1689

Geophysical Report on an Induced Polarization Survey
Owl Claim Group
Omineca Mining Division, B. C.

Property: Owl Claim Group
Location: 13 mi. S.E. of Endako B.C.
53° 124° N.W.
Report by: Peter E. Hirst, P. Eng.
Claim Owner: Anaconda American Brass Ltd.
Date of Work: June 6 - July 18, 1968

CONTENTS

MAPS

Introduction

The Owl Group consists of the Owl 1 to 20 claims (Record Numbers 41545 to 41564), the Nit 1 to 18 claims (Record numbers 55608 to 55625), the Bee #1 Fraction (53849), and the Nit 101 Fraction (55645).

A geophysical induced polarization survey was made over portions of the Owl Group during the period 6 June to 18 July, 1968. The field work was under the general supervision of Peter E. Hirst, P. Eng., and the instrument operator was Peter Smith.

Location and Accessibility

The Owl Group is located about 13 miles S.E. of the town of Endako, British Columbia. Road access to the property is by a dirt road which goes south from highway 16 a few miles west of the town of Fraser Lake. (See location map, Plate 1.) A four wheel drive vehicle is necessary to reach the claims during the wet season.

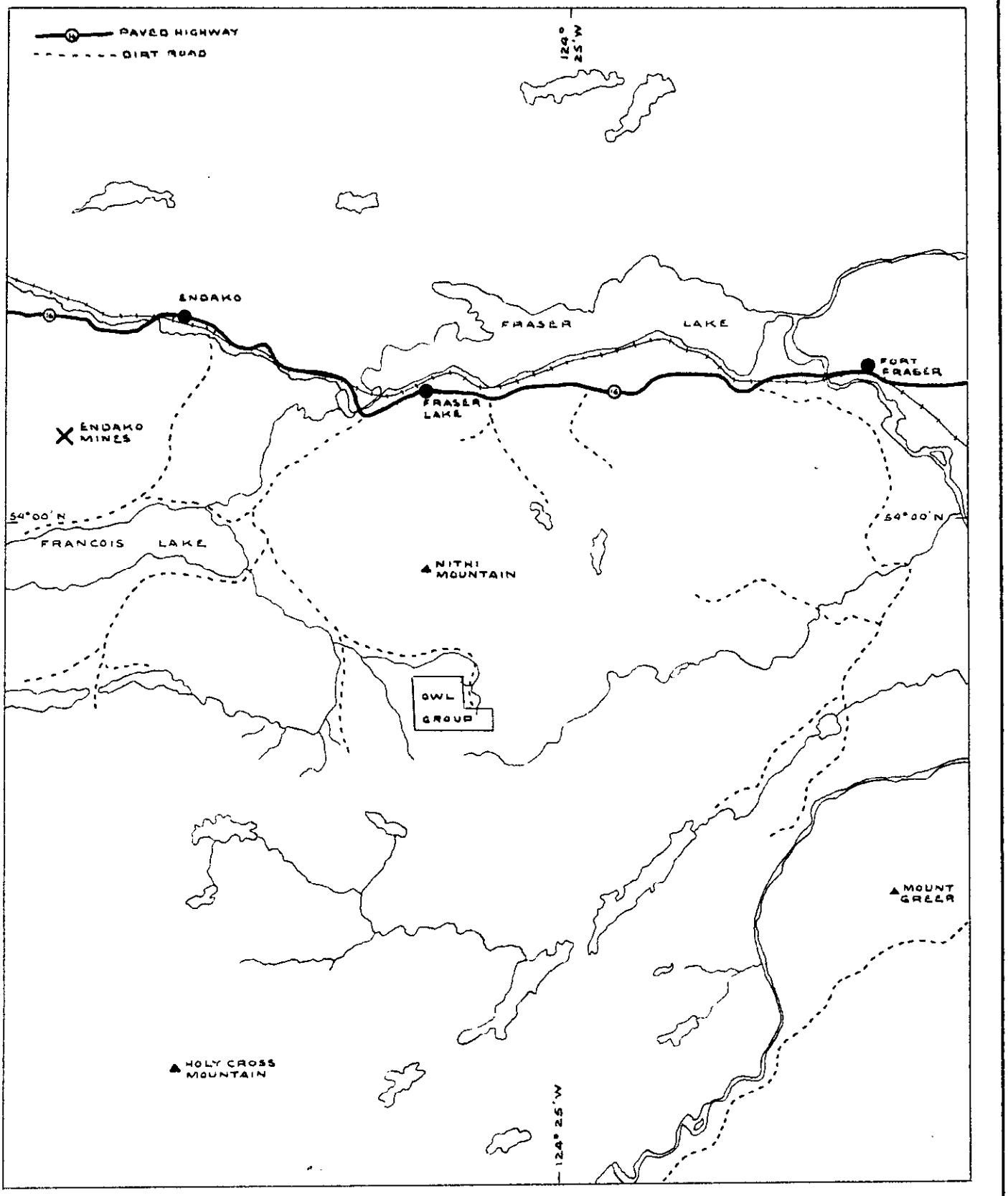
Purpose of the Induced Polarization Survey

Geochemical surveys in the area produced anomalous results in molybdenum, copper, lead and zinc. Outcrop on the claims is very scarce, making an evaluation of the geochemical results difficult. Induced polarization was used to locate "metallic" mineralization in an effort to better delineate specific areas of possible significance.

Survey Equipment and Field Procedure

The geophysical concept of Induced Polarization (I.P.) is thought to be the electro-chemical phenomenon that occurs at a solution - "metallic" mineral interface when the mode of conduction changes from ionic to electronic. When a D.C. current is transmitted through a "grounded" dipole the measured voltage in a nearby dipole will not drop instantly to the S.P. voltage, but will decay with time. This is the measurable I.P. effect which results from various types of polarization or blocking. The most predominant type is the solution - "metallic" mineral interface.

This effect is measured in various ways and is reported as the I.P. parameter. The variation in instrumentation



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OWL GROUP

OMINECA M.D., B.C.

LOCATION MAP

SCALE: 1" = 4 MILES

PLATE 1

and mathematical treatment of the method results in such terms as "percent frequency effect", "chargeability", "phase angle" and "metal factor". The parameter used in our equipment is the concept of phase angle. The phase angle is equal to the angle whose tangent is the area under the voltage decay curve of the receiver dipole when the current is off divided by the area when the current is on, assuming the current on and off times are equal. From an alternate point of view a phase angle difference can be measured from a R-C bridge tripole; each leg of the bridge being influenced by different equipotential surfaces.

The equipment used for the survey was manufactured by Anaconda. The transmitter has a cycling rate of 1 cycle per second. The receiver is a simple R-C bridge network which is manipulated to a null position for each movement of the various electrodes. The measurements are made along a surveyed line with a variable spacing between the near current electrode and middle potential electrode. The plotting point is midway between the mid-potential electrode and the current electrode. The phase angle is reported in minutes of phase shift and represents the difference between the two legs of the tripole.

Details of the Survey

Chain and compass lines were cut and surveyed with stations marked at 100 foot intervals along each line. Readings were taken every 200 feet with spreads of 200 and 400 feet. The plotting point is midway between the current electrode and the receiver electrode.

Results of the Induced Polarization Survey

The location of the Induced Polarization lines relative to the claim boundary is shown on Figure No. 1. located in pocket. Station numbers are shown on the ends of each line. The readings are plotted in profile form for each line traversed (see Figure No. 2.). The horizontal scale is 1 inch to 400 feet. The vertical scale along each profile is 1 inch to 50 minutes of phase difference. Readings in excess of 30 minutes are considered anomalous.

The single reading highs located on line 110N and 102N are not considered to be indicative of significant amounts of metallic mineralization. No other anomalous readings are recorded in the survey, however, weak response trends such as 144W on line 62N should be considered in the light of possible low grade molybdenum mineralization.

Respectfully submitted,

P.E. Hirst

Peter E. Hirst, P. Eng.

Nov. 8, 1968

APPENDIX I

ASSESSMENT DETAILS

Property: Owl Claim Group — Mining Division: Omineca
Owner: Anaconda American Brass Ltd. — Province: British Columbia
Location: 13 mi. S.E. of Endako, B.C. — Date of Work: June 6- July 18,1968

Type of Survey: Geophysical (Induced Polarization)
Operating Man Days: 116
Operating Crew Days: 29
Supervisory Man Days: 7
Drafting and Typing: 2

Personnel Employed in Survey

Supervision:
Peter E. Hirst, P. Eng.
Thomas A. Conto, Geophysicist

Drafting & typing:
Phil Emery
Ruth Broderick

Field Technicians:

Name	Category	Rate	Days Worked	Period	Wage
Peter Smith	Instrument	500/mo.	28	June 6-17, 19-24, 26 July 9 to 18	$564.50
Harold Rusk	Helper	450/mo.	28	same	507.60
Dennis Rank	Helper	425/mo.	28	same	479.70
Manfred Wenzel	Helper	400/mo.	28	same	451.80
				Total	$2,003.60

Declared before me at the City of Vancouver, in the Province of British Columbia, this 8th day of November, 1968, A.D.

P.S. Hirst

Peter E. Hirst, P.Eng.
Nov 8, 1968

J. Paul Sub-mining Recorder

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

APPENDIX II

STATEMENT OF COSTS

Field Crew:

Salaries (as per Appendix I)		$ 2,003.60
Transportation @ $15.00/crew/day		435.00
Room & Board @ $7.00/man/day		812.00
Overhead @ 0.5 (Salaries + Room & Board)		1,407.80
Drafting and Typing		50.00
Supervision		350.00
	Total	$ 5,058.40

Declared before me at the City of Vancouver, in the Province of British Columbia, this 8th day of November, 1968, A.D.

Peter E. Hirst, P. Eng.

J. Paul Sub-mining Recorder

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

STATEMENT OF OPERATOR'S QUALIFICATIONS

I, Peter E. Hirst, P. Eng., do make the following statement:

1) Peter Smith was the instrument operator for the Geophysical Survey conducted by Anaconda American Brass Limited on the Owl Group mineral claims.

2) Peter Smith is an undergraduate student at the University of British Columbia majoring in geophysics.

3) Peter Smith has been an instrument operator for five months prior to his work on the Owl claims.

4) Peter Smith was trained by Anaconda personnel to operate the instrument and I consider him fully qualified.

P. E. Hirst
Nov 8, 1968

Peter E. Hirst, P. Eng.

124°50'

OWL 9	OWL 7 41551	I.P. LINE 110 N OWL 5 41549 I.P. LINE 102 N	OWL 3 41547	OWL 1 41545
41553				
OWL 10	OWL 8 41552	I.P. LINE 94 N OWL 6 41550 I.P. LINE 86 N	OWL 4 41548	OWL 2 41546
41554				

BEE 1 FR. 53849

OWL 11 41555	OWL 13 41557	I.P. LINE 78 N OWL 15 41559 I.P. LINE 70 N	OWL 17 41561	OWL 19 41563
OWL 12 41556	OWL 14 41558	I.P. LINE 62 N OWL 16 41560	OWL 18 41562	OWL 20 41564

NIT 101 FR. 55645

NIT 18 55625	NIT 16 55623	NIT 14 55621	NIT 12 55619	NIT 10 55617	I.P. LINE 46 N NIT 8 55615	NIT 6 55613	NIT 4 55611	NIT 2 55609
NIT 17 55624	NIT 15 55622	NIT 13 55620	NIT 11 55618	NIT 9 55616	I.P. LINE 30 N NIT 7 55614	NIT 5 55612	NIT 3 55610	NIT 1 55608

53°55'

53°55'

TO ACCOMPANY GEOPHYSICAL REPORT BY P.E. HIRST DATED NOV. 8, 1968

(P. ENG)

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 1689 MAP 1

ANACONDA AMERICAN BRASS LTD. WESTERN EXPLORATION DIVISION

124°50'

OWL GROUP

OMINECA M.D., B.C.

MINERAL CLAIM MAP

NAME OF CLAIM AND THE RECORD NUMBER ARE GIVEN

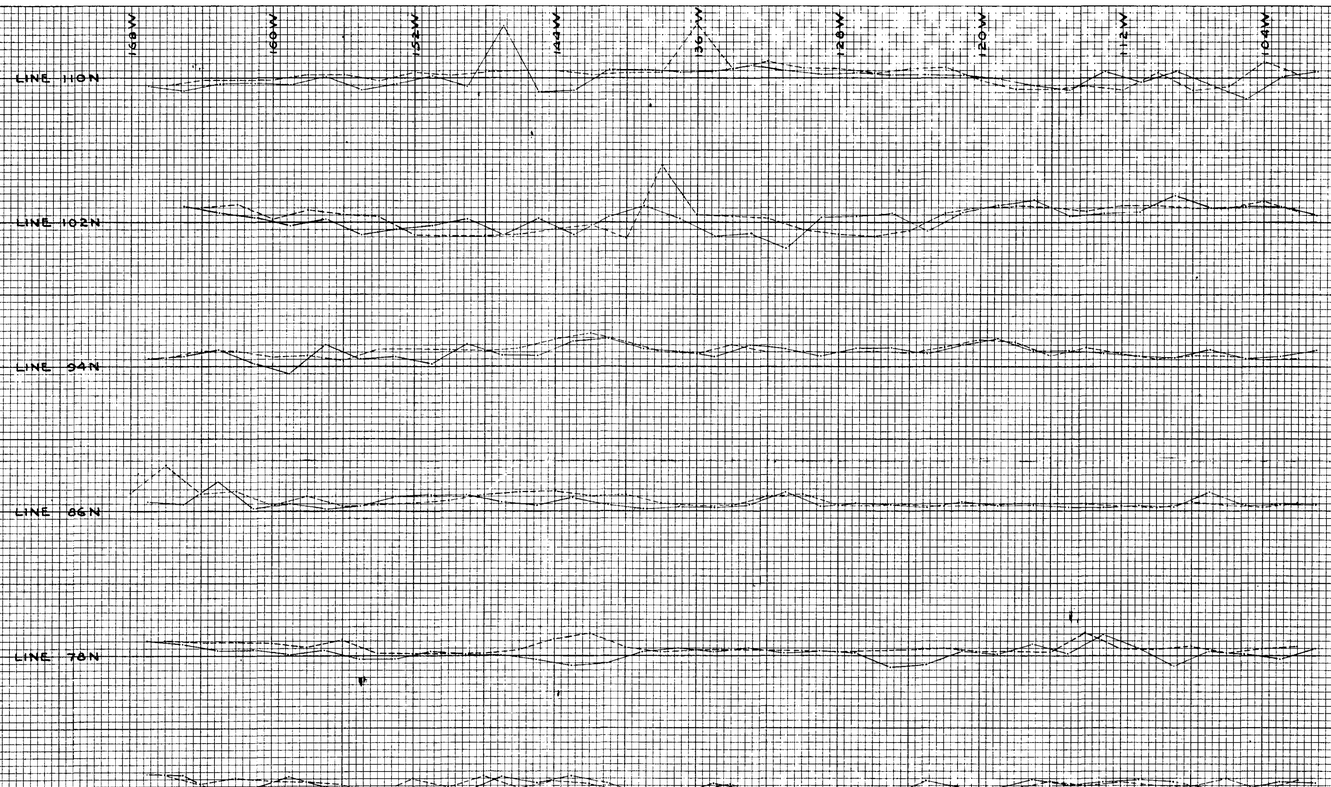
SCALE: 4" = 1 MILE

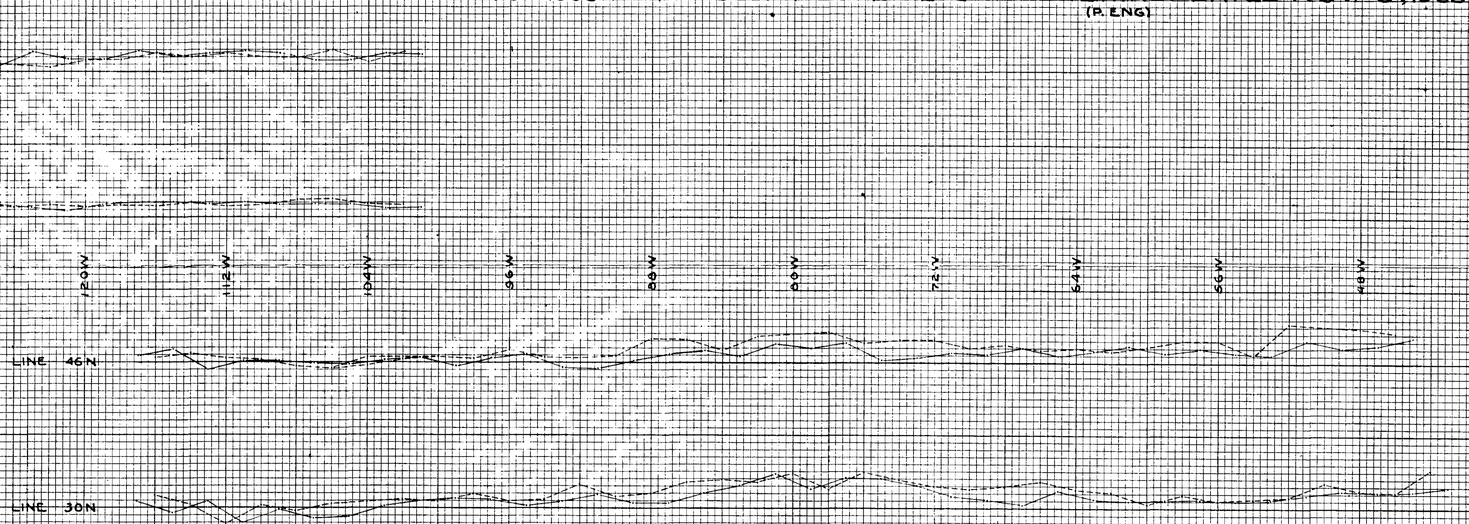
P.E. Hirst
Nov. 8, 1968

1689

(1)

FIGURE 1





TO ACCOMPANY GEOPHYSICAL REPORT BY P.E. HIRST DATED NOV. 8, 1968
(P. ENG)

NOTE:
LINE 46N IS SHOWN 800 FEET NORTH OF ITS TRUE POSITION.
LINE 30N IS SHOWN 1600 FEET NORTH OF ITS TRUE POSITION.

ANACONDA AMERICAN BRASS LTD. WESTERN EXPLORATION DIVISION

OWL CLAIMS

OMINECA M.D., B.C.

P.D.R-T.

SCALES: HORIZONTAL 1"= 400' – VERTICAL 1"= 50 MINUTES
200 FOOT SPREAD ------- 400 FOOT SPREAD

DATA BY: PETER SMITH JULY, 1968

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FIGURE 2 (2)