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CANADIAN EXPLORATION SERVICES LTD

BATTERY MINERAL RESOURCES LIMITED

Q2406 – Elk Lake Project
Magnetometer Survey

C Jason Ploeger, P.Geo. – July 17, 2017

Abstract

CXS was contracted by Battery Mineral Resources Limited to perform a magnetometer survey over a portion of the Elk Lake Project. Approximately 3.1 line kilometers of magnetic traverse were performed.

The magnetic survey indicates the presence of a magnetic intrusive (Nipissing Diabase). Within this can be seen two area where it appears that alteration resulting in magnetite depletion has occurred.

BATTERY MINERAL RESOURCES LIMITED.

Q2406– Elk Lake Project
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1. SURVEY DETAILS

1.1 PROJECT NAME

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

1.2 CLIENT

Battery Mineral Resources Limited
Level 36
Governor Phillip Tower
1 Farer Place
Sydney
Australia

1.3 LOCATION

The Elk Lake Property is, located in James Township approximately 2 km northeast of Elk Lake, Ontario. The survey area covers parts of claims numbered 4277171, 4240784and 4282717 located in James Township, within the Larder Lake Mining Division.

Figure 1: Location of the Elk Lake Property

1.4 ACCESS

Access to the property was attained with a 4x4 truck along highway 65. From Elk Lake highway 65 was travelled west for 1.7km where the truck was parked at a location 250m from the traverse area.

1.5 SURVEY GRID

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 12.5m in front of the magnetometer operator. GPS waypoints, magnetic samples were taken every 12.5m along these controlled traverses. The GPS used was a Garmin GPSMAP 62s with an external antenna for added accuracy.

Figure 2: Claim Map with Elk Lake Traverses

2. SURVEY WORK UNDERTAKEN

2.1 SURVEY LOG

Date	Description	Line	Min Extent	Max Extent	Total Survey (m)
July 07, 2017	Locate survey area and begin magnetometer survey.	700W	62.5S	325N	387.5
		600W	150S	350N	500
		500W	125S	375N	500
		400W	0N	312.5N	312.5
		300W	0N	300N	300
		200W	0N	325N	325
		0N	762.5W	0E	762.5
					3087.5

Table 1: Survey Log

2.2 PERSONNEL

Kevin Girard of Virginiatown, Ontario conducted all the magnetic data collection while Bruce Lavalley of Britt, Ontario was responsible for the GPS control and GPS waypoint collection.

2.3 SURVEY SPECIFICATIONS

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

A total of 3.0875-line kilometers of magnetometer was read over the Elk Lake Property on July 07, 2017. This consisted of 247 magnetometer samples taken at a 12.5 metre sample interval.

3. OVERVIEW OF SURVEY RESULTS

3.1 SUMMARY

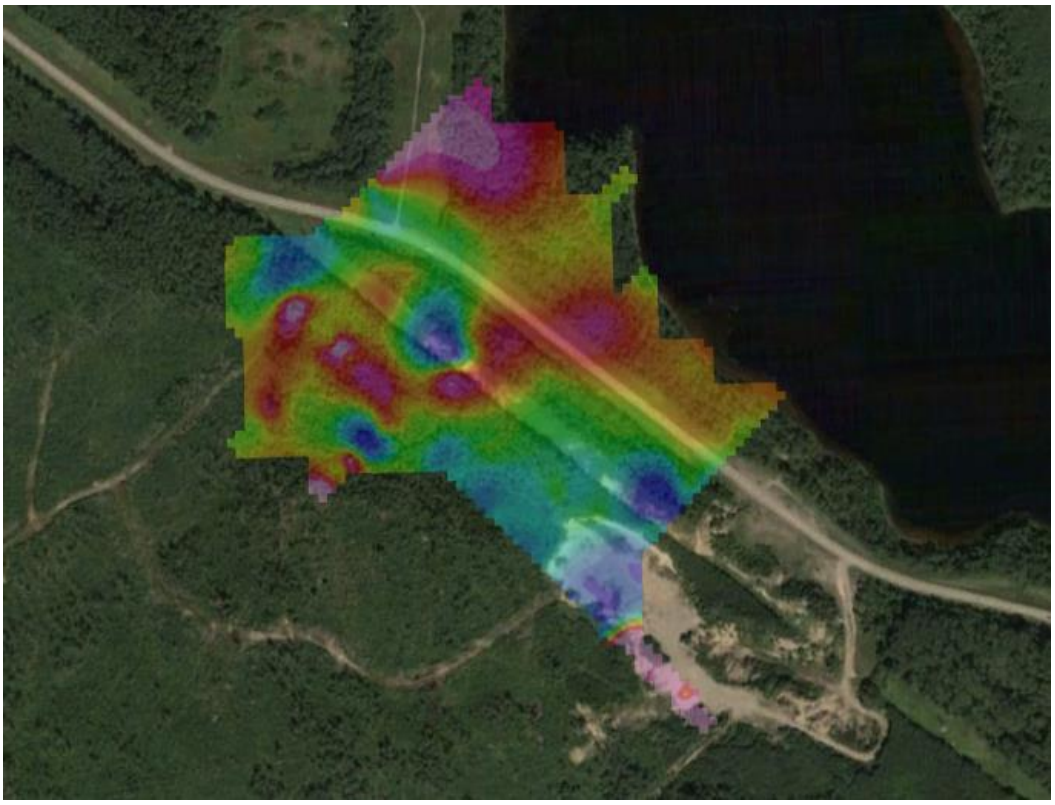


Figure 3: Magnetometer Plan on Google Earth

The survey covered a large portion of the James Township claims. The magnetometer crew identified rugged terrain and a shaft. This was located at 548020E and 5288008N or 500W and 50S.

Highway 65 crosses the property with a high tension powerline. The highway or powerline corridors did not appear to cause interfere with the survey. It was however noted that a magnetic low was observed at the powerline towers.

The south edge of the survey area indicated a strong magnetic signature. This signature most likely indicates the geologic contact between the Nipissing Diabase and Huronian Sediments to the south.

The entire survey area appears to be underlain with a similar magnetic signature with exception to an elevated area of magnetic response on the north end and through the central area. These most likely represents area of varying geology.

Where the shaft was located it is noted that a magnetic low exists. This low may indicate an alteration resulting in magnetite depletion has occurs. Using this model, a similar signature occurs on line 500W at 100S. This should be explored through prospecting to determine its source.

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 Inc. 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 **Battery Mineral Resources Limited.**

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 Inc.

Larder Lake, ON
July 17th, 2017

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.

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 62S

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:	9.2 oz (260.1 g) with batteries
Battery:	2 AA batteries (not included); NiMH or Lithium recommended
Battery life:	20 hours
Waterproof:	yes (IPX7)
Floats:	no
High-sensitivity receiver:	yes

Interface:	high-speed USB and NMEA 0183 compatible
Maps & Memory:	
Basemap:	yes
Preloaded maps:	no
Ability to add maps:	yes
Built-in memory:	1.7 GB
Accepts data cards:	microSD™ card (not included)
Waypoints/favorites/locations:	2000
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)
Electronic compass:	yes (tilt-compensated, 3-axis)
Touchscreen:	no
Barometric altimeter:	yes
Camera:	no
Geocaching-friendly:	yes (paperless)
Custom maps compatible:	yes
Photo navigation (navigate to ge-otagged photos):	yes
Outdoor GPS games:	no
Hunt/fish calendar:	yes
Sun and moon information:	yes

Tide tables:	yes
Area calculation:	yes
Custom POIs (ability to add additional points of interest):	yes
Unit-to-unit transfer (shares data wirelessly with similar units):	yes
Picture viewer:	yes
Garmin Connect™ compatible (online community where you analyze, categorize and share data):	yes

- *Specifications obtained from www.garmin.com*

APPENDIX D

LIST OF MAPS (IN MAP POCKET)

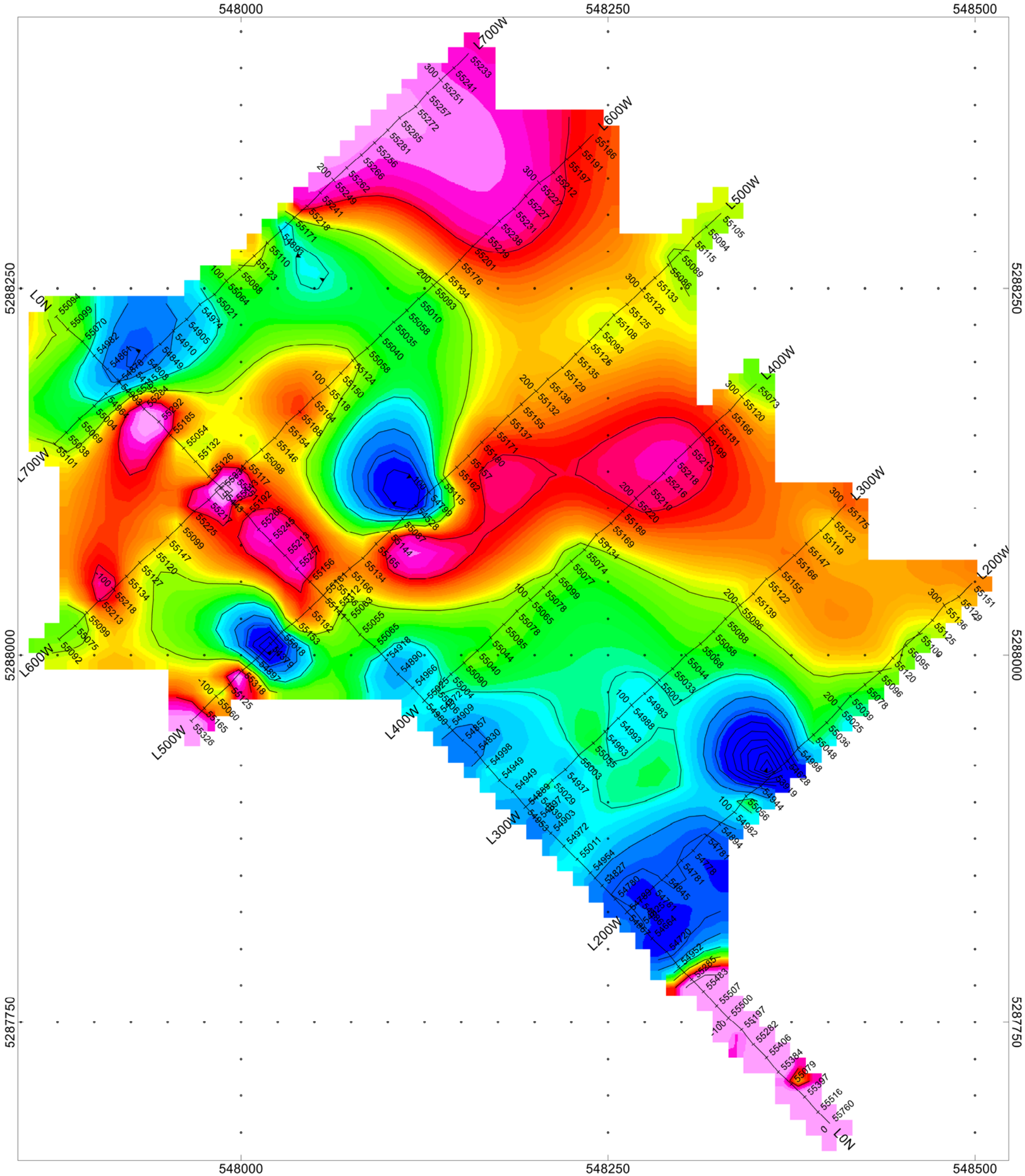
Magnetometer Plan Map (1:2500)

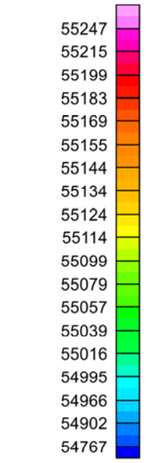
1) Q2406-Battery-Elk Lake-North-Mag-Cont

Traverse Plan Map (1:40000)

2) Q2406-Battery-Elk Lake-North-Traverse

TOTAL MAPS = 2





Magnetometer
nanoTesla (nT)

Scale 1:2500

25 0 25 50 75 100 125 150 175

(meters)

NAD83 / UTM zone 17N

BATTERY MINERAL RESOURCES

ELK LAKE PROJECT
James Township, Ontario

TOTAL FIELD MAGNETIC CONTOURED PLAN MAP
Base Station Corrected

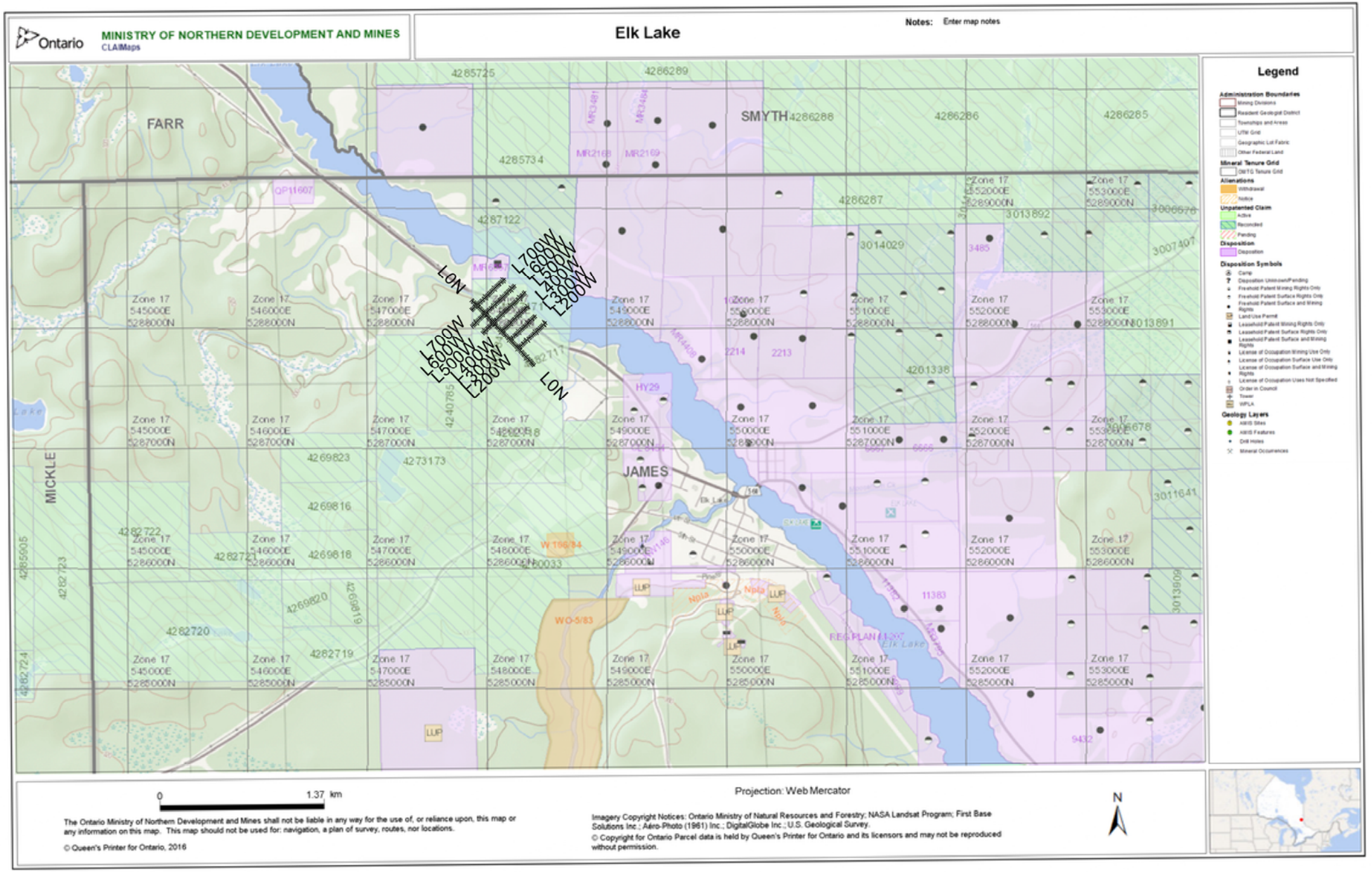
Posting Level: 0nT
Field Inclination/Declination: 74degN/12degW
Station Seperation: 12.5 meters
Total Field Magnetic Contours: 100nT

GSM-19 OVERHAUSER MAGNETOMETER v7

Operated By: Kevin Girard
GPS Operated By: Bruce Lavalley
Processed by: Claudia Moraga
Map Drawn By: C Jason Ploeger, P.Geo.
July 2017

CANADIAN EXPLORATION SERVICES LTD

Drawing: Q2291-BATTERY-McARA-MAG-CONT


Ontario
MINISTRY OF NORTHERN DEVELOPMENT AND MINES
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Elk Lake
Notes: Enter map notes
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Administration Boundaries
Mineral Tenure Grid
Alienations
Withdrawal
Notice
Unpatented Claim
Active
Reconded
Pending
Disposition
Disposition
Disposition Symbols
Geology Layers
FARR
SMYTH
MICKLE
JAMES
L70W
L60W
L50W
L40W
L30W
L20W
LON
HY29
W 196/84
WO-5/83
LUP
Elk Lake
0
1.37 km
Projection: Web Mercator
N
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