

# Geological Survey Branch Assessment Report Indexing System



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#### **ARIS Summary Report**

Regional Geologist, Prince George

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2005.10.28

**ASSESSMENT REPORT: 27605** 

Mining Division(s):

Omineca

**Property Name:** 

Mount Sidney Williams

Location:

**NAD 27 NAD 83** 

Latitude: 54 54 00 Latitude: 54 54 00

Longitude: Longitude: 125 24 00 125 24 06 UTM: UTM:

6086086 346104 10 6086305

10

346002

NTS:

093K14W

BCGS:

093K063

Camp:

Claim(s):

One-Eye 1, Klone 1

Operator(s):

Mowat, Ursula G.

Author(s):

Mowat, Ursula G.

Report Year:

2005

No. of Pages:

27 Pages

Commodities

Searched For:

Gold

General

**GEOC** 

Work Categories:

Work Done:

Geochemical

(8 sample(s);)

ROCK Rock Elements Analyzed For:

Multielement

SOIL Soil

(75 sample(s);) No. of maps : 3; Scale(s): 1:1000

Elements Analyzed For :

Multielement

Keywords:

Pennsylvanian-Permian, Cache Creek Complex, Trembleur Intrusives, Ultramafics, Andesites, Argillites, Quartzites,

Quartz diorites, Norites, Listwanites

Statement Nos.:

3219310

MINFILE Nos.:

093K 043

**Related Reports:** 

27518



JAN 2 0 2005

# Gold Commissioner's Office VANCOUVER, B.C.

SAMPLING

on the

ONE-EYE 1 AND KLONE 1 CLAIMS

OMINECA MINING DIVISION

N.T.S. 93-K-14W

Lat.: 54° 54'N Long.: 125° 24'W

bу

U. MOWAT, P. Geo.

January, 2005

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#### 1.0 Introduction

In September, 2004 three men spent two days soil sampling selected areas of the One-Eye 1 claim and the Klone 1 claim. The areas are designated the 6W/11S grid located on the One-Eye 1 claim, the Zero grid and the BL North grid, both located on the Klone 1 claim. The areas were selected as the 1987 and 1990 soil sampling did not provide adequate coverage or as in the case of the soil sampling on the One-Eye 1 claim, the old grid was deemed to be oriented poorly. A total of 75 soil samples and 8 rock samples were collected, 28 from the 6W/11S grid, 32 from the Zero grid and 15 from the BL  $ar{ ext{North}}$  grid. All soil samples were collected from the B horizon at a depth of approximately 30 cm. Soil samples were analysed for 30 elements by ICP and Au by ICP-ES. Rock samples were analysed for 30 elements by ICP and Au, Pt, Pd by ICP-ES.

#### 2.0 Location and Access

The Mount Sidney Williams property lies 87 km northwest of Fort St. James and is located at co-ordinates 54° 54' N and 125° 24' W on map sheet 93-K-14W (M093K083, 084, 093).

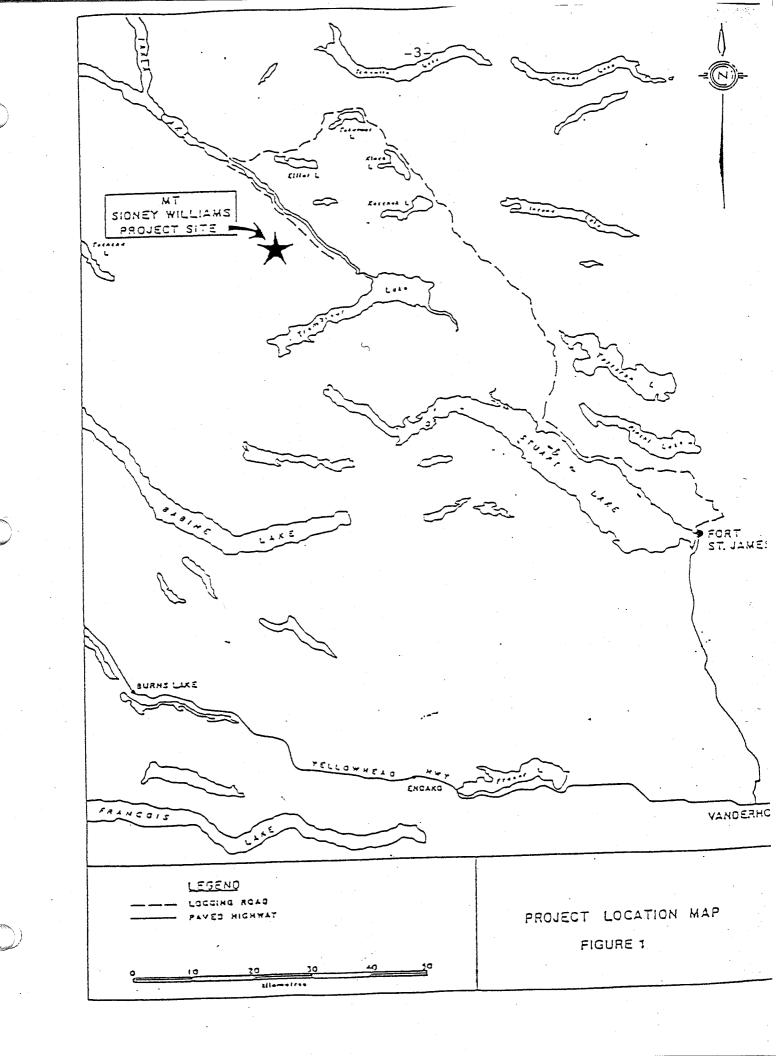
Access to the property is at present by helicopter but good logging roads reach the periphery of most of the property and also cut across the Mid claim, the most easterly portion of the property.

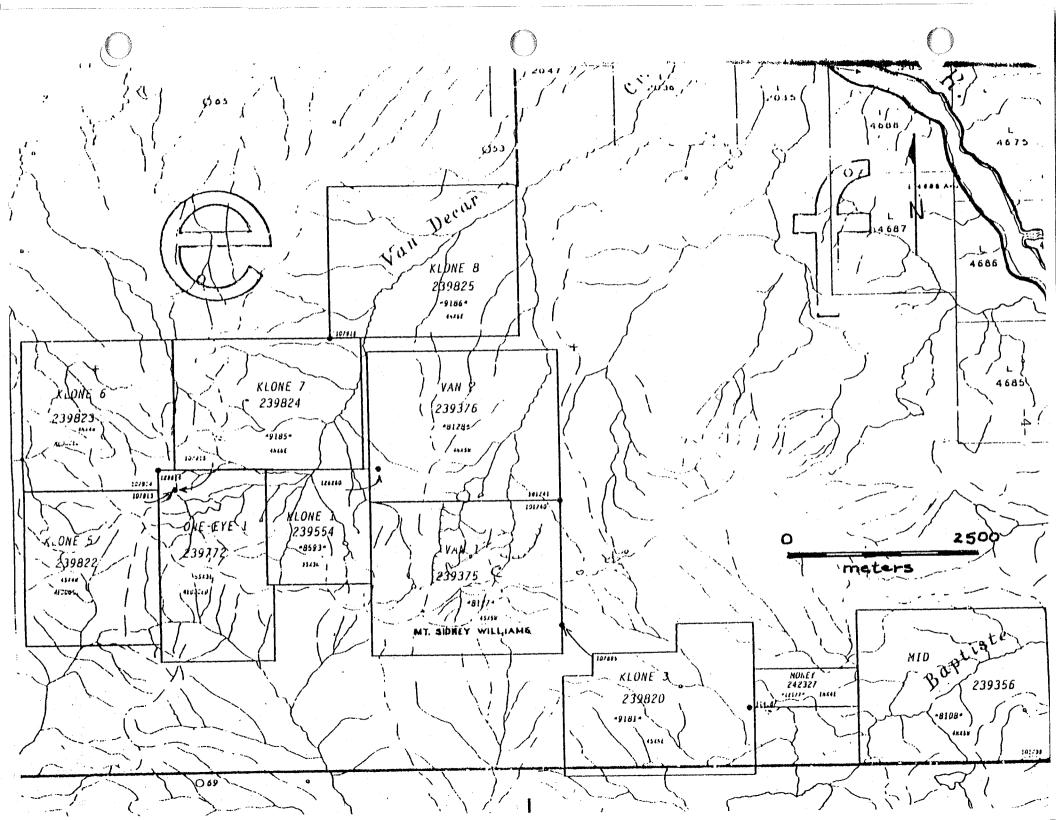
#### 3.0 Claim Data

The Mount Sidney Williams property consists of the following claims totalling 160 units:

| Claim Name | Record Number | No. of Units |
|------------|---------------|--------------|
| Mid        | 239256        | - 20         |
| Van 2      | 239375        | 20           |
| Klone 1    | 239554        | 9            |
| Klone 3    | 239820        | 20           |
| Klone 5    | 239822        | 16<br>16     |
| Klone 6    | 239823        | 16           |
| Klone 7    | 239824        | 20           |
| Klone 8    | 239825        | 20           |
| One-Eye 1  | 239772        | 15           |
| Money      | 242327        | 4            |

The Mount Sidney Williams property is located in the Omineca Mining Division.





#### 4.0 History

The first mention of the Mount Sidney Williams area is made in 1937 when J. E. Armstrong of the GSC did a brief reconnaissance of the Fort St. James area. Mapping by the GSC of the Fort St. James area continued in 1938. During this time, a small placer gold occurrence was being worked on Van Decar Creek. The operation was located below serpentinized peridotite and nuggets of gold valued at \$0.50 to \$2.00 (1937 prices) were found.

In 1942, the GSC mapped the Mount Sidney Williams area with the prime purpose of locating chromite deposits. Nine chromite occurrences were located in the Middle River Range. Several asbestos occurrences were also located. Prospectors working in the region reported gold values in carbonate-quartz-mariposite and carbonate-talc rocks of altered Trembleur Intrusions along shear zones. One sample of carbonate-quartz-mariposite rock, high in quartz (75%) taken on Baptiste Creek returned values of 0.036 oz/ton gold and 0.07 oz/ton silver.

In 1952, 4 claims called the Nest Group were worked on in the vicinity of the present camp located on Tear Crop Lake. The work consisted of a trench 36.6 meters long, 2.44 meters wide and 0.61 meters deep. The purpose of the trench is unknown but presumably was dug in an attempt to locate asbestos.

In 1961, 4 claims called the Robin claims were located in the vicinity of the Nest Group and the present camp located on Tear Drop Lake. In 1962, the owner Louis Vass attempted to blast a trench in the main asbestos showing at the headwaters of Tear Drop Creek. The showing is described in MMAR 1962. In 1963, Louis Vass drilled 16 holes which were 1.22 to 1.53 meters deep, 4 holes that were 0.61 meters deep presumably with a pack sack drill. He also stripped an area 4.58 meters by 2.44 meters. In 1966, Louis Vass drilled 6 test holes and dug a trench 4.58 meters by 0.92 meters by 0.61 meters. All the work in 1963 and 1966 was concentrated near the camp on Tear Drop Lake.

No mention is made of the Mount Sidney Williams area until 1975 when the Pauline claims located 3.2 km east of the peak of Mount Sidney Williams were worked on. The four claims were examined for chromite.

In 1980, the Cr 1 - 5 claims, owned by Mountaineer Mines were prospected for the chrome potential. In 1982, the Cr 1 - 6 claims owned by Northgane Minerals were worked on. The work consisted of 310 line km of airborne magnetic and VLF-EM surveys.

In 1983, the Mount Sidney Williams ultramafic massif was studied and partially mapped as part of a Ph.D. program to determine the extent and style of chromite and chromitite mineralization.

In 1984, Aume Resources staked the Bap claim located on Baptiste Creek. Work consisted of collecting 41 silt and 9 rock samples.

In 1986, the Mid claim was staked on Baptiste Creek for Lacana Mining. The present Mount Sidney Williams property was staked at various times throughout 1987. To date, the following work has been performed on the property:

rock sampling: 1711 samples
soil sampling: 3286 samples
silt sampling: 205 samples

silt sampling: 205 samples drilling: 22 holes totalling 1541.4 meters

drilling: 22 noies tot trenching: 52 meters 11450 meters Mag/VLF survey: 26150 meters

# 5.0 Regional Geology

The area of Mount Sidney Williams is underlain by a 15 km wide belt of northwesterly-trending Pennsylvanian and Permian Cache Creek Group rocks consisting of ribbon chert, argillaceous quartzite, argillite, slate, greenstone, limestone with minor conglomerate and greywacke. The Cache Creek Group has been intruded by Upper Jurassic or Lower Cretaceous Omineca Intrusions consisting of granodiorite, quartz diorite, diorite with minor granite, syenite, gabbro and pyroxenite. As well, Post-Middle Permian, Pre-Upper Triassic Trembleur Intrusions consisting of peridotite, dunite, minor pyroxenite and gabbro with serpentinized and steatized equivalents intrude the Cache Creek Group.

The northwesterly-trending belt of Cache Creek Group rocks is bordered on the east by the Pinchi Fault and Upper Triassic Takla Group andesites, basaltic flows, tuffs, breccias and agglomerates with interbedded conglomerate, shale, greywacke and limestone. On the west, the belt is bounded by the Takla Fault, an east-dipping zone up to 5 km wide which contains a melange of serpentine and greenstone. The melange is adjacent to Triassic metamorphosed pyroclastic rocks, basalt, rhyolite, greywacke and argillite of the Sitlika assemblage.

Between the Pinchi Fault and the Takla Fault, the Cache Creek Group of rocks are highly deformed. Three deformational periods have been recognized. The oldest structures are a prominent foliation that parallels compositional layering and trends east-west, marking the axial planes of isoclinal folds. A later structure consists of chevron folds which trend north-south with axial planes dipping moderately westwards. The youngest structures are warps and kinks probably related to late faulting. The Cache Creek Group has been metamorphosed to lower greenschist facies and locally contains glaucophane.

Mineralization in the vicinity of Mount Sidney Williams includes the Mac claims, a porphyry molybdenum deposit, the Bornite claims, a bornite and chalcopyrite showing in dunite, a jade occurrence on O'Ne-ell Creek and several chromite and asbestos showings.

#### 6.0 Property Geology

The Mount Sidney Williams property is underlain by Trembleur ultramafics and Cache Creek Group argillites, volcanics and minor quartzite. All units have been intruded by either diorite, quartz diorite, monzonite or norite. In addition, late Tertiary? ash and basalt have been found in some areas.

#### 6.1 Mid Claim

On the Mid claim, the most easterly portion of the Mount Sidney Williams property, intermittent outcrops of andesitic volcanics, argillite, peridotite, minor diorite, limey quartzite and argillaceous limestone are exposed along a logging road. Large areas of carbonate listwanite and talc alteration have also been exposed.

Andesitic volcanics are the most predominant lithology exposed along the road. The volcanics are a greenish grey in colour, massive with rare 5 mm white feldspar phenocrysts. In some areas they appear to be brecciated.

Argillites are the second most common lithology and are black, massive with thin laminae of recrystallized quartz which was originally siltstone. Occasionally, the argillite is cut by irregular veinlets of white carbonate +/- quartz. In areas of shearing the argillite becomes phyllitic.

One small area of limey quartzite and recrystallized limestone cut by myriads of white carbonate veinlets was noted. Pyritic quartzite float was also seen.

The volcanics and argillite have been intruded by both peridotite and diorite. The diorite exposed along the road appears to be dyke-like but in one area a splay of dykes was noted trending  $100^{\circ}$ ,  $130^{\circ}$  and  $155^{\circ}/90$ .

Between the main logging road and Baptiste Creek, a small outcrop of argillite in contact with peridotite was seen. The contact is marked by an east-weat trending shear zone.

Baptiste Creek in underlain by intense listwanite development plus talc with vertical quartz veining and a diorite. Kaolinite alteration and sinter in soils suggest the presence of a fossil hotspring.

An examination of the clear cuts north of Baptiste Creek in 2003 showed that this area is underlain by highly serpentinized peridotite and volcanics with minor amounts of listwanite. The most easterly portion of the clear cuts is underlain by highly serpentinized peridotite while the westerly portions are underlain by andesitic volcanics which is the dominant lithology. The contact between the peridotite and volcanics is marked by listwanite.

#### 6.2 East of Van Decar Creek

The upper slopes on the eastern side of Van Decar Creek are dominantly underlain by harzburgite with lesser amounts of dunite, peridotite and altered equivalents of the Trembleu ultramafic massif. Drill core has revealed that the ultramafic is, at least in part, a flow with recognizable flow tops and also containing volcanic rafts. A late stage

dunite forms vertical pipes and small lopoliths pushing layers of harzburgite and dunite apart.

The lower slopes on the eastern side of Van Decar Creek are marked by an intense aeromagnetic low which suggests the presence of an extensive volcanic-sediment package.

The 1994 drilling revealed an extensive package of volcaniclastics with minor limestone, chert and siltstone which have been thrust over the ultramafic. Folding appears to have affected both the volcaniclastics, the ultramafic and possibly the West Zone listwanite.

Norite, usually occurring as east-west trending dykes, and monzonite have been found intruding the ultramafic. A glassy rhyolite? has also intruded the ultramafic in the vicinity of the Camp Zone.

To the north of the ultramafic body and located within Van Decar Creek, black argillite and basalt have been found. The basalt is seen to overlay the argillite and also forms an extensive trail of float down Van Decar Creek.

#### 6.3 West of Van Decar Creek

The dominant lithologies on the west side of Van Decar Creek consist of Cache Creek Group argillites and volcanics which trend 320° and have variable dips subject to faulting. The ultramafics are primarily very altered peridotites with minor dunite. No harzburgite has been seen. The ultramafics are more intensely altered than the ultramafics east of Van DecarCreek.

All rock types on the west side of Van Decar Creek have been intruded by diorite or quartz diorite. No norite has been seen.

A volcanic cone of dacitic composition is located immediately north of West Peak and appears to be responsible for a thick layer of ash covering a substantial area south of West Lake. Black basaltic dykes have been found within the cone.

Examination of outcrop located from airphotos show the Klone 7 claim to be underlain by serpentinized peridotite and andesitic volcanics.

#### 6.4 West Peak Ridge

The dominant lithology of the West Peak Ridge consists of a monotonously uniform grey volcanic striking 320° and is relatively flat-lying. Volcanics were located at the far east end of the ridge and appear to form a wedge between the ultramafics on the west side and the ultramafic of the east side of Van Decar Creek. The volcanic wedge is separated from the ultramafics on the west by a fault zone which trends 020°/90 which parallels the Van Decar fault zone. The contact of the fault is marked by talc alteration and a discontinuous quartz vein. The volcanics are locally intensely epidotized, locally with discontinuous white quartz veining and locally mineralized with pyrrhotite and minor chalcopyrite.

The second most abundant lithology is peridotite which is highly altered to serpentine and less frequently by talc. The peridotite is overlain by the volcanics and minor argillite on the West Peak ridge. Outcrops of peridotite and a tectonic breccia consisting of serpentine boulders in a dark green serpentine-chlorite matrix were found on the south side of West Peak suggesting that the entire West Peak area may be underlain by a flatlying ultramafic.

A large body at least 400 meters long of mediumgrained diorite was also found on the West Peak ridge. The western side of the diorite is marked by a very fine grained, dark greenish grey, highly chloritic phase of the diorite. The diorite is in contact with peridotite and is marked by a zone of pinkish weathering talc. The diorite is also in contact with peridotite at the eastern end of West Peak ridge. This contact is also a fault marked by minor talc alteration and the presence of serpentine tectonic breccia. In the central portion of the diorite which is composed of 70% feldspar and 30% hornblende, the diorite becomes almost black due to secondary? biotite and greatly resembles a lamprophyre. In addition, the central portion of the diorite becomes patchily gneissic-looking due to myriads of parallel white carbonate? veinlets. The diorite is generally not mineralized or alterd significantly.

One area of sucrosic black silicified argillite with numerous white irregular quartz veinlets was also seen. The silicified argillite is separated from strongly quartz-veined volcanics by a north-south trending fault.

Two small outcrops of extremely altered peridotite were also observed. The outcrops are covered with a white "salt" and are extremely vuggy. Both outcrops have the appearance, and are believed to be, small fossil hotsprings.

## 6.5 Sidney Creek

A traverse of Sidney Creek showed that the creek is underlain dominantly by argillite with minor siltstone. At the headwaters of Sidney Creek, the lithology changes to andesitic volcanics. The argillite is rusty weathering, occasionally contains quartz stringers and is carbonated in the vicinity of narrow felsic dykes. The argillite has variable orientations ranging from 310°/90° to 360°/90°. The felsic dykes are probably dislocated portions of one dyke as one dyke clearly was seen to terminate against a fault. The dykes also occasionally bifurcate and trend 280°/90° to 290°/90°.

Volcanics outcrop at the headwaters of Sidney Creek. One small outcrop of serpentinized argillite trending 2900/800SW was also seen on Sidney Creek.

The most noteable feature of Sidney Creek is the abundant large boulders of listwanite, quartz and talc throughout the creek bed. Serpentine float is abundant on the north side of the creek while argillite and minor volcanics outcrop on the south side of the creek.

It would appear that Sidney Creek is a large shear zone trending 2900/800 SW?.

#### 7.0 Mineralization

#### 7.1 Listwanites

The most significant mineralization found on the Mount Sidney Williams property consists of very fine grained arsenopyrite and pyrite within the listwanite zones. Elevated gold values appear to be associated with quartz-rich areas within the listwanites. The quartz occurs as pervasive silicification, pervasive chalcedonic quartz or as veinlets in brecciated listwanite. In the Camp Zone, the sulphides also occur as a black matrix in a brecciated quartz-rich listwanite.

The Stibnite Zone listwanite is also mineralized with very fine grained arsenopyrite and pyrite. The listwanite and an albitized breccia zone also are occasionally mineralized with sub-euhedral stibnite crystals up to 5 cm in length.

There are numerous listwanite zones, most with elevated gold and arsenic values, but the most significant zones are the Upper, Camp and Stibnite Zones.

The listwanite bodies found on the Mid claim are generally devoid of any mineralization but where present consists of pyrite occasionally as coarse grained 1 cm pyrite cubes. Elevated arsenic values indicate the presence of arsenopyrite.

A traverse of Sidney Creek located numerous large boulders of listwanite which were mineralized with pyrite and some arsenopyrite. No significant gold values were encountered.

Mineralization within the listwanite zones are believed to be genetically related to norite or in some cases diorite intrusives. In addition, geochemistry and alteration suggest that recent volcanism may play a part in listwanite development and mineralization.

#### 7.2 <u>Ultramafics</u>

The ultramafics on the Mount Sidney Williams property are host to an assemblage of nickel minerals which include awaruite, heazlewoodite, bravoite and pentlandite. The nickel mineralization is very fine grained and rather uniformly disseminated. Occasionally awaruite 0.5 to 1 cm in diameter can be seen in core from drill hole 94-10. The nickel mineralization does not show any lithological preference but a strong reduction in values when talc alteration is present.

Chromite is ubiquitous throughout the ultramafics. High grade chromite pods with 10 to 20% chromite are found in various locations on the Mount Sidney Williams property.

#### 7.3 Volcanics

Generally volcanics are devoid of any mineralization but several areas are mineralized with pyrite, pyrrhotite and/or chalcopyrite. Analyses indicates that at least some of the volcanics have elevated Pt and Pd values.

Almost all the volcanics encountered during sampling in 2002 and 2003 were devoid of any sulphide mineralization. One small area of volcanics located in 2002 was mineralized with very fine grained pyrrhotite. No significant values were obtained from this material. A sample of volcanic wallrock also collected in 2002 and taken near a quartz vein returned a value of 26 ppb Pd.

#### 7.4 Argillite

Generally the argillites are devoid of any mineralization and if any is present it is dominantly pyrite with minor amounts of chalcopyrite in siltstone laminae.

The argillites found south of Sidney Creek, even though they are locally intensely rusty weathering particularly along fractures, showed no discernible sulphides. The argillites did not return any significant values even though previous soil sampling indicated the presence of zinc and copper.

#### 7.5 Quartzites

Quartzites and siltstones are generally devoid of any mineralization. Quartzite float located on the Mid claim is mineralized with 3% sub-euhedral pyrite cubes. Siltstones encountered in drill hole 94-3 are mineralized with nickel.

Minor amounts of siltstone located on Sidney Creek did not show any discernible sulphides even though fractures are coated with strong limonite.

#### 7.6 Intrusives

Generally the norites, diorites and basalts are devoid of any mineralization. Where the norites have been altered by carbonate replacement, arsenopyrite and pyrite are present occurring as very fine grained disseminations. In drill hole

91-1, the arsenopyrite occurs as 2.5 cm diameter nest of acicular arsenopyrite needles in the altered norite. The only mineralization noted in the diorites occurs as a pyritized shear zone located on West Peak ridge and as pyrite replacing hornblende in a dyke encountered in drill hole 94-7. No significant values were encountered in either case.

The felsic dyke located in Sidney Creek showed no discernible sulphides.

#### 8.0 Alteration

#### 8.1 Listwanites

The most visible alteration on the Mount Sidney Williams property consists of a redorange weathering listwanite which is composed of varying amounts of ferro-dolomite, quartz, mariposite, talc and serpentine. Ferro-dolomite usually forms the major component of the listwanites. Quartz occurs as veinlets which are often vuggy, chalcedony veinlets and as a pervasive replacement of the ferro-dolomite. Mariposite occurs as very fine grained disseminations which imparts a pale green hue to the ferro-dolomite and the pervasively silicified listwanites. Mariposite development along the Baptiste Creek road listwanites is particularly intense forming a bright green selvage along vertical fractures. The listwanite boulders located in Sidney Creek all contain substantial amounts of mariposite.

Twenty listwanite zones have been identified to date. In addition, numerous listwanite lenses have also been found. Listwanite development is both genetically and spatially related to both norite and diorite intrusives and forms a crude mineralogically zoned halo around the intrusives. Most of the listwanites found to date occur within the ultramafics. Some listwanites in the West Peak area are found in volcanics and in one case in limestone. In Sidney Creek, listwanite was seen at the periphery of the felsic dykes and appears to be replacing argillite. Ferrodolomite has also been seen replacing norite, diorite and the felsic dykes in Sidney Creek.

#### 8.2 <u>Ultramafics</u>

Alteration in the ultramafics consists of varying degrees of serpentinization or talc replacement. The intensity of serpentinization appears to be related to proximity to the norite or diorite intrusives. Generally, peridotite shows the greatest degree of serpentine alteration. in the West Peak area shows that the ultramafics are more intensely altered by serpentine and talc than the ultramafics east of Van Decar Creek which range from fresh looking to completely serpentinized with no primary textures remaining. All the West Peak ultramafics have very little primary texture remaining and are often not only serpentinized but are also replaced by coarse grained talc. tectonic breccia located south of West Peak is particularly intensely altered by serpentine with dark green serpentine cobbles in a black matrix of chlorite and serpentine.

No alteration is associated with the nickel mineralization.

#### 8.3 <u>Volcanics</u>

Volcanics generally show only minor alteration consisting of weak chloritization. An exception is a large area on West Peak where the volcanics are intensely epidotized. Volcanics near the Eddy Zone contain garnets and near the Reno Zone fine grained tremolite has been noted. The epidote, garnet and tremolite have been formed locally by granitic intrusives.

Volcanics are occasionally cut by white, shattered bull quartz veins and by blue grey vuggy chalcedony veinlets. The bull quartz veins mark the contact between volcanics and ultramafics.

#### 8.4 Argillites

The argillites are generally unaltered except for silicification and serpentinization which are of a local nature. Silicification ranges from a black sucrosic-looking rock with myriads of white quartz veinlets as on the West Peak to a pale grey totally pervasively silicified material. The argillites in Sidney Creek have been locally replaced by serpentine and carbonate along a fault zone.

#### 9.0 Work Program

In September, 2004 three men spent two days soil sampling selected areas of the One-Eye 1 claim and The areas are designated the the Klone 1 claim. 6W/11S grid located on the One-Eye 1 claim, the Zero grid and the BL North grid, both located on the The areas were selected as the 1987 Klone 1 claim. and 1990 soil sampling did not provide adequate coverage or as in the case of the soil sampling on the One-Eye 1 claim the previous grid was deemed to be oriented at an inappropriate direction. of 75 soil samples were collected, 28 from the 6W/11S grid, 32 from the Zero grid and 15 from the BL North grid. All soil samples were collected from the B horizon at a depth of approximately 30 cm. Soil samples were analysed for 30 elements by ICP and Au by ICP-ES.

During soil sampling 8 rocks were collected, 1 from the 6W/11S grid, 4 from the BL North grid and 3 from the Zero grid. All rock samples were analysed for 30 elements by ICP and Au, Pt, Pd by ICP-ES.

# 10.0 Results and Conclusions

#### 10.1 6W/11S Grid

Analyses of soil samples shows the lack of arsenic, a typical feature of listwanites found on the Mount Sidney Williams property. Gold values vary from trace to a sporadic high of 312 ppb. Sample 158764 which returned values of 2 ppb Au, 2 ppm As is anomalous in that it is a high calcium listwanite in serpentine. Typically carbonate altertion (listwanite) is Mg-rich. Sample 158764 was collected at 7W/13+25S the site of the 312 ppb Au soil sample.

No quartz or listwanite as found on line 6W between 6+75S and 7+00S was noted during soil sampling.

The contact between the ultramafic and volcanics appears to be further east of line 7W.

#### 10.2 BL North Grid

Soil sampling has shown the presence of very elevated gold (1026 ppb) and arsenic (714 ppm). No listwanite was noted during sampling. The lithologies encountered consisted of argillite and brecciated limestone?. A sample of limestone? returned values of 38 ppb Au and 154 ppm As. The source of the gold in soils is unclear but would appear to likely be the brecciated limestone? which is in close proximity to diorite intrusives. Additional sampling of the limestone? and argillites would likely shed light on the source of the gold in soils.

#### 10.3 Zero Grid

Soil sampling returned values as high as 2399 ppb Au. More importantly, the 2004 sampling indicates that the Camp Zone, Zero Zone and the Cirque Zone are connected and would be in the order of 900 meters long. Three rock samples collected during soil sampling were all listwanite float from the Camp-Zero-Cirque trend. The best sample returned values of 20 ppb Au.

# 11.0 References

- Armstrong, J. E., West Half of the Fort Fraser Map-Area, B. C., Paper 37-13, 1937.
- Armstrong, J. E., Northwest Quarter of the Fort Fraser Map-Area, B. C., Paper 38-10, 1938.
- Armstrong, J. E., Fort St. James Map-Area, Cassiar and Coast Districts, B. C., Memoir 252, 1949.
- Leaming, S. F., Jade in Canada, Paper 78-19.
- Paterson, Ian A., Geology of the Cache Creek Group and Mesoizoic Rocks at the Northern End of the Stuart Lake Belt, Central B. C., Paper 74-1, Part B, 1975.
- Plouffe, A. and Ballantyne, S. B., Regional Till Geochemistry, Manson River and Fort Fraser Area, British Columbia (93 K, 93 N), silt plus clay and clay size, GSC OF 2593, 1993.
- Whittaker, Peter J., Geology and Petrogenesis of Chromite and Chrome Spinel in Alpine-Type Peridotites of the Cache Creek Group, B. C., Ph.D. Thesis, Carleton University, 1983.
- Assessment Report 5648, Rock Sampling and Prospecting on the Pauline Claims, by D. Stelling, 1975.
- Assessment Report 8135, Prospecting Report on the CR Claims, by V. Guinet, 1980.
- Assessment Report 10286, Geophysical Report on the CR 1 6 Claims, by T. Pizzot, 1982.
- Assessment Report 11879, Geochemical Survey on the BAP Claims, by R. R. Cuthbert, 1984.
- Assessment Report 17173, Geochemical Sampling on the Van Group, Klone Group, Mid Claims, by U. Mowat, 1988.
- Assessment Report 18089, Geochemical Sampling,
  Prospecting and Mapping on the Van Group,
  Klone Group and Mid Claim, by U. Mowat, 1988.

- Assessment Report 20541, Mapping and Drilling Program on the Mount Sidney Williams Property, by U. Mowat, 1990.
- Assessment Report 21870, Drilling Program on the Mount Sidney Williams Property, by U. Mowat, 1991.
- Assessment Report 23569, Drilling Program on the Mount Sidney Williams Property, by U. Mowat, 1994.
- Assessment Report 24906, A Geochemical/Petrographic Report on the Mount Sidney Williams Property, by U. Mowat, January 1997.
- Assessment Report 25278, Sampling and Metallurgical Report on the Mount Sidney Williams Property, by U. Mowat, November 1997.
- Assessment Report 25727, Mapping and Sampling on the Mount Sidney Williams Property, by U. Mowat, November 1998.
- Assessment Report 26062, Mapping and Sampling on the Mount Sidney Williams Property, by U. Mowat, October 1999.
- Assessment Report 26445, Mapping and Sampling on the Mount Sidney Williams Property, by U. Mowat, January 2001.
- Assessment Report 26993, Sampling on the Mount Sidney Williams Property, by U. Mowat, October 2002.
- Assessment Report 27375, Sampling on the Mid and Klone 7 Claims, by U. Mowat, February 2004.
- Assessment Report 27518, Sampling and Grid Preparation on the One-Eye 1 Claim, by U. Mowat, October, 2004.

# 12.0 Statement of Costs

| Analyses 75 soil samples analysed for 30 elements by ICP and Au by ICP-ES at \$16.24/sample 8 rock samples analysed for 30 elements by ICP and Au, Pt, Pd by ICP-ES at \$20.96/ sample | \$1218.00<br>167.68                               |
|--|---|
| GST  | 97.00<br>\$1482.68                                |
| Helicopter 2.5 hours at \$800.00/hour 285 liters at \$1.00/liter GST   | \$2000.00<br>285.00<br><u>159.95</u><br>\$2444.95 |
| Labour 2 men for 2 days (invoice attached) 1 man for 10 days at \$400.00/day   | \$ 770.40<br>4000.00<br>\$4770.40                 |
| Airfare  | \$ 301.32   |
| Bus  | \$ 19.65  |
| Taxi   | \$ 54.00  |
| Freight  | \$ 32.41  |
| Accommodation 2 nights at \$64.40/night 2 nights at \$67.85/night  | \$ 128.80<br>135.70<br>\$ 264.50                  |
| Meals  | \$ 90.89  |
| Reproduction   | \$ 40.00  |
| Supplies   | \$ 25.00  |
| TOTAL  | \$9445.13   |

Invoice No.

# CJL Enterprises Ltd.

| ustomer       |  |                | l<br>       |
|---------------|--|----------------|-------------|
| ame           | Urusia Mowat<br>1405 - 1933 Robson St.                                 | Date           | Oct 10 2004 |
| ddress<br>ity | Vancouver Prov. B.C. P/C V6G 1E7                                       |                |             |
| hone          | 604-681-1645   |                |             |
| Qty           | Description  | Unit Price     | TOTAL       |
|               | RE: Your soil sampling project out of Ft. St. James                    |                |             |
| 4             | 4 man days for Bob Mackie and Joanne Holness                           | \$150.00       | \$ 600.0    |
| 4<br>1        | Plus 20% to cover ei, cpp,workers comp., holiday pay, accounting, etc. | \$120.00       | \$ 120.0    |
|               |  |                |             |
|               |  |                |             |
|               |  |                |             |
|               |  |                |             |
|               |  |                |             |
|               |  |                |             |
|               |  |                |             |
|               |  |                |             |
|               |  | SubTotal       | \$ 720.0    |
|               | Other GST  | Shipping 7.00% | \$ 50.4     |
| ayment        | Other GST  | 7.00%          | ψ JU.4      |
|               |  | TOTAL          | \$ 770.4    |
|               | Office: Use  | Only :         |             |
|               |  |                |             |
|               |  |                |             |

Experience Counts !!

## 13.0 Statement of Qualifications

- 1. I am a registered member of the Association of Professional Engineers and Geoscientists of British Columbia.
- 2. I am a graduate of the University of British Columbia having graduated in 1969 with a Bachelor of Science in Geology.
- 3. I have practiced by profession since 1969 in mineral, oil and gas, and coal exploration.
- 4. I have a direct interest in the Mount Sidney Williams property.

Musula monat

Ursula G. Mowat, P. Geo.

PROVINCE YELLOW

Dated this 19th day of Jonuary, 2005 at Vancouver, B. C.

ACME ANALYTICAL LABORATORIES LTD. )2 Accredited Co.) (ISO

852 E. HASTINGS ST. VANCOUVER BC V6A 1R6

GEOCHEMICAL ANAL-JIS CERTIFICATE

Mowat, Ursula PROJECT MSW File # A406091

Page 1 1405 - 1933 Robson St., Vancouver BC V6G 1E7 Submitted by: U. Mowat

PHONE (604) 253-3158 FAX (604) 253-1716

|  |  |                   |                                 |   |                      | ,J - 1                            | ,,, n                        | · · · · · · ·       |                      |                      |                      |                              |                   |                |                |                | <u> </u>          |                                      |                       |                    | · · · · · · · · · · · · · · · · · · · |                   |                                 |                    |                                      |                          |                                 |                                  | <u> </u>                    |     |
|--|--|-------------------|---------------------------------|---|----------------------|-----------------------------------|------------------------------|---------------------|----------------------|----------------------|----------------------|------------------------------|-------------------|----------------|----------------|----------------|-------------------|--------------------------------------|-----------------------|--------------------|---------------------------------------|-------------------|---------------------------------|--------------------|--------------------------------------|--------------------------|---------------------------------|----------------------------------|-----------------------------|-----|
| SAMPLE#  | Mo Cu<br>ppm ppm                         |                   |                                 |   | Со                   | Mn<br>ppm                         |                              |                     |                      |                      |                      | Sr (                         |                   |                |                |                | Ca<br>%           | P<br>% p                             | La<br>opm             | Cr<br>ppm          | _                                     | Ba<br>ppm         | Ti<br>%                         |                    | Al<br>%                              | Na<br>%                  | К<br>% р                        | W A                              |                             |     |
| G-1<br>7+00W 11+75S<br>7+00W 12+00S<br>7+00W 12+25S<br>7+00W 12+50S        | 1 2<br>1 52<br>1 31<br>1 17<br>1 66      | 9<br>5<br>10      | 45 .                            | 3 228<br>3 265                            | 38<br>21<br>33       | 537<br>853<br>416<br>1068<br>1999 | 3.70<br>4.64<br>4.26         | 9<br>7<br>4         | <8<br><8<br><8       | <2<br><2<br><2       | <2<br><2<br><2       | 8 <                          | .5<br>.6<br>.5    | <3             | <3<br><3<br>3  | 87<br>97       | .16<br>.09<br>.13 | .080<br>.188<br>.070<br>.091<br>.297 | 5<br>5<br>4<br>5<br>8 | 648<br>583         | .55<br>1.49<br>2.12<br>1.02<br>2.81   | 57<br>96          | .03                             | 6<br>8<br>6        | .97<br>1.67<br>1.55<br>.90<br>2.62   | .09<br>.01<br>.01<br>.01 | .03                             | <2<br><2<br><2<br><2<br><2<br><2 | <2<br>14<br>44<br><2<br>23  |     |
| 7+00W 12+75S<br>7+00W 13+00S<br>7+00W 13+25S<br>00+00 0+00<br>00+00 0+25S  | 1 23<br><1 12<br>1 14<br><1 21<br><1 14  | 6<br>9<br>7       | 42 .<br>61 .                    | 3 364<br>3 127<br>3 148<br>3 727<br>3 402 | 13<br>12<br>37       | 370<br>297<br>658                 | 3.08<br>2.68<br>3.91         | 2<br>2<br>22        | <8<br><8<br><8       | <2<br><2<br><2       | <2<br><2<br><2       | 11                           | .5<br>.6<br>.5    | 3<br>3<br>3    | <3<br><3<br><3 | 93<br>62<br>53 | .10<br>.13<br>.20 | .164<br>.079<br>.087<br>.119         | 4<br>5<br>7<br>5<br>6 | 454<br>426<br>672  | 2.35<br>1.18<br>1.40<br>3.62<br>2.73  | 134<br>143<br>103 |                                 | 8<br><u>6</u><br>5 | 1.25<br>1.17<br>1.23<br>1.31<br>1.57 | .01<br>.01<br>.01<br>.01 | .03<br>.04                      |                                  | 48                          |     |
| 00+00 0+50S<br>00+00 0+75S<br>00+00 1+00S<br>00+00 1+25S<br>RE 00+00 1+25S | <1 21<br><1 29<br><1 21<br><1 23<br>1 23 | 8<br>9<br><3<br>9 | 67 <.<br>66 .<br>50 <.<br>76 <. | 3 528<br>3 679<br>3 608<br>3 464<br>3 469 | 32<br>25<br>25<br>27 | 530<br>604<br>345<br>519          | 5.07<br>4.79<br>3.81<br>4.48 | 340<br>38<br>7<br>8 | <8<br><8<br><8<br><8 | <2<br><2<br><2<br><2 | <2<br><2<br><2<br><2 | 8<br>14 <<br>9 <<br>13<br>13 | .5<br>.5<br>.5    | 15<br><3<br>3  | 3              | 74<br>52<br>76 | .13<br>.16        | .069<br>.266<br>.085<br>.117<br>.118 | 4<br>5<br>4<br>7<br>7 | 824<br>703<br>593  | 1.99<br>2.41<br>4.35<br>2.72<br>2.76  | 277<br>82<br>101  |                                 | 7<br>7<br>8        | 1.60<br>2.08<br>1.29<br>1.55<br>1.56 | .01<br>.01<br>.01<br>.01 | .03<br>.07<br>.02<br>.05        | <2<br><2<br><2                   | 2399<br>42<br>19<br>3       |     |
| 0+25E 1+25S<br>0+50E 1+50N<br>0+50E 1+25N<br>0+50E 1+00N<br>0+50E 0+75N    | <1 15<br>3 20<br>1 8<br><1 12<br>1 19    | 8<br>8<br>4       | 68 .<br>29 <.<br>51 <.          | 3 538<br>3 521<br>3 109<br>3 328<br>3 587 | 42<br>15<br>22       | 1022<br>568<br>895                | 6.10<br>2.07                 | 28<br>3<br>12       | <8<br><8<br><8       | <2<br><2<br><2       | <2<br><2<br><2       | 9<br>7 <<br>14 <             | .5<br>:.5<br>:.5  | 3<br><3<br>3   | 3              | 90<br>52<br>49 | .12<br>.09<br>.16 | .057<br>.135<br>.043<br>.064<br>.267 | 6<br>7<br>6<br>7      | 1130<br>398<br>351 | 3.50<br>4.56<br>.79<br>2.03<br>2.53   | 71<br>56<br>82    | .05<br>.04<br>.06<br>.04        | 9<br>5<br>5        | 1.18<br>1.68<br>.72<br>1.18<br>1.22  | .01<br>.01<br>.01<br>.01 | .02<br>.05<br>.04<br>.03        | <2<br><2<br><2                   | 8<br>66<br>24<br>21<br>12   | -2  |
| 0+50E 0+50N<br>0+50E 0+25N<br>0+50E 0+00<br>0+50E 0+25S<br>0+50E 0+50S     | <1 22                                    | 10<br>4<br><3     | 79 <.<br>46 <.<br>52 <.         | 3 446<br>3 744<br>3 835<br>3 981<br>3 773 | 45<br>38<br>44       | 880<br>458<br>537                 | 4.30<br>5.22                 | 4<br>5              | <8<br><8             | <2<br><2<br><2       | <2<br><2             | 7 <                          | .5<br>:.5         | <3<br><3<br><3 | <3<br><3<br><3 | 72<br>51<br>54 | .21<br>.12<br>.10 | .113<br>.121<br>.046<br>.054<br>.035 | 5<br>6<br>5<br>6      | 810<br>718<br>909  | 3.46<br>3.54<br>5.38<br>6.83<br>5.21  | 109<br>53<br>42   | .04<br>.03<br>.05<br>.04<br>.06 | 4<br>10<br>6       | 1.50<br>1.38<br>1.13<br>1.09<br>1.02 | .01<br>.01<br>.01<br>.01 | .04<br>.05<br>.02<br>.02        | <2<br><2<br><2                   | 2<br><2<br>2<br>4<br>3      | 2 - |
| 0+50E 1+25S N<br>0+75E 1+50N<br>0+75E 1+25S<br>1+00E 1+75N<br>1+00E 1+50N  | <1 14<br><1 28<br>1 23<br><1 10<br><1 29 | <3<br>6<br>9      | 50 <.<br>52 <.<br>57 <.         | 3 475<br>3 566<br>3 743<br>3 165<br>3 636 | 31<br>57<br>12       | 532<br>1006<br>290                | 4.07<br>4.27<br>2.08         | 25<br>7<br>6        | <8<br><8<br><8       | <2<br><2<br><2       | <2<br><2<br><2       | 11 <<br>10 <<br>13 <         | <.5<br><.5<br><.5 | 6<br>3<br><3   | <3<br><3<br><3 | 59<br>53<br>50 | .14<br>.15<br>.14 | .058<br>.078<br>.131<br>.046<br>.056 | 6<br>5<br>5<br>6<br>7 | 677<br>682<br>234  | 4.12<br>3.85<br>4.03<br>1.35<br>4.07  | 54<br>114<br>99   | .03<br>.07                      | 8<br>7<br>4        | 1.12<br>1.41<br>1.16<br>1.32<br>1.29 | .01<br>.01               | .02<br>.03<br>.03<br>.02<br>.03 | <2<br><2                         | <2<br>71<br><2<br>22<br>57  |     |
| 1+00E 1+25N<br>1+00E 1+00N<br>1+00E 0+75N<br>1+00E 0+50N<br>1+00E 0+25N    | 1 20<br><1 12<br><1 27<br><1 22<br><1 22 | 7<br>13<br>5      | 48<br>61 <<br>49 <              | 4 512<br>3 239<br>3 707<br>3 887<br>3 665 | 25<br>38<br>52       | 653<br>1002<br>693                | 2.97<br>5.33<br>4.87         | 22<br>54<br>11      | <8<br><8             | <2<br><2<br><2       | <2<br><2<br><2       | 15 < 13 < 9 <                | <.5<br><.5        | 3<br>10<br><3  | <3<br><3<br><3 | 60<br>90<br>54 | .11<br>.21<br>.14 | .127<br>.092<br>.146<br>.043<br>.105 | <i>7</i><br>8         | 302<br>759<br>718  | 4.31<br>1.31<br>2.80<br>6.11<br>5.48  | 153<br>108<br>44  | .03<br>.03<br>.03<br>.05        | 5<br>8<br>7        | 1.36<br>1.35<br>1.70<br>1.01<br>1.38 | .01<br>.01<br>.01        | .04<br>.03<br>.06<br>.02        | <2<br><2                         | 132<br>42<br>20<br>26<br><2 |     |
| STANDARD DS5/AU-S  | 13 144                                   | 24                | 135 <                           | 3 25                                      | 12                   | 746                               | 2.95                         | 17                  | <8                   | <2                   | 3                    | 44 5                         | 5.3               | 5              | 7              | 58             | .70               | .094                                 | 11                    | 191                | .64                                   | 134               | .09                             | 16                 | 1.95                                 | .03                      | .14                             | 4                                | 47                          |     |

GROUP 1D - 0.50 GM SAMPLE LEACHED WITH 3 ML 2-2-2 HCL-HN03-H20 AT 95 DEG. C FOR ONE HOUR, DILUTED TO 10 ML, ANALYSED BY ICP-ES. (>) CONCENTRATION EXCEEDS UPPER LIMITS. SOME MINERALS MAY BE PARTIALLY ATTACKED. REFRACTORY AND GRAPHITIC SAMPLES CAN LIMIT AU SOLUBILITY.

AU\*\* GROUP 3B - 30.00 GM SAMPLE ANALYSIS BY FA/ICP. - SAMPLE TYPE: SOIL SS80 60C

Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

Data 🖊 FA

DATE RECEIVED: OCT 1 2004 DATE REPORT MAILED:





Mowat, Ursula PROJECT MSW FILE # A406091

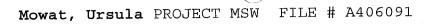
Page 2



| ACME ANALYTICAL   |  |
|---|--|
| SAMPLE#   | Mo Cu Pb Zn Ag Ni Co Mn Fe As U Au Th Sr Cd Sb Bi V Ca P La Cr Mg Ba Ti B Al Na K W Au** ppm   |
| G-1<br>1+00E 0+00<br>1+00E 0+25S<br>1+00E 0+50S<br>1+00E 0+75S                  |  |
| 1+00E 1+00S N<br>1+00E 1+25S<br>2+50E 1+75N<br>2+50E 1+50N                      |  |
| 2+50E 1+25N  2+50E 1+00N 2+50E 0+75N 2+50E 0+50N 2+50E 0+25N 3+50E 1+75N        | 2 60 7 136 < 3 333 39 943 7.73 714 <8 <2 <2 11 .6 23 3 98 .34 .062 7 590 2.23 193 .06 <3 1.95 .01 .05 <2 1026  <1 56 6 104 < 3 570 56 1505 5.79 99 <8 <2 <2 11 < .5 5 3 78 .22 .073 5 993 4.36 150 .04 6 1.59 .01 .04 <2 54  1 39 3 77 < 3 131 30 775 5.62 14 <8 <2 <2 4 < .5 3 <3 96 .12 .045 2 299 1.32 95 .30 <3 1.98 .01 .04 <2 8  1 22 6 64 < 3 155 15 464 3.36 94 <8 <2 <2 7 < .5 8 <3 70 .07 .042 6 298 1.17 117 .07 <3 1.43 .01 .03 <2 45  1 11 8 39 .3 85 9 214 2.71 18 <8 <2 <2 8 < .5 3 <3 77 .08 .023 7 238 .88 70 .09 3 1.35 .01 .02 <2 6  <1 4 5 31 < 3 48 6 184 1.81 12 <8 <2 <2 8 < .5 <3 <3 73 .08 .024 8 202 .56 81 .15 <3 .90 .01 .03 <2 15 |
| 3+50E 1+75N 3<br>3+50E 1+50N 3+50E 1+25N 3+50E 1+00N 3+50E 0+75N RE 3+50E 0+75N | 1 14 <3 62 <3 284 38 932 5.06 20 <8 <2 <2 6 <.5 5 4 92 .07 .048 4 515 2.46 120 .12 <3 1.48 .01 .02 <2 17 11 4 57 <3 170 21 379 4.15 23 <8 <2 <2 7 <.5 4 <3 92 .08 .038 5 386 1.61 106 .13 4 1.48 .01 .02 <2 11 <1 70 4 68 .3 1115 73 2309 3.46 47 <8 <2 <2 18 1.1 3 <3 54 .68 .249 10 618 2.96 167 .02 8 1.37 .01 .04 <2 4 <1 120 7 76 <3 807 73 1637 5.84 57 <8 <2 <2 9 .5 <3 4 91 .28 .128 13 859 4.80 107 .04 3 1.86 .01 .04 <2 2 2 121 4 76 <3 810 73 1670 5.87 56 <8 <2 <2 9 .8 <3 5 91 .28 .129 12 867 4.77 108 .04 4 1.89 .01 .04 <2 -  |
| 3+50E 0+50N<br>3+50E 0+25N<br>3+50E BL<br>11+00S 9+00W<br>11+00S 8+75W          | <1 90 6 69 < .3 904 67 1054 5.46 129 < 8 < 2 < 2 9 .5 < 3 < 3 88 .21 .080 5 846 4.90 104 .04 6 1.74 .01 .05 < 2 3 1 108 < 3 115 < .3 180 33 894 5.63 19 < 8 < 2 < 2 4 .5 6 < 3 93 .31 .033 1 164 2.16 188 .32 4 2.71 .01 .18 < 2 11 \( \omega\) \( \omega\) 1 11 8 78 < .3 865 102 1413 6.94 96 < 8 < 2 < 2 5 .5 12 4 74 .07 .056 3 965 3.98 67 .04 < 3 1.17 .01 .02 < 2 26 1 16 5 40 .3 59 7 185 3.06 5 < 8 < 2 < 2 8 .5 < 3 < 71 .10 .048 5 138 .65 42 .10 3 1.43 .01 .02 < 2 33 1 30 5 31 .5 40 9 297 3.45 2 < 8 < 2 < 2 10 .6 < 3 < 3 32 .11 .341 3 160 .24 76 .01 3 1.82 .01 .04 < 2 14   |
| 11+00s 8+75W<br>11+00s 8+50W<br>11+00s 8+25W<br>11+00s 7+75W<br>11+00s 7+75W    | 1 47 10 72 < 3 145 54 2510 4.71 4 <8 <2 <2 10 .7 <3 <3 73 .16 .253 4 487 1.32 109 .05 5 1.74 .01 .05 <2 8 <1 20 8 50 < 3 59 8 478 2.83 4 <8 <2 <2 7 < .5 <3 <3 64 .07 .072 6 201 .64 55 .07 3 1.91 .01 .03 <2 3 <1 19 5 55 < 3 79 8 271 2.58 6 <8 <2 <2 9 < .5 3 <3 64 .09 .041 4 173 .83 55 .10 <3 1.70 .01 .02 <2 2 1 24 9 60 < 3 91 29 3644 2.78 3 <8 <2 <2 11 .6 <3 4 65 .15 .127 5 215 .48 188 .06 <3 1.03 .01 .06 <2 10 1 24 9 60 < 3 91 29 3644 2.78 3 <8 <2 <2 11 .6 <3 4 65 .15 .127 5 215 .48 188 .06 <3 1.38 .01 .04 <2 <2  |
| 11+00S 7+25W 2<br>11+00S 7+00W 3<br>11+00S 6+75W 11+00S 6+50W 11+00S 6+25W      | 1 53 10 76 < 3 391 87 2346 6.88 7 <8 <2 <2 14 .6 3 3 98 .22 .189 7 962 1.82 169 .05 7 1.47 .01 .04 <2 <2 1 19 8 53 < 3 335 31 898 7.21 4 <8 <2 <2 7 < .5 3 4 100 .08 .138 3 1227 2.26 81 .05 7 .93 .01 .03 <2 <2 1 31 <3 63 .3 217 18 457 4.34 4 <8 <2 <2 12 < .5 <3 <3 87 .16 .080 4 571 1.50 101 .10 6 1.46 .01 .03 <2 14 <1 18 7 54 < 3 138 24 1220 4.89 <2 <8 <2 <2 7 .5 <3 5 89 .11 .139 5 605 1.21 137 .07 6 1.18 .01 .05 <2 6 1 45 4 57 .3 179 22 890 4.30 5 <8 <2 <2 12 .6 <3 <3 112 .16 .114 6 523 1.28 115 .09 4 1.53 .01 .04 <2 <2 12 < .5 <3 <4 50 50 50 50 50 50 50 50 50 50 50 50 50   |
| STANDARD DS5/AU-S   | S 12 142 24 135 <.3 23 12 767 2.94 18 <8 <2 3 44 5.4 5 6 58 .71 .097 11 191 .64 133 .08 17 1.95 .03 .13 4 48   |

Sample type: SOIL SS80 60C. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.





Page 3



| SAMPLE#   | Mo Cu<br>ppm ppm                           | Pb Z        | _   | Ni Co<br>om ppm                         | Mn<br>ppm                       | Fe<br>%                              | As<br>ppm p  |                | Nú Th<br>omppn                           |               |     |                | Bi<br>opm p | V<br>opm       | Ca<br>%                  | P<br>%                               | La Cr<br>ppm ppm                           | Mg E<br>% pr              | a<br>om              | Ti<br>%p | B                         | Al<br>%                              | Na<br>%                  | К<br>% р                 | W A                      |                          |                                       |
|---|--|-------------|---|---|---------------------------------|--------------------------------------|--------------|----------------|--|---------------|-----|----------------|-------------|----------------|--------------------------|--------------------------------------|--|---------------------------|----------------------|----------|---------------------------|--------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|---------------------------------------|
| 11+00s 6+00W<br>11+50s 9+00W<br>11+50s 8+75W<br>11+50s 8+50W<br>11+50s 8+00W      | <1 15<br><1 39<br><1 37<br><1 20<br>1 36   | <3 5<br>9 5 | 2 < 3                                       | 64 6<br>99 16<br>60 9<br>47 24<br>93 16 | 303<br>3034                     | 1.43<br>4.26<br>2.33<br>2.46<br>3.58 | 5 6 3        | <8<br><8<br><8 | <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 < | 8<br>12<br>11 | <.5 | <3<br><3<br><3 | 3<br><3     | 93<br>60<br>56 | .12<br>.21<br>.13<br>.17 | .068<br>.142<br>.094<br>.137<br>.064 | 6 203<br>3 243<br>6 142<br>5 98<br>4 295   | 1.04 7<br>.61 8<br>.32 18 | 73 .<br>39 .<br>32 . | 07<br>08 | <3<br><3<br><3<br><3<br>3 | 1.08<br>1.47<br>1.62<br>.87<br>1.28  | .01<br>.01<br>.01<br>.01 | .04                      | 2<br><2<br><2<br><2<br>2 | 3<br>2<br>5<br>62<br>8   |                                       |
| 11+50S 7+75W<br>11+50S 7+50W<br>11+50S 7+25W<br>11+50S 7+00W<br>STANDARD DS5/AU-S | <1 38<br><1 18<br><1 31<br>1 114<br>12 139 | 6 4<br>8 10 | 1 <.3 1<br>34 <.3 =<br>36 <.3 1<br>33 <.3 2 | 54 5<br>12 17<br>81 28                  | 459<br>162<br>884<br>739<br>766 | 4.46<br>1.61<br>3.18<br>3.60<br>2.91 | 3<br>3<br>10 | <8<br><8<br><8 | <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 < | 9 9 11        |     | <3             | <3<br><3    | 49<br>76<br>71 | .16<br>.11<br>.17<br>.14 | .064<br>.051<br>.116<br>.199<br>.094 | 4 246<br>6 127<br>4 329<br>6 296<br>11 177 | .49<br>.96                | 41 .<br>90 .<br>94 . | 09       | 4<br><3<br><3<br><3<br>17 | 1.62<br>1.21<br>1.35<br>2.35<br>1.93 | .01<br>.01<br>.01<br>.01 | .03<br>.02<br>.04<br>.05 | <2<br>2<br>2<br>2<br>5   | 3<br>9<br>33<br>10<br>53 | · · · · · · · · · · · · · · · · · · · |

Sample type: SOIL SS80 60C.

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ACME ANALYTICAL LABORATORIES LTD. (ISO 02 Accredited Co.) 852 E. HASTINGS ST. VANCOUVER BC V6A 1R6

GEOCHEMICAL ANAL JIS CERTIFICATE

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**44** 

Mowat, Ursula PROJECT MSW File # A406092 1405 - 1933 Robson St., Vancouver BC V6G 1E7 Submitted by: U. Mowat

| SAMPLE#   | M          |      |                            | Pb<br>ppm                | Zn<br>ppm                  | Ag<br>ppm | Ni<br>ppm                   | Co<br>ppm                 | Mn<br>ppm  | Fe<br>%                            |                 | U<br>ppm                   | Au<br>ppm                        | Th<br>ppm                 | Sr<br>ppm      | Cd<br>ppm                | Sb                     | Bi<br>ppm                  | ppm<br>V                   | Ca<br>%                            | P<br>%                                | La<br>ppm                 | Cr<br>ppm                        | Mg Ba<br>% ppm                                      |                     | B                          | Al<br>%                            | Na<br>%                   | K<br>% |                                | Au**<br>ppb               | Pt**<br>ppb                | Pd**<br>ppb               |
|---|------------|------|----------------------------|--------------------------|----------------------------|-----------|-----------------------------|---------------------------|------------|------------------------------------|-----------------|----------------------------|----------------------------------|---------------------------|----------------|--------------------------|------------------------|----------------------------|----------------------------|------------------------------------|---------------------------------------|---------------------------|----------------------------------|---|---------------------|----------------------------|------------------------------------|---------------------------|--------|--------------------------------|---------------------------|----------------------------|---------------------------|
| SI<br>B158764<br>B158765<br>B158766<br>B158767                  | < '        | 1 10 | 19<br>29<br>69<br>45<br>29 | 5<br>9<br><3<br>10<br>5  | 26<br>36<br>79<br>59<br>68 |           | <1<br>13<br>102<br>41<br>34 | <1<br>3<br>22<br>11<br>24 |            | .15<br>.86<br>2.51<br>1.90<br>4.35 | 2 <2            | <8<br><8<br><8<br><8<br><8 | <2<br><2<br><2<br><2<br><2<br><2 | <2                        | 304<br>32<br>8 | <.5<br><.5<br>.5<br><.5  | 4<br><3                | <3<br><3<br><3<br><3<br><3 | <1<br>42<br>29<br>32<br>99 | .21<br>16.00<br>1.74<br>.46<br>.74 | <.001<br>.049<br>.020<br>.063<br>.052 | <1<br>3<br><1<br>5<br>1   | <1<br>25<br>239<br>26<br>50      | <.01 10<br>.88 21<br>1.75 193<br>.66 116<br>1.40 96 | .07<br>.18<br>.08   | <3<br><3<br><3<br><3<br><3 | .02<br>1.25<br>1.71<br>.94<br>1.92 | .77<br>.01<br>.02<br>.02  | .22    | <2<br><2<br><2<br>2<br>2<br><2 | 3<br>2<br>9<br>21<br>2    | <2<br><2<br>4<br><2<br><2  | 4<br>2<br>7<br><2<br>5    |
| B158768<br>B158769<br>B158770<br>B158771<br>STANDARD DS5/FA-10R | < < < < 1: | 1    | 20<br>24<br>1<br>9<br>46   | 20<br><3<br>5<br>3<br>24 | 5                          |           | 1302                        | 4<br>99<br>76<br>70<br>12 | 659<br>655 | 4.21                               | 31<br>112<br>73 | <8<br><8<br><8<br><8       | <2<br><2<br><2<br><2<br><2       | <2<br><2<br><2<br><2<br>3 | 2<br>3<br>4    | <.5<br><.5<br><.5<br><.5 | 14<br>3<br>8<br>8<br>5 | <3<br><3<br>3<br><3<br>7   | 38                         | 8.82<br>.10<br>.19<br>.80<br>.73   | .026<br>.003<br>.003<br>.003          | 3<br><1<br><1<br><1<br>11 | 14<br>890<br>1298<br>1679<br>191 | 12.51 14<br>13.14 22                                | .01<br><.01<br><.01 | <3<br>16<br>5<br>7<br>17   | .09<br>.21<br>.45<br>.51<br>1.97   | .01<br><.01<br>.01<br>.01 | <.01   | 3<br><2<br><2<br><2<br><5      | 38<br>3<br>20<br>6<br>495 | <2<br><2<br>3<br><2<br>485 | <2<br><2<br>6<br>2<br>478 |

GROUP 1D - 0.50 GM SAMPLE LEACHED WITH 3 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 10 ML, ANALYSED BY ICP-ES.

(>) CONCENTRATION EXCEEDS UPPER LIMITS. SOME MINERALS MAY BE PARTIALLY ATTACKED. REFRACTORY AND GRAPHITIC SAMPLES CAN LIMIT AU SOLUBILITY. ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPB

- SAMPLE TYPE: ROCK R150 60C AU\*\* PT\*\* PD\*\* GROUP 3B BY FIRE ASSAY & ANALYSIS BY ICP-ES. (30 gm)



