

4959

92I/10W

Geophysical Report on the  
Price, Ruby and Pen Claims,  
Roscoe Lake - 50°24'N, 120°57'W (92 1/SE

Kamloops Mining Division.  
Highmont Mining Corp. Ltd. and  
Pathfinder Resources Ltd.

15 March - 15 April, 1974

By

A. J. Reed, P. Eng.

MINING DIVISION  
Kamloops Mining Division Resources  
Annual Report 1974  
NO. 4959

May 21st, 1974.

Ashcroft, B.C.

TABLE OF CONTENTS

	Page
INTRODUCTION .....	1
MINERAL CLAIM DATA .....	2
ELECTROMAGNETIC SURVEY .....	3
Anomalous Areas .....	4
CONCLUSIONS .....	6
REFERENCES .....	7
Appendix 1 - CERTIFICATE	
Appendix 2 - PERSONNEL AND COSTS	

ILLUSTRATIONS

#1 Figure 1 - LOCATION MAP ....	following Page	2
#2 Figure 2 - Mineral CLAIMS AND GRID LINES ...	In pocket	
#3 Figure 3 - VLF-EM SURVEY PLAN & PROFILES ...	In pocket	
#4 Figure 4 - VLF-EM OBSERVATIONS , FILTERED RESULTS AND CONTOURED ANOMALY PLAN .....	In pocket	

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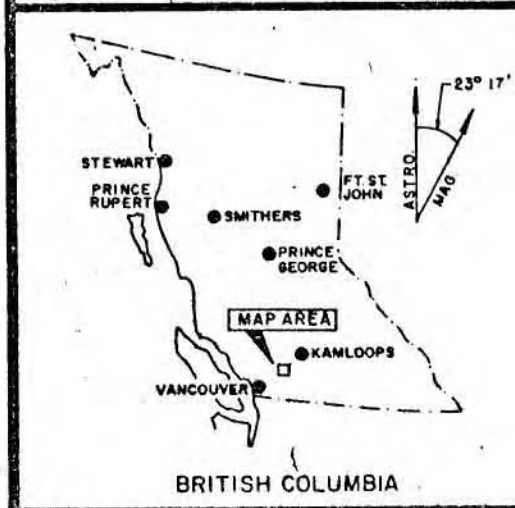
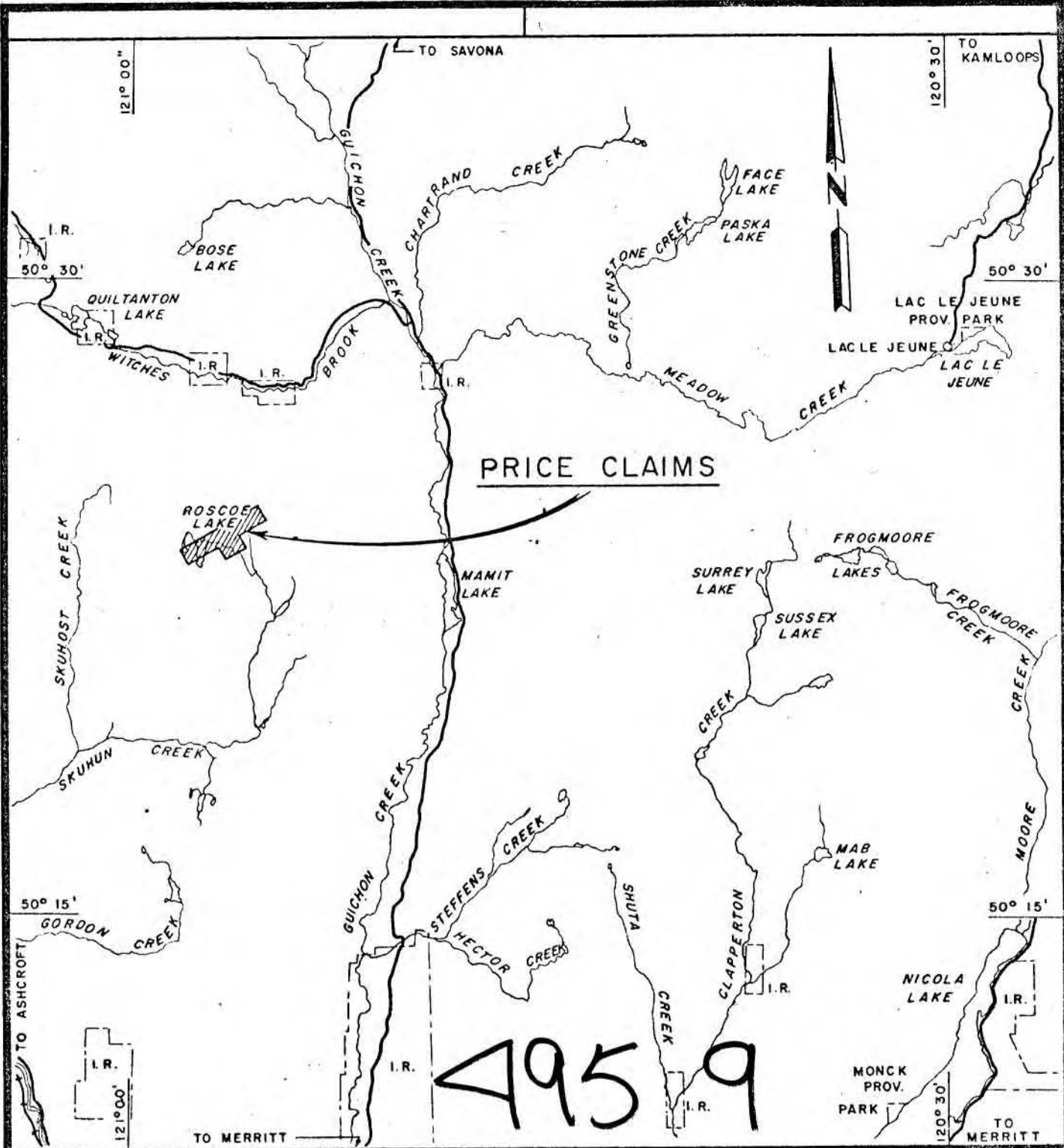
### INTRODUCTION

This report describes approximately 28½ line miles of VLF electromagnetic survey performed by Highmont Mining Corp. Ltd. at Roscoe Lake in the Highland Valley area of British Columbia. The survey covered the Price and Ruby mineral claims which are owned by Pathfinder Resources Limited and the Pen claims which are owned by Highmont Mining Corp. Ltd. The position of Roscoe Lake is Lat. 50° 24'N, Long. 120° 57'W.

Access to the Roscoe Lake area is by 28 miles of paved highway from Ashcroft to the Highland Valley and then by 12 miles of bush road southeastwards over Gnawed Mountain. This survey was performed from March 15 - April 15, 1974, under winter conditions with a snowpack of 3½ feet on the ground. Four -wheel drive vehicles were used from Ashcroft to the edge of the Lornex Mine property and snowmobiles from Lornex to Roscoe Lake. The mineral claims covered in the survey are listed in Table #1.

TABLE 1 - MINERAL CLAIM DATA

Name	Record No.	Owner	Anniversary Date
Pen 1-8	82324-82331	Highmont	24 June
Pen 1 Fr	83204	"	24 June
Pen 2 Fr	98376	"	19 July
Price 11-14	49649-49651	Pathfinder	28 April
Price 19	49614	"	27 April
Price 21-28	49616-49623	"	27 April
Price 29-30	49653-49654	"	28 April
Price 51-53	49628-49630	"	27 April
Price 54	50071	"	18 May
Price 55-58	49631-49634	"	27 April
Ruby 5 Fr	51291	"	20 August
Ruby 15 Fr	51301	"	20 August
Ruby 16 Fr	51302	"	20 August
Ruby 18 Fr	51304	"	20 August
Ruby 19 Fr	51305	"	20 August
Ruby 22 Fr	51308	"	20 August



HIGHMONT MINING CORPORATION LTD. (NPL)

**M1** LOCATION MAP  
OF  
PATHFINDER RESOURCES LTD.  
ROSCOE LAKE PROPERTY

LAT. 50° 24' N      LONG. 120° 57' W

4      0      4      8  
SCALE IN MILES

W. MEYER & ASSOC. LTD.      AUGUST 2, 1972

### ELECTROMAGNETIC SURVEY

Grid lines were cut and picketed over the Roscoe Lake area several years ago. The present survey used these grid lines, but because the pickets were buried under snow, a Topofil measurer was used to establish distances from the baselines. Under these conditions the Topofil measures with an error of less than 50 feet in a mile.

The electromagnetic survey was performed by using a Ronka EM 16 Electromagnetic Detector (Serial #78) made by Geonics Ltd. of Toronto, facing east to monitor the VLF radio signals transmitted from Cutler, Maine.

Figure 3 shows the in-phase dip-angles recorded across the survey area in the form of profiles super-imposed upon a plan of the gridlines.

Figure 4 presents the same data in the form of the actual dip-angle readings shown at the actual site of observation on a plan of the gridlines. The dip-angle data was filtered according to the method described by Fraser (1969, 1971). The filtered values are shown on Figure 4 beneath the observed readings, and contours are drawn at +10, +20, +30 and +40 on the filtered values.

A small shoot of high grade bornite-chalcopyrite mineralisation containing significant silver values occurs on the PEN 7 M.C. at 4S, OE(Reed, 1971). The purpose of the present VLF-EM survey was to seek similar ore-shoots on the adjacent ground. The PEN 7 structure is clearly defined in the filtered

results on Figure 4 and is traced northwards along the west side of Roscoe Lake. (This structure had previously been thought to continue along the east side of Roscoe Lake ). The gently-sinuuous shape of the PEN 7 structure is probably due to lateral offsets caused by ENE-trending wrench-faults. The present VLF-EM survey indicated five anomalies equal to  $\frac{1}{2}$  greater in magnitude than that caused by the PEN 7 mineral showing.

ANOMALOUS AREAS :-

PRICE 53 M.C. Line 20S, 1-2W ; Line 24S, 2-3W.

This is a very strong anomaly, containing the highest filtered value obtained in the present survey , and it appears to be on the southerly continuation of the PEN 7 structure.

PRICE 53 M.C. Line 12S, 9-10W ; Line 16S, 11-12W.

A very strong anomaly, sub-parallel to the PEN 7 structure and lying about 1200 feet west of it.

PRICE 19 M.C. Line OS, 25-26W.

This is a strong anomaly on line OS, but the continuation along strike is not as strong as that of the anomalies on the Price 53 M.C.

PRICE 13, 14, and 26 M.C.'s. Line 52N, 12-13W ;  
Line 56N, 14-15W ;  
Line 60N, 14-15W .

This is a strong anomaly with a strike length of at least 800 feet, lying close to the geological contact of the Bethlehem and Bethsaida phases of the Guichon

Batholith (Ulrich and Reed , 1972)

PRICE 57 and 58 M.C.'s. Line 52N, 54-55E.

This is a moderately strong anomaly, probably within the Bethlehem<sup>e</sup>m phase of the Guichon Batholith, but the contact with the Chataway phase could be close. (Ulrich and Reed, 1972).



CONCLUSIONS

This VLF - EM survey has located five anomalies comparable to that caused by the PEN 7 M.C. copper showing. These anomalies occur on the PRICE 53 M.C. , the PRICE 19 M.C., extending across the PRICE 13, 14 and 26 M.C.'s and on the PRICE 57-58 M.C.'s . It is suggested that these anomalies should be investigated by packsack diamond drill-holes in conjunction with a detailed geochemical soil-sampling program.

A handwritten signature in cursive script that reads "Alan J. Reed". The signature is written in dark ink and is positioned in the lower right quadrant of the page.

A. J. REED, P. Eng.

May 21, 1974

REFERENCES

1. FRASER, D.C. (1969)  
"Contouring of VLF-EM Data", Geophysics XXXIV,6,  
pp. 958-967 , December , 1969.
2. FRASER, D.C. (1971)  
"VLF-EM Data Processing", CIM Bulletin,  
January , 1971 pp 39-41.
3. REED, A.J. (1971)  
" Geological and Geochemical Report on the PEN  
claims , Roscoe Lake for Highmont Mining Corp.Ltd."  
(Assessment Report # 2901 , B.C. Dept. of Mines).
4. ULRICH, G.D. and REED, A.J. (1972)  
" Geological Report on the Pathfinder Property  
for Highmont Mining Corp. Ltd."  
( Assessment Report # 3790 , B.C. Dept. of Mines).

CERTIFICATE

I, Alan James Reed of Ashcroft, British Columbia, do hereby certify that:

1. I am a geologist employed by Highmont Mining Corporation Ltd. of 700-1177 West Hastings Street, Vancouver, B. C.
2. I am a Professional Engineer registered in the Province of British Columbia and the Province of Ontario.
3. I am a graduate of the University of Leeds with a B.Sc. (Hons. 1963) in Geology.
4. I have practised my profession since 1963 while employed by the Geological Survey of Jamaica, Siscoe Metals of Ontario Ltd., and Highmont Mining Corporation Ltd.
5. This report deals with work performed on the PRICE, RUBY and PEN claims under my supervision during the months of March and April, 1974.

A handwritten signature in cursive script that reads "Alan J. Reed". The signature is written in dark ink and is positioned to the right of the numbered list.

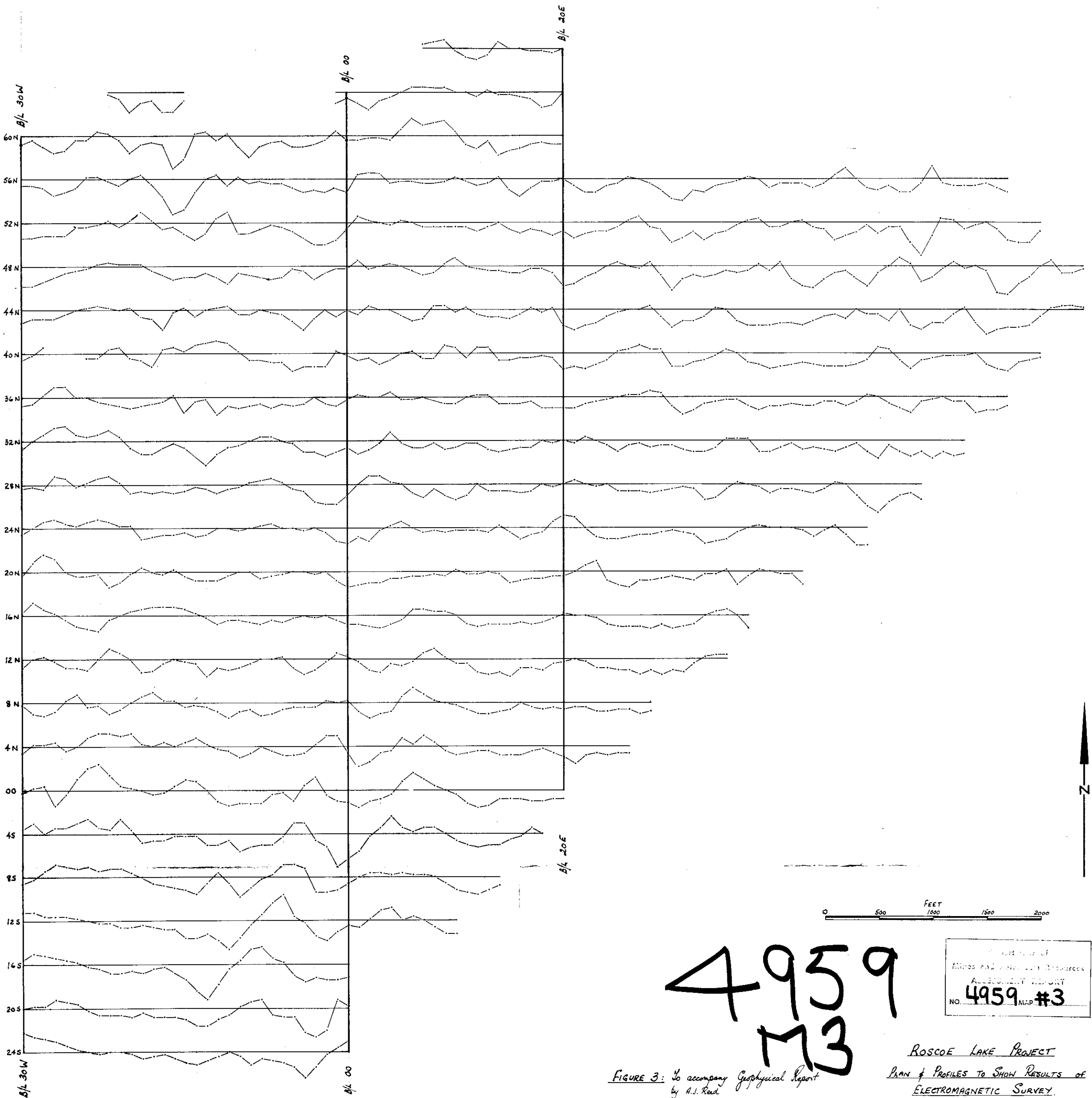
Alan J. Reed, B.Sc., P.Eng.

April 23rd, 1974  
Ashcroft, B. C.

PERSONNEL AND COSTS

A. J. Reed Box 158 Ashcroft, B. C.	Geologist	Mar. 15-Apr. 15, 1974	\$1,500
M. J. Porter Box 44 Savona, B. C.	Field-Man	Mar. 15-Apr. 15, 1974	900
W. F. Petrie General Delivery Merritt, B. C.	Field-Man	Mar. 15-Apr. 15, 1974	900
3 4x4 Pickup Trucks @ \$400 per month			1,200
3 Snowmobiles @ \$400 per month			1,200
Ronka EM 16 - Rental and Repairs			<u>100</u>
Total Cost			<u>\$5,800</u>

M. J. Porter and W. F. Petrie have been employed as Fieldmen by Torwest Resources and Highmont Mining for 8 years and 4 years respectively.



4959  
M3

U.S. DEPARTMENT OF  
MINES AND GEOLOGICAL SURVEY  
ACCOMPANY REPORT  
NO. 4959 MAP #3

FIGURE 3: To accompany Geophysical Report  
by A.S. Reid

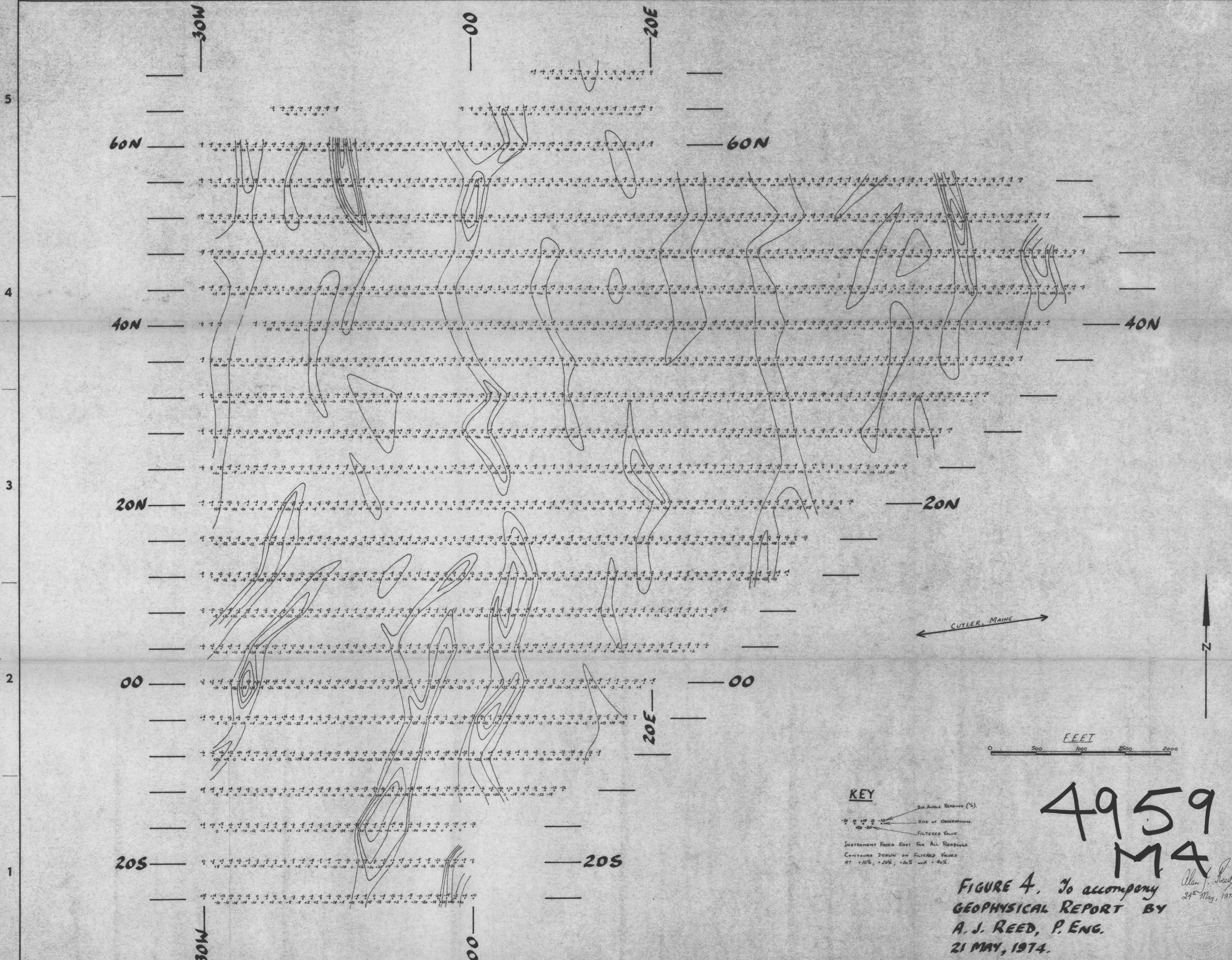
Alan J. Reedy  
24 May, 1974

ROSCOE LAKE PROJECT  
PLAN & PROFILES TO SHOW RESULTS OF  
ELECTROMAGNETIC SURVEY.  
RONKA EM 16, FACING EAST  
MONITORING TRANSMITTER AT CUTLER, ME.  
1" = 40% PROFILES  
1" = 400' PLAN 15<sup>th</sup> APRIL, 1974.

INCHES 1 2 3 4 5 6 7 8 9 10

DWS. ISSUED TO VENDOR	PURCHASE ORDER	
	NUMBER	DESCRIPTION

RECORD CENTER	ASSOCIATED DRAWINGS	



**4959 MA**

**FIGURE 4, To accompany  
GEOPHYSICAL REPORT BY  
A. J. REED, P. ENG.  
21 MAY, 1974.**

*Alan J. Reed*  
21<sup>st</sup> May, 1974

Department of  
Mines and Petroleum Resources  
**ASSESSMENT REPORT**  
NO. **4959** MAP # **4**

DATE	D/WY	ISSUE	DR	ENR	APP

**CERTIFIED FOR CONSTRUCTION**

TECK PROJ. ENG.      HAS PROJ. ENG.

**TECK CORPORATION LTD.**  
HIGHMOUNT PROJECT

**H. A. SIMONS (INTERNATIONAL) (1967) LTD.**  
CONSULTING ENGINEERS  
PROJECT 1961

VANCOUVER      CANADA

**AREA**  
**ROScoe LAKE**

**SUBJECT**  
**VLf-EM DATA**

SCALE  
1" = 400'

DATE	DR	ENR	APP

TECK DRAWING NO.      H.A.S. DRAWING NO.      ISSUE

**E1961-**