

A Magnetic And Geochemical Report
on the
ROX GROUP Property
(Cedar Creek, Ernest 1, Lilly 1, Lor, Ang, Rocky, Harriet,
Nancy, Toucan and Cliona claims)
located in the
Likely Area, Cariboo Mining Division
Map M93A/12E
Latitude 52°37' N and Longitude 121°35' W
for
Raymond A. Cook
(owner and operator)
by
Raymond A. Cook B.Sc., M.Sc., Geology
May 15, 1984

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

Raymond A. Cook

12,233

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FIGURES 2, 3 and 4 in pocket

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I. INTRODUCTION

A magnetic and geochemical survey was conducted over an area of the Rox Group known historically as the Cedar Creek Upper Bench placers.

Property

The claims included in the Rox Group are located in the Quesnel Lake area of the Cariboo Mining Division, British Columbia. The claims are held by Raymond A. Cook and include:

<u>Claims</u>	<u>Record No.</u>
Cedar Creek 1	979
Cedar Creek 2	980
Cedar Creek 3	981
Cedar Creek 4	982
Ernest 1	1002
Lilly 1	1003
Cliona	1238
Lor	(1240)
Ang	1239
Rocky	1241
Harriet	1242
Nancy	1243
Toucan	1244

Location and Access

The property is situated approximately 6 to 13 kilometers south-east of the town of Likely, British Columbia. Likely is some eighty-three kilometers from One Hundred and Fifty Mile House, by a partially paved and gravelled road. The property is accessible for its entire length by a fair gravel road from Likely and it leads to the Cedar Creek dam situated centrally to the group.

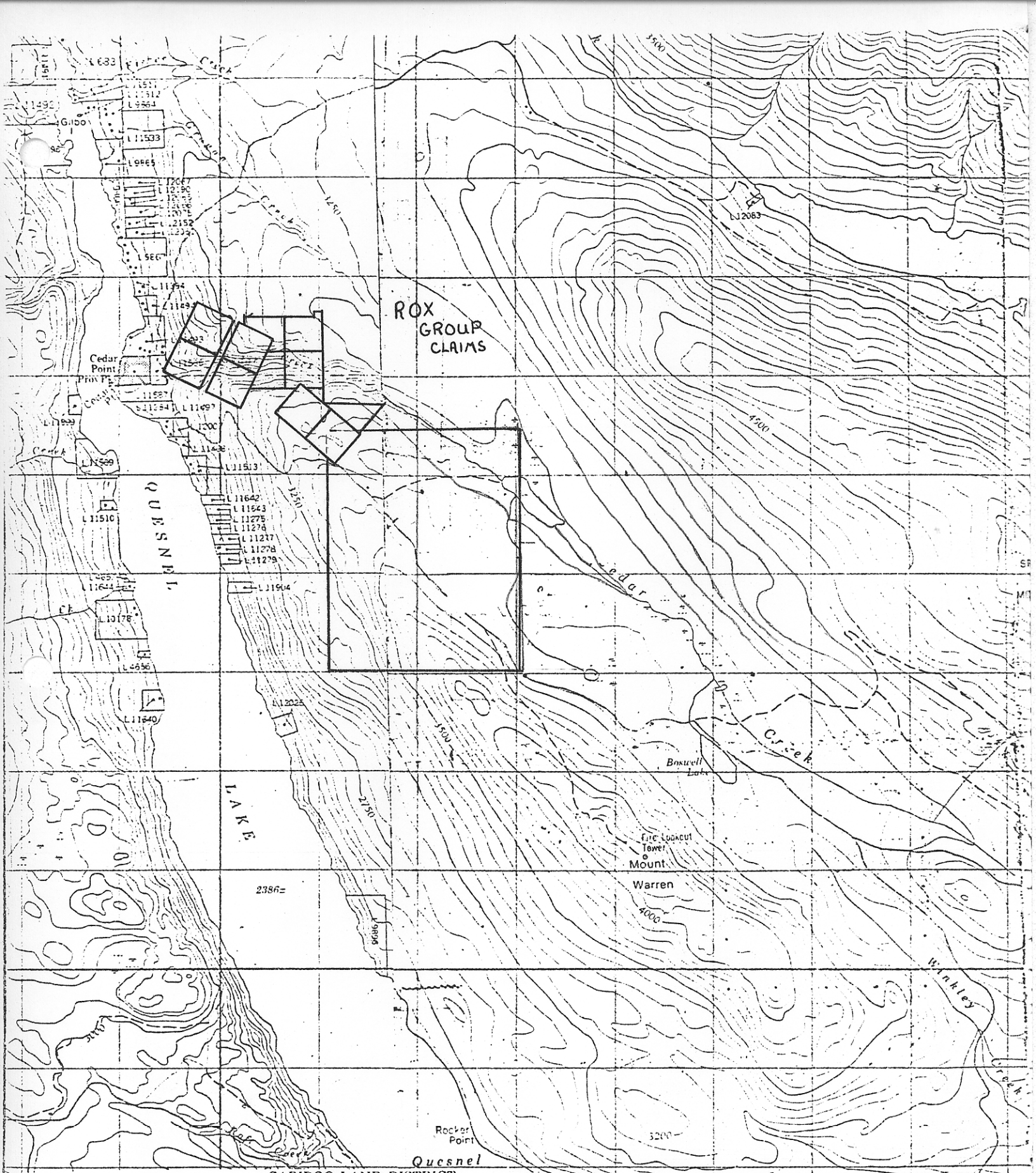
Topography and Vegetation

The elevation varies on the property from 758 meters near Quesnel Lake to 1,212 meters for Cedar Creek Plateau. The vegetation cover is dense with several periods of regrowth. Cedar, birch, hemlock, fir, pine and alder predominate in a temperate to semi-arid environment.

Previous Work

The Rox Group encompasses most of the placer and bedrock workings known as the Cedar Creek gold rush of 1921 and the Wonder Group showing:

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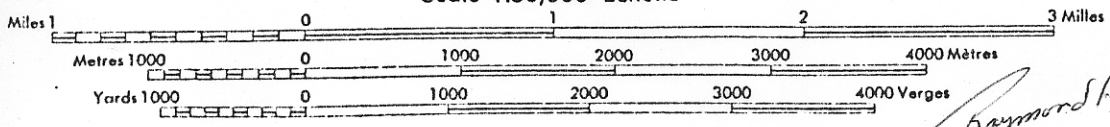


ROX
GROUP
CLAIMS

CARIBOO LAND DISTRICT
BRITISH COLUMBIA

FIGURE 1
ROX GROUP

Scale 1:50,000 Échelle



CONTOUR INTERVAL 50 FEET
Elevations in Feet above Mean Sea Level
North American Datum 1927
Transverse Mercator Projection

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of 1923. Extensive excavation of surface gravels and weathered bedrock down to bedrock throughout the 1920's, 1930's and mid 1940's produced rich and abundant pay. Bedrock control to known placer gold occurrences although frequently hypothesized was never tested with the exception of a magnetic survey on the overlying Manx claims in 1968.

The Rox Group includes claims staked by Raymond A. Cook from 1979 to 1980. Regional mapping, prospecting and sampling were conducted with detailed geochemical testing of the former Wonder Group showing and adit in Cedar Creek canyon. Follow up exploration diamond drilling with a Winkie drill tested the bedrock adjacent the Wonder Group mineralization with no new resultant mineral shows.

Performed Work

The property was partially surveyed magnetically and geochemically in October and November 1983 and again in April 1984 with 12,100 meters magnetically tested at 25 meter intervals. Survey lines were cut, flagged and chained with stations marked at 50 meter intervals.

The magnetic survey was conducted using a Barringer portable protonmag model GM-122. Magnetic readings were corrected diurnally and averaged with adjacent readings on a 2 to 1 ratio. Topographic relief over the surveyed area was less than 25 meters and considered of negligible magnetic affect.

II. RESULTS

Magnetic Survey

A system of bedrock controlled circular magnetic highs and lows with a northwest to southeast trend occurs throughout the surveyed area. The magnetic background (values are greater than 57,000 gammas) varies with higher numbers characteristic of the southeastern half of the surveyed area. The presence of a north-south trending magnetic low suggests a fault separating magnetically differing northwest and southeast bedrock blocks. Good correlation exists between magnetic highs and known surficial mining of placer gold. (Figure 2 - in pocket).

Geochemistry

Pathfinder elements Cu, Pb and Ag were used to detect Au based on their occurrence in the Cedar Creek canyon "Wonder Group" showing mineral assemblage of gold, pyrite, galena, chalcopyrite and sphalerite. Results of the survey are plotted and contoured in figures 3 and 4. Geochemical response was determined from local and regional studies with:

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<u>Variation</u>	<u>Au</u> (ppm)	<u>Ag</u> (ppm)	<u>Cu</u> (ppm)	<u>Pb</u> (ppm)
Background	<.02	< 0.2	< 70	< 4
Threshold	.02 to .04	0.2 to 0.6	70 to 95	4 to 8
Anomalous	> .04	> 0.6	> 95	> 8
Strongly Anomalous	> 0.2	> 2.0	> 300	> 50

Plot's of all elements demonstrate three coincident anomalies on lines 2 and 3E at 00 to 1N (anomaly A) plus line 3W at 00 to 1N (anomaly B) plus lines BL, 1E and 2E at 3, 4 and 5S (Anomaly C). The strength of the anomalies are best indicated by Au and Ag with Au values varying from .07 to 0.1 ppm and Ag varying from 2.6 to 12 ppm for Anomaly A. Anomaly B contains Au values to .07 ppm and Ag values to 9 ppm while Anomaly C contains values to 4 ppm for Au and 3.8 ppm for Ag. Copper fluctuations throughout the surveyed area range from 34 to 172 ppm with 80% of the samples ranging from 70 to 125 ppm. The limited range in copper and lack of lead values contributes to uncertainty in base metals as reliable gold pathfinder elements on the Rox property.

Comparison of the geochemistry and magnetics shows good spatial relationship between gold, silver, copper and lead anomalies to relative magnetic highs.

III. INTERPRETATION

The distinctly different magnetic character of the northwestern versus the southeastern surveys with relatively low magnetic values separating the areas suggests faulting and offset of the bedrock. Bedrock outcroppings although patchy occur in both areas and are medium green porphyritic andesite flows and breccia. Alteration of the andesite includes mainly silicification and carbonatization with minor epidotization plus felsitization. Silicified andesite has a bluish-green saussuritized colouration and unlike the predominant massive flows are brittle and highly fractured. Outcrops of andesite are more commonly altered in the southeastern survey block with notable abundance of accessory hornblende phenocrysts. The higher magnetic character of the southeastern survey area is due to a greater amount of mafic minerals with highs reflecting crosscutting dykes or mafic apophyses. Similarly the northwestern area reflects a block of andsite with lower background magnetics and comparable

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mafic dyke swarms. The general strike to the anomalous magnetic dykes or apophyses is N60°E.

The coincidence of the gold and silver anomalies to the magnetic anomalies while apparent is limited in importance by the spatial scope of the geochemical survey and the reworking of soils by past prospecting and mining activity. The presence of silicified and strongly fractured bedrock with magnetic and geochemical anomalies plus the occurrence of mafic dykes points to a potential hydrothermal control.

IV. CONCLUSIONS

1. Bedrock blocks with differing magnetic characteristics are separated by a north-south boundary fault. Magnetic highs are thought to be hornblende dioritic dyke swarms with a trend of N60°W.
2. High values in precious metals occur on the Rox Property with gold to 4 ppm and silver to 12 ppm in unconcentrated soil samples. Copper and lead weakly indicate precious metal anomalies.
3. Precious and base metal anomalies coincide favourably with magnetic anomalies.

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APPENDIX I
COST STATEMENT - ROX GROUP

Magnetic and Geochemical Survey Nov. 2, 1983 to April 25, 1984.

<u>Name</u>	<u>Work</u>	<u>Dates Worked</u>	<u>No. of Days</u>	<u>Rate/Day</u>	<u>Cost</u>
R. Cook	Supervision, magnetometer operator, cut and flag line	Nov. 2 to Nov. 10 1983	9	\$150.	\$1350.
G. Richmond	Supervision, magnetometer operator, cut and flag line, soil sampling	Nov. 2 to Nov. 10 1983 April 15 to April 25 1984	9 11	\$125.	\$2,500.
				Subtotal	<u>\$3,850.</u>

GENERAL EXPENSES

Truck rental and gasoline (4X4)	\$1175.
Assays	\$ 999.
Magnetometer rental	\$ 540.
Accomodation	\$ 320.
Meals	\$ 580.
Misc. (laundry, sample bags, flagging etc.)	\$ 85.
Report compilation	\$1120.
Subtotal	<u>\$4,819.</u>

Total \$8,669.

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APPENDIX II
Qualifications

I, Raymond A. Cook have been practising my profession as a geologist since 1973.

I have an honours B.Sc., in Geology from the University of Alberta, Edmonton 1973 and a M.Sc., Geology from the University of British Columbia, Vancouver 1981.

In applying my profession I have worked with Eldorado Nuclear, Cominco, Terra Mines Ltd., Union Carbide, Crowdis Oil Consultants, Belloy Petroleum Consultants, Home Oil and Rhamco Resource Explorations and Consultants Inc., in mineral and oil-gas exploration-development.

I have worked on research projects in geology for the University of Alberta, Edmonton, Alberta and the University of British Columbia, Vancouver, British Columbia.

I have worked privately on interests of my own in British Columbia and the Northwest Territories since 1975.

I hold interest in the property described in this report and have supervised and directed all exploration activity.

Raymond A. Cook, B.Sc., M.Sc., Geology

A handwritten signature in cursive script that reads "Raymond A. Cook". The signature is written in dark ink and is positioned below the typed name.

Not a Final Statement

RK ORDER NO. 84-7097

Barringer Labs
Calgary

ANALYSIS SET I.D.:

PAGE 4 OF

SAMPLE TYPE

ANALYSIS TYPE

ANALYTICAL TECHNIQUE

DIGESTION PROCEDURE

ELEMENTS CONCENTRATION UNITS		Au ppm	Ag ppm	Cu ppm	Pb ppm	Lab NO	Sample NO	Au ppm	Ag	Cu	Pb
# NO.	SAMPLE NO.										
1	LO 4S	✓ 1.08	3.8	95	14	21	NP 2E 6S	.03	.3	76	2
2	LO 1S	.04	.2	125	6	22	NP 1W 00	✓ .04	.2	94	0
3	NP 4E 2N	.02	.3	87	5	23	NP LO 1+20N	✓ .05	.4	88	5
4	NP 3E 2N	.02	.2	108	0	24	NP LO 3S	✓ .05	.4	92	3
5	NP 1E 5S	✓ .20	.2	79	5	25	NP 2E 3N	<.01	.2	68	0
6	NP 3E 5S	.07	.4	96	0	26	NP 1E 00	<.01	.2	49	3
7	NP 2E 1S	.02	.2	69	0	27	NP 1W 1N	<.01	0	97	2
8	NP LO 2S	.03	1.2	107	0	28	NP 3W 2N	✓ .20	0	75	1
9	NP 2E 3S	✓ 1.00	2.6	104	2	29	NP 2E 1N	✓ .07	2.6	84	6
10	RPT - 1	1.16	3.4	100	16	30	RPT - 2	.03	.4	75	1
11	NP 2W 2S	<.01	0	98	2	31	NP 3W 1N	.03	9.0	138	0
12	NP 3E 3N	<.01	0	62	4	32	NP 2W 2N	.04	0	92	1
13	NP 8W 3N	.03	0	90	3	33	NP 1W 1+20S	.04	0	104	1
14	NP 3W 2S	.04	.4	93	0	34	NP 3E 4S	✓ .06	.3	100	0
15	NP 2E 2N	.05	0	102	0	35	NP 8W 1N	.04	0	93	0
16	NP 2E 00	.02	6.0	82	1	36	NP 3E 6S	<.01	2.0	89	11
17	NP 4E 3S	<.01	.4	85	0	37	NP 2W 3N	<.01	.4	86	3
18	NP LO 5S	.02	0	80	0	38	NP LO 2N	<.01	.6	112	1
19	NP LO 00	.04	0	109	1	39	NP 1E 2S	<.01	.2	92	3
20	STD - BRT - I	.26	.8		15	40	BLANK	1.01	0	0	0

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Not a Final Statement

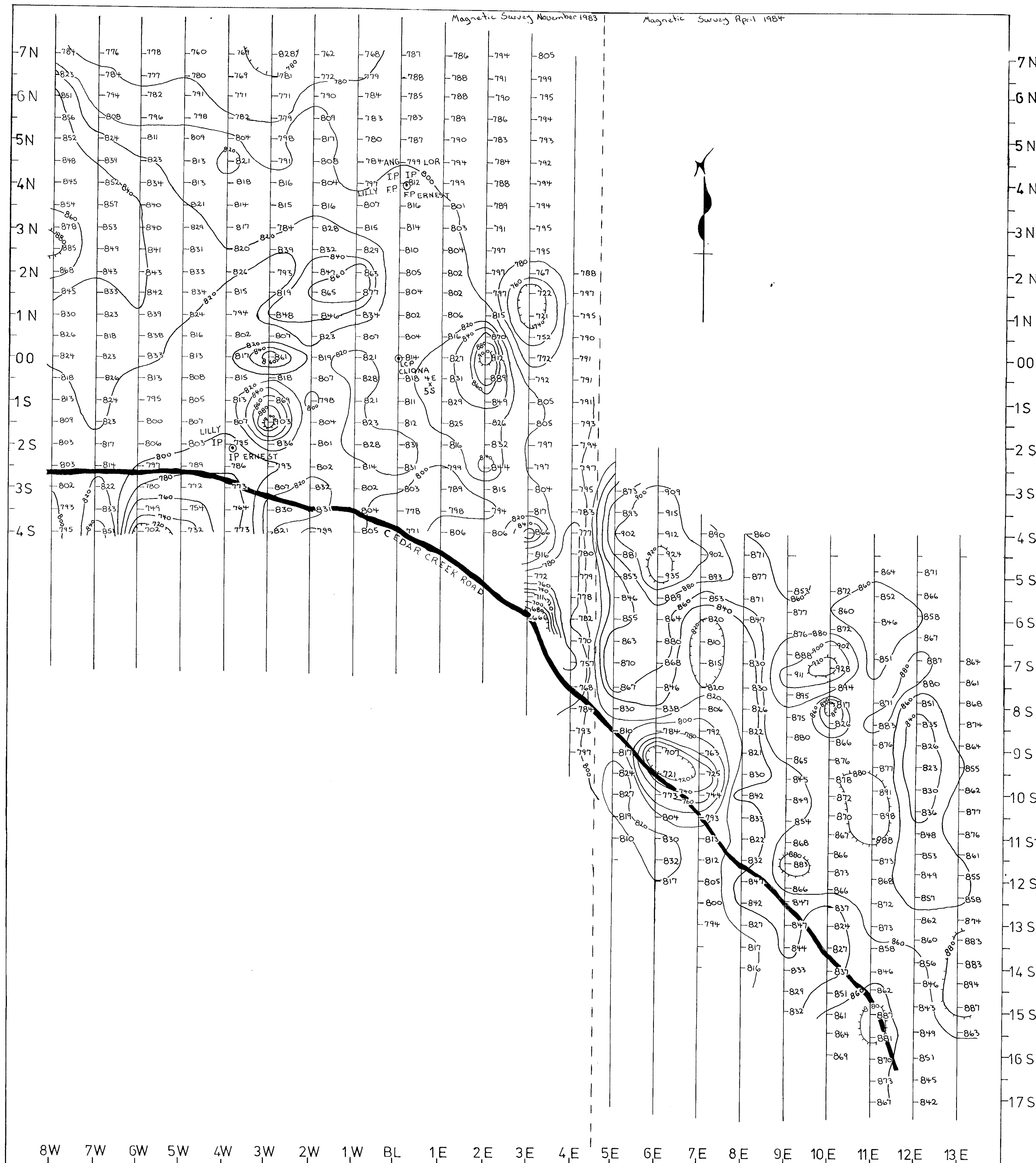
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SAMPLE TYPE *Calgary* ANALYSIS TYPE

ANALYTICAL TECHNIQUE DIGESTION/PROCEDURE

LAB NO.	ELEMENTS CONCENTRATION UNITS SAMPLE NO.	ELEMENTS				Lab NO.	Sample NO.	ELEMENTS							
		Au	Ag	Cu	Pb ppm			Au	Ag	Cu	Pb				
41	NP 1E 1N	.02	.3	63	1										
42	NP 4E 1N	<.01	.6	78	1	61	NP 4E 55	.01	.13	92	3				
43	NP 3E 2S	.04	0	60	3	62	NP 4E 4S	.01	.16	75	1				
44	NP 2W 4S	<.01	.2	34	9	63	NP 3W 1S	.02	0	71	0				
45	NP 6E 3N	.04	0	79	2	64	NP BW 2N	.02	.13	72	0				
46	NP 1W 2N	.03	0	82	2	65	NP 3W 4S	<.01	.13	70	0				
47	NP 1E 6S	.02	.2	58	0	66	NP 4E 00	<.01	0	43	3				
48	NP 1W 4S	.03	.2	73	0	67	NP 1W 3N	.04	.14	85	1				
49	NP 1E 2S	✓ .06	0	85	3	68	NP 1W 3S	.07	.12	120	0				
50	RPT. 4'	.04	.2	57	0	69	NP 1E 3N	.04	.2	76	2				
51	NP 1W 2S	<.01	.3	89	1	70	RPT. 6'	.02	.4	88	3				
52	NP 3W 00	✓ .07	.3	110	0	71	NP BW 2+25W	.07	0	100	0				
53	NP 3E 3S	.04	.2	82	2	72	NP 3W 3N	.05	0	94	0				
54	NP 3E 1S	.03	0	125	5	73	NP 1E 2N	.08	0	91	1				
55	NP 1E 3S	.02	.3	96	1	74	NP 3W 3S	.02	0	71	0				
56	NP 4E 1S	.02	.2	51	0	75	NP 2E 4S	.05	.2	97	0				
57	NP 3E 00	.02	12.0	150	4	76	NP BW 4N	.60	0	96	0				
58	NP 4E 8S	.01	0	62	0	77	NP 2W 3S	.02	0	74	2				
59	4E 6S	.02	.2	90	0	78	NP 1E 1S	.03	0	99	2				
60	NP STD. HU-1	1.95	1.2	117	12	79	NP 4E 7S	.02	0	80	5				
						80	BLANK	<.01	0	0	0				

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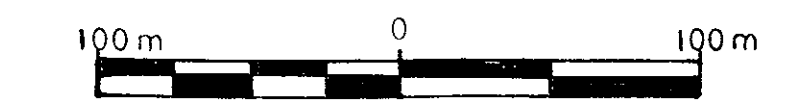


LEGEND
 ROX GROUP
 MAGNETOMETER SURVEY
 FIGURE 2

- MAGNETIC HIGH
- MAGNETIC LOW

MAGNETIC VALUES ARE > 57000 GAMMAS

SCALE
 1:2500

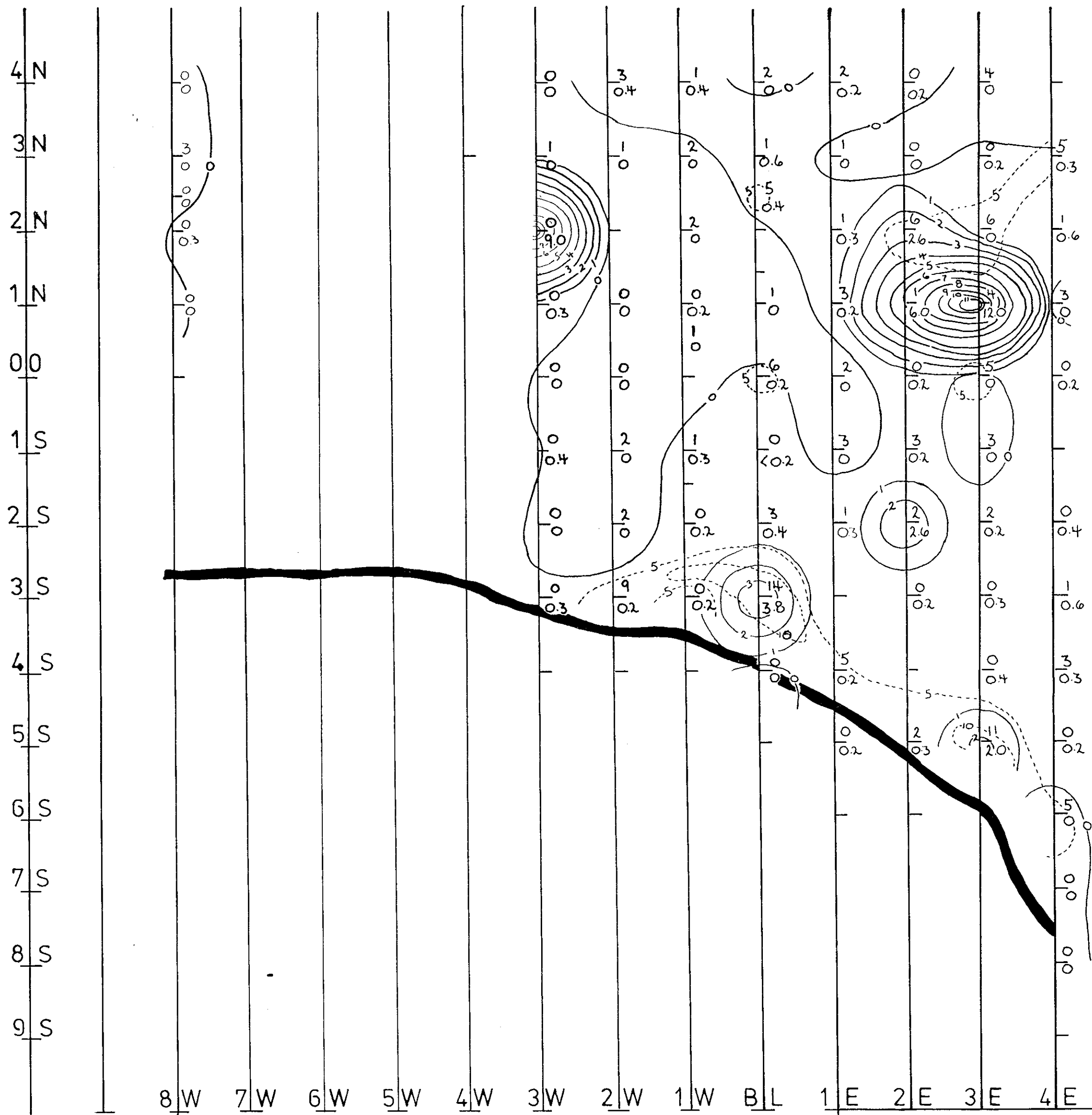


MAP BY: R. A. COOK DRAWN BY: R. A. COOK

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SCALE
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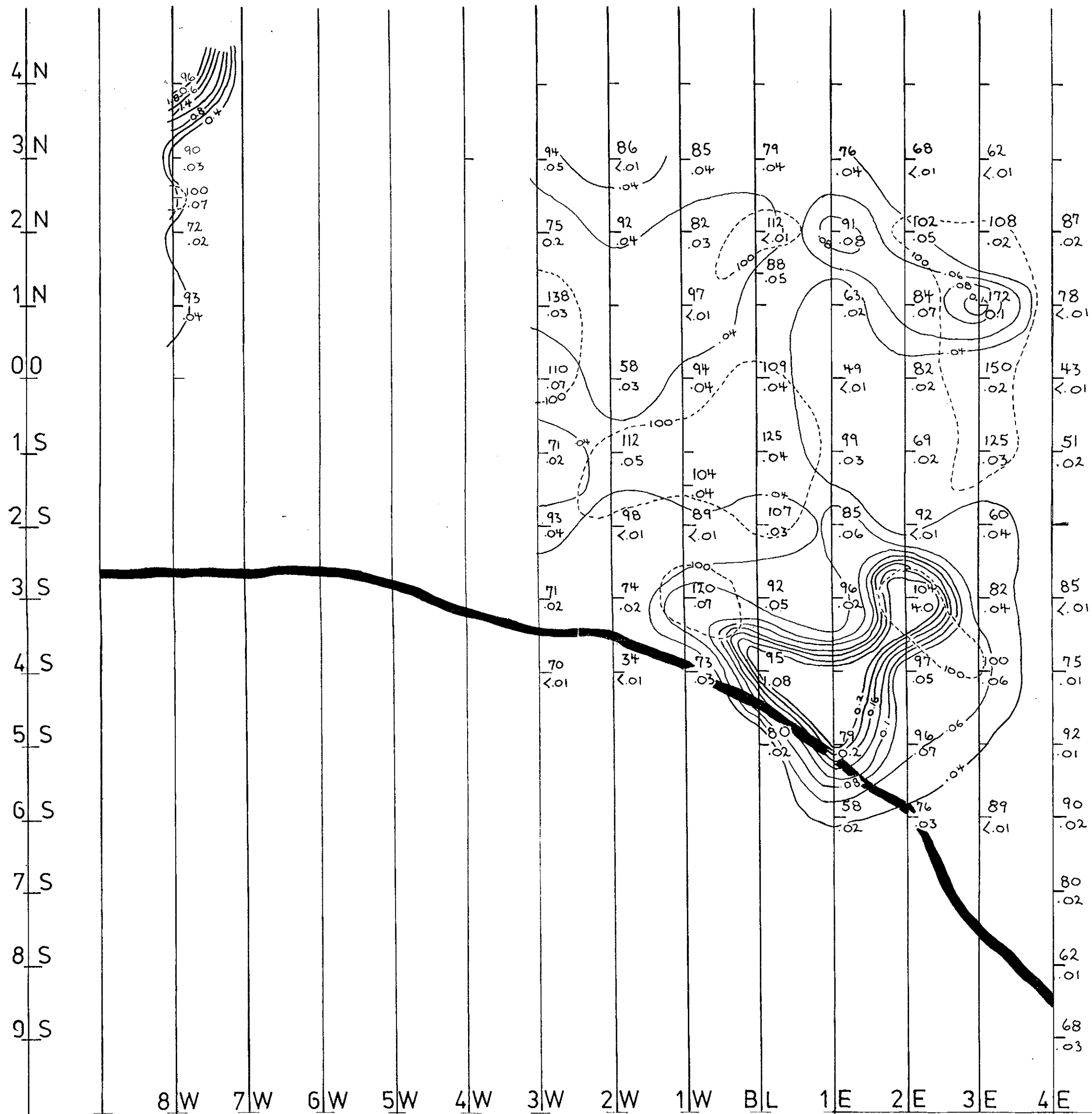


LEGEND
ROX GROUP
GEOCHEMICAL SURVEY
FIGURE 3

Pb (ppm)	ELEMENTS ANALYZED
Ag (ppm)	SILVER CONTOUR
—	LEAD CONTOUR

Map by R.A. Cook Drawn by R.A. Cook

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SCALE
1:2500



LEGEND
ROX GROUP
GEOCHEMICAL SURVEY
FIGURE 4

Cu (ppm)	ELEMENTS ANALYZED
Au (ppm)	
- - - - -	COPPER CONTOUR
— — — — —	GOLD CONTOUR

Map by R.A.Cook Drawn by R.A.Cook

Russell A. Cook