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NTS 042F/16, 042K/01, 042K/15, 042K/16  
**2014 ASSESSMENT REPORT**  
**CONSTANCE LAKE AND KENAGAMI PROPERTIES**  
**HEARST, ONTARIO, CANADA**

**Claims: 3002524, 3002525, 4246410, 4262836, 4268439, 4276096**

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21 July 2015  
Vancouver, British Columbia

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## 1 Summary

This is an assessment report written for the Constance Lake Property (“Constance Lake”) and the Kenagami Property (“Kenagami”), located within the Porcupine Mining Division in northern Ontario. In 2013, Turbo Capital Inc. (“Turbo”, formerly Brookemont Capital Inc.) and TAD Mineral Exploration Ltd. (“TAD”) retained Prospectair Inc. (“Prospectair”) to conduct helicopter-borne magnetic and time-domain electromagnetic (TDEM) surveys over their Constance Lake and Kenagami properties in Ontario. APEX Geoscience Ltd. (“APEX”) was retained to complete an Assessment Report (the “Report”) for the Properties. The total cost to complete the exploration program was \$37,000.

The Properties are situated within the Hudson Bay – James Bay Lowlands between the Canadian Shield and the southern shores of James Bay. The topography is essentially flat, low-lying and swampy with many wide, slow moving rivers flowing north towards the coast. Constance Lake comprises 3 claims totalling 680 hectares, and is located in the Pitopiko River area, approximately 60 km west-northwest of Hearst. Kenagami comprises 3 claims totalling 464 hectares, and is located in the Mouth of Little Drowning River area, approximately 140 km northwest of Hearst.

The relatively flat-lying James Bay lowlands form a broad, dominantly carbonate, Paleozoic to Mesozoic cover over a significant portion of the Precambrian rocks in northern Ontario. The Kenagami Property is underlain by the Quetico Subprovince, is an east-northeast trending, 10 to 100 km wide by 1200 km long belt of variably metamorphosed and deformed clastic metasedimentary rocks and granitoids located in the west-central part of the Superior Province. The Constance Lake Property is located within the English River Subprovince, an east-trending 30-100 km wide by 650 km long belt of metasedimentary and granitoid rocks located in the west-central Superior Province. The Constance Lake claims are underlain by Alkalic Intrusive Suite and carbonatites of the Drowning River Mafic Complex.

The 2013 Exploration program was conducted to reveal the geological and structural setting of the Archean rocks, underlying the paleozoic/Mesozoic cover, and to evaluate the potential of the Properties hosting hydrothermal graphite vein breccia pipe similar to the Zenyattas newly discovered Albany Graphite Deposit. Several strong amplitude EM anomalies were revealed within broad weakly conductive areas of Kenagami. This might indicate that there are much more conductive rocks at depth underneath weakly conductive overburden. To confirm that the sources of the strongest anomalies found in the Kenagami block are caused by bedrock conductors under conductive overburden, it is recommended to conduct a few test lines of an induced polarization and resistivity (IP) survey with a deep penetration configuration to ensure penetration of the postulated conductive overburden down to the bedrock.

## 2 Introduction and Terms of Reference

In 2013, Turbo Capital Inc. (“Turbo”, formerly Brookemont Capital Inc.) and TAD Mineral Exploration Ltd. (“TAD”) retained Prospectair Inc. (“Prospectair”) to conduct helicopter-borne magnetic and time-domain electromagnetic (TDEM) surveys over their Constance Lake and Kenagami properties in Ontario (Figure 1). APEX Geoscience Ltd. (“APEX”) was retained to complete an Assessment Report (the “Report”) for the Properties.

The Constance Lake Property (“Constance Lake”) is located in the Pitopiko River area within NTS map sheets 042F16 and 042K01, and the Kenagami Property (“Kenagami”) is located in the Mouth of Little Drowning River Area within NTS map sheets 042K15 and 042K16. Both properties are within the Porcupine Mining Division in northern Ontario. Constance Lake comprises 3 claims totalling 680 hectares, and Kenagami comprises 3 claims totalling 464 hectares.

Two survey blocks were flown corresponding to each property. A total of 59 line-km were completed at Constance Lake and 166 line-km were completed at Kenagami. The surveys were flown on December 2<sup>nd</sup>, 2013. The total expenditures for the program were \$37,000.

Unless otherwise stated, all units used in this report are metric, all dollar amounts (\$) are in Canadian currency, and Universal Transverse Mercator (UTM) co-ordinates in this report and accompanying illustrations are referenced to the North American Datum 1983 (NAD83), Zone 16 North.

## 3 Disclaimer

The authors, in writing this report, use sources of information as listed in the references. The report written by Mr. Raffle, P.Geo., a Qualified Person, and Mr. Bahrami, P.Geo., is a compilation of proprietary and publicly available information. Government reports were prepared by qualified persons holding post-secondary geology, or related university degree(s), and are therefore deemed to be accurate. For those reports, which were written by others, who are not qualified persons, the information in those reports is assumed to be reasonably accurate, based on a data review conducted by the authors, however, they are not the basis for this report.

The authors have made no attempt to verify the legal status and ownership of the Properties, nor are they qualified to do so. The Properties’ claims are shown on the Ontario Ministry of Northern Development and Mines CLAIMaps viewer and are listed as being in good standing.

## 4 Property Description and Location

The Constance Lake and Kenagami properties are located within the Porcupine Mining Division in northern Ontario, Canada (Figure 1). The Constance Lake Property is located in the Pitopiko River area, approximately 60 km west-northwest of Hearst, Ontario within the 1:50,000 scale NTS map sheets 042F16 and 042K01. Constance Lake is centred at approximately 49°59.5’ N latitude and 84°21’ W longitude

Figure 1. Property Locations



(689900 mE, 5541200 mN) The Kenagami Property is located in the Mouth of Little Drowning River area, approximately 140 km northwest of Hearst within NTS map sheet 042K15. Kenagami is centred at approximately 50°50' N latitude and 84°33' W longitude (672525 mE, 5634150 mN).

The Constance Lake Property comprises 3 contiguous unpatented mining claims, totalling 680 hectares (Table 2, Figures 2 and 3). Claims 4246410 and 4262836 are held 100% by Turbo, and claim 4268439 is held 100% by TAD.

The Kenagami Property comprises 3 unpatented mining claims, totalling 464 hectares (Table 2, Figures 2 and 4). Claim 3002524 is held 100% by Turbo and claim 3002525 is held 100% by TAD. Claim 4276096 is held 100% by Dane Aaron Brown. On November 13, 2013 Brookemont Capital Inc. (now Turbo) entered into an option agreement to acquire a 100% interest in the Dane Aaron Brown claim. The terms of the acquisition call for \$20,000 payable within 13 months of TSX Venture approval, and for 4 million shares: 2 million upon approval and 2 million within 13 months of approval. In order to prospect on Crown lands in Ontario or stake out, record or apply to record the staking of a mining claim, a person must be a holder of a prospector's license issued under the Ontario Mining Act.

Ontario mining claims are staked in a square or rectangle with boundaries running north – south and east – west. Claim corner post tags are affixed by nails to each corner post. Claim line post tags are affixed to all line posts. The claim number, along with distance and direction from the last corner post erected is inscribed into the coating of the line post tags.

Table 1. Constance Lake and Kenagami Properties' Mining Claims

Constance Lake Property						
Claim Number	Area (ha)	Claim Units	Recorded	Due Date	Status	Claim Holder
4246410	256	16	2013-Jul-05	2015-Jul-05	ACTIVE - Hold	Turbo Capital Inc. (100%)
4262836	168	10	2013-Jul-05	2015-Jul-05	ACTIVE - Hold	Turbo Capital Inc. (100%)
4268439	256	16	2013-Jul-05	2015-Jul-05	ACTIVE - Hold	TAD Mineral Exploration Inc. (100%)
<b>Total</b>	<b>680</b>	<b>42</b>				
Kenagami Property						
Claim Number	Area (ha)	Claim Units	Recorded	Due Date	Status	Claim Holder
3002524	144	9	2014-Jan-21	2016-Jan-21	ACTIVE	Turbo Capital Inc. (100%)
3002525	256	16	2014-Jan-21	2016-Jan-21	ACTIVE	TAD Mineral Exploration Inc. (100%)
4276096	64	4	2013-Sep-25	2015-Sep-25	ACTIVE	Brown, Dane Aaron (100%)
<b>Total:</b>	<b>464</b>	<b>29</b>				

Figure 2. Constance Lake and Kenagami Properties' Mining Claims

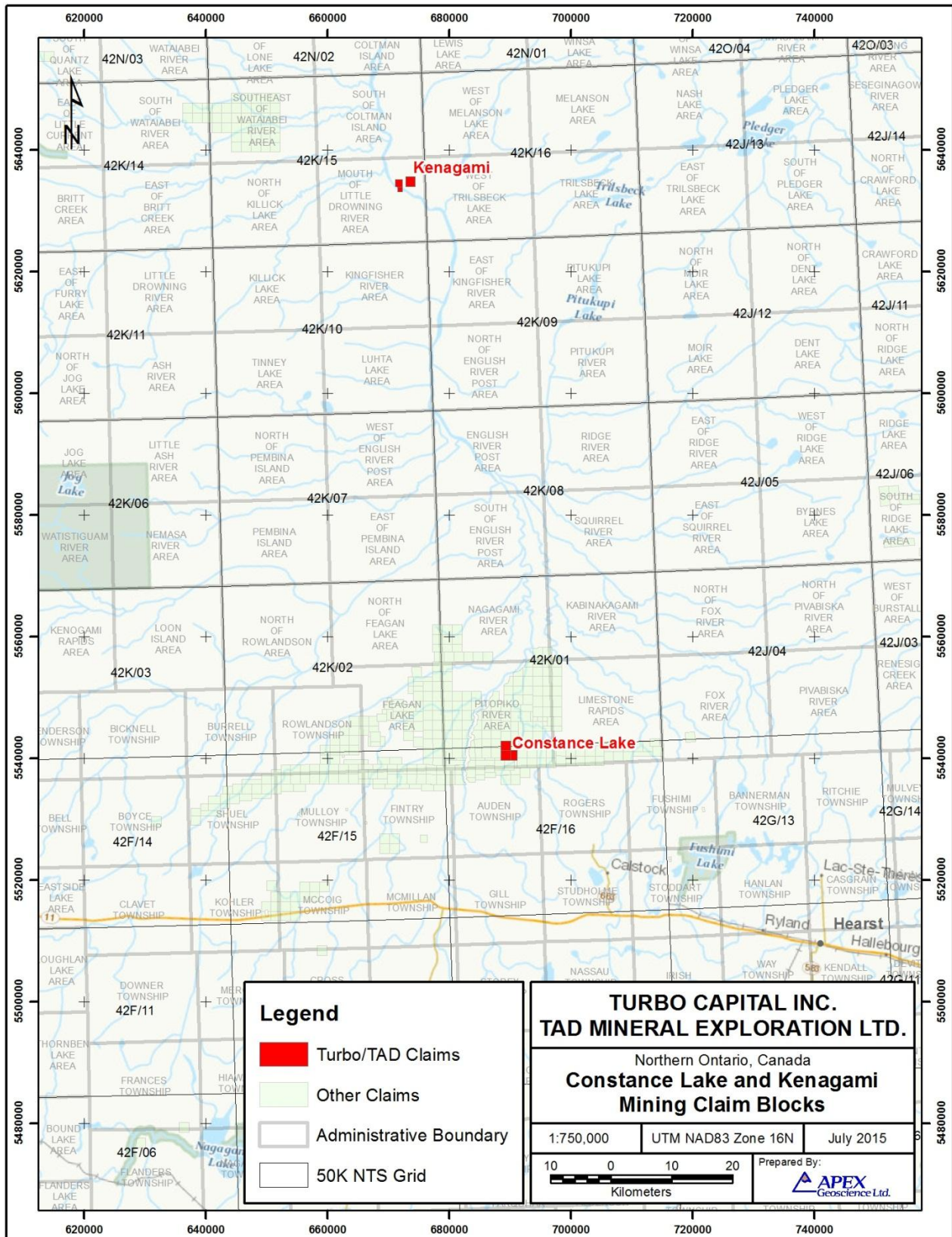




Figure 3. Constance Lake Property Claims

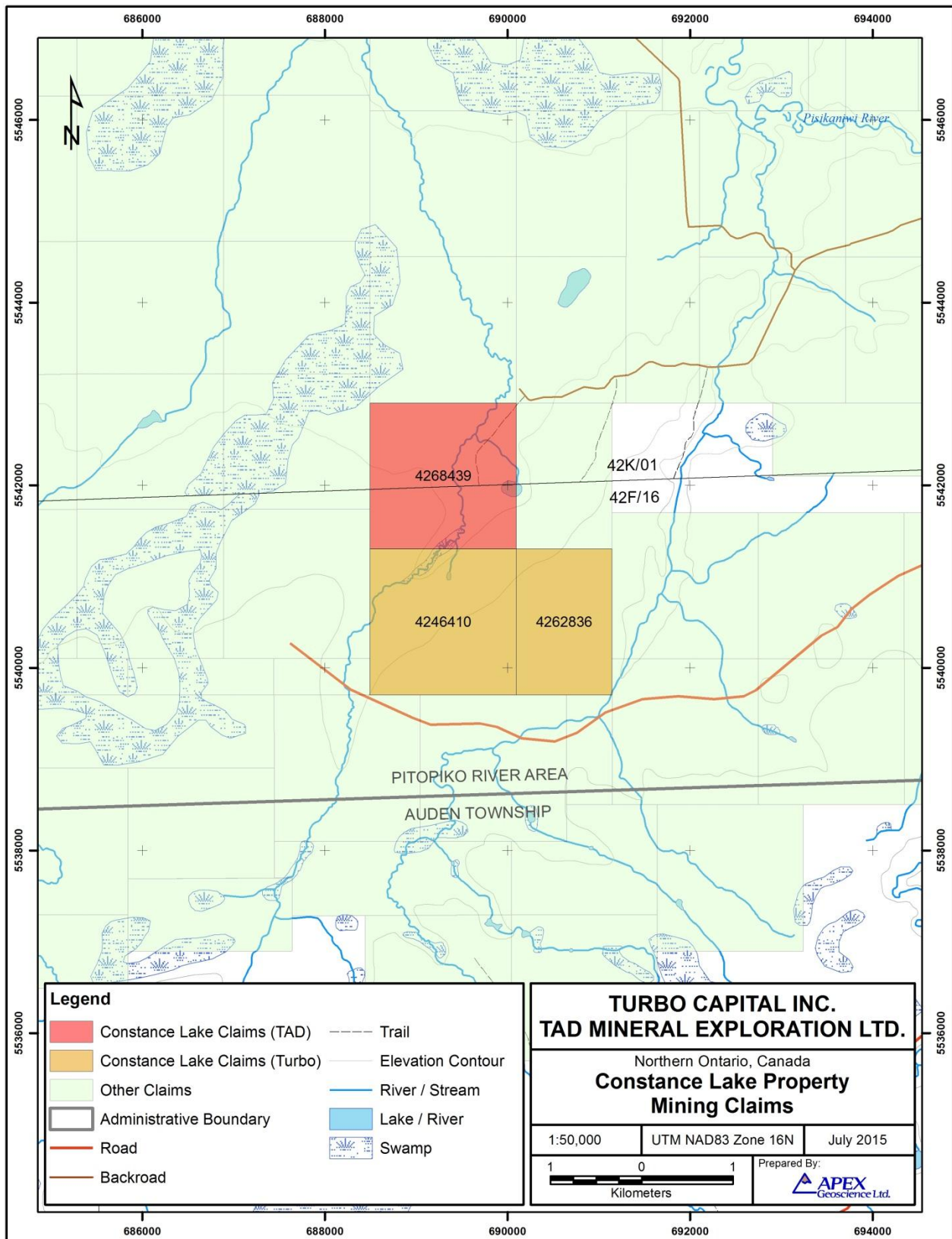
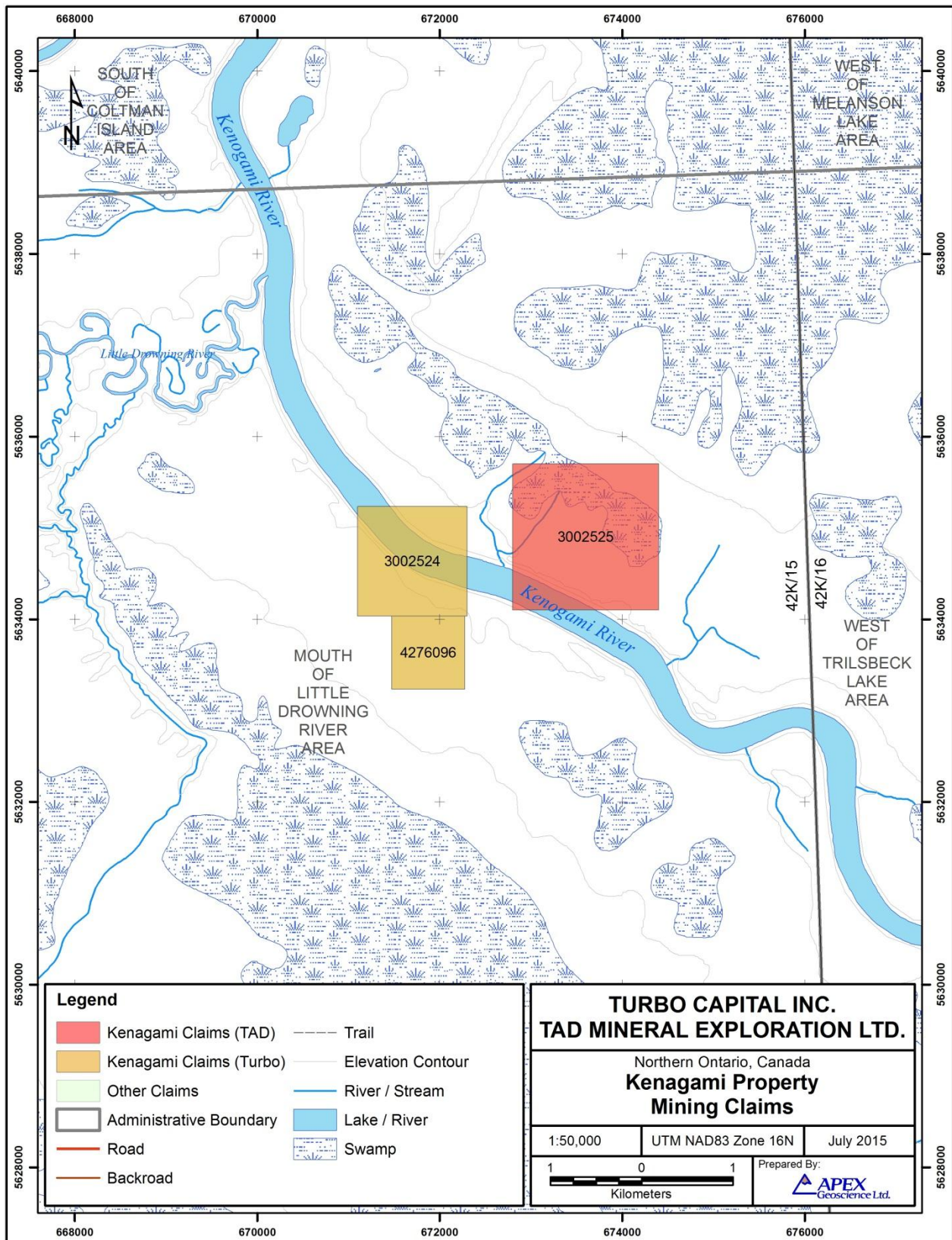


Figure 4. Kenagami Property Claims



Claim posts must stand 1.2 metres (m) above the ground when erected; be squared or faced on four sides for 30 centimetres (cm) from the top; and be squared or faced for 10 cm across each side. Corner posts are erected at the four main corners and line posts are erected at 400 m intervals or at points where the boundaries change direction. After a claim post is erected, a clearly marked trail, or claim line, is established leading to the next corner or line post. The recommended method is to use an axe to cut blazes into trees and to cut underbrush to clearly mark the claim line.

In Ontario, the recorded holder of an unpatented mining claim does not own the land and has no title permitting mineral extraction until a lease is granted. A claim can be held indefinitely by the claim holder as long as certain requirements are satisfied. Assessment work amounting to a minimum of \$400 per 16 hectare claim unit is required before the second anniversary of the claim and in every subsequent year of the claim until a lease is applied for. Assessment reports and all required technical documentation must be filed with the Provincial Recording Office. Submissions may be made electronically via the Electronic Assessment System (EAS).

The work completed and further recommended for the Constance Lake and Kenagami properties is considered to be at the “Preliminary Exploration” phase for a mineral development project. This phase consists of non-disruptive work including geological mapping, ground geochemical/geophysical surveys, and airborne geophysical surveys. The required permits for this type of exploration are limited to only a professional registration entitling geoscientists to practice. In order for work to be performed, a geoscientist working or supervising must fulfill the professional registration requirements for geoscientists and hold a valid Permit to practice and therefore be considered a “Qualified Person”. The authors are not aware of any environmental liabilities to which the Properties are subject.

## **5 Accessibility, Climate, Local Resources, Infrastructure and Physiography**

The Constance Lake and Kenagami properties are located in northwestern Ontario between Lake Superior to the south and James Bay to the north. The nearest town is Hearst, Ontario, located approximately 60 km east-southeast of Constance Lake and 140 km southeast of Kenagami (Figure 1). Hearst is located along Highway 11, 262 km northwest of Timmins and 515 km northeast of Thunder Bay by road. Daily commercial flights to Toronto, Winnipeg, and other destinations in Ontario and southern Manitoba are available out of Timmins and/or Thunder Bay.

The town of Hearst, with a population of approximately 5090, is well equipped to support exploration activities. Hotel accommodations, housing, hardware stores, gas stations, hospital service and a local airport are easily accessible. Float plane service can be chartered out of Hearst and helicopter service can be chartered from Expedition Helicopters Inc. in nearby Cochrane, 214 km to the east. Local labour can be hired out of Hearst and other surrounding communities. The Constance Lake Property is approximately 25 km north of Highway 11. Rail and major power transmission lines run parallel to the highway, with secondary power lines reaching closer to the claim block. The Constance Lake Property is approximately 25 km north of Highway 11.

Rail and major power transmission lines run parallel to the highway, with secondary power lines reaching closer to the claim block. The property is accessible from Highway 11 via Ontario Highway 663 and the Reserve of Constance Lake local road. A number of well-maintained backroads provide access throughout the claims. The Constance Lake Property is approximately 80 km, or 1 hour and 30 minutes, by road from Hearst.

The Kenagami Property is situated on the banks of the Kenogami River, approximately 2 km upstream of the confluence of the Kenogami and Little Drowning rivers. Kenagami is not road accessible, but can be accessed by boat or canoe on the Kenogami River. Given the remote location, access for exploration activities is typically by helicopter.

The Properties are situated within the Hudson Bay – James Bay Lowlands between the Canadian Shield and the southern shores of James Bay. The topography is essentially flat, low-lying and swampy with many wide, slow moving rivers flowing north towards the coast. The Kenogami River flows north bisecting the Kenagami Property; the Nagagami River lies 5 km east of the Constance Lake Property. Numerous creeks flow between peat bogs throughout the area. Overburden is very thick in places often with little to no outcrop exposure. Vegetation is dominated by wetlands, with some areas of spruce and alder trees, and cedar swamps. Spruce and alder trees are abundant along the banks of the Nagagami and Kenogami rivers, and other smaller rivers.

Northern Ontario is characterized by a continental to subarctic climate with long, cold winters and warm to hot summers. Spring and autumn tend to be short seasons. Temperatures at the height of summer (July and August) can reach 25 to 35 degrees Celsius (°C). During the winter months (December to March), temperatures dip to -15 to -25°C. With no major mountain ranges blocking sinking Arctic air masses, temperatures of -40°C are not uncommon. Annual precipitation in the area averages 800 to 900 millimetres and annual snowfall averages 250 to 350 centimetres. Snow cover is usually present to some extent between October and May.

## 6 History

The earliest documented work from the Ministry Northern Development and Mines (MNDM) assessment reports dates back to 1959, when Nagagami River Prospecting Limited carried out ground geophysical surveys in the North of Fintry and Auden Townships area. During the 1960's, Algoma Ore Properties conducted geophysical surveys in the Nagagami River and Pitopiko Townships, followed by limited diamond drilling in an effort to find iron deposits and niobium. In 1969, Keevil Mining Group conducted geophysical surveys in five separate claim blocks followed by diamond drilling. In the 1970's, Cedam Limited and Shell Canada Explorations Limited carried out exploration work within the Fintry and Burrell Townships, respectively. In 2001, Valerie Gold Resources Limited contracted geological and geophysical work (followed up by diamond drilling) to East-West Resource Corporation for their property located in the McCoig Township. From 2002 to 2003, Gowest Amalgamated Resources conducted a geophysical survey followed by diamond drilling in the North of Feagan Lake and North of Rowlandson Townships (Legault, 2010).

The area has been largely ignored in the past as a result of swamp and the younger Phanerozoic (460-360 Ma) cover rocks, up to 200m thick, overlying the prospective Archean rocks. Recent advances in airborne electromagnetic (EM) technology have allowed deeper penetration/resolution through the Fe-deficient shallow marine carbonate/clastic sediments to target favourable geological and structural settings within the underlying Archean. In 2010, Zenyatta Ventures Ltd. conducted a helicopter borne time domain electromagnetic (EM) geophysical VTEM survey over their Albany Project, covering a total of 9,450 line-km (Legault, 2010). The newly discovered Albany East Graphite Deposit is a discrete magmatic hydrothermal graphite veinbreccia pipe that occurs within, and is genetically related to, intrusion of the Nagagami River Alkalic Complex (NRAC).

## **7 Geological Setting and Mineralization**

### **7.1 Regional Geology**

The Constance Lake and Kenagami properties are located within the physiographic region called James Bay lowlands area. The relatively flat-lying James Bay lowlands form a broad, dominantly carbonate, Paleozoic to Mesozoic cover over a significant portion of the Precambrian rocks in northern Ontario. Much of the interpretation is anchored by comparing similar aeromagnetic features in the exposed portions of the Archean Superior Province and the Paleoproterozoic Trans-Hudson Orogen in Ontario, Manitoba and Québec. The results provide a general framework of interpreted supracrustal belts, plutonic subdivisions, major faults and Proterozoic mafic dikes (Stott, 2008).

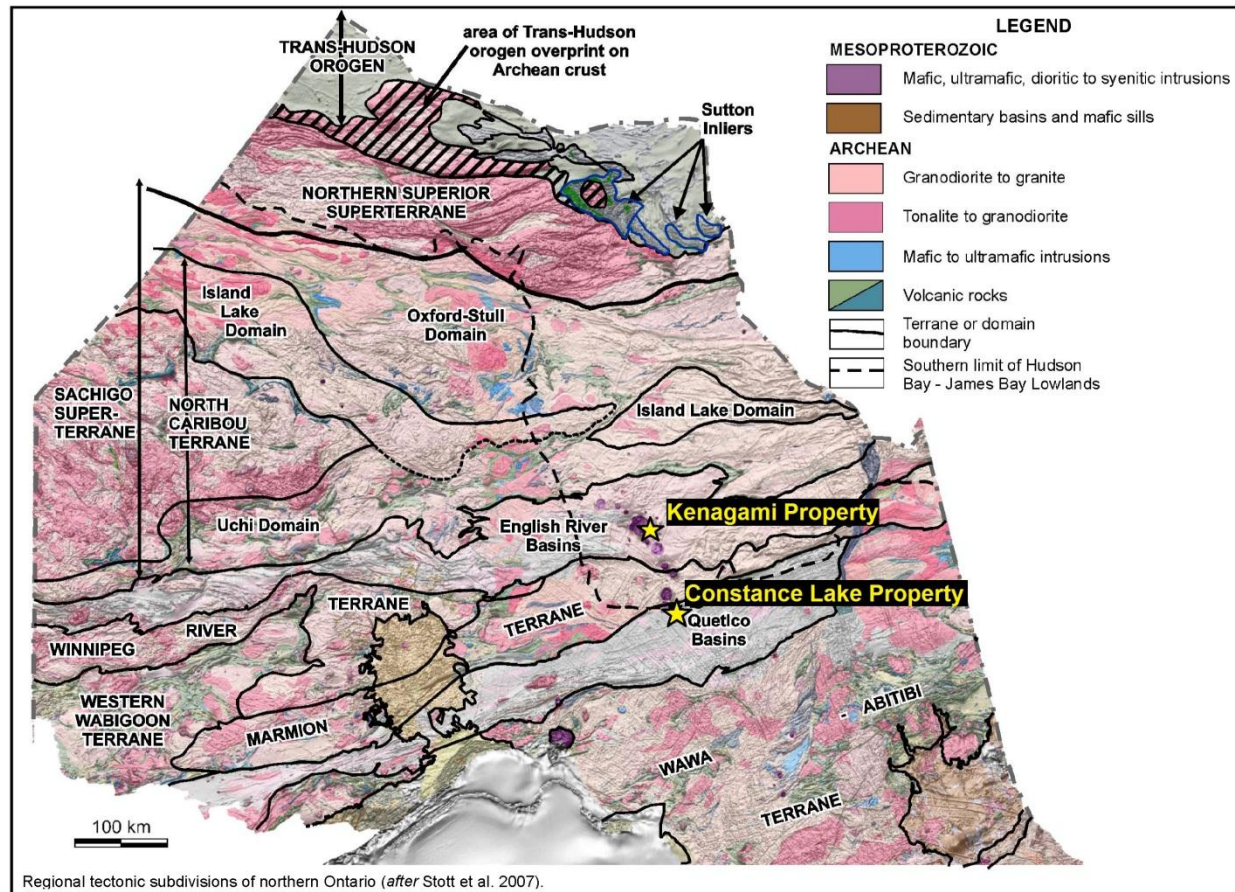
The Constance Lake and Kenagami properties are located within the The Quetico and English River Subprovinces, respectively, of the Superior Province of the Canadian Shield (Figure 5).

### **7.2 Property Geology**

#### **7.2.1 The Constance Lake Property**

The Constance Lake Property is located within the English River Subprovince, an east-trending 30-100 km wide by 650 km long belt of metasedimentary and granitoid rocks located in the west-central Superior Province. The metasedimentary rocks contain detrital zircons as young as 2698Ma and the granitoid rocks range between 2.65 and 2.70 Ga. (Vaillancourt, C., et. al., 2003). The Constance Lake claims are underlain by Alkalic Intrusive Suite and carbonatites of the Drowning River Mafic Complex (Figure 6). The complex is indicated by a crudely circular aeromagnetic anomaly with a diameter of approximately 38 km (Sage, 1987). Drowning River Mafic Complex is part of the multi-phased mafic-ultramafic-alkalic complexes forming an arc line approximately 150km long referred to as “Arc of Fire”. One of these complexes, called the Nagagami River Alkaline Ring Complex (shows similarities to the Mid-Continent Rift related Coldwell Complex on the north shore of Lake Superior. The arc is believed to also represent a

Figure 5. Regional Geology – Precambrian Geology of Hudson Bay and James Bay Lowlands Region (Stott, 2008)



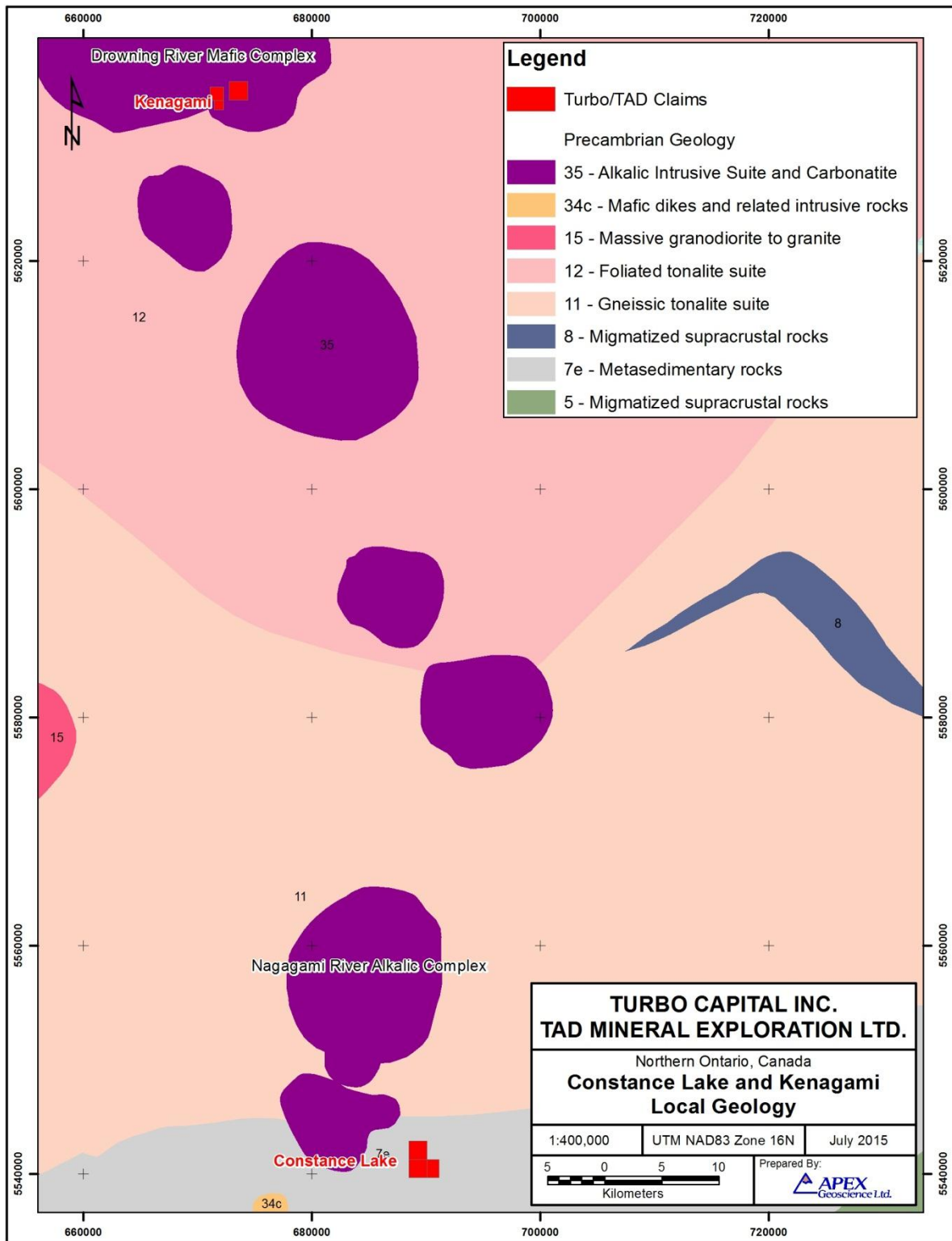
deep seated Proterozoic structure that may be related to the 1.1 Billion year old Mid-Continent Rifting.

The Mid-Continent Rift is a known deep seated structural environment that hosts a number of significant mineral deposits around Lake Superior, including the recently discovered Rio Tinto's Eagle and Tamarack Cu-Ni deposits and Magma's TBN PGM deposit. Rifting environments around the world are host to many large mineral deposits due to a tapping of the copper-nickel rich mantle by way of the structural conduits and traps for metal transport and deposit (Legault, 2010).

### 7.2.2 Kenagami Property

The Kenagami Property is underlain by the Quetico Subprovince, is an east-northeast trending, 10 to 100 km wide by 1200 km long belt of variably metamorphosed and deformed clastic metasedimentary rocks and granitoids located in the west-central part of the Superior Province. The metamorphic grade varies from greenschist to amphibolite to local granulite facies. The metasedimentary rocks were deposited before 2696 Ma. The Quetico intrusions near Atikokan are typically small (<1km<sup>2</sup>) and form spills, plugs, and small stocks composed of a variety of lithologies, mainly wehrlites, clinopyroxenites, hornblendites, monzodiorites, syenites, foidites and silicocarbonatites. They are locally enriched in Ni-Cu and PGEs (Vaillancourt, C., et. al., 2003).

Figure 6. Regional Geology – Precambrian Geology of Hudson Bay and James Bay Lowlands Region (Stott, 2008)



## 8 Exploration

In 2013, Turbo and TAD retained Prospectair to conduct helicopter-borne magnetic and time-domain electromagnetic (TDEM) surveys for their Constance Lake and Kenagami properties in northern Ontario. Quality control, data processing, and a final technical report were completed by Dynamic Discovery Geoscience Ltd. (“DD Geoscience”). Two survey blocks were flown, corresponding with the two claim blocks, for a total of 225 line-km. The surveys were flown on December 2<sup>nd</sup>, 2013, for both properties. The total cost to complete the two surveys was \$37,000.

Both survey blocks were flown with N-S oriented traverse lines at 150 m spacing. Control lines were oriented E-W and spaced every 1000 m. The helicopter-borne survey measured electromagnetics (EM) and magnetics using a ProspectEM I time-domain EM system and a Geometrics G-822A optically-pumped cesium split-beam magnetometer mounted at 50 m and 25 m, respectively, below the aircraft. Positional data was recorded using an Omnistar DGPS and a Free Flight Radar Altimeter. Magnetic and positional readings were taken every 0.1 seconds (s), and EM readings were recorded at a sampling rate of 90000 Hz. The helicopter, a Eurocopter EC120B owned and operated by Prospectair, maintained a mean altitude of 88 m above ground with a survey airspeed of 34 m/s. A combined GEM GSM-19 Overhauser magnetometer and GPS base station was used to compensate and correct for background magnetic field and GPS variations. Base station readings were taken every 1 s to synchronize with the airborne data.

Data compilation including editing and filtering, quality control and final data processing was performed by Joel Dube, P.Eng., of DD Geoscience. Processing was completed using Geosoft Oasis Montaj version 8.0 and Matlab 7 R2009B. Detailed information regarding the survey design, instrumentation, data processing and results can be found in the Prospectair – DD Geoscience report entitled “Heliborne Magnetic and TDEM Survey, Constance Lake & Kenagami Projects, 2013” (Appendix 1).

### 8.1 Constance Lake Survey Block

The Constance Lake survey block was completed in one flight, and comprised 19 traverse lines and 3 control lines, totalling 59 line-km. The Constance Lake survey was completed entirely on the property claims. Total Magnetic Intensity and Early Off-Time TDEM responses are presented in Figures 7 and 8, respectively. Final detailed map products from Prospectair – DD Geoscience are presented in Appendix 2.

### 8.2 Kenagami Survey Block

The Kenagami survey block was completed in two flights, and comprised 53 traverse lines and 3 control lines, totalling 166 line-km. A total of approximately 27 line-km were flown over the Kenagami claims; the remainder was flown over open Crown land. Total Magnetic Intensity and Early Off-Time TDEM responses are presented in Figures 9 and 10, respectively. Final detailed map products from Prospectair – DD Geoscience are presented in Appendix 3



Figure 7. Constance Lake Property Total Magnetic Intensity

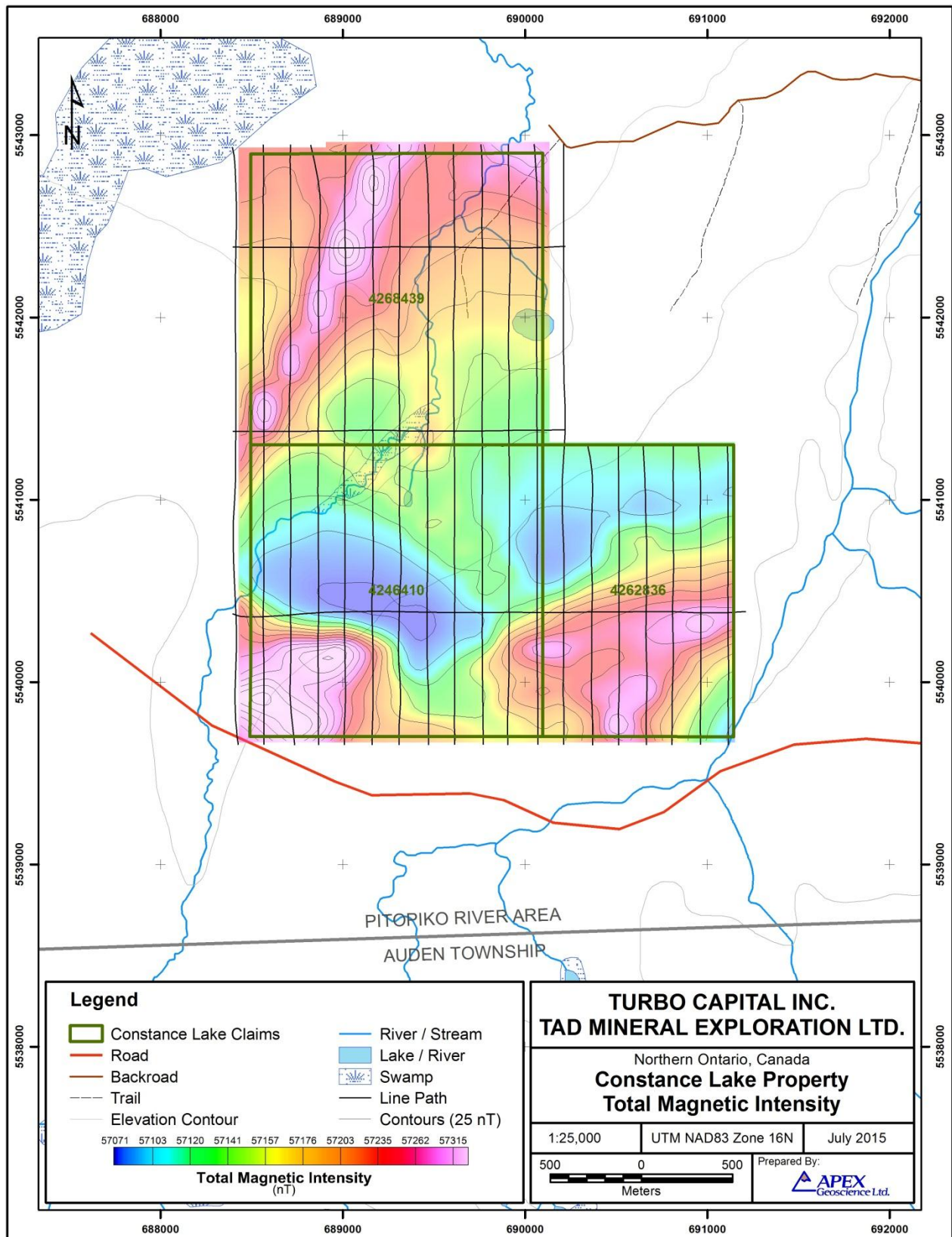


Figure 8. Constance Lake Property Early Off-Time TDEM

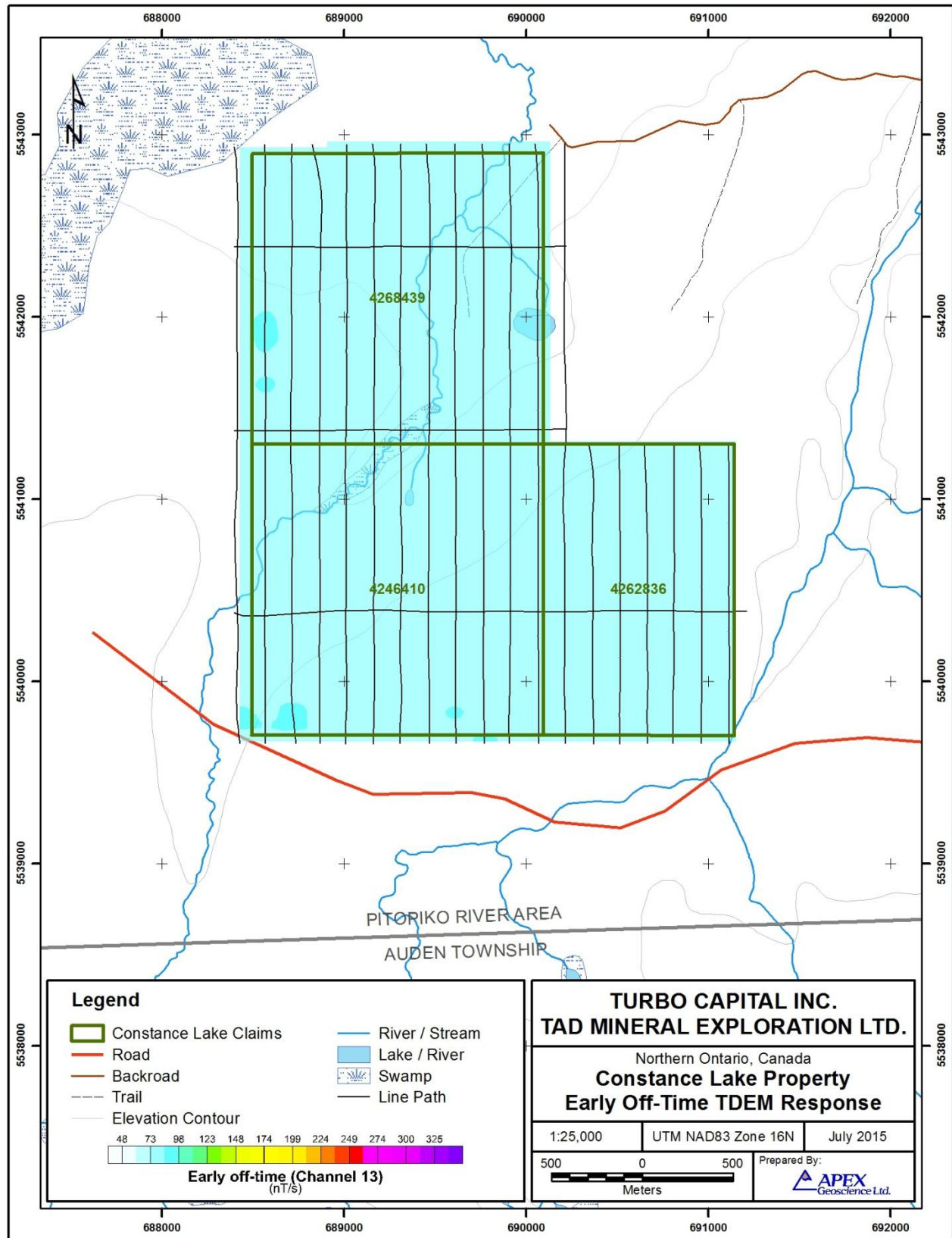
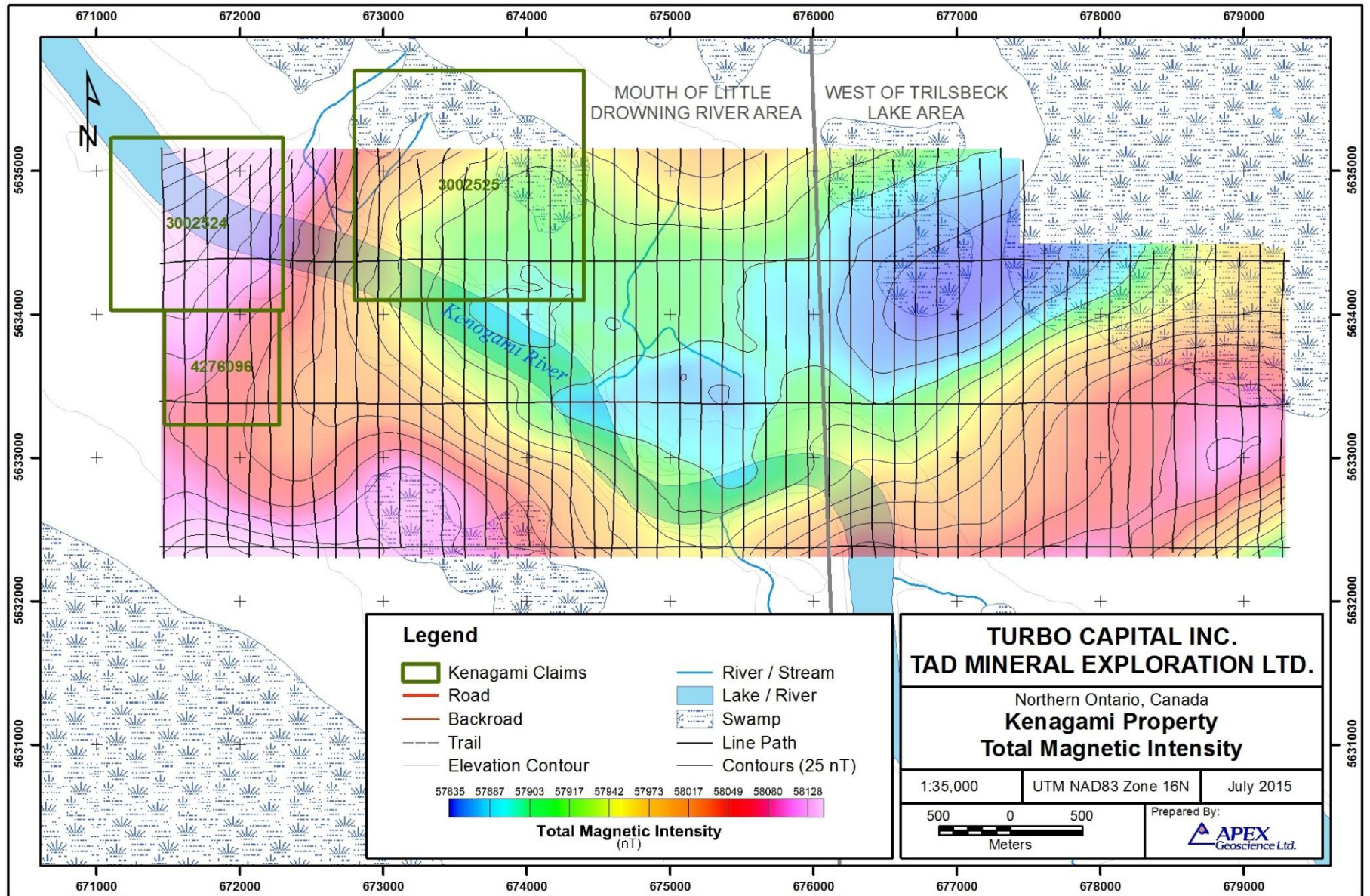
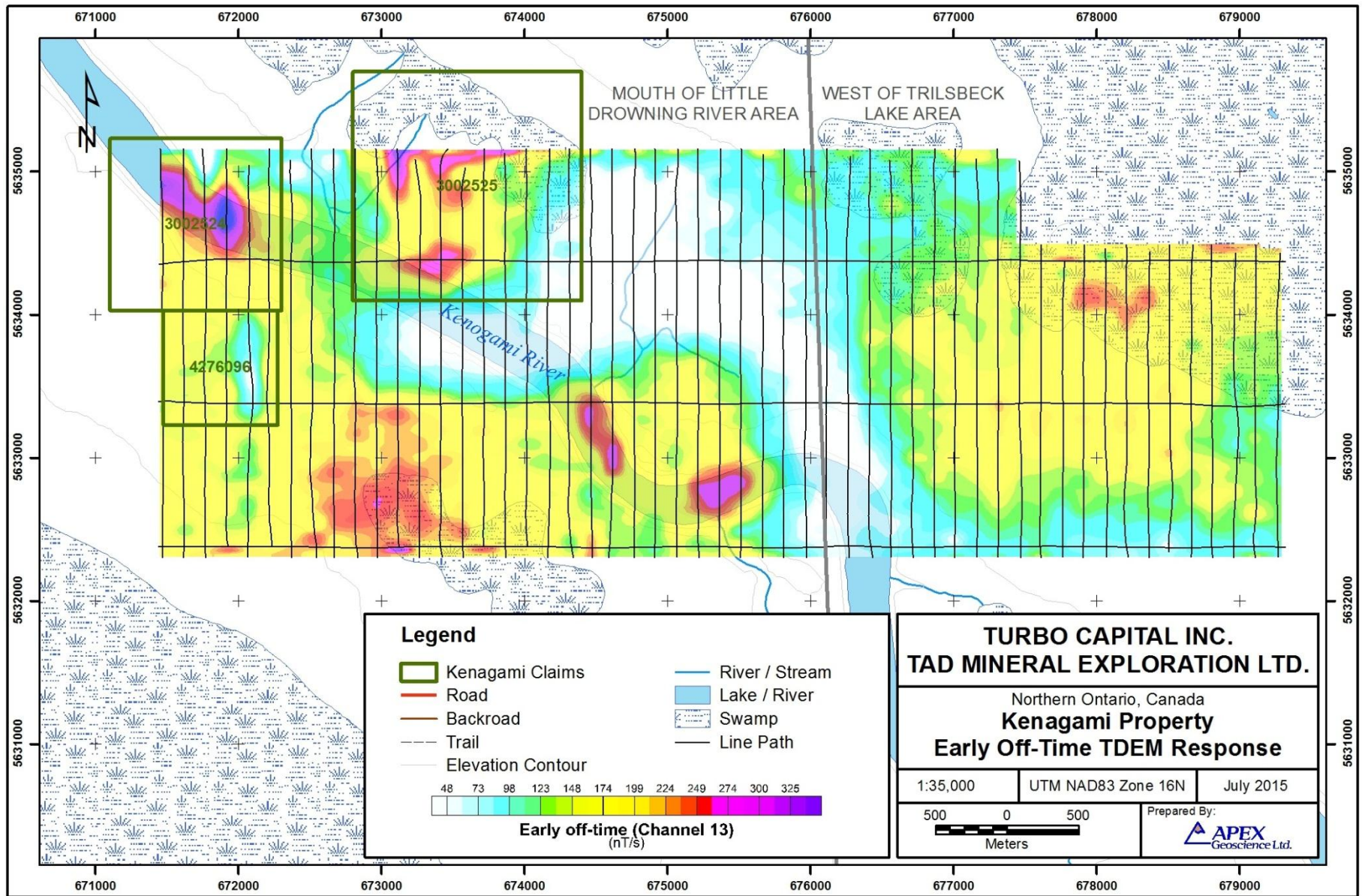


Figure 9. Kenagami Property Total Magnetic Intensity



Date

Figure 10. Kenagami Property Early Off-Time TDEM



Date

## 9 Exploration Expenditures

The total cost to complete the exploration program was \$37,000 (Appendix 4). Prospectair and DD Geoscience provided a flat day-rate service contract. This allowed for additional surveying on open Crown land around the Kenagami property at no added cost to Turbo and TAD.

## 10 Discussion and Conclusion

The 2013 Exploration program was conducted to reveal the geological and structural setting of the Archean rocks, underlying the paleozoic/Mesozoic cover, and to evaluate the potential of the Properties hosting hydrothermal graphite vein breccia pipe similar to the newly discovered Albany Graphite Deposit.

### 10.1 Magnetic Data

The Constance Lake TMI values are ranging from 57068 to 57410 nT, and an average of 57183 nT. The Kenagami values range from 57832 to 58284, with an average of 57980 nT. A few magnetic dykes are seen on the Constance Lake data while the magnetic lineaments found in the Kenagami block are rather curved. The response wavelength of these magnetic features suggests that their sources are not sub-outcropping, but are rather covered by overburden and/or sediments. The northern part of the Constance Lake block has a generally stronger magnetic background, possibly related to the Drowning River Mafic Complex magnetic high to the north (Sage, 1988). The long wavelength magnetic highs found in the Kenagami block are also interpreted to be related to a similar alkalic rock complex. Note that the graphitic breccia pipes discovered by Zenyatta occur in such geologic context.

### 10.2 Electromagnetic Data

The EM response is a lot more active in the Kenagami block. Most of the block is characterized by a broad, weakly conductivity area, separated in its middle by a “и” shaped non-conductive area. The wide conductive area typically looks like the response from conductive overburden, which is also supported by the rather low TAU constant values calculated for EM anomalies found in the area. What is of interest are the few stronger amplitude EM anomalies or groups of anomalies found within this weakly conductive area. If the broad EM response is indeed caused by overburden, these more conductive anomalies could represent a thickening of the conductive material or be linked to a local increase in its conductivity. This is supported by the fact that these anomalies do not respond up to the late EM channels. Another possibility to explain these stronger anomalies are the occurrence of much more conductive rocks at depth underneath weakly conductive overburden, such that the combined effect of the two is possibly observed in the response. For this reason, these stronger anomalies have been indicated as potential exploration targets, and shown as thick red dashed lines on the data figures.

In the Constance Lake block the few very weak EM anomalies are most likely related to slightly conductive overburden. Nevertheless, the best anomaly found in the block has

been indicated as a potential exploration target and could be investigated to confirm the nature of the source.

## **11 Recommendations**

Since it is difficult to confirm that the sources of the strongest anomalies found in the Kenagami block are caused by bedrock conductors under conductive overburden or rather by a thickening or conductivity increase of this overburden, it is recommended to conduct a few test lines of an induced polarization and resistivity (IP) survey with a deep penetration configuration to ensure penetration of the postulated conductive overburden down to the bedrock. This should help determining which of the interpretation hypothesis outlined above is correct.

If chargeability values obtained from such survey confirm the presence of graphite/sulfides, it is then recommended to extend the IP survey and/or the airborne TDEM survey further, in order to identify the best possible target for drilling.

## 12 References

Legault, J.M. 2010: 43-101 Technical Report on the Albany Project for Zenyatta; NI 43-101 Technical Report (available on SEDAR), 81 p.

Sage, R.P. 1987: Geology of Carbonatite - Alkalic Rock Complexes in Ontario: James Bay Lowlands; Ontario Geological Survey, Study 42, 49p.

Stott, G.M. 2008. Precambrian geology of the Hudson Bay and James Bay lowlands region interpreted from aeromagnetic data – west sheet; Ontario Geological Survey, Preliminary Map P.3597–Revised, scale 1:500 000.

Vaillancourt, C., Sproule, R.A., MacDonald, C.A., and Leshner, C.M. (2003): Investigation of Mafic-Ultramafic Intrusions in Ontario and Implications for Platinum Group Element Mineralization: Operation Treasure Hunt; Ontario Geological Survey Open File Report 6102.

## 13 Certificate of Author

### 13.1 Kris Raffle

1. I, Kristopher J. Raffle, residing in Vancouver British Columbia, Canada do hereby certify that: I am a senior geologist at APEX Geoscience Ltd. (“APEX”), 100, 9797 – 45 Avenue, Edmonton, Alberta, Canada.
2. I am the author of this Technical Report entitled: “2014 Assessment Report for the Constance Lake and Kenagami Properties”, and dated July 21, 2015 (the “Report”). I am a graduate of The University of British Columbia, Vancouver, British Columbia with a B.Sc. in Geology (2000) and have practiced my profession continuously since 2000. I am a Professional Geologist registered with APEGBC (Association of Professional Engineers and Geoscientists of British Columbia) and I am a ‘Qualified Person’ in relation to the subject matter of this Technical Report.
4. I have not visited the Property that is the subject of this Report.
5. I am responsible for all sections of the Report.
6. I am independent of the Turbo Capital Inc. and TAD Mineral Exploration Ltd., applying all of the tests in section 1.5 of National Instrument 43-101. I have not received, nor do I expect to receive, any interest, directly or indirectly, in Turbo Capital Inc. or TAD Mineral Exploration Ltd. I am not aware of any other information or circumstance that could interfere with my judgment regarding the preparation of the Technical Report.
7. I have read and understand National Instrument 43-101 and Form 43-101 FI and the Report has been prepared in compliance with the instrument.
8. To the best of my knowledge, information and belief, the Report contains all scientific and technical information that is required to be disclosed to make the Report not misleading.

Dated this July 21, 2015  
Vancouver, British Columbia, Canada



Kristopher J. Raffle, B.Sc., P.Geol.



### 13.2 Bahram Bahrami

I, Bahram Bahrami, residing in Vancouver British Columbia, Canada do hereby certify that:

1. I am a Geologist employed by APEX Geoscience Ltd. (“APEX”), Suite 100, 9797 – 45 Avenue, Edmonton, Alberta, Canada.
2. I am the author of the report entitled: “2014 Assessment Report for the Constance Lake and Kenagami Properties”, and I am responsible for the preparation of the entire report.
3. I am a graduate of the Simon Fraser University, Burnaby, British Columbia with a B.Sc. in Geology (2008), and a graduate of British Columbia Institute of Technology with an advanced diploma in Geographic Information Systems (2009). I have practised my profession since 2010.
4. I am a Professional Geologist registered with APEGBC (Association of Professional Engineers, Geoscientists of British Columbia), and a ‘Qualified Person’ in relation to the subject matter of this report.
5. I am considered independent of the issuer as defined in Section 1.5. I have not received, nor do I expect to receive, any interest, directly or indirectly, in Turbo Capital Inc. or TAD Mineral Exploration Ltd.
6. To the best of my knowledge, information and belief, the technical report contains all scientific and technical information that is required to be disclosed to make the technical report not misleading.
7. I hereby consent to the use of this Report and my name in the preparation of a prospectus for the submission to any Provincial or Federal regulatory authority.

Dated this July 21, 2015

Vancouver, BC, Canada

“Signed”

Bahram Bahrami, B.Sc., P.Geo.

## Appendix 1 – Prospecair – DD Geoscience Report

# ***Technical Report***

## ***High-Resolution Heliborne Magnetic and TDEM Survey***

***Constance Lake and Kenagami Properties  
Hearst area, Ontario, 2013***

***Brookemont Capital Inc.  
701 West Georgia St.  
Suite 1470, PO Box 10112  
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***TAD Mineral Exploration Ltd  
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Suite 1470, PO Box 10112  
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***Prospectair Geosurveys***

***Dubé & Desaulniers Geoscience***



**Prepared by:**  
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**March 2014**

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Survey flown by :

**PROSPECTAIR**

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## I. INTRODUCTION

PROSPECTAIR conducted two heliborne magnetic (MAG) and time-domain electromagnetic (TDEM) surveys for the mineral exploration companies Brookemont Capital Inc. and TAD Mineral Exploration Ltd. on their Constance Lake and Kenagami projects in Ontario (Figure 1). The Constance Lake project is located within the Pitopiko River Area of the Porcupine Mining Division, and overlaps NTS Mapsheets 042F16 and 042K01. The Kenagami project is located within the Mouth of Little Drowning River Area of the Porcupine Mining Division, and overlaps NTS Mapsheets 042K15 and 042K16. The surveys were flown on December 2<sup>nd</sup>, 2013, for both projects.

Figure 1: General survey location

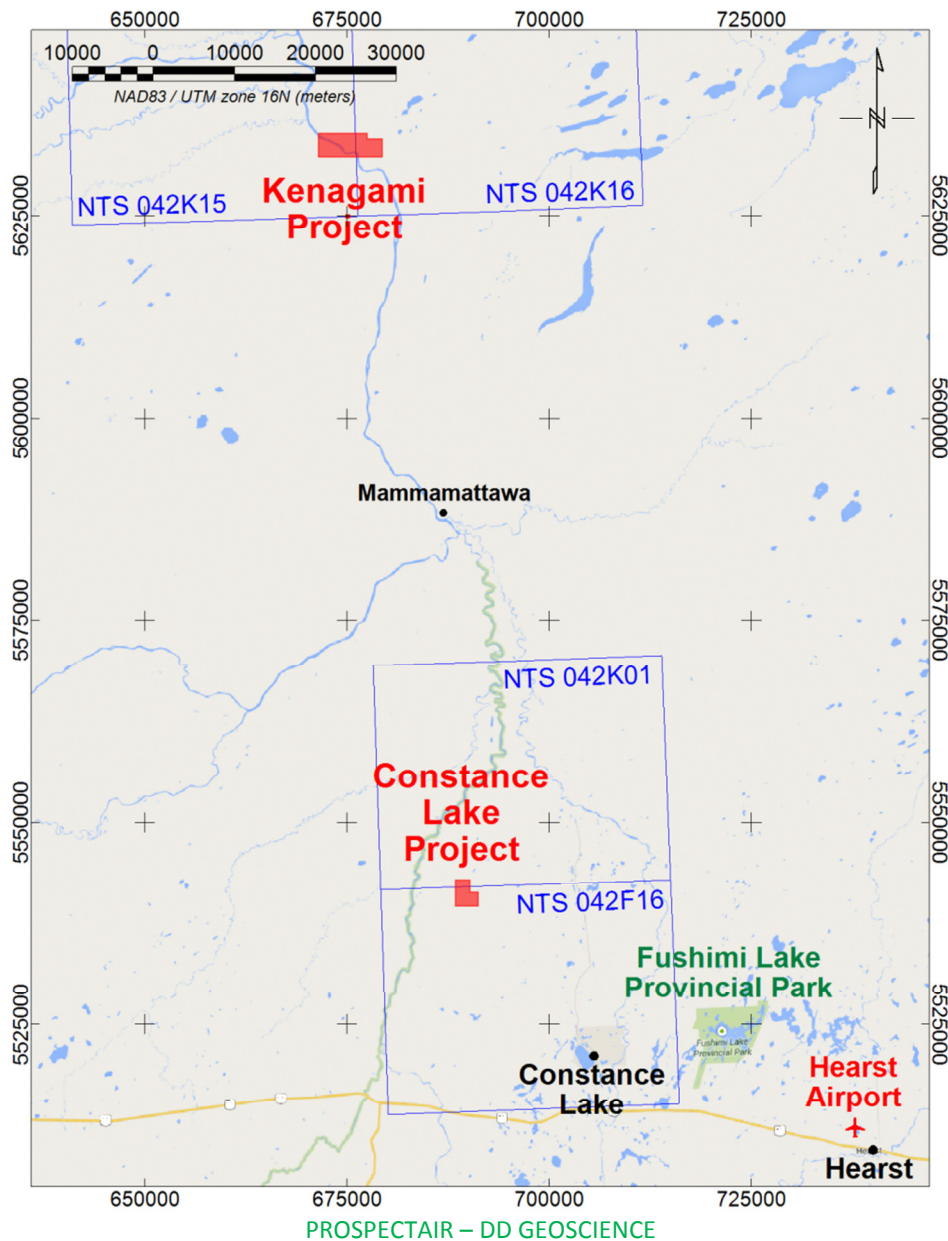


Two survey blocks were flown for a total of 225 l-km. A total of 3 production flights were performed using PROSPECTAIR’s Eurocopter EC120B, registration C-GEDI. The helicopter and survey crew operated out of the Hearst Airport, located about 60 km south-east of the Constance Lake block (Figure 2).

Table 1: Survey blocks particulars

Block	Total line-km flown	Flight number
Constance Lake	59 l-km	Flt 1
Kenagami	166 l-km	Flt 2 and 3

Figure 2: Survey location and base of operation





The Constance Lake block covered 2 mineral claims owned by Brookemont Capital, 4246410 and 4262836, and 1 claim owned by TAD Mineral Exploration, 4268439 (Figure 3). The Kenagami block covered 2 mineral claims owned by Brookemont Capital, 4276096 and 3002524, and 1 claim owned by TAD Mineral Exploration, 3002525 (Figure 4).

Both blocks were flown with traverse lines at 150 m spacing and oriented N-S. The control lines were oriented E-W and spaced every 1000 m. During the MAG-TDEM survey, the average height above ground of the helicopter was 88 m, the mag sensor and receiver coil were at 63 m, and the transmitter loop was at 39 m. The average survey flying speed (calculated equivalent ground speed) was 34 m/s. The survey areas are very flat and covered by forest and wetlands typical of this region. The Kenagami River crosses the Kenagami block. The elevation is ranging from 133 to 157m above mean sea level (MSL) in the Constance Lake block, and from 76 to 103m MSL in the Kenagami block. Coordinates outlining the survey blocks are given in Table 2 and 3, with respect to NAD-83 datum, UTM projection zone 16N.

Table 2: **Constance Lake block survey outline**

Easting	Northing
688419	5539654
688425	5542949
690146	5542954
690146	5541303
691214	5541304
691214	5539652

Table 3: **Kenagami block survey outline**

Easting	Northing
671438	5632298
679328	5632298
679328	5634494
677458	5634493
677458	5635165
671438	5635165

Figure 3: Survey lines and mineral claims, Constance Lake block

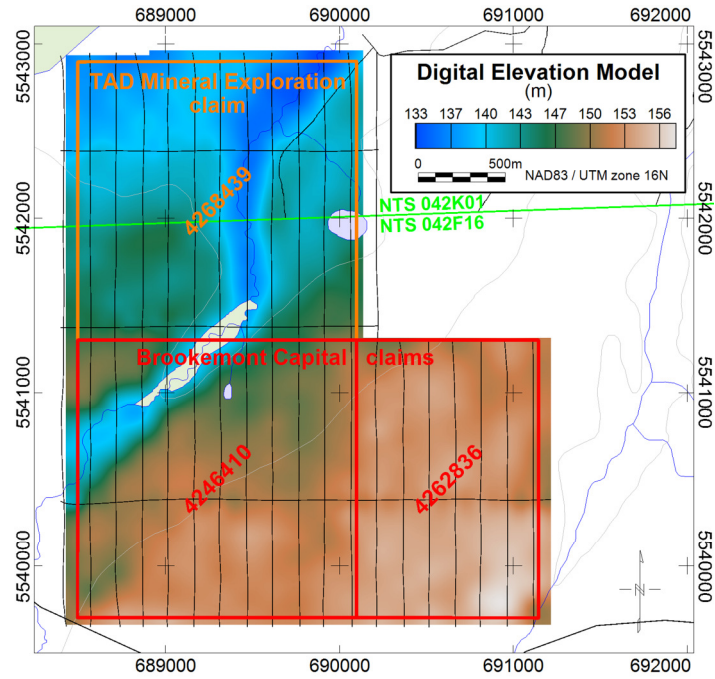
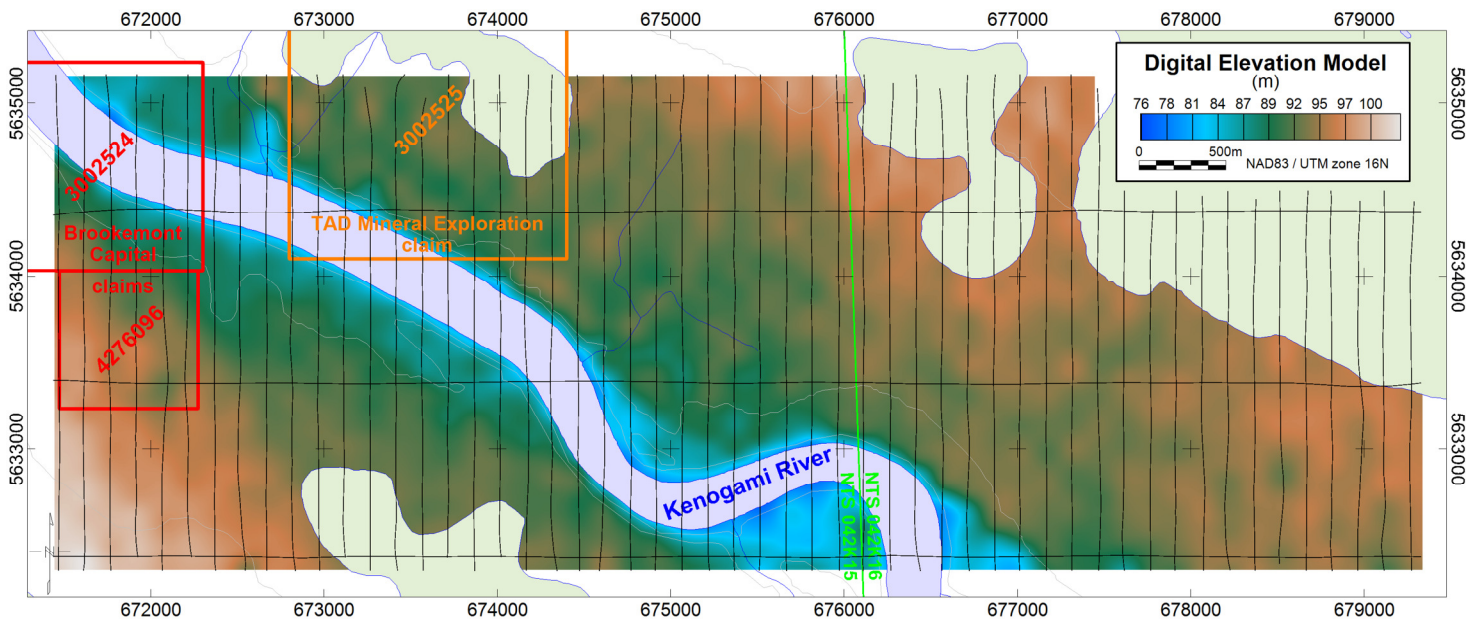


Figure 4: Survey lines and mineral claims, Kenogami block



## II. SURVEY EQUIPMENT

PROSPECTAIR provided the following instrumentation for this survey:

### **Airborne Magnetometers**

#### *Geometrics G-822A*

Both the ground and heliborne systems used a non-oriented (strap-down) optically-pumped Cesium split-beam sensor. These magnetometers have a sensitivity of 0.005 nT and a range of 15,000 to 100,000 nT with a sensor noise of less than 0.02 nT. The heliborne sensor was mounted in a bird made of non-magnetic material located 25 m below the helicopter when flying. Total magnetic field measurements were recorded at 10 Hz in the aircraft. The ground system was recording magnetic data at 1 sample every second.

### **Time-Domain Electromagnetic Transmitter and Receiver**

#### *ProspecTEM I*

Prospectair Geosurveys significantly modified and improved the *Emosquito II* that was built by THEM Geophysics of Gatineau (Québec) to develop ProspecTEM. It is a powerful light-weight system adapted for small size helicopters and easy manoeuvrability enabling the system to be flown as close to the ground as safely possible and ensuring maximum data resolution. Advanced signal processing technique and a full processing package was developed in house to optimize the ProspecTEM data. The technical specifications are listed below in Table 4.

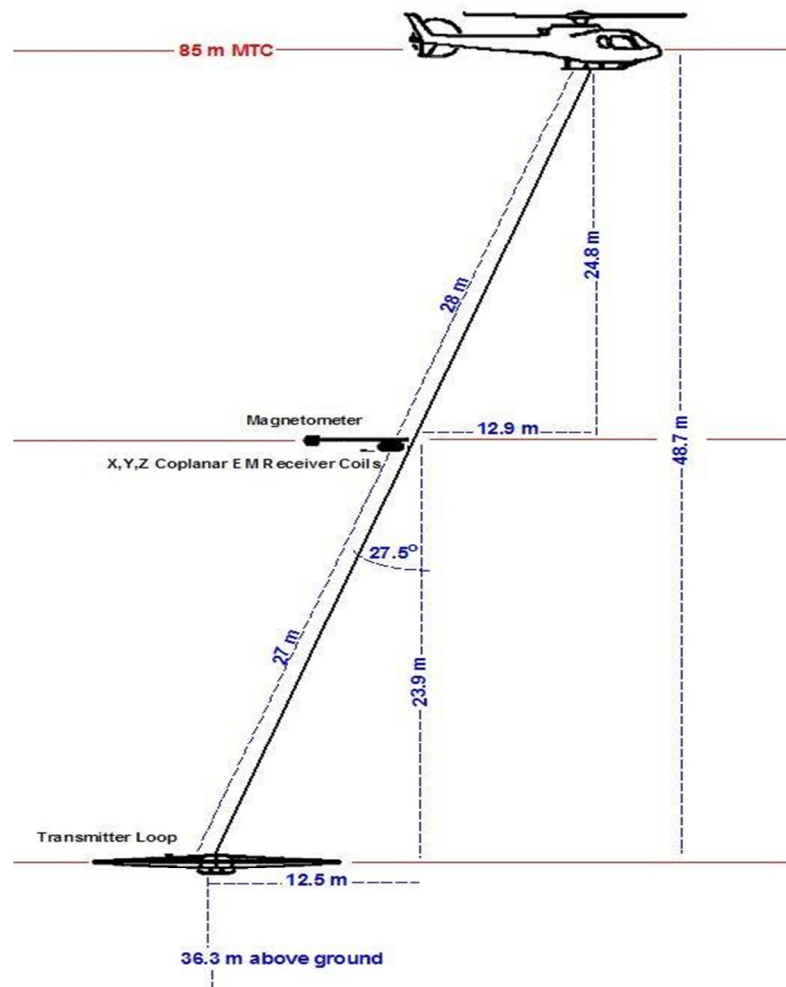
ProspecTEM system employs a transient or time-domain electromagnetic transmitter that drives an alternating current through an insulated electrical coil system. The towing bridle is constructed from a Kevlar rope and multi-paired shielded cables. It is attached to the helicopter by a weak link assembly. An onboard harness with outboard connectors mounted on a plate allows for quick disconnection or connection of the exterior elements. The system uses a 4 KW generator and a large condenser to transmit alternating 2.75-ms half sine pulses with intervening off-times of 13.916 ms electric pulse, 60 pulses per second.

The current in the coil produces an electromagnetic field. Termination of the current flow is not instantaneous, but occurs over a very brief period of time (a few microseconds) known as the ramp time, during which the magnetic field is time-variant. The time-variant nature of the primary electromagnetic field, which propagates downward and outward into the subsurface, induces eddy currents which characteristics are governed by rocks conductivity distribution. These eddy currents generate a secondary electromagnetic field, in accordance with Faraday's Law. This secondary field immediately begins to decay in the process. Measurements of the secondary field are made only during the time-off period by a vertical component receiver located almost half way between the helicopter and the transmitter loop. It is placed with the magnetometer taped to a horizontal boom which supports the receiving coils tear-drop shape vessel at its end. The boom has an elastic suspension. A proprietary suspension system protects the orthogonal coils assembly and limits the total field excursions. The tear-drop vessel acts as a vane and maintains the mast in the line of flight.

Depth of investigation depends on the time interval after shutoff of the current, since at later times the receiver is sensing eddy currents at progressively greater depths. The intensity of the eddy currents at specific times and depths is determined by the bulk conductivity of subsurface rock units and their contained fluids.

Table 4: **Technical specifications of the ProspecTEM Time-Domain system**

<i>Item</i>	<i>Specification</i>
<b>Transmitter:</b>	
Loop Diameter:	5.6 meters
Current Waveform:	Half-Sine
Turns:	2
Pulse Length	2.75 ms
Frequencies	30
Loop Area	25 m <sup>2</sup>
Peak Current	3000A
Tow Cable Length	65 meters
Self-Powered	13HP Honda coupled with 28 Volts Alternator
<b>Receiver:</b>	
Coils axis	Z
Configuration	Coaxial (Z)
Two channels	Current and Z
Max Sampling rate	1000 points per half cycle at 90 Hz
Survey sampling rate	1000 per half cycle at 30Hz
Sampling	Full waveform
Gates	Programmable
On time signal	Recorded
<b>Mechanical:</b>	
Maximum survey speed:	110 km per hour
Transmitter height	30 meters AGL
Receiver height	60 meters
Weight (Total)	200 kg

Figure 5: **ProspectTEM system configuration**

### Real-Time Differential GPS

#### *Omnistar DGPS*

PROSPECTAIR uses an OmniStar differential GPS navigation system to provide real-time guidance for the pilot and to position data to an absolute accuracy of better than 5 m. The *Omnistar* receiver provides real-time differential GPS for the Agis on-board navigation system. The differential data set was relayed to the helicopter via the Omnistar network appropriate geosynchronous satellite for the survey location. The receiver optimizes the corrections for the current location.

### **Airborne Navigation and Data Acquisition System**

#### *Pico-Envirotec AGIS-XP system*

The Airborne Geophysical Information System (AGIS-XP) is advanced, software driven instrument specifically designed for mobile aerial or ground geophysical survey work. The AGIS instrumentation package includes an advanced Satellite navigation (GPS), real-time flight path information that is displayed over a map image (BMP format) of the area, and reliable data acquisition software. Thanks to simple interfacing, the radar and barometric altimeters, the TDEM system and the Geometrics magnetometer are easily integrated into the system and digitally recorded. Automatic synchronization to the GPS position and time provides very close correlation between data and geographical position. The AGIS is equipped with a software suite allowing easy maintenance, upgrades, data QC, and project and survey area layout planning.

### **Magnetic Base Station**

#### *GEM GSM-19*

A GEM GSM-19 Overhauser magnetometer, a computer workstation and a complement of spare parts and test equipment serve as the base station. PROSPECTAIR establish the base station in a secure location with low magnetic noise. The GSM-19 magnetometer has resolution of 0.01 nT, and 0.2 nT accuracy over its operating range of 20,000- to 100,000 nT. The ground system was recording magnetic data at 1 Hz.

### **Altimeters**

#### *Free Flight Radar Altimeter*

The Free Flight radar altimeter measures height above ground to a resolution of 0.5 m and an accuracy of 5% over a range up to 2,500 ft. The radar altimeter data is recorded and sampled at 10 Hz.

#### *Prospectair Digital Barometric Pressure Sensor*

The barometric pressure sensor measures static pressure to an accuracy of  $\pm 4$  m and resolution of 2 m over a range up to 30,000 ft above sea level. The barometric altimeter data are sampled at 10 Hz.

### **Survey helicopter**

#### *Eurocopter EC120B (registration C-GEDI)*

The survey was flown using Prospectair's EC120B helicopter that handles efficiently the equipment load and the required survey range. Table 5 presents the EC120B technical specifications and capacity, and the aircraft is shown in figure 5.

Table 5: **Technical specifications of the EC120B Eurocopter helicopter**

Item	Specification
Powerplant	One 376kW (504hp) Turbomeca Arrius 2F
Rate of climb	1,150 ft/min
Cruise speed	223 km/h – 120 kts
Service ceiling	17,000 ft
Range with no reserve	710 km
Empty weight	991 kg
Maximum takeoff weight	1,715 kg

Figure 6: **Eurocopter EC120B**



### III. SURVEY SPECIFICATIONS

#### Data Recording

The following parameters were recorded during the course of the survey:

In the helicopter:

- GPS positional data: (time, latitude, longitude, altitude, heading and accuracy (PDOP)) recorded at intervals of 0.1 s;
- Total magnetic field: recorded at intervals of 0.1 s;
- Pressure as measured by the barometric altimeter at intervals of 0.1 s;
- Terrain clearance as measured by the radar altimeter at intervals of 0.1 s;
- Z and Current TDEM channels at 90000Hz.

At the base and remote magnetic ground stations:

- Total magnetic field: recorded at intervals of 1 s;
- GPS time recorded every 1s to synchronize with airborne data.

#### Technical Specifications

The data quality control was performed on a daily basis. The following technical specifications were adhered to:

- *Height* – 85m target terrain clearance for the mag-tdem survey except in areas where Transport Canada regulations prevent flying at this height, or as deemed necessary by the pilot to ensure safety. Traverse lines and control lines must be flown at the same altitude at points of intersection; the altitude tolerances are limited to no more than 30 m difference between traverse lines and control lines.
- *Airborne Magnetometer Data* - The noise envelope not to be exceeded 0.5 nT more than 500 m line-length without a reflight.
- *Diurnal Specifications* – A maximum tolerance of 5.0 nT (peak to peak) deviation from a long chord of one minute at the base station.
- *EM data* – No spikes on Z channel and constant current confirmed.
- *Flying Speed* – The average ground speed for the survey aircraft should be 120 kph. The acceptable high limit is 160 kph over flat topography.
- *Radar Altimeter* – minimal accuracy of 5%, minimum range of 0-2500 m.
- *Barometer* – Absolute air pressure to 0.1 kPa.
- *Flight Path Following*
  - Traverse lines: Azimuth N000, 150 m spacing.
  - Control Lines: Azimuth N090, 1000 m spacing.



## IV. SYSTEM TESTS

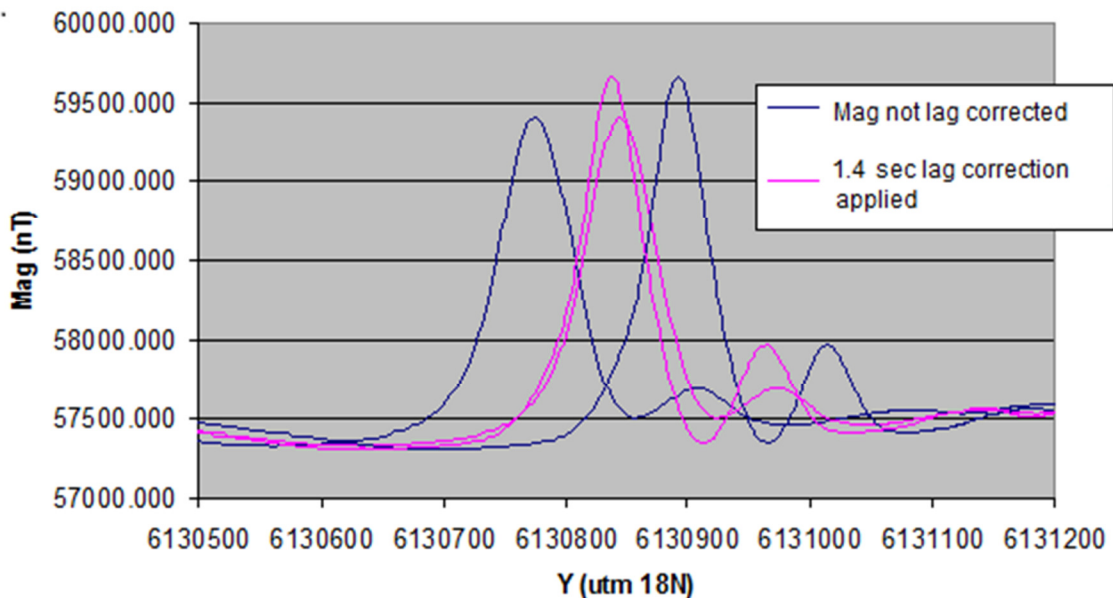
### Magnetometer System Calibration

The survey configuration using a bird towed 25 m below any magnetic piece of the helicopter allows the simplification of the magnetic calibration requirement. Consequently, heading error and aircraft movement noise was considered negligible and no correction was applied to the data.

### Instrumentation Lag

The magnetometer and tdem system lag is a combination of two factors: 1) the time difference between when a reading is sensed, and when that value is received by the data acquisition system, and 2) the time taken for the sensor to arrive at the location of the GPS antenna. The second factor is defined by the physical displacement of the GPS antenna and the sensor and the speed of the aircraft. Because the magnetic sensor (bird) is considered on the same vertical axis than the GPS antenna, this second factor is considered negligible. The total magnetic lag value for the AGIS acquisition system has been calculated to be 1.35 s. Figure 6 shows a graph of the lag corrected magnetic data compared to raw magnetic data over a significant magnetite anomaly. The TDEM lag was determined by flying over a known conductive body in 2 opposite directions and was calculated to be 0.4 s.

Figure 7: Comparison between lag corrected and raw magnetic data



## V. FIELD OPERATIONS

The survey operations were conducted out of the Hearst Airport on December 2<sup>nd</sup> 2013. The MAG-TDEM data acquisition required 3 flights. At the end of each production day, the data were sent to the DD GEOSCIENCE office via internet. The data were then checked for Quality Control to ensure they fulfilled contractual specifications. The full dataset was inspected prior to provide authorization for the field crew to demobilize. The GEM-19 magnetic base station was set up in an open field close to the heliport, which was magnetically quiet, at latitude 49.7105626°N and longitude 83.6932564°W, with respect to WGS-84 datum. The survey pilot was Alain Tremblay and the survey system technician was Jonathan Drolet.

Figure 8: Example of a magnetic base station setup



## VI. DIGITAL DATA COMPILATION

Data compilation including editing and filtering, quality control, and final data processing was performed by Joël Dubé, P. Eng. Processing was performed on high performance desktop computers optimized for quick daily QC and processing tasks. Geosoft software Oasis Montaj version 8.0 and Matlab 7 R2009B were used.

### **Magnetometer Data**

The airborne magnetometer data, recorded at 10 Hz, were plotted and checked for spikes and noise on a flight basis. A 1.35 second lag correction was applied to all data to correct for the time delay between detection and recording of the airborne data.

Ground magnetometer data were recorded at 1 sample second and interpolated by a spline function to 10 Hz to match airborne data. Data were inspected for cultural interference and edited where necessary. Some low-pass filtering was deemed necessary on the ground station magnetometer data to remove minor high frequency noise. The diurnal variations were removed by subtracting the ground magnetometer data to the airborne data and by adding back the average of the ground magnetometer value.

Levelling corrections were performed using intersection statistics from traverse and tie lines. After statistical levelling was considered satisfactory, decorrugation was applied on the data to remove any remaining subtle non-geological features oriented in the direction of the traverse lines.

Once the Total Magnetic Intensity (TMI) was gridded, its First Vertical Derivative (FVD) and Second Vertical Derivative (SVD) were calculated to enhance narrower geological features. Finally, the IGRF component was removed from the TMI to yield the residual TMI.

### **Radar Altimeter Data**

The terrain clearance measured by the radar altimeter in metres was recorded at 10 Hz. The data were filtered to remove high frequency noise using a 1 sec low pass filter. The final data were plotted and inspected for quality.

### **Positional Data**

Real time DGPS correction provided by Omnistar was applied to the recorded GPS positional data. No post-flight DGPS processing was made using a GPS base station.

Positional data (Lat, long, UTM X, UTM Y, geoid height) were recorded at 10 Hz sampling rate and all data processing was performed in the WGS-84 datum. The delivered positional data are provided in UTM projection zone 16 North, with respect to the NAD-83 datum. Altitude data were initially recorded relative to the GRS-80 ellipsoid, but are delivered as orthometric heights (MSL elevation).

### TDEM Data

The PicoEnvirotec EM Digital Acquisition System records the vertical component (Z) of the receiver coils at a sampling rate of 90000Hz. There is 30 full cycles (60 half cycles) of the full waveform (Tx ON and OFF time) every second.

The first data manipulation involves a stacking procedure where each half cycle is weighted with respect to the previous cycle ( $\pm\frac{1}{4}$ ), the next cycle ( $\pm\frac{1}{4}$ ) and its own value ( $\pm\frac{1}{2}$ ). The positive and negative signs of the respective multiplication coefficients are used to make positive all negative half cycles. The next step is the half cycle averaging corresponding to the desired sampling rate. In the present case, from the 60 stacked positive half cycles per second, 6 consecutive half cycles are averaged to produce one sample every 0.1 sec.

The windowing settings for the 40 different channels are presented in Table 6. Channels 1 to 11 correspond to the ON-time measurements and channels 12 to 40 correspond to the OFF-time. Channel 12 isn't used for interpretation and mapping as it exists some 'ramp-off' effect that alters the data quality. Each window is filtered with a median filter removing spikes and with a finite impulse response (FIR) selective filter of the 251th order improving the signal to noise ratio. A lag correction of 0.4 sec was applied to the data after being empirically determined by flying a sharp anomaly in two opposite direction.

Table 6: **Setting used in the windowing of the full waveform**

Channel #	Starting time (msec)	Width (msec)	Pulse	Channel #	Starting time (msec)	Width (msec)	Pulse
1	0.16667	0.01667	ON	21	3.15000	0.53333	OFF
2	0.25000	0.01667	ON	22	3.26667	0.53333	OFF
3	0.33333	0.01667	ON	23	3.40000	0.53333	OFF
4	1.30000	0.01667	ON	24	3.26667	1.10000	OFF
5	1.31667	0.01667	ON	25	3.45000	1.10000	OFF
6	1.33333	0.01667	ON	26	3.65000	1.10000	OFF
7	2.58333	0.01667	ON	27	3.88333	1.10000	OFF
8	2.66667	0.01667	ON	28	4.13333	1.10000	OFF
9	2.80000	0.08333	ON	29	4.43333	1.10000	OFF
10	2.81667	0.08333	ON	30	4.76667	1.10000	OFF
11	2.83333	0.08333	ON	31	5.16667	1.10000	OFF
12	2.85000	0.16667	RAMP	32	5.05000	2.20000	OFF
13	2.86667	0.18333	OFF	33	5.55000	2.20000	OFF
14	2.86667	0.25000	OFF	34	6.13333	2.20000	OFF
15	2.86667	0.36667	OFF	35	6.78333	2.20000	OFF
16	2.91667	0.36667	OFF	36	7.51667	2.20000	OFF
17	2.91667	0.53333	OFF	37	8.36667	2.20000	OFF
18	2.95000	0.53333	OFF	38	9.33333	2.20000	OFF
19	3.00000	0.53333	OFF	39	10.4500	2.20000	OFF
20	3.03333	0.53333	OFF	40	11.7000	2.20000	OFF

### **Gridding**

The magnetic and early off-time TDEM (channel 13) data were interpolated onto a regular grid using a bi-directional gridding algorithm to create a two-dimensional grid equally incremented in x and y directions. Decorrugation was applied to the TDEM data prior to create the early off-time grid, in order to attenuate base line offsets.

The final grids were created with 30 m grid cell size, appropriate for the survey lines spaced at 150 m. Traverse lines were used in the gridding process.

## VII. RESULTS AND DISCUSSION

### General

The following discussion presents the helicopter-borne MAG and TDEM data as well as a basic interpretation, which is solely based on the data acquired in this project. Further interpretation work should include other geoscientific information available for the Property.

On the Constance Lake and Kenagami blocks, the exploration strategy is focussed on the discovery of graphite mineralization similar to the graphitic breccia pipes discovered by Zenyatta Ventures about 5.5 km west of the Constance Lake block. For this reason, the interpretation is made in relation with this type of mineralization. The mineralization consists in breccia pipes significantly mineralized in graphite surrounded by halos of disseminated graphitic overprint, and are hosted within a granite. The geophysical signature of these pipes can be evaluated on the basis of data publically released as part of the NI 43-101 technical report made for Zenyatta Venture's Albany Property following a local airborne MAG-TDEM survey performed in 2010 (Legault, 2010). In this report, the mineralized pipes correspond to the EM anomalies labelled as the Uniform target on page 73. The data confirms that the mineralized pipes are strongly conductive. With respect to the magnetic data, the mineralization occurs at the edge between a wide magnetic low and a regional magnetic high.

### Magnetic data

The Total Magnetic Intensity (TMI) of the Constance Lake and Kenagami blocks, presented in Figure 9 and 10 (respectively) together with TDEM anomalies, is fairly settled, with only weak variations. The Constance Lake TMI values are ranging from 57068 to 57410 nT, and an average of 57183 nT. The Kenagami values range from 57832 to 58284, with an average of 57980 nT. A few magnetic dykes are seen on the Constance Lake data while the magnetic lineaments found in the Kenagami block are rather curved. The response wavelength of these magnetic features suggests that their sources are not sub-outcropping, but are rather covered by overburden and/or sediments. The northern part of the Constance Lake block has a generally stronger magnetic background, possibly related to the Nagagami River Alkalic Rock Complex magnetic high to the north (Sage, 1988). The long wavelength magnetic highs found in the Kenagami block are also interpreted to be related to a similar alkalic rock complex. Note that the graphitic breccia pipes discovered by Zenyatta occur in such geologic context.

In many areas, it is possible to detect structural features offsetting observed magnetic lineaments and causing abrupt interruption or changes of the magnetic response. These features are typically caused by faults, fractures and shear zones. If they are thought to be favorable structures in the exploration context of the Constance Lake and Kenagami properties, they should be paid particular attention and should be the object of a comprehensive structural interpretation, which is beyond the scope of this report.

Shorter wavelength anomalies are greatly enhanced on the First Vertical Derivative (FVD) of the TMI (Figure 11 and 12). Since the FVD attenuates longer wavelength anomalies, it is the preferred product for structural interpretation.

Figure 9: Total Magnetic Intensity and TDEM anomalies, Constance Lake block

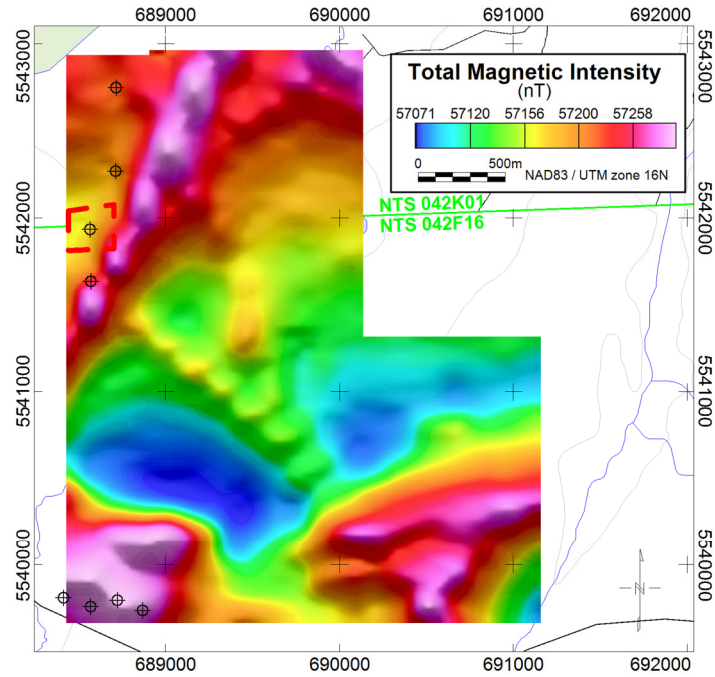


Figure 10: Total Magnetic Intensity and TDEM anomalies, Kenagami block

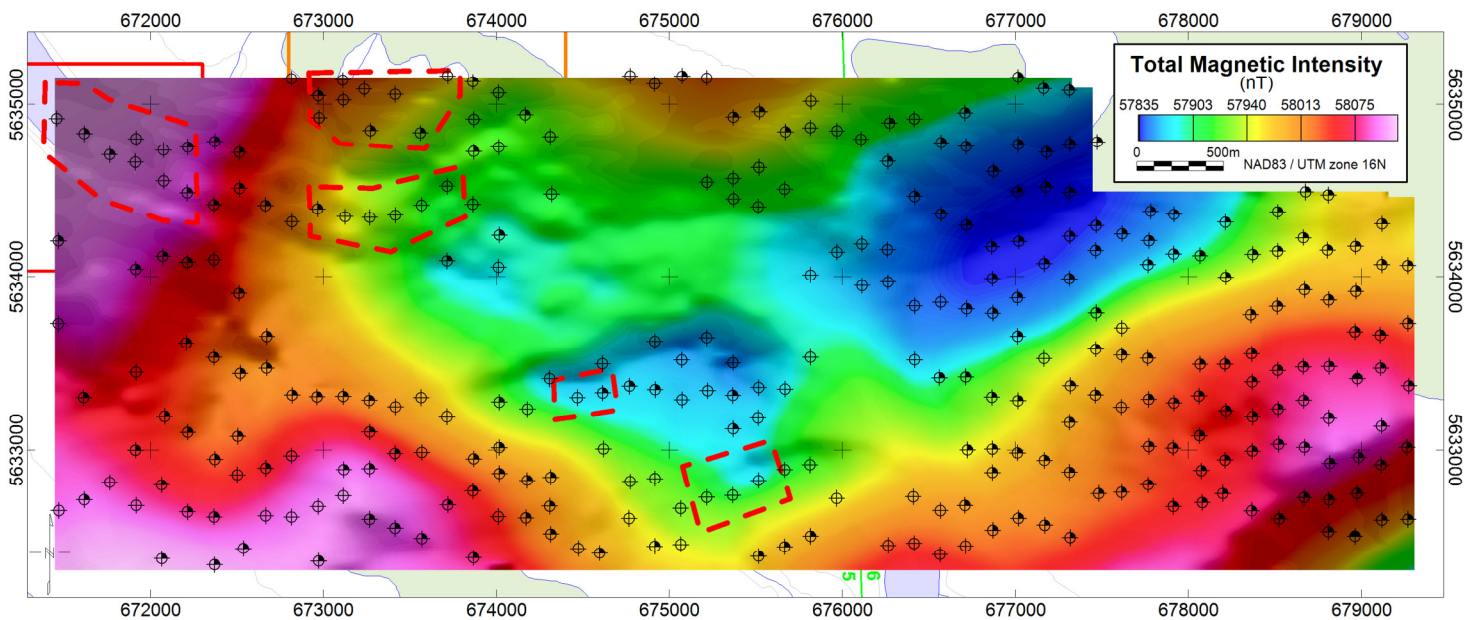


Figure 11: First Vertical Derivative of TMI and TDEM anomalies, Constance Lake block

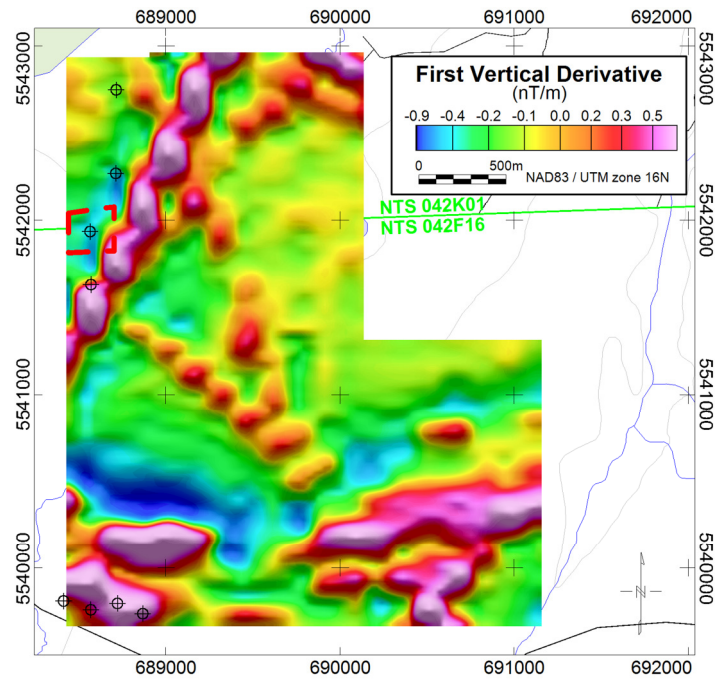
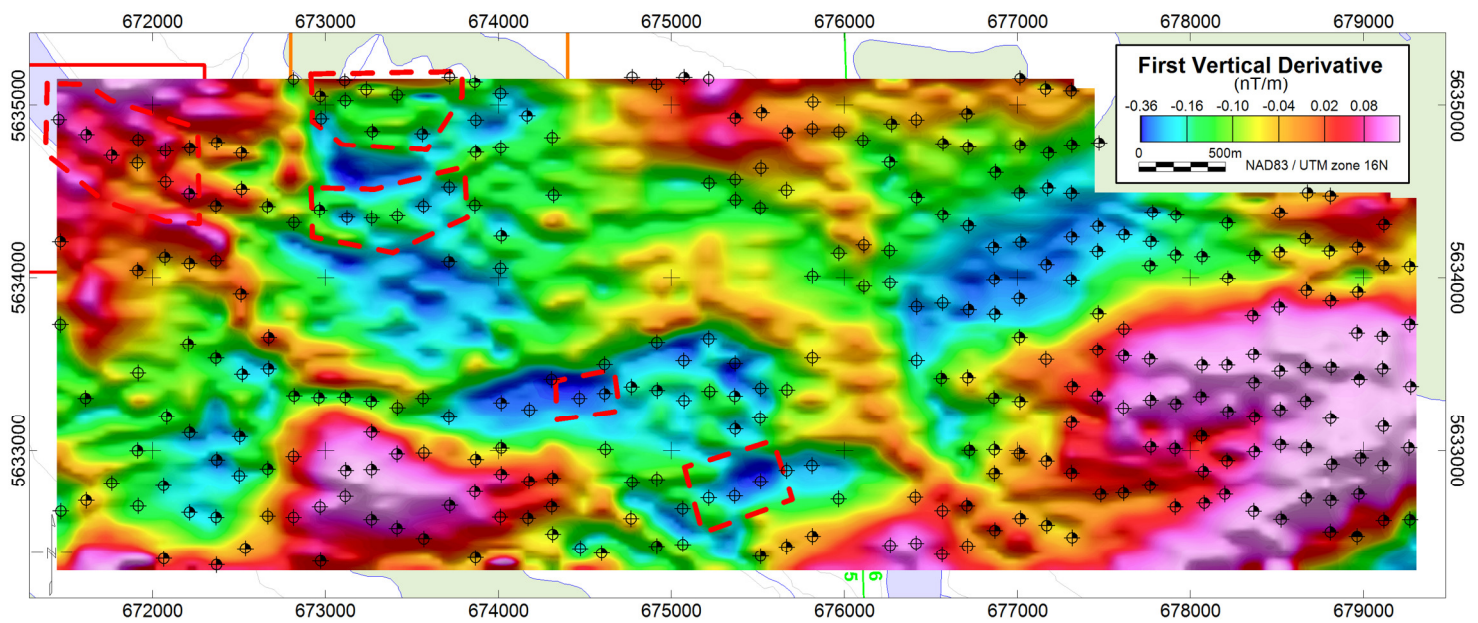


Figure 12: First Vertical Derivative of TMI and TDEM anomalies, Kenagami block

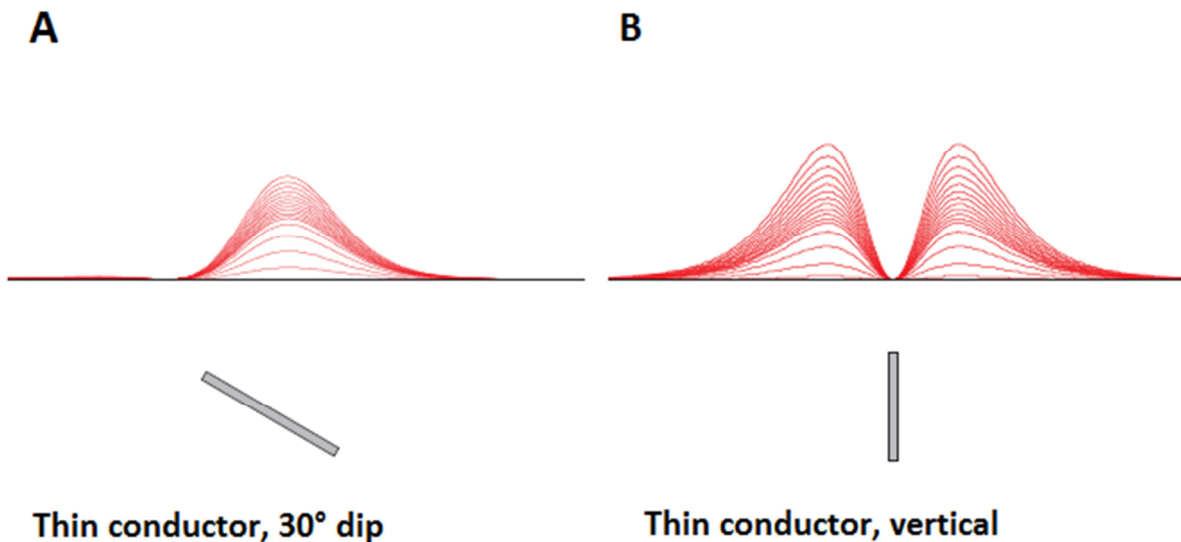




## Overview of Time-Domain Electromagnetic data

There is no automatic picking program involved in the interpretation procedures of the ProspecTEM system. Identification of the EM anomalies is made from the EM profiles. Most of the time, the location of anomalies is based on the assumption that the causative source is a somewhat thick or flat lying conductor, which would generate an anomaly mostly centered over the conductor (Figure 13, A). It is important to understand that some other conductive bodies could generate a strong EM response that is offset from the mass centre of the source. For instance, a thin conductor with a steep dip would generate an “M” shape anomaly (Figure 13, B), with the stronger shoulder on the dip side. Therefore, caution must be taken when planning work at the location of an anomaly. It is recommended to combine other available geoscientific information and to review the EM anomaly location before to investigate an anomaly of interest.

Figure 13: Example of EM response over thin conductors



The classification of anomalies is based on the calculated time constant (TAU). The EM time constant is a general measure of the speed of decay of the electromagnetic response and reflects the “conductance quality” of a source. The decay rate of the secondary EM field recorded by the TDEM system is a function of the conductivity and geometry of conductors detected. A weak conductor, such as shallow conductive overburden, will show rapid response decay, thus a small value of the time constant. Conversely, a good conductor, such as a graphite or sulphide orebody, will have a response decaying slowly, relating to a large TAU value. The TAU is calculated using proprietary software and is derived from the best exponential least squares fit for channels Z13 to Z27. Calculating TAU for low amplitude anomalies that have their first off-time channel (channel 13) amplitude smaller than 75 nT/s can yield unreliable results given the weak response. No best fit were tried on these low signal anomalies and an arbitrary minimal time constant of 0.10 msec was attributed. Moreover, the resulting exponential best fit of the decay curve is extrapolated to the zero delay time, which can be used to compare the amplitude of anomalies.

On the Constance Lake block, 8 EM anomalies are identified, classified and listed (Appendix A). Given the weak amplitude (only slightly above the expected noise envelope of the system) of all anomalies found in this block, they are all classified as marginal/weak anomalies.

On the Kenagami block, 308 EM anomalies are identified (Appendix B). All marginal/weak anomalies with TAU lower than 0.25 msec are included in a group represented by an empty circle on the anomaly map. In total, 101 anomalies are reported in this class. The remaining anomalies are classified in 2 other groups, with time-constant considered small (0.25 to 0.50 msec, 205 anomalies) and intermediate (0.50 to 0.75 msec, 2 anomalies).

In areas where anomalies are very continuous along flight lines, anomaly symbols have been indicated where the strongest EM signal was obtained. It is recommended to use the early off-time response map (Figure 14 and 15) to see the actual extents of anomalous areas.

In these figures, it is seen that the EM response is a lot stronger in the Kenagami block than in the Constance Lake block.

In the Constance Lake block the few very weak EM anomalies are most likely related to slightly conductive overburden. Nevertheless, the best anomaly found in the block has been indicated as a potential exploration target (thick red dashed line on the data figures), and could be investigated to confirm the nature of the source.

The EM response is a lot more active in the Kenagami block. Most of the block is characterized by a broad, weakly conductivity area, separated in its middle by a “и” shaped non-conductive area. The wide conductive area typically looks like the response from conductive overburden, which is also supported by the rather low TAU constant values calculated for EM anomalies found in the area. What is of interest are the few stronger amplitude EM anomalies or groups of anomalies found within this weakly conductive area. If the broad EM response is indeed caused by overburden, these more conductive anomalies could represent a thickening of the conductive material or be linked to a local increase in its conductivity. This is supported by the fact that these anomalies do not respond up to the late EM channels. Another possibility to explain these stronger anomalies are the occurrence of much more conductive rocks at depth underneath weakly conductive overburden, such that the combined effect of the two is possibly observed in the response. For this reason, these stronger anomalies have been indicated as potential exploration targets, and shown as thick red dashed lines on the data figures.

Some of these anomalies are located in the river area. More conductive sediments may be preferentially accumulated in these areas. But, if the response was mostly controlled by river bottom sediments, it would be expected that the general distribution of conductive ground somewhat correlates with the topography and drainage, which doesn't seem to be the case.

It is also worth noting that most of these anomalies are located within a large magnetic low, at the edge of a magnetic high ring associated to an interpreted alkalic rock complex, which is

a very similar context to the one found in the vicinity of the graphitic pipes discovered by Zenyatta. These EM anomalies are also locally aligned with the magnetic grain, which suggest that their sources may be within the bedrock. Lastly, most targeted EM anomalies are not directly correlated to magnetic anomalies, which rules out a pyrrhotite rich source, and some are actually rather correlated to magnetic lows, which is the expected signature of a graphitic source.

Figure 14: Early Off-Time TDEM response, Constance Lake block

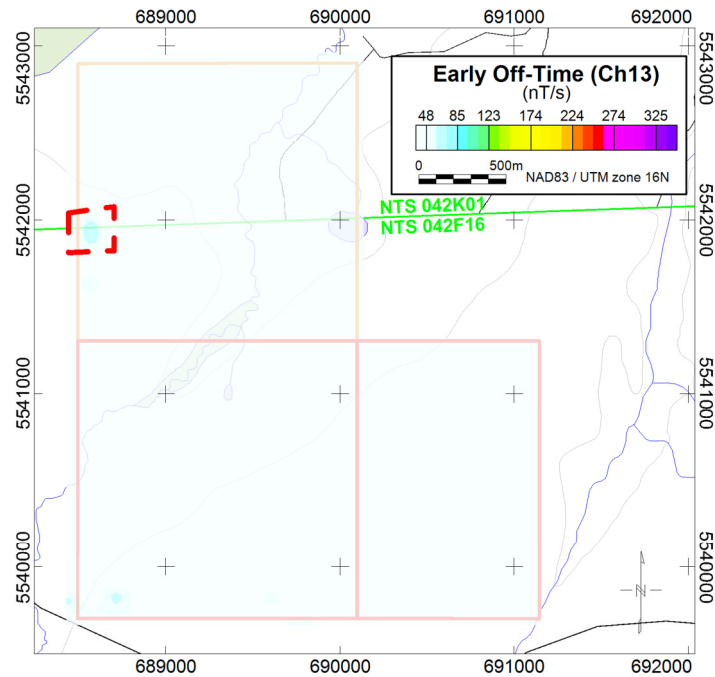
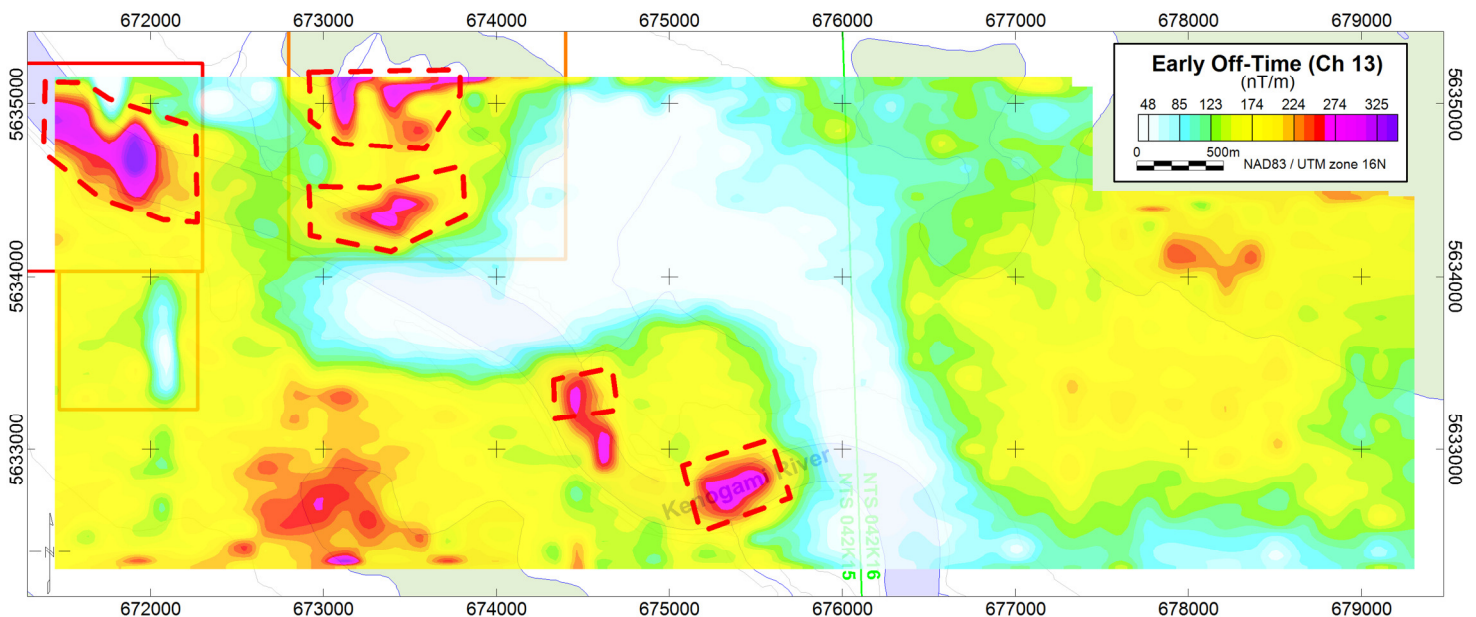


Figure 15: Early Off-Time TDEM response, Kenagami block



## VIII. CONCLUSION AND WORK RECOMMENDATION

The discussion on the geological implication of the survey data is minimal in this report. A more general study including information regarding the local geology and all other geoscientific data available in the area would be necessary to extract the full potential of the geophysical data. Nevertheless, it is possible to draw some general conclusions from the observation of the survey data, and to formulate recommendations for the development of the Property.

Since it is difficult to confirm that the sources of the strongest anomalies found in the Kenagami block are caused by bedrock conductors under conductive overburden or rather by a thickening or conductivity increase of this overburden, it is recommended to conduct a few test lines of an induced polarization and resistivity (IP) survey with a deep penetration configuration to ensure penetration of the postulated conductive overburden down to the bedrock. This should help determining which of the interpretation hypothesis outlined above is correct.

If chargeability values obtained from such survey confirm the presence of graphite/sulfides, it is then recommended to extend the IP survey and/or the airborne TDEM survey further, in order to identify the best possible target for drilling.

## IX. FINAL PRODUCTS

### Digital Line Data

Geosoft databases are provided with the channels detailed in Table 7.

Table 7: **MAG-TDEM line data channels**

No.	Name	Description	Units
1	UTM_X	UTM Easting, NAD-83, Zone 16N	m
2	UTM_Y	UTM Northing, NAD-83, Zone 16N	m
3	Lat_deg	Latitude in decimal degrees	Deg
4	Long_deg	Longitude in decimal degrees	Deg
5	GPS_Z	Helicopter altitude (w.r.t. MSL)	m
6	Gtm_sec	Second since midnight GMT	Sec
7	Radar	Ground clearance given by the radar altimeter	m
8	Terrain	Measured Digital Elevation Model (w.r.t. MSL)	m
9	DEM	CDED Digital Elevation Model (w.r.t. MSL)	m
10	Mag_Raw	Raw magnetic data	nT
11	Mag_Lag	1.4s lagged magnetic data	nT
12	Gnd_mag	Base station magnetic data	nT
13	Mag_Cor	Magnetic data corrected for diurnal variation	nT
14	TMI	Fully levelled Total Magnetic Intensity	nT
15	TMIres	Residual TMI (IGRF removed)	nT
16	OFF_TIME	Amplitude of Off-time channels (13 to 36)	nT/s

### Maps

All maps are referred to NAD-83 in the UTM projection Zone 16 North, with coordinates in metres. Maps are at a 1:10,000 scale and are provided in PDF, PNG and Geosoft MAP formats for the products detailed in Table 8.

Table 8: **Maps delivered**

No.	Name	Description
1	DEM+FlightPath+Claims	Digital Elevation Model with flight path and Property claims
2	TMI+Contours	Total Magnetic Intensity with contours
3	FVD	First Vertical Derivative of the TMI
4	Early_OffTime	Early_Off-Time TDEM response (Channel 13)
5	TDEM_Profiles+Anomalies	TDEM profiles with anomalies
6	TMI+TDEM_Anomalies	Total Magnetic Intensity with TDEM anomalies

### Grids

All grids are referred to NAD-83 in the UTM projection Zone 16 North, with coordinates in metres. Grids are provided in Geosoft GRD format, with a 20m grid cell size, for the products listed in Table 9.

Table 9: **Grids delivered**

No.	Name	Description	Units
1	DEM	Digital Elevation Model	m
2	TMI	Total Magnetic Intensity	nT
3	FVD	First Vertical Derivative of TMI	nT/m
4	SVD	Second Vertical Derivative of TMI	nT/m <sup>2</sup>
5	TMIres	Residual TMI (IGRF removed)	nT
6	Early_Off-Time	Early Off-Time TDEM response (Channel 13)	nT/s

### Project Report

The report is submitted in PDF format. . The anomaly table presented in annexe is also provided as separate Excel spreadsheets.

Respectfully submitted,




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Joël Dubé, P. Eng.  
March 17<sup>th</sup> 2014

## X. STATEMENT OF QUALIFICATIONS

Joël Dubé  
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E-mail: jdube@ddgeoscience.ca

I, Joël Dubé, Eng., do hereby certify that:

1. I am a consultant in geophysics, President of Dubé & Desaulniers Geoscience Ltd, registered in Canada.
2. I earned a Bachelor of Engineering in Geological Engineering in 1999 from the École Polytechnique de Montréal.
3. I am an Engineer registered with the Ordre des Ingénieurs du Québec, No. 122937, and a Professional Engineer with Professional Engineers Ontario, No. 100194954.
4. I have practised my profession for 14 years in exploration geophysics.
5. I have not received and do not expect to receive a direct or indirect interest in the properties covered by this report.

Dated this 17<sup>th</sup> of March, 2014



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Joël Dubé, P. Eng. #100194954

## XI. REFERENCES

Legault, J. M. (2010). *43-101 Technical Report on the Albany Project for Zenyatta*; Geotech; available on SEDAR

Sage, R. P. (1988). *Geology of Carbonatite – Alkalic Rock Complexes in Ontario: Nagagami River Alkalic Rock Complex, District of Cochrane*; Ontario Geological Survey (Study 43); MNDM file S043



## XII. Appendix A – Constance Lake TDEM anomaly table

Line	UTM_X (m)	UTM_Y (m)	ID	Time Constant (msec)	Amplitude at zero delay (nT/s)
10	688412	5539811	10.01	0.10	0
20	688568	5539761	20.01	0.10	0
20	688569	5541631	20.02	0.10	0
20	688564	5541935	20.03	0.10	0
30	688721	5539797	30.01	0.10	0
30	688711	5542268	30.02	0.10	0
30	688713	5542751	30.03	0.10	0
40	688866	5539739	40.01	0.10	0

### XIII. Appendix B – Kenagami TDEM anomaly table

Line	UTM_X (m)	UTM_Y (m)	ID	Time Constant (msec)	Amplitude at zero delay (nT/s)
10	671470	5632650	10.01	0.23	550
10	671467	5633730	10.02	0.24	542
10	671467	5634209	10.03	0.29	498
10	671458	5634916	10.04	0.23	938
20	671617	5632713	20.01	0.27	525
20	671613	5633302	20.02	0.29	458
20	671617	5634829	20.03	0.26	812
30	671764	5632813	30.01	0.25	510
30	671764	5634707	30.02	0.25	748
40	671917	5632680	40.01	0.25	470
40	671913	5633000	40.02	0.28	431
40	671916	5633449	40.03	0.25	500
40	671915	5634044	40.04	0.26	459
40	671913	5634663	40.05	0.21	1253
40	671916	5634799	40.06	0.22	1088
50	672065	5632373	50.01	0.32	399
50	672064	5632798	50.02	0.36	270
50	672081	5633195	50.03	0.30	297
50	672071	5634120	50.04	0.30	368
50	672076	5634556	50.05	0.24	692
50	672074	5634733	50.06	0.24	699
60	672214	5632643	60.01	0.25	513
60	672215	5633104	60.02	0.26	485
60	672206	5633619	60.03	0.28	458
60	672213	5634083	60.04	0.25	572
60	672212	5634488	60.05	0.29	523
60	672215	5634750	60.06	0.31	415
70	672370	5632338	70.01	0.27	564
70	672368	5632614	70.02	0.29	427
70	672371	5632947	70.03	0.27	507
70	672366	5633534	70.04	0.27	499
70	672366	5634099	70.05	0.25	512
70	672366	5634419	70.06	0.32	326
70	672371	5634782	70.07	0.30	348
80	672536	5632433	80.01	0.27	567
80	672502	5632857	80.02	0.23	610
80	672504	5633081	80.03	0.27	469
80	672518	5633442	80.04	0.29	395
80	672511	5633903	80.05	0.28	491
80	672515	5634513	80.06	0.35	276
80	672513	5634720	80.07	0.27	334
90	672665	5632620	90.01	0.23	718
90	672666	5632895	90.02	0.26	644
90	672670	5633472	90.03	0.25	428
90	672672	5633657	90.04	0.29	371
90	672664	5634414	90.05	0.33	249
100	672815	5632613	100.01	0.24	703
100	672815	5632967	100.02	0.25	646

100	672818	5633316	100.03	0.26	639
100	672817	5634319	100.04	0.21	432
100	672814	5635148	100.05	0.19	768
110	672972	5632360	110.01	0.26	621
110	672968	5632673	110.02	0.24	787
110	672962	5633306	110.03	0.27	530
110	672965	5634395	110.04	0.29	370
110	672974	5634921	110.05	0.25	437
110	672969	5635049	110.06	0.31	366
120	673114	5632734	120.01	0.23	797
120	673117	5632888	120.02	0.26	662
120	673114	5633308	120.03	0.26	674
120	673124	5634350	120.04	0.19	929
120	673115	5635025	120.05	0.23	1013
120	673110	5635140	120.06	0.24	1002
130	673265	5632600	130.01	0.27	657
130	673266	5632893	130.02	0.29	576
130	673266	5633105	130.03	0.27	588
130	673264	5633285	130.04	0.28	522
130	673267	5634346	130.05	0.21	874
130	673270	5634846	130.06	0.30	370
130	673235	5635087	130.07	0.22	658
140	673413	5632550	140.01	0.26	546
140	673413	5632981	140.02	0.28	515
140	673416	5633248	140.03	0.24	591
140	673415	5634359	140.04	0.19	1070
140	673414	5635057	140.05	0.24	887
150	673568	5632490	150.01	0.30	547
150	673568	5632987	150.02	0.25	490
150	673564	5633302	150.03	0.24	430
150	673566	5634416	150.04	0.24	704
150	673560	5634833	150.05	0.29	596
160	673718	5632683	160.01	0.25	515
160	673713	5633193	160.02	0.25	573
160	673714	5634093	160.03	0.38	210
160	673715	5634526	160.04	0.22	670
160	673717	5635164	160.05	0.24	849
170	673867	5632379	170.01	0.29	467
170	673863	5632763	170.02	0.25	535
170	673868	5632950	170.03	0.28	491
170	673862	5634422	170.04	0.22	460
170	673868	5634725	170.05	0.32	341
170	673869	5634911	170.06	0.25	425
170	673862	5635130	170.07	0.28	682
180	674010	5632616	180.01	0.24	545
180	674016	5632864	180.02	0.27	416
180	674015	5633015	180.03	0.26	407
180	674016	5633275	180.04	0.29	380
180	674011	5634056	180.05	0.22	346
180	674016	5634243	180.06	0.30	275
180	674013	5634750	180.07	0.24	496
180	674011	5635066	180.08	0.21	669
190	674170	5632609	190.01	0.27	481
190	674177	5632824	190.02	0.26	369
190	674179	5633235	190.03	0.22	412

190	674165	5634937	190.04	0.27	236
200	674313	5632515	200.01	0.28	368
200	674307	5632675	200.02	0.28	417
200	674313	5632842	200.03	0.32	354
200	674306	5633411	200.04	0.19	681
200	674318	5634481	200.05	0.10	0
200	674310	5634812	200.06	0.24	293
210	674472	5632433	210.01	0.25	618
210	674467	5633302	210.02	0.20	1020
220	674596	5632406	220.01	0.30	324
220	674618	5633007	220.02	0.20	1071
220	674614	5633328	220.03	0.26	524
220	674612	5633498	220.04	0.22	501
230	674766	5632605	230.01	0.25	413
230	674772	5632818	230.02	0.22	543
230	674768	5633368	230.03	0.25	339
230	674772	5635165	230.04	0.24	418
240	674914	5632446	240.01	0.28	258
240	674915	5632835	240.02	0.24	512
240	674916	5633348	240.03	0.27	392
240	674915	5633629	240.04	0.21	523
240	674913	5635117	240.05	0.19	508
250	675065	5632457	250.01	0.22	541
250	675064	5632663	250.02	0.22	534
250	675072	5633289	250.03	0.22	479
250	675070	5633519	250.04	0.21	604
250	675073	5635163	250.05	0.28	401
260	675214	5632727	260.01	0.19	957
260	675220	5633341	260.02	0.21	597
260	675214	5633650	260.03	0.23	532
260	675216	5634548	260.04	0.10	0
260	675215	5635152	260.05	0.22	383
270	675365	5632739	270.01	0.20	1029
270	675367	5633124	270.02	0.25	501
270	675365	5633315	270.03	0.28	460
270	675366	5633503	270.04	0.22	522
270	675369	5634453	270.05	0.22	230
270	675368	5634568	270.06	0.10	0
270	675368	5634924	270.07	0.37	150
280	675514	5632388	280.01	0.35	305
280	675514	5632824	280.02	0.20	1021
280	675511	5633186	280.03	0.21	542
280	675515	5633359	280.04	0.21	557
280	675512	5634408	280.05	0.10	0
280	675516	5634633	280.06	0.16	393
280	675520	5634955	280.07	0.27	265
290	675665	5632443	290.01	0.31	300
290	675665	5632887	290.02	0.23	538
290	675667	5633351	290.03	0.20	267
290	675664	5634508	290.04	0.21	243
290	675670	5634839	290.05	0.25	303
300	675815	5632504	300.01	0.32	166
300	675811	5632916	300.02	0.23	325
300	675814	5633536	300.03	0.10	0
300	675815	5634010	300.04	0.10	0

300	675813	5634863	300.05	0.24	357
300	675817	5635017	300.06	0.20	485
310	675965	5632720	310.01	0.10	0
310	675967	5634143	310.02	0.10	0
310	675968	5634845	310.03	0.22	432
320	676113	5633948	320.01	0.19	308
320	676111	5634190	320.02	0.20	265
320	676105	5634796	320.03	0.21	412
330	676263	5632451	330.01	0.10	0
330	676263	5633969	330.02	0.20	325
330	676259	5634158	330.03	0.22	281
330	676260	5634667	330.04	0.26	228
330	676272	5634890	330.05	0.29	173
340	676413	5632462	340.01	0.10	0
340	676408	5632729	340.02	0.10	0
340	676416	5633521	340.03	0.23	475
340	676415	5633833	340.04	0.24	507
340	676416	5634467	340.05	0.26	392
340	676415	5634913	340.06	0.23	401
350	676563	5632398	350.01	0.23	238
350	676565	5632650	350.02	0.10	0
350	676560	5633417	350.03	0.44	225
350	676567	5633854	350.04	0.24	425
350	676568	5634365	350.05	0.31	215
350	676569	5634776	350.06	0.39	221
360	676710	5632447	360.01	0.10	0
360	676707	5632680	360.02	0.25	198
360	676722	5633002	360.03	0.32	349
360	676712	5633421	360.04	0.33	373
360	676717	5633816	360.05	0.33	397
360	676715	5634301	360.06	0.27	384
360	676714	5634755	360.07	0.36	269
360	676707	5634948	360.08	0.26	358
370	676868	5632538	370.01	0.41	194
370	676866	5632871	370.02	0.25	480
370	676865	5633007	370.03	0.27	425
370	676863	5633303	370.04	0.33	294
370	676868	5633790	370.05	0.36	324
370	676865	5633990	370.06	0.33	346
370	676861	5634176	370.07	0.34	309
370	676872	5634611	370.08	0.34	259
380	677016	5632607	380.01	0.35	266
380	677011	5632985	380.02	0.32	378
380	677013	5633284	380.03	0.30	403
380	677012	5633658	380.04	0.33	402
380	677010	5633879	380.05	0.29	421
380	677019	5634207	380.06	0.31	385
380	677011	5634493	380.07	0.26	410
380	677015	5634765	380.08	0.38	261
380	677014	5635157	380.09	0.32	445
390	677168	5632566	390.01	0.37	175
390	677167	5632941	390.02	0.27	417
390	677164	5633528	390.03	0.25	451
390	677165	5634077	390.04	0.28	315
390	677175	5634521	390.05	0.29	279

390	677179	5634721	390.06	0.35	218
390	677162	5635091	390.07	0.35	364
400	677315	5632496	400.01	0.28	354
400	677312	5632872	400.02	0.26	568
400	677312	5633161	400.03	0.32	471
400	677316	5633370	400.04	0.27	591
400	677310	5633988	400.05	0.32	330
400	677312	5634236	400.06	0.27	405
400	677311	5634491	400.07	0.46	257
400	677314	5634768	400.08	0.30	309
400	677310	5635081	400.09	0.31	281
410	677480	5632747	410.01	0.27	306
410	677461	5633316	410.02	0.29	386
410	677463	5633583	410.03	0.30	344
410	677465	5633792	410.04	0.30	295
410	677462	5634153	410.05	0.40	267
410	677465	5634298	410.06	0.35	293
410	677471	5634780	410.07	0.49	224
420	677612	5632755	420.01	0.26	418
420	677611	5633246	420.02	0.24	648
420	677613	5633549	420.03	0.26	547
420	677614	5633704	420.04	0.25	596
420	677615	5634250	420.05	0.26	577
430	677766	5632799	430.01	0.31	236
430	677770	5633022	430.02	0.28	319
430	677769	5633292	430.03	0.27	421
430	677764	5633529	430.04	0.28	477
430	677765	5634070	430.05	0.35	394
430	677771	5634210	430.06	0.27	424
430	677780	5634381	430.07	0.29	578
440	677912	5632674	440.01	0.34	274
440	677909	5633013	440.02	0.29	391
440	677914	5633270	440.03	0.31	448
440	677913	5634132	440.04	0.31	529
440	677915	5634363	440.05	0.31	440
450	678079	5632696	450.01	0.34	239
450	678073	5632882	450.02	0.38	289
450	678063	5633084	450.03	0.29	381
450	678060	5633311	450.04	0.28	399
450	678067	5633495	450.05	0.33	332
450	678067	5634123	450.06	0.37	424
460	678197	5632748	460.01	0.33	315
460	678210	5632942	460.02	0.35	441
460	678216	5633225	460.03	0.29	550
460	678210	5633496	460.04	0.31	447
460	678214	5633997	460.05	0.28	610
460	678212	5634317	460.06	0.31	479
470	678364	5632649	470.01	0.47	173
470	678368	5632995	470.02	0.31	374
470	678369	5633192	470.03	0.30	412
470	678367	5633392	470.04	0.31	430
470	678364	5633556	470.05	0.33	377
470	678359	5633781	470.06	0.32	390
470	678371	5634130	470.07	0.32	494
480	678524	5632603	480.01	0.40	283

480	678520	5633035	480.02	0.29	550
480	678517	5633235	480.03	0.31	474
480	678515	5633460	480.04	0.33	476
480	678513	5633830	480.05	0.30	464
480	678514	5634149	480.06	0.33	376
480	678515	5634378	480.07	0.33	398
490	678668	5632725	490.01	0.42	214
490	678669	5633017	490.02	0.41	234
490	678665	5633286	490.03	0.33	304
490	678663	5633480	490.04	0.40	247
490	678669	5633924	490.05	0.40	261
490	678663	5634227	490.06	0.37	350
490	678676	5634493	490.07	0.33	408
500	678808	5632529	500.01	0.40	286
500	678811	5632711	500.02	0.34	389
500	678816	5632924	500.03	0.33	381
500	678810	5633184	500.04	0.32	335
500	678812	5633482	500.05	0.31	400
500	678810	5633866	500.06	0.37	333
500	678803	5634156	500.07	0.30	476
500	678808	5634475	500.08	0.33	521
510	678962	5632504	510.01	0.52	189
510	678973	5632748	510.02	0.41	279
510	678983	5632959	510.03	0.46	190
510	678975	5633412	510.04	0.54	144
510	678961	5633683	510.05	0.43	217
510	678966	5633915	510.06	0.40	244
510	678965	5634177	510.07	0.42	300
520	679116	5632596	520.01	0.35	369
520	679112	5632915	520.02	0.40	283
520	679114	5633140	520.03	0.41	290
520	679110	5633473	520.04	0.32	353
520	679108	5633664	520.05	0.33	356
520	679117	5634072	520.06	0.31	397
520	679118	5634307	520.07	0.34	389
530	679268	5632600	530.01	0.43	184
530	679262	5633017	530.02	0.36	213
530	679273	5633370	530.03	0.44	161
530	679267	5633732	530.04	0.37	245
530	679267	5634066	530.05	0.37	285