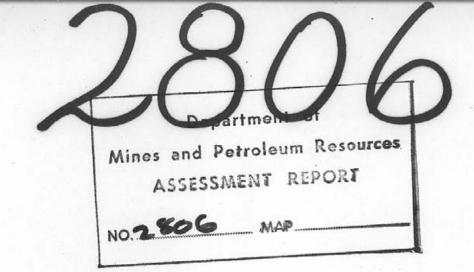
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MAGNETIC SURVEY

B. I. NESBITT

BIN CLAIM GROUP A. Deposit

(BIN Claims Nos. 87-94)

HIGHLAND VALLEY AREA, KAMLOOPS M.D., B.C.

SEPTEMBER 1970

BIN CLAIM GROUP, 15 miles S65°E of Spences Bridge at approximately 50° 20'N and 121° 1'W.

Report by: DAVID G. MARK, B.Sc. Geophysicist

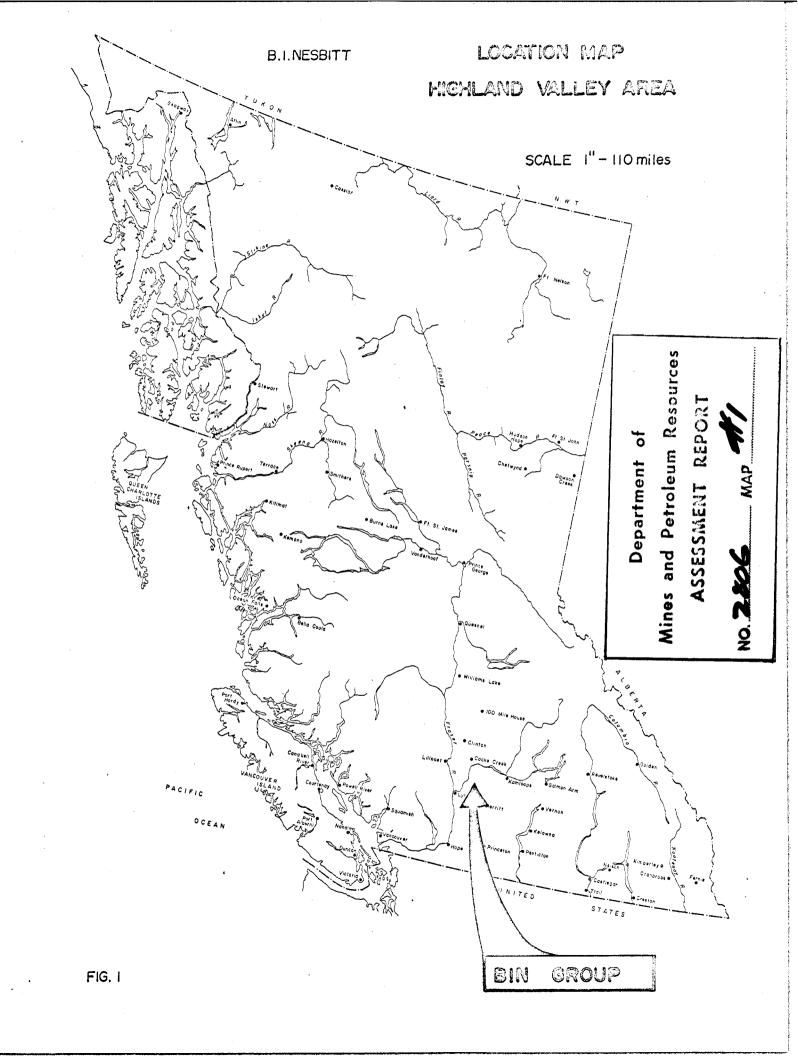
September 1970



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GEOPHYSICAL REPORT ON MAGNETIC SURVEY ON THE BIN 87-94 CLAIMS HIGHLAND VALLEY AREA, B. C. SEPTEMBER, 1970

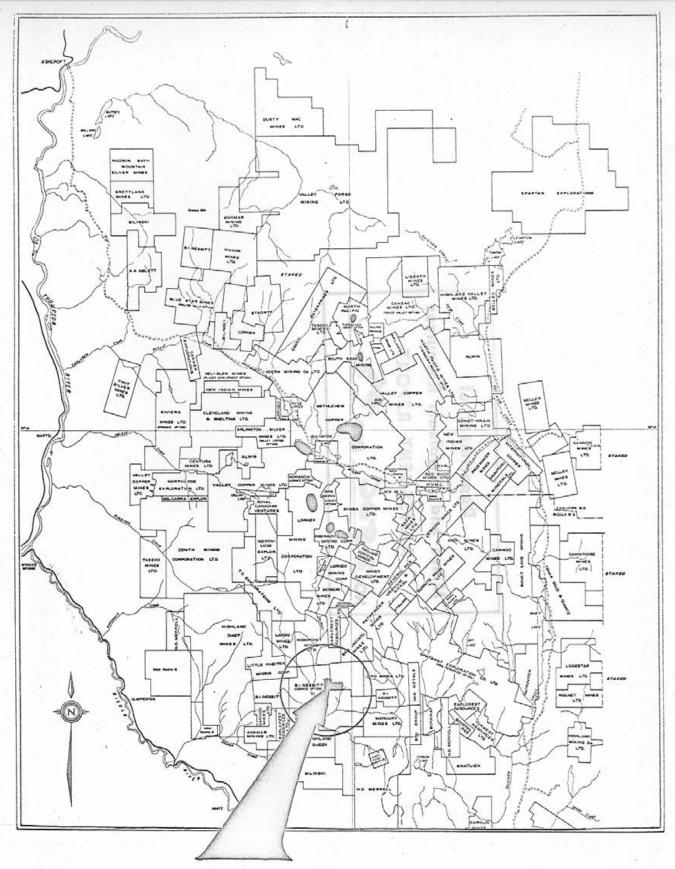
INTRODUCTION

A magnetic survey was carried out by David Cooke, supervised by the writer, on part of the BIN group of claims in the southern Highland Valley Area, between September 4 and September 8, 1970. The survey, covering BIN claims Nos. 87-94, inclusive, was conducted in order to obtain additional geological information, and consisted of approximately 23,000 lineal feet of traverse.

LOCATION

The center of the BIN 87-94 claims is located 15 miles S65°E of Spences Bridge at approximately 50° 20'N and 121° 1'W.

The site is readily accessible from the Chataway Lakes
Resort access road which connects to Highway 8 about 18



BIN CLAIMS (87-94)

B.I.NESBITT

LOCATION MAP - HIGHLAND VALLEY

miles SE of Spences Bridge. The access road passes within a mile of the BIN 87-94 claims about 12 miles north of Highway 8. Access to the property from this road is then by 'cat' road. A 2-wheel drive vehicle is sufficient only when the road is dry.

TOPOGRAPHY AND VEGETATION

Elevations at the site range from approximately 3,500 feet in the SW corner to 4,600 feet in the NE corner, giving rise to some fairly steep slopes though most, especially at the north of the property, are gentle. Vegetation consists mainly of widely spaced pine trees, with little or no underbrush, interspersed with occasional thick groves of young pine.

WEATHER

The weather was mainly cloudy with some sunny periods and occasional heavy showers.

PREVIOUS WORK

A geological, geochemical and induced polarization survey was completed by Cominco in the exploration season of 1969.

INSTRUMENTATION

The instrument used was a portable, vertical component

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fluxgate magnetometer, Model MF-1, manufactured by Scintrex Limited of Downsview, Ontario. The instrument reads directly in gammas on a meter and has a range from 0 to 100,000 gammas through 5 different scales. The accuracy is 0.5% of full scale on the 1,000 to 10,000 gamma ranges and 1% on full scale on the 30,000 to 100,000 gamma ranges. Sensitivity varies from 20 gammas/div. on the 1,000 gamma scale to 2,000 gammas/div. on the 100,000 gamma scale. Temperature stability is 1 gamma/OF and stability is kept at 1 gamma for 24 hours at constant temperature.

Only the 1,000 gamma scale was used in this survey.

SURVEY PROCEDURE

The existing grid with lines cut out for I.P. was used for the magnetic survey. The base line (below the BIN 87-94 claims) is cut in an E-W direction and crosslines are cut in a N-S direction 500' apart. On these lines are stakes at 100' centers at which the magnetometer readings were taken. The control stations were read prior to the survey and were taken along the northern edge of the claim group. These control stations were used to correct the survey readings for diurnal drift.

Lines 35E and 40E could not be located at the northern end of the property and thus were compassed and paced in.

CALCULATIONS AND PLOTTING

The readings were corrected for diurnal drift, the greatest

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of which was over 2 gammas/min., and the average of which was 1 gamma/min. These corrected readings were then averaged out to +140 gammas. This value was then subtracted from all survey readings (making the average 0 gammas) and the subsequent values were then plotted on the survey plan map (Fig. 4) at a scale of 1" = 400'. On an overlay (Fig. 3) these values were then contoured.

GEOLOGY

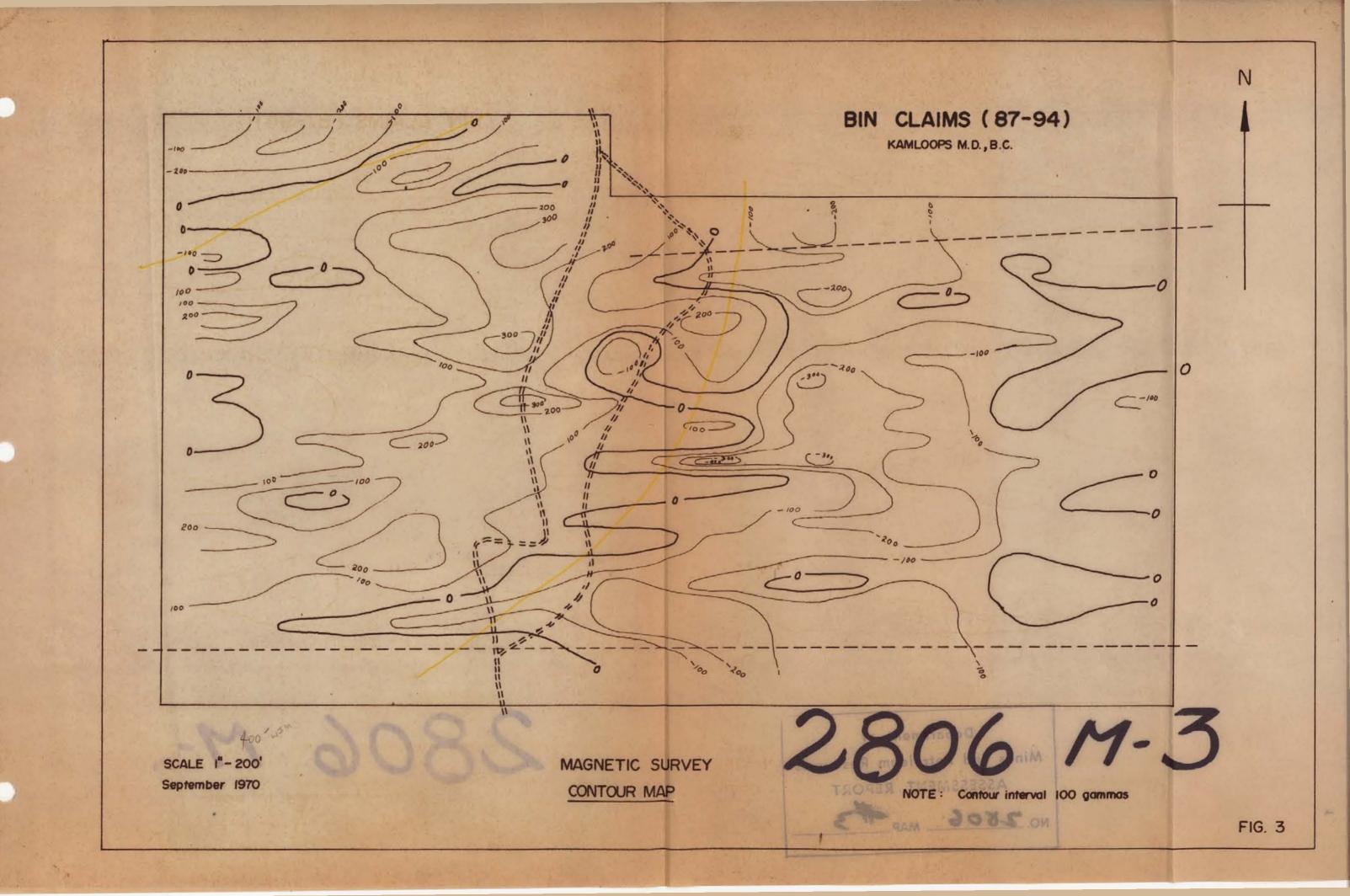
The BIN claim group is located on the Guichon Creek batholith which hosts the large, disseminated copper deposits of Bethlehem, Lornex and Valley Copper.

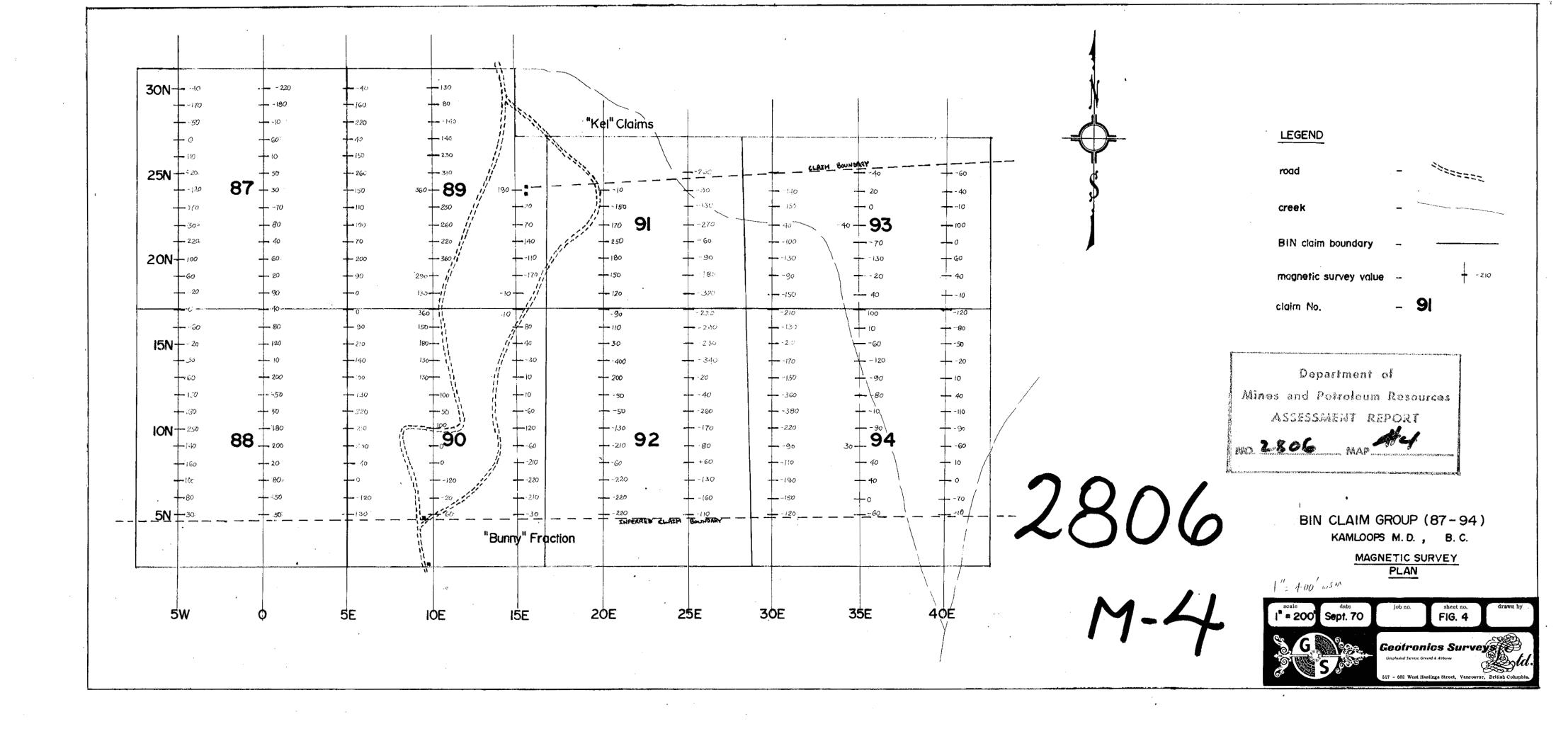
According to Northcote and the geology map of the BIN claims by Cominco, the BIN claims 87-94 lie on the Bethsaida Phase, youngest phase of the batholith, which is a granodiorite-quartz monzonite. On claims 91 and 93 are found some copper mineralization and chloritization. Just to the west of the claims, and separated by a fault, is the Chataway Variety of the Highland Valley Phase, a granodiorite. Separated by a fault, to the south, is the Witches Brook Phase, also a granodiorite.

INTERPRETATION

There is relatively little variation in magnetic intensity which ranges only 760 gammas from -400 to +360 gammas. This can be attributed to the small survey area and to only one rock type within this area.

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The histogram (Fig. 5) shows a very normal distribution which agrees with the observation of there being no strong anomalies.

There is, however, a definite southwest-northeast trend (shown by 2 yellow lines on Fig. 3). Generally, positive values are within the 2 lines and negative values are in the northwest and east parts of the property. The positive values are, of course, a result of a slight increase of magnetite within the granodiorite which is probably the result of the contact of the Bethsaida Phase intrusive with the older surrounding intrusives.

The mineralization and chloritization seems to be associated with the eastern magnetic low. However, there is no mineralization on the rest of the survey area perhaps because of overburden.

CONCLUSIONS AND RECOMMENDATIONS

The magnetometer survey in itself does not indicate any targets for further exploration, being that the results are somewhat inconclusive. However, it is recommended to cover the survey area more thoroughly with a molybdenum (as well as copper) geochemical survey (especially since Lornex is a copper-molybdenum deposit).

Respectfully submitted

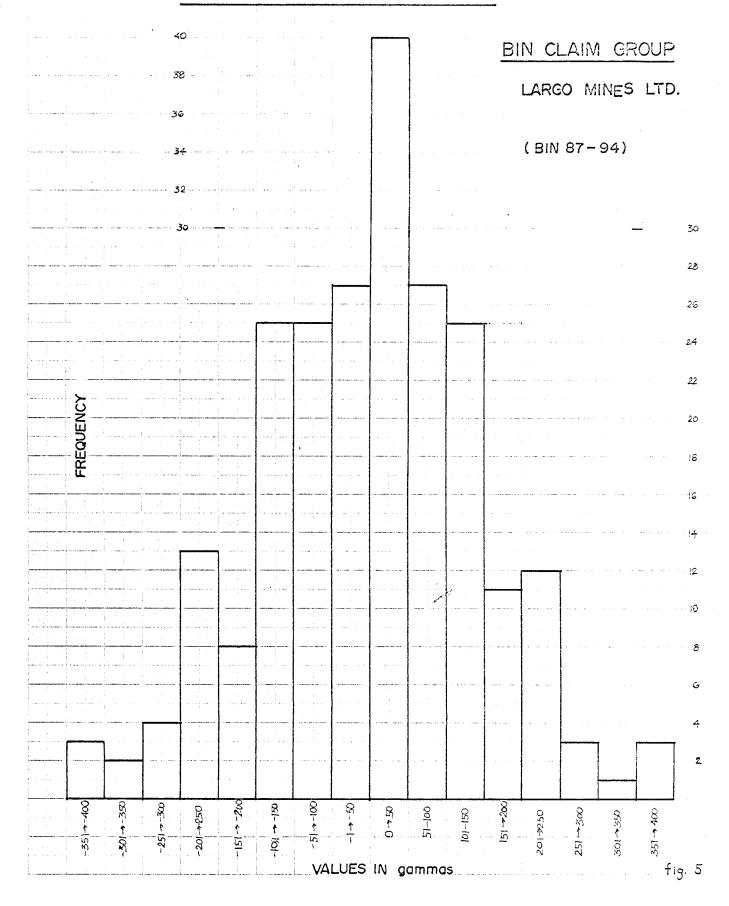
DAVID G. MARK, B.Sc.

Geophysicist

DGM:ly

- Geotronics Surveys Ltd. --

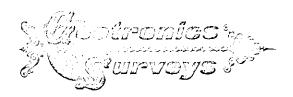
HISTOGRAM OF MAGNETIC SURVEY



SELECTED BIBLIOGRAPHY

- Carr, J.M. (1959): PRELIMINARY NOTES OF SOME ROCK TYPES OCCURRING ON BETHLEHEM PROPERTY, B.C. Dept. of Mines and Pet. Res., unpublished.
- - (1960): PORPHYRIES, BRECCIAS, AND COPPER MINERAL-IZATION IN THE HIGHLAND VALLEY, B.C., Can. Min. Journal, Vol. 81, pp. 71-73.
- -- (1961): GEOLOGY OF THE PROMONTORY HILLS, Minister of Mines and Pet. Res., B.C. Ann. Rept., 1960, pp. 26-40.
- -- (1963): THE GEOLOGY OF PART OF THE THOMPSON RIVER VALLEY BETWEEN ASHCROFT AND SPENCES BRIDGE, Minister of Mines and Pet. Res., B.C., Ann. Rept., 1962, pp. 28-45.
- Cominco, BIN PROPERTY, GEOLOGY AND GEOCHEMISTRY, Oct., 1969.
- Cockfield, W.E. GEOLOGY AND MINERAL DEPOSITS OF THE NICOLA MAP AREA, Geological Survey of Canada, Memoir 249, 1948.
- Department of Energy, Mines and Resources, Ottawa. AIRBORNE MAGNETIC MAP SPENCES BRIDGE, 5211G, Sheet 921/6, 1967.
- -- AIRBORNE MAGNETIC MAP MAMIT LAKE, 5212G, Sheet 921/7, 1967.
- Duffel, S., McTaggart, K.C. <u>ASHCROFT MAP AREA, BRITISH</u> COLUMBIA. Geological Survey of Canada, Memoir 262, 1952.
- Northcote, K.E. GEOLOGY AND GEOCHRONOLOGY OF THE GUICHON CREEK BATHOLITH, Victoria, Queen's Printer, 1969.

 (B.C. Department of Mines, Bulletin No. 56).
- White, W.H., Thompson, R.M., McTaggart, K.C., THE GEOLOGY AND MINERAL DEPOSITS OF THE HIGHLAND VALLEY, BRITISH COLUMBIA, C.I.M.M., Trans., Vol. 60, pp. 273-289, 1957.



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RESUME	OF	TECHNICAL	AND	FIELD	EXPERIENCE	
of						
		DAVID MA	ARK.	B.Sc.		

EDUCATION

Graduate of University of British Columbia in Science (B.Sc.) in Geophysics.

EXPERIENCE IN INDUSTRY

- 1. Prospecting and geological evaluation for New Taku Mines Ltd. during exploration season of 1965.
- 2. Field supervisor for geophysical and geochemical work and prospecting for Mastadon Highland Bell Mines Ltd. during exploration season of 1966.
- 3. Field supervisor in geochemical work and geological mapping for Anaconda (Canada) Company during exploration season of 1967.
- 4. Field geophysicist for Geo-X Surveys Ltd. during exploration season of 1968.
- 5. Presently geophysicist for Geotronics Surveys Ltd., Vancouver, B. C.
- 6. Experience in various geophysical instrument surveys: magnetometer, electromagnetic, self potential, gravity, induced polarization, restivity and seismic methods.
- 7. Member of British Columbia Geophysical Society and Vancouver Branch of The Canadian Institute of Mining and Metallurgy.
- 8. P. Eng. applied for with Association of Professional Engineers of B. C.

COST BREAKDOWN: Job #70-59

Survey Field Supervisor/Instrument Operator, 3 days @ \$100.00/day		\$	300.00
Camp Maintenance:			
4-wheel drive vehicle, 5 days @ \$30.00/day 1 man, 3 days @ \$20.00/day	\$150.00 60.00		210.00
<pre>Instrument rental, 1 week @ \$80.00/week</pre>			80.00
Survey material			20.00
Geophysical mapping and report			450.00
Engineering fees			150.00
TOTAL COSTS		\$1	,210.00

And I make this solemn declaration conscientiously believing it to be true, and knowing that it is of the same force and effect as if made under oath and by virtue of the "Canada Evidence Act."

of Vacance , in the)

Province of British Columbia, this as to day of January 1411, A.D.)

Sub-mining Recorder

TELEPHONE: 684-9029

HAROLD A. QUINN

B.Sc., M.Sc., PH.D.

Consulting Mining Geologist

82 Mayfair Tower 845 Hornby Street Vancouver 1, Canada

January 22, 1971

Geotronics Surveys, 517-602 W. Hastings St. Vancouver, B.C.

Magnetic Survey
BIN 87-94 Mineral Claims
Southern Highland Valley Area
Kamloops Mining Division

From September 4 to September 8, 1970 Mr. David G. Mark, B.Sc. and assistant of Geotronics Surveys made a magnetic survey of mineral claims BIN 87-94 inclusive (record nos. 71490-71497 inclusive) of Mr. B.I. Nesbitt at my request and under my direction. I have examined Mr. Mark's report of September, 1970 on this work and found it to be well prepared. I am confident that the field work was of a high calibre. I concur with the report and its conclusions.

Respectfully submitted,

24. a. Quinn

Harold A. Quinn

