

**Assessment Report**  
**Geophysical Surveying**  
**on the**  
**DAD Claim Block**  
**Northern Tiger Resources Inc.**

DAD 1-82 (YC65617 – YC65698), DAD 83-124 (YC95059 – YC95100)

Pelly – Yukon R. Confluence area,  
62°48'06" N Latitude, 137°17'25" W Longitude  
**Whitehorse Mining District**

NTS Sheet 115I/14, Zone 8

July 22, 2009 – August 4, 2009

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**May 20, 2010**

## Summary

An exploration program consisting of ground magnetic and induced polarization/DC resistivity surveys was conducted over the DAD property by Aurora Geosciences of Whitehorse, YT for Northern Tiger Resources in 2009.

The DAD property encompasses 124 quartz mining claims in a single contiguous block covering 2,476.4 hectares (6119 acres) directly northeast of the confluence of the Yukon and Pelly Rivers. The initial 82 claims were staked in August 2007 by Minto Explorations Ltd. to cover ground prospective for “Minto-style” copper-gold mineralization. An additional 42 claims were staked to the south by Northern Tiger in June 2009. The property is situated about 95 km north-northwest of Carmacks, Yukon, and within 20 kilometres of the all-weather Minto mine access road and large airstrip.

The DAD property is located within the northern limit of the Intermontane Superterrane, which occurs as a narrow sequence of Triassic to Lower Jurassic Stikinia Terrane volcanic and volcanoclastic strata mixed with Lower Jurassic Quesnellia Terrane metaigneous units specifically the Aishikik Intrusive Suite. The Minto deposit is hosted by the Klotassin Batholith, a member of the Aishikik Suite.

The Minto deposit occurs as a flat-lying body at depth, with no surface exposure other than minor hydrothermally transported copper oxide mineralization in the form of azurite and malachite. The deposit was discovered and delineated through diamond drilling. Any surface geochemical signatures are likely to be subdued; thus modest anomalies and surface occurrences may represent a significant target at depth.

The DAD property is underlain roughly equally by a member of the Aishikik intrusive suite lying in north-south contact with a sequence of Povoas Formation andesite to basalt flows and tuffs, with interflow fine clastic sedimentary units, east of the contact. Only the intrusive portion is prospective for Minto-style mineralization. Two major multi-kilometric-scale soil geochemical anomalies were delineated from exploration programs in 1971, 1972, 1981; a copper-molybdenum anomaly along a steep north-facing slope in the northwestern area, and a copper anomaly along a steep south-facing slope near the south boundary. The 2008 program confirmed the presence of these anomalies. The geochemical signature of the southern anomaly is more indicative of Minto-style mineralization than the northern one. In 2009, the ground geophysical survey confirmed the presence of a Gradient Array Induced Potential anomaly coincident with the southern geochemical anomaly.

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## **1.0 Introduction**

### **1.1 Introduction**

The DAD property, located in central Yukon and initially consisting of 82 full quartz mining claims in a single block covering 1,722.0 hectares (4,253 acres), was staked in August 2007 by Minto Explorations Ltd. to cover ground prospective for “Minto-style” copper-gold mineralization. In June 2008 Northern Tiger Resources Inc. (Northern Tiger) obtained a 100% interest in the claims, in exchange for exploration commitments across the property. Following confirmation of an historical southern geochemical anomaly during the 2008 exploration program, an additional 42 claims were staked to the south by Northern Tiger in June 2009 forming a contiguous claim block covering 2,476.4 hectares (6119 acres). An exploration program consisting of ground magnetic and induced polarization/DC resistivity surveys was conducted over the DAD property by Aurora Geosciences of Whitehorse, YT for Northern Tiger Resources from July 22 to August 4, 2009.

This report will focus on details of the 2009 exploration program, including tabulation and interpretation of results.

### **1.2 Sources of Information**

Regional geological data was taken from the Yukon Geology Survey website. Historical and geological data was obtained from three assessment reports provided by Canadian Occidental Petroleum Ltd: a 1971 report entitled “Geology and Geochemistry of the Pelly Claim Group”, by D. Nutter, P. Mehrotra, and C.F. Gleeson; a 1972 report entitled “Geochemical Survey of the Pelly – Dary – Prat Claims” by P. Mehrotra, and a 1972 report entitled “Diamond Drilling on the Pelly – Dary – Prat Claims” by P.Mehrotra. A 1981 assessment report for United Keno Hill Mines Ltd. entitled “1981 Geological and Geochemical Report on the Dad Claim Group” by L.L. Coughlan and R.J. Joy on the DAD 1-68 claims staked in January 1981 was also used.

The geological setting and potential deposit model is similar to that of Capstone Mining Corporation’s (formerly Sherwood Copper Corporation) Minto mine site, located roughly 20 km to the south-southeast. Details of these were kindly provided by Mr. Brad Mercer, BSc, PGeol, Director of Northern Tiger, and Vice President of Exploration for Capstone Mining Corporation, prior to the field program.

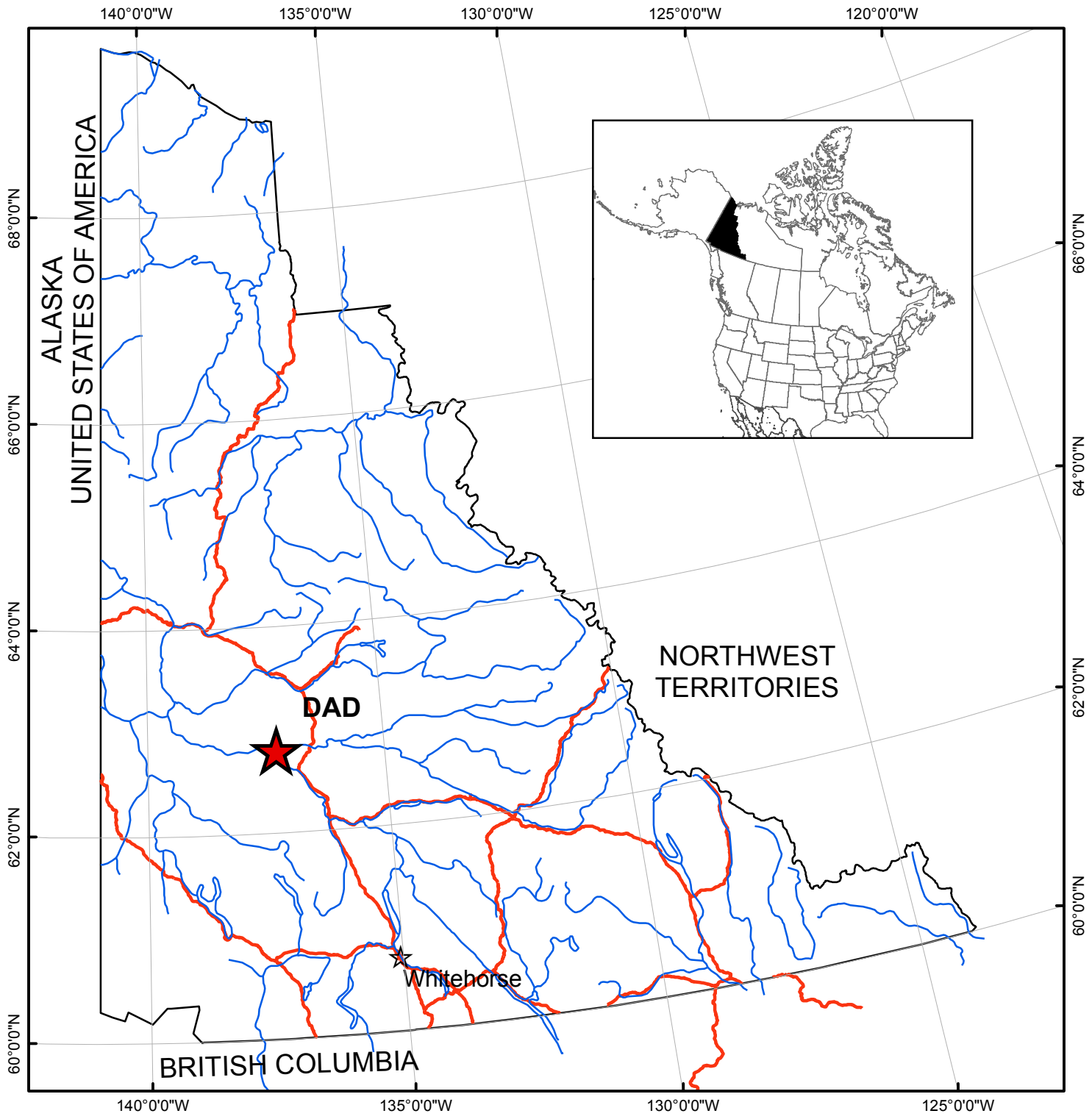
### **1.3 Terms of Reference**

This report was prepared to satisfy requirements for Assessment Report filing by the Yukon Mining Recorder, Ministry of Energy, Mines and Resources, Government of Yukon.





## **2.0 Property Description and Location**

The DAD property consists of 124 unpatented quartz mining claims (Table 1, Figures 1-3) in a single block covering 2,476.4 hectares (6119 acres) directly northeast of the confluence of the Pelly and Yukon Rivers. The property is located about 95 km north-northwest of Carmacks, Yukon, and is centered at 62°48'06" N Latitude, 137°17'25" W Longitude (UTM NAD 83 coordinates: 383220E, 6965576N, Zone 8) within NTS map sheet 115I/14. The property has not undergone a legal survey.


No mineral reserves or resources have been delineated on the property to date. No hard rock mine workings, tailings ponds or waste deposits exist within the project area. No special environmental concerns or liabilities are known for this area.





**Legend**

-  DAD Property
-  Watershed
-  Road
-  Yukon Border

N



Kilometers

**Northern Tiger Resources Inc**

**Figure 1, Regional Location Map  
DAD Property**

Yukon Territory, Canada

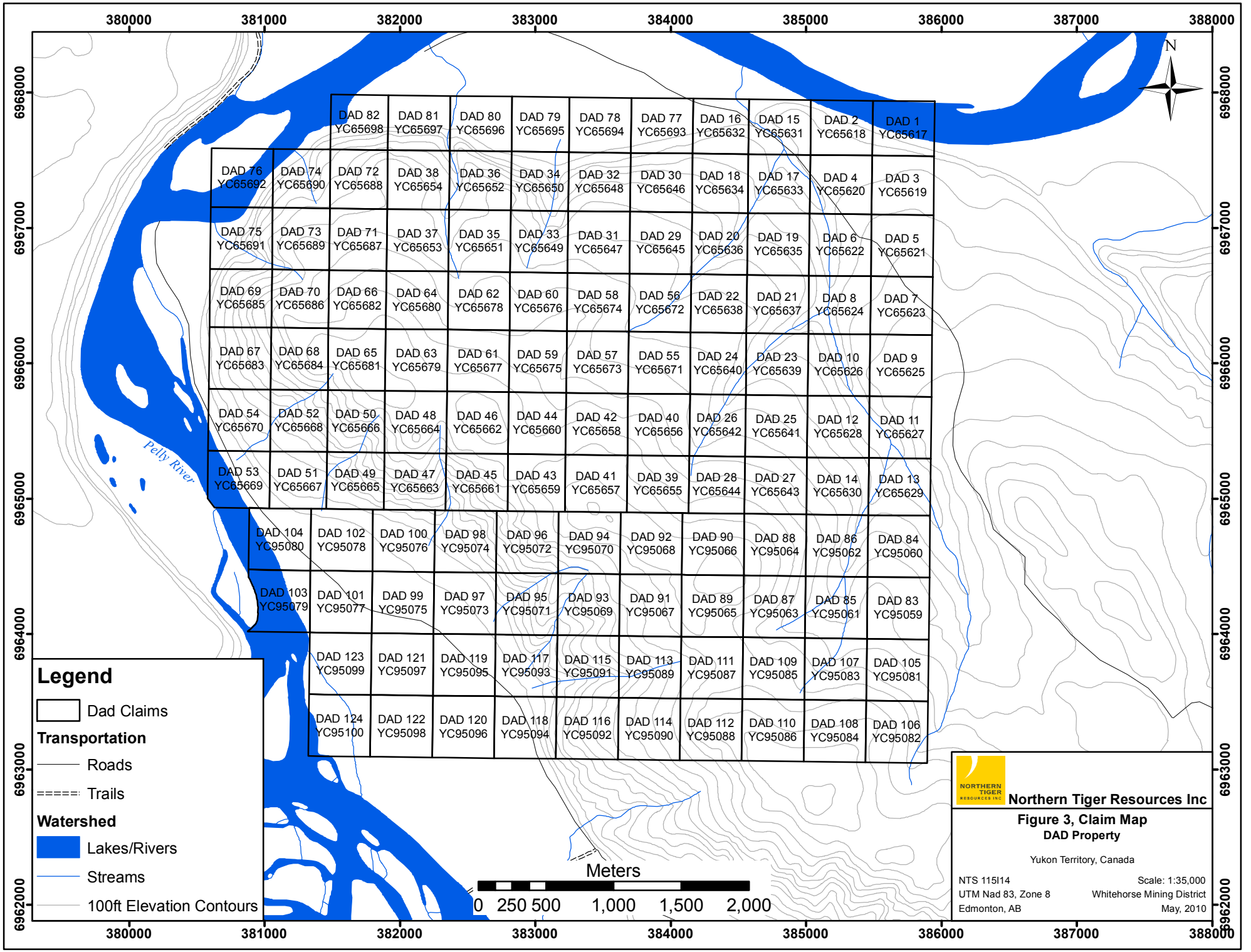
NTS 115 114 Scale: 1:6,000,000  
 UTM Nad83, Zone 8 Whitehorse Mining District  
 Edmonton, AB May 20, 2010



**Table 1: Claims Status, DAD 1 – 124 Claim Block****Northern Tiger Resources Inc.**

NTS Sheet: 115I/14

<b>Grant No.'s</b>	<b>Claim Names</b>	<b>Expiry Date</b>
YC65617-YC65618	DAD 1-2	August 15, 2013
YC65619-YC65630	DAD 3-14	August 15, 2012
YC65631-YC65632	DAD 15-16	August 15, 2013
YC65633-YC65650	DAD 17-34	August 15, 2012
YC65651-YC65652	DAD 35-36	August 15, 2013
YC65653-YC65668	DAD 37-52	August 15, 2012
YC65669	DAD 53	August 15, 2011
YC65670-YC65695	DAD 54-79	August 15, 2012
YC65696	DAD 80	August 15, 2013
YC65697-YC65698	DAD 81-82	August 15, 2012
YC95059-YC95100	DAD 83-124	June 17, 2010



**NORTHERN TIGER RESOURCES INC**

**Northern Tiger Resources Inc**  
**Figure 3, Claim Map**  
**DAD Property**

Yukon Territory, Canada

NTS 115114 Scale: 1:35,000  
 UTM Nad 83, Zone 8 Whitehorse Mining District  
 Edmonton, AB May, 2010

### **3.0 Physiography, Climate, Access and Infrastructure**

#### **3.1 Physiography and Climate**

The DAD property covers a gently north-sloping plateau with steep southern, western and northern boundaries directly northeast of the confluence of the Pelly and Yukon Rivers. Elevations range from about 1,430 feet (435m) along the Pelly River flood plain to about 3,000 feet (914m) in the southeastern area. The block is located along the western margin of the Reid ice advance, the second-most recent major continental glacial event, although some pre-Reid glaciation has occurred somewhat farther to the west.

Outcrop, subcrop and rubblecrop exposure is sparse, except for steep terrain along plateau margins and an area of fairly abundant outcrop in the eastern area. Limited discontinuous permafrost occurs along some north-facing slopes and low lying areas.

The climate of the DAD property area is typical of central Yukon, with short, warm summers with daily highs normally exceeding 20° C, and long, cold winters with daily highs normally colder than -18°C. Precipitation is light, and the snow-free period extends from mid-May through late September. Exploration is most feasible from late May to late September, although drilling may continue until late October.

Vegetation is also typical of dry areas of central Yukon, consisting mostly of mature spruce, poplar and lodgepole pine forests, with stunted poplar covering south facing slopes. South facing slopes are locally free of trees.

#### **3.2 Access and Infrastructure**

The extreme southwestern corner of the DAD property is accessible by summer road extending northwest for roughly 35 kilometres from the North Klondike Highway to several inhabited cabins in the extreme southwest corner of the property. However, this is considered to be a private road near the cabins. A second access road extending through eastern areas has become overgrown with vegetation and is not currently usable; potential for refurbishment is not known (Figure 3).

A farm along the north shore of the Pelly River directly opposite of the property is accessible by road extending from the North Klondike Highway just north of the Pelly River. The farm is quite extensive and appears to be permanently inhabited; however this road should be considered as private access near the farm.

The historic community of Fort Selkirk occurs along the south bank of the Yukon River directly downstream of the confluence. A sizable airstrip appears to be serviceable; however it is a historic site and not recommended as a staging point.

The Minto mine site is located about 20 kilometres south of the southern DAD property boundary, the Minto Landing airstrip is located about 35 km to the south. The mine is serviced by an all-weather access road extending from the North Klondike Highway, with seasonal ferry service across the river, as well as winter road access at the same location. The mine site is not road-accessible during freeze-up and early winter, and during spring break-up. An all-weather airstrip capable of servicing large cargo turboprop aircraft is located at the mine site. The mine is now serviced by grid electrical power based in Whitehorse, and has back-up diesel-generated power on site.

The DAD property is large enough to contain any future mining, milling and waste disposal areas, although areas with highest economic potential occur at lower elevations where usable land for major infrastructure is limited. The Pelly River floodplain is not feasible for significant construction. The Yukon and Pelly rivers, extending along the west and north boundaries respectively, has an adequate water supply to service any future operations; limited water also exists in a smaller stream in eastern areas.

Carmacks is serviced by the Klondike Highway, a major all-weather highway extending from Whitehorse to Dawson City, and by grid electric power extending from Whitehorse. The community of about 350 has basic services, including food and fuel supplies and seasonal helicopter and fixed wing services. The community of Pelly Crossing, population about 300, is located approximately 30 kilometres northeast of Minto Landing, and 102 road kilometers north of Carmacks. Pelly Crossing also has basic services and provides much of the workforce at the Minto mine site. Whitehorse, located 170 km to the south, is a full service community with a population of around 23,000, including a sophisticated mineral exploration service community and an available workforce.

No permits are currently in place for exploration.

## **4.0 History**

The present DAD claim block was first staked as the 104-claim PELLY-DARY-PRAT block in August, 1970 by Canadian Occidental Petroleum Ltd, to cover copper and molybdenum geochemical anomalies along the northeast-southwest contact separating a Jurassic granodiorite stock from Triassic volcanics and volcanoclastics to the southeast. In 1971 the company conducted grid soil sampling, geological mapping and Induced Polarization and surface magnetic geophysical surveying (Yukon Minfile, 2009). The soil survey revealed a sizable east-west trending copper-molybdenum anomaly along the steep north facing slope marking western portions of the northern flank of the plateau. A second extensive copper-in-soil anomaly was identified along the steep slope marking the southern boundary (Nutter, Mehrotra and Gleeson, 1971).

In 1972 Canadian Occidental Petroleum conducted a three-hole, 430.0-metre drill program as a “fence” along the north-facing slope marking the northern plateau boundary within the eastern portion of the northern anomaly. This intersected graphitic argillite and tuff with up to 20% pyrite with weakly anomalous copper, zinc and molybdenum values. The best results were

returned from graphitic schist and graphitic argillite, to a maximum of 114 ppm copper, 1,048 ppm (0.105%) zinc and 67 ppm molybdenum across 15.2 metres (Mehrotra, 1973). Some assessment reports refer to the company as the “Occidental Minerals Corporation of Canada”.

The property was re-staked as the DAD 1-68 claims in January 1981 by United Keno Hill Mines Ltd, which performed an airborne geophysical survey, geological mapping and geochemical sampling later that year. United Keno Hill recognized a similar geological setting as that underlying the DEF property, by then known to host a significant copper-gold-silver deposit, since brought into production as the Minto mine by Sherwood Copper Corporation Inc. and currently held by the Capstone Mining Corporation. Detailed soil sampling was done across the north facing slope in northern areas, essentially revealing the same geochemical anomaly identified by Canadian Occidental Petroleum. Several minor intrusive-hosted copper occurrences were also identified. No surveying was done across the southern anomaly identified by Canadian Occidental Petroleum.

No further exploration was reported prior to acquisition by Minto Explorations Ltd.

## 5.0 Geology

### 5.1 Regional Geology

The DAD property is located within the northern limit of the Intermontane Superterrane (Hart, 2008), occurring as a narrow sequence of Triassic to Lower Jurassic Stikinia Terrane volcanic and volcanoclastic strata mixed with Lower Jurassic Quesnellia Terrane metaigneous units. This superterrane extends northwest – southeast, largely along the Yukon River, within the much more aerially extensive Yukon-Tanana Terrane (YTT). The latter occurs as a broad sequence of accreted terrane abutted against the northwest – southeast trending Tintina Fault, separating the YTT from shelf to off-shelf sediments bordering the ancient North American Continent to the northeast. The Tintina Fault is located about 65 kilometers northeast of the DAD property. The YTT consists of a belt of Devonian-Mississippian metamorphic rocks, mainly metavolcanics with lesser metasediments. The northwest – southeast trending Denali (Shakwak) Fault about 170 km to the southwest forms the southwestern boundary of the YTT, separating it from a younger sequence of accreted terrane farther to the southwest (Davidson, 2008).

Stikinia Terrane units consist largely of Upper Triassic Povoas Formation basalts to andesites, including andesitic ash through lapilli tuffs, with lesser clastic sedimentary units ranging from coarse conglomerate through mudstone to shale. These represent the northernmost portions of the Whitehorse Trough. Stikinia Terrane units commonly abut against Quesnellia Terrane Lower Jurassic Aishikik Suite medium to coarse grained biotite-hornblende metagranites and granodiorites, commonly moderately foliated. The Minto copper-gold mine occurs within the Klotassin Batholith, a foliated biotite granite member of the Aishikik Suite.

Much of the area surrounding the Intermontane Terrane is underlain by Upper Cretaceous to early Tertiary Carmacks Group volcanics, comprised largely of mafic flood basalts and

andesites, with lesser felsic flow and tuffaceous units, and localized basal clastic strata (Open File, Geological Survey of Canada, 2001).

## **5.2 Property Geology**

Year-2008 mapping revealed that western portions of the DAD property are underlain by a hornblende-diorite member of the Jurassic Aishikik Suite (Map 1). This lies in roughly north-south contact with a northwest-southeast trending suite of Upper Triassic Povoas Formation andesites to basalts, including andesite tuffs, intercalated with units of mudstone and shale. The two major units each underlie roughly half of the property area.

Detailed geological mapping occurred along the northern slope in the area of the northern geochemical anomalies identified by Canadian Occidental Petroleum and United Keno Hill Mines. This indicated the hornblende diorite is equigranular and coarse grained, with minor medium grained pyrite and moderate limonite staining. Localized weak epidote alteration occurs throughout this area; minor quartz-carbonate veining and weak calc-silicate alteration were also identified. Xenolithic-style inclusions of gabbro, likely originating from an earlier magma fractionation phase, occur within the hornblende diorite. Foliation, where apparent, extends roughly east-west, with variable south dips.

The majority of the Povoas Formation volcano-sedimentary package consists of andesite to basalt flows, with lesser lapilli to ash tuff. Minor chlorite alteration and limonite staining occurs throughout. A broad sub-unit of mudstone extends northwest-southeast in eastern areas, with smaller parallel units occurring somewhat to the south (Map 1). Minor diabase dykes occur in central areas. Foliation orientations are similar to those within the hornblende diorite, extending east-west to east-southeast – west-northwest, with variable dips both to the north and south.

Although no outcrop was identified in southwestern areas, rock chip identification from soil sampling indicate the area is also underlain by a granite-like intrusion, likely representing an extension of the Aishikik Suite stock underlying northwestern areas.

A small unit of Upper Cretaceous to Tertiary Carmacks Group volcanics, consisting primarily of basalt, is indicated in regional mapping by the Yukon Geology Survey. This was not noted in 2008 mapping, although it is included in Map 1. Year-2008 mapping roughly supported previous mapping by United Keno Hill Mines and the Yukon Geology Survey.

## **6.0 Deposit Model**

The deposit model utilized as an exploration target is that of “Minto-style” copper-gold-silver mineralization, the setting of the Minto deposit, currently in production. The following information was provided by personal communication in early 2008 with Mr. Brad Mercer, then Vice President of Exploration of Sherwood Copper Corporation; the Sherwood Copper website itself, and the Yukon Minfile database.

The Minto deposit occurs as a flat-lying body approximately 1,100 feet (335 metres) long in a north-south orientation, 800 feet (245 metres) in an east-west orientation, and averaging 100 feet (30 metres) thick. The deposit is hosted by foliated granodiorite to granodiorite gneiss, with higher-grade zones hosted by more strongly foliated and strongly biotite-enriched sections. In the Minto deposit area, the main diagnostic feature is the presence of foliation in otherwise non-foliated Klotassin Batholith granodiorite (website, Sherwood Copper Corporation).

The mineralization consists of chalcopyrite, bornite, minor pyrite with accessory magnetite, and gold and silver occurring with the bornite (Sherwood Copper website, 2008). Gold occurs as free gold, and silver occurs as “hessite”, a silver telluride. Copper oxide minerals, mainly azurite and malachite, occur along the upper portions of the zone where in contact with surface weathering, and along fractures and joint planes outbound from the deposit. A distinct zonation occurs from west to east, extending from bornite-chalcopyrite-magnetite in the west through bornite-chalcopyrite in central areas to pyrite in eastern areas. Hydrothermal alteration also exhibits zonation, extending from potassic and/or phyllic alteration within mineralized zones to epidote +/- chlorite – propylitic assemblages along marginal areas (Sherwood Copper website, 2008). Potassic alteration typically occurs as zones of coarse grained, strongly foliated biotite, comprising up to half of the rock mass. Alteration does not extend far beyond the margins of mineralization (Mercer, pers comm).

This model, which has no analogues on a worldwide basis, has several theories brought forth regarding its origin. In a 1999 report, SRK Consulting Inc. theorized the deposit resulted from emplacement of hydrothermal fluids into dilational zones. Analogies to porphyry-style copper deposits and iron-oxide copper-gold (IOCG) deposits have also been put forth.

Results of an August, 2006 feasibility study on the Main Zone stated a proven reserve of 5.9 million tonnes grading 2.20% copper, 0.80 g/t gold and 9.13 g/t silver (Sherwood Copper website, 2008).

## **7.0 Mineralization**

In 1971 Canadian Occidental Petroleum conducted a comprehensive soil geochemical survey analyzing for copper, molybdenum and zinc across the property. This survey revealed two broad anomalies: one is a combined copper – molybdenum anomaly extending across the steep slope marking the northwestern boundary of the plateau. Minor chalcopyrite occurrences with malachite staining were identified within this anomalous area. The other is a copper anomaly extending across, and to the south of, the steep slope marking the southern plateau boundary. The 1981 soil geochemical program by United Keno Hill Mines confirmed the extent of the northern anomaly; however no surveying was done across the southern one.

The 2008 program included detailed mapping across portions of the northern anomaly, revealing minor medium grained pyrite and weak to moderate limonite staining. No copper mineralization was noted. Silt sampling along a small stream extending through the anomaly revealed a weakly

elevated gold value of 0.024 g/t taken slightly upstream of the anomaly; another sample taken downstream returned background values of copper and gold. An east-west extending soil line revealed weakly anomalous copper values to 95 ppm in extreme western areas near the Pelly River. No anomalous gold values were returned.

In 2008, an east-west extending soil geochemical traverse line was conducted across extreme northern portions of the southern anomaly. Sampling returned somewhat more consistently anomalous results, ranging from near-background to a maximum of 404 ppm Cu. Most of the higher values were returned from a steep south-facing slope, although some anomalous soil values were returned from relative flat and heavily vegetated areas further east. Silt sampling along a stream to the northeast revealed three consecutive anomalous gold values from 0.018 to 0.078 g/t gold. Weakly elevated values were also returned from another east-west traverse west of the stream. The eastern portion of the 1971 geochemical anomaly hosts a weak chargeability anomaly underlain by volcanic and ultrabasic rocks (Joy, 1981) somewhat east of the contact with Jurassic granodiorite.

In 1972 Canadian Occidental Petroleum conducted a three-hole, 430.0-metre diamond drilling program targeting an Induced Polarization geophysical anomaly hosted by “Mount Nansen Group” volcanic and argillaceous sedimentary rocks, now reinterpreted as Upper Triassic Povoas Formation volcanic and volcanoclastics. All intersected graphitic beds hosting anomalous molybdenum and zinc values, as well as up to 20% pyrite. These were considered to have no economic potential (Mehrotra, 1972).

## **8.0 Exploration Program**

The 2009 exploration program consisted of ground magnetic and induced polarization/DC resistivity surveys. 6.6 line-kilometres were surveyed with a gradient array using 50 metre spacing, 3.4 line-kilometres surveyed with a modified pole-dipole array at 50 metre spacing, and 11.1 line-kilometres of total magnetic field survey were completed. The report in its entirety is included as Appendix 3.

## **9.0 Discussion and Conclusion**

### **9.1 Discussion**

Two major areas of interest were identified from results of the 1971 and 1972 programs by Canadian Occidental Petroleum Ltd, the 1981 program by United Keno Hill Mines Ltd, and the 2008 program by Northern Tiger Resources Inc. The northern area consists of two broad copper – molybdenum anomalies along the steep northern slope: the western portion is underlain by Jurassic Aishikik Suite hornblende diorite; the eastern portion, which underwent diamond drilling, is underlain by Upper Triassic Povoas Formation andesitic tuffs, argillite and graphitic argillite. The western portion is associated with minor chalcopyrite and/or malachite occurrences. The southern anomaly, extending for roughly 1,800 metres along the southern slope marking the edge of the plateau, is primarily a copper anomaly. Again, the western portion

is underlain by granite-like rock, as determined from rock fragment identification during soil sampling, indicating an extension of the intrusive unit underlying the northern anomaly.

The target model is Minto-style copper-gold-silver mineralization, which necessitates a setting hosted by Jurassic Aishikik Suite granitic to dioritic intrusions. The hornblende diorite unit is a member of this suite, therefore any potential for this style of mineralization is limited to this lithology and areas underlain by Triassic Povoas Formation volcanic and volcanoclastics are not applicable. The geochemical setting for Minto-style mineralization does not include significant molybdenite, suggesting the northern geochemical anomaly represents a different setting, and is thus less favourable than the southern one.

Where overlying the Aishikik Suite intrusive, the southern anomaly, lacking a molybdenum signature, may have higher potential to represent a Minto-style target. Copper values are slightly weaker but still consistently anomalous, ranging from 30 to 320 ppm (Nutter, Mehrotra and Gleeson, 1971). One rock sample of granodiorite taken in 1971 returned a value of 123 ppm copper. This area was not targeted by follow-up exploration in 1972 or 1981; thus it is not as “mature” as the northern anomaly and warrants further detailed exploration.

The 2009 exploration program targeted the southern anomaly identified through historical exploration to be prospective for Minto-style copper-gold-silver mineralization. The geophysical survey revealed a 300 metre long by 350 metre wide (narrowing westward to 200 metres) chargeability high with chargeabilities in excess of 10 mV/V and up to 20mV/V. According to Brad Mercer, Director of Northern Tiger and Vice President of Exploration for Capstone Mining Corp, “the Gradient Array Induced Potential (GAIP) anomaly identified on the DAD property is similar in size, in orientation and in the overall tenor to the GAIP chargeability anomalies associated with the Area 2 and Minto North deposits located at the Minto Mine” (*NTR press release, April 13, 2010*). In reference to the Minto Mine, Mr. Mercer also added that “the DAD anomaly lies in a similar geological setting within rocks of the Granite Mountain Batholith and is associated with favourable copper in soil geochemistry” (*NTR press release, April 13, 2010*).

## 9.2 Conclusions

The following conclusions may be made from results of the 2009 program, in combination with results from the 1971, 1972, 1981, and 2008 programs:

- Two major anomalies were confirmed in 2008, a copper-molybdenum anomaly along a steep slope in northern areas and a copper anomaly along a steep slope along the southern property margin. In both cases, western areas are underlain by an Aishikik Suite felsic to intermediate stock, prospective for Minto-style mineralization. The eastern portions are underlain by Triassic Povoas Formation volcanic and sedimentary rocks, not prospective for this deposit setting.
- Previous exploration suggested that the signature of the southern geochemical anomaly was somewhat more suggestive of Minto-style mineralization, thus the 2009 geophysical survey targeted this area. The Gradient Array Induced Potential (GAIP) anomaly identified by the survey is similar to GAIP signatures produced by deposits at the Minto

Mine, thus it can be concluded that the DAD property has high potential to host Minto-style mineralization (*NTR press release, April 13, 2009*). This property is considered drill-ready.

- Further exploration on the northern anomaly has not been conducted as it includes molybdenum enrichment, not recognized as an element in Minto-style deposits. Molybdenum enrichment may have resulted from glacial surface transport from molybdenum-enriched graphitic horizons to the east. However, some copper mineralization definitely occurs within the intrusion; the molybdenum enrichment suggests an alternate mineralogical setting.
- 2008 anomalous gold-in-silt values in a stream to the east support the possibility of a Minto-style source to the southwest. It may also indicate small outlying volcano-sedimentary hosted occurrences to the east. Nonetheless, a proximal gold source is highly likely.

## **10.0 Recommendations**

In order to determine the potential for Minto-style mineralization on the DAD property, the Gradient Array Induced Potential anomaly identified by the 2009 geophysical survey should be targeted with a small drill program in 2010. It is recommended that 2 holes be drilled to depths of 250 meters to test the anomaly.

## 11.0 References

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## **Appendix 1: Certificate of Author**

I, Dennis J. Ouellette, PGeol, hereby certify that:

- 1) I am a self-employed Consulting Geologist of Tigerstar Geosciences.
- 2) I graduated with a Bachelor of Science Degree in geology from Brandon University, Brandon, Manitoba, in 1984.
- 3) I am a member in good standing of the Association of Professional Engineers and Geologists and Geophysicists of Alberta (APEGGA).
- 4) I have worked as a geologist for a total of 25 years since my graduation from Brandon University.
- 5) I was responsible for the supervision of the 2009 program on the DAD property.
- 6) I consent to the filing of the Technical Report with the Mining Recorder's Office, Ministry of Energy, Mines and Resources, Government of Yukon.

Dated this 20<sup>th</sup> Day of May, 2010.

**"Dennis Ouellette"**

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**Appendix 2: Statement of Expenditures****DAD Claims, Northern Tiger Resources Inc.**

<b>Type of Work</b>	<b>No. of Units</b>	<b>Value/Unit</b>	<b>Value</b>
Geophysical Survey			\$34,664.64
Pre-Survey Data Compilation & Preparation			\$9,052.69
Wages, Project Geologist	3	\$425.00	\$1,275.00
Helicopter Time	3.864	\$900.00	\$3,477.60
Report Writing, Digitizing	4	\$225.00	\$900.00
Totals:			\$49,369.93

### **Appendix 3: Aurora Geosciences Geophysical Survey**

**NORTHERN TIGER RESOURCES INC.**

**GROUND MAGNETIC AND  
INDUCED POLARIZATION SURVEYS AT  
THE DAD PROPERTY,  
DAWSON RANGE AREA, YUKON TERRITORY**

Franz Dziuba, P.Geoph.

Location: 62° 49' N 137° 18' W  
NTS: 115 I 14  
Mining District: Whitehorse, YT  
Date: 24 Feb 2010

## SUMMARY

Ground magnetic and Induced polarization / DC resistivity surveys were conducted on the DAD Project for Northern Tiger Resources Inc. to locate the source of a historical copper soil geochemical anomaly. 6.6 line-km were surveyed with a gradient array, using a 50 m receiving dipole spacing, and 3.4 line-km surveyed with a modified pole-dipole array using a 50 m dipole spacing and reading from the 1<sup>st</sup> to the 6<sup>th</sup> separation. A total of 11.1 line-km of total magnetic field survey were also completed. The data were interpreted by employing automated computer inversion to generate 3D models of the chargeability, resistivity and magnetic susceptibility distribution from which vertical slices were extracted to produce sections mapping these properties.

The survey located a chargeability high defined by an isosurface enclosing material with chargeability in excess of 10 mV/V and up to 20 mV/V which suggests the presence of disseminated sulphide mineralization. The feature underlays all three survey lines, striking across the grid for a total length in excess of 300 metres. The chargeable zone is approximately 350 metres wide on the eastern end, and narrows to 200m as it plunges to the west. The anomaly remains 'open' to both east and west.

A magnetic low defined by material with magnetic susceptibility of less than 0.004 SI units was modeled from the field magnetic data and is associated with the chargeability feature.

It is recommended that the chargeable zone be tested for economic mineralization by drilling.

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Figure 7. Composite Sections L50E. . . . .	Appendix A

## 1.0 INTRODUCTION

Aurora Geosciences Ltd. was retained by Northern Tiger Resources Inc. to perform a induced polarization and resistivity (IP) and total magnetic field (mag) survey at the DAD Property near the junction of the Pelly and Yukon Rivers, Yukon Territory. The survey was conducted to explore for the source of a historical copper geochemical anomaly measured on the property. During the period of July 22 to August 4, 2010 a total of 6.6 line-km were surveyed with a gradient array, using a 50 m receiving dipole spacing, and 3.4 line-km surveyed with a modified pole-dipole array, using a 50 m dipole spacing and reading from the 1<sup>st</sup> to the 6<sup>th</sup> separation. A total of 11.1 line-km of total magnetic field survey were also completed during this period. This report describes the survey, data processing and results, and contains an interpretation of the data.

## 2.0 LOCATION AND ACCESS

The DAD Property is located immediately to the NE of the junction of the Pelly and Yukon Rivers Whitehorse Mining District. The property is centred at approximately 62° 49' N 137° 18' W on NTS 115 I 14 (Figure 1). The property is accessible by helicopter from a staging point at Pelly Farms.

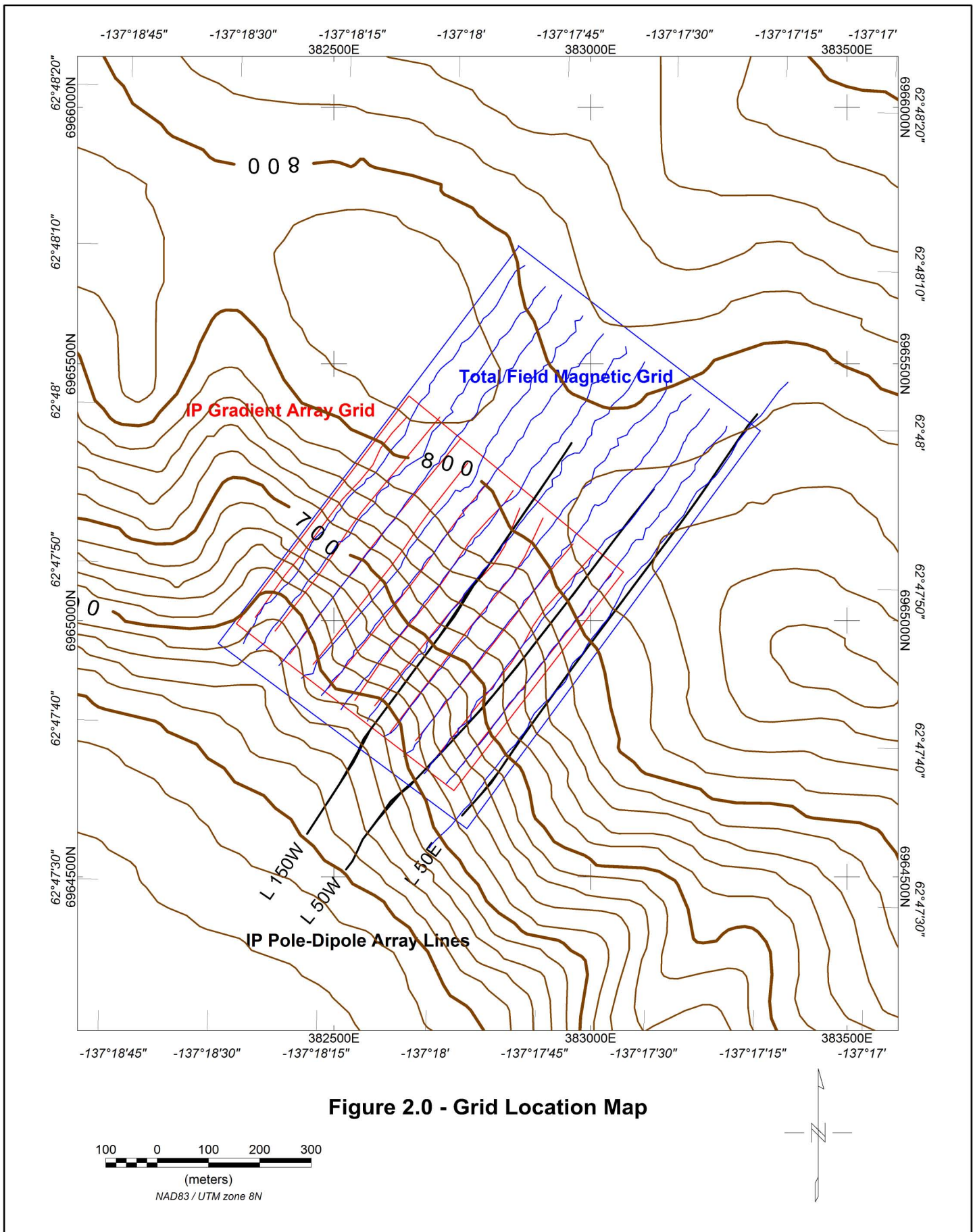
## 3.0 GRID

The location of the survey grids is shown in Figure 2. The magnetic and gradient array IP survey data were collected on uncut lines using a NDGPS receiver to site locations. The modified pole-dipole IP survey was conducted on cut lines, straight chained by the line-cutting crew. These lines were registered to geographic coordinates by taking repeated measurements with non-differential GPS receivers at stations spaced approximately 300 m along the lines.

## 4.0 PERSONNEL AND EQUIPMENT

The survey was conducted by the following personnel:

<u>Crew chief:</u>	Steven Kramer
<u>Helper:</u>	Ben Power
<u>Helper:</u>	Louis Bissonnette
<u>Helper:</u>	Ellen Nielson



**Figure 2.0 - Grid Location Map**

The crew was equipped with the following instruments and general equipment:

<u>IP Transmitter:</u>	GDD TX-II 3.6 KW digital IP transmitter s/n AGL242 Honda 5KVA gas generator
<u>IP Receiver:</u>	IRIS IP-6 digital 6-channel IP receiver s/n AGL63
<u>Other IP equipment:</u>	20 - 6 channel 50 m receiver cables 22 - stainless steel electrodes 8 km 18 gauge wire 2 - breast reels 2 - speedy winders 4 - VHF radios 1 - Spares kit and repair tools
<u>Magnetometers</u>	3 - GEM GSM-19T
<u>GPS Receivers</u>	2 - GARMIN 76 handheld units
<u>Camp:</u>	1 - 4 man summer camp (2 - 12'x14' tents, kitchen gear, generator, SAT phone)
<u>Data processing:</u>	1 Laptop computer with Geosoft IP package GemLink software GPSU software

## 5.0 SURVEY SPECIFICATIONS

The IP survey was conducted according to the following specifications:

<u>Array:</u>	Gradient
<u>Dipole spacing:</u>	50 m
<u>Tx mode / signal:</u>	Standard time domain signal (2 s +on, 2 s off, 2 s -on, 2 s off)
<u>Receiver sampling:</u>	Semi-logarithmic sampling of the decay curve in 10 windows, stacked minimum 15 times.

<u>Parameters read:</u>	$M_t$ - total chargeability (ms) $R_o$ - apparent resistivity $M_1$ to $M_{10}$ - 10 channel samples of decay curve $V_p$ - Primary voltage $Sp$ - spontaneous potential $E$ - error in chargeability (ms)
<u>Array:</u>	Modified Pole-dipole
<u>Dipole spacing:</u>	50 m
<u>Separations read:</u>	n=1 to 6
<u>Tx mode / signal:</u>	Standard time domain signal (2 s +on, 2 s off, 2 s -on, 2 s off)
<u>Receiver sampling:</u>	Semi-logarithmic sampling of the decay curve in 10 windows, stacked minimum 15 times.
<u>Parameters read:</u>	$M_t$ - total chargeability (ms) $R_o$ - apparent resistivity $M_1$ to $M_{10}$ - 10 channel samples of decay curve $V_p$ - Primary voltage $Sp$ - spontaneous potential $E$ - error in chargeability (ms)
<u>Noise:</u>	Standard deviation of the chargeability was kept to 5 ms or less wherever possible. If this was not possible, readings were repeated several times to determine their repeatability.

The total magnetic field survey was conducted according to the following specifications:

Station Separation 12.5 m

Base Station Installed on site and cycled at 5 second intervals. The base magnetometer and field magnetometer's times were synchronized daily prior to surveying.

Corrections

Temporal geomagnetic variation was removed by linear interpolation of the base station drift.

**6.0 SURVEY NOTES**

The Field Report and Survey Log in Appendix B describes survey operations including production. The crew mobilized to the property on July 22, 2009 by truck to Pelly Farms and thence by helicopter to the property. The gradient IP and total field magnetic survey were completed first to aid the planning of the modified pole-dipole survey grid. These surveys were conducted without clearing lines and were guided with the use of handheld GPS receivers. The results from the initial surveys led to locating the three survey lines used for the modified pole-dipole IP survey. Each of these were in the order of 1100m in length spaced 100m apart and straight chained to accommodate the fixed length survey cables.

Conditions allowed good electrical contacts for the electrodes used by the IP survey, and no conductive ground was noticed resulting in clear and consistent readings. In the areas that did produce low signal to noise ratios extra readings and increased averaging stacks were taken to ensure data repeatability.

The work described in this report was based out of a temporary camp located on the property.

## 7.0 DATA PROCESSING & INTERPRETATION

The following procedures were used to prepare and inversion model the ground magnetic data using the UBC software MAG3D; A Program Library for Forward Modelling and Inversion of Magnetic Data over 3D Structures, version 4.0.

*1. Data corrections and registration* The total magnetic field data were first corrected for temporal variations in the earth's magnetic field. using GEMlink software to calculate corrected magnetic readings using the stationary base magnetometer data. UTM coordinates were assigned to the corrected magnetic readings using the mag operator's recorded GPS track file and elevations determined from a digital elevation model equivalent to NTS 1:50,000 map sheet 115 I/14.

*2. Gridded Image* In order to remove overburden noise the corrected and geo-registered field magnetic data were smoothed by applying a Fast-Fourier Butterworth low pass filter before producing a plan image using Geosoft software's Bigrid gridding algorithm.

*3. Data Formatting* The International Geomagnetic Reference Field was calculated and removed from the data. A constant five metres were added to all reading elevations before formatting the data for entry into the UBC MAG3D inversion program.

*4. Magnetic Modelling* Errors for each datum are required by the modelling software and were assumed to be 2.0 nT. A 3D mesh was designed with 12.5 X 12.5 metre cells to cover from UTM coordinates 382100E, 6964300N to 383500E, 6965800N with a further 450 metres of padding cells on all four sides. The vertical discretization comprised 102 cells, 6.25 metres thick for the top 637.5 metres then coarsening with increasing depth. The inversion was complete after 29 iterations with a good agreement between observed and predicted data.

*5. Model Image Extraction* The model results were imported into Geosoft databases to produce a three dimensional voxel from which vertical slices could be extracted and displayed as gridded images.

The following procedures were used to prepare and invert the induced polarization and resistivity data using the UBC software DCIP3D ; A Program Library for Forward Modelling and Inversion of DC Resistivity and Induced Polarization Data over 3D Structures, v 2.1. Only the pole-dipole IP data were considered for the modelling.

*1. Data preparation.* The IP data was reviewed and edited prior to preparing pseudosections and preparing the data sets for inversion. Duplicate readings were

averaged to leave only a single reading at each station and separation. Readings with large errors which did not repeat within 10% were deleted from the data base. All electrodes were assigned UTM coordinates. Elevations were determined from a digital elevation model equivalent to NTS 1:50,000 map sheet 115 I/14.

2. *Pseudosection plotting.* Pseudosections of the apparent resistivity, chargeability and error in chargeability were prepared from the final edited data. The chargeability, error in chargeability and resistivity sections were scaled to the range on each line.

3. *Data formatting.* The apparent chargeability, resistivity (in normalized  $V/I$ ), electrode locations and topographic data were formatted for entry into the UBC inversion software.

4. *Resistivity modelling.* For each line, errors in the apparent resistance ( $V/I$ ) were assigned to the data. There is no means of directly quantifying these errors because neither the transmitter nor receiver record the apparent error in the current or voltage. Errors were assumed to be 5% + 0.0001 V/A. A 3D mesh was designed with 25 X 25 metre cells to cover from UTM coordinates 382100E, 6964300N to 383500E, 6965800N with a further 450 metres of padding cells on all four sides. The vertical discretization comprised 51 cells, 12.5 metres thick for the top 637.5 metres then coarsening with increasing depth. The initial inversion was run using default parameters which have the tendency to place highly variable structures in the top layers of the model. As a constraint, extra smoothing in the X and Y directions was applied to the upper layers of the models so that a better geological solution was arrived at. Target misfit was achieved after 14 iterations with a good agreement between observed and predicted data.

5. *Chargeability modelling.* For each line, the observed standard deviation in the chargeability was used as a measure of error in the observed apparent chargeability. The same 3D mesh used for the resistivity inversion was used for the chargeability inversion modelling. No extra smoothing in the X and Y directions was applied. The inversion ended at convergence with good agreement between observed and predicted data.

6. *Image extraction.* The model results were imported into Geosoft databases to produce a three dimensional voxel from which horizontal and vertical slices could be extracted and displayed as gridded images.

Composite sections showing profiles of magnetic field data and pseudo sections of apparent chargeability and resistivity alongside inversion model results were produced, and form the basis of the results.

## 8.0 GEOLOGICAL SETTING & TARGET RESPONSE

Nutter (1971) describes three rock types underlying the project area. Yukon Group quartzite and schist rocks are mapped on the northeast portion of the property. These are overlain by Mount Nansen Group volcanic rocks on the property's eastern half, while intrusive granodiorite rock types intrude the western half of the property. Basic tertiary age dykes were noticed outcropping on the southern edge of the plateau. The following table of formations is taken from Nutter's 1971 report.

Unit	Description
4	Tertiary(?) Basic Dykes
3	Jurassic(? ) or later Intrusive Rocks a. Granodiorite b. Quartz diorite c. Granite
2	Jurassic(?) or later Volcanic rocks Mount Nansen Group a. Andesite b. Dacite c. Pyroxenite
1	Precambrian (?) or later Yukon Group a. Chlorite schist b. Quartzite c. Quartz-sericite schist

The DAD property covers the Pelly drilled prospect (Minfile 1151026). The property was staked under contract as the Pelly claims by J. Yanisiw in 1970. Occidental Minerals Corporation of Canada conducted grid soil sampling, geological mapping and magnetic and induced polarization geophysical surveys on the property during 1971. This work led to 3 holes (430 m) being drilled in 1972.

Northern Tiger Resources Inc. restaked the property as the DAD claims in 2009.

The property covers a north-south striking contact between Jurassic aged foliated granodiorite rock and Paleozoic (?) argillite, tuff and graphitic schist and Triassic mafic volcanic rocks. Soil sampling in 1971 outlined copper and molybdenum geochemical anomalies near the contact. Induced polarization surveys later that year located two chargeability high zones coincident with the soil anomalies. The strongest of the two

chargeability anomalies was drill tested in 1972 intersecting graphitic argillite and tuff with up to 20% pyrite but only minor values in copper and molybdenum. The second chargeable zone exhibited a lesser response but was nevertheless interpreted to be attributable to pyrite and/or chalcopyrite sulphide mineralization. It remained untested and is the anomaly which the present survey was targeted to confirm.

The IP array used in the present survey has a maximum depth of penetration for a steeply dipping target in the order of 180 m. Flat lying or wide steeply dipping targets should be detectable to larger depths. Targets less than 25 m wide are difficult to detect with the 50 m dipoles used in the array. Thin (15-25 m) targets would be expected to produce single slash anomalies whose dip in a pseudosection has no bearing on the dip of the source body. Near surface thin tabular sources or small pods may produce dipole or single station anomalies.

The DAD property exploration target is a variation on a typical copper porphyry deposit such as the near by Minto or Williams Creek deposits. Chalcopyrite and bornite with only minor pyrite would be the expected sulphide mineralization hosted by strongly deformed Jurassic aged granodiorite rocks.

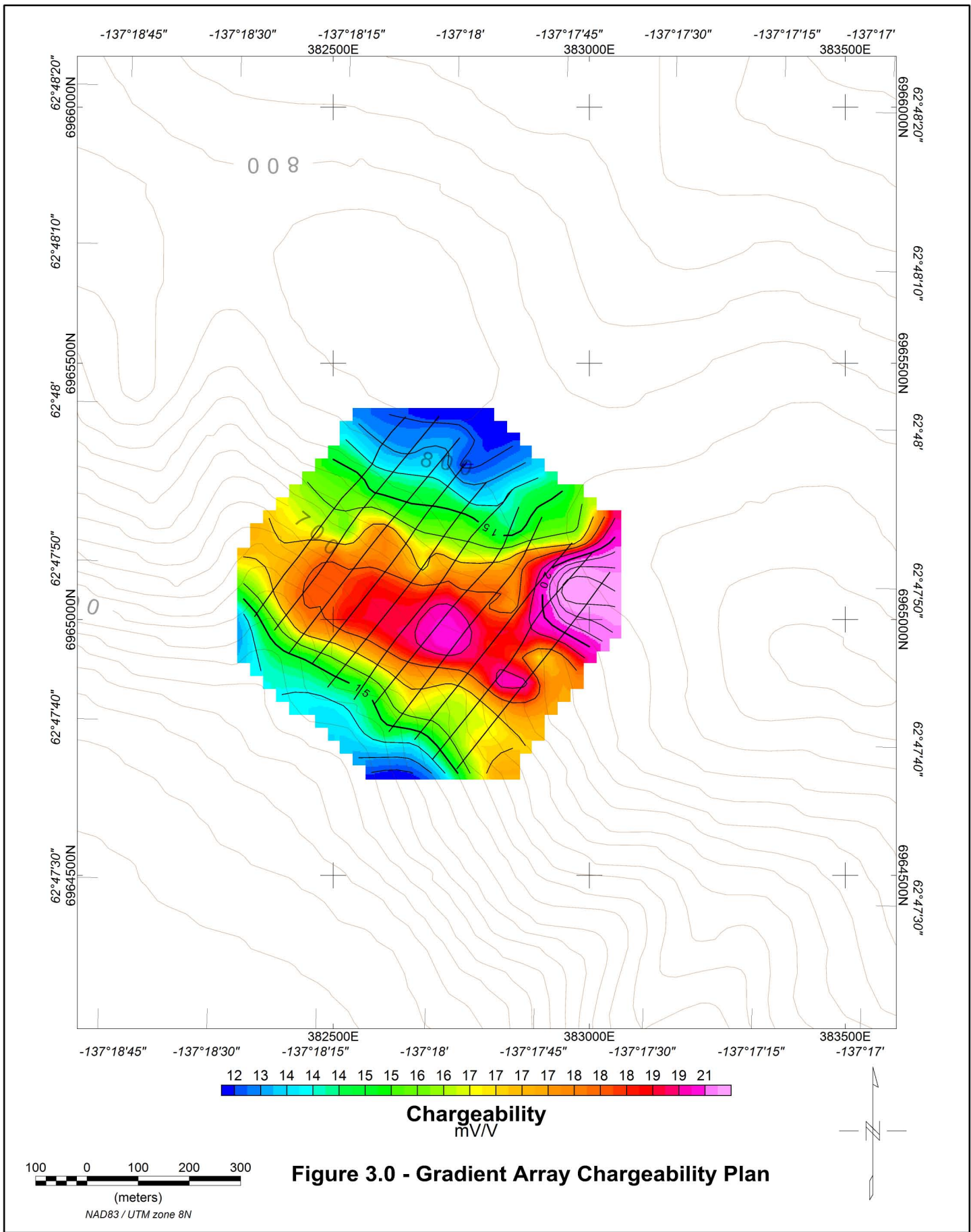
Capstone Mining has reported success using IP and magnetometer geophysical surveys and follow up diamond drilling as tools for locating economic deposits on their Minto property. In terms of IP response sufficient quantities of chalcopyrite-bornite sulphide mineralization would produce only a modest chargeability high reflecting the absence of more highly chargeable pyrite sulphide mineralization (Telford et al). The apparent resistivity data should generally map lithologies and some alteration. The magnetometer survey data could be used to directly indicate the presence of magnetite mineralization as magnetic highs, or conversely indicate areas of alteration as magnetic lows. Offsets in magnetic linear features would suggest geological structure such as faulting.

Naturally, the response of given porphyry systems will vary widely depending upon differences in alteration and the presence or absence of structural displacements which may dismember the porphyry deposit.

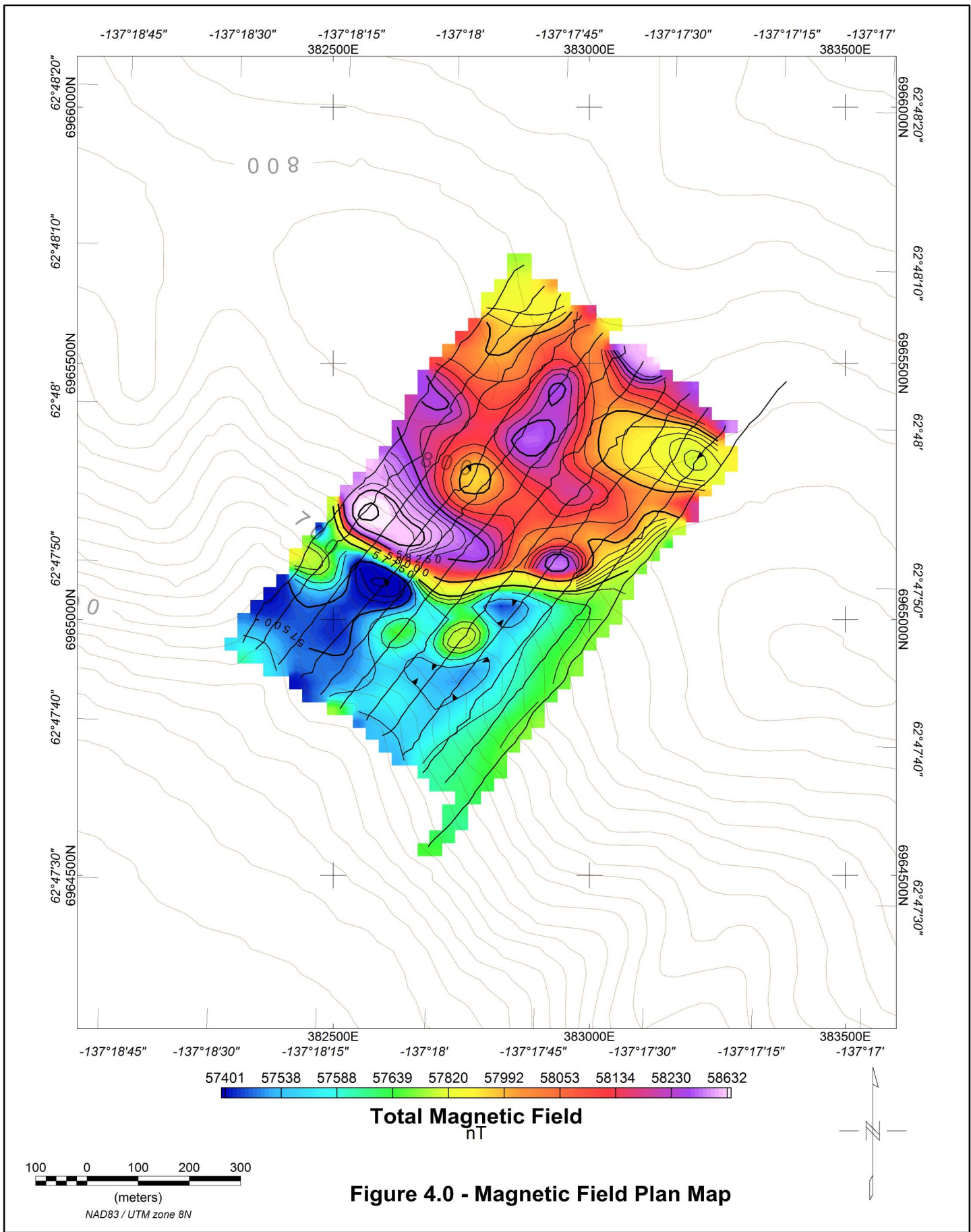
## **9.0 RESULTS**

The IP data is of generally good quality. A plan map of the gradient array chargeability data is shown in figure 3. The survey detected a central east-west striking zone of elevated chargeability greater than 18 mV/V in a background of about 11 -12 mV/V.

A total field magnetic plan map is shown in figure 4. The magnetic survey results shows a strong but narrow magnetic high trending NW through the western half of the survey grid then curving to east-west through the eastern portions. Magnetic lows can be seen directly



**Figure 3.0 - Gradient Array Chargeability Plan**



**Figure 4.0 - Magnetic Field Plan Map**

south of this feature which divides the survey area into a northern half of high magnetic background and southern half of low magnetic background.

The pole-dipole IP survey confirmed the gradient array's chargeability results. Elevated chargeability values, up to 20 mV/V were measured coincident with peak gradient IP measurements. The chargeable zone was detected on all three pole-dipole survey lines, striking across the grid and remains 'open'.

Composite section figures 5,6 and 7 show profiles of magnetic field data and pseudo sections of apparent chargeability and resistivity alongside inversion model results for survey lines 150W, 50W and 50E respectively. The model results and magnetic profiles station locations are 'slope corrected' while the pseudosections of chargeability and apparent resistivity data have been plotted assuming constant horizontal station intervals. A description of the survey results for each line follows.

#### *Line 150W*

A broad chargeability high response is seen on the chargeability pseudosection centred at approximately 300N. The response is detected only with the larger (deeper) 'n' separations and the inversion model indicates that the causative source is deep seated ; the top of the body is in the order of 200 metres vertical distance below the surface. The resistivity inversion shows the chargeable zone to be within highly resistive material and the magnetic susceptibility model indicates a magnetic low occupying the chargeability zone. The magnetic model also shows a narrow, near surface high magnetic susceptibility feature below station 440N. A vertical contact separating materials with higher magnetic susceptibilities to the northeast at depth can be drawn below station 550N.

#### *Line 50W*

A broad and deep seated chargeability response is seen centred below station 475N on the chargeability pseudosection. The inversion results suggest the anomaly to be caused by a 400 metre wide chargeable zone ( $> 10$  mV/V) with a depth to top being 100 - 125 metres below the surface. The inversion results also suggest that the zone occurs in resistive material with lower magnetic susceptibility. A narrow, near surface magnetic body is modelled below station 550N.

#### *Line 50E*

There is a broad chargeability anomaly visible across almost the entire survey line from 200N to 800N. Modelling indicates a causative chargeable source to extend from 325N to 675N and from approximately 100-125 metres below the surface to beyond the survey's depth of investigation. As is the case with L150W and L50W the results indicate the chargeable zone occurs within resistive material of low magnetic susceptibility. A shallow

magnetic body is modelled to be below station 775N, and a deep vertical contact between materials with differing magnetic susceptibility is suggested near station 950N.

### *Discussion*

An IP response depends on several factors including the type of sulphide mineralization present, the size and shape of sulphide grains, and the volume content of sulphide mineralization. Also rocks containing magnetite, graphite or clay minerals may give rise to increased chargeability readings. All of these factors make it difficult to estimate equivalent sulphide content based solely on chargeability readings.

The IP survey described in this report indicates a central chargeability high anomaly striking across all three lines surveyed. The values measured and modelled are two to four times above background, form distinct anomalies, and are accompanied by moderately high apparent resistivities. There is not a strong magnetic response over the zone.

This suggests disseminated sulphide mineralization as being the causative source of the chargeability anomaly, rather than the graphitic metasedimentary rocks known to occur on the DAD property. One would expect the presence of graphite to result in much higher chargeability values accompanied by a marked decrease in apparent resistivity.

The magnetic survey shows a distinct east to west contact separating material with different magnetic susceptibilities which could be interpreted to be mapping a change in lithology. Inversion modeling of the magnetic data suggests a vertical contact located near the northern edge of the chargeable zone, and may mark an edge of the granodiorite intrusion.

## 10.0 CONCLUSIONS

The results of the induced polarization / resistivity and total magnetic field survey at the DAD Property support the following conclusions:

- a. There is a 200 to 400 metre wide zone of elevated chargeability defined by a surface enclosing material with chargeability in excess of 10 mV/V and up to 20 mV/V in a background of 4-5 mV/V. The causative source can most likely be attributed to disseminated sulphide mineralization.
- b. The chargeable zone was detected on three parallel survey lines spaced 100 metres apart, trending east to west for a total strike length in excess of 300 metres. The geophysical survey did not extend east beyond the three survey lines and the zone remains 'open'.
- c. The zone appears to be plunging to the west.
- d. The chargeable zone occupies material modeled to be resistive and of low magnetic susceptibility located in an area proximal to a geologically mapped contact between intrusive granodiorite and volcanic andesite rocks.
- e. The magnetic data was used to model a sub vertical contact between material with differing magnetic susceptibility flanking the northern edge of the chargeable zone. This could be interpreted to be a contact between the intrusive granodiorite rocks and Nansen group volcanic rocks.

## 11.0 RECOMMENDATIONS

The following recommendations are made based on the conclusions of this work:

- a. The chargeable zone described in this report should be tested for economic mineralization by drilling.
- b. The location of a test drill hole should be determined using all geological, geochemical and geophysical work conducted on the property to date.
- c. Based solely on the work described in this report, a recommended collar location would be on survey line 50E, at station 500N drilled for a minimum length of 125 metres to encounter the chargeable material.
- d. If the drill results warrant further work , total magnetic field and IP surveys should be conducted over an extension of the present grid to the east.

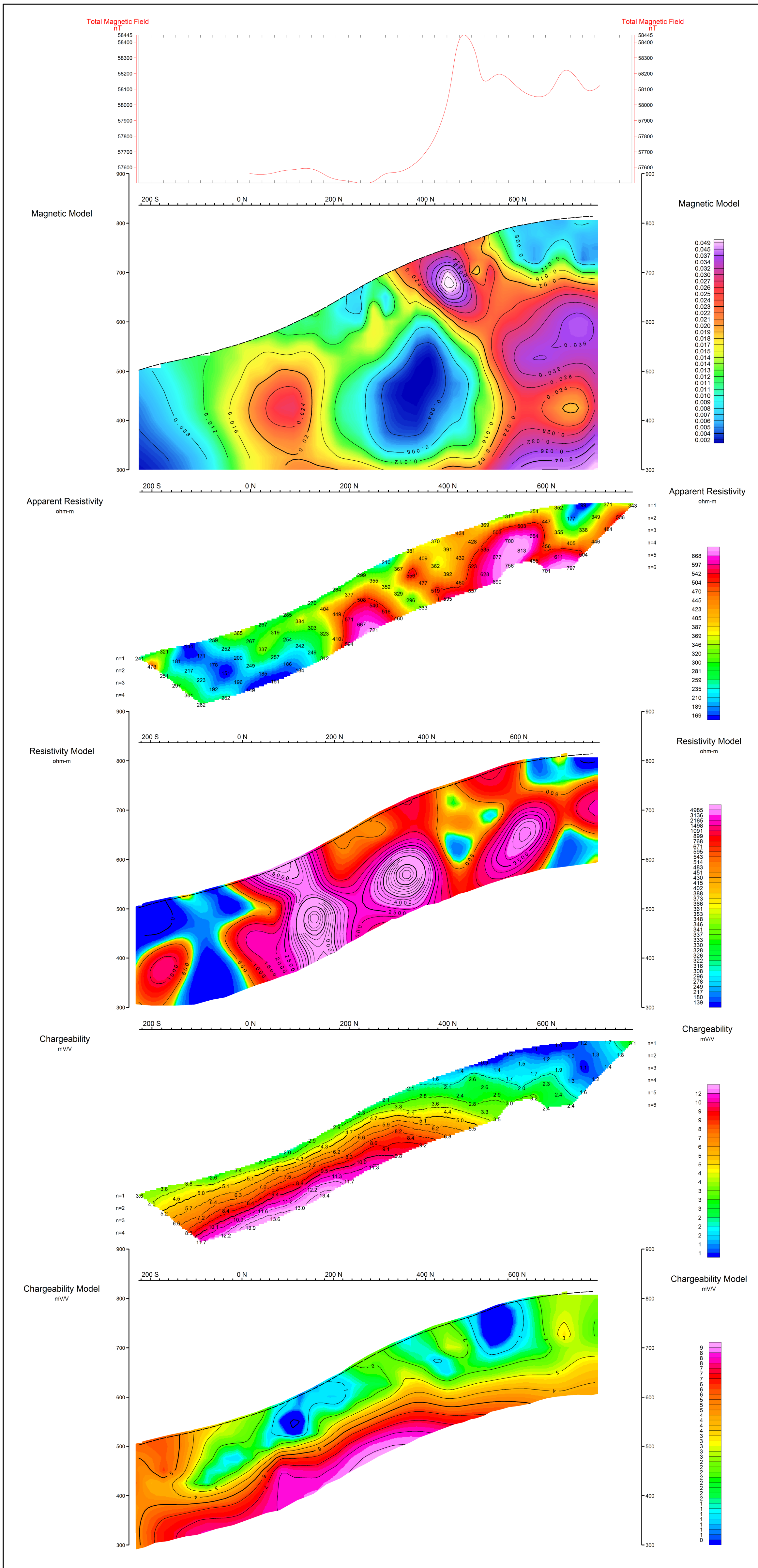
Respectfully submitted,  
**AURORA GEOSCIENCES LTD.**

Franz Dziuba P.Geoph.  
Geophysicist

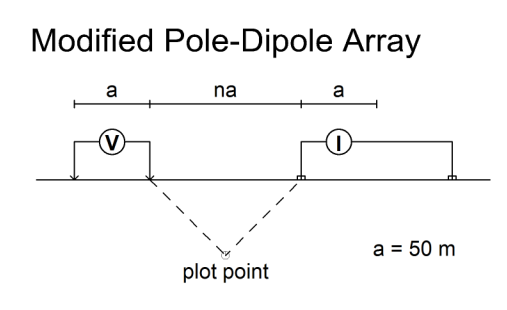
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## APPENDIX A. COMPOSITE SECTIONS



**TOTAL MAGNETIC FIELD SURVEY  
INDUCED POLARIZATION SURVEY  
COMPOSITE SECTION PLOTS  
LINE : 150W**



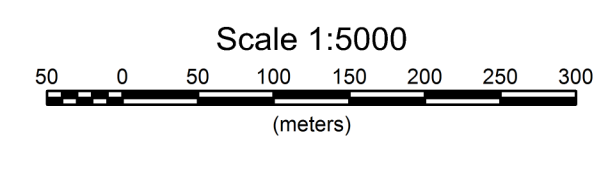
Survey moved grid south  
Stationary electrode at 900N  
Section looking Northwest

IP Receiver: Iris ElrecPro  
Semi-logarithmic sampling of the decay curve  
IP Transmitter: GDD Tx-II 3.6kW  
Standard 2s time domain signal

Apparent Resistivity Contour Intervals (ohm-m)  
500  
2500

Chargeability Contour Intervals (mV/V)  
1.0  
5.0

The Models were produced using the software DCIP3D / MAG3D developed at the UBC - Geophysical Inversion Facility Department of Earth and Ocean Sciences UBC, Vancouver British Columbia

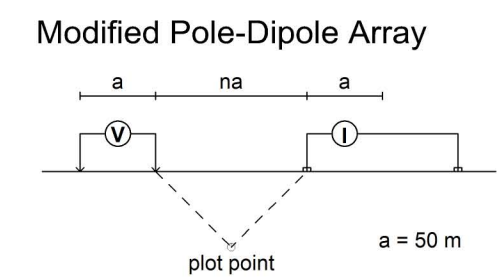


**NORTHERN TIGER RESOURCES**  
**INDUCED POLARIZATION SURVEY**  
DAD Property  
Line 150W : Composite Sections  
Mining District : Whitehorse Grid : Local  
Date Surveyed : August 2009 Job : NTR-9540-YT  
NTS : 115 I/14 Drawn by : FD  
**AURORA GEOSCIENCES LTD.**

**TOTAL MAGNETIC FIELD SURVEY  
INDUCED POLARIZATION SURVEY**

**COMPOSITE SECTION PLOTS**

**LINE : 50W**

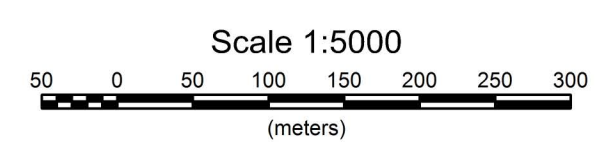


Survey moved grid south  
Stationary electrode at 900N  
Section looking Northwest

IP Receiver: Iris EirecPro  
Semi-logarithmic sampling of the decay curve  
IP Transmitter: GDD Tx-II 3.6kW  
Standard 2s time domain signal

Apparent Resistivity Contour Intervals (ohm-m)  
500  
2500  
Chargeability Contour Intervals (mV/V)  
1.0  
5.0

The Models were produced using the software DCIP3D / MAG3D developed at the UBC - Geophysical Inversion Facility Department of Earth and Ocean Sciences UBC, Vancouver British Columbia

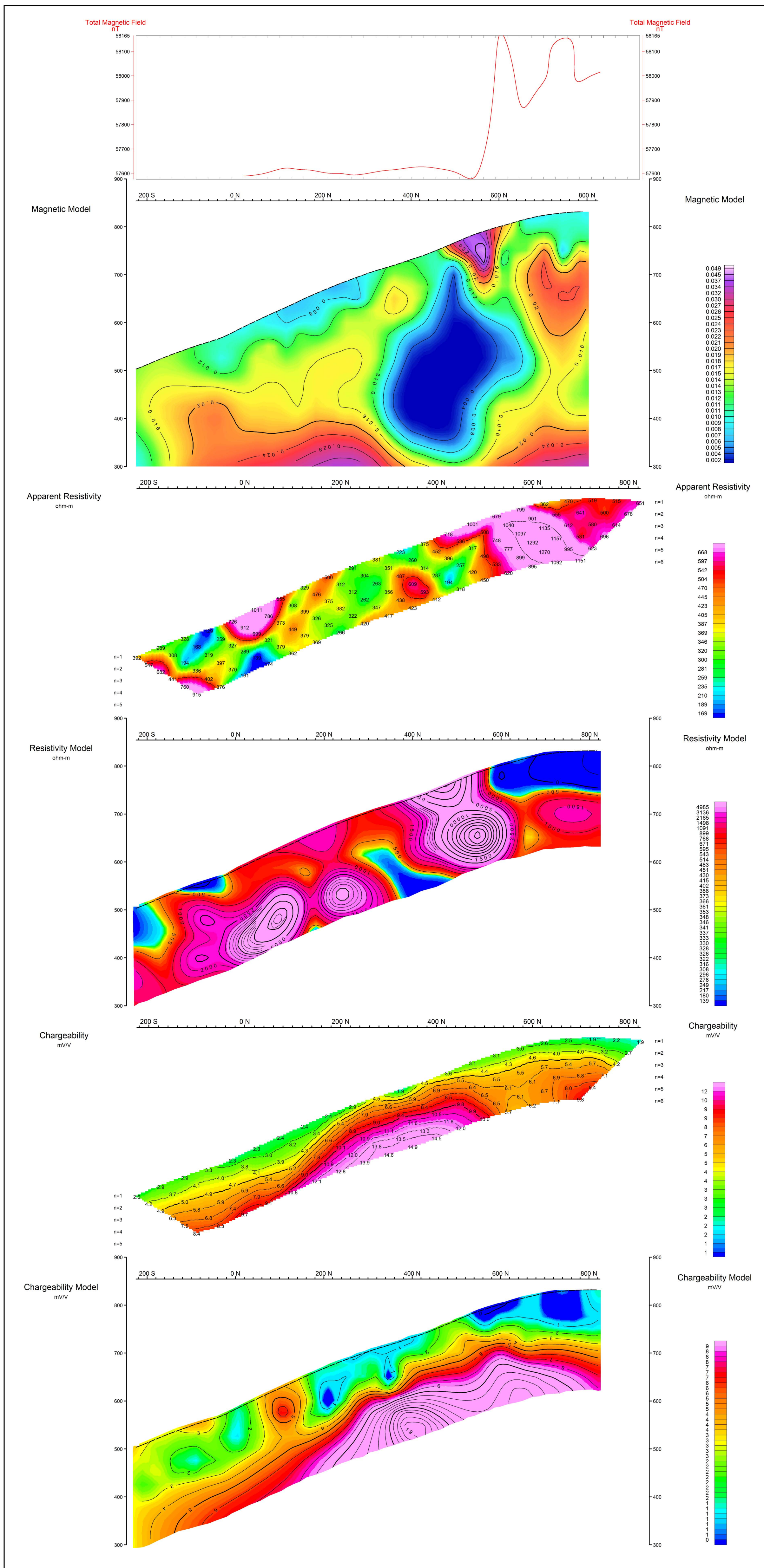


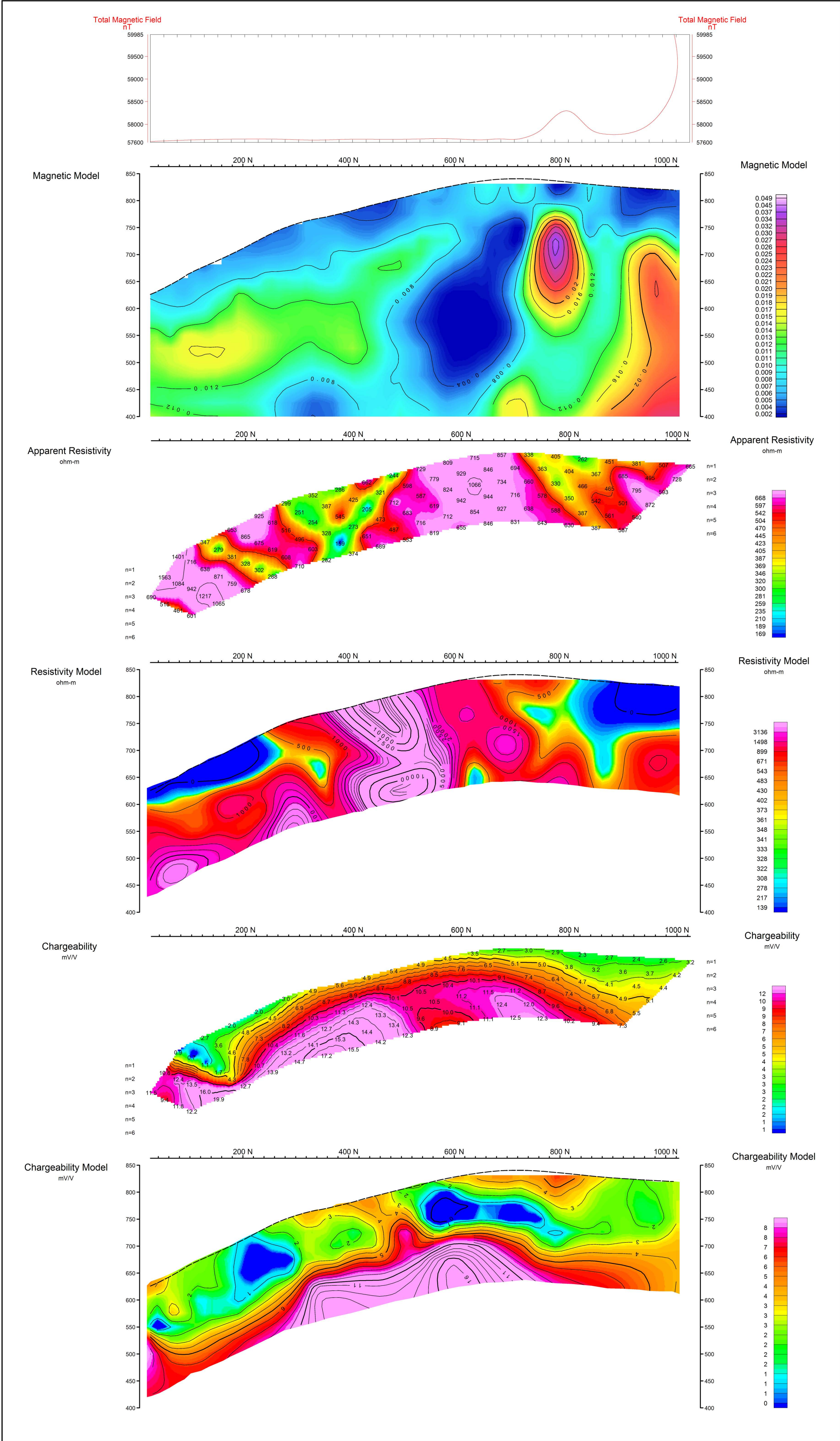
**NORTHERN TIGER RESOURCES**

**INDUCED POLARIZATION SURVEY**  
DAD Property  
Line 50W : Composite Sections

Mining District : Whitehorse Grid : Local  
Date Surveyed : August 2009 Job : NTR-9540-YT  
NTS : 115 I/14 Drawn by : FD

**AURORA GEOSCIENCES LTD.**



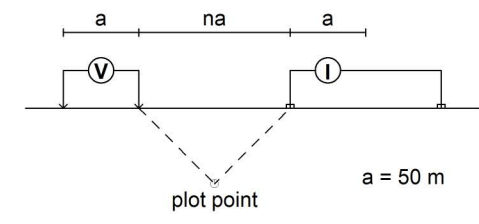


**TOTAL MAGNETIC FIELD SURVEY  
INDUCED POLARIZATION SURVEY**

**COMPOSITE SECTION PLOTS**

**LINE : 50E**

**Modified Pole-Dipole Array**

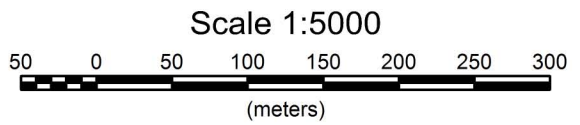


Survey moved grid south  
Stationary electrode at 900N  
Section looking Northwest

IP Receiver: Iris EirecPro  
Semi-logarithmic sampling of the decay curve  
IP Transmitter: GDD Tx-II 3.6kW  
Standard 2s time domain signal

Apparent Resistivity Contour Intervals (ohm-m)  
500  
2500  
Chargeability Contour Intervals (mVV)  
1.0  
5.0

The Models were produced using the software DCIP3D / MAG3D developed at the UBC - Geophysical Inversion Facility Department of Earth and Ocean Sciences UBC, Vancouver British Columbia



**NORTHERN TIGER RESOURCES**

**INDUCED POLARIZATION SURVEY**  
DAD Property  
Line 50E : Composite Sections

Mining District : Whitehorse      Grid : Local  
Date Surveyed : August 2009      Job : NTR-9540-YT  
NTS : 115 I/14      Drawn by : FD

**AURORA GEOSCIENCES LTD.**

**APPENDIX B. SURVEY LOG**

# DAD IP, Mag & Linecutting Survey Log 2009

NTR-9540-YT

## Geophysics Crew:

Steven Kramar (linecutter/crew chief)	July 22 - July 27,29,30,31 & August 1 - 4, 2009
Louis Bissonnette (linecutter)	July 22 - July 27,29,30,31 & August 1 - 4, 2009
Ben Power (Mag Operator/Helper)	July 22 - July 27,29,30,31 & August 1 - 4, 2009
Ellen Nielsen(Helper)	July 22 - July 27,29,30,31 & August 1 - 4, 2009

## Line Cutting Crew:

Steven Kramar (linecutter/crew chief)	July 28, 30, 31, 2009
Louis Bissonnette (linecutter)	July 28, 30, 31 & August 1, 2009
Ben Power (Brusher)	July 28, 30 & August 1, 2009
Ellen Nielsen(Brusher)	July 28, 30, 2009

Date	MAG/LINE CUTTING			IP			Remarks
	Crew	Lines	Total Line Km(Daily)	Crew	Line	Total Line Km (Daily)	
22-Jul-09							Mobe from Whitehorse to DAD Property. Partially Set up camp. (No landing site, hike+cutting required + Helicopter schedule to work around.) Prism MD500
23-Jul-09				LB & EN SK & BP			Finished camp setup in AM, inventoried missing gear from slinging. EN & LB went to dig gradient pit (SW) LB and SK made mag leveling grid, leveled mags. BP had GPS trouble, so SK and BP went to dig gradient pit (NE)
24-Jul-09	BP(mag)	500,450 400,350 300,250	0-600N (both) 0-600N (both) 0-600N (both) <b>3.6km</b>	SK&EN&LB	500W 450W	0-600N 0-600N <b>1.2km</b>	EN&SK repaired current pit in the AM, LB set up transmitter and BP started mag in AM. SK & LB went to repair squirrel chews (open loops.) and EN did camp chores. @ 3PM started IP.
25-Jul-09	BP(mag)	200,150 100,50	0-600N (both) 0-600N (both) 0-600N <b>3.0km</b>	SK&EN&LB	400W,350W 300W,250W 200W	0-600N (both) 0-600N (both) 0-600N <b>3.0km</b>	EN&SK&LB continued with gradient survey, BP continued magnetics survey. Steep terrain, and very hot weather with no cloud cover. (28-30 celsius)
26-Jul-09				SK&EN&LB&BP	150W,100W 50W,0	0-600N (both) 0-600N (both) <b>2.4km</b>	All personelle did gradient IP until finished. Cleaned up lines of cables and returned to camp. Data processing to be caught up in tommorow AM.
27-Jul-09							EN&LB&BP cleaned up infinite pits from gradient survey. SK processed all data. Must have been over 30 celsius, with not a cloud in sight.
28-Jul-09	BP&LB(line cutting) SK&EN(line cutting)	150W 50W	300S-850N 300S-0 <b>1.35km</b>				Extreme heat, SK&EN ran out of water, EN may have heat stroke, and had to return to camp. BP & LB got out of the steep slope fast and a very long day allowed for finishing the line (Back at camp around 10:30PM)

29-Jul-09				SK&EN&BP&LB	150W	850N-400N	Slow start to the day to let BP&LB get an extra 1.5 hours of sleep, set up current path and begin survey. 3PM, Elrec crashed deleting all data, see field notes.
						0.450km	
30-Jul-09	BP&LB(line cutting) SK&EN(line cutting)	50E 50W	100S-1100N 0-350N				Sk and EN had trouble keeping the bearing straight on the steep part of the line. LB and BP finished their line with no problems. Weather was hot and smokey, around 25 celsius.
			1.55km				
31-Jul-09	LB&SK(line cutting)	50W	0	SK&LB&EN&BP	150W	0	Turd of a day. Linecutting did not work out, line is far off course and attempts to correct failed. IP reciever died after 5 stations after the linecutting was called quits. Reciever expected to be in camp tommorow and mag will also be done to the north of the grid.
			0km			0km	
01-Aug-09	LB&BP(line cutting) SK(mag)	50W 500W,450W,400W,350W 300W,250W,200W,150W 100W,50W,0 50E	0-900N 600N-900N (all) 600N-900N (all) 600N-900N (all) 1100N-900N 4.5km(mag) 0.9km(linecutting)	SK&LB&EN&BP	150W	400N-300S	Line 50W was recut to fix previous mistakes.
						0.7km	
02-Aug-09				SK&LB&EN&BP	50W	900N-300S	Nothing notable.
						1.2km	
03-Aug-09				SK&LB&EN&BP	50E	1100N-50N	Ran out of wire, missed last 3 stations
						1.050km	
04-Aug-09							Demobe Using Bell-4 ("Peregrine") from Northern Tiger from Sonora

## **APPENDIX C. CERTIFICATE**

### **STATEMENT OF QUALIFICATIONS**

I, Franz Dziuba, of the City of Yellowknife, in the Northwest Territories, Canada

### **HEREBY CERTIFY:**

1. That my address is 3506 McDonald Drive, Yellowknife NT Canada.
2. That I am a graduate of the University of British Columbia in 1986 with a B.Sc. In Geophysics.
3. That I have been practising as a Geophysicist since 1989.
4. That I am registered as a Member with The Association of Professional Engineers, Geologists and Geophysicists of the Northwest Territories and Nunavut (NAPEGG) Member Number 1680.

Dated this 20<sup>th</sup> day of February, 2010 at Yellowknife, NT.

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Franz Dziuba, P.Geoph