



**CANADIAN EXPLORATION SERVICES LTD**

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**ASHLEY**  
GOLD MINES LIMITED

**VLF EM  
Survey  
Over the  
  
POWELL PROPERTY  
Powell Township, Ontario**

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## 1. SURVEY DETAILS

### 1.1 PROJECT NAME

This project is known as the **Powell Property**.

### 1.2 CLIENT

Ashley Gold Mines Limited.

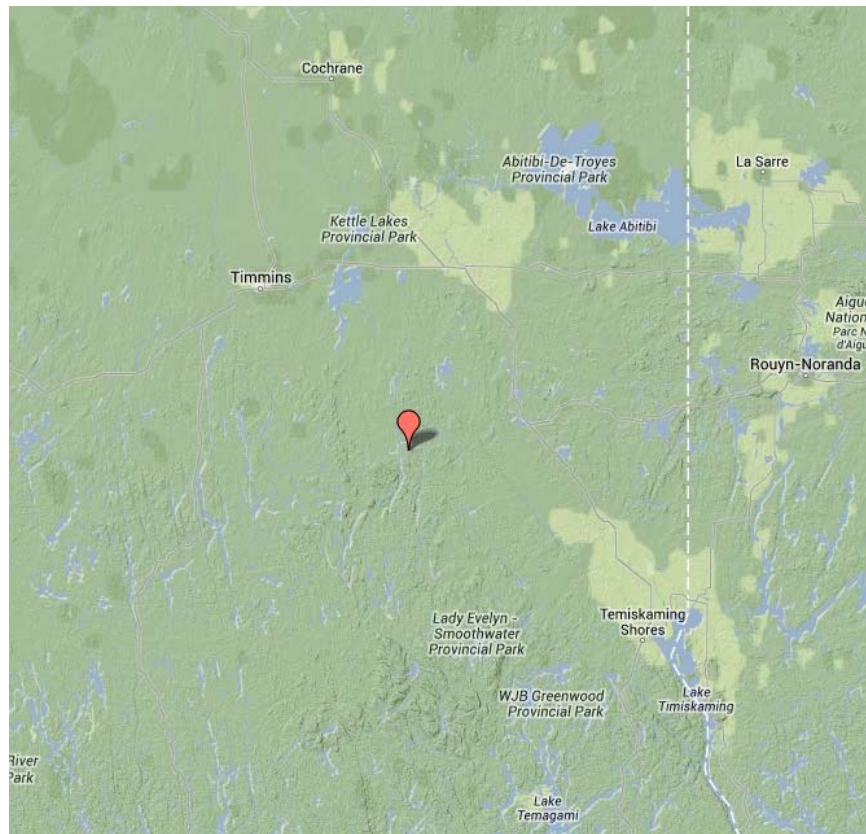
14579 Government Rd.

Larder Lake, Ontario

P0K1L0

### 1.3 LOCATION

The Powell Property is located in Powell Township approximately 7 km northwest of Matachewan, Ontario. The survey area covers a portion of mining claims 4259498 and 4225517 in Powell Township, within the Larder Lake Mining Division.



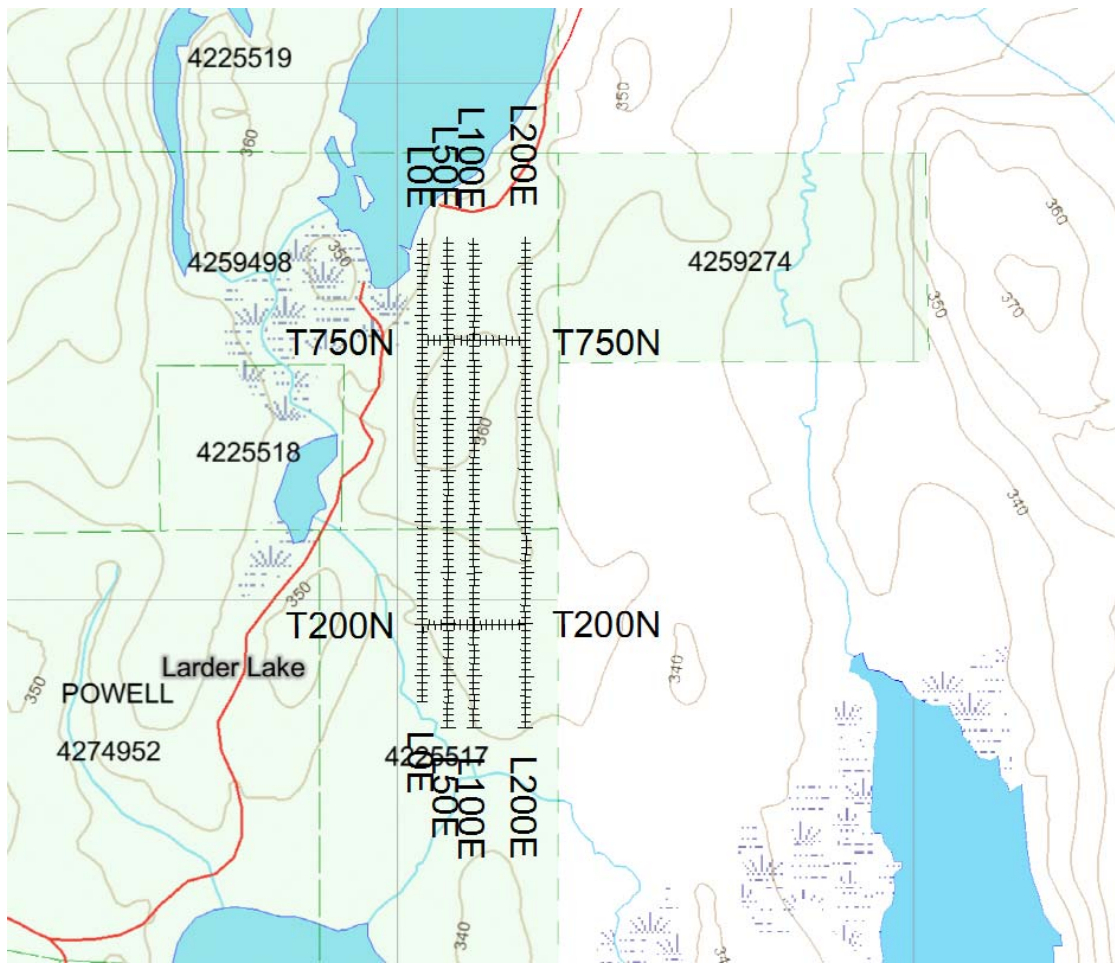
***Figure 1: Location of the Powell Property***

#### 1.4 ACCESS

Access to the property was attained with a 4x4 truck via highway 66 approximately 3km west of Matachewan, continuing by highway 566 approximately 6km north. At this point, an access road heads northwest, where the survey area can be found.

#### 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 VLF EM operator. GPS waypoints and VLF EM samples were taken every 12.5m along these controlled traverses. The GPS used was a Garmin GPS Map 62S.



***Figure 2: Claim Map with Traverse Area***

## 2. SURVEY WORK UNDERTAKEN

### 2.1 SURVEY LOG

Date	Description	Line	Min Extent	Max Extent	Total Survey (m)
September 21, 2014	Locate survey area and conduct survey.	200N	0	200E	200
		750N	0	200E	200
		0	50N	950N	900
		50E	0	950N	950
		100E	0	950N	950
		200E	0	950N	950

**Table 1: Survey Log**

### 2.2 PERSONNEL

Claudia Moraga of Britt, Ontario conducted the VLF EM 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 VLF.

A total of 4.150 line kilometers of no grid VLF EM was performed on September 21<sup>st</sup>, 2014. This consisted of 332 VLF EM samples taken at 12.5m intervals.

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### 3. OVERVIEW OF SURVEY RESULTS

#### 3.1 SUMMARY INTERPRETATION

The VLF EM signature from the survey area is difficult to interpret due to the “noisy” nature of the apparent response. The “noisy” response appears in the north south lines and not the tie lines read. This may indicate this phenomena is related to some conductive regions sub-parallel to the line directions. The region between 500N and 700N on every line appears particularly responsive. This may indicate an area of semi-conductivity or stringers. To verify this, I would recommend re-orienting the survey in east-west direction.

Along the southern region of the survey area on line 0 and 50E can be seen an axis striking at approximately 135 degrees. This axis is difficult to characterize due to the proximity of the edge of the survey area.



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## 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 and securities of **Ashley Gold Mines 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.

Larder Lake, ON  
May 1, 2015

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**APPENDIX B****THEORETICAL BASIS AND SURVEY PROCEDURES****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 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 aeriels 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.

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## 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.

## 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
<u>Geocaching-friendly:</u>	yes (paperless)
<u>Custom maps compatible:</u>	yes
Photo navigation (navigate to geotagged photos):	yes
Outdoor GPS games:	no
Hunt/fish calendar:	yes
Sun and moon information:	yes
Tide tables:	yes
Area calculation:	yes

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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](http://www.garmin.com)*

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## APPENDIX D

### LIST OF MAPS (IN MAP POCKET)

Posted Profiled VLF EM Plan Map (1:2500)

1) ASHLEY-POWELL-VLF-NAA

Grid Sketch on Claim Map (1:20000)

2) ASHLEY-POWELL-GRID

**TOTAL MAPS = 2**



Date / Time of Issue: Thu Sep 25 14:02:16 EDT 2014

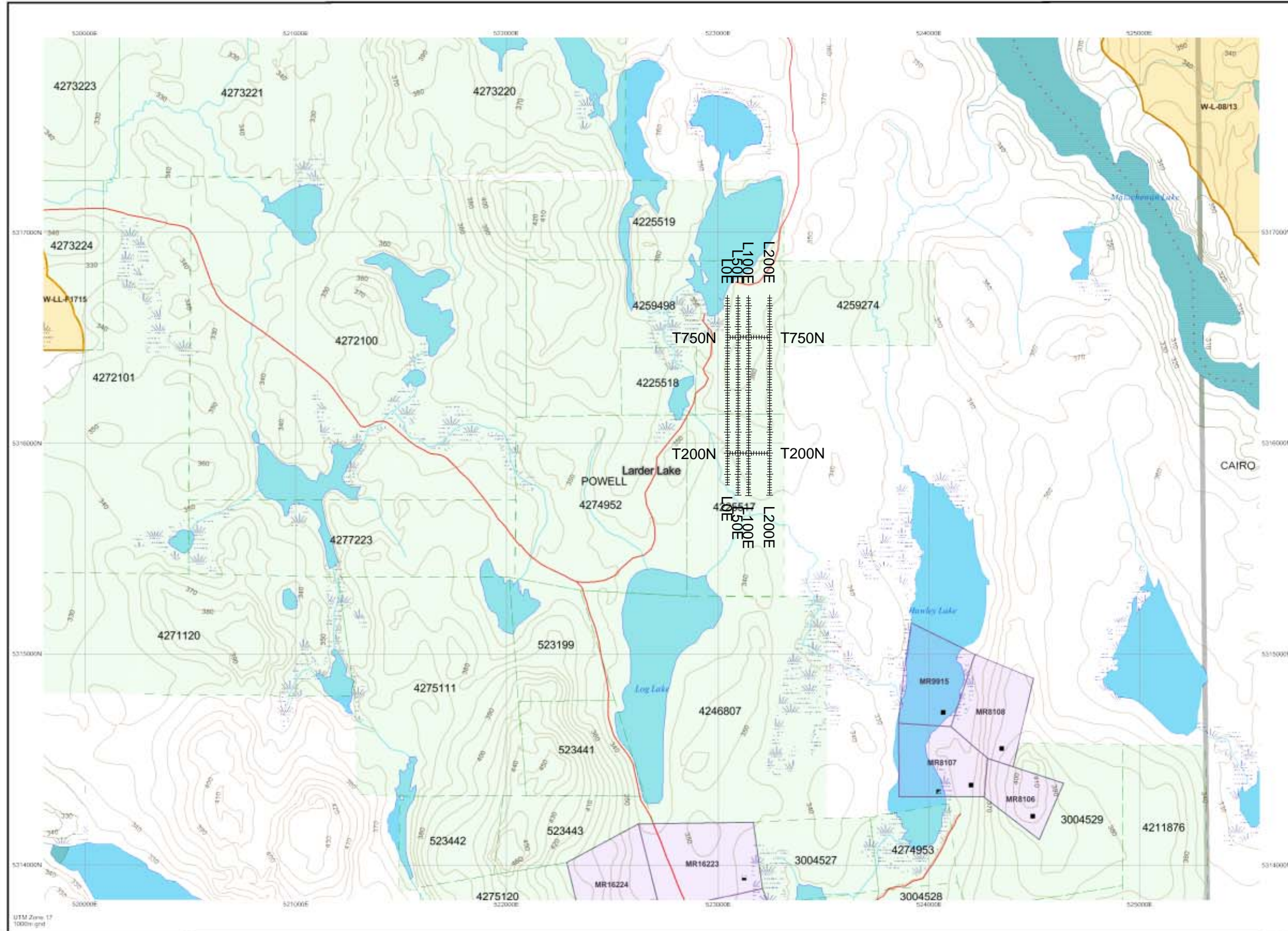
TOWNSHIP / AREA  
POWELL

PLAN  
G-3218

ADMINISTRATIVE DISTRICTS / DIVISIONS

Mining Division  
Land Titles/Registry Division  
Ministry of Natural Resources District

Larder Lake  
TIMISKAMING  
KIRKLAND LAKE



TOPOGRAPHIC

- Administrative Boundaries
- Township
- Concession Lot
- Provincial Park
- Indian Reserve
- CR, Pt & File
- Contour
- Mine Shafts
- Mine Headframe
- Roadway
- Road
- Trail
- Natural Gas Pipeline
- Utilities
- Tower

Land Tenure

- Freehold Patent
  - Surface And Mining Rights
  - Surface Rights Only
  - Mining Rights Only
- Leasehold Patent
  - Surface And Mining Rights
  - Surface Rights Only
  - Mining Rights Only
- License of Occupator
  - Uses Not Specified
  - Surface And Mining Rights
  - Surface Rights Only
  - Mining Rights Only
- Land Use Permit
- Order In Council (Not open for appeal)
- Water Power Lease Agreement



LAND TENURE WITHDRAWALS

- 1234 Areas Withdrawn from Disposition
- Mining Acts Withdrawal Types
  - Surface And Mining Rights Withdrawn
  - Surface Rights Only Withdrawn
  - Mining Rights Only Withdrawn
  - Order In Council Withdrawal Types
  - Surface And Mining Rights Withdrawn
  - Surface Rights Only Withdrawn
  - Mining Rights Only Withdrawn

IMPORTANT NOTICES



LAND TENURE WITHDRAWAL DESCRIPTIONS (list may not be complete)

Identifier	Type	Date	Description
4147	Wsm	Jan 1, 2001	FLOODING ELEVATION: 870 FILE: 12290 VOL 2 L.D. 7601
W-L-08/13	Wsm	Mar 11, 2013	-> href="http://www.mco.mrdm.gov.on.ca/mines/lands/withdrawals/orders/2013w-l-08-13.pdf">W-L-08/13 M&S withdrawal S 35 Mining Act RSO 1999, March 11, 2013. Click to link to withdrawal order=</a>
W-L-48/13	Wsm	Jun 18, 2013	-> href="http://www.mco.mrdm.gov.on.ca/mines/lands/withdrawals/orders/2013w-l-48-13.pdf">W-L-48/13 M+S withdrawal S 35 Mining Act RSO 1999, June 18, 2013. Click to link to withdrawal order=</a>
W-L-F1715	Wsm	Feb 12, 2002	-> href="http://www.mco.mrdm.gov.on.ca/mines/lands/ivieg/boreas/2002orders/wl1715-02_e.html">W-L-F1715-02 OMT M&S withdrawal S 35 Mining Act RSO 1999, 12/02/02 Boundary generally depicts area withdrawn. Click to view actual area withdrawn =</a>
W-L-F1715	Wsm	Feb 12, 2002	-> href="http://www.mco.mrdm.gov.on.ca/mines/lands/ivieg/boreas/2002orders/wl1715-02_e.html">W-L-F1715-02 OMT M&S withdrawal S 35 Mining Act RSO 1999, 12/02/02 Boundary generally depicts area withdrawn. Click to view actual area withdrawn =</a>

Those wishing to stake mining claims should consult with the Provincial Mining Recorders' Office of the Ministry of Northern Development and Mines for additional information on the status of the lands shown hereon. This map is not intended for navigational, survey, or land title determination purposes as the information shown on this map is compiled from various sources. Completeness and accuracy are not guaranteed. Additional information may also be obtained through the local Land Titles or Registry Office, or the Ministry of Natural Resources.

The information shown is derived from digital data available in the Provincial Mining Recorders' Office at the time of downloading from the Ministry of Northern Development and Mines web site.

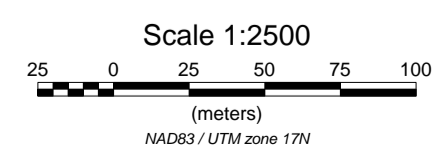
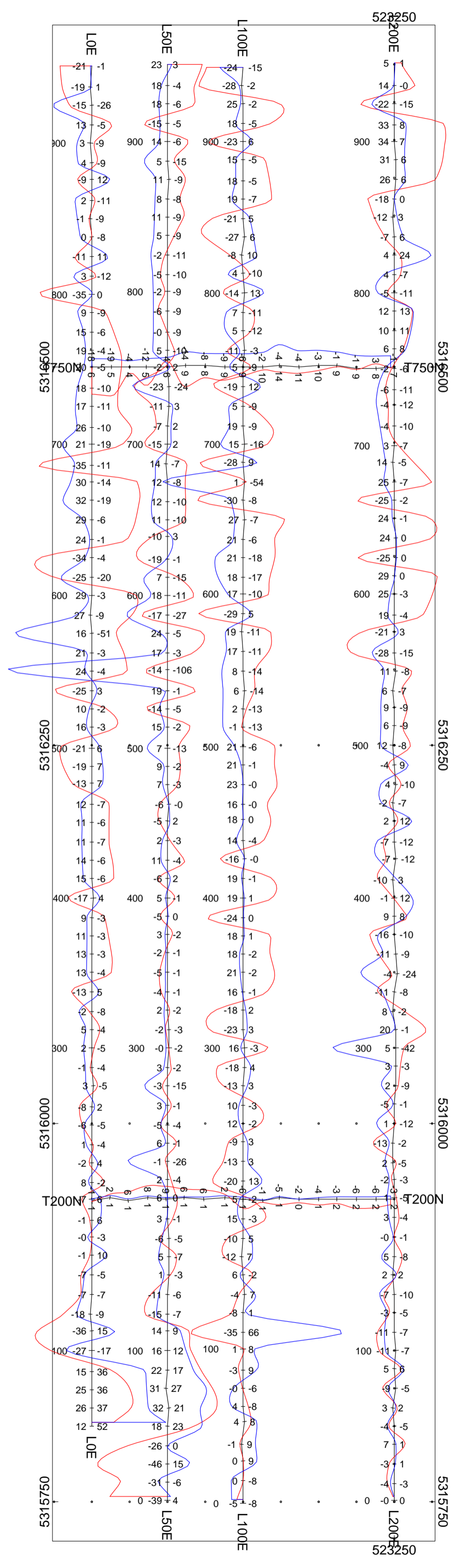
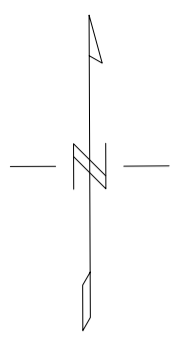
General Information and Limitations

Contact Information:  
Provincial Mining Recorders' Office  
Willet Green Millar Centre 933 Ramsey Lake Road  
Sudbury ON P3E 6B5  
Home Page: [www.mrdm.gov.on.ca/MNDM/MINES/LANDS/indexpage.htm](http://www.mrdm.gov.on.ca/MNDM/MINES/LANDS/indexpage.htm)

Toll Free  
Tel: 1 (888) 415-8645 ext 574  
Fax: 1 (877) 670-1444

Map Datum: NAD 83  
Projection: UTM 18 N  
Topographic Data Source: Land Information Ontario  
Mining Land Tenure Source: Provincial Mining Recorders' Office  
This map may not show unregistered land tenure and interests in land including certain patents, leases, easements, right of ways, flooding rights, licences, or other forms of disposition of rights and interest from the Crown. Also certain land tenure and land uses that restrict or prohibit free entry to stake mining claims may not be illustrated.





**POWELL PROPERTY**  
**Powell Township, 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: 2.5%/mm  
Contour Interval: 0, 5, 10, 15, 20, 25, 50, 100

Station Separation: 25 meters  
Posting Level: 0

GSM-19 OVERHAUSER MAGNETOMETER/VLF v7

Receiver Operated By: Bruce Lavalley  
GPS Operated By: Claudia Moraga  
Processed by: C Jason Ploeger, P.Geo.  
Map Drawn By: C Jason Ploeger, P.Geo.  
May 2015

