1972 Geological, Geochemical and Geophysical Report

SPOUT LAKE PROPERTY - Northwest Grid of the WC claims #97-106 incl, #112, #114, #123-132 incl, #137-141 incl.

Located 14 miles north of LacLaHache, B.C.

Latitude 51°58'N Longitude 121°22'W

92 P/14 93 A/3 Cariboo Mining Division

By G.M. Leary, G.M. DePaoli, R.F. Horsnail, and J.F. Allan, P.Eng. (B.C.) for

AMAX POTASH LIMITED

Work was carried out during May 25 to June 13, 1972 92P/14W, 93A/3W

3881

1972 Geological, Geochemical, and Geophysical Report

3881

TITLE	Spout Lake Property - Northwest Grid of the WC Claims
AUTHORS	G.M. Leary, G.M. DePaoli, R.F. Horsnail and J.F. Allan, P.Eng. (B.C.)
DATE	July 1972
COMMODITY	Cu
LOCATION-Area	Lac La Hache
-Mining Division	Cariboo
-Coordinates	Latitude 51°58'N, Longitude 121°22'W
-NTS	92 P/14, 93 A/3

AMAX Vancouver Office

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ILLUSTRATIONS

SUMMARY

The "northwest grid" on the WC claims is located within the Interior Plateau on the northwest side of Spout Lake 14 air miles north of Lac La Hache. Geological mapping, geochemical sampling and magnetometer and induced polarization surveys were carried out on the grid area in 1972.

The property regionally occurs within a belt of Nicola Group rocks intruded by several bodies of diorite to monzonite. The grid area covers a low altitude magnetic high situated on the southwestern segment of a regional annular magnetic high.

A thin veneer of Tertiary flood basalts and conglomerate occur within the grid area. Nicola augite basalt flows and sparsely chalcopyrite mineralized skarned limy basalt breccia occur on islands to the southeast of the grid area.

Systematic subsoil geochemical sampling, followed by multi-element analysis, was applied to the grid area.

The ground magnetometer survey revealed that the aeromagnetic anomaly can be resolved into two broad anomalies. A magnetite concentration is indicated along the western boundary of the northerly-most feature.

Three preliminary induced polarization traverses with battery operated equipment were unsuccessful in determining subsurface polarizability.

CONCLUSIONS

Apart from the sharply defined small ground magnetic highs within the grid area and sparsely mineralized Nicola rocks southeast of the grid area, no other encouraging results were obtained.

INTRODUCTION

The WC Claims are located within the Interior Plateau 14 air miles north of Lac La Hache on the northwest and southeast sides of Spout Lake (Figures 1, 2 and 3). Claims are readily accessible by secondary roads. This report covers work carried out in 1972 on claims on the northwest side of Spout Lake between May 25 and June 13, 1972. Work included 13 line miles of picket grid construction (i.e. Northwest Grid) on which geochemical, geological, magnetic and preliminary induced polarization surveys were carried out.

Topography of the "northwest grid" area ranges from a very gentle south slope (altitudes range from 3535 to 4000 feet) to flat ground. Forest cover commonly consists of jackpine and/or poplar. Several open swamps and marshy timbered areas are present. Much of the property is covered by a thin veneer of glacial till. Drainage is relatively poor except for a few south-flowing intermittent, swampy creeks.

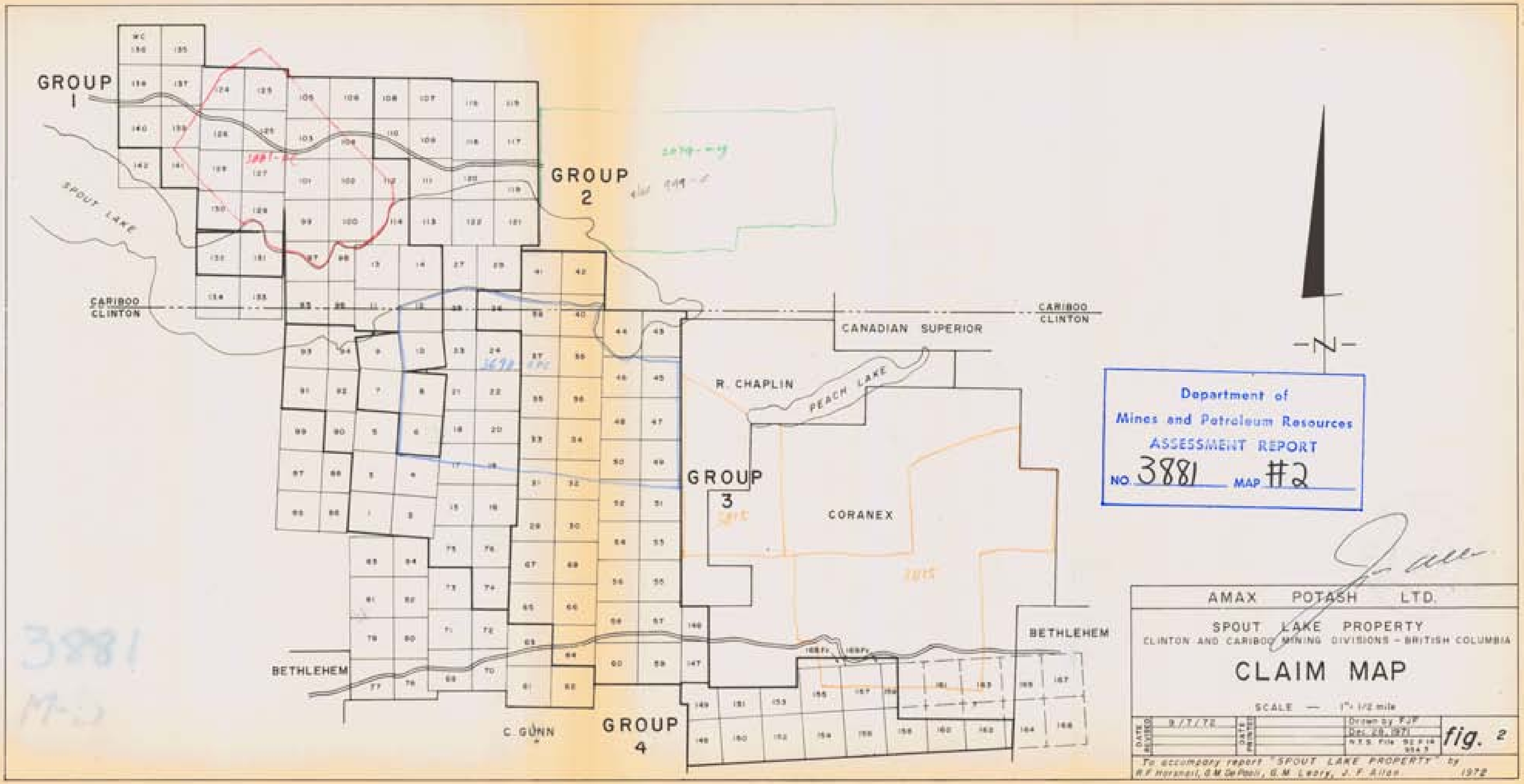
Work described in this report is to be applied on one years assessment to each of the following claims of Group No. 1 (Figure 2):

Claim Name	Record Number	Anniversary Date
WC #97-106 incl.	63693-63702 incl.	June 22, 1974
WC #112	63708	July 22, 1974
WC #114	63710	July 22, 1974
WC #123-132 incl.	63719-63728 incl.	July 22, 1974
WC #137-141 incl.	63733-63737 incl.	July 22, 1974

REGIONAL GEOLOGY AND AEROMAGNETICS

The WC claims are largely underlain by Upper Triassic Nicola Group volcanic and sedimentary rocks (Figure 3). These rocks occupy a northwest to north-south trending belt up to ten miles wide between the Jurassic Takomkane batholith on the east and overlying Miocene plateau basalts to the west.

Aeromagnetically the WC claims occupy the southwestern



AMAX POTASH LTD.

SPOUT LAKE PROPERTY
CLINTON AND CARIBOO MINING DIVISIONS – BRITISH COLUMBIA

CLAIM MAP

SCALE — 1" = 1/2 mile

DATE REVISED	DATE PRINTED	
9/7/72		Drawn by FJP
		Dec. 28, 1971
		N.T.S. File 92 F 14

fig. 2

To accompany report "SPOUT LAKE PROPERTY" by R.F. Horsnail, G.M. DePaoli, G.M. Leary, J.F. Allan 1972

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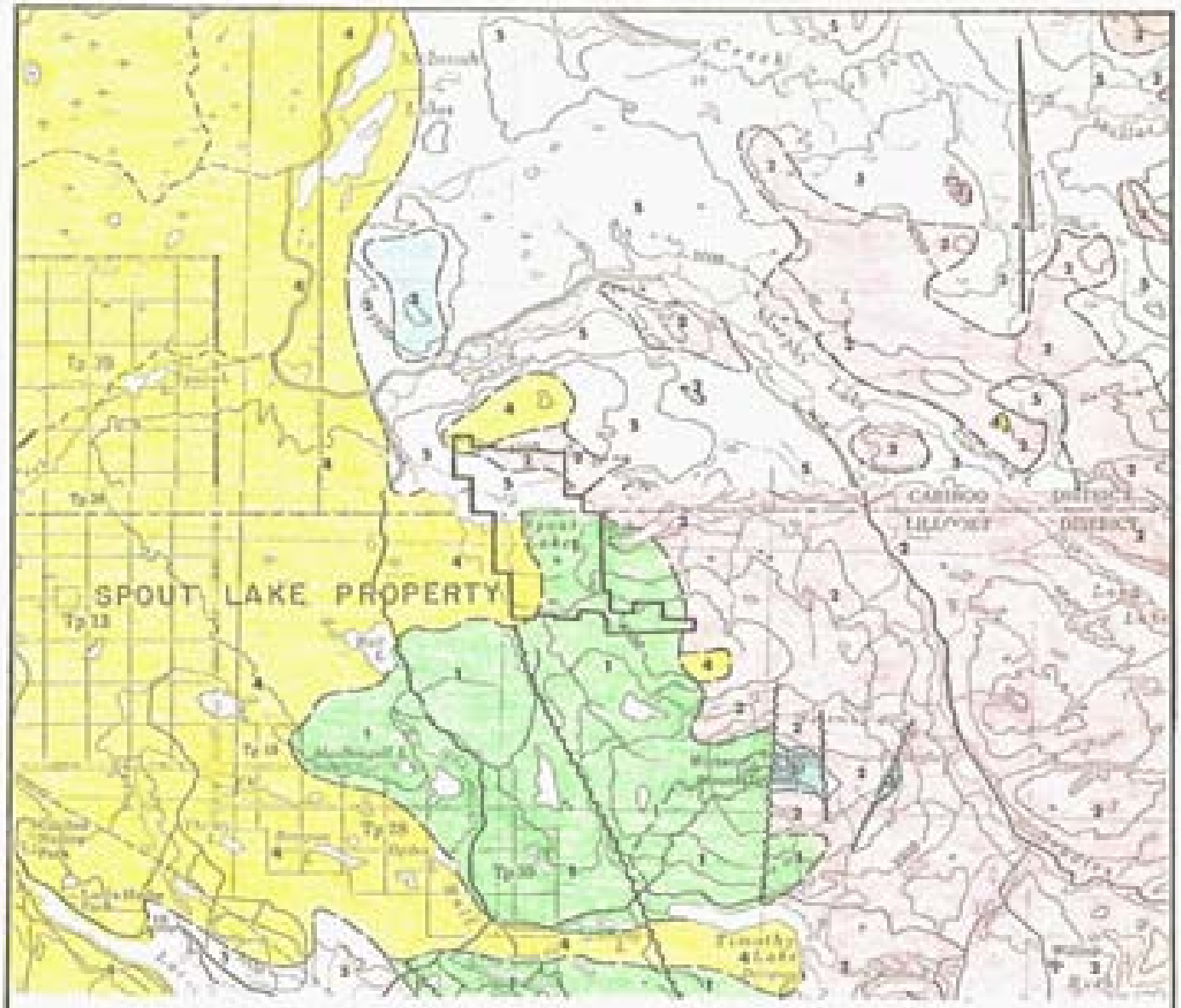
LOCATION MAP Figure 1



LEGEND

QUATERNARY

5 — Glacial deposits and alluvium.

TERTIARY

4 — Plateau basalts.

3 — KAMLOOPS GROUP – Basic to acid volcanic rocks.

JURASSIC

2 — TAKOMKANE BATHOLITH – Basic to acid granitic rocks.

UPPER TRIASSIC – LOWER JURASSIC

1 — NICOLA GROUP – Volcanic and sedimentary rocks.

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M-3

AMAX POTASH LIMITED

SPOUT LAKE PROPERTY

WC CLAIMS

CLINTON AND CARIBOO MINING DIVISIONS — BRITISH COLUMBIA

REGIONAL GEOLOGICAL MAP

SCALE 1 : 250,000

H.P.

N.T.S. Ref. 92 P/14, 93 A/3

FIG. 3

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 3881 MAP #3

1881
E-N

segment of a regional annular magnetic high that largely lies peripheral to a hornblende monzonite stock of unknown affinity.

A low level aeromagnetic survey conducted by AMAX over the western, southwestern and southern portions of the regional magnetic high defined several peaks within a broad magnetic high in the southwestern segment of the anomaly (re: Saunder's report "1972 Geophysical Report Helicopterborne Magnetometer Survey"). One peak correlates with a breccia-skarn type copper showing on the WC claims located on the southwest side of Spout Lake (re· Assessment Report, 1971 Geochemical and Geophysical Report on the Spout Lake Cu Property by C.J. Hodgson and G.M. DePaoli). Another magnetic peak lies on the northwest side of Spout Lake. The "northwest grid" covers this anomaly.

PROPERTY GEOLOGY

Outcrops are very scarce within the "northwest grid" area. However, those observed consist of massive, porphyritic and/or vesicular basalt flows and conglomerate correlated with Miocene flood basalts. These rocks are believed to form a thin veneer possibly up to a few hundred feet thick over the grid area. Nicola Group rocks are exposed outside the grid area on islands within Spout Lake. Here, Nicola rocks consist of massive, porphyritic augite basalt flows containing local clots and joint fillings of epidote-potash feldspar-biotite tourmaline $\pm$ chalcopyrite-malachite.

GEOCHEMISTRY

Introduction

A systematic subsoil sampling geochemical survey was conducted over the "northwest grid" of the WC claims. Samples were taken at 200 foot intervals along traverse lines spaced 400 feet or 800 feet apart - a total of 330 samples were collected.

Samples were analysed at the AMAX Vancouver laboratory for "total" Mo, Cu, Ni, Co, Mn, Fe, Ag, Zn and Pb. Samples were taken from B horizons with an average depth of 6" - 10". Details of sample collection and analytical procedures are given in Appendix I I.

Environment

The area is topographically subdued with a total elevation range of approximately 3500 to 4000 feet. Much of the grid is near level near Spout Lake but slopes gently south on the northern portion of the grid. Forest cover is of moderate density and mainly comprises jackpine and poplar though alder and spruce are locally dominant. Drainage is external but is interrupted by numerous swamps.

Overburden consists generally of relatively thin stony clay-till with minor local development of fluvio-glacial sands and gravels. Soils of the better drained areas comprise brown forest earths which are sometimes gradational into weak podzols. With increasing drainage impedence and waterlogging gleys and humic gleys predominate whilst basin peats are locally present in the most swampy localities.

In general the geochemical environment may be considered typical of a recently glaciated, cool and relatively humid northern latitude.

Geochemical Data

Anomalous threshold values of the metals studied have been determined from a study of percentage histograms and by

analogy with similar environments. These are considered to be (Figures are ppm):

	High Background	Possibly Anomalous	Probably Anomalous
Cu	50	70	100
Ni	40	50	70
Mn	900	1200	2000
Zn	100	140	200
Pb	25	30	40

Fe values exceeding 4.0% are considered abnormally high. Mo and Ag are not present in concentrations above the analytical detection limits (1.0 and 0.5 ppm respectively).

Samples with anomalous Cu contents are·

Sample	No.	Cu	Ni	Co	Mn	Fe(%)	Zn	Pb
720SS	37	144	44	20	280	3.9	108	12
	38	92	30	18	320	1.1	204	28
	40	128	56	24	960	3.9	120	18
	51	164	90	16	620	2.2	48	12
	56	80	56	36	1440	5.7	124	16
	57	72	58	36	1160	5.8	100	18
	79	144	72	20	600	3.5	76	12
	106	96	40	20	280	3.8	104	16
	114	90	44	24	440	3.8	86	20
	129	82	52	28	880	4.3	86	18
720MS	2	100	30	18	1040	3.1	100	20

From the above it is evident that only a small number of samples carry anomalous Cu levels and almost all of these are associated with enhanced Ni.

A few samples have weakly anomalous Zn contents e.g.

720SS	29	24	36	18	280	3.6	188	14
	38	92	30	18	320	1.1	204	28
	59	24	40	20	260	3.3	236	14
	107	68	36	24	560	3.6	232	12
	136	16	16	12	520	2.4	184	12
	231	20	44	NA	520	3.7	200	16
720MS	27	20	30	16	600	2.6	188	14
	48	20	20	16	760	2.7	208	12

These higher Zn values are rarely associated with unusual Ni or Cu contents.

It is thought that the geochemical data from the "northwestern" grid afford no clear evidence of the presence of mineralization and are of little significance in exploration. The enhanced Cu-Ni and Zn values are believed likely to reflect changes in bedrock geochemistry.

One area of high background and moderately anomalous Cu values occurs on lines 8N and 16N roughly between 10W and 20W (Figure 4). This is partially associated with enhanced Ni and Zn values and lies largely within a swampy area. This anomaly is considered to be probably formational in origin with some related metal accumulation in organic rich soils.

GEOPHYSICS

Ground Magnetometer Survey

Introduction and Theory

The magnetism of all rocks is controlled by their content of ferromagnetic material, i.e. substances possessing a relatively high susceptibility and capable of acquiring permanent magnetization. Often intrusions are accompanied by widespread hydrothermal alteration zones in which ferromagnetic minerals, principally magnetite,may be redistributed to the periphery of alteration.

The purpose of the ground magnetic survey was to accurately locate and define an aeromagnetic anomaly which had been recognized from an earlier helicopterborne aeromagnetic survey (re: Saunder's "1972 Geophysical Report Helicopterborne Magnetometer Survey"). In view of the intense ground magnetic anomaly associated with the breccia-skarn copper showing on the southwest side of Spout Lake the possibility existed of a similar occurrence on the "northwest" grid.

Instrument and Procedure

The instrument employed with the model MF-2 magnetometer manufactured by Sharpe Instruments, a division of Scintrex Ltd., Downsview, Ontario. It operates on the fluxgate principle measuring the vertical component of the earth's magnetic field.

The MF-2 circuitry is temperature compensated to less than 1 gamma per °C from -40°C to +40°C. Its measurement range is from +100,000 gammas to -100,000 gammas and, on the most sensitive scale, the sensitivity is 20 gammas per scale division or a readability of 10 gammas. It is a hand held instrument requiring only coarse leveling.

To enable surveying on the most sensitive scale, the earth's field was "bucked out" using the instruments latitude control switch. Station 0+00W and 0+00N was adjusted to read

+300 gammas. The earth's total field at this point is approximately 61,000 gammas.

The baseline was first surveyed in a southerly direction at 100 foot intervals with particular care taken at stations that were grid cross line intersections. Upon reaching Spout Lake, the baseline was re-surveyed in a northerly direction back to the starting station 0+00N in order to observe and correct for the diurnal variation. In a similar fashion magnetic reference point stations were made on the northern portion of the baseline. The east-west oriented picket lines were then surveyed every 100 feet and diurnal corrections were obtained by tieing into the baseline. The corrected values were plotted on a scale of 1" = 400' and contoured using a 500 gamma interval. The results are presented on Figure 5.

Results and Discussion

One anomaly was obtained having an intensity greater than 2000 gammas above background. It is centered at 0+00N, 15+50W, trends northwest with a strike length of 900 feet and a width of 200 feet. Although no outcrop is visible, this anomaly is suggestive of a magnetite concentration within 100 feet from surface.

The rest of the map area is dominated by a band of relatively high values varying from 800 to 1600 feet wide and extending from line 8N southwards to Spout Lake. By focusing on the 1000 gamma contour one can interpret two broad anomalies indicating deeper geological features.

Preliminary Induced Polarization Survey

Introduction and Theory

One June 13, 1972 three preliminary induced polarization traverses were made on lines 0+00S, line 4S and line 32S of the "northwest grid". A battery powered transmitter was employed. The work was executed by AMAX personnel with Garry M. DePaoli

operating the receiver. The purpose of the traverses was to test the depth of overburden on the basis of the resistivity measurement and also to test the chargeability response of the anomalies defined by the ground magnetometer survey.

The term induced polarization means electrical polarization (i.e. separation of charges) induced by an applied electric field. The cause of this polarization is changes in the mobilities of ions within a rock. At the interfaces between zones of different mobilities, excesses or deficiences of ions occur; the concentration gradients developed oppose the current flow and cause a polarizing effect. When mineral grains block the pore passages of rocks and a current is applied, a concentration of ions builds up at the electrolyte (water)-metal interface while awaiting an electrochemical reaction which must occur before the electric charge can be transferrred from an ion in the electrolyte to a free electron in the metal. This storage of electrochemical energy at an electrolyte-metal interface is the most important cause of induced polarization in rocks.

In the pulse-transient or time domain method that was employed, the interfaces within the rock were polarized by applying a steady direct current. The current was then abruptly terminated and measurement was made of the small decaying voltage caused by the polarized charges returning to equilibrium.

Instrument and Procedure

AMAX's portable induced polarization unit was used for the survey. The equipment consists of the IPR-7 Newmont-type receiver (15 pounds) and the IPC-7 25 watt battery powered transmitter (13 pounds). A dipole-dipole array was the configuration employed utilizing a 200 foot dipole length and reading only the first separation (a = 200 feet, n = 1). The receiving dipole consisting of a 200 foot length of wire connected to porous pots filled with a saturated solution of $CuSO_4$, while the transmitting

dipole employed a 200 foot length of wire connecting four foot stainless steel rod electrodes.

Survey procedure required four men equi-spaced 200 feet apart along the line. The advance man prepared the electrode site for the lead potential electrode by digging a small hole. When moving the array the lead man advanced the potential dipole wire 200 feet. The second man operated the receiver. He normally situated his electrode in the same site the lead man prepared. Because distance permits, the receiver operator signals moves and transmitter "on" periods by voice. The third man operates the transmitter. He establishes his currect electrode and advances the 200 foot current dipole wire. The trailing man prepares the second current electrode site. Using vicegrip pliers the last two "current" men retract the stainless steel rods they have hammered into the ground and re-use them on the next set-up.

Results and Discussion

The results are plotted in profile form and are presented in Appendix III. Background chargeability values were encountered while resistivity values were generally below 100 ohm-meters. The low resistivities are suggestive of overburden and one suspects that very little of the impressed current travelled in bedrock. Adding to the penetration problem, created by the overburden, are very wet and swampy ground conditions which tend to concentrate most of the current near surface.

In short, the limited power output of the battery transmitter was not sufficient to properly evaluate sub-surface polarizability. The traverses indicated that a penetration problem exists and that a higher powered transmitter is required to obtain meaningful results.

G.M. Leary G.M. DeRaoli R.F. Horsnail

AMAX Vancouver Office J.P. Allan, P.Eng. (B.C.)

APPENDIX I - STATEMENT OF COSTS

Claim Name		Record Number
	WC #97-106 inclusive	63693-63702 inclusive
	WC #112	63708
	WC #114	63710
	WC #123-132 inclusive	63719-63728 inclusive
	WC #137-141 inclusive	63733-63737 inclusive

Period of Work May 25 - June 13, 1972

Summary of Work
Line Cutting - 6 line miles
Geochemical Survey - 1-1/4 square miles
Ground Magnetometer Survey - 1-1/4 square miles
Geological Survey - 1-1/4 square miles
Geochemical Samples Analyzed - 330 samples

Personnel and Salaries

G.M. Leary, M.Sc. Geologist I/C, 601-535 Thurlow St., Vancouver, B.C.
2 days @ $54.36/day $108.72

G.M. DePaoli, B.Sc. Geophysicist, 601-535 Thurlow St., Vancouver, B.C.
6 days @ $51.21/day 307.26

G.C. Stock, Jr. Assistant, 1725 West 16th Ave., Vancouver, B.C.
7 days @ $22.53/day 157.71

M.J. Meneghetti, Jr. Assistant, 247 West 2nd, North Vancouver, B.C.
6 days @ $15.60/day 93.60

Line Cutting
6 miles @ $130.00/line mile 780.00

Board 21 man days @ $10.00/day 210.00

Geochemical Sample Analyses
330 samples analyzed for Cu, Mo, Zn, Pb, Ag, Ni, Mn, Fe and Co
@ $3.00/sample 990.00

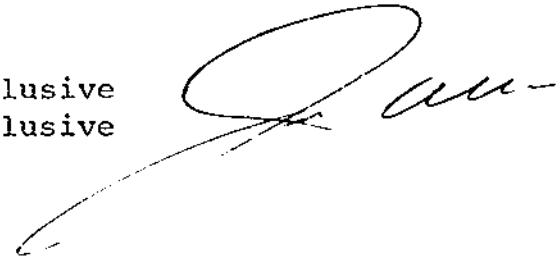
Vehicle 8 days @ $20.00/day 160.00

Report Preparation and Drafting 100.00

$2,907.29

This work is to be applied for one year on

WC #97-106 inclusive
WC #112
WC #114
WC #123-132 inclusive
WC #137-141 inclusive



Declared before me at the City

of Vancouver, in the

Province of British Columbia, this 4

day of Aug 1972, A.D

G. F. Lloyd

Jill Turner

A Commissioner for taking Affidavits within British Columbia or
A Notary Public in and for the Province of British Columbia.

Sub-Mining Recorder

APPENDIX II

GEOCHEMICAL ANALYTICAL RESULTS AND SAMPLE HANDLING PROCEDURES

39:1

AMAX EXPLORATION INC. ANALYTICAL REPORT

BURNABY LABORATORY - 2225 SPRINGER AVE. - BURNABY 2, B.C.

DATE June 15/72 TYPE SAMPLES Soil

PROJECT 516 LOCATION S.B.C. Spout Lake.

REQUESTED BY G.M. Leary DISPOSITION OF REJECTS discard.

No.	Sample	pH	Mo	Cu	Ni	Co	Mn	Fe%	Ag	Zn	Pb			No.
01	72088-1		1	32	38	24	520	4.1	.5	124	16			01
02	088-2		1	32	36	22	280	4.2	.5	72	16			02
03	3		1	24	28	18	360	3.4	.5	100	12			03
04	4	5.9	1	18	24	16	360	2.5	.5	156	12			04
05	5		1	26	28	16	440	3.0	.5	92	14			05
06	6		1	28	24	16	280	3.1	.5	60	12			06
07	7		1	18	20	12	260	2.1	.5	52	12			07
08	8	6.2	1	16	18	12	240	2.2	.5	48	12			08
09	9		1	16	18	10	200	1.8	.5	52	10			09
10	10		1	16	20	12	280	2.2	.5	70	12			10
11	11		1	12	20	12	240	1.9	.5	48	10			11
12	12	6.6	1	10	14	8	200	1.5	.5	40	8			12
13	13		1	14	20	12	320	2.1	.5	40	10			13
14	14		1	16	18	12	380	2.5	.5	68	12			14
15	15		1	20	28	14	280	2.7	.5	60	10			15
16	16	5.7	1	18	26	12	360	2.3	.5	76	12			16
17	17		1	20	28	14	280	2.5	.5	84	10			17
18	18		1	16	18	12	320	2.0	.5	48	8			18
19	19		1	16	16	12	380	1.9	.5	40	8			19
20	20	7.1	1	32	28	16	480	3.1	.5	64	12			20
21	21		1	20	18	12	360	1.8	.5	72	14			21
22	22		1	20	28	16	300	2.5	.5	88	12			22
23	23		1	14	26	12	240	2.0	.5	72	10			23
24	24	6.4	1	18	26	14	320	2.3	.5	80	12			24
25	25		1	24	26	16	720	2.9	.5	156	14			25
26	26		1	64	24	14	440	1.1	.5	28	12			26
27	27		1	20	24	16	280	2.3	.5	140	12			27
28	28	6.1	1	26	30	18	400	3.0	.5	164	14			28
29	29		1	24	36	18	280	3.6	.5	188	14			29
30	30		1	28	36	20	320	4.1	.5	120	16			30
31	31		1	36	40	24	1000	3.9	.5	88	16			31
32	32	6.7	1	20	24	16	200	3.5	.5	82	12			32
33	33		1	18	28	16	240	2.8	.5	84	12			33
34	34		1	16	22	12	440	2.3	.5	76	8			34
35	35		1	12	20	12	340	2.2	.5	104	8			35
36	36	7.0	1	50	44	20	840	2.8	.5	40	12			36
37	37		1	144	44	20	280	3.9	.5	108	12			37
38	38		1	92	30	18	320	1.1	.5	204	28			38
39	72088-39		1	32	38	24	520	3.9	.5	60	16			39
40	G-8		4	40	12	8	160	2.2	.5	84	20			40

COMMENT:

DATE SAMPLES RECEIVED

DATE REPORTS MAILED

ANALYST

40:1

AMAX EXPLORATION INC. ANALYTICAL REPORT

BURNABY LABORATORY - 2225 SPRINGER AVE. - BURNABY 2, B.C.

DATE June 15/72 TYPE SAMPLES Soil

PROJECT 516 LOCATION S.B.C. Spout Lake.

REQUESTED BY G.M. Leary DISPOSITION OF REJECTS discard.

No.	Sample	pH	Mo	Cu	Ni	Co	Mn	Fe%	Ag	Zn	Pb			No.
01	T2088-40	7.3	1	128	56	24	960	3.9	.5	120	18			01
02	41		1	36	34	24	1000	3.5	.5	68	16			02
03	42		1	20	28	16	320	2.9	.5	48	14			03
04	43		1	24	40	20	360	3.5	.5	108	16			04
05	44	6.5	1	28	32	20	440	3.5	.5	92	16			05
06	45		1	12	24	14	320	2.2	.5	46	12			06
07	46		1	24	40	26	400	4.7	.5	64	16			07
08	47		1	18	28	16	240	2.2	.5	56	14			08
09	48	6.4	1	36	40	26	600	4.3	.5	82	16			09
10	49		1	28	36	24	440	3.9	.5	64	16			10
11	50		1	80	48	28	920	4.2	.5	66	16			11
12	51		1	164	90	16	680	2.2	.5	48	12			12
13	52	6.2	1	40	32	28	520	4.7	.5	112	16			13
14	53		1	60	40	20	200	3.6	.5	52	18			14
15	54		1	28	28	18	260	3.4	.5	68	12			15
16	55		1	28	40	24	600	3.9	.5	130	16			16
17	56	6.3	1	80	56	36	1440	5.7	.5	124	16			17
18	57		1	72	58	36	1160	5.8	.5	100	18			18
19	58		1	16	32	16	280	3.1	.5	154	12			19
20	59		1	24	40	20	260	3.3	.5	236	14			20
21	60	5.7	1	28	40	20	280	4.3	.5	164	16			21
22	61		1	24	32	20	520	3.8	.5	112	12			22
23	62		1	22	32	20	400	3.8	.5	160	12			23
24	63		1	18	36	18	320	3.1	.5	128	12			24
25	64	6.0	1	22	32	18	280	3.7	.5	96	12			25
26	65		1	24	36	20	360	3.6	.5	92	14			26
27	66		1	16	30	16	400	2.9	.5	84	12			27
28	67		1	18	44	20	420	3.9	.5	124	14			28
29	68	6.0	1	16	36	20	440	3.3	.5	126	12			29
30	69		1	20	32	18	320	3.1	.5	140	12			30
31	70		1	24	32	20	420	3.5	.5	134	12			31
32	71		1	20	32	20	320	3.6	.5	96	12			32
33	72	6.6	1	56	44	24	880	4.3	.5	130	16			33
34	73		1	16	32	16	360	2.8	.5	114	12			34
35	74		1	18	28	16	440	3.2	.5	72	12			35
36	75		1	18	40	20	380	3.3	.5	116	12			36
37	76	5.7	1	16	24	16	320	2.9	.5	116	12			37
38	77		1	28	32	20	400	3.7	.5	88	12			38
39	T2089-78		1	20	30	18	280	3.4	.5	96	12			39
40	G-9		16	244	16	6	140	0.9	.5	>2400 460	372			40

COMMENT:

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AMAX EXPLORATION INC. ANALYTICAL REPORT

BURNABY LABORATORY - 2225 SPRINGER AVE. - BURNABY 2, B.C.

DATE June 15 /72 TYPE SAMPLES Soil

PROJECT 516 LOCATION S.B.C. Spout Lake.

REQUESTED BY G. M. Leary DISPOSITION OF REJECTS discard.

No.	Sample	pH	Mo	Cu	Ni	Co	Mn	Fe%	Ag	Zn	Pb			No.
01	72055-79		1	144	72	20	600	3.5	.5	76	12			01
02	80	6.4	1	24	28	16	360	3.1	.5	68	12			02
03	81		1	32	40	24	520	3.9	.5	84	12			03
04	82		1	28	38	24	840	3.8	.5	80	14			04
05	83		1	36	48	32	800	4.4	.5	88	16			05
06	84	6.3	1	22	30	20	440	3.5	.5	72	12			06
07	85		1	24	28	14	280	2.3	.5	104	14			07
08	86		1	20	28	16	320	3.0	.5	100	12			08
09	87		1	12	20	12	160	1.8	.5	92	12			09
10	88	6.2	1	16	22	16	280	2.5	.5	68	10			10
11	89		1	20	24	16	400	3.0	.5	92	12			11
12	90		1	12	20	12	240	1.9	.5	44	12			12
13	91		1	20	26	16	280	2.8	.5	88	12			13
14	92	6.2	1	20	28	16	360	3.1	.5	88	12			14
15	93		1	14	24	16	440	2.8	.5	112	10			15
16	94		1	22	32	18	520	3.3	.5	120	14			16
17	95		1	36	32	24	320	4.5	.5	80	12			17
18	96	6.0	1	16	20	14	780	2.8	.5	68	10			18
19	97		1	20	24	20	440	3.5	.5	76	10			19
20	98		1	20	16	16	360	3.3	.5	76	10			20
21	99		1	28	36	24	280	4.3	.5	72	16			21
22	100	6.0	1	34	64	28	520	4.7	.5	104	16			22
23	101		1	16	36	20	400	3.2	.5	132	12			23
24	102		1	16	28	20	760	3.2	.5	114	12			24
25	103		1	36	52	28	1120	5.0	.5	174	20			25
26	104	5.8	1	24	38	24	760	4.2	.5	176	16			26
27	105		1	20	24	20	440	3.6	.5	92	12			27
28	106		1	96	40	20	280	3.8	.5	104	16			28
29	107		1	68	36	24	560	3.6	.5	232	12			29
30	108	6.6	1	66	44	24	920	3.5	.5	70	16			30
31	109		1	16	24	20	320	2.6	.5	48	12			31
32	110		1	20	26	20	800	2.9	.5	104	12			32
33	111		1	76	36	20	760	3.1	.5	132	12			33
34	112	6.1	1	18	24	12	360	2.2	.5	76	12			34
35	113		1	12	24	12	440	2.1	.5	88	10			35
36	114		1	90	44	24	640	3.8	.5	86	20			36
37	115		1	10	20	12	720	2.0	.5	92	12			37
38	116	6.3	1	12	28	16	460	2.5	.5	120	16			38
39	72088-117		1	16	26	12	240	1.9	.5	70	12			39
40	G6		52	356	248	20	320	1.8	40	324	X740			40

COMMENT:

DATE SAMPLES RECEIVED

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AMAX EXPLORATION INC. ANALYTICAL REPORT

BURNABY LABORATORY - 2225 SPRINGER AVE. - BURNABY 2, B.C.

DATE June 15./72 TYPE SAMPLES Soil.

PROJECT 516 LOCATION S.B.C. Spout Lake.

REQUESTED BY G.M. Leary DISPOSITION OF REJECTS discard.

No.	Sample	pH	Mo	Cu	Ni	Co	Mn	Fe%	Ag	Zn	Pb			No.
01	720MS- 1		1	22	20	16	400	3.0	.5	116	18			01
02	2		1	100	30	18	1040	3.1	.5	100	20			02
03	3		1	32	24	18	400	3.1	.5	60	16			03
04	4	7.3	1	44	28	20	1120	3.5	.5	98	18			04
05	5		1	16	20	12	600	2.6	.5	88	14			05
06	6		1	14	22	12	360	2.2	.5	84	12			06
07	7		1	16	30	16	400	2.7	.5	132	14			07
08	8	6.2	1	8	12	8	600	1.4	.5	74	10			08
09	9		1	10	28	12	300	2.2	.5	138	14			09
10	10		1	14	40	18	360	2.9	.5	176	18			10
11	11		1	10	20	10	400	2.1	.5	106	14			11
12	12	6.0	1	14	18	14	1040	2.7	.5	124	18			12
13	13		1	14	20	12	520	2.6	.5	720	12			13
14	14		1	16	20	12	360	2.8	.5	130	12			14
15	15		1	20	20	14	600	2.1	.5	112	12			15
16	16	6.6	1	12	8	8	320	0.5	.5	16	8			16
17	17		1	24	12	8	440	0.2	.5	20	12			17
18	18		1	56	24	8	540	1.2	.5	32	12			18
19	19		1	32	26	16	720	2.4	.5	96	16			19
20	20	6.4	1	22	22	14	600	2.3	.5	44	12			20
21	21		1	16	18	16	680	2.5	.5	80	12			21
22	22		1	18	18	16	320	2.8	.5	44	12			22
23	23		1	24	24	18	360	2.5	.5	48	18			23
24	24	6.2	1	20	22	16	480	2.7	.5	56	14			24
25	25		1	12	16	12	520	2.1	.5	58	8			25
26	26		1	14	22	12	320	2.2	.5	92	12			26
27	27		1	20	30	16	600	2.6	.5	188	14			27
28	28	6.1	1	16	20	12	640	2.0	.5	106	12			28
29	29		1	24	26	16	400	2.8	.5	124	16			29
30	30		1	14	18	10	160	1.7	.5	68	10			30
31	31		1	18	20	12	260	1.9	.5	68	12			31
32	32	5.9	1	20	20	12	200	2.0	.5	68	12			32
33	33		1	18	20	12	300	1.9	.5	52	12			33
34	34		1	20	22	16	140	3.1	.5	52	14			34
35	35		1	24	22	16	480	2.9	.5	52	12			35
36	36	6.2	1	20	18	12	440	2.0	.5	58	12			36
37	37		1	20	22	16	900	2.9	.5	128	14			37
38	38		1	32	32	24	520	4.3	.5	136	16			38
39	720MS- 39		1	36	32	24	360	4.0	.5	112	18			39
40	G6		49	362	256	24	320	1.9	3.1	324	>1000			40

COMMENT:

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19:1

AMAX EXPLORATION INC. ANALYTICAL REPORT

BURNABY LABORATORY - 2225 SPRINGER AVE. - BURNABY 2, B.C.

DATE June 15/72 TYPE SAMPLES soil

PROJECT 516 LOCATION S.B.C. Spout Lake

REQUESTED BY G.M. Leary DISPOSITION OF REJECTS discard.

No.	Sample	pH	Mo	Cu	Ni	Co	Mn	Fe%	Ag	Zn	Pb			No.
01	ROMS-40	5.8	1	30	22	20	360	3.1	.5	96	16			01
02	41		1	24	32	20	820	3.4	.5	196	14			02
03	42		1	24	22	16	360	3.2	.5	80	12			03
04	43		1	24	20	18	440	3.1	.5	64	12			04
05	44	6.2	1	20	16	14	440	2.8	.5	84	10			05
06	45		1	24	28	20	320	3.9	.5	144	18			06
07	46		1	20	24	18	880	3.7	.5	110	12			07
08	47		1	24	22	16	600	3.2	.5	128	12			08
09	ROMS-48	6.9	1	20	20	16	760	2.7	.5	208	12			09
10	G7		26	190	216	12	120	0.9	.5	76	64			10
11														11
12														12
13														13
14														14
15														15
16														16
17														17
18														18
19														19
20														20
21														21
22														22
23														23
24														24
25														25
26														26
27														27
28														28
29														29
30														30
31														31
32														32
33														33
34														34
35														35
36														36
37														37
38														38
39														39
40														40

COMMENT:

DATE SAMPLES RECEIVED

DATE REPORTS MAILED

ANALYST

2

AMAX EXPLORATION INC. ANALYTICAL REPORT

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BURNABY LABORATORY - 2225 SPRINGER AVE. - BURNABY 2, B.C.

DATE July 4, 1972 — TYPE SAMPLES SOIL

PROJECT 5/6 — LOCATION SPOUT LAKE

REQUESTED BY G.M. LEARY — DISPOSITION OF REJECTS

No.	Sample	pH	Mo	Cu	Ni	Co	Mn	Fe	Ag	Zn	Pb			No.
01	720MS49	.9	1	76	16	16	240	2.7	.5	48	14			01
02	50		1	10	8	10	160	1.5	.5	26	8			02
03	51		1	144	22	24	600	2.6	.5	52	16			03
04	52	5.7	1	62	24	20	220	3.3	.5	56	16			04
05	53		1	62	16	20	270	3.5	.5	48	14			05
06	54		1	×160	20	24	320	3.8	.5	56	18			06
07	55		1	60	20	24	360	3.4	.5	68	18			07
08	56	5.9	1	164	22	24	420	3.0	.5	42	16			08
09	57		1	100	20	20	220	2.6	.5	58	16			09
10	58		1	90	20	20	240	3.0	.5	72	16			10
11	59		1	62	16	16	220	2.3	.5	36	18			11
12	60	6.2	1	32	12	12	160	2.0	.5	40	16			12
13	61		1	46	22	20	240	4.0	.5	60	16			13
14	62		1	52	24	24	400	3.2	.5	62	16			14
15	63		1	122	36	18	220	3.6	1.0	68	20			15
16	64	5.4	1	48	20	16	200	3.0	.5	48	16			16
17	65		1	56	20	18	540	2.6	.5	60	16			17
18	66		1	50	14	14	160	2.5	.5	64	12			18
19	67		1	36	16	14	220	2.3	.5	48	14			19
20	68	4.8	1	28	12	12	120	1.9	.5	32	16			20
21	69		1	20	16	20	400	3.2	.5	38	14			21
22	70		1	×3880	60	28	1000	4.2	3.5	72	26			22
23	71		1	44	16	16	200	2.4	.5	36	12			23
24	72	5.5	1	40	12	12	240	2.2	.5	32	12			24
25	73		1	52	16	20	320	2.9	.5	84	16			25
26	74		1	76	22	22	400	3.4	.5	52	16			26
27	75		1	88	16	18	400	2.6	.5	40	14			27
28	G6		1	362	256	24	220	1.9	4.0					28
29														29
30														30
31														31
32														32
33														33
34														34
35														35
36														36
37														37
38														38
39														39
40														40

COMMENT:

DATE SAMPLES RECEIVED

DATE REPORTS MAILED

ANALYST

2

AMAX EXPLORATION INC. ANALYTICAL REPORT

BURNABY LABORATORY - 2225 SPRINGER AVE. - BURNABY 2, B.C.

DATE June 15/72 TYPE SAMPLES Soil

PROJECT 516 LOCATION S.E.B.C. Spout Lake

REQUESTED BY G.M. Leary DISPOSITION OF REJECTS discard

No.	Sample	pH	Mo	Cu	Ni	Co	Mn	Fe%	Ag	Zn	Pb			No.
01	ROSS-118		1	28	32	20	220	3.7	.5	70	16			01
02	119		1	28	36	24	300	4.6	.5	112	18			02
03	120	6.9	1	32	40	22	420	5.3	.5	76	20			03
04	121		1	32	36	24	560	4.6	.5	112	20			04
05	122		1	20	28	12	410	3.5	.5	92	12			05
06	123		1	20	32	12	260	3.4	.5	94	12			06
07	124	6.2	1	20	30	16	320	3.3	.5	76	12			07
08	125		1	8	18	12	360	3.2	.5	42	8			08
09	126		1	14	24	16	270	3.4	.5	52	12			09
10	127		1	36	36	22	340	4.3	.5	72	14			10
11	128	6.0	1	24	32	22	760	2.7	.5	104	16			11
12	129		1	82	52	22	220	4.3	.5	76	18			12
13	130		1	14	18	16	220	2.9	.5	72	12			13
14	131		1	22	28	24	600	4.7	.5	126	16			14
15	132	6.1	1	16	22	12	440	3.1	.5	92	12			15
16	133		1	16	18	16	560	3.0	.5	76	12			16
17	134		1	18	20	12	620	2.7	.5	104	12			17
18	135		1	14	16	12	560	2.4	.5	112	12			18
19	136	6.6	1	16	16	12	520	2.4	.5	124	12			19
20	137		1	24	24	12	420	3.1	.5	132	12			20
21	138		1	26	28	22	420	3.2	.5	104	16			21
22	139		1	24	24	20	400	3.6	.5	70	16			22
23	140	5.8	1	16	22	12	360	2.9	.5	72	14			23
24	141		1	30	24	20	440	3.3	.5	40	14			24
25	142		1	24	22	22	1000	2.4	.5	92	16			25
26	143		1	32	40	20	1640	2.5	.5	42	14			26
27	144	6.0	1	24	26	24	560	4.0	.5	152	18			27
28	145		1	22	32	22	200	3.5	.5	102	14			28
29	146		1	12	16	16	300	2.2	.5	100	12			29
30	147	6.8	1	12	16	16	240	2.4	.5	52	10			30
31	148	6.0	1	20	24	16	220	2.9	.5	66	10			31
32	149		1	8	16	14	260	1.6	.5	92	12			32
33	150		1	10	16	12	220	1.6	.5	60	12			33
34	151	6.2	1	10	16	12	270	2.2	.5	52	12			34
35	152	6.0	1	14	12	10	140	1.6	.5	24	12			35
36	153		1	16	16	12	240	2.7	.5	34	12			36
37	154		1	20	20	16	400	2.2	.5	60	12			37
38	155		1	22	32	12	440	2.2	.5	144	12			38
39	ROSS-156	6.0	1	16	22	14	640	2.9	.5	72	10			39
40	157		1	14	14	12	180	2.9	.5		[illegible]			40

COMMENT:

DATE SAMPLES RECEIVED

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ANALYST

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AMAX EXPLORATION INC. ANALYTICAL REPORT

BURNABY LABORATORY - 2225 SPRINGER AVE. - BURNABY 2, B.C.

DATE June 15/72 TYPE SAMPLES soil

PROJECT 516 LOCATION S.E. B.C. Spout Lake

REQUESTED BY G. M. Leaky DISPOSITION OF REJECTS discard.

No.	Sample	pH	Mo	Cu	Ni	Co	Mn	Fe%	Ag	Zn	Pb			No.
01	72088-157		1	30	36	20	[illegible]	3.6	.5	70	16			01
02	158		1	28	34	20	320	3.7	.5	72	16			02
03	159		1	28	36	24	320	2.5	.5	116	14			03
04	160	6.0	1	20	16	14	440	2.6	.5	62	10			04
05	161		1	28	24	20	360	3.3	.5	60	12			05
06	162		2	12	16	14	400	2.3	.5	74	8			06
07	163		2	22	20	16	470	2.4	.5	68	12			07
08	164	5.6	1	20	20	12	240	3.1	.5	60	12			08
09	165		1	40	36	22	470	3.3	.5	44	12			09
10	166		1	20	32	20	360	3.0	.5	70	12			10
11	167		1	12	24	16	280	2.2	.5	36	8			11
12	168	6.4	1	16	26	16	240	2.2	.5	24	10			12
13	169		1	44	40	24	320	3.5	.5	32	16			13
14	170		1	16	24	16	320	2.4	.5	56	14			14
15	171		1	18	18	12	460	1.9	.5	64	12			15
16	172	6.6	1	12	16	12	240	1.9	.5	42	8			16
17	173		1	56	36	20	640	3.2	.5	72	16			17
18	174		1	28	28	16	360	2.3	.5	64	16			18
19	175		1	20	24	16	240	2.2	.5	52	16			19
20	176	6.0	1	20	24	20	220	2.2	.5	54	12			20
21	177		1	76	32	12	360	3.4	.5	72	12			21
22	178		1	30	40	24	260	2.7	.5	116	16			22
23	179		1	12	16	12	360	2.1	.5	64	12			23
24	180	6.1	1	16	20	16	220	2.7	.5	68	14			24
25	181		1	16	20	16	[illegible]	2.6	.5	76	12			25
26	182		1	32	28	24	620	3.6	.5	76	12			26
27	183		1	38	32	24	1320	3.7	.5	102	12			27
28	184	6.4	1	40	32	24	760	3.6	.5	60	16			28
29	185		1	44	36	22	640	4.1	.5	136	16			29
30	186		1	18	20	12	200	2.2	.5	72	12			30
31	187		1	32	32	12	400	3.2	.5	74	16			31
32	188	6.6	1	22	28	12	320	3.0	.5	26	12			32
33	189		2	20	28	12	240	2.9	.5	20	12			33
34	190		1	16	24	16	280	2.2	.5	28	12			34
35	191		1	16	26	20	420	3.4	.5	76	12			35
36	192	5.8	1	14	26	16	240	2.2	.5	22	12			36
37	193		1	22	36	20	320	2.9	.5	42	16			37
38	194		1	18	28	16	320	2.6	.5	20	14			38
39	72088-195		1	58	32	24	240	2.9	.5	122	18			39
40	C-8		4	42	12	10	[illegible]	2.2	.5	20	20			40

COMMENT:

DATE SAMPLES RECEIVED

DATE REPORTS MAILED

ANALYST

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AMAX EXPLORATION INC. ANALYTICAL REPORT

BURNABY LABORATORY - 2225 SPRINGER AVE. - BURNABY 2, B.C.

DATE June 15/72 — TYPE SAMPLES Soil

PROJECT 516 — LOCATION S.B.C. Spout Lake.

REQUESTED BY G.M. Leary — DISPOSITION OF REJECTS discard.

No.	Sample	pH	Mo	Cu	Ni	Co	Mn	Fe%	Ag	Zn	Pb			No.
01	ROSS-196	5.6	1	32	36	20	600	2.6	.5	130	16			01
02	197		1	16	20	14	400	2.0	.5	66	12			02
03	198		1	16	22	14	400	2.2	.5	54	12			03
04	199		1	40	28	24	560	2.6	.5	24	24			04
05	200	6.1	1	20	20	12	220	2.4	.5	24	16			05
06	201		1	16	22	16	320	2.3	.5	42	12			06
07	202		1	14	16	14	220	2.0	.5	40	12			07
08	203		1	14	20	16	300	2.2	.5	56	12			08
09	204	6.7	1	22	24	20	240	2.2	.5	62	12			09
10	205		1	14	24	16	240	2.4	.5	74	12			10
11	206		1	16	32	20	300	2.6	.5	102	14			11
12	207		1	16	30	12	260	2.4	.5	100	14			12
13	208	6.3	1	12	24	12	240	1.9	.5	44	12			13
14	209		1	14	24	12	200	2.4	.5	56	16			14
15	210		1	16	28	18	360	2.3	.5	64	14			15
16	211		1	20	28	12	220	3.2	.5	76	12			16
17	212	6.4	1	12	20	12	320	2.3	.5	62	10			17
18	213		1	20	28	20	320	3.3	.5	68	12			18
19	214		1	24	28	20	440	3.2	.5	76	12			19
20	ROSS-215		1	24	32	20	400	3.4	.5	92	12			20
21	G9		16	6	12	6	[illegible]	0.9	.5	[illegible]	24			21
22										600?				22
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COMMENT:

DATE SAMPLES RECEIVED

DATE REPORTS MAILED

ANALYST

AMAX EXPLORATION INC. ANALYTICAL REPORT

BURNABY LABORATORY - 2225 SPRINGER AVE. - BURNABY 2, B.C.

DATE July 6/72 TYPE SAMPLES Soil

PROJECT 5161-517 LOCATION Mount Eh / Leach Eh

REQUESTED BY S. Leary DISPOSITION OF REJECTS

No.	Sample	pH	Mo	Cu	Ni	Mn	Fe	Ag	Zn	Pb				No.
01	2055216	5.9	1	28	24	320	2.1	.5	40	12				01
02	17		1	52	36	520	2.8	.5	76	12				02
03	18		1	24	24	270	2.1	.5	92	12				03
04	19	5.8	1	20	20	200	2.5	.5	48	10				04
05	220		1	32	36	480	2.2	.5	92	14				05
06	21		1	12	16	220	2.0	.5	50	8				06
07	22		1	16	28	280	2.9	.5	80	12				07
08	23	6.1	1	16	28	300	2.5	.5	74	12				08
09	24		1	16	20	300	2.1	.5	96	12				09
10	25		1	10	16	160	1.4	.5	68	12				10
11	26		1	12	16	400	2.2	.5	52	8				11
12	27	6.1	1	16	28	1040	3.5	.5	168	8				12
13	28		1	26	30	420	2.2	.5	104	12				13
14	29		1	24	28	320	4.1	.5	66	12				14
15	230		1	16	24	240	2.2	.5	76	10				15
16	31	5.9	1	20	44	520	3.7	1.0	200	16				16
17	32		1	28	40	320	3.7	.5	92	12				17
18	33		1	16	24	220	2.5	.5	92	10				18
19	34		1	16	20	360	2.3	.5	92	12				19
20	35	5.8	1	52	36	360	4.3	.5	62	14				20
21	36		1	12	16	220	1.9	.5	66	8				21
22	37		1	14	16	240	1.9	.5	72	8				22
23	38		1	12	14	220	2.0	.5	56	8				23
24	39	6.0	1	16	16	240	2.0	.5	62	8				24
25	240		1	16	16	260	2.2	.5	40	14				25
26	41		1	36	40	1220	2.4	.5	38	16				26
27	42		1	16	24	280	2.2	.5	76	16				27
28	43	5.7	1	14	12	400	2.1	.5	52	16				28
29	44		1	14	24	260	2.5	.5	42	14				29
30	45		1	8	12	120	1.8	.5	46	14				30
31	46		1	12	18	320	2.2	.5	42	12				31
32	47	5.1	1	12	20	320	2.2	.5	42	12				32
33	48		1	28	32	420	2.3	.5	54	14				33
34	49		1	10	16	260	2.1	.5	56	12				34
35	250		1	18	26	300	3.1	.5	54	14				35
36	51	6.5	1	12	20	320	2.4	.5	124	12				36
37	52		1	16	24	320	2.6	.5	20	12				37
38	53		1	20	30	260	3.0	.5	96	16				38
39	54		1	26	26	440	2.4	.5	120	16				39
40	G10		1	110	16	240	2.2	.5	72	14				40

COMMENT:

DATE SAMPLES RECEIVED

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ANALYST

AMAX EXPLORATION INC. ANALYTICAL REPORT

BURNABY LABORATORY - 2225 SPRINGER AVE. - BURNABY 2, B.C.

DATE July 6/72 TYPE SAMPLES Soil

PROJECT 216/72 LOCATION Sprout/Beach lk

REQUESTED BY P. Leary DISPOSITION OF REJECTS

No.	Sample	pH	Mo ppm	Cu	Ni	Co	Mn	% Fe	Ag	Zn	Pb			No.
01	2055255	4.0	1	16	22	16	360	2.5	.5	116	12			01
02	56		1	12	32	12	260	2.5	.5	104	12			02
03	57		1	24	28	24	500	3.4	.5	100	12			03
04	58	5.8	1	28	40	28	320	4.2	.5	108	14			04
05	59		1	76	48	20	820	2.9	.5	92	14			05
06	260		1	32	40	24	320	4.5	.5	100	16			06
07	61		1	20	36	12	200	1.5	.5	32	16			07
08	62	6.3	1	24	40	26	520	4.4	.5	64	16			08
09	63		1	68	36	20	960	3.0	.5	80	14			09
10														10
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COMMENT:

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ANALYST

Procedures for Collection and Processing of Geochemical Samples

Analytical Methods for Ag, Mo, Cu, Pb, Zn, Fe, Mn, Ni, Co and W in sediments and soils; Mo, Cu, Zn, Ni and SO_4^{--} in waters.

Amax Exploration, Inc.
Vancouver Office.

September 1970

R.F. Horsnail

SAMPLE COLLECTION

Soils

B horizon material is sampled and thus organic rich topsoil and leached upper subsoil are avoided. Occasionally organic rich samples have to be taken in swampy depressions.

Samples are taken by hand from a small excavation made with a cast iron mattock. Approximately 200 gms of finer grained material is taken and placed in a numbered, high wet-strength, Kraft paper bag. The bags are closed by folding and do not have metal tabs.

Observations as to the nature of the sample and the environment of the sample site are made in the field.

Drainage Sediments

Active sediments are taken by hand from tributary drainages which are generally of five square miles catchment or less. Composite samples are taken of the finest material available from as near as possible to the centre of the drainage channel thus avoiding collapsed banks. More than one sample is taken if marked mineralogical or textural segregation of the sediments is evident.

Some 200 gm of finer material is collected unless the sediment is unusually coarse in which case the weight is increased to 1 kg. Samples are placed in the same type of Kraft paper bag as are employed in soil sampling. Water samples are taken at all appropriate sites. Approximately 100 mls are sampled and placed in a clean, screw sealed, polythene bottle. Observations are made at each site regarding the environment and nature of the sample.

Rock Chips

Composite rock chip samples generally consist of some ten small fragments broken from unweathered outcrop with a steel hammer. Each fragment weighs some 50 gms. Samples are placed in strong polythene bags and sealed with non-contaminating wire tabs. Samples are restricted to a single rock type and obvious mineralization is avoided.

Soil, sediment and rock samples are packed securely in cardboard boxes or canvas sacks and dispatched by road or air to the AMAX geochemical laboratory in Vancouver.

SAMPLE PREPARATION

Packages of samples are opened as soon as they arrive at the laboratory and the bags placed in numerical sequence in an electrically heated sample drier (maximum temperature 70°C).

After drying soil and sediment samples they are lightly pounded with a wooden block to break up aggregates of fine particles and are then passed through a 35 mesh stainless steel sieve. The coarse material is discarded and the minus 35 mesh fraction replaced in the original bag providing that this is undamaged and not excessively dirty.

Rock samples are exposed to the air until the outside surfaces are dry; only if abnormally wet are rocks placed in the sample drier. Rock samples are processed in such manner that a fully representative ½ g sample can be obtained for analysis. The entire amount of each sample is passed through a jaw crusher and thus reduced to fragments of 2 mm size or less. A minimum of 1 kg is then passed through a pulverized with plates set such that 95% of the product will pass through a 100 mesh

screen. Where samples are appreciably heavier than 2 kg the material is split after jaw crushing by means of a Jones splitter. After pulverizing the sample is mixed by rolling on paper and is then placed in a Kraft paper bag.

SAMPLE DIGESTION

Digestion tubes (100 x 16 mm) are marked at the 5 ml level with a diamond pencil. Tubes are cleaned with hot water and concentrated HCl. 0.5 g samples are weighed accurately, using a Fisher Dial-O-Gram balance, and placed in the appropriate tubes.

To each of the samples thus prepared are added 2 ml of an acid mixture comprising 15% nitric and 35% perchloric acids. Racks of tubes are then placed on an electrical hot plate, brought to a gentle boil ($\frac{1}{2}$ hour) and digested for $4\frac{1}{2}$ hours. Samples unusually rich in organic material are first burned in a porcelain crucible heated by a bunsen burner before the acid mixture is added. Digestion is performed in a stainless steel fume hood.

After digestion tubes are removed from the hot plate and the volume is brought up to 5 ml with deionized water. The tubes are shaken to mix the solution and then centrifuged for one minute. The resulting clear upper layer is used for Cu, Mo, Pb, Zn, Ag, Fe, Mn, Ni and Co determination by a Perkin-Elmer 290B atomic absorption spectrophotometer. Analytical procedures are given on the following pages.

ANALYTICAL PROCEDURES

Silver

1. Scope - This procedure covers a range of silver in the sample from less than .5 to 1000 ppm

2. Summary of Method - The sample is treated with nitric and perchloric acid mixture to oxidize organics and sulphides. The silver then is present as perchlorate in aqueous solution. The concentration is determined by atomic absorption spectrophotometer

3. Interferences - Silver below 1 gamma/ml is not very stable in solution. Maintaining the solution in 20% perchloric prevents silver being absorbed on the glass container. Determination must be completed on the same day as the digestion.

   Samples high in dissolved solids, especially calcium, cause high background absorbance. This background absorbance must be corrected using an adjacent Ag line.

Silver AA Settings P.E. 290

Lamp - Ag

Current 4 ma position 3

Slit 7 A

Wavelength 3281A Dial 287.4

Fuel - acetylene - flow - 14

Oxidant - air - flow - 14

Burner - techtron AB 51 in line

Maximum Conc. 3 to 4x

Calibration

1. Set 1 gamma/ml to read 40 equivalent to 20 gamma/gm

   Factor $\frac{1}{2}$ x meter reading

   Check standards

   4, 10, 20, 40 ppm Ag in sample

2. Set 15 gamma/ml to 100 equivalent to 100 ppm

   Check standards

   40, 100 ppm

   Factor directly in ppm Ag

3. Rotate burner to maximum angle

   Set 10.0 gamma/ml Ag to read 100

   Check standards

   100, 200, 400, 1000 ppm Ag

   Factor 10x scale reading

4. Samples higher than 1000 ppm should be re-analyzed by assay procedure

5. Background correction for sample reading between 1 to 5 ppm

   Calibrate AA in step 1

   Dial wavelength to 300 (peak)

   Read the samples again

   Subtract the background reading from the first reading

Standards

1. 1000 gamma/ml Ag - 0.720 gm Ag_2SO_4 dissolved in 20 mls $Hx10_3$ and dilute to 500 mls

2. 100 gamma/ml Ag - 10 mls of above + 20 mls $HClO_4$, dilute to 100 mls

3. Recovery spiked standard

5 gamma/ml Ag - 5 mls 100 gamma/ml dilute to 100 mls with "mixed" acid

Working AA Standards

Pipette .2, .5, 1, 2, 5, 10 mls of 100 gamma/ml and 2, 5 mls 1.000 gamma/ml dilute to 100 mls with 20% $HClO_4$. This equivalent to 4, 10, 20, 40, 100, 200, 400, and 1000 ppm Ag in the sample .50 gm diluted to 10 mls.

Recovery Standard

Pipette 2 mls of 5 gamma/ml Ag in mix acids into a sample and carry through the digestion. This should give a reading of 20 ppm Ag + original sample content.

Follow the general geochemical procedure for sample preparation and digestion.

For low assay Ag, the same procedure is used. Ag is then calculated in oz/ton.

1 ppm = .0292 oz/ton

conversion factor

oz/ton = .0292 x ppm Ag

Zn Geochemical AA Setting

Lamp Zn

Current 8 #3 Slit 20A

Wave length 2138 Dial 84.9

Fuel - Acetylene Flow 14

Oxidant - Air Flow 14

Burner - P.E. short path 90°

Range

0 - 20 gamma/ml Factor 4x - 0 to 400 ppm

0 - 50 gamma/ml Factor 10x -0 to 1000 ppm

For Waters - Burner AB- 51 in line 1 gamma/ml read 100 to give 0 to 1000 ppb

High Zn Burner Boling in line. Wavelength 3075. Dial 250 Slit 7A

Fuel 14 Air 14.5

0 to 1000 gamma/ml read 0 to 20 Factor 400 x

Pure Standard 10,000 gamma/ml

1 gm Zn dissolved, H_2O, HCl, HNO_3, $HClO_4$, fumed to $HClO_4$ - make up to 100 mls H_2O

1000, 100 gamma/ml and 100 ml by dilution in 20 % $HClO_4$

0 to 200 gamma/ml Zn use combined Cu, Ni, Co, Pb, Zn standards

Pipette

1, 2, 3, 5, 8, 10 mls of 10,000 gamma/ml - dilute to 100 mls with 20% $HClO_4$ to give

100, 200, 300, 500, 800, 1000 gamma/ml Zn for high standards

Co Geochemical AA Setting

Lamp - 5 multi element

Current 10 #4 Slit 2A

Wavelength 2407 Dial 133.1

Fuel - Acetylene Flow 14

Oxidant - Air Flow 14

Burner - AB 51 in line

Range

0 - 10 gamma/ml read 100 Factor 2 x reading to 200 ppm

0 - 20 gamma ml read 100 Factor 4 x reading to 400 ppm

Burner at maximum angle

0 - 100 gamma/ml read 100 Factor 20 x reading to 2000 ppm

0 - 200 gamma/ml read 100 Factor 40 x reading to 4000 ppm

Standards - 1000 gamma/ml

1.000 gm cobalt metal dissolved in HCl, HNO, and fumed into $HClO_4$, dilute to 1 liter

Pipette

1, 2, 10, 20 mls into 100 ml vol flasks diluted to mark with 20% $HClO_4$

This gives

10, 20, 100, 200 gamma/ml Co

Mixed - combination standards of Cu, Ni, Co, Pb, Zn

of

1, 2, 5, 10, 20, 30, 50, 80, 100, 150, 200 gamma/ml are used for calibration

Mn Geochemical AA Setting

Lamp Multi element Ca, Ni, Co, Mn Cr

Current 10 #4 Slit 7A

Wave length 4030.8 Dial 425.2

Fuel - Acetylene Flow 14.0

Oxidant - Air Flow 14.0

Burner - P.E. short path (or AB 50)

Range

0 - 100 gamma/ml Factor 20x - 0 to 2000 ppm

0 - 200 gamma/ml Factor 40x - 0 to 4000 ppm

Burner 90°

0 - 1000 gamma/ml Factor 200x - 0 to 20,000 ppm

0 - 2000 gamma/ml Factor 400x - 0 to 40,000 ppm

EDTA Extraction - use AB 51 in line

0 - 20 gamma/ml Factor 4x - 0 to 400 ppm

Standards

Fisher 10,000 gamma/ml (ml)

10x Dilution 1000 gamma/ml

Pippette

.5, 1, 2, 3, 5, 8, 10, ml of 1000 gamma/ml

2, 3, 5, 8, 10, 15, 20 ml of 10,000 gamma/ml dilute to 100 mls with 20% $HClO_4$. This gives

5, 10, 20, 30, 50, 80, 100, 200, 300, 500, 800, 1000, 1500, 2000 gamma/ml

Mo Geochemical AA Setting

Lamp ASL H/C Mo

Current 5 #5 Slit 7A

Wavelength 3133 Dial 260.2

Fuel - Acetylene Flow 12.0 to give 1" red feather

Oxidant - Nitrous oxide Flow 14.0

Burner - AB 50 in line

Caution read the operation using N_2O and acetylene flame at end of general AA procedure

Range

0 - 10 gamma/ml Factor 2x - 0 to 200 ppm

Rotate burner to max. angle

0 - 50 gamma/ml Factor 10 x 0 to 1000 ppm

0 - 100 gamma/ml Factor 20 x 0 to 2000 ppm

Standards 1000 gamma/ml

Dissolve .750 gms MoO_3 (acid molybdic) with 20 mls H_2O, 6 lumps NaCH, when all dissolved, add 20 mls HCl, dilute to 500 mls

100 gamma/ml - 10 x dilution

Pipette

.2, .5, 1, 2, 3, 5, 8, 10 mls of 100 gamma/ml

2, 3, 5, 8, 10 mls of 1000 gamma/ml add 5 mls 10% $AlCl_3$ and dilute to 100 mls with 20% $HClO_4$

This gives

.2, .5, 1, 2, 3, 5, 8, 10, 20, 30, 50, 80, 100 gamma/ml Mo

Fe Geochemical AA Setting

Lamp - Fe

- Do not use multi element Fe

Current 10 #4 Slit 2A

Wavelength 3440.6 Dial 317.5

Fuel - Acetylene Flow 14.0

Oxidant - Air Flow 14.0

Burner - PE Short Path 90°

Range

0 - 5000 gamma/ml 0.1 x % - 0 to 10.0%

0 - 10,000 gamma/ml 0.2 x % - 0 to 20.0%

Higher Fe - 10 x dilution

Standards 10,000 gamma/ml

Weigh 5.000 gms iron wires, into beaker, add H_2O, HCl, HNO_3, $HClO_4$, heat to $HClO_4$ fumes. Add $HClO_4$ to 100 mls + 100 mls H_2O, warm, dilute to 500 mls

Pipette

1, 5, 10, 20, 30, 50, 80 mls 10,000 gamma/ml dilute to 100 mls with 20% $HClO_4$ to give

100, 500, 1000, 2000, 3000, 5000, 8000 gamma/ml to be equivalent to .2, 1.0, 2.0, 4.0, 6.0, 10.0%, 16.0% Fe in geochem sample

Ni Geochemical AA Setting

Lamp P.E. H/C. Ni or multi element Cu, Ni, Co, Mn, Cr

Current 10 #4, Slit 2A

Wave length 3415 Dial 312.5

Fule - Acetylene Flow 14.0

Oxidant - Air Flow 14.0

Burner AB 51 in line

Range

0 - 20 gamma/ml Factor 4x - 0 - 400 ppm

0 - 100 gamma/ml Factor 20x - 0 - 2000 gamma

45° 0 - 200 gamma/ml Factor 40x - 0 - 4000 ppm

0 - 500 gamma/ml Factor 100x - 0 - 10,000 ppm

Ni in waters and very low ranges

Wave length 2320 Dial 118

Range 0 - 5 gamma/ml Factor 1x - 0 - 100 ppm

Standards 10,000 gamma/ml

1.000 gm pure Ni metal dissolved in HCl, HNO_3, $HClO_4$ to perchloric fumes, dilute to 100 ml H_2O

1000 gamma/ml and 100 gamma/ml Successive 10x dilutions in 20% HCl

1, 2, 5, 8, 10 mls of 100 gamma/ml

2, 5, 8, 10 mls 1000 gamma/ml

2, 5, 8, 10 mls 10,000 gamma/ml - dilute to 100 mls in 20% HClO4. This gives

1, 2, 5, 8, 10, 20, 50, 80, 100, 200, 500, 800, 1000 gamma/ml

Combined Standards - Cu, Ni, Co, Pb, Zn is used as a working standard

Cu Geochemical AA Setting

Lamp Single Cu or

5 multi element

Current 10 for multi element #4 Slit 7A

4 for single #3 Slit 7A

Wavelength 3247 Dial 280

Burner Techtron AB 51 (For Cu in natural waters)

P.E. Short Path (For geochem)

Fuel Acetylene Flow 14

Oxidant Air Flow 14

Range

0 - 5 gamma/ml Factor 1x to 100 ppm (for low Cu)

0 - 20 gamma/ml Factor 4x to 400 ppm

Burner 90°

0 - 200 gamma/ml Factor 40x to 4000 ppm

Wavelength 2492 Dial 147

Burner in line

Range

0 - 1000 gamma/ml Factor 200x to 20,000 ppm

0 - 2000 gamma/ml Factor 400x to 40,000 ppm

Higher range than 40,000 ppm requires 10x dilution

Standards

10,000 gamma/ml

1.000 gm metal powder, H_2O, HCl, HNO_3 until dissolved, add $HClO_4$, fume dilute to 100 mls

1000 gamma/ml 10x dilution above in 20% $HClO_4$

2000 gamma/ml 20 mls 10,000 gamma/ml - dilute to 100 mls in 20% $HClO_4$

100 gamma/ml 10x dilution 1000 gamma/ml dilute to 100 mls in 20% $HClO_4$

200 gamma/ml 10x dilution 2000 gamma/ml dilute to 100 mls in 20% $HClO_4$

Pipette

1, 2, 3, 5, 8, 10 mls 100 gamma/ml - dilute to 100 mls with 20% $HClO_4$ to give 1, 2, 3, 5, 8, 10 gamma/ml

Combined standards Cu, Ni, Co, Pb, Zn

1, 2, 5, 10, 20, 30, 50, 80, 100, 150, 200 gamma/ml

Pb Geochemical AA Setting

Lamp ASL H/c Pb

Current 5 ma Slit 7A

Wave length 2833 Dial 208

Fuel - acetylene Flow 14

Oxidant - air Flow 14

Burner AB 51 in line

Range

0 - 20 gamma/ml to read 0 to 80. Factor 5x 0 to 500 ppm

0 - 200 gamma/ml to read 0 to 80. Factor 50x 0 to 5000 ppm

Standards - 10,000 gamma/ml

1.000 pure metal, dissolved in HNO_3, fumed to $HClO_4$ make up to 100 mls in 20% $HClO_4$

1000 gamma/ml and 100 gamma/ml Successive 10x dilutions in 20% $HClO_4$

Pipette

1, 2, 5, 8, 10 mls 100 gamma/ml

2, 5, 8, 10, 20 mls 1000 gamma/ml dilute to 100 mls in 20% $HClO_4$ this gives

1, 2, 5, 8, 10, 20, 50, 80, 100, 200 gamma/ml

Combined Standards Cu, Ni, Co, Pb, Zn, are used as working standards

W in Soils and Silts

Reagents and apparatus

Test tubes - pyrex disposable

Test tubes - screw cap

Bunsen Burner

Flux - 5 parts Na_2CO_3

4 parts NaCl

1 part KNO_3 pulverized to -80 mesh

7% $SnCl_2$ in 70% HCl

20% KSCN in H_2O

Extractant - 1 part tri-n-butyl phosphate

9 parts carbon tetrachloride

Standards

1000 gamma/ml W

.18 gms Na_2WO_4 $2H_2O$ dissolved in H_2O, make up to 100 mls

100 gamma/ml, 10 gamma/ml by dilution

Standardization

Pipette .5, 1, 2, 3, 5, 8, 10 ml of 10 gamma/ml

and 1.5, 2 mls of 100 gamma/ml - dilute to 10 mls

continue from step #4

Artificial colors - Nabob pure Lemon Extract, dilute with 1:1 ethanol and water to match. Tightly seal these for permanent standards

Procedure

1. Weigh 1.0 gram sample, add 2 gm flux, mix

2. Sinter in rotary for 2 to 3 minutes (Flux dull read for one minute)
3. Cool, add 10 mls H_2O, heat in sand bath to boiling, cool, let sit overnight
4. Stir, crush, and mix. Let settle
5. Take 2 ml aliquot into screw cap test tube
6. Add 7 mls $SnCl_2$, heat in hot water bath for 5 minutes (80°C)
7. Cool to less than 15°C
8. Add 1 ml 20% KSCN, mix (if lemmon yellow; compare color standard 10x)
9. Add $\frac{1}{2}$ ml extractant, cap, shake vigorously 1 minute
10. Compare color

Molybdenum in Water Samples

1. Transfer 50 mls to 125 separatory funnel
2. Add 5 ml .2% ferric chloride in conc HCl
3. Add 5 mls of mixed KSCN and $SnCl_2$
4. Add 1.2 mls isopropyl ether, shake for 1 minute, and allow phases to separate
5. Drain off water
6. Compare the color of extractant

Standardization

Pipette 0, .2, .5, 1, 2, 3, 4, 5, mls of 1 gamma/ml and 1, 1.5, 2, mls of 10 gamma/ml dilute to 50 mls with demineralized H_2O, and continue step #2.

This equivalent to

1, 4, 10, 20, 40, 60, 80, 100, 200, 300, 400 ppb Mo

Artificial color - Nabob orange extract dilute with 1:1 H_2O to methanol to match. Seal tightly

$SnCl_2$ - 15% in 15% HCl

300 gm $SnCl_2 \cdot 2H_2O$ + 300 mls HCl, until $SnCl_2$ dissolved

dilute to 2 liters

KSCN - 5% in H_2O

Mixed $SnCl_2$ - KSCN

3 parts $SnCl_2$ to 2 parts KSCN

Water Samples Run for AA

1. Cu - 2 gamma/ml reads 80 scale therefore 1 unit = 25 ppb

2. Zn - 1 gamma/ml reads full scale therefore 1 unit = 10 ppb

3. Ni - 2.5 gamma/ml reads 50 scale therefore 1 unit = 50 ppb

Burner: long slot techtron burner in line

Sulphate in Natural Waters

1. Pipette 0.5 ml sulphate reagent mix into a colorimetric tube
2. Add 5 ml water sample and mix
3. Read at 343 mμ against a demineralized water blank
4. Read again at 400mμ and subtract from sulphate reading
5. Calculate ppm sulphate from the graph

Reagent

Dissolve 54 grams red mercuric oxide (J.T. Baker 2620- Can Lab) in 185 ml 70% perchloric acid and 20 ml H_2O, shake for one hour. Add 46.3 grams ferric perchlorate [$Fe(ClO_4)_3 \cdot 6H_2O$] (GFS 39) and 47 grams aluminum perchlorate [$Al(ClO_4)_3 \cdot 8H_2O$] (GFS 2) Add 400 ml water to dissolve, let settle overnight, decant into bottle and make to 1 liter

pH MEASUREMENTS

Soil and drainage sediment samples are dampened with water in a glass beaker to a pasty consistency. Demineralized water is used for this purpose as it has a low buffer capacity and thus does not influence the pH of the sample. Measurement is made with a Fisher Acumet pH meter. Electrodes are stored in buffer overnight. A 30 minute warm up time is allowed for the instrument each morning. A 10 ml aliquot is taken from water samples for pH measurement.

APPENDIX III

INDUCED POLARIZATION/RESISTIVITY PROFILES

L/M RATIO SCALE : 1" =

CHARGEABILITY SCALE : 1" = 10 msec.

HORIZONTAL SCALE : 1" = 400 FT.

ARRAY $D_p - D_p$

OPERATOR GAID

SPACING 200 FT

DATE JUNE 13, 1972

CLIENT AMAX

AREA SPOUT LAKE N.W. GRID

LINE NUMBER 0+00

SURVEY BY AMAX

20W 16W 12W 8W 4W 0+00

1000
100
10
0

RESISTIVITY OHM METERS

CHARGEABILITY MILLISECONDS

L/M RATIO

N.R.

3881

L/M RATIO SCALE : 1" =

CHARGEABILITY SCALE : 1" = 10 msec.

HORIZONTAL SCALE : 1" = 400 FT.

ARRAY 0_p - 0_p

SPACING 200 FT.

DATE JUNE 13 1972

OPERATOR GMD

CLIENT AMAX

AREA SPOUT LAKE

LINE NUMBER 32 S.

SURVEY BY AMAX

N.W. GRID.

32W 28W 24W 20W 16W 12W 8W 4W

1000
100
10
0

RESISTIVITY OHM METERS

CHARGEABILITY MILLISECONDS

100
10
0

L/M RATIO

3881

L/M RATIO SCALE : 1" =

CHARGEABILITY SCALE : 1" = 10 m sec, HORIZONTAL SCALE : 1" 400 FT

ARRAY L-L

SPACING

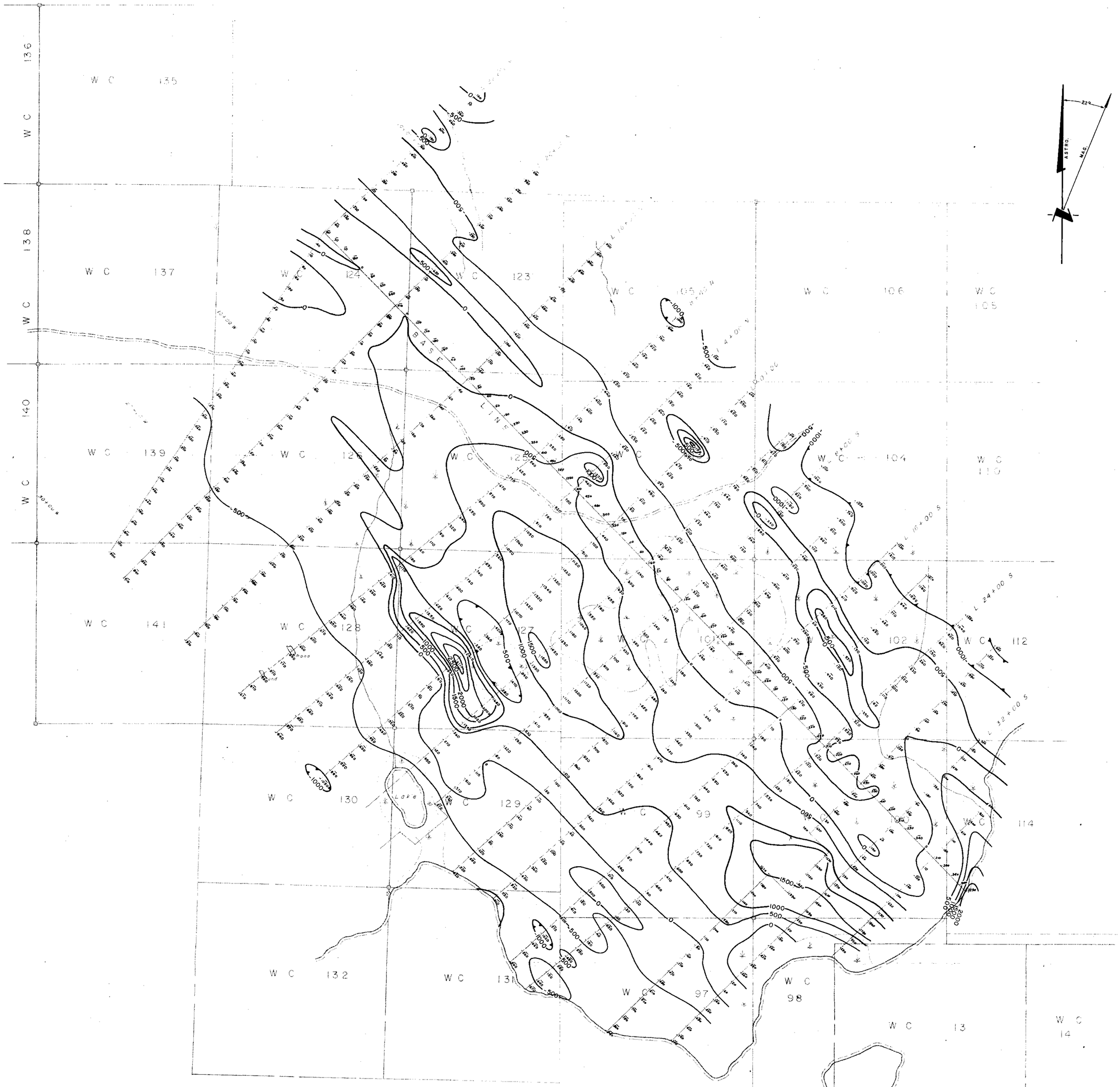
CLIENT AMAX

SURVEY BY AMAX

DATE JUNE 13, 1972 AREA SPOOT LAKE N.W. GRID

OPERATOR

LINE NUMBER 4S



S Y M B O L S

- Picket line, vertical field readings in gammas (positive, negative).
- 500 — Isomagnetic contour.
- Claim post, claim location line.
- Claim boundary line.
- Witness post.
- Road.
- Stream.
- Swamp, swamp boundary.

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INSTRUMENT	M.F. 2 Fluxgate
OPERATOR	G. M. De Paoli
DATE	June 1972
CONTOUR INTERVAL	500 Gammas

AMAX POTASH LIMITED

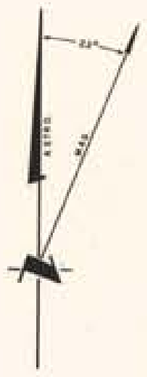
SPOUT LAKE PROPERTY
NORTHWEST GRID
CLINTON MINING DIVISION — BRITISH COLUMBIA

GROUND MAGNETIC MAP

SCALE 1" = 400'

DATE REVISED	DATE PRINTED	Drawn by: / Date / N.T.S. File 93 A 3	FIG. 5

To accompany report "SPOUT LAKE PROPERTY" by: R. F. Horsnail, G. M. De Paoli, G. M. Leary, J. F. Allan 1972



L E G E N D

MID TO LATE TERTIARY

Conglomerate.

Porphyritic and/or vesicular basalt.

UPPER TRIASSIC

NICOLA GROUP

Skarned limy basalt breccia.

Porphyritic augite basalt flow.

S Y M B O L S

Soil sample site, sample number (analytical values in p.p.m. Cu, Ni, Zn).

Outcrop.

Geological contact.

Picket line.

Claim post, claim location line.

Claim boundary line.

Witness post.

Road.

Stream.

Swamp, swamp boundary.

Outline of anomalous copper content in soil.

Outline of high background to anomalous zinc content in soil.

	BACKGROUND	HIGH BACKGROUND	POSSIBLY ANOMALOUS	PROBABLY ANOMALOUS
COPPER	0 - 49	50 - 69	70 - 99	> 99
NICKLE	0 - 39	40 - 49	50 - 69	> 69
ZINC	0 - 99	100 - 139	140 - 199	> 199

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AMAX POTASH LIMITED

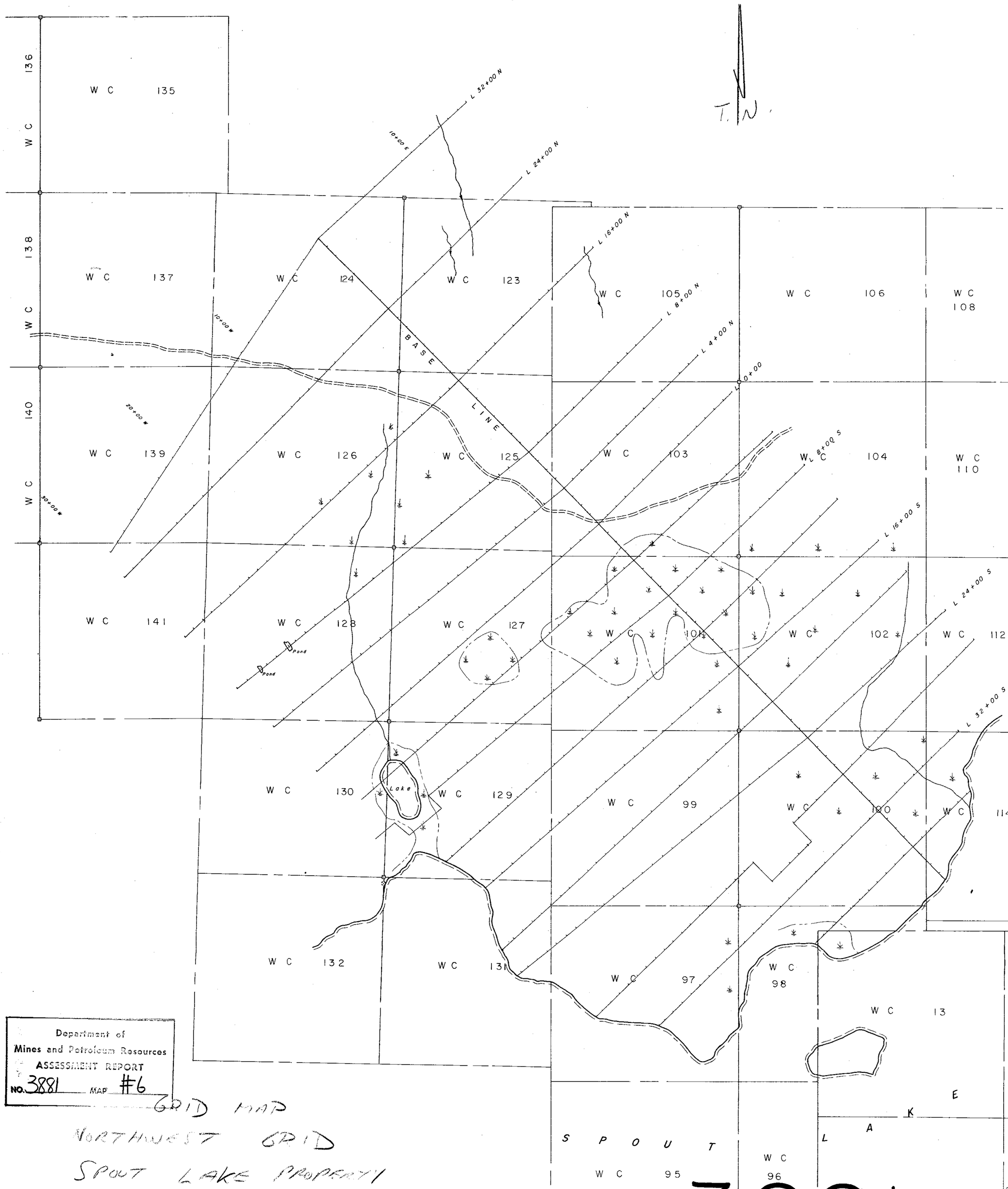
SPOUT LAKE PROPERTY
NORTHWEST GRID
CLINTON MINING DIVISION — BRITISH COLUMBIA

GEOCHEMICAL AND GEOLOGICAL MAP

SCALE 1" = 400'

DATE REVISED | DATE PRINTED | Drawn by | Date | N.T.S. File 93 A 3 | FIG. 4

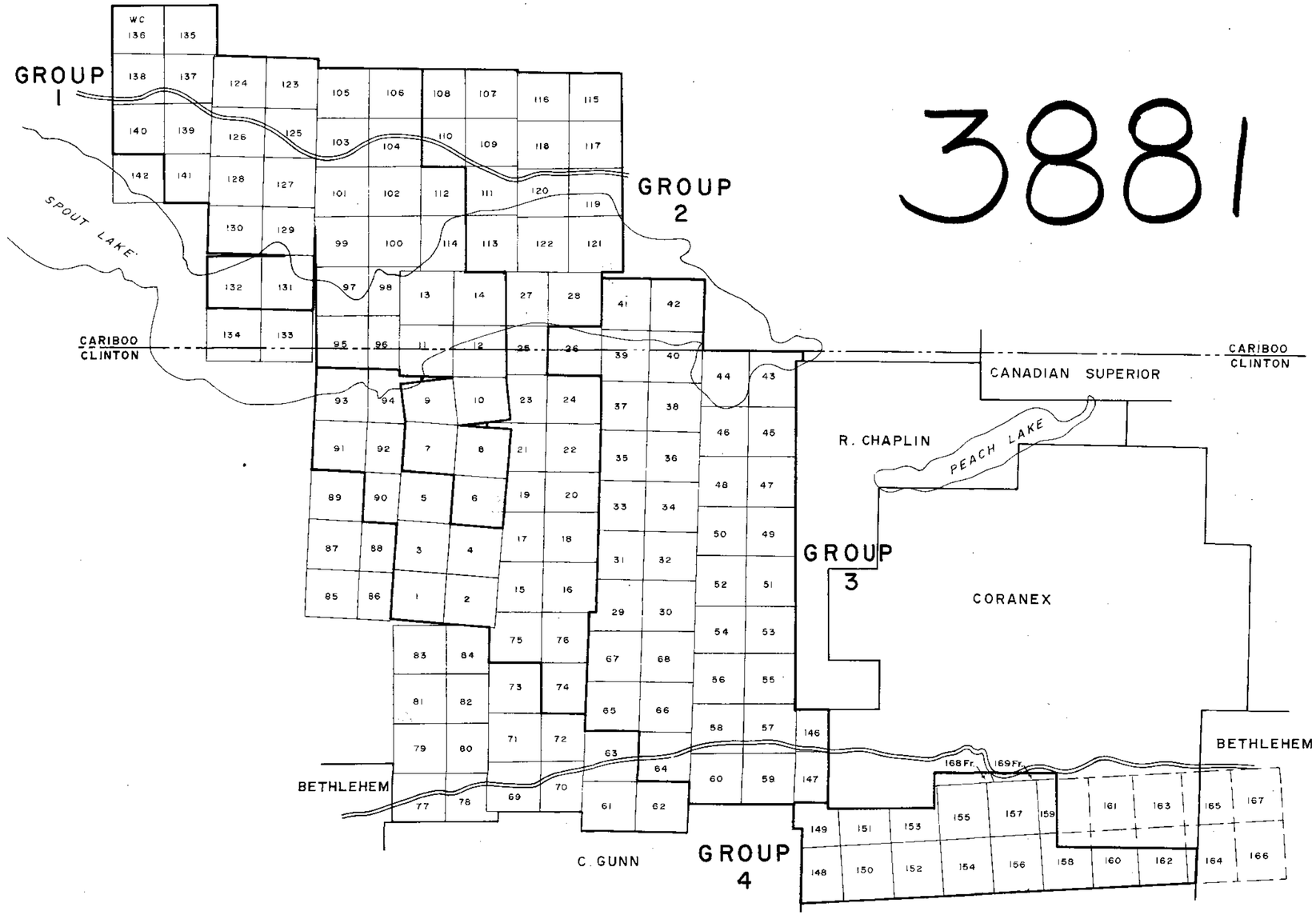
To accompany report "SPOUT LAKE PROPERTY" by R. F. Horsnail, G. M. De Paoli, G. M. Leary, J. F. Allan. 1972



Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 3881 MAP #6

GRID MAP
NORTHWEST GRID
SPOUT LAKE PROPERTY
WC claims
Scale: 1 inch = 400 feet

3881 M-6



3881 M-7

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Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 3881 MAP #7

AMAX POTASH LTD.

SPOUT LAKE PROPERTY
CLINTON AND CARIBOO MINING DIVISIONS - BRITISH COLUMBIA

CLAIM MAP

SCALE — 1"= 1/2 mile

DATE REVISED	DATE PRINTED	
9/7/72		Drawn by FJF
		Dec. 28, 1971
		N.T.S. File 92 P 14 93A 3

fig. 3

To accompany report "SPOUT LAKE PROPERTY" by R.F. Horsnail, G.M. DePaoli, G.M. Leary, J.F. Allan. 1972