

2825



92I/11E

GEOPHYSICAL SURVEY

ELECTROMAGNETIC  
ON

THE HY GROUP

KAMLOOPS M.D.

Alfred R. Allen

51-121 NE

Nov. 24-Dec. 3, 1970

*Plotted  
No Deposit  
50° 41' 12" 10 2 4*

Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT  
NO. 2825 MAP.....

For:  
EAGLE BAY MINES LTD. (N.P.L.)  
Vancouver, B.C.

By:  
ALLEN GEOLOGICAL ENGINEERING LTD.  
507 - 789 West Pender Street  
Vancouver, B.C.

December 20th. 1970.

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ELECTROMAGNETIC SURVEY

HY GROUP

KAMLOOPS M.D.

24-11-70 : 3-12-70

INTRODUCTION

*on Hy 35-45*  
An electromagnetic survey was conducted over the northern portion of the HY 22-49 mineral claims area, November 24th.- December 3rd., 1970.

The property is in the Barnes Creek area of the Highland Valley in southwestern British Columbia.

The survey was carried out by R. Schumacher, C. Peacock, C. Beleow, and Alfred R. Allen acted as consulting engineer.

A surveyed grid was established over the HY 35- HY 46 inclusive. A north-south base line was used as control and east-west lines were slashed at 400-foot intervals. Stations were established at 100-foot intervals along the lines.

The purpose of the survey was to detect, and so far as possible outline probable zones of sulphide mineralization. If a sulphide bearing zone is located on or several hundred feet below the surface, by this method the audio frequency alternating magnetic field from a transmitter will be distorted by eddy currents set up by the conductor, causing a secondary field, which distorts the primary magnetic field. The distortion is measured by the tilt of the receiving coil evidenced by a clinometer.

LOCATION AND ACCESSIBILITY

The property is located in southwestern British Columbia 8 miles southeast of Ashcroft, and 14 miles northwest of the Bethlehem mine.

Access is via the Bethlehem mine road from Ashcroft and thence easterly up secondary roads that traverse the Barnes Creek-Glossy Mountain area.

Geographic location is  $121^{\circ}-08'$  west longitude and  $50^{\circ}-42'$  north latitude.

PROPERTY

The following located adjoining mineral claims are held by Eagle Bay Mines Ltd. (N.P.L.) :

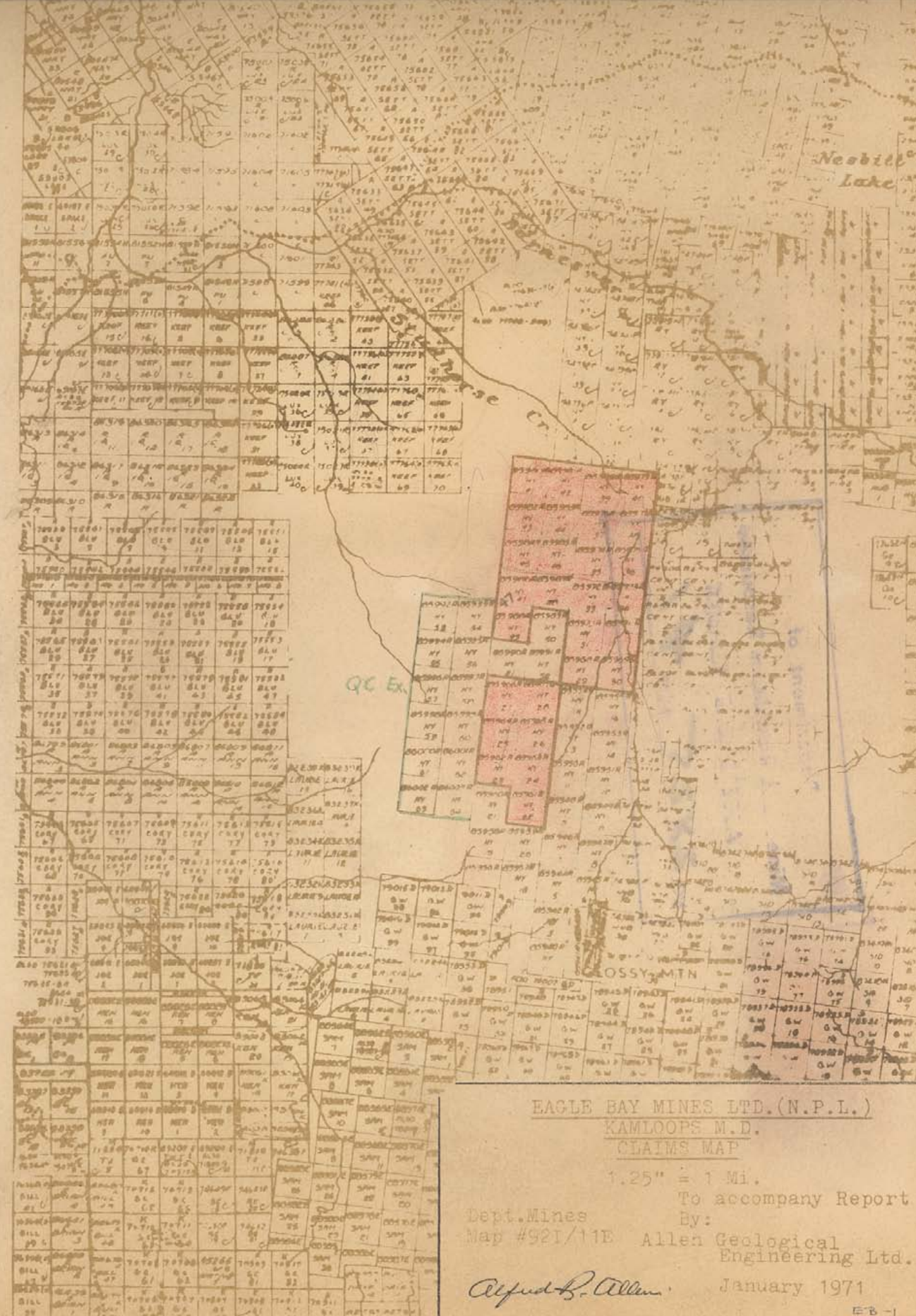
HY 22-49 inclusive

Record Numbers 85961-85988

Expiration Date December 4th. 1971.

GEOLOGY

The claims area is underlain by Tertiary volcanics, except for isolated areas where erosion has exposed the older underlying granitic rocks of the Guichon Creek batholith.



EAGLE BAY MINES LTD. (N.P.L.)  
 KAMLOOPS M.D.  
 CLAIMS MAP

1.25" = 1 Mi.

To accompany Report  
 Dept. Mines By:  
 Map #921/11E Allen Geological  
 Engineering Ltd.

*Alfred B. Allen*

January 1971



GEOPHYSICAL SURVEY

Sharpe SE 200 electromagnetic equipment was used over an established grid consisting of lines at 400 foot spacing slashed in an east-west direction. A north-south base line was established centrally on the grid area. Stations were established at 100-foot intervals on the grid lines.

Standard direct line methods were used. From a grid station, one operator pointed his vertical transmitter coil towards a second operator, two stations, or 200 feet, ahead of him on the same line and transmitted for 10 to 20 seconds.

The second operator faced the transmitter station 200 feet down the line from him, held his receiving coil horizontal and when the transmitted signal was received, he rotated his coil from the horizontal until a "null signal" was obtained in his earphones. He then noted the angle of tilt on a clinometer attached to his coil.

The tilt angle and direction of same was noted in his field book along with the station number.

Each man then proceeded to the next 100 foot station and repeated the procedure.

Over a line length of 11.3 miles, six hundred readings were noted and mapped.

SURVEY RESULTS

Electromagnetic results indicate that the surveyed area contains little or no mineralogical or structural characteristics detectable with the EM 200 equipment.

Near the east boundary, through the HY 36, 38 and 40 claims, there is indicated a very weak conductor zone, and a suggestion of another just off the southeast corner of the grid area.

Tilt angles in this area reach a maximum of 8 degrees, but for the remainder of the grid, the angles are mostly one or two degrees, with a few reaching 5 degrees.

SUMMARY AND CONCLUSIONS

The northern 500 acres of the HY group of mineral claims were surveyed with Sharpe SE 200 electromagnetic equipment on a 400-foot grid with readings spaced every 100 feet.

Consistently low electromagnetic effects were recorded, and before additional work is considered on the area surveyed, a geological survey should be conducted over the HY 35-HY 40 claims area, where the strongest indicated conductor effects were noted.

RECOMMENDATIONS

It is recommended that the entire claims area be prospected, a geological survey conducted over the southeast corner of the property, and any areas of Guichon Creek granitic rocks mapped.

With this information available, and a correlation made with electromagnetic results, a decision can be made regarding the advisability of additional work.

Respectfully submitted,

ALLEN GEOLOGICAL ENGINEERING LTD.

Per Alfred R. Allen P.Eng.  
Alfred R. Allen

Vancouver, B.C.  
December 20th. 1970.



REFERENCES

B.C. Minister of Mine Reports  
Cockfield, W.E., G.S.C. Mem. 249  
Duffel, S., and McTaggart, K.C., G.S.C. Mem 262  
Bethlehem Mines, Engineering and Production Reports  
Trojan Mines, South Seas Mines, Engineering Reports  
Krain Property, North Pacific Mines, Engineering Reports  
Lornex Property, Engineering Reports

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ALFRED R. ALLEN

507 - 789 West Pender Street  
Vancouver 1, B.C.

January 26th, 1971.

MAGNETOMETER SURVEY

HY 22-49 claims  
Kamloops M.D.  
HIGHLAND VALLEY, B.C.

EXPENDITURES

Crew: Alfred R. Allen, P.Eng., Vancouver, B.C.  
November 23, 1970. January 2, 4-8, 20, 23-25, 1971  
\$800.00

Robert Shumacher, Prospector, Operator trained  
and experienced in EM procedure, 705.00  
November 24th. - December 3rd, 1970  
Address: 2335 Palmerston, West Vancouver

C. Peacock, and C. Beleow, Prospectors,  
Midtown Hotel, Vancouver, B.C.  
November 24th. - December 3rd, 1970 300.00

Equipment:

Truck Rental and operating, 300.00  
Magnetometer Rental 125.00

Supplies:

Food and lodging, camp, flagging etc. 120.00  
\$3,050.00

Declared before me at the City  
of Vancouver, in the  
Province of British Columbia, this 26th  
day of January 1971, A.D.

*Alfred R. Allen*

*G.P. Phillips*

GEOPHYSICAL SURVEY

HY 35 - HY 46 claims

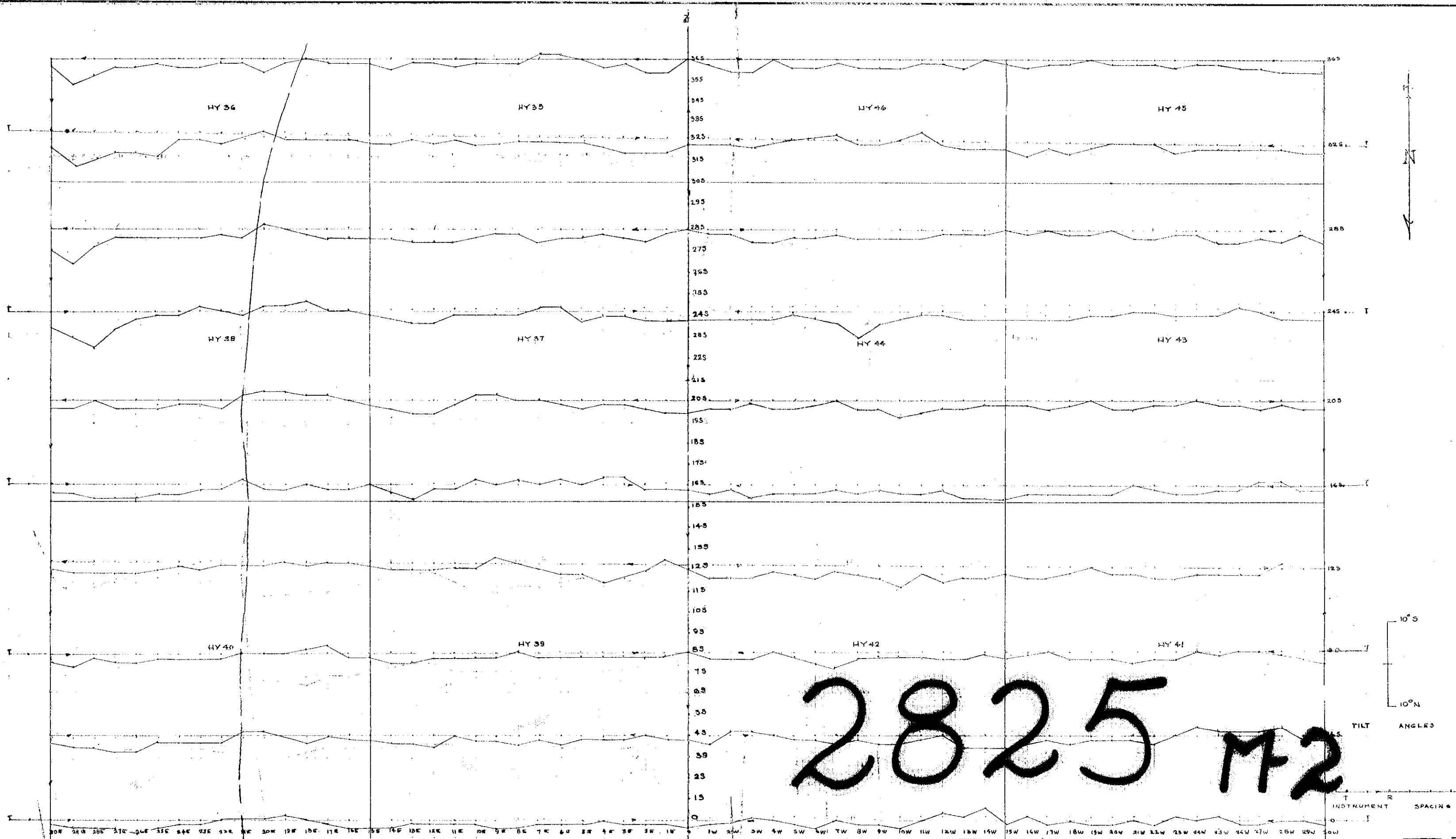
Manloops M.D.

Survey Party

H. Schumacher, operator, trained and experienced in electromagnetic field surveying.

C. Peacock, prospector, field assistant

C. Belew, prospector, field assistant.



2825 M2

Department of  
 Mines and Petroleum Resources  
 ASSESSMENT REPORT  
 NO. 2825 MAP #2

EAGLE BAY MINES LTD. (N.S.W.)	
ELECTRO MAGNETIC SURVEY	
HY GROUP	
DATE: Jan 25 1971	CHECKED BY: EB 2
BY: AR Allen	ALLEN GEOMETRICAL ENGINEERING LTD.

INSTRUMENT: SWAPP 4N 100