

2989

GEOLOGICAL, GEOPHYSICAL, GEOCHEMICAL
AND DRILLING REPORT ON THE 82M/5 EBL
GROUP, BARRIERE, BRITISH COLUMBIA.

FORM NO. L42-811-P REPORT PAPER GRAND & TOY LIMITED

Toronto, Ontario.
October 1st 1970

I. S. Thompson, P. Eng.
Derry, Michener & Booth

DERRY, MICHENER & BOOTH

GEOLOGICAL, GEOPHYSICAL, GEOCHEMICAL
AND DRILLING REPORT ON THE 82M/5 EBL
GROUP, BARRIERE, BRITISH COLUMBIA.

GENERAL

This report outlines the work done by Derry, Michener & Booth, Consulting Geologists, from May to September 1970 on behalf of Rayrock Mines Limited of Toronto in regard to their option on the East Barriere Lake (EBL) property owned by Royal Canadian Ventures Limited. This report is designed for both companies and also for assessment filing on the EBL Group.

Previous work on the property by Royal Canadian Ventures Limited was outlined in a report dated December 1, 1969 by N.B. Vollo, P. Eng., of Royal Canadian Ventures Limited in Kamloops and submitted for assessment work. Reference should be made to this report for continuity.

LOCATION AND ACCESS

The EBL claim group lies between East and North Barriere Lakes approximately 25 miles northeast of the town of Barriere on the North Thompson River. A good forestry road from East Barriere Lake provides access directly to the property although the latter six miles are poor grade logging roads, suitable only for four-wheel drive vehicles.

TOPOGRAPHY

The group lies on a plateau of low relief at about 3500 to 4000 feet above sea level. The area between 104N and 8N is relatively level ground however the plateau drops off steeply both north and south from this to the North and East Barriere Lakes respectively.

This area is adjacent to the interior rain forest and has thus moderately high precipitation; it is covered by a variety of mature evergreen growth. The central portion of the area was burned over about 25 years ago and is now covered with an extremely dense second growth.

CLAIMS

The EBL Group comprises 121 claims, as follows:

REM 1-12	Optioned from James Gourlay
REM 13-14	Optioned from George Moore
REM 15-18	Optioned from Tom Moore
BRAD 1-6	Optioned from Tom Moore
EBL 1-92,55A,56A	Owned by Royal Canadian Ventures Limited
*SNARK 1-3	Claim fractions staked by H. Dowhaluk and recorded August 31, 1970 as agent for Royal Canadian Ventures Limited

* No assessment work can be applied on these claims but they are listed here for completion.

All claims are located in the Kamloops Mining Division. The claims were grouped last year by Royal Canadian Ventures in the following manner:

<u>GROUP</u>	<u>CLAIMS</u>	<u>ANNIVERSARY DATE</u>
1	EBL 21-30,55A,56A, 57-60	September 5,1971
2	REM 1-18 BRAD 1-6 EBL 9-12,33-36,61-68	November 14, 1970
3	EBL 31, 32, 37-56	August 1, 1971
4	EBL 1-8, 13-20, 69-92	June 25, 1971

HISTORY OF EXPLORATION

The area surrounding the Barriere intrusive stock has been prospected sporadically since the turn of the century but with only minor success. James Gourlay and George and Tom Moore staked the present EBL Group as a result of float northward from East Barriere Lake. The property was optioned by them through Barriere Lake Mines to Scurry Rainbow Oils of Calgary who in 1966 cut 50 miles of grid and carried out magnetic and electromagnetic surveys over a portion of it. The claims were lapsed and restaked by Gourlay and Moore in 1968 who subsequently drilled five short holes and optioned the group to Royal Canadian Ventures Limited.

In 1969 Royal Canadian Ventures Limited cut approximately 6 miles of new grid and took 1500 soil samples. In addition to this they drilled 2200 feet of Axt core in five holes.

In late 1969 the property was optioned to Rayrock Mines Limited of Toronto. This option has subsequently lapsed and the property is thus still held by Royal Canadian Ventures Limited.

REGIONAL GEOLOGY

The group is located in late Paleozoic (Cache Creek) metavolcanics, metasediments and associated gneisses lying immediately southwest of the Barriere intrusive stock which is estimated by R.B. Campbell (Map 1963-48, Adams Lake) to be of Jurassic or Cretaceous Age.

FIELD WORK

A program of line cutting, soil sampling, induced polarization surveys, geological mapping and percussion drilling was undertaken during the period May - September 1970. Line cutting, chaining and picketing on 800' line intervals was undertaken by Amex Exploration Services in Kamloops.

18.9 miles of new lines were cut and 13.5 miles of old lines were cleaned and repicketed and 28 miles of lines were power-sawn to facilitate access through heavy deadfall. The location of grid lines and claim boundaries is shown on Map No. 1.

GEOPHYSICAL SURVEYS

A program of Induced Polarization surveys was undertaken by Seigel Associates Limited of Vancouver during the period May 28th - June 20th 1970. Their report by Jon G. Baird, P. Eng., was submitted on August 13th 1970 and thus will only be summarized briefly for continuity in our report. Using a Seigel Mk. VI Time-Domain Induced Polarization Unit a total of 26 line miles was surveyed. A three electrode array with electrode spacings of 200 and 400 feet and station intervals of 200 feet was employed for reconnaissance purposes. In certain areas of high chargeability observations were taken with electrode spacings of 100 feet and 600 feet. The survey was undertaken on lines 800 feet apart extending from line 16S (near East Barriere Lake) northwards to line 144N. (close to Fennel Creek).

The survey has shown quite high chargeability responses which are believed to be caused by abundant fine pyrite, pyrhotite, graphite, chlorite and some chalcopyrite in the Cache Creek metasediments and metavolcanics. The background response is normally in the range of 10 to 20 milliseconds as observed in the northern and eastern portions of the group. Over the remainder of the area the chargeability response exceeds 20 milliseconds within this.

The resistivity values range from the low hundreds up to 2,000 ohm-metres and it is significant that the high resistivities generally coincide with the low chargeability responses in the areas to the north and east and (to the extent the survey was undertaken) to the extreme west. The converse that high chargeabilities correspond with low resistivities is equally true. This pattern is not typical of porphyry-type copper mineralization.

The geophysical interpretation shown on Plate 2 of Seigel's report is the most realistic presentation of the geophysics and the geology. The area exceeding 20 milliseconds chargeability closely approximates the area of values of less than 500 ohm-metres resistivity and from the geological mapping (See later) this corresponds fairly closely to the area of Cache Creek metasediments in which the mineralization occurs. The areas of high resistivity correspond to acid gneisses and feldspar porphyry dikes.

GEOLOGY OF THE PROPERTY

Detailed geological mapping was carried out by Mr. Harry Dowhaluk, a geologist on the staff of Derry, Michener & Booth, during June and July 1970. Outcrop is sparse on the property but bedrock rubble is reasonably abundant and is found along the numerous cat roads, trenches, creeks and areas of thin overburden throughout the property. The geology was initially mapped on each of the 800' crosslines, however further detail on 400 foot lines was required to co-ordinate the geochemistry and geophysics with the geology. The geological map has been compiled on 1" = 400 Scale (Map No. 2) from individual geological observations and the geophysical interpretation provided by Seigel Associates. This latter interpretation is felt to be quite valid in view of our knowledge of the property and also from the subsequent drilling.

The western part of the property is underlain by Cache Creek argillaceous metasediments and metavolcanics which comprise green to white argillite, green chlorite schists and green-gray, blue-gray and white phyllite and schists. The argillaceous metasediments grade into gneisses towards the east but the Barriere Lake intrusive is not found on the property. The Metamorphic changes from west to east may be generalized as follows: argillite -> schistose argillite -> chlorite schist -> chlorite sericite schist -> quartz sericite schist -> gray schist & gneiss -> biotite gneiss -> granodiorite and granite (not observed on the property.)

Skarn zones are found at the contact between chlorite/sericite schists and gray gneisses throughout the length of the property. The skarn is a chloritic rock composed of chlorite, amphibole, carbonate, epidote, garnet, magnetite and is characterized by disseminated or narrow, massive seams of pyrite/pyrrhotite with subordinate chalcopyrite. The previous Scurry-Rainbow drill program was directed to these skarns with little encouragement.

The metasediments are intruded by NNW trending acid dikes. One larger mass of quartz diorite outcrops along the baseline from about 44N to 70N. Hydrothermal alteration is associated with a feldspar porphyry dike-swarm emanating from the quartz diorite.

Meta-gabbro was found in one exposure along the west end of line 0. Minor fine grained basaltic dikes of possible Tertiary age were also found on the property.

STRUCTURE

The average schistosity of the schists, phyllites and gneisses strikes northwest and dips from 25° to 45° to the southwest. This is corroborated by the geophysical response. From the drilling (See later) we have found that

the metasediments dip flatly west and plunge south at low angles. In a larger sense the attitude is near horizontal over the central portion of the property and dips off in both directions towards East and North Barriere Lakes. In detail the structure is quite complex and it is probably characterized by a large number of small overturned isoclinal folds, however due to the paucity of outcrop, only generalizations can be made. It is believed that the intrusives cutting the metasediments are probably sheet-like masses. It is also possible that the area of metasediments, which appears to be partially closed to the west, may be a "roof pendant".

GEOCHEMISTRY

A total of 441 soil samples were collected along 26 miles of newly cut grid lines. This was intended as a fill-in sampling program beyond the program undertaken by R.C.V. last year. The object was to trace additional mineralization to the west of the area previously drilled and also to detect any mineralization eastwards toward the supposed granite contact.

Samples were collected at 200' intervals on lines 800' apart. In most cases the B horizon, at about 12" depth, was sampled. Samples were collected in Kraft paper bags and shipped to Technical Service Laboratories in Vancouver for total copper and total molybdenum analysis. (digestion in Hot Agua Regia followed by atomic absorption analysis which was the same technique used in 1969). Line 80N was resampled in the area of the 1969 drilling for correlation purposes. Copper values ranged from 3 ppm to 1750 ppm. Molybdenum values ranged from less than 0.5 ppm to 42 ppm.

Copper

The distribution of copper values in soil reflects the north/south ice movement and recent drainage which parallels this. This is shown on the 1" - 400' scale geochemical plan (Map No. 3). The area of values exceeding 300 ppm Cu. from the 1969 sampling program has also been plotted on this map for continuity. The general order of magnitude of copper values in the zone of metasediments (lying mainly to the west of the baseline) exceeds 50 ppm and is about three times that of the barren gneisses to the east and north. Values in excess of 300 ppm are considered significant.

The data shows that the main part of the anomaly terminates in the up-ice direction at about line 84N. The outline of less anomalous values to the north of this coincides with the probable sub-crop position of the metasediments. The stronger portion of the anomaly has been confirmed by low-grade copper mineralization cut in the 1969 drilling on 80N. Up-ice and lateral extensions have been tested adequately by holes 70-5, 6, 8 and 9 (See later) which encountered varying amounts of low-grade copper mineralization.

In addition to this main anomaly there are other smaller anomalies i.e. line 92N - 2800W. This is a spot high and has been tested on both sides by hole 70-7 and 70-4 (See later) which returned barren values. Another more diffuse anomaly extends from line 48N to 64N about 2200' west of the baseline. It should be noted that this anomaly lies a short distance west of the western limit of the metasediments and in addition is crossed by several streams and thus probably represents a seepage area.

There are also a number of elongated, 300 ppm plus, anomalies extending from 80N down to 24N which were sampled in 1969. These lie within the zone of metasediments but have not been drilled. It is probable that they reflect some near surface mineralization but as before they follow the main stream

direction throughout the property and are thus possibly related to seepage effects as well as down-ice movement from 80N.

Several elongated 200 to 300 ppm copper anomalies are found along the southeast contact of the metasediments and gneisses. There may be some mineralization associated with this contact but it is also apparent that the contact is represented by a major stream flowing southward towards East Barriere Lake and the anomalies are thus related in part to seepage effects.

Molybdenum

The molybdenum values in the soil are generally of little aid in the overall interpretation. They are shown on Map No. 4. Most values are in the range of 0.5-2 ppm. They do not appear to reflect the geology to the same degree as the copper. Rather than contouring values rigorously we have merely shown the trends of the molybdenum values which again reflect the ice movement and recent drainage. The highest value of 42 ppm Mo. occurred on line 40N at 2600E, corresponding to the last mentioned copper anomaly, in a seepage area along the eastern contact of the metasediments and gneisses.

An area of values in excess of 2.5 ppm Mo. occurs around lines 108N and 112N of the baseline. This lies just north of the anomalous copper values and within the area of metasediments but has not been tested by drilling. It is considered to be of residual interest but again lies within a stream system and may represent seepage effects.

DRILLING

A program of 12 percussion holes totalling 2915 feet was carried out during the period August 11 - August 18th by H. N. Horning Percussion Drilling Ltd., Kamloops. A 4" hole was drilled using Atlas Copco Equipment and chips

or sludge were collected continuously. In the case of Dry drilling the sample was riffled until one tenth of the original volume remained and this was then split for assaying and field logging respectively. For Wet drilling the sludge cutter was used so that the final sample represented 12.5% of the original volume; this was split with 6.25% going for assay and the balance retained for field logging.

The average hole depth was 243 feet and six holes were drilled entirely dry; in the others, water was encountered at depths of 100-200 feet. The overburden (mainly sandy soil) averaged 20' in thickness. Duplicate samples were logged by colour of powder, panning of the coarse fraction for the geology and the fine fraction for the sulphide tail.

The holes were drilled along 4 section lines as follows:

	<u>HOLE NUMBER</u>	<u>DEPARTURE</u>	<u>DEPTH FT.</u>
Line 96N	P-70-7	29W	230
	P-70-8	18W	250
	P-70-9	6W	250
	P-70-10	6E	250
Line 88N	P-70-4	26W	200
	P-70-5	12+22W	295
	P-70-6	6E	220
Line 80N	P-70-1	22W	250
	P-70-2	8E	250
	P-70-3	20E	200
Line 72N	P-70-11	17W	180
	P-70-12	2W	340

The location of holes is shown on Maps 1 and 2 and also on a 1" - 100' scale drill-section (Map No. 5). For completion, the 5 holes drilled previously by Royal Canadian Ventures are also shown. The geological units have been correlated as far as possible with the previous drilling.

The geological succession cut by the drilling has an average thickness of 620 feet on the property and comprises a series of green/gray chloritic schists intercalated with white to gray sericite schists and cut by thin feldspar porphyry dikes as shown below:

<u>UNIT</u>		<u>THICKNESS</u>
1	Green to green-gray chlorite schist. Moderate pyrite, pyrhotite, chalcopyrite (variably graphitic)	50' (top not seen)
2	White to white/gray sericite schist. Low sulphides (variably graphitic)	120
3	Green or green/gray chlorite schist. Moderate sulphides (less graphitic than Unit 1)-- best mineralized unit 86-96N	70
4	White/gray sericite schist - to green/gray chloritic schist. Moderate - strong mineralization.	80
5	Green/gray chlorite schist - argillite. Zone drilled by R.C.V. - Variously mineralized	300 (bottom not seen)
		<hr/> 620 ft.

It should be stressed that this subdivision is only tentative due to the difficulty in correlation between percussion and core drill data. The beds appear to dip flatly west and plunge at low angles (5-10°) to the south. In addition, there are distinct facies changes; to the west the chloritic schist becomes more sericitic and to the east and south grey gneisses are developed.

The above comments are in contrast to the field observations which indicate dips of 25° S.W. which are believed however to probably represent small scale folding.

MINERALIZATION

With the exception of the skarn zones previously discussed, pyrite and pyrrhotite are ubiquitous throughout the metasediments and naturally account for the high chargeability response. The sulphide mineralization is concentrated in the chloritic schists and argillites rather than the sericite schists and gneisses. Varying amounts of chalcopyrite are found in the chloritic rocks but generally copper values are low to moderate. No mineralization or alteration have been noted in the gneisses to the north and east. Hydrothermal alteration is confined to the feldspar porphyry dikes.

The mineralization is believed to be stratabound but is lensy in both horizontal and vertical planes. The mineralization is preferentially found in the lower units proceeding to the south (96N to 76N) but is present in varying degrees throughout the succession. The most consistently mineralized beds are units 3 & 5, the former to the north and the later to the south.

The summarized assay results are as follows:

<u>HOLE</u>	<u>FOOTAGE</u>	<u>LENGTH (FT.)</u>	<u>GRADE % CU.</u>	<u>REMARKS</u>
P-70-1	-	-	Trace	
P-70-2	70-120 140-230	50 90	0.190 0.180	Lower Zone
P-70-3	-	-	Trace	
P-70-4	-	-	Trace	
P-70-5	130-210 (incl. 180-200) 210-295 (end)	80 (20) 90	0.275 (0.435) 0.103	

<u>HOLE</u>	<u>FOOTAGE</u>	<u>LENGTH (FT.)</u>	<u>GRADE % CU.</u>	<u>REMARKS</u>
P-70-6	8(surface) - 120 (incl. 70-110) 180-220 (end)	112 (40) 40	0.282 (0.410) 0.180	Middle Zone
P-70-7	-	-	Trace	
P-70-8	180-220 180-250(end)	20 70	0.360 0.177	Middle Zone
P-70-9	8 (surface)-100 100-160 160-220 (incl. 160-180) 8-220	92 60 60 (20) 212	0.375 0.116 0.586 (0.960) 0.352	Upper Zone Middle Zone
P-70-10	30-50	20	0.195	Upper Zone
P-70-11	-	-	Trace	
P-70-12	-	-	Trace to Low	

Mineralization may be subdivided into three zones although it is fairly widespread in Hole 9 which returned 0.35% Cu. over 212 ft. Overall grades are similar to R.C.V.'s drilling results although the greenstone sections drilled this year lie stratigraphically above the former. Hole EBL 69-1 cut 0.30% Cu. over 121 feet, Hole EBL-2 cut 0.30% over 80 feet and Hole EBL-4 cut 0.44% Cu. over 62 feet. The best mineralization from the 1970 Rayrock drilling lies in a definable chloritic schist (Unit 3) which was cut in Hole 9 (0.586% Cu./60 ft.), Hole 8 (0.136%/20ft.) and Hole 6 (0.41%/40 ft.).

The western holes 1,3, 4, 7, 11) which cut white/white-gray sericite schist are essentially barren with values in the range of 0.02-0.04% Cu. In panning, the visible tail was very lean. Hole 12, drilled southeast of the 1969 RCV holes but on a resistivity high, cut low copper values near the bottom of the hole.

Holes 1 - 3 were completely assayed for molybdenum but returned only low values in the range 0.002 - 0.004% Mo. Thirty-metal spectrographic analysis of composite samples from the better-mineralized sections of Holes 6 and 9 showed no values of interest; Au, Ag & Mo values for these composites were very low.

CONCLUSION

The EBL property is underlain by Upper Palaeozoic metasediments/metavolcanics and associated gneisses adjacent to the Barriere batholith of probable Jurassic Age.

A program of geology, geochemistry and geophysics has outlined an area underlain by metasediments which generally have a much higher sulphide content than the gneisses. Drilling has tested the probable source area of the main geochemical copper anomaly and has also tested a representative portion of the geophysical anomaly.

Pyrite, pyrrhotite, graphite and chalcopyrite are common throughout the metasediments/metavolcanics sequence.

Copper mineralization is generally low to moderate in grade, with the most significant values cut in Hole P-70-9, which assayed 0.35% Cu. over 212 feet. This grade is comparable to that outlined by Royal Canadian Ventures in their 1969 drilling. Molybdenum values are too low to be of interest.

The beds and mineralization dip west and plunge south at low angles. The chances for discovering additional mineralization appear to be limited to the east and west but there is a possibility that more extensive mineralization could be found to the north of Line 96N; mineralization may also be

present at greater depths to the south of Line 72N.

Respectfully submitted,



I. S. Thompson, P. Eng.

Toronto, Ontario.
October 1st 1970.

CERTIFICATE OF QUALIFICATION

I, Ian Stuart Thompson, resident at 7 Bowless Court, Islington, Ontario, do hereby certify that:

- 1) I am a consulting geologist and engineer associated with the firm Derry, Michener and Booth.
- 2) I am a graduate of the University of Toronto in Honours Geological Sciences with the degree of B.A. in 1959 and have been practicing my profession since graduation.
- 3) I am a registered Professional Engineer in the Province of Ontario.
- 4) I personally supervised the programme of geological mapping, geochemical sampling, induced polarization surveys and percussion drilling from May to September 1970.
- 5) I have not received, nor do I expect to receive any interest directly or indirectly in Rayrock Mines Ltd. or Royal Canadian Ventures Ltd.

Toronto, Ontario.
October 1st 1970.



I.S. Thompson, P. Eng.

ASSESSMENT DATA AND AFFADAVIT ON EXPENDITURES
82M/5 EBL CLAIM GROUP
BARRIERE, BRITISH COLUMBIA

PERSONELL

I. S. Thompson, P. Eng.

Supervision of line cutting, geological mapping,
geochemical and geophysical surveys and drilling.
- May, June, July, August and September 1970

18 days @ \$75.00 \$ 1,350.00

Interpretation and Report

8 days @\$75.00 600.00

H. Dowhaluk, Geologist.

- May, June, July, and August 1970

Geological Mapping - 50 days @ \$75.00 3,750.00

Percussion drill logging - 13 days @ \$75.00 975.00

Soil Sampling - 5 days @ \$45.00 225.00

G. Bloomfield, Assistant.

- July 1970

Soil sampling, chaining - 15 days @ \$30.00 450.00

LINE CUTTING - Amex Exploration Services Ltd.

- May 1970 per invoice 4,891.50

CAMP EXPENSES

- May, June, July and August 1970
including truck transportation on property 1,580.01

GEOCHEMICAL ANALYSIS - TSL Laboratories, Vancouver 1,304.83

ASSAYING - Warnoch Hersey Laboratories, Vancouver 992.25

ROAD BUILDING AND DRILL SITE PREPARATION

Louis, Bloomfield, Barriere - 216 hrs. @ \$15.00 3,240.00

DRAFTING

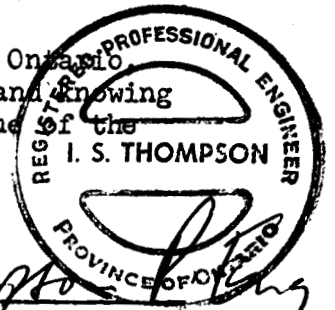
Maps, Air Photos, Prints, etc. \$ 731.42

COMMUNICATIONS 384.41

TOTAL EXPENSES \$20,474.42

3242
7234

I, Ian S. Thompson, of the City of Toronto in the Province of Ontario make the above declaration, conscientiously believing it to be true and knowing it is of the same force and effect as if made under oath and by virtue of the Canada Evidence Act.



Ian S. Thompson

Declared before me, at the City of Toronto, in the Province of Ontario, this 26th day of OCTOBER 1970, A.D.

[Signature]

A Notary Public for Ontario.

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MAPS IN POCKET

- A1* MAP 1 - PROPERTY MAP 1" = 400'
- A2* MAP 2 - GENERAL GEOLOGY 1" = 400'
- A3* MAP 3 - SOIL GEOCHEMISTRY - CU. VALUES CONTOURED 1" = 400'
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- A6* PLATE 2 - GRID AND GEOPHYSICAL INTERPRETATIONS (SEIGEL ASSOCIATES LTD.)

DRILL LOGS (SEPARATE FOLDER)

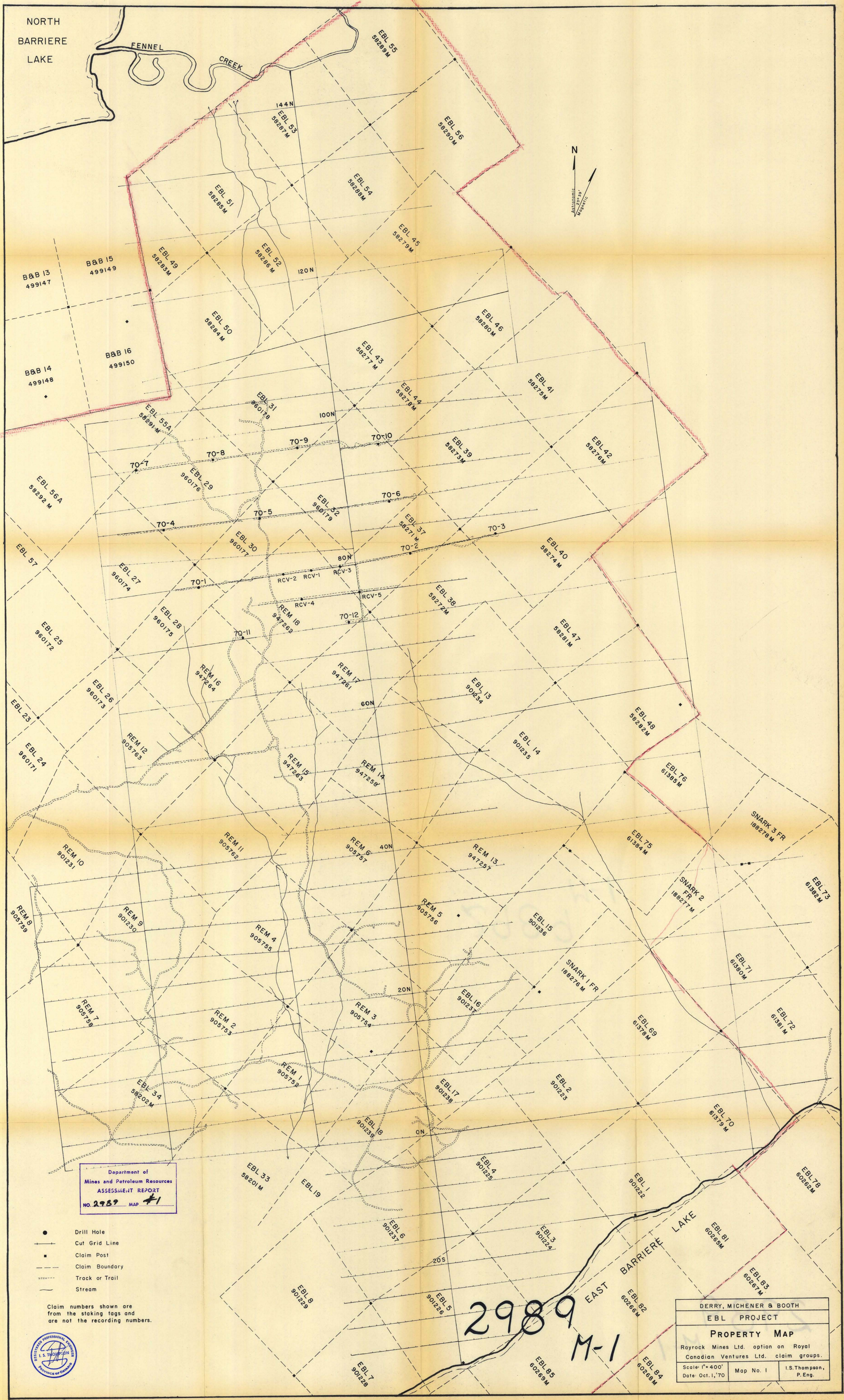
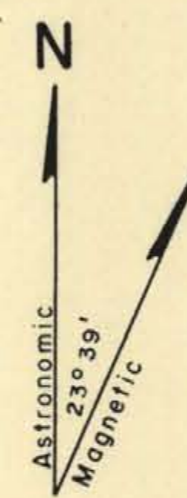
P-70-1 to P-70-12 - 2 copies

EBL 69-1 to EBL 69-5 - 1 copy

REM 68-1 to REM 68-5 - 1 copy

NORTH
BARRIERE
LAKE

FENNEL
CREEK



Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 2989 MAP #1

- Drill Hole
- Cut Grid Line
- Claim Post
- - - Claim Boundary
- Track or Trail
- ~ Stream

Claim numbers shown are from the staking tags and are not the recording numbers.



2989 M-1

DERRY, MICHER & BOOTH		
EBL PROJECT		
PROPERTY MAP		
Rayrock Mines Ltd. option on Royal Canadian Ventures Ltd. claim groups.		
Scale: 1"=400'	Map No. 1	I.S. Thompson, P. Eng.
Date: Oct. 1, '70		



- LEGEND**
- TERTIARY ?**
 6 BASALT DIKES
- JURASSIC or CRETACEOUS ?**
 5 GRANITIC INTRUSIVES
 5a Biotite quartzdiorite
 5b Biotite diorite
- 4 METAGABBRO 7 Lamprophyre
- ONEISSIS**
 3a Gray chlorite - biotite - feldspar gneiss
 3b Paraphyritic gray gneiss (phenoocrysts well developed)
 3c Quartz - eye gneiss
 3d Gray chlorite - feldspar gneiss
 3e Talc - chlorite - biotite feldspar gneiss
 3f Biotite - feldspar gneiss
 3g Feldspathic gneiss
 3h Para - amphibolite
 3i Hornblende - biotite gneiss
 3j Lime silicate rock and gneiss
- SKARN ROCKS**
 Chlorite - amphibole with or without silicification, epidote, garnet, magnetite, pyrite and/or pyrrhotite (often massive), lesser amounts of chalcocopyrite, sphalerite, galena.
 Schistose or dense - silicified, or sugary.
- PERMIAN or EARLIER**
 1 SEDIMENTS
 1a Argillite, schistose to massive
 1b Phyllite, bluish gray or greenish gray
 1c Phyllite, light gray, whitish, buff, chlorite - sericite schist
 1d Graphitic phyllite, graphite schist
 1e Chlorite schist, green, scaly surface
 1f Chlorite - biotite schist (grading into gray gneiss)
 1g Gray schist, silicified
 1h Limestone, massive type, fine grained, buff color.
 Brown leathery skin on weathered surface, dolomitic.
 1i Limestone, medium grained, white marble with blue - gray streaks.
 1j Quartzite: fine grained, siliceous
 1k Quartzite: black, cherty, fine grained type
 1m Arkose: fine grained, buffy to pinkish
 1n Biotite - sericite schist

- SYMBOLS**
- Strike and dip of schistosity, gneissosity
 - Strike and dip of bedding
 - Strike and dip of fractures
 - Glacial striae
 - Outcrop
 - Inferred geological contact

Department of
 Mines and Petroleum Resources
 ASSESSMENT REPORT
 NO. 2989 MAP #2



895
 57

2989
 M-2

DERRY, MICHENER & BOOTH		
EBL PROJECT		
GENERAL GEOLOGY		
Scale: 1"=400'	H. Dowlatuk	Map No. 2
Date: Oct. 1, '70		

NORTH
BARRIERE
LAKE

FENNEL
CREEK



Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
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Soil Sample Analysis: Hot aquaregia digestion followed by atomic absorption analysis. Values expressed in ppm, copper to right of grid line, molybdenum to left.

Copper Contours
0-49
50-99
100-199
200-299
300-499
500 & over



Main RCV anomaly
(sample points not shown)



2989
M-3

2989
M-3

DERRY, MICHENER & BOOTH		
EBL PROJECT		
SOIL GEOCHEMISTRY CU VALUES CONTOURED		
Scale: 1"=400'	Map No. 3	I.S. Thompson, P. Eng.
Date: Oct. 1, '70		

NORTH
BARRIERE
LAKE

FENNEL
CREEK



Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 2989 MAP #4

Soil Sample Analysis: Hot aquaregia digestion
followed by atomic absorption analysis.

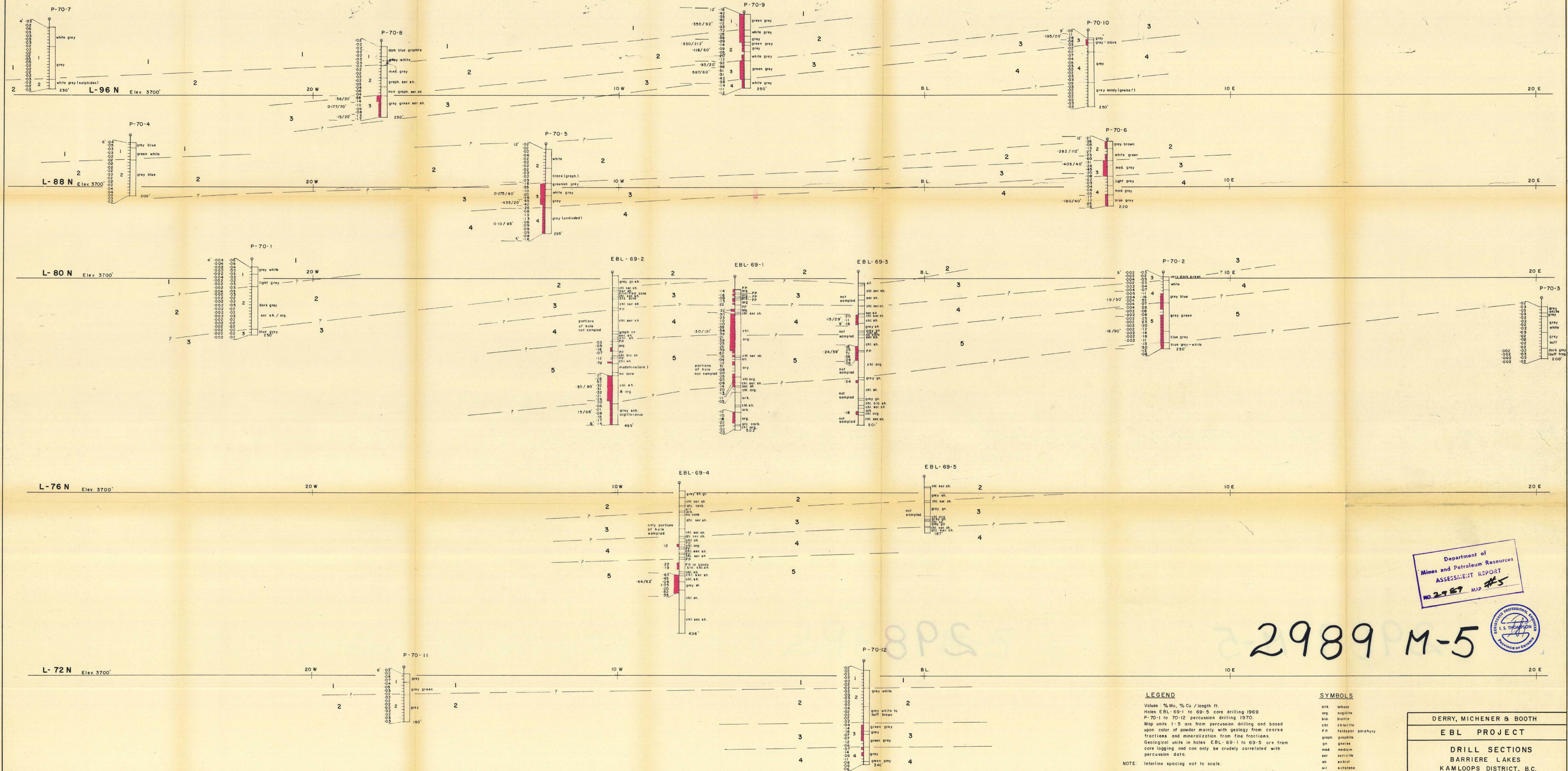
Values expressed in ppm, copper to right
of grid line, molybdenum to left.

RCV 1969 sampling not shown.



2989
M-4

DERRY, MICHENER & BOOTH		
EBL PROJECT		
SOIL GEOCHEMISTRY		
MO VALUE TRENDS		
Scale: 1"=400'	Map No. 4	I.S. Thompson, P. Eng.
Date: Oct. 1, '70		



Department of
 Mines and Petroleum Resources
 ASSESSMENT REPORT
 NO. 2989 MAP #5



2989 M-5

LEGEND

Values: %Mo, %Cu / length ft.
 Holes EBL-69-1 to 69-5 core drilling 1969.
 P-70-1 to 70-12 percussion drilling 1970.
 Map units 1-5 are from percussion drilling and based upon color of powder mainly with geology from coarse fractions and mineralization from fine fractions.
 Geological units in holes EBL-69-1 to 69-5 are from core logging and can only be crudely correlated with percussion data.

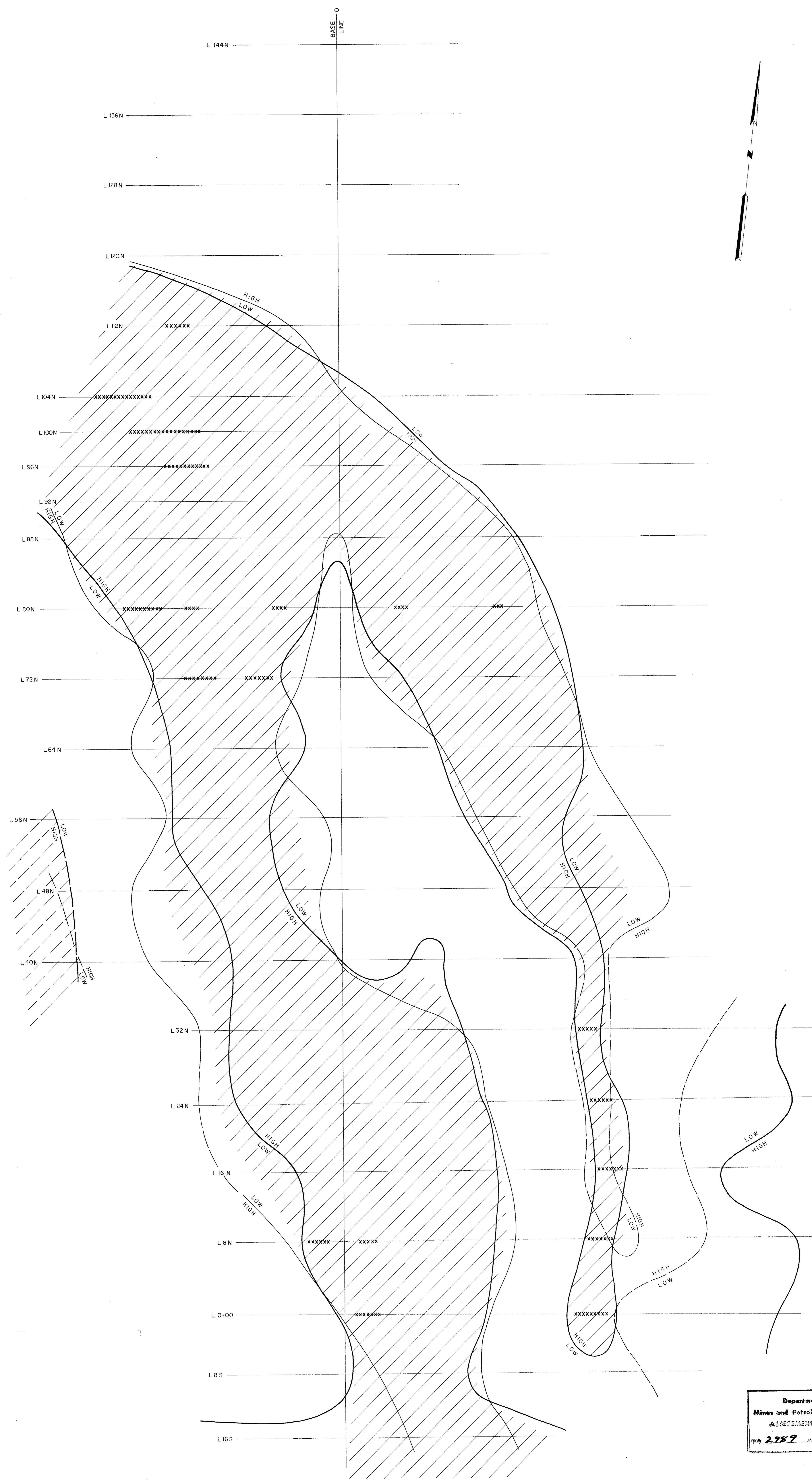
SYMBOLS

- ark. arkose
- arg. argillite
- bio. biotite
- chl. chlorite
- FP. feldspar porphyry
- graph. graphite
- gn. gneiss
- med. medium
- ser. sericite
- sh. schist
- silt. siltstone

NOTE:
 Interline spacing not to scale.
 —————
 ? —————
 —————
 " " " " " " inferred

DERRY, MICHENER & BOOTH
EBL PROJECT
DRILL SECTIONS
BARRIERE LAKES
KAMLOOPS DISTRICT, B.C.

Scale: 1" = 100' I.S. Thompson P.Eng Map No. 5
 Date: Oct, 1970 H. Dowhaluk

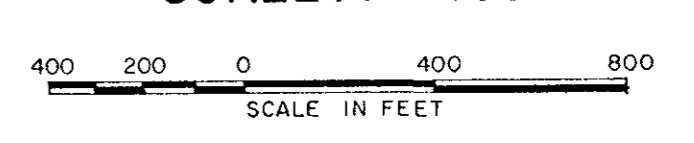


Department of
 Mines and Petroleum Resources
 ASSESSMENT REPORT
 No. 2989 MAP #6

LEGEND:
 ——— HIGH RESISTIVITY CONTACT (APPROXIMATELY 500 OHM-METRES)
 ——— LOW RESISTIVITY CONTACT (APPROXIMATELY 500 OHM-METRES)
 ——— WIDE INDEFINITE CHARGEABILITY CONTACT (APPROXIMATELY 20 MILLISECONDS)
 ——— NARROW DEFINITE CHARGEABILITY CONTACT (APPROXIMATELY 20 MILLISECONDS)
 ——— INTERPRETED NEAREST SURFACE LOCATION OF SOME RELATIVELY CONFINED BODIES OF INCREASED CHARGEABILITY
 // // // ZONE OF HIGH CHARGEABILITY AND LOW RESISTIVITY PROBABLY UNDERLAIN BY CACHE CREEK ROCKS

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 M-6

PLATE 2
 DERRY, MICHENER & BOOTH
 EBL PROJECT
 EAST BARRIERE LAKE AREA, BRITISH COLUMBIA
 INDUCED POLARIZATION SURVEY
 GRID & GEOPHYSICAL INTERPRETATION
 SCALE: 1" = 400'



TO ACCOMPANY A GEOPHYSICAL REPORT
 BY J.G. BAIRD DATED AUGUST 13, 1970

SURVEY BY SEIGEL ASSOCIATES LIMITED
 JUNE, 1970