We are committed to providing <u>accessible customer service</u>. If you need accessible formats or communications supports, please <u>contact us</u>.

Nous tenons à améliorer <u>l'accessibilité des services à la clientèle</u>. Si vous avez besoin de formats accessibles ou d'aide à la communication, veuillez <u>nous contacter</u>.



32DO4

REPORT ON GROUND MAGNETOMETER AND ELECTROMAGNETIC VLF SURVEYS MONOCLE LAKE PROPERTY MCVITTIE TWP., LARDER LAKE AREA, ONTARIO

DRC EXPLORATIONS

November 15, 2015 By: R.J. Dillman/ Jim Chard

SUMMARY

This report summarizes the results of a ground magnetometer survey and a Very Low Frequency (VLF) Electromagnetic (EM) survey over the east half of the Monocle Lake Property located in McVittie Township in the Larder Lake District of northeastern Ontario.

The survey was completed in 2 days between September 11, 2015 and September 12, 2015. A total of 4.425 kilometres were surveyed.

The magnetometer outlined two areas of strong and weak magnetic responses. One magnetic area is underlain by Timiskaming metasedimentary rocks and displays the strongest gradients recorded in the area surveyed. The second magnetic area occurs over mafic metavolcanic rocks.

The VLF-EM survey detected three conductors which could be traced across multiple lines and four separate single station anomalies within the survey area. The conductors strike east-west and northeast-southwest. One conductor occurs over a shear zone located in the southwest section of the survey.

INDEX

	page
Summary	1
Location, Access	3
Claim Ownership and Logistics	3
Land Status and Topography	3
Geology	6
History of Exploration and Mineralization	8
Survey Dates and Personnel	9
Survey Logistics	9
Survey Results and Interpretation	10
Conclusions and Recommendations	13
References	14
Certificate of Author	15
FIGURES	
Figure 1. PROPERTY LOCATION MAP	4
Figure 2. CLAIM MAP	5
Figure 3. GEOLOGY MAP	7
APPENDIX	
UTM Coordinates for Survey Lines	16
Magnetometer Instrument Specifications	17
VLF Instrument Specifications	19
MAPS	
Magnetometer: Readings scale 1: 2,500	
Magnetometer: Contoured Data scale 1: 2,500	
VLF: Readings scale 1: 2,500	
VLF: Profiled Data scale 1: 2,500	
Magnetometer + VLF Compilation Map scale 1: 2,500	

Magnetometer: Contoured Gradient Data + VLF Conductors scale 1: 2,500

LOCATION AND ACCESS

The Monocline Lake Property is located in McVittie Township in the Larder Lake Mining Division in northeast Ontario (Figure 1).

The property is situated 6.5 kilometres northeast of the town of Larder Lake located on provincial highway 66(Figure 2). From Larder Lake, the property can be reached by travelling east on Highway 66 for a distance of 1.2 km to the intersection of the Larder Station Road. Monocle Lake and the northwest corner of the property are situated east just of the Larder Station Road 4 kilometres north of the intersection with Highway 66. A short distance north of Monocle Lake is the intersection of an access road to Beaver Lake. This road has no name and crosses the northeast section of the Monocle Lake Property 150 metres from the intersection with the Larder Station Road.

CLAIM OWNERSHIP AND LOGISITICS

The Monocle Lake Property consists of one non-patented claim number 4272988. The property covers an approximate area of 64 hectares.

Claim 4272988 is recorded in the name of the author, Robert Dillman of Mount Brydges, Ontario. Title to claim is equally held by the author, Robert Dillman, James Chard of Cordova Mines, Ontario and Jim Renaud of London, Ontario.

The claim comprising the Monocle Lake Property was recorded on November 18, 2013. The property requires annual exploration expenditures of \$1,600 to maintain Active Status. Work reports are due November 18, 2015.



Figure 1. Property Location Map Monocle Lake Property Larder Lake Region, Ontario DRC Explorations



Figure 2. Claim Map: G-3161 Monocle Lake Property Larder Lake Area, Ontario DRC Explorations

LAND STATUS AND TOPOGRAPHY

The Monocle Lake Property is situated on Crown Land. The property is uninhabited. There are no building structures and no hydroelectricity on the property.

Most of the west half of the property is covered by Monocle Lake. The east half is forested. Trees consist mostly of spruce and balsam. Some sections have been logged and reforested in the last decade with spruce.

The property is at a mean elevation of 300 metres above sea. The east half is characterized by east-west orientated outcrop ridges and knobs ranging 20 to 30 metres high. The southeast section is flat and poorly drained. The central section of the area covered by the surveys is bisected by a small creek which drains into Monocle Lake. The creek originates in a low area close to east side of the property.

Outcrop exposure is generally good over most sections of the survey area. Best exposures occur along the ridge in the north section of the property and close to Monocle Lake. The frequency of outcrops is much less in the south section of the property especially in the southeast corner.

GEOLOGY

The Monocle Lake Property is situated in the Larder Lake area of the Abitibi Greenstone Belt. The Abitibi Greenstone Belt consists of a variety of Precambrian metavolcanic and metasedimentary rocks extending from Timmins, Ontario to the Val D'Or region of Quebec.

The geology of the Monocline Lake Property is depicted in Figure 3. The property is underlain by pillowed to massive Mg-rich and Fe-rich metabasalts of the Kinojevis Assemblage dated approximately 2700 Ma. In the northeast section of the property, the



Gowganda Formation 16b arenite, arkose, conglomerate 16c siltstone unconformity ARCHEAN 13a porphyritic intrusions Timiskaming Assemblage 12c sandstone 12d conglomerate 11b volcaniclastic pyroclastic rocks 10b conglomerate unconformity 7b Gabbro Blake River Assemblage 4a pillowed volcanic rocks 4b intermediate

volcanic rocks

Ássemblage 3c Fe-rich basalt 3e Mg-rich basalt source: OGS Map 2628

Kinojevis

18 clay

PROTEROZOIC

Figure 3. GEOLOGY MAP LARDER LAKE REGION, ONTARIO

Kinojevis units are overlain by metaconglomerates of the Timiskaming Assemblage dated approximately 2675 to 2685 Ma. An unconformity exists between the two assemblages. The sequence has been intruded by gabbro, porphyry, granite and syenite.

Rock units on the property generally trend east-west and slightly to the southwest-northeast. Units dip vertically to moderately south and southeast.

The property sits approximately 3.5 kilometres north of the Larder Lake section of the Larder Lake- Cadillac Shear Zone. Faults believed to be associated with the structure have been observed on the property. Fault zones contain carbonate alteration and sulphides.

HISTORY OF EXPLORATION AND MINERALIZATION

Work in the vicinity of the Monocle Lake property dates back to the early 30's at which time several companies were active in the area. Early records described as "folk lore" suggest Burbank-Ramore, Proprietary and Kirkland-McVittie Mines were exploring the region around Monocle Lake and Beaver Lake. Values of 0.22 oz/ton gold over 3 feet and 0.30 oz/ton gold over 4 feet were reported from a drill program.

In 1980, the area was explored by Edomar Resources Inc. Edomar completed ground magnetometer and VLF surveys, geological mapping, overburden stripping and rock sampling. An assay result of 0.21 oz/ton gold was reported from a rock sample.

In 1985, Edomar drilled 2,420 feet with 6 holes. No significant results were reported.

In 2008, Ashley Gold Mines Limited prospected in the area covered by the current property. No significant assays were reported.

In 2009, Ashley Gold Mines Limited completed ground magnetometer and VLF surveys over the area covered by the current property. No follow-up work was reported and their claim was allowed to lapse.

SURVEY DATES AND PERSONNEL

The magnetometer and VLF surveys by DRC Explorations were completed in two days between September 11, 2015 and September 12, 2015.

The magnetometer instrument was operated by the author of this report, Robert J. Dillman of Mount Brydges, Ontario. The VLF instrument was operated by James M. Chard of Gem Shard Prospecting of Cordova Mines, Ontario.

SURVEY LOGISTICS

The geophysical surveys were completed on a GPS controlled grid using NAD83, Zone 17. A Garmin GPS unit model GPSmap 60CSx was used for the survey. The GPS coordinates for the survey lines are appended with this report.

The survey was completed on lines orientated due north-south on a declination of 12⁰ W. Survey lines are spaced approximately 100 metres apart. Six lines were surveyed. A total distance of 4.425 kilometres was surveyed.

A Geonic's Limited VLF EM-16 instrument was used for the electromagnetic survey. The specifications for the VLF instrument are appended to this report. The station used for the VLF survey is located in Seattle, Washington, U.S.A. and transmits

at a frequency of 24.8 kHz. During the survey, the VLF readings were recorded at 25 metre intervals along the survey lines. For each reading, the VLF instrument was orientated $N.10^{0}$ E. The results of the VLF survey are plotted at a scale of 1:2,500 on maps accompanying this report.

A Gem Systems Limited model GMS-19T magnetometer/gradiometer was used for the magnetometer survey. Instrument specifications for the magnetometer are also appended to this report. Measurements for the total magnetic field were recorded at 12.5 metre intervals along the survey lines. The measurements were corrected for magnetic diurnal variations by periodically monitoring a base station averaging 56,561nT. The base station is located at 599878mE, 5334115mN and is on the access road crossing the property.

SURVEY RESULTS AND INTREPRETATION

The magnetometer survey outlined two areas of strong magnetics. The first area corresponds with the topographic ridge in the north section of the property. Geology indicates this area is underlain by conglomerates of the Timiskaming Assemblage. Strong magnetic gradients exceeding 2,000nT were encountered between stations in this area. Magnetic readings varied considerably between stations especially in the northeast section of the survey. Overall, the magnetic responses in the north section of the property trend northwest however, the magnetic trend appears to be truncated by a northeast-southwest orientated fault structure appearing to emerge from Monocle Lake. Conductor A is coincident with this structure.

The second area of high magnetics corresponds to an area of mafic metavolcanic rocks situated in the southwest section of the survey. Shearing and carbonate alteration were noted in outcrops in this area and there is evidence of historical workings in the area. The VLF survey outlined seven conductive features. Three conductors (A, B & C) cross multiple lines and are believed to be caused by faults. Four separate conductors occur as single station anomalies. The single station conductors are potentially caused by sulphide mineralization.

Conductor A strikes east-west and northeast to southwest for a distance of 400 metres across the north section of the survey. The conductor follows the north side of the magnetic area underlain by Timiskaming metasediments. The conductor is possibly a fault truncating the magnetic anomaly and metasedimentary unit.

Conductor B is the strongest VLF response on the property. The conductor has been traced over 400 metres and is coincident with a creek crossing the central section of the survey. Although the creek maybe the cause of the conductor, the creek and the conductor follow the south margin of the high magnetics detected over the Timiskaming metasediments. Conductor B in part, could be a fault or represents the unconformity between the Timiskaming metasediments and the older, underlying mafic metavolcanic rocks.

Conductor C strikes east-west for a distance of 100 metres in the southwest corner of the survey. The conductor occurs in mafic metavolcanic rocks between several small areas of high magnetic responses. During the survey, the conductor was found to occur over several old trenches exposing an east-west striking shear zone. Bedrock exposed in the trenches is strongly carbonated but low in sulphide content. Assays for rock samples collected from the trenches at the time did not indicate the presence of gold.

Single station conductors located on line 1W at 6+12N and on line 3W at 1+50N coincide directly with areas of low and high magnetics respectively. The conductors are believed to be caused by sulphide mineralization such as pyrrhotite. The isolated conductor on line 3W is on strike with Conductor C and possibly is associated with shearing in the area. 12

CONCLUSIONS AND RECOMMENDATIONS

The ground magnetometer and VLF surveys outlined magnetic areas representing rock units, faults and areas of potential sulphide mineralization. The abundance of outcrop on the property warrants prospecting and geological mapping in an effort to locate areas containing gold mineralization.

Respectfully Submitted,

RASIM

Robert Dillman B.Sc., P.Geo. November 15, 2015

REFERENCES

- **Crandle, M. J. 1982.** Geology of The Tyranda Claim Group, Edomar Property. McVittie and McGarry Townships Larder Lake Mining Division, Ontario; *for:* Edomar Resources Inc. Assessment file 32D04NE0086.
- McBride, D. 1985. The Diamond Drill Report; *for:* Edomar Resources Inc. Assessment file 32D04NE0082.
- Morin, L. A. 2009. Prospecting Survey Monocle Lake Property; McVittie Township, Ontario; for: Ashley Gold Mines Limited. Assessment file 20006351.
- Ontario Geological Survey, 1985. Precambrain Geology of the Larger Lake Area, OGS Map 2628. Scale 1:50,000.
- Ploeger, J. C. 2009. Magnetometer and VLF EM Survey Over the Monocle Lake Property, McVittie Township, Ontario; *for:* Ashley Gold Mines Limited. Assessment file 20006049.

Robert J. Dillman P.Geo, B.Sc. ARJADEE PROSPECTING 8901 Reily Drive, Mount Brydges, Ontario, Canada, N0L1W0 Phone/ fax (519) 264-9278

CERIFICATE of AUTHOR

I, Robert J. Dillman, Professional Geologist, do certify that:

1. I am the **President** and the holder of a **Certificate of Authorization** for:

ARJADEE PROSPECTING 8901 Reily Drive Mount Brydges, Ontario, Canada N0L1W0

- 2. In 1991, I graduated from the **University of Western Ontario** and received a **Bachelor of Science Degree** in **Geology.**
- 3. I am an active member of:

Association of Professional Geoscientists of Ontario, APGO Prospectors and Developers Association of Canada, PDAC Geological Association of Canada, GAC

- 4. I have been a **licensed Prospector in Ontario** since 1985.
- 5. I have worked continuously as a **Professional Geologist** for 24 years.
- 6. Unless stated otherwise, **I am responsible** for the preparation of all sections of the Assessment Report titled:

Report on Ground Magnetometer & VLF Electromagnetic Surveys Monocle Lake Property Larder Lake Area, McVittie Township, Ontario

dated, November 15, 2015

7. I am not aware of any material fact or material change with respect to the subject matter of the Assessment Report that is not contained in the Assessment Report and its omission to disclose makes the Assessment Report misleading.

Dated this 15th day of November, 2015

P.Geo

Robert James Dillman Arjadee Prospecting



Appendix I. GPS Coordinates for Survey Lines Monocle Lake Property

Line 1.

600204mE, 5333432mN to 600184mE, 5334191mN

Line 2.

600104mE, 5333434mN to 600084mE, 5334174mN

Line 3.

599993mE, 5333393mN to 599982mE, 5334158mN

Line 4.

599892mE, 5333390mN to 599877mE, 5334155mN

Line 5.

599791mE, 5333414mN to 599879mE, 5334151mN

Line 6.

599688mE, 5333431mN to 599685mE, 5334158

127 GSM19T Series Magnetometers - Version 7

APPENDIX F: GSM-19T MAG / GRAD SPECIFICATIONS

Sensitivity	0.15 nT @ 1Hz / 0.05 nT @ 41Iz
Resolution:	0.01nT (gamma), magnetic field and gradient.
Accuracy:	+/- 0.2 nT @ 1 Hz
Range:	20,000 to 120,000nT.
Gradient Tolerance:	Over 7,000nT/m
Operating Interval:	3 seconds minimum, faster optional. Readings initiated from keyboard,
	external trigger, or carriage return via RS-232C.
Input / Output:	6 pin weatherproof connector, RS-232C, and (optional) analog output.
Power Requirements:	12V, 200mA peak (during polarization), 30mA standby. 300mA peak in gradiometer mode.
Power Source:	Internal 12V, 2.6Ah sealed lead-acid battery standard, others optional.
	An External 12V power source can also be used.
Battery Charger:	Input: 110 VAC, 60Hz. Optional 110 / 220 VAC, 50 / 60Hz.
	Output: dual level charging.
Operating Ranges:	Temperature: - 40°C to +50°C.
	Battery Voltage: 10.0V minimum to 15V maximum.
	Humidity: up to 90% relative, non condensing.
Storage Temperature:	-50°C to +50°C.
Display:	LCD: 240 X 64 pixels, OR 8 X 30 characters. Built in heater for operation
	below -20°C.
Dimensions:	Console: 223 x 69 x 240mm.
	Sensor Staff: 4 x 450mm sections.
	Sensor: 170 x 71mm dia.
	Weight: console 2.1kg, sensor and staff assembly 2.2 kg.
VLF	
Frequency Range:	15 - 30.0 kHz
Parameters measured:	2 relative components of horizontal field. Absolute amplitude of total field.
Resolution:	0.1%.
Number of Stations:	Up to 3 at a time.
Storage:	Automatic with: time, coordinates, magnetic field / gradient, slope, EM field, frequency, in- and out-of-phase vertical, and both horizontal components for
	each selected station.
Terrain Slope Range:	$0^{\prime\prime} - 90^{\prime\prime}$ (entered manually).
Sensor Dimensions: Sensor Weight:	140 x 150 x 90 mm. (5.5 x 6 x 5 menes).
Demost in engine	the set of the second

GEM Systems, Inc. Advanced Magnetometers For more technical information, visit www.gemsys.ca





GSM 19T Magnetometer

Page 1 EM16 SPECIFICATIONS Inphase and quad-phase components of vertical magnetic field as a MEASURED QUANTITY percentage of horizontal primary field. (i.e. tangent of the tilt angle and ellipticity). SENSITIVITY Inphase: ±150% Quad-phase: ± 40% RESOLUTION ±1% OUTPUT Nulling by audio tone. Inphase in-dication from mechanical inclinometer and quad-phase from a graduated dial. OPERATING FREQUENCY 15-25 kHz VLF Radio Band. Station selection done by means of plug-in units. OPERATOR CONTROLS ON/OFF switch, battery test push button, station selector switch, audio volume control, quadrature dial, inclinometer. POWER SUPPLY 6 disposable 'AA' cells. DIMENSIONS 42 x 14 x 9cm WEIGHT Instrument: 1.6 kg Shipping: 5.5 kg

19







	s. Anna a Anna a	71		-
	500nT			
	100nT	•		
nent: Gem S	Systems GMS	S 19T		
based at	56,000 na	anotes	las nT	
1	00	200 m	netres	
D MAGNE GNETIC'S	TOMETER : CONTO	R SURV URED	ΈΥ DATA	
C EXPL	ORATIO	ONS		
onocle La wp., Lard	ke Proper er Lake Ar	ty rea, On	tario	
nber 2015	Survey	by:RJD	JMC	
nber 2015 500	Survey Drawn b	by:RJD by: RJ	, JMC D	







420361

0

Date: September 2015 Scale: 1: 2,500





MAGNETOMETER + VLF SURVEY COMPILATION MAP				
RC EXPL	ORATIONS			
Monocle Lake Property Twp., Larder Lake Area, Ontario				
ember 2015	Survey by:RJD, JMC			
2,500	Drawn by: RJD			