

GEOPHYSICAL REPORT

on the

Argo No. 1 to 6 Mineral Claims

Situated between Eholt and Jewel Lake

Greenwood M.D.

South Central B. C.

Latitude 49° 09' N.; Longitude 118° 34' W.

N.T.S. 82 E/2E

and owned by

RAYORE MINES LTD. (N.P.L.)

Work done between

July 14 and 26, 1967.

52 E - 2

By

D.R. Cochrane, P.Eng.

Vancouver, B.C.



GEO-X SURVEYS

VANCOUVER, CANADA

1217
Ltd.

1217

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INTRODUCTION

Between July 14 and 26, 1967, a Geo-X Surveys Ltd. field crew completed preliminary electromagnetic and magnetometer orientation surveys on several Argo claims situated between Eholt and Jewel Lake, Greenwood Area B.C. The claims are owned by Rayore Mines Ltd. of Vancouver, B.C.

This report describes the field procedure and results of the tests, and is based on field supervision of the project by the author.

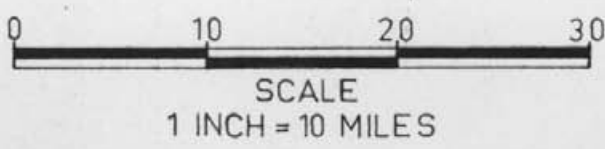
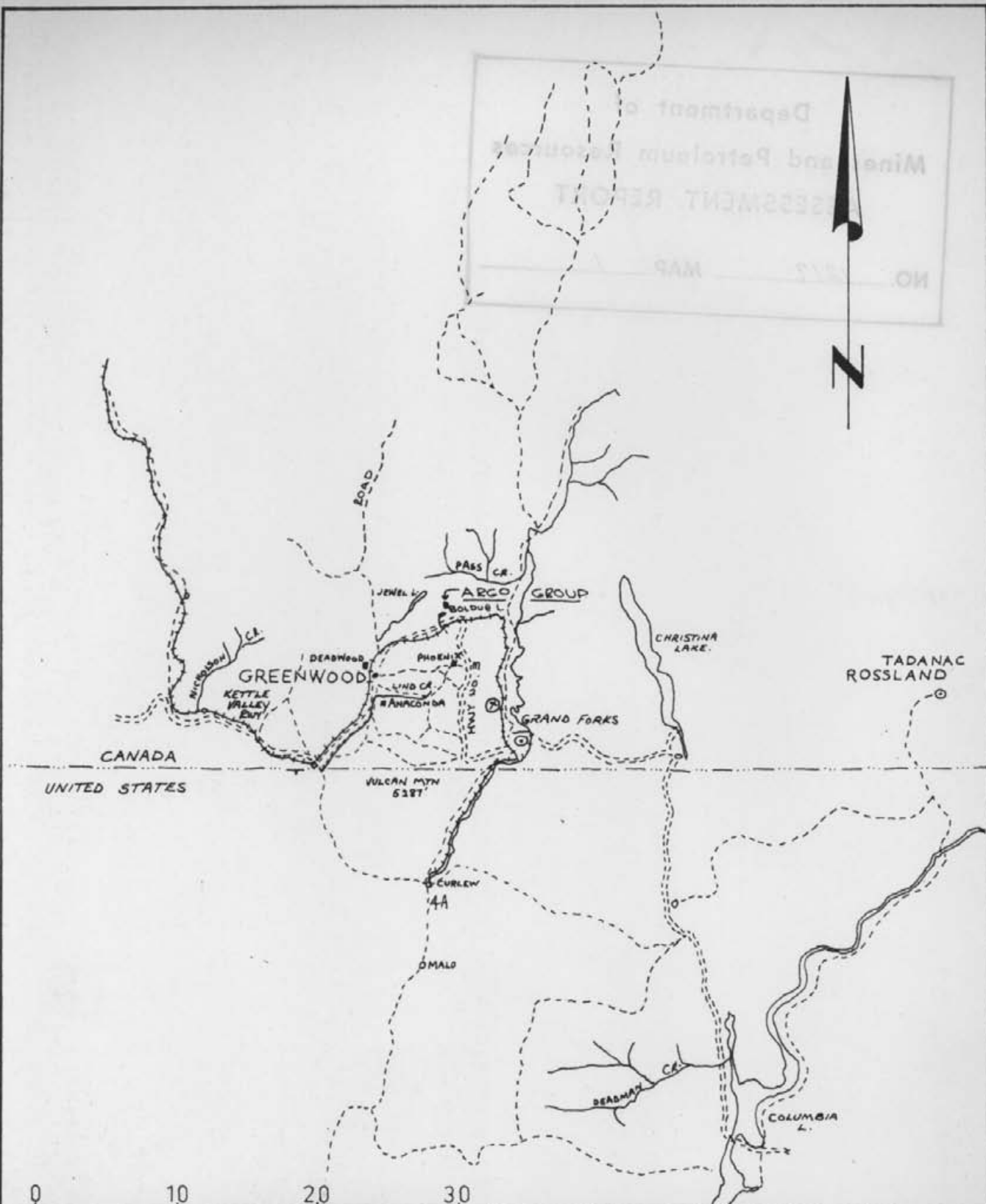
LOCATION AND ACCESS

The claims are located one and one half road miles northwest of Eholt and Highway No. 3. Eholt is approximately 16 miles east of the town of Greenwood, South Central B.C. Normal access is from the highway, and proceeding north on the Jewel Lake gravel road, bearing left at the first fork and proceeding for 1 1/2 miles. The initial post of Argo 1 and 2 is located near the hairpin turn on the Jewel Lake road. (See location map).

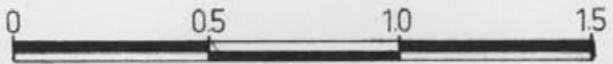
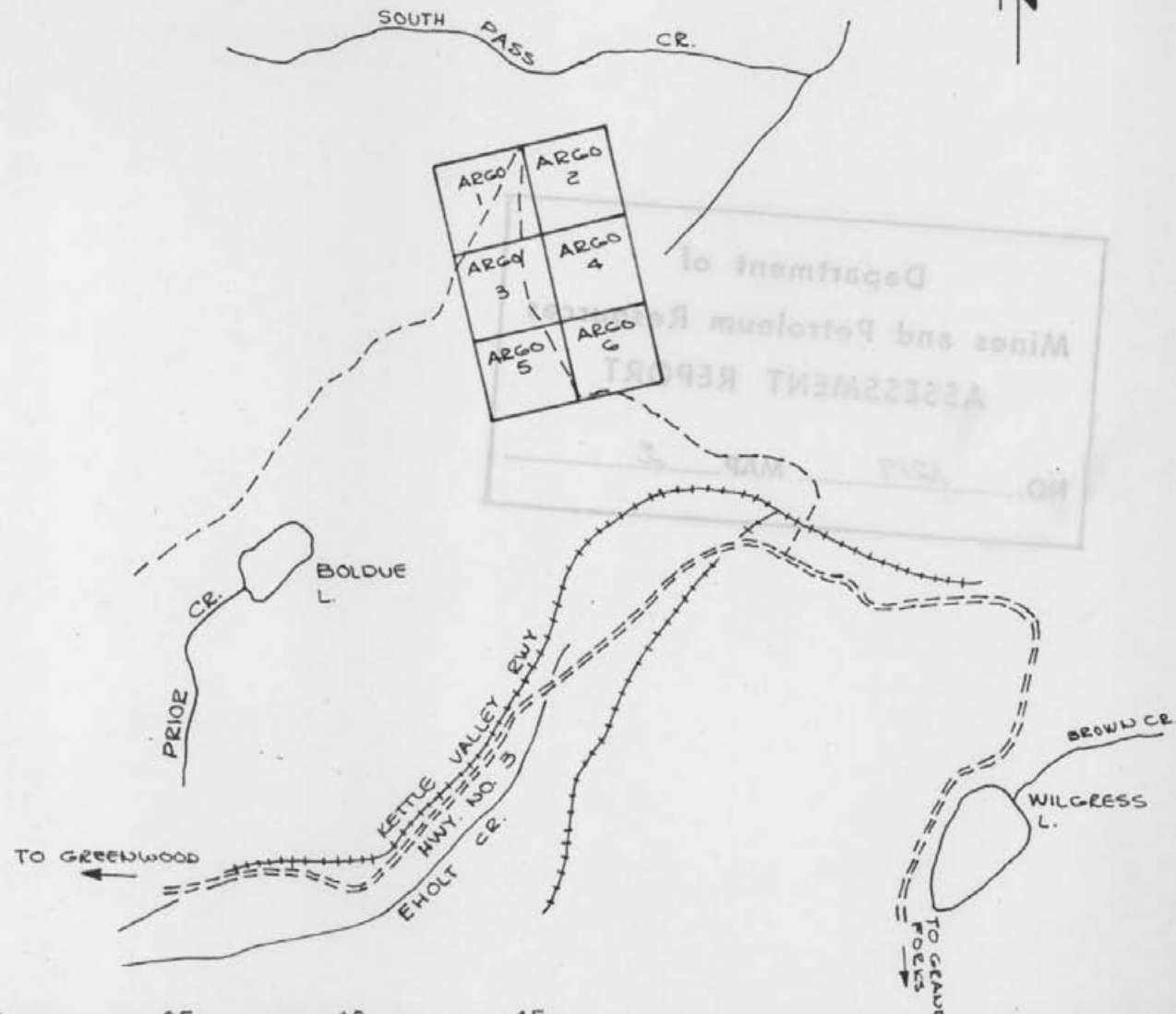
CLAIMS AND OWNERSHIP

The Argo No.'s 1 to 6 claims are owned outright by Rayore Mines Limited whose registered office is at 925 West Georgia Street, Vancouver, B.C. They were acquired in March 1967 from

Department of
 Mines and Petroleum Resources
 ASSESSMENT REPORT
 NO. 112
 MAP



RAYORE MINES LTD. ARGO GROUP, GREENWOOD M.D. GRAND FORKS B.C.		
GENERAL LOCATION MAP		
DRAWN: N.W.	DATE: 17-1-68	FIG. 1
CKD: DAC	DATE: Jan 17	JOB: 1007



SCALE
1 INCH = 0.5 MILES

RAYORE MINES LTD. ARGO GROUP GREENWOOD M. D. GRAND FORKS B.C.		
CLAIM MAP		
GEO-X SURVEYS LTD.		
DRAWN: D.E.Y.	DATE: 17-1-68	FIG 2
CKD: ORC	DATE: Jun 17	JOB: 1007

Mr. J.D. Turcotte of Cascade, B.C. Claims were located on the 13th day of February 1967, and recorded in Grand Forks on the 21st day of February, 1967.

Claim data follows:

<u>Claim Name</u>	<u>Tag No.</u>	<u>Record No.</u>
Argo 1, to 6 incl.	657122 to 27 incl.	24959 to 64 incl.

ELECTROMAGNETIC SURVEY FIELD PROCEDURE

A Ronka EM16 electromagnetic unit (Number 20) was used on the Argo claims test survey. Instrument specifications are presented in Appendix I. Mr. R. Robillard, the operator, selected Station N.P.G. for measurement of resultant field. This station transmits from Jim Creek, Washington (near Seattle) on 18.6 k.c. and with an output of 200 k.w.

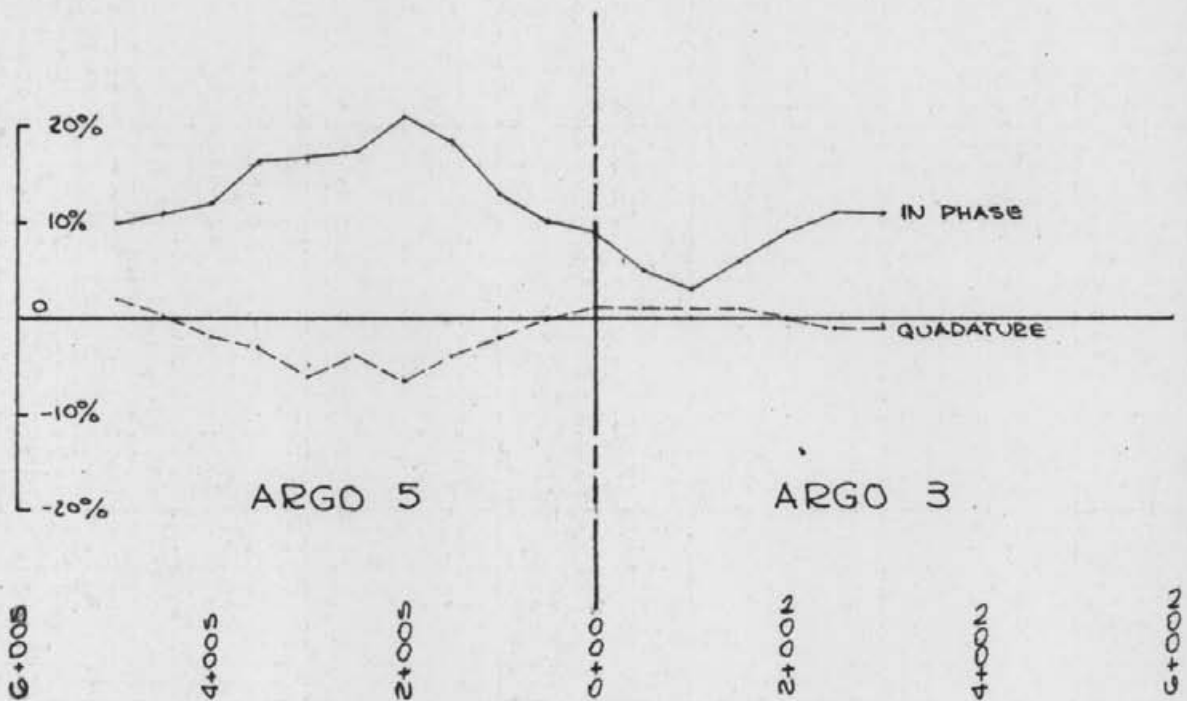
The EM survey was started (0+00) some 200 feet south (along the road) from the initial post of Argo No. 5 and No. 6, and proceeded 500 feet north and 500 feet south from this point. Readings were taken at 50 foot intervals while facing southeast (perpendicular to N.P.G.). The in-phase component, quadrature component, position and remarks were recorded on standard field note forms.

ELECTROMAGNETIC SURVEY RESULTS

The short EM orientation survey gave in-phase component results ranging from ~~+6%~~^{+21%} to +2%. The profile (see Figure 3) shows
0%

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT

NO. 1217 MAP 3



NOTE: LOOKING WEST



RAYORE MINES LTD. ARGO GROUP, GREENWOOD M.D. GRAND FORKS B.C.		
RONKA EM 16 ORIENTATION SURVEY GEO-X SURVEYS LTD.		
DRAWN: D.E.Y.	DATE: 17-1-68	FIG 3
CKD: JRC	DATE: JAN 17	JOB: 1007

a 300 foot zone within which in-phase response was positive and above 10%, and quadrature response was negative. To the north, the quadrature component returns to near zero. The high in-phase - low quadrature area may be interpreted as a horizontal conductor.

MAGNETOMETER SURVEY FIELD PROCEDURE

A Sabre Electronics magnetometer was utilized on the Argo claims survey. It was manufactured in Burnaby, B.C. and specifications are contained in Appendix II.

Mr. D. Fritz operated the instrument and recorded readings at 100 foot intervals along several test lines as shown in Figure 4. This interval was reduced to 50, then 25 foot intervals in rapid change areas. All readings were taken while facing magnetic north, and results recorded on standard field note forms. Mr. P. Marshall flagged stations for ground control, using compass and chain. A base station was checked at the start of the survey and again on completion. Only very minor drifting was noted, therefore time-drift corrections were not applied to the field values.

MAGNETOMETER SURVEY RESULTS

The magnetometer orientation survey results are presented in Figure 4 (map pocket).

The arithmetic average of the 69 readings is 53,404 gammas, and is considered the approximate magnetic background. Values ranged

from a low of 53,020 gammas to 53,930 - a total range of 910 gammas.


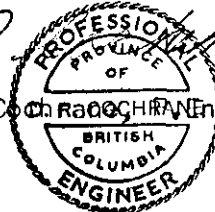
A very small magnetic high was discovered on the Argo No. 3 claim, but the areal influence was less than 20 feet in diameter. A similar high was recorded on the Argo 1, Argo 3 claim boundary.

SUMMARY

On July 14 and 15, a two man field crew completed a small ground control grid and magnetometer orientation survey on claims of the Argo group. This was followed by a short electromagnetic test survey on July 26, 1967. The claims are owned by Rayore Mines Ltd., of Vancouver, and are located 1 1/2 miles north of Eholt, Greenwood M.D. Work was completed on their behalf by Geo-X Surveys Ltd.

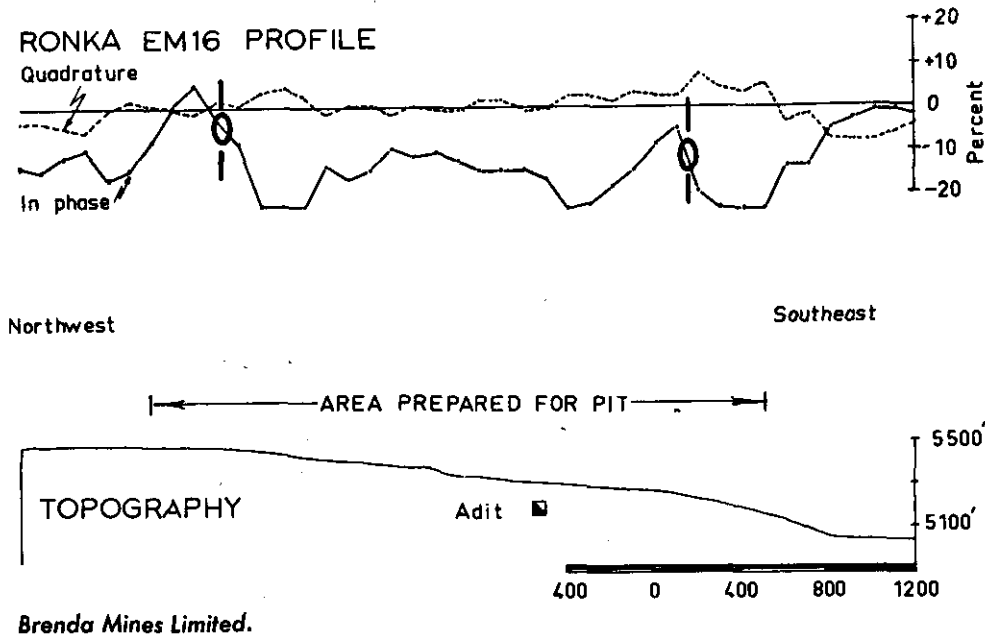
The electromagnetic test recorded high positive in-phase component response with coincident negative quadrature component response. The magnetic survey indicated that background was 53,404 gammas, and several small amplitude magnetic highs were very limited in extent.

Respectfully submitted,


D.R. Cochran, Eng.


SPECIFICATIONS

- Primary Field: Horizontal from any selected VLF transmitting station.
- Frequency Range: Approximately 15-25 kc.
- Station Selection: By plug-in units. Two stations selected by a switch on front panel.
- Measured Field: Vertical field, in-phase and quadrature components.
- Accuracy of Readings: $\pm 1\%$ resolution.
- Range of Measurements: In-Phase $\pm 150\%$ or $\pm 90^\circ$, quadrature $\pm 40\%$
- Output Readout: Null-detection by an earphone, real and quadrature components from mechanical dials.
- Batteries: 6, size AA penlight cells. Life about 200 hours.
- Size: 16 x 5.5 x 3.5 in. (42 x 14 x 12 cm)
- Weight: 2.4 lbs. (1.1 kg)



SPECIFICATIONS

Sensitivity: Vertical - 20 gammas per dial division.
 Horizontal - 30 gammas per dial division.

Range: Vertical - 0 - 100,000 gammas
 Horizontal - 0 - 30,000 gammas
 (These ranges can be increased or decreased for specific applications)

Latitude Adjustment: None required in northern magnetic latitudes.

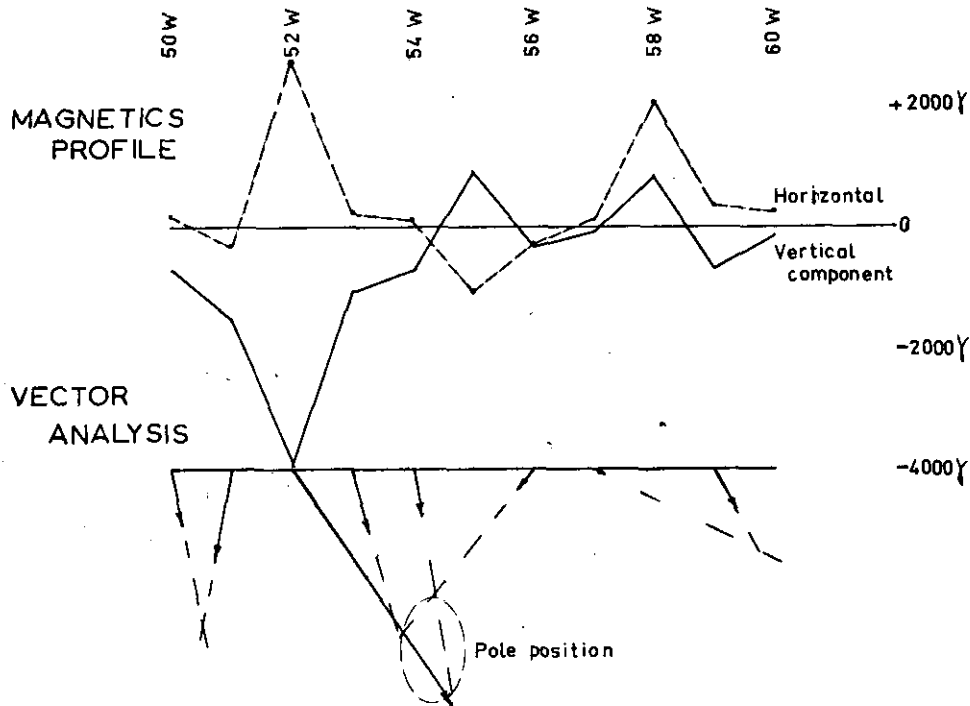
Type of Readout: Meter to indicate null plus two digital counting dials to indicate magnetic field intensity at null.

Orientation: No levels or bubbles required. Vertical reading is non-directional, horizontal reading requires orientation to magnetic north direction.

Weight: 10 pounds.

Dimensions: 4" x 7" x 11".

Power Pack: Four 9-volt Everready #246 dry cells, or equivalent.



The Diagram shows a profile along line 41 south, on the Oro Denoro Property of West Coast Resources Ltd., near Greenwood, B.C. Mineralization consists essentially of magnetic and chalcopyrite in and near a garnet skarn and quartz diorite contact.

APPENDIX III

Personnel and Dates Worked

The following Geo-X Surveys Ltd. personnel, of 627 Hornby Street, Vancouver, B.C., were employed on the Argo group surveys on the dates set out below:

<u>Name</u>	<u>Occupation</u>	<u>Dates</u>
D.M. Fritz	Magnetometer operator	July 14th & 15th
P. Marshall	Ground grid layout	" "
R. Robillard	EM operator	" "
D. Yip	Draftsman	Jan. 16th & 17th
D.R. Cochrane	P.Eng.	Jan. 18th

I, *Don Fritz* here by swear.

APPENDIX IV

Cost Appropriation

As per agreement for orientation surveys on the Argo Group between Rayore Mines Ltd. and Geo-X Surveys Ltd.

Cost of Argo Group surveys

\$538.46

S.L. Sandner

S.L. Sandner, President.
Geo-X Surveys Ltd.

Declared before me at the *City*
of *Vancouver*, in the
Province of British Columbia, this *19*
day of *January*, 1968, A.D.

Don Fritz

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



GEO-X SURVEYS LTD.

627 HORNBY STREET, VANCOUVER 1, BRITISH COLUMBIA

TELEPHONE 685-4296 - CODE 604

- AIRBORNE
- MOBILE
- GROUND GEOMAG
- NODKA EM
- INDUCED POLARIZATION

March 20, 1968

Mr. R. Macgregor,
Mining Recorder,
Court House,
Grand Forks, B.C.

Dear Sir:

Re: Dee and Argo Groups of Mineral Claims
Geophysical Report

With reference to your letter of March 4, 1968, this will certify that Mr. D.M. Fritz and Mr. R. Robillard have been actively engaged in geophysical survey work for five and three years, respectively.

We trust this is the information you require.

Yours truly,

GEO-X SURVEYS LTD.

D.R. Cochrane Pres.

Per D.R. Cochrane, P.Eng.

:ms

GOVERNMENT OF
BRITISH COLUMBIA
RECEIVED
MAR 21 1968
GRAND FORKS, B. C.



ARGO 2

ARGO 4

ARGO 6

ARGO 1

ARGO 3

ARGO 5

0+00
1+00W 500
2+00W 690
3+00W 770
4+00W 840
5+00W 930
6+00W 660
7+00W 530

0+00
1+00S 520
2+00S 600
3+00S 520
4+00S 570
5+00S 550
6+00S 540

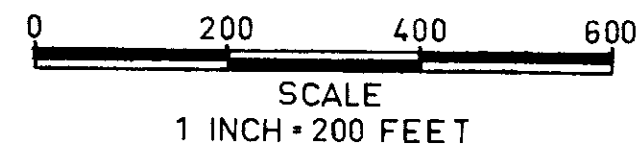
430
420
410
400
390
380
370
360
350
340

560
540
440
360
300
260
240
220
200
180
160
140
120
100
80
60
50

550
5+00N
5+00N
4+00N
3+00N
2+00N
1+00N
0+00

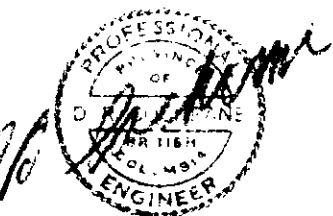
LINE 'A'
LINE 'B'

NOTE: ADD 53,000 gammas to values plotted for actual reading.



1217

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VANCOUVER B.C. CANADA



RAYORE MINES LTD.
ARGO GROUP GREENWOOD M.D.
GRAND FORKS B.C.

MAGNETOMETER PLAN
VERTICAL COMPONENT

DRAWN	D.E.Y.	JOB NO.	FIG NO.
CKD		1007	4
APPR'D	DRC		
DATE	JAN 11/68		

TO ACCOMPANY GEOPHYSICAL REPORT ON THE
ARGO GROUP, GREENWOOD M.D. FOR
RAYORE MINES LTD.
BY D.E. COCHRANE, P. ENG.
DATED JANUARY 18, 1968.
VANCOUVER, B.C.