

92P/7W

MONARCH METAL MINES LTD. (N.P.L.)
Geophysical Survey on
C Soc 11-14, 37-40, 69, 71 Claims
12 Miles NW of Little Fort, B.C.
51°, 120° NE
by Rae G. Jury, P. Eng.
March 4th to 8th, 1968

92P-6

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ALRAE EXPLORATION LTD

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MONARCH METAL MINES LTD.
Magnetometer Survey
C Soo Claims
Clinton Mining Division
70 Mile House, B. C.

ALRAE EXPLORATION LTD.

March 19, 1968

TO PROTECT OUR CLIENTS, THE PUBLIC AND OURSELVES, ALL REPORTS ARE SUBMITTED AS THE CONFIDENTIAL PROPERTY OF CLIENTS AND AUTHORIZATION FOR PUBLICATION OF STATEMENTS, CONCLUSIONS AND EXTRACTS FROM OUR REPORTS MUST RECEIVE OUR WRITTEN APPROVAL.

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MAP

Magnetometer Survey

Scale

1" = 250 ft.

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INTRODUCTION

Mr. Gordon House, a geologist under the general supervision of the writer, conducted a ground magnetometer survey over the north-western corner of the C Soo claim group during the period March 4th to 8th, 1968.

The purpose of this survey was to test the area of the claims on which geochemical soil survey anomalies are known to occur. Magnetometer readings were taken along the same picket lines which were used for soil sampling work. Station readings were at 200 foot intervals along these lines.

LOCATION AND ACCESS

The C Soo claims are located approximately one mile south of Pressy Lake and 20 miles east of the town of 70 Mile House, B.C. A good gravel road easterly from 70 Mile House leads to the claims. Total distance from Vancouver to the claim group by road is approximately 295 miles.

CLAIMS

Claims on which the magnetometer survey was conducted are the C Soo 11 - 14, 37 - 40, 69 and 71. Record numbers are 11359 - 11360, 11367 - 11370, 11377 and 11379. All claims are within the Clinton Mining Division.

GEOLOGICAL SETTING

The area of the magnetic survey is underlain by Jurassic quartz monzonite which is partially overlain by a cap rock of Miocene basalt. Mineralization encountered in this general region consists of disseminated chalcopyrite within the intrusive, the type of occurrence which may at times, form large low grade deposits suitable for open pit mining.

The Miocene basalt is a flat lying formation, resting unconformably on top of a Jurassic intrusive and is known to contain disseminated magnetite and traces of chalcopyrite. The geochemical soil survey anomalies may reflect a higher copper content in the soil due to the minor chalcopyrite in the basalt formation rather than copper mineralization within the granitic rocks.

By conducting the magnetometer survey over this area, it is possible then to determine the extent of the basalt cap rock and its relation to the soil sampling survey anomalies.

MAGNETIC SURVEY PROCEDURE

The instrument used for this survey was the Sharpe fluxgate magnetometer model MF 1. This instrument has a sensitivity of plus or minus 10 gammas and is a direct reading instrument, i.e.: no conversion factors are required.

Instrument readings were taken each 200 feet along picket lines 500 feet apart and corrections were made for diurnal variation. The base line stations were used as base stations for the survey corrections.

As may be seen on the accompanying map, the higher magnetic readings (caused by basalt) occur over the northern extremity of the claim group and over the northeastern portion of the area surveyed. An isolated anomaly occurs on C Soo 11 claim, which is probably due to an erosional remnant of basalt. Basalt is known to occur immediately north of the claims and the magnetometer survey has readily indicated the contact. An isolated negative reading occurs on line 30+00S at station 41+00E. This reading is taken in the bottom of a sharp linear valley and is probably the result of the topographic setting.

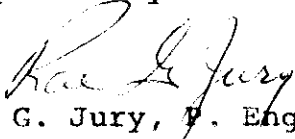
The southwestern front or contact of the Miocene basalt is interpreted as occurring immediately north and northeast of each of the geochemical soil sampling anomalies and would indicate the soil anomalies are most probably due to the small amount of chalcopyrite within the basalts.

CONCLUSIONS AND RECOMMENDATIONS

Interpretation of the ground magnetometer survey indicates that the cap rock basalt occurs immediately adjacent to and north of each of the geochemical soil sampling survey anomalies. A remnant of basalt is thought to occur at the south end of the most westerly soil anomaly. Because of the trace amounts of chalcopyrite known to occur in the basalt flows, it is most likely that the soil survey anomalies are related to the occurrence of basalt rather than to the possible occurrence of an underlying copper bearing zone within the quartz monzonite. Copper content of the basalt is far below present economic grades.

Further exploration of the claims in search of economic amounts of copper mineralization would appear not to be warranted and such work is not recommended.

Respectfully submitted:


Rae G. Jury, P. Eng.

AFFIDAVIT OF COSTS

Magnetometer Survey - C Soo 11-14, 37-40, 69 and 71 Claims
Clinton Mining Division

		<u>Dates Employed</u>	<u>Wages</u>
G. D. House 844 W. Hastings St. Vancouver 1, B. C.	Geologist	March 4-8, 1968	\$ 356.35
R. Jury, P. Eng.	Supervision	March 3, 11 and 19, 1968	100.00
Magnetometer Rental Inst. 705285			75.00
Land Rover Rental (access to claims)			<u>100.50</u>
			\$ <u>631.85</u>

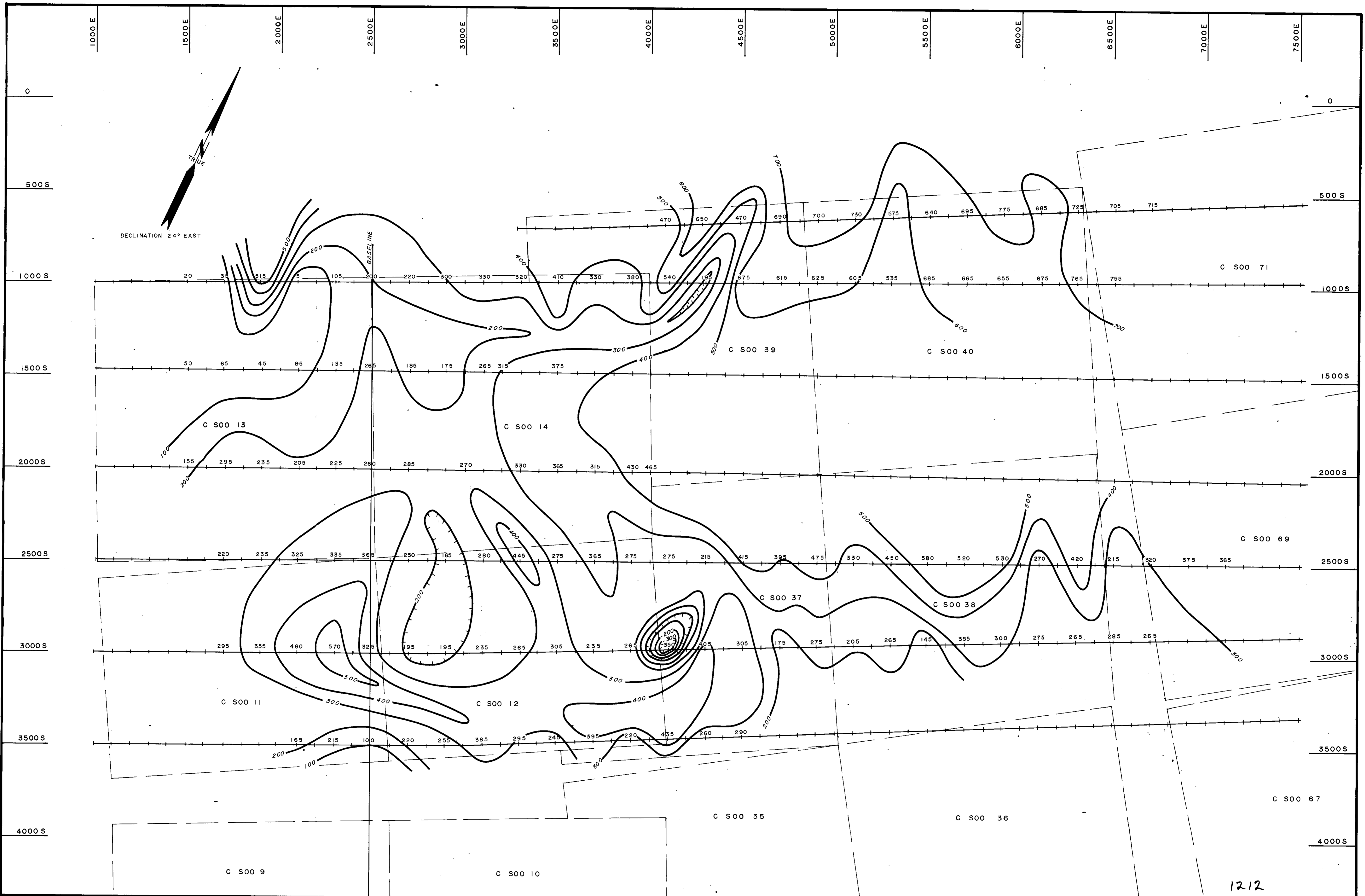
Mr. G.D. House is an honours graduate of Trinity College, Dublin in 1962 and has worked as a geologist in Ireland, Ghana, and Canada. He has been employed by Alrae Exploration Ltd. since August 30, 1965 and has been instructed in the use of the magnetometer by R. Jury, P. Eng.

And I make this solemn declaration conscientiously believing it to be true, and knowing that it is of the same force and effect as if made under oath and by virtue of the "Canada Evidence Act."

Declared before me at the *City*
of *Vancouver*, in the
Province of British Columbia, this *29th*
day of *March*, 1968, A.D.



J. Paul Sub-Mining Recorder,
A Commissioner for taking Affidavits for British Columbia or
A Notary Public in and for the Province of British Columbia.



N.B.
CONTOUR INTERVAL 100 GAMMAS

To Accompany Report by RAE G. JURY, P. ENG.
Date: March 19, 1968

Rae G. Jury

MONARCH METAL MINES LTD.	
C S00 CLAIMS Magnetometer Survey 70 Mile House Area, B.C.	
ALRAE EXPLORATION LTD. GEOLOGISTS AND ENGINEERS VANCOUVER, B.C.	
DESIGNED.....G. D. H.	SCALE: HOR. 1" = 250'
DRAWN.....M. L.	VERT.
CHECKED.....R. G. J.	DWG. No.
DATE.....MARCH 1968	

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