

COMINCO LTD.

EXPLORATION

WESTERN DISTRICT

REPORT ON GEOCHEMICAL SURVEY

HAWK GROUP GRID

FORT STEELE MINING DIVISION

82F/1

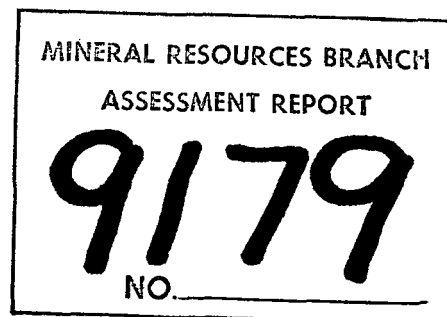
Lat: 49° 04'

Long. 116° 05'

Submitted By:

G.L. WEBBER

Cominco Ltd.
Kootenay Exploration
#1051, Industrial Road No. 2
Cranbrook, B.C.
V1C 4K7



Under the Supervision of:

D. Anderson, P. Eng.

COMINCO LTD.

EXPLORATION

WESTERN DISTRICT

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PLATE 1. Pb soil sample grid.	Attached
PLATE 2. Zn soil sample grid.	"
LOCATION MAP IS INSERTED ON PLATE 1 & 2	

1.00 SUMMARY

The Hawk geochem grid covers a portion of the Hawk 1 claim (20 units) and is centered approximately 1.5 km. south of YAHK. A total of 465 soil samples were collected from the Hawk Grid. The line spacing was 100m. and the sample spacing along lines was 25m.

The -80 mesh fraction of the samples were analyzed for Pb/Zn by atomic absorption at Cominco's Assay Lab in Vancouver. Histogram data for Pb/Zn; Log Transform Histograms for Pb/Zn; along with Cumulative Probability Plots for Pb/Zn are included in this report.

Total expenditures on this survey were \$3,088. Cominco Ltd. requests that 3,088 be supplemented by \$912 of PAC, total to be applied to Hawk 1 (20 units) 2 years at 100/unit per year equals \$4,000.

2.00 INTRODUCTION

2.10 Status of Ownership

The Hawk is 100% Cominco owned.

2.20 Location and Access

The Hawk soil geochemical grid is centered approximately 1.5 km. SSE of YAHK and highway 95. Access is via a good logging road up Hawkins Creek to within 600 metres of the survey grid. A corner post of the Hawk 1 claim is located 1.2 km. S.W. of YAHK.

Plate 1 is a location map of the claim showing the boundaries of the Hawk grid.

2.30 Topography and Vegetation

The survey grid is situated in an area of moderate relief at an elevation of 1,066m. to 1,371m. above sea level. The area is covered by medium to mature larch, lodgepole pine and low bush.

2.40 Objectives

The soil geochemical survey was undertaken to explore for Pb/Zn deposits in Precambrian rocks of the Aldridge Formation.

3.00 GEOCHEMISTRY

3.10 Sampling Procedure

A 1,500m. baseline, azimuth 107° was established and sample lines at 100m. intervals were extended 400m. NNE and 300m. to 900m. SSW. The sample interval along the lines was 25m. Sampling was carried out during the month of August, 1980.

Samples were collected with grub hoe. An attempt was made to consistently sample the "B" horizon. Difficulties were encountered in separating "B" horizon from leached "A" horizon in low areas with thicker accumulations of organic materials. Consequently, some "A" horizon soil may have been sampled in these areas. A total of 465 samples were collected, and analyzed.

3.20 Sample Preparation and Analysis

Samples were collected in wet strength kraft bags, dried at atmospheric temperatures and then sieved through a -80 mesh nylon screen. The -80 mesh fraction was shipped to Cominco's lab in Vancouver for analysis.

The ERL Process for soil analysis:

Weigh 0.5 Gms. of -80 Mesh soil into a test tube add 5 mls. of 20% HNO_3 . Digest for 90 minutes in water bath @ 95° c (shake every 15 minutes). After digestion make up to 10 mls. with deionised H_2O shake well and run on A.A.

HISTOGRAM DATA FOR LEAD

<u>CLASS</u>	<u>LIMITS</u> *	<u>FREQ.</u>	<u>%FREQ.</u>	<u>CUM</u>	<u>CUM%</u>
1	Less Than 0.75	0	0.0	465	100.00
2	0.75to 0.86	0	0.0	465	100.00
3	0.86to 0.99	0	0.0	465	100.00
4	0.99to 1.15	0	0.0	465	100.00
5	1.15to 1.33	0	0.0	465	100.00
6	1.33to 1.53	0	0.0	465	100.00
7	1.53to 1.77	0	0.0	465	100.00
8	1.77to 2.04	23	4.9	465	100.00
9	2.04to 2.35	0	0.0	442	95.05
10	2.35to 2.72	0	0.0	442	95.05
11	2.72to 3.14	0	0.0	442	95.05
12	3.14to 3.62	0	0.0	442	95.05
13	3.62to 4.18	21	4.5	442	95.05
14	4.18to 4.82	0	0.0	421	90.54
15	4.82to 5.56	34	7.3	421	90.54
16	5.56to 6.42	40	8.6	387	83.23
17	6.42to 7.41	45	9.7	347	74.62
18	7.41to 8.55	41	8.8	302	64.95
19	8.55to 9.87	37	8.0	261	56.13
20	9.87to 11.39	64	13.8	224	48.17
21	11.39to 13.14	62	13.3	160	34.41
22	13.14to 15.17	21	4.5	98	21.08
23	15.17to 17.50	17	3.7	77	16.56
24	17.50to 20.20	18	3.9	60	12.90
25	20.20to 23.31	13	2.8	42	9.03
26	23.31to 26.90	9	1.9	29	6.24
27	26.90to 31.04	6	1.3	20	4.30
28	31.04to 35.82	4	0.9	14	3.01
29	35.82to 41.34	4	0.9	10	2.15
30	41.34to 47.70	1	0.2	6	1.29
31	47.70to 55.04	1	0.2	5	1.08
32	55.04to 63.52	1	0.2	4	0.86
33	63.52to 73.30	1	0.2	3	0.65
34	73.30to 84.58	1	0.2	2	0.43
35	84.58to 97.61	1	0.2	1	0.22
36	MORE THAN 97.61	0	0.0	0	0.00

ppm in intervals of .062 log (base 10) units.

There are 34 regular classes, an overflow and underflow class.

The range considered is 8 STD deviations centred on the geometric mean.

The class interval is approx. one-quarter STD deviation.

HISTOGRAM DATA FOR ZINC

<u>CLASS</u>	<u>LIMITS</u> *	<u>FREQ.</u>	<u>%FREQ.</u>	<u>CUM</u>	<u>CUM%</u>
1	Less than 7.81	0	0.0	465	100.00
2	7.81to 8.94	0	0.0	465	100.00
3	8.94to 10.24	0	0.0	465	100.00
4	10.24to 11.73	0	0.0	465	100.00
5	11.73to 13.44	0	0.0	465	100.00
6	13.44to 15.39	0	0.0	465	100.00
7	15.39to 17.63	4	0.9	465	100.00
8	17.63to 20.20	1	0.2	461	99.14
9	20.20to 23.13	1	0.2	460	98.92
10	23.13to 26.50	5	1.1	459	98.71
11	26.50to 30.35	6	1.3	454	97.63
12	30.35to 34.76	10	2.2	448	96.34
13	34.76to 39.81	13	2.8	438	94.19
14	39.81to 45.60	24	5.2	425	91.40
15	45.60to 52.23	29	6.2	401	86.24
16	52.23to 59.83	39	8.4	372	80.00
17	59.83to 68.52	55	11.8	333	71.61
18	68.52to 78.48	43	9.2	278	59.78
19	78.48to 89.89	41	8.8	235	50.54
20	89.89to 102.96	35	7.5	194	41.72
21	102.96to 117.93	27	5.8	159	34.19
22	117.93to 135.07	28	6.0	132	28.39
23	135.07to 154.70	29	6.2	104	22.37
24	154.70to 177.19	21	4.5	75	16.13
25	177.19to 202.95	21	4.5	54	11.61
26	202.95to 232.45	14	3.0	33	7.10
27	232.45to 266.23	8	1.7	19	4.09
28	266.23to 304.93	1	0.2	11	2.37
29	304.93to 349.26	3	0.6	10	2.15
30	349.26to 400.03	3	0.6	7	1.51
31	400.03to 458.18	2	0.4	4	0.86
32	458.18to 524.78	0	0.0	2	0.43
33	524.78to 601.06	2	0.4	2	0.43
34	601.06to 688.43	0	0.0	0	0.00
35	688.43to 788.49	0	0.0	0	0.00
36	MORE THAN 788.49	0	0.0	0	0.00

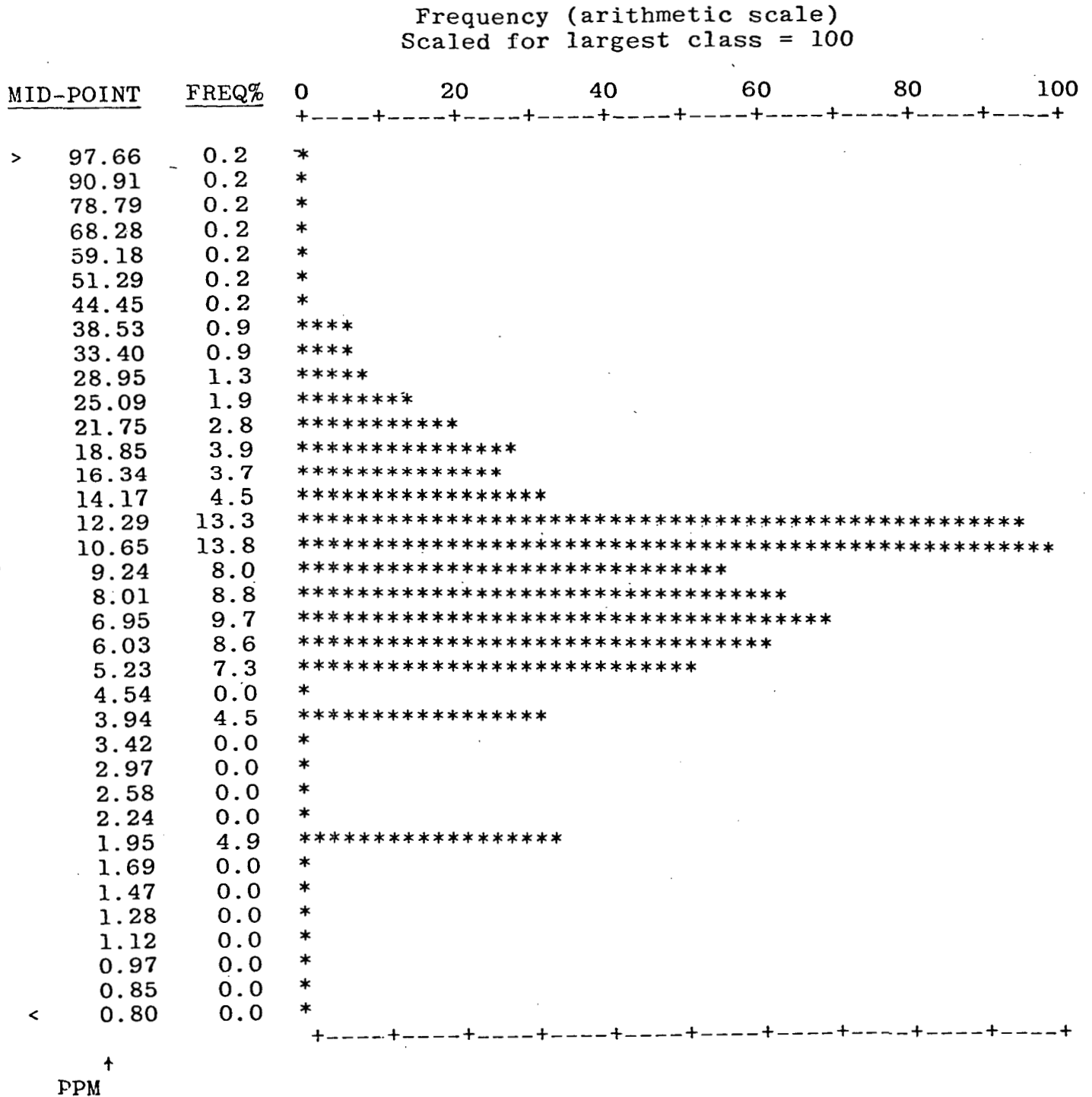
ppm in intervals of .058 log (base 10) units.

There are 34 regular classes, an overflow and underflow class.

The range considered is 8 STD deviations centred on the geometric mean.

The class interval is approx. one-quarter STD deviation.

LOG TRANSFORM HISTOGRAM FOR LEAD

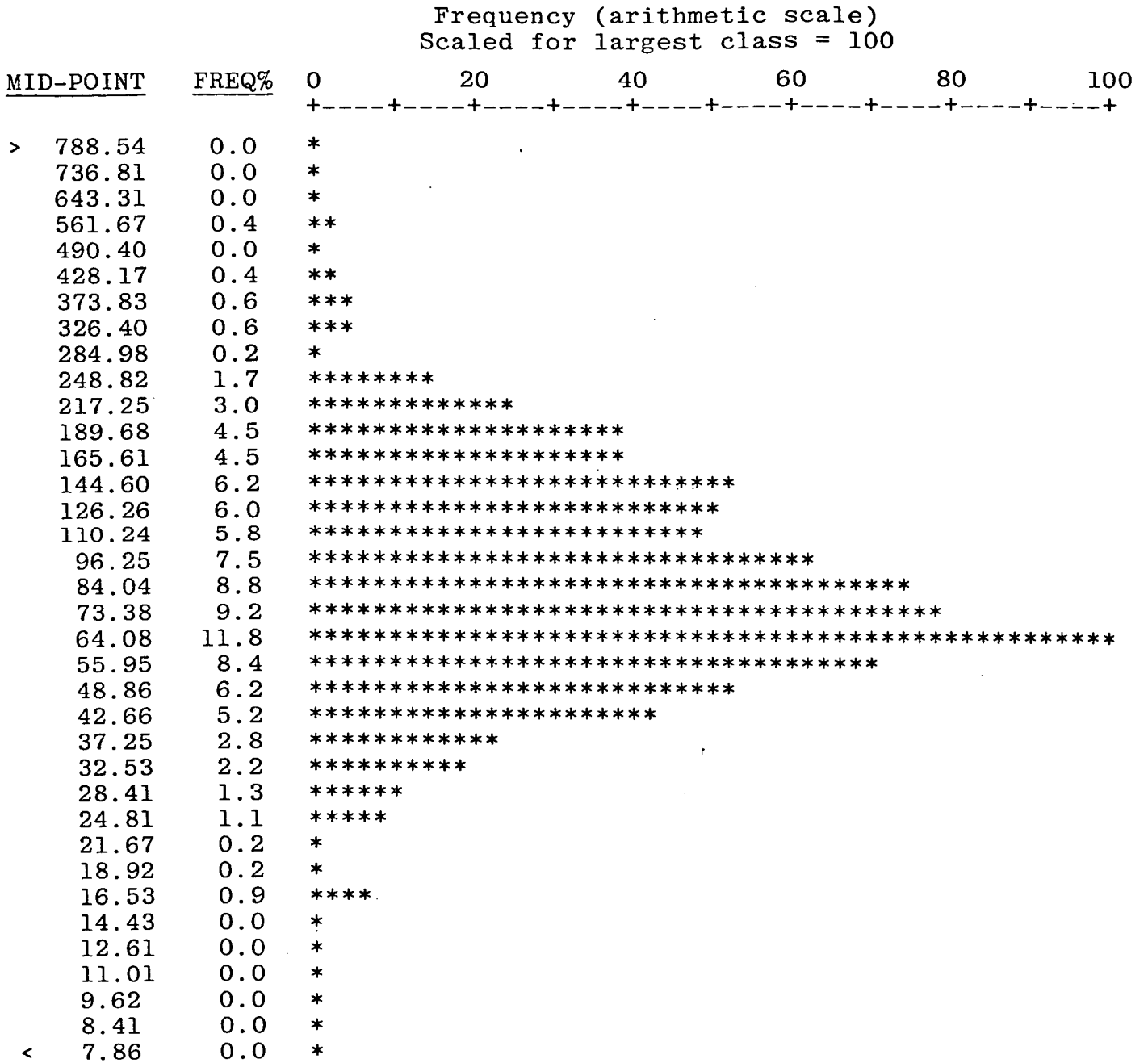


Note: Conc scale is logarithmic (interval = 0.62) values are mid-points of classes.

ERL Job V80-944S. Samples S80-43355-43819

ELEMENT	NO. OF ANALYSES	RANGE	ARITH MEAN (M+2STD DEV)	GEO MEAN (M+2STD DEV)
LEAD	465	<4 to 88 ppm	11.3(29)	9.1 (32)

LOG TRANSFORM HISTOGRAM FOR ZINC



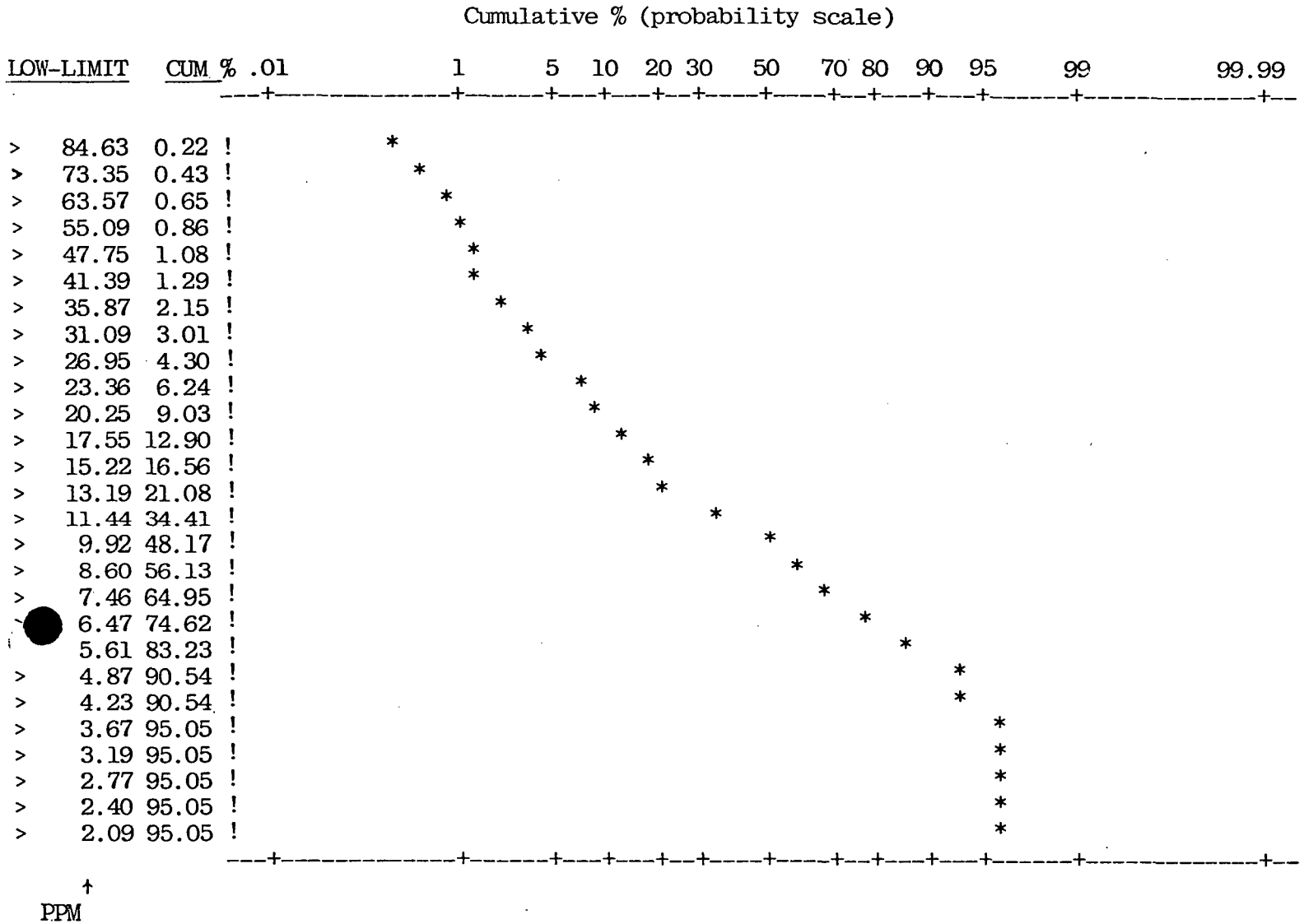
↑
PPM

Note: Conc scale is logarithmic (interval = .058) values are mid-points of classes.

ERL JOB V80-944S. Samples S80-43355-43819

ELEMENT	NO. OF ANALYSES	RANGE	ARITH MEAN (M+2STD DEV)	GEO MEAN (M+2STD DEV)
ZINC	465	16 to 586ppm	100.9 (242)	83.9 (275)

RELATIVE PROBABILITY PLOT FOR LEAD

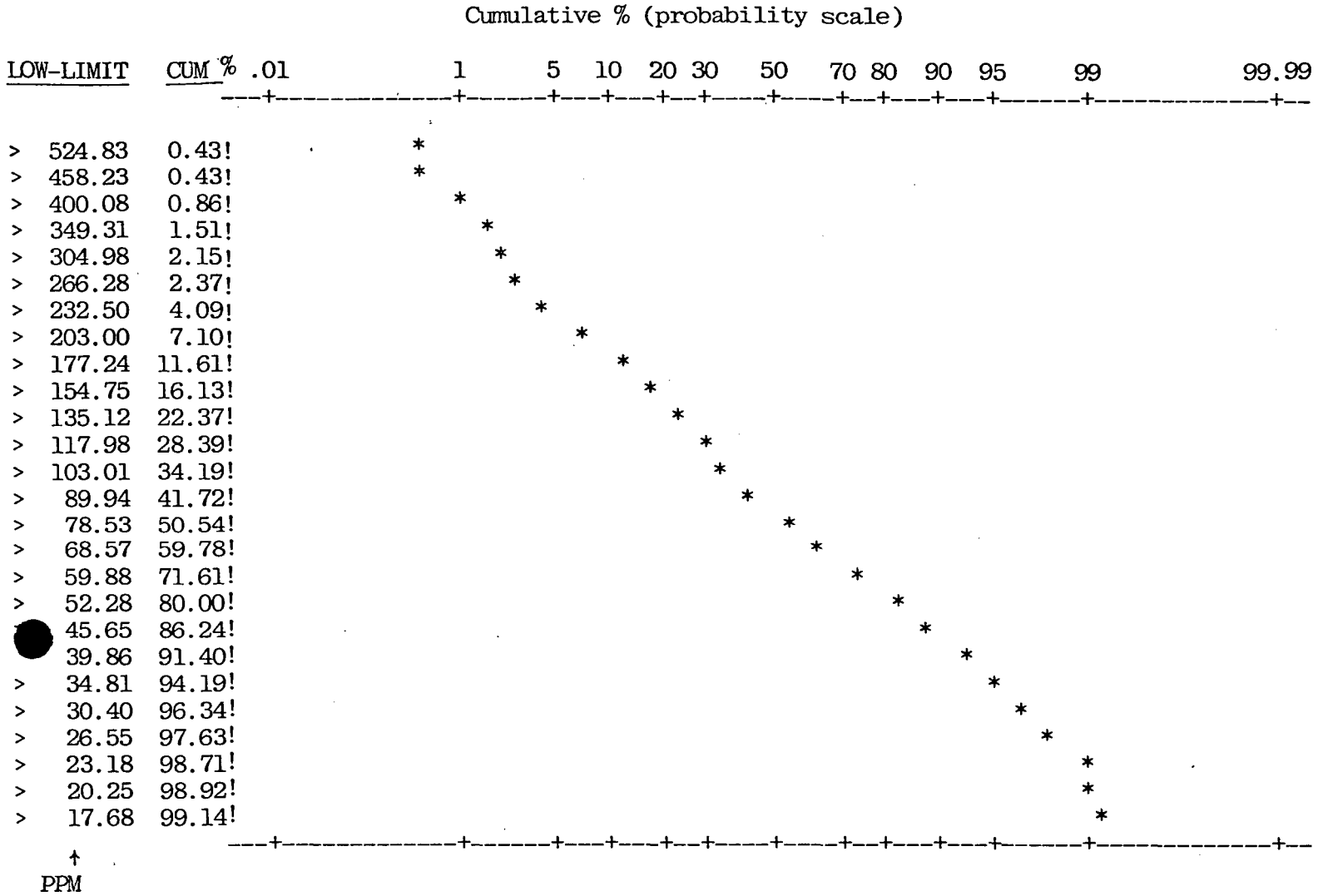


Note: Concentration scale is logarithmic (interval = .062). Values are class lower limits.

ERL Job V80-944S. Samples S80-43355-43819

ELEMENT	NO. OF ANALYSES	RANGE	ARITH MEAN (M+2STD DEV)	GEO MEAN (M+2STD DEV)
LEAD	465	<4 to 88ppm	11.3 (29)	9.1 (32)

RELATIVE PROBABILITY PLOT FOR ZINC



NOTE: Concentration scale is logarithmic (interval = .058). Values are class lower limits.

ERL Job V80-944S. Samples S80-43355-43819

ELEMENT	NO. OF ANALYSES	RANGE	ARITH MEAN (M+2STD DEV)	GEO MEAN (M+2STD DEV)
ZINC	465	16 to 586ppm	100.9 (242)	83.9 (275)

ELEMENT	NO. OF ANALYSES	RANGE	UNITS	ARITH MEAN (M+2STD DEV)	GEO MEAN (M+2STD DEV)
LEAD	465	88 to	<4 ppm	11.3 (29)	9.1 (32)
ZINC	465	586 to	16 ppm	100.9 (242)	83.9 (275)

PLATE 1 & 2 shows the distribution of Pb/Zn in soils in the Hawk Grid. Areas of elevated metal content will be further investigated by geological mapping, with follow up trenching in the more favourable areas.

Submitted by: *G. L. Webber*
G. L. WEBBER

Endorsed by: *D. Anderson*
D. ANDERSON

Approved for
release by: *J. M. Hamilton*
J. M. HAMILTON

EXHIBIT "A"
STATEMENT OF EXPENDITURES
GEOCHEMICAL SURVEY - HAWK CLAIMS GRID

Salaries:

W.D. Ambry	4 days @ \$60/day	\$240
M.J. Thompson	4 days @ \$60/day	\$240
J.B. Voros	4 days @ \$60/day	240
K.A. MacDonald	1 day @ \$60/day	60
Domicile	13 man days @ \$22/day	286
Transportation	9 days @ \$25/day	225
Materials	Flagging, sample bags etc.	100
Assaying	465 samples for Pb/Zn @ \$2.35/sample	1,092
Supervision	M. Waskett-Myers 2 days @ \$100/day	200
Report Preparation	G.L. Webber, Geologist 3 days @ \$135/day	<u>405</u>
	TOTAL EXPENSES	\$ 3,088

Signed:


G.L. WEBBER

This is Exhibit "A" to the Statutory
Declaration of G.L. Webber declared
before me this _____ day of
_____, 1981.

IN THE MATTER OF THE

B.C. MINERAL ACT

AND

IN THE MATTER OF A GEOCHEMICAL PROGRAMME

CARRIED OUT ON THE HAWK 1 MINERAL CLAIMS (GRID A)

in the Fort Steele Mining Division of the
Province of British Columbia

More Particularly N.T.S. 82F/1

A F F I D A V I T

I, G.L. Webber, of the City of Kimberley in the Province of
British Columbia, make Oath and say:

1. That I am employed as a Geologist with Cominco Ltd.
and as such, have a personal knowledge of the facts
to which I hereinafter depose;
2. That annexed hereto and marked as Exhibit "A" to this
my Affidavit is true copy of expenditures incurred
on a geochemical survey program, on the Hawk 1 mineral
claim.
3. That the said expenditures were incurred between the
7th day of August, 1980 and 11th day of October, 1980,
for the purpose of mineral exploration on the
above noted claims.

Sworn Before Me at _____)
 in the Province of British Columbia, this)
 _____ day of _____, 1981)

) 
) G.L. WEBBER
)
)
)

A Commissioner for taking Affidavits in the)
 Province of British Columbia.)

COMINCO LTD.


EXPLORATION

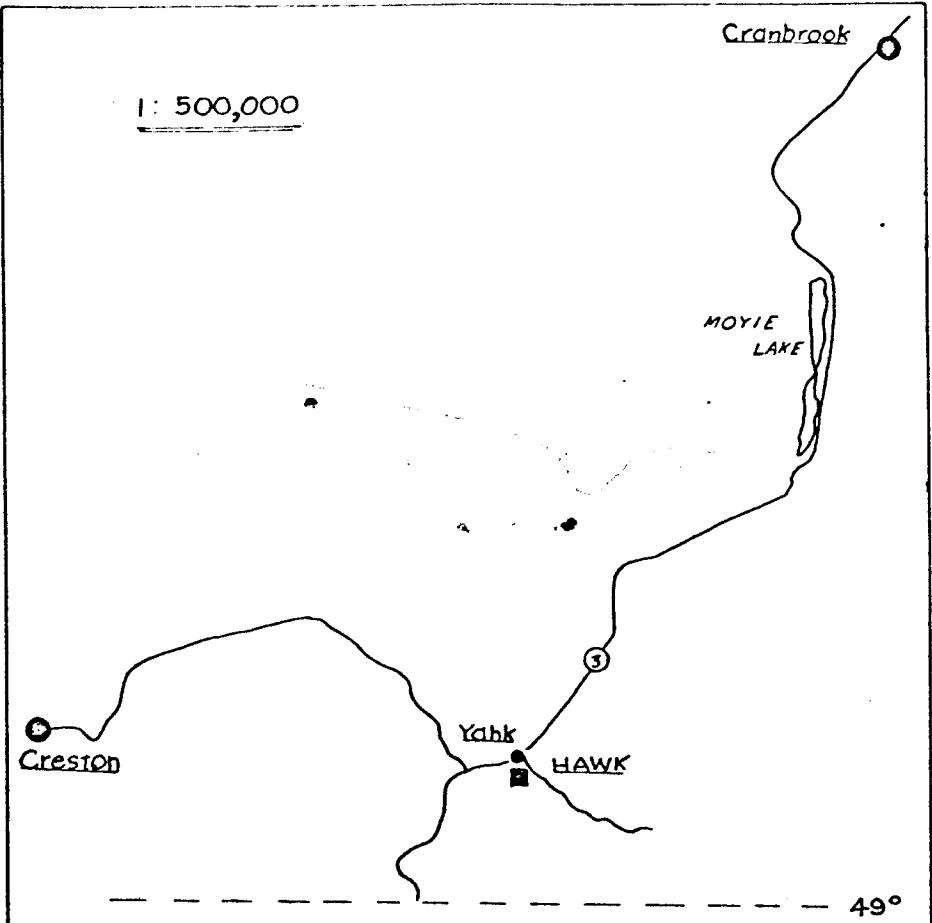
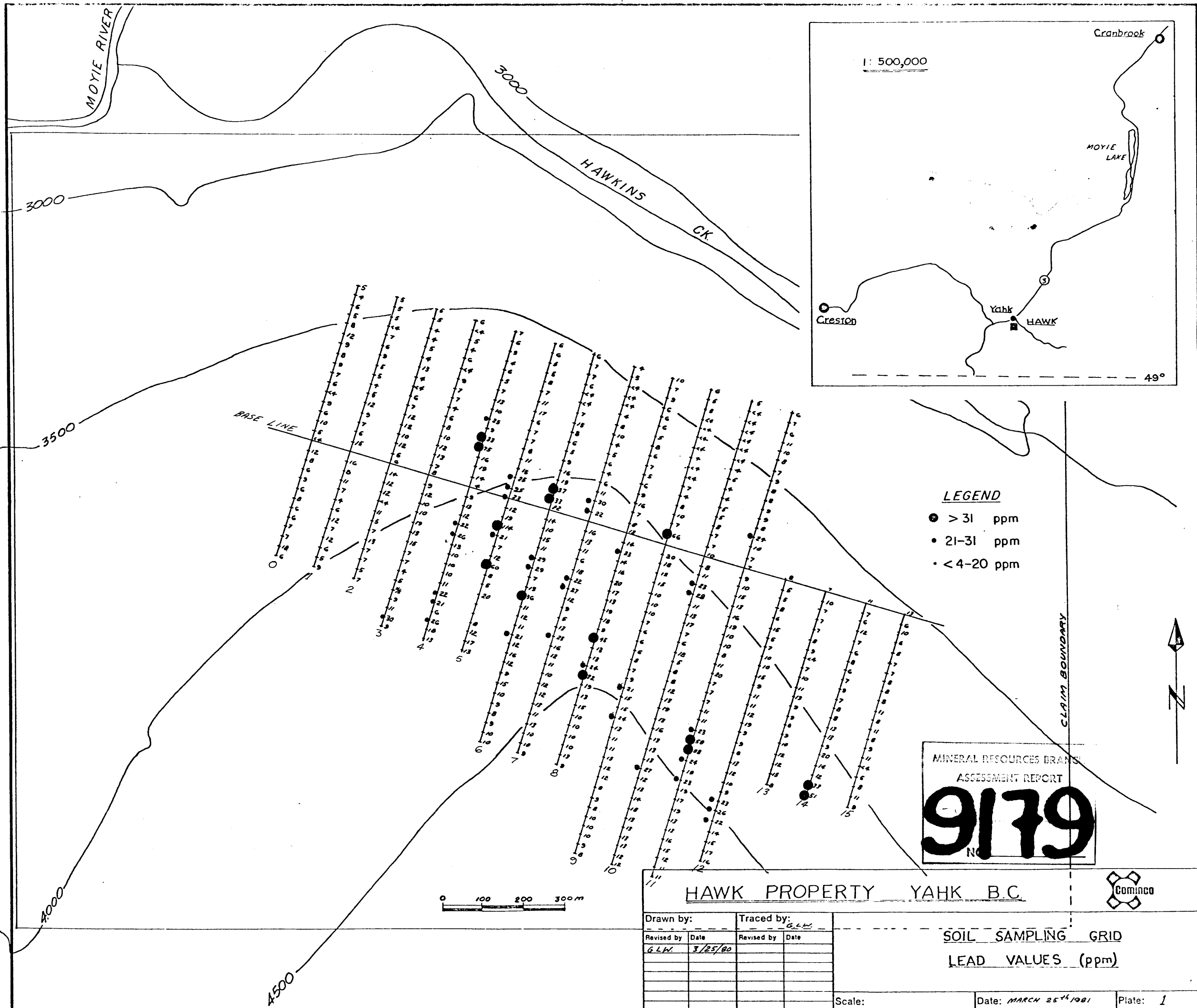
WESTERN DISTRICT

STATEMENTS OF QUALIFICATIONS

G.L. WEBBER has personally conducted many types of mineral exploration work for Cominco Ltd. over the last twenty-five years.

I consider him well qualified to prepare this report.


DOUGLAS ANDERSON, P. Eng.
Project Geologist



- LEGEND**
- > 31 ppm
 - 21-31 ppm
 - < 4-20 ppm

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
9179
NO.

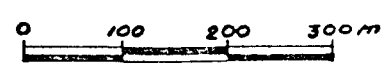
HAWK PROPERTY YAHK B.C.

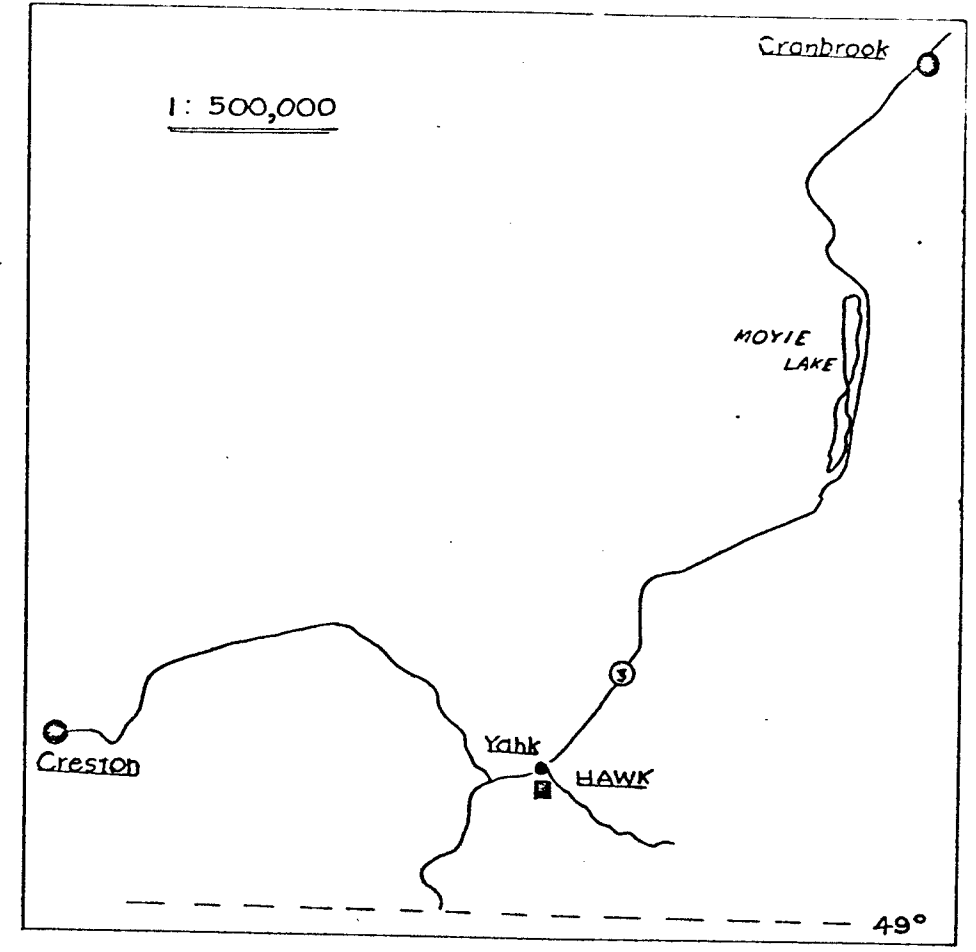
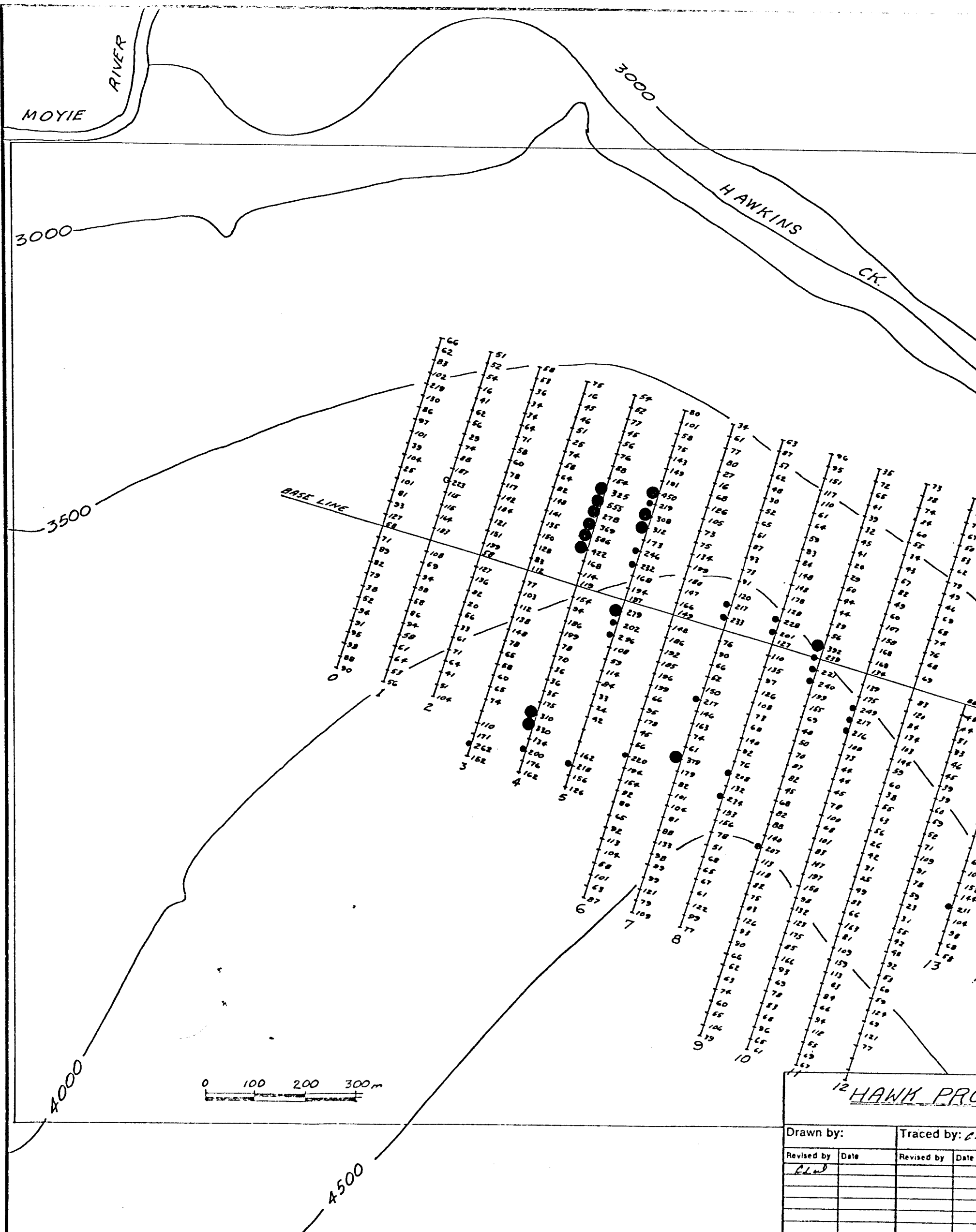


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Revised by	Date	Revised by	Date
G.L.W.	3/25/80		

SOIL SAMPLING GRID
LEAD VALUES (ppm)

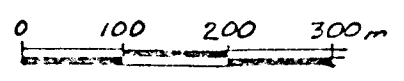
Scale: _____ Date: MARCH 25th 1981 Plate: 1





LEGEND

- > 266 ppm
- 200-266 ppm
- 5-199 ppm



MINERAL RESOURCES BRANCH
 ASSOCIATED MINISTRY
9179
 NO.

12 HAWK PROPERTY, YAHL B.C.



Drawn by:		Traced by: CLW	
Revised by	Date	Revised by	Date
CLW			

SOIL SAMPLING GRID
ZNIC VALUES (ppm)

NTS 82F/1

Scale: 1:7500

Date: MARCH 26th 1981

Plate: 2