RICHARDSON GEOLOGICAL CONSULTING LTD.
4569 WEST 13TH AVENUE, VANCOUVER, B.C. V6R 2V5
TELEPHONE: (604) 224-4272

THE 1997 DIAMOND DRILLING PROGRAM ON THE WHIPSAW PROPERTY

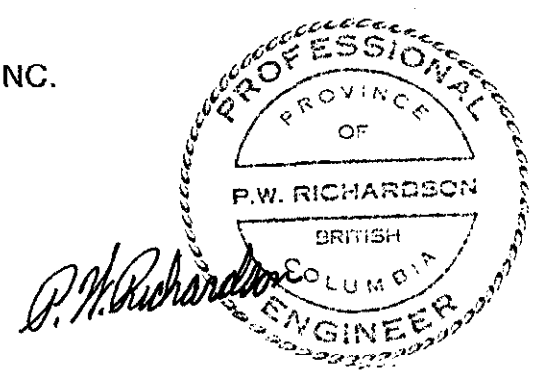
SIMILKAMEEN MINING DIVISION, BRITISH COLUMBIA

NTS 92H/7

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

FOR

MARTECH INDUSTRIES INC.



BY

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

Vancouver, B.C. May 12, 1998

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SUMMARY

The Whipsaw property contains mineralization that includes copper, gold, silver, molybdenum, zinc and lead and is related to the Whipsaw Porphyry stock. The stock intrudes the west-dipping mineralized contact between the Upper Triassic Nicola Group volcanics and sediments and the Jurassic-Cretaceous Eagle Granodiorite. Copper, molybdenum and gold mineralization has been found to date mainly in the Nicola rocks, and is related spatially to the perimeter of the Whipsaw Porphyry.

Intense copper-zinc stream sediment anomalies were discovered in 45 and 47 Mile creeks in 1959, and were traced upstream to the northern and southern contact areas of the Whipsaw Porphyry. Since 1959, various parts of the area of interest were covered by claim groups with separate and unrelated ownerships. In 1987, all the properties were consolidated by World Wide Minerals Ltd., and it was possible, for the first time, to plan an exploration program covering the entire area of interest.

Drilling programs, based on geophysics and geochemistry correlated with geology, have outlined extensive areas of 0.2-0.3% copper mineralization accompanied by some molybdenum, and have indicated an area of gold potential, the Skarn area, in the southern part of the Porphyry area.

A diamond drilling program was carried out in 1997 to continue the investigation for one or more economic porphyry copper deposits within this large property. The program consisted of one hole totaling 60.96 m (200 ft), and cost $14,570.21 ($238/metre). In addition, $550 was spent repairing the core storage building, resulting in a total project cost of $15,120.21

The high cost per meter was the result of the drilling being slowed by equipment breakdowns and then the onset of winter conditions which necessitated the termination of the program before the hole was drilled to its planned depth.

INTRODUCTION

The Whipsaw property, which is in the Similkameen District of British Columbia, contains Cu, Au, Ag, Mo, Zn and Pb mineralization in several zones related to the Whipsaw Porphyry intrusion and extending over a large area north and south of Whipsaw Creek. After the original staking of gold-bearing, quartz-sulfide vein deposits in 1908, mineral claims covering various parts of the mineralized area had always been held by several owners. Major geochemical stream sediment and soil anomalies containing up to 1.8% copper were discovered in 1959 in two tributaries entering Whipsaw Creek from the north. The difficult ground situation became more complex after this discovery of the porphyry potential in the northern part of the present property. In 1987, for the first time, the ground was consolidated by World Wide Minerals Ltd., making it possible to plan exploration projects without property line constraints, as was the case in all the pre-1987 work (Richardson, 1988a).

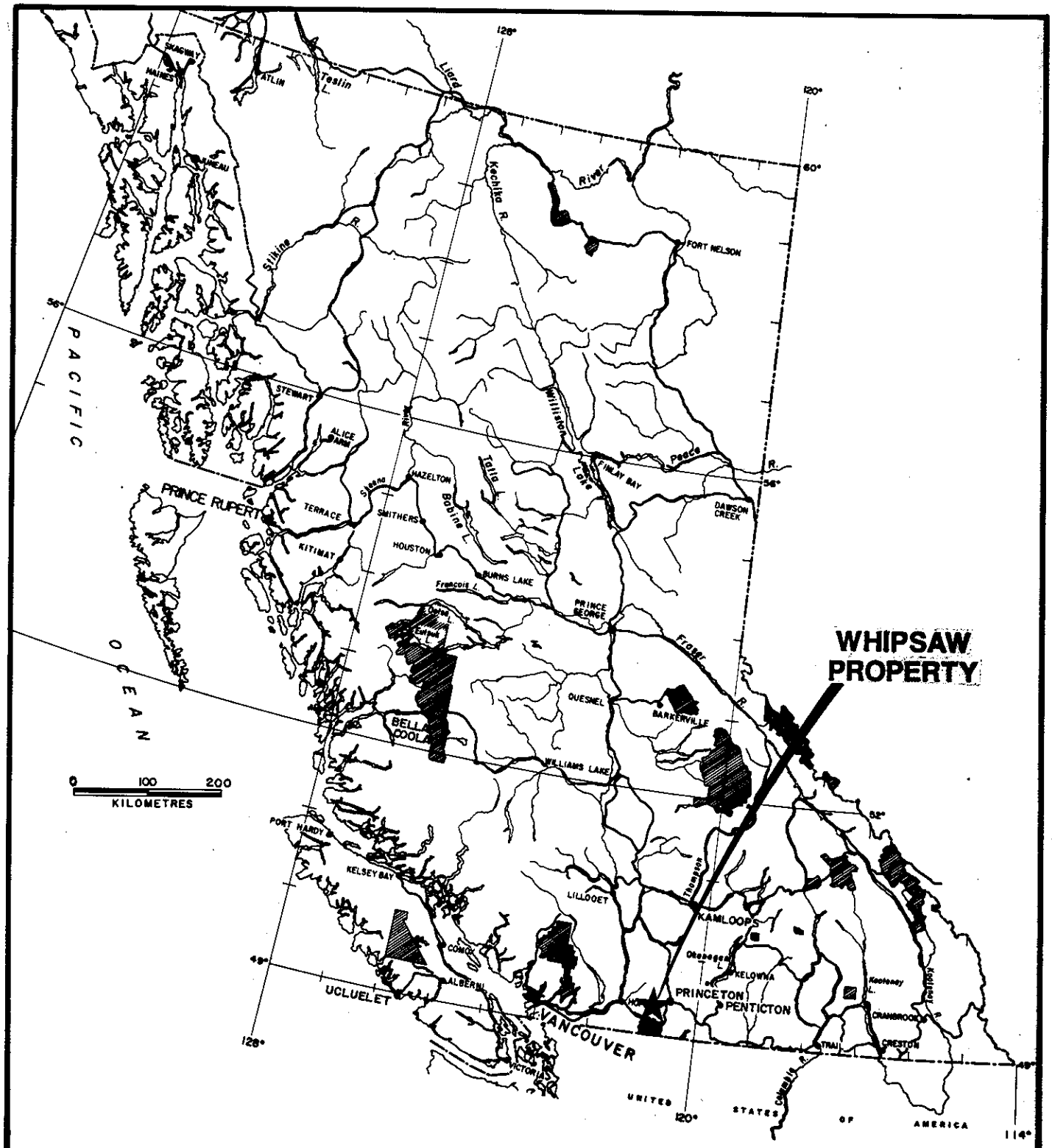
The Whipsaw property is at the early drilling stage of exploration, and no ore reserves have been defined as yet. For this stage of exploration, the Property has responded well, with several drill intersections containing greater than 0.2 % copper (Paulus, 1972). Some individual drill intersections assay between 0.4 and 0.5 % copper.

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 southwest of Princeton. The Similkameen copper-gold mine is 15 km ENE of the property (Figure 2).

Access from Vancouver is via Highway 401 to Hope and Highway 3 to Princeton. Thirteen km south of Princeton, a good logging road leaves Highway 3 at Whipsaw Creel and goes southwestward along the north bank of the creek through the property, a distance of 20 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 within the property is generally moderate, but there are some deeply incised valleys. Elevations range from 1385 m to 1660 m. The property is covered with large stands of commercial evergreen trees. There is little undergrowth, but dense brush does occur locally. Extensive logging is currently being done, and there are increasing areas of clearcut which have disrupted the company's grid lines in some areas. In general, outcrop is sparse, but in many areas the overburden is less than one metre deep. Swampy areas occur near the sources of most of the creeks.



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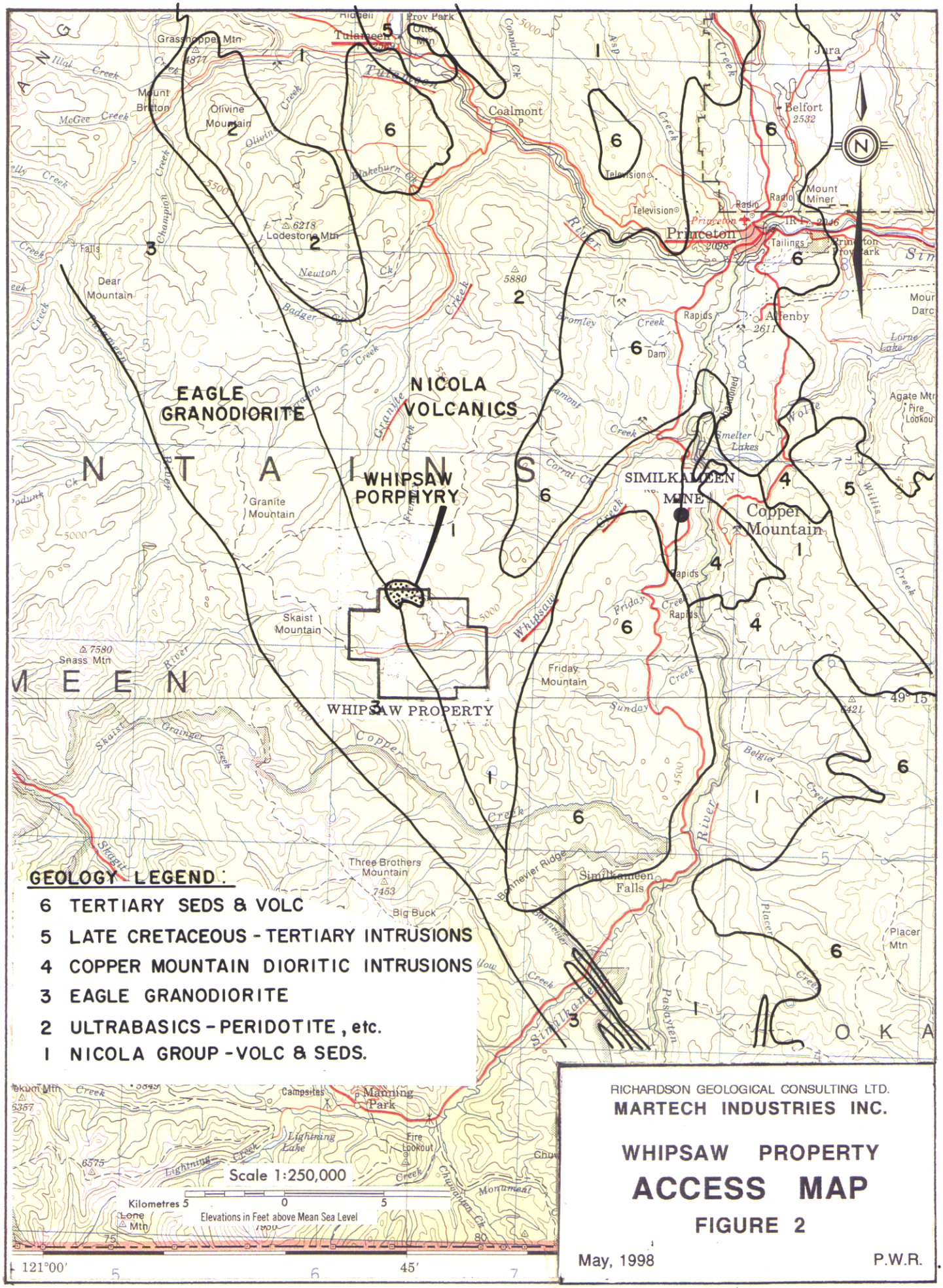
WHIPSAW PROPERTY

LOCATION MAP

FIGURE 1

May, 1998 P.W.R.



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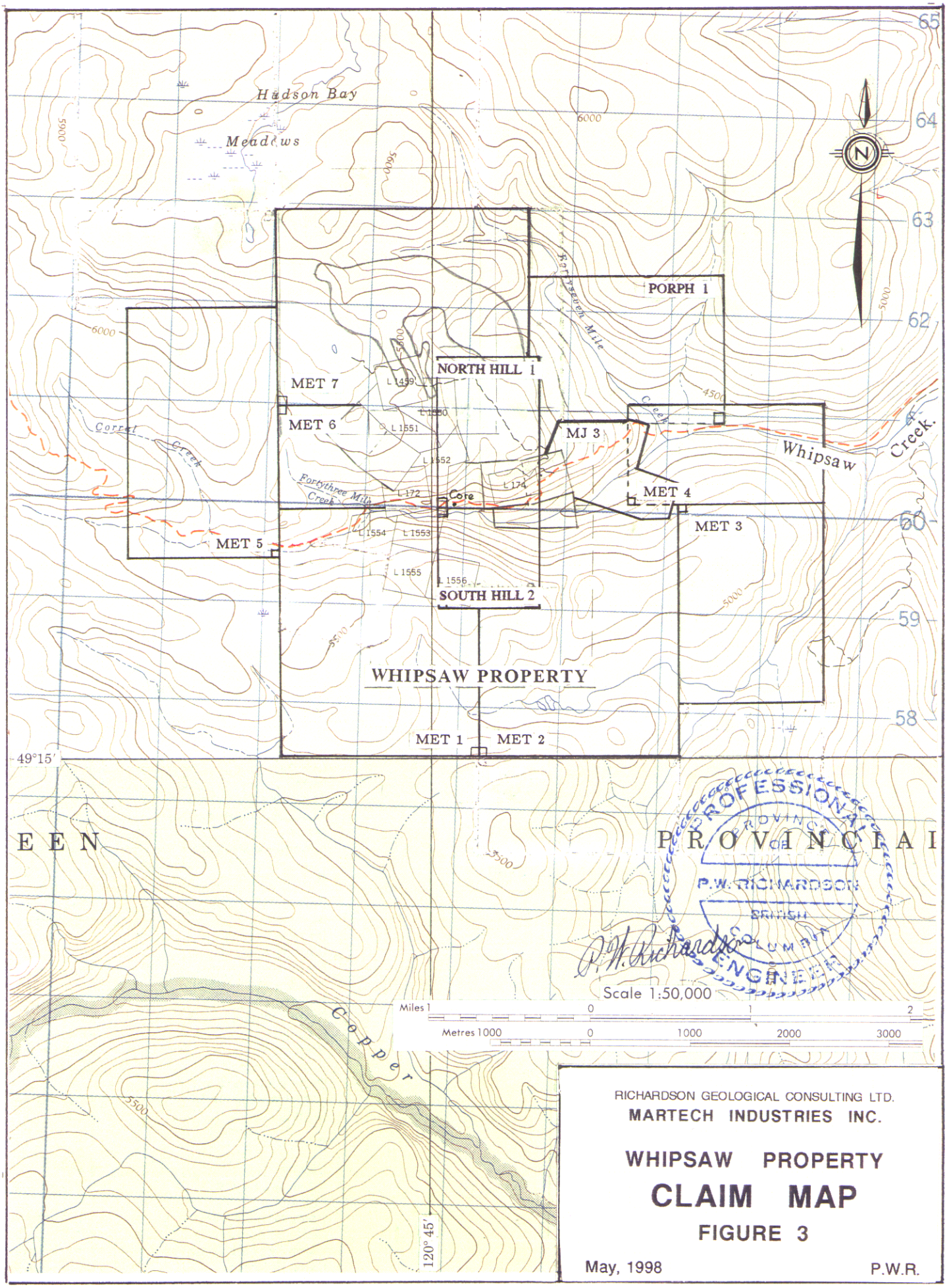
WHIPSAW PROPERTY

ACCESS MAP

FIGURE 2

May, 1998 P.W.R.



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WHIPSAW PROPERTY

CLAIM MAP

FIGURE 3

May, 1998 P.W.R.

CLAIMS

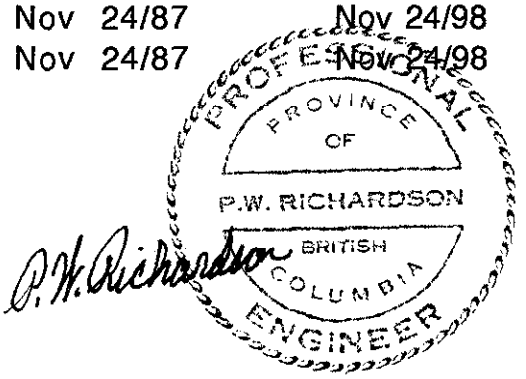
The Whipsaw property consists of one group of six mineral claims and one Mineral Lease totaling 72 units and 15 ungrouped mineral claims totaling 79 units (Figure 3). The pertinent claim data are as follows:

CENTRAL GROUP (72 units; grouping date May 13,1998)

Name	Title No.	No. of Units	Record Date	Expiry Date
Mineral Lease #336(lots 172 & 1549-1556)	250138	1	Jan 13/64	Jan 13/99
MET 1	249225	20	May 13/87	May 13/2000*
PORPH 1	301858	12	June 21/91	June 21/99*
OK#2	250181	1	June 29/64	June 29/99
NORTH HILL #1	302359	9	July 19/91	July 19/99
MET 6	249280	9	Nov 24/87	Nov 24/98
MET 7	249281	20	Nov 24/87	Nov 24/98
		72 units		

UNGROUPED CLAIMS (79 units)

Name	Title No.	No. of Units	Record Date	Expiry Date
OK#3 Fr.	250237	1	Mar 18/66	Mar 18/99
OK#4 Fr.	250238	1	Mar 18/66	Mar 18/99
OK#5 Fr.	250239	1	Mar 18/66	Mar 18/99
MET 2	249226	20	May 13/87	May 13/99
OK#6 Fr.	250326	1	June 25/71	June 25/99
OK#7 Fr	250327	1	June 25/71	June 25/99
Silvertip No.1	250241	1	June 28/66	June 28/2000
Silvertip No. 2	250242	1	June 28/66	June 28/2000
OK#1	250180	1	June 29/64	June 29/2000
OK#8	250328	1	July 09/71	July 09/99
SOUTH HILL #2	302360	9	July 22/91	July 22/99
MJ3	248611	6	July 26/77	July 26/99
MET 3	249277	12	Nov 24/87	Nov 24/98
MET 4	249278	8	Nov 24/87	Nov 24/98
MET 5	249279	15	Nov 24/87	Nov 24/98
		79 units		



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

The above data conform with the records in the Princeton and Vancouver recording offices of the British Columbia Ministry of Energy and Mines. All claims are owned by Mr. Charles R. Martin.

HISTORY

Placer deposits in the Tulameen and Similkameen rivers and their tributaries have been known since the 1860s. However. it was not until 1885 that rich placer deposits of gold and platinum were discovered in Granite Creek near the town of Tulameen (Figure 2). Shortly afterwards, gold and platinum placer deposits were discovered in Whipsaw Creek downstream to the east of the present Whipsaw property. Prospecting for bedrock deposits led to the staking of gold and silver-bearing veins in the central part of the property in 1908.

In 1959, reconnaissance stream sediment sampling by Texas Gulf Sulphur Company discovered major stream sediment Cu-Zn anomalies in 45 and 47 Mile creeks, tributaries entering Whipsaw Creek from the north (Bacon, 1960). Follow-up work outlined soil geochemical, electromagnetic and induced polarization anomalies near the headwaters of 47 Mile Creek (Figures 3 & 4; Bacon, 1960 & 1961; Holyk, 1962). This anomalous area was explored successively by several companies (Seraphim, 1963; Hallof 1963; Mustard, 1969; Macauley and Paulus, 1971). Also during this period, adjacent properties were held by several other companies and individuals. Despite the property boundary constraints to exploration programs,

large areas of 0.2-0.3% Cu with accompanying molybdenum were discovered by limited diamond drilling programs while investigating the various geochemical and geophysical anomalies (Heim, 1987).

In 1985, World Wide Minerals Ltd. did soil sampling in the area of the BZ trenches to test for precious as well as base metals (Heim, 1985). It was found that the entire area of the BZ trenches was within a large Cu-Zn soil anomaly accompanied by anomalous Au, Ag and As values. In 1986, the trenches were extended and rock samples were cut which assayed as high as 11.62 g/t Au and 185.1 g/t Ag across 0.61 m in a shear zone (Heim, 1987).

In 1987, World Wide Minerals Ltd. succeeded in consolidating the property, and did a soil sampling program over its central part. A total of 5580 samples were collected and analyzed for Au and, separately, for 31 elements using the inductively coupled plasma (ICP) method. In late 1987 and January 1988, the company diamond drilled 30 holes totalling 3040.1 m (10,000 ft) on part of the BZ zone and on two zones south of Whipsaw Creek (Richardson, 1988b). Also 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 (Walker, 1987). Several VLF-EM anomalies have yet to be examined in the field. An intense magnetic anomaly in the SE portion of the property probably indicates the presence of an ultrabasic intrusion.

In 1990, World Wide did a three hole diamond drilling program immediately north of the Whipsaw Porphyry (Richardson, 1990a and 1990b).

In 1991, the northern half of the Whipsaw Property was optioned to Phelps Dodge Corporation of Canada, Limited. Their representatives conducted diamond drilling and percussion drilling programs in 1991 and an additional, small diamond drilling program in 1992 (Fox, 1992; Fox and Goodall, 1992).

In 1990 and 1992, World Wide began a program of detail geochemical surveying to follow up the anomalous areas south of Whipsaw Creek that were discovered by the extensive 1987 reconnaissance geochemical survey.

In 1995, Martech Industries Inc. drilled seven diamond drill holes to continue testing the copper mineralization around the periphery of the stock.

GEOLOGY

The Whipsaw 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 west-dipping contact zone is intruded by the Whipsaw Porphyry. Dykes of feldspar porphyry extend north and south of the stock near and parallel to the Nicola-Eagle Granodiorite contact. The northwest portions of the Whipsaw Porphyry outcrops and has been mapped (Figure 5; Mustard, 1969). However, the southeast lobe of the porphyry stock occurs in an area of sparse outcrop, and the outline of this part of the stock is based mainly on magnetic and geochemical data.

The Whipsaw porphyry is the apparent 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 perimeter of the Whipsaw Porphyry but mostly in Nicola rocks bordering the porphyry. To the south, the porphyry Cu-Mo-Au mineralization decreases and Au-Ag-Cu-Zn mineralization occurs in pyrite-bearing quartz veins and associated disseminated deposits. An area with skarn zones occurs just north of Whipsaw Creek near the Nicola-Eagle contact (Figure 4). This skarn area coincides with the area of the highest soil gold geochemical anomalies on the property, but has not been examined in detail yet.

An intense magnetic anomaly in the southeast portion of the property is probably caused by a body of ultrabasic rocks, a number

af bodies of which lie south of the Tulameen ultrabasic intrusive which is known to contain platinum group elements (PGE's) If so, this postulated body could be the source of the platinum in the placer deposits in Whipsaw Creek east of the Whipsaw property. A second possible source of the PGE's in the creek is the mineralization associated with the Whipsaw Porphyry. At nearby Copper Mountain, PGE's have been reported to be associated with the copper-gold mineralization along the perimeter of the Copper Mountain Stock. Another possible source of the placer platinum in Whipsaw Creek is by the recent erosion of Tertiary sediments from areas in which platinum and gold were "parked" after the intense Tertiary erosion of Tulameen ultrabasic rocks (Figure 2).

The 1997 Diamond Drilling Program

DDH M95-4 had been drilled to test the eastern extension of long sections of 0.25% Cu in Nicola rocks intersected by DDH's W69-2 and W91-1 in an area where an IP anomaly is projected (Figure 4). DDH M95-4 intersected 0.2-0.3% Cu near its collar, but entered a wide porphyry dyke in which the hole was stopped. The porphyry dyke was mineralized, and contained 0.15-0.25% Cu. This was the first time that extensive copper mineralization had been encountered in dykes or apophyses of the Whipsaw Porphyry, and is extremely important because there probably are Nicola rocks ahead of the hole between the dyke and the Whipsaw Porphyry which occurs further east. The hole was shorter than planned, and the IP target was not reached. A viable target east of the hole remained to be tested. It must be remembered also that the outline of the southeast lobe of the Whipsaw Porphyry was determined using geophysics and that there may be more volcanics east of DDH M95-4 than is shown on Figure 4.

In 1997, one 60.96 m diamond drill hole was drilled (Figure 4). Data describing the hole are as follows:

1997 DIAMOND DRILL HOLE
(all data metric)

HOLE #	LATITUDE	DEPART.	AZIMUTH	DIP	LENGTH	ELEV
M97-8	11,802 N	8,860 E	064°	-48°	60.96	1594.0

95-4 in 1995. This type of dyke is usually almost barren, so it appears that the intensity of mineralization in this vicinity is greater than in most other parts of the perimeter of the Whipsaw Porphyry. Consequently, it was concluded that the volcanics, which are usually more readily mineralized than the porphyry, could be well-mineralized if they occurred beneath this west-dipping dyke (Figure 5). DDH M97-8 was collared 60 m east of DDH M95-4 to start in the dyke and then to pass through the footwall of the dyke into the volcanics which were postulated to lie between the dyke and the main body of the Whipsaw Porphyry (Figure 5). The hole was drilled as planned, but equipment problems prolonged the program until the onset of heavy snow, when the hole had to be abandoned at 60 m rather than being drilled to 120 m as planned. However, the toe of the hole did enter a short section of volcanics which assayed 0.378% Cu across 0.06 m, which, although only indicative because of the very short section, was encouraging.

The drill core was taken to Vancouver for logging and splitting. When weather conditions permit, it will be taken to the core storage building on the property.

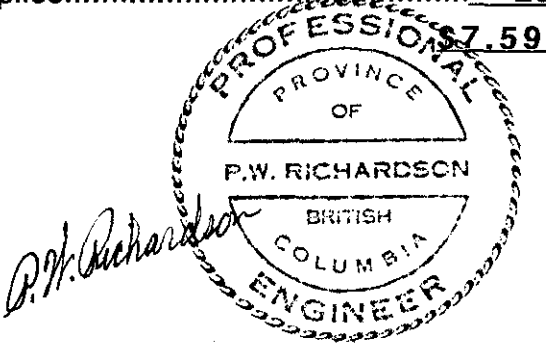
COSTS OF THE 1997 DIAMOND DRILLING PROGRAM

Diamond Drilling (direct costs).....$7,780.00
Core Splitting at Acme Analytical.....267.41
Assaying.....322.80
Personnel
P.W. Richardson - Consulting, Report Writing.
11.6 days @ $500/day.....5,800.00
Kerry Martin - Transporting Core - 1 day.....200.00
Map Printing, Xeroxing, Supplies.....200.00
$14,570.21

Physical Work Repairing Core Building:
Charles Martin 1 day @ $200 200
Michael Martin 1 day @ $200 200
Truck and Gas 100
Materials 50 **550.00**
Total = $15,120.21

Only that portion of the above drilling costs incurred after November 24, 1997 were applied as assessment work because of the anniversary date of claim MET 7. The following work was applied to claims MET 1 and PORPH 1:

Diamond Drilling (direct costs).....$2500.00
Core Splitting at Acme Analytical.....267.41
Assaying.....322.80
Personnel
P.W. Richardson - Consulting, Report Writing.
8.2 days @ $500/day.....3,500.00
Kerry Martin - Transporting Core - 1 day.....200.00
Map Printing, Xeroxing, Supplies.....200.00
$7,590.00



CONCLUSIONS

(1) Geological, geochemical and geophysical surveys, trenching and diamond drilling in the area around the perimeter of the Whipsaw Porphyry have led to the discovery of large areas of mineralization containing 0.2 to 0.3 % copper with some molybdenum and gold within and near the copper areas.
(2) DDH W95-4 intersected a dyke or apophysis mineralized with copper, which may indicate an intensely mineralized area.
(3) DDH W97-8 only just penetrated the eastern (footwall) contact of the mineralized dyke. It was stopped short of the target and did not test it adequately.
(3) In 1995, DDH W95-7 intersected only low grade material while testing a copper-rich spring, and it was concluded that the source of the copper in the spring probably had not been found. It was recommended that additional holes be drilled in 1997, but this was not done because of lack of time.

RECOMMENDATIONS

(1) Do surface mapping in the area from DDH 95M-5 to east of DDH 97M-8 searching for all outcrops in order to establish the outline of the southeast lobe of the Whipsaw Porphyry with more precision.
(2) Make a topography and geology map of the area from DDH M95-7 to the area of springs south of it.
(3) Map the Skarn area near 43 Mile Creek to seek the source of the gold-in-soil anomalies.
(4) Review the several proposed holes that were not drilled in the 1995 and 1997 programs (Figure 4).
(5) Based on the results of the mapping and the review, propose a set of holes to be drilled in the fall of 1998.

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RICHARDSON GEOLOGICAL CONSULTING LTD.
4569 WEST 13TH AVENUE, VANCOUVER, B.C. V6R 2V5
TELEPHONE: (604) 224-4272

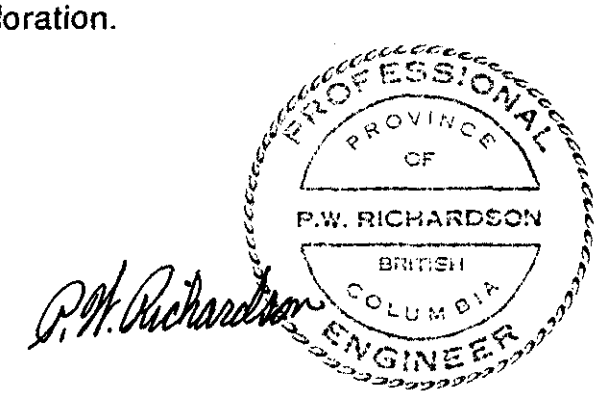
STATEMENT OF QUALIFICATIONS

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 programs, except in periods at university, since 1945, and has participated in numerous programs 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. He has carried out or supervised many diamond drilling programs since 1950.

The writer has been a Member of the Association of Professional Engineers and Geoscientists of the Province of British Columbia since returning in 1966 to live in British Columbia.

The writer has worked on the Whipsaw property for several years. Elsewhere in the Quesnel Trough, the writer has worked on other properties associated with alkalic porphyry systems, particularly at Copper Mountain, at the Lorraine Property and at the QR gold deposit in the early stages of exploration.



APPENDIX 1 - Diamond Drill Log

MARTECH INDUSTRIES INC.

DIAMOND DRILL RECORD

HOLE No W-97-

LOCATION: 11,802 ; 8,860

AZIMUTH: 064°

PROPERTY: WHIPSAW

DIP: -48° LENGTH: 60.96 m ELEVATION: 1594 m CLAIM No: MET 7

STARTED: CORE SIZE: BQ Wireline DATE LOGGED: February 17, 1998 SECTION:

COMPLETED: November 30, 1997 DIP TESTS: — LOGGED BY: P.W. Richardson

PURPOSE: To continue section of 91-1 and M95-4

METRES from	METRES to	DESCRIPTION		L	Recovered
0	4.88	CASING	4.88 - 7.92	3.04	1.50
4.88	60.90	PORPHYRY	7.92 - 10.97	3.05	3.05
		Light gray, fine-grained	10.97 - 14.02	3.05	1.50
		groundmass. Vague phenocrysts	14.02 - 17.07	3.05	3.10
		1-2 mm of feldspar.	17.07 - 18.90	1.83	1.00
		Limonite on fractures to	18.90 - 20.72	1.82	0.60
		37.0 decreasing beyond 31.0	20.72 - 23.16	2.44	2.70
		Limonite accompanied by minor	23.16 - 26.21	3.05	1.15
		malachite and a black sooty	26.21 - 29.26	3.05	1.65
		mineral. V. minor, v. fine-	29.26 - 32.31	3.05	2.00
		grained disseminated pyrite	32.31 - 35.36	3.05	3.05
		increasing at end of oxidized section	35.36 - 37.79	2.43	2.10
		No chalcopyrite seen in " "	37.79 - 39.62	1.83	2.50
		Chalcopyrite present (± 0.1%)	39.62 - 41.45	1.83	1.20
		starting at 37.0m. and increas-	41.45 - 44.50	3.05	3.05
		ing to 0.2% toward end.	44.50 - 47.55	3.05	3.05
		Rare MoS_2 on some fractures,	47.55 - 50.59	3.04	3.05
		especially near end.	50.59 - 52.58	1.99	2.00
		Quartz veining starting 51.00 m.	52.58 - 55.47	2.89	2.00
60.90	60.96	VOLCANICS	55.47 - 58.52	3.05	2.40
		Medium to dark green,	58.52 - 60.96	2.44	2.50
		fine-grained, schistose.			
		With py + minor cp.			
		End of hole at 60.96 m.			

SAMPLE No.	METRES from	METRES to	LENGTH METRES	Cu ppm	Au ppb	Ag ppm	Zn ppm	Ni ppm	Fe %
153301	5.00	8.00	3.00	941	5	1.2	71	6	1.20
302		11.00	3.00	985	12	2.1	50	5	1.26
303		14.00	3.00	1012	19	2.6	48	3	1.25
304		17.00	3.00	1342	20	2.5	88	6	1.91
305		20.00	3.00	894	14	1.5	75	4	1.53
306		23.00	3.00	1281	49	0.4	53	5	1.23
307		26.00	3.00	1086	13	1.1	49	5	1.32
308		29.00	3.00	1587	17	2.2	64	6	1.67
309		32.00	3.00	2808	19	2.5	53	6	1.90
310		35.00	3.00	2722	25	2.1	67	9	1.77
311		38.00	3.00	2299	14	2.2	68	7	1.45
312		41.00	3.00	1159	8	1.0	8	6	1.23
313		44.00	3.00	2369	87	2.1	99	6	1.66
314		47.00	3.00	3593	23	3.3	94	9	1.63
315		50.00	3.00	2322	18	2.3	82	7	1.49
316		53.00	3.00	1742	13	1.8	77	5	1.55
317		56.00	3.00	2710	19	2.7	96	6	1.77
318		59.00	3.00	1784	10	1.7	78	4	1.49
319		60.90	2.90	3277	19	3.0	106	6	1.96
320		60.96	0.06	3784	31	4.4	347	91	6.42

APPENDIX 2 - Assay Certificate

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER BC V6A 1R6 PHONE(640)253-3158 FAX(604)253-1716

GEOCHEMICAL ANALYSIS CERTIFICATE

Martech Industries Inc. File # 9800596

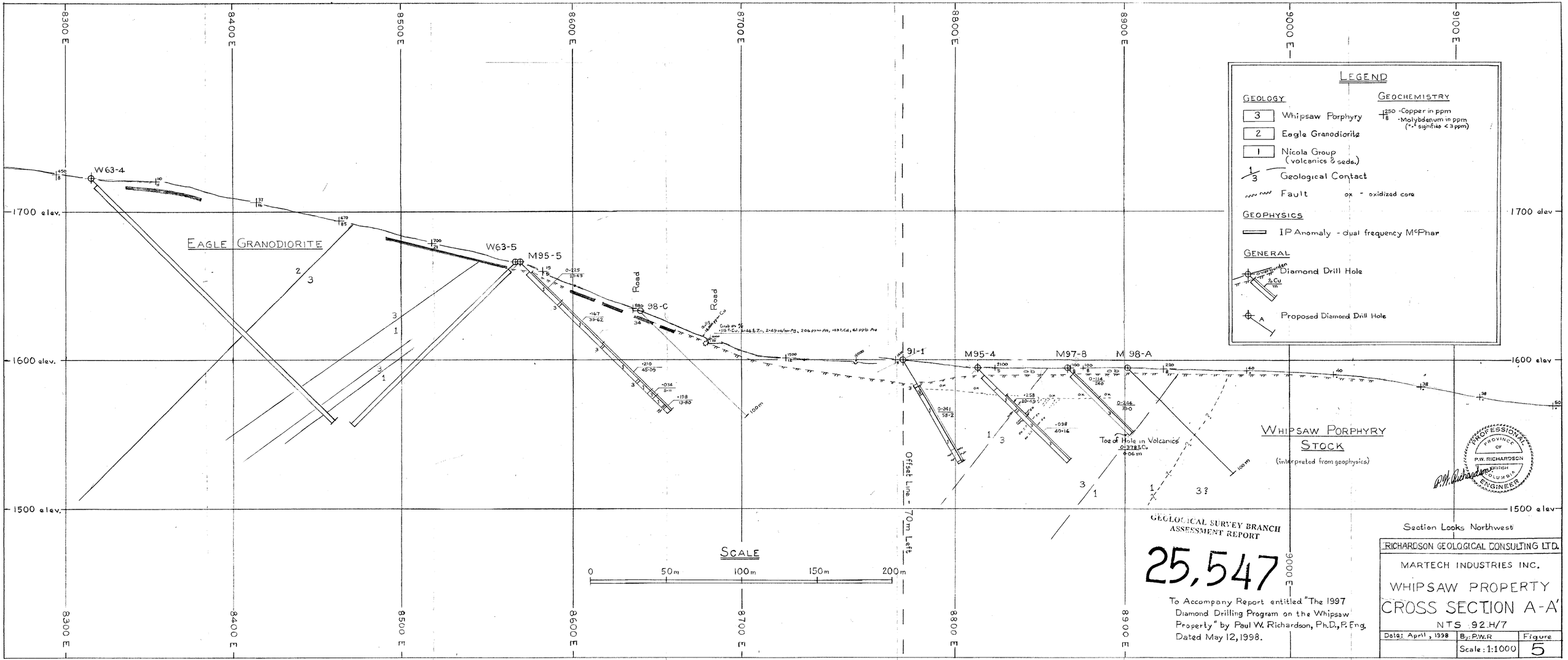
4569 W. 13th Ave, Vancouver BC V6R 2V5 Submitted by: Paul Richardson

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
B 153301	5	941	3	71	1.2	6	9	240	1.20	<2	<8	<2	<2	27	.4	<3	<3	35	.29	.090	11	8	.65	63	.01	3	1.06	.07	.23	<2	5
B 153302	22	985	<3	50	2.1	5	2	89	1.26	3	<8	<2	<2	21	.3	<3	<3	40	.19	.089	10	9	.70	61	.01	6	.94	.08	.19	<2	12
B 153303	28	1012	<3	48	2.6	3	2	99	1.25	<2	<8	<2	<2	22	.4	<3	<3	50	.18	.080	12	10	.70	85	.04	3	.99	.09	.30	<2	19
B 153304	39	1342	5	88	2.5	6	4	155	1.91	<2	<8	<2	2	27	<.2	<3	4	60	.24	.100	13	16	.93	92	.06	3	1.32	.09	.30	<2	20
B 153305 0.11%Cu/2.40m	25	894	3	75	1.5	4	3	146	1.53	<2	<8	<2	<2	32	<.2	<3	4	47	.28	.102	10	12	.81	76	.04	5	1.27	.09	.26	<2	14
B 153306	10	1281	3	53	.4	5	5	133	1.23	<2	<8	<2	<2	49	<.2	<3	<3	29	.38	.097	7	10	.63	78	.05	<3	.96	.07	.18	<2	49
B 153307	25	1086	4	49	1.1	5	3	100	1.32	2	<8	<2	<2	35	<.2	<3	<3	36	.31	.100	8	8	.71	50	.05	<3	1.06	.08	.20	<2	13
B 153308	44	1587	10	64	2.2	6	5	106	1.67	15	<8	<2	<2	28	.3	<3	<3	37	.27	.096	9	9	.74	57	.04	<3	1.16	.10	.23	2	17
B 153309	123	2808	5	53	2.5	6	14	78	1.90	13	<8	<2	<2	23	.4	<3	<3	28	.26	.097	8	7	.61	39	.02	4	.91	.08	.22	2	19
B 153310	56	2722	4	67	2.1	9	17	94	1.77	4	<8	<2	<2	25	.4	<3	3	41	.30	.090	8	10	.76	46	.05	4	.96	.08	.23	2	25
B 153311	84	2299	8	68	2.2	7	13	81	1.45	4	<8	<2	2	37	.4	<3	4	39	.33	.105	8	9	.82	48	.02	<3	.98	.10	.20	2	14
B 153312	71	1159	5	80	1.0	6	7	108	1.23	3	8	<2	<2	41	<.2	<3	5	42	.49	.112	10	9	.68	46	.04	3	.90	.08	.18	2	8
B 153313	63	2369	8	99	2.1	6	12	134	1.66	2	<8	<2	<2	38	.2	<3	3	52	.44	.096	8	11	.89	53	.06	3	.97	.09	.23	3	87
B 153314 0.24%Cu/32.96	94	3593	7	94	3.3	9	14	139	1.63	2	<8	<2	<2	39	.2	<3	<3	53	.40	.097	6	12	.88	60	.08	<3	.96	.09	.23	3	23
B 153315	110	2322	4	81	2.4	6	13	141	1.49	5	<8	<2	2	42	<.2	<3	<3	49	.56	.094	7	10	.80	60	.08	4	.93	.09	.24	2	19
RE B 153315	108	2396	6	82	2.2	8	13	146	1.52	7	<8	<2	<2	43	.4	<3	<3	50	.57	.097	8	10	.83	60	.08	4	.95	.10	.25	3	18
RRE B 153315	108	2249	6	79	2.2	7	14	139	1.45	5	<8	<2	2	42	.2	<3	<3	46	.53	.092	7	9	.78	63	.07	<3	.89	.10	.23	<2	16
B 153316	59	1742	4	77	1.8	5	12	153	1.55	5	<8	<2	<2	38	<.2	<3	4	44	.74	.094	7	11	.78	51	.04	4	.90	.07	.24	2	13
B 153317	219	2710	7	96	2.7	6	12	181	1.77	6	<8	<2	<2	41	.5	<3	<3	40	1.69	.101	12	10	.53	32	.01	3	.87	.06	.30	2	19
B 153318	113	1784	6	78	1.7	4	13	170	1.49	4	<8	<2	2	40	<.2	<3	<3	46	.64	.090	6	11	.79	45	.06	<3	.90	.09	.22	3	10
B 153319	67	3277	3	106	3.0	6	16	191	1.96	8	<8	<2	<2	46	.2	<3	<3	60	.72	.106	6	11	.88	64	.10	3	.95	.11	.28	3	19
B 153320 0.378%Cu	63	3784	<3	347	4.4	91	32	870	6.42	12	<8	<2	<2	47	1.5	<3	6	290	.50	.040	5	335	4.95	107	.40	<3	4.02	.20	2.82	2	31
STANDARD C3/AU-R	26	64	33	170	5.6	37	13	781	3.47	59	31	<2	20	31	24.0	17	27	84	.61	.088	18	176	.61	147	.10	21	1.87	.05	.17	18	492
STANDARD G-2	2	3	<3	42	<.3	8	4	514	1.89	<2	10	<2	4	75	<.2	<3	<3	40	.68	.088	9	75	.57	215	.13	4	.93	.09	.46	2	2

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.
- SAMPLE TYPE: CORE AU* - IGNITED, AQUA-REGIA/MIBK EXTRACT, GF/AA FINISHED.(10 GM)
Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: FEB 25 1998 DATE REPORT MAILED: March 3/98 SIGNED BY. C. Leong .D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS


LEGEND
GEOLOGY
3 Whipsaw Porphyry
2 Eagle Granodiorite
1 Nicola Group (volcanics & seds.)
Geological Contact
Fault
Schistocity
GEOCHEMISTRY
Copper (parts per million)
Copper <100 ppm or <150 ppm depending on area.
Au(ppb) Cu(ppm) Ag(ppm) Mo(ppm)
Au < 10 ppb
Ag < 1.0 ppm
Cu < 50 ppm
Mo < 3 ppm
93-12 - 1993 Samples
GEOPHYSICS
IP Anomaly - dual frequency (McPhar)
IP Anomaly - pulse method
EM Anomaly - vertical loop method (McPhar)
GENERAL
Diamond Drill Hole
Proposed Diamond Drill Hole
Claim Post and Claim Line
Road
Trench
Stream and Pond
Elevation Contour in metres
Swampy Area
PHELPS DODGE
1991-DDH
1991-Percussion Hole
1992-DDH
Geochemical Anomaly on Slope (down)
Scale:
0 100 200 300 400 metres
0 400 800 1200 feet
To Accompany Report Entitled "The 1997 Diamond Drilling Program on the Whipsaw Property" by Paul W. Richardson, Ph.D., P. Eng. Dated May 12, 1998
GEOLOGICAL SURVEY BRANCH ASSESSMENT REPORT
25,547
RICHARDSON GEOLOGICAL CONSULTING LTD.
MARTECH INDUSTRIES INC.
WHIPSAW PROPERTY
PORPHYRY AREA
Date: Feb 2, 1989
Revised: Mar, 1990
June, 1992
August, 1992
July, 1993
Dec, 1994
Feb, 1996
By: P.W. Richardson
Scale: 1:2500
Figure 4
Revised May, 1998
7,500 E
8,000 E
8,500 E
9,000 E
9,500 E
13,000 N
12,500 N
12,000 N
11,500 N
11,000 N
10,500 N
10,000 N
MET 10
MET 7
MET 6
TARGET 7
TARGET 10
TARGET 11
TARGET 12
TARGET 14
TARGET 15
TARGET 16
TARGET 17
Five Mile Creek
Forty Five Mile Creek
To 47 Mile Creek
To Whipsaw Road
Height of Land
Line A
Line B
Line C
Line D
Line E
Line F
Line G
Line O
Line Z



GEOLOGICAL SURVEY BRANCH
ASSESSMENT REPORT

25,547

To Accompany Report entitled "The 1997 Diamond Drilling Program on the Whipsaw Property" by Paul W. Richardson, Ph.D., P.Eng. Dated May 12, 1998.

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
P.W. RICHARDSON

Section Looks Northwest

RICHARDSON GEOLOGICAL CONSULTING LTD.

MARTECH INDUSTRIES INC.

WHIPSAW PROPERTY

CROSS SECTION A-A'

NTS 92.H/7

Date: April, 1998	By: P.W.R	Figure
	Scale: 1:1000	5