4521

GEOPHYSICAL REPORT
On An
ELECTROMAGNETOMETER SURVEY
AUSTRO-CAN EXPLORATION LTD.

Quis mineral claims 7 miles NE of Beaverdell,
Greenwood Mining Division, B.C.
Lat. 49°34'N Long. 119°01'W N.T.S. 82 E/11

AUTHOR: Glen E. White, Geophysicist
P. ENG: D. Parent
DATE OF WORK: June 23 - 26, 1973
DATE OF REPORT: July 18, 1973

82E/11E

C O N T E N T S

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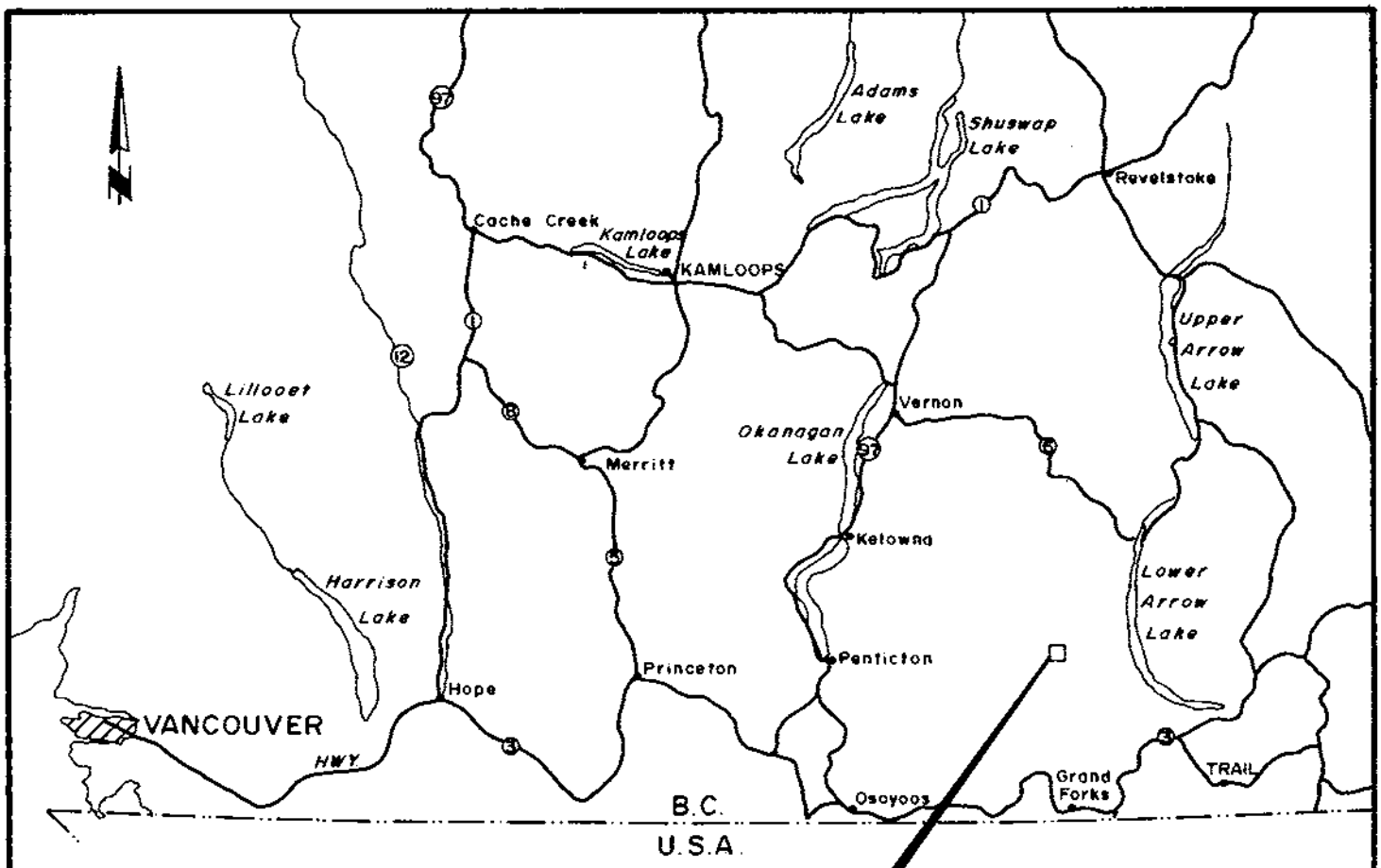
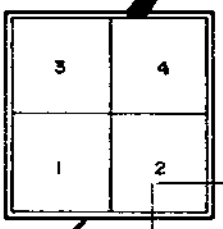
Illustrations

#1 Location and Claims map

#2 Figure 2 - Electromagnetometer - Filtered Dip-Angle %





AREA OF SURVEY

AUSTRO-CAN EXPLORATION LTD.

QUIS CLAIMS

LOCATION AND CLAIMS MAP

SCALE : LOCATION MAP : 1" = 40 MILES APPROX. CLAIMS MAP : 1/2" = 1500' APPROX.

Glen E. White
geophysical consulting services ltd.

JULY 6, 1973
FIG. 1

INTRODUCTION

During the period June 23 - 26, 1973, Glen E. White Geophysical Consulting and Services Ltd. conducted a limited amount of electromagnetometer surveying over the Quis mineral claims, Beaverdell area, on behalf of Austro-Can Exploration Limited.

The purpose of the electromagnetometer survey was to examine an area of old workings to try and locate any near surface lenses of sulphide mineralization, or structure zones which may possibly be associated with mineralization of economic interest.

PROPERTY

The survey area consists of mineral claims Quis 1 - 4, registered in the name of H. O. Plank.

LOCATION AND ACCESS

The property is located some 7 miles northeast of the village of Beaverdell on the sest side of St. John Creek, at an elevation of 4400 feet, Greenwood Mining Division - Latitude 49°34'N Longitude 119°01'W N.T.S. 82 E/11 - Province of British Columbia.

Access to the property is by a secondary gravel road which passes through mineral claim Quis 3.

PREVIOUS WORK

This property is discussed in several of the Minister of Mines Reports and is known as the Rosemont property. A number of trenches and pits were dug in the early thirties in search for gold and silver which seemed to be associated with pyrite, pyrrhotite and minor chalcopyrite mineralization.

The property was then worked by Highland Bell Ltd., who shipped several small shipments of gold and silver ore. The property has reportedly over 400 feet of underground development work completed on it.

SURVEY SPECIFICATIONS

Survey Grid

The survey grid was established in conjunction with the electromagnetometer survey and consists of east-west directed lines turned off at right angles every 200 feet from a true north-south orientated baseline. Electromagnetometer readings were taken at 50 foot intervals along the traverse lines for a total of 3.2 line miles of surveying.

Electromagnetometer Survey

This survey was conducted using a Ronka EM-16 V.L.F. electromagnetometer. This instrument acts as a receiver only. It utilizes the primary electromagnetic fields generated by VLF marine communication stations. These stations operate at a frequency between 15-25 KHZ, and have a vertical antenna-current resulting in a horizontal primary field. Thus, this V.L.F. - EM measures the dip-angle of the secondary field induced in a conductor.

For maximum coupling, a transmitter station located in the same direction as the geological strike should be selected, since the direction of the horizontal electromagnetic field is perpendicular to the direction of the transmitting station.

Readings were taken at 50 foot intervals and the data filtered in the field by the operator as described by D.C. Fraser, Geophysics Vol. 34, No. 6 (December 1969). The advantage of this method is that it removes the dc and attenuates long spatical wave lengths to increase resolution of local anomalies, and phase shifts the dip-angle data by 90° so that crossovers and inflections will be transformed into peaks to yield contourable quantities.

DISCUSSION OF RESULTS

The electromagnetometer results are shown in Figure 2 at a horizontal scale of 1" = 100 feet. The data has been filtered by the Fraser method and contoured at 5, 10, and 15% dip angle levels.

The highest reading obtained was 18% on line 4S at 6W. This value forms part of a prominent NE-SW orientated conductor which intersects several old pits and trenches on line 0. The well-defined anomaly on claim Quis 2 also appears to be in an area of old workings.

These old workings apparently contain pyrite, with values of gold and silver in silicified wall rock of the Wallace Formation. The Wallace Formation consists of largely granitized sediments, some of which are limy and has been intruded and surrounded by quartz diorite.

The V.L.F. electromagnetometer is sensitive to smaller resistivity contrasts than the standard lower frequency electromagnetometer systems. Thus it has a particular application in that it can detect lower percentages of interconnected sulphide mineralization and weaker conducting fault and shear zones. The electromagnetic responses detected by this survey show excellent continuity but on a relative basis are weak conductors. However, silicious zones of discontinuous sulphide mineralization normally do not make good conductors. Thus, since the two principle electromagnetic anomalies are associated with mineralization as exposed by the old pits and trenches, they appear interesting on a geological basis.

CONCLUSIONS AND RECOMMENDATIONS

A limited amount of electromagnetometer surveying was conducted over the Quis mineral claims, Beaverdell area, during the later part of June 1973.

The survey located two weak northeast-southwest trending electromagnetic anomalies which appear to be associated with gold and silver bearing pyrite, pyrrhotite and minor chalcopyrite mineralization located by old pits and trenches. Thus, the extension of the electromagnetic trends from the areas of known mineralization would be worthy of further investigation

Respectfully submitted,
GLEN E. WHITE GEOPHYSICAL
CONSULTING AND SERVICES LTD.

Glen E. White B.Sc.
Geophysicist

A P P E N D I X

Instrument Specifications

ELECTROMAGNETOMETER

A. Instrument

(a) Type - Geonics VLF - EM
(b) Make - Ronka Em 16

B. Specifications

Measurement
(i) Utilizes primary fields generated by VLF marine communication stations, measures the vertical field components in terms of horizontal field present.

(ii) Frequency range 15-25 KHZ

(iii) Range of measurement - in phase ± 150% or ± 90°
- quadrature ± 40%

(iv) Method of reading - null detection by earphone, real and quadrature from mechanical dials.

(v) Accuracy - ± 1% resolution

C. Survey Procedures

Method
(a) Select closest VLF station perpendicular to traverse lines.
(b) In-phase dial measures degree of tilt from vertical position.
(c) Quadrature dial calibrated in percent - null.
(d) Station plot - plot values read at station surveyed.
(e) Manually filter dip-angle data.

STATEMENT OF QUALIFICATIONS

Name:	WHITE, Glen E.
Profession:	Geophysicist
Education:	B.Sc. Geophysics - Geology University of British Columbia
Professional Associations:	Associate member of Society of Exploration Geophysicists. Active member B.C. Society of Mining Geophysicists.
Experience:	Pre-Graduate experience in Geology - Geochemistry - Geophysics with Anaconda American Brass. Two years Mining Geophysicist with Sulmac Explorations Ltd. and Airborne Geophysics with Spartan Air Services Ltd. One year Mining Geophysicist and Technical Sales Manager in the Pacific north-west for W. P. McGill and Associates. Two years Mining Geophysicist and supervisor Airborne and Ground Geophysical Divisions, with Geo-X Surveys Ltd. Two years Chief Geophysicist Tri-Con Exploration Surveys Ltd. Two years Consulting Geophysicist. Active experience in all Geologic provinces of Canada.

C E R T I F I C A T E

I, Douglas Parent, of 4495 Wallace St. in the City of Vancouver, Province of British Columbia, Canada, CERTIFY THAT:

(1) I am a member in good standing of the Association of Professional Engineers of B.C.

(2) I am a graduate of New Mexico Institute of Mining and Technology, having received the degree of B.Sc. in Mining Engineering in 1934.

(3) I have practised my profession as a mining engineer for the past thirty-eight years.

(4) That I am a registered P. ENG in the Association of Professional Engineers in the provinces of British Columbia and Quebec

(5) That I have reviewed a report dated July 18, 1973 based on work conducted by Glen E. White Geophysical Consulting and Services Ltd. under the supervision of Glen E. White B.Sc. Geophysicist, and concur with the findings therein.

(6) That this report consists of 7 typewritten pages and maps.

(7) That I have no interest directly or indirectly in the Quis mineral claims or the securities of Austro-Can Exploration Ltd. nor do I expect to acquire or receive any.

DATED at Vancouver, British Columbia, this 20th day of July, 1973.

Douglas Parent - P.Eng.

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
DOUGLAS PARENT

DOMINION OF CANADA:
PROVINCE OF BRITISH COLUMBIA.
TO WIT:

In the Matter of an Electromagnetometer Survey over Quis mineral claims, of

Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 4522 MAP

I, Glen E. White

of Glen E. White Geophysical Consulting and Services Ltd.

in the Province of British Columbia, do solemnly declare that the costs for the above survey were as follows:

PERSONNEL	PERIOD	WAGES	TOTAL
M. Bell	June 23 - 26, 1973	$65.00/day	$260.00
Instrument Lease		$10.00/day	40.00
Maps and Reports			300.00
		Total	$600.00

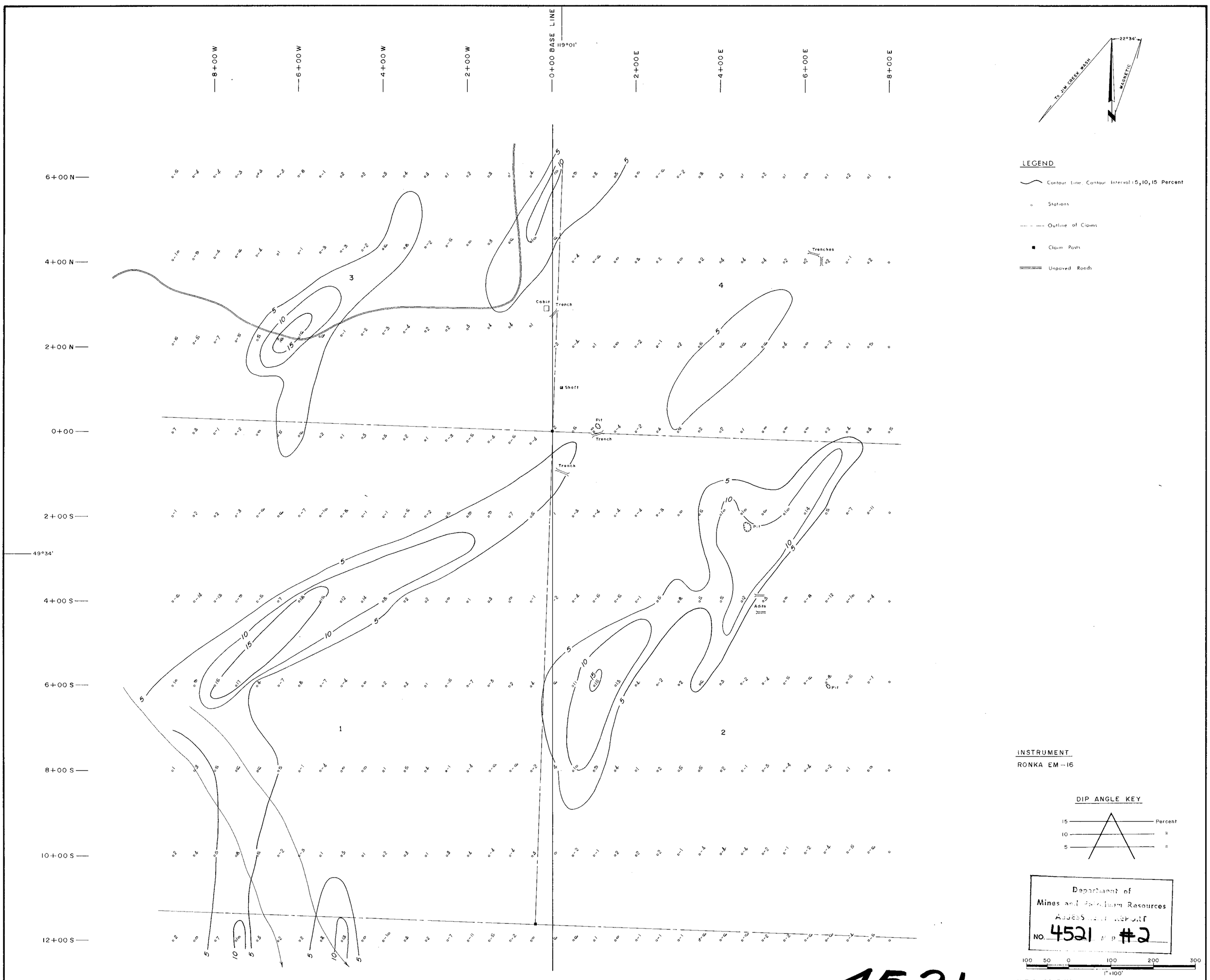
And I make this solemn declaration conscientiously believing it to be true, and knowing that it is of the same force and effect as if made under oath and by virtue of the "Canada Evidence Act."

Declared before me at the City of Vancouver, in the Province of British Columbia, this 24th day of July, 1973, A.D.

Glen E. White

Sub-mining Recorder

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



LEGEND

- Contour Line: Contour Interval: 5, 10, 15 Percent
- Stations
- Outline of Claims
- Claim Posts
- Unpaved Roads

INSTRUMENT

RONKA EM-16

DIP ANGLE KEY

15 Percent
10 "
5 "

100 50 0 100 200 300
1" = 100'

N.T.S. 82 E/11

4521
M2

AUSTRO-CAN EXPLORATION LTD.

QUIS CLAIMS

GREENWOOD MINING DIVISION — BRITISH COLUMBIA

GEOPHYSICAL MAP
ELECTROMAGNETOMETER
FILTERED DIP ANGLE
(Percent)

Glen E. White geophysical consulting & services ltd.

INTERPRETED BY: G.E.W.
DRAWN BY:
CHECKED BY:
DATE: JULY 6, 1973
FIG. No: 2

To Accompany Geophysical Report on
THE QUIS CLAIM GROUP
Date July 18, 1973
By GLEN F WHITE - B.S. Glen E. White GEOPHYSICIST