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THE WHIPSAW GOLD-SILVER-ZINC AREA

WITHIN

THE WHIPSAW PROPERTY

SIMILKAMEEN MINING DIVISION, BRITISH COLUMBIA

NTS 92/H7

Latitude 49°16' N; Longitude 120°45' W

For

WORLD WIDE MINERALS, LTD.

By

PAUL W. RICHARDSON, Ph.D., P.Eng.

Vancouver, B.C.

February 24, 1989
revised March 21, 1990

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SUMMARY

The Whipsaw Property contains several types of mineralization, including copper, gold, silver, molybdenum and zinc, which are related to the Whipsaw Porphyry Stock. The stock is intruded along the regionally mineralized contact between the Nicola Group Volcanics and the Eagle Granodiorite. Copper, molybdenum, gold mineralization is related spatially directly with the Whipsaw Porphyry. Gold, silver, zinc mineralization lies to the south of the porphyry mineralization in veins and replacements in wallrock adjacent to the veins.

Intense copper stream sediment anomalies were discovered in 47 Mile Creek in 1959, and were traced upstream to the north and south contacts of the Whipsaw Porphyry. Over the years since 1959, the area of interest was covered by several separate properties. In 1987, for the first time, all the various properties were consolidated by World Wide Minerals Ltd., and it was possible to plan an exploration programme covering the entire area of interest. In addition to the above metals, within the Property there are two potential sources of the platinum found in the placer deposits in Whipsaw Creek east of the Property.

This report will deal only with the gold-silver-zinc-copper-lead vein and related replacement deposits which lie south of and are probably related to the Whipsaw Porphyry. The geological, geophysical and geochemical data have been compiled on Figure 4, and an interpretation of the data showing the source areas of the gold-silver-zinc-copper-lead geochemical anomalies is presented. It is notable that all the areas previously trenched and drilled are downhill from, rather than on, the apparent source areas of the soil geochemical anomalies.

A Stage I programme would include a computer plot of available geochemical data, and would be followed by inspection on the ground of the areas of interest and the access to them. Each area requires detail soil

sampling. In addition, the airborne VLF-EM anomalies would be located on the ground and outlined in detail. The several areas would then be tested by excavator trenching and, where appropriate, by diamond drilling. The Stage I programme would cost \$570,000, and a Stage II programme of follow-up diamond drilling would cost \$370,000. The total of the two stages would be \$940,000.

CONCLUSIONS

- (1) The Whipsaw Property lies on a major mineralized contact between the Eagle Granodiorite and the Nicola Volcanics where the contact is intruded by the Whipsaw Porphyry.
- (2) Copper, molybdenum, silver, gold and zinc mineralization is related to the Whipsaw Porphyry.
- (3) The several properties covering the mineralization, for the first time, have been consolidated under one ownership, and it is possible to plan an exploration programme without boundary constraints.
- (4) The Whipsaw Property is very large, and the gold-silver-zinc-copper-lead mineralization which occurs in veins and related replacement deposits lies south of the Whipsaw Porphyry can be dealt with separately from the other areas of mineralization on the Property.

RECOMMENDATIONS

- (1) The vein deposits should be actively explored
- (2) Areas of geochemical anomalies should be investigated using closely spaced soil sampling because the veins and related replacement deposits do not have massive subcrop areas and anomalies over these deposits will be limited in size.
- (3) Excavator trenching should be done in the source areas of the geochemical anomalies.
- (4) Mineralization exposed by the trenching and also apparent source areas where trenching did not reach bedrock should be diamond

drilled. Several areas are ready for drilling at present, and the drilling could take place in two stages.

INTRODUCTION

The Whipsaw Property, which is in the Similkameen District of British Columbia, contains copper, gold, silver, molybdenum and zinc mineralization in several zones related to the Whipsaw Porphyry intrusion and extending over a large area north and south of Whipsaw Creek. Placer deposits containing gold and platinum were mined in Whipsaw Creek downstream to the east of the Property. Within the Property are old prospect adits on gold and silver-bearing deposits in veins and adjacent wall rock. Major geochemical stream sediment and soil anomalies of Cu, Mo and Zn have been known since 1959. Since the original staking in 1908, the ground has always been fragmented with several owners. Recently, for the first time, the ground was consolidated by World Wide Minerals Ltd., and it has been possible to plan exploration projects without property line constraints.

In 1987, the writer was commissioned by Mr. Charles R. Martin, President of World Wide Minerals Ltd., to review all the available data, including historical data, those data derived from a recently completed, major soil sampling programme and an airborne geophysical survey by World Wide Minerals and a diamond drill programme then in progress. The writer was then to organize and summarize the data and to recommend a future course of action for the Company on the Property. This was to include, if reasonable, specific recommendations for further exploration. The writer completed a report entitled "Report to Date and Proposed Exploration Programme on the Whipsaw Property" dated April 25, 1988 and this report completed February 24, 1989 revised March 21, 1990.

The Whipsaw Property is very large and contains at least two styles of mineralization: predominantly porphyry copper-molybdenum-gold mineralization occurs around and in the Whipsaw Porphyry Intrusion and, south of the porphyry area, gold-silver-zinc veins and related replacement mineralization occurs in several showings. Because of the large size of

the area and the totally different types of mineralization, it was decided by Mr. Martin to deal with the above areas separately. The present report describes the Whipsaw Gold-Silver-Zinc Area.

Additional geochemical anomalies containing silver and zinc occur north of the Porphyry Area and south of the Gold-Silver-Zinc Area along the Eagle Granodiorite-Nicola Volcanics contact.

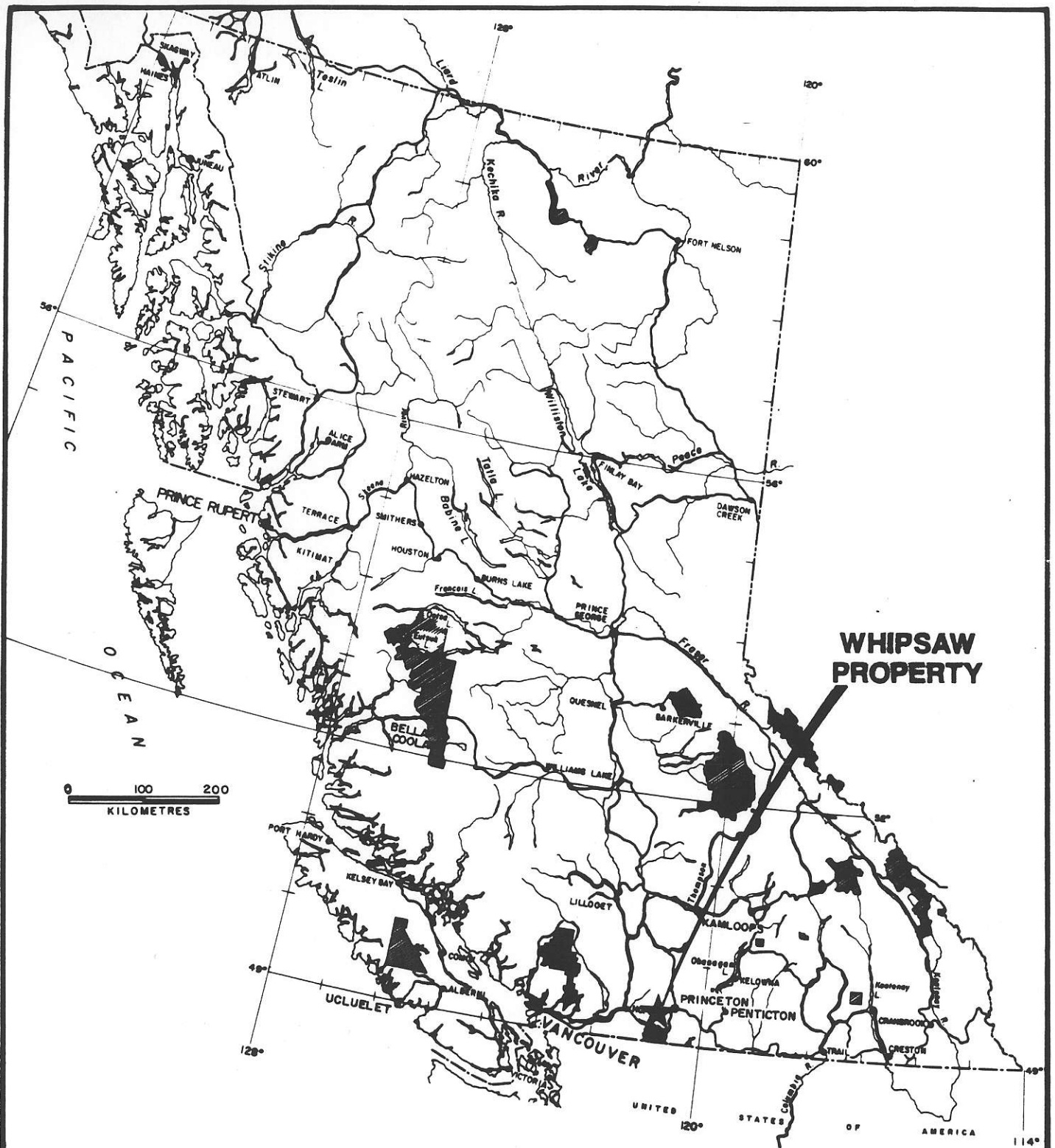
LOCATION AND ACCESS

The Whipsaw Property is in the Similkameen Mining Division, British Columbia, at latitude 49°16' N, longitude 120°45' W on NTS Map 92H/7 (Figure 1). The Property is 170 km east of Vancouver, and is 26 km SW of Princeton. The major Similkameen Copper-Gold Mine lies 15 km ENE of the Property (Figure 2).

Access from Vancouver is by paved road via Highway 401 to Hope and Highway 3 to Princeton. Thirteen km S of Princeton, a good logging road leaves Highway 3 and goes up the north bank of Whipsaw Creek through the Property, a distance of 18 km to the camp (Figure 2). Numerous logging and mining roads give good access to most parts of the Property.

Whipsaw Creek flows eastward through the middle of the Property (Figure 3). The topography on the Property is moderate with some deeply incised valleys. Elevations range from 1385 to 1660 m. The Property is covered with large stands of commercial evergreen trees with little undergrowth. Outcrop is very sparse, but in most places the overburden is not more than one metre deep.

The Princeton Area has a long tradition of mining with all the necessary infrastructure in place. The Whipsaw Property is in easy commuting distance of Princeton where an experienced labour force lives. These factors are very favourable to the economics of a new mine in this area which also has good transportation to the port of Vancouver.



**WHIPSAW
PROPERTY**

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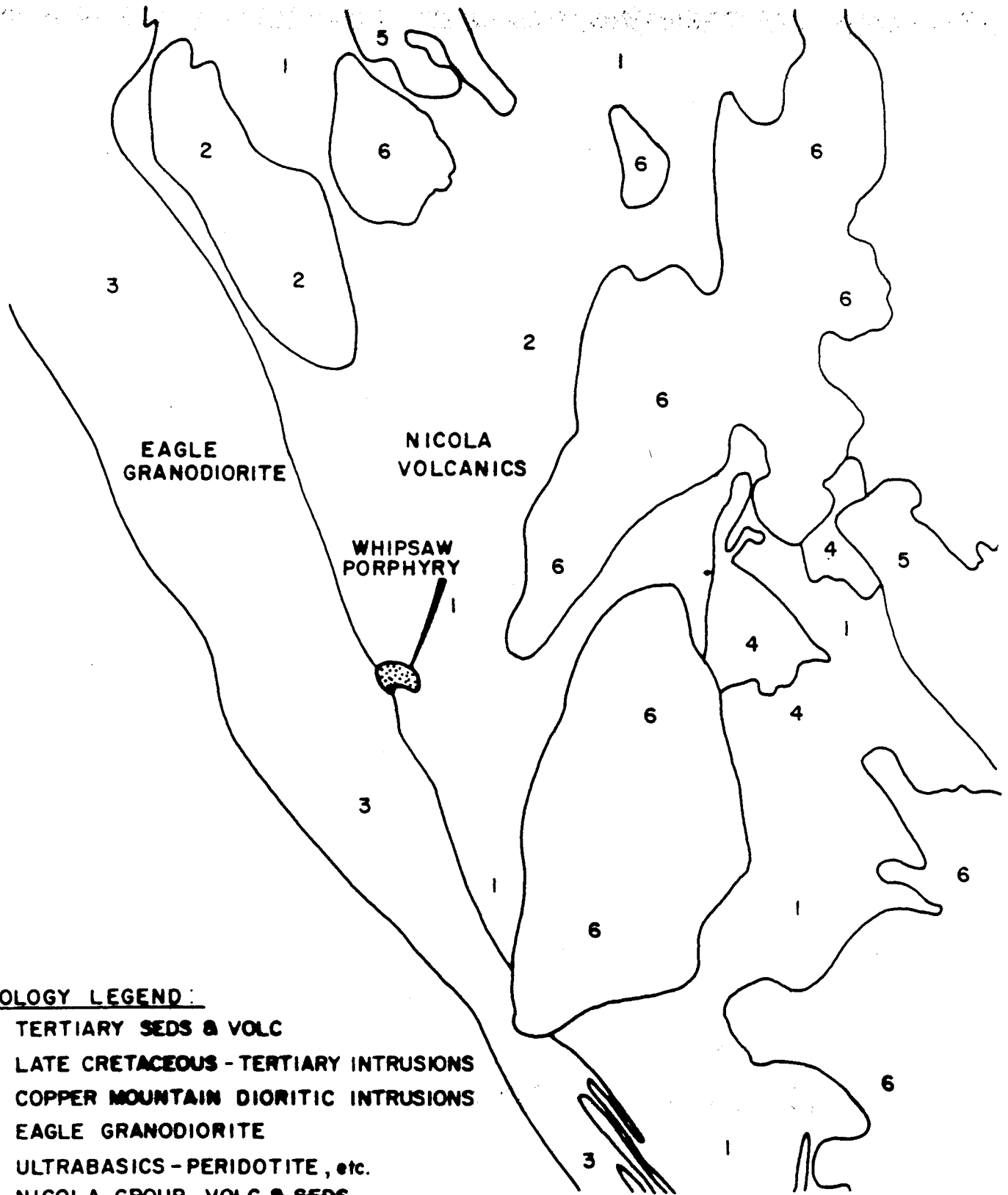
WHIPSAW PROPERTY

LOCATION MAP

DATE: FEB., 1988

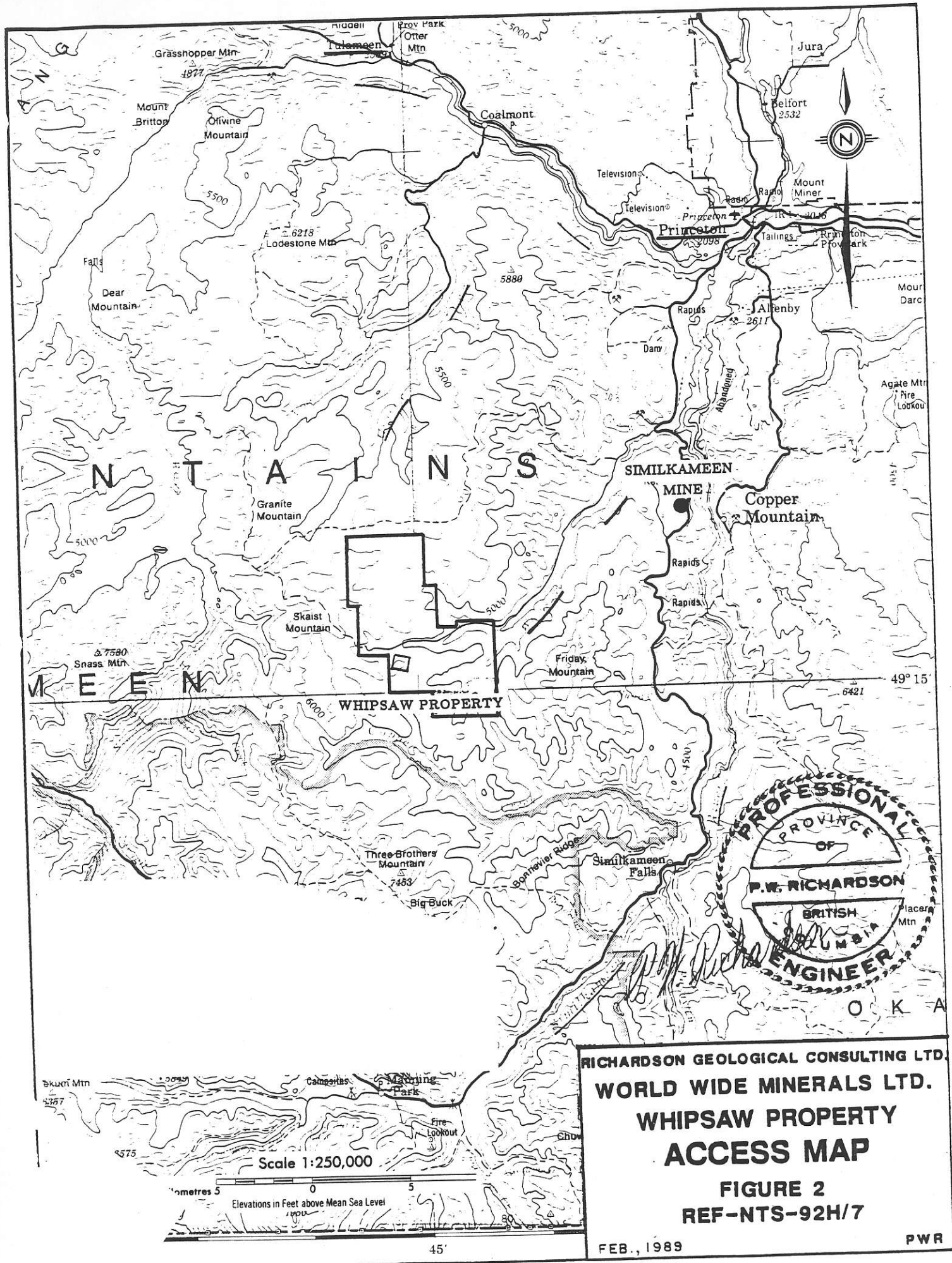
BY: P.W.R.

FIGURE No. 1



GEOLOGY LEGEND:

- 6 TERTIARY SEDS & VOLC
- 5 LATE CRETACEOUS - TERTIARY INTRUSIONS
- 4 COPPER MOUNTAIN DIORITIC INTRUSIONS
- 3 EAGLE GRANODIORITE
- 2 ULTRABASICS - PERIDOTITE, etc.
- 1 NICOLA GROUP - VOLC & SEDS.



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WHIPSAW PROPERTY
ACCESS MAP
FIGURE 2
REF-NTS-92H/7

FEB., 1989

PWR

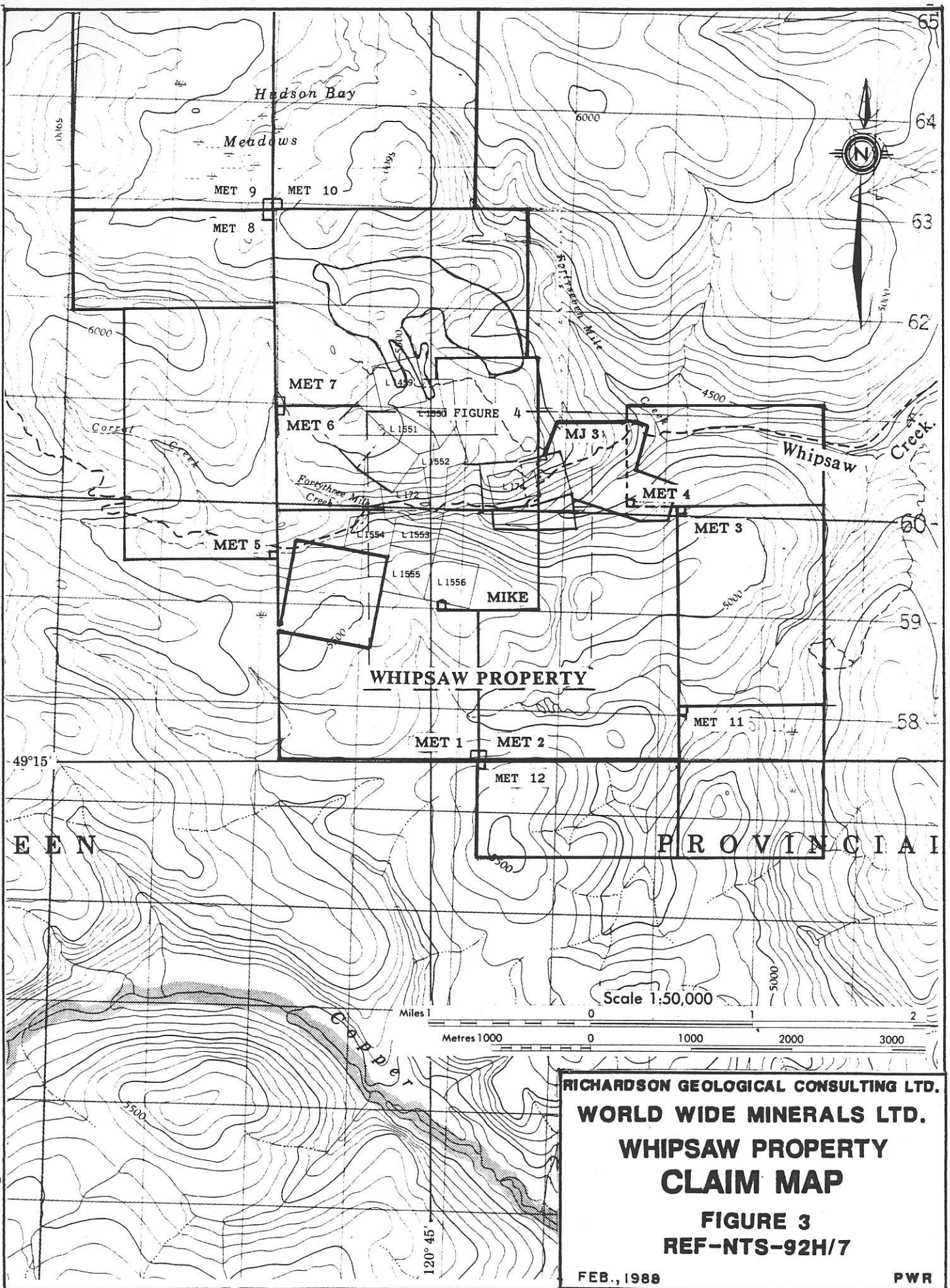
CLAIMS

The Whipsaw Property consists of two groups of mineral claims totalling 196 units. The pertinent claim data are as follows:

WHIPSAW NORTH GROUP (99 units; grouping date August 9, 1988)

<u>✓</u>	<u>X</u>	<u>Name</u>	<u>Record No.</u>	<u>No. of Units</u>	<u>Record Date</u>	<u>Expiry Date</u>
1549	1553	Mineral Lease # 30	Lots 172 & 1549-1556	1	Jan. 13/64	Jan. 13/91
1550	1554			1	Mar. 18/66	Mar. 18/92
1551	1555			8	Apr. 26/88	Apr. 26/92
1552 172	1556			20	Apr. 26/88	Apr. 26/92
✓		OK#3 Fr	15767	1	Mar. 18/66	Mar. 18/92
✓		MET 8	3106	8	Apr. 26/88	Apr. 26/92
✓		MET 9	3107	20	Apr. 26/88	Apr. 26/92
✓		MET 10	3108	20	Apr. 26/88	Apr. 26/92
✓		OK#6 Fr	33749	1	Jun. 25/71	Jun. 25/92
✓		OK#7 Fr	33750	1	Jun. 25/71	Jun. 25/91
✓		Silvertip No. 1	18218	1	Jun. 28/66	Jun. 28/91
✓		Silvertip No. 2	18219	1	Jun. 28/66	Jun. 28/91
✓		OK #2	11980	1	Jun. 29/64	Jun. 29/92
✓		MET 5	3066	15	Nov. 24/87	Nov. 24/92
✓		MET 6	3067	9	Nov. 24/87	Nov. 24/92
✓		MET 7	3068	<u>20</u>	Nov. 24/87	Nov. 24/92

Total = 99 Units



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WHIPSAW PROPERTY
CLAIM MAP
FIGURE 3
REF-NTS-92H/7
FEB., 1988 **PWR**

WHIPSAW SOUTH GROUP (99 units; grouping date August 9, 1988)

<u>Name</u>	<u>Record No.</u>	<u>No. of Units</u>	<u>Record Date</u>	<u>Expiry Date</u>
OK#4 Fr.	15768	1	Mar. 18/66	Mar. 18/92
OK#5 Fr.	15769	1	Mar. 18/66	Mar. 18/92
MET 11	3109	9	Apr. 26/88	Apr. 26/92
MET 12	3110	8	Apr. 26/88	Apr. 26/92
MET 1	2928	20	May 13/87	May 13/91
MET 2	2929	20	May 13/87	May 13/91
MJ3	245	6	Jul. 26/77	Jul. 16/91
OK #1	11979	1	Jun. 29/64	Jun. 29/92
OK #8	33825	1	Jul. 9/71	Jul. 9/91
MIKE	411	10	Aug. 21/78	Aug. 21/92
MET 3	3064	12	Nov. 24/87	Nov. 24/91
MET 4	3065	<u>8</u>	Nov. 24/87	Nov. 24/91

Total = 97 Units

The above data conform with the records in the Vancouver recording office of the British Columbia Ministry of Energy, Mines and Petroleum Resources on March 19, 1990.

All claims are either owned by or held under option by World Wide Minerals Ltd.

The areas of the Whipsaw North and Whipsaw South Groups exist to distribute assessment work, which can be spread over a maximum of 100 units from work on any one unit (equals one claim in most other jurisdictions). These groups are only indirectly related to the "Porphyry Area" or the "Gold-Silver-Zinc Area", and the claims can be regrouped when convenient.

GEOLOGY

A - General Geology

The Property covers 10 km of the regionally mineralized contact zone between the Upper Triassic Nicola Group and the Eagle Granodiorite (Figure 2). In the north-central part of the Property, the contact zone is intruded by the Whipsaw Porphyry (Figures 2 & 4). Copper-molybdenum-gold mineralization is related to the perimeter of the porphyry stock. Dykes of feldspar and quartz-feldspar porphyry extend north and south of the stock near and parallel to the Nicola-Eagle Granodiorite contact.

The Whipsaw Porphyry is the source of a large hydrothermal system with which at least two types of mineral deposits are related. Porphyry copper-molybdenum-gold mineralization occurs disseminated and in veinlets within the Whipsaw Porphyry and in Nicola rocks bordering the porphyry. To the south, the porphyry copper-molybdenum-gold mineralization decreases abruptly, probably being cut off by E-W faulting, beyond which gold-silver-zinc mineralization occurs in veins and associated disseminated deposits. An area in which skarns are reported occurs just north of Whipsaw Creek near the Nicola-Eagle contact. This area coincides with the area of the best gold geochemical anomalies on the Property.

An intense magnetic anomaly in the southeast portion of the Property is probably caused by a body of ultrabasic rocks. If so, this could be the source of the platinum in placer deposits in Whipsaw Creek east of the Whipsaw Property. A second possible source of platinum group elements (PGEs) is the mineralization associated with the Whipsaw Porphyry. At nearby Copper Mountain, PGEs have been reported as being associated with the copper-gold mineralization.

B - The Gold-Silver-Zinc Veins

The mineralization dealt with in this report is in gold and silver-bearing quartz-carbonate veins and related replacement deposits. Mineralization consists of coarse pyrite, sphalerite and lesser chalcopyrite and galena. Some adits have been driven on mineralized outcrops and some drilling has been done, but little data are available from the adits and, in general, core recovery in the mineralized veins and zones was poor. The present programme has the objects of finding new veins and mineralized zones and of finding wider portions of the presently known mineralization.

GEOCHEMISTRY

The area dealt with in this report has been covered by a soil sampling grid with samples taken every 50 m on lines spaced 50 m apart (Heim, 1987; Figure 4). This spacing was very successful in outlining intense silver, copper and zinc anomalies and scattered gold values near each known mineralized area and in discovering several new anomalous areas. In addition, a good gold anomaly was found in the skarn area (Area J). However, it is reconnaissance spacing as far as specifically defining vein and related wallrock mineralization is concerned, and in each anomalous area it will be necessary to have much more detailed data prior to designing specific excavator and drilling programmes. In addition to detail soil sampling, it would be desirable to use a field method such as Bloom's total heavy metal test in order to have immediate results to control the detail soil sampling and anomaly definition.

The vast amount of data from Dr. Heim's soil programme has been only partly utilized to date. On the 1:2500 plan, Au, Ag, Cu and Zn have been plotted (Figure 4). It would be best to have dot plots done of the other elements which might reveal that one or more could be pathfinders for gold and silver or might be of aid in outlining the vein systems and areas of mineralization.

GEOPHYSICS

In 1987, World Wide Minerals did an airborne combined magnetometer and very low frequency electromagnetometer (VLF-EM) survey over most of the southern part of the Property and all of the area shown on Figure 4. Several VLF-EM anomalies are plotted on Figure 4, but these have not as yet been examined in the field.

A VLF-EM survey should be done in a box around each of the airborne anomalies. In this way, each anomaly can be confirmed and located and the strike of the anomaly determined. It will then be possible to cut a baseline along strike of the anomaly in order to read the anomaly in detail prior to investigating it, if appropriate, with trenching or drilling.

COMPILATION

Data relating to the Whipsaw Gold-Silver-Zinc Area were collected and plotted on a 1:2500 map (Figure 4). This area lies mostly south of the E-W fault system which marks the south boundary of the Whipsaw Porphyry Copper Area at approximately 10,700 N. There is a large slice of rock 750 m wide between the boundary fault at the north border of the map and the fault along Whipsaw Creek. South of Whipsaw Creek, the Eagle Granodiorite - Nicola Volcanics contact is more regular, but less well known, than north of the creek. As elsewhere along the contact, several geochemical anomalies occur in the area mapped as Eagle Granodiorite, and it is assumed by the writer that inliers of Nicola sediments and volcanics occur within the granodiorite.

In the Whipsaw Gold-Silver-Zinc Area, the known mineralization is in veins and related replacement deposits which contain gold, silver, pyrite, sphalerite, chalcopyrite and galena (Figure 4). All the underground data on the area from 1907 to the present has been incompletely documented. However, workings on the Silvertip, Metestoffer, Spencer, Five Fissures and Knight and Day showings were up to several hundred feet long and encountered encouraging values. In addition, some good values were obtained in diamond drill holes, especially at the Silvertip, Metestoffer and BZ showings.

The geochemical survey done by World Wide Minerals in 1987 has demonstrated the presence of soil geochemical anomalies near all the known showings and has discovered soil anomalies in several areas where there is no known mineralization in bedrock. South of the named showings, there is no record of surface work or drilling being done. Of special interest are the anomalies draining northward and southward from the plateau at the top of South Hill.

I. ANOMALIES RELATED TO KNOWN SHOWINGS (Figure 4)A - Silvertip Showing

The anomalous soil samples near the Silvertip Showing contain Zn up to 4650 ppm and Ag up to 8.9 ppm. The anomaly trends uphill to the south for 250 m to the Eagle Granodiorite contact. The area of interest is 350 m x 250 m. The Silvertip Showing was drifted on in the past, and DDH-401 and DDH-402 were drilled in 1987. The drift south of Whipsaw Creek is open and could be mapped. A drift is reported north of Whipsaw Creek and should be opened and mapped. In 1987, the two short diamond drill holes gave the following selected results within the mineralized zone:

<u>Hole #</u>	<u>From (m)</u>	<u>To (m)</u>	<u>Length</u>	<u>Au (oz/ton)</u>		<u>Ag oz/ton</u>	<u>Cu %</u>	<u>Zn %</u>
				<u>AA</u>	<u>Fire</u>			
87-401	6.58	7.88	1.30	0.076	<u>0.093</u>	0.92	0.01	0.14
	7.88	9.60	1.72	0.027	<u>0.027</u>	0.40	0.02	0.15
	9.60	10.06	0.46	0.108	<u>0.122</u>	<u>4.16</u>	0.08	<u>1.88</u>
	11.30	12.07	<u>0.77</u>	0.245	<u>0.296</u>	<u>4.12</u>	0.08	0.30
	27.50	27.84	0.34	0.052	0.053	<u>4.60</u>	<u>1.79</u>	0.30
	35.66	35.98	<u>0.32</u>	0.248	<u>0.288</u>	<u>14.68</u>	0.04	<u>1.31</u>
87-402	14.43	15.77	1.34	0.048	0.088	<u>3.35</u>	0.37	0.74

Time and weather conditions precluded follow-up drilling by the time the above assays were returned.

This is an excellent prospect in its own right and should have a programme done on it as follows:

- (1) Over the area 350 x 250 m a detailed topography map should be made tying in all lines, roads, topography, showings and outcrops.

- (2) Intermediate samples should be collected on each line near the adits at 12.5 m intervals.
- (3) Each adit should be made safe and mapped for outline and geology, and mineralized exposures sampled.
- (4) Based on the geochemistry, trenches should be excavated on the lines or along contours.
- (5) At least four diamond drill holes, using NQ core, should be drilled as follows (Figure 4):

<u>Hole #</u>	<u>Lat</u>	<u>Dep</u>	<u>Elev</u>	<u>Azimuth</u>	<u>Dip</u>	<u>Length (m)</u>
J	9755N	8900E	1455	315°	-45°	50
K	9755N	8850E	1455	135°	-45°	50
L	9755N	8850E	1455	135°	-60°	50
M	9760N	8935E	1455	315°	-45°	50

Provision should be made for another 200 m of drilling with the positions of the holes to be determined by the results of the geochemical, trenching and drilling programmes.

B - Metestoffer Showing

The Metestoffer Showing has been worked on for many years, and some good drilling intersections and surface assays have been obtained. However, no concerted, well financed programmes have been done. A drilling programme was completed by World Wide Minerals Ltd. on part of the area of interest in 1987 - 1988 with several interesting intersections being obtained. The following are selected results which lie within the mineralized zones:

Hole #	From (m)	To (m)	Length	Au (oz/ton)		Ag (oz/ton)	Cu %	Zn %
				AA	Fire			
W87-102	60.25	61.5	1.25	0.071	<u>0.082</u>	<u>1.30</u>	0.05	0.37
	63.90	65.00	1.10	0.041	0.044	<u>2.28</u>	0.09	0.25
W87-103	57.45	58.58	1.13	0.121	<u>0.137</u>	<u>3.21</u>	0.11	<u>1.24</u>
W87-105	100.00	101.05	1.05	<u>0.190</u>		<u>7.64</u>	0.33	<u>2.51</u>
W87-108	111.58	112.79	1.21	0.064	<u>0.077</u>	<u>3.54</u>	0.14	<u>3.15</u>
	112.79	113.40	0.61	0.044	0.046	<u>2.18</u>	0.06	<u>1.37</u>
W87-110	29.87	31.24	1.37	0.042	0.047	<u>3.97</u>	0.02	0.22

There are several older drill holes with ore grade intersections near the surface showings, but these have not been resurveyed as yet. There has been a suggestion that the mineralization is in flat zones, but this has yet to be confirmed.

The area of geochemical anomalies near the showings is 500 m by 250 m. In this area, which is adjacent on the east of the Silvertip Area, the geochemically anomalous soils extend uphill to the south beyond the area of drilling, and, although some of the 1987 diamond drill holes were successful enough to require follow-up drilling, it is evident that mineralization extends uphill beyond the drilling area. In addition, some very anomalous readings lie west of the Metestoffer showing toward the Silvertip Showing. The Metestoffer Showing and the surrounding area should have a programme done as follows:

- (1) Over an area 500 x 250 m a detailed topography map should be made tying in all available data.
- (2) Intermediate samples should be taken on the lines near the workings at intervals of 12.5 m.

- (3) An attempt to relocate several adits should be made; any found should have their portals made safe and the workings should be mapped and sampled.
- (4) Based on the results of the above work, the area of trenching should be extended south up the hill.
- (5) Provision should be made for an initial 500 m of NQ diamond drilling to test the results of the above work.

C - Spencer Showing

The Spencer Showing is another area of old workings regarding which there are little data available. The geochemically anomalous area, lying mostly west of the old showing, is 500 x 250 m. The work programme should be as on the Metestoffer Showing.

D - Five Fissures Showing

At the Five Fissures Showing, an adit is reported to be still accessible. Anomalous soil samples cover an area 450 x 200 m and extend uphill from the known surface and underground workings. The work programme should be as on the Metestoffer Showing.

E - Knight and Day Showing

Soils are not as anomalous in the area of the Knight and Day Showing as in the cases of the other showings. Initially, a more detailed soil sampling grid should be done over an area 100 x 200 m to test for smaller sized anomalies.

F - BZ Zone

The BZ Zone was discovered in 1972 by bulldozing trenches in a copper soil anomaly. The area of trenching has been extended since then and partially investigated by diamond drilling. The anomalous soil area extends uphill to the west beyond the area of trenching and is 400 x 200 m

in area. When the trenching was done, a property line precluded trenching further west. Two samples in Trench 4 on the same weathered shear assayed 0.167 oz/ton Au and 0.339 oz/ton Au, with 6.12 oz/ton Ag and 5.40 oz/ton Ag respectively across a width of 0.61 m (Culbert, 1984). In Trench 5, a 3 m sample assayed 0.112 oz/ton Au and 3.10 oz/ton Ag and in Trench 6 a 2 m sample assayed 0.161 oz/ton Au and 1.90 oz/ton Ag (Heim, 1987). In the latter case, the trench sample has not been tested by drilling.

In 1987 - 1988, a diamond drilling programme was done in the area of the trenching with some of the better results as follows:

Hole #	From (m)	To (m)	Length	Au (oz/ton)		Ag oz/ton	Cu %	Zn %
				AA	Fire			
W87-3	21.00	22.80	<u>1.80</u>	<u>0.058</u>		<u>2.31</u>	0.05	0.25
W87-5	111.80	112.80	<u>1.00</u>		<u>0.102</u>	<u>2.35</u>	<u>0.51</u>	0.74
	112.80	113.80	<u>1.00</u>		<u>0.050</u>	<u>1.70</u>	<u>0.44</u>	<u>2.52</u>
	113.80	114.80	<u>1.00</u>		<u>0.067</u>	<u>2.54</u>	<u>0.51</u>	<u>10.21</u>
	114.80	115.80	<u>1.00</u>		<u>0.071</u>	<u>2.27</u>	0.11	0.10
W87-6	9.65	10.45	<u>0.80</u>	0.049	<u>0.053</u>	<u>1.35</u>	0.08	0.23
	123.00	123.29	0.29	0.041	<u>0.048</u>	<u>2.62</u>	0.41	<u>1.38</u>
	149.66	150.65	0.99	0.031	0.041	0.60	0.17	0.04
W87-10	40.90	41.49	0.59	0.034	<u>0.047</u>	<u>2.95</u>	0.81	<u>1.20</u>
W87-14	23.06	24.50	<u>1.44</u>	0.046	<u>0.063</u>	0.11	0.09	0.08

II. ANOMALIES UNRELATED TO KNOWN SHOWINGS

Area G

This area lies uphill to the west of the BZ Zone along the contact between the Eagle Granodiorite and the Nicola Group. Soils are anomalous in both copper and zinc and there are numerous silver readings greater than 2 ppm. An area 400 x 150 m should be prospected and soil sampled in detail as the next step. The source area of the anomaly appears to be at

the contact between the Eagle Granodiorite and the Nicola.

Area H

This area lies within an area mapped as Eagle Granodiorite, and has several high silver readings including three samples with 5.2, 6.4 and 7.2 ppm Ag. The area should be mapped and sampled more closely and searched for old workings in an area 300 x 100 m.

Area I

Area I is similar to Area H, but is crossed by three stream branches which could be sampled in detail to define more closely the emergent areas of the geochemical anomaly. Closely spaced soil samples could then be taken over an area 300 x 100 m.

Area J

Area J is the most consistent gold anomaly seen thus far on the Property. The head of the anomaly at approximately 10,250 N should be defined better by closely spaced sampling and the outcrops mapped. This is an area of old crown granted mineral claims, and there probably are outcrops and old showings. There are reported limestone and skarn deposits in this vicinity. The area is 250 m x 250 m. Closely spaced samples, prospecting and a survey of all pertinent physical features should be undertaken. The area is of great interest.

Area K

Area K is uphill from the Silvertip Showing and extends to the contact of the Eagle Granodiorite. Closer samples should be taken as an initial step over an area 150 x 150 m.

Area L

Area L lies further uphill than Area K and extends almost to the top of the hill. The head of the anomaly, which is very high in zinc, appears to have an E-W trend. The top of the anomaly should be defined by intermediate lines sampled at close spacing over an area 300 x 100 m.

Area M

Area M is at the head of the anomalies above the Metestoffer Showing, and is near the south end of a previously postulated fracture zone joining the Metestoffer and BZ Zones. The first steps in exploration would be to examine the sample sites on the ground, map the area and do additional sampling over an area 300 x 200 m. When this work is complete, a decision on trenching could be made.

Area N

Area N lies over the crest and south of Area M. The area includes an extraordinarily high sample of 39.3 ppm Ag. Additional sampling and prospecting should be done over an area 300 x 300 m.

Area O

Area O is 350 x 250 m and is primarily a Zn-Ag anomaly. The anomaly is separate from the other anomalies, but possibly could be related to a line joining the heads of anomalies L, M and P. As above, it should be examined and more closely sampled.

Area P

Area P is defined by two samples 200 m apart. The samples are intensely anomalous in Zn, Cu and Ag and somewhat anomalous in Au. Close sampling should be done over an area 200 x 100 m.

Area Q

Area Q is a zinc anomaly. It is near the contact of the Eagle Granodiorite. The depth of overburden is not known and consequently less

mobile Cu, Pb and Ag may not have reached the surface. The area should be examined for outcrops and depth of overburden and soil sampling should be done over an area 200 x 200 m.

Area R

Area R is in the Eagle Granodiorite, possibly in a Nicola Group inlier. The area of the anomaly is limited and it includes two soil samples with 9.4 and 10.0 ppm Ag. It should be sampled more closely with lines parallel to the hillside over an area 250 x 150 m.

Area S

Area S is a small area somewhat anomalous in Ag and Cu. It should be examined on the ground and sampled more closely over an area 100 x 100 m. It is near the property boundary. With the target being gold and silver-bearing quartz-carbonate veins, even a small anomaly could be caused by important mineralization.

COST OF PROPOSED PROGRAMME

A - STAGE I

(1)	Geochemical Computer Plot - 5600 samples @ \$2.00	\$ 11,200
(2)	Initial Inspection of Areas and Access	
	Consultant 15 days @ \$500	\$ 7,500
	Helper 15 days @ \$150	2,250
		9,750
(3)	Soil Sampling	
	1600 Samples @ \$25 (all in)	40,000
(4)	Geophysical Survey	
	Line Cutting - 15 km @ \$300	4,500
	15 Crew Days @ \$700	10,500
		15,000
(5)	Personnel	
	1 Geologist - 4 months @ \$5,000	20,000
	1 Foreman - 3 months @ \$5,000	15,000
	2 Helpers - 6 months @ \$3,000	18,000
	1 Consultant - 50 days @ \$ 500	25,000
		78,000
(6)	Road Building	30,000
(7)	Trenching - 25 days @ \$1,000	25,000
(8)	Diamond Drilling 6400 foot @ \$37	236,800
(9)	Accommodation 400 mandays @ \$45	18,000
(10)	Transportation - 2 - 4WD - 3 months @ \$1,500	9,000
(11)	Assaying Trenches - 250 samples @ \$15	3,750
(12)	Purchases, Supplies	5,000
(13)	Travel	<u>3,000</u>
		\$ 494,500
	Contingencies @ 15%	<u>74,175</u>
		<u>568,675</u>
	say	<u>\$ 570,000</u>

B - STAGE II

10,000 feet of diamond drilling @ \$37 per foot (all in)	<u>370,000</u>
Total STAGE ONE plus STAGE TWO	<u>\$ 940,000</u>

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STATEMENT OF QUALIFICATIONS

The writer is a graduate of the University of British Columbia with B.A.Sc.(1949) and M.A.Sc.(1950) degrees in Geological Engineering and a Ph.D(1955) degree from the Massachusetts Institute of Technology in Economic Geology and Geochemistry.

The writer has done fieldwork in mines and on exploration programmes, except in periods at university, since 1945, and has participated in numerous programmes which included geochemistry since 1953. He has a working knowledge of the major types of geophysics based on fieldwork in the Maritimes, Northern Ontario and Quebec and British Columbia, and has carried out or supervised many diamond drilling programmes since 1950.

The writer has been a Member of the Professional Engineers of British Columbia since returning to British Columbia in 1966.