

# 5713

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

#5713

MAGNO GROUP

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

Lat. 59°15'N Long. 129° 48'W

CLAIM: MAGNO 104P/5W

## PROGRESS REPORT

## UNDERGROUND DRILLING PROGRAM

by

Department of Mines and Petroleum Resources	
ASSESSMENT REPORT	
NO. 5713	MAP.....

V. CUKOR, P. ENG.

November

1975

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1. INTRODUCTION

During the months of September and October 1975, Balfour Mining Ltd. (N.P.L.) conducted the first stage of the exploration program on the combined Magno and Chiera properties in the Cassiar, B.C. area. The program consisted of road repairs and B.Q. underground diamond drilling.

Three holes were completed from crosscut E at the 4850' level. The fourth hole from crosscut D on the same level stopped about 20' short of intersecting the vein due to breakdowns in the equipment. At this point the program was suspended. A total of 471' of drilling was completed out of approximately 600' proposed.

The core has been logged by the author and the mineralized sections delivered to General Testing Laboratories to be assayed for silver, lead and zinc. The remaining core is stored on the property.

## 2. PROPERTY, LOCATION, ACCESS

The 1975 program was conducted on the 6 mineral claims of the Magno group and the surrounding 20 Chiera claims. The Magno group has been optioned by Balfour Mining Ltd. from Consolidated Coast Silver Mines Ltd. The Chiera claims are owned by Mr. W. Storie of Cassiar, B.C. and are optioned by Balfour Mining Ltd. on a first refusal basis.

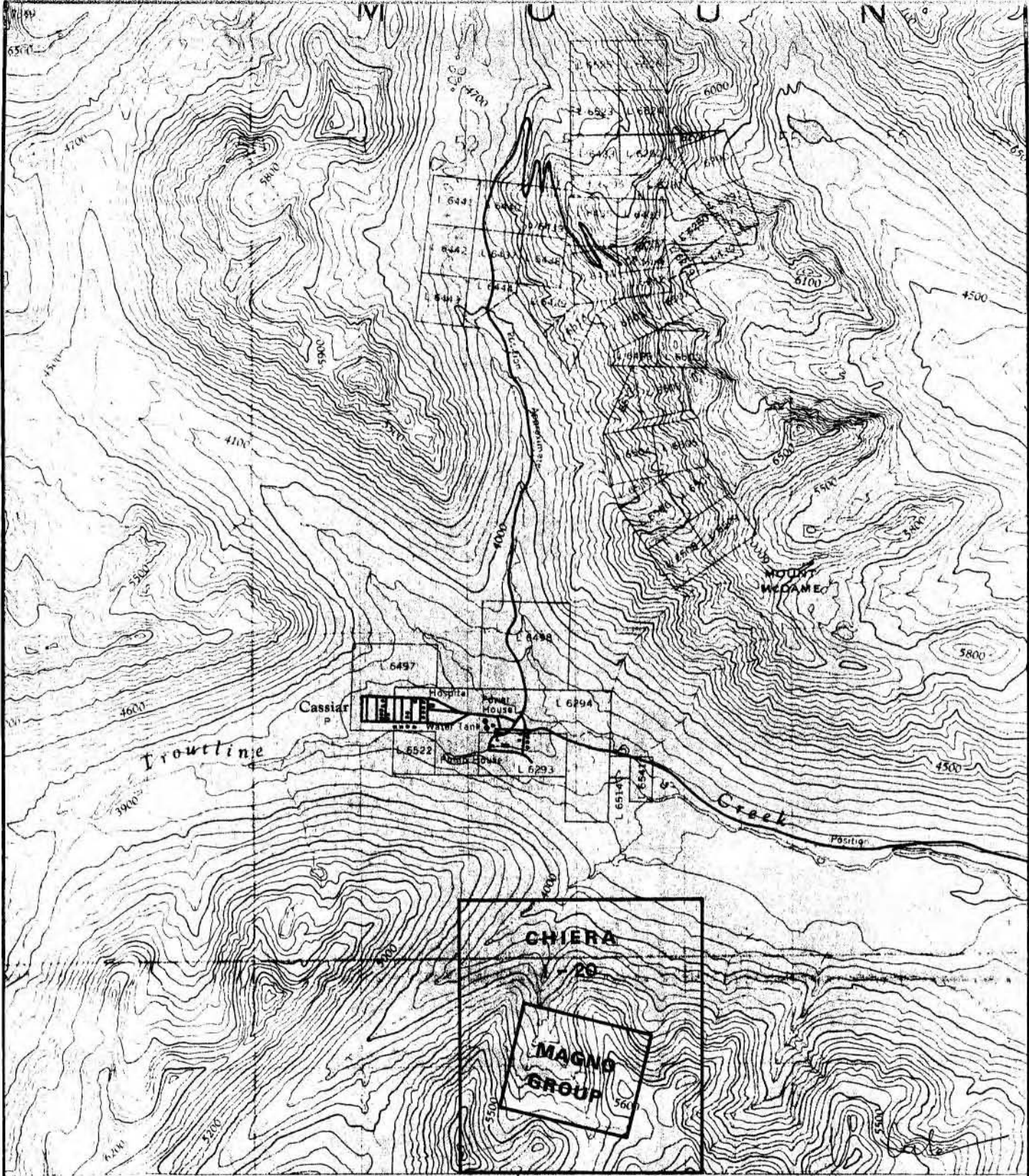
The claims and record numbers are as follows:

<u>Claims</u>	<u>Record Nos.</u>	<u>Expiry Date</u>
Magno 1 - 4	15800 - 15803	October 23, 1976
Jean 1 - 2	31633 - 31634	August 16, 1976
Chiera 1 - 20	Lot #2	March 1976

The property is located in the Cassiar, B.C. area on N.T.S. sheet 104-P-5, at north latitude 59°15' and west longitude 129°48' at an elevation from 4500' to 6000' above sea level.

The workings on the Magno claims are readily accessible by the Cassiar Highway and by about 2 miles of tote road to Marble Basin. A number of four wheel drive roads provide access to almost any part of the workings.

All timber and water for the exploration and camp purposes are readily available on the property.



5713 M-1

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

**MAGNO GROUP**

**LOCATION MAP**

LIARD M.D.

104 - P - 4,5

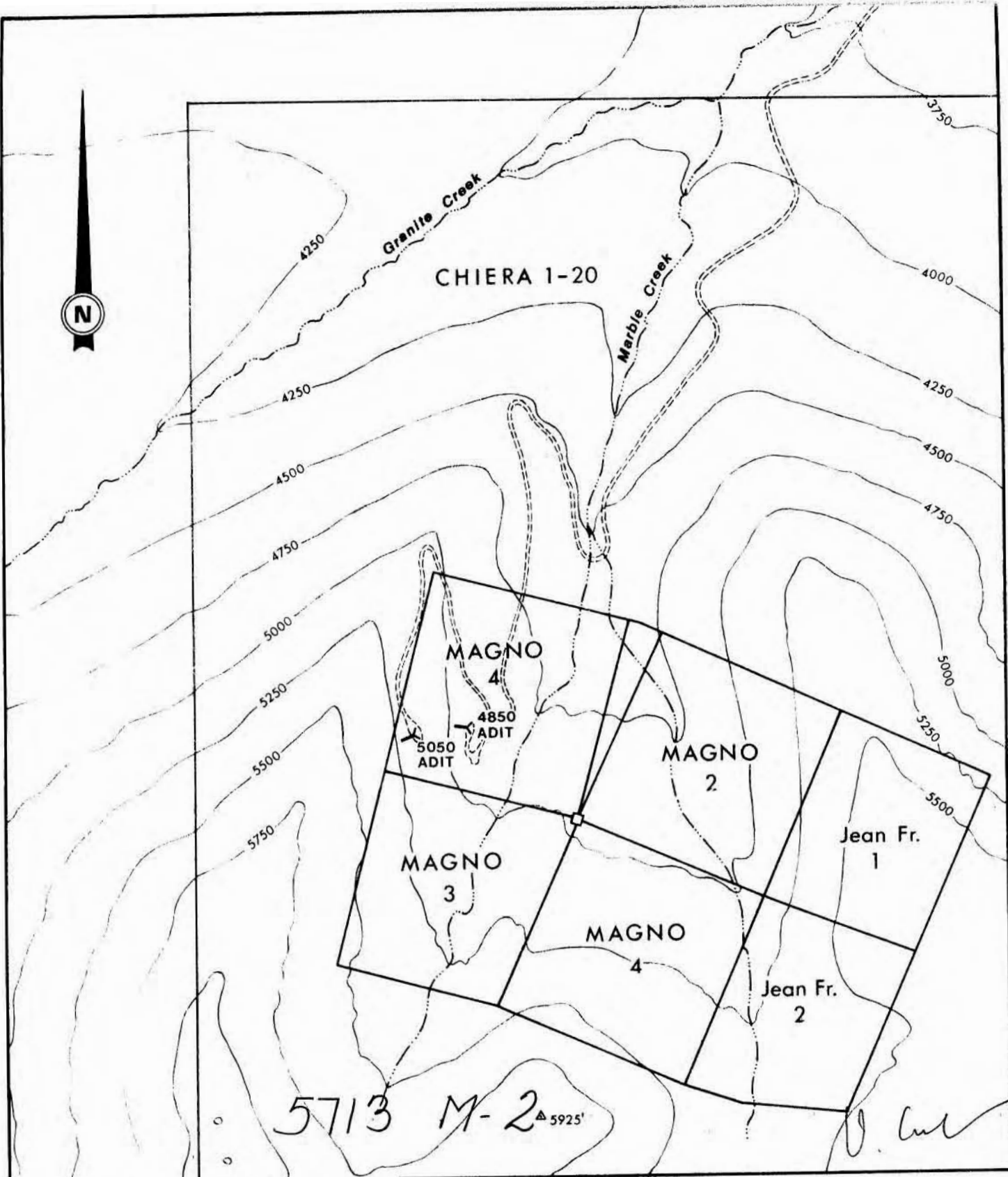
VLADIMIR CUKOR, P. Eng.

VANCOUVER, B.C.

DATE: Nov. 1975

SCALE: 1 = 50 000

FIG. 1



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

**MAGNO GROUP  
CLAIM LOCATION MAP**

LIARD M.D., B.C.

104 - P - 4, 5

VLADIMIR CUKOR, P. Eng.

VANCOUVER, B.C.

DATE: Dec. 1975

SCALE: 0 1000'

FIG. 3



3. DRILLING

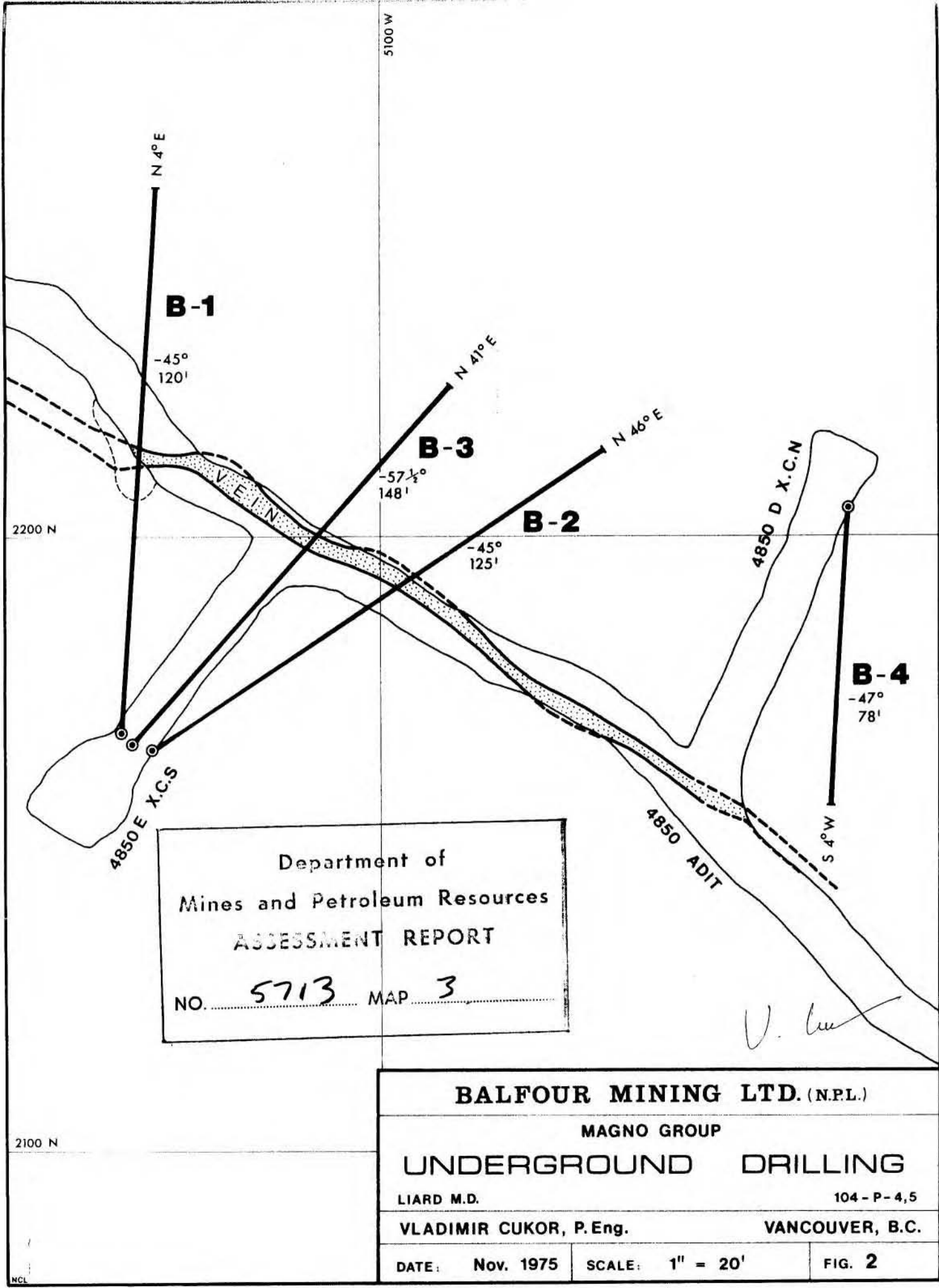
From the 4850 level, three underground B.Q. diamond drill holes were completed and the fourth hole started to test the magnetite - galena vein at further depth. The holes were marked as B-1 to B-4. A number of difficulties occurred during drilling, due to frequent equipment breakdowns, unusually low temperatures for that time of the year and snow falls with drifting on the access roads. This finally led to suspending the program before completing hole B-4 and three other proposed holes.

The holes B-1 to B-3 were collared on the foot wall side of the vein and drilled in a northerly direction. Hole B-4 was collared in D crosscut at the hanging wall side of the vein and drilled southerly. This hole was stopped about 20' short of intersecting the vein.

Table I summarizes the drilling data.

Drill Hole	Collared	Direction	Angle	Length
B - 1	X Cut E	N 4°E	-45°	120'
B - 2	X Cut E	N 46°E	-45°	125'
B - 3	X Cut E	N 41°E	-57½°	148'
B - 4	X Cut D	S 4 W	-47	78' (Not completed)

TABLE I



Department of  
 Mines and Petroleum Resources  
 ASSESSMENT REPORT  
 NO. 5713 MAP 3

<b>BALFOUR MINING LTD. (N.P.L.)</b>	
<b>MAGNO GROUP</b>	
<b>UNDERGROUND DRILLING</b>	
LIARD M.D.	104 - P - 4,5
VLADIMIR CUKOR, P. Eng.	VANCOUVER, B.C.
DATE: Nov. 1975	SCALE: 1" = 20'
	FIG. 2

*V. Cukor*

2100 N

2200 N

5100 W

NCL



3. DRILLING (Cont'd)

The drill results were very encouraging and a larger program is recommended for the next phase. The B-3 hole has intersected the vein approximately 125' below the adit level, while B-1 and B-2 intersections are about 60' below the adit. The core recovery in the wall rocks was excellent, while along the vein differs considerably. Magnetite is usually recovered from 85% - 100%, but galena is in general ground up and recovered in small rounded pebbles. Limonite and manganese also often appear as black gouge which is generally washed out during drilling. In hole B-1, in the 10' vein section from 92' - 102' only 5' of core was recovered with most of the core lost in the first 5' interval where pebbles of galena appear. Therefore, it is a realistic expectation that with better core recovery the assay results should improve considerably.

As noted before, during previous exploration, the vein consists of magnetite with manganese oxides with irregular blobs of argentiferous galena, smithsonite. Minor sphalerite and some zincite are also irregularly distributed throughout the vein.

3. DRILLING (Cont'd)

In holes B-2 and B-3, zones of almost barren dolomite and limestone appear in the vein as well. Zones of high grade silver-lead appear in holes B-1 and B-2 at the foot wall side of the vein, while in hole B-3 it is almost in the middle of the vein, but on the opposite side of the barren zone in hole B-2.

Two methods were used to calculate the average grades and two sets of results are presented for each hole. In the first method, only the volume of each section was used, while the second set of results was calculated using the weight. Because the vein consists of materials whose specific gravity differs considerably that method should provide more realistic results. Because of a great difference in core recovery along the vein intersections the weight of any sample was calculated by multiplying the volume of the sample with a specific gravity calculated on the basis of the assay results of main components. Some errors were introduced in calculations using the component assays for each hole for iron and manganese instead of using individual assays for each sample.

3. DRILLING (Cont'd)

The following tables summarize assay results and calculated averages:

Method #1 (Volume only)Hole B-1

Sample No.	Footage		Ft.	Ag (oz/t)	Pb (%)	Zn (%)
	From	To				
70 101	92'	97'	5'	18.28	22.92	5.69
70 102	97'	102'	5'	4.37	6.28	1.31
70 103	102'	107'	5'	3.82	4.72	3.33
Average	92'	107'	15'	8.82	11.31	3.44

Hole B-2

70 104	95'	99'	4'	10.67	12.28	5.05
70 105	99'	102'	3'	12.08	15.27	4.65
70 106	102'	108'	6'	.31	.42	1.00
70 107	108'	112'	4'	3.80	3.28	2.69
70 108	112'	115'	3'	2.91	4.11	5.25
Average	95'	115'	20'	5.26	6.15	3.33
	95'	102'	7'	11.27	13.56	4.56

Hole B-3

70 109	117'	122'	5'	2.44	2.94	1.37
70 110	122'	127'	5'	1.20	1.75	2.83
70 111	127'	129.5'	2.5'	.09	.17	.40
70 112	129.5'	132.5'	3'	15.14	21.62	1.14
70 113	132.5'	136'	3.5'	1.71	2.31	1.87
70 114	136'	140'	4'	1.24	1.56	3.55
Average	117'	122'	23'	3.25	4.48	2.01
	129.5'	140'	10.5'	5.37	7.54	2.30

METHOD #2 (Specific Gravity)

Sample No.	Footage			Specific Gravity	L x Spec. Grav.	Ag (oz/t)	Pb (%)	Zn (%)	Assay x Weight			% Fe	% Mn
	From	To	Feet						Ag	Pb	Zn		
<u>Hole B-1</u>													
70 101	92'	97'	5'	6.20	31.00	18.28	22.92	5.69	566.68	710.52	176.39	42.27	10.63
70 102	97'	102'	5'	4.65	23.25	4.37	6.28	1.31	101.60	146.01	30.46		
70 103	102'	107'	5'	4.65	23.25	3.82	4.72	3.33	88.82	109.74	77.42		
Average	92'	107'	<u>15'</u>		77.50	<u>9.77</u>	<u>12.47</u>	<u>3.67</u>	757.10	966.27	284.27		
<u>Hole B-2</u>													
70 104	95'	99'	4'	4.70	18.80	10.62	12.28	5.05	199.66	230.86	94.94	35.04	10.28
70 105	99'	102'	3'	4.85	14.55	12.08	15.27	4.65	175.76	222.19	67.66		
70 106	102'	108'	6'	2.40	14.40	.31	.42	1.00	4.46	6.05	14.40		
70 107	108'	112'	4'	4.18	16.72	3.80	3.28	2.69	63.54	54.84	44.98		
70 108	112'	115'	3'	4.28	12.84	2.91	4.11	5.25	37.36	52.77	67.41		
Average	95'	115'	20'		77.31	6.22	7.33	3.74	480.78	566.71	289.38		
	95'	102'	<u>7'</u>		32.35	<u>11.60</u>	<u>14.00</u>	<u>5.03</u>	375.42	453.04	162.60		
<u>Hole B-3</u>													
70 109	117'	122'	5'	3.80	19.0	2.44	2.94	1.37	46.36	55.86	26.03	35.04	10.25
70 110	122'	127'	5'	3.75	18.75	1.20	1.75	2.83	22.50	32.81	53.06		
70 111	127'	129.5'	2.5'	2.40	6.00	.09	.17	.40	.54	1.02	6.12		
70 112	129.5'	132.5'	3'	5.15	15.45	15.14	21.62	1.14	233.91	334.03	17.61		
70 113	132.5'	136'	3.5'	4.10	14.35	1.71	2.31	1.87	24.54	33.15	26.84		
70 114	136'	140'	4'	4.11	16.44	1.24	1.56	3.55	20.39	25.65	58.36		
Average	117'	122'	23'		89.99	3.87	5.36	2.09	348.24	482.52	188.02		
	129.5'	140'	<u>10.5'</u>		46.24	<u>6.03</u>	<u>8.50</u>	<u>2.22</u>	278.84	392.83	102.81		

(7)

#### 4. RECOMMENDATIONS AND COST ESTIMATES

Very encouraging results were obtained from the 1975 drill program and further exploration work is fully warranted.

The next step of exploration should consist of a combination of underground and surface programs. More underground drilling is warranted from the 4850' level from crosscut F to explore the area beyond the face of the adit in preparation for extending the adit. Steep holes, say  $-65^{\circ}$ , should be drilled from crosscut E to intersect the vein for about 200' below the 4850' level to prepare the target for a deeper underground exploration drift.

Most of the surface drilling should be performed in the east zone to explore a deeper section of the mineralized structure in preparation for the underground exploration. Some fill-in drilling between old holes is also warranted.

At least 1200' of underground drilling should be allowed in the west zone, as well as about 800' of surface drilling. An additional 1500' of surface drilling should be completed in the east zone.

4. RECOMMENDATIONS AND COST ESTIMATES (Cont'd)

At an overall cost of approximately \$20.00 per foot for drilling, and adding the necessary bulldozer work, camp construction, and camp operation, vehicle rental, surveying, mapping and supervision, a sum of One Hundred Thousand Dollars, (\$100,000.00) should be provided to complete this program.



5. COSTS OF 1975 PROGRAM

1. Drilling - See Invoice by General Drilling	15,000.00
2. Food & Lodging, bulldozer, 4 x 4 rental See invoice Grant Stewart Construction	5,689.59
3. Engineering, Supervision, Report	3,000.00
4. Travel	907.00
5. Assays	<u>314.00</u>
	<u>\$24,910.59</u>

*V. Cur*

APPENDIX "A" - DRILL LOGS

HOLE B-1

Elevation: 4850' E X-Cut  
-45° at N 4°E  
Date Started: October 12, 1975  
Date Finished: October 18, 1975

- 0' - 92' Bluish grey, coarse grained limestone. Rock is well bedded, at 40°, to core axis. Irregular fractures and vugs are stained with limonite and in some of the vugs are developed calcite crystals. No regular fracture pattern was noted. Core is recovered in 1" - 8" long pieces.  
From 25' rock is even more solid with core pieces of over 2' in length recovered. Limonite staining along the fractures gradually increases. Some actinolite crystals appear toward the end.
- 92' - 107' Manganiferous magnetite, limonite, galena vein. The upper contact is ground up as well as most of the first 7' of vein, where some limonitic gouge and galena ground up into round pebbles. From 92' - 102' only 4.5' of core was recovered, of which the last 3' had a 100% recovery of manganiferous magnetite. From 102' - 107' the core recovery is excellent and consists of solid magnetite. Throughout the magnetite, small, irregular blobs of galena are distributed.  
Lower contact to the limestone is sharp at 65° to core axis
- 107' - 120' Bluish grey limestone, coarse grained, as in the interval from 0' - 92'. Rock is somewhat fractured and fracture walls are stained with limonite and hematite.
- 120' End of Hole

Logged: October 20, 1975

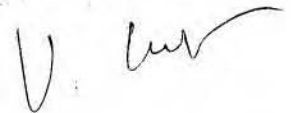
*V. Cur*

HOLE B-2

Elevation: 4850' E X-Cut  
-45° at N 46°  
Date Started: October 18, 1975  
Date Finished: October 20, 1975

- 0' - 82' Bluish grey, coarse crystalized limestone, bedded at 50° to core axis. In places rock is fractured but recovery is very good with pieces of core from 1" - 18". From 58' - 59' broken rock with limonite gouge. From 59' to the end of interval irregular fractures stained with limonite and hematite.
- 82' - 95' Coarse grained, light grey dolomite. The contact to limestone is gradational. Rock is fractured toward the end of interval and brecciated. Cerusite manganese oxides and limonite are following the fractures.
- 95' - 102' Manganiferous magnetite and galena vein. Contact to dolomite very irregular. Galena is concentrated at the start of interval
- 102' - 108' Brecciated dolomite, brownish and manganese stained in fractures.
- 108' - 115' Manganiferous magnetite and some galena
- 115' - 125' Bluish grey, coarse grained limestone. Contact to vein irregular. Bedding at 45° to core axis
- 125' End of hole

Logged: October 21, 1975



HOLE B-3

Elevation 4850' E X-Cut  
-57½° at N 41° E  
Date Started: October 20, 1975  
Date Finished: October 26, 1975

- 0' - 117' Bluish grey, coarse grained limestone. Bedding well pronounced at 40° to core axis. Rock is solid and core recovery is excellent in pieces from 2" - 12". Some limonite appears along the tight fractures. At 53', one foot zone of brecciated rock with hematite in the cement. From 75' - 88' bedding is parallel to the core.
- 117' - 140' Magnetite, galena vein. Magnetite is manganiferous and specks of galena appear throughout the vein. From 117' - 122' some limestone, and 127' - 129.5' zone of barren grey limestone. 129.5' - 132.5' high grade part of vein with good galena recovered.
- 140' - 148' Bluish grey limestone as in the interval from 0' - 117'. Bedding is at 35° to core
- 148' End of hole

Logged:

October 27, 1975

V. Cur

HOLE B-4

Elevation: 4850' D X - Cut  
-47° at 54°W  
Date Started: October 21, 1975  
Date Finished: October 27, 1975

- 0' - 60' Bluish grey limestone, well bedded at 30° - 45° to core. Dark, coarse grained variety interchanges with light grey, finer grained layers. Some irregular fractures are coated with limonite. In general, rock is solid and fresh, with excellent core recovery.
- 60' - 63' Brecciated, altered limestone with manganiferous magnetite limonite and minor galena.
- 63' - 78' Limestone, grey, coarse grained well bedded. Bedding at 60° to the core axis at the start of interval, changes to 30° at the end of interval.
- 78' Drilling suspended about 25' short of proposed vein intersection due to equipment breakdown.

Logged:

October 29, 1975





APPENDIX "B" - COST INVOICES

# General Drilling Limited

9183A - ALASKA HIGHWAY, WHITEHORSE, YUKON Y1A 3Y7

PHONE (403) 668-5755

November 14, 1975

Balfour Mining Ltd. (N.P.L.)  
1155-555 Burrard St.  
Vancouver, B.C.

Mr. H. Vannerus - President

Subject: Drill Programme - Magno Property

At your request, we attach herewith our Statement of Account in connection with the above.

As a result of the mail disruption, we are lacking documentation for certain charges relating to this job.

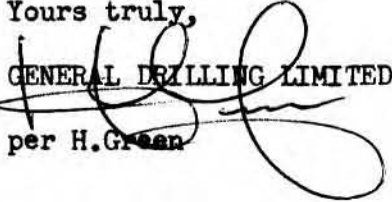
Will you please note, therefore, that we will forward a supplemental statement of charges at the earliest date possible, including;

1. Credit Memo reflecting diamond salvage on diamond tools charged to you at full cost.
2. Invoice for repairs to water pump and coil heater damaged on the job.
3. Adjusting invoice for freight charges and equipment rental.

In the meantime we would appreciate receiving by return airmail your payment in the amount of \$4,035.07, calculated as follows;

Our Statement of Account attached	\$ 19,035.07
<u>Less: Your deposit</u>	<u>15,000.00</u>
	<u>4,035.07</u>

Yours truly,

  
GENERAL DRILLING LIMITED

per H. Green

# General Drilling Limited

9183A - ALASKA HIGHWAY, WHITEHORSE, YUKON Y1A 3Y7

PHONE (403) 668-5755

November 14, 1975

Balfour Mining Ltd. (N.P.L.)  
 1155-555 Burrard St.  
 Vancouver, B.C.

## STATEMENT OF ACCOUNT

### Re: Drill Programme-Magno Property

<b>1. LABOUR:</b>	<u>Mobilization:</u>	Driller	24 hrs @ 7.75	\$186.00	
			3 hrs @ 11.63	34.89	
		Helper	32 hrs @ 6.75	216.00	
			3 hrs @ 10.13	30.39	
	<u>Field Cost:</u>	Driller	88 hrs @ 7.75	682.00	
			68 hrs @ 11.63	790.84	
			8 hrs @ 15.50	124.00	
		Helper	88 hrs @ 6.75	594.00	
			72 hrs @ 10.13	729.36	
			8 hrs @ 13.50	108.00	
	<u>Demobil:</u>	Driller	16 hrs @ 7.75	124.00	
			1/2 hr @ 11.63	5.82	
		Helper	19 hrs @ 6.75	128.25	
			1/2 hr @ 10.13	5.07	
			430	3,758.62	
			Plus 15% Pay. Ass.	563.79	
				4,322.41	
			Plus 20% Admin.	864.48	
				5,186.89	\$ 5,186.89
<b>2. DRILL BONUS:</b>	471 feet @ 1.00			\$471.00	
	Add: 15% Pay. Assess.			70.65	
				541.65	
	Add: 20% Admin.			108.33	
				649.98	649.98
<b>3. DIAMOND TOOLS:</b>					
	1 BW Econo Shoe @ 50% of cost			\$ 46.50	
	2 BQ Shell @ 50% of cost			190.85	
	3 BQ 200 Bit @ 247.56			742.68	980.03
<b>4. EQUIPMENT RENTAL:</b>					
	a. CIR 600 CFM Compressor-1 month			\$2,000.00 ✓	
	b. Drill, Swivel Head & Access. -1 month			1,800.00 ✓	
	c. Pump & 1000' Waterline 1 month			500.00 ✓	
	d. Nordic Coil Heater 1 week			50.00 ✓	4,350.00

...cont'd

# General Drilling Limited

9183A - ALASKA HIGHWAY, WHITEHORSE, YUKON Y1A 3Y7

PHONE (403) 668-5755

(2)

## 5. VEHICLE RENTAL:

Sept 26-7 Tilden 75-34003	\$ 55.24 ✓	
Sept 29-30, Oct 1 UD 179-2 days	60.00 ✓	
Oct 8-12 Hertz 13081405 4 days	211.64 ✓	
Oct 24-9 Ford Bus -2 days @ 24.00	48.00 ✓	
Plus-800 miles @ .24	<u>192.00 ✓</u>	\$ 566.88

## 6. JOB SUPERVISION:(Gen.Mgr)

Sept 26-7 2 days Field		
Sept 29-30-Oct 1-2 days Whitehorse		
Oct 8-12 5 days Field		
Oct 24-30 6 days Field & Whitehorse	-15 days @ \$150.00	2,250.00

## 7. FREIGHT CHARGES:

CPA 557005-Bits-Longyear	\$15.15	
CPA 793712-Supplies-Longyear	12.45	
CPA 16856-Bit return Longyear	11.75	
CPA Nov 14 -Docs to Balfour, Van	11.00	
YFL 3-22494-Drill Equip Van-Whse	86.71	
Loiselle 604403-Drill Equip.Cassiar-Whse	91.08	
Loiselle-Compressor-Whse-Cassiar & return (9800 @ 3.15 each way)	<u>617.40</u>	845.54

## 8. DRILLING SUPPLIES:

1-10' BQ Core Bbl Assbly at 50% of cost)		
1- 5' BQ Core Bbl Assbly at 50% of cost)	670.20	
Gas-5 gal	<u>24.75</u>	694.75

## 9. TRAVEL & SUBSISTENCE:

Air fare Whse-Watson Lake & return CPA Sept 26-8	\$ 69.10	
Gas & Oil	" 21.60	
Subsistence	" 36.42	
Gas & Oil	Oct 8-12 66.94	
Subsistence	" 53.06	
Gas & Oil	Oct 24-30 79.11	
Subsistence	" <u>12.26</u>	<u>338.49</u>

SUB-TOTAL \$ 15,862.56

PLUS 20% 3,172.51

TOTAL BILLING \$ 19,035.07

October 31, 1975.

To: [

Belfour Mines Ltd.,  
 #2 Bental Bldg.,  
 1155 Burrard St.,  
 Vancouver, B.C.

STATEMENT **2793**

L

Interest Charged on Overdue Accounts

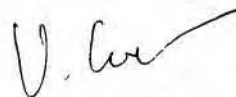
Date	Details	Charges	Credits	Balance
	<u>Cassiar Project - Sept. 24-Oct. 30.</u>			
	D6 #5 --- Repairing road, hauling compressor, plowing snow. 22.0 hours @ \$42.60 per hour	937.20 ✓		
	Pick up and haul to site(3½ hrs) Winch Truck ... Hauling compressor from site to Watson Lake. (10 hrs) 13.5 hours @ 24.75 per hour	334.13 ✓		
	Rental 4x4 vehicle ... 34 days @ \$35.00 per day=	1,190.00 ✓		
	Diesel - 235 gallons @ 71.6¢ per gallon	168.26 ✓		
	Bringing in Volkswagon from Stewart road	n/c		
	Room & Board ... 102 man days @ \$30.00 per day Sept. 24-October 7 - 2 men Oct. 8 - Oct. 23 - 3 men Oct. 24 - Oct. 30 - 4 men	3,060.00 ✓		
				5,689.59 ✓

*Nov. 13/75  
 - Cheque #708*

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 November, 1975



AFFIDAVIT

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

In the matter of the Magno Group, Progress  
Report, Underground Drilling, and the list of personnel  
employed and costs incurred as listed in the summary of  
costs of this report, that I have inspected and/or carried  
out personally the work and that the information contained  
is true and accurate to the best of my knowledge and belief.



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