

SAMPLING

on the

MOUNT SIDNEY WILLIAMS PROPERTY

OMINECA MINING DIVISION

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

Lat.: 54° 54'N Long.: 125° 24'W

by

U. MOWAT, P. Geo.

October, 2002

GEOLOGICAL SURVEY BRANCH



Table of Contents

1.0	Introduction	1
2.0	Location and Access	1
3.0	Claim Data	1
4.0	History	4
5.0	Regional Geology	5 6
6.0	Property Geology	6
	6.1 Mid Claim	6
	6.2 East of Van Decar Creek	7
	6.3 West of Van Decar Creek	8
	6.4 West Peak Ridge	8
	6.5 Sidney Creek	9
7.0	Mineralization	10
	7.1 Listwanites	10
	7.2 Ultramafics	11
	7.3 Volcanics	11
	7.4 Argillite	11
	7.5 Quartzites	12
	7.6 Intrusives	12
8.0	Alteration	12
	8.1 Listwanites	12
	8.2 Ultramafics	13
	8.3 Volcanics	13
	8.4 Argillites	14
9.0	Work Program	14
10.0	Samples Descriptions	14
11.0	Results	20
	ll.1 Sidney Creek Area	20
	11.2 South of Coy Lake	20
	11.3 North of West Peak	
12.0	Conclusions	21
13.0	References	22
14.0	Statement of Costs	24
15.0	Statement of Qualifications	25

<u>Figures</u>

Figure	1	-	Project Location Map		2
Figure	2	-	Claim Map		3
Figure	3		Sample Location Map, Sidney Creek	in	pocket
Figure	4	-	Geology, Sidney Creek	in	pocket

<u>Page</u>

• •

<u>Maps</u>

.

Мар	1:	Location Map and General Geology	in pocket
Map	2:	Sample Sites	in pocket

<u>Appendix</u>

Analytical Data

1. Introduction

In August, 2002, two days were spent sampling in selected areas of the Mount Sidney Williams property. The areas were selected because of previously outlined soil or silt anomalies and also because of the presence of gossanous material.

Traverses were made on a portion of Sidney Creek, along the north-facing cliff face south of Coy Lake and along part of the north-facing cliff face of West Peak.

A total of 46 rock samples were collected. All samples were analysed for 30 elements by ICP-ES and Au, Pt, Pd by fire assay ICP-ES.

2. 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.

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. Claim Data

The Mount Sidney Williams property consists of the following claims totalling 180 units:

Claim Name	Record Number	No. of Units
Mid	239256	20
Van 1	239375	20
Van 2	239376	20
Klone 1	239554	9
Klone 3	239820	20
Klone 5	239822	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 <u>History</u>

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 head-The showing is described waters of Tear Drop Creek. 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
drilling:	22 holes totalling 1541.4 meters
trenching:	52 meters
IP survey:	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 eastdipping 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° , 130° 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-west trending shear zone.

Baptiste Creek is 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.

6.2 East of Van Decar Creek

On the east side of Van Decar Creek, the dominant lithology is harzburgite with lesser amounts of dunite, peridotite and altered equivalents of the Trembleur 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 1994 drilling revealed an extensive package of volcaniclastics with minor limestone, chert and siltstone which have been thrust over the ultramafic. Folding appears to be 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, black argillite and basalt have been found. The basalt located in Van Decar Creek was seen to overlay argillite and also is found as 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 Decar Creek.

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.

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 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 flat-lying ultramafic.

A large body at least 400 meters long of medium-grained 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 altered 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 <u>Sidney Creek</u>

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 $280^{\circ}/90^{\circ}$ to $290^{\circ}/90^{\circ}$.

Volcanics outcrop at the headwaters of Sidney Creek. One small outcrop of serpentinized argillite trending 290°/80° SW 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 $290^{\circ}/80^{\circ}$ 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 quartzrich 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 is 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 of in some cases diorite intrusives. In addition, geochemistry and alteration suggest that recent volcanism may play a part in listwanite 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 volcanics have elevated Pt and Pd values.

Almost all the volcanics encountered during sampling in 2002 were devoid of any sulphide mineralization. One small area of volcanics was mineralized with very fine grained pyrrhotite. No significant values were encountered from this material. A sample of volcanic wallrock 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 indicates 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 and is located on West Peak ridge.

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 ferrodolomite, 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 pervasive replacement of the ferro-dolomite and also as a quartz-rich replacement of the ferrodolomite. 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 listwanites found to date occur within the ultramafic rocks. Some listwanites in the West Peak area are found in volcanics. In Sidney Creek, listwanite was seen at the periphery of felsic dykes and appears to be replacing argillite. Ferro-dolomite has also been seen replacing norite, diorite intrusives 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. Mapping in the West Peak area shows 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. The 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 blue grey vuggy chalcedony veinlets. Sampling in 2002 shows that the bull quartz veins mark the contact between volcanics and ultramafics.

8.4 Argillites

The argillites are generally unaltered except for silicification and serpentinization locally. 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 along a fault zone.

9.0 <u>Work Program</u>

In August, 2002, two days were spent sampling in Sidney Creek, along a cliff face south of Coy Lake and along the north cliff face north of West Peak. Approximately 2 km were traversed. A total of 46 rock samples were collected. All samples were analysed for 30 elements by ICP-ES and Au, Pt, Pd by fire assay ICP-ES.

10.0 <u>Sample Descriptions</u>

Sample	Description	Au	As
Number		ppb	ppm
158542	Dark grey carbonated? volcanic ash with small patches of semi- crystalline carbonate in dark greenish black matrix; weathered surface full of angular vugs occasionally lined by crystalline carbonate; non-magnetic; no visible sulphides	7	2

Sample Number	Description	Au ppb	As ppm
158543	Rusty weathering orange brown carbonate listwanite with locally intense deep green mariposite patches; cut by white to trans- lucent quartz veinlets 1 cm wide; occasional vug with quartz	5	95
158544	crystals; no visible sulphides White quartz with dark grey wall rock material (argillite?) which is replaced by sucrosic quartz; limonite on fractures; occasional patch of limonite; no visible sulphides	2	2
158545	Banded semi-phyllitic dark grey silicified argillite; very limonitic fractures; trace very fine grained pyrite	-	4
158546	Rusty weathering red brown dark greenish black intensely serpentinized peridotite; non- magnetic; no visible sulphides	60	47
158547	White quartz vein with dark grey silicified argillite wall rock; fractures very rusty orange red brown particularly in wall rock; occasional vug up to 2.5 cm lined with black wad; no visible sulphides	4	3
158548	White talc with 1mm specks of 1 imonite	5	67
158549	Rusty weathering pale green carbonate listwanite cut by quartz and carbonate veinlets; no visible sulphides	-	110
158550	Dark grey semi-phyllitic silicified sucrosic argillite; occasional discontinuous white lense of semi-crystalline quartz; trace vvfg disseminated pyrite	-	2
158551	Rusty, deep red brown weathering dark grey fine grained ??? looks like quartzite but has a consider- able amount of plagioclase crystals; appears to be thermally altered; no visible sulphides; moderately magnetic	-	-
158552	Moderatery magnetic Mottled dark grey-orange red talc; sheared; no visible sulphides	5	35

-

158553	Very rusty red orange brown weathering dark greenish black moderately serpentinized peridotite; no visible sulphides; non-magnetic	-	31
158554	Red brown weathering orange grey carbonate-talc listwanite; no visible sulphides	-	27
158555	Rusty brown weathering phyllitic argillite, very fine grained argillaceous quartzite and ??? with sillimanite clusters; fractures and local patches of intense red brown limonite	-	5
158556	Extremely rusty deep orange brown pale green volcanic ash; 1% vvfg pyrite; trace chalcopyrite and pyrrhotite	_	-
158557	Rusty orange brown weathering black argillite with dark grey siliceous argillite bands; trace vvfg pyrite	18	-
158558	Strongly rusty deep red brown pale to medium grey volcanic ash; occasionally sericitized, epidot- ized and with very fine grained pyroxene crystals; trace vvfg disseminated pyrite and as discontinuous hairline fracture fillings	-	3
158559	Very deep red brown weathering medium greenish grey pyroxenite? 0.5% vvfg disseminated pyrite	- .	-
158560	Slightly brown weathering dark greenish black, highly serpentin- ized peridotite; pyroxene pheno- crysts up to 0.5 cm long; trace vvfg yellow sulphide; very magnetic	2	44
158561	White quartz with minor dark greenish grey chloritized, sericitized volcanic wall rock; no visible sulphides	2	_
158562	Dark greenish grey volcanic wall rock plus some white quartz vein; volcanics chloritized, sericitiz- ed with brownish black patches of hornblende? biotite?; trace vvfg pyrite; no visible sulphides in quartz	9	-

.

_

-

Sample Number	Description	Au ppb	As ppm
158604	Pale green grey carbonate list- wanite; green from mariposite; 0.5% sooty pyrite concentrated in small patches; trace chalco- pyrite; minor white carbonate as	-	14
158605	patches and veinlets Yellow brown weathering white sucrosic quartzite? streaked by red orange bands; no visible sulphides	5	-
158606	Orange brown weathering pale greenish grey carbonate listwan- ite; minor serpentine on fractures; 1% pyrite as very fine grained disseminations, clots and fracture fillings	17	1308
158607	Rusty weathering breccia, black to dark grey fragments of limestone? quartzite? carbonated argillite? or all of the above in white to pale grey carbonate matrix; minor deep green mariposite-carbonate patches; trace vvfg disseminated chalcopyrite	5	7
158608	Deep red brown weathering black schistose argillite; chloritic; minor vuggy white quartz vein- lets; 0.5% vvfg disseminated pyrite; trace chalcopyrite	. 7	7
158609	Rusty orange brown weathering very fine grained dark grey volcanic; epidotized and bleached; cut by quartz veinlets; trace pyrite	2	15
158610	Rusty orange brown weathering medium grey very fine grained volcanic; argillically altered; trace vvfg disseminated pyrite	3	37
158611	Rusty red brown weathering fine grained quartzite? trace vvfg pyrite	-	24
158612	White vuggy quartz vein with yellow orange weathered carbonate patches; no vísible sulphides	2	2
158613	Slightly rusty deep red brown weathering black phyllitic argillite; no visible sulphides	4	5

Sample Number	Description	Au ppb	As ppm
158614	Pale grey carbonate listwanite with minor mariposite; 1% very fine grained pyrite as dissem- inations and occasionally as	-	67
158615	irregular fracture fillings Slightly rusty reddish weather- ing pale grey carbonate listwan- ite; minor mariposite; trace vvfg disseminated pyrite	9	888
158616	Dark grey to black sheared serpentinized, talcose phyllitic argillite with whitish patches of talc; no visible sulphides	9	886
158617	Deep red brown weathering pale grey argillically altered volcanic; no visible sulphides	-	15
158618	Deep orange brown weathering pale grey and green carbonate listwanite; carbonate crystalline; green from mariposite; trace vvfg disseminated pyrite and silvery	-	862
158619	<pre>metallic (arsenopyrite?) Orange brown weathering pale grey carbonate listwanite; minor mariposite; cut by barren white carbonate veinlets 1 cm wide; 0.5% vvfg disseminated silvery metallic (arsenopyrite?); trace</pre>	6	64
158620	pyrite Orange weathering pale greenish grey carbonate listwanite with sucrosic quartz patches; cut by anastomising white quartz- carbonate veinlets; 0.5% vvfg disseminated silvery metallic (arsenopyrite?); trace pyrite as small irregular clots; veins barren; moderate	12	468
158621	mariposite Deep reddish black weathering black argillaceous quartzite; sheared; cut by rusty red brown vuggy quartz veinlets 1 cm wide; 1% very fine grained dissemina- ted pyrite	6	6

and the second sec

_____ · · · · · · · · · · · ·

Sample Number	Description	Au ppb	As ppm
.58622	Extremely rusty red brown weathering pale grey phyllite; 0.5% vvfg disseminated pyrite; limonite-filled voids suggest 3% pyrite was present	-	4
58623	Slightly rusty deep red brown weathering dark grey argillaceous quartzite? trace very fine grained disseminated pyrite	·	15
.58624	Strong deep red brown weathering medium grey kaolinized volcanic; 0.5% disseminated fine grained pyrrhotite with trace chalco- pyrite; patchily weakly magnetic	_	8
.58925	Strong red brown weathering medium grey kaolinized volcanic; 1% fine grained pyrrhotite dominantly disseminated but also as fracture fillings; minor disseminated chalcopyrite; trace covellite	-	2
.58626	Strong red brown weathering dark grey kaolinized volcanic; strongly sheared; 1% disseminat- ed fine grained pyrrhotite which is stretched out due to shearing; non to weakly magnetic	-	2
.58627	Strong orange brown weathering medium grey kaolinized volcanic; sheared; 1% disseminated pyrite, pyrrhotite; trace chalcopyrite and covellite; minor pyrite as fracture fillings; non to strongly magnetic	-	-
58628	Strong orange weathering talc- carbonate listwanite; no visible sulphides	2	188

- - - - -

11.0 <u>Results</u>

Sampling in August, 2002 was conducted in the Sidney Creek area, south of Coy Lake and north of West Peak. The sampling was an attempt to locate the source of several soil geochemical anomalies which were outlined by previous sampling and to determine the significance of numerous gossans seen during previous mapping.

11.1 Sidney Creek Area

Previous silt and soil sampling outlined several features of interest: sheared argillite with abundant quartz veining, a soil sample at the above outcrop which returned values of 204 ppm Cu, 241 ppm Zn, 1.5 ppm Ag, 43 ppm As and 21 ppb Au, plus a soil sample on line 18+00W/20+00S which returned values of 17 ppm Mo, 348 ppm Cu, 853 ppm Zn and 1.2 ppm Ag.

The results of the 2002 sampling could not locate the source of the soil anomaly although abundant argillite outcrop was seen and sampled. However, large boulders of listwanite, talc and quartz were found in Sidney Creek suggesting a new listwanite zone exists on the north side of the creek. No significant values were obtained from any of the samples collected other than elevated arsenic values in the listwanite.

11.2 South of Coy Lake

Previous soil sampling outlined two areas of interest: a gold-arsenic soil anomaly with values of 115 ppb Au, 879 ppm As and 292 ppb Au, 1426 ppm As plus a copper in soil anomaly at least 600 meters long and up to 300 meters wide with values up to 357 ppm Cu.

Sampling near the gold-arsenic in soil anomaly was limited due to snow cover but near the anomaly abundant listwanite fragments were seen. Only elevated arsenic was obtained from the listwanite sample.

Abundant quartz was seen in the vicinity of the copper in soil anomaly. The quartz is barren but marks the contact of volcanics with ultramafics. A sample of the serpentinized ultramafic returned a value of 60 ppb Au, 47 ppm As. The source of the copper in soil anomaly was not located but appears to originate from volcanics.

11.3 North of West Peak

A variety of lithologies were sampled mainly due to their gossanous appearance. Although minor fine grained pyrite with some pyrrhotite and chalcopyrite were seen in the volcanics, no significant values were obtained.

A large area of intense quartz veining and lenses was also located. No significant values were obtained from the quartz. A sample of wall rock and quartz returned a value of 26 ppb Pd. The quartz appears to mark the contact between the volcanics and ultramafics.

12.0 <u>Conclusions</u>

Sampling in the Sidney Creek area, south of Coy Lake, and north of West Peak were inconclusive if not disappointing. Abundant listwanite float in Sidney Creek suggests the existence of an unexposed listwanite body.

13.0 <u>References</u>

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.

Statement of Costs	
<u>Analyses</u> 46 rock samples analysed for 30 elements by ICP-ES and Au, Pt, Pd by fire assay ICP-ES at	\$ 851.00
\$18.50/sample 46 rock preps at \$5.00/sample GST	230.00 <u>75.68</u> \$1156.68
<u>Helicopter</u> 3.4 hours at \$700.00/hour 387.6 liters at \$0.90/liter GST	\$2380.00 348.84 <u>191.02</u> \$2919.86
<u>Labour</u> 1 man for 12 days at \$400.00/day 1 man for 1 day at \$275.00/day	\$48.00.00
Accommodation 4.3 nights at \$62.10/night	\$ 266.60
Food	\$ 139.37
Airfare	\$ 203.38
Bus	\$ 39.27
Taxi	`\$ 36.80
Freight	\$ 64.70
Phone	\$ 2.81
Supplies	\$ 116.00
Xerox/Reproduction	\$ 28.63

14.0

-

--- -- --- ---

TOTAL

\$10048.58

.

15.0 Statement of Qualifications

- I am a registered member of the Association of Professional Engineers and Geoscientists of British Columbia.
- 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 my profession since 1969 in mineral, oil and gas, and coal exploration.
- 4. I have a direct interest in the Mount Sidney Williams property.

Ursula G. Mowat, P. Geo. U.G. MOWAT COL SCIEN

Dated this <u>Srd</u> day of <u>November</u>, 2002 at Vancouver, B. C.

ACME ANI (ISO									•			E. H Eoci			40. (a)		<u> </u>					/6A 'ICA			рно	ne ()	604)25	3-3.	158	FA.	X (6)	4	3-	1710 N/
									<u>Mc</u> 140)wa)5 -	<mark>E, 1</mark> 1933	Jrsı Robsol	11a St.	<u>PI</u> , Ve	<u>20J</u>	EC iver	T N BC N	<u>19W</u> /6g 1	E7 E	'il Sub	e # mitte	A2 d by:	033 Ursi	54 Jla M	owat									L	
SAMPLE#	1		Cu ppm				-		Со ррп	Mr ppn		As ppm					Cd ppm			•	Ca %		La ppm			8a ppm								Pt** ppb	
SI B 158604 B 158605 B 158606	<	:1 5	<1 129 10 18	<3	9	95 4 •			2	991 66	.03 5.30 5.30 5.30	14 <2 1308	<8 <8 <8	<2 <2	<2 <2 <2	328 3 463		3 <3 67	ব্য ব্য ব্য	87 8 12	7.06 .08 4.08		5 1 <1	356 25 411	11.20	229< 323 33<	:.01 .02 :.01	7 <3 4	.78 .12 .11	.03 .02 .01	.20 .04 .02	4 3 4	3 <2 5 17	<2 3 2 4	4
 158607 158608 158609 158610 158611 		9 2 2	<1 29 30 33 55	9 5 <3 5	10 18 12 8)0 33 27 34	<.3 <.3 <.3	17 17 15	13 18 29 24	882 1900 1424 1211	1.96 2 4.45 0 8.46 5 .97 1 5.39	7 15 37 24	<8 <8 <8 <8 <8 <8	~~~~ ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	<2 <2 <2 <2	32 192 73 68) <.5 ! <.5 ! .5 ! .5 ! .6 ! <.5	4 5 6 6	ব ব ব ব ব	43 162 116 103	.48 3.96 2.51 3.00	.018 .071 .069 .088 .069 .016	4 3 2 4	18 13 16	4.44 1.34 2.80 1.94 1.64	89 68 102<	23. 01. 01. 01.	<3 <3 7 6	-53 1.88 2.86 .82 .58 .16	.04 .03 .01 .03	.11 .13 .13 .15	4 7 3 3	5 7 2 3 <2 <2	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	
158612 158613 158614 158615 158616 158616		19 <1 <1 1	2 45 16 26 1 27	8 5 <3 <3	14	4 4 6	.4 <.3	1186 1101	10 69 52 81	389 580 2243 820	4.00 5 2.95 5 2.82 5 3.37 3 2.51	5 67 888 886	<8 <8 <8	<2 <2 <2 <2	2 <2 <2 <2	27 337 747	7 1.1 7 <.5 7 .8 2 <.5	3 <3 68 <3	ব্য ব্য ব্য ব্য	40 16 4 74	.32 3.49 8.22 1.03	.130	12 <1 1 2	14 899 298 1755	.46 9.51 10.05 6.15	155 11< 19< 18	.05 01	4 4 3 3	1.39 .53 .02 3.28 .33	.03 <.01 <.01 <.01	.17 <.01 .01 <.01	3 2 3 3	4 <2 9 9 <2	3 6 6	<
158618 158619 158620 E B 158620 158621		<1 <1 <1	<1 40 11 11 49	6	11	12 8 8	.6	128 900 908	25 49 50	1360 784 786	9 4.69 5 4.00 5 2.75 5 2.76 5 4.03) 64 i 468 5 475	<8 <8 <8	<2 <2	<2 <2 <2	276 334 336	5 <.5 5 <.5	7 14 13	ব্য ব্য ব্য	33 7 7	4.10 3.74 3.77	.067	5 <1 <1	76 385 395	8.79 3.69 10.19 10.27 1.14	207• 23• 22•	<.01 <.01 <.01	6 <3 4	.75 .51 .07 .11 1.60	.04 01.> 01	.25 .01 .01	4 3 3	<2 6 12 6	6 5 6 5 <2	
158622 158623 158624 158625 158625		<1 <1 <1	37 31 106 104 103	-7 <3 5	8	32 33 31	<.3 <.3 <.3 <.3 <.3	12 72	21 24 21	93 109 7	5 2.70 7 5.08 5 4.9 5 1.18 5 1.6	3 15 5 8 3 2	<8 <8 <8	<2 <2 <2	<2 3 <2	31 114 11		3 5 <3	<3 <3 <3	68 102 29	.96 2.54 .51	.037 .091 .187 .101 .060	4 24 8		2.16 2.56 .14	109	.35 .26 .25	<3 <3 <3		.04 .04 .09	.09 .16 .02	4 4 3	<2 <2 <2 <2 <2	<2 3 4	
3 158627 3 158628 STANDARD DS4/FA-10R		<1	309 26 121	5	i i	9		860	62	60	5 1.8 5 2.7 9 3.0	5 188	<8>	<2 <2 <2	<2	- 40).5	<3	<3	9	.70	.032 .004 .088	1	684	6.55	99 94 142	<.01	4	.16 17. 1.78	<.01	<.01	<2	<2 2 479	9	

GROUP 1D - 0.50 GM SAMPLE LEACHED WITH 3 ML 2-2-2 HCL-HN03-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 10 ML, ANALYSED BY ICP-ES. UPPER LIMITS - AG, AU, HG, W = 100 PPM; MO, CO, CD, SB, BI, TH, U & B = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM. 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) Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: AUG 27 2002 DATE REPORT MAILED: Sept 5/02 SIGNED BY.....D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

All results are considered the confidential property of the client. Acme assumes the liabilities for actual cost of the analysis only.

Data /

ACME ANY TICAL							<u>Mov</u> 1405	nat	GE , U	rsu	iem: la	ICA Pr	т. ЮЛ	an <i>i</i> ECI	Lx M	SIS SW	3 C F	ER] ile	:IF 2 #	6A 1 ICA A2	TE 033	127 ula M		'NG (004	, 49	ə-ə.	730		₽ (0)	Ĩ	53-1	
SAMPLE#	Mo Mo					Nî	Co	Mn	Fe	As ppm	U	Au	Th	Sr	Cd	Sb	Bi	٧	<u>, 1990, 1990</u>	P	La	Cr ppm	Mg		Ti %			Na %				Pt** ppb	
SI B 158542	<1 2 2	76	3		<.3	156		639	3.97		<8	<2		7	<.5	3	<3	62	.81	.001	1	159	<.01 2.87	264	<.01 .19	3	.01 2.76	.01	.58	<2	<2 7	<2 7	<2 16
8 158543 B 158544 B 158545		3	<3 21 3	16	<.3		5	646 197 619	.82	2	<8 <8 <8	<2	<2	2	<.5	14 <3 <3	3	10	.07	.004 .003 .033	2	37	10.01 28. 1.68	10		<3	.16 .26 1.87	<.01	.02	3	2 <2	> <2 <2	4 <2 5
B 158546 B 158547	2	10 7		18 25		1301 30		735 409				<2 <2	<2 2	2 2	<.5 <.5	5 <3	<3 <3	38 19	.03 .04	.003 .023	1 6	1477 28	14.37		.01 <.01		.59 .17				60 4	5 <2	7 3
B 158548 B 158549 B 158550		35	<3 7	11	<.3 <.3	982 1752	62 92	769 863	3.05	67 110	<8	<2	<2 <2	28 58	<.5 <.5	4 6	ব্য ব্য	16 5	.88 1.92	.003	<1 <1	306	9.28 11.07 .22	' 19	<.01 <.01	-	.37 .14 .21		.03	5	5 <2 <2	9 6 2	4 6 2
RE B 158550 B 158551 B 158552 B 158553 B 158554	3 2 <1 1	60 16 43	9 6 3 3	32 86 10 23	<.3 <.3 <.3 <.3	27 26 1032 1526 1079	5 22 70 86	1503 1172 795 574	.92 5.51 3.27 3.39	2 <2 35 31	<8 <8 <8 <8	~~~~ ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	2 2 2 2 2 2 2 2	7 41 5 1	<.5 <.5 <.5 <.5	<3 <3 4 5	ব্য ব্য ব্য ব্য	4 104 23 55	.07 1.89 .73 .06	.019 .346 .003 .003	7 24 1 <1	25 1367 1726	.22 1.56 8.60 13.44 9.44	5 197) 2 , 3	<.01	<3 <3 40		.10 <.01 <.01	07. 01.> 01.>	2 <2 <2	<2 <> 2 <> 5 <> 2 <>	2 3 5 8 4	4 4 9 5
B 158555 B 158556 B 158557 B 158558 B 158558 B 158559	1 28	73	4 13 3	-	<.3 <.3 <.3	47 8 252	23 2	58 734	2.07 1.31 4.75	<2 <2 3	<8 <8 <8	<2 <2 <2	<2 3 <2	9 10 20	<.5 <.5 <.5	<3 <3 3	<3 <3 <3	27 21 88	.87 .15 1.10	.203 .095 .131 .049 .044	5 8 1		.22	2 142 318 16	s.01	<3 6 5	.91 .50 .26 2.25 2.11	<.01	.17 .22 .04	<2 4 2	18 <2	27	6 3 3 7
B 158560 B 158561 B 158562 Standard DS3/FA-10R	<1 1 <1 8	8 65	<3	10 52	<.3 <.3	12	4 28	126 901	.73 5.00	<2	<8 <8	<2 <2	<2	3 44	<.5 <.5	<3 <3	<3 <3	14 101	12. 1.17	.003 .003 .079 .091	<1 1	25	14.98 .28 1.36 .59	5 1 5 51	.05 .53	≺3 <3	.28	3<.01	<.01	5 5	2 2 9 478	8 2 6 476	

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. UPPER LIMITS - AG, AU, HG, W = 100 PPM; MO, CO, CD, SB, BI, TH, U & B = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM. 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)

DATE RECEIVED: AUG 26 2002 DATE REPORT MAILED: Sept 9/02 SIGNED BYD. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

Data A FA

All results are considered the confidential property of the client. Acme assumes the liabilities for actual cost of the analysis only.



	UM	undifferentiated ultramafics
	Arg	argillite
	v	volcanics
	di N	diorite norite
	A	
		0 1000
		meters
		MAP 1
		LOCATION MAP
		AND
	الاروك	GENERAL GEOLOGY
		GEOLOGICAL SURVEY BRANCH
►.		
		our front hand the of t







GEOLOGICAL SURVEY BRANCH

ASSESSMENT

