

We are committed to providing [accessible customer service](#).

If you need accessible formats or communications supports, please [contact us](#).

Nous tenons à améliorer [l'accessibilité des services à la clientèle](#).

Si vous avez besoin de formats accessibles ou d'aide à la communication, veuillez [nous contacter](#).



Abstract

CXS was contracted to perform a magnetometer survey over a portion of the Law-Olive Property. The crew accessed the site on April 27, 2022.

A total length of 4.55 kilometers was covered with 372 magnetometer samples taken at a 12.5-meter interval. A magnetic signature is observed with a coincident VLF EM signature associated with the MDI occurrence. This is assumed to represent the occurrence. It is recommended to prospect to locate the MDI and along the strike of the VLF EM signature.

ASHLEY GOLD MINES LIMITED

**Q3011 – Law-Olive Property
Magnetometer and VLF EM Surveys**

C Jason Ploeger, P.Geo. – April 28, 2022

TABLE OF CONTENTS

1.	SURVEY DETAILS	3
1.1	PROJECT NAME.....	3
1.2	CLIENT	3
1.3	OVERVIEW	3
1.4	OBJECTIVE.....	3
1.5	SURVEY & PHYSICAL ACTIVITIES UNDERTAKEN.....	3
1.6	SUMMARY OF RESULTS, CONCLUSIONS & RECOMMENDATIONS.....	4
1.7	CO-ORDINATE SYSTEM	4
2.	SURVEY LOCATION DETAILS	5
2.1	LOCATION.....	5
2.2	ACCESS.....	5
2.3	MINING CLAIMS	6
2.4	PROPERTY HISTORY	7
2.5	GENERAL REGIONAL/LOCAL GEOLOGICAL SETTINGS.....	8
2.6	TARGET OF INTEREST	8
3.	SURVEY WORK UNDERTAKEN.....	9
3.1	SUMMARY.....	9
3.2	SURVEY GRID	9
3.3	SURVEY LOG.....	9
3.4	PERSONNEL.....	9
3.5	SAFETY	10
2.2	SURVEY SPECIFICATIONS.....	10
3	OVERVIEW OF SURVEY RESULTS	11
3.1	SUMMARY.....	11

LIST OF APPENDICES

APPENDIX A	STATEMENT OF QUALIFICATIONS
APPENDIX B.....	THEORETICAL BASIS AND SURVEY PROCEDURES
APPENDIX C.....	INSTRUMENT SPECIFICATIONS
APPENDIX D.....	LIST OF MAPS (IN MAP POCKET)

LIST OF TABLES AND FIGURES

Figure 1: Location of the Law-Olive Property	5
Figure 2: Claim Map with the Law-Olive Property Traverse	7
Figure 3: Magnetometer Plan Map on Google Earth	11

Figure 4: VLF In Phase Map on Google Earth.....	12
Table 1: Survey and Physical Activity Details.....	3
Table 2: Mining Lands and Cells Information	6
Table 1: Survey Log	9

1. SURVEY DETAILS

1.1 PROJECT NAME

This project is known as the **Law-Olive Property**.

1.2 CLIENT

Ashley Gold Mines Limited

14579 Government Rd.
Larder Lake, Ontario
P0K1L0

1.3 OVERVIEW

CXS was contracted to perform a magnetometer and VLF EM surveys over a portion of the Law-Olive Property. The crew accessed the site on April 27, 2022.

A total length of 4.55 kilometres was covered with 372 magnetometer samples taken at a 12.5-meter interval. A magnetic signature is observed with a coincident VLF EM signature associated with the MDI occurrence. This is assumed to represent the occurrence. It is recommended to prospect to locate the MDI and along the strike of the VLF EM signature.

1.4 OBJECTIVE

The objective of the magnetometer and VLF EM survey was to explore the area for magnetic and conductive signatures.

1.5 SURVEY & PHYSICAL ACTIVITIES UNDERTAKEN

Survey/Physical Activity	Dates	Total Days in Field	Total Line Kilometers
Magnetometer and VLF EM	April 27, 2022	1	4.55

Table 1: Survey and Physical Activity Details

1.6 SUMMARY OF RESULTS, CONCLUSIONS & RECOMMENDATIONS

CXS was contracted to perform a magnetometer survey over a portion of the Law-Olive Property. The crew accessed the site on April 27, 2022.

A total length of 4.55 kilometres was covered with 372 magnetometer samples taken at a 12.5 meter interval. A magnetic signature is observed with a coincident VLF EM signature associated with the MDI occurrence. This is assumed to represent the occurrence. It is recommended to prospect to locate the MDI and along the strike of the VLF EM signature.

1.7 Co-ORDINATE SYSTEM

Projection: UTM zone 17N

Datum: NAD83

UTM Coordinates near center of grid: 592050 Easting and 5193400 Northing

2. SURVEY LOCATION DETAILS

2.1 LOCATION

The Olive Property is located approximately 20.0 kilometres south of Temagami, Ontario. The survey on the property covers a portion of mining claims 520385, 520386, 520387, 520388 and 520389 located in Law and Olive Townships within the Sudbury Mining Division.

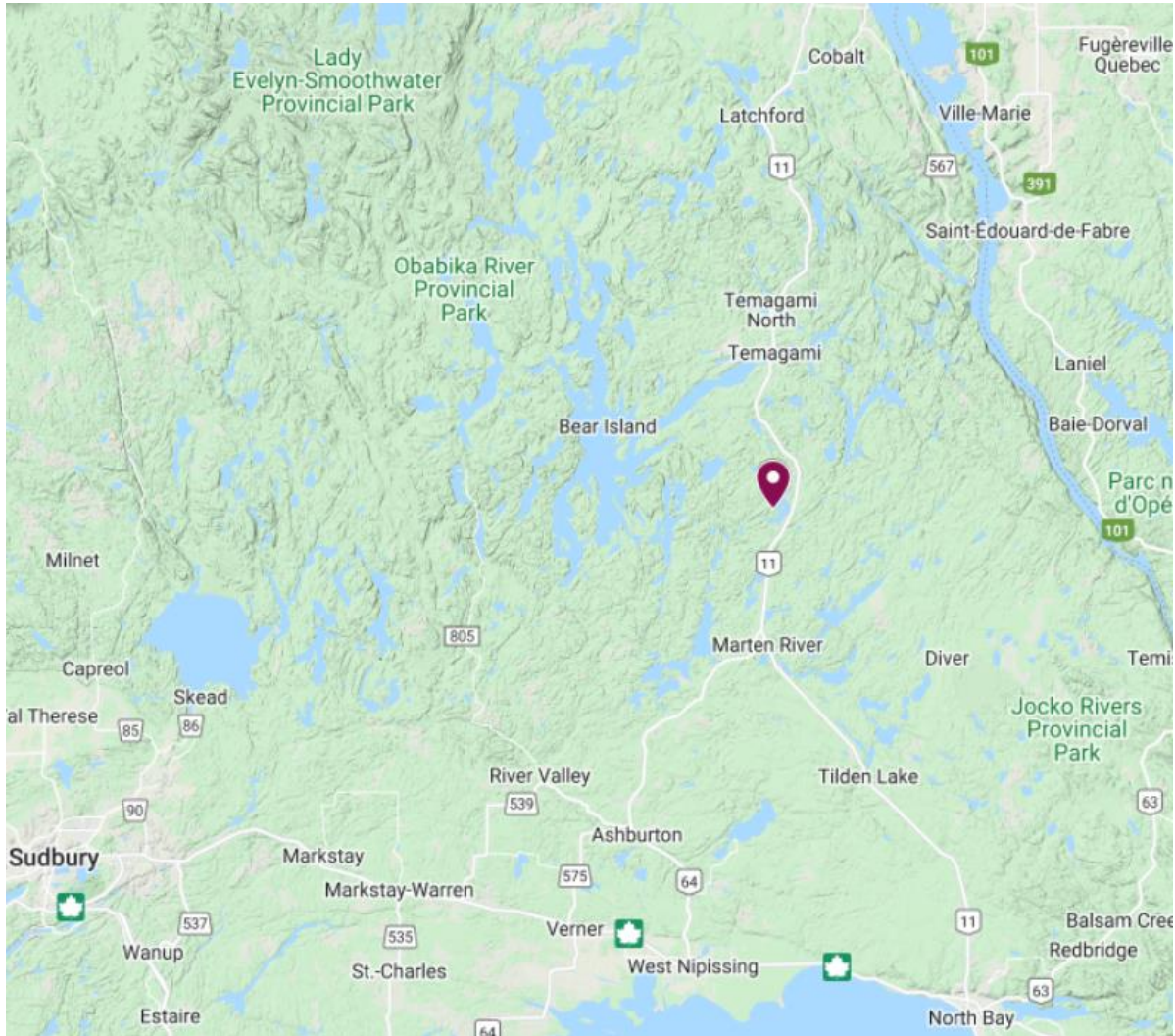


Figure 1: Location of the Law-Olive Property

2.2 ACCESS

Access to the Law-Olive Property was attained with a 4x4 truck and ATV via the Wilson Lake Road. From Temagami highway 11 was travelled 11.5 kilometers south to Wilson Lake Road. The Wilson Lake Road was then travelled an additional 11.5

km south to a series of trails. These trails were travelled by ATV another kilometer to the survey area.

2.3 MINING CLAIMS

The survey area covers a portion of mining claims 520385, 520386, 520387, 520388 and 520389 all located in Law and Olive Townships, within the Sudbury Mining Division.

Cell Number	Provincial Grid Cell ID	Ownership of Land	Township
520385	31L13F133	Ashley Gold Mines Limited	Law
520386	31L13F134	Ashley Gold Mines Limited	Law
520387	31L13F135	Ashley Gold Mines Limited	Law
520388	31L13F153	Ashley Gold Mines Limited	Law and Olive
520389	31L13F154	Ashley Gold Mines Limited	Law and Olive

Table 2: Mining Lands and Cells Information

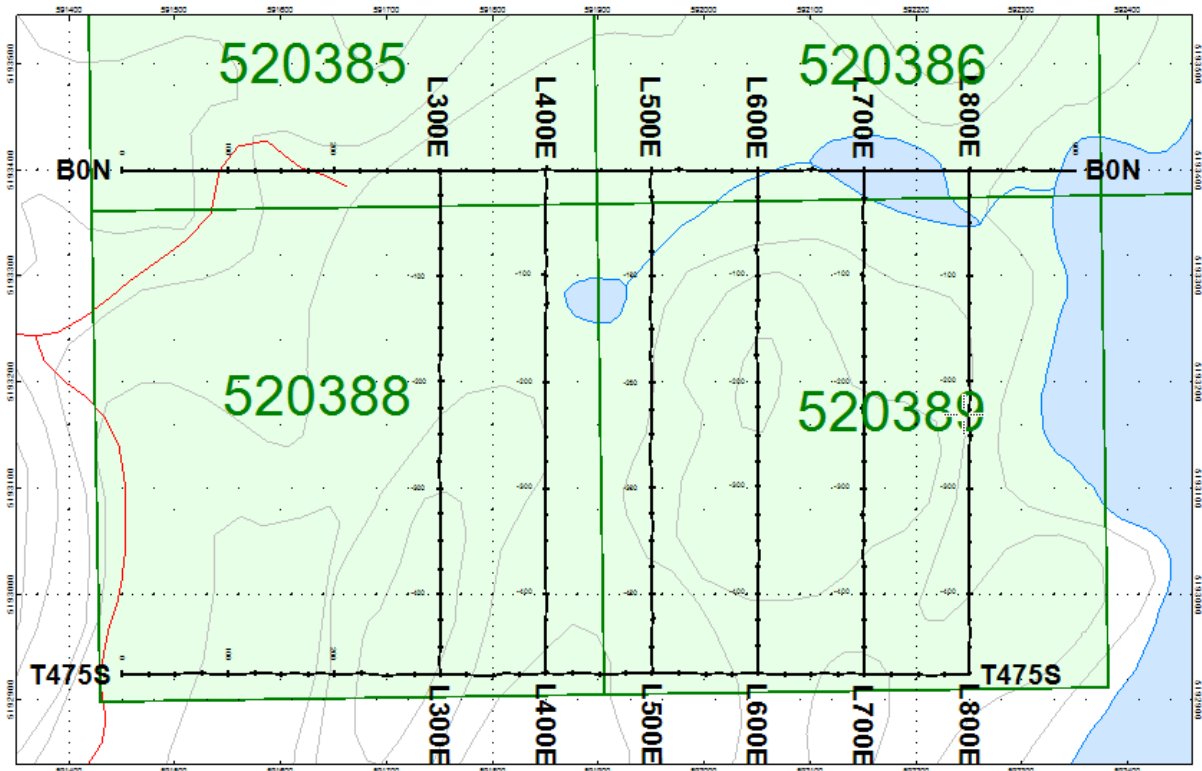


Figure 2: Claim Map with the Law-Olive Property Traverse

2.4 PROPERTY HISTORY

There have been many historical exploration projects carried out over the years all over the survey area. The following list describes details of the previous geoscience work which was collected by the Mines and Minerals division and provided by OGSEarth (MNDM & OGSEarth, 2022).

- **1972: HA Keith. (File 31L13NW0001)**
Geochemical
In 1972 Keith reported assays from a series of trenches.
- **2000: Temex Resources Corp (File 31L13NW2010, 31M04SE2006)**
Airborne
In 1994 Poirier reported mapping some geology along with performing some geochemical sampling and microscopic work.
- **2002: Tres-Or Resources Ltd. (Files 31M03SW2011 and 31M03NW2015)**
Airborne Geophysical, Geochemical
In 2002 Tres-Or flew an airborne magnetometer over a large area. This was followed up with some overburden sampling.

2.5 GENERAL REGIONAL/LOCAL GEOLOGICAL SETTINGS

General Geology:

The underlying geology is a foliated tonalite suite which includes tonalite to granodiorite. This has been covered with a sequence of Huronian Supergroup. These packages have been intruded with a Nipissing Diabase. The final intrusive results in mineralized vein structures.

2.6 TARGET OF INTEREST

Targeting was designed over the MDI showing which indicates the presence of chalcopyrite and bornite. The survey was projected east west of the MDI in hopes of identifying a trend and further targets.

3. SURVEY WORK UNDERTAKEN

3.1 SUMMARY

CXS was contracted to perform a magnetometer survey over a portion of the Law-Olive Property. The crew accessed the site on April 27th, 2022.

A total length of 4.55 kilometres was covered with 372 magnetometer samples taken at a 12.5 meter interval. A magnetic signature is observed with a coincident VLF EM signature associated with the MDI occurrence. This is assumed to represent the occurrence. It is recommended to prospect to locate the MDI and along the strike of the VLF EM signature.

3.2 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 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.

3.3 SURVEY LOG

Date	Description	Line	Min Extent	Max Extent	Total Survey (m)
April 27, 2022	Mobilize, locate survey area and perform magnetometer and VLF EM surveys.	300E	475S	0	475
		400E	475S	0	475
		500E	475S	0	475
		600E	475S	0	475
		700E	475S	0	475
		800E	475S	0	475
		0N	475S	0	900
		475S	475S	0	800

Table 3: Survey Log

3.4 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 Cameron Hansen of Larder Lake, Ontario being responsible for GPS control and waypoint collection.

3.5 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.

2.2 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 4.55 line kilometers of magnetometer was read over the Law-Olive Property on April 27, 2022. This consisted of 372 magnetometer samples taken at a 12.5m sample interval.

3 OVERVIEW OF SURVEY RESULTS

3.1 SUMMARY

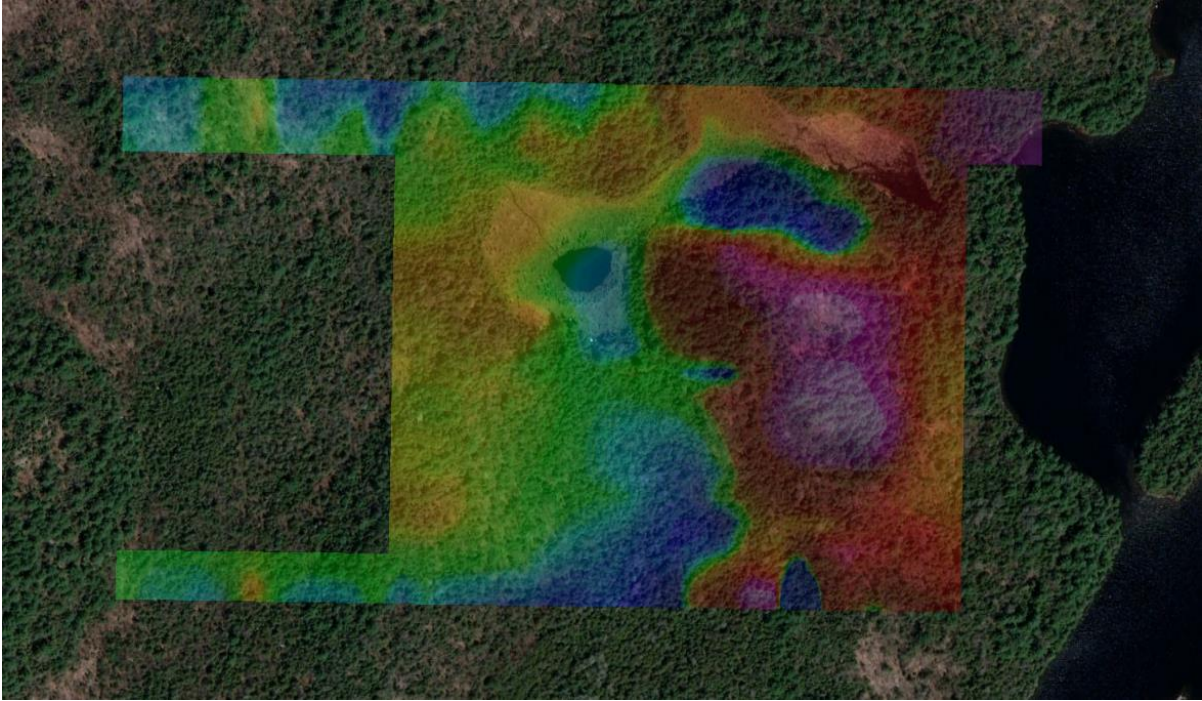


Figure 3: Magnetometer Plan Map on Google Earth

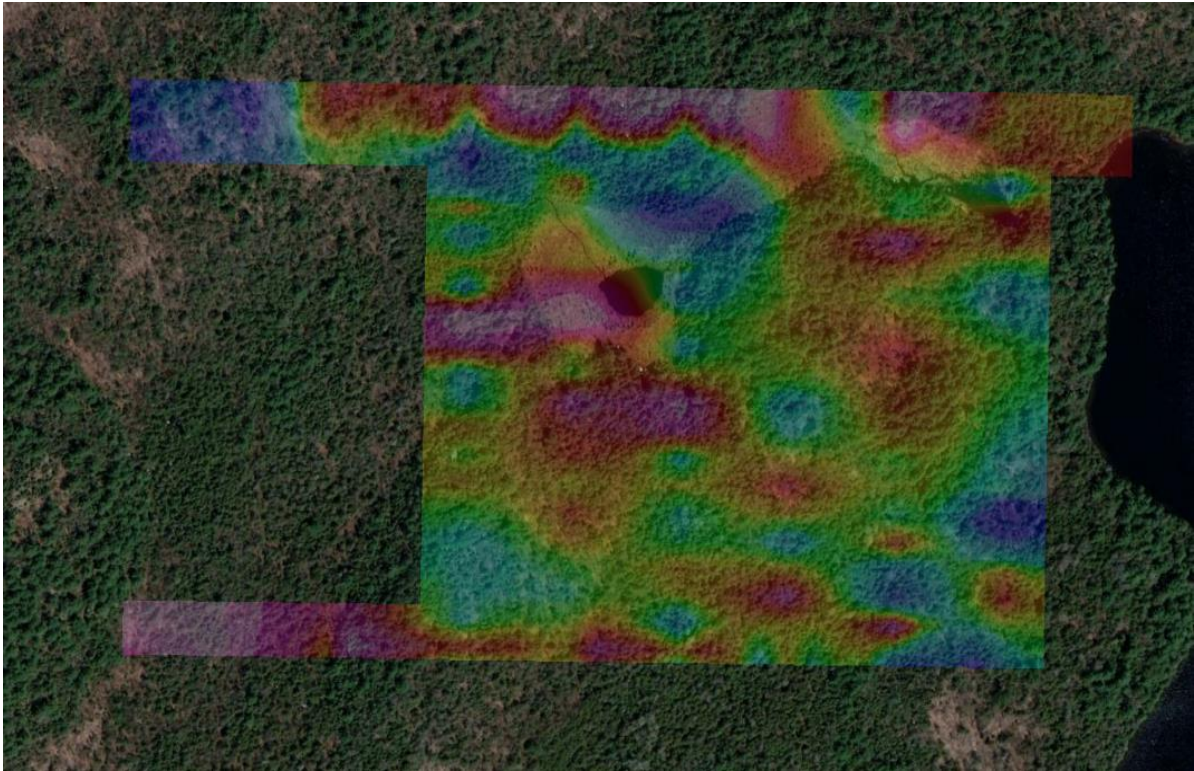


Figure 4: VLF In Phase Map on Google Earth

No culture was noted through the traverse area. There was also no sign of the historical trenches relating to the MDI.

An elevated magnetic region occurs in the central east portion of the survey area. The northern flank of this magnetic region is the location of the MDI. The elevated magnetic signature most likely represents the nipissing diabase intrusive.

Striking at approximately 75 degrees across the survey area appears a VLF signature. This signature is also coincident with the MDI showing. This signature may indicate the strike of the vein systems related to the historic showings.

It is recommended that the area be prospected for the historic showings. These showings should then be stripped and mapped in detail.

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 Practising 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 of **Ashley Gold Mines 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 Ltd.

April 28, 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 spheric) 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 $\pm 200\%$ 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 $\pm 10^\circ$ 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 receiver:	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)
<u>Geocaching-friendly:</u>	yes (paperless)
<u>Custom maps compatible:</u>	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*

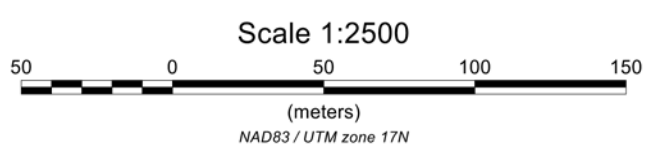
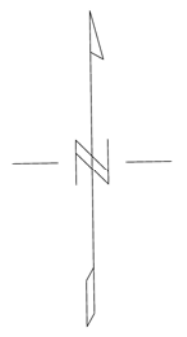
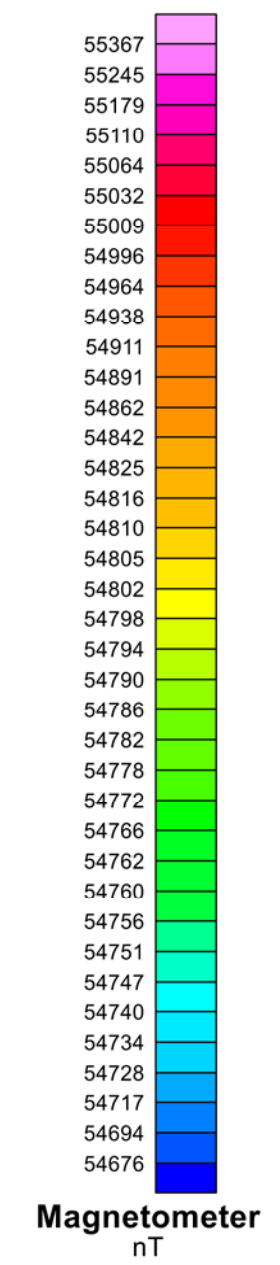
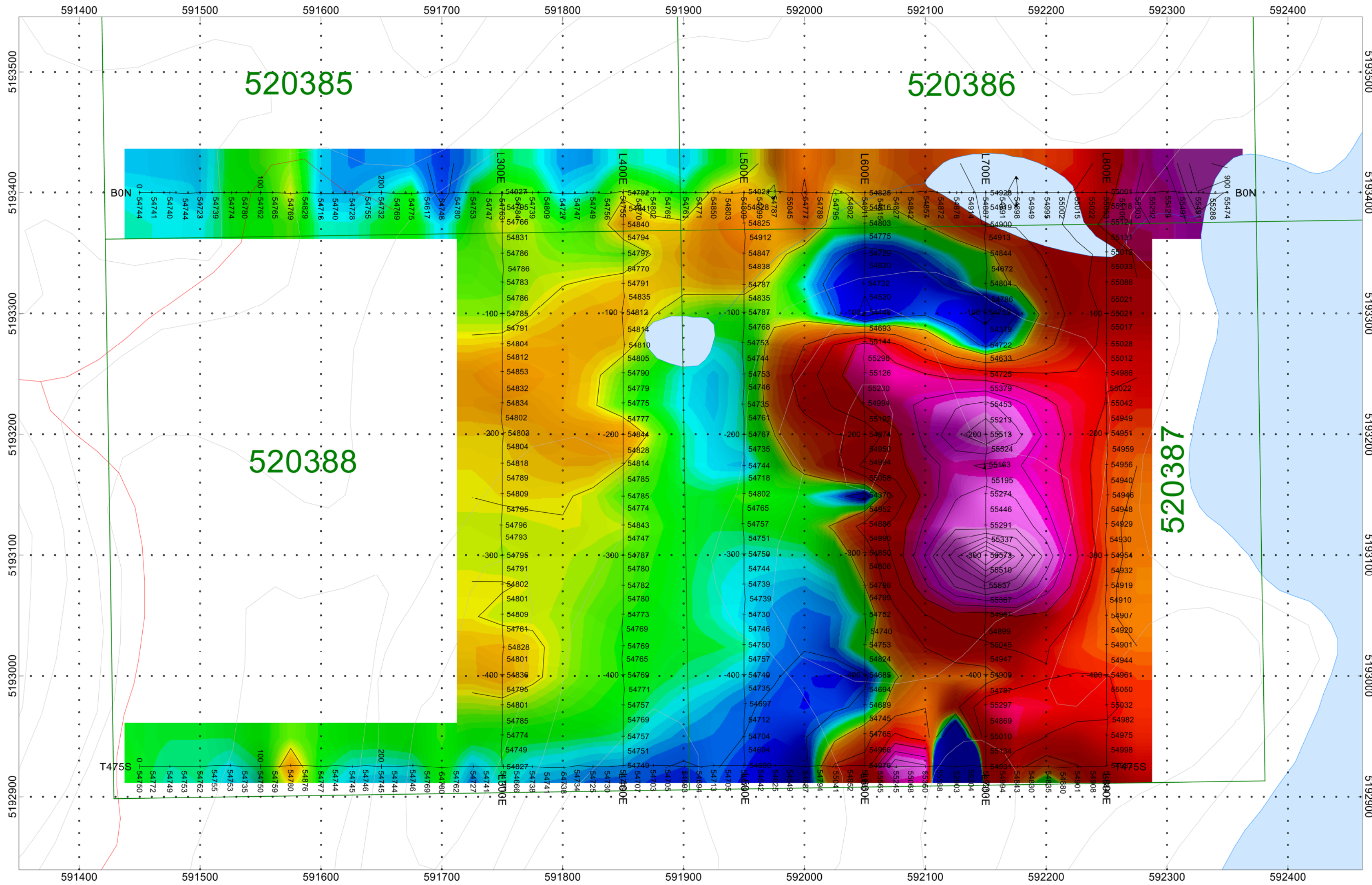
APPENDIX D

LIST OF MAPS (IN MAP POCKET)

Magnetometer Plan Map (1:2500)

- 1) Q3011-Ashley-Law-Mag-Cont
- 2) Q3011- Ashley -VLF-NAA
- 3) Q3011- Ashley -VLF-NML

TOTAL MAPS = 3



LAW-OLIVE PROPERTY
Law and Olive Townships, Ontario

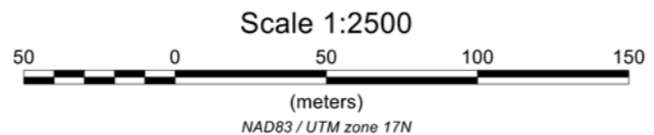
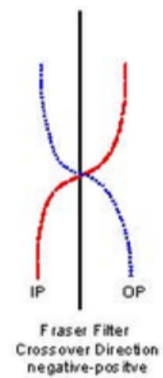
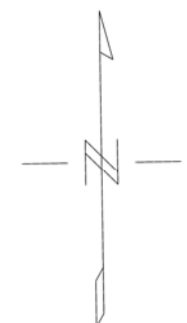
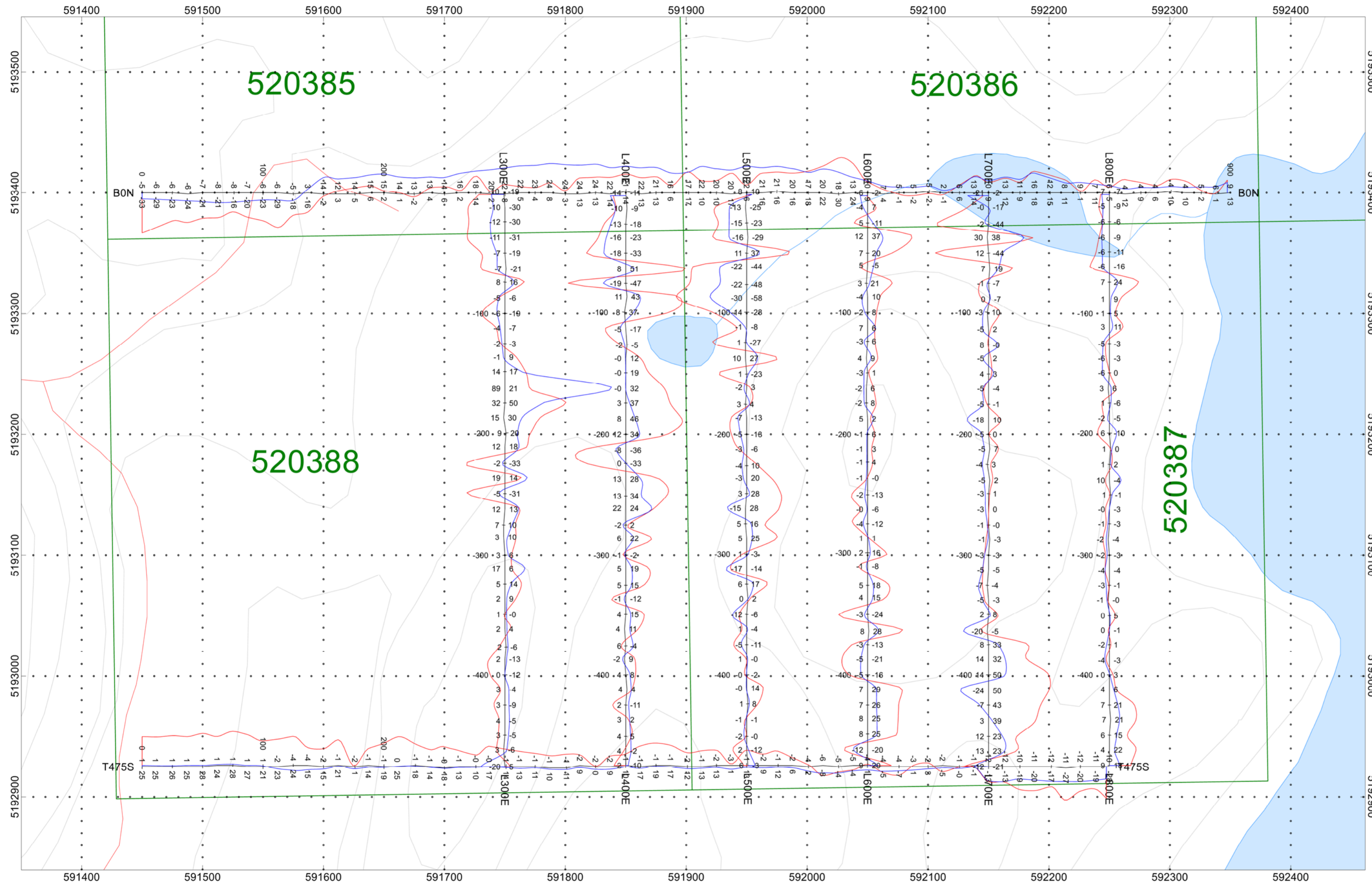
TOTAL FIELD MAGNETIC CONTOURED PLAN MAP
 Base Station Corrected


Posting Level: 0nT
 Field Inclination/Declination: 71.5degN/10.6degW
 Station Separation: 12.5 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
 Cameron Hanson
 Processed by: C Jason Ploeger, P.Geo.
 Map Drawn By: C Jason Ploeger, P.Geo.
 April 2022







LAW-OLIVE PROPERTY
Law and Olive Townships, Ontario

VLF IN PHASE/OUT PHASE PROFILE
24.0kHz NAA - CUTLER USA


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

Vertical Profile Scales: 2.5 %/mm

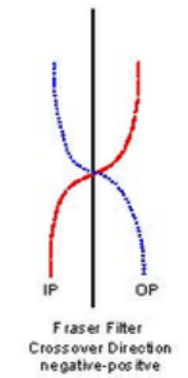
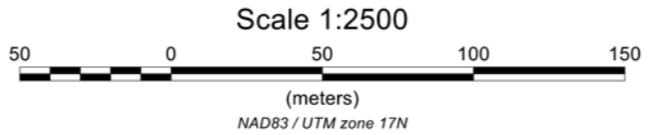
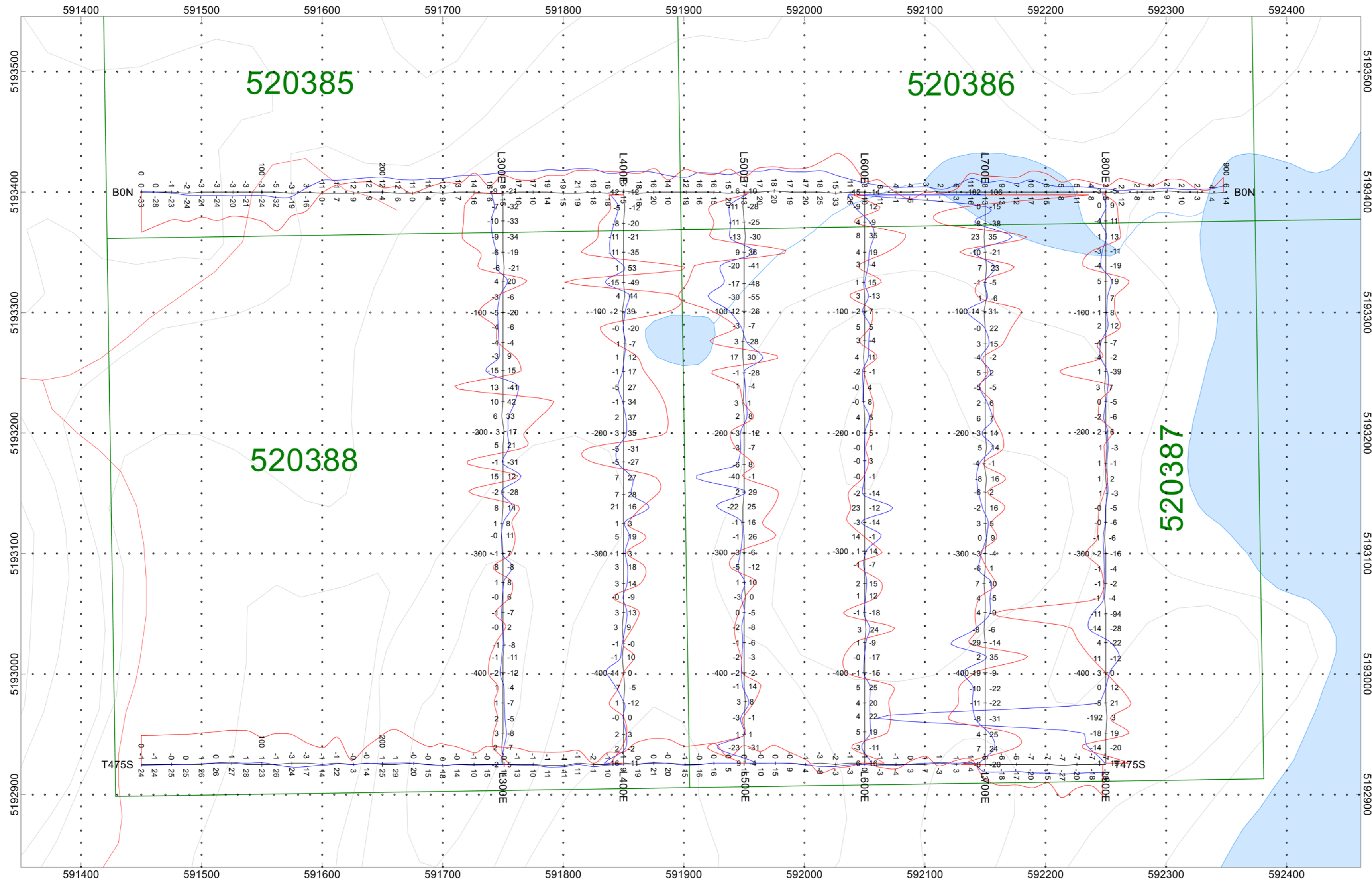
Station Separation: 12.5 meters
Posting Level: 0

GSM-19 VLF v7

Receiver Operated By: Claudia Moraga
and Giancarlo Smith
GPS Operated By: Bruce Lavalley and
Cameron Hanson
Processed by: C Jason Ploeger, P.Geo.
Map Drawn By: C Jason Ploeger, P.Geo.
April 2022



Drawing: Q3011-AGM-LawOlive-VLF-NAA



LAW-OLIVE PROPERTY
Law and Olive Townships, 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: 2.5 %/mm

Station Separation: 12.5 meters
Posting Level: 0

GSM-19 VLF v7

Receiver Operated By: Claudia Moraga
and Giancarlo Smith
GPS Operated By: Bruce Lavalley and
Cameron Hanson
Processed by: C Jason Ploeger, P.Geo.
Map Drawn By: C Jason Ploeger, P.Geo.
April 2022

