81-#1045

GEOPHYSICAL REPORT

ON A

GROUND MAGNETOMETER SURVEY

OVER THE

SIL 2 CLAIM

TAWEEL LAKE AREA

KAMLOOPS M.D., BRITISH COLUMBIA

SIL 2 CLAIM

WRITTEN FOR

WRITTEN BY

: 17 km S80W of Clearwater, B.C.

: 51^o 37' N latitude, 120^o 17' W longitude.

: N.T.S. 92P/9

: SIMON A. JUTRAS Owner and Operator Box 1930 Salmon Arm, B.C. VOE 2T0

: David G. Mark, Geophysicist GEOTRONICS SURVEYS LTD. #403-750 West Pender St Vancouver, B.C. V6C 2T7

: August 20, 1981



GEOTRONICS SURVEYS LTD. Engineering & Mining Geophysicists

VANCOUVER, CANADA



DATED

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 FIGURE

 LOCATION MAP
 1:8,600,000
 1

 CLAIM MAP
 1:50,000
 2

MAPS - In Pocket

1. A

-5(**6**)

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MAGNETIC SURVEY Data and Contours 1:3,000

SUMMARY

A 30 x 100 m magnetic grid was completed over part of the SIL 2 mineral claim, 17 km S80W of Clearwater, B.C. The work was a continuation of the survey carried out in June, 1980, and was designed to verify and delineate an aeromagnetic high located by government survey.

Regional mapping suggests that the claim is underlain by Triassic sediments, which may be intruded by Cretaceous alkaligranite stocks. Mineralization targets include lead and silver in the sediments, and molybdenum in the igneous rocks.

CONCLUSIONS

There is a marked change in magnetic nature over the surveyed area, varying from a flat response in the east, to a very noisy signature in the west. A change of bedrock type from sedimentary to igneous/metamorphic is therefore indicated. High soil zinc values were recorded on the side of a broad magnetic high in the centre of the surveyed area; this result, plus the occurrence on nearby properties of mineralization on the flank of magnetic highs, makes the positive anomalies of particular interest.

RECOMMENDATIONS

1.

2.

- The property should be geologically mapped.
- Soil samples should be taken over the magnetically

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active part of the property, and tested for lead, silver, zinc, copper and molybdenum.

3. The magnetic survey should be extended, to define the extent of the anomalous area.

4. Depending on the results of the above, further geophysics, such as IP and/or horizontal loop EM, should be considered.

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INTRODUCTION AND GENERAL REMARKS

This report discusses the survey procedure, compilation of data, and discussion of results of a ground magnetic survey carried out over a portion of the SIL 2 Claim during the period of August 9th to 12th, 1981. Portions of this report are paraphrased from the previous 1981 report on the SIL 2 Claim by the same writer.

The field work was carried out by 3 men. The total number of line km done was 2.94.

The purpose of the survey was to further outline a magnetic high found on the government aeromagnetic survey map for the area and partially delineated by a previous ground magnetic survey conducted in 1980. Some aeromagnetic highs in the general region are associated with sulphide mineralization.

PROPERTY AND OWNERSHIP

The property consists of one 20 unit claim as shown in Figure 2 and described below.

<u>Claim Name</u>	No. of Units	Record No.	Date Recorded
SIL 2	20	1996	Aug. 14, 1979

The owner and operator of the SIL 2 Claim is Simon A. Jutras of Salmon Arm, B.C.

LOCATION AND ACCESS

The SIL 2 Claim (Kamloops Mining Division) lies to the immediate east of the southwest end of Taweel Lake, approximately 17 kilometers S80W of the town of Clearwater, B.C.

The geographical coordinates are 120° 17' W longitude and 51° 37' N latitude.

The primary access to the property is via a series of forest industry haulage roads going westerly from Clearwater, B.C., a distance of about 20 km. An alternate access is by 4-wheel drive road which follows the Lemieux Creek valley from Highway 24 near Little Fort, B.C. The distance from Highway 24 junction is 26 km.

PHYSIOGRAPHY

The property is located at the northern end of the Thompson Plateau near its border with the Shuswap Highlands, both physiographic divisions of the Interior Plateau System. Typical of this area, the terrain is flat to gently rolling with the elevation ranging from 1,220 to 1,340 m a.s.l., a difference of only 120 m.

The vegetation is that of a coniferous forest, medium to thick in density.

The main water source of Taweel Lake on the southeast edge of the property. Intermittent streams are found on the property as well.

GEOLOGY

Regional mapping (by the Geological Survey of Canada) and. cursory prospecting indicate that the property is underlain Triassic sedimentary rocks; limestone and siliceous by argillaceous rocks and their metamorphic equivalents. Exploration targets are sediment-hosted lead and silver mineralization similar to the mineral occurrence located immediately to the south of the claim, at the headwaters of Lemieux Creek.

These Triassic sediments are cut elsewhere by the Raft Batholith and related intrusive rocks. A small, leuco-quartz monzonite plug (perhaps genetically related to the Raft Batholith) is found northeast of Tintlhohtan Lake. Molybdenum mineralization is associated with this intrusive body, thus, if this plug also cuts the sediments of the claim then molybdenite or powellite may also represent an exploration target.

INSTRUMENTATION AND THEORY

The magnetic survey was performed using a Scintrex portable proton precession magnetometer (model MP-2). This instrument utilizes the phenomenon of nuclear magnetic resonance to measure the flux density of the total magnetic field. Owing to varying associations of magnetic minerals such as magnetite and pyrrhotite with differing rock units, magnetic surveys enable basic geologic mapping of these rock units, the exploration for certain mineral deposits associated with them, and the revelation of subsurface plutons.

SURVEY PROCEDURE

The readings were taken at stations located every 30 meters on east-west lines spaced 100 meters apart. Fluorescent flagging, with the grid coordinates marked thereon, was placed at each 30 meter station. The magnetic diurnal change was monitored in the field by the closed loop method and the appropriate corrections were subsequently applied to the data obtained.

COMPILATION OF DATA

The data was plotted on a plan of the survey area being Figure 3 to a scale of 1:3000 (1 cm = 30 m) and then contoured at a 100-gamma contour interval.

DISCUSSION OF RESULTS

The magnetic results are shown on Figure 3, with the magnetic highs and lows shaded. Also shown on the plan are the results from soil sampling carried out along one of the lines.

The surveyed area can be divided into three zones, on the basis of magnetic intensity:

i) A western area adjacent to Taweel Lake, characterized be relatively low, flat magnetics typical of a sedimentary

rock environment.

ii) A central zone, containing an extensive magnetic high. This significant change in magnetic response suggests a change in rock type, either to another sediment type with much higher background level of magnetite or pyrrhotite, or more likely, to an igneous or metamorphic rock. The low spatial frequency nature of the anomalies suggests that the causative body or rock type may be deep.

iii) An eastern area, with considerable variation in magnetic intensity, giving sharp magnetic high anomalies, and, to a less extent, magnetic lows. This zone is almost certainly indicative of underlying metamorphic or igneous geology such as volcanics with relatively shallow bedrock. It may represent a geological change from zone 2, or just a decreased overburden thickness over the same rock type.

The results from the series of soil samples, analyzed for zinc, show high values on the eastern edge of the broad magnetic high of zone 2. This is consistent with the association of mineralization with magnetic highs found on other properties in the vicinity.

Respectfully submitted, GEOTRONICS SURVEYS LTD.

David G. Mark, Geophysicist

August 20, 1981

SELECTED BIBLIOGRAPHY

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Aeromagnetic Map, Clearwater, B.C., Geol. Survey of Canada, Map 5229G, Sheet 92P/9, 1968.

Campbell, R.B., Tipper, H.W., <u>Geology of Bonaparte Lake Map</u> <u>Area, B.C.</u> Geol. Survey of Canada, Mem. 363, 1971.

Mark, D.G., <u>Geophysical Report on a Ground Magnetic Survey</u> over the SIL 2 Claim - Taweel Lake Area, Kamloops M.D., B.C., 1981.

GEOPHYSICIST'S CERTIFICATE

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I, DAVID G. MARK, of the City of Vancouver, in the Province of British Columbia, do hereby certify:

That I am a Consulting Geophysicist of Geotronics Surveys Ltd., with offices at #403-750 West Pender Street, Vancouver, British Columbia.

I further certify:

- 1. I am a graduate of the University of British Columbia (1969) and hold a B.Sc. degree in Geophysics.
- 2. I have been practising my profession for the past 13 years and have been active in the mining industry for the past 16 years.
- 3. That I am an active member of the Society of Explor- ation Geophysicists and a member of the European Association of Exploration Geophysicists.
- 4. This report is compiled from data obtained from a ground magnetic survey carried out by Roland Wood during the period of August 9th to 12th, 1981.
- 5. I do not hold any interest in the SIL 2 Claim on Taweel Lake nor do I expect to receive any interest as a result of writing this report.

Mark G. Geophysicist

August 20, 1981

AFFIDAVIT OF EXPENSES

This is to certify that the magnetometer survey carried out on the SIL 2 Claim near Taweel Lake in the Kamloops Mining Division, British Columbia from August 9th to 12th, 1981 was done to the value of the following:

FIELD:

Geologist, geophysical technician and 1 helper, 25 hours at \$60/hour	\$ 1,500.00
Instrument rental, 1 week at \$120/week	120.00
Room and board for 3 men for 3 days	150.00
4-wheel drive truck rental and gas	250.00
Survey supplies	20.00
	\$ 2,040.00

OFFICE:

Geophysicist, 10 hours at \$40/hour	\$	400.00
Geophysical technician, 5 hours at \$25/hour		125.00
Drafting and printing		110.00
Typing, photocopying and compilation		130.00
	\$	765.00

TOTAL

\$ 2,805.00

, submitted

Respectfully submitted, GEOTROPICS SURVEYS LTD.

David G. Mark, Manager

August 20, 1981





