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CANADIAN EXPLORATION SERVICES LTD

SKEAD HOLDING LTD.

Q2991 – Jefferson Lake Property
Magnetometer and VLF EM Surveys

C Jason Ploeger, P.Geo. – February 23, 2022

SKEAD HOLDINGS LTD.

Abstract

CXS was contracted by Skead Holdings Ltd. to perform approximately 7 kilometers of magnetometer and VLF EM survey over the Jefferson Lake Property near Shining Tree, Ontario.

Some magnetic and VLF trends were observed.

Skead Holdings Ltd.

Q2991 – Jefferson Lake Property
Magnetometer and VLF EM Surveys

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1. SURVEY DETAILS

1.1 PROJECT NAME

This project is known as the **Jefferson Lake Property**.

1.2 CLIENT

SKEAD HOLDINGS LTD.

28 Ford St.
Sault Ste. Marie, Ontario
P6A 4N4

1.3 LOCATION

The Jefferson Lake Property is located approximately 6.0 kilometres north of Shining Tree, Ontario. The property covers a portion of mining claims 548863, 548864, 548865 and 548866 located in Churchill Township within the Larder Lake Mining Division.

Figure 1: Location of the Jefferson Lake Property

1.4 ACCESS

Access to the Jefferson Lake Property was attained with a 4x4 truck and snow-machine via Highway 560. From Shining Tree, Highway 560 was travelled for a distance of 4 kilometers. From here, an unnamed forestry access road extends north and was travelled an additional 4km by snowmachine to the survey area.

1.5 SURVEY AREA

The traversed lines were established using a GPS in conjunction with the execution of the survey. The GPS operator would establish sample locations while remaining approximately 25m in front of the magnetometer operator. GPS waypoints and magnetic samples were taken every 25m along these controlled traverses. The GPS used was a Garmin GPSMAP 62s with an external antenna for added accuracy.

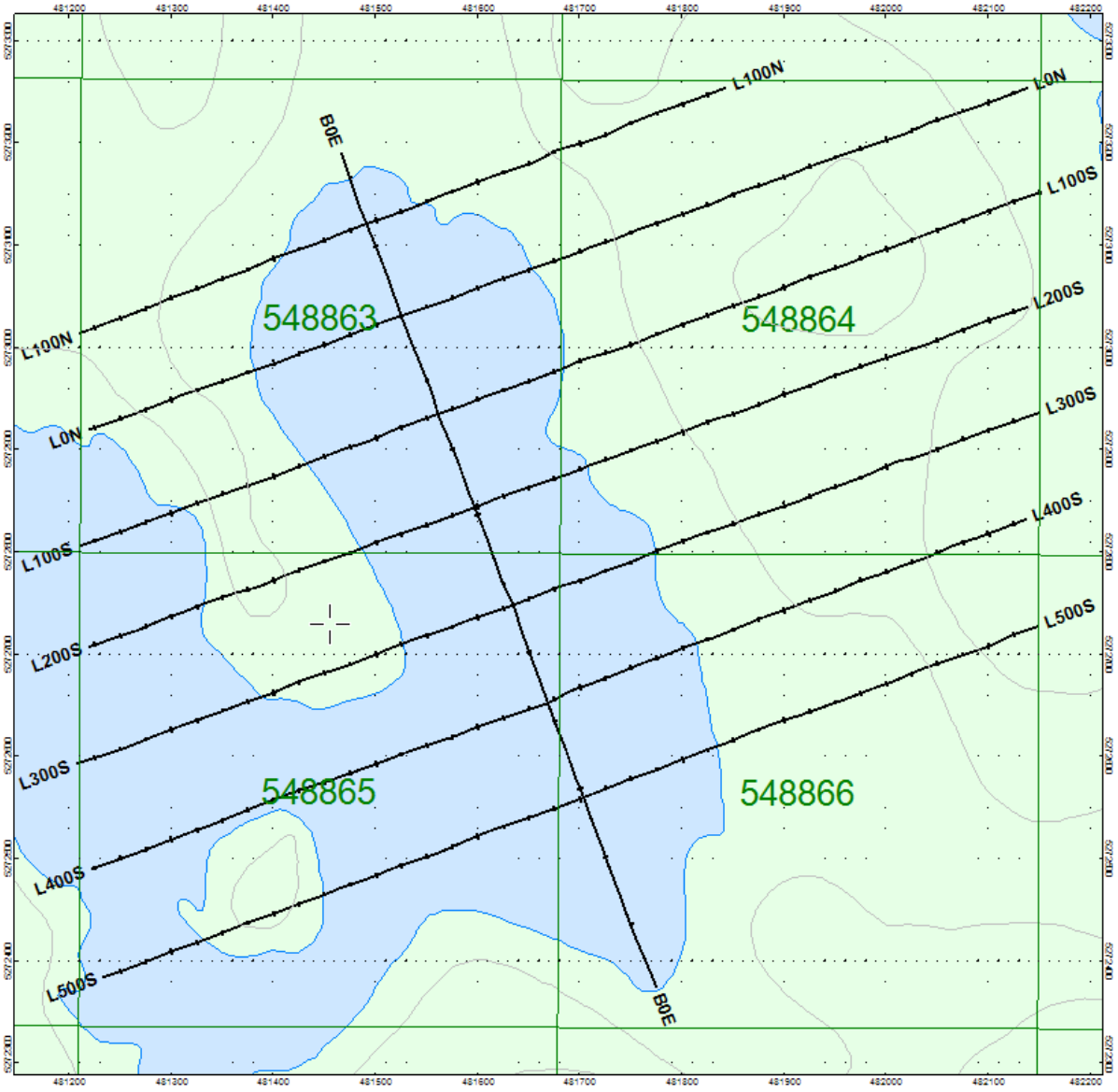


Figure 2: Claim Map with the Jefferson Lake Property Traverse

2. SURVEY WORK UNDERTAKEN

2.1 SURVEY LOG

3. Date	Description	Line	Min Extent	Max Extent	Total Survey (m)
February 17, 2022	Mobilize to Shining Tree, locate survey area and perform magnetometer survey.	100N	300W	375E	675
		0N	325W	650E	975
		100S	375W	625E	1000
		200S	400W	575E	975
		300S	450W	550E	1000
		400S	475W	500E	975
		500S	500W	475E	975
		0E	700S	175N	875

Table 1: Survey Log

2.2 PERSONNEL

Claudia Moraga of Dobie, Ontario along with Giancarlo Smith of Virginiatown, Ontario conducted all the magnetic data collection with Bruce Lavalley of Dobie, Ontario and Gun Hee You of Calgary, Alberta, being responsible for GPS control and waypoint collection

2.3 SAFETY

Canadian Exploration Services prides itself in creating and maintaining a safe work environment for its employees. Each crew member is briefed on the jobsite location, equipment safety, standard operating procedures along with our health and safety manual. An emergency response plan is generated relating to the specific job and with the jobsite predominantly in the field, which is unpredictable, morning safety briefings are essential. Topics are generally chosen based off jobsite characteristics of the area, time of year and crew experience.

2.4 SURVEY SPECIFICATIONS

The survey was conducted with a GSM-19 v7 Overhauser magnetometer/VLF with a second GSM-19 magnetometer for a base station mode for diurnal correction.

A total of 7.45 line kilometers of magnetometer and VLF was read over the Jefferson Lake Property on February 17, 2022. This consisted of 306 magnetometer and VLF EM samples taken at a 25m sample interval.

3 OVERVIEW OF SURVEY RESULTS

3.1 SUMMARY

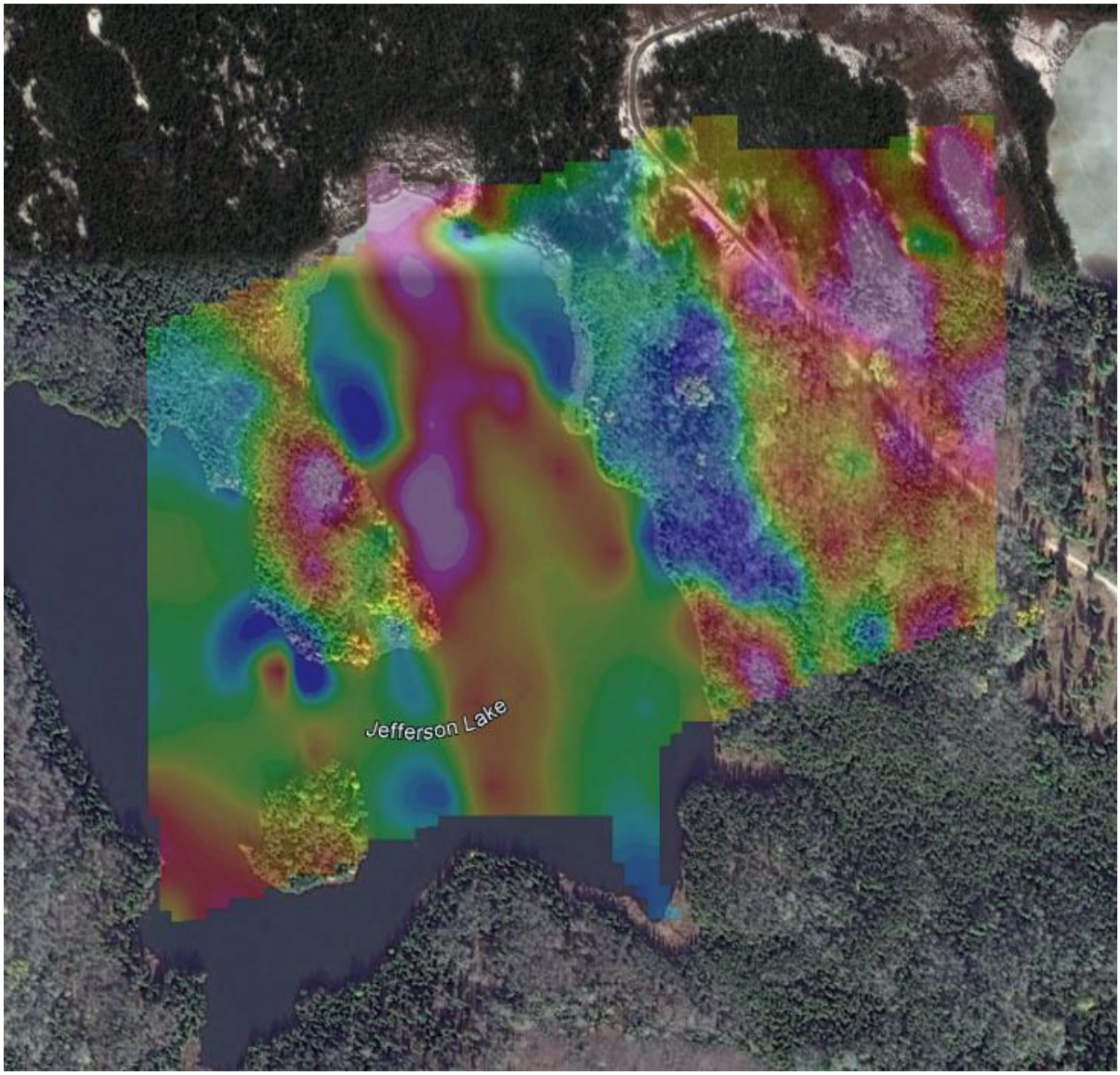


Figure 3: Magnetometer Plan Map on Google Earth

No culture was noted through the traverse area.

The magnetic signature appears to indicate the general strike of the volcanic pile, which is approximately 320 degrees. Striking across this is a north-south direction appears a linear elevated magnetic anomaly. These most likely represent diabase dikes.

The VLF signature appears to indicate crossovers that would follow the strike of the volcanic pile. This may indicate the presence of interflow sediments.

At line 200S and 75W there appears to be a magnetic high where the interflow sediments and the diabase meet. This elevated region may be a result of the remobilization of sulphides within the interflow sediments and makes a prime target for further exploration.

It is recommended that a compilation be done of the historic work on the property. This dataset should be incorporated into it to help determine the source of the anomaly.

It is also recommended that the VLF crossovers along with the magnetic high be prospected if possible. In areas covered with water, lakebed sampling could be performed.

APPENDIX A

STATEMENT OF QUALIFICATIONS

I, C. Jason Ploeger, hereby declare that:

1. I am a professional geophysicist with residence in Larder Lake, Ontario and am presently employed as a Geophysicist and Geophysical Manager of Canadian Exploration Services Ltd. of Larder Lake, Ontario.

2. I am a Practicing Member of the Association of Professional Geoscientists, with membership number 2172.

3. I graduated with a Bachelor of Science degree in geophysics from the University of Western Ontario, in London Ontario, in 1999.

4. I have practiced my profession continuously since graduation in Africa, Bulgaria, Canada, Mexico and Mongolia.

5. I am a member of the Ontario Prospectors Association, a Director of the Northern Prospectors Association and a member of the Society of Exploration Geophysicists.

6. I do not have nor expect an interest in the properties and securities of **Skead Holdings Ltd.**

7. 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.

C. Jason Ploeger, P.Geo., B.Sc.
Geophysical Manager
Canadian Exploration Services Ltd.

February 23, 2022

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 EM SURVEY

The frequency domain VLF electromagnetic survey is designed to measure both the vertical and horizontal in-phase (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 kilometers 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 located 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 order-of 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 C

GARMIN GPS MAP 64

Physical & Performance:	
Unit dimensions, WxHxD:	2.4" x 6.3" x 1.4" (6.1 x 16.0 x 3.6 cm)
Display size, WxH:	1.43" x 2.15" (3.6 x 5.5 cm); 2.6" diag (6.6 cm)
Display resolution, WxH:	160 x 240 pixels
Display type:	transflective, 65-K color TFT
Weight:	8.1 oz (230 g) with batteries
Battery:	2 AA batteries (not included); NiMH or Lithium recommended
Battery life:	16 hours
Waterproof:	yes (IPX7)
Floats:	no

High-sensitivity re-ceiver:	yes
Interface:	high-speed USB and NMEA 0183 compatible
Maps & Memory:	
Basemap:	yes
Ability to add maps:	yes
Built-in memory:	4 GB
Accepts data cards:	microSD™ card (not included)
Custom POIs (ability to add additional points of interest)	yes
Waypoints/favorites/locations:	5000
Routes:	200
Track log:	10,000 points, 200 saved tracks
Features & Benefits:	
Automatic routing (turn by turn routing on roads):	yes (with optional mapping for detailed roads)
Geocaching-friendly:	yes (paperless)
Custom maps compatible:	yes
Hunt/fish calendar:	yes
Sun and moon information:	yes
Tide tables:	yes
Area calculation:	yes
Picture Viewer	yes

- *Specifications obtained from www.garmin.com*

APPENDIX D

LIST OF MAPS (IN MAP POCKET)

Magnetometer Plan Map (1:2500)

1) Q2991-Skead-JeffersonLake-Mag-Cont

VLF EM Plan Map (1:2500)

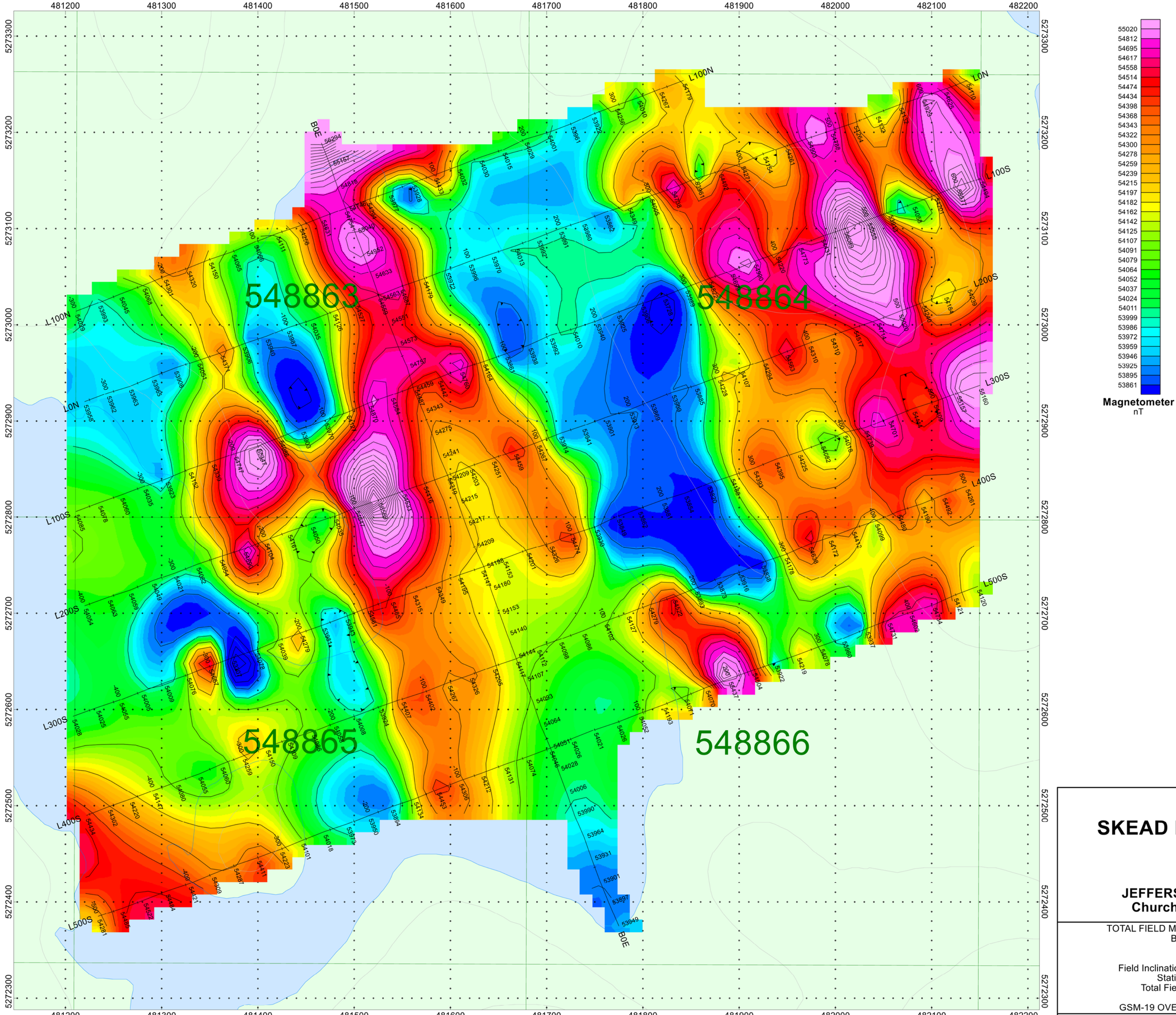
2) Q2991-Skead-JeffersonLake-VLF-NML

Claim Map with Magnetic Traverses (1:20000)

3) Q2991-Skead-JeffersonLake-Traverses

TOTAL MAPS = 3

Appendix D: Magnetometer Plan Map (1:2500



SKEAD HOLDINGS LTD.

JEFFERSON LAKE PROPERTY
Churchill Township, Ontario

TOTAL FIELD MAGNETIC CONTOURED PLAN MAP
Base Station Corrected

Posting Level: 0nT
Field Inclination/Declination: 72.5degN/9.6degW
Station Seperation: 25 meters
Total Field Magnetic Contours: 100nT

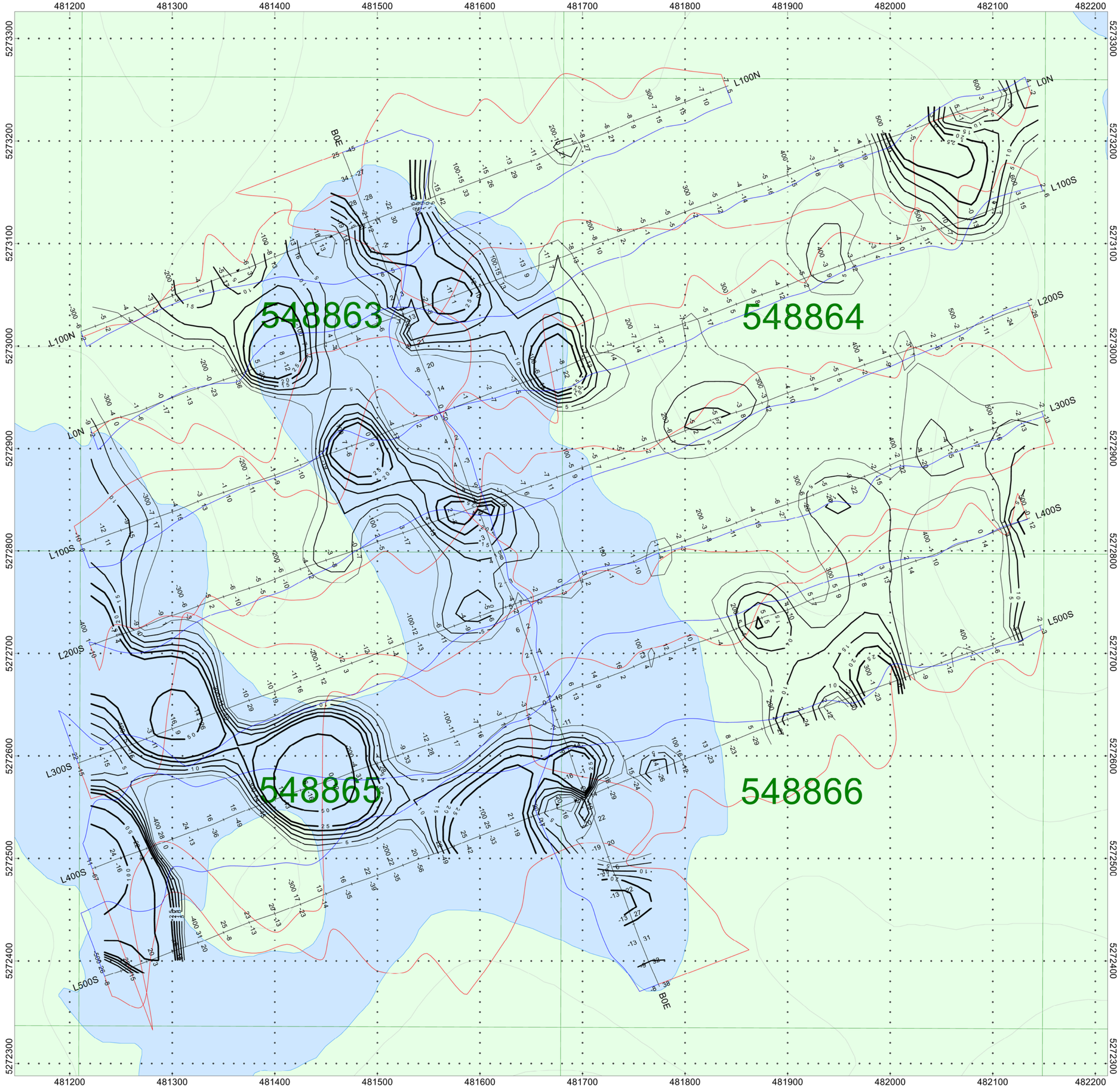
GSM-19 OVERHAUSER MAGNETOMETER v7

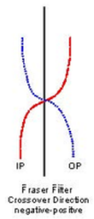
Receiver Operated By: Claudia Moraga and Giancarlo Smith
GPS Operated By: Bruce Lavalley and Gun Hee You
Processed by: C Jason Ploeger, P.Geo.
Map Drawn By: C Jason Ploeger, P.Geo
February 2022

CANADIAN EXPLORATION SERVICES LTD

Drawing: Q2991-Skead-JeffersonLake-Mag-Cont

Appendix D: VLF EM Plan Map (1;2500)





Scale 1:2500

50 0 50 100 150

(meters)

NAD83 / UTM zone 17N

SKEAD HOLDINGS LTD.

JEFFERSON LAKE PROPERTY
Churchill Township, Ontario

VLF IN PHASE/OUT PHASE PROFILE
25.2kHz NML - LaMOURE USA

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

Vertical Profile Scales: 1 %/mm

Station Seperation: 25 meters
Posting Level: 0

GSM-19 VLF v7

Receiver Operated By: Claudia Moraga and Giancarlo Smith
GPS Operated By: Bruce Lavalley and Gun Hee You
Processed by: C Jason Ploeger, P.Geo.
Map Drawn By: C Jason Ploeger, P.Geo
February 2022

CANADIAN EXPLORATION SERVICES LTD

Drawing: Q2991-Skead-JeffersonLake-VLF-NML

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