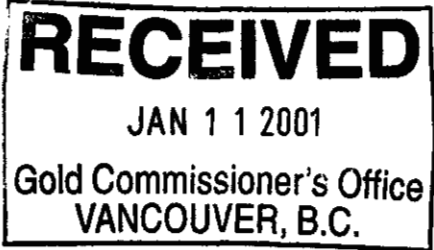


MAPPING AND SAMPLING

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.

January, 2001

GEOLOGICAL SURVEY BRANCH  
ASSESSMENT REPORT

26,445

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## Maps

Mount Sidney Williams Property - Sample Location Map (1:20000)	in pocket
West Peak Area - Sample Location Map (1:5000)	in pocket

## Appendix

Analytical Data

## 1.0 Introduction

During August, 2000 two men spent two days mapping and sampling in the West Peak area which had not previously been mapped or sampled. Mapping strongly suggests that the West Peak is underlain by a gently dipping ultramafic massif which is covered by Cache Creek argillites and volcanics. A total of 40 rock samples were collected and analysed for 30 elements by ICP and Au, Pt, Pd by ultra/ICP. Three samples of core from previous drilling were also analysed for 30 elements by ICP and Au, Pt, Pd by ultra/ICP. One sample was submitted for thin section examination and also analysed for Au, Pt and Pd by fire assay.

## 2.0 Location and Access

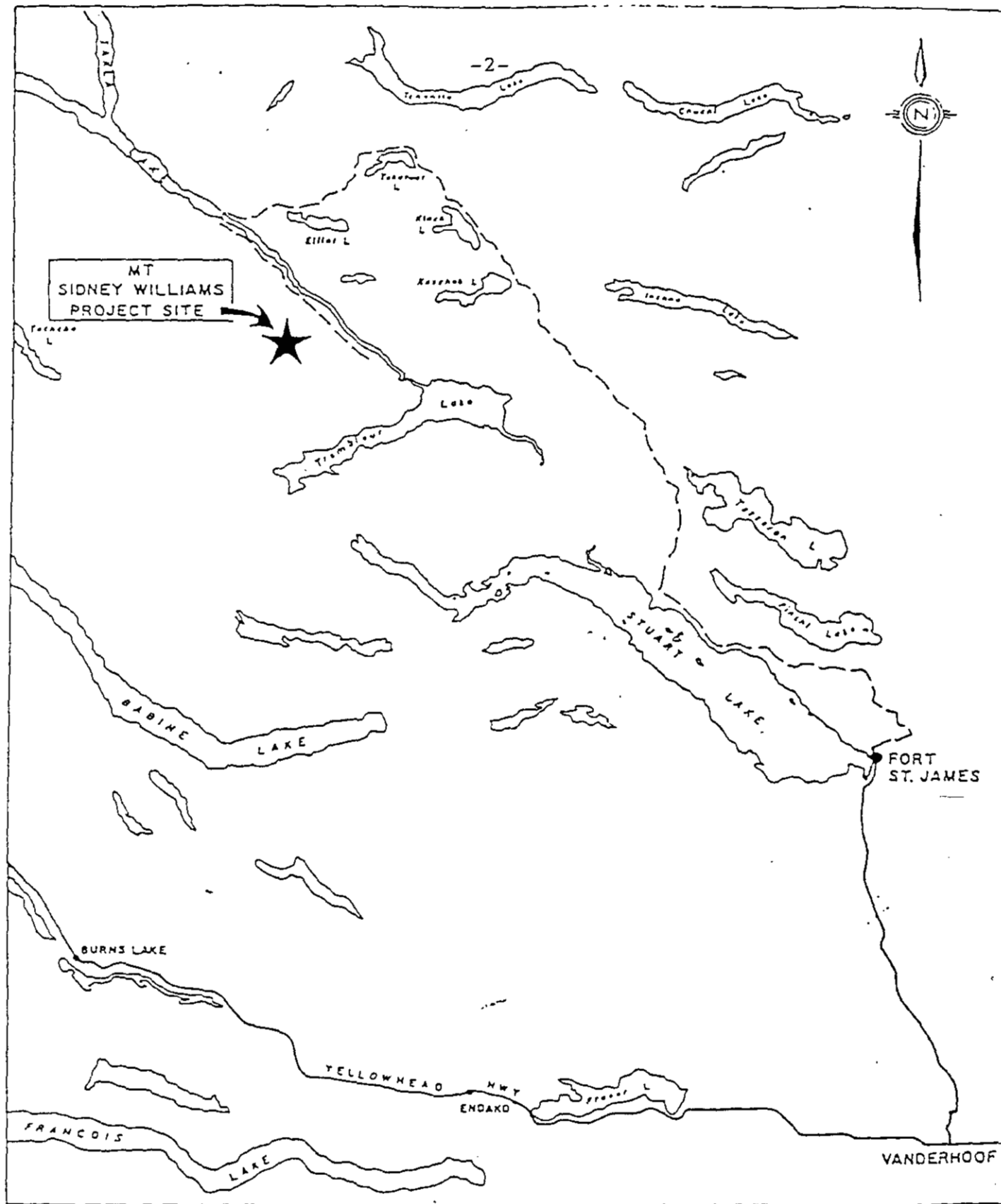
The Mount Sidney Williams property lies 87 km northwest of the town of Fort St. James and is located at co-ordinates 54° 54' N and 125° 24' W on map sheet 93-K-14W.

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.

## 3.0 Claim Data

The Mount Sidney Williams property consists of the following claims:

<u>Claim Name</u>	<u>Record Number</u>	<u>No. of Units</u>
Mid	239256	20
Van 1	239375	20
Van 2	239376	20
Klone 1	239554	9
Klone 3	239820	20
Klone 4	239821	20
Klone 5	239822	20
Klone 6	239823	20
Klone 7	239824	20
Klone 8	239825	20
One-Eye 1	239772	18
Terannoursus	240074	3
Money	242327	4



-2-

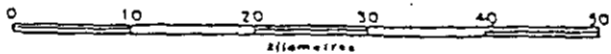
MT  
SIDNEY WILLIAMS  
PROJECT SITE

FORT  
ST. JAMES

VANDERHOOF

LEGEND

- LOGGING ROAD
- PAVED HIGHWAY



PROJECT LOCATION MAP

FIGURE 1

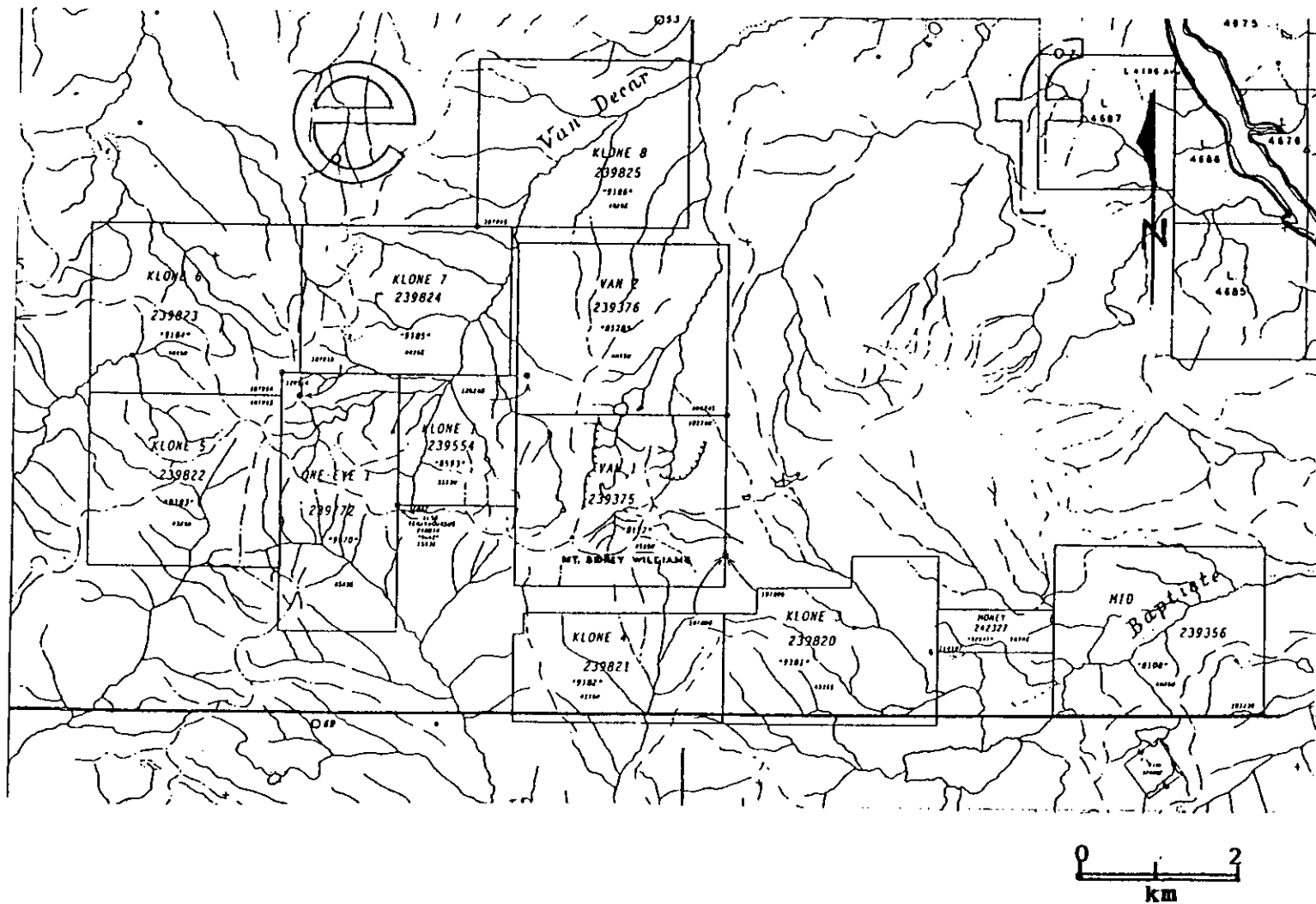


Figure 2: Claim Map

There are a total of 214 units. The Mount Sidney Williams property is located in the Omenica Mining Division.

#### 4.0 History

The first known geologic record of the Mount Sidney Williams area was made in 1937 following a brief reconnaissance of the Fort St. James area by J. E. Armstrong of the Geologic Survey of Canada. In 1942 nine chromite deposits were located in the Middle River Range by the G.S.C., plus several asbestos showings of varying quality in the area of Mount Sidney Williams.

Prospectors working in the region reported gold values in carbonate-quartz-mariposite and carbonate-talc rocks in shear zones in altered Trembleu Intrusions. One sample of carbonate-quartz-mariposite rock high in quartz (70%) taken on Baptiste Creek returned values of 0.036 oz/ton gold and 0.07 oz/ton silver.

During the late 1930's, a small placer operation was located on Van Decar Creek for a brief period. The operation was located below serpentinized peridotite and nuggets valued at \$0.50 to \$2.00 (1935 prices) were found.

Old flagging and several camp sites would indicate that Mount Sidney Williams has been examined in the past for chrome, nickel and asbestos. No mention is made of any exploration until 1962 (MMAR) when the main asbestos showing is described. Blasting caps found at this location indicate an attempt to trench the showing.

Since 1975, various groups have examined the Mount Sidney Williams area for chrome, platinum and gold.

The following work has been performed on the Mount Sidney Williams property:

Silt sampling:	196 samples including 10 heavy mineral samples
Rock sampling:	1597 samples
Flagged grid:	105,790 meters
Soil sampling:	3283 samples
Trenching:	52 meters
Magnetometer/VLF EM survey:	26,150 meters
IP survey:	11,450 meters
Drilling:	22 holes totalling 1541.4 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 Omenica 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 serpentized 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 Takle 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 rock, basalt, rhyolite, greywacke and argillite of the Sitlika assemblage.

Between the Pinchi Fault and the Takla Fault, the predominant units of the Cache Creek Group of chert, phyllite and argillite with minor greywacke and limestone are highly deformed. Three deformational periods have been recognized in the Cache Creek Group which has been metamorphosed to lower greenschist facies with local glaucophane. 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.

## 6.0 Property Geology

The Mount Sidney Williams property is underlain by Trembleur ultramafics and Cache Creek Group argillites and volcanics. All units have been intruded by either diorite, quartz diorite or norite. In addition, late possibly 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 with 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. Generally a greenish grey in colour, the volcanics are massive. Rarely 5 mm white feldspar phenocrysts are visible. In some areas the volcanics have a brecciated appearance with light greenish grey fragments? in a black matrix or light greenish grey areas outlined by black coated fractures. The black material has an appearance that resembles argillite but may be intensely chloritized volcanics. Graphite has tentatively been identified in the black material.

The argillites are black, massive with thin laminae of recrystallized quartz, formerly 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 appears to be dyke-like but in one area a splay of dykes was noted trending 100°, 130° and 155°/90.

Previous exploration has located a fossil hot-spring and extensive listwanite in the Baptiste Creek gorge.



## 6.2 East of Van Decar Creek

On the east side of Van Decar Creek, the dominant rock type 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 also revealed an extensive package of volcanoclastics with minor limestone, chert and siltstone which have been thrust over the ultramafic. Folding appears to have affected both the volcanoclastics, 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.

Minor amounts of black argillite and basalt also occur on the eastern side of Van Decar Creek. Black basalt has been found overlying argillite. It is believed that the source of the Tertiary? basalt is a volcanic cone located north of West Peak.

## 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  $320^{\circ}$  and have variable dips subject to faulting. In certain areas the volcanics have been thrust over the argillites and in the vicinity of the thrusts, the argillites have been serpentized or silicified.

The ultramafics on the west side consist of peridotite with minor dunite. No harzburgite has been seen to date.

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 encountered during mapping and sampling consists of a monotonously uniform grey volcanic striking  $320^{\circ}$  and relatively flat lying. Volcanics were located at the far east end of the ridge traverse. The volcanics appear to form a wedge between the ultramafics on the west side and the ultramafics on the east side. The volcanic wedge is separated from the ultramafics on the west by a fault zone which trends  $020^{\circ}/90^{\circ}$  which parallels the Van Decar fault zone. The only other features worthy of note in the volcanics are visible sulphides consisting of pyrrhotite and a trace of chalcopyrite located in the area of Figure 3, an area of intensely epidotized volcanics and an area of abundant quartz veining.

The second most abundant lithology encountered is peridotite which is highly altered to serpentine and less frequently by talc. The peridotite was seen to underlay the volcanics on the north side of West Peak. Outcrops of peridotite and a tectonic breccia consisting of serpentine boulders in a dark green serpentine-chlorite matrix were also found on the south side of West Peak suggesting that the entire West Peak area may be underlain by ultramafic which is relatively flat laying.

A large body at least 400 meters long of medium grained diorite was also located along the ridge. The western side of the diorite is marked by a very fine grained, dark greenish grey, highly chloritic phase of the diorite which is in contact with peridotite. The contact between the very fine grained chloritic diorite and the peridotite is marked by a zone of pinkish weathering talc. The diorite was also seen in contact with peridotite at the eastern end. 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

generally 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 save for the area of samples 158392 and 158393.

One area of sucrosic black silicified argillite with numerous white irregular quartz veinlets was also seen. The area is located next to volcanics with abundant white quartz veinlets and is also located above a zone of listwanite.

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 hot springs.

## 7.0 Mineralization

### 7.1 Listwanites

Mineralization in the listwanite zones consists of very fine grained arsenopyrite and pyrite which generally occurs within quartz-rich areas of the listwanite. In the Camp Zone, sulphides also consist of black massive arsenopyrite and pyrite which forms the matrix of 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.

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 cubic pyrite crystals. Elevated arsenic values indicate the presence of arsenopyrite. Geochemical analyses also showed sporadic Pt and Pd values.

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 mineralization.

## 7.2 Ultramafics

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 weakly to well mineralized with pyrite, pyrrhotite and/or chalcopyrite. Analyses indicates that at least some volcanics have elevated Pt and Pd values.

## 7.4 Argillite

Generally argillites are devoid of any mineralization and if any is present it is dominantly pyrite with minor chalcopyrite in siltstone laminae or as very minute traces of a reddish metallic tentatively identified as bornite.

## 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.

## 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 needles in the altered norite.

#### 7.7 West Peak

The only mineralization encountered during the traverse in the West Peak area was a zone of pyrite, pyrrhotite and chalcopyrite in volcanics which has elevated Pt and Pd values, a pyritized shear zone in the diorite and nickel mineralization in the ultramafics.

#### 8.0 Alteration

The most visible alteration on the Mount Sidney Williams property consists of a red-orange 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.

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 either norite or diorite intrusives forming a crude mineralogically zoned halo around the intrusives. Most listwanites found to date occur within the ultramafic rocks but some listwanites in the West Peak area are found in volcanics. Ferro-dolomite has also been seen replacing norite and diorite intrusives.

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 ranges 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.

Volcanics generally show only minor alteration except for a large area on West Peak of intense epidotization where the volcanics can be entirely replaced by epidote. Volcanics near the Eddy Zone contain garnets and near the Reno Zone fine grained tremolite has been seen. The epidote, garnet and tremolite alteration are all related to granitic activity.

Volcanics are occasionally cut by white bull quartz veins and blue grey vuggy chalcedony veinlets.

The argillites are generally unaltered except for silicification and serpentinization. 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 south of West Peak have been locally serpentinized along a thrust fault. The silicification of the argillites also appears to be related to faulting.

## **9.0 Work Program**

On August 3 and 4, 2000 two men mapped and sampled a portion of the West Peak area. Forty rock samples were collected from 2.3 km of traverse. All samples were analysed for 30 elements by ICP and Au, Pt, Pd by Ultra/ICP. In addition, 3 samples of core from previous drilling were also collected and analysed for 30 elements by ICP and Au, Pt, Pd by Ultra/ICP.

One sample was examined by thin section and also analysed for Au, Pt, Pd by fire assay.

10.0 Sample Descriptions

- 158363 Rusty weathering medium grey dense volcanic with trace vfg disseminated chalcopyrite; fresh looking
- 158364 Medium greenish grey dense volcanic; slightly talcose; trace vfg disseminated chalcopyrite; trace malachite
- 158365 Medium greenish grey dense volcanic; 3% disseminated pyrrhotite, pyrite, chalcopyrite
- 158366 Medium greenish grey dense volcanic; trace vfg disseminated chalcopyrite
- 158367 Rusty weathering dark greenish black peridotite; sheared; altered by talc and talc/carbonate; trace disseminated sulphide
- 158368 Rusty weathering blackish green very talcose altered peridotite; no visible sulphides but occasional limonite-filled cubic void
- 158369 Dark blackish green altered peridotite; altered to vfg talc; hematite on fractures; no visible sulphides
- 158370 Light grey intensely carbonated peridotite? hot spring appearance in outcrop; no visible sulphides; white "salt" coating on outcrop
- 158371 Very rusty on fractures; dark grey talcose volcanic; trace vfg disseminated sulphides
- 158372 Very rusty fractures; dark grey talcose volcanic with 5% vfg disseminated pyrrhotite, trace chalcopyrite
- 158373 As 158372
- 158374 Dark greyish green talcose peridotite; 0.5% vfg disseminated pyrrhotite
- 158375 Dark greenish black talc/carbonate altered peridotite; 0.5% vfg disseminated sulphide
- 158376 Very rusty weathering medium greenish grey fractured volcanic; heavy rust on fractures; 3% vfg disseminated sulphides
- 158377 Rusty weathering dark grey silicified argillite; cut by numerous fine 2-5 mm white carbonate veinlets with fg euhedral quartz-lined vugs; no visible sulphides
- 158378 Very rusty weathering dark grey peridotite; vfg granular texture; 3% vfg disseminated sulphide

- 158379 Dark greenish black peridotite with visible pyroxene phenocrysts; intensely altered by bright green cg talc; occasional minor limonite filled cubic void; no visible sulphides
- 158380 Dark green sheared serpentized to totally talc-replaced ultramafic; no visible sulphides
- 158381 Black peridotite; intensely altered by cg talc; no visible sulphides
- 158382 Dark green talc/serpentine; no visible sulphides
- 158383 Medium greenish grey peridotite; slightly altered by talc; cut by irregular white carbonate veinlets; no visible sulphides
- 158384 Dark greenish black talc/serpentine; no visible sulphides
- 158385 Dark greenish black sheared serpentized peridotite; trace vfg disseminated silvery metallic
- 158386 Dark greenish black peridotite with pyroxene phenocrysts up to 1 cm long; no visible sulphides
- 158387 Dark grey fresh-looking volcanic with small brownish patches of pyroxene with vvfgr disseminated sulphides
- 158388 Dark grey dense peridotite with areas of bright green talc; no visible sulphides
- 158389 Dark greenish black intensely altered to talc and serpentine; no visible sulphides
- 158390 Medium greenish grey chloritic vfg intrusive; no visible sulphides
- 158391 As 158390 but intrusive texture not as obvious; no visible sulphides
- 158392 Very rusty weathering fg diorite; trace visible sulphides
- 158393 Medium grey vfg diorite composed of 70% biotite and 30% very altered feldspar; cut by numerous white 1-2 mm carbonate veinlets
- 158394 Dark blackish green serpentine; no visible sulphides
- 158395 As 158394
- 158396 Black slightly serpentized peridotite; small stringers of magnetite 1 mm wide; trace pinkish sulphide; trace white silvery metallic; occasional white altered pyroxene phenocryst visible (0.5 - 1 cm long)
- 158397 Dark greenish grey slightly serpentized peridotite; no visible sulphides
- 158398 Rusty weathering dark grey peridotite; moderately altered by talc; brownish areas that resemble altered pyroxene; no visible sulphides



- 158399 Rusty weathering dark grey peridotite; moderately altered by talc; brownish areas that resemble altered pyroxene; no visible sulphides
- 158400 Rusty weathering dark greenish black serpentine; no visible sulphides
- 158401 Dark grey slightly serpentized peridotite; no visible sulphides
- 158402 Dunite nodules
  
- 158403 Core: DDH 94-1 - 2.1 to 3.7 meters  
light grey volcanic breccia fragments in a black chloritic matrix
- 158404 Core: DDH 94-3 - 68.6 to 70.1 meters  
dunite
- 158405 Core: DDH 91-4 - 108.9 - 109.7 meters  
harzburgite, moderately serpentized with faint mantle cumulate layering; relatively unaltered grey pyroxene crystals which comprise 50% of core sample

## 11.0 Results

Sampling of the ultramafics in the West Peak area show that the ultramafics have very elevated chromium values but no Pt or Pd values.

Sampling of the volcanics in the West Peak area as well as some volcanics on the Mid claim have returned elevated Pt and Pd values. Whereas the Pt and Pd values on the Mid claim are associated with high iron and elevated gold values, the Pt and Pd values in the volcanics of the West Peak area are associated with elevated copper.

Sampling of some core returned no Pt or Pd values and strongly suggests that the cumulates do not enhance Pt or Pd values.

Thin section examination of sample 158365 showed the specimen to be a basaltic glass composed of microlites of hornblende and feldspar (personal communication Jim McLeod, Cominco Research Laboratories).

**12.0 Conclusions**

Sampling of the ultramafics in the West Peak area fairly conclusively point to the fact that they are not prospective for Pt or Pd bearing mineralization. Sampling in 1999 and also 2000 indicate that weak sulphide mineralization in the volcanics is Pt and Pd bearing albeit in the weak range.

### 13.0 References

- Paper 37-13, West Half of the Fort Fraser Map-Area, B.C., by J. E. Armstrong, 1937.
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- 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.

**14.0 Statement of Costs**

Analyses

43 rock samples analysed for 30 elements by ICP and Au, Pt, Pd by Ultra/ICP at \$16.65/sample	\$ 715.95
43 rock preps at \$4.50/sample	193.50
GST	<u>63.66</u>
	\$ 973.11
1 rock sample analysed for Au, Pt by fire assay at \$17.00/sample	\$ 17.00
1 rock prep at \$4.50/sample	4.50
GST	<u>1.51</u>
	\$ 23.01
1 thin section examination at \$50.00/sample	\$ 50.00
1 thin section prep at \$12.00/sample	12.00
GST	<u>4.34</u>
	\$ 55.34

Helicopter

2.2 hours at \$630.00/hour	\$1386.00
250.8 liters fuel at \$0.80/liter	200.64
GST	<u>111.06</u>
	\$1697.70

Labour

1 man for 15 days at \$400.00/day	\$6000.00
1 man for 3 days at \$275.00/day	<u>825.00</u>
	\$6825.00

Accommodation

4 nights at \$59.80/night	\$ 239.20
3 nights at \$36.97/night	<u>110.91</u>
	\$ 350.11

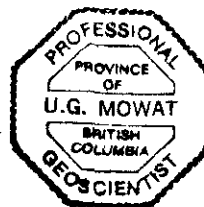
Sample Storage	\$1259.36
Truck and gas	\$ 300.00
Airfare	\$ 112.18

Bus	\$ 9.83
Taxi	\$ 27.00
Food	\$ 195.45
Freight	\$ 49.39
Supplies	\$ 45.54
Reproduction	\$ 50.00
	<hr/>
Total	\$11984.02

**15.0 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 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  
Ursula G. Mowat, P. Geo.



Dated this 10th day of January, 2001  
at Vancouver, B. C.



GEOCHEMICAL ANALYSIS CERTIFICATE

Mowat, Ursula PROJECT MSW File # A002887 Page 1

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

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**	Pt**	Pd**
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppb	ppb	ppb
B 158363	1	167	<3	43	<.3	25	15	347	2.64	<2	<8	<2	<2	9	<.2	<3	<3	55	1.56	.026	<1	47	1.09	11	.31	<3	1.43	.02	<.01	<2	19	16	41
B 158364	<1	193	<3	33	<.3	14	10	301	1.89	<2	8	<2	<2	6	.3	<3	<3	59	1.44	.032	<1	17	.72	28	.34	<3	1.00	.01	<.01	<2	<1	21	48
B 158365	1	168	4	55	<.3	42	34	443	3.34	5	<8	<2	<2	11	<.2	<3	<3	76	.81	.046	<1	16	.79	12	.33	<3	1.19	.05	.01	<2	1	17	36
B 158366	<1	148	<3	29	.3	24	11	342	1.88	2	<8	<2	<2	21	.4	<3	<3	37	.71	.009	<1	55	.63	43	.21	<3	.92	.05	.02	<2	2	16	23
B 158367	<1	19	<3	21	.3	1734	87	630	3.80	18	<8	<2	<2	1	<.2	<3	<3	48	.06	.003	<1	1432	11.87	6	.01	30	.49	<.01	<.01	<2	1	3	5
B 158368	<1	21	3	20	<.3	1585	79	542	3.49	15	<8	<2	<2	1	<.2	<3	<3	41	.09	.002	<1	1262	12.11	5	<.01	27	.42	<.01	<.01	<2	3	<1	1
B 158369	<1	11	<3	25	.3	1456	76	455	3.46	19	<8	<2	<2	1	<.2	<3	<3	38	.20	.004	<1	1222	11.94	8	.01	41	.38	<.01	<.01	<2	3	<1	2
B 158370	<1	4	<3	78	.5	92	45	1499	6.93	5	<8	<2	3	89	.7	<3	<3	259	6.91	.075	3	325	4.14	28	.16	<3	3.99	.02	.04	<2	<1	<1	1
B 158371	1	73	<3	68	<.3	32	23	662	4.60	3	8	<2	<2	13	<.2	<3	<3	148	1.27	.079	<1	66	1.69	9	.32	<3	1.96	.19	.04	<2	<1	2	<1
B 158372	<1	121	<3	91	<.3	48	35	684	4.74	<2	<8	<2	<2	8	<.2	<3	<3	130	1.03	.095	<1	55	1.58	6	.29	<3	1.79	.14	.02	<2	2	<1	<1
B 158373	1	145	<3	143	<.3	44	39	692	5.22	2	<8	<2	<2	6	.5	<3	<3	152	.96	.089	<1	48	1.69	7	.32	<3	1.94	.14	.02	<2	<1	<1	<1
B 158374	<1	26	<3	20	<.3	1679	86	991	3.52	65	<8	<2	<2	9	.3	<3	<3	52	2.17	.002	<1	1582	12.19	10	.01	42	.52	<.01	<.01	<2	1	3	8
B 158375	<1	18	3	30	<.3	1853	89	934	4.10	6	<8	<2	<2	5	<.2	<3	<3	60	.95	.001	<1	1974	14.49	12	.01	83	.70	<.01	<.01	<2	<1	4	6
RE B 158375	<1	18	<3	30	<.3	1864	89	940	4.11	10	<8	<2	<2	5	.2	<3	<3	61	.96	.001	<1	1978	14.54	12	.01	84	.71	<.01	<.01	<2	<1	1	5
B 158376	<1	109	<3	102	.4	36	23	981	6.79	9	<8	<2	<2	39	.4	<3	<3	172	1.07	.099	<1	54	1.68	141	.45	<3	2.60	.04	.01	<2	<1	2	<1
B 158377	2	21	<3	5	<.3	12	1	31	.59	39	<8	<2	<2	2	<.2	9	<3	4	.04	.004	1	22	.09	85	<.01	3	.09	<.01	.03	3	12	<1	2
B 158378	<1	20	<3	33	.5	1523	83	301	3.64	14	<8	<2	<2	4	<.2	<3	<3	23	.05	.005	<1	834	12.15	69	.01	49	.21	<.01	<.01	<2	2	3	3
B 158379	<1	30	<3	24	.3	1844	91	486	4.14	7	<8	<2	<2	3	<.2	<3	<3	55	.17	.001	<1	1581	15.73	9	.01	27	.81	<.01	<.01	<2	<1	4	3
B 158380	<1	52	<3	26	<.3	2354	110	1097	3.58	7	<8	<2	<2	37	<.2	<3	<3	35	1.99	.004	<1	1273	14.90	16	.01	26	.51	<.01	<.01	<2	1	<1	<1
B 158381	<1	23	<3	24	<.3	1701	84	680	4.04	5	<8	<2	<2	10	.3	<3	<3	49	.53	.004	<1	1347	14.98	8	.01	23	.67	<.01	<.01	<2	1	<1	4
B 158382	<1	28	<3	20	.3	2078	113	793	4.92	10	<8	<2	<2	33	.6	<3	<3	47	1.54	.003	<1	1465	13.37	6	.01	26	.58	<.01	<.01	<2	2	<1	3
B 158383	<1	35	<3	16	.4	1120	59	794	3.18	3	<8	<2	<2	74	.3	<3	<3	40	7.86	.004	1	1162	8.68	6	<.01	19	.48	<.01	<.01	<2	<1	<1	2
B 158384	<1	15	<3	19	<.3	1691	89	690	4.44	3	<8	<2	<2	2	.3	<3	<3	56	.83	.002	<1	1585	14.39	4	.01	49	.64	<.01	<.01	<2	2	<1	<1
B 158385	<1	14	<3	22	<.3	1912	80	410	4.07	8	<8	<2	<2	1	<.2	<3	<3	43	.12	.001	<1	1289	12.72	4	.01	36	.49	<.01	<.01	<2	1	2	7
B 158386	<1	13	3	24	<.3	1622	83	815	4.99	9	<8	<2	<2	3	.4	<3	<3	56	1.62	.003	<1	1812	11.79	5	.01	60	.56	<.01	<.01	<2	3	5	6
B 158387	<1	95	<3	67	<.3	84	34	983	5.56	6	<8	<2	<2	9	<.2	<3	<3	111	.96	.071	<1	141	2.20	30	.27	<3	2.51	.08	.03	<2	<1	<1	2
B 158388	<1	19	<3	21	<.3	1997	97	466	4.18	3	<8	<2	<2	1	<.2	<3	<3	38	.01	.002	<1	1363	11.61	6	.01	29	.48	<.01	<.01	<2	2	2	7
B 158389	<1	17	<3	39	<.3	1855	93	742	4.61	31	<8	<2	<2	1	.2	<3	<3	65	.03	.002	1	1866	19.07	9	.01	69	.87	<.01	<.01	<2	<1	2	3
B 158390	<1	47	<3	50	<.3	79	27	682	3.92	4	<8	<2	<2	7	<.2	<3	<3	70	.81	.042	<1	140	2.27	10	.23	3	2.22	.08	<.01	<2	<1	4	1
B 158391	<1	120	<3	63	<.3	98	36	905	4.61	9	<8	<2	<2	23	.2	<3	<3	103	1.36	.031	<1	150	2.17	9	.37	<3	2.57	.04	<.01	<2	10	<1	1
B 158392	<1	147	<3	48	<.3	65	31	547	3.57	4	<8	<2	<2	10	<.2	<3	<3	77	1.00	.028	<1	116	2.22	23	.20	<3	2.09	.11	.05	<2	1	1	1
B 158393	<1	20	<3	36	<.3	47	18	429	2.41	2	<8	<2	<2	6	<.2	<3	<3	65	1.01	.031	<1	97	1.48	8	.18	<3	1.61	.16	.08	<2	<1	2	1
B 158394	<1	13	3	16	<.3	2015	98	503	4.55	10	<8	<2	<2	1	<.2	3	<3	46	.03	.003	<1	1324	17.42	3	.01	118	.57	<.01	<.01	<2	1	3	5
B 158395	<1	12	3	15	<.3	1955	89	541	4.12	6	<8	<2	<2	1	<.2	<3	<3	43	.09	.003	<1	1335	14.91	2	.01	96	.58	<.01	<.01	<2	<1	1	5
STANDARD C3/FA-10R	26	66	37	163	6.0	38	12	807	3.37	64	20	3	22	27	24.8	21	24	82	.56	.087	18	172	.63	146	.09	22	1.73	.05	.18	15	482	481	475
STANDARD G-2	2	4	<3	43	.3	8	4	556	2.05	4	<8	<2	3	77	<.2	<3	<3	43	.66	.095	7	84	.61	231	.13	<3	1.01	.14	.58	2	-	-	-

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 ULTRA/ICP. (30 gm)  
 Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: AUG 9 2000 DATE REPORT MAILED: Aug 17/00 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 FA





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**	Pt**	Pd**
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppb	ppb	ppb
B 158396	<1	6	<3	17	<.3	2050	98	481	4.91	8	<8	<2	<2	1	.3	<3	4	45	.01	.003	1	1576	18.27	8	<.01	81	.50	<.01	<.01	<2	1	1	4
B 158397	1	29	<3	18	<.3	1597	83	403	4.12	5	<8	<2	<2	1	.3	<3	3	29	.07	.002	1	1033	10.19	18	.01	30	.39	<.01	<.01	<2	36	<1	3
B 158398	<1	19	3	28	<.3	1809	80	486	3.38	4	<8	<2	<2	1	.4	<3	4	31	.01	.003	1	858	15.15	6	<.01	27	.30	<.01	<.01	<2	5	<1	3
B 158399	<1	14	<3	18	<.3	1494	76	548	4.10	19	<8	<2	<2	7	.3	<3	3	45	.88	.001	<1	1333	11.01	4	.01	38	.52	<.01	<.01	<2	2	4	9
B 158400	<1	54	3	32	.4	2159	110	652	4.27	10	<8	<2	<2	2	<.2	<3	<3	57	.01	.001	1	2085	17.41	14	.01	52	.73	<.01	<.01	<2	1	<1	5
B 158401	1	13	<3	28	<.3	1407	70	548	3.47	8	<8	<2	<2	3	.4	<3	<3	42	.78	.001	<1	1252	12.53	7	.01	24	.64	<.01	<.01	<2	1	<1	4
B 158402	<1	5	<3	34	<.3	1830	120	2110	5.97	5	<8	<2	3	1	.4	<3	4	28	.04	.004	2	1114	17.02	6	<.01	12	.28	<.01	<.01	<2	3	<1	2
RE B 158402	<1	4	3	34	<.3	1862	120	2080	5.87	5	<8	<2	2	1	.4	<3	<3	27	.04	.005	1	1090	16.68	6	<.01	11	.27	<.01	<.01	<2	3	<1	2

Sample type: ROCK R150 60C. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.



GEOCHEMICAL ANALYSIS CERTIFICATE



Mowat, Ursula PROJECT MSW File # A002888  
1405 - 1933 Robson St., Vancouver BC V6G 1E7 Submitted by: Ursula Mowat

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**	Pt**	Pd**
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	%	%	%	ppm	ppb	ppb	ppb	
B 158403	6	70	18	67	<.3	219	28	777	4.27	8	<8	<2	2	10	.3	<3	<3	76	.63	.062	4	269	2.91	68	.37	7	1.95	.03	.09	<2	4	<1	5
B 158404	<1	3	3	13	<.3	1757	70	423	4.48	2	<8	<2	<2	10	.3	<3	<3	33	.15	.002	1	978	17.38	4	.01	50	.28	<.01	<.01	<2	9	1	8
B 158405	1	9	<3	15	<.3	1398	71	711	3.71	7	<8	<2	<2	2	.2	<3	3	25	.44	.001	<1	1008	15.67	2	<.01	53	.28	<.01	<.01	<2	5	<1	2
RE B 158405	<1	8	<3	16	<.3	1431	71	721	3.76	4	<8	<2	<2	2	<.2	<3	3	25	.44	.001	<1	1024	15.85	2	<.01	53	.28	<.01	<.01	<2	3	<1	1

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: CORE R150 60C AU\*\* PT\*\* PD\*\* GROUP 3B BY FIRE ASSAY & ANALYSIS BY ULTRA/ICP.(30 gm)  
Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: AUG 9 2000 DATE REPORT MAILED: *Aug 17/00* SIGNED BY: *C. Leong* .D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

MOWAT, URSULA-X00

Job V 00-0609R

MSW 158365

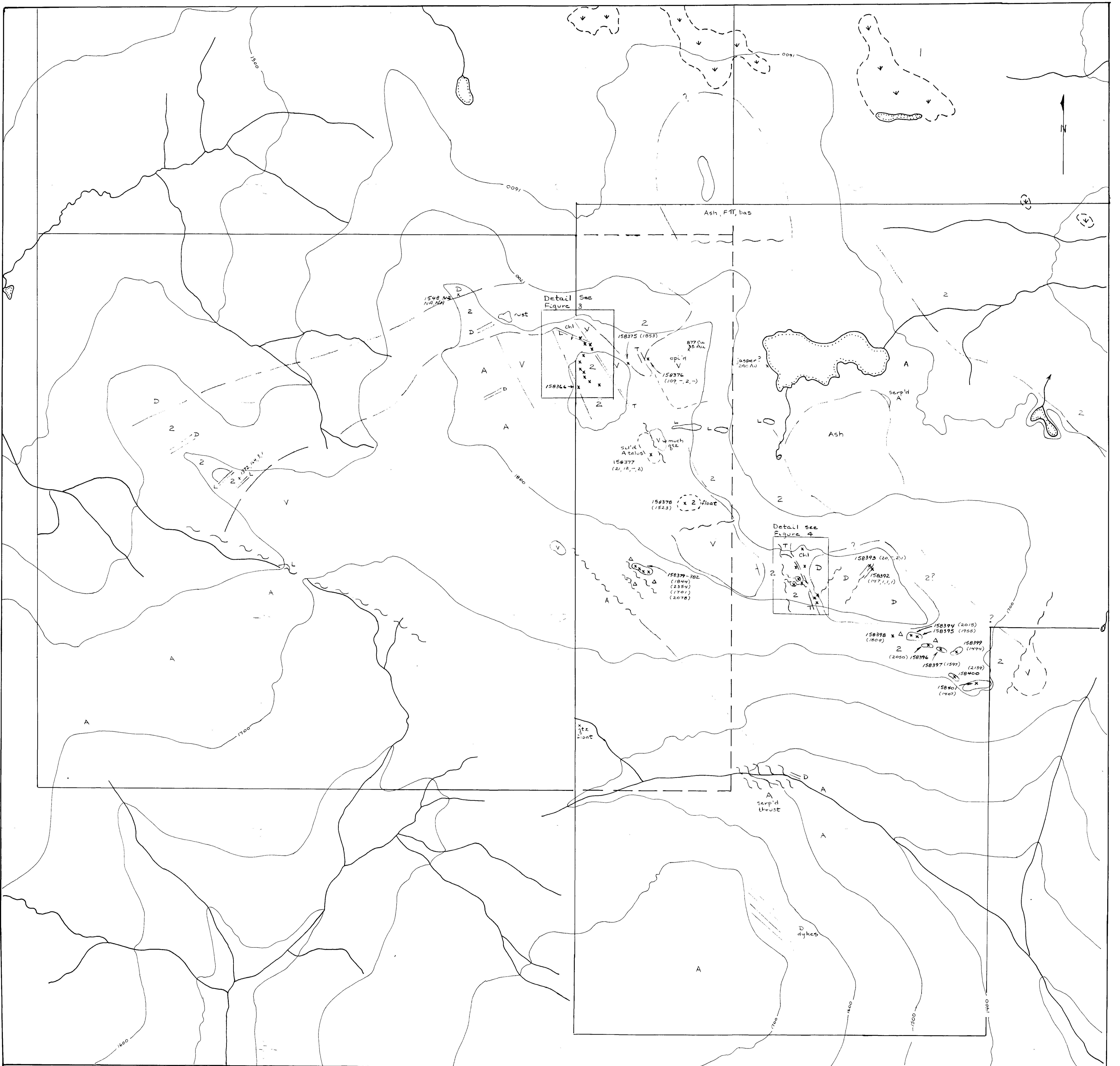
Report date 3 OCT 2000

LAB NO	FIELD NUMBER	Au ppb	Pt ppb	Pd ppb
R0011229	MSW 158365	5	15	37

I=insufficient sample X=small sample E=exceeds calibration C=being checked R=revised  
If requested analyses are not shown ,results are to follow

ANALYTICAL METHODS

Au Fire Assay, Lead Collection/Graphite Furnace  
Pt Fire Assay, Lead Collection/Graphite Furnace  
Pd Fire Assay, Lead Collection/Graphite Furnace



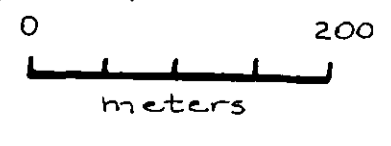
- |    |                   |             |               |
|----|-------------------|-------------|---------------|
| 1  | dunite            | Alteration: |               |
| 2  | peridotite        | chl'd       | chloritized   |
| A  | angillite         | epid        | epidotized    |
| D  | diorite           | L           | listwanite    |
| FT | feldspar porphyry | serpid      | serpentinized |
| V  | volcanic          | sil'd       | silicified    |
|    |                   | T           | talc          |
- 
- |   |                 |
|---|-----------------|
| ~ | fault           |
| Δ | teconic breccia |
| x | rock sample     |

WEST PEAK AREA

SAMPLE LOCATION MAP

GEOLOGICAL SURVEY BRANCH  
 TECHNICAL REPORT

26,445

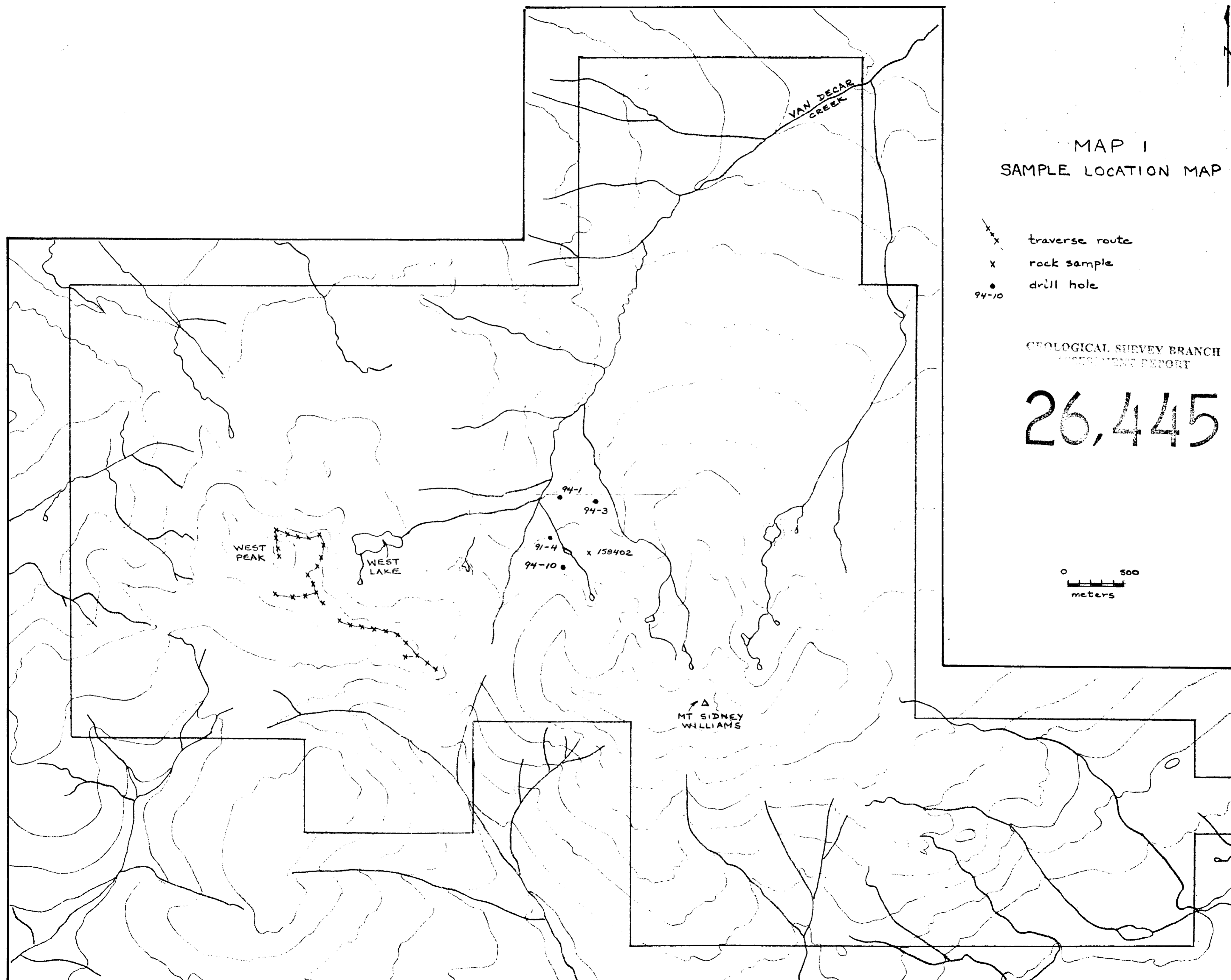
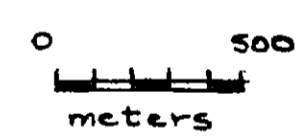


MAP 1  
SAMPLE LOCATION MAP

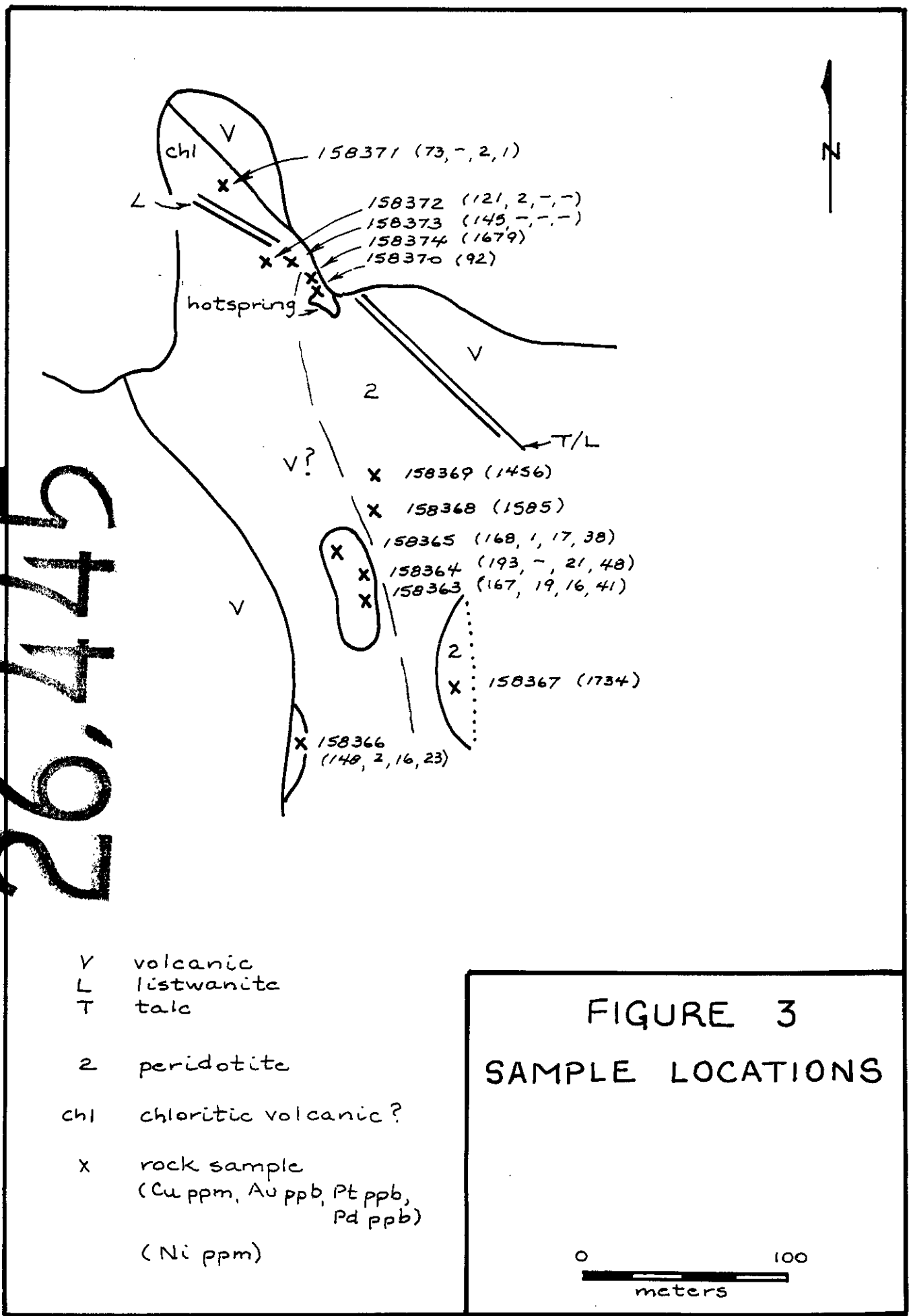
- x--- traverse route
- x rock sample
- drill hole
- 94-10

GEOLOGICAL SURVEY BRANCH  
ASSESSMENT REPORT

26,445



26,445  
5779

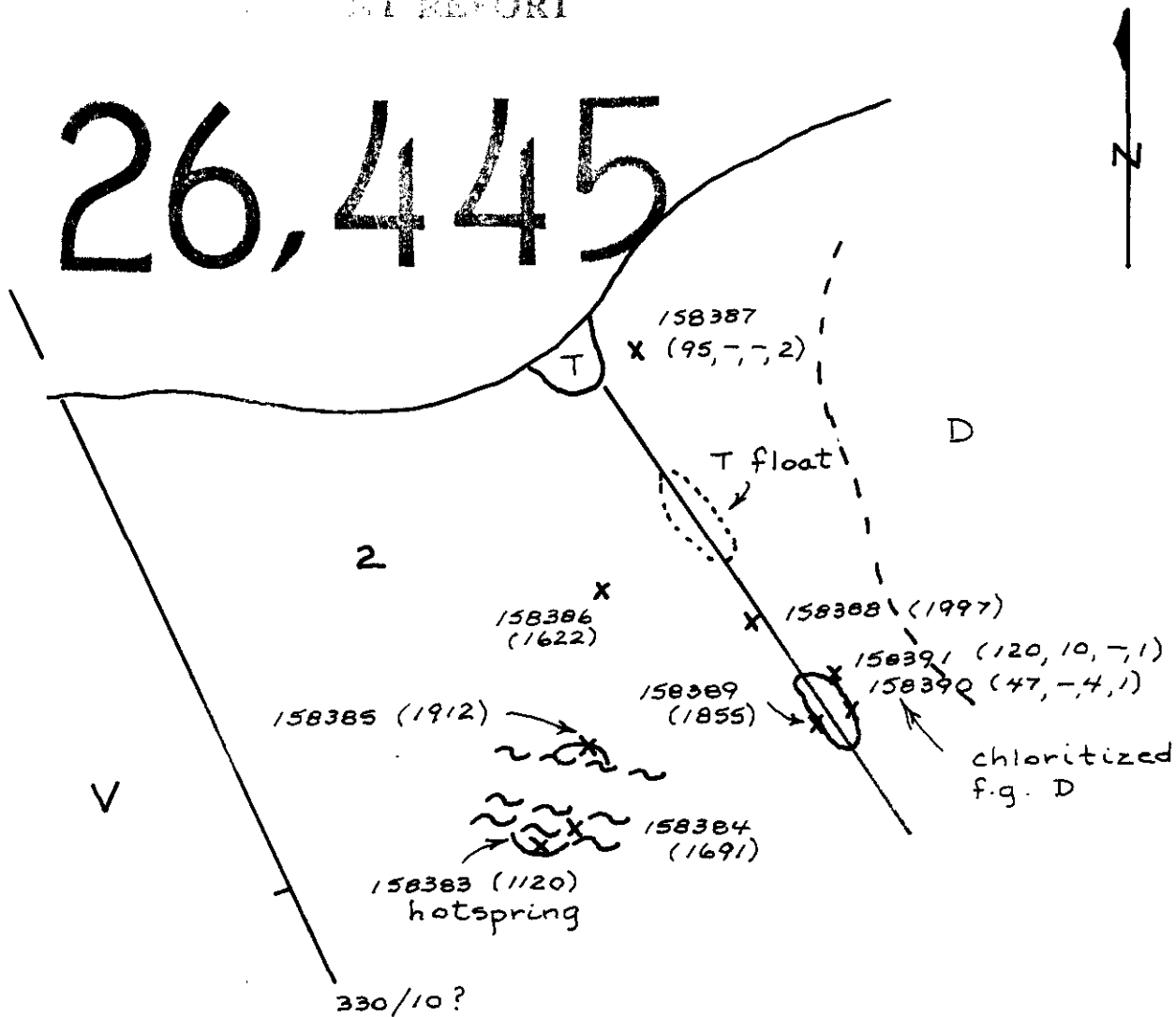


- V volcanic
- L listwanite
- T talc
- 2 peridotite
- chl chloritic volcanic?
- X rock sample  
(Cu ppm, Au ppb, Pt ppb, Pd ppb)  
  
(Ni ppm)

FIGURE 3  
SAMPLE LOCATIONS

0  100  
meters

26,445



- D diorite
- V volcanic
- T talc
- 2 peridotite
  
- x rock sample  
 (Cu ppm, Au ppb, Pt ppb,  
 Pd ppb)
  
- (Ni ppm)

FIGURE 4  
 SAMPLE LOCATIONS

