

REPORT ON THE
MAGNETOMETER SURVEY
OF THE
WET CLAIM GROUP
WHITEHORSE MINING DIVISION,
YUKON TERRITORY,
FOR
MINTO MINING LIMITED

This report has been examined by the Geological Evaluation Unit and is recommended to the Commissioner to be considered as representation work in the amount of \$4800.00

D.B. Craig

Resident Geologist or
~~Resident Mining Engineer~~

Considered as representation work under
Section 53 (4) Yukon Quartz Mining Act.

[Signature]

Commissioner of Yukon Territory

McPHAR GEOPHYSICS

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1. INTRODUCTION

At the request of Mr. C.S. MacKenzie, agent for the Company, we have carried out a magnetometer survey of the Wet Claim Group for Minto Mining Limited. The property is situated 15 miles north of Carmacks in the Whitehorse Mining Division of the Yukon Territory. Access is by light aircraft to Merrice Lake.

Field work was carried out in November of 1973 using McPhar M-700 fluxgate magnetometers, measuring the vertical component of the earth's magnetic field, with a readability of five gammas. Two instruments were used for the survey and a third was employed as a base station recorder to provide diurnal corrections.

2. PRESENTATION OF RESULTS

All instruments were adjusted to a base level of zero so that

virtually all of the measurements were positive. The survey was carried out on a grid of east-west lines spaced 400 feet apart, with stations at 50-foot intervals. The corrected readings for each station are shown on the accompanying Drawing M-4952 at a scale of 1" = 200'.

In addition, the measured variations in the vertical magnetic field have been contoured at 50-gamma intervals to facilitate interpretation and correlation with other data.

3. DISCUSSION OF RESULTS

According to information provided by Minto Mining Limited, the property is of interest for the following reasons: 1) the property is underlain by an offshoot of the granodiorite batholith that is the host for several copper-molybdenum deposits in the area and 2) other work carried out by the Company indicated several areas of weakly anomalous copper geochemical samples. Experience in the area suggests that magnetic lows may correlate with zones of alteration and sulphide mineralization and this observation was the basis for the present survey.

In general, magnetic relief on the Wet Claims is low, with only one local area exceeding 600 gammas relief. In particular, the southwestern third of the property from Line 0 to Line 4000S exhibits very low relief. The magnetic level decreases along the south boundary of the property but it is not clear whether this represents a sub-surface change or merely increasing thickness of overburden.

There is a prominent magnetic low in the northwestern section of the property, extending roughly from Line 1200N to Line 3200N and from about 10W to the west boundary. This area probably warrants further investigation.

A second prominent magnetic low occurs in the northeast section of the property, extending from about 1E, Line 3200N to 15E, Line 1200N. Here again, further work seems to be justified.

There is also an irregular but less pronounced zone between Line 1200S and Line 0, from about 6W to 14E.


Several distinct magnetic "highs" are also apparent on Drawing M-4952. One of these extends for the entire length of Line 400N and Line 800N and, as a result, the data are somewhat suspect. Part of the increase, relative to the adjacent lines, may have been due to a level change within the base station recorder but obviously there is too much relief along the two lines for this to be the only factor. Similarly, the data for Line 3600N and Line 4000N may be too high. The field crew reported changes in topography at Line 400N and Line 3600N, hence part of the increased level may indicate a decrease in overburden on the higher ground. A check with the Dominion Observatory at Victoria showed no magnetic storms or major diurnal variations at the time the survey was performed.

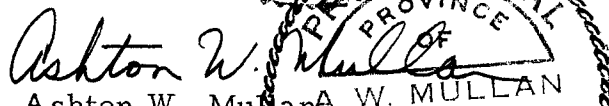
On the other hand, the isolated magnetic highs at 17E on Line 0, 15E on Line 1600N, 12E on Line 2000N and 4E on Line 2400N appear to represent local sub-surface features.

4. SUMMARY AND RECOMMENDATIONS

The magnetometer survey has outlined two large areas of low magnetic intensity on the Wet Claim Group, one in the northwestern section and one in the northeastern section. Both areas should be checked by at least two reconnaissance Induced Polarization traverses to test for the presence of metallic mineralization. The weaker magnetic low on Line 800S should also be checked with one IP traverse at the same time.

McPHAR GEOPHYSICS COMPANY


Robert A. Bell,
Geologist/Geophysicist


Ashton W. Mullan, A. W. MULLAN
Geologist.



Dated: January 25, 1974

ASSESSMENT DETAILS

PROPERTY: Wet Claim Group

PROVINCE: Yukon

SPONSOR: Minto Mining Limited

TYPE OF SURVEY: Magnetic

OPERATING MAN DAYS:	20	DATE STARTED: November 6, 1973
EQUIVALENT 8 HR. MAN DAYS:	30	DATE FINISHED: November 13, 1973
CONSULTING MAN DAYS:	5	NUMBER OF STATIONS: 1813
DRAUGHTING MAN DAYS:	15	NUMBER OF READINGS: 1813
TOTAL MAN DAYS:	50	MILES OF LINE SURVEYED: 33.88

CONSULTANTS:

Robert A. Bell, 55 Roanoke Road, Don Mills, Ontario.

Ashton W. Mullan, 1440 Sandhurst Place, West Vancouver, B.C.

FIELD TECHNICIANS:

R. Belanger, 252 MGR Rhiaume Est. Rouyn, Quebec.

K. Hoeberg, 602 Windsor Street, Kamloops, B.C.

DRAUGHTSMEN:

B. Boden, 103 Petworth Crescent, Agincourt, Ontario.

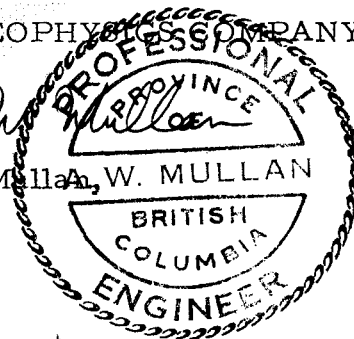
C. May, 5 Eastmoor Crescent, Scarborough, Ontario.

M. Kimmerer, 5 Brookbanks Drive, Apt.#1105, Don Mills, Ontario.

McPHAR GEOPHYSICAL COMPANY

Ashton W. Mullan

Ashton W. Mullan, W. MULLAN
Geologist



Dated: January 25, 1974

STATEMENT OF COST

Minto Mining Ltd. Mag. Survey - Wet Claim Group, Yukon

2 - 1 man crews

R. Belanger
K. Hoeberg

Minimum charge

35 line miles @ \$160.00/mile

\$5,600.00

Breakdown of above

10 days Operating	@ \$201.40	\$2,014.00
2 days Travel) 6 days	@ \$125.00	750.00
4 days Preparation)		

Expenses

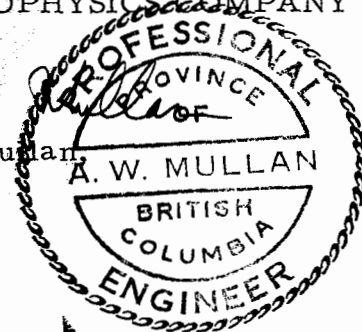
Air Fares	466.00
Excess Baggage	12.50
Aircraft rental	1,275.52
Taxis	49.20
Meals and Accommodation	363.62
Freight and Brokerage	394.76
Telephone & Telegraph	1.00
Supplies	15.58
	<u>2,578.18</u>
+ 10%	<u>257.82</u>

2,836.00

\$5,600.00

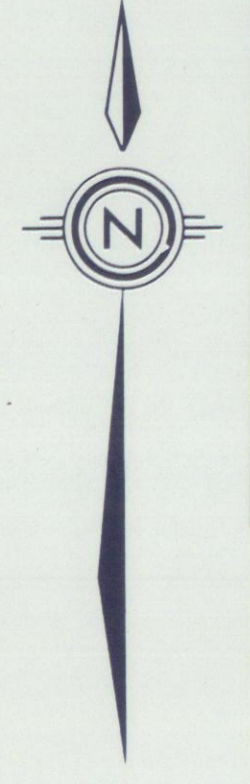
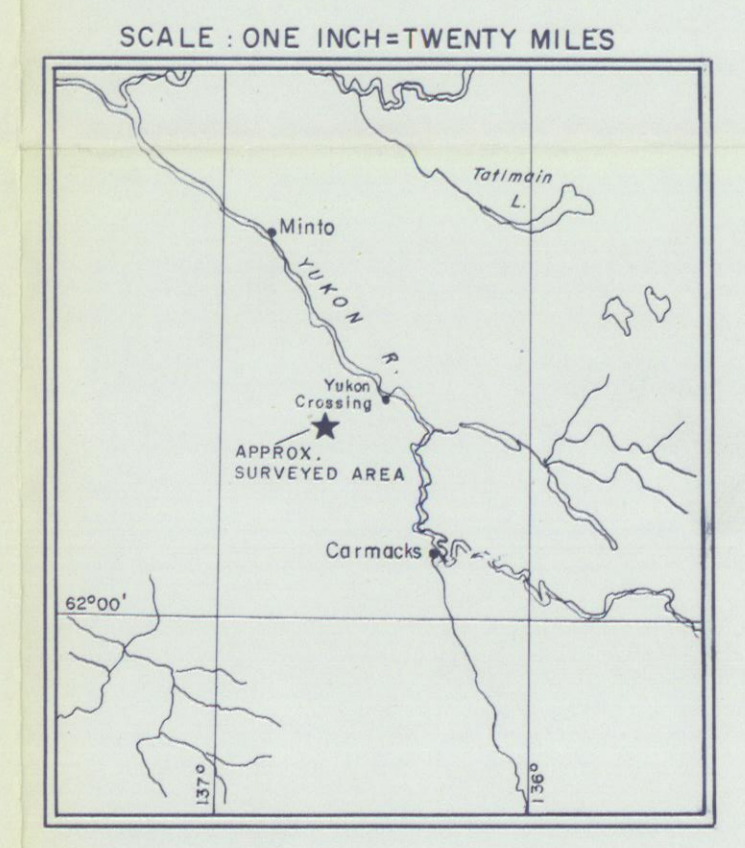
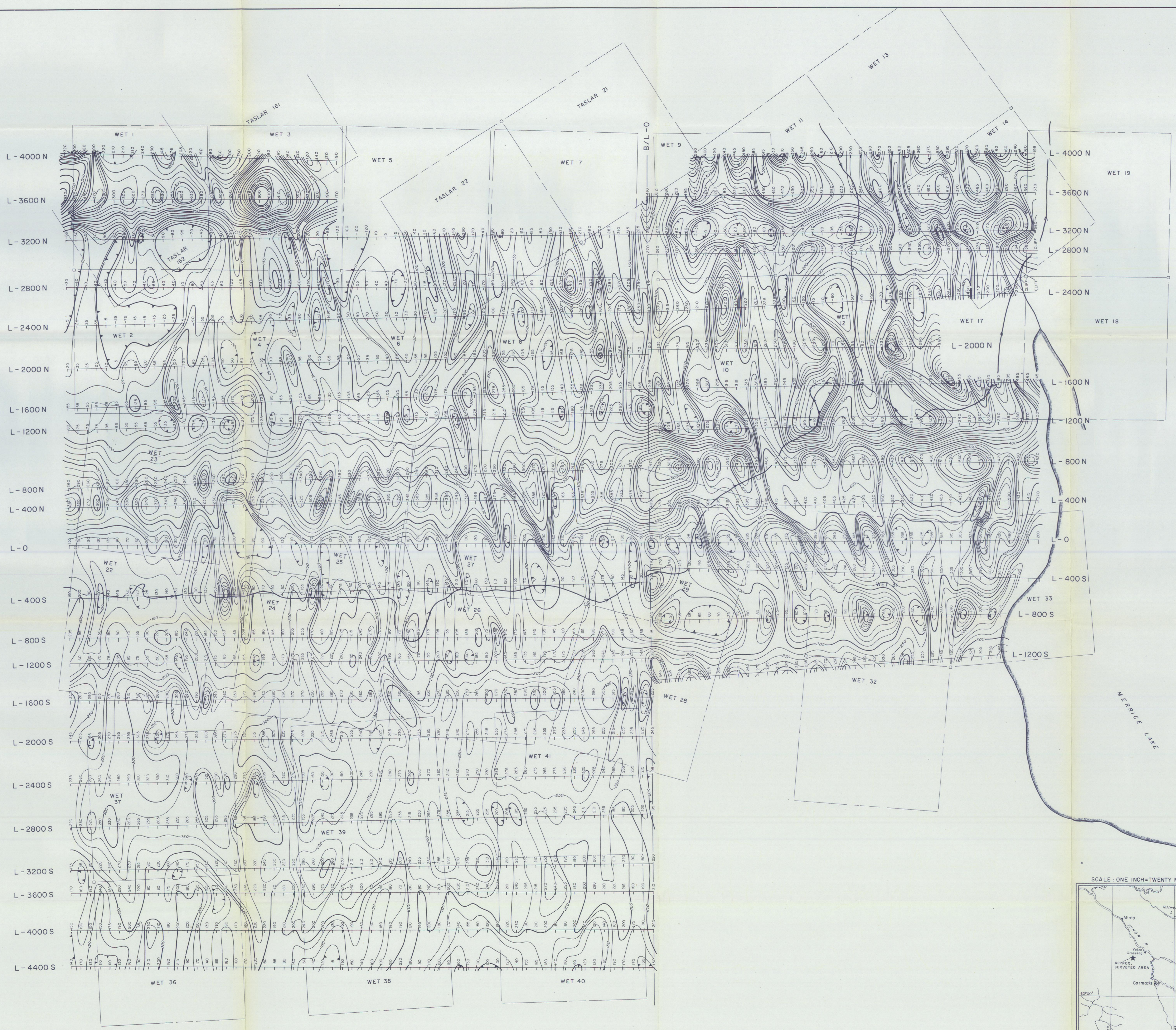
McPHAR GEOPHYSICS COMPANY

Ashton W. Mullan
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Geologist



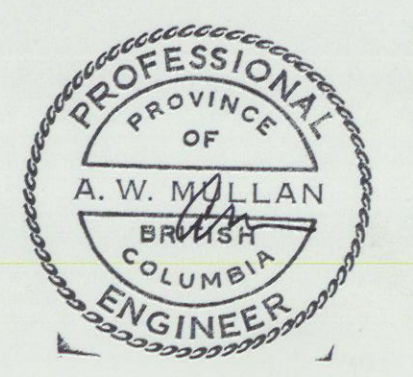
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McPHAR GEOPHYSICS
MAGNETOMETER SURVEY
PLAN MAP



MINTO MINING LTD.
WET CLAIMS, WHITEHORSE M.D.
YUKON TERRITORY
SCALE
ONE INCH EQUALS FOUR HUNDRED FEET

NOTE
CONTOUR INTERVAL 25 γ
25 γ
100 γ



PROFESSIONAL
GEOPHYSICS
A.W. McPhar
COLUMBIA
ENGINEER
DATE: JUN 23 1974
DRAWN: B.L.B.