

ASSESSMENT REPORT

DESCRIBING

THE SOIL GEOCHEMISTRY PROGRAMME

on

THE CARTHAGE CLAIM GROUP

NELSON MINING DIVISION, BRITISH COLUMBIA

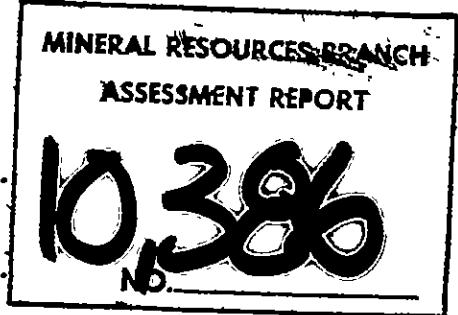
NTS 82F/6E

Latitude $49^{\circ}20'N$; Longitude $117^{\circ}10'W$

For

OWNER: NITHEX EXPLORATION LTD.

OPERATOR: NITHEX EXPLORATION LTD.



BY

Paul W. Richardson, Ph.D., P.Eng.

and

Richard G. Black, B.A.Sc.

Vancouver, B.C.

May 6, 1982



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SUMMARY

An exploration programme consisting of cutting and flagging lines and collecting and analysing soil samples was done on the Carthage Claim Group, one of several claim groups purchased in 1980 by Nithex Exploration Ltd. Some anomalous soil areas were found, and detail soil sampling and prospecting was done.

INTRODUCTION

In 1980, Nithex Exploration Ltd. purchased several groups of claims which lie in a north-trending belt just east of Ymir, B.C. The Ymir-Nelson region has been one of the major gold producing areas of the province, and has produced 1,783,000 tons of ore with a content of 529,000 oz. of gold. The area has received little attention in the last 30 years, but, with the recent increase in the price of gold, the area has become of interest again. The Nithex ground was accumulated over the last several years by the vendors, and was purchased by Nithex because it is a reasonably large area of ground with geology favourable for the discovery of gold deposits.

LOCATION AND ACCESS

The Carthage Claim Group is in the Nelson Mining Division at latitude $49^{\circ}20'N$, longitude $117^{\circ}10'W$ on NTS sheet 82F/6E (Figure 1). It is on Huckleberry Creek five km NE of Ymir, B.C. (Figure 2). Access to the Property is by a dirt and gravel road which leaves Highway 6 at Ymir. The area is nine km NE of Salmo, 19 km SE of Nelson and 500 km east of Vancouver (Figure 1).

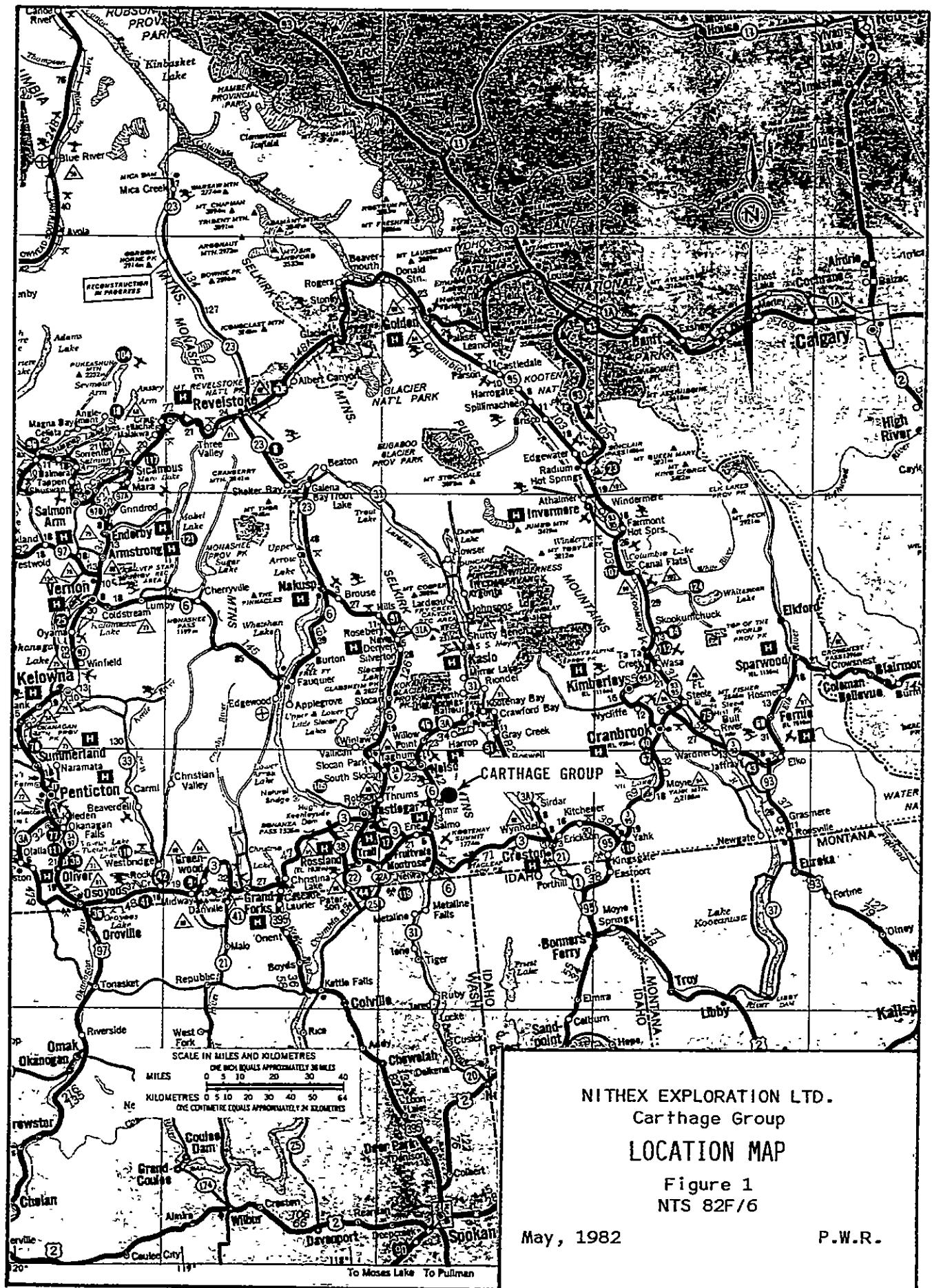
CLAIMS

The Carthage Claim Group is located on Mineral Titles Reference Map M82/F6E. Pertinent claim data are listed in the table below:

CARTHAGE GROUP CLAIMS

<u>Claim</u>	<u>Record No.</u>	<u>No. of Units</u>	<u>Anniversary Date</u>
Carthage	743	1	August 22, 1983
Pat	744	1	August 22, 1983
Beresford	750	1	August 22, 1983
Dufferin	751	1	August 22, 1982
Wild Horse	752	1	August 22, 1983
X-ray	753 [#]	1	August 22, 1983
Ray Fr.	753*	1	August 22, 1983
Joplin	757	1	August 22, 1982
Oronoco	758	1	August 22, 1982
S.J.M.	759	1	August 22, 1982
Ray	765	1	August 22, 1983
Golden Calf	766	1	August 22, 1982
Ramsey	767 [#]	1	August 22, 1982
Maude Fr.	767*	1	August 22, 1982

*Adjoining reverted Crown Grants which do not collectively exceed 61.78 acres are combined to form one recorded claim.

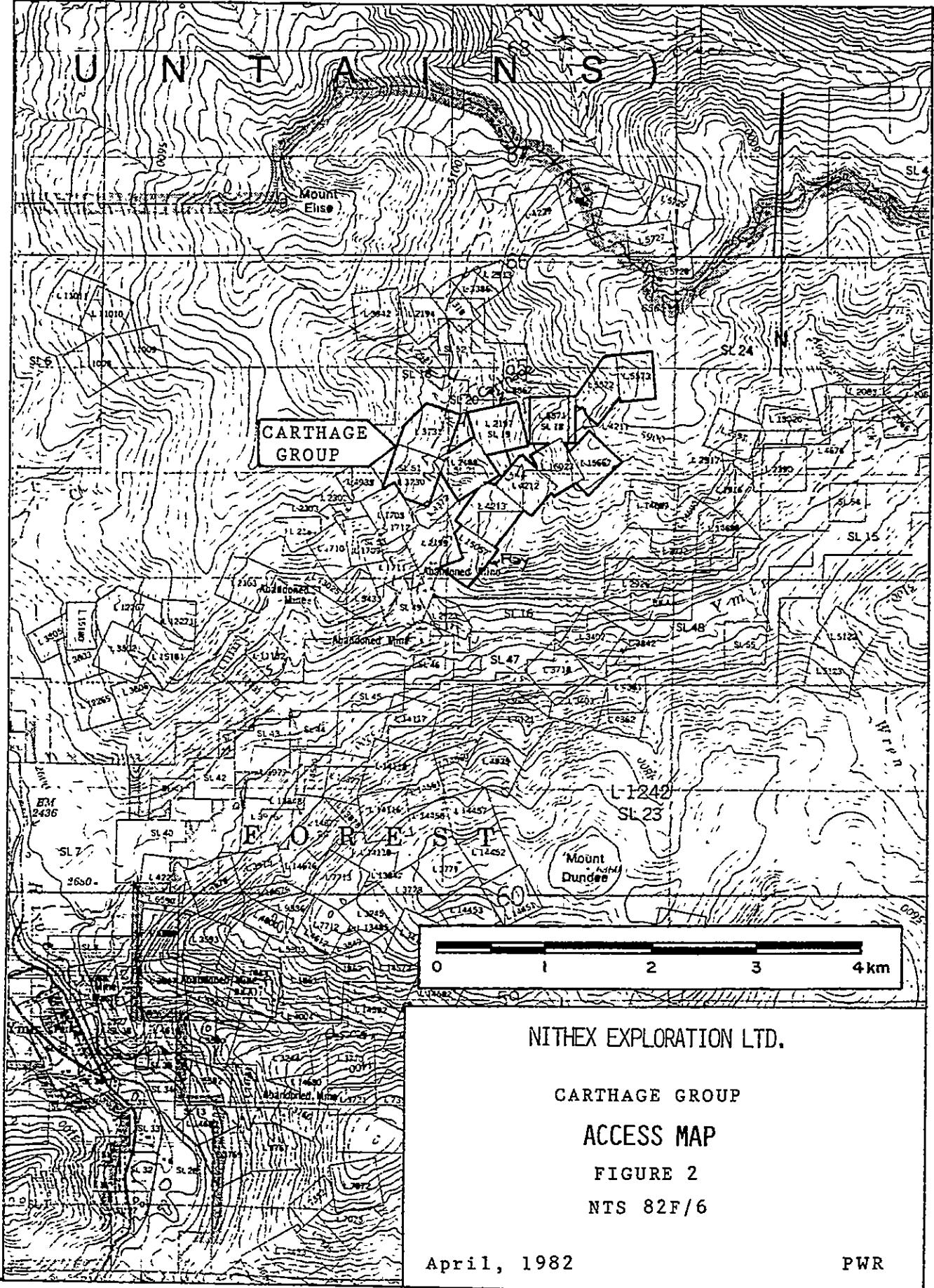


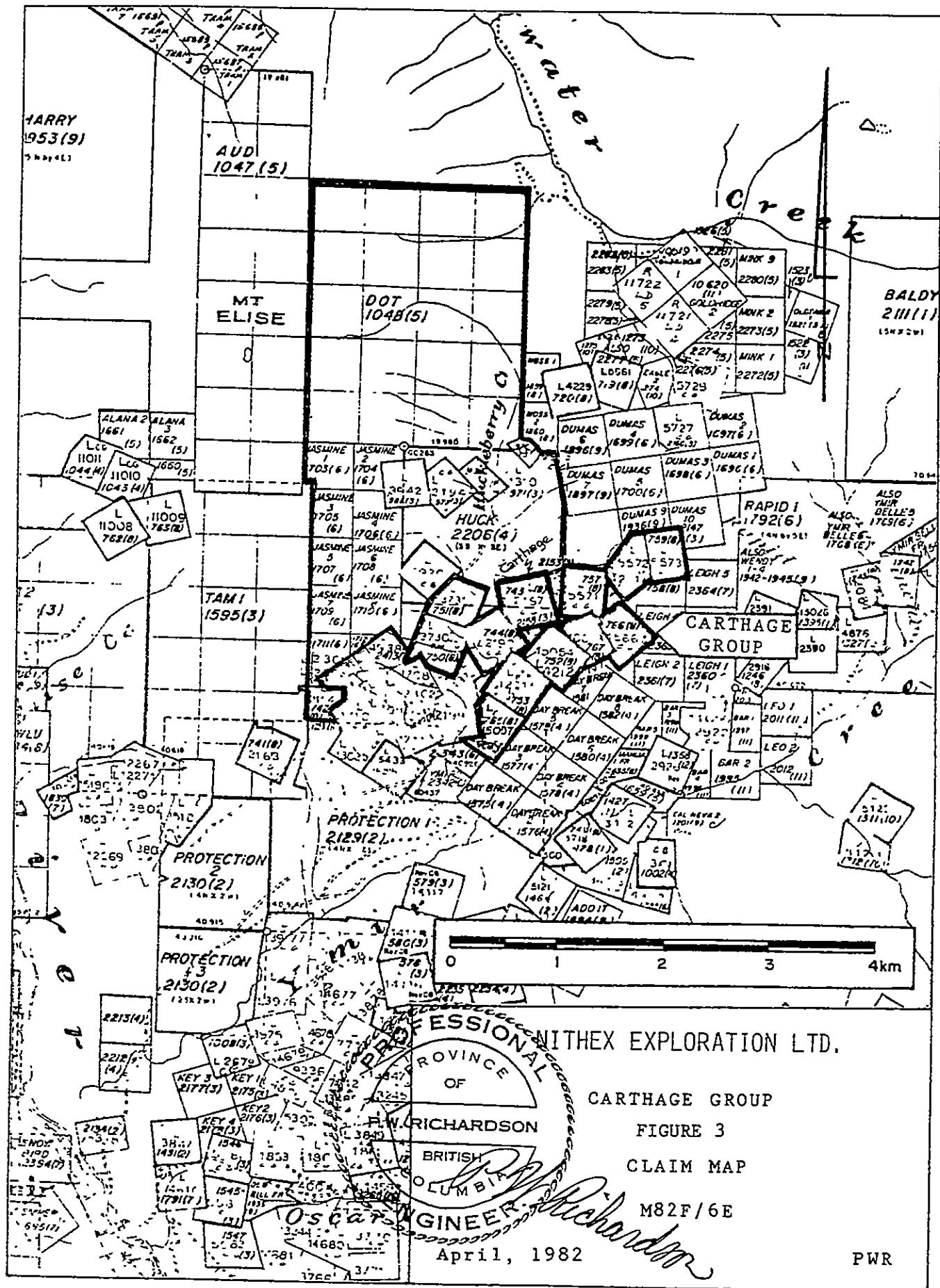
Listed below are other claims which, up to April 9, 1982, had not been part of the Carthage Group but now are:

<u>Claim</u>	<u>Record No.</u>	<u>No. of Units</u>	<u>Anniversary Date</u> **
Huck	2206	9	April 13, 1982
Elise	971	1	March 29, 1983
Lyton	972	1	March 29, 1983
Salmon Star	981	1	March 29, 1982
Ema	976	1	March 29, 1983
Dot	1048	20	May 18, 1982
Jasmine 1	1703	1	June 2, 1983
Jasmine 2	1704	1	June 2, 1983
Jasmine 3	1705	1	June 2, 1983
Jasmine 4	1706	1	June 2, 1983
Jasmine 5	1707	1	June 2, 1983
Jasmine 6	1708	1	June 2, 1983
Jasmine 7	1709	1	June 2, 1983
Jasmine 8	1710	1	June 2, 1983
Jasmine 9	1711	1	June 2, 1983
Jasmine 10	1712	1	June 2, 1983
Jasmine 11	1713	1	June 2, 1983
Gibralter	742	1	August 22, 1982 ✓

** Anniversary dates listed are the dates prior to filing of this work.

The above information conforms with the records of the Claim Recorder in Nelson. The claims are shown in Figure 3 and are described in Appendix I.





PROFESSIONAL NITHEX EXPLORATION LTD.

CARTHAGE GROUP

FIGURE 3

CLAIM MAP

M82 F/6 E

Engineer Michael J.

April, 1982

PWR

HISTORY OF THE CARTHAGE GROUP

The claims were first crown-granted between 1900 and 1905. Prospecting and exploration work was done by many parties over the years, but production of ore was never achieved. The most extensive exploration programme carried out on any of the claims was that done by the Ymir Good-Hope Mining Co. Their work, consisting of road building, surface trenching, drifting and underground diamond drilling, was carried out on the X-Ray Group between the years 1944 and 1950. At that time, the group consisted of the X-Ray, Wild Horse and Annie Maud Crown Granted mineral claims.

No major work was done on the claims until 1979, when the property was prospected by D. R. Cochrane.

Nithex Exploration Ltd. purchased the Carthage Group in 1980.

GEOLOGY OF THE CARTHAGE GROUP

The area within and surrounding the Carthage Claim Group is underlain by Triassic to Lower Jurassic argillites and schists of the Ymir Group (McAllister, 1951; Little, 1960) and by intrusive rocks of Cretaceous age which are part of the Nelson Batholith (Little, 1960). The Ymir Group consists of regionally metamorphosed dark grey, green, brown and black slates, shales,

argillites, limestones and quartzites (Drysdale, 1917; McAllister, 1951; Black, 1981). In places, the metamorphism has produced fine-grained mica and mica schists. Near the contacts with the Nelson intrusives, contact metamorphism has produced graphitic schists, andalusite-mica schists, biotite schists, talc schists and various grades of paragneissic rocks (McAllister, 1951).

The main body of the Nelson Intrusive underlying the claims is porphyritic granite (McAllister, 1951; Little, 1960). Small late-stage dikes and sills, ranging in composition from aplite to lamprophyre, are also common in the area (Drysdale, 1921).

The Ymir Group rocks strike roughly north-south with moderate to steep westerly dips. Near the intrusive contact there is much shearing and crumpling and, locally, the structure can be very complex (McAllister, 1951).

VEIN SYSTEMS AND ORE MINERALIZATION

Lead, zinc, copper, silver and gold mineralization occurs in small amounts in quartz veins which parallel the foliation and bedding of the Ymir Group sediments (Drysdale, 1917). Sulphide minerals observed on the property are sphalerite, chalcopyrite, galena, pyrite and minor pyrrhotite (Black, 1981). Quartz is the most common gangue mineral, although small quantities of

siderite have been reported. These siderite occurrences are most commonly noted near sphalerite mineralization (Black, 1981).

The quartz veins are controlled structurally by the foliation planes of the wall rocks. Consequently, since the predominant strike of the country rock is north-south, so too is the strike of the veins. Locally, however, this is not necessarily true. On the X-Ray Claim, the strike of the schistosity and, hence, the veins, is between 040° and 140° with dips ranging from 60° south-east to 17° southwest (Cockfield, 1936 as quoted in Cochrane, 1979).

EXPLORATION APPROACH

A baseline 1.5 km long was cut on a bearing of 025° from the Ray Claim to the Carthage Claim (Figures 3 & 4). Cross lines totalling 6.25 km have been cut 100 metres apart and flagged at 25 metre intervals.

A base map with a scale of 1:2,500 was prepared from available air photographs taken in 1980. On this base map, the grid was plotted and adjusted to fit the roads and topography.

In total, 250 reconnaissance soil samples were collected on the Carthage Claim Group grid, one at each picket. Thirty additional samples were taken from a road bank which runs along

the western portion of the claims. The samples were analysed by Acme Analytical Laboratories Ltd. of Vancouver, for copper, lead, zinc, silver and gold (Appendix II). Results were plotted on 1:2,500 maps, a separate map for each element, so the maps could be overlain to compare amounts of each element (see Figures 4, 5, 6, 7 and 8). Only those values which were considered to be anomalously high were plotted.

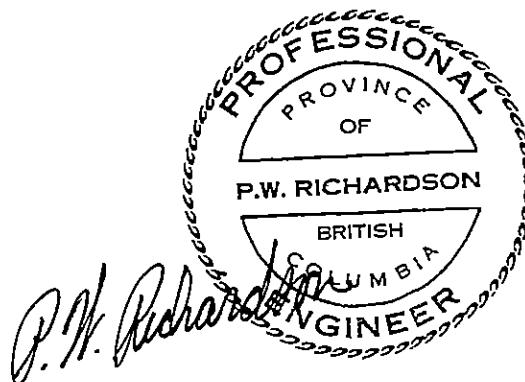
The reconnaissance soil sampling programme outlined many areas with anomalously high metal content in soils. Inspection of these areas revealed that most of the high values are in the vicinity of old workings or water courses from these workings. On the Beresford Claim, two anomalies were obtained and there were no old workings nearby which could account for the high metal content of the soil. Small detail sampling grids were established over both of these anomalies and a total of 70 follow-up samples were taken. The results obtained from this sampling are shown on Figures 9 and 10.

For the grid at 2+00S/7+25W, no specific anomalous area was delineated (Figure 9). There does not appear to be much correlation between high readings for the metals tested. This is not true, however, for the grid at 1+00S/5+25W, as anomalously high metal contents for gold, silver and copper coincide (Figure 10).

High background metal concentrations are present in both areas.

CONCLUSIONS

- 1) The reconnaissance geochemical sampling programme outlined areas with anomalously high metal concentrations in soils on the Carthage Claim Group.
- 2) Most of the anomalous values obtained could be accounted for by the presence of old workings and proximity to known mineralized zones.
- 3) On two anomalies, no cause for the high values has been determined and more work is required to fully evaluate the economic potential of these areas.



STATEMENT OF COSTS

RECONNAISSANCE & DETAIL SOIL ANALYSES:

350 samples @ \$6.00/sample	\$ 2,100.00
-----------------------------	-------------

LINE-CUTTING AND SAMPLING (detail grid only):

Scott Angus 4 days @ \$125.00/day	\$500.00
Dave Murphy 4 days @ \$125.00/day	500.00
Rick Black 4 days @ \$ 60.00/day	<u>240.00</u>
	1,240.00

VEHICLE:

7 days @ \$30.00/day	210.00
Fuel	<u>40.00</u>
	250.00

DRAFTING:

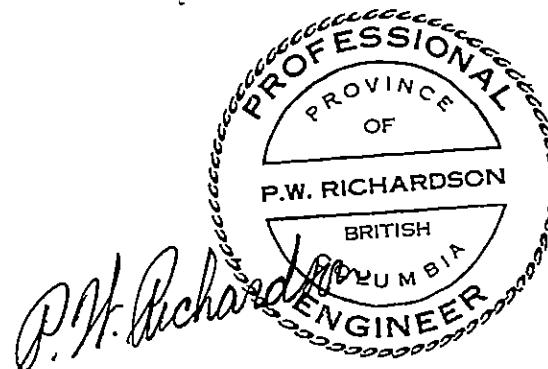
Dan Helgren 11 days @ \$30.00/day	330.00
Rick Black 11 days @ \$60.00/day	660.00
Rob Beynon 7 days @ \$45.00/day	<u>315.00</u>
	1,305.00

REPORT PREPARATION:

8 days @ \$100.00/day	800.00
P. W. Richardson, 1 day @ \$300.00/day	<u>300.00</u>
	1,100.00

TYPING, PHOTOCOPYING, MAP PRINTING, ETC.	<u>355.00</u>
--	---------------

\$	<u>6,350.00</u>
----	-----------------



REFERENCES

1. COCHRANE, D.R., (1979)
"Prospecting Assessment Report on Portions of the Carthage Group and Gibralter and Inkerman Reverted Crown Granted Mineral Claims".
2. COCKFIELD, W.E., (1936)
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Unpublished memos and progress reports to Nithex Exploration Ltd.
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"Ymir Mining Camp, British Columbia". Canada Dept. of Mines, Geo. Survey Memoir 94.
5. LITTLE, H.W. (1960)
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"Geology and Mineral Deposits of Salmo Map Area, British Columbia". Canada Dept. of Mines, Geo. Survey Memoir 172.
9. WOLFE, R. (1980)
"A summary of Exploration Potential of Claims in the YMIR GOLD CAMP" Private Report to Nithex Exploration Ltd.

STATEMENT OF AUTHOR'S QUALIFICATIONS

P. W. Richardson, Ph.D., P.Eng.

B.A. Sc. (1949) M.A. Sc. (1950) from the University of British Columbia in Geological Engineering.

Ph.D. (1955) from Massachusetts Institute of Technology in Economic Geology and Geochemistry.

1950-52: Mine Geologist at Sullivan Mine, B.C.

1955-66: Exploration Geologist with Dome Exploration (Canada) Limited, Toronto.

1966-68: Exploration Geologist with Amax Exploration Limited, Vancouver.

1968-78: Vancouver Manager for Newconex Canadian Exploration Ltd.

1978-

Jan.31/81: Principal of Richardson Geological Consulting Ltd.

Feb.1/81-

Present: Vice-President, Exploration of Nithex Exploration Ltd.

I have had an interest in and have practised exploration geochemistry from 1953 to the present time.



STATEMENT OF AUTHOR'S QUALIFICATIONS

R. G. Black, B.A. Sc.

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1971: Geological field assistant with Penarroya Canada Ltd.

1972 -

1974: Geological field assistant with Union Carbide Exploration Corporation Ltd., Vancouver.

1975: Geophysical field assistant with Amoco Canada Ltd.

1976: Geological field assistant with Shell Canada Resources Ltd., Calgary

1977: Geological field assistant with Uranerz Exploration and Mining Ltd., Calgary.

1978: Geophysical field assistant with HudBay Mining Ltd., Toronto.

1979: Geophysical field assistant with Western Geophysical Company of Canada, Calgary.

1980: Geological field assistant with PanOcean Oil Ltd., Calgary.

1981: Geologist with Nithex Exploration Ltd., Vancouver.

APPENDIX I

GEOCHEMICAL ANALYSIS CERTIFICATES



To: Nitex Exploration Ltd.,
1020 - 475 Howe St.,
Vancouver, B.C.

Attn.: Dr. P. Richardson

ACME ANALYTICAL LABORATORIES LTD.

Assaying & Trace Analysis

852 E. Hastings St., Vancouver, B.C. V6A 1R6

phone:253 - 3158

File No. 81-1691 A

Type of Samples Soil, Silts

Disposition

GEOCHEMICAL ASSAY CERTIFICATE

c.c. Mr. Rick Black, Salmo, B.C.

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All results are in PPM

DIGESTION:

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DETERMINATION:

DATE SAMPLES RECEIVED Oct. 23, 1981

DATE REPORTS MAILED Oct. 31, 1981

ASSAYER

DEAN TOYE, B.Sc.
CHIEF CHEMIST
CERTIFIED S.C. ASSAYER



To: Nithex Exploration Ltd.,

ACME ANALYTICAL LABORATORIES LTD.

Assaying & Trace Analysis

852 E. Hastings St., Vancouver, B.C. V6A 1R6

phone:253 - 3158

File No. 81-1691 A

Type of Samples Soil, silts

14

GEOCHEMICAL ASSAY CERTIFICATE

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DIGESTION:

• 100 •

DETERMINATION:

DATE SAMPLES RECEIVED Oct. 23, 1981

DATE REPORTS MAILED Oct. 31, 1981

ASSAYER

D. Breyer

DEAN TOYE, B.Sc.
CHIEF CHEMIST
CERTIFIED B.C. ASSAYER



To: NitheX Exploration Ltd.,
1020 - 475 Howe St.,
Vancouver, B.C.

ACME ANALYTICAL LABORATORIES LTD.
Assaying & Trace Analysis
852 E. Hastings St., Vancouver, B.C. V6A 1R6
phone: 253-3158

Attn.: Mr. P. Richardson

File No. 81-1554

GEOCHEMICAL ASSAY CERTIFICATE
c.c. Mr. Rick Black, Salmo, B.C.

Type of Samples Soils
Disposition _____

1	SAMPLE No.	Cu	Pb	Zn	Ag	Au							
	5+05WC 0+60S	26	24	166	.8	.025							1
	0+70	35	25	210	2.1	.005							2
	0+80	43	27	166	1.0	.035							3
	0+90	35	29	182	1.3	.030							4
	1	31	25	158	.7	.010							5
	1+10	28	26	142	.7	.005							6
	5+05WC 1+20S	25	20	118	.8	.005							7
	5+15WC 0+60S	23	25	182	1.1	.005							8
	0+70	31	26	260	1.2	.005							9
	0+80	28	31	220	.5	.025							10
	0+90	33	30	235	1.2	.010							11
	1	28	26	225	1.4	.015							12
	1+10	23	21	154	1.1	.005							13
	5+15WC 1+20S	21	24	138	.5	.005							14
	5+25WC 0+60S	34	25	190	1.2	.005							15
	0+70	40	27	200	.8	.005							16
	0+80	47	27	172	1.7	.015							17
	0+90	30	24	174	.8	.035							18
	1	24	21	148	.8	.005							19
	1+10	21	21	126	.5	.005							20
	5+25WC 1+20S	27	20	144	.6	.005							21
	5+35WC 0+60S	24	24	156	.7	.005							22
	0+70	28	23	182	.5	.005							23
	0+80	31	26	170	.4	.005							24
	0+90	29	25	142	1.0	.005							25
	1	31	21	150	.7	.005							26
	1+10	30	23	134	.6	.005							27
	5+35WC 1+20S	25	23	166	.4	.005							28
	5+45WC 0+60S	28	25	174	.6	.005							29
	0+70	27	23	170	.4	.005							30
	0+80	27	30	162	.6	.005							31
	0+90	32	23	152	.7	.005							32
	1	21	19	150	.7	.005							33
	1+10	31	20	144	.9	.005							34
	5+45WC 1+20S	34	21	350	.4	.005							35

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DIGESTION:-

DISCUSSION

DETERMINATION:....

DATE SAMPLES RECEIVED Oct. 7, 1981
DATE REPORTS MAILED Oct. 27, 1981

ASSAYER

DEAN TOYE, B.Sc.
CHIEF CHEMIST
CERTIFIED B.C. ASSAYER

To: Nithex Exploration Ltd.,

Assaying & Trace Analysis

852 E. Hastings St., Vancouver, B.C. V6A 1R6

phone: 253 - 3158

File No. 81-1554

Type of Samples _____

Disposition _____

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2

SAMPLE No.	Cu	Pb	Zn	Ag	Au															
6+95WC 1+60S	22	23	132	.5	.005														1	
1+70	20	22	144	.5	.015														2	
1+80	22	22	136	.5	.005														3	
1+90	26	21	142	.3	.005														4	
2	22	34	180	.6	.025														5	
2+10	22	23	192	.3	.005														6	
6+95WC 2+20 S	20	25	240	.7	.005														7	
																			8	
7+05WC 1+60S	22	21	144	.4	.005														9	
1+70	18	24	142	.5	.005														10	
1+80	20	24	138	.5	.005														11	
1+90	17	25	205	.3	.005														12	
2	20	25	156	.8	.005														13	
2+10	15	34	205	.3	.020														14	
7+05WC 2+20S	14	31	166	.2	.005														15	
																			16	
7+15WC 1+60S	23	23	146	.4	.035														17	
1+70	23	26	168	.3	.005														18	
1+80	27	25	148	.4	.005														19	
1+90	22	24	150	.7	.060														20	
2	17	29	200	.3	.005														21	
2+10	28	29	154	.2	.005														22	
7+15WC 2+20S	24	24	178	.7	.005														23	
																			24	
7+25WC 1+60S	23	22	160	.5	.005														25	
1+70	24	22	132	.5	.005														26	
1+80	18	23	156	.4	.005														27	
1+90	21	24	158	.6	.005														28	
2	15	24	182	.5	.005														29	
2+10	27	24	172	.7	.005														30	
7+25WC 2+20S	22	25	225	.8	.005														31	
																			32	
7+35WC 1+60S	23	25	136	.5	.045														33	
1+70	19	24	152	.4	.005														34	
1+80	21	23	170	.5	.005														35	
1+90	17	22	150	.3	.005														36	
2	17	23	184	.5	.005														37	
2+10	29	20	152	1.0	.005														38	
7+35WC 2+20S	27	23	184	.7	.005														39	
																			40	

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DETERMINATION: _____

DATE SAMPLES RECEIVED Oct. 7, 1981

DATE REPORTS MAILED Oct. 27, 1981

ASSAYER

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phone:253 - 3158

-1611

File No. SI-1011

Soils

Type of Sample

cc : Rick Black, Salmo **GEOCHEMICAL ASSAY CERTIFICATE**

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DIGESTION:.....

DETERMINATION

DETERMINATION OF THE NUMBER OF SITES IN A POLYMER

DATE SAMPLES RECEIVED Oct. 14, 1981

DATE REPORTS MAILED Oct. 23, 1981

ASSAYER

AKS:ic

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CERTIFIED B.C. ASSAYER



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81-1611

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Disposition

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ACME ANALYTICAL LABORATORIES LTD.

Assaying & Trace Analysis

852 E. Hastings St., Vancouver, B.C. V6A 1R6

phone:253 - 3158

File No. 81-1194

Type of Samples - Soils

Bivariate -

GEOCHEMICAL ASSAY CERTIFICATE

SAMPLE No.		Cu	Pb	Zn	Ag	Au					
0 C	0+25W	25	28	170	.6	.030					1
	0+25B	15	43	305	.2	.005					2
	0+50	20	22	185	.4	.005					3
	0+75	30	30	160	.5	.005					4
	1+25	40	64	810	1.7	.010					5
	1+25	35	40	680	.8	.010					6
ONC	1+50	42	43	880	1.0	.015					7
	1+75	29	35	675	.9	.005					8
0 C	2+25E	30	40	500	.9	.015					9
	2+25	45	52	700	1.4	.010					10
ONC	0+25W	26	28	165	.4	.010					11
	0+50	15	35	205	.4	.005					12
	0+75	16	28	225	.7	.005					13
	1+25	30	33	200	.5	.015					14
	1+25	29	60	330	.6	.010					15
	1+50	60	95	150	.6	.005					16
	1+75	45	68	210	1.0	.005					17
	2+25	70	30	170	1.4	.010					18
	2+50	65	52	280	.7	.010					19
	2+75	25	34	190	.5	.015					20
	3+25	23	30	100	.8	.005					21
	3+25	30	55	180	.2	.005					22
	3+50	40	45	150	.1	.010					23
	3+75	53	40	160	.3	.005					24
	4+25	58	30	120	.6	.015					25
	4+25	50	43	145	.5	.030					26
	4+50	75	38	305	.7	.005					27
	4+75	22	19	388	.2	.005					28
	5+25	55	48	180	.8	.005					29
	5+25	45	55	185	.5	.005					30
	5+50	37	45	200	.5	.005					31
	5+75	25	43	280	.8	.005					32
	6+25	25	30	165	.5	.005					33
	6+25	25	28	140	.4	.005					34
	6+50	25	23	185	.6	.005					35
	6+75	38	33	150	.3	.030					36
	7+50	25	33	170	.4	.005					37
ONC	7+25W	30	35	130	.5	.005					38
		1320	1481	9523							39
		37		253	313						40

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All results are in PPM

DIGESTION

DETERMINATION:

DATE SAMPLES RECEIVED Aug. 27, 1981

DATE REPORTS MAILED Sept. 2, 1981

ASSAYER

DEAN TOYE, B.Sc.
CHIEF CHEMIST
CERTIFIED B.C. ASSAYER



To: Nithex Exploration Ltd.,

ACME ANALYTICAL LABORATORIES LTD.

Assaying & Trace Analysis

852 E. Hastings St., Vancouver, B.C. V6A 1B6

phone:253 - 3158

File No. 81-1194

Type of Samples

Disposition

GEOCHEMICAL ASSAY CERTIFICATE

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All results are in PPM

DIGESTION

DETERMINATIONS:

DATE SAMPLES RECEIVED Aug. 27, 1981

DATE REPORTS MAILED Sept. 2, 1981.

DATE REPORT IS MAILED 10-10-68

ASSAYER.

DEAN TOYE, B.Sc.
CHIEF CHEMIST

To: Nithex Exploration Ltd.,

12

File No. 81-1194

Type of Samples

Disposition

GEOCHEMICAL ASSAY CERTIFICATE

SAMPLE No.	Cu	Pb	Zn	Ag	Au						
1SC 7-3EW	45	30	155	.6	.005						1
7+25	65	30	135	.7	.005						2
7+50	50	90	290	.4	.005						3
7+75	55	36	270	.5	.005						4
8-	45	60	210	.4	.005						5
1SC 8+25W	56	95	350	.4	.005						6
8+50	50	75	350	.4	.005						7
1NC 0-25W	28	30	330	.7	.005						8
0+25E	25	20	100	.5	.025						9
0+50	17	30	345	.2	.005						10
0+75	30	40	720	.4	.005						11
1+25	30	47	460	.5	.015						12
1+25	60	44	730	.9	.010						13
1NC 1+50E	60	80	770	.2	.010						14
1+25	60	80	770	.2	.010						15
1NC 0+25W	80	70	270	2.3	.005						16
0+50	53	42	205	.6	.005						17
0+75	27	50	205	.2	.005						18
1+25	21	32	105	.3	.005						19
1+25	29	27	105	.2	.015						20
1+50	24	24	120	.6	.005						21
1+75	46	36	190	.9	.005						22
2+25	75	45	265	1.6	.005						23
2+25	30	36	200	.6	.005						24
2+50	25	40	170	.4	.015						25
2+75	27	36	170	.1	.005						26
3+25	25	24	270	.4	.005						27
3+25	20	25	160	.1	.005						28
3+50	24	33	160	.6	.005						29
3+75	32	25	125	.7	.005						30
4-	25	26	110	.5	.005						31
3+425	15	25	135	1.3	.005						32
1NC 4+50W	15	26	110	.7	.005						33
4+50	20	25	110	.7	.005						34
2SC 0-25	45	44	1500	2.4	.005						35
0+25E	15	60	970	.9	.035						36
0+50	36	56	860	2.5	.030						37
0+75	37	40	635	1.0	.015						38
2SC 1+25E	28	35	590	1.1	.010						39
											40

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DIGESTION

DETERMINATION:

DATE SAMPLES RECEIVED Aug. 27, 1981

DATE REPORTS MAILED Sept. 2, 1981

ASSAYER

DEAN TOYE, B.Sc.
CHIEF CHEMIST
CERTIFIED B.C. ASSAYER





To: Nithex Exploration Ltd.,

ACME ANALYTICAL LABORATORIES LTD.

Assaying & Trace Analysis

852 E. Hastings St., Vancouver, B.C. V6A 1R6

phone:253 - 3158

File No. 81-1194

GEOCHEMICAL ASSAY CERTIFICATE

Type of Samples

Disposition.

SAMPLE No.		Cu.	Pb	Zn	Ag	Au					
2SC	1+25E	28	52	2000	.8	.005					1
	2+25	26	40	700	1.0	.010					2
	2+75	33	47	660	.9	.075					3
2SC	3+25E	25	43	915	2.3	.015					4
	1+25W	20	55	2200	2.6	.060					5
	0+50	23	60	1100	1.4	.015					6
	0+75W	33	70	760	1.2	.010					7
	1+75X	30	190	1600	7.1	.055					8
	1+75X	30	50	700	.8	.015					9
	2+25E	22	36	510	.7	.025					10
	2+50X	20	55	510	.8	.015					11
	3+75W	29	30	185	.6	.005					12
	4+25	20	45	190	.3	.005					13
	4+25	20	26	165	.6	.005					14
	4+50	14	28	195	.3	.005					15
	4+75	16	25	160	.5	.005					16
	5+25	22	25	145	.9	.005					17
	5+25	24	29	200	.6	.005					18
	5+50	20	30	155	.8	.010					19
	5+75	28	26	155	.6	.005					20
	6+25	34	28	130	.8	.005					21
	6+25	26	46	150	.9	.005					22
	6+50	20	32	145	.7	.010					23
	6+75	18	35	150	.5	.370					24
	7	25	28	165	.7	.010					25
	7+25	19	24	190	.9	.015					26
	7+50	20	25	175	.6	.010					27
	7+75	25	28	210	.5	.020					28
2SC	8+25W	24	30	135	.4	.005					29
	8+25W	24	30	135	.4	.005					30
2NC	0+25E	75	45	445	1.1	.005					31
	0+50	54	45	295	1.0	.005					32
	0+75	30	62	365	.9	.005					33
2NC	1+25E	40	45	275	1.0	.120					34
	1+25E	40	45	275	1.0	.120					35
3SC	0	33	48	850	1.2	.050					36
	0+25E	32	35	550	1.4	.005					37
3SC	0+50E	70	47	805	1.3	.030					38
	0+50E	70	47	805	1.3	.030					39
	0+50E	70	47	805	1.3	.030					40

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All results are in PPM

E-DIGESTION:

- DETERMINATION:

DATE SAMPLES RECEIVED - Aug. 27 - 1981

DATE REPORTS MAILED Sept. 2, 1981

ASSAYER

AN TOYE, B.Sc.

ACME ANALYTICAL LABORATORIES LTD.

To: Nithex Exploration Ltd.,

Assaying & Trace Analysis

852 E. Hastings St., Vancouver, B.C. V6A 1R6

phone: 253-3158

File No. 81-1194

Type of Samples

Disposition

GEOCHEMICAL ASSAY CERTIFICATE

SAMPLE No.	Cu	Pb	Zn	Ag	Au							
3SC 0+75E	35	43	835	.4	.015							1
1	48	48	740	1.0	.005							2
1+25	27	40	585	.6	.010							3
1+50	28	37	485	.4	.015							4
1+75	50	55	924	1.1	.005							5
2	74	53	930	4.5	.005							6
2+25	28	35	540	1.0	.005							7
2+50	30	33	590	1.5	.005							8
2+75	25	35	535	1.2	.005							9
3	20	31	340	.4	.005							10
3+25	13	33	340	.5	.005							11
3SC 3+50E	15	37	235	.4	.035							12
												13
3SC 0+25W	31	45	590	.8	.010							14
0+50	33	47	715	1.4	.015							15
0+75	50	30	225	1.3	.005							16
1	22	30	280	.8	.005							17
1+25	20	33	360	.7	.015							18
1+50	35	52	365	.9	.010							19
3+50	29	30	140	.3	.005							20
3+75	14	32	160	.1	.005							21
4	14	33	150	.2	.005							22
4+25	15	28	150	.1	.005							23
4+50	12	25	185	.1	.005							24
4+75	17	29	155	.1	.005							25
5	22	30	175	.9	.015							26
5+25	35	36	283	.8	.010							27
5+50	28	28	105	.8	.005							28
5+75	28	32	200	.5	.005							29
6	35	33	135	.5	.005							30
6+25	15	29	135	.4	.005							31
6+50	14	30	100	.4	.005							32
6+75	15	30	135	.3	.005							33
7	12	32	120	.5	.010							34
7+25	16	25	270	.6	.005							35
7+50	23	36	145	.5	.005							36
7+75	35	38	210	.6	.005							37
3SC 8+ W	28	43	203	.3	.005							38
												39
												40

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All results are in PPM

DIGESTION:

DETERMINATION:

DATE SAMPLES RECEIVED Aug. 27, 1981

DATE REPORTS MAILED Sept. 2, 1981

ASSAYER

DEAN TOYE, B.Sc.
CHIEF ASSAYER

ACME ANALYTICAL LABORATORIES LTD.

To: Nithex Exploration Ltd.,

Assaying & Trace Analysis
 852 E. Hastings St., Vancouver, B.C. V6A 1R6
 phone: 253 - 3158

File No. 81-1194

Type of Samples

Disposition

GEOCHEMICAL ASSAY CERTIFICATE

SAMPLE No.	Cu	Pb	Zn	Ag	Au							
4SC 0	20	30	200	.4	.015							1
0+25E	18	25	180	.9	.005							2
0+50	16	25	160	.7	.005							3
0+75	20	30	205	.2	.005							4
1	20	48	260	.5	.010							5
1+25	18	40	290	.5	.005							6
1+50	18	38	440	.2	.060							7
1+75	20	32	500	.5	.005							8
2	25	33	542	.6	.005							9
2+25	22	30	275	.9	.005							10
2+50	23	30	290	.7	.005							11
2+75	12	26	155	.6	.005							12
3	18	40	260	.5	.040							13
4SC 3+25E	10	30	160	.4	.005							14
												15
4SC 0	18	25	190	.6	.005							16
0+50	13	25	185	.7	.005							17
0+75	11	30	145	.9	.005							18
4SC 1 W	17	25	204	1.7	.005							19
												20
5SC 0	50	25	155	1.2	.010							21
0+25E	24	28	155	.5	.005							22
0+50	14	25	170	.6	.005							23
0+75	10	33	153	.5	.040							24
1	15	33	135	.4	.005							25
1+25	18	28	150	.6	.005							26
1+50	20	30	260	.4	.005							27
1+75	16	30	280	.7	.005							28
2	21	30	165	1.0	.005							29
2+25	10	27	145	.5	.005							30
2+50	10	25	160	.4	.010							31
2+75	14	32	160	.4	.005							32
3	12	32	165	.2	.005							33
3+25	13	25	155	.5	.005							34
3+50	18	26	140	.7	.005							35
5SC 3+75E	19	26	120	.3	.015							36
												37
6SC 1 E	20	28	195	.5	.005							38
1+25	19	29	295	.7	.005							39
6SC 1+50E	14	32	215	.6	.005							40

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All results are in PPM

DIGESTION:

DETERMINATION:

DATE SAMPLES RECEIVED Aug. 27, 1981

DATE REPORTS MAILED Sept. 2, 1981

ASSAYER

*D. Toye*DEAN TOYE, B.Sc.
CHIEF CHEMIST

ACME ANALYTICAL LABORATORIES LTD.

To: Nithex Exploration Ltd.,

Assaying & Trace Analysis

852 E. Hastings St., Vancouver, B.C. V6A 1R6

phone:253 - 3158

File No. 81-1194

GEOCHEMICAL ASSAY CERTIFICATE

Type of Samples

Disposition

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DIGESTION

DETERMINATION

DATE SAMPLES RECEIVED Aug. 27, 1981

DATE REPORTS MAILED Sept. 2, 1981

ASSAYER

DEAN TOYE, B.Sc.

2NC	0	49	40	262	.3	.005		19
0+25	W	30	32	248	.8	.005		20
0+50		48	33	134	.7	.005		21
0+75		30	44	172	.3	.005		22
1		36	34	164	.4	.005		23
1+25		20	60	227	.2	.005		24
1+50		64	39	252	1.0	.040		25
1+75		31	38	243	.5	.005		26
2	N.S.							27
2+25		22	42	324	.6	.006		28
2+50		29	32	134	.5	.005		29
2+75		30	29	202	.1	.005		30
3		27	28	126	.1	.005		31
3+25		25	27	130	.4	.005		32
3+50		31	26	127	.2	.005		33
3+75		27	32	171	.7	.005		34
2NC	4	W	35	39	164	.7	.005	
								35
								36
								37
								38
								39
								40

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DIGESTION:.....

DETERMINATION:.....

DATE SAMPLES RECEIVED Sept. 21, 1981

DATE REPORTS MAILED Oct. 1, 1981

ASSAYER

D.K.Qw

DEAN TOYE, B.Sc.
CHIEF CHEMIST
CERTIFIED P.C. ASSAYED

81-1408

File No. _____

Type of Samples _____

Disposition _____

GEOCHEMICAL ASSAY CERTIFICATE

8

SAMPLE No.	Cu	Pb	Zn	Ag	Au															
3NC 0	34	35	174	.4	.005														1	
0+25 E	76	65	425	1.3	.005														2	
0+50	54	58	223	.4	.005														3	
0+75	56	62	750	1.5	.005														4	
3NC 1 E	42	38	320	1.3	.005														5	
																			6	
3NC 0+25 W	48	45	295	.6	.005														7	
0+50	43	48	200	.3	.005														8	
0+75	40	51	166	1.1	.005														9	
1	21	33	187	.5	.005														10	
1+25	28	43	490	.9	.005														11	
1+50	31	40	168	.3	.005														12	
1+75	36	50	174	.3	.005														13	
2	21	34	250	.1	.005														14	
2+25	25	38	283	.3	.005														15	
2+50	34	36	262	.3	.005														16	
2+75	35	32	162	.5	.005														17	
3NC 3 W	20	31	120	.3	.005														18	
																			19	
4NC 0	43	47	160	.2	.015														20	
0+25 E	62	96	180	.4	.005														21	
4NC 0+50 E	47	60	175	.3	.005														22	
																			23	
4NC 0+25 W	35	50	166	.3	.015														24	
0+50	39	94	323	.5	.030														25	
0+75	37	45	180	.4	.005														26	
1	36	43	130	.3	.005														27	
1+25	52	50	300	.6	.005														28	
1+50	36	62	220	1.1	.015														29	
1+75	19	36	180	.1	.005														30	
2	21	50	170	.1	.015														31	
2+25	25	37	175	.1	.005														32	
2+50	27	38	184	.2	.005														33	
2+75	42	40	208	.4	.005														34	
3	29	50	216	.2	.005														35	
3+25	21	28	165	.5	.005														36	
4NC 3+50 W	23	27	205	.3	.005														37	
																			38	
																			39	
																			40	

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 All results are in PPM.

DIGESTION: _____

DETERMINATION: _____

DATE SAMPLES RECEIVED Sept. 21, 1981

DATE REPORTS MAILED Oct. 1, 1981

ASSAYER

SKW4

To: Nithex Exploration Ltd.,

ACME ANALYTICAL LABORATORIES LTD

Assaying & Trace Analysis

852 E. Hastings St., Vancouver, B.C. V6A 1R6

: phone:253 - 3158

File No. 81-1408

Type of Samples

Disposition

GEOCHEMICAL ASSAY CERTIFICATE

All reports are the confidential property of clients

All results are in PPM.

DIGESTION:

DETERMINATION:

DATE SAMPLES RECEIVED Sept. 21, 1981

DATE REPORTS MAILED Oct. 1, 1981

ASSAYER

Oct. 1

DEAN TOYE, B.Sc.

ACME ANALYTICAL LABORATORIES LTD.

Assaying & Trace Analysis

852 E. Hastings St., Vancouver, B.C. V6A 1R6

phone: 253-3158

File No.

81-1408

Type of Samples _____

Disposition _____

GEOCHEMICAL ASSAY CERTIFICATE

To: Nithex Exploration Ltd.,

10

SAMPLE No.	Cu	Pb	Zn	Ag	Au							
6NC 1+50 W	24	27	128	1.2	.005							1
1+75	31	31	166	1.3	.005							2
2	26	42	237	.6	.005							3
2+25	45	50	160	.2	.010							4
2+50	17	27	144	.3	.005							5
2+75	21	32	123	.2	.005							6
3	32	31	166	.4	.005							7
6NC 3+25 W	21	30	163	.6	.005							8
												9
7NC 0	26	29	234	.5	.005							10
0+25 E	24	30	288	.8	.005							11
7NC 0+50 E	54	29	650	.7	.005							12
												13
7NC 0+25 W	38	31	162	.5	.005							14
0+50	28	32	121	.5	.005							15
0+75	18	25	107	.2	.010							16
1	19	28	141	.4	.005							17
1+25	28	31	145	.7	.005							18
1+50	29	30	141	.8	.010							19
1+75	35	29	154	1.2	.005							20
2	27	36	174	.6	.005							21
7NC 2+25 W	25	30	168	.5	.005							22
												23
												24
												25
												26
												27
												28
												29
												30
												31
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												34
												35
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												37
												38
												39
												40

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All results are in PPM.

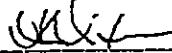
DIGESTION:.....

DETERMINATION:.....

DATE SAMPLES RECEIVED Sept. 21, 1981

DATE REPORTS MAILED Oct. 1, 1981

ASSAYER

DEAN TOYE, B.Sc.
CHIEF CHEMIST

APPENDIX II

GEOCHEMICAL ANALYSIS METHODS

ACME ANALYTICAL LABORATORIES LTD.

852 East Hastings Street,
Vancouver, B.C.

GEOCHEMICAL ANALYSES PROCEDURE

Copper, Lead, Zinc and Silver

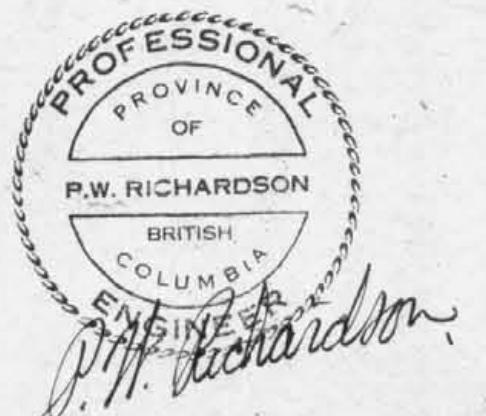
The soil samples are prepared by drying the sample at 60°C, and sieving the sample to minus 80 mesh. Samples weighing 0.5 grams are digested in hot dilute aqua regia in a boiling water bath and diluted to 10 ml with demineralized water. The extracted solution is analyzed by atomic absorption for Cu, Pb, Zn and Ag.

Gold

The samples are ignited overnight at 600°C. The minus 80 mesh portion is ground in a ring grinder and 10 grams are digested with dilute hot aqua regia. The clear solution is extracted with methyl isobutyl ketone. Gold is determined in the methyl isobutyl ketone extract by atomic absorption.



MIN. RESOURCES BRANCH
ASSESSMENT REPORT
10386



LEGEND
 - - creek
 - - road
 - - soil sample line
 with results in ppm

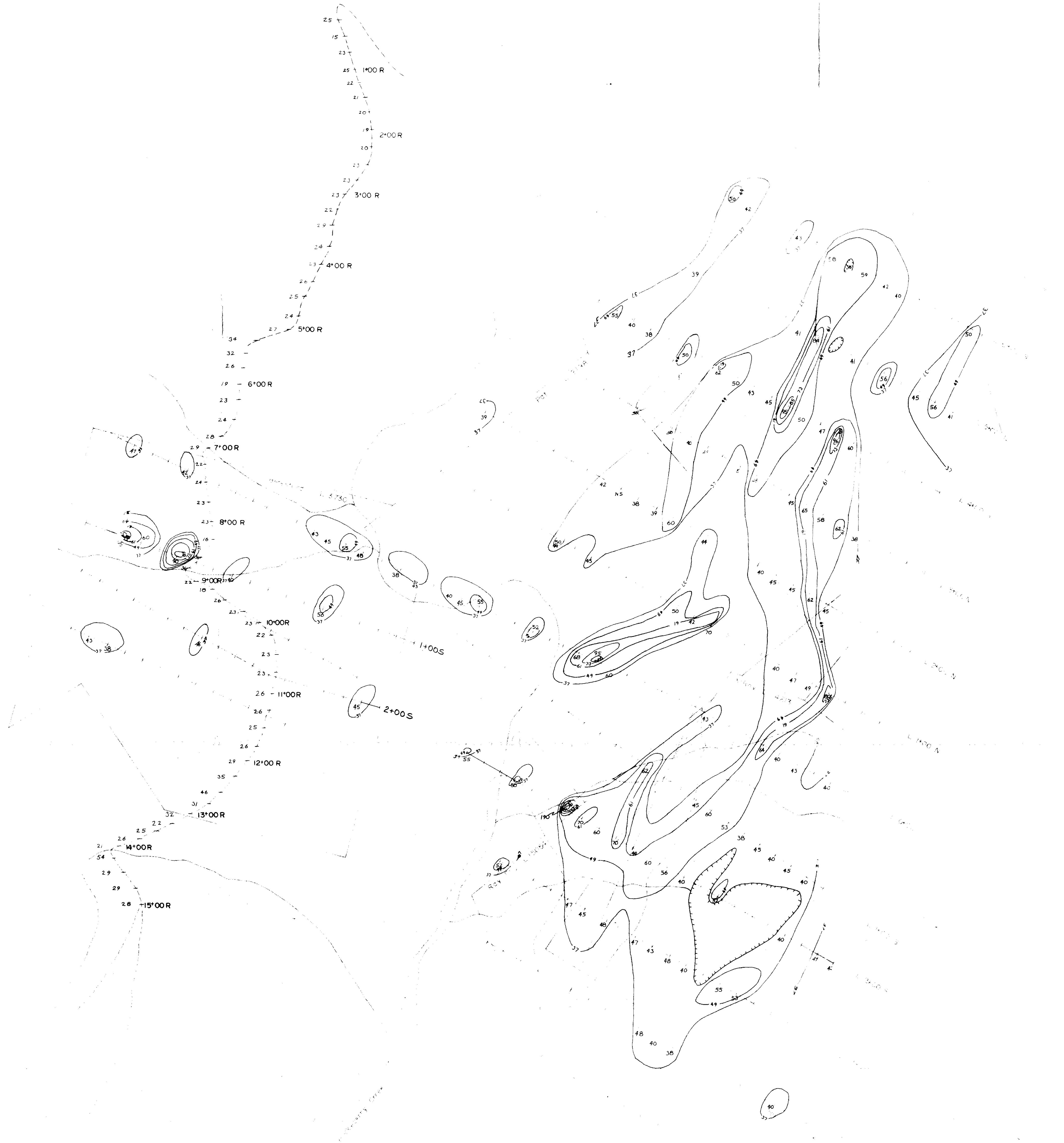
contour interval = 14 ppm

0 25 75 200 m

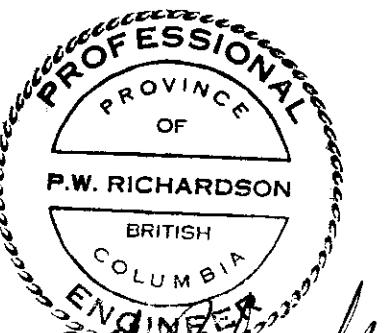
NITHE X EXPLORATION LTD.

Drawn by	DH	Traced by	RB
APR, 1982		OCT, 1981	

GEOCHEMICAL RESULTS FOR COPPER
CARTHAGE GROUP



MINERAL RESOURCES & RANCH
ASSESSMENT REPORT
10386

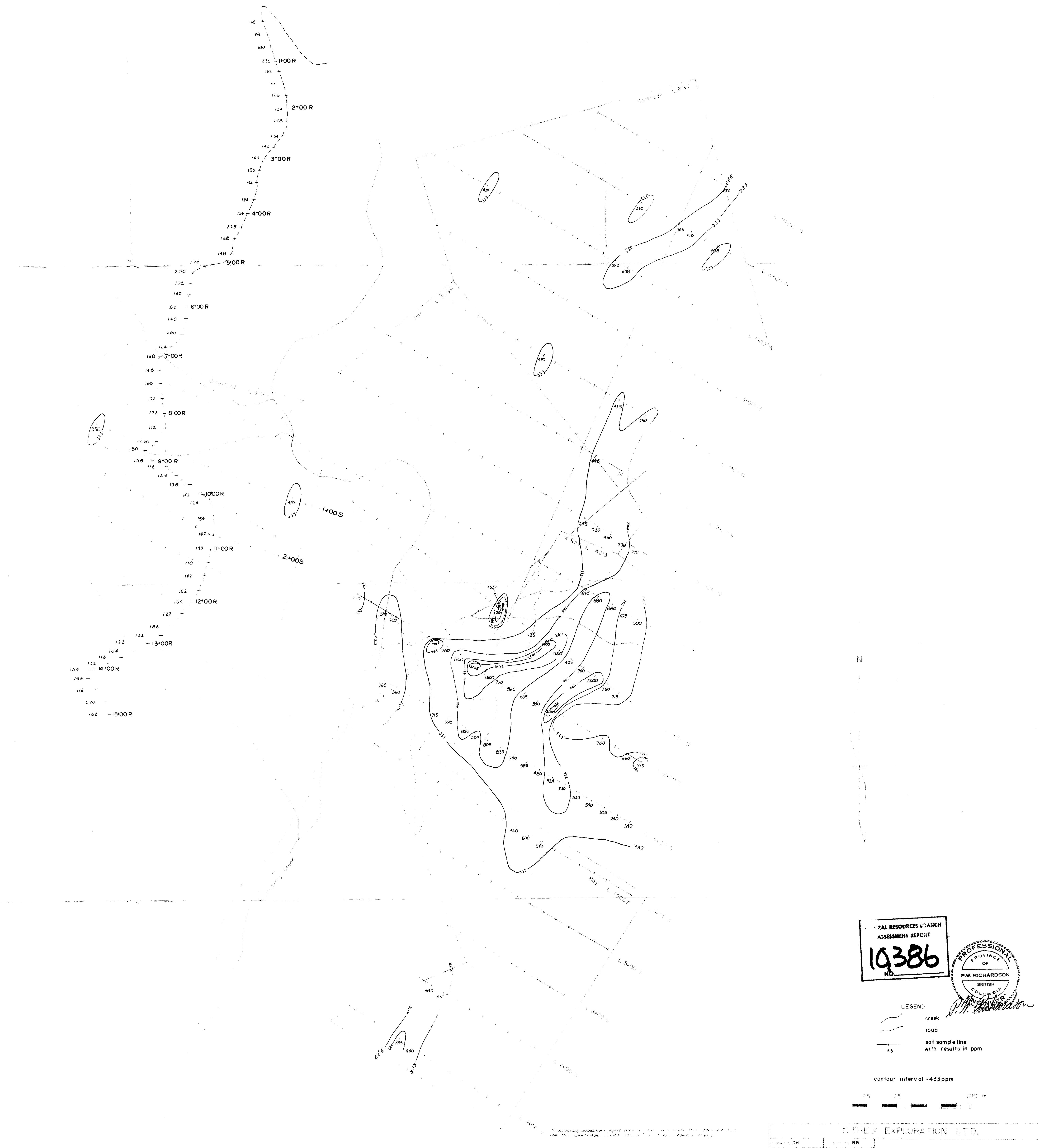


LEGEND
creek
road
soil sample line
with results in ppm

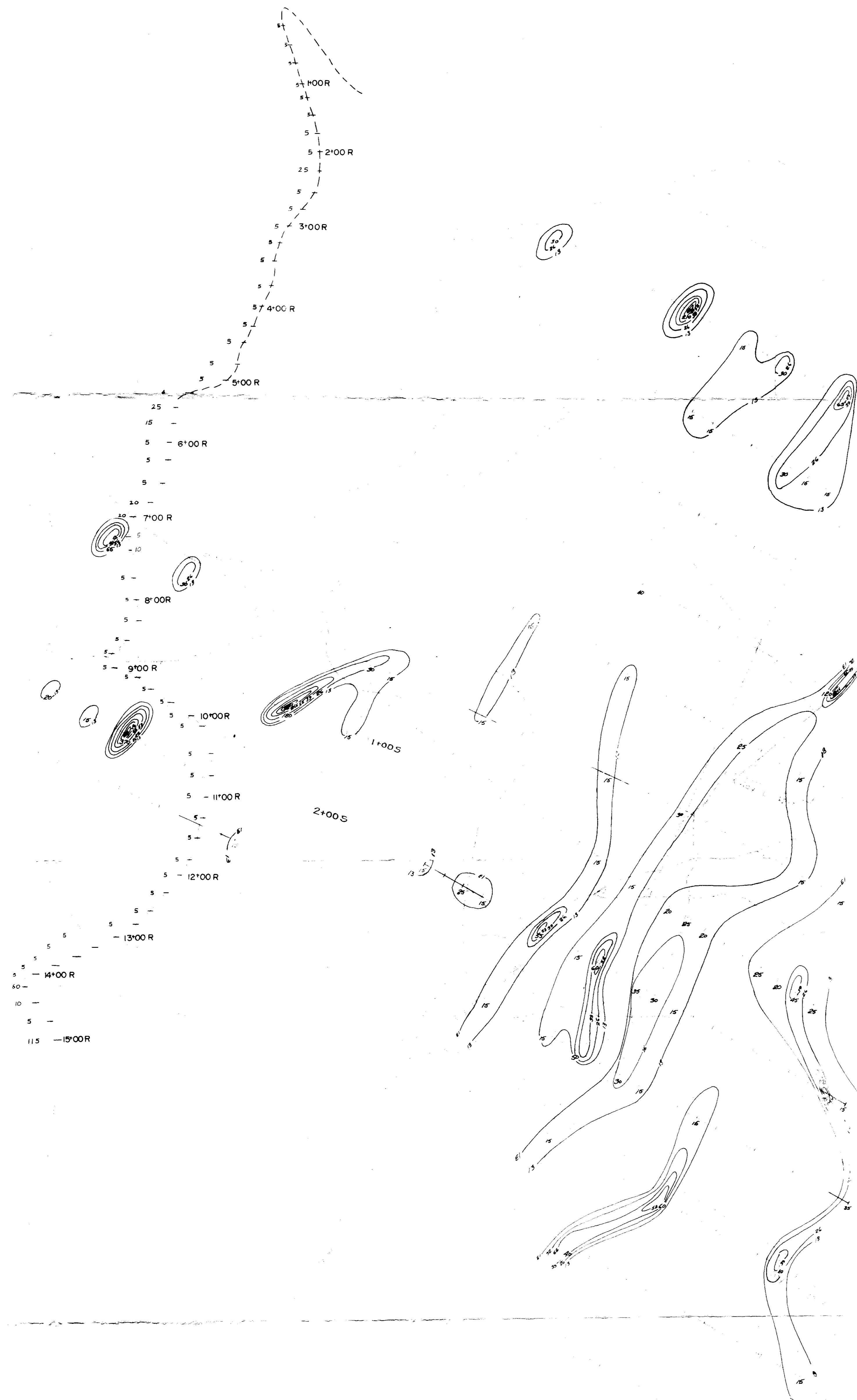
contour interval = 12 ppm

NITHEX EXPLORATION LTD.	
Sample by DH	Tested by RB
APR 1982	OCT 1981

GEOCHEMICAL RESULTS FOR LEAD
CARTHAGE GROUP



To generate an assessment report click on the "Assess" tab.



10,386
NO.



LEGEND
 - - - road
 - - - creek
 - - - soil sample line
 with results in ppb

contour interval = 13 ppb

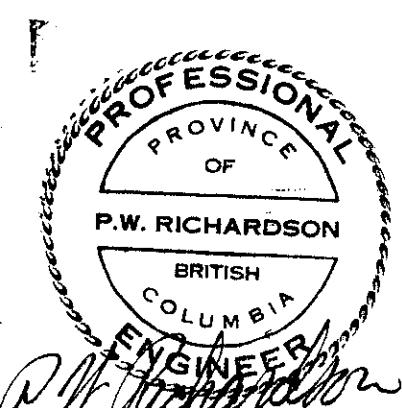
To accompany assessment report entitled "THE GEOCHEMICAL PROGRAMME
ON THE CARTHAGE CLAIM GROUP" by P.W. RICHARDSON, MENG

DH RB
APR 1982 OCT 1981

GEOCHEMICAL RESULTS FOR GOLD
CARTHAGE GROUP



MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
10386
NO.



LEGEND
 — creek
 - - road
 - - - soil sample line
 with results in ppm

contour interval = 0.5 ppm

DRILL ID	DRILL TYPE	TESTS	TESTS
DRILL ID	DRILL TYPE	TESTS	TESTS

GEOCHEMICAL RESULTS FOR SILVER
CARTHAGE GROUP

TO ACCOMPANY ASSESSMENT REPORT NUMBER THE GEOCHEMICAL
PROGRAMME ON THE CARTHAGE CLAIMS OWNED BY P.W. RICHARDSON LTD.



LEGEND

+27.30/62.5.0.6 Cu, Pb, Zn, Au, Ag in soils
(All in ppm except Au in ppb)

0 5 15 40

SCALE = 1:500

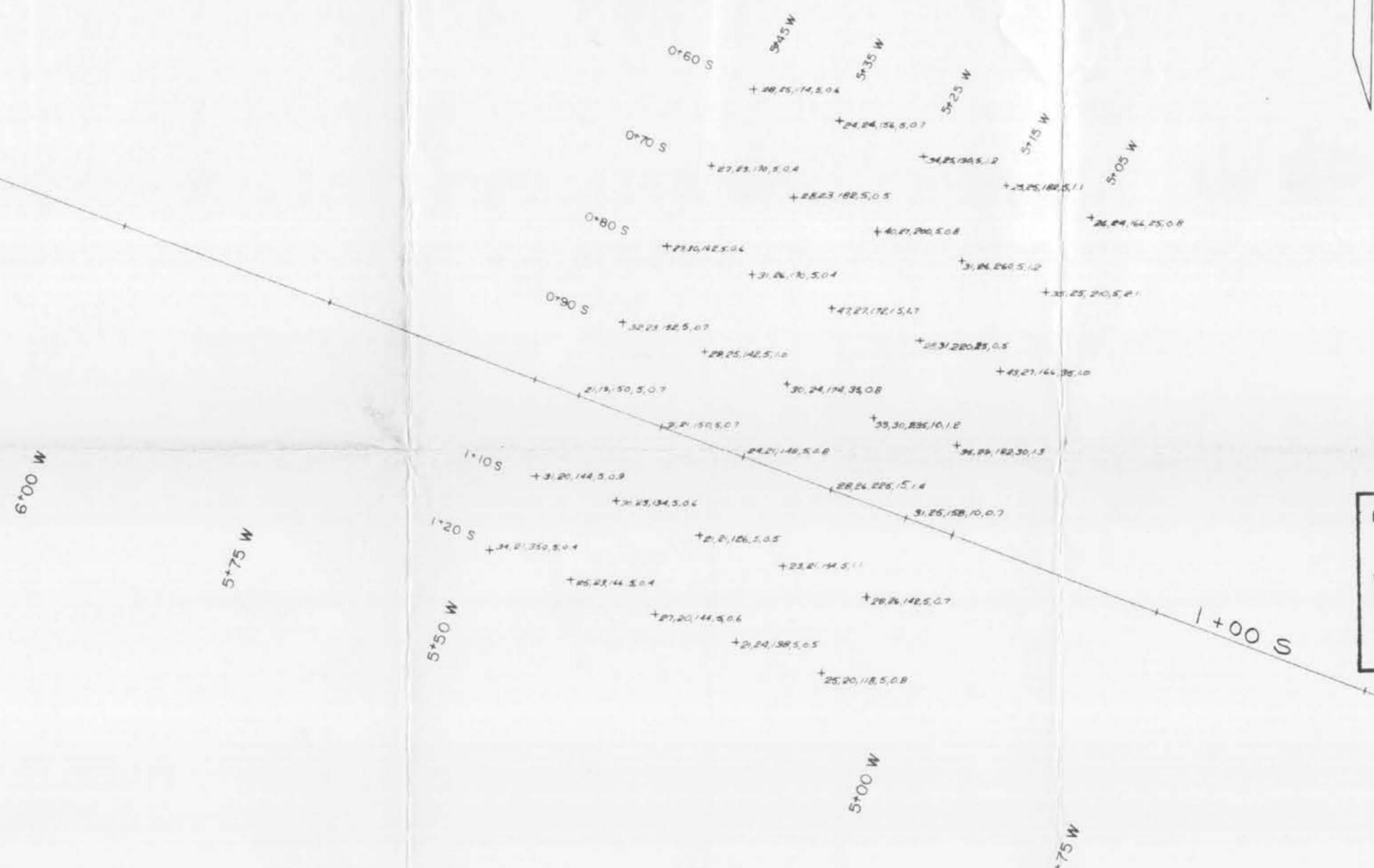
NITHEX EXPLORATION LTD.		
Drawn by DH	Traced by RB	DETAIL SOIL SAMPLING 2100 S / 725 W CARTHAGE GROUP
revised APR, 1982	date OCT, 1981	

To accompany assessment report entitled "THE
GEOCHEMISTRY PROGRAMME ON THE
CARTHAGE CLAIM GROUP" by
P.W. Richardson, P.Eng.



FIGURE 9

N



LEGEND

+ 27,30,162,5,0.6 Cu,Pb,Zn,Au,Ag in soils
(All in ppm except Au in ppb)

0 5 15 40

SCALE = 1:500

P.W. Richardson
PROFESSIONAL
ENGINEER
BRITISH COLUMBIA

NITHE X EXPLORATION LTD.

Drawn by DH	Traced by RB
revised	date
APR, 1982	OCT, 1981

DETAIL SOIL SAMPLING 1+00 S/5+25 W
CARTHAGE GROUP

To whom it may concern, I certify that THE
SEEDIMENTARY MASS LOCATED IN THE
CARTHAGE GROUP IS OWNED BY
NITHE X EXPLORATION LTD.

FIGURE 10