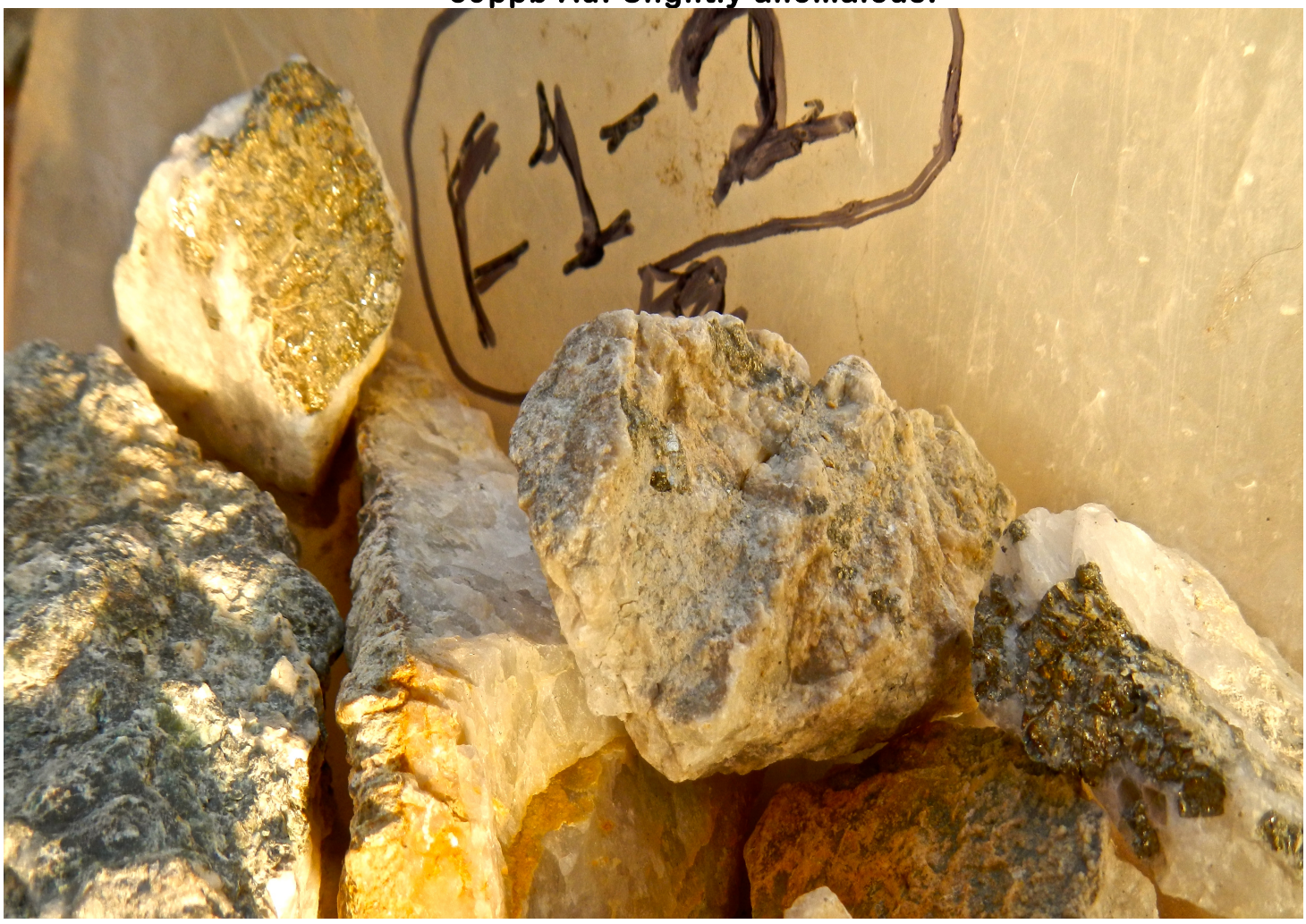
Sampler Initials: P.O. #: 6289

RESULTS OF ANALYSES OF SOLID

	Units	F1-1	F1-2	F1-3	F1-4	F1-5	F1-6	F1-7	
Bromine	ppm	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Antimony (Sb)	ppm	1.6	1.1	0.8	0.7	0.4	0.9	1.1	
Arsenic (As)	ppm	300	325	156	119	40.0	138	273	
Barium (Ba)	ppm	220	380	230	590	1300	1300	630	Hydrothermal vein accessory mineral.
Calcium (Ca)	ppm	120000	67000	72000	36000	110000	85000	110000	Hydrothermal indicator.
Cerium (Ce)	ppm	6	12	8	26	95	68	28	Rare-earth element.
Cesium (Cs)	ppm	1	2	1	3	6	6	3	
Chromium (Cr)	ppm	15	28	23	40	410	320	140	High Chromium
Cobalt (Co)	ppm	58	49	**22**	45	22	51	77	Metallic pseudocubic sulfide. Found in high temperature hydrothermal deposits and in contact metamorphic zones.
Europium (Eu)	ppm	0.6	0.6	0.5	0.6	1.7	1.4	0.9	
Gold (Au)	ppm	**0.059**	0.028	**16.5**	0.026	<0.002	0.006	0.022	16.5 gram/ton AU. Bedrock vein, sample taken by objective observer-Boris Molack P.Geo.
Hafnium (Hf)	ppm	<1	<1	<1	2	4	4	2	
Iridium (Ir)	ppm	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	
Iron (Fe)	ppm	81900	61500	57100	65000	44800	67000	81300	
Lanthanum (La	ppm	4.2	6.8	3.9	14.0	54.1	36.0	15.0	Monazite? -(Cerium/lanthanum/thorium/neodymium) phosphate mineral.
Lutetium (Lu)	ppm	0.31	0.22	0.28	0.27	0.43	0.36	0.38	
Mercury (Hg)	ppm	<1	<1	<1	<1	<1	<1	<1	
Molybdenum (M	ppm	<1	<1	<1	<1	<1	<1	<1	
Neodymium (N	ppm	5	9	6	16	35	26	14	Monazite or Gadolinite element.
Nickel (Ni)	ppm	<100	<100	<100	<100	<100	<100	<100	
Rubidium (Rb)	ppm	<15	24	17	46	95	98	45	Lepidolite Mica, worlds most common lithium bearing mineral. Also one of few containing significant amounts of Rubidim.
Samarium (Sm)	ppm	1.3	1.7	1.3	3.1	6.8	5.4	2.6	
Scandium (Sc)	ppm	8.9	9.2	8.3	20.9	25.5	26.7	18.0	Gadolinite? (Source of cerium, lanthanum, scandium and neodynium.) Green, blue-green when fresh. Brown or black when altered.
Selenium (Se)	ppm	14	8	9	<3	<3	<3	<3	
Silver (Ag)	ppm	<5	<5	**11**	<5	<5	<5	<5	11 gm/ton silver in same sample that showed elevated gold.
Sodium (Na)	ppm	2100	1500	1600	27500	6500	14300	9200	
Strontium (Sr)	ppm	<500	<500	<500	<500	<500	<500	<500	
Tantalum (Ta)	ppm	<0.5	<0.5	<0.5	<0.5	0.5	<0.5	<0.5	
Terbium (Tb)	ppm	<0.5	<0.5	<0.5	0.5	0.8	0.6	0.5	
Thorium (Th)	ppm	1.1	2.3	1.1	5.5	17.0	13.0	6.1	Radioactive element.Minor amounts found in Titanite (calcium, titanium, silicate mineral with significant iron).
Tin (Sn)	ppm	<100	<100	<100	<100	<100	<100	<100	
Tungsten (W)	ppm	<1	<1	1	3	1	2	1	
Uranium (U)	ppm	1.0	1.2	1.5	2.3	3.5	5.7	1.7	
Ytterbium (Yb)	ppm	2.1	1.5	1.8	1.7	2.7	2.4	2.6	
Zinc (Zn)	ppm	75	81	<50	87	<50	58	<50	
		F1-1	**F1-2**	**F1-3**	**F1-4**	**F1-5**	**F1-6**	**F1-7**	
UTM Locations	**07W**	**589758**	**589756**	**589754**	**589751**	**589751**	**589748**	**589745**	
Nad 83		**7101327**	**7101328**	**7101330**	**7101331**	**7101333**	**7101333**	**7101334**	



59ppb Au. Slightly anomalous.



28ppb Au



Close up of sulfides on sample F1-2.



16.5gram/ton Au (16.5ppm) assay result from rock F1-3. Half-ounce gold/ton



26ppb Au



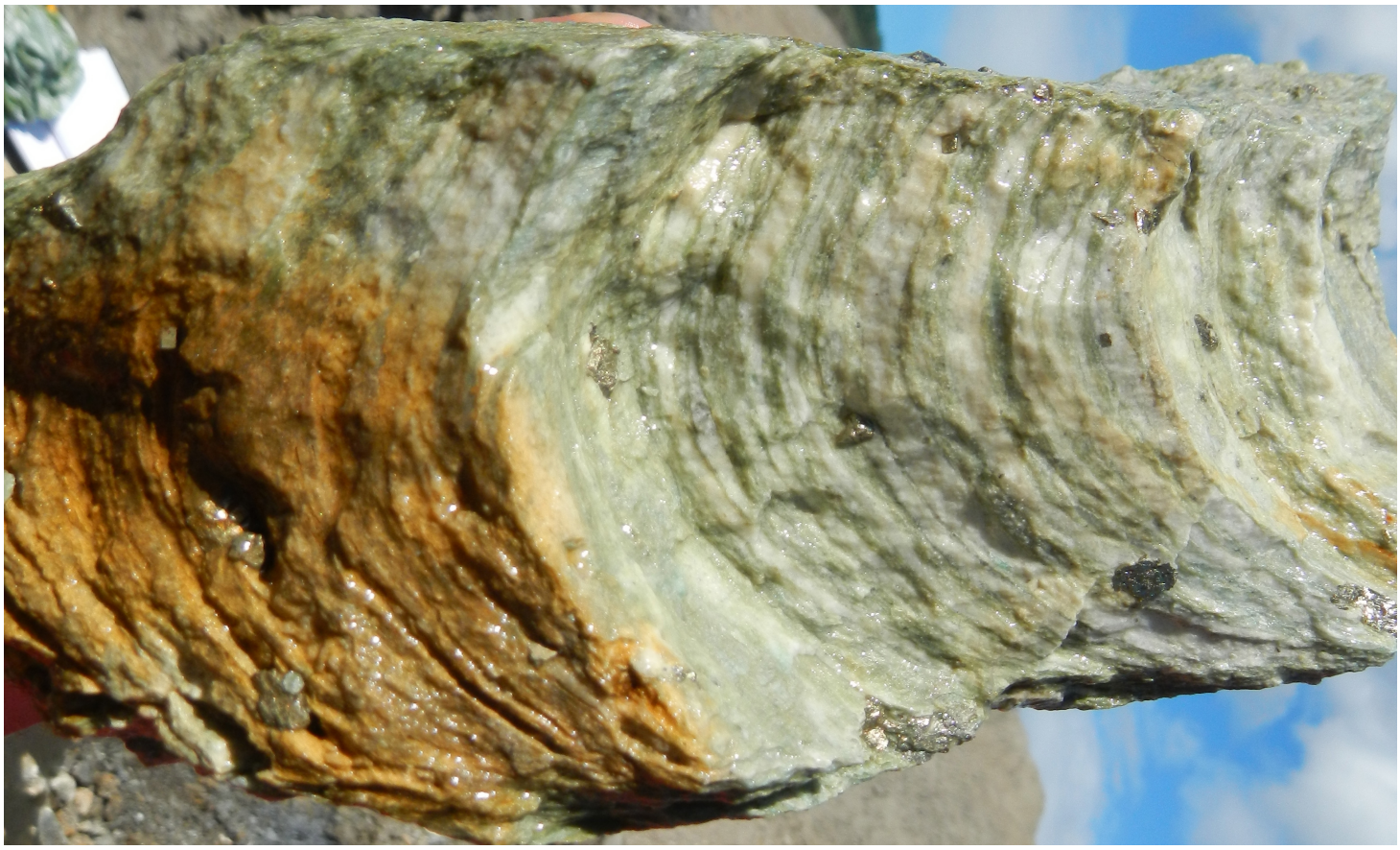
Less than 10ppb Au



2ppb Au



North end of quartz vein sampled (F1-7). Quartz vein contacts into green & rose colored altered and folliated bedrock. Slightly anomalous again, 22ppb Au.



Bulk samplings taken north of the Quartz Veins.



Contact north of the Assayed Quartz Vein B.



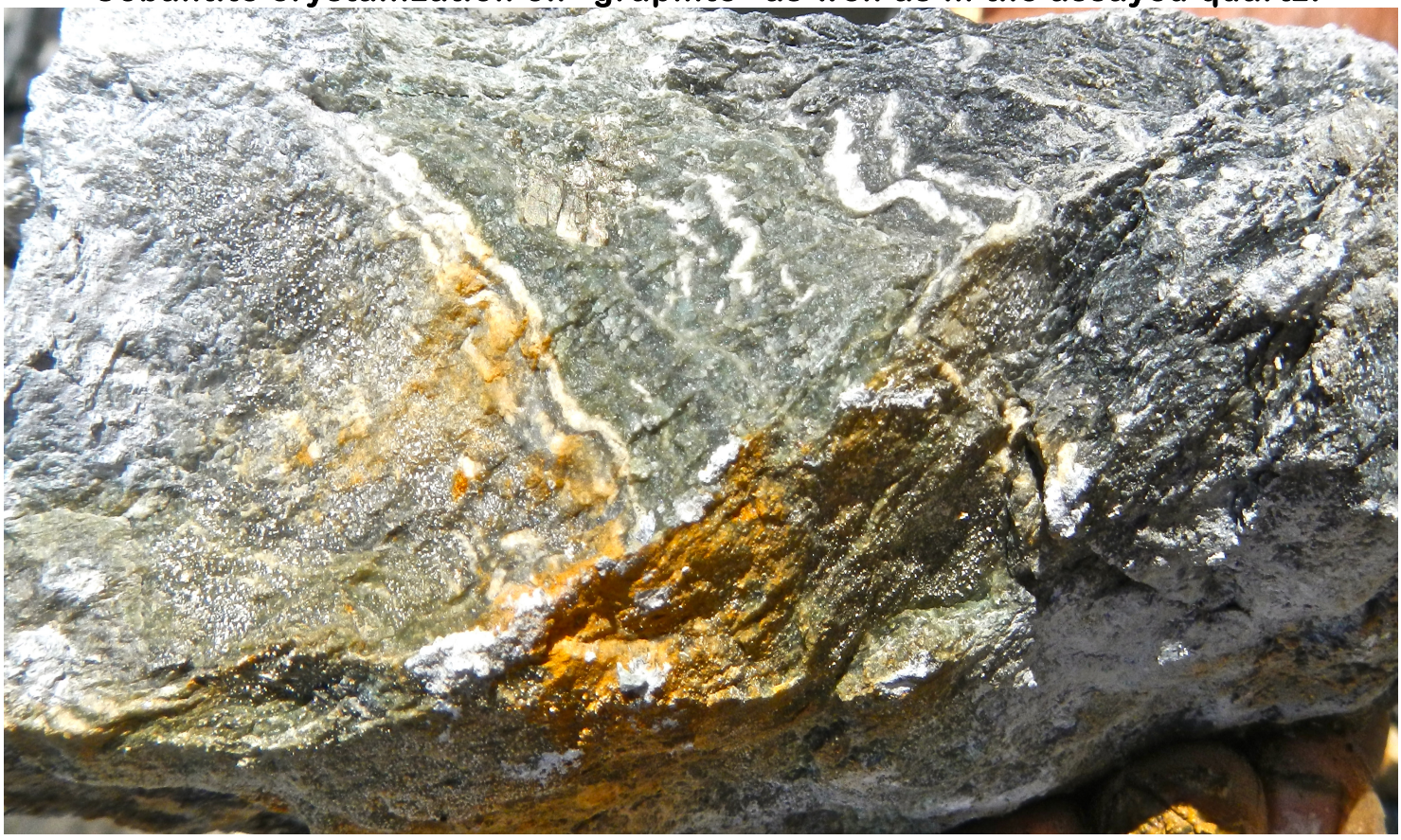
Quartz veins both strike 280 degrees west.



Contact south of the Assayed Quartz Vein A.



Cobalitite crystallization on “graphite” as well as in the assayed quartz.



Sample F1-1’s immediate southern contact: Quartz-Monozite?, then Graphite. Well formed large pyrite cubes scatter across all geomorphologies.

Notes from 18th of August prospect on Fuc1 claim.
Bedrock at the bottom of stripped placer pit.

Entire pit is roughly 100m long by 80m wide and 25 meters deep. Directly west of the Hunker Creek Road. Bedrock is exposed along the full base of stripping. The same types of geology as focused on i the study area continues throughout the exposed area of visible bedrock.

Study area F1 ~ 07W 0589758/7101327
2 side by side quartz veins. A to the south and B to the north.

Both veins are 1-5 – 2 meters wide, 4m apart from each other. Both dip 5degress E, Striking West 28

South side of vein A

There is a black graphite contact on the south of Quartz vein A which seems to be a faulted, foliated schist turned to black & shiny graphite. Graphite can be seen in formation to strike NW 320 Dipping S 25 degrees. Red seepages of iron, Strike in the same direction, up to 6 cm wide.

This sulfide rich graphite continues SE for 5 meters before contacting into a possible shear zone and hanging footwall of heavily altered greenstone, similar to the altered greenstone on NW side of the 2' Vein. Roughly 30% sulfides, well-formed pyrites and various other sulfide minerals run and "grow" indiscriminately throughout all rock types. This green stone is visible for 4 more meters before it is covered by gravel overburden.

Between the Veins

Highly "axilated" (spatial folliations with at least 4 directions meeting at all angles) show a lot of motion happened in the chlorite/chromium schist with quartz veinlets, that is between the 2 cross-cuttin veins sampled. Sample descriptions and assay results next pages.

North side of vein B

Folliated and spatial folliations continue north from veinB through the altered chlorite/chromium/quartz/feldspar schist that is stained rose/lilac in areas, green/turquoise in other areas. Veins of various sulfides as well as well formed pyrites and arsenopyrites. This type of rock continues for **4 meters NorthWest**, untill it turns to graphite as on SouthWest side, graphite materic also contains abundant well-formed sulfides and continues under overburden of refilled gravels.

Samples

F1-1 ~ From VeinA's south contact with highly altered chlorite schist?.
F1-2 ~ VeinA's north contact with graphite altered chlorite or chromium bedrock.
F1-3 ~ From center of VeinB. Orange oxidizing clear & white bull quartz.16.5gm/ton Au assay result.
F1-4 ~ VeinB's north-west contact. Brown staining of the chlorite/sericite schist, contacting clear & white bull quartz veinlets. Pyrite, chalcopyrite cubes and veinlets.
F1-5 ~ VeinB's north-west contact chlorite/chromium schist, quartz/feldspar veinlets slightly foliated through and with schist.
F1-6 ~ More quartz veinlets (up to 5cm thick) run through the altered schist of veinB's northern contact.

F1-7 ~ 10meters NW of VeinB, same type of material continues. Well-formed brassy colored pyrite cubes, (up to 4x4mm), clear and white quartz oxidizing orange. Quartz veinlets run with the "schist" Schist appears to be sericite coated chlorite containing amounts of chromium.

Blow-Up of F1 2012 samples assayed.

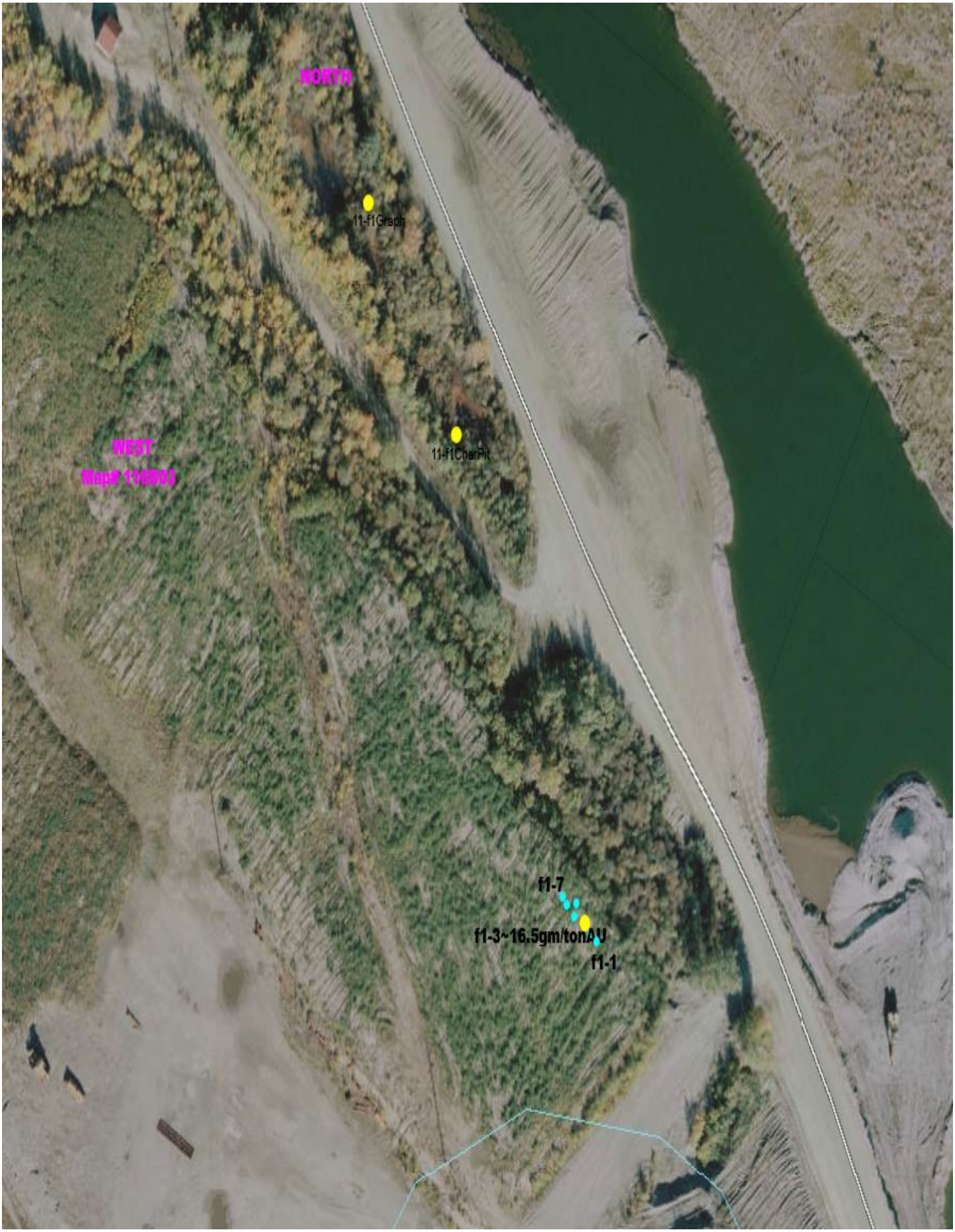


Permission granted by Mr. Morrister (placer operator), to examine bedrock base of this mined-out p

F1 bedrock study area 2012.



Pre-Placer Mined “Mouth of Hunker Creek”.



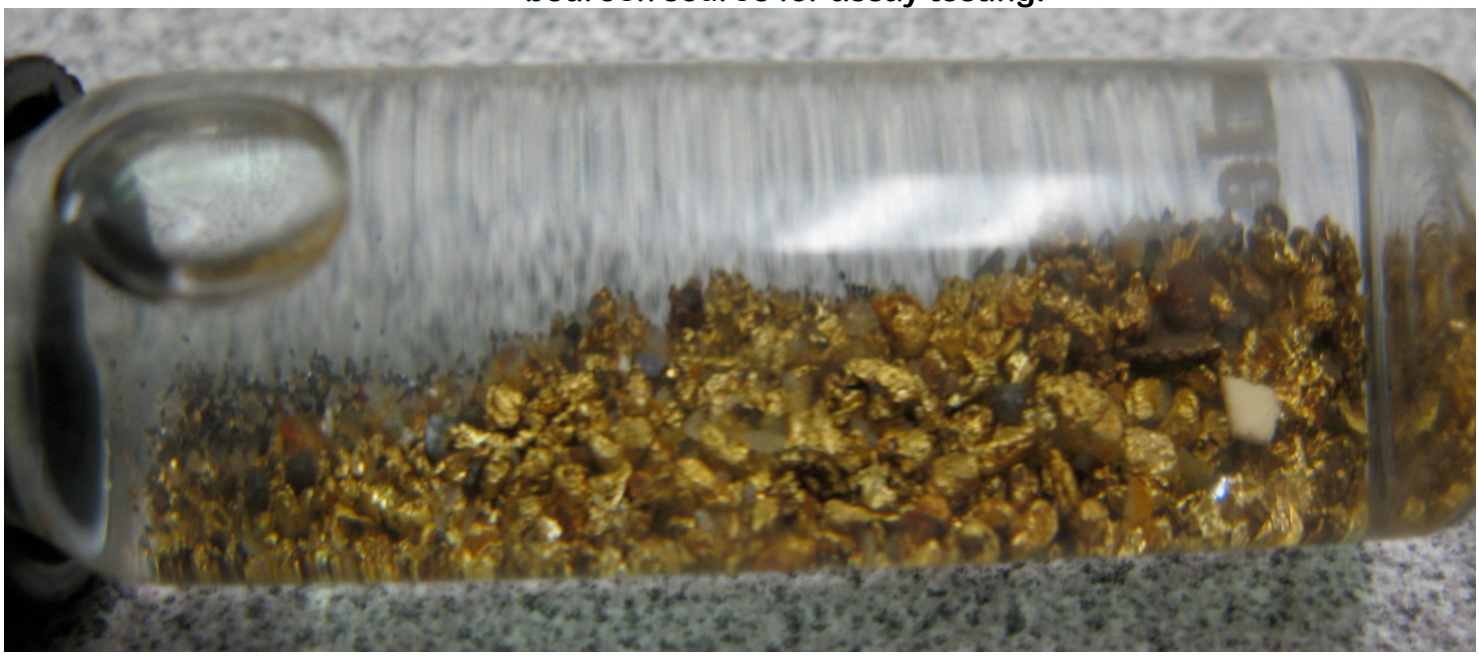
Hunker to Bear Creek Work History

Chromium/Arseno stained (carbonate/quartzite) sourced from FUCO7 claim 2011 produced gold seen below, by crush, pulverize and tabling. Chalcopyrite and arsenopyrite visible on rocks surface.



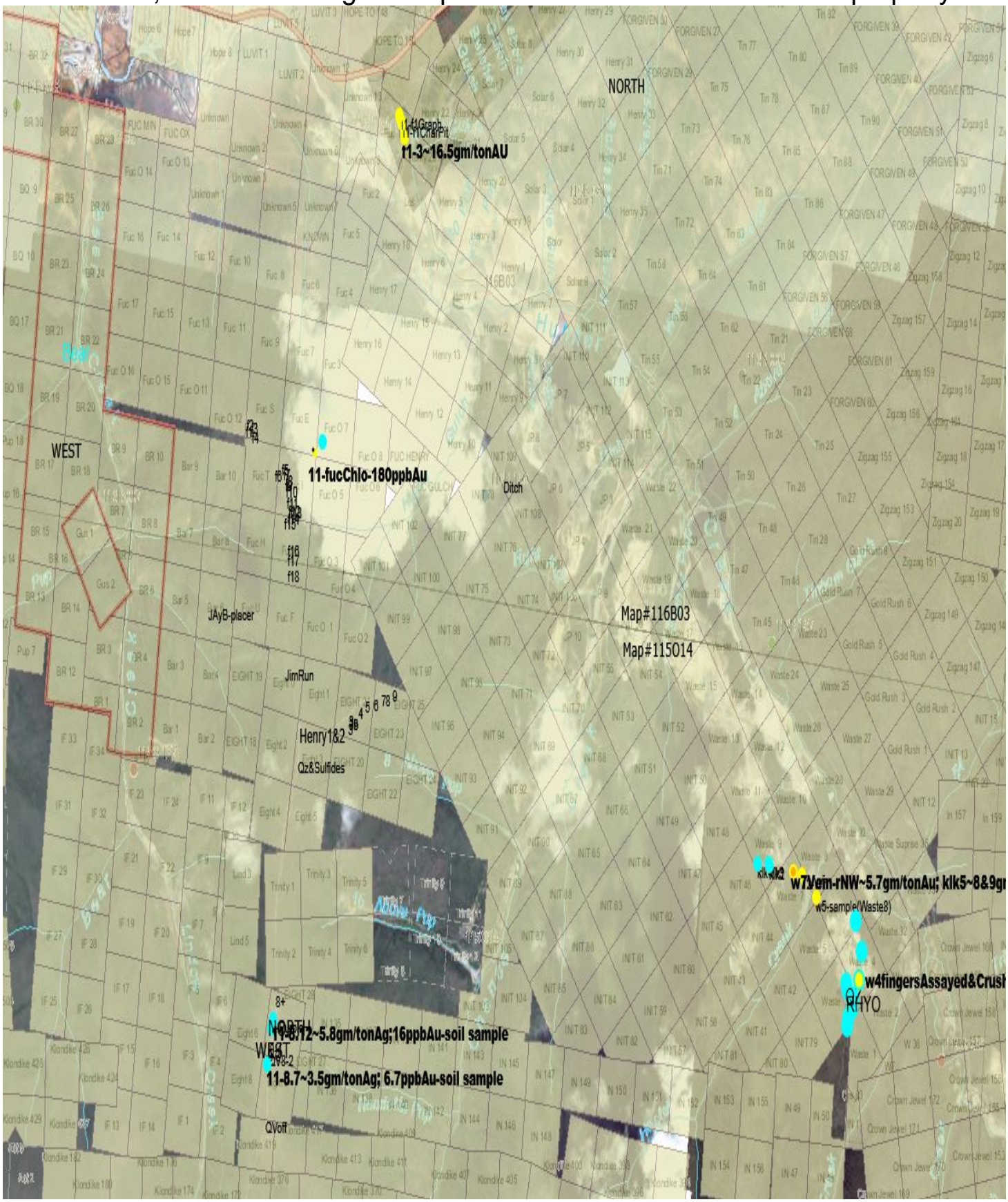
Sample F07, 2011 prospecting. Broken Bedrock from old workings, bordering a large quart vein outcrop. F07au- 07W 588930/7099072

Pictured pannings were recovered from the crushing and pulverization of an 18 pound bu of above rock specimens taken from Claim Fuc07, near 2011 sample FucChlo(2011) -18(ppbAu outcrop sample assay result. As this rock type was sampled from the torn-up tailing of placer activity, further investigations by test pitting is recommended to locate the exact bedrock source for assay testing.

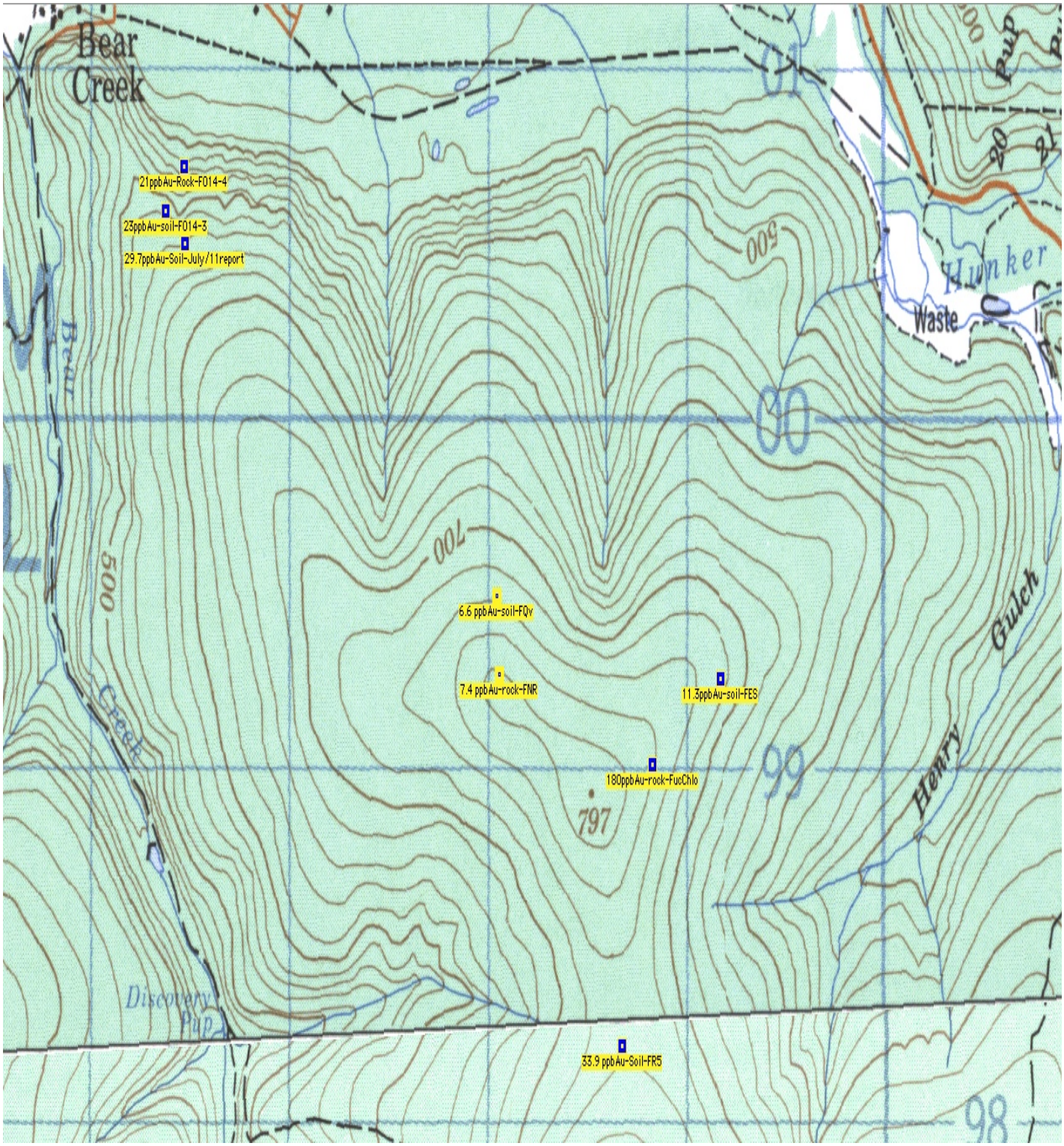


Picture of gold recovered from hard rock, claim FUC07. Picture taken in maco mode c a **2 inch vial**. {Some Assay mesh testing can throw out heavy gold as it does not pas through the max mesh size.} Future sampling recommended in this area for assay. The gold retrieved from the rock above, 2 km's away from the fuchsite pit on

Fuc1 (49 & 71 ppm Au bedrock samples), reinforces the hypothesis of a native rock source, besides quartz veins supplying the very rich placer of this particula area, and also enlarges the possible enrichment zones of the property.



2011 Fall samples, Bear Creek to Henry Gulch.



(See July 2011 renewal report, also April 2012 ~FO14;1-9 & August 2011 report submitted.

FucO14. South-east of old town Bear Creek.

Fall 2011 soil sampling, south west of Line FO14 Rock Samples 1-4.

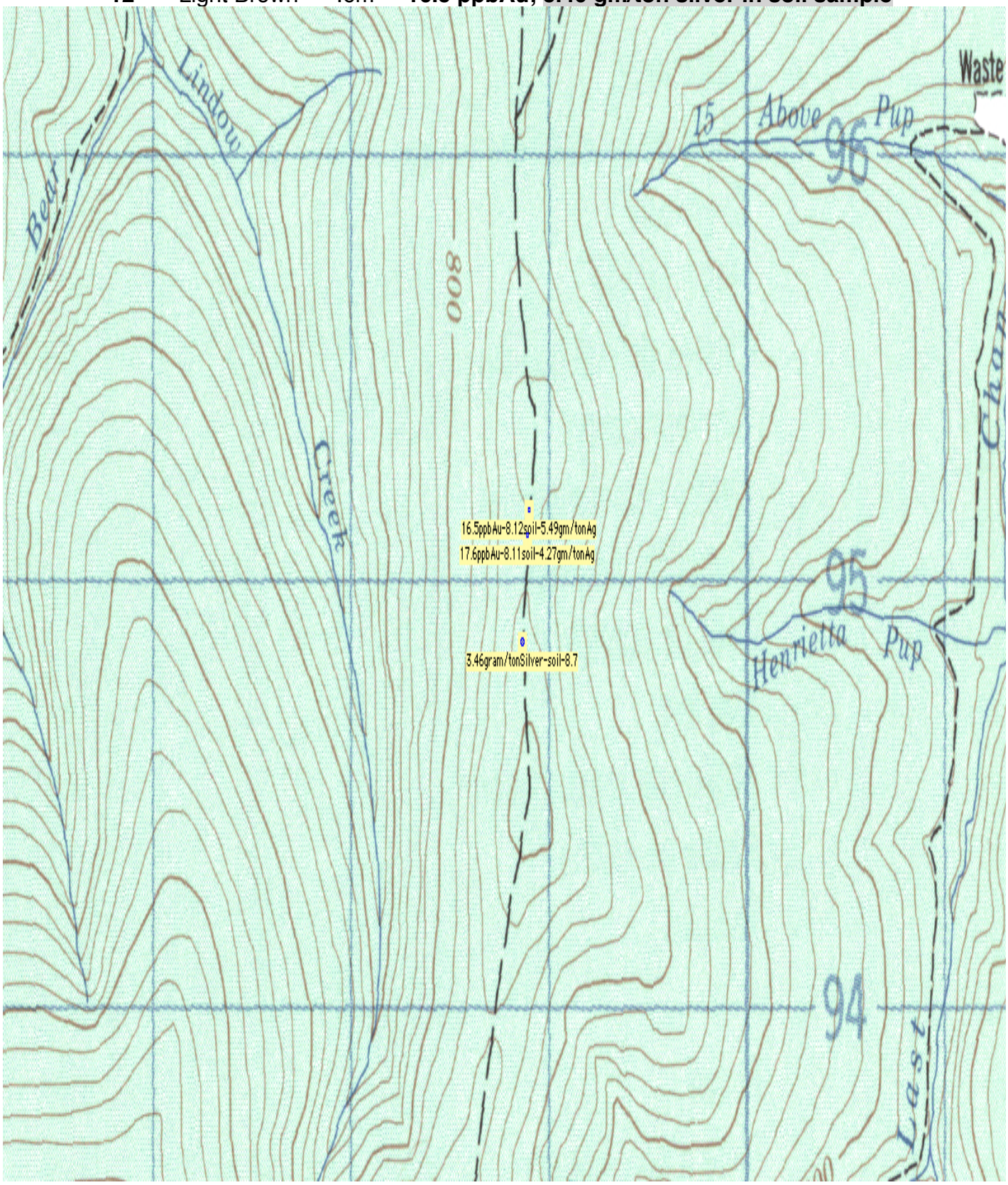
F014 soils

1	Grey/Orange/White	Powder	.5m	**~<1ppbAu**
2	Orange/Green	Clay -Decomposing Bedrock	.7m	**~<1ppbAu**
3	Orange/White/Green	Fine -Decomposing Bedrock	.3m	**~ 23 ppbAu - soil**
4	Dark Green	Fine clay	.6m	**~<1ppbAu**
5	Orange/Brown	Silicious/Mica	1m	**~<1ppbAu**

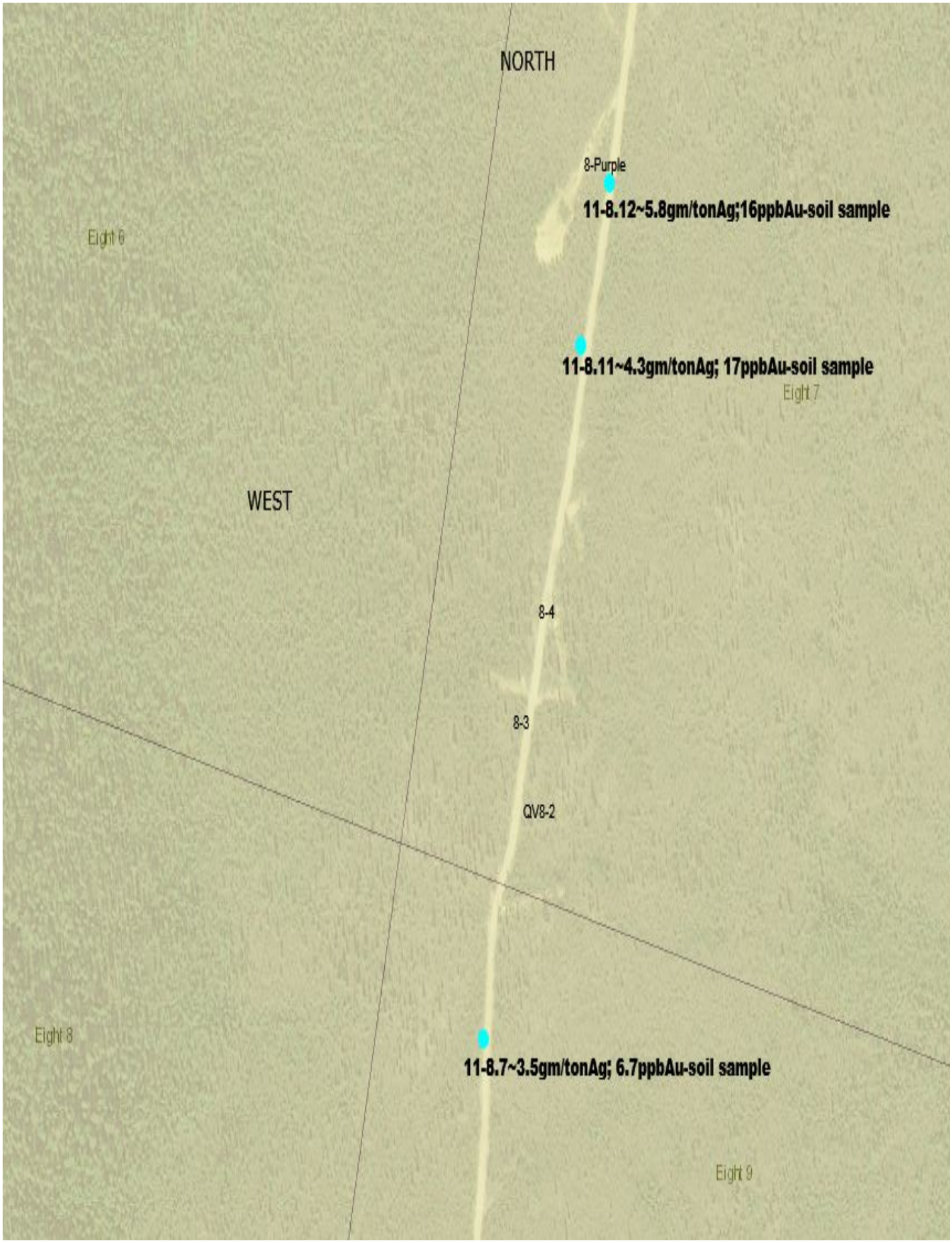
On ridge between Lindlow Creek & Henrietta's headwater.

Eight Claims - 2011 Soil Results – 2012 Test Trench Target "8"

8.7 Reddish Brown .5m ~ **3.5 gm/ton silver in soil sample; 6.7ppbAu**
10 Light Brown .4m **~ 69.39 ppmCu; 1.6ppbAu**
11 Light Brown .3m **~ 17.6 ppbAu; 4.27 gm/ton silver in soil sample**
12 Light Brown .6m **~ 16.5 ppbAu; 5.49 gm/ton silver in soil sample**



2012 Test Trenching of Eight Claims Silver Occurence

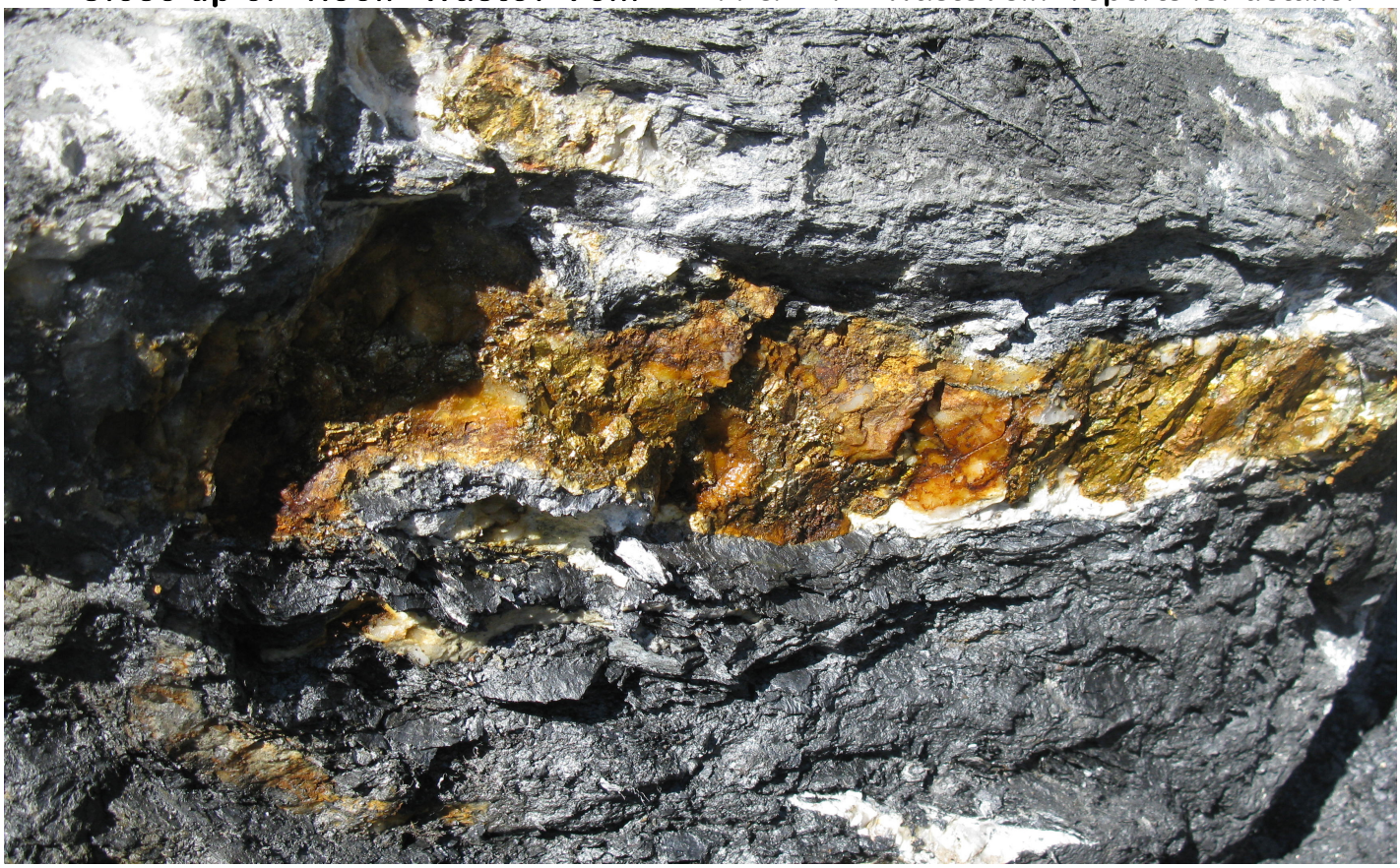


Hester Creek – "MainRock-Waste7Vein"



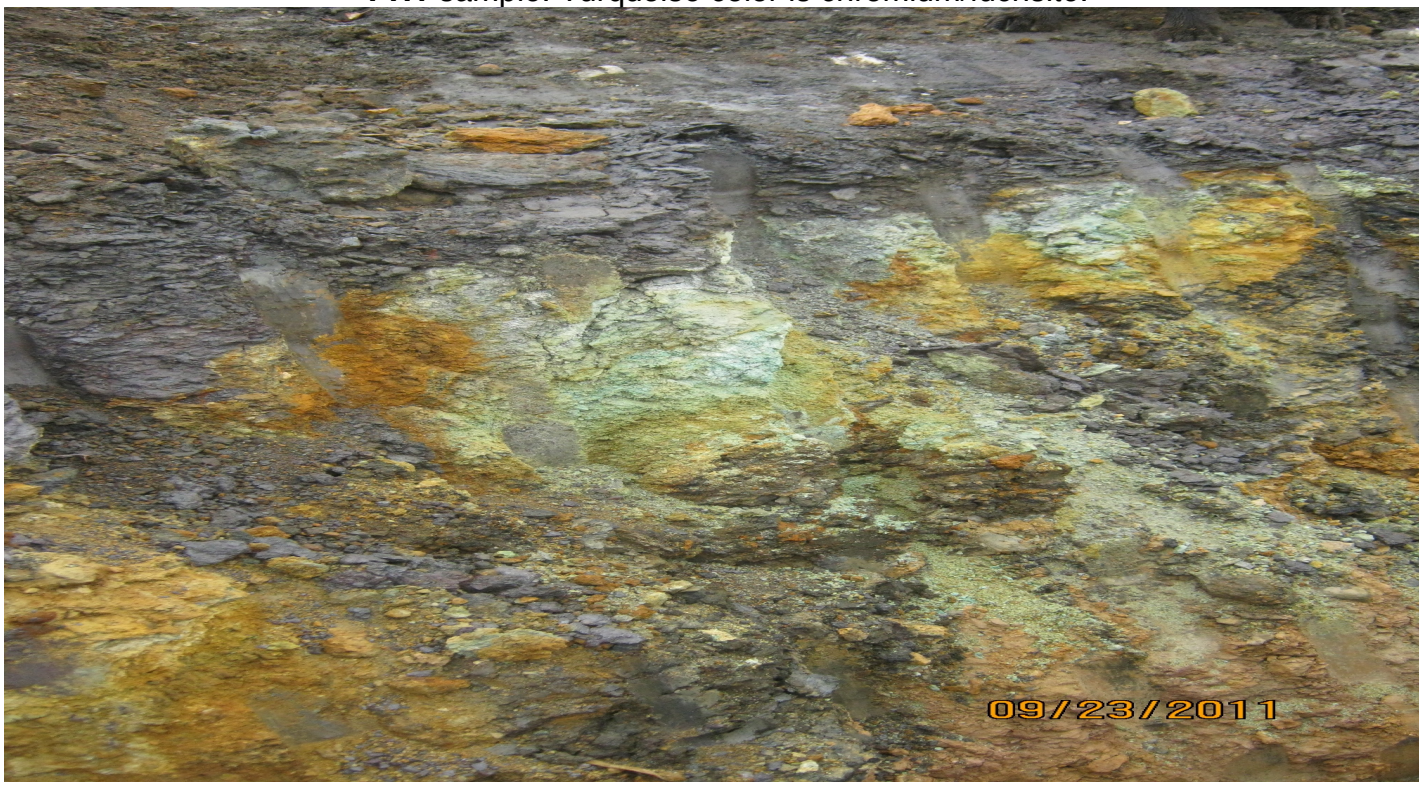
Looking at Waste7 "waste vein" workings, going west on way to Paradise Hill from Nugget Hill, across Hester Creek. Vein runs north west, upwards to the south east.

Close up of "Rock" Waste7 Vein – 2011 & 2012 "WasteVein" reports for details.





PH1 sample. Turquoise color is chromium/fuchsite.



Decomposing chromium, iron oxidation, graphite fault, **PH trench2, 2011**.



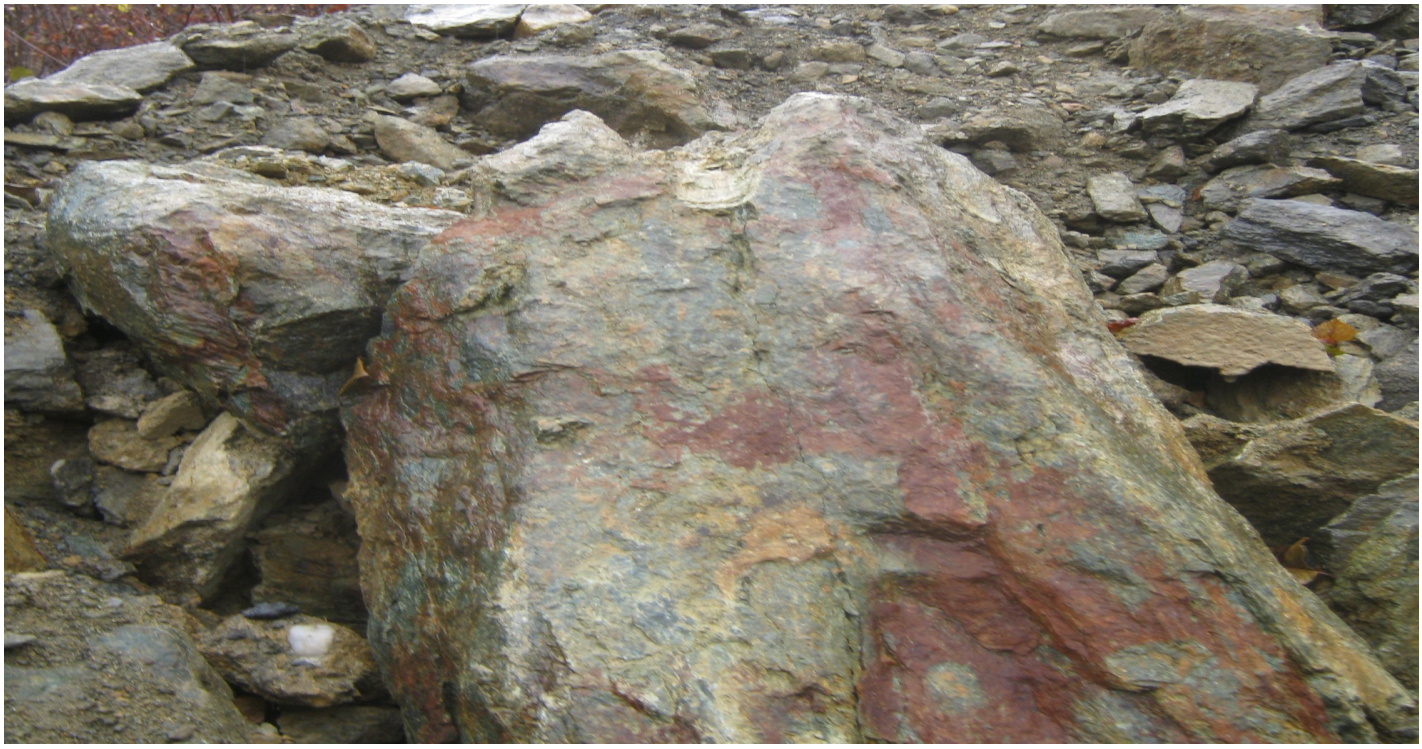
PH4

PH6 contact of graphitic fault zone with listwanite.



The term "listwanite" (alternate spellings - listwaenite, listvaenite or listvanite) was first introduced by Rose (1837) to describe the silica-carbonate alteration of serpentinite in the Urals. Since then the term "listwanite" has remained in use in Eurasia, whilst in America, Canada and Australia, the self-descriptive term "silica-carbonate" has become more prevalent. The terms "listwanite" and "silica-carbonate" are synonymous and encompass all forms of carbonatization from the carbonate-rich to silica-rich phases.

The alteration of serpentinized ultramafic rocks to silica-carbonates is caused by the migration of carbon dioxide-rich fluids along faults, and is sometimes referred to as “carbonatization”. Silica-carbonate alteration is commonly observed around the margins of dismembered ophiolite sequences and has been reported by a number of authors worldwide, notably because it is often host to gold, mercury, magnesite and occasionally, base metal mineralisation (Ash and Arksey, 1990a; 1990b; Ashley, 1997; Ashley and Hartshorn, 1988; Auclair et al., 1993; Barnes et al., 1973; Bohlke, 1989; Buisson and Leblanc, 1985; 1986; Efremov, 1952; Knopf, 1906; Madu et al., 1990; Ploshko and Bogdanova, 1963; Pohl, 1990; Sherlock and Logan, 1995; White, 1967).



PH6 Sample. Listwanite.-Talc altered serpentine zone.

Gold in listwanites

Based on geochemical studies of silica-carbonates from ophiolite complexes in Liguria, Morocco and Saudi Arabia, (Buisson and Leblanc, 1987) concluded that silica-carbonates are similar in style to Archean carbonatized ultramafic rocks with economic grades of gold being reached in sulfide-rich zones and late quartz veins. Ultramafic rocks (upper mantle peridotites) are believed to be the main source of gold (Pipino, 1980), which is contained within the accessory opaque minerals (sulfides, chromite, and magnetite). Gold contents in serpentinized mantle peridotite range between 3 and 5 ppb. Large-scale hydrothermal systems operating during the late stages of tectonic emplacement leach gold from the opaque minerals and transport in a CO_2-S-As-Cl-Na-K-B-rich solution as thio-arsenic complexes. The hydrothermal fluids are focussed along tectonic contacts. As the system evolves the acid gold-bearing solutions precipitate silica-pyrite-arsenides and gold when entering into the reducing and alkaline carbonatized rocks.

Silica-carbonates are on average 5 – 20 times more enriched in gold (average 0.02 – 0.1 ppm Au) than th surrounding ultramafic rocks (between 0.001-0.010 ppm) (Buisson and Leblanc, 1987). Economic grade gold are usually associated with sulfides, sulfarsenides or arsenides (Buisson and Leblanc, 1985; 1986; 1 Leblanc, 1986; Leblanc and Billaud, 1982). The gold is usually bound to the sulfides, with pyrite gradin between 10 and 50 ppm, and Co-arsenides between 10 and 100 ppm. Small gold grains are observed arou liminitized pyrite grains as a result of weathering and oxidation. Trace element analyses show strong pos correlations between Au and As, and quite commonly K. Elements such as Ba, Sb, B, Bi, Ag, and Cu ma also be associated with high gold values.

Buisson and Leblanc (1987) concluded that during the serpentinization process half the gold is concentra into magnetite and secondary sulfides. These opaque minerals are subsequently destroyed in talc-carbona alteration zones (Phase 1 listwanites), which results in gold being released from the serpentinite wall roc and transported in solution. The gold- and silica-rich fluids are transported to higher crustal levels where change in conditions (lower temperature, pH and fO_2) results in the precipitation of gold, quartz and sulf

1



PH8 trace gold amount assayed from the rock **~ 7 ppbAu; 2630 ppmCr; 890 ppmBa; 160 ppmAs 33 ppm Cobalt**.

"EXPLORATION GUIDES: Placer gold or elevated gold in stream sediment samples an excellent regional and property-scale guide to gold-quartz veins. Investigate broad 'deformation envelopes' adjacent to regional listric faults where associated with carbonate alteration. Alteration and structural analysis can be used to delineate prospective ground. Within carbonate alteration zones, gold is typically only in areas containing quartz, with or without sulphide minerals. Serpentinite bodies, if present, ca be used to delineate favourable regional structures. Largest concentrations of free gol are commonly at, or near, the intersection of quartz veins with serpentinized and carbonate-altered ultramafic rocks.
ALTERATION MINERALOGY: Silicification, pyritization and potassium metasomatism generally occur adjacent to veins (usually within a meter) within broader zones of carbonate alteration, with or without ferroan dolomite veinlets, extending up to tens of meters from the veins. Type of carbonate alteration reflects the ferromagnesian conte of the primary host lithology; ultramafics rocks - talc, Fe-magnesite; mafic volcanic

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1 Buckman, S. & Ashley, P. (2010). Silica-carbonate (listwanites) related gold mineralisation associated with epithermal alteration of serpentinite bodies. New England Orogen 2010 (pp. 94-105). Armidale, NSW, Australia: University of New England.

rocks - ankerite, chlorite; sediments - graphite and pyrite; felsic to intermediate intrusions - sericite, albite, calcite, siderite, pyrite. Quartz-carbonate altered rock (listwanite) and pyrite are often the most prominent alteration minerals in the wallrock. Fuchsite, sericite, tourmaline and scheelite are common where veins are associated with felsic to intermediate intrusions.

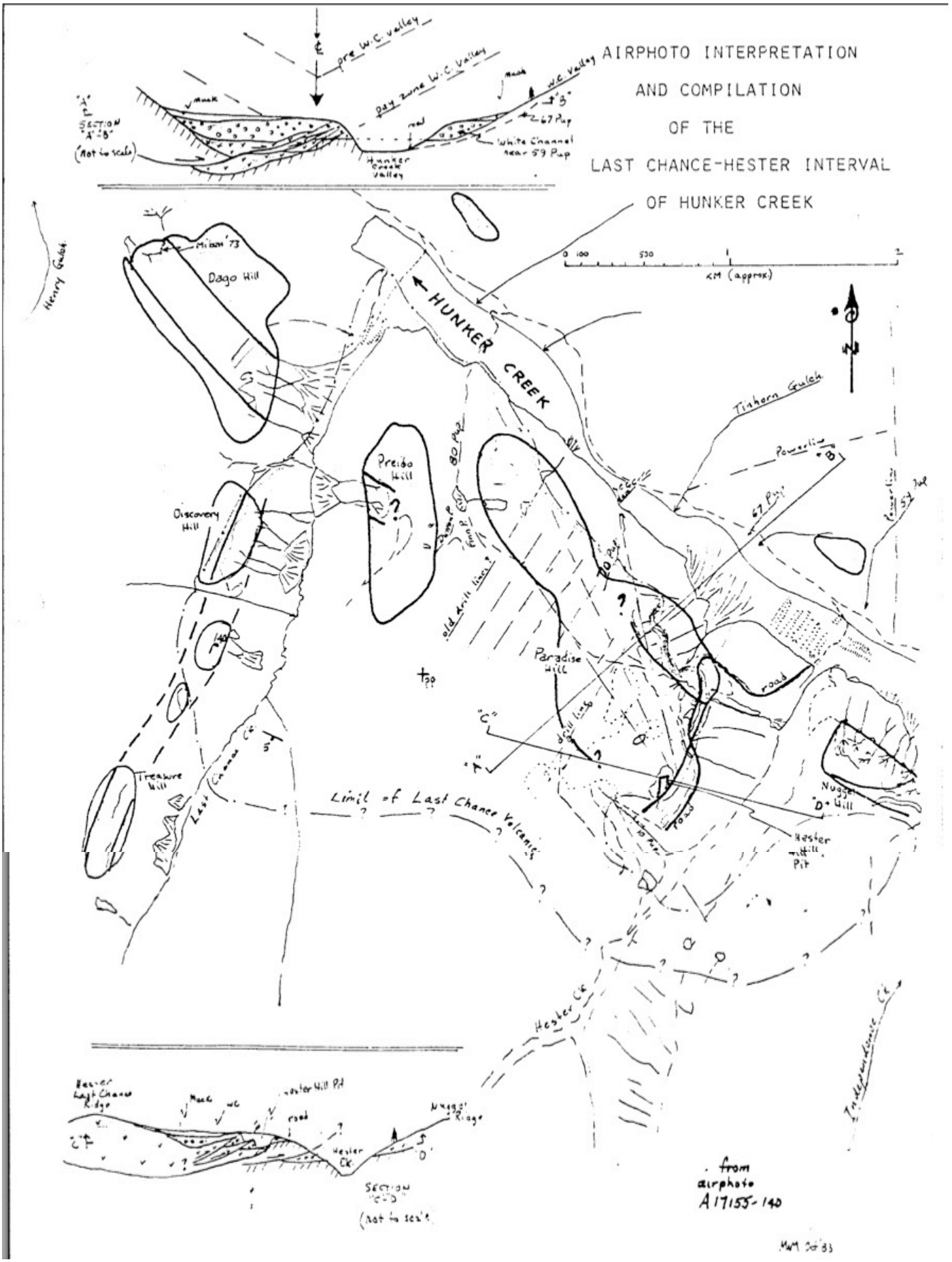
WEATHERING: Distinctive orange-brown limonite due to the oxidation of Fe-Mg carbonates cut by white veins and veinlets of quartz and ferroan dolomite. Distinctive green Cr-mica may also be present. Abundant quartz float in overburden.
ORE CONTROLS: Gold-quartz veins are found within zones of intense and pervasive carbonate alteration along second order or later faults marginal to transcrustal breaks. They are commonly closely associated with, late syncollisional, structurally controlled intermediate to felsic magmatism. Gold veins are more commonly economic where hosted by relatively large, competent units, such as intrusions or blocks of obducted oceanic crust. Veins are usually at a high angle to the primary collisional fault zone. "
"GENETIC MODEL: Gold quartz veins form in lithologically heterogeneous, deep transcrustal fault zones that develop in response to terrane collision. These faults act as conduits for CO2-H2O-rich
(5-30 mol% CO2), low salinity (<3 wt% NaCl) aqueous fluids, with high Au, Ag, As, (± Sb, Te, W, Mo) and low Cu, Pb, Zn metal contents. These fluids are believed to be tectonically or seismically driven by a cycle of pressure build-up that is released by failure and pressure reduction followed by sealing and repetition of the process (Sibso et al., 1988). Gold is deposited at crustal levels within and near the brittle-ductile transition zone with deposition caused by sulphidation (the loss of H2S due to pyrite deposition) primarily as a result of fluid- wallrock reactions, other significant factors ma involve phase separation and fluid pressure reduction.
EXAMPLES: (Yukon): Caribou Creek (115I 049), Venus (105D 005), Big Thing (105D 009), Tally-Ho (105D 030), Mt. Reid/Skukum Creek (105D 022), Violet (115O 073), Virgin (116B 007), Silvercity (116B 037); (British Columbia (MINFILE #) - Canada/ International)[2]

Nugget Hill

[2] Au-Quartz Veins. British Columbia Geological Survey in association with Yukon Geological Survey May 30, 2005 Dani Alldrick. Modified for Yukon by A. Fonseca



Previous placer pit, east top of Nugget Hill, south east of Waste7 “main rock” illustrates the current “giant placer” theory developing for hard-rock lode gold, in the Klondike. Placer miner (Dave Brickner) reports **quartz boulders of 30 foot width** recovered while mining the decomposing surface of an obviously local bedrock system. Considering the width & girth of the quartz veins observed here, it *appears* t be the source of most of the “terrace” white channel gravels that were sitting on thes hills.



***Milner Map for Sigma Group, (placer prospecting)1983. See Milner reference next page.**

Paradise Hill

Previous Exploration History

See footnote next page*

"This brief report is to summarize the geology of the Paradise Hill area with specific application to the "Hester Hill" property, it's potential and possible direction of exploration and development.

At the time of McConnell, mining was by open cut methods at the margins of the White Channel exposures & by tunnels from the margins, shafts from surface to the high grade gravels at the base the gravel section. This generation of mining was largely without geological prejudice, prospecting w thorough; the presence or intensity of hand mining reflected the degree of mineralization encountere

The bedrock and surficial geology of the area are compiled by Milner (1977) who spent the field seasons of 1974 & 75 in the Klondike as part of his thesis research. At that time exposures on Paradise Hill were poor, mining having stopped there in 1962.

*(Tony Beets & Tamarack Mining reopened operation's in late 70's until present day, with continuous placer results.)

Visits to the "Hester Hill" pit of the Knols-Brown-Sigma association and the Paradise Hill cut of Tamarack Mining provided considerable new data to the consideration of geology in these deposits Documentation of exploration is poor. McConnell summarizes the stratigraphy, much of which had be hearsay as shafts were too numerous for him to have visited many. The most reliable informatio comes from John Gould who continues to mine on Nougat Hill where his father & family mined in th early years. He recalls the numerous workings acquired and promoted by Lou Perunovic to become the "Hester Hill" pit and the descriptions of pits dug on the Paradise-Nugget area that encountered th **brown "gumbo" (orange/green "goo") bedrock that characterizes the area afflicted by thrus faulting.**

The Yukon Consolidated Gold Corporation's hydraulic cut on Paradise Hill was based on drilling near the known pay-streak. The drilling would not have incorporated fault interpretation as these displacements were not recognized at that time. Profiles would have assumed approximate horizont bedrock & that drill data would have been used for immediate mine planning at the face of the hydraulic cut. The appearance of bedrock high in the face as the first thrust was encountered, as described by by Hughes(1964) & Gleeson(1970), probably resulted in a new economic factor that ended mining in that direction. This information compiled in a sketch map of the area warrants furthe consideration on a larger scale if any serious exploration evolves." (See map by M.W. Milner, 1983.

"The bedrock underlying younger deposits is a distinctive black graphite phyllite and quartzite sequences known as the Nassina Group. Ultramafic rocks, dark green to brown in color, are incorporated in these basement rocks and occur in a number of places probably along weak zones into which they intruded or along which they have been emplaced by earlier faulting.

Other younger intrusive rocks, occurring mainly northeast of Hunker Creek are light grey in color a are quartz-feldspar-rhyolite porphyries. *(Gold Rush claims) An ancient valley that existed before th development of the White Channel valley is evident in the area. It was infilled by sedimentary & volcanic rocks that now outcrop southwest for Hunker Creek from Nugget Hill to and including the downstream portion of the valley of Last Chance creek.

These rocks, the Last Chance Volcanics- for lack of a better name- were truncated by the erosion th formed the valley in which the white channel gravels were deposited. The relatively soft nature of bo the black "Nasina" rocks and the brown "Last Chance" rocks are responsible for the relatively broa White Channel valley in the Hester-Last Chance interval of Hunker Creek.

The White Channel gravel, thicker than would be expected normally, is the result of crustal tilting o uplifting that in effect caused packing of gravels in the stream analogous to the packing of sediment a sluice box. This tilting undoubtedly occurred over some time, but it ended at the time that glacial

outwash from the *oldest recognized* glaciation flooded into the mouths of Hunker and Bonanza drainages, as well as along the valley of Indian River. The White Channel sediments were entrenche by the modern stream to a level of former bedrock approximately 1.3 million years ago, as witnesse by volcanic ash of that age (Westgate, 1978) that occurs on the highest terrace cut below the level o the White Channel bedrock (Milner, 1977).

Observed faults cut the gravels with bedrock and overlying gravels on the southwest having beer thrust over more easterly bedrock. Pursued from the footwall side the up-thrust block would appea like bedrock rim. The basal gravels in the hanging wall, at the leading edge of the thrust, would appe to be elevated or high level pay zones--as McConnell described.

The structure and stratigraphy of Hester Hill is well hidden. Bedrock, the black Nassina type, with presumed ancient, low angle fault characteristic of this rock type, is well displayed at the top of the slope overlooking Hester Creek and also 10 Pup. A veneer of red & yellow, with in places lenses o white channel, covers this bedrock."

* (Scientific composition of the "red, orange, yellow" not given.)

*(M.W. Milner. Report on Hester& Paradise Hill Property for the Sigma Group 1983 * Milner, M.W. 1977. **The geomorphology of the Klondike placer goldfields, Yukon Territory.)**

Test Pit Locations Fall 2011

Sample List – Rock Samples of Bedrock taken from Test Pit Exploration

Work Done: **Sept.19-Sept 22, 2011**

Samples from Paradise Hill Plateau, **Waste 6**, PH trenches. Sample Gps locations correspond to locations in trench report.

PH1 - Red orange altered quartz veins in decomposing graphite. Veining of white & yellow, calcite & sulfur.

PH2 -Decomposing orange oxide carbonate rock. Chromium green staining. **~ 3 ppbAu;**

PH3 - Hydro altered decomposing graphite. Powdered orange & white veining. Crumbling calcite quartz veins surrounded by decomposing fucshite. **~ 7 ppbAu**

PH4 -Decomposing & hydro altered ultramafic rock bordering carbonate with calcite & red/orange oxidation.

PH5 -Same as above. No sample sent.

PH6 -Carbonate altered (white, orange & black powders), green mafic rock with crystalized calcite.

PH7 -Carbonate coated altered black/green tinged ultra/mafic rock.

PH8 -White orange powder below shiny graphite contact. **~ 7 ppbAu**

PH9, 10, 11, 12. -Samples not selected for assay.

PH13 -Hard quartz veined with orange powder. Calcite veining in decomposing graphite. **~ 9 ppbAu**

PH13Mid -Decomposing shiny graphite with burgandy staining, red & orange oxidation. Powdered calcite veining. Balls of quartz with pink calcite.

PH14 -Red, white, yellow coated decomposing rock contacting graphite.

PH15 -Altered decomposing crumbling graphite, orange, white powder, burgandy staining.

PH-15-2 -More altered quartz, orange powder.

Nugget Hill, **Waste3, 4**

NH1 -*Dave Brickner's Pit*- Grey/green stone graphite altered. Orange & red/brown oxidation in calcite veins, pocketed quartz veins. Hydro altered zone.

NH2 - Dave's Pit. Waste3 Orange, white, shiny, black. Decomposing rock.

NH3 -Waste4. Orange red stained quartz in altered graphite.

NH3-1 -Crumbling quartz veins with burgandy black stainings. Orange oxidation, sulphur alteration ir

graphite. **~ 9 ppbAu**
NH3-2 -Decomposing iron oxidized calcite veins, graphite. **~ 8 ppbAu**
NH3-3 -Orange oxidized quartz, sulfur & calcite in hyro altered graphite.
NH4 -W4FV. Hydro altered quartz & graphite. Orange/dark red oxidation. Sulfides. **~ 2ppbAu**
NH5 -W4GG. 22 sept. Green & yellow tinges in the hyrdothermaly altered quartz & graphite. **~ 6ppbAu**
NH6 -W4GG. *Same location as above*. Altered quartz & graphite, orange oxidation, white powder, sulfides. Decomposing to clay.
NH7 - Waste6. Western edge of Nugget Hill by Hester Creek. Altered chloritic carbonate rocks. Orange oxidation, white powder. – Good, points.

Waste2, INTestPits 3&6. Independence Creek Road. **Waste3**, Brickner Pit.

W2Tr3 -Serpentine with orange & white oxidation, small sulfides on rock. **IN3 ~ 3 ppbAu**
W2Tr6 -Hydrothermaly altered quartz & graphite sulfide oxidation, calcite veining. **IN6 ~ 6 ppbAu**
W3DBP -Carbonate altered white crumbly decomposing bedrock. Orange powder, sulfide oxidation. Brickner Pit **<1ppbAu**

Waste34, Across Hunker from "Trilby Showing" on Independence Creek.

TB1- Same as trench location. Light orange & white coated, white/grey quartz with burgandy staining In graphite schist. Whole bag tested, large mesh. Higher test. **~ 6 ppbAu**
TB207 -Calcite with burgandy & orange oxidation. Sulfides in altered graphite schist. **<1ppbAu**
TBWv -Orange oxidized altered white/grey quartz with calcite. Small pyrite cubes and various sulfide Same location as above. **<1ppbAu**

Waste 4

Waste4OxGoo -Pulverized- Orange/red shiny powder. From a system of carbonate rock & graphite the "gorge". **~ 70 ppbAu**
W4Ft -Pulverized- orange shiny powder.
W4Ravine -Pulverized- Black shiny powder. *Crushed altered graphite from the "gorge".* **~ 10 ppbAu**

Waste5, Waste 7

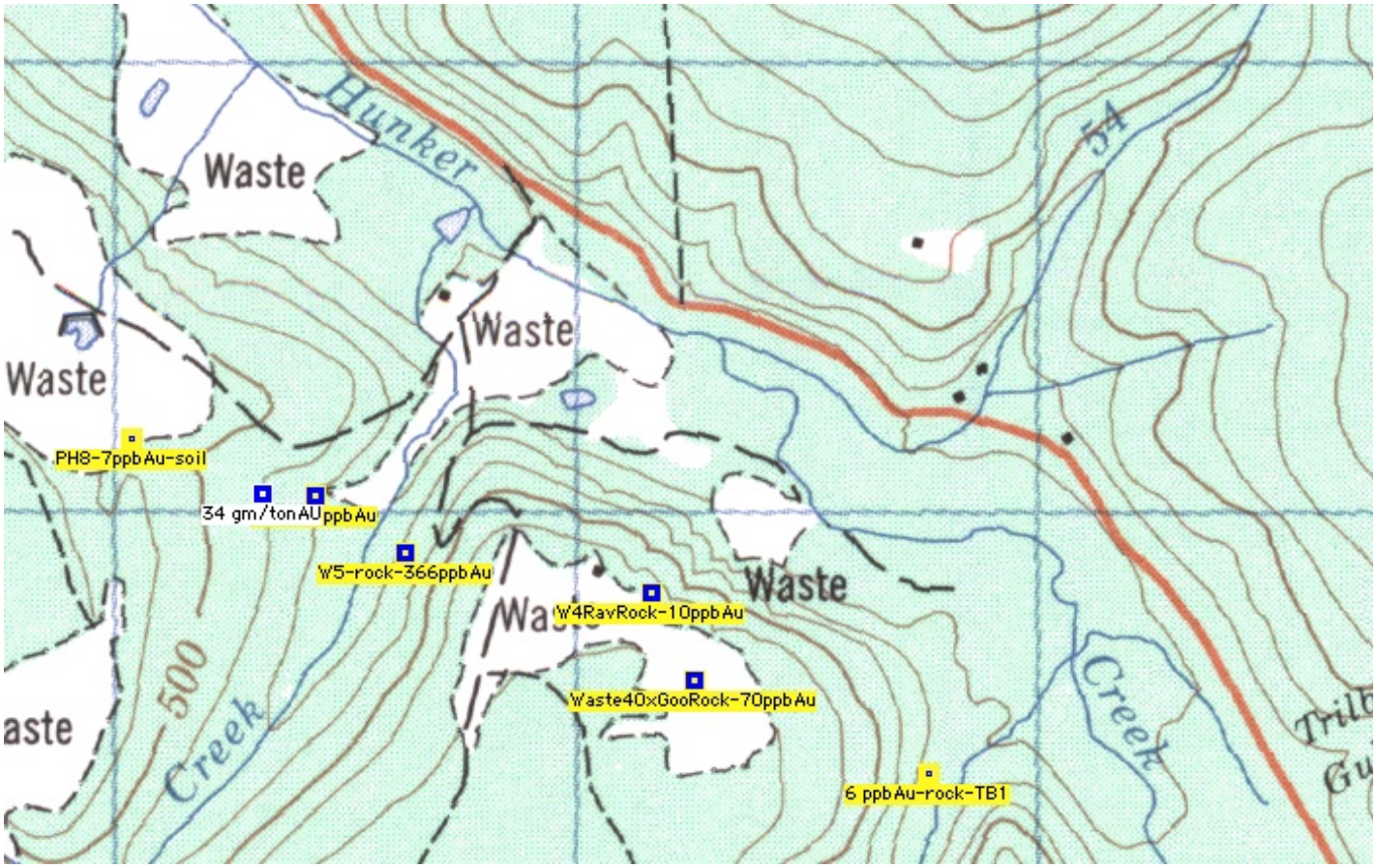
Near Waste Vein. *(07V0) 580472/7099696*

W7 -Sulfide rich calcite & quartz veins through altered graphite. **~ 754 ppbAu Fire; 610 ppbAu Neuron Analysis**
W7west -Quartz calcite with sulfide veining (pyrite, arsenopy, chalcopyrite, gold?), along side graphite schist also carrying sulfides. 20m west of "rock". **<1ppbAu**
W5 – SouthEast of W7vein & Hester Creek. Outcrop of white bull quartz. Next to gossan of carbonate conglomerate quartz pieces & orange/green oxidation. Continuation of quartz carbonate with "gooed" altered chlorite contacting altered graphite faulting. **~ 366 ppbAu Neutron Analysis**.



W4 sample for future testing - Gossan and (hydrothermal) contact with bedrock that is altering to graphite through friction. Placer pebbles in cracks.





2011 sampling in proximity to the spring 2011 result of 34 gm/Au; Chipped fro "Main Rock", Hester creek. Between Paradise & Nugget Hills.

NW tip of "Main Rock" Waste7Vein: 2012 rock result of w7rNW ~ 5.71ppmAU (5.7gm/ton). See 2012 Waste Section Report for details.



Waste7 Vein Main Rock. A definitive local vein. See attached 2012 Waste Report. Recommendation is to begin further testing on the unexposed north-west dipping top of vei Also to continue testing the surrounding area, quartz & graphite zones.

Fall 2011 sampling

Waste8 TestPit3,

TestPit3- Graphite altered striated & crumbling gabbro. Red, orange, burgandy staining. Calcite powder, mineralization. Rock. **~ 5 ppbAu; 67 ppmCr; 770 ppmBa**

TP3W8- Crystalized red & orange oxidizing quartz & calcite veins in graphite. Rock. **<1 ppbAu**

Waste 9"Mineral Bowl", large stripped placer area on Paradise Hill.

Rock

W9-1 -MinBowl-Mineral altered graphite, fucshite. Sampled from test pit PH1. **~ 1700 ppmCr**

W9-2 -Road-Oxidation & sulfur in carbonate altered graphite, fucshite. Test pit PH2. **~ 1760 ppmC**

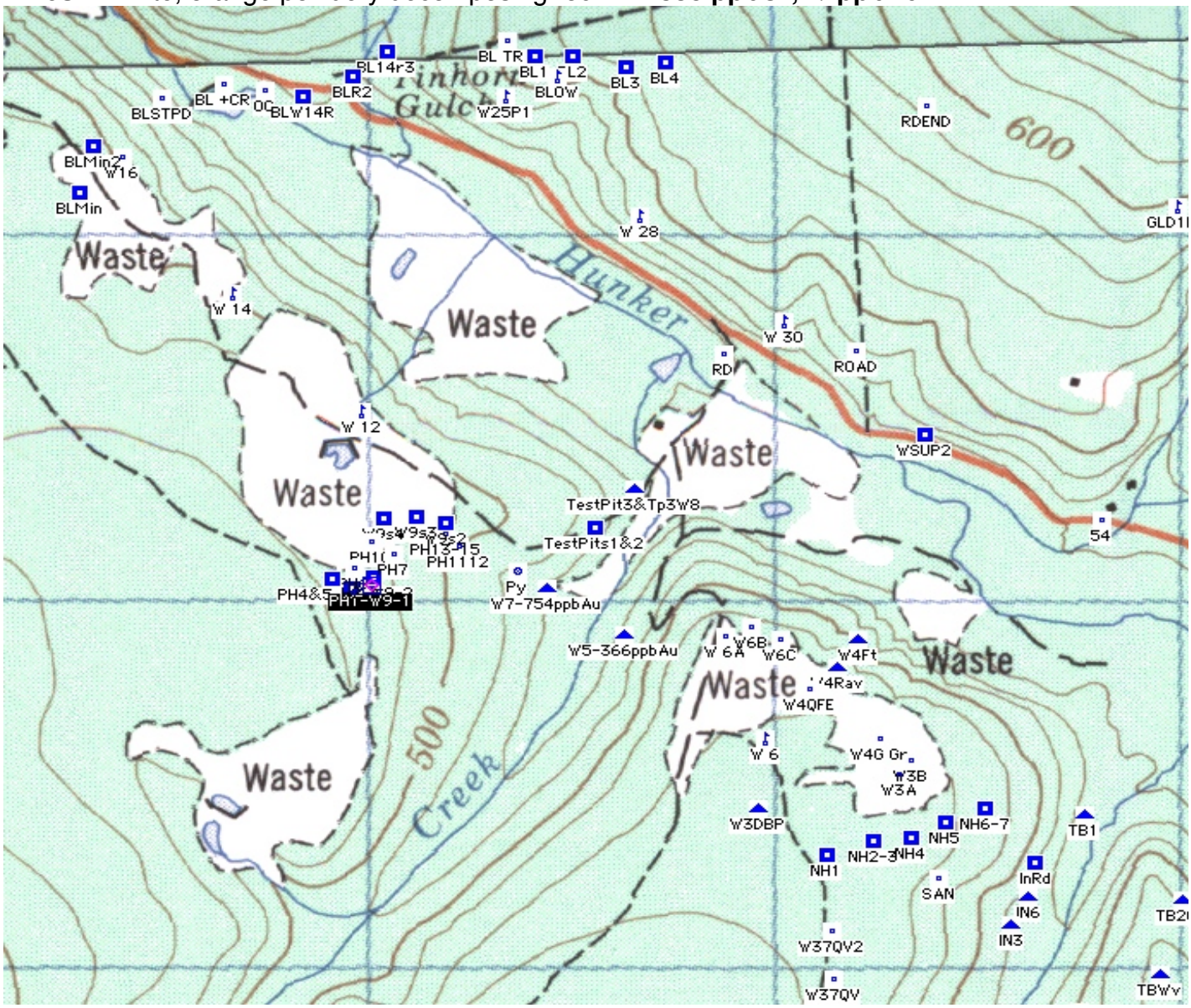
W9-3 –TestPit 4. Decomposing carbonate, chromium oxide, burgundy oxidation, blackened fault. **~ 9710 ppm Chromium.**

Soils

W9s2 -Decomposing orange carbonate green sericitic bedrock. **~ 8 ppbAu; 2620 ppmCr**

W9s3 -Decomposing fuchite coating oxidizing carbonate bedrock. **~ 5ppbAu; 12,500 ppmCr**

W9s4 -White, orange powdery decomposing rock. ~ **330 ppbCr; <1ppbAu**



Close up of PH test pits. Waste9 sampling

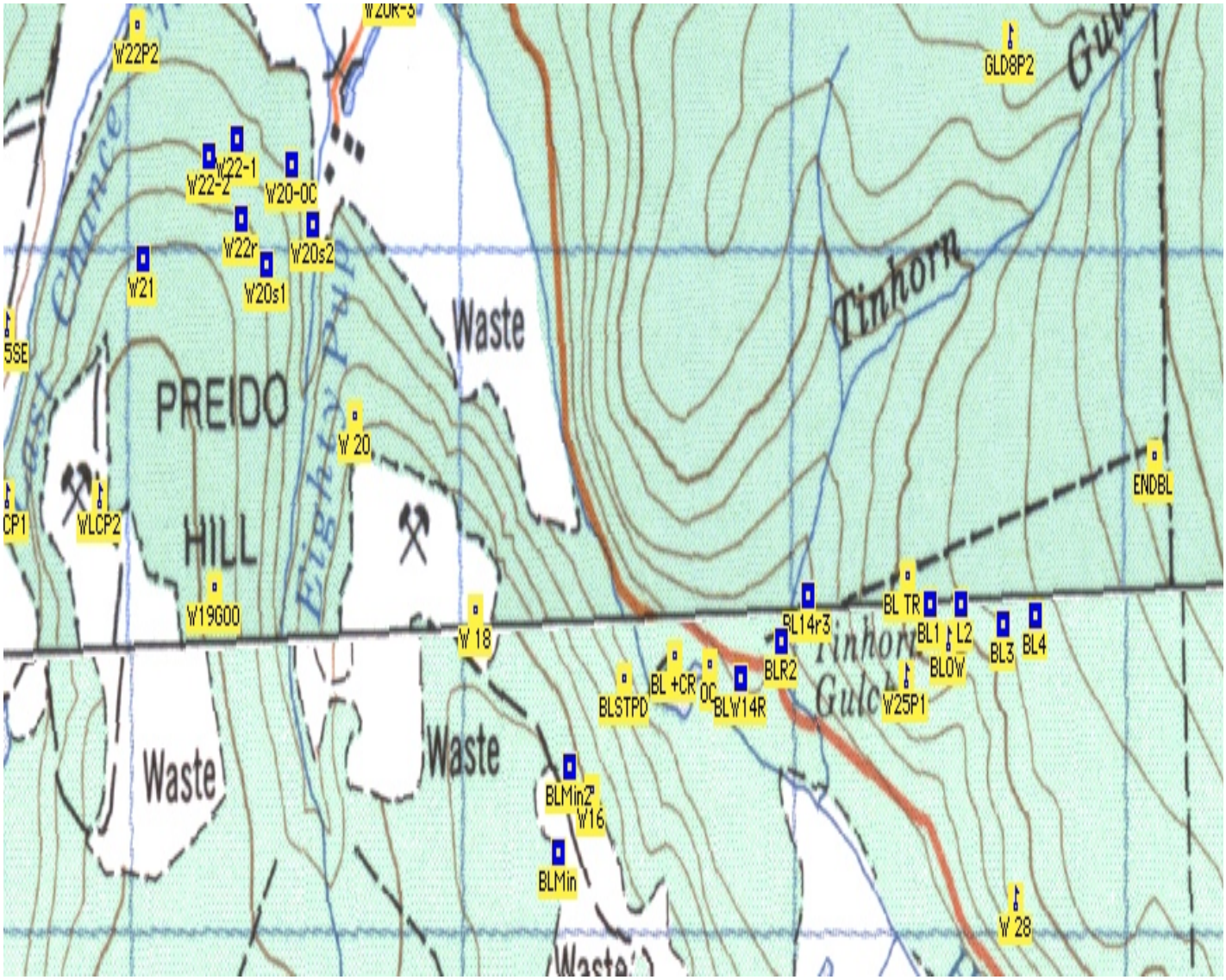
Assay Results from Selective Sampling 2011

"BenLevy" sampling, south of power line past Tinhorn

Near & around Ben Levi occurrence. Waste23 & 24.
Though gold results were low, this area is being outlined a chromium rich fault zone. It i possible that the high-grade layer is close to here or at depth.



Hydrothermally altered chromium stained quartz/ calcite from BenLevi Occurrence area.





West GoldBottom. *Claims*: **In167 & 162** *Map# 115O14 &O15*

In167 -Soils from decomposing bedrock systems

B Light Brown **~ 4.1ppbAu; 85ppbAg; 13.14ppmCu; 5 ppmAs**

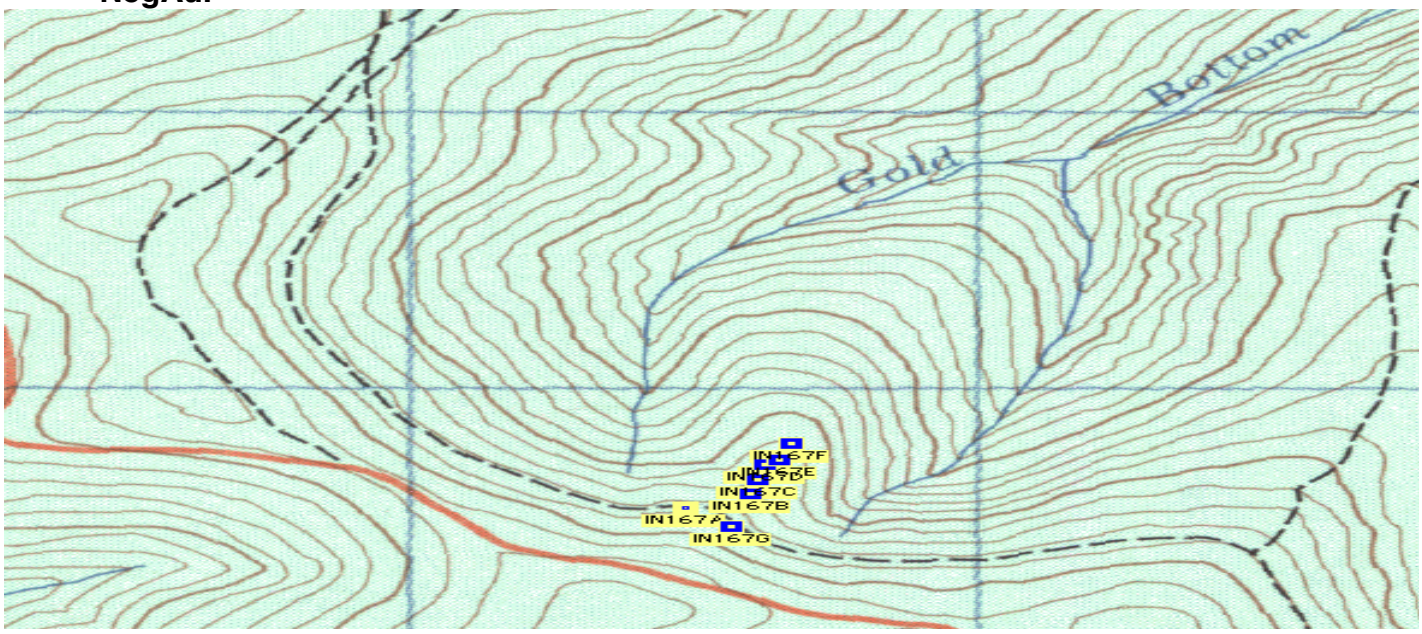
C Brown **~ 5.2ppbAu; 53ppbAg; 27.77ppmCu; 9.8ppmAs**

D Dark Brown **~ 2.9ppbAu; 52ppbAg; 12.7ppmCu; 8.5ppmAs**

E Dark Brown **~ 5.6ppbAu; 47ppbAg; 18.37ppmCu; 11.9ppmAs**

F Orange/Black/White -Decomposing surface vein. **3.5ppbAu; 46ppbAg; 6.39Cu**

G Light green quartzite/phyllite with orange oxidized segments. Rock,**~3100ppmBa; NegAu.**



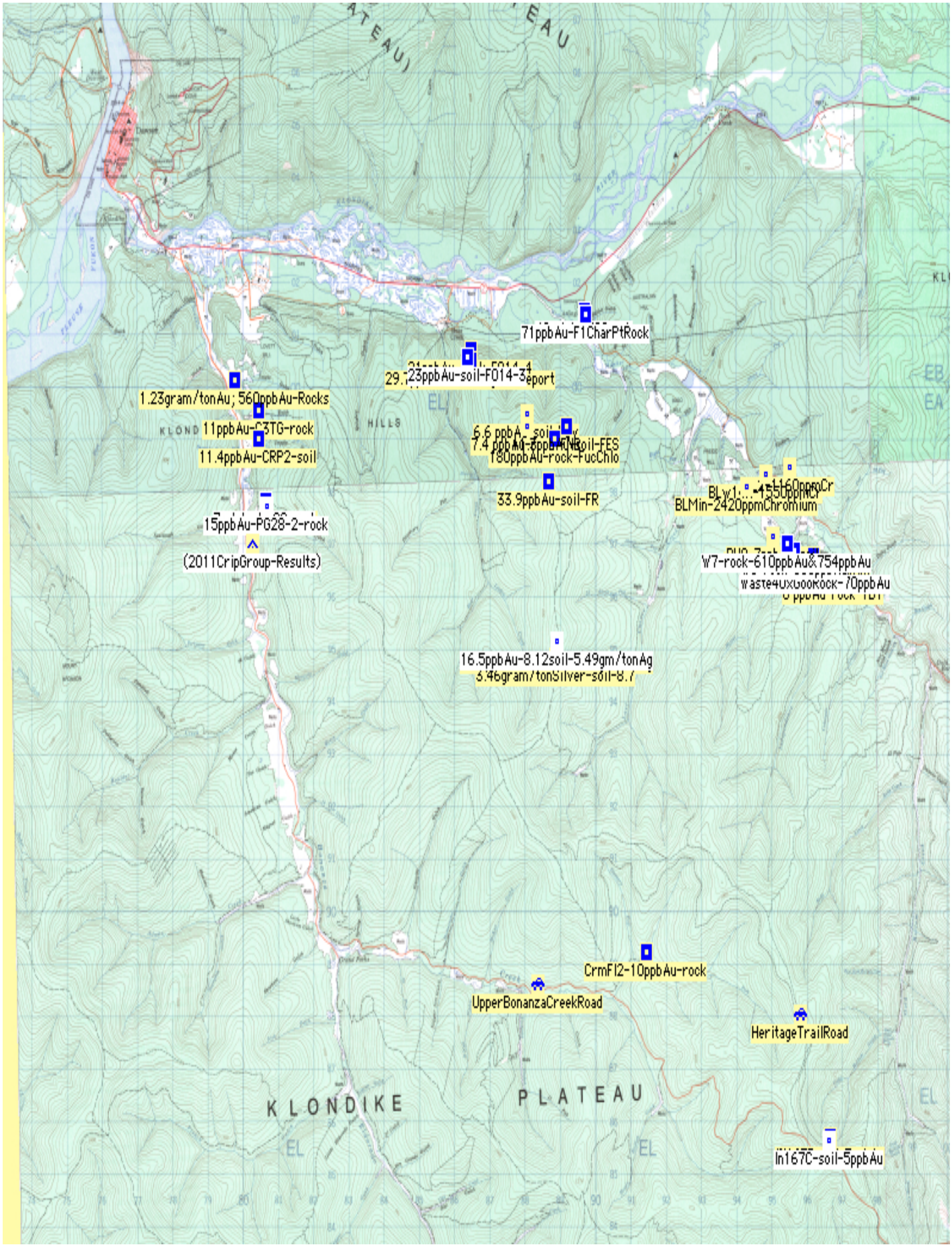
Carmacks Fork. Where old expired grant is. Claims: In97 & In99

CarmS2 – **Soil** - Decomposing from light green phyllite, calcite/quartz eyelets, orange coated muscovite schistose. **~ 4.8ppbAu; 2.6ppmCr; 119ppmBa**

CrmFL2 - **Rock**- Light green Phyllite with mineralization visible in layers. Hard, orange-red

coating.
~ 10ppbAu; 14ppmCr; 2600ppmBa

Assay results from "Klondike" claims 2011-12, including Crip Group results.



Locations of highest gold assay results from Fall 2011 sampling (more than 10ppbAu) fron

2011 Assayed Samples from the "In" Group

rock & soil. Results by AcmeLabs ~ Neutron Activation testing & IF03 analysis on soils.
(Originals in 2011 report). Detailed descriptions:

Submitted by : Emmi Petroulsas

Date Received : 08-Nov-12

Date Reported : 29-Nov-12

6790 Kitimat Rd, Unit #4
Mississauga, ON,Canada,L5N 5L9
Ph: (905) 826-3080 Fax : (905) 826-4151

Acme file # :WHI12000950

Samples were run as received.

Analysis performed by Neutron Activation (Method BQ-NAA-1)

A negative result denotes "Less Than".

Note : Mo results are interfered with by Mo production from U fission. Sample # 104 was not received. Some detection limits are elevated due to elevated Fe/Co/Sc...

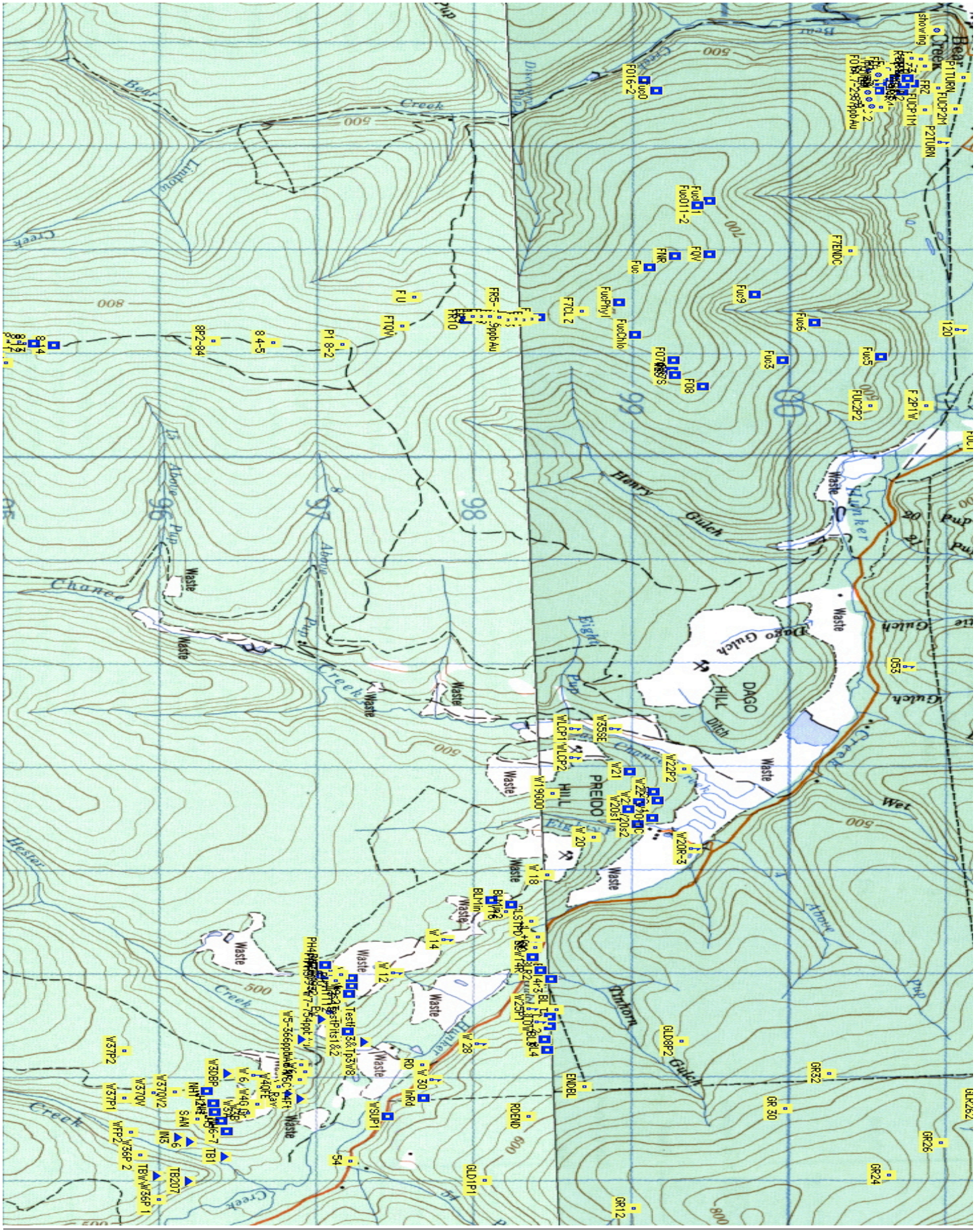
Rock Samples: R200-500 Prep and 5A Analysis	Au ppb	Cr ppm	Ba ppm
PH1 - 07 V 0595006 7097041			
PH2 - 07 V 0595011 7097065		2670	
PH3 - 07 V 0594997 7097061		2880	
PH4 - 07 V 0594959 7097038			
PH6 - 07 V 0594963 7097091		3010	
PH7 - 07 V 0595063 7097126		1730	
PH8 - 07 V 0595037 7097161		2630	
PH13 - 07 V 0595188 7097182			
PH13Mid			
PH14 - 07 V 0595165 7097199			
PH15 - 07 V 0595198 7097208			
PH-15-2			
NH1 - 07 V 0596185 7096312			
NH2- 07 V 0596176 7096309			
NH3 - 07 V 0596178 7096328			
NH3-1			
NH3-2			
NH3-3			
NH4 - 07V 0596335 7096352			
NH5 - 07V 0596420 7096393			
NH6 - 07V 0596517 7096431			
NH7 - 5 meters west of 6			
W3DBP - 07V 0595960 7096431			
W9s2 - 07V 0595187 7097210		2620	
W9s3 07V 0595116 7097228		12500	
W9s4 - 07V 0595037 7097225			
W20s1 - 07W 0593406 7098986			
W20s2 - 07W 0593548 7099049			
W21 07W 0593035 7098995			
W22-1 - 07W 593317 7099174			
W22-2 - 07W 0593234 7099150			
W2Tr3 - 07V 0596580 7096115			
W2Tr6 - 07V 0596623 7096192			
TestPit3 - 07V 0595652 7097305			
TP3W8 - same location as above			
TB1 - 07 V 0596763 7096417			
TB207 - 07 V 0597002 7096183			
TBWv - 07 V 0596947 7095981			
Waste4OxGoo - 07 V 0596257 7096624	70		
W4Ft - 07V 0596204 7096893			
W4Ravine 07V 0596153 7096817	10		
W9-1 - 07V 0595006 7097041		1700	
W9-2 - 07V 0595011 7097065		1760	
W9-3 - 07V 0594908 7097059		9710	
W20OC - 07W 0593485 7099138			
W22R - 07W 593332 7099055			

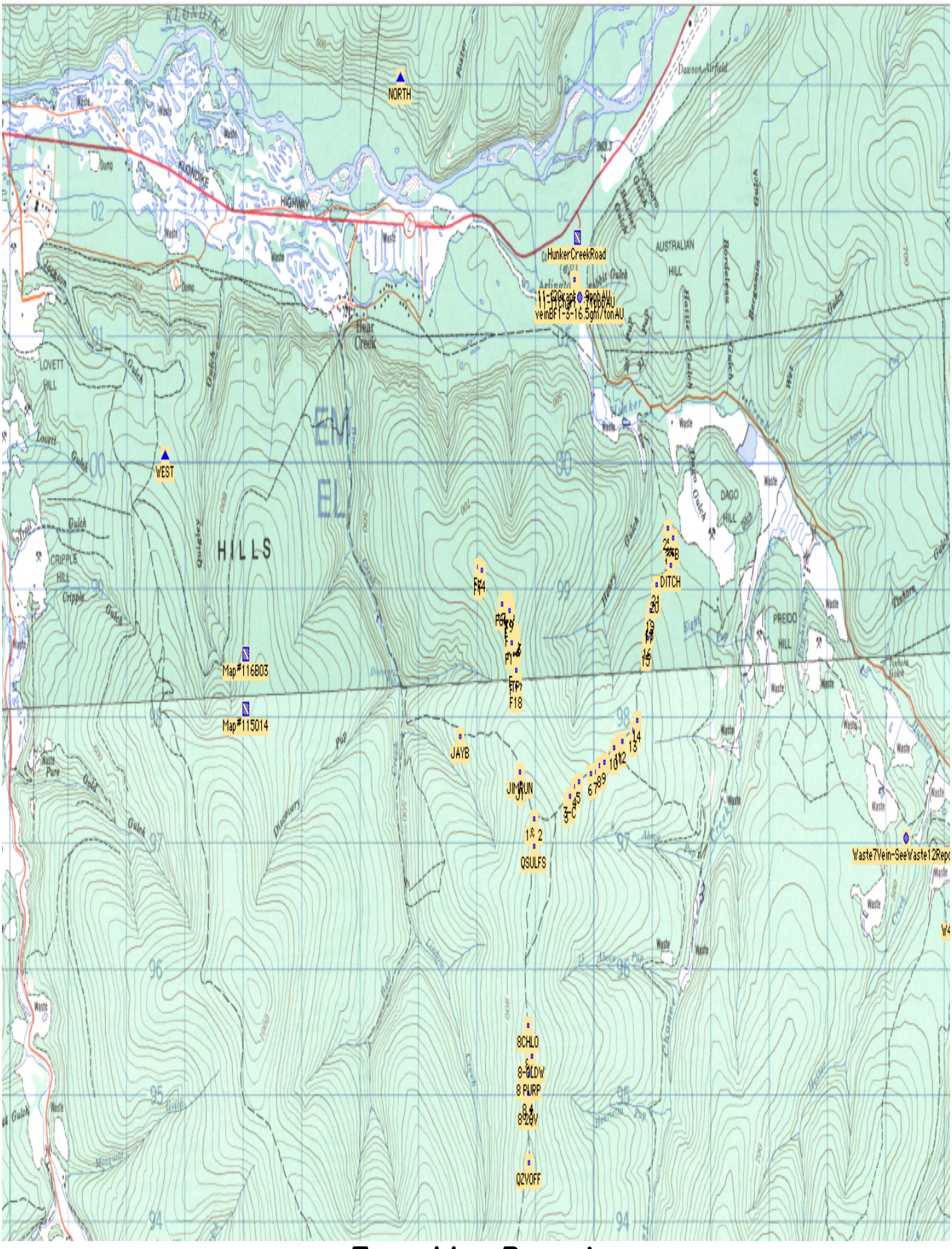
Rock Samples: R200-500 Prep and 5A Analysis	Au ppb	Cr ppm	Ba ppm
WSUpP1 - 07V 0596371 7097452			
BL2 - 07W 0595502 7098486		1160	
BL3 - 07V 0595631 7098455			
BL4 - 07V 0595728 7098469		1520	
BLW14R - 07V 0594838 7098376		1550	
BLW14R2 - 07V 0594960 7098430			
BLW14R3 - 07W 0595042 7098499			
BLMin - 07V 0594268 7098115		2420	
BLMin2 - 07V 0594322 7098242		1770	
In167 G - 07V 0596564 7085499			
CrmFL2 - 07V 0591448 7089258	10		
Fuc011 - 07W 0587519 7099508			
Fuc011-2 - 07W 0587557 7099428			
Fuc - 07W 0588164 7099125			
FucPhyl - 07W 0588499 7098931			
FucChlo - 07W 0588818 7099026	180		
Fuc3 07W 0589060 7099971			
Fuc5 - 07W 0589022 7100597			
Fuc6 - 07W 0588696 7100170			
Fuc9 - 07W 0588425 7099789			
FucO14R1 - 07W 0586334 7100767			
FucO14R2 - 07W 0586381 7100798			
FucO14R3 - 07W 0586395 7100738			
FucO14R4 - 07W 0586459 7100733	21		
Fuc016 - 07W 0586350 7099086			
Fuc016/2 - same as above			
FucO - 07W 0586448 7099167			
F07R - Same as F07S (possible contamination)			
F1CharPt - 07W 0589694 7101421	71		
F2Graph - 07W 0589662 7101464	49		
Extra Samples			
PH13-2 - 07V 0595188 7097182			
Fuc08-2 - 07W 0589466 7099390			

Soil Samples: S580 Prep and 1F03 Analysis	Au ppb	Ag ppb	As ppm	Cu ppm
BL1 - 07W 0595408 7098484	4.7	286	13.2	33.44
In167 B 07V 0596598 7085616	4.1	85	5	13.14
In167 C - 07V 0596612 7085667	5.2	53	9.8	17.77
In167 D - 07V 0596622 7085720	2.9	52	8.5	12.7
In167 E - 07V 596651 7085740	5.6	47	11.9	18.37
In167 F - 07V 0596669 7085797	3.5	46	8.2	6.39
In-Rd - 07V 0596200 7097680	4.3	504	17.1	54.13
CarmS2 - 07V 0590694 7088707	4.8	36	25.7	5.2
F07S - 07W 0589203 7099284	2.9	155	7.1	8.5
F07Qv 07W 0589058 7099276	5.3	186	11.1	13.53
FQv - 07W 0588034 7099506	6.6	86	7.7	10.07
F08 - 07W 0589313 7099459	5.2	39	21.2	16.66
FES - 07W 0589162 7099270	11.3	273	8.2	12.81
FNR - 07W 0588048 7099281	7.4	185	12.3	36.35
8.1 - 07V 0588884 7094536	4.4	161	4.9	7.7
8.2 - 07V 0588875 7094589	2.6	222	6.8	17.1
8.3 - 07V 0588870 7094642	5.1	84	10	15.04
8.4 - 07V 0588865 7094693	<0.2	146	3.9	5.95
8.5 - 07V 0588863 7094745	6.7	615	7.7	17.82
8.6 - 07V 0588862 7094802	5.6	155	3.9	15.64
8.7 - 07V 0588858 7094859	6.7	3457	7.7	19.99
8.8 - 07V 0588859 7094907	2.6	424	3.9	38.12
8.10 - 07V 0588877 7095035	1.6	856	7.7	69.39
8.11 - 07V 0588885 7095107	17.6	4272	3.9	54.13
8.12 - 07V 0588895 7095166	16.5	5849	9.2	33.03
F014-1 - 07W 0586319 7100673				
F014-2 - 07W 0586345 7100635				
F014-3 - 07W 0586370 7100606	23			
F014-4 - 07W 0586404 7100593				
F014-5 - 07W 0586 455 7100580				
Samples that were unrecoverable from damaged bag				
Fuc14	Rock			
Fuc14R	Rock			
8.9	Soil			
8.9 Rock	Rock			
8.13 Rock - 07V 0588898 709520	Rock			
Lind5	Rock			
F1CP1	Rock			
F1CP2	Rock			
F1CP3	Rock			

Rock Samples:R200-500 (3B02 Analysis- fire assay)	Au ppb	Au ppb (5A Neuron)
W7 - 07V 0595436 7097035	610	754
W7west - 07V 0595467 7097041	8	-2
W5 - 07V 0595629 7096908 (No 3B02 analysis on this sample)	n.a	366

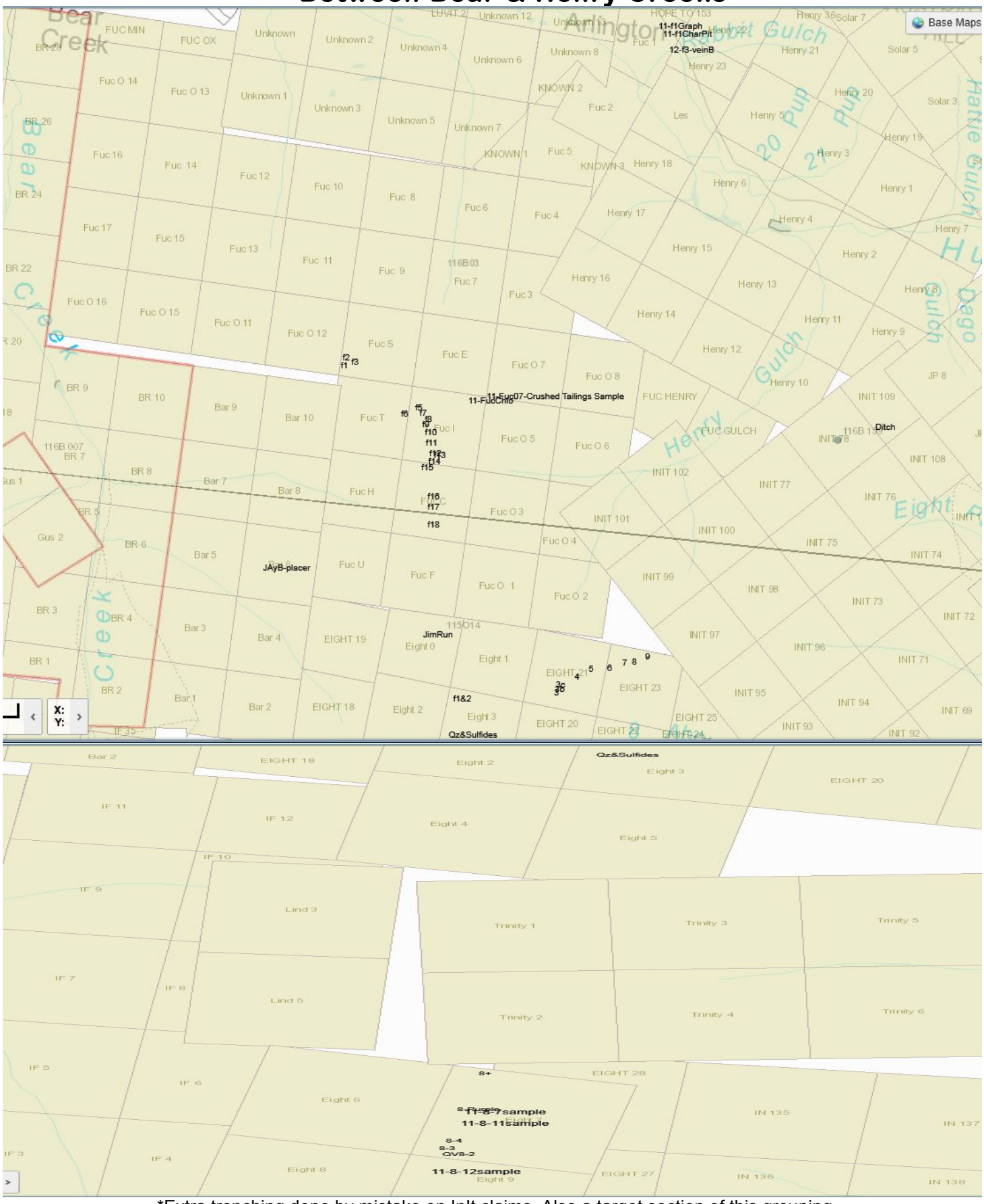
***(Absent cell indicate less than <10 ppb Au assay result) See attached result list from Acme Labs Vancouver.**


Bear Creek
Henry Gulch
Dago Gulch
DAGO HILL
PREIDO HILL
Ditch
Waste
Fuc0
FO16-2
Fuc011-1
Fuc011-2
FNR
FQV
F7ENDC
Fuc9
Fuc6
Fuc5
Fuc3
FUC2P2
F2P1W
F7CL 2
FuePhyl
FuoChlo
FO8
FR10
FR5-
FTQV
P1 8-2
8P2-84
8-4-5
8-4
W35SE
W22P2
W21
W20s1
W20s2
W20R-3
W19000
W20
W18
W14
W12
W28
W30
RD
inRd
W5UP1
W37P2
W37P1
W37QV2
W37QW
W30BP
W40FE
W6_W40
W35E
NH1
SAN
IM3
TB1
TB207
W36P 2
W26P 1
ENDBL
RDEND
GLD1P1
GLD8P2
GR32
GR 30
GR26
GR24
GR12
GLK262
Creek
Gulch
Above
Pup
Fork
Wet
Hester
Athorn
Lindow
Eight
Chanee
Ditch



Trenching Report

August20th – September 4th, 2012
Between Bear & Henry Creeks



*Extra trenching done by mistake on InIt claims. Also a target section of this grouping.

FucClaims 2012 ~ "Hidden Valley" – No Name Hill

(meters long)x(meters wide)x(meters deep)

F1 – 2 x ½ x 2 ~ Red green oxidation at bottom. Chlorite schist, with abundant white qz lenses. Orange brown oxidation.

F2 – 5 x 1 x 1 ~ Qz veins running through light green "quartzite". Slightly foliated. Orange/brown coated, highly silicious chlorite schist.
(13m to NE)
F3 – 3 x ½ x ½ ~ White, clear & grey quartz with brown/orange and red oxidation, through chlorite/quartzite continuation. Green tinged walls turn red very rapidly upon exposure to oxygen. Very loose schist, filled easily by quartz "flows".

F4 – 3 x ½ x 1 ~ Orange stained clear/grey & white quartz continues along with the chloritic "quartzite".

F5 – ½ x ½ x 1/5 ~ Old drill hole (hardrock?). Continuation of light green coloured highly silicious schist.

F6A - 2 x ½ x 1 ~Qz veinlets up to (1") thick, parallel in chlorite schist/qzite.
B - 2 x ½ x ½ ~ Light forest green staining of quartose rock. Clear quartz veinlets striated throughout. Orange oxidation & visible sulfides.
C - 2 X ½ x 1 ~ Clear & white quartz veinlets (3") & sulfides crosscutting foliated chlorite sc bedded also with quartz veinlets.

F7 – 2 x ½ x ½ ~ Chloritic schist quartzite with purple veining. Silicified chlorite schist with quartz lenses and purple (hematite?) veinlets and "blotchings". 5 meters away from:
B - ½ x ½ x ½ ~ Heavy & oxidizing crenulated veinlets of quartz/calcite in the chlorite schist.

F8 - ½ x ½ x ½ ~ Cubic biotite in the black/burgundy quartz lenses running through the chloritic schist/quartzite.

F9 – ½ x ½ x ½ ~Same stuff as above. Brown oxidation, manganease, tin(?).

F10 – 4 x ½ x 2 ~ Striated & heavy chloritic schistose/silica. Brown oxidation.11 meters to east:
B - 1 x ½ x 1 ~ Slightly foliated white quartz veinlets 1-3" thick coated in sericite schist with black stainings. Orange oxidation on quartz. Contact with the "green silicious, purple veinlets".

F11 – ½ x ½ x ½ ~ Decomposing rock in pictures. White, orange, green, black.

F12 – 3 x ½ x 3 ~Chlorite schist hevily melded with with white quartz (calcite?veining). Orange/brown oxidation. Green quartz heavier with purple stainings through the (calcite?) veinings.

F13 - 2 x ½ x ½ ~ ChloQzite with quartz veinlets. Rusty brown/Orange quartz, cross-cutting with visible copper & iron sulfides.

F14 – 3 x ½ x 3 ~ Quartz vein with a lot of orange oxidation running through the chlorite schist quartzite. Yellow limonite spots, purple (manganease?) veinings. * Bag sample taken from bottom of pit of native quartz vein.

F15 - 3 x ½ x 3 ~Quartz veining continues. Brown & purple oxidations.

F16 – ½ x ½ x ½ (3 small test pits close together) ~Black "shaley" graphite border of the chlorite quartz system.
TP – (3 more ½ meter tests.) ~All black shale.

F17 – 4 x ½ x 3 ~Black shale with quartz lenses and rusty veins 3-4" thick. Black bedrock looks like shale/graphite, broken & decomposing. Top ridge of "JayBrown" creek.

F18 – ½ x ½ x ½ ~Quartz veinlets in black shale. Foot of the hill.
~Access to cat trail that was followed for "F" tests.

~Broken plateaus best describes the terrane of this no name summit between Dago Hill & Ridge Trail.

Eight Claims

(meters long)x(meters wide)x(meters deep)

JA – ½ x ½ x ½ ~Red oxidizing, silky muscovite schist & broken Qz pieces.

8 – 1 x ½ x ½ ~ Chlorite schist and quartzite coated in silver muscovite. Brown oxidation. 5 meters from B.
B – Large quartz pieces up to 1.5' thick contacting with light forest green & white calcium carbonate.

8/2 – 2 x 1 x 2 ~Large quartz vein trending to the NorthEast, through broken Klondike schist (altered chlorite), talcy muscovite.

8/3 – ½ x ½ x ½ ~Small test pit into the talc altered chloritic schist of below that seems to have turned brown.

8/4 – ½ x ½ x ½ ~Red/brown altered Klondike Schist next to QzChlorite schist.

8Purple – 6 x ½ x 1 ~Bottom of old placer trench. Talcy powdered Mica. Brown with clear quartz veining above the purple (cinnabar?mercury?) and blackened intrusion.
5.8gm/ton silver assayed from soils at area.
4.3 & 3.5 grams/ton silver between JA & 8/4 (further south).

8 OLDWorking: Area of trenching done during historic gold period. 5 test pits done in area.
Large pieces of bull quartz lying around. Quartz vein(s).
A - 3 x ½ x ½
B - ½ x ½ x ½
C - 3 x ½ x ½
D - ½ x ½ x ½
E - 4 x ½ x ½

8Chlo – ½ x ½ x ½ ~Blackened & highly silicious chlorite schist. Cut by clear/grey quartz with brown oxidation.

QSulfs - 5 x ½ x 2 ~ Pink/red staining, silvery muscovite powder, clear/grey/white quartz vein in the "ChloStuff".

Test Pits: Off main back road between Bear Creek & Henry Gulch

1 – ½ x ½ x ½

2 – 5 x 1 x 2 ~Possible visible tin identified.

3A – 5 x ½ x 2 ~Pocketed Rusty & brown bull quartz in orange mica Klondike/Chlorite schist.
B – 3 x ½ x ½ ~ Blocks of blackened ChloQzite, fine grained.
C – 2 x ½ x 2 ~Silicious chlorite schist oxidizing orange brown on surface. Quartz veining.

4 – ½ x ½ x ½ ~Altering & foliated (chlorite schist quartz).

5 – 1 x ½ x ½ ~Orange/red foliated quartzite, bordering band of black shale.

6 – ½ x ½ x ½ ~Shale contacting with quartz again.

7 – 1 x 1 x 1 ~Under previous push. Brown oxidizing pocketed quartz.

8 – ½ x ½ x ½ ~Orange mica altering familiar Chlorite quartzite foliated.

9 - ½ x ½ x ½ ~Chloritic quartzite, biotite cubes.

10 - ½ x ½ x ½ ~Chlorite schist bordering black shale.
B - ½ x ½ x ½ ~Decomposing black shale in contact with the ChloSchistQz.

11 - ½ x ½ x ½ ~Brown oxidizing quartz lenses through decomposing black shale.

12 - 2 x ½ x ½ ~Black shale continues down road.

13 - ½ x ½ x ½ ~Altered black shale, slightly graphitic.

14 - ½ x ½ x ½ ~Black shale contact again with altered Klondike Schist.

15 - ½ x ½ x ½ ~Black powder, decomposing shale.

16 - 1 x ½ x ½ ~Highly silicious Chlorite schist.

17 - ½ x ½ x ½ ~Red Klondike schist in contact with green decomposing.

18 - ½ x ½ x ½ ~2 test pits on either side of the road. Decomposing Red/Green KS/ChloQz with quartz veining.

19 - ½ x ½ x ½ ~Klondike schist.

20 - ½ x ½ x ½ ~ Klondike schist (altered chlorite schist) stained red & burgundy.

21 - ½ x ½ x ½ ~Altered same as above.

22 - 1 x ½ x 1 ~Red Klondike schist contact with decomposing chlorite.

23 - 1 x ½ x ½ ~Same as above.

24 - 1 x ½ x ½ ~Grey, altered schist with 1mm quartz veinlets.

25 - 1 x ½ x ½ ~Old road off main road. 20 meters before trench B.
B - 3 x 1 x 3 ~Both trenches consist of powder from decomposing Orange chlorite schist and quartz.

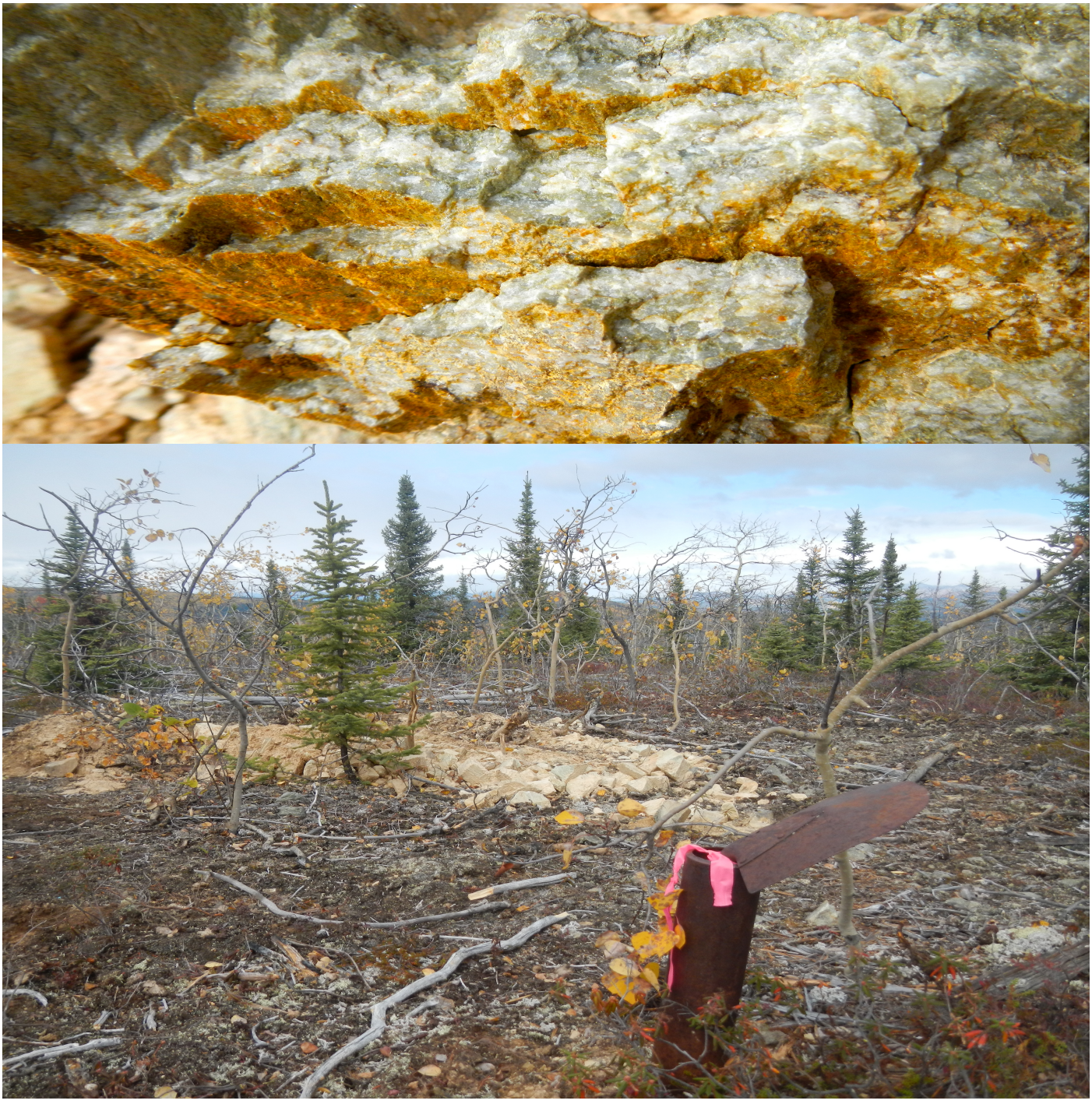
2012 Conclusion based on Bedrock Observations. Bear to Henry Creek

'Everything south of the "shale/graphite" contact is highly altered "Klondike" schist. The entire ridge between Hunker & Bear Creek roads seems to be a series of thrust faults interrupted by a highly altered and morphed chlorite schist, which itself is a previously altered rock.
According to Jim Mortensen[3], veins crosscutting the foliated schists have the highest gold concentration. They are the "newest" veins.
Expansion (related to volcanism, magmatism, or both), flooded with silica the original rock. The source of heat, deep underground, as 50 million years ago the rock we see at surface now would have been 15-20 kms underfoot. Slow erosion releases the weight & pressure caused by this extreme compression at its deepest location; Allowing the cracks for circulating fluids to travel, perhaps in a collumner structure. Later "cut" by faultings into Echelon veins.
The extension of these structures could be the "Big Veins" we see in the Klondike with the Hassenfus Vein, Sheba, Mitchel, Violet, Lone Star ect.
(The entire plateau of Nugget Hill seems to have been a kilometer wide vein interrupted & bordered by graphite(shale).)
Current hydrothermal activity seems to be caused by the continuous slow expansion of the Tintina Fault.

On the surface of "no name" or "hidden valley" hill between Bear & Dago Hills, we see the schist of sericite mixed with chlorite (nickel, copper, chromium) which is altered by silica & quartz, then altered again by the brown/orange/burgany Klondike solution.'
This is an area that bears further investigation by testing bedrock exposed by test pits.

Photo Excerpts of Test Trenching 2012

[3] **UBC, Previous Arthur Cathro geologist for the Klondike.**



Hidden Valley ~ Old Drill Hole



Cholrite Schist. Cross-cutting quartz veins. Not many visible sulfides.



Hidden Valley Test Pits. Decomposing bedrock begins 5cm below surface.



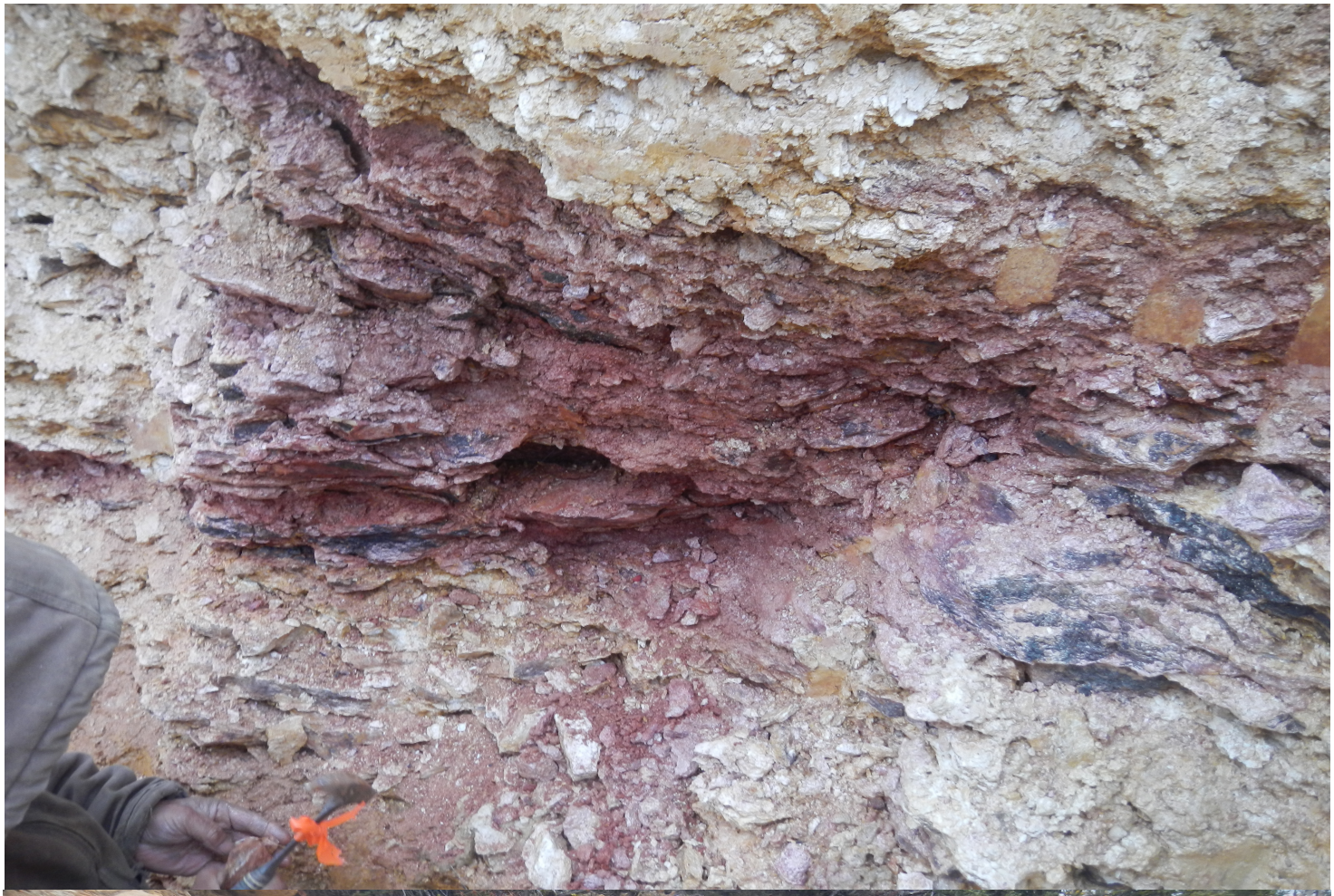
View of Quigley Gulch (west) from “Hidden Valley Hill”.



Burgandy “veinlets”, staining of the altered chorite schist.



Altered and orange oxidizing chlorite schist towards east.





Sampling recommended with assaying to determine “burgundys” composition. Eight claims “Purple Zone”.









Moving Eastward, (towards Henry & Hunker) the “Chlorite Schist” is almost “transformed” and/or contacts “Klondike Schist”.



Klondike Schist



View of Dago Hill from Last 2012 trench: Henry Gulch.

Expenditure
(August 17th – Sept. 9th, 2012)

Claim Fuc1 – YD11928

August 17th

Prospecting & hand trenching at the bottom of an (approx.) 20 meter deep placer pit (T.A. Oilfields) off the main road at the moth of Hunker Creek.
Sylvain Montreuil @300 day.

300

Claim Fuc1

August 18th

Prospecting & sampling of hand trenches dug into bedrock and further digging and prospecting at the Fuc1 Pit.
Sylvain Montreuil @300 (prospector)
Mathias MacDonell @300(geologist, prospector)
Erini Petroutsas @300(recording & sampling) 900

6 samples selected @$35 each for assay cost. 210
Boris Molack PhD Geology, objectively present to observe sampling and take own note on bedrock geology.

Testing with a 6Ton Rubber Track John Deer Hoe on claims along existing road between Bear Creek, Henry Gulch & Henrietta Pup.

Claims listed with tag #'s page 1 of this document.

August 20th - September 4th.
Sylvain Montreuil, 15 days hoe operation @300day 4,500

August 20th - September 4th
Hoe Rental Cost for 15 days of use, at 10 hours a day for 100/hour including gas cost.
Dominica Mining, Invoice attached to renewal application.

16,800

September 9th
Photos & location, geology recording of 65 test pits
Sylvain Montreuil @300 (prospector)
Erini Petroutsas @300 (recording & sampling) 600

Total expenses **$35,910**

2 days of prospecting, with a geologist and PhD present observing samples taken from the bottom of large placer pit off the road at the mouth of Hunker. Fuc1

65 test pits, (ranging from 1x1x1 meters to 4x4x4 meters in size,) For the purpose of exposing bedrock geology and to delineate future sampling targets.

Conclusion & Recommendations

The general prospecting & sampling program of 2011-2012 was successful in identifying previously “unfound zones” of anomalous gold in the bedrock of the Klondike, underneath the stripped placer.

By exploring with a small rubber track hoe, we are able to sample more definitive bedrock systems at depth, in many of the areas that have 100 years worth of over-burden already removed for us.

As the grouping is large & being studied in conjunction with two other groupings held by the prospectors in the “Klondike Goldfields”, exploration is still focused on completing an updated general bedrock study and analyzing rock types and environments that hold high grade hard-rock gold and silver.

This project is obviously in an early development, however, if you can look at a current project and development map of the Yukon, you will see that many projects listed as giving good results are often on or nearby one of these “old showings”. People just did not have the time or technology the past century to delve in too deep, and during most of the 80’s and 90’s until a few years ago the price of gold made it unfeasible to mine hard-rock, while the placer has been so readily available. We have observed, with a field professional (Kevin Brewer), placer miners **currently mining the decomposing bedrock** until it’s too hard to break, (on Dominion & Hester Creeks).

This ground is almost virgin from a hard rock perspective and sits in the middle of some of the primest gold producing property of the world. The cost of removing overburden has been taken care of by the previous placer miners, who have taken **tons** of **possibly precipitated** gold from here.

What we have been piecing together working on concurrent projects focusing on this area, is that we have a shallow surface system, (that is on an active hyrdrothermal zone), which likely has produced some of the placer gold recovered here for the past 130 years.

To which depth this system continues is the question. However from an economical standpoint, the next step to testing such a system is to begin at the surface.

Something that becomes apparent searching through recording reports is how little focus has been invested in this area on it’s hard rock potential. This has been due to the ease of placer availability, however now as more gravel deposits have been moved aside, native rock formations are easier to observe than ever before.

There is also a current disputing of the placer deposition hypothesis; which was theorizing gold deposits in the stream beds came from an area outside the goldfields; when in fact the Klondike Plateau is distinct as an area that has not undergone glaciation for the past three recorded ice ages and would be producing gravels during that time, through uplift alone which was then largely undisturbed along hill tops, carried by the creeks -but not for very long distances. This is proven by the coarseness of much of the gold found in creeks and also by the fact that placer miners most reliably find the most of their gold directly at the point where bedrock

meets gravel.

Statement of Qualifications

Sylvain Montreuil:

Quartz vein prospector in the Klondike drainage and Indian River, also 60 Mile, Stewart, Peel and Porcupine rivers for over 20 years. Has been involved in the targeting, prospecting, finds and mining of successful mines all over the Klondike Plateau.

Professionally called upon to stake claims, perform surveys, carry out soil & rock sampling programs and assist geologists with scintillometer and magnometer surveys. For clients as well as on his own ventures, he has been responsible for claim recording and groupings, exploration programs and general property management to maintain claims in good standing by shafting, trenching or drilling.

A ticketed heavy equipment mechanic, welder and millwright. Former partners and employers include Joel White, A1Cat mining, Dave Farley (family), Marty Knutsen, Bob Canamol and most recently Mark Pocklington of GoldBank mining, for whom Sylvain helped target, stake and lead an exploration program on the Leota claim block, that led to the projects successful listing on the TSX venture exchange as GoldBank Mining Corp.

Erini Petroutsas:

Has been employed 9 consecutive summers in the Dawson area as a gold prospector in the field and as geo-tech for drilling projects.

Employment experiences have included being assistant to: Joanna Hodge PhD Geology; Erin O'Brian Masters Geology; Ken Galambos Geologist; Chris Ashe Masters Ultramafic Geology; Keven Brewer MBA & Geologist. References can be requested from any of the above professionals.

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A Maxxam Company

Your P.O. #: 6289
Your Project #: WHI13000220
Your C.O.C. #: N/A

Attention: Susie Woo

Acme Analytical Laboratories Ltd.
9050 Shaughnessy Street
Vancouver, BC
Canada V6P 6E5

Report Date: 2013/09/04

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B3D2197
Received: 2013/08/13, 10:14

Sample Matrix: SOLID
Samples Received: 7

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
Trace Metals by Neutron Activation	7	N/A	2013/09/03	BQ-NAA-1	Neutron Activation

Remarks:

Becquerel is ISO 17025 accredited.
The tests included in this report are within the scope of this accreditation.
This test report shall not be reproduced, except in full, without written approval of Becquerel Laboratories Inc.

Encryption Key

Simona Vatamanescu
04 Sep 2013 10:33:22 -04:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Simona Vatamanescu,
Email: SVatamanescu@maxxam.ca
Phone# (905) 826-3080

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Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Becquerel
A Maxxam Company

Maxxam Job #: B3D2197
Report Date: 2013/09/04

Acme Analytical Laboratories Ltd.
Client Project #: WHI13000220

Your P.O. #: 6289

RESULTS OF ANALYSES OF SOLID

Maxxam ID		SP6476	SP6477	SP6478	SP6479	SP6480	SP6481		
Sampling Date									
COC Number		N/A	N/A	N/A	N/A	N/A	N/A		
	Units	**F1-1**	**F1-2**	**F1-3**	**F1-4**	**F1-5**	**F1-6**	**RDL**	**QC Batch**
Bromine	ppm	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	3314315
Antimony (Sb)	ppm	1.6	1.1	0.8	0.7	0.4	0.9	0.1	3314315
Arsenic (As)	ppm	300	325	156	119	40.0	138	0.5	3314315
Barium (Ba)	ppm	220	380	230	590	1300	1300	50	3314315
Calcium (Ca)	ppm	120000	67000	72000	36000	110000	85000	10000	3314315
Cerium (Ce)	ppm	6	12	8	26	95	68	3	3314315
Cesium (Cs)	ppm	1	2	1	3	6	6	1	3314315
Chromium (Cr)	ppm	15	28	23	40	410	320	5	3314315
Cobalt (Co)	ppm	58	49	22	45	22	51	1	3314315
Europium (Eu)	ppm	0.6	0.6	0.5	0.6	1.7	1.4	0.2	3314315
Gold (Au)	ppm	0.059	0.028	16.5	0.026	<0.002	0.006	0.002	3314315
Hafnium (Hf)	ppm	<1	<1	<1	2	4	4	1	3314315
Iridium (Ir)	ppm	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.005	3314315
Iron (Fe)	ppm	81900	61500	57100	65000	44800	67000	100	3314315
Lanthanum (La)	ppm	4.2	6.8	3.9	14.0	54.1	36.0	0.5	3314315
Lutetium (Lu)	ppm	0.31	0.22	0.28	0.27	0.43	0.36	0.05	3314315
Mercury (Hg)	ppm	<1	<1	<1	<1	<1	<1	1	3314315
Molybdenum (Mo)	ppm	<1	<1	<1	<1	<1	<1	1	3314315
Neodymium (Nd)	ppm	5	9	6	16	35	26	5	3314315
Nickel (Ni)	ppm	<100	<100	<100	<100	<100	<100	100	3314315
Rubidium (Rb)	ppm	<15	24	17	46	95	98	15	3314315
Samarium (Sm)	ppm	1.3	1.7	1.3	3.1	6.8	5.4	0.1	3314315
Scandium (Sc)	ppm	8.9	9.2	8.3	20.9	25.5	26.7	0.1	3314315
Selenium (Se)	ppm	14	8	9	<3	<3	<3	3	3314315
Silver (Ag)	ppm	<5	<5	11	<5	<5	<5	5	3314315
Sodium (Na)	ppm	2100	1500	1600	27500	6500	14300	100	3314315
Strontium (Sr)	ppm	<500	<500	<500	<500	<500	<500	500	3314315
Tantalum (Ta)	ppm	<0.5	<0.5	<0.5	<0.5	0.5	<0.5	0.5	3314315
Terbium (Tb)	ppm	<0.5	<0.5	<0.5	0.5	0.8	0.6	0.5	3314315
Thorium (Th)	ppm	1.1	2.3	1.1	5.5	17.0	13.0	0.2	3314315
Tin (Sn)	ppm	<100	<100	<100	<100	<100	<100	100	3314315
Tungsten (W)	ppm	<1	<1	1	3	1	2	1	3314315

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RESULTS OF ANALYSES OF SOLID

Maxxam ID		SP6476	SP6477	SP6478	SP6479	SP6480	SP6481		
Sampling Date									
COC Number		N/A	N/A	N/A	N/A	N/A	N/A		
	Units	**F1-1**	**F1-2**	**F1-3**	**F1-4**	**F1-5**	**F1-6**	**RDL**	**QC Batch**
Uranium (U)	ppm	1.0	1.2	1.5	2.3	3.5	5.7	0.5	3314315
Ytterbium (Yb)	ppm	2.1	1.5	1.8	1.7	2.7	2.4	0.2	3314315
Zinc (Zn)	ppm	75	81	<50	87	<50	58	50	3314315

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Becquerel
A Maxxam Company

Maxxam Job #: B3D2197
Report Date: 2013/09/04

Acme Analytical Laboratories Ltd.
Client Project #: WHI13000220

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RESULTS OF ANALYSES OF SOLID

Maxxam ID		SP6482		
Sampling Date				
COC Number		N/A		
	Units	**F1-7**	**RDL**	**QC Batch**
Uranium (U)	ppm	1.7	0.5	3314315
Ytterbium (Yb)	ppm	2.6	0.2	3314315
Zinc (Zn)	ppm	<50	50	3314315

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Becquerel
A Maxxam Company

Maxxam Job #: B3D2197
Report Date: 2013/09/04

Acme Analytical Laboratories Lt
Client Project #: WHI13000220

Your P.O. #: 6289

RESULTS OF ANALYSES OF SOLID

Maxxam ID		SP6482		
Sampling Date				
COC Number		N/A		
	Units	**F1-7**	**RDL**	**QC Batch**
Bromine	ppm	<0.5	0.5	3314315
Antimony (Sb)	ppm	1.1	0.1	3314315
Arsenic (As)	ppm	273	0.5	3314315
Barium (Ba)	ppm	630	50	3314315
Calcium (Ca)	ppm	110000	10000	3314315
Cerium (Ce)	ppm	28	3	3314315
Cesium (Cs)	ppm	3	1	3314315
Chromium (Cr)	ppm	140	5	3314315
Cobalt (Co)	ppm	77	1	3314315
Europium (Eu)	ppm	0.9	0.2	3314315
Gold (Au)	ppm	0.022	0.002	3314315
Hafnium (Hf)	ppm	2	1	3314315
Iridium (Ir)	ppm	<0.005	0.005	3314315
Iron (Fe)	ppm	81300	100	3314315
Lanthanum (La)	ppm	15.0	0.5	3314315
Lutetium (Lu)	ppm	0.38	0.05	3314315
Mercury (Hg)	ppm	<1	1	3314315
Molybdenum (Mo)	ppm	<1	1	3314315
Neodymium (Nd)	ppm	14	5	3314315
Nickel (Ni)	ppm	<100	100	3314315
Rubidium (Rb)	ppm	45	15	3314315
Samarium (Sm)	ppm	2.6	0.1	3314315
Scandium (Sc)	ppm	18.0	0.1	3314315
Selenium (Se)	ppm	<3	3	3314315
Silver (Ag)	ppm	<5	5	3314315
Sodium (Na)	ppm	9200	100	3314315
Strontium (Sr)	ppm	<500	500	3314315
Tantalum (Ta)	ppm	<0.5	0.5	3314315
Terbium (Tb)	ppm	0.5	0.5	3314315
Thorium (Th)	ppm	6.1	0.2	3314315
Tin (Sn)	ppm	<100	100	3314315
Tungsten (W)	ppm	1	1	3314315

2011 Full Assay Results – General Area Testing

Company : Petroutsas, Erini

Submitted by : Erini Petroutsas

T12-02263.0

Date Received : 08-Nov-12

Date Reported : 29-Nov-12

Rock Samples from 2011 Fall IN Group

Becquerel
A Maxxam Company
6790 Kitimat Rd, Unit #4
Mississauga, ON,Canada,L5N 5
Ph: (905) 826-3080 Fax : (905)
email : RAllen@maxxam.ca

Acme file # :WHI12000950

Samples were run as received.

Analysis performed by Neutron Activation (Method BQ-NAA-1)

A negative result denotes "Less Than".

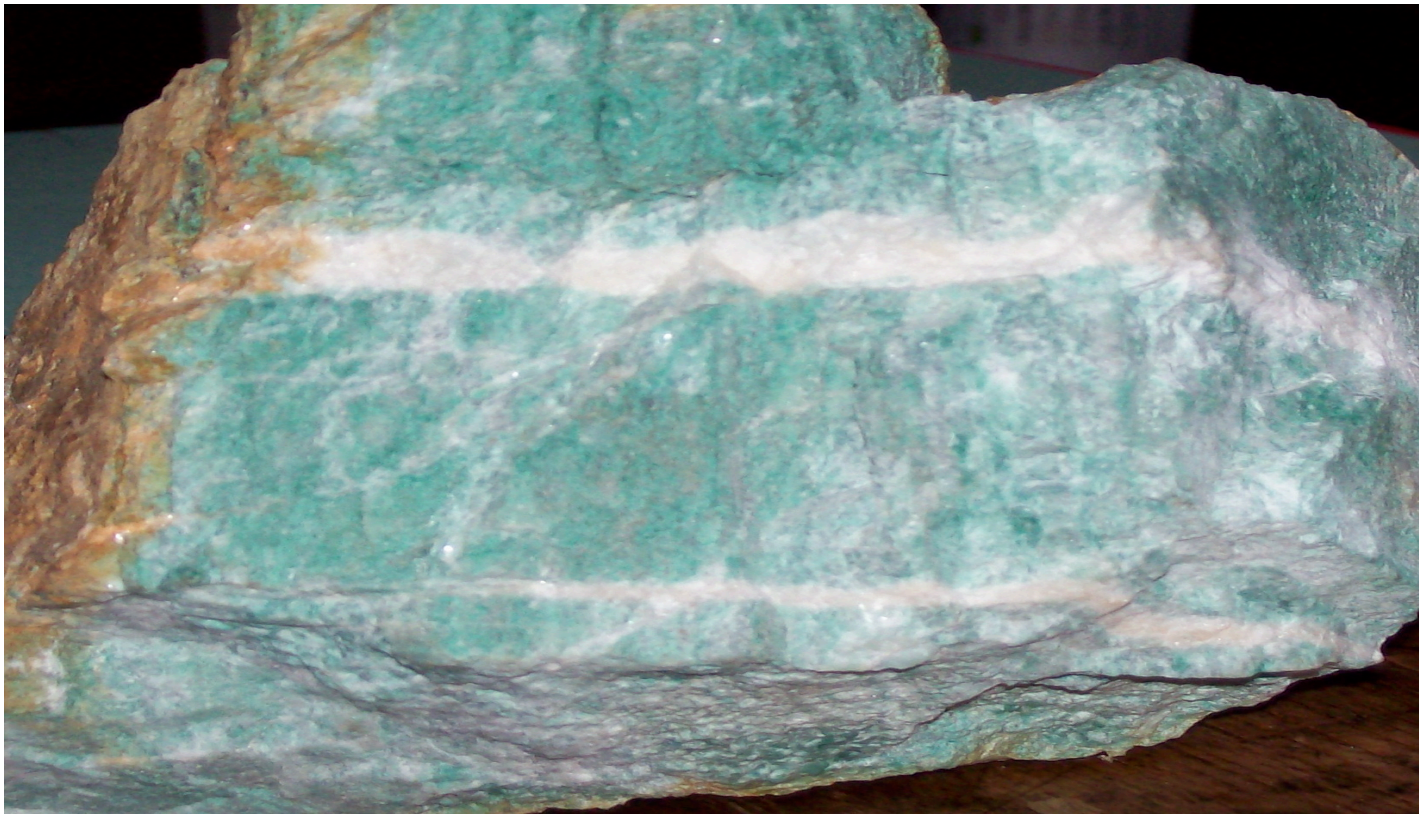
ISO 17025
For Scope of Accreditation No. 422
Pour la portée d'accréditation no. 422

Note : Mo results are interfered with by Mo production from U fission. Sample # 104 was not received. Some detection limits are elevated due to elevated Fe/Co/Sc...

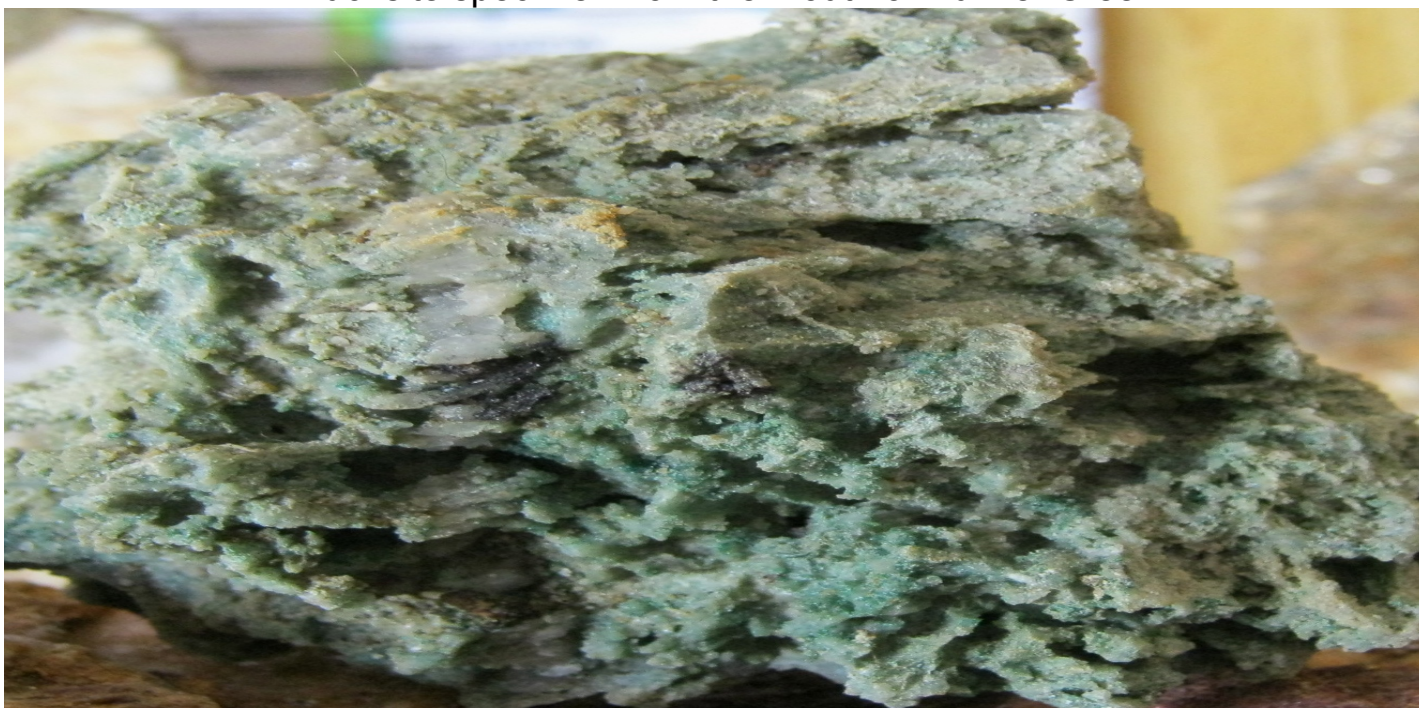
#	ID	Wt	Sb	As	Ba	Br	Ca	Ce	Cs	Cr	Co	Eu	Au	Hf	Ir	Fe	La	Lu	Hg	Mo	Nd	Ni	Rb	Sm	Sc	Se	Ag	Na	Ta	Tb	Th	U	Yb	Zn
		grams	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppb	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm
1	PH1	14.71	0.7	54.5	690	-0.5	3	4	18	190	102	0.8	-2	2	-5	26.40	12.0	0.32	-1	-3	11	1100	45	3.0	14.3	-3	-5	0.04	-0.5	0.6	1.9	4.9	2.0	-5
2	PH2	12.30	2.6	37.0	460	-0.5	-1	8	25	2670	21	0.3	3	-1	-5	1.26	3.7	0.11	-1	-2	-5	420	71	1.2	7.8	-3	-5	0.04	-0.5	-0.5	0.8	-0.5	0.6	6
3	PH3	11.12	2.4	19.0	700	-0.5	-1	28	15	2880	22	0.6	7	2	-5	1.51	15.0	0.21	-1	-3	9	430	71	2.7	11.0	-3	-5	0.08	-0.5	-0.5	5.7	1.5	1.3	12
4	PH4	13.62	1.6	114.0	1000	-0.5	-1	14	8	110	3	0.9	-2	2	-5	6.59	14.0	0.35	-1	-2	10	-100	47	3.4	12.8	5	-5	0.19	0.5	0.5	2.4	3.7	2.2	14
5	PH6	13.29	6.9	29.0	-50	-0.5	-1	-3	-1	3010	73	-0.2	2	-1	7	5.01	-0.5	-0.05	-1	-2	-5	1500	-15	-0.1	4.2	-3	-5	-0.01	-0.5	-0.5	0.2	-0.5	-0.2	6
6	PH7	17.40	3.6	17.0	86	-0.5	-1	-3	-1	1730	69	-0.2	-2	-1	-5	3.39	0.8	-0.05	-1	-1	-5	1100	-15	0.2	3.5	-3	-5	0.02	-0.5	-0.5	0.3	-0.5	-0.2	-5
7	PH8	11.82	12.6	160.0	890	-0.5	-1	20	19	2630	33	0.3	7	2	-5	3.12	10.0	0.18	-1	-8	8	770	37	1.7	11.4	-3	-5	0.03	-0.5	-0.5	5.6	18.0	1.0	44
8	PH13	14.50	1.3	13.0	360	-0.5	2	16	2	31	7	0.4	9	-1	-5	2.83	8.7	0.35	-1	-1	8	-100	29	1.6	6.1	-3	-5	0.13	-0.5	-0.5	3.3	0.9	2.0	-5
9	PH13MID	11.94	0.4	17.0	620	-0.5	2	58	6	74	13	1.1	-2	4	-5	4.10	32.0	0.38	-1	-3	20	-100	100	5.5	13.5	-3	-5	0.41	0.8	0.7	8.9	2.4	2.4	10
10	PH14	10.70	3.9	92.3	1300	-0.5	-1	90	17	260	4	1.7	4	4	-5	3.95	48.0	0.35	-1	-6	32	-100	150	7.4	13.0	-3	-5	0.06	0.7	0.7	9.3	5.8	2.0	26
11	PH15	15.76	1.2	172.0	780	-0.5	5	6	9	890	214	2.2	-7	1	-12	36.00	19.0	0.87	-1	-5	10	1900	41	6.2	28.8	-3	-5	0.04	-0.5	1.6	2.2	11.0	5.4	47
12	PH15-2	14.54	0.3	1.3	810	-0.5	-1	27	2	29	4	1.0	-2	2	-5	3.87	14.0	0.65	-1	-1	14	-100	43	5.0	6.8	-3	-5	0.15	-0.5	0.7	5.6	1.6	3.8	-5
13	NH1	16.16	0.9	186.0	730	-0.5	-1	51	6	67	8	1.2	-2	4	-5	4.21	32.0	0.47	-1	34	15	100	68	4.9	12.7	-3	-5	0.57	1.1	0.7	9.5	8.9	2.8	14
14	NH2	13.64	0.3	50.0	1600	-0.5	-1	41	2	25	9	0.6	-2	3	-5	2.67	21.0	0.24	-1	-4	13	-100	57	3.4	5.4	-3	-5	0.11	0.6	-0.5	7.4	5.6	1.4	7
15	NH3	16.46	0.4	14.0	140	-0.5	-1	4	-1	11	2	-0.2	-2	-1	-5	1.53	2.5	0.06	-1	8	-5	-100	-15	0.6	0.9	-3	-5	0.45	-0.5	-0.5	1.0	2.6	0.4	-5
16	NH3-1	14.68	1.0	192.0	790	-0.5	-1	24	5	52	8	1.1	9	3	-5	10.20	17.0	0.53	-1	51	15	-100	59	4.8	10.3	-3	-5	0.05	-0.5	1.0	6.0	15.0	3.1	16
17	NH3-2	15.28	2.0	138.0	1100	-0.5	1	46	10	83	13	1.4	8	5	-5	11.60	30.0	0.64	-1	37	20	130	98	6.4	15.3	-3	-5	0.07	0.5	1.1	10.0	14.0	3.8	33
18	NH3-3	14.17	1.6	84.5	970	-0.5	1	50	28	47	29	1.0	-2	8	-5	6.96	25.0	3.50	-1	20	13	120	240	10.7	9.1	-3	-5	0.08	3.6	3.7	26.4	21.0	21.6	40
19	NH4	16.38	1.0	93.5	180	-0.5	-1	15	-1	34	8	0.6	2	2	-5	5.02	9.4	0.32	-1	31	7	-100	-15	2.4	3.2	-3	-5	0.13	-0.5	-0.5	5.5	15.0	1.8	9
20	NH5	15.85	1.9	120.0	750	-0.5	-1	27	2	46	14	1.0	6	2	-5	8.56	17.0	0.51	-1	63	12	-100	25	4.3	5.0	10	-5	0.17	0.5	0.8	8.0	21.0	3.2	18
21	NH6	11.66	0.5	70.3	1300	-0.5	-1	60	6	36	10	1.0	-2	6	-5	3.71	33.0	0.71	-1	8	24	110	130	6.9	8.6	-3	-5	0.12	1.7	1.1	16.0	10.0	4.3	15
22	NH7	16.51	1.5	174.0	390	-0.5	-1	40	4	51	10	0.7	-2	3	-5	4.85	23.0	0.35	-1	32	11	-100	30	3.2	10.4	-3	-5	0.36	-0.5	0.5	13.0	12.0	1.9	16
23	W3DBP	13.99	0.8	18.0	390	-0.5	-1	120	13	19	3	0.5	-2	9	-5	2.75	39.0	5.70	-1	14	42	-100	340	34.9	2.6	-3	-5	0.09	7.2	10.0	59.3	27.0	38.1	13
24	W9s2	8.38	2.8	99.5	93	-0.5	-1	-3	-1	2620	66	-0.2	8	-1	-5	3.98	1.6	-0.05	-1	-3	-5	1600	-15	0.3	5.2	-3	-5	0.02	-0.5	-0.5	0.6	0.8	0.2	9
25	W9s3	12.17	10.0	24.0	720	-0.5	-1	6	37	12500	41	0.2	5	-1	14	1.44	3.6	0.12	-1	-5	-5	820	55	1.0	10.4	-3	-5	0.03	-0.5	-0.5	5.5	6.0	0.5	53
26	W9s4	11.75	3.8	35.0	630	-0.5	-1	78	19	330	5	2.2	-2	5	-5	1.00	39.0	0.40	-1	-6	33	-100	60	8.0	19.6	-3	-5	0.10	0.7	1.1	7.7	7.4	2.5	14
27	W20s1	12.77	0.4	5.6	1400	1.0	1	54	2	240	17	1.3	-2	5	-5	3.79	30.0	0.26	-1	-3	16	-100	66	4.4	12.1	-3	-5	1.60	0.7	0.7	5.6	1.9	1.6	8

28	W20s2	11.53	0.9	11.0	1100	0.6	3	47	4	390	20	1.0	-2	4	-5	3.60	26.0	0.33	-1	-3	21	130	44	5.0	13.5	-3	-5	0.48	0.6	0.8	6.1	2.3
29	W21	15.51	0.8	16.0	800	-0.5	-1	37	2	33	4	0.4	-2	4	-5	1.54	17.0	0.21	-1	-1	10	-100	47	2.4	5.6	-3	-5	0.33	-0.5	-0.5	6.9	3.3
30	W22-1	12.32	0.3	3.0	1700	-0.5	-1	56	2	120	7	1.2	-2	4	-5	1.33	31.0	0.21	-1	-3	20	-100	110	5.2	17.1	-3	-5	0.35	1.2	0.6	7.3	2.4
31	W22-2	13.03	0.4	5.8	1700	-0.5	-1	64	4	65	18	1.4	-2	4	-5	3.25	37.0	0.33	-1	-3	20	-100	86	5.1	11.5	-3	-5	1.14	1.0	0.6	12.0	5.0
32	W2Tr3	13.07	0.4	2.5	850	-0.5	3	110	5	99	19	1.8	-2	4	-5	4.37	71.3	0.28	-1	-5	29	-100	80	6.7	17.4	-3	-5	2.83	0.9	0.6	22.9	6.5
33	W2Tr6	14.29	0.3	16.0	210	-0.5	-1	9	1	16	5	0.2	3	-1	-5	1.55	5.8	0.10	-1	-1	-5	-100	-15	1.2	2.1	-3	-5	0.53	-0.5	-0.5	2.1	1.2
34	TestPit3	13.56	3.2	21.0	770	-0.5	-1	21	1	67	2	0.8	5	-1	-5	1.51	17.0	0.25	-1	-1	14	-100	26	3.9	3.5	-3	-5	0.02	-0.5	-0.5	1.9	2.3
35	TP3W8	15.96	0.6	18.0	650	-0.5	-1	32	3	55	12	0.9	-2	3	-5	6.07	19.0	0.25	-1	37	12	100	56	3.6	9.0	-3	-5	0.17	0.6	0.7	13.0	28.0
36	TB1	17.18	3.8	57.4	150	-0.5	-1	8	-1	13	16	0.3	6	-1	-5	4.12	5.7	0.31	-1	-1	5	-100	17	1.1	2.7	3	-5	0.14	-0.5	-0.5	1.6	1.9
37	TB207	17.99	0.3	22.0	1500	-0.5	-1	38	3	76	3	0.9	-2	3	-5	2.78	23.0	0.26	-1	34	17	-100	77	4.2	11.0	-3	-5	0.15	0.6	0.5	7.3	5.3
38	TBWv	18.64	0.4	4.3	93	-0.5	-1	5	-1	8	7	0.3	-2	-1	-5	2.18	3.3	0.23	-1	-1	-5	-100	-15	1.2	2.3	-3	-5	0.04	-0.5	-0.5	1.5	2.0
39	Waste40xGo	17.11	2.9	142.0	1100	-0.5	1	5	2	36	24	0.4	70	2	-5	12.40	10.0	0.20	-1	49	7	-100	43	1.9	5.5	-3	-5	0.31	-0.5	-0.5	5.9	23.0
40	W4Ft	17.69	2.7	139.0	1100	-0.5	1	6	2	35	24	0.6	4	2	-5	12.40	9.4	0.18	-1	51	6	-100	45	1.8	5.3	-3	-5	0.30	-0.5	-0.5	5.6	23.0
41	W4Ravine	16.59	1.3	14.0	1100	-0.5	1	30	2	65	5	0.8	10	3	-5	2.89	18.0	0.28	-1	48	17	-100	63	3.7	9.0	-3	-5	0.36	-0.5	0.5	5.2	4.3
42	W9-1	12.82	3.2	122.0	850	-0.5	-1	46	15	1700	69	1.3	-2	3	-5	5.67	24.0	0.32	-1	-4	17	980	90	4.7	15.3	-3	-5	0.26	0.8	0.8	6.4	1.6
43	W9-2	14.90	1.9	209.0	120	-0.5	2	-3	2	1760	72	-0.2	-2	-1	-5	5.59	1.9	-0.05	-1	-3	-5	990	-15	0.4	5.3	-3	-5	0.03	-0.5	-0.5	0.7	-0.5
44	W9-3	13.99	10.9	18.0	780	-0.5	-1	-3	25	9710	32	0.2	-2	-1	5	1.14	2.2	0.09	-1	-5	-5	640	38	0.6	6.6	-3	-5	0.04	-0.5	-0.5	2.9	4.2
45	W20OC	14.69	0.3	2.0	1600	0.8	1	54	3	46	9	1.1	-2	3	-5	3.86	28.0	0.28	-1	-3	20	-100	87	4.8	13.5	-3	-5	0.30	0.7	0.9	6.7	2.5
46	W22R	17.90	0.3	22.0	190	-0.5	11	-3	-1	75	3	0.3	-2	-1	-5	2.07	2.0	0.09	-1	-1	-5	-100	-15	0.8	1.8	-3	-5	0.05	-0.5	-0.5	0.4	0.6
47	WSUpP1	16.02	0.5	13.0	550	-0.5	2	65	8	47	8	0.8	-2	6	-5	2.41	39.0	1.20	-1	-8	17	-100	270	8.1	7.7	-3	-5	2.65	3.8	1.8	30.5	14.0
48	BL2	18.49	0.2	76.9	89	-0.5	10	-3	2	1160	17	-0.2	-2	-1	-5	2.36	0.8	0.07	-1	-1	-5	-100	-15	0.4	6.7	-3	-5	0.02	-0.5	-0.5	-0.2	-0.5
49	BL3	16.69	0.2	1.4	-50	-0.5	-1	-3	-1	7	2	-0.2	-2	-1	-5	1.80	0.7	0.06	-1	-1	-5	-100	-15	0.3	1.1	-3	-5	0.01	-0.5	-0.5	0.4	1.6
50	BL4	17.33	1.7	4.5	150	-0.5	9	-3	-1	1520	48	-0.2	-2	-1	-5	3.31	1.9	-0.05	-1	-1	-5	690	-15	0.5	5.2	-3	-5	0.05	-0.5	-0.5	-0.2	-0.5
51	BLW14R	15.29	3.7	748.0	330	-0.5	3	18	3	1550	31	0.4	-2	2	-5	4.00	11.0	0.15	-1	-3	7	340	21	1.8	8.5	-3	-5	0.02	-0.5	-0.5	3.3	1.8
52	BLW14R2	17.44	0.3	260.0	-50	-0.5	7	6	-1	615	13	0.3	-2	-1	-5	3.59	3.4	0.14	-1	-1	-5	290	-15	0.9	6.6	-3	-5	-0.01	-0.5	-0.5	2.5	0.8
53	BLW14R3	16.68	0.2	12.0	-50	-0.5	-1	-3	-1	21	2	-0.2	-2	-1	-5	1.43	0.6	0.16	-1	-1	-5	-100	-15	0.4	0.5	-3	-5	-0.01	-0.5	-0.5	-0.2	0.9
54	BLMin	11.56	0.5	17.0	-50	-0.5	-1	-3	-1	2420	50	0.4	-2	-1	-5	5.91	-0.5	0.14	-1	-3	-5	630	-15	1.0	31.1	-3	-5	-0.01	-0.5	-0.5	-0.2	-0.5
55	BLMin2	12.25	1.4	199.0	-50	-0.5	-1	-3	-1	1770	91	-0.2	-2	-1	-5	5.01	-0.5	-0.05	-1	-2	-5	1500	-15	-0.1	8.0	-3	-5	-0.01	-0.5	-0.5	-0.2	-0.5
56	In167 G	14.55	0.5	2.2	3100	-0.5	-1	51	-1	26	-1	0.5	-2	5	-5	1.34	27.0	0.19	-1	-1	17	-100	150	3.4	5.9	-3	-5	0.17	0.8	-0.5	6.1	1.7
57	CrmFL2	14.91	1.4	3.7	2600	-0.5	-1	58	-1	14	-1	0.6	10	5	-5	1.20	32.0	0.36	-1	-2	17	-100	150	4.3	6.0	-3	6	0.11	0.7	-0.5	8.3	2.1
58	Fuc011	15.98	0.3	0.8	2800	-0.5	1	45	2	10	2	0.6	-2	3	-5	1.15	23.0	0.23	-1	-1	12	-100	110	3.7	4.6	-3	-5	0.39	0.6	-0.5	6.7	1.6
59	Fuc011-2	15.50	0.5	1.4	2500	-0.5	-1	58	2	10	1	0.9	-2	5	-5	1.89	30.0	0.40	-1	-2	19	-100	160	4.8	9.3	-3	-5	0.82	1.0	-0.5	10.0	2.4
60	Fuc	14.42	0.4	1.0	2200	-0.5	-1	29	2	7	-1	0.5	-2	2	-5	1.28	14.0	0.21	-1	-1	11	-100	100	2.5	5.0	-3	-5	0.67	-0.5	-0.5	4.4	1.1
61	FucPhyl	14.82	0.5	1.6	3100	-0.5	-1	75	6	6	-1	1.1	16	6	-5	1.93	40.0	0.38	-1	-3	23	-100	130	6.0	7.1	-3	-5	1.77	0.9	0.8	13.0	3.2
62	FucChlo	14.71	1.6	78.5	3000	-0.5	-1	110	5	6	-1	1.2	180	6	-5	1.50	56.7	0.65	-1	-3	37	-100	170	8.1	7.0	-3	-5	0.04	1.1	0.9	21.2	6.1
63	Fuc3	14.70	0.4	1.6	3000	-0.5	-1	31	4	-5	-1	0.3	-2	4	-5	1.40	15.0	0.34	-1	-3	10	-100	130	2.8	5.1	-3	-5	1.98	1.0	0.6	12.0	2.1
64	Fuc5	17.34	0.5	21.0	2600	-0.5	-1	77	3	7	2	1.1	-2	5	-5	1.87	38.0	0.38	-1	-2	23	-100	160	5.5	7.3	-3	-5	0.07	0.9	0.6	15.0	3.7
65	Fuc6	15.99	0.5	5.9	2600	-0.5	-1	95	6	10	-1	2.0	-2	5	-5	1.68	59.8	0.64	-1	-3	41	-100	160	11.7	8.3	-3	-5	1.19	1.0	1.5	16.0	3.5
66	Fuc9	16.66	1.2	98.1	5680	-0.5	-1	100	3	-5	-1	1.3	-2	6	-5	1.76	53.5	0.37	-1	-6	37	-100	160	8.5	6.9	-3	-5	0.05	1.0	0.9	19.0	4.6
67	FucO14R1	13.75	0.6	2.0	3000	0.6	-1	71	2	9	1	0.8	-2	5	-5	1.70	27.0	0.34	-1	-3	20	-100	120	4.8	6.8	-3	-5	1.01	1.1	0.6	12.0	1.9
68	FucO14R2	12.00	0.7	0.7	3100	-0.5	-1	69	5	8	2	1.3	-2	6	-5	2.18	37.0	0.36	-1	-3	22	-100	130	5.5	8.4	-3	-5	1.15	1.2	0.8	11.0	4.0
69	FucO14R3	16.24	0.6	-0.5	2300	-0.5	1	78	3	6	1	1.2	-2	5	-5	1.81	41.0	0.33	-1	-3	26	-100	78	6.3	6.6	-3	-5	1.63	1.0	0.8	9.1	4.2
70	FucO14R4	15.29	0.4	2.6	1500	0.8	-1	48	5	77	12	1.0	21	4	-5	3.82	25.0	0.33	-1	-2	17	-100	120	4.4	11.9	-3	-5	0.46	0.7	0.7	8.4	3.7
71	FucO16	13.58	0.7	7.6	4200	-0.5	-1	57	1	29	4	1.1	-2	5	-5	2.16	30.0	0.41	-1	-2	21	-100	95	5.0	7.1	-3	-5	0.05	1.0	0.7	12.0	4.5
72	FucO16/2	17.36	0.6	6.2	860	-0.5	-1	30	-1	17	2	0.5	-2	3	-5	1.63	18.0	0.17	-1	-2	11	-100	34	2.6	4.3	-3	-5	3.28	0.6	-0.5	6.5	2.1
73	FucO	16.27	0.4	2.0	2600	-0.5	-1	56	5	9	1	1.2	-2	5	-5	1.67	35.0	0.56	-1	-2	27	-100	210	7.6	6.7	-3	-5	0.72	1.0	1.0	13.0	5.0
74	F07R	14.70	0.7	4.3	3700	-0.5	-1	73	4	11	2	0.9	-2	5	-5	1.53	36.0	0.29	-1	-2	21	-100	150	5.1	5.5	-3	-5	0.16	1.0	-0.5	11.0	2.5
75	8.14	12.87	1.7	16.0	1600	-0.5	-1	45	2	11	-1	0.3	-2	4	-5	1.34	25.0	0.16	-1	-1	12	-100	130	2.7	4.5	-3	-5	0.08	0.8	-0.5	6.8	3.4
76	F1CharPt	15.62	7.8	136.0	880	-0.5	3	58	6	92	82	1.2	71	4	-5	17.90	35.0	0.32	-1	-4	24	-100	83	5.9	11.2	44	-5	0.55	1.3	0.5	10.0	2.9
77	F2Graph	20.03	8.3	176.0	440	-0.5	4	22	3	93	99	0.8	49	3	-5	20.90	15.0	0.20	-1	-4	7	-100	55	2.6	9.2	68	-5	0.83	0.8	-0.5	6.5	2.4
78	PH13-2	14.62	1.1	32.0	1200	-0.5	2	65	8	85	24	1.3	5	5	-5	6.21	37.0	0.43	-1	-3	24	-100	100	6.5	15.2	-3	-5	0.44	1.3	0.9	11.0	3.1
79	Fuc08-2	16.72	0.5	1.4	2300	-0.5	-1	64	4	7	3	1.1	-2	5	-5	1.62	43.0	0.30	-1	-2	25	-100	140	6.0	6.2	-3	-5	0.95	1.4	0.8	13.0	2.9
80	F014-1	13.06	1.2	27.0	2700	3.6	5	37	7	310	16	0.9	-2	3	-5	3.22	20.0	0.34	-1	-5	13	-100	61	4.1	8.0	-3	-5	0.39	-0.5	0.7	6.4	3.9
81	F014-2	15.18	1.8	17.0	1100	1.4	-1	51	3	76	11	0.9	-2	6	-5	3.31	28.0	0.26	-1	-3	16	-100	56	4.1	11.5	-3	-5	0.79	0.6	0.6	8.7	3.0
82	F014-3	14.13	1.3	21.0	1400	1.0	-1	47	3	52	7	0.8	23	5	-5	2.81	25.0	0.26	-1	-2	14	-100	61	4.0	8.2	-3	-5	0.74	0.8	-0.5	8.4	2.6
83	F014-4	14.76	1.7	38.0	1400	-0.5	-1	58	4	69	9	0.9	-2	6	-5	3.13	30.0	0.35	-1	-3	20	-100	71	5.0	10.7	-3	-5	0.95	1.0	0.5	8.5	3.0

*FUCHSITE: The chromium bearing variety of muscovite mica, generally found in concentric, curved aggregates and as flakes. The intensity of it's color depends on the chromium concentration. **Fuchsite is found where hydrothermal solutions have replaced carbonates in gold deposits**, and in metamorphic rocks, in corundum and staurolite schists.[4]



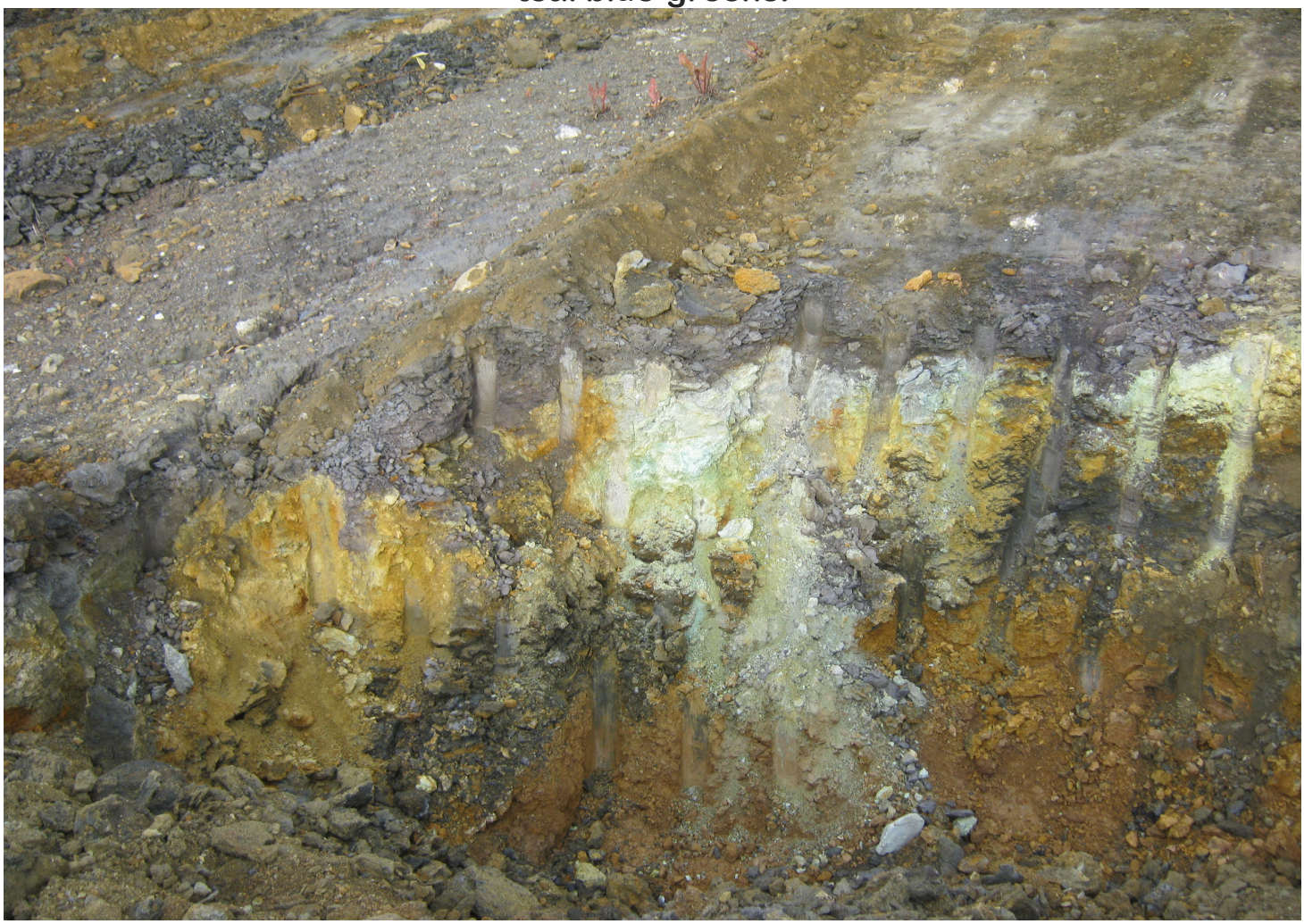
Fuchsite specimen from the mouth of Hunker Creek



Hydrothermaly altered "fuchsite" and quartz from **BenLevi** Waste23 & 24.

[4] Smithstonian Institute. Rock & Gem. Ronald L. Bonewitz. DK Publishing 2005. Page 263.

Chromium oxide gives a reliable turquoise green, unaffected by kiln atmosphere although it is volatile at high temperatures. Cobalt and chrome combine to make teal blue-greens.[5]



Findings from Paradise Hill Trenching: fall 2011 ~ Waste13

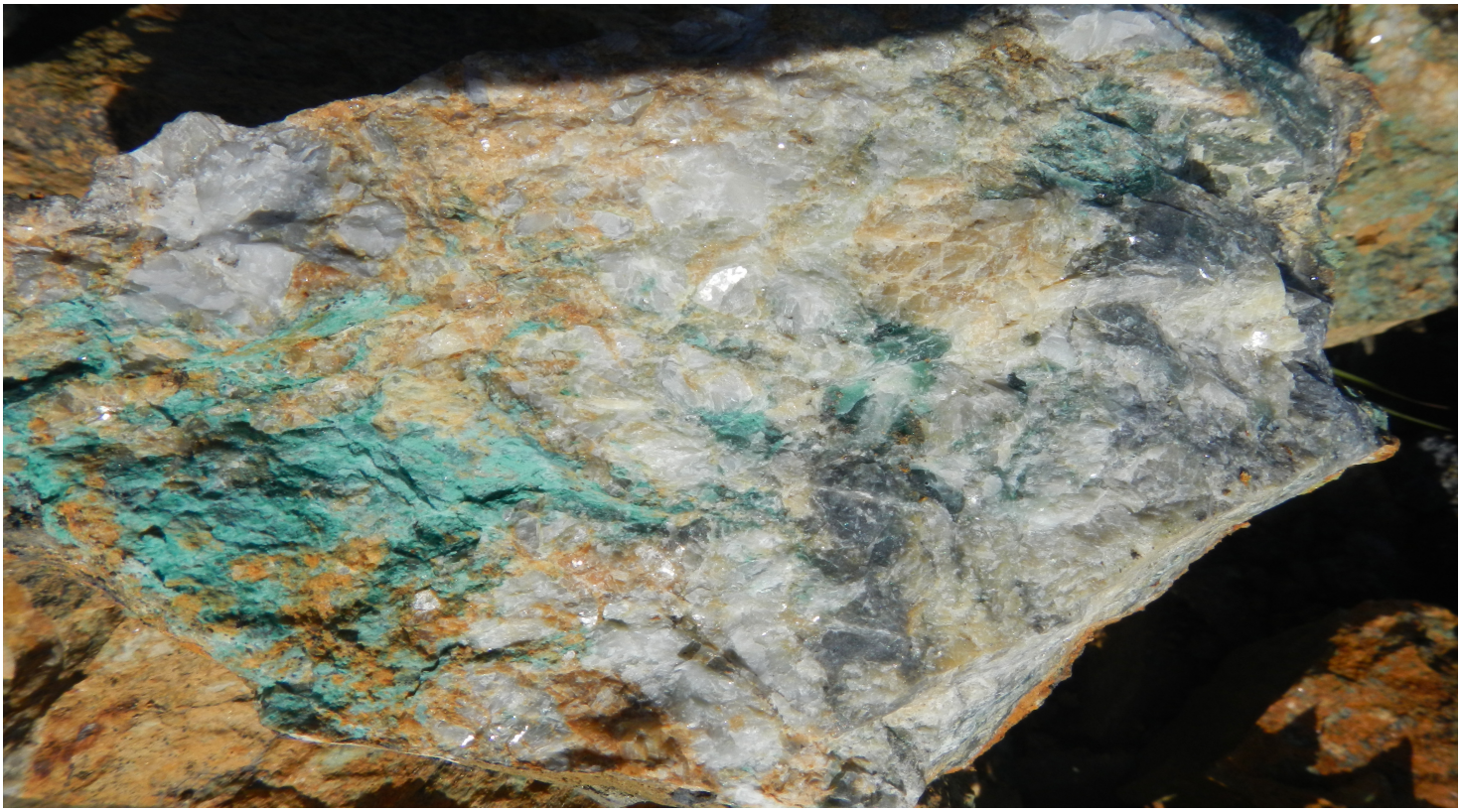
Stripped of overburden one of the most prolific hills of the Klondike, Paradise Hill presents opportunity to observe the bedrock horizon along the “thrust areas” being outlined.

Graphite & heavily altered graphitic faults run crisscross and in all directions over the length of the exposed area.

Obviously a decomposing bedrock system; the commonality of red/orange/brown oxidizing quartz veins (most likely producers of the gravels up here), and fuchsite, (decomposing chromium/mica) as seen in these trenches point to an active hydrothermal system as can be observed by the rapid sufidation (white-yellow) powdering of exposed areas since the placer has ceased operation not long ago.

[5] http://ceramicartsdaily.org/ceramic-glaze-recipes/glaze-chemistry-ceramic-glaze-recipes-2/cool-colors-ceramic-glaze-recipes-for-greens-blues-and-turquoises/

Green chromium oxidations are abundant.



Paradise Hill is also known for topaz specimens. Gleeson 1979.







East side of Paradise Hill, Waste7 & Waste9 claims have various quartz calcite outcroppings with vivid chromium staining, (Near Waste Vein Hester Creek);



(Possible) Chromitite sheets, like above left specimen, outcrop on Last Chance Creek
(West-Side of Paradise Hill - InIt92&69 claims)



Paradise Hill, 2013 exploration target.

*Excerpt from paper on Witwarsrand, South Africa.

The Critical Zone

The Critical Zone, which is characterised by spectacular layering (Figure 13), hosts world-cl chromite and platinum deposits in several different layers (termed reefs). The Critical Zone, which is up 1500 m thick, is divided into a lower sub-zone (C_LZ) which is entirely ultramafic and is characterised b thick succession of orthopyroxenitic cumulates and an upper sub zone (C_UZ) that comprises packages chromitite, harzburgite, pyroxenite, through norite to anorthosite. Subdivision into magmatic cycles somewhat subjective but nine cycles have been recognised in the C_LZ and eight cycles in the C_UZ consist of partial or complete sequences from a base of ultramafic cumulates through norite to anorthosite.



Figure 13. Interlayering between chromitites and anorthosites, upper Critical Zone, Dwars River. Locat 3.3-3.6 in Figure 10. Note the bifurcations in the chromitite layers.

Picture is from a paper by Judith A. Kinnaird, School of Geosciences, University of Witwatersra (South Africa).[6] On the Bushveld Large Igneous Province. The chromitite sample in this pictur bears marked similarity to bedrock found along the side hills of Last Chance Hunker Creeks. S summer mapping 2012.

[6] http://www.largeigneousprovinces.org/sites/default/files/BushveldLIP.pdf