# REPORT ON GEOLOGICAL RECONNAISSANCE AND GEOPHYSICAL SURVEYING BY TERRAX MINERALS INC ON THE CENTRAL CANADA PROPERTY, SAPAWE LAKE AREA, NTS MAP SHEET 52B/14, THUNDER BAY MINING DIVISION NORTHWESTERN ONTARIO

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GeoVector Management Inc.
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9. Central Canada Grid, Interpreted Features

### LIST OF IP/RESISTIVITY SECTIONS (in pocket)

1. Line 20+00E

8.

**Inversion Results** 

**Inversion Results** 

- 2. Line 21+50E
- 3. Line 23+00E
- 4. Line 24+50E

#### **SUMMARY**

TerraX Minerals Inc. has optioned the Central Canada property in the Sapawe Lake area, 20 km east of the town of Atikokan in northwestern Ontario. The property consists of seven claims totaling 24 claim units (~379 ha) in the Thunder Bay Mining Division. The property occurs within and adjacent to the Marmion Batholith, the geological entity that hosts Brett Resources' Hammond Reef gold deposit. TerraX is exploring the property for gold. TerraX's exploration to date has taken the form of one day of prospecting/geological reconnaissance in October of 2009, followed by local ground magnetic and Resistivity/IP surveys early in 2010.

Within and along the margin of the Marmion Batholith, gold mineralization is typically associated with northeast trending lineaments traceable for up to 80 km. The lineaments are expressed by shorelines, valleys and drainage systems, and represent faults or shear zones. Shearing occurs as lenzoid zones within or adjacent to the lineaments. Mineralization occurs in and adjacent to quartz veins, with associated alteration consisting of ankerite, sericite, and chlorite. The veins are dominated by quartz, but also commonly contain pyrite, and may also have chalcopyrite, sphalerite, galena and visible gold. At the Central Canada property, structure and mineralization is more in an east-northeast direction, reflecting proximity to the east-trending, regional Quetico Fault.

The existence and ongoing exploration of Brett Resources' Hammond Reef gold deposit serve as the main justification for exploration in the Marmion Batholith region. This deposit occurs ~20 km northwest of the Central Canada property, along the western margin of the Marmion Batholith. The Hammond Reef resource has recently been upgraded to 6.7 Moz gold at a grade of 0.8 g/t Au.

Gold exploration on the property has occurred irregularly since the early 1900's. The property has been worked on by Central Canada Mines Limited, Anjamin Mines, Kenergy Resources, Interquest Resources, and more recently, briefly by Valerie Gold Resources, Cameco Gold, and Freewest Resources. This work includes the sinking of a shaft early in the century, minor mining and gold recovery in the 1930's, and intermittent examination of the property since that time.

The Central Canada property has not previously been mapped in detail, nor was it systematically mapped by TerraX. The majority of the property occurs in mafic rocks south of the Marmion Batholith with apparent felsic (granitic) dikes. The main mineralization is within 400 m of the Quetico Fault. Mineralization is associated with east-northeast trending quartz-iron carbonate veins with minor pyrite and local tourmaline and/or arsenopyrite. These veins are more common in or close to porphyry bodies than in the mafic rocks, and have locally been folded and dismembered. TerraX collected 18 samples; all had detectable gold, and seven samples had >250 ppb Au. This includes results of 2.8, 4.48 and 22.9 g/t Au.

A total of 3.1 line km were cut and chained on the Central Canada Grid. The grid was cut using 150 m line spacing and picketed at 25 m station intervals along the lines. A total of 3.1 line km of magnetic surveying was completed at 5 m station intervals. The

resistivity/IP survey utilized a conventional pole-dipole array with dipole spacing of a=25 m, reading n levels 1 through 6 at 25 m station intervals. Survey coverage over the grid was 1.9 line km.

Two subparallel, east-west trending geophysical anomalies were detected, approximately 100 m apart. They are both resistivity highs with nearly-coincident, weak IP chargeability highs. Each response was detected over two lines, giving a minimum strike length of 150 m, and both anomalies remain open to both east and west. The southernmost anomaly is proximal to the shaft and to TerraX's high gold values. The gas pipeline which passes through the property also produced a very strong IP response.

Reconnaissance mapping of the property and additional prospecting/sampling is necessary to more fully understand the geology and distribution of mineralization on the property. The two geophysical anomalies should be tested with at least three drill holes. Extension of gridding and resistivity/IP surveying to east and west is recommended to define the limits and extents of trends of the geophysical anomalies that have been identified by TerraX. In total, this work would cost on the order of \$112,000.

TerraX's exploration to date on the Central Canada property has cost \$16,291.40.

#### 1.0 INTRODUCTION

TerraX Minerals Inc. (TerraX) has optioned the Central Canada property in the Sapawe Lake area, 20 km east of the town of Atikokan in northwestern Ontario (Fig. 1). The property occurs on the southern margin of the Marmion Batholith, the geological entity that hosts Brett Resources' 6.7 Moz Hammond Reef gold deposit. TerraX is exploring the property for gold. TerraX's exploration to date has taken the form of a brief prospecting/geological reconnaissance visit in October of 2009, followed by local ground magnetic and Resistivity/IP surveys early in 2010. Exploration is being conducted by the Ottawa-based geoconsulting firm GeoVector Management Inc. (GeoVector) on behalf of TerraX. This report describes work conducted by TerraX to date on the Central Canada property.

The 1983 North American Datum (NAD83) co-ordinate system is used in this report. The Central Canada property is in Universal Transverse Mercator (UTM) Zone 15N. Some of the assessment reports cited in the report are available on the website of the Ontario Ministry of Northern Development and Mines (www.geologyontario.mndm.gov.on.ca). The AFRI (Assessment File Research Imaging) number is provided wherever possible in the references for each assessment report. All monetary figures quoted in this report are in Canadian dollars.

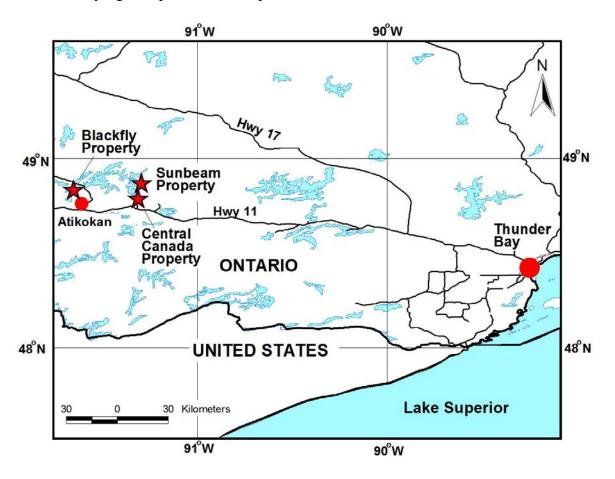


Figure 1: Location of TerraX's Properties in Northwestern Ontario

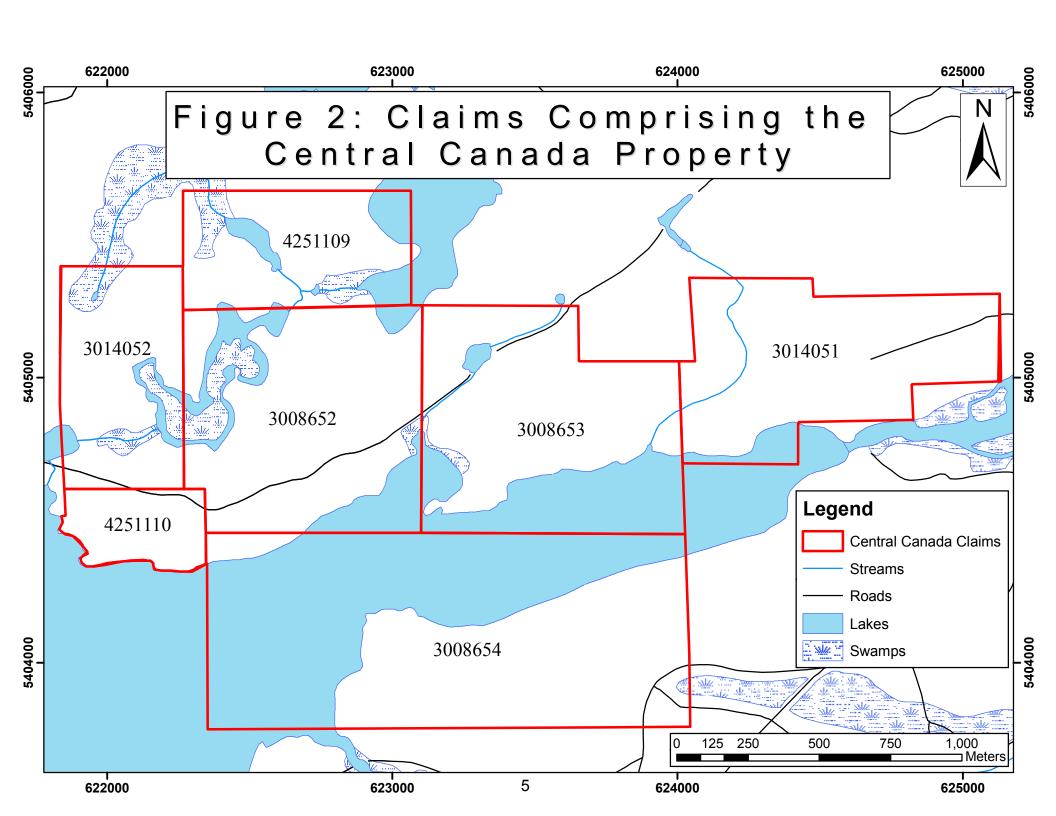
#### 2.0 PROPERTY DESCRIPTION AND LOCATION

The Central Canada property consists of seven claims totaling 24 claim units in the Sapawe Lake area in the Thunder Bay Mining Division (Fig. 2; Table 1; Map 1). The claims are held in various proportions by a combination of Ken Fenwick, Karl Bjorkman, Donald Devereux and Donald Leishman. According to the terms of an option agreement signed on December 11, 2009, TerraX has the right to earn a 100% interest in the property by paying option payments totaling \$98,000, issuing 280,000 common shares and funding a total of \$140,000 in exploration and development work over four years. The vendors will retain a 2.5% NSR, 1% of which can be purchased by TerraX for \$1,000,000. The property is 379.0 ha in area and is centered at approximately 623200E/5404600N (UTM Co-ordinates) or 91°19'W/48°46'N (latitude/longitude) in National Topographic System (NTS) 1:50,000 map sheet 52B/14.

The Central Canada property consists of unpatented, unsurveyed claims (Fig. 2). The mineral rights for the entire property are owned by TerraX (through the option agreement). The mineral rights give TerraX the right to explore for ore on the claims, subject to a 400' surface rights reservation around all lakes and rivers, and a 300' surface reservation around major roads (this may be waived by the Crown). Claims require work expenditures of at least \$400 per 16 hectare claim unit in the first two years, and \$400 per year thereafter (by the anniversary of their recording date); all claims are in good standing at the time of writing (Table 1). There are no known mineral reserves on the property, and no environmental liabilities accruing to TerraX.

**Table 1: Claims Comprising the Central Canada Property** 

Township	Claim	Recording Date	Expiry Date	Units	Expenditure Required
HUTCHINSON	3008652	2003-Aug-05	2010-May-05	4	\$ 1,600
HUTCHINSON	3008653	2003-Aug-05	2010-May-05	4	\$ 1,600
HUTCHINSON	3008654	2003-Aug-05	2010-May-05	8	\$ 3,200
HUTCHINSON	3014051	2003-Nov-13	2010-Aug-13	3	\$ 1,200
HUTCHINSON	3014052	2003-Nov-13	2010-Aug-13	2	\$ 800
HUTCHINSON	4251109	2009-Jun-26	2011-Jun-26	2	\$ 800
HUTCHINSON	4251110	2009-Jun-26	2011-Jun-26	1	\$ 400
Total				24	\$9,600



# 3.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

Access to the Central Canada property is reasonably good. Access is via Highway 623 from Highway 11, approximately 24 km east of Atikkokan. 10.2 km north of Highway 11, one turns west onto the Marmion Lake Shore Road. After 5.9 km, turn south onto a gravel road, and travel approximately 2.8 km to the gas pipeline. From this point, access is by foot, ATV or snowmobile, 1.5 km east to the heart of the property (Fig. 3).

The property is approximately 20 km east of Atikokan, a small mining-friendly town with local labour and services. It is 190 km west of Thunder Bay, a city with a long mining history and home to personnel with the skills to work in the mining industry.

The climate of the project area is continental in nature, with cold winters (-10 to -35°C) and warm summers (+10 to +35°C). Seasonal variations affect exploration to some extent (geological mapping can not be done in the winter, geophysics and drilling are best done at certain times of the year etc.), but the climate would not significantly hamper mining operations.

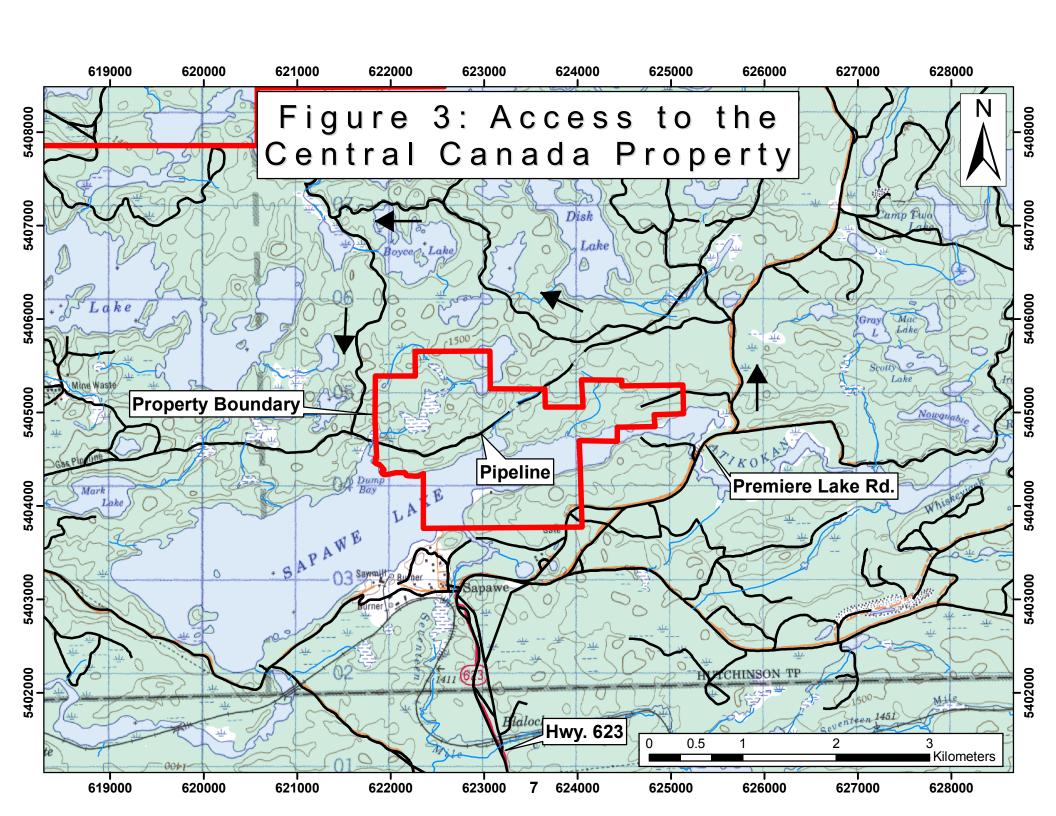
The property has gently rolling topography with a maximum relief of approximately 30 m. Elevation varies from 420 to 450 m Above Sea Level. Approximately 40% of the property is covered by lakes, but in general the property is dominated by forest and lesser swamps. Parts of the property have been logged in the past, so the present forest is second growth, a mixture of jackpine, spruce, birch and poplar trees; swampier areas contain small spruce trees and alders. The bulk of the property is covered by thin overburden, and outcrop density is moderate.

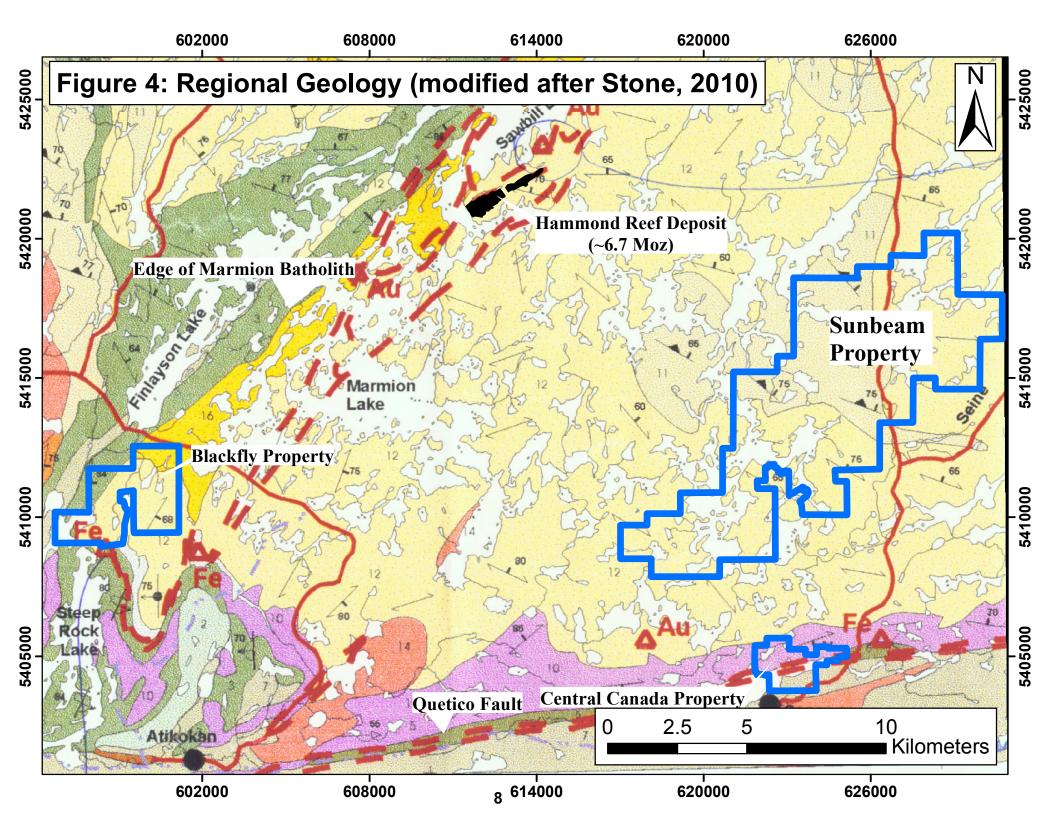
#### 4.0 GEOLOGICAL SETTING

## 4.1 Regional Geology and Mineralization

The property occurs on the southern margin of the ~ 3.0 Ga Marmion Batholith, within the Marmion Terrane of the south-central Wabigoon Subprovince in northwestern Ontario (Stone and Davis, 2006, Stone, 2008). The batholith is juxtaposed against the coeval Finalyson and Lumby Lake greenstone belts to the west and north respectively, and overlain by the rift-related Steeprock Lake belt of volcanics and sediments in the south (Fig. 4; Stone and Davis, 2006). The Marmion Batholith contains a number of phases, varying from tonalite to quartz diorite, and is locally gneissic.

Within and along the margin of the Marmion Batholith, gold mineralization is associated with north-northeast trending lineaments traceable for up to 80 km (Schnieders and Dutka, 1985). The lineaments are expressed by shorelines, valleys and drainage systems, and represent faults or shear zones. East-southeast trending lineaments may aid in the localization of gold. Shearing occurs as lenzoid zones within or adjacent to the lineaments. Mineralization occurs in and adjacent to quartz veins, with associated alteration consisting of ankerite, sericite, and chlorite. The veins are dominated by quartz, but also commonly contain pyrite, and may also have chalcopyrite, sphalerite, galena and





visible gold (Wilkinson, 1982; Schnieders and Dutka, 1985). The ultimate product of alteration is chlorite schist, which can be several m thick and up to several km in strike length. Green chromium muscovite may be present, and pyrite is typically present in any significant intersection. Examples of mineralization in the Marmion Baltholith include the Hammond Reef, Roy, Pettigrew, Sunbeam, Reserve Island and Jack Lake deposits, all of which were seriously investigated in the late 19<sup>th</sup>/early 20<sup>th</sup> century and in some instances produced minor amounts of gold.

The existence and ongoing exploration of Brett Resources' Hammond Reef gold deposit serve as the main justification for exploration within and adjacent to the Marmion Batholith. This deposit occurs 20 km northwest of the Central Canada property, along the western margin of the Marmion Batholith (Fig. 3). The deposit is the subject of a recent NI 43-101 Technical Report, which quoted a resource of 4.8 million ounces (Moz) of gold at a grade of 1.05 g/t Au (Rennie and McDonough, 2008); this resource has since been upgraded to 6.7 Moz gold at a grade of 0.8 g/t Au, at a cut-off of 0.3 g/t, which is thought to be economic (Brett Resources news release November 12, 2009).

#### 4.2 Property Geology

The Central Canada property has not previously been mapped in detail, nor was it systematically mapped by TerraX. As shown in Figure 4, the bulk of the property occurs in mafic rocks south of the Marmion Batholith. Abundant east-northeast trending felsic (granitic) apparent dikes occur on the property-these are locally called quartz porphyries (Plate 1). Structural complexity is such that it is not clear whether these are real intrusive dikes, or whether they have been structurally juxtasposed against the mafic rocks (Plate 2). This situation is similar to the TerraX's Blackfly property, where apparent mafic dikes may in fact have been structurally emplaced into a felsic pluton (Setterfield, 2009). The main mineralization is within 400 m of the regional scale, east-trending Quetico Fault (Fig. 4).

The southern part of the property is under water and covers 1.6 strike km of the Atikokan Iron Range.

# 4.3 Geophysics

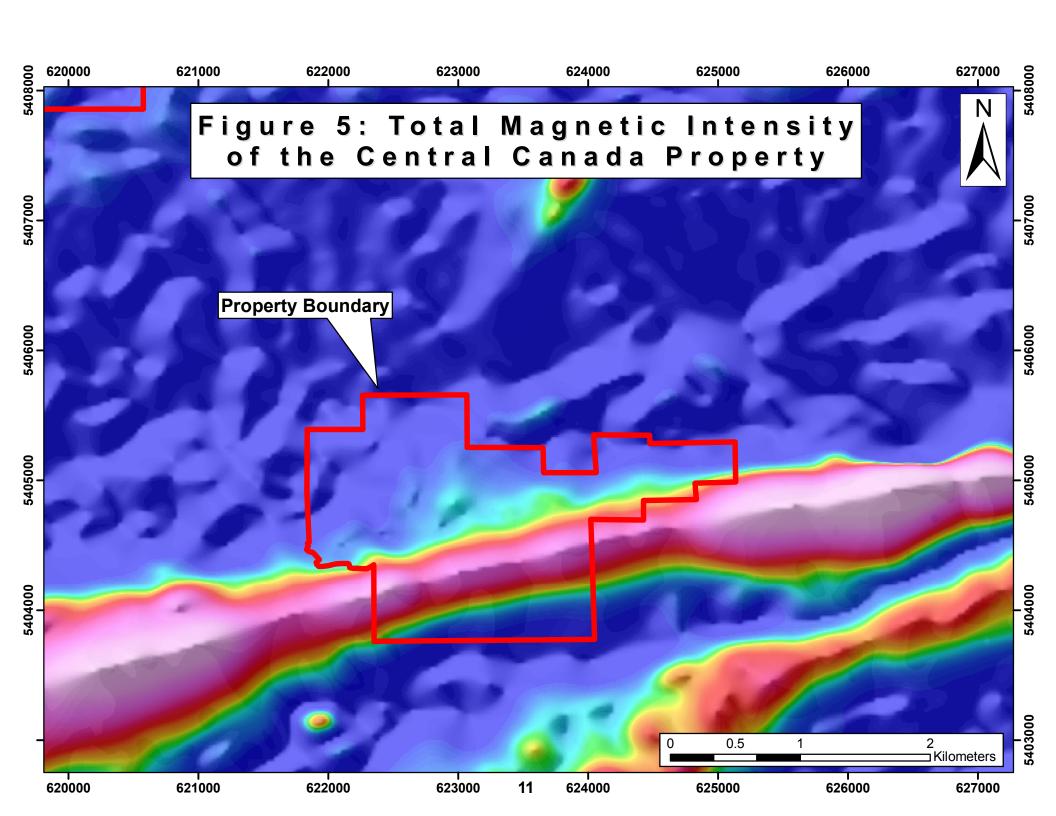
The Ontario Geological Survey recently released new airborne magnetic data over the Marmion Batholith (Ontario Geological Survey, 2009). TerraX reprocessed the data to produce images of Total Magnetic Intensity (Fig. 5), First Vertical Derivative (Fig. 6) and other views. Both images show an east-northeast trending structural grain, parallel to the Quetico Fault and the boundary of the Marmion Batholith, and a strong magnetic high in the south part of the property corresponding to the Atikokan Iron Range. Two northerly trending local magnetic highs occur in the northern part of the property; the cause of these highs is not known.

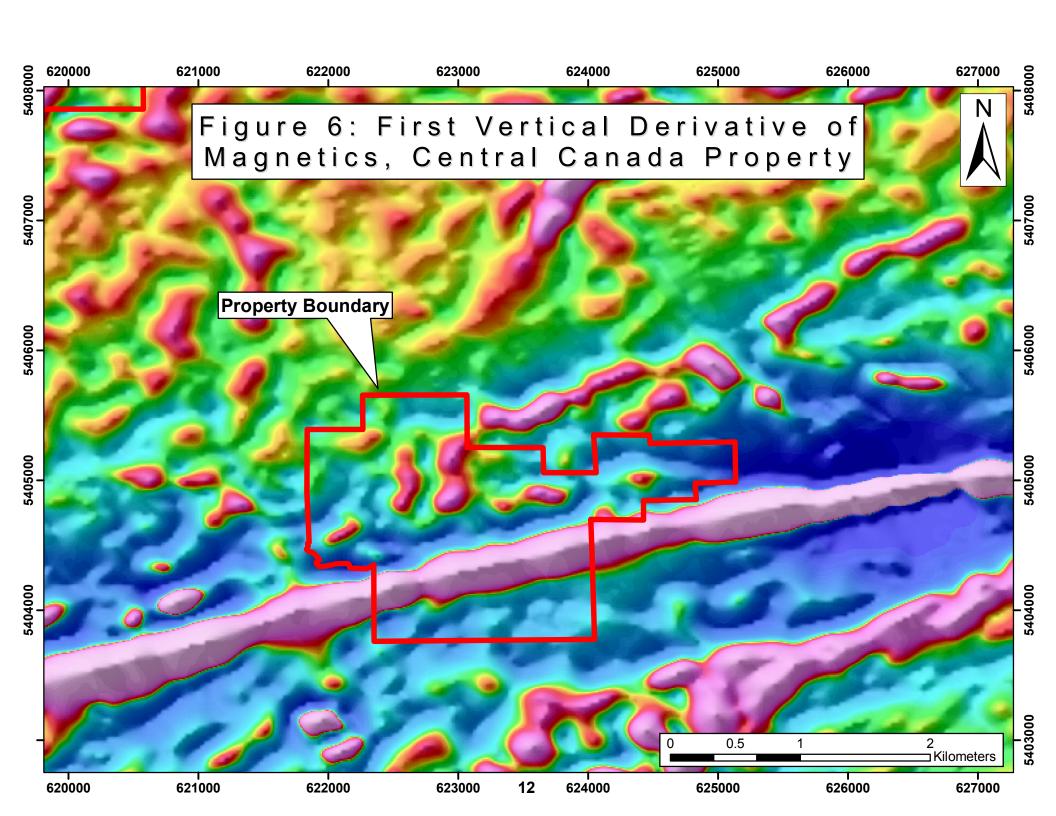


Plate 1: Mafic rocks (grey-green) intermixed with quartz porphyries (white).



Plate 2: Sheared mafic rocks juxtaposed against massive porphyry.





#### 5.0 PREVIOUS WORK

Gold exploration on the Central Canada property has occurred since the early 1900's. The property has been worked on by Central Canada Mines Limited, Anjamin Mines, Kenergy Resources, Interquest Resources, and more recently, briefly by Valerie Gold Resources, Cameco Gold, and Freewest Resources.

Exploration on the Central Canada Property from 1900 to 1935 is incompletely documented. However, old newspaper articles compiled by Ken Fenwick (one of the property vendors) provide a brief outline of the work performed during this time.

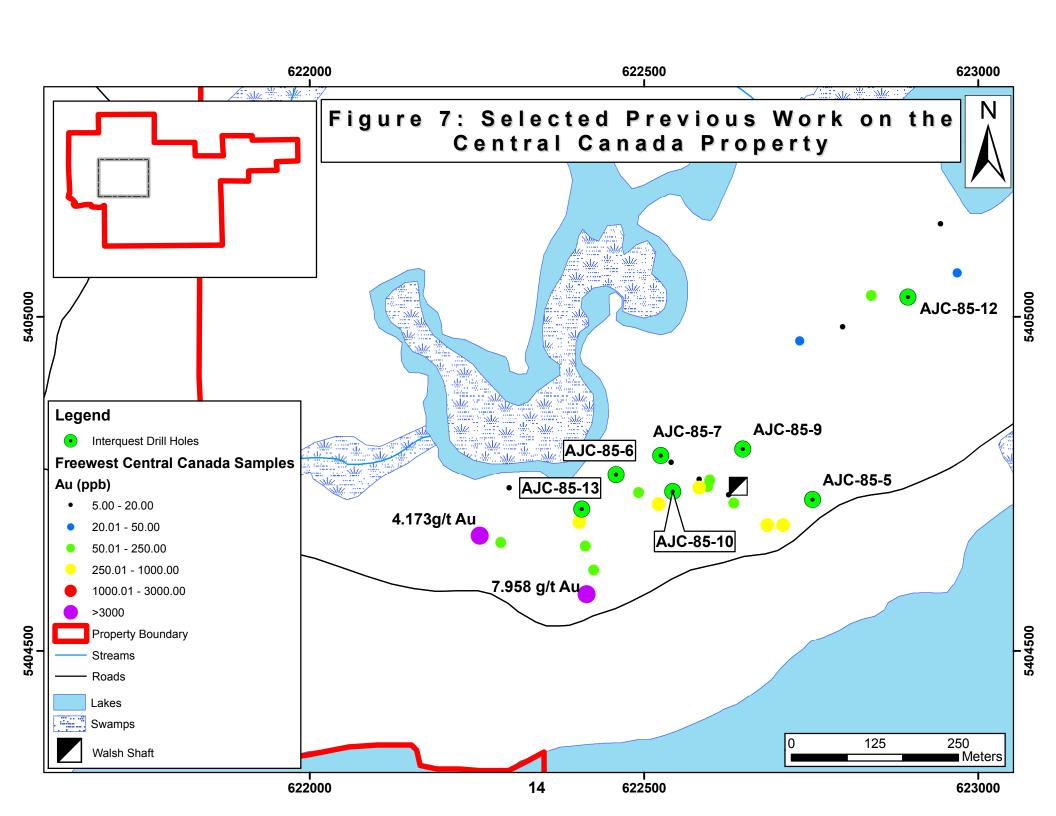
Work from 1900 to 1903 was performed by J.J. Walsh. A shaft was sunk (Fig. 7), two veins were discovered and a 3 gravity stamp mill was built (Hawley, 1929). The number 1 vein measured over 5 feet wide and the shaft was sunk to 50 feet, producing 28.5 ounces of gold from 18 tons (Fort William Daily Times Journal, July 11, 1906).

In 1928 an exploration program consisting of stripping, trenching, sampling, and mapping was carried out for the Jackson Syndicate, who leased the property. The shaft area was mapped and sampled in detail and assays returned 2.0 g/t Au in carbonated quartz porphyry and 21.0 g/t Au in 3 feet of quartz and mineralized schist (Hawley, 1929).

Central Canada Mines Limited acquired the property in 1929. By the end of 1930 the shaft had been deepened to a depth of 150 feet and 50 feet of crosscutting had been done and another vein discovered. This vein at the 100 foot level assayed 11.8 g/t Au over 1.83 m (Fort William Daily Times Journal, December 13, 1930). Diamond drilling started early in 1934. Three holes west of the shaft were drilled for a total of 610 m and showed good widths of gold-bearing quartz (Fort William Daily Times Journal, March 9, 1934). The fourth hole, drilled just south of the shaft, encountered a "highly mineralized shear zone" along with mineralized porphyry and schist (Fort William Daily Times Journal, March 26, 1934). The shaft vein, consisting of a 10 foot band of solid quartz, was encountered while drilling at approximately 480 feet (Fort William Daily Times Journal, April 21, 1934). Channel sampling across the entire width of the shaft from top to bottom with samples taken every 10 feet was done by Jules G. Cross; the average of all samples was 17.8 g/t Au (Fort William Daily Times Journal, April 28, 1934).

Combined with over 6,000 feet of drilling from 18 holes and stripping east and west of the shaft, Central Canada Mines inferred an extensive orebody of mineable extent. An orebody worth \$8,000,000 (230,000 oz.) was said to have been blocked out (Fort William Daily Times Journal, October 30, 1934). Mill tests indicated average values of vein rock and gold-bearing schists running close to 9.9 g/t Au. With this information, Central Canada built a 25 ton/day pilot mill (Newspaper articles from May-Dec, 1934). By mid 1935 operations seem to have ceased do to financial downturn.

In 1966 Anjamin Mines performed drilling, trenching and sampling on the Central Canada property near the shaft on an exposed vein. Samples of stripped sheared porphyry along the pipeline assayed greater than 17 g/t Au. Three short holes were drilled. S1 had an intersection of 6.9 g/t Au across 1.5 feet, S2 returned 37 g/t Au over 2 feet, and S3 had



44 g/t Au over 7 feet (Anjamin Mines News Release, 1966). An assessment report containing incomplete drill logs for up to 20 holes was found, but no report accompanies this work. However, the work seems to have occurred in 1966-1967 (Anjamin, 1967).

Work continued on the Central Canada property in 1984. Kenergy Resources Corp. optioned the property from Anjamin Mines Ltd. and carried out exploration programs consisting of line cutting, geological mapping, geochemistry, prospecting, and ground geophysical surveying. A total of 25.6 kilometers of line were cut, 570 soil samples and 65 rock samples were collected. Up to 130 ppb Au in soil was returned and three zones of interest were outlined. Nine percent of the 65 grab samples returned 1.0 g/t Au or higher, with a highest value of 26.9 g/t. The ground magnetic survey outlined contact zones between the intermediate and mafic volcanics as well as delineating a circular magnetic high related to an underlying gabbro. The induced polarization and resistivity survey delineated four anomalies (Leahey, 1984).

In 1985 Interquest Resources conducted a drill program to test the mineralized shear zone near the shaft area, to test geochemical targets and to also test geophysical anomalies received from an airborne geophysical survey earlier in the year (Barrie, 1985). Detailed mapping of the shaft and prospecting of the grid was also carried out. Details of 13 drill holes (AJC-85-1 to AJC-85-13) are reported by Holmes (1985), and the best intersections are listed in Table 2. Several collar positions from this campaign were recovered by Freewest in 2004, and are shown on Figure 7.

Table 2: 1985 Drill Hole Intersections

	From	То	Length	assay oz/ton
Hole #	(m)	(m)	(m)	Au
AJC-85-1	38.94	40.5	1.56	0.19
AJC-85-1	58.25	60.1	1.85	0.2
AJC-85-2	24.84	28.8	3.96	0.228
AJC-85-4	125.02	126.05	1.03	0.057
AJC-85-7	87.0	88.73	1.73	0.025
AJC-85-8	~213		3.3	0.15
AJC-85-9	52.83	54.0	1.17	0.88
AJC-85-10	4.93	7.38	2.45	0.017
AJC-85-10	7.38	7.71	0.33	0.21

In 2001 Fenwick relocated the shaft and collected 16 rock samples. Eleven of the samples assayed 1 g/t Au or higher and four samples were higher than 10 g/t Au (Fenwick, personal communication, 2009), up to 16.55 g/t (Schnieders, 2002).

In 2002 the shaft was sampled by staff of the Resident Geologist's program. Samples of up to 0.44 oz/ton Au from quartz vein material and a sample of altered quartz porphyry returned 0.13 oz/ton Au. A property visit by Cameco Gold Inc in 2002 returned assays of 22.8 g/t Au from a vein on strike with the shaft (Schnieders, 2002).

Valerie Gold and Freewest Resources also did sampling on the property in 2002. Valerie Gold collected 13 samples, and obtained a maximum value of 7.2 g/t Au, with five

samples assaying greater than 1 g/t Au. Freewest obtained values of up to 47,120 ppb Au (Fenwick, personal communication, 2009).

In 2004 Freewest Resources Canada optioned the Central Canada property and performed extensive stripping. Sixty-nine samples were collected and assayed for gold (Fig. 7) and 17 areas were stripped. Two anomalous samples of 4173 ppm and 7958 ppm were reported (Mosley, 2005).

#### 6.0 EXPLORATION BY TERRAX

#### 6.1 General

TerraX compiled previous work on the Central Canada property (see above), reprocessed the new airborne magnetic data (Figs. 5 and 6), and constructed a complete GIS for the property. Ground exploration to date consists of one day of prospecting/geological reconnaissance and grab sampling in October of 2009, followed by geophysical surveys (Resistivity/Induced Polarization and magnetics) in February/March, 2010. TerraX sampled mineralized veins where present, zones of altered rock with or without pyrite, and in some instances apparently barren material. It is recognized that extensive sampling is necessary to define areas of low grade mineralization, and that any anomalous results (>20 ppb Au) should be considered encouraging.

#### **6.2** Prospecting Results

TerraX visited the property on October 25, 2009, and collected 18 grab samples. Sample locations and values are shown on Figure 8 and Map 2, and complete sample information is provided in Appendix B. Certificates of Assay are given in Appendix C.

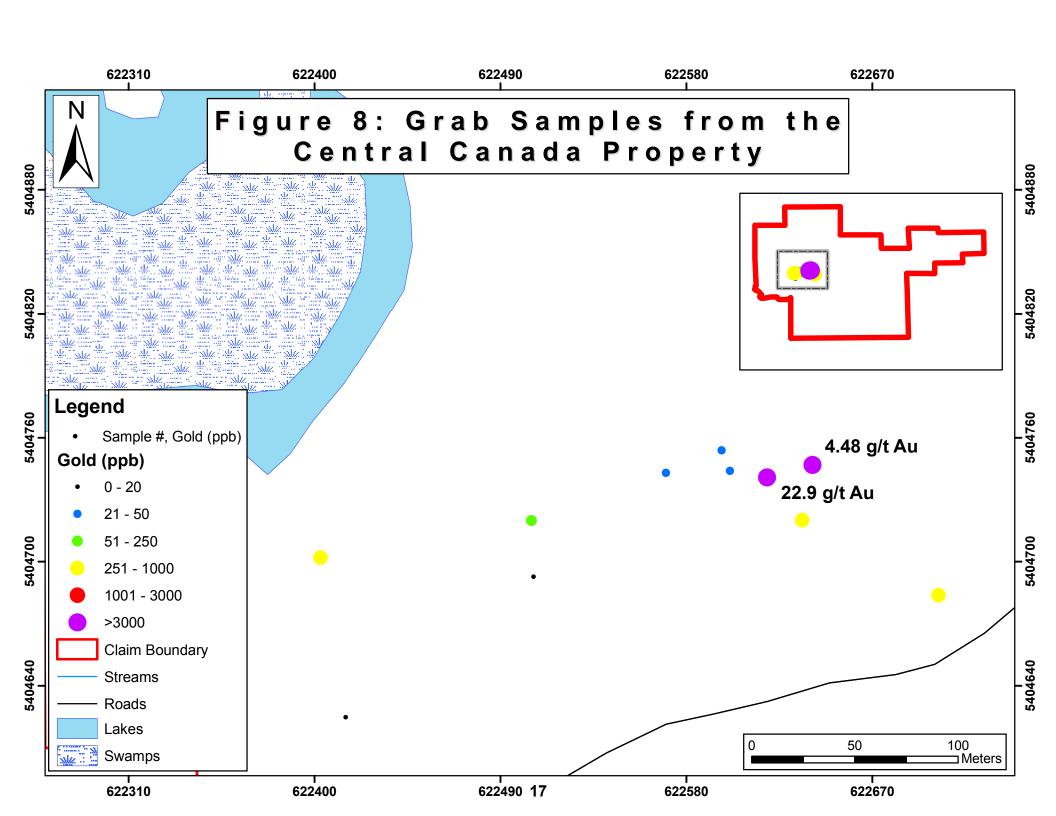
Gold mineralization is associated with east-northeast trending quartz-iron carbonate veins with minor pyrite and local tourmaline and/or arsenopyrite (Plates 3 to 5). These veins are more common in or close to porphyry bodies than in the mafic rocks, and have locally been folded and dismembered (Plate 6). TerraX samples all had detectable gold, and seven samples had >250 ppb Au. This includes results of 2.8, 4.48 and 22.9 g/t Au.

## 6.3 Geophysics

#### 6.3.1 Introduction

The 2010 geophysical program on the Central Canada Property consisted of cutting and chaining of the Central Canada Grid (Fig. 9). The grid was surveyed with total magnetic intensity (TMI), and resistivity/induced-polarization (RES/IP). All linecutting and geophysical surveying was carried out under contract by Exsics Exploration Limited (Exsics) of Timmins, Ontario in February/March 2010. Survey dates, crew names, and instrument specifications are documented in Appendix D.

A total of 3.1 line km was cut and chained on the Central Canada Grid. The grid was cut using 150 m line spacing and picketed at 25 m station intervals along the lines.



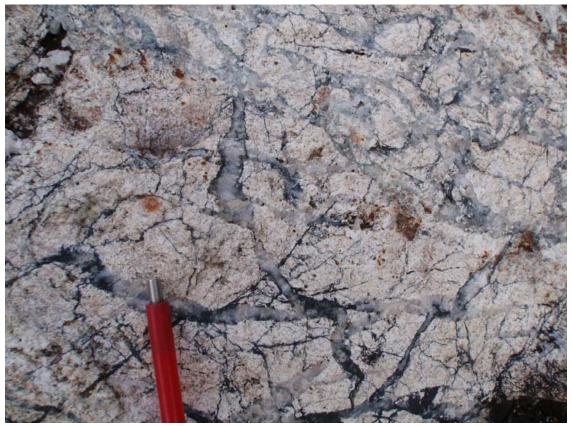


Plate 3: Quartz-tourmaline stockwork veins in porphyry.



Plate 4: Tourmaline stockwork in quartz porphyry.

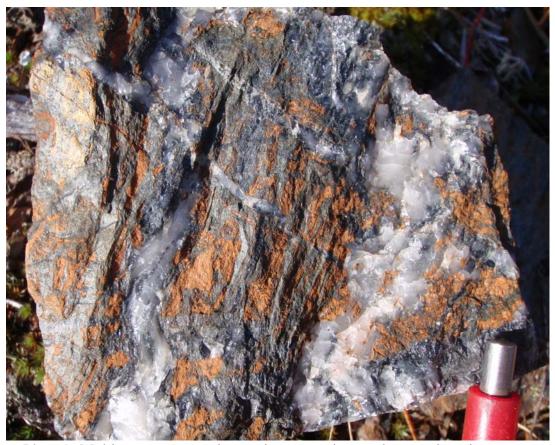
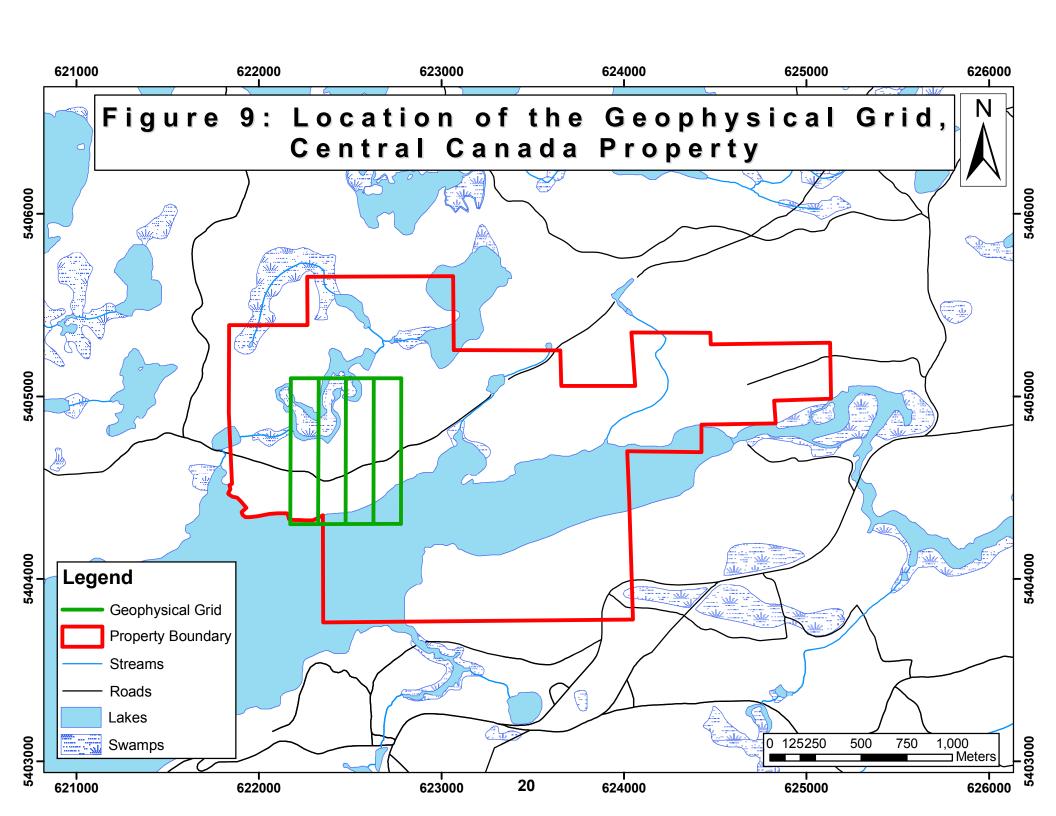


Plate 5: Multi-stage quartz veins cutting strong iron carbonate alteration.



Plate 6: Folded quartz vein cutting strongly sheared mafic rocks.



TMI surveying was completed at 5 m station intervals using field and base-station Scintrex ENVI proton precession magnetometers. In total, 3.1 line km of TMI surveying was completed on the grid.

The RES/IP survey utilized a conventional pole-dipole array with dipole spacing of a=25 m, reading n levels 1 through 6 at 25 m station intervals. Measurements were made in the time-domain. Electrical current was transmitted into the ground using an Instrumentation GDD TxII-3600W-2400V-10A transmitter. The transmitter pulse was a 50% duty cycle alternating square wave with 2 sec on and 2 sec off duration. The receiver was a 32 channel Instrumentation GDD GRX8-32 measuring the decay of primary voltages over 20 linearly spaced time gates, each 80 ms in length starting at 240 ms after current shutoff. RES/IP survey coverage over the grid was 1.9 line km.

GeoVector subsequently completed all magnetic and RES/IP data mapping/imaging of data acquired by Exsics. Maps of survey results are presented in Maps 3 through 8. In addition, all RES/IP data from the Central Canada Grid was modeled by 2D inversion. An inversion modeling program suite developed by the University of British Columbia (DCIP2D, 2001) was used to calculate an unconstrained, smooth model depth section of a possible resistivity and chargeability distribution-with-depth, that explains the field data. The algorithms assume that subsurface anomalous features are 2D (i.e. of infinite strike length and orthogonal to the survey line). In practice, features will be modeled less accurately as the strike length, and angle with survey line, of anomalous features deviates from the 2D assumption.

Each of the model sections is presented as a series of stacked sections at 1:2500 scale showing six panels of colour-contoured data. The top three panels illustrate the apparent resistivity pseudosection, the synthetic pseudosection derived from the depth section model, and the resistivity depth section model. The bottom three panels show the same series of sections for apparent chargeability. Stacked pseudosections with inversion depth sections for all lines surveyed with RES/IP are presented as Sections 1 through 4. Chargeability anomalies were interpreted from inversion modeled depth sections and are shown where applicable, based on their discreteness and response amplitude, as either definite (thick solid red lines) or possible (dashed thin red lines) anomalies.

Values of chargeability and resistivity derived from inversion model results at a depth of approximately 40 meters below surface were extracted from each of the relevant model sections and plotted as depth-slice contoured maps (Maps 7 and 8) for the Central Canada Grid.

#### 6.3.2 Central Canada Grid: Results and Interpretation

TMI survey results are plotted as contours in Map 3, and as stacked profiles with values posted in Map 4. Apparent RES and IP readings at n=1 are contoured and posted in Maps 5 and 6 respectively. RES/IP pseudosections and inversion model sections are stacked in Sections 1 through 4. Modeled IP and resistivity 40 m depth-slices are presented as Maps 7 and 8 respectively.

A summary of interpreted geophysical features are compiled on Map 9 as follows:

**CC1:** is an east-west trending RES-high with nearly-coincident, weak IP-high response. The response is detected over two lines, giving a minimum strike length of 150 m, and remains open to both east and west.

**CC2:** is similar in RES/IP response characteristics to CC1 and lies subparallel to it approximately 50 to 100 m to the south.

**CC3:** is the RES/IP response from a buried gas pipeline that cuts roughly east-west through the grid.

#### 7.0 Conclusions and Recommendations

Mineralization on the Central Canada property appears visually similar to mineralization elsewhere in and adjacent to the Marmion Batholith, related to quartz veins with iron carbonate alteration and minor pyrite. In the case of Central Canada, these veins are spatially related to quartz porphyry dikes. TerraX's sampling of the property returned results similar to those of previous workers, with abundant anomalous values and a high of 22.9 g/t Au.

The RES/IP survey data is severely contaminated by the presence of the gas pipeline, but several weak responses are apparent immediately north from the pipeline. Of the two geophysical survey methods applied on the grid on the Central Canada Property, RES/IP surveying was the most useful in defining anomalies of exploration interest for gold. TMI surveying was less useful, as the magnetic relief over the grid was generally low and featureless.

Reconnaissance mapping of the property and additional prospecting/sampling is necessary to more fully understand the geology and distribution of mineralization on the property. Geophysical anomaly CC1 is proximal to the shaft and to TerraX's 22.9 and 4.48 g/t samples. This anomaly should be tested with two drill holes. Geophysical anomaly CC2 should be tested by at least one drill hole. Extension of gridding and RES/IP surveying to east and west is recommended to define the limits and extents of trends CC1 and CC2.

A budget for the proposed work is presented in Table 3.

Table 3: Budget for Proposed Work on the Central Canada Property

Action	Cost
Drilling: 500 m @ \$150/m (includes logistics and assaying)	\$75,000
Additional Reconnaissance IP	\$25,000
Prospecting/Reconnaissance Geology: 4 people for 5 days + logistics	\$ 8,000
Program Planning and Reporting	\$ 4,000
Total	\$112,000

#### 8.0 REFERENCES

- Anjamin Mines Ltd. 1967. Diamond Drilling Report 12. AFRI Number 52B14SW0022. p.54.
- Anjamin Mines Ltd. 1970. Diamond Drilling Report 13. AFRI Number 52B14SW0024.
- Barrie, B.Q. 1985. Report on an Airborne Magnetic and VLF-EM Survey, Atikokan Area. Interquest Resources Corporation. AFRI Number 52B14SE0017. p.54.
- DCIP2D, 2001. A Program Library for Forward Modeling and Inversion of DC Resistivity and Induced polarization Data over 2D Structures, version 3.2. Developed under the consortium research project *Joint/Cooperative Inversion of Geophysical and Geological Data*, UBC-Geophysical Inversion Facility, Department of Earth and Ocean Sciences, University of British Columbia, Vancouver, British Columbia.
- Hawley, J.E., 1929. Geology of the Sapawe Lake Area, with Notes on Some Iron and Gold Deposits of Rainy River District, by J.E. Hawley, 38<sup>th</sup> Annual Report of the Ontario Department of Mines, Vol. 38, Part 6, pgs 1-58.
- Holmes, P.W. 1985. Report on the Anjamin Drilling Project. Interquest Resources Corporation. AFRI Number 52B14SW0007. p. 58.
- Leahey, M.W. 1984. The 1984 Field Program Summary on the Sapawe Lake Property, Atikokan Project. Kenergy Resources Corporation. AFRI Number 52B14SW0010. p. 93.
- MacRae, W. 1978. Mineral Deposits of the Atikokan Area. Ontario Geological Survey Miscellaneous Paper 82, pp. 206-209.
- Mosley, E. 2005. Mechanical and Manual Stripping Report. Freewest Resources Canada Inc. p.29
- 2009. Ontario Geophysical Ontario Geological Survey Airborne Surveys, Grid Data (ASCII and Geosoft® Magnetic Data, and Profile and Vector Data, Marmion Lake Area. Ontario Geological Survey Geophysical Data Set 1066.
- Rennie, D.W. and McDonough, B. 2008. Technical Report on Hammond Reef Gold Project, Ontario, Canada. Brett Resources Inc. National 43-101 Report, available at <a href="https://www.sedar.com">www.sedar.com</a>
- Schnieders, B.R. and Dutka, R.J. 1985. Property Visits and Reports of the Atikokan Economic Geologist, 1979-1983. Ontario Geological Survey Open File Report 5539, 512 p.

- Setterfield, T. 2009. Report on 2009 Exploration by TerraX Minerals Inc. on the Blackfly Property, Steeprock Lake Area, NTS Map Sheet 52B/13, Northwestern Ontario. Assessment Report, TerraX Minerals Inc., 21 p.
- Stone, D. 2008. Precambrian Geology, Atikokan Area. Ontario Geological Survey Preliminary Map P.3349-revised. Scale 1:50,000.
- Stone, D. 2010. Precambrian Geology, Central Wabigoon Subprovince Area. Ontario Geological Survey Preliminary Map P.2229. Scale 1:250,000.
- Stone, D. and Davis, D.W. 2006. Project Unit 95-014. Revised Tectonic Domains of the South-Central Wabigoon Subprovince. Ontario Geological Survey Open File Report 6192, p11-1 to 11-18.
- Wilkinson, S.J. 1982. Gold Deposits of the Atikokan Area. Ontario Geological Survey Mineral Deposits Circular 24, 54 p.

#### **APPENDIX A: Certificate of Qualifications**

I, Tom Setterfield, PhD, P.Geo. do hereby certify that:

- 1. I am the Vice President, Exploration of Suite 312, 10 Green St., Ottawa, Ontario, K2J 3Z6
- 2. I graduated with a BSc degree in Geology and Chemistry from Carleton University in 1980. In addition, I have obtained an MSc in Geology from the University of Western Ontario in 1984, and a PhD in Earth Sciences from the University of Cambridge in 1991.
- 3. I am a member of the Association of Professional Geoscientists of Ontario (membership #0103).
- 4. I have worked as a geologist for a total of 29 years since my graduation from university.
- 5. I supervised and participated in the work on the Central Canada property described in this report, and wrote most of the assessment report.

Dated this 30th Day of April, 2010.

Tom Setterfield

Tom Setterfield

- I, Roman Tykajlo, of 316 Ridgeside Farm Dr, Kanata, in the province of Ontario, DO HEREBY CERTIFY:
- 1. THAT I am a Consulting Geophysicist and principal of the geoconsulting firm GeoVector Management Inc., with an office at 10 Green Street, Suite 312, Ottawa, Ontario, K2J 3Z6.
- 2. THAT I am a graduate of Lakehead University at Thunder Bay, Ontario, with an Honours Bachelor of Science degree in Geology / Physics (1978).
- 3. THAT I have been practicing my profession continuously since graduation.
- 4. THAT I am a member in good standing of:
  Association of Professional Geoscientists of Ontario (APGO)
  Society of Exploration Geophysicists (SEG)
  Canadian Exploration Geophysical Society (KEGS)
  Australian Society of Exploration Geophysicists (ASEG)
- 5. THAT I processed and interpreted the ground magnetic and resistivity/induced polarization surveys, and prepared the maps and documentation related to these surveys in the body of this report.

DATED at Ottawa, Ontario, this 30<sup>th</sup> day of April, 2010.

Roman Tykajlo, HBSc, P.Geo.

#### I, Holly Chin, BSc. do hereby certify that:

- 1. I am a Geologist with GeoVector Management Inc.
- 2. I graduated with a BSc degree in Environmental Geochemistry from University of New Brunswick in 2007.
- 3. I have worked as a geologist for a total of two years since my graduation from university.
- 5. I participated in the work on the Central Canada property described in this report, and contributed to the assessment report.

Dated this 30th Day of April, 2010.

Hally Chi

Holly Chin

# **APPENDIX B: Samples Collected on the Central Canada Property**

	Au	Au										
Sample #	(ppb)	(g/t)	Description	Easting	Northing	Type	RockType	Mineralization	Alteration	Feature	Strike	Dip
459813	2800		Qtz vein +/- Fe-Cb, 1% Py, 2% mafic material	622641	5404747	ос	Qtz vein	1% Py	Strong Fe-cb,			
459814	198		silicified metavolcanics with minor Fe-Cb	622641	5404747	ос	metavolcanics	2% Py	minor Fe-cb			
459815	13		40% mafics, 60% Qtz veins+/- Fe-cb	622641	5404747	ос	Qtz+mafics	0.5% Py	minor Fe-cb			
459816	468		20% mafic volcanics, 80% Qtz vn+/- Fe-cb	622641	5404747	ОС	Qtz+mafics	1% Py	minor Fe-cb			
459817	37		f.g felsic porphyry with mod. Diss. Fe-Cb	622641	5404747	ОС	Felsic Porphyry	2% Py	mod diss. Fe-Cb			
459818	> 3000	22.9	Qtz-carb vein highly sheared with strong Fe-Cb and mod chl+ tourm	622619	5404741	ос	Qtz vein		Strong Fe-Cb. Mod. Chl, tourm	shear	70	60
459819	48		Qtz-Fe-cb vein with 20% MV	622597	5404754	ос	Qtz vein	0.5% Py	strong Fe-cb			
459820	15		Strongly Fe-cb altered MV	622597	5404754	ос	mafic volcanics		strong Fe-cb			
459821	49		Granite dyke with Qtz, Qtz-tourm veining and Fe-Cb on fractures	622601	5404744	ОС	Granite		minor Fe-Cb			
459822	23		Granite dyke cut by numerous tourm veins with diss Py	622570	5404743	ОС	Granite	2% Py	mod Fe-cb			
459823	202		Qtz-carb vein in strongly sheared zone with strong Fe-Cb and tourm veins	622505	5404720	ос	Qtz vein		Strong Fe-Cb. tourm	shear	70	90
459824	9		Slightly schistose m.g granite with minor Fe-Cb and trace Py.	622506	5404693	ОС	Granite	trace Py	strong Fe-cb, minor tourm.			
459825	266		50cm wide Qtz-carb vein in mafic schist	622403	5404702	ОС	Qtz vein		strong Fe-cb, wk. tourm	shear	74	84
459826	12		Strongly Fe-cb altered granite	622415	5404625	ОС	Granite	2% Py	strong Fe-cb			
459827	419		Qtz-Fe-cb vein in thin mafic sleeve	622636	5404720	ОС	Qtz vein		mod Fe-cb			
459828	18		Granite vein with mod Fe-Cb	622636	5404720	ОС	Granite	2% Py	mod. Fe-Cb			
459829	500		wide silicified mod. Fe-Cb altered granite	622702	5404684	ОС	Granite	2% Py, 1% AsPy				

# **APPENDIX C: Certificates of Assay**

#### Quality Analysis ...



#### Innovative Technologies

Date Submitted: 02-Nov-09

Invoice No.:

A09-6380

Invoice Date:

24-Nov-09

Your Reference: Central Canada

Terrax Minerals Inc. 21 Tripp Cres. Ottawa ON K2J 1C5 Canada

ATTN: Tom Setterfield

#### CERTIFICATE OF ANALYSIS

18 Rock samples were submitted for analysis.

The following analytical packages were requested:

Code 1A2-Tbay Au - Fire Assay AA

Code 1A3-Tbay Au - Fire Assay Gravimetric

REPORT

A09-6380

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

#### Notes:

If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3

CERTIFIED BY:

Emmanuel Eseme, Ph.D. Quality Control

ACTIVATION LABORATORIES LTD.

1336 Sandhill Drive, Ancaster, Ontario Canada L9G 4V5 TELEPHONE +1.905.648.9611 or +1.888.228.5227 FAX +1.905.648.9613  Report: A09-6380 rev 1 Rev, 1

Report Date: 11/24/2009

Analyte Symbol Au Au
Unit Symbol ppb g/tonne
Detection Limit 5 0.03
Analysis Method FA-AA FA-GRA
459812 > 3000 4.48
459813 2800
459814 198
459815 13
459816 468
459817 37
459818 > 3000 22.9
459819 48
459820 15
459821 49
459822 23
459823 202
459824 9
459825 266
459826 12
459827 419
450000
459828 18

# Final Report Activation Laboratories

# **Appendix D: Geophysical Logistics Report**

# Linecutting and Chaining Dates and Crew List

Linecutting and chaining was completed in February, 2010 by Exsics Exploration Limited of Timmins Ontario. The crew consisted of:

Robert Craig and Associates from Noranda, QC

## Geophysical Survey Dates and Crew List

Magnetic Surveying was completed March 12, 2010 by Exsics Exploration Limited of Timmins Ontario. The crew consisted of:

Richard Bradshaw James Francoeur

Induced Polarization and Resistivity surveying was completed between March 19 and 21st, 2010 by Exsics Exploration Limited of Timmins Ontario. The crews consisted of:

Crew 1	Crew 2
Marc Cayen	Joel Hamlin
Dan Collins	Steve Chartrand
Corry Corriveau	Dan Porier
Jordan Harold	Dacey Belair
Mike Tremblay	Mike Tremblay



# **MAGNETIC METHODS**



# **ENVI**

**Geophysical System** 

## **ENVI GEOPHYSICAL SYSTEM SPECIFICATIONS**

## **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 VLF Measurements: 4,500 readings for 3 frequencies

#### Real-Time Clock

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

## 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 55 mm

(10" x 6" x 2.25") 2.45 kg (5.4 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")

1.7 kg (3.7 lbs)

VLF Sensor 280mm x 190mm x 75mm

Electronics: (11" x 7.5" x 3") 1.7 kg (3.7 lbs)

## **Options**

Base Station Accessories Kit Software Packages Training Programs

NOTE: Specifications are subject to change without notice



#### **CANADA**

#### Scintrex

222 Snidercroft Road Concord, Ontario, Canada L4K 2K1 Telephone: +1 905 669 2280 Fax: +1 905 669 6403 e-mail: scintrex@scintrexltd.com

e-mail: <a href="mailto:scintrex">scintrex</a>@scintrex</a>ltd.com
Website: <a href="mailto:www.scintrexltd.com">www.scintrex</a>ltd.com

#### **USA**

## Micro-g LaCoste

1401 Horizon Avenue Lafayette, CO 80026 Telephone: +1 303 828 3499 Fax: +1 303 828 3288

e-mail: info@microglacoste.com website: www.microglacoste.com













Canadian Manufacturer of Geophysical Instrumentation since 1976 Sales, Rental, Customer Service, R&D and Field training

WWW.GDD.CA

# 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:

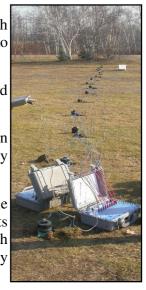
- 8 channels expandable to 16, 24 or 32
- Reads up to 32 ch. simultaneously in poles or dipoles
- PDA menu-driven software / simple to use
- 32 channels configuration allows 3D Survey:
   4 lines X 8 channels 2 lines X 16 channels
   1 line X 32 channels
- Link to a PDA by Bluetooth or RS-232 port
- 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<sup>9</sup>)
- 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. Data storage space is virtually unlimited.



## **SPECIFICATIONS**

**Number of channels:** 8, expandable to 16, 24 or 32 **Survey capabilities:** Resistivity and Time domain IP **Twenty chargeability windows:** Arithmetic, logarithmic,

semi-logarithmic, IPR-12 and user defined

**Synchronization:** Automatic re-synchronization process

on primary voltage signal

**Noise reduction:** Automatic stacking number **Computation:** Apparent resistivity, chargeability,

standard deviation, and % of symmetrical Vp

**Size:** 41 X 33 X 18 cm (16 X 13 X 7 in) **Weight (32 channels):** 8.9 kg (19.6 lb)

**Enclosure:** Heavy-duty Pelican case, environmentally sealed **Serial ports:** RS-232 and Bluetooth to communicate with a PDA

**Temperature range:** -45 to +60°C (-49 to +140°F)

Humidity range: Waterproof



## **ELECTRICAL CHARACTERISTICS**

**Ground Resistance**: Up to 1.6 M $\Omega$ 

Signal waveform: Time domain (ON+, OFF, ON-, OFF)

**Time base:** 0.5, 1, 2, 4 and 8 seconds

**Input impedance:**  $10^4$  G $\Omega$ 

**Primary voltage:**  $\pm 10 \text{ uV to } \pm 15 \text{ V for any channel}$ 

**Input:** True differential for common-mode rejection in dipole configuration

**Voltage measurement:** Resolution 1  $\mu$ V, Accuracy 0.5% **SP offset adjustment:**  $\pm$  5 V, automatic compensation through

linear drift correction per steps of 150  $\mu V$ 

Filter: Eight-pole Bessel low-pass 15 Hz, notch filter 50 Hz

and 60 Hz

Chargeability Measurement: Resolution 1  $\mu V$ , Accuracy 0.8%

#### **PURCHASE**

Can be shipped anywhere in the world.

## RENTAl- available in Canada and USA only

Starts on the day the instrument leaves our office in Québec to the day of its return to our office. 50% of the rental fee of the last 4 months of rental can be credited towards the purchase of the rented instrument.

#### WARRANTY

All instruments are covered by one-year warranty. All repair will be done free of charge at our office in Quebec, Canada.



Standard – Juniper Allegro Cx or Mx PDA computer provided with the GDD receiver with all accessories.

**Display:** 3.8" QVGA LCD 320 x 240 pixels **Operating system:** Windows CE (Cx) Windows Mobile 6.0 (Mx)

Comes with Bluetooth and RS-232

## **Allegro Cx**

## **Allegro Mx**





## **POWER**

- 12 V rechargeable batteries.
- Standard plug for external battery.

## **COMPONENTS INCLUDED**



## **SERVICE**

If an instrument manufactured by GDD breaks down while under warranty or service contract, it will be replaced free of charge during repairs (upon request and subject to instrument availability).

#### OTHER COSTS

Shipping, insurances, customs and taxes are extra if applicable.

#### **PAYMENT**

Checks, credit cards, money transfer, etc.



3700, boul. de la Chaudière, suite 200 Québec (Québec), Canada, G1X 4B7

Phone: +1 (418) 877-4249 Fax: +1 (418) 877-4054 Web Site: www.gdd.ca Email: gdd@gdd.ca

Specifications are subject to change without notice

Printed in Québec, Canada, 2009













Canadian Manufacturer of Geophysical Instrumentation since 1976 Sales, Rental, Customer Service, R&D and Field training

WWW.GDD.CA

## **Induced Polarization Transmitters**

## TxII - 3600W Model



## 3600W-2400V-10A

Its power (3600W) combined with a Honda generator makes it particularly suitable for pole-dipole induced polarization surveys. Link two 3600W IP transmitters together and transmit up to 7200W-4800V-10A.

## TxII - 5000W Model



## 5000W-2400V-10A

Its high power (5000W) makes it particularly suitable for deep pole-dipole induced polarization surveys or in very resistive ground. Link two 5000W IP transmitters together and transmit up to 10,000W-4800V-10A.

## Link two GDD IP 3600W or 5000W transmitters together to double power.

Protection against short circuits even at zero (0) ohm
Output voltage range: 150V – 2400V / 14 steps
Power source: 220-240V / 50-60 Hz
Displays electrode contact, transmitting power and current

GDD 3600W or 5000W Induced Polarization (IP) transmitters work from a standard 220-240V source and are well adapted to rocky environments where a high output voltage of up to 2400V is needed. Moreover, in highly conductive overburden, the highly efficient GDD transmitter is able to send current up to 10 A. By using this IP transmitter, you obtain fast and high-quality IP readings even in the most difficult conditions.

Manufactured in Canada by Instrumentation GDD inc.



## **Control Panel**

**←** TxII - 3600W

TxII - 5000W →



## **SPECIFICATIONS**

#### TxII - 3600W

Size: 55 cm x 45 cm x 26 cmWeight: approximately 32 kg

• Operating temperature : -40 °C to 65 °C

## **COMPONENTS INCLUDED**

- Tx built in a Pelican transportation box
- 20A power cable extension
- 20/30A cable adaptor

## **ELECTRICAL CHARACTERISTICS**

- Time base : 2 seconds ON, 2 seconds OFF / 0.5, 1, 2, 4 sec. / 1, 2, 4, 8 sec. / DC
- Output current : 0.030 to 10 A (normal operation) 0.000 to 10 A (with cancel open loop)
- Output voltage: 150 to 2400V / 14 steps
- Ability to link two transmitters together to double power

## **DISPLAYS**

- Output current, 0.001 A resolution
- Output power
- Ground resistance (when the Tx is turned off)

## POWER SOURCE

Standard 220-240V / 50-60 Hz Honda regulated generator

## TxII - 5000W n x 45 cm x 26

Size: 55 cm x 45 cm x 26 cmWeight: approximately 40 kg

• Operating temperature : -40 °C to 65°C

- Instruction manual
- Blue carrying case
- Yellow Master-Slave cable (optional)



←Link together two 3600W-2400V IP transmitters and transmit up to 7200W-4800V. Link together two 5000W-2400V IP transmitters and transmit up to 10,000W-4800V.

## **CONTROLS**

- Switch ON / OFF
- Output voltage selector: 150V, 180V, 350V, 420V, 500V, 600V, 700V, 840V, 1000V, 1200V, 1400V, 1680V, 2000V, 2400V

## **PURCHASE**

Can be shipped anywhere in the world.

## **RENTAL-available in Canada and USA only**

Starts on the day the instrument leaves our office in Quebec to the day of its return to our office. 50% of the rental fee up to a maximum of 4 months can be credited towards the purchase of the rented instrument.

## WARRANTY

GDD's instruments are covered by a one-year warranty. Repair to be done free of charge at our office in Quebec, Qc, Canada.

## SERVICE

If an instrument manufactured by GDD breaks down while under warranty or service contract, it will be replaced free of charge during repairs (upon request and subject to instruments availability).

## **OTHER COSTS**

Shipping, insurance, duties and taxes are extra if applicable.

## **PAYMENT**

Visa, Mastercard, American Express, checks or money transfer.



860, boul. de la Chaudière, suite 200 Québec (Québec), Canada, G1X 4B7

Phone: +1 (418) 877-4249 Fax: +1 (418) 877-4054 Web Site: www.gdd.ca Email: gdd@gdd.ca Specifications subject to change without notice.

Printed in Quebec, Canada, 2008

## **APPENDIX E: Expenditures and Deemed Expenditures Per Claim**

The total costs of the Central Canada program were \$4,823 for the prospecting/geological reconnaissance (including reporting) and \$11,467 for the geophysical surveying and reporting. Expenditures per claim are reported in Table E1, and expenditures are reported according to the format of MNDM for 0241E in Table E2.

Table E1: Claim Expenditures per Claim

	Geophysical	Geophysical	Sampling					
Claim #	Percentage	Cost	Cost	Total Cost				
3008652	84.5	\$9689.62	\$4,823	\$14512.62				
3008653								
3008654								
3014051								
3014052	3.4	\$389.88		\$389.88				
4251109								
4251110	12.1	\$1387.50		\$1387.50				
Total	100	\$11467	\$4,823	\$16290				

Table E2: Expenditures according to the format of Form 0241E

				Cost per	
Section	Item	Detail	Units	unit	Total
A	Chemical Analyses	Gold	18	22.14	398.60
A	Fieldwork	GeoVector man-day	2	500	1000.00
A	Line-Cutting	Line km	3.1	991.37	3073.24
A	Induced Polarization	Line km	1.9	2671.23	5075.34
A	Magnetic Survey	Line km	3.1	296.52	919.22
A	Geophysical Interpretation	GeoVector man-day	4	600	2400
A	Reporting	GeoVector man-day	7	457.14	3200
C	Truck Rental				75.00
D	Accommodation, Food				150.00
		Total			16291.40

## **APPENDIX F: Personnel and Dates Worked**

Tom Setterfield 21 Tripp Crescent Ottawa, ON K2J 1C5

Fieldwork: October 25, 2009

Report Writing: April 26 to 30, 2010

Roman Tykajlo 316 Ridgeside Farm Dr. Carp, ON K2W 1H3

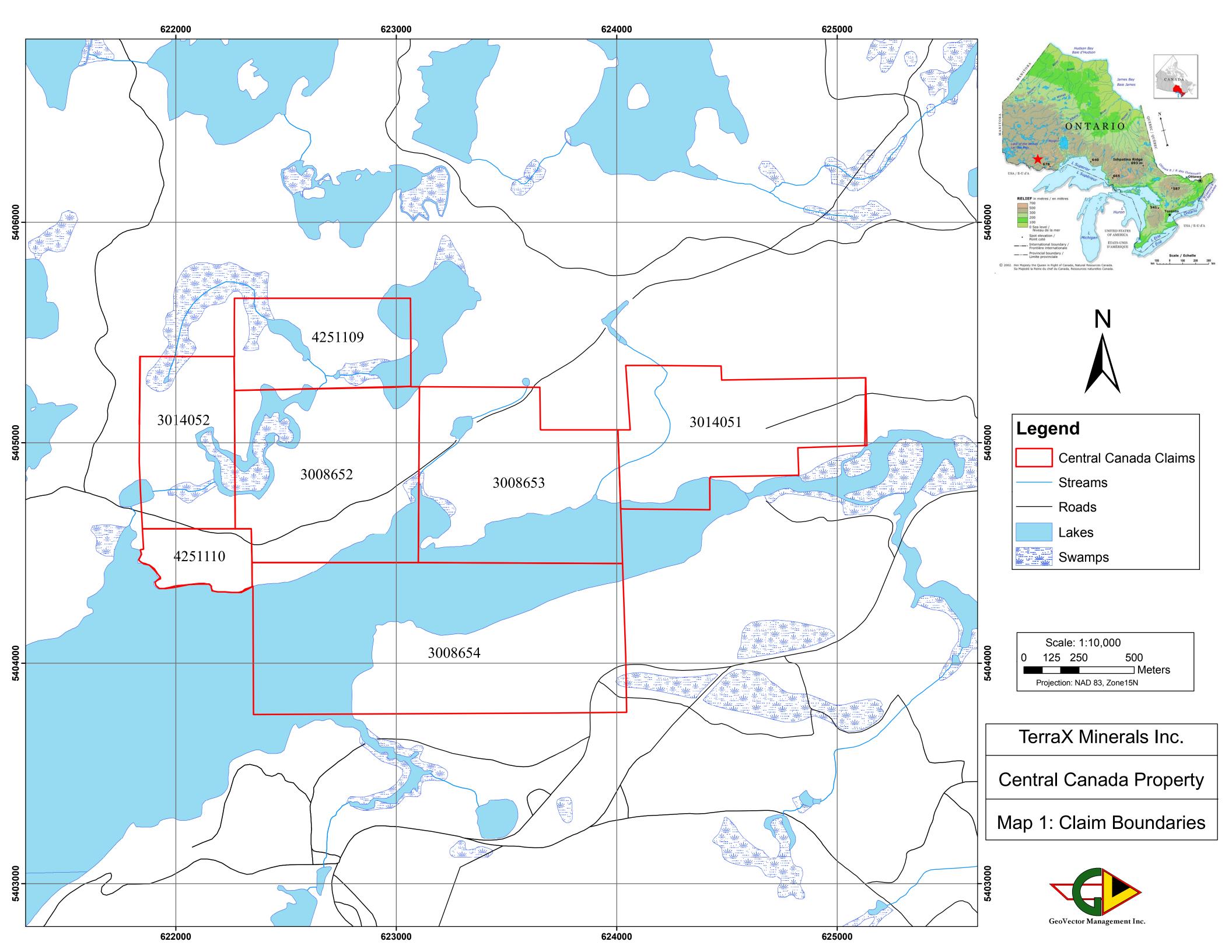
Geophysical Interpretation and Reporting: April 20 to 30, 2010

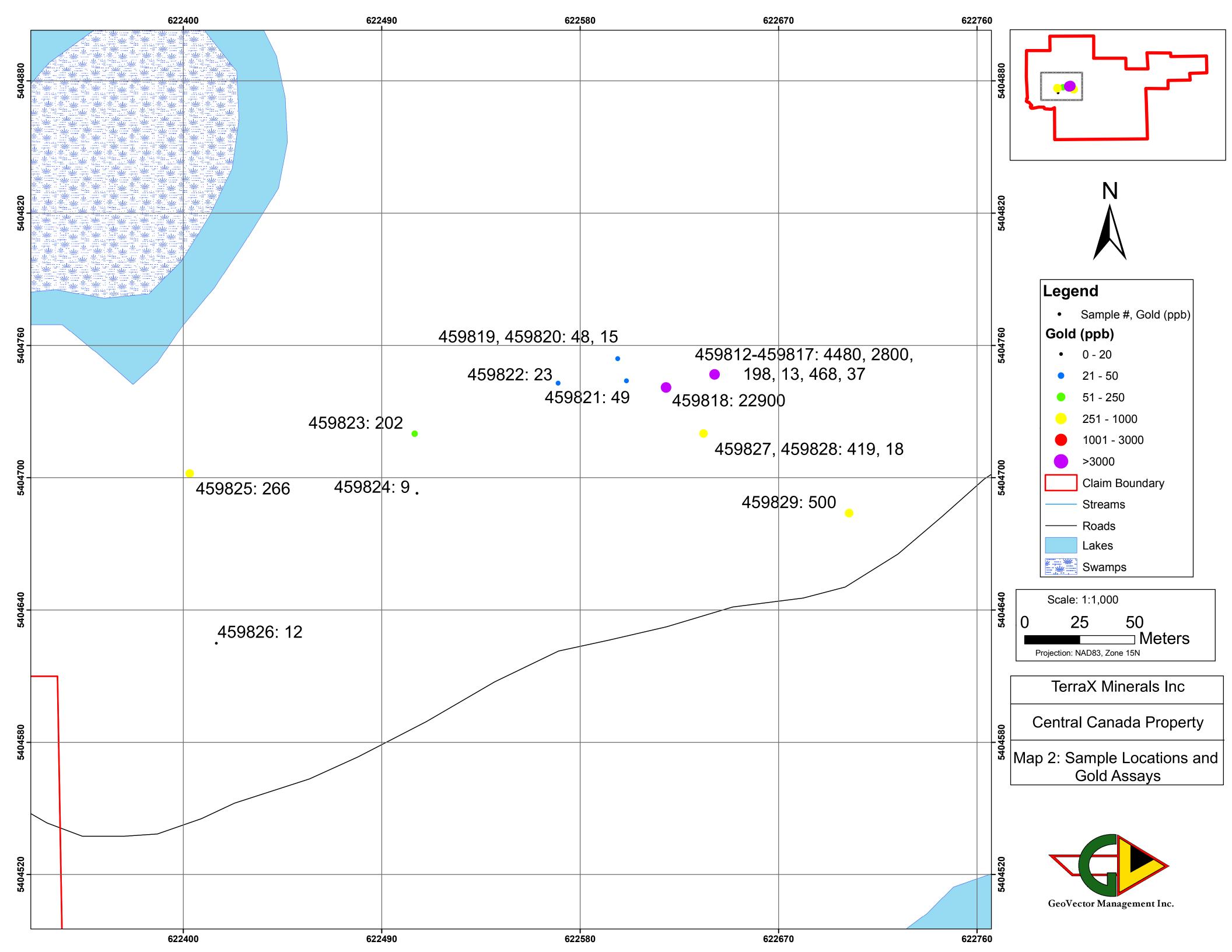
Holly Chin 1579 Dixie St Ottawa, ON K1G 0P2

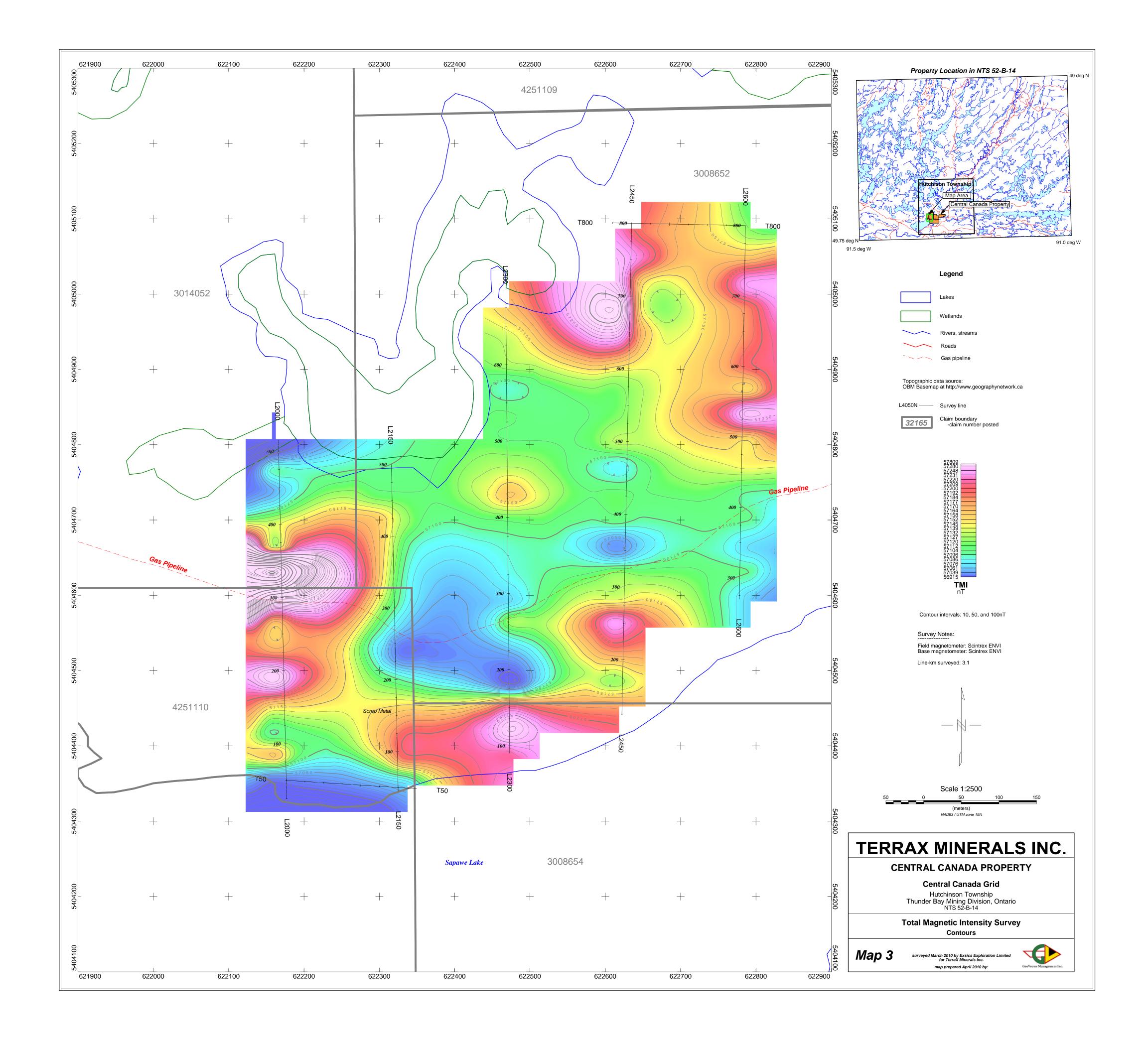
Fieldwork: October 25, 2009

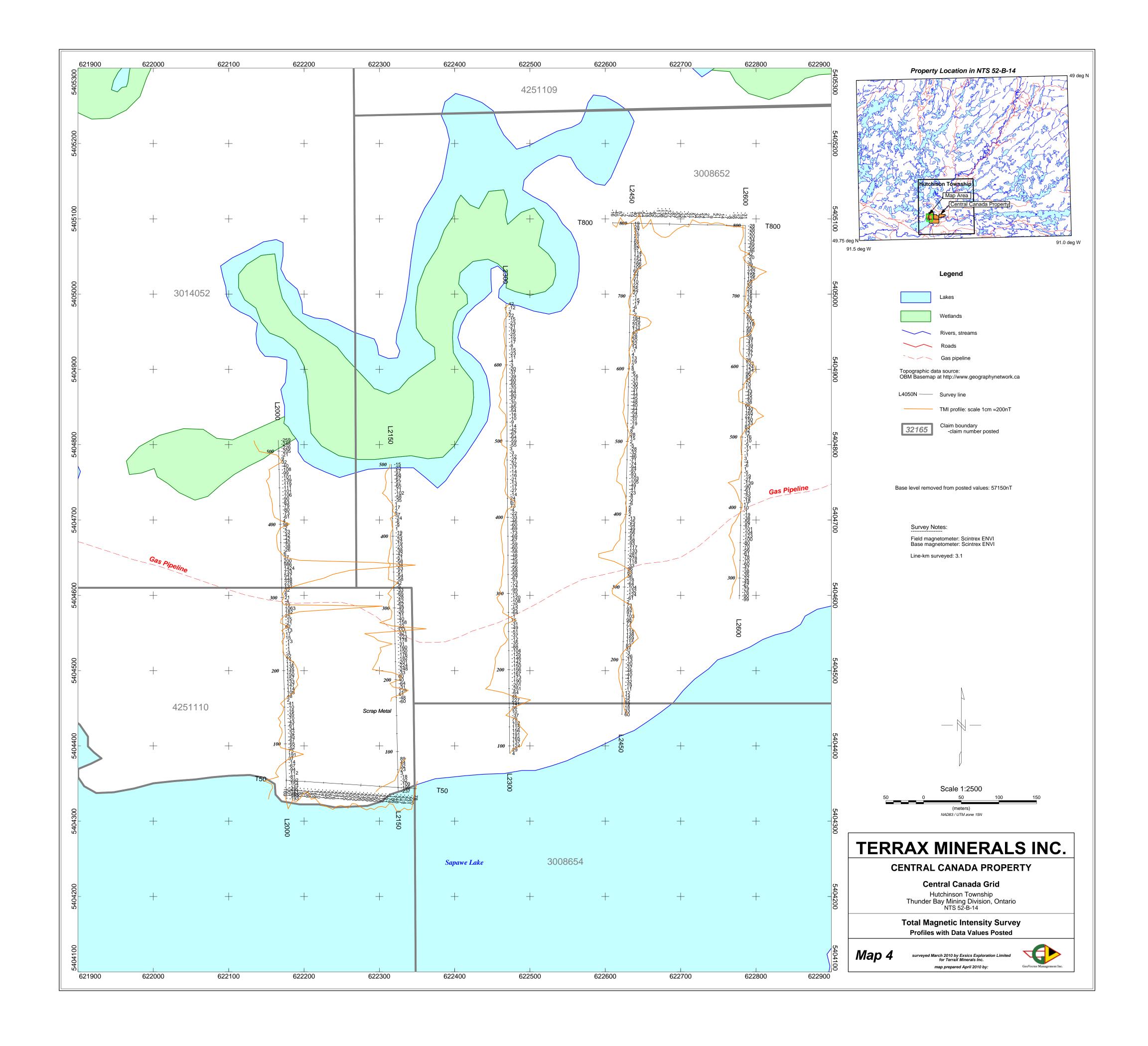
Drafting and Report Writing: April 20 to 30, 2010

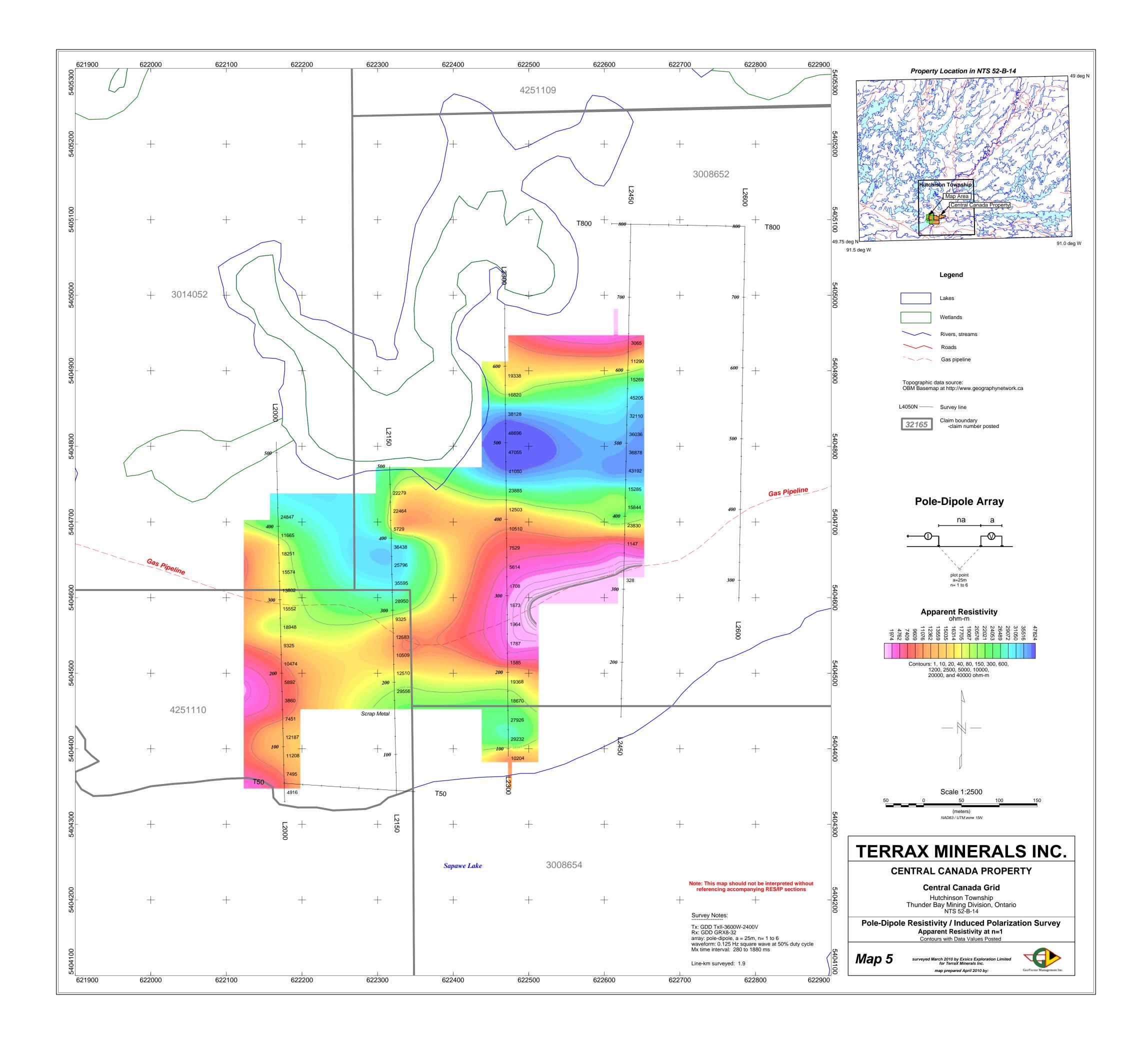
Geophysical Personnel: See Appendix D

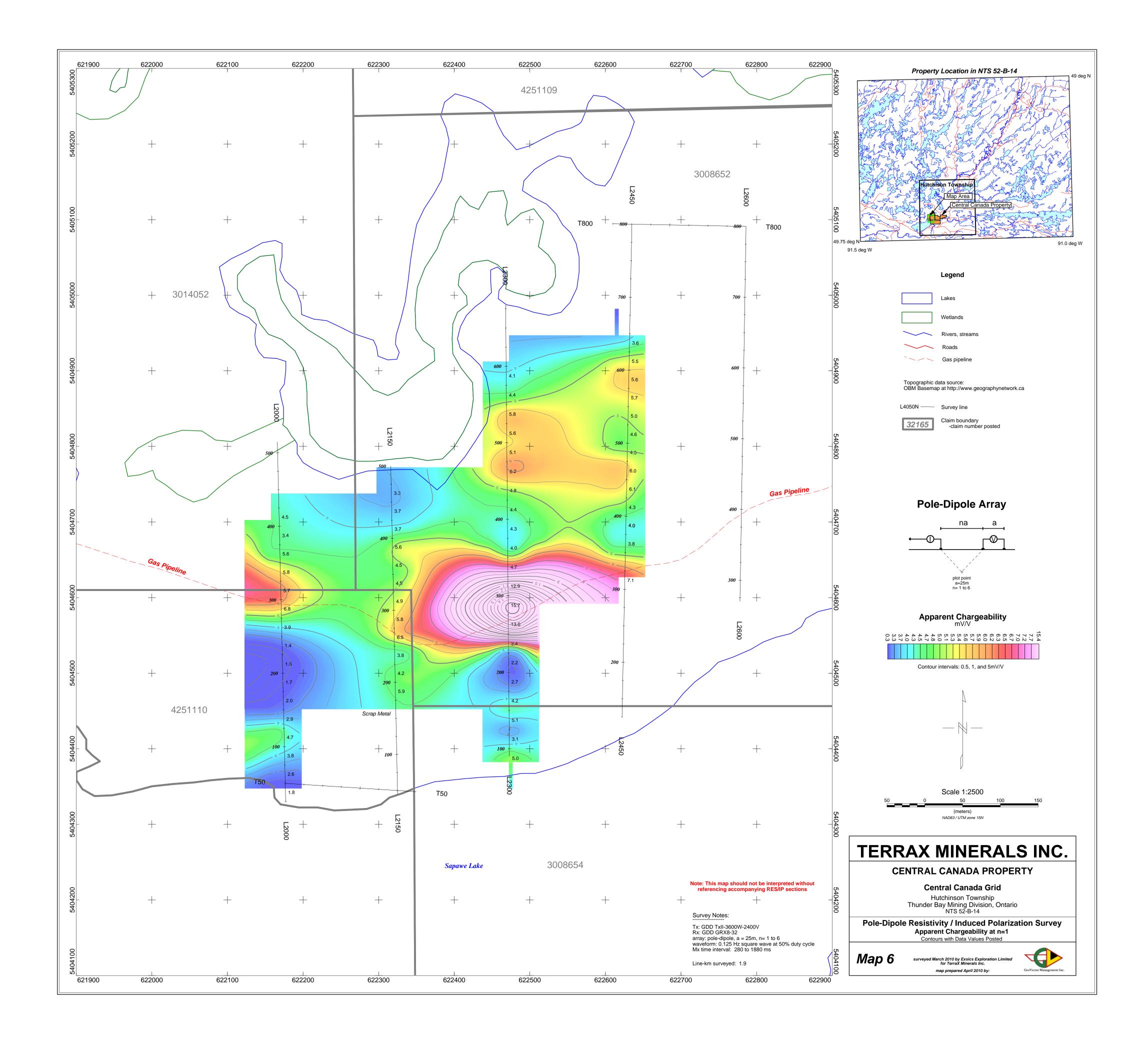


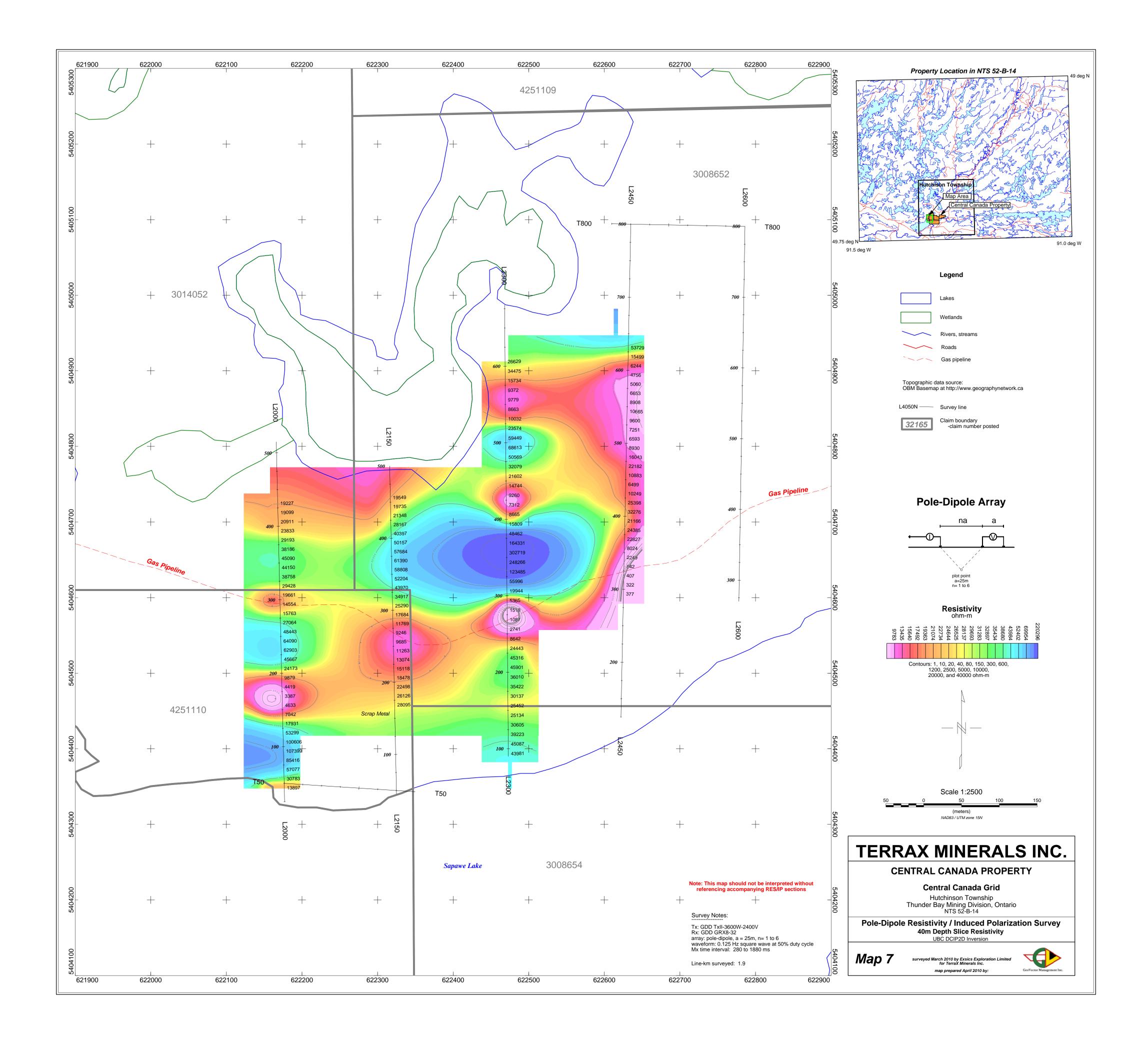


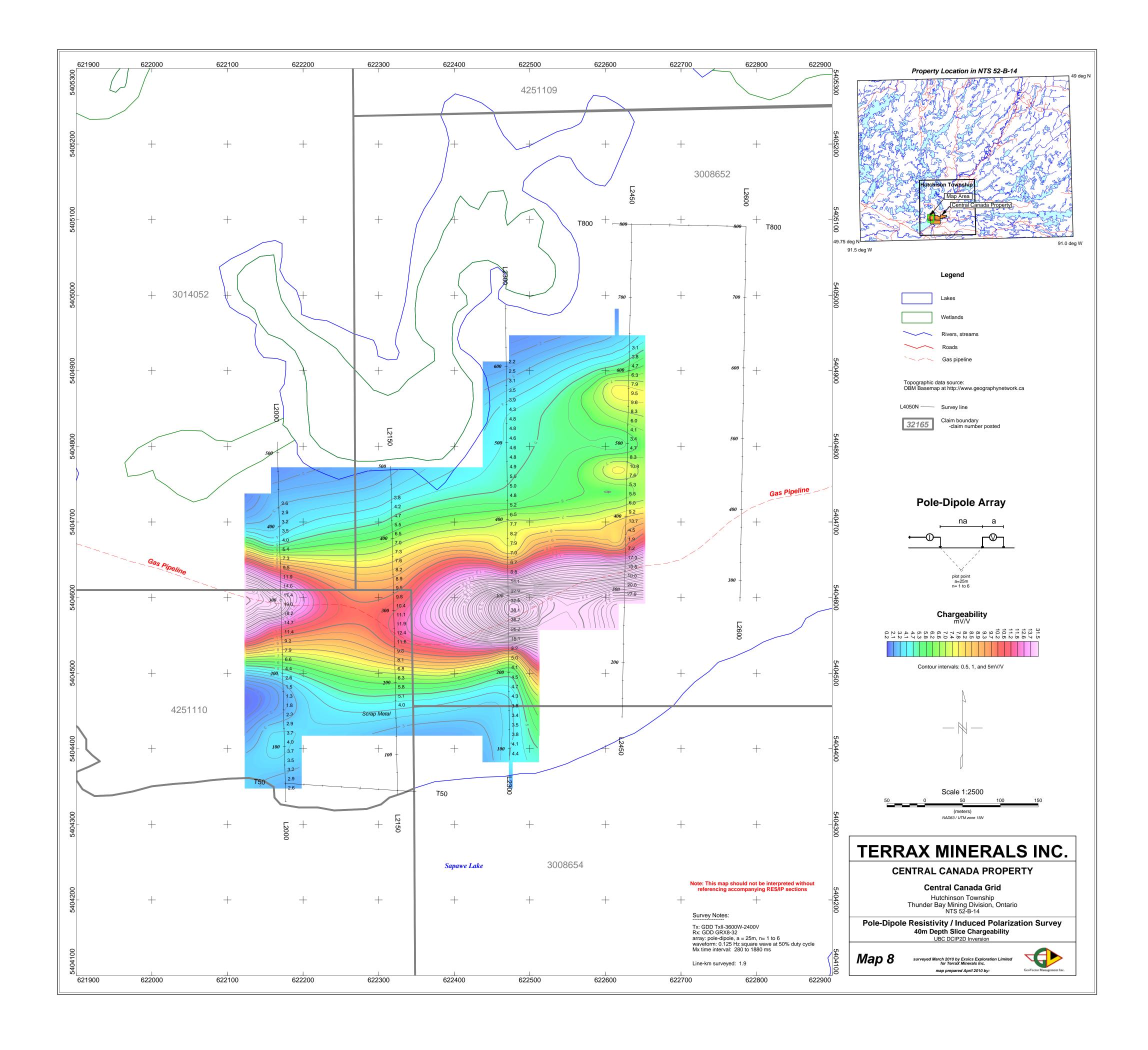


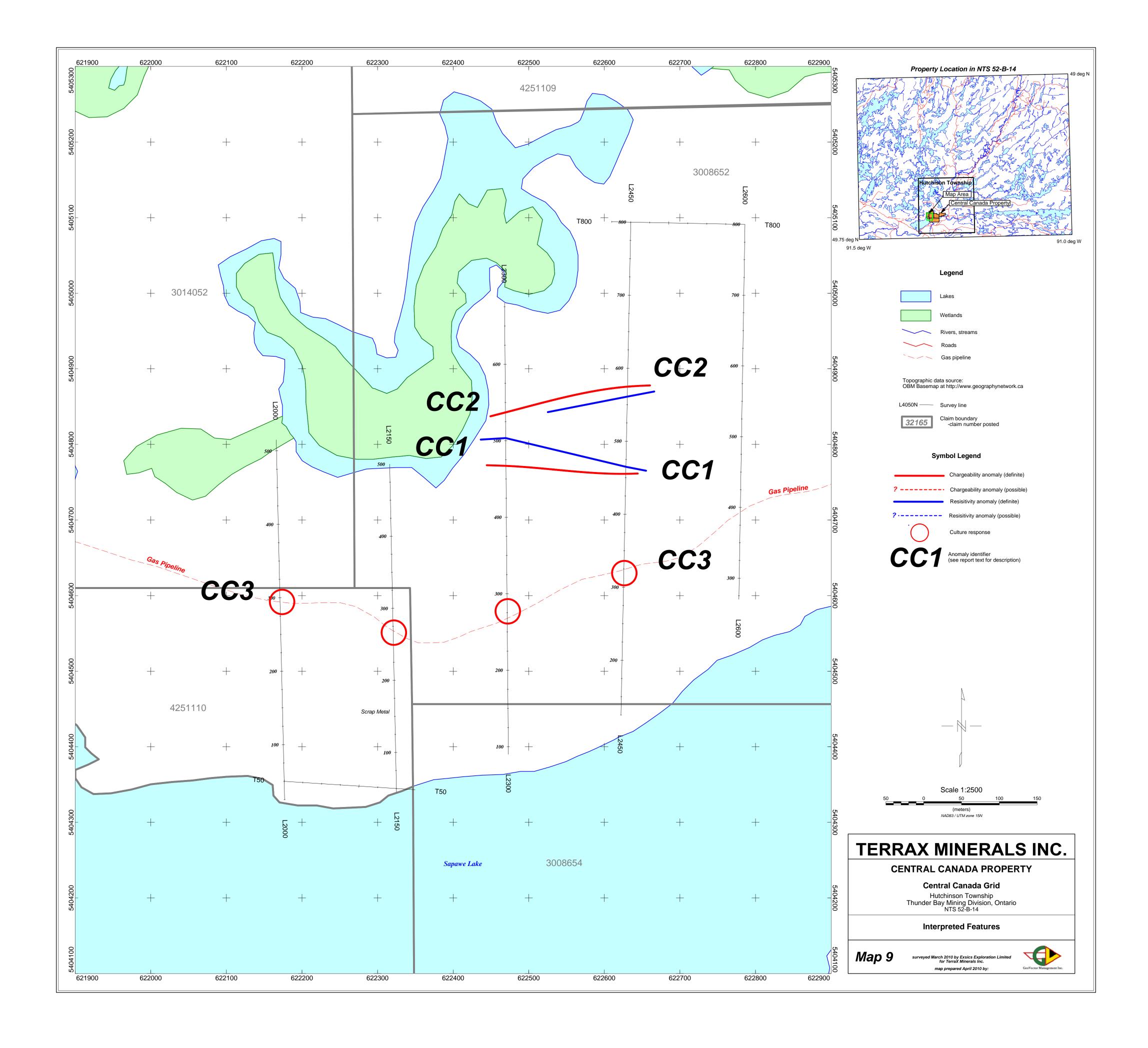


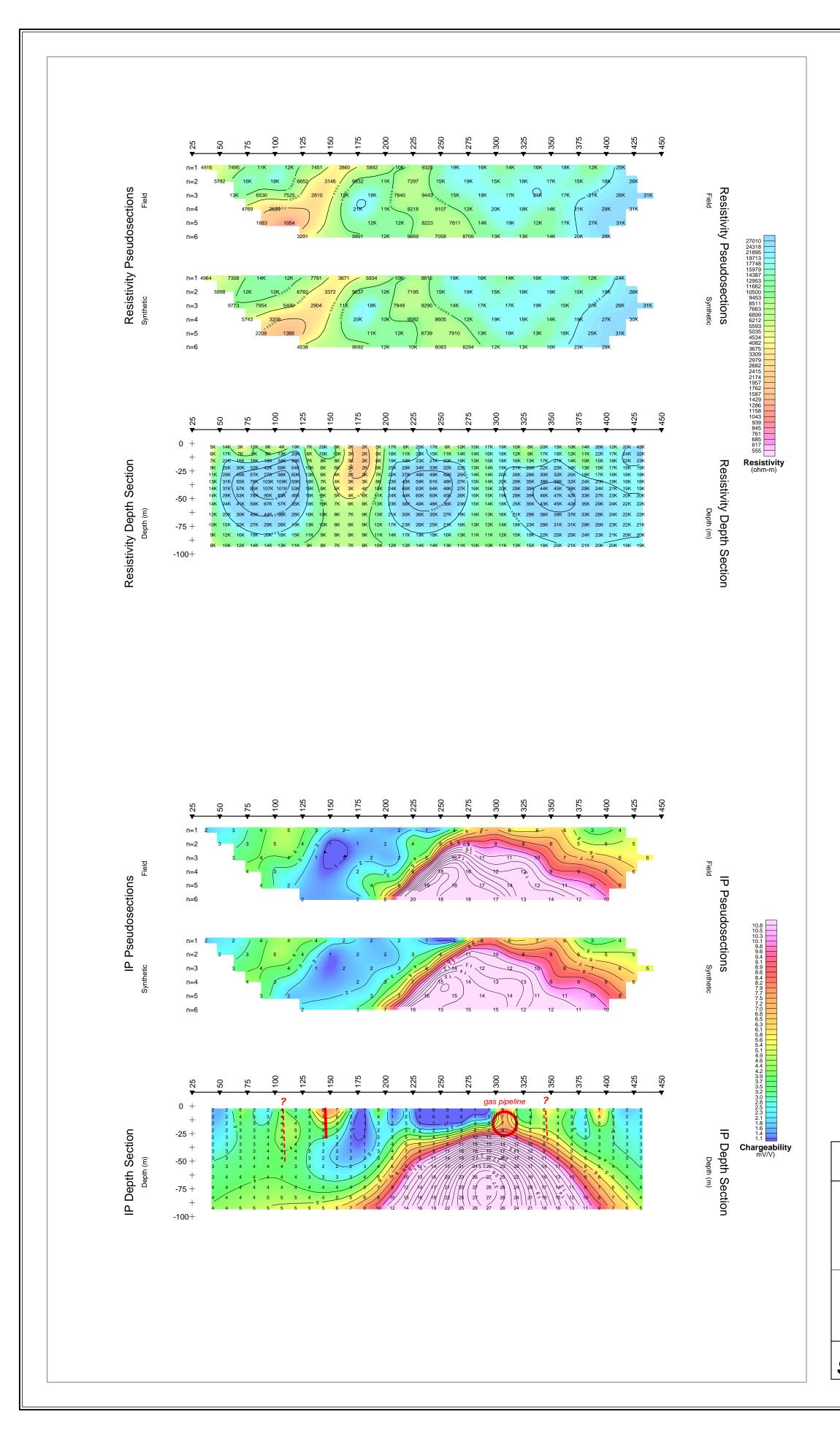




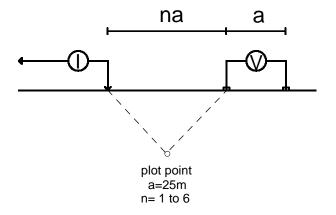




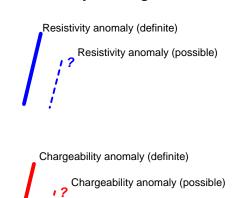




## **Pole-Dipole Array**

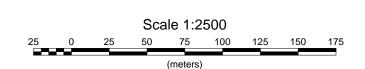


## Symbol Legend



Survey Notes:

Tx: GDD TxII-3600W-2400V Rx: GDD GRX8-32 array: pole-dipole, a = 25m, n= 1 to 6 waveform: 0.125 Hz square wave at 50% duty cycle Mx time interval: 240 to 1840 ms



## TERRAX MINERALS INC.

## CENTRAL CANADA PROPERTY Central Canada Grid

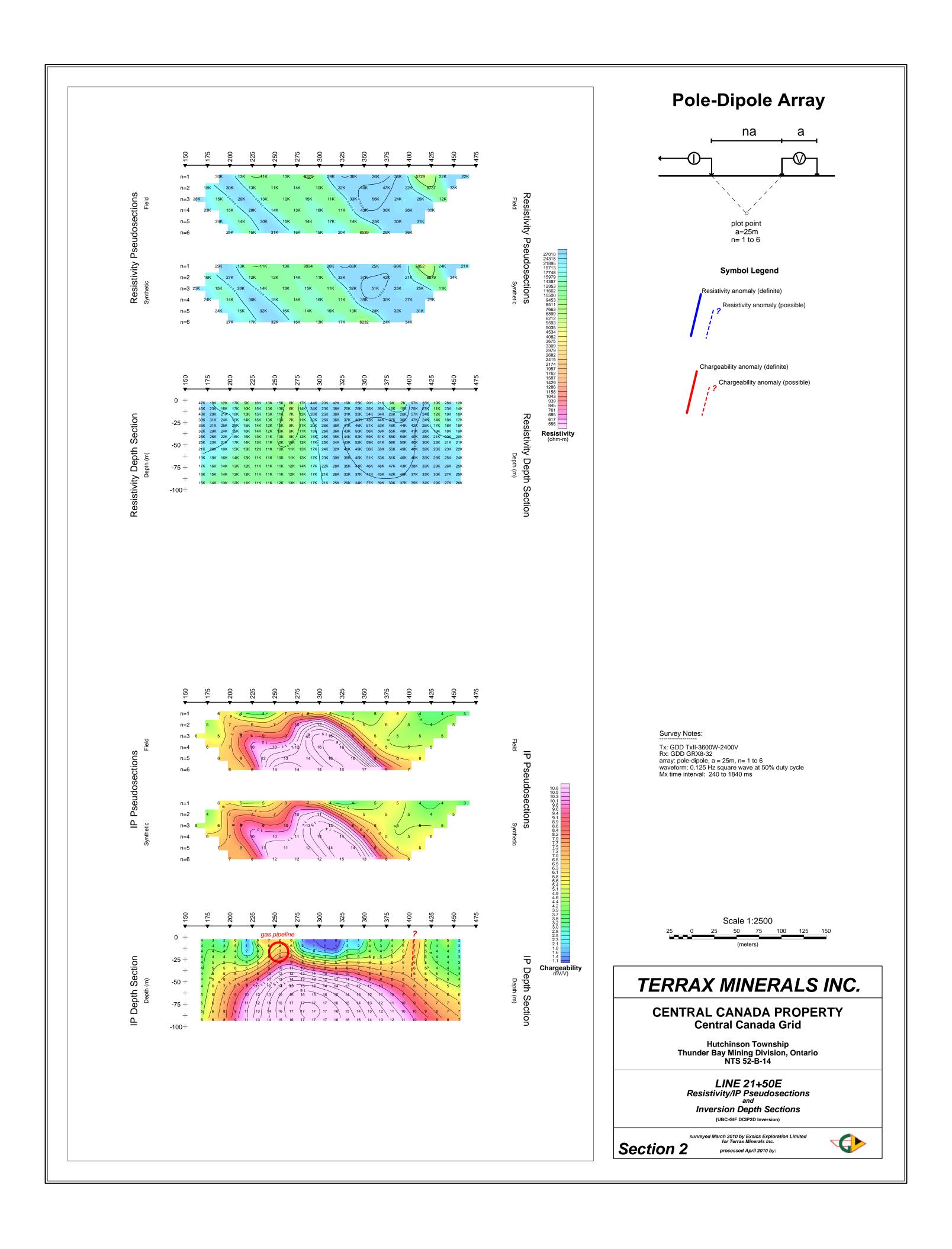
Hutchinson Township Thunder Bay Mining Division, Ontario NTS 52-B-14

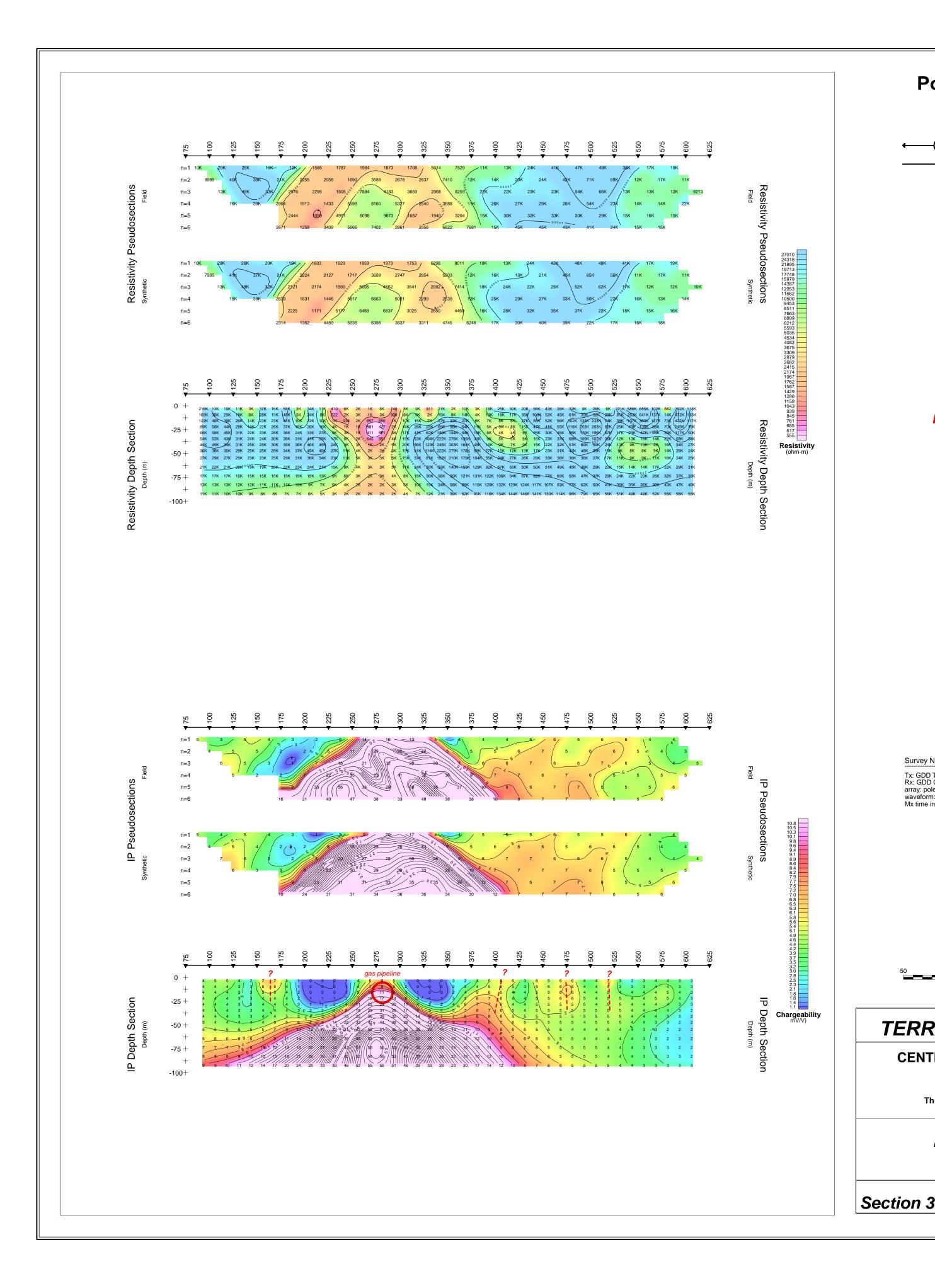
LINE 20+00E
Resistivity/IP Pseudosections
and
Inversion Depth Sections
(UBC-GIF DCIP2D Inversion)

Section 1

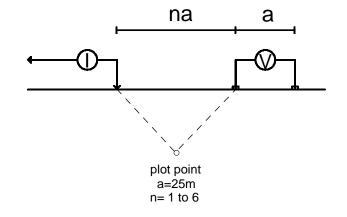
surveyed March 2010 by Exsics Exploration Limited for Terrax Minerals Inc. processed April 2010 by:



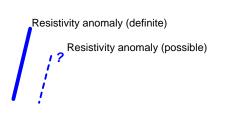


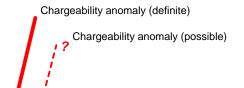


## **Pole-Dipole Array**



## Symbol Legend





## Survey Notes:

Tx: GDD TxII-3600W-2400V Rx: GDD GRX8-32 array: pole-dipole, a = 25m, n= 1 to 6
waveform: 0.125 Hz square wave at 50% duty cycle
Mx time interval: 240 to 1840 ms



(meters)

## TERRAX MINERALS INC.

## **CENTRAL CANADA PROPERTY Central Canada Grid**

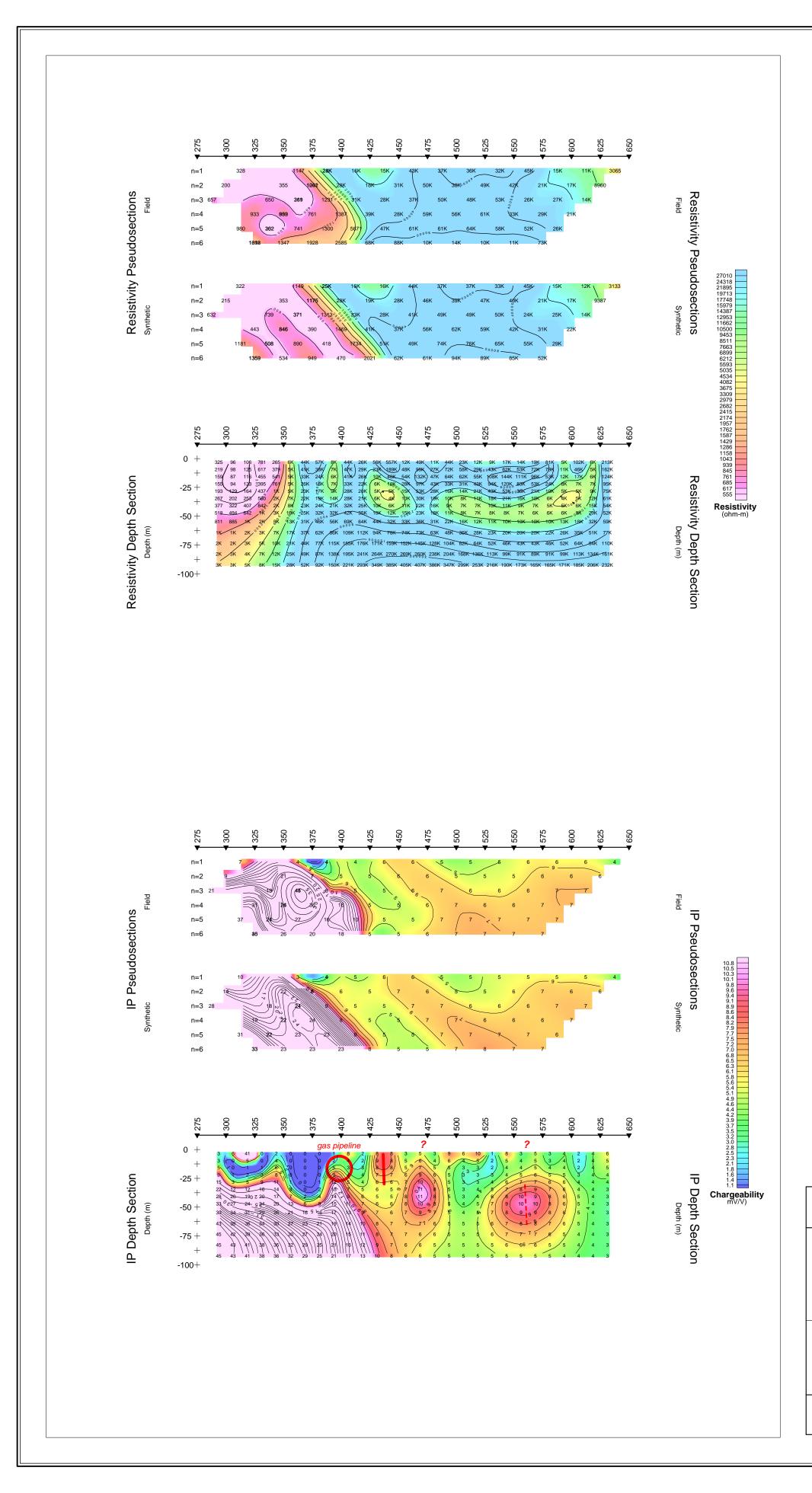
Hutchinson Township Thunder Bay Mining Division, Ontario NTS 52-B-14

LINE 23+00E Resistivity/IP Pseudosections Inversion Depth Sections

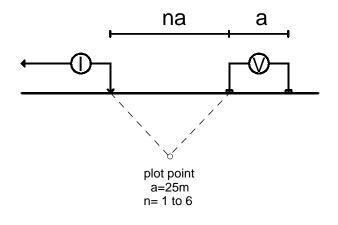
(UBC-GIF DCIP2D Inversion)

surveyed March 2010 by Exsics Exploration Limited for Terrax Minerals Inc. processed April 2010 by:

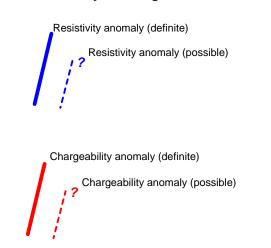




## **Pole-Dipole Array**

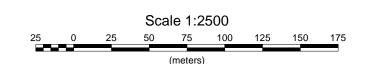


## **Symbol Legend**



## Survey Notes:

Tx: GDD TxII-3600W-2400V
Rx: GDD GRX8-32
array: pole-dipole, a = 25m, n= 1 to 6
waveform: 0.125 Hz square wave at 50% duty cycle
Mx time interval: 240 to 1840 ms



## TERRAX MINERALS INC.

## CENTRAL CANADA PROPERTY Central Canada Grid

Hutchinson Township Thunder Bay Mining Division, Ontario NTS 52-B-14

LINE 24+50E
Resistivity/IP Pseudosections
and
Inversion Depth Sections
(UBC-GIF DCIP2D Inversion)

Section 4

surveyed March 2010 by Exsics Exploration Limited for Terrax Minerals Inc. processed April 2010 by:

