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# Total Field Magnetics Survey Report

Work Performed by
Dan Patrie Exploration Ltd.
On Behalf of

# Jonathan Camilleri

In

Gaiashk, Gerow, Deagle Townships
District of Algoma, Ontario

**Brent Patrie Dan Patrie Exploration Ltd.** 

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# Report Authors, Contributors & Qualifications

C. Brent Patrie – 30+years Exploration & Geophysics Management

Gabriel Roy – 16+years Exploration & Geophysics, Mapping & Data Management

L.D.S Winter – 50+years Geologist BASe, MSc(App)

# **Introduction**

Jonathan Camilleri holds a series of claim groups within the central area of Gaiashk, Gerow, Deagle Townships. A Total Field Magnetics (TFM) survey was preformed within the claim group consisting of 16 contiguous multi-cell mining claims (Figure 1, Table 1).

Between September 1<sup>st</sup> to November 8<sup>th</sup> 2021. Dan Patrie Exploration Ltd. carried out 232.325 line-kilometers of Magnetic Field Surveying as shown in (**Figure 3**). The following report is a summary of the work carried out and the results obtained.

# Location and Access

The Project is located within the central area of Gaiask, Gerow, Deagle Townships (District of Algoma at NTS NAD 83, UTM Zone 17, 400000mE, 5140000mN) (Figure 1)

The Property can be reached by road from Massey, Ontario. From here, secondary highway 553 goes north from town, at about 25km north of Massey, Ontario, forest access roads lead to the west following an existing power line and leads directly through the survey area through a network of roads and trails, as well as boat access from Whiskey Lake (Figure 2).

Table 1 – Claim List

Township / Area	Tenure ID	Tenure Type
DEAGLE	564093	Multi-cell Mining Claim
GAIASHK	564094	Multi-cell Mining Claim
GAIASHK	564095	Multi-cell Mining Claim
DEAGLE	564096	Multi-cell Mining Claim
DEAGLE	564097	Multi-cell Mining Claim
DEAGLE,GAIASHK	564139	Multi-cell Mining Claim
DEAGLE,GAIASHK	564143	Multi-cell Mining Claim
GAIASHK,GEROW	564144	Multi-cell Mining Claim
GAIASHK	564145	Multi-cell Mining Claim
GAIASHK,GEROW	564146	Multi-cell Mining Claim
GAIASHK,GEROW	564147	Multi-cell Mining Claim
GEROW	564158	Multi-cell Mining Claim
GAIASHK,GEROW	564159	Multi-cell Mining Claim
GAIASHK,GEROW	564160	Multi-cell Mining Claim
DEAGLE,GAIASHK	584382	Multi-cell Mining Claim
GAIASHK,GEROW	630234	Multi-cell Mining Claim

### L.D.S Winter TFM Interpretation

# CAMILLERI WHISKEY LAKE PROPERTY

During September to November 2021, Dan Patrie Explorations Ltd carried out a Total Field Magnetic Survey on the Camilleri Whiskey Lake Property, which is 25 km eastnortheast of Elliot Lake, Ontario. The Property is centred at UTM co-ordinates NAD 83 Zone17, 400000 mE, 5140000 mN in the northeast part of Gaiashk Twp and part of Gerow twp to the east. The work area was on the east side of Whiskey Lake and geologically at the eastern outcropping end of the Quirke Lake Syncline

During the survey period a total of 232 line-km were read and the nanotesla values recorded. The provided Total Field Magnetic Map presents the recorded and contoured map (Scale 4.5 cm = 1000 m)

The area of the Survey is underlain by units of the Huronian Supergroup of Paleoproterozoic Age (2500 to 2200 million years ago) and in particular, the oldest Group, the Elliot Lake Group which contain volcanic and metasedimentary units. As can be seen in the provided Survey Map there are 2 survey areas, a smaller one to the north and a larger one to the south and east

Based on Ontario Geological Survey (OGS) Map 2003 (Township 137) published in 1958, the 2 Survey Areas are at the eastern end or nose of the Quirk Lake Syncline which plunges west in the order of 20 Whiskey Lake to a great extend follows the curved bedding trends in the nose of the Quirk Lake Syncline. In turn clastic sediments of Mississagi Age and Keeewatin Age intrusives occur and are exposed on the east shore of Whiskey Lake and then to the east are mafic metavolcanics

The TFM Survey readings show an overall irregular pattern with back ground being in " green " values 54600 nT to 54700nT "blue".. These are followed by areas of higher magnetic readings from 54700nT to approximately 55000nT, a difference of 300 nT. and show as irregular to elongated and at times curved zones.

There are no dominant, high magnetic zones present and so at this point further work to continue the evaluation of the Property is required. For example a Gradient IP Survey could be used to detect any areas of sulphides and in the upcoming summer prospecting and geological mapping and sampling would be in order

L. D. S. Winter BASc, MSc (App) Jan 10, 2022

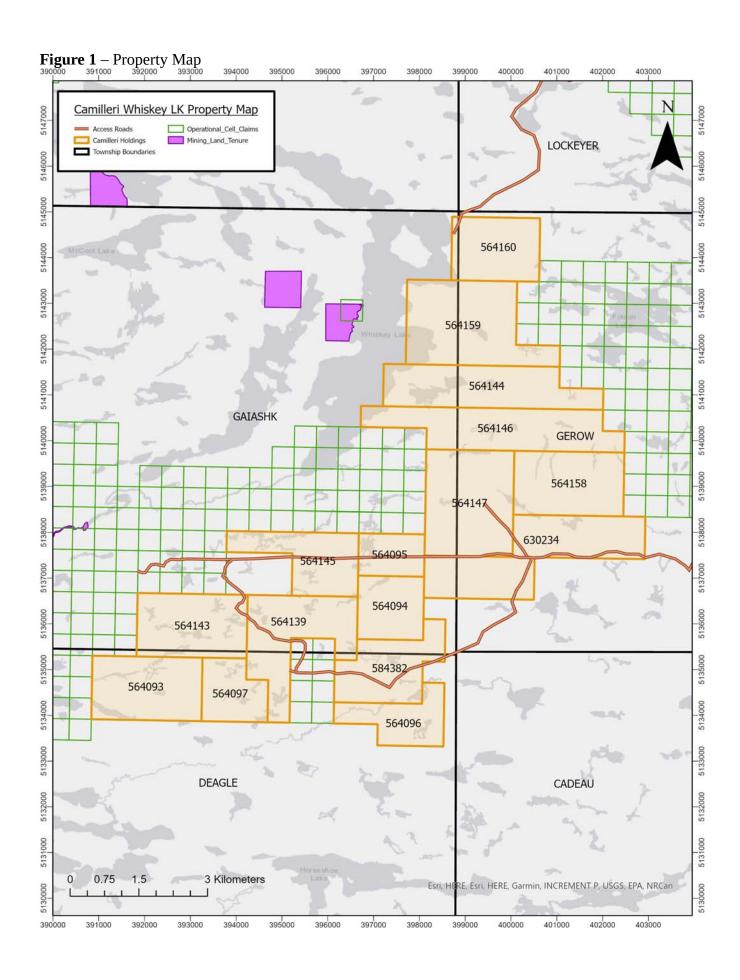
# Work Preformed & Personnel

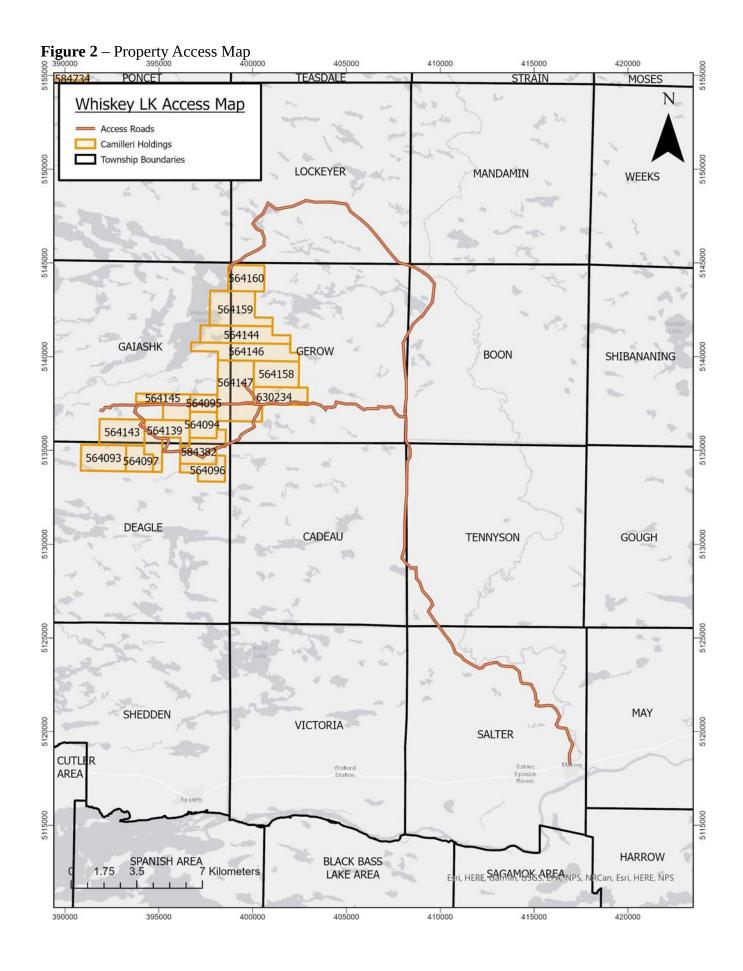
The Total Field Magnetics survey was carried out along GPS lines for a total of 232.325km. The magnetic readings were taken along lines spaced at 100metres with readings at 25meter intervals along the lines (**Figure 3**).

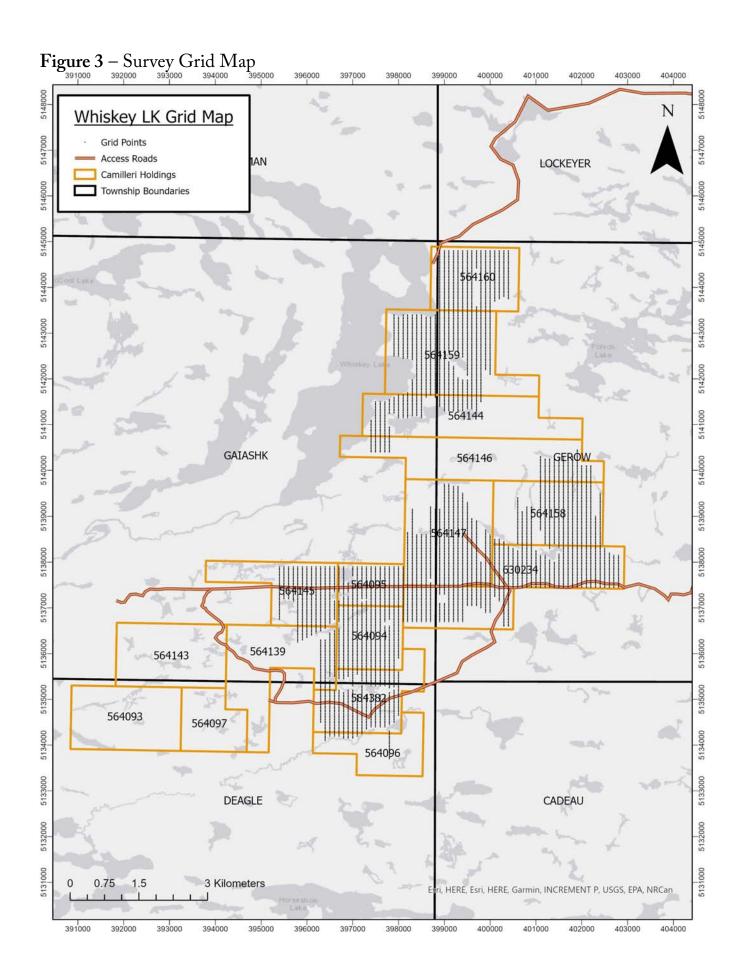
Three Dan Patrie Exploration Ltd. employees carried out the field survey, Gabriel Roy, Joshua Francis and Calder McKenna from the dates of September 1<sup>st</sup> to November 8<sup>th</sup> 2021. Accommodations and daily travel was based out of Espanola, Ontario for the duration of the work.

# <u>Instrumentation</u>

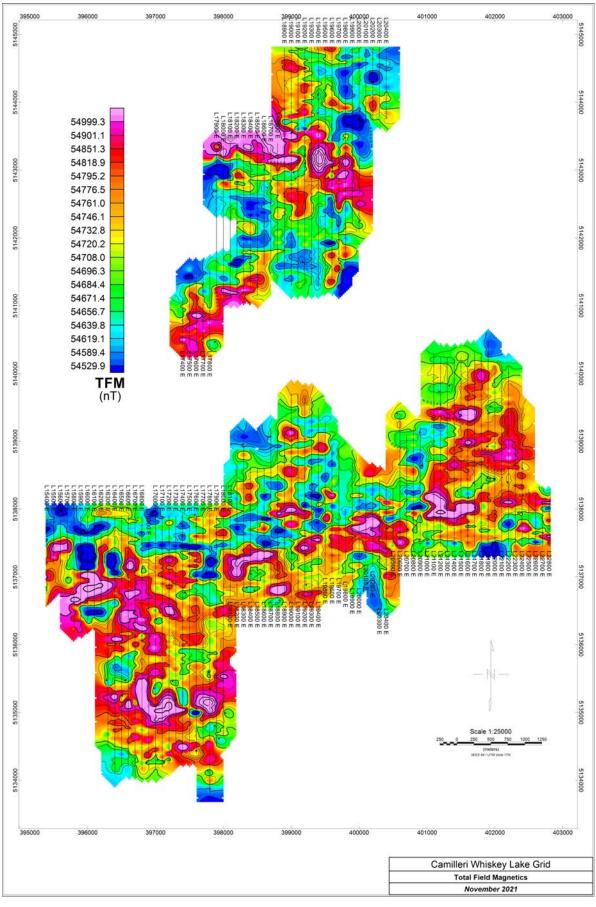
The survey instruments used were Scintrex Envi Magnetometers which has the capability to record the Earth's Total Magnetic Field(Figure 5). An additional Envi Magnetometer was set up at as a Base Station for correcting the diurnal magnetic field drift. The Envi Magnetometer measures the TMF through the use of proton processional effects caused by the interaction of a magnetic field with a spin aligned proton rich fluid. An instrument accuracy precision and resolution of 0.1 nT may be obtained with these instruments under ideal conditions Microprocessors contained in these instruments allow for the collection of the readings along with the time and the location in digital form suitable for downloading to a computer for data processing.







**Figure 4** – Contoured TFM Results



# **Figure 5** – Instrumentation Specifications



### EQUIPMENT

### REFERENCE: SCINTREX ENVI MAG BROCHURE

## **Total Field Operating Range**

20,000 to 100,000 nT (gammas)

### **Total Field Absolute Accuracy:**

±1 nT

### Sensitivity:

0.1 nT at 2 second sampling rate

### Tuning

Fully solid state. Manual or automatic, keyboard selectable

### Cycling (Reading) Rates

0.5, 1 or 2 seconds

### **Gradiometer Option**

Includes a second sensor, 1/2m (20 inch) staff extender and processor module.

### VLF Option

Includes a VLF sensor and harness assembly

### 'WALKMAG' Mode

continuous reading, cycling as fast as 0.5 seconds

### Digital Display

LCD "Super Twist", 240 x 64 dots graphics, 8 line x 40 characters alphanumerics

### Display Heater

Thermostatically controlled, for cold weather operations

### **Keyboard Input**

17 keys, dual function, membrane type

### Notebook Function

32 characters, 5 user-defined MACRO's for quick entry

### Standard Memory

Total Field Measurements: 28,000 readings Gradiometer Measurements: 21,000 readings Base Station Measurements: 151,000 readings VIF Measurements: 4,500 readings for 3 frequencies

### **Expanded Memory**

Total Field Measurements: 140,000 readings Gradiometer Measurements: 109,000 readings Base Station Measurements: 750,000 readings VLF Measurements: 24,000 readings for 3 frequencies

### Real-Time Clock

Records full date, hours, minutes and seconds with 1 second resolution, ±1 second stability over 24 hours

### Digital Data Output

RS-232C interface, 600 to 57,600 Baud, 7 or 8 data bits, 1 start, 1 stop bit, no parity format. Selectable carriage return delay (0-999 ms) to accommodate slow peripherals. Handshaking is done by X-on/X-off. High speed Binary Dump. Selectable formats for easy interfacing to commercial software packages.

### **Analog Output**

0-999 mV full scale output voltage with keyboard selectable range of 1, 10, 100, 1000 or 10,000 full scale

### **Power Supply**

Rechargeable 'Camcorder' type, 2.3 Ah, Lead-acid battery 12 Volts at 0.65 Amp for magnetometer, 1.2 Amp for gradiometer External 12 Volt input for base station operations Optional external battery pouch for cold weather operations

### **Battery Charger**

110 Volt-230 Volt, 50/60 Hz

### **Operating Temperature Range**

Standard: -40° to 60°C

### Dimensions & Weight

Console: 250mm x 152mm x 55mm (10" x 6" x 2.25")

2.45 kg (5.4 lbs) with rechargeable battery

Magnetic Sensor: 70mm x 175mm (2.75"d x 7")

1 kg (2.2 lbs)

Gradiometer Sensor: 70mm x 675mm (2.75"d x 26.5")

(with staff extender) 1.15 kg (2.5 lbs)

Sensor Staff: 25mm x 2m (1"d x 76")

.8 kg (1.75 lbs)

VLF Sensor Head: 140mm x 130mm (5.5"d x 5.1")

.9 kg (2 lbs)

VLF Sensor: 280mm x 190mm x 75mm (11" x 7.5" x 3")

1.7 kg (3.7 lbs)

### Options

Base Station Accessories Kit GPS

Software Packages Training Programs

# SCINTREX

### SCINTREX

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