GEOCHEMICAL EVALUATION REPORT

ON PART OF

THE WHIPSAW PROPERTY

SIMILKAMEEN MINING DIVISION, BRITISH COLUMBIA

NTS 92H/7

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

FOR

WORLD WIDE MINERALS LTD.

BY

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

Vancouver, B.C. January 30, 1991.

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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 and molybdenum mineralization is related spatially directly with the perimeter of the Whipsaw Porphyry. Gold, silver and zinc mineralization in quartz-pyrite veins and as replacements in wallrock adjacent to the veins lies to the south of the porphyry mineralization.

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.

In the spring of 1990, a small programme of six diamond drill holes was done to test part of one of the 14 targets

in the Porphyry Area and one of the targets in the Quartz Vein Area. These were not the best targets, but were accessible at that time of year.

In September 1990, a beginning was made on the investigation of several intense soil geochemical anomalies found by the 1987 reconnaissance geochemical survey. This present report describes the 1990 results. The technique is effective, and much more detail work should be done on the numerous anomalies south of Whipsaw Creek.

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 adits driven 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 of quartz-sulfide vein deposits 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, an airborne geophysical survey by World Wide Minerals and a diamond drill programme then in progress. The writer was 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 Whipsaw Property is very large and contains at least two styles of mineralization: predominantly porphyry copper, molybdenum and gold mineralization occurs around and in the Whipsaw Porphyry Intrusion and, south of the Porphyry Area, gold, silver, zinc-bearing veins and related replacement mineralization occur in several showings.

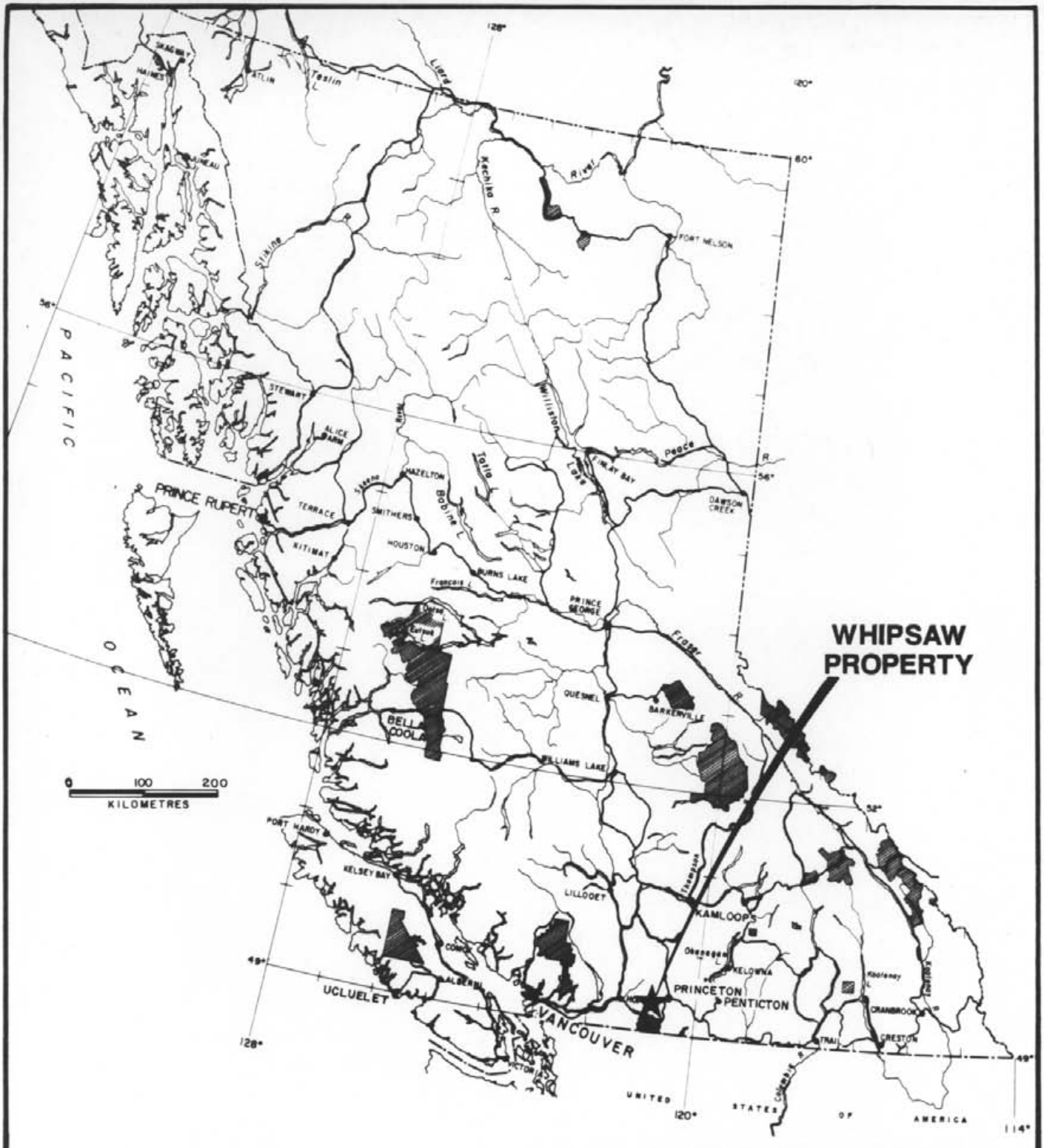
The above-mentioned major soil sampling programme done by World Wide Minerals Ltd. in 1987 and 1988 revealed several strong, significant anomalous soil areas. The present report describes the results of detail soil sampling and compass and tape surveying in four anomalous areas and was a start to carrying out the recommendations in one of the writer's earlier reports (Richardson, 1990b).

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 Similco Copper-Gold Mine lies 15 km ENE of the Property (Figure 2).

Access from Vancouver is by paved road via Highway 401 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, but locally thick, dense brush occurs. Extensive logging is currently being done. Outcrop is very sparse, but in most places the overburden is not more than one metre deep.



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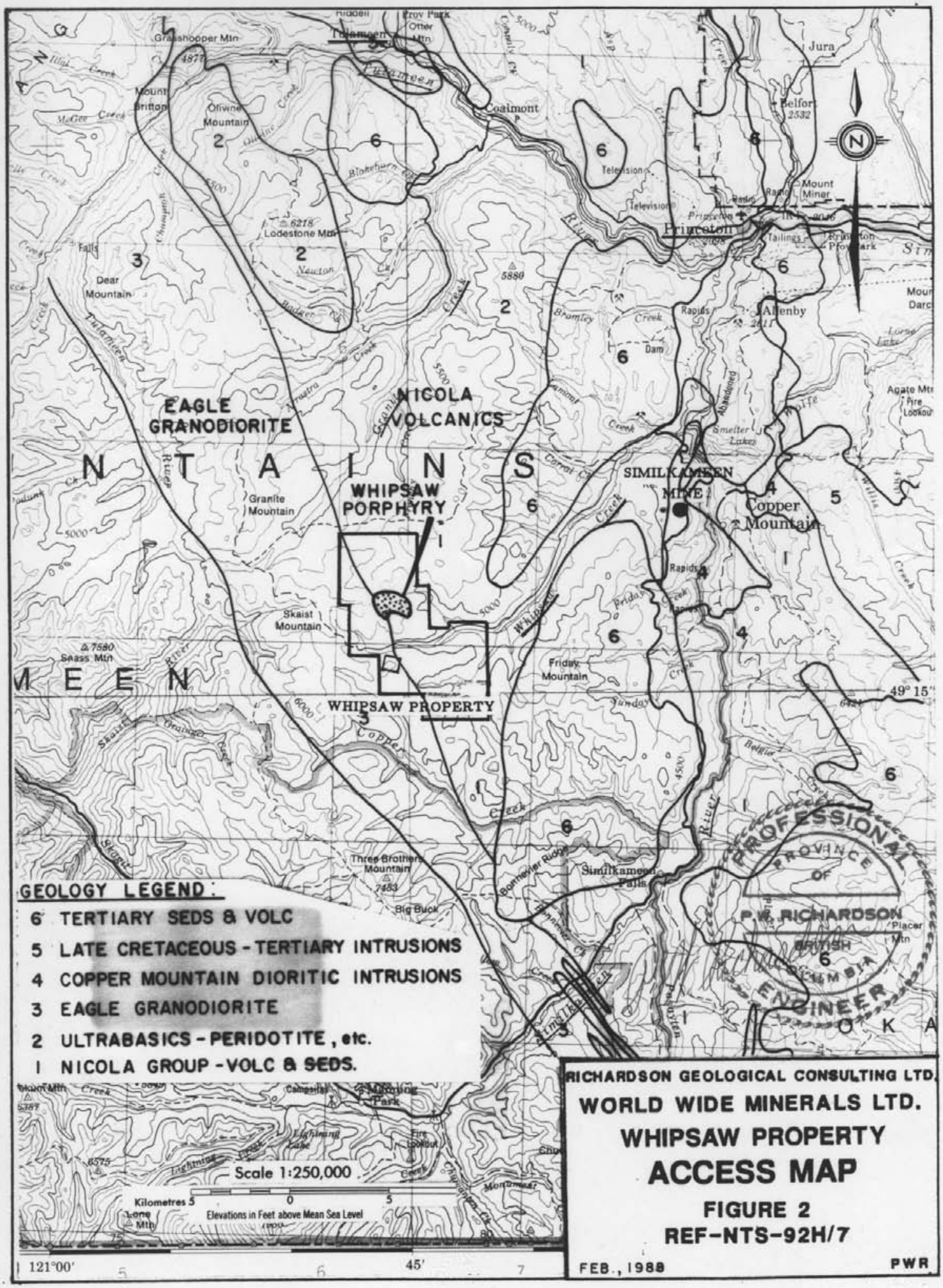
WHIPSAW PROPERTY

LOCATION MAP

DATE: FEB., 1988

BY: P.W.R.

FIGURE No. 1


EAGLE GRANODIORITE
NICOLA VOLCANICS
WHIPSAW PORPHYRY
WHIPSAW PROPERTY
SIMILKAMEEN MINE
Copper Mountain
Princeton
Coalmont
Granite Mountain
Skaist Mountain
Friday Mountain
Three Brothers Mountain
Similkameen Falls
Lodestone Mtn
Olivine Mountain
Mount Britton
Dear Mountain
Grasshopper Mtn
Jura
Mount Miner
Allenby
Agate Mtn
Fire Lookout
Campsites
Memorial Park
Lightning Lake
Scale 1:250,000
Kilometres 5 0 5
Elevations in Feet above Mean Sea Level
121°00'
45'
49° 15'
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.
PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
P.W. RICHARDSON
RICHARDSON GEOLOGICAL CONSULTING LTD.
WORLD WIDE MINERALS LTD.
WHIPSAW PROPERTY
ACCESS MAP
FIGURE 2
REF-NTS-92H/7
FEB., 1988
PWR

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

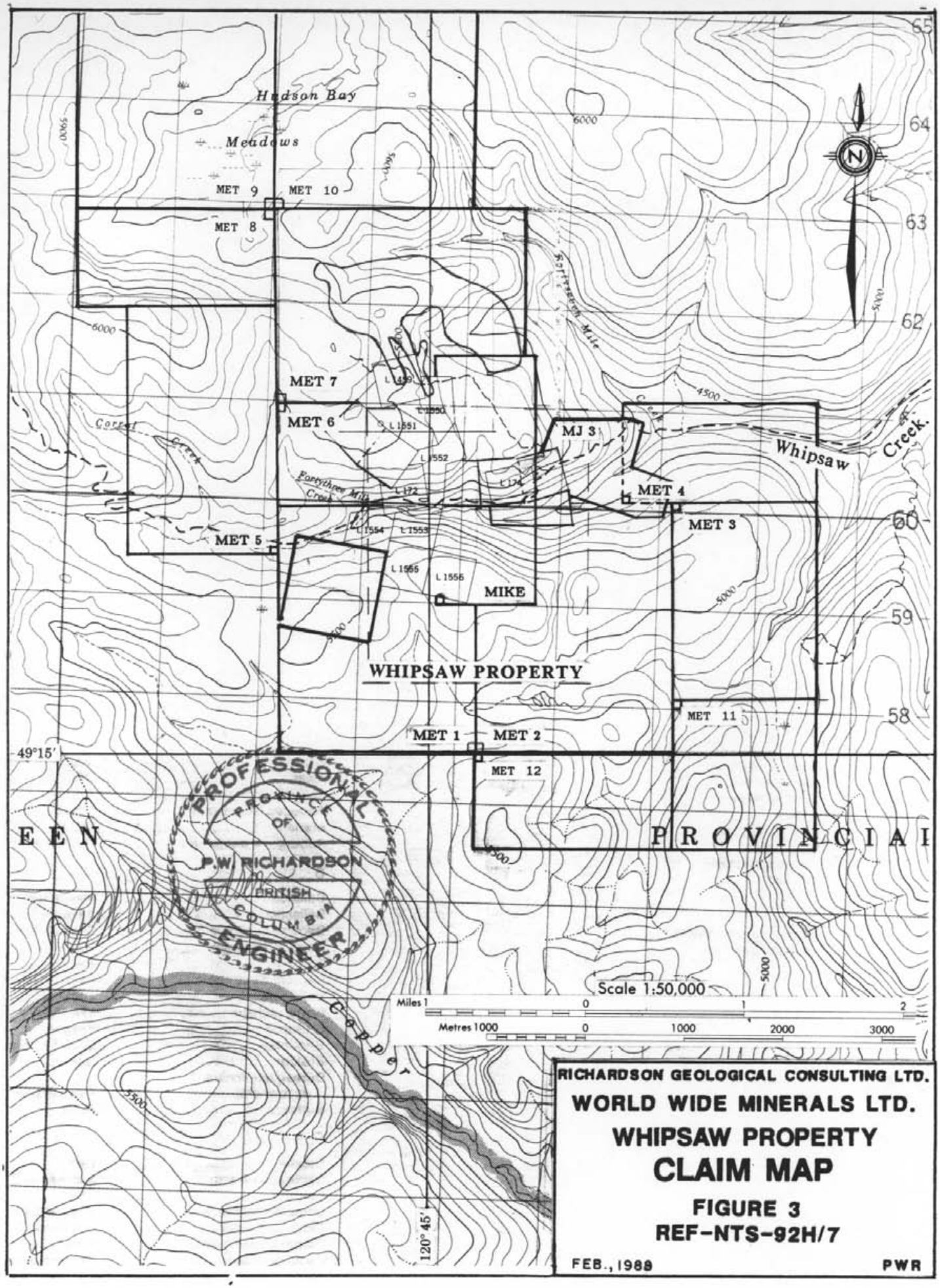
CLAIMS

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

WHIP GROUP (92 units; grouping date January 11, 1991)

Name	Record No.	No. of Units	Record Date	Expiry Date
MET 8	3106	8	Apr. 26/88	Apr. 26/93
MET 9	3107	20	Apr. 26/88	Apr. 26/93
MET 10	3108	20	Apr. 26/88	Apr. 26/93
MET 5	3066	15	Nov. 24/87	Nov. 24/93
MET 6	3067	9	Nov. 24/87	Nov. 24/93
MET 7	3068	20	Nov. 24/87	Nov. 24/93

Total = 92 Units



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WHIPSAW PROPERTY

CLAIM MAP

FIGURE 3

REF-NTS-92H/7

FEB., 1989 PWR

SAW GROUP (95 units; grouping date January 11, 1991)

Name	Record No.	No. of Units	Record Date	Expiry Date
Mineral Lease #30	Lots 172 & 1549-1556	1	Jan. 13/64	Jan. 13/92
OK#3 Fr.	15767	1	Mar. 18/66	Mar. 18/93
OK#4 Fr.	15768	1	Mar. 18/66	Mar. 18/93
OK#5 Fr.	15769	1	Mar. 18/66	Mar. 18/93
MET 12	3110	8	Apr. 26/88	Apr. 26/93
MET 1	2928	20	May 13/87	May 13/93*
MET 2	2929	20	May 13/87	May 13/93*
OK#6 Fr.	33749	1	Jun. 25/71	Jun. 25/93
OK#7 Fr.	33750	1	Jun. 25/71	Jun. 25/93
Silvertip No. 1	18218	1	Jun. 28/66	Jun. 28/93
Silvertip No. 2	18219	1	Jun. 28/66	Jun. 28/93
OK #1	11979	1	Jun. 29/64	Jun. 29/93
OK #2	11980	1	Jun. 29/64	Jun. 29/93
OK #8	33825	1	Jul. 9/71	Jul. 9/93
MJ3	245	6	Jul. 26/77	Jul. 26/93
MIKE	411	10	Aug. 21/78	Aug. 21/93
MET 3	3064	12	Nov. 24/87	Nov. 24/93
MET 4	3065	8	Nov. 24/87	Nov. 24/93

Total = 95 Units

* Expiry date when work applied for, supported by the present report, has been approved.

UNGROUPED (9 units)

Name	Record No.	No. of Units	Record Date	Expiry Date
Met 11	3109	9	Apr. 26/88	Apr. 26/93

The above data conform with the records in the Princeton and Vancouver recording offices of the British Columbia Ministry of Energy, Mines and Petroleum Resources.

All claims are owned by World Wide Minerals Ltd.

The areas of the WHIP and SAW Groups exist to distribute assessment work, which can be spread over a maximum of 100 units from work done on any one unit within the group. One unit equals approximately one claim of 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.

HISTORY

Although placer deposits in the Tulameen and Similkameen rivers and their tributaries had been known since the 1860's, it was not until 1885 that rich placer showings of gold and platinum were discovered near Tulameen especially in Granite Creek (Figure 2). The bonanza period of placer mining lasted for a decade. In this period, gold and platinum placer deposits were discovered in Whipsaw Creek downstream to the east of the Whipsaw Property. Prospecting led to the staking of gold and silver-bearing veins in the central part of the present Property in 1908 (Figure 3). These were explored at the time by trenching and underground work. Additional adits were driven in the period from 1927-1930.

In 1959, reconnaissance stream sediment sampling by Texas Gulf Sulphur led to the discovery of major stream sediment anomalies in three tributaries of Whipsaw Creek (Bacon, 1960). Follow-up work outlined soil geochemical and induced polarization anomalies near the headwaters of 47 Mile Creek (Figure 3). The anomalies were caused by the weathering of porphyry copper-molybdenum-gold mineralization in the northern part of the present Property. This anomalous area was worked on by Texas Gulf, Dome Exploration (Canada) Ltd., Moneta Porcupine Mines Limited, Amax Exploration Ltd. and Newmont Mining Corp. of Canada Ltd.,

and large tonnages of 0.1-0.3% Cu with accompanying Mo were outlined by geochemical and geophysical surveys and diamond drilling (Heim, 1987).

Although the first mineral claims were staked in 1908, the various claim groups in the area have had separate ownerships since that time. From 1961, Whipsaw Mines Ltd. controlled the part of the ground near the valley bottom where the early prospects were located, and did several limited geochemical and drilling programmes, including, in 1968, two diamond drill holes under the Metestoffer Showing.

From 1970-73, geological and geochemical surveying was done by Stokes Exploration Management Co. Ltd. for Whipsaw Mines and for Skaist Minerals to the west. In an extensive 1970 soil sampling programme, the samples were analyzed for copper only. This survey obtained anomalies over areas of known mineralization and, in addition, led to the discovery of the BZ zone, which lies in the southern part of the Porphyry Copper Area. However, Au and Ag analyses were not done.

In 1974, Newconex Canadian Exploration Ltd. took 45 soil and rock samples near the known showings and near anomalies discovered by the 1970 survey. In addition, Newconex stream sediment sampling showed an increase in Au

and Ag in Whipsaw Creek stream sediments where the showings occur.

In 1982 and 1983, R.R. Culbert and J.R. Poloni compiled available older data on part of the present Property, and did trenching and drilling programmes at the Metestoffer and BZ showing. The programmes met with some success, and additional work was recommended, but not done.

In 1985, Dr. Robert Heim, on behalf of World Wide Minerals Ltd., did soil sampling in the area of the BZ trenches to test the area for precious as well as base metals. He found that the entire area of the BZ trenches was within a large Cu, Zn anomaly accompanied by anomalous Au, Ag and As values. In 1986, he extended the trenches and cut rock samples assaying as high as 0.339 oz/ton Au and 5.40 oz/ton Ag across 0.61 m.

Also in 1985, Lone Jack Resources did a soil sampling programme on their claims, which are now part of the Whipsaw Property, and collected 412 samples along a grid in the west-central part of the Property and along road cuts (Mitchell, 1985). That winter, Lone Jack drilled eight diamond drill holes from roads near the Spencer Showing, across Whipsaw Creek from the Metestoffer Showing and on a geochemical anomaly in the NW corner of the Property. The holes intersected a breccia zone at the Spencer Zone and

several narrow widths of values. The drilling was confined to being done from available roads because of deep winter snow.

In 1987, World Wide Minerals did a soil sampling programme over the central part of the Property collecting a total of 5580 samples which were analyzed for gold and, separately, for 31 elements using the ICP method. In late 1987 and January 1988, the Company also diamond drilled 30 holes totalling 3049.1 m (10,000 ft). In August 1988, additional soil sampling was done on claims staked to protect the NW and SE extensions of anomalies outlined by the 1987 soil sampling programme (Richardson, 1988c).

In early 1989, a programme of six diamond drill holes was done to test part of one of the 14 targets in the Porphyry Area and one of the numerous targets in the Quartz Vein Area. Better porphyry copper mineralization was found than was previously known, and the gold-bearing quartz vein of the Silvertip Zone was enlarged.

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. Copper-molybdenum-gold mineralization is spatially related to the perimeter of the porphyry stock. Dykes of 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 and gold-silver-zinc mineralization occurs in quartz veins and associated disseminated deposits. An area containing skarn zones occurs just north of Whipsaw Creek near the Nicola-Eagle contact. This area coincides with the area of the best soil 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 the 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 and elsewhere on the perimeter of the Copper Mountain Stock, PGEs have been reported as being associated with the copper-gold mineralization.

GEOPHYSICS

Several geophysical surveys have been done on various areas of the present Property by the owners of the smaller properties which have now been consolidated. In 1960, Texas Gulf Sulphur did an Induced Polarization (IP) survey in the apparent source area of their geochemical anomalies (Bacon, 1960). In 1961, they did a vertical loop electromagnetic survey and a magnetic survey to obtain specific drilling targets (Bacon, 1961). A 400γ magnetic anomaly coincided with an EM anomaly which, in turn, partly coincided with an IP anomaly. Three diamond drill holes, W-1 to W-3, totalling 208 m were drilled to test the geophysical results.

In 1963, the writer, on behalf of the Dome-Moneta-Tennessee joint venture, drilled deeper holes, W4 and W5, on the Texas Gulf IP anomalies just to the south of the Whipsaw Porphyry and, in 1964, extended the IP survey area and did bulldozer trenching. Targets were not specific enough to continue at that time.

In 1971, Newmont Mining Ltd. did IP and Resistivity work extending the Texas Gulf coverage to the Nicola volcanics beyond the north border of the Whipsaw Porphyry (Ballantyne, 1971).

In 1987, World Wide Minerals did an airborne combined magnetometer and very low frequency electromagnetometer (VLF-EM) survey over the southern part of the Property. Several VLF-EM anomalies have yet to be examined in the field. An intense magnetic anomaly in the SE portion of the Property is probably caused by an ultrabasic intrusion.

THE 1990 GEOCHEMICAL EVALUATION PROGRAMME

The purpose of the 1990 fieldwork was to examine and, in some cases, to do detail sampling on several geochemical anomalies as a start in carrying out the recommendations contained in an earlier report by the writer (Richardson, 1990b). Four geochemically anomalous areas were examined. Samples were taken in each area, and compass and tape surveys were done in two of the areas that were quite extensive in order to determine more exactly the relative locations of the earlier reconnaissance soil sample locations.

(1) The Five Fissures and Knight & Day Zones (Figure 4)

Mineral showings in this area have been known for many years, and have been investigated by several owners of small parts of the area who did trenching, drove small underground workings and drilled at least one diamond drill hole. The present work was begun by surveying the known prospects and adits and by recording the location of all soil sample sites encountered during the survey. The reconnaissance soil samples were collected in 1987 and the programme was described by the writer (1990b). In addition, Figure 4 shows the relation of the geochemical results to a very low frequency electromagnetic (VLF-EM) anomaly found by a 1987 airborne survey (Walker, 1987).

Accurate location of the anomalous readings at 8,850 N; 10,300 E and 8,750 N; 10,300 E showed that the soil

samples were collected from the bottom of a deep gulley, and that the anomalous metal content of the samples is related to known mineralization in the Knight and Day prospect. The area of physical disturbance by past exploration activity is outlined on Figure 4. More recent attempts to trench the mineralized area using a bulldozer have obscured the location of five very old portals.

More may be seen at the Five Fissure prospect. One adit below the road is still open, and a diamond drill site immediately west of the Five Fissures outcrop area was found.

The 1990 survey gave accurate locations for the geochemical sites along the road to the Knight and Day prospect. This allowed a more accurate plotting of all the geochemical sites in the area between the two prospects and the 1987 results are replotted on Figure 4. In addition, the anomalous soil samples at the Knight and Day prospect were confirmed, and additional soil samples were collected 25 m N, S, E and W of the two main anomalous soil samples.

One sample was taken on the Five Fissures gossan outcrop with results as follows:

Sample No.	Cu(%)	Zn(%)	Pb(%)	Ag(oz)	Au(oz)
372-b	0.237	0.941	1.962	3.369	0.050

The strongly anomalous gossan, the fairly extensive geochemical soil anomalies and the shortness of the located diamond drill hole indicate that the drill hole should be

redrilled and extended to search for mineralization across the whole width of the zone.

(2) The Skarn Area (Figure 5)

The best area of gold geochemical anomalies in soil on the Property occurs north of Whipsaw Creek near the contact of the Eagle Granodiorite. The molybdenum soil geochemical anomaly which coincides with the copper soil anomaly related to the major copper mineralization near the Whipsaw Porphyry extends south to, and includes, the skarn area. The objects of the present work were as follows:

(1) To locate and sample at least some mineralization from old prospects reported to be in the area.

(2) To do a compass and tape survey to tie in sample sites established by the 1987 reconnaissance soil survey because the reconnaissance survey had very long lines and the topography is broken and steep. The present survey will also serve to control future detail sampling in the area.

Old Prospects in the Skarn Area

In the brief programme, two adits and several pits and trenches were tied in, and four grab samples of pyrite-bearing material were collected from dumps near the workings. Assay results were as follows (Figure 5; Appendix I):

Sample No.	Cu(%)	Zn(%)	Ag(oz)	Au(oz)
38091	0.120	3.56	1.28	0.051
001	0.374	6.192	2.29	0.090
002	0.280	3.315	0.92	0.024
003	0.630	3.921	2.60	0.097

Dump material at the adit where sample 002 was taken includes white marble, indicative of a skarn deposit in rocks which were sedimentary in part.

There are other old workings in the area which have not been located as yet (Anderson, 1971-a), and a thorough search for these workings as well as for all outcrops in the area should be done. In places, the bush is very thick, and there are extensive areas of overburden.

(3) High Gold Sample at 10.100 N; 11,450 E

This sample was collected during the 1987 survey, and ran 2900 ppb Au. However, it was a unique, monoelemental anomaly. This type of anomaly where an anomalous amount of one element is unsupported by additional anomalous metals in the same sample or by adjacent anomalous samples is usually of little importance, but must be checked. The results of resampling were as follows:

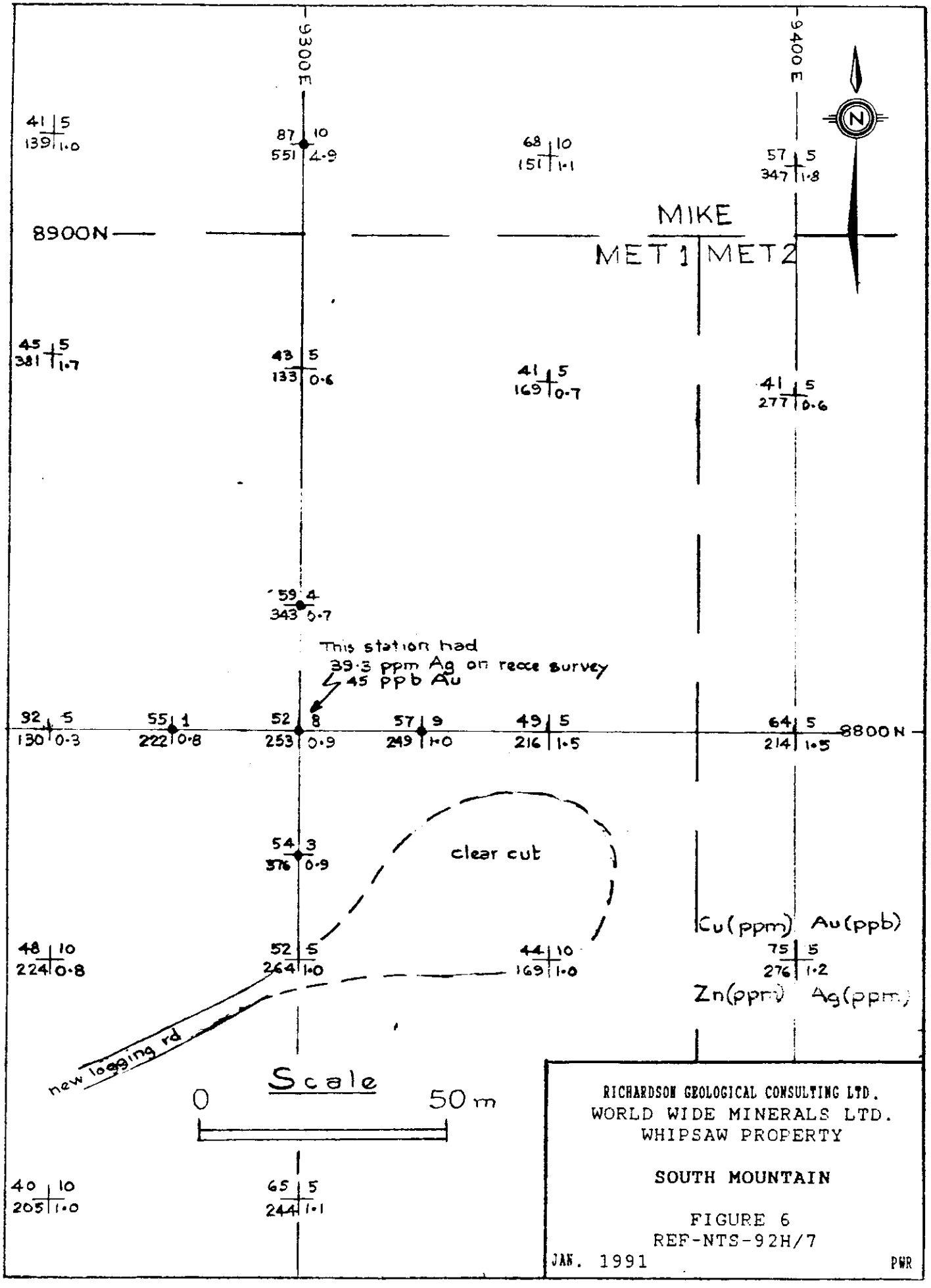
Sample No.	Cu(ppm)	Zn(ppm)	Ag(ppm)	Au(ppm)
10,100 ; 11,450 E	91	66	0.5	3

As a result of this result and the results from adjacent detail samples (Appendix 1), it was concluded that the likely cause of the high gold reading in the reconnaissance sample was the presence of a small particle of gold in the glacial soil. This is not unlikely to happen

in a glaciated area that had contained preglacial placer deposits. In such areas, particles of gold can be encountered sparsely almost anywhere. No further work should be done at the location.

(4) South Mountain (Figure 6)

By far the best silver reading obtained during the 1987 soil survey was the sample near the top of South Mountain. Samples were taken around the intensely anomalous reading which confirmed the presence of anomalous silver (Appendix 1). However, it also becomes evident that the earlier assumption of simple N-S drainage off the sides of the hill based on the gross topography and on a postulated N-S fracture zone connecting the BZ and Metestoffer zones and extending southward was too simple. The better anomalous readings lay in E-W gulleys that conform to E-W structures proposed many years ago based on a small scale EM survey. It will be necessary to extend the area of detail soil sampling using compass and tape control to detail this important anomalous area.



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SOUTH MOUNTAIN

FIGURE 6
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CONCLUSIONS

(1) In the Five Fissure - Knight & Day Area, the apparent new soil anomaly found by the 1987 survey east of the Knight and Day Showing is in the valley bottom and has its origin in the known showing, which is now totally obscured by sloughing. It is, however, a very strong anomaly. The VLF-EM anomaly lies exactly between the two main showing areas, and is probably the response to conductive mineralization seen in high grade float at both showings.

(2) In the Skarn Area, a tape and compass survey has been used to tie together soil samples taken in the 1987 reconnaissance survey and to locate several showings relative to the soil samples. This map will be a good base for further work in the area.

(3) The 1900 ppb Au anomaly at 10,100 N; 11,450 E is of no further interest.

(4) The silver soil anomalies on South Mountain are important and the topography in their immediate vicinity must be mapped in detail.

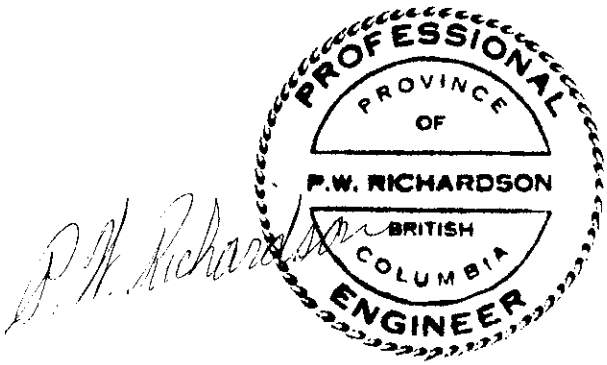
RECOMMENDATIONS

(1) Additional compass and tape surveying of the reconnaissance geochemical stations and detail sampling should be done in the Five Fissures - Knight & Day Area. The known diamond drill hole near the Five Fissures prospect should be redrilled, but carried deeper to extend across the whole width of known mineralized zone. Additionally, provision should be made for three more holes near the first one.

(2) Additional outcrop search and soil sample location surveying should be done in the Skarn Area, and a combined geologic-geochemical map should be prepared.

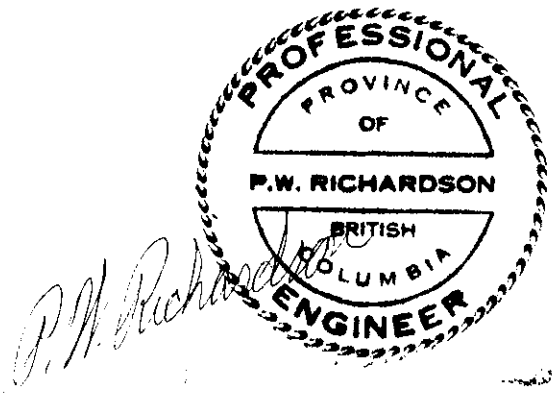
(3) The South Mountain Silver Anomaly should be detailed and a careful topographic map constructed with the object of outlining the provenance areas of the intense silver anomalies.

(4) The method of using detailed compass and tape surveys and detailed soil sampling should be used on the numerous soil anomalies south of Whipsaw Creek.



STATEMENT OF EXPENSES

1 - Personnel - September 3-9, 1990.	
P.W. Richardson - 7 days @ $500 = 3500	
Michael Martin - 7 days @ $250 = 1750	$5250.00
2 - Camp Costs	
14 man days @ $45	630.00
3 - 4 Wheel Drive	
7 days @ $50	350.00
4 - Analyses	
32 samples	286.65
	$9316.65



REFERENCES

Copies of these reports are available to be studied in the World Wide Minerals Ltd. office.

(1) Anderson, Phillip (1971-a) "Sulphide Mineralization, Zoning and Paragenesis at Whipsaw Creek" Mineralogy 409 Report at the University of B.C.

(2) Anderson, Phillip (1971-b) "Geology, Petrology, Origin and Metamorphic History of the Eagle "Granodiorite" and Nicola Group at Whipsaw Creek" B.Sc. Thesis, The University of B.C.

(3) Anderson, Phillip (1973a) Data on discovery of BZ Zone. Letter to Whipsaw Mines Ltd.

(4) Anderson, Phillip (1973b) "Geological Report - Whipsaw Mines Ltd. (NPL) Property" Private Report to Whipsaw Mines Ltd.

(5) Anderson, Phillip and Stokes, Ronald B. (1970) "Summary Geochemical and Geological Report on the Property of Whipsaw Mines (NPL)" Private Report to Whipsaw Mines Ltd.

(6) Bell, Robert A. and Hallof, Philip G. (1967) "Report on the Geophysical Investigations of the Whipsaw Property" Private Report to Texas Gulf Sulphur Co. Ltd.

(7) Bacon, William R. (1960) "Geological, Geophysical and Geochemical Report on the Whip and Saw Groups" Assessment Report #314.

(8) Bacon, William R. (1961) "Geophysical Report on the Whip and Saw Groups" Assessment Report #362.

(9) Ballantyne, E.J. (1971) "Geophysical Report, Whipsaw Creek Property" Assessment Report #3707.

(10) Cairns, C.E. (1923) "Geological Explorations in Yale and Similkameen Mining Division" Geological Survey of Canada, Sum. Rept. 1922, pt.A.

(11) Camsell, Charles (1911) "Geology of Skagit Valley, Yale District, B.C." Geological Survey of Canada, Sum. Rept. 1911, p.123.

(12) Clarke, Walter E. (1968) "Report on Whipsaw Creek Property" Private Report to Whipsaw Mines Ltd.

(13) Clarke, Walter E. (1970) "Supplementary Report on Whipsaw Creek Property" Private Report to Whipsaw Mines Ltd.

(14) Cohen, Harvey H. (1966) "Report on Whipsaw Creek Mines Ltd. Property" Private Report to Whipsaw Mines Ltd.

(15) Crooker, Grant F. (1986) "Diamond Drilling Report on the Whipsaw Property" Private Report to Lone Jack Resources Ltd.

(16) Culburt, Richard R. (1984) "Report on a Drilling and Trenching Program at Whipsaw Creek Property" Private Report to World Wide Minerals Ltd.

(17) Gambardella, Aldo (1975) Geochemical Map for Newconex Canadian Exploration Ltd.

(18) Hallof, Philip G. (1963) "Induced Polarization and Resistivity Survey on the Whipsaw Claim Group" Private Report to Dome Exploration (Canada) Limited.

(19) Heim, Robert C. (1985) "Geochemical Survey, Whipsaw Creek Property" Private Report to World Wide Minerals Ltd.

(20) Heim, Robert C. (1986) "Progress Report and Exploration Proposal, Whipsaw JV Property" Private Report to World Wide Minerals Ltd.

(21) Heim, Robert C. (1987) "Report on the Whipsaw Creek Property" Private Report to World Wide Minerals Ltd.

(22) Holyk, Walter (1962) "Geological and Geochemical Report on the Whip and Saw Groups, Whipsaw Creek" Assessment Report #409.

(23) Hunter, Stanley J. (1966) "Mae Group of Mineral Claims" Private Report to Whipsaw Mines Ltd.

(24) Hunter, Stanley J. (1967) "Report on the Whipsaw Creek Mines Ltd. Property" Private Report to Whipsaw Mines Ltd.

(25) Leighton, Douglas G. (1973) "Report on a Drilling and Trenching Program at Whipsaw Creek Property" Private Report to World Wide Minerals Ltd.

(26) Macauley, T.N. and Paulus G.E. (1971) "Geological, Geochemical, and Geophysical Progress Report, Whipsaw Creek Property" Private Report to Newmont Mining Corporation of Canada Limited.

(27) Mitchell, Marvin A. (1985) "Progress Report, Whipsaw Mineral Claim Group" Private Report to Lone Jack Resources Ltd.

(28) Montgomery, Joseph H. and Giroux, Gary H. (1974) "Report on Geophysical Surveys and Trenching on Whipsaw Creek" Assessment Report #5024.

(29) Mustard, Donald K. (1967) "Geological and Geochemical Report on the Mae, Kerry, Pat and Mike Groups" Private Report to Amax Exploration.

(30) Mustard, Donald K. (1969) "1968 Property Examination, Whipsaw Creek Property" Private Report to Amax Exploration Inc.

(31) Paulus, B.C. (1972) "Trenching and Diamond Drilling Report, Whipsaw Creek Project" Private Report to Newmont Mining Corporation of Canada Limited.

(32) Poloni, John R. (1982) "Report on the Whipsaw Creek Property" Private Report to World Wide Minerals Ltd.

(33) Poloni, John R. (1983) "Whipsaw Project - Trenching and Sampling" Private Report to World Wide Minerals Inc.

(34) Rice, H.M.A. (1947) "Geology and Mineral Deposits of the Princeton Map Area, B.C." Geological Survey of Canada Memoir 243.

(35) Richardson, Paul W. (1988a) "Report to Date and Proposed Exploration Programme on the Whipsaw Property" Private Report to World Wide Minerals Ltd.

(36) Richardson, Paul W. (1988b) "Diamond Drilling Assessment Report on the Whipsaw Property" Assessment Report to the B.C. Department of Energy, Mines and Petroleum Resources.

(37) Richardson, Paul W. (1988c) "Geochemical Assessment Report on the Whipsaw Property" Assessment Report to the B.C. Department of Energy, Mines and Petroleum Resources.

(38) Richardson, Paul W. (1990a) "The Whipsaw Porphyry Area within the Whipsaw Property" Private Report to World Wide Minerals Inc.

(39) Richardson, Paul W. (1990b) "The Whipsaw Gold-Silver-Zinc Area within the Whipsaw Property" Private Report to World Wide Minerals Inc.

(40) Richardson, Paul W. (1900c) "Diamond Drilling Report on the Whipsaw Property" Assessment Report to the B.C. Department of Energy, Mines and Petroleum Resources.

(41) Seigel, Harold O. (1964) "Induced Polarization Survey, Whipsaw Claim Group" Private Report to Dome Exploration (Canada) Limited.

(42) Seraphim, Robert H. (1963) " Geophysics, Geochemistry and Diamond Drilling on Whipsaw Creek Group" Private Report to Moneta Porcupine Mines Limited.

(43) Stokes, Ronald B. and Leighton, Douglas G. (1969a) "A Geochemical Report on the M.J. Claim Group at Princeton, B.C." Private Report to Michael E. Jorgensen.

(44) Stokes, Ronald B. and Leighton, Douglas G. (1969b) "A Report on the "M.J." Claim Group" Private Report to Michael E. Jorgensen.

(45) Stokes, Ronald B. and Leighton, Douglas G. (1970) "Report on the "M.J." Claim Group" Private Report to Skaist Mines Ltd. (N.P.L.).

(46) Stokes, Ronald B., Leighton, Douglas G. and Anderson, Phillip (1970) "Geological and Geochemical Report on the Property of Whipsaw Mines Ltd. (N.P.L.)" Private Report to Whipsaw Mines Ltd.

(47) Walker, J.T. (1987) "Airborne Geophysical Survey on the Whipsaw Creek Property" Private Report to World Wide Minerals Ltd.

(48) Weymark, W.J. (1985) "Whipsaw Mineral Claims Group, Princeton Area" Private Report to Lone Jack Resources Ltd.

(49) Various authors in B.C. Minister of Mines Annual Reports 1915, 1920, 1927, 1928, 1929, 1930, 1931, 1968, 1969.

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 Association of Professional Engineers of British Columbia since returning to British Columbia in 1966.

APPENDIX I

GEOCHEMICAL ANALYSIS CERTIFICATES

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716

GEOCHEMICAL ANALYSIS CERTIFICATE

World Wide Mineral File # 90-4288 Page 1

807 - 402 W. Pender St., Vancouver BC V6B 1T6

Samples near Au Anomaly if 2900ppb

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au* ppb
1+50N 14+50E	1	91	2	66	.1	48	16	851	3.54	3	5	ND	2	67	.2	2	2	64	1.02	.051	12	73	1.40	176	.10	2	2.59	.03	.10	2	12
1+25N 14+50E	1	33	2	67	.1	57	19	343	3.33	4	5	ND	1	40	.2	3	2	58	.49	.107	4	100	1.70	98	.10	2	2.75	.01	.06	1	2
1+00N 14+25E	1	121	2	39	.6	52	16	609	2.94	2	5	ND	2	50	.5	2	8	50	.82	.031	9	81	1.35	156	.10	3	2.68	.02	.05	2	1
1+00N 14+50E	1	48	2	55	.5	51	17	353	3.30	4	5	ND	4	44	.2	5	2	61	.60	.052	6	96	1.71	125	.11	3	2.48	.02	.06	1	3
1+00N 14+75E	1	49	2	43	.4	34	13	173	2.82	4	5	ND	4	26	.2	5	2	48	.32	.159	10	52	.60	142	.12	2	3.10	.02	.05	1	1
0+75N 14+50E	1	92	4	39	.3	48	13	239	2.99	2	5	ND	2	30	.4	4	2	54	.31	.031	7	60	.84	180	.13	2	2.55	.03	.04	1	1
L8+50S 0+40E	1	102	28	5975	.4	65	23	596	4.38	24	5	ND	1	41	4.5	2	2	94	.97	.052	3	99	2.15	171	.17	2	3.55	.08	.17	5	1
L8+50S 1+00E	1	93	291	1433	.5	65	18	543	3.81	32	5	ND	1	19	1.1	2	3	81	.48	.032	4	91	1.25	139	.13	3	2.56	.02	.06	3	2
L11+25S 3+00E	1	231	1441	2874	3.8	92	32	1449	5.92	109	5	ND	1	17	10.3	5	2	112	.87	.063	5	194	2.30	154	.12	7	2.53	.01	.40	6	15
L11+50S 2+75E	2	349	2497	6552	7.9	101	38	1781	7.24	180	5	ND	1	22	23.4	6	4	108	1.40	.054	5	159	2.01	156	.08	5	2.45	.01	.36	8	65
L11+50S 3+00E	1	254	1629	3538	4.8	165	39	1572	6.21	148	5	ND	1	22	13.3	6	2	104	2.05	.057	4	444	2.63	145	.07	11	2.61	.01	.35	6	6
L11+50S 3+25E	1	57	35	150	.3	46	20	683	3.31	19	5	ND	1	15	.7	2	2	83	.44	.049	2	113	1.38	227	.18	5	2.14	.02	.38	1	1
L11+75S 3+00E	1	363	3823	7199	8.1	114	35	1687	7.27	387	5	ND	1	17	18.9	5	6	108	.78	.073	5	225	1.86	145	.09	5	2.55	.01	.29	7	23
L12+25S 3+00E	1	196	861	1725	2.3	200	41	1367	5.49	85	9	ND	1	19	6.4	2	2	103	1.19	.054	4	558	3.08	168	.10	4	2.96	.01	.45	3	12
L12+50S 2+75E	1	140	106	224	.3	71	24	605	4.12	14	5	ND	1	15	1.0	2	4	108	.56	.063	4	160	2.41	225	.19	2	2.50	.02	.57	1	1
L12+50S 3+00E	1	325	4148	5600	10.4	131	45	2136	7.71	290	5	ND	1	30	20.7	7	2	118	2.56	.075	5	260	2.08	142	.06	6	2.33	.01	.36	5	8
L12+50S 3+25E	1	47	18	85	.1	42	15	355	2.44	2	5	ND	1	14	.6	2	2	54	.29	.118	2	95	1.01	94	.13	3	1.74	.02	.04	1	1
L12+75S 3+00E	1	68	323	556	.2	75	25	779	4.02	17	5	ND	1	19	.8	2	2	91	.49	.127	2	161	1.79	175	.14	2	2.74	.02	.22	1	1
43-MILE	7	143	14	244	.6	19	16	733	3.40	6	5	ND	1	38	.5	2	2	58	.48	.085	5	31	.90	180	.08	2	1.56	.02	.13	1	38
45-MILE	7	1318	56	1025	.6	89	62	1967	5.53	36	5	ND	1	40	4.2	2	2	84	.67	.086	5	90	1.62	131	.09	2	2.45	.02	.19	1	310
47-MILE	3	215	2	110	.1	45	27	640	3.22	2	5	ND	1	37	.3	2	2	71	.66	.091	5	78	1.31	111	.08	3	1.62	.01	.14	2	5
372-8	11	2370	19622	9410	115.5	26	49	4873	26.82	2349	5	ND	2	32	20.4	24	27	54	.76	.024	4	33	.13	131	.01	2	.31	.01	.05	2	1700
STANDARD C/AU-S	21	62	35	133	7.3	73	32	1055	3.98	39	20	7	40	53	19.5	16	23	59	.52	.094	39	61	.91	190	.08	38	1.89	.07	.13	11	50

0.050 oz/t

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.
THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: P1 SOIL P2 ROCK AU* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

DATE RECEIVED: SEP 10 1990 **DATE REPORT MAILED:** Sep 15, 90 **SIGNED BY** ..J. Wang.. D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

To conform to present grid system, add 10,000 to all Northings, [illegible] Eastings.

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au* ppb
001	1	3743	112	61915	78.6	8	28	1954	10.58	267	5	ND	1	37	321.5	2	14	6	4.97	.019	2	10	.36	3	.01	2	.06	.01	.20	1	2730
002	2	2803	20	33146	31.7	8	3	1481	3.08	42	5	ND	1	70	171.9	2	9	27	6.87	.065	3	9	.69	13	.01	2	.64	.02	.26	1	820
004	1	6304	112	39211	89.3	5	3	1044	5.23	492	5	3	1	23	220.4	33	4	4	2.01	.004	2	6	.74	8	.01	2	.06	.01	.15	1	3330

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GEOCHEMICAL ANALYSIS CERTIFICATE

World Wide Mineral File # 90-4708

807 - 402 W. Pender St., Vancouver BC V6B 1T6

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au* ppb
9+00S 7+50W	1	92	68	1305	6.4	38	11	771	4.14	38	5	ND	2	40	4.4	5	2	71	.69	.045	22	41	.66	328	.13	2	4.58	.03	.08	1	1
11+00S 7+00W	1	87	25	551	4.9	32	12	879	3.20	17	5	ND	1	50	3.4	3	2	60	.91	.055	17	42	.74	229	.11	2	3.57	.03	.07	1	10
11+75S 7+00W	2	59	84	343	.7	30	16	680	3.96	51	5	ND	1	17	.6	2	2	82	.22	.093	4	40	1.24	191	.14	2	2.71	.02	.16	1	4
12+00S 7+25W	1	55	41	222	.8	30	14	478	3.63	23	5	ND	1	21	.2	2	2	77	.30	.081	3	49	1.22	155	.14	2	2.74	.02	.12	1	1
12+00S 7+00W	2	52	38	253	.9	33	15	792	3.55	28	5	ND	1	19	.5	2	2	73	.21	.083	4	47	1.23	149	.14	3	2.68	.02	.11	1	8
12+00S 6+75W	2	57	65	249	1.0	33	15	429	3.57	30	5	ND	1	23	.4	2	2	74	.27	.066	5	45	1.27	187	.14	5	2.44	.02	.12	1	9
12+25S 7+00W	3	54	73	376	.9	36	14	458	3.66	29	5	ND	1	22	.4	2	2	72	.25	.062	5	44	1.20	155	.13	2	2.45	.02	.11	1	3
STANDARD C	19	59	38	131	7.1	71	31	1049	3.98	37	18	6	37	53	18.4	14	22	57	.51	.097	37	57	.93	180	.09	33	1.89	.06	.14	11	-

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.
THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: SOIL AU* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

DATE RECEIVED: SEP 21 1990 **DATE REPORT MAILED:** Sept 29/90 **SIGNED BY** ..... D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

10,000 E Baseline

10,200 E

10,400 E

9,500 N

9,400 N

9,300 N

9,200 N

9,100 N

9,000 N

8,900 N

8,800 N

8,600 N

FIVE FISSURES ZONE

Old Drill Pad

Sloughed Bulldozed Area

red mud gossan in shear

Cu 2370 ppm
Pb 115.5
Pb 19622
Zn 9410
Ag 2349
Ca ~20.4
Au 1700 ppb

Trench

trench

Area of High Zinc Outline

KNIGHT & DAY Sloughed Bulldozed Area ZONE

MIKE MET 2

MET 2 3N, 2E

1550

1600

10

14

LEGEND

GEOCHEMISTRY

Cu(ppm) Au(ppb)
Zn(ppm) Ag(ppm)
Pb(ppm)

GEOPHYSICS

14 VLF-EM Anomaly & % increase in relative field strength

GENERAL

- Diamond Drill Hole
- Adit
- Claim Corner
- 1700 Elevation Contour (m)
- 386 Road with Survey Station

Scale

0 50 m 100 m

To Accompany Report Entitled "Geochemical Evaluation Report on Part of the Whipsaw Property" by Paul W. Richardson, Ph.D., P.Eng. dated January 30, 1991.

PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA P.W. RICHARDSON

GEOLOGICAL BRANCH ASSESSMENT REPORT

21,186

RICHARDSON GEOLOGICAL CONSULTING LTD.

WORLD WIDE MINERALS LTD.

WHIPSAW PROPERTY

FIVE FISSURES AND KNIGHT & DAY ZONES

DATE: JANUARY, 1991	BY: P.W.R.	FIGURE
	Scale: 1:1000	4

8,400E

8,600E

8,800E

N

10,600N

Old Texas Gulf West Boundary

Clearcut Area

White Marble on Dump

10,400N

MET 6
1S 2E

Silvertip #3

Silvertip No. 1

1600

10,200N

1550

10,000N

MET 6
2S 2E

springs

swampy

geochem

geochem

Road to Princeton

LEGEND

GEOCHEMISTRY

Cu(ppm) Au(ppb)
156 | 30
205 | 3.0
Zn(ppm) Ag(ppm)

GENERAL

- Trench, Shaft
- Adit
- Claim Corner
- 1700 Elevation Contour (m)
- 386 Road with Survey Station

Scale
0 50 m 100 m

To Accompany Report Entitled "Geochemical Evaluation Report on Part of the Whipsaw Property" by Paul W. Richardson, Ph.D., P.Eng. dated January 30, 1991.

GEOLOGICAL BRANCH
ASSESSMENT REPORT

21,186

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
P.W. RICHARDSON

RICHARDSON GEOLOGICAL CONSULTING LTD.

WORLD WIDE MINERALS LTD.
WHIPSAW PROPERTY

SKARN AREA

DATE: JANUARY, 1991	BY: P.W.R.	FIGURE
	Scale: 1:1000	5