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# BEN NEVIS RESOURCES

## **Abstract**

CXS was contracted to perform a magnetometer survey over a portion of the Inter-provincial Property. The crew accessed the site on the 9<sup>th</sup> of March, 2023.

A total length of 33.75 kilometres was covered with 1365 magnetometer samples taken at a 25-meter interval. The magnetometer survey indicated little variation over the survey area. Some stronger magnetometer responses occur, which may represent areas of intrusion or mineralization which should be further investigated.

## **BEN NEVIS RESOURCES**

### **Q3109 – Interprovincial Property Magnetometer Survey**

**C Jason Ploeger, P.Geol.  
Kajal P. Makwana**

**March 29, 2023**

## TABLE OF CONTENTS

<b>1.</b>	<b>SURVEY DETAILS .....</b>	<b>3</b>
1.1	PROJECT NAME.....	3
1.2	CLIENT .....	3
1.3	OVERVIEW .....	3
1.4	OBJECTIVE.....	3
1.5	SURVEY & PHYSICAL ACTIVITIES UNDERTAKEN.....	3
1.6	SUMMARY OF RESULTS, CONCLUSIONS & RECOMMENDATIONS.....	3
1.7	CO-ORDINATE SYSTEM .....	4
<b>2.</b>	<b>SURVEY LOCATION DETAILS .....</b>	<b>5</b>
2.1	LOCATION.....	5
2.2	ACCESS.....	5
2.3	MINING CLAIMS .....	6
2.4	PROPERTY HISTORY .....	7
2.5	GENERAL REGIONAL/LOCAL GEOLOGICAL SETTINGS.....	11
2.6	TARGET OF INTEREST .....	12
<b>3.</b>	<b>SURVEY WORK UNDERTAKEN .....</b>	<b>13</b>
3.1	SUMMARY .....	13
3.2	SURVEY GRID .....	13
3.3	SURVEY LOG.....	13
3.4	PERSONNEL .....	15
3.5	SAFETY .....	16
3.6	SURVEY SPECIFICATIONS.....	17
<b>4.</b>	<b>OVERVIEW OF SURVEY RESULTS.....</b>	<b>18</b>
4.1	SUMMARY .....	18
4.2	RECOMMENDATIONS .....	19
4.3	CONCLUSION .....	19

## LIST OF APPENDICES

<b>APPENDIX A .....</b>	<b>STATEMENT OF QUALIFICATIONS</b>
<b>APPENDIX B .....</b>	<b>THEORETICAL BASIS AND SURVEY PROCEDURES</b>
<b>APPENDIX C.....</b>	<b>INSTRUMENT SPECIFICATIONS</b>
<b>APPENDIX D .....</b>	<b>REFERENCES</b>
<b>APPENDIX E .....</b>	<b>LIST OF MAPS (IN MAP POCKET)</b>

## LIST OF TABLES AND FIGURES

Figure 1: Location of the Interprovincial Property (Map data ©2023 Google).....	5
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Figure 2: Claim Map with the Interprovincial Property Traverse .....	7
Figure 3: Magnetometer Plan Map on Google Earth .....	18
Table 1: Survey and Physical Activity Details .....	3
Table 2: Mining Lands and Cells Information .....	6
Table 3: Survey Log .....	15
Table 5: Personnel .....	16
Table 8: Daily Safety Topics .....	16

## 1. SURVEY DETAILS

### 1.1 PROJECT NAME

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

### 1.2 CLIENT

Ben Nevis Resources Inc.  
14579 Government Road  
Larder Lake, Ontario  
Canada  
P0K 1L0

### 1.3 OVERVIEW

CXS was contracted to perform a magnetometer survey over a portion of the Interprovincial Property. The crew accessed the site on 9<sup>th</sup> of March 2023.

A total length of 33.75 kilometres was covered with 1365 magnetometer samples taken at a 25-meter interval. The magnetometer survey indicated little variation over the survey area. Some stronger magnetometer responses occur, which may represent areas of intrusion or mineralization which should be further investigated.

### 1.4 OBJECTIVE

The objective of the survey was to delineate the magnetic variation within the underlying geology. These variations may identify structure and alteration systems.

### 1.5 SURVEY & PHYSICAL ACTIVITIES UNDERTAKEN

Survey/Physical Activity	Dates	Total Days in Field	Total Line Kilometers
Magnetometer	9th March 2023 to 21st March, 2023	8	33.75

**Table 1: Survey and Physical Activity Details**

### 1.6 SUMMARY OF RESULTS, CONCLUSIONS & RECOMMENDATIONS

CXS was contracted to perform a magnetometer survey over a portion of the Interprovincial Property.

A total length of 33.75 kilometres was covered with 1365 magnetometer samples

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taken at a 25-meter interval. The magnetometer survey indicated little variation over the survey area. Some stronger magnetometer responses occur, which may represent areas of intrusion or mineralization which should be further investigated.

### **1.7 CO-ORDINATE SYSTEM**

**Projection:** UTM zone 17N

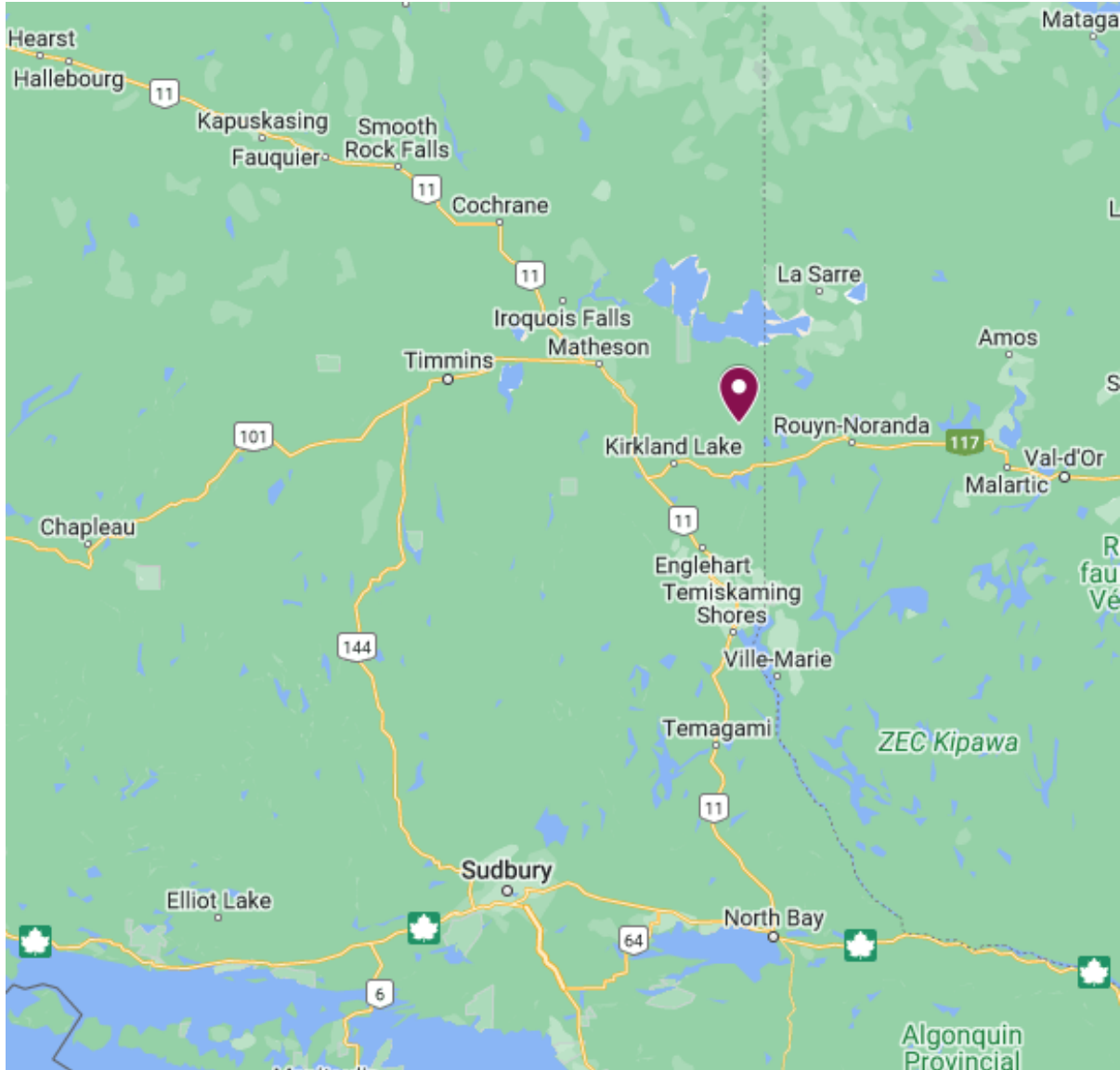
**Datum:** NAD83

**UTM Co-ordinates near the center of the grid:** 598400 Easting and 5351050 Northing

## 2. SURVEY LOCATION DETAILS

### 2.1 LOCATION

The Interprovincial Property is located approximately 33 km northeast of Kirkland Lake or 21 km north of Virginiatown, Ontario. The survey area was located in Ben Nevis Township, within Larder Lake Mining Division.



***Figure 1: Location of the Interprovincial Property (Map data ©2022 Google)***

### 2.2 ACCESS

Access to the property was via Snowmobiles. Highway 66 was travelled north from Larder Lake for about 1 kilometer. From highway 66 a left turn was taken to turn onto Larder Lake Station Road. This road was also travelled via Snowmobiles for

approximately 27 kilometers north, to the survey area.

### 2.3 MINING CLAIMS

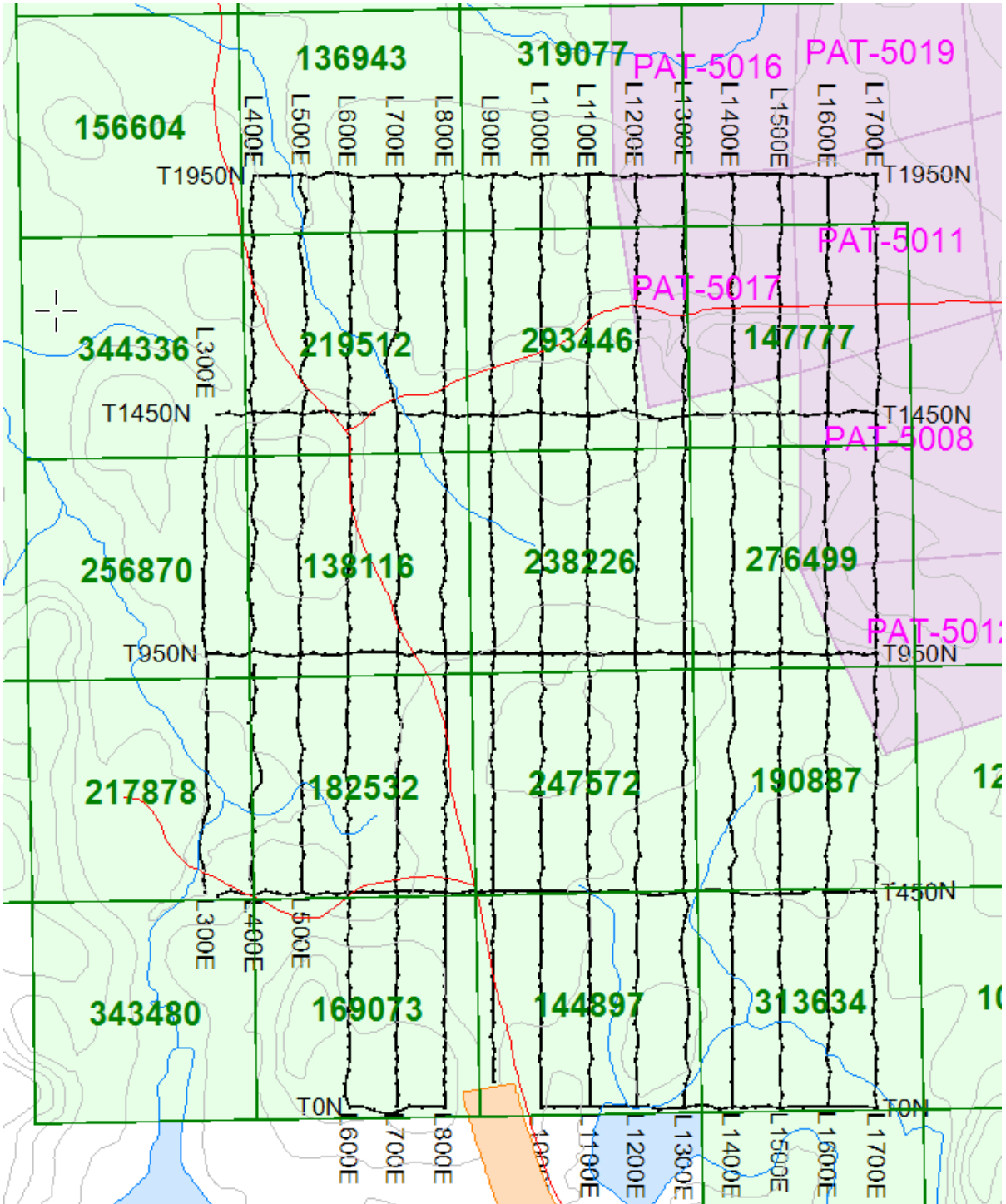
The survey area covers a portion of mining claims, 136943, 319077, 344336, 219512, 293446, 147777, 256870, 138116, 238226, 276499, 217878, 182532, 247572, 190887, 169073, 144897, 313634 all located in Ben Nevis Township, within the Larder Lake Mining Division.

Cell Number	Provincial Grid Cell ID	Ownership of Land	Township
136943	32D05B092	BEN NEVIS RESOURCES INC.	Ben Nevis
319077	32D05B093	BEN NEVIS RESOURCES INC.	Ben Nevis
344336	32D05B111	BEN NEVIS RESOURCES INC.	Ben Nevis
219512	32D05B112	BEN NEVIS RESOURCES INC.	Ben Nevis
293446	32D05B113	BEN NEVIS RESOURCES INC.	Ben Nevis
147777	32D05B114	BEN NEVIS RESOURCES INC.	Ben Nevis
256870	32D05B131	BEN NEVIS RESOURCES INC.	Ben Nevis
138116	32D05B132	BEN NEVIS RESOURCES INC.	Ben Nevis
238226	32D05B133	BEN NEVIS RESOURCES INC.	Ben Nevis
276499	32D05B134	BEN NEVIS RESOURCES INC.	Ben Nevis
217878	32D05B151	BEN NEVIS RESOURCES INC.	Ben Nevis
182532	32D05B152	BEN NEVIS RESOURCES INC.	Ben Nevis
247572	32D05B153	BEN NEVIS RESOURCES INC.	Ben Nevis
190887	32D05B154	BEN NEVIS RESOURCES INC.	Ben Nevis
169073	32D05B172	BEN NEVIS RESOURCES INC.	Ben Nevis
144897	32D05B173	BEN NEVIS RESOURCES INC.	Ben Nevis
313634	32D05B174	BEN NEVIS RESOURCES INC.	Ben Nevis

Patent Number	Cell Type	Provincial Grid Cell ID	Ownership of Land	Township
PAT-5016	Patent		Ben Nevis Resources Inc.	Ben Nevis
PAT-5017	Patent		Ben Nevis Resources Inc.	Ben Nevis
PAT-5011	Patent		Ben Nevis Resources Inc.	Ben Nevis
PAT-5008	Patent		Ben Nevis Resources Inc.	Ben Nevis
PAT-5012	Patent		Ben Nevis Resources Inc.	Ben Nevis

**Table 2: Mining Lands and Cells Information**





**Figure 2: Claim Map with the Interprovincial Property Traverse**

**2.4 PROPERTY HISTORY**

There have been many historical exploration projects carried out over the years all

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over the survey area. The following list describes details of the previous geoscience work which was collected by the Mines and Minerals division and provided by OGSEarth (MNDM & OGSEarth, 2022).

- **1927-1963: Canagau Mines Ltd, Interprov Expl Co (File 32D05SE0055)**  
***Drilling, Geology, Geochemistry***  
Canagau Mines Ltd and Interprov Expl Co, worked on compilation and Interpretation of Diamond Drilling, Geology, and Geochemistry of the property in between 1927 to 1963.
- **1948: Preston East Dome Mines (Files 32D05SE0066, 32D05SE0074)**  
***Diamond Drilling, Geology***  
In 1948 Preston East Dome Mines performed Geological Survey / Mapping and diamond drilling of 3 Holes totaling 1017'
- **1953: Sakinaw L Copper & Iron Mining Ltd (File 32D05SE0048)**  
***Geology***  
In 1953, Sakinaw L Copper and Iron Mining Ltd performed geological survey and mapping over the property.
- **1954: Cavendish Uranium & Mining Co Ltd (File 31D16SW8563, 31D16SW8562)**  
***Drilling, Geochemistry***  
In 1954 to 1955, Cavandish Uranium & Mining Co Ltd performed Assaying and Analyses and diamond drilling of 29 holes totalling 9108'.
- **1955: A Godfrey (File 31D16SW8559)**  
***Diamond Drilling***  
In 1955, A Godfrey performed 1 diamond drill hole which was 38' in length.
- **1955: Drude Uranium Mines Ltd (File 31D16SW8553)**  
***Drilling, Geochemistry***  
In 1955, Drude Uranium Mines Ltd performed Assaying and Analyses and Diamond Drilling of 5 DDH totalling 1925.2'.
- **1964: Duvan Copper Co Ltd (File 32D05SE0067)**  
***Ground Geophysics***  
In 1964, Magnetic / Magnetometer Survey was performed over the property by Duvan Copper Co Ltd.
- **1969: R Beaudry (File 32D05SE0065)**  
***Diamond Drilling***  
In 1969, 7 drillholes (4146') were drilled by R Beaudry on the property.
- **1971: Cominco Ltd (File 32D05SE0063)**  
***Airborne Geophysics***

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- Airborne Electromagnetic was performed over the property by Cominco Ltd, in 1971.
- **1971-1973: Amax Exploration Inc (Files 32D05SE0016, 32D05SE0017, 32D05SE0015, 32D05SE0056, 32D05SE0685, 32D05SE0073, 32D05SE0072)**  
***Airborne Geophysics, Geology, Ground Geophysics, Geochemistry, Diamond Drilling***  
Between 1971 to 1973, Amax Exploration Inc performed Airborne Electromagnetic, Airborne Magnetometer survey, Geochemical, Geological Survey / Mapping, Induced Polarization and Drilling of 20 Diamond drill holes totalling 7605 ft.
  - **1980 - 1984: Goldmac Expl Inc (Files 32D05SE0050, 32D05SE0045, 32D05SE0044)**  
***Ground Geophysics, Geology, Prospecting***  
Between 1980 to 1984, Electromagnetic Very Low Frequency, Geochemical, Magnetic / Magnetometer Survey, Electromagnetic, Geological Survey / Mapping, Magnetic / Magnetometer Survey, Prospecting by Licence Holder, Radiometric were reported by Goldmac Exploration Inc.
  - **1986: Lac Minerals Ltd (File 32D05SE0341, 32D05SE0043)**  
***Ground Geophysics***  
In 1986, Lac Minerals Ltd performed Magnetic / Magnetometer Survey over the property.
  - **1988: Regal Goldfields Ltd (File 32D05SE0039)**  
***Geology, Diamond Drilling, Geochemistry, Ground Geophysics***  
In 1988, Regal Goldfields Ltd performed Compilation and Interpretation - Geology, Electromagnetic Very Low Frequency, Magnetic / Magnetometer Survey and drilling of 5 holes totalling 2008'.
  - **1988-1994: B Kiazuk (Files 32D05SE0035, 32D05SE0032, 32D05SE0028, 32D05SE0026, 32D05SE0027, 32D05SE9407, 32D05SE0029, 32D05SE0092, 32D05SE0062)**  
***Diamond Drilling, Geochemical, Prospecting, Ground Geophysics***  
Between 1988 to 1994, assaying and analysis, Prospecting and Diamond drilling of 10 drillholes totalling of 1218ft.
  - **1989: P J Labbe (Files 32D05SE0034, 32D05SE0031)**  
***Ground Geophysics***  
In 1989 P J Labbe performed Magnetic / Magnetometer survey and Electromagnetic Very Low Frequency over the property.
  - **1989: J Forbes (File 32D05SE0030)**

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**Ground Geophysics**

In 1989, J Forbes performed Magnetic / Magnetometer Survey over the property.

- **1990 - 1991: Joutel Resources Ltd, Mountain Lake Resources Inc (File 32D05SE0007, 32D05SE0025)**  
***Airborne Geophysics, Drilling, Geochemistry, Geology, Ground Geophysics, Physical***  
Between 1990 to 1991, Joutel Resources Ltd performed Airborne Electromagnetic, Airborne Electromagnetic Very Low Frequency, Airborne Magnetometer, Assaying and Analyses, Downhole Geophysics, Electromagnetic, Geochemical, Geological Survey / Mapping, Overburden Stripping and Diamond Drilling of 6 holes totalling 2839' over the property.
- **1992: G Griesbach (File 32D05SE0090)**  
**Geochemistry, Prospecting, Ground Geophysics**  
In 1992 G Griesbach performed Assaying and Analyses, Electromagnetic, Prospecting by Licence Holder, Regional or Reconnaissance Ground Exploration over the property.
- **1992: Minnova Inc (Files 32D05SE0071, 32D05SE0023)**  
**Geochemistry, Geology, Physical**  
In 1992, Minnova Inc reported Assaying and Analyses, Bedrock Trenching, Geochemical, Geological Survey / Mapping over the property.
- **1993 - 1994: Metall Mining Corp (File 32D05SE0058, 32D05SE9401, 32D05SE0061, 32D05SE0024)**  
**Ground Geophysics, Geology, Drilling, Geochemistry**  
Between 1993 to 1994, Metall mining Corp performed Electromagnetic, Open Cutting, Geochemical, Geological Survey / Mapping, Assaying and Analyses, Diamond Drilling (6 holes 1765m), Downhole Geophysics over the property.
- **1998 - 2001: Mountain Lake Resources Inc, Noranda Mining & Exploration Inc (Files 32D05SE2008, 32D05SE2019)**  
***Drilling, Geology, Geochemistry***  
Between 1998 to 2001, Mountain Lake resources and Noranda Mining & Exploration performed Assaying and Analyses, Compilation, and Interpretation - Diamond Drilling, Downhole Geophysics over the property.
- **1999 - 2000: Michael Sutton (File 32D05SE2013)**  
**Ground Geophysics**  
Between 1999 to 2000, Michael Sutton performed Induced Polarization and Open Cutting over the property.
- **2000: Falconbridge Ltd (File 32D05SE2016)**

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**Ground Geophysics**

In 2000, Falconbridge Ltd performed Electromagnetic, Magnetic / Magnetometer Survey over the property.

- **2002 - 2009: Wallbridge Mining Company Ltd & David G Vallillee (Files 32D05SE2017, 32D05SE2022, 32D05SE2021, 20000000736, 20000014877, 20000002919, 20000005216)**

**Geochemistry, Geology, Diamond Drilling, Airborne Geophysics, Ground Geophysics, Physical**

Between 2002 to 2009, Walbridge Mining Company performed multiple work on the property including, Assaying and Analyses, Compilation and Interpretation, Geological Survey / Mapping, Induced Polarization, Line cutting Magnetic / Magnetometer Survey, Overburden Stripping, Airborne Electromagnetic Very Low Frequency, Airborne Magnetometer and Drilling of 20 holes totalling 4861.51m.

- **2007 – 2008: Golden Chalice Resources Ltd (File 20000003817)**

**Ground Geophysics, Physical**

Between 2007 to 2008, Golden Chalice Resources performed Electromagnetic, Electromagnetic Very Low Frequency, Line cutting, Magnetic / Magnetometer Survey.

- **2017 – 2019: Ben Nevis Resources Inc (Files 20000015245, 20000015147, 20000016338, 20000018166)**

**Ground Geophysics, Airborne Geophysics**

Between 2017 to 2019, Ben Nevis Resources performed Magnetic / Magnetometer Survey, Induced Polarization, Airborne Electromagnetic Very Low Frequency, Airborne Magnetometer over the property.

## 2.5 GENERAL REGIONAL/LOCAL GEOLOGICAL SETTINGS

### General Geology:

This volcanic belt consists of Early Precambrian volcanic and Intrusive rocks. Multiple lava flow and pyroclastic units exist in the belt, with being more mafic at the bottom and felsic at the top. Intrusive bodies consist of mafic and intermediate sills, stocks and dikes. An intrusive complex that consists of granitic stocks and a rhyolitic body cuts the volcanic rock and mafic/intermediate intrusive bodies. Low grade regional metamorphism under zeolite facies conditions, as well as concentric folding has caused regional deformation and alteration of the bedrock (Precambrian rocks).

Metamorphism of the Intrusive contacts of granitic stocks occurred under albite-epidote-hornfels facies conditions. Multiple synclines and anticlines exist in the surrounding areas. A synclinorium opens near the survey area and a north-trending anticline occurs in the area. Multiple radial and short northwest and northeast striking

faults occur near the intrusive complex, as well as some northeast and north trending regional faults.

Multiple minerals are associated with the different intrusive rocks. Along shear zones in the felsic volcanic rocks chalcopyrite, galena, and sphalerite are found. Near the granitic gold and molybdenite are associated with the sulphide minerals. Not associated with the stocks, but within the felsic volcanic rocks, gold and silver are associated with the sulphide minerals (Jensen, 1975).

Previous exploration has revealed volcanogenic massive sulphide and possible epithermal precious metals Zn-Cu-Pb-Ag-Au mineralization mainly ant Canagau and Ehrhart occurrences. The property is located within the Archean Blake River group of Abitibi Sub province 10 km West of Quebec border and 45 km west of VMS deposits of the Noranda Mining Camp.

## **2.6 TARGET OF INTEREST**

Targetting for the Survey was an area of interest provided by the client. This area included the OMI known as The Ehrhart (MDI32D05SE00048) which is a copper showing.

### 3. SURVEY WORK UNDERTAKEN

#### 3.1 SUMMARY

CXS was contracted to perform a magnetometer survey over a portion of the Inter-provincial Property. The crew accessed the site on March 9<sup>th</sup>, 2023.

A total length of 33.75 kilometres was covered with 1365 magnetometer samples taken at a 25-meter interval. The magnetometer survey indicated little variation over the survey area. Some stronger magnetometer responses occur, which may represent areas of intrusion or mineralization which should be further investigated.

#### 3.2 SURVEY GRID

The traversed lines were established using a GPS in conjunction with the execution of the Survey. The GPS operator would select sample locations while remaining approximately 25m in front of the magnetometer operator. GPS waypoints and magnetic samples were taken every 25m along these controlled traverses. The GPS used was a Garmin GPSMAP 62s with an external antenna for added accuracy.

#### 3.3 SURVEY LOG

<b>Magnetic Survey Log</b>					
<b>Date</b>	<b>Description</b>	<b>Line</b>	<b>Min Extent</b>	<b>Max Extent</b>	<b>Total Survey (m)</b>
March 9, 2023	Begin Magnetometer survey.	600E	0N	450N	450
		700E	0N	450N	450
		800E	0N	450N	450
		900E	50N	450N	400
		1000E	0N	450N	450
		1100E	0N	450N	450
		1200E	0N	450N	450
		0N	600E	800E	200
		0N	1000E	1200E	200
		450N	600E	1200E	600
<b>4100m</b>					
March 10, 2023	Continue Magnetometer Survey.	1400E	450N	1950N	1500
		1500E	0N	1950N	1950
		1600E	0N	1450N	1450
		1700E	0N	1450N	1450
		0N	1200E	1700E	500

<b>Magnetic Survey Log</b>					
<b>Date</b>	<b>Description</b>	<b>Line</b>	<b>Min Extent</b>	<b>Max Extent</b>	<b>Total Survey (m)</b>
		450N	1600E	1700E	100
		950N	1400E	1500E	100
		950N	1600E	1700E	100
		1450N	1400E	1500E	100
		1450N	1600E	1700E	100
		1950N	1400E	1500E	100
		<b>7450m</b>			
March 14, 2023	Continue Magnetometer Survey.	1200E	450N	1450N	1000
		1300E	0N	1450N	1450
		1400E	0N	450N	450
		450N	1200E	1600E	400
		1450N	1200E	1300E	100
		<b>3400m</b>			
March 15, 2023	Continue Magnetometer Survey	1000E	450N	1950N	1500
		1100E	450N	1950N	1500
		1200E	1450N	1950N	500
		1300E	1450N	1950N	500
		1950N	1000E	1400E	400
		<b>4400m</b>			
March 16, 2023	Continue Magnetometer Survey	600E	450N	950N	500
		700E	450N	950N	500
		800E	450N	1950N	1500
		900E	450N	1950N	1500
		950N	600E	800E	200
		1950N	800E	1000E	200
		<b>4400m</b>			
March 17, 2023	Continue Magnetometer Survey	700E	950N	1450N	500
		1600E	1450N	1950N	500
		1700E	1450N	1950N	500
		950N	800E	1600E	700
		1450N	700E	1600E	700
		1950N	1500E	1700E	200



<b>Magnetic Survey Log</b>					
<b>Date</b>	<b>Description</b>	<b>Line</b>	<b>Min Extent</b>	<b>Max Extent</b>	<b>Total Survey (m)</b>
		<b>3200m</b>			
March 20, 2023	Continue Magnetometer Survey	300E	450N	1450N	1000
		400E	450N	1450N	1000
		500E	950N	1450N	500
		450N	300E	500E	200
		950N	300E	600E	300
		1450N	300E	600E	300
		<b>3300m</b>			
March 21, 2023	Complete the Magnetometer Survey	400E	1450N	1950N	500
		500E	450N	950N	500
		500E	1450N	1950N	500
		600E	950N	1950N	1000
		700E	1450N	1950N	500
		450N	500E	600E	100
		1450N	600E	700E	100
		1950N	400E	800E	400
<b>3600m</b>					
<b>Total</b>	<b>33.75 Magnetic Line Kilometre</b>				

**Table 3: Survey Log**

### 3.4 PERSONNEL

<b>Crew Member / Contractor</b>	<b>Position</b>	<b>Resident</b>	<b>Province</b>
Jake Neale	Magnetometer Operator	Virginiatown	Ontario
Jason Caza	Magnetometer Operator	Virginiatown	Ontario
Michael Sheldon	Magnetometer Operator	Larder Lake	Ontario
Jonathan Lacaille	Magnetometer Operator	Larder Lake	Ontario
C Jason Ploeger	Senior Geophysicist	Larder Lake	Ontario
Kajal P. Makwana	Junior Geologist	Virginiatown	Ontario

**Table 4: Personnel**

**3.5 SAFETY**

Canadian Exploration Services prides itself in creating and maintaining a safe work environment for its employees. Each crew member is briefed on the job site location, equipment safety, and standard operating procedures, along with our health and safety manual. An emergency response plan is generated relating to the specific job, and with the Jobsite predominantly in the field, which is unpredictable, morning safety briefings are essential. Topics are generally chosen based on Jobsite characteristics of the area, time of year and crew experience.

Daily topics included:

Date	Safety Topic
March 9, 2023	Safety equipment in the trucks: Trucks have fire extinguisher, air pump, first aid kit, jack and parts, spare tire, etc. Skidoos, toolkit, belt etc. These should be checked on regular basis.
March 10, 2023	If you don't know, don't go. If you have not been trained, you should not be doing the work. Do not do anything outside instructions. If you do not understand the instructions, then ask questions.
March 14, 2023	Equipment is designed a way to protect people. Do not remove guards unless it is locked out. Do not alter equipment.
March 15, 2023	Long mobilizations on snowmobiles: While going for a long travel on the skidoos, the best way is to the person with more stuff drives in the front and other person drives in the back so that if something drops the other person knows. Also make sure to check the skidoos for first aid kit, gas, breaks and everything else. Bring an extra pair of socks, hand gloves, and clothes while riding it for a long time.
March 16, 2023	Tags on the equipment: Two types of tags-Red and green. Both are used in major or minor issues with the equipment.
March 17, 2023	Visibility: Vehicle windows, mirrors should be cleaned of snow. Cargo may block windows. Make sure cameras are clean. If you can't see you should get a spotter.
March 20, 2023	There are forms to fill out for circle checks of trucks, trailers, and heavy equipment. The skidoos and atvs do not have checklist but they should still be checked. Report deficiency on red tag.
March 21, 2023	Heavy lifting: Do not lift with your shoulders or back but lift it with your legs. If it is very heavy, then ask for help. Do not try and lift it by yourself that you can get hurt.

**Table 5: Daily Safety Topics**

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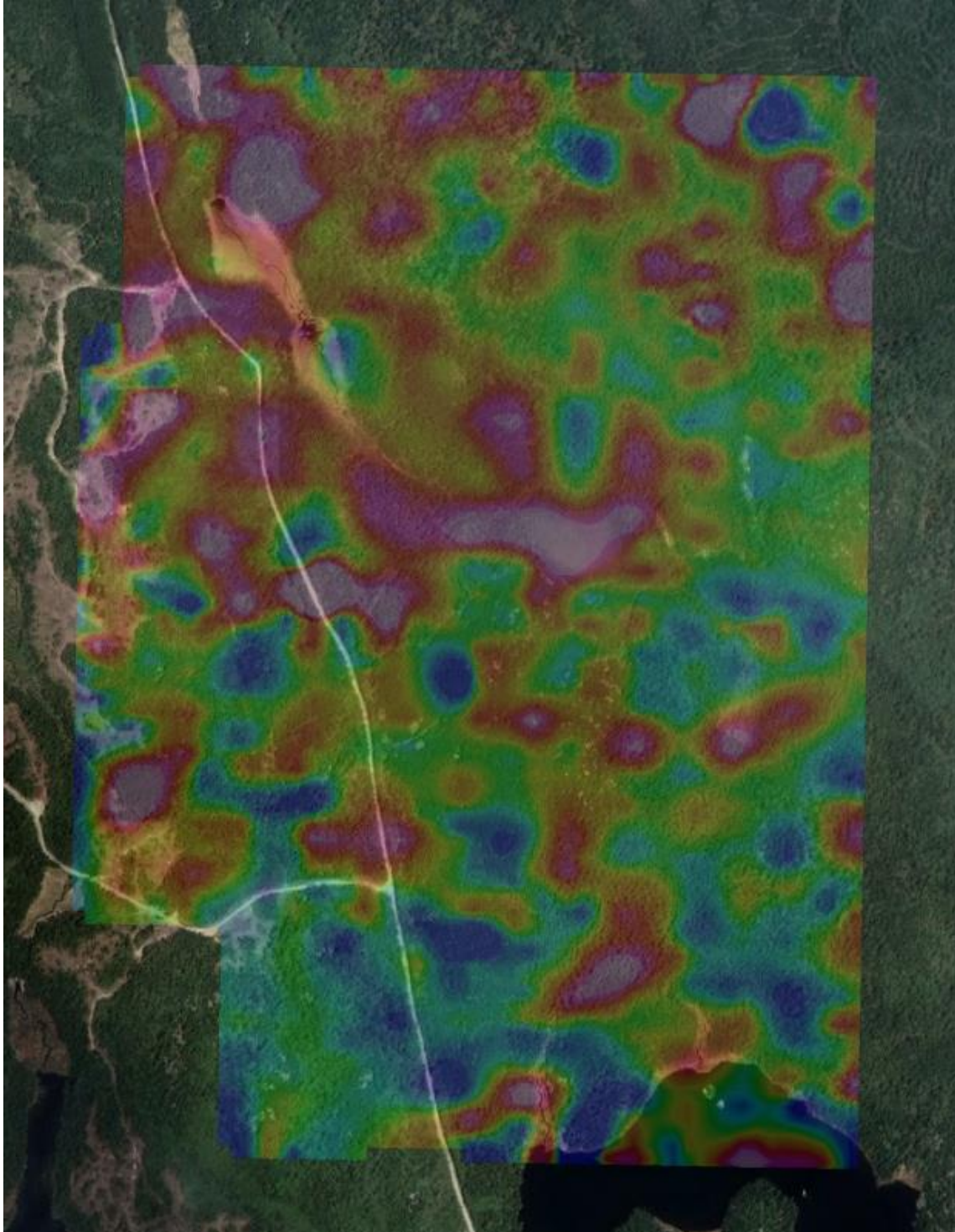
### **3.6 SURVEY SPECIFICATIONS**

The Survey was conducted with a GSM-19 v7 Overhauser magnetometer with a second GSM-19 magnetometer in base station mode for diurnal correction.

A total length of 33.75 kilometres was covered with 1365 magnetometer samples taken at a 25-meter interval.

## 4. OVERVIEW OF SURVEY RESULTS

### 4.1 SUMMARY



**Figure 3: Magnetometer Plan Map on Google Earth**

No culture was noted through the traverse areas.

Generally, the magnetic signature indicates little or low magnetic variation over the survey area. The southern end of the survey area does exhibit a slightly lower magnetic signature with a gradational increase to the northeast. This may indicate a gradational change from one volcanic unit to another.

Some stronger magnetic variations occur throughout the survey. An example of this can be seen between lines 800E between 1100N and 1200N. These may represent a mineralized interflow sediment or an intrusive system.

No obvious structures or alteration zones were highlighted within the data.

#### **4.2 RECOMMENDATIONS**

It is recommended that prospecting occur around the elevated magnetic signatures. These may represent areas where mineralization has occurred.

It is also recommended that a grid be cut between line 300E and 1300E from 950N to 1950N. This area should be mapped and a gradient IP survey performed.

#### **4.3 CONCLUSION**

The magnetometer survey indicated little variation over the survey area. Some stronger magnetometer responses occur, which may represent areas of intrusion or mineralization which should be further investigated.

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## 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 Practising 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 interest in the properties of **Ben Nevis Resources**.
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.

March 29, 2023

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## STATEMENT OF QUALIFICATIONS

I, Kajal P. Makwana, hereby declare that:

1. I am a Junior Geologist/Exploration Geologist with residence in Virginiatown, Ontario and employed with Canadian Exploration Services Ltd. of Larder Lake, Ontario.
2. I graduated with a Bachelor of Science degree in Geology from The Maharaja Sayajirao University of Baroda, Gujarat, India, in 2017.
3. I have previous geological work experience with Battery Mineral Resources, 2021-2022.
4. I do not have nor expect interest in the properties and securities of **Ben Nevis Resources**.
5. I am responsible for the 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.

Kajal P. Makwana, B.Sc.  
Exploration Geologist/ Junior Geologist  
Canadian Exploration Services Ltd.

Larder Lake, ON  
March 29, 2023

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## **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 co-ordinates, 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.



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## 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 co-ordinates 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.

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## 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 co-ordinates, 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 64**



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:	8.1 oz (230 g) with batteries
Battery:	2 AA batteries (not included); NiMH or Lithium recommended
Battery life:	16 hours
Waterproof:	yes (IPX7)
Floats:	no

High-sensitivity receiver:	yes
Interface:	high-speed USB and NMEA 0183 compatible
<b>Maps &amp; Memory:</b>	
Basemap:	yes
Ability to add maps:	yes
Built-in memory:	4 GB
Accepts data cards:	microSD™ card (not included)
Custom POIs (ability to add additional points of interest)	yes
Waypoints/favorites/locations:	5000
Routes:	200
Track log:	10,000 points, 200 saved tracks
<b>Features &amp; Benefits:</b>	
Automatic routing (turn by turn routing on roads):	yes (with optional mapping for detailed roads)
<u>Geocaching-friendly:</u>	yes (paperless)
<u>Custom maps compatible:</u>	yes
Hunt/fish calendar:	yes
Sun and moon information:	yes
Tide tables:	yes
Area calculation:	yes
Picture Viewer	yes

- *Specifications obtained from [www.garmin.com](http://www.garmin.com)*

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- **APPENDIX D**

- **REFERENCES**

- Telford, “Applied Geophysics”, 1976
- Gem Systems, “GSM-19 v7, Instruction Manual”, 2007
- Google. (2022). *Location of the Harker Heritage Property.*
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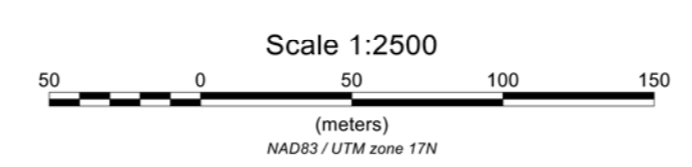
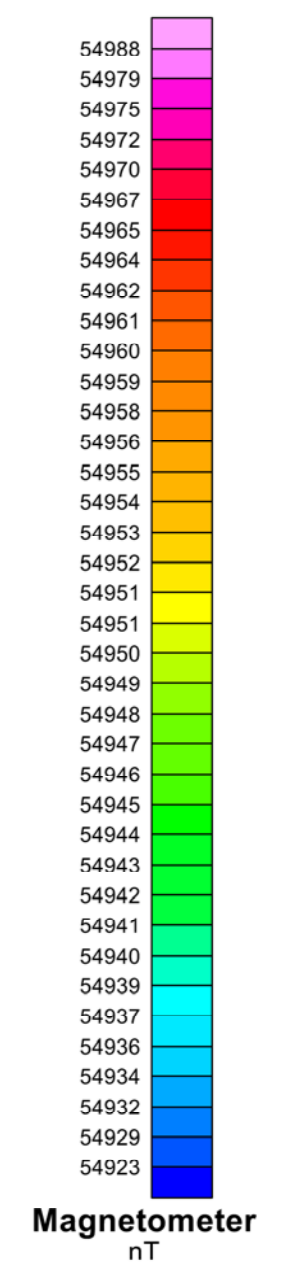
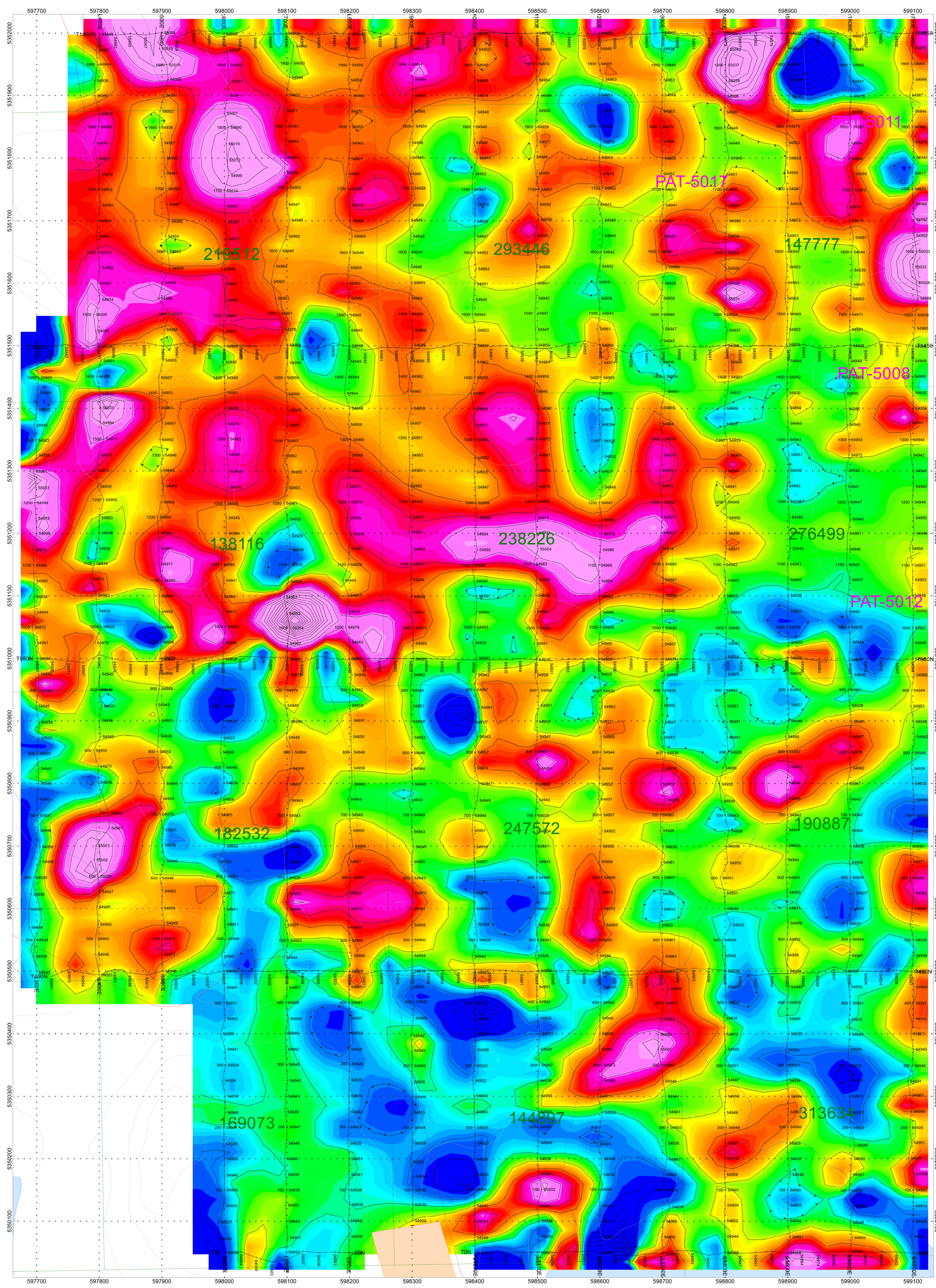
**APPENDIX E**

**LIST OF MAPS (IN MAP POCKET)**

Magnetometer Plan Map (1:5000)

- 1) Q3109-BenNevis-Interprovincial-Mag-Cont
- 2) Q3109-BenNevis-Interprovincial-Mag-Traversal

**TOTAL MAPS = 2**



# BEN NEVIS RESOURCES

Interprovincial Project  
Ben Nevis Township, Ontario

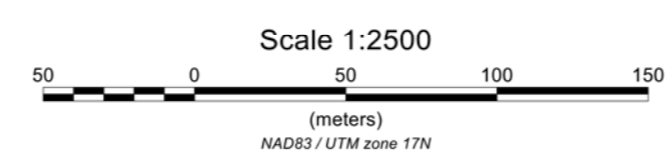
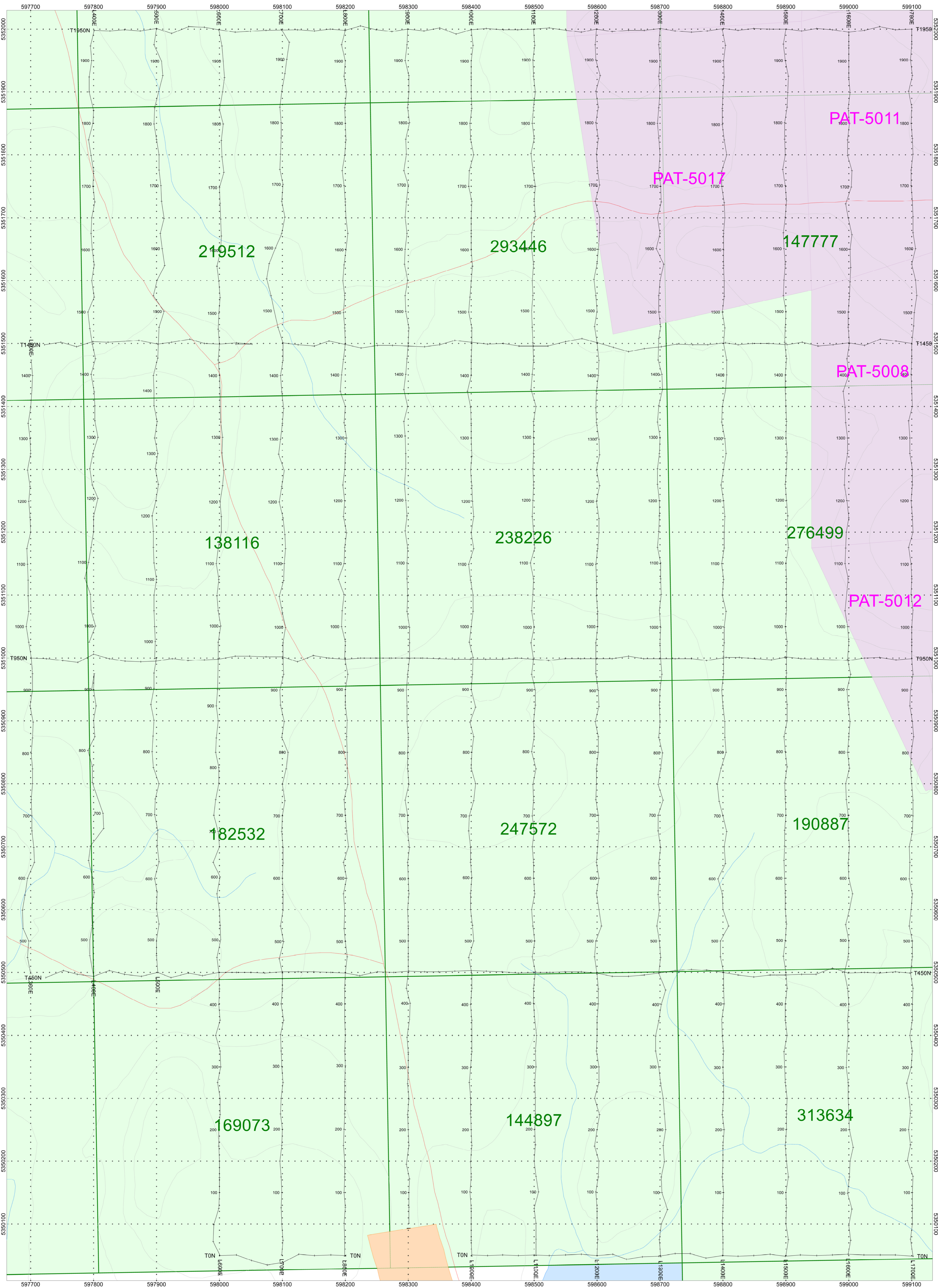
TOTAL FIELD MAGNETIC CONTOURED PLAN MAP  
Base Station Corrected

Posting Level: 0nT  
Field Inclination/Declination: 73degN/12degW  
Station Separation: 25 meter  
Total Field Magnetic Contours: 10nT

GSM-19 OVERHAUSER MAGNETOMETER v7

Processed By: C Jason Ploeger, PGeo  
Map Drawn By: C Jason Ploeger, PGeo  
March 29, 2023





BEN NEVIS  
RESOURCES

Interprovincial Project  
Ben Nevis Township, Ontario

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MAGNETOMETER TRAVERSE PLAN MAP

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GSM-19 OVERHAUSER MAGNETOMETER v7

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Processed By: C Jason Ploeger, PGeo  
Map Drawn By: C Jason Ploeger, PGeo  
March 23, 2023

CANADIAN EXPLORATION SERVICES LTD.

Drawing: Q3109-BenNevis-Interprovincial-Mag-Traverse



Invoice

6577

MOB Mag Report

29125 Rounded 2000 23625 3500  
 Total 2000 23625 3500  
 Cost/Unit 59.25926 700 103.7037  
 Units 33.75 33.75 33.75

check 0 0 0

33.75

km/cell	Cell	29125	29125	2000	23625	3500
0.95	136943	820	819.8148	56.2963	665	98.51852
0.65	319077	561	560.9259	38.51852	455	67.40741
2.2	PAT-5017	1898	1898.519	130.3704	1540	228.1481
0.975	PAT-5011	841	841.3889	57.77778	682.5	101.1111
0.2	344336	173	172.5926	11.85185	140	20.74074
2.675	219512	2308	2308.426	158.5185	1872.5	277.4074
2.15	293446	1855	1855.37	127.4074	1505	222.963
0.55	147777	475	474.6296	32.59259	385	57.03704
1.025	PAT-5008	884	884.537	60.74074	717.5	106.2963
0.575	256870	496	496.2037	34.07407	402.5	59.62963
2.725	138116	2352	2351.574	161.4815	1907.5	282.5926
2.725	238226	2352	2351.574	161.4815	1907.5	282.5926
1.975	276499	1704	1704.352	117.037	1382.5	204.8148
0.55	PAT-5012	475	474.6296	32.59259	385	57.03704
0.575	217878	496	496.2037	34.07407	402.5	59.62963
2.725	182532	2352	2351.574	161.4815	1907.5	282.5926
2.725	247572	2352	2351.574	161.4815	1907.5	282.5926
1.75	190887	1510	1510.185	103.7037	1225	181.4815
0.925	169073	798	798.2407	54.81481	647.5	95.92593
2.6	144897	2244	2243.704	154.0741	1820	269.6296
2.525	313634	2179	2178.981	149.6296	1767.5	261.8519