

MAP NO.: 105 D 14 ASSESSMENT REPORT X
 PROSPECTUS X
 CONFIDENTIAL X
 OPEN FILE

DOCUMENT NO: 092713
 MINING DISTRICT: Whitehorse
 TYPE OF WORK: Geochem., geophysics, trenching

REPORT FILED UNDER: Carlyle Geological Services Ltd

DATE PERFORMED: 6, 27 March, 1988 DATE FILED: 7 April, 1989

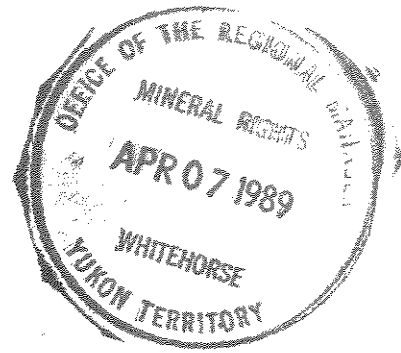
LOCATION: LAT.: 60 ~~54~~'N 53'N AREA: Takhini River
 LONG.: ~~134-13~~'W 135° 14'W VALUE \$: 2500.00

CLAIM NAME & NO.: DIO 1-5 (YB12685-6, YB13188-90)

WORK DONE BY: L.W. Carlyle

WORK DONE FOR: E. and B. Kreft

DATE TO GOOD STANDING:	REMARKS: #185 DIO
	Copper, gold, silver and lead occur in vuggy quartz-calcite stringers in Triassic limestone. The quartz veins are associated with andesite dykes striking northwest. Grab samples taken in 1988 assayed up to 2.18% Cu, 17.8 ppm Ag and 275 ppb Au. Test VLF-EM surveys successfully outlined the veins.



1988 Trenching and Geochemical Report

on the

Dio 1 - 5 Mineral Claims

Whitehorse Mining District

NTS 105 D-14

by

Bernie Kreft

Dated: January 19, 1989

092713

SUBMITTED UNDER
7(c) SCHEDULE OF
REPRESENTATION WORK
Bernie Kreft April 6th
633-2706

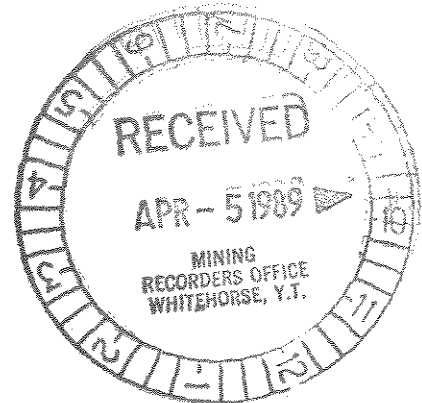


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Summary and Conclusions

The "Dio" claim group is located on the Whitehorse Map Sheet, approximately one mile north of the Takhini Hot Springs Road, behind the Pilot Mountain Subdivision. The "Dio" group consists of 5 contiguous claims.

Geological, geophysical, and geochemical surveys were carried out between August 1987 and September 1988. Three trenches were drilled, blasted, and excavated by hand to better expose anomalous areas, (total material moved: approximately 450 cu. ft.)

The claims cover a new mineral discovery located in limestone of the Upper Triassic Lewes River Group. Mineralization appears to be concentrated in north-west striking, steeply north-east dipping shear zones of silicified, argillic and limonitic dolomite. The mineralization located is closely associated with dark grey to dark green, fine grained andesite dykes with the same strike and dip as the shear zones.

A total of four mineral occurrences were observed on the property. These include 2 with gold-silver-copper mineralization, one with copper-molybdenum, and one with Iron-Sodium-Potassium-Phosphorous. Most occurrences were found on or near the main shear zone.

The gold-silver-copper showings occur in the main shear zone, with galena, tetrahedrite, chalcopyrite, and arsenopyrite. The Cu-Mo and the Fe-Na-K-P showings occur in

separate gossans, located near the main shear zone on Total Energold co-ordinates(10 + 50N, 10 + 00E) and (9 + 50N, 10 + 75E) respectively. Geochemical sampling in 1988 by Total Energold outlined a weak multi-elemental North-West trending zone. This zone was weakly anomalous in As, Cu, Pb, and Zn, (highest Au was 15 ppb.) A small follow-up soil sample survey by the writer along the anomalous zone produced values of up to 320 ppb. Au, 2.3 ppm Ag, 401 ppm As, 1323 ppm Cu, 530 ppm Mo, and 141 ppm Zn.

Recommendations

In the opinion of the writer, it is recommended that more work be done on the property, and in the general area. Further detailed soil sampling to extend the zone outlined by Total Energold, plus extensive ground prospecting and rock sampling would be useful.

Introduction

A shear zone bearing gold, silver, copper and lead mineralization was discovered by the writer after prospecting in the general area. Results of grab samples taken warranted staking and subsequently a trench blasting program. Grade and width of the mineralization increased with depth. So to better outline the zone, 3 instrumental surveys were conducted, followed by a soil survey done by Total Energold.

Location and Access

The "Dio" claims are located in the Whitehorse Mining district on NTS map sheet 105-D-14. Access is by leaving the Takhini Hot Springs Road at the Pilot Mountain Subdivision Road. Approximately half a mile up this road, a hydro power transmission line crosses the road. Approximately a quarter mile east of the road along this line, Dio #5 joins the transmission line easement.

Claim Information

Dio #1 - 5 are 5 contiguous claims.

<u>Claim Name</u>	<u>Grant #'s</u>	<u>Recorded</u>
Dio 1 - 2	YB 12685 - YB 12686	December 11/87
Dio 3 - 5	YB 13188 - YB 13190	March 24/88

History

Copper mineralization was discovered by the writer while on an A. T. V. pleasure trip. Three months later Dio #1 and 2 were staked to cover the initial showing. After further prospecting and work, Dio #3, 4, and 5 were added. According to investigation by the writer, there are no records

of the land being staked previous to the "Dio" claims, although there are old signs of some prospecting being done on the property.

Regional Geology

The Dio claims lie entirely within limestone of the Upper Triassic Lewes River Group, mapped by Wheeler (GSC Memoir 312, 1961). The contact between the Lewes River and the Lower Jurassic Laberge Group sediments is mapped as being approximately 1 mile north of the claims. The steeply dipping, north-west striking, 1 to 5 foot wide, andesite dykes observed on the property may be associated with the Cretaceous Hutshi volcanics mapped on Flat Mountain. The strike of the syncline mapped by Wheeler in the Laberge Group is about 4 miles north of the property. A relationship may exist between the two.

Property Geology

The very limited amount of geological mapping done on the claims shows that the chief country rock is blocky, fine-grained grey limestone with approximately a west strike and a slight dip to the south west. A review of aerial photographs of the area has demonstrated that the fault striking north-south near the Takhini Hot Springs mapped by Wheeler exists. Larry Carlyle believes another fault having the same strike and a steep dip toward the east exists just east of the property along the west side of the Yukon River Valley. The air photos also show strong lineations striking east-west parallel to the Takhini River. These are probably glacial features.

The preliminary geological mapping done on the claims shows that the copper, silver, gold, and lead mineralization is in vuggy quartz-calcite stringers of probable hydrothermal origin. These stringers are probably occupying space provided by the shearing of the competent limestone during the intrusion of dark grey and dark green, fine grained andesite dykes containing up to 1% pyrite. These dykes strike N. W. and dip very steeply to the N. E. Further evidence of a hydrothermal origin of the mineralization exists in the strong bleaching and argillic and limonitic alteration of the shear zones. Shear zones appear to weather more easily than the surrounding limestone because they seem to be located most frequently in topographic depressions. Mineralization seems to have migrated into the blocky limestone country rock along a strong jointing having a N.N.E. strike and a very steep S. E. dip. An example is the strong malachite in the jointing on Line 300 at 300 N.

Two zones of mineralized highly silicified limestone have been located on the claims. The first is a 28 foot wide zone along the base of the ridge on Line 350 at 250 N. The silicified limestone contains vuggy quartz-calcite stringers up to 1 1/2 inches wide containing minor malachite staining and up to 1% oxidized pyrite crystals. This material contained minute black specks thought to be tetrahedrite, strong limonite and trace chlorite in fracture fillings.

Trenching and Results

During March, 1988, Three trenches were drilled, blasted, and excavated by hand. Trench #1 was on the side of a ridge, it measured 2.5 ft. x 20 feet x 7 feet, which calculates to 350 cu. ft., but due to slope volume should be divided in half. Trench #2, and #3 were on flat ground. Trench #2 measured 8 ft. x 6 ft. x 5 ft. (240 cu. ft.), and Trench #3 measured 4.5 ft. x 2.5 ft. x 3.5 ft. (39.4 cu. ft.)

Trench #1 gave the best results. Gold results ranged up to 2.1 oz. per Ton, Silver up to 11 oz per Ton, Copper up to 1.7%, and Lead up to 3.7%. Only one assay for Zinc was made, and the rock gave a value of 0.1%. Trench #2 gave high results in Iron, Sodium, Potassium, and Phosphorus. Trench #3 didn't return any interesting values.

Soil Geochemistry

General: Geochem sampling was carried out by Total Energold (Total Erickson Resources) in May 1988. A total of 56 samples were collected for analyses of gold, silver, lead, zinc, arsenic, antimony, and copper. Samples were processed by Min-En Laboratories using standard analytical procedures.

A small follow-up sampling program was carried out by the author along the anomalous area outlined by Total Energold. This was done in October, 11 samples were collected.

Results:

Copper: Soil sampling by Total Energold outlined a weak N.W. trending area about 350 m. long by app. 30 m. wide, within

which the values were at least 2 1/2 times the average of 21 ppm. (Peak value: 141 ppm)

Eleven samples were collected later in 1988 by the writer, Ten were along this anomalous copper zone. All ten samples returned values in excess of 304 ppm (peak value was 1323 ppm). These ten samples were taken along the base of a ridge. This would indicate that the ridge is associated directly with the mineral bearing structure.

The eleventh sample was taken over a limonite gossan (located at 10 + 50N, 10 + 00E), it ran 1018 ppm Cu, and had an interesting 530 ppm Mo result. (Previous Mo high was 19 ppm.)

Arsenic: A small arsenic anomaly (over 2 1/2 times average) occurs at the south end of the Total Energold soil survey, (peak value of 67 ppm.)

The follow-up survey done along the base of the ridge occurring at (9 + 50E, 11 + 00N) produced 10 values over 53 ppm, (peak value of 401 ppm).

Gold: The soil sampling done by Total Energold did not produce any anomalous areas. The highest value recorded was 15 ppb. On the follow-up, results as high as 320 ppb. were returned.

Lead: A small lead anomaly occurs coincident with the arsenic anomaly on the Total Energold map. No anomalous values were discovered on the follow-up.

Silver, Antimony, and Zinc: Values for these 3 elements are generally spotty and hard to plot, though one sample (DC 050) recorded the highest silver and antimony values (3.2 ppm and 10 ppm respectively) and the lowest zinc and copper values

(7 ppm and 4 ppm respectively). On the follow-up no highly anomalous values were produced for these 3 elements.

Geochemistry Summary:

It is the opinion of the writer that the Total Energold grid spacings were too wide, (up to 100m) due to the many ridges and dips located on the property. Even so, the sampling still outlined a weak, mult-elemental zone. Follow-up sampling produced significantly higher values in As, Cu, and Au. Further sampling should be done because both ends of the zone are still open for expansion, although samples should be taken on a tighter spaced grid.

APPENDIX ONE

092713

MIN-EN LABORATORIES LTD.

SPECIALISTS IN MINERAL ENVIRONMENTS

775 WEST 15TH STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2

TELEX: USA 760167 PHONE: (604)980-5814 OR (604)988-4524

Dio claims

CORRELATION COEFFICIENTS

COMPANY: TOTAL ERICKSON RESOURCES
ATTN: ALEX NIKOLAJEVICH
PROJECT: SKUKUM REECE
FILE#: 8-619

DATE: JUNE 9/88
SAMPLE TYPE: SOIL
ANALYSIS TYPE: ICP

THE TABLE BELOW REPRESENTS THE PEARSON CORRELATION MATRIX SHOWING THE INTER-ELEMENT CORRELATION COEFFICIENTS. THOSE VALUES THAT EXCEED THEIR CRITICAL VALUE FOR .01 LEVEL OF SIGNIFICANCE ARE SHOWN IN DARKER PRINT AND UNDERLINED.

	AG	AS	CU	PB	SB	ZN	AU
AG	1.00	-0.14	-0.36	<u>-0.43</u>	<u>0.38</u>	<u>-0.61</u>	-0.04
AS		1.00	0.19	<u>0.65</u>	0.08	0.18	-0.16
CU			1.00	0.24	-0.00	0.17	0.26
PB				1.00	-0.12	<u>0.40</u>	-0.05
SB					1.00	-0.35	-0.16
ZN						1.00	-0.19
AU							1.00

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TELEX: USA 760167 PHONE: (604)980-5814 OR (604)988-4524

STATISTICAL SUMMARY ON AG

COMPANY: TOTAL ERICKSON RESOURCES
 ATTN: ALEX NIKOLAJEVICH
 PROJECT: SKUKUM REECE
 FILE#: 8-619

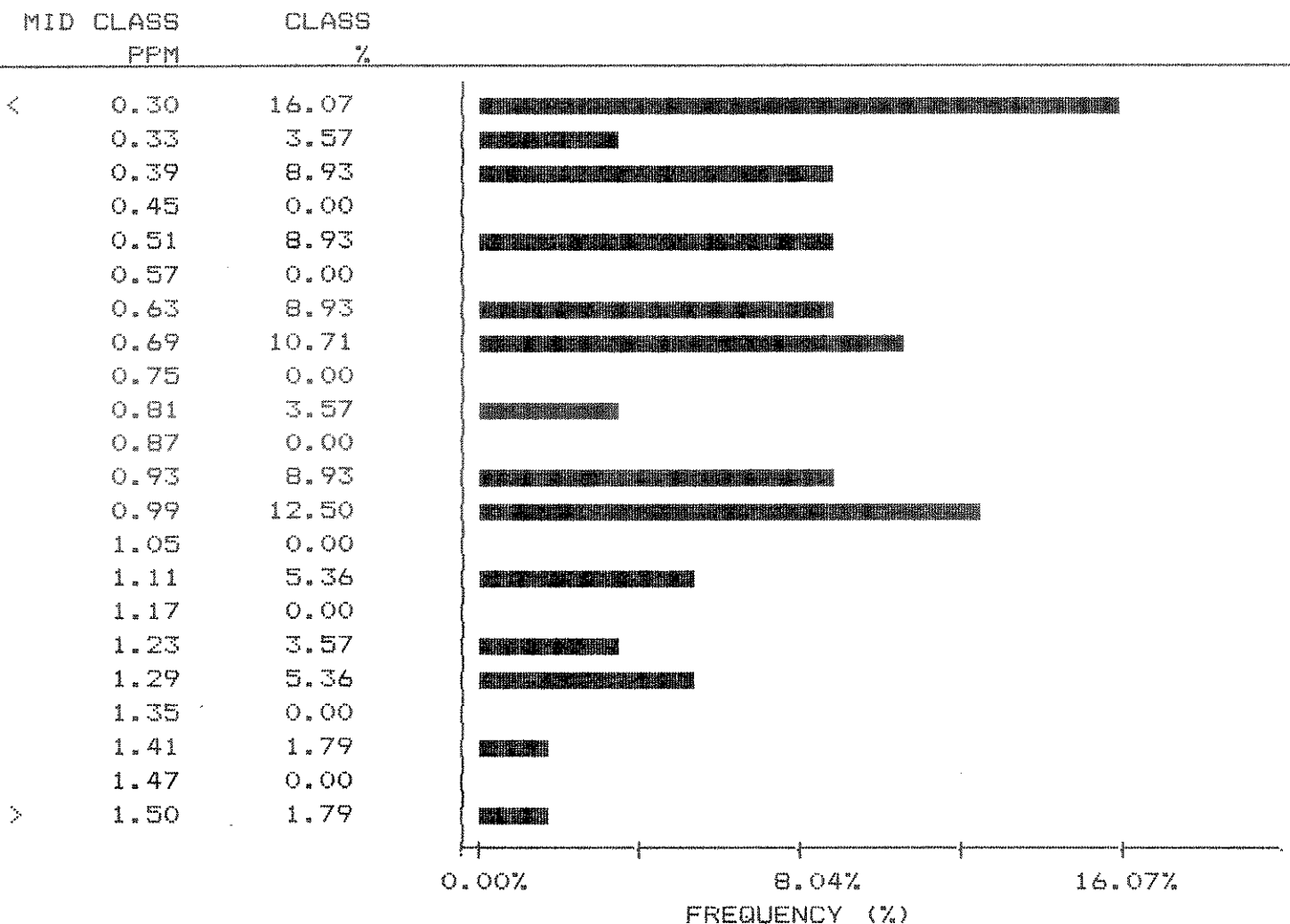
DATE: JUNE 9/88
 SAMPLE TYPE: SOIL
 ANALYSIS TYPE: ICP

NUMBER OF SAMPLES: 56
 MAXIMUM VALUE: 3.2 PPM
 MINIMUM VALUE: 0.1 PPM
 MEAN: 0.8 PPM
 STD. DEVIATION: 0.5 PPM
 COEFF. OF VARIATION: 0.7

5 HIGHEST AG VALUES:

DC 050	3.2 PPM
DC 012	1.5 PPM
DC 008	1.4 PPM
DC 019	1.3 PPM
DC 023	1.3 PPM

HISTOGRAM FOR AG CLASS INTERVAL = 0.06



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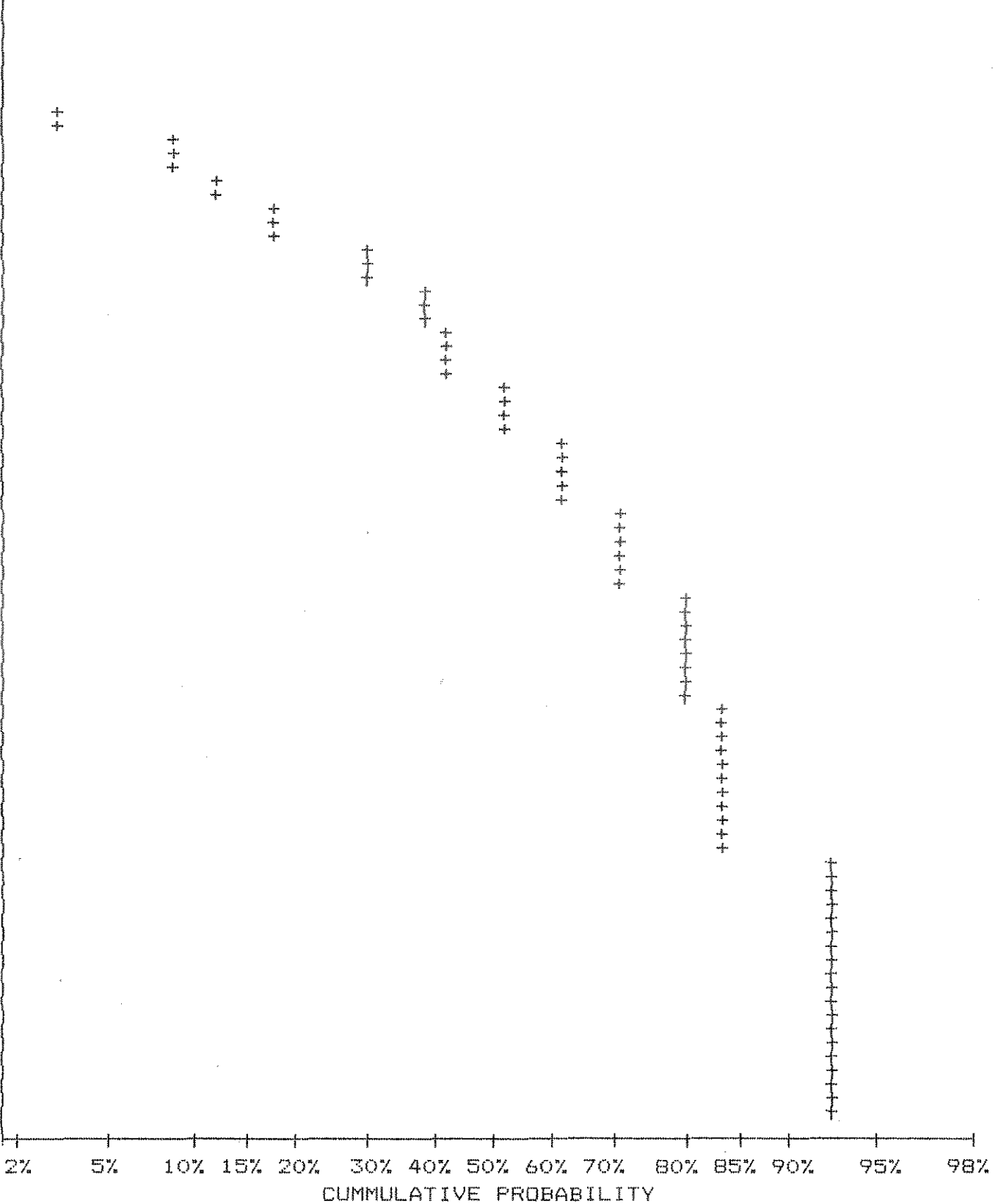
TELEX: USA 760167 PHONE: (604)980-5814 OR (604)988-4524

CUMMULATIVE PROBABILITY PLOT ON AG

COMPANY: TOTAL ERICKSON RESOURCES
 ATTN: ALEX NIKOLAJEVICH
 PROJECT: SKUKUM REECE
 FILE#: 8-619

DATE: JUNE 9/88
 SAMPLE TYPE: SOIL
 ANALYSIS TYPE: ICP

UPPER LIMIT (PPM)	CUMMUL. FREQ. (%)
1.45	1.79
1.35	3.57
1.25	8.93
1.16	12.50
1.08	17.86
1.01	17.86
0.94	30.36
0.87	39.29
0.81	39.29
0.76	42.86
0.70	42.86
0.65	53.57
0.61	53.57
0.57	62.50
0.53	62.50
0.49	71.43
0.46	71.43
0.42	71.43
0.39	80.36
0.37	80.36
0.34	80.36
0.32	80.36
0.30	83.93
0.27	83.93
0.26	83.93
0.24	83.93
0.22	83.93
0.21	83.93
0.19	92.86
0.18	92.86
0.17	92.86
0.15	92.86
0.14	92.86
0.13	92.86
0.12	92.86
0.12	92.86
0.11	92.86
0.10	98.21



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TELEX: USA 760167 PHONE: (604)980-5814 OR (604)988-4524

STATISTICAL SUMMARY ON AS

COMPANY: TOTAL ERICKSON RESOURCES
 ATTN: ALEX NIKOLAJEVICH
 PROJECT: SKUKUM REECE
 FILE#: 8-619

DATE: JUNE 9/88
 SAMPLE TYPE: SOIL
 ANALYSIS TYPE: ICP

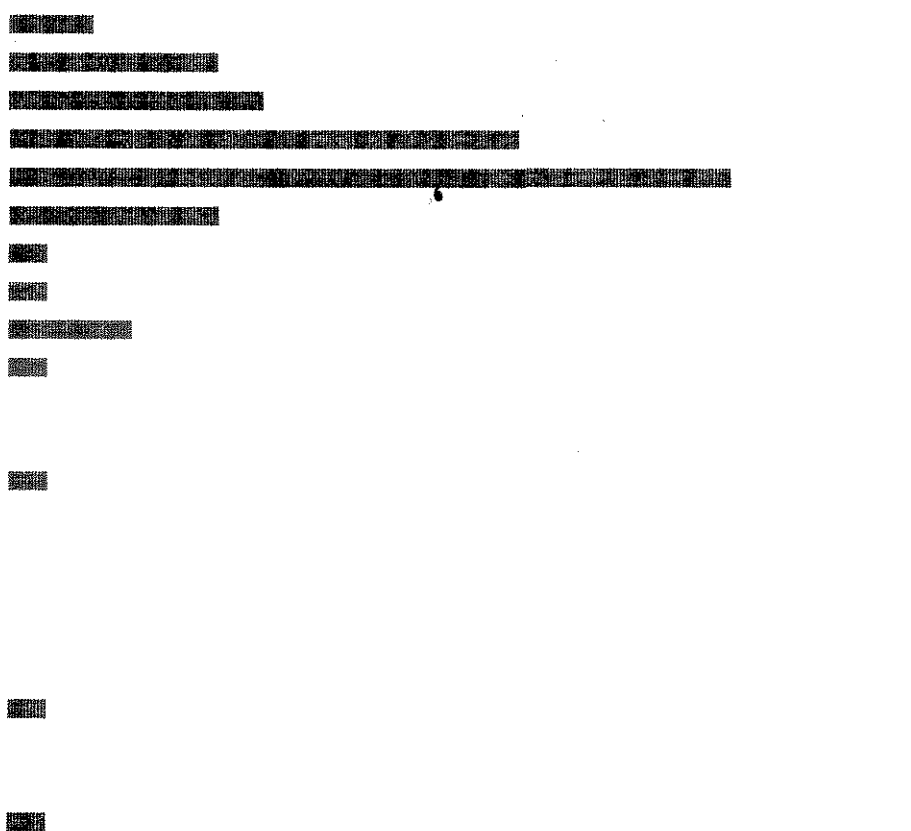
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 MAXIMUM VALUE: 67.0 PPM
 MINIMUM VALUE: 4.0 PPM
 MEAN: 15.6 PPM
 STD. DEVIATION: 10.8 PPM
 COEFF. OF VARIATION: 0.7

5 HIGHEST AS VALUES:
 DC 035 67.0 PPM
 DC 044 52.0 PPM
 DC 034 46.0 PPM
 DC 003 32.0 PPM
 DC 043 25.0 PPM

HISTOGRAM FOR AS CLASS INTERVAL = 2.30

MID CLASS	CLASS
PPM	%

<	6.00	3.57
	7.15	8.93
	9.45	10.71
	11.75	21.43
	14.05	30.36
	16.35	8.93
	18.65	1.79
	20.95	1.79
	23.25	5.36
	25.55	1.79
	27.85	0.00
	30.15	0.00
	32.45	1.79
	34.75	0.00
	37.05	0.00
	39.35	0.00
	41.65	0.00
	43.95	0.00
	46.25	1.79
	48.55	0.00
	50.85	0.00
>	52.00	1.79



0.00% 15.18% 30.36%
 FREQUENCY (%)

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TELEX: USA 760167 PHONE: (604)980-5814 OR (604)988-4524

CUMMULATIVE PROBABILITY PLOT ON AS

COMPANY: TOTAL ERICKSON RESOURCES

DATE: JUNE 9/88

ATTN: ALEX NIKOLAJEVICH

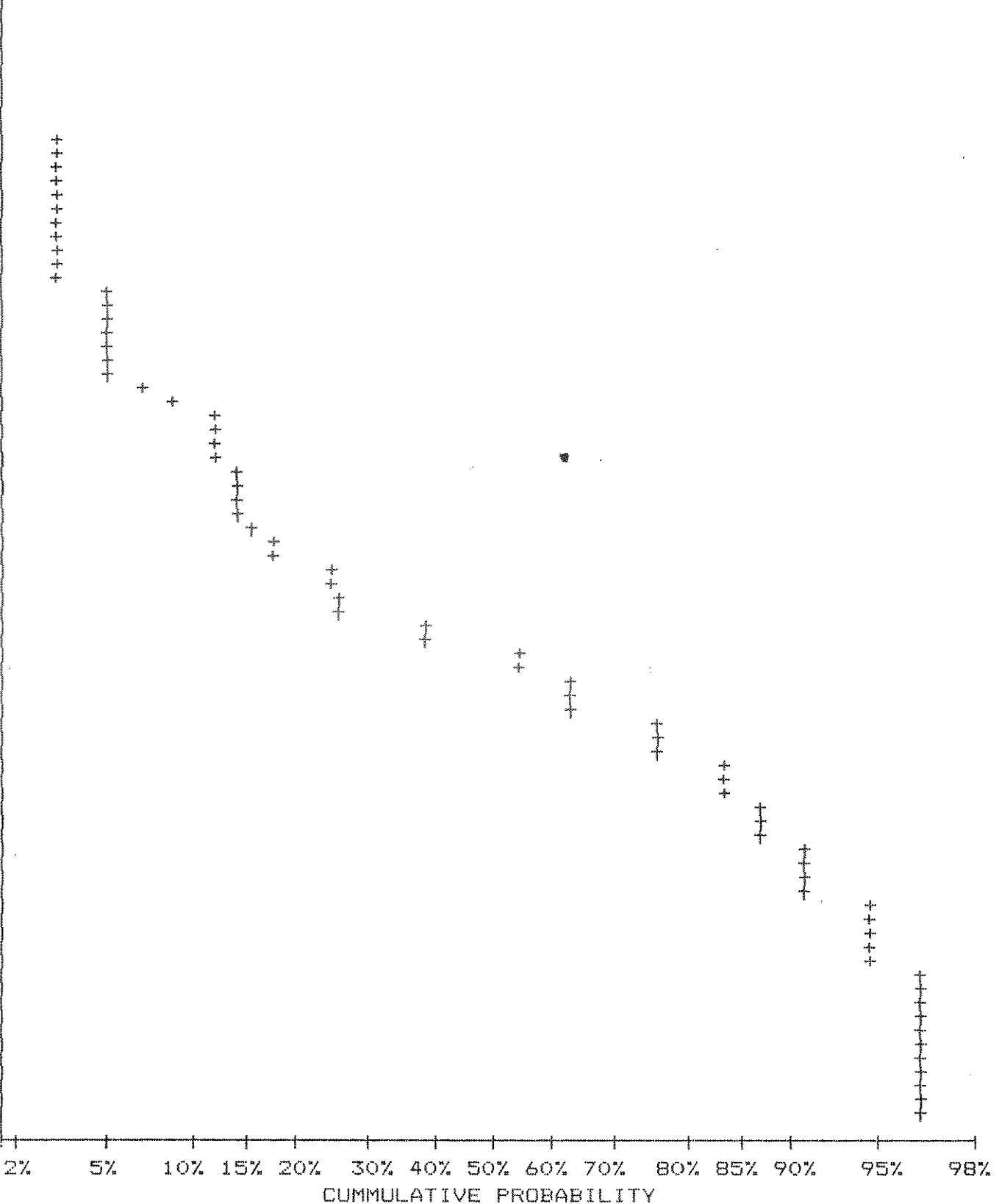
SAMPLE TYPE: SOIL

PROJECT: SKUKUM REECE

ANALYSIS TYPE: ICP

FILE#: 8-619

UPPER LIMIT (PPM)	CUMMUL. FREQ. (%)
50.25	1.79
46.93	1.79
43.83	3.57
40.93	3.57
38.22	3.57
35.70	3.57
33.34	3.57
31.13	5.36
29.07	5.36
27.15	5.36
25.36	5.36
23.68	8.93
22.12	12.50
20.65	12.50
19.29	14.29
18.01	14.29
16.82	17.86
15.71	25.00
14.67	26.79
13.70	39.29
12.80	53.36
11.95	64.29
11.16	64.29
10.42	76.79
9.73	83.93
9.09	83.93
8.49	87.50
7.93	91.07
7.40	91.07
6.91	94.64
6.46	94.64
6.03	94.64
5.63	96.43
5.26	96.43
4.91	96.43
4.59	96.43
4.28	96.43
4.00	98.21



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775 WEST 15TH STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2

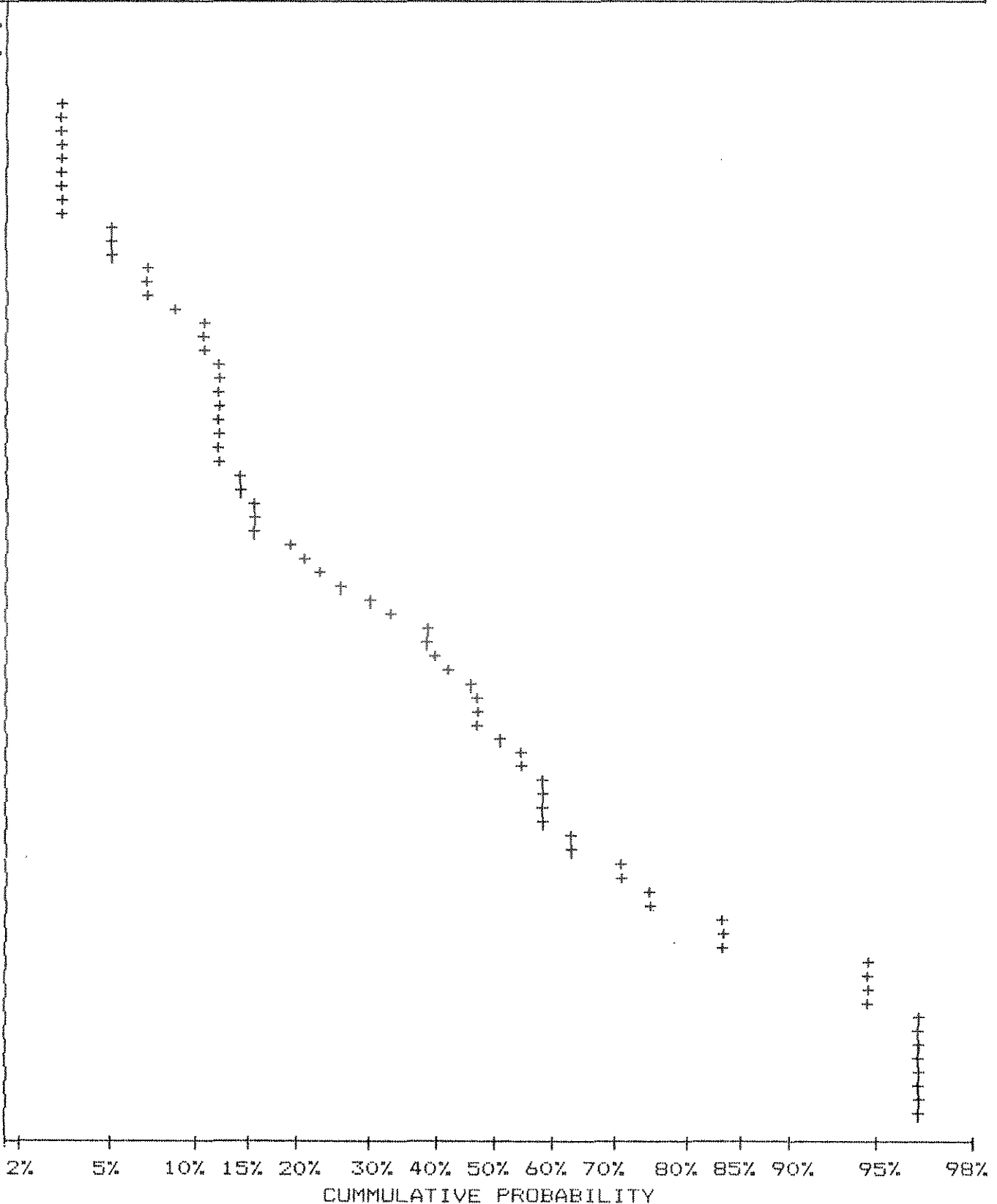
TELEX: USA 760167 PHONE: (604)980-5814 OR (604)988-4524

CUMMULATIVE PROBABILITY PLOT ON CU

COMPANY: TOTAL ERICKSON RESOURCES
 ATTN: ALEX NIKOLAJEVICH
 PROJECT: SKUKUM REECE
 FILE#: 8-619

DATE: JUNE 9/88
 SAMPLE TYPE: SOIL
 ANALYSIS TYPE: ICP

UPPER LIMIT (PPM)	CUMMUL. FREQ. (%)
120.34	3.57
109.76	3.57
100.11	3.57
91.31	3.57
83.29	3.57
75.97	5.36
69.29	7.14
63.20	7.14
57.64	10.71
52.58	10.71
47.96	12.50
43.74	12.50
39.90	12.50
36.39	12.50
33.19	14.29
30.27	16.07
27.61	19.64
25.19	23.21
22.97	30.36
20.95	39.29
19.11	41.07
17.43	46.43
15.90	48.21
14.50	51.79
13.23	55.36
12.06	58.93
11.00	58.93
10.04	64.29
9.15	71.43
8.35	75.00
7.62	83.93
6.95	94.64
6.34	94.64
5.78	96.43
5.27	96.43
4.81	96.43
4.39	96.43
4.00	98.21



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775 WEST 15TH STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2

TELEX: USA 760167 PHONE: (604)980-5814 OR (604)988-4524

STATISTICAL SUMMARY ON SB

COMPANY: TOTAL ERICKSON RESOURCES
ATTN: ALEX NIKOLAJEVICH
PROJECT: SKUKUM REECE
FILE#: 8-619

DATE: JUNE 9/88
SAMPLE TYPE: SOIL
ANALYSIS TYPE: ICP

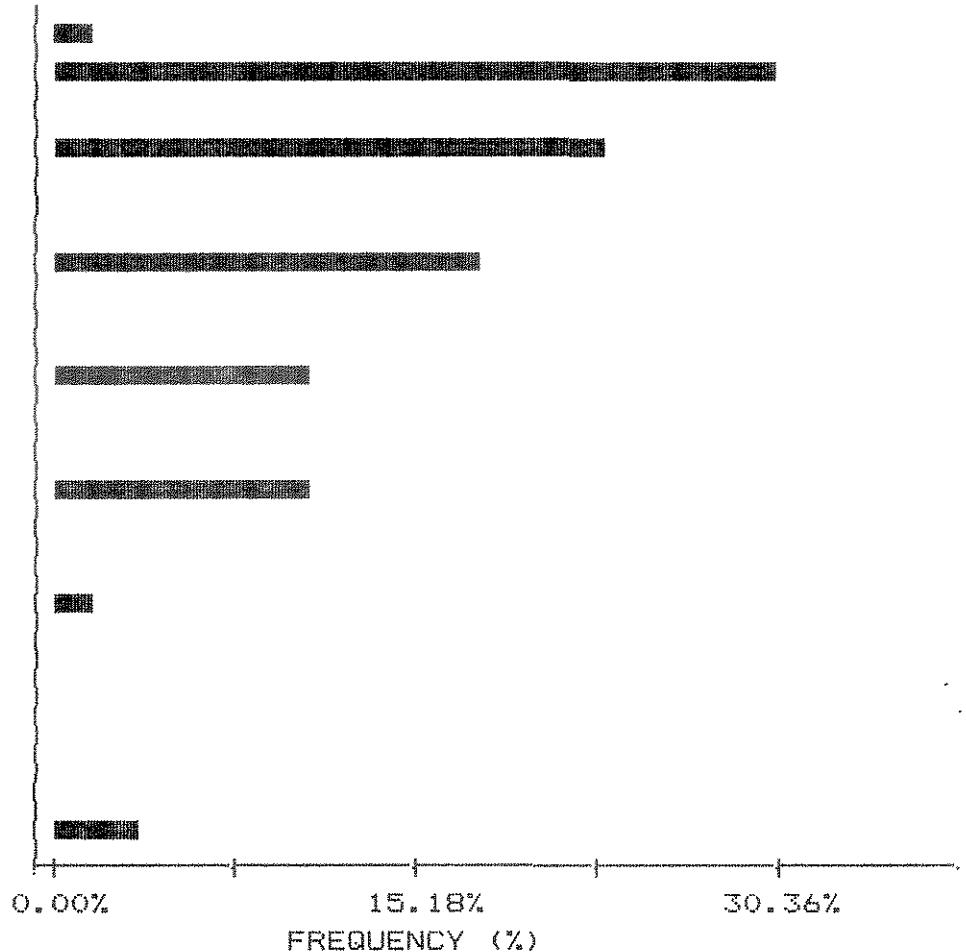
NUMBER OF SAMPLES: 56
MAXIMUM VALUE: 10.0 PPM
MINIMUM VALUE: 1.0 PPM
MEAN: 2.8 PPM
STD. DEVIATION: 2.0 PPM
COEFF. OF VARIATION: 0.7

5 HIGHEST SB VALUES:
DC 050 10.0 PPM
DC 022 8.0 PPM
DC 047 8.0 PPM
DC 023 6.0 PPM
DC 019 5.0 PPM

HISTOGRAM FOR SB

CLASS INTERVAL = 0.35

MID CLASS PPM	CLASS %
< 1.00	1.79
1.17	30.36
1.52	0.00
1.87	23.21
2.22	0.00
2.57	0.00
2.92	17.86
3.27	0.00
3.62	0.00
3.97	10.71
4.32	0.00
4.67	0.00
5.02	10.71
5.37	0.00
5.72	0.00
6.07	1.79
6.42	0.00
6.77	0.00
7.12	0.00
7.47	0.00
7.82	0.00
> 8.00	3.57



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SPECIALISTS IN MINERAL ENVIRONMENTS

775 WEST 15TH STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2

TELEX: USA 760167 PHONE: (604)980-5814 OR (604)988-4524

STATISTICAL SUMMARY ON ZN

COMPANY: TOTAL ERICKSON RESOURCES
ATTN: ALEX NIKOLAJEVICH
PROJECT: SKUKUM REEDE
FILE#: 8-619

DATE: JUNE 9/88
SAMPLE TYPE: SOIL
ANALYSIS TYPE: ICP

NUMBER OF SAMPLES: 56
MAXIMUM VALUE: 121.0 PPM
MINIMUM VALUE: 7.0 PPM
MEAN: 59.7 PPM
STD. DEVIATION: 21.3 PPM
COEFF. OF VARIATION: 0.4

5 HIGHEST ZN VALUES:
DC 011 121.0 PPM
DC 048 117.0 PPM
DC 044 109.0 PPM
DC 009 108.0 PPM
DC 038 101.0 PPM

HISTOGRAM FOR ZN CLASS INTERVAL = 3.90

MID CLASS PPM	CLASS %
---------------	---------

< 39.00	7.14
40.95	10.71
44.85	5.36
48.75	16.07
52.65	12.50
56.55	7.14
60.45	7.14
64.35	3.57
68.25	12.50
72.15	3.57
76.05	0.00
79.95	3.57
83.85	1.79
87.75	1.79
91.65	0.00
95.55	0.00
99.45	1.79
103.35	0.00
107.25	3.57
111.15	0.00
115.05	0.00
> 117.00	1.79



0.00% 8.04% 16.07%
FREQUENCY (%)

MIN-EN LABORATORIES LTD.

SPECIALISTS IN MINERAL ENVIRONMENTS

775 WEST 15TH STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2

TELEX: USA 760167 PHONE: (604)980-5814 OR (604)988-4524

STATISTICAL SUMMARY ON PB

COMPANY: TOTAL ERICKSON RESOURCES
ATTN: ALEX NIKOLAJEVICH
PROJECT: SKUKUM REECE
FILE#: 8-619

DATE: JUNE 9/88
SAMPLE TYPE: SOIL
ANALYSIS TYPE: ICP

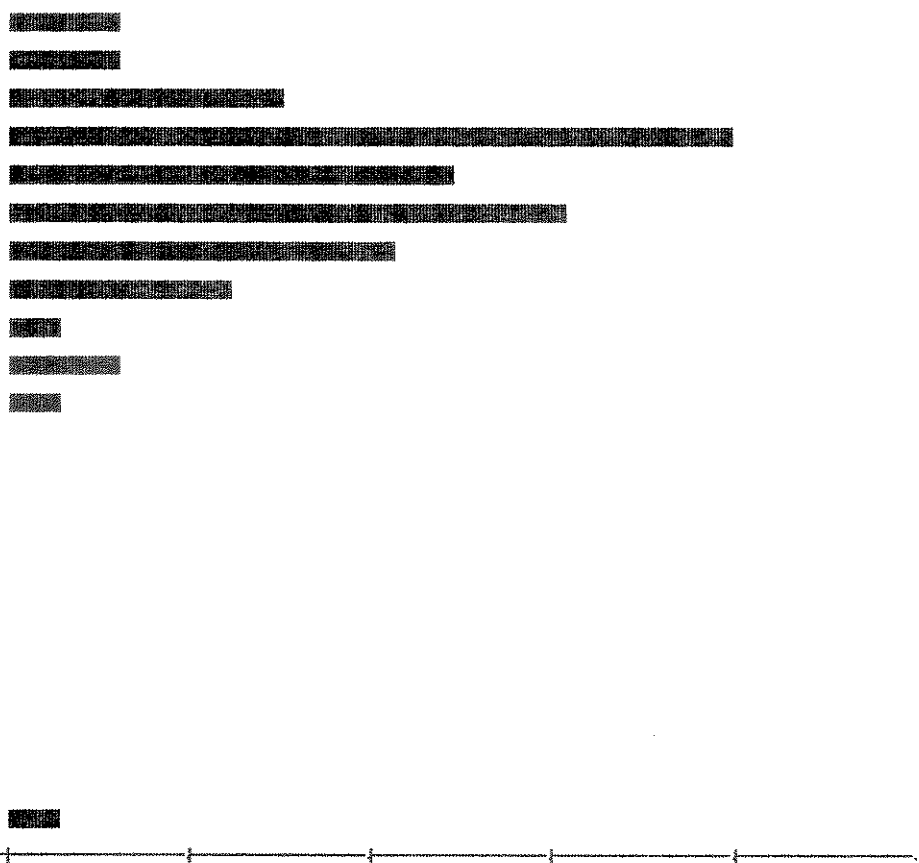
NUMBER OF SAMPLES: 56
MAXIMUM VALUE: 69.0 PPM
MINIMUM VALUE: 11.0 PPM
MEAN: 23.0 PPM
STD. DEVIATION: 8.2 PPM
COEFF. OF VARIATION: 0.4

5 HIGHEST PB VALUES:
DC 034 69.0 PPM
DC 044 50.0 PPM
DC 003 31.0 PPM
DC 022 29.0 PPM
DC 035 29.0 PPM

HISTOGRAM FOR PB CLASS INTERVAL = 1.75

MID CLASS PPM	CLASS %
---------------	---------

< 15.00	3.57
15.87	3.57
17.62	8.93
19.38	23.21
21.12	14.29
22.87	17.86
24.62	12.50
26.37	7.14
28.13	1.79
29.87	3.57
31.62	1.79
33.37	0.00
35.12	0.00
36.88	0.00
38.62	0.00
40.37	0.00
42.12	0.00
43.87	0.00
45.63	0.00
47.37	0.00
49.12	0.00
> 50.00	1.79



FREQUENCY (%)

MIN-EN LABORATORIES LTD.

SPECIALISTS IN MINERAL ENVIRONMENTS

775 WEST 15TH STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2

TELEX: USA 760167 PHONE: (604)980-5814 OR (604)988-4524

CUMMULATIVE PROBABILITY PLOT ON PB

COMPANY: TOTAL ERICKSON RESOURCES

DATE: JUNE 9/88

ATTN: ALEX NIKOLAJEVICH

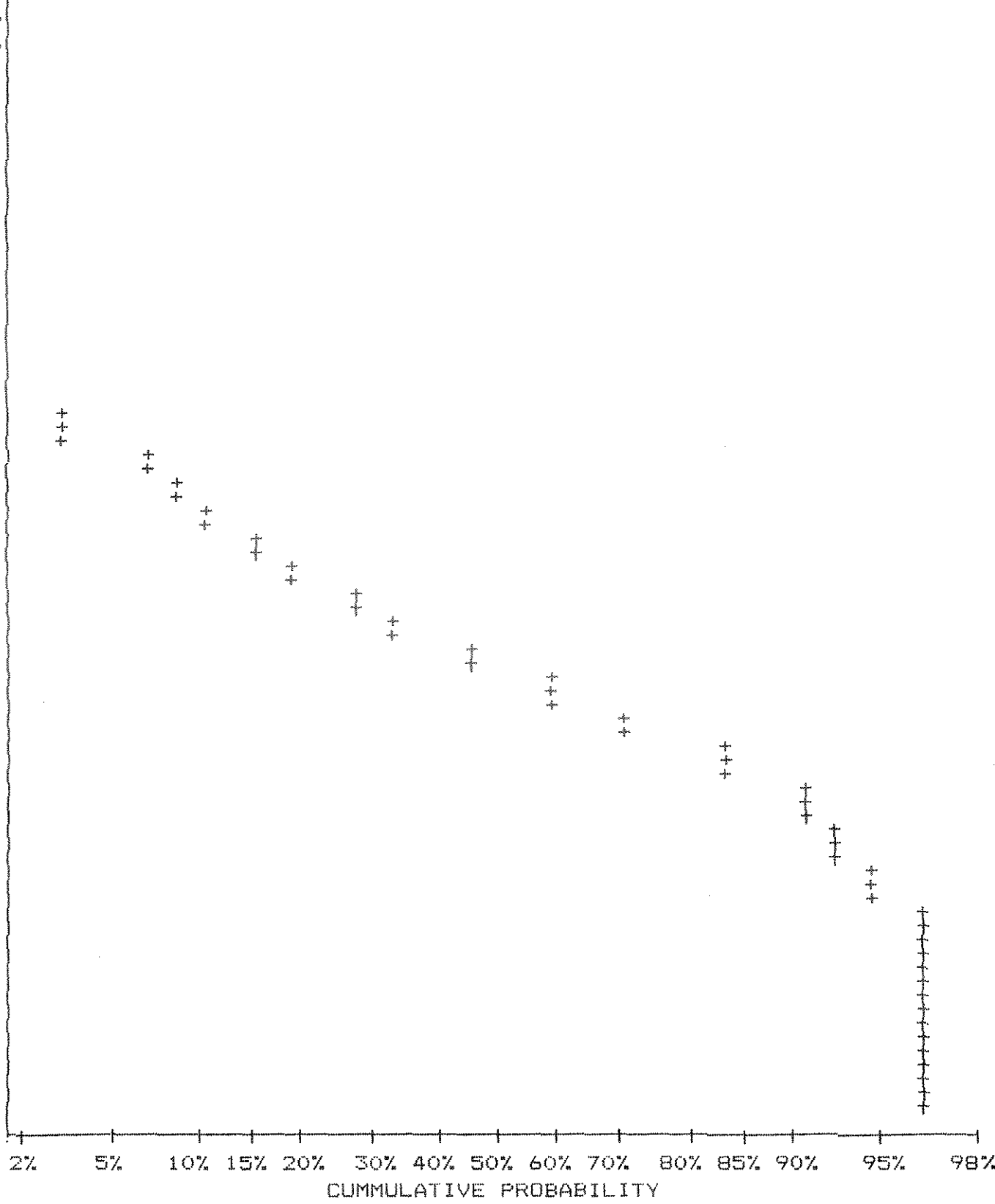
SAMPLE TYPE: SOIL

PROJECT: SKUKUM REECE

ANALYSIS TYPE: ICP

FILE#: 8-619

UPPER LIMIT (PPM)	CUMMUL. FREQ. (%)
49.00	1.79
47.06	1.79
45.20	1.79
43.41	1.79
41.69	1.79
40.04	1.79
38.46	1.79
36.94	1.79
35.47	1.79
34.07	1.79
32.72	1.79
31.43	1.79
30.18	3.57
28.99	7.14
27.84	8.93
26.74	10.71
25.68	16.07
24.67	19.64
23.69	28.57
22.75	33.93
21.85	46.43
20.99	60.71
20.16	60.71
19.36	71.43
18.59	83.93
17.86	91.07
17.15	91.07
16.47	92.86
15.82	94.64
15.19	94.64
14.59	96.43
14.02	96.43
13.46	96.43
12.93	96.43
12.42	96.43
11.93	96.43
11.45	96.43
11.00	98.21



MIN-EN LABORATORIES LTD.

SPECIALISTS IN MINERAL ENVIRONMENTS

775 WEST 15TH STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2

TELEX: USA 760167 PHONE: (604)980-5814 OR (604)988-4524

CUMMULATIVE PROBABILITY PLOT ON SB

COMPANY: TOTAL ERICKSON RESOURCES

DATE: JUNE 9/88

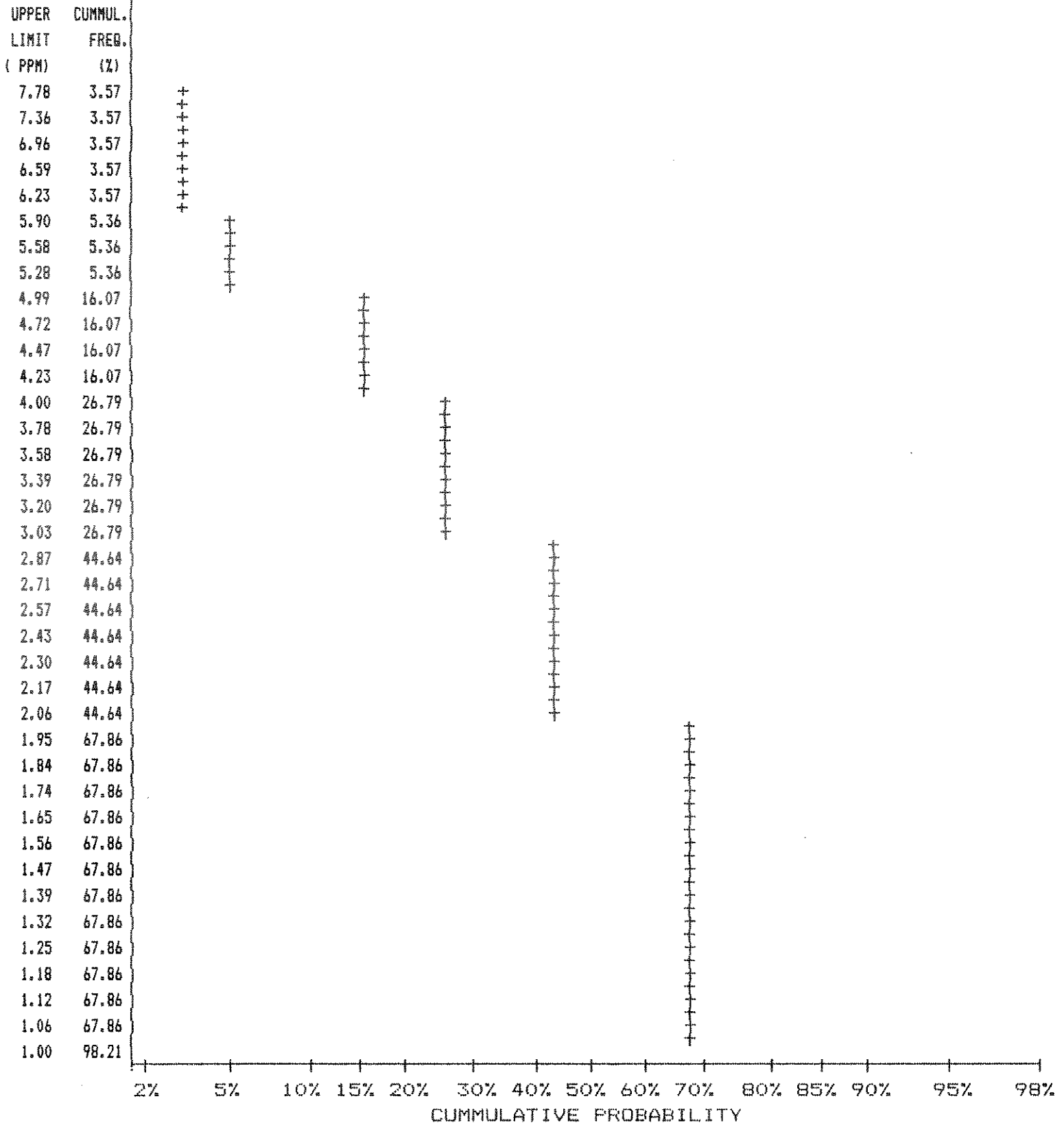
ATTN: ALEX NIKOLAJEVICH

SAMPLE TYPE: SOIL

PROJECT: SKUKUM REECE

ANALYSIS TYPE: ICP

FILE#: 8-619



MIN-EN LABORATORIES LTD.

SPECIALISTS IN MINERAL ENVIRONMENTS

775 WEST 15TH STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2

TELEX: USA 760167 PHONE: (604)980-5814 OR (604)988-4524

CUMMULATIVE PROBABILITY PLOT ON ZN

COMPANY: TOTAL ERICKSON RESOURCES

DATE: JUNE 9/88

ATTN: ALEX NIKOLAJEVICH

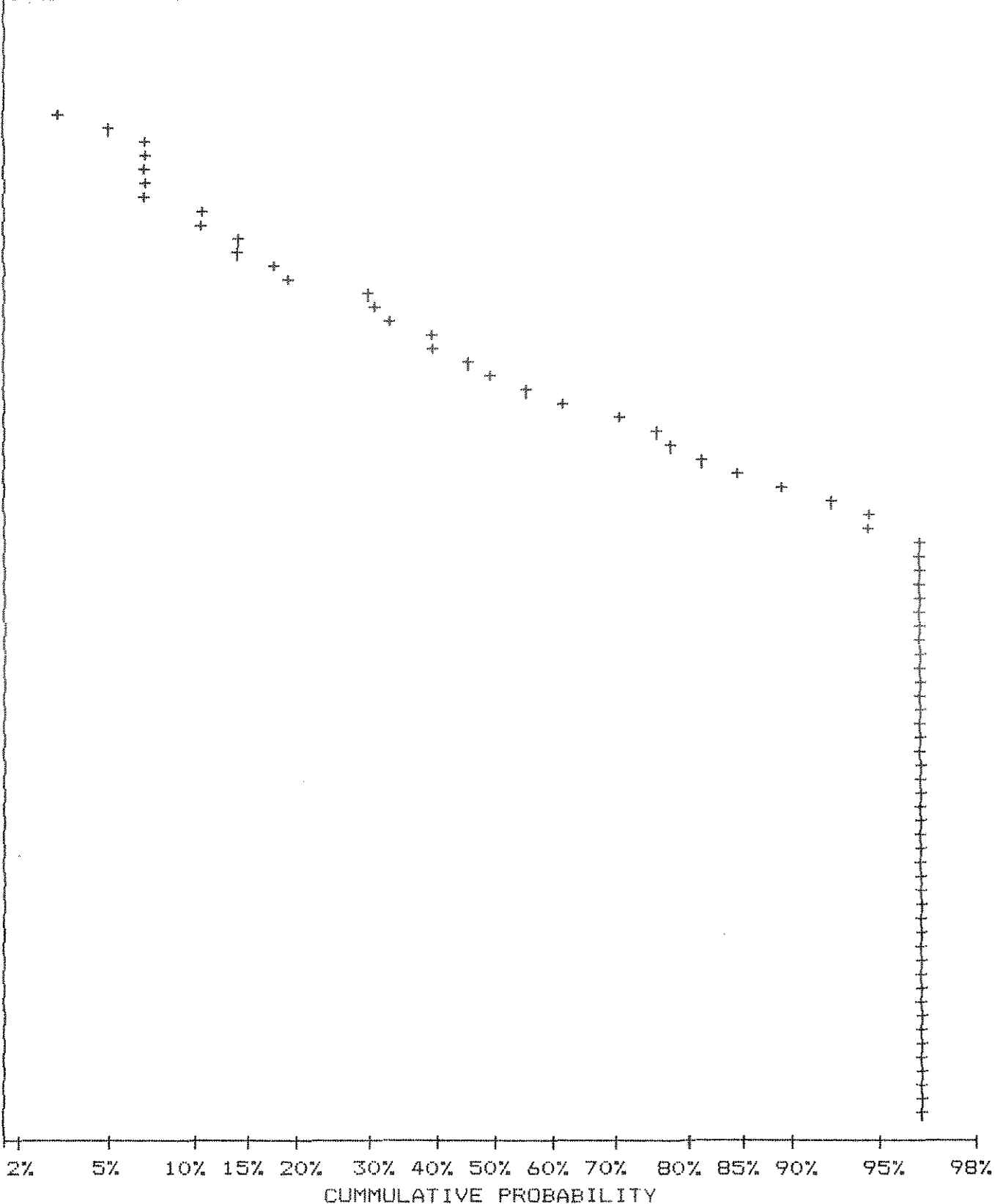
SAMPLE TYPE: SOIL

PROJECT: SKUKUM REECE

ANALYSIS TYPE: ICP

FILE#: 8-619

UPPER LIMIT (PPM)	CUMMUL. FREQ. (%)
112.69	1.79
104.54	5.36
96.97	7.14
89.96	7.14
83.45	10.71
77.41	14.29
71.81	17.86
66.61	30.36
61.79	33.93
57.32	41.07
53.18	50.00
49.33	62.50
45.76	76.79
42.45	82.14
39.38	89.29
36.53	94.64
33.89	96.43
31.43	96.43
29.16	96.43
27.05	96.43
25.09	96.43
23.28	96.43
21.59	96.43
20.03	96.43
18.58	96.43
17.24	96.43
15.99	96.43
14.83	96.43
13.76	96.43
12.77	96.43
11.84	96.43
10.98	96.43
10.19	96.43
9.45	96.43
8.77	96.43
8.13	96.43
7.55	96.43
7.00	98.21



MIN-EN LABORATORIES LTD.

SPECIALISTS IN MINERAL ENVIRONMENTS

775 WEST 15TH STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2

TELEX: USA 760167 PHONE: (604)980-5814 OR (604)988-4524

STATISTICAL SUMMARY ON AU

COMPANY: TOTAL ERICKSON RESOURCES

DATE: JUNE 9/88

ATTN: ALEX NIKOLAJEVICH

SAMPLE TYPE: SOIL

PROJECT: SKUKUM REECE

ANALYSIS TYPE: ICP

FILE#: 8-619

NUMBER OF SAMPLES: 56
MAXIMUM VALUE: 15.0 PPB
MINIMUM VALUE: 5.0 PPB
MEAN: 6.6 PPB
STD. DEVIATION: 2.9 PPB
COEFF. OF VARIATION: 0.4

5 HIGHEST AU VALUES:
DC 013 15.0 PPB
DC 018 15.0 PPB
DC 051 15.0 PPB
DC 007 10.0 PPB
DC 010 10.0 PPB

HISTOGRAM FOR AU CLASS INTERVAL = 0.50

MID CLASS PPB	CLASS %
------------------	------------

<	5.00	1.79
	5.25	73.21
	5.75	0.00
	6.25	0.00
	6.75	0.00
	7.25	0.00
	7.75	0.00
	8.25	0.00
	8.75	0.00
	9.25	0.00
	9.75	0.00
	10.25	21.43
	10.75	0.00
	11.25	0.00
	11.75	0.00
	12.25	0.00
	12.75	0.00
	13.25	0.00
	13.75	0.00
	14.25	0.00
	14.75	0.00
>	15.00	3.57

0.00% 36.61% 73.21%
FREQUENCY (%)

MIN-EN LABORATORIES LTD.

SPECIALISTS IN MINERAL ENVIRONMENTS

775 WEST 15TH STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2

TELEX: USA 760167 PHONE: (604)980-5814 OR (604)988-4524

CUMMULATIVE PROBABILITY PLOT ON AU

COMPANY: TOTAL ERICKSON RESOURCES

DATE: JUNE 9/88

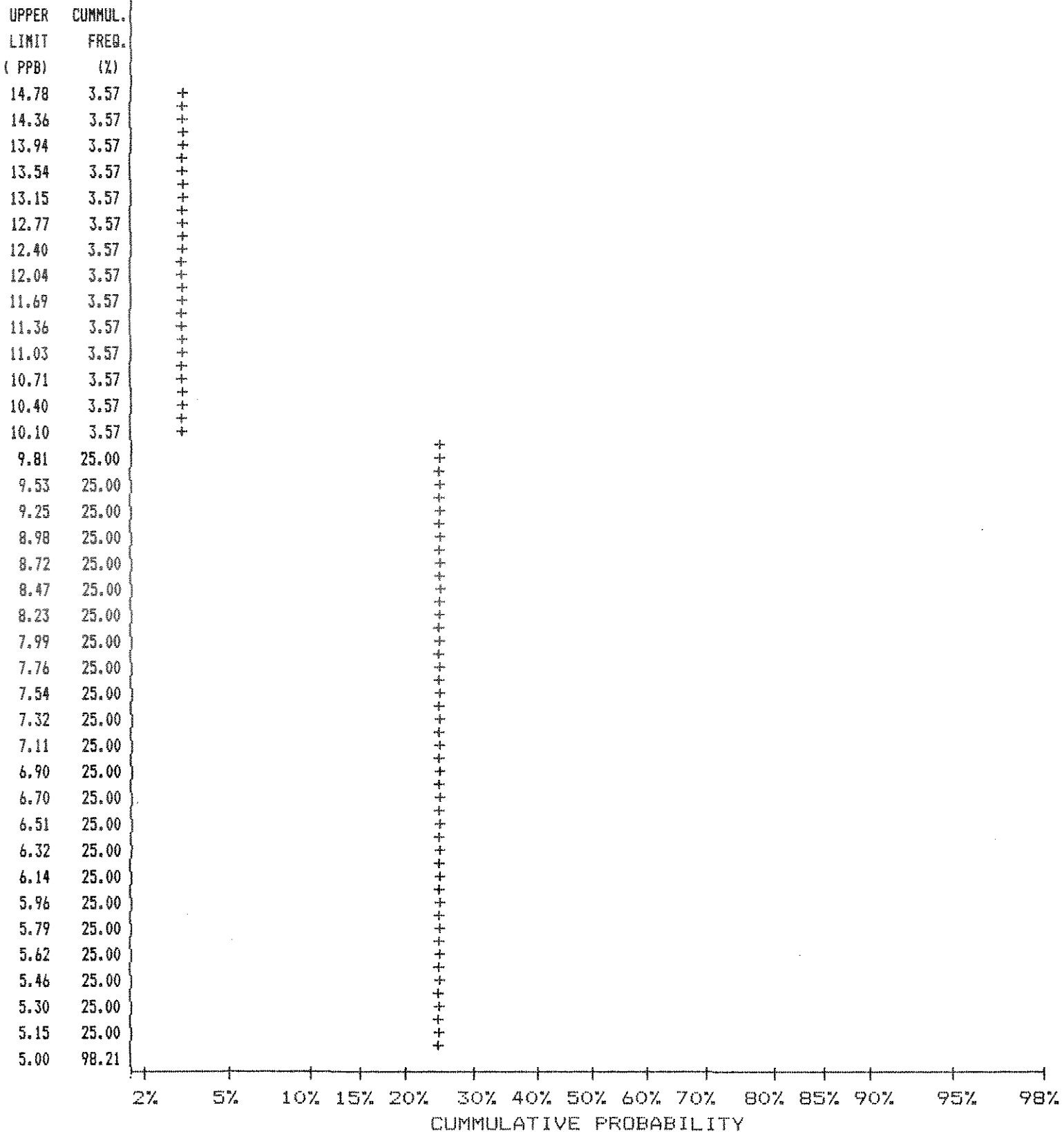
ATTN: ALEX NIKOLAJEVICH

SAMPLE TYPE: SOIL

PROJECT: SKUKUM REECE

ANALYSIS TYPE: ICP

FILE#: 8-619



Cross section of
Pit #1

Sample locations x
March 28 1988

feet?
← open

← Pit #1 ap. 20 feet →

→ 4 feet open →

up
Hill



6 feet

x 6

Dyke

18"

x 26

x

Dyke

1 foot

Green

Dyke

Andesite?

x 44

x 27

x 28

x

x

x

28 feet
30 inch

x 43

← Cu stain →
+ Mn ↓

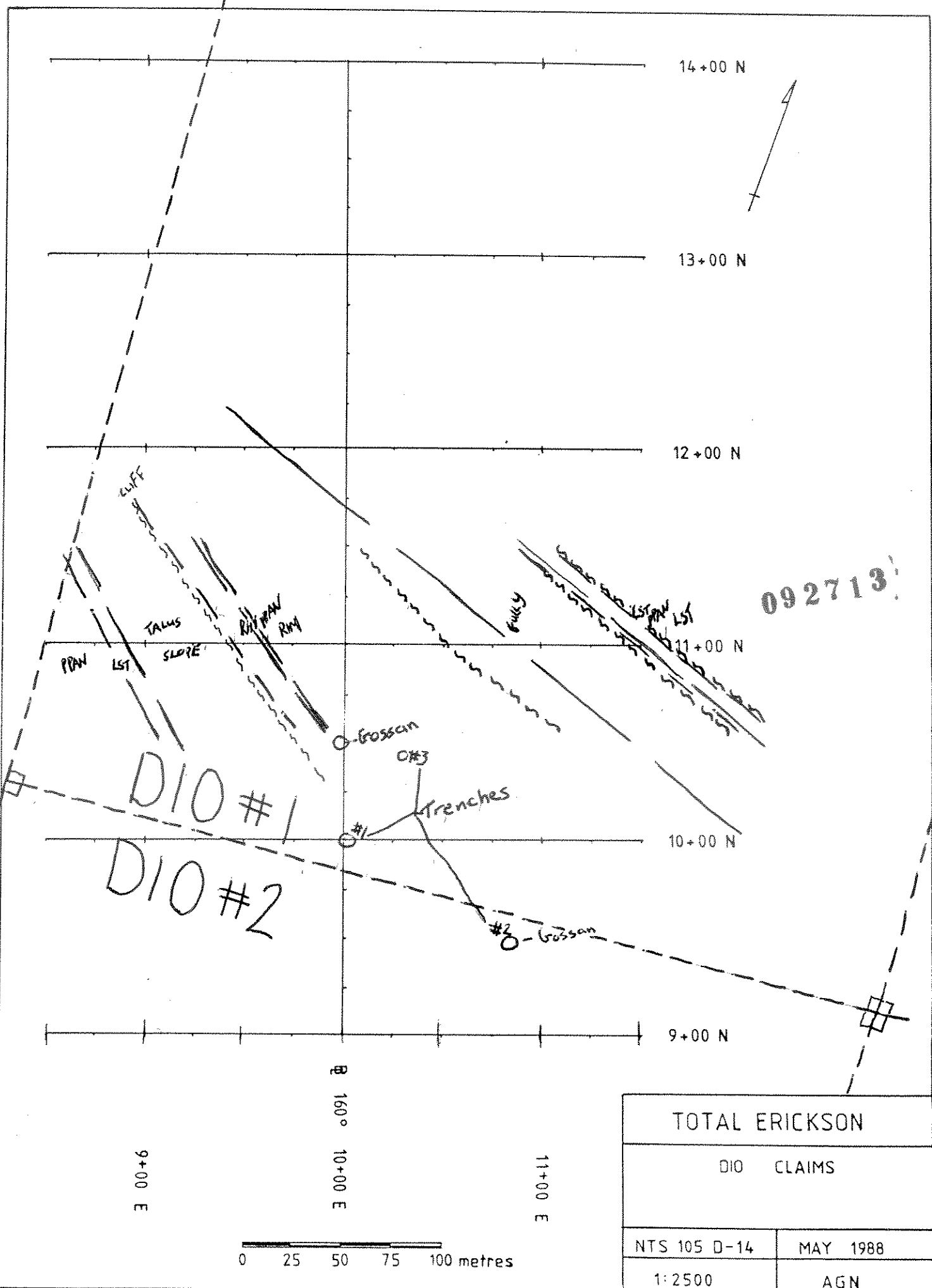
LS

?

		Au/g	Ag/g	Cu %	Pb %	Sb %	Zn %
D x 6	= Tetrah + Gal. + Chalcopy in Calcite (mainly stain)	6	.28	342.1	.64	.80	.10
D x 26	= Tetrah. + Galena Stringers 1/2 inch	26	.25	144.0	1.41	2.71	
D x 27	= Galena Stringer in Quartz 1/2 inch	27	.04	19.5	.089	3.68	
D x 28	= Tetrah. but mostly Chalcopy in Calcite stringers (3) 1/2 inch	28	71.10	25.8	1.43	.04	
D x 43	= Chalcopy + (little Tetrah.?) in Quartz, Calcite Vein app. 6 inch wide	43	.19	3.3	.76		.01
D x 44	= Dyke Andesite with Red Iron Stain	44	.04	1.6			

APPENDIX TWO

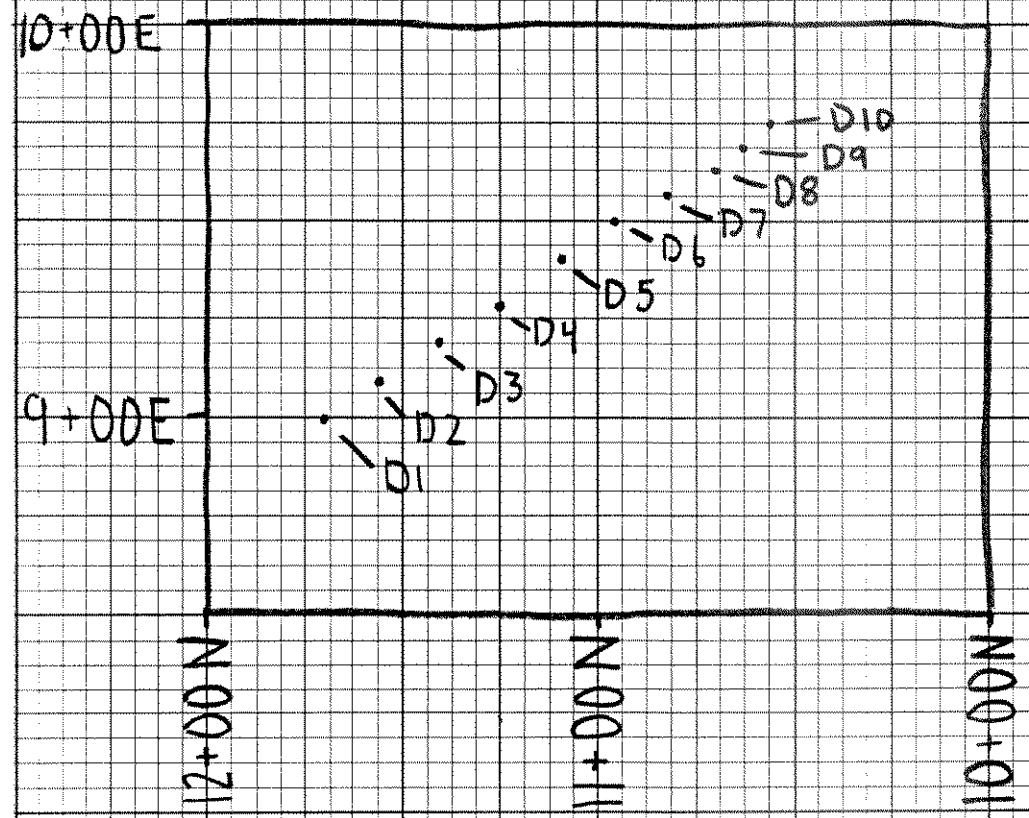
092713



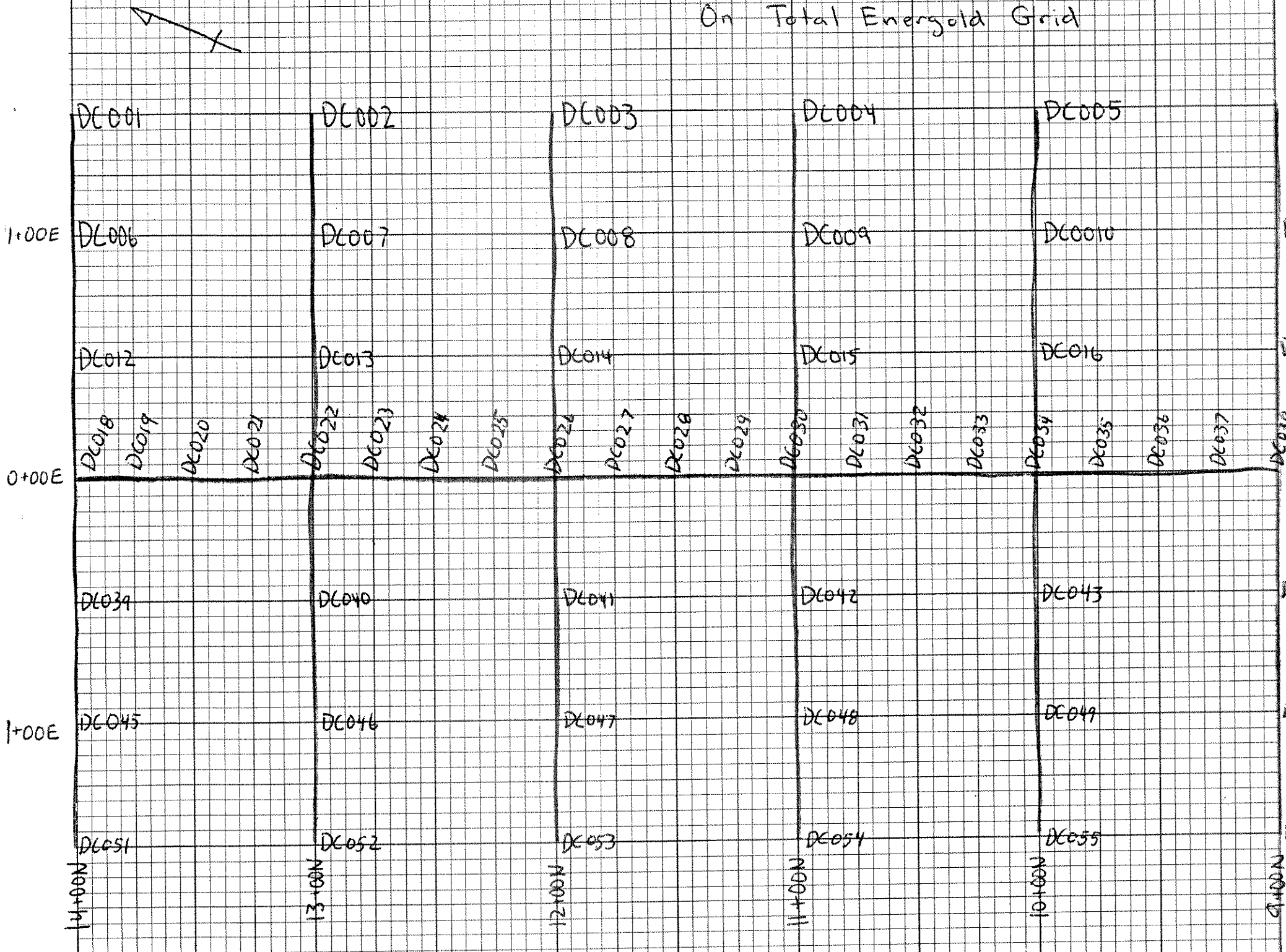
TOTAL ERICKSON	
DIO CLAIMS	
NTS 105 D-14	MAY 1988
1:2500	AGN

Plot Of Follow up Soil Samples

5cm = 100m



Map Showing Sample #'s On Total Energold Grid



650
600
550
500
450
400
350
300
250
200
150
100
50
0
50
100
150
200
250

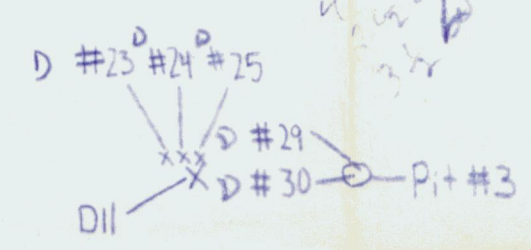
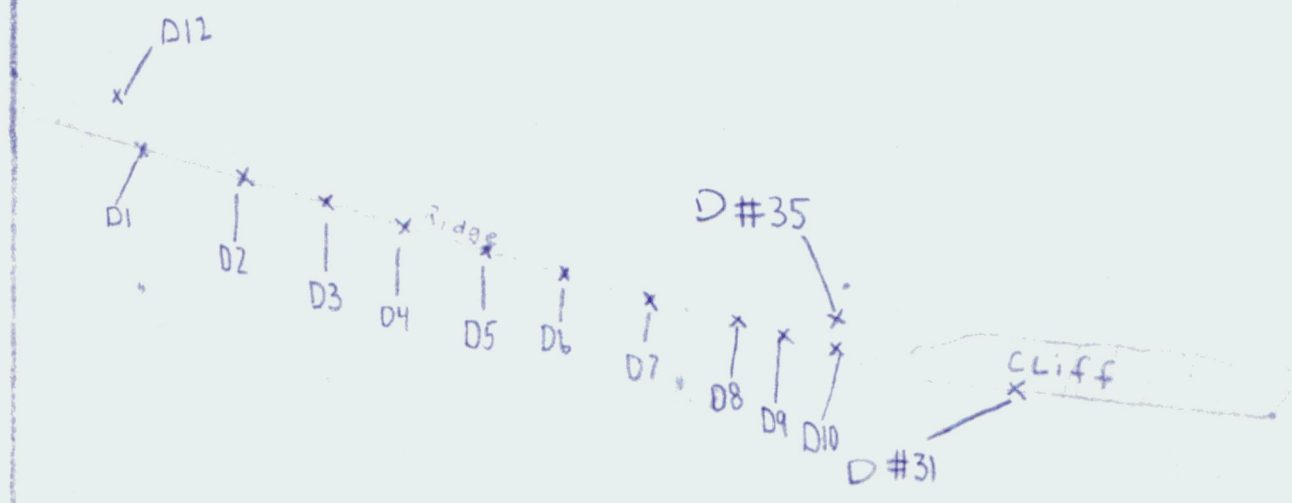
0 50 100 150 200 250 300 350 400 450 500 550 600 650 700 750 800 850 900 950



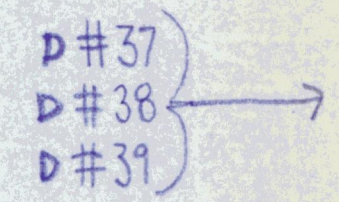
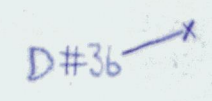
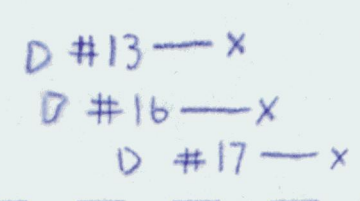
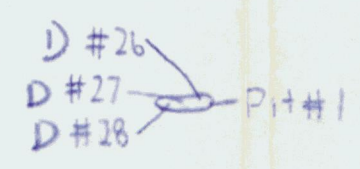
Scale 2cm=50feet
D10 CLAIMS #1#2
105 D 14

MAP SHOWING SAMPLE #S
AND LOCATIONS.

57
092713



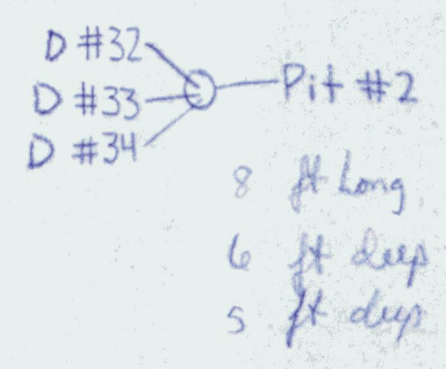
Handing
Mucking
down
80 L
70



D10 #1

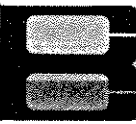
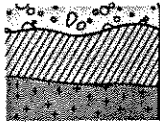
D10 #2

Post #1
Post #1
BASELINE



APPENDIX THREE

092713



REPORT: 127-10183

PROJECT: NONE GIVEN

PAGE 18

SAMPLE NUMBER	ELEMENT UNITS	FE PCT	AS PPM	U PPM	W PPM	SB PPM	SN PPM	AG PPM	AU 30G PPB	PT PPB	PD PPB
R2 K-1		>10.00	>2000	<10	<10	458	<10		560	<15	<2
R2 GR-2								0.5	620		
R2 GR-4								1.4	180		
R2 GR-8								0.3	260		
R2 GR-40								0.2	55		
R2 D-13								<0.1	70		
R2 D-16								<0.1	35		
R2 D-17								1.0	110		

MIN-EN LABORATORIES LTD.

Specialists in Mineral Environments

705 West 15th Street North Vancouver, B.C. Canada V7M 1T2

PHONE: (604)980-5814 OR (604)986-4524

TELEX: VIA USA 7601067 UC

Certificate of ASSAY

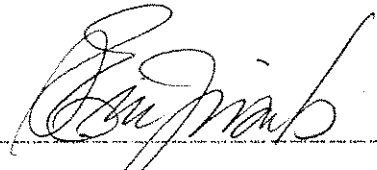
Company: ERWIN KREFT
 Project:
 Attention: ERWIN KREFT

File: 8-308/P1
 Date: MARCH 13/88
 Type: ROCK ASSAY

We hereby certify the following results for samples submitted.

Sample NUMBER	AU G/TONNE	AU OZ/TON	AS %	AG G/TONNE	AG OZ/TON	CU %	PB %
D-23	.10	0.003		1.9	0.06	.146	
D-24	.02	0.001		3.6	0.11	.007	
D-25	.01	0.001		0.3	0.01	.005	
D-26	.25	0.007		144.0	4.20	1.410	2.71
D-27	.04	0.001		19.5	0.57	.089	3.68
D-28	71.10	2.074		25.8	0.75	1.430	.04
D-29	.04	0.001		1.8	0.05	.084	
D-31	.01	0.001	.01	0.2	0.01	.024	
D-34	.02	0.001		0.5	0.01	.081	
D-35	.01	0.001		2.8	0.08	.172	
D-36	.04	0.001		1.9	0.06	.003	
D-37	.03	0.001		1.6	0.05	.006	
D-38	.05	0.001		1.2	0.04	.002	
D-39	.02	0.001		0.4	0.01	.002	
H-60	.04	0.001		0.4	0.01		

Certified by



MIN-EN LABORATORIES LTD.

PROJECT NO:

705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2

FILE NO: 8-308

ATTENTION: ERWIN KREFT

(604)980-5814 OR (604)988-4524

* TYPE ROCK GEOCHEM * DATE: MARCH 13, 1988

(PPM)	D-30	D-32	D-33
AG	3.8	.8	2.6
AL	9380	2210	7080
AS	1	11	75
B	21	14	21
BA	982	169	73
BE	1.0	2.9	1.6
BI	2	3	1
CA	180580	30000	54570
CD	.6	.8	2.9
CO	3	1	10
CU	1040	244	698
FE	31810	102770	52620
K	840	2960	2850
LI	16	1	1
MG	6340	1550	5990
MN	1281	47	537
MO	4	1	1
NA	100	7110	690
NI	1	1	2
P	1220	1010	3610
PB	51	25	36
SB	4	1	27
SR	307	251	102
TH	1	1	1
U	1	1	1
V	16.5	10.7	11.8
ZN	39	30	71
BA	1	1	1
SM	1	2	1
W	3	1	1
CR	52	113	52

MIN
• EN

LABORATORIES LTD.

SPECIALISTS IN MINERAL ENVIRONMENTS
CHEMISTS • ASSAYERS • ANALYSTS • GEOCHEMISTS

VANCOUVER OFFICE:
705 WEST 15TH STREET
NORTH VANCOUVER, B.C. CANADA V7N 1T2
TELEPHONE (604) 980-5814 OR (604) 953-4524
TELEX: VIA U.S.A. 7601067 • FAX (604) 950-9621

TIMMINS OFFICE:
33 EAST IROQUOIS ROAD
P.O. BOX 867
TIMMINS, ONTARIO CANADA P4N 7G7
TELEPHONE: (705) 264-9996

INVOICE

TO : KREFT, ERWIN
RR#2,
SITE 19, COMP.4,
WHITEHORSE, YUKON.
Y1A 5A5

INVOICE No 11561C
PAGE : 1 OF 1
DATE : Nov 01/88

ACCOUNT:10621

ATTENTION: ERWIN KREFT
PROJECT:

FILE No: 8-1899

QTY	DESCRIPTION	UNIT PRICE	AMOUNT
17	SILT GEOCHEM - 12 ELEMENT TRACE ICP, AU WET	10.75	182.75
17	SILT SAMPLE PREP	1.00	17.00
1	ROCK GEOCHEM - 12 ELEMENT TRACE ICP, AU WET	10.75	10.75
1	ASSAY SAMPLE PREP	3.75	3.75
11	ASSAYS - AG AS AU	24.50	269.50
11	ASSAYS SAMPLE PREP	3.75	41.25
1	ASSAYS - CU ZN CD AG SN AU W03	50.00	50.00
1	GEOCHEM - GE IN GA	30.00	30.00
1	ASSAY SAMPLE PREP	3.75	3.75
* TOTAL *			608.75

THESE ARE PROFESSIONAL SERVICES AND ARE PAYABLE WHEN RENDERED.
OUTSTANDING BALANCES OVER 30 DAYS WILL BE CHARGED 2% INTEREST/MONTH.

INVOICE

MIN-EN LABORATORIES LTD.
705 WEST 15TH STREET
NORTH VANCOUVER, B.C.
CANADA V7M 1T2

INVOICE No 82050
PAGE : 1 OF 1
DATE : Mar 13/88

PHONE: (604)980-5814 OR 989-4524
TELEX: VIA USA 7601067 FAX: (604)980-9621

TO : KREFT, ERWIN
SITE 19, COMP. A,
RR#2,
WHITEHORSE, YUKON.
Y1A 5A5

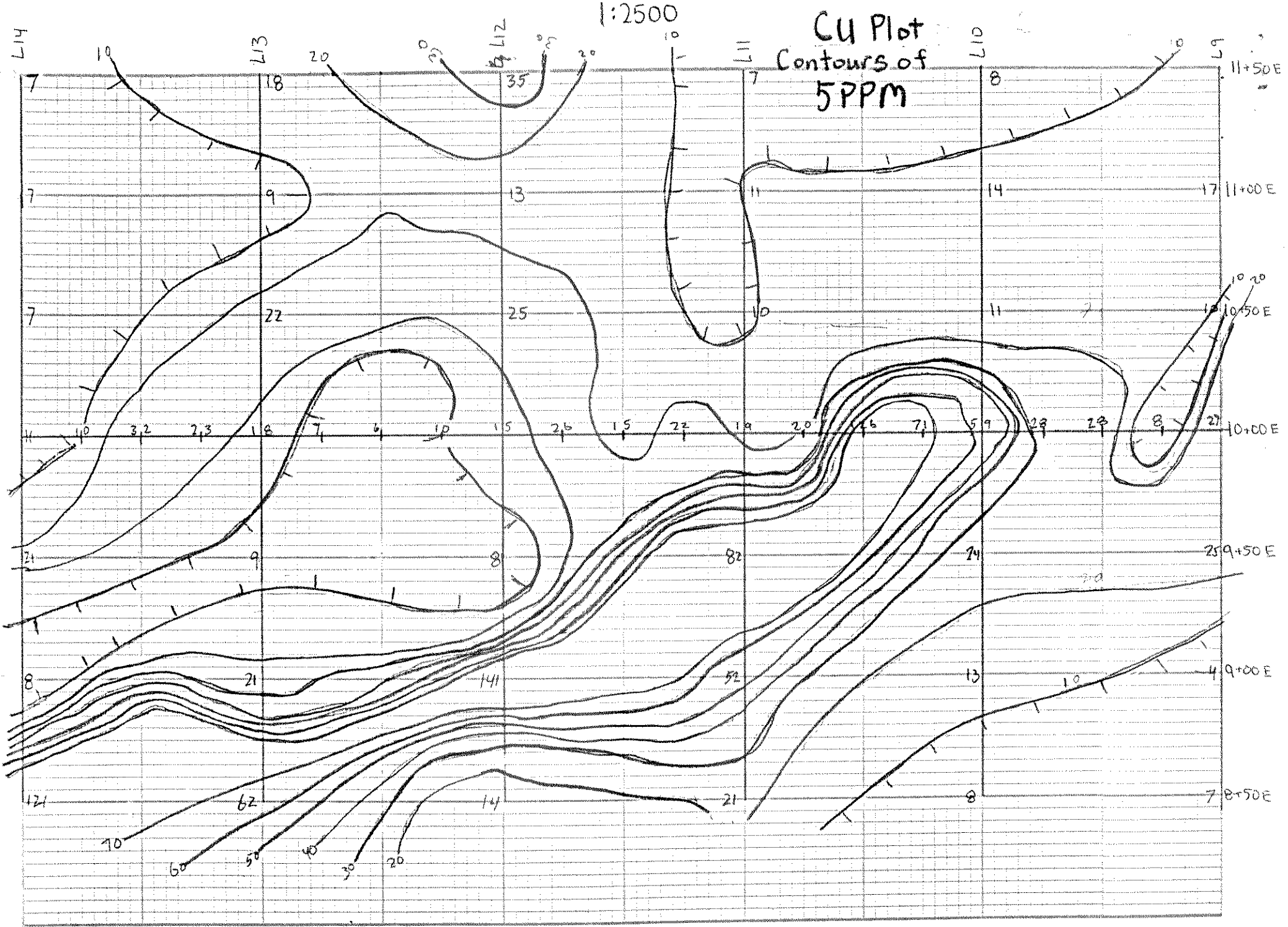
FILE No: 8-305
PROJECT:
ACCOUNT: 10621

ATTENTION: ERWIN KREFT

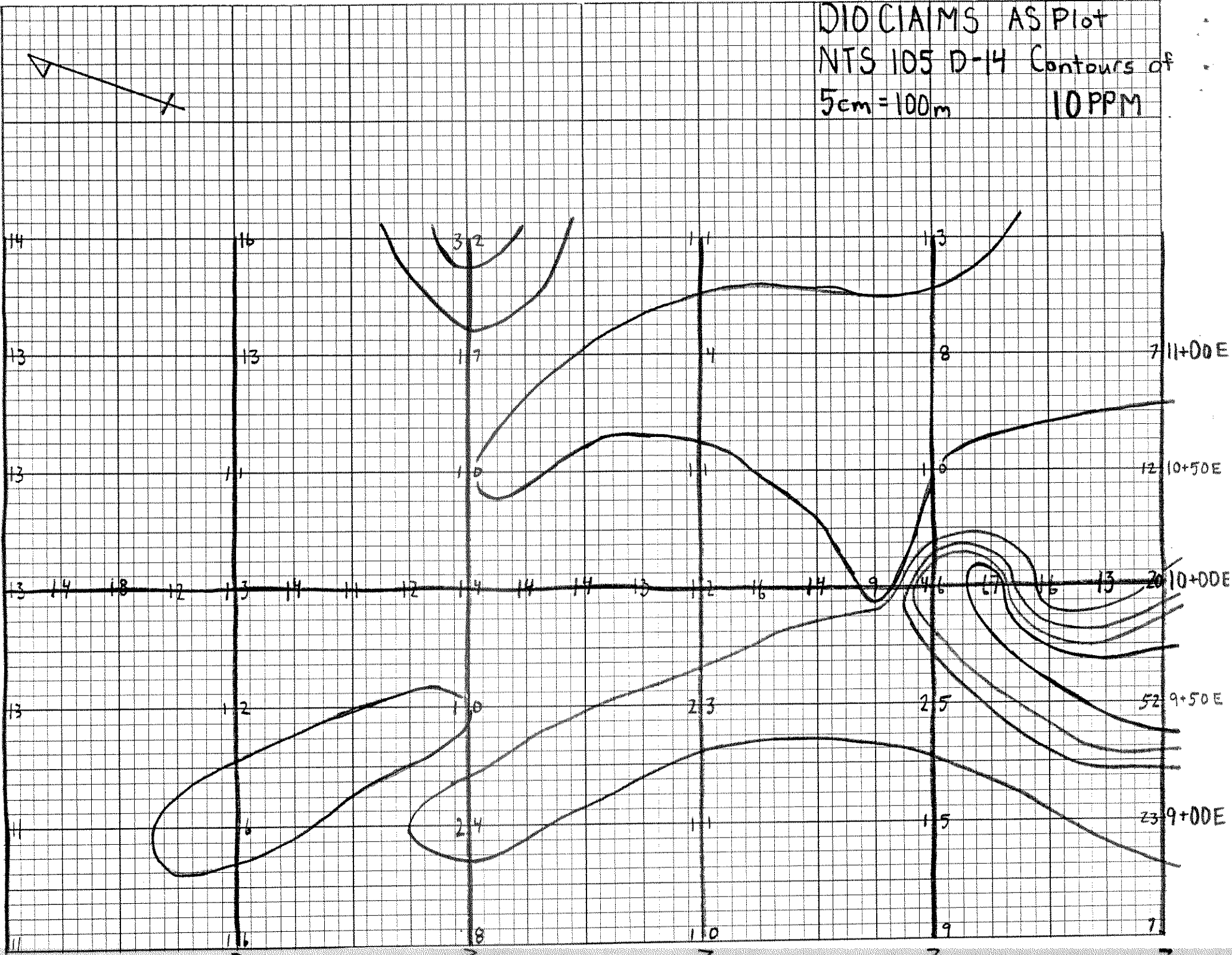
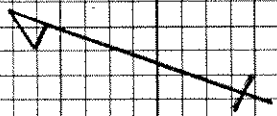
QTY DESCRIPTION	UNIT PRICE	AMOUNT
15 ASSAYS - AU AG	14.00	210.00
14 ASSAYS - CU	6.00	84.00
3 ASSAYS - PB	6.00	18.00
1 ASSAY - AS	8.50	8.50
3 GEOCHEM - 31 ELEMENT TRACE ICP	6.50	19.50
18 ASSAYS SAMPLE PREF	3.50	63.00
	* TOTAL *	403.00

THESE ARE PROFESSIONAL SERVICES AND ARE PAYABLE WHEN RENDERED.
OUTSTANDING BALANCES OVER 30 DAYS WILL BE CHARGED 2% INTEREST/MONTH.

Handwritten: Paid March 23, 1988



DIO CLAIMS AS Plot
 NTS 105 D-14 Contours of
 5cm=100m 10PPM



325 5096
 11

COMPANY: ERWIN KREFT

MIN-EN LABS ICP REPORT

(ACT:F31) PAGE 1 OF 1

PROJECT NO:

705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2

FILE NO: 8-1899

ATTENTION: ERWIN KREFT

(604)980-5814 OR (604)988-4524

* TYPE ROCK GEOCHEM *

DATE: OCTOBER 30, 1988

(PPM) D12

AG 1.2

AS 15

BE 1.1

CD 10

CU 102

MO 5

NI 4

PB 19

SB 2

SN 1

W 1

CR 52

AU-PPB 5

PROJECT NO: SKUKUM REECE

705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1J2

FILE NO: 8-619/P1+2

ATTENTION: D. RAWSTHORN

(604) 980-5214 OR (604) 989-4524

* TYPE SOIL GEOCHEM * DATE: JUNE 4, 1988

(VALUES IN PPM)	AS	AS	CU	PB	SR	ZN	AU-PPM
DC 001	1.0	14	7	19	1	37	5
DC 002	.7	16	18	18	1	34	5
DC 003	.4	32	35	31	3	72	5
DC 004	1.1	11	7	21	1	40	5
DC 005	1.1	13	8	21	1	56	5
DC 006	1.0	13	7	20	1	56	5
DC 007	1.0	13	9	20	1	45	10
DC 008	1.4	17	13	15	3	39	5
DC 009	.4	4	11	24	1	108	5
DC 010	.6	8	14	20	1	72	10
DC 011	.7	7	17	19	2	121	5
DC 012	1.5	13	7	19	4	41	5
DC 013	.6	11	22	22	1	39	15
DC 014	.2	10	25	24	1	60	10
DC 015	.9	11	19	24	3	67	5
DC 016	1.2	10	11	20	4	43	5
DC 017	1.0	12	10	21	4	49	10
DC 018	.9	13	11	20	2	53	15
DC 019	1.3	14	10	22	5	40	10
DC 020	.2	18	32	21	4	52	5
DC 021	.3	12	23	18	5	61	5
DC 022	.1	13	16	29	8	70	5
DC 023	1.3	14	7	21	6	47	5
DC 024	1.0	11	6	16	5	48	5
DC 025	1.0	12	10	22	5	41	10
DC 026	1.0	14	15	22	5	49	5
DC 027	.7	14	26	24	2	65	5
DC 028	.9	14	15	21	4	54	5
DC 029	.9	13	22	22	3	53	5
DC 030	.8	12	19	19	5	47	10
DC 031	.9	16	20	25	1	55	5
DC 032	.6	14	126	25	1	60	10
DC 033	.1	9	71	23	1	67	5
DC 034	.1	46	59	69	3	79	5
DC 035	.3	67	28	29	3	68	5
DC 036	.7	16	28	26	1	50	10
DC 037	1.3	13	6	21	2	47	5
DC 038	.5	20	27	21	1	101	5
DC 039	.5	13	21	26	2	86	5
DC 040	1.2	12	9	19	2	57	5
DC 041	.7	10	8	23	2	69	5
DC 042	.6	23	82	24	2	67	10
DC 043	.2	25	24	28	1	79	5
DC 044	.5	52	25	50	2	109	5
DC 045	1.1	11	8	19	3	43	5
DC 046	.6	6	21	18	2	48	5
DC 047	.4	24	141	23	6	51	5
DC 048	.2	11	52	18	2	117	5
DC 049	.5	15	13	26	1	63	5
DC 050	3.2	23	4	11	10	7	5
DC 051	.8	11	131	22	2	51	15
DC 052	.2	16	62	27	2	84	10
DC 053	.5	8	14	20	3	68	5
DC 054	.4	10	21	17	3	61	5
DC 055	.7	7	6	19	4	57	5
DC 056	.4	7	7	22	1	38	10

PROJECT NO: SKUKUN REECE

705 WEST 13TH ST., N.W. WILLOWDALE, E.I. 77M 1T2

FILE NO: B-614

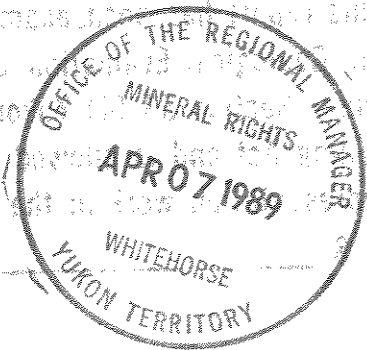
ATTENTION: D. RAWSTHORN

(604)930-5814 OR (604)988-4524

* TYPE ROCK GEOCHEM *

DATE: JUNE 4, 1989

(PPM)	DBB 001	DBB 002	DBB 003	DBB 004	DBB 005
AG	1.2	.6	1.0	.3	.3
AS	92	133	62	102	30
CU	2282	65	230	22	24
PB	31	34	25	33	21
SE	3	8	2	1	3
ZN	53	37	20	68	65
AU-PPB	5	185	15	5	10



DIO CLAIMS REPORT
WHITEHORSE MINING DISTRICT, YUKON
NTS 105 - D - 14

For
Erwin and Bernie Kreft

by

LARRY W. CARLYLE, F.G.A.C., P. Geol.

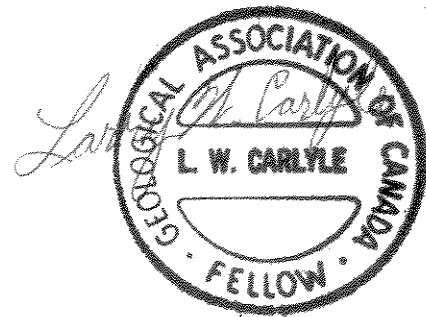
Whitehorse, Yukon

April 21, 1988

60 51' N
134 13' W



092713



This report has been examined by
the Geological Evaluation Unit
under Section 53 (4) Yukon Quartz
Mining Act and is allowed as
representation work in the amount
of \$ 2500.00.

J. J. Gremson
for Regional Manager, Exploration and
Geological Services for Commissioner
of Yukon Territory.



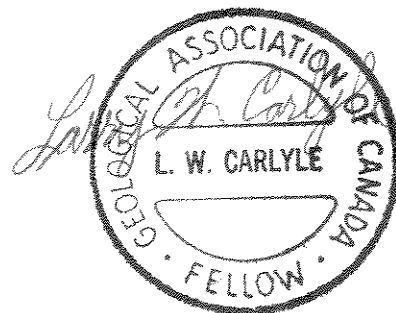
100-1000

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APPENDICES

- Appendix A - Assays and Invoices
- Appendix B - Kreft Magnetometer Survey Data
- Appendix C - Al Carlos VLF-EM Fraser Filtered Data
- Appendix D - Carlyle Figures 3 to 9



SUMMARY

The DIO Claims are situated in south-central Yukon approximately one mile north of the Takhini Hot Springs Road behind the Pilot Mountain Subdivision (see Figure 1). The first two claims were staked in December of 1987 to cover copper-silver mineralization found by Bernie Kreft during the summer of 1987. During March of 1988, an additional 3 claims were staked and recorded (see Figure 2).

The claims are located on a new mineral discovery in limestone of the Upper Triassic Lewis River Group (J.O. Wheeler, 1961). Mineralization appears to be concentrated in northwest striking, steeply northeast dipping shear zones of silicified, argillic and limonitic limestone. The mineralization located to this time seems to be closely associated with dark grey to dark green, fine grained andesite dykes with similar strikes and dips to the shear zones. These dykes may be associated with the Cretaceous Hutshi Group mapped at Flat Mountain north of the property. The limited amounts of prospecting, sampling, blast trenching, geological mapping, magnetometer and VLF-EM surveying done on the property indicate that the mineralization may have resulted from the following sequence of events:

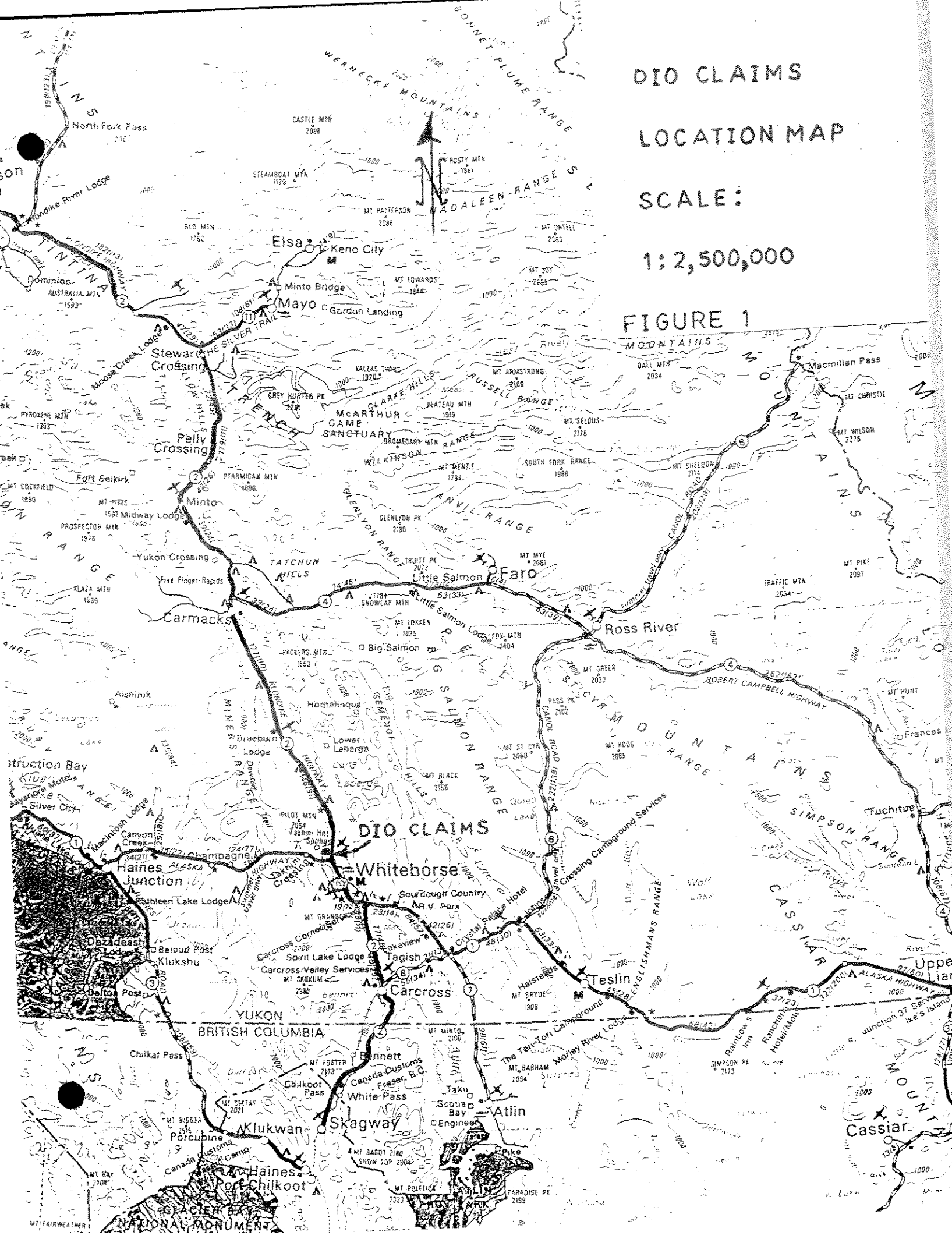
1. limestone intruded by the andesite dykes
2. shearing created by the dyke intrusions provide space for the vuggy quartz-calcite fracture fillings bearing the copper, gold, silver and lead mineralization.

The writer has performed the small amount of geological mapping and the small test VLF-EM survey described in this report. This work indicates that further work is warranted on these claims.

DIO CLAIMS
LOCATION MAP
SCALE:

1:2,500,000

FIGURE 1



INTRODUCTION

Early in March, 1988, Mr Erwin Kreft requested the writer to visit the DIO Claims owned by his son, Bernie Kreft. The writer visited the property for approximately 4 hours on March 6, 1988 and again for approximately 7 hours on March 27, 1988. On the March 6 visit, the writer mapped and sampled Trench # 1; and made observations at Trenches # 2 and # 3 and a silicified zone located on Line 350 at 250 N (see Figure 3). On the March 27 visit, a small test VLF-EM survey was performed on the 50 foot by 50 foot grid established on the property by the Krefts for an earlier magnetometer survey. The first part of the survey consisted of collecting data at 24 stations at 50 foot intervals along the grid baseline located along the claim line which runs approximately west to east from the # 1 Posts of DIO # 1 and DIO # 2 toward the # 2 Posts. Data was collected at another 68 stations at the same interval along Lines 450, 600, 700 and 800. These lines run approximately azimuth north-south. Some additional geological data was obtained during the survey because of snow melt in the area between the two visits. This data has been added to Figure 3. The data obtained from the VLF-EM survey has been presented on Figures 4 to 9.

LOCATION, ACCESS AND CLAIMS

The DIO Claims are located in south-central Yukon on NTS Map Sheet 105 D-14 (see Figure 2). The claims are accessed by leaving the Takhini Hot Springs Road at the Pilot Mountain Subdivision Road. Approximately 1/2 mile up this road, a hydro power transmission line crosses the road. Approximately 1/4 mile east of the road

CLAIM MA

DIO CLAIMS

SCALE:

1 INCH = 1/2 MILE

FIGURE 2

KLONDIKE HIGHWAY

LOT 85
GROUP 854

YUKON RIVER

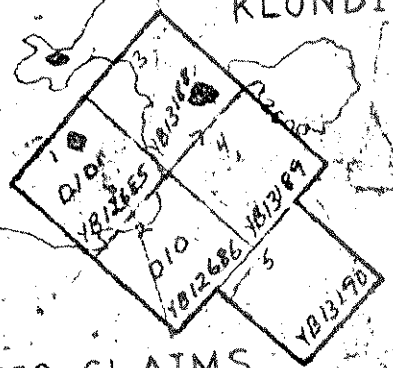
BOUNDARY FOR GAS PIPELINE CORRIDOR

CITY OF WHITEHORSE

JUNE 1, 1971

TAKHINI RIVER

DIO CLAIMS



Lot 839
GR 804

593

594

Lot 655

Lot 656

Lot 288

Lot 197

Lot 207

Lot 220

GENERATION

along this transmission line, DIO # 5 joins the transmission line easement.

CLAIM INFORMATION

Claim Name	Grant Numbers	Recorded
Dio 1 - 2	YB 12685 - YB 12686	December, 1987
Dio 3 - 5	YB 13188 - YB 13190	March 24, 1988

REGIONAL GEOLOGY

The DIO Claims lie entirely within limestones of the Upper Triassic Lewes River Group mapped by Wheeler (GSC Memoir 312, 1961). The contact between the Lewes River and the Lower Jurassic Laberge Group sediments is mapped as being approximately 1 mile north of the claims. As stated earlier, the steeply dipping, northwest striking 1 to 5 foot wide andesite dykes observed on the property may be associated with the Cretaceous Hutshi volcanics mapped on Flat Mountain. The strike of the andesite dykes and shear zones approximates the strike of the syncline mapped by Wheeler in the Laberge Group about 4 miles north of the property. A relationship may exist between the two.

PROPERTY GEOLOGY AND MINERALIZATION

The very limited amount of geological mapping done on the claims shows that the chief country rock is blocky, fine grained grey limestone with approximately a west strike and a slight dip to the southwest. A review of aerial photographs of the area has demonstrated that the fault striking north-south near the Takhini Hot Springs mapped by Wheeler exists. The writer believes another fault having the same strike and a steep dip toward the east

exists just east of the property along the west side of the Yukon River Valley. The air photos also show strong lineations striking east-west parallel to the Takhini River. These are probably glacial features.

The preliminary geological mapping done on the claims shows that the copper, silver, gold and lead mineralization is in vuggy quartz-calcite stringers of probable hydrothermal origin. These stringers are probably occupying space provided by the shearing of the competent limestone during the intrusion of dark grey and dark green, fine grained andesite dykes containing up to 1 % pyrite. These dykes have strikes of Azimuth 325 degrees to Azimuth 315 degrees and dips of 82 to 87 degrees to the northeast. Further evidence of a hydrothermal origin for the mineralization exists in the strong bleaching and argillic and limonitic alteration of the shear zones. Shear zones appear to weather more easily than the surrounding limestone because shear zones seem to be located most frequently in topographic depressions. Mineralization seems to have migrated into the blocky limestone country rock along a strong jointing having a strike of Azimuth 30 degrees and a dip of 87 degrees southeast. An example is the strong malachite in the jointing on Line 300 at 300 N.

Two zones of mineralized highly silicified limestone have been located on the claims. The first is a 28 foot wide zone along the base of the ridge on Line 350 at 250 N. The silicified limestone contains vuggy quartz-calcite stringers up to 1 1/2 inches wide containing minor malachite staining and up to 1 % oxidized pyrite

crystals. This material contained minute black specks thought to be tetrahedrite, strong limonite and clay and trace chlorite in fracture fillings. An 18 foot section of this material was chip sampled and assayed for gold, silver and arsenic as sample K - 6. The extent of the second silicified zone located on Line O at the base of the ridge at 350 N has not been determined. This zone is essentially the same as the first and has been sampled as selected samples D - 40 and 41.

The writer obtained samples K - 1,2,3,4, and 5 from Trench # 1 on March 6 and samples K - 7,8 and 9 on March 27 after the trench had been deepened (see Table 1). The March 27 samples were obtained approximately 1 1/2 feet lower than the March 6 samples. Trenches 2 and 3 were visited by the writer on March 6 but no samples were taken because they had been adequately sampled by the claim owner.

TABLE 1

Sample #	Width(FT.)	Au(PPB)	Ag(PPM)	Cu	Pb(PPM)	As(PPM)
K - 1	1.5	18	1.9	875 PPM	24	
K - 2	3.5	19	1.4	299 PPM	29	
K - 3	5.0	3	2.2	324 PPM	41	
K - 4	4.5	21	1.6	818 PPM	28	
K - 5	5.5	17	1.3	183 PPM	19	
K - 6	18.0	15	1.1			134
K - 7	4.0	9	2.3	.199 %		
K - 8	3.8	3	1.6	.031 %		
K - 9	3.0	11	2.7	.080 %		
K - 10	S	275	4.5	1.52 %		
D - 40	S	14	2.7	.086 %		
D - 41	S	176	17.8	2.18 %		

S = Selected Sample

VLF-EM SURVEY

A test VLF-EM survey was performed on the claims on March 27, 1988. The survey consisted of collecting VLF data at 24 stations at 50 foot intervals along the grid baseline which followed the claim line which runs approximately azimuth west to east from the # 1 Posts of DIO # 1 and DIO # 2 toward the # 2 Posts. Data was collected at another 68 stations at the same interval along Lines 450, 600, 700 and 800 which run approximately azimuth north-south.

The grid had been placed on the claims by the Krefts to permit plotting of samples and to permit a magnetometer survey to be done (see Appendix B). For the sake of speed, it was decided to use this grid even though the structures were striking approximately 45 degrees to it. The survey was done using a Sabre 27 VLF instrument owned by the writer. The transmitter chosen was Seattle since it was located most closely on strike with the expected structures.

DATA ACQUISITION

The instrument was set at a base station chosen to be the # 1 Claim Posts for the DIO # 1 and # 2 Claims. The base station was chosen to permit adjustment for electro-magnetic drift throughout the day. The electro-magnetic drift was checked at 2:48 PM during the survey and found not to have changed so no adjustment was made to the data.

The instrument was moved to each station starting at Line 0 + 00 on the baseline. The instrument was held in the horizontal plane

and turned until the writer obtained the null while facing the transmitter. It was then raised into the vertical plane and rotated slowly until a new null was obtained. This dip angle was marked in the null column of the notes. A negative dip angle indicates a dip to the west and a positive dip angle indicates a dip to the east. The instrument was then returned to the horizontal plane and rotated to the west until the maximum field strength was read. This number was written in the F.S. (field strength) column of the notes. Considerable motion was observed in the guage needle during this reading, this was attributed to the alternating current in the power transmission line located approximately 1500 feet from the baseline.

DATA TREATMENT

The raw dip angle data has been plotted on Figure 9. This dip angle data has been Fraser filtered and positive values contoured at 5 degree intervals. The Fraser filter calculations were performed by starting at the west end of the baseline portion of the survey and progressing toward the east end. These calculations were also performed on the data obtained from Lines 450, 600, 700 and 800 by starting at the south end and progressing toward the north. This data has been plotted on Figure 4. The field strength (in-phase) data has been plotted and contoured at 5 unit intervals on Figure 8. Figure 7 is a plot of the baseline profile data showing both the field strength and the dip angle data. Figure 6 shows the field strength profiles of the data obtained from Lines 450, 600, 700 and 800. Figure 5 shows the dip angle data obtained from Lines 450, 600, 700 and 800. Figures 5,6

and 7 have a horizontal scale of 1 inch equals 100 feet and a vertical scale of 1/8 inch equals 1 dip angle degree or 1 field strength unit.

DATA INTERPRETATION

This small VLF survey has demonstrated that such techniques are quite practical on this property.

The poor orientation of the grid lines used for the survey have made the data a little difficult to interpret; however, some useful information has been obtained. The writer feels that the most useful data obtained from the survey is the dip angle profile data shown on Figure 5. This data shows that at least 3 northwest striking structures may exist in the survey area. These have been sketched onto the figure. A fourth structure may exist from Line 800, 50 N to Line 450, 350 N but has not been sketched in. The existence of the central structure of those sketched on Figure 5 is confirmed by the Fraser filtered and field strength data. This structure is most likely the structure exposed in Trench # 1. The existence of this structure is also confirmed by the Fraser filtered data provided by Al Carlos (Appendix C). The claim owner requested Mr. Carlos to do this VLF survey using an EM-16 instrument using the Seattle transmitter but running the lines from west to east. Mr. Carlos' data shows that this direction of running a VLF survey is probably preferable to that run by the writer.

The structure running from approximately Line 800, 400 S to Line 450, 250 S sketched on Figure 5 probably crosses the baseline near

Line 150.

CONCLUSIONS AND RECOMMENDATIONS

The magnetometer survey performed by the Krefts (Appendix B) shows that this is not an effective technique for locating structures on this property. The VLF-EM surveys performed by the writer and Mr. Carlos have demonstrated that this technique is an effective tool. It is recommended that further surveys be done in conjunction with more extensive geological mapping and sampling. ICP assaying performed by Mr. Kreft on some of the samples he has taken on the property show occasionally high iron, calcium, sodium, potassium, and phosphorous values. These values and the vuggy and drusy nature of the quartz-calcite stringers may be evidence of an association with hot spring activity.

The arsenic value obtained in sample K - 6 from the silicified limestone appears to be slightly anomalous when compared to the data available from the stream sample data of the area in Open File 1218. This may serve as a useful element for analysis should a soil sample program be undertaken. The existence of copper and lead in the showings indicate that these elements would also be useful elements.

Many of the selected samples taken by the writer and the Krefts show erratic high values in gold and silver. These high values are usually associated with high copper values. It would be very useful to have some petrographic work done to show how the gold and silver values are occurring. Refer to File # 8-308-P1 and Report # 427-7930 in Appendix A with sample D-28 containing 71.10 gm/tonne Au and sample D-6 containing 11.0 oz/ton Ag.

REFERENCES

1. Bostock, H.S. "Yukon Territory" Selected Field Reports of the G.S.C. 1898 to 1933, Memoir 284
2. G.S.C. Open File 1218 "Regional Stream Sediment and Water Geochemical Reconnaissance Data" Yukon 1985, NTS 105 D
3. Wheeler, J.D. "Whitehorse Map-Area, Yukon Territory, 105 D" G.S.C. Memoir 312, 1961

STATEMENT OF COSTS

Labour and Report Writing	\$ 600.00
VLF Sabre 27 Rental	\$ 25.00
Transportation and Supplies	\$ 82.10

	\$ 707.10
Shipping	\$ 26.58
Assaying	\$ 192.75

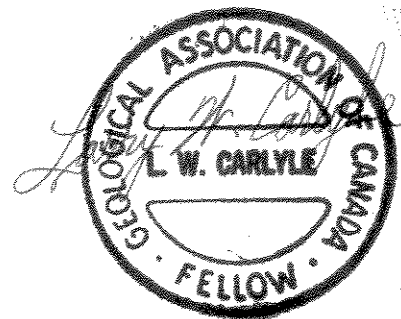
Total	\$ 926.43

STATEMENT OF QUALIFICATIONS

I, LARRY W. CARLYLE, do certify:

1. That I am a professional geologist operating a business registered as CARLYLE GEOLOGICAL SERVICES LTD. with an office at 74 Tamarack Drive, Whitehorse, Yukon Y1A 4Y6.
2. That I hold a B. Sc. degree in geology from the University of British Columbia (1970).
3. That I am a Fellow of the Geological Association of Canada (F - 4355).
4. That I am a Registered Professional Geologist in the Association of Professional Engineers, Geologists and Geophysicists of the Province of Alberta (41097).
5. That I am a Member of the Canadian Institute of Mining and Metallurgy.
6. That I have practiced my profession as a mine and exploration geologist for fourteen years.
7. That the conclusions and recommendations in the attached report are based on work done by the writer and a review of all available private and public reports and aerial photographs on the property.
8. That I hold no interest in the property.

DATED at Whitehorse, Yukon, this 21st day of April, 1988.



APPENDIX A

ASSAYS AND INVOICES

092713

MIN-EN LABORATORIES LTD.

Specialists in Mineral Environments

705 West 15th Street North Vancouver, B.C. Canada V7M 1T2

PHONE: (604) 980-5814 OR (604) 989-4524

TELEX: VIA USA 7601067 UC

Certificate of GEOCHEM

Company: CARLYLE GEOLOGICAL SERVICES

File: G-319/P1

Project:

Date: MARCH 17/88

Attention: LARRY CARLYLE

Type: ROCK GEOCHEM

We hereby certify the following results for samples submitted.

Sample Number	CU PPM	PB PPM	AS PPM	AS PPM	AU-FIRE PPB
K-1	875	24	1.9		18
K-2	299	29	1.4		19
K-3	324	41	2.2		3
K-4	818	28	1.6		21
K-5	183	19	1.3		17
K-6			1.1	134	15

Certified by



MIN-EN LABORATORIES LTD.

MIN-EN LABORATORIES LTD.

Specialists in Mineral Environments

705 West 15th Street North Vancouver, B.C. Canada V7M 1T2

PHONE: (604) 980-5814 OR (604) 988-4524

TELETYPE: VIA USA 7601067 UC

Certificate of ASSAY

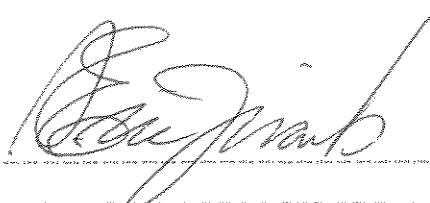
Company: CARLYLE GEOLOGICAL SERVICES
Project:
Attention: LARRY W. CARLYLE

File: 8-395/P1
Date: APRIL 12/88
Type: ROCK ASSAY

We hereby certify the following results for samples submitted.

Sample Number	CU %	AG PPM	AL-FIRE PPB
K 7	.199	2.3	9
K 8	.031	1.6	3
K 9	.080	2.7	11
K 10	1.520	4.5	275
D 40	.086	2.7	14
D 41	2.180	17.8	176

Certified by



MIN-EN LABORATORIES LTD.

MIN-EN LABORATORIES LTD.
705 WEST 15TH STREET
NORTH VANCOUVER, B.C.
CANADA V7M 1T2

INVOICE No 8231C
PAGE : 1 OF 1
DATE : Mar 17/88

PHONE: (604) 980-5814 OR 988-4524
TELEX: VIA USA 7601067 FAX: (604) 980-9621

TO : CARLYLE GEOLOGICAL SERVICES
74 TAMARACK DRIVE,

FILE No: 8-319
PROJECT:

WHITEHORSE, YUKON.
Y1A 4Y6

ACCOUNT: 10666

ATTENTION: LARRY CARLYLE

QTY	DESCRIPTION	UNIT PRICE	AMOUNT
6	ROCK GEOCHEM - AG AU FIRE	8.75	52.50
5	ROCK GEOCHEM - CU PB	1.80	9.00
1	ROCK GEOCHEM - AS	3.75	3.75
6	ROCK SAMPLE PREP	3.00	18.00
* TOTAL *			83.25

THESE ARE PROFESSIONAL SERVICES AND ARE PAYABLE WHEN RENDERED.
OUTSTANDING BALANCES OVER 30 DAYS WILL BE CHARGED 2% INTEREST/MONTH.

PAID MAR 22 1988

Per. ch. 216

U. Kraft

INVOICE

MIN-EN LABORATORIES LTD.
705 WEST 15TH STREET
NORTH VANCOUVER, B.C.
CANADA V7M 1T2

INVOICE No 8473C
PAGE : 1 OF 1
DATE : Apr 12/88

PHONE: (604)980-5814 OR 988-4524
TELEX: VIA USA 7601067 FAX: (604)980-9621

TO : CARLYLE GEOLOGICAL SERVICES
74 TAMARACK DRIVE.

WHITEHORSE, YUKON,
Y1A 4Y6

FILE No: 8-395
PROJECT:

ACCOUNT: 10666

ATTENTION: LARRY W. CARLYLE

QTY DESCRIPTION	UNIT PRICE	AMOUNT
6 ASSAYS - CU	6.00	36.00
6 ROCK GEOCHEM - AG	2.00	12.00
5 ROCK GEOCHEM - AU FIRE	8.75	40.50
6 ASSAY SAMPLE PREP	3.50	21.00
	* TOTAL *	109.50

THESE ARE PROFESSIONAL SERVICES AND ARE PAYABLE WHEN RENDERED.
OUTSTANDING BALANCES OVER 30 DAYS WILL BE CHARGED 2% INTEREST/MONTH.

RECEIVED

APR 15 1988

Shipper's Name and Address Nom et adresse de l'expéditeur CARLYLE GEOLOGICAL SERVICES LTD 74 TAMARACK DR WHITEHORSE YT	Shipper's Account Number Numéro de compte de l'expéditeur 00000000000000	Not negotiable / Non négociable Air Waybill Lettre de transport aérien Issued by / Emise par CANADIAN AIRLINES INTERNATIONAL CALGARY ALBERTA
---	---	---

Consignee's Name and Address Nom et adresse du destinataire MIN-EN LABORATORIES LTD 705 W 15TH ST NORTH VANCOUVER BC V7M1T2	Consignee's Account Number Numéro de compte du destinataire 00000045657004	It is agreed that the goods described herein are accepted in apparent good order and condition (except as noted) for carriage SUBJECT TO THE CONDITIONS OF CONTRACT ON THE REVERSE HEREOF. THE SHIPPER'S ATTENTION IS DRAWN TO THE NOTICE CONCERNING CARRIER'S LIMITATION OF LIABILITY. Shipper may increase such limitation of liability by declaring a higher value for carriage and paying a supplemental charge if required. Il est convenu que les marchandises décrites dans le présent document sont acceptées pour le transport en bon état apparent (sauf annotation contraire) et que le transport est SOUMIS AUX CONDITIONS DU CONTRAT QUI FIGURENT AU VERSO. L'ATTENTION DE L'EXPÉDITEUR EST ATTIRÉE SUR L'AVIS CONCERNANT LA LIMITATION DE RESPONSABILITÉ DU TRANSPORTEUR. L'expéditeur peut augmenter cette limitation de responsabilité en déclarant une valeur pour le transport plus élevée et en payant des frais supplémentaires s'il y a lieu.
--	---	---

Issuing Carrier's Agent Name and City / Nom et ville de l'agent du transporteur émetteur CANADIAN AIRLINES INTL YXYFF	Accounting Information / Renseignements comptables CC S VI 000004510409427444 D SAR 14MAR
---	---

Agent's IATA Code / Code IATA de l'agent 71 9 9020	Account No. / Numéro de compte
Airport of Departure (Addr. of first Carrier) and Requested Routing Aéroport de départ (Adresse du premier transporteur) et itinéraire demandé WHITEHORSE YT CA	

to / a	By first Carrier	Routing and Destination	to / a	by / par	to / a	by / par	Currency	CHGS	WT	Poids	Val	Other/Autres	Declared Value for Carriage	Declared Value for Customs
YVR	CP						CAD	PPX					NVD	NCV
Airport of Destination / Aéroport de destination VANCOUVER BC CA		Flight Date Vol. / Date	For Carrier Use Only Réserve au transporteur	Flight Date Vol. / Date	Amount of Insurance Montant de l'assurance XXXXX	INSURANCE - If Carrier offers insurance, and such insurance is requested in accordance with conditions on reverse hereof, indicate amount to be insured in figures in box marked Amount of insurance. ASSURANCE - Si le transporteur propose une assurance et que l'expéditeur en fait la demande conformément aux conditions figurant au verso, indiquer le montant à assurer en chiffres dans la case Montant de l'assurance.								

Handling information / Renseignements pour le traitement de l'expédition

No. of Pieces Nombre de colis PCP	Gross Weight Poids brut	kg	Rate Class / Classif du tarif	Chargeable Weight Poids de taxation	Rate / Charge Tarif / Montant	Total	Nature and Quantity of Goods (inc. Dimensions or Volume) Nature et quantité des marchandises (y compris dimensions ou volume)
1	12.0K	M		12.0	22.00	22.00	ROCK SAMPLES
1	12.0K					22.00	TIME ACCEPTED 1045L

PAID MAR 14 1988
by Pers. Dix
Recep. Exp.
Kieft

Prepaid / Port payé 22.00	Weight Charge/Taxation au poids Collect/Port dû	Other Charges / Autres frais
Valuation charge / Taxation à la valeur		
Tax / Taxe		
Total other Charges Due Agent / Total des autres frais dus à l'agent		Shipper certifies that the particulars on the face hereof are correct and that insofar as any part of the consignment contains dangerous goods, such part is properly described by name and is in proper condition for carriage by air according to the applicable Dangerous Goods Regulations. L'expéditeur certifie que les indications portées sur le présent document sont exactes et que dans la mesure où une partie quelconque de l'expédition contient des marchandises dangereuses, cette partie d'expédition est correctement dénommée et bien préparée pour le transport par air conformément à la réglementation applicable. <i>Larry H. Carlyle</i> Signature of Shipper or his Agent
Total other Charges Due Carrier / Total des autres frais dus au transporteur		
Total prepaid / Total port payé 22.00		
Total collect / Total port dû		
Currency Conversion Rates Taux conversion monnaie	CC Charges in Dest. Currency Port dû en monnaie du pays de destination	Executed on Fait le
		(Date) at (Place) (Date) à (Lieu) 14 MAR 1988
For Carrier's Use only at Destination Réserve au transporteur à destination		Charges at Destination / Frais à l'arrivée Total collect Charges / Total dû CAD



Canada Post
Corporation

Société canadienne
des postes

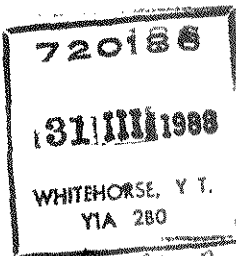
Receipt Reçu

Office
Date Stamp

Timbre à date
du bureau

Received in
payment for
Postage Supplies

Reçu en paiement
d'articles
d'affranchissement



Pres. Conf.

Kroft Assays

\$

4.158

Signature

JK

Carlyle Geological Services Ltd.

41-016-020(5-85)

APPENDIX B

KREFT MAGNETOMETER SURVEY DATA

092713

400N

300N

200N

100N

100S

200S

300S

400S

500S

092713

Grant # YB 12685

M.C.D.T.O #1

No. 1
Claim Posts

Baseline
+ Claimline

5752 5751 5752 5752 5754 5751 5751 5754 5753 5754 5757 5753 5753 5754 5754 5755 5757 5755 5754 5756 5755 5756

M.C.D.T.O #2

Grant #: YB 12686

Claim sheet

105 - D14 upper Laberge

Mag- Map

Model Uni-Mag G-836

Proton Magnetometer

Total Field

Readings should be

multiplied by 10 to

give the results in gammas.

Scale: 1 inch = 100 feet

Line 100

L200

L300

L400

L500

← Cat Trail →

L800

L900

L1000

L1100

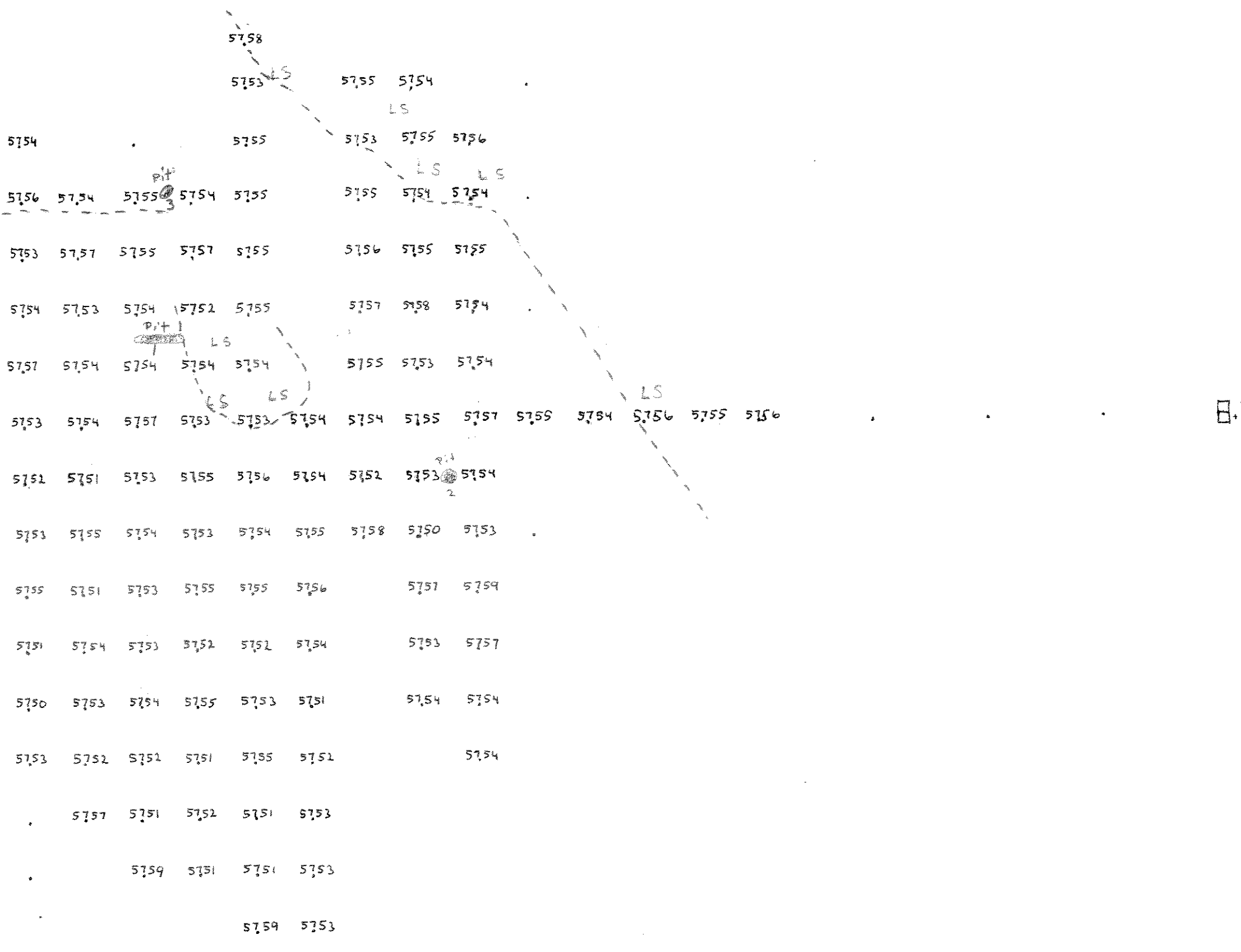
L1200

L1300

L1400

L1500

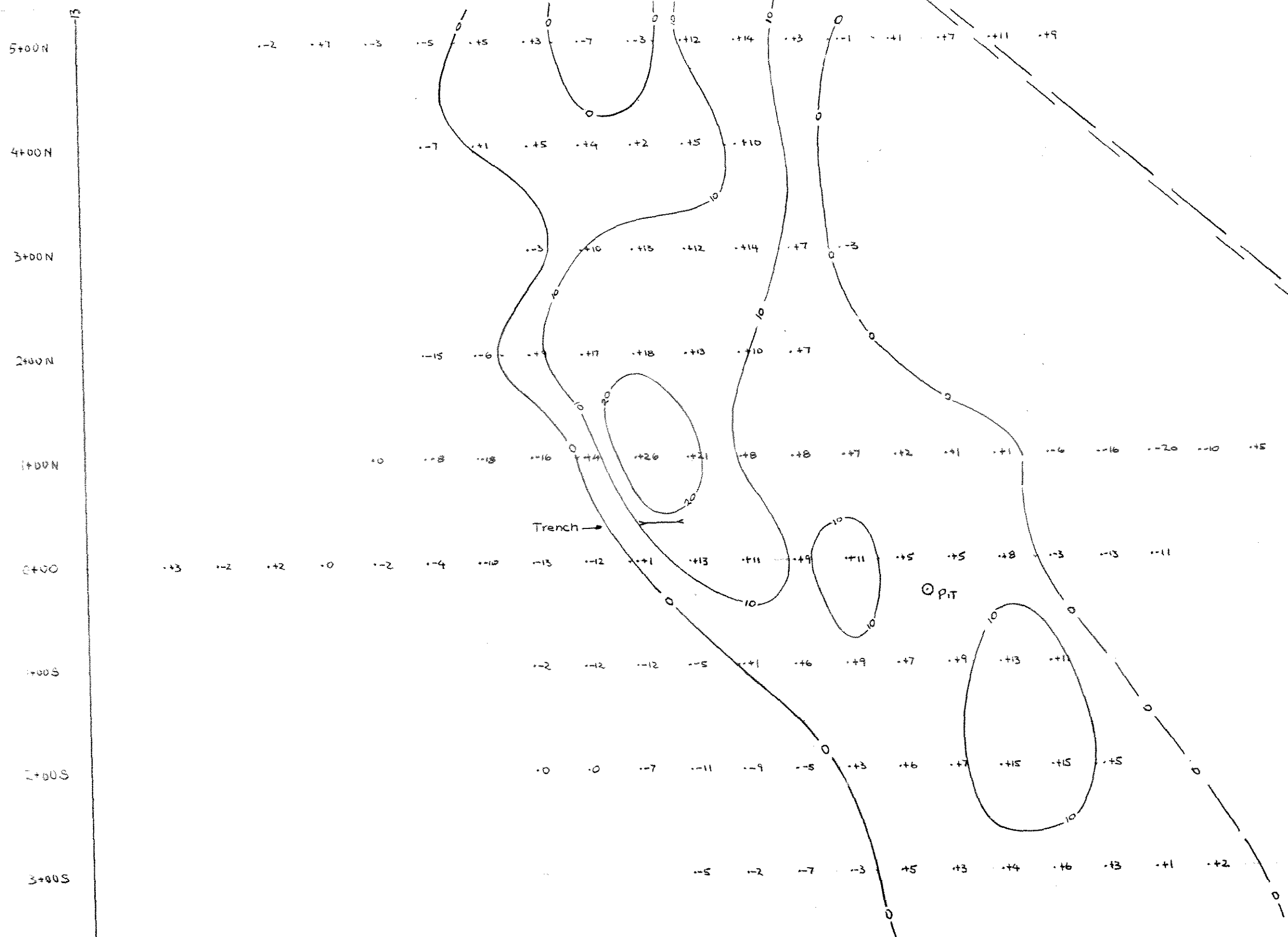
Baseline
+ Claimline



APPENDIX C

AL CARLOS VLF-EM FRASER FILTERED DATA

092713



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DIO CLAIMS
E.M. 16 Fraser Filter
Scale: 1" = 100'

B.L.

APPENDIX D

CARLYLE FIGURES 3 TO 9

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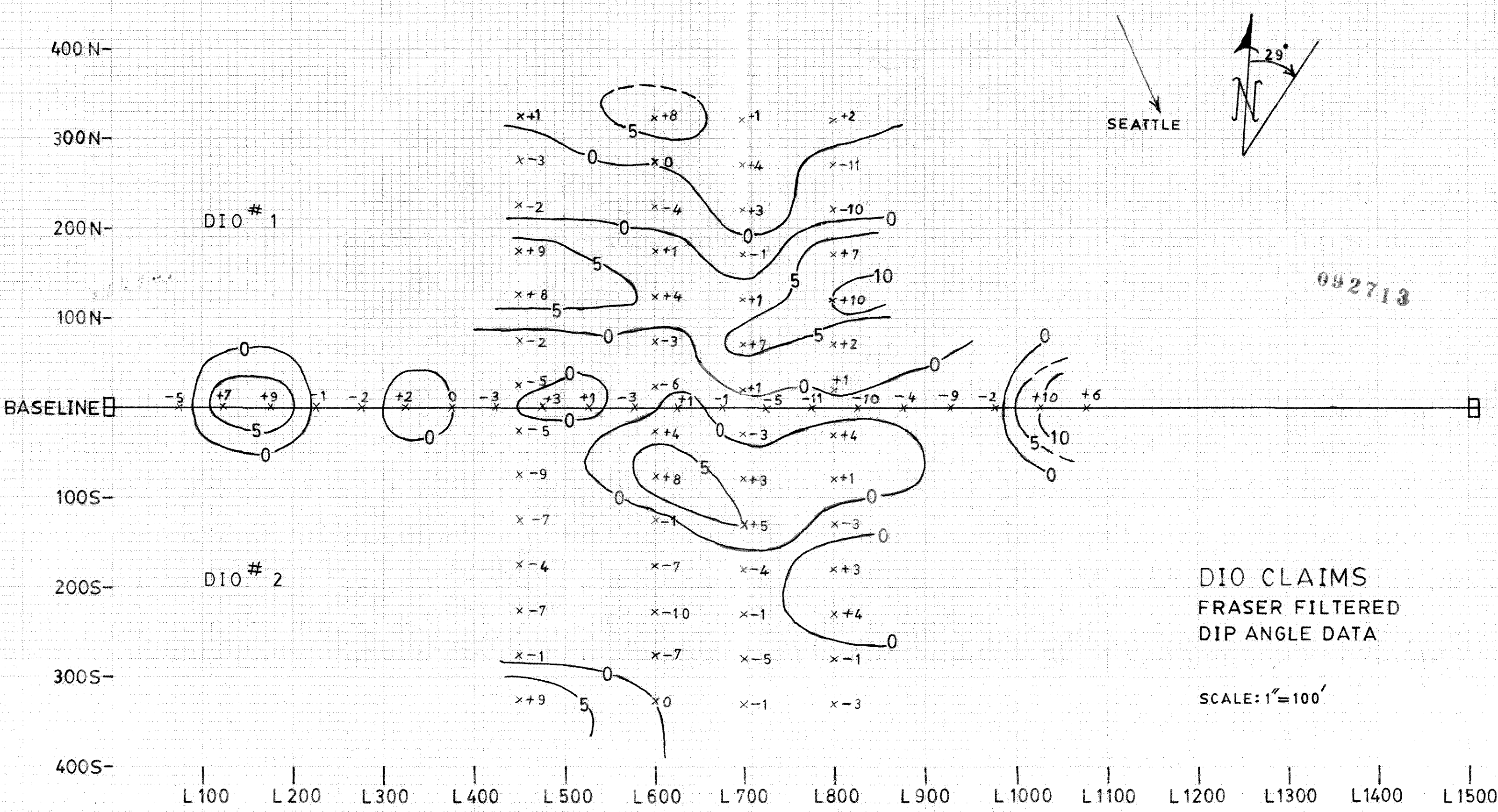


FIGURE 4

DIO CLAIMS

DIP ANGLE PROFILES

HORIZONTAL SCALE: 1" = 100'
VERTICAL SCALE: 1/8" = 1 DIP ANGLE DEGREE

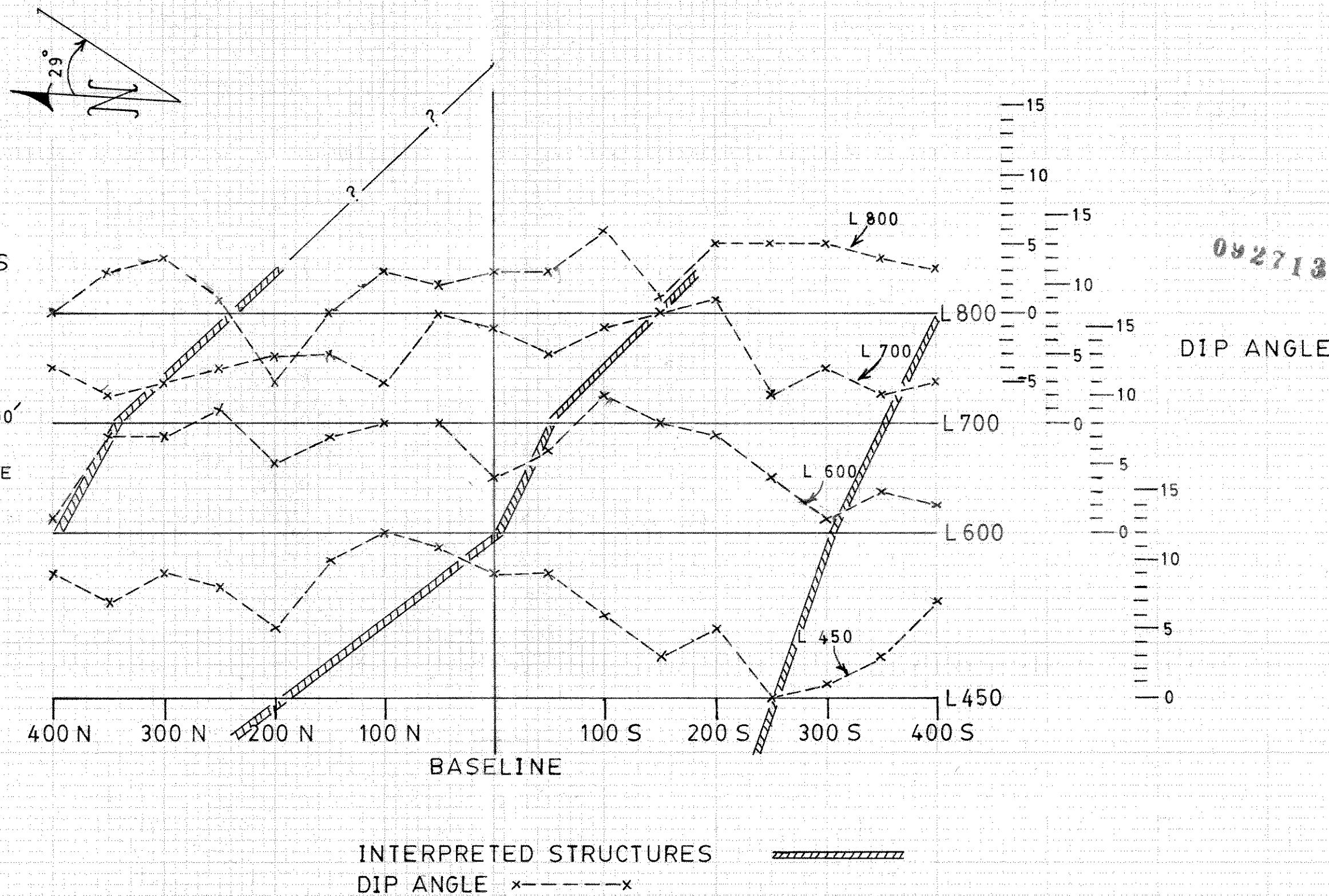


FIGURE 5

092713

DIO CLAIMS FIELD STRENGTH PROFILES

HORIZONTAL SCALE: 1" = 100'
VERTICAL SCALE: 1/8" = 1 FIELD STRENGTH UNIT

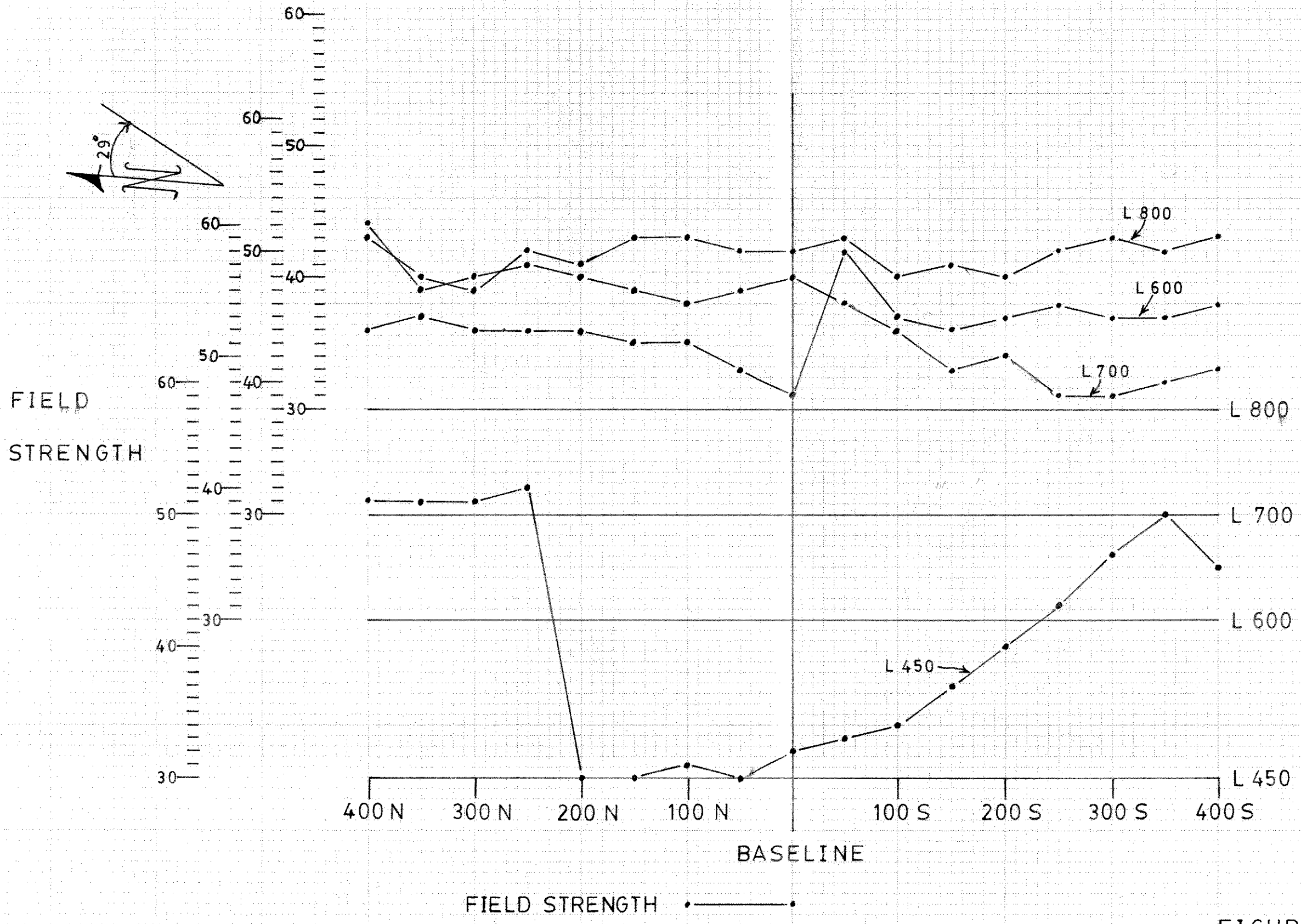


FIGURE 6

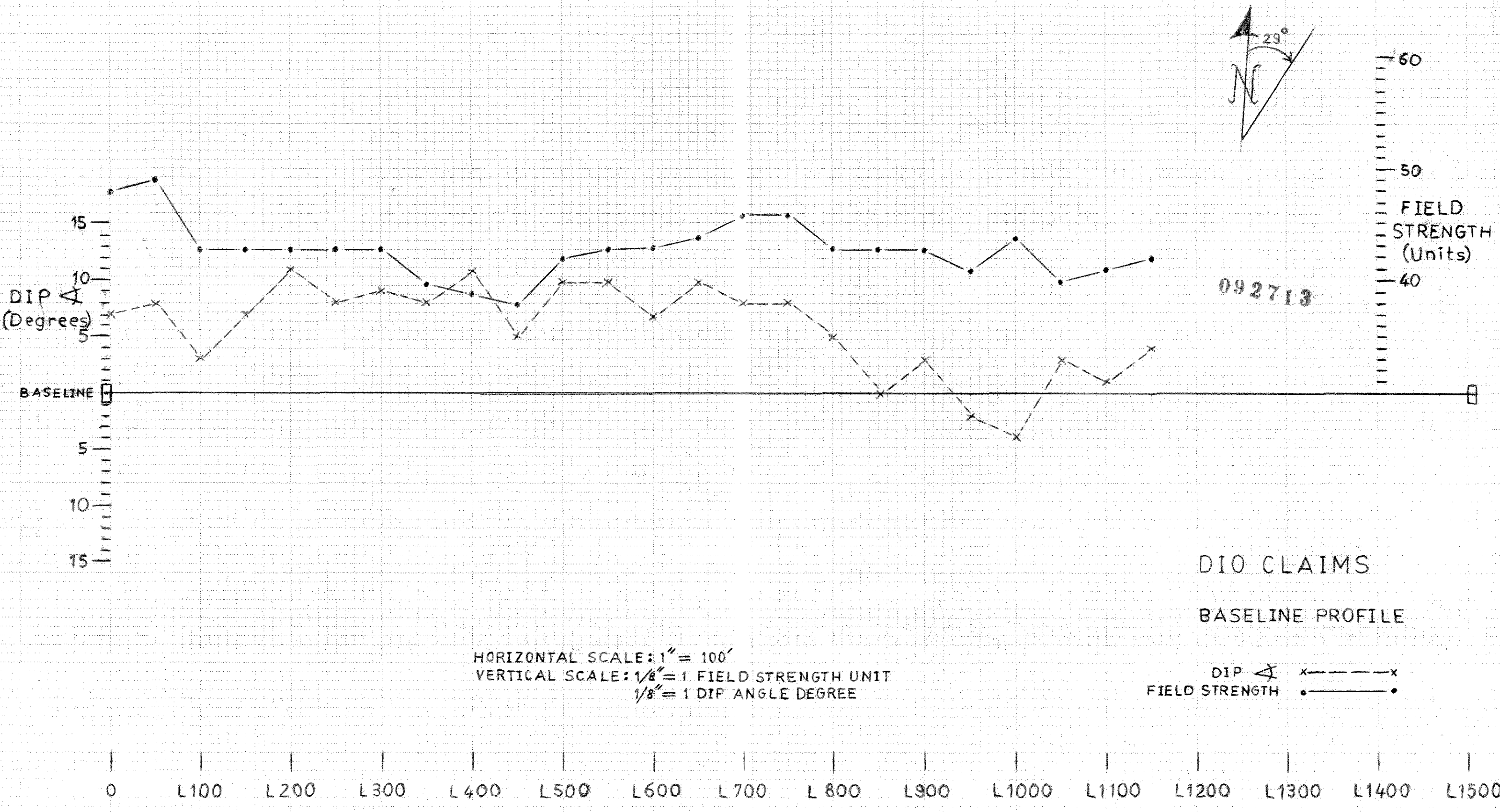


FIGURE 7

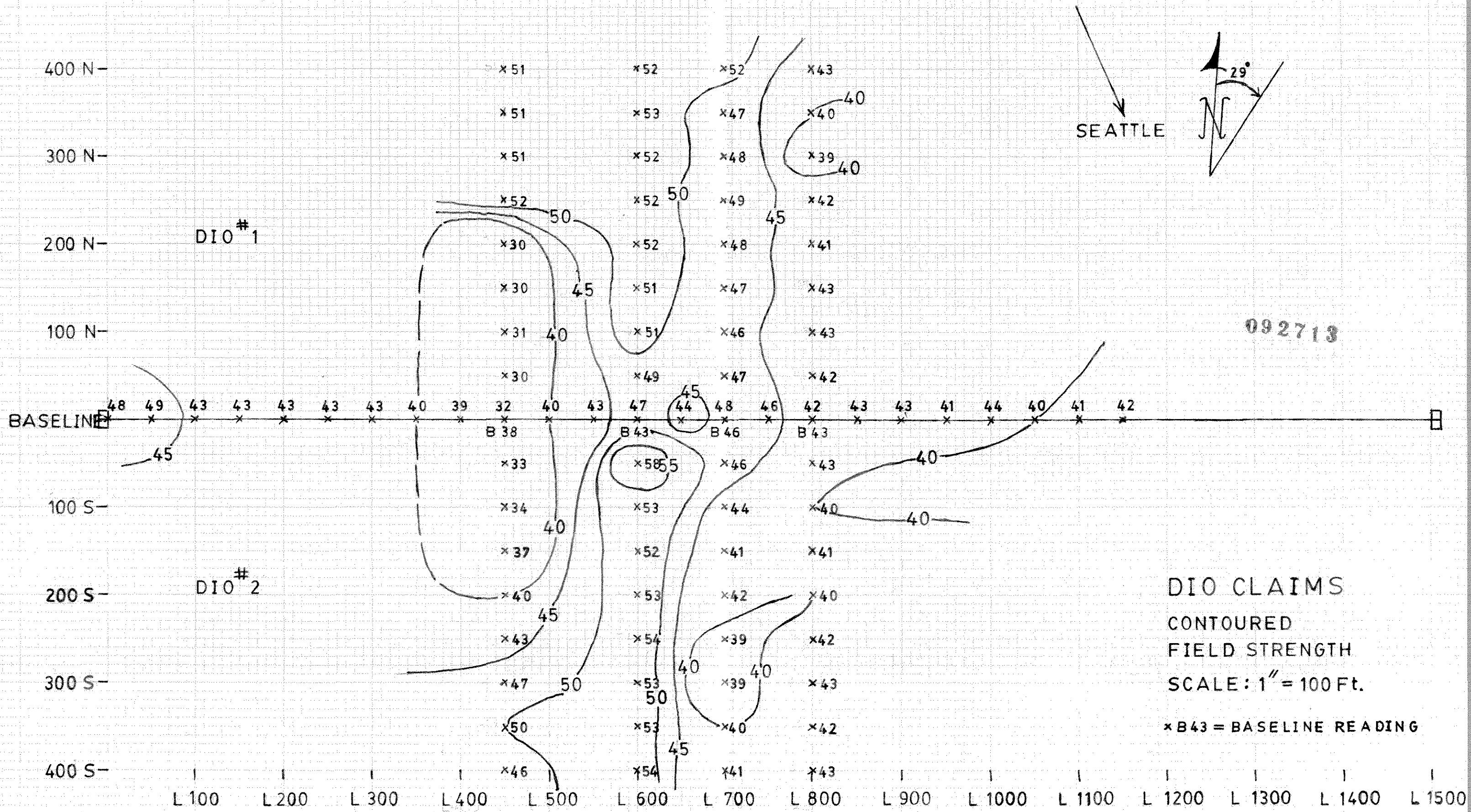


FIGURE 8

