382

ABEM MAGNETOMETER SURVEY

of the

BELL CLAIM GROUP

OMINECA MINING DIVISION, B.C.

November, 1961

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Instrument - A.B. Elektrisk Sensitive Magnetometer Type 1263, No. 4505 TABLE OF CONTENTS

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(In Pocket)

Appendix

: Magnetometer Survey Map - (two copies)

APPENDIX "A"

STATEMENT OF EXPERIENCE OF OPERATOR

The Abem Magnetometer Survey was conducted by R.L. Gabel, a graduate in Mining Engineering from the University of Toronto, with the degree of B.A. Sc.

Experience:

Nine seasons of Geophysical surveying, property examination, geological mapping and all related aspects while employed by the following companies:

Bardyke Mines Ltd.

Icon Syndicate

Kerr-Addison Gold Mines Ltd. Conwest Exploration Co. Ltd.

APPENDIX "B"

STATEMENT OF COSTS OF THE SURVEY

November 4, to November 16 inclusive

Line Cutting:

: :	Labour - 26 man/days @ \$20.00 per day Maintenance - 26 man/days @ \$10.00 per	day	i i r	\$ 520.00 260.00
Surv	eying and Mapping:	ʻ.	• • • •	··-
	Instrument Operator - 11 days @ \$35.00 Helper - 11 days @ \$25.00 Maintenance - 22 man/days @ \$10.00 per	per per day	day day	385.00 275.00 220.00
	Printing maps and typing			20.00

Rentals:

	ABEM Magnetometer - 11 days @ \$25.00 per day	275.00
5	-1-ton Jeep14 days @ \$10.00 per day	140.00
ЗŶ.	Mileage - 292 miles @ \$.08 per mile	23.36
June -	Total	\$2,118.36
- 6		

And I make this solemn declaration conscientionsity believing it to be true, and knowing that it is of

he same force and effect as if made under oath and by virtue of the "Canada Evidence Act."

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Declared before me at the

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Province of British Columbia, this

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A Commissioner for taking Affiliavits within British Golumbia A Notary Public in and for the Brownee of British Committee

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MAGNETOMETER SURVEY

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of the

BELL CLAIM GROUP

Introduction:

The Bell Group of mineral claims, consisting of the Bell claims, Numbers 1 to 19 inclusive, was staked by Eugene Smith in January 1961. This group was staked to cover a possible south-easterly extension of the molybdenum bearing formations located on the Stella claims that adjoin the Bell Group on the north and east. Though the depth of overburden on this property is considered to be relatively light, for the most part in the order of 2 to 3 feet with depths seldom exceeding 10 feet, there is no outcrop. Drift and overburden completely mask the surface of each claim. As this covering greatly hampers the execution of an efficient prospecting program, a detailed magnetometer survey was conducted on the claim group.

Description:

The Bell Claim Group lies on the northern drainage of the east end of Francois Lake about 4 miles south of Endako, B.C. in the Omineca Mining Division. Ground cover consists, for the most part, of jackpine and spruce with occasional poplar stands. Scattered sections of alder and willow swamp occur, particularly in the southern and south-western sections. The area is notably flat or gently sloping to the south except for the northern fringe which has a series of north-west, south-east trending ridges and stream cut gulleys.

Access:

The property is readily accessible via improved logging roads running from the main highway near Endako.

Geology:

As there are no outcrops on the property, an accurate statement of the nature of the underlying formations is impossible without an extensive trenching program. However, G.S.C. maps of the area indicate that the claims are probably underlain by granites of the Topley Group. A few float specimens found on the property were coarse grained, pink feldspar rich biotite granite. This float was quite angular and probably close to source increasing the possibility that the underlying rocks are granitic.

Reasons for Survey:

The survey was conducted to reveal the nature of the underlying rocks and to develop any major trends in jointing or fracturing that might be present. An examination of the adjoining Stella property revealed that the molybdenum occurs in silica rich veins within an intensely altered granitic host rock. It was thought that these altered zones might be areas of low magnetic intensity that could be recorded with the instrument used.

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Details of the Magnetometer Survey:

Two base lines running 80° Azimuth were established by chain and compass along the location lines of the claims. A 350° Azimuth, 400 foot survey grid was established over these base lines with pickets at 100 foot intervals throughout. A daily bare station was established and was read at the beginning and ending of each day's readings to correct for diurnal variations. Magnetic drift, temperature, and humidity affects were corrected by checking at circuit base stations, at 2 hour intervals throughout the day.

The instrument used is sensitive to 11.1 gammas per scale division. A map was drawn and the instrument readings, converted to gammas using a nul of 70,299 gammas, were plotted on a scale of 200 feet to the inch. A print of this map, showing the results obtained, is enclosed.

Approximately 104,000 feet of magnetic survey were completed on the Bell Glaim Group. Gamma values varied from 71,389 gammas to 73,021 gammas. These will show on the print as 1090 gammas and 2722 gammas respectively. Of the readings, recorded, 90% occurred between 1600 and 2200 gammas.

Results and Interpretation of the Survey:

The results of the survey are somewhat disappointing as no definite trend or response was recorded. It had been hoped that, as in the survey conducted on the Elk mineral claims,

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in this same area, where the 1800 gamma contour appeared to outline the altered granitic zone, that some outline of the mineral bearing zone would be obtained. Interpretation of the results obtained indicates that the mineral bearing alteration zone does not cross this claim group. The two small magnetic highs occurring in the north-east corner of the group, at $43 \cdot 00E$ on the north base line and at 10N on the $40 \cdot 00E$ line, are too small to be of any consequence and are probably due merely to local variations that can be found in any area over any rock type.

Respectfully submitted,



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Magnetometer Survey Data		MAP SHOWING					
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Checked - P.M.G.	Numbers Plotted Are Gamma	B. C.	-				
Scale 1"= 200'	Values Relative to a Base And Corrected For	Nov. 1961 RZ Sabel					
	Variations						
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Note

Numbers Plotted Are Gamma Values Relative to a Base And Corrected For

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Variations

MAP SHOWING ABEM GROUND MAGNETOMETER SURVEY RESULTS on the BELL CLAIM GROUP Omineca Mining Division -B.C. Nov. 1961 X2 Safel

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