

PO Box 219, 14579 Government Road, Larder Lake, Ontario, POK 1L0, Canada Phone (705) 643-2345 Fax (705) 643-2191 www.cxsltd.com



VLF EM Survey Over the

McGARRY PROPERTY McGarry Township, Ontario





TABLE OF CONTENTS

1.		SURVEY DETAILS	3
	1.1	PROJECT NAME	3
	1.2	CLIENT	3
	1.3	LOCATION	3
	1.4	Access	4
	1.5	SURVEY GRID	4
2.		SURVEY WORK UNDERTAKEN	5
2.	2.1	SURVEY WORK UNDERTAKEN	
2.	2.1 2.2		5
2.		Survey Log	5 5
2. 3.	2.2	SURVEY LOG PERSONNEL	5 5 5

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 McGarry Property	3
Figure 2: Claim Map with Traverse Area	4
Table 1: Survey Log	5





1. SURVEY DETAILS

1.1 PROJECT NAME

This project is known as the McGarry Property.

1.2 CLIENT

Ashley Gold Mines Limited.

14579 Government Rd. Larder Lake, Ontario P0K1L0

1.3 LOCATION

The McGarry Property is located in McGarry Township approximately 5 km northeast of Virginiatown, Ontario. The survey area covers mining claim 4240325 within the Larder Lake Mining Division.

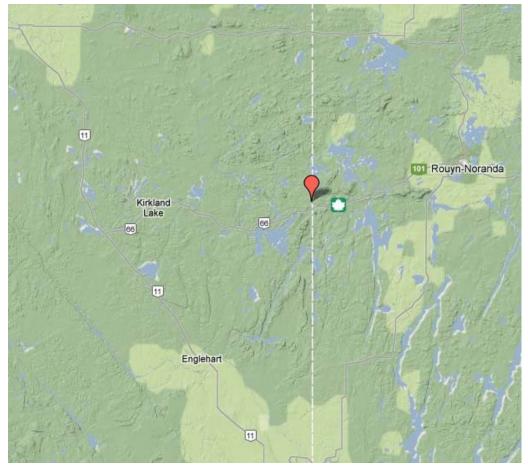


Figure 1: Location of the McGarry Property





1.4 ACCESS

Access to the property was attained with a 4x4 truck and ATV via the Cheminis Road which heads north of highway 66, approximately 0.5 kilometers east of Kearns, Ontario. The Cheminis Road was travelled for approximately 3.5 kilometers where the mining claim 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.

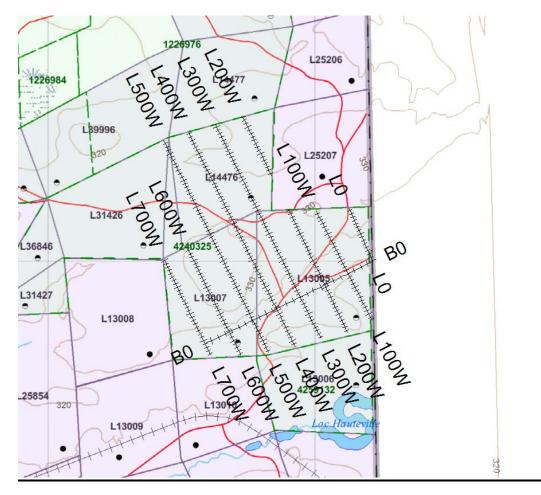


Figure 2: Claim Map with Traverse Area





2. SURVEY WORK UNDERTAKEN

2.1 SURVEY LOG

Date	Description	Line	Min Extent	Max Extent	Total Survey
					(m)
May 8, 2014	Locate survey area and con-				
	duct survey.	0	0	225N	225
		100W	200S	262.5N	462.5
		200W	212.5S	700N	912.5
		300W	175S	725N	900
		400W	162.5S	737.5N	900
		500W	137.5S	750N	887.5
		600W	100S	350N	450
		700W	50S	350N	400
		BLON	700S	0	700

Table 1: Survey Log

2.2 PERSONNEL

Jason Ploeger of Larder Lake, 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 magnetometer/VLF with a second GSM-19 magnetometer for a base station mode for diurnal correction.

A total of 5.8375 line kilometers of no grid VLF EM was performed on May 8th, 2014. This consisted of 707 VLF EM samples taken at 12.5m intervals.





3. OVERVIEW OF SURVEY RESULTS

3.1 SUMMARY INTERPRETATION

Only one VLF EM crossover is noted on the survey area. This occurs at line 700W and 300N. This is a single line crossover on the edge of the survey area so it is difficult to characterize.





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 **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 March 12, 2015





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 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 $\pm 200\%$ 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 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 recom- mended			
Battery life:	20 hours			
Waterproof:	yes (IPX7)			
Floats:	no			
High-sensitivity re- ceiver:	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/loc	ations:	2000
Routes:		200
Track log:		10,000 points, 200 saved tracks
Features & Benefits:		
Automatic routing (turn	by turn routing	yes (with optional mapping for detailed
on roads):		roads)
Electronic compass:		yes (tilt-compensated, 3-axis)
Touchscreen:		no
Barometric altimeter:		yes
Camera:		no
Geocaching-friendly:		yes (paperless)
Custom maps compatit	<u>ole</u> :	yes
Photo navigation (navigate to ge- otagged photos):		Vec
		yes
Outdoor GPS games:		no
Hunt/fish calendar:		yes
Sun and moon information	tion:	yes
Tide tables:		yes
		1



VLF EM Survey McGarry Property McGarry Township, Ontario



Area calculation:	yes
Custom POIs (ability to add additional points of interest):	yes
Unit-to-unit transfer (shares data wire- lessly with similar units):	yes
Picture viewer:	yes
Garmin Connect [™] compatible (online community where you analyze, catego- rize and share data):	yes





SPECIFICATIONS OBTAINED APPENDIX D

LIST OF MAPS (IN MAP POCKET)

Posted Contoured TFM Plan Map (1:2500)

1) ASHLEY-McGARRY-VLF-NAA

Grid Sketch on Claim Map (1:20000)

2) ASHLEY-McGARRY-GRID

TOTAL MAPS = 2

