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ASSESSMENT EVALUATION REPORT

DAWSON MINING DISTRICT

NORDLING & RUDIS

QUARTZ MINING CLAIMS

MONICA 1 TO 10

YC04655 - YC04664

Assessment Period: 1997-1998

Prepared By:
Albert Rudis

22 February 1999

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This report has been examined by
the Geological Evaluation Unit
under Section 53 (4) Yukon Quartz
Mining Act and is allowed as
representation work in the amount
of $ 1000.00 .

for Regional Manager, Exploration and
Geological Services for Commissioner
of Yukon Territory.

I. CLAIM DATA:

A. Claim Information:

This report covers work on the following quartz mining claims:

- MONICA #1 To #10 - YC04655 To YC04664

B. Location Map:

The general location of these claims is given on in Figure 1.

C. Claim Map and Access:

A specific map of the claims is given as Appendix 1. Currently there are no passable roads to the area, and access is largely limited to helicopter. There is qualified access by four wheel drive and four wheeler. This is over the Matson Creek Road and then over drill and trenching access roads that serviced mining claims along the ridge line. The qualification is that some hand repair of road erosion would be required before use.

II. SUMMARY:

- Results of field work, assay and analysis do not point to specific large scale targets. They do indicate, however, that a major gold deposition event has taken place.

- A major gold deposit is possible within or adjacent to the claim group, or in its general area.

- Deposit types that should be considered as possibilities include: Pogo style, Epithermal, Quartz Carbonate Vein Gold, and Disseminated and Replacement Gold.

- Further field work and analysis on the Claim group is recommended.

- Detailed field work and analysis should be expanded to the general claim group area, and in particular to the nearby low underlying the pup that drains the Claim group.

- A Mag/VLF Survey should be conducted over the claim group, adjacent to the claim group, and over nearby mapped magnetic low and high areas. In particular, a detailed Mag Survey should be run over the related high and low targets discussed under *VII G* and *VII H* below.

III. LOCAL GEOLOGY:

A. General Geology:

The local geology of the area is described in DIAND Open File 1996-1G, specifically In its coverage of 115N/15,16. It states in general:

> "Northern Stewart River map area southwest of the Tintina Fault Zone is underlain by two distinct lithotectonic assemblages: 1) medium to high grade, polydeformed metasedimentary and met-igneous rocks of the Yukon-Tanana Terrane, and 2) weakly deformed and metamorphosed rocks to the Slide Mountain Terrane. These two assemblages are both mainly Paleozoic in age in the study area, and were juxtaposed by regional scale thrust faults in Early Mesozoic time, during a period of terrane accretion that affected much of the northern Cordillera. A variety of younger (post-accretion) volcanic, plutonic and sedimentary rocks are also present in the study area."[1]

The claim area falls within the Yukon-Tanana Terrane as described in this Open File. A brief summary of units in that Terrane follows:

B. Pre-Accretion Units:

> "Yukon-Tanana Terrane in the northern Stewart River map area consists of two main assemblages of supracrustal rocks as well as three distinct suites of metapluntonic rocks. Supracrustal rocks comprise the Late Devonian (?) to mid-Mississippian Nasina assemblage and the mid-Permian Klondike Schist assemblage. The Nasina assemblage consists mainly of fine-grained, moderately carbonaceous (unit DMsqc) to non-carbonaceous (unit DMsq) quartz-muscovite-chlorite schist and quartzite derived from fine-grained siliciclastic rocks, with locally abundant interlayered mafic schist and amphibolite (unit DMsqm; mafic metavolcanic rocks) and marble (unit DMc). ..... Supracrustal rocks of the Klondike Schist assemblage mainly comprise a variety of felsic schist (unit Psqm), most of which are thought to have been derived from felsic tuffs, cherty tuffs and tuffaceous cherts. Interlayered with these felsic units are non-carboniferious, fine grained micaceous quartzite and quartz-fledspar-muscovite-biotite (+chlorite) schist (unit Psq) that were mainly derived from silicicalsitic protoliths.....Granitic orthogneiss (unit DMgg), typically containing coarse potassium feldspar augen, forms two large bodies in the study area, the Mt. Burnham orthogneiss and the central and southern portion of the Fiftymile Batholith."[2]

C. Post-Accretion Units:

> "Metamorphic rocks of the Yukon-Tanana and Slide Mountain terranes are unconformably overlain by a sequence of unmetamorphosed sedimentary (unit 1Kst) and volcanic (unit 1Kva) rocks of middle (?) and Late Cretaceous age. The lower part of the sequence typically consist of sandstone and

[1] Open File 1996-1(G), pg. 1
[2] Open File 1996-1(G), pg. 2

pebble to cobble conglomerate, which is overlain by massive andesitic flows and breccias."[3]

D. Major Rock Units: [4]

1. Nearest to Claim Group:

- 1Kva: andesite flows and brecias. (late Cretaceous)
- DMS: medium to coarse grained mica schist. commonly garnetiferous amphibolite, minor quartzite. (late Devonian)
- 1Kgdr: massive hornblende-biotite granodiorite. (late Cretaceous)
- 1Kst: sandstone, pebble conglomerate, minor shale, commonly coal-bearing. (late Cretaceous)

2. Area South beyond Major Fault:

- *DMgg: moderately to strongly foliated K-feldspar augen-bearing quartz* monzonitic to granitic gneiss (S. Fiftymile Batholith). (early Mississippian)
  EJQM: massive to weakly foliated biotite and biotite-muscovite quartz monzonite and granite; includes abundant pegmatite and aplite phases. (early Jurasic)

3. Surrounding Area East:

- DMc: marble. (late Devonian to early Mississippian)
- 1Kgdr: massive hornblende-biotite granodiorite. (late Cretaceous)
- 1Kva: andesite flows and brecias. (late Cretaceous)
- Psqm: *rusty weathering quartz muscovite schist. (late Permian)*

4. Surrounding Area West:

- Dmgdg: massive to strongly foliated dioritic to granodioritic gneiss (N. Fiftymile Batholith) (early Mississippian)
- 1Kva: andesite flows and breccias. (late Cretaceous)

The claim group mostly covers unit 1Kva.[5] Sampling over the claim area, however shows outcrops of conglomerate, granitic rock, and gneiss as well as the andesite. Small plugs and stocks of fine to medium grained, equigranular biotite-hornblende quartz monzonite and granodiorite (1Kgd), while not mapped in the immediate area, are closely associated with the Late Cretaceous volcanic rocks and are thought to be comagmatic with them.[6]

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[3] Open File 1996-1(G), pg. 4
[4] Open File 1996-1(G), sheet 6
[5] Open File 1996-1(G), sheet 3
[6] Open File 1996-1(G), pg. 4

E. Recognized Mineralization:

Verified mineralization in the area include (by MINFILE as cited in Open File 1996-1G):

1. *MINFILE #115N 039:* North-northeast striking, mesothermal (?) quartz-carbonate veins with major Ag, Pb and minor Au, Zn. 63-55-29N 140-48-52W

2. *MINFILE #115N 040:* Lenses of galena and arsenopyrite with minor sphalerite, tetrahedrite and boulangerite in northeast-striking quartz veins. Major Ag, Pb and minor Au, Zn. 63-54-50N 140-47-46W

3. *MINFILE #115N 042:* An epidote-magnetite-diopside skarn containing minor chalcopyrite and pyrrhotite developed at the contact between a marble layer and the intrusion (Dms and 1Kgdr). Major Cu, Ag, Pb, Au. 63-54-58N 140-34-35W

4. *MINFILE #115N 043:* 300 m long skarn with traces of malachite and old workings. 63-53-26N 140-37-40W

5. *MINFILE #115N 044:* Late Cretaceous quartz pebble conglomerate (unit 1Kst), with one specimen containing a small rounded flake of gold. The conglomerate has a thickness of 15-30 m and outcrops over approximately 0.8 km. It is capped by, and may extend under, andesitic volcanic rocks (unit 1Kva). No mineralization was found in 1973 by Silver Standard. Paleoplacer with Au as the major commodity. 63-53-18N 140-25-10W

6. *MINFILE #115N 119:* Another outcropping of unit 1Kst defined in MINFILE #115 044. 63-55-10N 140-25-32W

7. *MINFILE #115N 123:* A thrust -fault-bounded lens of serpentinite occurs along the fault to the east of the occurrence. A vuggy quartz carbonate vein with silver and minor gold, copper and no visible sulphides, outcrops on the hanging wall of the fault. 63-58-31N 140-53-15W

8. *MINFILE #115O 158:* Traces of disseminated galena within a very rusty weathering band of pyritic muscovite-quartz schist (Psqm) of Klondike Schist assemblage. 63-56-58N 140-42-48W

F. LOCAL STRUCTURE:

The area is structurally complex and has a scarcity of exposures. A regional scale thrust fault dominates the 50 Mile Creek along its left limit. The valley of the 60 Mile River in the central and western part of the Sixtymile District follows a northeast-trending graben structure that has downdropped Cretaceous volcanic and sedimentary rocks against metamorphic rocks of the Nasina and Klondike Schist.

Cretaceous strata are cut by steeply-dipping normal faults. All of the smaller bodies of greenstone and/or ultramafic rocks in the area are thought to mark thrust faults.[7]

The presence of lateral faults and pogo type fault blocking will be looked at in relationship to possible large scale mineralization.

IV. METHODOLOGY:

A. Access:

Access to the claim area has been a major problem. The gradients are high, and there been virtually no roads or trails for vehicles or hiking. Except on the ridge lines, anywhere in the bush is extremely tough going.

B. Testing and Research Procedure:

1. On-Site:

Over 50 stream sediment, soil and rock samples were collected. Because of its advantages, a few moss mat samples were taken.[8] Very fine sediment sample separation (<53 microns) was carried out in one case.[9] Rock samples were also evaluated using hand lens and 30X microscope.

All concentrates resulting from panning, sediment samples, and rock samples were identified to location in field notes. SATNAV readings were taken were possible to further help pinpoint sampling sites.

Sampling was mostly accomplished on the ground by walking. Limited sampling by air was accomplished with the assist of a helicopter for lift to the individual sample sites.

2. Off-Site:

Virtually all sediment, silt and rock samples were sent off for fire assay Au and 30 mineral AA identification. Selected samples were run for Pt, Au and 32 minerals. Hg was checked at the ppb level. Fragments of all rock samples were saved and received visual analysis relative to assay results.

3. Research:

Research included review of all available DIAND MINFILEs on the 50 Mile Drainage area. Field results were also checked against models presented in the *Geology Canadian Mineral Deposit Types*[10]. Particular information was paid to information and handouts provided in Geoscience Forums in Whitehorse.

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[7] Open File 1996-1(G), pg. 5-6
[8] DIAND Open File 1996-4(T)
[9] DIAND Open File 1993-9(G), DIAND Open File 1994-11(G)
[10] Eckstrand, 1995

C. Assays Results:

A compilation of sampling and assay results is found at Appendix 1.

D. Sample Sites:

Sample sites are shown on the annotated Maps at Appendix 2.

E. Claim Area Targets and Indicators:

1. Key Deposit Types Looked For:

   a. Epithermal: Associated with Tertiary Felsics and in particular Pb, Zn , plus Hg, As, Tl, and Sb.

   b. Disseminated/Replacement: Associated with high angle normal faults, and Sb, As, Hg. Carlin type co-exist with Mesozoic through Cenozoic intrusion related porphyry Cu-Mo, skarn Cu, skarn Au, skarn Pb-Zn, and vein and Manto Ag-Pb-Zn.

   c. Quartz Carbonate Vein: Typically sulfide poor, requires significant volumes of mafic volcanics.

   d. Pogo Type: Date approximately 90M plus, structurally controlled, quartz rich, sulfide bearing veins, strong Bi/Au relationship.

2. General Considerations Followed:

   a. Mineralized indicator samples show high anomalies, but you could be close by and still get much less.

   b. A common feature of most deposits is their occurrence at or near carbonate members.

   c. The Gold pathfinders As-Sb-Hg are commonly distal, but equally proximal in Dawson-Mayo area.

   d. The absence of a particular metal or mineral does not mean that the deposit or anomaly is not a distal deposit indicative of a large intrusion related one close-by.

VII. KEY FINDINGS AND RESULTS:

A. Claim Group Rock Types:

While *Open File 1996-1(G)* shows the rock type of the Claim group to be 1Kva, andesite flows and breccias,[11] rock samples from separate outcrops on six of the claims showed a possible quartz monzonite with weathered pyrite, another possible quartz monzonite, a conglomerate, a gneiss, and an unknown granitoid. One of the possible monzonites showed 39ppb Au, 45ppb Hg, 5.8ppm Ag, 36ppm Cu, 2376ppm Pb, 26ppm Zn, 33ppm As, 20ppm Mo, and 3.99% Fe. The other showed 9ppb Au, .3ppm Ag, 5ppm Pb, 45ppm Zn, 53ppm As, 5ppm Sb, 15ppbHg.

B. Mid-Cretaceous Conglomerate (1Kst):

1. Field Sampling:

Sampling was both at outcrop and in float. While the conglomerate has a thickness of 15-30 m and outcrops over approximately 0.8 km[12], sampling and field investigation shows that Kst float is located extensively throughout the general area (see Appendix 2). It occurs in several sweets that range in colour from white, to white-brown, to gray. And some samples show magnetite, hematite and probable gold inclusions, with magnetite banded into a dense zone in one sample. The rock is essentially unaltered with no pyrites detected. It is hard, but fractures easily on impact.

2. Assays On 1Kst:

Assay shows anomalous gold in 5 of 6 samples. Of those showing gold, there was an average of 14 ppb, and a high of 18 ppb. The presence of gold (possibly some visible), segregated magnetite, hematite and no pyrite indicate that it is an *auriferous hematitic paleoplacer* (Paleoplacer Subtype 1.1.2 in the Geology of Canadian Mineral Deposit Types[13]). As such it compares with the Tarkwaian hematitic paleoplacer in Ghana, and the Elliot Lake paleoplacers in Canada.[14]

3. Research:

1Kst is correlative to units in the Indian River.[15] Indian River Tertiary conglomerate is discussed by both Gleeson and Milner as follows:

> "The conglomerates, white and quartzose, are exposed along the south side of Indian River; they carry low gold values. In the vicinity

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[11] Open File 1996-1(G), sheet 2
[12] Open File 1996-1(G), pg. 16
[13] Eckstrand, 1995
[14] Eckstrand, 1995, pg. 1-16 (cites Roscoe, S.M.)
[15] Open File 1996-1G, pg. 4, citing Lowery (1984)

of Indian River these sediments are cut by andesite and diabase dykes."[16]

"MacKinnon Creek-Indian River area. This area to the south of the Klondike Goldfields is underlain by poorly exposed quartz pebble conglomerate with white to gray orthoquartzite containing black carbonaceous wood fragments, shale and coal. These rocks are cut by and intercalated with igneous material of intermediate composition. These Tertiary rocks appear to have been deposited in extensive intermontane, possibly fault controlled basins. The conglomerated appears as frost heaved blocks on the left bank of MacKinnon Creek for much of its length, and also on steep banks on the right side near earlier shafts and adits, and in 1975 in excavations and drilling.....The conglomerates are auriferous, were explored underground in the boom years of the Klondike, and are being explored now. Placer gold particles have been recovered from depth by drilling."[17]

C. Alaskan Fault Zone:

It is notable that all of the claim and surrounding area is included in the extension of the zone between the Kaltag Fault and the Farewell/Denali Fault in Alaska. This faulting regimen includes the Fort Knox, True North and Pogo deposits. The dynamics of the regime is a determinate of the development of these deposits.

D. Anomalous Sample Values:

Stream and soil sediment sampling returned consistent upper 10% values in Cu, Pb, As, Sb, Mo, Cd, Co, and V (refer to Appendix 1). Several plus 90% values were also found in Zn, Ni and Iron. All of the samples have Hg values at the ppb level, with one 4 ppm Hg sample (F3-7) that also showed 46 ppb Au, taken in *decomposed bedrock. Rock samples showed consistent anomalous values in the* same metals.

E. Silt Sample Indicators:

While12 of 22 sediment samples contained anomalous gold and metal values, no definite pattern pointing to an underlying presence or source was discernible. The 12 positive samples taken had an average of 8.2 ppb Au, and the highest reading was 15 ppb. Negative results are not surprising given the findings of Open File 1994-11(G). This report showed little correlation between results on samples elements of -180 to +53 microns and the Brewery Creek deposit location. Because of the 50 Mile terrain and transport limitations, field testing did not allow the taking of large enough sediment samples for a break-down to a -53 micron element as is

[16] Gleeson, pg. 8
[17] Milner, 1977, pg. 20-21

recommended in the Open File.[18] Future sediment sampling should allow for this break-down and separate assay of the -53 micron element.

F. GSC Stream Sediments:

GSC Open File 1364 stream sediment values in the Claim area are as follows:

1. *From pup draining Claim area*:

- Au upper 1.9%
- Ag upper 2.4%
- Cu upper 16.3%
- Pb upper 1.9%
- Zn upper 18.1%
- As upper 2.4%
- Sb upper 4.9%
- Hg upper 19.4%
- Mo upper 1.2%
- Cd
- Co upper 3.8%
- Ni upper 2.7%
- Ba upper 19.4%
- W
- V upper 3%
- Mn upper 20%
- Fe upper 15.5%
- F upper 4.8%
- F(SW) 19.2%
- Sn

2. From pup just West of Claim area:

- Au upper 2.5%
- Ag upper 16.7%
- Cu upper 16.3%
- Pb upper 18.1%
- Zn upper 18.1%
- As
- Sb
- Hg upper 19.4%
- Mo
- Cd
- Co
- Ni upper 2.7%
- Ba upper 19.4%
- W
- V
- Mn
- Fe upper 15.5%
- F upper 19.7%
- F(SW) 19.2%
- Sn

3. From pup East of Claim area:

- Au upper 2.5%
- Ag upper 19.7%
- Cu upper 16.3%
- Pb upper 1.9%
- Zn upper 5.2%
- As
- Ni
- Ba upper 19.4%
- W
- V upper 18.4%
- Mn upper 2.0%
- Fe upper 15.5%

[18] Open File 1994-11(G). pg. 4-5

- Sb upper 14.1%
- Hg upper 5.4%
- Mo upper 1.1%
- Cd upper 1.5%
- Co
- F upper 19.7%
- F(SW) 19.2%
- Sn upper 15.1%

G. Magnetic Highs:

The Claim group overlies an intense semicircular magnetic high. This is located about one mile South of Mount Hart. This high is in line NW to an elongated high of similar magnitude about a mile to the NW. It is also is in line to the NNE with the low area adjacent to Mount Hart, and to the SSW to the low discussed below as covering the pup that drains the claim group.

H. Magnetic Lows:

Several Magnetic Low areas shown on *Geophysics Paper 4282, Enchantment Creek*, are in the Claim area. The magnetic low to the South of the Claim group underlies the pup draining the Claim Group. Samples within this low are encouraging, and include a pan concentrate with a bismuth kick of 18ppm. This low is in line to the NNE with another low adjacent to Mount Hart. Two highs (discussed above) are located in a NW trending alignment between the two lows. This pattern is potentially inter-related, and it can be indicative of large-scale mineralization.

I. Pogo Indicators:

Gold mineralization at Pogo is contained within structurally controlled, quartz-rich, sulfide bearing veins both parallel to and cross-cutting regional foliation. While the principal gold mineralization is within flat-lying veins, secondary gold mineralization is found in an overlying vertical stockwork. Mineralization is at approximately 90 M years. Conversation with the Tech exploration geologist in charge of Pogo deposit exploration, indicates that *magnetic low's are key Pogo indicator's (as is virtually any presence of Bi)*. The claim area shows a possible 92M year old intrusive Monzonite with encouraging anomalies. This is the right age signature for Pogo, and other gold mineralization targets. The presence of magnetic anomalies (one showing Bi) in the Claim area is discussed above.

J. Quartz Veins:

Two mineralized quartz vein zones are in the area. One consists of north-northeast striking, mesothermal (?) quartz-carbonate veins with major Ag, Pb and minor Au, Zn and is located at 63-55-29N 140-48-52W.[19] The other consists of lenses of galena and arsenopyrite with minor sphalerite, tetrahedrite and boulangerite in northeast-striking quartz veins. It has major Ag, Pb and minor Au, Zn and is located at 63-54-50N 140-47-46W.[20]

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[19] Open File 1996-1(G), pg. 13, MINFILE #115N 039
[20] Open File 1996-1(G), pg. 14, MINFILE #115N 040

K. Gold in Magnetite Grains:

Possible gold inclusion within grains of magnetite were noted in several samples under a 30X microscope. Accordingly, fifteen pan samples were selectively taken in the pup draining the Monica Claims, the pup above the Monica Claims and on the 50 Mile Creek benches. These were sent to the lab for analysis. They were processed through a Davis Tube to remove magnetics with a thorough removal of any placer gold that may have been present. They then were fire assayed with a minimum detection limit of .25 g/t (.3349ppm). Results were:

1. Five samples with positive Au clustered around the mouth of the pup draining Monica Claims.
2. Two samples below detection for Au near mouth of the pup draining Monica Claims
3. One 50 Mile sample below detection ½ mile upstream of the Pup West of Monica.
4. One below detection sample ½ mile upstream on the Pup West of Monica.
5. One below detection sample two miles upstream on Pup draining Monica Claims.
6. One below detection and one positive 50 Mile sample ¾ miles downstream of Pup draining Monica Claims.
7. One positive 50 Mile sample 1 mile downstream of Pup draining Monica Claims.
8. One positive sample at mouth of left limit Pup 1 mile downstream of Pup draining Monica Claims.
9. One positive 50 Mile sample at mouth of left limit Pup 2 miles downstream from that draining Monica Claims.

Gold values above the detection limit ranged from .27 g/t (361.7ppb) to .71 g/t (951.1ppb), with an average of .49 g/t. A plot of the samples shows broad dispersion of gold carrying magnetics. Further, the relatively high (334.9ppb) minimum detection for the sample assay allows for significant anomalous values in the samples below that limit. This wide-spread occurrence of anomalous magnetic mineral throughout the Monica Claim drainage area may indicate that there is a large scale gold deposit nearby.

VIII. Conclusions:

- Results of field work, assay and analysis do not point to specific large scale targets. They do indicate, however, that a major gold deposition event has taken place.

- A major gold deposit is possible within or adjacent to the claim group, or in its general area.

- Deposit types that should be considered as possibilities include: Pogo style, Epithermal, Quartz Carbonate Vein Gold, and Disseminated and Replacement Gold.

IX. Recommendations:

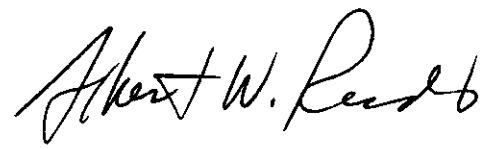
- Further field work and analysis on the Claim group is recommended.

- Detailed field work and analysis should be expanded to the general claim group area, and in particular to the nearby low underlying the pup that drains the Claim group.

- A Mag/VLF Survey should be conducted over the claim group, adjacent to the claim group, and over nearby mapped magnetic low and high areas. In particular, a detailed Mag Survey should be run over the related high and low targets discussed under *VII G* and *VII H* above.

X. AUTHOR'S QUALIFICATIONS:

Albert Rudis has 9 years of experience in exploration and evaluation of mining properties in Nevada. For over five years he served as the President of Nevada International, Inc., a small Nevada mining exploration and development corporation. Mr. Rudis also has extensive research and analytical experience with the U.S. Government, five years of which was in scientific research and development as an operations research analyst at a U.S. Navy Laboratory. For the past four years Mr. Rudis has lived in Dawson City, Yukon. During this period he has been involved in mining on a full time basis, and has conducted exhaustive research into both historical and current placer mining operations and procedures. He has assisted and advised local miners on a voluntary basis as requested, and has consulted with select local placer miners with emphasis on ground evaluation, processing plant effectiveness, and drilling procedure. Mr. Rudis has a BS degree in Geology from Trinity College, Connecticut, and an MBA from the University of Oregon.



Stewart River 115-O & 115N 50 Mile Classification 13.

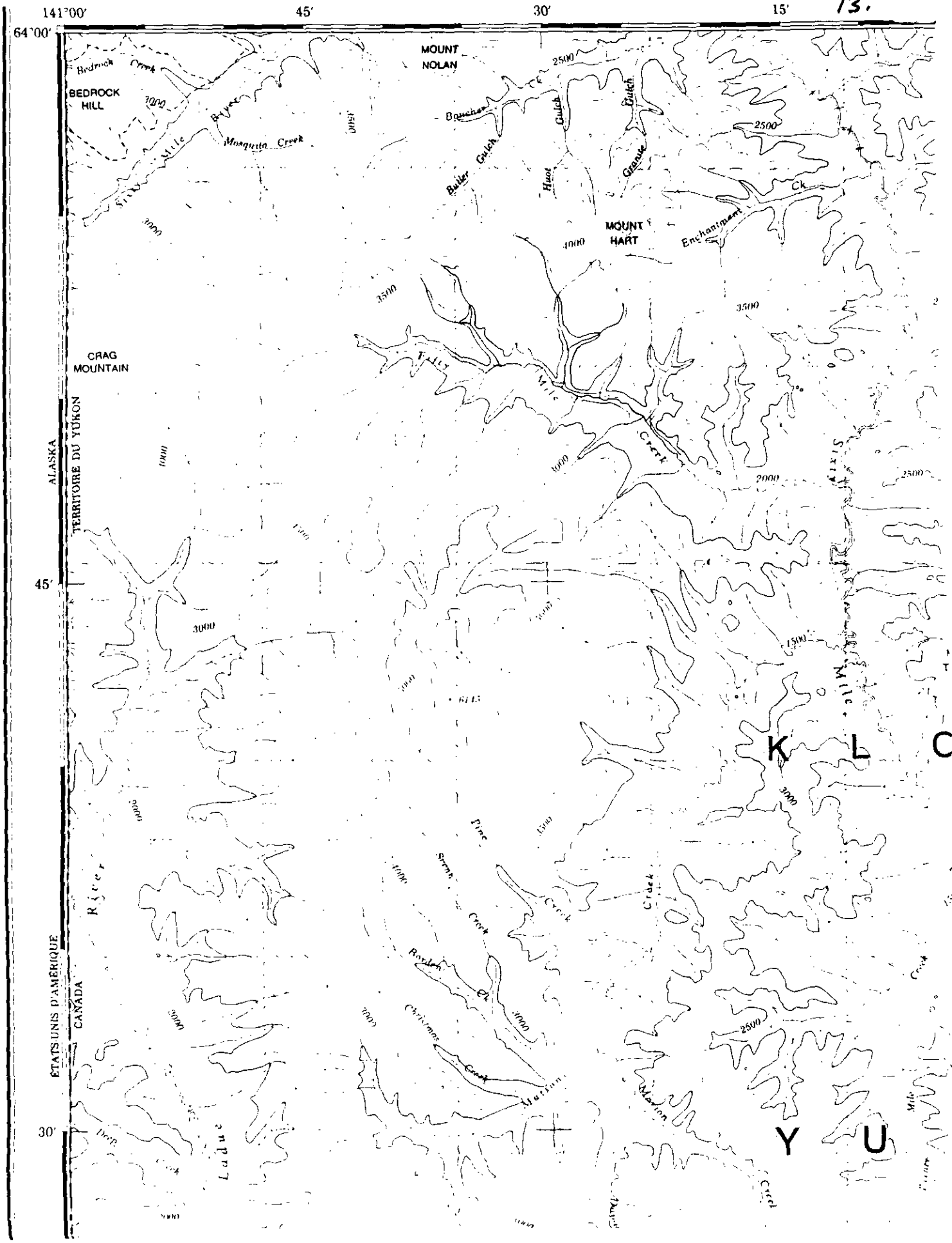


Figure 1.

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XII. APPENDICES:

1. Table Of Assays, Trenching/Pan Samples
2. Claim Maps Showing Sample Site Locations
3. Assay Certificates
4. Certification Of Costs Of Evaluation

APPENDIX 1: TABLE OF ASSAYS AND EVALUATION:

ASSESSMENT EVALUATION REPORT

DAWSON MINING DISTRICT

QUARTZ MINING CLAIMS:

MONICA 1 TO 10
YC04655 - YC04664

Location and Sediment Samples	Rock Samples
63-50-52 140-32-51 Sample **15-1S** 2.40%Fe *7ppb Au 75ppb Hg 26ppm Cu 5ppm Sb* 16ppm Pb 77ppm Zn 2ppm Mo 5ppm As	**15-1F**: Granitic float - oxidized pyrite 10ppb Au 65ppb Hg 13ppm Cu 21ppm Pb *69ppm Zn 5ppm Mo 1178ppm Ba 53ppm Zr*
63-51-04 140-33-04 **15-2S** 6ppb Au 50ppb Hg 26ppm Cu 2ppm Mo 18ppm Pb 75ppm Zn 2.35%Fe **15-3SO** 8ppb Au 20ppb Hg 32ppm Cu 2ppmMo 22ppm Pb 107ppm Zn 5.68%Fe **15-4MS**: (Moss Sample) <5ppb Au <15ppb Pt 15ppb Hg 26ppm Cu 17ppm Pb 80ppZn 2.63% Fe	
63-51-06 140-33-10 **15-5owms** (Moss Sample) 13ppb Au 32ppm Cu 16ppm Pb 106ppm Zn 7ppm As 2ppm Mo 2.84%Fe	
63-51-05 140-33-20 **15-6S** 7ppb Au 5ppb Hg 0.2ppm Ag 47ppm Cu 28ppm Pb 88ppm Zn 10ppm Ax 3ppm Mo 2.99% Fe **15-7**: (Decomposed Bedrock) <5ppb Au 30ppb Hg 12ppm Cu 9ppm Pb 103ppm Zn 2pmm Mo 8.16% Fe	
63-51-12 140-33-36 From 150' wide altered fault gauge	**15-8SO** <5ppb Au Possibly 30X Micro Au 3ppm Mo 50ppm Cu 15ppm Pb 69ppm Zn 6ppm Sb 20ppb Hg 3.12% Fe
63-51-39 140-31-58	**16-1** Altered Quartz Schist 1.04% Fe <5ppb Au 20ppb Hg 6ppm Cu 21ppm Zn 2ppm Mo

63-50-43 140-31-39 **16-2S** 2.34%Fe 5ppb Au <15ppb Pt 24ppm Cu 15ppmPb 72ppm Zn 6ppm As 5ppm Sb 2ppm Mo	
63-50-57 140-34-13 **16-4S** <5ppb Au 19ppm Cu 11ppm Pb 62ppmZn 2.00%Fe 10ppb Hg	*Chip sample Quartz Muscovite Schist* **16-5** <5ppb Au 10ppb Hg 5ppm Cu 10ppm Pb 47ppm Zn 1pmm Mo 1.31% Fe
63-51-17 140-35-06 **16-6S** <5ppb Au 5ppb Hg 19ppm Cu 11ppm Pb 63ppm Zn 5ppm As 1ppm Mo 2.02%Fe	
63-51-01 140-35-06 **16-7S** 7ppb Au 5ppb Hg 21ppm Cu 25ppm Pb 60ppm Zn 6ppm As 1ppm Mo 2.12%Fe	
50 Mile left limit	*Sample of large slide material 1500 feet upstream* of pup West of Claims **16-8SL** 1.06% Fe <5ppb Au 25ppb Hg 8ppm Cu 21ppm Zn 3ppmMo
63-50-51 140-31-39 Mouth of small pup **17-1S** <5ppb Au <15ppb Pt 27ppm Cu 2ppmMo 14ppm Pb 74ppm Zn 5ppm As 2.21%Fe	
63-50-50 140-30-39	75' zone of altered Quartz Muscovite Schist **17-2** 2.71%Fe <5ppb Au 30ppb Hg 62ppm Cu 104ppm Zn 5ppm Sb 48ppm Ni 11ppm Pb 5ppm Sb 3ppm Mo

200' high X 400' 50 Mile left limit outcrop upstream of Pup below Claim Group. Non-calcarious Quartz Muscovite Schist	**17-3AS:** Schist 2.93%Fe <5ppb Au 25ppb Hg 61ppm Cu 113ppm Zn 6ppm Sb 3ppm Mo 18ppm Pb 6ppm Sb 3ppmMo
	17-3BQ: Included Quartz fragment from schist <5ppb Au 40ppb Hg 77ppm Cu 35ppm Zn 9ppm Sb 4ppm Mo 2.10% Fe
75'X50' outcrop of fractured, altered Quartz Muscovite Biotite Shist on 50 Mile right limit just above Pup below Claims. This is the predominant rock type in this area.	**17-5:** Schist 1.35%Fe 8ppmAs 2ppmMo <5ppb Au 15 ppb Hg 4ppm Cu 9ppm Pb 85ppmZn
	17-6: More altered element of Schist <5ppb Au 45ppm Cu 141 ppm Zn 22ppm Pb 10 ppm Mo 10ppb Hg 0.3ppm Ag 3.17%Fe
Mouth of pup below Claims **17-8S** <5ppb Au 145ppm Hg 20ppm Cu 73ppm Zn 1ppm Mo 12ppm Pb 2.46%Fe	
63-50-45 140-32-52 On Pup West of Claims	**18-1**: Chip sample dense bluish Marble (?) float showing 30X **Micro pyrite dissemination**. Also *found outcropping on pup below claims.* <5ppb Au 8ppm Cu 21ppm Pb 20ppm Zn 61ppm As 5ppm Sb 2ppm Mo 511ppm Sr 20 ppb Hg
300' West of fault at 15-8SO On Pup West of claims	**18-2**: Quartz from partially decomposed Quartz Muscovite Schist <5ppb Au 43ppm Cu 12ppm Pb 52ppm Zn 6ppm Sb 2ppm Mo 2.65% Fe
63-51-18 140-33-40 On Pup West of Claims **18-3S** 8ppb Au <15ppm Pt 27ppm Cu 14ppmPb 74ppmZn 5ppm As 2ppm Mo 2.50% Fe	

63-51-28 140-33-59 Sample from the mouth of the first right limit branch to pup West of Claims. **18-4S** 2.70% Fe 6ppb Au 30ppb Hg 34ppm Cu 28ppm Pb 83ppm Zn 10ppm As 2ppm Mo	
63-51-28 140-33-59 Sample from the mouth of the first left limit branch to pup West of Claims **18-5S** 2.81% Fe <5ppb Au 29ppm Cu 21ppm Pb 7ppm As 1ppm Mo 79ppm Zn 2ppm Mo	
30' downstream of fault at 15-8SO **18-6S** 2.81% FE <5ppb Au .1ppm Ag 60ppb Hg 32ppmCu 18ppm Pb 96ppm Zn 9ppm As 2ppm Mo	
63-31-48 140-28-47 20' upstream on first upper right limit tributary to pup below claims (near fork) **19-1S** 2.69% Fe <5ppb Au 25ppb Hg 41ppm Cu 92ppm Zn 1ppm Mo 32ppm Pb	500' upstream on right limit branch **19-1A**: Conglomerate Float Possible sparse magnetitie inclusion. Lab analysis pending **19-2**: Chip sample Quartz Muscovite Biotite Calcite Schist float. 3.68%Fe 5ppm Sb 2ppm Mo <5ppb Au <15ppb Pt 34ppmCu 9ppmPb 71ppnZn
63-51-45 140-29-26 50' upstream on first upper left limit tributary to pup below Claims (near fork) In vicinity of previous 917ppb Au soil sample. **19-4S** 2.68% Fe 78ppm Zn <5ppb Au 50ppb Hg 31ppm Cu 13ppmPb	
63-50-58 140-28-39 Several hundred feet downstream of fork on pup below Claims. **19-5S** 15ppb Au <15ppbPt 25ppm Cu 11ppmPb 82ppm Zn 1ppm Mo 2.71% Fe	

Vicinity of the first right limit pup into the 50 Mile downstream of pup to West of Claims.	50 Mile right limit rock outcrop 300' upstream of this pup **19-6**: 200' wide granitic gniess with major pyrite along gneiss bands 6ppb Au 17ppm Cu 13ppm Pb 24ppmZn 2ppm Mo 35ppb Hg 2.86% Fe **19-7**: 200' wide possible monzonite 0.70% Fe 5ppb Au 4ppm Cu 16ppm Zn 15ppb Hg **19-8**: 300' wide Quartz Muscovite Biotite Calcite Schist <5ppb Au 1386ppm Mn 598ppm Ba 4.76% Ca 3.16% Fe 15ppb Hg 28ppm Cu 6ppm Pb 69ppm Zn 2ppm Mo
Vicinity of downstream right limit pup on 50 Mile. **LHM-1S**: 11ppb Au <15ppbPt 19ppm Cu 14ppmPb 35ppb Hg 2.13% Fe 61ppm Zn 1ppmMo **LHM-2S** 5ppb Au 40ppb Hg 13ppm Cu 12ppm Pb 67ppm Zn 14ppm Zn 2ppm Mo 2.32% Fe	**LHM-1**: Quartz Muscovite Schist 8ppb Au 33ppm Cu 44ppm Pb 115ppm Zn 5ppm Sb 1ppm Mo 15ppb Hg 1.69% Fe **LHM-1B**: Quartz Muscovite Schist <5ppb Au 20ppm Cu 8ppm Pb 47ppm Zn 2ppm Mo 15ppb Hg 1.09% Fe

Monica #1 outcrop	**21A**: Andesite <5ppb Au 1245ppm Mn 4ppm Pb 71ppm Zn 2ppm Mo 4.03% Ca 5ppb Hg 5.14% Fe
Monica #2 outcrop	**21A2**: Andesite <5ppb Au 10ppm Pb 42ppm Zn 3ppm Mo 1318ppm Mn 4.94% Ca 5ppb Hg 4.30% Fe
Monica #3 outcrop	**21B**: Quartz Monzonite with weathered pytite 9ppb Au .3ppm Ag 49ppm Cu 5ppm Pb 45ppmZn 53ppm As 5ppm Sb 15ppb Hg
Monica #4 outcrop	**21B2**: Andesite 5ppb Hg <5ppb Au .1ppm Ag 4ppm Cu 68ppm Pb 165ppm Zn 945ppm Mn 3.30% Ca 5.55% Fe
Monica #6 outcrop	**21C**: Conglomerate 15ppb Au 15ppb Hg 3ppm Pb 4ppm Zn 6ppm Sb 1ppm Mo 0.25% Fe
Monica #5 outcrop	**21C2**: Granitoid - possibly Quartz Monzonite 39ppb Au 45ppb Hg 5.8ppm Ag 36ppm Cu 2367ppm Pb 26ppm Zn 33ppm As 20ppm Mo 3.99% Fe
Monica #10 outcrop	**21D**: Gneiss <5ppb Au 5ppb Hg 7ppm Cu 25ppm Pb 1ppm Mo 3.24% Fe 54ppm Zn
Monica #9 outcrop	**21E**: Granitoid <5ppb Au 26ppm Cu 20ppm Pb 53ppm Zn 1ppm Mo 2.67% Fe <5ppb Hg
Monica #8 outcrop	**21F**: Andesite <5ppb Au 2ppm Cu 6ppm Pb 54ppm Zn 2ppm Mo 3.16% Fe 5ppb Hg

About 2km upstream on pup below Claims.	**F3-1A**: Conglomerate float with dark black matrix 10ppb Au <15ppb Pt 0.9ppm Ag 23 ppm Cu *476ppm Pb 324ppb Zn 15ppm* As *17ppm Mo* 315ppm Bs 4.09%Fe. These minerals are consistent with an auriferous paleoplacer deposit. **F3-1B:** Quartz Muscovite Schist <5ppb Au 30ppb Hg .1ppm Ag 12ppm Cu 15ppm Pb 17ppm Zn 4ppm Mo 6.70% Fe **F3-1C**: Altered Quartz Muscovite Schist <5ppb Au 15ppb Hg 0.1ppm Ag 29ppm Cu 15ppm Pb 25ppm Zn 28ppm As 3.09% Fe
About 3km upstream on pup below Claims.	**F3-2**: Dark intrusive (Andesite) float <5ppb Au 15ppb Hg 21ppm Cu 13ppm Pb 54ppm Zn 42ppm As 3ppm Mo 276ppm Ba 3.59% Fe

3km upstream on pup below Claims. On right limit	**F3-5**: Conglomerate float showing coarse magnetite 18ppb Au <15ppb Pt 0.1ppm Ag 13ppm Cu 13ppm Pb 60ppm Zn 24ppm As 2ppm Mo 1.41% Fe **F3-6**: 4' vein of mostly quartz from schist <5ppb Au 5ppb Hg 3ppm Cu 9ppm Pb 10ppmZn 18ppm As 0.47% Fe
1.5km upstream on pup below Claims. Above canyon and on right limit	**F3-7** Decoposed 4"X?X? seam of black decomposed bedrock. Very heavy in black sands with abundant magnetite. Host bedrock is Quartz Muscovite Biotite Calcite schist. Possible 30X Micro Au noted. 46ppb Au **4ppm Hg** 0.1ppm Ag 21ppm Cu 32ppm As 1ppm Mo 392ppm Sr 7.39% Ca 2.48% Fe
1.5 km upstream on pup below Claims, above canyon. On a left limit bench that runs about 800'X1000'.	**F3-10** Altered quartzitic float, apparently from local schist. Rose colored in zones. <5ppb Au 8ppm Cu 2ppm Pb 10ppm Zn 2ppm Mo 0,54% Fe
Left limit Creek into 50 Mile about 3km downstream from pup below Claims.	***F5-3*** Quartz Muscovite Schist chip sample. <5ppb Au 5ppm Cu 9ppm Pb 10ppm Zn 11ppm As 2ppm Mo 0.66% Fe

D Rock samples taken from 50 Mile about 1km downstream of pup below Claims	**G-1**: Brown matrix conglomerate float. 16ppb Au <15ppb pt 0.3ppm Ag 12ppm Cu 83ppm Pb 18ppm Zn 98ppm As 1ppm Mo 1.32% Fe
	G-2: Grey matrix conglomerate float. 10ppb Au <15ppb Pt 22ppm Cu 9ppm Zn 14ppm As 3ppm Mo 1.38% Fe
	G-3: Quartz from 50 Mile left limit Quartz Muscovite Shist <5ppb Au 0.3ppm Ag 33ppm Cu 68ppm Pb 16ppm Zn 0.54% Fe
	G-4: Assorted mixed conglomerate float <5ppb Au 0.2ppb Ag 13ppm Cu 40ppm Pb 108ppm Zn 39ppm As 2ppm Mo 1.07% Fe

APPENDIX 2: LEASE MAP WITH SAMPLE SITE LOCATIONS:

ASSESSMENT EVALUATION REPORT

DAWSON MINING DISTRICT

QUARTZ MINING CLAIMS:

MONICA 1 TO 10
YC04655 - YC04664

63°55'N
140°30'W

35'

N

115 N - 16

quartz

MOUNT HART

Enchantment

3500

4000

2500

3000

21B

21C2

21E

21D

21C

21F

21A

21A2

21B2

MONICA

YC04655 YC04656 YC04657 YC04658 YC04659 YC04660 YC04661 YC04662 YC04663 YC04664

1 2 3 4 5 6 7 8 9 10

5000'

PtP Below Monica Claims

19-1

19-2

19-4

19-5

3.5

3.6

3.7

093956

PuP Below
Monica Claims

3-5
19.4
3-6
3-7
19.5
3-10
F3-1A-C
F3-2
F5-3

ID00099
3 MILE
ID00098
5 MILE
ID00097
5 MILE

3000
2500
2000
50

- 50 Mile Creek -

8000'

093956

3000

2500

PL7565

5 MILE

Mile

50 Mile Creek

ID00100

3 MILE

5 Creek

ID000098

5 MILE

PuP West of Monica Claims

115N-15

5,000'

50'

APPENDIX 3: ASSAY CERTIFICATES:

ASSESSMENT EVALUATION REPORT

DAWSON MINING DISTRICT

QUARTZ MINING CLAIMS:

MONICA 1 TO 10
YC04655 - YC04664

CERTIFICATE OF ANALYSIS
iPL 98I1015

INTERNATIONAL PLASMA LABORATORY LTD
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Northern Analytical Laboratories — **18 Samples** — Out: Sep 28, 1998 In: Sep 22, 1998 [101515:23:30:89092898]

Project : W.O. 5610
Shipper : Norm Smith
Shipment: PO#: 054572
Analysis:
Au/Pt/Pd(FA/AAS 30)
ICP(AqR)30 Hg(CVA)
Comment:

Document Distribution

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Em:NAL@hypertech.yk.ca

EN	RT	CC	IN	FX
1	2	1	1	0
DL	3D	EM	BT	BL
0	0	0	0	0

CODE	AMOUNT	TYPE	PREPARATION DESCRIPTION	PULP 12M/Dis	REJECT 00M/Dis
B311	18	Pulp	Pulp received as it is, no sample prep.		

NS=No Sample Rep=Replicate M=Month Dis=Discard

Analytical Summary

##	Code	Method	Units	Description	Element	Limit Low	Limit High
01	0313	FA/AAS	ppb	Au FA/AAS finish 30g	Gold	2	10000
02	0331	FA/AAS	ppb	Pt FA/AAS finish 30g	Platinum	15	10000
03	0341	FA/AAS	ppb	Pd FA/AAS finish 30g	Palladium	5	10000
04	0520	CVA	ppb	Hg Cold Vapor/AAS	Mercury	5	10000
05	0721	ICP	ppm	Ag ICP	Silver	0.1	100.0
06	0711	ICP	ppm	Cu ICP	Copper	1	20000
07	0714	ICP	ppm	Pb ICP	Lead	2	20000
08	0730	ICP	ppm	Zn ICP	Zinc	1	20000
09	0703	ICP	ppm	As ICP	Arsenic	5	10000
10	0702	ICP	ppm	Sb ICP	Antimony	5	1000
11	0732	ICP	ppm	Hg ICP	Mercury	3	10000
12	0717	ICP	ppm	Mo ICP	Molydenum	1	1000
13	0747	ICP	ppm	Tl ICP (Incomplete Digestion)	Thallium	10	1000
14	0705	ICP	ppm	Bi ICP	Bismuth	2	10000
15	0707	ICP	ppm	Cd ICP	Cadmium	0.1	100.0
16	0710	ICP	ppm	Co ICP	Cobalt	1	10000
17	0718	ICP	ppm	Ni ICP	Nickel	1	10000
18	0704	ICP	ppm	Ba ICP (Incomplete Digestion)	Barium	2	10000
19	0727	ICP	ppm	W ICP (Incomplete Digestion)	Tungsten	5	1000
20	0709	ICP	ppm	Cr ICP (Incomplete Digestion)	Chromium	1	10000
21	0729	ICP	ppm	V ICP	Vanadium	2	10000
22	0716	ICP	ppm	Mn ICP	Manganese	1	10000
23	0713	ICP	ppm	La ICP (Incomplete Digestion)	Lanthanum	2	10000
24	0723	ICP	ppm	Sr ICP (Incomplete Digestion)	Strontium	1	10000
25	0731	ICP	ppm	Zr ICP	Zirconium	1	10000
26	0736	ICP	ppm	Sc ICP	Scandium	1	10000
27	0726	ICP	%	Ti ICP (Incomplete Digestion)	Titanium	0.01	1.00
28	0701	ICP	%	Al ICP (Incomplete Digestion)	Aluminum	0.01	10.00
29	0708	ICP	%	Ca ICP (Incomplete Digestion)	Calcium	0.01	10.00
30	0712	ICP	%	Fe ICP	Iron	0.01	10.00
31	0715	ICP	%	Mg ICP (Incomplete Digestion)	Magnesium	0.01	10.00
32	0720	ICP	%	K ICP (Incomplete Digestion)	Potassium	0.01	10.00
33	0722	ICP	%	Na ICP (Incomplete Digestion)	Sodium	0.01	5.00
34	0719	ICP	%	P ICP	Phosphorus	0.01	5.00

EN=Envelope # RT=Report Style CC=Copies IN=Invoices Fx=Fax(1=Yes 0=No) Totals: 1=Copy 1=Invoice 0=3½ Disk
DL=Download 3D=3½ Disk EM=E-Mail BT=BBS Type BL=BBS(1=Yes 0=No) ID=C030901

BC Certified Assayer: David Chiu

CERTIFICATE OF ANALYSIS
iPL 98I1015

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Fax (604) 879 7898

Client : Northern Analytical Laboratories
Project: W.O. 5610

18 Samples
18=Pulp

[101515:23:30:89092898]

Out: Sep 28, 1998
In : Sep 22, 1998

Sample Name	Type	Au ppb	Pt ppb	Pd ppb	Hg ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm	As ppm	Sb ppm	Hg ppm	Mo ppm	Tl ppm	Bi ppm	Cd ppm	Co ppm	Ni ppm	Ba ppm
F3 - 10	Pulp	—	—	—	—	<0.1	8	2	10	<5	<5	<3	2	<10	<2	1.0	2	7	28
F5 - 3	Pulp	—	—	—	—	<0.1	5	9	10	11	<5	<3	2	<10	<2	1.5	3	8	76
F9 - 2	Pulp	—	—	—	—	0.1	22	4	11	20	<5	<3	3	<10	<2	2.4	4	11	132
G - 4	Pulp	—	—	—	—	0.2	13	40	108	39	<5	<3	2	<10	<2	2.3	13	13	179
F3 - 1b	Pulp	—	—	—	30	0.1	12	15	17	<5	<5	<3	4	<10	<2	13.4	13	56	11
F3 - 1c	Pulp	—	—	—	15	0.1	29	15	25	28	<5	<3	<1	<10	<2	5.9	7	14	99
F3 - 2	Pulp	—	—	—	15	<0.1	21	13	54	42	<5	<3	3	<10	<2	7.3	21	20	276
F3 - 6	Pulp	—	—	—	5	<0.1	3	9	10	18	<5	<3	<1	<10	<2	1.0	2	7	46
F5 - 4	Pulp	—	—	—	5	<0.1	4	<2	11	18	<5	<3	1	<10	<2	2.1	4	6	36
G - 3	Pulp	—	—	—	<5	0.3	33	68	16	<5	<5	<3	<1	<10	<2	1.1	1	4	33
F1 - 1	Pulp	86m	<15	5	—	6.5	28	42	59	<5	<5	<3	2	<10	<2	73.9	26	38	46
F3 - 1a	Pulp	10	<15	<5	—	0.9	23	476	324	15	<5	<3	17	<10	<2	11.6	5	12	315
F3 - 5	Pulp	18	<15	<5	—	0.1	13	13	60	24	<5	<3	2	<10	<2	3.0	3	15	180
F3 - 9	Pulp	84m	<15	<5	—	7.6	33	47	66	<5	<5	<3	3	<10	18	69.7	33	45	889
F7 - 1	Pulp	56m	<15	<5	—	5.1	29	69	79	39	<5	<3	<1	<10	<2	84.0	32	60	73
G - 1	Pulp	16	<15	<5	—	0.3	12	83	18	98	<5	<3	1	<10	<2	2.6	2	9	158
G - 2	Pulp	10	<15	<5	—	<0.1	22	<2	9	14	<5	<3	3	<10	<2	2.5	3	15	248
F3 - 7	Pulp	46	<15	<5	110	0.1	21	32	38	32	<5	4	1	<10	<2	5.1	28	165	202
Minimum Detection		2	15	5	5	0.1	1	2	1	5	5	3	1	10	2	0.1	1	1	2
Maximum Detection		10000	10000	10000	10000	100.0	20000	20000	20000	10000	1000	10000	1000	1000	10000	100.0	10000	10000	10000
Method		FA/AAS	FA/AAS	FA/AAS	CVA	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP

—=No Test Ins=Insufficient Sample Del=Delay Max=No Estimate Rec=ReCheck m=x1000 %=Estimate % NS=No Sample

...ERTIFICATE OF ANALYSIS
iPL 9811015

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Client : Northern Analytical Laboratories
Project: W.O. 5610

18 Samples
18=Pulp

[101515:23:30:89092898]

Out: Sep 28, 1998
In : Sep 22, 1998

Sample Name	W ppm	Cr ppm	V ppm	Mn ppm	La ppm	Sr ppm	Zr ppm	Sc ppm	Ti %	Al %	Ca %	Fe %	Mg %	K %	Na %	P %
F3 - 10	<5	267	6	93	4	7	1	<1	<0.01	0.08	0.11	0.54	0.02	0.04	0.01	0.01
F5 - 3	<5	209	6	104	21	19	1	1	<0.01	0.30	0.46	0.66	0.08	0.23	0.04	0.04
F9 - 2	5	335	11	79	4	9	2	1	<0.01	0.47	0.05	1.17	0.22	0.08	0.01	0.01
G - 4	47	128	7	284	15	55	7	1	0.01	0.50	0.93	1.07	0.22	0.19	0.05	0.03
F3 - 1b	<5	186	10	63	<2	9	13	1	0.04	0.38	0.04	6.70	0.04	0.40	<0.01	0.01
F3 - 1c	6	258	10	205	17	15	3	2	0.05	1.16	0.13	3.09	0.30	0.48	0.03	0.03
F3 - 2	<5	93	213	323	21	113	3	4	0.33	1.59	1.13	3.59	0.86	0.83	0.17	0.22
F3 - 6	<5	140	7	103	3	36	1	<1	0.02	0.51	0.36	0.47	0.09	0.11	0.05	0.01
F5 - 4	<5	106	8	105	22	9	1	1	0.01	0.58	0.39	1.19	0.28	0.17	0.03	0.07
G - 3	<5	102	3	35	8	7	3	<1	0.01	0.13	0.08	0.54	0.03	0.04	0.06	0.04
F1 - 1	164	238	1061	538	29	15	13	2	0.12	0.33	0.55	23%	0.09	<0.01	<0.01	0.16
F3 - 1a	<5	98	24	2421	5	8	3	<1	<0.01	0.18	0.04	4.09	0.01	0.07	<0.01	0.03
F3 - 5	<5	184	18	219	10	8	3	1	<0.01	0.37	0.05	1.41	0.04	0.12	<0.01	0.02
F3 - 9	101	272	904	791	44	50	13	3	0.20	0.70	1.26	21%	0.25	0.03	<0.01	0.31
F7 - 1	344	437	1016	1095	62	20	18	3	0.13	0.47	0.85	24%	0.11	<0.01	<0.01	0.25
G - 1	8	187	26	102	7	9	3	<1	<0.01	0.13	0.04	1.32	0.01	0.08	<0.01	0.01
G - 2	<5	244	26	123	15	16	4	1	0.03	0.50	0.09	1.38	0.06	0.20	0.01	0.03
F3 - 7	5	152	50	579	9	392	3	3	0.17	1.19	7.39	2.48	1.31	0.10	0.11	0.24
Minimum Detection	5	1	2	1	2	1	1	1	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Maximum Detection	1000	10000	10000	10000	10000	10000	10000	10000	1.00	10.00	10.00	10.00	10.00	10.00	5.00	5.00
Method	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP

—=No Test Ins=Insufficient Sample Del=Delay Max=No Estimate Rec=ReCheck m=x1000 %=Estimate % NS=No Sample

Northern Analytical Laboratories ltd.

Al.Rudis WO# 07957

Certified by _____

Sample #	Au-15g ppb	Au-30g ppb
JL-P1	596	
JL-SLV	98	
LHM-1	8	
LHM-1B	<5	
LHM-2S	5	
15-1F	10	
15-1S	7	
15-2S	6	
15-3SO	8	
15-4MS	<5	
15-6S	7	
15-7'	<5	
15-8SO	<5	
16-1'	<5	
16-4S	<5	
16-5'	<5	
16-6S	<5	
16-7S	7	
16-8SL	<5	
17-2'	<5	
17-3AS	<5	
17-3BQ	<5	
17-5'	<5	
17-6'	<5	
17-8S	<5	
18-1'	<5	
18-2'	<5	
18-4S	6	
18-5S	<5	
18-6S	<5	

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Northern
Analytical
Laboratories ltd.

Al.Rudis WO# 07957

Certified by _____

Sample #	Au-15g ppb	Au-30g ppb
19-1S	<5	
19-4S	<5	
19-6'	6	
19-7'	5	
19-8'	<5	
21A	<5	
21A2	<5	
21B	9	
21B2	<5	
21C	15	
21C2	39	
21D	<5	
21E'	<5	
21F	<5	
LHM-1S		11
15-5OWMS		14
16-2S		5
17-1S		<5
18-3S		8
19-2'		<5
19-5S		15

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CERTIFICATE OF ANALYSIS
iPL 97J1085

Northern Analytical Laboratories **7 Samples** Out: Nov 04, 1997 In: Oct 28, 1997 [108516:54:14:79110497]

Project : W.O.7957
Shipper : Norm Smith
Shipment: PO#: 332341
Analysis:
Pt/Pd(FA/AAS 30g) ICP(AqR)30

Comment:

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CODE	AMOUNT	TYPE	PREPARATION DESCRIPTION	PULP	REJECT
B311	7	Pulp	Received as it is, no sample prep.	12M/Dis	00M/Dis

NS=No Sample Rep=Replicate M=Month Dis=Discard

Analytical Summary

##	Code	Method	Units	Description	Element	Limit Low	Limit High
01	0331	FA/AAS	ppb	Pt FA/AAS finish 30g	Platinum	15	10000
02	0341	FA/AAS	ppb	Pd FA/AAS finish 30g	Palladium	5	10000
03	0721	ICP	ppm	Ag ICP	Silver	0.1	100.0
04	0711	ICP	ppm	Cu ICP	Copper	1	20000
05	0714	ICP	ppm	Pb ICP	Lead	2	20000
06	0730	ICP	ppm	Zn ICP	Zinc	1	20000
07	0703	ICP	ppm	As ICP	Arsenic	5	10000
08	0702	ICP	ppm	Sb ICP	Antimony	5	1000
09	0732	ICP	ppm	Hg ICP	Mercury	3	10000
10	0717	ICP	ppm	Mo ICP	Molydenum	1	1000
11	0747	ICP	ppm	Tl ICP (Incomplete Digestion)	Thallium	10	1000
12	0705	ICP	ppm	Bi ICP	Bismuth	2	10000
13	0707	ICP	ppm	Cd ICP	Cadmium	0.1	100.0
14	0710	ICP	ppm	Co ICP	Cobalt	1	10000
15	0718	ICP	ppm	Ni ICP	Nickel	1	10000
16	0704	ICP	ppm	Ba ICP (Incomplete Digestion)	Barium	2	10000
17	0727	ICP	ppm	W ICP (Incomplete Digestion)	Tungsten	5	1000
18	0709	ICP	ppm	Cr ICP (Incomplete Digestion)	Chromium	1	10000
19	0729	ICP	ppm	V ICP	Vanadium	2	10000
20	0716	ICP	ppm	Mn ICP	Manganese	1	10000
21	0713	ICP	ppm	La ICP (Incomplete Digestion)	Lanthanum	2	10000
22	0723	ICP	ppm	Sr ICP (Incomplete Digestion)	Strontium	1	10000
23	0731	ICP	ppm	Zr ICP	Zirconium	1	10000
24	0736	ICP	ppm	Sc ICP	Scandium	1	10000
25	0726	ICP	%	Ti ICP (Incomplete Digestion)	Titanium	0.01	1.00
26	0701	ICP	%	Al ICP (Incomplete Digestion)	Aluminum	0.01	10.00
27	0708	ICP	%	Ca ICP (Incomplete Digestion)	Calcium	0.01	10.00
28	0712	ICP	%	Fe ICP	Iron	0.01	10.00
29	0715	ICP	%	Mg ICP (Incomplete Digestion)	Magnesium	0.01	10.00
30	0720	ICP	%	K ICP (Incomplete Digestion)	Potassium	0.01	10.00
31	0722	ICP	%	Na ICP (Incomplete Digestion)	Sodium	0.01	5.00
32	0719	ICP	%	P ICP	Phosphorus	0.01	5.00

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* Our liability is limited solely to the analytical cost of these analyses.

BC Certified Assayer: David Chiu

INTERNATIONAL PLASMA LABORATORY LTD

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Fax (604) 879-7898

CERTIFICATE OF ANALYSIS
iPL 97J1085

Client : Northern Analytical Laboratories
Project: W.O.7957

7 Samples
7=Pulp

[108516:54:14:79110497]

Out: Nov 04, 1997
In : Oct 28, 1997

Sample Name	Type	Pt ppb	Pd ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm	As ppm	Sb ppm	Hg ppm	Mo ppm	Tl ppm	Bi ppm	Cd ppm	Co ppm	Ni ppm	Ba ppm	W ppm	Cr ppm
15 - 5owms	Pulp	<15	<5	<0.1	32	16	106	7	<5	<3	2	<10	<2	0.4	14	36	193	<5	43
16 - 2s	Pulp	<15	<5	<0.1	23	15	72	6	5	<3	2	<10	<2	0.3	11	21	226	<5	28
17 - 1s	Pulp	<15	<5	<0.1	15	10	65	<5	<5	<3	1	<10	<2	0.1	11	23	128	<5	27
18 - 3s	Pulp	<15	<5	<0.1	27	14	74	5	<5	<3	2	<10	<2	0.4	13	39	192	<5	50
19 - 2	Pulp	<15	<5	<0.1	34	9	71	<5	5	<3	2	<10	<2	<0.1	22	7	239	<5	88
19 - 5s	Pulp	<15	<5	<0.1	25	11	82	<5	<5	<3	1	<10	<2	0.2	13	25	220	<5	36
LHM - 1s	Pulp	<15	<5	<0.1	19	14	61	<5	<5	<3	1	<10	<2	0.2	10	19	215	<5	23
Minimum Detection		15	5	0.1	1	2	1	5	5	3	1	10	2	0.1	1	1	2	5	1
Maximum Detection		10000	10000	100.0	20000	20000	20000	10000	1000	10000	1000	1000	10000	100.0	10000	10000	10000	1000	10000
Method		FA/AAS	FA/AAS	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP

—=No Test Ins=Insufficient Sample Del=Delay Max=No Estimate Rec=ReCheck m=x1000 %=Estimate % NS=No Sample

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CERTIFICATE OF ANALYSIS
iPL 97J1085

Client : Northern Analytical Laboratories
Project: W.O.7957

7 Samples
7=Pulp

[108516:54:14:79110497]

Out: Nov 04, 1997
In : Oct 28, 1997

Sample Name	V ppm	Mn ppm	La ppm	Sr ppm	Zr ppm	Sc ppm	Ti %	Al %	Ca %	Fe %	Mg %	K %	Na %	P %
15 - 5owms	60	473	13	50	1	4	0.10	1.74	0.75	2.84	0.93	0.15	0.03	0.11
16 - 2s	52	338	17	36	3	4	0.07	1.40	0.55	2.34	0.55	0.07	0.03	0.07
17 - 1s	38	304	15	32	2	3	0.06	1.23	0.52	2.21	0.77	0.11	0.02	0.10
18 - 3s	57	430	13	46	2	3	0.08	1.50	0.67	2.50	0.78	0.12	0.03	0.08
19 - 2	90	637	9	78	1	7	0.17	2.63	1.53	3.68	1.84	0.89	0.24	0.12
19 - 5s	59	413	10	42	2	4	0.09	1.66	0.62	2.71	1.03	0.16	0.03	0.07
LHM - 1s	45	250	13	33	2	3	0.07	1.18	0.53	2.13	0.55	0.09	0.03	0.08
Minimum Detection	2	1	2	1	1	1	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Maximum Detection	10000	10000	10000	10000	10000	10000	1.00	10.00	10.00	10.00	10.00	10.00	5.00	5.00
Method	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP

—=No Test Ins=Insufficient Sample Del=Delay Max=No Estimate Rec=ReCheck m=x1000 ▼=Estimate ▼ NS=No Sample

CERTIFICATE OF ANALYSIS
iPL 98G0689

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Northern Analytical Laboratories

49 Samples Out: Jul 27, 1998 In: Jul 15, 1998 [068914:25:00:89072798]

Project : WO# 05533
Shipper : Norm Smith
Shipment: PO#:

Analysis:
Hg(CVA)

Comment:
Pulps from 97J1084 & 97J1085

CODE	AMOUNT	TYPE	PREPARATION DESCRIPTION	PULP	REJECT
B311	49	Pulp	Pulp received as it is, no sample prep.	12M/Dis	00M/Dis

NS=No Sample Rep=Replicate M=Month Dis=Discard

Analytical Summary

##	Code	Method	Units	Description	Element	Limit Low	Limit High
01	0520	CVA	ppb	Hg Cold Vapor/AAS	Mercury	5	10000

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* Our liability is limited solely to the analytical cost of these analyses.

BC Certified Assayer: David Chiu

CERTIFICATE OF ANALYSIS
iPL 98G0689

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Client : Northern Analytical Laboratories
Project: WO# 05533

49 Samples
49=Pulp

[068914:25:00:89072798]

Out: Jul 27, 1998
In : Jul 15, 1998

Sample Name		Hg ppb	Sample Name		Hg ppb	Sample Name	Hg ppb	Sample Name	Hg ppb	Sample Name	Hg ppb	Sample Name	Hg ppb
15 - 1f	P	65	LHM - 1	P	15								
15 - 1s	P	75	LHM - 1b	P	15								
15 - 2s	P	50	LHM - 2s	P	40								
15 - 3so	P	20	15 - 5owms	P	75								
15 - 4ms	P	15	16 - 2s	P	65								
15 - 6s	P	20	17 - 1s	P	25								
15 - 7	P	30	18 - 3s	P	50								
15 - 8so	P	25	19 - 2	P	60								
16 - 1	P	20	19 - 5s	P	30								
16 - 4s	P	10	LHM - 1s	P	35								
16 - 5	P	10											
16 - 6s	P	5											
16 - 7s	P	5											
16 - 8s1	P	25											
17 - 2	P	30											
17 - 3as	P	25											
17 - 3bq	P	40											
17 - 5	P	15											
17 - 6	P	10											
17 - 8s	P	145											
18 - 1	P	20											
18 - 2	P	25											
18 - 4s	P	30											
18 - 5s	P	35											
18 - 6s	P	60											
19 - 1s	P	25											
19 - 4s	P	50											
19 - 6	P	35											
19 - 7	P	15											
19 - 8	P	15											
21A	P	5											
21A2	P	5											
21B	P	15											
21B2	P	5											
21C	P	15											
21C2	P	45											
21D	P	5											
21E	P	<5											
21F	P	5											
Min Limit		5			5								
Max Reported*		10000			10000								
Method		CVA			CVA								

— No Test Ins=Insufficient Sample Del=Delay Max=No Estimate Rec=ReCheck m=x1000 %=Estimate % NS=No SampleP=Pulp

CERTIFICATE OF ANALYSIS
iPL 97J1084

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Northern Analytical Laboratories — 44 Samples — Out: Oct 31, 1997 — In: Oct 28, 1997 — [108412:42:36:79103197]

Project : W.O.7957
Shipper : Norm Smith
Shipment: PO#: 332341
Analysis:
ICP(AqR)30

Comment:

Document Distribution

1 Northern Analytical Laboratories
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CODE	AMOUNT	TYPE	PREPARATION DESCRIPTION	PULP 12M/Dis	REJECT 00M/Dis
B311	44	Pulp	Received as it is, no sample prep.		

NS=No Sample Rep=Replicate M=Month Dis=Discard

Analytical Summary

##	Code	Method	Units	Description	Element	Limit Low	Limit High
01	0721	ICP	ppm	Ag ICP	Silver	0.1	99.9
02	0711	ICP	ppm	Cu ICP	Copper	1	20000
03	0714	ICP	ppm	Pb ICP	Lead	2	20000
04	0730	ICP	ppm	Zn ICP	Zinc	1	20000
05	0703	ICP	ppm	As ICP	Arsenic	5	9999
06	0702	ICP	ppm	Sb ICP	Antimony	5	999
07	0732	ICP	ppm	Hg ICP	Mercury	3	9999
08	0717	ICP	ppm	Mo ICP	Molydenum	1	999
09	0747	ICP	ppm	Tl ICP (Incomplete Digestion)	Thallium	10	999
10	0705	ICP	ppm	Bi ICP	Bismuth	2	9999
11	0707	ICP	ppm	Cd ICP	Cadmium	0.1	99.9
12	0710	ICP	ppm	Co ICP	Cobalt	1	9999
13	0718	ICP	ppm	Ni ICP	Nickel	1	9999
14	0704	ICP	ppm	Ba ICP (Incomplete Digestion)	Barium	2	9999
15	0727	ICP	ppm	W ICP (Incomplete Digestion)	Tungsten	5	999
16	0709	ICP	ppm	Cr ICP (Incomplete Digestion)	Chromium	1	9999
17	0729	ICP	ppm	V ICP	Vanadium	2	9999
18	0716	ICP	ppm	Mn ICP	Manganese	1	9999
19	0713	ICP	ppm	La ICP (Incomplete Digestion)	Lanthanum	2	9999
20	0723	ICP	ppm	Sr ICP (Incomplete Digestion)	Strontium	1	9999
21	0731	ICP	ppm	Zr ICP	Zirconium	1	9999
22	0736	ICP	ppm	Sc ICP	Scandium	1	9999
23	0726	ICP	%	Ti ICP (Incomplete Digestion)	Titanium	0.01	1.00
24	0701	ICP	%	Al ICP (Incomplete Digestion)	Aluminum	0.01	9.99
25	0708	ICP	%	Ca ICP (Incomplete Digestion)	Calcium	0.01	9.99
26	0712	ICP	%	Fe ICP	Iron	0.01	9.99
27	0715	ICP	%	Mg ICP (Incomplete Digestion)	Magnesium	0.01	9.99
28	0720	ICP	%	K ICP (Incomplete Digestion)	Potassium	0.01	9.99
29	0722	ICP	%	Na ICP (Incomplete Digestion)	Sodium	0.01	5.00
30	0719	ICP	%	P ICP	Phosphorus	0.01	5.00

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* Our liability is limited solely to the analytical cost of these analyses.

BC Certified Assayer: David Chiu

CERTIFICATE OF ANALYSIS
iPL 97J1084

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Phone (604) 879-7878
Fax (604) 879-7898

Client : Northern Analytical Laboratories
Project: W.O.7957

44 Samples
44=Pulp

[108412:42:36:79103197]

Out: Oct 31, 1997
In : Oct 28, 1997

Sample Name		Ag ppm	Cu ppm	Pb ppm	Zn ppm	As ppm	Sb ppm	Hg ppm	Mo ppm	Tl ppm	Bi ppm	Cd ppm	Co ppm	Ni ppm	Ba ppm	W ppm	Cr ppm	V ppm	Mn ppm	La ppm	Sr ppm	Zr ppm	Sc ppm	Ti %	Al %	Ca %	Fe %	Mg %	K %	Na %	P %
15 - 1f	P	<	13	21	69	<	<	<	5	<	<	0.5	7	16	1178	<	122	45	1461	121	75	53	4	0.01	0.80	0.77	2.24	0.10	0.49	0.15	0.09
15 - 1s	P	<	26	16	77	5	5	<	2	<	<	0.2	12	37	190	<	35	49	408	12	43	3	3	0.07	1.41	0.63	2.40	0.77	0.10	0.03	0.07
15 - 2s	P	<	26	18	75	<	<	<	2	<	<	0.2	12	34	161	<	36	47	393	12	42	2	3	0.07	1.32	0.57	2.35	0.77	0.11	0.03	0.08
15 - 3so	P	<	32	22	107	<	<	<	2	<	<	<	24	18	307	<	24	148	817	23	41	2	7	0.14	2.61	0.91	5.68	1.43	0.54	0.02	0.23
15 - 4ms	P	<	26	17	80	<	<	<	1	<	<	0.3	13	36	167	<	52	56	398	14	46	1	3	0.09	1.45	0.71	2.63	0.77	0.13	0.03	0.12
15 - 6s	P	0.2	47	28	88	10	<	<	3	<	<	0.6	17	53	273	<	47	64	740	19	71	2	4	0.08	1.81	1.08	2.99	0.91	0.12	0.03	0.07
15 - 7	P	<	12	9	103	<	<	<	2	<	<	<	35	14	286	<	27	293	638	5	56	2	12	0.49	3.92	1.17	8.16	2.48	1.64	0.02	0.22
15 - 8so	P	<	50	15	69	<	6	<	3	<	<	<	9	17	178	<	98	79	399	5	22	2	4	0.16	1.80	0.53	3.12	1.19	0.28	0.03	0.09
16 - 1	P	<	6	<	21	<	<	<	2	<	<	<	1	2	30	<	73	5	142	48	5	3	1	0.01	0.20	0.04	1.04	0.05	0.10	0.06	<
16 - 4s	P	<	19	11	62	<	<	<	1	<	<	1.0	9	16	189	<	23	43	291	14	30	3	3	0.06	1.14	0.48	2.00	0.47	0.06	0.02	0.07
16 - 5	P	<	5	10	47	<	<	<	1	<	<	<	3	4	52	<	76	10	343	35	21	5	1	0.04	0.64	0.61	1.31	0.27	0.23	0.05	0.03
16 - 6s	P	<	19	11	63	5	<	<	1	<	<	0.2	9	18	201	<	24	45	209	12	29	3	3	0.06	1.27	0.41	2.02	0.49	0.05	0.03	0.07
16 - 7s	P	<	21	25	60	6	<	<	1	<	<	0.2	10	18	216	<	23	47	284	12	33	2	3	0.06	1.25	0.51	2.12	0.49	0.05	0.03	0.07
16 - 8s1	P	<	8	<	21	<	<	<	3	<	<	<	1	3	25	<	156	3	95	48	3	3	1	<	0.47	0.02	1.06	0.15	0.10	0.12	0.01
17 - 2	P	<	62	11	104	<	5	<	3	<	<	0.2	11	48	231	<	144	76	389	7	23	1	3	0.16	1.70	0.58	2.71	1.05	0.47	0.04	0.08
17 - 3as	P	<	61	8	113	<	6	<	3	<	<	0.2	16	38	729	<	122	85	421	2	17	1	3	0.17	1.98	0.41	2.93	1.46	1.02	0.06	0.09
17 - 3bq	P	<	77	13	35	<	9	<	4	<	<	0.1	12	28	92	<	414	19	199	3	17	1	2	0.09	0.62	1.29	2.10	0.36	0.22	0.02	0.03
17 - 5	P	<	4	9	85	8	<	<	2	<	<	<	3	6	47	<	73	4	482	87	24	10	1	0.04	1.52	0.67	1.35	1.42	1.14	0.05	<
17 - 6	P	0.3	45	22	141	<	<	<	10	<	<	0.4	15	61	184	<	109	93	637	26	54	7	7	0.12	2.07	1.70	3.17	2.15	0.78	0.03	0.06
17 - 8s	P	<	20	12	73	<	<	<	1	<	<	0.3	12	20	182	<	31	52	403	12	38	2	3	0.07	1.37	0.51	2.46	0.87	0.14	0.02	0.07
18 - 1	P	<	8	21	20	61	5	<	2	<	<	0.1	10	42	20	<	300	150	174	5	511	4	1	0.33	8.29	6.09	3.04	0.11	0.04	0.47	0.09
18 - 2	P	<	43	12	52	<	6	<	2	<	<	0.4	6	9	51	<	88	23	274	11	16	2	2	0.14	1.34	0.29	2.65	0.60	0.40	0.02	0.04
18 - 4s	P	<	34	28	82	10	<	<	2	<	<	0.4	15	41	242	<	41	60	547	12	55	1	4	0.08	1.77	0.75	2.70	0.88	0.13	0.03	0.06
18 - 5s	P	<	29	21	79	7	<	<	1	<	<	0.3	15	41	231	<	42	58	494	12	47	2	4	0.08	1.68	0.65	2.64	0.87	0.10	0.03	0.06
18 - 6s	P	0.1	32	18	96	9	<	<	2	<	<	0.5	15	45	189	<	43	58	646	14	70	2	4	0.08	1.73	0.78	2.81	0.90	0.10	0.03	0.07
19 - 1s	P	<	41	32	92	<	<	<	1	<	<	0.5	14	25	289	<	37	59	360	13	78	3	4	0.08	1.76	1.08	2.69	1.00	0.16	0.03	0.06
19 - 4s	P	<	31	13	78	<	<	<	1	<	<	0.2	13	21	238	<	30	58	399	10	50	2	4	0.07	1.59	0.72	2.68	0.90	0.11	0.03	0.06
19 - 6	P	<	17	13	24	<	<	<	2	<	<	<	2	3	24	<	81	5	139	47	15	2	1	0.02	0.60	0.36	2.86	0.17	0.11	0.03	0.01
19 - 7	P	<	4	<	16	<	<	<	<	<	<	<	<	2	41	<	65	2	29	10	6	2	<	<	0.22	0.05	0.70	0.06	0.15	0.03	0.01
19 - 8	P	<	28	6	69	<	<	<	2	<	<	<	13	7	598	<	47	127	1386	2	49	1	17	0.19	1.90	4.76	3.16	1.89	1.04	0.06	0.05
21A	P	<	<	4	71	<	<	<	2	<	<	<	20	5	69	<	23	137	1249	24	141	2	7	0.01	3.08	4.03	5.14	3.02	0.15	0.03	0.22
21A2	P	<	<	10	42	<	<	<	3	<	<	<	13	4	57	<	18	84	1318	18	196	5	5	0.06	1.93	4.94	4.30	1.93	0.14	0.02	0.19
21B	P	0.3	49	5	45	53	5	<	<	<	<	<	<	2	142	<	61	7	132	10	8	7	1	<	0.19	0.11	0.59	0.04	0.16	0.02	0.04
21B2	P	0.1	4	68	165	<	<	<	2	<	<	<	12	19	51	<	60	107	945	15	124	3	9	0.05	3.37	3.30	5.55	3.41	0.43	0.04	0.13
21C	P	<	6	3	4	<	6	<	1	<	<	0.1	<	4	104	<	117	5	36	5	4	3	<	<	0.15	0.02	0.25	0.02	0.09	0.01	0.01
21C2	P	5.8	36	2367	26	33	<	<	20	<	<	<	43	4	94	<	22	81	137	5	94	3	4	0.17	0.96	0.83	3.99	0.58	0.18	0.06	0.31
21D	P	<	7	25	54	<	<	<	1	<	<	<	5	5	133	<	49	123	279	2	40	2	6	0.09	1.09	0.86	3.24	0.88	0.12	0.04	0.28
21E	P	<	26	20	53	<	<	<	1	<	<	0.1	12	23	119	<	103	114	235	15	48	4	1	0.14	1.14	0.59	2.67	0.96	0.67	0.14	0.14
21F	P	<	2	6	54	<	<	<	2	<	<	<	6	2	80	<	16	97	706	3	68	2	5	0.06	2.00	1.38	3.16	1.23	0.17	0.10	0.25
Min Limit		0.1	1	2	1	5	5	3	1	10	2	0.1	1	1	2	5	1	2	1	2	1	1	1	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Max Reported*		99.9	20000	20000	20000	9999	999	9999	999	999	9999	99.9	9999	9999	9999	999	9999	9999	9999	9999	9999	9999	9999	1.00	9.99	9.99	9.99	9.99	9.99	5.00	5.00
Method		ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP

—=No Test Ins=Insufficient Sample Del=Delay Max=No Estimate Rec=ReCheck m=x1000 %=Estimate % NS=No SampleP=Pulp

CERTIFICATE OF ANALYSIS
iPL 97J1084

INTERNATIONAL PLASMA LABORATORY LTD

2036 Columbia Street
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Phone (604) 879-7878
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Client : Northern Analytical Laboratories
Project: W.O.7957

44 Samples
44=Pulp

[108412:42:36:79103197]

Out: Oct 31, 1997
In : Oct 28, 1997

Sample Name		Ag ppm	Cu ppm	Pb ppm	Zn ppm	As ppm	Sb ppm	Hg ppm	Mo ppm	Tl ppm	Bi ppm	Cd ppm	Co ppm	Ni ppm	Ba ppm	W ppm	Cr ppm	V ppm	Mn ppm	La ppm	Sr ppm	Zr ppm	Sc ppm	Ti %	Al %	Ca %	Fe %	Mg %	K %	Na %	P %
LHM - 1	P	<	33	44	115	<	5	<	1	<	<	<	9	20	77	<	154	16	390	10	11	1	1	0.06	0.82	0.77	1.69	0.36	0.22	0.04	0.02
LHM - 1b	P	<	20	8	47	<	<	<	2	<	<	0.1	6	18	87	<	66	9	271	32	10	1	1	0.03	0.49	0.69	1.09	0.20	0.16	0.03	0.02
LHM - 2s	P	<	13	12	67	<	<	<	2	<	<	0.1	9	15	178	<	21	43	344	30	24	1	3	0.09	1.33	0.53	2.32	0.54	0.17	0.03	0.11
JL - p1	P	<	17	8	14	10	5	<	1	<	<	<	4	17	102	<	91	15	36	8	11	2	1	0.02	0.90	0.10	0.56	0.33	0.11	0.02	<
JL - slv	P	0.8	21	6	14	<	<	<	2	<	<	<	117	13	14	<	39	21	837	<	85	3	5	<	0.48	5.82	14%	0.36	0.02	0.01	0.01
Min Limit		0.1	1	2	1	5	5	3	1	10	2	0.1	1	1	2	5	1	2	1	2	1	1	1	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Max Reported*		99.9	20000	20000	20000	9999	999	9999	999	999	9999	99.9	9999	9999	9999	999	9999	9999	9999	9999	9999	9999	9999	1.00	9.99	9.99	9.99	9.99	9.99	5.00	5.00
Method		ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP

—=No Test Ins=Insufficient Sample Del=Delay Max=No Estimate Rec=ReCheck m=x1000 %=Estimate % NS=No SampleP=Pulp

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22/09/98 Certificate of Analysis

RJAS Mineral Inc. WO# 05610

Al Rudis Certified by

	Sample #	Au ppb
r	F3-1b	<5
r	F3-1c	<5
r	F3-2	<5
r	F3-6	<5
r	F3-10	<5
r	F5-3	<5
r	F5-4	<5
r	F9-2	<5
r	G-3	<5
r	G-4	<5

APPENDIX 4:

CERTIFICATION OF COSTS OF EVALUATION
QUARTZ CLAIMS MONICA 1 TO 10

On behalf of the claim holders, the following expenditures are *Certified* by Albert Rudis to have been made in the evaluations of Quartz Claims MONICA 1 TO 10 (YC04655 - YC04664):

Helicopter Services (0.9 hours)	$ 778.50
Assay Costs	1800.00
Evaluation And Report Writing ($325/day X 7 days)	2275.00
TOTAL:	$4,853.50

I hereby certify that over $ 4,000 of the above costs has been expended in assessing MONICA 1 TO 10 (YC04655 - YC04664) *for the benefit of claim holders Ralph Nordling and Albert Rudis.*

Albert Rudis

3/5/98