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BRIAN FOWLER

Magnetometer and VLF EM Surveys Over the

SPRUCE BAY GRID
White Lake - North Area,
Ontario

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1. SURVEY DETAILS

1.1 PROJECT NAME

This project is known as the Spruce Bay Property.

1.2 CLIENT

Brian fowler
PO Box 2174
Apt #19, 3 Hemlo Drive
Marathon, Ontario
POT 2E0

1.3 LOCATION

The Spruce Bay Property is located in the White Lake - North Area within the Thunder Bay Mining Division. The property is located approximately 38km south of Manitouwadge and is comprised of mining claims numbered 4245668, 4245667 and 1186978.



Figure 1: General Location of Spruce Bay Grid

1.4 Access

The property is best reached by driving 18 kilometers east on highway 17 from its intersection with



highway 614. From here a snowmachine was used traveling north across White Lake to access the grid.

1.5 SURVEY GRID

The grid was established prior to survey execution and consisted of 5.8 line kilometers of cut grid lines. The grid lines were spaced at 100 meter intervals with the stations picketed at 25m intervals with a baseline running at 90°N for a distance of 1.7km.

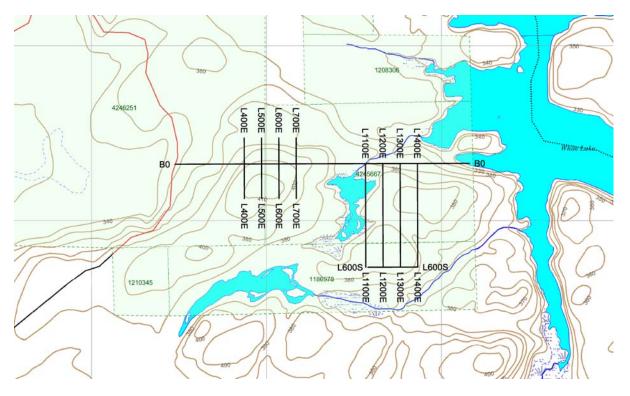


Figure 2: Claim Map with Spruce Bay Grid



2. SURVEY WORK UNDERTAKEN

2.1 SURVEY LOG

Date	Description	Line	Min Extent	Max Extent	Total Survey (m)
April 17, 2008	Locate survey area and begin survey.	400E	200S	150N	350
		500E	200S	150N	350
		600E	200S	150N	350
		700E	200S	150N	350
		1100E	600S	0	600
		0	600E	1700E	1100
April 20, 2008	Complete survey.	1200E	600S	0	600
		1300E	600S	0	600
		1400E	600S	0	600
	,	0	0	600E	600
		600S	1100E	1400E	300

Table 1: Survey log

2.2 PERSONNEL

Shane Buckland of Haileybury, Ontario, conducted all of the magnetic and VLF EM data collection.

2.3 SURVEY SPECIFICATIONS

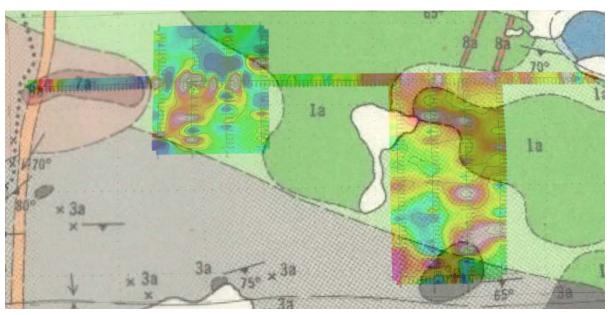
The magnetic and VLF EM surveys were conducted with a GSM-19 v7 Overhauser magnetometer with a second GSM-19 v7 Overhauser magnetometer as base station for diurnal correction.

A total of 5.8 line kilometers of magnetometer/VLF EM survey was read between April 17th and April 20th, 2009. This consisted of approximately 464 magnetometer/VLF EM samples with a 12.5m sample interval.



3. OVERVIEW OF SURVEY RESULTS

3.1 SUMMARY INTERPRETATION



The magnetic survey indicates the presence of numerous strong east-west magnetic trends. The most intense magnetic responses originated from the region of baseline 0 and line 400E through 700E. Through the region it was difficult to obtain valid readings and many repeats were taken. These narrow intense magnetic trends exhibit associated VLF EM axis. These axis associated with the trends indicate the most likely source being from a pyrrhotite. However this most likely is an indication of sulphide mineralization and should be further explored. Through this a magnetically low region appears to strike through line 700E at 75S in a northwest direction.

East of this point the VLF EM axis and magnetic response appear to have shifted to the north by approximately 50m. This may indicate the presence of a structure such as a fault crossing the area.

Lines 1100E through 1400E also indicate the presence of VLF EM axis which are all associated with magnetically elevated regions. The magnetic responses are noticeably lower from those to the west and may represent a change from pyrrhotite to a more favorable sulphide or an increase in graphite content. The strongest of these axis occurs on line 1100E in the region of 175S with the remaining two being located at line 1100E at 325S and line 1200E at 500S. All of these axis have an east-west strike and should be examined further.



APPENDIX A

STATEMENT OF QUALIFICATIONS

- I, C. Jason Ploeger, hereby declare that:
- 1. I am a geophysicist (non-professional) with residence in Larder Lake, Ontario and am presently employed as president of Larder Geophysics Ltd. of Larder Lake, Ontario.
- 2. I graduated with a Bachelor of Science degree in geophysics from the University of Western Ontario, in London Ontario, in 1999.
- 3. I have practiced my profession continuously since graduation in Africa, Bulgaria, Canada, Mexico and Mongolia.
- 4. I am a member of the Ontario Prospectors Association and a member of the Association of Exploration Geophysicists.
- 5. I do not have nor expect an interest in the properties and securities of Brian Fowler
- 6. I am responsible for the final processing and validation of the survey results and the compilation of the presentation of this report. The statements made in this report represent my professional opinion based on my consideration of the information available to me at the time of writing this report.

Larder Lake, ON April 2009

C. Jason Ploeger, B.Sc. (geophysics)
President of Larder Geophysics Ltd.



APPENDIX B

THEORETICAL BASIS AND SURVEY PROCEDURES

TOTAL FIELD MAGNETIC SURVEY

Base station corrected Total Field Magnetic surveying is conducted using at least two synchronized magnetometers of identical type. One magnetometer unit is set in a fixed position in a region of stable geomagnetic gradient, and away from possible cultural effects (i.e. moving vehicles) to monitor and correct for daily diurnal drift. This magnetometer, given the term 'base station', stores the time, date and total field measurement at fixed time intervals over the survey day. The second, remote mobile unit stores the coordinates, time, date, and the total field measurements simultaneously. The procedure consists of taking total magnetic measurements of the Earth's field at stations, along individual profiles, including Tie and Base lines. A 2 meter staff is used to mount the sensor, in order to optimally minimize localized near-surface geologic noise. At the end of a survey day, the mobile and base-station units are linked, via RS-232 ports, for diurnal drift and other magnetic activity (ionospheric and sferic) corrections using internal software.

For the gradiometer application, two identical sensors are mounted vertically at the ends of a rigid fiberglass tube. The centers of the coils are spaced a fixed distance apart (0.5 to 1.0m). The two coils are then read simultaneously, which alleviates the need to correct the gradient readings for diurnal variations, to measure the gradient of the total magnetic field.

VLF Electromagnetic

The frequency domain VLF electromagnetic survey is designed to measure both the vertical and horizontal inphase (IP) and Quadrature (OP) components of the anomalous field from electrically conductive zones. The sources for VLF EM surveys are several powerful radio transmitters located around the world which generate EM radiation in the low frequency band of 15-25kHZ. The signals created by these long-range communications and navigational systems may be used for surveying up to several thousand kilometres away from the transmitter. The quality of the incoming VLF signal can be monitored using the field strength. A field strength above 5pT will produce excellent quality results. Anything lower indicates a weak signal strength, and possibly lower data quality. A very low signal strength (<1pT) may indicate the radio station is down.

The EM field is planar and horizontal at large distances from the EM source. The two components, electric (E) and magnetic (H), created by the source field are orthogonal to each other. E lies in a vertical plane while H lies at right angles to the direction of propagation in a horizontal plane. In order to ensure good coupling, the strike of possible conductors should lie in the direction of the transmitter to allow the H vector to pass through the anomaly, in turn, creating a secondary EM field.

The VLF EM receiver has two orthogonal aerials which are tuned to the frequency of the transmitting station. The direction of the source station is locate by rotating the sensor around a vertical axis until a null position is found. The VLF EM survey procedure consists of taking measurements at stations along each line on the grid. The receiver is rotated about a horizontal axis, right angles to the traverse and the tilt recorded at the null position.



APPENDIX C

GSM 19



Specifications

Overhauser Performance

Resolution: 0.01 nT Relative Sensitivity: 0.02 nT Absolute Accuracy: 0.2nT Range: 20,000 to 120,000 nT

Gradient Tolerance: Over 10,000nT/m Operating Temperature: -40°C to +60°C

Operation Modes

Manual: Coordinates, time, date and reading stored automatically at min. 3 second interval.

Base Station: Time, date and reading stored at 3 to 60 second intervals. Walking Mag: Time, date and reading stored at coordinates of fiducial. Remote Control: Optional remote control using RS-232 interface.

Input/Output: RS-232 or analog (optional) output using 6-pin weatherproof connector.

Operating Parameters

Power Consumption: Only 2Ws per reading. Operates continuously for 45 hours on standby. Power Source: 12V 2.6Ah sealed lead acid battery standard, other batteries available

Operating Temperature: -50°C to +60°C

Storage Capacity

Manual Operation: 29,000 readings standard, with up to 116,000 optional. With 3 VLF stations: 12,000 standard and up to 48,000 optional.

Base Station: 105,000 readings standard, with up to 419,000 optional (88 hours or 14 days uninterrupted operation with 3 sec. intervals)

Gradiometer: 25,000 readings standard, with up to 100,000 optional. With 3 VLF stations: 12,000, with up to 45,000 optional.

Omnidirectional VLF

Performance Parameters: Resolution 0.5% and range to ±200% of total field. Frequency 15 to 30 kHz.

Measured Parameters: Vertical in-phase & out-of-phase, 2 horizontal components, total field coordinates, date, and time.

Features: Up to 3 stations measured automatically, in-field data review, displays station field strength continuously, and tilt correction for up to ±10° tilts.

Dimensions and Weights: 93 x 143 x 150mm and weighs only 1.0kg.



Dimensions and Weights

Dimensions:

Console: 223 x 69 x 240mm

Sensor: 170 x 71mm diameter cylinder

Weight: Console: 2.1kg

Sensor and Staff Assembly: 2.0kg

Standard Components

GSM-19 magnetometer console, harness, battery charger, shipping case, sensor with cable, staff, instruction manual, data transfer cable and software.

Taking Advantage of a "Quirk" of Physics

Overhauser effect magnetometers are essentially proton precession devices except that they produce an orderof magnitude greater sensitivity. These "supercharged" quantum magnetometers also deliver high absolute accuracy, rapid cycling (up to 5 readings / second), and exceptionally low power consumption.

The Overhauser effect occurs when a special liquid (with unpaired electrons) is combined with hydrogen atoms and then exposed to secondary polarization from a radio frequency (RF) magnetic field. The unpaired electrons transfer their stronger polarization to hydrogen atoms, thereby generating a strong precession signal-- that is ideal for very high-sensitivity total field measurement. In comparison with proton precession methods, RF signal generation also keeps power consumption to an absolute minimum and reduces noise (i.e. generating RF frequencies are well out of the bandwidth of the precession signal).

In addition, polarization and signal measurement can occur simultaneously - which enables faster, sequential measurements. This, in turn, facilitates advanced statistical averaging over the sampling period and/or increased cycling rates (i.e. sampling speeds).

The unique Overhauser unit blends physics, data quality, operational efficiency, system design and options into an instrumentation package that ... exceeds proton precession and matches costlier optically pumped cesium capabilities.



APPENDIX D

LIST OF MAPS (IN MAP POCKET)

Posted contoured TFM plan map (1:2500)

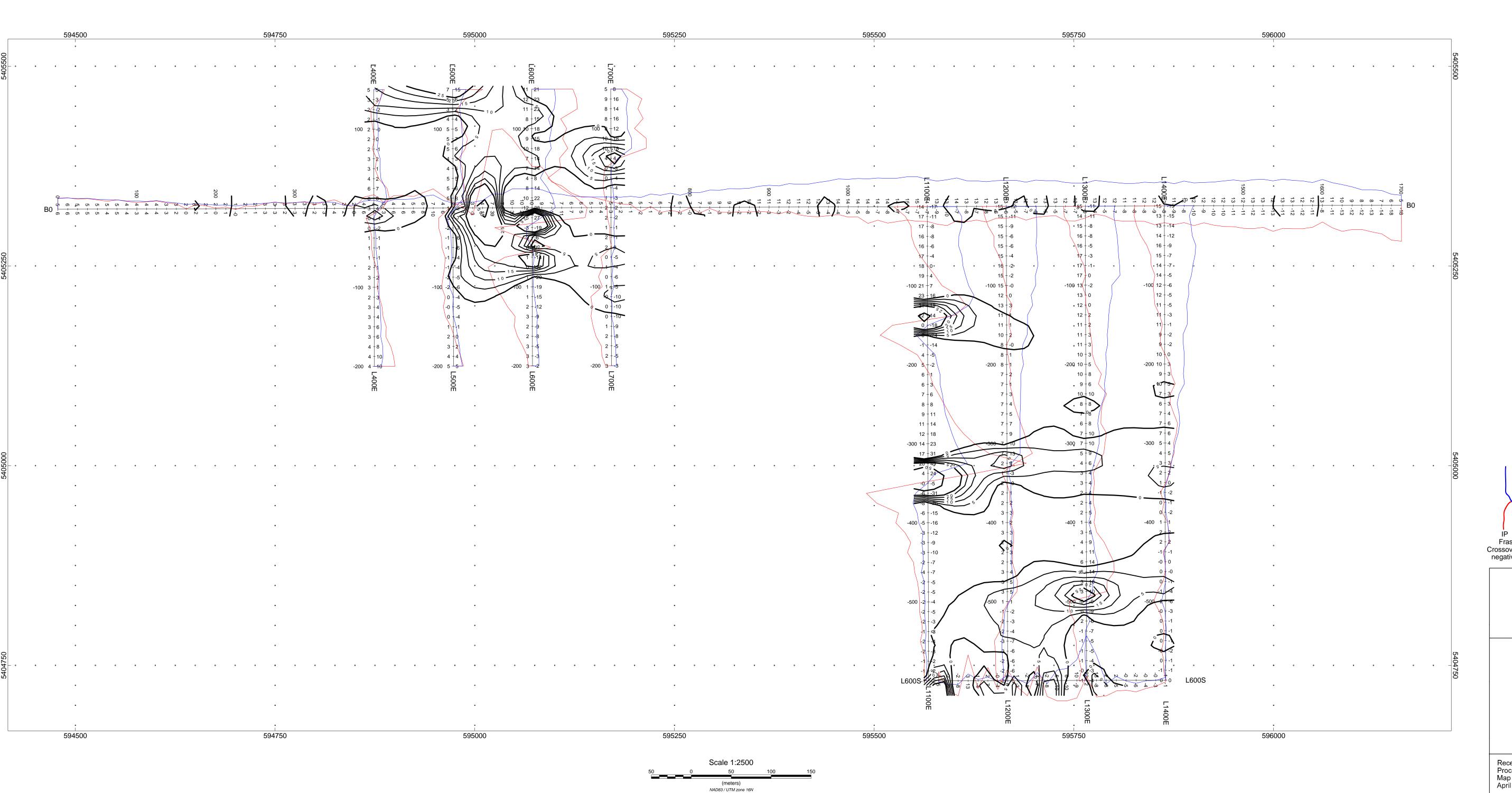
1) FOWLER-SPRUCE BAY-MAG-CONT

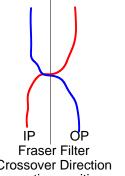
Posted profiled/fraser filtered contoured VLF plan maps (1:2500)

- 2) FOWLER-SPRUCE BAY-VLF-NAA
- 3) FOWLER-SPRUCE BAY-VLF-NML

TOTAL MAPS=3







White Lake - North Area Marathon, Ontario

VLF IN PHASE/OUT PHASE PROFILE VLF FRASER FILTERED CONTOURED PLAN MAP 24.0kHz NAA - CUTLER USA

In Phase: Posted Right/Bottom (Red)
Out Phase: Posted Left/Top (Blue)

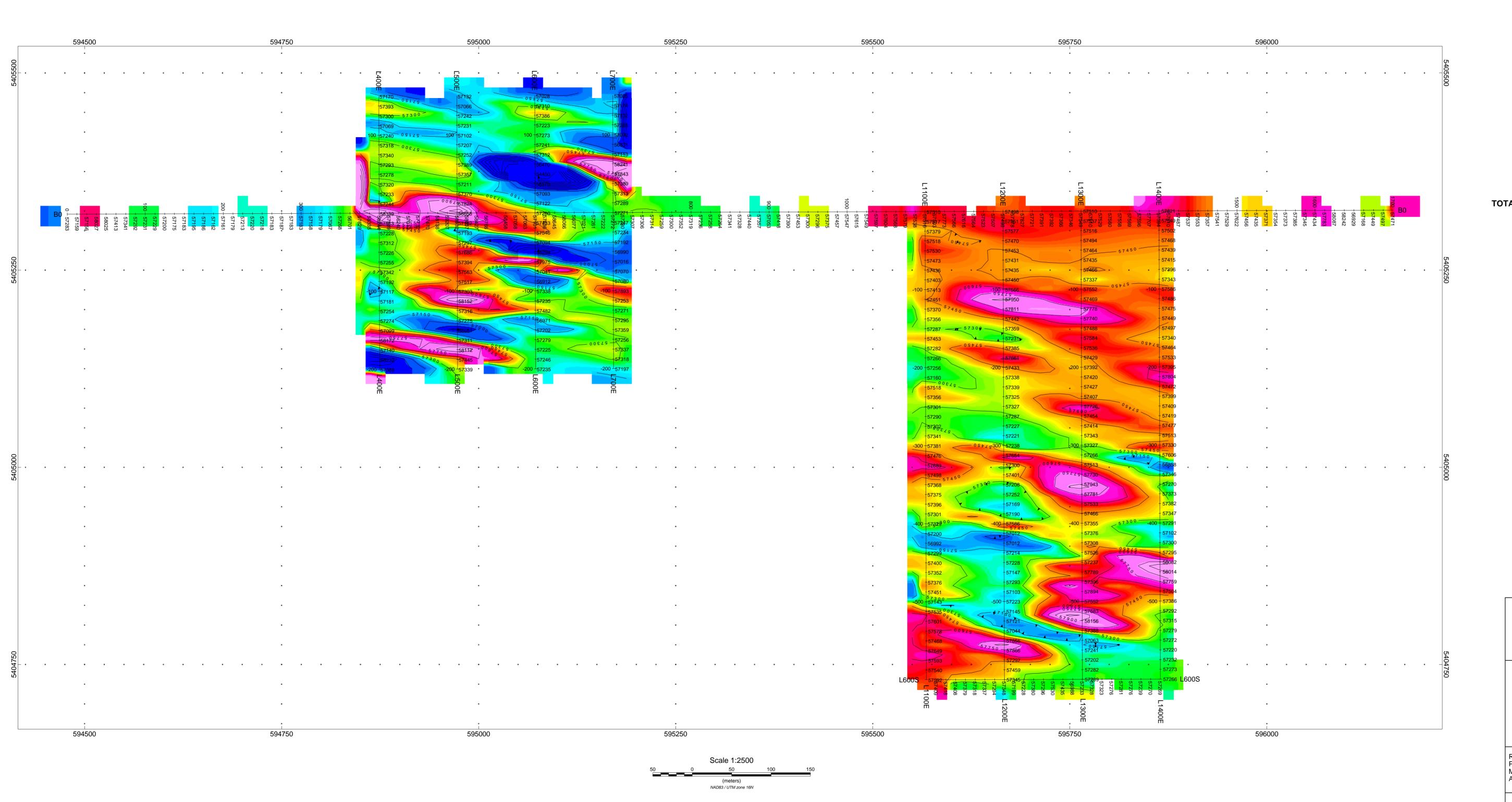
Vertical Profile Scales: 1%/mm Contour Interval: 0, 5, 10, 15, 20, 25, 50, 100

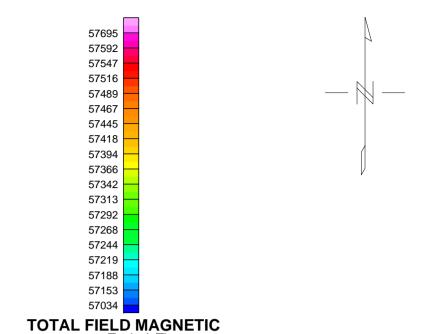
Station Seperation: 12.5 meters Posting Level: 0

GSM-19 OVERHAUSER MAGNETOMETER/VLF v7

Receiver Operated By: Shane Buckland Processed by: C Jason Ploeger, B.Sc. Map Drawn By: Belinda Bailey April 17 - 20, 2009

LARDER GEOPHYSICS LTD. Drawing : FOWLER-SPRUCE BAY-VLF-NAA





BRIAN FOWLER

SPRUCE BAY GRID White Lake - North Area Marathon, Ontario

TOTAL FIELD MAGNETIC CONTOURED PLAN MAP
Base Station Corrected

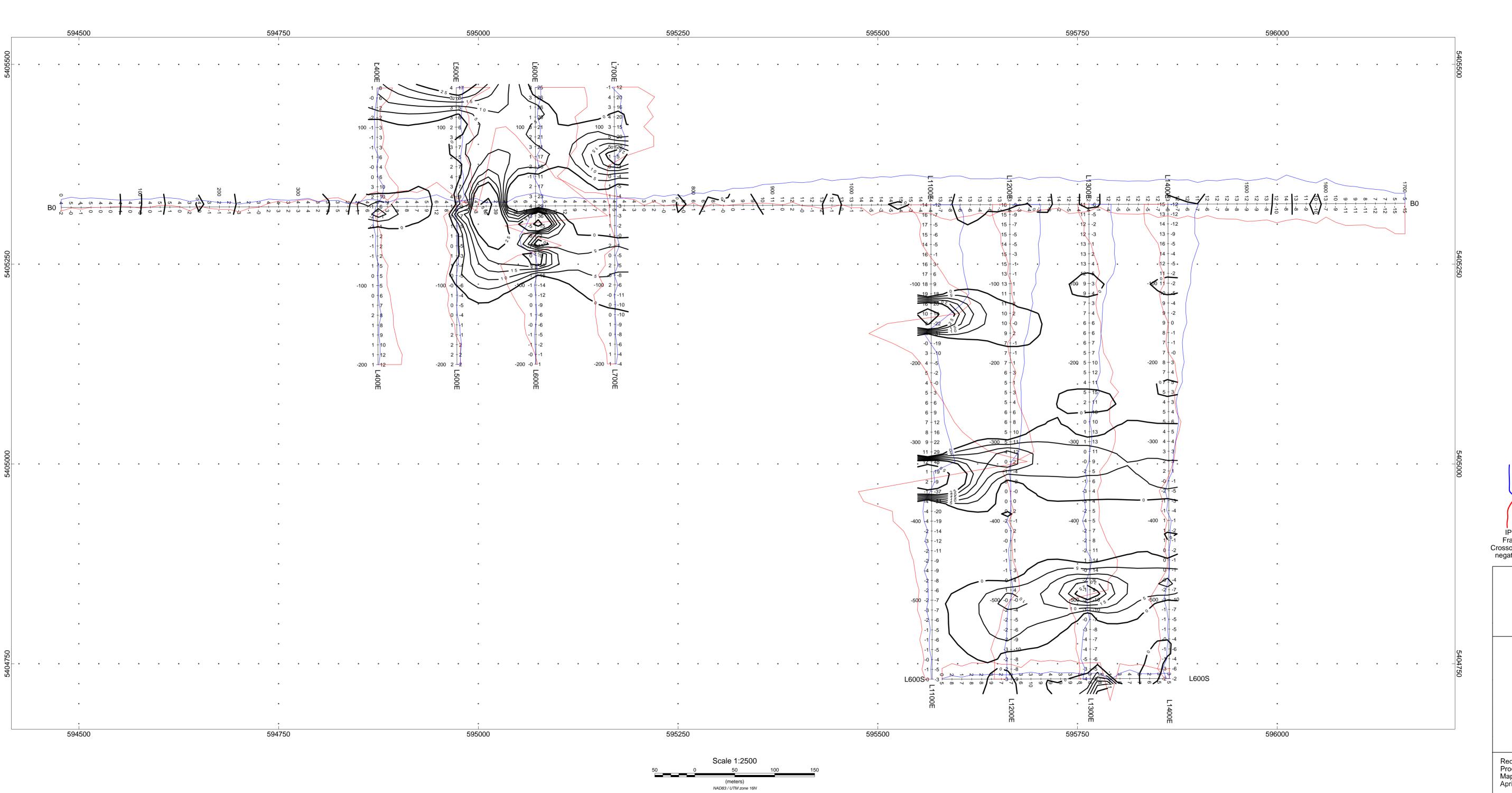
Posting Level: 0nT
Field Inclination/Declination: 74.7degN/7degW
Station Seperation: 12.5 meters
Total Field Magnetic Contours: 150nT

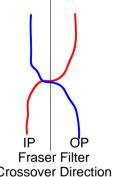
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LARDER GEOPHYSICS LTD.

Drawing : FOWLER-SPRUCE BAY-MAG-CONT





RRIAN FOWLER

SPRUCE BAY GRID White Lake - North Area Marathon, Ontario

VLF IN PHASE/OUT PHASE PROFILE VLF FRASER FILTERED CONTOURED PLAN MAP 25.2kHz NML - LaMOURE, NORTH DAKOTA, USA

In Phase: Posted Right/Bottom (Red)
Out Phase: Posted Left/Top (Blue)

Vertical Profile Scales: 1%/mm Contour Interval: 0, 5, 10, 15, 20, 25, 50, 100

Station Seperation: 12.5 meters
Posting Level: 0

GSM-19 OVERHAUSER MAGNETOMETER/VLF v7

Receiver Operated By: Shane Buckland Processed by: C Jason Ploeger, B.Sc. Map Drawn By: Belinda Bailey April 17 - 20, 2009

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Drawing : FOWLER-SPRUCE BAY-VLF-NML