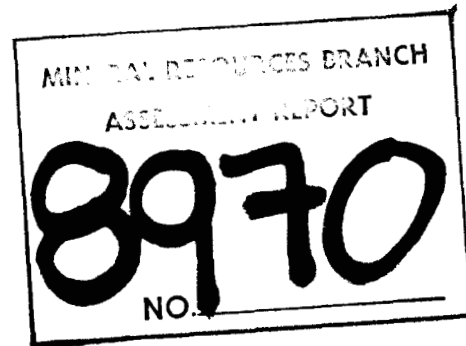


REPORT ON THE  
SALT 2 MINERAL CLAIM (16 UNITS)  
RECORD No. 806(2)  
ASPEN GROVE - TOMMY LAKE AREA  
NICOLA MINING DIVISION  
Princeton, B.C.

N.Lat. 49°57' W.Long. 120°29'

92H/16W

for



AZORA MINERALS INC.  
#1318 - 510 West Hastings Street  
Vancouver, B.C.  
V6B 1L8

by

JAMES G. AGER, B.Sc.

February 10, 1981

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## INTRODUCTION

This report describes the (VLF) Electromagnetic-Magnetometer Reconnaissance Survey over the Salt 2 Minerals Claims owned by Azora Minerals Inc. The purpose of this report is to evaluate the mineral potential of the claims for mine-making possibilities.

## PROPERTY

The Salt 2 claim consists of 16 units located in the Nicola Mining Division, Tommy Lake-Aspen Grove Area, British Columbia. Information on file with the British Columbia Ministry of Energy, Mines and Petroleum Resources at Vancouver on February 10, 1981, was as follows:

<u>Claim Name</u>	<u>Units</u>	<u>Record Number</u>	<u>Date Recorded</u>	<u>Recorded Holder</u>
Salt 2	4x4=16	806(2)	February 18, 1980	Azora Minerals Inc.

The claim is shown on B.C. mineral claim map M92/H - 16W (figure 3).

The names of the owners of the surface rights on Lots 4407, 4408, 4410, 4412 (Figures 2 and 3) are registered in LAND REGISTRY OFFICE, Kamloops, British Columbia. Legal search for title is beyond the scope of this report.

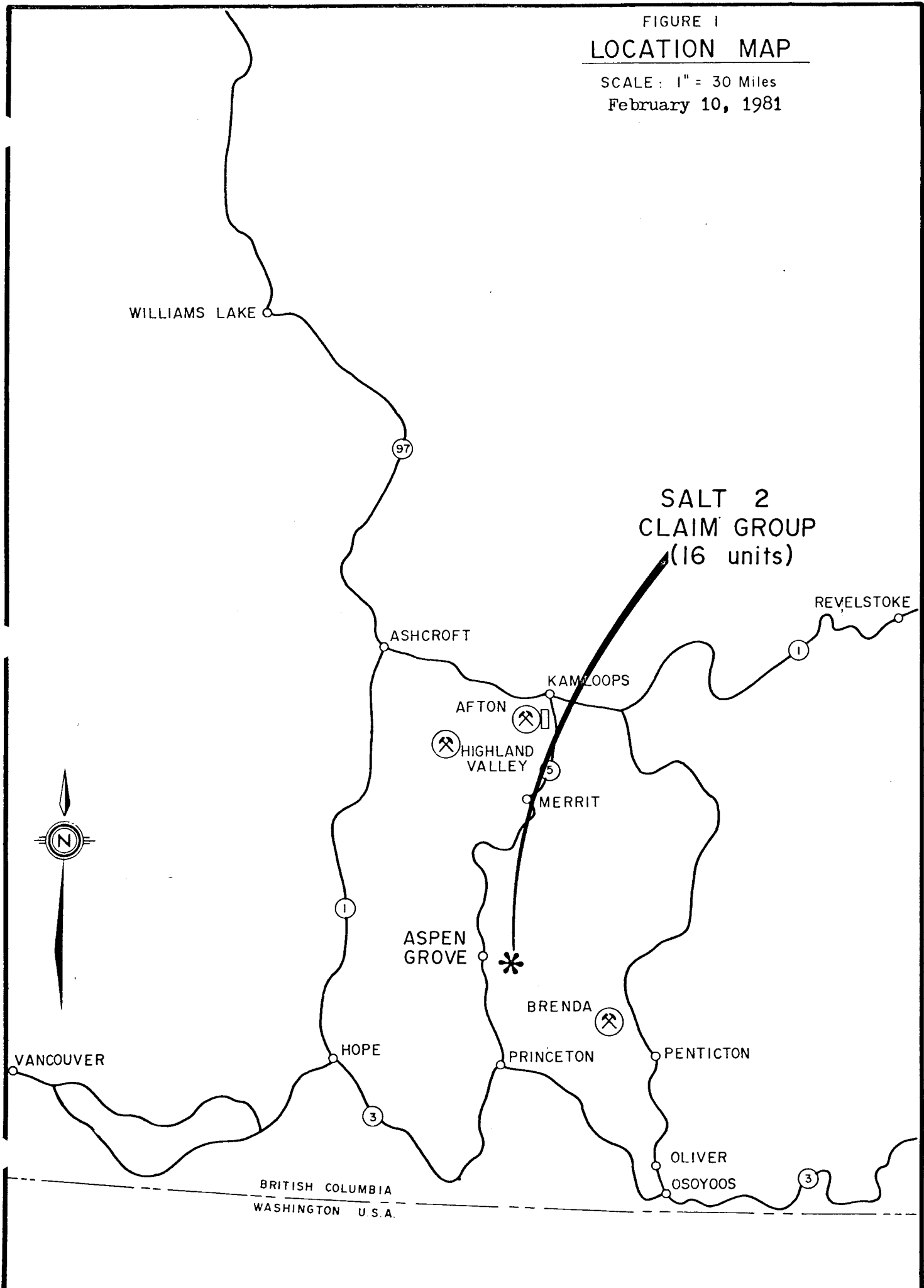
## LOCATION AND ACCESS

The property is located about eleven kilometers east of Aspen Grove, British Columbia (Figure 1).

Road access is available to the ground from a point some nine kilometers south of Aspen Grove on Highway No. 5, thence a road distance eastward of about twenty-five kilometers to the claim area (Figure 2).

FIGURE 1  
**LOCATION MAP**

SCALE: 1" = 30 Miles  
February 10, 1981

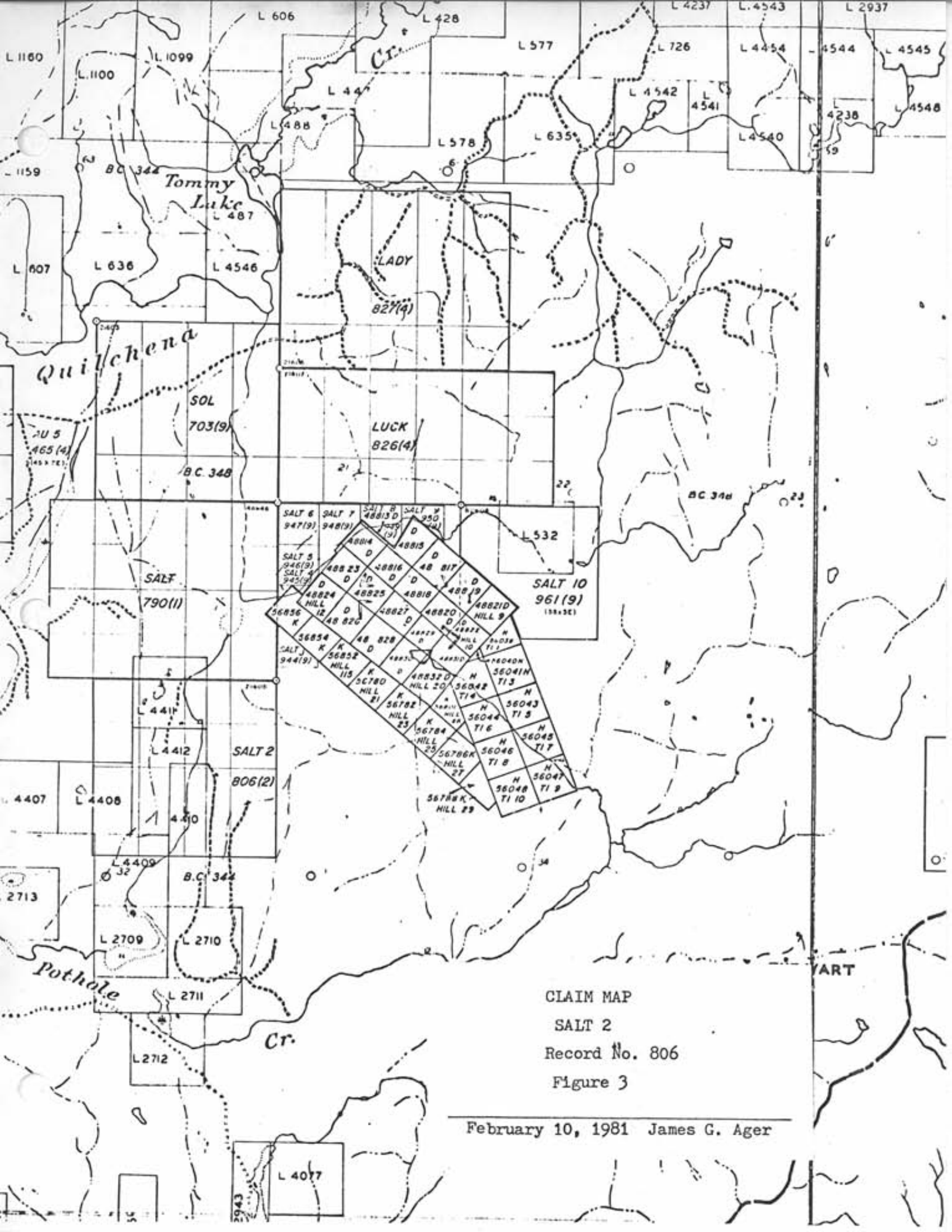




SALT 2  
CLAIM GROUP  
(16 units)

FIGURE 2 (inset)

TOPOGRAPHIC PLAN
AFTER 92H/NE
SCALE: 1: 10,000
February 10, 1981 James G. AGER



CLAIM MAP  
 SALT 2  
 Record No. 806  
 Figure 3

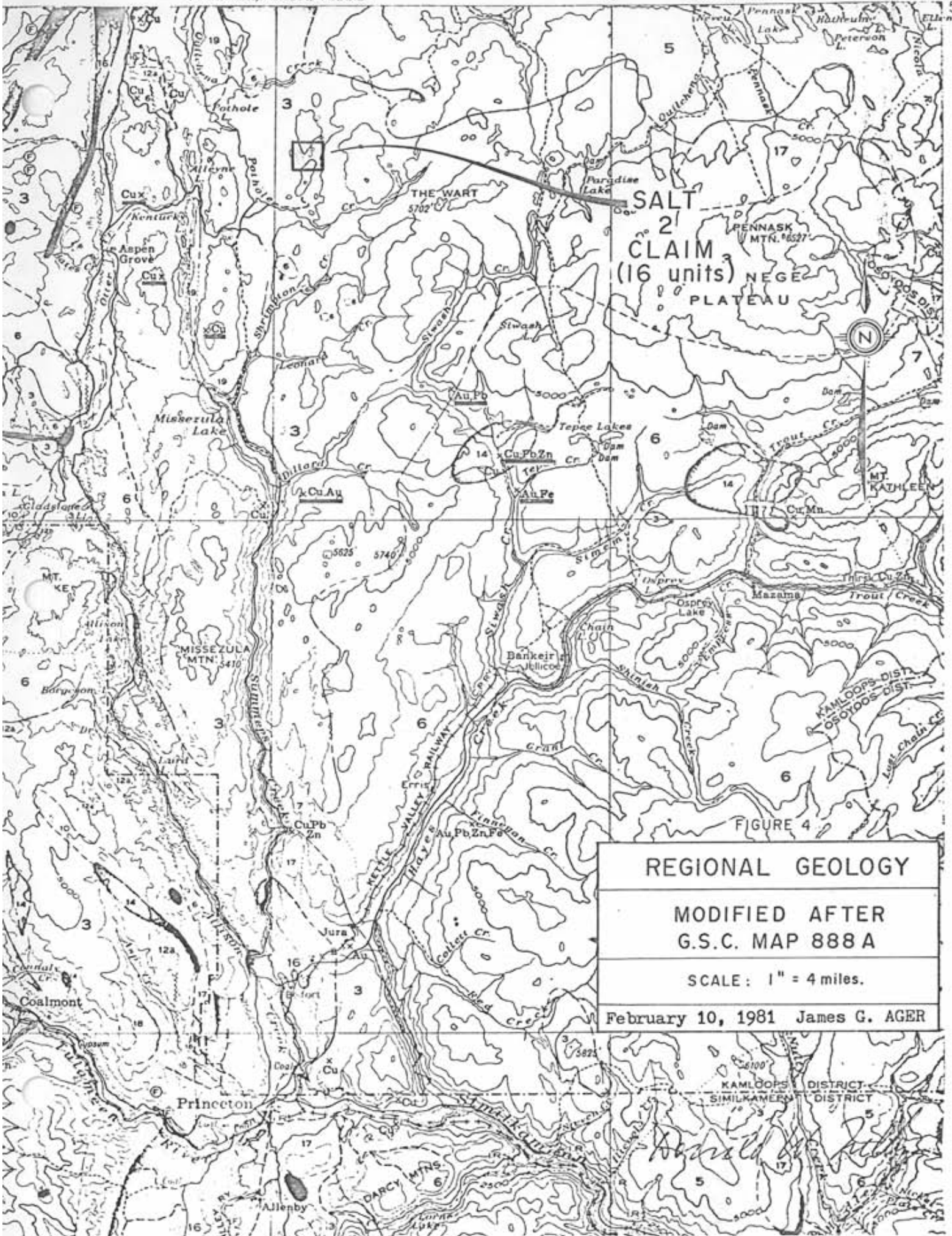
February 10, 1981 James G. Ager

## HISTORY

In 1961, the ground held by the present Salt 2 claim was claimed by part of the WEN 1-14 and HN 1-18 and held by Skeena Silver Mines Ltd. In 1962, an electromagnetic survey was done. At that time the ground was held partly by the Malachite 1-14 and the Chalcocite 1-18 mineral claims.

The following historical description of the Princeton-Aspen Grove Copper Belt is excerpted for reader interest of the area from Geological Survey of Canada Memoir 243, pag 90:

"North from Copper Mountain to the border of Princeton map-area is an area several miles long along which copper prospects, including those of the Aspen Grove Copper Camp, are numerous. At the south end of this belt, just north-east of Princeton, are three prospects, the Shamrock, Lucky Strike and Dry Creek, that occur in or close to large granitic bodies or close to apophyses from them, and are clearly related to these bodies. The deposits are of the contact metamorphic type, and chalcopyrite and pyrite with, in the Dry Creek prospect, galena and sphalerite, are the ore-bearing minerals. One property of this type, the King George, occurs to the southeast of Missetzula Lake. The remaining deposits consist of chalcopyrite, bornite, chalcocite, and rarely, pyrite, occur in fractures and disseminated grains in Nicola volcanic rocks. No intrusive rocks are known to be related to them, and their only structural connection seems to be their common occurrence along the trend of the faults up Allison Valley and Summers Creek. These faults if projected to the south across the area covered by the Princeton lavas and sediments would extend into the Copper Mountain area. It is surely more than a coincidence that deposits whose mineral constituents should be so conspicuously like those of Copper Mountain should occur dotted along a line of faulting extending north from Copper Mountain. If, as suggested by these considerations, the Aspen Grove copper deposits originated from solutions genetically connected with those that produced the Copper Mountain ores, and that these solutions entered the host rock through channels afforded by the fault zones mentioned above, it is odd that no member of the Copper Mountain intrusions, to which the mineralizing solutions would also be related has been seen along this belt. Perhaps such intrusions are present."



SALT  
 CLAIM  
 (16 units)  
 NEGE  
 PLATEAU



FIGURE 4

REGIONAL GEOLOGY  
 MODIFIED AFTER  
 G.S.C. MAP 888 A  
 SCALE: 1" = 4 miles.  
 February 10, 1981 James G. AGER

KAMLOOPS DISTRICT  
 SIMILKAMEN DISTRICT



REGIONAL AND LOCAL GEOLOGY

The area is underlain by Nicola volcanics in the west contact area of the Pennask Pluton. The regional trend of the rock structures is north to slightly west of north. The major underlying structural feature is a synclinal axis, trending north-south and lying a few kilometers west of the claim area.

A tentative timetable of geologic events for the area is as follows:

Formation	Description/Event	Age
Sand, gravel and loam	Unconsolidated (Erosional Unconformity)	Quaternary
Mineralization, metamorphism and hydrothermal alteration	Gold, silver and sulphides of copper, iron and molybdenum  ( Faulting, folding and related tectonic activity associated with the several events surrounding the intrusion of the Pennask Pluton and satellite masses)	Tertiary (?)
Pennask Pluton complex	Granodiorite, granitic phases, diorite and related secondary interaction dykes  (Faulting, folding and related tectonic activity)	Jurassic
Nicola Volcanics	Basalt, andesite with related fragmental rocks, pelitic sediments and minor conglomerate	Upper Triassic

### MINERALIZATION

Small grains of pyrite were observed in the volcanic rocks along the logging road (5116) that extends north-south through the property. Induced polarization survey by Barringer Research in 1968 did indicate areas of low resistivity-conductivity in the area of the present claim area. Immediately to the east, gold and silver mineralization occurs with chalcopyrite, chalcocite, pyrite and magnetite in varying amounts. A skarn zone of magnetite and chalcopyrite was drilled in 1962 in the area about two kilometers north of the Salt 2 claim.

### SURVEY GRID

Flag and compass lines were run in an east-west direction, on 200 meter line spacing. Stations were sampled at 50 meter intervals, and further lines were added for detail as given in Figure 5.

### ELECTROMAGNETIC (VLF) SURVEY

This survey was conducted using a Ronka EM-16 (#89) VLF Electromagnetometer. This instrument acts as a receiver only. It utilizes the primary electromagnetic fields generated by the VLF station, Seattle, and measures the dip-angle of the secondary field induced in a conductor. The results are plotted on Figure 6.

### MAGNETOMETER SURVEY

The survey was conducted using a Coni-Mag Magnetometer (No.00147). Readings were taken at 50 meter intervals and the results are plotted of Figure 6.

DISCUSSION OF RESULTS AND CONCLUSIONS as given by Don Tully, P. Eng.

"Two plans, one showing ground VLF electromagnetic in-phase and quadrature readings with magnetometer readouts, the other showing electromagnetic profiles and isomagnetic contours, accompany this report. The instruments used were a Ronka EM-16 (#89) and a CONI-MAG magnetometer (#147). The survey was reconnaissance in nature with readings taken at 50-meter intervals along lines 200 metres apart.

A study of the instrumental results shows a zone of apparent electromagnetic conductors in the north central sector of the Salt 2 claim in the area of Line 200 south 150/200 west. This zone trends southward to Line 400 south 250/350 west. More detailed surveying may show this zone extends further to the south and may join with the indicated apparent conductor zone at Line 600 south and 450 west. More detailed surveying in this area, between Line 200 south 150/200 west and Line 600 south - 450 west, on grid pattern of 15-metre or 25-metre centres is recommended. This work should be followed by a first derivative profile study and a contouring of the VLF-EM data using the Fraser method.

More detailed VLF-EM readings may show an apparent conductor zone or zones in the area of Lines 800 - 1,000 south and 50 west.

After the ground position of the apparent electromagnetic conductor zones has been established, it is then proposed that a bulldozer trenching program be carried out to expose the bedrock in the apparent conductor area. Depth of overburden or other factors such as ground-water may prohibit this type of investigation at some locations but this method should be pursued as far as possible before resorting to further methods of geophysical survey.

Magnetic relief over the claim area is relatively flat. A low reading of 17,141 gammas was recorded on Line 800 south-1,000 west and the high reading of 20,510 gammas was indicated at Line 1,200 south - 0 east (baseline). An indicated magnetic low at Line 600 south - 400 west may be coincident with an apparent electromagnetic conductor in this area."

RECOMMENDATIONS by Don Tully, P. Eng. and report dated June 9, 1980

"The need for additional mineral exploration to further delineate the indicated zones of apparent electromagnetic conductors is outlined in the Progress Report dated June 2, 1980. It is proposed to expose the bedrock beneath the indicated apparent conductor zones and examine the nature of the geological structure in the anomalous areas. In the event overburden depth renders bulldozer work infeasible, it is recommended further geophysical exploration be done to better define target zones for diamond drill testing. Pursuant to the proposed follow-up detailed surveying it is estimated the costs, including mobilization, demobilization, accommodation for a three-man crew and final report in the sequences are as follows:

1. Line-cutting (10 km @ \$250/km)	\$2,500	
2. Detailed induced polarization or MAX-MIN geophysical surveying (10 km @ \$500/km)	5,000	
3. Final target definition using gravity surveying (assume 600 stations on a 20-metre grid over the target area @ a cost of \$30 per station reading)	<u>18,000</u>	
Estimated total cost.	<u>\$25,500</u>	"

REFERENCES

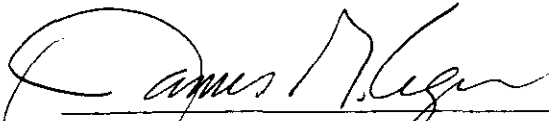
1. Minister of Mines and Petroleum Resources Annual Reports for the years 1961 and 1962 (Aspen Grove area)
2. Geological Survey of Canada Memoir 243 by H.M.A. Rice and accompanying maps 888A and 889A
3. British Columbia Ministry of Energy, Mines and Petroleum Resources Bulletin 69
4. Report by W.M. Sharp, P. Eng., (Deceased) dated January 15, 1969 entitled "Summary Report 69-1, Geological-Geophysical Exploration, Tommy Lake, Boot Lake Area, Nicola M.D. (Private Report)
5. Summary Report on Geological, Geochemical and Geophysical Investigations of the Tommy Lake-Paradise Lake Property for Consolidated Skeena Mines Ltd. (NPL) by W.M. Sharp, P. Eng., dated July 25, 1968 (Private report)
6. Don Tully Engineering Ltd.
  - a. Report on the Salt 2 Mineral Claim, February 25, 1980
  - b. Progress Report, VLF - Magnetometer Survery June 2, 1980
  - c. Addendum to Progress Report, Recommendations June 9, 1980.

STATEMENT OF QUALIFICATIONS

I James G. Ager, B. Sc., of Vancouver, British Columbia, do hereby state:

1. I am a Consulting Geologist. I graduated from the University of British Columbia, Canada in 1972.
2. I have worked in the exploration field as follows:
  - Jayco Syndicate; summer season, 1967.
  - Magnetron Mining Ltd.; May, 1968 - September, 1970.
  - Magnetron Mining Ltd.; summer season, 1971.
  - Sibola Mines Ltd.; May, 1972 - October, 1974.
  - Self-employed Consulting Geologist; October, 1974 to present, as Geologist and Project Supervisor for various Mining Companies throughout British Columbia and the Yukon including Pryme Engery Resources Ltd., Azora Minerals Inc., Petersfield Oil & Minerals, and Lansdowne Oil & Minerals Ltd.
3. The work was carried out under the direction of Don Tully, P. Eng.

DATED at VANCOUVER, BRITISH COLUMBIA, the 10th day of February, 1981.

  
\_\_\_\_\_  
JAMES G. AGER, B. Sc.  
Consulting Geologist

COST BREAKDOWN

Dates of Work March 1 - March 18, 1980  
July 7 - Aug. 17, 1980

Contract Electromagnetic and Magnetometer Survey,  
34.5 Kilometers @ \$125/kilometer  
(see invoice) \$4,312.50

Preparation of plans and drafting (re: invoice) 1,400.00

<u>Personal</u>	<u>Dates</u>	<u>Days/Wages</u>	
James G. Ager, Geologist	July 7-11	5 days @ \$150/day	750.00
	Aug. 14-17	4 days @ \$150/day	600.00

Consulting Engineer, Don Tully, P. Eng. 200.00  
\$7,262.50





DON TULLY ENGINEERING LTD.  
SUITE 102 - 2222 BELLEVUE AVENUE  
WEST VANCOUVER, BRITISH COLUMBIA  
V7V 1C7

In account with : AZORA MINERALS INC.  
Suite 1318  
510 West Hastings Street  
Vancouver, British Columbia

To preparation of a PROGRESS REPORT on a combined VLF  
electromagnetic and magnetometer reconnaissance survey  
over the SALT 2 mineral claim, Aspen Grove - Tommy Lake  
Area, Nicola Mining Division, Princeton, British Columbia  
dated June 2, 1980

FEE .....\$ 50.00

Signed :

Donald W. Tully

Dd

Alt # 004

In account with : AZORA MINERALS Inc.  
c/o Mr. Jim Agar  
Suite 1318  
510 West Hastings Street  
Vancouver, B. C.

To revise title on geophysical maps (2) of an electromagnetic (VLF) and magnetometer survey on the SALT 2 claim at Aspen Grove, B.C. and report on SALT 2 claim dated February 25, 1980 to AZORA MINERALS Inc., from the name Denu Mines and Development Ltd and making eight copies of the revised pages of the report and delivery to Suite 1318, 510 West Hastings Street, Vancouver, B.C., on May 21, 1980, as follows :

FEE.....\$100.00

May 21, 1980

Signed :

Donald W. Tully

Pd

Clk # 004

In account with : Azora Minerals Inc.  
Suite 1318  
510 West Hastings Street  
Vancouver, B. C.

To preparation of an ADDENDUM to a report dated  
February 25, 1980 and a Progress Report dated June 2,  
1980 on the SALT 2, mineral claim, Record No. 806(2)  
Aspen Grove -Tommy Lake Area, Nicola Mining Division,  
Princeton, British Columbia

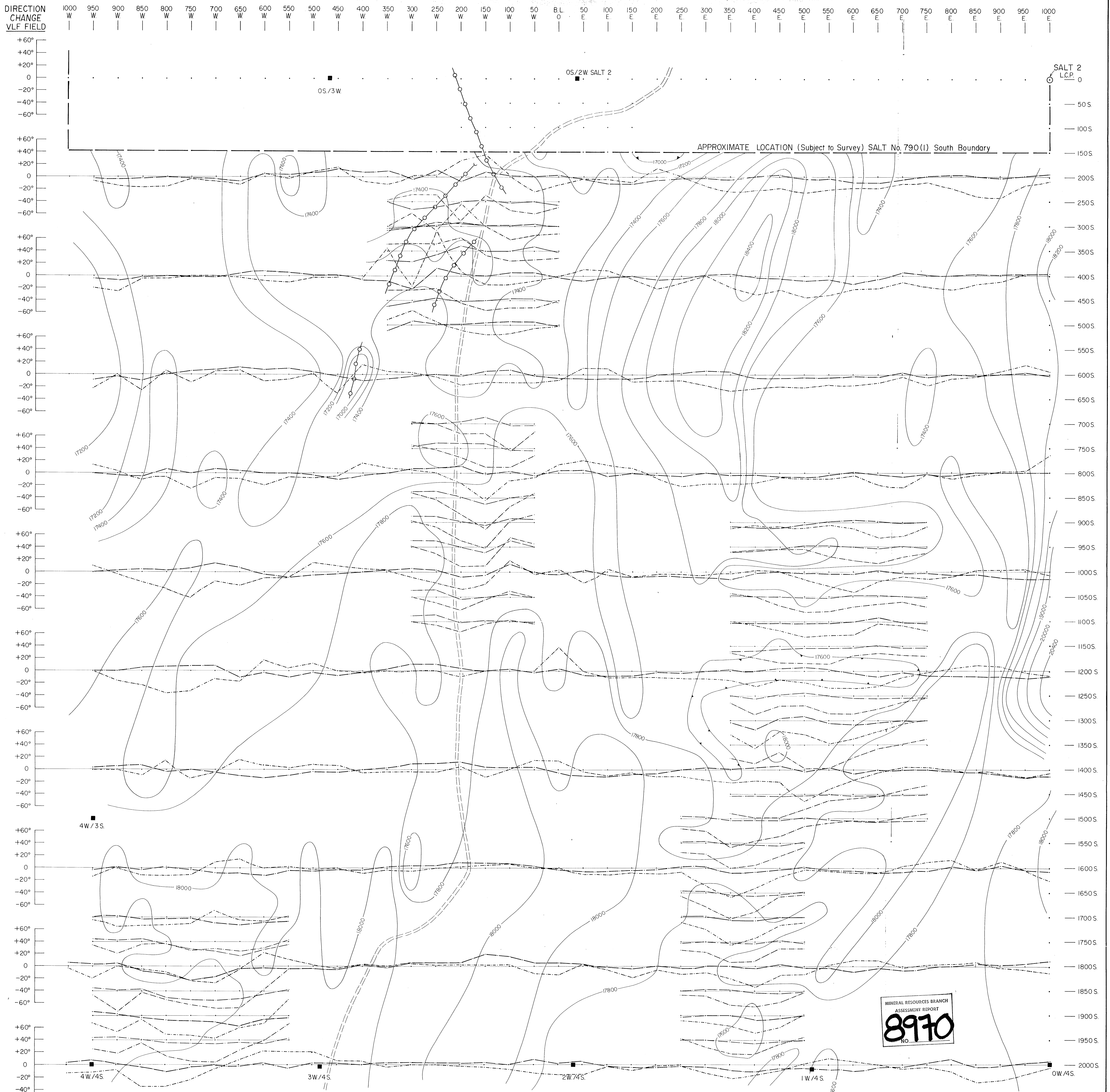
FEE .....\$50.00

June 9, 1980

Signed :

*Donald W. Tully*

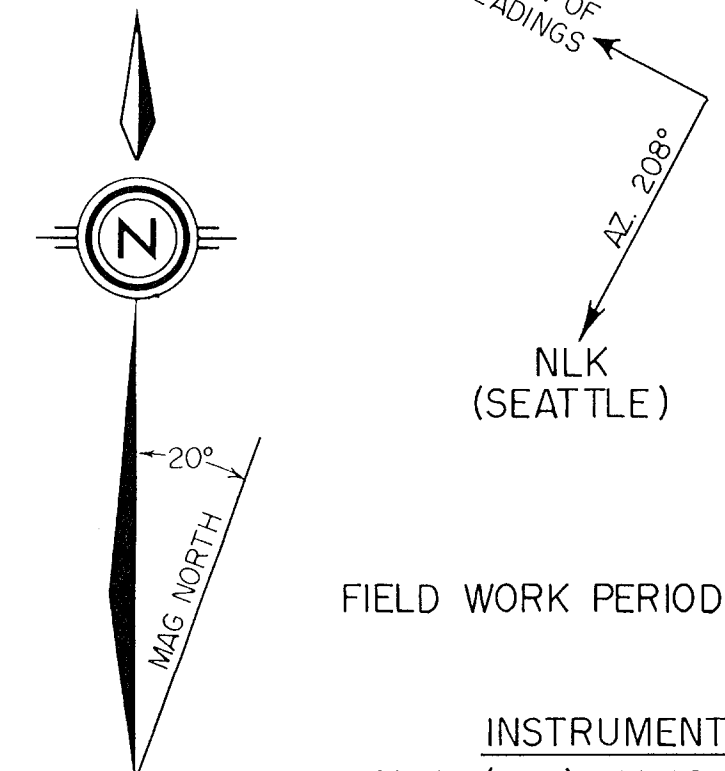
*June 9/80  
OK 4 7*



DIRECTION CHANGE VLF FIELD

EXPLANATION

- STATION (FLAGGED)-LOCATION BY CHAIN AND COMPASS
- IW/4S (CLAIM UNIT POST)
- LCP (LEGAL CORNER POST)
- ==== LOGGING ROAD
- TRAIL
- CREEK
- IN-PHASE READING  
• MAGNETOMETER READING  
• QUADRATURE READING
- IN-PHASE PROFILE (VERTICAL)
- QUADRATURE PROFILE (VERTICAL)
- MAGNETIC CONTOUR - INTERVAL 200 GAMMAS
- LOW MAGNETIC DEPRESSION CONTOUR
- APPARENT ELECTROMAGNETIC CONDUCTOR ZONE



FIELD WORK PERIOD: MARCH 1-8, 1980  
MARCH 17-18, 1980

INSTRUMENT USED  
RONKA (VLF) EM-16 No. 89  
CONI-MAG MAGNETOMETER No.00147

MINERAL RESOURCES BRANCH  
ASSESSMENT REPORT  
**8970**  
No.

**AZORA MINERALS INC.**  
SUITE 1318-510 W HASTINGS ST.  
VANCOUVER, B.C.

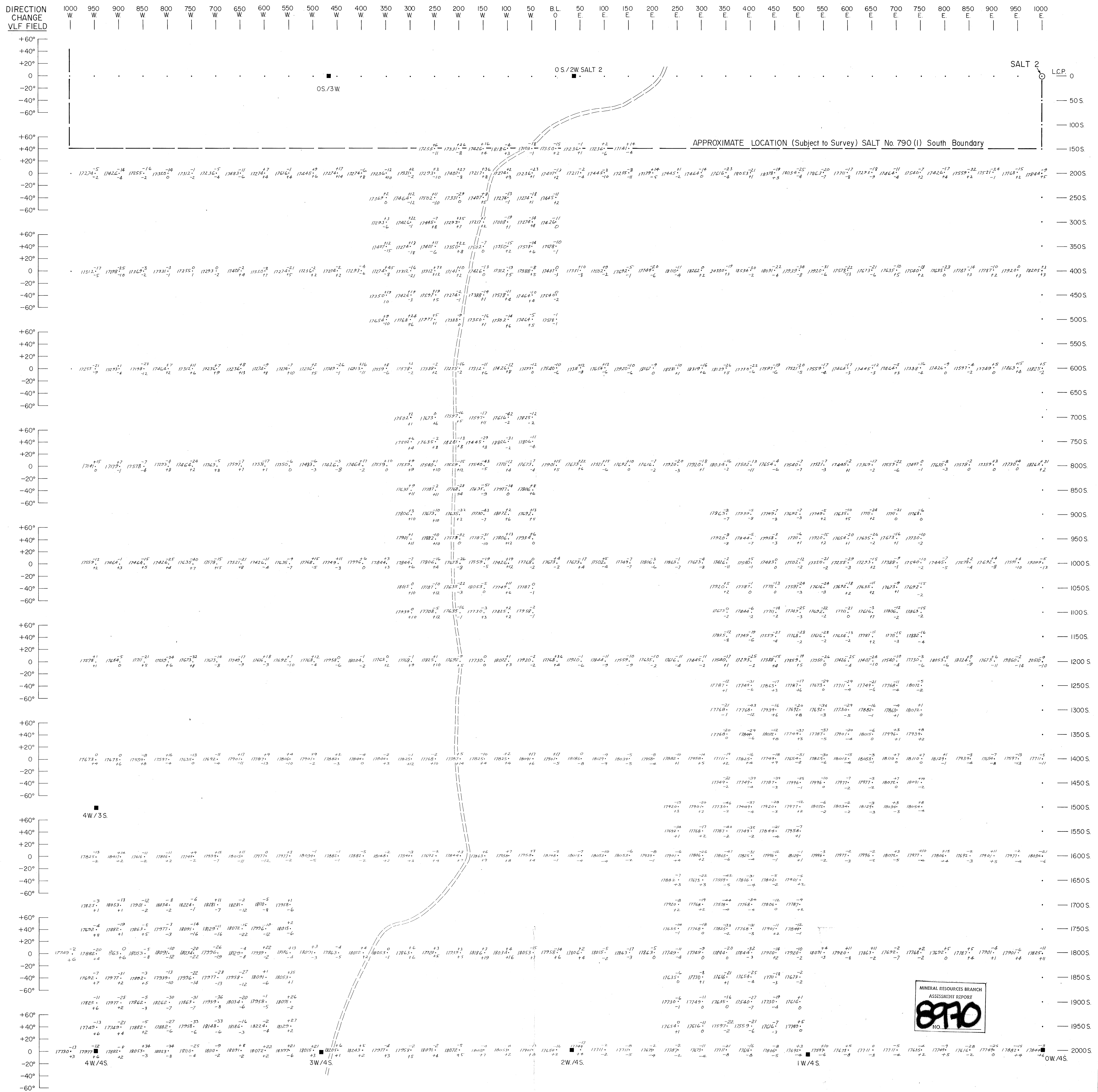
ELECTROMAGNETIC (VLF)-MAGNETOMETER  
E.M. PROFILES-ISOMAGNETIC CONTOURS

**SALT 2 CLAIM No. 806(2) -16 UNITS**

ASPEN GROVE-TOMMY LAKE AREA  
NICOLA, M.D.  
PRINCETON, B.C.

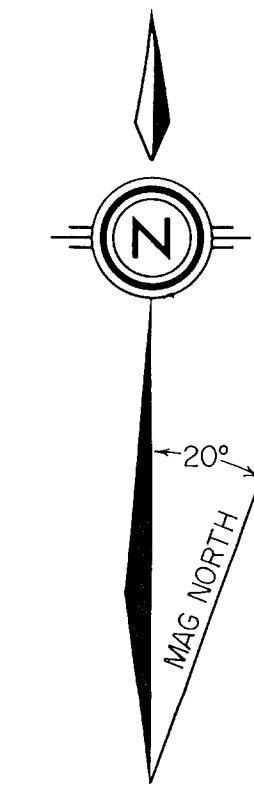
METRES 50 0 50 100 150 200 250 METRES

DONALD W. TULLY, P. ENG. DATE: APRIL 14, 1980

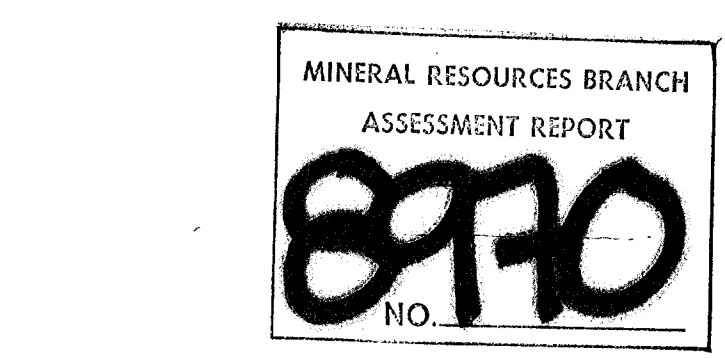


DIRECTION CHANGE VLF FIELD

- EXPLANATION**
- STATION (FLAGGED)-LOCATION BY CHAIN AND COMPASS
  - IW/4S (CLAIM UNIT POST)
  - LCP (LEGAL CORNER POST)
  - ==== LOGGING ROAD
  - TRAIL
  - CREEK
  - IN-PHASE READING
  - MAGNETOMETER READING
  - QUADRATURE READING
  - IN-PHASE PROFILE (VERTICAL)
  - QUADRATURE PROFILE (VERTICAL)
  - 17800 MAGNETIC CONTOUR - INTERVAL 200 GAMMAS
  - LOW MAGNETIC DEPRESSION CONTOUR
  - APPARENT ELECTROMAGNETIC CONDUCTOR ZONE



INSTRUMENT USED  
RONKA (VLF) EM-16 No. 89  
CONI - MAG MAGNETOMETER No. 00147



<b>AZORA MINERALS INC.</b>	
ELECTROMAGNETIC (VLF) - MAGNETOMETER SURVEY READINGS	
<b>SALT 2 CLAIM No. 806 (2) - 16 UNITS</b>	
ASPEN GROVE - TOMMY LAKE AREA NICOLA, M.D. PRINCETON, B. C.	
METRES 50 100 150 200 250 METRES	
DONALD W. TULLY, P. ENG.	DATE: APRIL 14, 1980