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GEOPHYSICAL REPORT,
FOR
PELANGIO EXPLORATION
ON THE
GOWAN PROERTY
GOWAN TOWNSHIP
PORCUPINE MINING DIVISION
NORTHEASTERN ONTARIO

JC Grant

Prepared by: J. C. Grant,
March 2021

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PROPERTY HISTORY

The following information provides a chronological history of the work conducted on the Gowan property prior to Pelangio Exploration's work. Full details on all historical work can be obtained in assessment reports located at the Ontario resident geologists office in Timmins Ontario and/or reports and survey map conducted by the Ontario Geological Survey. OGS maps and survey data are also available for detailed review at the Resident Geologist office in Timmins.

Alamo Petroleum, 1974 to 1975:

Alamo Petroleum conducted an induced polarization (IP) survey on cut one grid covering the majority of the current subject property. This work resulted in the detection of a series of IP anomalies. Alamo Petroleum in a follow up program completed 4 drill holes to test four specific anomalies. The highlight of a program was drill hole 2 which returned a significant low grade copper mineralization over a width of 36 feet. Hole 4 also intersected two short intervals of copper and zinc mineralization. Further testing of other IP anomalies and step out hole from the zones of mineralization were recommended.

Newmont Mining Corp of Canada Ltd., 1977:

Newmont conducted a drill program to follow up on work completed by Alamo. Newmont completed four drill holes. The highlight of the Newmont program was Newmont drill hole 1 which undercut Alamo Petroleum hole 2. The Newmont hole intersected the down dip semi massive sulphide zone found in the Alamo hole 2. The Newmont hole also returned a broad low grade copper intercept over 28.5 feet. No significant results were noted in the other Newmont holes and no further work was conducted.

Ontario Geological Survey Airborne, 1988 (Map 81064):

The OGS completed an airborne survey over Gowan Township in 1988. Over the Gowan property the survey outlined a number of airborne electromagnetic anomalies, a number of these anomalies were associated and/or proximal to a number of strong magnetic responses.

Amex Exploration Inc, 2018:

In 2018 Amex Exploration contracted Exsics Exploration to conduct a moving coil pulse electromagnetic survey over a portion of the Gowan Property to ground truth the OGS airborne electromagnetic anomalies defined in the 1988 survey. The survey failed to confirm the anomalies and the property was dropped.

INTRODUCTION:

The services of Exsics Exploration Limited were retained by Mr. Kevin Filo, on behalf of the Company, Pelangio exploration Inc., to complete a down hole and surface Mise a la Masse IP survey on a historical hole that had been drilled on their property, The Gowan property, located in the eastern section of Gowan Township which is located within the Porcupine Mining Division in Northeastern Ontario.

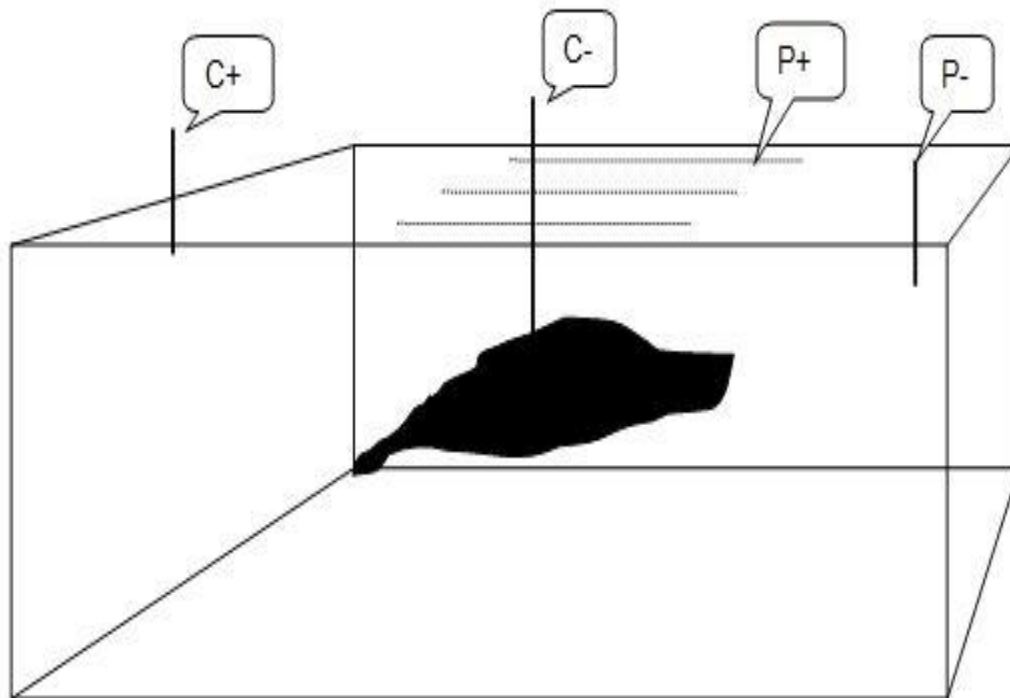
The purpose of the program was to test the geometry of a mineral rich sulphide intersection that had been intersected in the drill hole. This type of downhole survey would map the potential geometry of the intersected horizon, track it out on the surface which would aid in the spotting and drilling location of future drill holes.

Mise-a-la-Masse

The Mise-a-la-Masse method of surveying is used for examining highly conductive subsurface bodies and the area around them. The continuity, extent, dip and strike of the body can be determined with greater ease if the current is injected directly into the conductive body than by the other resistivity mapping methods. If the body does not extend to the surface, the connection could be made through a drill hole.

One current electrode (C-) is connected to the conductive body and the other current electrode (C+) is placed at a considerable distance. One potential electrode (P-) is located in line with the two current connections and at considerable distance on the opposite side of the conductive body. The survey is then conducted with only one potential electrode (P+) being moved over a square grid of measuring points. The readings from the instrument and the potential electrode (P+) coordinates are recorded. A contour map is then generated from these data.

The distance of the far current electrode (C+) from the potential electrode grid (P+) should be at least 2 or 3 times the maximum dimension of the grid. The same is true for the distance between the grid and the stationary potential electrode (P-). Refer to the following figure.



PROPERTY LOCATION AND ACCESS:

The Gowan Property is located in the central eastern section of Gowan Township. The entire claim block is situated approximately 27 kilometers northeast of the City of Timmins and about 5 kilometers west southwest of Ice Chest Lake. Figures 1 and 2.

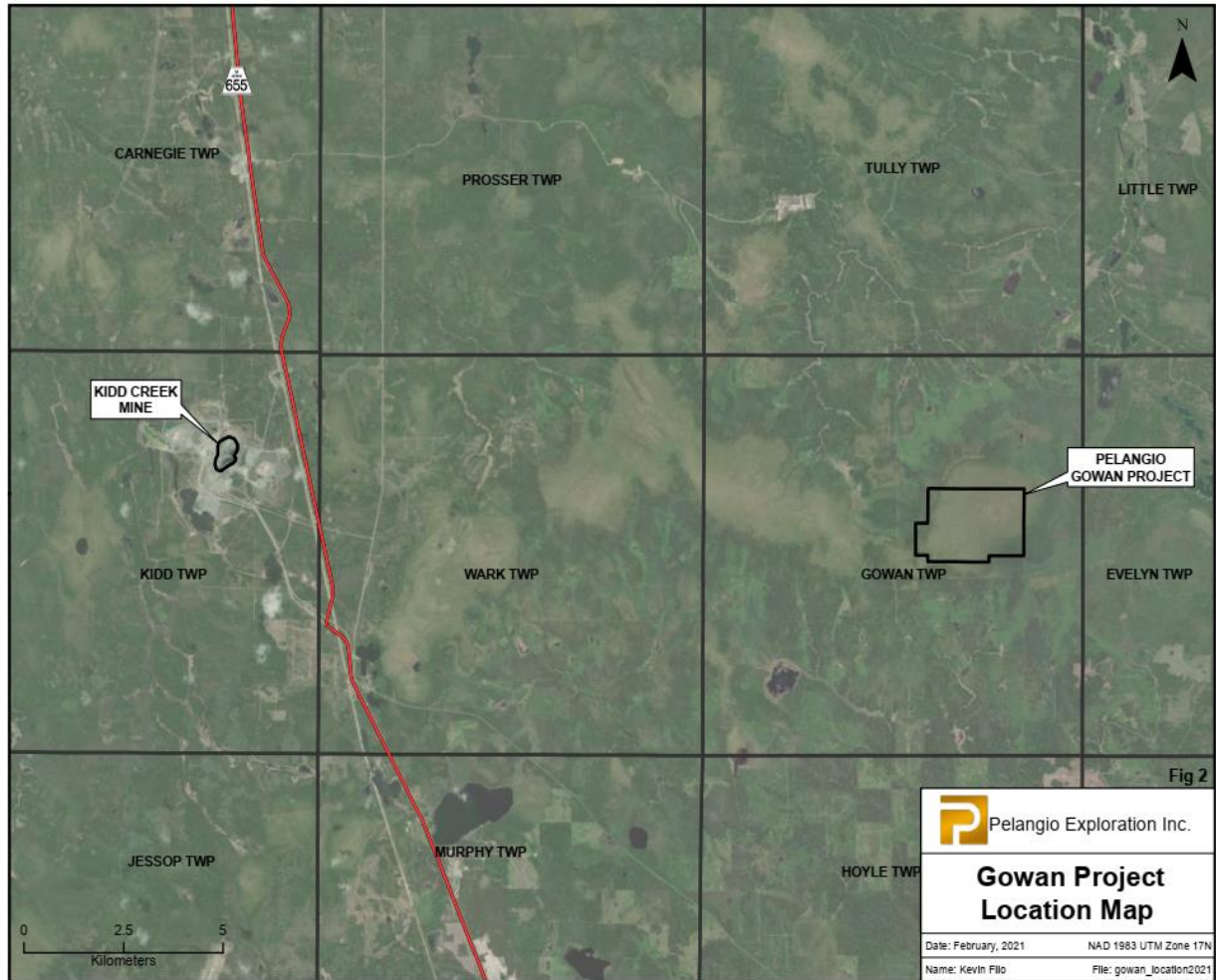
Access to the grid during the survey period was by helicopter from a landing site on the northern section of Timmins into the historical drill hole site located in Gowan township. The drill hole pad was well cut out from the historical drilling and Gowan Township is generally a wide open marsh type area.

Travelling time from the Timmins site to the drill collar was about 20 minutes by air.



Fig.1

FIGURE 2 PROPERTY LOCATION MAP



CLAIM BLOCK:

The claim numbers that represent the Pelangio Exploration Inc. holdings within Gowan Township are outlined on Figure 3. The claim numbers that were covered by the current Mise a la Masse surveys are claims 246345 and 246346. Refer to Figure 3 for the claim numbers and DDH collar location.

FIGURE 3, CLAIM BLOCK:

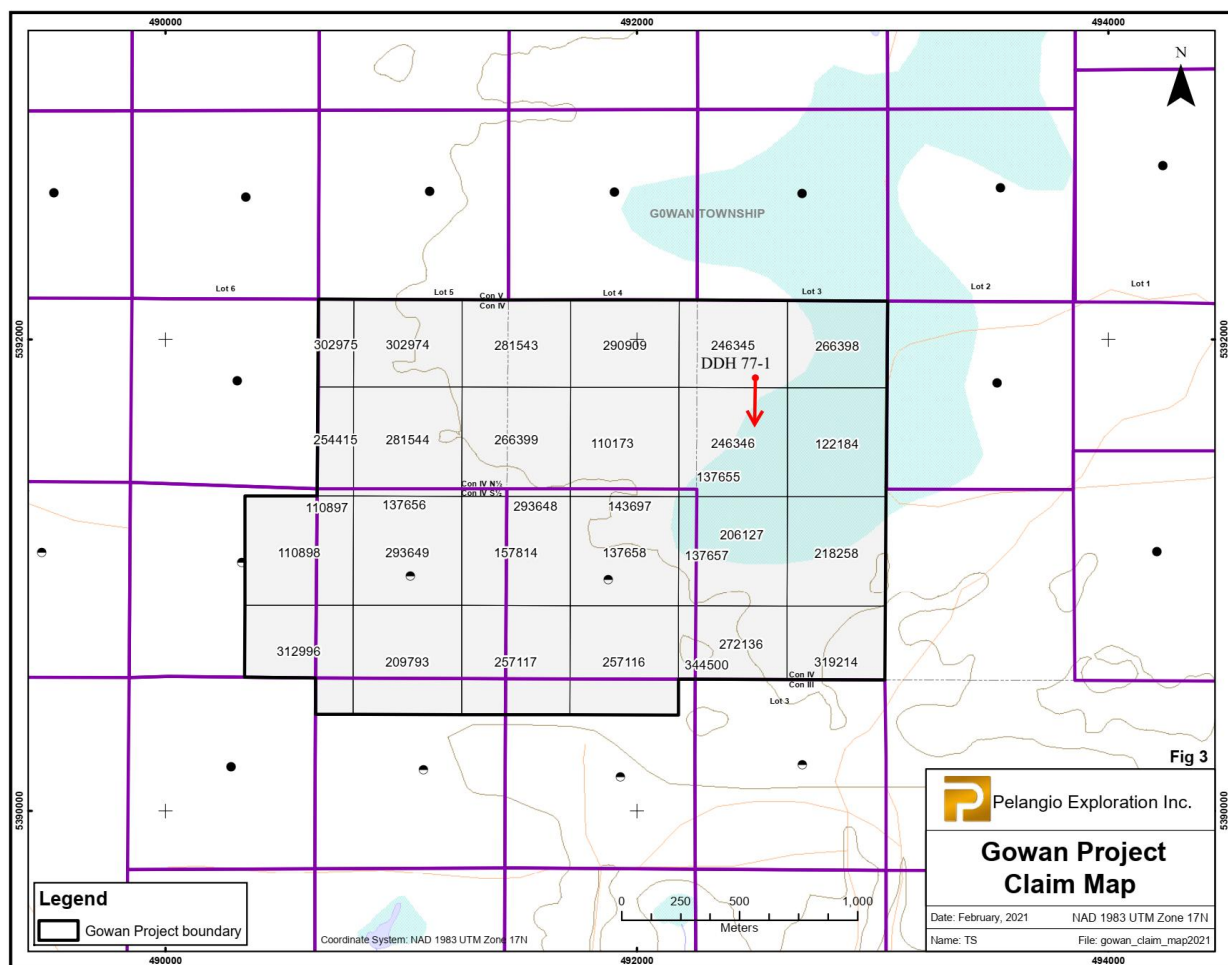
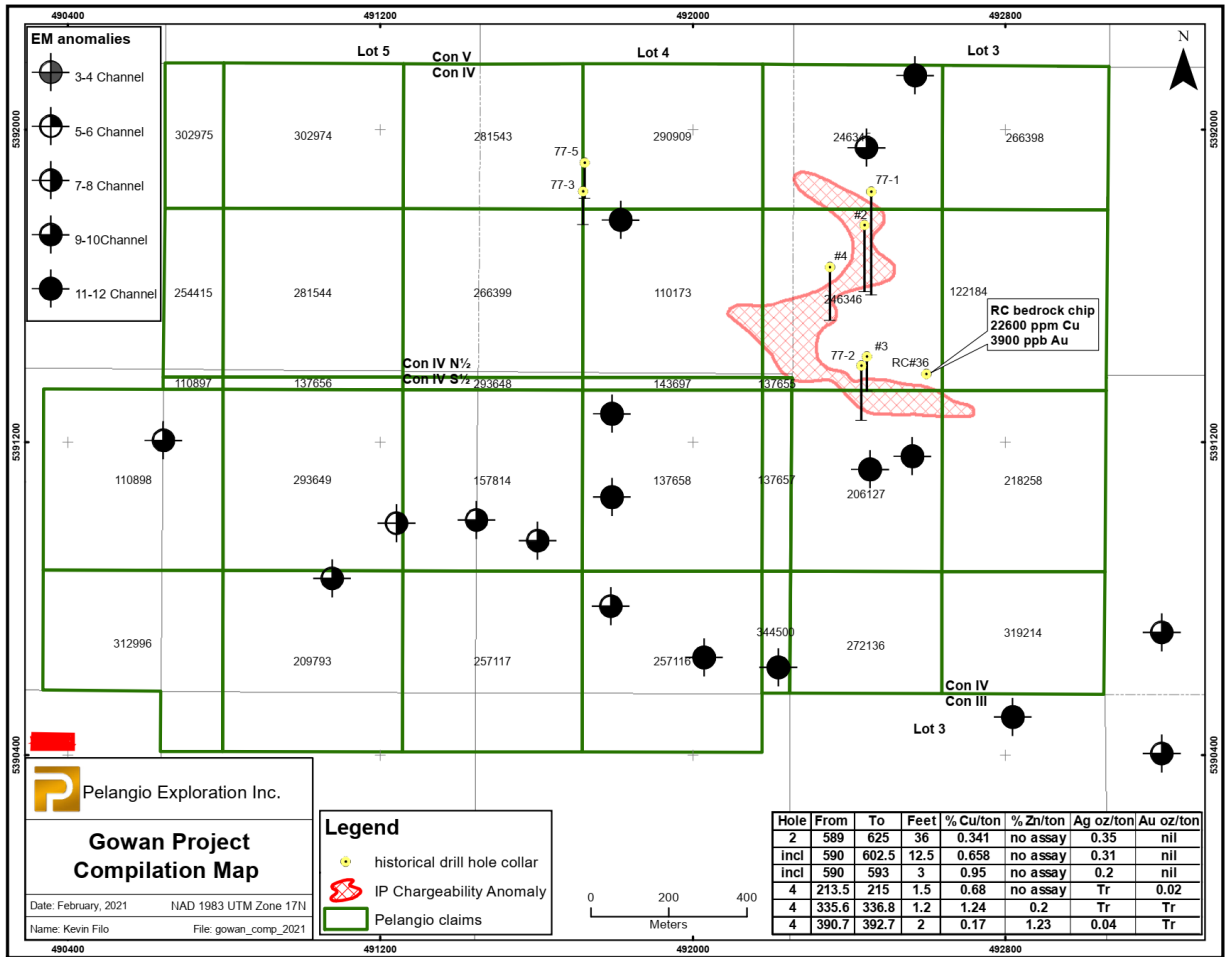
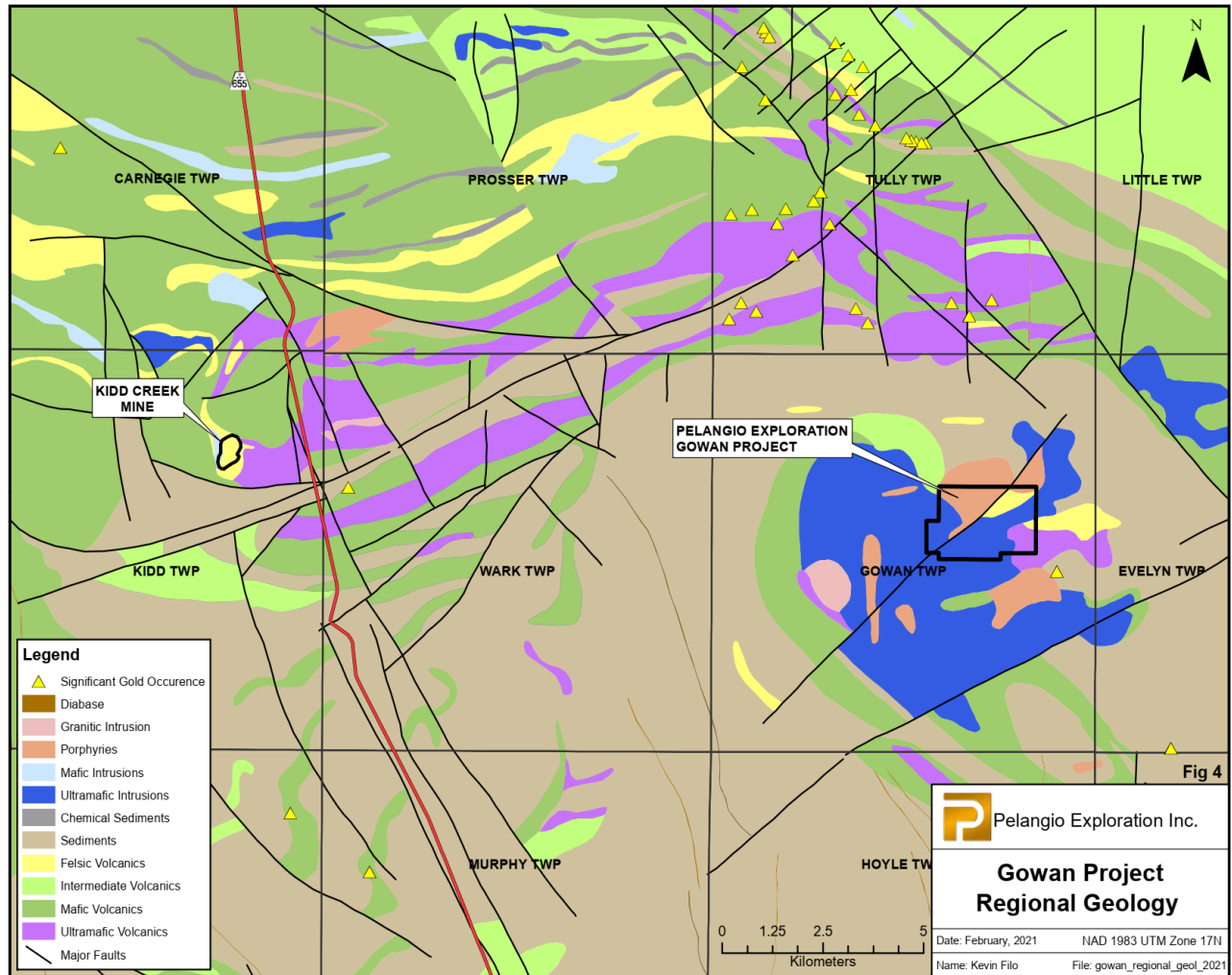


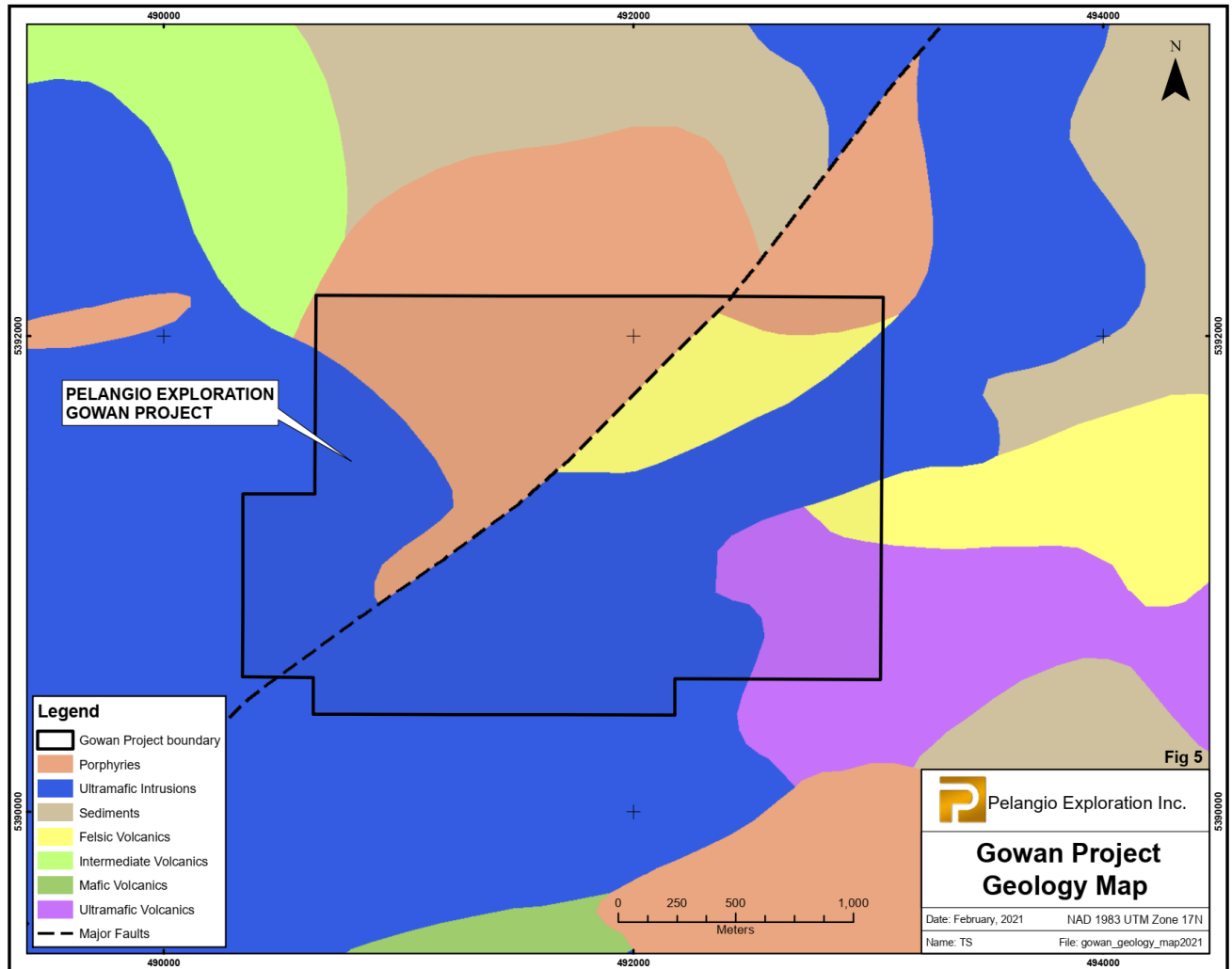
FIGURE 3A, GOWAN PROJECT COMPILATION MAP, REFERENCE, ALAMOS PETROLEUM, (1974-1975), NEWMONT MINING (1977) AND OGS MAP 81064, (1988)



REGIONAL GEOLOGY MAP, FIGURE 4, REFERENCE, HOYLE AND GOWAN TOWNSHIPS OGS REPORT 229



PROPERTY GEOLOGY, FIGURE 5, REFERENCE, HOYLE AND GOWAN TOWNSHIPS OGS REPORT 229.



PERSONNEL:

The IP field crew directly responsible for the collection of all the raw survey data were as follows:

J. Francoeur	Timmins, Ontario
D. Porier	Timmins, Ontario
G. Martin	Timmins, Ontario

All of the plotting, interpretation and report was completed by J. C. Grant of Exsics Exploration.

GROUND PROGRAM:

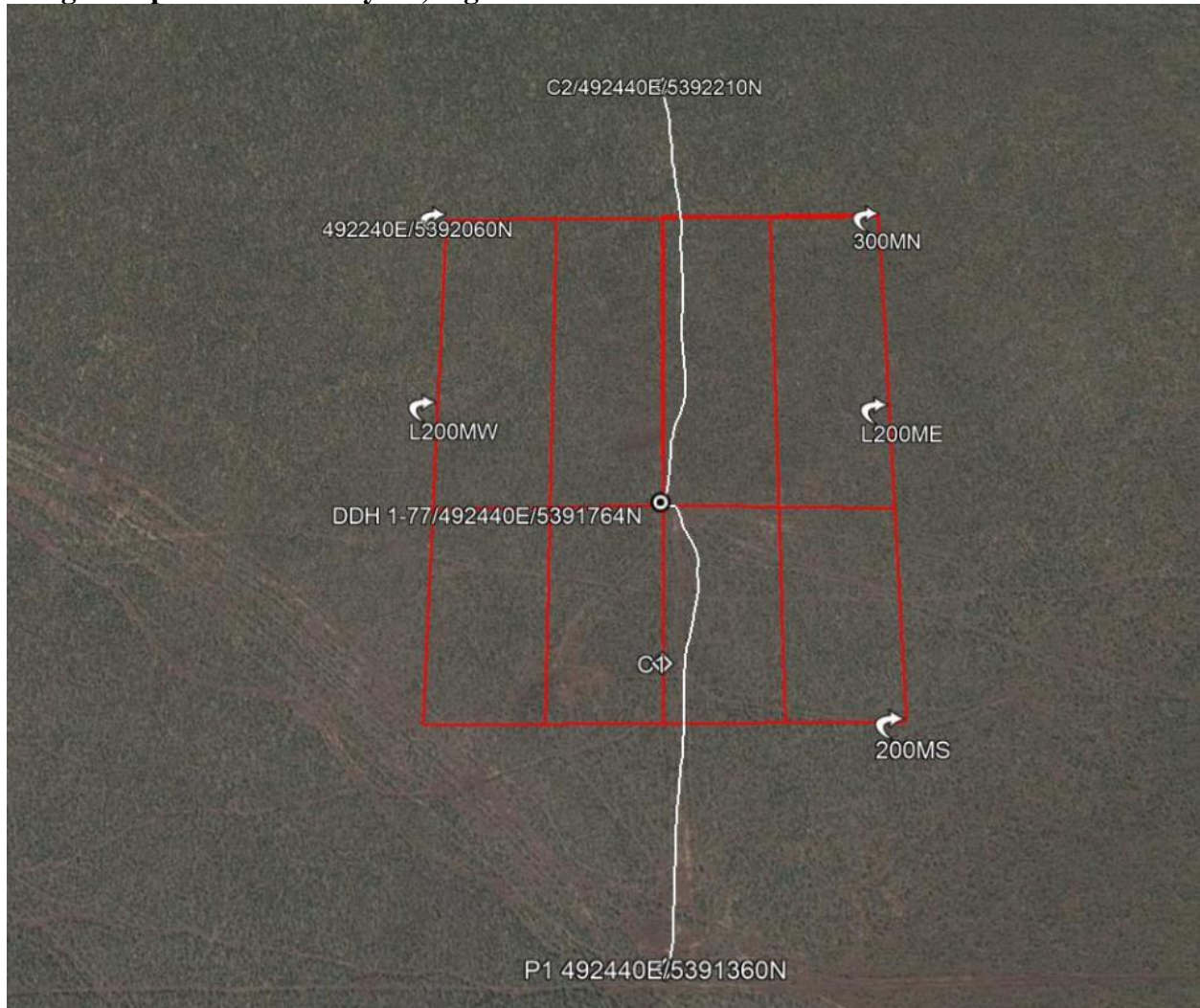
The ground program was completed using a compass paced and GPS controlled grid throughout the survey. Initially the DDH was read from surface to the bottom of the hole to locate the best injection point which would be used throughout the surface survey. This is done by sending an electrode down the hole and recording current values at 10 meter and 5 meter intervals from just below the casing to the bottom of the drill hole. Once a maximum reading is located the electrode is then locked off and left there throughout the surface survey. This point represents the C1 location for the surface survey.

The crew then places the C2 electrode at an infinite distance from the collar, usually on the down dip side of the structure. For this drill hole the C2 current was at UTM point 492440E/5392210N. A P1 electrode is then placed at infinity at the opposite end of the grid which was UTM point 492440E/5391360N.

Once these points have been established the P2 electrode is then moved along the survey lines with readings taken at 25 meter intervals and the voltage potentials are recorded at each of these stations.

Refer to the Figure 6 which is an outline of the surface grid and the C2 and P1 electrode locations.

Google Map of the Grid Layout, Figure 6

**Mise a la Masse IP SURVEY:**

Line spacing	100 meters
Station spacing	25 meters
Reading intervals	25 meters
Values recorded	Voltage potentials, (Vp)

Once the Mise a la Masse survey was completed the Voltage Potential data read at each 25 meter station was then plotted directly onto base maps at a scale of 1:2500, and then contoured at 5 Vp intervals. Copies of these color plan maps are included in the back pocket of this report.

The IP survey was completed between February 12th and the 13th using the Instrumentation G. D. D. IP system. Specifications for these units can be found as Appendix A of this report. A total of 2.5 kilometers of grid lines were compassed paced and read using a

handheld GPS unit for control.

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IP SURVEY RESULTS

DDH 77-1:

Generally, the results of the survey suggests that the zone intersected in the drill hole does not appear to have any specific geometry as to the strike of the structure. It appears that the only increase in Voltage Potentials parallels the strike of the drill hole itself. The location of the C1 in the hole was not the strongest current reading but it did correlate to the best sulphide intersection.

CONCLUSIONS AND RECOMMENDATIONS:

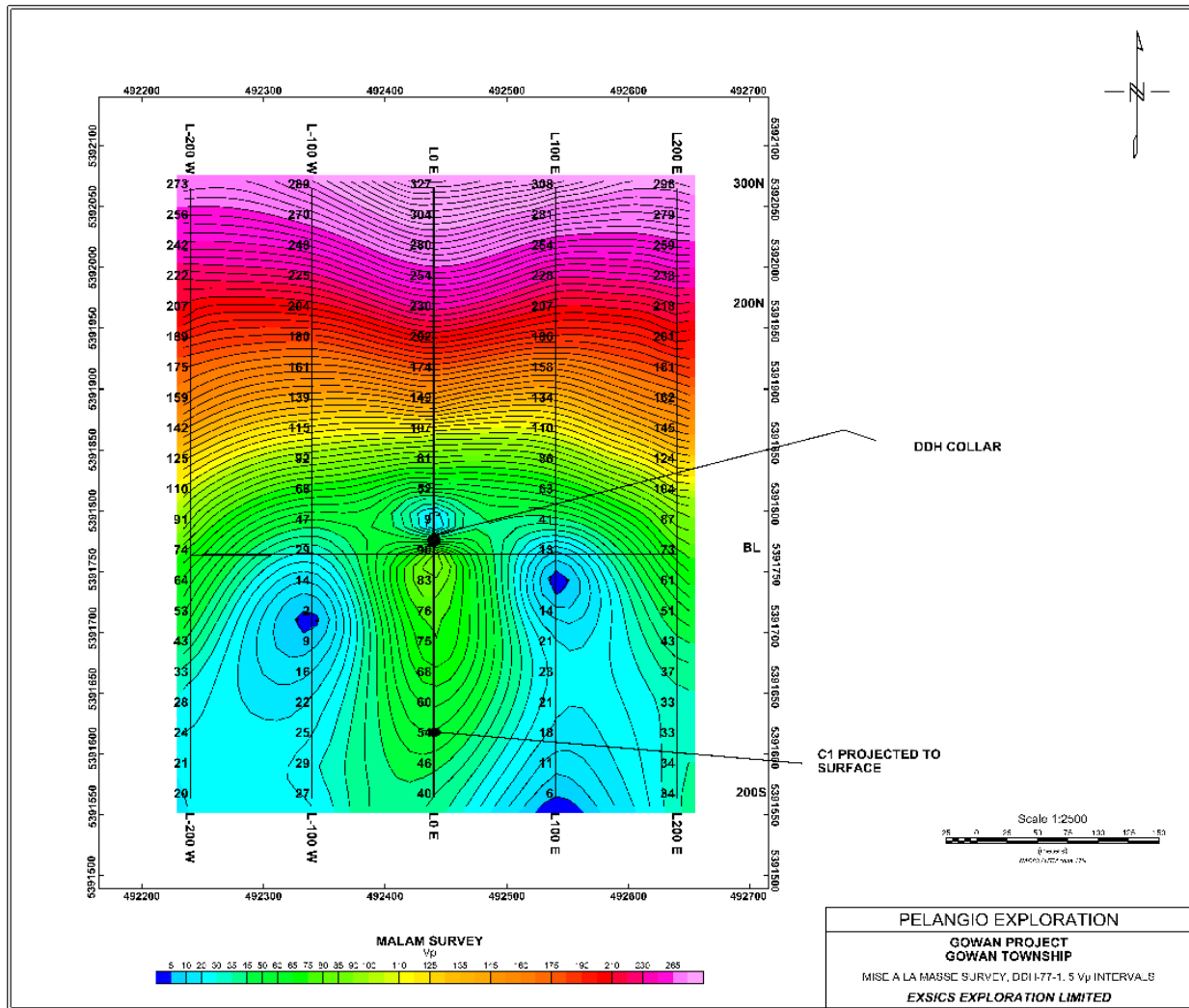
At this writing it does not appear that the surface survey enhanced the drill results nor could the survey suggest where a follow up hole may be located to test the sulphide intersection further.

Respectfully submitted

JC Grant,

CET, FGAC, March 2021

PLAN MAP SURFACE SURVEY DDH 77-1



BIBLIOGRAPHY

-Berger, B.R., 1998; Pre-Cambrian Geology, Hoyle and Gowan Townships, Ontario Geological Report 229, Accompanied by Gowan Township Map 2522, Scale 1:20000.

-Middleton, RSM., 1974; Induced Polarization – Resistivity Survey for Alamo Petroleum, East Claim Group, Gowan Township Ontario; Ontario Government Assessment Report.

-Middleton, RSM., 1975; Diamond Drill Report for Alamo Petroleum, Gowan Township; Ontario Government Assessment Report.

-Newmont Mining Corp of Canada Ltd.1977; Diamond Drill Logs and Maps; Ontario Government Assessment Report.

-Ontario Geological Survey, 1988; Airborne Electromagnetic Survey, Timmins Area, Gowan Township, District of Cochrane and Temiskaming Ontario by Geoterrex Limited, for Ontario Geological Survey, Geophysical/Geochemical Series Map 81064. Scale 1:20000. Survey and Compilation from March 1987 to October 1987.

CERTIFICATION

I, John Charles Grant, of 108 Kay Crescent, in the City of Timmins, Province of Ontario, hereby certify that:

- 1). I am a graduate of Cambrian College of Applied Arts and Technology, 1975, Sudbury Ontario Campus, with a 3 year Honors Diploma in Geological and Geophysical Technology.
- 2). I have worked subsequently as an Exploration Geophysicist for Teck Exploration Limited, (5 years, 1975 to 1980), and currently as Exploration Manager and Chief Geophysicist for Exsics Exploration Limited, since May, 1980.
- 3). I am a member in good standing of the Certified Engineering Technologist Association, (CET), since 1984.
- 4). I am in good standing as a Fellow of the Geological Association of Canada, (FGAC), since 1986.
- 5). I have been actively engaged in my profession since the 15th day of May, 1975, in all aspects of ground exploration programs including the planning and execution of field programs, project supervision, data compilation, interpretations and reports.
- 6). I have no specific or special interest nor do I expect to receive any such interest in the herein described property. I have been retained by the property holders and or their Agents as a Geological and Geophysical Consultant and Contract Manager.

John Charles Grant, CET., FGAC.



APPENDIX A

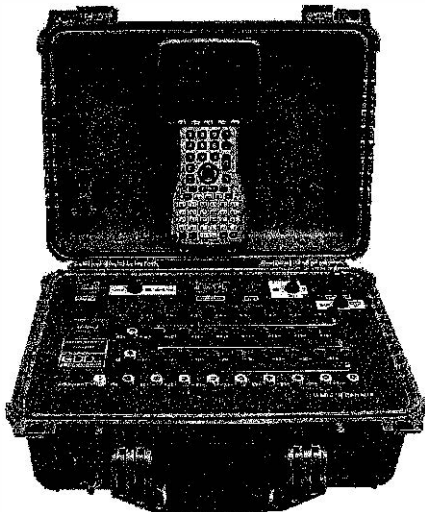


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IP Receiver Model GRx8-32

«Field users have reported that the GDD IP Receiver provided more reliable readings than any other time domain IP receiver and it reads a few additional dipoles. »



FEATURES

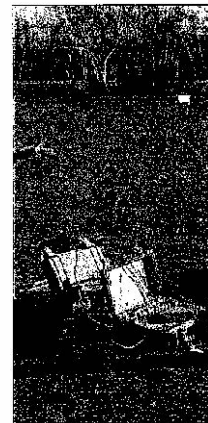
- 8 channels expandable to 16, 24 or 32
- Reads up to 32 ch. simultaneously in poles or dipoles
- PDA menu-driven software / simple to use
- 32 channels configuration allows 3D Survey:
 - 4 lines X 8 channels - 2 lines X 16 channels
 - 1 line X 32 channels
- Link to a PDA by wireless communication or a serial cable
- Real-time data and automatic data stacking (Full Wave)
- Screen-graphics: decay curves, resistivity, chargeability
- Automatic SP compensation and gain setting
- 20 programmable chargeability windows
- Survey capabilities: Resistivity and Time domain IP
- One 24 bit A/D converter per channel
- Gain from 1 to 1,000,000,000 (10^9)
- Shock resistant, portable and environmentally sealed

GRx8-32: This new receiver is a compact and low consumption unit designed for high productivity Resistivity and Induced Polarization surveys. Its high ruggedness allows it to work under any field conditions.

User modes available: Arithmetic, logarithmic, semi-logarithmic, Cole-Cole, IPR-12 and user defined.

IP display: Chargeability values, Resistivity values and IP decay curves can be displayed in real time. The GRx8-32 can be used for monitoring the noise level and checking the primary voltage waveform.

Internal memory: A 4 Go (or more) Compact Flash memory card is used to store the readings. Each reading includes the full set of parameters characterizing the measurements for all channels; the full wave signal for post-treatment processing. The data is stored in flash type memory not requiring any battery power for safekeeping.



Manufactured in Canada by Instrumentation GDD Inc.

New IP Receiver Model GRx8-32 with PDA

GRX8-32: This new receiver is a compact and low consumption unit designed for high productivity Resistivity and Induced Polarization surveys. It features high ruggedness allowing to work in any field conditions

Reception poles/dipoles: 8 simultaneous channels expandable to 16, 24 or 32, for dipole-dipole, pole-dipole or pole-pole arrays.

Programmable windows: The GRX8-32 offers twenty fully programmable windows for a higher flexibility in the definition of the IP decay curve.

User modes available: Arithmetic, logarithmic, semi-logarithmic, Cole-Cole and user define.

IP display: Chargeability values, Resistivity values and IP decay curves can be displayed in real time. The GRX8-32 can be used for monitoring the noise level and checking the primary voltage waveform.

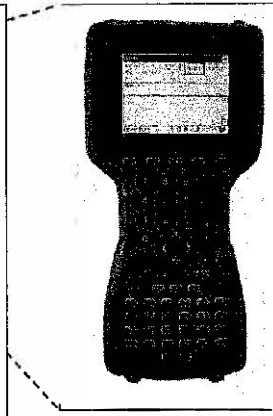
Internal memory: The memory of 64 megabytes can store 64,000 readings. Each reading totalizes one kilobyte and includes the full set of parameters characterizing the measurements on 8 channels. The data is stored in flash memories not requiring any lithium battery for safeguard. The memory can hold many days worth of data. It also stores fullwave form of the signal at each electrode for post-treatment.

Features:

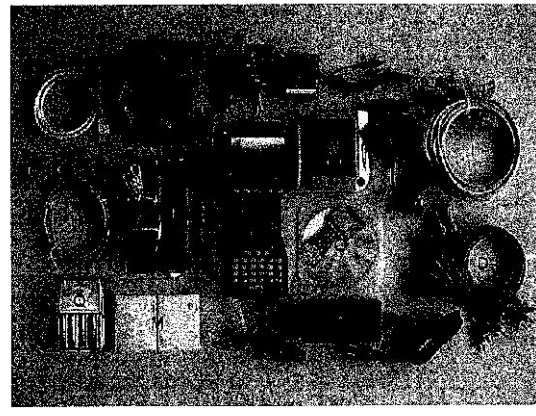
- 8 channels expandable to 16, 24 or 32
- Reads up to 32 ch. simultaneously in poles or dipoles configuration
- PDA menu-driven software / simple to use
- 32 channels configuration allows 3D Survey: 4 lines X 8 channels, 2 lines X 16 channels or 1 line X 32 channels
- Link to a PDA by Bluetooth or RS-232 port
- Real-time data and automatic data stacking
- Self-test diagnostic
- Screen-graphics: decay curves, resistivity, chargeability
- Automatic SP compensation and gain setting
- 20 programmable chargeability windows
- Survey capabilities: Resistivity and Time domain IP
- One 24 bit A/D converter per channel
- Gain from 1 to 1,000,000,000 (10^8)
- Shock resistant, portable and environmentally sealed



GDD IP Receiver model GRx8-32



PDA included with GRX8-32
Standard Juniper -
Allegro CX mobile PDA

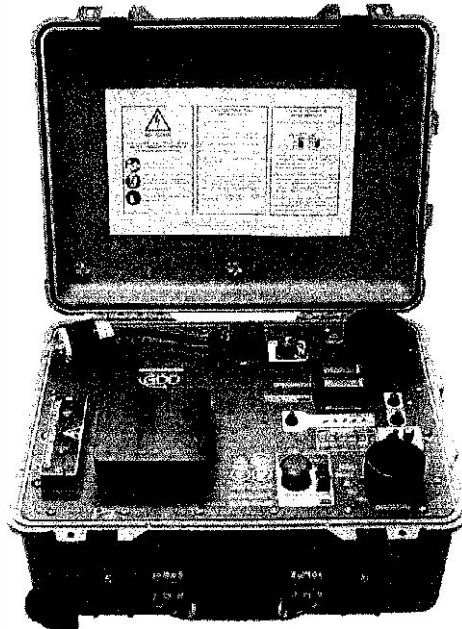


Components included with
GDD IP Receiver GRx8-32

IP Transmitter

*Model TxII
5000W-2400V-15A*

Instruction Manual

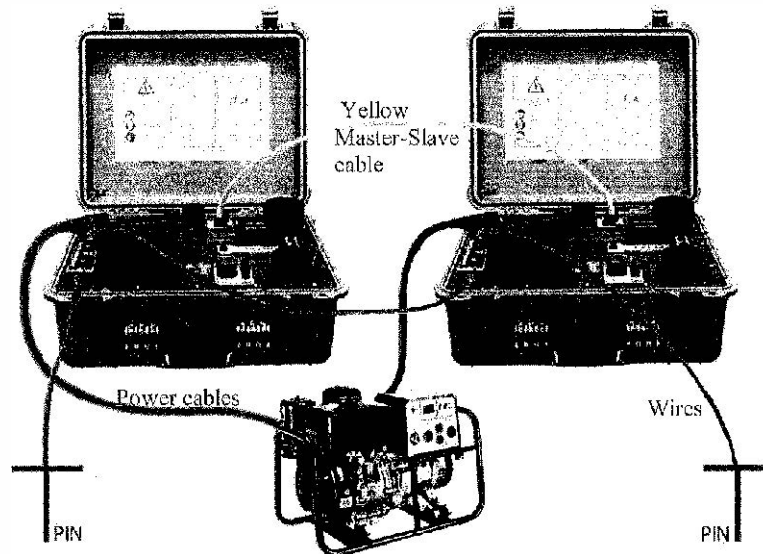


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E-Mail: gdd@gdd.ca
Web site: www.gdd.ca

6. MASTER / SLAVE MODE

Here are the basic steps for a Master/Slave operation of the TxII:

1. Connect the yellow synchronization cable (Master/Slave) to the transmitters. The Master/Slave cable terminations are different: one is labeled *MASTER* and the other one *SLAVE*. The transmitter is *MASTER* or *SLAVE* according to the termination of the cable connected on its interface. The *MASTER* and *SLAVE* LEDs indicate the mode of each transmitter. (see figure 2, yellow line)
2. Connect an insulated wire between the terminal (A) of one transmitter and the terminal (B) of the other one. (see figure 2, blue line)
3. Connect the two power cables from the transmitters to the generator. (see figure 2, red lines)
4. Drive the electrodes into the ground and connect them to the unused terminals (A) and (B) by using insulated wires. (see figure 2, blue lines)



Category	Date	Invoice #	Payee	Description	Amount	
Technician	Oct 28/20	Inv1939	Exsics	1 day two techs hole location & probing	1000.00	
	Feb 15/21	inv1959	Exsics	3 days 3 techs surveying hole	4500.00	
					Subtotal	5500.00 5500
Transportation	Oct 28/20	Inv1939	Exsics	truck for 1 day	200.00	
	Feb 15/21	Inv1959	Exsics	truck for 1 day	200.00	
					Subtotal	400.00 400
Helicopter	Oct 27/20	Inv105983	Expedition	Flying crew in to check hole location	2716.00	
	Feb16/21	InvCM100970	Expedition	Flying crew during down hole survey work	7629.00	
					Subtotal	10345.00 10345
Report	Feb 15/21	Inv1959	Exsics	Report and plots	800.00	
					Sutotal	800.00 800
Maps	Feb 22/21	inv2021-014	Filo Exploration	Maps for report	296.00	
					Subtotal	296.00 296
Rental	Oct 28/20	Inv1939	Exsics	Rental of down hole counter	400.00	
Rental	Feb 15/21	Inv1959	Exsics	Rental of down hole survey equipment	800.00	
					Subtotal	1200.00 1200
					Total	18541

9. SPECIFICATIONS

Size :	TxII-5000W with a blue carrying case: 34 x 52 x 76 cm TxII-5000W only: 26 x 45 x 55 cm
Weight :	TxII-5000W with a blue carrying case: ~ 58 kg TxII-5000W only: ~ 40 kg
Operating Temperature :	-40°C to 65°C (-40°F to 150°F)
Time Base:	2 s ON+, 2 s OFF, 2 s ON- DC, 1, 2, 4, 8 or 16 s
Output current :	0.030A to 15A (normal operation) 0.0A to 15A (cancel open loop) Maximum of 7.5A in DC mode
Rated Output Voltage :	150V to 2400V Up to 4800V in a master/slave configuration
LCD Display :	Output current, 0.001A resolution Output power Ground resistance (when the transmitter is turned off)
Power source :	220-240V / 50-60Hz

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