REPORT ON INDUCED POLARIZATION SURVEY
SOME "G" GROUP CLAIMS
McLEESE LAKE AREA, B. C.
ON BEHALF OF
COAST SILVER MINES LTD. (N.P.L.)

52° 122° N.E. MAY 2, 1967 93 B/8 W

bу

Seigel Associates Limited

Richard O. Crosby, B. Sc., P.Eng. Geophysicist.

### SUMMARY

The induced polarization survey on the present property has revealed one area of potential interest.

It is recommended that more lines be cut and surveyed in order to attempt to outline the anomalous area and to gain more information concerning it. Drilling recommendations would then be based upon the expanded geophysical results.

Map (in packet) Induced Polarization Survey #1

# SEIGEL ASSOCIATES, LIMITED GEOPHYSICAL CONTRACTORS AND CONSULTANTS

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REPORT ON INDUCED POLARIZATION SURVEY

SOME "G" GROUP CLAIMS, McLEESE LAKE AREA, B. C.

ON BEHALF OF

COAST SILVER MINES LTD. (N.P.L.)

#### INTRODUCTION:

During the periods from January 14th-January 25th and again from April 6th to April 12th, 1967, a geophysical party under the direction of Mr. Charles N. O'Sullivan, B.Sc., executed an induced polarization survey on a portion of the "G" Group claims, in the McLeese Lake area, British Columbia. The claims covered, in whole or in part, by this survey, include claims G I to G 16 with record numbers 29508 to 29523 inclusive and are held by Coast Silver Mines Ltd. (N.P.L.).

This property lies at the base of the Southwest slope of Granite Mountain adjoining immediately to the southwest and south of the Gibralter Group of mineral claims. The property is accessible by secondary road from McLeese Lake, a distance of approximately 10 miles.

Seigel MK VB time domain (pulse-type) induced polarization equipment has been employed on this property. These units have a current-on time of 1.5 seconds and an integrating time of 0.5 seconds. The accompanying copy of the paper entitled "Three Recent Irish Discovery Case Histories Using Pulse Type Induced Polarization" gives a description of the phenomena involved in this type of survey, the equipment employed, the field procedures and the nature of the results obtained over various base metal ore bodies.

On the present property the survey lines were cut oriented due east-west at 400' intervals. The three electrode array with spacings of 400' was employed for reconnaissance purposes, on this property. Some detail work with spacings of 200' was also done. Station intervals are 200'.

The purpose of an induced polarization survey is to map the subsurface distribution of metallically conducting mineralization beneath the grids covered. In this area such mineralization may include metallic sulphide minerals such as chalcopyrite, bornite and pyrite or carbonaceous material. It is not possible from the geophysical data above, to differentiate between these various sources of high chargeability.

#### GEOLOGY:

The following information on the geology has been obtained from Mr. Orville Baker of Coast Silver Mines Ltd.

"The claims are entirely overburdened with glacial till (gravel-sand-silt) and Cuisson Lake. This overburden is very porous on the land area of the claims and dries very rapidly after the spring thaws.

Sedimentary and volcanic rocks of the Permian Cache Creek formation and sedimentary rocks of the Upper Triassic Gonanza group have been intruded by Jurrassic Granite and Granodiorite. Younger tertiary sediments and volcanics cover large areas of the older rocks. On the Gibralter property only the granite rocks have been exposed in outcrops—trenches and diamond drill holes.

Evidence of the old sediments and volcanic rocks have been noticed as boulders in the glacial till uncovered in the trenching by bulldozer, on the Gibralter claims.

The depth of thickness of both the glacial till and volcanics has not been determined but is indicated as being possible 10 - 50' of glacial till overlain. The series of volcanic layers are possibly from 100' to 500' in thickness overlaying the granites on the entire "G" claims."

## DISCUSSION OF RESULTS:

The accompanying plan shows, on the scale l''=1000, the survey lines covered in the present program, as well as the claim numbers. Also shown, on the scale of l''=400 are the actual survey results in profile form. The profile scales are l''=5 milliseconds for chargeability and l''=1000 ohm meters for resistivity.

Except for one area on the property the observed chargeability values are less than 2.0 milliseconds. This is well within the nonmetallic chargeability range for the type of rocks in this area.

Chargeability values above the background level are encountered on Line 8 N.E. near 4W - 18W. These values are in excess of the average 1.5 milliseconds background and the maximum value is 3.6 milliseconds. A traverse with 200' spacing was completed on this line but the anomalous readings did not repeat themselves. It is therefore deduced that the material causing the disturbance lies at a depth greater than 100' below the surface.

### DISCUSSION OF RESULTS: (Continued)

These chargeabilities are of sufficient interest to warrant further work. Another line should be cut, north of line 8 N.E., and traversed with different spacings to see if the anomalous readings extend to the northeast. Line 8 N.E. should also be extended to the west, even though it now extends to the boundary of the present property. Until this work is completed, it would be premature to make any further recommendations.

The apparent resistivities are about 100 - 200 ohm metres, although some areas of over 300 ohm metres were encountered.

Respectfully submitted,

SEIGEL ASSOCIATES LIMITED

K.O. Crosby pu &Baira

Vancouver, B. C. May 2, 1967.

Richard O. Crosby, B. Sc., P.Eng. Geophysicist.

#### DOMINION OF CANADA:

PROVINCE OF BRITISH COLUMBIA. In the Matter of a geophysical survey on behalf of Coast Silver Mines Limited

#### I. Jon G. Baird

of 115 - 744 West Hastings Street, Vancouver

in the Province of British Columbia, do solemnly declare that an induced polarization survey has been executed on a portion of the "G" Group claims in the McLeese Lake area, British Columbia between January 14 to January 25, 1967. The following expenses were incurred:

Wages			
C. O'Sullivan	10 days @ \$35/day	\$350.00	
W. Davises	11 days @ \$20/day	220.00	
T. Gibson	11 days @ \$20/day	220.00	
R. Higgins	11 days @ \$20/day	220.00	
B. McMurdo	ll days @ \$20/day	220.00	
Employee Benefits		111.72	\$1341.72
Transportation & Shi	pping		
Truck rental		\$315.00	
Shipping		51.25	366.25
Rental of Geophysica	1 Equipment		
and Consulting Fees			
8 days 🤄 \$212/day		\$1696.00	
2 days @ \$102/day		204.00	1900.00
			\$3607.97

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."

Declared before me at the City

of Vancouver

Province of British Columbia, this

day of

A Commissioner for taking Affidavits for British Columbia of A Notary Public in and for the Province of British Columbia.

Sub-mining Recorder

DOMINION OF CANADA:

PROVINCE OF BRITISH COLUMBIA. In the Matter of a geophysical survey on behalf of Coast Silver Mines Limited

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Jon G. Baird

of

115 - 744 West Hastings Street, Vancouver

in the Province of British Columbia, do solemnly declare that an induced polarization survey has been executed on a portion of the "G" Group claims in the McLeese Lake area, British Columbia between April 6 and April 12, 1967. The following expenses were incurred:

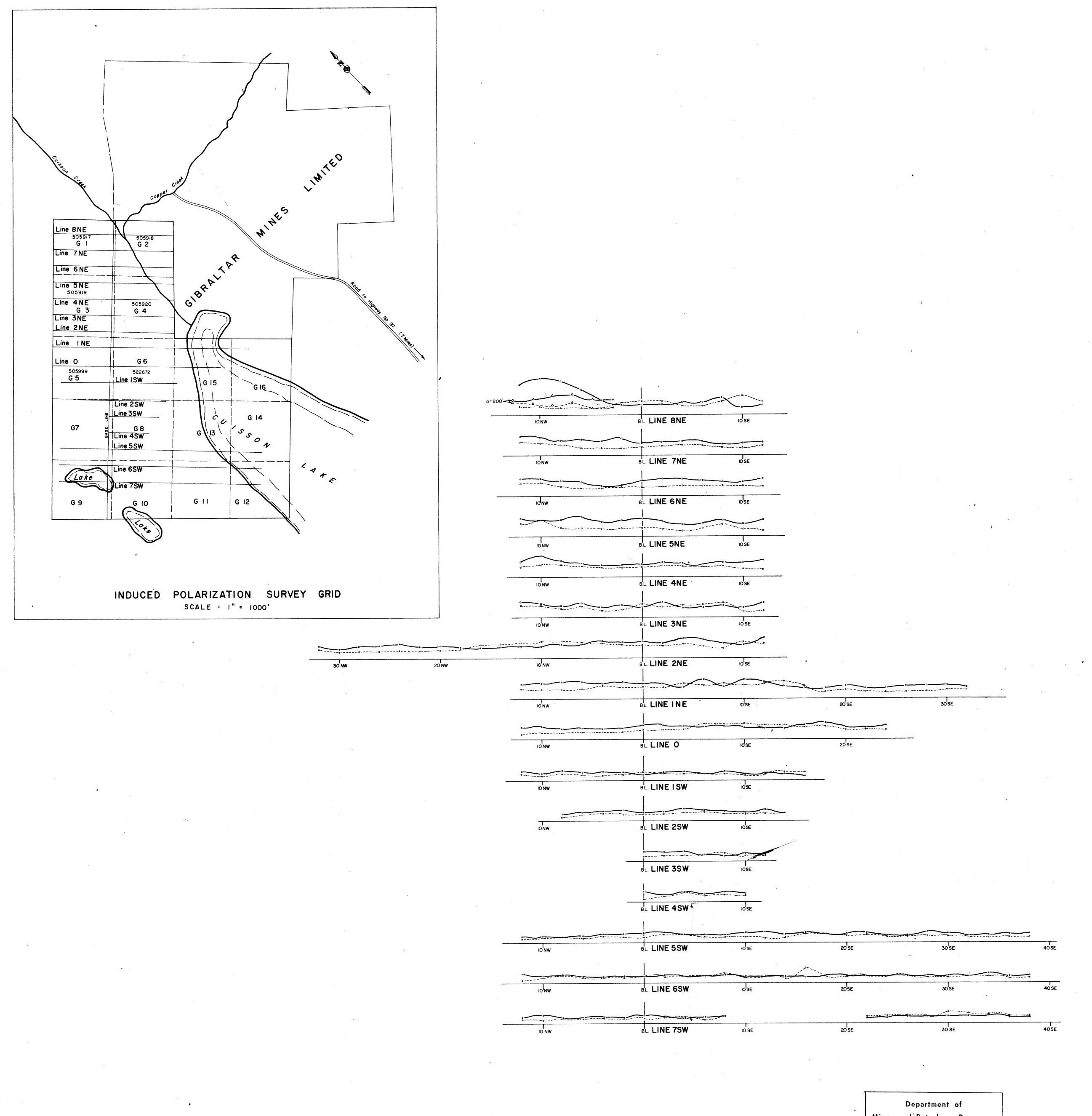
P. Antonick	· · · · · · · · · · · · · · · · · · ·	140.00	
Workmens Comp. & Vac. Pay		23.94	
Overhead & Administration		45.37	\$744.09
Transportation & Shipping Truck rental Rental of Geophysical Equipment			228.00
and Consulting Fees	for humana		
5 days @ \$210/day 2 days @ \$102.50/day Non-recoverable electi	codes	\$1050.00 205.00 164.50	1419.50
			\$2391.59

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."

Declared before me at the City , in the Vancouver Province of British Columbia, this AUGUST 1967, A.D. day of

A Commissioner for taking Affidavits for British Columbia of A Notary Public in and for the Province of British Columbia. Sub-mining Recorder

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LEGEND :

NOTES: THREE ELECTRODE ARRAY

ELECTRODE SPACING: a = 400' (or as Indicated on Line 8 NE)

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT

NO. 1150 MAP /

# COAST SILVER MINES LIMITED

CUISSON LAKE AREA, CARIBOO MINING DISTRICT BRITISH COLUMBIA

"G" GROUP MINING CLAIMS

# INDUCED POLARIZATION SURVEY

SCALE = I"= 400'

SURVEY BY SEIGEL ASSOCIATES LIMITED

JANUARY AND APRIL, 1967