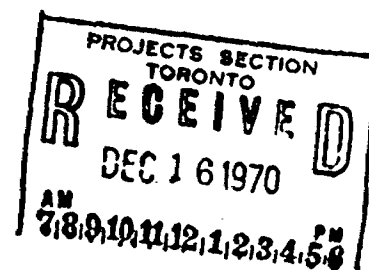




52J04NE0020 52J04NE0018 SHARRON LAKE

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GEOPHYSICAL REPORT

ON

THOMPSON CLAIMS

ROSNEI SIDING

SHARRON LAKE AREA

DISTRICT OF KENORA

BY

ASARCO EXPLORATION COMPANY OF CANADA LIMITED

TORONTO, ONTARIO

DECEMBER 1970



52J04NE0020 52J04NE0018 SHARRON LAKE

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ACCOMPANYING MAPS

EM-16 Survey Profiles Scale: 1 inch to 400 feet

EM-16 Survey Station Readings Scale: 1 inch to 400 feet

INTRODUCTION

During the month of September 1970, an EM-16 electromagnetic survey was conducted over a property optioned to Asarco Exploration Company of Canada Limited. The property is located in the Sioux Lookout area, District of Kenora, Ontario. The survey was carried out by a geophysical crew from Asarco.

The results of the survey are shown on the maps accompanying this report.

SUMMARY & RECOMMENDATIONS

A ground electromagnetic survey, using an EM-16 unit, was carried out over the claim group. The readings obtained showed large variations of the secondary field throughout the property. These anomalous conditions can be attributed to the rail line which passes through the claims and to swamp conditions that exist in other parts.

No anomaly was indicated by the EM-16 survey that can be considered to be indicative of a mineralized zone.

As the geophysical data available is inconclusive, it is recommended that any further work undertaken should be in the form of a different geophysical technique, prior to carrying out a drilling programme.

PROPERTY, LOCATION & ACCESS

The property discussed in this report consists of a group of 41 contiguous mining claims. However, the present survey was conducted over only 18 of these claims which are designated by the following numbers:

PA44954, PA44957, PA26248, PA275370

PA272336 - 8 inclusive

PA272342 - 5 inclusive

PA272348 - 51 inclusive

PA272356 - 8 inclusive

The claim group is located along the Canadian National Trans-Canada Railway at Rosnel Siding, some 17 miles east of Sioux Lookout.

Access to the property is readily obtainable by means of float plane from Sioux Lookout to Botsford Lake, which lies along the north boundary of the claim group.

INSTRUMENT & SURVEY DATA

The survey was conducted over previously cut lines spaced at 400 foot intervals across the property and oriented approximately north-west. The lines were picketed every 100 feet. A total of 12.25 miles of grid line and base line were cut and picketed.

The electromagnetic survey was carried out using a Geonics' EM-16 unit. The EM-16 is a sensitive receiver covering the frequency band of the new V.L.F. transmitting stations, with a means of measuring the vertical field components. The V.L.F. transmitting stations, operating for communications with submarines, have a vertical antenna. The antenna current is thus vertical, creating a concentric horizontal magnetic field around them. When these magnetic fields meet conductive bodies in the ground, there will be secondary fields radiating from these bodies. The EM-16 equipment measures the vertical component of these secondary fields.

The receiver has two inputs with two receiving coils built into the instrument. One coil has a normally vertical axis and the other, a horizontal one. Secondary fields, caused by conductive bodies, are therefore measured by the EM-16 by the angle of dip on the instrument and by measured percentage of the out-of-phase component to give a null signal in the head set. Any deviation from the zero null position is indicative

of a secondary field and therefore, of a possible conductive body.

The transmitting station used for this survey was Seattle, Washington, U.S.A.

Readings were taken at 100 foot intervals along the picket lines for a total of 583 stations, covering 11.2 miles of line.

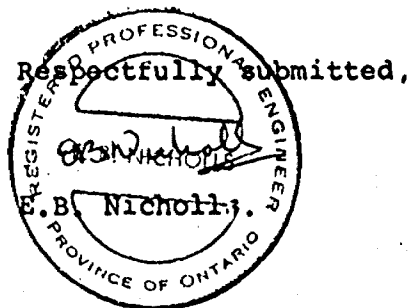
DISCUSSION OF RESULTS

The data obtained during the EM-16 survey exhibits large fluctuations in the readings. Largest of these variations can be attributed to the effect of the Canadian National Railway that passes through the northern portion of the claim group. The effect of the rail line can be seen from as far away as 1,400 feet and this may have masked the presence of any conductor in this region. However, this is not likely to be so, for if it were a conductor of any consequence, its effect would have shown through.

Other major variations that are noticeable can be attributed to the swamp conditions that are found on the property.

A number of mineralized occurrences have been discovered on the property by means of trenching, however, these failed to produce any geophysical anomaly. It must, therefore, be concluded that the extent of each mineralized occurrence is very much limited. It is to be noted that the trenches are located within the area effected by the rail line and the secondary fields due to any small amounts of mineralization may be swamped. The conclusion to be drawn therefore, is that no extensive mineralized zone was located by this survey.

EBN/ey





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ONTARIO

THE MINING ACT REPORT OF WORK

A separate form is required for each type of work to be recorded.

To the Recorder of.....PATRICIA.....Mining Division

I, Asarco Exploration Company of Canada Limited AA2916

name of Recorded Holder

Miner's Licence

#840, 20 King Street West, Toronto 1, Ontario.

Post Office Address

do hereby report the performance of240..... days ofGeological Work.....

type of work

not before reported to be applied on the following contiguous claims

Claim No.	Days	Claim No.	Days	Claim No.	Days
PA44954	20	PA272345	20		
PA44957	20	PA272349	20		
PA272336	20	PA272350	20		
PA272338	20	PA272351	20		
PA272342	20	PA272370	20		
PA272344	20	PA272343	20		

All the work was performed on Mining Claim (s)
(In the case of geological and/or geophysical survey (s) where more than 18 claims are involved attach a schedule)

READ CAREFULLY: THE FOLLOWING INFORMATION IS REQUIRED BY THE MINING RECORDER.

For Manual Work, Stripping or Opening up of Mines, Sinking Shafts or Other Actual Mining Operations - Names and addresses of the men who performed the work and the dates and hours of their employment.

For Diamond and other Core Drilling - Footage, No. and angle of holes and diameter of core. Name and address of owner or operator of drill. Dates when drilling was done. Signed core log and sketch in duplicate.

For Compressed Air or Other Power Driven or Mechanical Equipment

Type of drill or equipment. Names and addresses of men engaged in operating equipment and the dates and hours of their employment.

For Power Stripping - Type of equipment. Name and address of owner or operator. Amount expended. Dates on which work was done. Proof of actual cost must be submitted within 30 days of recording.

With each of the above types of work sketches are required to show the location and extent of the work in relation to the nearest claim post. In the case of diamond or other core drilling the sketch must be submitted in duplicate.

For Geological and Geophysical Survey - The names and addresses of men employed as well as dates. Type of instrument used in the case of geophysical survey. Reports and maps in duplicate must be filed with the Minister within 60 days of recording.

For Land Survey - the name and address of Ontario Land surveyor.

The Required Information is as Follows: (Attach a list if this space is insufficient)

Uldis Abolins, P.Eng. September 14-October 2, 1970

Date December 21, 1970

R.L. Brown
Signature of Recorded Holder or Agent
R.L. Brown - Agent

The Mining Act
Certificate Verifying Report of Work

I, RICHARD L BROWN

201-399 AVENUE ROAD TORONTO 2, ONTARIO

(Post Office Address)

hereby certify:

1. That I have a personal and intimate knowledge of the facts set forth in the report of work annexed hereto, having performed the work or witnessed same during and/or after its completion.

2. That the annexed report is true.

Dated December 22 1970 R.L. Brown
Signature

THE PENALTY FOR MAKING A FALSE STATEMENT IN THIS REPORT AND/OR CERTIFICATE IS \$500. OR SIX MONTHS IMPRISONMENT OR BOTH



A separate form is required for each type of work to be recorded.

THE MINING ACT REPORT OF WORK

To the Recorder of.....PATRICIA.....Mining Division
I, Asarco Exploration Company of Canada Limited A22916
name of Recorded Holder Miner's Licence
#840, 20 King Street West, Toronto 1, Ontario.
Post Office Address
do hereby report the performance of 720 days of Electromagnetic Survey
type of work
not before reported to be applied on the following contiguous claims

Claim No.	Days	Claim No.	Days	Claim No.	Days
PA44954	40	PA272343	40	PA272351	40
PA44957	40	PA272344	40	PA272356	40
PA272336	40	PA272345	40	PA272357	40
PA273337	40	PA272348	40	PA272358	40
PA272338	40	PA272349	40	PA272370	40
PA272342	40	PA272350	40	PA272648	40

All the work was performed on Mining Claim (s) each of the above listed claims
(In the case of geological and/or geophysical survey (s) where more than 18 claims are involved attach a schedule)

READ CAREFULLY: THE FOLLOWING INFORMATION IS REQUIRED BY THE MINING RECORDER.

For Manual Work, Stripping or Opening up of Mines, Sinking Shafts or Other Actual Mining Operations - Names and addresses of the men who performed the work and the dates and hours of their employment.
For Diamond and other Core Drilling - Footage, No. and angle of holes and diameter of core. Name and address of owner or operator of drill. Dates when drilling was done. Signed core log and sketch in duplicate.
For Compressed Air or Other Power Driven or Mechanical Equipment
Type of drill or equipment. Names and addresses of men engaged in operating equipment and the dates and hours of their employment.
For Power Stripping - Type of equipment. Name and address of owner or operator. Amount expended. Dates on which work was done. Proof of actual cost must be submitted within 30 days of recording.
With each of the above types of work sketches are required to show the location and extent of the work in relation to the nearest claim post. In the case of diamond or other core drilling the sketch must be submitted in duplicate.
For Geological and Geophysical Survey - The names and addresses of men employed as well as dates. Type of instrument used in the case of geophysical survey. Reports and maps in duplicate must be filed with the Minister within 60 days of recording.
For Land Survey - the name and address of Ontario Land surveyor.

The Required Information is as Follows: (Attach a list if this space is insufficient)

Jean Alix Company Limited, P.O. Box 910, Val d'Or, Quebec.
Uldis Abolins, P.Eng, #840, 20 King Street West, Toronto, Ontario.
R.J. Dean, #840, 20 King Street West, Toronto 1, Ontario.
Instrument Used:
Geonics E.M.-16
Work Done: September 6 - October 2, 1970.

Date December 21, 1970

R. L. Brown

Signature of Recorded Holder or Agent

R. L. Brown - Agent

The Mining Act
Certificate Verifying Report of Work

I, RICHARD L BROWN
201-389 AVENUE ROAD TORONTO 7, ONT
(Post Office Address)

hereby certify:

1. That I have a personal and intimate knowledge of the facts set forth in the report of work annexed hereto, having performed the work or witnessed same during and/or after its completion.
2. That the annexed report is true.

Dated Dec 22 1970

R. L. Brown

Signature

THE PENALTY FOR MAKING A FALSE STATEMENT IN THIS REPORT AND/OR CERTIFICATE IS \$500. OR SIX MONTHS IMPRISONMENT OR BOTH

PERFORMANCE & COVERAGE CREDITS

ASSESSMENT WORK DETAILS

Township or Area SHARRON LAKE

Type of Survey ELECTROMAGNETIC
A separate form is required for each type of survey

Chief Line Cutter JEAN ALIX
or Contractor Name
C.P. 910, VAL D'OR, QUEBEC.
Address

Party Chief ULDIS ABOLINS, P. Eng.
Name
Suite 840, 20 King St. W., Tor. 1
Address

Consultant _____
Name
Address

COVERING DATES

Line Cutting September 6 - September 28, 1970

Field September 14 - October 2, 1970
Instrument work, geological mapping, sampling etc.

Office November 16 - November 27, 1970

INSTRUMENT DATA

Make, Model and Type Geonics - EM16 - Vertical Loop

Scale Constant or Sensitivity +1% Quadrature +2% Inphase
Or provide copy of instrument data from Manufacturer's brochure.

Radiometric Background Count _____

Number of Stations Within Claim Group 583

Number of Readings Within Claim Group 583

Number of Miles of Line cut Within Claim Group 12.25 mi.

Number of Samples Collected Within Claim Group _____

CREDITS REQUESTED

	20 DAYS per claim	40 DAYS per claim	Includes (Line cutting)
Geological Survey	☐	☐	
Geophysical Survey	☐	☒	Show Check ✓
Geochemical Survey	☐	☐	

DATE December 15, 1970

SIGNED R. L. Brown

MINING CLAIMS TRAVERSED

List numerically

PA 44954
PA 44957
PA PA 272336
PA PA 272337
PA PA 272338
PA PA 272342
PA PA 272343
PA PA 272344
PA PA 272345
PA PA 272348
PA PA 272349
PA PA 272350
PA PA 272351
PA PA 272356
PA PA 272357
PA PA 272358
PA PA 275370
PA PA 262648
TOTAL <u>18</u>

If space insufficient, attach list

Send in duplicate to:
FRED W. MATTHEWS
SUPERVISOR-PROJECTS SECTION
DEPARTMENT OF MINES &
NORTHERN AFFAIRS
WHITNEY BLOCK
QUEEN'S PARK
TORONTO, ONTARIO

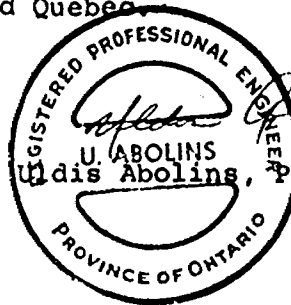
APPENDIX

ULDIS ABOLINS, B.A.Sc., P.Eng.

- Graduate in geological engineering - University of Toronto, 1967.
- Member of the Association of Professional Engineers of the Province of Ontario.
- Member of the Corporation of Engineers of Quebec.
- Member of the Canadian Institute of Mining and Metallurgy.
- 1967-1970 worked for Anaconda American Brass Ltd. as a field geologist at their Marathon, Ontario and Noranda, Quebec offices.
- 1970 joined Asarco Exploration Company of Canada Limited as a senior geologist and worked on various properties in Ontario and Quebec.

UA/ey

Toronto, Ontario,
7th December 1970.



AREA CODE — 416
TELEPHONE — 365-6918



2.221

WHITNEY BLOCK,
QUEEN'S PARK
TORONTO 182, ONT

DEPARTMENT OF MINES AND NORTHERN AFFAIRS
MINING LANDS BRANCH

May 28th, 1971.

Mr. W.A. Buchan,
Mining Recorder,
Court House,
Sioux Lookout, Ontario.

Re: Mining Claims PA. 44954 et al,
Sharron Lake Area. File No. 2.221

Dear Sir:

The Geophysical (Electromagnetic) and Geological assessment work credits as listed with my Notice of Intent dated May 13th, 1971, have been approved as of the date above. Please inform the recorded holder and so indicate on your records.

Yours very truly,

Fred W. Matthews,
Supervisor,
Projects Section.

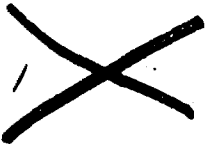
c.c. Asarco Exploration Co. of Canada Ltd.,
c.c. Mr. Richard L. Brown,
c.c. Mr. E. B. Nicholls,
c.c. Mr. H. L. King. ✓

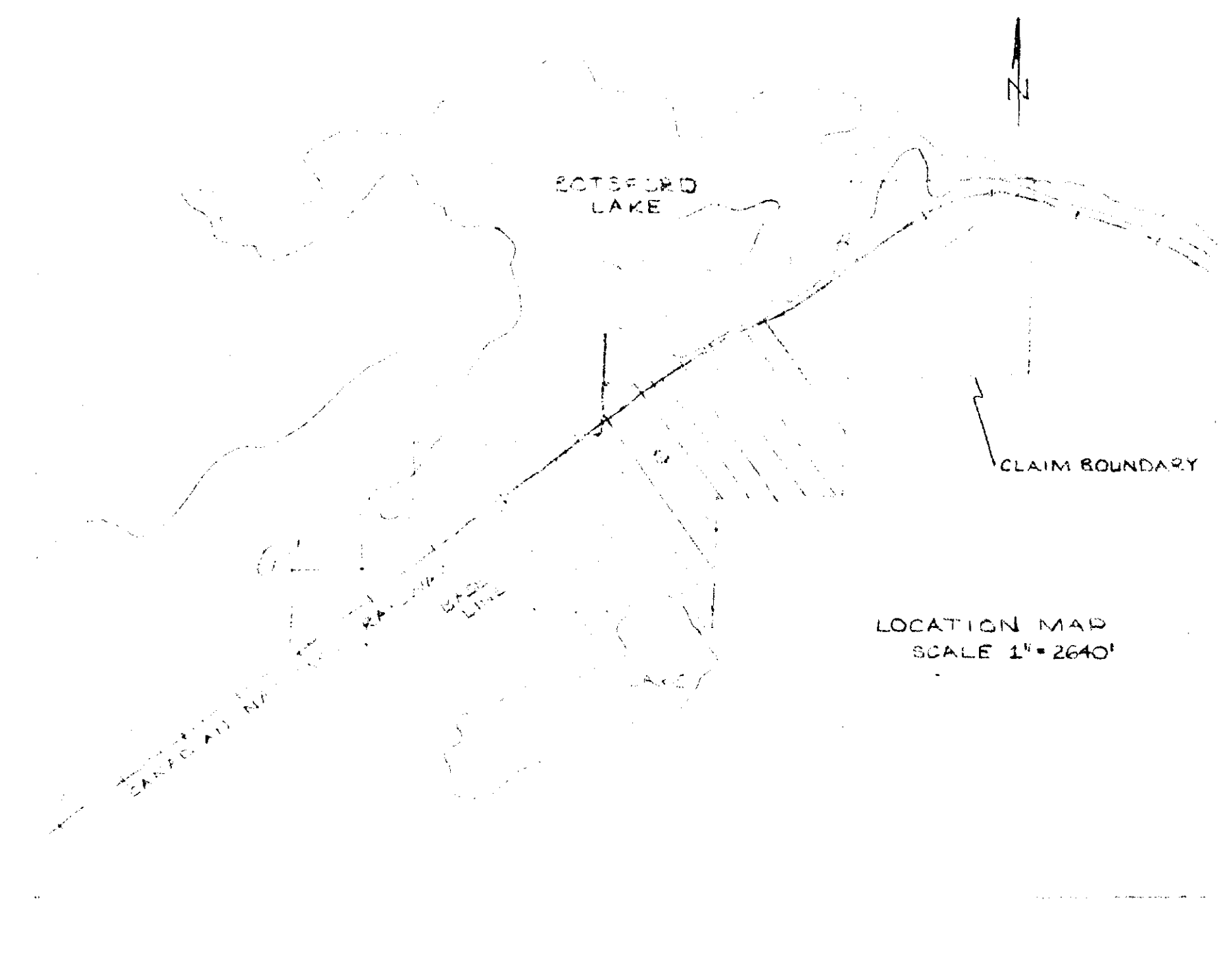
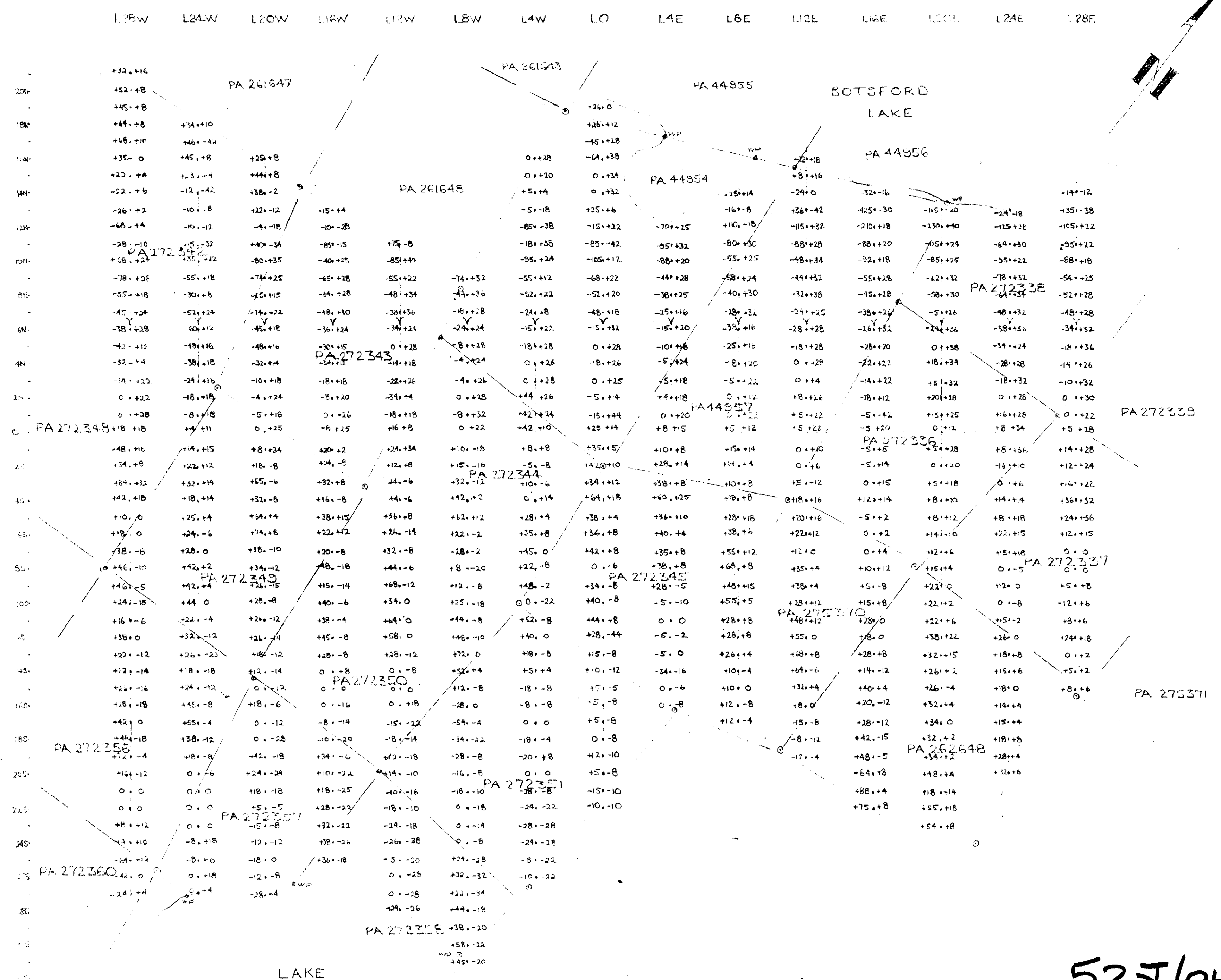
FWM/mr

SEE ACCOMPANYING
MAP(S) IDENTIFIED AS
52J/04NE-0018-#1

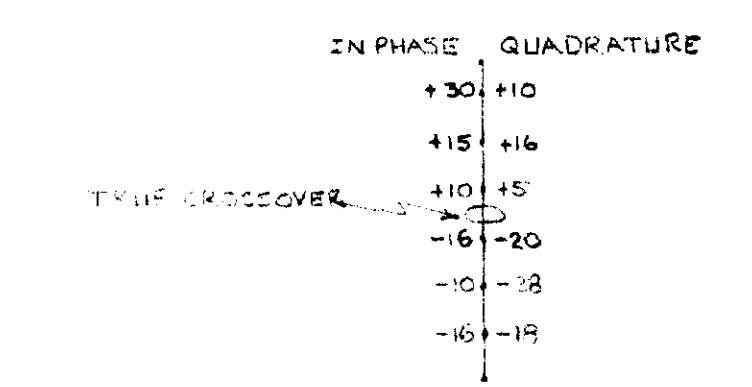
井乙

LOCATED IN THE MAP
CHANNEL IN THE FOLLOWING
SEQUENCE (X)

		
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- LEGEND -

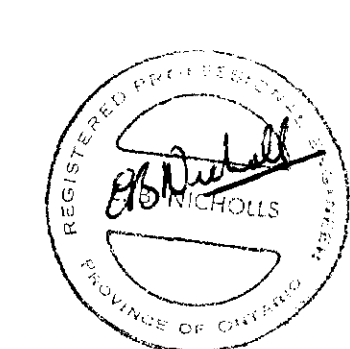


INSTRUMENT: RONKA EMIG
STATION: SEATTLE WASH. USA
DIRECTION OF TRAVEL: ↓
CLAIM POST: ○

52T/04NE-0018-#1

ASARCO EXPLORATION CO OF CAN LTD.
TORONTO ONT.

EMIG SURVEY
ROSNEL SIDING PROPERTY
SHARKON LAKE AREA
ONTARIO
(Station Headings)



OWS1 | SCALE 1"=400' | OCT 70



