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# Technical Report for MNDM Assessment Purposes, Fall 2021 Drone Magnetometer Survey

## **Heenan Property**

Heenan Township, Porcupine Mining Division Ontario, Canada

**Prepared For:** 

**Michael Thompson** 

Prepared By: Jordan Quinn

DATE OF COMPLETION: March 1, 2022



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## 1 Introduction and Summary

The Heenan Property consists of 31 mining claims within the Heenan Township in the Porcupine Mining Division. The property is fully owned by Michael Thompson and located approximately 100 km west of Timmins, Ontario along Highway 101.

Michael Thompson contracted Fladgate Exploration Consulting Corporation ("**Fladgate**") to conduct an unmanned aerial geophysical survey on the Heenan property from October 29-31 2021. Fladgate provided all the required geological, geotechnical, and sub-contractor services on the program described herein. The program consisted of 21 flight lines and 3 perpendicular tie lines totaling 9 flown line kilometers. The survey was performed in order to map the magnetic signature of the underlying geology.

The results of the survey indicate the presence of multiple northeast-southwest trending magnetic anomalies. Subsequent and more detailed geophysical surveys are recommended to enhance the boundaries and locations of magnetic anomalies on the property.

## 2 Terms of Reference

This report was prepared at the request of Michael Thompson for the use of filing assessment as required under the Ontario Mining Act. Unless otherwise noted, Universal Transverse Mercator ("UTM") coordinates are provided in the datum of NAD83 Zone 17 North.

## 3 Disclaimer

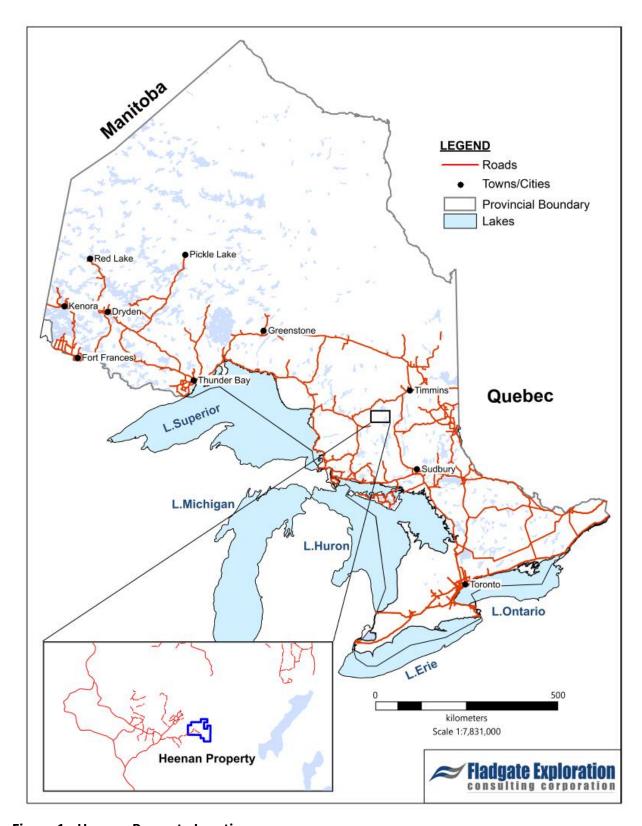
The author disclaims responsibility for portions of the current report that rely on information from historic assessment files and government maps and reports which may not have been prepared in compliance with current standards.



## 4 Property Description and Location

The Heenan property is located in the Heenan Township within the Porcupine Mining Division in Northwestern Ontario, approximately 100 km west of Timmins (Figure 1). The property is centered on UTM coordinates 397,500 mE, 5,293,000 mN (NAD83 Zone 17N) and is accessed from Timmins by traveling 90 kilometers west along HWY 101 followed by 75 kilometers of driving down all-weather accessible major and minor logging roads. Total travel time from Timmins to the Heenan property is approximately 2 hours. The property consists of 31 unpatented mining claims (Figure 2). A list of all claims can be found in Table 1.





**Figure 1 - Heenan Property Location** 



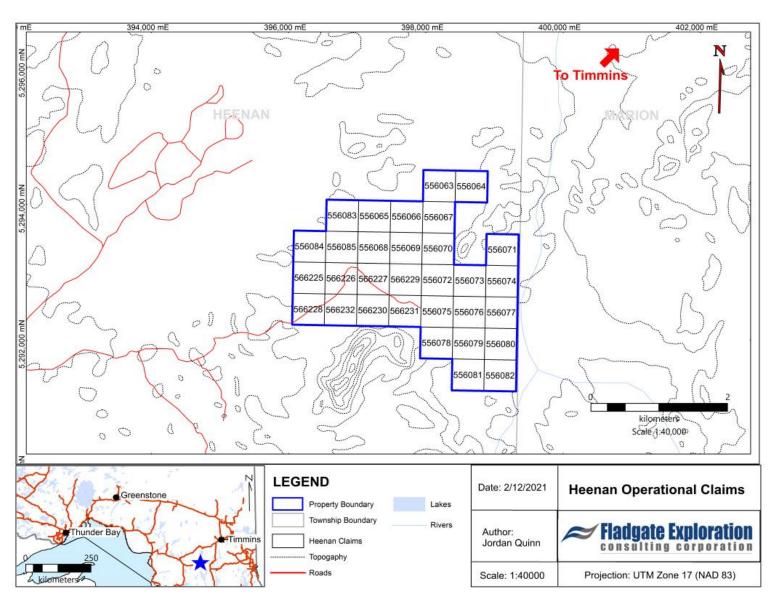


Figure 2 - Heenan Claim Map



Table 1 – Heenan Claims

- Heelian Claims						
Claim Number	Township	Units	На	Claim Due Date	% Option	Ownership
556063	HEENAN	1	16	2022-08-19	100%	Michael Thompson
556064	HEENAN	1	16	2022-08-19	100%	Michael Thompson
556065	HEENAN	1	16	2022-08-19	100%	Michael Thompson
556066	HEENAN	1	16	2022-08-19	100%	Michael Thompson
556067	HEENAN	1	16	2022-08-19	100%	Michael Thompson
556068	HEENAN	1	16	2022-08-19	100%	Michael Thompson
556069	HEENAN	1	16	2022-08-19	100%	Michael Thompson
556070	HEENAN	1	16	2022-08-19	100%	Michael Thompson
556071	HEENAN	1	16	2022-08-19	100%	Michael Thompson
556072	HEENAN	1	16	2022-08-19	100%	Michael Thompson
556073	HEENAN	1	16	2022-08-19	100%	Michael Thompson
556074	HEENAN	1	16	2022-08-19	100%	Michael Thompson
556075	HEENAN	1	16	2022-08-19	100%	Michael Thompson
556076	HEENAN	1	16	2022-08-19	100%	Michael Thompson
556077	HEENAN	1	16	2022-08-19	100%	Michael Thompson
556078	HEENAN	1	16	2022-08-19	100%	Michael Thompson
556079	HEENAN	1	16	2022-08-19	100%	Michael Thompson
556080	HEENAN	1	16	2022-08-19	100%	Michael Thompson
556081	HEENAN	1	16	2022-08-19	100%	Michael Thompson
556082	HEENAN	1	16	2022-08-19	100%	Michael Thompson
556083	HEENAN	1	16	2022-08-19	100%	Michael Thompson
556084	HEENAN	1	16	2022-08-19	100%	Michael Thompson
556085	HEENAN	1	16	2022-08-19	100%	Michael Thompson
566225	HEENAN	1	16	2021-12-07	100%	Michael Thompson
566226	HEENAN	1	16	2021-12-07	100%	Michael Thompson
566227	HEENAN	1	16	2021-12-07	100%	Michael Thompson
566228	HEENAN	1	16	2021-12-07	100%	Michael Thompson
566229	HEENAN	1	16	2021-12-07	100%	Michael Thompson
566230	HEENAN	1	16	2021-12-07	100%	Michael Thompson
556231	HEENAN	1	16	2021-12-07	100%	Michael Thompson
556232	HEENAN	1	16	2021-12-07	100%	Michael Thompson

## 5 Access, Local Resources, and Infrastructure

The property is accessible year-round, as it is located 75 km south of HWY 101, which is a major east-west route connecting Timmins to Wawa (**Figure 1**). After driving 85 km west of Timmins on Hwy 101, access to the property is gained along Foleyet Timber Road followed by Heenan Road. Both roads are well maintained gravel roads that provide year-round access to the property (**Figure 2**).



Timmins is ~100 km to the east and is the nearest large regional population centre in Ontario, with many services and amenities for industrial, educational, and leisure activities. Local experienced labour is readily available, as well as the regional offices of the Ministry of Northern Development and Mines (MNDM).

There are no permanent structures on the property currently.

## 6 Climate and Physiography

The Heenan Property is located within the Canadian Shield, which is a major physiographic division of Canada. The property is situated in an area of swamps, rivers, and small lakes.

Climate in the area is typical of Northern Ontario, with cold winters and warm summers. Average January temperatures range from -11°C to -23°C, and average July temperatures are between 11°C and 24°C. Work can be done (subject to snow and freezing) for most of the year.

Rock exposures are sparse on the property due to the flat lying topography and abundance of swamp coverage.

## 7 Geological Setting

#### 7.1 Regional Geology

The Heenan Property lies within the central portion of Ontario's Superior Province, in the Abitibi Subprovince, consisting of metavolcanic and metasedimentary rocks interpreted to have developed in an ensimatic basin (Ayer et al. 2001). The Superior Province and the Abitibi Subprovince are described in detail in the literature (e.g., Ayer at al. 2001, Card, 1990). The regional geology is illustrated in **Figure 3**.

#### 7.1.1 Superior Province

The Superior Province is a major geological province comprised of Archean age rocks. It forms the core of the North American continent. In Ontario, the Superior Province makes up roughly 70% of the Canadian Shield bedrock and is surrounded by younger Grenville and Southern Provinces to the south and southeast, which comprise the remaining 30%. The Superior Province consists of alternating granite-greenstone and metasedimentary belts in the central portion, and has been subdivided into smaller subprovinces (or terranes) based on rock type: granite-greenstone plutonic and metavolcanic rocks (Uchi, Wawa, and Abitibi subprovinces), metasedimentary rocks (English River and Quetico subprovinces), plutonic granitic rocks (Winnipeg River subprovince), and high-grade greenstone rocks to the north (Kapuskasing Zone). Subprovinces are commonly fault-bounded and display contrasting lithological assemblages, metamorphic and structural styles, geophysical characteristics, and ages.

The Superior Province has been tectonically stable since  $\sim$ 2.5 Ga. Proterozoic and younger geological activity is limited to rifting of the margins, emplacement of several mafic dyke swarms, compressional reactivation, and large-scale rotation at  $\sim$ 1.9 Ga, as well as failed rifting at  $\sim$ 1.1 Ga. With the exception of the northwestern Superior margin that was pervasively deformed and metamorphosed at  $\sim$ 1.8 Ga, the craton has otherwise escaped late ductile deformation. It formed as a collage of smaller continental and oceanic plates (Card, 1990;



Williams et al., 1992; Stott, 1997; Percival et al., 2004, 2006), that were stitched together between  $\sim$ 2.72 and 2.68 Ga. Sedimentary rocks as old as  $\sim$ 2.48 Ga uncomfortably overlie Superior Province granites, indicating that most erosion had occurred prior to  $\sim$ 2.5 Ga.

The southern portion of the Superior Province (to latitude 52°N) is a major source of mineral wealth, hosting active gold and base metal mining camps associated with metavolcanics of the granite-greenstone belts. Owing to its potential for these and other commodities, the Superior Province continues to attract both grassroots and advanced mineral exploration.

#### 7.1.2 Abitibi Subprovince

The Abitibi Subprovince of the Superior Province comprises a stratigraphically continuous succession of Neo- to Mesoarchean (2.5 to 2.9 Ga) metavolcanic and metasedimentary rocks interpreted to have developed in an ensimatic basin (Ayer et al. 2001). These supracrustal rocks are intruded by multiple generations of felsic to ultramafic igneous rocks. This intrusive activity extended from the Neoarchean into the late Proterozoic.

Three volcanic and two sedimentary assemblages are exposed in the Timmins region (Ayer et al. 1997, 1999, 2002). The Deloro assemblage is the oldest (2730-2724 Ma, Ayer et al. 2002) and consists of mafic to felsic, calcalkalic metavolcanic rocks and associated iron formation (Ayer et al. 1999, 2002). The Kidd-Munro assemblage ranges in age from 2719 Ma to 2710 Ma (Ayer et al. 2002) and unconformably overlies the Deloro assemblage (Ayer et al. 1999, 2002). The Kidd-Munro assemblage consists of a suite of tholeitic and komatiitic metavolcanic rocks locally interlayered with rhyolite and a suite of calc-alkalic felsic to intermediate metavolcanic rocks (Ayer et al. 1999). The Tisdale assemblage overlies the Kidd-Munro assemblage and ranges in age from 2710 Ma to 2703 Ma. The base of the Tisdale assemblage consists of tholeitic mafic to komatiitic metavolcanic rocks locally associated with high-silica rhyolite. Felsic to intermediate, calc-alkalic pyroclastic metavolcanic rocks and local thick accumulations of iron formation form the upper, younger parts of the Tisdale assemblage (Ayer et al. 1999). The Porcupine assemblage is the oldest (2696-2692 Ma, Ayer et al. 2002), lowermost sedimentary package in the area and consists dominantly of turbiditic metasedimentary rocks. The Porcupine assemblage unconformably overlies the metavolcanic assemblages (Ayer et al. 1999). The Timiskaming assemblage unconformably overlies the Porcupine assemblage and consists of coarse clastic metasedimentary rocks (Ayer et al. 1999, 2002).

The Kamiskotia Gabbroic Complex is interpreted to be coeval with the Tisdale assemblage and intrudes the Deloro and Kidd-Munro assemblages (Barrie 1990, 1992, 2000). Several plutons of felsic to intermediate compositions are considered to be comagmatic with the Kamiskotia Gabbroic Complex based on similar geochemical characteristics, overlap in U/Pb zircon ages, contact relationships, and textural similarities (Barrie 1990, 1992, 2000). Archean, post-volcanic, felsic plutons and associated dikes intrude all of the assemblages (Pyke 1982). Proterozoic mafic dikes (Matachewan, Abitibi swarms) intrude Archean rocks (Pyke 1982).

The rocks of the Abitibi Subprovince have experienced variable degrees of deformation and metamorphism. Of particular significance in the Timmins region, due to its relationship with gold mineralization (Berger 2001), is the Porcupine-Destor Fault Zone (PDFZ). The fault zone is a major structural feature that strikes east-northeast and has been traced along strike for over 450 km across the Abitibi Subprovince (Berger 2001). The PDFZ is offset by numerous north-northwest-striking faults that partition the Abitibi greenstone belt into distinct blocks that display different styles of alteration associated with gold mineralization, deformation and metamorphism (Berger



2001). Early Proterozoic (2454 Ma; Heaman 1988) Matachewan dikes are also offset by the north-northwest-striking faults (Brisbin 1997).

Phanerozoic bedrock is not exposed in the Timmins area, therefore, there is no record of the geological history post-dating the late faulting and/or intrusion of the Abitibi dike swarm. Unconsolidated Quaternary glacial deposits and recent terrestrial sedimentary and regolithic deposits cover most of the Precambrian bedrock in the Timmins region.



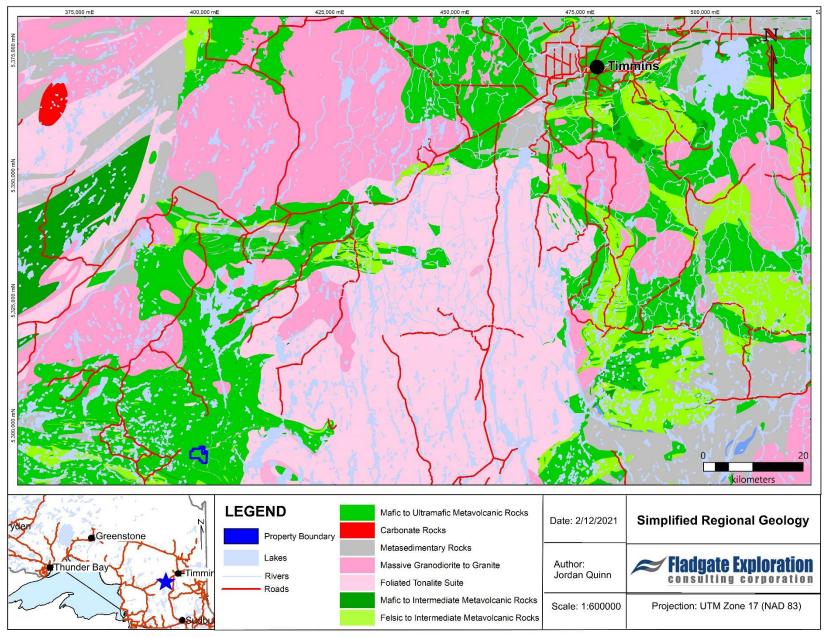


Figure 3 - Regional Geology of Northwestern Ontario



#### 7.2 Local Geology - Heenan Property

The following description of the local geological setting is modified from (Lashbrook 2005). A detailed property geology map can be found in **Figure 4**.

The Heenan township is underlain by the regionally extensive Woman River Metasedimentary Rocks and the October Lake Formation Mafic Volcanics. Felsic and mafic dykes cut through all units and are presumed to be extensive on the property.

The Woman River Formation is composed of various facies of Algoma Type iron formation-magnetite, jasper, hematite, chert and sulphide. There appears to be a crude vertical zonation of chert-magnetite-sulphide assemblage occurring more towards the base, to a chert-magnetite-hematite-jasper +/-pyrite and finally to a predominantly chert-pyrite sequence towards the top of the formation. Locally jasper occurs as discordant features. Locally at the top of the sequence, graywacke and graphitic pyritic tuffs are found. The iron formation attains a maximum thickness of 425 meters in Heenan Township.

The Trailbreaker Group, October Lake Formation conformably overlays the iron formation. This formation is made up of pillowed and massive flows of Fe and Mg tholeites. The more magnesium rich flows are deep brown weathering. They are a medium to dark green-grey in colour, fine to medium grained and mainly little altered. Mafic dykes that cut the above units are interpreted as being feeder dykes to the Trailbreaker Group (Lashbrook 2005).

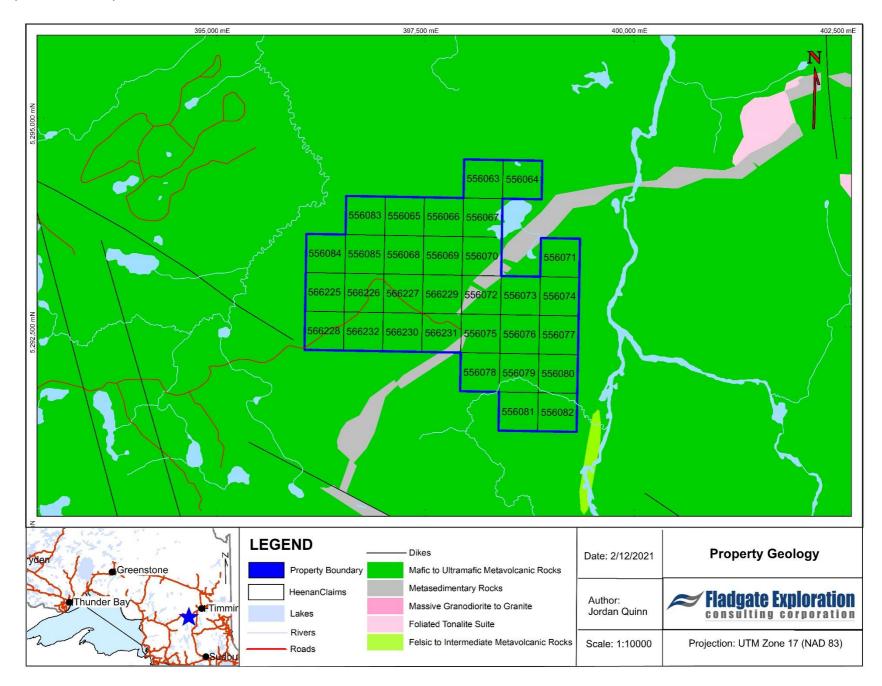


Figure 4 - Heenan Property Geology

## 8 History of Exploration on the Property

The history of exploration on the Heenan is as follows:

1926: Geology mapping of Heenan, Bristol and Ogden townships (Hawley)

1979-1993: Line cutting, geology, soil and rock geochemistry, trenching, mag surveys, VLF, m/m, I.P, diamond drilling (Falconbridge Ltd.)

1993-2004: Geology mapping, trenching, sampling, stripping, diamond drilling (Ray Lashbrook and partners)

2003: Lithogeochemical data for the Timmins West area: Heenan, Denton, Bristol, Ogden and Deloro townships (Vaillancourt)

2004: Line cutting and geophysics (Vencan Gold Corporation)

2019: Ground geophysics (Collins-Gloster Group)



## 9 Current Program

On October 30, 2021 a drone magnetic survey was carried out on the Heenan property. The survey consisted of 21 North-South flight lines spaced at 25m and 3 East-West tie lines spaced at 200m (**Figure 5**). The height of the survey was 50m and the total line kilometres flown was 9 km. **Table 2** summarizes the total line kilometers flown per claim on the Heenan property. The goal of the survey was to map the magnetic signature of the underlying geology.

Table 2 – Distribution of Work by Mining Claims

Claim #	Line Kilometers		
Clailli #	Flown		
566227	0.5		
566229	1		
566230	2.8		
566231	4.7		
TOTAL	9		

Universal Ground Control Software (UgCS) was used in planning the drone survey. Flight lines were planned as perpendicular as possible to the known underlying geology and at a flight speed of 5.0 m/s.

The principle geophysical sensor used was a Gem Systems Canada GSMP-35U potassium vapor sensor mounted on a UAV platform. A GSM-19 Overhauser Magnetometer base station was used in conjunction with the UAV magnetometer. General specifications of both magnetometers can be found in Appendix 1 of this report: Instrument Specifications.

Fladgate used the DJI Matrice 600 Pro UAV to complete this survey. Specifications of the UAV used can also be found in Appendix 1 of this report.

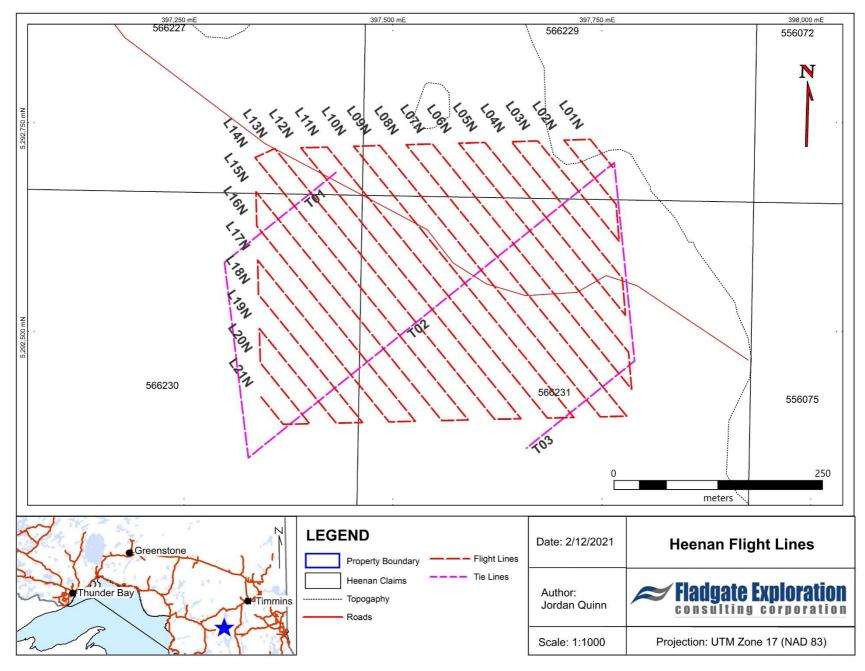


Figure 5 – Map of Heenan Drone Survey



#### 9.1 Personnel

Field operations were supervised and all technical staff was provided by Fladgate and began with logistics and flight planning on October 29, 2021.

Table 3 - Personnel Log

Name	Working Title	Responsibilities	Dates on Project
Jordan Quinn	Project Geologist	Mobilization, Pilot, Drone route planning, roject Geologist Demobilization, Processing Geophysics/Map Creation, Report writing	
Alex Geologist Wytiahlowsky		Mobilization, Assist in flight setup and operations,  Demobilization	October 29-31, 2021



## 10 Data Filtering and Processing

Raw aerial magnetometer data was collected at a rate of 10 Hz while base station data was collected at a rate of 0.5 Hz. Total field and GPS UTC time was recorded with each data point which enabled diurnal corrections to be applied during subsequent data processing. An example of the raw data required to carry out the filtering and processing steps is given in **Table 4**.

Table 4 - Raw Geophysical Drone Data

UTC Time	Total Field Mag (nT)	Lock Status	Signal Strength	UTM Easting	UTM Northing	GPS Altitude (m)	Laser Altimeter (m)
144803.7	55377.1	1	309	454931.73	5366619.93	333	8.66
144803.9	55424.3	1	143	454931.71	5366619.89	333	9.24
144804	55441.3	1	504	454931.7	5366619.86	334	9.48
144804.1	55454.9	1	233	454931.7	5366619.87	334	9.79
144804.2	55465.0	1	152	454931.7	5366619.86	334	10.26
144804.3	55471.9	1	208	454931.7	5366619.85	335	10.58

The raw data was then imported into Oasis Montaj Software to be further processed. The steps involved in filtering the data are as follows:

- 1. A filter was applied to the data based on the lock parameter of the magnetometer. All values that were recorded that did not have a lock value of 1 were removed. The datapoints which remained after this filter were correctly oriented with the Earth's magnetic field.
- 2. The second filtering step was based on the geometry of the survey area. Data outside the defined survey area were removed. This included data that was gathered while the UAV was in flight to and from the takeoff/landing site and data that was gathered as the UAV takes corners at the end of survey lines. This step reduced edge effects and insured that sampling points were evenly distributed throughout the survey area.
- 3. A filter was applied that removed any data that was not collected at the programmed survey elevation. This step removes any data that was collected while the UAV was on the ground in between surveys or while the UAV was rising to the programmed survey elevation.

After the data was filtered, the data was processed for interpretation through the following steps:

- 1. The Earth's magnetic field was subtracted from the total magnetic field reading of the magnetometer. The resulting residual magnetic field data represents the component of the field that is caused by the subsurface.
- 2. The second processing step involved the subtracting of the observed diurnal variations from the residual magnetic field data. This was achieved by analyzing the change of the magnetic field in the base station measurements with time and correcting for this change.



The residual magnetic data was then leveled and a reduction to pole calculation was performed.
 The resulting data was then used for various interpolations using Oasis Montaj's gridding and mapping functions.

## 11 Results

The results of the magnetic survey are presented as contoured total field and 1<sup>st</sup> vertical derivative maps. The results from the magnetic survey indicate a relatively quiet magnetic background with the overall magnetic field is disrupted by two northeast-southwest trending, linear anomalies. These anomalies can be seen in both the total magnetic field and 1<sup>st</sup> vertical derivative maps below.

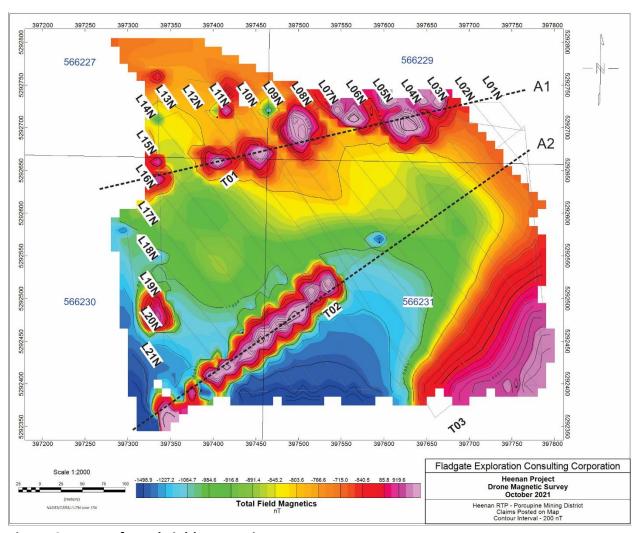


Figure 6 – Map of Total Field Magnetics



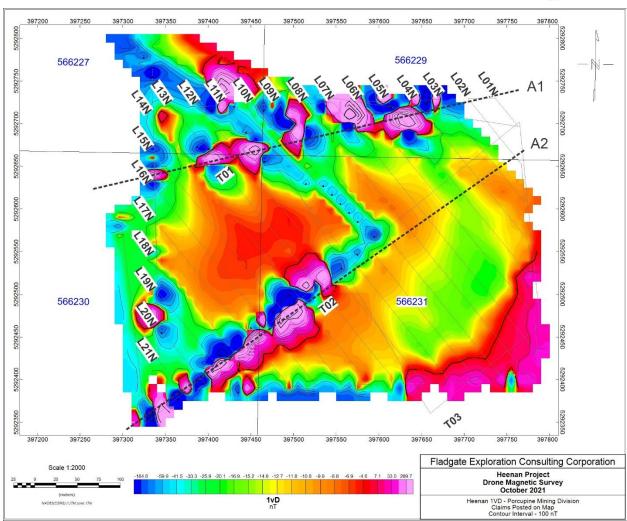


Figure 7 – 1<sup>st</sup> Vertical Derivative Map

The anomalies displayed on both maps are attributed to underlying geology or possible mafic diabase dikes which are common in the survey area. Both anomalies are speculative due to inconsistencies in the data and would require a follow up detailed ground mag survey to confirm these anomalies.

## 12 Conclusion and Recommendations

The magnetic survey completed over the Heenan property was successful in mapping magnetic anomalies and underlying geological trends. The northeast-southwesterly trending magnetic anomalies shown on the total magnetic field map are presumed to be derived from underlying bedrock geology or large mafic diabase dikes.

It is recommended that another mag survey be flown at a lower elevation in conjunction with a detailed ground mag survey to more confidently confirm the location of these anomalies.



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## 14 Statement of Qualification

#### Jordan Quinn, B.Sc., P.Geo.

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Email: jordan.quinn@fladgateexploration.com

#### **CERTIFICATE OF THE AUTHOR**

#### I, Jordan Quinn, do hereby certify that:

- 1. I am an employee of Fladgate Exploration Consulting Corporation, the geological consulting firm tasked with this report.
- 2. I am a member in good standing of the Association of Professional Geoscientists of Ontario (APGO #3151).
- 3. I am a graduate of Lakehead University (Hons. B.Sc., 2014).
- 4. I have practiced geology for 7 years in a variety of settings, mostly in Northwestern Ontario, Canada. I have specific experience in Archean lode gold deposits in Ontario, mostly working as both a production and exploration geologist at various gold mines throughout Ontario.
- 5. I have no previous involvement with the property that forms the subject of this Technical Report.
- 6. I am not aware of any material fact or material change with respect to the subject matter of the Technical Report that is not reflected in the Technical Report, the omission to disclose which makes the Technical Report misleading.
- 7. I consent to the filing of this Technical Report with any stock exchange and other regulatory authority and any publication by them, including electronic publication in the public company files on their website accessible by the public.

Effective Date: March 1, 2022 Date of signing: March 1, 2022

Jordan Quinn, H.B.Sc., P.Geo. (APGO #3151)



## Appendix I - Instrument Specifications

### GEM GSMP-35UA: Ultra Light-Weight Potassium Magnetometer

#### **Magnetometer Specifications**

Sensitivity: 0.0002 nT @ 1 Hz

Resolution: 0.0001 nT

Absolute Accuracy: +/- 0.1 nT Heading Error: +/- 0.05 nT

Dynamic Range: 15,000 to 120,000 nT Gradient Tolerance: 50,000 nT/m Sampling Intervals: 1, 2, 5, 10, 20 Hz Operating Temperature: -40°C to +55°C

#### Orientation

Sensor Angle: optimum angle 35° between sensor head axis & field vector.

Proper Orientation: 10° to 80° & 100° to 170

Heading Error: +/- 0.05 nT between 10° to 80° and 360° full rotation about axis.

#### **Environmental**

Operating Temperature: -40°C to +55°C Storage Temperature: -70°C to +55°C Humidity: 0 to 100%, splashproof

#### **Dimensions & Weight**

Sensor: 161mm x 64mm (external dia) with 2m cabling; 0.43 kg

Electronics Box: 236mm x 56mm x 39mm; 0.46 kg

Option 1 cabling; .125kg

Option 3 light weight battery; .250kg

#### **Power**

Power Supply:18 to 32 V DC

Power Requirements: approx. 50 W at start up, dropping to 12 W after warm-up Power Consumption:12 W typical at 20°C Warm-up Time: <15 minutes at -40°C

#### **Outputs**

20 Hz RS-232 output with comprehensive Windows Personal Computer (PC) software for data acquisition and display.



Outputs UTC time, magnetic field, lock indication, heater, field reversal, GPS position (latitude, longitude altitude, number of satellites)

#### Components

Sensor, pre-amplifier box, 2m sensor /pre-amplifier cable (optional cable 3-5m), manual & shipping case



## **GSM-19 Overhauser Magnetometer**

#### **Performance**

Sensitivity: Standard GSM-19 0.022 nT @ 1 Hz GSM-19PRO 0.015 nT @ 1 Hz

Resolution: 0.01 nT

Absolute Accuracy: 0.1 nT

Dynamic Range: 20,000 to 120,000 nT Gradient Tolerance: up to 10,000 nT/m Samples at: 60+, 5, 3, 2, 1, 0.5, 0.2 sec Operating Temperature: -40°C to +50°C

#### **Operating Modes**

Manual: Coordinates, time, date and reading stored automatically at up to 0.2 sec.

Base Station: Time, date and reading stored at 1 to 60 second intervals.

Remote Control: Optional remote control using RS-232 interface.

Input/Output: RS-232 using 6-pin weatherproof connector with USB adapter.

#### Memory - (# of Readings in millions)

Mobile: 1.4M

Base Station: 5.3M Gradiometer: 1.2M Walking Mag: 2.6M

#### **Dimensions**

Console: 223mm x 69mm x 240 mm(8.7x2.7x9.5in)

Sensor: 175mm x 75mm diameter cylinder (6.8in long by 3 in diameter)

#### Weights

Console with Belt: 2.1 kg Sensor and Staff Assembly: 1.0 kg



#### Matrice 600

#### Structure

Diagonal Wheelbase: 1133 mm

Aircraft Dimensions: 1668 mm x 1518 mm x 759 mm (Propellers, frame arms and GPS mount unfolded)

640 mm x 582 mm x 623 mm (Frame arms and GPS mount folded)

Package Dimensions: 620 mm x 320 mm x 505 mm

Intelligent Flight Battery Quantity: 6
Weight (with six TB47S batteries): 9.1 kg
Weight (with six TB48S batteries): 9.6 kg

Max Takeoff Weight: 15.1 kg

#### **Performance**

Hovering Accuracy (P-Mode, with GPS) Vertical: ±0.5 m, Horizontal: ±1.5 m

Max Angular Velocity: Pitch: 300°/s, Yaw: 150°/s

Max Pitch Angle: 25°

Max Speed of Ascent: 5 m/s Max Speed of Descent: 3 m/s Max Wind Resistance: 8 m/s

Max Flight Altitude above Sea Level: 2500 m

Max Speed: 18 m/s (No wind)

Hovering Time (with six TB47S batteries)\* No payload: 35 min, 6 kg payload: 16 min Hovering Time (with six TB48S batteries)\* No payload: 40 min, 5.5 kg payload: 18 min

\* The hovering time is based on flying at 10 m above sea level in a no-wind environment and landing with 10% battery level.

#### **Remote Controller**

Operating Frequency:

- 920.6 MHz to 928 MHz (Japan)
- 5.725 GHz to 5.825 GHz
- 2.400 GHz to 2.483 GHz

Max Transmission Distance (unobstructed, free of interference):

FCC Compliant: 3.1 miles (5 km)
CE Compliant: 2.1 miles (3.5 km)

#### EIRP:

- 10 dBm @ 900 M/li>
- 13 dBm @ 5.8 G
- 20 dBm @ 2.4 G

Video Output Port: HDMI, SDI, USB



Dual Users Capability: Master-and-Slave control

Mobile Device Holder: Supports smartphones and tablets

Output Power: 9 W

Operating Temperature: 14° to 104° F (-10° to 40° C)

Storage Temperature:

Less than 3 months: -4° to 113° F (-20° to 45° C) More than 3 months: 72° to 82° F (22° to 28° C)

Charge Temperature: 32° to 104° F (0° to 40° C)

Built-in Battery: 6000 mAh, 2S LiP

Max Tablet Width: 170 m

#### **Propulsion System**

Motor Model: DJI 6010 Propeller Model: DJI 2170

#### **Battery**

Model: TB48S

Capacity: 5700 mAh Voltage: 22.8 V Type: LiPo 6S

Energy: 129.96 Wh Net Weight: 680 g

Operating Temperature: 14° to 104° F (-10° to 40° C)

Storage Temperature: Less than 3 months: -4° to 113° F (-20° to 45° C) More than 3 months: 72° to 82° F

(22° to 28° C)

Charge Temperature: 41° to 104° F (5° to 40° C)

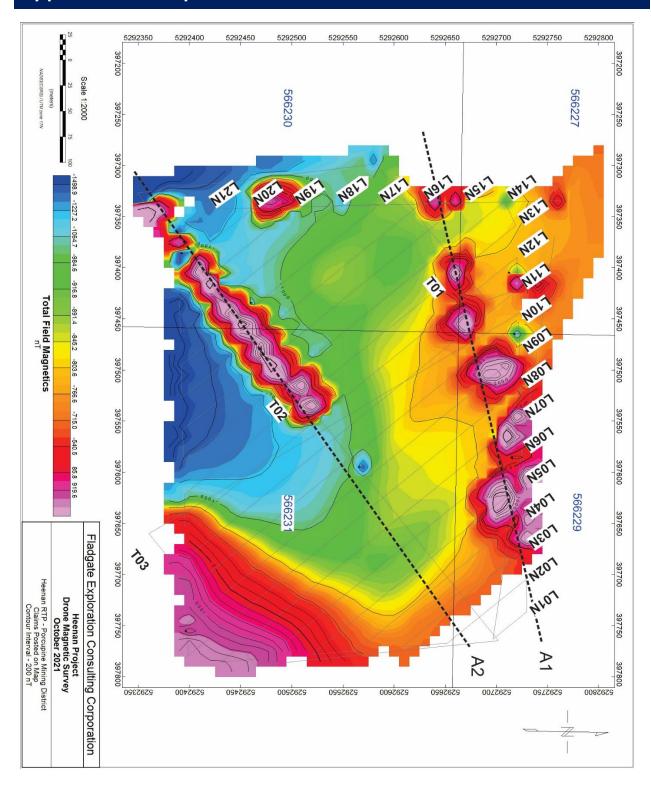
Max Charging Power: 180 W

#### Charger

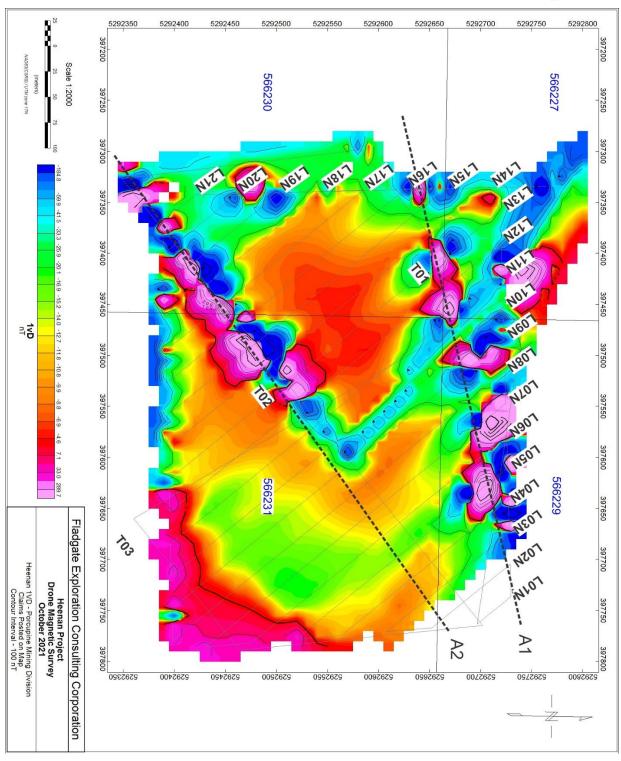
Model: MC6S600 Voltage: Output 26.1 V Power Rating: 100 W



# Appendix II - Maps









# Appendix III – Program Expenditures and Cost Per Claim

	Date From MM/DD/YYYY	Date To MM/DD/YYYY	Item	Rate	Per Unit	Units	subtotal
Data Collection	10/29/2021	10/31/2021	Truck Rental	\$100	day	3	\$300
			Mileage	\$0.70	km	919	\$639.10
			Project Manager	\$700	day	3	\$2,100
			Assistant	\$500	day	3	\$1,500
			Room & Board	\$225	day	6	\$1,350
			Line kms	\$200	km	9	\$1,800
			Mod/DeMob	\$1000	day	1	\$1,000
						subtotal	\$8,689.10
Processing & Report	02/10/2022	02/12/2022	processing	\$700	day	3.5	\$2,450
	12/02/2021	03/01/2022	report writing	\$700	day	3.5	\$2,450
						subtotal	\$4,900
						TOTAL	\$13,589.10

Cost Per Claim (\$)
754.95
1,509.90
4,227.72
7,096.53
13,589.10