| LOG NO: 10-24 | RD. |
|---|---|
| ACTION: | |
| FILE NO: | |

MineQuest Report #236
Ref: RM 1003



# ZAB 1 CLAIM

## RECONNAISSANCE VLF-EM SURVEY

JULY, 1990

CARIBOO MINING DIVISION

N.T.S. 93B/13W

Latitude: 52° 54'N
Longitude: 124° 00'W

by

G. Vernon and J.A. Turner

of

MineQuest Exploration Associates Ltd.

Vancouver, B.C. September, 1990

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## 1.0 INTRODUCTION

The ZAB 1 mineral claim was staked in July 1989 because of proximity to the former Sinterella property of Newmont Canada, a property recognized as a large epithermal system with potential for gold.

## 2.0 LOCATION, ACCESS AND TOPOGRAPHY

The ZAB 1 mineral claim is located approximately 100 kilometres west of Quesnel on the Baezaeko River in the Cariboo Mining Division.

Topography is generally subdued with relief from 1066m to 1250m a.s.l. The Baezaeko River dissects the claims from southwest to northeast.

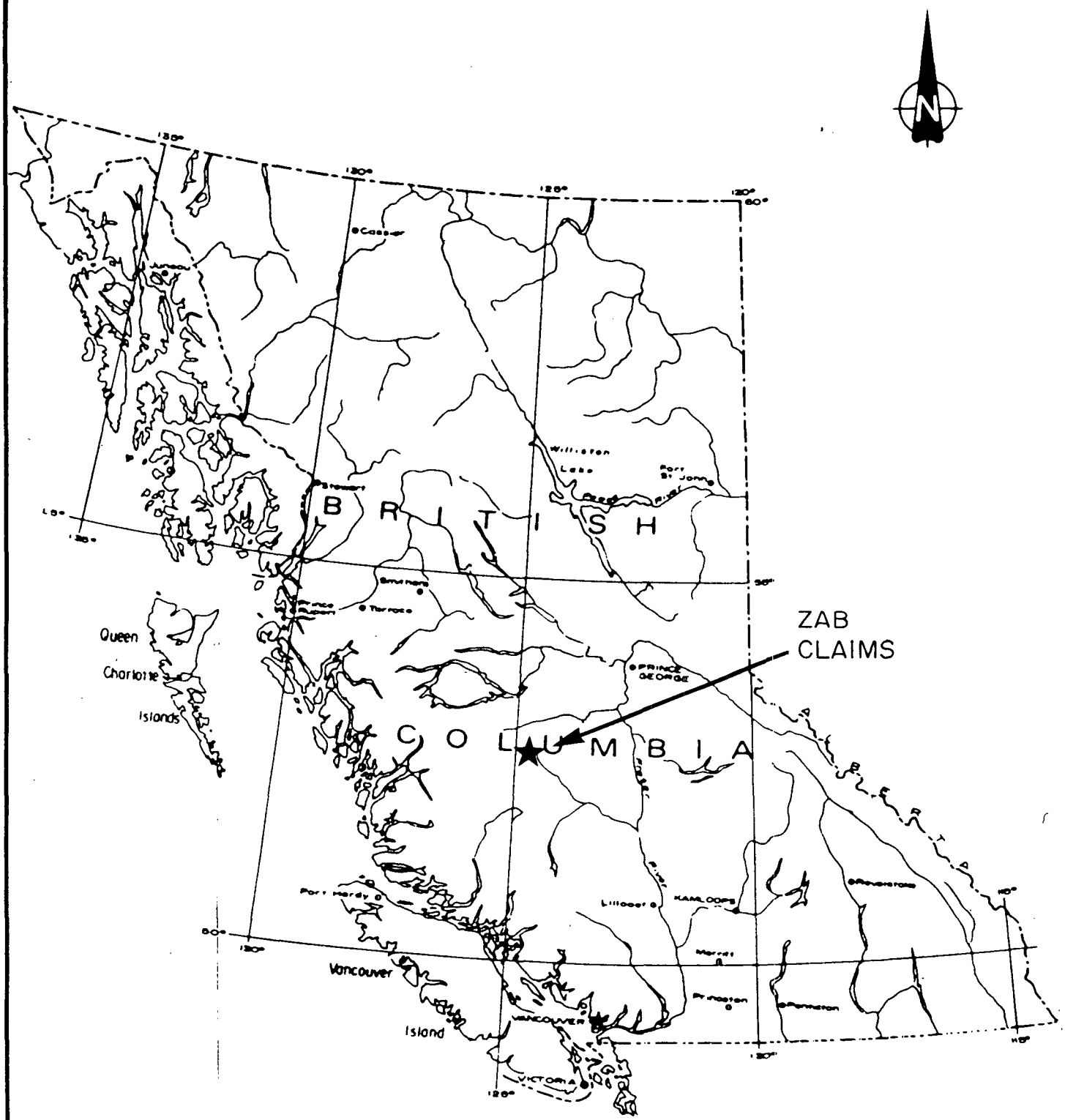
Vegetation is generally open pine forest with swamp or slough in the lower elevation and a clear cut logging area at the southeast corner.

Access to the claims is made by truck from Quesnel to Nazko on a paved highway, then by the Michelle Creek logging road (#3900) for 40 kilometres. This road is generally in good repair though in early spring it can be quite soft and deeply rutted in places near the claim.

The weather is typical of the Cariboo/Chilcotin area. Winter temperatures can reach -40° and are seldom above freezing. Average summer temperature is 22° C with localized heavy thunder showers.

## 3.0 OWNERSHIP AND CLAIM STATUS

The ZAB 1 claim (Record Number 9877) consists of eight units and is owned by MineQuest Exploration Associates Ltd. of Vancouver, B.C. The expiry date is July 14, 1991, assuming acceptance of the assessment work described in this report.




ZAB-1 CLAIM

# LOCATION MAP

| | | | |
|---|---|---|---|
| Originator G.V. | Drawn C.D. | Plan No. | FIG. |
| Revised | Date Oct.'90 | NTS 93B/13 | 1 |

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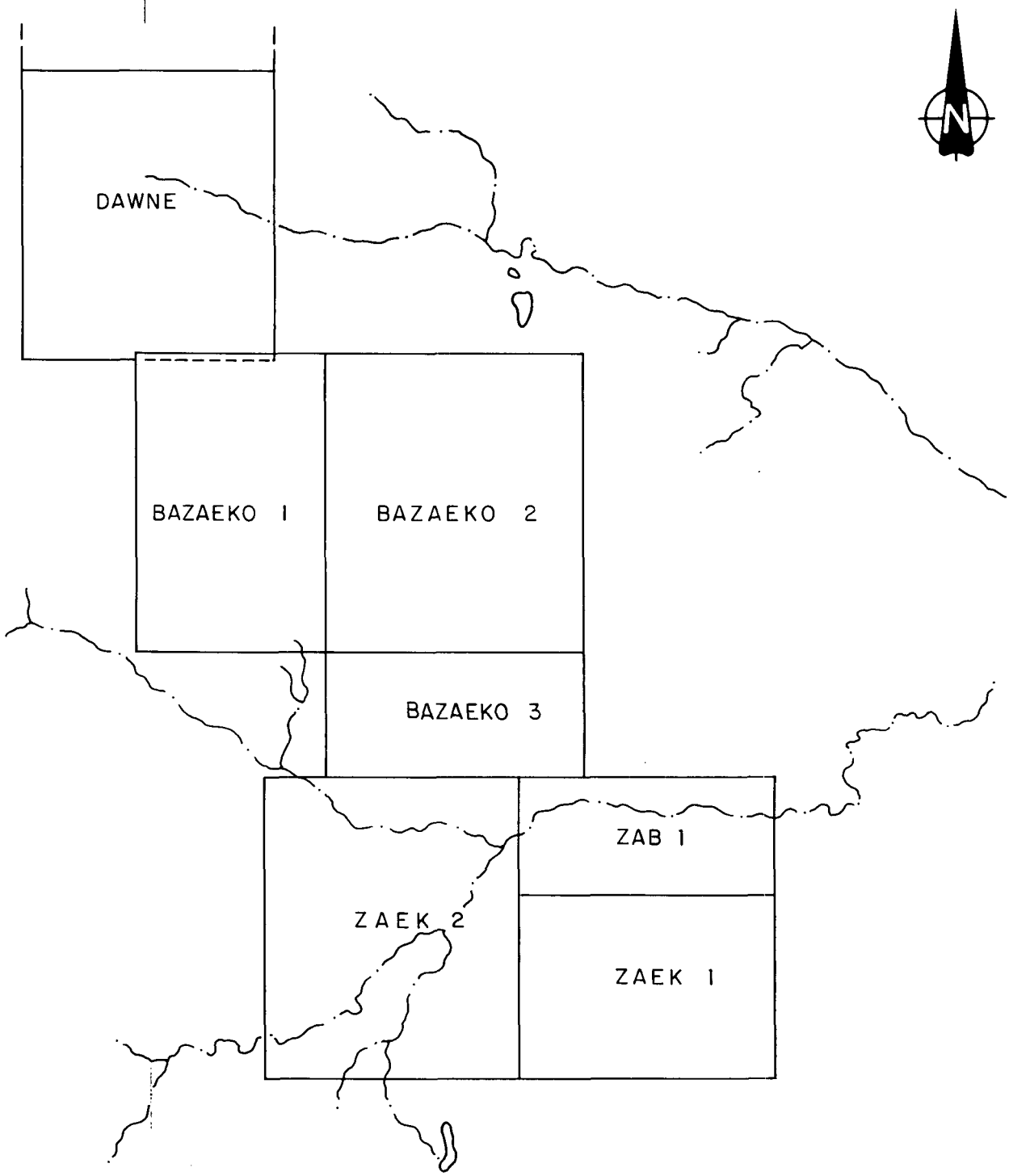


0 1000 2000 3000 m

Scale : 1 : 50,000

ZAB-1 CLAIM

# CLAIM MAP

| | | | |
|---|---|---|---|
| Originator G.V. | Drawn C.D. | Plan No. | FIG. 2 |
| Revised | Date Oct.'90 | NTS 93B/13 | |

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## 4.0 HISTORY AND PREVIOUS WORK

The writers are not aware of any previous work on the ground covered by the ZAB 1 claim itself. Work on the neighbouring claims to the North, now the Baezaeko 1, 2 and 3, (formerly the Sinterella of Newmont Canada), has consisted of geochemical soil sampling and geochemical rock sampling.

## 5.0 WORK CARRIED OUT DURING THE 1990 PROGRAM

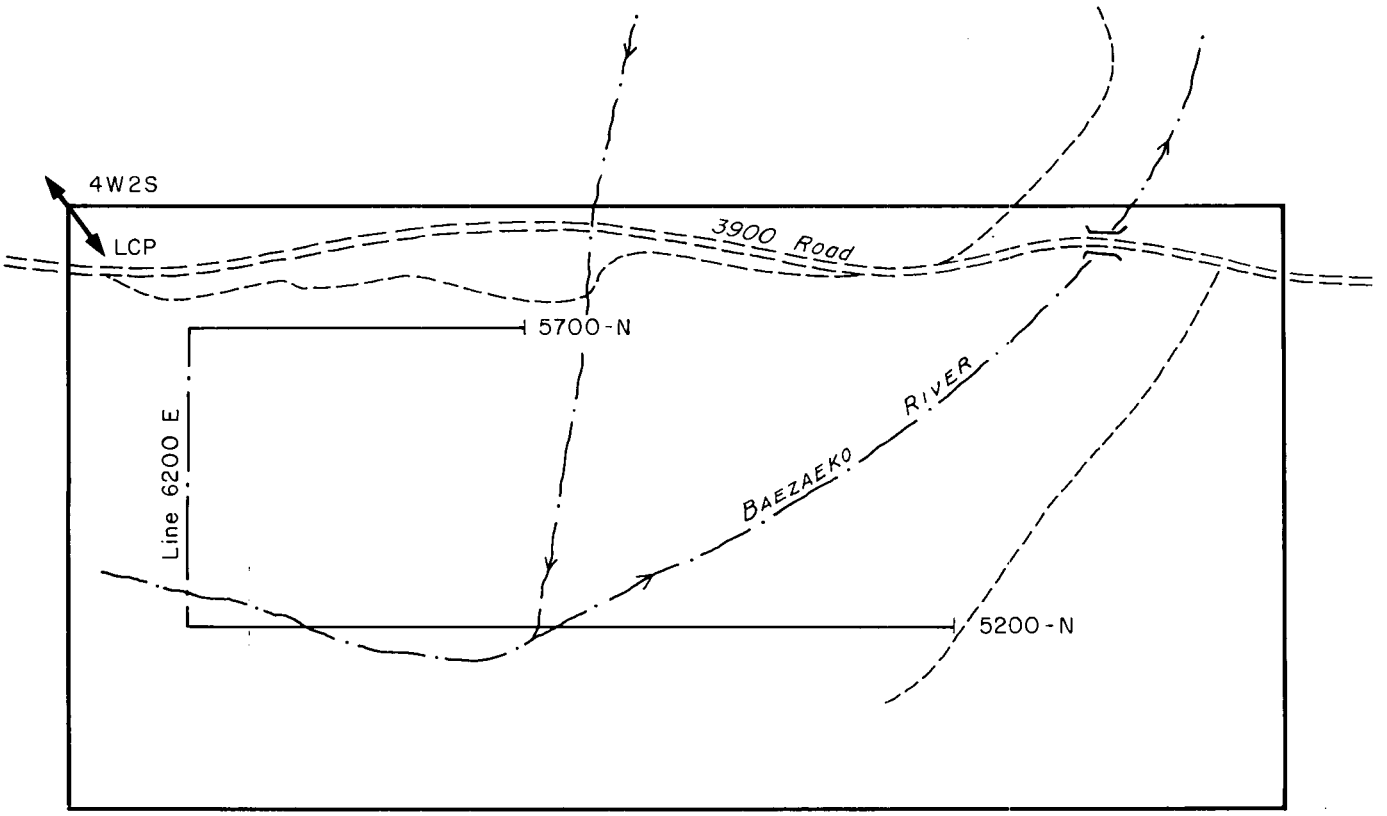
The 1990 work program consisted of reconnaissance, VLF-EM using a Geonics EM 16 receiver and the Seattle Washington transmitter on 24.8 Khz. The objective of this work was to renew the claims by testing the usefulness of VLF as a tool for further exploration.

Several rock samples were taken for geochemical analyses but these were lost in transit to Vancouver.

The work was carried out by Shawn Handley and Joel Walker supervised in the field by G. Vernon.

## 6.0 GEOLOGY

Outcrop is limited. Regional geology suggests that Tertiary rhyolite flows of the Ootsa Lake Group partially cover Jurassic Hazelton Group sediments. Most of the few available outcrops consist of brecciated rhyolite loosely cemented with silica.




## Legend

- River
- Logging road
- Jeep trail
- Grid line
- Tie line

0 100 200 300 400 500 m

SCALE: 1:1250

ZAB-1 CLAIM

# LOCATION OF GRID LINES

| | | | |
|---|---|---|---|
| Originator G.V. | Drawn C.D. | Plan No. | FIG. 3 |
| Revised | Date Oct.'90 | NTS 93B/13 | |

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## 7.0 RESULTS OF GEOPHYSICAL PROGRAM

Results are shown in Table I

The 1990 work program consisted of reconnaissance VLF-EM using a Geonics EM 16 receiver and the Seattle Washington transmitter on 24.8 kilohertz.

A total of 2.3 km of grid line for the survey was laid out on the claims. Field data (unfiltered) are plotted on Maps 5 and 6. The Seattle transmitter was chosen as it is approximately perpendicular to the stratigraphic trend. The data for both lines are moderately noisy, but a pattern does emerge.

Line 52+00 N: The profile of Dip angle (In-phase/Quadrature) indicates an in-phase anomaly at 67+00 W to 69+00 W. The crossover pattern is similar to a dual or 'U' shaped conductor and may be disseminated sulphides at or near a fault zone. The similar profiles at about 67+00 W may indicate a weak conductor. A lithologic contact may also occur at 67+00 W where a positive Quadrature and a negative Dip angle indicate a possible sulphide-bearing sedimentary unit.

Line 57+00 N: The profiles indicate there may be a conductor. The pattern is similar to Line 52+00 N, but the amplitudes are smaller. At 65+00 W a crossover (negative dip, positive quadrature) may indicate disseminated sulphides.

Recommendations: Although these lines are 500 metres apart they indicate a possible sulphide-bearing sedimentary unit near or at a fault zone. A more detailed survey is required. Such a survey should be extended over the entire claim, with lines 25 to 50 metres apart and stations at 10 metre intervals. Magnetometer and resistivity surveys should be done concurrently.

Report by

G. Vernon

J.A. Turner

## TABLE 1

### Readings from VLF-EM Survey

Line 5200 N

| Line, East | Dip Angle | Quadrature |
|---|---|---|
| | +1 | -8 |
| | 0 | -8 |
| | -2 | -8 |
| | -2 | -9 |
| 74+00 | -3 | -9 |
| | -3 | -10 |
| | -4 | -10 |
| | -3 | -10 |
| | -3 | -10 |
| | -3 | -7 |
| | -2 | -4 |
| | -2 | -4 |
| 73+00 | -2 | -3 |
| | -2 | -2 |
| | -1 | -3 |
| | +2 | -1 |
| | 0 | -2 |
| | 0 | -4 |
| | -1 | -5 |
| | 0 | -4 |
| 72+00 | -2 | -4 |
| | -3 | -5 |
| | -2 | -5 |
| | -2 | -4 |
| | -2 | -2 |
| | -2 | -1 |
| | -1 | -1 |
| | 0 | +1 |
| 71+00 | -1 | 0 |
| | 0 | -1 |
| | -1 | 0 |
| | 0 | +1 |
| | -1 | +2 |
| | +1 | +4 |
| | +3 | +7 |
| | +5 | +9 |
| 70+00 | +5 | +10 |
| | +6 | +9 |
| | +5 | +7 |
| | +5 | +4 |
| | +3 | +1 |
| | +8 | -2 |
| | +8 | -6 |
| | +10 | -12 |

TABLE 1 (Continued)

Readings from VLF-EM Survey

Line 5200 N

| Line, East | Dip Angle | Quadrature |
|---|---|---|
| 69+00 | +3 | -23 |
| | +2 | -25 |
| | 0 | -29 |
| | -1 | -30 |
| | -2 | -29 |
| | -2 | -28 |
| | -4 | -25 |
| | -6 | -22 |
| 68+00 | -8 | -12 |
| | -4 | -12 |
| | -4 | +5 |
| | -3 | +5 |
| | -4 | -1 |
| | 0 | -6 |
| | +2 | -6 |
| | -2 | -7 |
| 67+00 | -4 | -8 |
| | -6 | -7 |
| | -7 | -3 |
| | -6 | +2 |
| | -8 | +6 |
| | -7 | +3 |
| | -8 | +4 |
| | -7 | +1 |
| 66+00 | -7 | -2 |
| | -7 | -1 |
| | -5 | -1 |
| | -5 | 0 |
| | -7 | +1 |
| | -5 | +2 |
| | -5 | +2 |
| | -5 | +5 |
| | -4 | +5 |
| 65+00 | -3 | +6 |
| | -2 | +7 |
| | -2 | +8 |
| | -1 | +10 |
| | 0 | +12 |
| | 0 | +14 |
| | +3 | +16 |
| | +4 | +17 |
| 64+00 | +7 | +21 |
| | +8 | +20 |
| | +8 | +17 |
| | +8 | +15 |

TABLE 1 (Continued)

Readings from VLF-EM Survey

Line 5200 N

| Line, East | Dip Angle | Quadrature |
|---|---|---|
| | +8 | +13 |
| | +5 | +4 |
| | +2 | -4 |
| | +10 | -17 |
| 63+00 | +14 | +15 |
| | +10 | +13 |
| | +6 | +12 |
| | +5 | +11 |
| | 0 | +13 |
| | -3 | +10 |
| | -4 | +8 |
| | -5 | +6 |
| 62+00 | -7 | +5 |

TABLE 1 (Continued)

Readings from VLF-EM Survey

Line 5700 N

| Line, East | Dip Angle | Quadrature |
|---|---|---|
| | +5 | -1 |
| | +6 | -4 |
| | +8 | -3 |
| | +8 | -1 |
| 67+00 | +6 | 0 |
| | +5 | +1 |
| | +3 | 0 |
| | -3 | -3 |
| | -1 | -2 |
| | -1 | -3 |
| | +3 | -3 |
| | +3 | -5 |
| 66+00 | +2 | -2 |
| | -1 | -2 |
| | -3 | -1 |
| | -3 | -2 |
| | -3 | -3 |
| | -3 | -1 |
| | -3 | 0 |
| | -2 | -4 |
| 65+00 | +1 | -2 |
| | +7 | -3 |
| | +7 | -1 |
| | +8 | -2 |
| | +6 | -1 |
| | +3 | -2 |
| | +2 | -2 |
| | +2 | -1 |
| 64+00 | +2 | 0 |
| | 0 | -1 |
| | +1 | -1 |
| | +1 | -2 |
| | +1 | -1 |
| | +2 | -1 |
| | +1 | 0 |
| | 0 | 0 |
| 63+00 | 0 | +1 |
| | +1 | +1 |
| | +3 | +1 |
| | +3 | +2 |
| | +2 | +1 |

# APPENDIX I

Cost Statement

## APPENDIX I

### Cost Statement for the ZAB 1 Claim
### For Period January 1, 1990 through to July 14, 1990

| | | | | |
|---|---|---|---|---|
| **FEES** | | | | |
| G. Vernon | 2.75 hours | at $ 17.70 | $ 48.68 | |
| G. Vernon | 1.00 days | at $106.21 | 106.21 | $ 154.89 |
| **TEMPORARY STAFF** | | | | |
| J. Walker | 2.00 days | at $100.99 | 201.98 | |
| S. Handley | 2.33 days | at $123.42 | 287.57 | 489.55 |
| **DISBURSEMENTS** | | | | |
| Food and Accommodation | | | 316.87 | |
| Fuels and Lubricants | | | 64.76 | |
| Rental Vehicles | | | 358.86 | |
| Taxi/Bus Fare/Parking | | | 40.07 | |
| Telecommunications | | | 5.81 | |
| Photocopies | | | .60 | |
| 10% on Disbursements | | | 78.70 | 865.67 |
| | | | | $1,510.11 |

# APPENDIX II

Statements of Qualifications

## APPENDIX II

### Statement of Qualifications

I, George Vernon of 812B Edgar Ave., Coquitlam, B.C. have been a full-time prospector for the last three years.

I have been involved in Mineral Exploration for the last six years.

Since 1987 I have been an employee of MineQuest Exploration Associates Ltd.

I have attended the following courses:

1986 - B.C. and Yukon Chamber of Mines Prospecting School

1988 - BCEMPR Advanced Prospecting course Cowichen Lake

1990 - Petrology for Prospectors sponsored by BCEMPR and Smithers Exploration Group held at Smithers, B.C.

Signed George Vernon
G. Vernon

Dated at Vancouver, B.C.
this 10th day of October,
1990

## APPENDIX II

### Statement of Qualifications

I, James A. Turner, residing at 14149 17 A Avenue, Surrey, British Columbia, state that:

1. I have graduated from the University of British Columbia with a B.Sc. degree in physics with geology in 1973 and further academic work in geological sciences in 1976.

2. I was employed by Newmont Exploration of Canada Limited, Vancouver, British Columbia as a Project Geologist from 1980 to 1989.

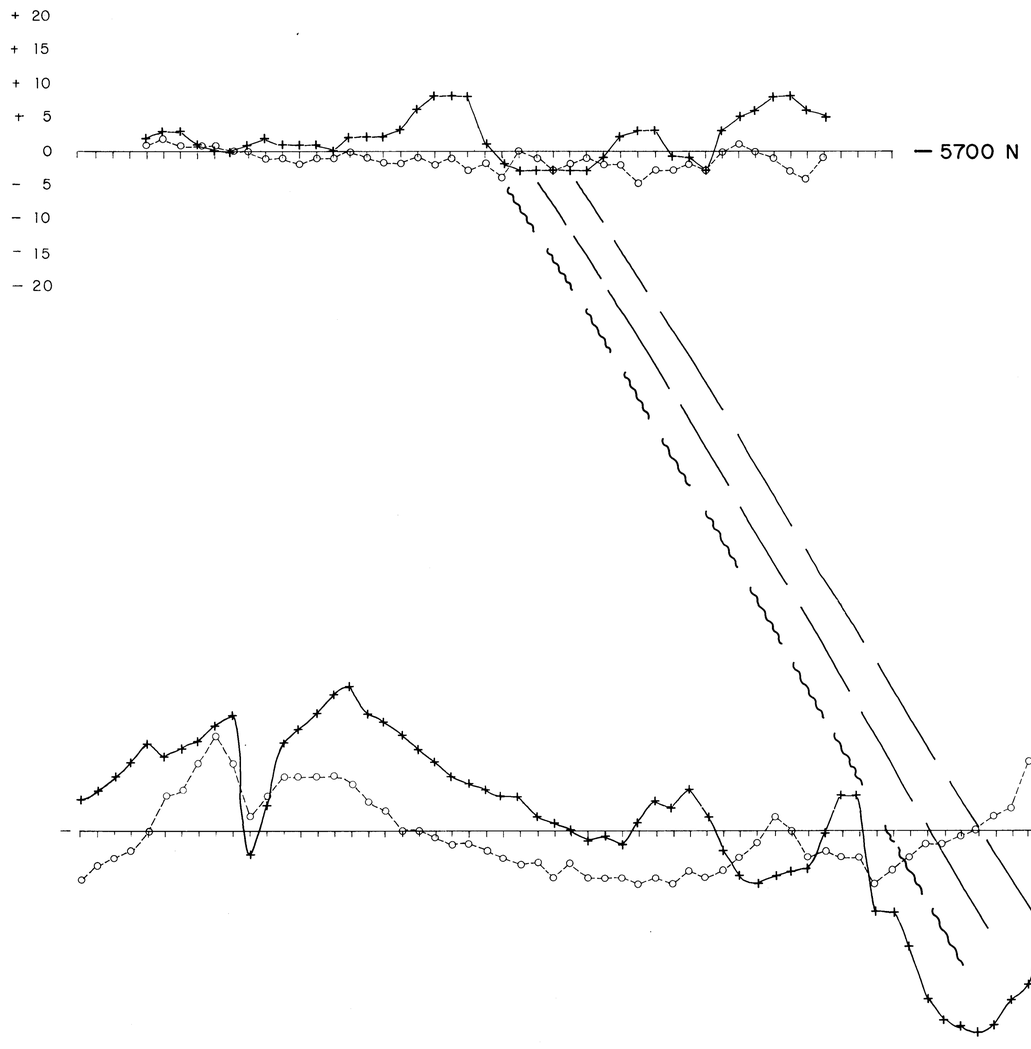
3. I am a member of the Geological Association of Canada (Cordilleran Section).

4. I have been employed by MineQuest Exploration Associates Ltd. since February 1990 as a geologist and operator of Computer Imaging Systems.

Signed

J.A. Turner

Dated at Vancouver, B.C.
this 10th day of October,
1990




Legend

- DIP ANGLE (in phase)
- QUADRATURE
- CONDUCTOR
- FAULT

Key :

Instrument : GEONICS EM-16
Configuration : VLF-EM-NLK (Seattle, Wash.)
Vertical Scale : 5% /cm.
Base line value : 0%

Survey by :

Chain and Compass

GEOLOGICAL BRANCH
ASSESSMENT REPORT

20,375

0 50 100 150 200 m

Scale : 1 : 2500

ZAB-1 CLAIM

# VLF SURVEY

## DIP ANGLE / QUADRATURE (%)

## PLAN

| | Originator | Drawn | Date | PLAN NO. | FIG. |
|---|---|---|---|---|---|
| Originator | G.V. | C.D. | Oct.'90 | | |
| Revision | | | | N.T.S. 93B/13 | 4 |
| Revision | | | | | |

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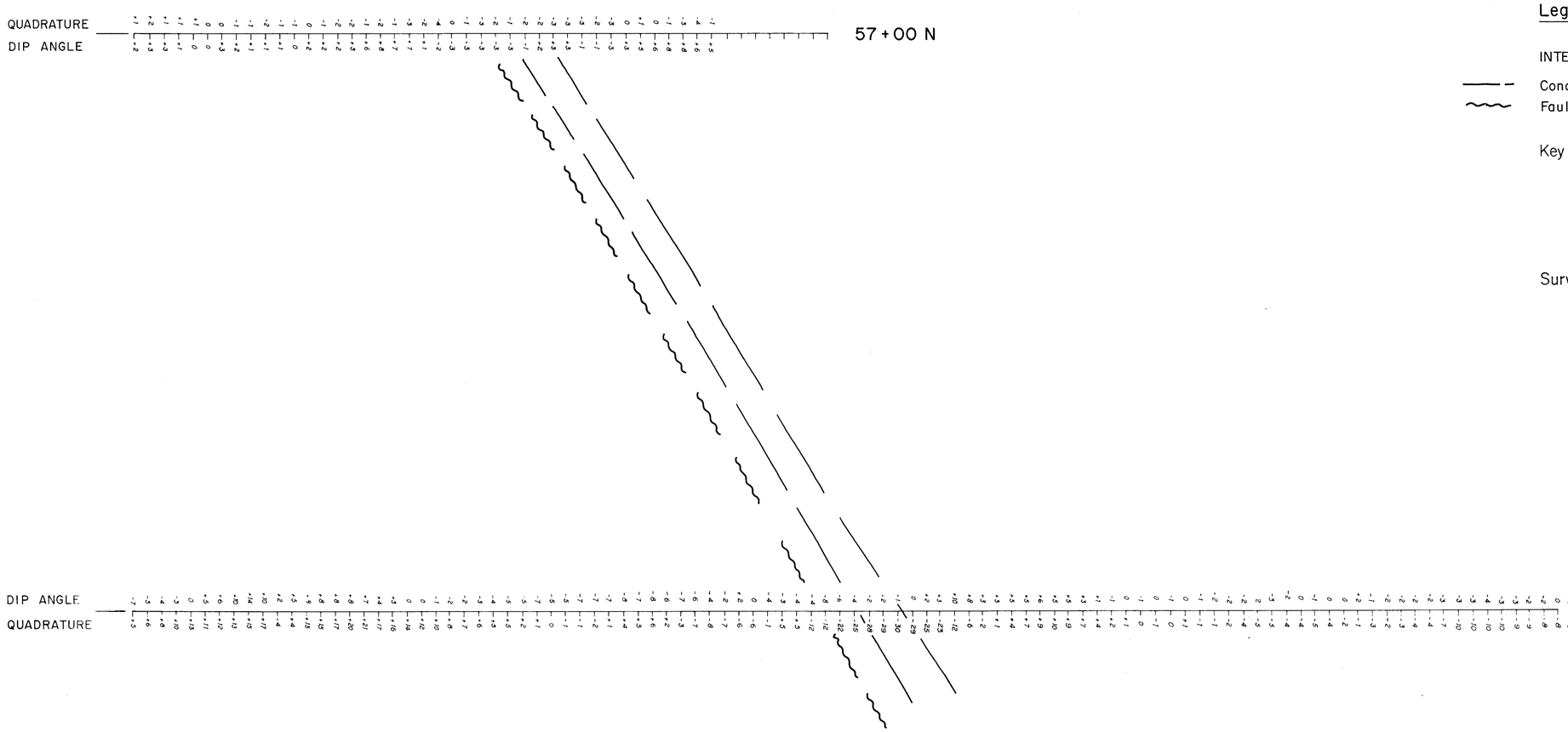


## Legend

INTERPRETATION KEY :

Conductor

Fault

Key :

Instrument: GEONICS EM-16
Configuration: VLF-EM-NLK (Seattle, Wash.)
Vertical Scale : 5% /cm.
Base line value : 0%

Survey by :

Chain and Compass

GEOLOGICAL BRANCH
ASSESSMENT REPORT

20,375

0 50 100 150 200 m

Scale : 1:2500

ZAB-1 CLAIM

# VLF SURVEY

## DIP ANGLE / QUADRATURE (%) PROFILES

| | Originator | Drawn | Date | PLAN NO. | FIG. |
|---|---|---|---|---|---|
| Originator | G.V. | C.D. | Oct.'90 | | 5 |
| Revision | | | | N.T.S. 93B/13 | |
| Revision | | | | | |

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