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# 2008 Geological Report

## *Kirana Property*

BERNHARDT, MORRISETTE, TECK & LABEL TOWNSHIPS

LARDER LAKE MINING DIVISION

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**NORTHERN**  
G O L D M I N I N G I N C

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## Introduction

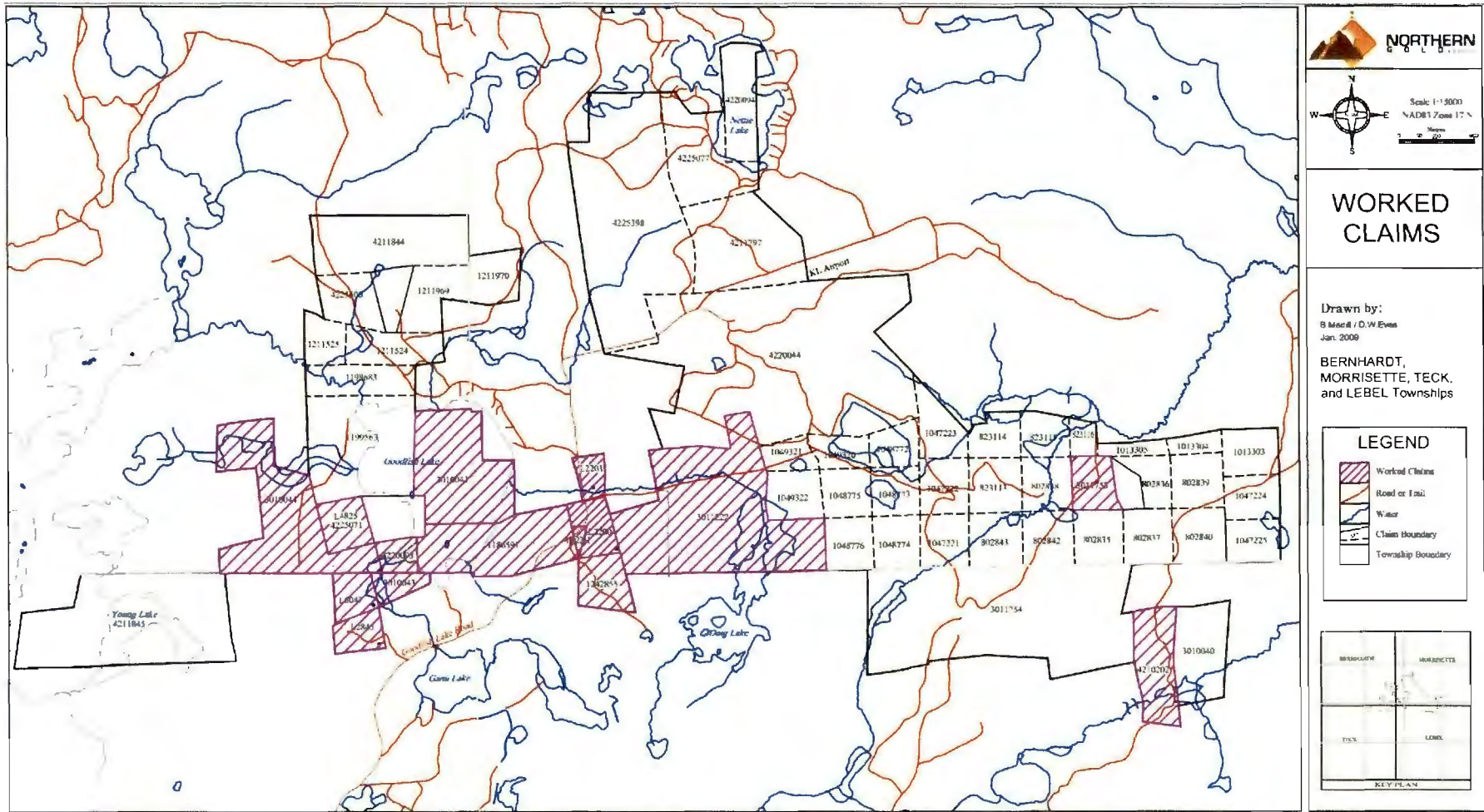
Between May 8<sup>th</sup> and November 21<sup>st</sup>, 2008 Northern Gold Mining Inc. conducted a geological mapping and mechanical stripping program on its Kirana property; this was completed by G. Matheson the author of this report with field assistants D. Eves and S. Ames. The geological mapping program only included the western portion of the Kirana property; this was done because of time restraints and lack of outcrop in the eastern portion of the property. Northern Gold Mining's Kirana property covers unpatented and patented claims in four townships: Bernhardt, Morrisette, Teck and Lebel townships in northeastern Ontario. The Kirana Property consists of 57 unpatented mining claims and 4 patented mining claims; this totals 150 claim units. The Kirana property includes claims under option to Northern Gold Mining Inc as well as claims held 100% by Northern Gold Mining. A consortium of prospectors optioned the claims to Northern Gold Mining in 2007; the consortium is comprised of T. O'Connor, M. Sutton, R. Harvey and T. Link. The claim numbers and patented mining lands on which work was performed are listed below (see map #1):

Bernhardt Township:  
3010044 (5 claim units)  
4225071 (1 claim unit)  
4220093 (1 claim unit)

Teck Township:  
L6047 (patented mining claim)  
L2845 (patented mining claim)  
3010043 (1 claim unit)

Morrisette Township:  
1186591 (3 claim units)  
3010041 (3 claim units)  
4202281(1 claim unit)  
L-2201 (patented mining claim)  
L-2200 (patented mining claim)  
3011222 (8 claim units)  
.1242855 (1 claim unit)  
3011753 (1 claim unit)

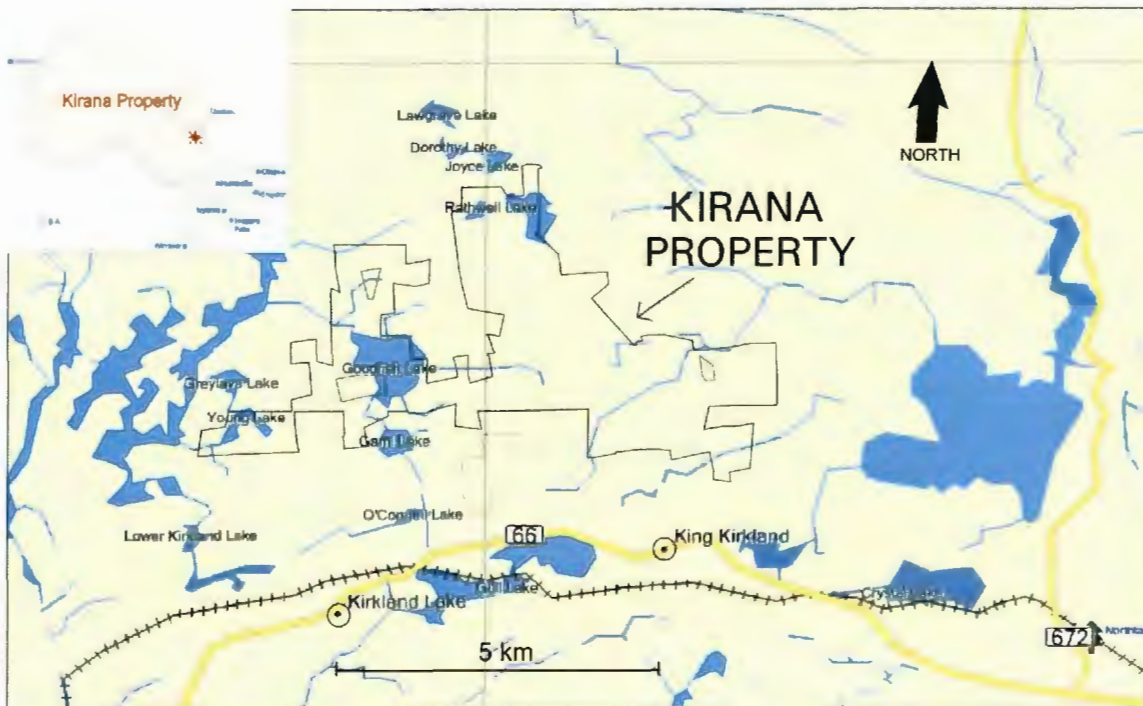
Lebel Township:  
4210202 (2 claim units)



Map #1 – Kirana Claim Contiguity and Claims Worked

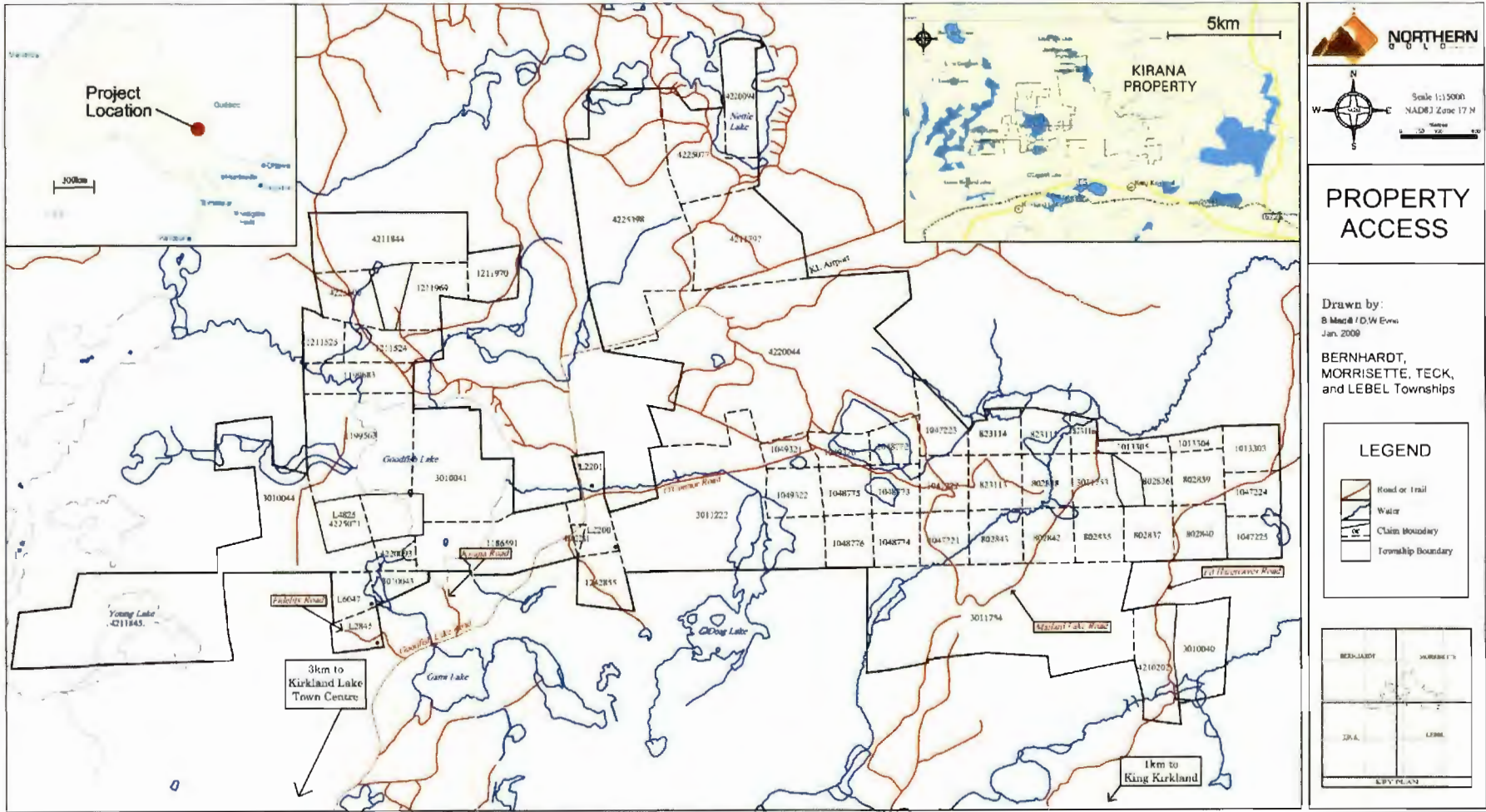
The property is located in the Larder Lake mining division, northeastern Ontario, 5 Km north of the town of Kirkland Lake (see map #2). The western portion of the property is accessible by heading north from Kirkland Lake on Goodfish Rd; from this point access was gained via several bush roads which are shown on map #3. The eastern portion of the property was accessed by traveling east from Kirkland Lake on Hwy 66. From the highway two roads lead north into the claim group as shown on map #2; one road is located across from Gull Lake and leads north to the Mallard Lake showing, a second access road leads north from Craig St. in the village of King Kirkland. Northern Gold Mining Inc cut 92 km of line grid on the Kirana property which was used for access and points of reference for this survey.

Hydro electric power, road and rail transportation are readily available and a skilled labour force with all necessary facilities can be found in the nearby Town of Kirkland Lake.



Map #2 - Kirana Property General Location Map





Map #3 – Kirana Claim Access

## Property History

A report written in 1916 titled "Goodfish Lake Gold Area" by A.G. Burrows and P.E. Hopkins gives the earliest accounts of gold prospecting in the vicinity of the Kirana property. According to Burrows and Hopkins the first gold discovery was made in the summer of 1912 on claim number L 2194, which later became the Goodfish Mine (not held by Northern Gold Mining). In 1915 significant prospecting was done in the vicinity of Goodfish Lake, with several gold discoveries; some of the gold showings are located on claims adjacent to the Kirana property claim L-2194 which were later amalgamated as the Goodfish mines. Another gold showing was found on the south shore of Goodfish Lake which later became the Kirana Gold Mine (not held by Northern Gold Mining). Northern Gold Mining's Kirana property surrounds both the Goodfish Mine and the Kirana Mine. Since 1916 significant exploration has occurred on the Kirana property by private prospectors and mining companies. An outline of previous work and gold discoveries are listed chronologically below:

### 1918 Fidelity Gold Mines

Sunk a 140 ft inclined shaft on a gold mineralized vein on current mining patent # L-2845. The shaft was deepened to 300 ft with 747 ft of lateral development in 1920. The grades of mineralization were not published but it was reported that the mineralized vein widened to 7 ft at a depth of 140 ft.

### 1935 Mallard Lake Gold Mines

Completed work on current claims #3011753 and #823115. Work was done to follow up on a silver, lead, copper, gold and barite showing; they drilled 5 holes to intersect the vein at depths up to 115 ft below the shaft; assays from this drilling were not significant and averaged less than 0.01 oz/ton Au, 2.57 oz/ton Ag, with minor amounts of lead and copper. Mallard Lake gold mines also discovered a gossan zone south of Morrisette Lake; this gossan zone was exposed for a width of 7-8 ft and followed along strike for 200 ft. One pit along this gossan assayed up to 0.45% Cu, however diamond drilling across this zone at 115 ft depth showed only 0.04% Cu across 12 ft.

### 1936 Kirgood Gold Mines

Held a claim block in north Lebel Township which covered part of the Murdoch Creek fault. They sunk a 40 ft shaft along the Murdoch Creek fault and drilled four holes into this structure. The structure was intersected at depths up to 300 ft. The only gold values occurred in drill hole #4 which intersected 0.35oz/ton over 1 ft



and a second intersection of 0.35oz/ton over 1 ft. Both of which occurred in a mineralized syenite unit with quartz fracturing.

#### **1974-1981 Haas Warner Mining Ltd**

Held a large group of claims covering the western portion of the Kirana property. This also includes the Kirana mine which in 1974 was the subject of an engineering report; this report outlined a 50,000 ton resource of unlisted grade at the Kirana mine. A stripping program was done on claim# 118591 with no results listed. They completed three drill holes totaling 380m on current claim #118591; no assays are listed for the holes; although it has been reported that 79-1 intersected good gold values.

#### **1980 Rosario Resources**

Completed a geological and geophysical survey and drilled 4 holes on the eastern portion of the property. Several conductors were outlined by the VLF survey. These conductors were then tested with four drill holes; mineralization in these holes was negligible.

#### **1985 Lac Minerals**

Completed a mag survey over 8 claims in Morrisette Township. Drilled one 170m hole on claim# 1048775. No assays were reported.

#### **1986-1996 T. Link**

Held the claim group covering the eastern portion of the Kirana property, and has since optioned the property to Northern Gold Mining. Drilled 5 holes totaling 669.3m on claim# 802838; these holes intersected a mineralized sedimentary unit with gold assays up to 0.05oz/ton over 20 ft. Completed power stripping on the same claim and found gold mineralization up to 883ppb over 3 ft. Completed a VLF-EM survey over the same claim but it failed to delineate the gold zone. Then drilled 2 holes totaling 614.5m on claim# 823114 which intersected minor pyrite and chalcopyrite mineralization but negligible gold. Drilled one 295.7m hole across claims #802834 and 802835 which intersected a pyritic sedimentary unit with negligible gold. Drilled an additional 3 holes on claim# 802838 in 1996; one of which intersected gold mineralization occurring as quartz stringers in a cg mafic unit; one assay from this zone was 234g/t over a 2 ft interval with additional assays being 5.5g/t over 2 ft and another interval assayed 3.8g/t over 5 ft.

**1987-1998 F.T. O'Connor**

Held claim block covering Goodfish Lake and some of the surrounding lands. Completed a ground magnetic and VLF-EM survey over most of Goodfish Lake. Four conductors were found but were never drill tested. A Geological report was conducted over several claims in 1987; the only sample of significance from this report was on claim L-2845 which was 21g/t and presumably from the Fidelity mine. In 1998 a mechanical stripping was completed north of Goodfish Lake; some significant values were found, the best being 3.4g/t over 2.0m. Conducted a small IP survey over the same property and drilled two holes to test the targets; the best intersection was 2.1g/t over 4.1 ft.

**1987 - 1990 Minnova Inc.**

Held a large claim group which covers the current Northern Gold claims 1211525, 1211524, 1199683, 4220048, 3010044, 3010041, 3010043, 1186591, L2200 and L2201. They also held the claims which cover the Kirana mine. They completed a considerable amount of exploration with the objective of finding the continuation of the "Kirana break" a known gold bearing structure. The work which was completed includes geological mapping, geophysical surveys, mechanical powerstripping and channel sampling, they also drilled 14 diamond drill holes, 7 of which were drilled on Northern Gold's Kirana property; the best assays from this drilling was in KIR-5 which intersected 6.8g/t Au over 0.5m on claim #1186591.

**1999 Medici Minerals**

Held a block of claims covering some of the eastern claims on the Kirana property Drilled two holes on claim # 802834; one hole M-99-01 intersected 18.7g/t Au over 1.05m as well as 0.45% Cu over a 0.7m interval.

**2003 M. Sutton**

Completed work on claim # 118591 which has since been optioned to Northern Gold Mining. Drilled one hole to follow up on previous gold intersections on property. The hole intersected a quartz ankerite vein carrying molybdenite, pyrite and gold; the assay from this vein across 1.1 ft was 47.0g/t Au.

## Recent Work

Northern Gold Mining Inc. acquired the current claim group in 2007. Since that time they have completed a small powerstripping program on claim# 802838 in 2007. In 2008 two diamond drill holes were drilled on claim # 118591. 92 Km of lines were cut which was used for access and points of reference for the geological mapping.

## Geography

**Physiography:** The project area lies within the central Canadian Shield in the central Abitibi geologic subprovince. The region can be generalized as being in the boreal climactic region, characteristically covered by forest, swamps and lakes with relatively little relief.

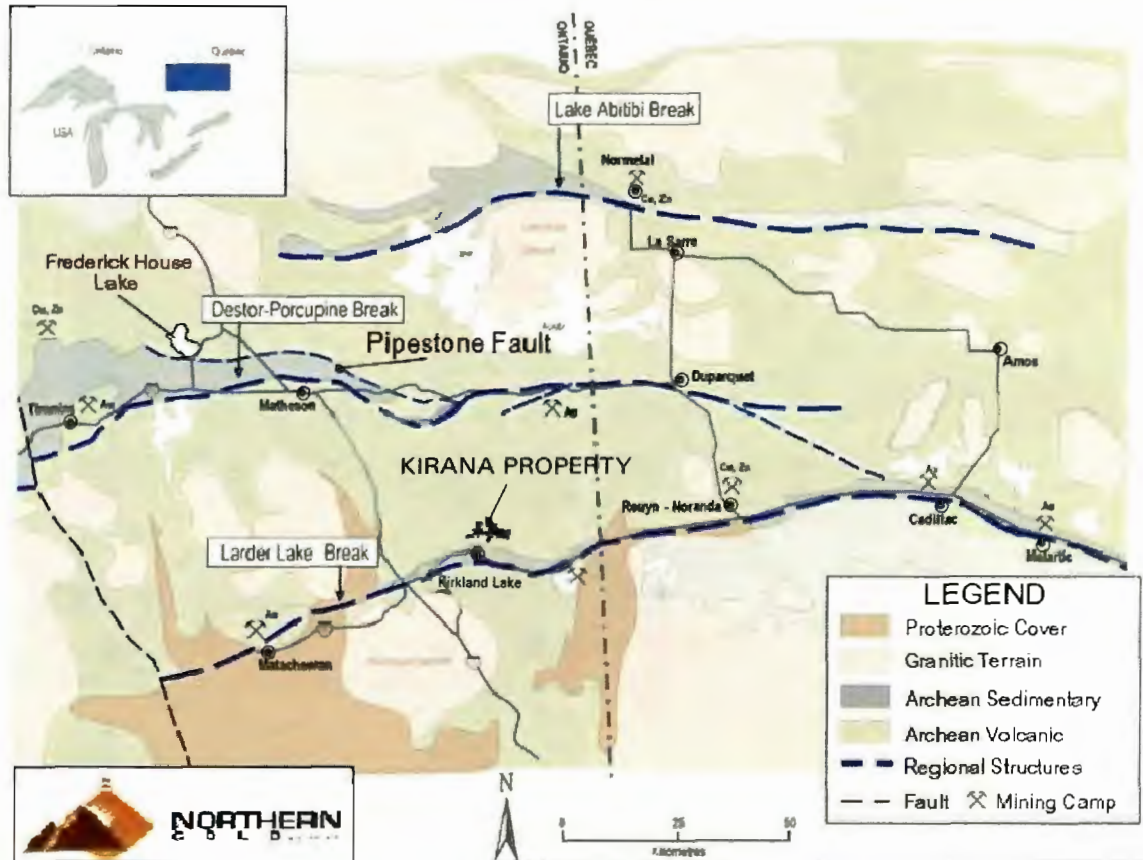
Relief on the Kirana property is less than 35m. The western portion of the claim group has moderate bedrock exposure and generally thin overburden. The eastern portion of the claim group is covered by esker sand deposits. Outcrop exposure in the western portion is about 20%; in the eastern portion however outcrop is scarce. Generally the property can be characterized by scattered outcrops and overburden thicknesses of less than 10m. The overburden is comprised of glaciofluvial and proglacial lacustrine sediments: primarily sand and but locally cobble and boulder sized clasts.

**Climate:** The climatic conditions are typical for the central Canadian Shield with short, mild summers and long, cold winters. Mean temperatures range from  $-17^{\circ}\text{C}$  ( $0^{\circ}\text{F}$ ) in January, to  $18^{\circ}\text{C}$  ( $64^{\circ}\text{F}$ ) in July, and mean annual precipitation throughout the region ranges from 812 to 876 mm (32-35 inches).

## Geology

**Regional Geology:** The Kirana property lies in the Superior Geological province and the Abitibi subprovince. The Abitibi subprovince is an 800 by 300 kilometer area underlain by granite greenstone stratigraphy of Archean age (see map #4). In the Archean of northern Ontario, the supracrustal rocks are divided into rock packages based on their composition, morphology and geographic distribution. Individual "assemblages" consist of stratified volcanic and/or sedimentary rock units built during a discrete interval of time in a common depositional or volcanic setting. According to R. Rupert and H. Lovell the geology in the project area from oldest to youngest is comprised of Keewatin type mafic and felsic volcanic flows,

Keewatin or Laurentian age early felsic intrusive rocks, Keewatin or Timiskaming metasediments, Haileyburian type mafic and ultramafic intrusive rocks, Algoman age late felsic intrusive rocks, finally late mafic intrusive rocks. Several of these rock types were found to occur on the Kirana property although Keewatin metavolcanics appear to be the dominant rock type.



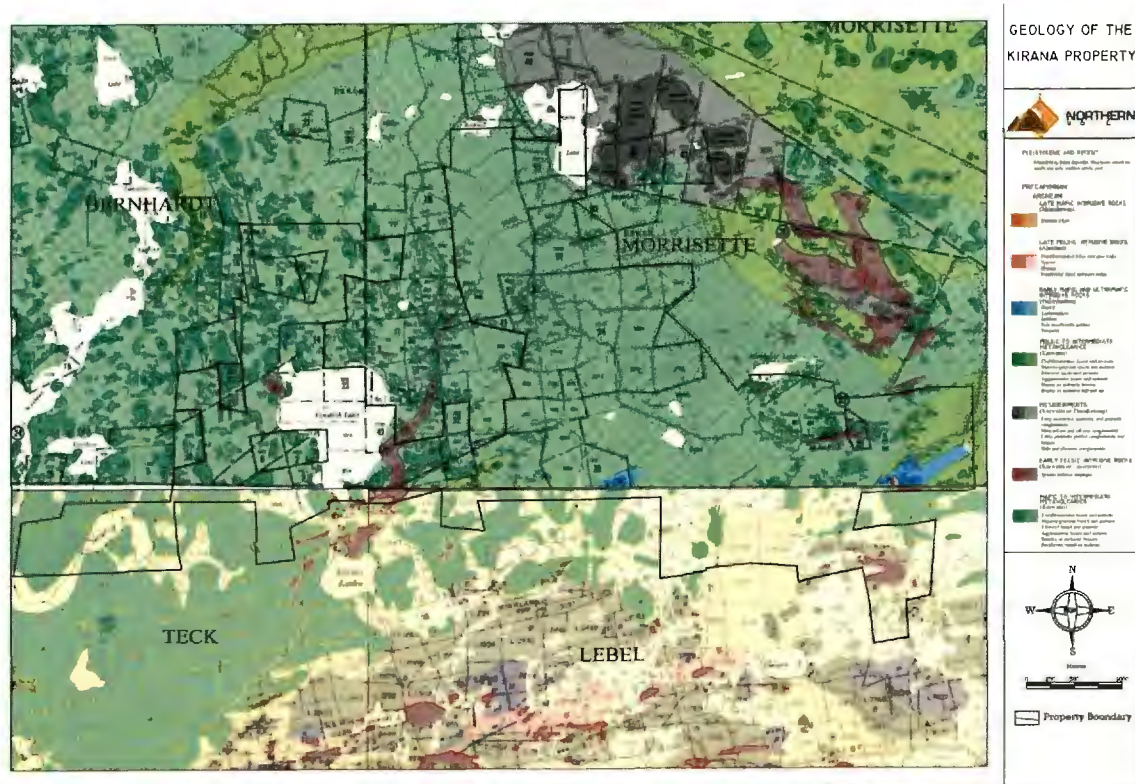
Map #4 - Kirana Regional Geology

**Property Geology:** The Kirana property is comprised entirely of Archean age rocks and quaternary sediments. The property covers parts of Bernhardt, Morrisette, Lebel and Teck townships. Bernhardt and Morrisette were previously mapped at a scale of 1 Inch to ½ Mile by R. Rupert and H. Lovell in 1967; this was then followed by Geological Report 84 by the same authors in 1970. No major discrepancies were found between the 1967 mapping and the current geological mapping; however the 2008 mapping of the Kirana property was completed with greater detail, at a scale of 1:2500. A small portion of the property is in Teck Township which was last mapped in 1945 by Thomsom, Hopkins, Gerrie and Maclean; this is published as map# 1945-1; the current geological mapping concurs with the 1945 mapping of Teck Township.

The dominant rock types are Keewatin mafic metavolcanics and Keewatin or Laurentian age early felsic intrusive rocks. The Keewatin mafic metavolcanics



were found to occur in three distinct phases; these are textural features but for the purposes of the current geological mapping they have been mapped as three distinct units; however they are compositionally probably very similar. It has been found that mapping based on textural features can be very useful in establishing gross structural features. Each lithological unit occurring on the property is described below:



**Map #5** – Kirana Property Geology, modified from Rupert & Lovell, 1967; Thomson et al, 1945; Maclean & Hogg, 1945.

## ARCHEAN

### Mafic Metavolcanics

The Kirana property is dominated by volcanic rocks known as “greenstones”. Compositionally these rocks are basalt or andesite. They have been metamorphosed to the greenschist facies; which is characterized as having chlorite and epidote alteration. Both chlorite and epidote alteration is found throughout the mafic metavolcanics on the Kirana property. The metavolcanics are classified as being Keewatin and represent the oldest rocks on the property. The mafic metavolcanics range in colour from dark green to dark grey. Most of the mafic metavolcanics are aphanitic although some medium grained sections of individual flows are found locally on the property. Most of the mafic metavolcanics are of

the massive flows which range in thickness from 10's of meters to several hundred meters. Quartz and quartz-carbonate fracturing occurs locally in the mafic metavolcanics. A few locations are noted as having chlorite amygdoidular mafic metavolcanics. Trace disseminated pyrite is ubiquitous in the mafic metavolcanics. One outcrop on the southwestern shore of Goodfish lake shows strong carbonate fracturing containing up to 1% black hematite. Sericite alteration is quite common. Two distinct textural features are found in the mafic metavolcanics, one is a variolitic variety and the other a heavily brecciated variety.

The variolitic mafic metavolcanics were only found to occur as small bodies. Compositionally they are very similar to the massive flows found elsewhere on the Kirana property; the variolitic texture shows spherulites which range from 8-12mm in diameter and are probably of feldspathic composition. This textural feature is most likely related to the intrusion of quartz feldspar bodies into the metavolcanics; variolitic mafic volcanic rocks found on the Kirana property primarily occur along contacts with quartz-feldspar porphyries and are thus interpreted as alteration halos there of.

The highly brecciated variety of mafic metavolcanics occurs sporadically throughout the property. The breccia is probably a flow type breccia. Generally the mafic breccia can be described as a monomictic breccia with highly angular clasts ranging from 1 to 20cm; the clasts are light to dark grey and featureless, the clasts comprise between 50-90% of the rock; the matrix is an aphanitic, dark grey-black variety of chlorite, commonly the matrix is found to contain high amounts of sulphide minerals, up to 30% but typically 5-7%; the sulphide minerals are anhedral pyrite and marcasite. When induced polarization surveys are used this unit is found to have a very high conductivity response. No metals of economic importance are known to occur in the unit. This unit however can be quite useful in mapping gross structural features.

### Early Felsic Intrusive Rocks

This rock type occurs throughout the western portion of the Kirana property. This is a distinctive type of granite porphyry found as stills, stocks and dykes. The highest concentration of this rock type occurs in the vicinity of Goodfish Lake. These rocks are found to intrude only the Keewatin mafic metavolcanics. They were classified as being either Keewatin or Laurentian by Rupert & Lovell in 1970. The rock can be described as being a quartz-feldspar porphyry; it is coarse grained and bimodal showing two distinctive generations of phenocrysts; the first generation are large euhedral feldspars which are up to 2cm and show a deep red alteration; the second generation is comprised of smaller, euhedral to subhedral feldspar and quartz phenocrysts which range from 5-10mm. The second generation comprises much more of the rock than the first. Phenocrysts total 45-65% of the rock. The feldspar phenocrysts in the second generation show distinct zoning. The matrix is light grey fresh and pink/red in



altered rocks; it is aphanitic and is probably composed of alkali feldspar and carbonate. Often the rock shows a strong sericite alteration and is weakly phyllitic owing to the orientation of the sericite. Locally this rock contains up to 1% fine grained disseminated pyrite and occasionally chalcopyrite. This is a rare rock variety in the Kirkland Lake area and is only known to occur in vicinity of Goodfish Lake. This rock is closely related to gold mineralization in the vicinity of Goodfish Lake, the Goodfish, Kirana and Fidelity mines and numerous other gold showings all occur along the contacts of this rock with the mafic metavolcanics.

### Late Mafic Intrusive Rocks

This rock type is not prevalent on the Kirana property but does occur in two locations. They are narrow diabase dykes, probably related to the Mattachewan swarm. This is a fine grained dark grey/black rock which shows intrusive contacts with all rock types on the property.

### QUATERNARY

The Kirana property has seen several periods of glaciation. This can be recognized by sometimes thick sections of glacial till. The central portion of the property is overlain by deep sand layers (esker deposits). The western portion and the far eastern portion have thinner overburden comprised of mainly glaciofluvial sediments.

### STRUCTURAL GEOLOGY

#### Faults

There is only one known fault zone to extend through the Kirana property; this is the northeast trending Murdoch creek fault zone which has been postulated as being the continuation of the Kirkland Lake fault. This structure crosses the southeast portion of the Kirana property in the Township of Lebel. This structure is known to host gold deposits although it was not investigated during the current geological mapping. The Murdoch creek fault zone is thought to be a pre and post ore fault in the Kirkland Lake gold camp.

It has been proposed that the Lakeshore north fault may continue into the Kirana property; based on a straight line projection this structure would pass through the western portion of the property. A wide N20°E shear zone was noted to pass through the property west of the Fidelity shaft (see map #6), it is unknown if this structure is in fact the Lakeshore north fault.

## Shear Zones

Several shear zones were found to occur on the Kirana property. Most of these shear zones appear to be stratabound and trend east-northeast. These zones are often marked by a strong sericite alteration and carbonatization; they are quite rubbly on surface exposure. Iron carbonates often occur along these zones owing to their rusty appearance. Many of the shear zones were traced for 10's of meters. Several of the shear zones in the Goodfish lake area are known to host gold mineralization; the most prominent of these occurs at the #1 shaft of the Kirana mine (not on the Kirana Property) see map #6; according to Rupert and Lovell this shear is a "20 to 30 foot wide shear zone trending north-northeast into Morrisette township." It is not known if the Kirana shear zone extends east into the Kirana property but several parallel structures have been found. A strong shear zone 200m east of the Fidelity shaft trends N60°E and is up to 6m wide; this zone continues eastward onto the Kirana minesite; this is most likely the western extension of the Kirana shear zone. This zone was found to be associated with a strong 0.5m wide slip plane which produces quartz-carbonate lenses containing considerable pyrite and minor gold mineralization.

A second major gold mineralized shear zone is known to occur at the #1 shaft of the Goodfish gold mine (see map# 6). This shear zone trends N70°E and has been traced southwest for over 450 ft. This shear zone most likely trends onto the Kirana property although it would project underneath Goodfish Lake; therefore very little investigation of this structure could be done.

## ECONOMIC GEOLOGY

Gold is the principal metal sought on the Kirana property although lesser amounts of copper, silver, lead and zinc are known to occur on the property. There is also a known barite occurrence in the far eastern section of the property.

Gold is known to occur in several locations on the Kirana property and its adjacent lands. According to A.G Burrows and P.E. Hopkins in their report *Goodfish Lake Gold Area* "Gold...occurs in narrow quartz veins and replacement deposits along the contact of porphyry with other rocks. The veins or stringers are generally an inch or less in thickness, but there may be a series of them forming a lode deposit. Often two or three parallel slip planes coated with quartz and a thin film of molybdenite may form the ore body. The large amounts of molybdenite and pyrite give the deposits a dark and rusty appearance. Visible gold, in a state of fine division, occurs in many parts of the area." There are two ore bodies of significance that occur near the boundaries of the Kirana property; both of these deposits occur along porphyry contacts and are associated with northeast trending shear zones. 2008 gold exploration on the Kirana property has focused on extending these known gold zones into the Kirana property. Particular attention has been paid to extending the known length of the Kirana shear zone. The Kirana mine is located in the northeast corner of Teck Township on a shear zone trending

N70°E; the deposit itself was described by Burrows and Hopkins as “ore deposit occurs along the contact of quartz porphyry and basalt. The porphyry lies to the north, and forms the hanging wall of the deposit, which occurs in the altered basalt. The shaft, which inclines 60° N for 80 feet, and 70° N. below this level, is on the dip of the ore body, which is also approximately the angle of the contact of the porphyry and basalt. The basalt near the contact is greatly altered to a greyish rock high in silica, calcite and other carbonates... In this altered basalt area there are streaks or bands of blackish material which form the higher grade portion of the deposit. These streaks contain films of molybdenite, to which the dark colour is due, and abundant iron pyrite, quartz and calcite, while visible gold is occasionally seen. A dark band near the foot wall was persistent in the shaft, while other bands toward the hanging wall are more lenticular, but have similar characteristics to the foot-wall streak. The silicified material between the streaks or bands carries low values in gold.”

The second ore body which occurs on claims adjacent to the Kirana property is the Goodfish Mine #1 shaft as shown on map# 6. This deposit was worked to a depth of 620 ft and is described by Burrows and Hopkins as “...Keewatin greenstone, which has been intruded by small irregular masses of quartz-feldspar porphyry. The basalt has been greatly altered to rusty-weathering carbonate. The gold occurs in rusty quartz and calcite veinlets, which are more or less irregularly distributed in a mineralized zone.”

During the course of prospecting on the Kirana property a significant number of field samples were taken to identify regions of interest. A total of 153 field samples were taken on the property. These samples are listed in table #1 and shown on map #7.

Several regions of the Kirana property were found to be highly prospective for gold and silver/lead/zinc mineralization. After basic geological mapping and prospecting was completed it was evident a mechanical stripping and channel sampling program was needed to better understand the nature of mineralization at several locations on the property. A total of six locations on the property were mechanically stripped and systematically sampled with channel samples. The locations of the strippings are shown on map #8. Each of the six stripped areas are described in detail below

### **Fidelity Shaft**

**History:** A gold bearing vein was found on the side of a hill in 1918 on current mining patent L-2845 (see map #8). This was found to be associated with a shallow dipping quartz feldspar porphyry. An inclined 140 ft shaft was sunk in 1918-19 and deepened in 1920 to 300 ft with 747 ft of lateral development.

**Geology:** The mineralized zone occurs along the contact of a shallow dipping quartz-feldspar porphyry body. According to Lovell “The basalt is cut by a zone of vein quartz and silicified rock that trends NW, dips 45° NE and ranges in width from 1.7’ at surface to 7’ at a depth of 140’. Mineralization consists of pyrite, some molybdenite and a little visible gold.” The basalt is found on the footwall of the deposit and is noted as having a strong sericite alteration and a rubbly appearance. The quartz-feldspar porphyry is

almost absent on surface exposure due to erosion of the hill face. The gold mineralization at the Fidelity shaft was found to exhibit an extreme nugget factor. The silicified zone was found to be 1-2 ft wide on surface exposure. A map of the fidelity geology can be found in map #9 and #10 (see appendix).

**Results:** During initial prospecting and geological mapping, the Fidelity mineralized zone was examined by the author. The initial sampling of the vein gave very good results as high grade gold mineralization was found to occur on surface. Several samples taken contained considerable free coarse gold; 6 assays from this high grade zone yielded gold values from 27.3g/t to 2274.5g/t; sampling from the other regions of the mineralized zone gave assays from 0.3g/t to 40.9g/t.

The highly encouraging results lead to an extensive surface stripping program which was conducted over the summer of 2008. This was then followed by channel sampling program. An area roughly 100m by 30m was stripped and washed. A total of 127m of channel samples were cut; a total of 267 chip and channel samples were taken. The results of the channel samples and chips are shown in table #2; a map of the sample locations is shown in map #10 and #11 (see appendix). The nugget factor was clearly found to be present in the channel sampling program; therefore it was necessary to bulk assay the showing. A total of eight 1 ton bulk assay samples were taken from various locations on the showing; the results of which are listed in table #3.

### **Fidelity East (aka Double Pit)**

**History:** This showing occurs on the same patent land as the Fidelity shaft L-2845 (see map #8). It is 100m east of the Fidelity shaft stripping. During initial prospecting and geological mapping two prospector's pits were found. Initial samples from this location were up to 5.70g/t.

**Geology:** The showing occurs along a broad shear zone striking N60°E. The deformation occurs as a shear zone up to 50cm wide along the contact of a quartz feldspar porphyry body and mafic volcanic rocks; a second smaller slip plane runs subparallel to shear zone; several other splayed structures occur; locally within the shear zone and slip plane lenses of quartz-carbonate occur with iron oxide alteration, pyrite and occasionally gold. Locally quartz veining perpendicular to the shearing occurs; these are lenses which carry 2-3% pyrite and minor gold mineralization. The QFP forms the hanging wall and the mafic volcanic forms the foot wall; the slip planes dip to the northwest. This shear zone may be related to the Kirana shear zone. The geology of Fidelity east is shown on map# 12.

**Results:** An area roughly 30m by 65m was mechanically stripped and washed. A channel and chip sampling program was completed on the stripped region. A total

of 66 samples were taken and a total of 26.75m of channels were cut. The best assays from this program occurred in the quartz veining perpendicular to the shearing; the "A vein" had a chip assay of 9.94g/t; the best channel sample occurred in the "B vein" which was 6.93g/t over 0.7m. Assays from the slip planes and shear zone were low. The results of the channel samples and chips are shown in table #4; a map of the sample locations is shown in map #12 (see appendix).

### Goodfish West

**History:** This showing occurs on mining claim# 1186591. It is approximately 160m northeast of the Kirana #1 shaft (see map #8). During initial prospecting and geological mapping several small prospectors pits were found. The pits occurred along a narrow quartz vein and yielded assays up to 1.0g/t.

**Geology:** The showing occurs in Keewatin mafic volcanic. Three narrow shear zones occur in multiple directions; quartz carbonate veining occurs along the shear zones and hosts pyrite and gold mineralization. The quartz carbonate veins are up to 60cm and form lenses. The quartz veins readily alter to iron oxide; due to pyrite and ankerite. The most prominent of the structures is referred to as the "Y structure". A rusty zone along the hanging wall of the "Y structure" showed good results. A map of the Goodfish west geology is shown in map #13 (see appendix).

**Results:** An area roughly 15m by 25m was mechanically stripped and washed. A channel and chip sampling program was completed on the stripped region. A total of 65 samples were taken and a total of 24.05m of channels were cut. The best assays from this program occurred in the quartz veining along the shear zones referred to as the "X and Y structures"; the best chip sample occurred in the "X structure" which was 20.3g/t; the best channel sample occurred on the "X structure" which was 9.14g/t over 0.65m. The results of the channel samples and chips are shown in table #5; a map of the sample locations is shown in map #13 (see appendix).

### Goodfish East

**History:** This showing occurs on mining claim# 1186591. It is centered around the point (E-573592 N-5338089) (see map #8). During initial prospecting and geological mapping several angular quartz floats were found with a strong iron oxide alteration. Assays from these floats were up to 5.66g/t.

**Geology:** The showing occurs in Keewatin mafic volcanic. A shear zone occurs with considerable iron oxide, minor amounts of pyrite and narrow (<10cm) rusty quartz lenses; the region stripped is not believed to be the source of the quartz

float rocks. A map of the Goodfish east geology is shown in map #14 (see appendix).

**Results:** An area roughly 10m by 10m was mechanically stripped and washed; this did not locate the source of the auriferous quartz float rocks. A channel and chip sampling program was completed on the stripped region. A total of 48 samples were taken and a total of 18.0m of channels were cut. The best samples from this region were the quartz float rocks initially found; the mechanical stripping discovered many more quartz float rocks indicating that the source was not far away; time constraints limited the search for the source. The best channel sample occurred along the main shear zone which showed an assay of 0.48g/t over 0.55m. The results of the channel samples and chips are shown in table #6; a map of the sample locations is shown in map #14 (see appendix).

### **Mallard Lake Shaft**

**History:** This showing occurs on mining claim # 3011753. Originally a silver prospect, a shaft was sunk 62 ft on a north striking quartz-barite vein. The shaft is at the location (E-577779 N-5338357). Rich mineralization was found down the shaft, channel samples cut in the shaft averaged 0.35oz/ton Au, 10.8oz/ton Ag, 9.14% Pb and less than 1% Cu over widths of 2-3 ft. Initial prospecting and mapping located the old shaft and samples from the rock dump confirmed the high tenor mineralization.

**Geology:** A braided quartz vein system up to 30cm in width strikes due north from the shaft; the shaft is sunk along the contact of an east-west quartz porphyry body and mafic volcanic rock. Several shear zones were noted but did not appear to control the mineralization. The quartz vein system pinches out 20 ft north of the shaft when it encounters a bedded chert unit; the vein is continuous southward and cuts the porphyry body. High tenor silver and lead mineralization is found along the vein. A larger quartz barite vein occurs 10m east of the shaft which runs subparallel to the main vein; this vein reaches widths up to 3m although it very rarely shows mineralization.

**Results:** An area roughly 70m by 20m was mechanically stripped and washed. A total of 45 samples were taken and a total of 18.95m of channels were cut. The mineralized zone was uncovered for a distance of 20 ft north of the shaft where it quickly pinched out. Samples from the rock dump indicated that high tenor mineralization occurs in the shaft; the highest assays for each element from the dump were 11.16g/t Au, 2280g/t Ag, 5.71% Cu, 25.53% Pb, 5.25% Zn, 51.5% Ba. Channel samples from the exposed vein however showed lesser values for each of the elements. The best channel sample results were (3.1g/t Au + 495g/t Ag + 0.35% Cu + 0.20% Pb) over a channel length of 0.65m. The results of the channel



samples and chips are shown in table #7; a map of the sample locations is shown in map #15 (see appendix).

### **Ed Hargreaves Shaft**

**History:** This showing occurs on mining claim # 4210202 in Lebel township (see map #8). The land was initially staked in 1917. A 162 ft shaft was sunk in 1928 and a cross cut was made to the vein on the 160 ft level in 1934. The shaft was deepened to 300 ft in 1936. High grade assays are reported to occur but they are unsubstantiated.

**Geology:** The showing occurs along the contact of a quartz gabbro and a mafic metavolcanic unit. Near the shaft the gabbro appears to be carbonatized. A northeast trending vein system up to 1m wide occurs with considerable pyrite. The white quartz contains up to 1% fine grain disseminated pyrite and trace chalcopyrite. A sulphidic band occurs on the south contact of the vein. This band ranges from 5-10cm in width and is greater than 50% sulphides. The highest gold values were found within this band. Locally the quartz vein is brecciated with clasts of quartz-gabbro from 10 to 30cm. The vein system is approximately 400m north of the Murdoch creek fault zone and runs roughly parallel to this structure; it is unclear if the veining is at all related to the fault zone. Timiskaming sedimentary rock occurs south of the showing.

**Results:** Two areas were stripped and washed; one area was around the shaft which measures 15m by 20m, the second area 60m east of the shaft measured 10m by 20m; these are referred to as the shaft stripping and the eastern stripping. A total of 104 channel and chip samples were taken and a total of 37.05m of channels were cut. The best results from this sampling occurred in a narrow sulphidic band which was present at the shaft; this band is up to 10cm wide and gave assays up to 3.22g/t. The best channel sample over this pyritic zone was 866ppb over 0.5m. This pyritic zone was not found in the eastern stripping; the highest value from the eastern stripping was 1.92g/t in a chip sample containing 1-2% very coarse pyrite. The results of the channel samples and chips are shown in table #8; a map of the sample locations is shown in map #16 and #17 (see appendix).

### **Unnamed Showings**

In the course of prospecting and geological mapping a few other showings of interest were found. The first of which is a copper showing which occurs north of the Mallard lake shaft. A sedimentary chert unit occurs with considerable amounts of pyrite, pyrrhotite and locally chalcopyrite; this unit was traced east-

west for over 300m. This unit was intersected by drill hole M99-01 by Medici Minerals which assayed 0.45% Cu over 0.7m.

The second showing occurs on the south half of an island in the southern bay of Goodfish Lake (see map# 6); on the island a coarse grained quartz-feldspar porphyry occurs with minor amounts of disseminated chalcopyrite and malachite alteration; a prospectors pit was sunk at this location, rubble from this pit assays up to 0.14% Cu and up to 772ppb Au. A porphyry with similar mineralization occurs along the shore of the south bay and is probably part of the same porphyry body.

## **Recommendations**

Several areas of the Kirana property have been explored in detail by Northern Gold Mining Inc in 2008. A few of these areas have yielded economic concentrations of gold, silver and lead. The extensive surface work done on the Fidelity showing indicates that gold is present in high concentrations; however the bulk assay of the material indicated much lower grades of gold than encountered in the channel and chip sampling; this clearly indicates that the “nugget factor” is present at this location; also because the vein is exposed on a steep slope the true thickness of the mineralization could not be determined; it is thus suggested that diamond drilling take place to intersect the mineralization at depth; this will aid in determining the thickness of the mineralized zone. The Goodfish west zone requires further surface exploration to establish a longer strike length of the mineralized zone before any diamond drill should commence. The Goodfish east zone also could require more surface work to locate the source of the auriferous float rocks which are frequent at that location. The Mallard Lake shaft and mineralized vein requires further work; since most of the region is overlain in swamp it would be necessary to use geophysics or diamond drilling to determine if the vein continues southward. The central and eastern portion of the Kirana property are covered in overburden, to explore in this region it would be necessary to use geophysics.

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**TABLE #1 – Kirana Prospecting Sample Results (Map #7)**

Sample #	Easting	Northing	Description	Assay (ppb)		
				Au	Ag (ppm)	Cu (ppm)
28775	573409	5337869	2cm QCS in qtz porphyry with tr fg Py	26		
28776	573270	5337880	Qtz porphyry with disseminated py	12		
28777	573319	5337948	Rusty sheared MV with 2-3% sulphides in clots.	844		
28778	573325	5337955	MV/Porphyry contact- sharp contact, 1% fg dissem Py	107		
28779	573263	5338207	Qtz porphyry with sulphide clot and Cg Qtz Phenocrysts	72		
28780	573418	5338017	Qtz vein- tr fg py in Qtz porphyry	9		
28781	573420	5337965	MV tr fg dissem Py with tr Cpy	57		
28782	572007	5337238	Sample is 70-80% Qtz, rock is qtz porphyry with tr fg dissem Py	387		
28783	573630	5338033	Diabase dyke, weathered surface is highly oxidized and fresh face is grey with red phenocrysts?	27		
28784	573472	5338127	Sample is 80-90% qtz; it is heavily oxidized and rusty	10		
28785	573472	5338127	Sample is 80-90% qtz; it is heavily oxidized and rusty	63		
28786	573472	5338127	Sample is 40% qtz with abundant rust; Rock is mg mafic with tr fg py and rust.	7		
28787	573472	5338127	Sample is 80-90% qtz; it is heavily oxidized and rusty	Nil		
28788	573705	5338100	MV with tr disseminated sulphides but locally 1-2% around carb fractures	17		
28789	573698	5338201	Sample is 70-80% qtz, rusty vugs in qtz, rock is MV with tr fg Py	15		
28790	573698	5338201	Sample is 70-80% qtz, rusty vugs in qtz, rock is MV with tr fg Py	38		
28791	571989	5337253	Qtz porphyry slightly oxidized with tr fg Py	376		
28792	573872	5338057	Rusty sheared intermediate volcanic; 5% Qtz with tr fg Py	7		
28793	573906	5338069	MV with 1% fg disseminated Py;	9		
28794	573942	5338083	Rusty qtz porphyry; tr fg py;	26		
28795	573867	5337712	MV with 1% fg-mg disseminated Py	5		
28796	573930	5337506	Sample is 5cm QV in MV; sample is 20-30% Qtz; Rusty quartz and minor sheared volcanic.	Nil		
28797	573930	5337506	MV with thin QCS and tr fg disseminated py.	7		
28798	573994	5337489	Sugary qtz vein with abundant rust; Sample is 80-90% qtz;	Nil		
28799	574054	5337456	Rusty sheared volcanic, 5% qtz with tr fg Py.	7		
28800	574038	5337828	Sample is 70-80% qtz, heavily oxidized iron; MV has tr fg Py	Nil		
24752	576581	5338092	Next to rd at baseline; porphyry	86		
24753	574048	5338006	Rusty sugary textured qtz; Sample is 80-	10		

			90% qtz; rock is highly chloritized MV;		
24754	574025	5338095	Moderately sheared MV; sample is 10-15% qtz with tr fg py. some oxidized iron.	12	
24755	573993	5338133	Sample is 15-20% qtz ; rock is MV with tr fg sulphides along the qtz contact	77	
24756	573881	5338212	1-2cm QCS in MV; sample is 20-25% qtz; tr fg sulphides in the MV	191	0.1
24757	574140	5338009	Highly chlorite fractured MV; hairline QC fractures with locally 1% fg py;	5	0.1
24758	574141	5338038	MV with tr fg disseminated py and tr cpy; minor carb fract;	19	0.2
24759	574143	5338061	Sample is 10-15% qtz; Rock is qtz porphyry, grey; tr fg disseminated sulphide;	Nil	0.1
24760	574312	5338088	Sulphide clot in MV; Sample is 9-12% sulphides; test for silver, cobalt, moly, nickel	55	0.7
24761	573365	5337813	Rock is qtz feldspar porphyry with tr fg disseminated Py; locally siliceous; weathered surface has iron oxides.	93	
24762	573365	5337813	Rock is qtz feldspar porphyry with tr fg disseminated Py;	171	
24763	573346	5337824	Sample is qtz feldspar porphyry with 1-2% fg dissem Py;	36	
24764	573310	5337876	Sample is qtz feldspar porphyry with tr fg disseminated Py and iron oxides;	10	
24765	573180	5337963	Qtz feldspar porphyry with tr fg disseminate Py and Cpy with tr graphite;	33	
24766	573136	5337902	Sample is 80-90% qtz, rock is light grey andesite with 2-3% fg disseminate Py; sample has 1-2% Cpy occurring as 1cm clots .	5	
24767	573136	5337902	Sample is 15-20% qtz; Rock is light grey andesite with 1% fg disseminated Py;	9	
24768	573136	5337902	Sample is 5-10% qtz, rock is andesite with tr fg dissem Py and minor carb fracturing;	Nil	
24769	573136	5337902	Sample is 50-60% qtz, rock is andesite with 1-2% fg dissem Py; qtz is rich in iron oxides;	2	
24770	573116	5337939	Rock is andesite with carb fracturing and ep fracturing; local concentrations of 2-3% py as clots;	16	
24771	573147	5337873	Sample is dark grey mafic volcanic; sample is epidote fractured; and QC fractured; sample has tr fg dissem Py;	2	
24772	573108	5337778	Sample is sheared intermediate volcanic, grey; rusty weathered surface and 1% fg disseminated Py;	22	
24773	573197	5337718	Sample is qtz feldspar porphyry; iron oxides on weathered surface; tr fg disseminated py;	12	
24774	573127	5337738	Sample is qtz feldspar porphyry with 2-3% iron oxide and tr fg disseminated py	Nil	

24775	573098	5337776	Sample is dark grey mafic volcanic with 2-3% disseminated py and tr fg cpy;	3		
24776	573120	5337810	Sample is from a thin QCS in rusty andesite; rock is fg light grey amygdular, with tr fg py; sample is 10-15% qtz;	19		
24777	573072	5337746	Sample is 60-70% qtz with abundant iron oxide; rock is fg mafic with tr fg py	674		
24778	573072	5337746	Sample is 20-30% qtz; rock is mafic volc with tr fg disseminated py;	180		
24779	573052	5337709	Sample is 40-50% qtz; rock is fg mafic with minor graphite and tr fg disseminated py;	57		
24780	573040	5337785	Sample is 60-70% qtz, with abundant iron oxide; rock is fg mafic volcanic with tr fg disseminated Py	3		
24781	573040	5337785	Sample is 80-90% qtz; sugary texture; moderate iron oxide; 1-2% fg-mg disseminated Py	5		
24782	573064	5337818	Sample is 80-90% qtz ; rock is fg mafic; qtz has abundant iron oxides	Nil		
24783	573065	5337793	Sample is 40-50% qtz; rock is intermediate volcanic; locally conc of 5-7% fg-mg Py occuring in large (5cm) clots;	28		
24784	573065	5337793	Sample is 30-40% qtz, rock is fg mafic with 1% cg euhedral pentagonal faced Py, up to 1cm; locally 2-3% conc Py;	15		
24785	573065	5337793	Sample is 80-90% qtz with moderate iron oxide; also str biotite btw qtz xstals;	12		
24786	572819	5337790	Sample is 40-50% qtz, rock is fg mafic; tr fg disseminated Py	34		
24787	572795	5337759	Qtz feldspar porphyry with 1% fg disseminated Py and Cpy with malachite stain.	156		1290
24791	572627	5337666	Fg mafic volcanic with 1-2cm QCS; locally conc sulphides along qcs, 3-5% specularite;	1099		
24792	572448	5337751	Qtz feldspar porphyry and MV contact; both have tr fg disseminated py; fine QCS in porphyry;	231		
24793	572579	5337599	Qtz feldspar porphyry with tr fg disseminated py clots; minor iron oxide	Nil		8
24794	572578	5337624	Qtz feldspar porphyry with abundant iron oxide and tr fg disseminated py	10		10
24795	572579	5337631	Mafic Volcanic-1% fg disseminated py; minor qtz fracturing	Nil		102
24796	572562	5337619	1cm qcs in qtz feldspar porphyry with minor iron oxide; tr fg py with minor sericite alteration;	26		18
24797	572325	5337641	Qtz feldspar porphyry with tr fg dissem py	21		26
24800	572771	5337929	Sample is qtz feldspar porphyry with 1% fg dissem py and cpy with minor bornite	213		1330
28451	572771	5337929	Sample is qtz feldspar porphyry with 1%	521		1400



			fg dissem py and cpy with minor bornite			
28452	572493	5338346	Sample is from qtz stringer; sample is 80-90% qtz, rock is pillowed mafic; 1-2% black magnetite and 1% fg py	75		
28453	572493	5338346	Sample is 50% qtz; rock is dark grey mafic volcanic; str epidote alteration; 1-2% black magnetite and tr fg Py+Cpy with malacite stain;	52		
28454	572798	5337702	thin QCS in chlorite fractured MV with tr fg dissem Py	Nil		
28455	572890	5337714	Qtz fractured MV with tr fg disseminated py	21		
28456	572234	5337208	Qtz feldspar porphyry with str sericite alteration and minor qtz fractures with tr fg disseminated Py and minor iron oxide.	Nil		
28457	572223	5337218	Weakly sheared qtz feldspar porphyry with tr fg disseminated py and moderate amounts of iron oxide	Nil		
28458	572217	5337205	Sheared MV with tr fg Py and minor iron oxide	Nil		
28459	572220	5337285	MV boulder with qtz fractures and 1-2% fg MV disseminated	Nil		
28460	572060	5337371	Sheared material and qtz fractured MV with 1% fg disseminated Py	Nil		
28462	572192	5337144	MV with qtz fracturing and tr fg disseminated Py	69		
28463	572187	5337153	Sample is 40-50% qtz; 4-5% iron oxides Rock is fg mafic volcanic;	69		
28464	572076	5337201	Rock is sheared MV with 20-30% qtz; abundant iron oxide;	Nil		
28465	572076	5337201	Qtz with minor rust and sheared MV; tr fg Py	891		
28466	572225	5337295	Rock is light grey fg mafic; sample is 20-30% qtz with 1% py and tr fg cpy	Nil		
28467	571929	5337532	Sample is 40-50% qtz; rock is light green variolitic MV; bullish	Nil		
28468	571946	5337707	Sample is 90-100% qtz with tr graphite	137		
28469	571897	5337764	Sample is 40-50% qtz; rock is fg mv;	Nil		
28470	571977	5337863	Sample is 80-90% qtz; rock is fg mafic; str epidote alteration (or zoisite)	Nil		
28471	571980	5337235	Sample of light grey mafic volcanic; sample is 10-15% qtz; fg dissem py in MV;	960		
28472	571942	5337353	2-3cm qcs in MV with minor iron oxide on the weathered surface; bull qtz;	Nil		
28473	571942	5337340	Rock is fg mafic or possibly a clast poor grey porphyry; 3-4cm qtz stringers; bull qtz; minor iron oxide;	Nil		
28474	571915	5337261	Sheared mafic volcanic with minor iron oxide on the weathered surface; minor vuggy qtz from 1cm stringer;	Nil		
28475	572011	5337195	Sample is 4cm qcs with abundant iron oxide and sugary textured qtz; rock is fg mafic volcanic;	Nil		
28476	572038	5337196	3-4cm qtz stringer shallow dipping with	Nil		

			abundant qtz; rock is fg mafic;			
28477	573072	5337746	Sample is rusty seritized mv with minor carb fracturing and 1cm qtz carbonate stringer with tr fg disseminated py.	Nil		
28478	573072	5337746	Sample is 30-40% qtz with 1-2% fg py; minor moly fracturing and moderate iron oxide on weathered surface.	1097		
28479	573072	5337746	Sample is 20-30% qtz, with 2-3% fg disseminated Py and 1-2% fg dissem py in MV	754		
28480	573072	5337746	Sample is fg MV and 20-30% qtz with 1% fg disseminated py.	617		
28481	573072	5337746	Sample is carbonate fractured MV with 1-2% fg dissem py; also 2-3cm qtz stringer with 1% fg py. MV is seritized, weathered surface has iron oxide	686		
28482	573072	5337746	Sample is 20-30% qtz, with 1% fg disseminated py, Rock is rusty seritized mv.	137		
28483	573319	5337948	Sample is chlorite fractured MV; large sulphide clot; sample is 7-9% sulphide with a local conc of 40%.	411		
28484	573319	5337948	Sample is chlorite fractured MV; large sulphide clot; sample is 7-9% sulphide with a local conc of 40%.	206		
28485	573319	5337948	Chl fractured MV, slightly amygdular with chl and carb filled vesicles with minor sulphides, 1% fg disseminated py and tr cpy.	Nil		
28486	573319	5337948	Chl fractured MV, slightly amygdular with chl and carb filled vesicles with minor sulphides, 1% fg disseminated py and tr cpy.	Nil		
28487	573319	5337948	Sample is chlorite fractured MV; large sulphide clot; sample is 7-9% sulphide with a local conc of 40%. minor qtz stringer ; 1cm;	754		
28488	573319	5337948	Sample is chl fract MV with large sulphide clot and local conc of 30% py; sample is 5-7% py.	343		
28489	572627	5337666	Sample is fg MV with 2-3cm bullish qcs.	Nil		
28490	572627	5337666	Sample is fg mafic volcanic with 1% hematite in clots	617		
28491	572627	5337666	Sample is fg mafic volcanic with 1% hematite in clots	Nil		
28492	572627	5337666	Sample is fg mafic volcanic with 1% hematite in clots, tr fg cpy with malachite stain.	549		
28493	572627	5337666	Sample is fg mafic volcanic with 1% hematite in clots, tr fg cpy with malachite stain.	549		
28494	572390	5337711	Sample is fg mafic volc. large qcs (>8cm) with tr fg dissem py and minor cpy and 1% hem	Nil		
28495	572390	5337711	Sample is 80-90% qtz with 1% fg dissem	274		

			py and minor malachite stain. tr fg hem			
28496	573105	5337928	Yellow bluish sericite mafic volcanic with tr py and 1-2cm qcs – bullish;	Nil		
28497	572390	5337711	Sample is 80-90% qtz with 1% fg dissem py and minor malachite stain. tr fg hem	Nil		
28498	574282	5338078	Sample is chl fractured MV with large sulphide clot with local conc of 40% py; sample is 7-9% sulphides.	343		
28499	574282	5338078	Sample is feldspar porphyry with 1% fg disseminated Py; tr cpy	Nil		
28500	574311	5338092	Chl fractured MV with large sulphide clot with local conc of 40% py, sample is 3-5% py	137		
28051	574303	5338090	Sample is fg MV with 2-3cm qcs with minor moly fract and 1% fg dissem py;	274		
28052	574309	5338093	Sample is 2-3" qcs with moderate iron oxide, locally conc 1-2% fg py; Sample is 80% qtz	Nil		
28053	574299	5338115	Sample is 2-3cm qcs with abundant py; local conc of 40% py and 5-7% in sample; Rock is pillowed MV	549		
28054	574255	5338084	Sample is fg MV and has large sulphide clot with local conc of up to 40% py; sample is 3-5% py.	Nil		
28055	574351	5338065	Grey chlorite fractured MV; minor qtz; ~5%; only locally conc of 1-2% fg py in small clots.	Nil		
28056	574351	5338065	Sheared MV with moderate graphite and minor carb; minor rust; heavily sheared;	137		
28057	574351	5338065	Sheared qtz porphyry with minor rust and minor graphite;	Nil		
28058	574351	5338065	Grey chlorite fractured MV; minor qtz; ~5%; only locally conc of 1-2% fg py in small clots. tr throughout;	Nil		
28059	574351	5338065	Sheared MV with moderate graphite and minor carb and minor rust; heavily sheared;	137		
28060	574291	5337949	Sample is dark grey fg MV with 15-20% qtz; 1-2% fg disseminated Py- nice	206		
28061	574478	5337814	MV with 1-2cm QCS with rust and tr fg py;	Nil		
28062	574460	5337735	Sample is bull qtz vein in MV; grey fg MV with 30-40% bull white qtz; minor ep;	Nil		
28063	574453	5337768	Sample is light grey/green fg MV with 2-3cm bull white qtz; 20-30% qtz	Nil		
11710	573881	5338212	Sample is sulphide clot in fg mafic volc; occurs along carb fract with 10-12% massive pyrite;	70		
11740	577493	5338366	Sample is qtz feldspar porphyry with minor mafic xenoliths and tr fg disseminated py;	Nil		
11741	577493	5338366	Sample is aphanitic grey qtz with tr cpy;	Nil		
11742	577493	5338366	Sample is qtz feldspar porphyry with minor mafic xenoliths and tr fg	Nil		

			disseminated py;			
11057	574557	5338105	Alt QFP; light grey with <1% fg py conc along fractures; also fresh mafic with minor carb fractures; minor qtz; MV/Porph contact;	17		
11058	574698	5338801	NO DESCRIPTION	9		
11059	574731	5338200	Sulphide clots in Int Volcanics; locally 2-3% fg py;	300		
11060	573790	5338103	Alt porphyry with 1% py locally, vfg py;	211		
11061	574731	5338200	Int volc/porphyry contact, 2" Qtz vein	29		
11062	573790	5338103	Grey Int volc with minor qtz with tr fg py;	15		
11063	577994	5338371	Siliceous Qtz porphyry slightly alt; (<1% fg-mg dissem py) Porphyry sediment contact;	9		
11064	577990	5338448	Fg MV Dark grey/black, 1cm band of 3-5% sulphides- mostly py but some cpy;	21		
11065	577780	5338436	Dark grey/Black fg MV with 1-2% fg py	17		
11066	573077	5337716	Qtz vein along porph/MV contact; bullish QCS with abundant iron oxide (3-5% ank)	12		
11067	573785	5338100	Qtz ruble weathered surface has iron oxide and dark grey chl in qtz- bullish	5		
11068	573709	5338101	Bullish 3" QCS in fresh MV	10		
11069	573077	5337716	QFP-brown-locally reddish- tr fg dissem cpy as seen elsewhere; minor malachite and tr fg dissem py;	1020		
11070	577780	5338436	Dark grey/Black fg MV with 1-2% fg py	36	0.2	
11071	577990	5338448	Dark Grey/Black Fg MV- 2-3% fg py occurring as fractures. Same unit as link drilling?	27	0.6	
11081	573105	5337755	Qtz vein with abundant iron oxide; Vein is exposed in a shaft down the hill near GF lake;	9		
28148	573610	5338010	Bullish QCS with minor clots of cpy;	10		

**Table#1** – Kirana Prospecting Sample Results

**TABLE #2 – Fidelity Sample Results (Map #11)**

Sample #	Description	Length	Assay Au (g/t)
28251	Sample is qtz feldspar porphyry with 10-15% qtz occurring on outer surface; sample had moderate iron oxide and tr fg disseminated py; occurring in qtz and associated with minor moly is fine leafy vg	0.3m	2274.5g
28252	Sample is qtz feldspar porphyry with 5% qtz veining with tr fg disseminated Py and minor moly; sample has moderate iron oxide;	0.3m	100.15g
28253	Sample is qtz feldspar porphyry with blebby qtz; sample has tr fg disseminated py and locally abundant iron oxide in qtz; tr moly and brown feldspar;	0.4m	2.19g
28254	Sample is qtz feldspar porphyry with abundant brown feldspar; blebby qtz makes 10-15% of sample; tr fg dissem py and minor iron oxide;	0.7m	0.41g
28255	Sample is blebby qtz feldspar porphyry with moly fract; 1% fg disseminated py weathered surface has mod iron oxide;	0.8m	13.58g
28201	Sample is remaining half of sample 28251 and has same description; although this sample contains considerably less vg; only 3 grains were noted	N/A	29.04g
28202	Sample is smaller than the one in 28251; sample is qtz feldspar porphyry with 2-3" of fine subhedral qtz on the outer surface with abundant iron oxide and brown feldspar; fine leafy vg is found in the qtz associated with moly;	N/A	802.5g
28203	Sample is qtz feldspar porphyry with 2-3cm thick of qtz on outer surface with abundant iron oxide and minor moly associated with fine vg in a small clot;	N/A	552.07g
28256	Sample is qtz feldspar porphyry which shows local brecciation with qtz flooding and local concentration of 3-5% fg py in clasts; moly concentration in clasts; 2 cross cutting qtz stringers (1cm) of grey qtz; weathered surface is heavily rusted;	1.0m	2.40g
28257	Sample is qtz feldspar porphyry with blue grey clasts with presumable moly enrichment; sample has 1 4cm cross cutting grey qtz stringer and local concentrations of 3-5% fg py; weathered surface is moderatly rusted;	1.0m	1.58g
28258	sample is grey yellow qtz porphyry with tr fg disseminated py; cross cut by two 1cm qtz stringers; upper surface locally has 1cm flat lying grey qtz vein;	1.0m	0.41g
28259	Sample is grey qtz in qtz feldspar porphyry with minor moly fracturing and 1% fg disseminated Py along fractures; some of the porphyry is light yellow as seen elsewhere on the property; weathered surface is moderatly rusted	1.0m	2.56g
28260	Blebby qtz porphyry with blue grey clasts probably enriched in Moly; 1-2% fg disseminated py ; weathered surface shows mod iron oxide	1.0m	1.58g
28261	Sample is qtz feldspar porphyry with minor moly fracturing and blue grey qtz clasts; only 1% fg disseminated Py; weathered surface is heavily rusted;	1.0m	1.85g
28262	qtz feldspar porphyry with minor moly fract; 1-2% fg	1.0m	1.30g

	disseminated py; 1 cross cutting qtz stringer (1cm); weathered surface is heavily rusted;		
28263	Blebbly qtz feldspar porphyry with moly enriched blue grey qtz clasts; locally conc 2-3% fg py; weathered surface has minor iron oxide; 1 cross cutting 1cm qtz stringer;	1.0m	1.51g
28264	highly siliceous qtz feldspar porphyry with moly fracturing and 1-2% fg disseminated py;	0.3m	0.34g
28265	Qtz feldspar porphyry with minor moly fracturing and tr fg disseminated py;	1.0m	1.85g
28266	qtz feldspar porphyry with moderate moly fracturing and 3-5% fg disseminated py;	0.55m	1.51g
28267	qtz feldspar porphyry with minor brecciation with blue grey clasts with moly concentration and local conc of 2-3% fg py; 1 cross cutting qtz stringer with minor light green (prehnite) alt; moderate amounts of brown feldspar; weathered surface has moderate rust	0.4m	5.07g
28268	Qtz porphyry with minor moly fracturing and 2 cross cutting Qtz stringers with local conc of 3-5% fg py- weathered surface has moderate iron oxide;	0.6m	0.82g
28269	qtz feldspar porphyry with minor moly fracturing tr fg disseminated Py; minor prehnite;	0.5m	<.03
28270	Sample is heavily rusted with iron oxides and 1-2% fg py and minor moly; rock is blebby qtz in fg mv	N/A	1.37g
28271	Sample is thin 3cm shallow dipping qtz vein with locally abundant sulphides of molybdenum and iron; weathered surface has mod iron oxide;	N/A	27.98g
28272	Flat lying qtz vein just south of upper sample in CHANNEL #7; small grains of vg were found on upper surface of qtz; locally moderate amounts of iron oxide are present; sample contains tr fg dissem py but local conc of 2-3%;	N/A	1.51g
28273	Grey qtz; weathered surface has abundant iron oxide; fresh surfaces have 1-2% fg disseminated py and locally concentrations of Moly;	N/A	1.65g
28274	blebby qtz in qtz feldspar porphyry with 1-2% fg dissem py; weathered surface shows a grey qtz vein and is probably the same vein which yielded sample # 28251	N/A	0.34g
28275	Thin qtz stringer taken from in situ fine euhedral qtz crystals with abundant iron oxide and 2-3% moly; rock is qtz rich with brown feldspar and tr fg py;	N/A	<.03
28276	Blebbly qtz with blue grey qtz rich in moly and local conc of 7-9% fg py; tr fg cpy;	N/A	1.23g
28277	Thin grey qtz stringer ; 1-2cm on surface with moderate ammts of iron oxide; minor moly and 1% fg py in siliceous yellow grey porphyry;	N/A	3.09g
28278	Sample is very siliceous with minor moly fracturing and has a light green appearance; 1-2% fg disseminated py; 1cm cross cutting vein, bullish;	N/A	0.07g
28279	Sample is very siliceous with moderate moly fracturing and 3-5% fg disseminated py; locally the sample appear brecciated with blue grey clasts and qtz carb infilling;	N/A	0.96g
28280	sample is siliceous porphyry with minor ammts of moly and local conc of 2-3% fg py;	N/A	0.89g
28281	sample is grey qtz with 1-2% fg disseminated py ; locally brecciated with blue grey clasts and qtz carb infilling;	N/A	<.03

28282	Flat lying qtz vein downhill from the blast pit; qtz is heavily rusted with minor sulphides; remained is from blast pit with 3-5% disseminated py	N/A	0.34g
28283	Sample is very siliceous with 3-5% fg disseminated py and moderate moly fracturing; locally brecciated with blue-grey clasts and qtz carb infilling;	N/A	0.75g
28284	Grey qtz with 2 cross cutting qtz stringers and 1-2% fg disseminated py and tr fg cpy;	N/A	<.03
28285	Brecciated grey blue clasts with qtz carb infilling and 3-5% fg disseminated py; moderate ammts of moly;	N/A	1.10g
28286	Sample is heavily rusted with moderate ammounts of fine grained euhedral qtz; minor moly; tr fg disseminated py;	N/A	<.03
28287	Sample contains thin 3-5cm crystalline fg euhedral qtz with abundant iron oxide and moderate ammounts of brown feldspar; tr fg disseminated py;	N/A	0.07g
28288	Qtz feldspar porphyry; siliceous with abundant brown feldspar; tr fg disseminated py;	N/A	0.14g
28289	Sample is very siliceous ; light grey blue with moly enrichment; locally brecciated with qtz infilling; 2-3%fg disseminated py with local concentrations of 5-7%;	N/A	1.23g
28290	Sample is very siliceous ; light grey blue with moly enrichment; locally brecciated with qtz infilling; 2-3%fg disseminated py	N/A	0.14g
28291	Sample is very siliceous ; light grey blue with moly enrichment; locally brecciated with qtz infilling; 2-3%fg disseminated py	N/A	0.07g
28292	Sample is very siliceous ; light grey blue with moly enrichment; 5-7% fg disseminated py;	N/A	1.58g
28293	Blebby blue-grey qtz feldspar porphyry with 1-2% fg disseminated py;	N/A	<.03
28294	Mafic volcanic with moderate yellow sericite alteration; minor qtz with moly fract; tr to 1% fg disseminated py occuring around the qtz;	N/A	0.07g
28295	Sample is very siliceous with moderate brown feldspar; minor moly fract and tr fg disseminated py;	N/A	<.03g
28296	Qtz with moderate moly fracturing and minor brecciation with qtz infilling; moderate ammounts of brown feldspar & 2-3% fg disseminated py; bag reads "possible vg"	N/A	2.19g
28297	Sample is siliceous with blue grey qtz; 2-3% fg disseminated py and minor brown feldspar;	N/A	0.55g
28298	Sample is siliceous with blue grey qtz; 2-3% fg disseminated py and minor brown feldspar;	N/A	1.85g
28299	Sample is siliceous with blue grey qtz; 2-3% fg disseminated py and minor brown feldspar; local conc of 5-7% fg py;	N/A	1.30g
28300	Sample has 2-3cm moly rich band across a amorphous qtz with 2-3% fg py conc along moly fracture;	N/A	0.62g
28204 Re-Assay 28398	Sample is siliceous with blue grey qtz; 3-5% fg disseminated py and 1-2% moly along fractures and as clots; tr fg cpy;	N/A	Au=0.75g Au(2)=1.05g Mo=349ppm
28205 Re-Assay 28399	Sample is siliceous with blue grey qtz; 3-5% fg disseminated py and 1-2% moly along fractures and as clots;	N/A	Au=0.96g Au(2)=1.17g Mo=321ppm
28065	1" QCS; probably a second generation qcs; sample is 15-25% qtz with minor rust; rock is fg MV	NA	<.03



28066	1-2" QCS with rust; probably a second generation qcs; sample is 50-60% qtz with abundant iron oxide; rock is fg sheared MV	NA	<.03
28067	Sample is yellow green qtz breccia; carbonatized with minor surface rust; sample intersects a 3cm moly carb stringer with local conc of 2-3% fg py	0.55m	0.69g/t
28068	Sample is fg mafic with carbonate fracturing and moderate qtz, 20-25%; Locally conc along qtz is 3-5% fg py; weathered surface has mod iron oxide	NA	2.06g/t
28069	Sample is light green siliceous and carbonatized mafic; tr fg py; weathered surface is 1cm rust;	0.5m	<.03
28070	Sample is light green siliceous and carbonatized mafic; tr fg py; weathered surface is 1cm rust;	0.45m	<.03
28071	Sample is light green carbonatized mafic with 1cm rust on surface; no mineralization		<.03
28072	Sample is siliceous; light green qtz, and mafic; sample intersects a 1cm moly fracture with locally conc 2-3% fg py along fract;	1.0m	0.27g
28074	Sample is fg mafic; carbonatized; sample intersects crenulated carbonate stringers with dark moly and local conc of 3-5% fg py; mineralization is only associated with the blue grey carb stringers; they appear rusty on surface;	0.6m	1.44g
28075	Sample is fg mafic; siliceous; 20-30% qtz; sample intersects crenulated carbonate stringers with dark moly and local conc of 3-5% fg py; mineralization is only associated with the blue grey carb stringers; they appear rusty on surface;	0.55m	1.92g
28076	Sample is heavily weathered yellow qtz breccia with local conc of 1-2% fg py	NA	0.21g
28077	Sample is blue and yellow qtz breccia with minor moly fract and local conc of 1-2% fg Py; tr py throughout; weathered surface has abundant iron oxide;	0.45m	<.03
28078	Sample is yellow and blue qtz breccia with 1-2% fg py and mod moly fract; local conc of 3-5% fg py	0.4m	3.84g
28079	Sample is blebby qtz in fg mafic with tr fg disseminated py; weathered surface has abundant iron oxide;	0.9m	0.27g
28080	Sample is blebby qtz in fg mafic with tr fg disseminated py; weathered surface has abundant iron oxide;	0.65m	4.05g
28081 and 28206	Sample was too large for one assay; sample is siliceous fg mafic volcanic; 20-30% qtz; dry	1.0m	<.03 and 0.27g
28082	Half of sample is dry carbonatized fg mafic; sample intersects moly fractured qcs with 2-3% fg py;	0.6m	3.50g
28083	Sample is highly siliceous MV with 1-2% fg py occurring with qtz; minor moly fract with sulphides;	0.35m	0.41g
28084	Sample is blue qtz breccia with moderate moly fracture and 1-2% fg disseminated py;	1.0m	0.34g
28085	Blue qtz breccia with mod moly fract and localy conc 1-2% fg py along moly fract	0.75m	75.43g
28086	Sample is blue qtz breccia with crenulated moly fract; 2-3% fg disseminated py;	1.1m	1.30g
28087	Sample is blue yellow qtz breccia with mineralization only associated with fine moly fractures; locally 1-2% fg py along moly fract;	0.3m	0.48g
28088	Sample is blue white qtz with 2-3cm moly fracture cross cutting with local conc of 1-2% fg py	0.3m	0.21g

28089	Sample is sericite altered fg MV with 1-2cm of iron oxide on weathered surface; non-mineralized;	0.45m	<.03
28090	Sample is yellow and blue qtz breccia with only tr fg py and mod iron oxide on weathered surface	0.65m	<.03
28091	Sample is cherty, siliceous grey green, with 2-3% vfg disseminated py;	NA	0.89g
28092	Sample is yellow qtz breccia with tr fg py and minor moly fract with 1-2% fg py locally on fract, minor bull white qtz; 1 grain of bright yellow metal- cpy; pvg	NA	3.22g
28093	Sample is yellow qtz and brown feldspar with local concentrations of 1-2% fg py;	NA	0.82g
28094	Fg mafic volcanic; seritized; sample transects a 2cm qtz carb stinger with moly fracturing and local conc of 2-3% fg py; pvg occurring in sulphide clot;	0.5m	11.79g
28095	Fg mafic volcanic; seritized; sample transects a 2cm qtz carb stinger with moly fracturing and local conc of 2-3% fg py	0.5m	76.05g
28096	Fg mafic volcanic; seritized; sample transects a 2cm qtz carb stinger with moly fracturing and local conc of 2-3% fg py; mv has 1% fg dissem py	0.5m	13.3g
28097	Fg mafic volcanic; seritized; sample transects a 2cm qtz carb stinger with moly fracturing and local conc of 2-3% fg py; mv has 1% fg dissem py; sample is very dense;	0.5m	7.06g
28098	Fg mafic volcanic; seritized; sample transects a 2cm qtz carb stinger with moly fracturing and local conc of 2-3% fg py; mv has 1% fg dissem py	0.5m	3.70g
28099	Fg mafic volcanic; seritized; only minor qtz; but locally conc of 2-3% fg py along qtz;	0.5m	1.58g
28100	Fg mafic volcanic; seritized; sample transects a 2cm qtz carb stinger with moly fracturing and local conc of 2-3% fg py; mv has 1% fg dissem py	0.5m	10.70g
97511	Fg mafic volcanic; seritized; only minor qtz; but locally conc of 2-3% fg py along qtz; weathered surface is 1cm of iron oxide and minor py;	0.5m	6.24g
97512	Fg mafic volcanic; seritized; sample has 2-3% fg disseminated py and sample is 20-25% qtz; minor ,moly fract; local conc of py along qtz of 5-7% fg py;	0.5m	4.11g
97513	Fg mafic volcanic; seritized; sample has 2-3% fg disseminated py and sample is 20-25% qtz; minor ,moly fract; local conc of py along qtz of 5-7% fg py;	0.5m	6.45g
97514	Carbonatized mafic volc; sample is 30-40% qtz with str moly fract and 1-2% fg disseminated py;	NA	2.67g
97515	Fg mafic volcanic seritized; moderate carb fract with minor moly associated with local conc of 1% fg py along moly carb fract; sample is weakly mineralized;	0.45m	4.66g
97516	Fg mafic volcanic; seritized; minor carb fract; locally tr fg py;dry	0.55m	1.78g
97517	Fg mafic volcanic; seritized; minor carb fract with brown feldspar along fract and weathered surface has iron oxide and tr fg py; dry;	0.7m	0.69g
97518	Fg mafic volcanic; seritized; minor carb fract; dry.	0.8m	<.03
97519	Fg mafic volcanic; seritized; brecciated bull qtz; tr fg disseminated py in MV; dry;	0.7m	<.03
97520	Sample is blue grey qtz breccia with minor moly fractuung and 2-3% fg disseminated py;	1.0m	3.36g

97521	Sample is highly siliceous blue grey qtz breccia with 1-2% fg disseminated py; rock is yellow qtz porphyry; sample is 75% vein material;	0.75m	0.75g
97522	Sample is blue grey qtz breccia with mod moly fractuing and 2-3% fg disseminated py;	0.65m	2.47g
97523	Sample is blue grey qtz breccia with minor moly fractuing and 1-2% fg disseminated py;	1.0m	1.30g
97524	Sample is yellow and blue qtz breccia with minor moly fract and 1-2% fg disseminated py with local conc of 2-3% fg py along fract;	0.55m	8.23g
97525	Fg mafic volcanic with 1% fg disseminated py and minor cpy	NA	<.03
97526	Sample is fg mafic volcanic and locally siliceous with 2-3% fg py occuring as disseminated and as clots;	NA	0.07g
97527	Subhedral vuggy qtz; sample has abundant iron oxide and tr fg cpy; possible continuation of southern HG vein;	NA	0.07g
97528	Sample is very siliceous blue qtz breccia with minor moly fract and 1% fg disseminated py	0.35m	0.62g
97529	lower half is yellow qtz breccia with tr fg dissem py; upper half is blue grey qtz breccia with 2-3% fg dissem py and mod moly fract;	1.05m	1.30g
97530	Yellow grey qtz breccia with minor moly fract and 1% fg disseminated py;	0.7m	1.51g
97531	Yellow and blue grey qtz breccia with 1-2% fg disseminated py and tr moly fract;	0.8m	0.69g
97532	Sample is blue grey qtz breccia with mod moly fract and 2-3% fg dissem py; minor blue chert;	0.8m	1.23g
97533	Moly rich blue grey qtz breccia with 2-3% fg disseminated py; weathered surface is iron oxide;	0.5m	2.67g
97534	Blue grey qtz breccia with mod moly fract and 1-2% fg disseminated py;	0.55m	1.44g
97535	Dark blue qtz breccia with mod moly fract and 1-2% fg disseminated py but locally conc 3-5% fg py as 1cm clots; locally abundant off white feldspar;	0.5m	1.03g
97536	Blue grey qtz breccia with mod moly fract and 1-2% fg dissem py;	0.5m	0.75g
97537	Sample is seritized mafic volc with minor qtz and brown feldspar; dry;	0.75m	0.07g
97538	Sample is highly siliceous with moderate brown feldspar and tr fg cpy occuring as clots;	0.35m	<.03
97539	Seritized mafic volcanic with yellow qtz breccia with abundant brown feldspar; dry	1.0m	<.03
97540	Seritized mafic volcanic with yellow qtz breccia with abundant brown feldspar; dry	0.7m	<.03
97541	Sample is highly siliceous blue grey qtz breccia with 1-2% fg disseminated py and tr moly fract; slightly green colour;	0.5m	<.03
97542	Blue grey qtz breccia with minor moly fract and 1% fg dissem py; some oxidized py	0.6m	<.03
97543	Blue and grey qtz breccia with mod moly fract and locally abundant off white feldspar; 2-3% fg disseminated py;	0.6m	1.44g
97544	Blue grey qtz breccia with 1-2% fg disseminated py; minor moly fract and mod brown feldspar;	0.65m	0.69g
97545	Blue grey qtz breccia with 1-2% fg disseminated py; moderate moly fractuing;	0.45m	2.81g
97546	Blue grey qtz breccia with 1-2% fg disseminated py;	0.55m	1.78g

	moderate moly fracturing;		
97547	Dark blue qtz breccia with 1-2% fg disseminated py; minor moly fract and moderate off white and brown feldspars;	0.75m	1.03g
97548	Highly siliceous blue grey qtz breccia with 3-5% fg disseminated py and tr fg cpy; minor moly fract;	0.55m	1.03g
97549	Blue grey qtz breccia with 3-5% fg disseminated py and minor moly fracturing;	0.6m	3.02g
97550	Sample is dark blue grey qtz breccia with 2-3% fg disseminated py and mod moly fract; upper surface is dark purple fractured qtz;	0.7m	3.91g
28207	Sample is yellow qtz breccia with minor moly fract and tr fg disseminated py; locally vuggy with tr fg cpy in vug; pvg	NA	1.37g
28208	Sample is yellow qtz breccia with minor moly fract and locally conc of 1% fg py along moly fract; tr fg cpy;	NA	1.51g
28209	Sample is fg mafic with minor carb fracture and minor moly fract with 1% fg py disseminated and tr cpy;	NA	552.97g
28210	Sample is yellow qtz breccia with minor moly fract with tr fg py locally conc along moly fract; appears similar to HG samples; moderate brown feldspar;	NA	0.21g
28394	Dark blue qtz breccia with 2-3% fg disseminated py and minor brown feldspar and minor moly fract;	0.65m	0.34g
28395	Dark blue qtz breccia with 2-3% fg disseminated py with moderate off white feldspar	0.7m	1.51g
28396	Dark blue qtz breccia with 2-3% fg disseminated py with moderate off white feldspar	0.7m	2.95g
28397	Highly siliceous grey qtz and mafic volcanic with 2-3% fg disseminated py;	0.65m	0.21g
58451	Sample is 3cm QCS with abundant iron oxide;	NA	<.03
58452	fg mafic volcanic; light green with 2cm QCS bullish; minor rust on weathered surface;	NA	<.03
58453	QCS in fg mafic volcanic; minor brown feldspar; dry	NA	<.03
58454	Blebbly qtz in fg mafic volcanic with mod sericite alteration and minor carb fracturing; dry	0.55m	<.03
58455	Sample is green grey qtz breccia with only tr fg dissem py; weathered surface has minor rust;	0.40m	<.03
58456	Green grey qtz breccia with tr fg dissem py; weathered surface has minor iron oxide;	0.50m	<.03
58457	Sample is yellow qtz porphyry and green grey qtz breccia; porphyry has minor moly fract;	0.70m	0.137g
58458	Green grey qtz breccia ; locally minor moly fract; tr fg disseminated py;	0.65m	0.137g
58459	Sample is fg mafic volcanic with yellow sericite alteration and cross cut by several 1cm carb stringers with locally conc 2-3% fg py; mafic has tr fg py;	0.50m	0.21g
58460	Sample is green grey fg mafic volcanic with minor carb fracturing and tr fg dissem py; weathered surface is rusty;	0.75m	<.03
58461	Sample is fg mafic volcanic with locally siliceous sections with tr fg py; weathered surface has mod iron oxide;	0.80m	<.03
58462	Sample is siliceous iron carbonate with moderate qtz and minor sericite	0.55m	<.03
58463		0.50m	<.03
58464	Sample is grey fg mafic volcanic with moderate carb fracturing and locally siliceous sections of green grey qtz breccia and qcs; mafic has 2-3% fg disseminated py; qtz is	0.45m	2.47g

	bullish;		
58465	Sample is qtz porphyry sample from the shaft; baseline sample for the qtz porphyry;	NA	<.03
58466	3cm qcs with minor chl and minor iron oxide;	NA	<.03
58467	2cm qcs ; second generation in qtz porphyry with mod iron oxide;	NA	<.03
58468	Sample is rusty 2-3cm QCS with minor chl fract and minor yellow qtz porphyry;	NA	<.03
58469	Sample is yellow and blue qtz breccia with 1-2% fg dissempy and minor moly fracturing; tr fg cpy;	0.45m	0.07g
58470	Sample is grey and blue qtz breccia with 1-2% fg dissempy and minor moly fracturing; weathered surface has mod iron oxide;	0.35m	0.686g
58471	Sample is yellow and blue qtz breccia with minor moly fract and 2-3% fg disseminated py and tr cpy;	0.6m	1.58g
58472	Sample is yellow qtz breccia with minor moly fract and tr fg disseminated py;	0.6m	0.07g
58473	Sample is yellow qtz breccia with minor blue cherty sections; 1-2% fg disseminated py; locally appears to be altered qtz porphyry;	0.65m	0.89g
58474	Sample is heavily weathered iron oxide band;	NA	<.03
58475	Highly siliceous light blue qtz breccia with mod chl fract; 1-2% fg py along fractures;	NA	2.40g/t
58476	Highly siliceous light blue qtz breccia with mod chl fract; moderate iron oxide and tr fg py;	NA	<.03
58477	Highly siliceous light blue white qtz breccia with minor blue banding and minor chl fracturing; tr fg dissempy and mod iron oxide alt;	NA	<.03
58478	Blue and grey qtz breccia; highly siliceous with tr fg dissempy;	NA	0.62g/t
58479	Sample is blue qtz breccia with chl fracturing in qtz and tr fg py;	NA	<.03
23949	Rock is fg mafic that is heavily seritized; has 5-6cm chlorite filled breccia with 1-3cm angular clasts and tr fg cpy; rock is also cross cut by a 3cm crystalline qtz stringer with minor iron oxide; locally conc 1-2% fg py along chl breccia contact; cross cutting vein has abundant brown feldspar and is dry;	NA	<.03
58401	Grey qtz breccia with minor moly fract and tr fg disseminated py;	0.85m	1.37g/t
58402	Sample is highly siliceous grey qtz breccia with local dark blue banding; 1-2% fg disseminated py;	0.75m	0.07g/t
58403	Yellow and grey qtz breccia with dark blue banding and 1% fg disseminated py with local conc up to 3%;	0.50m	2.81g/t
58404	Grey qtz breccia with locally abundant brown feldspar; 1-2% fg py occuring as clots between qtz crystals;	0.90m	0.27g/t
58405	Sample is grey qtz breccia with minor dark blue banding and tr fg py along banding;	0.80m	0.75g/t
58406	Fg mafic volcanic with str sericite alteration and yellow qtz breccia with tr fg py as clots;	0.80m	0.07g/t
58407	Fg mafic volcanic with str sericite alteration and yellow qtz breccia and minor dark blue clasts with locally conc of 2-3% fg py in and around dark blue clasts;	0.65m	1.58g/t
58408	Sample is grey and blue qtz breccia with 1-2% fg disseminated py; blue cherty clasts;	0.70m	1.30g/t

58409	Sample is yellow, grey and blue qtz breccia with dark blue banding with 1-2% fg disseminated py and locally conc of 2-3% fg py along dark blue bands;	0.80m	0.89g/t
58410	Sample is yellow qtz breccia with dark blue clasts; 1-2% fg disseminated py;	0.80m	0.89g/t
58411	Yellow qtz breccia matrix with dark blue clasts with 2-3% fg disseminated py;	0.75m	1.65g/t
58412	Sample is yellow qtz breccia with dark blue clasts; 1-2% fg disseminated py;	0.70m	4.80g/t
58413	Fg seritized mafic volcanic and highly siliceous grey qtz breccia and minor moly fract; tr fg py occuring as clots;	0.70m	<.03
58414	Fg seritized mafic volcanic and highly siliceous grey qtz breccia and minor moly fract; tr fg py occuring as clots;	NA	<.03
58415	Sample is in fg seritized mafic volcanic and is highly siliceous white qtz; bullish;	NA	<.03
58416	Sample is in fg seritized mafic volcanic and is highly siliceous white qtz; bullish;	NA	<.03
58417	Seritized mafic volcanic; locally siliceous; dry;	NA	<.03
58418	Sample is dark blue qtz breccia and minor yellow qtz porphyry; breccia has 1-2% fg disseminated py and locally conc along dark blue qtz breccia;	0.85m	1.65g/t
58419	Sample is blue qtz breccia in white qtz; dark blue cherty clasts have locally conc 3-5% fg py and white qtz has 1% fg disseminated py; nice;	0.85m	2.81g/t
58420	Yellow qtz breccia with 1-2% fg disseminated py and minor moly fract;	0.95m	0.55g/t
58421	Yellow qtz breccia with minor dark blue clasts; tr fg disseminated py as clots;	0.90m	1.17g/t
58422	Yellow qtz breccia matrix with dark blue clasts with 2-3% fg disseminated py;	0.70m	1.37g/t
58423	Yellow qtz breccia matrix with dark blue clasts with 2-3% fg disseminated py;	0.70m	1.71g/t
58424	Sample is yellow grey qtz breccia with tr fg py occuring as clots and tr moly fract;	0.85m	0.89g/t
58425	Grey qtz breccia with some dark blue clasts; 1-2% fg disseminated py;	0.90m	1.10g/t
58426	Sample is yellow and blue qtz breccia with 2-3% fg disseminated py;	0.95m	2.81g/t
58427	Sample is fg mafic volcanic and yellow qtz breccia with dark blue clasts with locally conc of 1-2% fg py along clasts;	1.05m	1.30g/t
58428	Yellow grey qtz breccia with mod dark blue banding with local conc of 2-3% fg py; 1-2% fg py;	0.80m	0.69g/t
58429	Yellow qtz breccia with minor moly fract and tr fg disseminated py;	0.75m	0.07g/t
58430	Yellow qtz breccia with tr fg py; dry;	0.70m	<.03g/t
58431	Yellow qtz breccia with minor moly fract and tr fg disseminated py;	0.75m	1.17g/t
58432	Yellow qtz breccia with 1cm dark blue banding with 1-2% fg disseminated py;	0.60m	1.99g/t
58433	Sample is highly siliceous white and grey qtz; 1-2% fg disseminated py; minor dark blue clasts;	0.95m	0.96g/t
58434	Sample is highly siliceous white and grey qtz with dark blue clasts with locally conc of 2-3% fg py along dark blue clasts; 1% fg py in white qtz occuring as clots and	0.70m	1.30g/t

	stringers;		
58435	Sample is blue qtz breccia with 2-3% fg disseminated py;	0.85m	1.30g/t
58436	Sample is grey qtz breccia with 1% fg disseminated py and dark blue clasts with 2-3% fg py in and along clasts;	0.75m	1.30g/t
58437	Dark blue and grey qtz breccia with 2-3% fg disseminated py; weathered surface has mod iron oxide;	0.75m	0.48g/t
58438	Sample is dark grey and blue qtz breccia with 2-3% fg disseminated py; sample is locally vuggy;	0.90m	0.89g/t
58439	Dark blue and grey qtz breccia with 2-3% fg disseminated py; locally tr cpy;	0.80m	0.96g/t
58440	Sample is grey qtz breccia with 1% fg disseminated py and dark blue clasts with 2-3% fg py in and along clasts; weathered surface had mod iron oxide;	0.95m	1.03g/t
58441	Sample is yellow qtz breccia with dark blue clasts; 1-2% fg disseminated py;	0.95m	1.44g/t
58442	Sample is fg mafic volcanic with locally siliceous sections with tr fg disseminated py;	0.80m	0.34g/t
58443	Fg mafic volcanic with str sericite alteration and cross cut by 1cm qcs;	0.75m	0.07g/t
58444	Sample is highly altered fg mafic volcanic with locally siliceous sections with grey qtz breccia and tr fg py as clots in qtz;	0.85m	<.03
58445	Sample is highly siliceous blue and yellow qtz breccia which is locally cherty; 1-2% fg disseminated py;	0.80m	1.85g/t
58446	Sample is highly siliceous white qtz; minor blue qtz breccia with tr fg py in clots;	0.70m	1.92g/t
58447	Sample is highly siliceous yellow grey qtz breccia with dark blue banding and 1-2% fg disseminated py with local conc of 3%;	0.70m	<.03
58448	Sample is highly altered mafic volcanic with locally siliceous sections with 1% fg py occurring as clots in qtz;	1.0m	2.06g/t
58449	Sample is yellow qtz breccia with dark blue banding and 1% fg py along banding;	0.65m	8.71g/t
58450	Sample is highly siliceous yellow grey qtz breccia with dark blue banding and 1-2% fg disseminated py;	0.75m	2.67g/t
58151	Grey qtz porphyry with siliceous sections with tr fg disseminated py;	0.65m	1.10g/t
58152	Grey qtz breccia locally appears porphyritic; 1% fg disseminated py;	0.60m	4.46g/t
58153	Grey qtz breccia locally appears porphyritic; 1% fg disseminated py;	0.60m	1.30g/t
58154	Blebbly blue cherty qtz with moderate iron oxide and tr fg py;	0.75m	3.57g/t
58155	Sample is yellow qtz breccia with minor dark blue clasts; tr fg dissem py;	0.75m	1.37g/t
58156	Sample is yellow qtz breccia with minor dark blue clasts; tr fg dissem py;	0.60m	1.37g/t
58157	Sample is grey and blue qtz breccia with 1-2% fg disseminated py;	0.90m	1.51g/t
58158	Sample is blue and grey qtz breccia with 1% fg disseminated py;	0.80m	1.37g/t
58159	Blue qtz breccia with 1% fg disseminated py;	0.70m	2.19g/t
58160	Sample is grey qtz breccia with tr fg dissem py;	0.55m	0.14g/t
58161	Seritized mafic volcanic with minor qtz and abundant brown feldspar; dry	0.70m	<.03

58162	Seritized mafic volcanic with minor qtz and abundant brown feldspar; dry	0.85m	<.03
58163	Seritized mafic volcanic with minor qtz; dry	0.70m	1.10g/t
58164	Sample is grey qtz breccia; highly siliceous with 1% fg py occurring as clots;	0.80m	1.65g/t
58165	Seritized mafic volc with grey qtz breccia and tr fg disseminated py;	0.70m	0.55g/t
58166	Yellow qtz breccia with tr fg disseminated py;	0.60m	0.07g/t
58167		0.60m	<.03g/t
58168	Grey and yellow qtz breccia with tr fg disseminated py and moderate iron oxide;	0.85m	3.98g/t
58169	Grey and yellow qtz breccia with tr fg disseminated py;	0.75m	<.03
58170	Grey and yellow qtz breccia with tr fg disseminated py and moderate brown feldspar;	0.80m	<.03
58171	Yellow and grey qtz breccia with 1% fg-mg py disseminated;	0.55m	4.25g/t
58172	Highly siliceous grey qtz breccia with 1-2% fg py disseminated;	0.55m	0.21g/t
58173	Highly siliceous grey qtz breccia with 1-2% fg py disseminated;	0.80m	0.41g/t
58174	Fg mafic volcanic; yellow qtz breccia; sample has abundant iron oxide on weathered surface;	0.90m	0.14g/t
58175	Highly siliceous grey qtz breccia with 1-2% fg py disseminated;	1.0m	<.03
58176	Highly siliceous grey qtz breccia with 1% fg py disseminated;	0.75m	1.44g/t
58177	Blue qtz breccia with dark blue banding and 1-2% fg py; part of sample is massive qtz;	0.85m	0.07g/t
58178	Blue qtz breccia with locally pure white qtz and 1-2% fg disseminated py and tr fg cpy; minor dark blue banding and locally cherty;	0.80m	<.03
58179	Grey qtz breccia with tr fg py occurring as clots;	0.85m	<.03
58180	Yellow and grey qtz breccia with tr fg disseminated py;	0.70m	0.34g/t
58181	Sample is fg mafic volcanic which is cross cut by 4cm second generation sugary qtz with minor brown feldspar and tr fg cpy;	0.50m	5.28g/t
58182	Sample is grey qtz with minor moly fract and 1-2% fg disseminated py;	0.55m	0.07g/t
58183	Sample is blue and grey qtz breccia with locally cherty section and 2-3% fg disseminated py; local conc of 7-9% fg py;	0.65m	<.03g/t
58184	yellow qtz breccia with 1% fg disseminated py and locally blue qtz breccia;	0.70m	6.03g/t
58185	fg mafic volcanic with dark grey cherty qtz with 2-3% fg disseminated py; mv has minor moly and 2-3% fg disseminated py;	0.55m	0.55g/t
28123	Sample is blue qtz breccia with tr fg disseminated py and minor brown feldspar and tr molybdenum;	N/A	<.03
11701	Seritized mafic volcanic; locally siliceous with tr fg py in qtz; weathered surface has moderate iron oxide;	0.75m	<.03
11702	Seritized mafic volcanic; locally siliceous with tr fg py in qtz; weathered surface has moderate iron oxide;	0.6m	<.03
11703	Seritized mafic volcanic; locally siliceous with tr fg py in qtz; weathered surface has moderate iron oxide;	0.5m	<.03
11704	Highly siliceous grey qtz breccia with minor green chl	N/A	0.55g/t



	fracturing; 1 inch of heavily oxidized weathering with 3-5% fg py on outer surfaces;		
11705	yellow grey qtz breccia with minor chl fracturing and 1% fg py along fractures; minor iron oxide;	N/A	0.96g/t
11714	Sample is mafic volcanic; seritized with 3-5% fg disseminated py;	N/A	5.55g/t
11737	Sample is crystalline qtz with moderate ammount of iron oxide; 2 <sup>nd</sup> gen vein;	N/A	<.03
11720	Sample is mafic volcanic; minor carb fracturing and moderate ammounts of iron oxide;	N/A	<.03
11721	Sample is 2 <sup>nd</sup> generation qtz vein 3cm; with 1cm chl fracture with tr ammounts of cpy in qtz;	N/A	<.03
11722	Sample is 2 <sup>nd</sup> generation qtz and chl breccia in MV with tr fg cpy;	N/A	<.03
11723	Sample is 2 <sup>nd</sup> gen qtz with moderate ammounts of iron oxide and tr fg cpy;	N/A	<.03
11743	Heavily seritized mafic volcanic has platy nature; tr cpy;	N/A	<.03

**Table #2** – Fidelity Shaft Sampling Results**TABLE #3** – Fidelity Shaft Bulk Assay Results

Lot #	Weight (t)	Grade (g/t)
1	1.283	1.79
2	0.982	1.49
3	0.814	1.04
4	0.993	1.60
5	1.007	1.25
6	1.006	0.89
7	1.035	1.95
8	0.544	0.85
Total	7.664	1.41

**Table #3** – Fidelity Shaft Bulk Assay Results**TABLE #4** – Fidelity East Sampling Results (Map #12)

Sample #	Location	Description	Length	Assay
28211	From double pit stripping along rd	Sample is 3cm QCS with abundant iron oxide on weathered surface and minor moly in qtz; bullish;	NA	5.70g/t
28119	Double Pit stripping 1-2" QCS	Sample is milky white qtz with minor dark blue graphite banding with local conc of 1-2% fg py; sample has abundant iron oxide;	N/A	<.03g/t
28120	Pit #2 at double pit stripping	Sample is cherty dark grey/blue qtz with mafic volcanic and tr fg py; moderate iron oxide;	N/A	0.62g/t
11706	Double Pit Stripping A-Vein	Milky white qtz with minor green chl fracturing and moly fracturing; 1% fg disseminated py but mostly conc along chl/moly fractures; outer surface has minor iron oxide;	N/A	3.57g/t
11707	Double Pit Stripping A-Vein	Sample is milky white qtz with minor chl/moly fracturing and local conc.of vfg py;	N/A	9.94g/t

		minor grey chert; fine vg in grey chert; minor iron oxide;		
11708	Double Pit Stripping A-Vein beside vein;	Qtz with abundant – 50% iron oxide;	N/A	0.14g/t
11709	Double Pit Stripping B-Vein	Sample is highly siliceous grey qtz with moderate chl/moly fracturing and 1-2% fg disseminated py; Weathered surface has moderate iron oxide alteration;	N/A	3.50g/t
11711	Double Pit Stripping C-Vein	Blue grey qtz with 1-2% fg disseminated py; moderate iron oxide on weathered surface; locally cherty;	N/A	0.89g/t
11712	Double Pit Stripping C-Vein	Blue grey qtz with 2-3% fg disseminated py; moderate iron oxide on weathered surface; locally cherty;	N/A	2.54g/t
11713	Double Pit Stripping C-Vein	Sample is highly altered MV with blue grey qtz and local conc of 1-2% fg py in qtz; sample has moderate iron oxide;	N/A	2.47g/t
11715	Double Pit Stripping C Vein	Qtz with abundant iron oxide;	N/A	0.14g
11744	Double Pit E Vein	Sample is heavily rusted grey qtz with minor sericite alt and tr fg py;	N/A	0.14g
58307	Double Pit Channel A-Vein	Sample is qtz with moderate chl moly fracturing and 1% vfg py along fractures with tr mg py; rock is light grey mafic alt;	0.30m	2.40g/t
58308	Double Pit Channel A-Vein	Sample is highly altered and fissile mafic with carbonate alteration and sericitic alt; Sample is 40% qtz with minor chl fracturing and 1-2% fg py along fractures and minor iron oxide on weathered surface;	0.35m	6.58g/t
58309	Double Pit Channel A-Vein	Sample is highly altered and fissile mafic with carbonate alteration and sericitic alt; cut by 4" qtz vein with dark grey chert clasts; 1-2% fg-vfg py along fractures; local concentrations up to 3% py; sample is 20% qtz;	0.40m	2.19g/t
58310	Double Pit Channel A-Vein	Sample is highly altered and fissile mafic with carbonate alteration and sericitic alt; cut by 4" qtz vein with dark grey chert clasts; 1-2% fg-vfg py along fractures; local concentrations up to 5% py; sample is 40% qtz;	0.50m	1.99g/t
58311	Double Pit Channel A-Vein	Sample is qtz with moderate iron oxide on weathered surface; moderate chl moly fracture with 1% vfg py along fractures;	0.80m	1.65g/t
58312	Double Pit Channel B-Vein	Highly alt and fissile mafic; str seritization; minor chl fractureing with tr fg py; light beige/yellow/green; locally carbonate alteration has 1-2% fg py;	0.70m	6.93g/t
58313	Double Pit Channel E Structure	Slightly altered mafic with some fissile and minor carb fracturing; sample is very rubbly with moderate iron oxide alt;	0.50m	<.03
58314	Double Pit Channel B-Vein	Vfg grey mafic with str seritization and minor fissility; moderate carb fracturing and minor chl fracturing with tr fg py along chl fract;	0.55m	<.03
58315	Double Pit Channel G Splay from E Structure	Sample is very rubbly; mafic volc with str iron carb and iron oxide alteration; featureless because of rubble	0.65m	5.76g/t

58316	Double Pit Channel C-Vein	Sample is alt mafic volc; sample has 3" qtz carb vein with abundant iron oxide;	0.70m	<.03
58317	Double Pit Channel C-Vein	Sample is very rubbly; mafic volc with str iron carb and iron oxide alteration; featureless because of rubble	0.45m	<.03
58318	Double Pit Channel C-Vein	Sample is very rubbly; mafic volc with str iron carb and iron oxide alteration; featureless because of rubble.	0.75m	<.03
58319	Double Pit Channel C-Vein	Sample is very rubbly; mafic volc with str iron carb and iron oxide alteration; featureless because of rubble	0.45m	<.03
58320	Double Pit Channel C-Vein	Sample is fissile mafic volcanic with minor sericite alt; weathered surface has mod iron oxide; sample is 40% qtz with moderate chl fracturing and 1-2% fg py along fractures in qtz;	0.45m	1.92g/t
58321	Double Pit Channel C-Vein	Sample is 2cm qtz carb stringer in mafic volc. sample is rubbly with moderate iron oxide alt; tr fg py in qtz carb;	0.40m	<.03
58322	Double Pit Channel C-Vein	Sample is very rubbly; mafic volc with str iron carb and iron oxide alteration; featureless because of rubble	0.40m	<.03
58860	Double Pit Channel E Structure	Highly alt QFP-str sericite alt; str iron oxide alt; some bullish Qcs with mod iron oxide;	0.40m	108ppb
58861	Double Pit Channel E Structure	Highly seritized MV; fissile; shear zone; mod iron oxide alt; very rubbly sample;	0.45m	14ppb
58862	Double Pit Channel F Structure	Slightly fissile MV with very str sericite alt; mod sericite mud; locally minor qtz with minor iron oxide alt;	0.45m	22ppb
58863	Double Pit Channel F Structure	Fissile MV, phyllitic; str sericite alt with sericite mud; mod ammounts of grey qtz with tr fg py; locally iron oxide alt;	0.65m	69ppb
58864	Double Pit Channel E Structure	Highly seritized MV- fissile, locally graphitic; locally sericite mud; moderate QC fract of MV; locally abundant iron oxide alt;	0.35m	14ppb
58865	Double Pit Channel E Structure	Highly alt QFP; str sericite alt; minor iron oxide alt;	0.50m	20ppb
58866	Double Pit Channel F Structure	Fg MV slightly fissile; minor carb fracturing; minor iron oxide; dry;	0.85m	29ppb
58867	Double Pit Channel Confluence of H Splay with F Structure	Black to yellow crystalline qtz; light grey fg MV with minor carb fracturing and tr iron oxide on weathered surface;	0.35m	7ppb
58868	Double Pit Channel Unnamed Structure	Fg MV slighly fissile- Rubbly and dirty; bullish QCS with rust;	0.35m	3ppb
58869	Double Pit Channel Unnamed Structure	Fg light grey MV; minor grey qtz; dry;	0.35m	12ppb
58870	Double Pit Channel E Structure	Highly alt QFP; str sericite alt and minor graphite; lots of iron oxide alt;	0.30m	2ppb
58871	Double Pit Channel F Structure	Light grey mafic volc with bullish QCS; mod iron oxide alt on weathered surface	0.65m	15ppb
58872	Double Pit Channel H splay from F Structure	Grey MV with carb amygules; qtz vein with minor iron oxide; Dry	0.35m	Nil
58873	Double Pit Channel	Brecciated qtz ank vein in fg Mv; iron oxides	0.95m	Nil

	H splay from F Structure	in qtz;		
58874	Double Pit Channel F Structure	fg light grey MV; slightly fissile due to intense sericite alteration; sample is rubbly with mod iron oxide alt; minor carb fracturing of MV;	0.45m	34ppb
58875	Double Pit Channel F Structure	Light Grey Mv with bullish rusty QCS; locally carb rich;	0.60m	15ppb
58876	Double Pit Channel Hangwall on H splay	fg MV locally bleached buff colour; minor carb fracturing and minor iron oxide; dry;	0.50m	3ppb
58877	Double Pit Channel H Splay Structure	Fg Mv with minor carb fracturing; locally minor iron oxide; dry	0.70m	3ppb
58878	Double Pit Channel H Splay Structure	Light Grey fg MV with qtz ank vein; locally highly alt to iron oxide;	0.60m	21ppb
58879	Double Pit Channel F Structure	Sample is Rubbly; Highly seritized and fissile phyllite; mafic comp; str iron oxide alt; qtz with abundant iron oxide alt;	0.30m	54ppb
16013	Double Pit Channel No Structure	Light green/grey fg MV with bullish qtz carb vein with minor ank; locally alt to iron oxides; minor brecciation and chl fractures up to 5mm;dry;	0.35m	39ppb
16014	Double Pit Channel E Structure	Sericite Shist with minor qtz and abundant iron oxides;	0.35m	19ppb
16015	Double Pit Channel E Structure	Highly alt QFP with minor ammts of qtz; mod iron oxide alt; tr fg dissem py; locally conc of 1-2% fg py and minor graphite;	0.45m	96ppb
16016	Double Pit Channel No Structure	Light green/grey fg MV; minor carb blebs; weathered surface has minor iron oxide; dry;	0.35m	12ppb
16017	Double Pit Channel No Structure	Light green grey MV with minor sericite alt and minor carb fracturing; tr fg py as disseminated clots;	0.55m	3ppb
16018	Double Pit Channel C Vein	Bullish qtz ank vein in fg MV; locally tr fg dissem py; str iron oxide alt;	0.60m	120ppb
16019	Double Pit Channel C Vein	Qtz ank vein with str sericite alteration along contacts; grey qtz has tr fg dissem py and local conc of 1%; locally abundant iron oxide alt;	1.0m	449ppb
16020	Double Pit Channel C Footwall	Light green grey fg MV with moderate carb fracturing; locally carb fractures are alt to iron oxide; also qtz ank vein bullish;	0.55m	12ppb
16021	Double Pit Channel C Footwall	Light green grey fg MV with minor seritization and minor iron oxide alt; minor carb blebs;	0.50m	70ppb
16022	Double Pit Channel C Footwall	Slightly fissile seritized MV with bullish qtz ank vein and minor alt to iron oxide;	0.80m	204ppb
16023	Double Pit Channel C Vein	Sample is seritized MV with minor iron oxide alteration and minor chl; rock is 40% qtz ank vein-bullish;	0.45m	830ppb
16024	Double Pit Channel C Vein	Sample is rubbly and rusty; Moderate ammounts of qtz with iron oxide; tr fg dissem py in qtz; rock is seritized mv;	0.60m	362ppb
16025	Double Pit Channel C Vein	Highly alt QFP with light grey qtz vein with tr fg dissem py; rock is slightly fissile and has mod iron oxide alt; locally 1% py conc in Qtz;	0.35m	746ppb
16026	Double Pit Channel	Light grey/blue qtz vein with 1% fg py as	0.50m	424ppb

	Vein in C footwall	clots and disseminations; str sericite alt along contacts; locally minor iron oxide alt;		
16027	Double Pit Channel C Vein	Blebbly blue grey qtz with 1% fg dissem py; MV with str sericite alt and moderate iron oxide;	0.45m	1.44g
16028	Double Pit Channel C Footwall	Light green grey fg MV; minor sericite alt; bullish qtz ank vein with moderate alt to iron oxides;	0.45m	26ppb
16029	Chip on G Splay from E Structure	Fissile MV with str sericite alteration and minor iron oxide; follow up on 58315;	N/A	36ppb
16030	Chip on H Splay from F Structure	Sample is qtz ank vein which is 50-70% iron oxide; rust obscures sample;	N/A	94ppb

**Table #4-** Fidelity East Sampling Results**TABLE #5 – Goodfish West Sampling Results (Map #13)**

Sample #	Location	Description	Length	Assay
11069	West of L-38 – near goodfish west stripping E-3077 N-7716	QFP-brown-locally reddish- tr fg dissem cpy as seen elsewhere; minor malachite and tr fg dissem py;	N/A	1.02g/t
11076	Central Y-Vein	New Vein with abundant brown feldspar with qtz stockwork ; strong iron oxide on weathered surface:local clots of massive py (3-5%).	N/A	13.05g/t
11077	Chip from Junction of Y and X	Grey White qtz with locally moly fracturing; (1-2% fg-vfg py but local conc of (3-5%); moderate iron oxide on weathered surface	N/A	1.61g/t
11078	Chip from Junction of Y and X	Grey White qtz with locally moly fracturing; (1-2% fg-vfg py but local conc of (3-5%); moderate iron oxide on weathered surface; sample is larger than 11077	N/A	1.54g/t
11079	Chip from Z structure	Sample is white qtz; along contact with MV-2-3% fg py conc; moderate iron oxide alt of qtz; MV is seritized	N/A	0.89g/t
11080	30m NW of Stripping	QFP (<1% fg disseminated py) + TR CPY; Brown bimodal qtz phenos(5-8mm) and felds(3-6mm); subhedral; kept other half of sample;	N/A	0.38g/t
11082	Rusty Zone on Y Vein	Sample is almost entirely iron oxide;	N/A	3.07g/t
11083	Y Hangwall	Fissile seritized MV without phylitic sheen; minor qtz blebs; locally 1-2% fg py; mod iron oxide on weathered surface;	N/A	0.60g/t
11084	Rusty Zone on Y Vein	Sample is almost entirely iron oxide;	N/A	16.87g/t
11085	Junction of Y and Z	Grey-Bluish Qtz with (2-3% fg-vfg py) disseminated; weathered surface has mod iron oxide;	N/A	1.95g/t
11086	Footwall of Y	Sample is alt (seritized) MV with minor qtz blebs and (1-2% py in qtz) weathered surface has minor iron oxide;	N/A	0.34g/t
11087	Footwall of Y	Fissile MV with minor sericite alteration; minor Qtz blebs with 1-2% fg py; minor iron oxide on weathered surface;	N/A	0.39g/t
58219	Vein and	Seritized MV with str iron oxide alt; 5cm grey	0.90m	0.089g/t

	Hangwall on Z	qtz stringers with tr fg dissem py;		
58220	Main vein on Y	White qtz/carb with moly/chl fracturing; 1-2% fg-vfg py along fractures; moderate iron oxide alt;	0.70m	0.76g/t
58221	Hangwall on Y	Seritized MV with 3-4cm QCS-dry; locally tr py; str iron oxide alt locally;	0.65m	0.012g/t
58222	Y Vein	Blue Grey milky qtz with moly/chl fracturing; 2-3% fg-vfg py along fractures and disseminated; Rock is alt seritized MV with strong iron oxide alt;	0.60m	1.65g/t
58223	Y Vein	Grey Moly/Chl fractured Qtz with 2-3% fg-vfg py along fractures; 1cm thick weathered surface has str iron oxide alt;	N/A	3.69g/t Mo=79ppm
58224	Footwall on Y	Seritized MV with 5cm qtz carb stringer(grey qtz with 1-2% fg py) minor iron oxides; locally minor brown feldspar; minor chl fracturing of MV	N/A	0.21g/t
58225	Y Vein	White to grey qtz with moly/chl fracturing; 4cm wide band of dark grey chery material(qtz) with 2-3% fg py along fract:	N/A	4.32g/t
58226	Footwall on Y	Seritized MV-dry-mod to str iron oxide alt obscures sample;	0.70m	0.019g/t
58227	Y Vein	Qtz carb with grey qtz with 1% fg dissem py; 5mm chl fractures; some pink qtz with minor ep;	0.60m	0.80g/t
58228	Hangwall on Y	Seritized MV-tr fg py along fracts; only locally heavily alt to iron oxide;	0.80m	0.24g/t
58229	Hangwall on Y	Dark Grey/Black seritized MV with mod carb fracturing: 1% py in carb occuring as clots; locally heavy iron oxide alt;	0.50m	0.65g/t
58230	Hangwall on Y	Fresh MV minor 2-3cm Carb Fractures-dry;	0.40m	0.021g/t
58231	Hangwall on Y	Fresh MV- locally seritized with 2-3cm QCS which is locally alt to iron oxide; tr fg py in MV; very rusty sample:	N/A	0.029g/t
58232	Hangwall on Y	3-4cm QCS offshoot with chl fracturing; milky +grey qtz with 1% py; seritized mv has (<1%) dissem py; locally heavily alt to iron oxide;	N/A	0.084g/t
58233	Hangwall on Y	QCS of milky white to grey qtz with minor moly/chl fracturing; MV is fissile and crenulated; 1% fg-mg py in qtz; minor iron oxides;	N/A	0.24g/t
58234	Hangwall on Y	Dark grey/Black MV with blebby qtz/carb; tr fg py in carb; locally minor iron oxide;	N/A	0.012g/t
58235	Part of Y vein and footwall	Grey/white qtz with minor moly fracturing; 1% fg py as clots; locally qtz is bullish; weathered surface has mod iron oxide;	0.60m	0.51g/t
58236	Part of Y vein and footwall	MV and Qtz; 1% fg dissem py in seritized MV; 1-2% py in Qtz; minor iron oxide;	0.70m	0.71g/t
58237	Part of Y vein and footwall	Fresh MV with 1% fg py as clots(1cm); dry carb stringers in MV; dark grey qtz with 1% fg py; minor iron oxide on weathered surface;	0.60m	0.14g/t
58238	Part of Y Vein	Seritized MV with 2-3% fg disseminated Py: sample is 50% qtz; locally purple staining; Grey to White qtz with 1% disseminated Py; negligible iron oxide; dry carb stringers in MV;	0.60m	0.18g/t
58239	Y Vein Junction	Qtz with moly/chl fracturing- moderate iron	0.55m	0.93g/t

	with X	oxide and 2-3% fg-vfg py along fractures and as masses; minor carb+chl;		
58240	Y Vein Junction with X	Qtz with dark blue moly/chl fracturing ; dark grey qtz with 2-3% fg disseminated py; minor iron oxide	0.55m	0.99g/t
58241	Hangwall on Y	Seritized MV with minor carb fractures; dry; moderate iron oxide on weathered surface;	0.40m	0.019g/t
58242	X Vein	Dark grey Qtz vein with 1-2% fg-mg py; some milky white qtz with chl+moly fract; remainder of sample is pure iron oxide and obscures sample;	N/A	1.39g/t
58243	X Vein	Seritized MV with 1-2% fg disseminated py; 4-5cm QCS has 1% fg py; vein is heavily alt to iron oxide on weathered surface;	0.50m	0.27g/t
58244 58244-A 58244-B	X Vein	MV with Qtz carb stringers+ moderate iron oxide+1-2% fg disseminated py; tr cpy occuring as a 5mm clot	N/A	20.59g/t 22.10g/t 18.17g/t
58245	X footwall and Vein	Fresh MV with tr disseminated py; 2-3cm QCS; translucent qtz-minor green chl fracturing; tr fg-mg py in Qtz; locally moderate iron oxide;	0.65m	9.14g/t
58051	Hangwall on Z	Seritized MV- locally fissile- multiple QCS(1-3cm) tr fg py in QCS; mod iron oxide alt;	0.85m	0.067g/t
58052	Vein on Z	Dark grey seritized MV; Sample is 15% grey qtz with 1% dissem py; minor iron oxide on weathered surface;	0.65m	0.14g/t
58053	Vein on Z	Weakly seritized MV; 10-15cm Qtz carb vein-milky white with 1% disseminated fg-mg py; minor iron oxide on weathered surface;	0.60m	0.30g/t
58054	Footwall on Z	Seritized MV with minor carb fracturing; dry;	0.40m	0.021g/t
58055	Footwall and Shear on Z	Seritized MV with mod carb fract(2-3cm); tr fg py in carb;	0.90m	0.024g/t
58056	Hangwall on Z	Seritized MV with minor carb fract; dry;	0.40m	0.057g/t
58057	Vein + Footwall on Z	Seritized MV with 5-10cm grey qtz vein- chl fractured with 1% fg py along fract;	0.70m	0.16g/t
58058	Vein on Z	Seritized MV with 2-3cm Qtz stringers of grey qtz with moly/chl fracturing and 1% dissem py; minor iron oxide;	0.85m	0.055g/t
58059	Parallel Structure to Z	Seritized MV with minor carb fractures; locally qtz with 1% py; 5-10% qtz; minor iron oxide;	0.35m	0.007g/t
58060	Hangwall on Z	Dry seritized MV with minor carb fract; minor iron oxide	0.70m	0.005g/t
58061	Hangwall on Z	Dry Seritized MV with minor iron oxide;	0.25m	0.019g/t
58062	Vein on Z	Seritized MV with 10cm qtz vein with chl fracturing: 1% fg-mg py in qtz; locally str iron oxide alt;	0.30m	0.30g/t
58063	Footwall on Z	Seritized MV with minor iron oxide alt;	0.15m	0.015g/t
58064	Offshoot of Z	Seritized MV with dry Qtz-Ank stringer;	0.35m	0.01g/t
58065	Footwall on Z	Seritized MV with minor carb fracturing; tr fg dissem py; tr iron oxides;	0.75m	0.029g/t
58066	Vein and Hangwall on Z	Seritized MV with multiple qtz stringers with tr fg py; (<1cm) ferromagnesium stringers; locally mod iron oxide alt;	0.90m	0.25g/t
58067	Alt on Hangwall of Z	Seritized MV-partially brecciated with clasts of carb+iron oxides-locally qtz with tr (fg-mg) oy; minor iron oxide on weathered surface;	0.70m	0.034g/t

58068	Rusty shear near Hangwall on Z	Seritized MV with mod carb fractures; tr fg py dissem; locally heavily alt to iron oxide;	0.90m	0.038g/t
58069	Rusty Crack- extent of Y structure;	Seritized MV locally stringers of sericite(shist) moderate iron oxide locally;	0.50m	0.029g/t
58070	Y confluence with X	Seritized MV with 5-6cm QCS with grey Qtz with moly(chl) fract: locally 3-5% fg-mg py as clots and along fractures; mod iron oxide on weathered surface;	0.35m	1.75g/t
58071	Y confluence with X	Grey to translucent white Qtz with minor green chl fracturing and moly graphite fracturing; 1-2% fg py along fractures; locally blebby;	0.55m	2.45g/t
58072	Y confluence with X	Grey moly(chl) fract Qtz with 1-2% fg-vfg py along fract: locally clots of Py(~5mm)- weathered surface has mod iron oxide;	0.50m	2.00g/t
58073	Vein X	Sample is seritized MV and remainder is heavily alt to iron oxides;	0.45m	0.20g/t
58074	Hangwall on X	Seritized MV with minor carb fract; minor iron oxides-dry;	N/A	0.012g/t
58075	OFF all Zones	Bull qtz in MV- seritized MV with 2-3cm dry QCS with minor iron oxide;	N/A	0.010g/t
16093	Y Confluence with X	Near 58071- Large py clots with (12-15%) py; remainder is grey qtz with minor moly(chl) fract;	N/A	1.57g/t

**Table #5** – Goodfish West Sampling Results**TABLE #6** – Goodfish East Sampling Results (Map #14)

Sample #	Location	Description	Length	Assay
11072	Initial Float Grab Sample	Sample is milky white QCS and MV contact-chl fracturing in Qtz; MV has 2-3% fg dissem fg py; weathered surface has abundant dark red iron oxide;	N/A	2.65g/t
28147	Float Grab	Sample is MV with 1-2% fg dissem py; also 5-10cm milky white qtz carb; abundant dark red/brown iron oxide;	N/A	5.66g/t
28149	Float Grab	Sample is qtz ank vein with abundant iron oxide on weathered surface (~1%) fg py along fractures;	N/A	10ppb
28150	Float Grab	Sample is MV with 1-2% fg dissem py + milky qtz carb with chl fracturing and tr fg cpy; mod iron oxide alt;	N/A	2.85g/t
16051	Hangwall carb Zone	Dark grey fg Mv with 1% fg-mg dissem py and locally carb rich: carb is dry;	0.70m	7ppb
16052	Carb Zone	Qtz carb- grey to pink –locally iron stained; 1-2% fg-mg dissem py; minor iron oxide alt;	0.50m	21ppb
16053	Mafic	Fg-mg MV with tr fg py as stringers; locally mod iron oxide;	0.60m	Nil
16054	Shallow carb zone;	dark grey fg-mg MV with tr fg py; locally carb fracturing up to 1cm; locally mod iron oxide alt;	N/A	14ppb
16055	2 <sup>nd</sup> Shear	Highly seritized MV with mod carb fracturing; minor grey chert; locally py clots(7-9%) up to 1cm; locally str iron oxide alt;	0.60m	244ppb
16056	Main Rusty Shear	Seritized MV- sample is Rubbly and Rusty;	0.50m	33ppb



		locally Qtz up to 10cm; abundant iron oxide in Qtz; minor chl in MV;		
16057	2 <sup>nd</sup> Carb Zone	Grey to white Qtz carb vein with minor ank; locally grey cherty; mod chl in Qtz; minor iron oxide;	0.45m	21ppb
16058	Near 16057	Highly alt+bleached porphyry: only 2-3% Qtz phenos; locally sericite alt; minor iron oxide alt; grey white QCS has tr fg py;	N/A	10ppb
16059	Near 16051	Darj grey fg Mv with 1% fg dissem Py; locally bleached(carb rich)- locally wtz carb blebs with dark chl; weathered surface has mod iron oxide;	N/A	22ppb
16060	Carb Zone	Fr MV with localized carb flooding; dry; minor iron oxide alt;	0.65m	Nil
16061	Hangwall carb zone;	Fg dark grey MV with (<1%) fg Py as fractures(hairline); locally seritized and rusty : mod carb flooding in MV with tr fg Py;	0.35m	60ppb
16062	Carb Zone	Fg Mv with tr fg dissem Py; Mod carb fracturing; minor iron oxide;	0.55m	Nil
16063	Near 16063 Part of main structure;	Alt and seritized MV with mod iron oxide alt; somewhat fissile and minor Qtz with tr fg py; tr fg py along fractures;	N/A	10ppb
16064	Footwall + Rust	Very Rusty and Rubbly; seritized MV with tr fg dissem py;	0.50m	Nil
16065	2 <sup>nd</sup> shear Zone	Sample is seritized MV with moderate carb fracturing; locally clots up to 1cm of 7-9% py;	0.55m	31ppb
16066	Hangwall with Carb	Fg dark grey seritized MV; abundant carb alt; 15% QTZ; (1-2%) fg py dissem: locally py has lime green alt; weathered surface has mod iron oxide;	N/A	9ppb
16067	Footwall + Zone	Fg seritized MV with 5-10cm QCS with minor chl fracturing; locally weathered surface has str iron oxide alt; tr fg py along QCS contact;	0.45m	31ppb
16068	Main shear+footwall	Fg grey seritized Mv with carb flooding; chl fracturing; tr fg py; locally abundant iron oxide;	0.70m	82ppb
16069	Footwall + Carb zone	Fg grey seritized Mv with vfg chl fracturing; minor carb fracturing up to 1cm; tr fg dissem py;	1.35m	10ppb
16070	Footwall + Main Zone	Str carb flooding with minor chl fracturing; minor ank; moderate iron oxide alt;	0.35m	55ppb
16071	Rusty Shear- Main-Near Water	Sericite MV with abundant iron oxide; locally Qtz up to 7cm; locally chl fractured; very rusty;	0.50m	29ppb
16072	Footwall + Some Zone	Fg MV with blebby Qtz carb flooding+tr fg Py; locally abundant iron oxide;	0.40m	36ppb
16073	Footwall + Some Zone	Sample is grey Qtz carb with tr fg py+ minor iron oxide on weathered surface;	0.45m	41ppb
16074	Footwall + Rusty Qtz;	Grey Qtz carb with minor sericite along fractures + tr fg py; weathered surface is alt to iron oxides;	0.50m	67ppb
16075	Hangwall carb zone	Fg dark grey MV with 1% fg dissem Py + minor carb fract;	0.60m	12ppb
16076	Main Rusty Shear	Very rusty + rubbly; seritized MV with abundant iron oxide;	0.75m	29ppb
16077	Main Rusty Shear	Very rusty and Rubbly; seritized MV with tr fg dissem Py +minor Qtz with abundant iron oxide;	0.55m	24ppb
16078	Main Rusty Shear	Very rusty and Rubbly; seritized MV with minor Qtz and abundant iron oxide mud;	0.35m	31ppb

16079	Shallow carb zone	Dark grey fg MV with qtz carb flooding; 1% fg py dissem in MV; qtz has (1-2%) fg py and minor hem stain;	0.50m	29ppb
16080	2ndary rusy qtz zone	Rock is fg MV- dark grey; sample is 50% qtz with abundant iron oxide; minor calcite; local conc of 2-3% py on qtz contact;	0.80m	Nil
16081	Hangwall + Rust	Sample is very rusty and Rubbly; MV with lots of rusy mud;	0.35m	58ppb
16082	Hangwall + Rust	Dark grey fg MV with minor carb fracturing; tr dissem py; locally str iron oxide alt;	0.45m	26ppb
16083	Mafic with carb	Fg Dark grey MV with tr fg py along fractures; mod carb fracturing;		Nil
16084	Parallel Structure carb zone + cherty sections	Fg seritized MV with locally mod carb fracturing +flooding; locally dark grey chert with concoidal fract; tr dissem Py and locally abundant iron oxide;	N/A	12ppb
16085	2 <sup>nd</sup> carb zone	Fg MV with locally carb flooded with minor chl fracturing; minor iron oxide alt;	0.45m	3ppb
16086	Main rusty shear;	very rusty + rubbly sample; fg seritized MV with abundant iron oxide mud;	0.55m	29ppb
16087	2 <sup>nd</sup> shear	Grey qtz +carb locally ank; tr fg dissem py; weathered surface has abundant iron oxide;	N/A	14ppb
16088	Porphyry near 2 <sup>nd</sup> shear	QFP with phenos 3-4mm; tr fg py dissem; minor carb fracturing +minor iron oxide;	0.30m	7ppb
16089	Rust + Footwall	dark grey fg MV with minor carv fract and tr fg py – locally abundant iron oxide;	0.70m	48ppb
16090	Dry Mafic	Dark grey fg MV – minor carb fract	0.45m	Nil
16091	Hangwall + Rust	Seritized fg MV- Very Very rusty and rubbly	0.55m	0.48g/t
16092	Near 16080	Sample is Qtz with abundant iron oxide; probably altered ank; minor chl+iron stain; contact has local conc of 2-3% fg py;	N/A	Nil
16101	Grab-Float	Sample is fg mafic with minor sericite alt; blebby qtz carb with moderate chl fracturing; locally str dark black chl fracturing; 1% fg dissem py; weathered surface has moderate iron oxide alteration;	N/A	749ppb
16102	Grab-Float	Light grey fg MV; 3-4cm QCS with 1% fg dissem py; locally 2-3% fg py in MV; weathered surface has moderate ammt of red iron oxide;	N/A	3.52g/t

Table #6-Goodfish East Sample Results

TABLE #7 – Mallard Lake Shaft Sampling Results (Map #15)

Sample#	Location	Description	Length	Assays
11745	St Pierre Dump	Sample is qtz with abundant (<10%) PbS; euhedral galena with minor streaks of chalcopyrite; spectacular mineralization keep other piece;	N/A	Au = 1.10g/t Ag = 124.6g/t Cu = 0.27% Pb = 20.98% Zn = 4.92%
11746	St Pierre Dump	Sample is qtz with 5-7% euhedral galena with minor cpy;	N/A	Au = 2.81g/t Ag = 129g/t Cu = 0.28% Pb = 12.4% Zn = 0.56%

11747	St Pierre Dump	Sample is qtz with 1% massive clots of cpy with malacite alt and minor azurite; negligible ammts of galena	N/A	Au = 4.01g/t Ag = 164g/t Cu = 0.29% Pb = 0.59% Zn = 0.058% Ga = 0.7ppm Ge = 2.1ppm In = 0.1ppm
11748	St Pierre Dump	Sample is qtz with 1% massive clots and disseminations of cpy; minor malachite and azurite; 1-2% massive galena;	N/A	Au = 1.68g/t Ag = 557g/t Cu = 1.01% Pb = 0.88% Zn = 0.14% Ga = 1.5ppm Ge = 1.3ppm In = <0.1
11749	St Pierre Dump	Sample is qtz with 2-3% massive euhedral galena; possibly silver along crystal fractures;	N/A	Au = 0.75g/t Ag = 64.3g/t Cu = 0.08% Pb = 9.00% Zn = 1.43% Ga = 0.9ppm Ge = 1.0ppm In = 0.3ppm
11750	St Pierre Dump	Sample is qtz with 3-5% massive galena and minor azurite;	N/A	Au = 11.16g/t Ag = 270.3g/t Cu = 0.17% Pb = 25.53% Zn = 0.014%
58304	Sample is from long trench near st pierre road – E-577401 N-5337820	Sample is mafic volcanic dark grey/black with minor qtz carb stringers and tr fg disseminated py;	N/A	Au = Nil Ag = Nil Cu = Nil Pb = Nil Zn = Nil
58305	St Pierre Dump	Sample is qtz and minor highly alt MV; 1% fg dissem py in MV; tr azurite and cpy; 1-2% galena in qtz;	N/A	Au = 6.07g/t Ag = 202.5g/t Cu = 0.49% Pb = 0.38% Zn = 0.55%
58306	St Pierre Dump	Sample is white qtz barite with 2-3% galena and minor cpy and malchite;	N/A	Au = 0.63g/t Ag = 232g/t Cu = 0.36% Pb = 12.5% Zn = 5.25% Ba = 51.5%
28136	Eastern edge of L-86 rubble from pit ; st pierre area	Sample is fg dark grey/black mafic volcanic with 2-3% fg massive clots of py; occasionally py appears oxidized;	N/A	Au = <.03
28137	L-86 at 2+00N	Sample is aphanitic grey cherty meta sediment; 1-2% fg py which is concentrated along fractures;	N/A	Au = <.03
28138	Eastern edge of L-86 in situ from pit ; st pierre area	Massive sulphide clot with lots of iron oxide weathering; rock is gossan with minor fresh pyrite;	N/A	Au = <.03
28139	N of ML area pit	Cherty sediments with bedding 1mm to 1cm	N/A	Au = <.03

	15x10x8ft	thick; 1% fg disseminated py;		
28140	100m N of M.L.	Light grey/yellowish cherty with moderate chl fracturing and 1% fg py occurring along fractures;	N/A	Au = <.03
11055	Pit just west of ML shaft in stripping	Sample is highly altered porphyry with random qtz carb blebs and tr fg py; moderate ammt of iron oxide on weathered surface; dense?	N/A	Au =33ppb Ag =0.7ppm Ba = 383ppm Pb =7ppb
11056	Pit just west of ML shaft in stripping	Sample is highly altered porphyry with random qtz carb blebs and tr fg py;	N/A	Au=99ppb Ag=1.6ppm Ba= 443ppm Pb=15ppb
28142	From ML dump	Sample is bullish white qtz with larger phenocrysts 2cm of possible barite; sample is relatively dense for just qtz;	N/A	Au=2.4g/t Ba= 457ppm
28143	From ML dump	Sample is bullish white qtz with beige mineral which is probably barite; high density;	N/A	Au =15ppb Ba = 40.75%
28144	From ML dump	Sample is qtz carb with moderate ammt of azurite and malachite; lots of silver metallic and tr cpy;	N/A	Au=1.36g/t Ag=2280g/t Cu=5.71%
28145	From ML dump	Sample is altered grey mafic with 4" of qtz; 1-2% fine galena; 1% cpy; minor malachite and pvq?	N/A	Au=1.92g/t Ag=957g/t Cu=1.59%
28146	ML vein in Place N of shaft in 8" qtz vein	Sample is qtz carb with 3-5% galena occurring as clots and tr cpy and tr malachite and tr azurite;	N/A	Au=446ppb Ag=754g/t Cu=0.27% Pb=0.88% Zn=167ppm
58933	Map	Fresh fg MV; minor carb fracturing; dry;	0.75m	19ppb
58934	Map	Bullish qtz barite vein with minor muscovite; rock is fg MV-dry; locally grey qtz with minor ep alt;	1.40m	34ppb
58935	Map	Bullish qtz-barite with minor muscovite in qtz; locally minor iron stain and minor chl along fractures;	1.45m	171ppb
58936	Map	Fg MV minor carb fracturing; Rubbly sample re fg-mg py as clots(~3mm)	0.70m	6ppb
58937	Map	Bullish qtz barite with minor chl; fg MV with minor qtz carb fracturing; dry;	1.70m	55ppb
58938	Map	Bullish qtz barite vein-locally grey; minor iron stain along fractures;	0.75m	29ppb
58939	Map	fg MV minor ep and chl alt; qtz barite vein dry; very sparse py;	1.50m	Nil
58940	Map	Light grey QFP with phenos (3-5mm) minor sericite alt; qtz barite vein with green stain (prehnite?)	0.95m	31ppb
58941	Map	Dry qtz barite vein in fg MV with minor musc in qtz;	0.95m	60ppb
58942	Map	Sample is very Rubbly and dirty ; seritized MV with locally chunks of iron stained qtz;	0.70m	15ppb
58943	Map	Fg Mv -grey- minor iron oxide alt on weathered surface;	0.95m	12ppb
58944	Map	Grey white qtz barite vein in fg dark grey MV- minor musc in qtz + 1% py locally	0.80m	137ppb

		along fractures; locally brecciated;		
58945	Map	Fg MV with lots of bullish white qtz barite; minor iron stain on qtz;	0.50m	7ppb
58946	Map	Fg seritized MV with minor carb fract and tr fg dissem Py;	0.40m	31ppb
58947	Map	Grey qtz barite vein with tr fg py as a large clot (3cm) in qtz;	0.70m	24ppb
58948	Map	Grey QFP with phenos (2-5mm); locally micaceous; cut by Qtz barite vein with parallel chl fractures; tr fg py dissem in QFP; tr fg py in Qtz;	0.95m	46ppb
58949	Map	Dense qtz barite vein with tr fg py in qtz; locally minor musc and iron oxide;	0.60m	45ppb
58950	Map	Light grey to dark grey chert with 1% fg py and tr cpy along fractures; locally minor iron oxide;	N/A	10ppb
16007	Map	Qtz barite vein in highly alt MV; 1-2% galena in qtz; 1% cpy and malachite in qtz; with moderate ammts of native silver;	0.65m	Au = 3.10g/t Ag = 495g/t Cu = 0.35% Pb = 0.20% Zn = 0.076%
16008	Map	Sample is qtz carb vein in highly alt MV with str sericite alt; qtz has tr native silver; tr fg cpy with minor malchite staining;	0.85m	Au = 75ppb Ag = 33.6g/t Cu = 0.09% Pb = 0.02% Zn = 257ppm
16009	Map	Qtz barite vein in alt MV; 1% galena and (<1%) cpy with minor malachite; minor iron stain in qtz;	0.40m	Au = 1.46g/t Ag = 52.4g/t Cu = 0.10% Pb = 0.45% Zn = 0.32%
16010	Map	Very str sericite alteration of MV; fissile and crenulated; shear zone; minor ammts of carb and tr fg py;	0.70m	Au = 46ppb Ag = 1.7g/t Cu = 87ppm Pb = 67ppm Zn = 136ppm
16011	Map	Sample is seritized MV with moderate carb fracturing and tr fg py along fractures; Minor qtz barite is bullish;	0.60m	Au = 171ppb Ag = 4.2g/t Cu = 0.04% Pb = 0.03% Zn = 285ppm
16012	Map	Sample is light green grey aphanitic MV; large qtz carb clot with local conc of 1-2% fg py;	N/A	12ppb

Table #7 – Mallard Lake Shaft Sample Results

TABLE #8 – Ed Hargreaves Sampling Results (Map #16 &amp; #17)

Sample #	Location	Description	Length	Assay
28124	Ed Hargreaves eastern stripping	Sample is cg euhedral to subhedral py in gabbro; massive pyrite up to 12% as rock comp;	N/A	1.92g/t
28125	South side of EH shaft	Sample has moderate iron oxide alt and MV is alt; minor qtz with 1% fg py occuring as clots;	N/A	<.03

28126	Sample is from EH rubble pile but very similar to sulphide zone	Sample has minor qtz and 4cm massive band of fg and vfg py; 30% py as comp of rock;	N/A	1.85g/t
28127	Ed Hargreaves eastern stripping	Sample is alt gabbro with 1-2% fg-mg py as clots;	N/A	0.34g/t
28128	Sulphide zone west edge of EH shaft	Sample is alt gabbro with 1-2% fg dissem py; also thick conc of sulphides-massive; 10% sulphides as total composition of rock;	N/A	0.137g/t
28141	Conglomerate west of EH shaft in swamp pit on N edge of swamp;	Sample is conglomerate with light grey/green matrix and clasts appearing to be a granitic comp;	N/A	<.03
11051	Sample is from 60ft trench north of EH at the end near the rd;	Sample is highly alt MV with moderate carb fracturing; dense; weathered surface has minor iron oxide;	N/A	<.03
11052	Sample is from EH eastern edge of shaft in sulphide zone;	Sample is dark grey mafic with 9-12% fg and vfg py; iridescence on weatherd surface;	N/A	2.81g/t
11053	Sample is from Eastern Ed Hargreaves	Sample is gabbro or diorite with tr fg dissem py and local conc of 1-2% fg py; tr cpy;	N/A	<.03
11054	Sample is from Eastern Ed Hargreaves	Sample is grey gabbro with locally siliceous sections with tr fg dissem py ; siliceous sections are very light grey as seen near shaft;	N/A	<.03
58902	Shaft	Small qtz stringers in mg int; bluish qtz stringer with minor iron oxide- tr fg py in intermediate;	0.40m	247ppb
58903	Shaft	Grey qtz with minor ank; tr fg py in Qtz;	0.45m	41ppb
58904	Shaft	Grey fractured qtz with 1% fg py conc along fractures;	0.35m	33ppb
58905	Shaft	West edge of shaft-pyritic shear – seritized mv with qtz fractures and local conc of 1-2% fg py;	0.6m	93ppb
58906	Shaft	Mg int volc- (<1cm Qcs) tr fg py in Int Vol.	0.25m	9ppb
58907	Shaft	1cm QCS in MV with re fg py and minor iron oxide	0.30m	50ppb
58908	Shaft	North wall of shaft mg int tr fg dissem py: 1cm QCS with iron oxide-bullish;	0.60m	29ppb
58909	Shaft	Main vein east edge of shaft – minor iron oxide- smky wtz – 1% fg py along fractures;	0.35m	70ppb
58910	Shaft	Pyritic zone on east edge of shaft- Zone is 15-20cm with 3-5% Py	0.50m	866ppb
58911	Shaft	Secondary Py zone just east of shaft- sample is seritized MV with local conc of 3-5% py+po;	0.35m	300ppb
58912	Shaft	Silicified zone NE of shaft with (<1cm) qtz fractures-bullish- in (fg-mg)Int Volc.-light grey	0.70m	12ppb
58913	Shaft	North wall of main vein- 10ft E of shaft- sample is qtz in Int volc with tr fg dissem py; 1-2% fg py in qtz;	0.50m	63ppb
58914	Shaft	MV 10ft east of shaft-minor carb fracturing;	0.40m	29ppb
58915	Shaft	Smaller py zone- east of sample 911 – minor qtz in mg intermediate- locally 3-5% (fg-mg)	0.30m	120ppb

		py		
58916	Shaft	South of main zone- 15ft E of shaft- MV with 1-4cm QCS – tr fg dissem py;	0.55m	93ppb
58917	Shaft	MV 10ft east of shaft- minor QCS; tr fg dissem py;	0.55m	65ppb
58918	Shaft	Main py zone 10ft E of shaft; sample is 7-9% fg-vfg Py; minor qtz;	0.35m	843ppb
58919	Shaft	Main vein 10ft E of shaft-Qtz in mg int volc with tr fg py;	0.50m	120ppb
58920	Shaft	Qtz stringer NE of shaft- bullish 1cm QCS- tr fg py in Int Vol	0.35m	29ppb
58921	Shaft	Qtz stringer NE of shaft – 1cm QCS in Int Volc; locally 1-2% fg py along QCS;	0.35m	50ppb
58922	Shaft	Main vein offshoot – 15ft E of shaft- sample is heavily iron oxidized; minor qtz but far too rusty; rock is mg int;	0.50m	14ppb
58923	Shaft	Main vein 15ft E of shaft – Grey qtz with tr iron oxide and tr fg py;	0.45m	19ppb
58924	Shaft	Main py zone; 15ft E of shaft – qtz stringers in Int Volc with local conc of 1-2% fg py	0.6m	497ppb
58925	Shaft	Part of main py zone 15ft E of shaft – MV with tr fg dissem Py; 15% qtz with 1-2% fg py;	0.35m	327ppb
58926	Shaft	Part of main py zone with bullish qtz; 15ft east of shaft- Bull qtz with abundant iron oxide and light grey Int Vol with locally concentrated 1-2% fg py;	0.45m	29ppb
58927	Shaft	Part of Main Vein+ secondary stringers- 15ft E of shaft – Bull qtz in Mg Int – Mod ammt of Iron oxide;	0.75m	14ppb
58928	Shaft	Secondary qtz stringer 15ft NE of shaft-2cm Bullish QCS in MV with tr fg dissem Py;	0.50m	12ppb
58929	Shaft	Secondary qtz stringer 15ft NE of shaft;1-2cm QCS in mg Int Volc wit tr fg dissem py;	0.50m	12ppb
58930	Shaft	Secondary Qtz Stringer- 2c, in ,g Int Vol with tr fg dissem py;	0.30m	15ppb
58931	Shaft	Eastern Stripping- 1-2” QCS in Mg Mafic – dark grey – locally abundant iron oxide- Nice Qtz with 1-2% fg py;	0.65m	29ppb
58932	Eastern Stripping	Mg Int- light grey with (<1%) fg dissem py+ qtz stringers;	0.60m	34ppb
58880	Eastern Stripping	QV + Rusty shear on west end of ES; bull white qtz with iron oxide- minor ammts of ep and smoky(grey) qtz; rock is mg Int;	N/A	12ppb
58881	Eastern Stripping	Secondary Stringer; MV with glassy black phenos(Hb?);1-2cm Qcs-dry; although 1% fg-mg dissem py in MV;	0.80m	93ppb
58882	Eastern Stripping	Vein breccia-white qtz with locally abundant iron ozide; rock is dry grey MV- non magnetic;	0.65m	22ppb
58883	Eastern Stripping	Secondary stringer in dark grey MV with glassy phenos;	0.35m	77ppb
58884	Eastern Stripping	Qtz breccia in dark grey (fg-mg) MV; qtz is bullish(30% of sample); 2cm band of py occurs in MV ~5-7% Py;	0.60m	165ppb



58885	Eastern Stripping	Rusty shear+qtz breccia- dense qtz with chl fract; weathered surface has abundant iron oxide; locally conc 1-2% fg py as stringers;	0.40m	112ppb
58886	Eastern Stripping	Vein breccia – white qtz iwth minor iron oxide and tr py in dark grey MV with glassy phenos;	0.30m	10ppb
58887	Eastern Stripping	Vein breccia – white qtz iwth minor iron oxide and tr py in dark grey MV with glassy phenos;	0.35m	99ppb
58888	Eastern Stripping	Main vein in water – qtz with 1% fg py along fractures; chl fracturing in qtz; rock is fg MV with glassy phenos;	0.50m	70ppb
58889	Eastern Stripping	Main vein-nice- qtz with 1-2% fg-vfg py along fractures; locally iron oxide;	0.50m	405ppb
58890	Eastern Stripping	Vein breccia- main one- dry qtz in MV- dark grey with dark black glassy phenos;	0.45m	3ppb
58891	Eastern Stripping	Vein Breccia – Qtz veining- white qtz- bullish in dark grey MV with minor iron oxide;	0.50m	15ppb
58892	Eastern Stripping	Rusty shear; qtz and alt MV but sample too rusty to distinguish the rock further;	0.50m	72ppb
58893	Eastern Stripping	Sample is very Rusty Same as 58892;	0.60m	163ppb
58894	Eastern Stripping	Qtz beside 892; qtz with chl fracturing and mod iron oxide;	0.40m	63ppb
58895	Eastern Stripping	Rusty shear#2; Qtz breccia in MV with mod iron oxide and 1-2% fg-cg py in Qtz and MV – grey qtz and minor graphite;	0.50m	383ppb
58896	Eastern Stripping	Wide rusty shear- Sample is very Rusty; mg int Vol with minor qtz;	0.40m	117ppb
58897	Eastern Stripping	Beside Shear- Mg Int with (<1cm) QCS; tr dissem Py;	0.45m	24ppb
58203	Shaft	Qtz with minor muscovite gives silvery appearance; minor green chl fract; rock is mg int; qtz has tr of sulphides;	0.75m	36ppb
58204	Shaft	Grey and White qtz vein in light grey mg Int; 1% py occuring as clots(1cm) along fractures;	0.50m	26ppb
58205	Shaft	Dark Grey seritized MV – multiple QCS(1-2cm) with iron oxide and locally 1-2% fg py conc; weathered surface has sig nud + iron oxide;	0.60m	33ppb
58206	Shaft	Fg grey MV; minor carb fract; 1-2% fg-mg dissem py; locally seritized;	0.95m	43ppb
58207	Shaft	Fg dark grey seritized MV with 1% fg-cg Py occuring as clots; 3-4cm Bullish QCS with iron oxide;	0.40m	46ppb
58208	Shaft	Partially brecciated qcs in light grey mg int; dry sample;	0.70m	14ppb
58209	Shaft	Fresh mg Int with 50% qtz with grey fracturing and 1% fg-mg dissem py- Mod iron oxide alt on weathered surface;	0.50m	14ppb
58210	Shaft	Mg Int; light grey: QCS- several(<1cm)- tr fg py in Int Rock;	0.35m	14ppb
58211	Eastern Stripping	Dark grey seritized MV with qtz veining; dark black glassy (hb); locally clots of mg-cg py(euhedral to subhedral) (clots=2cm);	0.30m	65ppb
58212	Eastern Stripping	Heavily seritized dark grey MV – minor carb	0.90m	76ppb

		fractures-dry;		
58213	Eastern Stripping	Seritized MV with qtz stringers- mod iron oxide in qtz; dry;	0.65m	43ppb
58214	Eastern Stripping	Dark grey heavily seritized MV; mod iron oxide on weathered surface; dry;	0.55m	10ppb
58215	Eastern Stripping	Dark grey Seritized MV with 1cm QCS (<1%) fg dissem py in qtz;	0.55m	19ppb
58216	Eastern Stripping	Dry brecciated QCS in fg dark grey MV – mod iron oxide in Qtz;	0.25m	9ppb
58217	Eastern Stripping	Bullish brecciated QCS in dark grey seritized MV – minor musc in qtz; locally qcs is alt to iron oxide;	0.55m	10ppb
58218	Eastern Stripping	Brecciated QCS in seritized dark grey MV – locally alt to iron oxide; dry;	0.30m	10ppb
58898	Eastern Stripping	Mg Int with 1% fg dissem Py;	0.85m	17ppb
58899	Eastern Stripping	Mg Int with tr fg py- minor iron oxide;	0.65m	24ppb
58900	Eastern Stripping	Fg dark grey seritized MV- minor carb fract + tr fg py;	0.50m	7ppb
16001	Eastern Stripping	Fg seritized MV with brecciated qtz containing abundant iron oxides;	0.40m	Nil
16002	Eastern Stripping	Fg seritized MV with minor carb fract and tr iron oxide;	0.50m	21ppb
16003	Eastern Stripping	Dark grey fg seritized MV with minor carb fracturing;	0.50m	9ppb
16004	Eastern Stripping	fg seritized MV with brecciated qtz with abundant iron oxide;	0.80m	15ppb
16005	Eastern Stripping	fg seritized MV with brecciated qtz with abundant iron oxide;	0.45m	29ppb
16006	Eastern Stripping	fg seritized MV with brecciated qtz with abundant iron oxide;	1.0m	14ppb
16094	Shaft	Qtz-25cm with green chl fract + 1% fg Py along fract; tommy	N/A	51ppb
16095	Shaft	Main py zone; 15-20% FG-VFG PY;	N/A	549ppb
16096	Eastern Stripping	Far Far East –Dark black chl+ graphite+ minor iron oxide; seritized and rubbly;	N/A	1.03g/t
16097	Eastern Stripping	Far east under water zone; fissile MV with mod carb; appears crenulated; 1-2% fg py along fractures;	N/A	391ppb
16099	Eastern Stripping	Fissile crenulated fg MV with 1-2% fg-cg py along fractures; minor carb; minor iron oxide;	N/A	1.92g/t
11724	OC along Ed hargreaves Rd	Light grey volcanic with minor carb fracturing and moly or graphite along fractures;	N/A	<.03
11725	Ed Hargreaves Dump	Sample is 50% Qtz with 1% fg dissem py; remainder of sample is mafic with 7-9% fg disseminated py;	N/A	<.03
11726	Ed Hargreaves Dump	Sample is chl fractured qtz with 1% fg disseminated py;	N/A	<.03
11727	Ed Hargreaves Dump	Sample is chl fractured qtz with 1% fg disseminated py;	N/A	<.03
11728	Ed Hargreaves Dump	Sample is mafic volcanic with 9-11% fg-mg py locally massive sulphide clots; minor qtz; dark grey sulphides;	N/A	1.37g
11729	Ed Hargreaves Dump	Sample is chl fractured qtz with local conc of 2-3% fg py; minor bluish grey alteration- possibly metallic;	N/A	0.21g

11730	Ed Hargreaves In situ	Mafic volcanic adjacent to main vein with 7-9% fg disseminated py;	N/A	3.22g
11731	Ed Hargreaves Rubble around vein	Sample is chl fractured qtz with moderate ankerite and minor cpy with str malachite staining and possible native copper;	N/A	<.03
11732	Ed Hargreaves Rubble around vein	Sample is chl fractured qtz with moderate ankerite and 1-2% fg disseminated py;	N/A	<.03
11733	Ed Hargreaves In Situ Vein	Sample is chl fractured qtz with 1-2% fg py along fractures;	N/A	<.03
11734	Ed Hargreaves In Situ Vein	Sample is chl fractured qtz with 1-2% fg py along fractures; tr cpy;	N/A	<.03
11735	Ed Hargreaves Dump	Sample is qtz and highly altered mafic; moderate light blue/grey alteration; 1% fg disseminated py and minor iron oxide;	N/A	<.03
11736	Ed Hargreaves rubble around vein	Sample is mafic volcanic with 7-9% fg-mg py;	N/A	2.33g
11738	Sample is from Ed Hargreaves Rubble	Sample is qtz with 3-5% fg disseminated py; tr cpy	N/A	0.07g
11739	Sample is from Ed Hargreaves Rubble	Sample is qtz with 3-5% fg disseminated py; tr cpy	N/A	0.14g

**Table #8** – Ed Hargreaves Sampling Results

## Certificate of Author

I, Greg Matheson of the Town of Kirkland Lake, Ontario hereby certify:

- 1) I am a graduate of Brock University, St. Catharines, Ontario having recieved a B.SC (Honours) in Earth Sciences in 2008.
- 2) I have worked as a geologist for 2 years, predominantly in the Kirkland Lake mining camp.
- 3) I am employed as an exploration geologist with Northern Gold Mining Inc.
- 4) I have made use of the records of the Ontario Geological Survey as well as field observations and personal knowledge of the area in the preparation of this report.

Dated: February 8, 2009

  
\_\_\_\_\_  
Greg Matheson, B.Sc(Hon)

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## Appendix

Certificates of Analysis –8W-1703-RG1; 8W-1716-RG1; 8W-1704-RG1; 8W-1597-RG1; 8W-1596-RG1; 8W-2818-RG1; 8W-2881-RG1; 8W-2686-RG1; 8W-3024-RG1; 8W-3101-RG1; 8W-3114-RG1; 8W-3176-RG1; 8W-3215-RG1; 8W-3254-RG1; 8W-3255-RG1; 8W-3324-RG1; 8W-3362-RG1; 8W-3435-RG1; 8W-1482-RG1; 8W-1761-RG1; 8W-1684-RG1; 8W-1649-RG1; 8W-1576-RG1; 4105; 4106; 4107; 4162; 4216; 4217; 4272; 4270; 4271; 4312; 4313; 4321; 4325; 4324; 4394; 4395; 4396; 4397; 4398; 4454; 4457; 4661; 4662; 4510; 4599; 4663; 4664; 4673; 4695; 4748; 4749; 4750;

Map #6 – Geology of the Kirana Property (1:2500)

Map #7 – Grab Sample Plan of the Kirana Property (1:10000)

Map #8 – Areas of Interest on the Kirana Property (1:10000)

Map #9 – Fidelity Stripping (1:200)

Map #10 – Fidelity Shaft Geology/Sample Locations (1:100)

Map #11 – Fidelity Sample Plan (1:200)

Map #12 – Fidelity East Stripping (1:200)

Map #13 – Goodfish West Stripping (1:100)

Map #14 – Goodfish East Stripping (1:100)

Map #15 – Mallard Lake Stripping (1:100)

Map #16 – Ed Hargreaves Shaft Stripping (1:200)

Map #17 – Ed Hargreaves East Stripping (1:200)





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## Geochemical Analysis Certificate


8W-1703-RG1

Company: **NORTHERN GOLD MINING INC.**  
Project: JUNE19/08  
Attn: K. RATTEE

Date: JUL-08-08

We hereby certify the following Geochemical Analysis of 9 ROCK samples submitted JUN-19-08 by .

Sample Number	Au PPB	Au Check PPB	Cu PPM
24793	Nil	-	8
24794	10	-	10
24795	Nil	-	102
24796	26	-	18
24797	21	-	26
24798	34	-	66
24799	789	754	348
24800	213	-	1330
28451	521	-	1400
BLANK	Nil	-	-
STD OxJ64	2331	-	-

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## Geochemical Analysis Certificate

8W-1716-RG1

Company: **NORTHERN GOLD MINING INC.**  
Project:  
Attn: **D.W. EVES**

Date: JUL-15-08

We hereby certify the following Geochemical Analysis of 44 CORE samples submitted JUN-20-08 by .

Sample Number	Au PPB	Au Check PPB
28445	19	-
28447	10	-
28448	22	-
28449	12	-
28450	24	-
28452	67	82
28453	52	-
28351	5	-
28352	Nil	-
28354	9	-
28355	7	-
28356	5	-
28357	3	-
28358	9	-
BLANK	Nil	-
STD OxJ 64	2489	-

Certified by *Dennis Chant*



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## Geochemical Analysis Certificate

**8W-1704-RG1**

Company: **NORTHERN GOLD MINING INC.**  
Project: JUNE 19/08  
Attn: K. RATTEE

Date: JUL-07-08

We hereby certify the following Geochemical Analysis of 42 CORE samples submitted JUN-19-08 by .

Sample Number	Au PPB	Au Check PPB
28401	22	14
28402	9	-
28403	22	-
28404	5726	-
28405	3	-
28406	12	-
28407	7	-
28408	10	-
28409	15	-
28410	14	-
28411	3	-
28412	10	-
28413	5	-
28414	21	-
28723	10	19
28724	3	-
28725	9	-
28726	9	-
28727	24	-
28728	19	-
28729	5	-
28730	7	-
28731	77	-
28732	5	-
28733	3	-
28734	3	-
28735	5	-
28736	41	43
28737	45	-
28738	19	-

Certified by Denis Chate



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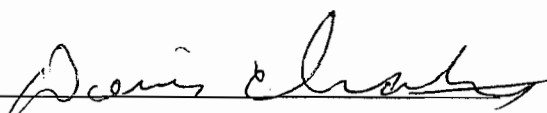
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Company: **NORTHERN GOLD MINING INC.**  
Project: JUNE 19/08  
Attn: K. RATTEE

Date: JUL-07-08

We hereby certify the following Geochemical Analysis of 42 CORE samples submitted JUN-19-08 by .

Sample Number	Au PPB	Au Check PPB
28739	58	-
28740	45	-
28741	168	144
28742	27	-
28743	22	-
28744	5	-
28745	33	-
28746	22	-
28747	15	-
28748	7	-
28749	9	7
28750	10	-
BLANK	Nil	-
STD OxJ64	2352	-

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## Geochemical Analysis Certificate

8W-1597-RG1

Company: **NORTHERN GOLD MINING INC.**


Date: JUN-17-08

Project:

Attn: **G.MATHESON**

We hereby certify the following Geochemical Analysis of 5 ROCK samples submitted JUN-09-08 by .

Sample Number	Au PPB	Au PPB	Ag PPM	Co PPM	Mo PPM	Ni PPM
24756	173	209	0.1	15	3	40
24757	5	-	0.1	39	<2	79
24758	19	-	0.2	35	<2	63
24759	Nil	-	0.1	4	<2	26
24760	55	-	0.7	126	<2	113

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## Geochemical Analysis Certificate

8W-1596-RG1

Company: **NORTHERN GOLD MINING INC.**

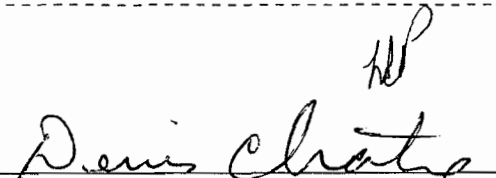
Date: JUN-19-08

Project:

Attn: **G.MATHESON**

We hereby certify the following Geochemical Analysis of 80 CORE samples submitted JUN-09-08 by .

Sample Number	Au PPB	Au PPB
28951	5	-
28952	Nil	-
28953	5622	-
28954	7	-
28955	12	-
28956	Nil	-
28957	14	21
28958	24	-
28959	Nil	-
28960	33	-
28961	14	-
28962	Nil	-
28963	Nil	-
28964	Nil	-
28965	12	-
28966	70	74
28967	39	-
28968	48	-
28969	21	-
28970	3	-
28971	34	-
28972	15	-
28973	Nil	-
28974	27	-
28975	Nil	-
28976	77	-
28977	55	-
28978	74	-
28979	55	-
28980	326	317

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## Geochemical Analysis Certificate

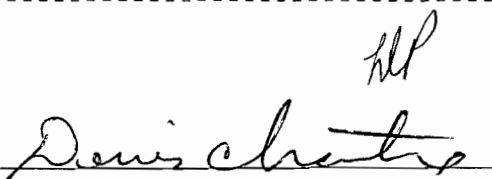
**8W-1596-RG1**

Company: **NORTHERN GOLD MINING INC.**  
Project:  
Attn: **G.MATHESON**

Date: JUN-19-08

We hereby certify the following Geochemical Analysis of 80 CORE samples submitted JUN-09-08 by .

Sample Number	Au PPB	Au PPB
28981	154	-
28982	51	-
28983	139	144
28984	14	-
28985	Nil	-
28986	Nil	-
28987	12	-
28988	7	-
28989	12	-
28990	3	-
28991	21	-
28992	Nil	-
28993	Nil	-
28994	5	-
28995	10	-
28996	Nil	-
28997	Nil	-
28998	3	-
28999	Nil	-
29000	17	-
28851	5	-
28852	14	-
28853	12	-
28854	3	-
28855	10	-
28856	14	-
28857	Nil	-
28858	14	14
28859	15	-
28860	3	-

Certified by  <sup>hlp</sup>



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## Geochemical Analysis Certificate

8W-1596-RG1

Company: **NORTHERN GOLD MINING INC.**

Date: JUN-19-08

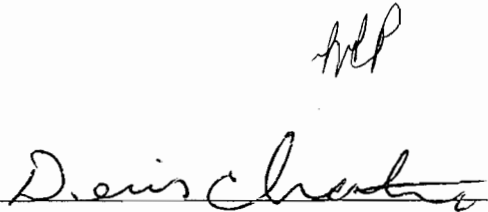
Project:

Attn: **G.MATHESON**

We hereby certify the following Geochemical Analysis of 80 CORE samples submitted JUN-09-08 by .

Sample Number	Au PPB	Au PPB
28861	7	-
28862	3	-
28583	165	-
28584	94	-
28585	175	195
28586	58	-
28587	51	-
28588	86	-
28589	51	-
28590	51	-
28591	34	-
28592	24	-
28593	24	-
28594	29	-
28595	15	-
28596	19	-
28597	17	-
28598	26	-
28599	26	-
28600	240	257
Blank	3	-
STD OxJ64	2489	-

Certified by







*Quality Assaying for over 50 Years*

**Geochemical Analysis Certificate**

**8W-2818-RG1**

Company: **Northern Gold Mining Inc**  
Project:  
Attn: **G.Matheson**

Nov-06-08

We hereby certify the following geochemical analysis of 6 pulp samples submitted Jun-10-08

Sample Name	Ba %	Ga ppm	Ge ppm	In ppm
11747		0.7	2.1	0.1
11748		1.5	1.3	<0.1
11749		0.9	1.0	0.3
58306	52.1			
*DUP 58306	50.9			
*BaCl2	64.4			
*BLANK	<0.01	<0.1	<0.1	<0.1

Ba by fusion. Ga,Ge&In 4-acid digest ICP-MS finish.

Certified by \_\_\_\_\_

*Quality Assaying for over 40 Years***Geochemical Analysis Certificate****8W-2881-RG1**Company: **Northern Gold Mining Inc**  
Project:  
Attn: **G.Matheson**

Nov-06-08

We *hereby certify* the following geochemical analysis of 3 rock samples submitted Oct-10-08

<b>Sample Name</b>	<b>Ba ppm</b>	<b>Ba %</b>
11055	367	
11056	443	
28142	457	
28143		40.2
*DUP 11055	399	
*DUP 28143		41.3
*STSD-3	1382	
*BaCl2		64.4
*BLANK	<5	<0.01

Ba by fusion.

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## Geochemical Analysis Certificate

8W-2686-RG1

Company: **NORTHERN GOLD MINING INC.**

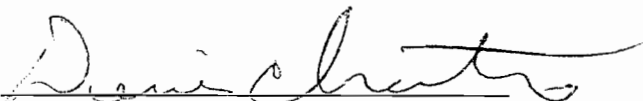
Date: SEP-25-08

Project:

Attn: **G. MATHESON**

We hereby certify the following Geochemical Analysis of 9 ROCK samples submitted SEP-15-08 by .

Sample Number	Au Au Check ppb ppb	Ag ppm	Cu ppm	Cu %	Pb %	Pb ppm	Zn %	Zn ppm
11745	1097 -	124.6	2740	-	20.98	>10000	4.92	>10000
11746	2811 2880	129.0	2790	-	12.40	>10000	-	5550
11747	4011 -	164.0	2860	-	-	5900	-	588
11748	1680 -	557.0	>10000	1.01	-	8840	-	1350
11749	751 -	64.3	805	-	9.00	>10000	1.43	>10000
11750	10560 11760	270.3	1670	-	25.53	>10000	-	135
58304	NIL -	-	-	-	-	-	-	-
58305	5486 6651	202.5	4930	-	-	3760	-	5530
58306	634 -	232.0	3570	-	12.51	>10000	5.25	>10000
BLANK	NIL -	-	-	-	-	-	-	-
STD OxJ64	2469 -	-	-	-	-	-	-	-

Certified by 



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## Geochemical Analysis Certificate

8W-2881-RG1

Company: **NORTHERN GOLD MINING INC.**

Date: OCT-16-08

Project:

Attn: **G. MATHESON**

We hereby certify the following Geochemical Analysis of 14 ROCK samples submitted OCT-06-08 by .

Sample Number	Au ppb	Au Check ppb	Ag ppm	Ba ppm	Co ppm	Cu ppm	Cu %	Ni ppm	Pb ppm	Zn ppm
11055	33	-	0.7	RESULTS	-	-	-	-	7	-
11056	99	-	1.6	TO	-	-	-	-	15	-
28142	2465	2331	-	FOLLOW	-	-	-	-	-	-
28143	15	-	-	-	-	-	-	-	-	-
28144	1440	1269	2280.0	-	-	>10000	5.71	-	-	-
28145	1749	2091	957.0	-	-	>10000	1.59	-	-	-
28146	514	377	754.0	-	-	2650	-	-	8750	167
28129	120	-	-	-	-	-	-	-	-	-
28130	21	-	-	-	-	-	-	-	-	-
28131	15	-	6.3	-	35	257	-	43	165	79
28132	31	-	1.1	-	61	549	-	65	21	104
28133	27	-	-	-	-	-	-	-	-	-
28134	14	-	-	-	-	-	-	-	-	-
28135	24	-	-	-	-	-	-	-	-	-
BLANK	NIL	-	-	-	-	-	-	-	-	-
STD OXJ64	2304	-	-	-	-	-	-	-	-	-

Certified by *Denis Chent*



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## Geochemical Analysis Certificate

8W-3024-RG1

Company: **NORTHERN GOLD MINING INC.**

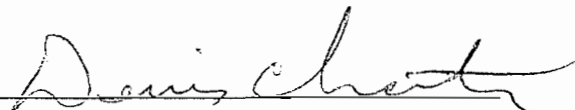
Date: OCT-27-08

Project:

Attn: **G. MATHESON**

We hereby certify the following Geochemical Analysis of 15 ROCK samples submitted OCT-22-08 by .

Sample Number	Au ppb	Au Check ppb	Ag ppm
11057	17 ✓	-	-
11058	9 ✓	-	-
11059	309 ✓	291	-
11060	211 ✓	-	-
11061	29 ✓	-	-
11062	15 ✓	-	-
11063	9 ✓	-	-
11064	21 ✓	-	-
11065	17 ✓	-	-
11066	12 ✓	-	-
11067	5 ✓	-	-
11068	10 ✓	-	-
11069	1029 ✓	1011	-
11070	36 ✓	-	0.2
11071	27 ✓	-	0.6
BLANK	NIL	-	-
STD OxJ64	2359	-	-

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## Geochemical Analysis Certificate

8W-3101-RG1

Company: **NORTHERN GOLD MINING INC.**

Date: NOV-03-08

Project:

Attn: **G. MATHESON**

We hereby certify the following Geochemical Analysis of 5 CORE & ROCK samples submitted OCT-28-08 by .

Sample Number	Au ppb	Au Check ppb
9097 ✓	117	-
9098 ✓	127	-
11072 ✓	2290	3017
11073 ✓	192	-
11074 ✓	212	-
BLANK	3	-
STD OxJ64	2331	-

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## Geochemical Analysis Certificate

8W-3114-RG1

Company: **NORTHERN GOLD MINING INC.**


Date: NOV-12-08

Project:

Attn: **G. MATHESON**

We hereby certify the following Geochemical Analysis of 49 ROCK samples submitted OCT-30-08 by .

Sample Number	Au ppb	Au Check ppb
58880 ✓	12	-
58881 ✓	93	-
58882 ✓	22	-
58883 ✓	77	-
58884 ✓	165	-
58885 ✓	113	110
58886 ✓	10	-
58887 ✓	99	-
58888 ✓	70	-
58889 ✓	459	350
58890 ✓	3	-
58891 ✓	15	-
58892 ✓	72	-
58893 ✓	163	-
58894 ✓	63	-
58895 ✓	357	408
58896 ✓	117	-
58897 ✓	24	-
58902 ✓	247	-
58903 ✓	41	-
58904 ✓	33	-
58905 ✓	93	-
58906 ✓	9	-
58907 ✓	50	-
58908 ✓	29	-
58909 ✓	70	-
58910 ✓	885	847
58911 ✓	300	-
58912 ✓	12	-
58913 ✓	63	-

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## Geochemical Analysis Certificate

8W-3114-RG1

Company: **NORTHERN GOLD MINING INC.**


Date: NOV-12-08

Project:

Attn: G. MATHESON

We hereby certify the following Geochemical Analysis of 49 ROCK samples submitted OCT-30-08 by .

Sample Number	Au ppb	Au Check ppb
58914 ✓	29	-
58915 ✓	120	-
58916 ✓	93	-
58917 ✓	65	-
58918 ✓	842	843
58919 ✓	120	-
58920 ✓	29	-
58921 ✓	50	-
58922 ✓	14	-
58923 ✓	19	-
58924 ✓	583	411
58925 ✓	327	-
58926 ✓	29	-
58927 ✓	14	-
58928 ✓	12	-
58929 ✓	12	-
58930 ✓	15	-
58931 ✓	29	-
58932 ✓	34	-
BLANK	3	-
STD OxJ64	2304	-

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## Assay Certificate

8W-3176-RA1

Company: **NORTHERN GOLD MINING INC.**

Date: NOV-14-08

Project:

Attn: **G. MATHESON**

We hereby certify the following Assay of 12 ROCK samples submitted NOV-05-08 by .

Sample Number	Au ppb	Au Check ppb
11076 J	13337	12754
11077 /	1611	-
11078 /	1543	-
11079 /	823	-
11080 /	382	-
11081 /	9	-
11082 /	2846	3291
11083 /	600	-
11084 /	17006	16732
11085 /	1954	-
11086 /	336	-
11087 /	391	-
BLANK	NIL	-
STD OxJ64	2283	-

Certified by *Dennis Chant*



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## Geochemical Analysis Certificate

8W-3215-RG1

Company: **NORTHERN GOLD MINING INC.**


Date: NOV-13-08

Project:

Attn: **G. MATHESON**

We hereby certify the following Geochemical Analysis of 56 ROCK samples submitted NOV-10-08 by .

Sample Number	Au ppb	Au Check ppb	Mo ppm
58219 ✓	89	-	-
58220 ✓	756	-	-
58221 ✓	12	-	-
58222 ✓	1646	-	-
58223 ✓	4183	3189	79
58224 ✓	214	-	-
58225 ✓	4320	-	-
58226 ✓	19	-	-
58227 ✓	799	-	-
58228 ✓	240	-	-
58229 ✓	639	657	-
58230 ✓	21	-	-
58231 ✓	29	-	-
58232 ✓	84	-	-
58233 ✓	235	-	-
58234 ✓	12	-	-
58235 ✓	514	-	-
58236 ✓	713	-	-
58237 ✓	139	-	-
58238 ✓	175	-	-
58239 ✓	960	890	-
58240 ✓	994	-	-
58241 ✓	19	-	-
58242 ✓	1349	1388	-
58243 ✓	273	-	-
58244 ✓	18686	22492	-
58245 ✓	9360	8914	-
58051 ✓	67	-	-
58052 ✓	141	-	-
58053 ✓	297	-	-

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## Geochemical Analysis Certificate

8W-3215-RG1

Company: **NORTHERN GOLD MINING INC.**


Date: NOV-13-08

Project:

Attn: **G. MATHESON**

We hereby certify the following Geochemical Analysis of 56 ROCK samples submitted NOV-10-08 by .

Sample Number	Au ppb	Au Check ppb	Mo ppm
58054 ✓	21	-	-
58055 ✓	24	-	-
58056 ✓	57	-	-
58057 ✓	158	-	-
58058 ✓	55	-	-
58059 ✓	7	7	-
58060 ✓	5	-	-
58061 ✓	19	-	-
58062 ✓	297	-	-
58063 ✓	15	-	-
58064 ✓	10	-	-
58065 ✓	29	-	-
58066 ✓	228	261	-
58067 ✓	34	-	-
58068 ✓	38	-	-
58069 ✓	29	-	-
58070 ✓	1749	-	-
58071 ✓	2366	2537	-
58072 ✓	1997	-	-
58073 ✓	197	-	-
58074 ✓	12	-	-
58075 ✓	10	-	-
28147 ✓	5760	5554	-
28148 ✓	10	-	-
28149 ✓	10	-	-
28150 ✓	2846	-	-
BLANK	3	-	-
STD OxJ64	2283	-	-

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## Geochemical Analysis Certificate

8W-3254-RG1

Company: **NORTHERN GOLD MINING INC.**

Date: NOV-19-08

Project:

Attn: **G. MATHESON**

We hereby certify the following Geochemical Analysis of 35 ROCK samples submitted NOV-14-08 by .

Sample Number	Au ppb	Au Check ppb
58860 ✓	111	106
58861 ✓	14	-
58862 ✓	22	-
58863 ✓	69	-
58864 ✓	14	-
58865 ✓	17	24
58866 ✓	29	-
58867 ✓	7	-
58868 ✓	3	-
58869 ✓	12	-
58870 ✓	NIL	3
58871 ✓	15	-
58872 ✓	NIL	-
58873 ✓	NIL	-
58874 ✓	34	-
58875 ✓	15	-
58876 ✓	3	-
58877 ✓	3	-
58879 ✓	60	48
58203 ✓	36	-
58204 ✓	26	-
58205 ✓	33	-
58206 ✓	43	-
58207 ✓	46	-
58208 ✓	14	-
58209 ✓	14	-
58210 ✓	14	-
58211 ✓	65	-
58212 ✓	74	79
58213 ✓	43	-

Certified by *Dennis Chant*



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## Geochemical Analysis Certificate

8W-3254-RG1

Company: **NORTHERN GOLD MINING INC.**

Date: NOV-19-08

Project:

Attn: **G. MATHESON**

We hereby certify the following Geochemical Analysis of 35 ROCK samples submitted NOV-14-08 by .

Sample Number	Au ppb	Au Check ppb
58214 ✓	10	10
58215 ✓	19	-
58216 ✓	9	-
58217 ✓	10	-
58218 ✓	10	-
BLANK	NIL	-
STD OxJ64	2331	-

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## Geochemical Analysis Certificate

8W-3255-RG1

Company: **NORTHERN GOLD MINING INC.**

Date: NOV-21-08

Project:

Attn: **G. MATHESON**

We hereby certify the following Geochemical Analysis of 58 ROCK samples submitted NOV-14-08 by .

Sample Number	Au ppb	Au Check ppb
16051 ✓	7	-
16052 ✓	21	-
16053 ✓	NIL	-
16054 ✓	14	-
16055 ✓	214	274
16056 ✓	33	-
16057 ✓	21	-
16058 ✓	10	-
16059 ✓	22	-
16060 ✓	NIL	-
16061 ✓	58	62
16062 ✓	NIL	-
16063 ✓	10	-
16064 ✓	NIL	-
16065 ✓	31	-
16066 ✓	9	-
16067 ✓	31	-
16068 ✓	99	65
16069 ✓	10	-
16070 ✓	55	-
16071 ✓	29	-
16072 ✓	36	-
16073 ✓	41	-
16074 ✓	67	-
16075 ✓	14	9
16076 ✓	29	-
16077 ✓	24	-
16078 ✓	31	-
16079 ✓	29	-
16080 ✓	NIL	-

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## Geochemical Analysis Certificate

8W-3255-RG1

Company: **NORTHERN GOLD MINING INC.**

Date: NOV-21-08

Project:

Attn: G. MATHESON

We hereby certify the following Geochemical Analysis of 58 ROCK samples submitted NOV-14-08 by .

Sample Number	Au ppb	Au Check ppb
16081 ✓	58	-
16082 ✓	26	-
16083 ✓	NIL	-
16084 ✓	12	-
16085 ✓	3	-
16086 ✓	29	29
16087 ✓	14	-
16088 ✓	7	-
16089 ✓	48	-
16090 ✓	NIL	-
16091 ✓	415	538
16092 ✓	NIL	-
16093 ✓	1570	-
16094 ✓	51	-
16095 ✓	549	-
16096 ✓	1030	-
16097 ✓	391	-
16098 ✓	27	-
16099 ✓	1920	1920
58898 ✓	17	-
58899 ✓	24	-
58900 ✓	7	-
16001 ✓	NIL	-
16002 ✓	21	-
16003 ✓	9	-
16004 ✓	15	-
16005 ✓	29	-
16006 ✓	14	-
BLANK	NIL	-
STD OXJ64	2366	-

Certified by Denis Chate



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## Geochemical Analysis Certificate

**8W-3324-RG1**

Company: **NORTHERN GOLD MINING INC.**

Date: NOV-26-08

Project:

Attn: **G. MATHESON**

We hereby certify the following Geochemical Analysis of 43 ROCK samples submitted NOV-20-08 by .

Sample Number	Au ppb	Au Check ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
58933	19	-	-	-	-	-
58934	34	-	-	-	-	-
58935	171	-	-	-	-	-
58936	7	5	-	-	-	-
58937	55	-	-	-	-	-
58938	29	-	-	-	-	-
58939	NIL	-	-	-	-	-
58940	31	-	-	-	-	-
58941	60	-	-	-	-	-
58942	15	-	-	-	-	-
58943	12	-	-	-	-	-
58944	137	-	-	-	-	-
58945	7	-	-	-	-	-
58946	31	-	-	-	-	-
58947	24	-	-	-	-	-
58948	46	-	-	-	-	-
58949	45	-	-	-	-	-
58950	10	-	-	-	-	-
58878	21	-	-	-	-	-
16007	3463	2743	495.0	3480	1980	761
16008	75	-	33.6	930	215	257
16009	1200	1714	52.4	1010	4500	3160
16010	46	-	1.7	87	67	136
16011	171	-	4.2	361	285	285
16012	12	-	-	-	-	-
16013	39	-	-	-	-	-
16014	14	24	-	-	-	-
16015	96	-	-	-	-	-
16016	12	-	-	-	-	-
16017	3	-	-	-	-	-

Certified by *Dennis Chetty*





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## Geochemical Analysis Certificate

8W-3324-RG1

Company: **NORTHERN GOLD MINING INC.**

Date: NOV-26-08

Project:

Attn: G. MATHESON

We hereby certify the following Geochemical Analysis of 43 ROCK samples submitted NOV-20-08 by .

Sample Number	Au ppb	Au Check ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
16018	120	-	-	-	-	-
16019	449	-	-	-	-	-
16020	12	-	-	-	-	-
16021	70	-	-	-	-	-
16022	204	-	-	-	-	-
16023	830	-	-	-	-	-
16024	362	-	-	-	-	-
16025	746	-	-	-	-	-
16026	418	430	-	-	-	-
16027	1440	1440	-	-	-	-
16028	26	-	-	-	-	-
16029	36	-	-	-	-	-
16030	94	-	-	-	-	-
BLANK	3	-	-	-	-	-
STD OxJ64	2297	-	-	-	-	-

Certified by *Devis Chatter*



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## Geochemical Analysis Certificate

8W-3362-RG1

Company: **NORTHERN GOLD MINING INC.**

Date: DEC-04-08

Project:

Attn: G. MATHESON

We hereby certify the following Geochemical Analysis of 7 ROCKS & REJECTS samples submitted NOV-26-08 by .

Sample Number	Au ppb	Au Check ppb	Mo ppm
24788	48	-	-
24789	24	-	-
24790	62	-	-
28398	1053	1042	349
28399	1109	1234	321
16101	749	-	-
16102	3555	3485	-
BLANK	NIL	-	-
STD OxJ64	2359	-	-

Certified by *Dennis Chantre*



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## Geochemical Analysis Certificate

8W-3435-RG1

Company: **NORTHERN GOLD MINING INC.**

Date: DEC-04-08

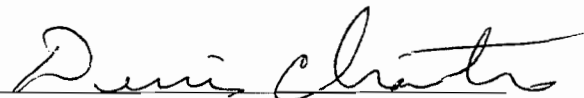
Project:

Attn: G.MATHESON

We hereby certify the following Geochemical Analysis of 1 REJECT samples submitted DEC-02-08 by .

Sample Number	Au ppb	Au Check ppb
58244-A	22320	21874
58244-B	17692	18652

December 4, 2008: Sample 58244 was split into 2 parts and both were assayed as requested.

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## Geochemical Analysis Certificate

8W-1482-RG1

Company: **NORTHERN GOLD MINING INC.**

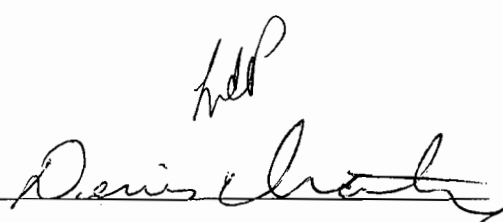
Date: JUN-04-08

Project:

Attn: G.MATHESON

We hereby certify the following Geochemical Analysis of 45 Core & Rock samples submitted MAY-27-08 by .

Sample Number	Au PPB	Au Check PPB	Ni PPM
28537	141	-	-
28538	22	-	-
28539	19	-	-
28540	9	-	-
28541	170	-	-
28542	5760	-	-
28543	Nil	-	-
28544	41	-	-
28545	69	-	-
28546	60	-	-
28547	219	-	-
28548	451	-	-
28549	3614	3783	-
28550	19	-	-
24752	86	-	-
Blank	Nil	-	-
STD OxJ64	2277	-	-

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## Geochemical Analysis Certificate

8W-1761-RG1

Company: **NORTHERN GOLD MINING INC.**

Date: JUL-08-08

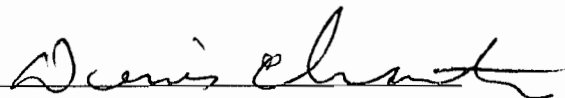
Project:

Attn: **G.MATHESON**

We hereby certify the following Geochemical Analysis of 8 ROCK samples submitted JUN-25-08 by .

Sample Number	Au PPB	Au Check PPB
28454	Nil	-
28455	21	-
28456	Nil	-
28457	Nil	-
28458	Nil	Nil
28459	Nil	-
28460	Nil	-
28461	5726	-
Blank	Nil	-
STD OxJ64	2345	-

Certified by





Established 1928

# Swastika Laboratories Ltd

Assaying - Consulting - Representation

RECEIVED

JUN 30 2008

## Geochemical Analysis Certificate

8W-1684-RG1

Company: **NORTHERN GOLD MINING INC.**

Date: JUN-26-08

Project:

Attn: **G.MATHESON**

We hereby certify the following Geochemical Analysis of 13 ROCK samples submitted JUN-17-08 by .

Sample Number	Au PPB	Au Check PPB	Ag PPM	Cu PPM	Pb PPM
24777	682	665	-	-	-
24778	180	-	-	-	-
24779	57	-	-	-	-
24780	3	-	-	-	-
24781	5	-	-	-	-
24782	Nil	-	-	-	-
24783	29	27	-	-	-
24784	15	-	-	-	-
24785	12	-	-	-	-
24786	34	-	-	-	-
24787	156	-	-	1290	-
24791	1063	1135	0.2	-	1
24792	231	-	-	-	-
Blank	Nil	-	-	-	-
STD OxJ64	2441	-	-	-	-

*hlp*

Certified by *Dennis Chroch*



Established 1928

# Swastika Laboratories Ltd

Assaying - Consulting - Representation

RECEIVED

JUN 25 2008

## Geochemical Analysis Certificate

8W-1649-RG1

Company: **NORTHERN GOLD MINING INC.**

Date: JUN-19-08

Project:

Attn: **G.MATHESON**

We hereby certify the following Geochemical Analysis of 16 CORE samples submitted JUN-12-08 by .

Sample Number	Au PPB	Au Check PPB
24761	93	-
24762	177	165
24763	36	-
24764	10	-
24765	33	-
24766	5	-
24767	9	-
24768	Nil	-
24769	2	-
24770	17	15
24771	2	-
24772	22	-
24773	12	-
24774	Nil	-
24775	3	-
24776	19	-
Blank	Nil	-
STD OxJ64	2441	-

Certified by



Established 1928

# Swastika Laboratories Ltd

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Page 1 of 2

## Geochemical Analysis Certificate

JUN 25 2008

8W-1576-RG1

Company: **NORTHERN GOLD MINING INC.**


Date: JUN-19-08

Project:

Attn: **G.MATHESON**

We hereby certify the following Geochemical Analysis of 30 CORE samples submitted JUN-05-08 by .

Sample Number	Au PPB	Au Check PPB
24752	223	273
24753	10	-
24754	12	-
24755	77	-
28775	26	-
28776	12	-
28777	857	831
28778	101	113
28779	72	-
28780	9	-
28781	57	-
28782	406	367
28783	27	-
28784	10	-
28785	63	-
28786	7	-
28787	Nil	-
28788	17	-
28789	15	-
28790	38	-
28791	382	370
28792	7	-
28793	9	-
28794	26	-
28795	5	-
28796	Nil	-
28797	7	-
28798	Nil	-
28799	7	-
28800	Nil	-

Certified by 





Established 1928

# Swastika Laboratories Ltd

Assaying - Consulting - Representation

Page 2 of 2

## Geochemical Analysis Certificate

**8W-1576-RG1**

Company: **NORTHERN GOLD MINING INC.**


Date: JUN-19-08

Project:

Attn: **G.MATHESON**

*We hereby certify* the following Geochemical Analysis of 30 CORE samples submitted JUN-05-08 by .

Sample Number	Au PPB	Au Check PPB
Blank	Nil	-
STD OxJ64	2318	-

Certified by 

PolyMet Laboratories

Client: Northern Gold Mining Inc  
Job No. 0-143

CERTIFICATE

# 4105


Date:  
July 11 /08

Sample #	Au Oz/ton	g/tonne
28462	0.002	0.069
28463	0.002	0.069
28464	<.001	<.03
28465	0.026	0.891
28466	<.001	<.03
28467	<.001	<.03
28468	0.004	0.137
28469	<.001	<.03
28470	<.001	<.03
28471	0.028	0.960
28251	67.232	2305.116
28252	2.762	94.698
28253	0.064	2.194
28254	0.012	0.411
28255	0.396	13.577
28201	0.818	28.046
28202	24.138 ✓	827.595
28203	16.528 ✓	566.679
28256	0.070	2.400
28257	0.046	1.577
28258	0.012	0.411
28259	0.078	2.674
28260	0.046	1.577
28261	0.054	1.851
28262	0.038	1.303
28263	0.044	1.509
28264	0.010	0.343
28265	0.054	1.851

28 splits

Std Oxl 63      0.172      5.897

Certified Assayer:



**PolyMet Laboratories**

Client: Northern Gold Mining Inc  
Job No. 0-143

**CERTIFICATE**

**# 4106**

Date:  
July 11 /08

<b>Sample #</b>	<b>Au Oz/ton</b>	<b>g/tonne</b>
28266	0.044	1.509
28267	0.148	5.074
28268	0.024	0.823
28269	<.001	<.03
28270	0.04	1.371
28271	0.816	27.977
28272	0.044	1.509
28273	0.048	1.646
28274	0.010	0.343
28275	<.001	<.03
28276	0.036	1.234
28277	0.09	3.086
28278	0.002	0.069
28279	0.028	0.960
28280	0.026	0.891
28281	<.001	<.03
28282	0.01	0.343
28283	0.022	0.754
28284	<.001	<.03
28285	0.032	1.097
28286	<.001	<.03
28287	0.002	0.069
28288	0.004	0.137
28289	0.036	1.234
28290	0.004	0.137

**25 splits**

Std Oxl 63      0.172      5.897

Certified Assayer:



**PolyMet Laboratories**

Client: Northern Gold Mining Inc  
Job No. 0-143

**CERTIFICATE**

**# 4107**

Date:  
July 11 /08

<b>Sample #</b>	<b>Au Oz/ton</b>	<b>g/tonne</b>
28291	0.002	0.069
28292	0.046	1.577
28293	<.001	<.03
28294	0.002	0.069
28295	<.001	<.03
28296	0.064	2.194
28297	0.016	0.549
28298	0.054	1.851
28299	0.038	1.303
28300	0.018	0.617
28204	0.022	0.754
28205	0.028	0.960

**12 splits**

Std Oxl 63      0.172      5.897

Certified Assayer:



**PolyMet Laboratories**

Client: Northern Gold Mining Inc.  
Job No. 0-143

**CERTIFICATE**

**# 4162**

Date:  
July 23 / 08

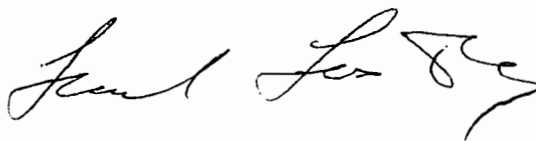
**Original**

**Check**

Sample #	Original		Check	
	Au Oz/ton	Au g/tonne	Au Oz/ton	Au g/tonne
28251 ✓	67.232	2305.116	65.448	2243.950
28252 ✓	2.762	94.698	3.080	105.601
28201 ✓	0.818	28.046	0.876	30.035
28202 ✓	24.138	827.595	22.680	777.606
28203 ✓	16.528	566.679	15.676	537.467
28271 ✓	0.816	27.977	0.780	26.743

6 Checks

Certified Assayer:



PolyMet Laboratories

Client: Northern Gold Mining Inc  
Job No. 0-143

CERTIFICATE

# 4216

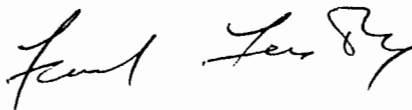
Date:  
July 31 /08

Sample #	Au Oz/ton	g/tonne
28472 ✓	<.001	<.03
28473 ✓	<.001	<.03
28474 ✓	<.001	<.03
28475 ✓	<.001	<.03
28476 ✓	<.001	<.03
28477 ✓	<.001	<.03
28478 ✓	0.032	1.097
28479 ✓	0.022	0.754
28480 ✓	0.018	0.617
28481 ✓	0.02	0.686
28482 ✓	0.004	0.137
28483 ✓	0.012	0.411
28484 ✓	0.006	0.206
28485 ✓	<.001	<.03
28486 ✓	<.001	<.03
28487 ✓	0.022	0.754
28488 ✓	0.010	0.343
28489 ✓	<.001	<.03
28490 ✓	0.018	0.617
28491 ✓	<.001	<.03
28492 ✓	0.016	0.549
28493 ✓	0.016	0.549
28494 ✓	<.001	<.03

23 Rock

Std Oxl 63    0.172    5.897

Certified Assayer:



PolyMet Laboratories

Client: Northern Gold Mining Inc  
Job No. 0-143

CERTIFICATE

# 4217

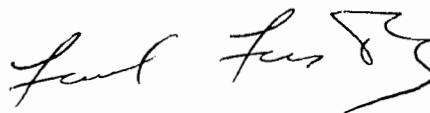
Date:  
July 31 /08

Sample #	Au Oz/ton	g/tonne
28495 ✓	0.008	0.274
28496 ✓	<.001	<.03
28497 ✓	<.001	<.03
28498 ✓	0.010	0.343
28499 ✓	<.001	<.03
28500 ✓	0.004	0.137
28051 ✓	0.008	0.274
28052 ✓	<.001	<.03
28053 ✓	0.016	0.549
28054 ✓	<.001	<.03

10 rocks

Std Oxl 63      0.172      5.897

Certified Assayer:



**PolyMet Laboratories**

Client: Northern Gold Mining Inc.  
Job No. 0-143

**CERTIFICATE**

**# 4272**

Date:  
Aug 7 / 08

		<b>Original</b>	<b>Reject</b>	<b>Check</b>
<b>Sample #</b>	<b>Au Oz/ton</b>	<b>Au g/tonne</b>	<b>Au Oz/ton</b>	<b>Au g/tonne</b>
28085 ✓	2.352	80.641	2.048	70.218
			<b>Pulp</b>	<b>Check</b>
28209 ✓	16.192	555.159	16.064	550.770

2 + 4 Checks

Certified Assayer:



PolyMet Laboratories

Client: Northern Gold Mining Inc  
Job No. 0-143

CERTIFICATE # 4270

Date:  
Aug 7 /08

Sample #            Au            g/tonne  
                         Oz/ton

28055 ✓	<.001	<.03
28056 ✓	0.004	0.137
28057 ✓	<.001	<.03
28058 ✓	<.001	<.03
28059 ✓	0.004	0.137
28060 ✓	0.006	0.206
28061 ✓	<.001	<.03
28062 ✓	<.001	<.03
28063 ✓	<.001	<.03
<hr/>		
28065 ✓	<.001	<.03
28066 ✓	<.001	<.03
28067 ✓	0.020	0.686
28068 ✓	0.060	2.057
28069 ✓	<.001	<.03
28070 ✓	<.001	<.03
28071 ✓	<.001	<.03
28072 ✓	0.008	0.274
28074 ✓	0.042	1.440
28075 ✓	0.056	1.920
28076 ✓	0.006	0.206
28077 ✓	<.001	<.03
28078 ✓	0.112	3.840
28079 ✓	0.008	0.274
28080 ✓	0.118	4.046
28081 ✓	<.001	<.03
28082 ✓	0.102	3.497

26 splits

Std Oxl 63    0.176    6.034

Certified Assayer:



PolyMet Laboratories

Client: Northern Gold Mining Inc  
Job No. 0-143

CERTIFICATE

# 4271

Date:  
Aug 7 /08

Sample #	Au Oz/ton	g/tonne
28083 ✓	0.012	0.411
28084 ✓	0.010	0.343
28085 ✓	Pend	
28086 ✓	0.038	1.303
28087 ✓	0.014	0.480
28088 ✓	0.006	0.206
28089 ✓	<.001	<.03
28090 ✓	<.001	<.03
28091 ✓	0.026	0.891
28092 ✓	0.094	3.223
28093 ✓	0.024	0.823
28206 ✓	0.008	0.274
28207 ✓	0.040	1.371
28208 ✓	0.044	1.509
28209 ✓	Pend	
28210 ✓	0.006	0.206

Std Oxl 63    0.176    6.034

14 splits  
2 Pend

Certified Assayer:



PolyMet Laboratories

Client: Northern Gold Mining Inc  
Job No. 0-143

CERTIFICATE

# 4312

Date:  
Aug 14 /08

Sample #	Au Oz/ton	g/tonne
97511	0.182	6.240 /
97512	0.120	4.114 /
97513	0.188	6.446 /
97514	0.078	2.674 /
97515	0.136	4.663 /
97516	0.052	1.783 /
97517	0.020	0.686 /
97518	<.001	<.03 /
97519	<.001	<.03 /
97520	0.098	3.360 /
97521	0.022	0.754 /
97522	0.072	2.469 /
97523	0.038	1.303 /
97524	0.240	8.229 /
97525	<.001	<.03 /
97526	0.002	0.069 /
97527	0.002	0.069 /
97528	0.018	0.617 /
97529	0.038	1.303 /
97530	0.044	1.509 /
97531	0.020	0.686 /
97532	0.036	1.234 /
97533	0.078	2.674 /
97534	0.042	1.440 /
97535	0.030	1.029 /

25 Rock

Std Oxl 63    0.178    6.103

Certified Assayer:



PolyMet Laboratories

Client: Northern Gold Mining Inc  
Job No. 0-143

CERTIFICATE

# 4313

Date:  
Aug 14 /08

Sample #	Au Oz/ton	g/tonne
97536	0.022	0.754 /
97537	0.002	0.069 /
97538	<.001	<.03 /
97539	<.001	<.03 /
97540	<.001	<.03 /
97541	<.001	<.03 /
97542	<.001	<.03 /
97543	0.042	1.440 /
97544	0.020	0.686 /
97545	0.082	2.811 /
97546	0.052	1.783 /
97547	0.030	1.029 /
97548	0.030	1.029 /
97549	0.088	3.017 /
28094	0.344	11.794 /
28095	2.218	76.046 /
28096	0.388	13.303 /
28097	0.206	7.063 /
28098	0.108	3.703 /
28099	0.046	1.577 /
28100	0.312	10.697 /
28211	0.166	5.691 /

22 Rock

Std Oxl 63 0.178 6.103

Certified Assayer:



PolyMet Laboratories

Client: Northern Gold Mining Inc  
Job No. 0-143

CERTIFICATE

# 4321

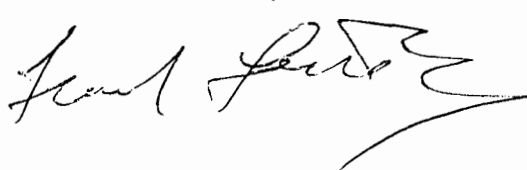
Date:  
Aug 15 /08

Corrected

Sample #	Au Oz/ton	g/tonne
58370 ✓	<.001	<.03
58371 ✓	<.001	<.03
58372 ✓	<.001	<.03
58373 ✓	<.001	<.03
58374 ✓	<.001	<.03
58375 ✓	<.001	<.03
58384 ✓	<.001	<.03
58385 ✓	<.001	<.03
58386 ✓	<.001	<.03
58387 ✓	<.001	<.03
28241 ✓	<.001	<.03
28242 ✓	<.001	<.03
28243 ✓	<.001	<.03
28244 ✓	<.001	<.03
28245 ✓	<.001	<.03
28246 ✓	<.001	<.03
28247 ✓	<.001	<.03
28248 ✓	<.001	<.03
28249 ✓	<.001	<.03
28250 ✓	<.001	<.03
58351 ✓	<.001	<.03
58352 ✓	<.001	<.03
58353 ✓	<.001	<.03

Std Oxl 63    0.174    5.966

Certified Assayer:

23 splits  


PolyMet Laboratories

Client: Northern Gold Mining Inc  
Job No. 0-143

CERTIFICATE

# 4325

Date:  
Aug 18 /08

Sample #	Au Oz/ton	g/tonne
28394 ✓	0.010	0.343
28395 ✓	0.044	1.509
28396 ✓	0.086	2.949
28397 ✓	0.006	0.206
97550 ✓	0.114	3.909
58301 ✓	<.001	<.03
58302 ✓	<.001	<.03
58303 ✓	0.164	5.623

8 splits

Std Oxl 63    0.168    5.760

Certified Assayer:



PolyMet Laboratories

Client: Northern Gold Mining Inc  
Job No. 0-143

CERTIFICATE

# 4324

Date:  
Aug 18 /08

Sample #	Au Oz/ton	g/tonne
58451 /	<.001	<.03
58452 /	<.001	<.03
58453 /	<.001	<.03
58454 /	<.001	<.03
58455 /	<.001	<.03
58456 /	<.001	<.03
58457 /	0.004	0.137
58458 /	0.004	0.137
58459 /	0.006	0.206
58460 /	<.001	<.03
58461 /	<.001	<.03
58462 /	<.001	<.03
58463 /	<.001	<.03
58464 /	0.072	2.469
58465 /	<.001	<.03
58466 /	<.001	<.03
58467 /	<.001	<.03
58468 /	<.001	<.03
58469 /	0.002	0.069
58470 /	0.020	0.686
58471 /	0.046	1.577
58472 /	0.002	0.069
58473 /	0.026	0.891
58474 /	<.001	<.03

24 Rock

Std Oxl 63    0.168    5.760

Certified Assayer:



PolyMet Laboratories

Client: Northern Gold Mining Inc  
Job No. 0-143

CERTIFICATE

# 4394

Date:  
Sept 2 /08

Sample #	Au Oz/ton	g/tonne
58401	0.040	1.371
58402	0.002	0.069
58403	0.082	2.811
58404	0.008	0.274
58405	0.022	0.754
58406	0.002	0.069
58407	0.046	1.577
58408	0.038	1.303
58409	0.026	0.891
58410	0.026	0.891
58411	0.048	1.646
58412	0.140	4.800
58413	<.001	<.03
58414	<.001	<.03
58415	<.001	<.03
58416	<.001	<.03

16 Rock

Std Oxl 63    0.172    5.897

Certified Assayer: *Fred J. S. 87*



PolyMet Laboratories

Client: Northern Gold Mining Inc  
Job No. 0-143

CERTIFICATE

# 4395

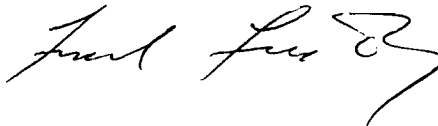
Date:  
Sept.2 /08

Sample #	Au Oz/ton	g/tonne
58417 ✓	<.001	<.03
58418 ✓	0.048	1.646
58419 ✓	0.082	2.811
58420 ✓	0.016	0.549
58421 ✓	0.034	1.166
58422 ✓	0.040	1.371
58423 ✓	0.050	1.714
58424 ✓	0.026	0.891
58425 ✓	0.032	1.097
58426 ✓	0.082	2.811
58427 ✓	0.038	1.303
58428 ✓	0.020	0.686
58429 ✓	0.002	0.069
58430 ✓	<.001	<.003
58431 ✓	0.034	1.166
58432 ✓	0.058	1.989
58433 ✓	0.028	0.960
58434 ✓	0.038	1.303
58435 ✓	0.038	1.303
58436 ✓	0.038	1.303
58437 ✓	0.014	0.480
58438 ✓	0.026	0.891
58439 ✓	0.028	0.960

23 Rock

Std Oxl 63 0.168 5.760

Certified Assayer:



PolyMet Laboratories

Client: Northern Gold Mining Inc  
Job No. 0-143

CERTIFICATE

# 4396

Date:  
Sept.2 /08

Sample #	Au Oz/ton	g/tonne
58440 ✓	0.030	1.029
58441 ✓	0.042	1.440
58442 ✓	0.010	0.343
58443 ✓	0.002	0.069
58444 ✓	<.001	<.03
58445 ✓	0.054	1.851
58446 ✓	0.056	1.920
58447 ✓	<.001	<.03
58448 ✓	0.060	2.057
58449 ✓	0.254	8.709
58450 ✓	0.078	2.674
58475 ✓	0.070	2.400
58476 ✓	<.001	<.03
58477 ✓	<.001	<.03
58478 ✓	0.018	0.617
58479 ✓	<.001	<.03
58151 ✓	0.032	1.097
58152 ✓	0.130	4.457
58153 ✓	0.038	1.303
58154 ✓	0.104	3.566
58155 ✓	0.040	1.371
58156 ✓	0.040	1.371
58157 ✓	0.044	1.509

23 Rock

Std Oxl 63    0.172    5.897

Certified Assayer:



PolyMet Laboratories

Client: Northern Gold Mining Inc  
Job No. 0-143

CERTIFICATE

# 4397

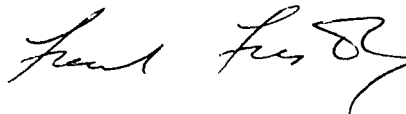
Date:  
Sept.2 /08

Sample #	Au Oz/ton	g/tonne
58158 ✓	0.040	1.371
58159 ✓	0.064	2.194
58160 ✓	0.004	0.137
58161 ✓	<.001	<.03
58162 ✓	<.001	<.03
58163 ✓	0.032	1.097
58164 ✓	0.048	1.646
58165 ✓	0.016	0.549
58166 ✓	0.002	0.069
58167 ✓	<.001	<.03
58168 ✓	0.116	3.977
58169 ✓	<.001	<.03
58170 ✓	<.001	<.03
58171 ✓	0.124	4.251
58172 ✓	0.006	0.206
58173 ✓	0.012	0.411
58174 ✓	0.004	0.137
58175 ✓	<.001	<.03
58176 ✓	0.042	1.440
58177 ✓	0.002	0.069
58178 ✓	<.001	<.03
58179 ✓	<.001	<.03
58180 ✓	0.010	0.343

23 Rock

Std Oxl 63    0.176    6.034

Certified Assayer:



PolyMet Laboratories

Client: Northern Gold Mining Inc  
Job No. 0-143

CERTIFICATE

# 4398

Date:  
Sept. 2 /08

Sample #	Au Oz/ton	g/tonne
58181	0.154	5.280
58182	0.002	0.069
58183	<.001	<.03
58184	0.176	6.034
58185	0.016	0.549
28119	<.001	<.03
28120	0.018	0.617
28121	<.001	<.03
28122	0.165	5.657
28123	0.004	0.137

Splits

58044	<.001	<.03
58045	<.001	<.03
58046	<.001	<.03
58047	<.001	<.03
58048	<.001	<.03
58049	<.001	<.03
58050	<.001	<.03
58951	0.174	5.966
58952	<.001	<.03
58953	<.001	<.03
58954	<.001	<.03
58955	<.001	<.03
58956	<.001	<.03

v.s

Std Oxl 63      0.172      5.897

10 Rock  
13 Splits

Certified Assayer:



PolyMet Laboratories

Client: Northern Gold Mining Inc  
Job No. 0-143

CERTIFICATE

# 4454

Date:  
Sept.9 /08

Sample #	Au Oz/ton	g/tonne
11701 ✓	<.001	<.03
11702 ✓	<.001	<.03
11703 ✓	<.001	<.03
11704 ✓	0.016	0.549
11705 ✓	0.028	0.960
11706 ✓	0.104	3.566
11707 ✓	0.290	9.943
11708 ✓	0.004	0.137
11709 ✓	0.102	3.497
11710 ✓	0.002	0.069
11711 ✓	0.026	0.891
11712 ✓	0.074	2.537
11713 ✓	0.072	2.469
11714 ✓	0.162	5.554
11715 ✓	0.004	0.137
11716 ✓	<.001	<.03
11717 ✓	<.001	<.03
11718 ✓	<.001	<.03
11719 ✓	<.001	<.03

19 Rocks

Std Oxl 63    0.174    5.966

Certified Assayer:



**PolyMet Laboratories**

Client: Northern Gold Mining Inc  
Job No. 0-143

**CERTIFICATE**

**# 4457**

Date:  
Sept. 10 /08

**Rush**

**Sample #**

**Au  
Oz/ton**

**g/tonne**

58749

0.116

3.977

Std Oxl 63    0.172    5.897

**1 Rock**

Certified Assayer:



PolyMet Laboratories

Client: Northern Gold Mining Inc.  
Job No. 0-143

CERTIFICATE

# 4661

Date:  
Oct 16 /08

Rock

Sample #	Au Oz/ton	g/tonne
58307	0.070	2.400 ✓
58308	0.192	6.583 ✓
58309	0.064	2.194 ✓
58310	0.058	1.989 ✓
58311	0.048	1.646 ✓
58312	0.202	6.926 ✓
58313	<.001	<.03 ✓
58314	<.001	<.03 ✓
58315	0.168	5.760 ✓
58316	<.001	<.03 ✓
58317	<.001	<.03 ✓
58318	<.001	<.03 ✓
58319	<.001	<.03 ✓
58320	0.056	1.920 ✓
58321	<.001	<.03 ✓
58322	<.001	<.03 ✓
28124	0.056	1.920
28125	<.001	<.03
28126	0.054	1.851
28127	0.010	0.343
28128	0.004	0.137

21 rock

Std Oxl 63    0.174    5.966

Certified Assayer: 

PolyMet Laboratories

Client: Northern Gold Mining Inc  
Job No. 0-143

CERTIFICATE

# 4662

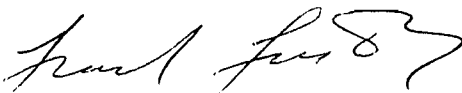
Date:  
Oct 16 /08

Sample #	Au Oz/ton	g/tonne
28136	<.001	<.03
28137	<.001	<.03
28138	<.001	<.03
28139	<.001	<.03
28140	<.001	<.03
28141	<.001	<.03
11051	<.001	<.03
11052	0.082	2.811
11053	<.001	<.03
11054	<.001	<.03

10 rock

Std Oxl 63    0.174    5.966

Certified Assayer:





PolyMet Laboratories

Client: Northern Gold Mining Inc  
Job No. 0-143

CERTIFICATE

# 4510

Date:  
Sept. 18 /08

Sample #	Au Oz/ton	g/tonne
11720 ✓	<.001	<.03
11721 ✓	<.001	<.03
11722 ✓	<.001	<.03
11723 ✓	<.001	<.03
11724 ✓	<.001	<.03
11725 ✓	<.001	<.03
11726 ✓	<.001	<.03
11727 ✓	<.001	<.03
11728 ✓	0.040	1.371
11729 ✓	0.006	0.206
11730 ✓	0.094	3.223
11731 ✓	<.001	<.03
11732 ✓	<.001	<.03
11733 ✓	<.001	<.03
11734 ✓	<.001	<.03
11735 ✓	<.001	<.03
11736 ✓	0.068	2.331
11737 ✓	<.001	<.03
11738 ✓	0.002	0.069
11739 ✓	0.004	0.137
11740 ✓	<.001	<.03
11741 ✓	<.001	<.03
11742 ✓	<.001	<.03
11743 ✓	<.001	<.03
11744 ✓	0.004	0.137

Std Oxl 63    0.176    6.034

25 Rock

Certified Assayer:

# Polymet Laboratories

1 Presley St., Cobalt, On, P0J 1C0

Tel: (705) 679-5500

Fax: (705) 679-5519

Email: info@polymetinc.com

Lot # 1

## Au Bulk Sample

Sample #	Au	Oversize	Au	Dust	Au
	oz/ton		oz/ton		oz/ton
# 1 A	0.048	# 1 A	0.010	# 1 A	0.070
# 1 B	0.054	# 1 B	0.014	# 1 B	0.068
# 1 C	0.048				
# 1 D	0.046				
# 2 A	0.050	# 2 A	0.014	# 2 A	0.070
# 2 B	0.046	# 2 B	0.008	# 2 B	0.070
# 2 C	0.054				
# 2 D	0.046				
# 3 A	0.046				
# 3 B	0.050				
# 3 C	0.062				
# 3 D	0.072				
# 4 A	0.056				
# 4 B	0.050				
# 4 C	0.040				
# 4 D	0.054				

<b>Assay Certificate:</b>	<b>4599</b>
<b>Job Number:</b>	<b>0-143</b>
<b>Client:</b>	<b>Northern Gold Mining Inc.</b>
<b>Date:</b>	<b>Oct 6 / 08</b>
<b>Certified Assayer:</b>	

# Polymet Laboratories

1 Presley St., Cobalt, On, P0J 1C0

Tel: (705) 679-5500

Fax: (705) 679-5519

Email: info@polymetinc.com

Lot # 2

## Au Bulk Sample

Sample #	Au	Oversize	Au	Dust	Au
	oz/ton		oz/ton		oz/ton
# 1 A	0.040	# 1 A	0.032	# 1 A	0.040
# 1 B	0.050	# 1 B	0.034	# 1 B	0.036
# 1 C	0.042				
# 1 D	0.040				
# 2 A	0.050	# 2 A	0.030	# 2 A	0.036
# 2 B	0.056	# 2 B	0.040	# 2 B	0.036
# 2 C	0.050				
# 2 D	0.038				
# 3 A	0.044				
# 3 B	0.040				
# 3 C	0.046				
# 3 D	0.038				
# 4 A	0.048				
# 4 B	0.042				
# 4 C	0.044				
# 4 D	0.046				

<b>Assay Certificate:</b>	<b>4663</b>
<b>Job Number:</b>	<b>0-143</b>
<b>Client:</b>	<b>Northern Gold Mining Inc.</b>
<b>Date:</b>	<b>Oct 16 / 08</b>
<b>Certified Assayer:</b>	

# Polymet Laboratories

1 Presley St., Cobalt, On, P0J 1C0

Tel: (705) 679-5500

Fax: (705) 679-5519

Email: info@polymetinc.com

Lot # 3

## Au Bulk Sample

Sample #	Au	Oversize	Au	Dust	Au
	oz/ton		oz/ton		oz/ton
# 1 A	0.024	# 1 A	0.020	# 1 A	0.026
# 1 B	0.024	# 1 B	0.026	# 1 B	0.024
# 1 C	0.028				
# 1 D	0.032				
# 2 A	0.034	# 2 A	0.016	# 2 A	0.030
# 2 B	0.042	# 2 B	0.016	# 2 B	0.032
# 2 C	0.030				
# 2 D	0.028				
# 3 A	0.028				
# 3 B	0.026				
# 3 C	0.028				
# 3 D	0.040				
# 4 A	0.032				
# 4 B	0.028				
# 4 C	0.034				
# 4 D	0.036				

<b>Assay Certificate:</b> 4664
<b>Job Number:</b> 0-143
<b>Client:</b> Northern Gold Mining Inc.
<b>Date:</b> Oct 16 / 08
<b>Certified Assayer:</b>

# Polymet Laboratories

1 Presley St., Cobalt, On, P0J 1C0

Tel: (705) 679-5500

Fax: (705) 679-5519

Email: info@polymetinc.com

Lot # 4

## Au Bulk Sample

Sample #	Au	Oversize	Au	Dust	Au
	oz/ton		oz/ton		oz/ton
# 1 A	0.048	# 1 A	0.010	# 1 A	0.028
# 1 B	0.038	# 1 B	0.010	# 1 B	0.028
# 1 C	0.048				
# 1 D	0.046				
# 2 A	0.046	# 2 A	0.022	# 2 A	0.032
# 2 B	0.056	# 2 B	0.028	# 2 B	0.032
# 2 C	0.058				
# 2 D	0.048				
# 3 A	0.040				
# 3 B	0.046				
# 3 C	0.050				
# 3 D	0.044				
# 4 A	0.050				
# 4 B	0.056				
# 4 C	0.062				
# 4 D	0.048				

<b>Assay Certificate:</b> 4673
<b>Job Number:</b> 0-143
<b>Client:</b> Northern Gold Mining Inc.
<b>Date:</b> Oct 17 / 08
<b>Certified Assayer:</b>

# Polymet Laboratories

1 Presley St., Cobalt, On, P0J 1C0

Tel: (705) 679-5500

Fax: (705) 679-5519

Email: info@polymetinc.com

Lot # 5

## Au Bulk Sample

Sample #	Au	Oversize	Au	Dust	Au
	oz/ton		oz/ton		oz/ton
# 1 A	0.036	# 1 A	0.048	# 1 A	0.040
# 1 B	0.032	# 1 B	0.040	# 1 B	0.040
# 1 C	0.030				
# 1 D	0.036				
# 2 A	0.040	# 2 A	0.024	# 2 A	0.028
# 2 B	0.042	# 2 B	0.024	# 2 B	0.024
# 2 C	0.040				
# 2 D	0.040				
# 3 A	0.036				
# 3 B	0.028				
# 3 C	0.030				
# 3 D	0.030				
# 4 A	0.040				
# 4 B	0.040				
# 4 C	0.044				
# 4 D	0.042				

<b>Assay Certificate:</b> 4695
<b>Job Number:</b> 0-143
<b>Client:</b> Northern Gold Mining Inc.
<b>Date:</b> Oct 21 / 08
<b>Certified Assayer:</b>

# Polymet Laboratories

1 Presley St., Cobalt, On, P0J 1C0

Tel: (705) 679-5500

Fax: (705) 679-5519

Email: info@polymetinc.com

Lot # 6

## Au Bulk Sample

Sample #	Au	Oversize	Au	Dust	Au
	oz/ton		oz/ton		oz/ton
# 1 A	0.022	# 1 A	0.016	# 1 A	0.036
# 1 B	0.018	# 1 B	0.016	# 1 B	0.034
# 1 C	0.022				
# 1 D	0.026				
# 2 A	0.024	# 2 A	0.010	# 2 A	0.056
# 2 B	0.026	# 2 B	0.012	# 2 B	0.058
# 2 C	0.024				
# 2 D	0.028				
# 3 A	0.022				
# 3 B	0.022				
# 3 C	0.024				
# 3 D	0.024				
# 4 A	0.028				
# 4 B	0.028				
# 4 C	0.028				
# 4 D	0.024				

<b>Assay Certificate:</b>	<b>4748</b>
<b>Job Number:</b>	<b>0-143</b>
<b>Client:</b>	<b>Northern Gold Mining Inc.</b>
<b>Date:</b>	<b>Oct 31 / 08</b>
<b>Certified Assayer:</b>	

# Polymet Laboratories

1 Presley St., Cobalt, On, P0J 1C0

Tel: (705) 679-5500

Fax: (705) 679-5519

Email: info@polymetinc.com

Lot # 7

## Au Bulk Sample

Sample #	Au	Oversize	Au	Dust	Au
	oz/ton		oz/ton		oz/ton
# 1 A	0.064	# 1 A	0.022	# 1 A	0.042
# 1 B	0.058	# 1 B	0.026	# 1 B	0.044
# 1 C	0.058				
# 1 D	0.060				
# 2 A	0.052	# 2 A	0.036	# 2 A	0.040
# 2 B	0.054	# 2 B	0.040	# 2 B	0.040
# 2 C	0.050				
# 2 D	0.060				
# 3 A	0.062				
# 3 B	0.060				
# 3 C	0.060				
# 3 D	0.062				
# 4 A	0.064				
# 4 B	0.060				
# 4 C	0.060				
# 4 D	0.060				

<b>Assay Certificate:</b>	<b>4749</b>
<b>Job Number:</b>	<b>0-143</b>
<b>Client:</b>	<b>Northern Gold Mining Inc.</b>
<b>Date:</b>	<b>Oct 31 / 08</b>
<b>Certified Assayer:</b>	



# Polymet Laboratories

1 Presley St., Cobalt, On, P0J 1C0

Tel: (705) 679-5500

Fax: (705) 679-5519

Email: info@polymetinc.com

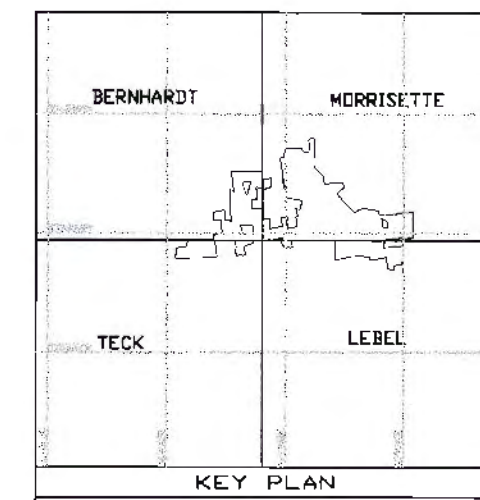
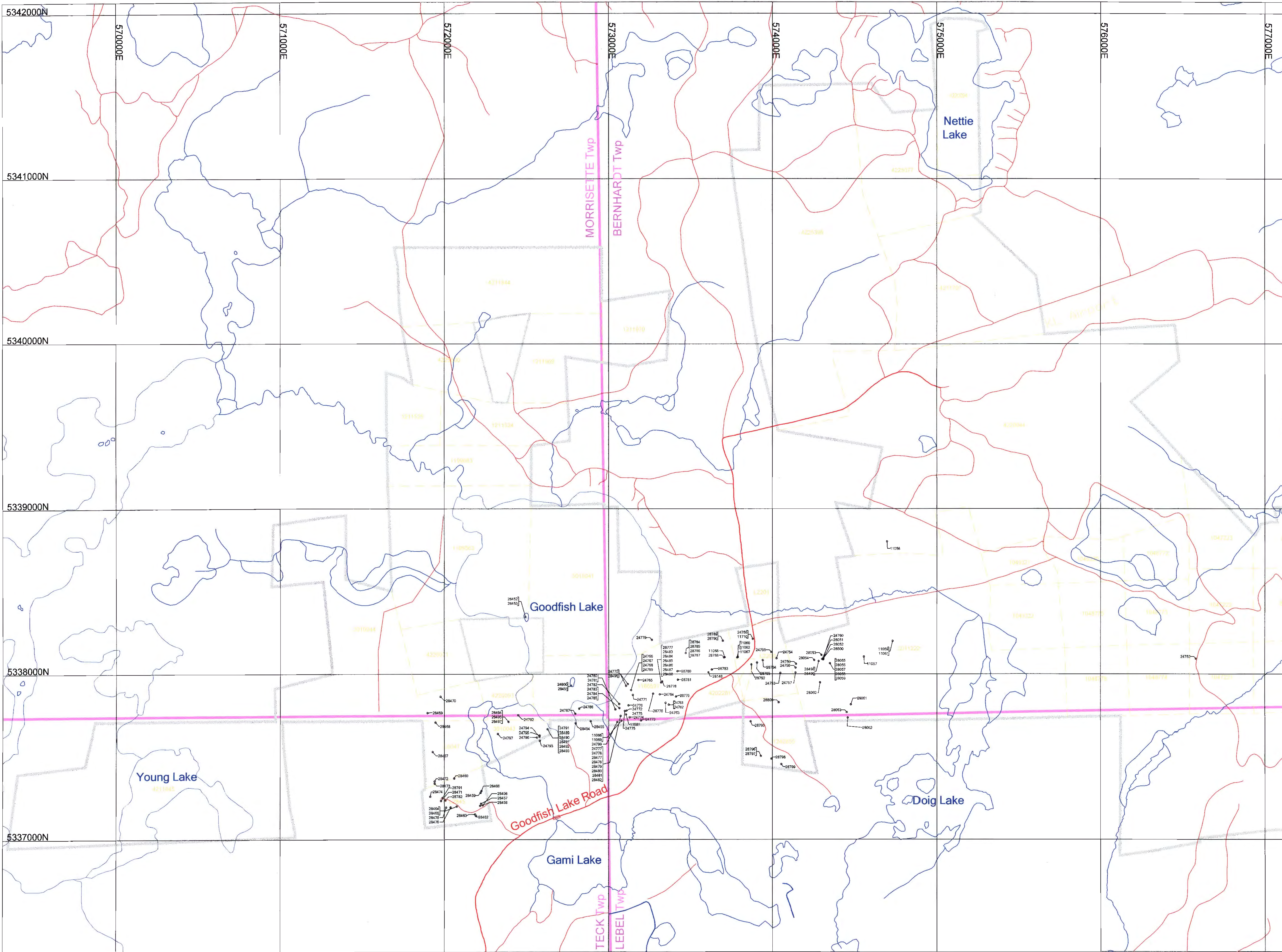
Lot # 8

## Au Bulk Sample

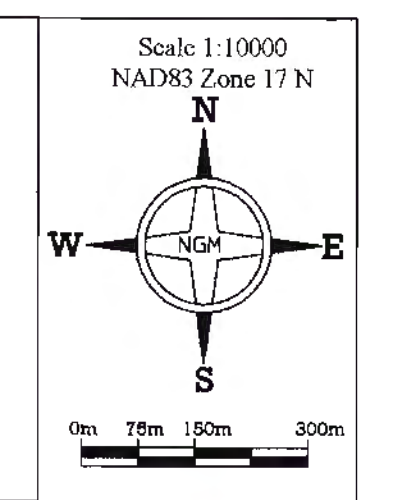
Sample #	Au	Oversize	Au	Dust	Au
	oz/ton		oz/ton		oz/ton
# 1 A	0.024	# 1 A	0.008	# 1 A	0.038
# 1 B	0.026	# 1 B	0.008	# 1 B	0.038
# 1 C	0.024				
# 1 D	0.022				
# 2 A	0.024	# 2 A	0.016	# 2 A	0.058
# 2 B	0.028	# 2 B	0.020	# 2 B	0.060
# 2 C	0.018				
# 2 D	0.018				
# 3 A	0.018				
# 3 B	0.020				
# 3 C	0.020				
# 3 D	0.024				
# 4 A	0.026				
# 4 B	0.022				
# 4 C	0.022				
# 4 D	0.022				

<b>Assay Certificate:</b>	<b>4750</b>
<b>Job Number:</b>	<b>0-143</b>
<b>Client:</b>	<b>Northern Gold Mining Inc.</b>
<b>Date:</b>	<b>Oct 31 / 08</b>
<b>Certified Assayer:</b>	





# GRAB SAMPLE PLAN OF THE KIRANA PROPERTY MAP #7



**LEGEND**

	23652 243749	Grab Sample Location with Sample Numbers
		Road
		Utility Line
		Water
		Claim Line
		Township Boundary
		Bridge
	4206298	Claim Number

MORRISSETTE, BERNHARDT, LABEL  
AND TECK TOWNSHIPS  
Larder Lake Mining Division

Data by:  
Greg Matheson

Drawn by:  
David W. Eves

Date:  
Jan 2009

All measurements are in metric units  
and may be converted to imperial by a  
factor of (0.340 km = 1 foot)

Magnetic declination is taken as 11°  
30' W as per National Geophysical  
Data Centre Standards.

Geology is not tied to surveyed lines.



5337000N

5338000N

5339000N

5340000N

5341000N

5342000N

570000E

571000E

572000E

573000E

574000E

575000E

576000E

577000E

MORRISSETTE TWP

BERNHARDT TWP

TECK TWP

LEBEL TWP

Nettie Lake

Goodfish Lake

Young Lake

Gami Lake

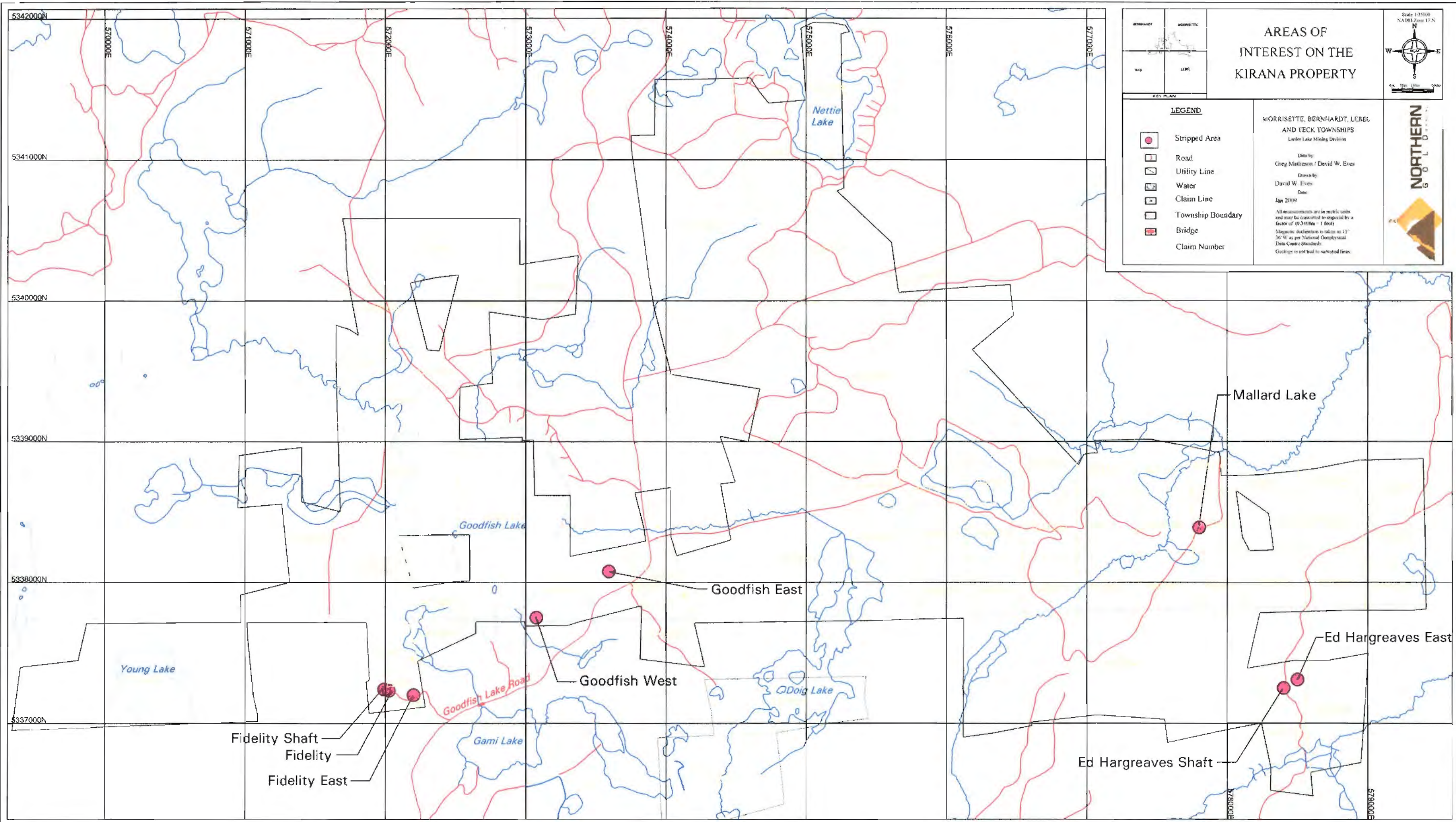
Doig Lake

Goodfish Lake Road

578000E

579000E





MAP #8





**Fidelity Stripping**

NAD83 Zone 17 N  
 Scale - 1:200  
 Data and drafting by:  
 Greg Matheson  
 David W. Eves (digit)  
 Jan. 26, 2009  
 CLAIM - L2845

0 2.5 5  
Metres

Quartz	Mafic Volcanic
Shear	fg - grey tr fg disseminated py locally seritized
Road	
Dip with direction	

MAP #9



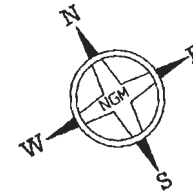


# Fidelity Shaft - Sample Plan

NAD83 Zone 17 N  
Scale = 1:100

Data and drafting by:  
Greg Matheson  
David W. Eves (digital)

Jan. 26, 2009.  
CLAIM : L2845



0 2.5 5



Metres

- Quartz
- Shear
- Channel or Grab Sample
- Dip with direction
- Iron oxide band
- Mafic Volcanic
  - fg light grey to green
  - matrix carb fracturing
  - locally tr fg dissem py
  - locally heavily seritized
- Quartz Feldspar Porphyry
  - bimodal
  - yellow to brown
  - local iron staining
  - phenocrysts (1-8mm), (<math>9-10\mu\text{m}</math>)
  - locally tr fg dissem py

SHAFT

MV; fg grey; minor carb; fresh

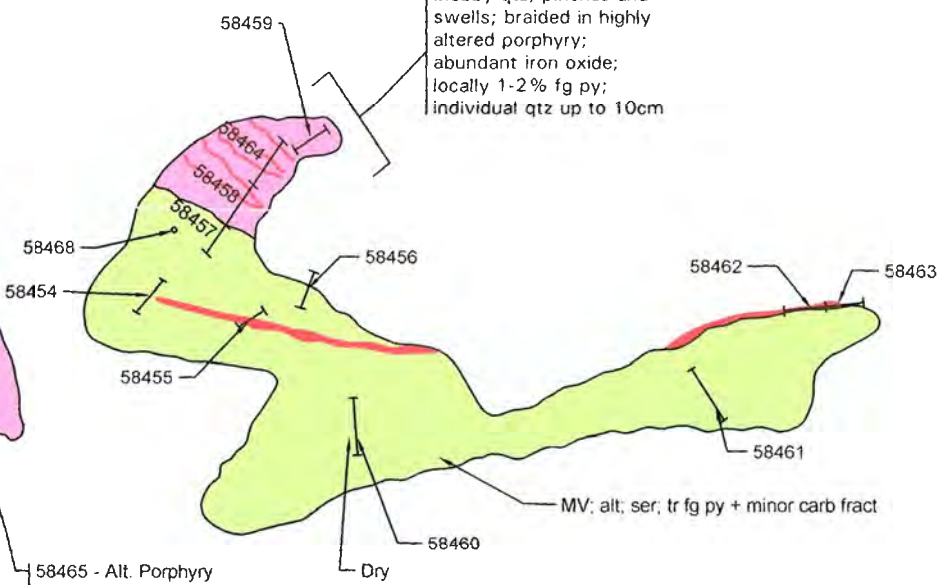
58467

2nd Generation;  
rusty qtz stringer

Qtz Feldspar Porphyry;  
highly weathered; subhedral to  
euhedral; qtz planes 5-10mm;  
matrix is aphanitic; yellow-green;  
non-magnetic

58465 - Alt. Porphyry  
58466 - 2nd Gen. Qtz Stringer

Blebbly qtz; pinches and  
swells; braided in highly  
altered porphyry;  
abundant iron oxide;  
locally 1-2% fg py;  
individual qtz up to 10cm



fg - seritized MV

10cm Iron oxide Band

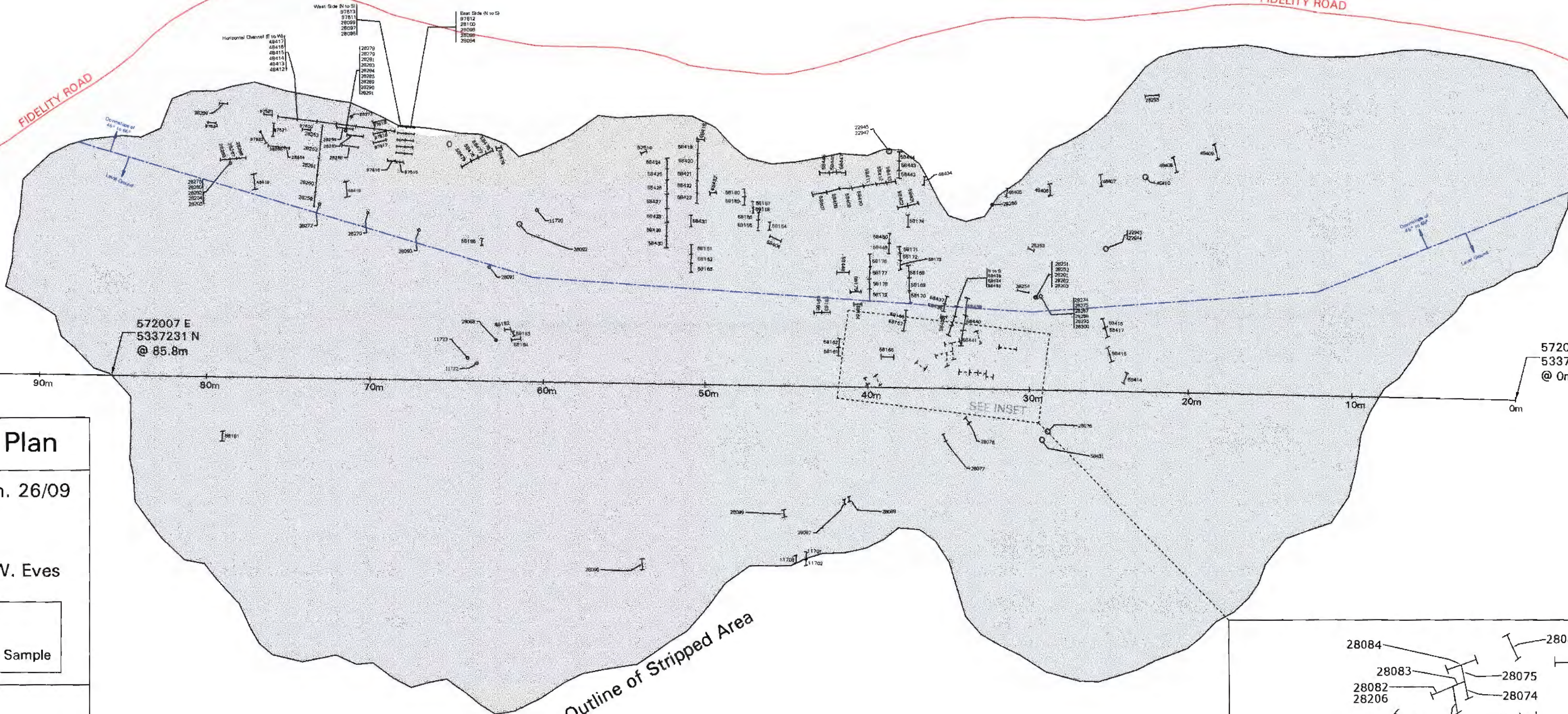
58474





10m

FIDELITY ROAD



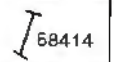
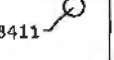
572007 E  
5337231 N  
@ 85.8m

572075 E  
5337184 N  
@ 0m

90m 80m 70m 60m 50m 40m 30m 20m 10m 0m

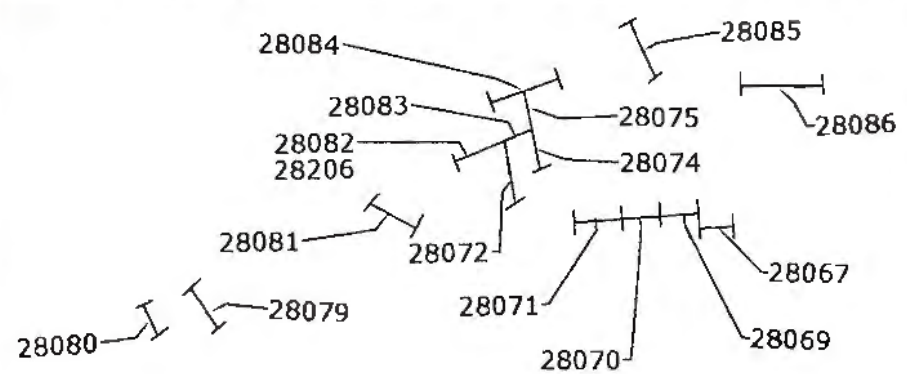
### Fidelity Sample Plan

Scale 1:200 Jan. 26/09  
NAD83 Zone 17 N  
CLAIM : L2845  
Data and Drafting By:  
Greg Matheson / David W. Eves

-  Channel Sample
-  Blast Pit, Chip, or Grab Sample



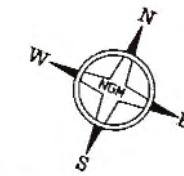
MAP #11



Outline of Stripped Area



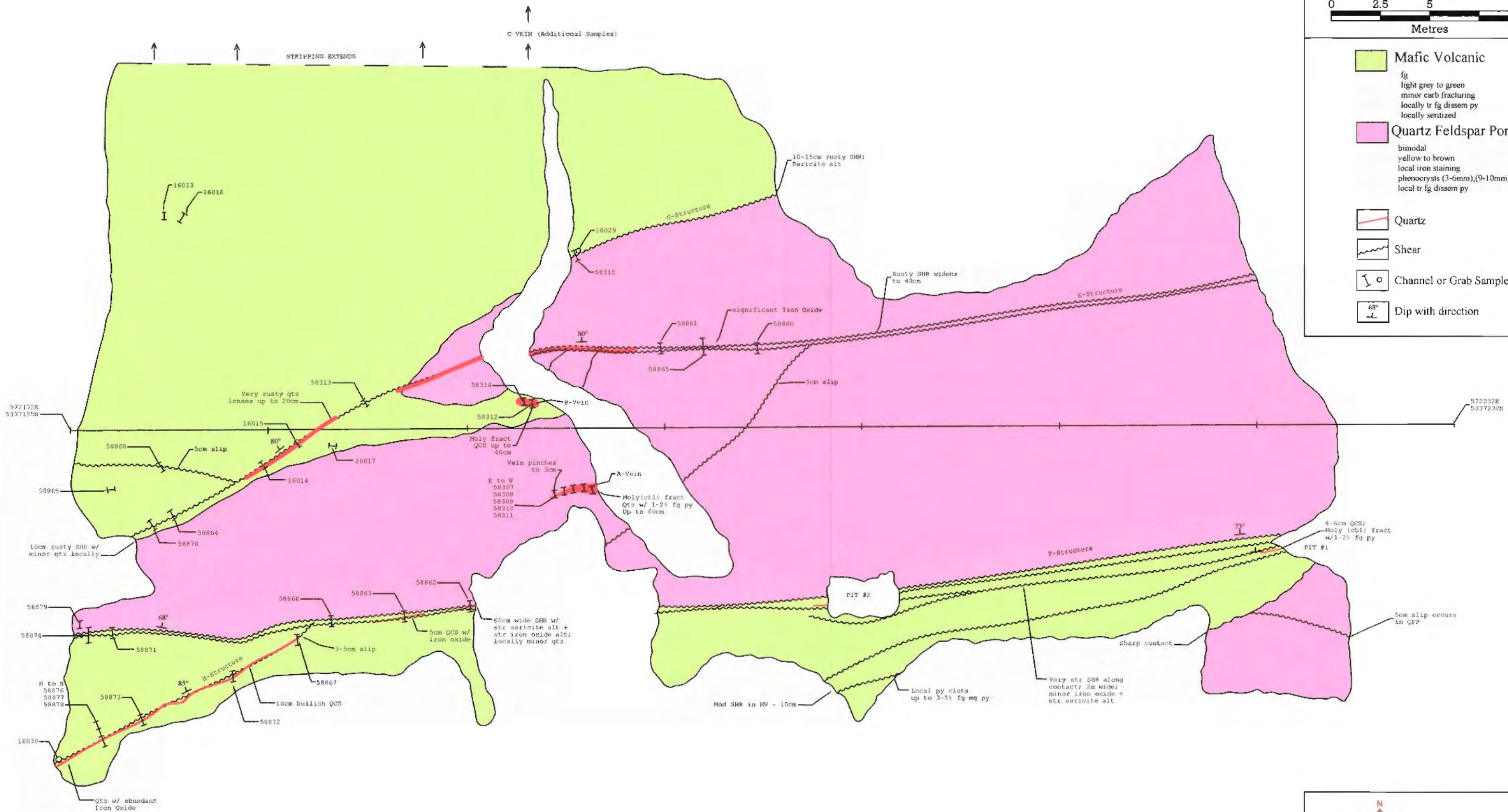
# Fidelity East Stripping



NAD83 Zone 17 N  
Scale = 1:200  
Data and drafting by:  
Greg Matheson  
David W. Eves (digital)  
Jan. 26, 2009  
CLAIM : L2845



- Mafic Volcanic**  
fg  
light grey to green  
minor carb fracturing  
locally tr fg dissem py  
locally seritized
- Quartz Feldspar Porphyry**  
bimodal  
yellow to brown  
local iron staining  
phenocrysts (3-6mm),(9-10mm)  
local tr fg dissem py
- Quartz
- Shear
- Channel or Grab Sample
- Dip with direction





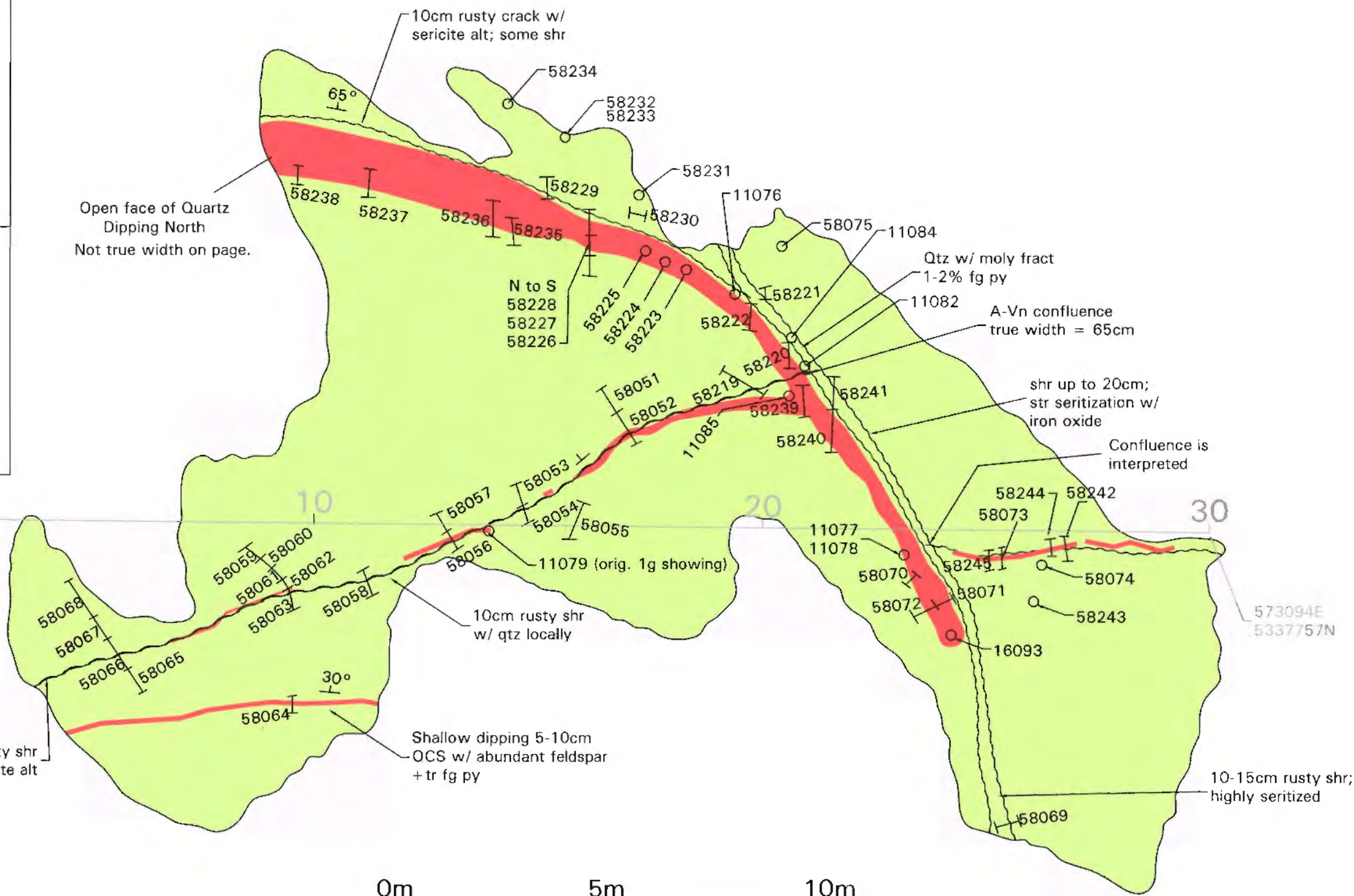
# Goodfish West Stripping



NAD83 Zone 17 N  
 Data and Drafting by:  
 Greg Matheson  
 David W. Eves (digital)  
 Jan. 26, 2009.  
 CLAIM : 1186591  
 Scale = 1:100

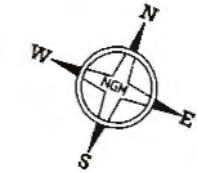
- Mafic Volcanics
- Quartz
- Fault or Slip
- 65° Dip with Direction
- Grab or Chip Sample
- Channel Sample

0  
249°





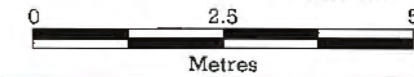
# Goodfish East Stripping



NA1283 Zone 17N  
Scale - 1:100

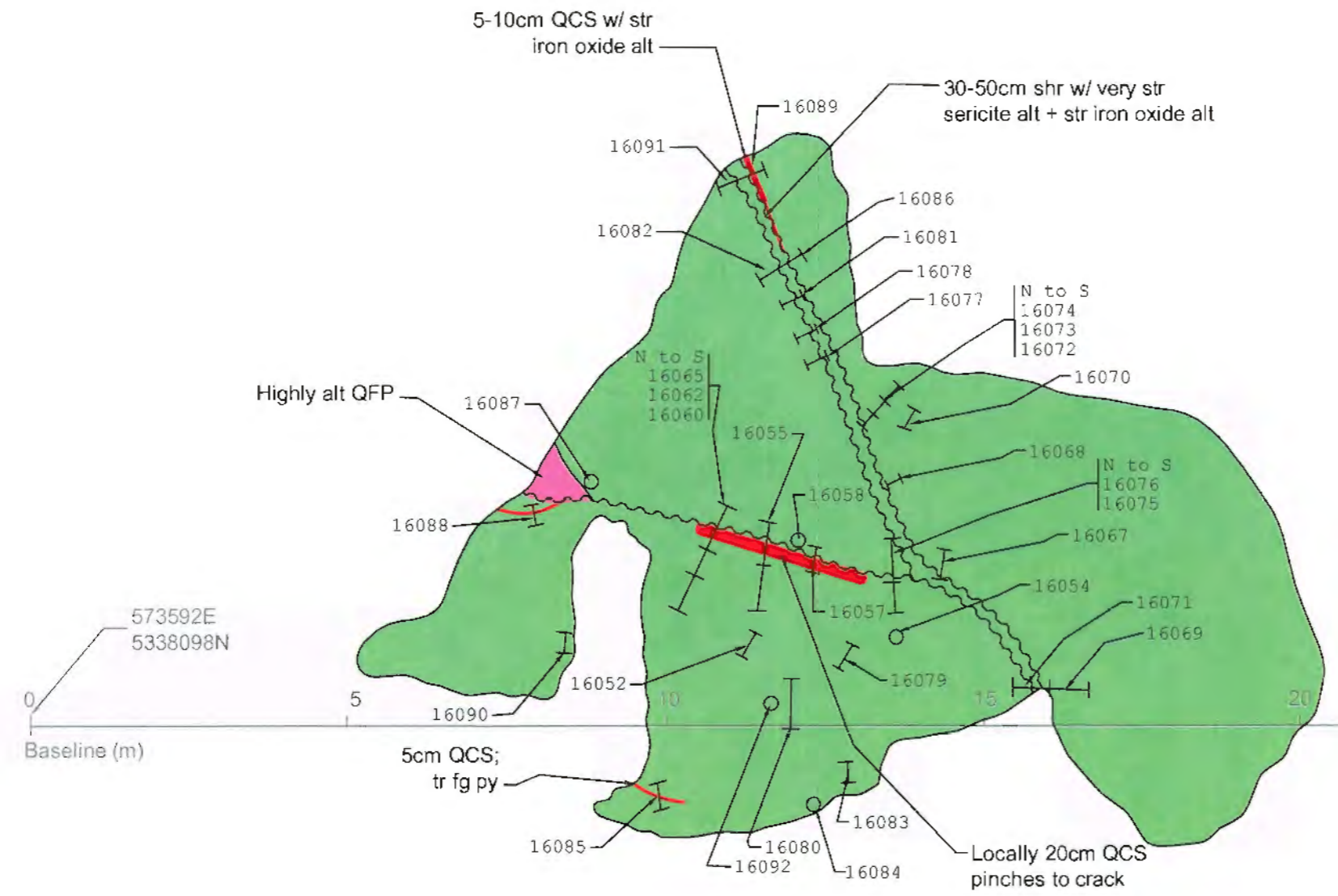
Data and drafting by:  
Greg Matheson  
David W. Eves (digital)

Jan. 26, 2009.  
CLATM : 1186591



- Mafic Volcanic**  
fg  
light grey to green  
minor carb fracturing  
locally tr fg dissem py  
locally seritized
- Quartz Feldspar Porphyry**  
bimodal  
yellow to brown  
local iron staining  
phenocrysts (3-6mm); (9-10mm)  
local tr fg dissem py

- Quartz
- Shear
- Channel or Grab Sample
- Dip with direction

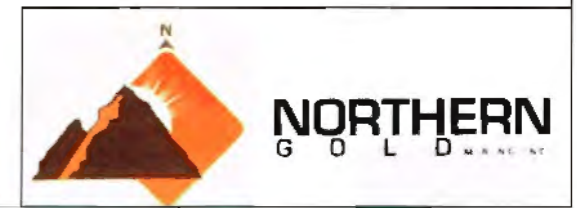


254° ←

573592E  
5338098N  
Baseline (m)

573590E  
5338079N

MAP #14



**NORTHERN**  
G O L D M I N I N G

# Mallard Lake Stripping

(St. Pierre Shaft)

NAD83 Zone 17 N

Scale = 1:200

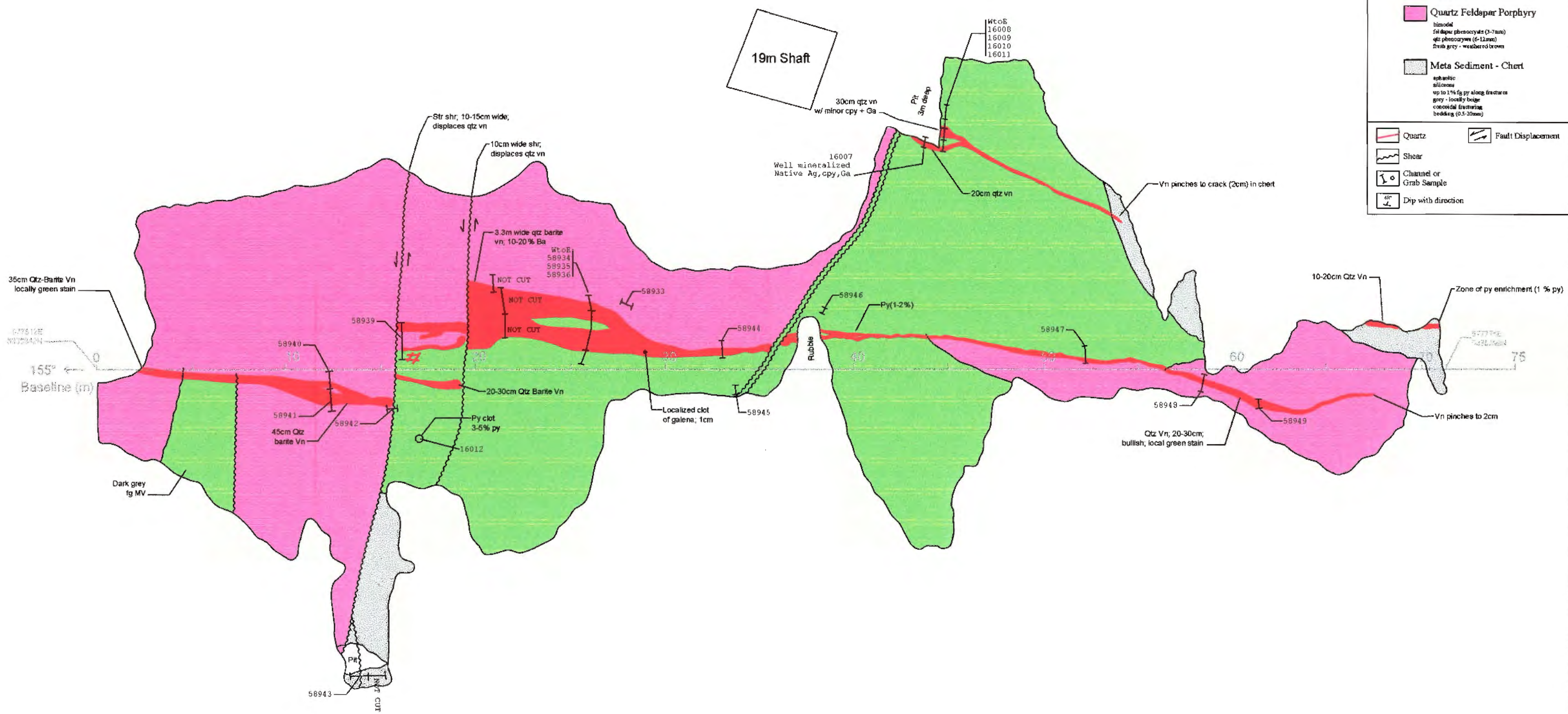
Date and drafting by:  
Greg Matheson  
David W. Eves (digital)

Jan. 26, 2009  
CLADA - 3011753



- Mafic Volcanic**  
fg - grey  
tr fg, disseminated py  
locally variegated
- Quartz Feldspar Porphyry**  
bimodal  
fcl disseminated phenocrysts (3-7mm)  
qtz phenocrysts (6-12mm)  
fresh grey - weathered brown
- Meta Sediment - Chert**  
epheritic  
siliceous  
up to 1% fg py along fractures  
grey - locally beige  
conoidal fracturing  
bedding (0.5-2mm)

- Quartz
- Shear
- Chert or Grab Sample
- Fault Displacement
- Dip with direction



MAP #15





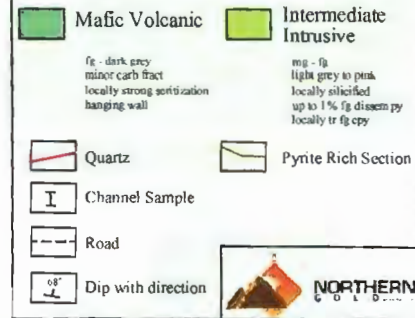
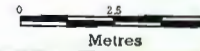
# Ed Hargreaves Shaft Stripping



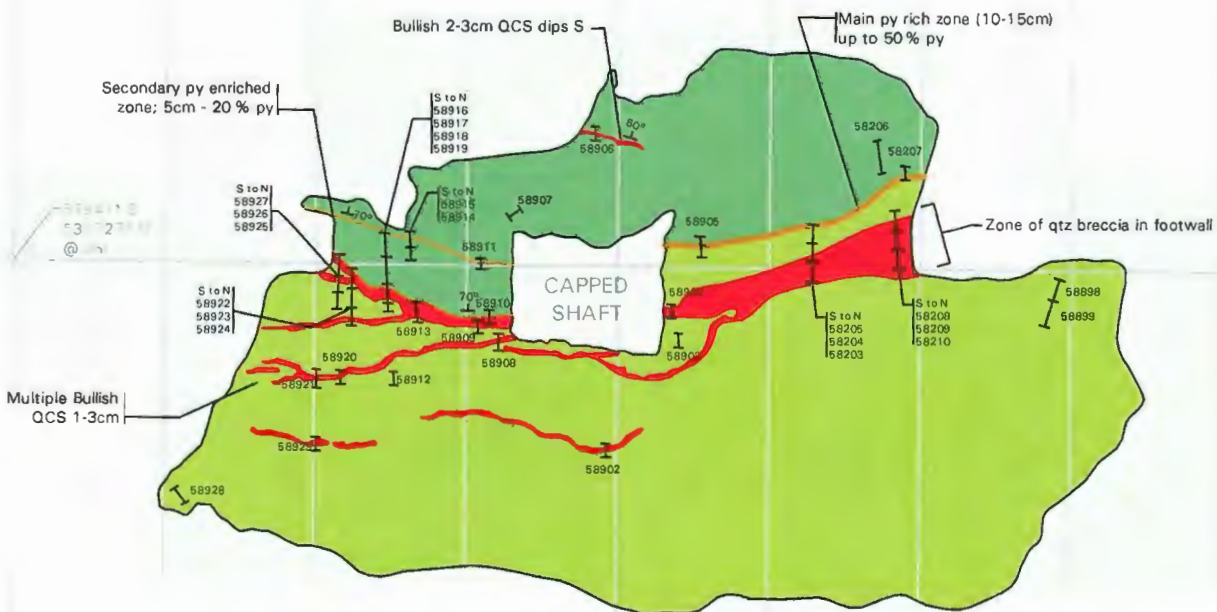
NAD83 Zone 17N  
Scale = 1:200

Data and drafting by:  
Greg Matheson  
David W. Eves (digital)

Jan. 26, 2009  
CLAIM : 4210202



ROAD



# Ed Hargreaves - East Stripping

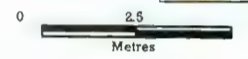
NAD83 Zone 17 N  
Scale = 1:200

Data and drafting by:  
Greg Matheson  
David W. Eves (digital)

Jan. 26, 2009.  
CLAIM : 4210202



- Quartz
- Shear
- Channel or Grab Sample
- Breccia
- Pyrite Rich Zone
- Mafic Volcanic
- Mafic Intrusive
- Fg Seriated
- Tr fg dissem py
- Gray to dark grey
- Mg Locally highly oxidized
- Minor carb fac
- Dark grey to black

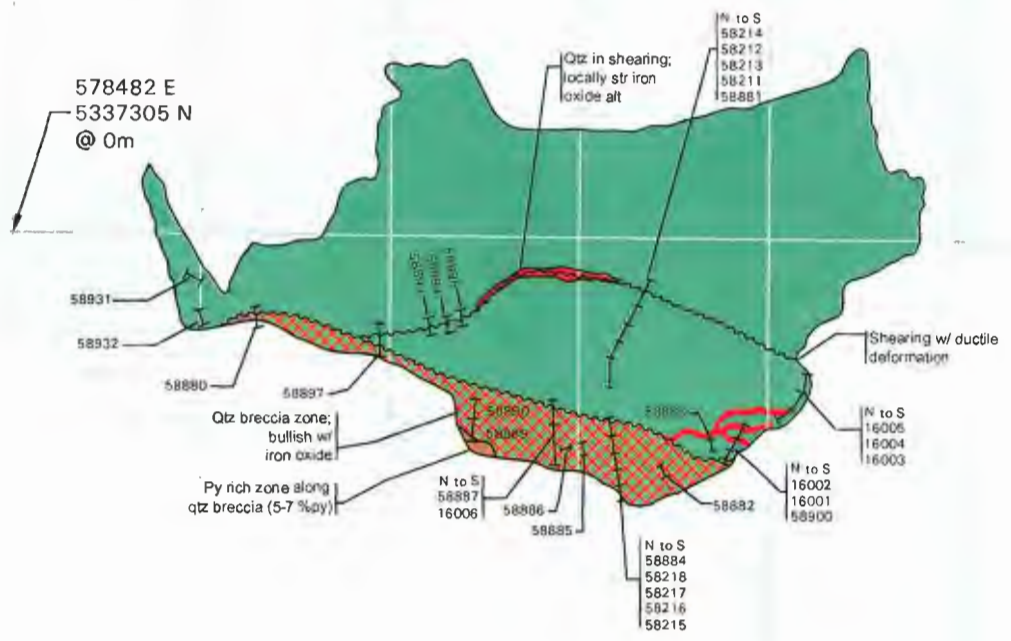


(m) 0 5 10 15 20 25

30 35 40

BL 254°

BL



(m) 0 5 10 15 20 25 30 35 40