

GEOCHEMICAL AND GEOPHYSICAL REPORT

RAIN GROUP OF MINERAL CLAIMS

PLACER DEVELOPMENT LIMITED

ENDAKO MINES DIVISION

OMINECA MINING DIVISION

ENDAKO, B.C.

(Latitude 54<sup>o</sup>, Longitude 125<sup>o</sup>)

Field work undertaken during period

20 July 1978 - 31 August 1978

J. W. Nilsson

17 July 1979

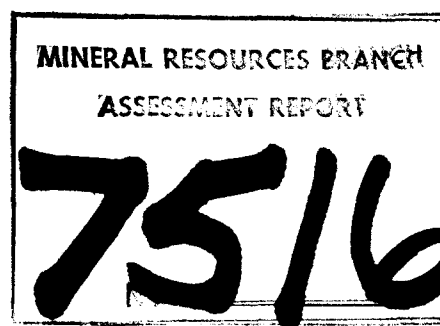


TABLE OF CONTENTS

	<u>PAGE</u>
INTRODUCTION	1
SUMMARY	1
MINERAL CLAIM GROUP	1
TOPOGRAPHY AND ACCESS	1 - 2
ECONOMIC ASSESSMENT OF PROPERTY	2
GENERAL GEOLOGY	2
SURVEY CONTROL	2
SOIL GEOCHEMICAL SURVEY	2 - 3
INTRODUCTION	2
SAMPLING	3
ASSAY METHOD	3
Molybdenum Analyses	3
Uranium Analyses	3
RESULTS	3
SCINTILLOMETER SURVEY	3 - 4
STATEMENT OF EXPENDITURES	4
Personnel Cost	4
Vehicle Costs	4
Geochemical Analyses Costs	4
Scintillometer Rental	4
Supplies	4
Map Drafting Costs	4
CONCLUSION	5

APPENDICES

I	Certification
II	Statement of Qualification
III	Mineral claim map
IV	Map showing geochemical survey results for Mo
V	Map showing geochemical survey results for U
VI	Map showing scintillometer survey readings
VII	Map showing general geology of Rain Mineral Claims

INTRODUCTION

Soil geochemical and scintillometer surveys were conducted over Rain Group of Mineral Claims during period 20 July 1978 to 31 August 1978. The work was undertaken as part of commitments for assessment work on mineral claims which are owned by Placer Development Limited, Endako Mines Division, and are located approximately 12 miles due west of Endako Village.

SUMMARY

Soil geochemical survey showed that the area is predominantly negative for molybdenum and uranium content.

Slight variations are indicated for scintillometer results, but none of the slightly higher than average response is considered as being anomalous.

MINERAL CLAIM GROUP

The Rain Group of Mineral Claims are located about 12 miles due West of Endako Village in the Omineca Mining Division. The property is geographically located in the southeast quadrant of quadrilateral, Latitude 54° and Longitude 125°.

The Rain 2 and 3 Mineral Claims comprising 27 units are included in the Rain Group.

<u>MINERAL CLAIM</u>	<u>RECORD NUMBER</u>	<u>RECORD DATE</u>
Rain 2 (12 units)	1240	18 July 1978
Rain 3 (15 units)	1241	18 July 1978

Most of the field work, as covered in this report, was conducted over Rain 3 Mineral Claim.

All mineral claims were staked by chain and compass method with the aid of aerial photographs. An appended map shows the spatial location of mineral claims.

TOPOGRAPHY AND ACCESS

Rain Group of mineral claims are centered over the divide between Sam Ross Creek drainage and Haney Lake. The southerly half of mineral claim group forms part of the west flank of Savory Ridge and is a rolling hillside. A sharp peak of volcanic rocks characterizes the topography over the northern half of Group.

The mineral claim area is located approximately 12 miles west of Endako Village along Highway 16. Several subsidiary roads turn off the Highway and serve as access to mineral claims.

#### ECONOMIC ASSESSMENT OF PROPERTY

The results of geochemical and scintillometer surveys show no molybdenum or uranium anomalies. A small molybdenite occurrence in diorite and quartz monzonite of Francois Lake Intrusions has been noted in Sam Ross Creek. The granitic rocks are largely overlain by younger and unmineralized volcanic rock units. Possible extensions of molybdenite mineralization in granitic rocks may be warranted.

#### GENERAL GEOLOGY

Four distinct rock units of Francois Lake Intrusion are overlain by a sequence of younger Ootsa Lake Group volcanic rocks. Scattered outcrops of Boer diorite, Caledonia quartz monzonite, Endako quartz monzonite and Francois granite were mapped on the lower lying northerly portion of Rain Mineral Claims. The volcanic rocks are mainly basaltic and rhyolitic flow rocks which form part of prominent Savory Ridge volcanic pile.

#### SURVEY CONTROL

Soil geochemical sampling and geophysical stations were established along north-south compass lines. Aerial photographs from a recent flight were also utilized for ground location control.

#### SOIL GEOCHEMICAL SURVEY

#### INTRODUCTION

A soil geochemical survey was conducted over Rain 3 and part of Rain 2 mineral claims. North-south sample lines were spaced about 100 to 200 meters apart, and samples were collected at 50 meter intervals.

Soil is largely composed of glacial-transported material and consists of light to medium brownish-grey clayey silt with variable content of pebbles and boulders. Brownish-red silt to sand is locally developed. Depth of overburden probably varies from 5 to 20 meters; it is considerably shallower with local bedrock exposures on steeper topography.

Dense second growth jackpine prevails over the claim group. Sparse groves of mature spruce, balsam and Douglas fir were noted on steeper side hills. Alder, willow and small poplar stands are common in swampy and poorly drained areas.

### SAMPLING

Soil samples were collected from small holes which were dug to depths of at least four to six inches below the humus. In most cases samples averaging 150 grams were obtained from B-horizon.

### ASSAY METHOD

All soil samples were assayed for molybdenum and uranium by Placer Development Limited Laboratory at Vancouver, B.C.

#### Molybdenum Analyses

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. Samples were digested in a hot solution of perchloric acid, and then prepared for analysis by atomic absorption spectrophotometry. A Techtron AA4 instrument was used for analysis of molybdenum content.

#### Uranium Analyses

One quarter gram portion of -80 mesh fraction of sample is put into 25 by 200 test tube. Five ml. of water and 5 ml. of nitric acid are added and solution is digested for 1½ hours. Solution is diluted with water to 50 ml., then 0.1 ml. is pipetted onto a platinum dish and dried on a hot plate. A ½ gm tablet containing 45.5%  $KCO_3$ , 45%  $NaCO_3$  and 9%  $NaF$  is added then heated in a furnace at 550°C for 20 minutes. Sample is cooled on a desecrator plate and then read on a Turner Model 111 Fluorometer.

### RESULTS

No significant molybdenum anomalies were indicated on the Rain 3 Mineral Claim. Several isolated and spotty higher than normal values were recorded along the northern boundary and southeast corner of claim. Three anomalous stream samples are noted on Sam Ross Creek. The values as shown on an appended map were not contoured due to rather erratic and isolated occurrence of any anomalous values.

Results of uranium analyses can be considered as being completely negative. Majority of samples were less than 0.5 ppm U. One isolated sample assayed 36 ppm U; no significance is attached to this one sample as it is surrounded by background samples.

### SCINTILLOMETER SURVEY

A ground scintillometer survey utilizing a GR 101A instrument was conducted over the Rain 3 Mineral Claim. The soil geochemical survey lines and sample locations were utilized for scintillometer survey control.

Two readings were taken at each site, one at ground level and a second at one meter height. The results at ground level are plotted on appended map. The plot shows that response is slightly higher at the headwater of Sam Ross Creek where influence from older igneous rocks is evident. Readings from areas that are underlain by volcanic rocks is essentially flat and very low.

STATEMENT OF EXPENDITURES

The following expenses were incurred by Placer Development Limited, Endako Mines Division for conducting geochemical and scintillometer surveys over Rain Mineral Claims. To facilitate field work, both surveys were carried on simultaneously; as a result the personnel costs for geochemical survey and scintillometer survey are lumped together.

Personnel Cost

<u>PERSONNEL</u>	<u>PERIOD EMPLOYED</u>	<u>RATE</u>	<u>COST</u>	
A.J. Peters	20-27 July 1978	34 hrs @ \$8.95	\$304.30	
R.A. Boyce	20 & 25 July 1978	18 hrs @ 8.49	152.82	
A.V. Chance	20 July - 31 Aug. 1978	29 hrs @ 6.33	183.57	
E. Losch	20-28 July 1978	31 hrs @ 6.63	205.53	
R.W. Stewart	25 July - 31 Aug. 1978	35 hrs @ 6.93	242.55	
R. Woelke	25-28 July 1978	31 hrs @ 5.12	<u>158.72</u>	\$1,247.49

Office overhead @ 20% on personnel wages 249.50

Vehicle Costs

Seven days @ \$25.00/day 175.00

Geochemical Analyses Costs

361 samples @ \$5.50/sample for Mo and U determinations 1,985.50

Scintillometer Rental

Two scintillometers for seven days @ \$7.00/ day each 98.00

Supplies

Topo-fill, flagging, sample bags 140.00

Map Drafting Costs


A. J. Peters - 12 hrs @ \$8.95/hr 107.40

TOTAL GEOCHEMICAL AND SCINTILLOMETER SURVEY COSTS: \$4,002.89

CONCLUSION

Geochemical and scintillometer surveys indicated no significant anomalous areas on Rain Group of Mineral Claims.

Submitted by,



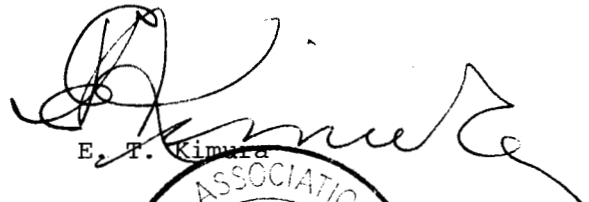

J. W. Nilsson  
Exploration Geologist  
Placer Development Limited  
Endako Mines Division  
Endako, B.C.

APPENDIX I

CERTIFICATION

I, E. T. KIMURA, of Placer Development Limited, Endako Mines Division, Endako, B.C., do hereby certify that:

1. I am a geologist.
2. I have carefully reviewed the data and examined the report by J. W. Nilsson on exploration work that was undertaken during 1978 on Rain Group of Mineral Claims. The mineral claims are owned by Placer Development Limited, Endako Mines Division and are located in the Omineca Mining Division near Endako, B.C. (Latitude 54°, Longitude 125°). All costs for exploration work were borne by the above firm.
3. To the best of my knowledge, the interpretation of data, conclusions and expenditures which are claimed for the performance of work are valid.

  
E. T. Kimura  


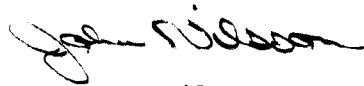


APPENDIX II

STATEMENT OF QUALIFICATION

I, J. W. NILSSON, of Placer Development Limited, Endako Mines Division, Endako, B.C., do hereby certify that:

1. I am a geologist.
2. I am a graduate of Queen's University at Kingston, Ontario, with an honours B.Sc. degree in geology in 1977.
3. From 1977 until the present, I have been engaged in mining geology and in exploration geology in British Columbia.
4. I personally participated in the field work and have reviewed and assessed the data resulting from this work.



J. W. Nilsson



DRAWN A J P	SCALE	ENDAKO MINES LIMITED
TRACED	DATE	
APPROVED		RAIN CLAIMS

John Nelson July 17/79  
 FILE No. Appendix III

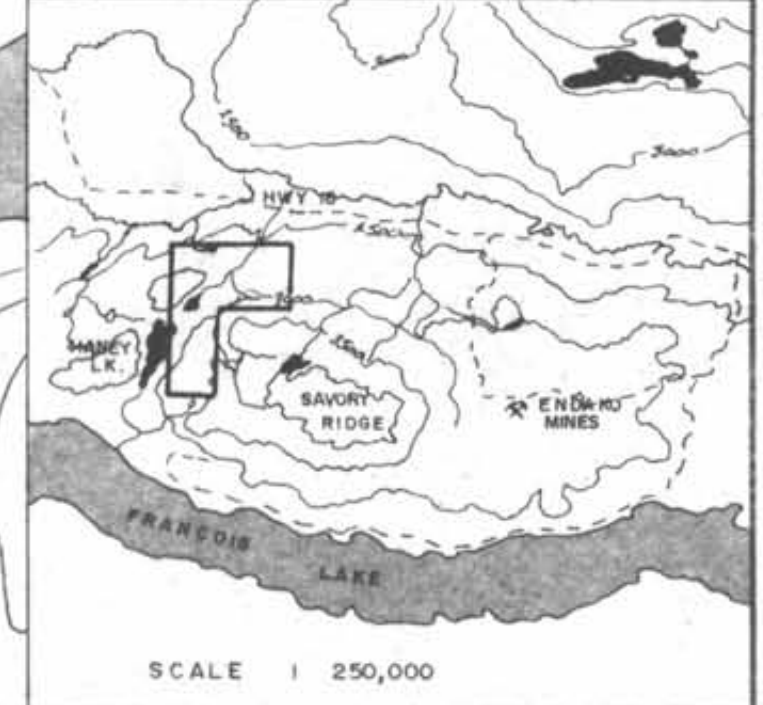
**7516**



**SYMBOLS**

- x - soil sample ppm Mo
- - stream sample ppm Mo
- N.B. All locations with no values equal 4 ppm Mo or less

SCALE 1:12,000



DRAWN AJP	SCALE	ENDAKO MINES LIMITED
TRACED	DATE July 17/79	
APPROVED [Signature]		RAIN CLAIMS

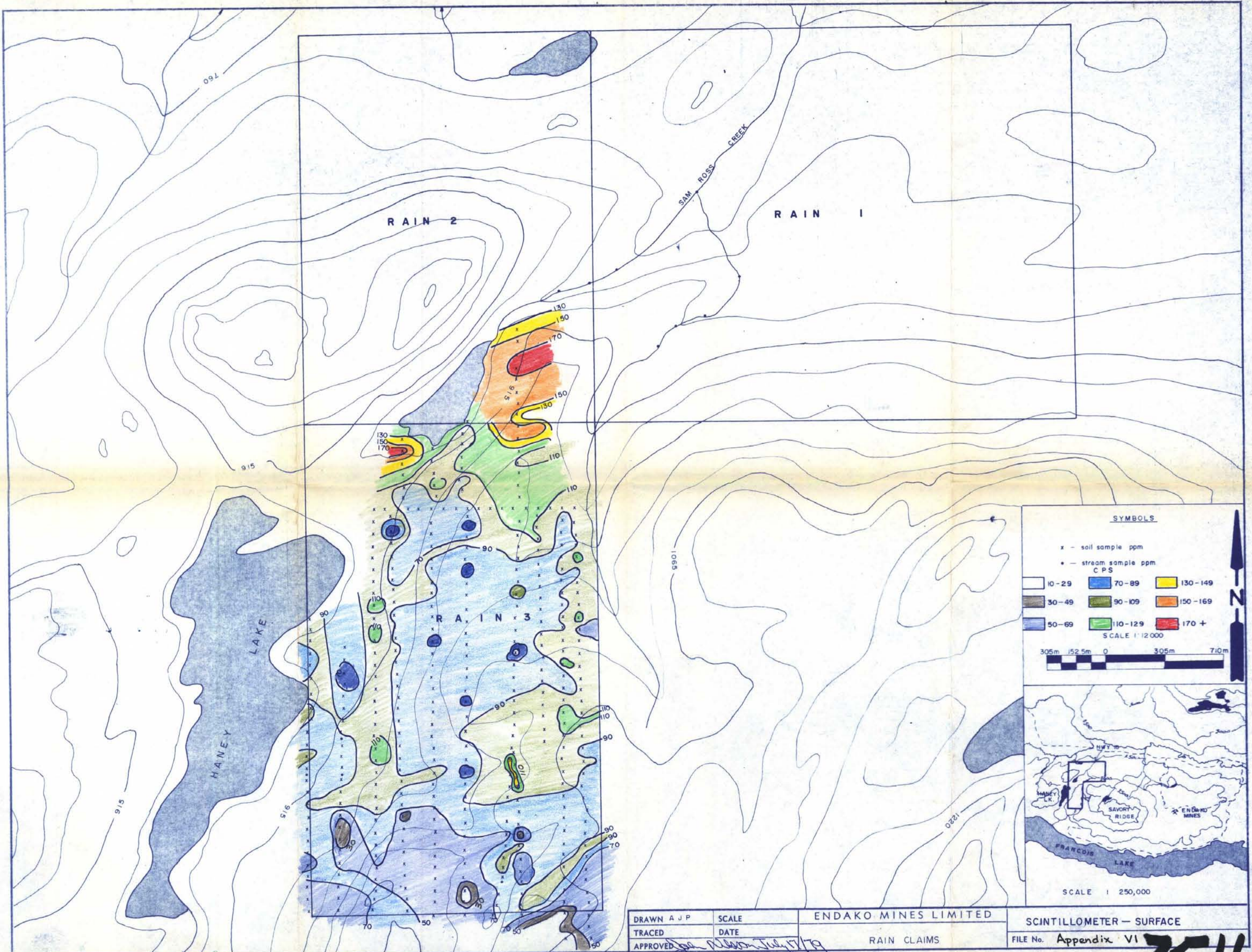
FILE No. Appendix IV

**7516**



DRAWN A.J.P	SCALE	ENDAKO MINES LIMITED
TRACED	DATE July 1979	
APPROVED <i>[Signature]</i>		

**3516**



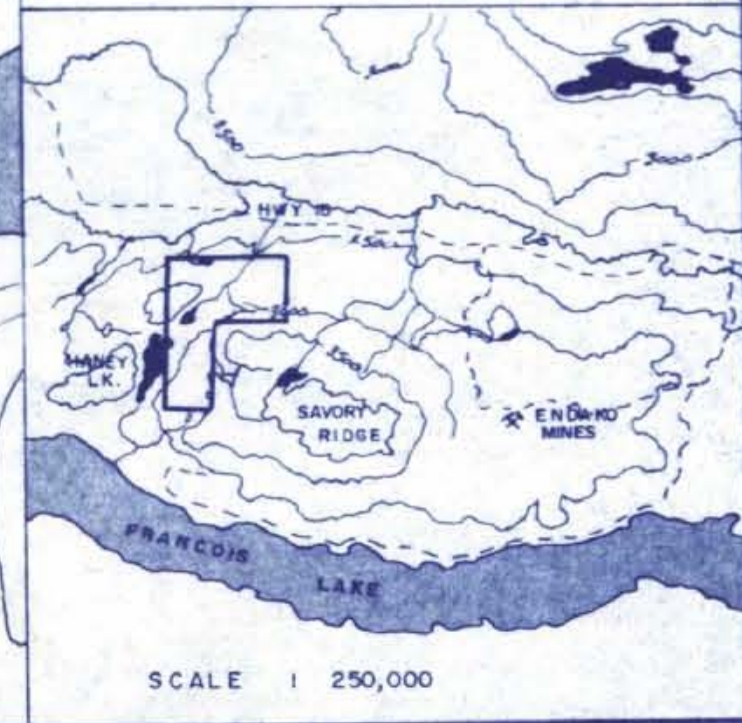
**SYMBOLS**

- x - soil sample ppm
- - stream sample ppm

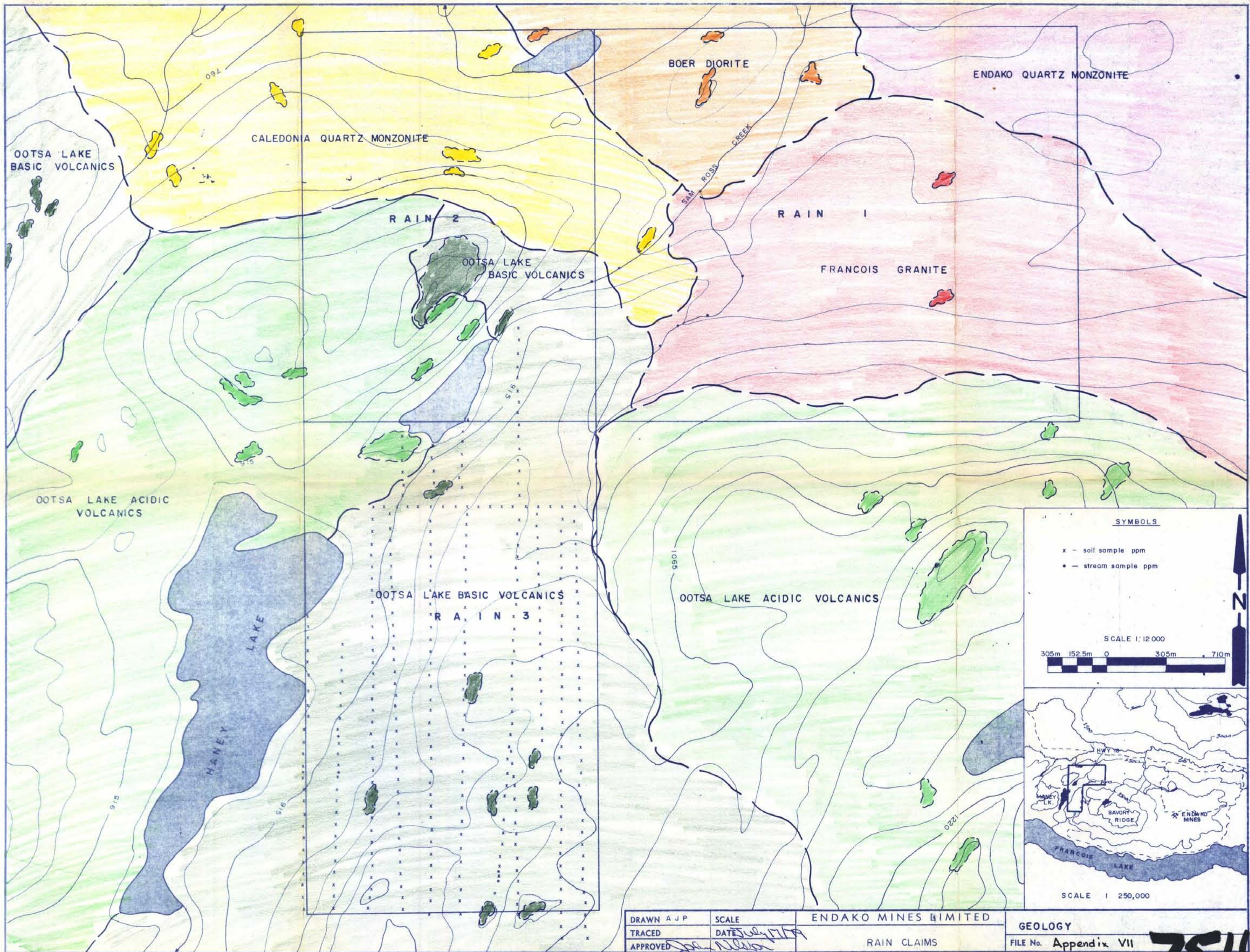
10-29	70-89	130-149
30-49	90-109	150-169
50-69	110-129	170 +

SCALE 1:12,000

305m 152.5m 0 305m 710m



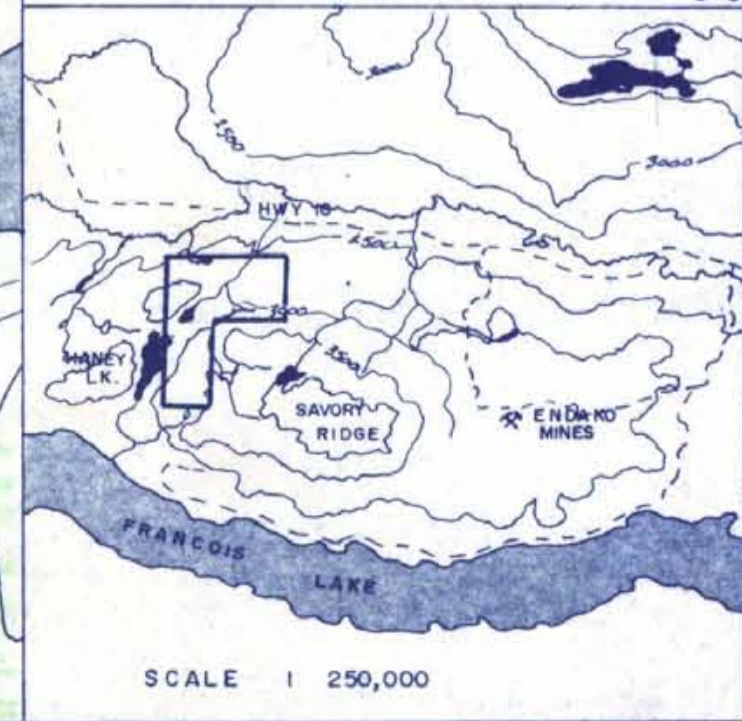
DRAWN A J P	SCALE	ENDAKO MINES LIMITED	SCINTILLOMETER - SURFACE
TRACED	DATE	RAIN CLAIMS	FILE No. Appendix VI
APPROVED <i>[Signature]</i>	July 17/79		<b>7516</b>



**SYMBOLS**

- x - soil sample ppm
- - stream sample ppm

SCALE 1:12000



DRAWN AJP	SCALE	ENDAKO MINES LIMITED	GEOLOGY FILE No. Appendix VII
TRACED	DATE July 17/79	RAIN CLAIMS	
APPROVED <i>[Signature]</i>			

**7516**