

85-908-14066

GROUND GEOPHYSICAL SURVEYS

CANOVA RESOURCES LTD.

OSOYOOS MINING DIVISION

NTS 82-E-5

Latitude 49°25', Longitude 119°55'

**Owned by: Canova Resources Ltd.
Work by: Placer Development Limited**

W. Cannon, P. Eng.

October, 1985

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

14,066

STATEMENT OF EXPENDITURES - CANOVA OPTION

Geophysical Survey

Field Days

B. Ott - Sept. 16, 17, 18 (1/2 day), 19 (1/2 day)

20 (1/2 day)

3.5

R. Cannon Sept. 16, 17, 18 " " " "

3.5

7 man/days

Data Interp. and Report Writing

R. Cannon - 3 days

Salaries and Benefits

R. Cannon 6.5 x \$350

2,275.00

B. Ott 3.5 x \$250

875.00

Camp Cost @ \$30/day/man x 7

210.00

Equipment Charges

2-G856 magnetometers @ \$400/wk x 1

400.00

1 Kaypro computer @ \$100/wk x 1

100.00

1 Geonics EM-16 @ \$200/wk x 1

200.00

Transportation

3/4 ton Chev Suburban 3.5 x 50

175.00

Fuel \$125.00

125.00

Plotting, drafting, computer work

2 days @ \$250

500.00

Line cutting by Dividend Mountain Expl.

2,816.00

Total Expenditures

\$7,676.00



R.W. Cannon, P. Eng.

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GROUND GEOPHYSICAL SURVEYS

Summary

The geophysical surveys on the Canova ground were conducted during the third week in September, 1985. A total of 25 km of line, consisting of both N-S and E-W lines were marked at 20 m intervals along lines 100 m apart. VLF-EM readings were taken at 20 m stations while the magnetometer readings were at 10 m intervals. The VLF survey detected several strong conductors, one of which corresponded with a known graphitic shear zone. The magnetometer survey revealed two zones of high magnetic relief and also outlined a known skarn zone near the road.

Introduction

The grid was laid out in order to locate and delineate an airborne magnetic anomaly as well as the known graphitic VLF anomaly. The western portion of the ground had N-S lines established and the eastern portion had E-W lines established. The grid was put in by Dividend Mountain - Mining, Exploration and Development of Keremeos, B.C.

Location and Access

The property is located 6 km from the Apex Alpine Ski resort. Access is by means of 2 wheel drive vehicle over a gravel road which connects through to Hedley. Several old logging roads make access easy throughout the property.

Property Status

The property consists of the following claims:

| <u>Name</u> | <u>Units</u> | <u>Anniv Date</u> | <u>Record No.</u> |
|-------------|--------------|-------------------|-------------------|
| Nova 5 | 1 | Aug. 1 | 2067 |
| Nova 6 | 1 | Aug. 1 | 2068 |
| Nova 7 | 1 | Aug. 1 | 2069 |
| Nova 8 | 1 | Aug. 1 | 2070 |

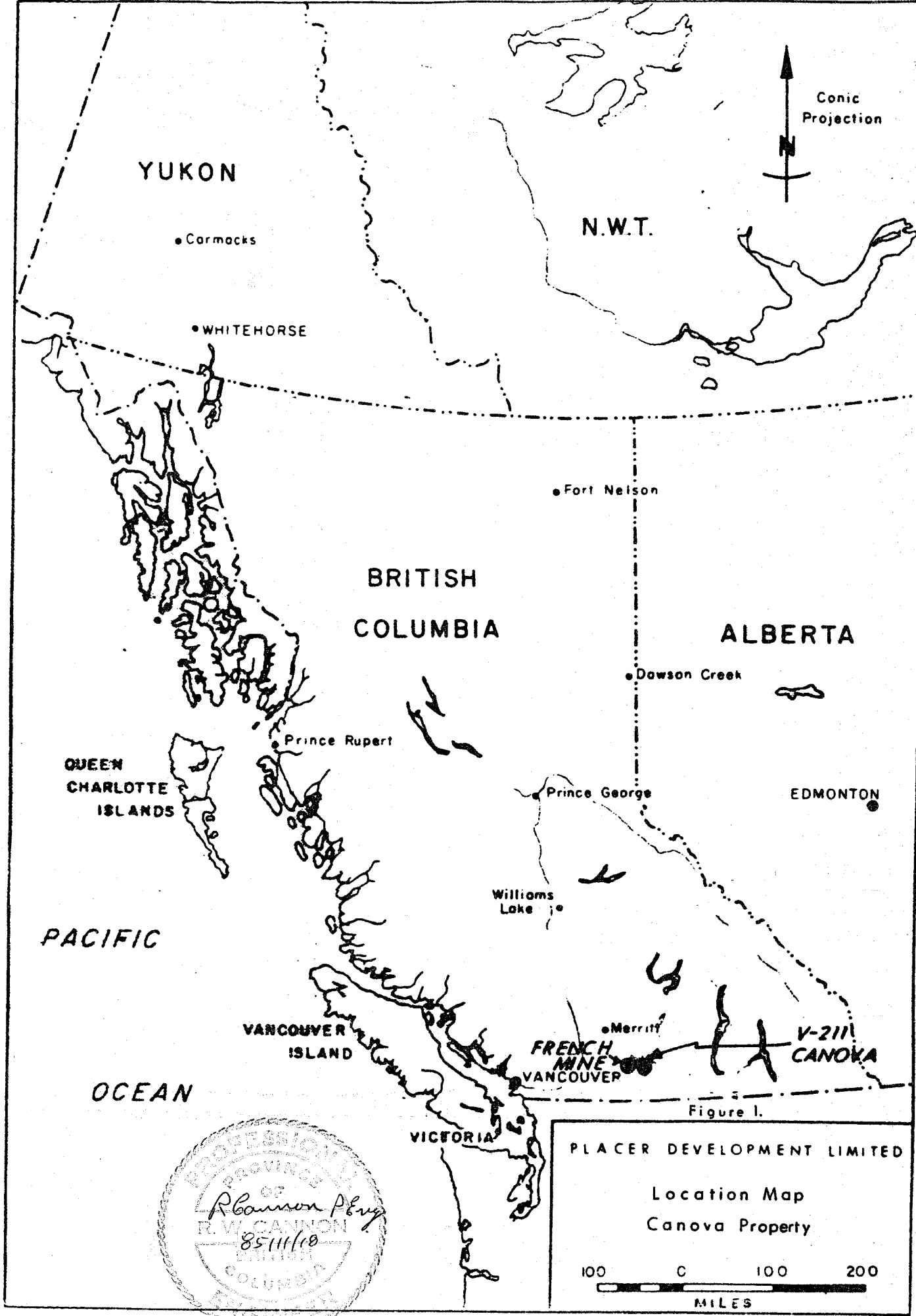
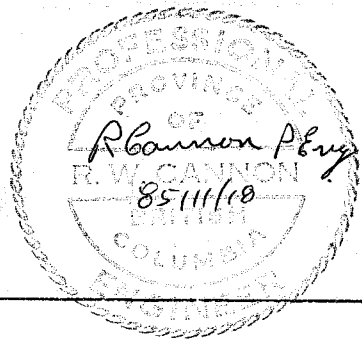
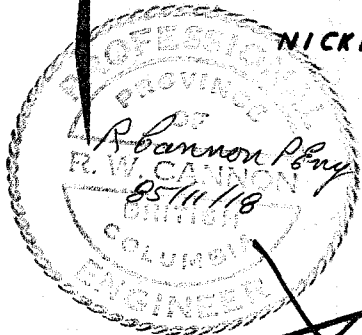


Figure 1.

PLACER DEVELOPMENT LIMITED

Location Map
Canova Property





NICKLE PLATE LAKE

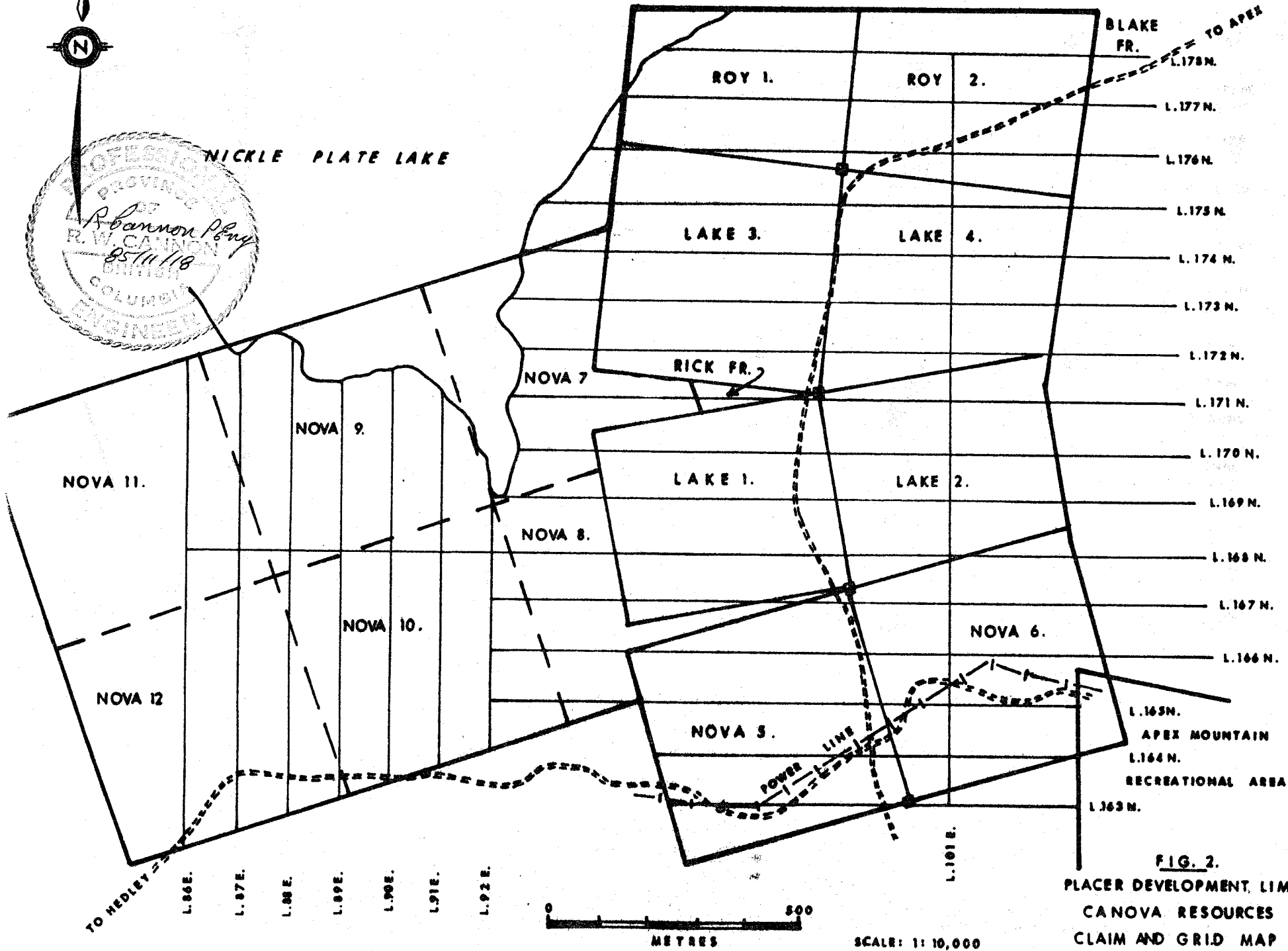


FIG. 2.

PLACER DEVELOPMENT, LIMITED
CANOVA RESOURCES
CLAIM AND GRID MAP

| <u>Name</u> | <u>Units</u> | <u>Anniv. Date</u> | <u>Record No.</u> |
|-------------|--------------|--------------------|-------------------|
| Nova 9 | 1 | Aug. 1 | 2071 |
| Nova 10 | 1 | Aug. 1 | 2072 |
| Nova 11 | 1 | Aug. 1 | 2073 |
| Nova 12 | 1 | Aug. 1 | 2074 |
| Roy 1 | 1 | Aug. 1 | 2065 |
| Roy 2 | 1 | Aug. 1 | 2066 |
| Lake 1 | 1 | July 30 | 797 |
| Lake 2 | 1 | July 30 | 798 |
| Lake 3 | 1 | July 30 | 799 |
| Lake 4 | 1 | July 30 | 800 |
| Rick Fr. | 1 | Sept. 4 | 2299 |
| Blake Fr. | 1 | Sept. 4 | 2298 |

Geophysical Surveys

VLF-EM and magnetometer surveys were conducted along 25 kms of line.

The VLF-EM survey was carried out using the transmitting stations as listed:

| | | | |
|-----------|-----------|-----|----------|
| N-S lines | Annapolis | NSS | 21.4 kHz |
| E-W lines | Seattle | NLK | 24.8 kHz |

The direction to the Seattle station was 227° and readings were taken facing 137° while the direction to the Annapolis station was 110° and readings were taken facing 020°, both at 20 m stations.

Magnetometer readings were taken at 10 m stations and correction for drift and diurnal changes were made by use of a base station recording magnetometer.

Equipment Used

The magnetometer survey was conducted using two Geometrics G-856A portable proton magnetometers (memory mags.) One was used in the field mode (Ser. No. 27383) while the other was used in a base station mode (Ser. No. 27382). The internal clocks were synchronized before commencement of the survey and subsequent daily readings were dumped out to floppy disc in a Kaypro II portable computer. The data from the two magnetometers was merged and corrected for diurnal drift from an established base station value. The corrected results were plotted as field profiles and also stored on disc for eventual transfer to a Univac 1108 for final plotting.

The VLF-EM survey employed a Geonics EM-16 (ser. no. 25) which used the Annapolis and Seattle transmitting stations. VLF readings were also entered onto floppy disc in a Kaypro II computer and field profiles on In-phase, Quadrature and Fraser Filter data were plotted. The stored data was transferred to a Univac 1108 for final processing and plotting.

Survey Results

The magnetometer survey results were plotted as plan maps of stacked profiles at a scale of 1:5000 (see plate in folder at back of report).

The VLF-EM survey results were plotted as stacked In-phase, Quadrature and positive Fraser Filter profiles on plan maps at a scale of 1:5000. The Fraser Filter data was calculated as per the method put forth by D.C. Fraser (1969, Contouring of VLF-EM data: Geophysics, v. 34, p. 958-967). See plate in the folder at the back of report.

Discussion of Results

Three areas of magnetite or pyrrhotite enrichment were detected by the magnetometer survey.

Zone 1 Appears to be a rock unit which can be traced across the claim group as shown on Plate 0001.

Zones 2 & 3 Skarn zones which are restricted in size. Zone 2 is exposed in trenches along the Hedley - Apex road.

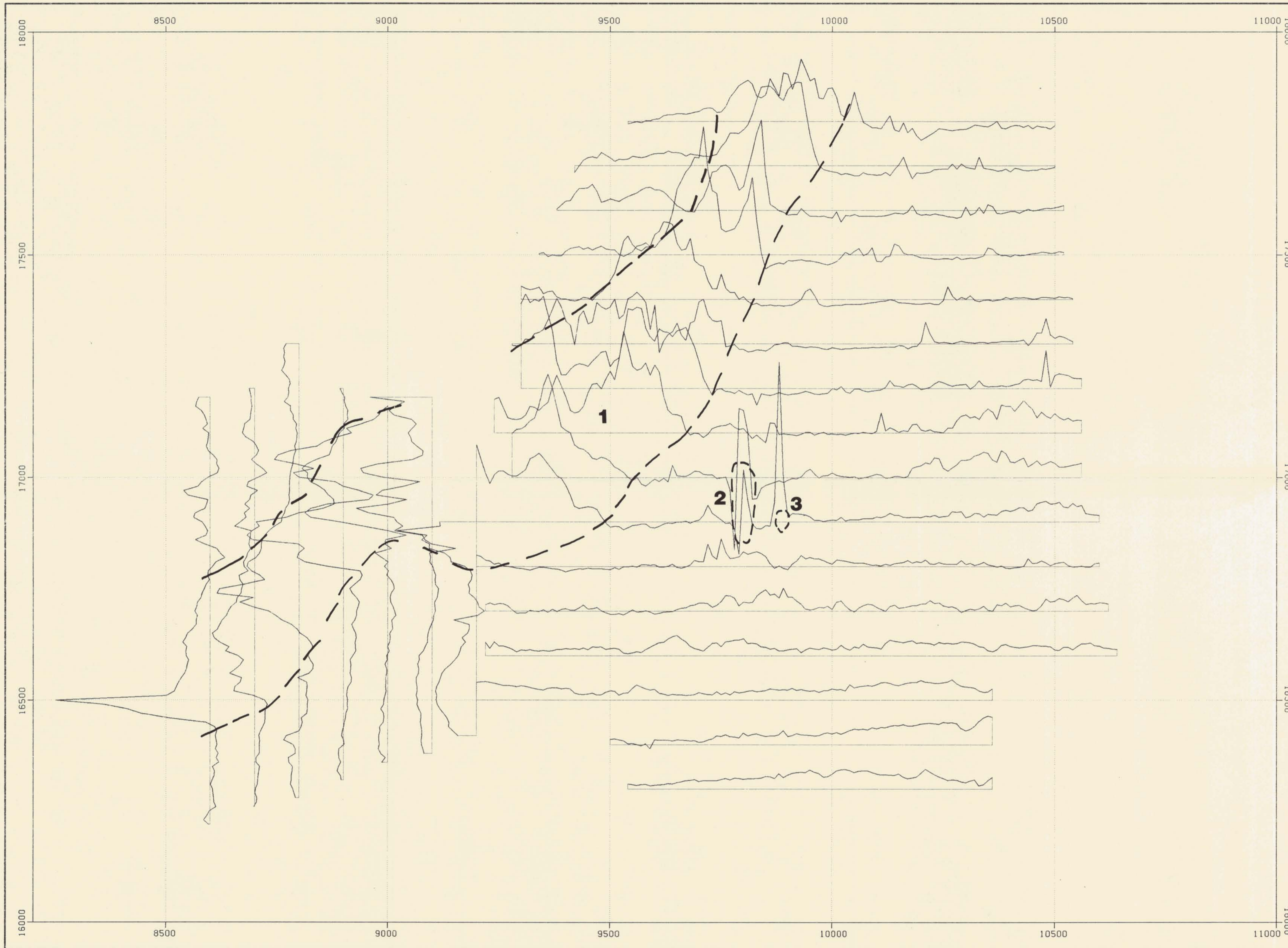
The VLF-EM survey detected 19 obvious conductor axes (Plate 0002). The prime conductor is No. 2 which is a continuation of the zone detected in 1984 on Primont ground. Drilling of this anomaly has shown the cause to be a graphitic shear zone. Conductors 5, 9 and the southern part of 10 are coincident with the contact of magnetic zone 1. The other conductor axes most likely reflect NE-SW fault or shear zones.

Conclusions and Recommendations

It was concluded that the drilling fully explained Conductor No. 2 and that the trenching shows magnetic anomaly 2 to be a skarn zone. It is recommended that a geochemical soil survey be carried out over magnetic unit 1 as well as in the vicinity of magnetic zones 2 and 3.

R. W. Cannon, P. Eng.
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8511118
PROFESSIONAL ENGINEER
ONTARIO PROVINCE
CLUB

RWC/cs
11:14:85



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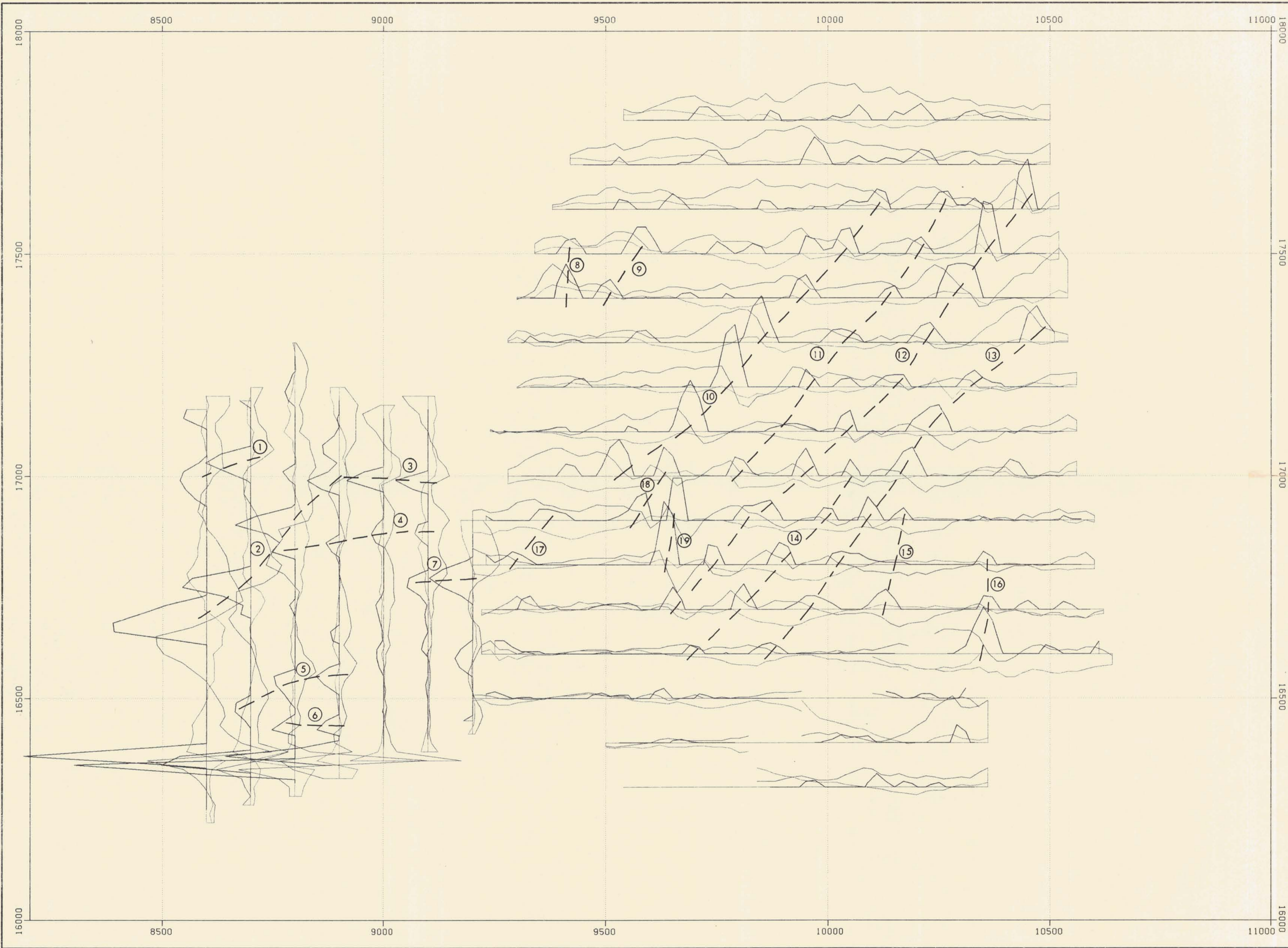
DATA PLOTTED ON THIS MAP:

| | |
|---------------|--------------------------------|
| FIELD | FILE |
| PROFILES: MAG | EXPLWV-211.CANOVA/MAGNETOMETER |
| SCALE: | 500 UNITS / CM |
| BASE LEVEL: | 57100 |

DIRECTION OF NORTH AT CENTRE OF MAP



| | |
|----------------------------|----------|
| PLACER DEVELOPMENT LIMITED | |
| DRAWN | RC |
| DATE | 85/09/30 |
| SCALE | 1:5000 |
| CANOVA MAGNETOMETER DATA | |
| NO. 85-10-V 211-38-0001 | |



CANOVA EM-16 DATA
 IN-PHASE MEDIUM LINE
 QUADRATURE LIGHT LINE
 FRASER FILTER DARK LINE
**GEOLOGICAL BRANCH
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DATA PLOTTED ON THIS MAP:
 FIELD FILE
 PROFILES: IP EXPL*V-211.CANOVA/EMIP
 SCALE: 20.0 UNITS / CM
 BASE LEVEL: 0.0
 PROFILES: QD EXPL*V-211.CANOVA/EMOD
 SCALE: 20.0 UNITS / CM
 BASE LEVEL: 0.0
 PROFILES: IP EXPL*V-211.CANOVA/EMIP
 SCALE: 20.0 UNITS / CM
 BASE LEVEL: 0.0
 FRASER FILTER APPLIED

DIRECTION OF NORTH AT CENTRE OF MAP



| | | |
|-------------------------|--|---|
| DRAWN RC | | PLACER DEVELOPMENT LIMITED CANOVA EM-16 DATA |
| DATE 85/09/30 | | |
| SCALE 1:5000 | | |
| NO. 85-10-V-211-38-0002 | | |