

010

The President and Directors, Duvan Copper Company Limited, Suite 1301, 8 King Street East, Toronto, 1, Ontario.

Gentlement

This report describes the results of a program of geophysical survey carried out on your 18-claim property located in Ben Nevis Township, Larder Lake Mining Division, Ontario. The survey was carried out in November and December, 1964, and the results are depicted on the plan accompanying this report, plotted to a scale of 1 Inch to 200 Feet.

PROPERTY, LOCATION AND ACCESS -

The eighteen (18) claims, are listed as follows:

L-77663:

L-79128 to L-79138, inclusive;

L-79091 to L-79096, inclusive.

The claims form a block three claims wide, north-south, and five claims long, east-west, with the other three claims lining up east-west, adjoining to the southeast of the said block.

The location is at the central-south section of Ben Nevis

Township, about 12 miles north-northwest of Virginiatown. From

Virginiatown, there is a bush road which leads 9 miles north to Joliette Sawmill, at Mist Lake. From here, the survey crew followed a bush road which leads to the east part of the property, but they had to build a couple of bridges across small creeks to get to the property.

GEOLOGY -

Government Geological Maps, indicate that the property is underlain by basic volcanic rocks with interflow sediments at the west part of the property.

To the immediate east of the property, there is a lead-zinc-copper showing in acid volcanics. According to the claim map, this showing and the known occurrence of acid volcanics are covered by a group of patented claims adjoining to the east and north of your property. Since the boundary between the acid volcanics and the basic volcanics is not defined, it is not known if there are any acid volcanics located on your property. However, your geologist, Mr. Bill Badia, had observed a sulphide showing located within two trenches, at the central part of the property.

GEOPHYSICAL SURVEY DATA -

The geophysical survey was conducted along picket lines cut at 400-ft. intervals, north-south, to cover the property area. The

magnetometer survey was carried out by using a Fluxgate magnetometer and the base-check method, and the electromagnetic survey was carried out by using a Sharpe SE-200 E.M. Unit and the parallel-line method. Detailed topography was outlined by the geophysical operators, for possible geological examination and/or prospecting.

A total of 15.6 miles of lines was cut and chained, with 732 stations established for the survey. A total of 13.86 miles of magnetometer survey and the same mileage of electromagnetic survey were carried out.

GEOPHYSICAL SURVEY RESULTS -

The magnetometer survey encountered no anomalous conditions on the property area. However, slightly higher magnetic intensities were outlined at the west and southeast parts of the property. The readings are in the order of 800-900 gammas, as compared to readings in the order of 750 gammas at the central part of the property. Magnetic contours indicate that the area of comparatively low readings trends easterly toward the area of the known lead-zinc-copper showing at the adjoining property to the east. The trenches with sulphides at the central part of the property, are located along such a low magnetic trend. The magnetic contours also indicate the possible occurrence of minor north-

south cross-faults cutting the east-west weak magnetic trend. The variations in magnetic readings are not strong enough to indicate the occurrence of different rock types in the property area.

The electromagnetic survey obtained no indication of the occurrence of massive conductive minerals at shallow depth on the property area. The strongest dip angle at the trench area, is a two-degree reading without any cross-over. It should be noted here, however, that zinc sulphide (sphalerite) is a bad electromagnetic conductor.

CONCLUSIONS AND RECOMMENDATIONS-

The geophysical survey obtained no indication of a heavy concentration of conductive sulphides at the property area, at shallow depth. A weak magnetic trend indicates a possibility that the mineralized structure located at the adjoining property to the east may extend into your property.

A limited program of geological prospecting, to be accompanied by a geochemical soil-sample check survey, is recommended, to check a weak magnetic zone outlined in Claims L-79095, L-79137,

L-79134 and L-79131. The estimated expenditure for such a limited program of further work is \$500.00.

Respectfully submitted,

S. S. SAN, Phary

SSS:rw Encl. S. S. Szetu, Ph. D. Consulting Geologies.

Toronto, Ontario,

December 24th, 1964.

