

87-375-16133

388

MineQuest Report #165
Ref. No. RM4102

THOM - FEHR CLAIMS

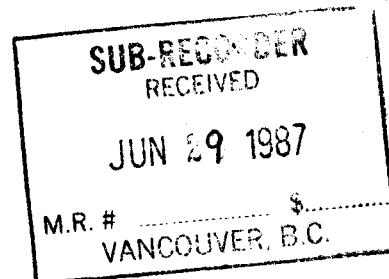
GEOPHYSICS

Kamloops Mining Division

N.T.S. 92 I/10W ~~██████████~~

Latitude 50° 42' N
Longitude 120° 59.2'

By
A.W. Gourlay
of



Owner: MineQuest Exploration Associates Ltd.

Operator: GoldQuest Minerals Corp.

FILMED

| CLAIM <u>NAME</u> | RECORD <u>NUMBER</u> | UNITS | DATE RECORDED |
|----------------------|-------------------------|-------|----------------|
| Fehr V | 4395 | 16 | March 31, 1983 |
| Thom I | 4748 | 16 | Sept. 15, 1983 |
| Thom II | 6002 | 08 | Dec. 07, 1984 |
| Thom III | 6003 | 12 | Dec. 07, 1984 |
| Jim 1 | 5898 | 15 | Sept. 18, 1984 |

GEOLOGICAL BRANCH
ASSESSMENT REPORT

16,133

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1.0

INTRODUCTION

The THOM and FEHR claims were staked in 1982 and 1983 on the basis of geochemical indications of gold associated with anomalous quantities of arsenic and antimony in heavy mineral concentrates collected from stream sediments. Follow-up work on the FEHR claims in 1983 produced some geochemically anomalous gold values with weakly anomalous lead, arsenic, and antimony in soil and silt samples. In 1984, a program of geological mapping, rock chip sampling, contour soil sampling and prospecting was concentrated on the THOM I claim. This work further defined the area of geochemically anomalous gold, lead and arsenic values in soils, and discovered outcrop of altered hornblende diorite with a carbonate quartz stockwork carrying geochemically significant values in gold. Work in 1986 consisted of soil sampling and geophysical surveys.

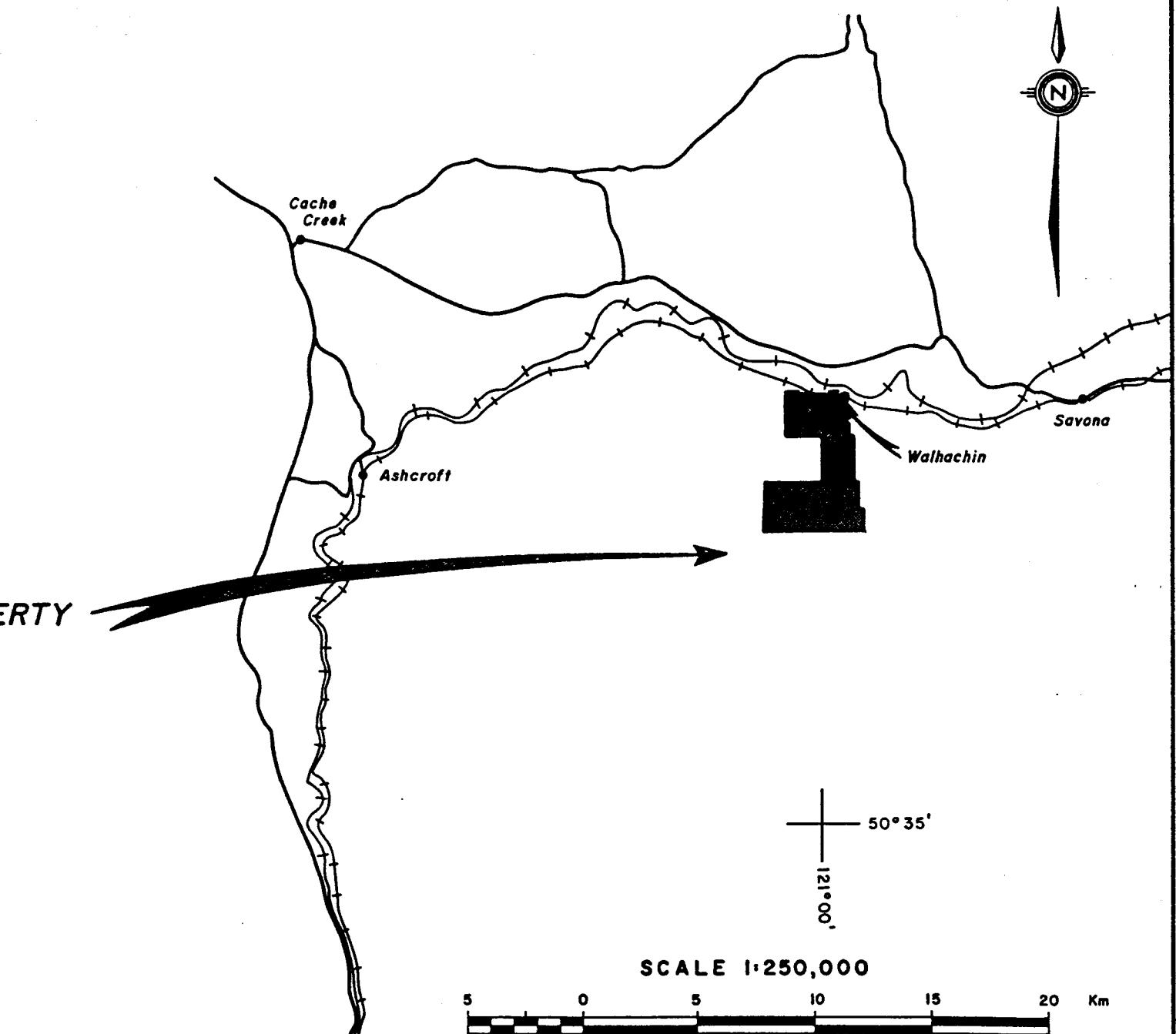
Work carried out in 1987, the subject of this report, consisted of VLF-EM and magnetometry geophysical surveys.

2.0

LOCATION, ACCESS AND TOPOGRAPHY

The property is located in south central British Columbia, south of the Thompson River, 11km south-west of Savona and 7km south of Walhachin. Access is by logging road from Savona.

The claims are situated on the north flank of Mount Fehr. Relief is 650m with higher elevations at 1525m. Much of the area has recently been logged; elsewhere it is covered by a moderate to light growth of timber with scattered clearings used by cattle for grazing.



| GOLDQUEST I PARTNERSHIP FEHR CLAIMS | | | |
|--|-------|-------------------------|--------|
| LOCATION MAP | | | |
| PLAN NO. | DRAWN | DATE | FIGURE |
| 485.1 | | AUG. 83 | I |
| Revised APRIL 1985 | | N.T.S. 92 I / 10, II | |
| MINEQUEST EXPLORATION ASSOCIATES LTD. | | | |

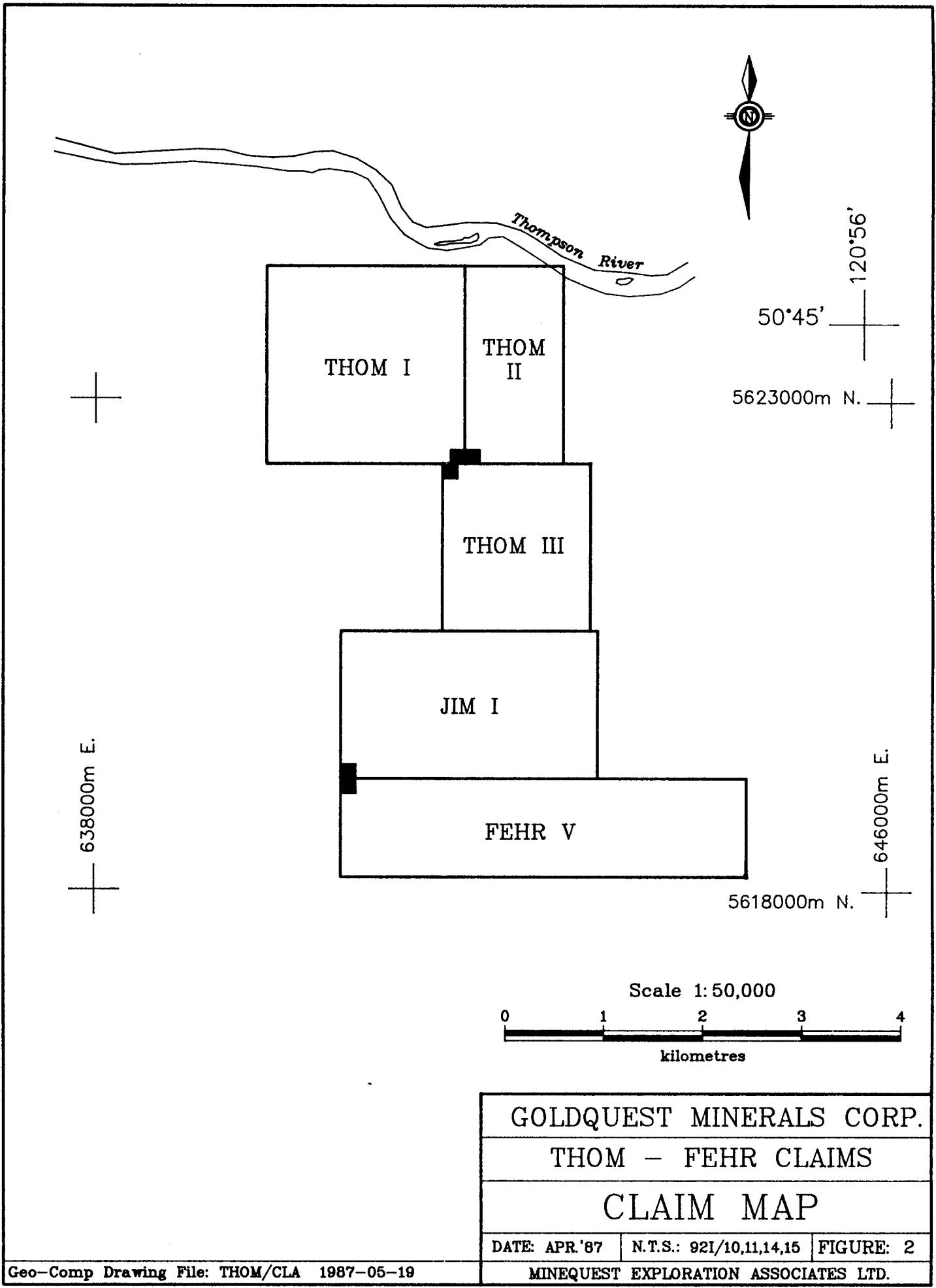
3.0

OWNERSHIP AND CLAIM STATUS

The claims listed below are held by MineQuest Exploration Associates Limited on behalf of GoldQuest Minerals Corp.

TABLE I
CLAIM STATUS

| <u>Claim Name</u> | <u>Record Number</u> | <u>No. of Units</u> | <u>Due date before submission of this report</u> |
|-------------------|----------------------|---------------------|--|
| Fehr V | 4395 | 16 | March 31, 1987 |
| Thom I | 4748 | 16 | Sept. 15, 1987 |
| Thom II | 6002 | 08 | Dec. 7, 1987 |
| Thom III | 6003 | 12 | Dec. 7, 1987 |
| Jim 1 | 5898 | 15 | Sept. 18, 1987 |



4.0

HISTORY AND PREVIOUS WORK

According to public records, the ground now covered by the FEHR claims has not been previously explored. The adjoining THOM I claim, has been explored and tested by various companies since 1970, is the subject of a separate report by Hodgson (1984), which contains a thorough review of work performed on that claim.

In 1983 MineQuest Exploration Associates Ltd. performed silt sampling, contour soil sampling and prospecting. Follow-up work in 1984 consisted of geological mapping, rock chip sampling, contour soil sampling and prospecting. Early in 1986 a contour soil sampling survey was carried out on Jim I and Fehr V claims, and VLF-EM survey on Jim I claim.

5.0

WORK CARRIED OUT IN 1987

A reconnaissance grid was established on Fehr V claim, covering the projected extension of the fracture controlling Rattlesnake Creek. Lines run east-west, 1000 metres in length, spaced 100 metres apart. Stations were chained at 25 metre intervals and flagged.

A combined magnetometry and VLF-EM survey was carried out on March 29 and 30, 1987 using a Scintrex IGS-2 Integrated Portable Geophysical System. A base station recorded the magnetic field at 60 second intervals. VLF-EM surveys used Seattle, Washington and Annapolis, Maryland as transmitting stations. A.W. Gourlay and A.R. Zuk performed the measurements. Contoured magnetic data and profiles VLF-EM data was submitted to Grant Hendrickson of Delta Geoscience Ltd. for a brief interpretation.

6.0

GEOLOGY

The vicinity of Kamloops Lake has been mapped at a regional scale by Cockfield (1948), Duffel and McTaggart (1952), and more recently by Monger (1983). In and around the FEHR claims the Triassic Nicola Group, consisting of intermediate volcanics and sedimentary rocks, has been intruded by a diorite or granodiorite of probable Jurassic age. These Triassic and Jurassic rocks are overlain unconformably by a Jurassic conglomerate. The high ground is covered by basalts and sediments of the Eocene Kamloops Group.

The Deadman River (north and east of the claims) is believed to occupy an extension of the Pinchi Fault which continues southwards through Tunkwa Lake down Guichon Creek. Off this major transcurrent fault is a northwest-trending splay which passes through both the FEHR and the THOM claims. Within the claims are a number of other fractures, notably that along Rattlesnake Creek, which are parallel to this splay. These fractures or faults are assumed to be late because they appear to affect the Tertiary Kamloops Group to the south (Hodgson, 1984).

7.0

RESULTS

Posted data, contoured magnetic data, and VLF-EM profiles are presented in Figure 3 through 9. Weak signal strength from the Annapolis, Maryland station produced little variation in horizontal field strength, in-phase, or out-of-phase measurements, and was not considering for interpretation.

G. Hendrickson of Delta Geoscience Ltd., produced the following short interpretation.

"At the request of Andrew Gourlay of MineQuest Exploration Associates Ltd., the author has carried out a preliminary study of the V.L.F. and MAG data obtained by MineQuest on the TFR project. The attached summary sheet gives the location, strength, apparent dip and depth for the V.L.F. conductors detected by this survey.

The V.L.F. data is noisy which may be due to topography, overburden variations, instrument noise and/or numerous structures. A more detailed study of the data should include geological and topographical maps of the survey area.

Some anomalies lie close to roads, thus a check to ensure no cultural sources are present would be prudent.

The V.L.F. anomalies generally lie within the low magnetic field strength areas. These areas are likely underlain by sediments and/or tuffaceous volcanic rocks. The higher magnetic field strength areas probably indicate the younger intrusive rocks. These intrusions likely caused the fracturing of the sediments and volcanics. This fracturing or faulting is likely the cause of the V.L.F. conductors. A better understanding of the geology would likely improve the interpretation of the V.L.F. and magnetic data."

| <u>Line</u> | <u>Stat.</u> | <u>Strength</u> | <u>Dip</u> | <u>Depth (To Best Conductivity)</u> | <u>Comments</u> |
|--------------|--------------|-----------------|-------------|-------------------------------------|---------------------------------|
| 1000N | 5165E | Weak | Steep East | N.S. (60m) | |
| | 5210E | Weak | Steep East | N.S. | |
| | 5610E | Weak | Steep West | N.S. | |
| | 5755E | Weak | Steep West | N.S. | |
| 1100N | 5225E | Weak | Steep West | N.S. | Poor depth extent |
| | 5380E | Weak | Steep West | N.S. | |
| | 5460E | Moderate | Vertical | N.S. (75m) | |
| | 5640E | Moderate | Steep West | N.S. | Poor depth extent |
| 1200N | 5810E | Moderate | Steep East | N.S. | |
| | 5210E | Weak | Steep East | N.S. | |
| | 5500E | Weak | Steep West | N.S. (75m) | |
| | 5660E | Weak | Steep West | N.S. | |
| 1300N | 5810E | Strong | Steep Easat | N.S. | Depth extent limited |
| | 5090E | Weak | ? | N.S. | |
| | 5240E | Weak | ? | N.S. | Poor depth extent |
| | 5410E | Weak | Steep West | N.S. | |
| | 5520E | Moderate | Steep West | N.S. | |
| 1400N | 5690E | Moderate | Steep West | N.S. | Likely two closely spaced zones |
| | 5850E | Moderate | Steep East | N.S. | |
| | 5310E | Moderate | Steep East | N.S. | |
| | 5460E | Moderate | Steep East | N.S. (75m) | |
| | 5690E | Moderate | Steep East | N.S. | Likely two closely spaced zones |
| 1500N | 5810E | Weak | Steep East | N.S. | |
| | 5975E | Weak | ? | N.S. | Off end of line |
| | 5160E | Weak | Steep West | N.S. | |
| | 5310E | Moderate | Steep East | N.S. | |
| | 5560E | Weak | ? | N.S. | Poor depth extent |
| | 5790E | Wesk | Steep East | N.S. | Limited depth extent |
| 1600N | 5890E | Weak | Steep East | N.S. | Limited depth extent |
| | 5000E | Moderate | ? | N.S. | Off end of line |
| | 5160E | Moderate | Steep East | N.S. | Limited depth extent |
| | 5450E | Weak | Steep West | N.S. | Limited depth extent |
| 1700N | 5760E | Moderate | Steep East | N.S. | |
| | 5950E | Weak | Steep East | N.S. (100m) | Broad zone |
| | 5210E | Weak | Vertical | N.S. | |
| | 5440E | Moderate | Steep East | N.S. | Limited depth extent |
| 1800N | 5710E | Strong | Steep East | N.S. | Good depth extent |
| | 5140E | Weak | Steep West | N.S. | |
| | 5270E | Moderate | Vertical | N.S. (60m) | Has width |
| | 5490E | Moderate | Steep West | N.S. | |
| | 5690E | Moderate | Steep East | N.S. | |
| | 5800E | Weak | Steep West | N.S. (50m) | |

Note N.S.= Near Surface

8.0

DISCUSSION AND GENERAL CONCLUSIONS

For a detailed discussion of the mineralization found in hornblende diorite rocks along Rattlesnake Creek, the reader is referred to Hodgson (1984).

The Rattlesnake Creek fault zone is seen as having controlled the emplacement of not only the Rattlesnake Creek rhyolite, but also an auriferous hydrothermal system to which the rhyolite is probably related. The hydrothermal system contains gold, arsenic, antimony, and mercury; a suite of metals typical of such systems. The Jurassic Ashcroft Formation and the Tertiary Kamloops Group are presumed to pre-date both the rhyolite and the hydrothermal system. The poorly lithified matrix of the Ashcroft Formation conglomerate suggests it could be a good host for gold deposition but there is no indication of significant alteration peripheral to the granodiorite. However, contour soil lines have provided some evidence of a hydrothermal event effecting the southern extension of the Rattlesnake Creek fracture. Sedimentary rocks of the Kamloops Group, exposed just to the north of the Thompson River, are inferred to overlie the Ashcroft Formation, but are not exposed. Permeable sedimentary units and breccia within the Kamloops Group are known elsewhere to have been intensely altered by high level hydrothermal systems.

The present survey has outlined two conductors that traverse the survey area parallel to the eastern creek, and along the presumed extension of the Rattlesnake Creek Fault. This feature is interpreted as dipping to the east. The other conductors are short and discontinuous, with the exception of a four station feature just to the west of the east creek. This conductor roughly parallels the east creek, but the apparent west dip has not been explained.

Geochemically anomalous gold values returned from a contour soil line (Gourlay, 1986) occur in the area of low magnetic strength, a topographic high between the two creeks from Line 1200N to 1400N. The anomalous gold values are underlain by area of altered and/or fractured sediments and tuffaceous volcanic rocks, adjacent to the Rattlesnake Creek Fault.

10.0

REFERENCES

Gourlay, A.W., 1986
Thom-Fehr Claims - Geophysics.
MineQuest Exploration Associates Ltd. Report
Number 137 (submitted as Assessment Report).

Gourlay, A.W., 1986
Thom-Fehr Claims - Geochemistry.
MineQuest Exploration Associates Ltd. Report
Number 120 (submitted as Assessment Report).

Gourlay, A.W., 1985
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MineQuest Exploration Associates Ltd., Report
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Hodgson, G.D., 1984
Thom Claims - Geology
MineQuest Exploration Associates Ltd., Report
Number 77 (submitted as Assessment Report)

Longe, R.V., 1983
Fehr Claims - Geochemistry
MineQuest Exploration Associates Ltd., Report
Number 33 (submitted as Assessment Report)

Monger, J.W.H., and McMillan, W.J., 1983
Bedrock Geology of Ashcroft (92I) Map Area
GSC Open File 980

Ridley, S.L., and Moraal, D., 1984
Fehr Claims - Prospecting
MineQuest Exploration Associates Ltd., Report
Number 59 (submitted as Assessment Report)

APPENDIX I

Cost Statement

APPENDIX I - COST STATEMENT

TFR

March, 1987 to April, 1987

Fees

| | | |
|--|----------|---------------|
| A.W. Gourlay 2 days | \$385.00 | \$ 770.00 |
| A.W. Gourlay est. 12 hours at \$64.00 | | <u>768.00</u> |
| | | \$ 1,538.00 |

Temporary Staff

| | |
|------------------------------|--------|
| Allan Zuk 2 days at \$135.00 | 270.00 |
|------------------------------|--------|

Casual Staff 9.00

Disbursements

| | |
|------------------------------|---------------|
| M.Q. Vehicle Rental | 100.00 |
| Fuel and lubricants | 53.56 |
| Taxi, parking | 24.00 |
| M.Q. Field Equipment Charges | 16.00 |
| Equipment rentals | 955.05 |
| Groceries | 3.20 |
| Food and accommodation | 103.65 |
| Claims recording | <u>160.00</u> |
| Courier | 3.00 |
| Reprographics estimate | 450.00 |
| Photocopies - in house | 10.30 |
| External consultants | 300.00 |

| | |
|-------------------------------|-----------------|
| Disbursement over-ride at 10% | \$2,178.76 |
| | <u>206.28</u> |
| | <u>2,385.04</u> |
| | \$ 4,202.04 |

APPENDIX II

Statement of Qualifications

STATEMENT OF QUALIFICATIONS

I, Andrew W. Gourlay, hereby certify that:

1. I am presently employed by MineQuest Exploration Associates Ltd. as Senior Geologist.
2. I am a graduate of the University of British Columbia (B.Sc. Hons., 1977, in geology).
3. I am a Professional Geologist in good standing with the Association of Professional Engineers, Geologists and Geophysicists of Alberta, and a Fellow of the Geological Association of Canada.
4. I have practised my profession as geologist for 9 years.
5. This report is based on personal participation in the geophysical survey, from reports, maps, and data lists on file at Minequest Exploration Associates Ltd., and personal familiarity with the project area.

Signed

Dated at Vancouver, B.C.,
this 24th day of June, 1987



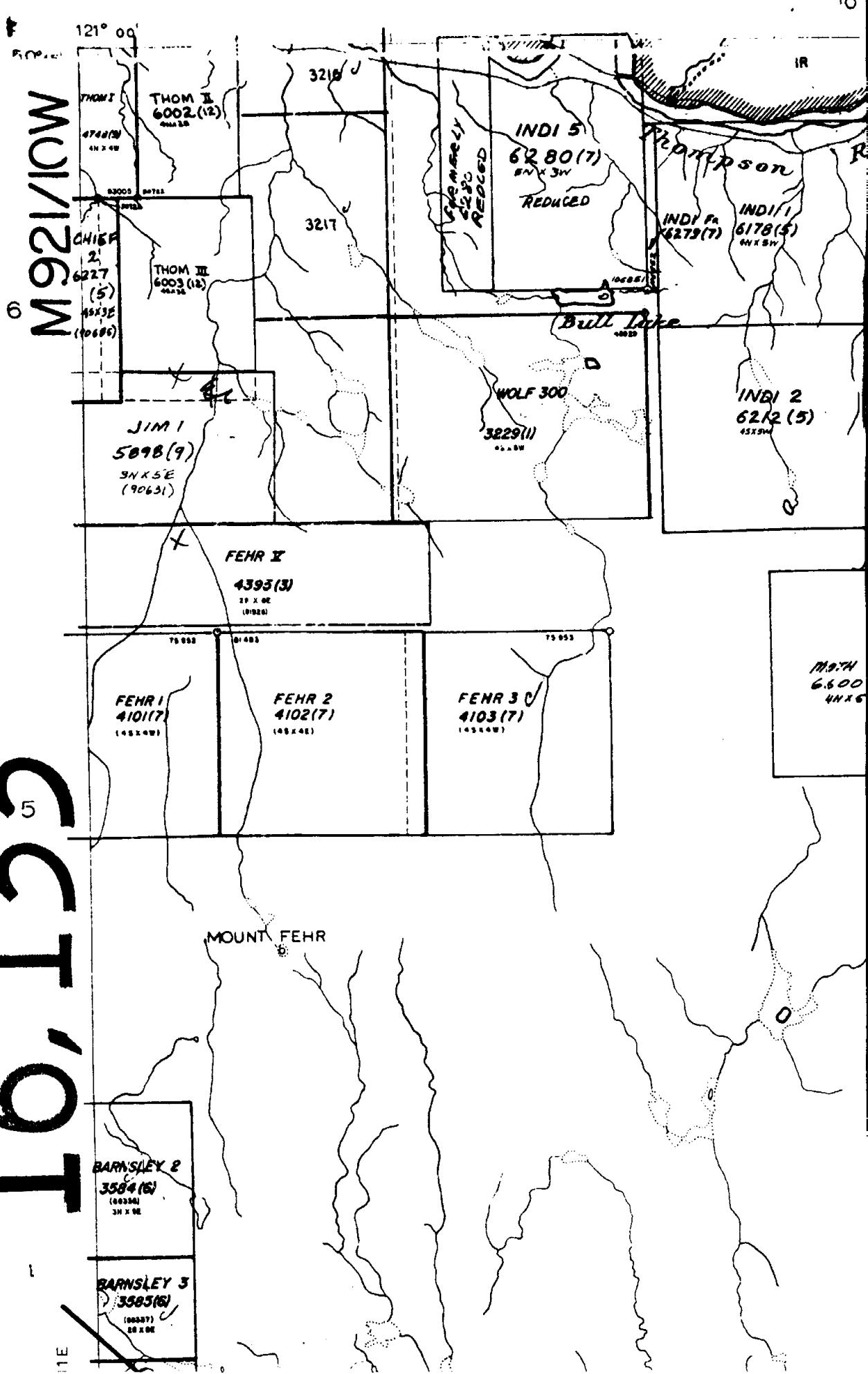
APPENDIX III
Statement of Exploration and Development

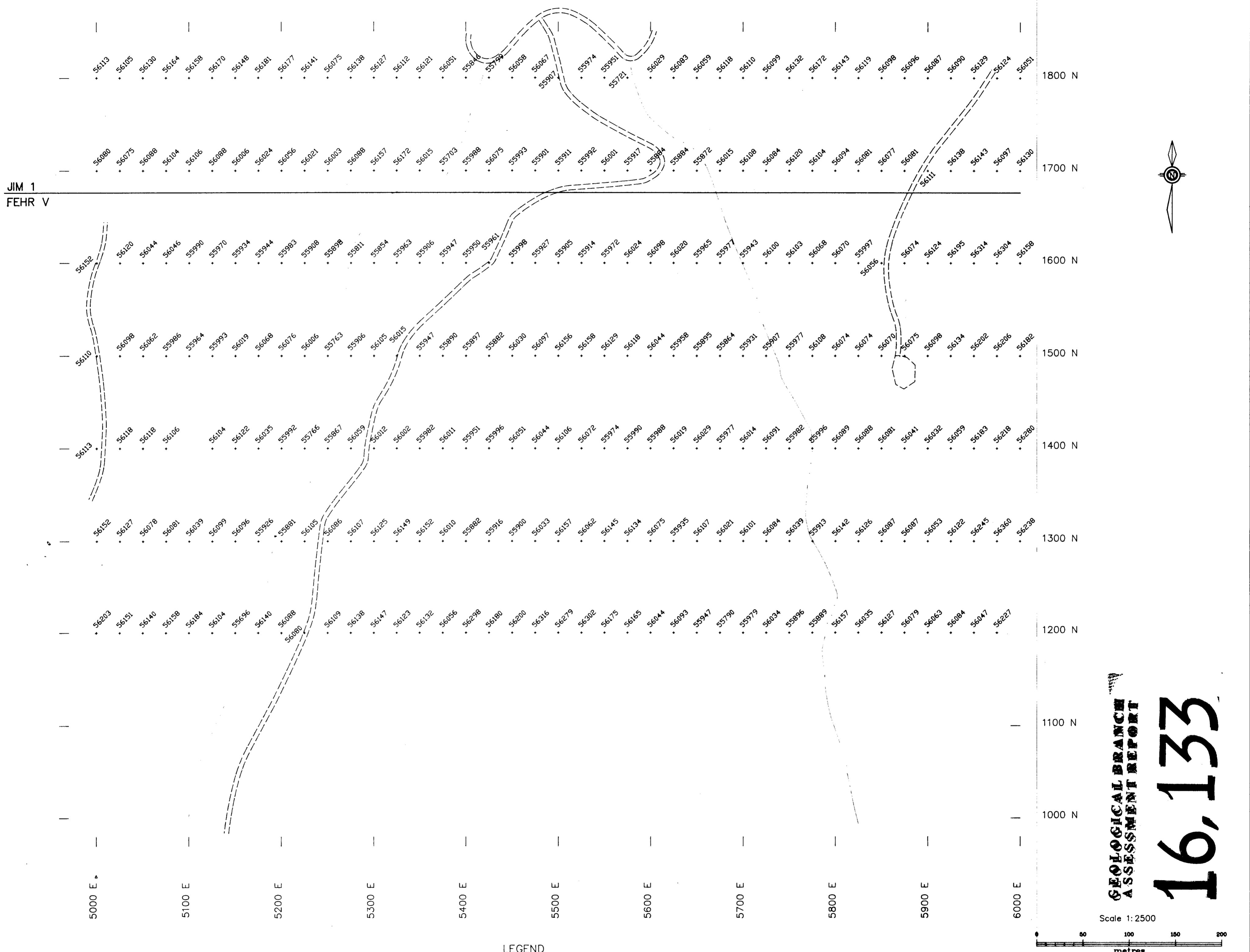
**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

16,173

1:50,000

242





LEGEND

Total field magnetic survey (Laicrox)

Instrument: Scintrex IGS-2

Contour Interval: 25 gammas

— road

- - stream, intermittent

QPX MINERALS INC.

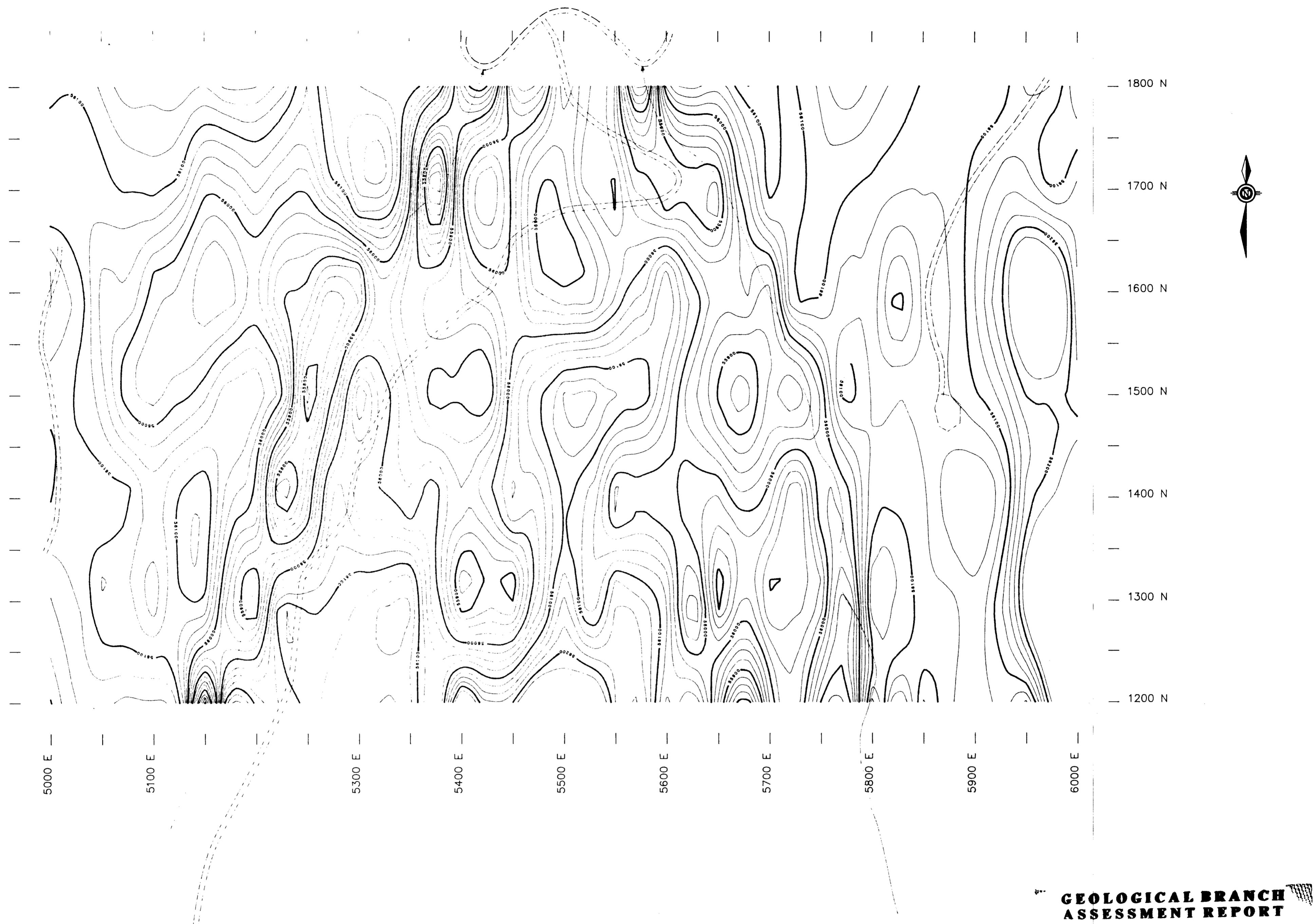
THOM-FEHR CLAIMS

MAGNETOMETRY SURVEY

POSTED DATA

| | Originator | Drawn | Date | PLAN No. | FIGURE |
|----------|------------|------------------|------|-----------------|--------|
| Original | AWG | Gee-CompJune '87 | | 1020 | |
| Revision | | | | N.T.S. | |
| Revision | | | | 921/10,11,14,15 | 3 |

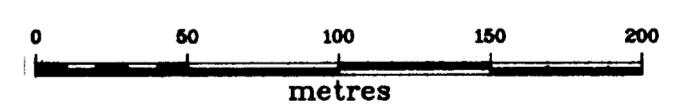
MINEQUEST EXPLORATION ASSOCIATES LTD.



**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

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Scale 1:2500



LEGEND

Total field magnetic survey (Laicrox)

Instrument: Scintrex IGS-2

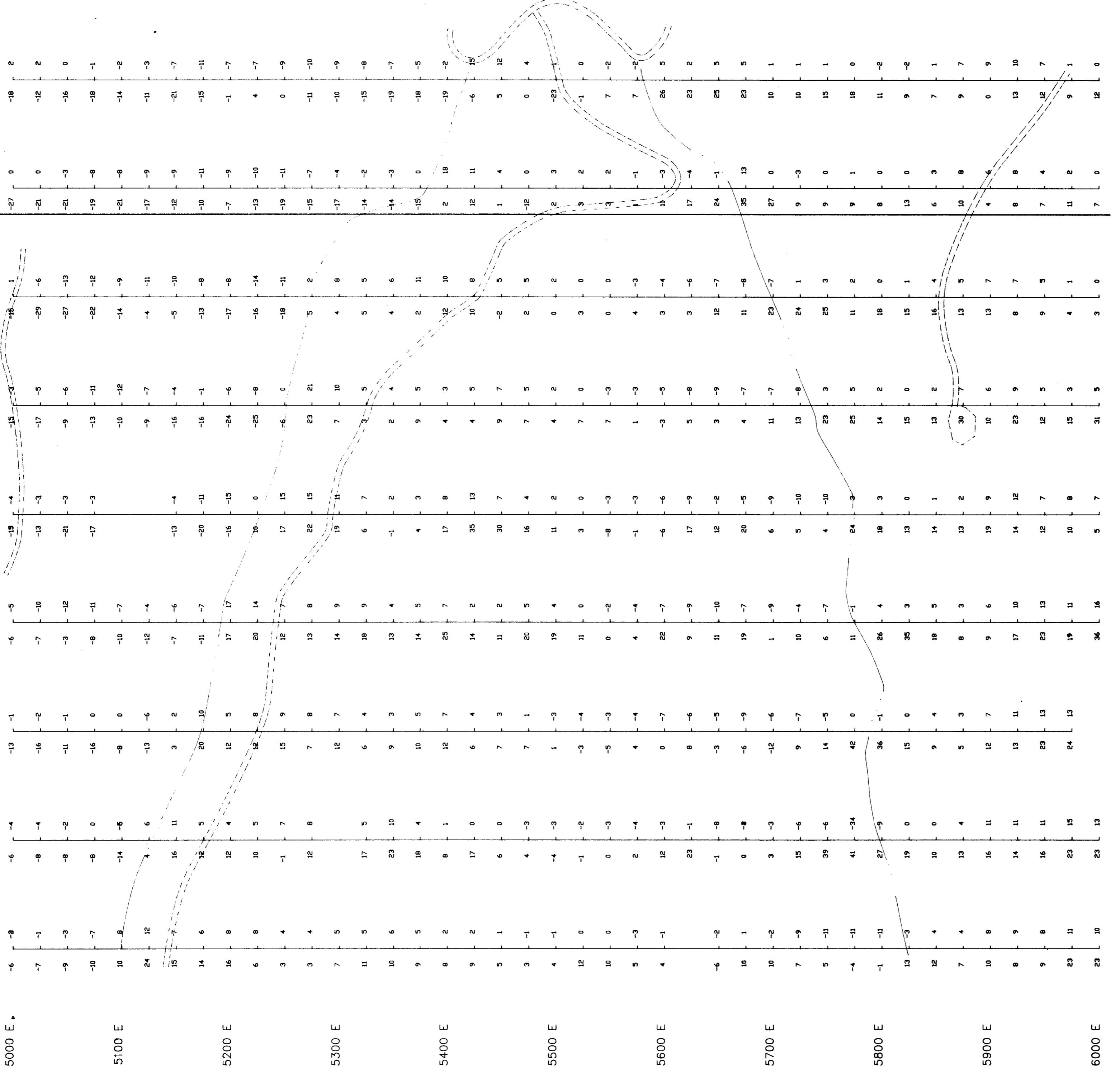
Contour Interval: 25 gammas

— road

— stream, intermittent

| QPX MINERALS INC. | | | |
|---------------------------------------|------------|----------|-----------------|
| THOM-FEHR CLAIMS | | | |
| MAGNETOMERTY SURVEY | | | |
| CONTOURED DATA | | | |
| Original | Originator | Drawn | Date |
| | AWG | Geo-Comp | June '87 |
| Revision | | | N.T.S. |
| Revision | | | 921/10,11,14,15 |
| PLAN No. 1021 FIGURE 4 | | | |
| MINEQUEST EXPLORATION ASSOCIATES LTD. | | | |

JIM
FEHR



LEGEND

Instrument: Scintrex IGS-2

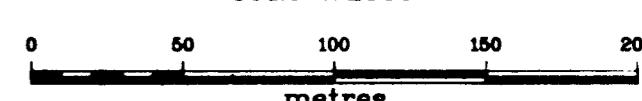
Transmitting Station: Seattle, Washington

out-of-phase
in-phase

**GEOLOGICAL BRANCH
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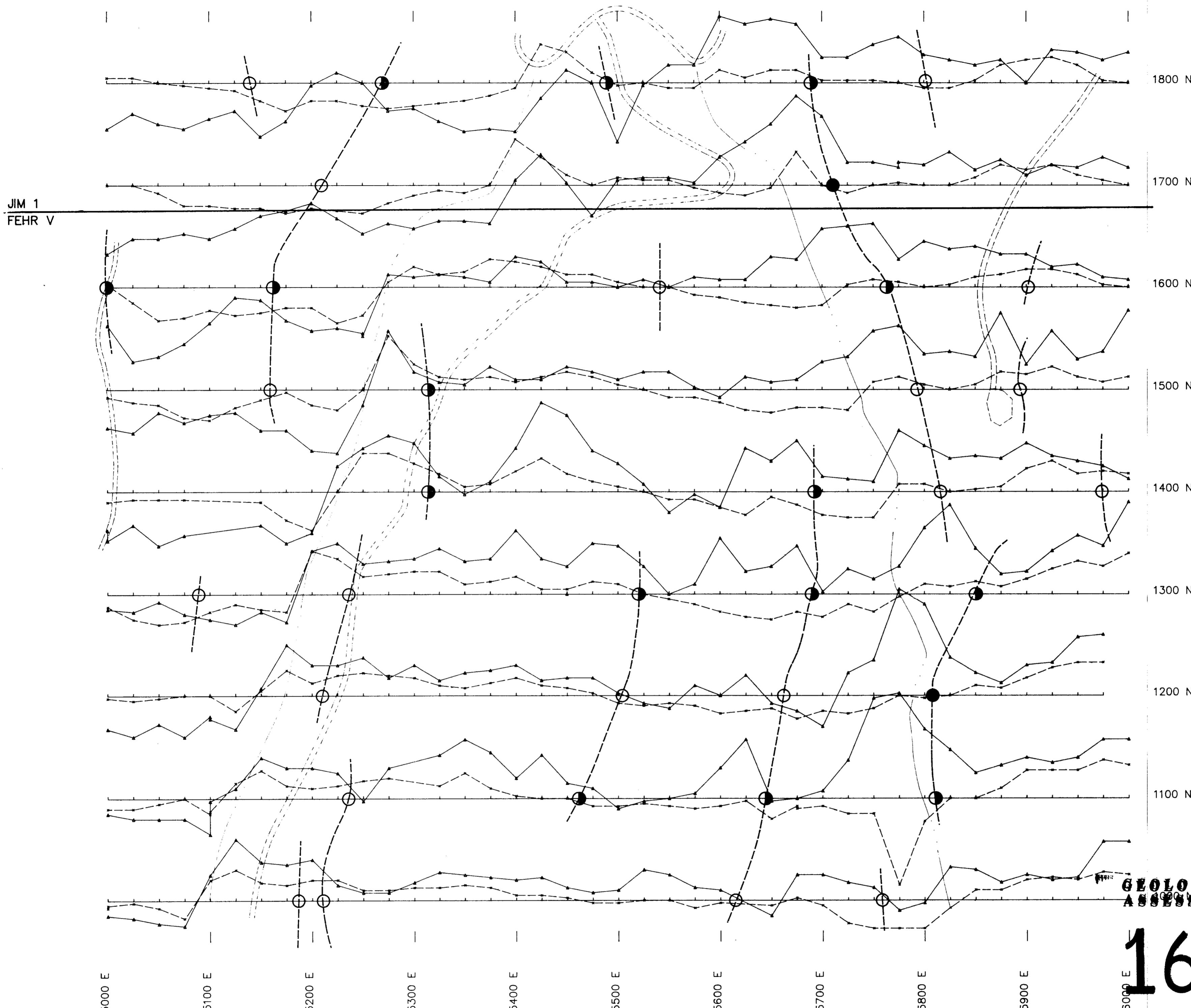
Scale 1:2500



| | | |
|-------------------|--|--|
| QPX MINERALS INC. | | |
| THOM-FEHR CLAIMS | | |
| VLF-EM SURVEY | | |
| POSTED DATA | | |

| | Originator | Drawn | Date | PLAN No. | FIGURE |
|----------|------------|----------|----------|-----------------|--------|
| Original | AWG | Geo-Comp | June '87 | 1022 | |
| Revision | | | | N.T.S. | |
| Revision | | | | 921/10,11,14,15 | 5 |

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Scale 1:2500
0 50 100 150 200
metres

LEGEND

* - * - * - * Out-of-Phase

△ - △ - △ - △ In - Phase

Instrument: Scintrex IGS-2.

Transmitting Station: Seattle Washington.

Note: Survey specifications and interpretation by Delta Geoscience Ltd.

Vertical Scale 1cm = 10°

+20°
+10°
0°
-10°
-20°

- - - VLF Conductor Axis

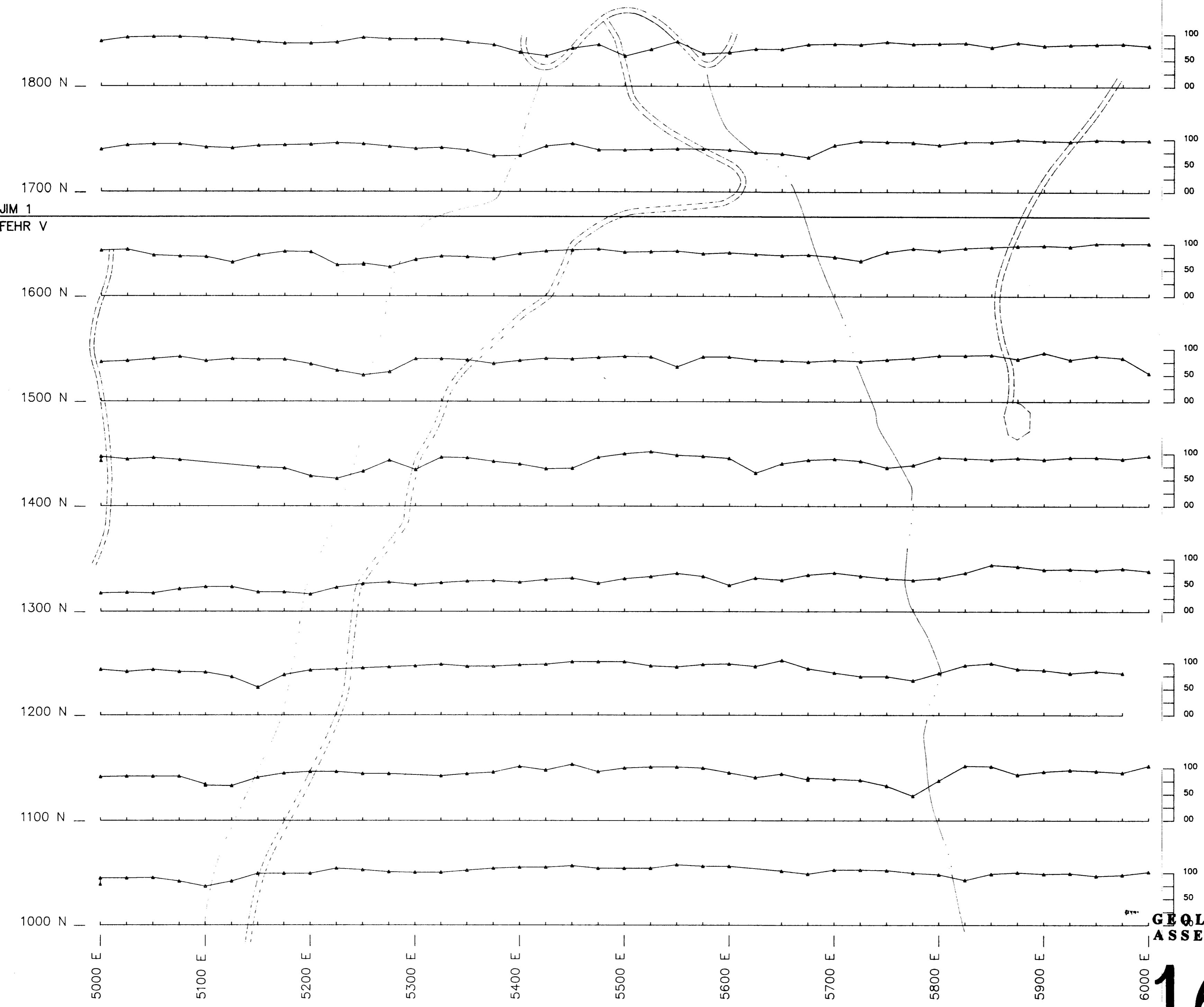
○ Weak VLF conductor

● Moderate VLF conductor

■ Strong VLF conductor

| | Originator | Drawn | Date | PLAN No. | FIGURE |
|----------|------------|----------|----------|-----------------|--------|
| Original | AWG | Geo-Comp | June '87 | 1023 | |
| Revision | | | | N.T.S. | |
| Revision | | | | 921/10,11,14,15 | 6 |

MINEQUEST EXPLORATION ASSOCIATES LTD.



LEGEND

Instrument: Scintrex IGS-2.

Transmitting Station: Seattle, Washington.

Vertical Scale: 1cm = 50 units

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

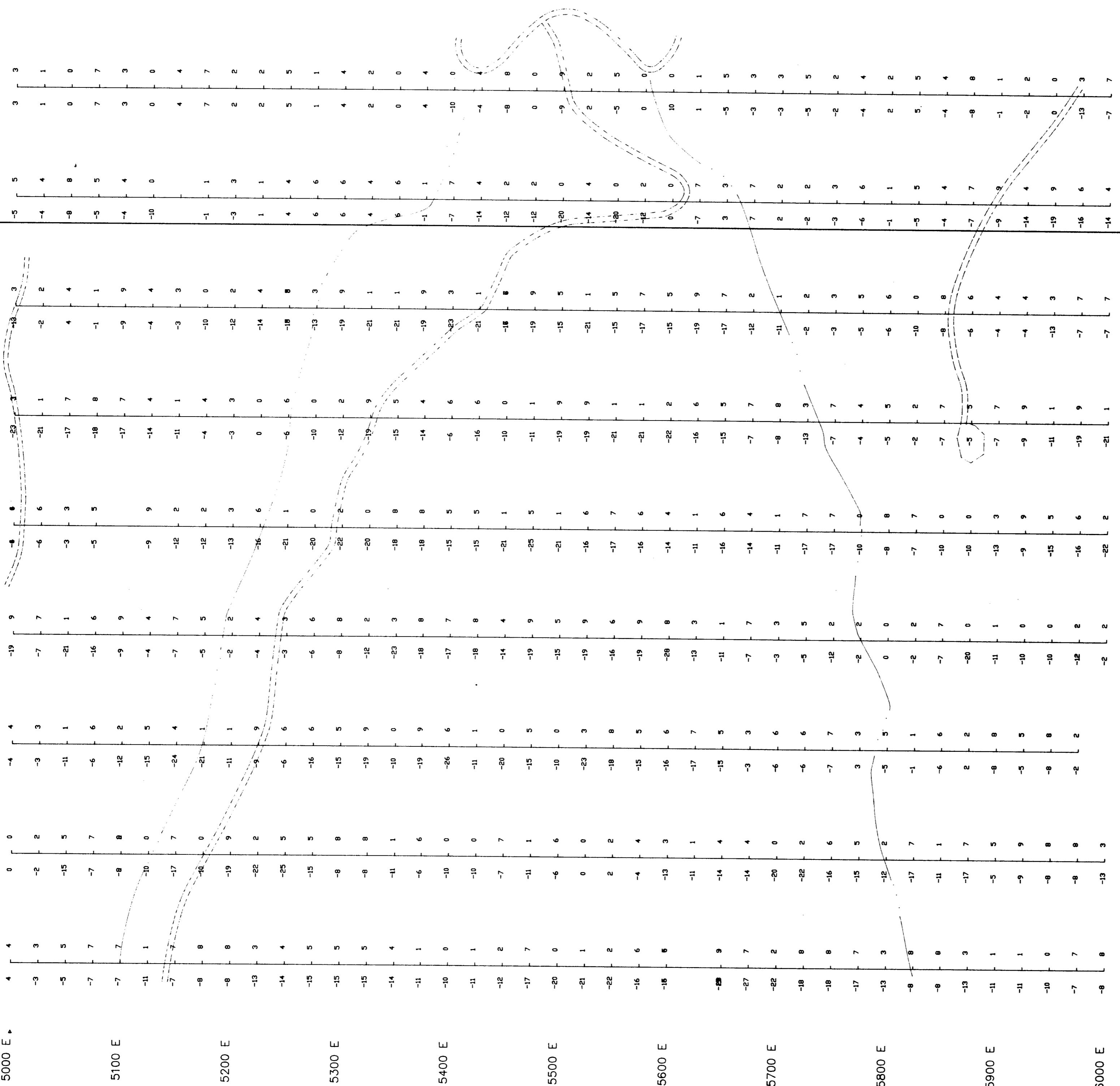
16, 133

Scale 1:2500

| QPX MINERALS INC. THOM-FEHR CLAIMS VLF-EM SURVEY HORIZONTAL FIELD STRENGTH PROFILES | | | | |
|---|------------|----------|----------|-----------------|
| | Originator | Drawn | Date | PLAN No. |
| Original | AWG | Geo-Comp | June '87 | 1024 |
| Revision | | | | N.T.S. |
| Revision | | | | 921/10.11.14.15 |

7

JIM 1
FEHR V



LEGEND

Instrument: Scintrex IGS-2

Transmitting Station: Annapolis, Maryland

out-of-phase

in-phase

GEOLOGICAL BRANCH
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Scale 1:2500

0 60 100 150 200
metres

| QPX MINERALS INC. | | | |
|-------------------|-------|------------------|-----------------|
| THOM-FEHR CLAIMS | | | |
| VLF-EM SURVEY | | | |
| POSTED DATA | | | |
| Originator | Drawn | Date | PLAN No. |
| Original | AWG | Geo-Comp June 77 | 1025 |
| Revision | | | N.T.S. |
| Revision | | | 921/10,11,14,15 |
| FIGURE | | | |
| 8 | | | |

MINEQUEST EXPLORATION ASSOCIATES LTD.



1800 N

1700 N

1600 N

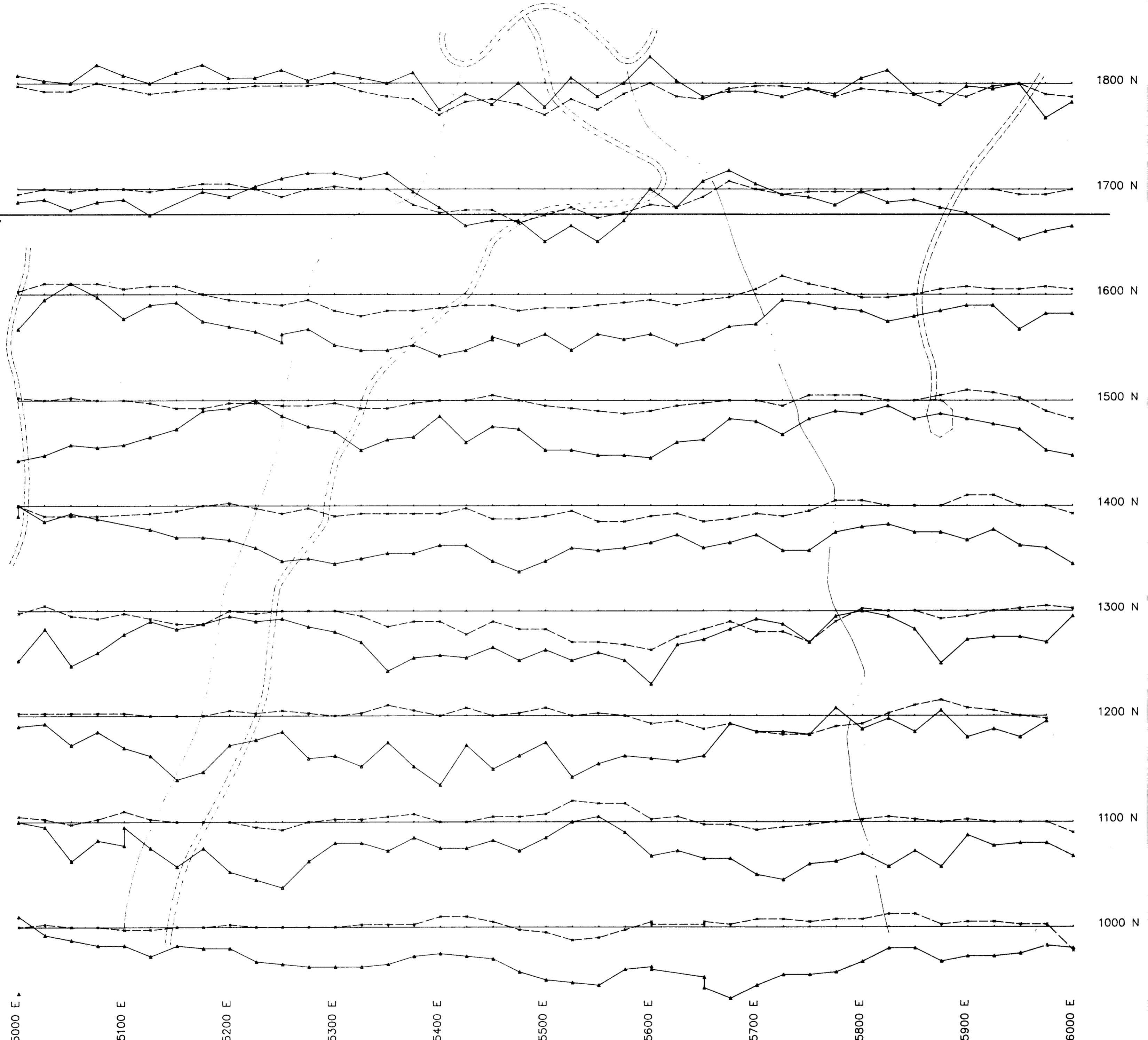
1500 N

1400 N

1300 N

1100 N

1000 N



**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

16, 133

Scale 1:2500
metres

| QPX MINERALS INC. | | | | FIGURE |
|-------------------|----------|----------|-----------------|--------|
| Original | Drawn | Date | PLAN No. | |
| AWG | Geo-Comp | June '87 | 1026 | |
| Revision | | | N.T.S. | |
| Revision | | | 921/10,11,14,15 | |

LEGEND

* - * - * - * - * Out-of-Phase

△ - △ - △ - △ - △ In - Phase

Instrument: Scintrex IGS-2.

Transmitting Station: Annapolis, Maryland

Note: Survey specifications and interpretation by Delta Geoscience Ltd.

