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BALFOUR MINING LTD. (N.P.L.)

MAGNO CLAIMS

LIARD M.D., B.C. 104 - P - 5 (W)

Lat. 59° 30' N Long. 129° 48' W

REPORT ON GEOLOGICAL SURVEY

104P/5W

by

Department of	
Mines and Petroleum Resources	
ASSESSMENT REPORT	
NO. 5578	MAP

V. CUKOR, P. ENG.

JULY, 1975

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1. INTRODUCTION

During the month of July 1975, the author spent five days on the Magno property in the vicinity of Cassiar, B.C. on behalf of Balfour Mining Ltd. (N.P.L.). The company recently optioned this silver-lead-zinc prospect from its owner, Consolidated Coast Silver Mines Ltd. (N.P.L.)

The author has performed detailed geological mapping on the topo map 1" = 200' with 50' contour intervals. Detailed geological mapping was also carried out on the 4850' adit. For that purpose, the 1" = 20' survey plan of the underground workings was reduced to 1" = 50' scale. A ground magnetometer survey was carried out on the re-established and extended old Magno grid.

During the field work, the author was accompanied by Mr. Harold Vannerus, Prospector and Company Director.

2. PROPERTY, LOCATION, ACCESS

The Magno claim group consists presently of the following contiguous mineral claims

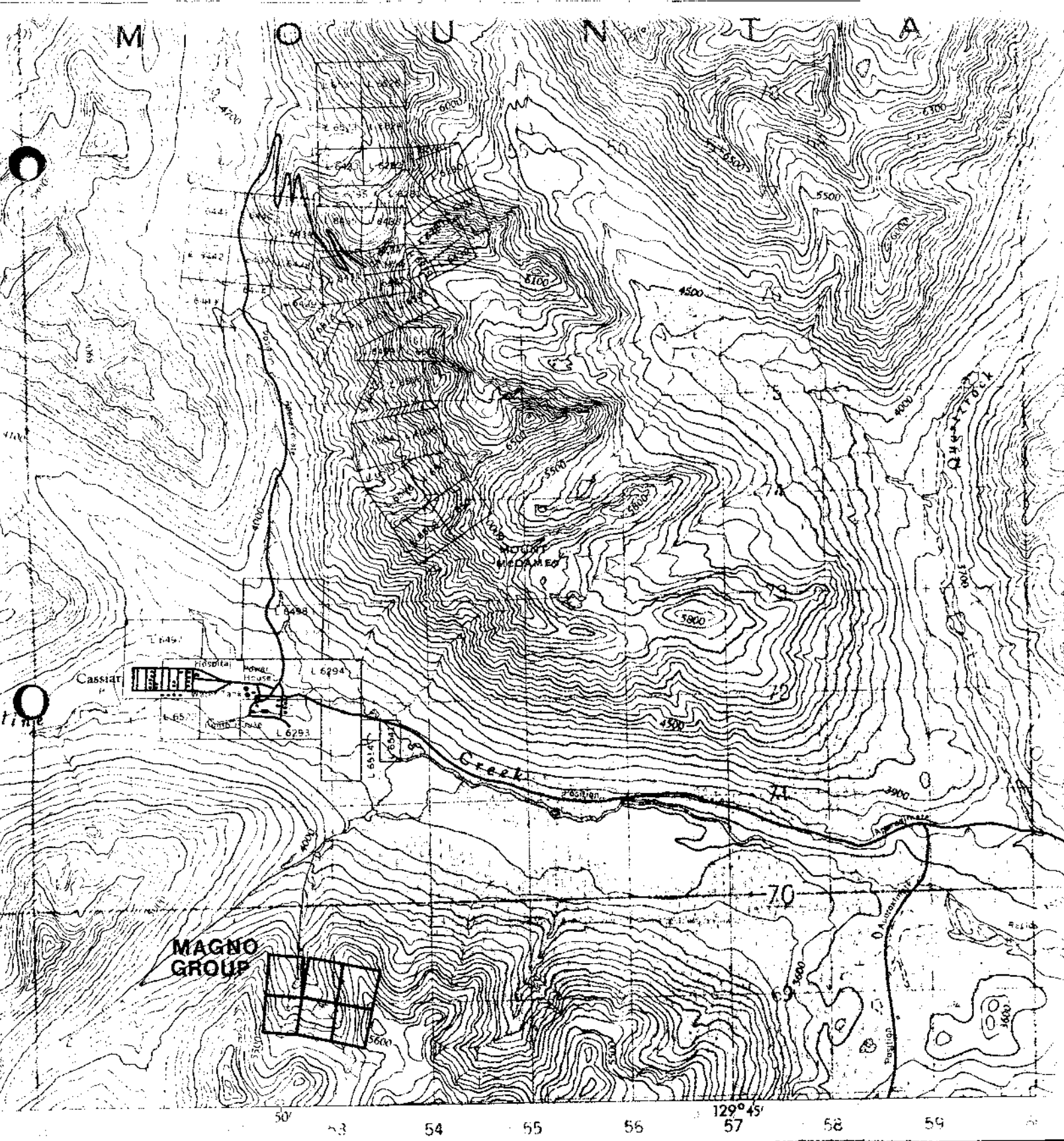
<u>Claim No.</u>	<u>Record No.</u>	<u>Expiry Date</u>
Magno 1 - 4 (incl)	15800 - 15803	October 23, 1975
Jean 1 - 2 (incl)	31633 - 31634	August 16, 1975

The property is located about three miles S.E. of the community of Cassiar, B.C. in the Liard Mining Division, B.C. It is on sheet 104 - P - 5(W) N.T.S. at the 129° 48' W longitude and 59° 30' N latitude.

The claims are readily accessible by approximately two miles of truck road from Cassiar, B.C.

The claim group lies on the north facing slope at an elevation from 4500 ft to 5500 ft above sea level. Plentiful water for exploration purposes is available from Marble Creek during the summer season.

M O U N T A I N



Scale 1:50,000

BALFOUR MINING LTD.(N.P.L.)
LOCATION MAP

129 0481

[Handwritten signature]

3. HISTORY

The silver-lead-zinc Magno showings were discovered in the early 1950's. Since 1954 several mining companies carried out various types of exploratory work. The most active of these was Coast Silver Mines Ltd. (N.P.L.) who were involved in exploration work from 1968 - 1971 over an area of 168 claims.

Airborne and ground magnetometer surveys, I.P. survey, extensive geochemical survey and geological mapping on 1" = 1,000' was performed, followed by diamond drilling and underground development. During 1968 and 1969 a total of 45 B.Q. holes were drilled for a total of 11,993 feet on the Magno claims, and in 1971, 1,714 feet of underground development was completed on two levels, followed by 2,773 feet of underground drilling in 25 holes.

Although the results of this work were encouraging, the property has been idle since 1971.

4. REGIONAL GEOLOGY

The regional geology of the Cassiar, B.C. area is shown on the G.S.C. 4 mile map by H. Gabrielse, G.S.C. Memoir, 319, 1963.

According to this map, the area is underlain by the sedimentary sequence of the Proterozoic to Mesozoic eras, forming a synclinorium with N.W. - S.E. axis. A number of major faults and thrusts sub-parallel these geological features. Numerous smaller, irregular intrusive bodies of ultrabasic rocks follow some of these faults, one of them hosting a major asbestos deposit in Cassiar, B.C.

In the northerly and easterly part of the map area the sedimentary complex is buried under a deep cover of unconsolidated glacial and fluvioglacial deposits. Along the western flank of the anticlinorium is a contact with a granitic intrusive of the Jurassic Cassiar Batholith.

A number of mineral occurrences, mainly silver-lead-zinc, gold, molybdenum and/or copper are known in the contact zone of the batholith or in the surrounding sediments.

5. LOCAL GEOLOGY

The old topo 1" = 200' map of Marble basin area has been used for the detailed geological mapping. Both adits and the new road to the adits have been located on the map, using Brunton and tape method. Brunton and altimeter were used to locate most of the geological information on the map.

The lower Cambrian calcareous sediments underlay the largest part of the Magno claims. They belong to the upper part of the Atan group. In the mapped area, these sediments consist mainly of well bedded to massive, bluish grey limestone which in places becomes thin bedded to schistose. Irregular zones of dolomitization with gradational change into limestone were encountered in several places, more often on the slope west of the west fork of Marble Creek. In various areas, limestone is intensely recrystallized into coarse grained marble, with occasional disseminations of fine grained pyrite.

At least three zones of brownish-grey argillite with silicious laminations were found interbedded with limestone and/or dolomite. Fine lenses of slightly magnetic pyrrhotite decisively following the bedding are mostly concentrated in the silicious bends and in places account for better than 5% of the rock mass. Such an argillite zone, along the west fork of Marble Creek, is very possibly a cause for the I.P. anomaly, found during the survey in 1969.

The contact with Kechika carbonaceous slates is in the eastern part of Marble basin which conformably overlies the Atan group. The contact is not visible in this area, as it is covered with a thick layer of black soil.

5. LOCAL GEOLOGY (Cont'd)

Bedding in both, Atan limestones and Kechika slates is fairly uniform with a general north-south strike and easterly dip at an average of 40° - 45° . Local variations from the general trend caused by the faulting and folding were found throughout the mapped area.

Several fracture systems were noted to cross the basin in an east-west direction, about perpendicular to the bedding. Basic dykes sometimes accompanied by magnetite veins are noted along the most intense systems. Silver bearing galena and generally significant zinc mineralization appears as irregular blobs along the magnetite veins. The main zinc minerals seems to be smithsonite and zincite, while minor honey coloured sphalerite was found only occasionally. Some of the lead-zinc mineralization is believed to form the offshoots from the main vein, following the bedding or openings along the north-south fractures. The most prominent of such vein structures exceeds 3,000 feet in length and averages approximately 11 feet in width. It was tested on a number of locations by the B.Q. core holes and in its western part, by the underground drifting on the two levels, and also by some underground drilling from the lower level. The author has mapped the lower level adit (4,850 feet elevation) on a 1" = 50' scale, while the 5,050 feet adit is caved in and is inaccessible. From the surface mapping it appeared that the magnetite - galena - smithsonite mineralization is closely related to the mentioned basic dyke and appears mostly on its north, but sometimes also on its south side. While a similar situation appears in the upper adit, on the lower level, the dyke was not encountered either in the adit or in any of the drill holes. No logical explanation for this anomaly has been found so far.

6. MAGNETOMETER SURVEY

A ground magnetic survey employing a "Sabre" vertical component fluxgate magnetometer was conducted on 200 foot grid lines and 50 foot stations. A part of the old Magno grid was used for this survey and in places this grid was extended. The instrument employed is calibrated to read directly to 40 gammas with estimation to 20 gammas.

As shown on the appended 1" = 100' map, the survey revealed that the area underlain by limestone or dolomite exhibits the values of 600 - 800 gammas on an arbitrary scale. A strong magnetic high outlines the shape and position of magnetic bodies, showing an about east - west elongated structure, somewhat spotty in the eastern part and strong and continuous on its western side. A number of north-south faults are interpreted on the basis of both magnetic survey and geological mapping.


7. SUMMARY & RECOMMENDATIONS

During the period 1968 - 1971 exploration on the Magno claims outlined a steeply dipping vein structure with a length of over 3,000 feet, containing magnetite with silver-lead-zinc mineralization. An extensive drilling program revealed drill indicated ore of approximately 375,000 tons of 5.7 oz/ton Ag, 6.0% Pb and 3.7% Zn over an average width of 11.5 feet. This includes 101,500 tons of probable and possible reserves of 9.8 oz/ton Ag, 12% Pb, and 4.3% Zn outlined by the underground program in the western part of the Magno zone. The possibility of finding 500,000 tons of above grade ore seems very realistic.

A further program is recommended to be carried out in two stages. About \$25,000.00 should be allowed for the first stage, to complete about 1,000 feet of underground drilling from the lower level in six holes. A transit survey of surface holes should be completed and compilation of all exploration data should be carried out before the commencement of the next stage of exploration.

In the second stage, the lower level adit should be extended to the lower Atan quartzite contact, and at least 3,000 feet of underground drilling will be required for an adequate ore reserves assessment. An additional \$200,000.00 will be necessary to complete this stage of exploration.

Respectfully submitted


V. Cukor, P. Eng.

APPENDIX "A"

The personnel employed and the costs incurred during the program carried out on the Magno property since July 15, 1975 is as follows:

FIELD WORK

V. Cukor, P. Eng, Geologist	5 days @ \$150.00	\$ 750.00
H. Vannerus, Prospector	5 days @ \$ 60.00	300.00
Field Expenses	10 days @ \$ 20.00	<u>200.00</u>
Total Field Work		\$1,250.00

REPORT

V. Cukor, P. Eng.	2 days @ \$150.00	\$ 300.00
Drafting	3 days @ \$ 60.00	180.00
Printing, Typing		70.00
Misc.		<u> </u>
Total Report		\$ 550.00

SUMMARY:

FIELD WORK	1,250.00	
REPORT	<u>550.00</u>	<u>\$1,800.00</u>

AFFIDAVIT

I. VLADIMIR CUKOR, P. Eng., of 2841 West 18th Avenue,
Vancouver, B.C. hereby declare:

In the matter of the Magno Claims, Report on
Geological Survey, and the list of personnel employed
and costs incurred as listed in Appendix "A" of this
Report, that I have inspected and/or carried out personally
the work and that the information contained in Appendix "A"
is true and accurate to the best of my knowledge and belief.




VLADIMIR CUKOR, P. ENG.

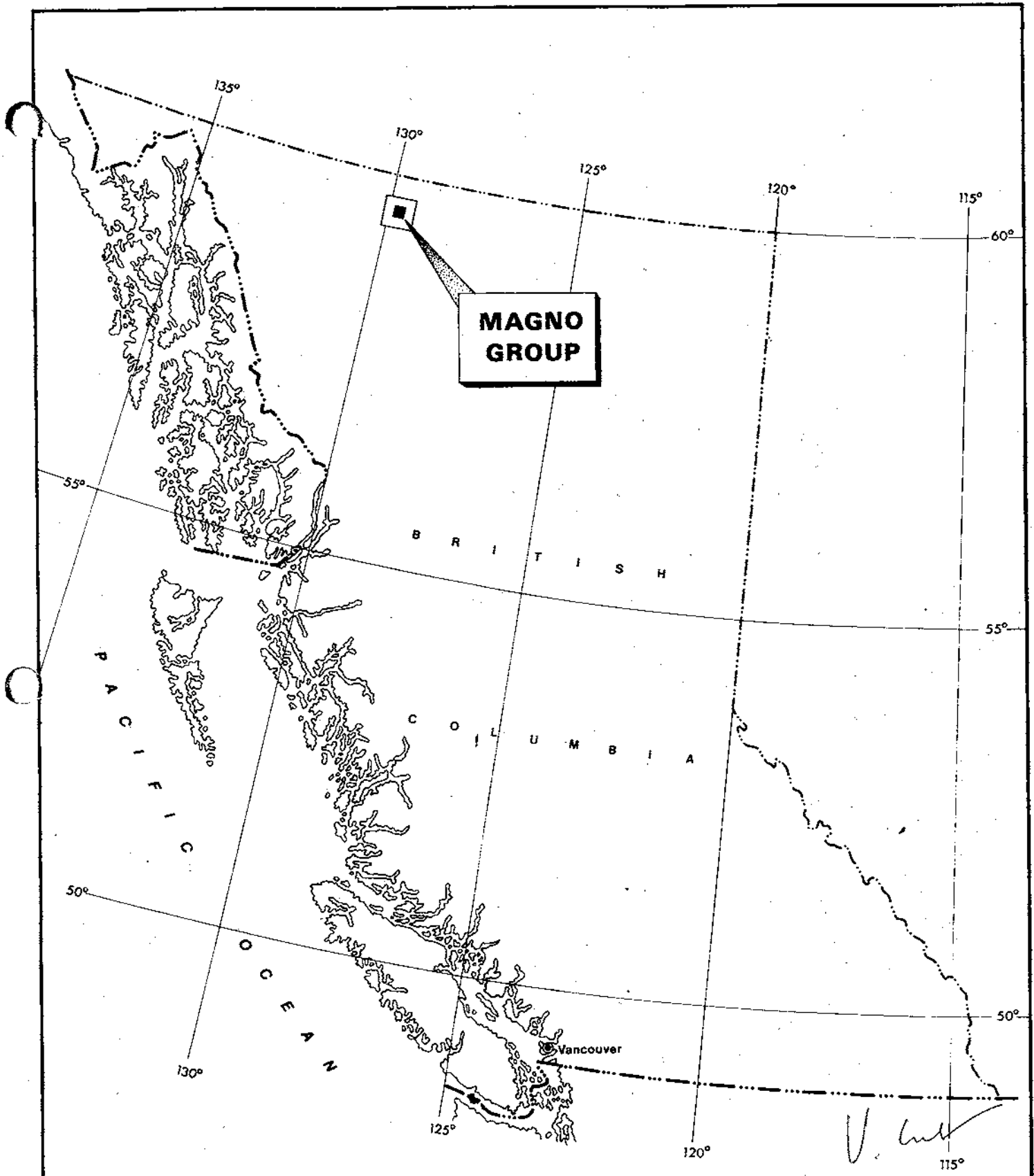
CERTIFICATE

I. Vladimir Cukor, P. Eng., of 2841 West 18th Avenue,
Vancouver, B.C. DO HEREBY CERTIFY:

1. That I am a Geological Engineer
2. That I graduated from the University of Zagreb, Yugoslavia in 1963.
3. That I am a Registered Professional Engineer in the Geological Section of the Association of Professional Engineers of the Province of British Columbia.
4. That I have practised my profession as a Geological Engineer for the past 12 years both in Yugoslavia and Canada
5. That I have personally supervised and/or carried out the work on the Magno project
6. That I have no interest in any of the securities or properties of BALFOUR MINING LTD. (N.P.L.) nor do I expect to acquire or receive any.


V. CUKOR, P. ENG.

Dated at Vancouver, B.C., this day of August 1975



BALFOUR MINING LTD. (N.P.L.)

MAGNO GROUP

LOCATION MAP

LIARD M.D.

104-P-4,5

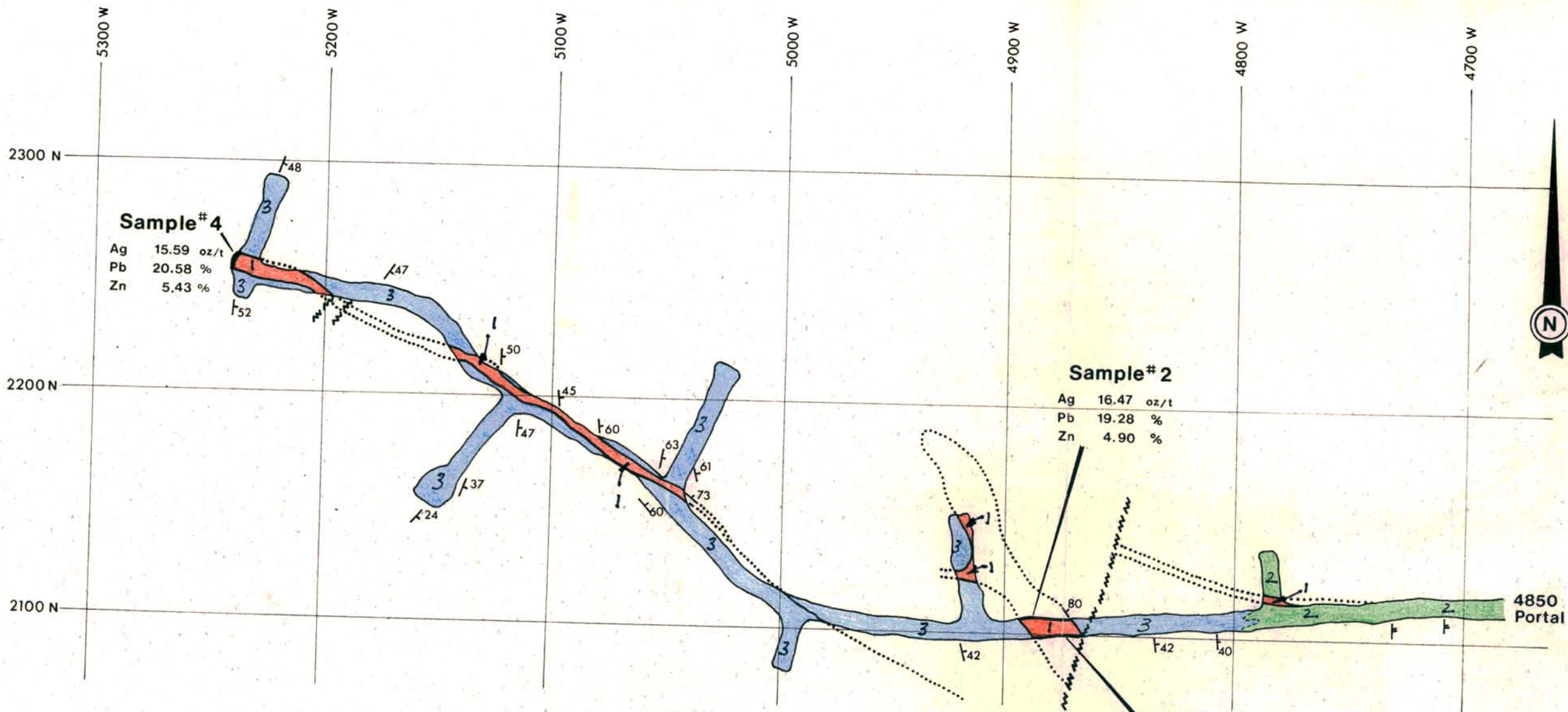
VLADIMIR CUKOR, P.Eng.

VANCOUVER, B.C.

DATE: August 1975

SCALE: 0  100 Miles

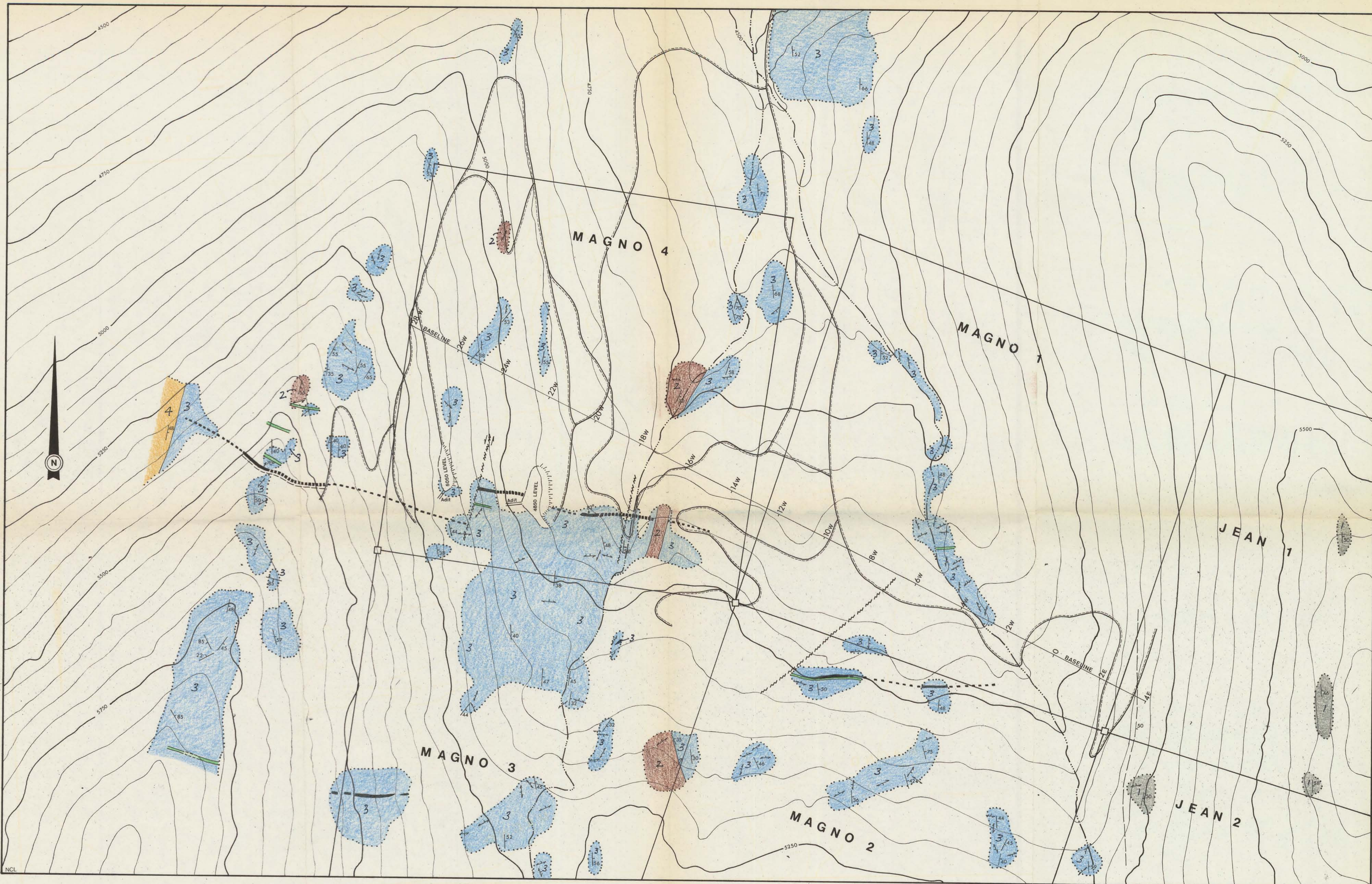
FIG. 1



- LEGEND**
- 3 Limestone
 - 2 Dolomite
 - 1 Vein
 - Bedding
 - Fault
 - Gradational Geological Contact

V. Cukor

BALFOUR MINING LTD. (N.P.L.)		
MAGNO GROUP		
UNDERGROUND DEVELOPMENT		
GEOLOGY PLAN - 4850 LEVEL		
LIARD M.D.	104-P-4,5	
VLADIMIR CUKOR, P.Eng.		VANCOUVER, B.C.
DATE: August 1975	SCALE: 1" = 50' (approx.)	FIG. 3



LEGEND

- | | | |
|--------------------|-------------------------------|-------------------------|
| LOWER ALTAN | | Fault |
| | 4 Quartzite | Basic Dyke |
| UPPER ALTAN | | Magnetite - Galena Vein |
| | 3 Limestone, Dolomite, Marble | Exposed |
| | 2 Argillite | Indicated |
| KECHIKA | | Inferred |
| | 1 Black Shale | Bedding |
| | | Joints |
| | | Outcrop Boundary |
| | | Road |

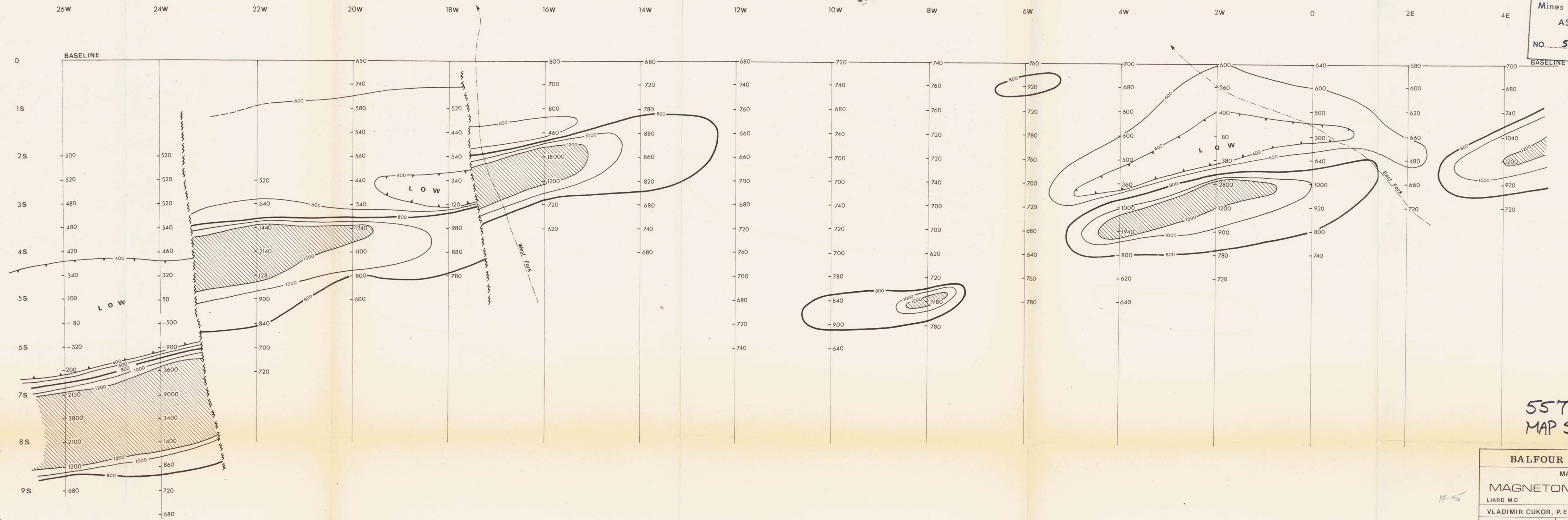
To accompany report by V. Cukor, P. Eng.

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 5578 MAP 4

BALFOUR MINING LTD. (N.B.L.)
MAGNO GROUP
GEOLOGICAL MAP
LIARD M.D. 104-P-4.5
VLADIMIR CUKOR, P. Eng. VANCOUVER, B.C.
DATE: August 1975 SCALE: 0 100 200' FIG. 2

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MAP 4

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
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MAP 5

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BALFOUR MINING LTD. (N.P.L.)	
MAGNO GROUP	
MAGNETOMETER SURVEY	
LIARD M.D.	104-P-4,5
VLADIMIR CUKOR, P.Eng.	VANCOUVER, B.C.
DATE: August 1975	SCALE: 0 100'
	FIG. 4

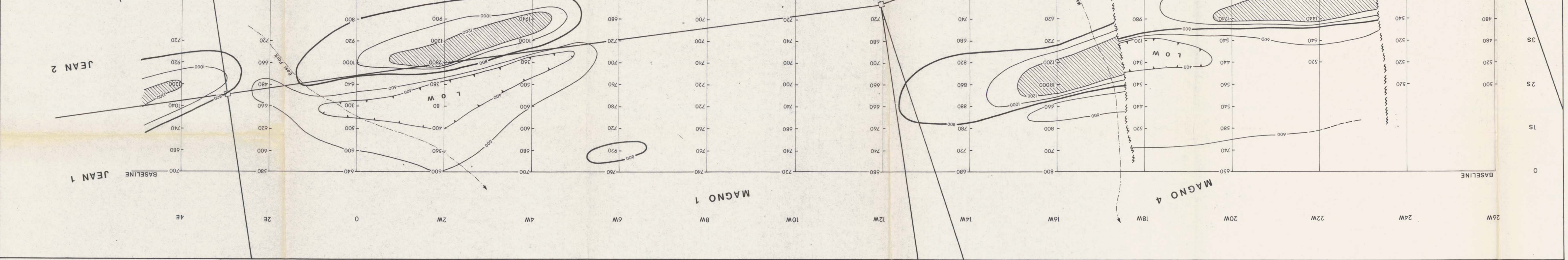
To accompany report by V. Cukor, P.Eng.

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BALFOUR MINING LTD. (N.P.L.)
 MAGNO GROUP
 MAGNETOMETER SURVEY
 LIARD M.D.
 104-P-4.5
 VLADIMIR CUKOR, P. Eng.
 VANCOUVER, B.C.

DATE: August 1975
 SCALE: 1" = 100'
 FIG. 4

Department of
 Mines and Petroleum Resources
 ASSESSMENT REPORT
 NO. 5578 MAP 6



To accompany report by V. Cukor, P. Eng.