

4282

GEOCHEMICAL REPORT

FIR 1 GROUP OF MINERAL CLAIMS

CANEX PLACER LIMITED, ENDAKO MINES DIVISION

OMINECA MINING DIVISION

ENDAKO, B. C.

(Latitude  $54^{\circ} 15'$ , Longitude  $125^{\circ}$ )

Field work undertaken during period

18 - 20 September 1972

G. D. Bysouth

February 8, 1973

<p>Department of Mines and Petroleum Resources ASSESSMENT REPORT No. <u>4282</u> MAP.....</p>
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## INTRODUCTION

A soil geochemical survey was conducted over the Fir 1 Group of Mineral Claims during the period 18 to 20 September 1972. The work was undertaken as part of commitments for assessment work on mineral claims which are owned by Canex Placer Limited, Endako Mines Division (formerly Endako Mines Limited). The claims are located in the Hanson Lake area approximately 12 miles north of Endako Village.

## SUMMARY

A total of 216 soil samples were collected and assayed for molybdenum, copper, lead, zinc and silver. A large lead-zinc geochemical anomaly has been outlined which appears to be an extension of a lead-zinc anomaly discovered to the south in 1971.

## MINERAL CLAIM GROUP

The Fir 1 Group of Mineral Claims consists of 40 mineral claims. The property is located 12 miles north of Endako Village in the Omineca Mining Division at Latitude 54° 54' N., Longitude 125° W.

Details of the Fir 1 Group Mineral Claims are as follows:

<u>Mineral Claims</u>	<u>Record Numbers</u>	<u>Record Date</u>
Fir 1 - 16	98515 - 98530	25 May 1971
Lena 1 - 16	100809 - 100824	9 July 1971
Lena 49 - 52	103063 - 103066	17 Aug. 1971
Lena 76 - 79	103090 - 103093	17 Aug. 1971

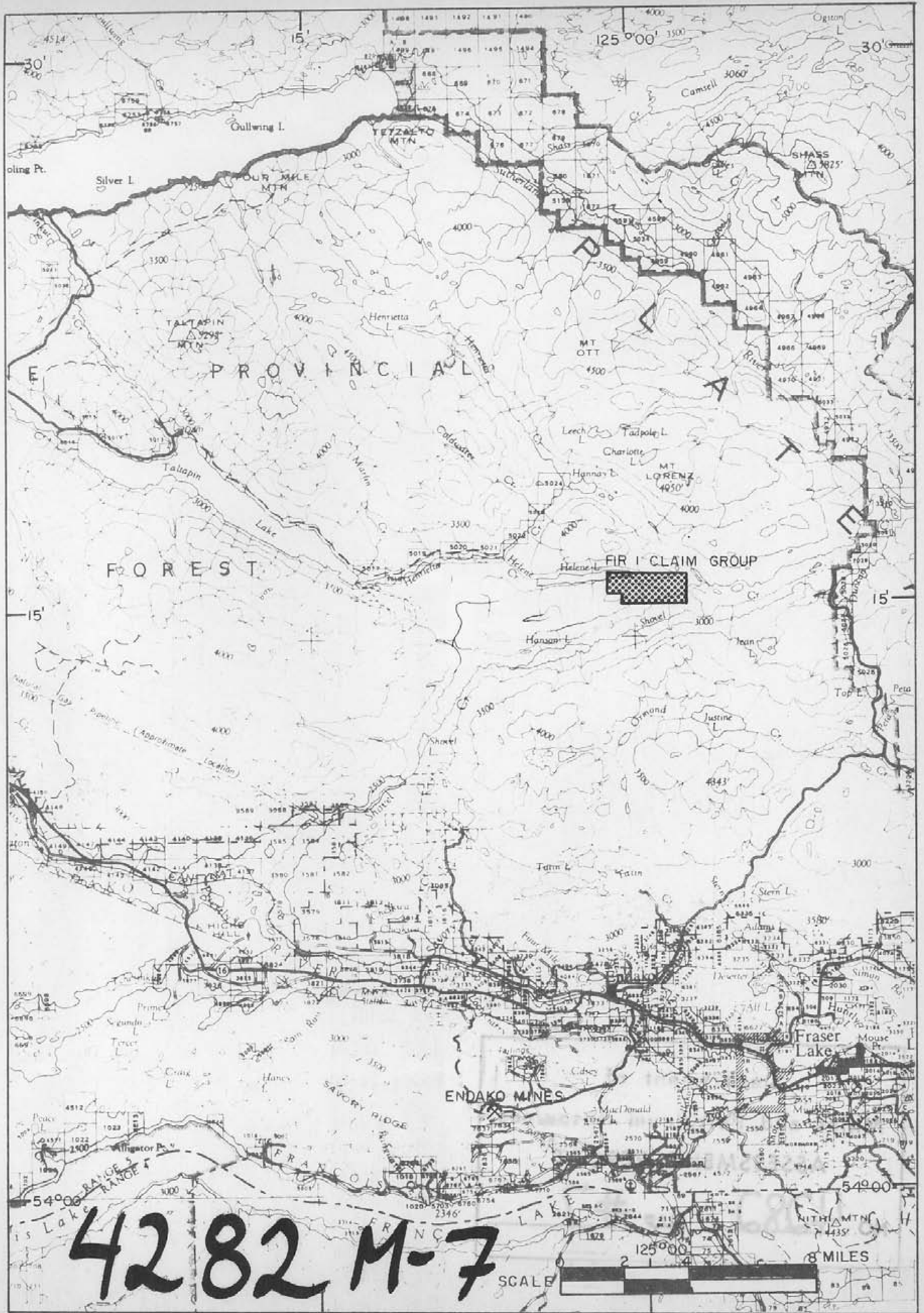
## TOPOGRAPHY AND ACCESS

The western half of the claim block covers a steep-sided divide which separates Shovel Creek valley and a small valley occupied by Helene Lake. Valley slopes generally lie between 15 and 20 degrees but extend up to 30 degrees. The divide terminates abruptly towards the east, forming a steep east-facing slope; as a result, the eastern half of the claim block occupies a low rolling terrain which slopes gently towards the southeast at angles rarely exceeding 15 degrees.

Access is provided by a four-wheel drive road which extends westward from Duncan Creek approximately eight miles to the southeast half of the claim block.

## GENERAL GEOLOGY

Rock exposure forms less than one percent of the surface area covered by the claims. These outcrops consist of quartz porphyry, rhyolite and dacite volcanic rocks which are inferred on lithological evidence to belong to the Early Tertiary Ootsa Lake Group.



4282 M-7

SCALE



8 MILES

## SURVEY CONTROL

Aerial photographs on the scale one inch to approximately  $\frac{1}{2}$  mile were used for ground location control. Grid lines were established by chain and compass.

## SOIL GEOCHEMICAL SURVEY

### Introduction

A soil geochemical survey was conducted over the entire claim group. Samples were collected at 200-foot intervals along lines spaced 1,000 feet apart. Except for a baseline and three short north-south lines, the sampling was along east-west lines.

The claims are underlain by combinations of glacial till, ablation moraine, sandy outwash and colluvium. Outwash predominates below the 3100 foot elevation. Colluvium, consisting of talus and reworked glacial materials, is common to steep slopes facing the valleys. Ablation moraine and glacial till cover the remainder of the area. The ratio of ablation moraine to till is considered to decrease at higher elevations.

Vegetation appears to vary with drainage conditions and surficial deposits. Open jackpine forests cover the well-drained outwash deposits below the 3100 foot elevation. Sparse aspens and a variety of low bushes are often characteristic of well-drained colluvial deposits. Heavy growths of balsam and spruce appear to predominate over ablation moraine and glacial till.

The soils are all immature but often show some degree of zonation. In most cases the B-horizon was distinct enough to be sampled.

### Sampling

Soil samples averaging about 150 grams were collected from small holes which were dug to depths of at least four to six inches below the upper humus. Wherever possible the B-horizon or a combination of the B- and C-horizons was sampled.

### Assay Method

All soil samples were assayed for Mo, Cu, Pb, Zn and Ag content by Canex Placer Limited Geochemical Laboratory at Vancouver, B. C.

Samples were dried in a hot air dryer, then sifted in -80 mesh nylon sieves. Portions of -80 mesh fractions were weighed with a precision torsion balance. One portion of each sample was then digested in a mixture of hot perchloric and nitric acid, and prepared for analysis by atomic absorption spectrophotometry. A Perkin-Elmer

403 instrument was used for analysis of molybdenum, copper, lead and zinc. Another portion of each sample was digested in boiling nitric acid, then water and 20 percent T.O.T.P. dissolved in heptane was added. This solution was shaken and centrifuged prior to analysing for silver by atomic absorption.

### Results

A large significant lead-zinc anomaly has been discovered which appears as a northward extension of a similar anomaly outlined to the south in 1971. As shown in Appendices IV and V, highest values of the anomaly occur along the south boundary of the claim group and decrease rapidly northward to background values. These high values of greater than 100 ppm lead and 400 ppm zinc occur in soil developed over colluvium and may lie close to source. Lower metal concentrations in adjacent soils may be a result of glacial entrainment. Threshold levels for lead and zinc are considered to be 20 ppm and 200 ppm respectively.

A small copper-silver anomaly has been outlined near the center of the claim group northeast of the lead-zinc anomaly. Although it consists of only three samples, the silver content of these samples suggests that it is of possible significance.

Numerous anomalies in either lead, zinc, silver, copper or molybdenum occur scattered over the claim group. They consist of only one or two samples and are not of exceptionally high metal concentration; consequently, they are not considered of any particular significance.

### STATEMENT OF EXPENSES

The following expenses were incurred by Canex Placer Limited, Endako Mines Division for conducting a soil geochemical survey over the Fir 1 Group of Mineral Claims.

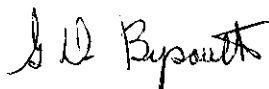
<u>Personnel</u>	<u>Period Employed</u>	<u>Time and Rate</u>	<u>Cost</u>
A. J. Peters	18 - 20 Sept. 1972	22 hrs. @ \$4.50	\$ 99.00
G. D. Bysouth	19 - 20 Sept. 1972	19 hrs. @ 6.50	123.00
S. Wilson	18 - 20 Sept. 1972	23 hrs. @ 3.62	83.26
J. Cyr	19 - 20 Sept. 1972	18 hrs. @ 5.00	<u>90.00</u>
Total Personnel Cost			\$395.76
Office overhead @ 15% on wages			59.36
<u>Transportation Costs</u>			
Vehicle 3 days @ \$25.00/day			75.00
<u>Map Compilations</u>			
A. J. Peters 23 hrs. @ \$4.50			103.50

	<u>Cost</u>
<u>Camp Operation Costs</u>	
A. J. Peters	3 days
G. D. Bysouth	2 days
S. Wilson	3 days
J. Cyr	2 days
Total 10 man-days @ \$8.00	\$ 80.00
<u>Geochemical Assay Costs</u>	
Determinations for Mo, Pb, Zn, Cu, Ag	
Total 216 samples @ \$4.50/sample	<u>972.00</u>
<u>TOTAL GEOCHEMICAL SURVEY EXPENDITURE</u>	<u>\$1,685.62</u>

CONCLUSION

The soil geochemical survey has indicated a large significant lead-zinc anomaly on the Fir 1 Group of Mineral Claims.

Submitted by:



G. D. Bysouth  
Exploration Geologist  
Canex Placer Limited  
Endako Mines Division

GDB/at

## APPENDICES

- I Certification
- II Statement of Qualification
- III Mineral Claim Map, 1" =  $\frac{1}{2}$  mile.
- IV Soil Geochemical Survey Map: Lead 1" =  $\frac{1}{4}$  mile
- V Soil Geochemical Survey Map: Zinc 1" =  $\frac{1}{4}$  mile
- VI Soil Geochemical Survey Map: Silver 1" =  $\frac{1}{4}$  mile
- VII Soil Geochemical Survey Map: Copper 1" =  $\frac{1}{4}$  mile
- VIII Soil Geochemical Survey Map: Molybdenum 1" =  $\frac{1}{4}$  mile
- IX Declaration for Statement of Expenses

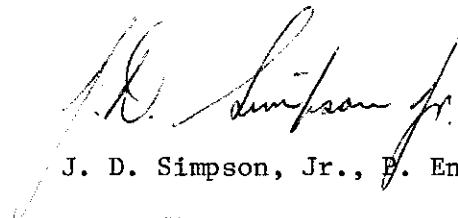


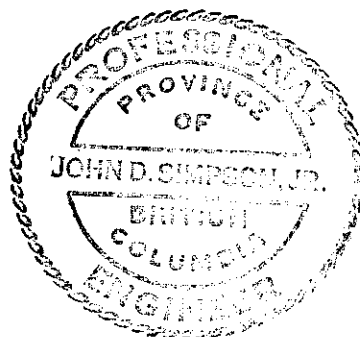
APPENDIX I

CERTIFICATION

I, J. D. Simpson Jr. of Canex Placer Limited, Endako Mines Division, Endako, B. C. do hereby certify that:

1. I am a registered Professional Engineer in the Province of British Columbia.
2. I have carefully reviewed the data and examined the report of G. D. Bysouth on exploration work which was undertaken during the period 18 - 20 September, 1972, on the Fir 1 Group of Mineral Claims. The mineral claims are owned by Canex Placer Limited, Endako Mines Division, and are located in the Omineca Mining Division near Endako, B. C. (Latitude  $54^{\circ} 15'$ , Longitude  $125^{\circ}$ )
3. To the best of my knowledge the interpretation of data, conclusions and expenditures which are claimed for the performance of work are valid.

  
J. D. Simpson, Jr., P. Eng.

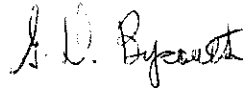


APPENDIX II

STATEMENT OF QUALIFICATION

I, G. D. Bysouth of Canex Placer Limited, Endako Mines Division, Endako, B. C. do hereby certify that:

1. I am a geologist
2. I am a graduate of the University of British Columbia with a B. Sc. degree in Geology in 1966.
3. From 1966 until the present I have been engaged in mining geology and exploration geology in British Columbia.
4. I personally supervised and participated in the field work and have reviewed and assessed the data resulting from this work.



G. D. Bysouth

GDB/at



LENA 52	LENA 50	LENA 1	LENA 3	LENA 5	LENA 7	LENA 9	LENA 11	LENA 13	LENA 15
LENA 51	LENA 49	LENA 2	LENA 4	LENA 6	LENA 8	LENA 10	LENA 12	LENA 14	LENA 16
HAN 76	HAN 78	FIR 1	FIR 3	FIR 5	FIR 7	FIR 9	FIR 11	FIR 13	FIR 15
HAN 77	HAN 78	FIR 2	FIR 4	FIR 6	FIR 8	FIR 10	FIR 12	FIR 14	FIR 16

Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT  
NO. 4282 MAP #1

4282 M-1

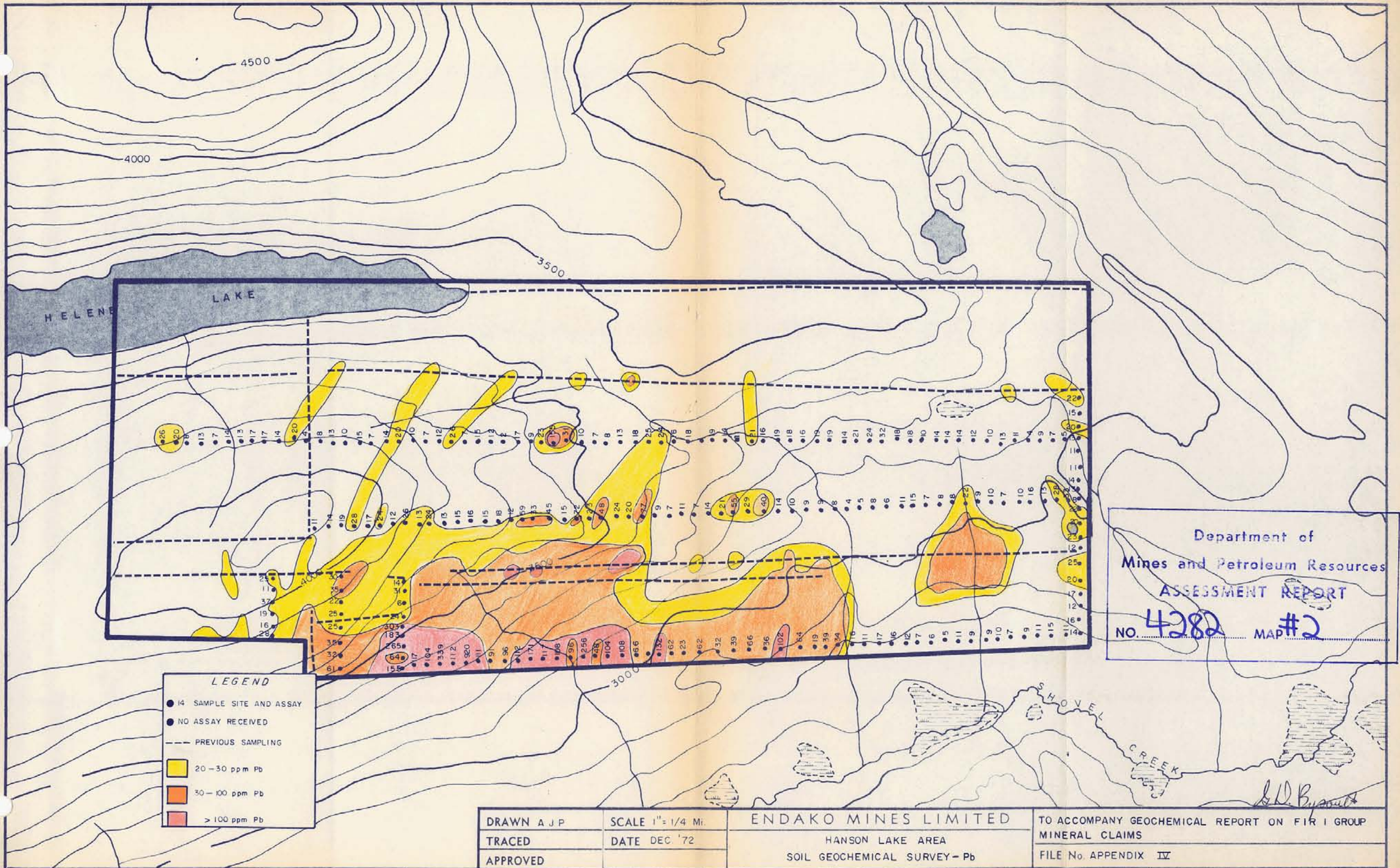
DRAWN A J P  
TRACED  
APPROVED

SCALE 1" = 1/2 MI.  
DATE JAN. 73

ENDAKO MINES LIMITED  
HANSON LAKE AREA

LOCATION MAP - FIR I GROUP MINERAL CLAIMS  
TO ACCOMPANY GEOCHEMICAL REPORT  
FILE No. APPENDIX III

*J.D. Byratt*

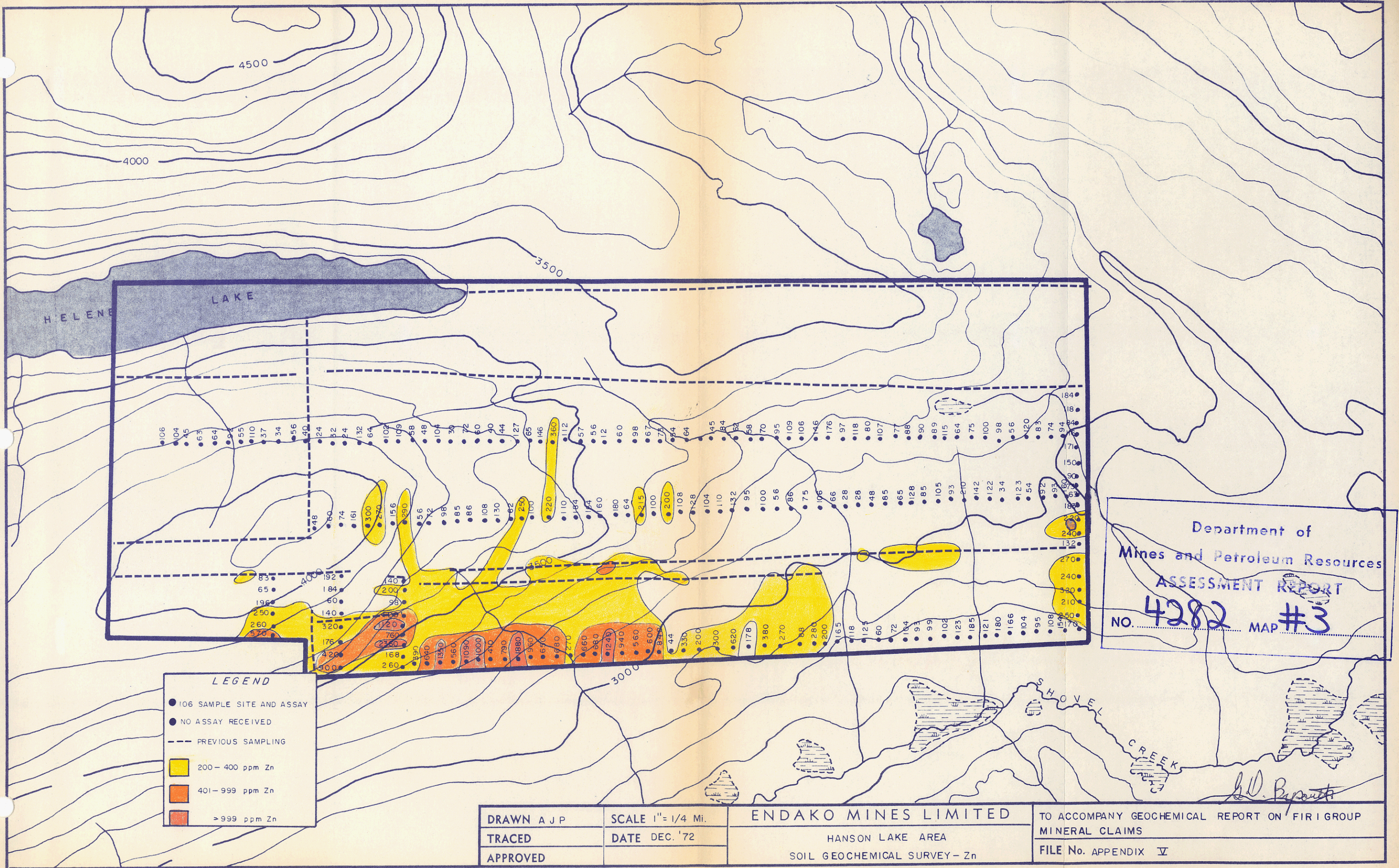


**LEGEND**

- 14 SAMPLE SITE AND ASSAY
- NO ASSAY RECEIVED
- PREVIOUS SAMPLING
- 20-30 ppm Pb
- 50-100 ppm Pb
- > 100 ppm Pb

Department of  
 Mines and Petroleum Resources  
**ASSESSMENT REPORT**  
 NO. **4282** MAP **#2**

DRAWN A J P	SCALE 1" = 1/4 Mi.	ENDAKO MINES LIMITED	TO ACCOMPANY GEOCHEMICAL REPORT ON FIR I GROUP MINERAL CLAIMS
TRACED	DATE DEC '72		
APPROVED		HANSON LAKE AREA SOIL GEOCHEMICAL SURVEY - Pb	FILE No. APPENDIX IV

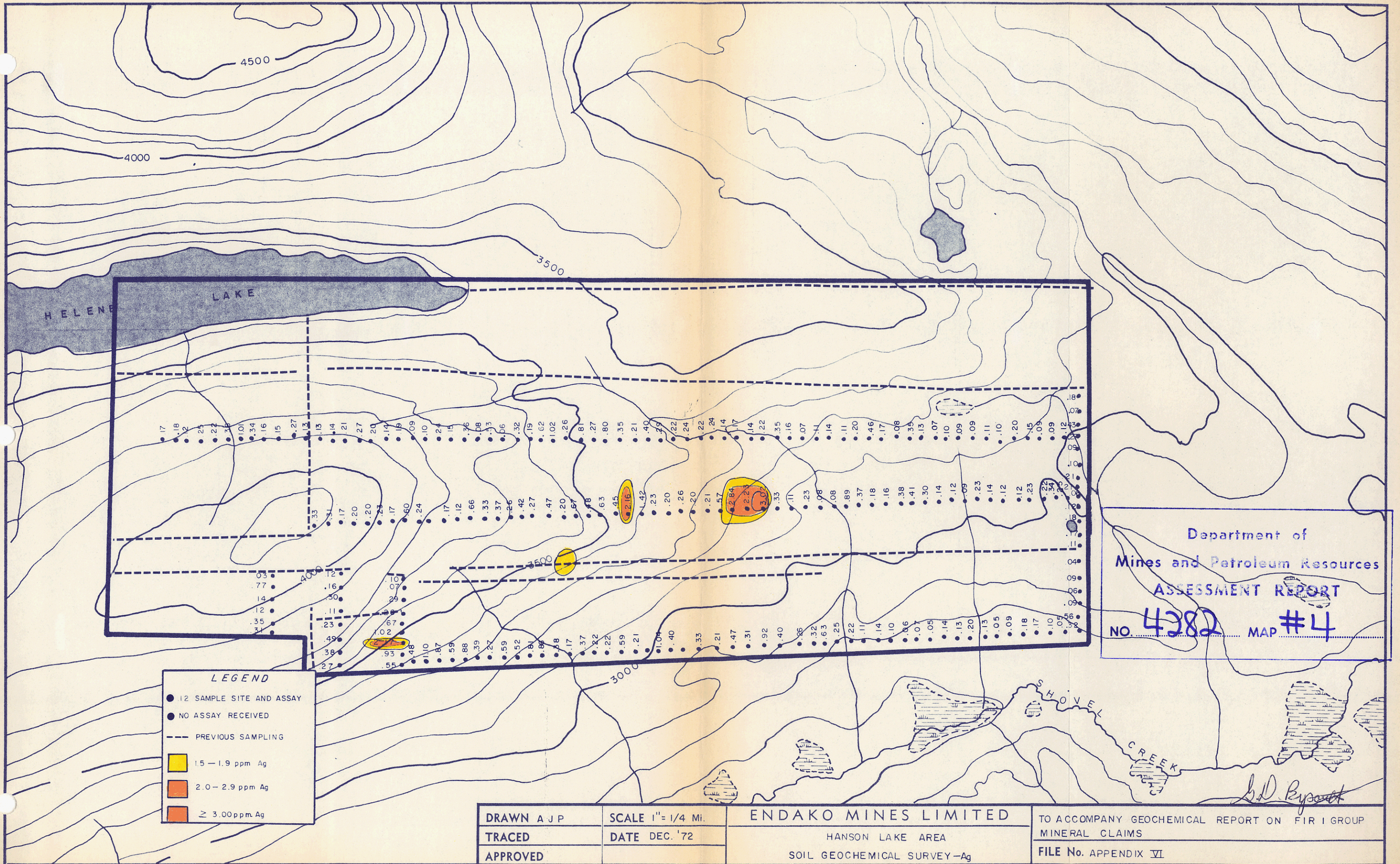


**LEGEND**

- 106 SAMPLE SITE AND ASSAY
- NO ASSAY RECEIVED
- PREVIOUS SAMPLING
- 200-400 ppm Zn
- 401-999 ppm Zn
- >999 ppm Zn

Department of  
 Mines and Petroleum Resources  
 ASSESSMENT REPORT  
 NO. 4282 MAP #3

DRAWN A J P	SCALE 1" = 1/4 Mi.	ENDAKO MINES LIMITED	TO ACCOMPANY GEOCHEMICAL REPORT ON FIRI GROUP MINERAL CLAIMS
TRACED	DATE DEC. '72	HANSON LAKE AREA	FILE No. APPENDIX V
APPROVED		SOIL GEOCHEMICAL SURVEY - Zn	

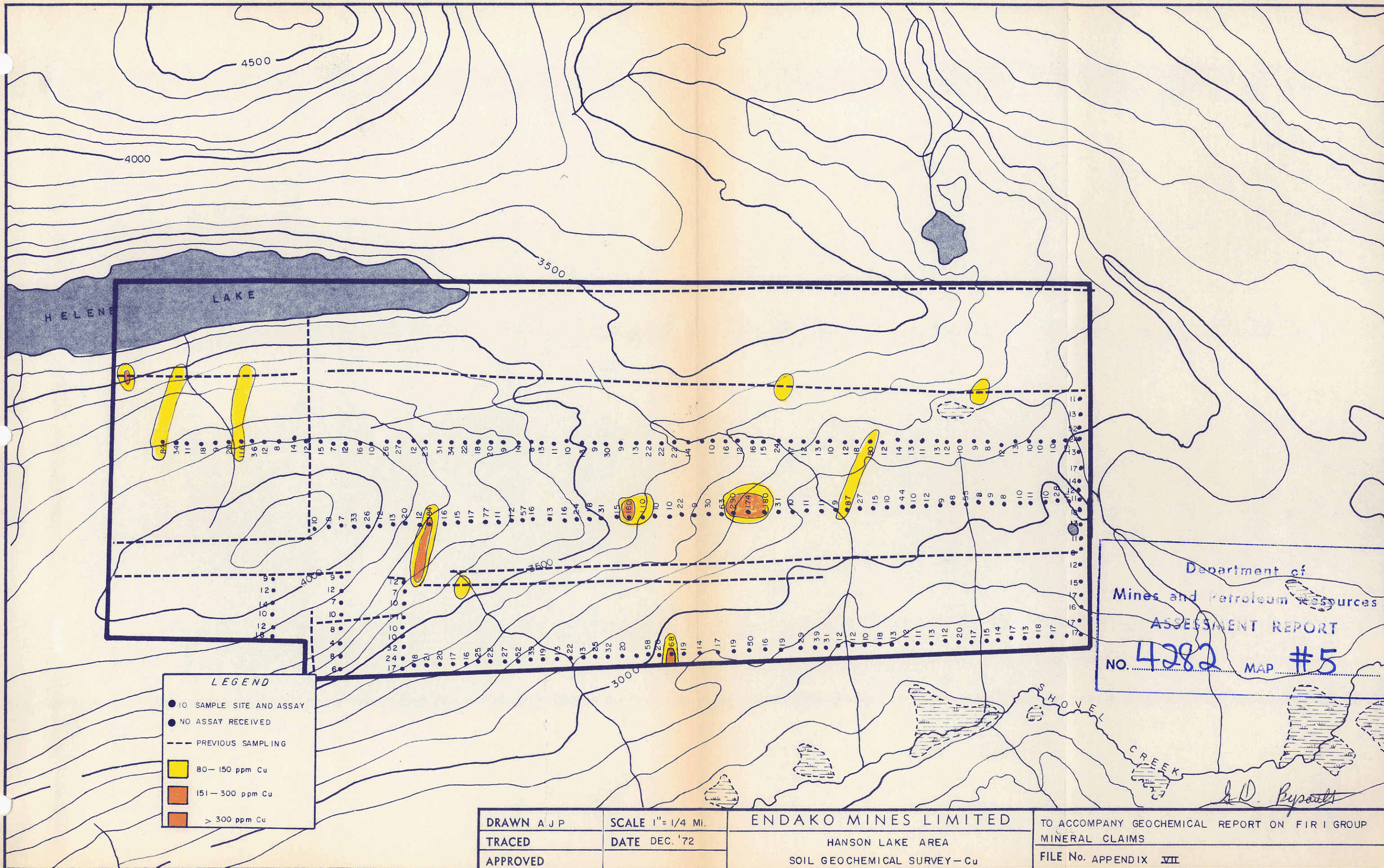


**LEGEND**

- 12 SAMPLE SITE AND ASSAY
- NO ASSAY RECEIVED
- - - PREVIOUS SAMPLING
- 1.5 - 1.9 ppm Ag
- 2.0 - 2.9 ppm Ag
- ≥ 3.00 ppm Ag

Department of  
Mines and Petroleum Resources  
**ASSESSMENT REPORT**  
No. **4282** MAP #4

DRAWN A J P	SCALE 1" = 1/4 Mi.	ENDAKO MINES LIMITED	TO ACCOMPANY GEOCHEMICAL REPORT ON FIR I GROUP MINERAL CLAIMS
TRACED	DATE DEC. '72		
APPROVED		SOIL GEOCHEMICAL SURVEY - Ag	FILE No. APPENDIX VI



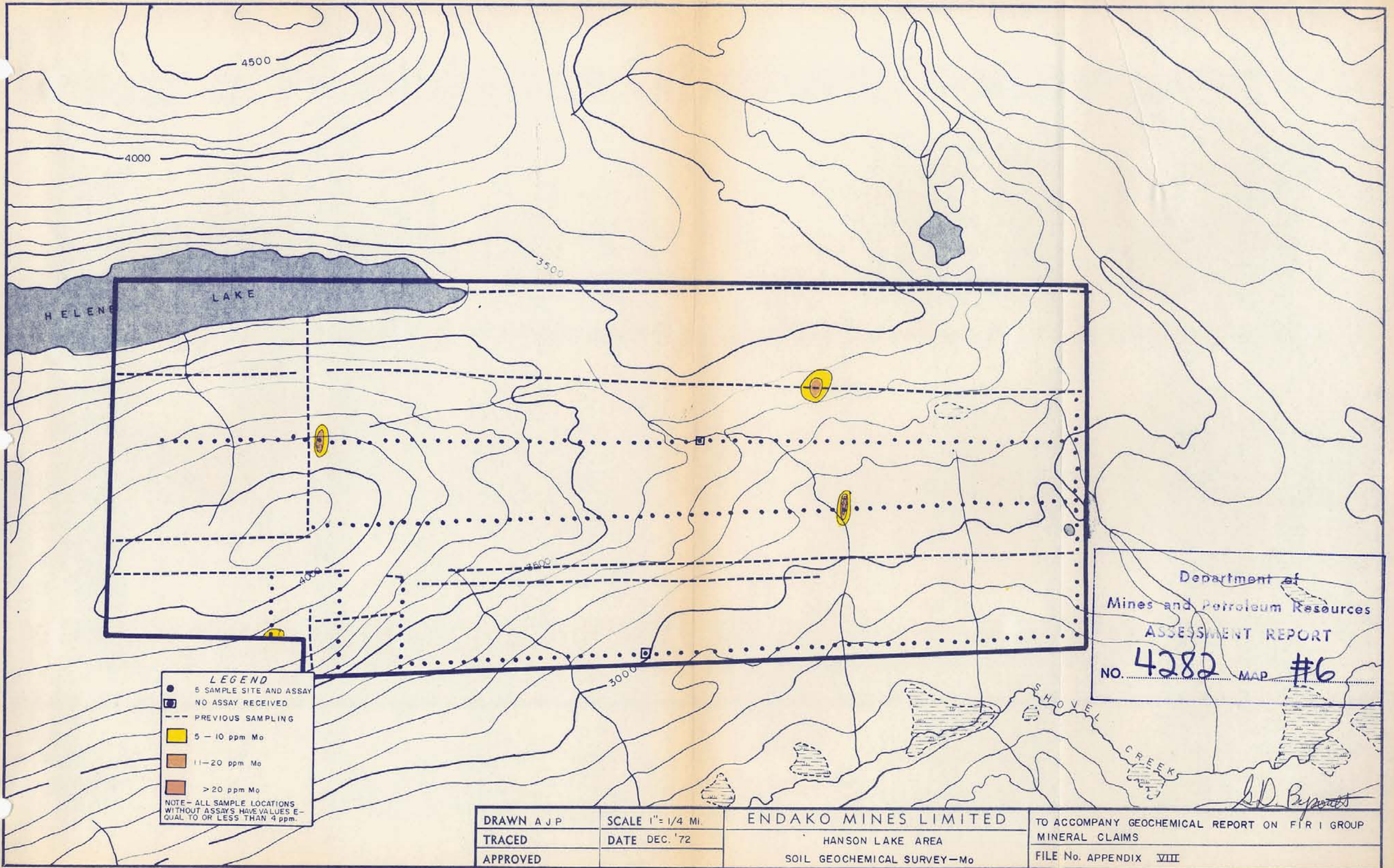
**LEGEND**

- 10 SAMPLE SITE AND ASSAY
- NO ASSAY RECEIVED
- - - PREVIOUS SAMPLING
- 80 - 150 ppm Cu
- 151 - 300 ppm Cu
- > 300 ppm Cu

Department of  
Mines and Petroleum Resources  
**ASSESSMENT REPORT**  
NO. **4282** MAP **#5**

DRAWN AJP	SCALE 1" = 1/4 Mi.	ENDAKO MINES LIMITED	TO ACCOMPANY GEOCHEMICAL REPORT ON FIR I GROUP
TRACED	DATE DEC. '72	HANSON LAKE AREA	MINERAL CLAIMS
APPROVED		SOIL GEOCHEMICAL SURVEY - Cu	FILE No. APPENDIX VII

*J.D. Bysouth*



**LEGEND**

- 5 SAMPLE SITE AND ASSAY
- NO ASSAY RECEIVED
- PREVIOUS SAMPLING
- 5 - 10 ppm Mo
- 11 - 20 ppm Mo
- > 20 ppm Mo

NOTE - ALL SAMPLE LOCATIONS WITHOUT ASSAYS HAVE VALUES EQUAL TO OR LESS THAN 4 ppm.

Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT  
NO. 4282 MAP #6

DRAWN A J P	SCALE 1" = 1/4 MI.	ENDAKO MINES LIMITED	TO ACCOMPANY GEOCHEMICAL REPORT ON FIR I GROUP MINERAL CLAIMS FILE No. APPENDIX VIII
TRACED	DATE DEC. '72	HANSON LAKE AREA	
APPROVED		SOIL GEOCHEMICAL SURVEY - Mo	



DOMINION OF CANADA:  
 PROVINCE OF BRITISH COLUMBIA.  
 To Wit:

In the Matter of

expenditures for Geochemical Survey on Fir 1 Group of Mineral Claims during the period 18 - 20 September 1972.

I, G. D. Bysouth

of Canex Placer Limited, Endako Mines Division, Endako, B. C.

in the Province of British Columbia, do solemnly declare that the following expenses were incurred by Canex Placer Limited, Endako Mines Division for conducting a soil geochemical survey over the Fir 1 Group of Mineral Claims.

<u>Personnel</u>	<u>Period Employed</u>	<u>Time and Rate</u>	<u>Cost</u>
A. J. Peters	18-20 Sept. 1972	22 hrs. @ \$4.50	\$99.00
G. D. Bysouth	19-20 Sept. 1972	19 hrs. @ 6.50	123.00
S. Wilson	18-20 Sept. 1972	23 hrs. @ 3.62	83.26
J. Cyr	19-20 Sept. 1972	18 hrs. @ 5.00	90.00
Total Personnel Cost			\$395.76
Office overhead @ 15% on wages			59.36
Transportation costs: vehicle 3 days @ \$25.00/day			75.00
Map compilations: A. J. Peters 23 hrs. @ \$4.50			103.50
Camp Operation Costs: A. J. Peters 3 days			
G. D. Bysouth 2 days			
S. Wilson 3 days			
J. Cyr 2 days			
Total 10 man-days @ \$8.00			80.00
Geochemical assay costs: 216 samples @ \$4.50/sample			972.00
<u>TOTAL GEOCHEMICAL SURVEY EXPENDITURE</u>			<u>\$1,685.62</u>

And I make this solemn declaration conscientiously believing it to be true, and knowing that it is of the same force and effect as if made under oath and by virtue of the "Canada Evidence Act."

Declared before me at the VILLAGE  
 of BURNS LAKE, in the  
 Province of British Columbia, this 2nd  
 day of MAY 1973, A.D.

G. D. Bysouth

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