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CANADIAN EXPLORATION SERVICES LTD

GINO CHITARONI

Q2391 – Traprock Property Magnetometer and VLF EM Surveys

C Jason Ploeger, P.Geo. – June 27, 2017

GINO CHITARONI

Abstract

CXS was contracted by Mr. Gino Chitaroni to perform approximately 5.3 kilometres of magnetometer and VLF EM surveys over the Traprock Property.

GINO CHITARONI

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1. SURVEY DETAILS

1.1 PROJECT NAME

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

1.2 CLIENT

Gino Chitaroni

1 Presley Street Cobalt, Ontario P0J 1C0

1.3 LOCATION

The Traprock Property is in Best Township approximately 15 km north-east of Temagami, Ontario. The survey area covers a portion of mining claims 4275045 and 4278612 located in Best Township, within the Sudbury Mining Division.



Figure 1: Location of the Traprock Property



1.4 Access

Access to the property was attained with a 4x4 truck on the Roosevelt Road. The Roosevelt Road heads east from the highway 11 approximately 20 kilometres south of Latchford, Ontario. From there it is a 3.5 km drive by 4x4 truck to the survey 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 25m in front of the magnetometer/VLF EM operator. GPS waypoints, magnetic and VLF EM samples were taken every 25m along these controlled traverses. The GPS used was a Garmin GPSMAP 62s with an external antenna for added accuracy.

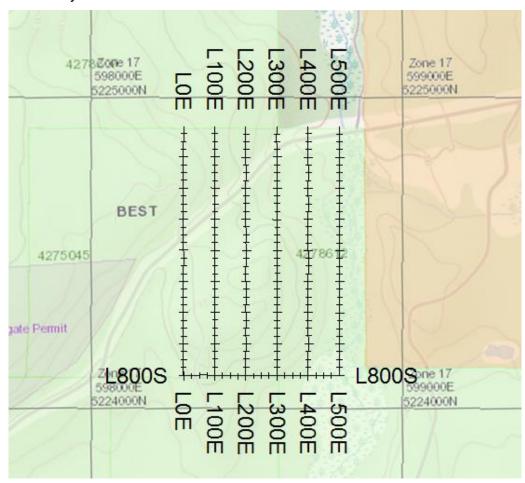


Figure 2: Claim Map with the Traprock Traverses



2. SURVEY WORK UNDRTAKEN

2.1 SURVEY LOG

Date	Description	Line	Min Extent	Max Extent	Total Survey (m)
June 15, 2017	Locate survey area and conduct magnetometer and VLF EM sur-		Extont	Extone	()
	veys.	500E	800S	0	800
		400E	800S	0	800
		300E	800S	0	800
		200E	800S	0	800
		100E	800S	0	800
		0	800S	0	800
		800S	0	500E	500

Table 1: Survey Log

2.2 Personnel

Bruce Lavalley of Britt, Ontario conducted all the magnetic data collection while Kevin Gingras of Virginiatown, 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 5.3 line kilometers of magnetometer was read over the Traprock Property on June 15, 2017. This consisted of 212 magnetometer and VLF EM samples taken at a 25m sample interval.



3. OVERVIEW OF SURVEY RESULTS

3.1 SUMMARY

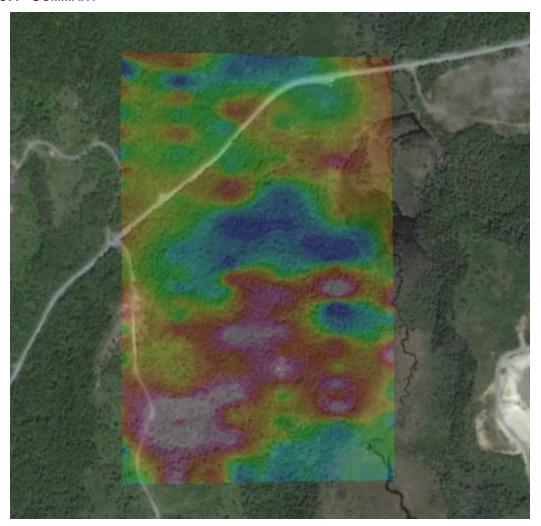


Figure 3: Magnetometer Plan of Traprock on Google Earth

The northern part of the survey indicates the presence of a series of generally east-west magnetically elevated units. These appear to be stacked with a series of magnetic low signatures. This may indicate bedding but most likely indicates different phases and alterations within the same geological unit.

The southern region of the survey area indicates a strong increase of the magnetic signature flanked on the northern side by a strong magnetic low. This may indicate the presence of an intrusive body.

Within the survey area two VLF EM axis of note occur. One VLF EM signature strikes across the survey area at approximately 340 degrees. This signature most likely represents a structural feature.

A second strong feature strikes across at approximately 70 degrees. This axis appears to flank the north side of the magnetic low anomaly with a well defined crossover at 212.5S on line 200E. This may represent an alteration corridor with mineralization. I would recommend prospecting this region to determine the source of the anomaly.



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 **Gino Chitaroni**.
- 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 June 26th, 2017

Best Township, Ontario



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.

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 kilometers 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 ±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 & Performanc	e:		
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 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/loc	cations:	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 compatil	ole:	yes		
Photo navigation (navigate to geotagged photos):		yes		
Outdoor GPS games:		no		
Hunt/fish calendar:		yes		
Sun and moon informa	tion:	yes		



Tide tables:	yes
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, 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) Q2391-CHITARONI-TRAPROCK-Mag-Cont

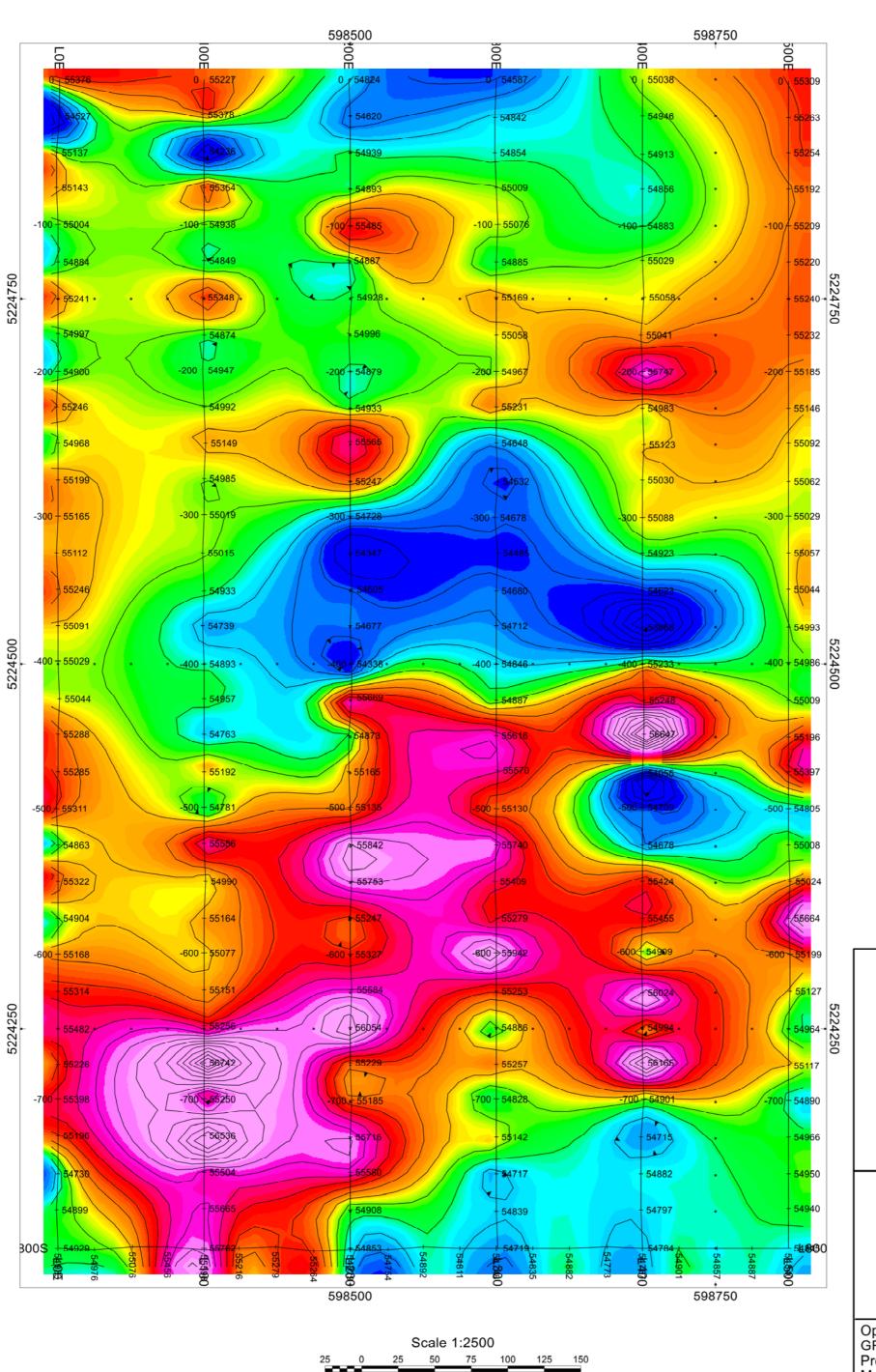
VLF EM Plan Map (1:2500)

2) Q2391-CHITARONI-TRAPROCK-VLF-NML

Claim Map with Magnetic Traverses (1:20000)

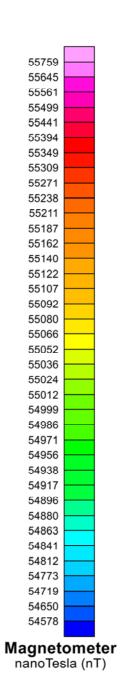
3) Q2391-CHITARONI-TRAPROCK-Traverses

TOTAL MAPS = 3



(meters)

NAD83 / UTM zone 17N



GINO CHITARONI

TRAPROCK PROPERTY Best Township, Ontario

TOTAL FIELD MAGNETIC CONTOURED PLAN MAP
Base Station Corrected

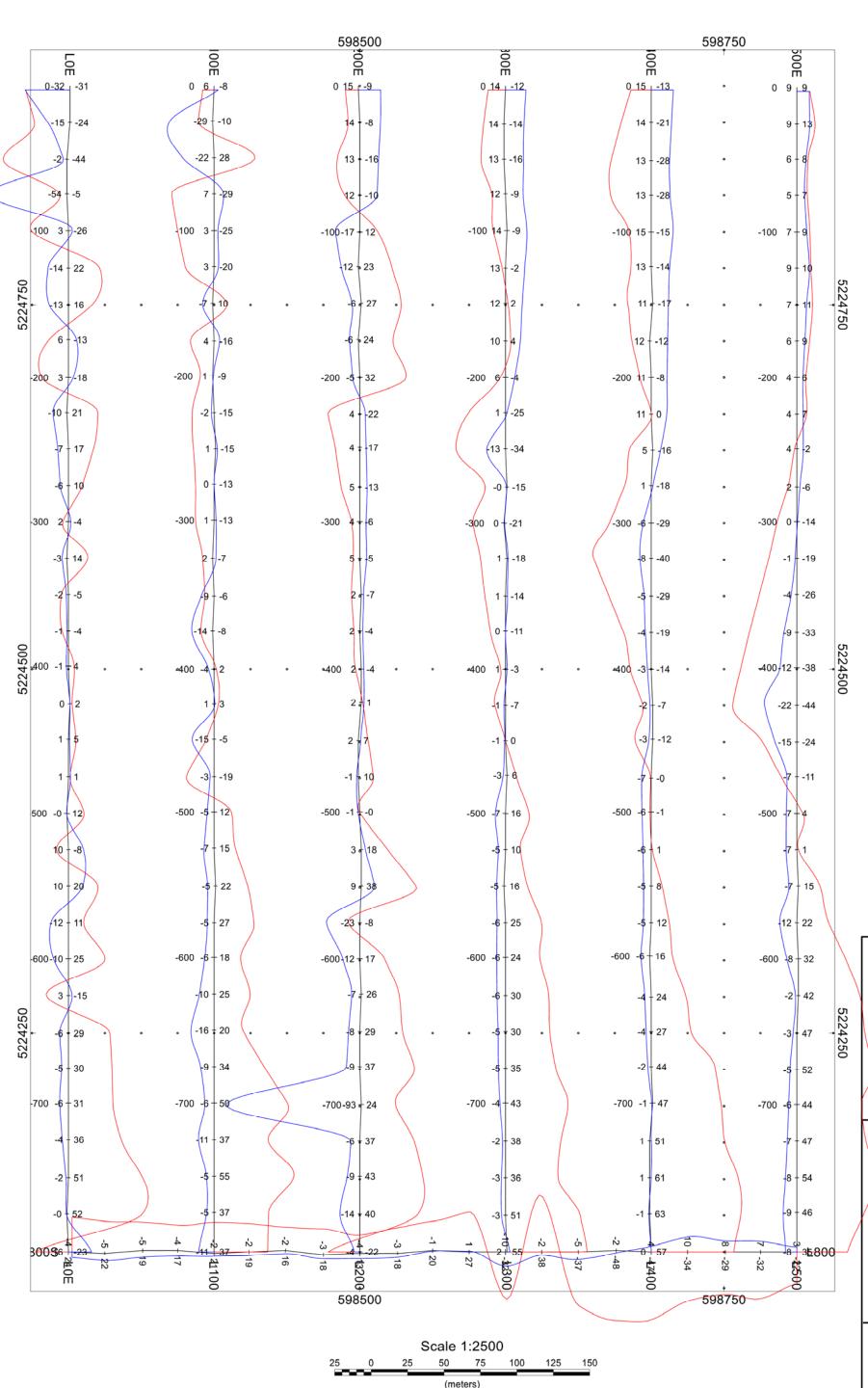
Posting Level: 0nT
Field Inclination/Declination: 74degN/12degW
Station Seperation: 25 meters
Total Field Magnetic Contours: 100nT

GSM-19 OVERHAUSER MAGNETOMETER v7

Operated By: Bruce Lavalley GPS Operated By: Patrick McGuinty Processed by: C Jason Ploeger, P.Geo. Map Drawn By: C Jason Ploeger, P.Geo. June 2017



Drawing: Q2391-CHITARONI-TRAPROCK-MAG-CONT



NAD83 / UTM zone 17N



GINO CHITARONI

TRAPROCK PROPERTY Best Township, Ontario

VLF IN PHASE/OUT PHASE PROFILE 25.2kHz NML - LaMOUR USA

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

Vertical Profile Scales: 2.5 %/mm

Station Seperation: 25 meters Posting Level: 0

GSM-19 VLF v7

Operated By: Bruce Lavalley
GPS Operated By: Patrick McGuinty
Processed by: C Jason Ploeger, P.Geo.
Map Drawn By: C Jason Ploeger, P.Geo.
June 2017



Drawing: Q2391-CHITARONI-TRAPROCK-VLF-NML

