

HALFMOON LAKE PROJECT

REPORT
ON

MAGNETOMETER AND GEOLOGIC SURVEYS 26 JUNE TO 5 JULY/71
JAY 11-14, RANDY 1-24 and RANDY 30-37 CLAIMS

OWNERS

TOURNIGAN MINING EXPLORATIONS LTD.

and

AMERICAN SMELTING AND REFINING COMPANY

Located
on

UN-NAMED LAKE 2 1/2 MILES EAST OF HALFMOON LAKE

LIARD MINING DIVISION

58° - 128° NW

104 I / 12 W

3363

November/71

D.H. Olson, P.Eng., B.C.

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT

NO. 3363 MAP.....

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MAGNETOMETER SURVEY & GEOLOGIC REPORT
ON
JAY 11-14, RANDY 1-24 & RANDY 30-37 CLAIMS

INTRODUCTION

The mineral claims discussed in this report cover an un-named lake and the immediate area surrounding the lake, which is located approximately two miles east of Halfmoon Lake and 18 miles NNE of the Village of Dease Lake.

The magnetometer survey and geologic mapping of the claims was carried out between June 26, 1971 and July 5, 1971. The work was performed by American Smelting and Refining Company under the direction of M.F. Lancaster, Geologist for American Smelting and Refining Company.

LOCATION AND ACCESS

The Jay 11-14, Randy 1-24, and Randy 30-37 mineral claims are located on a small un-named lake 2½ miles east of Halfmoon Lake. Access to the claim group is by fixed wing aircraft from Watson Lake, Yukon Territory.

FIELD PROCEDURE

Geologic Survey - A geologic map was compiled using existing grid lines and 2 airphotos enlarged to a scale of 1" - 1000'.

Magnetometer Survey - A survey grid measuring 3000' by 3000' was established over the main showing. From a north-easterly trending baseline, northwesterly bearing grid lines spaced approximately 200', were established by chain and compass survey methods. Magnetometer readings were recorded at 50' intervals over these grid lines. Direct gamma values were obtained from a Scintrex MF-2 magnetometer. A base station was established at camp and another on the main showing at the final post for Jay 11 and 12. Diurnal changes were recorded at least every 2 hours.

INTERPRETATION

Geology - Within the claim group, a serpentized peridotite body having a strike of 285° has intruded (?) an inter-bedded sequence of chert, argillite, argillaceous quartzite,

phyllite and greenstone. This interbedded sequence of sediments and volcanics cover almost the entire claim block. In general, the strike of the rocks is 110° - 130° with a dip of $65-85^{\circ}$ s. Numerous barren white quartz veinlets from $1/4''$ - $2''$ in width transect both the sediments and volcanics.

The main showing consists of four outcrops of which only one exhibits appreciable chrysotile cross fiber. In general, the rock is a serpentized peridotite with weathered surfaces having an orangy coloration and fresh surfaces having a greenish-black aphanitic matrix with white feldspar (?) phenocrysts. Serpentinization varies in intensity, being most intense along fractures and shear planes, but also encompassing the whole rock in numerous places.

The cross fiber chrysotile ranges from $1/32''$ - $1/8''$ with most of the fiber less than $1/16''$. It appears that the better grade material (2-5% estimated) is confined to a narrow 50-100' wide shear zone having a strike of approximately 029° .

A second showing is located 2000' to the east of the main showing. The rock is a peridotite with serpentization along widespread hairline fractures. Minor cross fiber chrysotile occurs in some of these fractures.

Magnetometer Survey - Serpentized peridotite outcrops range in value from 2550 γ to 3300 γ , the average being 3000 γ . Outcrops of volcanics and sediments range from 2100 γ to 2450 γ . Based on the above criteria, values over 3000 γ definitely indicate a peridotite source and values between 2500 - 3000 γ indicate a probable peridotite source.

The magnetometer survey can be correlated with an earlier survey filed in May 1971 by D.H. Olson, P.Eng. A check station at the Jay 11 & 2 final post had a value of 4000 γ in the May survey and 3000 γ in the June survey.

EXPENDITURES

The following is a summary of costs incurred, and personnel involved in conducting the magnetometer and geologic surveys on the Jay 11-14, Randy 1-24 and Randy 30-37 mineral claims.

(1)	<u>Fixed Wing Charter - Beaver</u>		\$
	<u>26 June/71 - B.C. Yukon Air Service</u>		
	2 return trips - Watson Lake-Cow Lakes		
	@ \$198/trip		396.00
	<u>6 July/71 - B.C. Yukon Air Service</u>		
	1 return trip - Watson Lake-Cow Lakes		
	@198/trip		198.00
(2)	<u>Accommodation</u>		
	22 man days @ \$7/day		154.00
(3)	<u>Magnetometer Survey</u>		
	<u>Lancaster, Michael</u>		
	4 days @ \$40/day		160.00
	<u>Dunn, William</u>		
	4 days @ \$20.83/day		83.32
(4)	<u>Geologic Mapping</u>		
	<u>Lancaster, Michael</u>		
	6 days @ \$40/day		240.00
	<u>Dunn, William</u>		
	6 days @ \$20.83/day		122.58
(5)	<u>Report and Map Preparation</u>		
	<u>Lancaster, Michael</u>		
	5 days @ \$40/day		200.00
	<u>Olson, D.H.</u>		
	1 day @ \$100/day		100.00
	TOTAL - 1-5 inclusive		<u>1,653.90</u>

D.H. Olson

Declared before me at the

VANCOUVER, B. C. in the

Province of British Columbia, this

NOV 15 1971

A.D.

City of

D.H. Olson
Sub - Mining Recorder

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



D.H. Olson
D.H. Olson,
Professional Engineer,
Province of British
Columbia.

APPENDIX "A"

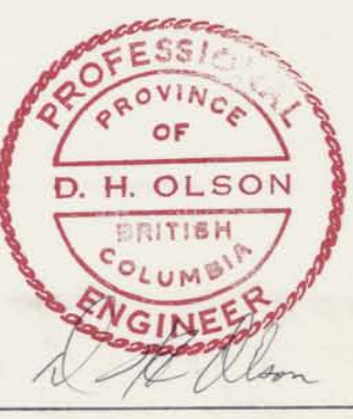
MINERAL CLAIM SCHEDULE

<u>GROUP</u>	<u>CLAIM NAME</u>	<u>RECORD NO.</u>
Pic	Jay 11-14, inclusive	45384-7, Inclusive
	Randy 1-16, Inclusive	50656-71, "
	Randy 17-24, inclusive	50829-36, "
	Randy 30-37, inclusive	50837-44, "



3363
M-1

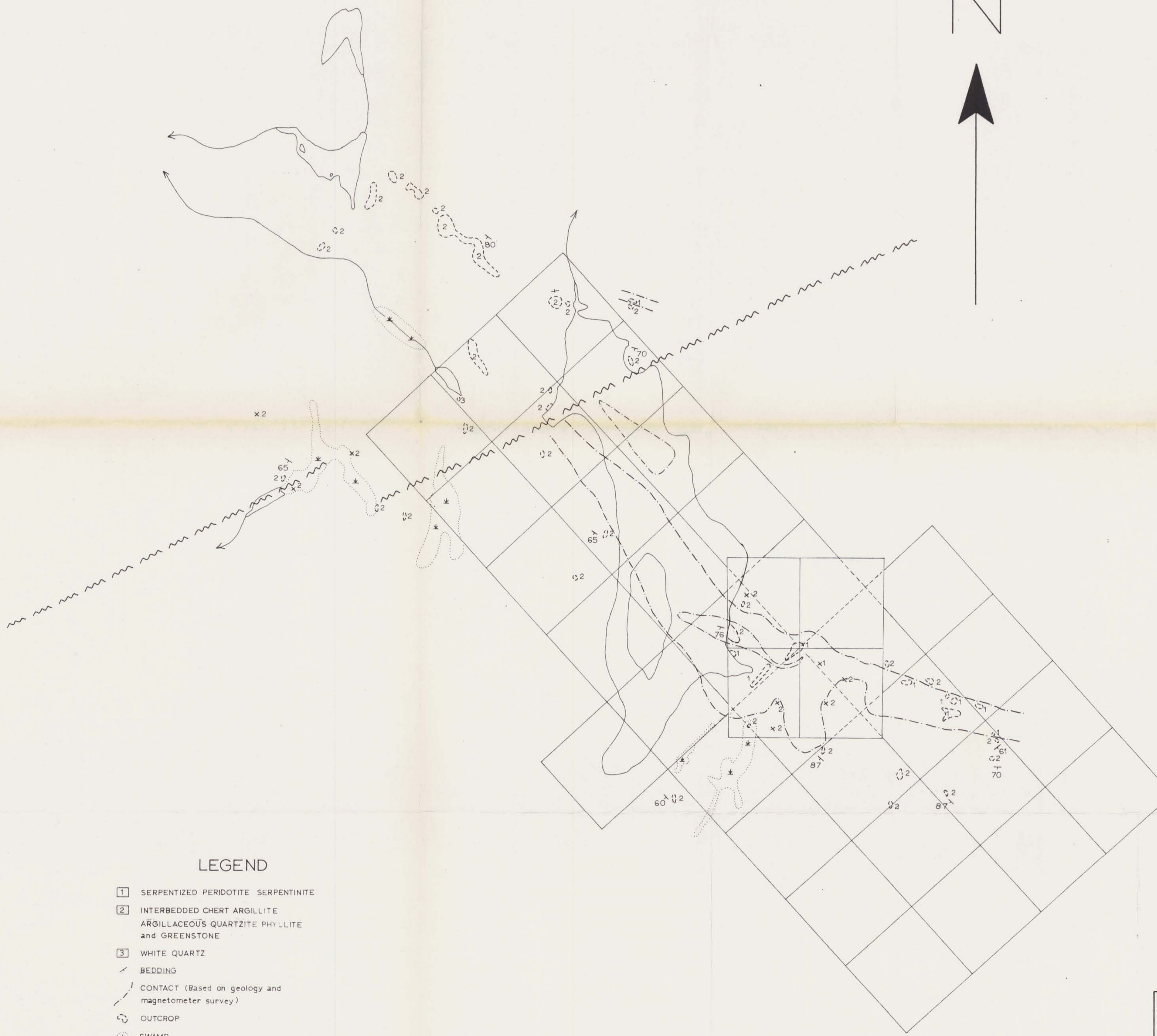
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CLAIM RECORDING DATES

JULY 20 1970	JAY 11-14
MARCH 2 1971	RANDY 1-16
MARCH 19 1971	RANDY 17-24
MARCH 19 1971	RANDY 30-37

ASARCO
HALFMOON LAKE PROJECT
CLAIM MAP
LIARD M.D.
SCALE 1" = 500' MARCH 1971 M.F.L.



LEGEND

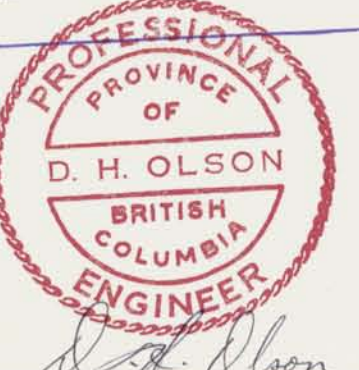
- 1 SERPENTIZED PERIDOTITE SERPENTINITE
- 2 INTERBEDDED CHERT ARGILLITE
ARGILLACEOUS QUARTZITE PHYLLITE
and GREENSTONE
- 3 WHITE QUARTZ
- BEDDING
- CONTACT (Based on geology and
magnetometer survey)
- OUTCROP
- ⊙ SWAMP
- FAULT (INFERRED)



ASARCO
 GEOLOGY
 HALFMOON LAKE PROJECT
 LIARD M.D.
 SCALE 1"=1000' M.LANCASTER OCT. 1971



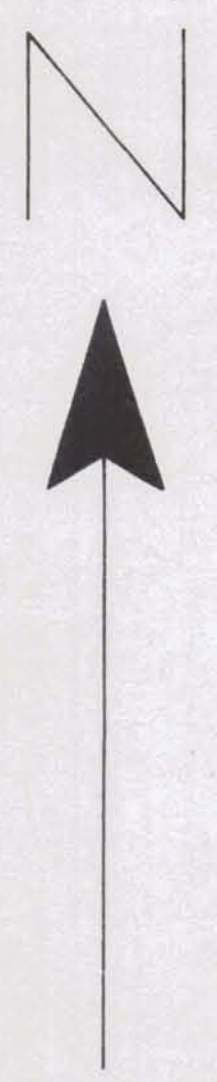
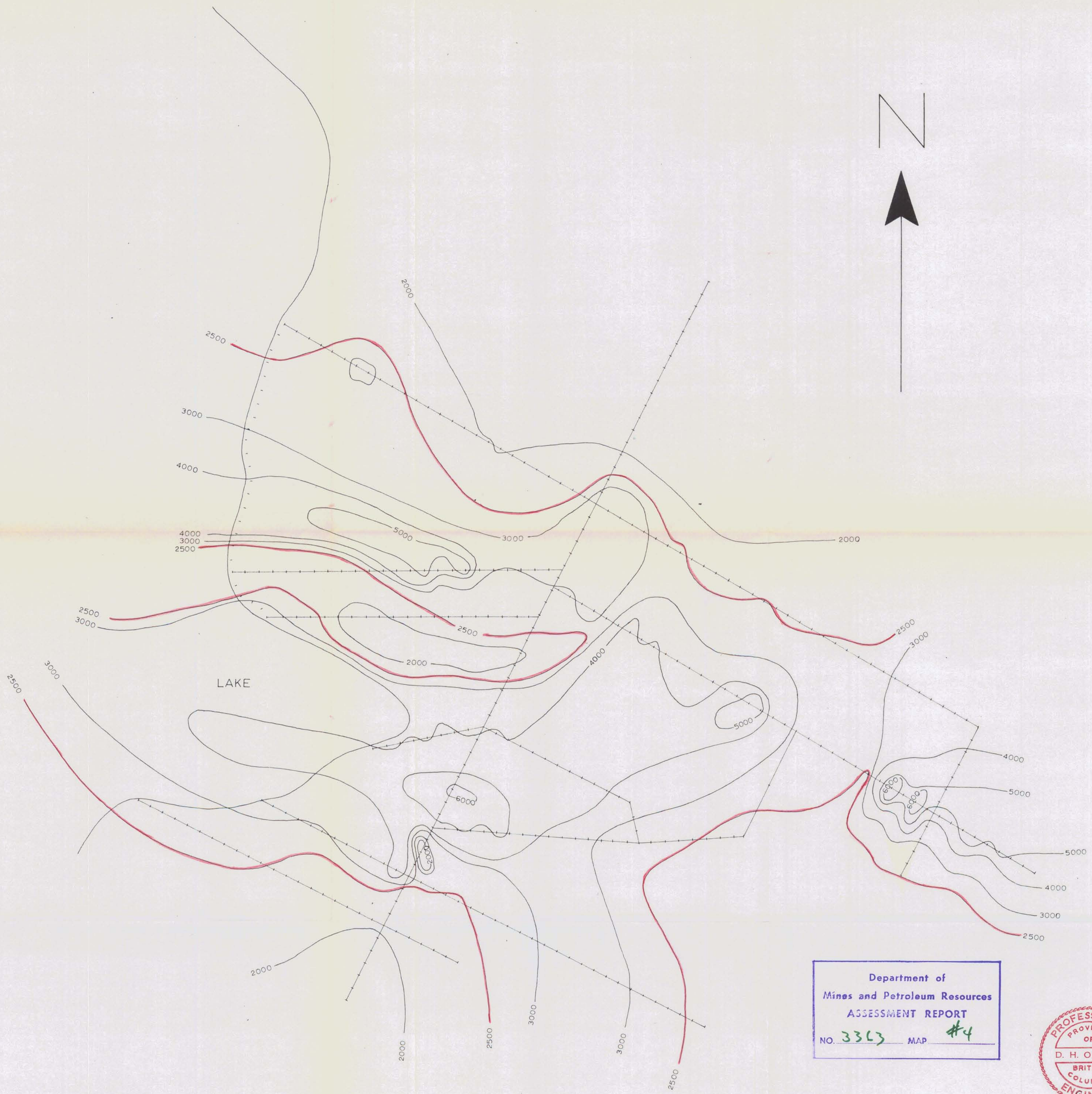
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LEGEND

INSTRUMENT NO.
SCINTREX MF-2 002126

ASARCO
MAGNETOMETER SURVEY
I
HALFMOON LAKE PROJECT
LIARD M.D.
SCALE 1"=200' M LANCASTER OCT. 1971



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LEGEND
 INSTRUMENT NO.
 SCINTREX MF-2 002126
 CONTOUR INTERVAL 1000 GAMMAS

ASARCO
 MAGNETOMETER SURVEY
 II
 HALFMOON LAKE PROJECT
 LIARD M.D.
 SCALE 1"=200' M. LANCASTER OCT. 1971