

ERIK #3 Claim  
Record #4202

Statement Of Exploration And Development

Details Of Expenses - 1983

Geologist	
11 days @ \$300 per day	\$ 3,300.00
Drafting, typing etc.	500.74
VLR EM rental	<u>400.00</u>
	4,200.74
Supervision - 1person 17 days @ \$150 per day	2,550.00
Staff - 2 persons 38 days @ \$110 per day	8,360.00
Vehicle rentals	1,000.40
Boat and motor rentals	396.98
Gas and oil	732.54
Accommodation	1,580.34
Food	818.72
Supplies and equipment	862.74
Laboratory services	<u>2,047.15</u>
	<u>\$22,549.61</u>

REPORT  
ON THE  
GEOLOGY, SOIL GEOCHEMISTRY,  
ERIK 3 MINERAL CLAIM  
Record No. 4202

ADAMS LAKE  
KAMLOOPS MINING DIVISION  
BRITISH COLUMBIA  
82M/4E  
51°03' N Latitude, 119°42' W Longitude

prepared for

GIANT NORTH RESOURCES LTD.  
1075 Duchess Avenue  
West Vancouver, B.C.

prepared by

B. TAYLOR, P.Eng.

May 31, 1983

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**11,353**

G. A. NOEL & ASSOCIATES INC.  
CONSULTING GEOLOGISTS

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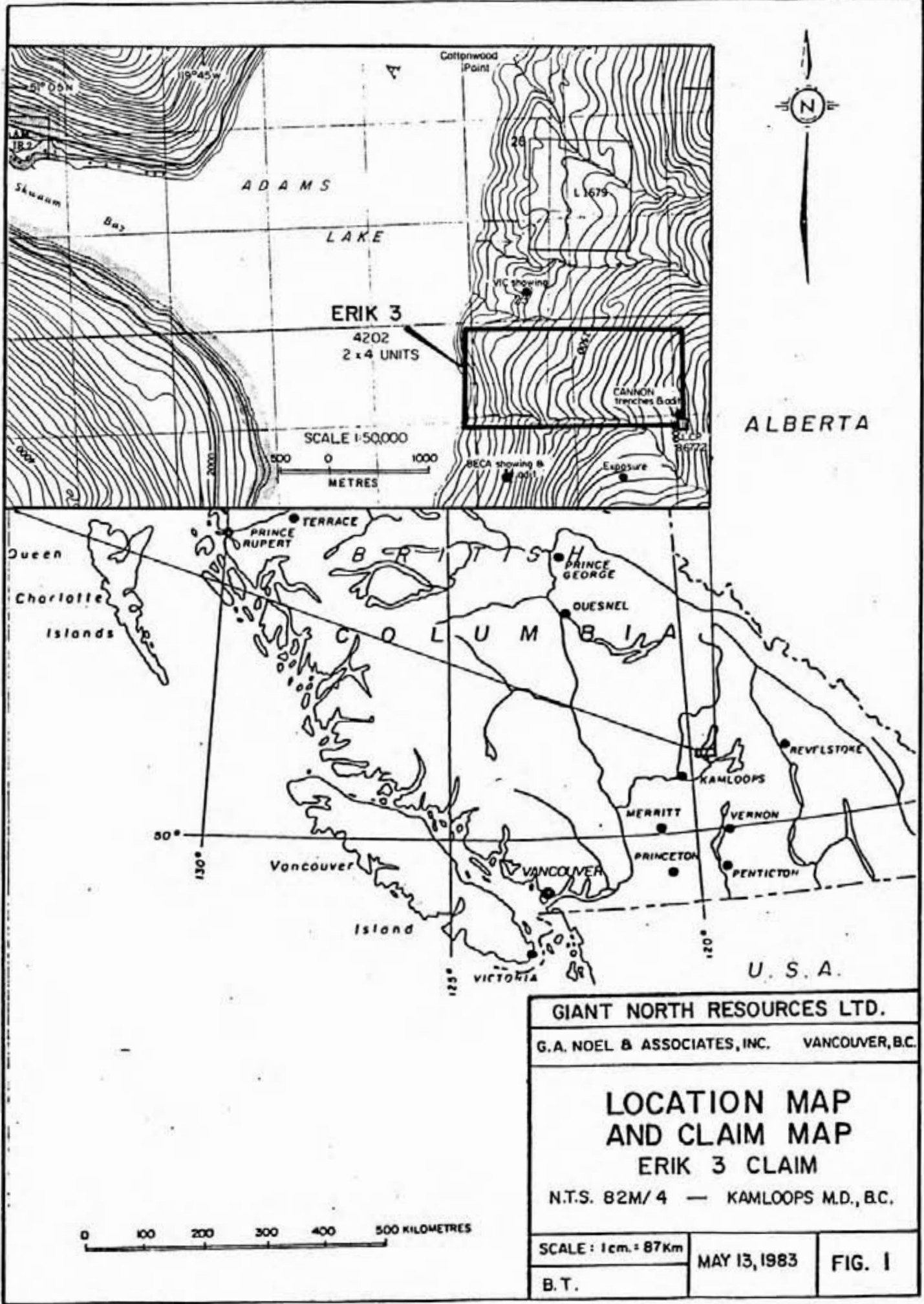
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SUMMARY

The eight-unit Erik 3 claim is situated on the East side of Adams Lake approximately opposite Squam Bay on the west shore of the lake.

A basic program of line flagging, soil sampling and geological reconnaissance sampling has been completed. Geochemical anomalies exist, showings of mineralized quartz, carrying very low silver, zinc and occasionally lead and copper exist nearby. A small amount of VLF EM work has been done.

It is recommended that the geochemical, geophysical programs be extended and detailed geological mapping, prospecting and trenching of the anomalous areas already found be undertaken. It is estimated this would cost approximately \$40,000. A further \$50,000 to be held in reserve for drilling if results of the first phase exploration stage are satisfactory. The total estimated expenditure would be \$90,000.



**ERIK 3**  
4202  
2 x 4 UNITS

SCALE 1:50,000  
0 500 1000  
METRES

ALBERTA



0 100 200 300 400 500 KILOMETRES

GIANT NORTH RESOURCES LTD.		
G.A. NOEL & ASSOCIATES, INC. VANCOUVER, B.C.		
<b>LOCATION MAP AND CLAIM MAP ERIK 3 CLAIM</b>		
N.T.S. B2M/4 — KAMLOOPS M.D., B.C.		
SCALE: 1 cm. = 87 km	MAY 13, 1983	FIG. 1
B.T.		

## INTRODUCTION

The writer visited the property on May 3-7th, 1983, accompanied by Mr. J.E. Charlesworth. Many soil samples were already taken and worked upon later at the office. This is a record of the results obtained, the conclusions reached and recommendations made.

## PROPERTY

The ERIK 3 consists of one claim, composed of eight units, two north and four west from the Legal Corner Post. A claim map is included on Figure 1. It was staked by Mr. Keith Deroux on September 1, 1982 and recorded on September 24, at the Gold Commissioner's Office in Kamloops of the the Kamloops Mining Division. It bears record No. 4202. Expiry date is September 24, 1983.

## LOCATION AND ACCESS

The property lies on the east shore of Adams Lake, almost directly across the lake from Squam Bay, and the small Summer Resort of the same name. Housekeeping cabins and boats are available at the Agate Bay Lodge. Squam Bay is 32km by good gravel road from Louis Creek which is on Yellowhead Highway No. 5, and in turn 58km north of Kamloops. Its location is shown on Figure 1.

The Legal Corner Post is the southeast corner of the claim block. It is located just east of and above a mineral showing worked on by Cannon Mines in 1966. The BECA claims owned by Cominco lie along the southern boundary.

The ERIK 3 is shown on Mineral Map sheet 82M/4E. It is centred at  $51^{\circ}03'$  north Latitude,  $119^{\circ}42'$  West Longitude. It varies in altitude from lake level at 420m above MSL to 1130m at the east end.

## TOPOGRAPHY

The ERIK 3 claim rises on the moderate to steep slope that extends from Adams Lake to the Adams Plateau. The rather uniform westerly slope of about 20° is interrupted by a few steep rock outcrops only in the east and southeast sides of the block. A stream parallels the southern boundary and has carved a deep gorge about midway along the boundary.

It is forest covered throughout with spruce, pine, and cedar at the lower levels, with aspen and birch coming in at higher elevations. The wood is most suitable for pulp, although some larger trees are present.

Except for Adams Lake itself and the southern boundary stream, the property is quite dry.

## HISTORY

The area has a history of mineral exploration dating back to the early 1920's. Showings catalogued in MINFILE are shown on Figure 1.

The former Cannon Mine property has been worked under a variety of names since it was first reported in the BCDM Mines Minister Annual Report in 1927. The 1934 annual report indicated that a 246 foot adit was driven, and an additional 195 feet drifted along a "quartz ore vein deposited in fault and shear zone". A 70 foot winze was sunk in the vein. The most complete report was compiled by Cannon Mines in 1966.

Another prospect, currently on the BECA claims was reported on in the BCDM Mines Minister Annual Report for 1926. They reported a production for that year of 5 tonnes of ore

which contained 31 grams gold; 2,395 grams silver; 1498 kilograms of lead. There were 91m of underground workings. Sporadic work has been done from 1967 to 1978.

#### LINE MARKING

Sixteen kilometres of line were marked through the forest. This was composed of one kilometre of base line running north approximately parallel to the shore line of Adams Lake. The other fifteen kilometres were marked to the east as east-west lines at right angles to the base line. Each line was marked along its length by blue plastic ribbon. Stations at 100m intervals were marked by orange flagging. An additional 4km were marked in certain geochemically interesting areas between the original lines. These and some of the original lines were marked at 50m intervals. A Top-o-Chaix was used for measuring distances and a Silva compass for direction.

#### GEOLOGY

Bedrock outcrops along the south side and west end. Glacial till covers most of the property to a shallow or moderate depth. See Figure 2

The claim is underlain by metasediments of the Eagle Bay unit of the Lardeau assemblage. They are considered to be Cambrian to Mississippian in age. Rock types are greenstone with occasionally a little epidote alteration and considered to be a tuffaceous unit; more typical are argillites, phyllites and occasionally a quartz sericite schist, all conformable and with gradational contacts. Some lenticular siliceous shards were observed.



The degree of metamorphism varies and is quite gradational. Quartz sericite schist was observed only at one small location. Argillite was noted as a five metre bed along the lakeshore. The bulk of the rock was finely laminated along bedding planes. The best exposures were noted again along the lake shore. Quartz as veins up to 5cm thick were often noted lying conformable with the bedding.

The bedding strike was approximately  $090^{\circ}$  azimuth to about  $070^{\circ}$ . Dips varied from  $45^{\circ}$  to  $10^{\circ}$  to the north, and would average about  $20^{\circ}$ . Some crenulation was observed and one instance of small scale chevron folding.

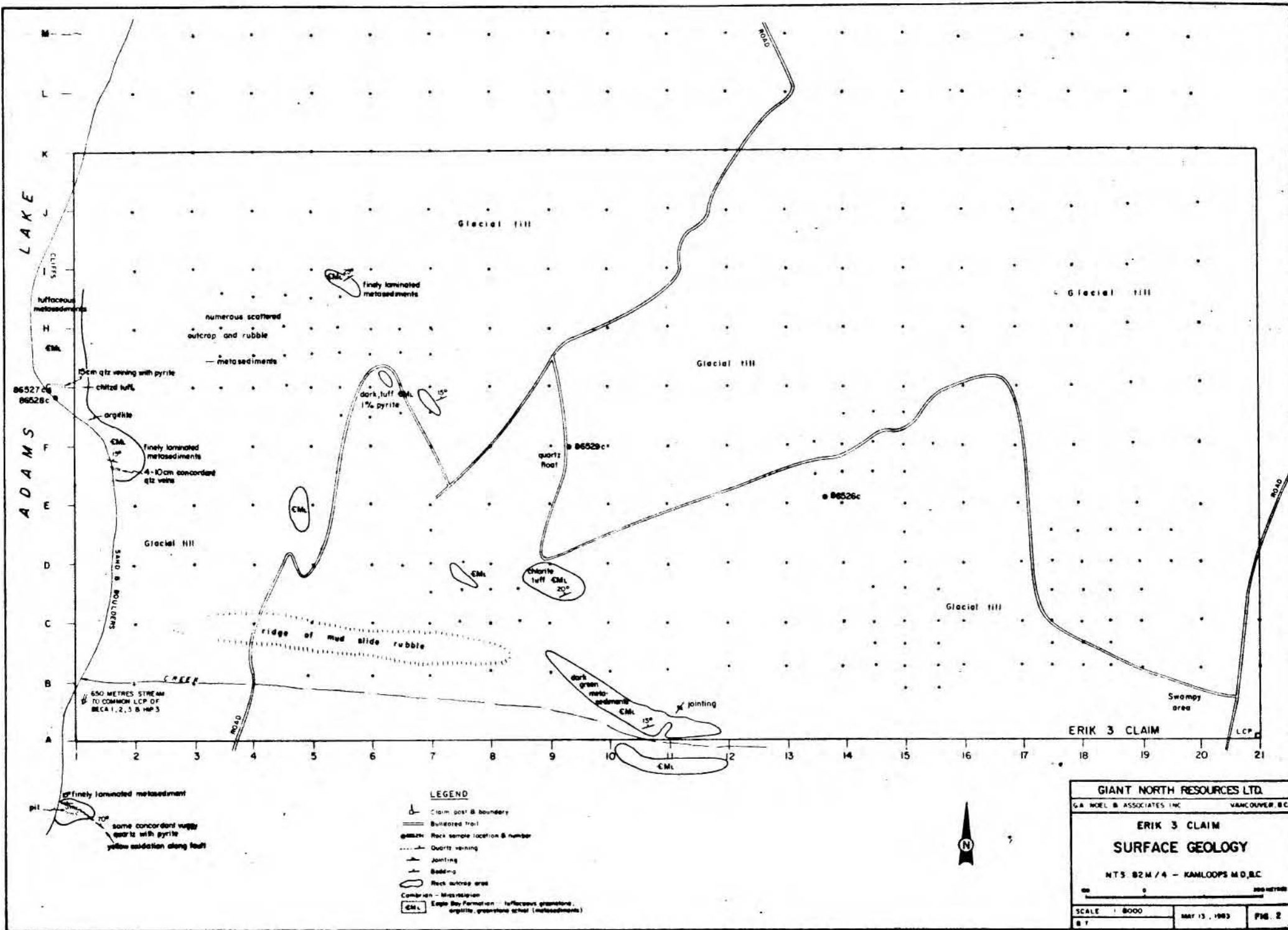
Jointing was present but minor. It was quite steep and had a strike of  $125^{\circ}$  azimuth.

#### Mineralization

Quartz veining was also present as steeply-dipping or anastomosing networks up to 20cm thick. Often vugs were present lined with a few small pyrite crystals. Carbonate was present in fresh specimens. Samples 86526-27 and 29 represent this group.

Some pyrite was present as a one per cent dissemination within argillite on line G. Sample 86528C, a specimen, was taken from this location. Values obtained were very low. Some sulphate encrustation was locally noted. This would indicate that sulphides exist or have existed nearby.

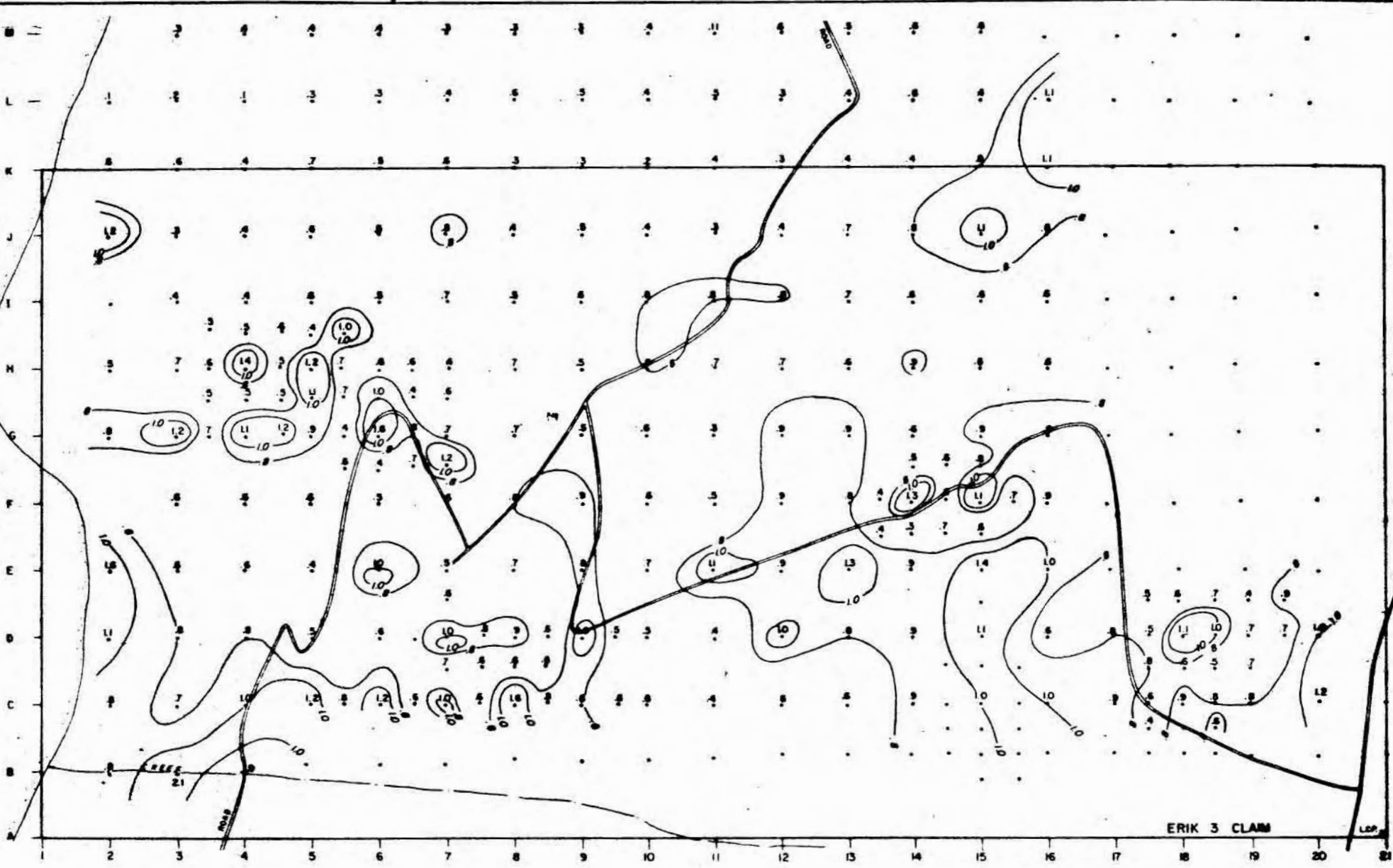
Neighbouring showings are indicated on Figure 1, according to the computerized MINFILE. For the most part they are quartz veins with a little contained sulphide mineral. The most important of these is the mineralization exposed



GIANT NORTH RESOURCES LTD.  
 G.A. MOEL & ASSOCIATES INC. VANCOUVER, B.C.  
**ERIK 3 CLAIM**  
**SURFACE GEOLOGY**  
 NTS B2M/4 - KAMLOOPS M.O.B.C.  
 SCALE 1:8000  
 MAY 13, 1983  
 FIG. 2

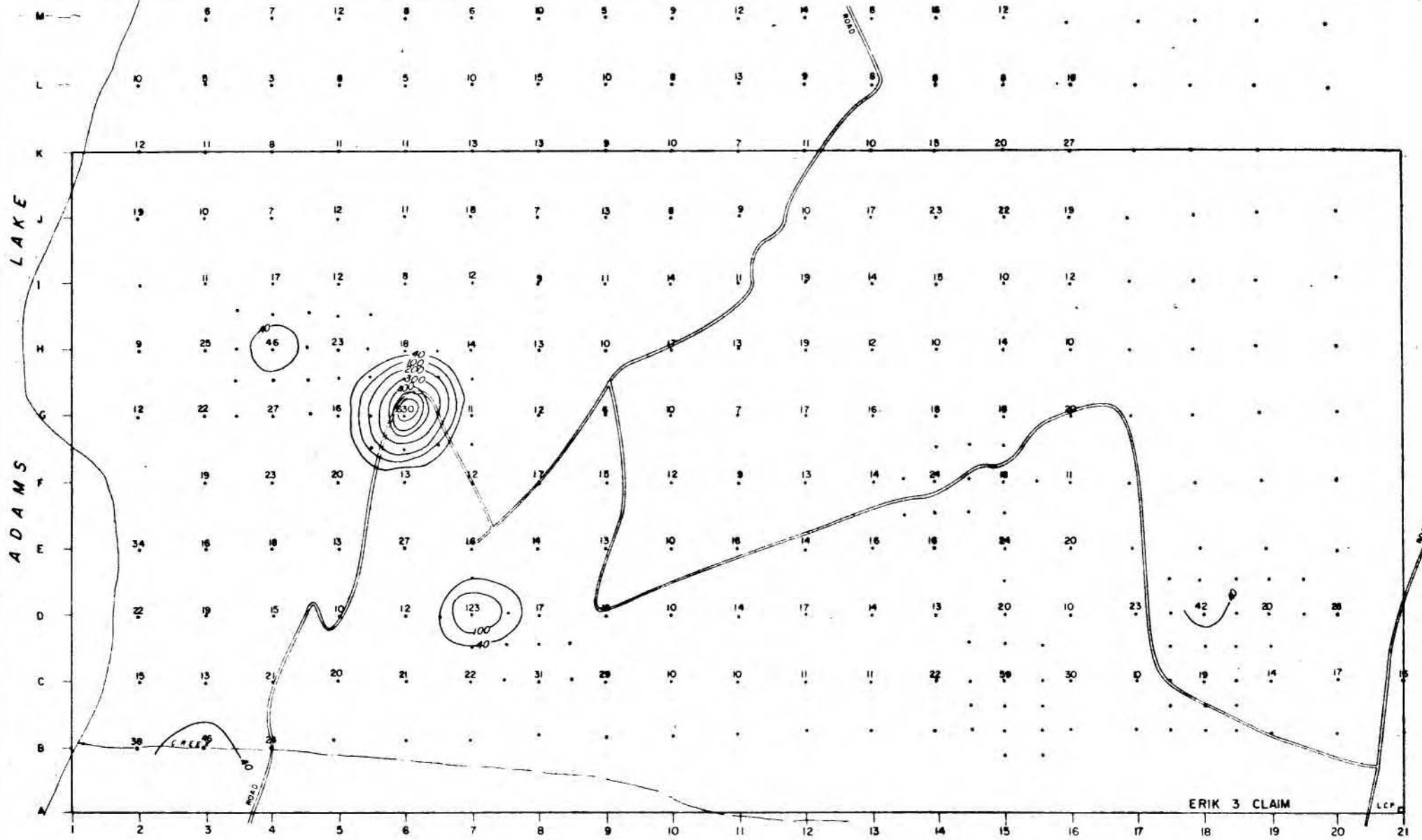
LAKE

ADAMS



CONTOURS : 2 ppm Ag  
1.0 - - -

GIANT NORTH RESOURCES LTD.		
G.A. NOEL & ASSOCIATES INC.		VANCOUVER, B.C.
ERIK 3 CLAIM		
SOIL GEOCHEMISTRY		
Ag IN PPM		
N.T.S. 62 N / 4 - 1000, 5000 M.S.R.C.		
SCALE : 8000		
8 T	NOV 13, 1983	PAGE 5



CONTOURS

40	ppm Pb
100	-
200	-
300	-
400	-
500	-
600	-

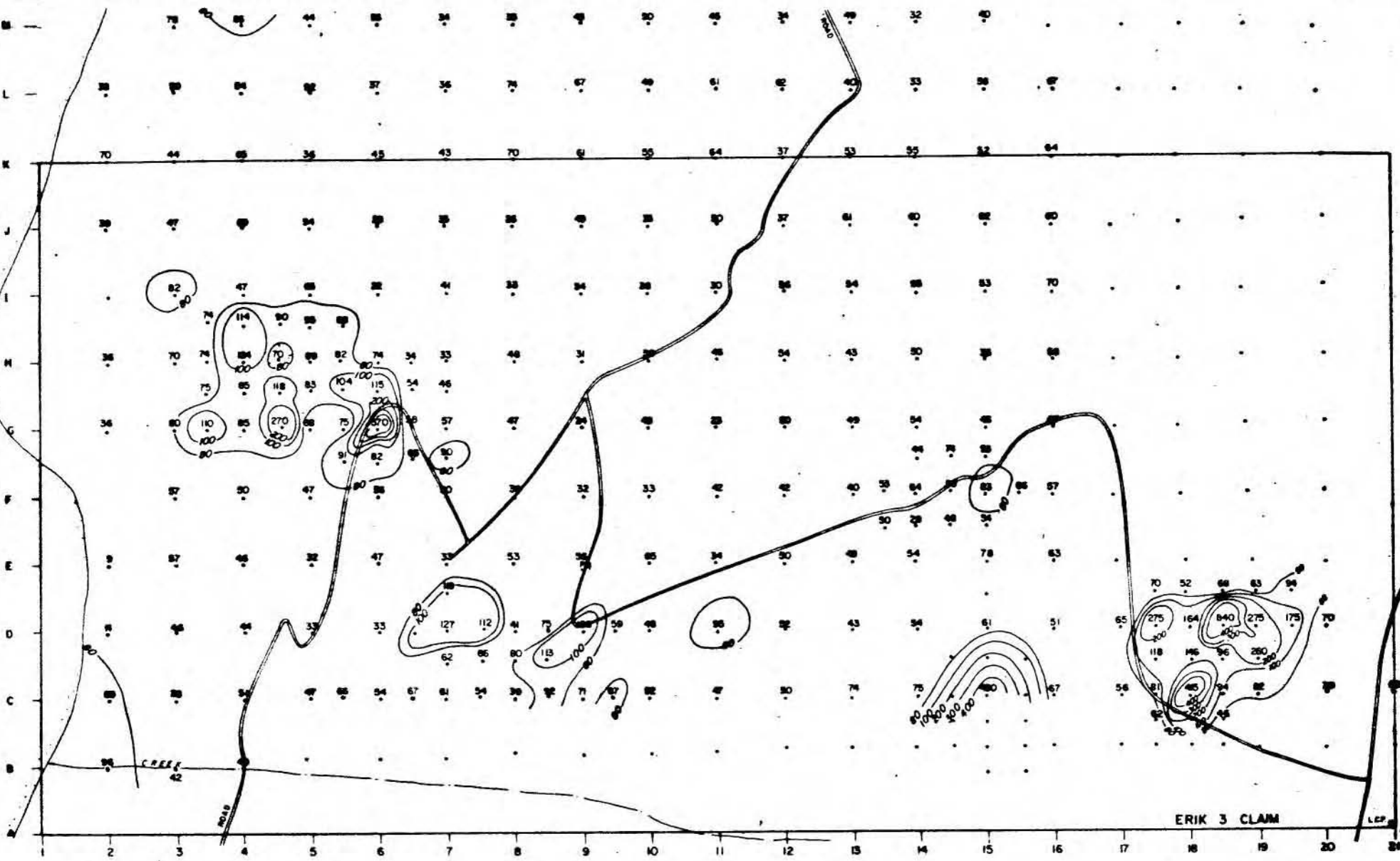


ERIK 3 CLAIM

L.C.P.

GIANT NORTH RESOURCES LTD.	
G.A. NOEL & ASSOCIATES INC.	VANCOUVER, B.C.
ERIK 3 CLAIM	
<b>SOIL GEOCHEMISTRY</b>	
<b>Pb IN PPM</b>	
N.T.S. 82M/4 - KAMLOOPS M.D., B.C.	
SCALE 1:8000	
MAY 13, 1983	FIG. 4
B.T.	

ADAMS LAKE

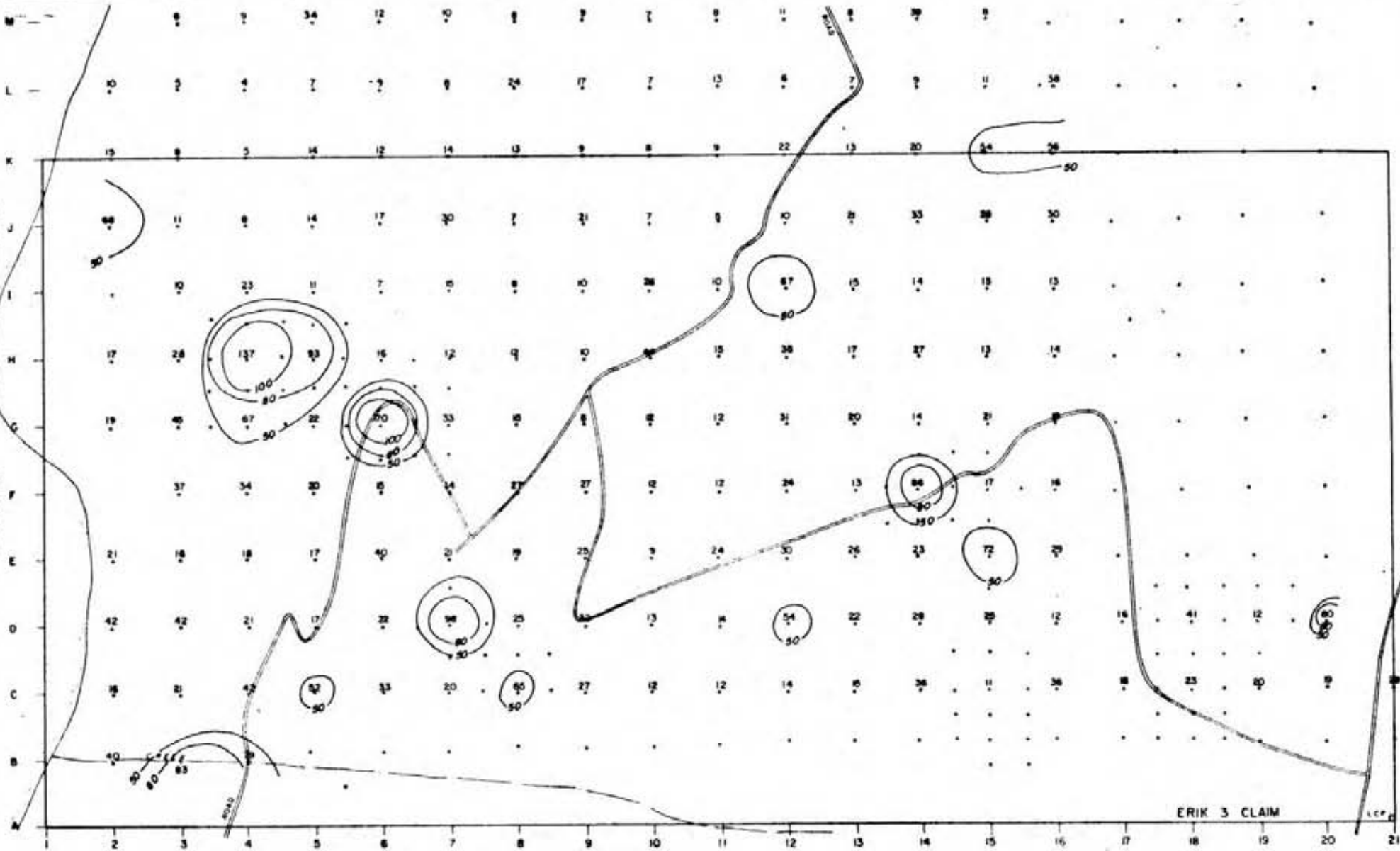


CONTOURS    ppm    Zn  
 100    . . . . .  
 200    . . . . .  
 300    . . . . .  
 400    . . . . .

GIANT NORTH RESOURCES LTD.  
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**ERIK 3 CLAIM**  
**SOIL GEOCHEMISTRY**  
**Zn IN PPM**  
 NTS 82N/4 - HANLOPPS M.B.C.

SCALE 1:5000    MAY 13, 1988    FIG. 6

ADAMS LAKE

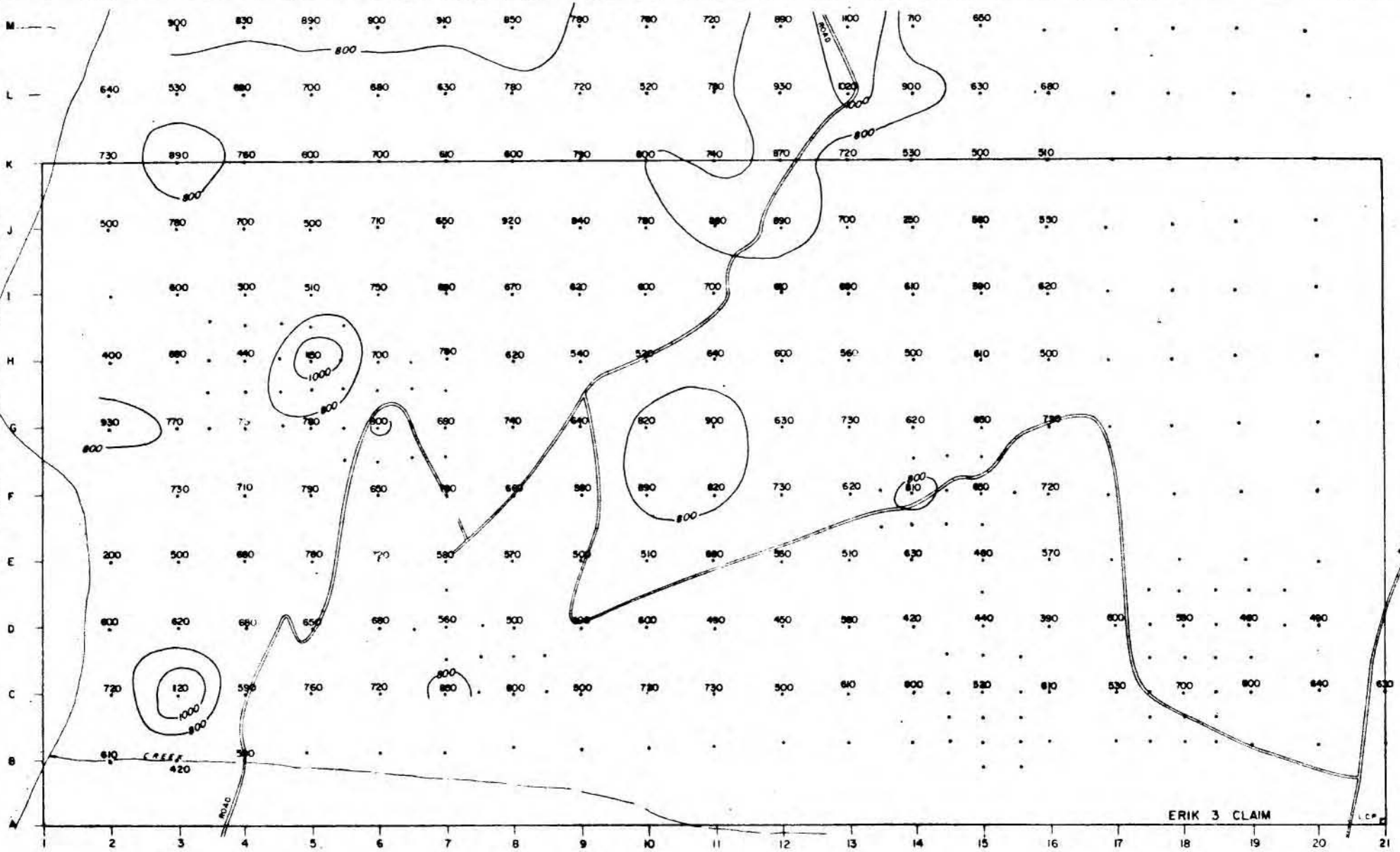


CONTOURS 50 ppm Cu  
 80  
 100



GIANT NORTH RESOURCES LTD.		
G.R. NOEL & ASSOCIATES INC.		VANCOUVER, B.C.
ERIK 3 CLAIM		
SOIL GEOCHEMISTRY		
Cu IN PPM		
NTS 82M/4 - KAMLOOPS N.D.B.C.		
NO. 9		
SCALE 1:5000	MAP 13, 1983	FIG. 6
BT		

ADAMS LAKE



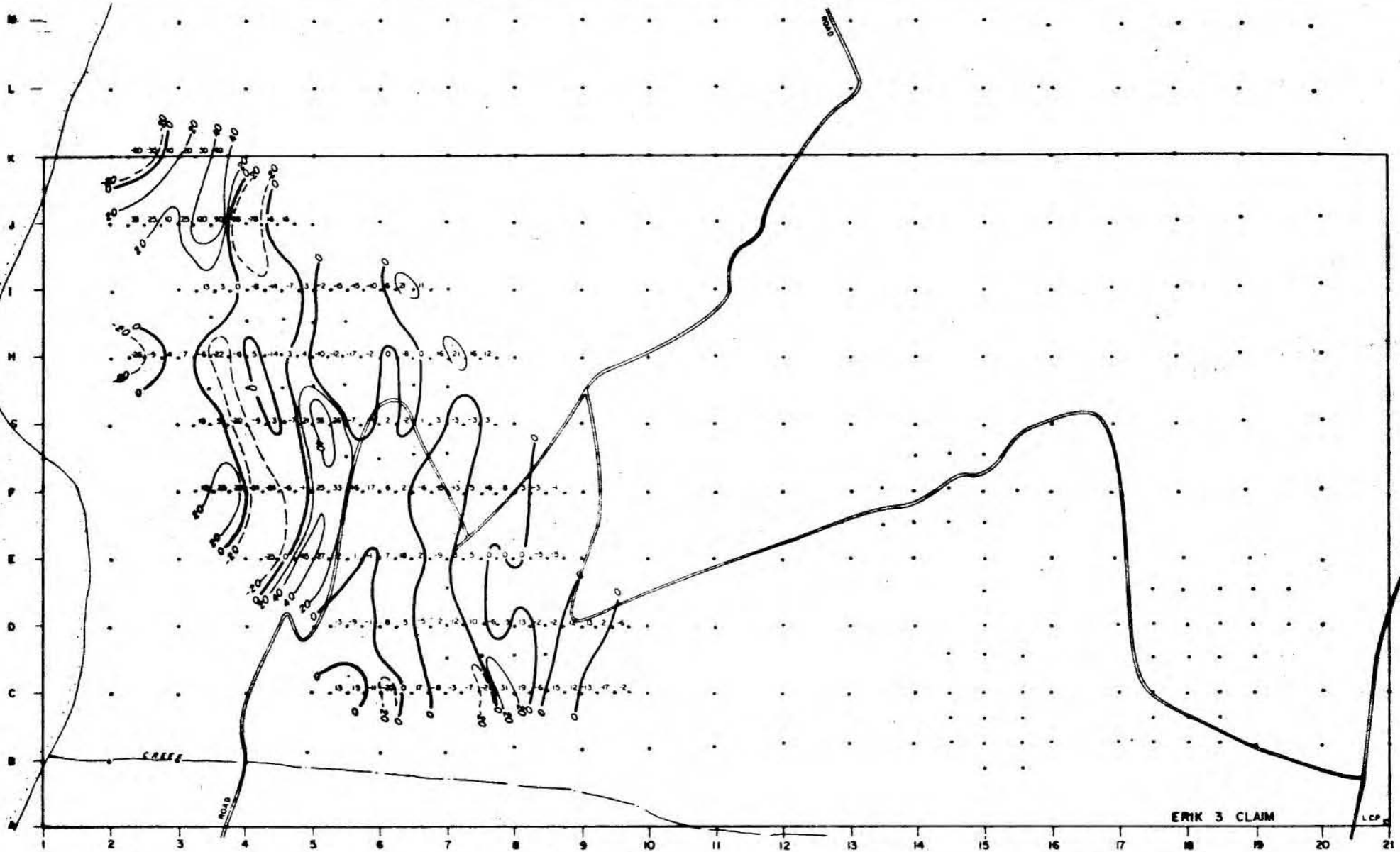
CONTOURS 1000 ppm Ba  
800



GIANT NORTH RESOURCES LTD.	
GA. NOEL & ASSOCIATES INC.	VANCOUVER, B.C.
<b>ERIK 3 CLAIM</b>	
<b>SOIL GEOCHEMISTRY</b>	
<b>Ba IN PPM</b>	
NTS B2M/4 - KAMLOOPS M.D., B.C.	
SCALE 1:8000	MAY 13, 1993
BT	FIG. 7

LAKE

ADAMS



ERIK 3 CLAIM

**LEGEND**

-S- Reading in degrees (Fraser Filtered)

Contours on 40°, 30°, 0°, -20°

Instronid operator: G. Milroy

Instrument: Rodas 20 HP



GIANT NORTH RESOURCES LTD.		
G.A. NOEL & ASSOCIATES INC.	VANCOUVER, B.C.	
ERIK 3 CLAIM		
<b>VLF-EM SURVEY</b>		
FRASER FILTERED DIP ANGLES		
M.T.S. 82M/4 - KANLOOPS N.D., B.C.		
1:5000	MAY 13, 1983	FIG. 8
BT		



on the former Cannon Mines ground. This is where the ERIC 3 Legal Corner Post is located. According to their assessment report (No.904) filed in 1966, a northerly striking quartz "ore" vein deposited in a fault and shear zone was followed for 150m by trenching. Values were generally low, but did reach 2.2 oz/ton Ag, 5.01% Cu and 2.38% Zn over 1.8m in one trench. A selected sample taken from the dump at the adit assayed 7.3 oz/ton Ag. Unfortunately the vein dips eastward out of the property.

A short distance to the south, the BECA showings, are reported to have produced in 1926, a total of 5 tonnes of mineral grading .2 oz/ton Au, 15.4 oz/ton Ag, 30.0% Pb. There are 91m of underground workings.

#### GEOCHEMISTRY

Samples of soil were taken from the "B" soil horizon on the E-W lines except where the lines encroached upon deep glacial material. There were 220 samples analyzed by Min-En Laboratories of North Vancouver for silver, lead, zinc, copper and barium. Copies of the results are appended. Values in all cases were low, but there is sufficient variation to discern anomalous areas.

Silver is presented on Figure 3. The background values are 0.8 ppm and below. The better values lie along the south boundary of the claim, and in its southeast corner.

Lead is presented as Figure 4. The background values are 40 ppm and below. Values are scattered and not considered to be significant.

Zinc is shown as Figure 5. The background is 80 ppm and below. A concentration of higher values exists in the southeast corner of the claim area. They correspond approximately with the higher silver values.

Copper is shown as Figure 6. Values are low and erratic and are not considered to be significant. Background is considered to be less than 50 ppm.

Barium is shown as Figure 7. Values are quite uniform, with background 800 ppm or less. A silver property a few miles to the west has considerable barium associated with it, and a possibility existed that barium could be used here as an indicator mineral. However, there is no observable relationship between the barium and silver on the ERIK 3.

To Summarize The pattern of higher values for silver and zinc, suggests the best place to look for mineral is the central portion and the southeast corner. The copper and lead values are low and of little significance. The barium bears no relationship to any of the other metals.

#### GEOPHYSICS

A VLF EM survey was also made over some of the flagged line. Details of the equipment, theory, procedures used are appended, as well as the original notes. Figure 8 shows the Fraser filtered dip angles as contours. They are interpreted as being northerly striking conductors. It is probably a reflection of the stratigraphy.

#### MAPPING

Reconnaissance geological mapping was carried out. Not all the ground was covered.

## CONCLUSIONS & RECOMMENDATIONS

The property has relatively good location with respect to other mineral showings in the area. Vein type mineralization is the most likely form of mineral deposit to occur, although strata-bound mineral is a remote possibility. The geochemical approach to exploration of the ground is a sound one. The 100m interval coverage should be enhanced by intermediate sampling near good values. Since a fairly large portion of the ground is overburden covered, appropriate geophysical methods should also be used. Geological mapping should be enhanced. A basic grid has been marked on the ground, and it should be exploited.

The following work program is suggested to search for veins and mineral bearing faults.

### Phase I

- (a) The soil sampling program should be intensified to cover interesting area determined by any means. From now on it can be done a few samples at a time.
- (b) Map bedrock geology in detail. Samples to be taken where helpful.
- (c) Use geophysical tools.
  - VLF EM to cover the complete property. This has only been done in quite restricted areas.
  - A ground magnetometer survey would be useful.
  - Induced Polarization and combined Resistivity survey would be useful if some disseminated sulphide horizon could be identified.
- (d) Backhoe trenching (and rock sampling) of the interesting areas.

Phase II

This phase is contingent upon the success (or lack of it), in finding mineral indications in the first phase. Assuming that mineral will be found, a program of drilling could be embarked upon. Bulldozed trails through the woods to the site selected would be required for access.

Exploration Cost Estimate

Phase I

Soil sampling

Collecting approx. 100 soil samples @ \$5.00/sample	500.00
Analysis (Ag, Zn) 100 @\$10.00	1,000.00
Geologist 10 days @ \$300/day	3,000.00
VLF EM Instrument rental, operator 6 days @ \$250/day	1,500.00
Induced Polarization & Resistivity survey (by contract)	13,000.00
Magnetometer Instrument rental, operator 6 days @ \$250/day	1,500.00
Trenching, with backhoe 100 hours @ \$100/hour includes mobilization and demobilization	10,000.00
Expenses	
Helicopter 2 hours @ \$500/hour	1,000.00
Accommodation	
Instrument operator, geologist 50 man days @ \$30/day	1,500.00
Food 50 man days @ \$25/day	1,250.00
Vehicle, boat and barge rental	1,000.00

Expenses Cont'd

Drafting	300.00	
Interpretation, prepare		
Report	600.00	
Secretarial	<u>200.00</u>	<u>1,100.00</u>
First Phase total		\$33,350.00
Contingency, say		<u>3,650.00</u>
Total Phase I		\$40,000.00

Phase II

Reserve for rock sampling, tote road		
building, site preparation, 300m diamond		
drilling, site reclamation.		
	say	<u>50,000.00</u>
Total Phase I and II		\$90,000.00

Respectfully submitted

Vancouver  
May 31st, 1983

*B. J. Taylor*  
B. TAYLOR, P.Eng.

CERTIFICATE

I, Bert Taylor, do hereby certify that:

1. I am a practicing geological engineer, with G.A. Noel & Associates Inc., 721-602 West Hastings Street, Vancouver, B.C.
2. I am a graduate of the University of Saskatchewan and have been granted the degree of Bachelor of Science in Geological Engineering.
3. I have been practicing my profession as a geological engineer for over 25 years.
4. I am a member of the Association of Professional Engineers of British Columbia, Registration No. 7879.
5. I have no interest, nor expect to receive any interest, direct or indirect, in the properties or securities of Giant North Resources Ltd.
6. The information in this report is from a study of previous reports and from my visits to the property, May 3-7, 1983.
7. Giant North Resources Ltd. is hereby authorized to use this report, or any part of it, for the purpose of financing or as otherwise required by regulatory authorities.

DATED THIS 31th day of May, 1983.  
Vancouver, B.C.

  
B. TAYLOR, P.Eng.

REFERENCES

For Cannon Mines Ltd. (Elmore, Wallace, Lincoln, Vic)  
BCDM MMAR, - 1927-C200, 1928-C210, 1934-D28, 1936-D43,  
1936-D43, 1966-145, 1967-134.

BCDM GEM, - 1971-437, 1975-E56.

BCDM Assessment Report 904

-----

For Cominco (Rhode Island, Tom, Ad, Day, Beca)  
BCDM MMAR, - 1926-A186.

BCDM GEM 1973-113

BCDM Assessment Reports 1114, 4504, 6680, 6801, 7040, 7112.

APPENDIX  
A  
GEOCHEMICAL ANALYSIS DATA SHEETS



# MIN-EN Laboratories Ltd.

705 WEST 15th STREET,  
NORTH VANCOUVER, B.C., CANADA V7M 1T2  
TELEPHONE (604) 980-5814

## ANALYTICAL REPORT

Project ..... Date of report **April 19/83.**

File No. **3-181** ..... Date samples received **April 12/83.**

Samples submitted by: .....

Company: **Giant North Resources** .....

Report on: **173 soils** ..... Geochem samples

..... Assay samples

Copies sent to:

1. **Giant North Resources, West Vancouver, B.C.** .....

2. ....

3. ....

Samples: Sieved to mesh **-80** ..... Ground to mesh .....

Prepared samples stored  discarded

rejects stored  discarded

Methods of analysis: **Cu, Pb, Zn, Ag-nitric, perchloric digestion, A.A.,** .....

**Ba-fusion-A.A.** .....

Remarks: .....

SPECIALISTS IN MINERAL ENVIRONMENTS

COMP

Giant North Resources

## GEOCHEMICAL ANALYSIS DATA SHEET

P. No. 3-181

PROJECT No.:

MIN - EN Laboratories Ltd.

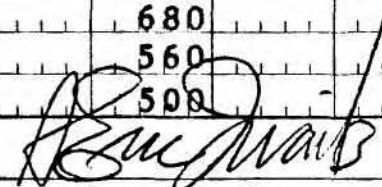
DATE: Apr. 19

ATTENTION: T. Charlesworth705 WEST 15th ST., NORTH VANCOUVER, B.C. V7M 1T2  
PHONE (604) 980-5814

1982.

6	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	
Sample Number	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ni ppm	Co ppm	Ag ppm	Fe ppm	Hg ppb	As ppm	Mn ppm	Au ppb	Ba ppm			
81	86	90	95	100	105	110	115	120	125	130	135	140	145	150	155	160
B 2		40	38	96			08						610			
3		83	46	42			21						420			
B 4		79	24	49			09						500			
C 2		16	15	89			08						720			
3		21	13	28			07						1120			
4		42	21	51			10						590			
5		52	20	47			12						760			
6		33	21	54			12						720			
7		20	22	61			10						850			
8		65	31	39			16						600			
9		27	29	71			08						500			
10		12	10	52			06						720			
11		12	10	47			04						730			
12		14	11	50			06						500			
13		15	11	74			06						610			
14		36	22	75			09						600			
15		11	59	450			10						520			
16		36	30	67			10						610			
17		18	10	56			09						530			
18		23	19	415			09						700			
19		20	14	82			08						600			
20		19	17	39			12						640			
C 21		29	16	69			09						630			
D 2		42	22	14			11						600			
3		42	19	46			08						620			
4		21	15	44			08						680			
5		17	10	33			05						650			
6		22	12	33			06						680			
7		98	123	127			10						560			
D 8		25	17	41			09						500			

CERTIFIED BY



COMPAN

Giant North Resources

## GEOCHEMICAL ANALYSIS DATA SHEET

No. 3-181

PROJECT No.:

MIN - EN Laboratories Ltd.

DATE: Apr. 19,

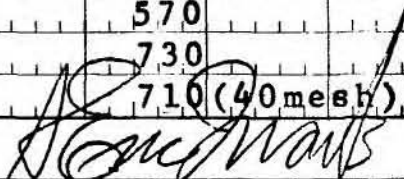
ATTENTION: T. Charlesworth

705 WEST 15th ST., NORTH VANCOUVER, B.C. V7M 1T2  
PHONE (604) 980-5814

1983.

6	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	
Sample Number	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ni ppm	Co ppm	Ag ppm	Fe ppm	Hg ppb	As ppm	Mn ppm	Au ppb	Ba ppm			
81	86	90	95	100	105	110	115	120	125	130	135	140	145	150	155	160
D 9		32	18	106			10						400			
10		13	10	48			05						600			
11		14	14	95			04						490			
12		54	17	52			10						450			
13		22	14	43			08						560			
D 14		28	13	54			09						420			
HA 14		27	10	50			09						500			
D 15		25	20	61			11						440			
16		12	10	51			06						390			
17		16	23	65			08						600			
18		41	42	164			11						580			
19		12	20	275			07						460			
D 20		80	26	70			10						490			
E 2		21	34	9			16						200			
3		16	16	57			06						500			
4		18	18	46			06						680			
5		17	13	32			04						780			
6		40	27	47			10						720			
7		21	16	33			05						580			
8		19	14	53			07						570			
9		25	13	56			08						500			
10		9	10	65			07						510			
11		24	16	34			11						680			
12		30	14	50			09						560			
13		26	16	48			09						510			
14		23	16	54			09						630			
15		72	24	78			14						460			
E 16		29	20	63			10						570			
F 3		37	19	57			06						730			
F 4		34	23	50			06						710 (40 mesh)			

CERTIFIED BY



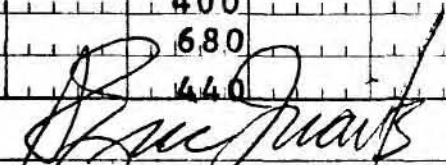
PROJECT No.: \_\_\_\_\_

MIN - EN Laboratories Ltd.

DATE: Apr. 19,  
1983.705 WEST 15th ST., NORTH VANCOUVER, B.C. V7M 1T2  
PHONE (604) 980-5814ATTENTION: **T. Charlesworth**

6	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80
Sample Number	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ni ppm	Co ppm	Ag ppm	Fe ppm	Hg ppb	As ppm	Mn ppm	Au ppb	Ba ppm		
81	86	90	95	100	105	110	115	120	125	130	135	140	145	150	160
F 5		20	20	47			06						790		
6		15	13	56			05						650		
7		14	12	50			06						780		
8		27	17	39			08						660		
9		27	15	32			09						580		
10		12	12	33			06						890		
11		12	9	42			05						820		
12		24	13	42			09						730		
14		86	24	64			13						810		
15		17	18	83			11						650		
F 16		16	11	57			09						720		
F 13		13	14	40			08						620		
G 2		19	12	36			08						930		
3		45	22	80			12						770		
4		67	27	85			11						750		
5		22	16	68			09						780		
6		170	630	570			16						800		
7		33	11	57			07						690		
8		15	12	47			07						740		
9		8	6	24			05						640		
10		12	10	48			06						820		
11		12	7	23			03						900		
12		31	17	50			09						630		
13		20	16	49			09						730		
14		14	18	54			06						620		
15		21	18	46			09						650		
G 16		15	20	47			09						790		
H 2		17	9	36			05						400		
3		28	25	70			07						680		
H 4		137	46	124			14						440		

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PROJECT No.: \_\_\_\_\_

MIN - EN Laboratories Ltd.

DATE: **Apr. 19,**ATTENTION: **T. Charlesworth**705 WEST 15th ST., NORTH VANCOUVER, B.C. V7M 1T2  
PHONE (604) 980-5814**1983.**

Sample Number	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ni ppm	Co ppm	Ag ppm	Fe ppm	Hg ppb	As ppm	Mn ppm	Au ppb	Ba ppm		
6 81	10 86	15 90	20 95	25 100	30 105	35 110	40 115	45 120	50 125	55 130	60 135	65 140	70 145	75 150	80 160
H 5		93	23	89			1.2						1150		
6		16	18	74			0.6						700		
7		12	14	33			0.4						780		
8		12	13	48			0.7						620		
9		10	10	31			0.5						540		
10		44	17	50			0.8						520 (40 mesh)		
11		15	13	46			0.7						640		
12		35	19	54			0.7						600		
13		17	12	43			0.6						560		
15		13	14	36			0.5						610		
H 16		14	10	58			0.6						500		
I 3		10	11	82			0.4						600		
4		23	17	47			0.4						500		
5		11	12	65			0.6						510		
6		7	8	22			0.5						750		
7		15	12	41			0.7						690		
8		8	9	33			0.5						670		
9		10	11	54			0.6						620		
10		26	14	38			0.8						600		
11		10	11	30			0.8						700		
12		67	19	56			0.8						610		
13		15	14	54			0.7						680		
15		15	10	53			0.6						590		
I 16		13	12	70			0.6						620		
J 2		68	19	39			1.2						500		
3		11	10	47			0.6						780		
4		8	7	69			0.4						700		
5		14	12	54			0.6						500		
6		17	11	28			0.5						710		
J 7		30	18	35			0.8						650 (40 mesh)		

PROJECT No.: \_\_\_\_\_

MIN - EN Laboratories Ltd.

DATE: **Apr. 19,**

ATTENTION: **T. Charlesworth**

705 WEST 15th ST., NORTH VANCOUVER, B.C. V7M 1T2  
PHONE (604) 980-5814

**1983.**

6	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80
Sample Number	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ni ppm	Co ppm	Ag ppm	Fe ppm	Hg ppb	As ppm	Mn ppm	Au ppb	Ba ppm		
81	86	90	95	100	105	110	115	120	125	130	135	140	145	150	160
J 8		7	7	26			04						920		
9		21	13	49			05						840		
10		7	8	35			04						780		
11		5	9	50			03						880		
12		10	10	37			04						890		
13		21	17	61			07						700		
J 14		33	23	60			08						250		
I 14		14	15	93			06						610		
J 15		28	22	62			11						580		
J 16		30	19	60			08						550		
K 2		15	12	70			06						730		
3		8	11	44			06						890		
4		5	8	65			04						760		
5		14	11	36			07						600		
6		12	11	45			05						700		
7		14	13	43			06						610		
8		13	13	70			03						600		
9		9	9	61			03						790		
10		8	10	55			02						800		
11		9	7	64			04						740		
12		22	11	37			03						870		
13		13	10	53			04						720		
14		20	15	55			04						530		
15		54	20	52			08						500		
K 16		56	27	64			11						510		
L 2		10	10	38			01						640		
3		5	5	50			02						530		
4		4	3	54			01						680		
5		7	8	52			03						700		
L 6		9	5	37			03						680		

*[Handwritten Signature]*

PROJECT No.: \_\_\_\_\_

MIN - EN Laboratories Ltd.

DATE: Apr. 19, 1983.

705 WEST 15th ST., NORTH VANCOUVER, B.C. V7M-1T2  
PHONE (604) 980-5814

ATTENTION: **T. Charlesworth**

6	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80
Sample Number	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ni ppm	Co ppm	Ag ppm	Fe ppm	Hg ppb	As ppm	Mn ppm	Au ppb	Ba ppm		
81	86	95	100	105	110	115	120	125	130	135	140	145	150	155	160
L 7		8	10	36			04						630		
8		24	15	74			06						780		
9		17	10	67			05						720		
10		7	8	49			04						520		
11		13	13	61			05						780		
12		6	9	62			03						930		
13		7	8	40			04						1020		
14		9	8	33			06						900		
15		11	8	58			04						630		
L 16		38	18	67			11						680		
M 3		6	6	78			03						900		
4		9	7	86			04						830		
5		34	12	44			04						890		
6		12	8	56			04						900		
7		10	6	34			03						910		
8		8	10	33			03						850		
9		9	5	43			03						780		
10		7	9	50			04						760		
11		8	12	45			04						720		
12		11	14	34			06						890		
13		8	8	49			05						1100		
14		39	16	32			06						710		
M 15		8	12	40			06						650		
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CERTIFIED BY: *[Signature]*

COMPA

Giant North Resources

## GEOCHEMICAL ANALYSIS DATA SHEET

No. 3-242

PROJECT No.:

MIN - EN Laboratories Ltd.

DATE: May 11

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

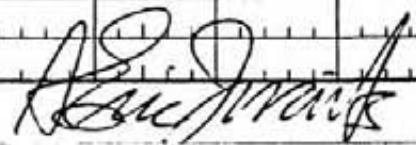
PHONE (604) 980-5814

1983.

ATTENTION: Ted Charlesworth

Sample Number	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ni ppm	Co ppm	Ag ppm	Fe ppm	Hg ppb	As ppm	Mn ppm	Au ppb	70	75	80	
81	86	90	95	100	105	110	115	120	125	130	135	140	145	150	155	160
H-3.5				74			06									
H1-3.5				74			05									
HG-3.5				75			05									
G-3.5				110			07									
H1-4				114			05									
HG-4				85			05									
H-4.5				70			05									
H1-4.5				90			06									
HG-4.5				118			05									
G-4.5				270			12									
H1-5				96			04									
HG-5				83			11									
C-5				56			06									
H-5.5				82			07									
H1-5.5				88			10									
HG-5.5				104			07									
G-5.5				75			04									
GF-5.5				91			06									
C-5.5				66			08									
HG-6				115			10									
G-6				525			10									
GF-6				82			04									
C-6				56			07									
H-6.5				34			06									
HG-6.5				54			04									
G-6.5				58			08									
GF-6.5				65			07									
C-6.5				67			06									
HG-7				46			06									
GF-7				90			12									

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COMP. Giant North Resources

**GEOCHEMICAL ANALYSIS DATA SHEET**

No. 3-242

PROJECT No.: \_\_\_\_\_

MIN - EN Laboratories Ltd.

DATE: May 11

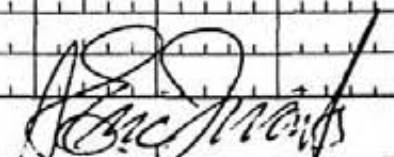
ATTENTION: Ted Charlesworth

705 WEST 15th ST., NORTH VANCOUVER, B.C. V7M 1T2  
PHONE (604) 980-5814

1983.

Sample Number	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ni ppm	Co ppm	Ag ppm	Fe ppm	Hg ppb	As ppm	Mn ppm	Au ppb				
6	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	
81	86	90	95	100	105	110	115	120	125	130	135	140	145	150	155	160
C-7				122			0.6									
D.C.-7				62			0.7									
C-7.5				54			0.6									
C-7.5				50			0.6									(Duplicate)
D.C.-7.5				66			0.6									
C-8				70			0.4									
D.C.-8				80			0.6									
D-8				52			0.6									
C-8.5				92			0.8									
C-8.5				84			0.8									(Duplicate)
D.C.-8.5				113			0.6									
D-8.5				75			0.6									
C-9				62			0.4									
D-9				155			0.6									
C-9.5				87			0.6									
D-9.5				59			0.5									
C-10				40			0.5									

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PROJECT No.: \_\_\_\_\_

MIN - EN Laboratories Ltd.

DATE: **May 24,**

ATTENTION: **Ted Charlesworth**

705 WEST 15th ST., NORTH VANCOUVER, B.C. V7M 1T2  
PHONE (604) 980-5814

**1983.**

Sample Number	6	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80
	Asn	Cu	Pb	Zn	Ni	Co	Ag	Fe	Hg	As	Mn	Au				
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppb				
81	86	90	95	100	105	110	115	120	125	130	135	140	145	150	155	160
BC-17.5				62				04								
BC-18.5				46				06								
C-17.5				81				06								
C-18.5				94				08								
D-7.5				112				08								
17.5				275				05								
18.5				840				10								
D-19.5				174				07								
DC-17.5				118				08								
18				146				06								
18.5				96				05								
DC-19				260				07								
ED-7				110				06								
17.5				70				05								
18				52				06								
18.5				68				07								
19				63				04								
ED-19.5				94				09								
EF-13.5				50				04								
14				28				03								
14.5				48				07								
EF-15				54				06								
F-13.5				53				04								
14.5				50				06								
F-15.5				66				07								
FG-14				44				05								
14.5				74				06								
FG-15				53				08								

*[Handwritten Signature]*

APPENDIX B

VLFEM

- Instrument specifications
- Theory and Procedure
- readings as recorded

## APPENDIX B

### Instrument Specifications

#### ELECTROMAGNETOMETER

##### A. Instrument

- (a) Type - Geonics VLF-EM
- (b) Make - Ronka EM 16

##### B. Specifications

- Measurement -
- (i) Utilizes primary fields generated by VLF marine communication stations measures the vertical field components in terms of horizontal field present.
  - (ii) Frequency range 15-25 KHz
  - (iii) Range of measurement - in phase + 150%  
or +90°  
- quadrature +40%
  - (iv) Method of reading - null detection by earphone, in phase and quadrature from mechanical dials.
  - (v) Accuracy - + 1% resolution

##### C. Survey Procedures

- Method
- (a) Select Jim Creek, Washington transmitter.
  - (b) In-phase dial measures degree of tilt from vertical position in degrees.
  - (c) Quadrature dial calibrated in percent - null.
  - (d) Station plot - plot values read at station surveyed. See Figure 9.
  - (e) Manually filter dip-angle data.
  - (f) Filtered data presented in Figure 8.

## V.L.F. ELECTROMAGNETOMETER SURVEY

This survey was conducted using a Geonics EM-16 VLF Electromagnetometer. This instrument acts as a receiver only. It utilizes the primary electromagnetic fields generated by VLF marine communication stations. These stations operate at a frequency between 15-20 KHz, and have a vertical antenna-current resulting in a horizontal primary field. This VLF-EM instrument measures the dip-angle of the secondary field induced in a conductor.

For maximum coupling, a transmitter station located in the same direction as the geological strike should be selected, because the direction of the horizontal electromagnetic field is perpendicular to the direction of the transmitting station. In this survey, the transmitter at Jim Creek, Washington, is well situated.

Readings were taken at 30 m intervals and the data filtered in the field by the operator as described by D.C. Fraser, Geophysics Vol. 34, No. 6 (December 1969). The advantage of this filtration method is that it removes the dc and attenuates long wave lengths to increase resolution of local anomalies, and phase shifts the dip-angle data by 90 degrees so that cross-overs and inflections will be transformed into peaks to yield contourable quantities.

## EM FIELD NOTES

Page 1Property ERIK 3Date May 8 / 83

Job No. \_\_\_\_\_

Operator G. H. TroyTrans. YLF EMFace Up Hill

LOCATION (STATION)	QUAD (EM 16)	MEAS DIP & SIGN	SUM of PAIRS	FILTERED DATA	REMARKS & SLOPE
C 5	-12	+35	+72		Points NE
C 5.25	-28	+37	+67	+13	↓
C 5.5	-22	+30	+59	+15	
C 5.75	-24	+29	+52	-11	
C 6	-16	+23	+70	-20	
C 6.25	-18	+37	+82	0	
C 6.5	-44	+45	+70	+17	
C 6.75	-11	+25	+65	-8	
C 7	-7	+40	+78	-3	
C 7.25	+22	+38	+68	-7	
C 7.5	-38	+30	+85	-21	
C 7.75	-34	+55	+89	+31	
C 8	-14	+34	+54	+19	
C 8.25	-11	+20	+60	-6	
C 8.5	-1	+40	+60	+15	
C 8.75	-42	+20	+95	+12	
C 9	-4	+25	+48	-13	
C 9.25	+32	+23	+58	-17	
C 9.5	0	+35	+65	-2	
C 9.75	-40	+30	+60		
C 10	-38	+30			

Contour on  
 -20  
 0  
 +20  
 +40

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Page 2

LOCATION (STATION)	QUAD (EM 16)	MEAS DIP & SIGN	SUM of PAIRS	FILTERED DATA	REMARKS & SLOPE
D 10	-42	+32	+62		
D 9.75	-6	+30	+58	-6	
D 9.5	-41	+28	+56	+2	
D 9.25	-36	+28	+60	+13	
D 9	-32	+32	+69	+12	
D 8.75	-11	+37	+72	-2	
D 8.5	-2	+35	+67	-2	
D 8.25	-11	+32	+70	+13	
D 8	-4	+38	+78	-3	
D 7.75	0	+40	+67	-6	Cliff ↑
D 7.5	-16	+27	+72	+10	↓
D 7.25	+2	+35	+77	-12	
D 7	-17	+42	+84	-2	
D 6.75	-16	+42	+79	-5	
D 6.5	-3-1	+37	+79	+5	Rock ↑
D 6.25	-18	+42	+84	+8	
D 6	-12	+42	+87	-1	
D 5.75	+4	+45	+83	-9	
D 5.5	+4	+38	+78	-3	
D 5.25	-42	+40	+80		
D 5	-10	+40			

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## EM FIELD NOTES

Page 3Property ENK 3Date May 8 / 83

Job No. \_\_\_\_\_

Operator GMTrans. VLF EMFace Up Hill

LOCATION (STATION)	QUAD (EM 16)	MEAS DIP & SIGN	SUM of PAIRS	FILTERED DATA	REMARKS & SLOPE
E 9	-30	+30			
E 8.75	-7	+35	+65		
E 8.5	-26	+30	+65	-5	
E 8.25	-13	+30	+60	-5	
E 8	-10	+30	+60	0	
E 7.75	-20	+30	+60	0	
E 7.5	-18	+30	+60	+5	
E 7.25	-10	+30	+65	+3	
* E 7	-26	+35	+63	-9	
E 6.75	45	+28	+56	+2	
E 6.5	-38	+28	+65	+18	
E 6.25	-17	+37	+74	+7	
E 6	-22	+37	+72	-1	
E 5.75	-38	+35	+73	+1	
E 5.5	-44	+38	+73	+2	
E 5.25	-43	+35	+75	+27	
E 5	+24	+40	+100	+45	
E 4.75	+10	+60	+120	0	
E 4.5	-6	+60	+100	-25	
E 4.25	+11	+40	+95		
E 4	+16	+55			



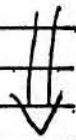
Dip Hill

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Page 4

LOCATION (STATION)	QUAD (EM 16)	MEAS DIP & SIGN	SUM of PAIRS	FILTERED DATA	REMARKS & SLOPE
F 3	-18	+55			
F 3.25	-44	+60	+115		
F 3.5	-16	+55	+115	+10	
F 3.75	-40	+50	+105	+25	G
F 4	-16	+40	+90	+20	
F 4.25	-2	+45	+85	-24	
F 4.5	-8	+59	+104	-24	G
F 4.75	-10	+50	+109	-6	
F 5	-28	+60	+110	-1	VG
F 5.25	-26	+50	+110	+25	
F 5.5	-26	+35	+85	+33	
F 5.75	45	+42	+77	+16	
F 5	-16	+27	+69	+17	G
F 6.25	45	+33	+60	+6	G
F 6.5	-31	+30	+63	+2	G
F 6.75	-25	+32	+62	-6	G
F 7	45	+37	+69	-15	
F 7.25	45	+40	+77	-13	
F 7.5	+20	+42	+82	+5	
F 7.75	-20	+30	+72	+16	
F 8	-27	+36	+66	+8	G
F 8.25	-12	+38	+64	+3	
F 8.5	-8	+35	+63	-3	G
F 8.75	-23	+32	+67	-1	
F 9	-4	+30	+62		

Filtered





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## EM FIELD NOTES

Page 5Property Erick 3Date May 9 / 83



Job No. \_\_\_\_\_

Operator GMTrans. VLF EMFace Up Hill

LOCATION (STATION)	QUAD (EM 16)	MEAS DIP & SIGN	SUM of PAIRS	FILTERED DATA	REMARKS & SLOPE
G 8	-6	+30	f60		
G 7.75	-6	+30	+63	+3	
G 7.5	-42	+33	+63	-3	
G 7.25	-22	+30	+60	-3	
G 7	-32	+30	+60	+3	
G 6.75	-42	+30	+63	+1	
G 6.5	+44	+33	+61	-2	
G 6.25	-13	+28	+61	+2	
G 6	-18	+33	+63	-1	
G 5.75	-4	+30	+60	-7	
G 5.5	-8	+30	+56	+26	VG 
G 5.25	+4	+26	+86	+56	
G 5	-42	+60	+112	+21	VG
G 4.75	-30	+52	+107	-7	
G 4.5	45	+55	+105	+3	
G 4.25	-32	+50	+110	-5	
G 4	-16	+60	+100	-20	G filtered 
G 3.75	+18	40	+90	+15	
G 3.5	-18	+50	+115	+10	
G 3.25	+4	+65	+100		
G 3	-16	+35			G
G 2.75					
G 2.5					Cliff @ 001
G 2.25					
G 2					

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LOCATION (STATION)	QUAD (EM 16)	MEAS DIP & SIGN	SUM of PAIRS	FILTERED DATA	REMARKS & SLOPE
H 8	-4	+23	+50		G
H 7.75	-4	+27	+57	+12	G
H 7.5	-13	+30	+62	+16	G
H 7.25	-16	+32	+73	+21	G
H 7	-41	+41	+83	+16	
H 6.75	-24	+42	+89	0	G
H 6.5	-44	+47	+83	-8	
H 6.25	-13	+36	+81	0	Very Low
H 6	-18	+45	+83	-2	
H 5.75	-11	+38	+79	-17	
H 5.5	-23	+41	+66	-12	G 
H 5.25	-8	+25	+67	-10	VG
H 5	-2	+22	+56	+4	
H 4.75	-20	+34	+71	+3	G filtered 
H 4.5	-40	+37	+59	-14	
H 4.25	-22	+22	+57	+5	G filtered
H 4	-44	+35	+64	-6	
H 3.75	-6	+29	+51	-22	G
H 3.5	-3	+22	+42	-6	G
H 3.25	-25	+20	+45	+7	VG
H 3	-42	+25	+49	+4	
H 2.75	-12	+24	+49	-9	
H 2.5	-22	+25	+40	-26	Lg 20' / 100'
H 2.25	-32	+15	+23		
H 2	-15	+8			

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## EM FIELD NOTES

Page 7Property Emk 3 Date May 10 1983Job No. \_\_\_\_\_ Operator GMTrans. VLF EM Face Op Hill

LOCATION (STATION)	QUAD (EM 16)	MEAS DIP & SIGN	SUM of PAIRS	FILTERED DATA	REMARKS & SLOPE
<del>I 2</del>					
<del>I 2.25</del>					
<del>I 2.5</del>					Cliff
<del>I 2.75</del>					
I 3	-34	+25	+42		G
I 3.25	-13	+17	+31	+13	
I 3.5	-10	+14	+29	+3	
I 3.75	-8	+15	+28	0	G
I 4	-4	+13	+29	-8	G
I 4.25	-18	+16	+36	-14	
I 4.5	-14	+20	+43	-7	G
I 4.75	-34	+23	+43	+3	G
I 5	-6	+20	+40	-2	G
I 5.25	+8	+20	+45	-15	
I 5.5	-40	+25	+55	-16	
I 5.75	-12	+30	+60	-10	
I 6	-6	+30	+65	+6	
I 6.25	-24	+35	+54	+21	
I 6.5	+44	+19	+44	+11	G
I 6.75	-14	+25	+43		
I 7	-4	+18			

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LOCATION (STATION)	QUAD (EM 16)	MEAS DIP & SIGN	SUM of PAIRS	FILTERED DATA	REMARKS & SLOPE
J 5	-22	+15	+37		
J 4.75	-17	+22	+47	+16	
J 4.5	-37	+25	+53	+16	
J 4.25	-22	+28	+63	-78	
J 4	-9	+35	-25	-98	
J 3.75	+30	+60	-35	+90	Ravine
J 3.5	-12	+25	+65	+120	
J 3.25	+36	+40	+85	+25	
J 3	-24	+45	+90	+10	
J 2.75	0	+45	+95	+25	
J 2.5	-28	+50	+115	+35	
J 2.25	+36	+65	+130		
J 2	+40	+65			
<hr/>					
K 2	-26	+15	+40		
K 2.25	-32	+25	+85	-80	
K 2.5	+32	+60	+120	-35	
K 2.75	+32	+60	+120	+10	
K 3	-2	+60	+110	+20	Ravine
K 3.25	-10	+50	+100	+30	G
K 3.5	0	+50	+80	+40	
K 3.75	-42	+30	+60		
K 4	-20	+30			

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