

4369

GEOPHYSICAL REPORT
GROUND MAGNETICS
MOLY MINERAL CLAIMS
(Moly 1-18)

2½ miles North of Malakwa, B.C.
(50°58'N, 118°47'W)

82 L / 15 W
for

DARVA RESOURCES AND DEVELOPMENT LTD.
Vancouver, B.C.

by

Charles A. R. Iamle, P. Eng.
HIGHLAND GEOLOGICAL SERVICES
June 17, 1973

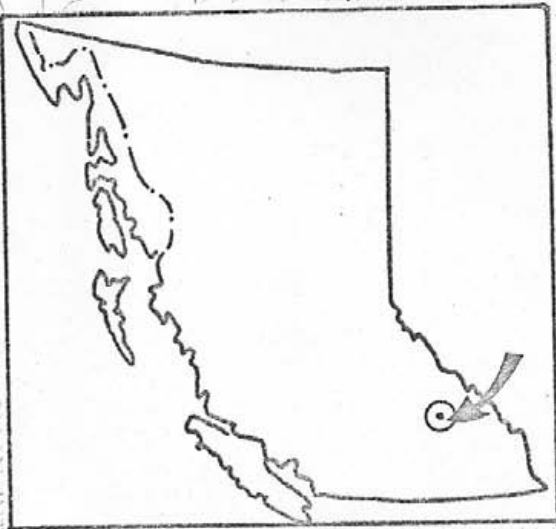
Work done: May 28 - June 11, 1973

<p>Department of Mines and Petroleum Resources ASSESSMENT REPORT NO. 4369 MAP.....</p>
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QUEEST MOUNTAIN
6846

MOLY GROUP



MALAKWA
82 L/15 WEST
1:50,000

4369



YARD CREEK
PROVINCIAL
PARK

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June 17, 1973

GROUND MAGNETICS
MOLY MINERAL CLAIMS
Revelstroke M.D., 82L 15/W B.C.

INTRODUCTION

During May 1973, Highland Geological Services was commissioned by White River Mines Ltd. (NPL), Vancouver, B.C., to carry out a ground magnetic survey, part of a program recommended by R.H.D. Philp, P. Eng. in his report of August 16, 1971, on its wholly owned Moly Group of mineral claims, a molybdenum prospect located near Malakwa, B.C. Work carried out during the interval May 28 - June 11, 1973 consisted of preliminarily surveying the 18 Moly claims; chaining, compassing and ribboning approximately 13.2 miles of survey lines, and measuring (by McPhar M700 vertical field fluxgate Magnetometer) the relative magnetic force at 100' stations along the surveyed lines. The results of the work are plotted and contoured on Map 2, attached.

This report will briefly describe the claims, the background geology, the instrument used and survey procedure, and the results obtained. Interpretations will be presented.

Further information on the area may be obtained in the following references:

1. Jones, A.G., Vernon Map Area, B.C., G.S.C. Mem. 296, 1959.
2. Stevenson, J.S., Molybdenum Deposits of B.C., B.C. Dept of Mines Bulletin 9, 1940, pp. 67 - 70.
3. Philp, R.H.D., Geochemical Survey Report, Moly Group, Malakwa, B.C. B.C. Mineralogical Branch Assessment Report 3163, August 13, 1971

SUMMARY

A McPhar M700 ground magnetic survey was carried out over approximately 13.2 line miles of compassed, chained and ribboned survey lines on Darva's Moly Group of 18 claims located on the steep eastern slopes of Queest Mountain, 2½ miles due north of Malakwa, B.C.

Magnetic relief on the property was found to be of very flat and low order. This is interpreted to reflect massive granite, granite gneiss and quartz-mica shists, all of relatively equivalent chemical compositions and mafic content.

Several local highs of abrupt relief of some 300-400 gammas are thought to be caused by readings taken in proximity to lamprophyre dykes.

The magnetics define an east-west trending magnetic "fabric" which may be characteristic of this particular terrane. This trend is parallel to fold axes described in, and shown on maps of G.S.C. Mem. 296. However, this magnetic trend is nearly perpendicular to the trend of the easterly-increasing magnetic gradient of 80 gammas per mile shown on Government Aeromagnetic Sheet G 4406, Malakwa.

The ground magnetics do not appear to be very useful for extrapolating either rock type or structure from the vicinity of the mineralized shear on Moly 3. The narrow linear low roughly paralleling the southern location line may reflect a separate shear zone. Geological mapping and completion of the soil geochemistry would permit more critical evaluation of the ground magnetics.

CLAIMS

The property consists of 18 located claims. These were found to be well staked and contiguous as shown on attached maps. Details of the claims are as follows:

<u>CLAIM</u>	<u>RECORD NO.</u>	<u>ANNIVERSARY</u>
Moly 1 - 18	10108 - 10125	July 20, 1973

LOCATION AND ACCESS

The property lies between elevations of 2000' and 4500' on the steep, timbered but partly logged, eastern slopes of Queest Mountain, 2½ miles due north of the small settlement of Malakwa, B.C. Malakwa is 11 miles east of Sicamous on B.C. Highway 1, or alternatively, about 35 miles south-west from Revelstoke. Several creeks on the property, of which the largest is Legerwood Creek, could provide adequate supplies of water for exploration purposes. Access to the claims is via a farm road along the base of the hill on the north side of Eagle River to the Lothian property (end of road) and thence on foot along a series of old roads that switch-back up the mountainside. Alternatively, the westernmost of the claims may be reached on foot along other skid roads that branch easterly off the Queest Mountain forest access road. Other, more recent logging roads, now washed out, lead to the easternmost claims.

BACKGROUND GEOLOGY

Moly Group covers granite, granite gneiss and mica shists of the Shuswap Metamorphic Complex. In the local area these rocks are folded along WSW trending axes, and are sheared along northerly and WNW trends, and are cut occasionally by lamprophyre dykes.

Molybdenite, occurring in a north trending, flatly west-dipping shear zone in granitoid rocks at elevation 2720' in Legerwood Creek chasm, has been explored by a 20' adit. A 4.8 foot vertical sample taken from the face of this adit reportedly contained 0.40% molybdenite (Stevenson, p. 69).

The adit was driven prior to 1939, but despite changing ownership several times, the only material exploration work that appears to have been completed since that time is Darva's partial soil-molybdenum survey of 1971 and that company's assessment work of 1972. The geochemical work covered the northern portion of the claims.

GROUND MAGNETICS

The ground magnetic survey consisted of about 13.2 line miles of diurnal variation corrected magnetometer readings taken along the contour-following survey lines shown on Map (pocket).

Instrument and Survey Procedure

The instrument used in the survey was the McPhar M700 fluxgate Magnetometer, an instrument designed to measure variations in the vertical component of the earth's magnetic field. All of the readings of this survey were made on the instrument's most sensitive range -- 20 gammas per scale division -- and the instrument was read to the nearest $\frac{1}{2}$ scale division.

Prior to commencing the survey, the instrument was "zeroed" to permit optimum use of the most sensitive scale. Then a closed loop and corrected magnetometer-traverse of the base line (southwestern location line) was made, and the base line control stations so established and a master control station on the access trail permitted close control and correction of diurnal variation.

Stations were read at 100' intervals along all the survey lines. Instrument operator was the author.

Some of the factors which influence the earth's magnetic field and which are necessary considerations in interpreting magnetic work are listed below:

1. Variations in the amount of magnetic minerals in bedrock.
2. Variations in the amount of detrital magnetic minerals in overburden.
3. Concentrations of magnetic minerals.
4. Depth to the center of influence of an anomalous magnetic material.
5. Alteration and/or destruction of magnetic minerals.
6. Combinations of the above.

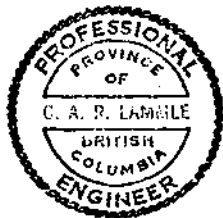
Results and Interpretations

Map 2 (pocket) shows the individual corrected readings contoured at intervals of 50 gammas. General magnetic relief is very low -- only about

400 gammas -- and of the same general order over the whole of the property. A distinctive characterizing east-west trend has been defined. This parallels the direction of fold axes described in, and shown on maps of G.S.C. Mem. 296, but it is perpendicular to the northerly trend of the regional gradient (80 gammas per mile increasing easterly) shown on Government Aeromagnetic Sheet G 4406, Malakwa. Several one- or two-station local highs are attributed to readings fortuitously taken near lamprophyre dykes, and a long narrow linear low trending east-west near the base line is thought to be due to a shear zone. The low order relief of the general magnetics is interpreted to reflect a general uniformity and similarity of mafic content in the granite, gneiss and shist of the Shuswap Metamorphic Complex in the local area.

CONCLUSIONS AND RECOMMENDATIONS

The ground magnetics does appear to permit extrapolation of either rock types or important structures near the molybdenum showing on Moly 3, and indicates no peculiarity near the known mineralization. It would appear that the magnetics offer little assistance in prospecting for additional mineralization. Completion of the soil-molybdenum survey and a complete geological mapping program of the property would give the most useful results, and would permit further interpretations of these magnetics. These latter two surveys along with additional prospecting are accordingly recommended.



Respectfully submitted,

Charles A. R. Lammle

Charles A.R. Lammle, P. Eng.

June 17, 1973

TIME DISTRIBUTION & EXPENDITURES INCURRED
MOLY 1-18 CLAIMS
REVELSTOKE M.D. B.C. 1973

1. LINES; chaining, ribboning, compassing

A. Drescher (May 29 - June 8/73)	10 days @ 40	400-	
R. Grenier (May 29 - June 8/73)	10 days @ 40	400-	
C. Lammler supervision (May 29-30)	2 days @ 75	150-	950-

2. MAGNETOMETER SURVEY

C. Lammler (May 28 - June 11/73)	10 days @ 75	750-	750-
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3. MAGNETOMETER RENTAL

95-

4. TRANSPORTATION
TRUCK RENTAL
GASOLINE

150-
59.75

5. Ribbon, Felt pencils, misc.

19.50

EXPENDITURES INCURRED.

\$ 2024.25

ASSESSMENT CREDIT CLAIMED

\$ 1800-

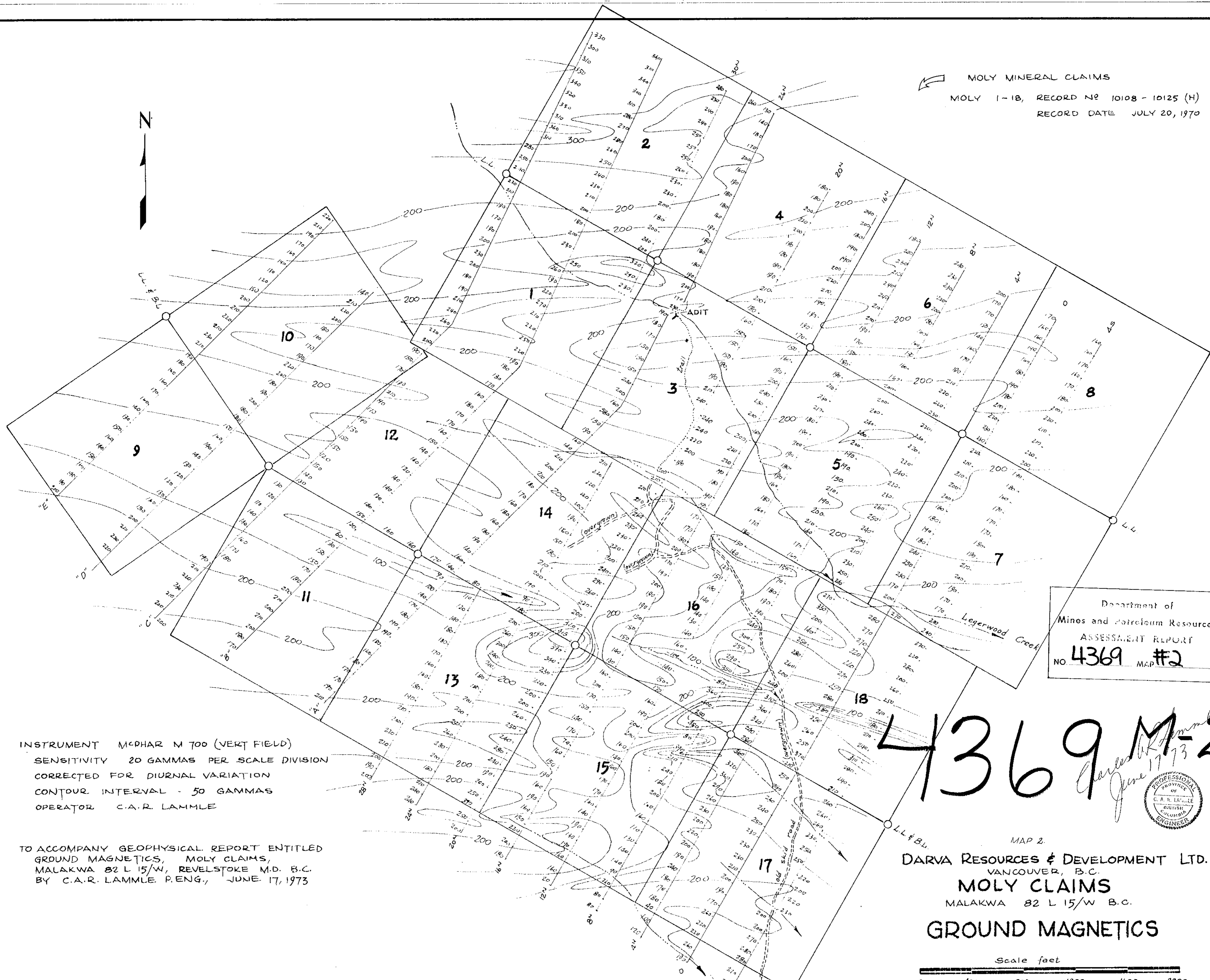
Declared before me at the City
of Vancouver, in the
Province of British Columbia, this 18
day of June, 1973, A.D.

C. Lammler

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

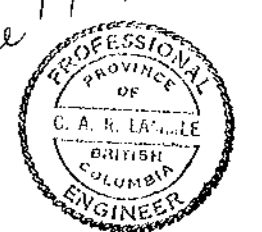
L. J. JAMES RECORDER

MOLY MINERAL CLAIMS
 MOLY 1-18, RECORD NO 10108 - 10125 (H)
 RECORD DATE JULY 20, 1970



Department of
 Mines and Petroleum Resources
 ASSESSMENT REPORT
 NO. 4369 MAP #2

4369 M-2
Charles A. R. Lammle
 June 17 1973



INSTRUMENT MOPHAR M 700 (VERT FIELD)
 SENSITIVITY 20 GAMMAS PER SCALE DIVISION
 CORRECTED FOR DIURNAL VARIATION
 CONTOUR INTERVAL - 50 GAMMAS
 OPERATOR C.A.R. LAMMLE

TO ACCOMPANY GEOPHYSICAL REPORT ENTITLED
 GROUND MAGNETICS, MOLY CLAIMS,
 MALAKWA 82 L 15/W, REVELSTOKE M.D. B.C.
 BY C.A.R. LAMMLE P.ENG., JUNE 17, 1973

MAP 2.
DARVA RESOURCES & DEVELOPMENT LTD.
 VANCOUVER, B.C.
MOLY CLAIMS
 MALAKWA 82 L 15/W B.C.
GROUND MAGNETICS

