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**Final Report**  
**2016 Field Exploration Program (VTEM, Prospecting and Mapping)**  
**On the**  
**Savant Lake Project**

Patricia Mining Division  
Benner, Jutten, McCubbin, McGillis, Savant and  
Poisson Townships & Solitude Lake Area  
Northwestern Ontario, Canada

NTS 52J/07, 08, 09 and 10  
50°26'42" N 90°31'21" W  
675865 m E 5591063 m N (NAD 83, UTM Zone 15)



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March 1, 2017

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## **Introduction and Summary**

This report serves document the 2016 field exploration programs on the Savant Lake Project to satisfy the assessment submission requirements of the Ontario Ministry of Northern Development and Mines (“MNDM”).

The field work conducted in 2016 was carried out in two distinct phases: 1) an airborne magnetic and electromagnetics survey and modelling; and 2) ground follow-up of geophysical targets and final selection of drill targets.

### *Airborne Geophysics and Modelling*

New Dimension Resources conducted a 925 line kilometer VTEM survey from May 15<sup>th</sup> to 19<sup>th</sup>, 2016 followed up by geophysical modelling. The VTEM survey identified a total of 618 line-profile conductive anomalies of which 10 were attributed to probable cultural features, 491 line profile responses attributed to conductivity induced via the superparamagnetic effect and 117 line profile responses attributed to possible metallic massive sulfide or graphite mineralization.

The 117 line profile responses attributed to possible metallic massive sulfide or graphite mineralization that were clustered together were then grouped, assigned anomaly ID’s and modelled by Martin St. Pierre of St. Pierre Geoconsultant Inc. A total of twenty-five anomalies were identified during the interpretation of EM data with two being defined as cultural, five as SPM responses and eighteen as high priority responses. Out of these 18 high priority areas a total of 18 Maxell Plates were modelled and ranked. Not all anomaly areas had responses strong enough to generate plate models and some areas generated multiple responses. Ground time-domain EM was recommended over all plates prior to drilling.

Based on the results of this survey NDR staked an additional 104.3 square kilometers to cover additional ground surrounding the Project in May and June of 2016.

### *Field Programs and Final Target Ranking*

Following the promising results from the VTEM survey it was decided that further follow-up work be conducted on the Project. From July 18<sup>th</sup> to 21<sup>st</sup>, 2016, Steven Siemieniuk (underlying property vendor) and Scott Heffernan of New Dimension Resources visited the project to plan the next steps on the project which included an immediate prospecting program.

From August 23<sup>rd</sup> to September 9<sup>th</sup>, 2016 an 18-day prospecting and sampling program was conducted over various targets on the Project. Equity Exploration out of Vancouver, B.C. oversaw the Project with geologist Dave Nutall in the field

for Equity. Additional crew members were Steven Siemieniuk of Superior Exploration, and Ray Koivisto and Jamie Dumas of Clark Exploration Consulting Inc. Following the departure of Steven, Ray and Jaime another Equity geologist – Rob Duncan – visited various target areas on the Project from September 10<sup>th</sup> to 15<sup>th</sup>, 2016 along with Dave Nuttal.

Following the receipt of the assay results from the field programs, an additional ranking of the geophysical targets was conducted by Steve Siemieniuk from October 11<sup>th</sup> to October 17<sup>th</sup>. This work completes the 2016 program on the Savant Lake Project. The JEAP program has aided in significantly advancing the Project to a drill ready state which the company intends to conduct in 2017.

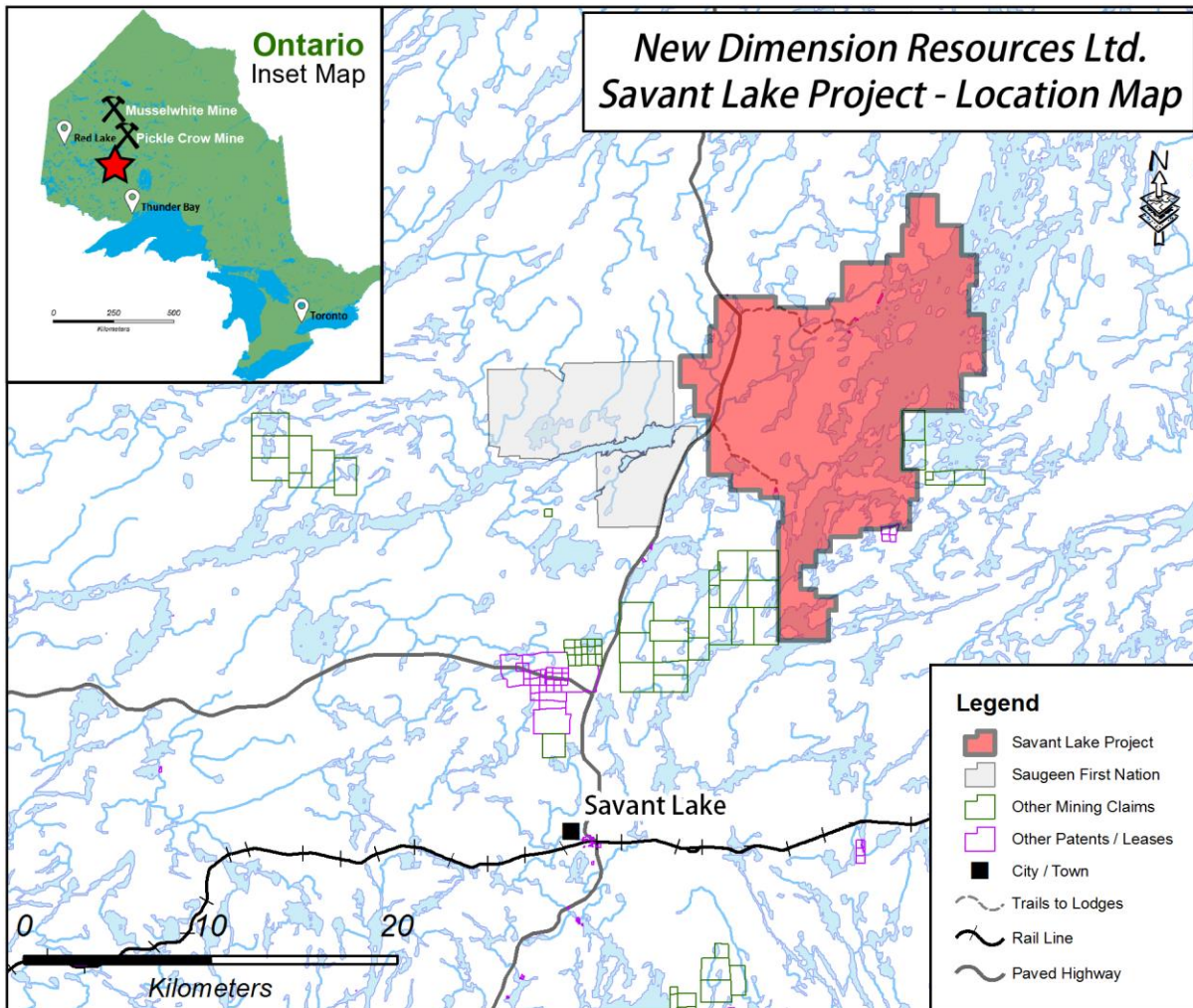
The 2016 VTEM survey combined with field investigation and target ranking has moved the project to a drill ready stage with a number of unexplained conductors both inside and outside of the iron formation package.

Five new previously undiscovered gold occurrences were located on the project (Au > 500 ppb as defined by the MNDM). This strengthens the idea that even though the area has been explored for over a century – there is still a lot left to be discovered.

Line-cutting and ground TDEM should be conducted over all of the high priority conductors followed by diamond drilling.

## Property Description and Location

The Savant Lake Project (the “Project” or the “Property”) is located approximately 250 kilometres northwest of the city of Thunder Bay, Ontario and 15 kilometres north of the town of Savant Lake, Ontario (Figure 1). The Property is situated in of Benner, Jutten, McCubbin, McGillis, Savant and Poisson townships as well as in the Solitude Lake Area. The Property falls within the National Topographic System (NTS) map areas 52J/07, 08, 09 and 10.



**Figure 1: Location of Savant Lake Property.**

On April 1, 2016, New Dimension Resources Ltd. (“NDR”) entered into an option agreement with the underlying vendors, their percentage of ownership listed in Table 1.

**Table 1: Vendor interest percentages in the Savant Lake Project.**

<b>Vendor</b>	<b>Percentage Interest</b>
Steven Siemieniuk	25%
Garry Clark	25%
Karl Bjorkman	25%
Will Roberts	12.50%
Jason Shaver	12.50%

The option agreement with the optionors listed in Table 1 was for NDR to earn 100% interest in the Savant Lake Project in return for cash and share considerations noted below (all payments divided proportionally amongst optionors per their percentage held as listed in Table 1):

1. Issuing to the optionors the following shares:
  - i. 100,000 shares in the capital of NDR on execution of the agreement;
  - ii. 100,000 shares in the capital of NDR on or before April 1, 2017;
  - iii. 100,000 shares in the capital of NDR on or before April 1, 2018;
  - iv. 150,000 shares in the capital of NDR on or before April 1, 2019; and
  - v. 150,000 shares in the capital of NDR on or before April 1, 2020.
2. Paying to the optionors the following cash payments:
  - i. CAD \$20,000 payable on or before April 1, 2017;
  - ii. CAD \$20,000 payable on or before April 1, 2018;
  - iii. CAD \$30,000 payable on or before April 1, 2019; and
  - iv. CAD \$30,000 payable on or before April 1, 2020.

Upon successfully completing the earn-in phase of the Option Agreement, the optionors will transfer 100% legal title to NDR with the optionors retaining a 2% Net Smelter Return (“NSR”) royalty on the claims. One-half of the NSR (1%) may be purchased by NDR at any time for CAD \$1,000,000 (one-million dollars).

The vendors along with the Ontario Exploration Corporation (“OEC”) have agreed in writing that the vendors are responsible for payment of a 1% NSR on claims 4270650 to 4270659 (inclusive) out of their 2% NSR.

NDR may terminate the Option Agreement upon giving 30 days notice to the vendors or may terminate its interest in certain claims so long as the claims are returned in good standing 90-days prior to their expiration date.

The Savant Lake Project consists of 87 contiguous unpatented mining claims (Table 2, Figures 2). The Property is 1,176 claim units encompassing a total area of approximately 18,816 hectares (188.2 square kilometers). The coordinates of the approximate centre of the Property is 678050 Easting and 5591700 Northing (NAD 83, UTM Zone 15).

**Table 2: Savant Lake Property claim details.**

Township / Area	Claim Number	Recording Date	Claim Due Date	Status	Claim Units	Work Required	Total Applied	Total Reserve
POISSON	<a href="#">4270650</a>	2012-Jun-25	2017-Jun-25	Active	12	\$4,800	\$14,400	\$0
POISSON	<a href="#">4270651</a>	2012-Jun-25	2017-Jun-25	Active	16	\$6,400	\$19,200	\$0
POISSON	<a href="#">4270652</a>	2012-Jun-25	2017-Jun-25	Active	15	\$6,000	\$18,000	\$0
POISSON	<a href="#">4270653</a>	2012-Jun-25	2017-Jun-25	Active	15	\$6,000	\$18,000	\$0
POISSON	<a href="#">4270654</a>	2012-Jun-25	2017-Jun-25	Active	12	\$4,800	\$14,400	\$0
POISSON	<a href="#">4270655</a>	2012-Jun-25	2017-Jun-25	Active	1	\$400	\$1,200	\$0
POISSON	<a href="#">4270656</a>	2012-Jun-25	2017-Jun-25	Active	16	\$6,400	\$19,200	\$0
POISSON	<a href="#">4270657</a>	2012-Jun-25	2017-Jun-25	Active	16	\$6,400	\$19,200	\$0
POISSON	<a href="#">4270658</a>	2012-Jun-25	2017-Jun-25	Active	6	\$2,400	\$7,200	\$0
MCCUBBIN	<a href="#">4270659</a>	2012-Jun-25	2018-Jun-25	Active	16	\$6,296	\$25,704	\$10,104
POISSON	<a href="#">4279391</a>	2015-Sep-09	2017-Sep-09	Active	11	\$4,400	\$0	\$0
POISSON	<a href="#">4279392</a>	2015-Sep-09	2017-Sep-09	Active	12	\$4,800	\$0	\$0
POISSON	<a href="#">4279393</a>	2015-Sep-09	2017-Sep-09	Active	16	\$6,400	\$0	\$0
POISSON	<a href="#">4279394</a>	2015-Sep-09	2017-Sep-09	Active	16	\$6,400	\$0	\$0
POISSON	<a href="#">4279395</a>	2015-Sep-09	2017-Sep-09	Active	16	\$6,400	\$0	\$0
POISSON	<a href="#">4279396</a>	2015-Sep-09	2017-Sep-09	Active	16	\$6,400	\$0	\$0
POISSON	<a href="#">4279397</a>	2015-Sep-09	2017-Sep-09	Active	16	\$6,400	\$0	\$0
POISSON	<a href="#">4279398</a>	2015-Sep-09	2017-Sep-09	Active	16	\$6,400	\$0	\$0
POISSON	<a href="#">4279399</a>	2015-Sep-09	2017-Sep-09	Active	16	\$6,400	\$0	\$0
POISSON	<a href="#">4279400</a>	2015-Sep-09	2017-Sep-09	Active	16	\$6,400	\$0	\$0
POISSON	<a href="#">4279401</a>	2015-Sep-09	2017-Sep-09	Active	16	\$6,400	\$0	\$0
POISSON	<a href="#">4279402</a>	2015-Sep-09	2017-Sep-09	Active	16	\$6,400	\$0	\$0
POISSON	<a href="#">4279403</a>	2015-Sep-09	2017-Sep-09	Active	16	\$6,400	\$0	\$0
POISSON	<a href="#">4279404</a>	2015-Sep-09	2017-Sep-09	Active	8	\$3,200	\$0	\$0
BENNER	<a href="#">4279405</a>	2015-Sep-09	2017-Sep-09	Active	16	\$6,400	\$0	\$0
BENNER	<a href="#">4279406</a>	2015-Sep-09	2017-Sep-09	Active	16	\$6,400	\$0	\$0
POISSON	<a href="#">4279407</a>	2015-Sep-09	2017-Sep-09	Active	16	\$6,400	\$0	\$0
POISSON	<a href="#">4279408</a>	2015-Sep-09	2017-Sep-09	Active	16	\$6,400	\$0	\$0
POISSON	<a href="#">4279409</a>	2015-Sep-09	2017-Sep-09	Active	2	\$800	\$0	\$0
MCCUBBIN	<a href="#">4279410</a>	2015-Sep-09	2017-Sep-09	Active	15	\$6,000	\$0	\$0
MCCUBBIN	<a href="#">4279411</a>	2015-Sep-09	2017-Sep-09	Active	12	\$4,800	\$0	\$0
MCCUBBIN	<a href="#">4279412</a>	2015-Sep-09	2017-Sep-09	Active	16	\$6,400	\$0	\$0
POISSON	<a href="#">4279413</a>	2015-Sep-09	2017-Sep-09	Active	16	\$6,400	\$0	\$0
POISSON	<a href="#">4279414</a>	2015-Sep-09	2017-Sep-09	Active	6	\$2,400	\$0	\$0
POISSON	<a href="#">4279415</a>	2015-Sep-09	2017-Sep-09	Active	8	\$3,200	\$0	\$0
POISSON	<a href="#">4279416</a>	2015-Oct-16	2017-Oct-16	Active	16	\$6,400	\$0	\$0
POISSON	<a href="#">4279417</a>	2015-Oct-16	2017-Oct-16	Active	16	\$6,400	\$0	\$0
POISSON	<a href="#">4279418</a>	2015-Oct-16	2017-Oct-16	Active	2	\$800	\$0	\$0

Township / Area	Claim Number	Recording Date	Claim Due Date	Status	Claim Units	Work Required	Total Applied	Total Reserve
MCCUBBIN	<a href="#">4279419</a>	2015-Oct-16	2017-Oct-16	Active	14	\$5,600	\$0	\$0
MCCUBBIN	<a href="#">4279420</a>	2015-Oct-16	2017-Oct-16	Active	3	\$1,200	\$0	\$0
JUTTEN	<a href="#">4279638</a>	2016-Jun-20	2018-Jun-20	Active	12	\$4,800	\$0	\$0
POISSON	<a href="#">4279640</a>	2016-Jun-20	2018-Jun-20	Active	16	\$6,400	\$0	\$0
JUTTEN	<a href="#">4279641</a>	2016-Jun-20	2018-Jun-20	Active	15	\$6,000	\$0	\$0
JUTTEN	<a href="#">4279642</a>	2016-Jun-20	2018-Jun-20	Active	16	\$6,400	\$0	\$0
JUTTEN	<a href="#">4279643</a>	2016-Jun-20	2018-Jun-20	Active	15	\$6,000	\$0	\$0
JUTTEN	<a href="#">4279644</a>	2016-Jun-20	2018-Jun-20	Active	14	\$5,600	\$0	\$0
JUTTEN	<a href="#">4279645</a>	2016-Jun-20	2018-Jun-20	Active	15	\$6,000	\$0	\$0
POISSON	<a href="#">4279646</a>	2016-Jun-20	2018-Jun-20	Active	16	\$6,400	\$0	\$0
MCCUBBIN	<a href="#">4279647</a>	2016-Jun-20	2018-Jun-20	Active	16	\$6,400	\$0	\$0
JUTTEN	<a href="#">4279648</a>	2016-Jun-20	2018-Jun-20	Active	16	\$6,400	\$0	\$0
JUTTEN	<a href="#">4279649</a>	2016-Jun-20	2018-Jun-20	Active	16	\$6,400	\$0	\$0
JUTTEN	<a href="#">4279650</a>	2016-Jun-20	2018-Jun-20	Active	14	\$5,600	\$0	\$0
JUTTEN	<a href="#">4279651</a>	2016-Jun-20	2018-Jun-20	Active	4	\$1,600	\$0	\$0
JUTTEN	<a href="#">4279652</a>	2016-Jun-20	2018-Jun-20	Active	15	\$6,000	\$0	\$0
JUTTEN	<a href="#">4279653</a>	2016-Jun-20	2018-Jun-20	Active	16	\$6,400	\$0	\$0
JUTTEN	<a href="#">4279654</a>	2016-Jun-20	2018-Jun-20	Active	10	\$4,000	\$0	\$0
POISSON	<a href="#">4279655</a>	2016-Jun-20	2018-Jun-20	Active	1	\$400	\$0	\$0
POISSON	<a href="#">4279656</a>	2016-Jun-20	2018-Jun-20	Active	4	\$1,600	\$0	\$0
POISSON	<a href="#">4279657</a>	2016-Jun-20	2018-Jun-20	Active	16	\$6,400	\$0	\$0
MCGILLIS	<a href="#">4279658</a>	2016-Jun-20	2018-Jun-20	Active	16	\$6,400	\$0	\$0
POISSON	<a href="#">4279659</a>	2016-Jun-20	2018-Jun-20	Active	16	\$6,400	\$0	\$0
MCGILLIS	<a href="#">4279660</a>	2016-Jun-20	2018-Jun-20	Active	16	\$6,400	\$0	\$0
MCGILLIS	<a href="#">4279661</a>	2016-Jun-20	2018-Jun-20	Active	16	\$6,400	\$0	\$0
MCGILLIS	<a href="#">4279662</a>	2016-Jun-20	2018-Jun-20	Active	16	\$6,400	\$0	\$0
SAVANT	<a href="#">4279663</a>	2016-Jun-20	2018-Jun-20	Active	16	\$6,400	\$0	\$0
BENNER	<a href="#">4279664</a>	2016-Jun-20	2018-Jun-20	Active	16	\$6,400	\$0	\$0
BENNER	<a href="#">4279665</a>	2016-Jun-20	2018-Jun-20	Active	16	\$6,400	\$0	\$0
SAVANT	<a href="#">4279666</a>	2016-Jun-20	2018-Jun-20	Active	16	\$6,400	\$0	\$0
SAVANT	<a href="#">4279667</a>	2016-Jun-20	2018-Jun-20	Active	16	\$6,400	\$0	\$0
BENNER	<a href="#">4279668</a>	2016-Jun-20	2018-Jun-20	Active	16	\$6,400	\$0	\$0
BENNER	<a href="#">4279669</a>	2016-Jun-20	2018-Jun-20	Active	16	\$6,400	\$0	\$0
BENNER	<a href="#">4279670</a>	2016-Jun-20	2018-Jun-20	Active	14	\$5,600	\$0	\$0
BENNER	<a href="#">4279671</a>	2016-Jun-20	2018-Jun-20	Active	15	\$6,000	\$0	\$0
POISSON	<a href="#">4279672</a>	2016-Jun-20	2018-Jun-20	Active	14	\$5,600	\$0	\$0
POISSON	<a href="#">4279673</a>	2016-Jun-20	2018-Jun-20	Active	15	\$6,000	\$0	\$0
POISSON	<a href="#">4279674</a>	2016-Jun-20	2018-Jun-20	Active	16	\$6,400	\$0	\$0
POISSON	<a href="#">4279675</a>	2016-Jun-20	2018-Jun-20	Active	6	\$2,400	\$0	\$0
POISSON	<a href="#">4279676</a>	2016-Jun-20	2018-Jun-20	Active	16	\$6,400	\$0	\$0

Township / Area	Claim Number	Recording Date	Claim Due Date	Status	Claim Units	Work Required	Total Applied	Total Reserve
POISSON	<a href="#">4279677</a>	2016-Jun-20	2018-Jun-20	Active	16	\$6,400	\$0	\$0
SOLITUDE LAKE AREA	<a href="#">4279678</a>	2016-Jun-20	2018-Jun-20	Active	16	\$6,400	\$0	\$0
MCCUBBIN	<a href="#">4279679</a>	2016-Jun-20	2018-Jun-20	Active	16	\$6,400	\$0	\$0
MCCUBBIN	<a href="#">4279680</a>	2016-Jun-20	2018-Jun-20	Active	12	\$4,800	\$0	\$0
POISSON	<a href="#">4279681</a>	2016-Jun-20	2018-Jun-20	Active	6	\$2,400	\$0	\$0
MCCUBBIN	<a href="#">4279682</a>	2016-Jun-20	2018-Jun-20	Active	11	\$4,400	\$0	\$0
MCCUBBIN	<a href="#">4279683</a>	2016-Jun-20	2018-Jun-20	Active	14	\$5,600	\$0	\$0
MCCUBBIN	<a href="#">4279684</a>	2016-Jun-20	2018-Jun-20	Active	16	\$6,400	\$0	\$0
MCCUBBIN	<a href="#">4282273</a>	2016-Jun-20	2018-Jun-20	Active	12	\$4,800	\$0	\$0

The claims comprising the Savant Lake Project have not been legally surveyed. All claims are currently in good standing. The Government of Ontario requires eligible assessment expenditures of \$400 per year per unit (16 hectares), prior to expiry, to keep the claims in good standing for the following year. The assessment report must be submitted by the expiry date.

There are no known environmental liabilities associated with the Property. The proposed exploration program in this report is subject to the guidelines, policies and legislation of the Ontario Ministry of Northern Development and Mines, Ontario Ministry of Natural Resources and Federal Department of Fisheries and Oceans regarding surface exploration, stream crossings, and work being carried out near rivers and bodies of water, drilling and sludge disposal, drill casings, capping of holes, storage of core, trenching, road construction, waste and garbage disposal.

The Ontario Mining Act requires Exploration Permits or Plans for exploration on Crown Lands for any activity outside of prospecting or mapping and sampling. The permit and plans are obtained from the Ministry of Northern Development and Mines. Processing periods of 50 days for a permit and 30 days for a plan while the documents are reviewed by the Ministry and presented to the Aboriginal communities whose traditional lands are located where the work is to be executed.

The Savant Lake Project currently has four valid Exploration Plans and four valid Exploration Permits (Table 3). The Plans and Permits cover a variety of exploration activities and allow for the diamond drilling of all high-priority targets identified in the 2016 VTEM survey. Details on each specific Plan or Permit can be found on the Ontario Ministry of Northern Development and Mines (“MNDM”) website.

**Table 3: Exploration Plan and Exploration Permit list by claim.**

Claim Number	Exploration Plan	Exploration Plan	Exploration Plan	Exploration Plan	Exploration Permit	Exploration Permit	Exploration Permit	Exploration Permit
<a href="#">4270650</a>	PL-15-10433		PL-16-10667		PR-15-10670		PR-16-10996	
<a href="#">4270651</a>	PL-15-10433		PL-16-10667		PR-15-10670		PR-16-10996	
<a href="#">4270652</a>	PL-15-10433		PL-16-10667		PR-15-10670		PR-16-10996	

Claim Number	Exploration Plan	Exploration Plan	Exploration Plan	Exploration Plan	Exploration Permit	Exploration Permit	Exploration Permit	Exploration Permit
<a href="#">4270653</a>	PL-15-10433				PR-15-10670			
<a href="#">4270654</a>	PL-15-10433				PR-15-10670			
<a href="#">4270655</a>	PL-15-10433				PR-15-10670			
<a href="#">4270656</a>	PL-15-10433		PL-16-10667		PR-15-10670			
<a href="#">4270657</a>	PL-15-10433				PR-15-10670			
<a href="#">4270658</a>								
<a href="#">4270659</a>		PL-15-10438	PL-16-10667			PR-15-10674		
<a href="#">4279391</a>								
<a href="#">4279392</a>			PL-16-10667				PR-16-10996	
<a href="#">4279393</a>								
<a href="#">4279394</a>								
<a href="#">4279395</a>			PL-16-10667	PL-16-10670			PR-16-10996	
<a href="#">4279396</a>				PL-16-10670				PR-16-10998
<a href="#">4279397</a>				PL-16-10670				
<a href="#">4279398</a>				PL-16-10670				
<a href="#">4279399</a>				PL-16-10670				PR-16-10998
<a href="#">4279400</a>				PL-16-10670				
<a href="#">4279401</a>				PL-16-10670				
<a href="#">4279402</a>				PL-16-10670				PR-16-10998
<a href="#">4279403</a>				PL-16-10670				PR-16-10998
<a href="#">4279404</a>				PL-16-10670				
<a href="#">4279405</a>				PL-16-10670				PR-16-10998
<a href="#">4279406</a>				PL-16-10670				PR-16-10998
<a href="#">4279407</a>								
<a href="#">4279408</a>								
<a href="#">4279409</a>								
<a href="#">4279410</a>								
<a href="#">4279411</a>								
<a href="#">4279412</a>			PL-16-10667				PR-16-10996	
<a href="#">4279413</a>			PL-16-10667				PR-16-10996	
<a href="#">4279414</a>				PL-16-10670				
<a href="#">4279415</a>								
<a href="#">4279416</a>								
<a href="#">4279417</a>								
<a href="#">4279418</a>								
<a href="#">4279419</a>								
<a href="#">4279420</a>								
<a href="#">4279638</a>								
<a href="#">4279640</a>			PL-16-10667				PR-16-10996	
<a href="#">4279641</a>								

Claim Number	Exploration Plan	Exploration Plan	Exploration Plan	Exploration Plan	Exploration Permit	Exploration Permit	Exploration Permit	Exploration Permit
<a href="#">4279642</a>			PL-16-10667					
<a href="#">4279643</a>			PL-16-10667				PR-16-10996	
<a href="#">4279644</a>			PL-16-10667					
<a href="#">4279645</a>								
<a href="#">4279646</a>			PL-16-10667				PR-16-10996	
<a href="#">4279647</a>			PL-16-10667				PR-16-10996	
<a href="#">4279648</a>								
<a href="#">4279649</a>								
<a href="#">4279650</a>								
<a href="#">4279651</a>								
<a href="#">4279652</a>								
<a href="#">4279653</a>								
<a href="#">4279654</a>								
<a href="#">4279655</a>			PL-16-10667				PR-16-10996	
<a href="#">4279656</a>			PL-16-10667				PR-16-10996	
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<a href="#">4279679</a>								
<a href="#">4279680</a>								
<a href="#">4279681</a>								

Claim Number	Exploration Plan	Exploration Plan	Exploration Plan	Exploration Plan	Exploration Permit	Exploration Permit	Exploration Permit	Exploration Permit
<a href="#">4279682</a>								
<a href="#">4279683</a>			PL-16-10667					
<a href="#">4279684</a>			PL-16-10667				PR-16-10996	
<a href="#">4282273</a>								

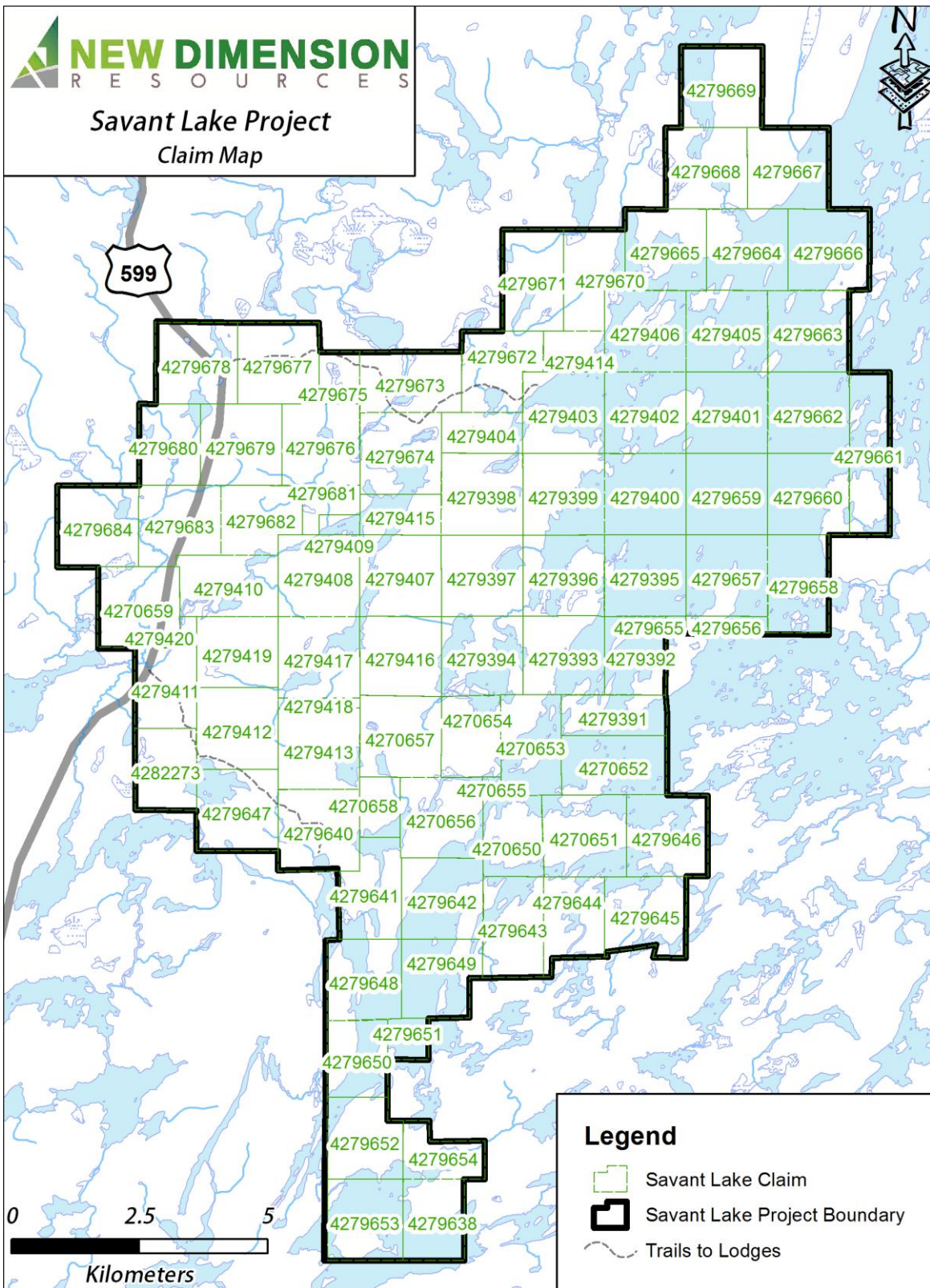


Figure 2: Savant Lake Property claim map.

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

General access to the Property is via Highway 599 which runs north-south through the western edge of the claim group. Internal Property access to the internal claims is either by the trail to Wildewood Resort or the trail that leads to Cliff and Roma's / Cat Track Lodge both heading east from Highway 599. The Property can also be accessed by float plane or by a series of portages in through Jutten Lake to the south of Lake Savant, the details of which are not known by the author. Accommodations for access by float plane or by portage would be the Four Winds Motor Hotel in Savant Lake, Ontario. Accommodations for staying on Lake Savant and accessing the Property by boat are the three lodges mentioned above with all three fishing resorts providing cabin rentals, boat and motor rentals and gasoline.

Alternatively, access to the western claims in Stillar Bay can be made via a series of logging roads that runs southeast from Highway 599 and Highway 516 intersection to within 1 to 2 km of the Property boundary in places.

The Property consists of topography characterized by small hills surrounded by narrow incised valleys that appear to align with both with structural features of the underlying bedrock and glacial direction. Small wetland areas occupy topographic depressions. Tree cover consists of white and jack pine, birch, spruce and balsam on elevated topography, and cedar, spruce, birch and tamarack in swampy lowlands. Overburden is comprised of boulder laden glacial till and outwash deposits, with muskeg and organic deposits in low-lying areas. Poorly exposed outcrop is estimated to make up no more than 10% of the total area.

The area exhibits a northern boreal climate, with short, warm summers and cold winters with moderate snowfall. Freezing temperatures can be expected from late October through mid-May. Ground access to the property might be hampered in spring by wet and slippery conditions along roads and trails.

The closest community of any appreciable size is Sioux Lookout, Ontario, with a population of approximately 5,000. Sioux Lookout is located 60 km north of Trans-Canada Highway 17 on Highway 72 and is accessed from the Property via Highway 516 a distance of approximately 120 km from the Property by road. Sioux Lookout is a forestry, mining and tourism oriented community and could be a source of some exploration and mining equipment, supplies and personnel.

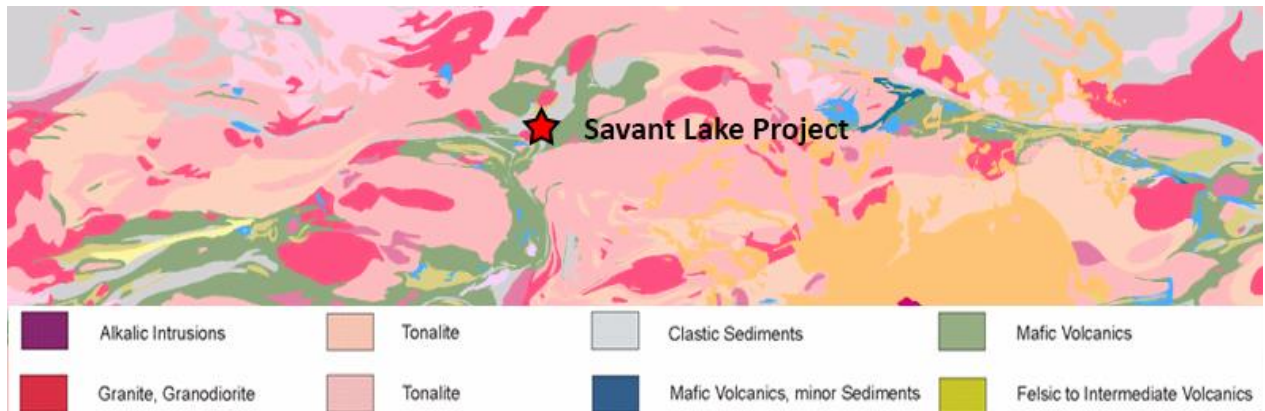
The area is serviced by Highway 599 and Trans-Canada Highway 17 extending east to Thunder Bay and west to Winnipeg, both within a day's drive. Rail transportation is available via the Canadian National Railway main line that passes within 20 km north of the Property. The Sioux Lookout airport has a number of flights daily with service to Thunder Bay, Winnipeg and other destinations. The Thunder Bay and Winnipeg Airports host numerous commercial national and international flights daily. Several small lakes, ponds and streams on the claim group could supply limited

quantities of water. Electrical power is available at along Highway 599 with a proposed 220 kV line that may be constructed by Watay Power. The closest source of natural gas is the Trans-Canada line lying along the Highway 17 corridor, 130 km to the south.

The current land holdings are sufficient to allow for exploration. There are currently no encumbrances on surface rights other than the fishing lodges and the potential surface rights holdings can be triggered when the claims go to lease. However, it is beyond the authors scope to determine whether or not the current land holdings are sufficient for development of infrastructure to sustain a mining operation.

## Regional Geology

The Savant Lake Property lies within the Savant Lake Greenstone Belt (Figure 4). The property is underlain by cherty magnetite iron formation with associated pyritic and carbonate-rich material, mafic metavolcanics and metagreywacke. The western end of the belt is essentially a closed syncline but the various contained formations are folded into a series of anticlines and synclines which plunge to the east. Major folding within the metasedimentary basin has caused repetition of the auriferous iron formation units in other parts of the property.



**Figure 3: Regional Geology Map showing the Property location within the Savant Lake Greenstone Belt.**

## Local Geology

The general Savant Lake area is underlain by dominantly mafic volcanic of the Jutten volcanic group to the east and various sediments of the Savant sedimentary group including large magnetite iron formations to the west (Figure 5). The area is complexly deformed; the Savant sedimentary group hosts D1, D2, and D3 structural fabrics. The Jutten group volcanic rocks host as least two deformation fabrics.

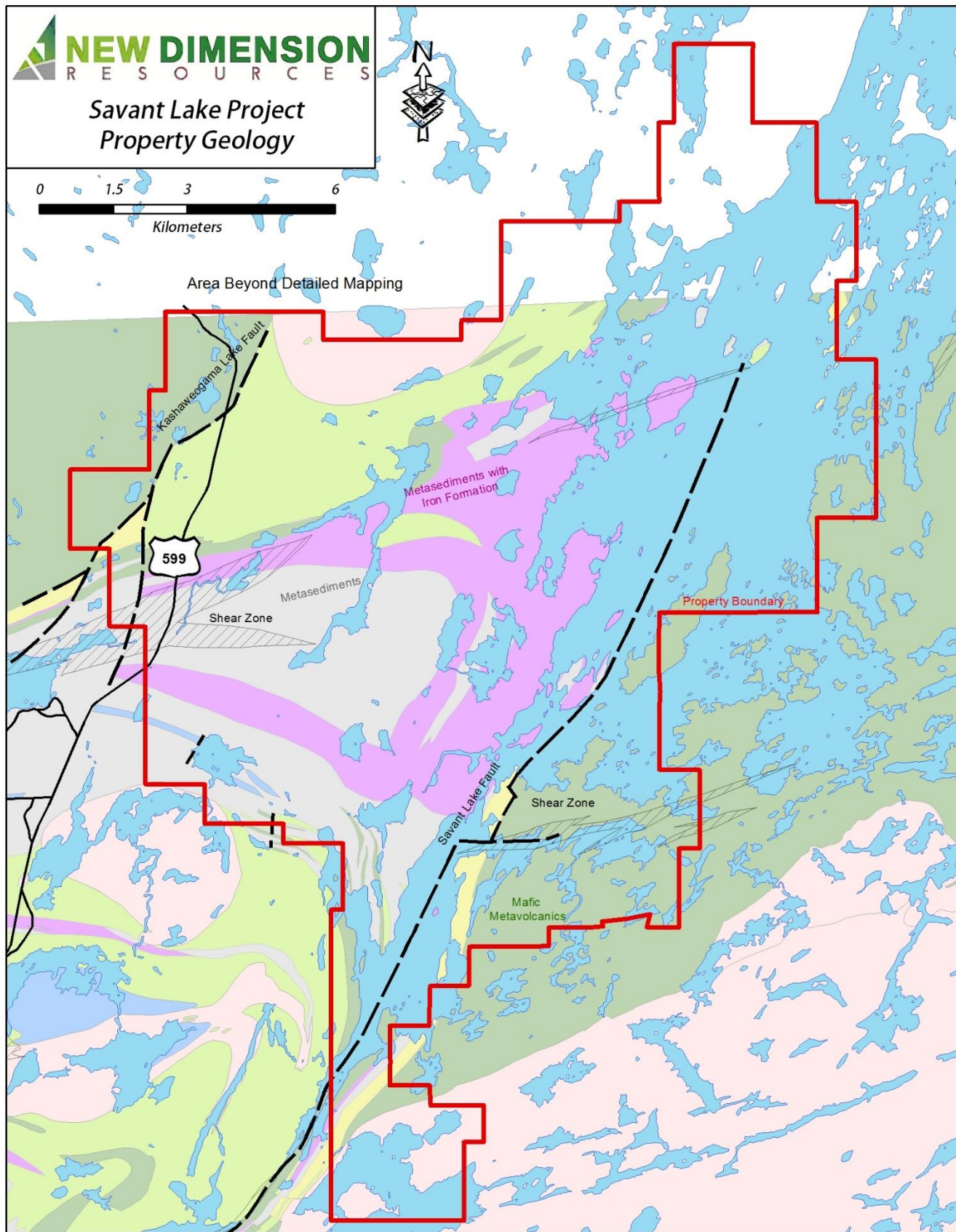
There are mainly three different lithologies in the western portion of the property - which is the focus of the program - and these are as follows:

1. **Greywacke:** The dominant rock type in the area. It is grey, medium grained, rather massive rock. In the vicinity of the iron formations, thin chert magnetite bands are common. The boundaries between the greywacke and iron formation are difficult to distinguish so magnetic data was used to identify the boundary. In absence of chert magnetite bands bedding is very hard to discern in the greywackes. Schistosity is also usually poorly developed.
2. **Argillite:** It is a dark fine grained fissile rock, which is usually restricted to narrow bands on at the top of turbidite units. There appears to be a slightly greater development of argillite in the vicinity of the iron formation.
3. **Iron Formation:** It is a fine grained very well bedded rock with narrow bands of chert magnetite separated by clastic sedimentary material. There is often an appearance of a turbidite unit grading through greywacke and argillite, and topped with chert magnetite. As mentioned above the proportions of chert magnetite increases progressively, and the boundaries of the iron formation units have been drawn largely on the basis of magnetic data. Ankerite (iron carbonate) is often prominent constituent of the clastic sediments between chert magnetite laminae.

Gold mineralization throughout the area is structurally controlled occurring largely as variably sulfidic quartz veins in (likely) D3 shear zones.

## **Target Commodity and Deposit Type**

The target commodity on the Savant Lake Project is gold. The deposit type is iron formation hosted orogenic gold – similar to Goldcorp's Musselwhite Mine, Agnico Eagle's Amaruq deposit, and the historic Homestake Mine.



**Figure 4: Savant Lake Project Geology**

## **Previous Work**

The Savant Lake area was first prospected for gold during the early 1900's, as was the Sturgeon Lake area to the south. Such work was continued intermittently through the 1920's and 1940's with trenching and some drilling completed in a few locations during that period. The date of discovery of gold mineralization in the area is uncertain, but believed during the 1940's.

The following describes historical exploration and work conducted by previous operators within the boundaries of the Savant Lake Property. Any work mentioned that falls outside of the current Property boundary is clearly stated as being such. The historical information is based on information obtained from assessment files pertaining to NTS area 52J/07, 08, 09 and 10 obtained digitally on the Ministry of Northern Development and Mines online geoscience database. It should be noted that the historical property boundaries associated with the following reports in the information below were not the same as those of the current claims. In many cases assay results from these materials are not supported by signed assay certificates and therefore cannot be verified by the author.

Reference to AFRI and AFRO #'s are provided to assist the reader in finding the referenced reports. These numbers can be searched online at [www.geologyontario.mndm.gov.on.ca](http://www.geologyontario.mndm.gov.on.ca).

Figures referred to in Exploration History are at the end of Item 6.2.

## **Property Ownership**

The Savant Lake Project and associated claims (Table 2) have had no previous owners other than the current optionors (Table 1) and two other optionees that subsequently returned the project to the optionors (Parkside Resources Corporation and Independence Gold Corp.).

## **Exploration History**

### **1967 - The Agloma Steel Corp**

#### **AFRI #: 52J07NW9141**

In 1967, Algoma Steel conducted a ground magnetometer survey that covered a portion of the current claim group south-southwest of One Pine Lake. The ground surveys were following up on airborne magnetic anomalies identified previously. It was determined that magnetite iron formation was the source of the magnetic anomalies with magnetite iron formation up to 20 feet (6 meters) thick observed at CL51+00E.

### **1971 - Canadian Nickel Co Limited**

**AFRI #: 52J07SE9109**

In 1971, Canadian Nickel Co. of Canada Limited drilled a single 162' (49 m) diamond drill hole (hole 48598) on an island that is located near the NW corner of current claim 4279648. Drilling intersected a significant amount graphite. No assay values were reported.

**1971 - Noranda Exploration Co Ltd**

**AFRI #: 52J07SE0212**

In 1971, Noranda Exploration Co. Ltd. conducted line cutting and ground electromagnetics and magnetics surveys over a small portion of the current claim group on or near claims 4279648, 4279650 and 4279652 in the southern portion of the current Savant Lake Project. Portions of the survey fall off of the current claim group. A number of conductors were identified and more work was recommended.

**1971 - Noranda Exploration Co Ltd**

**AFRI #: 52J08NW0163**

In 1971, Noranda Exploration Co. Limited conducted line-cutting and ground electromagnetics and magnetics surveys over a small portion of the current claim group near or on claim 4279644. Several conductors were identified off of the current Savant Lake Property that were coincident with airborne anomalies and recommendations were to map the property in detail.

**1971 - United Macfie Mines Ltd.**

**AFRI #: 52J08NW9215**

In 1971, United Macfie Mines Ltd. conducted ground magnetics and electromagnetics over their claim group. Only a small portion of this program overlaps the current Savant Lake Project claim group on or near claim 4279646. Further surveying, interpretation and drilling was recommended. It was reported that a major conductor lies on what is now the Savant Lake Property under the lake (historic claim PA280977).

**1972 - Noranda Exploration Co Ltd**

**AFRI #: 52J07NE0176**

In 1972, Noranda Exploration Co. Ltd. drilled three diamond drill holes totalling 732.7 feet (223.4 meters). Holes J1-72-1 and 1A were drilled on historic claim PA274935 and hole J1-72-2 was drilled on PA263044. Both drill holes fall within the current Savant Lake Property on what is now claim 4279658.

All holes were testing geophysical conductors. Holes J1-72-1 and 1A intersected conductive graphitic intervals interbedded with carbonate and pyrite. Anomalous zinc and silver assay values were reported in hole J1-72-1A. Hole J1-72-2 did not encounter

a source for the geophysical conductor and it was speculated that the source was a “wet shear zone” in the drill log. No assaying was reported.

### **1972 - Noranda Exploration Co Ltd**

#### **AFRI #: 52J07SE0203**

In 1972, Noranda Exploration Co. Ltd. drilled a single 248-foot (75.6 meter) hole on historic claim PA263047 targeting a geophysical conductor. Hole J1-72-3 falls near the western edge of current claim 4279650 near the western edge of the Savant Lake Property. The drill hole intersected a zone of graphite containing up to 5% pyrite which explained the source of the conductor. No assaying was reported.

### **1972 - Noranda Exploration Co Ltd**

#### **AFRI #: 52J08NW9111**

In 1972, Noranda Exploration Co. Ltd. drilled a single 300-foot (91.5 meter) hole on historic claim PA230327 targeting a geophysical conductor. Hole RO-72-1 falls in the southwestern quadrant of current mining claim 4279645. A five-foot (1.52 meter) zone of talc schist with 3-5% sulfides was reported as being the source of the conductor (conductive over narrow intervals). A 4-foot-wide quartz vein with massive pyrrhotite along with trace chalcopyrite and galena is reported to make up the majority of this zone. One assay was reported over this entire 1.52-meter section with grades of 0.16 oz/t silver, 0.53 wt. % copper, 0.53 wt. % zinc and 0.20 wt. % lead and only trace gold.

### **1975 - Geophysical Engineering Limited**

#### **AFRI #: 52J07NE0035**

In 1975, Geophysical Engineering Limited drilled a single 525-foot (160 meter) hole on historic claim PA410882 targeting a geophysical conductor. Hole U-1 falls near the center of claim current mining claim 4279680. The drill hole encountered intercalated andesite, tuffs and slaty sediments. A conducive zone is reported in the hole with a 2.4-foot (0.73 meter) zone of semi-massive sulfides reported at 216.2 feet downhole consisting dominantly of pyrrhotite with minor chalcopyrite. No significant assays were reported.

### **1976 - Umex Ltd.**

#### **AFRI #: 52J10SE8869**

In 1976, Questor Surveys Ltd. flew an airborne magnetic survey for Umex Ltd. A small portion of this survey falls within the current Savant Lake Property with a majority of it falling outside of the Property to the northwest.

### **1978 - Umex Ltd.**

#### **AFRI #: 52J07NE0026**

In 1978, Umex Ltd. conducted line-cutting and ground magnetics and VLF surveys all of which falls within the current Savant Lake Project in the NW quadrant. The VLF survey returned a number of E-W trending anomalies with one of the two already being previously drilled. No further work was recommended.

### **1980 - Ram Petroleum Limited**

#### **AFRI #: 52J07NE9133**

In 1980, Mr. Ray Ramsay conducted a line cutting and ground geophysical survey on a group of claims in Poisson Township which are part of the current Savant Lake Project. The project was centered roughly on claim 4270654 but did not include the One Pine gold occurrences. The geophysical survey identified a large number magnetic iron formation bands apparently faulted in a northwesterly direction and sheared in a west-northwesterly direction. As a result of the VLF survey some of the bands have associated conductivity reportedly strong enough to be representative of massive sulfides. Follow-up work was recommended on five target areas.

### **1981 - Ram Petroleum Limited**

#### **AFRI #: 52J07NE0018**

In 1981, Ram Petroleum Limited conducted a 113 line-km REXHEM-1 helicopter geophysical survey over a portion of the current Savant Lake Project extending from the western boundary through the middle of the claim group over to the One Pine Lake occurrences. Several anomalies were identified and follow up ground truthing was recommended.

### **1981 - Stargazer Res**

#### **AFRI #: 52J09SW8880**

In 1981, Stargazer Resources conducted a large regional gold exploration program covering 33,500 hectares. A portion of this program was over the current Savant Lake Project. The Stargazer exploration program consisted of biogeochemical sampling, rock chip trace metal geochemical sampling, prospecting and geological mapping reconnaissance of the claim block as well as of gold prospects in the area. No significant results were returned within the current Savant Lake Project Area due to the limited focus in this area.

### **1982 - Raylloyd Mines and Explorations Ltd.**

#### **AFRI #: 52J07NE0016**

In 1982, Raylloyd Mines and Explorations Ltd. completed magnetic and electromagnetic surveying over the Raylloyd-Ram Petroleums property which covers a portion of the current Savant Lake Project consisting of the Wiggle Creek Occurrence. They survey was successful in identifying a number of VLF-EM anomalies that were also coincident with the magnetic iron formation. Prospecting and trenching were recommended to follow up.

## **1982 - Abitibi Price**

### **AFRI #: 52J07NE9134**

In 1982, Abitibi-Price conducted blasting and assaying in the vicinity of the One Pine Lake gold occurrences. The limited program returned a best assay of 0.12 ounces per ton gold. No sample descriptions or detailed trench maps were provided.

## **1982 - R Ramsay**

### **AFRI #: 52J07NE9135**

In 1982, Bowdidge and Associates Ltd. conducted geological mapping on the One Pine Lake gold occurrences and the Shoal occurrence for Ram Petroleums Ltd. and Ray Ramsay. Bowdidge indicated that the presence of clearly defined folds and cross cutting structures in the One Pine Lake area should be considered favourable indications of gold mineralization. It was recommended that further exploration should be directed at the axes of folds in the iron-formation bands, or the intersections of iron-formations with the east-west VLF conductors.

## **1982 - Savant Exploration**

### **AFRI #: 52J08NW0167**

In 1982, Savant Explorations Limited conducted an evaluation of the Savant Lake Gold Property which covered the One Pine Lake and Shoal occurrences – both of which are located on the Savant Lake Property. Grab samples of up to 0.78 oz/t gold and 0.10 oz/t silver from narrow (1/2 to 1”) pyrite bearing quartz veins were reported from the Shoal occurrence and further work was recommended on this occurrence which including diamond drilling.

## **1983 - Raylloyd Resources Ltd.**

### **AFRI #: 52J07NE0034**

In 1983, Raylloyd Resources Ltd. conducted a number of diamond drill holes targeting VLF anomalies. A majority of these holes fall just off of the Project, the holes falling on the current Savant Lake Property are listed below:

Hole K5-1 (450 feet; 137.2 meters) was drilled on current mining claim 4279411 targeting a VLF anomaly. Only two samples were reported from narrow chloritic seams with quartz and pyrite in tuffaceous greywacke. One very narrow sample assayed 640 ppb gold over 0.3 feet. Pyritic iron formation was encountered further down the hole.

Hole K8-1 (517 feet; 157.6 meters) was drilled on current mining claim 4279411. Graphitic argillite was encountered in the hole along with chloritic tuff. Limited sampling returned a best assay value of 93 ppb gold over 3 feet.

## **1983 - Abitibi-Price Inc.**

### **AFRI #: 52J08NW9211**

In 1982, Abitibi-Price Inc. conducted line-cutting and Max-Min II and EM-16 ground geophysical surveys on their Savant Lake claims targeting base metal massive sulfides. The majority of this historical survey falls within the current Savant Lake Project on claim 4279646. A number of conductors were identified and a follow-up geological mapping program was recommended.

## **1983 - Raylloyd Resources**

### **AFRI #: 52J07NE0009**

In 1983, G.M. Hogg and Associates Ltd. conducted a diamond drill program on the Wiggle Creek prospect for Raylloyd Resources. The program consisted of 11 diamond drill holes for a total of 3,740 feet (1,140 meters). This program was following up on geophysical anomalies as well as gold encountered in trenches discovered by Ray Ramsay in 1982 that returned grab sample values ranging from 0.17 to 2.50 oz/ton gold.

Strongly veined quartz-carbonate zones ranging in thickness (drilled thickness reported) from 15 to 50 feet (4.5 to 15.2 meters) were encountered over the 500-foot (152 meter) strike length tested. These zones contained sporadic pyrite and arsenopyrite mineralization and are anomalous in gold values. The best assay values encountered in the drill program were:

- Hole W-1 – 1.4 feet (0.43 meters) at 0.50 oz/ton gold
- Hole W-5 – 1.0 feet (0.30 meters) at 0.49 oz/ton gold
- Hole W-11 – 1.0 feet (0.30 meters) at 0.30 oz/ton gold

Inclusion of lower grade assays in these areas yields composite values in the 0.05 to 0.10 oz/ton range over widths of 5 to 6 feet (1.5 to 1.8 meters).

## **1983 - Raylloyd Resources, Ram Petroleums Ltd. and Raymond & Ramsay**

### **AFRI #: 52J07NE0013**

In 1983, Raylloyd Resources Ltd., Ram Petroleums Ltd. and Raymond & Ramsay conducted a number of diamond drill holes targeting VLF and coincident magnetics and VLF anomalies. Holes falling on the current Savant Lake Property are listed below:

Hole J6-1 (456 feet; 139 meters) was drilled on current mining claim 4279411 targeting a VLF anomaly. Highly graphitic sections of argillite were encountered. No assaying reported.

Hole K9-1 (400 feet; 130 meters) was drilled on current mining claim 4279411 targeting a coincident magnetic and VLF anomaly. Graphite schist as well as chloritic rock with weak magnetic attractions was encountered in the hole along with some

quartz veining, pyrite and arsenopyrite. Best assay of limited assaying in hole returned 200 ppb gold over 1.2 feet (0.36 meters).

Hole K7-1 (400 feet; 130 meters) was drilled on current mining claim 4279411 targeting a coincident magnetic and VLF anomaly. Hole encountered diorite, greywacke and chloritic tuffs. Quartz veining and arsenopyrite mineralization reported however one assay returned low gold values (34 ppb gold, 1000 ppm arsenic).

### **1984 - Savant Exploration**

#### **AFRI #: 52J07NE8919**

In 1984, Ray Ramsay and Savant Exploration drilled 7 holes totalling 2,099 feet (640 m) on the Shoal Prospect. Drill logs report wide zones of carbonated, altered and variably mineralized greywacke and magnetite iron formation however assaying was limited and generally assay values were low. The best assay from the drill program was 0.06 oz/t over 1.9 feet (0.58 meters) in hole 84-3 from a zone of pink quartz-carbonate veining in strongly oxidized greywacke containing 1% disseminated pyrite.

### **1984 - Ray Ramsay**

#### **AFRI #: 52J07NE9137**

In 1984, Ray Ramsay conducted mapping and sampling on the Snowbird Lake gold project which is located on the current Savant Lake Property. Ray Ramsay describes the Snowbird Lake vein showing as consisting of a quartz vein that is conformable to bedding, enclosed in iron formation, roughly 20 cm thick and returns occasional assays up to 0.80 ounces of gold per ton. The Snowbird Lake vein was off of the Ray Ramsay property but strike indicated that it would run onto the project. The Snowbird Lake vein is located on the current Savant Lake Project. Ramsay recommended that a magnetometer and VLF survey be conducted over the area to clearly define the iron formation folds and cross-cutting structures which would be considered favourable for gold mineralization.

### **1985 – Ram Petroleums Ltd. and Ray Ramsay**

#### **AFRI #: 52J07NE0175**

In 1985, Bowdidge and Associates Ltd. conducted a line-cutting, mapping, sampling and magnetics and VLF ground geophysical surveys on the One Pine gold prospect for Petroleum and Ray Ramsay.

The various historic trenches were visited in the vicinity of the One Pine Lake occurrence with results from grab samples of 13.3 g/t, 11.1 g/t, 7.1 g/t, and 3.7 g/t gold being obtained from variously altered and pyritized greywacke and mixed magnetite iron formation from various trenches in relatively close proximity.

An initial phase of diamond drilling totaling 1,250 feet (381 meters) was proposed to test the mineralization at the main showing as well as selected VLF anomalies.

### **1987 - Macarthur Mills Explorations Ltd.**

**AFRI #: 52J08NW8843**

In 1987, McArthur Mills Explorations Ltd. conducted an exploration program on the Savant Lake Gold Property which lies within the current Savant Lake Project. Reconnaissance prospecting within the claim group located a wide north-easterly trending shear zone just west of Girard Island, in Savant Lake, that may host significant gold mineralization. Results from this initial prospecting program were disappointing but a second phase of work was recommended that would focus on the large shear zone where it has yet been explored or is obscured by water.

### **1988 - Placer Dome**

**AFRI #: 52J07NE0005**

In 1988, Placer Dome conducted ground magnetics and horizontal loop EM ground geophysics on their project which falls within the current Savant Lake Project boundary. The EM survey did not detect any conductive responses. Following up on folded magnetic features in the iron formation was recommended.

### **1988 - Macarthur Mills Explorations Ltd.**

**AFRI #: 52J08NW8844**

In 1988, Macarthur Mills Explorations Ltd. conducted ground magnetics and Max-Min II EM surveys on portions of their project which falls within the current Savant Lake Project. Only one area in the north claim group produced a favourable geophysical response that was characteristic of sulfide altered iron formation which is centered in the northern half of current claim 4279399. A program of detailed mapping, sampling and stripping is recommended in the area of the anomaly to confirm if an alteration signature is present.

### **1989 - Placer Dome**

**AFRI #: 52J08NW8845**

In 1989, Placer Dome conducted ground magnetics and VLF-EM surveys on the One Pine Lake option which is in the current Savant Lake property. Eleven conductive horizons were located, however most of which were due to surficial conductivity. Magnetism reportedly outlined a large "S" fold and a dextral fault.

### **1989 - Placer Dome**

**AFRI #: 52J07NE8841**

In 1989, Placer Dome drilled one hole totalling 229 feet (70 meters) on in the vicinity of the One Pine Lake Showing. Drilling intersected greywacke, siliceous

sandstone, minor argillite and between 5 and 30% magnetite iron formation. Sampling is indicated; however, no results are reported.

### **1991 - G Gorzynski and E Ewen**

#### **AFRI #: 52J09SW0004**

In 1991, G. Gorzynski and E. Ewen conducted an Ontario Prospectors Assistance Program (OPAP) funded exploration program in the Savant Lake area covering a number of gold occurrences that are on the current Savant Lake Project. This program was designed to follow up on a small scale 1990 OPAP assisted reconnaissance program which identified a number of gold in soil anomalies.

During this program the Horseshoe Trench and the L28W,25S Trench were visited and described.

The Horseshoe Trench was reported to contain abundant visible gold in a narrow (2 to 4 cm wide) quartz vein. Samples were reportedly taken but assays were not yet available.

The L28W,25S Trench is a 1 meter wide zone with 25% deformed quartz veins and 10% locally sulfidized magnetite iron formation. Initial grab samples from the zone returned 0.453 oz/ton and 0.295 oz/ton gold. Chip samples were taken but assays were not yet available.

Further follow up work is recommended.

### **1992 - G Gorzynski and E Ewen**

#### **AFRI #: 52J08NW0003**

In 1992, G. Gorzynski and E. Ewen conducted another Ontario Prospectors Assistance Program (OPAP) funded exploration program in the Savant Lake area covering a number of gold occurrences that are on the current Savant Lake Project as well as numerous occurrences outside of the current Savant Lake Project. This program was designed to follow up on the 1991 OPAP assisted program described above.

Assaying of 1991 chip samples from the L28W, 25S Trench returned values of 0.053 oz/t and 0.069 oz/ton gold over 6 feet (1.82 meters).

Assaying of a 1991 grab sample from the Horseshoe Trench yielded a value of 0.42 oz/ton gold.

No further work was recommended.

### **2000 - Band Ore Res**

#### **AFRI #: 52J08NW2002**

### **AFRI #: 52J08NW2003**

In 2002, Band-Ore Resources drilled 8 holes on what is now the Stiller Bay gold showing. Drilling encountered silica-sulfide iron formation within a broader mafic-intermediate metavolcanic package. Results included 2.14 g/t Au over 0.4m, 2.93 g/t Au over 1.8m, 3.26 g/t Au over 1.22m, 4.70 g/t Au over 0.5m.

### **2014 - Parkside Resources**

In 2014, Parkside Resources Corporation optioned the two distinct claim blocks as they existed at that time – the Wiggle Creek block and the Savant Lake block. The claims making up these blocks still exist today and form part of the Savant Lake Project. Two Ontario Exploration Corporation grants were conducted on the projects with a focus on locating and sampling the historic showings. A total of 117 samples were taken and 57 of those were sent off for gold assay. Assay results ranged from below detection limit to 138.9 g/t Au in a sample containing visible gold from the Horseshoe Trench. A total of 35 samples returned an assay greater than 1.0 g/t Au. The program was successful in locating historic showings and confirming the presence of high grade gold mineralization.

### **2015 - Independence Gold**

In 2015, Independence Gold Corporation assumed the option agreement from Parkside Resources. Independence Gold had an independent geophysical review the government airborne magnetics and frequency domain EM flown and it was recommended that an airborne time-domain EM and magnetic survey be flown on the project. Two Independence Gold geologists visited the project for a short field visit in the Fall of 2015 to do some regional investigation of the project. A total of 86 samples were submitted for assay and only 3 returned values of greater than 1.0 g/t Au. The project was returned and the option agreement cancelled in the fall of 2015.

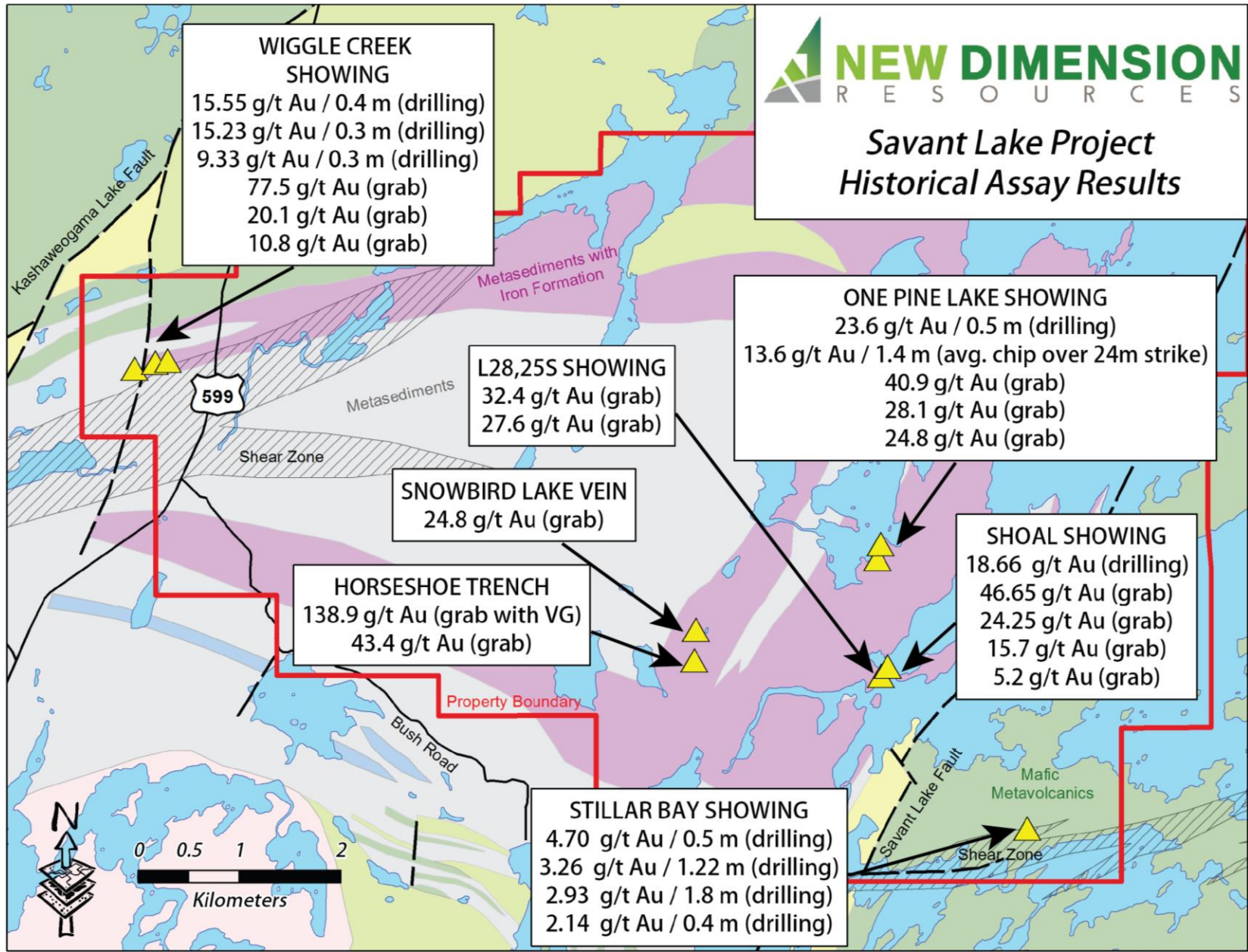


Figure 5: Savant Lake Project Historical Assay Results.

## 2016 Work Program

The field work conducted in 2016 was carried out in two distinct phases: 1) an airborne magnetic and electromagnetics survey and modelling; and 2) ground follow-up of geophysical targets and final selection of drill targets.

### *Airborne Geophysics and Modelling*

New Dimension Resources conducted a 925 line kilometer VTEM survey from May 15<sup>th</sup> to 19<sup>th</sup>, 2016 followed up by geophysical modelling. The VTEM survey identified a total of 618 line-profile conductive anomalies of which 10 were attributed to probable cultural features, 491 line profile responses attributed to conductivity induced via the superparamagnetic effect and 117 line profile responses attributed to possible metallic massive sulfide or graphite mineralization.

The 117 line profile responses attributed to possible metallic massive sulfide or graphite mineralization that were clustered together were then grouped, assigned anomaly ID's and modelled by Martin St. Pierre of St. Pierre Geoconsultant Inc. A total of twenty-five anomalies were identified during the interpretation of EM data with two being defined as cultural, five as SPM responses and eighteen as high priority responses. Out of these 18 high priority areas a total of 18 Maxell Plates were modelled and ranked. Not all anomaly areas had responses strong enough to generate plate models and some areas generated multiple responses. Ground time-domain EM was recommended over all plates prior to drilling.

Based on the results of this survey NDR staked an additional 104.3 square kilometers to cover additional ground surrounding the Project in May and June of 2016.

### *Field Programs and Final Target Ranking*

Following the promising results from the VTEM survey it was decided that further follow-up work be conducted on the Project. From July 18<sup>th</sup> to 21<sup>st</sup>, 2016, Steven Siemieniuk (underlying property vendor) and Scott Heffernan of New Dimension Resources visited the project to plan the next steps on the project which included an immediate prospecting program.

From August 23<sup>rd</sup> to September 9<sup>th</sup>, 2016 an 18-day prospecting and sampling program was conducted over various targets on the Project. Equity Exploration out of Vancouver, B.C. oversaw the Project with geologist Dave Nutall in the field for Equity. Additional crew members were Steven Siemieniuk of Superior Exploration, and Ray Koivisto and Jamie Dumas of Clark Exploration Consulting

Inc. Following the departure of Steven, Ray and Jaime another Equity geologist – Rob Duncan – visited various target areas on the Project from September 10<sup>th</sup> to 15<sup>th</sup>, 2016 along with Dave Nuttal.

Following the receipt of the assay results from the field programs, an additional ranking of the geophysical targets was conducted by Steve Siemieniuk from October 11<sup>th</sup> to October 17<sup>th</sup>. This work completes the 2016 program on the Savant Lake Project. The JEAP program has aided in significantly advancing the Project to a drill ready state which the company intends to conduct in 2017.

Appendices A through M provide all final data and associated JEAP documents required for the final report submission.

## **Conclusions and Recommendations**

The 2016 VTEM survey combined with field investigation and target ranking has moved the project to a drill ready stage with a number of unexplained conductors both inside and outside of the iron formation package.

Five new previously undiscovered gold occurrences were located on the project (Au > 500 ppb as defined by the MNDM). This strengthens the idea that even though the area has been explored for over a century – there is still a lot left to be discovered.

Line-cutting and ground TDEM should be conducted over all of the high priority conductors followed by diamond drilling.

## **Appendices**

## **Appendix A**

Final Geotech VTEM Report



# VTEM™ Plus

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REPORT ON A HELICOPTER-BORNE VERSATILE TIME DOMAIN  
ELECTROMAGNETIC (VTEM™ Plus) AND HORIZONTAL MAGNETIC  
GRADIOMETER GEOPHYSICAL SURVEY

PROJECT: SAVANT LAKE  
LOCATION: SAVANT LAKE, ONTARIO  
FOR: NEW DIMENSION RESOURCES LTD.  
SURVEY FLOWN: MAY 2016  
PROJECT: GL160101

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D.	Generalized Modelling Results of the VTEM System.....
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## EXECUTIVE SUMMARY

### SAVANT LAKE PROJECT - SAVANT LAKE, ONTARIO

During May 15<sup>th</sup> to May 19<sup>th</sup> 2016 Geotech Ltd. carried out a helicopter-borne geophysical survey over Savant Lake Project situated near Savant Lake, Ontario.

Principal geophysical sensors included a versatile time domain electromagnetic (VTEMplus) system and horizontal magnetic gradiometer with two caesium sensors. Ancillary equipment included a GPS navigation system and a radar altimeter. A total of 925 line-kilometres of geophysical data were acquired during the survey.

In-field data quality assurance and preliminary processing were carried out on a daily basis during the acquisition phase. Preliminary and final data processing, including generation of final digital data and map products were undertaken from the office of Geotech Ltd. in Aurora, Ontario.

The processed survey results are presented as the following maps:

- Electromagnetic stacked profiles of the B-field Z Component,
- Electromagnetic stacked profiles of dB/dt Z Component,
- B-Field Z Component Channel grids,
- dB/dt X Component Fraser Filtered Channel grid,
- Total Magnetic Intensity (TMI),
- Magnetic Total Horizontal Gradient,
- Magnetic Tilt-Angle Derivative of TMI,
- Calculated Time Constant (Tau) with Calculated Vertical Derivative contours and
- Resistivity Depth Images (RDI) sections are presented.

Digital data includes all electromagnetic and magnetic products, plus ancillary data including the waveform.

The survey report describes the procedures for data acquisition, processing, final image presentation and the specifications for the digital data set.

# 1. INTRODUCTION

## 1.1 GENERAL CONSIDERATIONS

Geotech Ltd. performed a helicopter-borne geophysical survey over Savant Lake Project situated near Savant Lake, Ontario (Figure 1 & Figure 2).

Steve Siemieniuk and Jim Dawson represented New Dimension Resources Ltd. during the data acquisition and data processing phases of this project.

The geophysical surveys consisted of helicopter borne EM using the versatile time-domain electromagnetic (VTEMplus) system with Full-Waveform processing. Measurements consisted of Vertical (Z) and In-line Horizontal (X) components of the EM fields using induction coils and the aeromagnetic total field using a magnetic gradiometer. A total of 925 line-km of geophysical data were acquired during the survey.

The crew was based out of Savant Lake (Figure 2) in Ontario for the acquisition phase of the survey. Survey flying started on May 15<sup>th</sup> and was completed on May 19<sup>th</sup>, 2016.

Data quality control and quality assurance, and preliminary data processing were carried out on a daily basis during the acquisition phase of the project. Final data processing followed immediately after the end of the survey. Final reporting, data presentation and archiving were completed from the Aurora office of Geotech Ltd. in June, 2016.



Figure 1: Survey location

## 1.2 SURVEY AND SYSTEM SPECIFICATIONS

The survey area is located approximately 23 kilometres northeast of Savant Lake, Ontario (Figure 2).

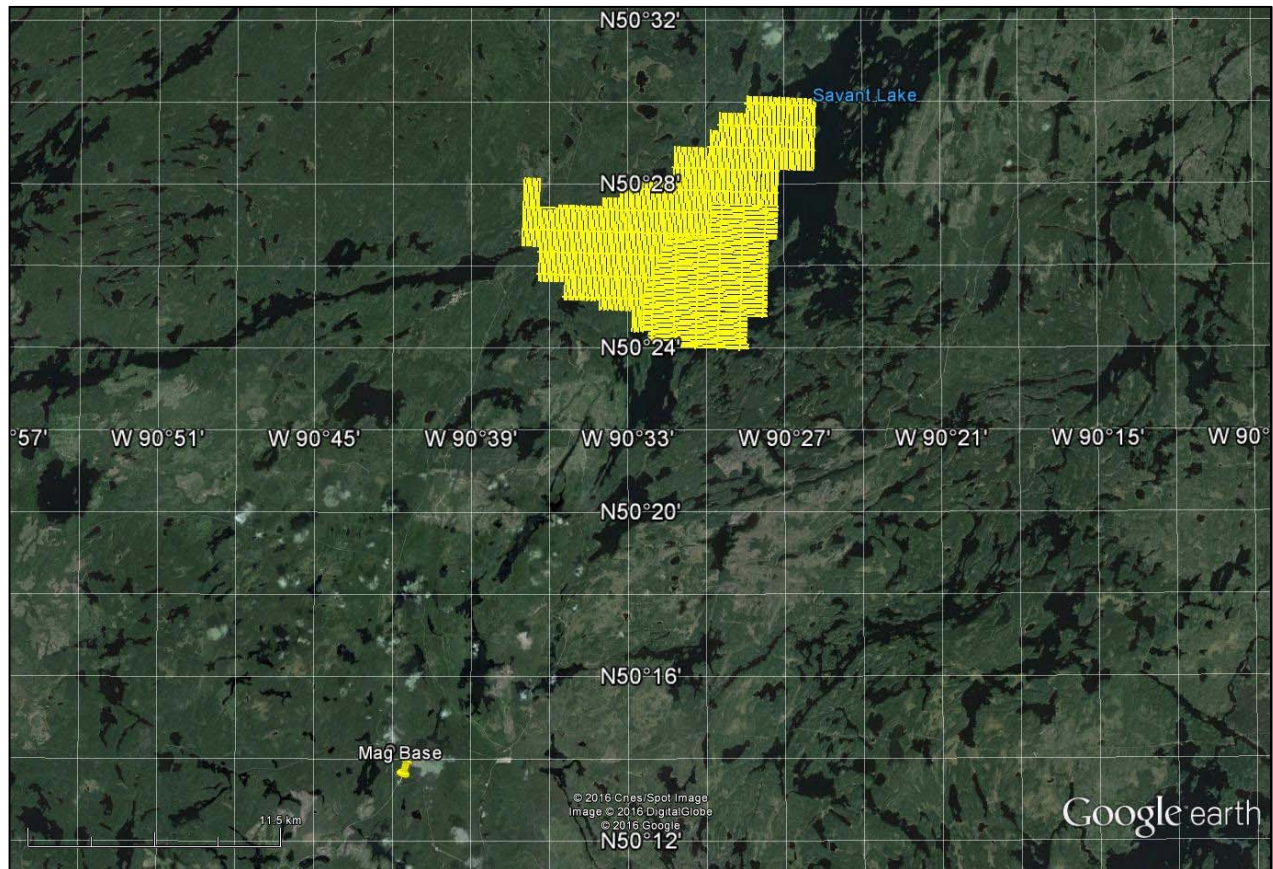


Figure 2: Survey area location on Google Earth.

The block was flown in a north to south ( $N 0^\circ E$  azimuth) direction and east to west ( $N 90^\circ E$  azimuth) direction with traverse line spacing of 100 metres as depicted in Figure 3. Tie lines were flown perpendicular to the traverse lines at a spacing of 1000 metres respectively. For more detailed information on the flight spacing and direction see Table 1.

### 1.3 TOPOGRAPHIC RELIEF AND CULTURAL FEATURES

Topographically, the survey areas exhibits a level relief with an elevation ranging from 392 to 454 metres above mean sea level over an area of 83 square kilometres (Figure 3).

There are various rivers and streams running through the survey areas which connect various lakes. There are visible signs of culture such as roads and settlements located in the survey areas (Figure 3).

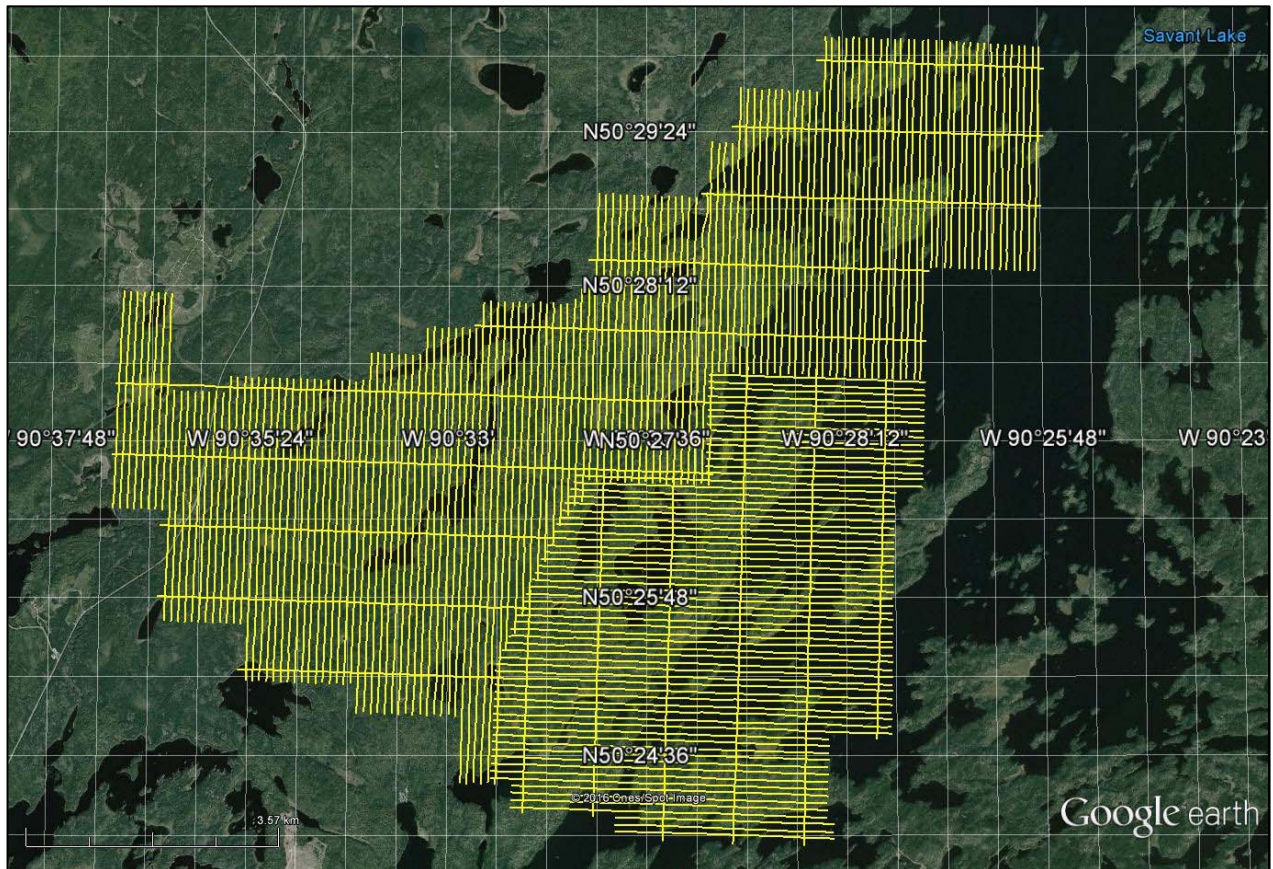


Figure 3: Flight path over a Google Earth Image.

## 2. DATA ACQUISITION

### 2.1 SURVEY AREA

The survey areas (see Figure 3 and Appendix A) and general flight specifications are as follows:

Table 1: Survey Specifications

Survey block	Line spacing (m)	Area (Km <sup>2</sup> )	Planned <sup>1</sup> Line-km	Actual Line-km	Flight direction	Line numbers
Savant Lake Project	Traverse: 100	54	600	588.3	N 0° E / N 180° E	L1000 - L2310
	Tie: 1000			55.0	N 90° E / N 270° E	T3000 - T3090
Savant Lake Project	Traverse: 100	29	325	353.2	N 90° E / N 270° E	L4000 - L4650
	Tie: 1000			34.4	N 0° E / N 180° E	T5000 - T5050
TOTAL		83	925	1030.9		

Survey area boundaries co-ordinates are provided in Appendix B.

### 2.2 SURVEY OPERATIONS

Survey operations were based out of Savant Lake in Ontario from May 7<sup>th</sup> until May 19<sup>th</sup> 2016. The following table shows the timing of the flying.

Table 2: Survey schedule

Date	Flight #	Flown km	Block	Crew location	Comments
7-May-2016				Savant Lake, Ontario	Mobilization
8-May-2016				Savant Lake, Ontario	Mobilization
9-May-2016				Savant Lake, Ontario	Crew arrived
10-May-2016				Savant Lake, Ontario	Local logistics & system assembly
11-May-2016				Savant Lake, Ontario	System assembly & Heli install
12-May-2016				Savant Lake, Ontario	Testing limited due to weather
13-May-2016				Savant Lake, Ontario	No testing due to weather
14-May-2016				Savant Lake, Ontario	No testing due to weather
15-May-2016	1	84	NS	Savant Lake, Ontario	84km flown & testing completed
16-May-2016	2,3,4	311	NS	Savant Lake, Ontario	311km flown
17-May-2016	5,6,7	327	NS/EW	Savant Lake, Ontario	327km flown
18-May-2016	8,9	177	reflights	Savant Lake, Ontario	177km Flown
19-May-2016	10	26	reflight	Savant Lake, Ontario	Remaining kms were flown – flying complete

### 2.3 FLIGHT SPECIFICATIONS

During the survey the helicopter was maintained at a mean altitude of 79 metres above the ground with an average survey speed of 80 km/hour. This allowed for an actual average Transmitter-receiver loop terrain clearance of 44 metres and a magnetic sensor clearance of 54 metres.

<sup>1</sup> Note: Actual Line kilometres represent the total line kilometres in the final database. These line-km normally exceed the Planned Line-km, as indicated in the survey NAV files.

The on board operator was responsible for monitoring the system integrity. He also maintained a detailed flight log during the survey, tracking the times of the flight as well as any unusual geophysical or topographic features.

On return of the aircrew to the base camp the survey data was transferred from a compact flash card (PCMCIA) to the data processing computer. The data were then uploaded via ftp to the Geotech office in Aurora for daily quality assurance and quality control by qualified personnel.

## 2.4 AIRCRAFT AND EQUIPMENT

### 2.4.1 SURVEY AIRCRAFT

The survey was flown using a Eurocopter Aerospatiale (Astar) 350 B3 helicopter, registration C-GTEQ. The helicopter is owned and operated by Geotech Aviation. Installation of the geophysical and ancillary equipment was carried out by a Geotech Ltd crew.

### 2.4.2 ELECTROMAGNETIC SYSTEM

The electromagnetic system was a Geotech Time Domain EM (VTEM™Plus) full receiver-waveform streamed data recorded system. The “full waveform VTEM system” uses the streamed half-cycle recording of transmitter and receiver waveforms to obtain a complete system response calibration throughout the entire survey flight. The VTEM™ transmitter current waveform is shown diagrammatically in Figure 4. VTEM with the Serial number 25 had been used for the survey.

The VTEM™ Receiver and transmitter coils were in concentric-coplanar and Z-direction oriented configuration. The receiver system for the project also included a coincident-coaxial X-direction coil to measure the in-line dB/dt and calculate B-Field responses. The Transmitter-receiver loop was towed at a mean distance of 31 metres below the aircraft as shown in Figure 5.

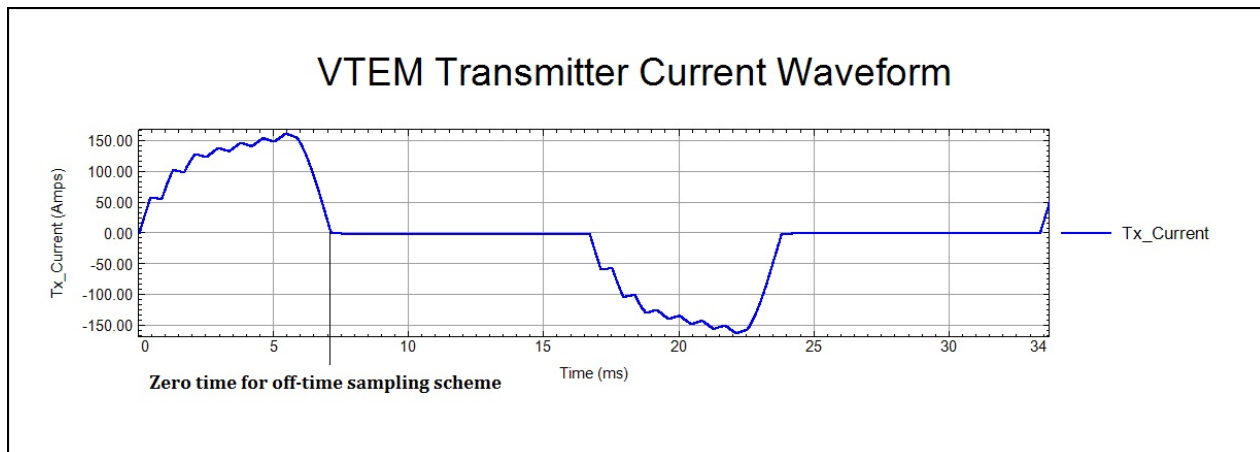


Figure 4: VTEM™ Transmitter Current Waveform

The VTEM™ decay sampling scheme is shown in

Table 3 below. Forty-three time measurement gates were used for the final data processing in the range from 0.021 to 8.083 msec. Zero time for the off-time sampling scheme is equal to the current pulse width and is defined as the time near the end of the turn-off ramp where the  $dI/dt$  waveform falls to 1/2 of its peak value.

**Table 3:** Off-Time Decay Sampling Scheme

VTEM™ Decay Sampling Scheme				
Index	Start	End	Middle	Width
Milliseconds				
4	0.018	0.023	0.021	0.005
5	0.023	0.029	0.026	0.005
6	0.029	0.034	0.031	0.005
7	0.034	0.039	0.036	0.005
8	0.039	0.045	0.042	0.006
9	0.045	0.051	0.048	0.007
10	0.051	0.059	0.055	0.008
11	0.059	0.068	0.063	0.009
12	0.068	0.078	0.073	0.010
13	0.078	0.090	0.083	0.012
14	0.090	0.103	0.096	0.013
15	0.103	0.118	0.110	0.015
16	0.118	0.136	0.126	0.018
17	0.136	0.156	0.145	0.020
18	0.156	0.179	0.167	0.023
19	0.179	0.206	0.192	0.027
20	0.206	0.236	0.220	0.030
21	0.236	0.271	0.253	0.035
22	0.271	0.312	0.290	0.040
23	0.312	0.358	0.333	0.046
24	0.358	0.411	0.383	0.053
25	0.411	0.472	0.440	0.061
26	0.472	0.543	0.505	0.070
27	0.543	0.623	0.580	0.081
28	0.623	0.716	0.667	0.093
29	0.716	0.823	0.766	0.107
30	0.823	0.945	0.880	0.122
31	0.945	1.086	1.010	0.141
32	1.086	1.247	1.161	0.161
33	1.247	1.432	1.333	0.185
34	1.432	1.646	1.531	0.214
35	1.646	1.891	1.760	0.245
36	1.891	2.172	2.021	0.281
37	2.172	2.495	2.323	0.323
38	2.495	2.865	2.667	0.370
39	2.865	3.292	3.063	0.427
40	3.292	3.781	3.521	0.490
41	3.781	4.341	4.042	0.560
42	4.341	4.987	4.641	0.646

VTEM™ Decay Sampling Scheme				
Index	Start	End	Middle	Width
Milliseconds				
43	4.987	5.729	5.333	0.742
44	5.729	6.581	6.125	0.852
45	6.581	7.560	7.036	0.979
46	7.560	8.685	8.083	1.125

Z Component: 4 - 46 time gates  
X Component: 20 - 46 time gates

VTEM™ system specifications:

Transmitter	Receiver
<ul style="list-style-type: none"> <li>• Transmitter loop diameter: 26 m</li> <li>• Number of turns: 4</li> <li>• Effective Transmitter loop area: 2123.7 m<sup>2</sup></li> <li>• Transmitter base frequency: 30 Hz</li> <li>• Peak current: 162 A</li> <li>• Pulse width: 7.15 ms</li> <li>• Waveform shape: Bi-polar trapezoid</li> <li>• Peak dipole moment: 344,042 nIA</li> <li>• Actual average Transmitter-receiver loop terrain clearance: 44 metres above the ground</li> </ul>	<ul style="list-style-type: none"> <li>• X Coil diameter: 0.32 m</li> <li>• Number of turns: 245</li> <li>• Effective coil area: 19.69 m<sup>2</sup></li> <li>• Z-Coil diameter: 1.2 m</li> <li>• Number of turns: 100</li> <li>• Effective coil area: 113.04 m<sup>2</sup></li> </ul>

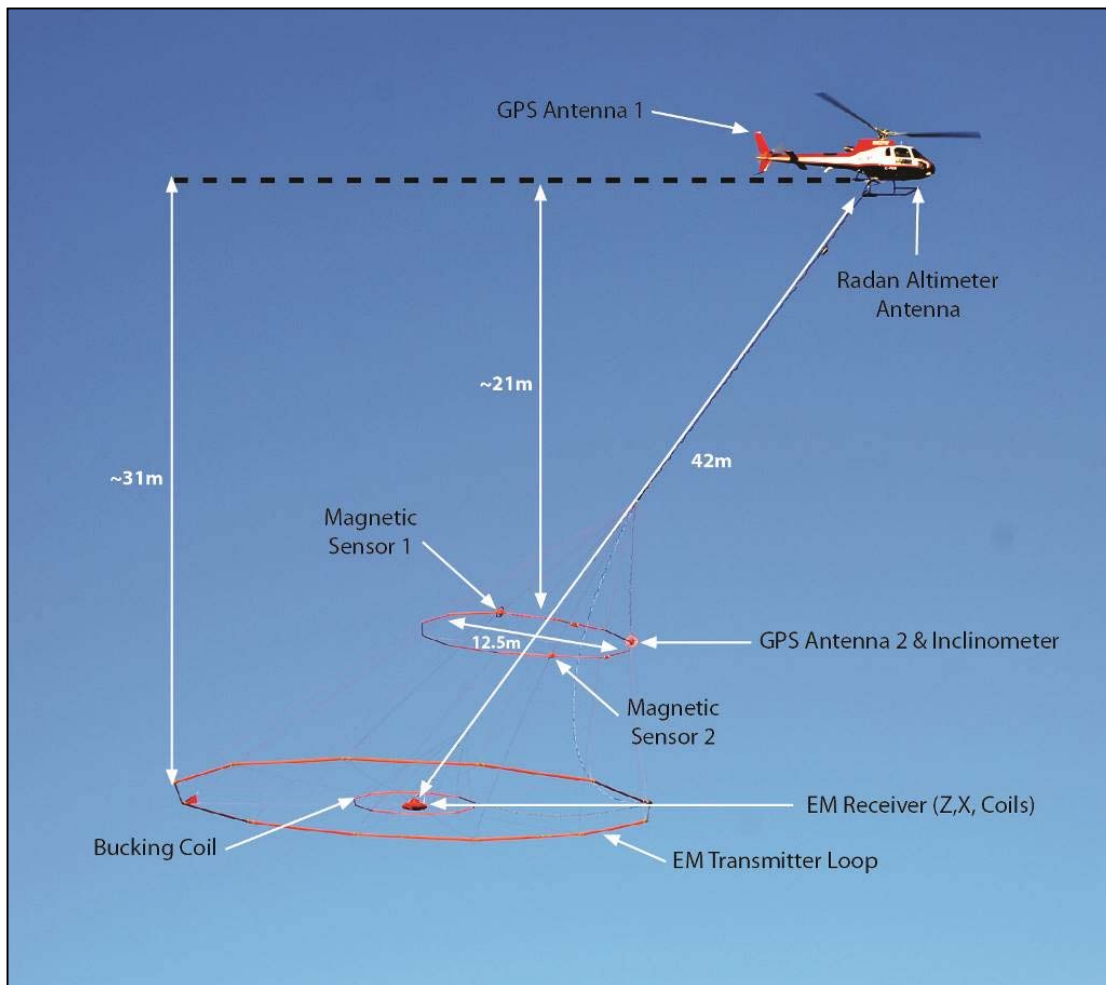


Figure 5: VTEM™ Plus System Configuration.

### 2.4.3 FULL WAVEFORM VTEM™ SENSOR CALIBRATION

The calibration is performed on the complete VTEM™ system installed in and connected to the helicopter, using special calibration equipment.

The procedure takes half-cycle files acquired and calculates a calibration file consisting of a single stacked half-cycle waveform. The purpose of the stacking is to attenuate natural and man-made magnetic signals, leaving only the response to the calibration signal.

### 2.4.4 HORIZONTAL MAGNETIC GRADIOMETER

The horizontal magnetic gradiometer consists of two Geometrics split-beam field magnetic sensors with a sampling interval of 0.1 seconds. These sensors are mounted 12.5 metres apart on a separate loop, 10 metres above the Transmitter-receiver loop. A GPS antenna and Gyro Inclinometer is installed on the separate loop to accurately record the tilt and position of the magnetic gradiometer.

### 2.4.5 RADAR ALTIMETER

A Terra TRA 3000/TRI 40 radar altimeter was used to record terrain clearance. The antenna was mounted beneath the bubble of the helicopter cockpit (Figure 5).

### 2.4.6 GPS NAVIGATION SYSTEM

The navigation system used was a Geotech PC104 based navigation system utilizing a NovAtel's WAAS (Wide Area Augmentation System) enabled GPS receiver, Geotech navigate software, a full screen display with controls in front of the pilot to direct the flight and a NovAtel GPS antenna mounted on the helicopter tail (Figure 5). As many as 11 GPS and two WAAS satellites may be monitored at any one time. The positional accuracy or circular error probability (CEP) is 1.8 m, with WAAS active, it is 1.0 m. The co-ordinates of the survey area were set-up prior to the survey and the information was fed into the airborne navigation system. The second GPS antenna is installed on the additional magnetic loop together with Gyro Inclinometer.

### 2.4.7 DIGITAL ACQUISITION SYSTEM

A Geotech data acquisition system recorded the digital survey data on an internal compact flash card. Data is displayed on an LCD screen as traces to allow the operator to monitor the integrity of the system. The data type and sampling interval as provided in Table 4.

Table 4: Acquisition Sampling Rates

Data Type	Sampling
TDEM	0.1 sec
Magnetometer	0.1 sec
GPS Position	0.2 sec
Radar Altimeter	0.2 sec
Inclinometer	0.1 sec

## 2.5 BASE STATION

A combined magnetometer/GPS base station was utilized on this project. A Geometrics Caesium vapour magnetometer was used as a magnetic sensor with a sensitivity of 0.001 nT. The base station was recording the magnetic field together with the GPS time at 1 Hz on a base station computer.

The base station magnetometer sensor was installed on a large tree in the woods (90° 41.7144' W, 50° 13.3935' N); away from electric transmission lines and moving ferrous objects such as motor vehicles. The base station data were backed-up to the data processing computer at the end of each survey day.

### 3. PERSONNEL

The following Geotech Ltd. personnel were involved in the project.

#### FIELD:

Project Manager:	Darren Tuck (Office)
Data QC:	Neil Fiset (Office)
Crew chief:	Brian Youngs
Operator:	Joseph Florjanic

The survey pilot and the mechanical engineer were employed directly by the helicopter operator – Geotech Aviation.

Pilot:	Greg Heuring
Mechanical Engineer:	n/a

#### OFFICE:

Preliminary Data Processing:	Neil Fiset
Final Data Processing:	Keeme Mokubung
Final Data QA/QC:	Geoffrey Plastow
Reporting/Mapping:	Liz Mathew

Data acquisition phase was carried out under the supervision of Andrei Bagrianski, P. Geo, and Chief Operating Officer. Processing and Interpretation phases were carried out under the supervision of Geoffrey Plastow, P. Geo, and Data Processing Manager. The customer relations were looked after by David Hitz.

## 4. DATA PROCESSING AND PRESENTATION

Data compilation and processing were carried out by the application of Geosoft OASIS Montaj and programs proprietary to Geotech Ltd.

### 4.1 FLIGHT PATH

The flight path, recorded by the acquisition program as WGS 84 latitude/longitude, was converted into the NAD83 Datum, UTM Zone 15 North coordinate system in Oasis Montaj.

The flight path was drawn using linear interpolation between x, y positions from the navigation system. Positions are updated every second and expressed as UTM easting's (x) and UTM northing's (y).

### 4.2 ELECTROMAGNETIC DATA

The Full Waveform EM specific data processing operations included:

- Half cycle stacking (performed at time of acquisition);
- System response correction;
- Parasitic and drift removal by deconvolution.

A three stage digital filtering process was used to reject major spheric events and to reduce noise levels. Local spheric activity can produce sharp, large amplitude events that cannot be removed by conventional filtering procedures. Smoothing or stacking will reduce their amplitude but leave a broader residual response that can be confused with geological phenomena. To avoid this possibility, a computer algorithm searches out and rejects the major spheric events.

The signal to noise ratio was further improved by the application of a low pass linear digital filter. This filter has zero phase shift which prevents any lag or peak displacement from occurring, and it suppresses only variations with a wavelength less than about 1 second or 15 metres. This filter is a symmetrical 1 sec linear filter.

The results are presented as stacked profiles of EM voltages for the time gates, in linear - logarithmic scale for the B-field Z component and dB/dt responses in the Z and X components. B-field Z component time channel recorded at 0.667 milliseconds after the termination of the impulse is also presented as a colour image. Calculated Time Constant (TAU) with Calculated Vertical Derivative contours is presented in Appendix C and E. Resistivity Depth Image (RDI) is also presented in Appendix F and G.

VTEM has two receiver coil orientations. Z-axis coil is oriented parallel to the transmitter coil axis and both are horizontal to the ground. The X-axis coil is oriented parallel to the ground and along the line-of-flight. This combined two coil configuration provides information on the position, depth, dip and thickness of a conductor. Generalized modeling results of VTEM max data are shown in Appendix D.

In general X-component data produce cross-over type anomalies: from “+ to -” in flight direction of flight for “thin” sub vertical targets and from “- to +” in direction of flight for “thick” targets. Z component data produce double peak type anomalies for “thin” sub vertical targets and single peak for “thick” targets.

The limits and change-over of “thin-thick” depends on dimensions of a TEM system (Appendix D, Figure D-16).

Because of X component polarity is under line-of-flight, convolution Fraser Filter (Figure 6) is applied to X component data to represent axes of conductors in the form of grid map. In this case positive FF anomalies always correspond to “plus-to-minus” X data crossovers independent of the flight direction.

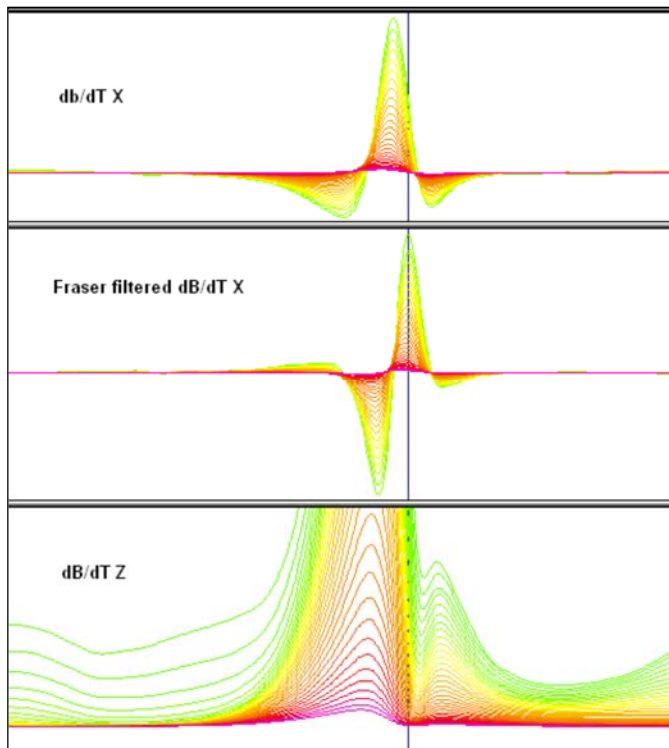


Figure 6: Z, X and Fraser filtered X (FFx) components for “thin” target.

### 4.3 HORIZONTAL MAGNETIC GRADIOMETER DATA

The horizontal gradients data from the VTEM™Plus are measured by two magnetometers 12.5 m apart on an independent bird mounted 10m above the VTEM™ loop. A GPS and a Gyro Inclinometer help to determine the positions and orientations of the magnetometers. The data from the two magnetometers are corrected for position and orientation variations, as well as for the diurnal variations using the base station data.

The position of the centre of the horizontal magnetic gradiometer bird is calculated from the GPS utilizing in-house processing tool in Geosoft. Following that total magnetic intensity is calculated at the center of the bird by calculating the mean values from both sensors. In addition to the total intensity advanced processing is done to calculate the in-line and cross-line (or lateral) horizontal gradient which enhance the understanding of magnetic targets. The in-line (longitudinal) horizontal gradient is calculated from the difference of two consecutive total magnetic field readings divided by the distance along the flight line direction, while the cross-line (lateral) horizontal magnetic gradient is calculated from the difference in the magnetic readings from both magnetic sensors divided by their horizontal separation.

Two advanced magnetic derivative products, the total horizontal derivative (THDR), and tilt angle derivative and are also created. The total horizontal derivative or gradient is defined as:

$THDR = \sqrt{H_x^2 + H_y^2}$ , where  $H_x$  and  $H_y$  are cross-line and in-line horizontal gradients.

The tilt angle derivative (TDR) is defined as:

$TDR = \arctan(V_z/THDR)$ , where THDR is the total horizontal derivative, and  $V_z$  is the vertical derivative.

Measured cross-line gradients can help to enhance cross-line linear features during gridding.

## 5. DELIVERABLES

### 5.1 SURVEY REPORT

The survey report describes the data acquisition, processing, and final presentation of the survey results. The survey report is provided in two paper copies and digitally in PDF format.

### 5.2 MAPS

Final maps were produced at scale of 1:20,000 for best representation of the survey size and line spacing. The coordinate/projection system used was NAD83 Datum, UTM Zone 15 North. All maps show the flight path trace and topographic data; latitude and longitude are also noted on maps.

The preliminary and final results of the survey are presented as EM profiles, a late-time gate gridded EM channel, and a colour magnetic TMI contour map.

- Maps at 1:20,000 in Geosoft MAP format, as follows:

GL160101_20k_dBdtz:	dB/dt profiles Z Component, Time Gates 0.021 – 0.880 ms in linear – logarithmic scale.
GL160101_20k_Bfieldz:	B-field profiles Z Component, Time Gates 0.220 – 7.036 ms in linear – logarithmic scale.
GL160101_20k_BFz28:	B-field Z Component Channel 28, Time Gate 0.667 ms colour image.
GL160101_20k_SFxFF20:	dBdt X Component Fraser Filtered Channel 20, Time Gate 0.220 ms colour image.
GL160101_20k_TMI:	Total magnetic intensity (TMI) colour image and contours.
GL160101_20k_TauSF:	dB/dt Calculated Time Constant (Tau) with Calculated Vertical Derivative contours
GL160101_20k_TotHGrad:	Magnetic Total Horizontal Gradient colour image.
GL160101_20k_TiltDrv:	Magnetic Tilt-Angle Derivative colour image.

- Maps are also presented in PDF format.
- The topographic data base was derived from 1:50,000 NRC (Natural Resources Canada) NTDB data, [www.geogratis.ca](http://www.geogratis.ca).
- A Google Earth file *GL160101\_FP.kml* showing the flight path of the block is included. Free versions of Google Earth software from: <http://earth.google.com/download-earth.html>

### 5.3 DIGITAL DATA

Two copies of the data and maps on DVD were prepared to accompany the report. Each DVD contains a digital file of the line data in GDB Geosoft Montaj format as well as the maps in Geosoft Montaj Map and PDF format.

- DVD structure.

**Data** contains databases, grids and maps, as described below.  
**Report** contains a copy of the report and appendices in PDF format.

Databases in Geosoft GDB format, containing the channels listed in Table 5.

**Table 5:** Geosoft GDB Data Format

Channel name	Units	Description
X:	metres	UTM Easting NAD83 Zone 15 North
Y:	metres	UTM Northing NAD83 Zone 15 North
Longitude:	Decimal Degrees	WGS 84 Longitude data
Latitude:	Decimal Degrees	WGS 84 Latitude data
Z:	metres	GPS antenna elevation (above Geoid)
Zb:	metres	EM bird elevation (above Geoid)
Radar:	metres	helicopter terrain clearance from radar altimeter
Radarb:	metres	Calculated EM transmitter-receiver loop terrain clearance from radar altimeter
DEM:	metres	Digital Elevation Model
Gtime:	Seconds of the day	GPS time
Mag1L:	nT	Measured Total Magnetic field data (left sensor)
Mag1R:	nT	Measured Total Magnetic field data (right sensor)
Basemag:	nT	Magnetic diurnal variation data
Mag2LZ	nT	Z corrected (w.r.t. loop center) and diurnal corrected magnetic field left mag
Mag2RZ	nT	Z corrected (w.r.t. loop center) and diurnal corrected magnetic field right mag
TMI2	nT	Calculated from diurnal corrected total magnetic field intensity of the centre of the loop
TMI3	nT	Microleveled total magnetic field intensity of the centre of the loop
Hginline		Calculated in-line gradient
Hgcxline		measured cross-line gradient
CVG	nT/m	Calculated Magnetic Vertical Gradient
SFz[4]:	pV/(A*m <sup>4</sup> )	Z dB/dt 0.021 millisecond time channel
SFz[5]:	pV/(A*m <sup>4</sup> )	Z dB/dt 0.026 millisecond time channel
SFz[6]:	pV/(A*m <sup>4</sup> )	Z dB/dt 0.031 millisecond time channel
SFz[7]:	pV/(A*m <sup>4</sup> )	Z dB/dt 0.036 millisecond time channel
SFz[8]:	pV/(A*m <sup>4</sup> )	Z dB/dt 0.042 millisecond time channel
SFz[9]:	pV/(A*m <sup>4</sup> )	Z dB/dt 0.048 millisecond time channel
SFz[10]:	pV/(A*m <sup>4</sup> )	Z dB/dt 0.055 millisecond time channel
SFz[11]:	pV/(A*m <sup>4</sup> )	Z dB/dt 0.063 millisecond time channel
SFz[12]:	pV/(A*m <sup>4</sup> )	Z dB/dt 0.073 millisecond time channel
SFz[13]:	pV/(A*m <sup>4</sup> )	Z dB/dt 0.083 millisecond time channel
SFz[14]:	pV/(A*m <sup>4</sup> )	Z dB/dt 0.096 millisecond time channel

Channel name	Units	Description
SFz[15]:	pV/(A*m <sup>4</sup> )	Z dB/dt 0.110 millisecond time channel
SFz[16]:	pV/(A*m <sup>4</sup> )	Z dB/dt 0.126 millisecond time channel
SFz[17]:	pV/(A*m <sup>4</sup> )	Z dB/dt 0.145 millisecond time channel
SFz[18]:	pV/(A*m <sup>4</sup> )	Z dB/dt 0.167 millisecond time channel
SFz[19]:	pV/(A*m <sup>4</sup> )	Z dB/dt 0.192 millisecond time channel
SFz[20]:	pV/(A*m <sup>4</sup> )	Z dB/dt 0.220 millisecond time channel
SFz[21]:	pV/(A*m <sup>4</sup> )	Z dB/dt 0.253 millisecond time channel
SFz[22]:	pV/(A*m <sup>4</sup> )	Z dB/dt 0.290 millisecond time channel
SFz[23]:	pV/(A*m <sup>4</sup> )	Z dB/dt 0.333 millisecond time channel
SFz[24]:	pV/(A*m <sup>4</sup> )	Z dB/dt 0.383 millisecond time channel
SFz[25]:	pV/(A*m <sup>4</sup> )	Z dB/dt 0.440 millisecond time channel
SFz[26]:	pV/(A*m <sup>4</sup> )	Z dB/dt 0.505 millisecond time channel
SFz[27]:	pV/(A*m <sup>4</sup> )	Z dB/dt 0.580 millisecond time channel
SFz[28]:	pV/(A*m <sup>4</sup> )	Z dB/dt 0.667 millisecond time channel
SFz[29]:	pV/(A*m <sup>4</sup> )	Z dB/dt 0.766 millisecond time channel
SFz[30]:	pV/(A*m <sup>4</sup> )	Z dB/dt 0.880 millisecond time channel
SFz[31]:	pV/(A*m <sup>4</sup> )	Z dB/dt 1.010 millisecond time channel
SFz[32]:	pV/(A*m <sup>4</sup> )	Z dB/dt 1.161 millisecond time channel
SFz[33]:	pV/(A*m <sup>4</sup> )	Z dB/dt 1.333 millisecond time channel
SFz[34]:	pV/(A*m <sup>4</sup> )	Z dB/dt 1.531 millisecond time channel
SFz[35]:	pV/(A*m <sup>4</sup> )	Z dB/dt 1.760 millisecond time channel
SFz[36]:	pV/(A*m <sup>4</sup> )	Z dB/dt 2.021 millisecond time channel
SFz[37]:	pV/(A*m <sup>4</sup> )	Z dB/dt 2.323 millisecond time channel
SFz[38]:	pV/(A*m <sup>4</sup> )	Z dB/dt 2.667 millisecond time channel
SFz[39]:	pV/(A*m <sup>4</sup> )	Z dB/dt 3.063 millisecond time channel
SFz[40]:	pV/(A*m <sup>4</sup> )	Z dB/dt 3.521 millisecond time channel
SFz[41]:	pV/(A*m <sup>4</sup> )	Z dB/dt 4.042 millisecond time channel
SFz[42]:	pV/(A*m <sup>4</sup> )	Z dB/dt 4.641 millisecond time channel
SFz[43]:	pV/(A*m <sup>4</sup> )	Z dB/dt 5.333 millisecond time channel
SFz[44]:	pV/(A*m <sup>4</sup> )	Z dB/dt 6.125 millisecond time channel
SFz[45]:	pV/(A*m <sup>4</sup> )	Z dB/dt 7.036 millisecond time channel
SFz[46]:	pV/(A*m <sup>4</sup> )	Z dB/dt 8.083 millisecond time channel
SFx[20]:	pV/(A*m <sup>4</sup> )	X dB/dt 0.220 millisecond time channel
SFx[21]:	pV/(A*m <sup>4</sup> )	X dB/dt 0.253 millisecond time channel
SFx[22]:	pV/(A*m <sup>4</sup> )	X dB/dt 0.290 millisecond time channel
SFx[23]:	pV/(A*m <sup>4</sup> )	X dB/dt 0.333 millisecond time channel
SFx[24]:	pV/(A*m <sup>4</sup> )	X dB/dt 0.383 millisecond time channel
SFx[25]:	pV/(A*m <sup>4</sup> )	X dB/dt 0.440 millisecond time channel
SFx[26]:	pV/(A*m <sup>4</sup> )	X dB/dt 0.505 millisecond time channel
SFx[27]:	pV/(A*m <sup>4</sup> )	X dB/dt 0.580 millisecond time channel
SFx[28]:	pV/(A*m <sup>4</sup> )	X dB/dt 0.667 millisecond time channel
SFx[29]:	pV/(A*m <sup>4</sup> )	X dB/dt 0.766 millisecond time channel
SFx[30]:	pV/(A*m <sup>4</sup> )	X dB/dt 0.880 millisecond time channel
SFx[31]:	pV/(A*m <sup>4</sup> )	X dB/dt 1.010 millisecond time channel
SFx[32]:	pV/(A*m <sup>4</sup> )	X dB/dt 1.161 millisecond time channel
SFx[33]:	pV/(A*m <sup>4</sup> )	X dB/dt 1.333 millisecond time channel
SFx[34]:	pV/(A*m <sup>4</sup> )	X dB/dt 1.531 millisecond time channel
SFx[35]:	pV/(A*m <sup>4</sup> )	X dB/dt 1.760 millisecond time channel
SFx[36]:	pV/(A*m <sup>4</sup> )	X dB/dt 2.021 millisecond time channel
SFx[37]:	pV/(A*m <sup>4</sup> )	X dB/dt 2.323 millisecond time channel

Channel name	Units	Description
SFx[38]:	pV/(A*m <sup>4</sup> )	X dB/dt 2.667 millisecond time channel
SFx[39]:	pV/(A*m <sup>4</sup> )	X dB/dt 3.063 millisecond time channel
SFx[40]:	pV/(A*m <sup>4</sup> )	X dB/dt 3.521 millisecond time channel
SFx[41]:	pV/(A*m <sup>4</sup> )	X dB/dt 4.042 millisecond time channel
SFx[42]:	pV/(A*m <sup>4</sup> )	X dB/dt 4.641 millisecond time channel
SFx[43]:	pV/(A*m <sup>4</sup> )	X dB/dt 5.333 millisecond time channel
SFx[44]:	pV/(A*m <sup>4</sup> )	X dB/dt 6.125 millisecond time channel
SFx[45]:	pV/(A*m <sup>4</sup> )	X dB/dt 7.036 millisecond time channel
SFx[46]:	pV/(A*m <sup>4</sup> )	X dB/dt 8.083 millisecond time channel
BFz	(pV*ms)/(A*m <sup>4</sup> )	Z B-Field data for time channels 4 to 46
BFx	(pV*ms)/(A*m <sup>4</sup> )	X B-Field data for time channels 20 to 46
SFxFF	pV/(A*m <sup>4</sup> )	Fraser Filtered X dB/dt
NchanBF		Latest time channels of TAU calculation
TauBF	ms	Time constant B-Field
NchanSF		Latest time channels of TAU calculation
TauSF	ms	Time constant dB/dt
PLM:		60 Hz power line monitor

Electromagnetic B-field and dB/dt Z component data is found in array channel format between indexes 4 – 46, and X component data from 20 – 46, as described above.

- Database of the Resistivity Depth Images in Geosoft GDB format, containing the following channels:

**Table 6:** Geosoft Resistivity Depth Image GDB Data Format

Channel name	Units	Description
Xg	metres	UTM Easting NAD83 Zone 15 North
Yg	metres	UTM Northing NAD83 Zone 15 North
Dist:	meters	Distance from the beginning of the line
Depth:	meters	array channel, depth from the surface
Z:	meters	array channel, depth from sea level
AppRes:	Ohm-m	array channel, Apparent Resistivity
TR:	meters	EM system height from sea level
Topo:	meters	digital elevation model
Radarb:	metres	Calculated EM transmitter-receiver loop terrain clearance from radar altimeter
SF:	pV/(A*m <sup>4</sup> )	array channel, dB/dt
MAG:	nT	TMI data
CVG:	nT/m	CVG data
DOI:	metres	Depth of Investigation: a measure of VTEM depth effectiveness
PLM:		60Hz Power Line Monitor
mGradientDepth	metres	Depth to Conductor

- Database of the VTEM Waveform “GL160101\_waveform\_final.gdb” in Geosoft GDB format, containing the following channels:

**Table 7:** Geosoft database for the VTEM waveform

Channel name	Units	Description
Time:	milliseconds	Sampling rate interval, 5.2083 microseconds
Tx_Current:	amps	Output current of the transmitter

- Grids in Geosoft GRD and GeoTIFF format, as follows:

BFz28:	B-Field Z Component Channel 28 (Time Gate 0.667 ms)
CVG:	Calculated Vertical Derivative (nT/m)
DEM:	Digital Elevation Model (metres)
Hgcxline:	Measured Cross-Line Gradient (nT/m)
Hginline:	Measured In-Line Gradient (nT/m)
SFxFF20:	Fraser Filtered dB/dt X Component Channel 20 (Time Gate 0.220ms)
SFz15:	dB/dt Z Component Channel 15 (Time Gate 0.110 ms)
SFz30:	dB/dt Z Component Channel 30 (Time Gate 0.880 ms)
SFz40:	dB/dt Z Component Channel 40 (Time Gate 3.521 ms)
TauBF:	B-Field Z Component, Calculated Time Constant (ms)
TauSF:	dB/dt Z Component, Calculated Time Constant (ms)
Tiltdrv:	Magnetic Tilt derivative (radians)
TMI3:	Total Magnetic Intensity (nT)
Tot_HG:	Magnetic Total Horizontal Gradient (nT/m)

A Geosoft .GRD file has a .GI metadata file associated with it, containing grid projection information. A grid cell size of 25 metres was used.

## 6. CONCLUSIONS AND RECOMMENDATIONS

A helicopter-borne versatile time domain electromagnetic (VTEMplus) and horizontal magnetic gradiometer geophysical survey has been completed over Savant Lake Project situated near Savant Lake, Ontario.

The total area coverage is 83 km<sup>2</sup>. Total survey line coverage 925 line kilometres. The principal sensors included a Time Domain EM system and a horizontal magnetic gradiometer using two caesium magnetometers. Results have been presented as stacked profiles, and contour colour images at a scale of 1:20,000. A formal Interpretation has not been included or requested.

Based on the geophysical results obtained, a number of TEM anomalous zones are identified across the properties. They can be seen overlapping the TAU decay parameter image presented with the calculated vertical magnetic gradient (CVG) contours (see Appendix C).

The conductive targets can be interpreted as structural conductors, lithological conductors and local targets (reference on RDIs in Appendix G). There is a strong correlation between structural conductors and magnetic anomalies. The anomalous zones have dB/dt time constant ranging from about 0.3 to 3.46ms. The apparent resistivity of the anomalous zones is estimated to be less than 1500 Ohm.m According to apparent resistivity depth images over all lines (reference on RDIs in Appendix G), the estimated depth of the top of the anomalous zones is approximately near surface to 300m deep. The region is rich with NW trending magnetite-quartz iron formations in the meta-volcanic belt. It is possible the some of the EM data coincident with a strong magnetic response are related to the Super Parametric Effect (SPM) and further analysis on the dataset would be required to confirm this. Geotech can perform this modelling analysis to confirm. If they are found to be not related to SPM it is possible the EM response is lithological corresponding to a dyke system.

If the conductors correspond to an exploration model on the area it is recommended picking EM anomalies, SPM analysis, 3D magnetic inversion, detail resistivity depth imaging and plate modeling with test drill hole parameters planning prior to ground follow up and drill testing.

Respectfully submitted<sup>2</sup>,

Neil Fiset  
**Geotech Ltd.**

Keeme Mokubung  
**Geotech Ltd.**

Geoffrey Plastow, P. Geo.  
Data Processing Manager  
**Geotech Ltd.**



June, 2016

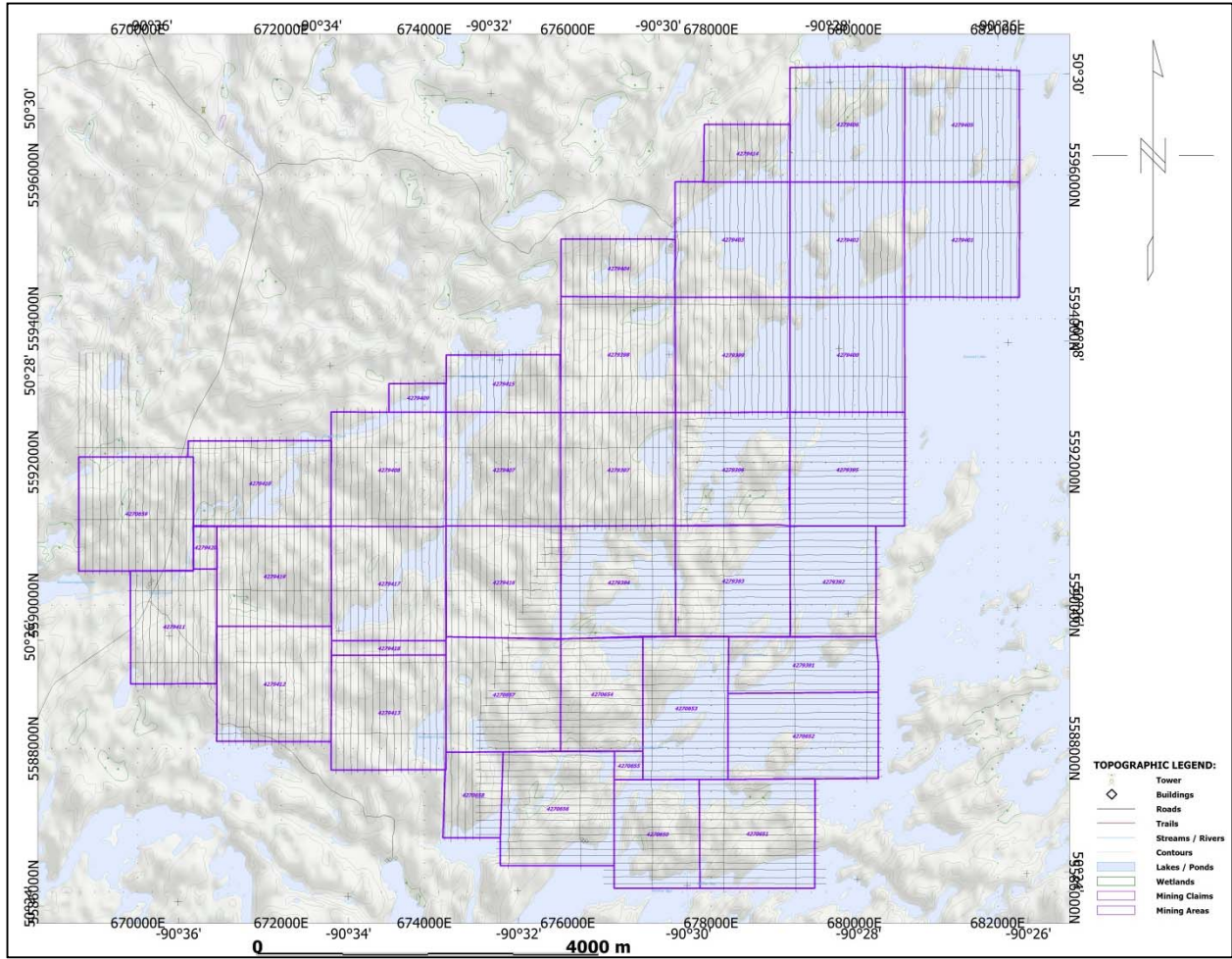
<sup>2</sup>Final data processing of the EM and magnetic data were carried out by Keeme Mokubung, from the office of Geotech Ltd. in Aurora, Ontario, under the supervision of Geoffrey Plastow, P. Geo. Data Processing Manager.

# APPENDIX A

## SURVEY AREA LOCATION MAP



Overview of the Survey Area



Mining Claims - Savant Lake Project

## APPENDIX B

### SURVEY AREA COORDINATES

(WGS 84, UTM Zone 15 North)

Savant Lake

North South

X	Y
669175	5593474
669175	5590474
669898	5590479
669929	5588901
671100	5588902
671100	5588100
672698	5588097
672698	5587699
674300	5587704
674256	5586757
674780	5586772
674780	5588386
675836	5591086
677684	5591086
677684	5592686
680685	5592686
680700	5594300
682300	5594300
682300	5597452
680700	5597500
679098	5597496
679104	5596703
677904	5596703
677895	5595902
677496	5595904
677500	5595100
675905	5595108
675897	5593500
674305	5593497
674300	5593100
673504	5593097
673505	5592701
672698	5592702
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670700	5592077
669900	5592075
669900	5593474
669175	5593474

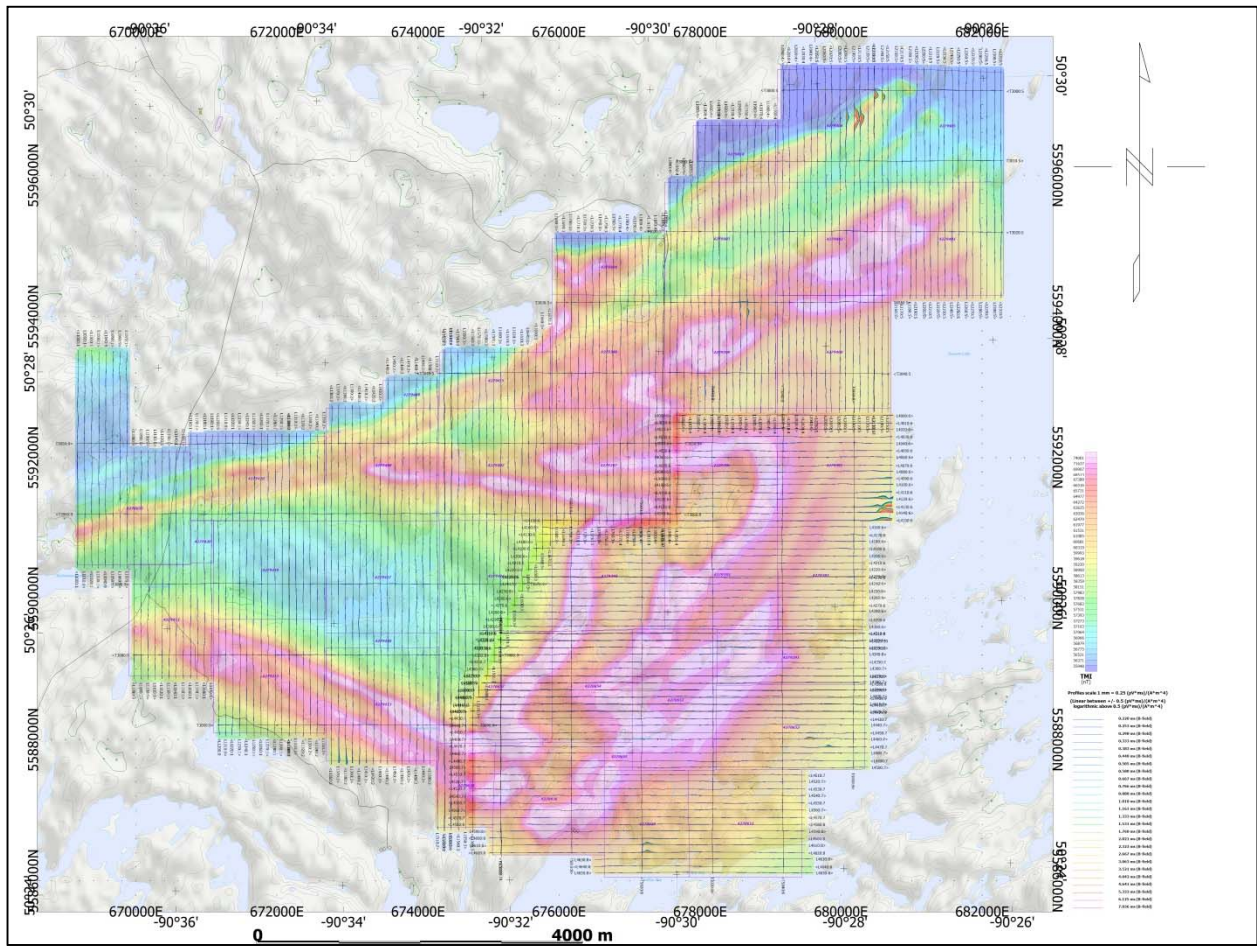
Savant Lake

East West

X	Y
674766	5586772
675059	5586757
675059	5586365
676648	5586365
676648	5586051
679447	5586051
679448	5587577
680333	5587583
680300	5589559
680300	5591100
680685	5591086
680685	5592686
677684	5592686
677684	5591086
675836	5591086
674780	5588386
674766	5586772

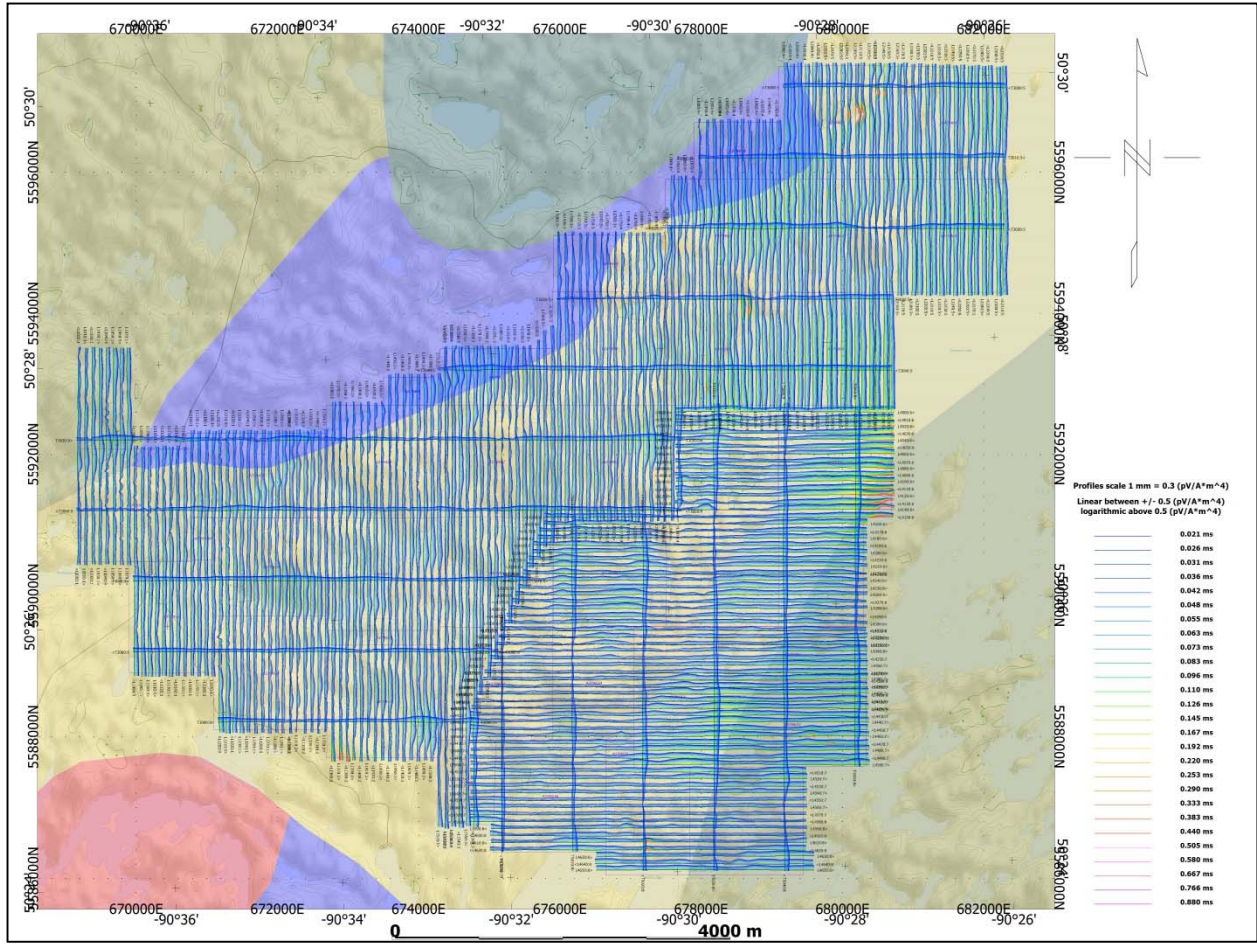
# APPENDIX C

## GEOPHYSICAL MAPS<sup>1</sup>

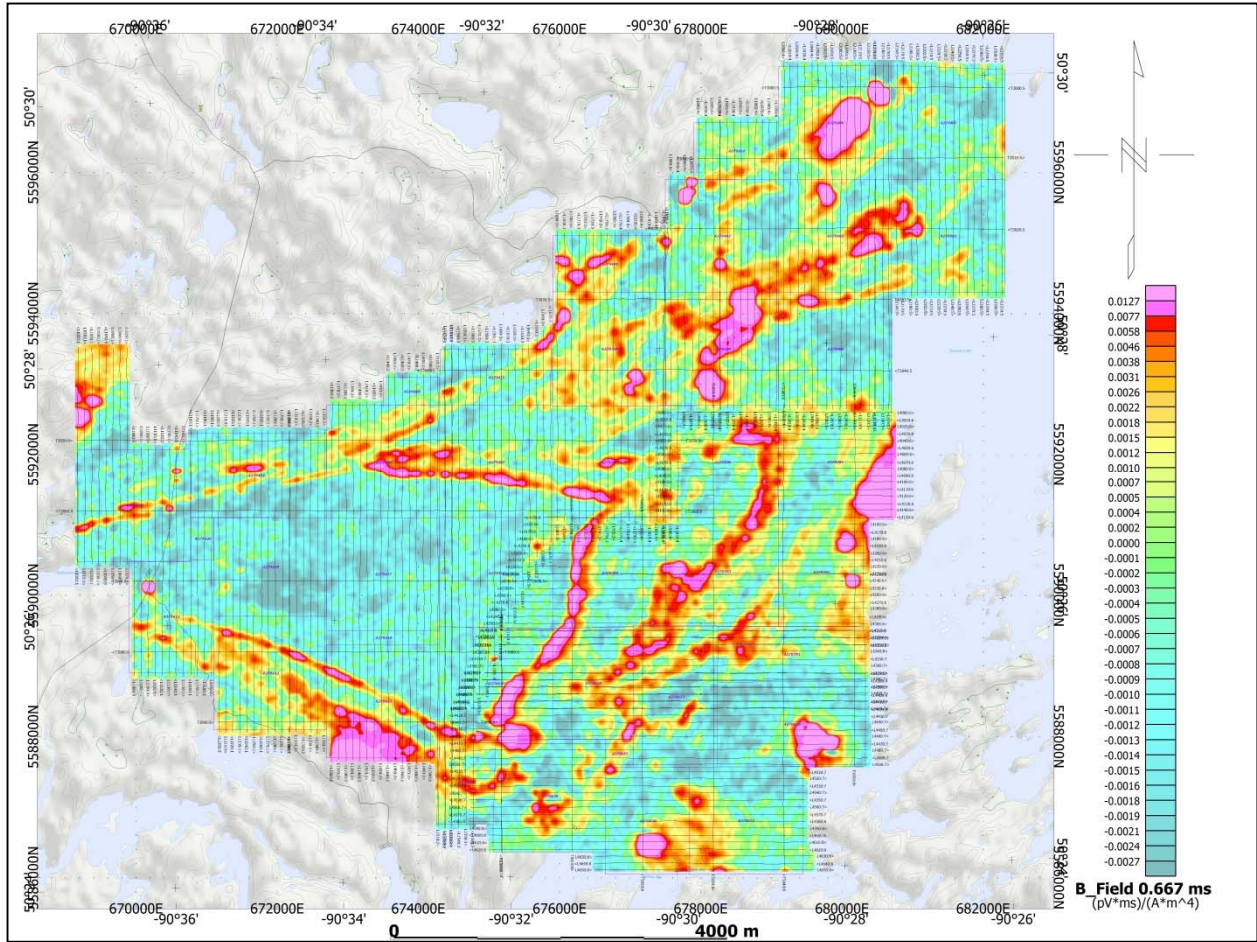


VTEM B-Field Z Component Profiles, Time Gates 0.220 to 7.036 ms

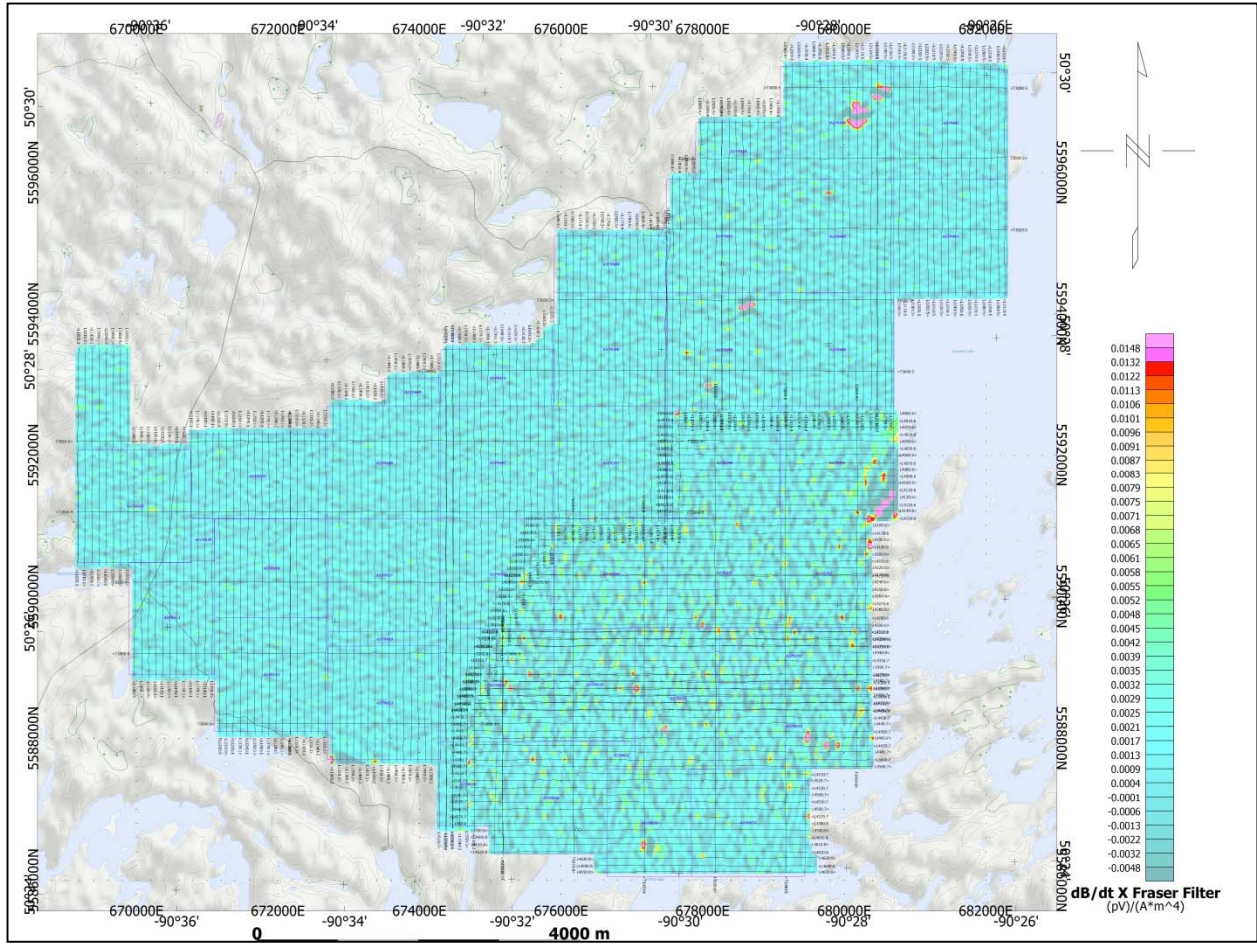
<sup>1</sup> Full size geophysical maps are also available in PDF format on the final DVD



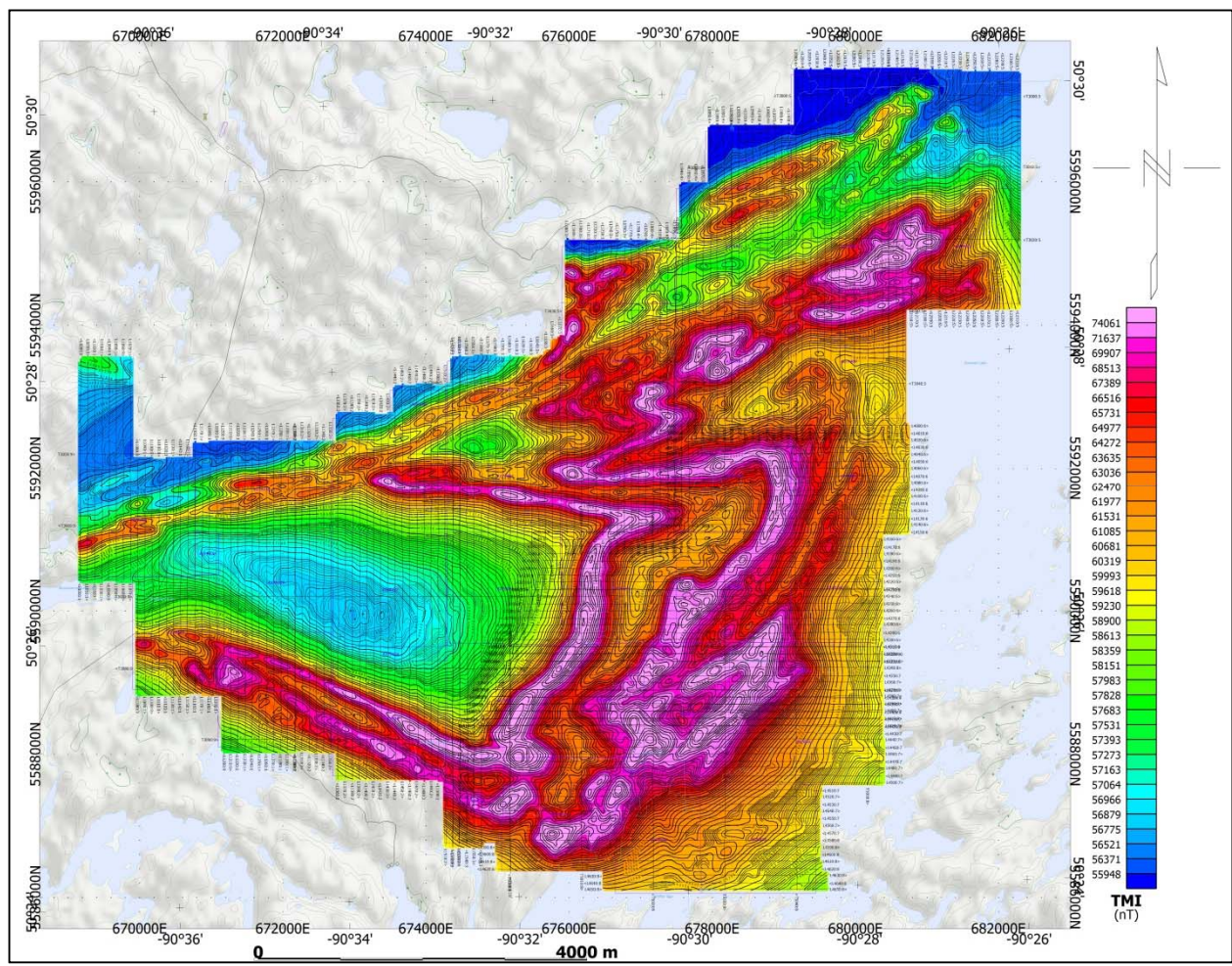
VTEM dB/dt Z Component Profiles, Time Gates 0.220 to 7.036 ms



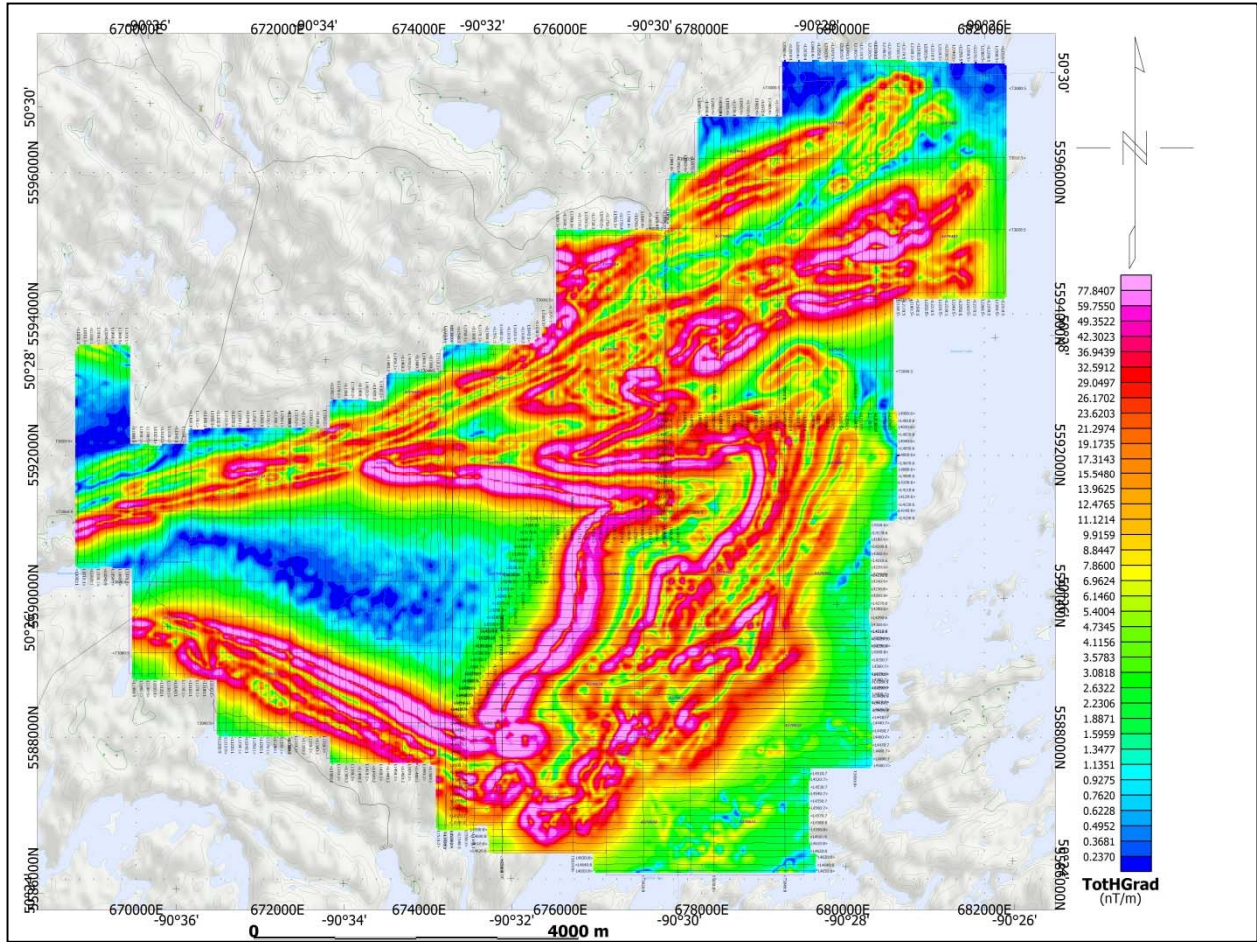
VTEM B-Field Z Component Channel 28, Time Gate 0.667 ms



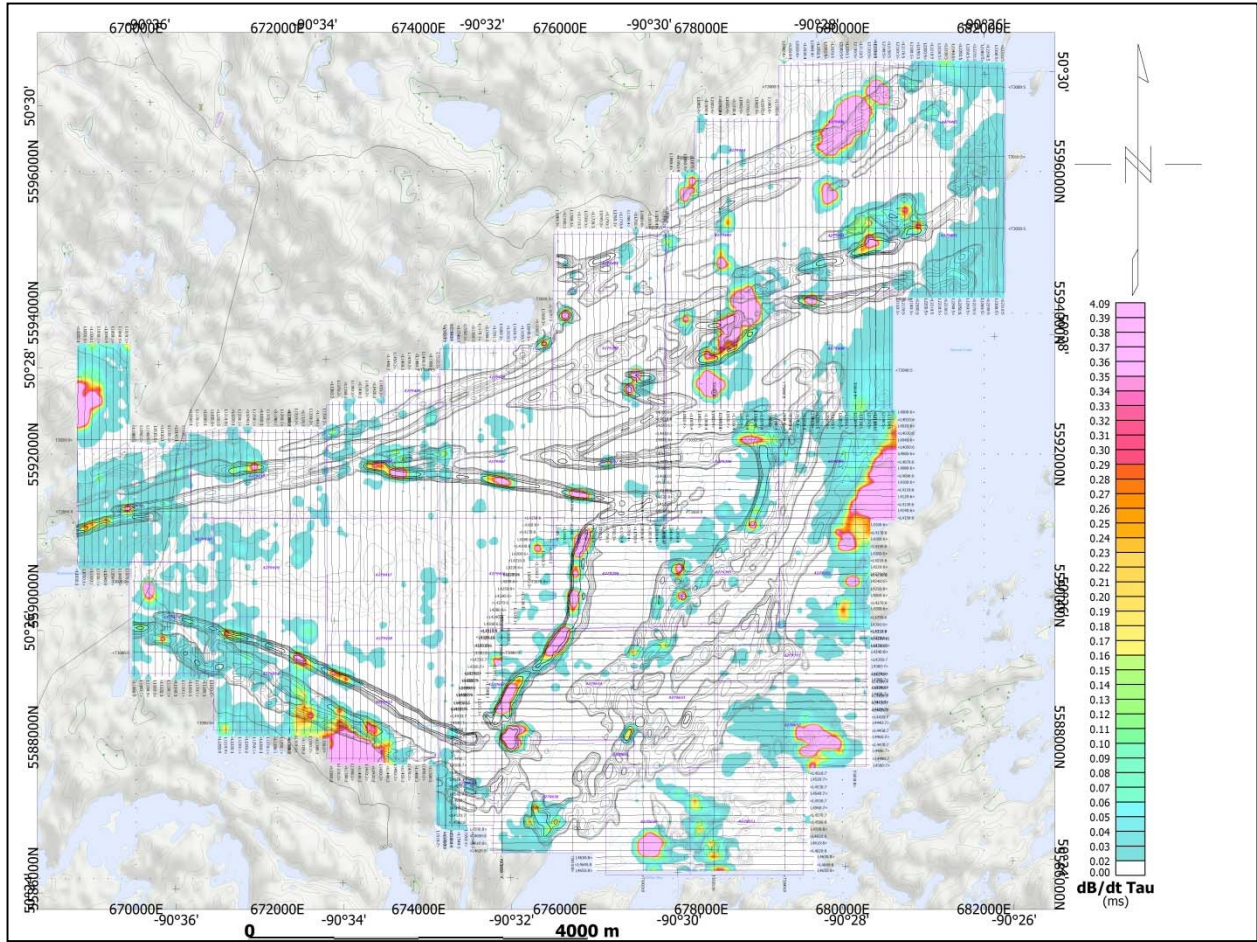
VTEM dB/dt X Component Fraser Filtered Channel 20, Time Gate 0.220 ms



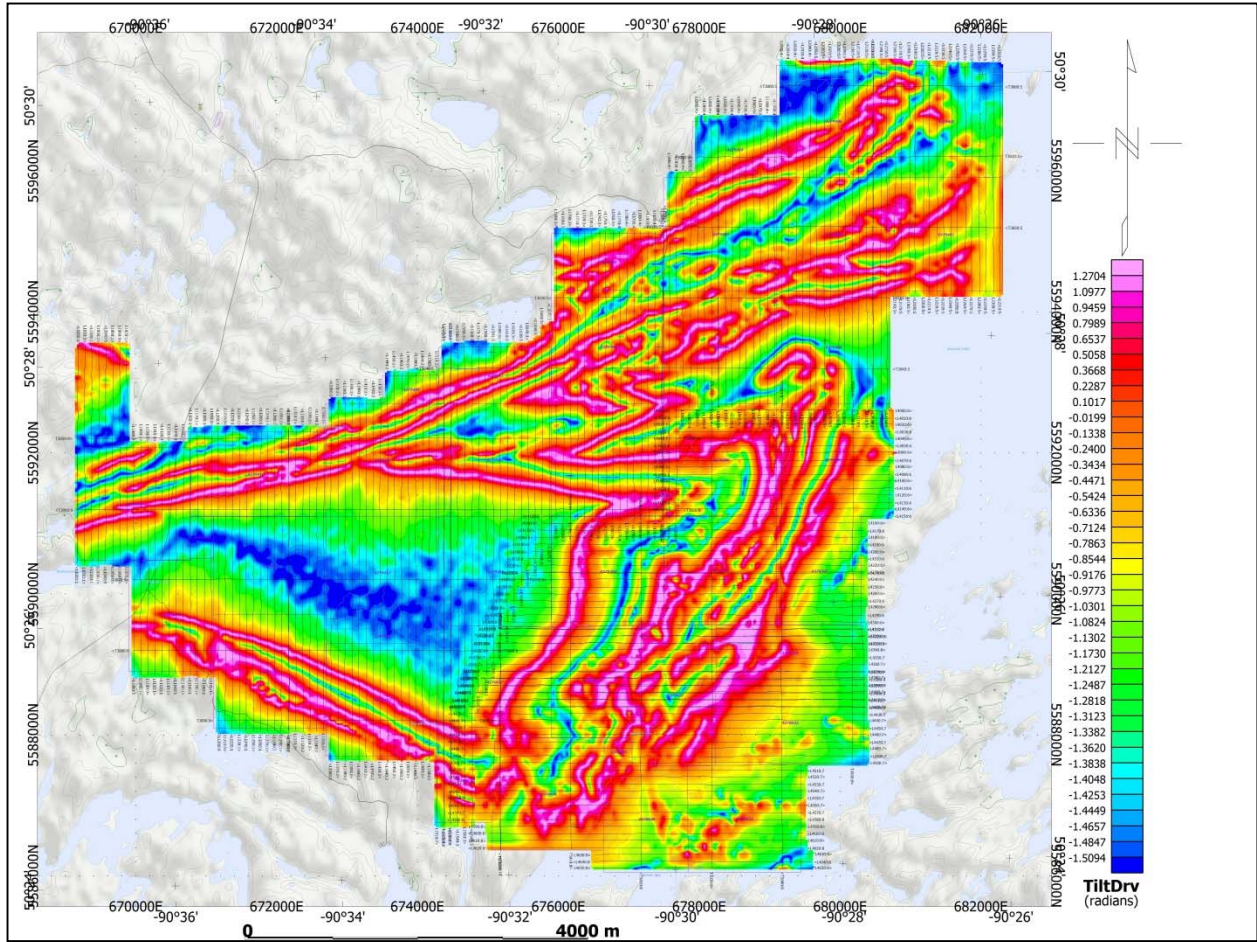
Total Magnetic Intensity (TMI)



Magnetic Total Horizontal Gradient



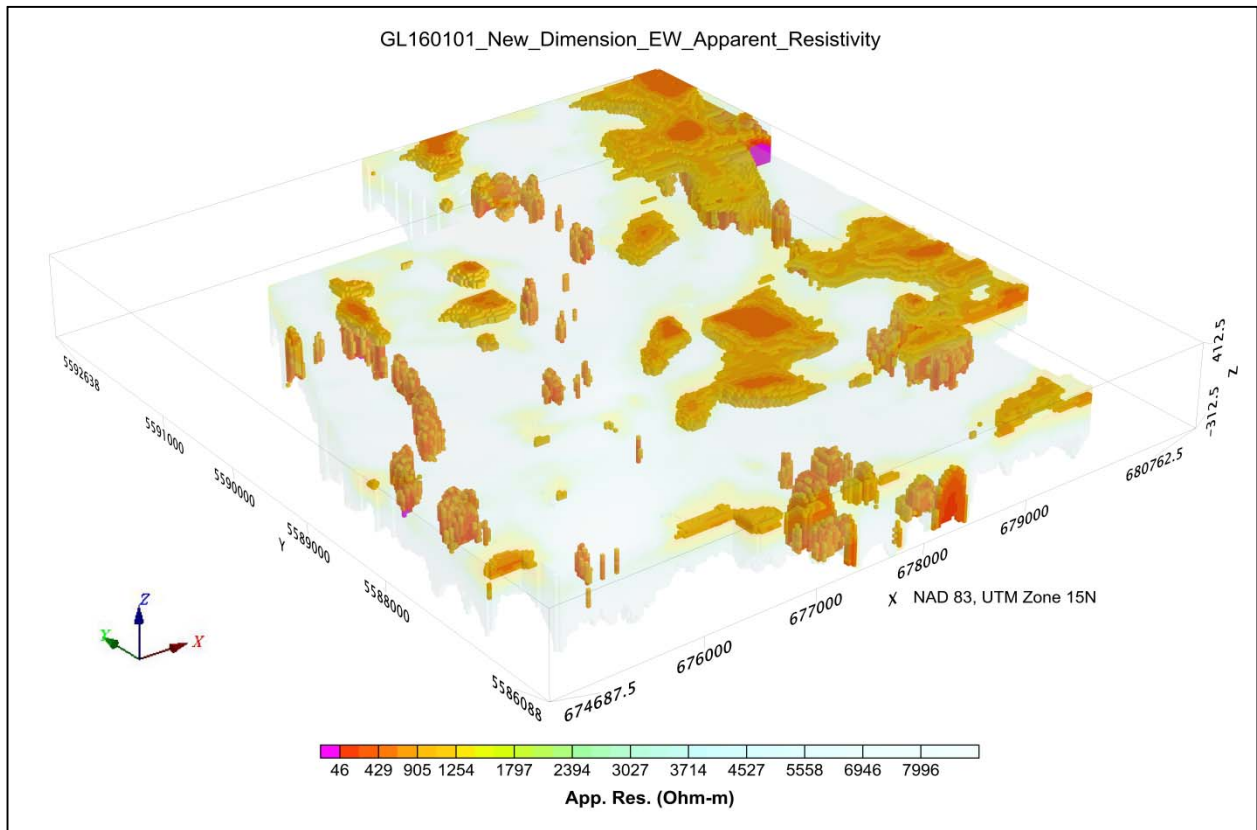
dB/dt Calculated Time Constant (Tau) with Calculated Vertical Derivative contours



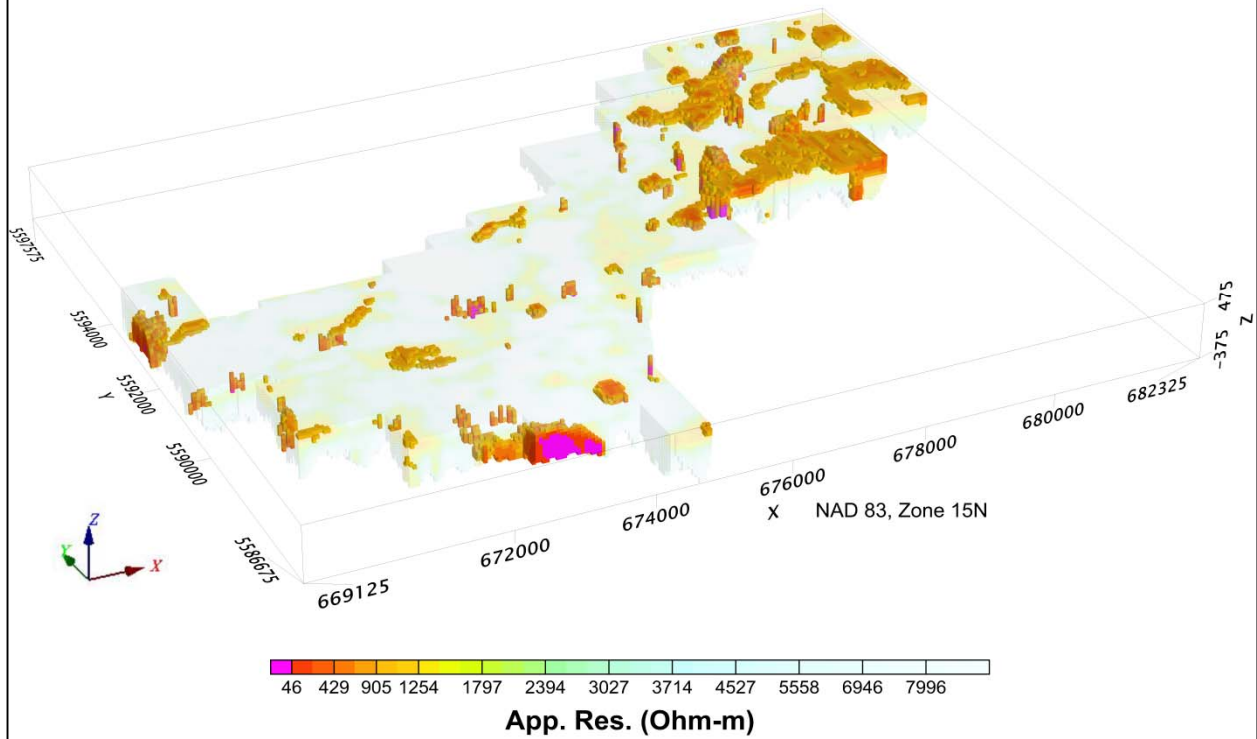
Magnetic Tilt - Angle Derivative

# RESISTIVITY DEPTH IMAGE (RDI) MAPS

## 3D Resistivity-Depth Image (RDI)



GL160101\_New\_Dimension\_NS\_Apparent\_Resistivity



## APPENDIX D

### GENERALIZED MODELING RESULTS OF THE VTEM SYSTEM INTRODUCTION

The VTEM system is based on a concentric or central loop design, whereby, the receiver is positioned at the centre of a transmitter loop that produces a primary field. The wave form is a bi-polar, modified square wave with a turn-on and turn-off at each end.

During turn-on and turn-off, a time varying field is produced (dB/dt) and an electro-motive force (emf) is created as a finite impulse response. A current ring around the transmitter loop moves outward and downward as time progresses. When conductive rocks and mineralization are encountered, a secondary field is created by mutual induction and measured by the receiver at the centre of the transmitter loop.

Efficient modeling of the results can be carried out on regularly shaped geometries, thus yielding close approximations to the parameters of the measured targets. The following is a description of a series of common models made for the purpose of promoting a general understanding of the measured results.

A set of models has been produced for the Geotech VTEM® system dB/dT Z and X components (see models D1 to D15). The Maxwell™ modeling program (EMIT Technology Pty. Ltd. Midland, WA, AU) used to generate the following responses assumes a resistive half-space. The reader is encouraged to review these models, so as to get a general understanding of the responses as they apply to survey results. While these models do not begin to cover all possibilities, they give a general perspective on the simple and most commonly encountered anomalies.

As the plate dips and departs from the vertical position, the peaks become asymmetrical.

As the dip increases, the aspect ratio (Min/Max) decreases and this aspect ratio can be used as an empirical guide to dip angles from near 90° to about 30°. The method is not sensitive enough where dips are less than about 30°.

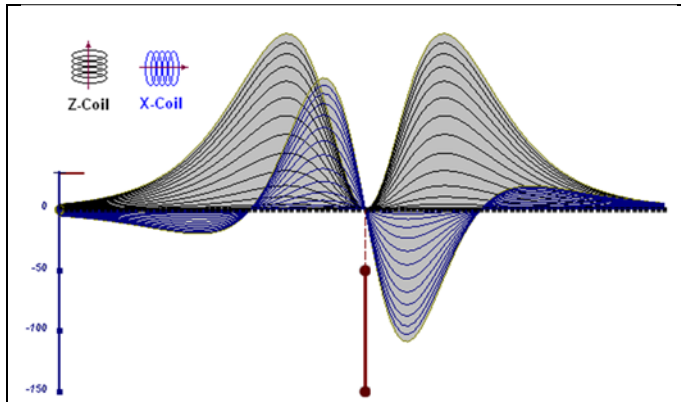


Figure D-1: vertical thin plate

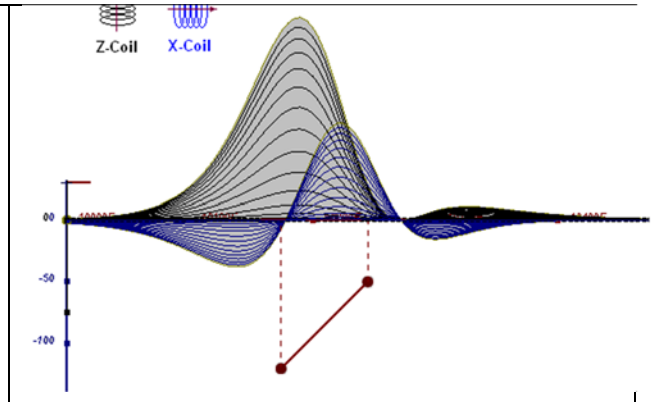


Figure D-2: inclined thin plate

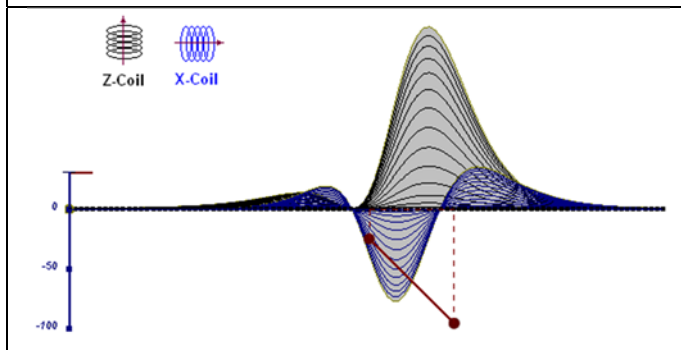


Figure D-3: inclined thin plate

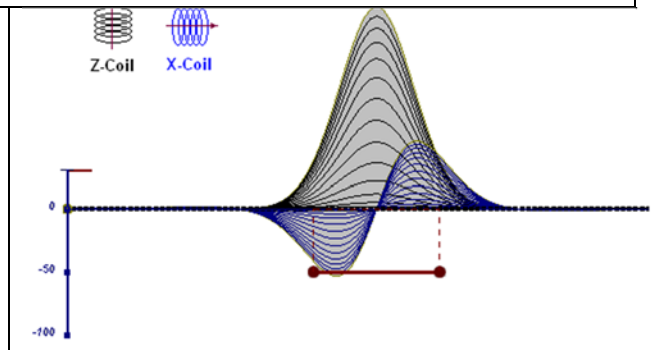


Figure D-4: horizontal thin plate

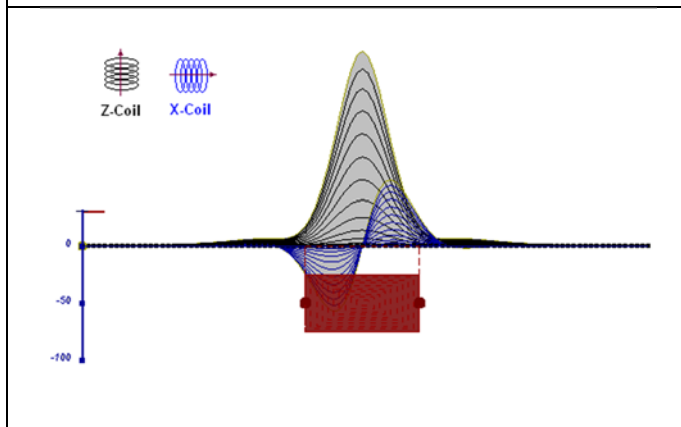


Figure D-5: horizontal thick plate (linear scale of the response)

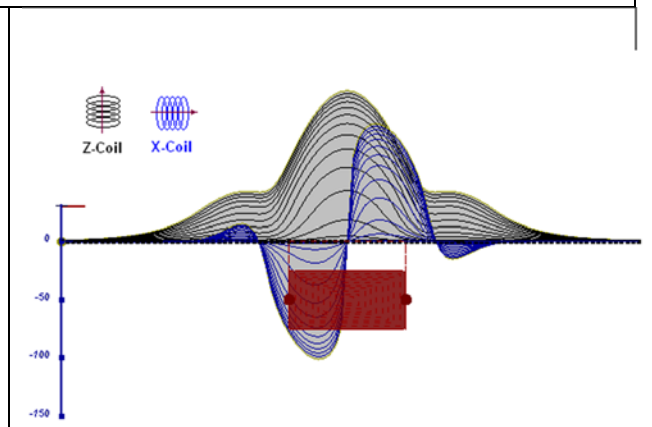
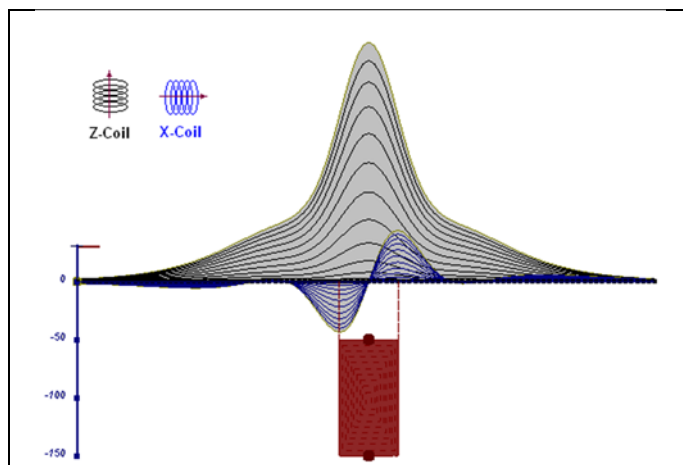
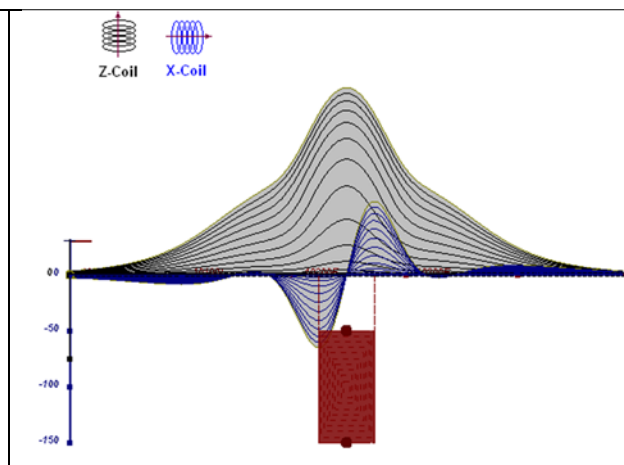


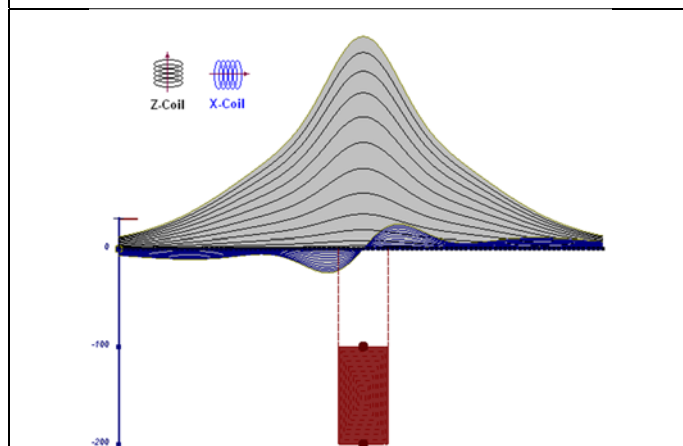
Figure D-6: horizontal thick plate (log scale of the response)



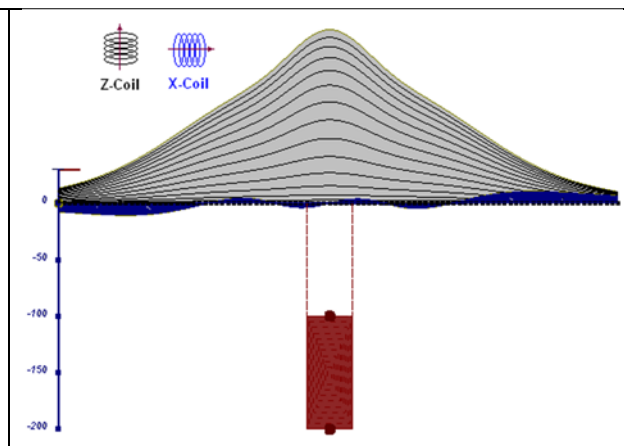
**Figure D-7:** vertical thick plate (linear scale of the response). 50 m depth



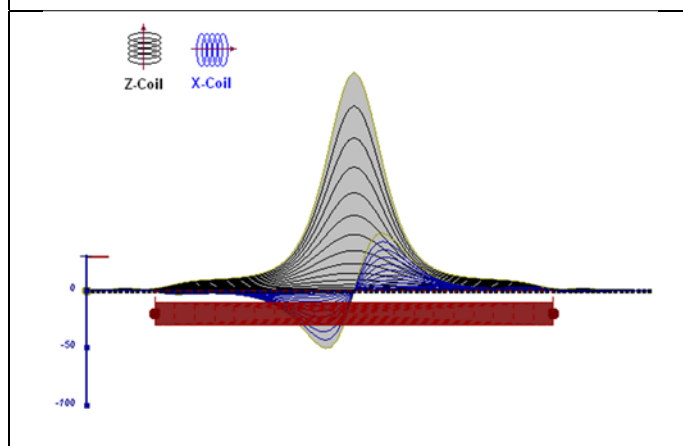
**Figure D-8:** vertical thick plate (log scale of the response). 50 m depth



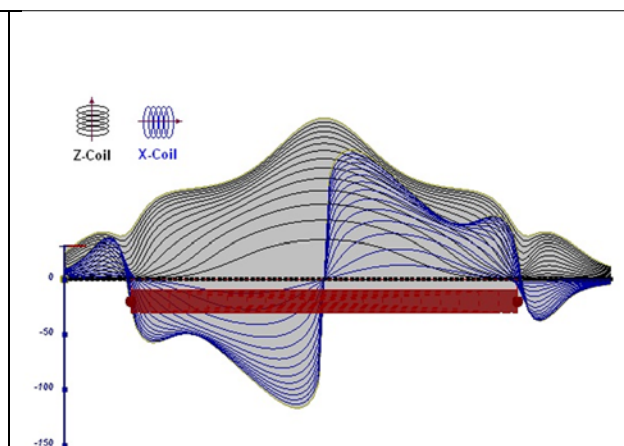
**Figure D-9:** vertical thick plate (linear scale of the response). 100 m depth



**Figure D-10:** vertical thick plate (linear scale of the response). Depth / horizontal thickness=2.5



**Figure D-11:** horizontal thick plate (linear scale of the response)



**Figure D-12:** horizontal thick plate (log scale of the response)

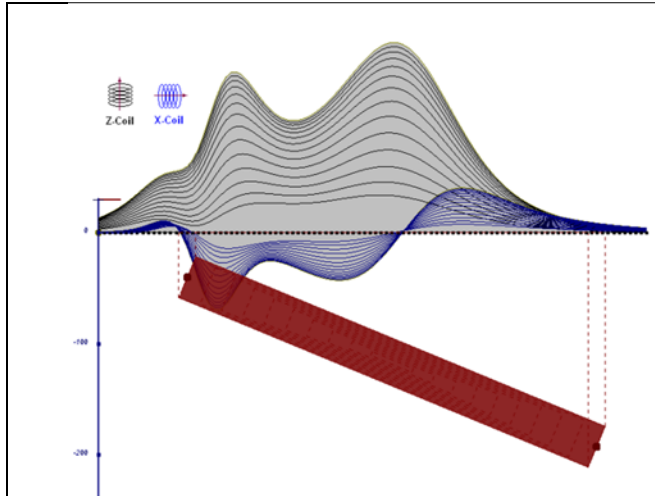


Figure D-13: inclined long thick plate

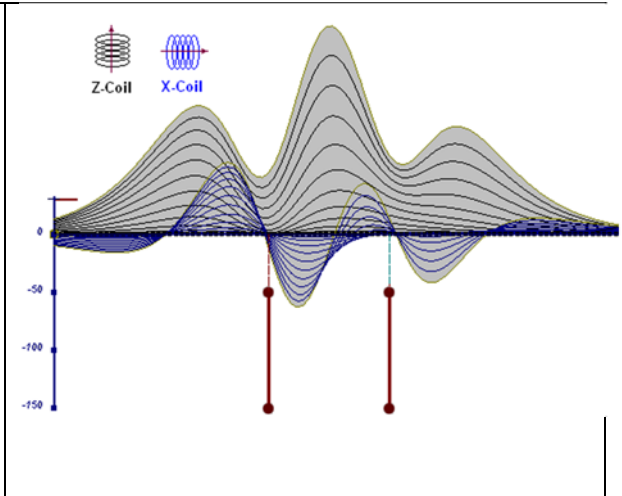


Figure D-14: two vertical thin plates

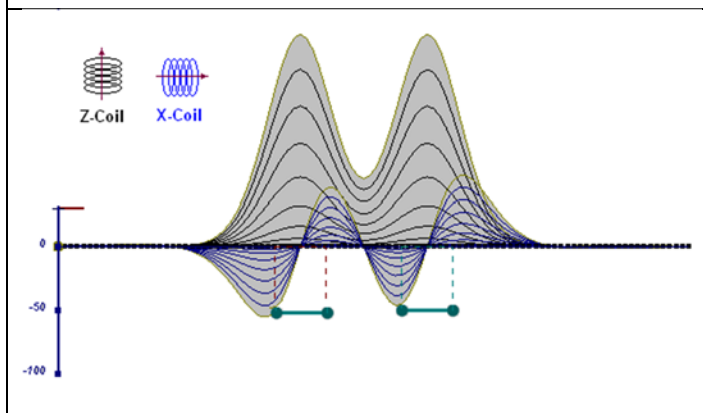


Figure D-15: two horizontal thin plates

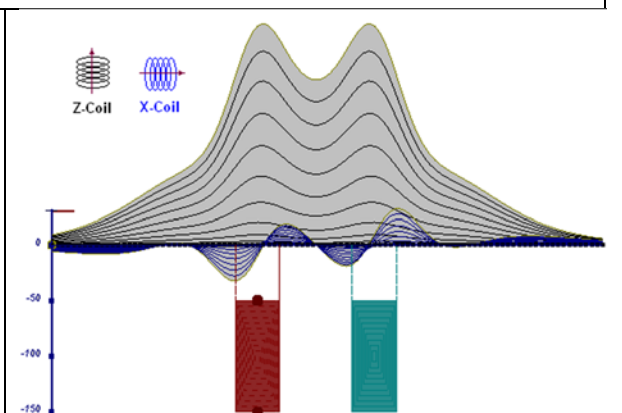
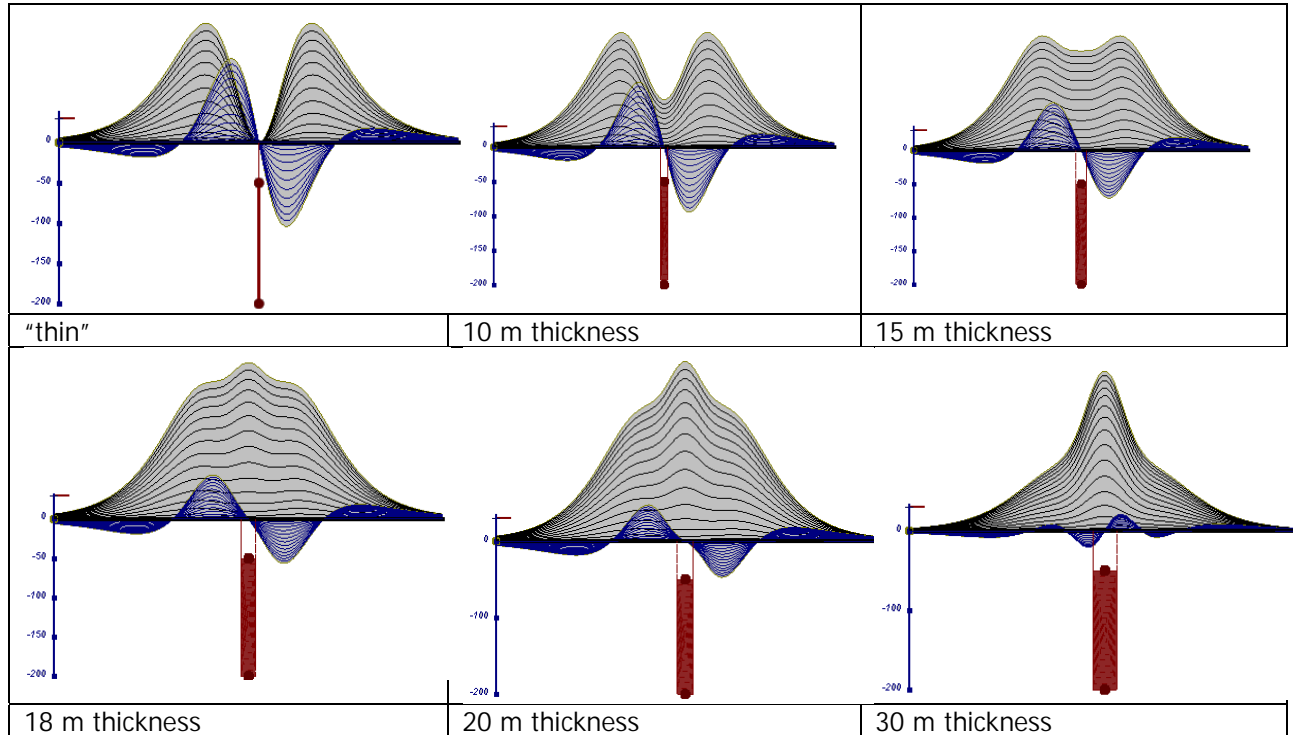


Figure D-16: two vertical thick plates

The same type of target but with different thickness, for example, creates different form of the response:



**Figure D-17:** Conductive vertical plate, depth 50 m, strike length 200 m, depth extends 150 m.

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September 2010

## APPENDIX E

### EM TIME CONSTANT (TAU) ANALYSIS

Estimation of time constant parameter<sup>1</sup> in transient electromagnetic method is one of the steps toward the extraction of the information about conductances beneath the surface from TEM measurements.

The most reliable method to discriminate or rank conductors from overburden, background or one and other is by calculating the EM field decay time constant (TAU parameter), which directly depends on conductance despite their depth and accordingly amplitude of the response.

### THEORY

As established in electromagnetic theory, the magnitude of the electro-motive force (emf) induced is proportional to the time rate of change of primary magnetic field at the conductor. This emf causes eddy currents to flow in the conductor with a characteristic transient decay, whose Time Constant (Tau) is a function of the conductance of the survey target or conductivity and geometry (including dimensions) of the target. The decaying currents generate a proportional secondary magnetic field, the time rate of change of which is measured by the receiver coil as induced voltage during the Off time.

The receiver coil output voltage ( $e_0$ ) is proportional to the time rate of change of the secondary magnetic field and has the form,

$$e_0 \propto (1 / \tau) e^{-(t/\tau)}$$

Where,

$\tau = L/R$  is the characteristic time constant of the target (TAU)

R = resistance

L = inductance

From the expression, conductive targets that have small value of resistance and hence large value of  $\tau$  yield signals with small initial amplitude that decays relatively slowly with progress of time. Conversely, signals from poorly conducting targets that have large resistance value and small  $\tau$ , have high initial amplitude but decay rapidly with time<sup>1</sup> (Fig. E1).

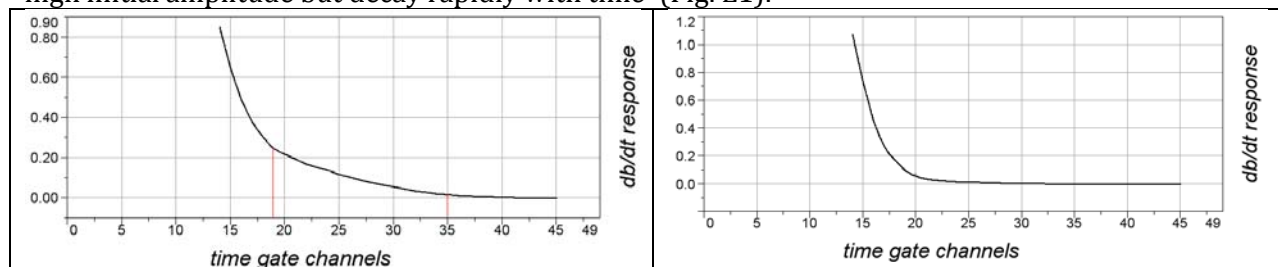


Figure E-1: Left – presence of good conductor, right – poor conductor.

<sup>1</sup> McNeill, JD, 1980, "Applications of Transient Electromagnetic Techniques", Technical Note TN-7 page 5, Geonics Limited, Mississauga, Ontario.

## EM Time Constant (Tau) Calculation

The EM Time-Constant (TAU) is a general measure of the speed of decay of the electromagnetic response and indicates the presence of eddy currents in conductive sources as well as reflecting the “conductance quality” of a source. Although TAU can be calculated using either the measured dB/dt decay or the calculated B-field decay, dB/dt is commonly preferred due to better stability (S/N) relating to signal noise. Generally, TAU calculated on base of early time response reflects both near surface overburden and poor conductors whereas, in the late ranges of time, deep and more conductive sources, respectively. For example early time TAU distribution in an area that indicates conductive overburden is shown in Figure 2.

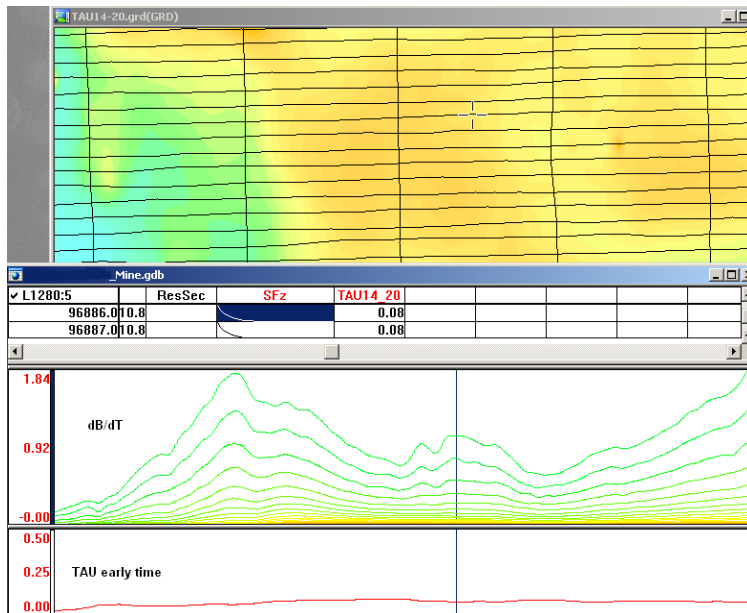


Figure E-2: Map of early time TAU. Area with overburden conductive layer and local sources.

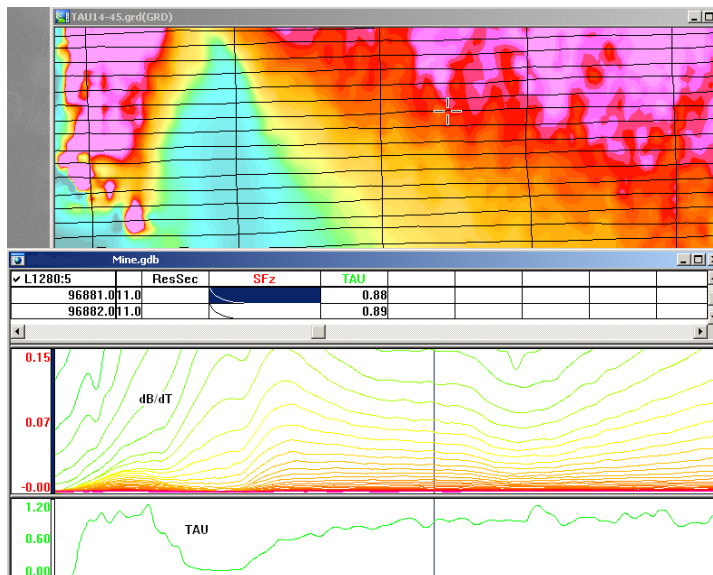


Figure E-3: Map of full time range TAU with EM anomaly due to deep highly conductive target.

There are many advantages of TAU maps:

- TAU depends only on one parameter (conductance) in contrast to response magnitude;
- TAU is integral parameter, which covers time range and all conductive zones and targets are displayed independently of their depth and conductivity on a single map.
- Very good differential resolution in complex conductive places with many sources with different conductivity.
- Signs of the presence of good conductive targets are amplified and emphasized independently of their depth and level of response accordingly.

In the example shown in Figure 4 and 5, three local targets are defined, each of them with a different depth of burial, as indicated on the resistivity depth image (RDI). All are very good conductors but the deeper target (number 2) has a relatively weak dB/dt signal yet also features the strongest total TAU (Figure 4). This example highlights the benefit of TAU analysis in terms of an additional target discrimination tool.

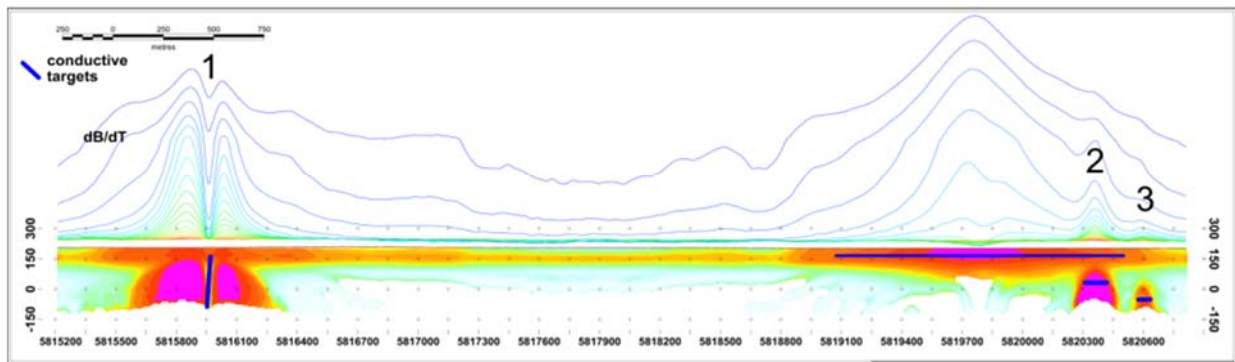


Figure E-4: dB/dt profile and RDI with different depths of targets.

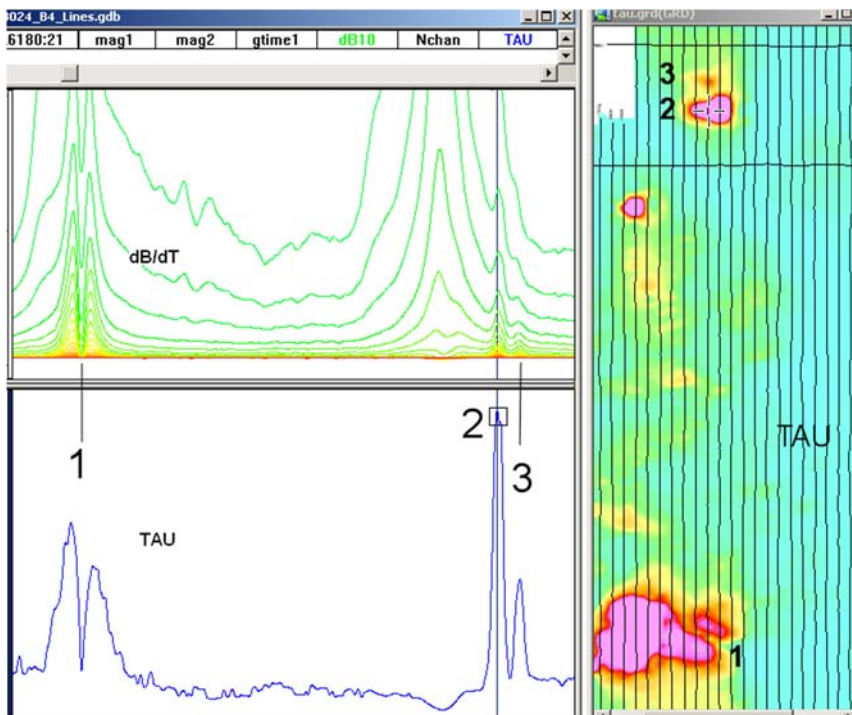


Figure E-5: Map of total TAU and dB/dt profile.

The EM Time Constants for dB/dt and B-field were calculated using the “sliding Tau” in-house program developed at Geotech2. The principle of the calculation is based on using of time window (4 time channels) which is sliding along the curve decay and looking for latest time channels which have a response above the level of noise and decay. The EM decays are obtained from all available decay channels, starting at the latest channel. Time constants are taken from a least square fit of a straight-line (log/linear space) over the last 4 gates above a pre-set signal threshold level (Figure F6). Threshold settings are pointed in the “label” property of TAU database channels. The sliding Tau method determines that, as the amplitudes increase, the time-constant is taken at progressively later times in the EM decay. Conversely, as the amplitudes decrease, Tau is taken at progressively earlier times in the decay. If the maximum signal amplitude falls below the threshold, or becomes negative for any of the 4 time gates, then Tau is not calculated and is assigned a value of “dummy” by default.

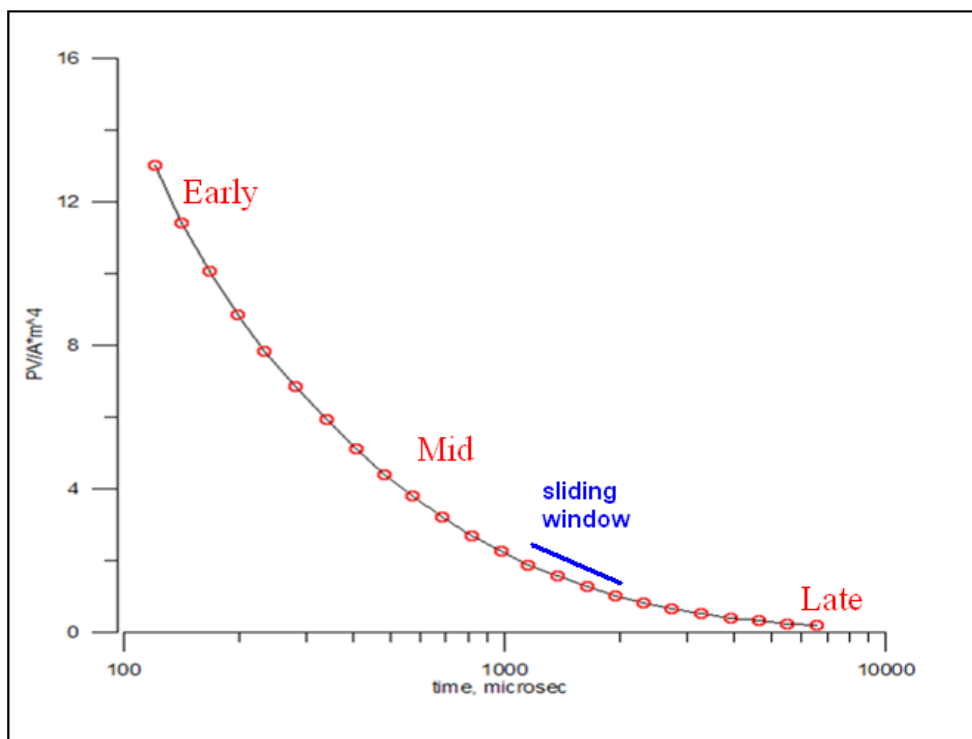


Figure E-6: Typical dB/dt decays of Vtem data

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September 2010

<sup>2</sup> by A.Prikhodko

## APPENDIX F

### TEM RESISTIVITY DEPTH IMAGING (RDI)

Resistivity depth imaging (RDI) is a technique used to rapidly convert EM profile decay data into an equivalent resistivity versus depth cross-section, by deconvolving the measured TEM data. The used RDI algorithm of Resistivity-Depth transformation is based on the scheme of the apparent resistivity transform of Maxwell A. Meju (1998)<sup>1</sup> and TEM response from a conductive half-space. The program is developed by Alexander Prikhodko and is depth calibrated based on forward plate modeling for VTEM system configuration (Fig. 1-10).

RDIs provide reasonable indications of conductor relative depth and vertical extent, as well as accurate 1D layered-earth apparent conductivity/resistivity structure across VTEM flight lines. Approximate depth of investigation of a TEM system, image of secondary field distribution in half space, effective resistivity, initial geometry and position of conductive targets is the information obtained on the basis of the RDIs.

Maxwell forward modeling with RDI sections from the synthetic responses (VTEM system).

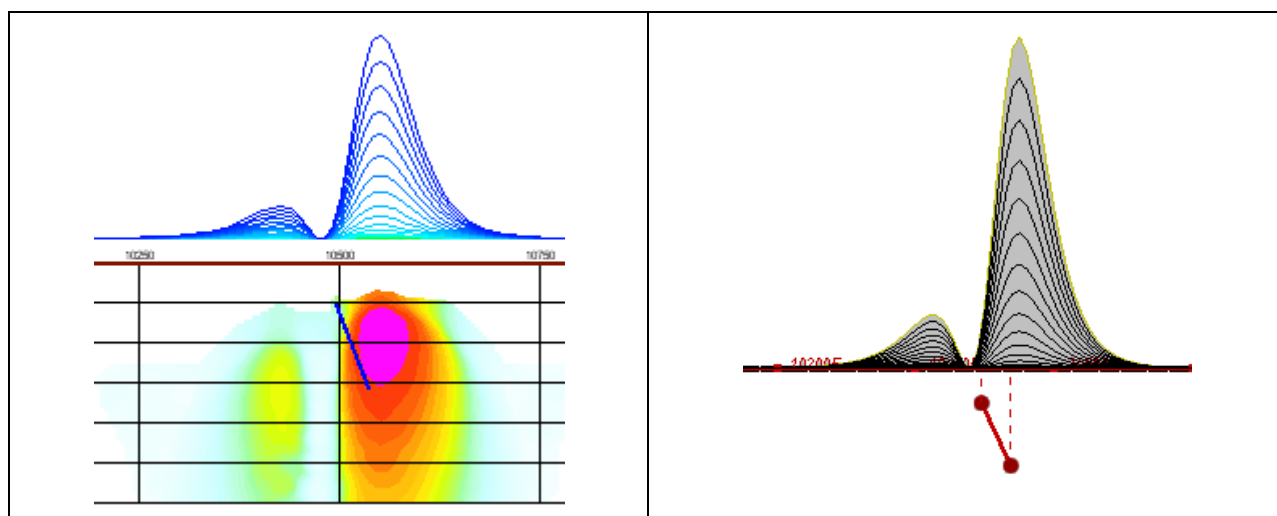


Figure F-1: Maxwell plate model and RDI from the calculated response for a conductive "thin" plate (depth 50 m, dip 65 degree, depth extend 100 m).

<sup>1</sup> Maxwell A. Meju, 1998, Short Note: A simple method of transient electromagnetic data analysis, *Geophysics*, **63**, 405–410.

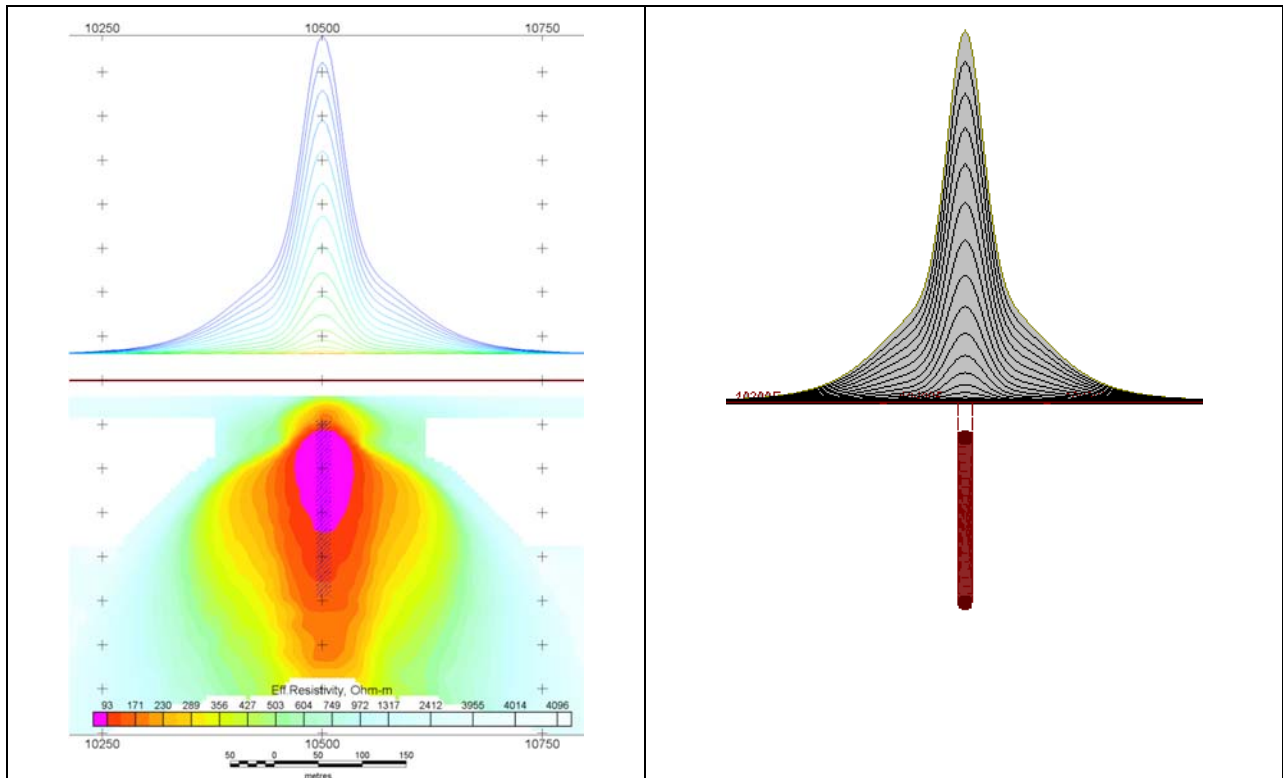


Figure F-2: Maxwell plate model and RDI from the calculated response for "thick" plate 18 m thickness, depth 50 m, depth extend 200 m).

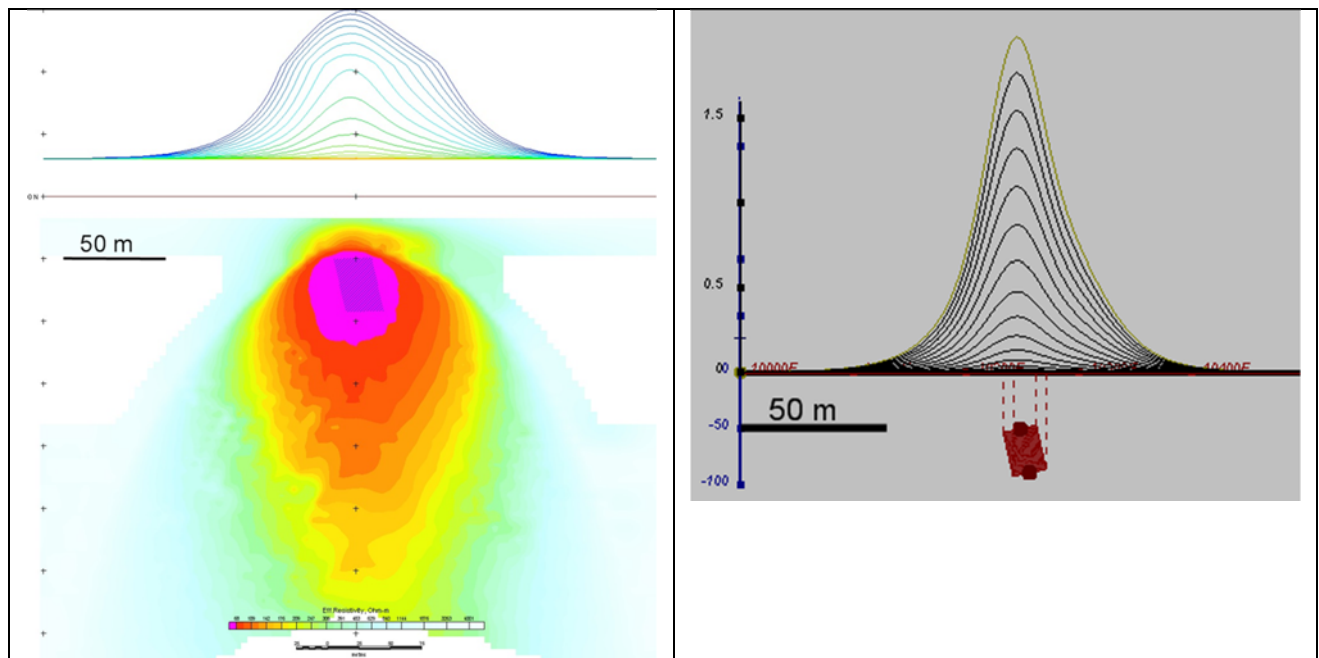


Figure F-3: Maxwell plate model and RDI from the calculated response for bulk ("thick") 100 m length, 40 m depth extend, 30 m thickness

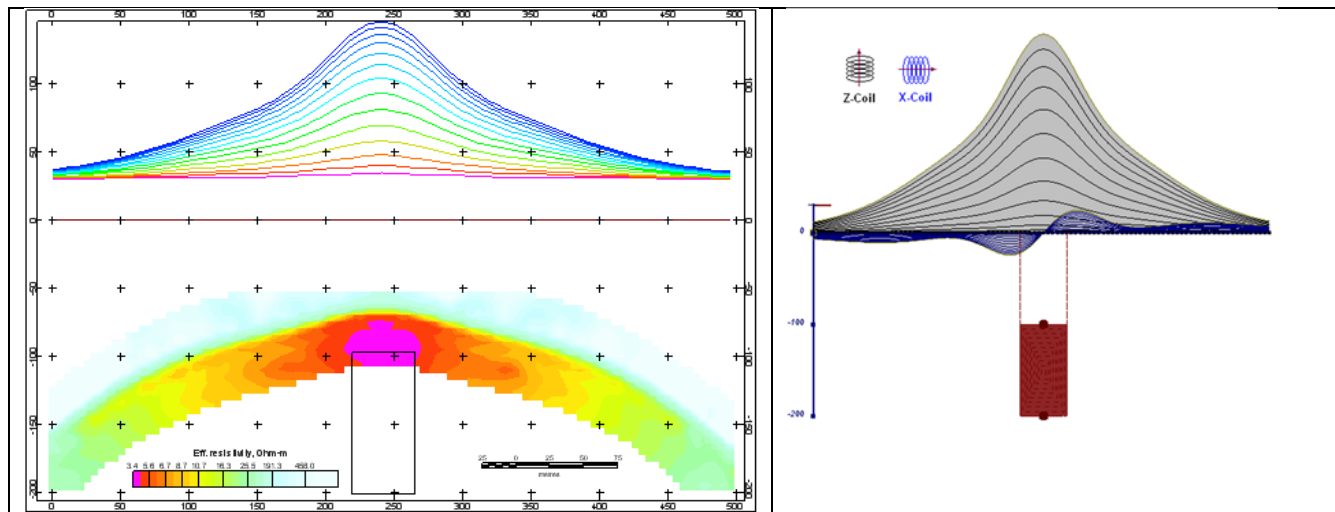


Figure F-4: Maxwell plate model and RDI from the calculated response for “thick” vertical target (depth 100 m, depth extend 100 m). 19-44 chan.

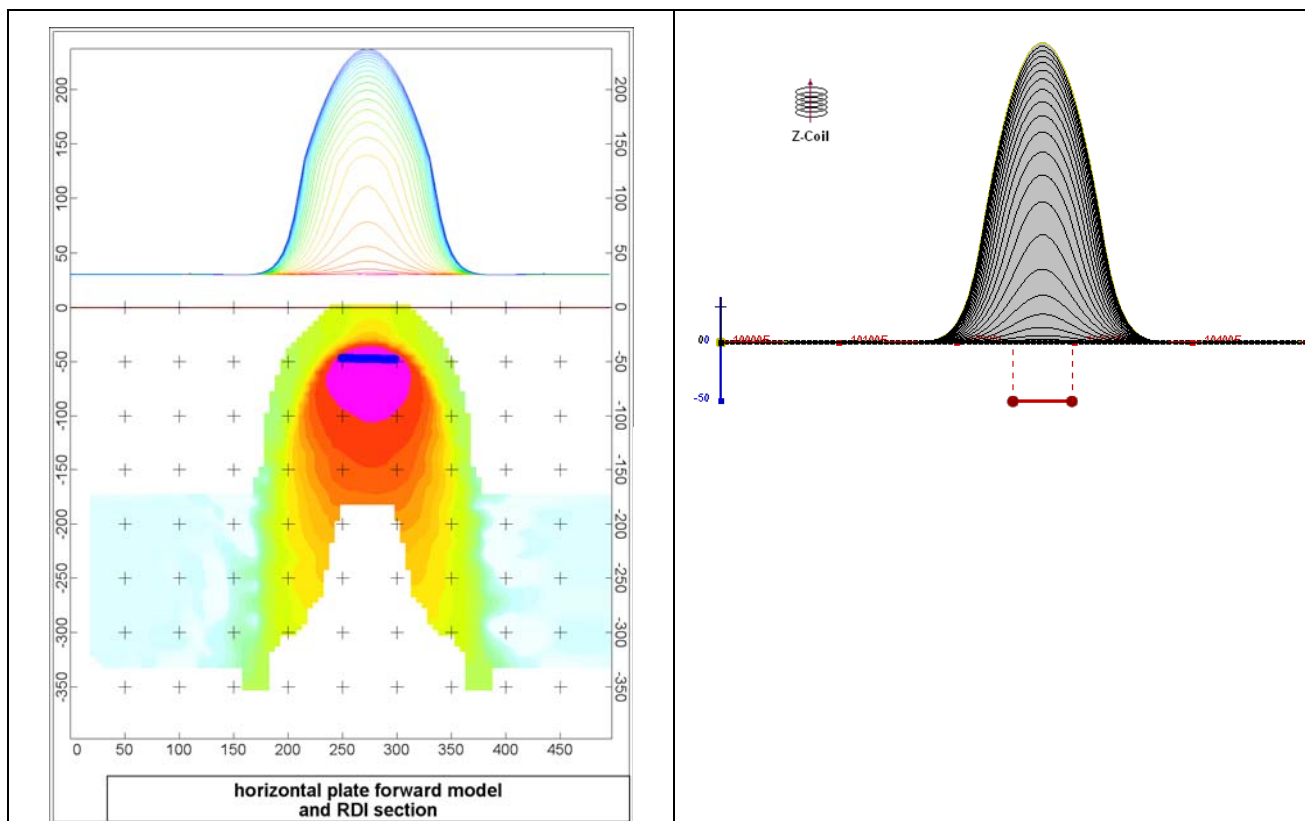


Figure F-5: Maxwell plate model and RDI from the calculated response for horizontal thin plate (depth 50 m, dim 50x100 m). 15-44 chan.

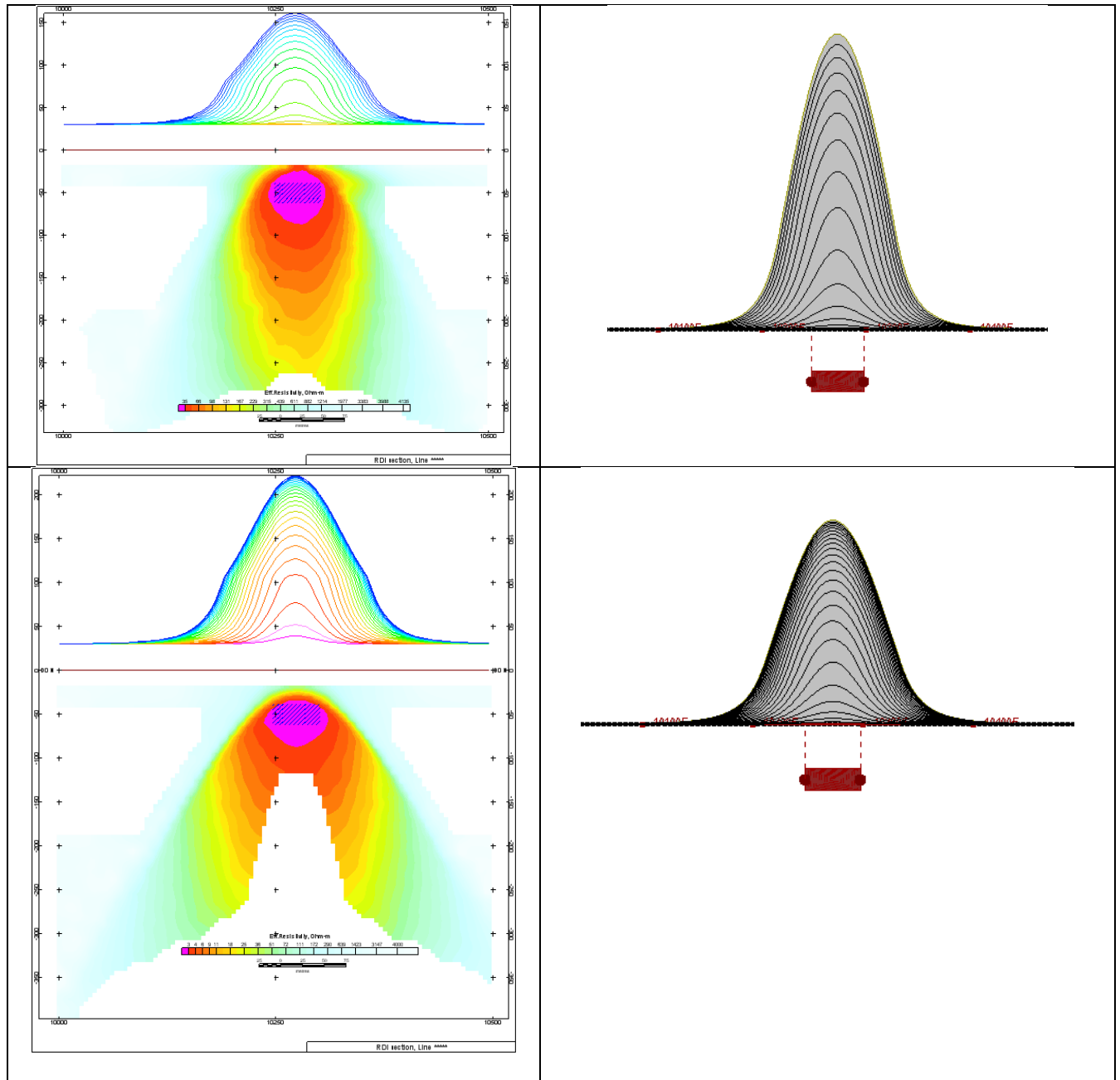


Figure F-6: Maxwell plate model and RDI from the calculated response for horizontal thick (20m) plate – less conductive (on the top), more conductive (below).

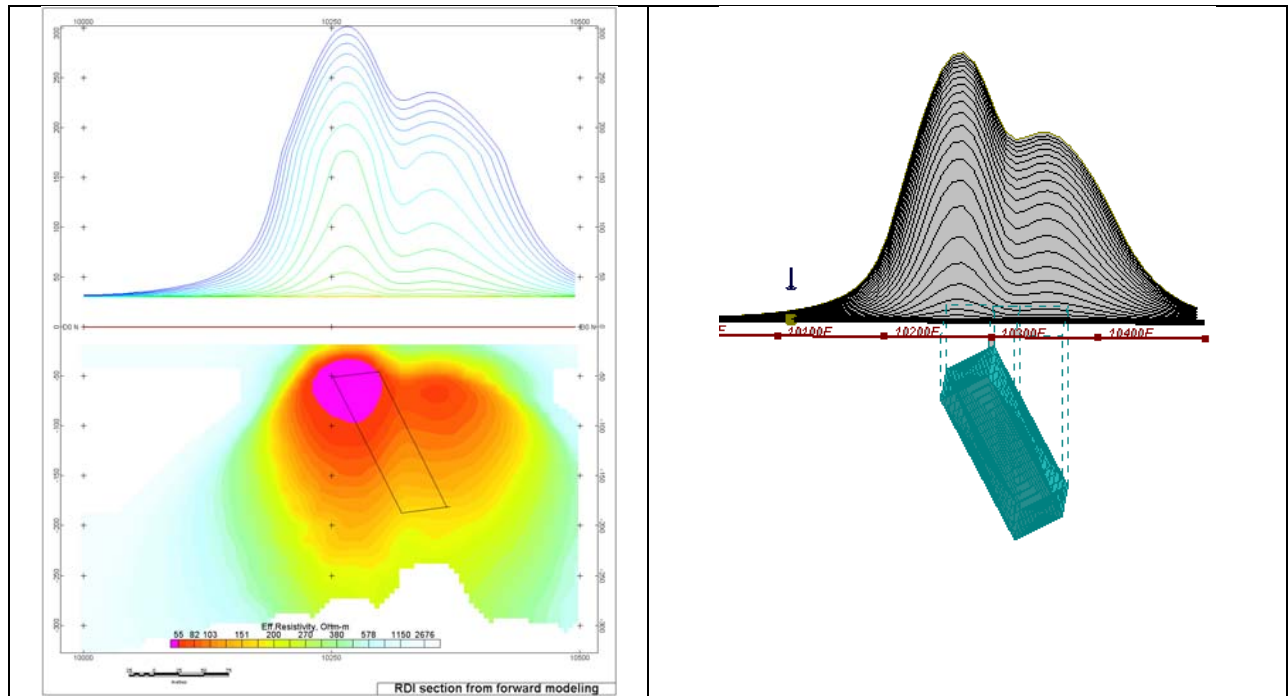


Figure F-7: Maxwell plate model and RDI from the calculated response for inclined thick (50m) plate. Depth extends 150 m, depth to the target 50 m.

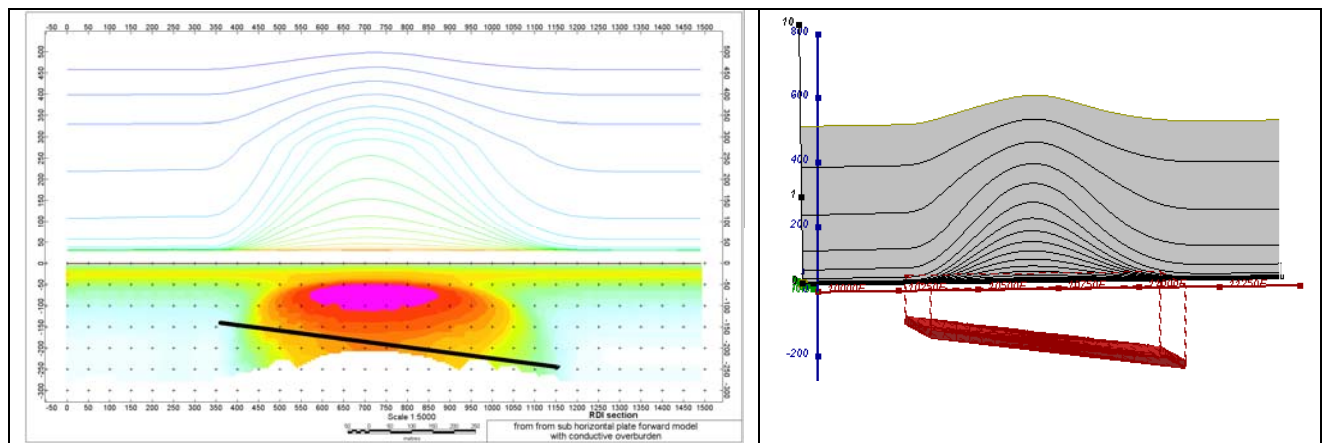


Figure F-8: Maxwell plate model and RDI from the calculated response for the long, wide and deep subhorizontal plate (depth 140 m, dim 25x500x800 m) with conductive overburden.

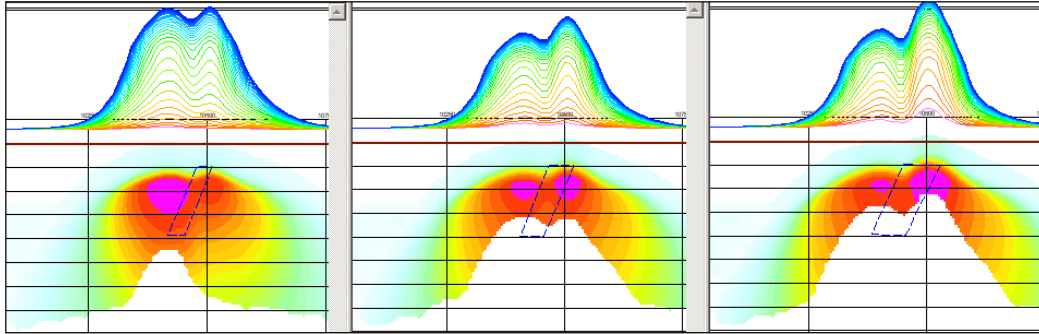


Figure F-9: Maxwell plate models and RDIs from the calculated response for "thick" dipping plates (35, 50, 75 m thickness), depth 50 m, conductivity 2.5 S/m.

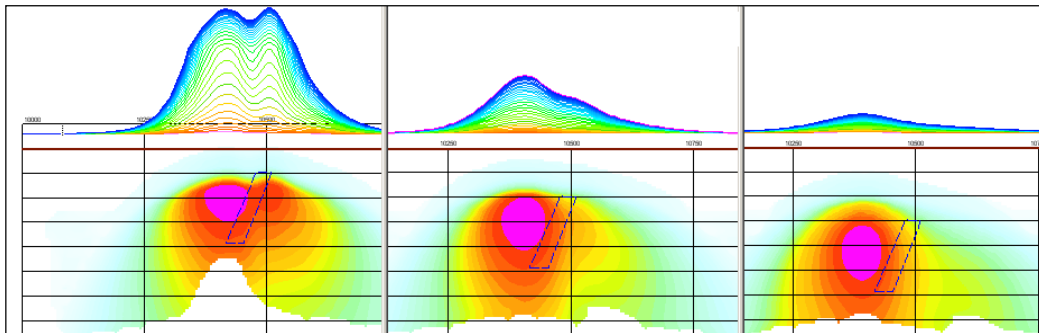


Figure F-10: Maxwell plate models and RDIs from the calculated response for "thick" (35 m thickness) dipping plate on different depth (50, 100, 150 m), conductivity 2.5 S/m.

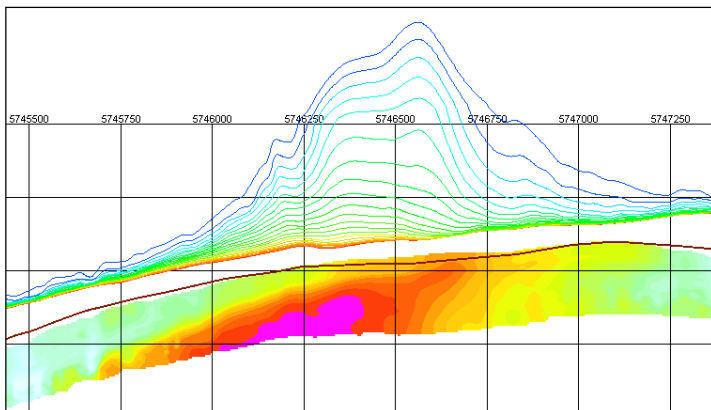
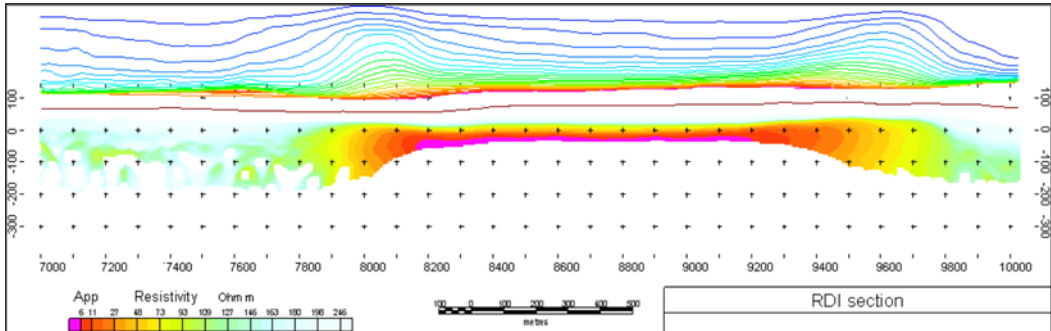
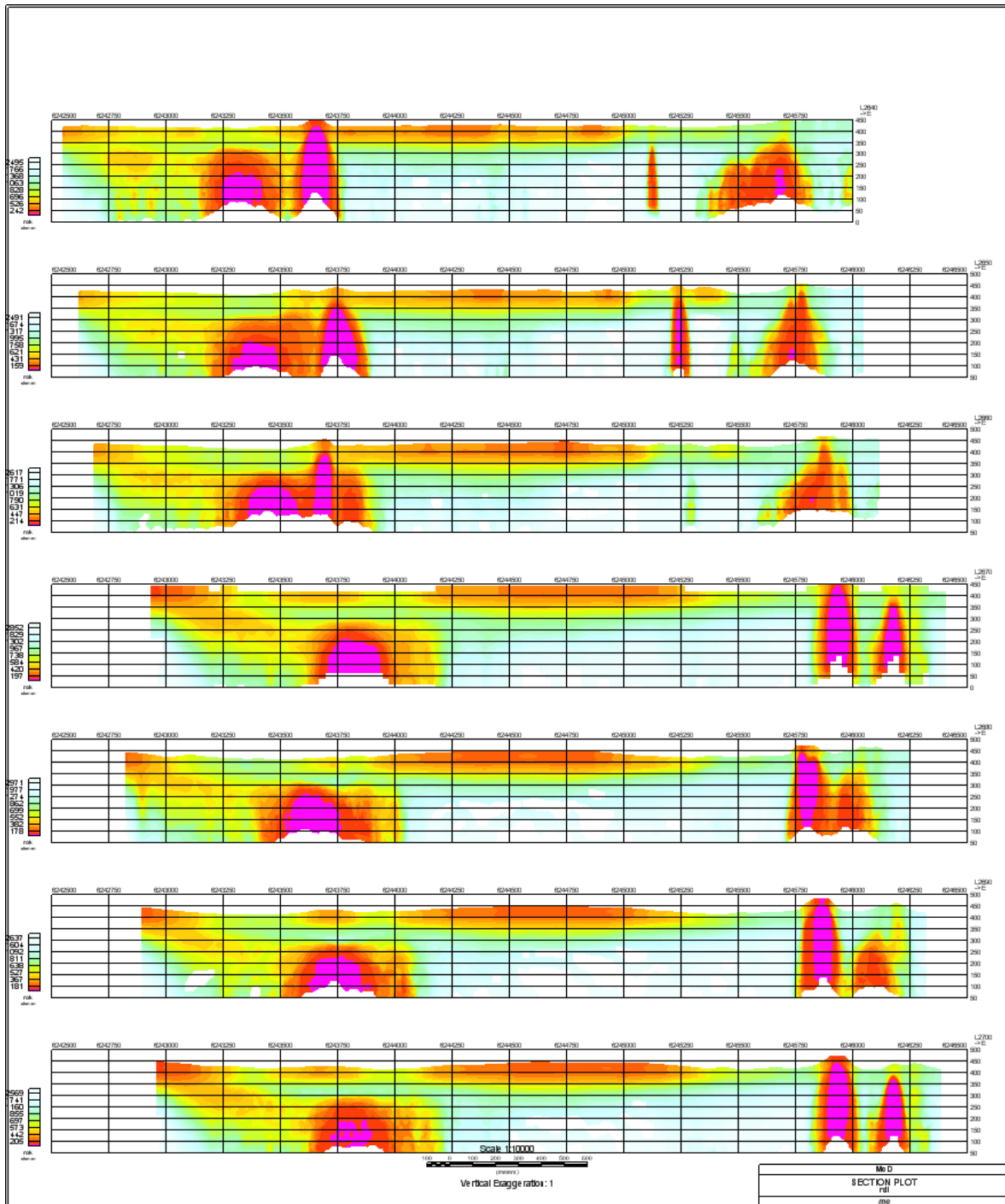


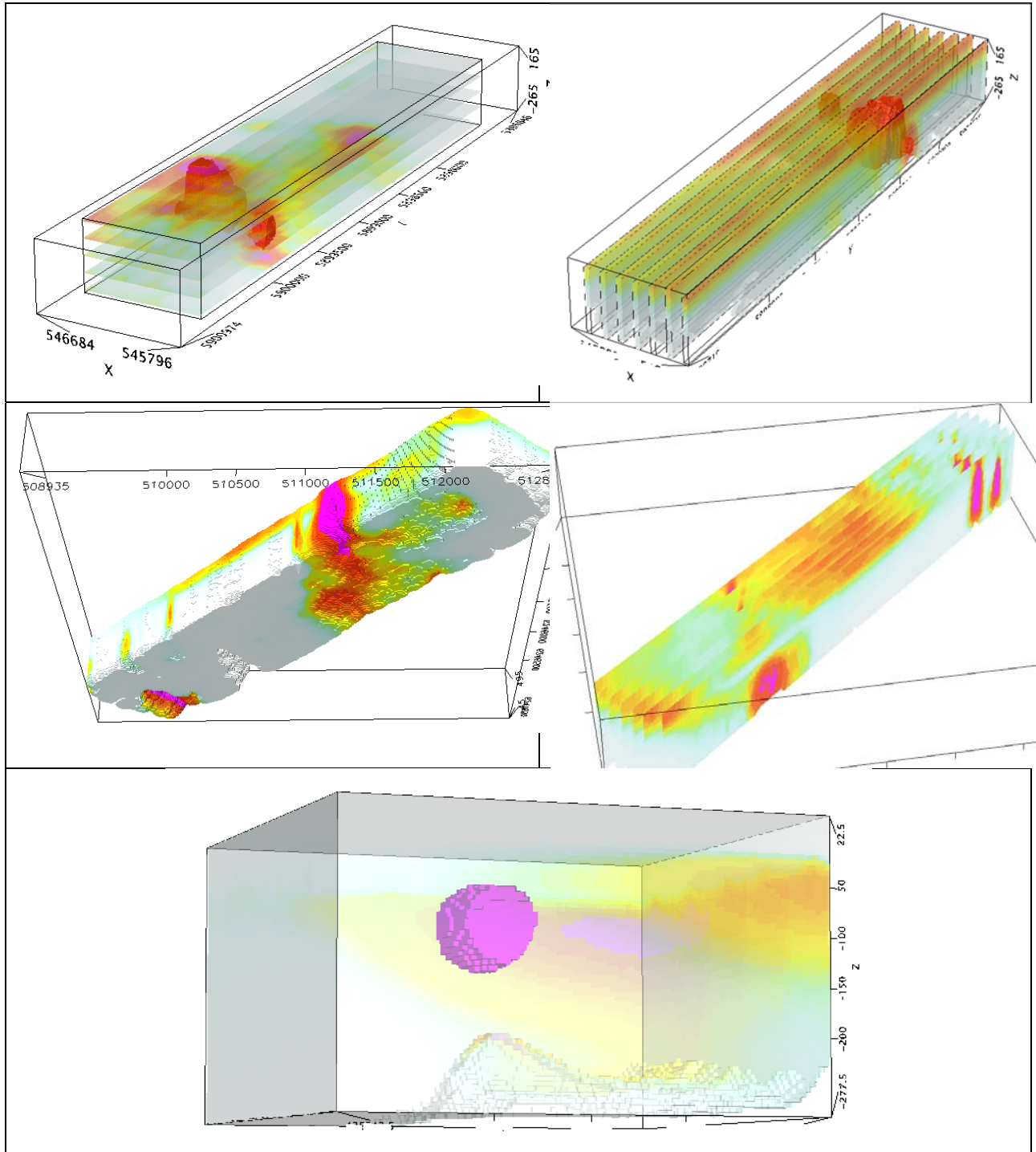
Figure F-11: RDI section for the real horizontal and slightly dipping conductive layers

# FORMS OF RDI PRESENTATION

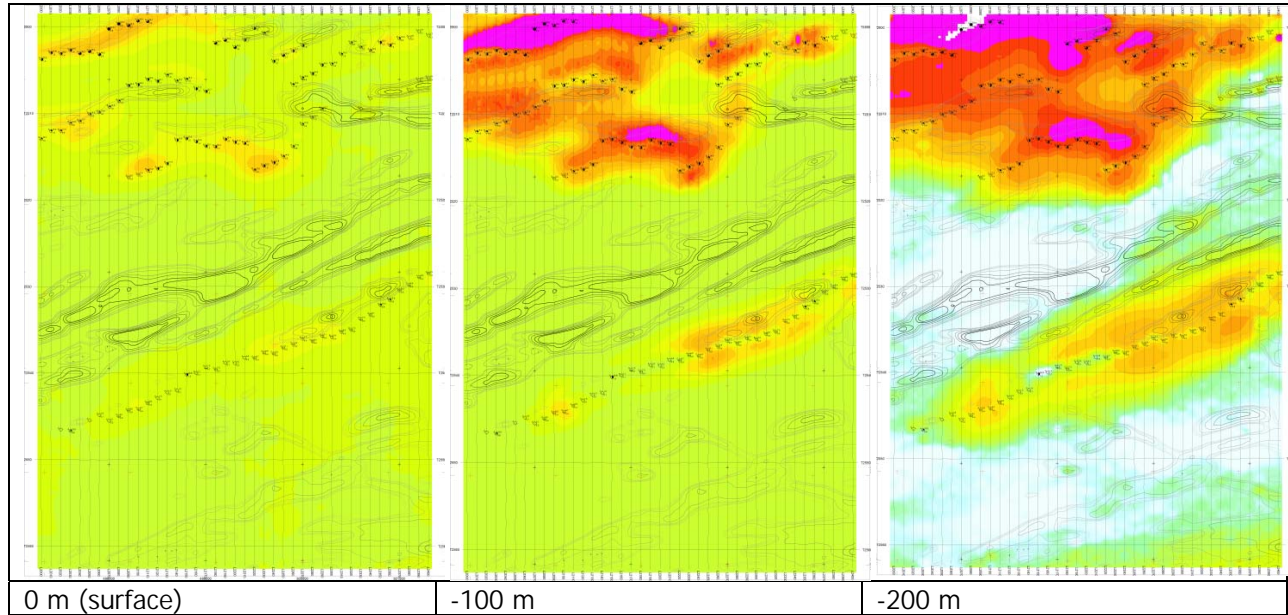
## PRESENTATION OF SERIES OF LINES



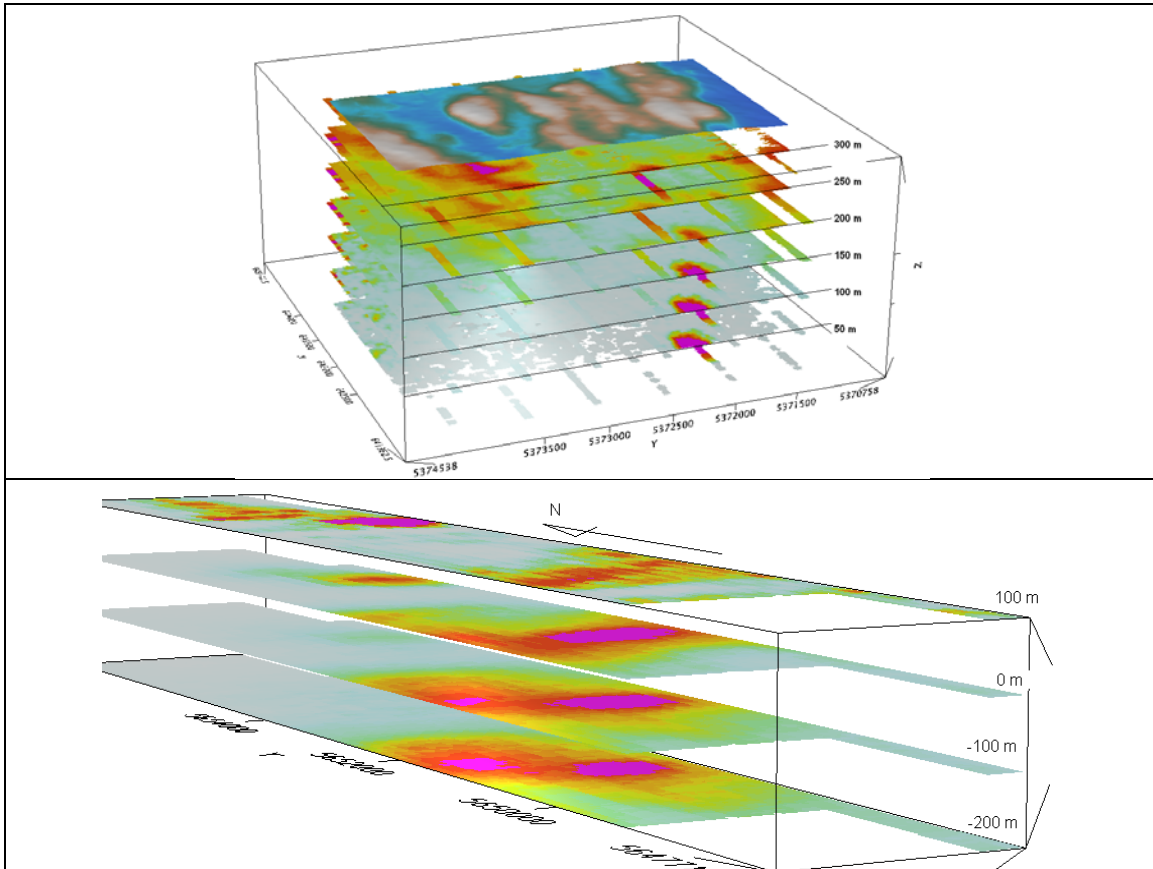
### 3D PRESENTATION OF RDIS



APPARENT RESISTIVITY DEPTH SLICES PLANS:

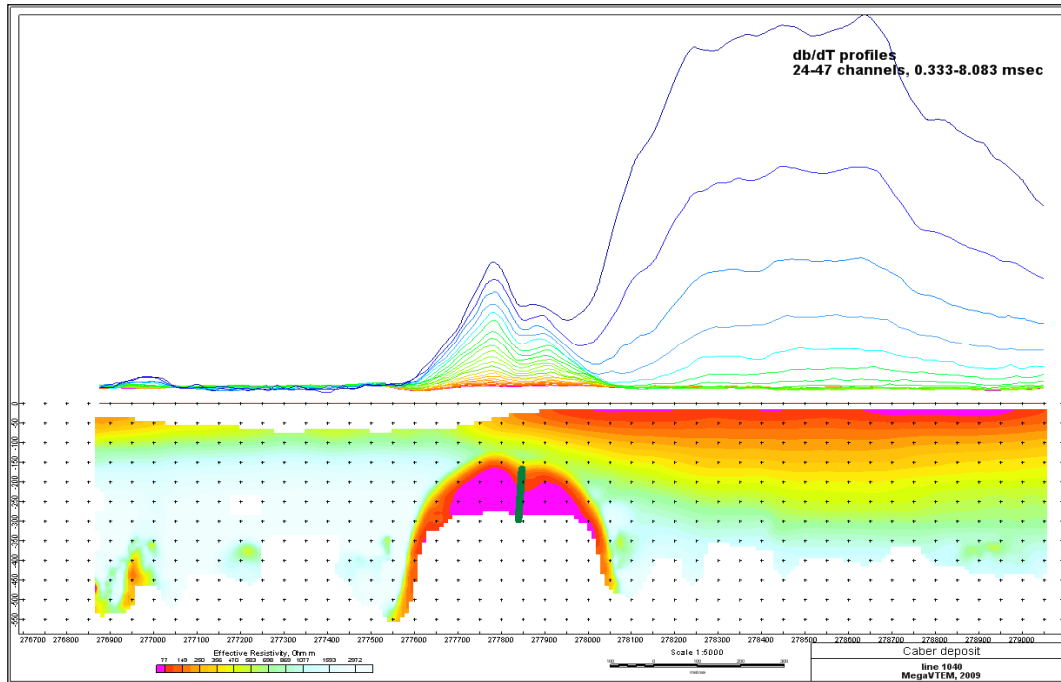


3D VIEWS OF APPARENT RESISTIVITY DEPTH SLICES:

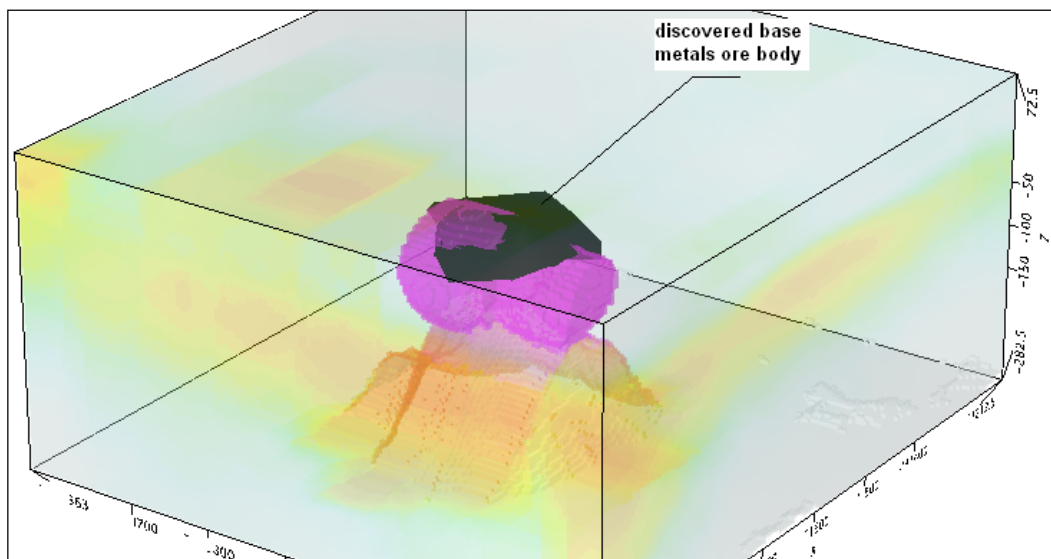


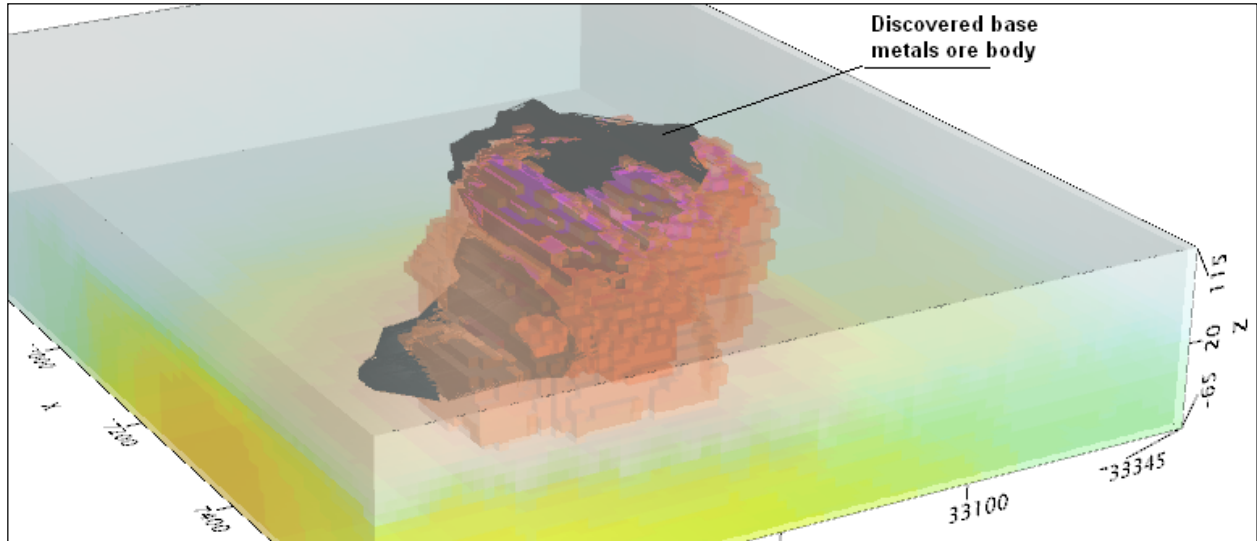
## REAL BASE METAL TARGETS IN COMPARISON WITH RDIS:

RDI section of the line over Caber deposit ("thin" subvertical plate target and conductive overburden).



## 3D RDI VOXELS WITH BASE METALS ORE BODIES (MIDDLE EAST):





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**Geotech Ltd.**  
April 2011

APPENDIX G  
RESISTIVITY DEPTH IMAGES (RDI)  
Please see attached DVD for the PDF.

## **Appendix B**

Final Geotech VTEM Maps

## **Appendix C**

St. Pierre Geoconsultants VTEM Interpretation Report

# SAVANT LAKE PROJECT VTEM MAGNETIC AND TDEM HELIBORNE SURVEY INTERPRETATION AND MODELLING

## INTRODUCTION

New Dimension Resources Ltd contracted Geotech Ltd to fly a VTEM magnetic and Time Domain Electromagnetic (TDEM) survey over its Savant Lake project located in western Ontario with NTS map sheets 52J07 and 52J08. The survey took place from May 15 to 19, 2016, and a total of 10,309 line km of data was collected. Due to significant changes in geological trends within the property the survey was separated into two blocks with flight lines perpendicular to each other.

The principal targeted commodity is gold hosted in replacement metallic sulphides contained with Iron Formations. These Formations dominate the magnetic data and produce extremely high amplitudes exceeding 100,000nT that actually saturating the airborne magnetic sensor. For this reason a number of lines were re-flown at higher elevations in order to acquire the data.

Analysis of the TDEM revealed an unusual correlation between the highly magnetic lithologies and low amplitude slow decay EM responses, which can be multi-kilometric in length. It was concluded that these responses, which are called High Magnetic TDEM, are caused by a magnetite Superparamagnetic Effect (SPM), and as such are of no economic interest. Also contained within the EM data are responses typical of classic conductors that are caused by either massive metallic sulphides or graphite. Invariably these responses are not coincident with the highly magnetic Iron Formations, and are called Low Magnetic TDEM. However, some are intermixed within them and others are outside of the Iron Formation package.

Interpretation of the EM data defined twenty five anomalies. Of these two are defined as cultural, five as related to high magnetic SPM responses and eighteen as low magnetic responses.

Of the eighteen low magnetic EM responses thirteen were modelled using the EMIT Maxwell software. Five were not modelled because their amplitudes were so low that meaningful solutions could not be produced.

Modelled solutions of the plates vary significantly in size with the largest measuring 303 m X 707 m and the smallest 39m X 36m. Conductivities also varied significantly from a low of 23.4 S to a high of 1,707 S.

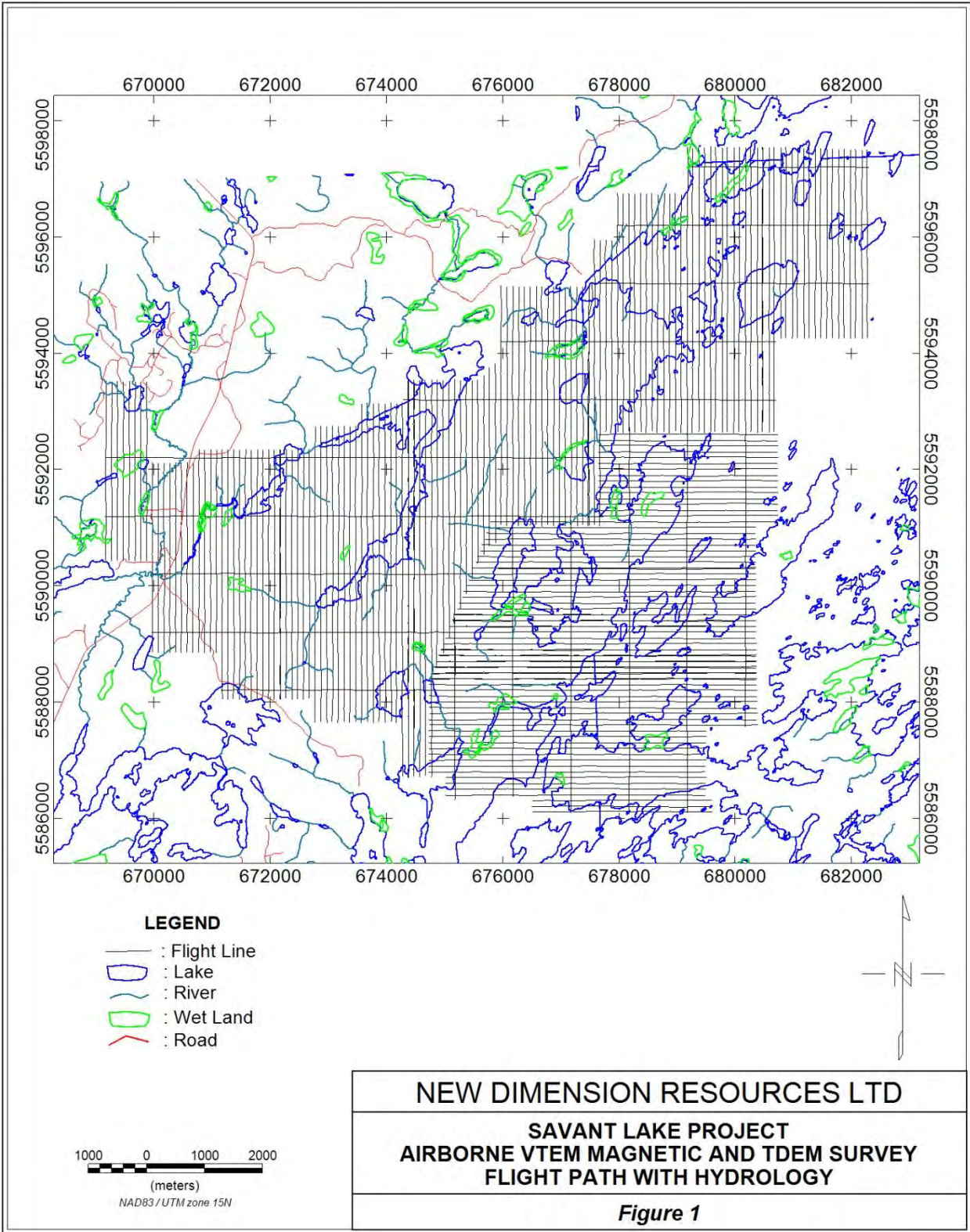
## **INTERPRETATION AND MODELLING RESULTS**

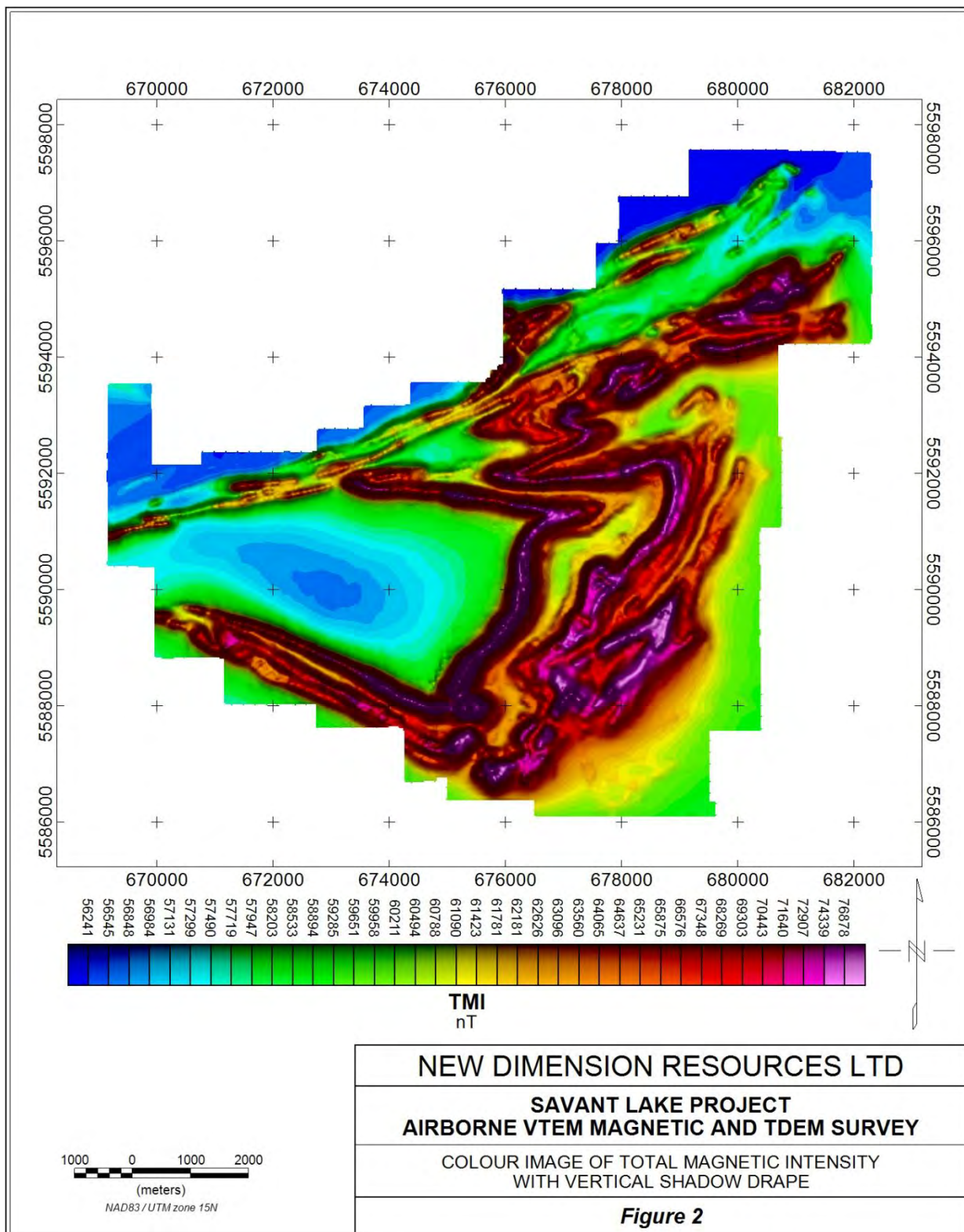
The VTEM Heliborne Magnetic and TDEM data collected over New Dimension Resources Ltd Savant Lake Project by Geotech Ltd consists of 10,309 line km of data. It was analysed and interpreted using Geosoft Oasis Montaj software, which permits interactive viewing of images and profiled data. It also contains a variety of tools and filters for data processing and map creation. EM anomalies were modelled using EMIT Maxwell software, which permits forward and inverse modelling of all types of EM data.

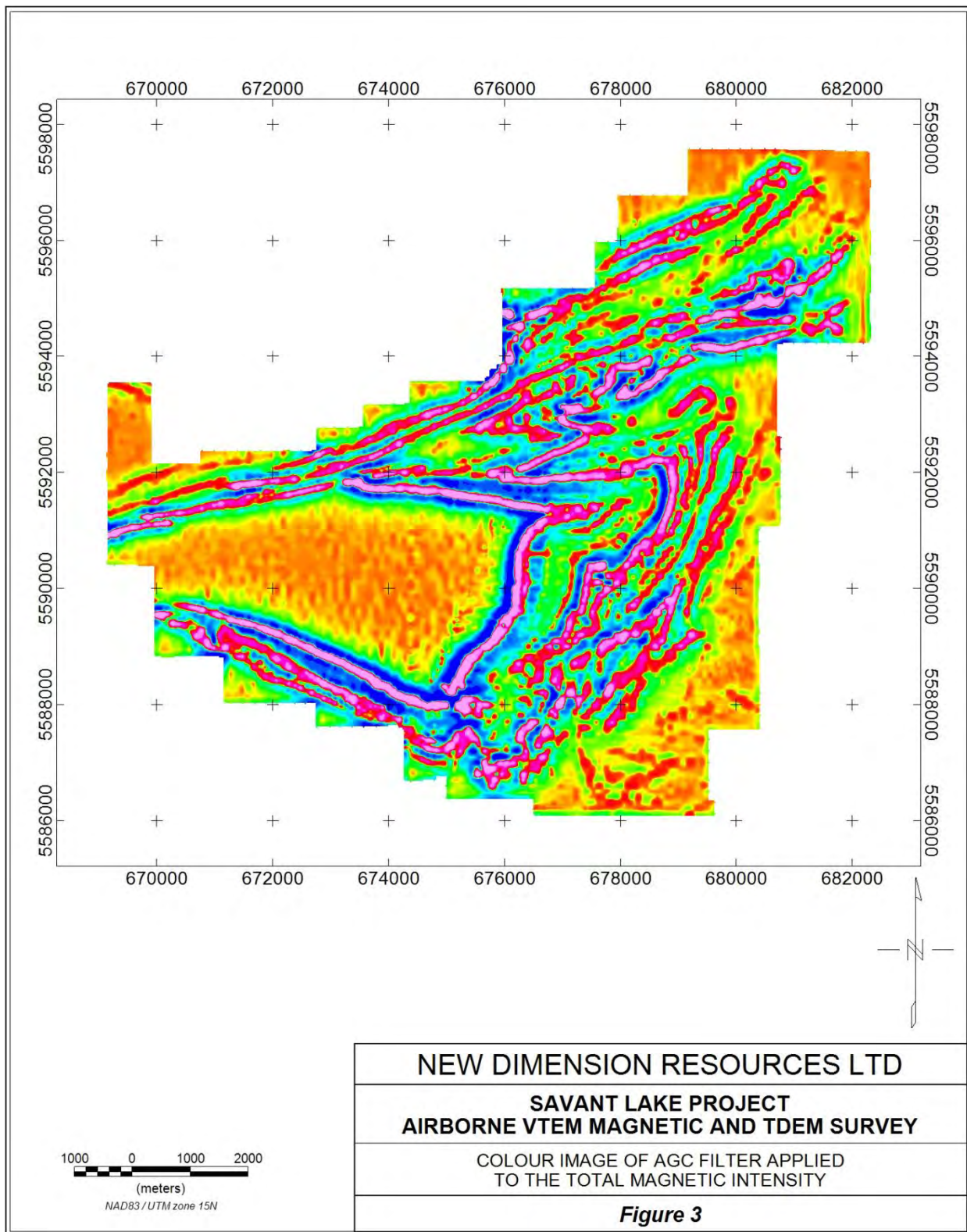
The VTEM survey was flown in two contiguous blocks with flight lines perpendicular to each other as shown in Figure 1. This was done to accommodate for strong changes in lithological trend direction as evidenced in the magnetic data presented in Figures 2 and 3. Figure 2 shows the Total Magnetic Intensity (TMI) and Figure 3 presents the TMI with an Automatic Gain Correction (AGC) applied to it, which enhances subtle trends difficult to distinguish in the TMI image.

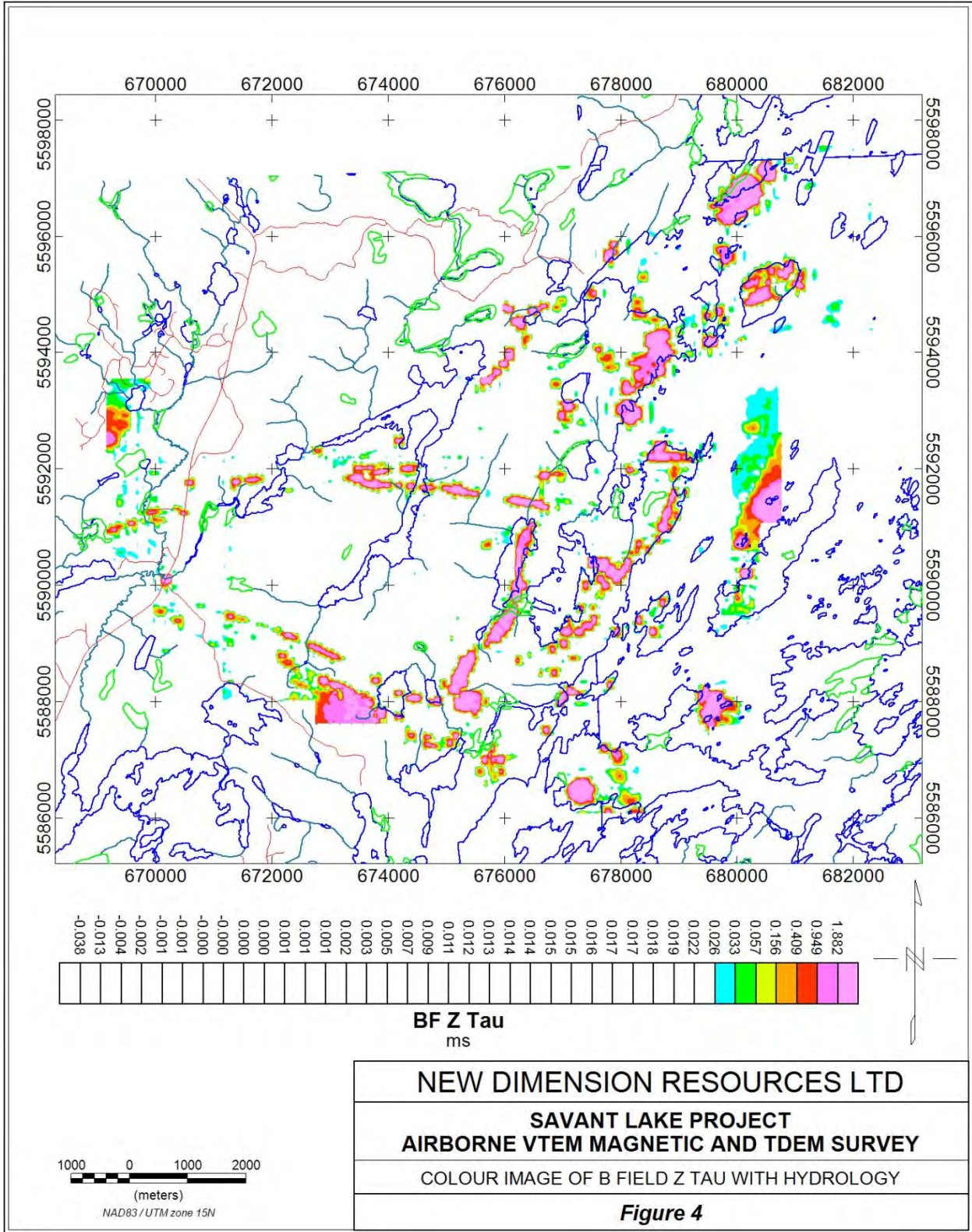
The EM data is presented as a B Field Z component Tau colour images in Figure 4. There is a strong correlation between the highly magnetic lithologies of the Iron Formation and the elevated Tau trends. However, there exists numerous high Tau anomalies that don't correlate with the highly magnetic trends.

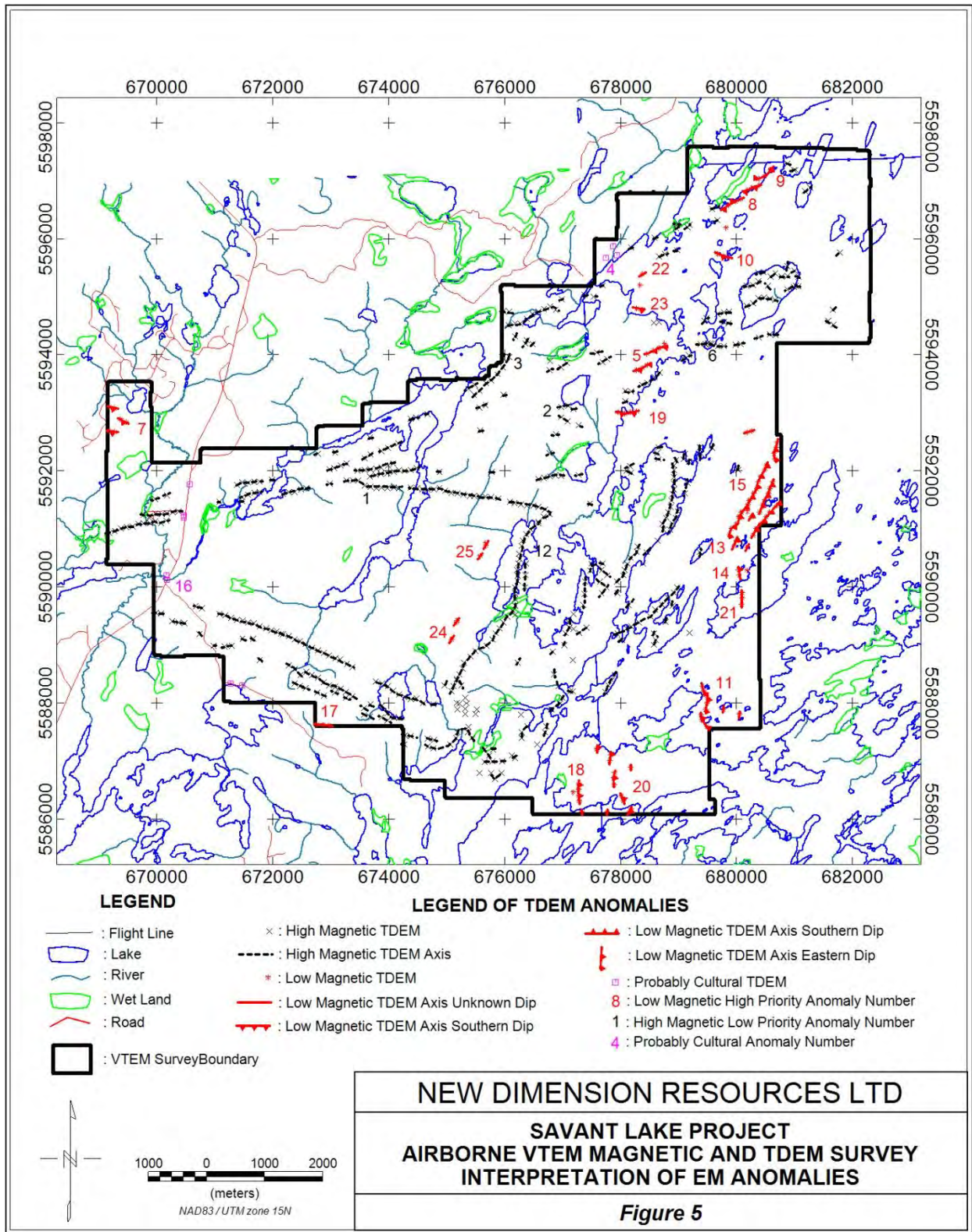
The data was examined line by line and all EM responses were placed on an interpretation map presented in Figure 5. It contains three types of responses, which are defined as High Magnetic TDEM, Low Magnetic TDEM and Probably Cultural TDEM. The High Magnetic TDEM anomaly locations and axis are in black and form long strike length pattern that are coincident with the highly magnetic lithologies. The lithologies have extremely high magnetic susceptibility and create amplitudes in excess of 100,000nT, which actually saturated the airborne magnetic sensors forcing the Geotech to re-fly selected lines at higher altitude. The Low Magnetic TDEM anomalies are mostly contained within the east side of the survey area with the exception of anomalies 7, 17, 24 and 25. None of these anomalies are coincident with the highly magnetic Iron Formation; however the northeastern ones consisting of anomalies 5, 8, 9, 10, 19, 22, and 23 are located within the Iron Formation package. The remaining Low Magnetic TDEM anomalies may be contained with volcanic rocks.



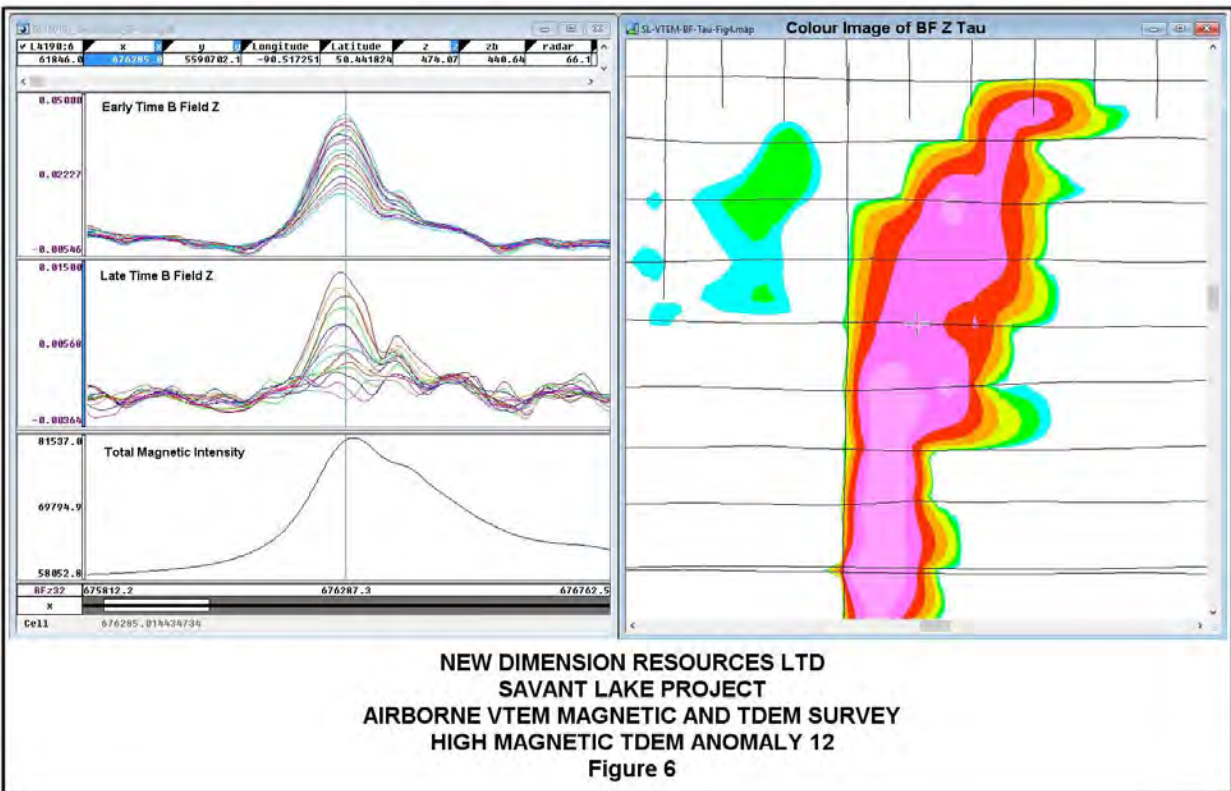


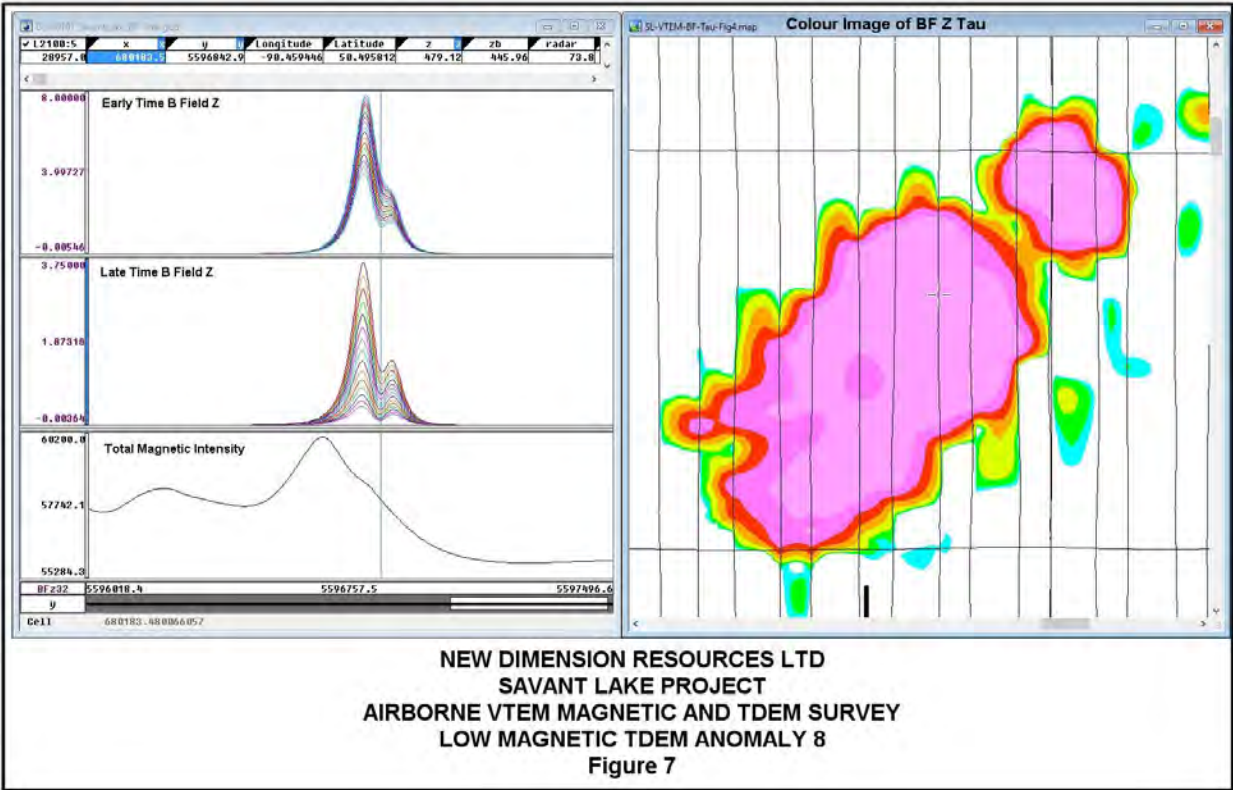






The character of the High Magnetic and Low Magnetic TDEM responses are very different. Figure 6 presents the High Magnetic response of anomaly 12 that is characterised by low amplitudes and slow decay. Typically slow decays are associated to highly conductive bodies, but in this case the virtually perfect coincidence with the highly magnetic lithologies, and the multi-kilometric strike lengths virtually guaranties that these anomalies are not associated to highly conductive bodies. It has been concluded that these responses are related to a Superparamagnetic effect related to induced secondary magnetic field of ultrafine to fine grained magnetite. Figure 7 presents the Low Magnetic TDEM response of anomaly 8. We see much higher amplitudes and the lack of coincidence with high magnetic response flanking it to the south. The double peaked shape is also characteristic of a thin southerly steeply dipping body probably caused by massive metallic sulphides. The High Magnetic TDEM anomalies do not show this characteristic shape. The high amplitudes seen in anomaly 8 is not always the case for the Low Magnetic TDEM anomalies, as bodies of small size and/or large depth can strongly decrease the amplitudes.





The following Table describes the classification of the anomalies defined in Figure 5 and if they have been modelled.

Table 1. Anomaly Classification

TDEM Anomaly Number	Anomaly Type	Modelled
1	High Magnetic TDEM	No
2	High Magnetic TDEM	No
3	High Magnetic TDEM	No
4	Probably Cultural TDEM	No
5	Low Magnetic TDEM	Yes
6	High Magnetic TDEM	No
7	Low Magnetic TDEM	Yes
8	Low Magnetic TDEM	Yes
9	Low Magnetic TDEM	Yes
10	Low Magnetic TDEM	Yes
11	Low Magnetic TDEM	Yes
12	High Magnetic TDEM	No
13	Low Magnetic TDEM	Yes
14	Low Magnetic TDEM	Yes
15	Low Magnetic TDEM	Yes
16	Probably Cultural TDEM	No

17	Low Magnetic TDEM	Yes
18	Low Magnetic TDEM	Yes
19	Low Magnetic TDEM	Yes
20	Low Magnetic TDEM	No
21	Low Magnetic TDEM	No
22	Low Magnetic TDEM	No
23	Low Magnetic TDEM	Yes
24	Low Magnetic TDEM	No
25	Low Magnetic TDEM	No

The High Magnetic TDEM anomalies could not be modelled as they do not react as conductors. Low Magnetic anomalies 20, 21, 22, 24 and 25 were not modelled as their amplitudes were too low to produce meaningful results.

Modelling of the TDEM data was carried out using EMIT Maxwell software. Modelling results presented bellow display the plate locations graphically and with geometric parameters. Also presented are the measured and modelled responses in profile format.

Definition of the plates geometric parameters are as follow:

E: Easting (m) Nad83 UTM15 (center top of plate)

N: Northing (m) Nad83 UTM15 (center top of plate)

Z: Elevation (m) (center top of plate)

D: Dip (Degrees)

DD: Dip Direction (Degrees)

Rot: Rotation around center top of plate in plane (Degrees)

SL: Strike Length (m)

DE: Depth Extent (m)

Th: Thickness (m) used for thick 3D plates

Cd: Conductivity (S/m)

CT: Conductivity Thickness Product (S) used for infinitely thin 2D plates.

In general the two most important characteristics of a modelled plate are its size (SL X DE) and its Conductivity (Cd) or Conductivity Thickness Product (CT). Typically the latter in time (higher channel number) that a conductor is responding the higher the Cd or CT become. This is because the higher values the slower the decay rate between channels. However, an anomaly with high Cd/CT can also have low amplitudes if it is small and/or deep, and the latter channels may be at noise levels. Invariably the latter channels one is able to use for modelling the higher the resultant Cd/CT. So if an anomaly is too weak to use late time channels the resultant Cd/CT will be lower. Modelled solutions of the plates vary significantly in size with the largest

measuring 303 m X 707 m and the smallest 39 m X 36 m. Conductivities also varied significantly from a low of 23.4 S to a high of 1,707 S.

### **Anomaly 5 Modelling Results**

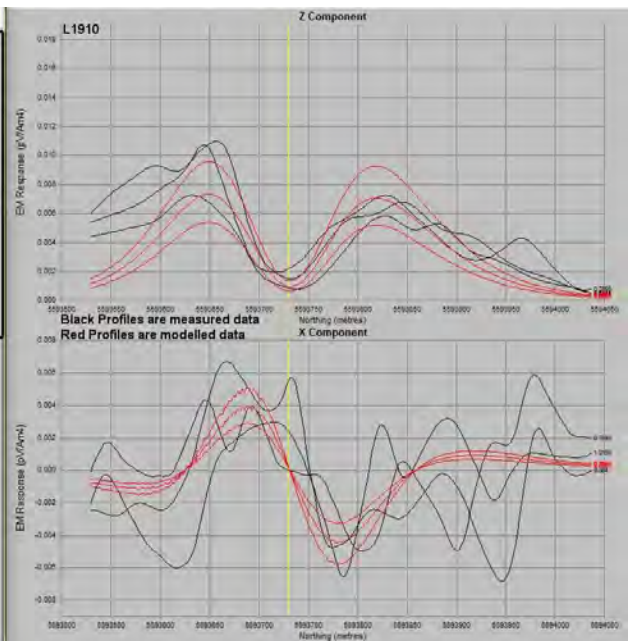
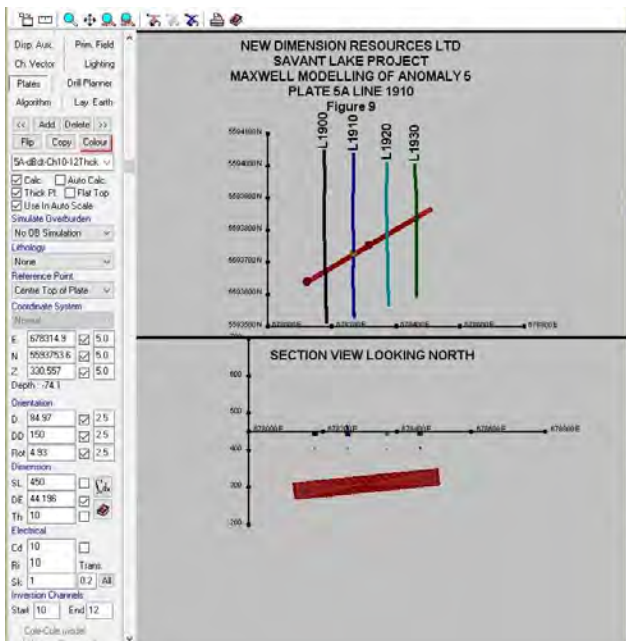
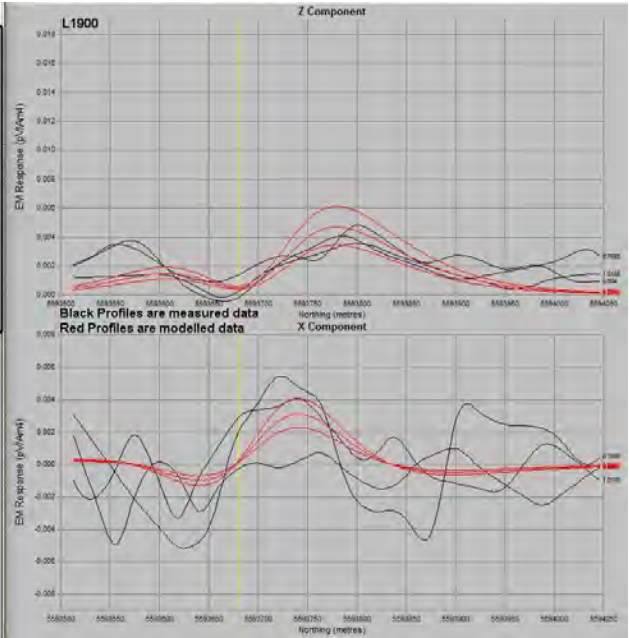
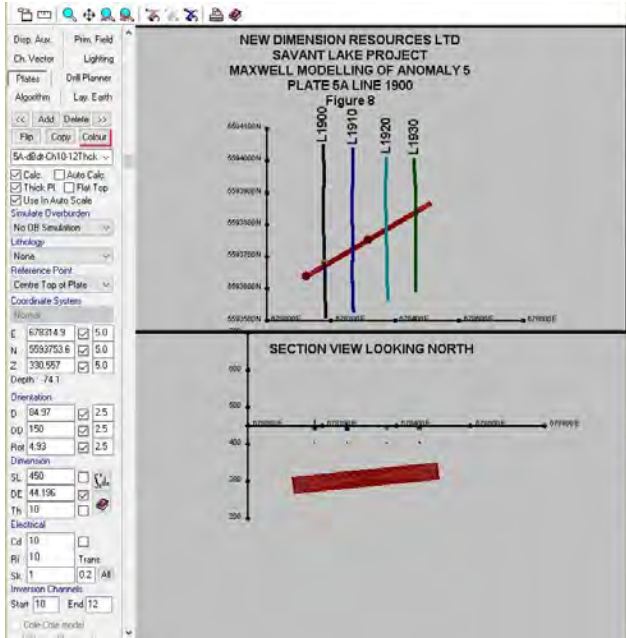
The modelling results for anomaly 5 are presented in Figures 8 to 16. In this case there are two plates called 5A and 5B. Figures 8 to 11 show the 5A modelling results and Figures 12 to 15 show the 5B modelling results. Figure 16 is a map of both plates within the local TMI colour image and hydrology.

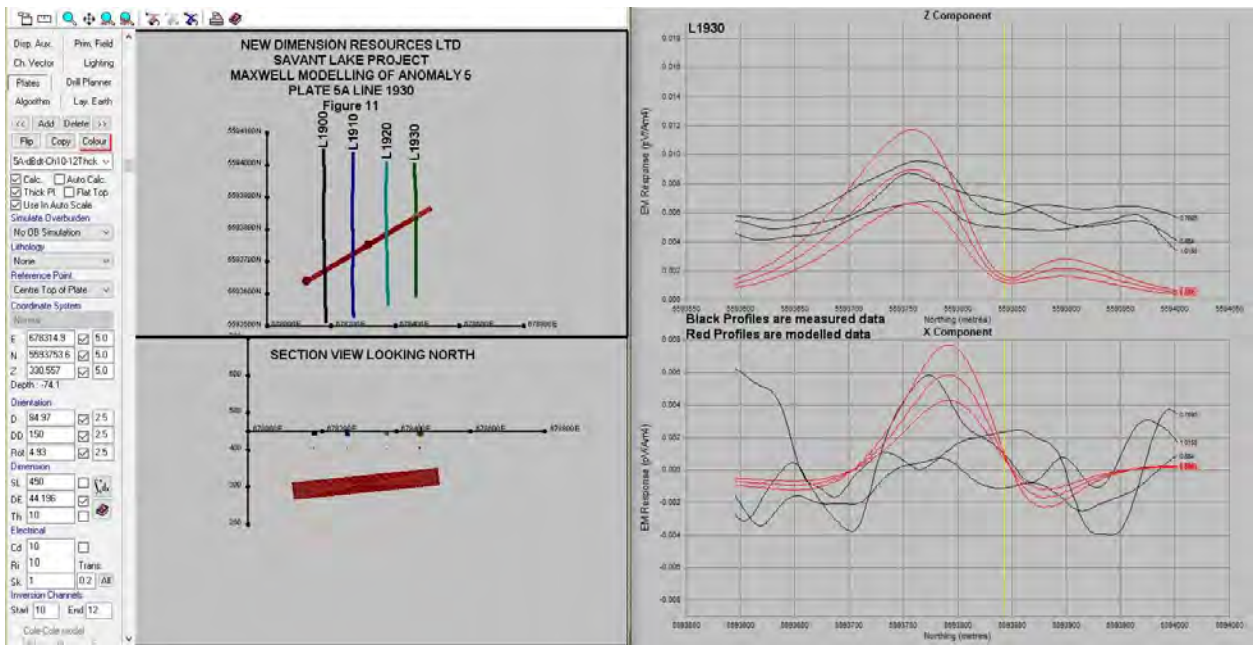
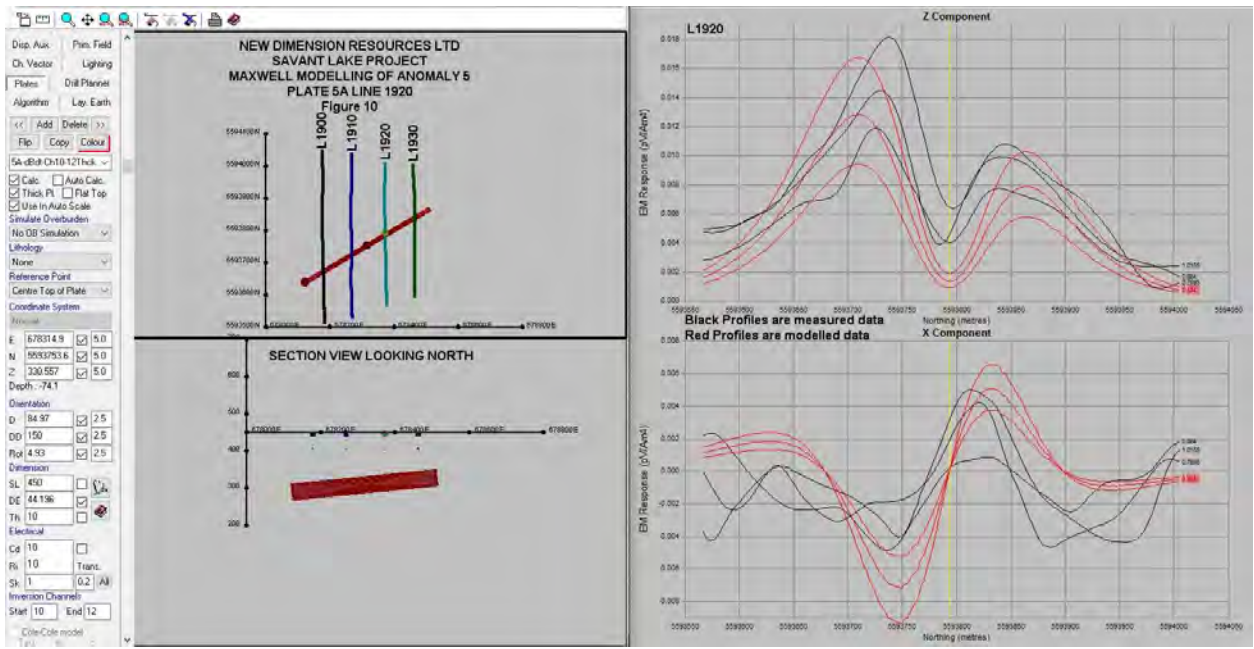
Plate 5A has weak amplitudes and the resultant model is of poor to moderate quality. A thick 3D plate was produced with SL of 450 m, a DE of 44.2 m, a Th of 10m and a Cd of 10 S/m, which produces a resultant low to moderate CT of 100 S. Depth to center top of plate is 74.1 m. Early channels 10 to 12 were used so the actual CT would probably be significantly higher if the body was closer to surface.

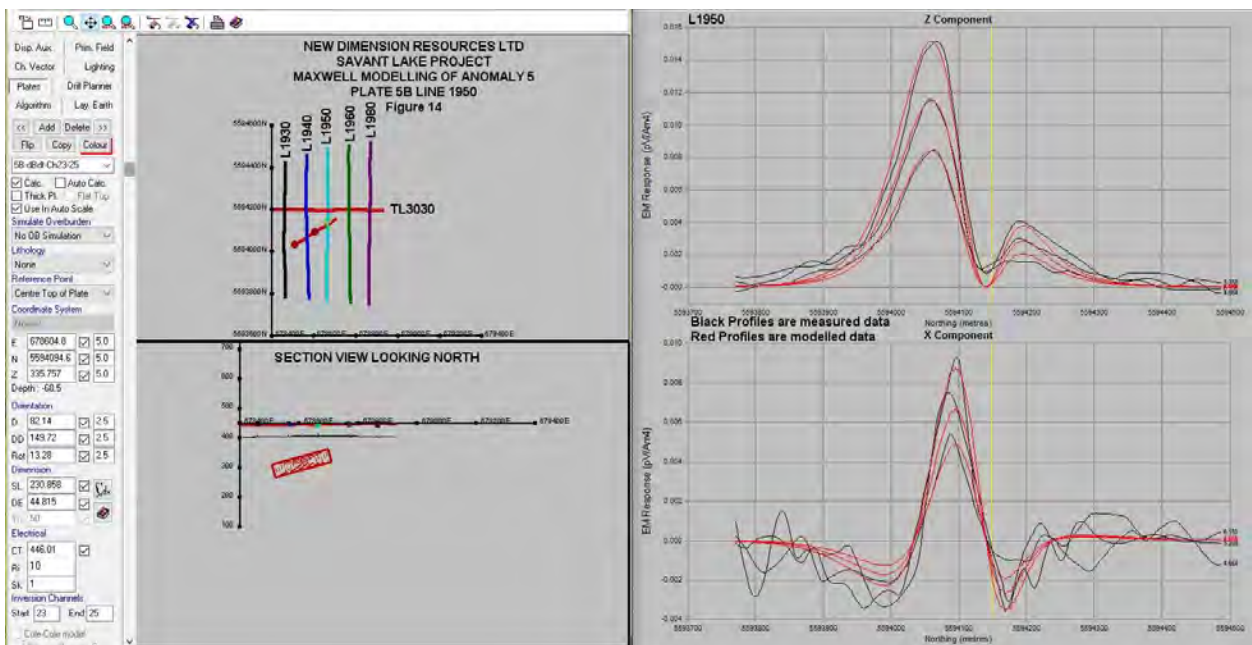
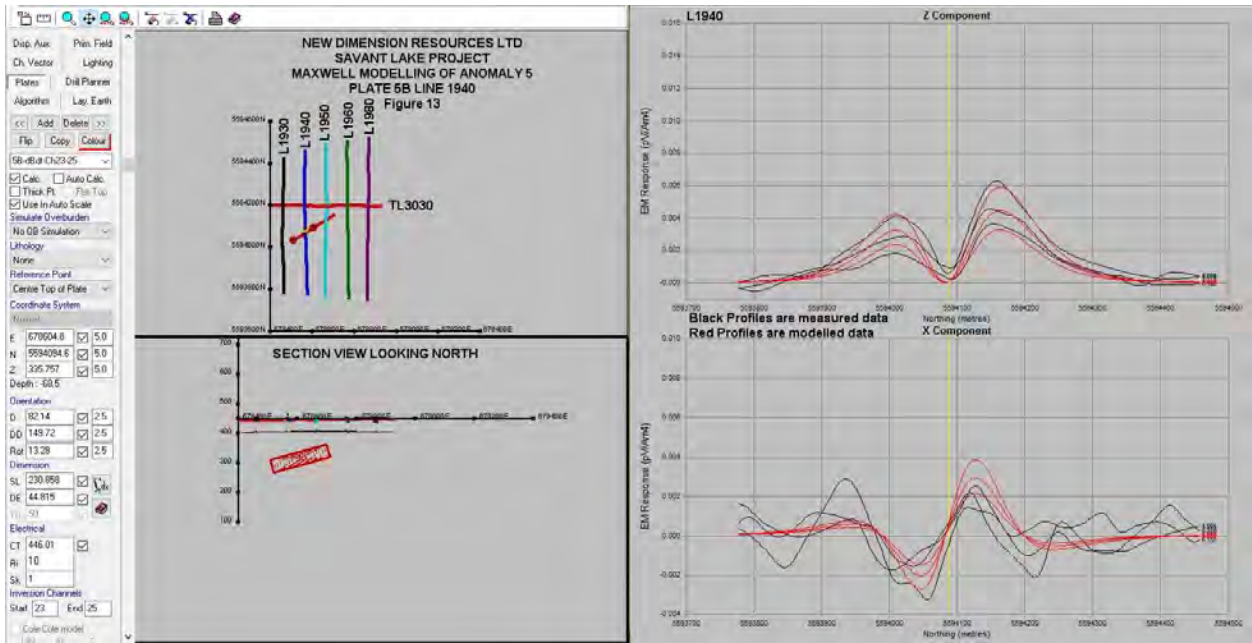
Plate 5B has moderate amplitudes and the resultant model is of moderate to good quality. A thin 2D plate was produced with SL of 230 m, a DE of 44.8 m, a high CT of 446 S. Depth to center top of plate is 68.5 m. Late channels 23 to 25 were used so the CT is close to its maximum value.

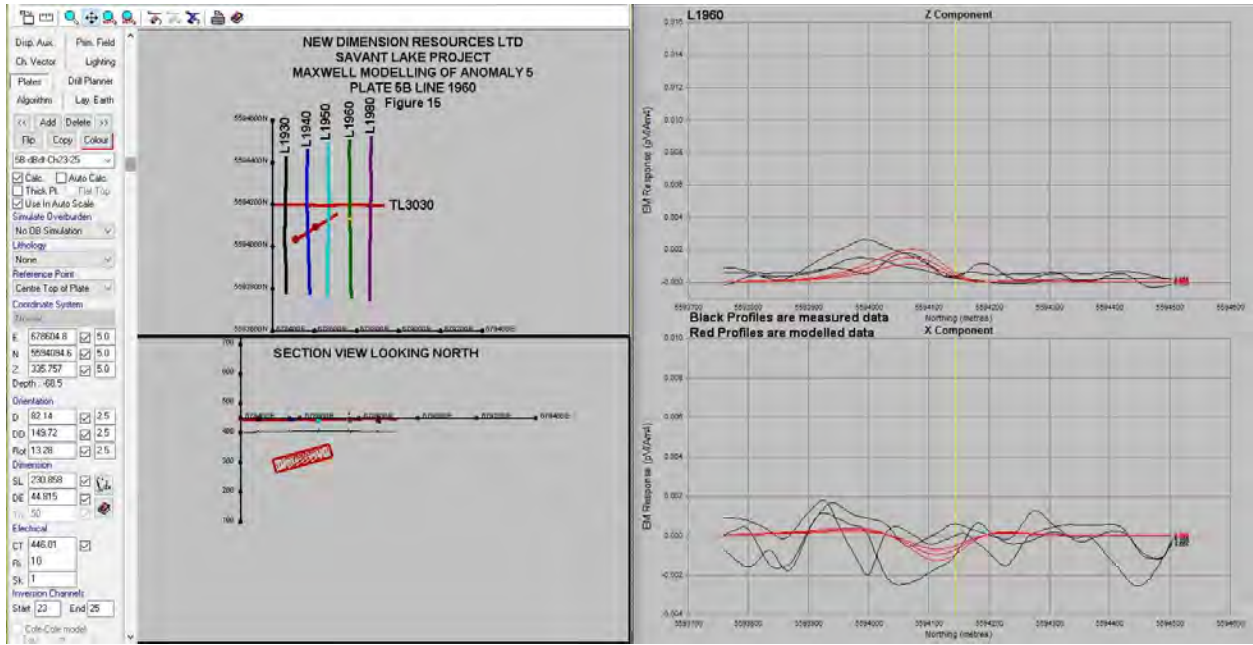
Both plates are presented in Figure 16 with a colour image of the TMI, and are located within the Iron Formation package. Plate 5A is located on the south flank of a high magnetic lithology and plate 5B is located in a low magnetic zone that may be truncating a high magnetic lithology possibly due to faulting or even demagnetisation. The plates are located on land close to a lake shore.

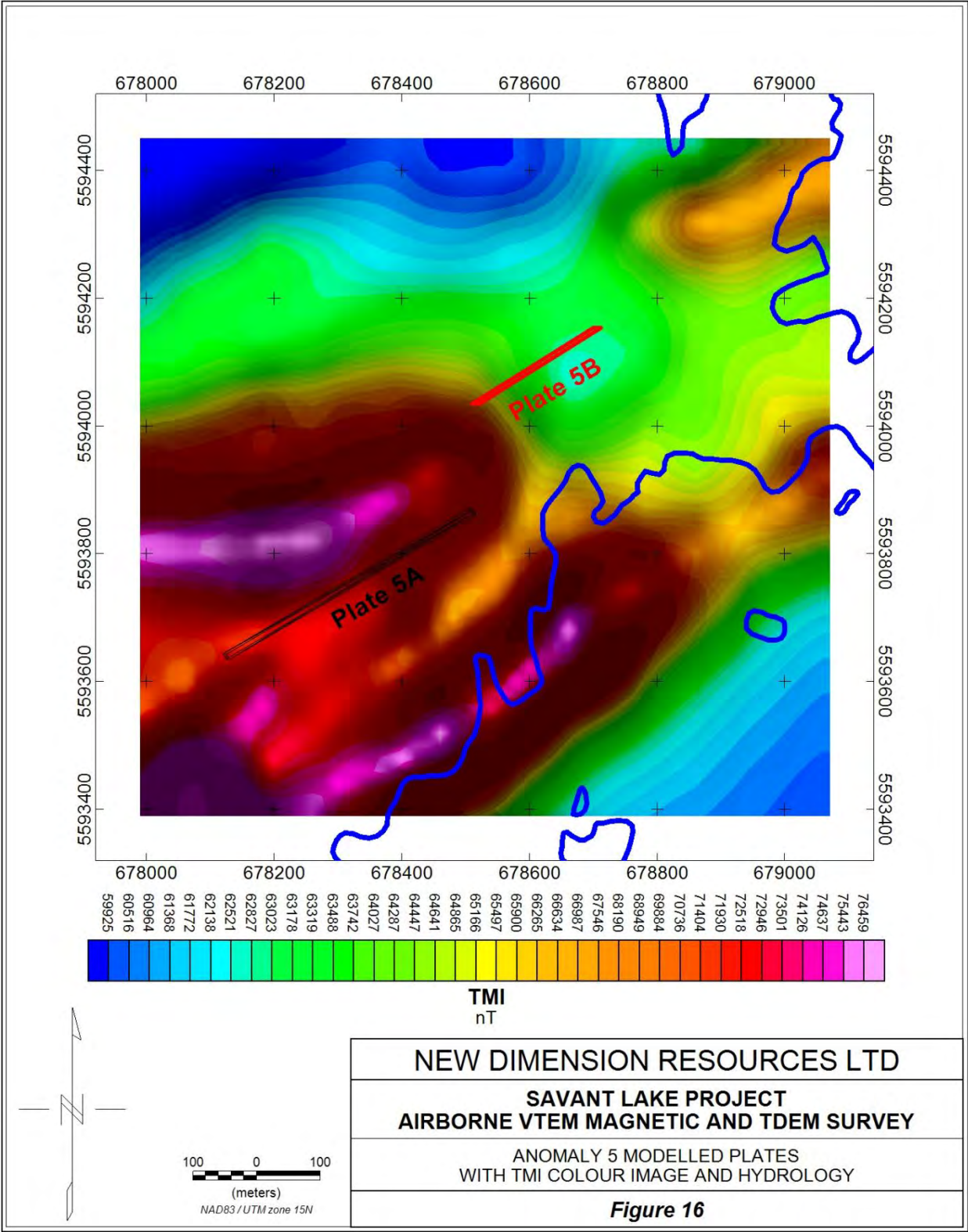
Drilling 5A from the airborne model is not recommended as the solution is of poor to moderate quality and the DE is small. Drilling 5B from the airborne model is feasible as the model is of moderate to good quality; however it is still risky due to the small DE. A ground TDEM survey over both plates is recommended.











## **Anomaly 7 Modelling Results**

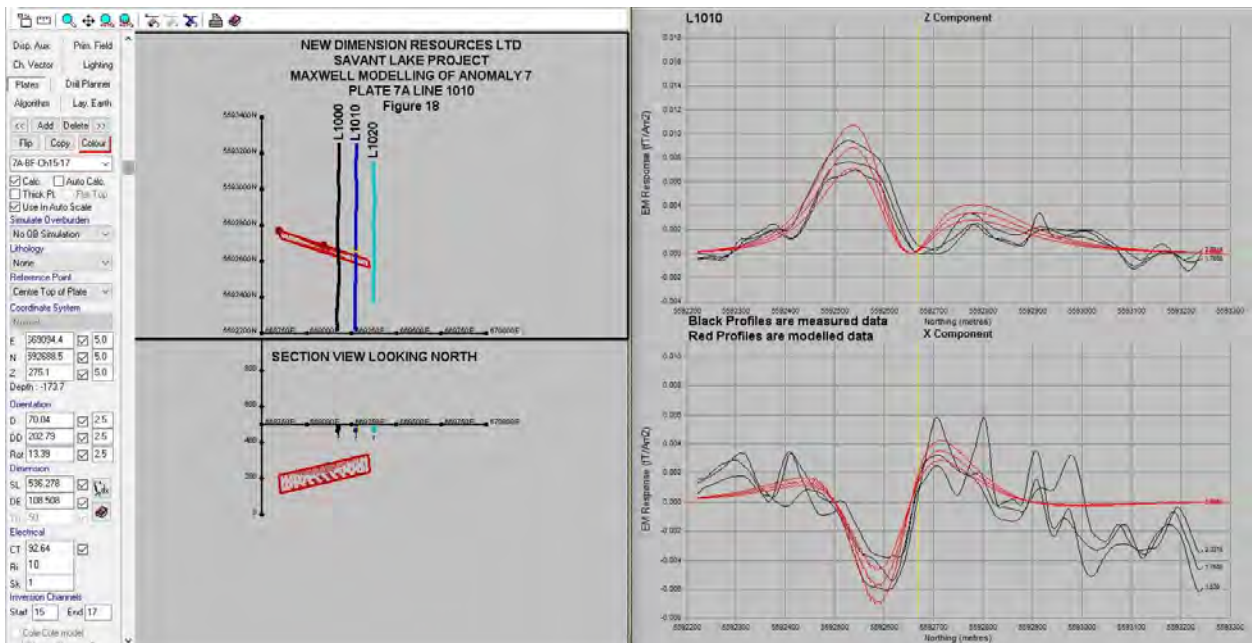
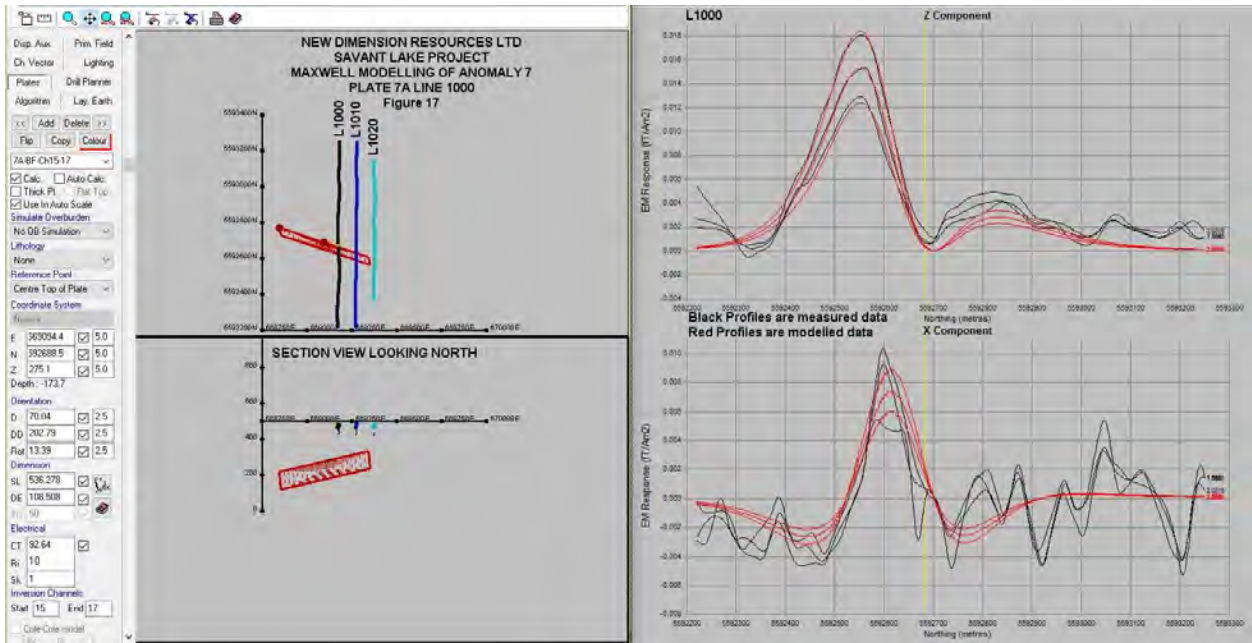
The modelling results for anomaly 7 are presented in Figures 17 to 23. In this case there are two plates called 7A and 7B. Figures 17 to 19 show the 7A modelling results and Figures 20 to 22 show the 7B modelling results. Figure 23 is a map of both plates within the local TMI colour image and hydrology.

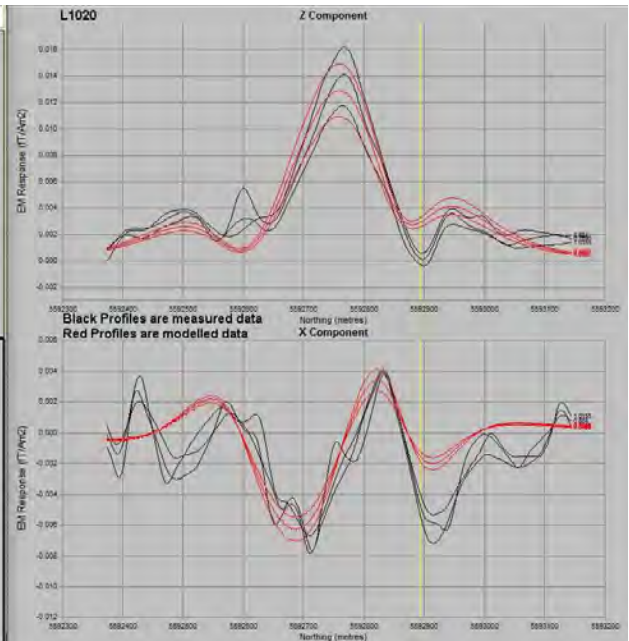
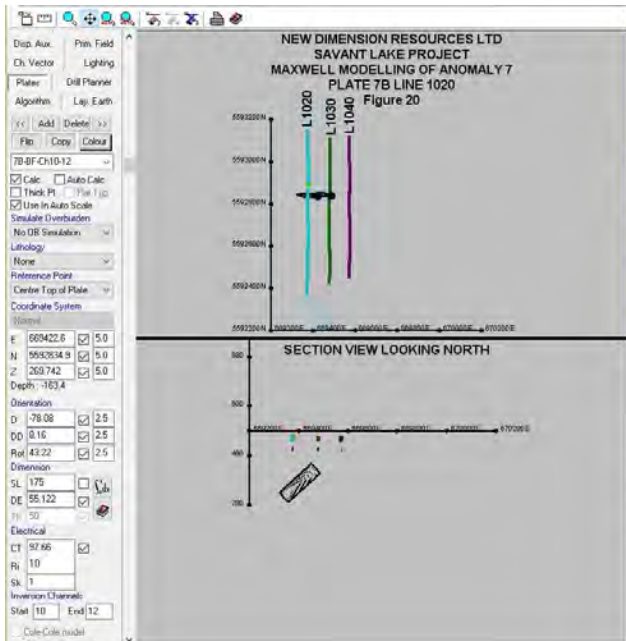
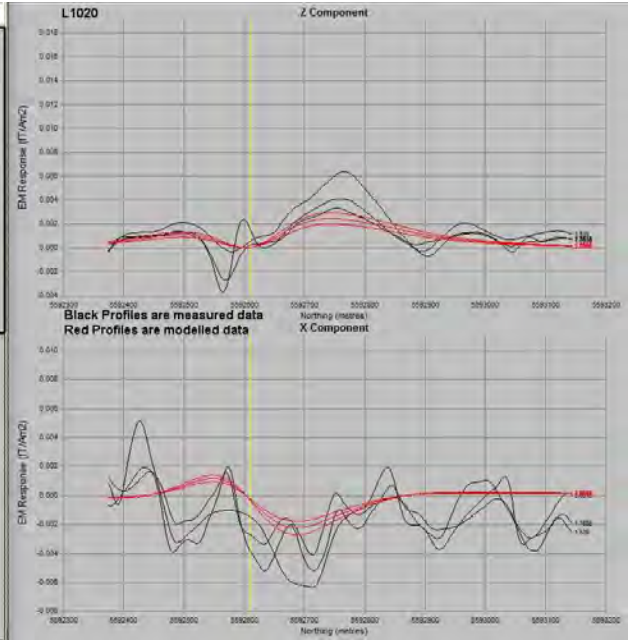
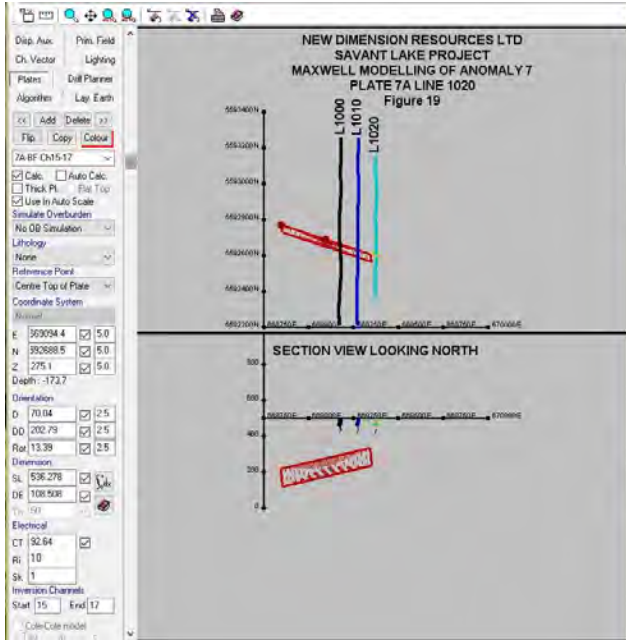
Plate 7A has moderate amplitudes and the resultant model is of moderate to good quality. A thin 2D plate was produced with SL of 536 m, a DE of 109 m, and a low to moderate CT of 93 S. Depth to center top of plate is 174 m. Mid time channels 15 to 17 were used so the actual CT would probably be moderately higher if the body was closer to surface. As the plate extends out of the survey area to the east the resultant model is somewhat compromised.

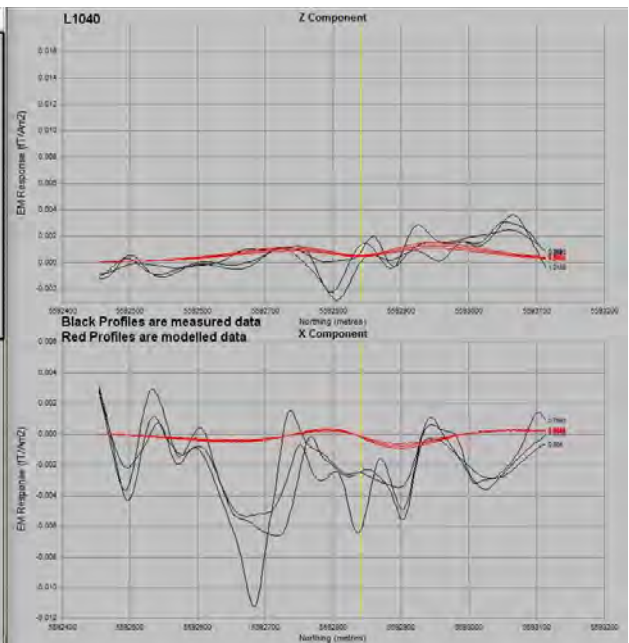
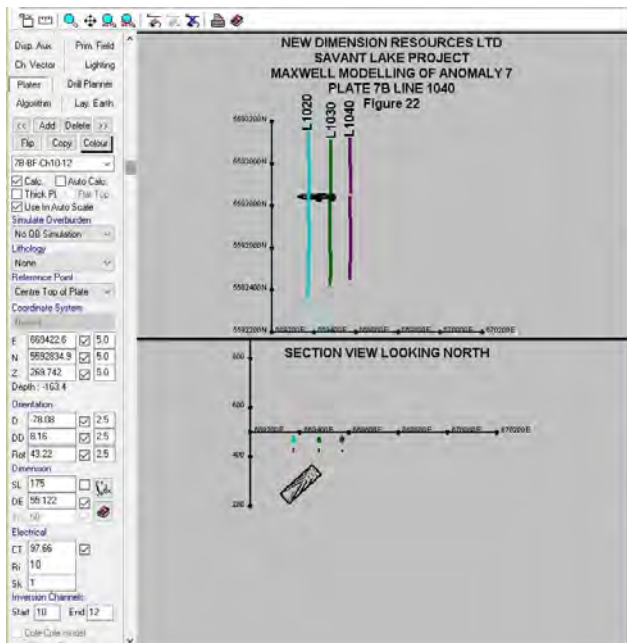
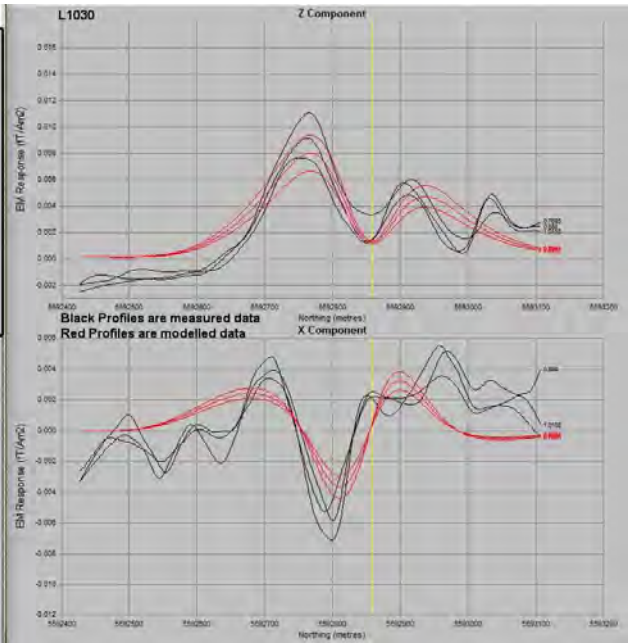
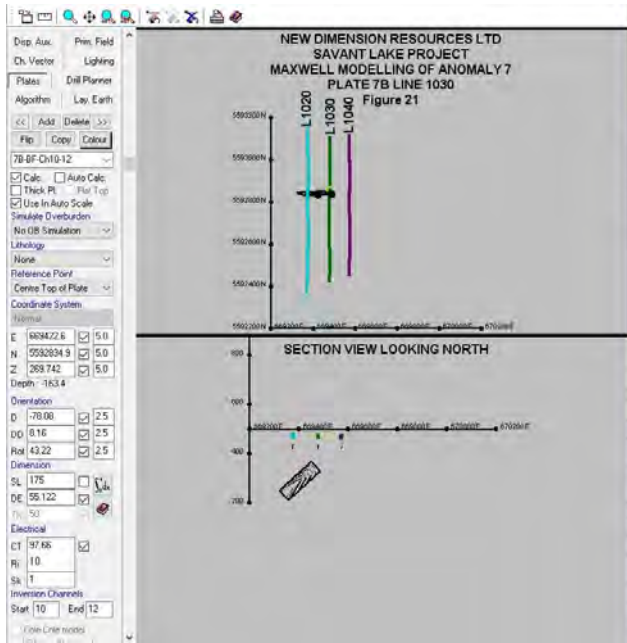
Plate 7B has low to moderate amplitudes and the resultant model is of low to moderate quality. A thin 2D plate was produced with SL of 175 m, a DE of 55.1 m, and a low to moderate CT of 98 S. Depth to center top of plate is 163 m, but since the plate is plunging its upper edge is closer to surface. Early channels 10 to 12 were used so the actual CT would probably be significantly higher if the body was closer to surface.

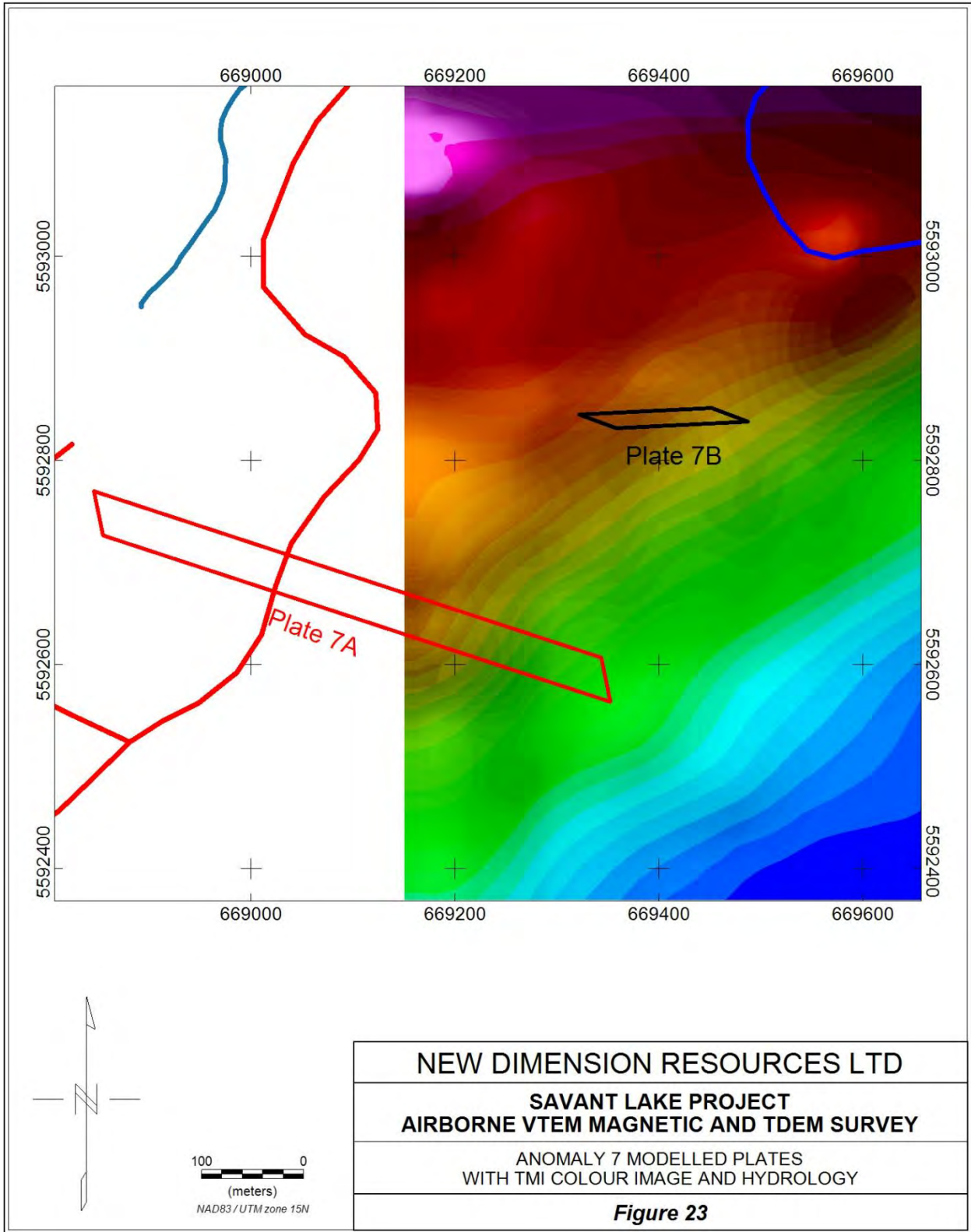
Both plates are presented in Figure 23 with a colour image of the TMI and hydrology. They are located outside of the Iron Formation package, possibly hosted within volcanics. Both plates are located on the south flank of a weak magnetic gradient, and are on land.

Drilling 7A from the airborne model is not recommended as the solution is partially compromised by it extending outside of the survey area to the west. Drilling 7B from the airborne model is not recommended as the solution is of poor to moderate quality and the DE is small. A ground TDEM survey over both plates is recommended.









## **Anomalies 8 and 9 Modelling Results**

The modelling results for anomalies 8 and 9 are presented in Figures 24 to 33. In this case there are two plates for anomaly 8 called 8A and 8B. Figures 24 to 26 show the 8A modelling results and Figures 27 to 29 show the 8B modelling results. Figures 30 to 32 show the modelling results for anomaly 9. Figure 33 is a map of the three plates within the local TMI colour image and hydrology.

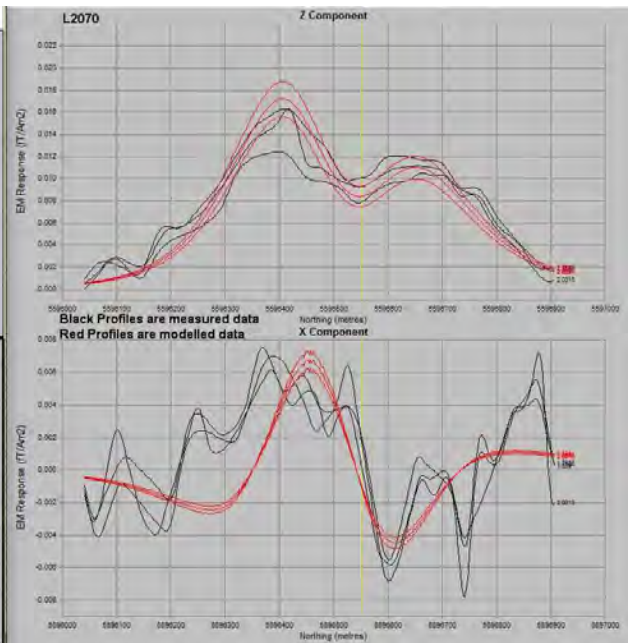
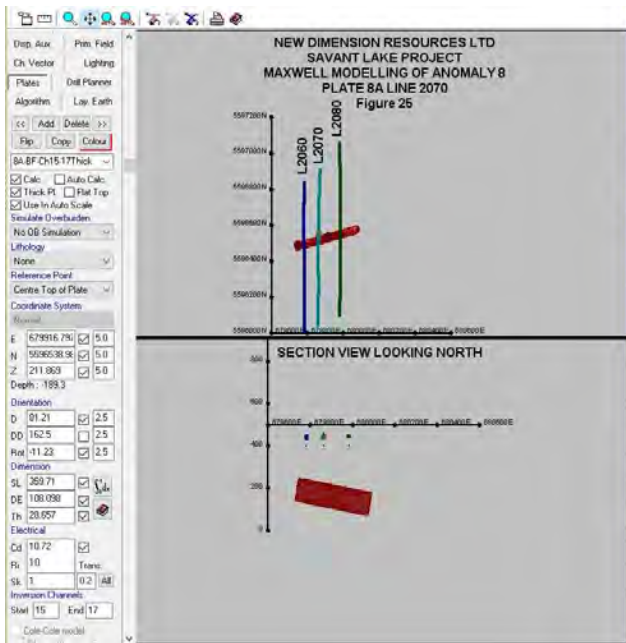
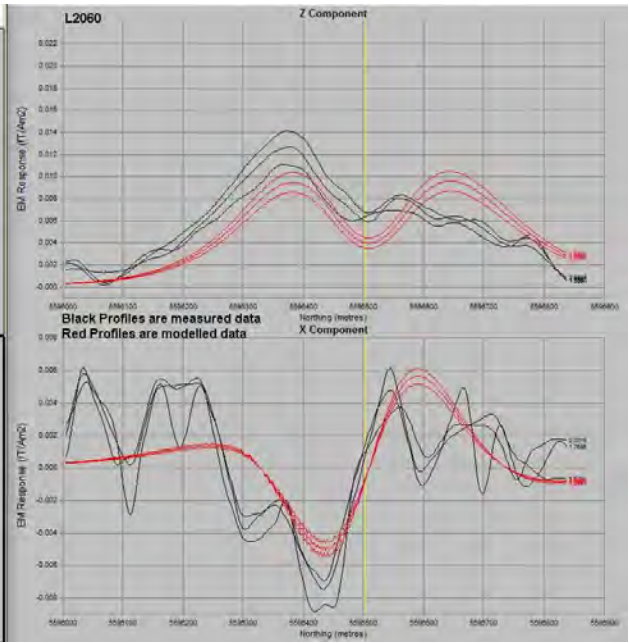
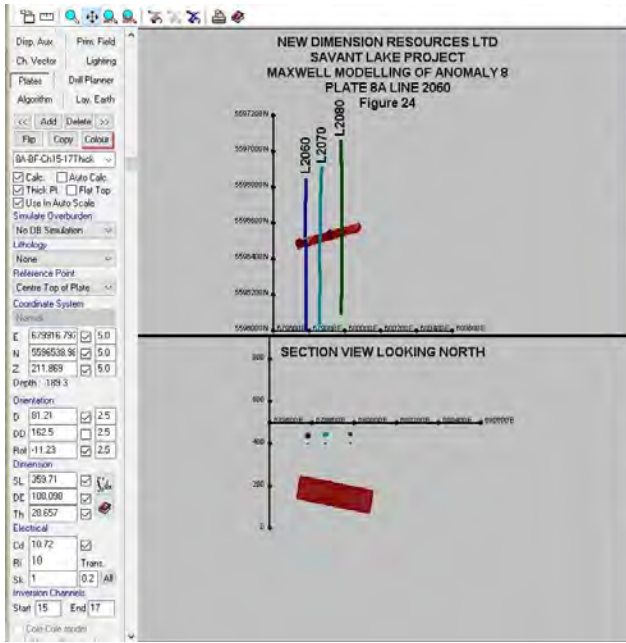
Plate 8A has low to moderate amplitudes and the resultant model is of low to moderate quality. A thick 3D plate was produced with SL of 360 m, a DE of 108 m, a Th of 29m and a Cd of 10.7 S/m, which produces a resultant high CT of 307 S. Depth to center top of plate is 189 m. Mid time channels 15 to 17 were used so the actual CT would probably be moderately higher if the body was closer to surface.

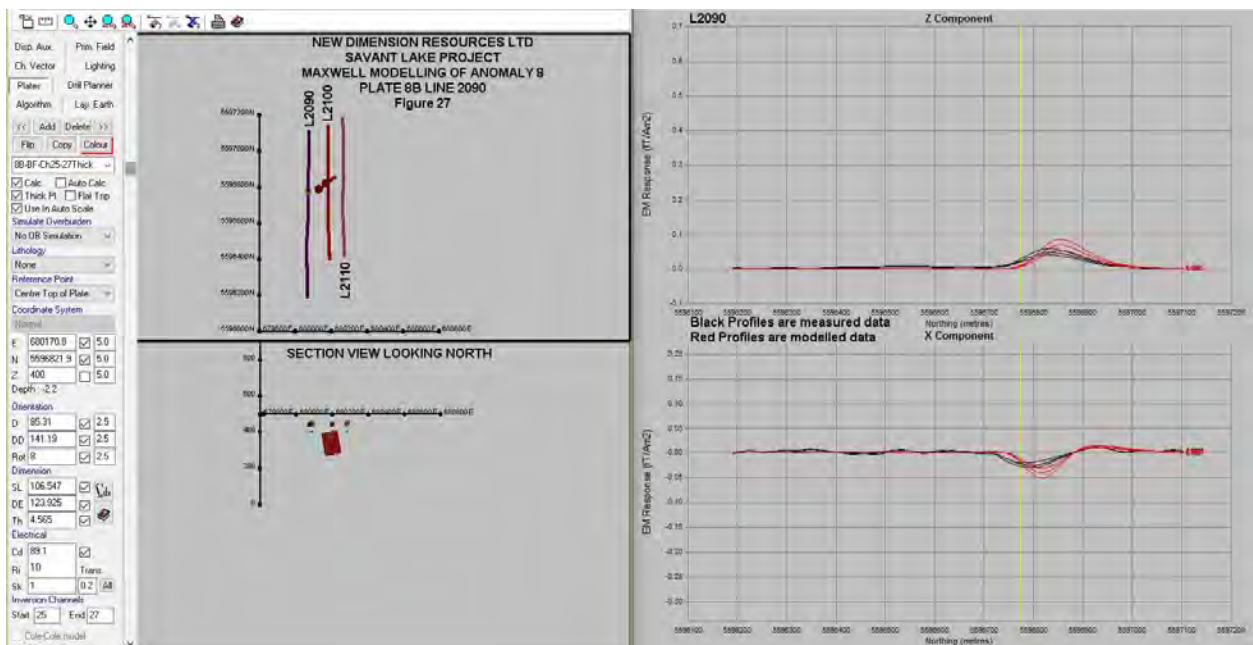
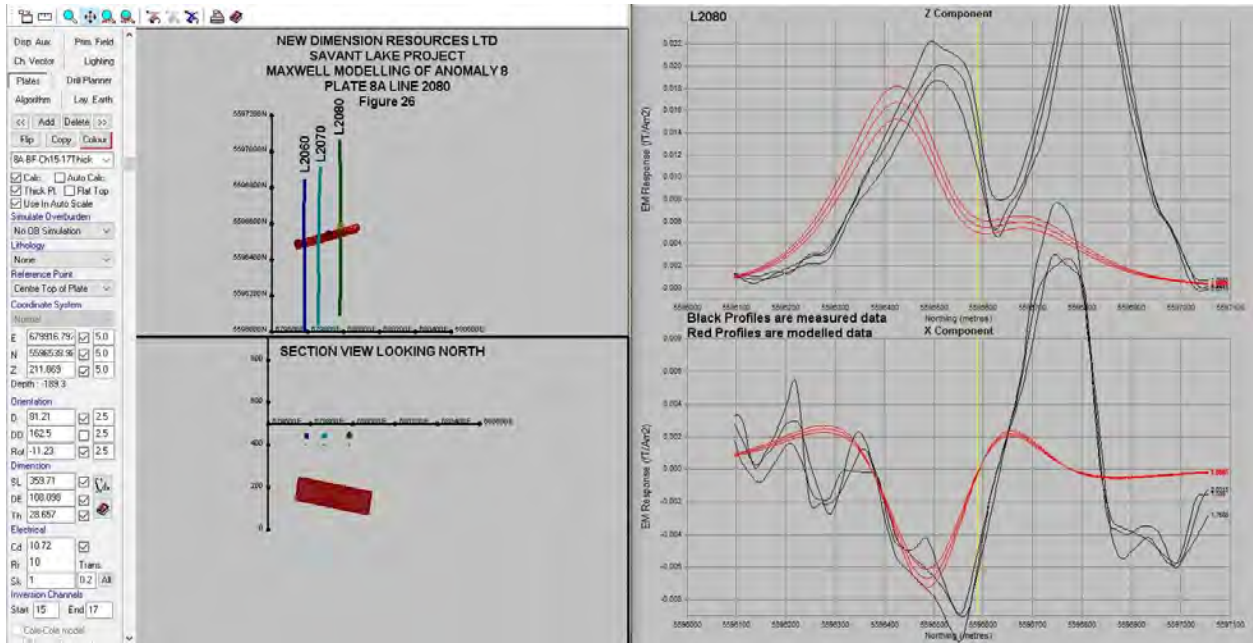
Plate 8B has high amplitudes and the resultant model is of good quality. A thick 3D plate was produced with SL of 107 m, a DE of 124 m, a Th of 4.5 m and a Cd of 89.1 S/m, which produces a resultant high CT of 401 S. Depth to center top of plate is 2.2 m. Latest time channels 25 to 27 were used so this represents the maximum CT.

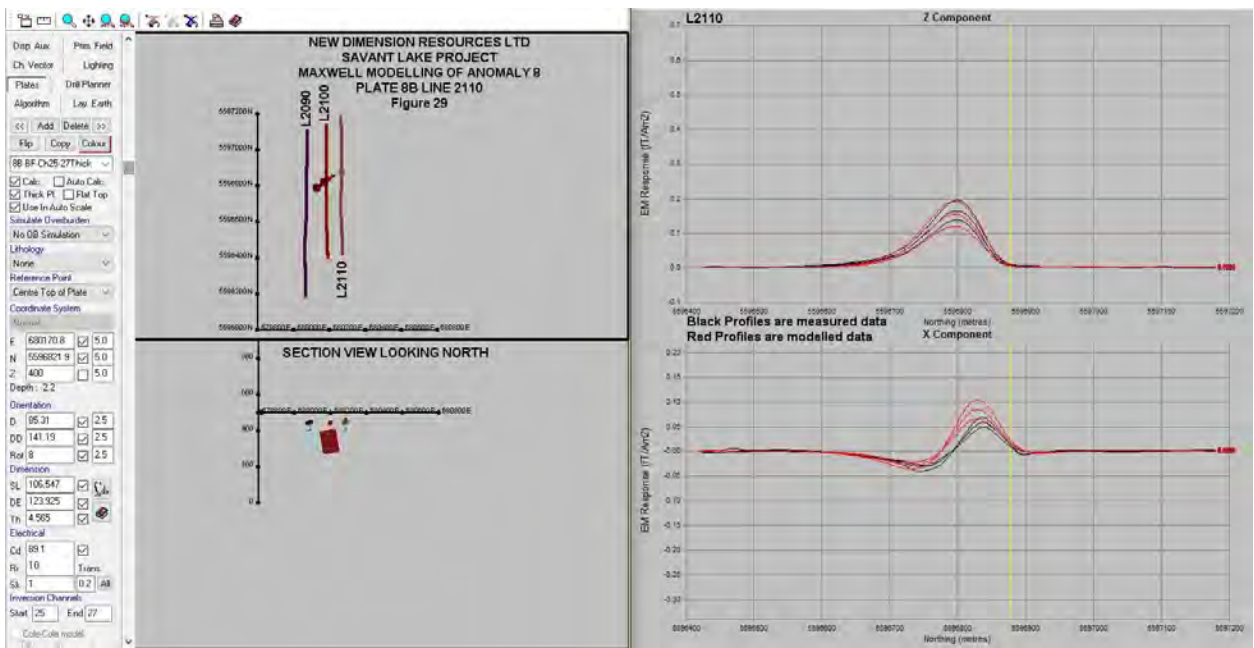
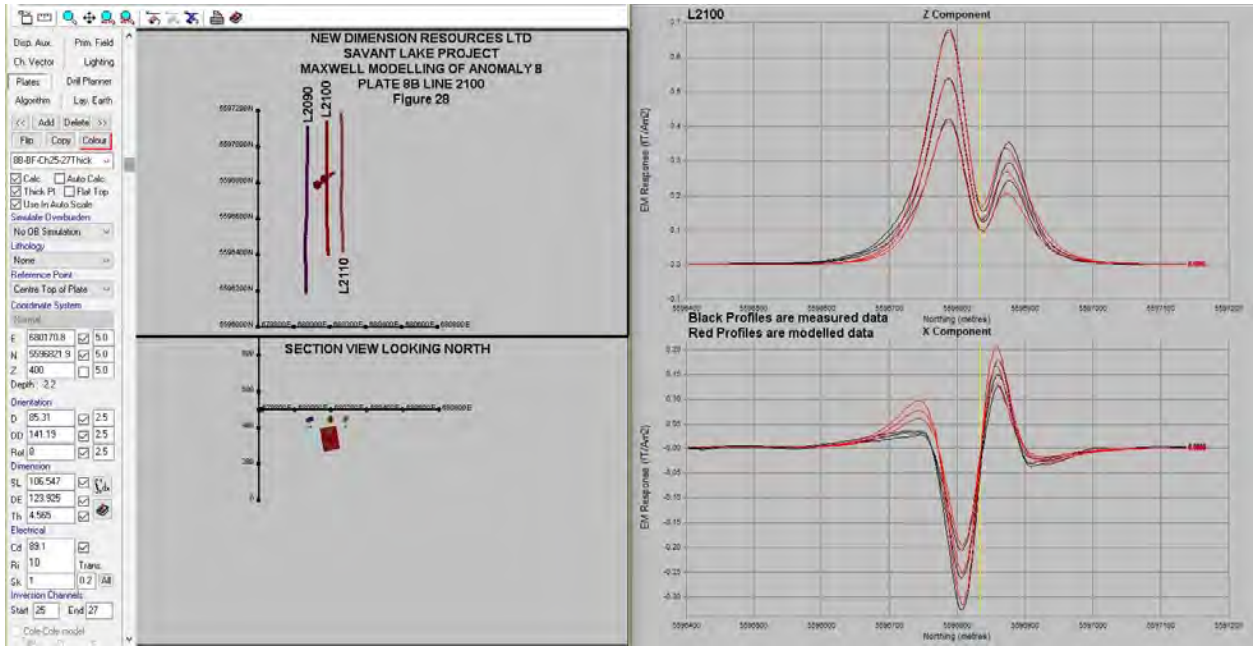
Plate 9 has moderate amplitudes and the resultant model is of moderate to good quality. A thin 2D plate was produced with SL of 30 m, a DE of 103 m, a high CT of 874 S. Depth to center top of plate is 12.9 m. Latest time channels 25 to 27 were used so this represents the maximum CT.

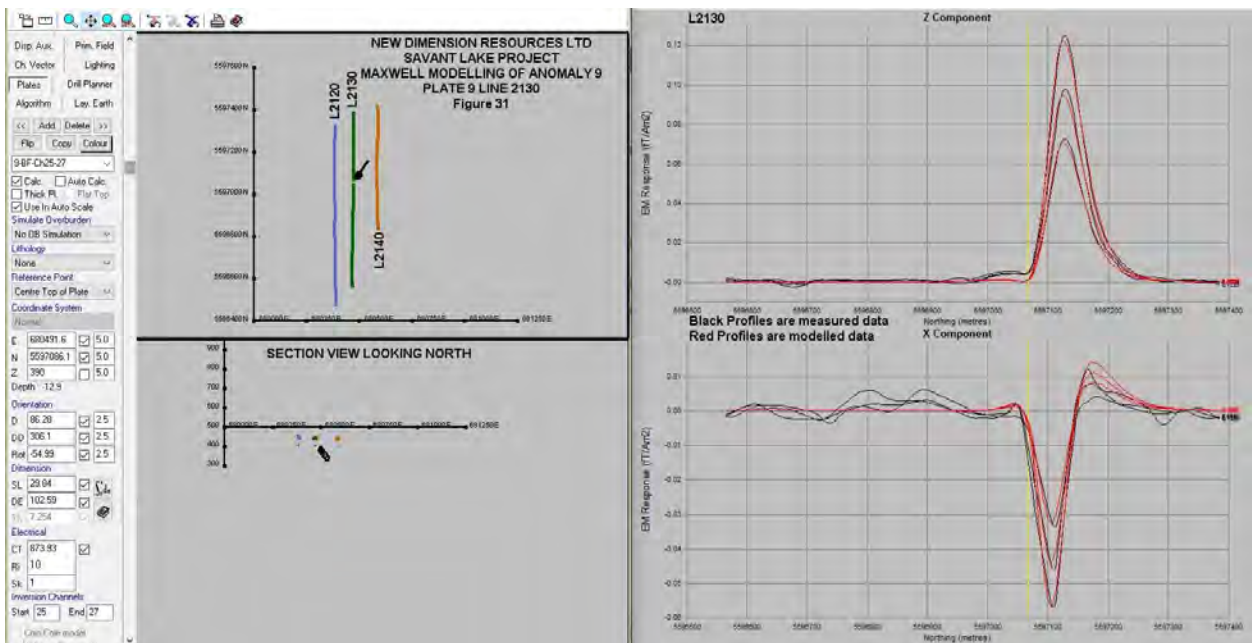
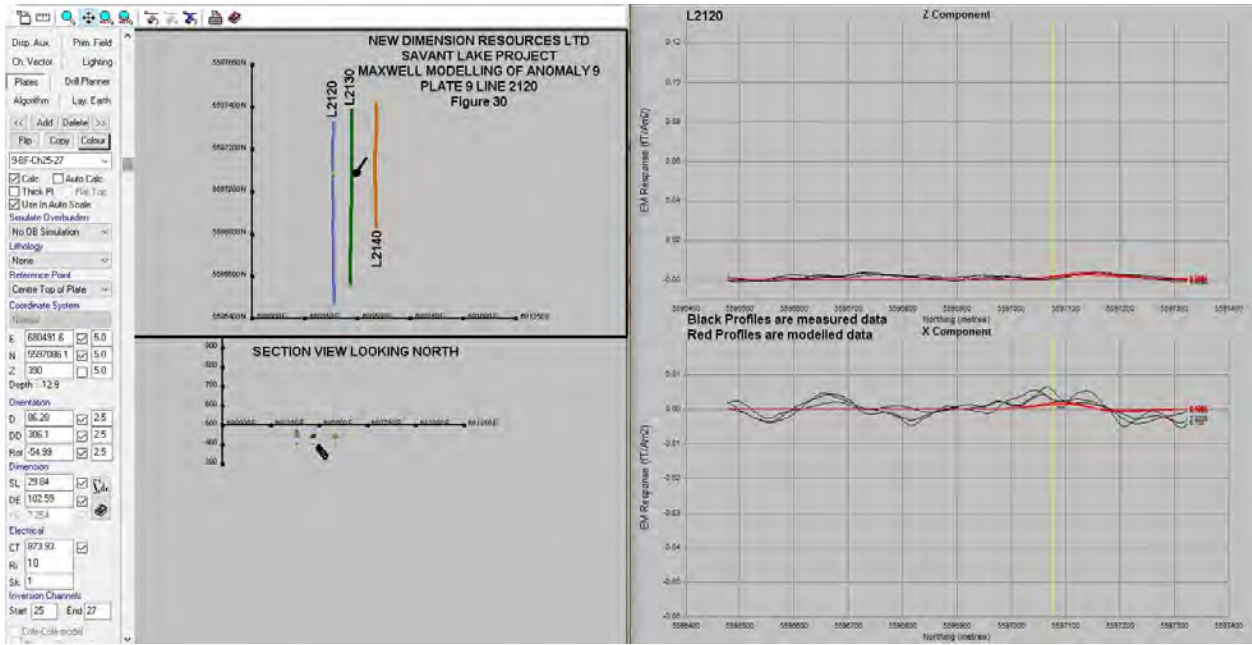
All three plates are presented in Figure 33 with a colour image of the TMI and hydrology. They are located within of the Iron Formation package. Plate 8A is located at a point of where a high magnetic lithology weakens significantly in amplitude, possibly indicating demagnetisation. Plates 8B and 9 are both located on the north flank of the high magnetic lithology where structural distortions seem to exist. Plate 8A is under a lake. Plate 8B is located on an island very close to shore and plate 9 straddle the shore of an island, but is mostly under a lake.

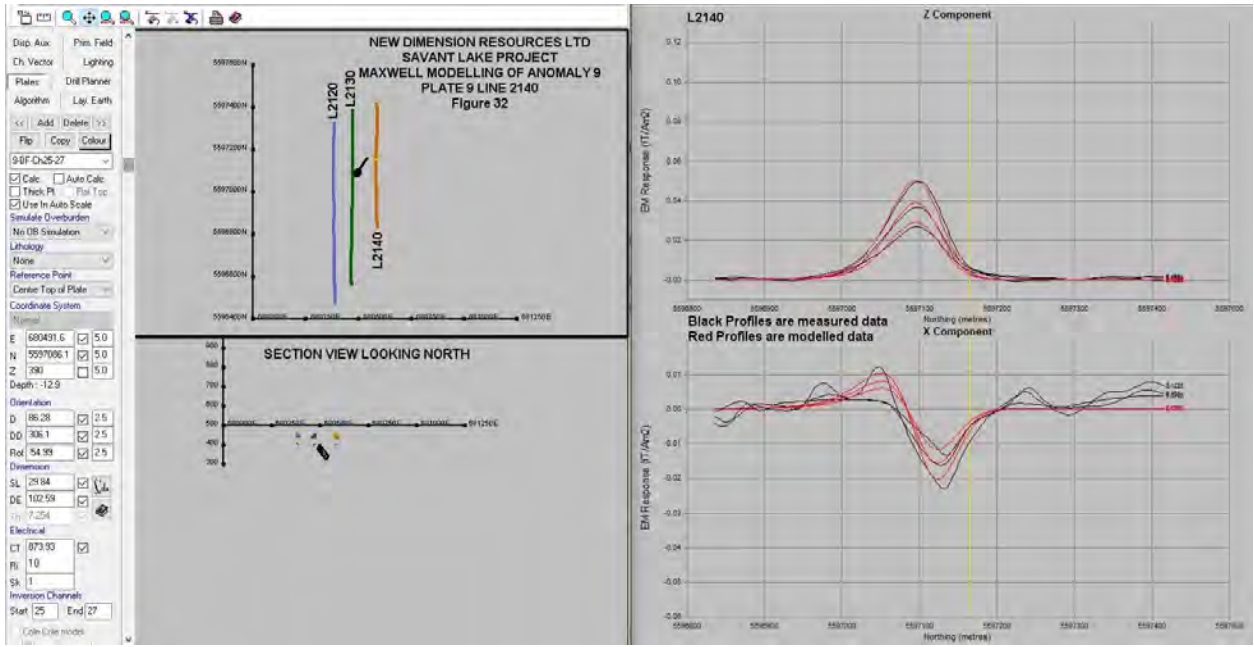
Drilling 8A from the airborne model is not recommended as the solution is of low to moderate quality and located at significant depth. Drilling 8B from the airborne is possible as the model is good and it is close to surface. Drilling 9 from the airborne model is not recommended as the plate is small in strike length and located between flight lines. A ground TDEM survey is recommended for both 8A and 9. Because 8B is located between 8A and 9 it might as well be survey with ground TDEM also.

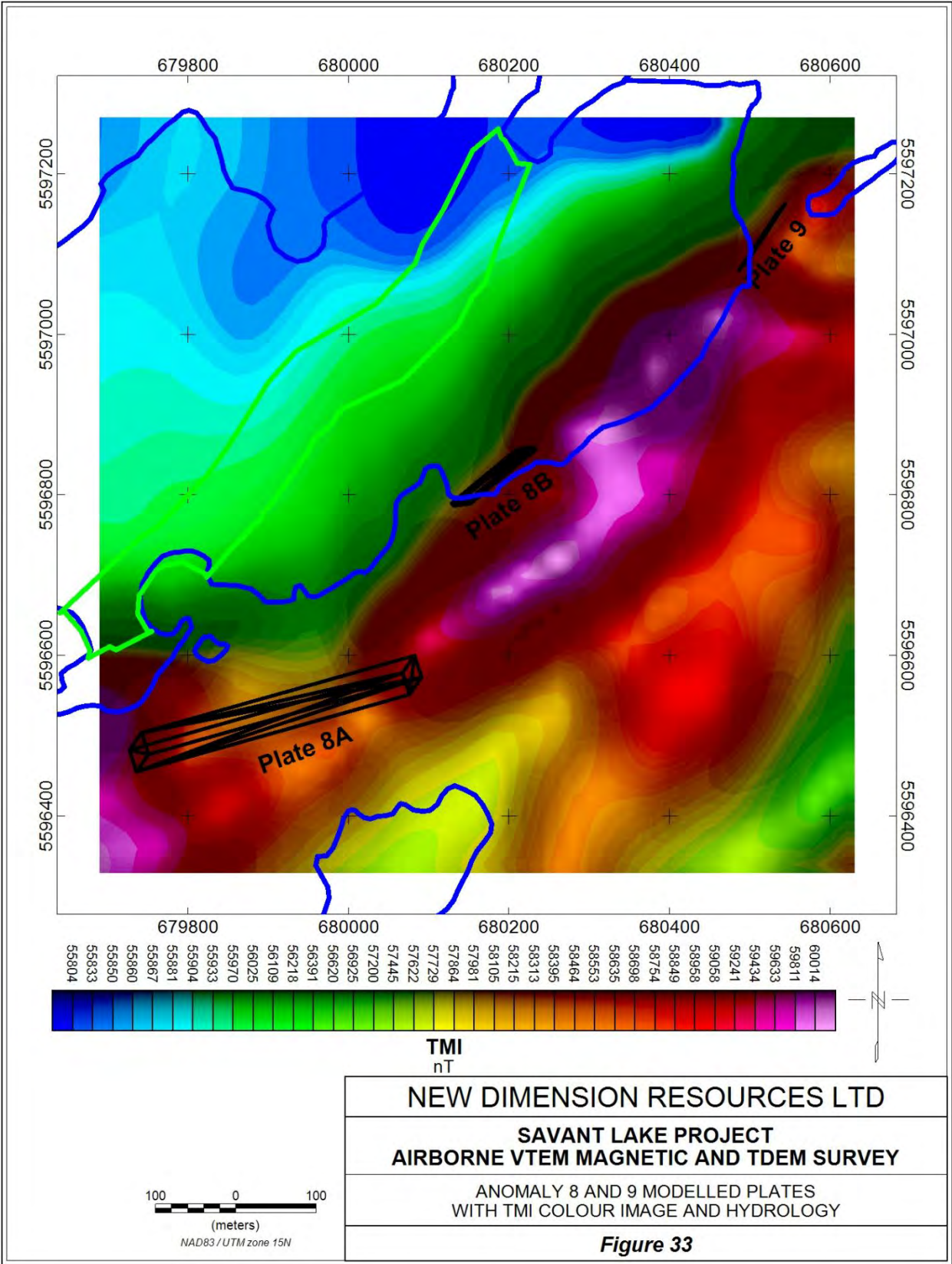












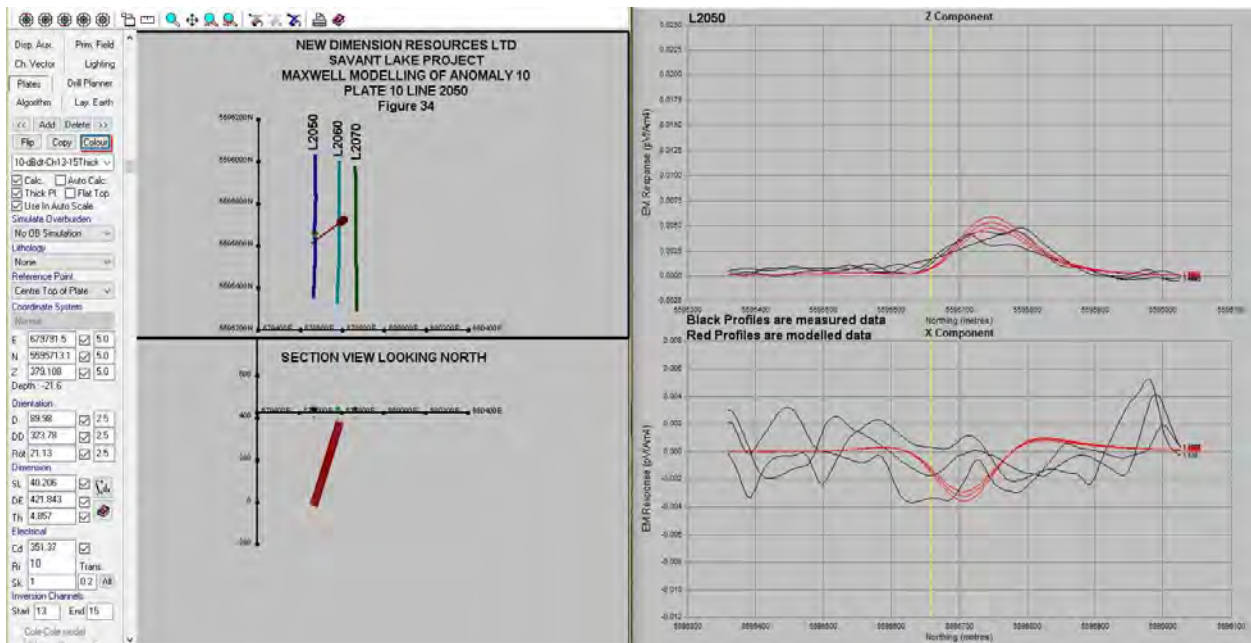
## Anomaly 10 Modelling Results

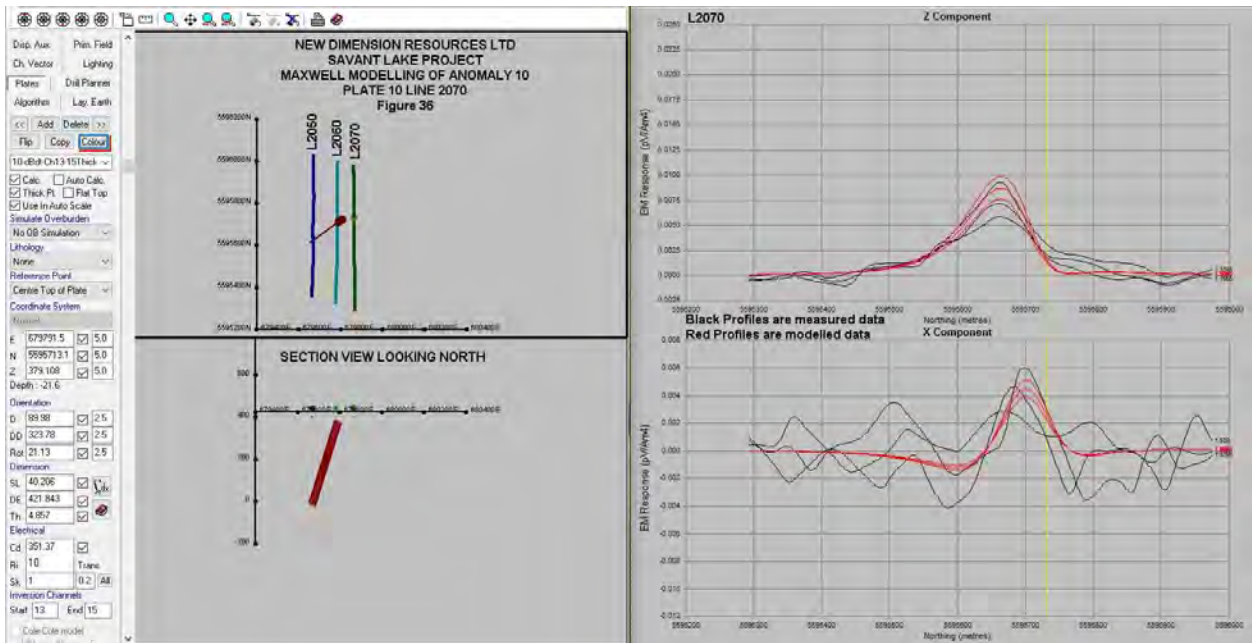
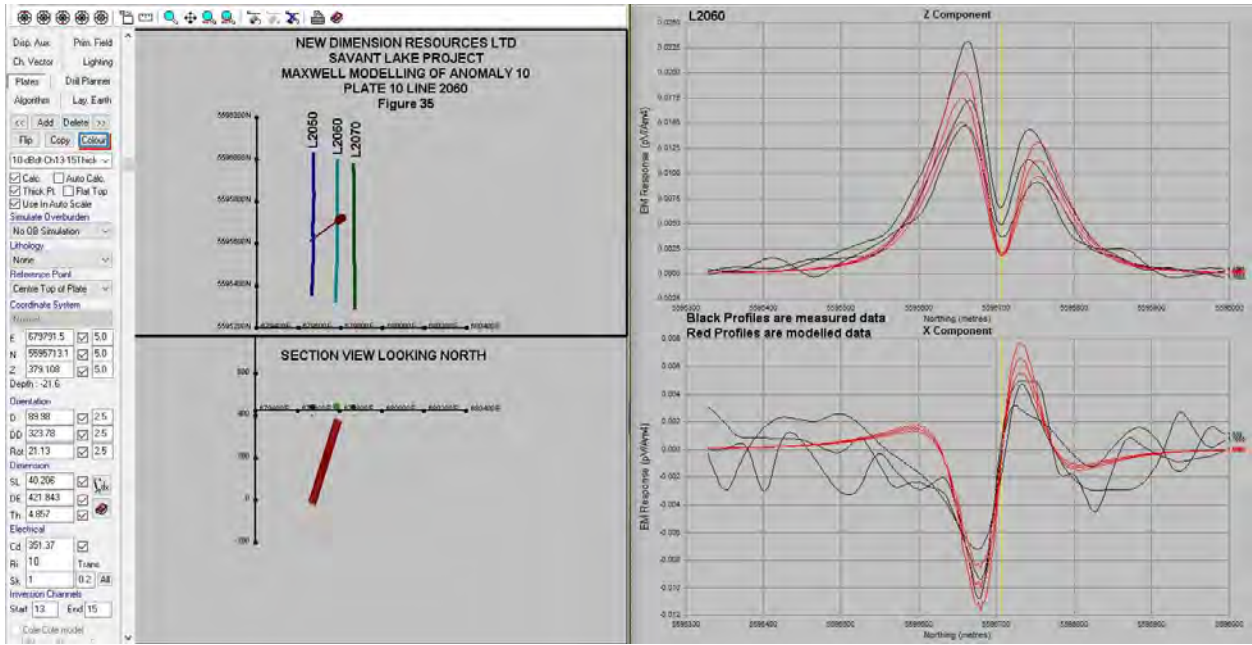
The modelling results for anomaly 10 are presented in Figures 34 to 37. Figures 34 to 36 show the plate 10 modelling results. Figure 37 is a map plate 10 within the local TMI colour image and hydrology.

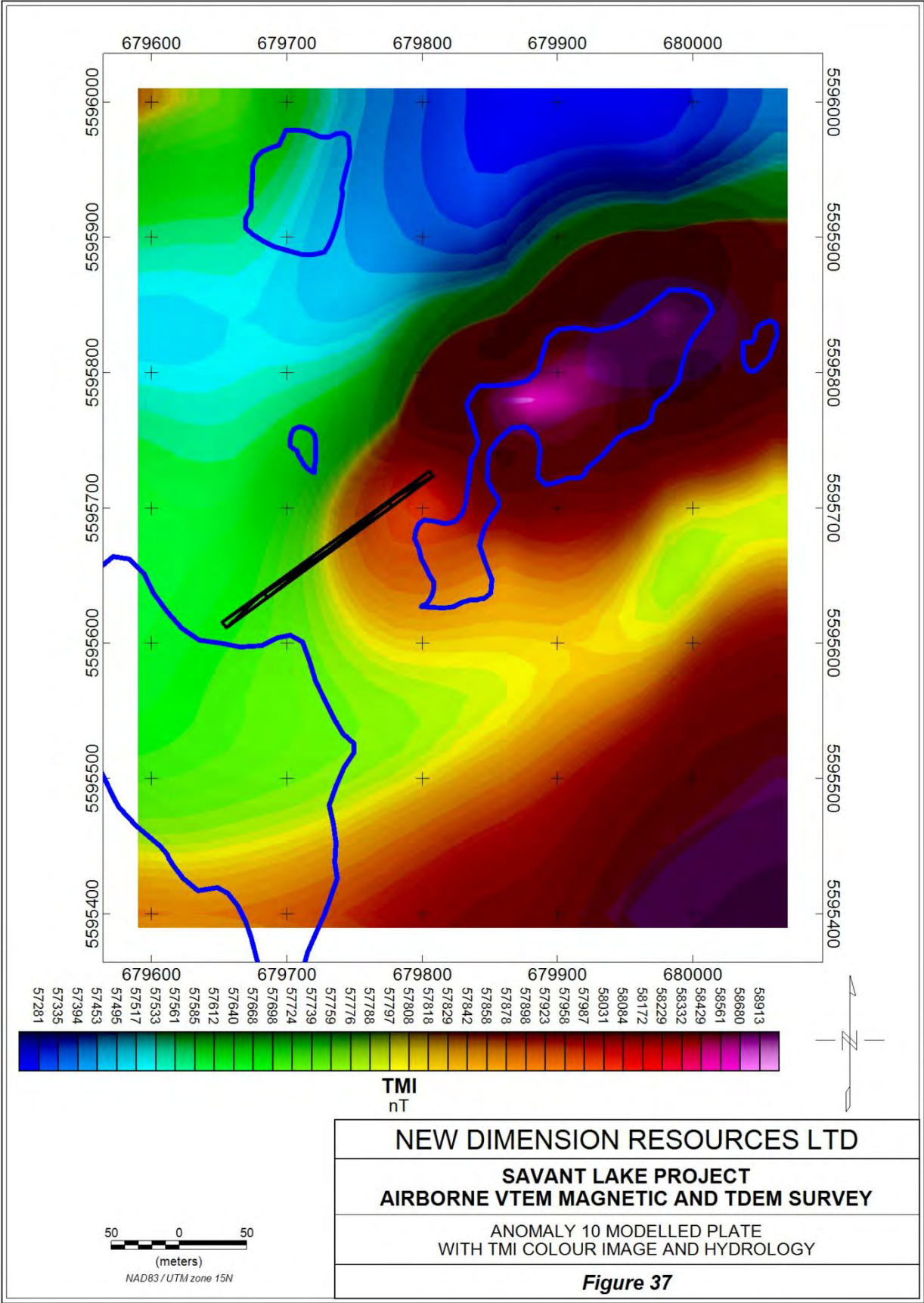
Plate 10 has low to moderate amplitudes and the resultant model is of moderate quality. A thick 3D plate was produced with SL of 40 m, a DE of 422 m, a Th of 4.9 m and a Cd of 351.4 S/m, which produces a resultant very high CT of 1,707 S. Depth to center top of plate is 21.6 m. Mid time channels 13 to 15 were used so the actual CT would probably be moderately higher if the body was closer to surface.

Plate 10 is presented in Figure 37 with a colour image of the TMI and hydrology. It is located within of the Iron Formation package, at the southwest end of a high magnetic lithology. It is located under a lake close to an island.

Drilling 10 from the airborne model is not recommended as the strike length is small. A ground TDEM survey is recommended.







## **Anomaly 11 Modelling Results**

The modelling results for anomaly 11 are presented in Figures 38 to 45. In this case there are three plates called 11A, 11B and 11C. Figures 38 and 39 show the 11A modelling results. Figures 40 and 41 show the 11C modelling results, and Figures 42 to 44 show the 11B modelling results. Figure 45 is a map of the three plates within the local TMI colour image and hydrology.

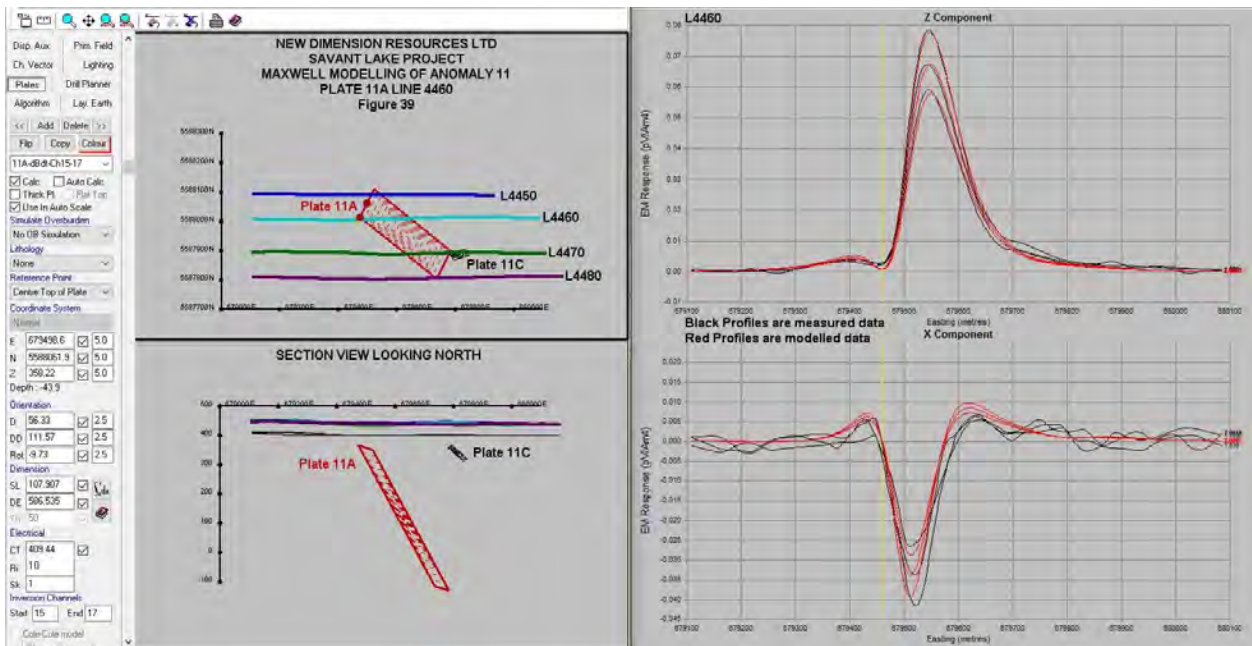
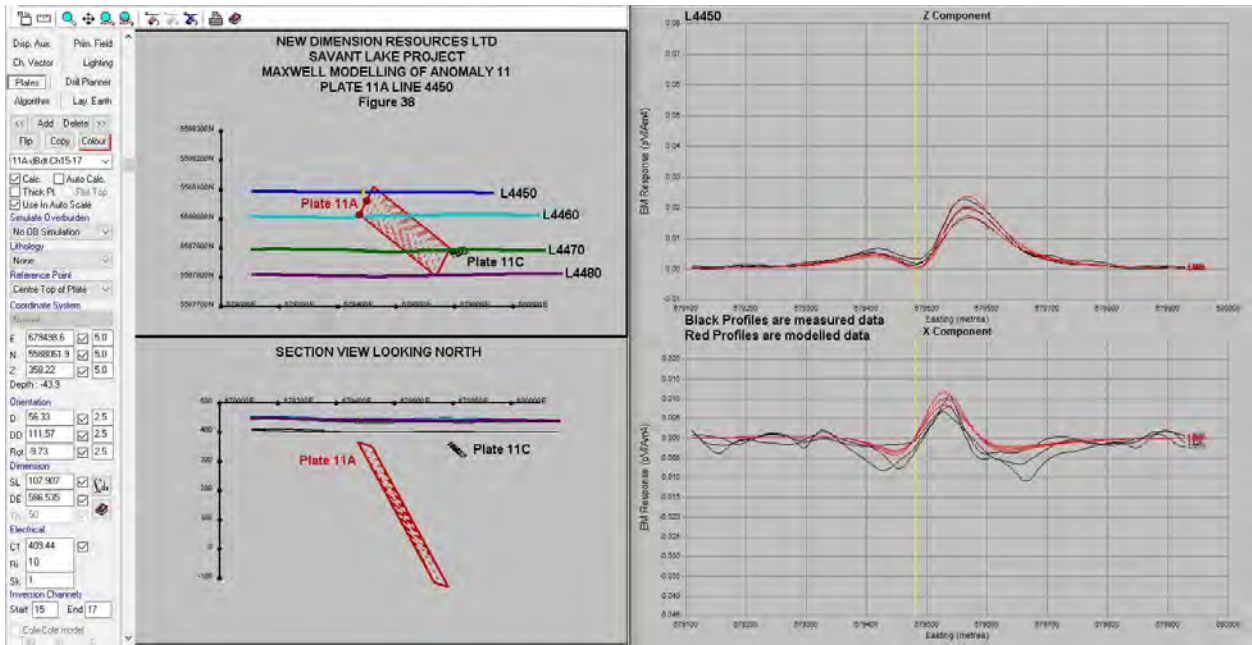
Plate 11A has low to moderate amplitudes and the resultant model is of moderate to high quality. A thin 2D plate was produced with SL of 108 m, a DE of 587 m, and a high CT of 409 S. Depth to center top of plate is 43.9 m. Mid time channels 15 to 17 were used so the actual CT would probably be moderately higher if the body was closer to surface.

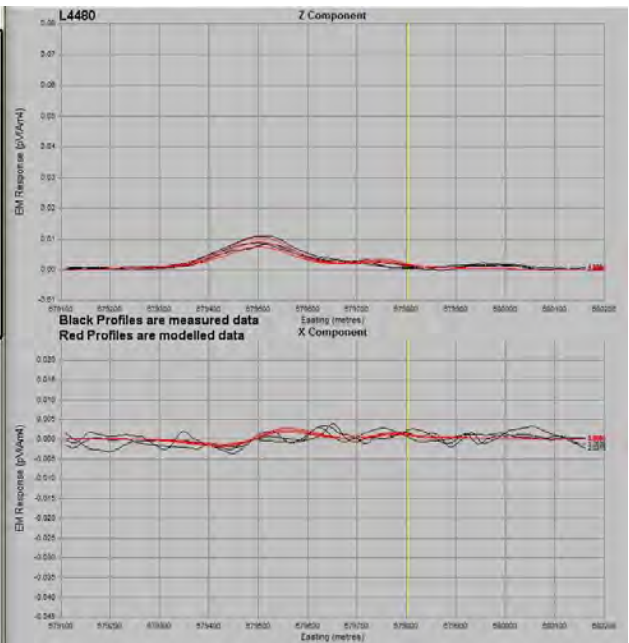
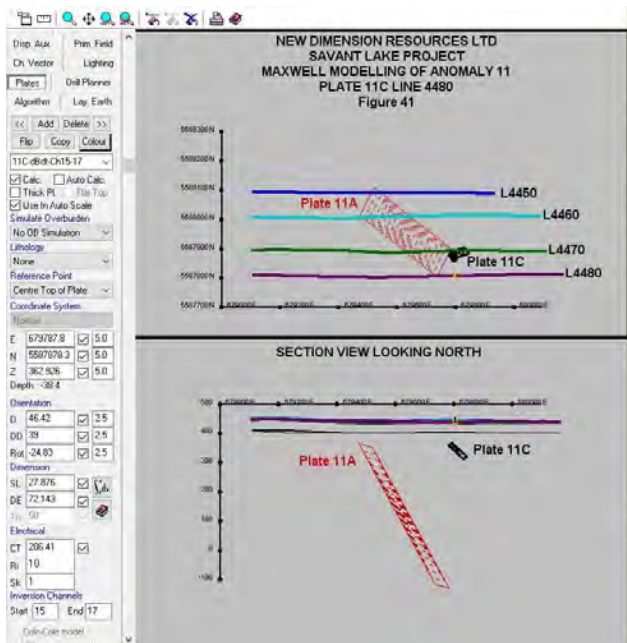
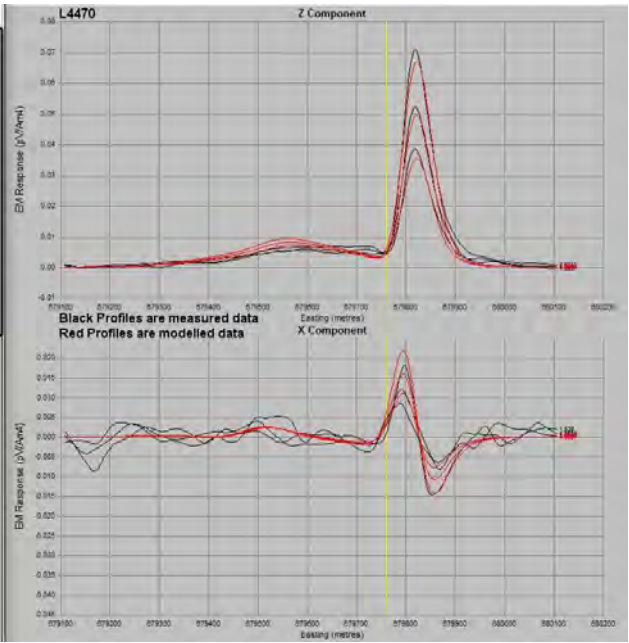
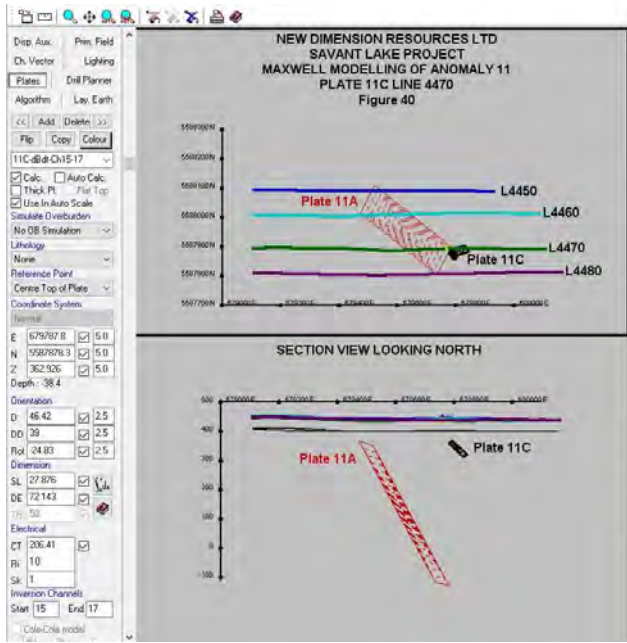
Plate 11C has low to moderate amplitudes and the resultant model is of good quality. A thin 2D plate was produced with SL of 28 m, a DE of 72 m, and a moderate to high CT of 206 S. Depth to center top of plate is 38.4 m. Mid time channels 15 to 17 were used so the actual CT would probably be moderately higher if the body was closer to surface.

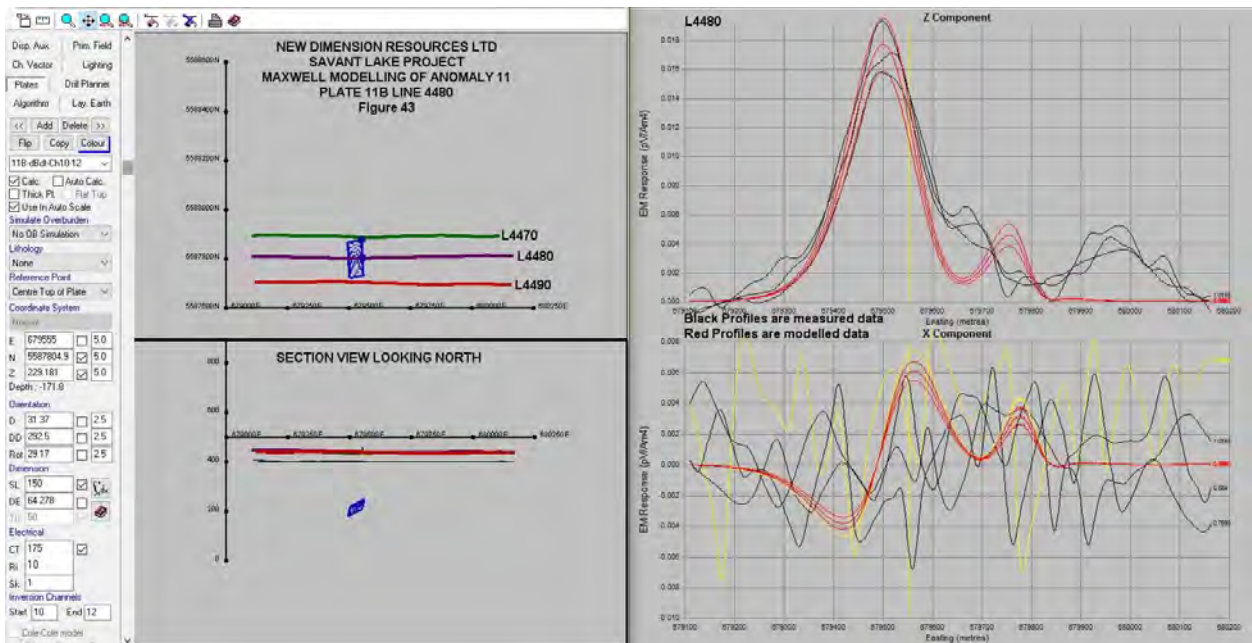
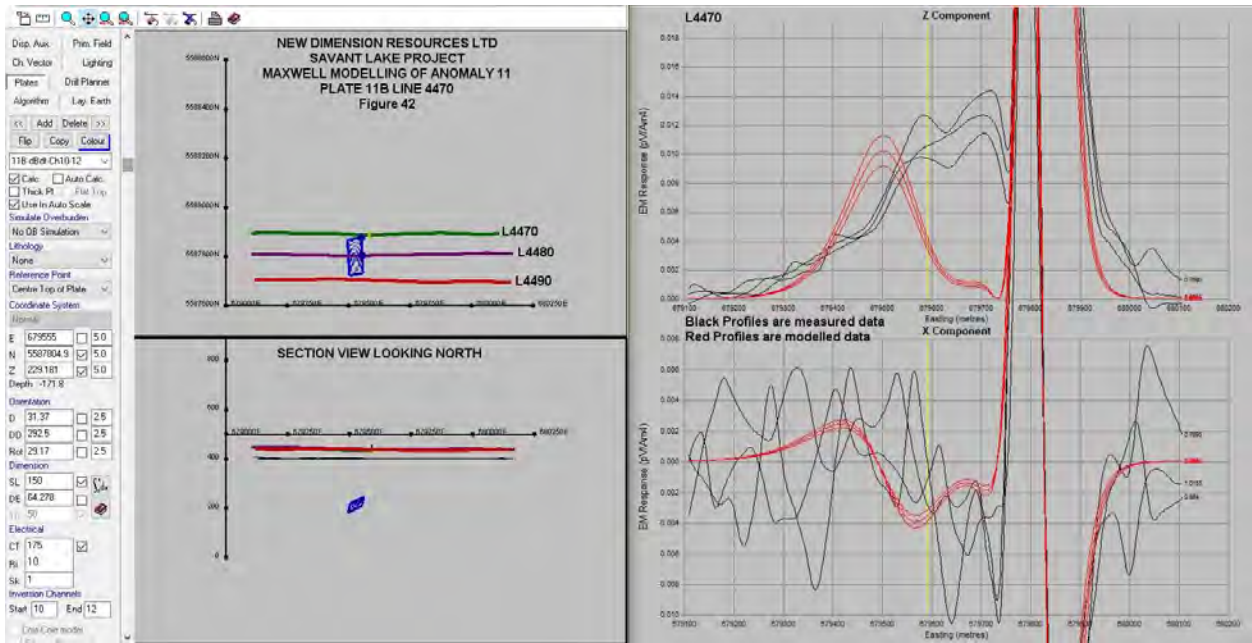
Plate 11B has moderate amplitudes and the resultant model is of low to moderate quality. A thin 2D plate was produced with SL of 150 m, a DE of 64.3 m, and a moderate to high CT of 175 S. Depth to center top of plate is 172 m. Early to mid time channels 10 to 12 were used so the actual CT would probably be significantly higher if the body was closer to surface.

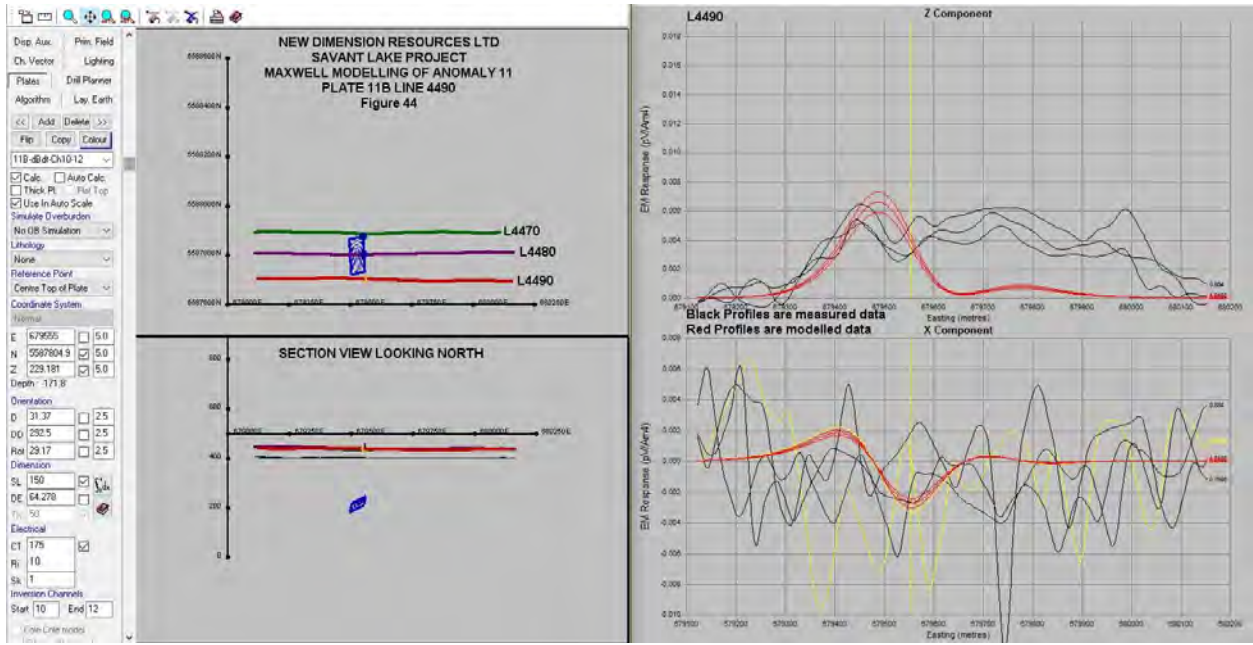
All three plates are presented in Figure 45 with a colour image of the TMI and hydrology. They are not contained within the Iron Formation package and may be hosted by volcanic rocks. Plates 11A and 11B are located near a weak magnetic high, whereas plate 11C has no magnetic activity. Plates 11A and 11C are under a lake, and plate 11B straddles the shore of an island.

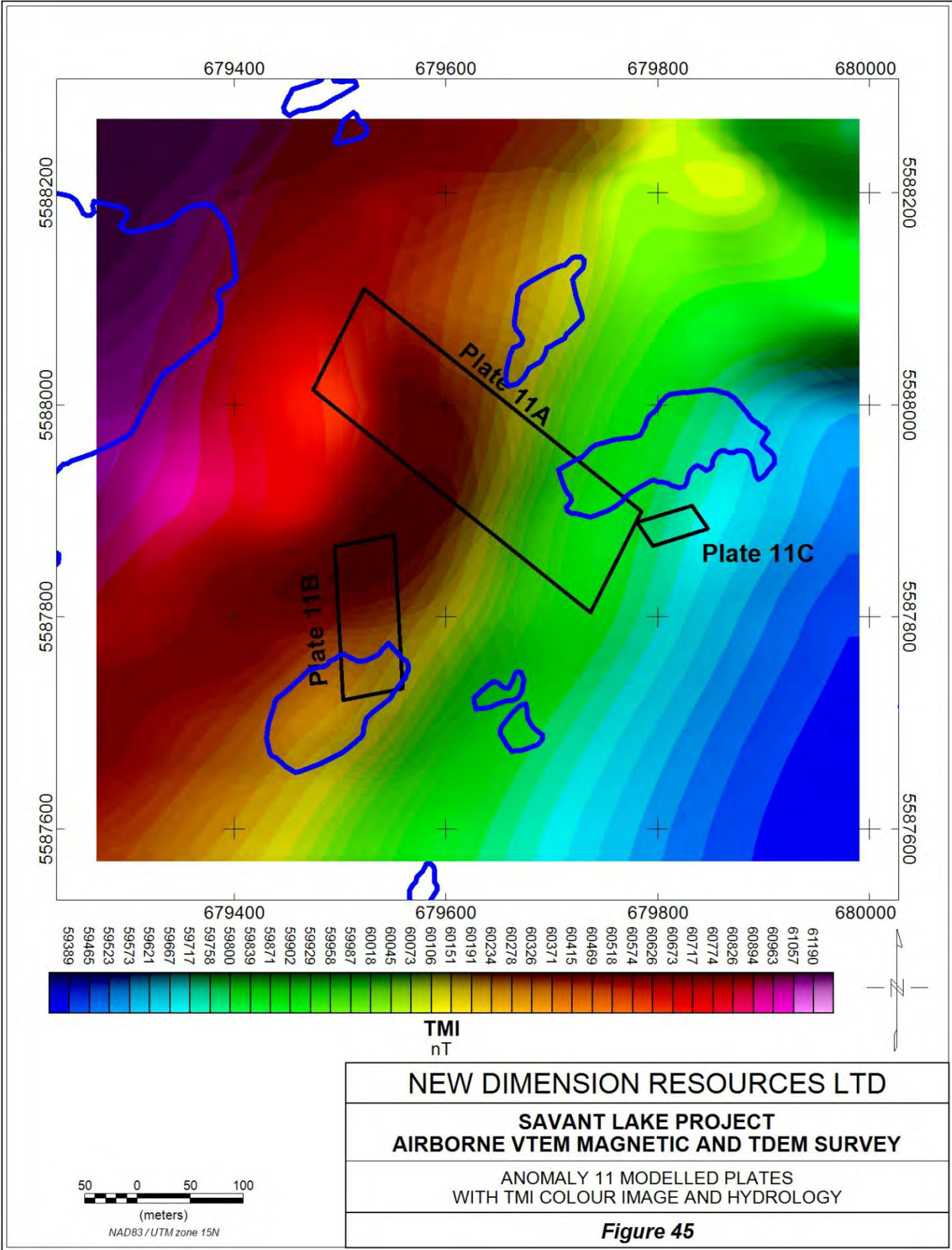
Drilling plate 11A from the airborne is possible as the it is relatively large and close to surface. Drilling plates 11B and 11C from the airborne is not recommended as 11C is too deep and 11C is too small. Since the plates are closely spaced it is recommended that all three plates be surveyed with ground TDEM.











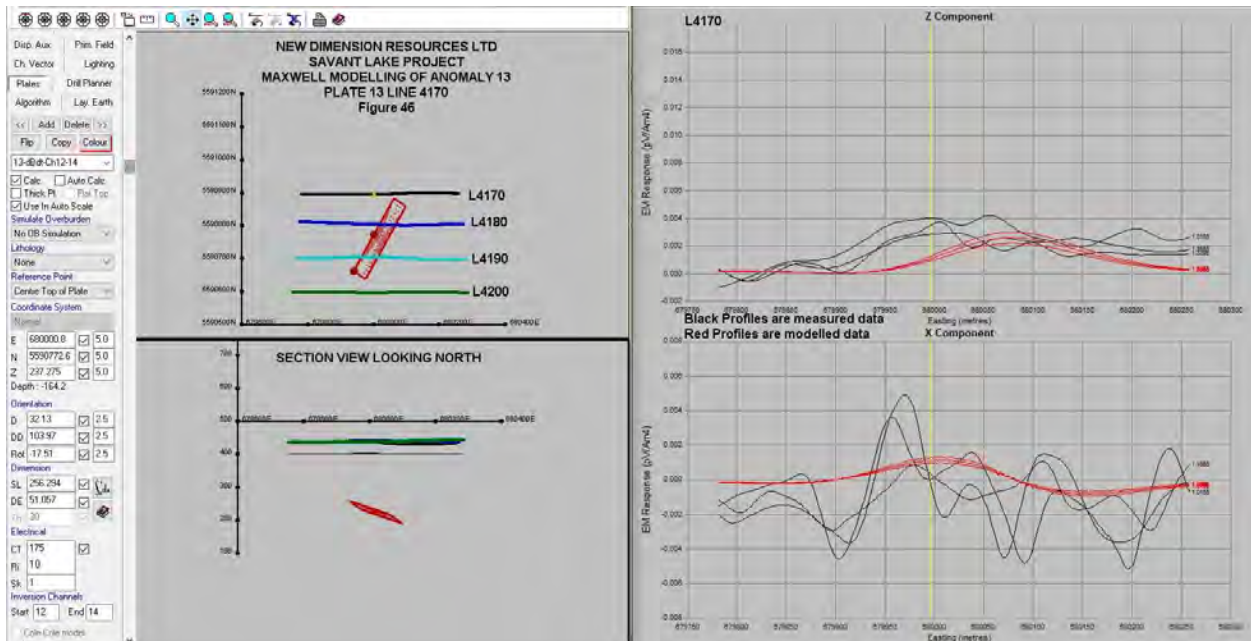
## Anomaly 13 Modelling Results

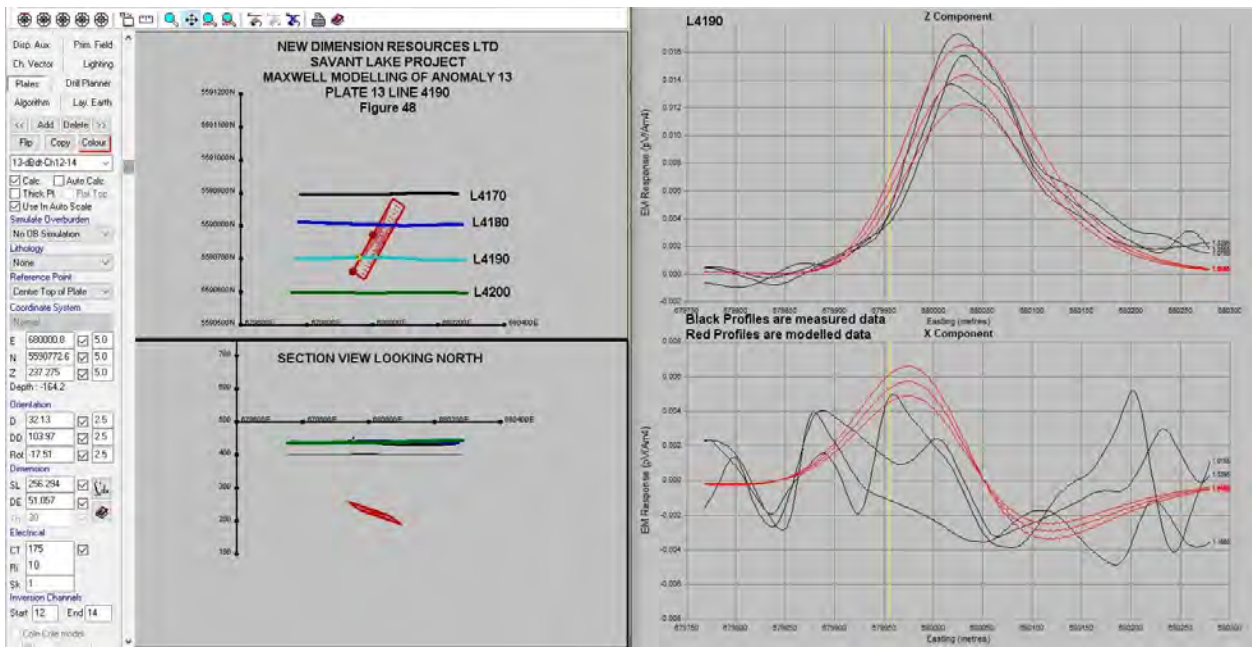
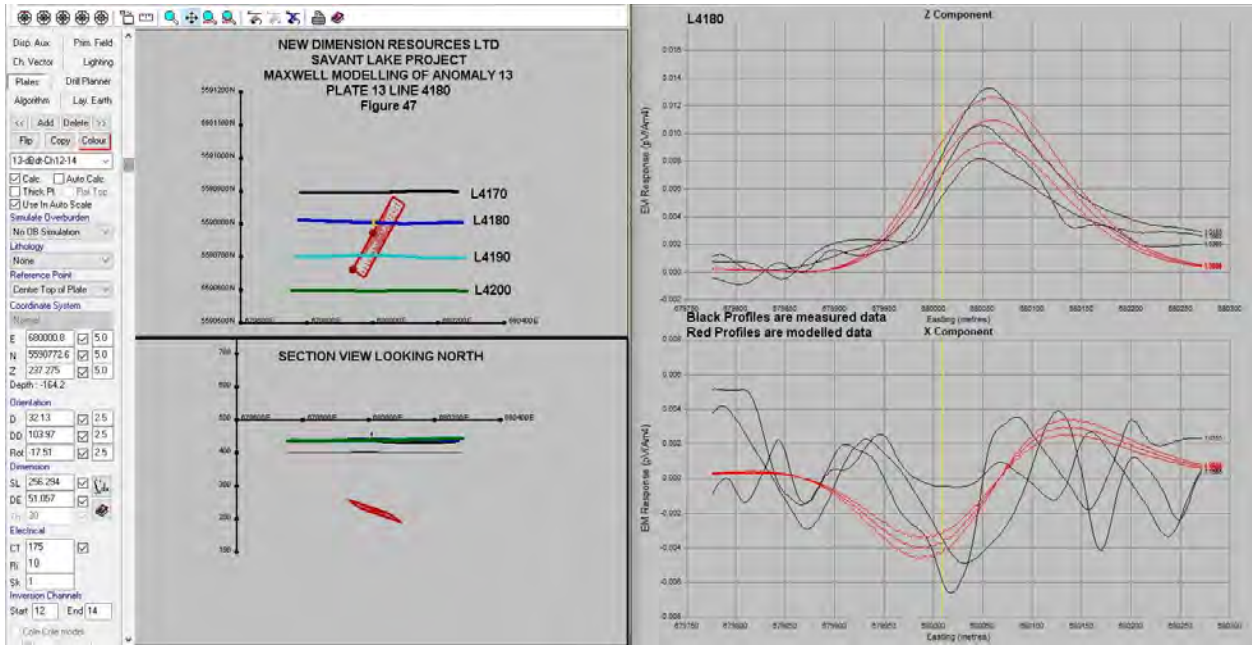
The modelling results for anomaly 13 are presented in Figures 46 to 50. Figures 46 to 49 show the plate 13 modelling results. Figure 50 is a map of plate 13 within the local TMI colour image and hydrology.

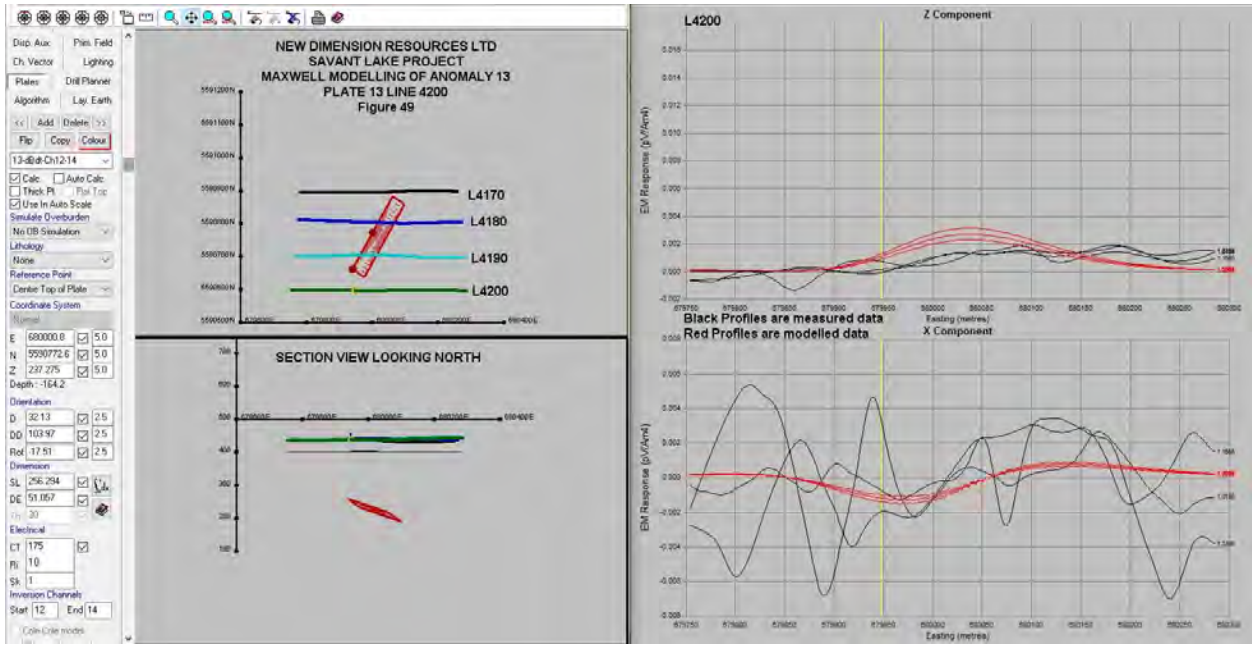
Plate 13 has low to moderate amplitudes and the resultant model is of low to moderate quality. A thin 2D plate was produced with SL of 256 m, a DE of 51 m and a moderate to high CT of 175 S. Depth to center top of plate is 164.2 m. Mid time channels 13 to 15 were used so the actual CT would probably be moderately higher if the body was closer to surface.

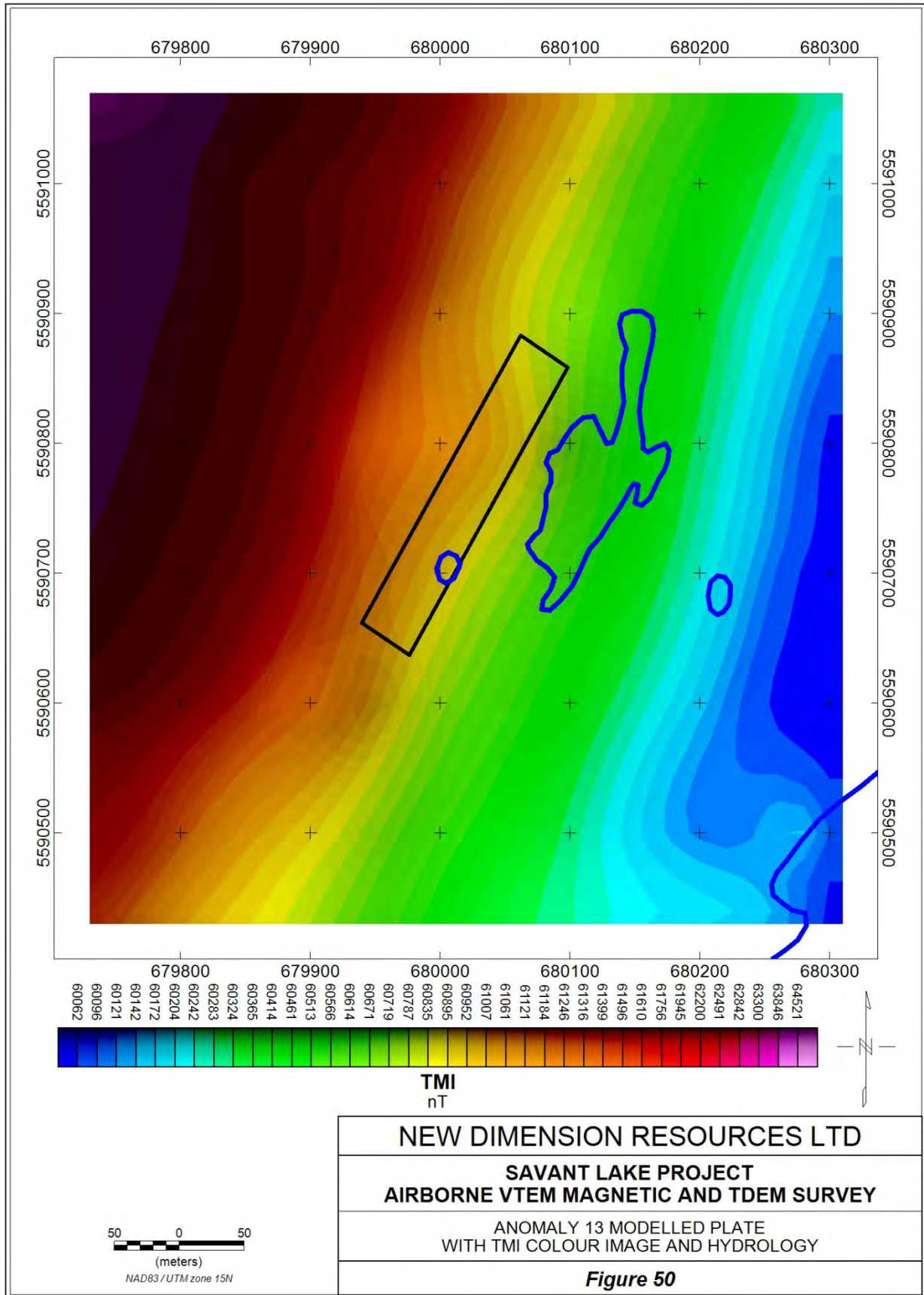
Plate 13 is presented in Figure 50 with a colour image of the TMI and hydrology. It has no significant magnetic activity. It is not contained within the Iron Formation package and may be hosted by volcanic rocks. It is located under a lake close to an island.

Drilling plate 13 from the airborne model is not recommended as solution is of low to moderate quality and it has significant depth. A ground TDEM survey is recommended.









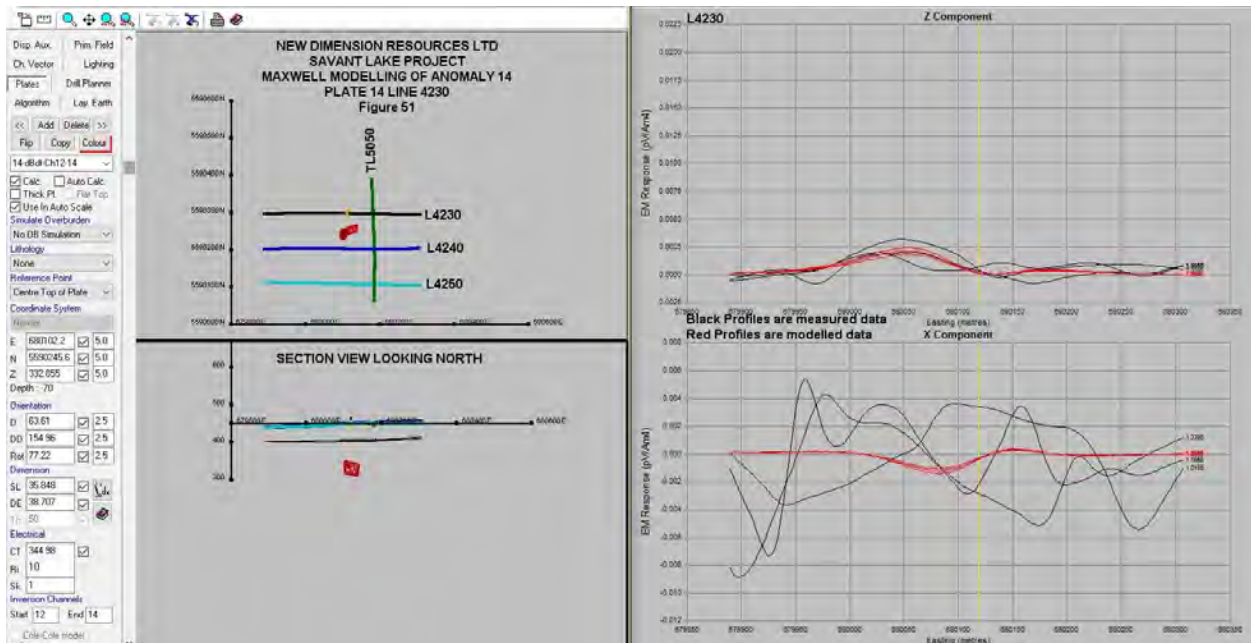
## Anomaly 14 Modelling Results

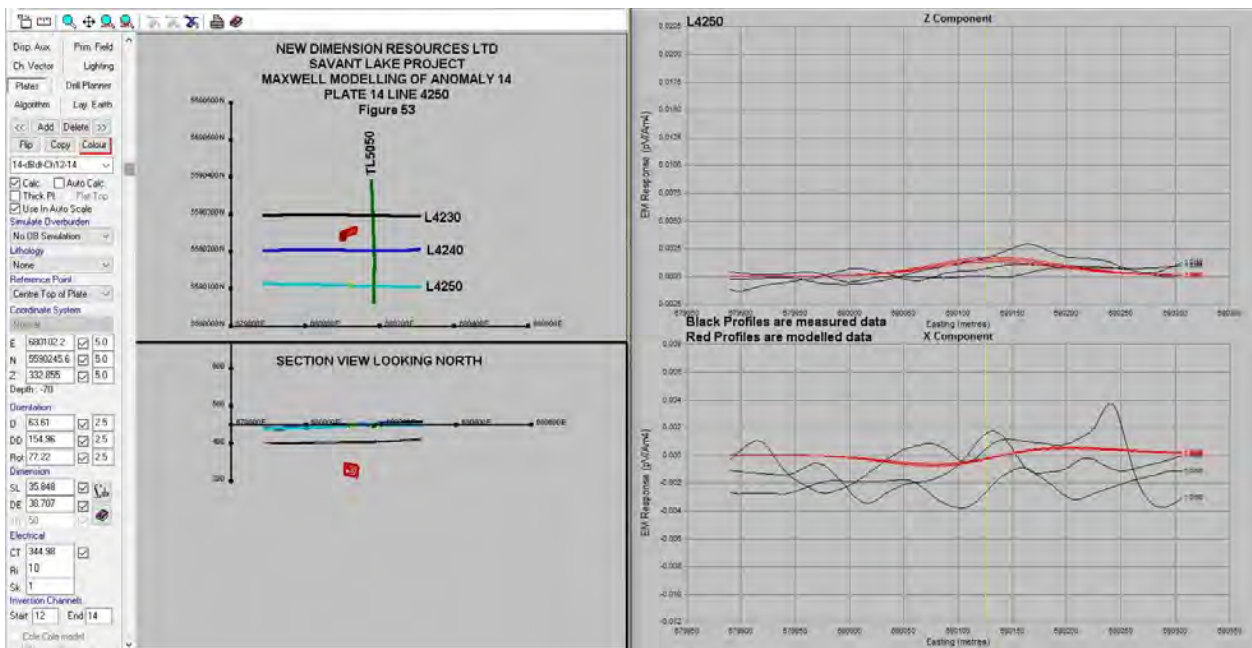
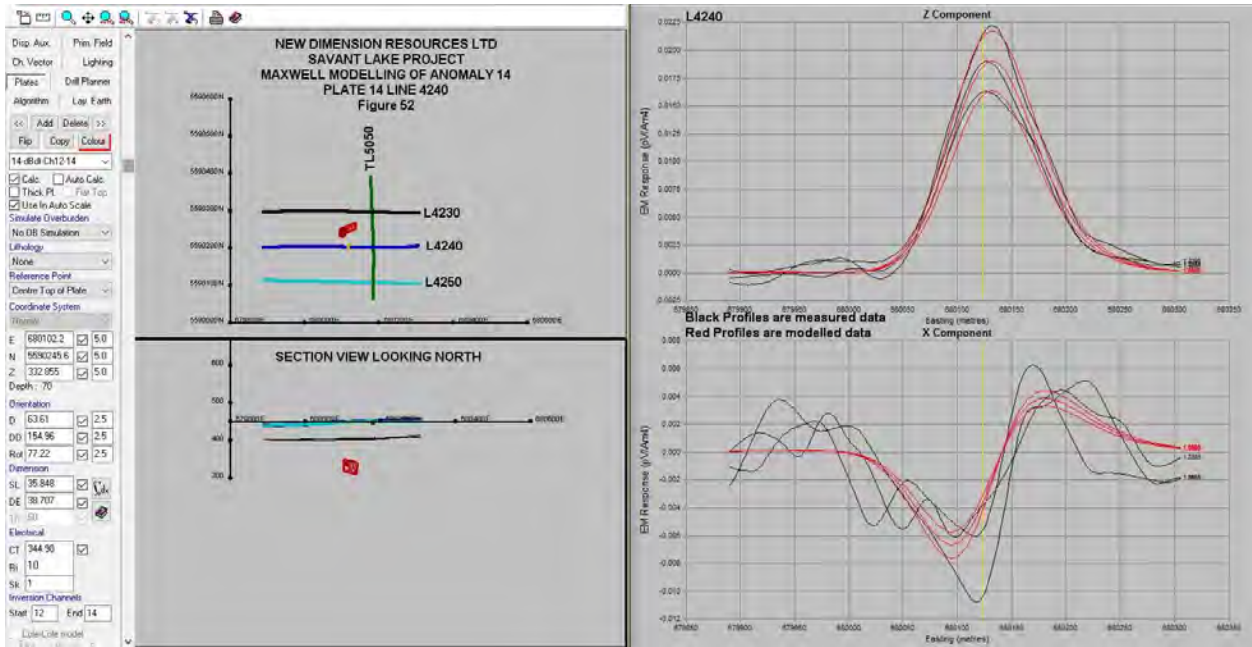
The modelling results for anomaly 14 are presented in Figures 51 to 54. Figures 51 to 53 show the plate 14 modelling results. Figure 54 is a map of plate 14 within the local TMI colour image and hydrology.

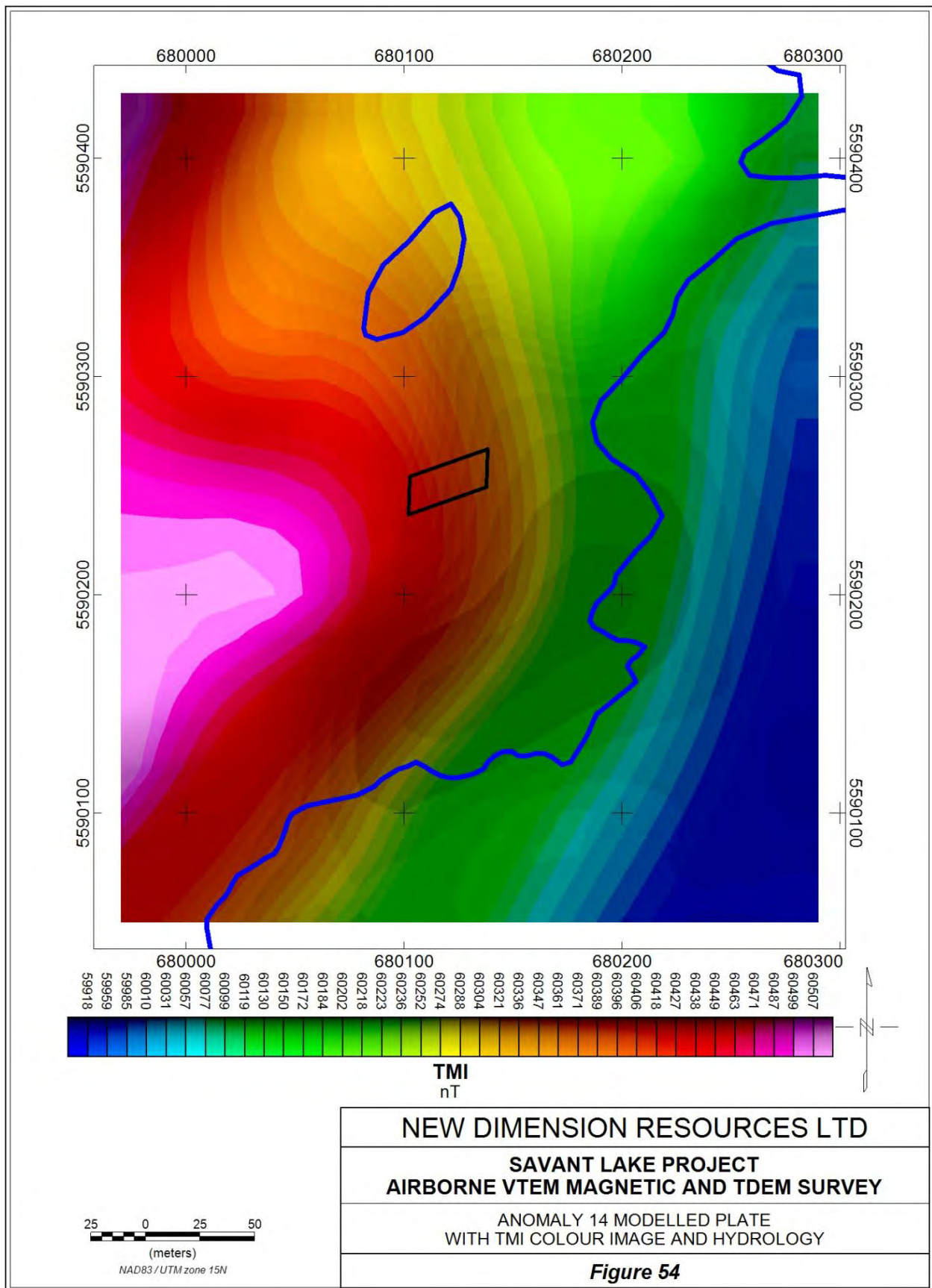
Plate 14 has low to moderate amplitudes and the resultant model is of moderate quality. A thin 2D plate was produced with SL of 36 m, a DE of 39 m and a high CT of 345 S. Depth to center top of plate is 70 m. Mid time channels 12 to 14 were used so the actual CT would probably be moderately higher if the body was closer to surface.

Plate 14 is presented in Figure 54 with a colour image of the TMI and hydrology. It is located on the eastern flank of a magnetic high. It is not contained within the Iron Formation package and may be hosted by volcanic rocks. It is located under a lake close to an island.

Drilling plate 14 from the airborne model is not recommended as it is quite small. A ground TDEM survey is recommended.







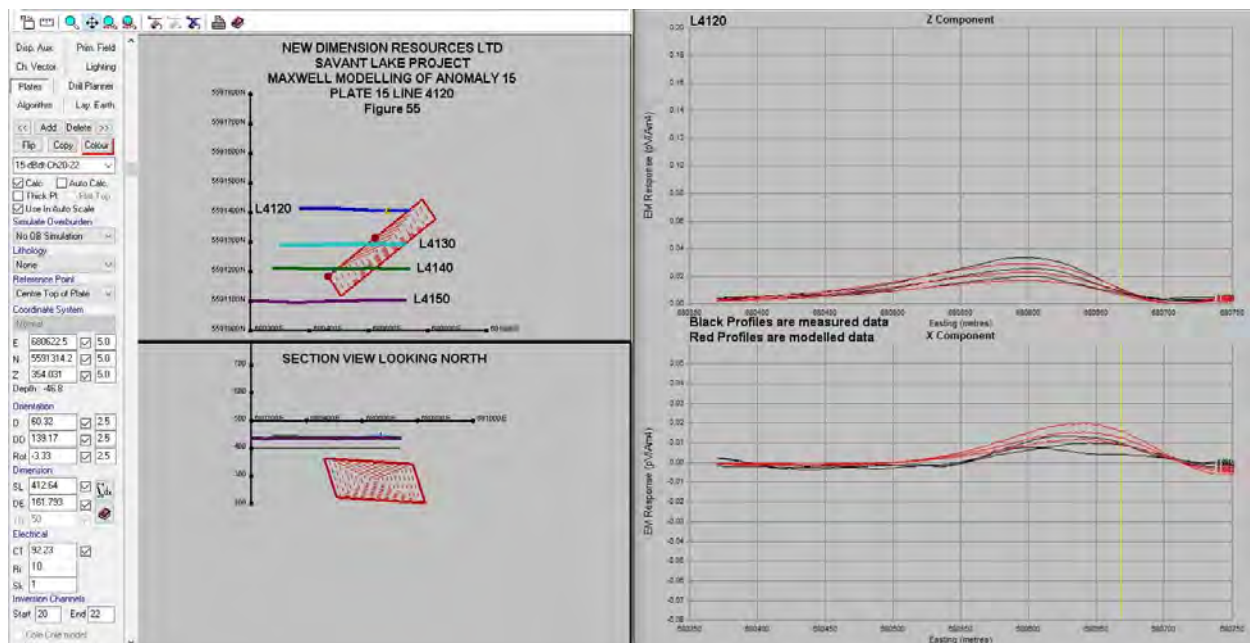
## Anomaly 15 Modelling Results

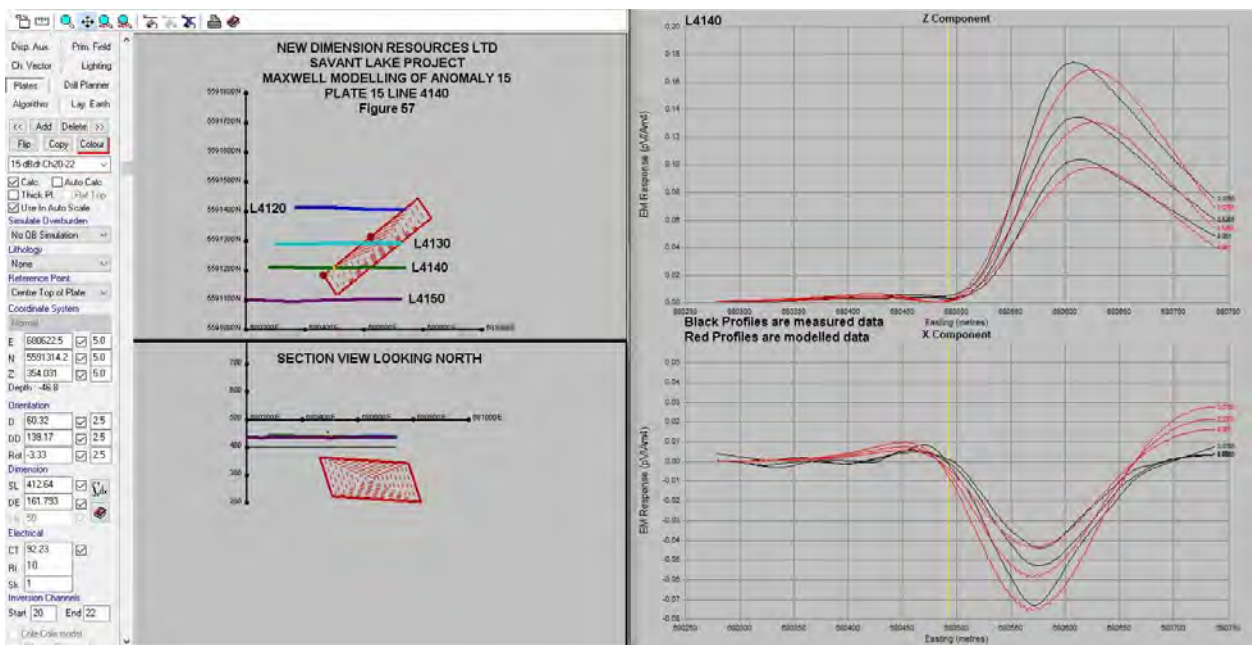
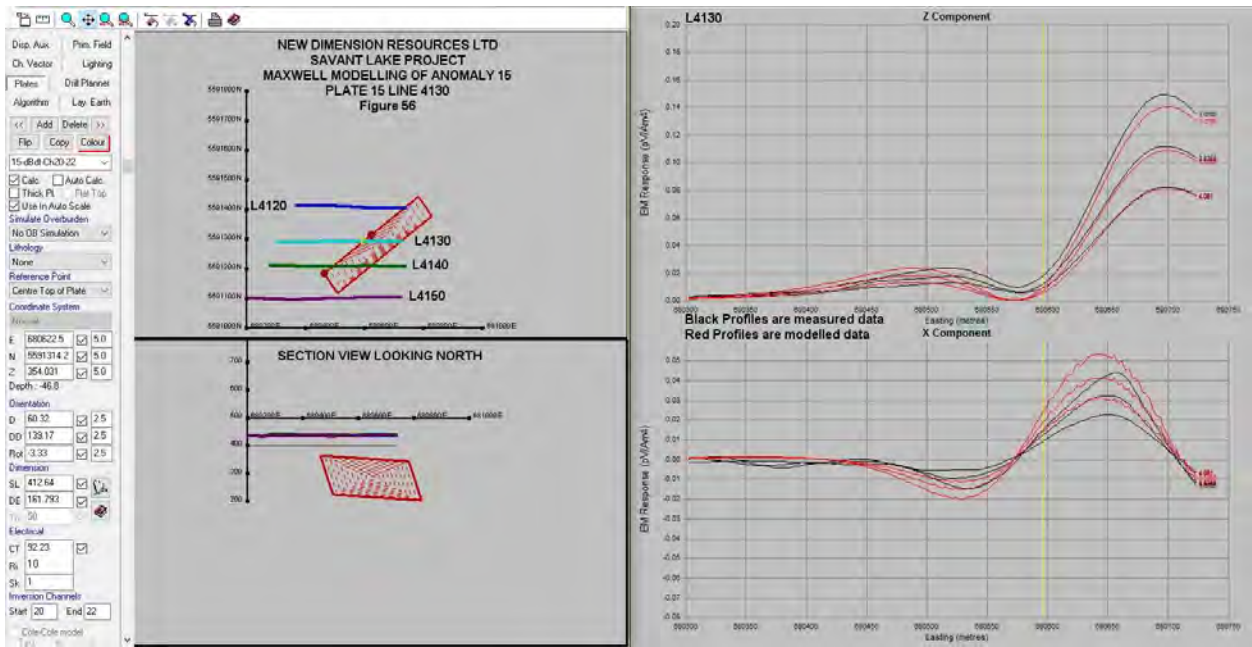
The modelling results for anomaly 15 are presented in Figures 55 to 59. Figures 55 to 58 show the plate 15 modelling results. Figure 59 is a map of plate 15 within the local TMI colour image and hydrology.

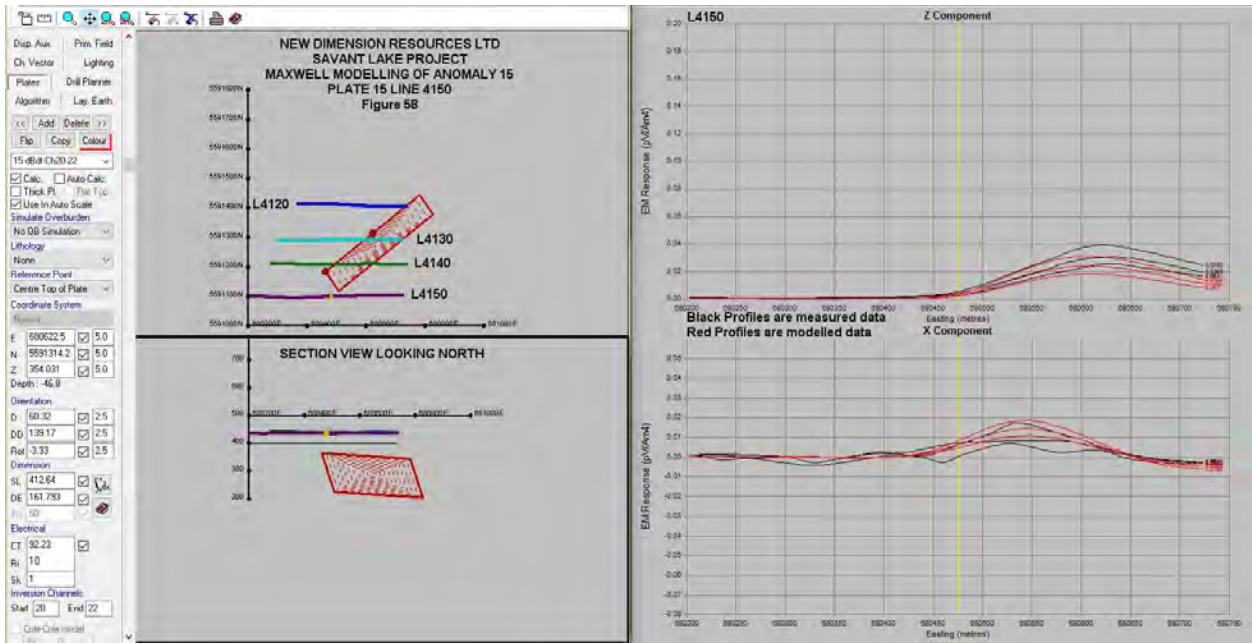
Plate 15 has moderate amplitudes and the resultant model is of moderate to high quality. A thin 2D plate was produced with SL of 412.6 m, a DE of 162 m and a moderate CT of 92 S. Depth to center top of plate is 46.8 m. Mid to late time channels 20 to 22 were used so the actual CT is close to this value.

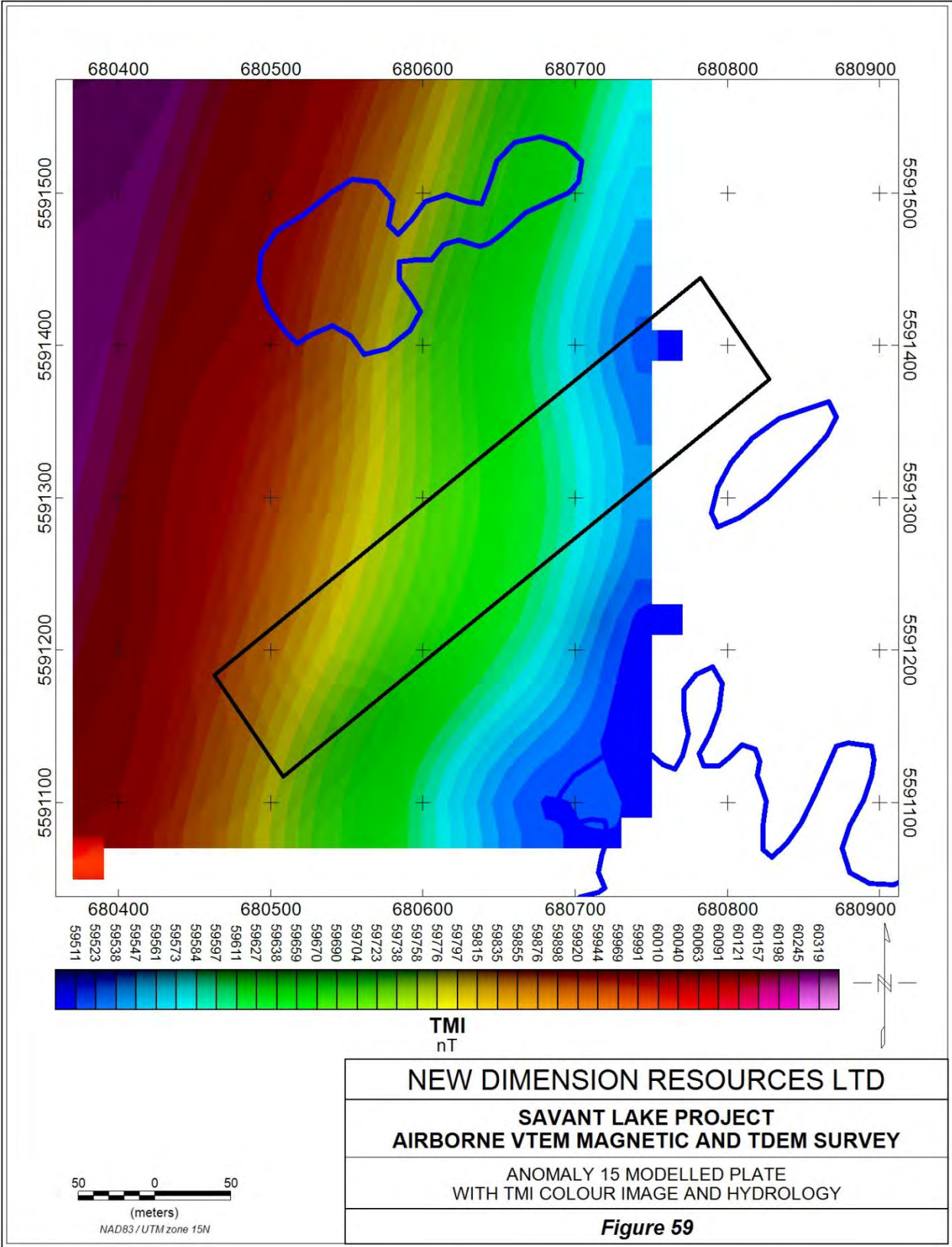
Plate 15 is presented in Figure 59 with a colour image of the TMI and hydrology. The plate extends off the survey area to the east, and has no significant magnetic activity. It is not contained within the Iron Formation package and may be hosted by volcanic rocks. It is located under a lake.

Drilling plate 15 from the airborne model is valid as it is relatively large and the solution is good. A ground TDEM survey is not recommended.









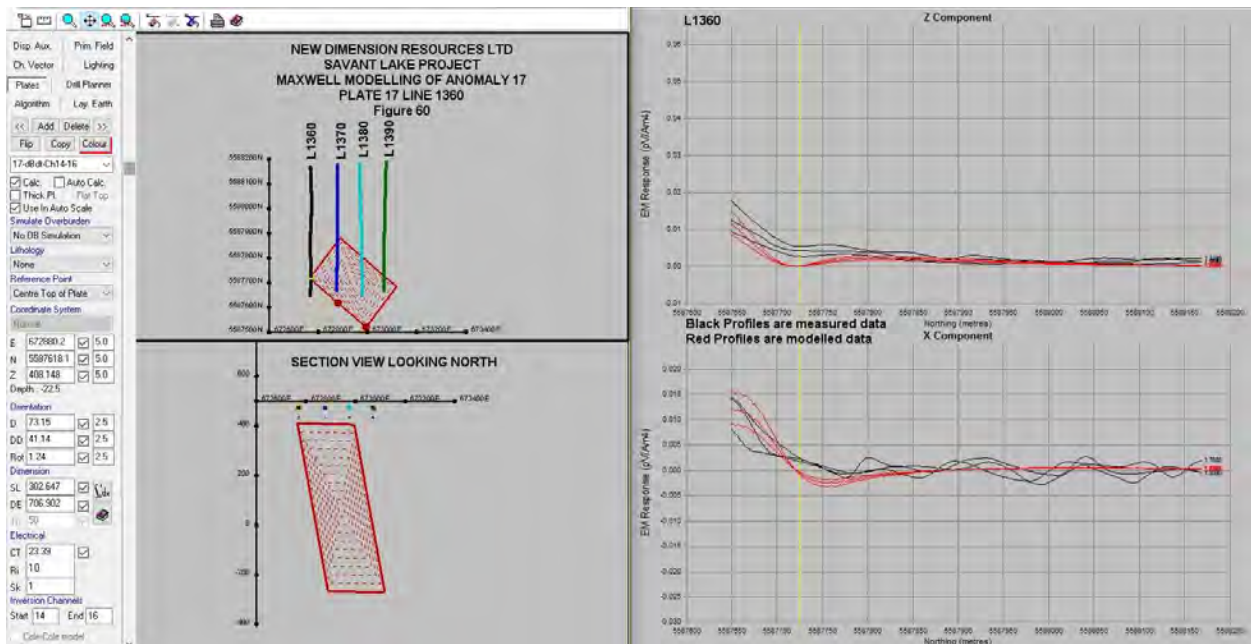
## Anomaly 17 Modelling Results

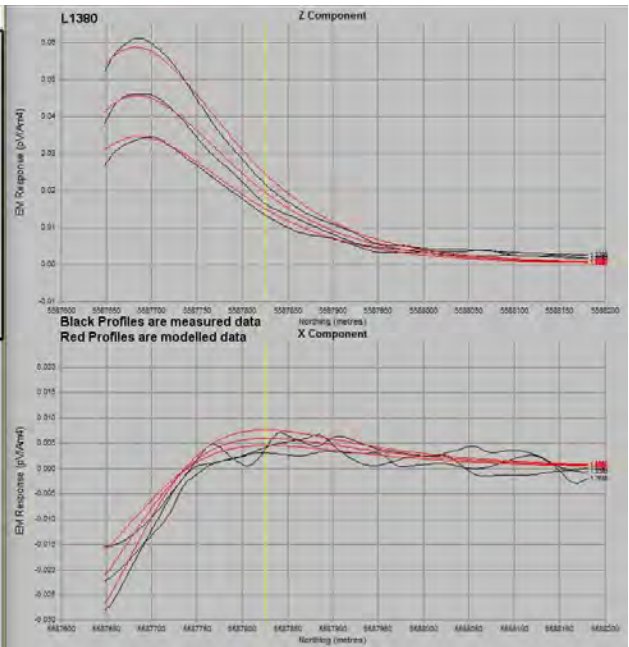
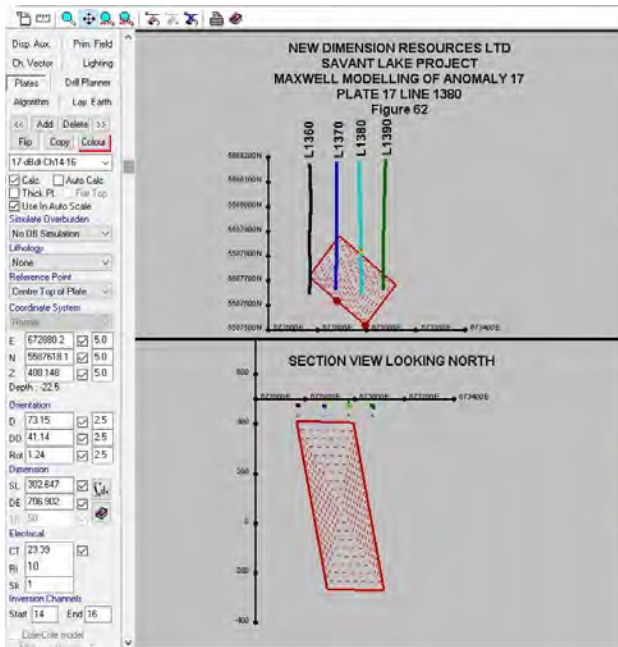
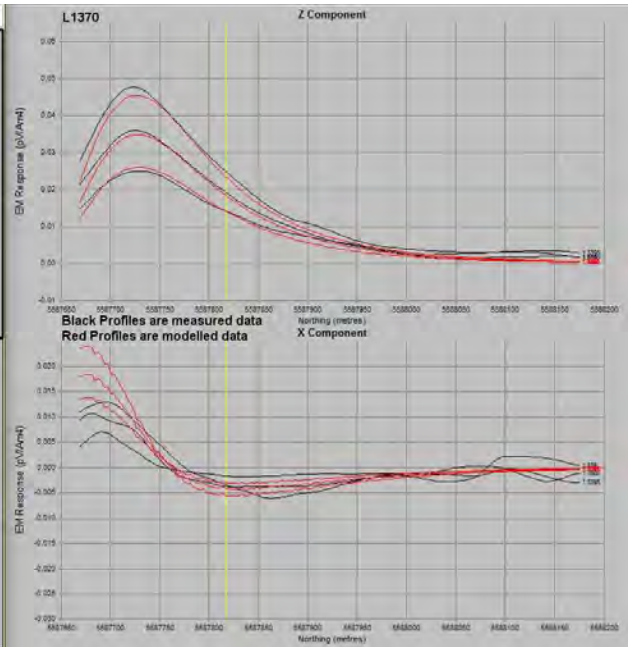
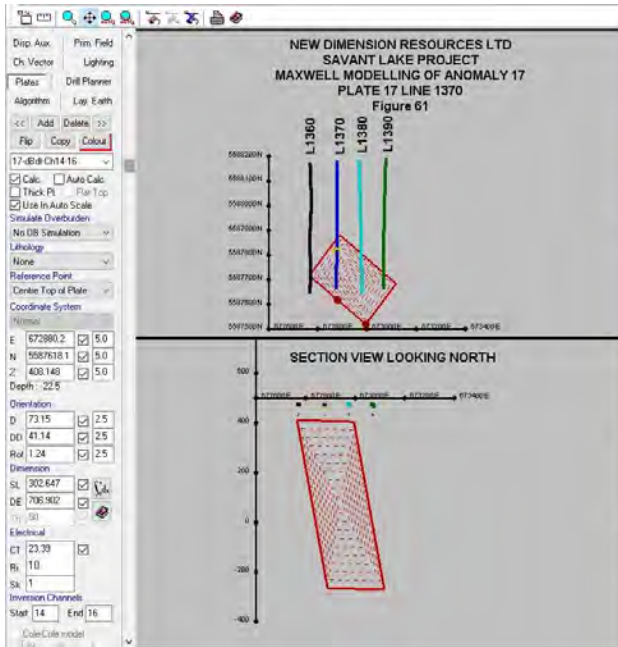
The modelling results for anomaly 17 are presented in Figures 60 to 64. Figures 60 to 63 show the plate 17 modelling results. Figure 64 is a map of plate 17 within the local TMI colour image and hydrology.

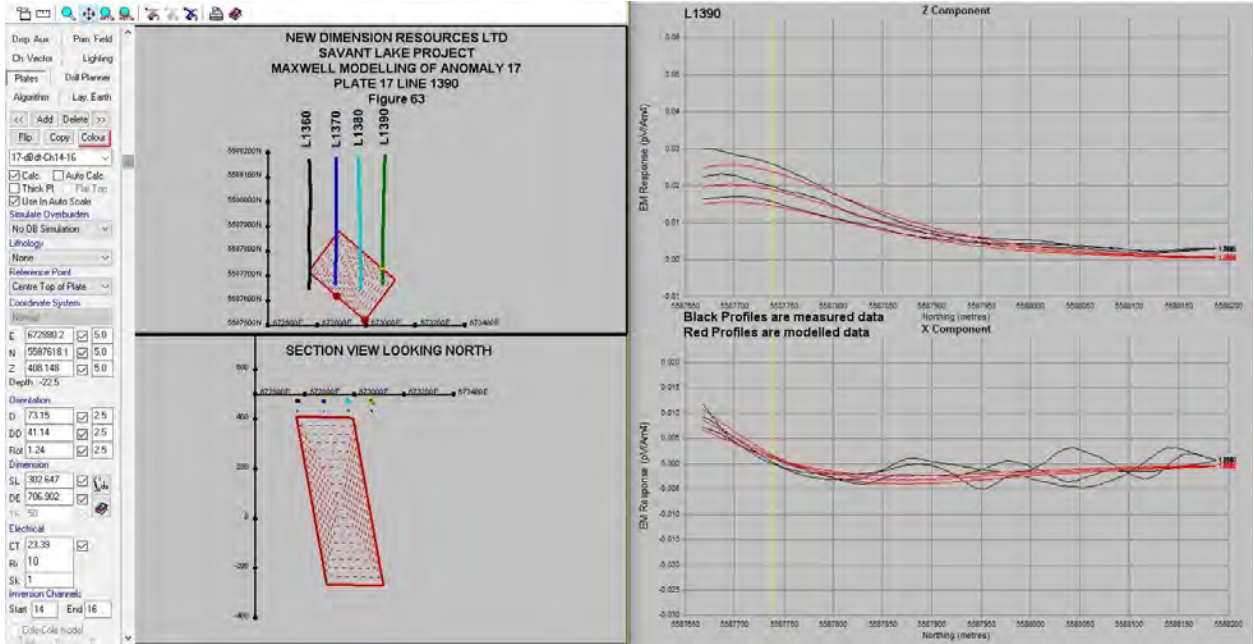
Plate 17 has low to moderate amplitudes and the resultant model is of moderate to high quality. A thin 2D plate was produced with SL of 303 m, a DE of 707 m and a low CT of 23.4 S. Depth to center top of plate is 22.5 m. Mid time channels 14 to 16 were used so the actual CT would be moderately higher.

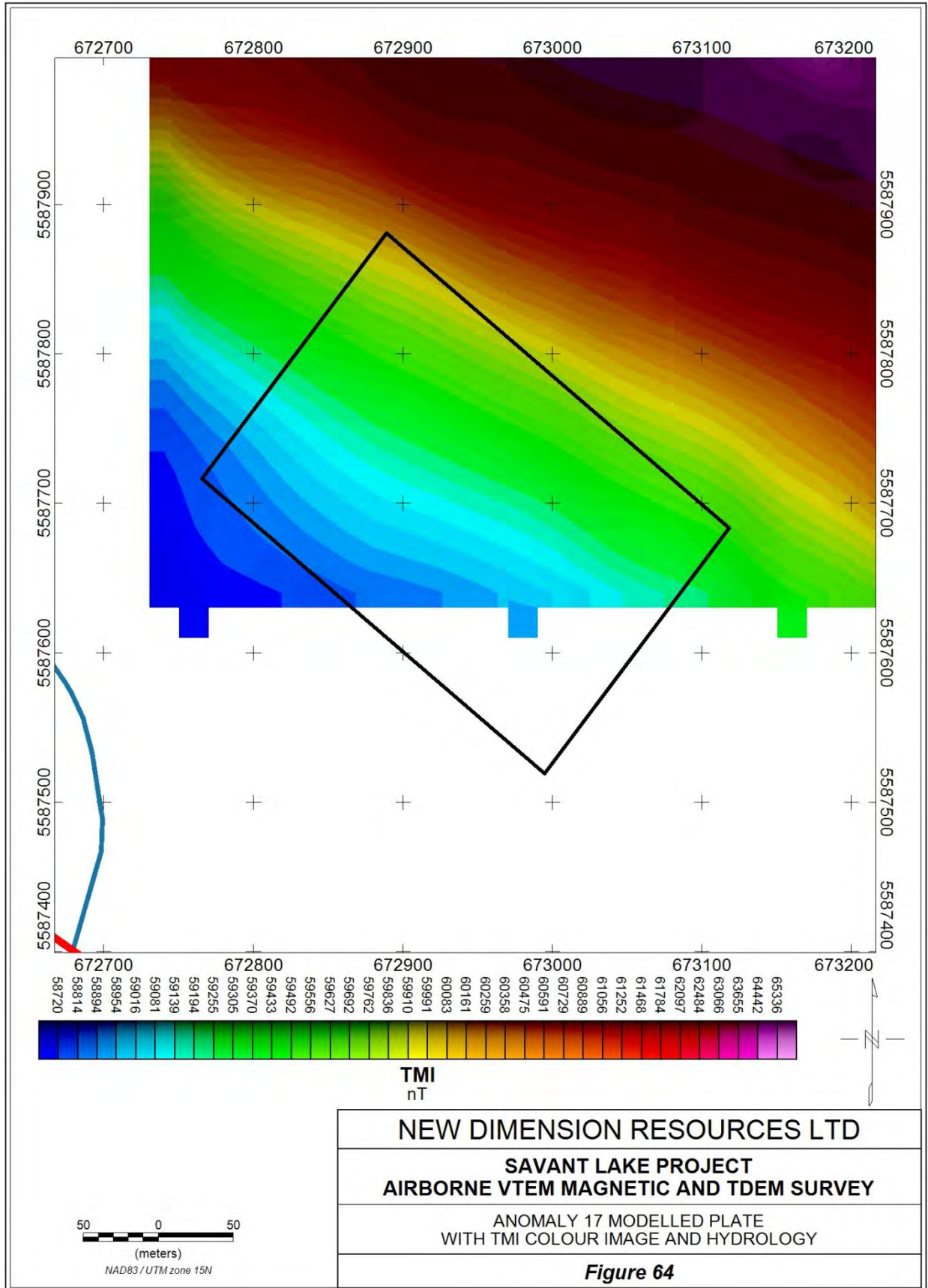
Plate 17 is presented in Figure 64 with a colour image of the TMI and hydrology. The plate extends off the survey area to the south. There is no significant magnetic activity. It is not contained within the Iron Formation package and may be hosted by volcanic rocks. It is located on land.

Drilling plate 17 from the airborne model is not recommended as the top edge of the plate is mostly south of the survey area. Considering the low CT and large size this conductor is probably formational in nature and no further work is recommended.









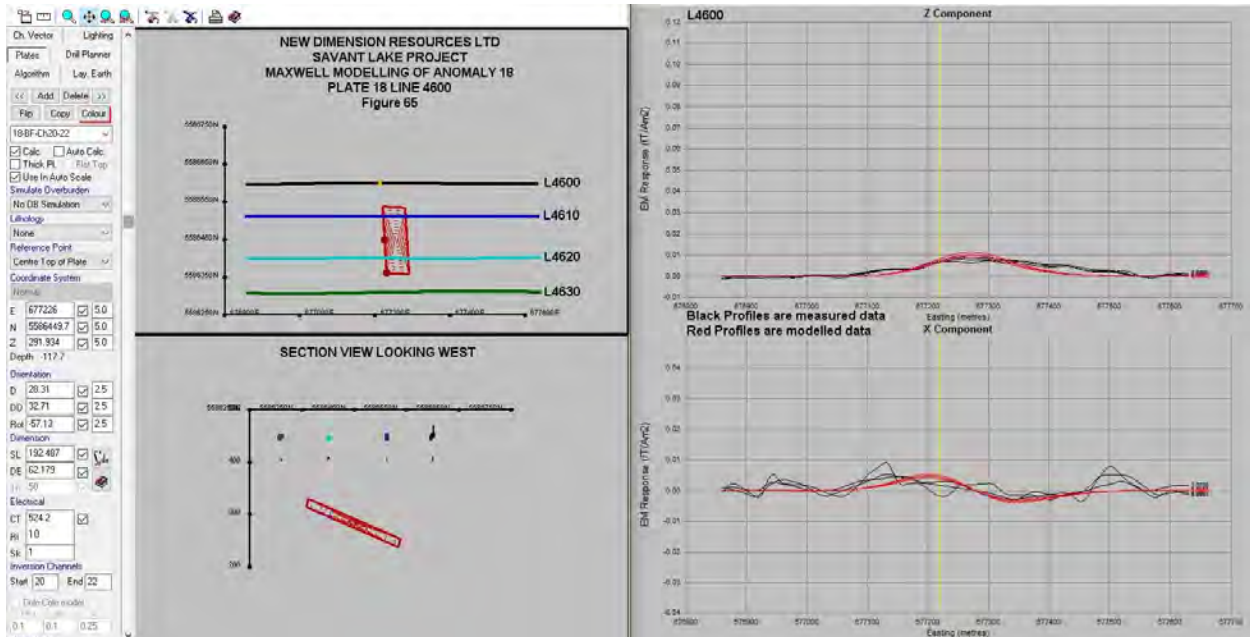
## Anomaly 18 Modelling Results

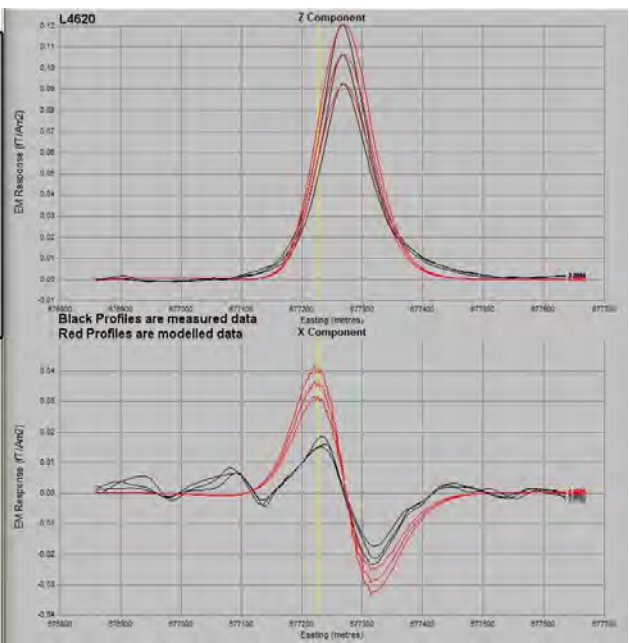
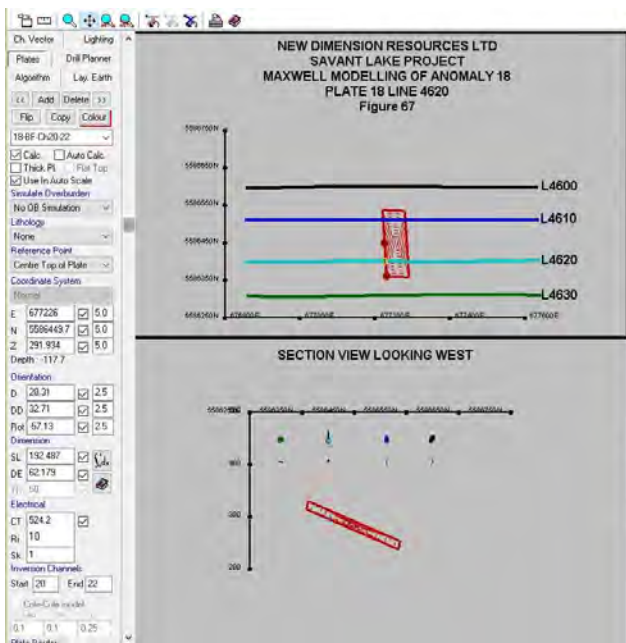
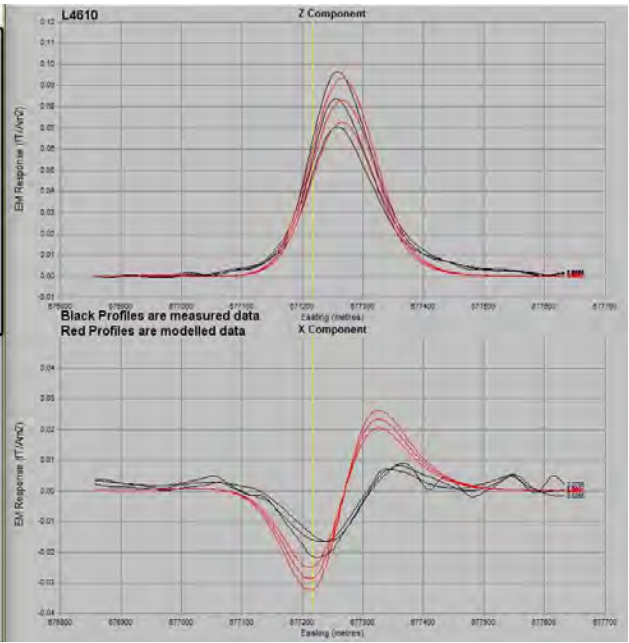
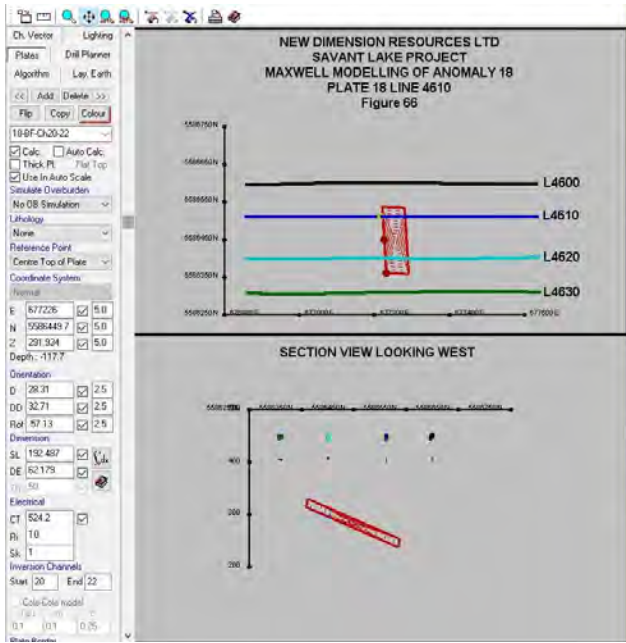
The modelling results for anomaly 18 are presented in Figures 65 to 69. Figures 65 to 68 show the plate 18 modelling results. Figure 69 is a map of plate 18 within the local TMI colour image and hydrology.

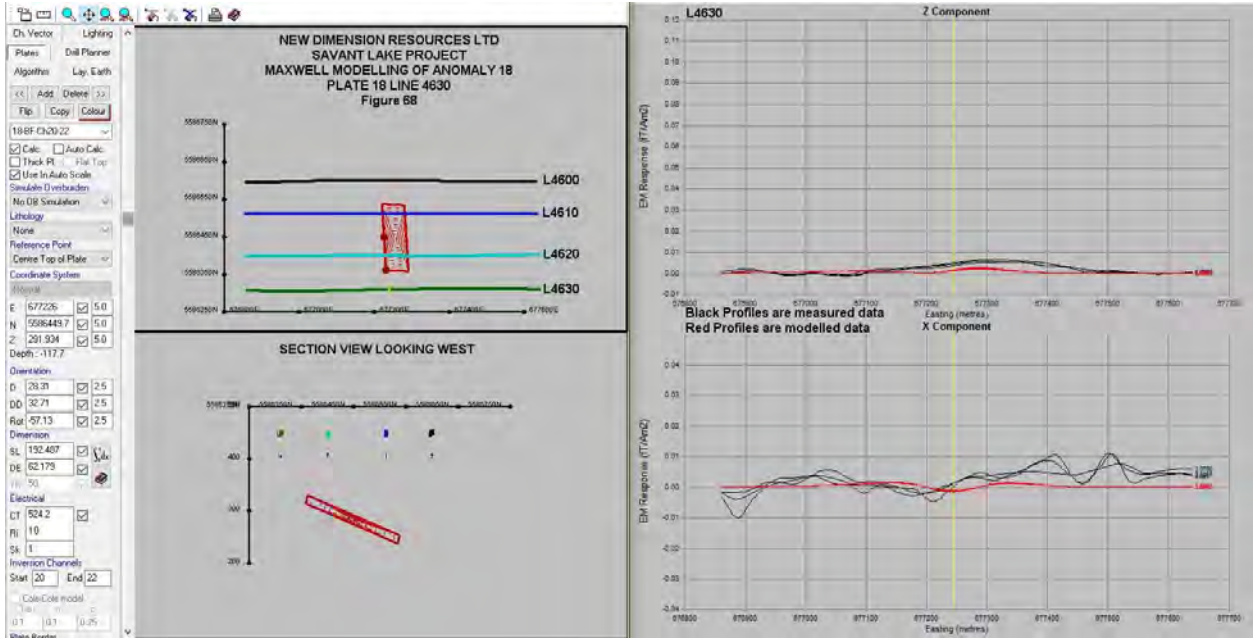
Plate 18 has moderate to high amplitudes and the resultant model is of moderate to high quality. A thin 2D plate was produced with SL of 192 m, a DE of 62 m and a high CT of 542 S. Depth to center top of plate is 117.7 m. Mid to late time channels 20 to 22 were used so the actual CT is close to this value.

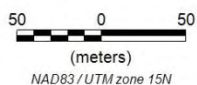
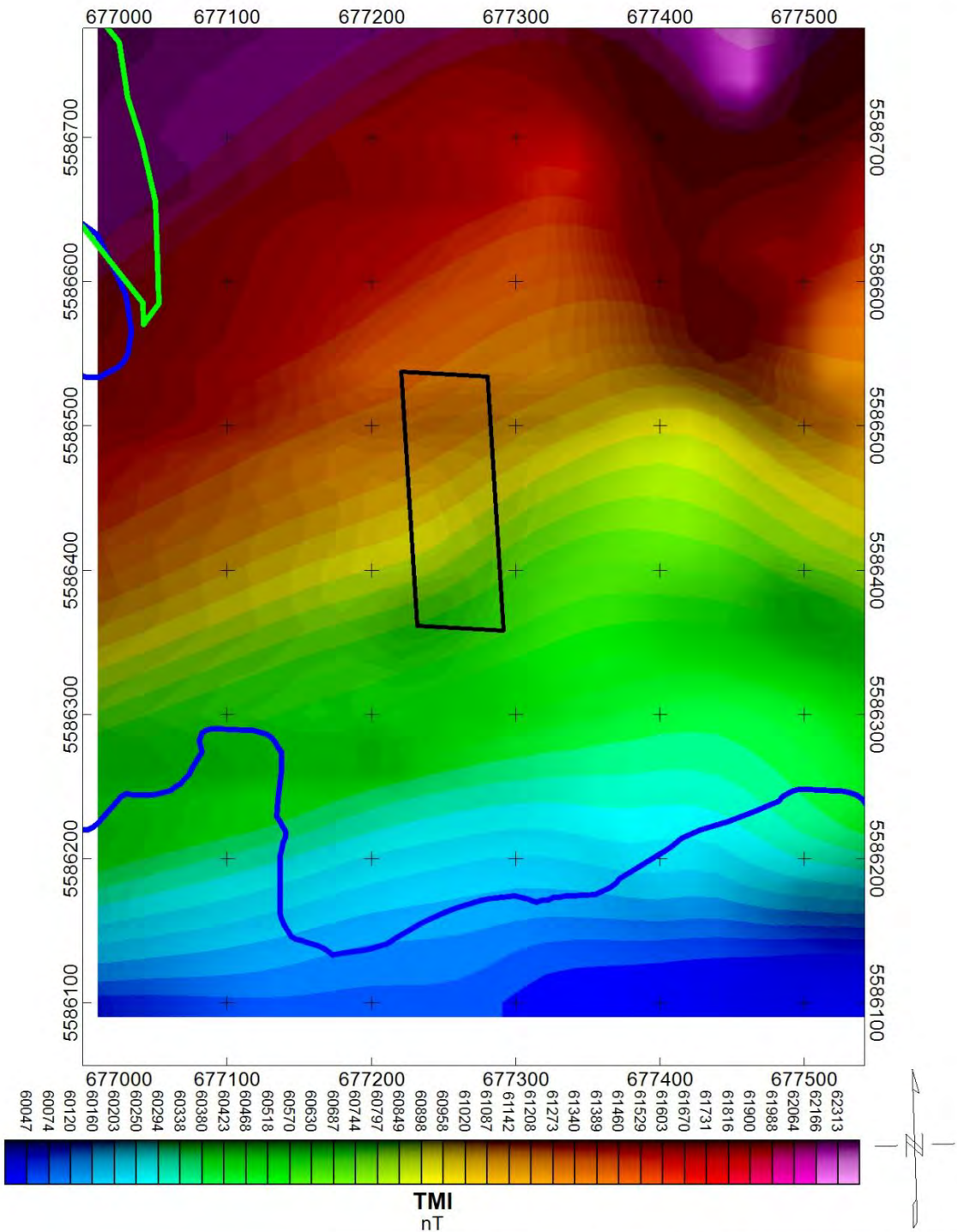
Plate 18 is presented in Figure 69 with a colour image of the TMI and hydrology. The plate has no significant magnetic activity. It is not contained within the Iron Formation package and may be hosted by volcanic rocks. It is located on land.

Drilling plate 18 from the airborne model is valid as it is close to flat lying and the solution is moderate to good. A ground TDEM survey is not recommended.









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ANOMALY 18 MODELLED PLATE  
WITH TMI COLOUR IMAGE AND HYDROLOGY

**Figure 69**

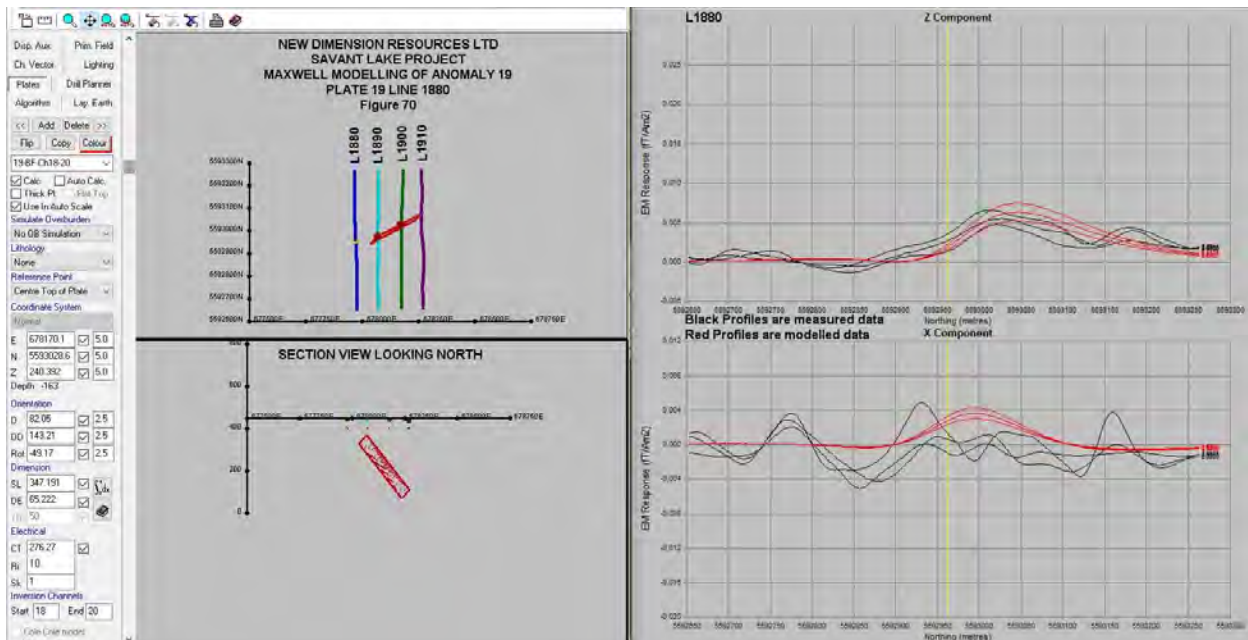
## Anomaly 19 Modelling Results

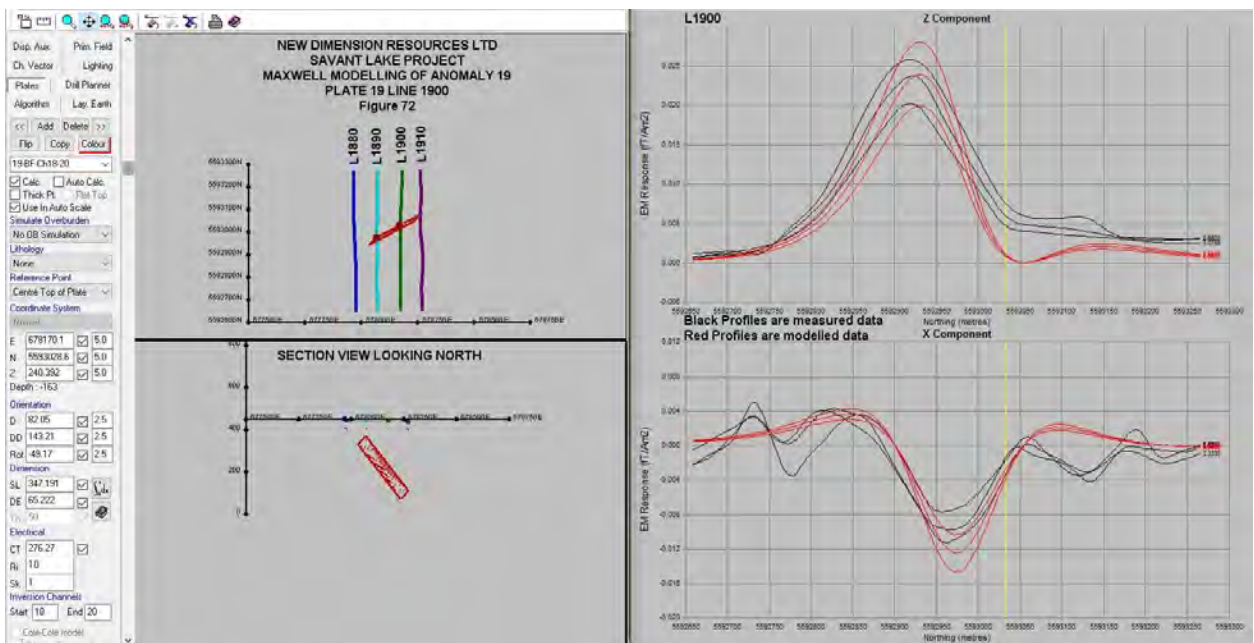
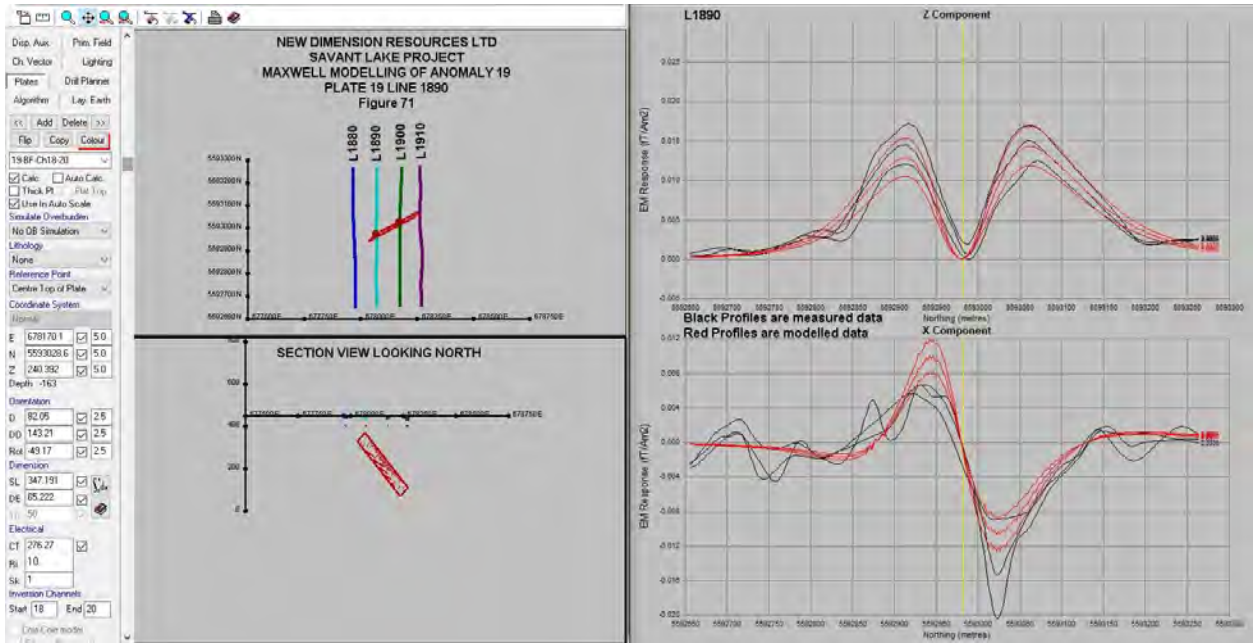
The modelling results for anomaly 19 are presented in Figures 70 to 74. Figures 70 to 73 show the plate 19 modelling results. Figure 74 is a map of plate 19 within the local TMI colour image and hydrology.

Plate 19 has low to moderate amplitudes and the resultant model is of moderate to high quality. A thin 2D plate was produced with SL of 347 m, a DE of 65 m and a moderate to high CT of 276 S. Depth to center top of plate is 163 m, but as the plate is plunging the top edge is much closer to surface. Mid to late time channels 18 to 20 were used so the actual CT is slightly higher.

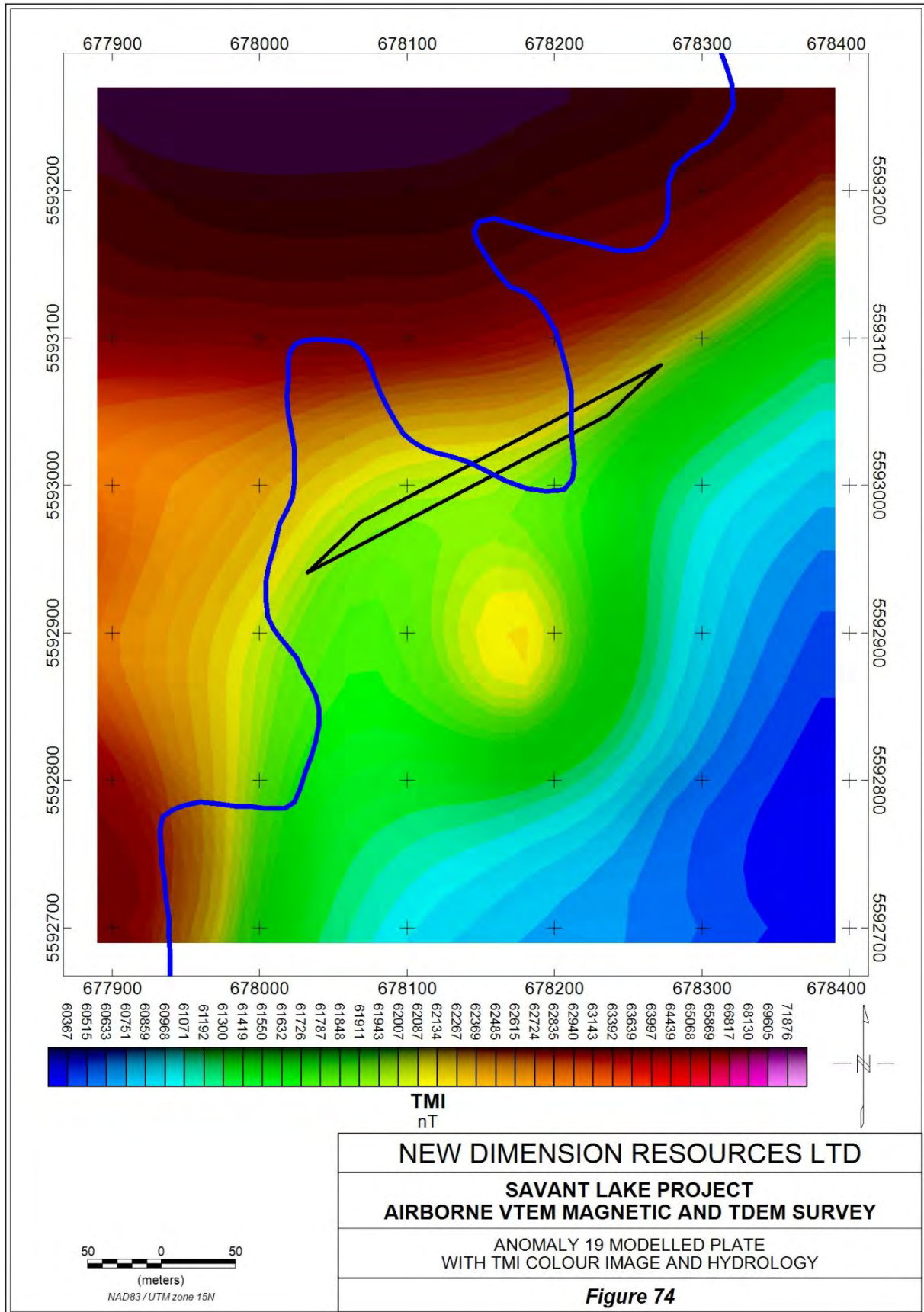
Plate 19 is presented in Figure 74 with a colour image of the TMI and hydrology. The plate is located on the southern flank of a high magnetic lithology and there is a small localised magnetic high immediately to its south. It is contained within the Iron Formation package. It straddles the shore of a lake.

Drilling plate 19 from the airborne model is not recommended as it is quite narrow. A ground TDEM survey is recommended.





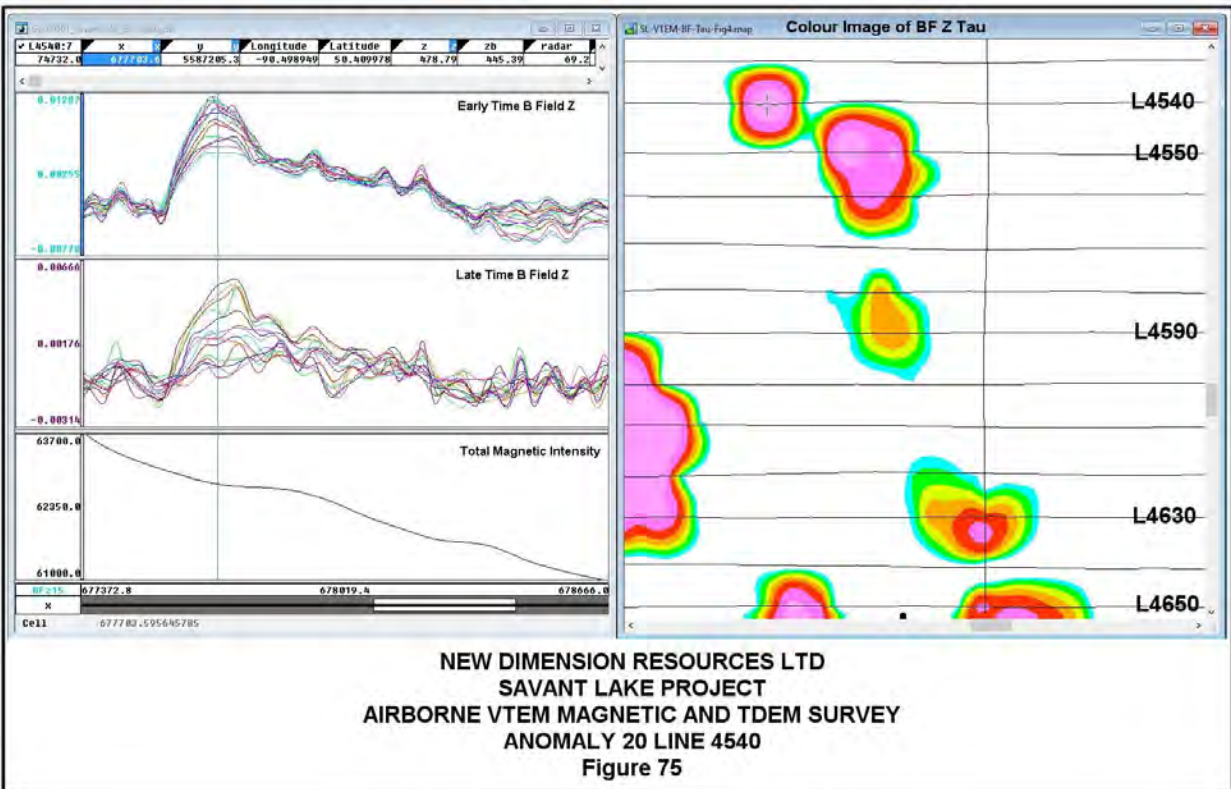


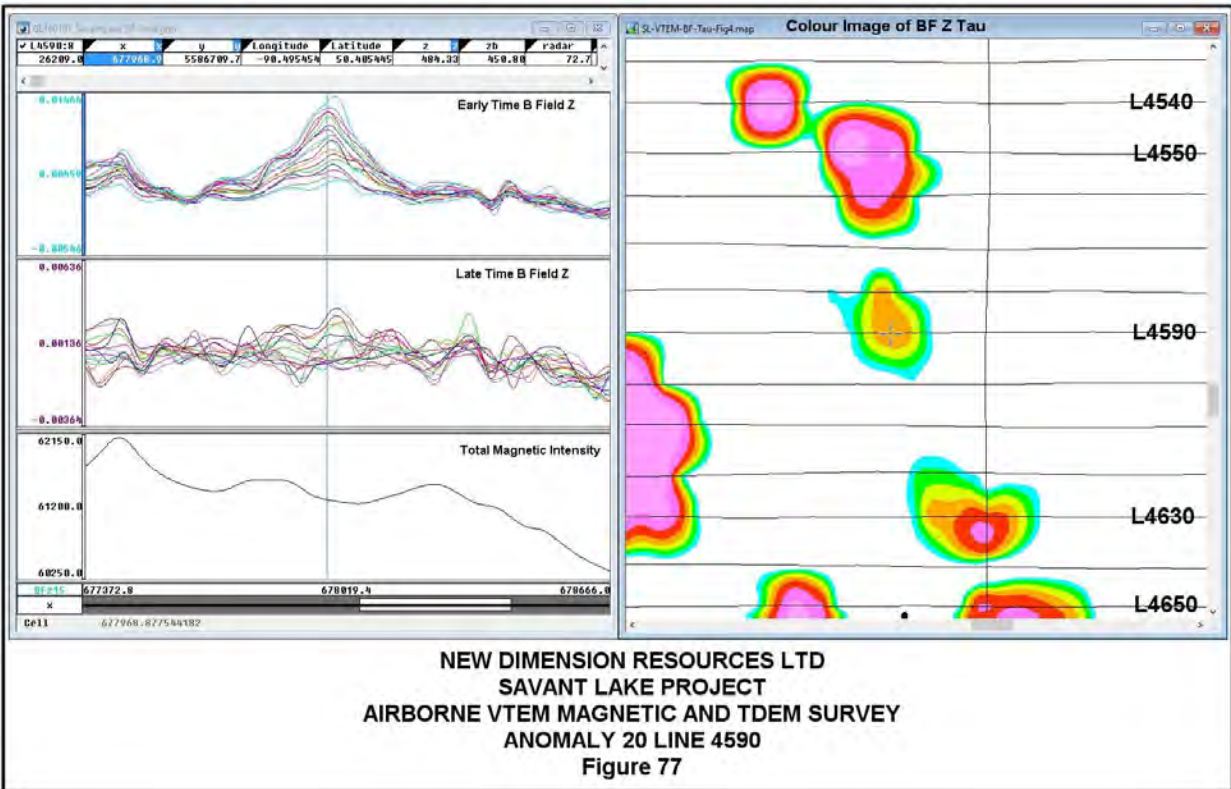
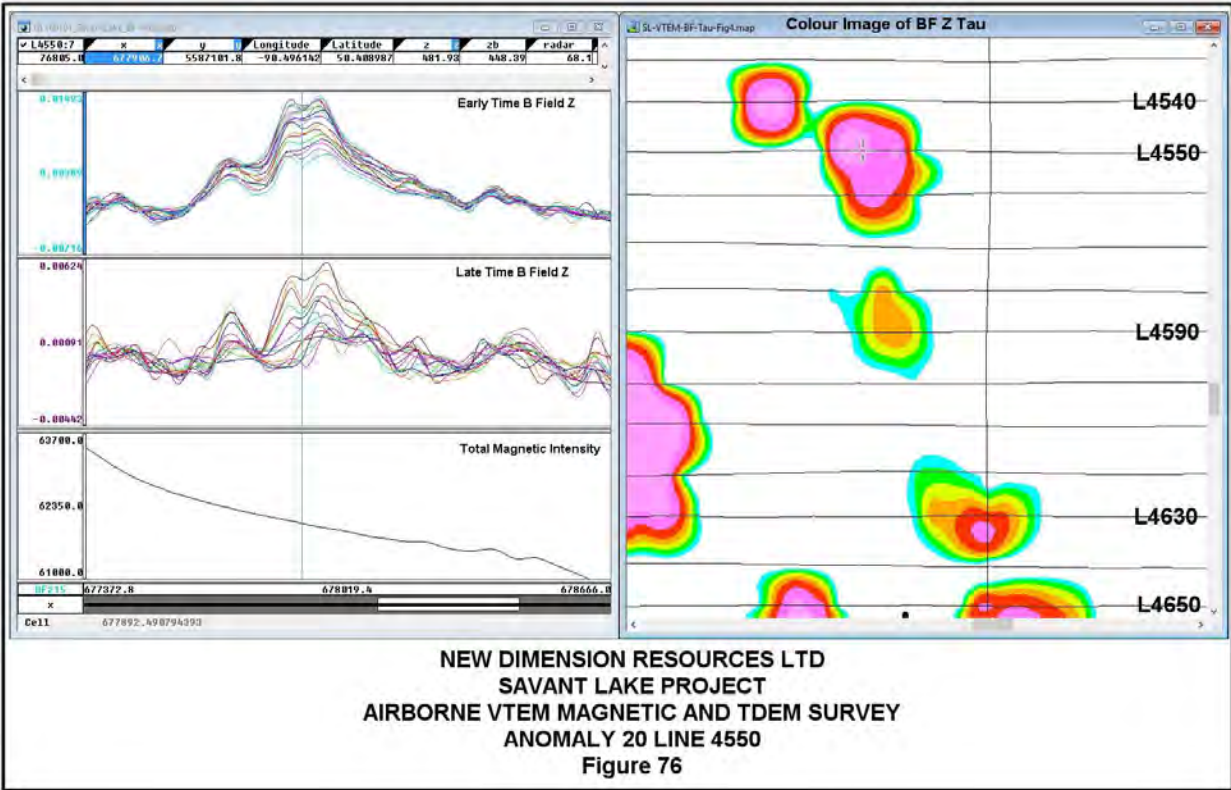


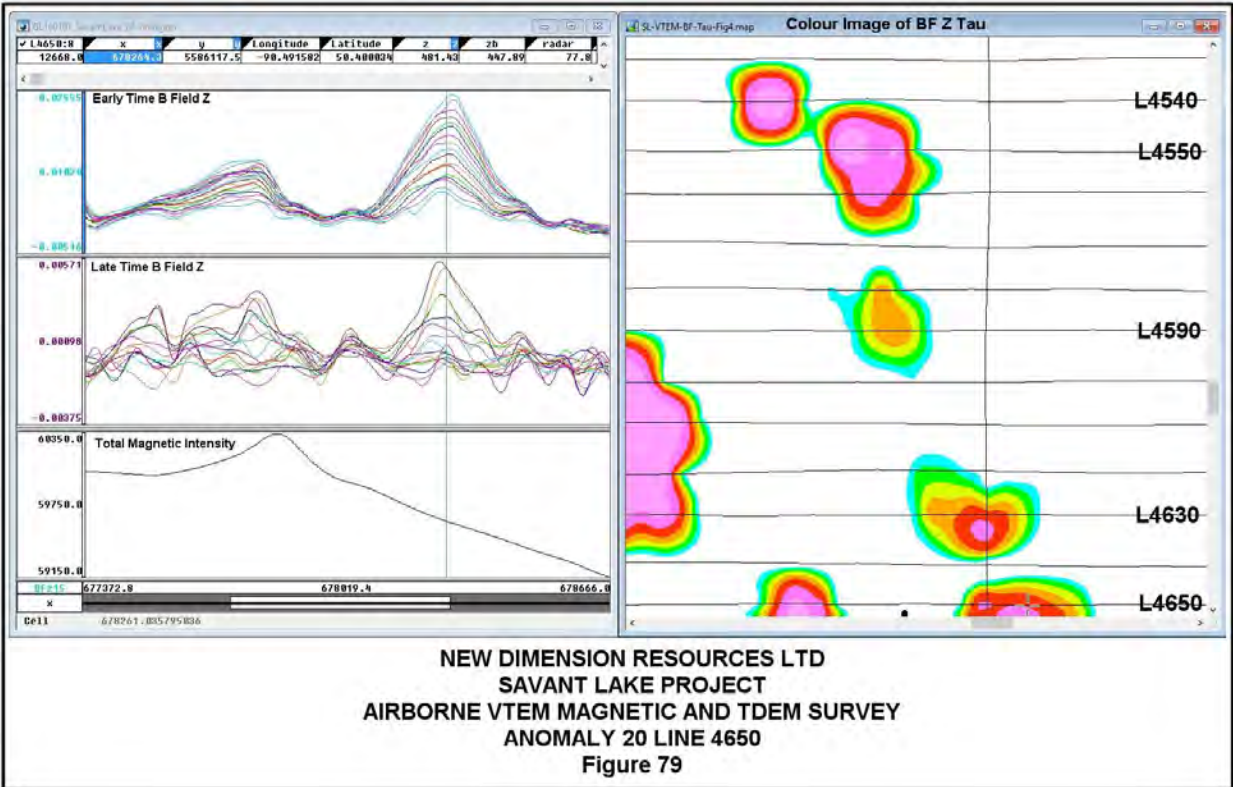
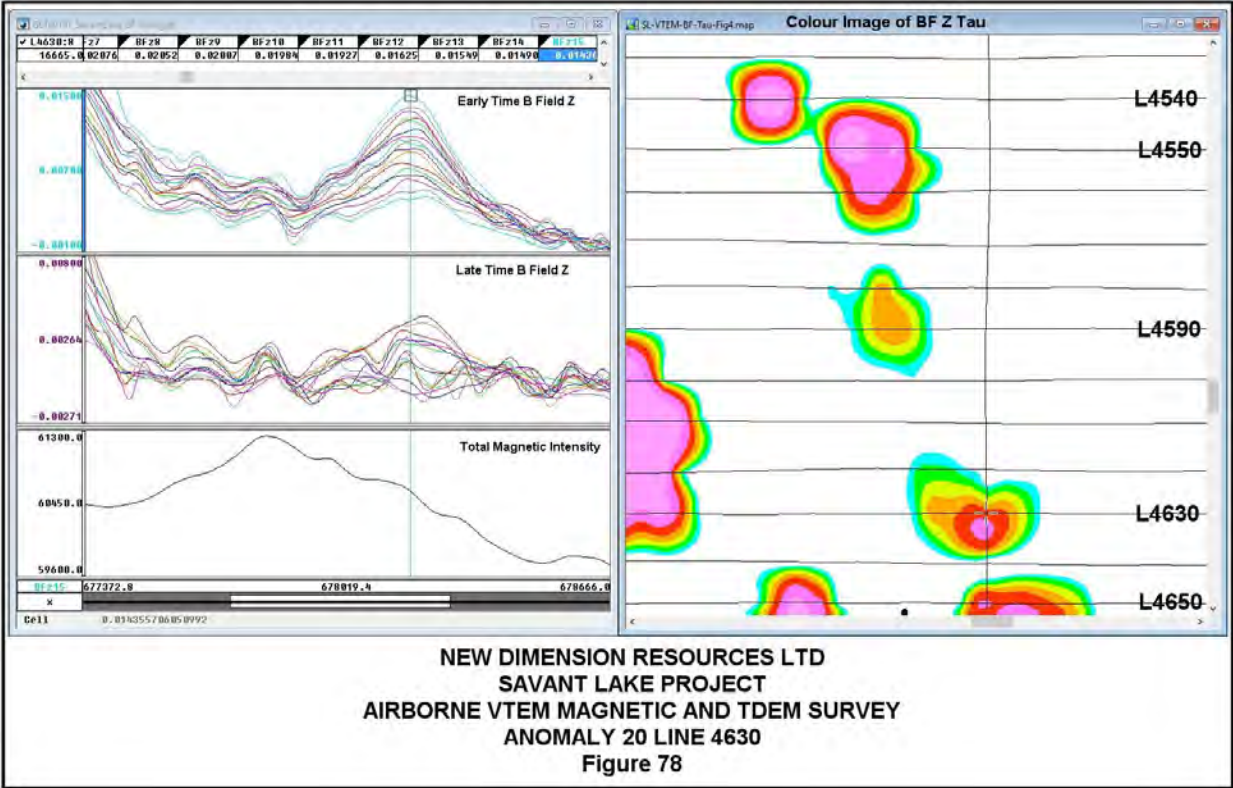
## Anomaly 20

Anomaly 20 is a Low Magnetic TDEM that has not been modelled as it is too weak to produce a valid solution. It consists of five responses forming a roughly N-NW trend that are located immediately to the east of anomaly 18, and are on land. They are not located within the Iron Formation package and may be hosted by volcanic. The responses are presented in Figures 75 to 79.

A ground TDEM survey is recommended.



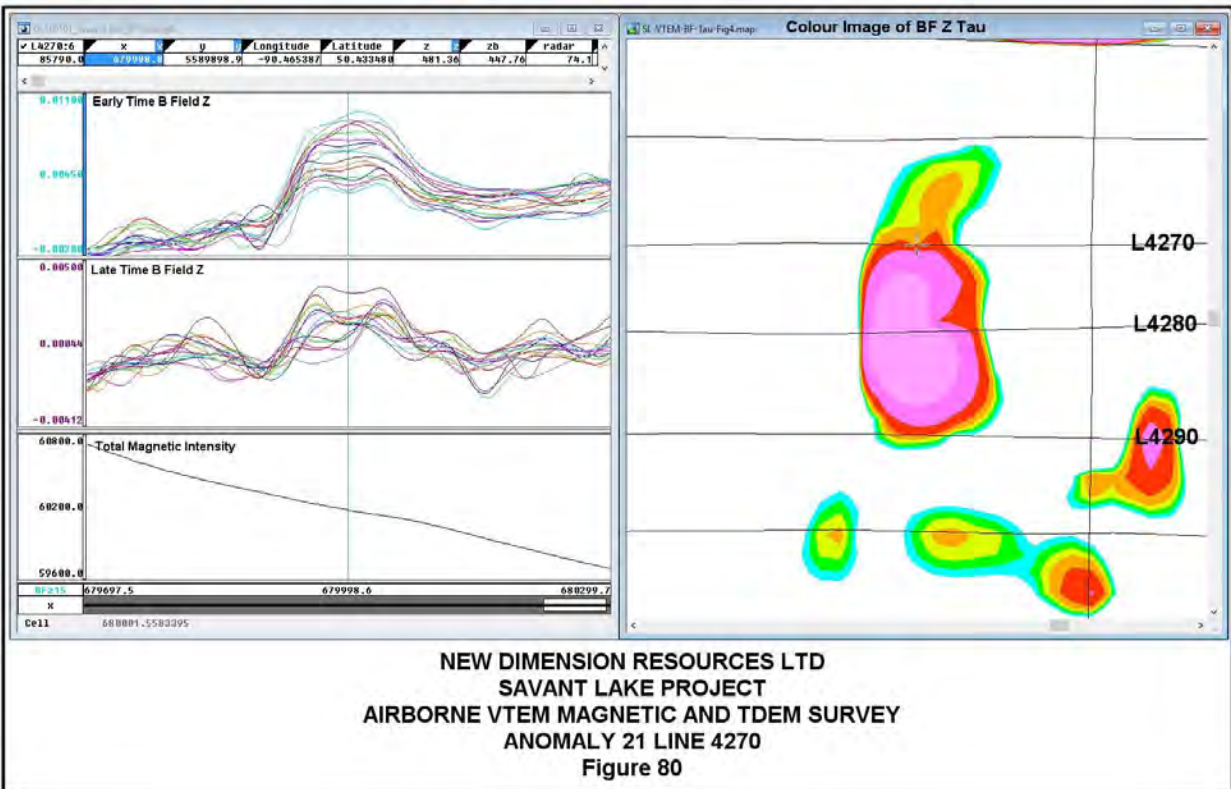


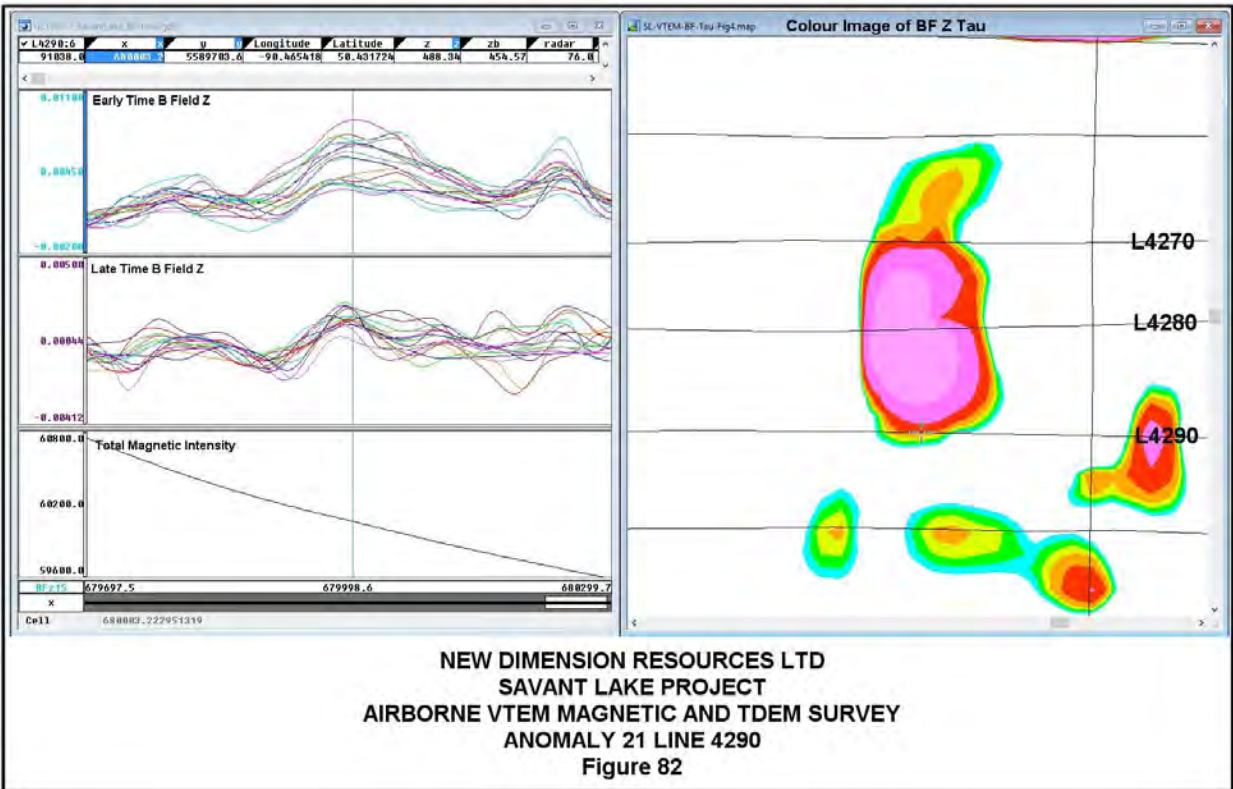
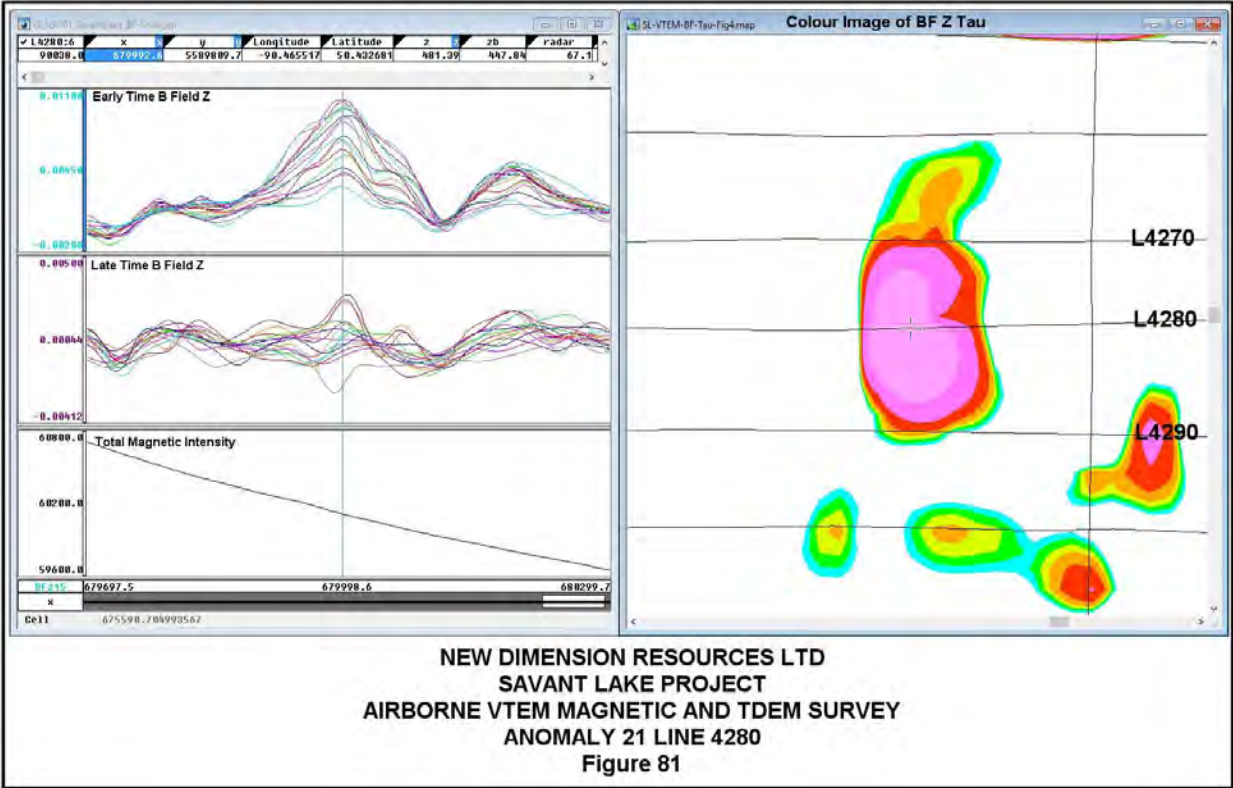


## Anomaly 21

Anomaly 21 is a Low Magnetic TDEM that has not been modelled as it is too weak to produce a valid solution. It consists of three responses forming a roughly N-S trend that are located immediately to the south of anomaly 14, and are on an island. They are not located within the Iron Formation package and may be hosted by volcanic. The responses are presented in Figures 80 to 82.

A ground TDEM survey is recommended.

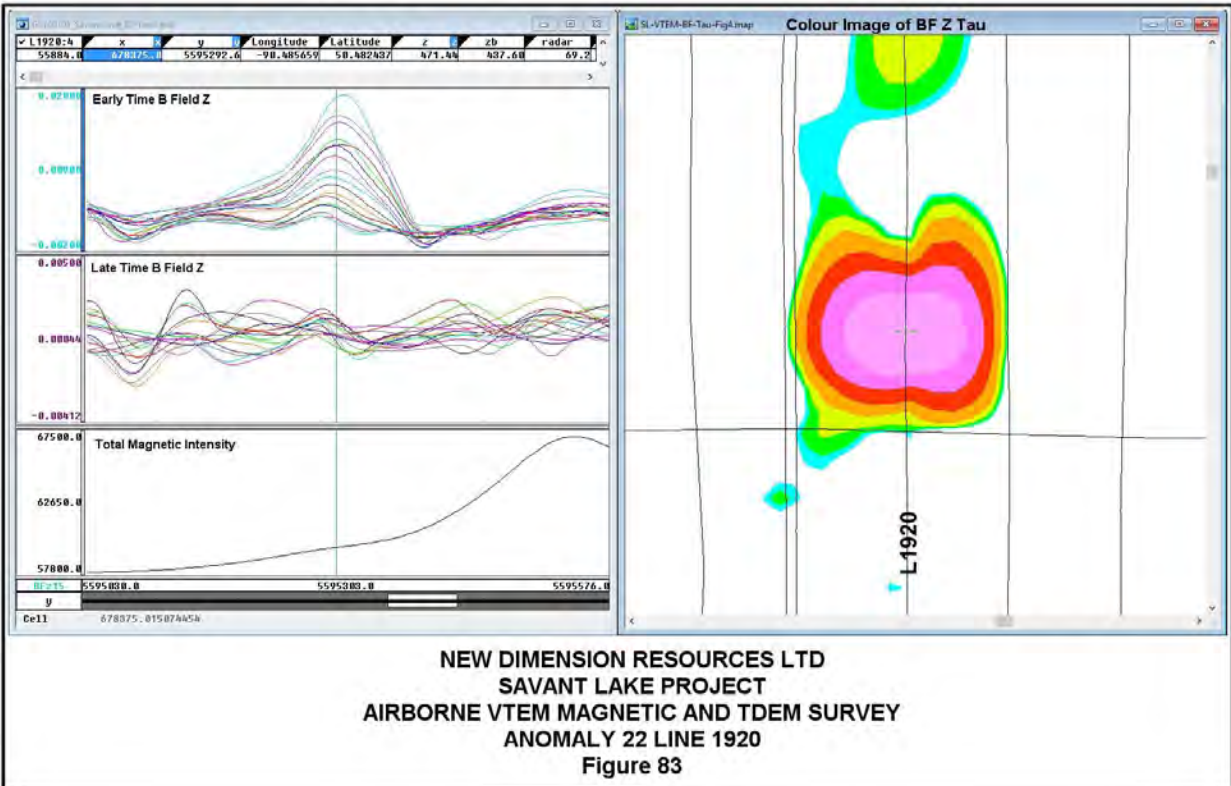




## Anomaly 22

Anomaly 21 is a Low Magnetic TDEM that has not been modelled as it is too weak to produce a valid solution. It consists of one responses located on in a lake. It is located within the Iron Formation package. The response is presented in Figures 83.

A ground TDEM survey is recommended.



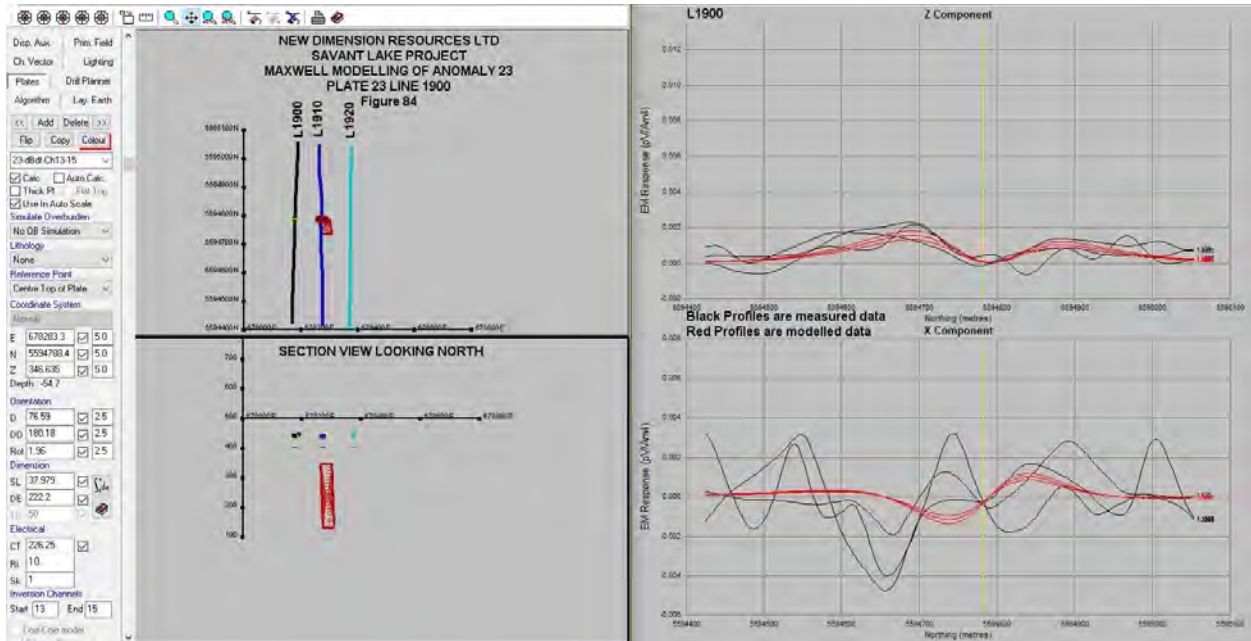
## Anomaly 23 Modelling Results

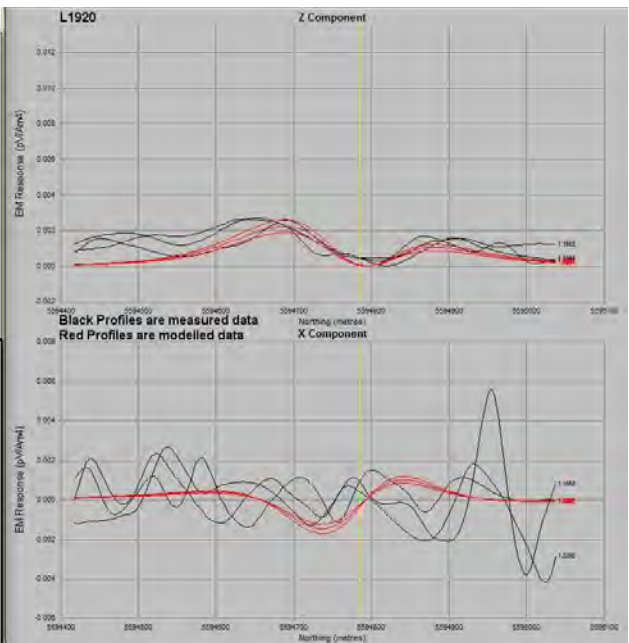
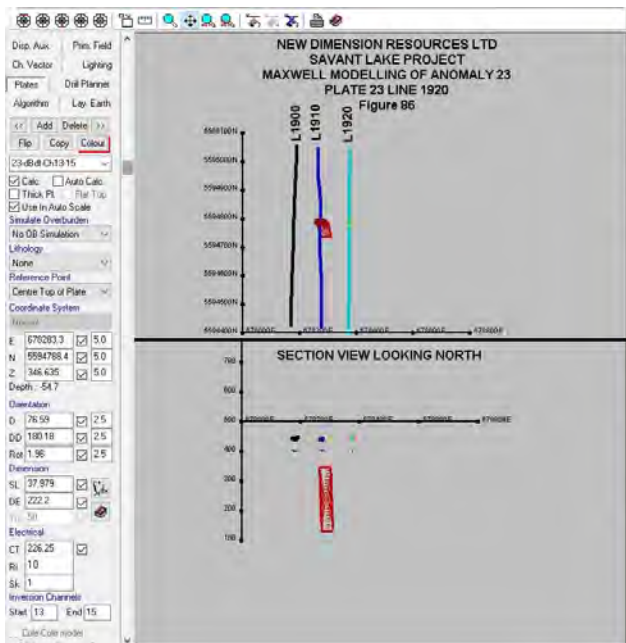
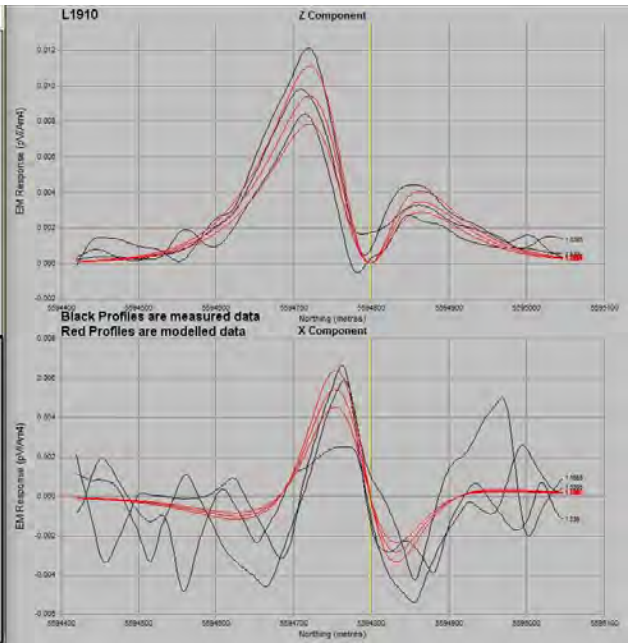
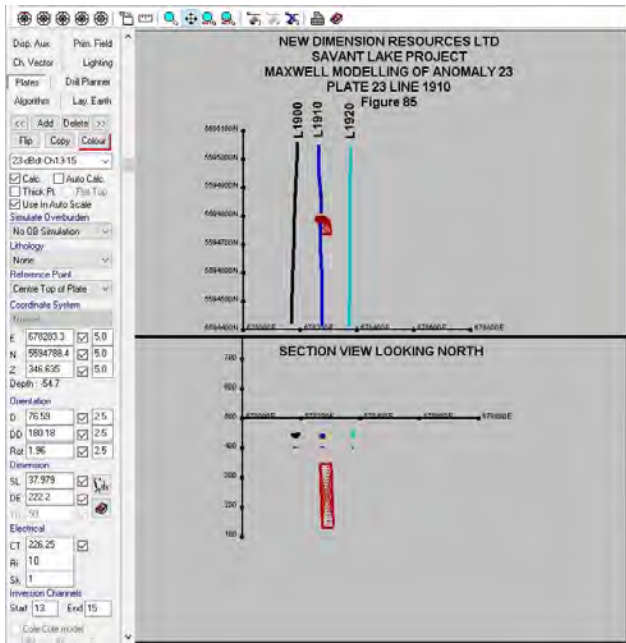
The modelling results for anomaly 23 are presented in Figures 84 to 87. Figures 84 to 86 show the plate 23 modelling results. Figure 86 is a map of plate 23 within the local TMI colour image and hydrology.

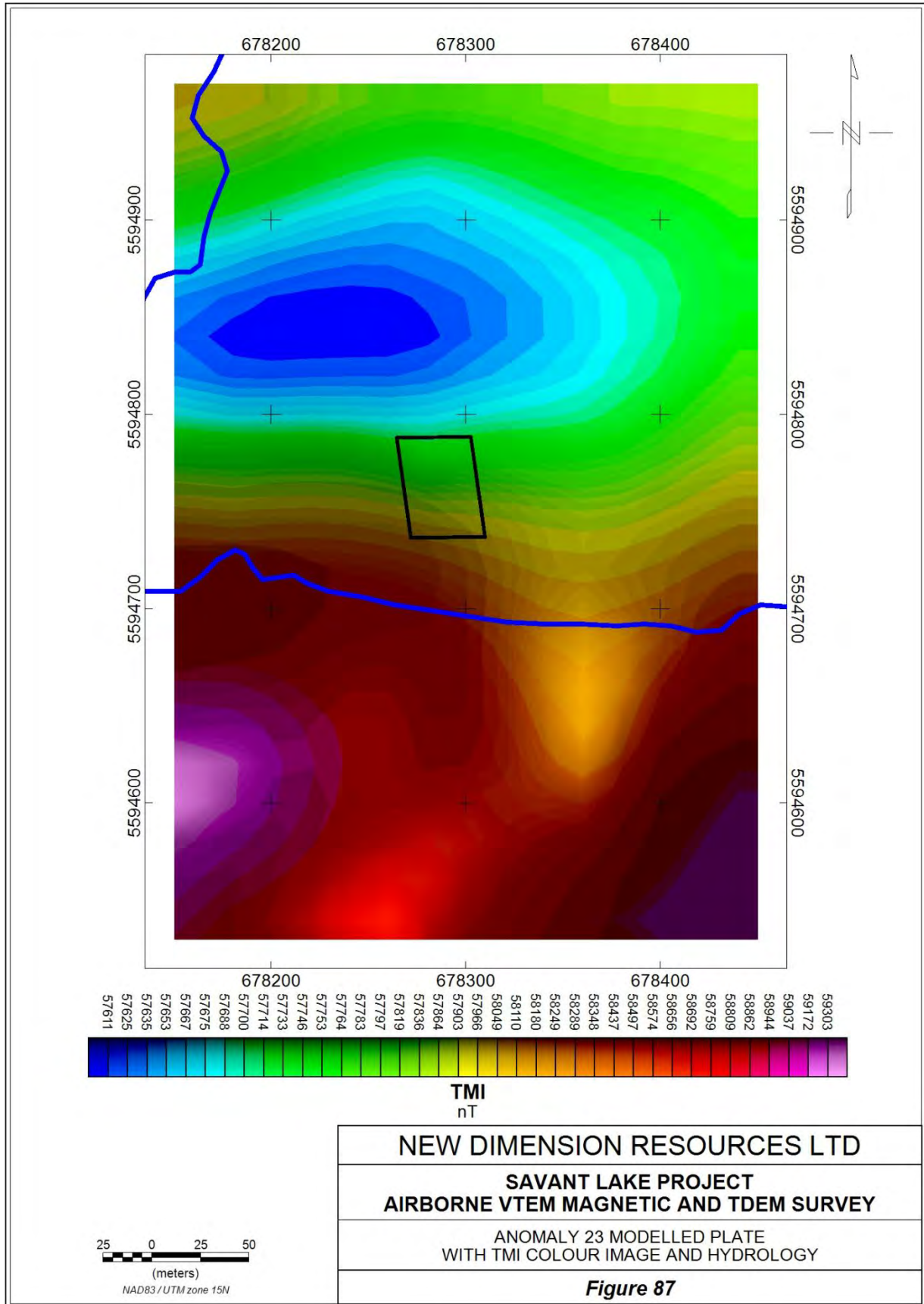
Plate 23 has low to moderate amplitudes and the resultant model is of moderate quality. A thin 2D plate was produced with SL of 38 m, a DE of 222 m and a moderate to high CT of 226 S. Depth to center top of plate is 54.7 m. Mid time channels 13 to 15 were used so the actual CT is moderately higher.

Plate 23 is presented in Figure 86 with a colour image of the TMI and hydrology. The plate is located on the northern flank of a high magnetic lithology. It is contained within the Iron Formation package. It is located in a lake close to shore.

Drilling plate 23 from the airborne model is not recommended as it is quite narrow. A ground TDEM survey is recommended.



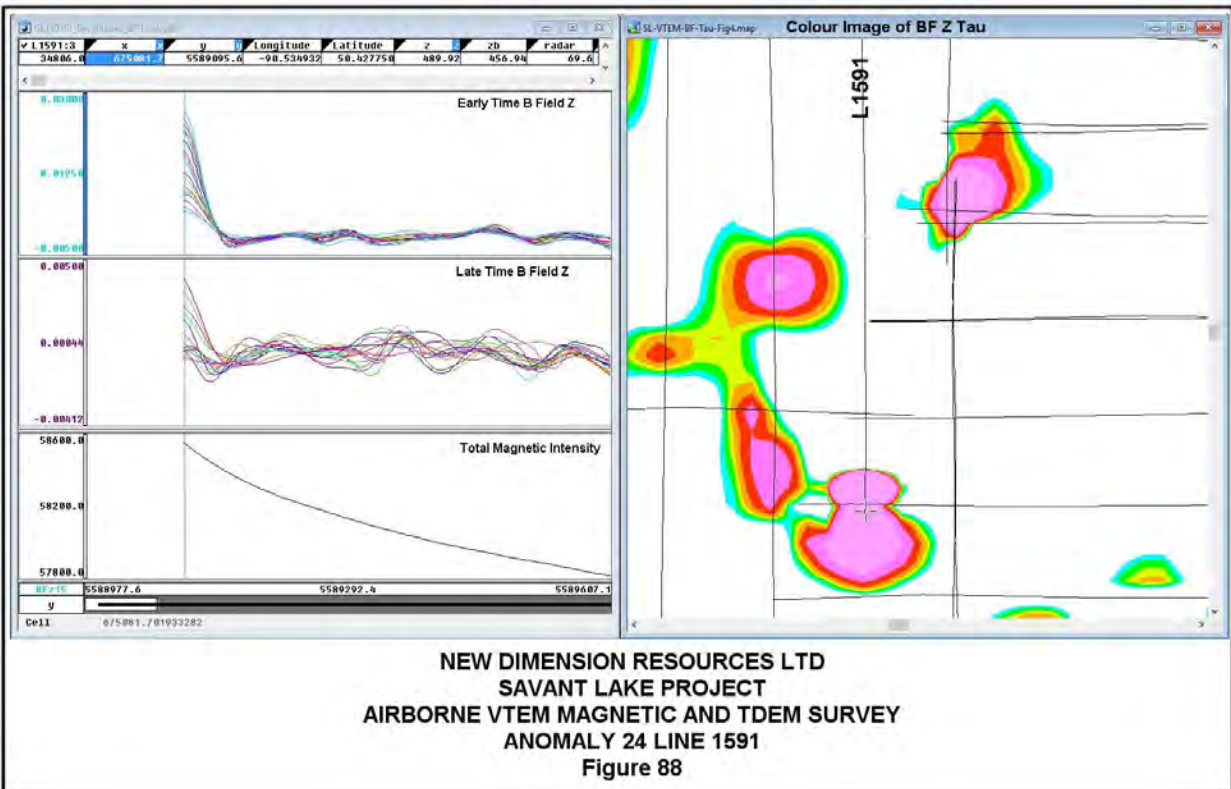


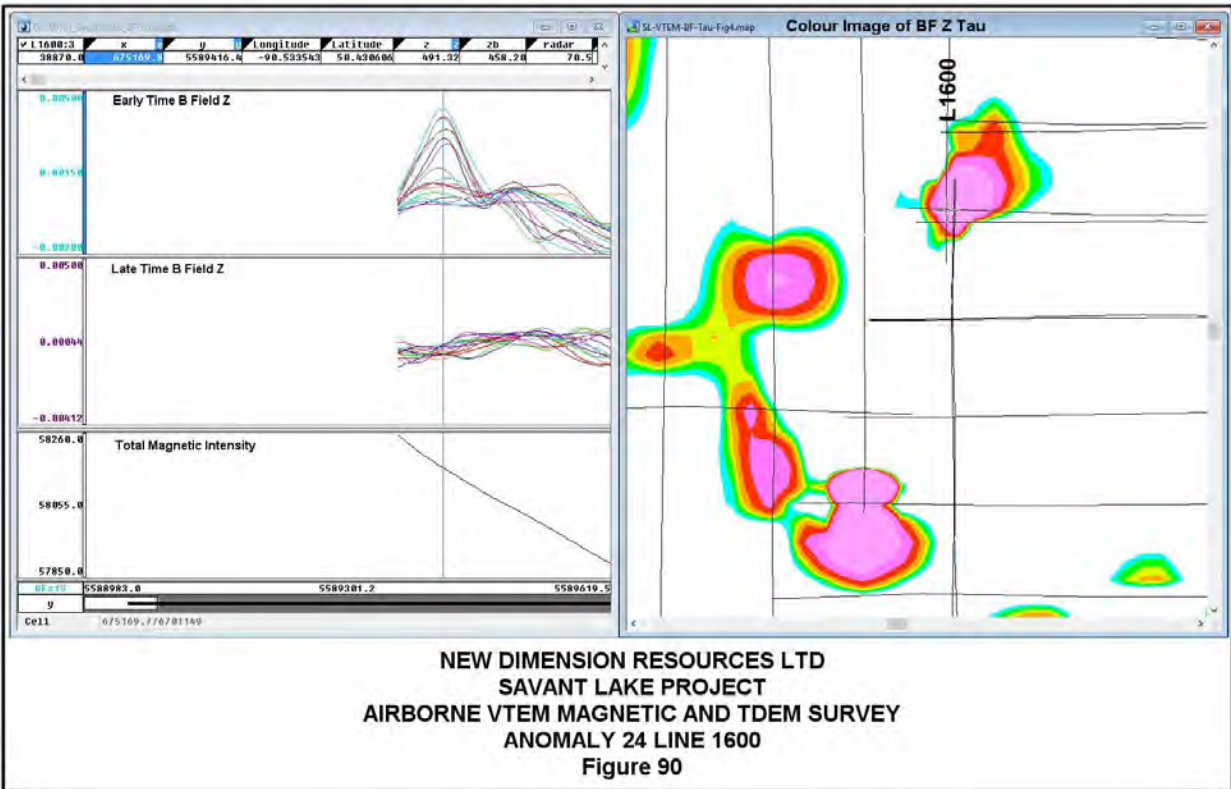
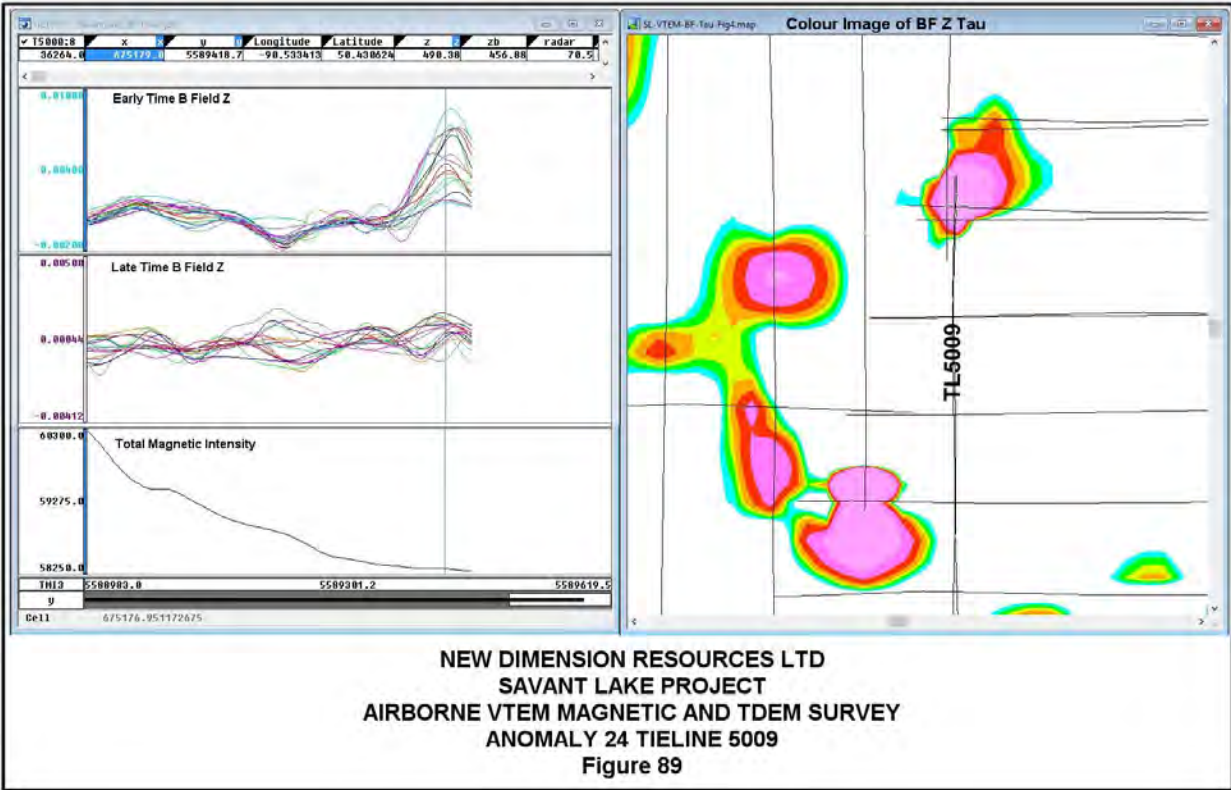


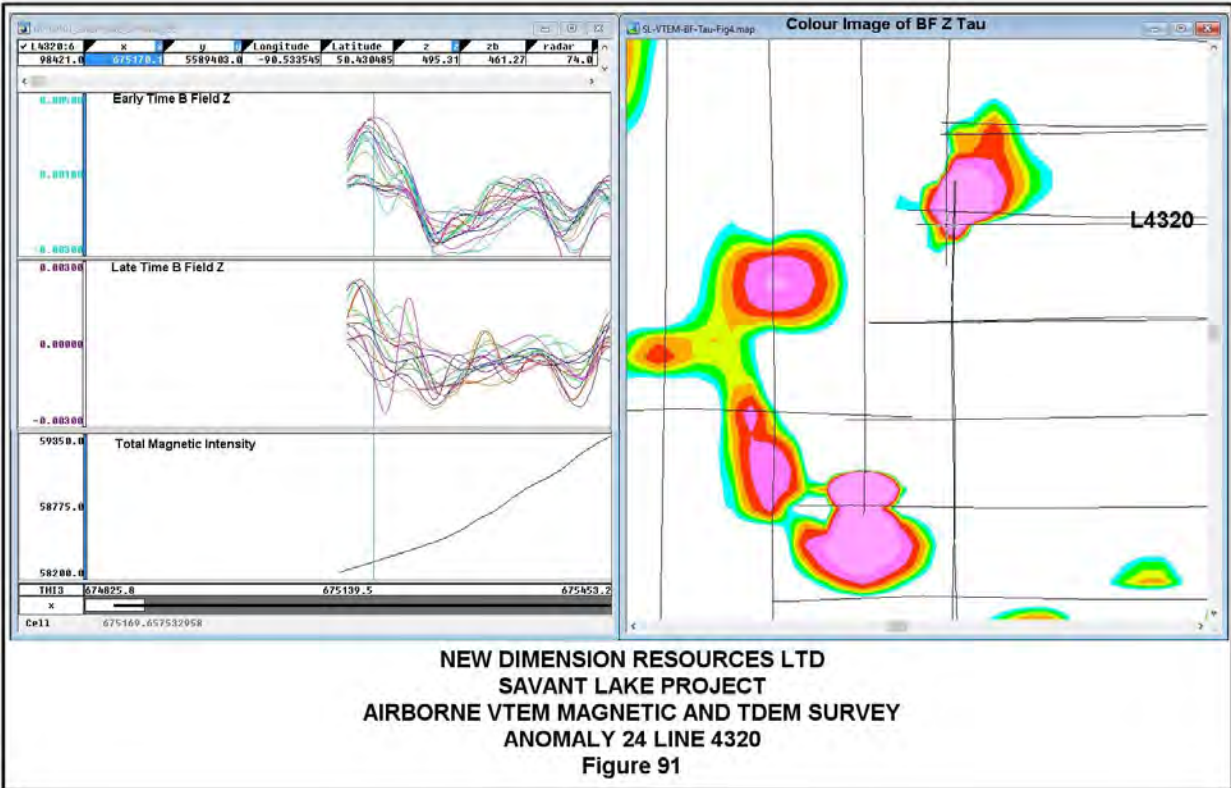
## Anomaly 24

Anomaly 24 is a Low Magnetic TDEM that has not been modelled as it is too weak to produce a valid solution. It is located at the suture point of the perpendicular flight line block, and consists of two responses forming a roughly N-NE trend located on land. They are not within the Iron Formation package and may be hosted by volcanic. The responses are presented in Figures 88 to 91.

A ground TDEM survey is recommended.



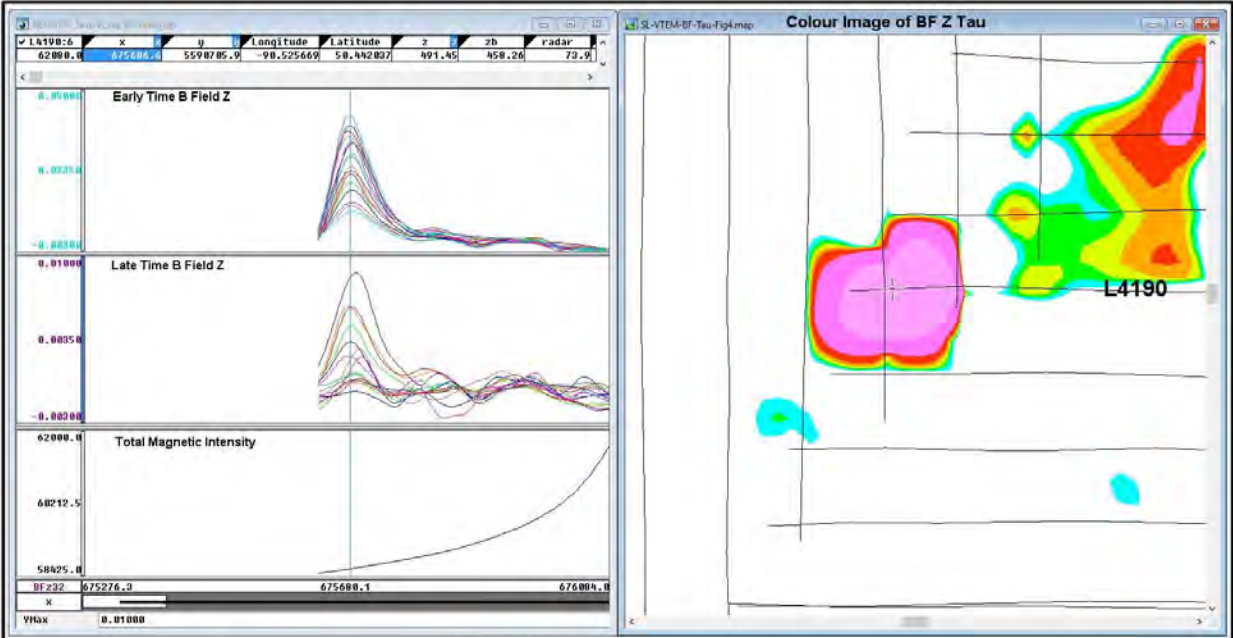




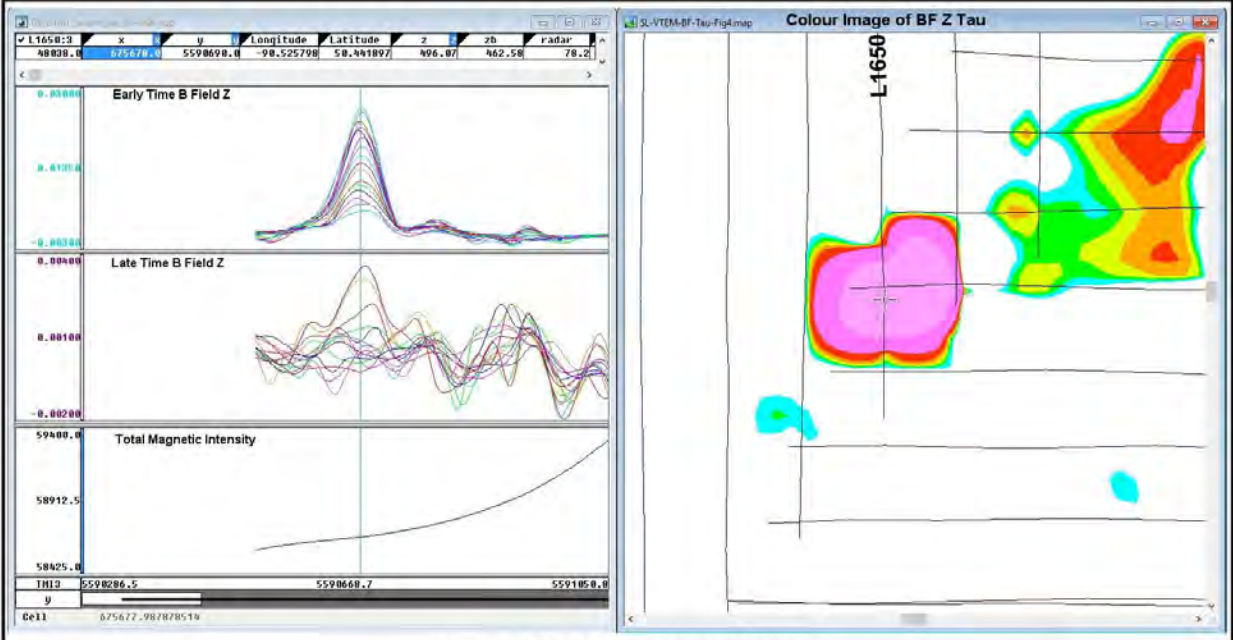
## Anomaly 25

Anomaly 25 is a Low Magnetic TDEM that has not been modelled as it is too weak to produce a valid solution. It is located at the suture point of the perpendicular flight line block, and consists of a single response located on land. It are not within the Iron Formation package and may be hosted by volcanic. The response is presented in Figures 92 and 93.

A ground TDEM survey is recommended.



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 ANOMALY 25 LINE 4190  
 Figure 92



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 AIRBORNE VTEM MAGNETIC AND TDEM SURVEY  
 ANOMALY 25 LINE 1650  
 Figure 93

The following table describes the geometric parameters of the modelled plates and help to form a basis for target prioritisation. The last column indicates if the anomaly is believed to inside or outside of the Iron Formation package in order to prioritise targets into the two groups. When exploring for base metals the CT is often used as an important prioritisation component; however for gold exploration it may not be as significant since higher metallic sulphide concentration does not necessarily relate to higher gold content. For this reason the prioritisation is based mostly on size potential.

Table 2. Low Magnetic TDEM Modelled Plate Parameters

Plate Name	E (m)	N (m)	Z (m)	Center top Depth (m)	Dip (Deg)	Dip Direction (Deg)	Rotation (Deg)	Strike Length (m)	Depth Extent (m)	Surface Area (m <sup>2</sup> )	Cd (S/m)	Thickness (m)	CT (S)	Inside Iron Formation
5A-dBdt-Ch10-12Thick	678315	5593754	331	-74.1	85.0	150.0	4.9	450.0	44.2	19890	10.0	10.0	100	Yes
5B-dBdt-Ch23-25	678605	5594095	336	-68.5	82.1	149.7	13.3	230.9	44.8	10344	N/A	N/A	446	Yes
7A-BF-Ch15-17	669094	5592689	275	-173.7	70.0	202.8	13.4	536.3	108.5	58189	N/A	N/A	93	No
7B-BF-Ch10-12	669423	5592835	270	-163.4	-78.1	8.2	43.2	175.0	55.1	9643	N/A	N/A	98	No
8A-BF-Ch15-17Thick	679917	5596539	212	-189.3	81.2	162.5	-11.2	359.7	108.1	38884	10.7	28.7	307	Yes
8B-BF-Ch25-27Thick	680171	5596822	400	-2.2	85.3	141.2	8.0	106.5	123.9	13195	89.1	4.6	407	Yes
9-BF-Ch25-27	680492	5597086	390	-12.9	86.3	306.1	-55.0	29.8	102.6	3057	N/A	N/A	874	Yes
10-dBdt-Ch13-15Thick	679792	5595713	379	-21.6	90.0	323.8	21.1	40.2	421.8	16956	351.4	4.9	1707	Yes
11A-dBdt-Ch15-17	679499	5588062	358	-43.9	56.3	111.6	-9.7	107.9	586.5	63283	N/A	N/A	409	No
11B-dBdt-Ch10-12	679555	5587805	229	-171.8	31.4	292.5	29.2	150.0	64.3	9645	N/A	N/A	175	No
11C-dBdt-Ch15-17	679788	5587878	363	-38.4	46.4	39.0	-24.8	27.9	72.1	2012	N/A	N/A	206	No
13-dBdt-Ch12-14	680001	5590773	237	-164.2	32.1	104.0	-17.5	256.3	51.1	13097	N/A	N/A	175	No
14-dBdt-Ch12-14	680102	5590246	333	-70.0	63.6	155.0	77.2	35.8	38.7	1385	N/A	N/A	345	No
15-dBdt-Ch20-22	680623	5591314	354	-46.8	60.3	139.2	-3.3	412.6	161.8	66759	N/A	N/A	92	No
17-dBdt-Ch14-16	672880	5587618	408	-22.5	73.2	41.1	1.2	302.6	706.9	213908	N/A	N/A	23	No
18-BF-Ch20-22	677226	5586450	292	-117.7	28.3	32.7	-57.1	192.5	62.2	11974	N/A	N/A	524	No
19-BF-Ch18-20	678170	5593029	240	-163.0	82.1	143.2	-49.2	347.2	65.2	22637	N/A	N/A	276	Yes
23-dBdt-Ch13-15	678283	5594788	347	-54.7	76.6	180.2	2.0	38.0	222.2	8444	N/A	N/A	226	Yes

The CT values within the Iron Formation vary from 100 S to 1707 S and the surface area varies from 3057 m<sup>2</sup> to 38,884 m<sup>2</sup>. Using the size potential the following target prioritisation has been defined.

Table 3. Iron Formation Modelled Plate Prioritisation

Plate names	Priority	Modelled Total Surface Area
8A-8B-9	1	55,136 m <sup>2</sup>
5A-5B	2	30,234 m <sup>2</sup>
19	3	22,637 m <sup>2</sup>
10	4	16,956 m <sup>2</sup>
23	5	8,444 m <sup>2</sup>

For the targets outside of the Iron Formation package Plates 7A, 15 and 17 extend outside of the survey area, have weak CT values and may represent formational features of low priority. Also an exception to the size potential rule was done for plate 18 as its high CT of 524 S is worth considering compared to the larger plate 13 with a CT of 175.

Table 4. Outside of Formation Modelled Plate Prioritisation

Plate names	Priority	Modelled Total Surface Area
11A-11B-11C	1	74,940 m <sup>2</sup>
18	2	11,974 m <sup>2</sup>
13	3	13,097 m <sup>2</sup>
7B	4	9,643 m <sup>2</sup>
7A	5	58,189 m <sup>2</sup>
15	6	66,759 m <sup>2</sup>
17	7	213,908 m <sup>2</sup>

At this time, the Low Magnetic Targets not modelled because of their low amplitudes (20, 21, 22, 24 and 25) should be of lowest priority. However, the anomaly 20 grouping of responses has the highest priority amongst them due to its size potential.

## CONCLUSIONS AND RECOMMENDATIONS

New Dimension Resources Ltd contracted Geotech Ltd to fly a VTEM magnetic and Time Domain Electromagnetic (TDEM) survey over its Savant Lake project located in western Ontario with NTS map sheets 52J07 and 52J08. The survey took place from May 15 to 19, 2016, and a total of 10,309 line km of data was collected. Due to significant changes in geological trends within the property the survey was separated into two blocks with flight lines perpendicular to each other.

The principal targeted commodity is gold hosted in replacement metallic sulphides contained with Iron Formations. These Formations dominate the magnetic data and produce extremely high amplitudes exceeding 100,000nT that actually saturating the airborne magnetic sensor.

Analysis of the TDEM revealed an unusual correlation between the highly magnetic lithologies and low amplitude slow decay EM responses, which can be multi-kilometric in length. It was concluded that these responses, which are called High Magnetic TDEM, are caused by a magnetite Superparamagnetic Effect (SPM), and as such are of no economic interest. Also contained within the EM data are responses typical of classic conductors that are caused by either massive metallic sulphides or graphite. Invariably these responses are not coincident with the highly magnetic Iron Formations, and are called Low Magnetic TDEM. However, some are intermixed within them and others are outside of the Iron Formation package.

Interpretation of the EM data defined twenty five anomalies. Of these two are defined as cultural, five as related to high magnetic SPM responses and eighteen as low magnetic responses.

Of the eighteen low magnetic EM responses thirteen were modelled using the EMIT Maxwell software. Five were not modelled because their amplitudes were so low that meaningful solutions could not be produced.

Modelled solutions of the plates vary significantly in size with the largest measuring 303 m X 707 m and the smallest 39m X 36m. Conductivities also varied significantly from a low of 23.4 S to a high of 1,707 S.

Prioritisation of the anomalies was separated into two groups consisting of inside the Iron Formation package and outside of it. When exploring for base metals the CT is often used as an important prioritisation component; however for gold exploration it may not be as significant since higher metallic sulphide concentration does not necessarily relate to higher gold content. For this reason the prioritisation is based mostly on size potential.

Because of modelling results often produced narrow bodies with varying depth and solution qualities it is recommended that almost all anomalies targeted for drilling be surveyed with ground TDEM. Only three models consisting of plates 8A, 11A and 18 considered robust enough to drill without ground TDEM surveys. However, both plates 8A and 11A are proximal to other plates that require ground TDEM, and it is recommended that they all be surveyed.

As there are significant variations in the modelled plate depths, it is probable that other conductive bodies were too deep to be detected by the VTEM survey. It is therefore highly recommended that drilling be supported by down hole TDEM, as it could detect these deeper bodies.

## **Appendix D**

Daily Logs – Field Programs

Date	Log
Saturday, September 10, 2016	Rob Duncan arrived from Sioux Lookout. Travelled to Wiggle Creek to locate historic trenches, previous sampling locations and assess target area. Located trenches, recorded structural measurements of D1 and D2 structures, measured thicknesses of mineralization and host rocks, estimated line meters for potential ground geophysical survey and potential for geochemical sampling and drilling
Sunday, September 11, 2016	<p>Travelled to L28 and Shoal showings to locate historic sampling and trenches and assess target area. Located trenches and sample locations at L28 and Shoal, took structural measurements of D1 and D2 structures, measured thicknesses of mineralization and host rocks, assessed strength of the target area and the potential for follow up ground geophysics, geochemical sampling and drilling.</p> <p>Travelled to Targets 1, 10 and 10a to locate 2016 sample locations and assess strength of target for follow up work. Sample locations were located, D1 and D2 structures measured, measured thicknesses of mineralization and host rocks, collected two samples at Target 10, assessed strength of target areas and the potential for follow up ground geophysics, geochemical sampling and drilling.</p>
Monday, September 12, 2016	Travelled to Targets 4, 7, 8a and 11a to locate 2016 sample locations and assess strength of target for follow up work. Sample locations were located, D1 and D2 structures measured, measured thicknesses of mineralization and host rocks, assessed strength of target areas and the potential for follow up ground geophysics, geochemical sampling and drilling.
Tuesday, September 13, 2016	Travelled to One Pine North, One Pine South, Horseshoe and Snow Bird showings to locate historic sampling and trenches. Located trenches and sample locations, took structural measurements of D1 and D2 structures, measured thicknesses of mineralization and host rocks, assessed strength of the target area and the potential for follow up ground geophysics, geochemical sampling and drilling.
Wednesday, September 14, 2016	Travel back to Savant. Compiled field data, completed sample shipment formwork and continued target assessment.

Date	Steve Siemieniuk and Dave Nuttall	Ray Koivisto and Jamie Dumas	Comments - Steve
23-Aug-16	Travel to Field	Travel to Field	
24-Aug-16	Equity Target 5	Equity Target 5	Day started off nice, we all went to the same area to get on the same page. The day started out drizzling but then began to pour rain. Not much of significance found but also likely due to working in the rain. Ray and Jamie went back around 1:30 during the lightening storm, Dave wanted to stay out.
25-Aug-16	Equity Target 4	Equity Target 1	Begin raining hard and steady from the moment we arrived at Target 4. Decided to work through the day. Walked the conductor axis, contact between lithologies and made notes over each conductor. Could not map due to weather. Interesting mineralization at contact found on NE portion of island by conductor EM-36 which was at a lithological contact and had a thick sequence of IF. Thick sequence of IF found near mid-island around EM-33.
26-Aug-16	Equity Target 4	Equity Target 1	Spent the day doing shoreline on Target 4, found a mineralized quartz vein at the sheared contact between units by EM-34, good examples of folding around the area at the shoreline (localized shearing i.e. Musselwhite model?)
27-Aug-16	Equity Target 3	Equity Target 2	Visited L28W trench first thing to view the mineralization style there (replacement IF). Time was spent around the small peninsula where some minor replacement looking style mineralization was observed on the SW edge. A number of unreported historic trenches and one partial shaft were observed in the area as well and photographed.
28-Aug-16	Equity Target 8a	Equity Target 8	Spent the day on Target 8a looking at the conductors and rock in the area. All conductors are under cover. Strong shearing was observed in the area at the north end of the Tau anomaly as well as along the lake edge. A conglomerate unit was also observed in the area that contained rounded cobbles of jasperitic iron formation as well as granite (picture). More time is warranted in the area around the outcrop adjacent to EM-8 as well as the exposure of the Stillar Bay Shear Zone on the lake edge of Target 8a.
29-Aug-16	Equity Target 7	Equity Target 5a	Good looking sample taken on shoreline (in outcrop) on Target 7. with a traverse over into the Tau anomaly done. Shoreline was examined later in the day with a plan to revisit tomorrow.
30-Aug-16	Equity Target 7	Equity Target 6	Shoreline investigated where outcrop / float of note was observed the day prior. Abundant quartz float observed on eastern side of island that was also well mineralized. More prospecting work is warranted on land and up-ice from the quartz rubble.
31-Aug-16	Equity Target 10	Equity Target 6	Investigated Target 10 which covers the majority of Girard Island. The southwestern portion of the eastern limb of the island is covered by a large esker so no outcrop was observed. A map was generated showing areas of outcrop. More focused prospecting on this limb in areas of outcrop exposure is warranted.
1-Sep-16	Equity Target 10a	Equity Target 10	Spent the morning visiting some islands located in 10a. An area of fissile weathered rock and quartz float was encountered with the source eventually uncovered and sampled. In addition to this an area of sericite alteration and bleaching was observed near sample S194128 was observed and more time in that area is warranted. Outcrop was encountered in the immediate vicinity of EM-72 however not much time was spent there due to a scheduled pickup time and a non-functioning radio. More time is warranted in the vicinity of EM-72 as well as the outcrop exposure near the southern shore of the island (abundant) that is along strike of the conductor axis. Finally; sheared, altered and mineralized (aspy needles) MMV's encountered on shore of one island but limited time spent there.
2-Sep-16	Equity Target 9	Equity Target 3	Due to access not a lot of time was spent on Target 9. Large quartz veins (0.75 meters in width) were observed by both Dave and Steve with some sampling done but they looked fairly bullish. Some very strong carbonate flooding in OIF was observed near final sample of the day by Steve. More time may be warranted there.
3-Sep-16	Equity Targets 11 and 12	Equity Target 12a	Steve traversed along the northern portion of 12a on route to Target 12. Some pyrite cubes in OIF was observed in the NNE portion of 12a however it was not sampled due to the focus being Target 12. The large exposures of O/C there warrant further investigation. Target 12 and back to the boat there was no outcrop and was covered by a large till blanket with no topographic relief. No outcrop was observed.
4-Sep-16	Equity Target 11a	Equity Target 15	Islands in 11a were investigated resulting in a lot of quartz veining being observed with some having mineralization both in the vein as well as the wallrock. In addition to this, a number of stratabound gossanous zones were observed - most notably the one on the island east of EM-83. More time is warranted in this area.
5-Sep-16	Equity Target 15	Equity Target 7 ; 7a ; Martin 10)	Rained out in am, visited interesting areas for a few hours in the afternoon. Nothing of interest to note.

Date	Steve Siemieniuk and Dave Nuttall	Ray Koivisto and Jamie Dumas	Comments - Steve
6-Sep-16	Equity Target 14	Equity Target 3a; 7a; 7	Visited target 14 - one nice exposure along the road of quartz intruding sediments. A lot of pyrite is present however it looks like it may be sulfide facies iron formation (chl with concordant py wisps) and that is where the pyrite in the vein is coming from. Another small seam of that same horizon is present about 30 meters from the conductor (one of - all not visited).
7-Sep-16	Equity Target 11a	Equity Target 11 (W zone)	Visited the rest of the islands in Target 11a. Found a decent looking shear on the south side of one island. Investigated high ground in Target 5 but it was all till.
8-Sep-16	Equity Target 16	Equity Target 13	Investigated Target 16 which is a weak Tau (SPM) anomaly in a planar portion of the Kashaweogama Shear Zone. IF found, some sulfidic bands in the shear.
9-Sep-16	Travel to Thunder Bay (Steve, Ray and Jamie)		

Date	Log
Sunday, July 17, 2016	Scott travel from Vancouver to Thunder Bay
Monday, July 18, 2016	Steve and Scott travel to Wiggle Creek area and assess ground layout, trench access, etc. Investigate access to anomalies. 1 hour stop at band office along way. Stay at Four Winds in Savant Lake
Tuesday, July 19, 2016	Visit targets 1 through 9, overview of host lithologies, potential conductors, assess geological methods for additional exploration
Wednesday, July 20, 2016	Visit targets 9 through 18, overview of host lithologies, potential conductors, assess geological methods for additional exploration
Thursday, July 21, 2016	Travel to Thunder Bay

## **Appendix E**

Rob Duncan Notes – Sept 10 to 15, 2016

## Savant Lake Notes Sept 10<sup>th</sup> – 15<sup>th</sup> 2016

### General Comments:

- So far the known showings look the best of anything seen so far. Wiggle looks superior to L28 Shoal to me. However, I am not familiar with the drill results.
- The axial planar structure/ D2 shear that L28 shoal sits on lines up with interesting but much weaker prospective mineralization at targets 10, 10a. This has demonstrated that this is a much larger and more persistent structural zone than first thought. This is good. It is about finding the best part of that structure. So far indications are that it is L28, but we don't know for sure.

September 10<sup>th</sup>

### Wiggle Creek:

- Tightly folded iron formation layers within sediments. Approximately 2.5m of fold thickened BIF visible.
- 2 fold noses visible with axial planar quartz filled tension gashes approximately E-W oriented. (compass does not work due to IF)
- Quartz blow out in hinge zone plunging 56 degrees to NW.
- 20m along strike to the west 30cm quartz vein strike in E-W steeply north dipping. This persists for another 50m to the west pinching down and out 10cm wide.
- Mineralization is fine-coarse grained Py and or Aspy, that appears to be sourced from quartz veins the cut the host discordantly and mineralize bedding parallel horizons.
- Situated along Kappaweeagamma shear and is cross-cut by north-south trending fault.
- Has been drilled previously – All holes step out in E-W direction and plunge to the south (perpendicular to steeply north dipping quartz veins)

### Summary & Recommendations

- Gold bearing E-W north dipping gold bearing quartz vein that has been drill tested over 100m strike length and anomalous surface rock samples over 200m strike length.
- Manifests itself as a break in magnetic data that is of a similar scale to drilling and sampling.
- Due to lack of exposure, we do not know if the showing area is the extent or the best portion of this structure. Indications so far are that it might be.
- Note that Target 16 looks to be in a similar structural setting and has a larger foot print.
- The next steps, if any, would be to determine if the size of the system at Wiggle (and target 16 if prospecting samples run). This could be achieved cost effectively with:
  - A MMI soil grid 50m or 100m lines 50m samples over 1km strike and 500m across strike.
  - Ground magnetics survey on the same grid. Trying to find destruction of the mag by structure and quartz veining.

- If the above was successful, trench the best 3 portions and if positive after channel sampling, drill it.
- *(the above would appear to be a common theme)*

September 11<sup>th</sup>

Shoal / L28 Showing

- (*Shoal*) 0.5m scale folding in IF, looks to be near hinge, NE – SW oriented qtz vein/ rod blow out in hinge zone
- (*L28*) Approximately 75m along strike from Shoal.
- Group of folded quartz veins each approx 5- 10cm wide. Some evidence of sheared off ends of folded veins.
- Form a mass of 30% by volume of the rock.
- Host rock is an intermediate fine grained coarse ash? Volcaniclastic with rare 5- 20cm BIF interlayered.
- Pyrite and trace aspy is present only where qtz veins intersect BIF. Otherwise rare to py only.
- **The gross overarching trend of the structural zone is 040 steeply dipping to NE (70ish). This overarching trend continues up to targets 10 and 10a, indicating they are all part of a larger structural setting /zone.**
- Main foliation of the host rock is 060/72
- Plunge of fold hinge with Qv occupying = 60 towards 078
- Tensional gashes 1 -2cm wide by 40cm = 110 /82

#### **TARGET 10 678519E/5589816N**

- Basically along strike from L28 along the synform antiform pair and axial planar structure
- Dominant foliation 022/80 very well developed termed a “shear zone”
- Forms discrete 20m wide area and then 50m wide areas to the east. Overall 270m wide zone
- Same volcaniclastic with minor BIF as L28.
- Qtz vein present with FeOx selvage and trace py. 025/70
- Photo 0156 showing axial plane and plunge of qtz blow out in hinge = 070/75. Plunge = 70 towards 070.
- @ 678802E/5589920N very approximate foliation = 080/65 (is this warping into the Stillar Bay Shear Zone responsible for targets 8a, 11a)

## TARGET 10A

- Chlorite altered shear zone in mafic volcanic with 3% disseminated py. This is a real structure = 100 near vertical. Will be very interesting if this runs. Discordant to foliation. 2-3m true thickness.

## Summary & Recommendations

- In general, L28, 10 and 10a line up on the same gross trend of 040 near vertical.
- I believe mineralization is largely due to development of strong axial planar structures that host quartz veining.
- This program has demonstrated that L28 is the best showing along this trend, and that this structural environment is much larger than previously thought.
- The next step is to determine if L28 is the best part of this system. So far it looks to be.
- Also there are no conductors on this trend.
- To determine the footprint and if L28 is the best part, I would duplicate the mag and soil work proposed at Wiggle. I would also contemplate doing this over the island of target 10.

## TARGET 1 678636E/5593625N

- 10cm wide Qtz vein with sx in selvage 163/82 cross cutting foliation at a low angle = 356/86
- Chl alteration extends outboard of this for 20 – 40cm. This is encouraging.
- Foliation of host rock = 063/82 [note this is in a different structural domain in the KLSZ]
- I still like this target from the perspective of mag, regional trend and conductors. Little outcrop was available.
- Soils worked here in the past, perhaps do it again

## General Observations so far:

- The iron formation is poorly developed with a maximum of 2-3m structurally thickened in hinge zones. Otherwise 5 – 10cm interbedded with “sediments”. This is a negative for the model.
- Structures are also hosted in mafics which could be very prospective. We will know once results are in.
- The axial planar structures hosting 10, L28, shoal are more significant than thought.
- If this property is NDR's universe, then there are things worth following up.
- If it was the real universe, I would likely default to the best that has already been found and there is no potential to find an ore body here.

SEPT 12<sup>th</sup>

TARGET 4: 680275E / 5596864 N

- 10cm white bull QV with 1-3cm chl selvage, foliation parallel 060 / 70. Hosted along contact between 5cm IF and volcanoclastic.
- 680422E / 5596971N : BIF with tr py = 2-3% py dissemin in int volc.
- Close to above, evidence of riedel shear fabric over 1m width
- 680486E / 5597089N : 3cm qtz vein within IF / int volcanoclastic shear zone. Interesting structure if it runs. 040 steep. This runs 21 ppb not very good. This was from the pure qtz only. I suspect the wall rock would run more.
- **All this lines up with modeled plates #9 and northern small #8**
- Island of NE end has a shear zone with 3mm anastomosing pyrite seams. Below detection
- None of the shear zones with pyrite and little or absent quartz run. Only the quartz runs.

THIS target is down graded

TARGET 7: 680482 E / 5595446 N

- 1-3 m wide BIF with foliation NE / steep. Deformed qtz tension gashes approx 130.
- 681033 E / 5595528 N: cherty or silica flooded volcanoclastic with tr py, isoclinally folded. Interesting if runs.
- Discrete 2m zone of shearing trending 050 sample 5194109
- QV's in fabric of shear zone.
- Target 7 is along strike to NE of axial planar structure that goes through 10, 10a
- 680065E / 5595153 N : nose of OC with a mass of QV's in hinge zone of the same intensity as L28 However, muscovite selvages and not sx. Looks dead.

Overall, like some of the shear structures, and some qv's and like that it is in the same regional structural zone that links L28, 10, 10a. Likely lower priority and more poorly mineralized.

TARGET 8a : 676857E / 5586234N :

- Very stg sheared rocks trend 060 / 70. Good conductor present.
- 5mm – 1cm foliaform qv's 5-10 % dissemin py. = anomalous in gold!!
- Shear zone is 30 – 50m wide in its most intense portion.
- Host is a muscovite – qtz – chl schist = volcanic.

I quite like this, simple structure anomalous gold, determine the foot print and if there is a drill target there. It is new.

TARGET 11a : 679125 E / 5588256 N:

- Less sheared and folded than 8a
- A number of discrete shear zones trending 092, 200 / 60, surrounded by un foliated mafic volcanic or even intrusive?
- Both foliation parallel and tensional qv's
- 679125E / 5588256 N : zone intermittently extending to 100m away of 5 – 30cm wide tensional planar quartz veins. No sx, trending 095 , 200 / 60. If these carry gold, it would be very significant and a new style of mineralization.

Priority depends entirely on assay results.

SEPT 13<sup>th</sup>

#### ONE PINE SHOWING

- 677064E / 5589397N : @ the trench showing. Three trenches suggesting a 040 trend to the mineralization.
- Trench rubble displays deformed 2-4cm wide qtz-ank feox veins with tr py – cpy where they intersect BIF. Other hosts are greywacke and possible intermediate volcanoclastic.
- The intensity of mineralization appears to match that seen at L28.
- Good chl alteration around qv's seen as well.
- One pine south: 677039E / 5589262N: is located roughly along strike 133m to the SW.

I would rank this target equal to L28 – shoal and it has only received one drill hole. The foot print of mineralization here should be determined via geochem and geophysics prior to additional drill testing if warranted.

#### HORSESHOE TRENCH SHOWING

- 675222E / 5588254N : Umm it's shaped like a horseshoe – the trench
- 4cm wide QV that trends approximately 040 but is a deformed D1? Vein has stg feox and chl selvage and VG where it crosses BIF in a hinge zone. The vein itself is deformed into the hinge zone but NOT completely.
- This vein is different in that it is not axial planar and predates D2 deformation!
- If it did not have VG, we would pay little attention to it. It has strike continuity about 3m the length of the showing.

#### SNOWBIRD: 675259E / 5588575N

- Very similar to Horseshoe. 4cm vein. Stg Feox, chl alteration. Deformed D1 vein parallel to compositional layering.

- Trends 040 / 70.
- Host rocks are 70% BIF over 5m thickness some chl alteration and hematite. Thickness BIF we have seen.
- Development of D2?? Horsetail and mm hairline QV swarm approx 90 degrees. Note we really wanted this to line up with D2 axial planes elsewhere at 040, but 040 is the trend of compositional layering and the Snowbird vein.
- Minor folds indicate a hinge closure to the NE.
- The vein has strike continuity over the length of the cleaned OC = 22m.

This in concert with Horseshoe is intriguing. Channel sampling at Snow bird would determine if the swarm of horsetail hairline veins carry gold.

Exploration for the fold closure and thicker quartz veins could be fruitful.

Overall still lower priority than other targets

#### Priority Ranking:

- 1) L28 : part of a large and long D2 axial planar structure that persists to gold anomalous samples in the same structure but mafic rocks in 10a
- 2) One Pine : similar oriented D2 structure : less exposed and explored than L28, only 1 drill hole
- 3) Wiggle Creek: Smaller foot print in the mag, but the other bounding D2 structure in the district.
- 4) Target 10a: Mafic hosted shear zone with widespread low but anomalous gold results from initial sampling. A new zone from this program.
- 5) Horseshoe - Snow bird: really do some thinking about where the D1 fold closure is. Only hope that the quartz becomes thick enough to be economic
- 6) Targets 4 / 7. Some very weakly anomalous gold values, modeled conductors that line up with structures, and at the end of fold closures.

#### Possible program design:

I come back to the fact that we need to show a viable size to the foot print of these things. We are not the first people here and some of this must have been done before, but some sort of ground geophysics and possibly geochem method that would work here in some spots to show the size of the system.

Perhaps ground mag (super cheap) However, perhaps CSMAT would be required.

Grids 1km long by 500m wide should be considered with trenches targeting the most promising parts of these. If positive, this would result in significant drill targets at one or more showings.

## **Appendix F**

### Sample Descriptions

Sample_ID	Date	Geologist	Target	Zone	UTM East (Nad 83)	UTM North (Nad 83)	Type	Description	Strike	Dip	Structural Feature	Au_ppm_USE	Ag_ppm_M E-MS41	As_ppm_ME MS41	Au_ppm_A u-AA23	Au_ppm_A u-GRA21	Au_ppm_M E-MS41
S193847	30-AUG-16 12:18:33PM	RK-JD	6	15 U	675336	5588540	grab	vfg blk-gy iron metasediments. Gossenus. Folded. Rusty >1cm Qtz-carb veinlet. Trace pyr.	65	vertical		38.8	4.03	0.6	10.1	38.8	25.1
S193844	30-AUG-16 10:09:26AM	RK-JD	6	15 U	675240	5588261	grab	1-2cm Qtz vein in vfg blk iron metasediments. Folded. Gossenus. <1% pyr.	not poss	sub-vertical E		14.25	1.86	1.5	10.1	14.25	8.7
S194127	01-Sep-2016	DN-SS	10a	15U	680208	5590258	grab		40	70	Foliation	3.64	0.03	4110	3.64		0.9
S193825							STD	QA-QC Standard				3.09	0.74	171	3.09		2.4
S194175							STD	QA-QC Standard				3.05	0.66	158.5	3.05		3
S194125							STD	QA-QC Standard				2.97	0.57	169	2.97		1.8
S194075							STD	QA-QC Standard				2.96	0.63	179	2.96		1.7
S193875							STD	QA-QC Standard				2.88	0.79	167	2.88		2.5
S194135	01-Sep-2016	DN-SS	10a	15U	679673	5589959	grab	White coloured strongly sheared rock, fissile, strong carb, irregular stockwork patches and veins of aspy (needle clusters), comes from wider pervasively altered zone	45	64	Foliation	1.35	0.02	6070	1.35		1.2
S194131	01-Sep-2016	DN-SS	10a	15U	679929	5589924	grab	Dark green, weakly sheared fabric, chloritic metavolcanic. Heavily disseminated sulphides (Py + AsPy 5%). Carbonate filled hairline fractures.	NE	90	Foliation	0.799	0.02	10000.1	0.799		0.8
S194098	29-Aug-2016	DN-SS	7	15U	680078	559421	Sub-crop	Interbedded black ferruginous sediments and Iron formation. Same description as S194097	30	72		0.305	0.05	85.9	0.305		-0.2
S194182	07-Sep-2016	DN-SS	11a	15U	679569	5587535	grab	Sheared up area of feldspathic flow, sample from rubble in lake, carb rind with 5% fg py disseminated throughout py blebs in WR as well	264	70	Foliation	0.256	0.02	2340	0.256		0.2
S194094	28-Aug-2016	DN-SS	8a	15U	676855.6	5586230.902	grab	Sheared, blue grey green mafic. Fe-stained seam of heavily diss. Py with minor Qz/Cb veinlets <2 mm.	54	67		0.249	0.67	378	0.249		0.2
S193851	30-AUG-16 2:24:22PM	RK-JD	6	15 U	675272	5588153	grab	vfg gy-gm sheared metasediments. Weak gossen. <1% pyr.	90	vertical		0.197	0.07	0.4	0.197		-0.2
S193846	30-AUG-16 12:00:34PM	RK-JD	6	15 U	675339	5588552	grab	minor Qtz-carb veinlets in vfg blk metasediments. FOLD NOSE. Gossen. Trace pyr.	fold nose	vertical		0.189	0.06	0.4	0.189		-0.2
S193909	07-SEP-16 9:46:40AM	RK-JD	11	15 U	677257	5592989	grab	10-15cm folded Qtz vein in metasediments. Gosen. 5+% Arsenopyrite. Trace pyr. Chert horizon.	N/S (vein)	vertical	vein	0.171	1.52	10000.1	0.171		0.2
S193910	07-SEP-16 9:47:07AM	RK-JD	11	15 U	677257	5592989	grab	10-15cm folded Qtz vein in metasediments. Gosen. 5+% Arsenopyrite. Trace pyr. Chert horizon. Adj to S193909	N/S (vein)	vertical	vein	0.165	15	10000.1	0.165		-0.2
S194145	04-Sep-2016	DN-SS	11a	15U	679212	5588917	grab	Irregular veining xcutting MIMV's, WR is strong chl w/ mg cubic py, vein has fine py diss/microveinlets, fg mt, chl +/- carb	50	74	Foliation	0.164	0.08	295	0.164		-0.2
S194136	01-Sep-2016	DN-SS	10a	15U	679676	5589956	grab	Green-cream coloured rock, strongly sheared, x-cut mm scale veinlets of chl, some bleached/sil zones, patches of mg py blebs +/- fg py	45	64	Foliation	0.146	0.05	497	0.146		-0.2
S193829	27-AUG-16 2:21:16PM	RK-JD	2	15 U	677719	5589937	grab	Gossenus 1cm Qtz-carb vein in metasediments (near sample # 193827) 3-5% pyr.				0.142	0.07	21.6	0.142		-0.2
S194134	01-Sep-2016	DN-SS	10a	15U	679849	5589213	grab	Cream-green coloured rock, fairly massive, has disseminated aspy throughout (pillow selvaige?)	n/a			0.142	0.04	5960	0.142		-0.2
S193865	01-SEP-16 11:14:02AM	RK-JD	10	15 U	678864	5589786	grab	vfg blk iron metasediments. Folded. Multiple veinlet Qtz-carb 1-2cm. <1% pyr. Trace? Cpy, Malachite	20	sub-vert S	bedding	0.095	0.05	1.2	0.095		-0.2
S194107	30-Aug-2016	DN-SS	7	15U	681029	5595514	float	Same as S194105				0.088	0.13	6240	0.088		-0.2
S193886	04-SEP-16 9:20:41AM	RK-JD	15	15 U	678843	5592064	grab	vfg blk iron metasediments. Folded/sheared. Qtz-carb veinlets, 3-5% pyrite. Chlorite. Local rubble	rubble			0.078	0.22	121	0.078		-0.2
S194106	30-Aug-2016	DN-SS	7	15U	681029	5595514	float	Float, ~20cm x 75 cm, rusty, angular, wallrock is dominantly foliated fg chlorite bands with x-cutting 1-3cm wide Qtz stockwork, chl bands have fg disseminated pyrite, 0.5 to 1cm wide pyrite seams at vein selvages				0.074	0.13	7400	0.074		-0.2
S194132	01-Sep-2016	DN-SS	10a	15U	679922	5589883	grab	Green, chloritic, weakly sheared metavolcanic. Isolated clusters of euhedral Py ~1%. Fe-stained weathered surface.	NNE	85	Foliation	0.059	0.02	513	0.059		-0.2
S194097	29-Aug-2016	DN-SS	7	15U	680078	5594920	Sub-crop	Interbedded black ferruginous sediments and Iron formation. Stock work Qz/Cb veining 1-4 cm wide discordant with rock foliation. Py found in veins, and host rock diss. 1-2%. Trace Po in host.	30	72		0.047	0.02	27.8	0.047		-0.2
S193830	27-AUG-16 2:53:45PM	RK-JD	2	15 U	677776	5589818	grab	Gossenus, carbonated vfg gy metasediments. Folded. Trace pyr.				0.043	0.1	6.2	0.043		-0.2
S194121	31-Aug-2016	DN-SS	10	15U	679016	5589261	grab	Dark green, non-magnetic, sheared, fine-grained chloritic metased. On outcrop scale: Host is situated between 2 massive Qz/Cb veins (~5m wide). Sample is sheared area between the veins (~8-15cm). Rock is carbonitized, discordantly cut by veinlets (<1cm w)	NNE	75	foliation	0.039	0.18	25.1	0.039		-0.2
S194088	28-Aug-2016	DN-SS	8a	15U	677343.8	5586294.798	grab	Amphibolite (green), sheared, Fe-stained at surface, foliated, fissile. Diss Py 3-5%	285	83		0.03	0.25	57.5	0.03		-0.2
S194168	06-Sep-2016	DN-SS	14	15U	673334	5587039	grab	Oveining in chloritic/pyritic (sulfide IF?) MSEDs, Qtz is dark blue/black with crosscutting veinlets of py, outcrop is gossenus (strike seems off from mag compass to gps orientation)	292	82	Bedding	0.028	0.3	922	0.028		-0.2
S193824	27-AUG-16 9:27:55AM	RK-JD	2	15 U	678013	5589855	grab	Rusty, sheared vfg gy metasediments. <1% pyr.				0.027	0.03	1.8	0.027		-0.2
S194148	04-Sep-2016	DN-SS	11a	15U	679125	5588256	grab	VMS pod in MIMV, green in colour, sil + chl, fg po diss throughout, trace cpy py	94	85	Foliation	0.026	0.12	8.4	0.026		-0.2
S194146	04-Sep-2016	DN-SS	11a	15U	679196	5588952	grab	Light to dark green, sheared, altered, veined meta volcanic. Shearing observed as strong foliation. Py and AsPy fg and forming as seams along healed fractures. Alteration assemblage is Ankerite, carbonate, chlorite, muscovite, magnetite and silica.	78	72	bedding	0.024	0.14	23.1	0.024		-0.2
S194061	25-Aug-16	DN-SS	4	15 U	680486	5597089	grab	Intermediate volcanic hosting quartz vein. No visible sulphide. Outcrop at anomalie zone.				0.021	0.03	1.5	0.021		-0.2
S194090	28-Aug-2016	DN-SS	8a	15U	677290	5586419	grab	Green-white coloured rock with mg sub-euhedral feldspar and greenish cooured groundmass with carb, chlorite and silica alteration, vfg subhedral / blebs of pyrite, weakly foliated	76	74		0.021	0.09	27.3	0.021		-0.2
S193911	07-SEP-16 10:25:18AM	RK-JD	11	15 U	677253	5592986	grab	>1% vfg pyr in iron metasediments. Folded/sheared. Local rubble	rubble		bedding	0.02	0.24	990	0.02		-0.2
S194087	28-Aug-2016	DN-SS	8a	15U	677347.7	5586304.613	Sub-crop	Feldspar phynic mafic (green), Fe-stained at surface and minor shearing. Diss. Py 3-5%. Sample taken from rubble below sample S194088 outcrop.	285	83		0.018	0.16	33.6	0.018		-0.2
S193845	30-AUG-16 10:25:39AM	RK-JD	6	15 U	675234	5588261	grab	2cm Qtz vein in folded iron metasediments. Gossenus. Trace pyr.	90	vertical		0.016	0.06	0.9	0.016		-0.2

Sample_ID	Date	Geologist	Target	Zone	UTM East (Nad 83)	UTM North (Nad 83)	Type	Description	Strike	Dip	Structural Feature	Au_ppm_USE	Ag_ppm_ME-MS41	As_ppm_ME-MS41	Au_ppm_Au-AA23	Au_ppm_Au-GRA21	Au_ppm_ME-MS41
S194167	06-Sep-2016	DN-SS	14	15U	673335	5587043	grab	Dark green, foliated, chloritic, non-magnetic meta-sed. Heavily disseminated sulphides up to 10% (Py, Cpy, Po) in host, proximal to Qz veining 1-4 cm wide (bluish color). Sulphides also observed to be fracture filling in Qtz. Chlorite, biotite and carbona	290	80	bedding	0.016	0.45	1080	0.016		-0.2
S194119	31-Aug-2016	DN-SS	10	15U	679149	5589735	Sub-crop	Found as float below outcrop of same host (note: structure from outcrop). Dark green foliated and sheared, chloritic metasediment. Host is weakly-mod magnetic and has an iron-stained weathered surface. Diss Py is found locally in clusters and as euhedral	NE	85	foliation	0.014	0.04	7.7	0.014		-0.2
S193848	30-AUG-16 12:59:59PM	RK-JD	6	15 U	675378	5588347	grab	10-15cm qtz vein in folded iron metasediments. Trace pyr. Rusted zones.	45	vertical		0.013	0.02	0.6	0.013		-0.2
S193864	01-SEP-16 10:50:46AM	RK-JD	10	15 U	678860	5589789	grab	vfg blk metasediments. <1% pyr in 2-3cm qtz veinlet. Gossen. Folded. Trace pyr	40	sub-vert S	bedding	0.013	0.13	2.9	0.013		-0.2
S194147	04-Sep-2016	DN-SS	11a	15U	679092	5588252	grab	Gossanous Mafic to Intermediate (MIMV) Metavolcanics, VMS feel, appears stratbound	94	80	Foliation	0.013	0.14	1.5	0.013		-0.2
S194113	30-Aug-2016	DN-SS	7	15U	680818	5595016	float	Dark grey, heavy, dense, hard, metallic lustre, thinly banded and weakly magnetic (host protolith unknown). Py and Po are present (2-4%)				0.012	0.8	3.3	0.012		-0.2
S194095	29-Aug-2016	DN-SS	7	15U	680077	5594927	grab	BIF/Wacke. Black-green foliated, chloritic metased. Sub-cm to cm wide stockwork Qtz veins with ankerite alteration along selvages. Trace Py.	30	72		0.011	0.1	170	0.011		-0.2
S194110	30-Aug-2016	DN-SS	7	15U	681079	5595365	grab	5-10cm wide qtz veins x-cutting chlorite schist mised with py blebs in qtz, in seams in selvages and in wallrock as f-mg blebs, f-mg bio clots	ENE	84		0.011	0.23	12	0.011		-0.2
S194149	04-Sep-2016	DN-SS	11a	15U	679174	5588211	grab	Gossanous zone on shoreline in fairly massive MIMV, sulfuric, pyritic zones, minor cpy belbs, VMS feel				0.011	0.44	13.6	0.011		-0.2
S193877	02-SEP-16 12:09:08PM	RK-JD	3	15 U	676973	5589192	grab	fg gy metasediments. Sheared. Gossenous. Strong carbonate. Minor qtz veinlet. <1% pyr	60	sub-vert S		0.01	0.4	7.9	0.01		-0.2
S194108	30-Aug-2016	DN-SS	7	15U	681033	5595528	float	Float, Silicious very finely banded cream-white coloured rock, thin fairly continuous bands of darker material, vfg-fg subhedral prite more associated with darker laminae				0.01	0.03	14.4	0.01		-0.2
S193868	01-SEP-16 12:50:35PM	RK-JD	10	15 U	678778	5589903	grab	2-5cm qtz-carb vein in folded fg gy metasediments. <1% pyr	40	sub-vert S	bedding	0.009	0.05	1.8	0.009		-0.2
S194064	25-Aug-16	DN-SS	4	15 U	680266	5596844	float	Fe-stained, green, well foliated metased. Qz and sulphide mineralization with associated minor Mu/Chl.				0.009	0.58	12.8	0.009		-0.2
S194099	29-Aug-2016	DN-SS	7	15U	680160.6	5595109.013	grab	Black, magnetic fg ferrugeneous sediments. Fe-stained foliations. Diss Py fg 1% euhedral.	38	88		0.009	0.11	18.4	0.009		-0.2
S194159	04-Sep-2016	DN-SS	11a	15U	679201	5588212	grab	Pod of VMS style min in MIMV's, outcrop is fairly massive				0.009	0.19	14.4	0.009		-0.2
S194164	04-Sep-2016	DN-SS	11a	15U	679526	5587712	grab	Dark green, sheared, weakly magnetic, chloritic metavolcanic. Py fg-mg 3-5% found diss and as seams along foliations.	260	78	bedding	0.009	0.25	15.5	0.009		-0.2
S194092	28-Aug-2016	DN-SS	8a	15U	677497.2	5586384.65	grab	Dark green amphibolite (mafic volcanic?). Massive Qz veining 5-15 cm wide, diss. Py and Fe-staining in wall rock. Minor shear foliation locally.	280	84		0.008	0.09	12.3	0.008		-0.2
S193813	25-AUG-16 4:03:56PM	RK-JD	1	15 U	678915	5594733	grab	Metasediments. Carbonate. Rusty. 2+% cubic pyr. Rubble on shore (local). Hornet nest!!!!				0.007	0.39	10.6	0.007		-0.2
S193857	01-SEP-16 8:15:06AM	RK-JD	10	15 U	678798	5589906	grab	vfg gy metasediments. Sheared. Gossenous. Carbonate. <1% pyr cubes	40	sub-vert S	bedding	0.007	0.05	3.1	0.007		-0.2
S194086	28-Aug-2016	DN-SS	8a	15U	677329.5	5586228.652	grab	Fine-grained, grey-green foliated mafic flow. Py and Fe-staining found in seams parallel to foliation, trace diss. Py in host proximal to seam.	286	89		0.007	0.06	21.3	0.007		-0.2
S193912	07-SEP-16 11:51:37AM	RK-JD	11	15 U	677043	5592924	grab	vfg blk iron metasediments. 1-2% pyr. Folded. Minor qtz-carb veinlets. Weak gossen	80	vertical	bedding	0.007	0.97	804	0.007		-0.2
S193803	24-AUG-16 8:13:19AM	RK-JD	5	15 U	676351	5594171	grab	Metasediments. Carbonate on foliations. <1% cubic pyr.	75	sub-vert		0.006	0.38	2.8	0.006		-0.2
S193831	27-AUG-16 3:19:56PM	RK-JD	2	15 U	677962	5589761	grab	20 cm + rusty quartz vein. <1% pyr. (very) local float.				0.006	0.02	0.8	0.006		-0.2
S194117	31-Aug-2016	DN-SS	10	15U	678806	5589317	grab	Orange white coloured rock, mod carb+ank, sheared, semi-conformable 1-2cm qtz veins / veinlets, trace f-mg cubic py along fol phases +/- in qv	60	76	bedding	0.006	0.25	2.3	0.006		-0.2
S193889	04-SEP-16 11:54:16AM	RK-JD	15	15 U	679193	5592207	grab	Series of 1cm qtz-carb veinlets in vfg blk iron metasediments. <1% pyr. Mica	NE/SW	sub-vert S	bedding	0.006	0.1	3	0.006		-0.2
S193917	08-SEP-16 12:59:05PM	RK-JD	13	15 U	671187	5589487	grab	25cm +qtz vein in sheared vfg grn-gy metasediments. Chlorite. Trace pyr. <1% galena. Gossen. More qtz in other local rubble				0.006	2.51	3	0.006		-0.2
S193808	25-AUG-16 1:51:58PM	RK-JD	1	15 U	679243	5593865	grab	Qtz carb vein in banded iron sediments. Strong Carbonate. 1-2% pyr. Gossenous. Lakeshore				0.005	0.29	11.6	0.005		-0.2
S193842	29-AUG-16 2:29:49PM	RK-JD	5	15 U	676420	5594182	grab	vfg gy metasediments. Sheared. Gossenous. >= 1% cubic pyr	60	vertical		0.005	0.11	7.6	0.005		-0.2
S193856	01-SEP-16 8:14:13AM	RK-JD	10	15 U	678798	5589906	grab	vfg gy metasediments. Gossenous. Carbonate. <1% pyr. Sheared	40	sub-vert S	bedding	0.005	0.09	3.4	0.005		-0.2
S193862	01-SEP-16 10:17:08AM	RK-JD	10	15 U	678817	5589856	grab	vfg gy-blk iron metasediments. Folded. Qtz-carb veins. 1% pyr	40	sub-vert S	bedding	0.005	0.12	2.2	0.005		-0.2
S194116	31-Aug-2016	DN-SS	10	15U	678803	5589121	grab	Qtz vein at OIF/GW contact, GW WR is fissile w/ rusty planes, OIF is more competent, vein has carb/ank and portions of WR (chl GW) has vfg py, trace py in vein	60	70	bedding	0.005	0.04	2.4	0.005		-0.2
S194128	01-Sep-2016	DN-SS	10a	15U	680077	5590063	grab	Tan-brown coloured rock, strong carb-sericite alteration and silica flooding, mm-scale qtz stringers x-cutting fol. fg sulfides in frac/qv's	66	72	Foliation	0.005	0.04	68.7	0.005		-0.2
S194130	01-Sep-2016	DN-SS	10a	15U	679686	5589147	grab	Sheared MMV's, tan colour, wide zone, trace vfg py disseminated	116	76	Foliation	0.005	0.04	60.6	0.005		-0.2
S193801	24-AUG-16 9:18:00AM	RK-JD	5	15 U	676182	5594307	grab	Iron siltstone. Folded-sheared. Gossenous. Carbonate on shears. >1% pyr.	80	85		-0.005	0.1	1	-0.005		-0.2
S193802	24-AUG-16 11:00:48AM	RK-JD	5	15 U	676222	5594515	grab	Fg gy metasediments. Folded. Gossenous. Carbonized. <1% pyr.	20	45		-0.005	0.05	0.9	-0.005		-0.2
S193804	25-AUG-16 10:09:36AM	RK-JD	1	15 U	678525	5594087	grab	Fg metasediments. Folded. Qtz-carb. fig <=1% pyr. Mod mag. Sub-crop/float. Wk gossen.				-0.005	0.06	2.8	-0.005		-0.2
S193805	25-AUG-16 10:49:15AM	RK-JD	1	15 U	678295	5594009	grab	Metasediments. Carbonate. >=1% pyr. Float under tree roots in black spruce swampw no outcrop.				-0.005	0.06	4.6	-0.005		-0.2
S193806	25-AUG-16 12:38:21PM	RK-JD	1	15 U	678596	5593903	grab	Metasediments. Carbonate. Trace pyr. 5-10 cm qtz pod in seds				-0.005	0.02	1.7	-0.005		-0.2
S193807	25-AUG-16 12:48:50PM	RK-JD	1	15 U	678620	5593893	grab	Dk gy vfg Metasediments. Carbonate. 1% cubic pyr.				-0.005	0.05	8.8	-0.005		-0.2
S193809	25-AUG-16 2:27:18PM	RK-JD	1	15 U	678989	5594262	grab	2-5 cm qtz vein Banded iron formation. Gossenous. <1% pyr. Highly magnetic.				-0.005	0.05	3.6	-0.005		-0.2
S193810	25-AUG-16 2:59:38PM	RK-JD	1	15 U	679082	5594462	grab	Folded metasediments. Carbonate. <1% cubic pyr. Rubble on shore (local)				-0.005	0.06	3.3	-0.005		-0.2

Sample_ID	Date	Geologist	Target	Zone	UTM East (Nad 83)	UTM North (Nad 83)	Type	Description	Strike	Dip	Structural Feature	Au_ppm_USE	Ag_ppm_ME-MS41	As_ppm_ME-MS41	Au_ppm_Au-AA23	Au_ppm_Au-GRA21	Au_ppm_ME-MS41
S193811	25-AUG-16 3:33:56PM	RK-JD	1	15 U	679081	5594660	grab	Qtz carb veinlets/pods in metasediments. Carbonate.Gossenous <1% pyr. <1% cpy?				-0.005	0.05	5.4	-0.005		-0.2
S193812	25-AUG-16 3:47:53PM	RK-JD	1	15 U	679087	5594650	grab	Qtz carb veinlets/pods in metasediments. Carbonate.Gossenous <1% pyr. Flat-lying?				-0.005	0.1	10.5	-0.005		-0.2
S193814	26-AUG-16 9:19:55AM	RK-JD	1	15 U	678519	5593554	grab	Rusty 5cm + qtz vein in vfg gy metasediments. Carbonate. Trace pyr. Mult veins in area.				-0.005	0.03	10.7	-0.005		-0.2
S193815	26-AUG-16 9:57:05AM	RK-JD	1	15 U	678633	5593627	grab	15-cm qtz vein in metasediments. 5-10 pyr.				-0.005	0.05	2.2	-0.005		-0.2
S193816	26-AUG-16 11:50:03AM	RK-JD	1	15 U	678771	5594131	grab	vfg gy metasediments. Silicified. Strong carbonate. <1% pyr.				-0.005	0.04	21.9	-0.005		-0.2
S193817	26-AUG-16 12:18:20PM	RK-JD	1	15 U	678713	5594196	grab	1-5cm qtz carb veinlet in vfg gy metasediments. Gossen. Med crarbonate. Trace pyr.				-0.005	0.13	6.3	-0.005		-0.2
S193818	26-AUG-16 1:52:05PM	RK-JD	1	15 U	678302	5594691	grab	Multiple qtz veins in vfg gy metasediments. Gossenous. Folded <1% pyr				-0.005	0.1	5	-0.005		-0.2
S193819	26-AUG-16 2:42:26PM	RK-JD	1	15 U	678410	5594592	grab	vfg gy metasediments. Minor qtz carb veinlets. Carbonate. Trace pyr. Chip across 2m				-0.005	0.02	2.7	-0.005		-0.2
S193820	26-AUG-16 2:56:37PM	RK-JD	1	15 U	678410	5594575	grab	qtz float (local) Rusty. Carbonate. Metasediment wall rock.				-0.005	0.07	6.4	-0.005		-0.2
S193821	26-AUG-16 3:37:44PM	RK-JD	1	15 U	678927	5594752	grab	Vfg gy metasediments. Sheared. Strong carbonate. Qtz carb veinlets. <1% pyr. Trace ? Cpy.				-0.005	0.06	7.8	-0.005		-0.2
S193822	27-AUG-16 8:46:37AM	RK-JD	2	15 U	678088	5589801	grab	5-10cm rusty qtz-carb vein in metasediments. Trace pyr. Multiple veins in area.				-0.005	0.04	4.9	-0.005		-0.2
S193823	27-AUG-16 9:21:17AM	RK-JD	2	15 U	678004	5589861	grab	Gossenous sheared metasediments. 1% vfg pyr. Carbonate. Highly magnetic.				-0.005	0.03	1.2	-0.005		-0.2
S193826	27-AUG-16 9:55:54AM	RK-JD	2	15 U	677925	5589860	grab	Multiple 5-10 cm quartz-carb veins in metasediments. Rusty. <1% pyr				-0.005	0.05	3.9	-0.005		-0.2
S193827	27-AUG-16 11:42:58AM	RK-JD	2	15 U	677724	5589938	grab	5-10 cm quartz vein in local rubble. Trace pyr.				-0.005	0.02	0.9	-0.005		-0.2
S193828	27-AUG-16 1:28:39PM	RK-JD	2	15 U	677747	5590315	grab	10 cm + qtz vein in vfg gy metasediments. Gossen. Trace pyr				-0.005	0.04	3.4	-0.005		-0.2
S193832	28-AUG-16 8:24:42AM	RK-JD	8	15 U	676850	5587551	grab	vfg brn-gy metasediments. Very sheared. Gossenous Carb flooded. Trace pyr.				-0.005	0.1	1	-0.005		-0.2
S193833	28-AUG-16 9:57:37AM	RK-JD	8	15 U	675669	5587005	grab	vfg gy metasediments. Folded with quartz veinlets. Carbonate. Gossen. Trace pyr.				-0.005	0.04	3	-0.005		-0.2
S193834	28-AUG-16 1:36:15PM	RK-JD	8	15 U	676843	5587543	grab	5cm + rusty qtz vein in sheared metasediments. Trace pyr.	40	sub-vert		-0.005	0.04	1.3	-0.005		-0.2
S193835	28-AUG-16 3:06:10PM	RK-JD	2	15 U	678475	5590597	grab	Gossenous qtz in metasediments. Local float. <1% pyr.				-0.005	0.01	1.6	-0.005		-0.2
S193836	28-AUG-16 3:39:55PM	RK-JD	2	15 U	679099	5591646	grab	Multiple qtz veins in metasediments. Gossenous. Trace pyr.				-0.005	0.07	3.4	-0.005		-0.2
S193837	29-AUG-16 8:48:29AM	RK-JD	5a	15 U	676047	5594016	grab	vfg black folded iron metasediments. Gossenous. <1% pyr. Trace cpy?				-0.005	0.05	1.8	-0.005		-0.2
S193838	29-AUG-16 9:24:33AM	RK-JD	5a	15 U	676069	5593943	grab	vfg black folded iron metasediments. Gossen. <1% cubic pyr. Carbonate. Minor qtz veinlets				-0.005	0.13	0.5	-0.005		-0.2
S193839	29-AUG-16 12:42:36PM	RK-JD	5a	15 U	675746	5593871	grab	1-2 cm qtz vein in vfg sheared grn-gy metavolcanics. Chlorite. Carbonate. <1% pyr				-0.005	0.49	3.3	-0.005		-0.2
S193840	29-AUG-16 1:20:42PM	RK-JD	5a	15 U	675876	5593914	grab	vfg grn-gy metavolcanics. Sheared/folded. Multiple qtz veins. Epidote alt. <1% pyr				-0.005	0.01	0.8	-0.005		-0.2
S193841	29-AUG-16 1:48:31PM	RK-JD	5	15 U	676040	5594125	grab	Gossenous qtz in metavolcanics.. ~50 float. Trace pyr	0	0		-0.005	0.04	2.9	-0.005		-0.2
S193843	30-AUG-16 9:32:23AM	RK-JD	6	15 U	675377	5588092	grab	vfg gy-grn metasediments. Carbonate. Minor qtz veins. Trace pyr.	not poss			-0.005	0.05	2.5	-0.005		-0.2
S193849	31-AUG-16 9:15:28AM	RK-JD	6	15 U	675301	5587575	grab	vfg grn-gy metasediments. Sheared. Gossenous. Qtz-carb veinlets. Trace pyr	90	vertical		-0.005	0.03	22.3	-0.005		-0.2
S193850							BLK	QA-QC Blank				-0.005	0.08	0.9	-0.005		-0.2
S193852	31-AUG-16 10:43:18AM	RK-JD	6	15 U	675401	5587915	grab	vfg grn-gy metasediments. Sheared. Multiple 1-2cm qtz veinlets. 1% pyr. Fold nose	65	vertical		-0.005	0.64	4.7	-0.005		-0.2
S193853	31-AUG-16 11:33:41AM	RK-JD	6	15 U	675451	5587934	grab	vfg grn-gy metasediments. Sheared. Multiple 1-2 cm qtz veinlets. Chlorite. <1% pyr	60	sub-vertical N		-0.005	0.04	1.6	-0.005		-0.2
S193854	31-AUG-16 11:52:07AM	RK-JD	6	15 U	675462	5587959	grab	vfg grn-gy metasediments. Multiple 2-5cm qtz veinlets. Minor gossen. Trace pyr	60	sub-vertical N		-0.005	0.38	0.9	-0.005		-0.2
S193855	31-AUG-16 2:58:00PM	RK-JD	6	15 U	675206	5587395	grab	fg gy metasediments. Weakly sheared. Calcite. <1% pyr	90	sub-vertical S		-0.005	0.06	1.4	-0.005		-0.2
S193858	01-SEP-16 8:28:56AM	RK-JD	10	15 U	678792	5589904	grab	2-5cm qtz-carb vein in sheared metasediments. Chlorite. Trace pyr	40	sub-vert S	bedding	-0.005	0.42	2.1	-0.005		-0.2
S193859	01-SEP-16 8:51:48AM	RK-JD	10	15 U	678800	5589902	grab	2 cm qtz-carb vein in sheared metasediments. 1% pyr	40	sub-vert S		-0.005	0.25	2.3	-0.005		-0.2
S193860	01-SEP-16 9:06:26AM	RK-JD	10	15 U	678798	5589906	grab	vfg grn-gy metasediments. Sheared. Minor qtz-carb veinlet. <1% pyr	40	sub-vert S	bedding	-0.005	0.04	4.1	-0.005		-0.2
S193861	01-SEP-16 9:25:54AM	RK-JD	10	15 U	678806	5589891	grab	Iron metasediments. Folded. Qtz-carb veins in fold. 2-3% pyr Mica. Rubble from shear (local)	rubble			-0.005	0.06	4.7	-0.005		-0.2
S193863	01-SEP-16 10:17:38AM	RK-JD	10	15 U	678816	5589857	grab	vfg blk iron metasediments. Local Rubble. Folded quartz vein. <1% in wall rock.	rubble			-0.005	0.09	3.7	-0.005		-0.2
S193866	01-SEP-16 11:52:07AM	RK-JD	10	15 U	678850	5589780	grab	Iron metasediments. 10cm + qtz-carb vein <1% pyr. Serracite. Rubble	rubble			-0.005	0.15	4	-0.005		-0.2
S193867	01-SEP-16 12:20:53PM	RK-JD	10	15 U	678706	5589572	grab	multiple qtz-carb veins in iron metasediments. Gossen. Trace pyr.	30	sub-vert E	bedding	-0.005	0.29	1.6	-0.005		-0.2
S193869	01-SEP-16 1:03:49PM	RK-JD	10	15 U	678765	5589898	grab	Sheared vfg grn-gy metasediments. Gossen. Carbonate. Serracite. 1% pyr	40	sub-vert S	bedding	-0.005	0.13	9.3	-0.005		-0.2
S193870	01-SEP-16 1:41:50PM	RK-JD	10	15 U	678510	5589804	grab	15-20cm qtz-carb vein/pod in sheared/folded metasediments. Gossen. Serracite. 1% pyr	60	sub-vert S	bedding	-0.005	0.14	14.2	-0.005		-0.2
S193871	01-SEP-16 1:53:23PM	RK-JD	10	15 U	678512	5589792	grab	folded iron metasediments with qtz-carb veins/pods. <1% pyr. Gossen. Chert horizon?	60	sub-vert S	bedding	-0.005	0.04	1.5	-0.005		-0.2
S193872	01-SEP-16 2:24:17PM	RK-JD	10	15 U	678262	5589553	grab	5-10 cm qtz-carb vein in sheared metasediments. Gossenous. Trace pyr	60	sub-vert S	bedding	-0.005	0.01	0.8	-0.005		-0.2
S193873	01-SEP-16 2:43:13PM	RK-JD	10	15 U	678242	5589201	grab	vfg blk iron metasediments. 10 cm qtz-carb vein in folded iron. Gossen Serracite. <1% pyr	40	sub-vert S		-0.005	0.18	1.5	-0.005		-0.2
S193874	01-SEP-16 1:27:50PM	RK-JD	10	15 U	678609	5589766	grab	Sheared metasediments. Gossenous. Carbonate. <1% pyr	60	sub-vert S		-0.005	0.02	0.4	-0.005		-0.2
S193876	02-SEP-16 9:53:43AM	RK-JD	3	15 U	676820	5589017	grab	multiple qtz veins in vfg grn-gy sheared metasediments. Calcite. Chlorite. <1% pyr	60	sub-vert S		-0.005	0.06	1.7	-0.005		-0.2

Sample_ID	Date	Geologist	Target	Zone	UTM East (Nad 83)	UTM North (Nad 83)	Type	Description	Strike	Dip	Structural Feature	Au_ppm_USE	Ag_ppm_ME-MS41	As_ppm_ME-MS41	Au_ppm_Au-AA23	Au_ppm_Au-GRA21	Au_ppm_ME-MS41
S193878	02-SEP-16 12:44:47PM	RK-JD	3	15 U	677002	5589204	grab	10cm + Qtz-carb vein/pod in folded iron metasediments. <1% pyr. Cpy?	60	sub-vert S		-0.005	0.04	0.9	-0.005		-0.2
S193879	02-SEP-16 2:44:14PM	RK-JD	3	15 U	677277	5589075	grab	1-2 cm Qtz-carb vein in vfg grn-gy folded metasediments. Gossenus. <1% pyr. Chlorite	60	sub-vert S		-0.005	0.19	3.8	-0.005		-0.2
S193880	03-SEP-16 9:57:28AM	RK-JD	12a	15 U	676410	5591243	grab	<1% pyr in vfg grn-gy silicified and sheared metasediments. Gossen. Qtz veinlets	80	sub-vert S	bedding	-0.005	0.07	15.9	-0.005		-0.2
S193881	03-SEP-16 10:37:22AM	RK-JD	12a	15 U	676418	5591296	grab	vfg grn-gy sheared metasediments. Gossen. Trace pyr. Po bleb. Carbonate stringers	120	sub-vert S	bedding	-0.005	0.07	14.5	-0.005		-0.2
S193882	03-SEP-16 11:13:16AM	RK-JD	12a	15 U	676412	5591302	grab	vfg blk-gy iron metasediments. Gossenus. Sheared/Folded. 1-2% pyr. Qtz-carb veinlets	E-W	sub-vert S	bedding	-0.005	0.02	1.2	-0.005		-0.2
S193883	03-SEP-16 11:44:29AM	RK-JD	12a	15 U	676454	5591343	grab	Qtz-carb veinlets in sheared fg gy metasediments. Gossenus. Carbonate zone. 2+% vfg pyr	80	vertical	bedding	-0.005	0.11	127	-0.005		-0.2
S193884	03-SEP-16 1:05:57PM	RK-JD	12a	15 U	676456	5591331	grab	1-2cm Qtz vein in vfg grn-gy folded/sheared metasediments. Serracite. <1% pyr	80	vertical	bedding	-0.005	0.15	146	-0.005		-0.2
S193885	03-SEP-16 1:48:33PM	RK-JD	12a	15 U	676519	5591341	grab	vfg gy-blk iron metasediments. Folded/ sheared. Qtz-carb veinlets. Gossen. 1% pyr. <1% cpy	45	sub-vert S	bedding	-0.005	0.06	6.5	-0.005		-0.2
S194051	42606	DN-SS	5	15 U	676152	5594277	grab	Black magnetic fine grained sediment. Host and bedding parallel Qz/Cb veins <1 cm wide host Py 1%	NE	86		-0.005	0.21	0.9	-0.005		-0.2
S194052	24-Aug-16	DN-SS	5	15 U	676074	5594636	grab	Dark green, weakly magnetic, fine-grained metasediment. Clusters of disseminated euhedral fine-medium grained Py.				-0.005	0.06	2.8	-0.005		-0.2
S194053	24-Aug-16	DN-SS	5	15 U	676292	5594784	grab	Dark grey-blk, Fe-rich metasediment. Host is non-magnetic. Fe-stained Qz vein ~2-3 cm wide. No visible sulphide				-0.005	0.01	1.7	-0.005		-0.2
S194054	24-Aug-16	DN-SS	5	15 U	676415	5594834	grab	Black, siliceous fine-grained metased.	NE	78		-0.005	0.2	5	-0.005		-0.2
S194055	24-Aug-16	DN-SS	5	15 U	676414	5594842	grab	Qz vein between contact of wacke and Black Fe-rich metased. No visible sulphides.				-0.005	0.34	7.9	-0.005		-0.2
S194056	25-Aug-16	DN-SS	4	15 U	680292	5596889	grab	Silicified dark grey very fine grained metased. Qtz veins host minor Py and trace Cpy. Weakly magnetic.				-0.005	0.46	0.3	-0.005		-0.2
S194057	25-Aug-16	DN-SS	4	15 U	680298	5596888	grab	Siliceous dark green-grey metased. Qz veins with minor Cb; 2 sets oriented perpendicular to each other hosting 1-2mm sized euhedral Py.				-0.005	0.08	3.7	-0.005		-0.2
S194058	25-Aug-16	DN-SS	4	15 U	680418	5596991	float	Green, well foliated metased hosting blocky Fe-stained quartz, no visible sulphides.				-0.005	-0.01	0.5	-0.005		-0.2
S194059	25-Aug-16	DN-SS	4	15 U	680487	5597084	grab	Magnetic black, well foliated Fe-rich metasediment. Sulphides (Py) observed along foliation within host.				-0.005	0.02	1.2	-0.005		-0.2
S194060	25-Aug-16	DN-SS	4	15 U	680487	5597084	grab	Well foliated black-green, strongly magnetic metased. Foliation parallel isolated Py grains (0.5-1mm) and foliation parallel Qz vein 1-2 mm wide crosses sample - hosting Py.				-0.005	0.09	0.9	-0.005		-0.2
S194062	25-Aug-16	DN-SS	4	15 U	680266	5596844	float	Green-black, well foliated metased. Qz vein with sulphide (Py/Po) mineralization, Fe-staining, minor chl +/- Mu along vein envelope.				-0.005	0.34	3.2	-0.005		-0.2
S194063	25-Aug-16	DN-SS	4	15 U	680266	5596844	float	Green, well foliated metased with chlorite, massive magnetite and Qz. Qz/Cb vein with associated Mu, Chl, Py and Po.				-0.005	0.26	5.6	-0.005		-0.2
S194065	25-Aug-16	DN-SS	4	15 U	680277	5596858	float	Fe-stained, green, well foliated metased. Massive Qz vein with sulphide (Py/Po) mineralization (isolated blebs and wisps)				-0.005	0.02	1.4	-0.005		-0.2
S194066	25-Aug-16	DN-SS	4	15 U	680277	5596858	float	Fine-grained, well foliated, green, weakly magnetic metased. Massive Fe-stained Qz vein with minor carbonate and isolated sub-mm sized Py grains.				-0.005	0.03	2.4	-0.005		-0.2
S194067	26-Aug-16	DN-SS	4	15 U	680423	5596968	grab	Black, Fe-stained, fine grained, magnetic Iron fm. Local concentrations of diss. Fine-grained Py 1%				-0.005	0.14	2.6	-0.005		-0.2
S194068	26-Aug-16	DN-SS	4	15 U	680423	5596968	grab	Green, Fe-stained, well foliated metased (contact with Iron fm). Cb/Qz veins (Fe-stained) with diss. Py 2%				-0.005	0.19	1.1	-0.005		-0.2
S194069	26-Aug-16	DN-SS	4	15 U	680443	5596992	float	Black, weakly foliated, strongly magnetic, iron formation. Disseminated fg Py (0.5%) and Py seams (1%) along planar fractures.				-0.005	0.11	0.8	-0.005		-0.2
S194070	26-Aug-16	DN-SS	4	15 U	680489	5597087	grab	Green, Fe-stained, well foliated metased. Wall rock to vein sampled in S194071				-0.005	0.43	2.5	-0.005		-0.2
S194071	26-Aug-16	DN-SS	4	15 U	680489	5597087	grab	Green, Fe-stained, well foliated metased. Disseminated + stringer Py mineralization 2-3%				-0.005	0.61	3.2	-0.005		-0.2
S194072	26-Aug-16	DN-SS	4	15 U	680489	5597087	grab	Green, Fe-stained, well foliated metased. Massive quartz vein with Py (2-3%)				-0.005	0.01	1.3	-0.005		-0.2
S194073	26-Aug-16	DN-SS	4	15 U	680637	5597193	grab	Green well foliated metased. Fe-staining and Py mineralization (2-3%) along foliations.				-0.005	0.74	6.4	-0.005		-0.2
S194074	26-Aug-16	DN-SS	4	15 U	679978	5596705	grab	Siliceous, grey, intermediate volcanic with wisps/disseminated Py 1-2%, trace Cp.				-0.005	0.05	5.1	-0.005		-0.2
S194076	26-Aug-16	DN-SS	4	15 U	679981	5596703	grab	Siliceous, grey, intermediate volcanic with disseminated Py 1-2%, trace Cp.				-0.005	0.05	6	-0.005		-0.2
S194077	27-Aug-16	DN-SS	3	15 U	677061	5588075	Sub-crop	Green-grey fine-grained metased (silt-stone?). Massive Qz veins with Fe-staining at host rock contacts. No visible sulphides.				-0.005	0.16	1.7	-0.005		-0.2
S194078	27-Aug-16	DN-SS	3	15 U	677072	5588056	Shaft rubble	Green-grey fine-grained metased (silt-stone?). Sampled from old shaft site. Qz veins, Fe-stained along contacts with host rock. No visible sulphides.				-0.005	0.2	2.6	-0.005		-0.2
S194079	27-Aug-16	DN-SS	3	15 U	676961	5588071	grab	Green-grey, very fine grained, well foliated metased (sed?). Qz veins 0.5-1.5cm wide, minor Fe-staining, no visible sulphides.				-0.005	0.11	3.8	-0.005		-0.2
S194080	27-Aug-16	DN-SS	3	15 U	676961	5588071	grab	Green-grey, very fine grained, well foliated metased (sed?). Qz veins oblique to foliation, 1-2.5cm wide with trace Py. No alteration.				-0.005	0.2	3	-0.005		-0.2
S194081	27-Aug-16	DN-SS	3	15 U	676961	5588071	grab	Green-grey metased interbedded with black Iron fm. Qz veins oblique to foliation with trace Py (<1%) minor Fe-staining.				-0.005	0.44	4.2	-0.005		-0.2
S194082	27-Aug-16	DN-SS	3	15 U	676928	5588029	grab	Iron formation with interbedded sediments. Qz/Cb veinlets (~1mm wide) with coarse grained euhedral Py (1%)				-0.005	0.16	1.8	-0.005		-0.2
S194083	27-Aug-16	DN-SS	3	15 U	676921	5587982	grab	Iron formation with interbedded sediments. Qz/Cb veinlets (~1mm wide) with fine-grained Py (<1%)				-0.005	0.09	1	-0.005		-0.2
S194084	27-Aug-16	DN-SS	3	15 U	676916	5587969	grab	Iron formation with interbedded sediments. Qz/Cb veins with chlorite and fine-grained Py (<1%) locally.				-0.005	0.08	1.6	-0.005		-0.2
S194085	28-Aug-2016	DN-SS	8a	15U	677327.4	5586228.25	grab	Fe-stained, grey-green, foliated, mafic flow (minor shearing). Euhedral Py (2%) localized in foliation of shear <5 cm wide.	245	86		-0.005	0.06	16.5	-0.005		-0.2

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S194089	28-Aug-2016	DN-SS	8a	15U	677276	5586379	grab	Grey-green f-mg rock containing f-mg subhedral to elongated feldspar crystals, aphanitic groundmass with carbonate, chlorite and silica alteration (pervasive), f-mg cubic pyrite in local patches, moderately foliated	79	81		-0.005	0.02	4.6	-0.005		-0.2
S194091	28-Aug-2016	DN-SS	8a	15U	677468.2	5586316.673	grab	Grey-green amphibolite, minor shearing. Qz veining 1-2 cm wide. Trace Py in host proximal to veins.				-0.005	0.08	15	-0.005		-0.2
S194093	28-Aug-2016	DN-SS	8a	15U	677189	5586604	grab	Green coloured strongly sheared aphanitic rock, trace subhedral pyrite	70	82		-0.005	0.08	6.7	-0.005		-0.2
S194096	29-Aug-2016	DN-SS	7	15U	680077	5594927.912	grab	BIF/Wacke. Sub-cm to cm wide stock work veins. Trace Py.	30	72		-0.005	0.13	230	-0.005		-0.2
S194100							BLK	QA-QC Blank				-0.005	0.08	0.8	-0.005		-0.2
S194101	29-Aug-2016	DN-SS	7	15U	680192.9	5595122.138	grab	BIF. 3-5cm wide discordant Qtz vein with Ankerite and fg diss Py 1%.	30	90		-0.005	0.34	3.7	-0.005		-0.2
S194102	29-Aug-2016	DN-SS	7	15U	680248.2	5595156.865	grab	Interbedded black ferruginous sediments and Iron formation. 1-2 cm wide Qz/Cb vein with Ankerite selvage. Py is fg and weakly diss in host.				-0.005	0.05	11.9	-0.005		-0.2
S194103	30-Aug-2016	DN-SS	7	15U	680034	5595048	grab	Grey-green coloured rock, strong silica flooding, clastic host, sub-cm Qtz veining (stockwork), trace fg subhedral pyrite, ankerite	72	78		-0.005	0.28	4.6	-0.005		-0.2
S194104	30-Aug-2016	DN-SS	7	15U	680482	5595446	float	Float, rusty, 0.5m x 0.5m, sub angular, green grey in colour, massive with local weak foliation defined by chlorite seams, likely VMS replacement style min, fg diss. Po? (magnetic it seems) present in stringers and blebs				-0.005	0.06	29.1	-0.005		-0.2
S194105	30-Aug-2016	DN-SS	7	15U	680476	5595448	grab	BIF/metasediment contact. Fine grained diss. PY (0.5-1%) in massive magnetite adjacent to contact with sediments. Discordant Qz veining and silicification present in sediments (veins - 2 mm-2 cm wide).	30	87		-0.005	0.05	2.1	-0.005		-0.2
S194109	30-Aug-2016	DN-SS	7	15U	681079	5595365	grab	Qtz vein/pod network in metased beds, crosscutting stockwork, mm-cm scale veins/losenges having py rims and py in veins	ENE	84		-0.005	0.1	17	-0.005		-0.2
S194111	30-Aug-2016	DN-SS	7	15U	681033	5595272	float	Float, white orange coloured rock, silica flooded with x-cutting veinlets of Qtz, local patches of fg py w/cg bt clots, local chl clots				-0.005	0.04	10.1	-0.005		-0.2
S194112	30-Aug-2016	DN-SS	7	15U	680996	5595159	grab	2-4 cm wide qv in chloritized mseds, vein is fairly concordant w FOL/BED, trace vfg py typically at WR contact	ENE	82		-0.005	0.06	8.7	-0.005		-0.2
S194114	31-Aug-2016	DN-SS	10	15U	678436	5589138	grab	Light green in colour, local spall, chl-carb MSEDs, two -1cm carb-Qtz veins cutting fol/bed at very low angle, fg py w tr cpy along contact and disseminated in a darker silicious band adjacent to vein				-0.005	0.06	8.1	-0.005		-0.2
S194115	31-Aug-2016	DN-SS	10	15U	678456	5589245	grab	In "nose" of S fold of IF/GW bed, abundant veining (likely local sweats), xcuts fol/bed, 1-3cm veins, trace fg euhedral pyrite in WR and in vein selvages				-0.005	0.05	3.5	-0.005		-0.2
S194118	01-Sep-2016	DN-SS	10a	15U	680011	5590714	grab	Silicified MMV, weak chlorite along narrow discontinuous shear band, hydrothermal VMS min? 1% fg diss py blebs and f-mg cubic py in some frac seams	96	76	Foliation	-0.005	0.04	12.5	-0.005		-0.2
S194120	31-Aug-2016	DN-SS	10	15U	679057	5589295	grab	Grey-green, foliated, fissile chloritic sediment. Host is sheared and moderately-strongly magnetic. Cb-rich veins discordant 0.25-1 cm wide. Euhedral fine-medium grained Py (2-3%) found diss or as isolated grains within host.	NE	80	foliation	-0.005	0.05	1.5	-0.005		-0.2
S194122	31-Aug-2016	DN-SS	10	15U	678792	5589154	grab	Strongly magnetic, heavy, dense Iron formation. Diss Py 2-3% in Iron formation with hair-line Qz/Cb veining (foliation parallel).	NNE	74	bedding	-0.005	0.21	0.9	-0.005		-0.2
S194123	31-Aug-2016	DN-SS	10	15U	678778	5589200	grab	Black strongly magnetic fg Iron formation. Diss fg Py 1-2%, proximal to hairline Cb-filled fractures parallel to bedding.	NNE	78	bedding	-0.005	0.05	1.9	-0.005		-0.2
S194124	01-Sep-2016	DN-SS	10a	15U	680371	5590556	grab	Light green coloured rock - mildly silicious, rusty fractures, Tr euhedral-subhedral pyrite in frac's, some minor fg py blebs present	n/a			-0.005	0.04	18.3	-0.005		-0.2
S194126	01-Sep-2016	DN-SS	10a	15U	680264	5590470	grab	Sheared MMV's with 1-2 mm wide QV's, subhedral fg pyrite at selvage, host rock also has fg py throughout (diss)	60	78	Foliation	-0.005	0.03	4.7	-0.005		-0.2
S194129	01-Sep-2016	DN-SS	10a	15U	680096	5589819	grab	Fg MMV, chloritized, massive, some carbonate, trace vfg py blebs, not much time spent at outcrop location	n/a			-0.005	0.03	42.6	-0.005		-0.2
S194133	01-Sep-2016	DN-SS	10a	15U	679855	5589858	grab	Teal-dark green, foliated - nonfoliated, minor shear fabric, fine-grained, chlorite/muscovite bearing meta-volcanic. Qz veined ~1-2cm wide. Diss Py ~2% along vein envelope	NNE	80	Foliation	-0.005	0.02	64.1	-0.005		-0.2
S194137	02-Sep-2016	DN-SS	9	15U	673968	5591824	grab	Spall under tree throw, localized shear, green colour, 3-4 cm wide qv in centre, smaller qz "zones" adjacent, chlorite wisps (WR?) in vein, trace fg py	62	64	Foliation	-0.005	0.2	21.6	-0.005		-0.2
S194138	02-Sep-2016	DN-SS	9	15U	673737	5591795	grab	Green WR to Vein in S194139, green in colour, no visible sulfides, no appreciable alteration	248	90	Foliation	-0.005	0.03	13.8	-0.005		-0.2
S194139	02-Sep-2016	DN-SS	9	15U	673738	5591794	grab	0.75m wide bullish qv x-cutting host foliation	270	70	Vein	-0.005	-0.01	2.9	-0.005		-0.2
S194140	02-Sep-2016	DN-SS	9	15U	673701	5591794	grab	Strong folding in area so bedding measurement only likely very local on part of limb (not much exposure), x-cutting 1.5 cm wide Qtz/cab vein, patch of cpy-py (fg) in vein and running into wallrock	40	90	Bedding	-0.005	0.17	5.6	-0.005		-0.2
S194141	02-Sep-2016	DN-SS	9	15U	673539	5591824	grab	Bedding measurement approximate (mag) and not much exposure, strongly carbonitized OIF, mm-scale veinlets of carb x-cutting OIF Fol/Bed; no visible sulfides	135	76	Bedding	-0.005	0.02	4.6	-0.005		-0.2
S194142	02-Sep-2016	DN-SS	9	15U	674417	5591925	grab	Intercalated wacke and Iron formation beds. Isolated fg-mg euhedral Py grains along Cb healed fractures in Iron fm.	ENE	86	bedding	-0.005	0.13	4.7	-0.005		-0.2
S194143	02-Sep-2016	DN-SS	9	15U	674350	5591940	grab	Intercalated wacke and Iron formation beds. Qz vein 2cm-15cm wide in wacke host. Trace Py observed along vein envelope. Clots of chlorite in vein.	ENE	85	bedding	-0.005	0.05	1.3	-0.005		-0.2
S194144	02-Sep-2016	DN-SS	9	15U	673658	5591720	grab	Intercalated Iron formation and weakly magnetic black siltstone. 1mm wide seam of fg-mg euhedral pyrite (foliation parallel).	ENE	85	bedding	-0.005	0.02	11.2	-0.005		-0.2
S194150							BLK	QA-QC Blank				-0.005	0.06	0.8	-0.005		-0.2
S194151	03-Sep-2016	DN-SS	11	15U	677295	5593052	grab	Black iron formation and interbedded silt and chert. Cb filled fractures <1mm foliation parallel. Diss Py fg euhedral in host 1%. Py in Cb healed fractures 0.5%. Host is moderately magnetic, non-folded.	NE	83	bedding	-0.005	0.06	2.1	-0.005		-0.2
S194152	03-Sep-2016	DN-SS	11	15U	677248	5593084	grab	Interbedded iron formation +/- chert with metasediment. Qz/Cb veinlets 1-2 mm cross cut bedding. Isolated euhedral Py fg-mg 1-2% found in veins, fractures and host iron fm. Massive Qz veins >5cm wide visible at outcrop.	NE	90	bedding	-0.005	0.06	1.3	-0.005		-0.2
S194153	03-Sep-2016	DN-SS	11	15U	677245	5593090	grab	Interbedded Iron formation and sediments. Diss Py (2%) euhedral fg-mg in Iron formation. Discordant Qz/Cb veins 1 mm - 3 cm wide. Py also found in healed fractures and veinlets.	NE	90	bedding	-0.005	0.04	3.4	-0.005		-0.2

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S194154	03-Sep-2016	DN-SS	11	15U	676997	5592931	grab	Interbedded Iron formation and sediments. Diss Py (2%) in host iron formation fg-rng).	NE	85	bedding	-0.005	0.06	1.9	-0.005		-0.2
S194155	03-Sep-2016	DN-SS	11	15U	677012	5592890	Sub-crop	Interbedded massive iron formation and thinly bedded sediments. Diss Py fg-cg (euhedral) found within 0.5-2 mm wide discordant Qz/Cb veins. Rock is folded. Chlorite and ankerite as alteration proximal to veins.				-0.005	0.08	7.3	-0.005		-0.2
S194156	03-Sep-2016	DN-SS	11	15U	677009	5592888	sub-crop	Interbedded iron formation and sediments (outcrop Strike and dip NE/078). Diss fg Py in host 1% and euhedral fg-cg Py in and along envelopes of 1-3 mm wide, discordant Cb/Oz veins. Chlorite and ankerite found proximal to veins.				-0.005	0.06	5.4	-0.005		-0.2
S194157	03-Sep-2016	DN-SS	11	15U	676874	5592736	grab	Dark green-black weakly magnetic, chloritic iron formation and mixed sediments. Fg-cg Py 3% diss in host and along healed fractures with Cb.	NE	82	bedding	-0.005	0.05	13.7	-0.005		-0.2
S194158	03-Sep-2016	DN-SS	11	15U	677130	5592788	grab	Interbedded iron fm. And sediments. Ankeritic quartz veins in iron fm (1-3cm wide). Trace Py fg-rng in iron fm and along vein envelope (<1%).				-0.005	0.08	2.3	-0.005		-0.2
S193887	04-SEP-16 9:57:42AM	RK-JD	15	15 U	678736	5592111	grab	multiple 2-5 cm qtz-carb veins in gm-gy sheared/folded metasediments. Gossenus. <1% pyr. Mica. Chlorite	60	sub-vert S	bedding	-0.005	0.02	1.2	-0.005		-0.2
S193888	04-SEP-16 11:19:52AM	RK-JD	15	15 U	678852	5592406	grab	25+cm qtz vein in gm-gy metasediments. Multiple veinlets in area. Trace pyr	340? (vein)	vertical	vein	-0.005	0.01	0.4	-0.005		-0.2
S193890	04-SEP-16 12:20:40PM	RK-JD	15	15 U	679227	5592134	chip	Carbonate zone in vfg blk iron metasediments. Folded. Gossenus. Trace pyr. Chip across 1m	70	sub-vert S	bedding	-0.005	0.04	2.9	-0.005		-0.2
S193891	04-SEP-16 2:39:53PM	RK-JD	15	15 U	679568	5592403	chip	multiple qtz veins in gm-gy metasediments. Trace pyr. Chlorite. Chip across 2m+	60	sub-vert S	bedding	-0.005	0.07	1.2	-0.005		-0.2
S193892	05-SEP-16 2:54:29PM	RK-JD	7A	15 U	679980	5595863	chip	sheared fg gy-blue metasediments. Wk gossen. Trace pyr. Qtz veinlets. Chip across .5m	50	vertical		-0.005	0.03	6.1	-0.005		-0.2
S193893	05-SEP-16 3:12:34PM	RK-JD	7A	15 U	679967	5595860	chip	5-10cm pods/veins crosscutting metasediments in echelon. Carbonate. <1% pyr. Chip across .5m	180 (vein)	vertical		-0.005	0.23	9	-0.005		-0.2
S193894	06-SEP-16 8:21:49AM	RK-JD	3A	15 U	677062	5587808	grab	series of parallel 1-2cm qtz-carb veinlets in vfg gm-gy sheared metasediments. Gossen. K-spar alt. <1% pyr	50	sub-vert S		-0.005	0.03	1.6	-0.005		-0.2
S193895	06-SEP-16 9:02:22AM	RK-JD	3A	15 U	677584	5588064	grab	qtz vein/pod in vfg gm-gy metasediments. Gossenus. <1% pyr	50	sub-vert S		-0.005	0.09	5.2	-0.005		-0.2
S193896	06-SEP-16 9:15:43AM	RK-JD	3A	15 U	677669	5588128	grab	5cm + qtz-carb vein in vfg gm-gy metasediments. K-spar alt. trace pyr. Magnetite	50	sub-vert S		-0.005	0.27	2.1	-0.005		-0.2
S193897	06-SEP-16 9:36:46AM	RK-JD	3A	15 U	677769	5588205	grab	vfg gm-gy sheared metasediments. Gossen. Trace pyr. Minor qtz-carb	70	sub-vert S		-0.005	0.1	2.9	-0.005		-0.2
S193898	06-SEP-16 9:55:02AM	RK-JD	3A	15 U	677866	5588340	grab	2-3cm qtz-carb vein in vfg gm-gy metasediments. Chlorite. Gossenus. Trace pyr. Trace cpy. Mult veins in area	60	sub-vert S		-0.005	0.24	2.2	-0.005		-0.2
S193899	06-SEP-16 9:55:07AM	RK-JD	3A	15 U	677866	5588340	grab	Qtz-carb veinlets in iron metasediments. 1% pyr. Local rubble. Location below S# 193898 in water	rubble			-0.005	0.05	1	-0.005		-0.2
S193900							BLK	QA-QC Blank				-0.005	0.07	0.6	-0.005		-0.2
S193901	06-SEP-16 10:16:24AM	RK-JD	3A	15 U	677878	5588349	grab	2-3cm rusty qtz-carb vein in blk iron metasediments. <1% pyr	60	sub-vert S		-0.005	0.12	0.7	-0.005		-0.2
S193902	06-SEP-16 10:33:07AM	RK-JD	3A	15 U	677920	5588431	grab	Gossenus 5cm qtz-carb vein in vfg gm-gy sheared/folded metasediments. Chlorite. <1% pyr. Trace cpy	60	sub-vert S		-0.005	0.14	1.8	-0.005		-0.2
S193903	06-SEP-16 10:53:55AM	RK-JD	3A	15 U	677385	5588205	grab	Folded qtz veins in vfg gm-gy metasediments. Gossenus. Trace pyr. Multiple veinlets in vicinity	40	sub-vert S		-0.005	0.03	2.5	-0.005		-0.2
S193904	06-SEP-16 12:31:42PM	RK-JD	7A	15 U	679769	5594465	grab	vfg blk iron metasediments. Weak gossen. Qtz-carb veinlets. 1% pyr (vfg + larger cubes)	E-W	vertical		-0.005	0.07	4.5	-0.005		-0.2
S193905	06-SEP-16 12:46:47PM	RK-JD	7	15 U	680739	5594905	grab	25cm qtz-carb vein in vfg gm-gy metasediments. Gossenus. Trace pyr	70	vertical		-0.005	0.21	31.9	-0.005		-0.2
S193906	06-SEP-16 1:37:14PM	RK-JD	7	15 U	680937	5595603	grab	<1% pyr in folded iron metasediments. Minor qtz-carb veinlets. Local rubble	rubble			-0.005	0.05	2	-0.005		-0.2
S193907	06-SEP-16 2:35:58PM	RK-JD	7	15 U	680631	5595053	grab	2cm qtz-carb vein and chert horizon in iron metasediments. Gossenus. 1% pyr.	45	sub-vert S		-0.005	0.04	10.2	-0.005		-0.2
S193908	06-SEP-16 2:59:02PM	RK-JD	7	15 U	680596	5595065	grab	Qtz-carb vein in vfg blk iron metasediments. Gossenus. <1% pyr	45	sub-vert S		-0.005	0.07	2.2	-0.005		-0.2
S193913	07-SEP-16 1:02:48PM	RK-JD	11	15 U	677023	5592920	grab	15-10cm qtz vein in sheared vfg blk iron metasediments. Gossen. <1% pyr. Multiple veins in area	280 (vein)	vertical	vein	-0.005	0.02	15.2	-0.005		-0.2
S193914	07-Sep-16	RK-JD	11	15 U	677126	5593030	grab	assigned waypoint as it didn't record. 1-2cm qtz-carb vein in sheared gm-gy metasediments. <1% pyr. Carbonate zone	80	sub-vert N	bedding	-0.005	0.05	10.1	-0.005		-0.2
S193915	08-SEP-16 10:47:38AM	RK-JD	13	15 U	671079	5588995	grab	Sheared gy metavolcanics(?) Gossenus. <1% vfg diss pyr. Chlorite. Minoe qtz-carb veins	80	sub-vert S	bedding	-0.005	0.05	7.4	-0.005		-0.2
S193916	08-SEP-16 11:20:39AM	RK-JD	13	15 U	671083	5589191	grab	vfg blk iron metasediments. Folded. Gossen. Carbonate. <1% pyr. Trace cpy (?)	40	vertical	bedding	-0.005	0.06	2.1	-0.005		-0.2
S194160	04-Sep-2016	DN-SS	11a	15U	679379	5588185	grab	Vein quartz in MIMV (bullish)	36	90	Vein	-0.005	-0.01	0.4	-0.005		-0.2
S194161	04-Sep-2016	DN-SS	11a	15U	679492	5588535	grab	10-15 cm wide qv, fairly bullish but sulfides in WR (fg py+Cpy) at contact and partially disseminated	216	72	Vein	-0.005	0.09	12.6	-0.005		-0.2
S194162	04-Sep-2016	DN-SS	11a	15U	679390	5588117	grab	Sheared and carbonitized MIMV, vfg py disseminated throughout, strong carb	94	88	Foliation	-0.005	0.03	34.7	-0.005		-0.2
S194163	04-Sep-2016	DN-SS	11a	15U	679400	5588124	grab	Light green, fine-grained, sparsely magnetic metavolcanic. Fg diss Py and Po 1-2% in wall rock to discordant Oz veins (3-4 cm wide)				-0.005	0.04	7.9	-0.005		-0.2
S194165	05-Sep-2016	DN-SS	15	15U	678562	5592208	grab	Grey-green non-magnetic fg sediments. Oz/Cb veins discordant to host 1-4cm wide. Trace Cpy and Py found in veins and along vein selvages.				-0.005	0.08	6.4	-0.005		-0.2
S194166	05-Sep-2016	DN-SS	15	15U	678629	5592188	grab	Banded iron formation. Isolated coarse grained euhedral Py grains in host 1%	ESE	86	bedding	-0.005	0.01	0.8	-0.005		-0.2
S194169	06-Sep-2016	DN-SS	14	15U	672938	5587521	grab	Series of bluish QV's in a zone of MSEDs. No Visible sulfides. Veins vary from 3 cm to 15 cm wide.	96	85	Vein	-0.005	0.02	4.5	-0.005		-0.2
S194170	06-Sep-2016	DN-SS	14	15U	672986	5587646	grab	Rusty red patches in metaseds on weathered surface, thinly laminated chl +/- cherty siltstone beds with parallel discontinuous bands of mm-scale py (again, minor sulfide IF?)	282	80	Bedding	-0.005	0.59	12.3	-0.005		-0.2
S194171	06-Sep-2016	DN-SS	14	15U	673123	5587880	grab	No structure as it was a spalled piece of outcrop with actual outcrop poorly exposed, rock is green silicified metaseds with some hematite staining, trace py				-0.005	0.04	2.9	-0.005		-0.2

Sample_ID	Date	Geologist	Target	Zone	UTM East (Nad 83)	UTM North (Nad 83)	Type	Description	Strike	Dip	Structural Feature	Au_ppm_USE	Ag_ppm_ME-MS41	As_ppm_ME-MS41	Au_ppm_Au-AA23	Au_ppm_Au-GRA21	Au_ppm_ME-MS41
S194172	06-Sep-2016	DN-SS	14	15U	673247	5588073	grab	Black silicious +/- minor chl, metased bed, weakly mag, ~5cm wide in more clastic lighter coloured units, has 1-mg cubic pyrite disseminated in it (appears diagenetic)	300	82		-0.005	0.05	2.1	-0.005		-0.2
S194173	06-Sep-2016	DN-SS	14	15U	673321	5588151	grab	No structure as it was a spalled piece of outcrop with actual outcrop poorly exposed, rusty patches on surface, green rock, sil+carb alt'n, 1% fg euhedral py disseminated throughout				-0.005	0.09	0.9	-0.005		-0.2
S194174	06-Sep-2016	DN-SS	14	15U	673424	5588329	grab	Banded oxide facies iron formation, very magnetic, trace mg euhedral pyrite, microfractures of carbonate and qtz.	315	85		-0.005	0.03	1.6	-0.005		-0.2
S194176	06-Sep-2016	DN-SS	14	15U	673222	5587743	grab	Green-grey, foliated, non-magnetic metased. Massive Qz vein up to 80 cm wide (bluish-white color). No visible sulphides.	NW-SE	90	bedding	-0.005	0.07	1.2	-0.005		-0.2
S194177	06-Sep-2016	DN-SS	14	15U	673423	5588145	grab	Black, fg, strongly magnetic, intercalated with thin chert laminae, iron formation. Cb vein, discordant ~1-2mm wide. Py 1% in vein. Trace isolated Py grains in host. Chlorite alteration immediately proximal to Cb veinlet.				-0.005	0.09	0.9	-0.005		-0.2
S194178	06-Sep-2016	DN-SS	14	15U	673444	5588262	grab	Green-grey, siliceous metased. Fg diss Py 0.25% proximal to Qz vein (discordant with host) ~ 1-6cm wide. Silica considered as alteration.				-0.005	0.07	2.3	-0.005		-0.2
S194179	06-Sep-2016	DN-SS	14	15U	673588	5588121	grab	Black fg, non-magnetic, weakly foliated, silt-stone. Qz vein 4-5 cm wide cuts host. Isolated Py found in vein + in host proximal to vein. Py also found along foliations in host locally. Total Py 1-2%.				-0.005	0.42	2.4	-0.005		-0.2
S194180	07-Sep-2016	DN-SS	11a	15U	680176	5587903	grab	Spalled piece of local outcrop. Poor outcrop exposure silicified and sheared MIMV, cut by qtz/carb veins 1-2mm wide, trace vfg sub-anhedral py-cpy disseminated in host rock				-0.005	0.07	7.1	-0.005		-0.2
S194181	07-Sep-2016	DN-SS	11a	15U	680169	5587894	grab	Light green, non-magnetic, fine-grained, weakly foliated, meta-volcanic. Weathered surface is Fe-stained. Rock is weakly sheared, with biotite formed along foliation. Trace Py with biotite. Rock appears bleached and locally silicified. Trace carbonate in	NE	78	Foliation	-0.005	0.06	20.6	-0.005		-0.2
S194183	08-Sep-2016	DN-SS	16	15U	671026	5591855	grab	Carbonate band in metasediments, concordant with foliation	70	90	Bedding	-0.005	0.09	30.2	-0.005		-0.2
S194184	08-Sep-2016	DN-SS	16	15U	671363	5591844	grab	Strongly sheared and chloritized metasediments, carbonate along shear planes and in microfractures	220	72	Foliation	-0.005	0.13	7.5	-0.005		-0.2
S194185	08-Sep-2016	DN-SS	16	15U	671467	5591832	grab	Chloritized and sheared metasediment, weak mag, fg py in chloritic bed and as discrete horizons	70	90	Foliation	-0.005	0.06	40.3	-0.005		-0.2
S194186	08-Sep-2016	DN-SS	16	15U	671623	5591818	float	Local float under tree throw, .5x.5x.25 m, angular, sheared chl metasediment, weak mag, 0.5 cm wide band of carb and disseminated vfg py				-0.005	0.05	12.7	-0.005		-0.2
S194187	08-Sep-2016	DN-SS	16	15U	671757	5591851	grab	Spalled piece of OIF amongst large O/C discordant qtz-carb veinlets, 0.5 cm wide, mg euhedral py along fractures				-0.005	0.03	3.1	-0.005		-0.2
S194188	08-Sep-2016	DN-SS	16	15U	671595	5591786	grab	Silty black, weakly foliated iron formation. Cb veins ~1mm wide discordant. Py mineralization 3-5%, in vein and along chloritic altered selvage. Disseminated fg Py in host 1%.	80	85	Foliation	-0.005	0.02	2	-0.005		-0.2
S194189	08-Sep-2016	DN-SS	16	15U	671146	5591778	Sub-crop	Green-white striped, with crenulated shistosity, chloritic, sheared meta-sediment. Carbonate present along foliations. 1% euhedral fg-mg Py along foliations with Cb.	ESE-WSW	90	bedding	-0.005	0.02	1.4	-0.005		-0.2
S194190	08-Sep-2016	DN-SS	16	15U	671249	5591790	grab	Green chloritic, carbonate bearing, foliated, meta-sediment. Thinly bedded and weak foliation. Disseminated fg-mg euhedral Py (2-3%); some anhedral grains in isolated rock layer/bed	80	78	Foliation	-0.005	0.19	4.7	-0.005		-0.2
S194191	08-Sep-2016	DN-SS	16	15U	671260	5591805	grab	Intercalated (thin >5cm) iron formation and chloritic sediments. Cb veins discordant through BIF and sediment beds. Hematite (deep red oxide) staining pervasive. Py +/- AsPy euhedral isolated grains in sediment and BIF beds. Sedimentary unit is well folia	80	85	bedding	-0.005	0.05	4.4	-0.005		-0.2
S194192	08-Sep-2016	DN-SS	16	15U	671545	5591795	grab	Black strongly magnetic iron formation with mixed sediment (weakly foliated). Not massive magnetite. Host is weakly fissile and is suspected to be mixed iron formation and silt? Very coarse grained euhedral isolated Py grains 3-8 mm diameter 5%. Minor carb	80	87	Foliation	-0.005	0.04	3.2	-0.005		-0.2
S194193	11-Sep-2016	DN-SS	10	15U	678861	5589791	grab	Banded iron formation with interbedded intermediate sed. Discordant quartz veins (040/72) with fg-mg euhedral Py (1-3%) and isolated fg-mg Py (1%) in host Fe-formation.	40	72	vein	-0.005	0.04	1	-0.005		-0.2
S194194	11-Sep-2016	DN-SS	10	15U	679058	5589293	grab	Interbedded iron formation and metaseds (sheared). Discordant 1-3mm quartz veins. Fine-grained Py 1-2% in veins, vein selvages and in host rock proximal to veins.	112	82	bedding	-0.005	0.02	1.2	-0.005		-0.2

## **Appendix G**

Assay Certificates



ALS Canada Ltd.  
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Page: 1  
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 Finalized Date: 20- SEP- 2016  
 Account: EIA

**CERTIFICATE TB16151458**

Project: Savant Lake  
 P.O. No.: NDR 1601  
 This report is for 188 Rock samples submitted to our lab in Thunder Bay, ON,  
 Canada on 7- SEP- 2016.  
 The following have access to data associated with this certificate:

ROB DUNCAN	SCOTT HEFFERNAN	DAVE NUTTALL
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SAMPLE PREPARATION	
ALS CODE	DESCRIPTION
FND- 02	Find Sample for Addn Analysis

ANALYTICAL PROCEDURES	
ALS CODE	DESCRIPTION
ME- MS41	Ultra Trace Aqua Regia ICP- MS

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This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

\*\*\*\*\* See Appendix Page for comments regarding this certificate \*\*\*\*\*

Signature:   
 Colin Ramshaw, Vancouver Laboratory Manager



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 Total # Pages: 6 (A - D)  
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 Account: EIA

Project: Savant Lake

**CERTIFICATE OF ANALYSIS TB16151458**

Sample Description	Method Analyte Units LOR	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	
		Ag ppm	Al %	As ppm	Au ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Ce ppm	Co ppm	Cr ppm	Cs ppm	Cu ppm
S193801		0.10	1.60	1.0	<0.2	<10	50	0.24	0.37	2.39	0.07	16.50	6.9	22	1.51	27.3
S193802		0.05	2.06	0.9	<0.2	<10	100	0.39	0.11	1.05	0.07	34.3	15.8	70	3.70	53.4
S193803		0.38	1.94	2.8	<0.2	<10	50	0.25	1.17	3.42	0.31	48.0	14.8	45	1.28	87.9
S193804		0.06	3.13	2.8	<0.2	<10	50	0.30	0.11	3.33	0.18	34.2	22.4	69	1.12	58.6
S193805		0.06	3.46	4.6	<0.2	<10	50	0.23	0.11	2.82	0.13	36.3	39.1	82	0.27	78.5
S193806		0.02	0.60	1.7	<0.2	<10	30	0.08	0.22	0.07	0.01	17.20	4.5	11	0.66	6.8
S193807		0.05	2.07	8.8	<0.2	<10	80	0.20	0.21	2.14	0.08	58.4	14.7	33	0.72	41.2
S193808		0.29	0.29	11.6	<0.2	<10	10	<0.05	1.13	0.02	0.02	9.14	6.6	6	0.05	244
S193809		0.05	1.31	3.6	<0.2	<10	60	0.18	0.18	2.12	0.07	37.0	8.2	22	0.70	31.0
S193810		0.06	2.51	3.3	<0.2	<10	40	0.21	0.13	3.56	0.18	38.6	20.7	46	0.58	48.3
S193811		0.05	0.42	5.4	<0.2	<10	50	0.21	0.20	1.24	0.15	35.2	7.4	24	1.03	77.9
S193812		0.10	0.78	10.5	<0.2	<10	50	0.18	0.59	0.80	0.06	34.6	7.7	13	0.63	21.1
S193813		0.39	3.10	10.6	<0.2	<10	40	0.32	1.31	0.55	0.06	26.4	17.9	68	1.11	188.5
S193814		0.03	0.39	10.7	<0.2	<10	60	0.21	0.06	2.66	0.08	23.4	5.0	22	1.04	3.0
S193815		0.05	0.73	2.2	<0.2	<10	60	0.21	0.14	2.67	0.07	13.75	5.3	21	1.27	80.9
S193816		0.04	2.52	21.9	<0.2	<10	80	0.34	0.07	2.59	0.12	59.2	22.2	75	4.53	57.8
S193817		0.13	1.02	6.3	<0.2	<10	70	0.16	0.42	3.42	0.17	39.0	9.9	16	1.46	45.4
S193818		0.10	2.61	5.0	<0.2	<10	80	0.28	0.35	1.19	0.05	26.0	14.3	33	1.35	38.8
S193819		0.02	1.11	2.7	<0.2	<10	70	0.28	0.20	1.32	0.05	39.0	8.0	24	1.25	25.7
S193820		0.07	0.12	6.4	<0.2	<10	10	<0.05	22.2	0.03	<0.01	2.65	1.5	12	0.12	1.2
S193821		0.06	3.20	7.8	<0.2	<10	90	0.46	0.32	2.22	0.11	38.6	29.6	80	1.37	91.6
S193822		0.04	0.14	4.9	<0.2	<10	30	0.06	0.07	1.31	0.03	18.35	4.5	25	0.12	10.6
S193823		0.03	1.91	1.2	<0.2	<10	60	0.37	0.34	1.00	0.09	50.4	14.0	42	0.78	41.7
S193824		0.03	1.80	1.8	<0.2	<10	40	0.22	0.17	0.97	0.05	49.4	14.8	29	0.45	20.2
S193825		0.74	2.79	171.0	2.4	10	190	0.37	0.30	1.98	0.23	22.1	28.6	475	2.43	90.3
S193826		0.05	0.25	3.9	<0.2	<10	50	0.10	0.16	0.48	0.04	17.20	3.1	8	0.26	5.8
S193827		0.02	0.13	0.9	<0.2	<10	30	0.06	0.06	0.18	0.04	5.54	1.4	10	0.27	5.5
S193828		0.04	0.14	3.4	<0.2	<10	40	0.05	0.15	0.09	0.03	9.52	1.3	16	0.10	8.1
S193829		0.07	0.07	21.6	<0.2	<10	50	0.08	0.37	0.22	0.01	4.51	1.2	5	0.08	9.8
S193830		0.10	1.12	6.2	<0.2	<10	80	0.21	0.48	0.33	0.07	56.5	16.6	29	0.52	36.3
S193831		0.02	0.11	0.8	<0.2	<10	20	<0.05	0.05	0.16	0.02	4.09	1.9	11	0.15	6.0
S193832		0.10	0.18	1.0	<0.2	<10	20	0.09	0.34	1.97	0.03	31.7	4.0	7	0.13	12.7
S193833		0.04	0.65	3.0	<0.2	<10	90	0.15	0.29	0.77	0.11	51.7	10.7	21	1.84	36.5
S193834		0.04	0.17	1.3	<0.2	<10	40	0.06	0.17	0.34	0.04	22.2	3.4	8	0.11	5.9
S193835		0.01	0.07	1.6	<0.2	<10	20	<0.05	0.09	0.07	0.02	3.80	1.2	15	0.08	7.0
S193836		0.07	1.15	3.4	<0.2	<10	80	0.15	0.15	1.95	0.06	27.4	8.5	29	1.23	18.7
S193837		0.05	1.52	1.8	<0.2	<10	90	0.40	0.25	0.43	0.03	42.1	10.8	51	0.87	20.0
S193838		0.13	1.10	0.5	<0.2	<10	210	0.78	0.41	1.77	0.11	41.5	9.1	25	6.54	32.3
S193839		0.49	1.23	3.3	<0.2	<10	60	0.16	0.53	1.59	0.18	61.5	7.3	7	0.18	52.2
S193840		0.01	2.09	0.8	<0.2	<10	270	0.48	0.03	1.23	0.02	16.95	10.1	44	2.85	11.4



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Project: Savant Lake

**CERTIFICATE OF ANALYSIS TB16151458**

Sample Description	Method Analyte Units LOR	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	
		Fe %	Ga ppm	Ge ppm	Hf ppm	Hg ppm	In ppm	K %	La ppm	Li ppm	Mg %	Mn ppm	Mo ppm	Na %	Nb ppm	Ni ppm
S193801		29.4	5.99	0.46	0.28	<0.01	0.013	0.23	9.1	14.9	0.88	1430	0.45	<0.01	0.10	17.3
S193802		11.60	6.80	0.21	0.55	0.01	0.016	0.93	19.4	26.1	1.37	931	0.57	0.02	0.15	42.7
S193803		6.41	5.65	0.15	0.91	0.01	0.015	0.26	26.3	19.6	0.94	849	0.64	0.02	0.15	39.8
S193804		15.95	9.05	0.20	0.47	0.01	0.022	0.13	17.7	23.7	1.61	1340	0.74	0.01	0.07	59.6
S193805		7.22	10.95	0.16	0.48	0.01	0.029	0.17	17.5	22.6	2.26	791	0.52	0.01	0.05	88.9
S193806		1.39	2.05	0.10	0.11	<0.01	0.005	0.12	9.1	6.2	0.28	183	0.25	0.01	0.09	10.1
S193807		4.70	7.42	0.15	0.48	0.01	0.023	0.26	30.8	20.5	0.97	526	0.48	0.03	0.18	31.9
S193808		10.60	1.93	0.16	0.06	<0.01	0.013	0.02	5.6	0.7	0.09	376	3.69	<0.01	0.05	14.2
S193809		9.33	5.77	0.16	0.41	<0.01	0.011	0.14	20.8	14.1	0.64	623	1.46	0.02	0.13	15.9
S193810		8.00	7.78	0.16	0.76	<0.01	0.015	0.17	19.3	23.3	1.28	1320	0.46	0.01	0.06	49.0
S193811		3.41	1.68	0.12	0.17	<0.01	0.014	0.14	17.6	3.7	0.40	1060	0.62	0.02	0.23	20.2
S193812		2.48	2.55	0.12	0.67	<0.01	0.011	0.14	18.8	8.3	0.35	541	1.44	0.03	0.13	12.0
S193813		14.55	10.05	0.20	0.79	<0.01	0.020	0.16	13.5	26.5	1.37	534	0.80	0.02	0.10	47.2
S193814		3.55	1.16	0.10	0.46	<0.01	0.005	0.23	12.7	4.3	0.60	409	9.45	0.01	0.14	15.0
S193815		10.05	2.07	0.14	0.25	<0.01	0.006	0.19	7.4	5.7	0.64	756	0.66	0.01	0.14	11.8
S193816		6.76	8.33	0.19	0.63	<0.01	0.016	0.47	30.4	19.0	2.00	743	0.44	0.03	0.09	64.4
S193817		2.57	3.17	0.11	0.56	<0.01	0.007	0.32	20.1	13.0	0.52	792	0.60	0.02	0.18	19.5
S193818		6.59	8.51	0.15	0.74	<0.01	0.017	0.25	13.9	23.5	1.31	667	0.83	0.01	0.18	31.0
S193819		2.83	4.49	0.12	0.33	<0.01	0.009	0.20	20.0	10.5	0.48	612	0.33	0.02	0.06	19.9
S193820		0.82	0.39	0.08	0.02	<0.01	<0.005	0.03	1.1	0.8	0.03	193	0.17	<0.01	<0.05	2.4
S193821		9.59	9.08	0.17	0.73	<0.01	0.019	0.27	19.8	24.7	1.61	1200	0.61	0.01	0.10	83.6
S193822		1.60	0.47	0.09	0.19	<0.01	<0.005	0.07	9.5	0.9	0.16	358	0.23	0.04	0.05	7.2
S193823		8.79	6.73	0.16	0.35	<0.01	0.015	0.14	25.6	35.7	0.75	736	1.12	0.03	<0.05	37.5
S193824		6.57	6.29	0.16	0.40	<0.01	0.012	0.15	26.3	35.2	0.70	517	0.90	0.03	<0.05	32.8
S193825		5.53	7.10	0.15	0.27	0.09	0.031	0.58	11.7	14.0	2.39	897	5.58	0.19	0.11	263
S193826		1.42	0.80	0.09	0.12	<0.01	<0.005	0.17	9.5	1.0	0.04	432	0.26	0.02	<0.05	5.8
S193827		1.62	0.40	0.09	0.03	<0.01	<0.005	0.05	2.9	1.0	0.05	343	0.16	0.03	0.07	3.0
S193828		0.52	0.48	0.09	0.08	<0.01	<0.005	0.09	4.8	0.9	0.02	166	0.25	0.01	<0.05	3.2
S193829		19.75	1.43	0.33	0.05	<0.01	<0.005	0.04	2.5	0.4	0.01	88	0.17	<0.01	0.05	2.0
S193830		6.18	4.04	0.15	0.43	<0.01	0.005	0.22	30.7	20.1	0.42	572	0.48	0.02	0.10	28.1
S193831		1.26	0.36	0.08	0.04	<0.01	<0.005	0.07	2.0	0.3	0.02	186	0.16	0.01	<0.05	3.4
S193832		1.68	0.71	0.10	0.71	<0.01	<0.005	0.07	18.2	1.2	0.18	369	0.22	0.06	<0.05	4.5
S193833		4.02	2.62	0.14	0.44	<0.01	0.007	0.31	30.6	3.8	0.30	539	0.97	0.03	0.47	25.3
S193834		1.28	0.58	0.09	0.42	<0.01	<0.005	0.07	12.7	0.4	0.02	341	0.16	0.05	<0.05	3.6
S193835		0.79	0.23	0.07	0.04	<0.01	<0.005	0.04	2.1	0.3	0.01	260	0.27	0.02	<0.05	2.6
S193836		2.75	3.86	0.11	0.38	<0.01	0.006	0.32	14.6	13.7	0.59	676	0.50	0.02	0.10	19.4
S193837		14.95	7.71	0.13	0.51	<0.01	0.007	0.23	20.3	12.9	1.19	649	0.60	0.02	0.06	30.9
S193838		10.60	4.39	0.10	0.69	0.01	0.006	0.96	22.5	20.6	0.86	918	0.10	0.02	0.12	20.2
S193839		3.48	4.25	0.06	0.37	<0.01	0.013	0.19	30.7	8.0	0.32	473	1.32	0.02	0.13	15.8
S193840		5.19	6.17	0.25	0.17	<0.01	0.008	0.94	9.0	20.7	0.84	353	0.22	0.03	0.23	27.5



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Project: Savant Lake

**CERTIFICATE OF ANALYSIS TB16151458**

Sample Description	Method Analyte Units LOR	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	
		P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl
		ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm
S193801		740	13.0	20.7	<0.001	0.13	0.26	3.0	0.4	<0.2	186.0	<0.01	0.06	1.9	0.044	0.08
S193802		610	7.9	68.5	0.001	0.06	0.19	4.3	0.2	0.2	36.2	<0.01	0.02	4.7	0.138	0.22
S193803		490	58.3	18.3	<0.001	0.15	0.29	3.4	0.7	<0.2	133.0	0.01	0.17	6.4	0.046	0.11
S193804		860	9.2	12.7	<0.001	0.15	0.32	8.1	0.4	<0.2	241	<0.01	0.05	3.2	0.032	0.08
S193805		710	7.7	6.8	0.001	0.32	0.25	6.4	0.6	<0.2	227	<0.01	0.03	2.6	0.077	0.05
S193806		290	7.6	10.7	<0.001	<0.01	0.15	0.8	<0.2	<0.2	5.4	<0.01	0.02	1.9	0.014	0.05
S193807		720	9.3	13.7	<0.001	0.29	0.83	6.2	0.5	0.3	152.0	0.01	0.03	8.0	0.067	0.17
S193808		360	10.2	0.6	<0.001	3.24	0.46	1.0	4.5	<0.2	5.7	<0.01	0.24	0.3	0.005	<0.02
S193809		640	12.3	11.3	<0.001	0.04	0.36	3.4	0.3	0.2	126.0	<0.01	0.03	3.4	0.036	0.05
S193810		560	14.3	9.7	<0.001	0.20	0.24	4.8	0.7	<0.2	392	0.01	0.02	4.5	0.033	0.06
S193811		1010	14.8	10.1	<0.001	0.09	0.25	2.0	0.3	<0.2	119.5	<0.01	0.04	11.0	0.017	0.07
S193812		390	19.1	9.4	<0.001	0.23	0.37	1.7	0.5	0.2	50.0	<0.01	0.07	5.4	0.018	0.07
S193813		880	51.8	11.5	<0.001	4.90	3.22	6.5	6.9	0.4	52.6	<0.01	0.30	5.2	0.038	0.10
S193814		40	7.1	13.8	<0.001	0.01	0.30	1.6	<0.2	<0.2	363	<0.01	0.01	3.1	0.036	0.06
S193815		130	7.2	11.8	<0.001	0.58	0.52	2.4	0.2	<0.2	456	<0.01	0.03	1.8	0.034	0.06
S193816		950	4.5	41.8	<0.001	0.03	0.47	5.0	0.4	<0.2	200	<0.01	0.02	7.2	0.061	0.41
S193817		490	28.2	21.7	<0.001	0.05	0.27	1.5	0.4	<0.2	267	<0.01	0.05	5.3	0.040	0.19
S193818		550	24.1	16.5	<0.001	0.18	0.23	4.0	0.8	0.3	88.2	<0.01	0.05	4.8	0.074	0.11
S193819		290	4.1	15.7	<0.001	0.02	0.12	1.9	0.3	<0.2	57.5	<0.01	0.03	3.8	0.011	0.06
S193820		100	10.3	1.5	<0.001	<0.01	0.13	0.4	0.3	<0.2	3.5	<0.01	0.15	0.2	<0.005	<0.02
S193821		650	5.1	21.6	<0.001	0.35	0.37	7.1	0.9	<0.2	90.1	<0.01	0.08	4.5	0.051	0.12
S193822		1010	3.0	3.0	<0.001	0.01	0.21	1.0	<0.2	<0.2	114.0	<0.01	0.01	2.1	<0.005	0.02
S193823		660	3.5	8.4	<0.001	0.12	0.34	4.3	0.4	<0.2	39.2	<0.01	0.04	6.2	<0.005	0.03
S193824		630	2.5	7.9	<0.001	0.05	0.18	3.0	0.3	<0.2	35.0	<0.01	0.02	6.0	<0.005	0.04
S193825		390	20.8	28.7	0.001	0.40	2.14	5.9	0.6	1.6	106.0	<0.01	0.13	3.8	0.126	0.23
S193826		330	2.4	6.3	<0.001	0.03	0.08	0.7	<0.2	<0.2	22.8	<0.01	0.02	2.1	<0.005	0.04
S193827		180	4.5	3.6	<0.001	<0.01	0.10	0.5	<0.2	<0.2	23.2	<0.01	0.01	0.5	0.008	0.02
S193828		170	7.7	3.0	<0.001	0.01	0.15	0.3	<0.2	<0.2	11.0	<0.01	0.02	1.2	0.005	0.03
S193829		1470	7.4	1.7	<0.001	1.99	0.34	0.3	1.0	<0.2	36.3	<0.01	0.06	0.2	<0.005	<0.02
S193830		480	12.2	11.5	<0.001	0.12	0.38	1.6	0.4	<0.2	24.6	<0.01	0.06	6.3	0.019	0.07
S193831		40	1.7	3.1	<0.001	0.03	0.08	0.4	<0.2	<0.2	7.8	<0.01	0.01	0.6	<0.005	0.02
S193832		410	3.0	2.7	<0.001	0.03	0.13	1.2	<0.2	<0.2	75.6	<0.01	0.01	4.0	<0.005	0.02
S193833		560	11.8	25.3	<0.001	0.09	0.37	1.8	0.3	<0.2	65.0	<0.01	0.03	7.0	0.053	0.16
S193834		380	3.1	2.4	<0.001	0.01	0.15	0.8	<0.2	<0.2	21.8	<0.01	0.02	2.5	<0.005	0.02
S193835		20	1.0	1.4	<0.001	<0.01	0.06	0.5	<0.2	<0.2	6.4	<0.01	0.02	0.4	<0.005	<0.02
S193836		340	14.7	16.3	<0.001	0.03	0.19	1.6	0.3	<0.2	168.5	<0.01	0.02	3.1	0.050	0.11
S193837		610	12.7	15.4	<0.001	0.08	0.34	2.1	0.4	0.2	39.3	<0.01	0.02	8.8	0.034	0.05
S193838		730	18.0	78.7	<0.001	0.25	0.24	1.5	0.4	0.2	126.0	<0.01	0.04	5.2	0.114	0.26
S193839		590	152.0	7.5	<0.001	0.10	0.32	1.4	0.4	0.2	45.2	<0.01	0.08	4.5	0.037	0.03
S193840		440	2.9	47.1	<0.001	0.03	0.32	2.9	0.2	0.2	135.0	<0.01	0.01	2.6	0.202	0.20



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Project: Savant Lake

**CERTIFICATE OF ANALYSIS TB16151458**

Sample Description	Method Analyte Units LOR	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41
		U	V	W	Y	Zn	Zr
		ppm	ppm	ppm	ppm	ppm	ppm
		0.05	1	0.05	0.05	2	0.5
S193801		0.47	33	0.18	6.09	28	12.4
S193802		0.98	56	0.09	7.76	51	23.1
S193803		1.13	34	0.14	11.95	51	36.3
S193804		0.55	74	0.08	7.16	71	21.1
S193805		0.34	66	0.10	5.89	118	22.0
S193806		0.31	8	0.06	1.57	19	6.1
S193807		1.72	30	0.24	10.45	62	20.3
S193808		0.12	10	0.08	2.72	6	2.4
S193809		0.69	36	0.13	7.00	44	16.3
S193810		0.74	51	0.10	8.97	68	32.9
S193811		0.79	12	0.07	5.01	18	7.2
S193812		1.32	8	0.09	5.83	25	25.6
S193813		0.87	52	0.11	4.76	74	30.2
S193814		1.07	5	0.87	2.25	17	18.7
S193815		0.29	14	0.15	1.63	17	9.5
S193816		1.07	47	0.11	8.07	77	31.1
S193817		0.90	11	0.08	7.41	43	26.3
S193818		1.11	39	0.09	5.65	64	33.1
S193819		0.66	20	0.06	5.15	25	14.2
S193820		0.05	2	<0.05	0.68	2	1.0
S193821		0.77	62	0.15	6.86	80	29.7
S193822		0.34	2	<0.05	3.15	12	7.8
S193823		0.89	34	0.07	4.69	52	15.4
S193824		0.74	24	<0.05	4.20	72	17.6
S193825		1.00	82	2.09	6.64	68	9.4
S193826		0.46	3	<0.05	1.84	9	4.7
S193827		0.09	2	<0.05	0.87	7	1.8
S193828		0.21	2	0.06	0.80	3	3.7
S193829		0.08	10	0.05	2.43	4	2.4
S193830		0.84	26	0.07	4.24	38	18.0
S193831		0.09	2	<0.05	0.54	7	1.6
S193832		0.90	2	<0.05	2.30	15	27.9
S193833		1.56	15	0.06	4.12	48	20.3
S193834		0.88	1	0.05	1.73	14	18.3
S193835		0.12	1	<0.05	0.80	3	2.0
S193836		0.65	14	0.05	4.46	37	15.2
S193837		1.35	40	0.06	5.58	46	21.6
S193838		1.48	25	0.12	5.52	34	26.1
S193839		0.52	9	0.14	8.14	58	14.5
S193840		0.31	31	0.15	2.34	42	6.1



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 Account: EIA

Project: Savant Lake

**CERTIFICATE OF ANALYSIS TB16151458**

Sample Description	Method Analyte Units LOR	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	
		Ag ppm	Al %	As ppm	Au ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Ce ppm	Co ppm	Cr ppm	Cs ppm	Cu ppm
S193841		0.04	0.19	2.9	<0.2	<10	30	0.05	0.09	0.24	0.02	4.57	1.5	12	0.35	4.4
S193842		0.11	3.52	7.6	<0.2	<10	50	0.19	0.22	1.40	0.16	41.1	24.5	80	0.57	125.5
S193843		0.05	0.76	2.5	<0.2	<10	80	0.21	0.14	1.36	0.09	59.8	11.2	19	0.26	22.2
S193844		1.86	0.45	1.5	8.7	<10	50	0.10	0.41	0.43	0.05	14.40	8.5	16	0.23	42.6
S193845		0.06	0.49	0.9	<0.2	<10	30	0.08	0.15	1.63	0.08	24.6	5.0	25	0.18	10.0
S193846		0.06	0.06	0.4	<0.2	<10	400	0.07	0.30	3.75	0.11	5.18	2.8	5	0.09	18.0
S193847		4.03	1.63	0.6	>25.0	<10	70	0.24	0.09	1.22	0.11	38.7	13.8	41	0.36	26.1
S193848		0.02	0.05	0.6	<0.2	<10	10	<0.05	0.13	0.08	0.02	1.09	0.6	11	0.13	7.2
S193849		0.03	2.11	22.3	<0.2	<10	90	0.23	0.17	1.14	0.08	44.8	14.1	31	0.53	30.7
S193850		0.08	1.34	0.9	<0.2	<10	120	0.08	0.05	0.77	0.05	15.00	7.7	15	0.38	61.1
S193851		0.07	1.02	0.4	<0.2	<10	70	0.20	0.18	1.36	0.09	44.6	11.7	47	0.39	42.0
S193852		0.64	1.33	4.7	<0.2	<10	40	0.12	1.41	1.40	0.13	27.0	10.2	35	0.44	107.5
S193853		0.04	0.81	1.6	<0.2	<10	50	0.10	0.16	1.63	0.11	25.9	6.4	18	0.29	26.0
S193854		0.38	0.82	0.9	<0.2	<10	40	0.13	0.85	2.41	0.05	18.05	4.7	17	0.30	13.3
S193855		0.06	2.12	1.4	<0.2	<10	140	0.32	0.15	2.00	0.06	47.4	9.7	35	4.77	24.3
S193856		0.09	0.75	3.4	<0.2	<10	50	0.21	0.30	1.20	0.08	49.0	14.4	15	0.30	32.9
S193857		0.05	0.98	3.1	<0.2	<10	60	0.22	0.17	0.87	0.08	42.7	17.3	22	0.33	39.4
S193858		0.42	0.15	2.1	<0.2	<10	20	0.11	0.72	3.26	0.19	32.5	6.6	10	0.16	12.6
S193859		0.25	0.23	2.3	<0.2	<10	40	0.14	0.53	3.24	0.15	41.9	13.2	11	0.22	33.7
S193860		0.04	0.24	4.1	<0.2	<10	30	0.13	0.12	2.98	0.09	37.4	7.4	8	0.14	19.0
S193861		0.06	0.12	4.7	<0.2	<10	20	0.08	0.21	1.41	0.07	7.27	2.0	8	0.12	35.3
S193862		0.12	0.75	2.2	<0.2	<10	30	0.19	0.17	3.05	0.09	13.75	11.8	34	0.20	51.2
S193863		0.09	0.29	3.7	<0.2	<10	40	0.15	0.21	1.61	0.09	13.05	5.7	22	0.17	20.0
S193864		0.13	0.34	2.9	<0.2	<10	40	0.12	0.32	3.87	0.17	9.31	22.4	15	0.20	99.9
S193865		0.05	0.12	1.2	<0.2	<10	20	0.14	0.17	2.47	0.06	7.15	5.0	17	0.16	15.4
S193866		0.15	0.12	4.0	<0.2	<10	30	0.09	0.19	2.44	0.15	15.50	5.0	10	0.18	12.3
S193867		0.29	0.11	1.6	<0.2	<10	30	0.09	0.57	2.62	0.07	22.0	2.9	16	0.09	17.6
S193868		0.05	1.14	1.8	<0.2	<10	20	0.20	0.14	2.55	0.07	23.4	8.8	19	0.24	29.6
S193869		0.13	2.41	9.3	<0.2	<10	40	0.33	0.51	1.09	0.06	33.7	14.0	21	0.39	35.8
S193870		0.14	4.64	14.2	<0.2	<10	30	0.17	0.41	0.26	0.10	43.4	17.5	41	0.30	128.5
S193871		0.04	0.18	1.5	<0.2	<10	30	0.16	0.15	0.87	0.05	8.00	4.4	6	0.10	19.0
S193872		0.01	0.09	0.8	<0.2	<10	10	<0.05	0.01	2.00	0.06	7.67	3.9	11	0.11	2.6
S193873		0.18	0.25	1.5	<0.2	<10	40	0.09	0.34	3.07	0.10	20.9	5.5	14	0.18	20.9
S193874		0.02	0.19	0.4	<0.2	<10	20	0.16	0.08	1.01	0.08	14.40	5.7	8	0.14	11.7
S193875		0.79	2.66	167.0	2.5	<10	190	0.36	0.28	1.88	0.21	20.5	27.1	451	2.45	81.8
S193876		0.06	0.69	1.7	<0.2	<10	60	0.13	0.14	3.82	0.10	30.3	6.9	15	1.62	25.2
S193877		0.40	0.77	7.9	<0.2	<10	60	0.11	1.86	0.62	0.13	40.1	10.4	14	0.24	49.3
S193878		0.04	0.12	0.9	<0.2	<10	20	<0.05	0.11	0.69	0.04	1.89	0.7	9	0.14	2.2
S193879		0.19	1.27	3.8	<0.2	<10	60	0.12	0.46	1.03	0.15	23.6	8.5	22	0.42	43.0
S193880		0.07	0.74	15.9	<0.2	<10	60	0.13	0.22	2.20	0.16	47.7	16.8	25	0.26	57.7



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Project: Savant Lake

**CERTIFICATE OF ANALYSIS TB16151458**

Sample Description	Method Analyte Units LOR	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	
		Fe %	Ga ppm	Ge ppm	Hf ppm	Hg ppm	In ppm	K %	La ppm	Li ppm	Mg %	Mn ppm	Mo ppm	Na %	Nb ppm	Ni ppm
S193841		0.67	0.61	<0.05	0.09	<0.01	<0.005	0.08	2.1	2.5	0.09	133	0.21	<0.01	0.07	5.0
S193842		8.71	9.18	0.09	0.65	<0.01	0.022	0.18	21.0	37.0	1.81	825	0.57	0.01	0.08	74.7
S193843		2.66	2.75	0.05	0.49	<0.01	0.005	0.15	31.3	17.2	0.71	551	0.72	0.03	0.06	28.7
S193844		31.6	4.83	0.19	0.15	0.01	<0.005	0.09	8.3	5.4	0.25	214	0.19	<0.01	<0.05	7.6
S193845		29.9	3.72	0.18	0.21	<0.01	<0.005	0.09	14.2	5.2	0.43	510	0.07	0.01	<0.05	19.8
S193846		21.9	1.80	0.15	0.04	<0.01	<0.005	0.03	3.0	0.4	0.15	648	0.15	<0.01	<0.05	6.0
S193847		7.37	4.37	0.07	0.30	0.02	0.008	0.17	19.6	27.4	1.02	720	0.25	0.01	0.07	42.3
S193848		0.83	0.18	<0.05	0.02	<0.01	<0.005	0.03	0.5	0.4	0.02	193	0.12	<0.01	<0.05	1.5
S193849		9.01	5.69	0.07	0.38	<0.01	0.006	0.22	23.1	14.2	0.92	781	1.33	<0.01	0.05	40.2
S193850		2.75	4.20	0.06	0.09	<0.01	0.009	0.20	7.1	5.9	0.58	317	2.35	0.15	0.16	7.0
S193851		8.22	4.10	0.05	0.38	<0.01	0.006	0.15	23.3	18.6	0.99	536	0.15	0.03	<0.05	42.0
S193852		7.56	4.98	<0.05	0.28	0.01	0.007	0.11	14.4	20.4	0.83	592	0.89	0.01	0.05	27.7
S193853		2.24	2.48	<0.05	0.18	<0.01	<0.005	0.12	13.5	9.6	0.47	500	0.25	0.01	<0.05	18.8
S193854		3.51	2.83	<0.05	0.26	<0.01	0.005	0.11	10.1	11.5	0.58	433	0.23	0.01	0.16	14.8
S193855		6.50	7.07	0.08	0.65	<0.01	0.008	0.81	24.9	27.0	1.08	677	0.63	0.02	0.20	29.5
S193856		5.07	2.51	0.05	0.46	<0.01	0.011	0.14	25.7	10.5	0.46	706	1.21	0.03	0.14	36.0
S193857		10.60	3.49	0.07	0.51	<0.01	0.017	0.17	22.4	14.2	1.05	803	0.75	0.02	0.05	45.5
S193858		3.00	0.58	<0.05	0.37	<0.01	0.007	0.06	18.4	1.0	0.75	1160	0.46	0.04	<0.05	16.1
S193859		4.00	1.06	<0.05	0.52	<0.01	0.007	0.12	21.8	1.0	0.97	1080	0.57	0.04	0.05	25.6
S193860		5.03	1.05	<0.05	0.45	<0.01	0.008	0.07	20.0	2.6	0.52	790	0.65	0.04	0.11	18.7
S193861		15.20	2.57	0.07	0.09	<0.01	<0.005	0.06	3.7	0.6	0.08	367	0.30	0.01	0.08	7.9
S193862		17.45	4.21	0.08	0.38	<0.01	0.013	0.09	7.3	12.3	0.96	1170	0.96	0.02	<0.05	25.9
S193863		17.40	2.43	0.07	0.32	<0.01	0.007	0.07	7.1	3.6	0.44	830	1.97	0.01	<0.05	17.0
S193864		8.02	1.37	<0.05	0.26	<0.01	0.011	0.07	4.4	6.7	1.20	973	0.50	0.01	<0.05	46.4
S193865		22.9	3.01	0.12	0.19	<0.01	0.005	0.05	3.4	0.5	0.45	601	4.01	0.02	<0.05	12.7
S193866		2.52	0.42	<0.05	0.19	<0.01	<0.005	0.07	8.3	0.5	0.60	758	0.73	0.02	<0.05	14.9
S193867		2.81	0.43	<0.05	0.22	<0.01	<0.005	0.04	11.9	0.6	0.79	1010	1.47	0.04	<0.05	8.3
S193868		6.31	3.65	<0.05	0.33	<0.01	0.012	0.08	12.6	20.9	0.85	691	0.59	0.02	0.07	21.2
S193869		9.18	6.43	0.06	0.52	<0.01	0.012	0.15	17.3	40.2	0.87	667	0.85	0.01	0.05	31.7
S193870		14.35	12.50	0.14	0.45	<0.01	0.022	0.05	22.9	70.7	1.41	442	0.89	0.01	<0.05	32.9
S193871		30.8	1.16	0.16	0.18	<0.01	0.005	0.02	3.9	0.9	0.81	539	3.56	0.01	0.15	10.7
S193872		1.99	0.28	<0.05	0.12	<0.01	<0.005	0.04	3.7	0.6	0.38	387	0.31	0.01	<0.05	10.4
S193873		3.57	0.75	<0.05	0.35	<0.01	<0.005	0.11	11.0	2.7	0.74	949	0.93	0.01	<0.05	8.5
S193874		26.9	4.14	0.14	0.24	<0.01	0.010	0.03	7.5	2.9	0.82	774	0.49	0.01	0.07	11.2
S193875		5.33	6.92	0.08	0.26	0.11	0.024	0.56	10.7	13.5	2.30	874	5.48	0.18	0.13	251
S193876		1.66	2.45	<0.05	0.48	<0.01	0.005	0.28	16.2	9.4	0.39	487	0.52	0.02	0.19	17.1
S193877		6.43	2.63	0.06	0.38	0.01	0.008	0.13	20.7	11.1	0.28	1100	0.81	0.03	0.07	29.3
S193878		1.12	0.46	<0.05	0.04	<0.01	<0.005	0.06	1.0	1.1	0.03	162	0.12	<0.01	<0.05	1.7
S193879		4.16	4.41	<0.05	0.38	<0.01	0.005	0.18	12.3	7.6	0.47	414	0.85	0.02	0.08	21.1
S193880		3.47	2.51	<0.05	0.61	<0.01	0.007	0.17	25.0	6.6	0.53	832	1.19	0.03	0.10	54.1



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Project: Savant Lake

**CERTIFICATE OF ANALYSIS TB16151458**

Sample Description	Method Analyte Units LOR	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	
		P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl
		ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm
S193841	60	6.4	4.3	<0.001	<0.01	0.12	0.3	<0.2	<0.2	19.7	<0.01	0.01	0.8	0.007	0.04	
S193842	470	11.9	10.2	0.001	0.76	0.31	6.8	1.2	0.2	62.4	0.01	0.06	7.8	0.030	0.08	
S193843	600	9.7	4.5	<0.001	0.03	0.34	1.4	0.3	<0.2	135.5	<0.01	0.02	10.5	0.013	0.04	
S193844	780	6.3	4.9	<0.001	0.41	0.33	0.6	0.7	<0.2	40.0	<0.01	0.05	1.3	<0.005	0.02	
S193845	1450	5.4	4.2	<0.001	<0.01	0.34	1.1	0.3	<0.2	123.5	<0.01	0.01	1.9	<0.005	0.02	
S193846	360	15.2	1.5	<0.001	0.03	0.40	0.6	0.2	<0.2	416	<0.01	0.02	0.4	<0.005	<0.02	
S193847	740	6.3	8.5	<0.001	0.01	0.36	2.4	0.3	<0.2	82.7	<0.01	0.02	4.7	0.017	0.03	
S193848	40	7.5	1.5	<0.001	<0.01	0.11	0.2	<0.2	<0.2	9.2	<0.01	0.02	<0.2	<0.005	<0.02	
S193849	730	5.1	12.8	<0.001	0.03	0.37	1.9	0.3	<0.2	88.0	<0.01	0.02	7.1	0.012	0.05	
S193850	710	3.4	6.7	<0.001	0.01	0.09	2.0	0.2	0.2	63.8	<0.01	0.01	2.6	0.105	0.04	
S193851	800	6.8	6.8	<0.001	0.06	0.16	1.9	0.4	<0.2	126.5	<0.01	0.01	5.8	<0.005	0.04	
S193852	620	66.5	5.9	<0.001	1.23	0.14	1.8	1.7	<0.2	105.0	<0.01	0.10	3.0	0.011	0.03	
S193853	290	12.5	5.1	<0.001	0.02	0.14	1.0	0.2	<0.2	117.5	<0.01	0.03	2.5	0.010	0.03	
S193854	270	40.0	5.8	<0.001	0.01	0.22	1.0	0.3	<0.2	58.2	<0.01	0.04	2.7	0.038	0.03	
S193855	480	9.3	59.9	<0.001	0.10	0.26	2.6	0.4	0.2	130.0	<0.01	0.03	7.6	0.125	0.42	
S193856	510	6.9	5.4	<0.001	0.19	0.56	2.4	0.3	<0.2	58.4	<0.01	0.03	7.4	0.016	0.03	
S193857	780	3.6	5.7	<0.001	0.54	0.48	3.3	0.4	<0.2	60.3	<0.01	0.03	5.5	0.016	0.04	
S193858	410	15.8	2.3	<0.001	0.12	1.30	2.3	0.3	<0.2	133.0	<0.01	0.04	5.0	<0.005	<0.02	
S193859	560	13.9	4.2	<0.001	0.30	0.78	2.2	0.4	<0.2	226	<0.01	0.04	7.5	0.017	0.02	
S193860	520	6.1	2.3	<0.001	0.20	0.43	2.4	0.2	<0.2	141.5	<0.01	0.01	6.8	0.017	0.02	
S193861	170	5.8	2.1	<0.001	0.75	0.96	0.5	0.4	<0.2	43.7	<0.01	0.04	0.6	<0.005	<0.02	
S193862	560	6.8	3.6	<0.001	0.41	1.36	2.7	0.3	<0.2	185.5	<0.01	0.02	1.6	0.005	0.02	
S193863	550	7.4	2.9	<0.001	0.06	0.75	1.5	0.3	<0.2	109.0	<0.01	0.01	1.6	<0.005	0.02	
S193864	320	8.5	2.8	<0.001	0.42	0.49	3.4	0.7	<0.2	223	<0.01	0.05	1.4	<0.005	0.02	
S193865	510	5.9	2.2	<0.001	0.49	0.68	1.5	0.3	<0.2	123.5	<0.01	0.03	1.1	<0.005	<0.02	
S193866	280	18.7	2.5	<0.001	0.15	0.65	1.1	0.2	<0.2	129.5	<0.01	0.01	1.7	<0.005	0.02	
S193867	420	38.4	1.6	<0.001	0.01	0.41	1.4	0.3	<0.2	314	<0.01	0.04	2.5	<0.005	<0.02	
S193868	400	3.7	3.0	<0.001	0.13	0.44	3.2	0.3	<0.2	91.5	<0.01	0.01	2.5	0.015	0.02	
S193869	770	15.1	5.3	<0.001	0.63	0.83	3.3	0.6	<0.2	33.8	<0.01	0.04	5.0	0.010	0.03	
S193870	940	30.7	1.9	<0.001	0.89	0.69	6.9	0.8	<0.2	23.4	<0.01	0.03	5.5	0.009	0.02	
S193871	670	3.0	0.8	<0.001	0.44	0.42	1.5	0.4	<0.2	41.6	<0.01	0.01	0.7	0.006	<0.02	
S193872	480	3.9	1.3	<0.001	0.01	0.12	0.9	0.2	<0.2	91.8	<0.01	<0.01	1.0	<0.005	<0.02	
S193873	360	24.0	4.4	<0.001	0.06	0.27	1.3	0.2	<0.2	256	<0.01	0.02	3.1	<0.005	0.02	
S193874	800	1.8	1.6	<0.001	0.08	0.38	2.5	<0.2	<0.2	114.0	<0.01	0.02	1.8	0.006	<0.02	
S193875	390	18.6	26.8	0.001	0.37	2.65	5.5	0.5	1.6	95.9	<0.01	0.14	3.6	0.117	0.23	
S193876	310	12.4	16.8	<0.001	0.05	0.18	1.0	0.2	<0.2	367	<0.01	0.01	3.9	0.051	0.15	
S193877	640	21.3	5.3	<0.001	0.57	0.41	2.8	1.0	<0.2	42.2	<0.01	0.20	5.2	0.007	0.03	
S193878	20	3.2	2.4	<0.001	0.01	0.09	0.1	<0.2	<0.2	76.7	<0.01	<0.01	0.3	<0.005	<0.02	
S193879	320	21.4	10.7	0.001	0.16	0.48	1.8	0.3	<0.2	35.3	<0.01	0.05	4.6	0.017	0.11	
S193880	560	13.2	6.6	0.001	0.17	0.19	2.1	0.3	<0.2	102.0	<0.01	0.03	6.8	0.016	0.05	



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**CERTIFICATE OF ANALYSIS TB16151458**

Sample Description	Method Analyte Units LOR	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41
		U	V	W	Y	Zn	Zr
		ppm	ppm	ppm	ppm	ppm	ppm
		0.05	1	0.05	0.05	2	0.5
S193841		0.15	2	<0.05	0.69	5	3.1
S193842		1.11	41	0.12	13.75	81	23.4
S193843		1.41	9	0.15	4.62	52	19.7
S193844		0.31	50	0.27	2.38	11	6.2
S193845		0.64	34	0.07	4.42	14	8.8
S193846		0.19	24	45.1	2.65	5	1.5
S193847		0.85	24	2.50	3.99	53	15.6
S193848		0.22	<1	0.10	0.43	2	0.6
S193849		1.50	28	0.31	4.55	54	15.4
S193850		0.71	109	6.79	4.29	34	1.5
S193851		0.83	31	0.07	4.17	45	14.5
S193852		0.66	28	0.05	4.13	50	9.3
S193853		0.56	10	0.05	3.64	27	6.8
S193854		0.49	11	<0.05	3.02	24	9.1
S193855		1.04	30	0.07	5.01	52	22.9
S193856		1.01	10	0.09	4.19	47	17.1
S193857		1.06	29	0.17	5.21	65	19.3
S193858		0.72	2	<0.05	2.79	28	13.0
S193859		1.01	16	0.05	3.79	28	20.2
S193860		0.94	5	0.12	3.53	25	16.3
S193861		0.37	16	0.75	1.78	15	3.0
S193862		0.39	49	0.11	3.32	32	14.5
S193863		0.90	36	0.12	2.79	28	12.3
S193864		0.45	18	0.05	2.43	66	10.8
S193865		0.21	26	0.34	2.29	13	6.6
S193866		0.36	2	<0.05	1.82	38	6.5
S193867		0.46	2	0.05	2.64	20	7.6
S193868		0.39	21	0.08	3.04	45	13.0
S193869		0.81	21	0.12	4.12	86	20.0
S193870		0.73	55	<0.05	4.13	116	19.4
S193871		0.43	14	0.86	3.43	43	5.2
S193872		0.25	1	<0.05	1.80	36	4.4
S193873		0.54	4	<0.05	2.91	13	13.5
S193874		0.57	22	0.26	3.16	25	9.3
S193875		1.05	78	2.29	6.01	65	9.0
S193876		0.52	9	0.06	3.59	25	16.2
S193877		0.82	12	0.22	4.71	43	16.6
S193878		0.10	4	0.05	0.43	3	1.4
S193879		1.15	12	0.05	3.01	53	14.1
S193880		1.40	9	0.08	5.33	56	21.2



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Sample Description	Method Analyte Units LOR	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	
		Ag ppm	Al %	As ppm	Au ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Ce ppm	Co ppm	Cr ppm	Cs ppm	Cu ppm
S193881		0.07	2.02	14.5	<0.2	<10	50	0.13	0.20	1.92	0.03	49.0	20.5	47	0.31	69.8
S193882		0.02	3.80	1.2	<0.2	<10	80	0.25	0.14	3.80	0.11	30.1	15.3	55	19.55	23.9
S193883		0.11	1.95	127.0	<0.2	<10	50	0.17	0.71	0.89	0.08	51.0	19.4	24	0.28	188.0
S193884		0.15	0.48	146.0	<0.2	<10	30	0.09	0.58	2.39	0.08	34.4	11.1	18	0.17	30.0
S193885		0.06	0.58	6.5	<0.2	<10	40	0.12	0.33	5.23	0.14	21.9	10.0	18	0.49	44.1
S194051		0.21	0.72	0.9	<0.2	<10	80	0.35	0.65	1.08	0.07	65.8	1.9	11	1.73	17.0
S194052		0.06	2.11	2.8	<0.2	<10	270	0.59	0.08	2.74	0.06	16.65	12.7	35	2.06	51.6
S194053		0.01	2.14	1.7	<0.2	<10	250	0.22	0.32	0.15	0.01	12.40	10.1	44	3.16	11.9
S194054		0.20	3.83	5.0	<0.2	<10	290	0.34	0.23	0.31	0.04	40.1	27.2	153	5.99	60.0
S194055		0.34	1.99	7.9	<0.2	<10	190	0.28	0.60	1.34	0.73	181.0	11.9	22	2.56	275
S194056		0.46	0.73	0.3	<0.2	<10	40	0.08	1.69	2.18	0.17	33.1	6.6	12	0.11	17.8
S194057		0.08	1.22	3.7	<0.2	<10	50	0.15	0.17	1.30	0.03	23.2	8.4	28	0.11	30.8
S194058		<0.01	2.22	0.5	<0.2	<10	10	0.13	0.01	0.18	0.03	24.7	6.0	41	0.55	2.2
S194059		0.02	7.36	1.2	<0.2	<10	410	1.05	0.35	0.33	0.03	69.0	15.8	58	7.14	13.5
S194060		0.09	3.00	0.9	<0.2	<10	150	0.51	0.35	1.86	0.06	31.1	8.7	20	2.26	24.7
S194061		0.03	0.47	1.5	<0.2	<10	20	0.05	0.20	0.18	0.02	7.51	2.7	10	0.19	3.4
S194062		0.34	4.82	3.2	<0.2	<10	20	1.29	0.16	0.23	0.03	20.3	15.8	34	0.19	123.0
S194063		0.26	4.34	5.6	<0.2	<10	10	0.70	0.08	0.13	0.02	18.45	15.9	43	0.16	75.1
S194064		0.58	2.17	12.8	<0.2	<10	20	0.43	0.26	0.27	0.04	14.85	12.4	14	0.16	150.5
S194065		0.02	1.15	1.4	<0.2	<10	10	0.07	0.04	4.14	0.17	13.90	1.7	15	0.98	7.5
S194066		0.03	0.61	2.4	<0.2	<10	10	<0.05	0.07	0.35	0.03	1.01	1.5	10	0.13	28.4
S194067		0.14	1.11	2.6	<0.2	<10	40	0.30	0.34	0.17	0.02	8.72	3.8	12	0.64	142.0
S194068		0.19	5.49	1.1	<0.2	<10	110	0.68	0.23	1.30	0.09	60.3	10.9	30	5.97	340
S194069		0.11	1.13	0.8	<0.2	<10	110	0.30	0.24	0.89	1.05	104.5	6.2	7	0.64	17.7
S194070		0.43	4.86	2.5	<0.2	<10	10	0.20	0.79	0.17	0.01	7.91	14.8	14	0.37	87.5
S194071		0.61	0.91	3.2	<0.2	<10	10	0.14	1.27	0.03	0.01	7.99	24.2	6	0.31	94.7
S194072		0.01	1.45	1.3	<0.2	<10	10	0.08	0.05	0.48	0.02	15.30	2.0	11	0.20	7.8
S194073		0.74	6.97	6.4	<0.2	<10	20	0.44	1.49	0.18	0.04	36.0	10.9	66	2.31	137.5
S194074		0.05	2.29	5.1	<0.2	<10	130	0.40	0.11	1.45	0.07	80.2	11.8	8	1.39	9.2
S194075		0.63	2.80	179.0	1.7	<10	190	0.31	0.26	2.04	0.21	18.25	30.8	457	2.15	92.9
S194076		0.05	2.56	6.0	<0.2	<10	40	0.28	0.07	2.68	0.06	86.0	16.0	11	0.15	17.1
S194077		0.16	0.15	1.7	<0.2	<10	30	<0.05	0.22	0.57	0.04	13.00	3.3	15	0.11	10.5
S194078		0.20	0.24	2.6	<0.2	<10	50	0.10	0.41	0.86	0.09	23.1	6.9	12	0.18	20.1
S194079		0.11	1.52	3.8	<0.2	<10	70	0.15	0.34	0.61	0.06	36.0	14.9	28	1.27	19.7
S194080		0.20	1.45	3.0	<0.2	<10	70	0.17	0.45	1.56	0.07	40.8	14.6	30	0.98	33.0
S194081		0.44	0.92	4.2	<0.2	<10	60	0.16	1.03	3.73	0.12	30.7	11.6	24	0.27	31.4
S194082		0.16	0.95	1.8	<0.2	<10	90	0.18	0.54	1.54	0.07	32.1	12.0	27	2.94	18.4
S194083		0.09	0.22	1.0	<0.2	<10	40	0.15	0.21	2.02	0.04	18.60	4.4	14	0.16	19.1
S194084		0.08	0.72	1.6	<0.2	<10	20	0.16	0.15	5.42	0.10	14.80	3.4	13	0.12	14.3
S194085		0.06	5.42	16.5	<0.2	<10	20	<0.05	0.02	2.12	0.04	2.41	58.0	171	0.24	97.6



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Project: Savant Lake

**CERTIFICATE OF ANALYSIS TB16151458**

Sample Description	Method Analyte Units LOR	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	
		Fe %	Ga ppm	Ge ppm	Hf ppm	Hg ppm	In ppm	K %	La ppm	Li ppm	Mg %	Mn ppm	Mo ppm	Na %	Nb ppm	Ni ppm
S193881		4.68	6.57	0.05	0.68	<0.01	0.035	0.17	25.3	13.3	1.20	1020	1.12	0.02	0.05	71.3
S193882		15.90	9.82	0.24	0.44	<0.01	0.018	0.78	15.5	25.0	1.36	930	1.80	<0.01	0.21	38.2
S193883		8.44	6.98	0.06	0.47	<0.01	0.009	0.14	27.6	13.7	1.05	645	1.62	0.01	0.08	46.7
S193884		2.25	1.65	<0.05	0.47	0.01	<0.005	0.12	18.1	3.5	0.54	561	0.66	0.03	0.09	24.8
S193885		3.87	1.71	<0.05	0.34	0.01	0.005	0.16	11.4	5.3	0.33	783	1.04	0.01	0.07	23.0
S194051		2.23	2.52	<0.05	1.36	0.01	<0.005	0.37	34.3	9.1	0.35	287	0.21	0.01	0.40	3.8
S194052		21.6	9.81	0.25	0.10	0.01	0.020	0.76	7.9	17.7	1.31	681	0.72	0.02	0.11	46.5
S194053		5.35	7.17	0.18	0.31	0.01	0.009	0.93	3.8	17.5	0.65	402	0.50	0.02	0.47	24.8
S194054		10.30	13.70	0.29	0.49	0.01	0.023	1.86	20.0	45.2	1.64	730	1.02	0.03	0.63	87.1
S194055		16.35	11.50	0.34	0.48	0.01	0.026	0.76	106.0	20.5	0.79	917	8.96	0.01	2.77	14.1
S194056		1.79	2.69	<0.05	0.49	0.01	<0.005	0.12	17.9	3.8	0.44	544	0.37	0.03	0.12	13.8
S194057		2.55	6.12	<0.05	0.67	0.01	0.008	0.13	12.2	7.5	0.73	499	0.42	0.03	0.05	20.5
S194058		6.24	6.02	0.17	0.22	<0.01	0.007	0.01	12.4	6.5	0.64	462	0.29	<0.01	0.15	18.1
S194059		19.60	15.70	0.79	0.24	0.01	0.037	2.11	32.0	55.3	2.24	943	0.44	<0.01	0.33	36.0
S194060		20.6	10.05	0.60	0.16	<0.01	0.014	0.74	16.7	19.7	0.92	565	0.27	<0.01	0.23	14.2
S194061		1.34	2.02	<0.05	0.06	<0.01	0.005	0.04	3.5	2.2	0.24	236	0.23	0.01	0.45	2.5
S194062		16.00	15.25	0.23	0.96	<0.01	0.030	0.03	10.1	14.6	2.48	675	0.63	<0.01	0.06	22.9
S194063		12.65	13.70	0.23	0.82	<0.01	0.026	0.01	8.9	14.4	2.40	532	0.71	0.01	0.06	25.2
S194064		13.30	6.82	0.11	0.35	<0.01	0.014	0.04	7.2	5.1	0.88	583	0.68	<0.01	0.08	14.1
S194065		4.19	2.67	0.10	0.31	<0.01	0.005	0.03	7.3	1.5	0.33	681	0.25	<0.01	0.05	4.6
S194066		2.34	1.61	0.06	<0.02	<0.01	<0.005	0.01	0.5	1.0	0.16	218	0.13	<0.01	<0.05	2.1
S194067		31.1	5.45	1.48	0.20	<0.01	0.010	0.06	5.1	1.7	0.36	178	1.94	<0.01	0.17	4.6
S194068		19.55	10.80	0.59	1.12	<0.01	0.024	0.81	31.3	6.5	2.23	737	0.50	<0.01	0.44	21.3
S194069		4.51	5.79	0.11	0.66	<0.01	0.038	0.64	51.2	4.7	0.31	476	1.98	0.04	1.21	7.3
S194070		20.6	14.30	0.38	0.51	<0.01	0.025	0.02	3.3	10.2	1.94	1020	0.30	<0.01	0.16	14.8
S194071		11.50	4.28	0.11	0.20	<0.01	0.010	0.02	3.4	1.7	0.40	248	0.52	<0.01	0.19	11.7
S194072		4.83	4.41	0.07	0.10	<0.01	0.012	0.02	4.8	4.7	0.56	433	0.34	0.01	0.15	2.8
S194073		18.10	19.60	0.31	1.08	<0.01	0.050	0.25	18.6	24.6	4.92	745	2.31	<0.01	0.08	27.3
S194074		4.75	11.00	0.20	0.48	0.01	0.039	0.66	38.1	12.5	1.42	727	1.38	0.04	0.42	7.4
S194075		5.45	7.08	0.08	0.22	0.09	0.027	0.60	9.6	12.3	2.45	899	5.54	0.19	0.10	253
S194076		5.49	12.20	0.16	0.26	0.01	0.043	0.09	40.6	10.2	1.57	1000	0.74	0.04	0.23	9.7
S194077		1.31	0.52	<0.05	0.17	0.01	<0.005	0.06	6.8	1.1	0.20	236	0.35	<0.01	<0.05	8.3
S194078		2.18	0.87	<0.05	0.21	0.01	<0.005	0.11	12.4	1.7	0.22	617	0.50	0.01	0.09	13.4
S194079		3.11	5.93	0.05	0.40	0.01	0.012	0.34	18.2	17.0	0.82	521	1.02	0.02	0.44	40.3
S194080		3.53	5.52	0.05	0.49	<0.01	0.013	0.33	19.5	16.4	0.78	626	0.83	0.02	0.25	37.6
S194081		4.77	3.15	0.06	0.41	0.01	<0.005	0.16	16.1	14.1	0.58	1180	0.99	0.01	0.05	25.5
S194082		16.95	6.05	0.11	0.35	0.02	0.005	0.24	16.6	14.9	0.89	575	0.20	0.02	<0.05	27.2
S194083		22.8	3.20	0.11	0.21	0.02	<0.005	0.09	10.5	2.5	0.48	710	0.33	<0.01	<0.05	9.5
S194084		19.80	2.87	0.11	0.17	0.02	<0.005	0.05	7.7	14.4	0.41	720	0.91	<0.01	<0.05	8.9
S194085		8.50	11.45	0.17	0.06	0.03	0.017	0.03	1.0	18.7	3.97	1290	0.15	0.01	0.08	171.0



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**CERTIFICATE OF ANALYSIS TB16151458**

Sample Description	Method Analyte Units LOR	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	
		P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl
		ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm
S193881		520	11.4	6.8	0.001	0.19	0.38	4.4	0.6	<0.2	149.0	<0.01	0.04	5.7	0.017	0.04
S193882		540	8.4	76.0	0.001	0.23	0.68	8.3	0.3	0.4	359	0.01	0.02	4.5	0.141	0.80
S193883		450	24.6	6.6	<0.001	0.36	0.61	2.3	1.2	<0.2	75.4	<0.01	0.11	5.3	0.009	0.05
S193884		710	30.0	4.5	<0.001	0.08	1.45	1.4	0.3	<0.2	150.5	<0.01	0.05	4.4	0.014	0.04
S193885		310	13.2	7.8	<0.001	0.10	0.19	1.7	0.3	<0.2	567	<0.01	0.06	3.2	0.013	0.05
S194051		220	27.5	21.7	<0.001	0.04	0.17	0.5	0.3	0.3	63.3	0.01	0.06	13.3	0.025	0.07
S194052		430	4.7	37.5	<0.001	0.52	0.28	7.8	0.7	0.2	114.0	<0.01	0.02	1.6	0.131	0.22
S194053		370	3.6	51.2	<0.001	0.01	0.10	2.8	0.2	0.3	12.4	<0.01	0.17	2.5	0.163	0.23
S194054		730	6.5	108.5	0.001	0.20	0.17	7.0	0.5	0.4	35.9	0.01	0.13	7.2	0.289	0.61
S194055		840	39.4	41.6	0.003	0.20	0.47	4.8	0.6	0.4	31.7	0.01	0.29	14.7	0.136	0.22
S194056		190	75.2	4.9	<0.001	0.12	0.10	0.8	0.3	<0.2	79.1	<0.01	0.25	4.9	0.015	0.04
S194057		490	7.0	5.5	<0.001	0.03	0.09	2.4	0.2	<0.2	51.7	<0.01	0.02	9.1	0.016	0.03
S194058		300	2.1	3.0	<0.001	<0.01	0.05	5.0	0.2	<0.2	14.3	<0.01	<0.01	2.5	0.027	0.02
S194059		920	8.1	120.0	<0.001	0.19	0.20	11.8	0.5	1.1	72.0	0.01	0.01	10.0	0.316	0.60
S194060		820	23.0	41.8	<0.001	0.08	0.26	4.6	0.4	0.3	74.0	0.01	0.03	3.1	0.118	0.21
S194061		290	7.1	3.0	<0.001	<0.01	0.08	1.1	<0.2	0.2	5.1	<0.01	0.01	0.8	0.057	<0.02
S194062		990	5.5	1.8	0.001	3.65	0.28	7.4	1.3	<0.2	14.8	<0.01	0.07	4.0	0.019	0.05
S194063		540	8.6	0.8	<0.001	2.59	0.22	10.6	1.1	<0.2	9.4	<0.01	0.03	4.2	0.023	0.03
S194064		920	6.1	1.9	0.001	4.22	0.15	2.6	1.9	<0.2	16.4	<0.01	0.12	1.4	0.009	0.05
S194065		190	3.8	4.0	<0.001	0.06	0.08	1.5	0.3	<0.2	231	<0.01	0.01	1.9	0.010	<0.02
S194066		20	2.2	0.8	<0.001	0.07	0.12	0.4	<0.2	<0.2	16.6	<0.01	0.02	<0.2	<0.005	<0.02
S194067		810	9.4	6.1	<0.001	0.27	2.63	2.4	0.9	0.2	23.7	<0.01	0.09	1.0	0.031	0.07
S194068		850	6.9	63.0	<0.001	2.21	0.53	6.5	1.8	0.9	72.9	0.01	0.13	7.8	0.175	0.53
S194069		790	12.2	30.3	<0.001	1.62	0.38	5.6	1.1	0.8	55.1	<0.01	0.03	9.6	0.188	0.26
S194070		1070	5.4	1.9	0.001	7.05	0.65	8.0	1.6	<0.2	6.1	<0.01	0.13	2.3	0.050	0.11
S194071		240	9.0	1.8	<0.001	7.64	1.09	2.1	1.9	<0.2	3.4	<0.01	0.22	0.8	0.022	0.10
S194072		370	1.3	1.6	<0.001	0.08	0.21	2.2	0.4	<0.2	19.2	<0.01	0.01	0.8	0.030	0.02
S194073		880	105.5	22.0	0.001	3.13	0.37	12.8	2.3	0.4	13.3	<0.01	0.22	6.8	0.070	0.26
S194074		1780	9.7	30.5	<0.001	0.52	0.39	8.5	0.8	0.6	93.5	<0.01	0.01	7.2	0.301	0.19
S194075		390	19.1	27.6	<0.001	0.42	2.09	6.1	0.5	1.5	97.3	<0.01	0.12	3.1	0.123	0.21
S194076		1860	16.9	2.3	<0.001	0.27	0.23	10.9	0.7	0.4	56.8	0.01	0.01	6.4	0.213	<0.02
S194077		60	19.5	2.4	<0.001	0.02	0.31	0.5	0.2	<0.2	42.7	<0.01	0.06	1.8	<0.005	<0.02
S194078		320	26.3	4.3	<0.001	0.08	0.58	1.0	0.5	<0.2	75.0	<0.01	0.05	3.5	0.007	0.02
S194079		450	15.8	25.2	<0.001	0.01	0.27	4.3	0.3	0.3	25.6	0.01	0.04	6.0	0.131	0.17
S194080		460	28.0	19.1	<0.001	0.05	0.31	4.6	0.5	0.3	95.2	0.01	0.05	6.4	0.103	0.15
S194081		510	84.4	6.6	<0.001	0.29	0.43	1.2	0.8	<0.2	422	<0.01	0.06	3.6	0.011	0.04
S194082		820	5.2	20.3	<0.001	0.34	0.58	1.8	0.7	<0.2	224	<0.01	0.07	3.5	0.026	0.15
S194083		760	10.3	4.5	<0.001	0.04	0.60	0.7	0.2	<0.2	161.0	<0.01	0.01	1.6	<0.005	0.02
S194084		790	13.7	2.7	<0.001	0.02	0.73	0.7	0.2	<0.2	876	<0.01	0.02	1.3	<0.005	<0.02
S194085		230	0.4	1.4	<0.001	0.52	0.91	15.8	1.2	<0.2	11.5	<0.01	0.05	<0.2	0.137	<0.02



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Project: Savant Lake

**CERTIFICATE OF ANALYSIS TB16151458**

Sample Description	Method Analyte Units LOR	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41
		U	V	W	Y	Zn	Zr
		ppm	ppm	ppm	ppm	ppm	ppm
		0.05	1	0.05	0.05	2	0.5
S193881		1.09	27	0.07	16.85	67	23.7
S193882		0.82	54	0.08	7.37	51	17.4
S193883		1.60	21	0.05	5.09	64	18.0
S193884		0.85	6	0.08	4.88	30	17.9
S193885		0.60	16	0.08	6.19	16	13.0
S194051		3.01	3	0.16	10.20	16	44.5
S194052		0.26	61	6.91	6.08	51	4.6
S194053		0.46	50	2.67	3.77	36	12.4
S194054		1.35	127	0.11	13.80	81	17.9
S194055		3.98	151	73.8	10.05	60	29.4
S194056		0.84	7	0.16	4.59	38	16.2
S194057		1.65	22	0.07	6.66	35	23.6
S194058		0.29	26	0.31	3.37	28	9.9
S194059		1.98	72	0.15	16.15	67	11.4
S194060		0.60	66	0.09	7.85	42	5.3
S194061		0.13	11	0.13	1.81	19	3.6
S194062		0.88	59	0.08	7.78	75	37.2
S194063		0.74	74	<0.05	5.36	65	31.8
S194064		0.29	25	0.08	5.50	35	13.5
S194065		0.44	6	<0.05	4.72	14	11.3
S194066		<0.05	3	<0.05	0.62	6	0.5
S194067		0.23	20	1.14	4.94	17	8.9
S194068		1.45	34	0.10	8.93	50	42.6
S194069		1.61	5	0.26	19.25	132	25.9
S194070		0.48	53	0.21	5.04	102	20.0
S194071		0.22	13	0.16	3.62	21	8.9
S194072		0.17	16	0.15	3.87	36	4.2
S194073		1.22	81	0.05	7.81	259	39.6
S194074		1.14	36	0.36	14.00	71	23.3
S194075		0.86	80	2.25	5.87	69	8.7
S194076		0.98	62	0.35	11.55	102	13.8
S194077		0.24	1	0.08	1.40	13	7.5
S194078		0.46	3	0.18	2.88	18	9.0
S194079		0.94	21	0.12	5.42	58	16.6
S194080		1.12	20	0.14	5.75	53	20.4
S194081		0.72	14	0.05	7.59	34	17.3
S194082		0.57	39	<0.05	5.00	46	14.4
S194083		0.58	20	0.10	3.49	14	9.3
S194084		0.20	15	0.07	5.14	17	8.2
S194085		<0.05	173	0.07	4.87	82	1.7



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Project: Savant Lake

**CERTIFICATE OF ANALYSIS TB16151458**

Sample Description	Method	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41
	Analyte	Ag	Al	As	Au	B	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu
Units		ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm
LOR		0.01	0.01	0.1	0.2	10	10	0.05	0.01	0.01	0.01	0.02	0.1	1	0.05	0.2
S194086		0.06	5.06	21.3	<0.2	<10	20	<0.05	0.03	1.82	0.05	1.81	71.5	147	0.16	113.5
S194087		0.16	3.54	33.6	<0.2	<10	<10	<0.05	0.02	0.95	0.14	1.91	69.0	125	0.51	143.0
S194088		0.25	4.44	57.5	<0.2	<10	<10	<0.05	0.02	0.23	0.10	1.06	87.8	69	0.22	148.0
S194089		0.02	3.76	4.6	<0.2	<10	<10	0.08	<0.01	4.49	0.04	2.82	45.8	55	0.17	286
S194090		0.09	4.05	27.3	<0.2	<10	10	0.06	0.01	3.14	0.07	1.13	45.6	659	0.18	326
S194091		0.08	4.10	15.0	<0.2	<10	530	<0.05	0.01	1.83	0.08	0.96	52.0	172	0.43	151.0
S194092		0.09	3.78	12.3	<0.2	<10	40	0.10	0.02	0.94	0.08	4.35	36.8	4	0.57	314
S194093		0.08	3.25	6.7	<0.2	<10	20	0.16	0.11	2.72	0.07	29.2	35.7	117	0.30	77.9
S194094		0.67	1.57	378	0.2	<10	10	0.05	2.48	4.06	0.14	7.85	45.3	27	0.34	119.0
S194095		0.10	2.46	170.0	<0.2	<10	150	0.29	0.59	0.94	0.14	46.3	11.0	22	1.75	32.9
S194096		0.13	0.36	230	<0.2	<10	50	0.11	0.61	1.34	0.20	35.9	6.6	10	0.33	15.3
S194097		0.02	1.16	27.8	<0.2	<10	160	0.30	0.14	0.64	0.11	26.4	5.6	27	1.43	33.3
S194098		0.05	1.39	85.9	<0.2	<10	150	0.33	0.34	1.56	0.12	35.6	8.0	30	1.38	19.0
S194099		0.11	2.55	18.4	<0.2	<10	130	0.37	0.47	0.42	0.10	48.2	21.9	63	3.12	66.2
S194100		0.08	1.32	0.8	<0.2	<10	120	0.07	0.05	0.76	0.04	13.60	8.0	15	0.38	62.0
S194101		0.34	0.56	3.7	<0.2	<10	40	0.20	0.80	2.48	0.11	7.11	3.5	10	0.87	23.3
S194102		0.05	2.23	11.9	<0.2	<10	80	0.28	0.30	0.70	0.16	36.0	14.8	47	1.65	25.2
S194103		0.28	0.60	4.6	<0.2	<10	60	0.16	0.86	0.69	0.66	44.2	4.2	21	0.55	21.5
S194104		0.06	2.35	29.1	<0.2	<10	190	0.16	0.07	0.74	0.07	36.7	28.2	13	3.14	26.5
S194105		0.05	1.31	2.1	<0.2	<10	50	0.31	0.20	1.40	0.09	23.6	6.0	26	1.12	17.3
S194106		0.13	1.43	7400	<0.2	<10	60	0.27	0.45	0.35	0.09	25.9	14.3	33	0.71	99.9
S194107		0.13	1.92	6240	<0.2	<10	90	0.39	0.54	0.50	0.09	36.8	15.4	39	1.17	103.5
S194108		0.03	0.37	14.4	<0.2	<10	20	0.26	0.13	0.89	0.08	19.95	7.1	26	0.17	20.6
S194109		0.10	4.79	17.0	<0.2	<10	110	0.75	0.65	0.25	0.04	58.4	25.8	58	6.02	107.0
S194110		0.23	5.62	12.0	<0.2	<10	100	0.69	0.70	0.22	0.02	40.6	26.9	63	4.44	111.0
S194111		0.04	0.24	10.1	<0.2	<10	60	0.21	0.28	0.97	0.16	46.1	5.9	10	0.34	12.5
S194112		0.06	0.37	8.7	<0.2	<10	50	0.12	0.27	3.34	0.19	17.90	12.1	18	1.10	35.1
S194113		0.80	0.49	3.3	<0.2	<10	10	0.11	2.06	0.20	0.31	6.62	16.4	22	18.00	143.0
S194114		0.06	0.92	8.1	<0.2	<10	90	0.15	0.17	1.49	0.09	41.0	10.4	19	2.47	20.6
S194115		0.05	1.28	3.5	<0.2	<10	50	0.22	0.11	0.72	0.04	29.3	10.6	21	0.46	35.6
S194116		0.04	0.36	2.4	<0.2	<10	30	0.08	0.14	1.73	0.15	10.85	8.7	11	0.21	56.1
S194117		0.25	0.17	2.3	<0.2	<10	40	0.06	0.56	0.93	0.05	16.50	4.3	8	0.19	7.5
S194118		0.04	3.02	12.5	<0.2	<10	10	0.13	0.01	2.13	0.13	2.35	38.3	118	0.14	150.5
S194119		0.04	4.42	7.7	<0.2	<10	30	0.14	0.23	1.23	0.06	26.0	13.8	40	0.61	25.9
S194120		0.05	1.80	1.5	<0.2	<10	20	0.11	0.12	1.68	0.08	12.55	9.8	20	0.15	48.4
S194121		0.18	1.60	25.1	<0.2	30	60	0.70	0.64	0.76	0.07	37.6	35.8	17	0.54	60.6
S194122		0.21	0.11	0.9	<0.2	<10	10	0.09	0.52	0.69	0.05	9.58	4.6	9	0.09	26.2
S194123		0.05	0.37	1.9	<0.2	<10	30	0.09	0.21	1.04	0.07	11.30	6.8	18	0.19	17.5
S194124		0.04	3.27	18.3	<0.2	<10	10	0.10	0.01	0.86	0.12	2.22	43.1	128	0.30	163.0
S194125		0.57	2.60	169.0	1.8	<10	190	0.33	0.27	1.83	0.21	19.85	28.3	439	2.48	82.6



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Project: Savant Lake

**CERTIFICATE OF ANALYSIS TB16151458**

Sample Description	Method Analyte Units LOR	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	
		Fe %	Ga ppm	Ge ppm	Hf ppm	Hg ppm	In ppm	K %	La ppm	Li ppm	Mg %	Mn ppm	Mo ppm	Na %	Nb ppm	Ni ppm
S194086		9.57	9.64	0.16	0.05	0.03	0.012	0.01	0.7	15.9	3.74	1320	0.20	0.01	0.11	181.0
S194087		8.05	9.03	0.11	0.06	0.08	0.012	0.01	0.8	9.1	2.75	812	0.43	0.02	0.18	103.5
S194088		12.10	12.35	0.18	0.10	0.15	0.019	<0.01	0.4	9.7	3.28	841	0.40	<0.01	0.34	103.5
S194089		5.68	7.43	0.13	0.08	0.02	0.009	<0.01	1.1	9.2	2.63	1170	0.09	<0.01	0.08	77.4
S194090		4.95	5.03	0.10	0.04	0.02	0.009	<0.01	0.5	7.8	4.06	1190	0.16	0.01	<0.05	210
S194091		5.63	6.77	0.09	0.09	0.01	0.006	<0.01	0.4	12.4	3.88	1020	0.10	0.01	0.05	228
S194092		9.89	14.75	0.20	0.16	0.04	0.040	0.02	1.7	9.7	2.29	1290	0.09	0.01	0.14	20.7
S194093		5.92	10.30	0.05	0.37	0.01	0.028	0.04	14.4	9.7	1.92	1050	0.33	0.02	<0.05	76.2
S194094		9.57	5.06	<0.05	0.34	0.62	0.036	0.03	4.1	8.9	0.59	4070	0.86	0.04	<0.05	75.2
S194095		7.35	9.89	0.11	0.84	0.01	0.024	0.83	23.9	10.4	0.78	751	3.20	0.01	0.45	22.6
S194096		2.20	1.50	<0.05	0.75	<0.01	0.011	0.19	18.5	1.9	0.27	733	1.30	0.04	0.40	13.0
S194097		5.28	4.37	0.07	0.77	0.01	0.019	0.51	13.8	6.5	0.34	546	1.76	0.03	0.41	14.2
S194098		6.22	5.48	0.08	0.91	0.01	0.023	0.57	18.6	6.5	0.57	624	2.26	0.04	0.30	19.1
S194099		11.05	8.76	0.12	0.91	0.01	0.016	0.63	22.9	16.5	1.21	698	2.19	0.01	0.23	55.3
S194100		2.67	4.23	0.05	0.09	<0.01	0.008	0.20	6.3	4.8	0.59	306	2.40	0.14	0.14	6.9
S194101		8.47	2.61	0.07	0.09	<0.01	0.007	0.09	3.8	5.6	0.49	1090	0.45	<0.01	0.14	6.2
S194102		11.00	9.00	0.09	0.50	<0.01	0.011	0.29	17.9	11.5	0.96	897	1.02	0.01	0.16	35.3
S194103		1.93	4.55	0.05	0.85	<0.01	0.025	0.24	22.9	3.1	0.19	535	3.38	0.03	0.37	8.7
S194104		6.02	10.80	0.14	0.44	<0.01	0.034	0.86	18.1	22.1	0.99	652	0.70	0.08	0.34	23.1
S194105		17.65	5.62	0.28	0.42	<0.01	0.015	0.12	12.4	9.1	0.68	769	1.31	0.02	0.18	15.3
S194106		12.40	5.06	0.13	0.72	<0.01	0.022	0.24	12.9	7.2	0.57	688	1.06	0.03	0.41	14.8
S194107		14.90	6.85	0.14	0.92	<0.01	0.024	0.39	18.7	10.4	0.72	829	1.24	0.03	0.55	16.2
S194108		20.5	2.77	0.11	0.39	<0.01	0.023	0.05	10.1	2.7	1.15	1540	1.49	0.03	0.41	18.6
S194109		14.65	12.85	0.20	0.66	<0.01	0.019	1.55	28.5	34.9	1.54	682	1.63	0.01	0.44	59.7
S194110		17.10	14.95	0.21	1.35	<0.01	0.025	1.26	20.3	32.5	1.72	697	1.58	<0.01	0.51	50.6
S194111		2.40	0.90	<0.05	0.86	<0.01	0.007	0.15	23.7	1.3	0.19	483	2.02	0.03	0.43	11.0
S194112		3.63	1.20	<0.05	0.74	<0.01	0.010	0.21	9.0	4.8	1.06	1020	0.94	0.02	0.41	22.8
S194113		14.70	1.31	0.10	0.08	<0.01	0.046	0.17	3.3	0.6	0.41	2440	1.17	0.01	<0.05	30.6
S194114		1.90	3.53	<0.05	0.57	<0.01	0.008	0.37	21.4	11.1	0.43	447	0.96	0.03	0.47	22.4
S194115		20.3	5.67	0.09	0.26	<0.01	0.005	0.13	15.4	19.8	0.75	468	0.48	0.01	<0.05	19.1
S194116		3.56	1.01	<0.05	0.20	<0.01	0.011	0.04	5.6	5.3	0.41	953	0.34	0.01	<0.05	13.7
S194117		1.55	0.61	<0.05	0.20	<0.01	<0.005	0.10	9.0	0.7	0.24	302	0.19	0.01	<0.05	7.0
S194118		5.72	6.65	0.14	0.15	0.04	0.009	<0.01	0.9	7.7	2.35	834	0.13	0.02	0.06	92.1
S194119		15.85	14.55	0.08	0.54	<0.01	0.016	0.07	13.6	58.6	1.42	387	0.46	<0.01	<0.05	31.7
S194120		23.9	6.52	0.09	0.31	<0.01	0.011	0.04	6.5	24.5	0.69	756	2.41	<0.01	<0.05	17.4
S194121		6.79	4.58	0.05	0.79	<0.01	0.009	0.12	19.7	21.2	0.56	475	0.80	0.01	<0.05	34.8
S194122		35.2	3.75	0.43	0.18	<0.01	0.010	0.01	4.9	0.8	0.20	496	1.56	0.03	<0.05	8.6
S194123		27.7	4.97	0.12	0.22	<0.01	0.005	0.04	6.0	4.4	0.29	453	2.35	0.02	<0.05	14.1
S194124		6.40	7.43	0.13	0.15	0.02	0.009	0.01	0.8	10.0	2.46	900	0.15	0.03	0.07	101.5
S194125		5.27	6.65	0.06	0.26	0.10	0.026	0.55	10.3	12.4	2.25	846	5.66	0.17	0.12	246



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Project: Savant Lake

**CERTIFICATE OF ANALYSIS TB16151458**

Sample Description	Method	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	
	Analyte	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	TI
	Units	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm
LOR	10	0.2	0.1	0.001	0.01	0.05	0.1	0.2	0.2	0.2	0.2	0.01	0.01	0.2	0.005	0.02
S194086		200	0.6	0.3	0.001	1.62	1.05	10.9	2.1	0.2	9.4	<0.01	0.06	<0.2	0.146	<0.02
S194087		220	2.3	0.3	0.002	2.75	3.74	8.4	2.3	0.2	11.2	<0.01	0.14	<0.2	0.165	<0.02
S194088		210	2.9	0.2	0.002	2.83	6.33	12.1	3.2	0.2	7.8	0.01	0.22	<0.2	0.281	<0.02
S194089		240	0.2	0.1	<0.001	0.14	1.35	9.6	0.7	<0.2	21.9	<0.01	0.03	<0.2	0.182	<0.02
S194090		150	0.2	0.1	<0.001	0.03	0.83	8.9	0.3	<0.2	13.4	<0.01	0.18	<0.2	0.098	<0.02
S194091		180	0.2	1.7	<0.001	0.01	0.17	5.6	0.2	<0.2	7.1	<0.01	0.02	<0.2	0.147	<0.02
S194092		400	0.2	2.1	0.001	0.68	0.29	25.7	2.8	0.4	6.3	<0.01	0.08	0.2	0.401	<0.02
S194093		360	3.3	1.9	<0.001	0.18	0.77	12.7	0.6	<0.2	52.0	<0.01	0.03	2.6	0.005	0.03
S194094		420	11.4	1.2	<0.001	3.56	18.20	8.0	2.8	<0.2	15.5	<0.01	0.67	0.8	<0.005	0.37
S194095		650	15.6	51.9	<0.001	0.12	0.33	5.3	0.6	1.1	37.3	0.01	0.07	6.8	0.140	0.39
S194096		250	17.7	10.7	<0.001	0.05	0.63	2.2	0.3	0.2	70.3	<0.01	0.07	5.5	0.027	0.07
S194097		160	3.8	29.0	<0.001	0.35	0.26	4.7	0.3	0.8	37.2	<0.01	0.04	4.4	0.092	0.19
S194098		320	6.4	30.4	<0.001	0.40	0.28	6.1	0.5	0.9	91.3	<0.01	0.06	6.4	0.102	0.23
S194099		600	12.5	54.0	<0.001	0.17	0.76	4.8	0.6	0.4	38.9	0.01	0.08	6.9	0.087	0.37
S194100		670	3.5	7.2	<0.001	0.01	0.12	1.9	0.3	0.2	62.3	<0.01	0.01	2.4	0.097	0.05
S194101		430	54.4	7.9	<0.001	0.02	0.34	1.6	0.3	<0.2	322	<0.01	0.12	0.5	0.016	0.05
S194102		870	11.5	32.0	<0.001	0.10	0.52	3.8	0.6	0.2	60.7	<0.01	0.04	5.2	0.040	0.18
S194103		260	92.4	13.1	<0.001	0.04	0.28	3.2	0.4	0.3	30.1	<0.01	0.05	8.9	0.046	0.07
S194104		1190	3.7	51.2	<0.001	1.02	0.27	11.0	0.7	0.7	14.8	<0.01	<0.01	5.9	0.271	0.72
S194105		770	10.9	17.9	<0.001	0.08	0.72	3.1	0.3	0.2	126.5	<0.01	0.03	2.7	0.029	0.06
S194106		750	9.0	14.5	0.001	2.52	4.80	4.9	1.9	0.2	58.9	<0.01	0.74	3.0	0.046	0.10
S194107		1070	9.7	24.0	0.001	2.47	4.41	6.4	1.8	0.3	86.3	<0.01	0.57	4.3	0.073	0.16
S194108		490	2.7	3.3	0.001	0.40	0.88	5.3	0.5	0.3	69.3	<0.01	0.04	2.2	0.023	0.02
S194109		1050	8.9	75.9	<0.001	1.25	1.39	7.8	0.9	0.7	27.7	0.01	0.12	7.5	0.260	0.48
S194110		1130	8.7	61.2	0.001	1.86	1.42	7.5	1.1	0.7	24.1	0.01	0.26	5.4	0.215	0.45
S194111		410	14.5	8.7	<0.001	0.22	2.47	1.4	0.4	<0.2	81.6	<0.01	0.02	10.0	0.019	0.05
S194112		340	12.0	15.2	<0.001	0.22	0.30	3.6	0.4	0.2	213	<0.01	0.04	2.9	0.035	0.08
S194113		130	8.9	19.3	0.005	6.28	0.21	0.7	3.0	0.4	5.1	<0.01	2.35	0.7	0.010	0.25
S194114		390	14.0	23.7	<0.001	0.09	0.70	2.6	0.2	0.2	107.0	0.01	0.02	6.6	0.107	0.20
S194115		690	4.6	6.9	0.001	0.07	0.77	1.2	0.2	<0.2	39.1	<0.01	0.01	3.5	0.005	0.03
S194116		330	4.7	2.3	<0.001	0.11	0.17	1.9	0.3	<0.2	80.9	<0.01	0.02	1.2	<0.005	0.02
S194117		180	15.2	3.9	<0.001	0.23	0.21	0.5	0.2	<0.2	83.2	<0.01	0.04	2.4	<0.005	0.03
S194118		240	0.5	0.3	0.001	0.09	0.51	5.1	0.5	<0.2	20.5	<0.01	0.03	<0.2	0.237	<0.02
S194119		370	11.0	4.8	<0.001	0.53	0.96	5.3	0.7	<0.2	70.4	<0.01	0.02	3.7	0.008	0.02
S194120		630	3.3	2.1	<0.001	0.45	0.31	3.2	0.7	<0.2	59.0	<0.01	0.02	1.4	<0.005	<0.02
S194121		660	9.4	7.5	<0.001	2.34	1.03	2.8	1.7	<0.2	35.7	<0.01	0.07	5.9	<0.005	0.04
S194122		580	10.7	0.5	<0.001	0.11	0.64	2.5	0.3	<0.2	81.0	<0.01	0.05	1.0	<0.005	<0.02
S194123		560	4.4	2.9	<0.001	0.12	0.99	1.6	0.3	<0.2	85.7	<0.01	0.01	1.3	<0.005	0.02
S194124		210	0.4	0.8	0.001	0.14	0.62	6.5	0.9	0.2	15.2	<0.01	0.03	<0.2	0.285	<0.02
S194125		390	18.4	28.4	0.001	0.39	2.61	5.6	0.4	1.5	98.0	<0.01	0.14	3.5	0.112	0.23



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**CERTIFICATE OF ANALYSIS TB16151458**

Sample Description	Method Analyte Units LOR	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41
		U	V	W	Y	Zn	Zr
		ppm	ppm	ppm	ppm	ppm	ppm
		0.05	1	0.05	0.05	2	0.5
S194086		<0.05	159	0.09	3.88	76	1.6
S194087		<0.05	178	<0.05	3.55	126	2.2
S194088		0.06	232	0.07	2.89	143	2.8
S194089		<0.05	157	<0.05	4.93	60	3.1
S194090		<0.05	109	0.05	1.69	73	1.6
S194091		<0.05	127	0.05	2.50	74	2.7
S194092		<0.05	412	0.18	10.45	117	4.0
S194093		0.34	98	<0.05	4.47	74	14.7
S194094		0.15	36	1.85	3.48	61	13.4
S194095		1.64	32	0.24	7.09	77	34.4
S194096		1.14	6	0.15	3.69	41	27.2
S194097		1.07	19	0.16	2.90	36	27.6
S194098		1.35	24	0.26	4.36	45	32.5
S194099		1.23	60	0.22	8.29	78	39.5
S194100		0.66	106	6.39	4.26	34	1.7
S194101		0.13	17	0.11	3.43	17	4.2
S194102		1.18	53	0.17	8.35	76	25.8
S194103		1.60	19	0.34	5.32	171	30.3
S194104		0.84	146	0.46	9.07	92	21.3
S194105		0.62	32	0.09	5.06	33	16.1
S194106		0.92	43	1.58	3.41	60	29.1
S194107		1.23	60	1.78	5.17	77	38.4
S194108		0.36	32	0.13	3.36	32	14.1
S194109		1.34	63	0.36	6.78	126	31.5
S194110		1.21	52	0.31	6.24	136	48.0
S194111		1.66	3	0.23	4.82	27	27.1
S194112		0.53	11	0.10	3.58	39	24.5
S194113		0.19	8	6.04	2.31	151	3.3
S194114		0.90	13	0.13	5.78	39	20.2
S194115		0.66	40	0.12	3.77	45	11.9
S194116		0.22	5	<0.05	2.52	27	9.0
S194117		0.35	2	0.05	1.91	9	7.9
S194118		<0.05	110	<0.05	5.20	61	3.9
S194119		0.65	59	<0.05	3.03	96	18.8
S194120		0.28	43	0.06	2.37	46	11.9
S194121		0.87	15	0.19	3.30	59	28.7
S194122		0.45	32	0.86	1.85	10	6.8
S194123		0.44	55	0.10	2.10	19	8.4
S194124		<0.05	133	<0.05	4.81	65	4.1
S194125		0.85	77	2.42	6.18	65	8.8



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**CERTIFICATE OF ANALYSIS TB16151458**

Sample Description	Method Analyte Units LOR	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	
		Ag ppm	Al %	As ppm	Au ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Ce ppm	Co ppm	Cr ppm	Cs ppm	Cu ppm
S194126		0.03	3.72	4.7	<0.2	<10	240	0.38	0.03	5.23	0.21	15.75	43.9	8	12.10	92.8
S194127		0.03	1.40	4110	0.9	<10	10	<0.05	0.01	4.44	0.07	1.54	18.4	51	0.20	20.3
S194128		0.04	3.99	68.7	<0.2	<10	20	0.05	0.01	2.51	0.09	3.26	45.5	189	0.21	120.5
S194129		0.03	5.68	42.6	<0.2	<10	10	0.09	0.01	0.98	0.06	4.01	46.7	161	0.45	111.0
S194130		0.04	2.49	60.6	<0.2	<10	10	<0.05	0.01	7.48	0.12	6.28	44.7	137	0.34	156.5
S194131		0.02	4.86	>10000	0.8	<10	10	0.11	0.02	0.78	0.05	2.79	48.0	165	0.32	123.5
S194132		0.02	5.45	513	<0.2	<10	10	0.11	0.01	0.47	0.03	3.42	28.4	174	0.25	100.5
S194133		0.02	3.86	64.1	<0.2	<10	10	0.19	0.08	3.29	0.07	3.80	38.4	99	0.43	105.0
S194134		0.04	2.29	5960	<0.2	<10	20	0.09	0.02	6.91	0.09	6.33	32.5	106	0.24	76.9
S194135		0.02	0.38	6070	1.2	<10	10	0.09	0.01	8.02	0.11	3.23	17.6	11	0.35	29.1
S194136		0.05	2.69	497	<0.2	<10	20	0.09	0.02	4.07	0.11	5.92	46.2	90	0.40	174.5
S194137		0.20	0.53	21.6	<0.2	<10	70	0.15	0.67	1.47	0.08	39.8	10.9	13	1.01	19.5
S194138		0.03	1.45	13.8	<0.2	<10	110	0.22	0.08	0.57	0.05	62.0	13.6	23	1.97	4.4
S194139		<0.01	0.04	2.9	<0.2	<10	<10	<0.05	0.01	0.33	0.01	0.37	0.5	10	0.05	1.2
S194140		0.17	1.11	5.6	<0.2	<10	50	0.12	0.73	2.16	0.09	30.9	8.9	34	0.71	89.8
S194141		0.02	1.84	4.6	<0.2	<10	50	0.22	0.01	3.10	0.05	20.4	17.0	70	1.08	61.7
S194142		0.13	1.96	4.7	<0.2	<10	110	0.18	0.61	0.66	0.09	30.1	13.7	42	1.18	19.0
S194143		0.05	0.07	1.3	<0.2	<10	10	<0.05	0.15	1.33	0.03	0.87	0.8	16	0.12	1.1
S194144		0.02	2.80	11.2	<0.2	<10	50	0.25	0.07	2.74	0.13	22.9	26.0	73	1.15	66.1
S194150		0.06	1.32	0.8	<0.2	<10	120	0.06	0.05	0.75	<0.05	14.15	7.9	15	0.41	52.7
S194151		0.06	1.99	2.1	<0.2	<10	180	0.71	0.19	1.17	0.08	37.9	15.6	50	4.24	40.4
S194152		0.06	1.66	1.3	<0.2	<10	70	0.25	0.15	0.98	0.06	39.8	14.6	42	1.10	34.4
S194153		0.04	2.37	3.4	<0.2	<10	40	0.27	0.17	0.23	0.01	21.9	6.0	28	0.91	26.4
S194154		0.06	2.50	1.9	<0.2	<10	220	0.55	0.25	0.77	0.05	50.7	17.6	72	15.10	34.1
S194155		0.08	1.06	7.3	<0.2	<10	60	0.17	0.22	0.27	0.03	15.95	5.2	12	1.00	52.9
S194156		0.06	0.62	5.4	<0.2	<10	70	0.35	0.22	0.46	0.02	11.50	4.0	13	1.54	27.9
S194157		0.05	2.61	13.7	<0.2	<10	80	0.20	0.22	4.39	0.22	27.8	9.6	20	3.48	61.3
S194158		0.08	0.36	2.3	<0.2	<10	70	0.39	0.25	2.95	0.10	33.7	11.4	26	0.62	17.2



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Project: Savant Lake

**CERTIFICATE OF ANALYSIS TB16151458**

Sample Description	Method Analyte Units LOR	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	
		Fe %	Ga ppm	Ge ppm	Hf ppm	Hg ppm	In ppm	K %	La ppm	Li ppm	Mg %	Mn ppm	Mo ppm	Na %	Nb ppm	Ni ppm
S194126		10.55	13.80	0.19	0.28	0.01	0.038	0.71	7.1	16.0	2.50	1240	0.21	<0.01	0.13	21.4
S194127		2.93	3.78	<0.05	0.04	0.03	0.016	0.02	0.7	7.6	1.44	506	0.14	0.01	<0.05	37.7
S194128		7.21	13.10	0.10	0.02	0.04	0.054	0.01	1.1	15.9	2.21	1280	0.10	0.02	<0.05	132.5
S194129		9.97	16.20	0.28	0.10	<0.01	0.045	<0.01	1.4	13.2	5.00	1100	0.06	0.01	0.09	145.5
S194130		7.23	6.07	<0.05	0.06	<0.01	0.045	0.04	2.3	10.2	3.07	1420	0.09	0.05	<0.05	147.0
S194131		9.89	15.40	0.33	0.08	0.01	0.066	0.01	1.1	14.5	4.70	933	0.18	0.02	<0.05	134.0
S194132		9.83	16.05	0.38	0.07	<0.01	0.064	<0.01	1.2	14.7	4.81	975	0.08	0.01	0.06	121.5
S194133		9.94	8.41	0.32	0.11	0.06	0.029	<0.01	1.5	9.2	3.10	1040	0.30	<0.01	0.15	82.1
S194134		7.55	5.43	<0.05	0.05	<0.01	0.034	0.06	2.9	9.8	3.28	1680	0.12	0.04	<0.05	114.5
S194135		5.40	0.94	<0.05	<0.02	<0.01	0.015	0.12	1.2	1.4	3.01	1650	0.38	0.01	<0.05	41.9
S194136		8.36	7.31	<0.05	0.06	<0.01	0.027	0.08	2.1	10.9	2.84	1200	0.17	0.02	<0.05	119.5
S194137		1.74	1.74	<0.05	0.58	<0.01	<0.005	0.27	21.8	4.5	0.23	412	0.64	0.03	0.18	19.4
S194138		2.76	5.45	0.05	0.74	<0.01	0.012	0.46	33.6	16.2	0.87	346	0.61	0.03	0.12	30.4
S194139		0.37	0.17	<0.05	<0.02	<0.01	<0.005	0.01	0.2	0.4	0.02	81	0.13	<0.01	<0.05	1.5
S194140		7.98	4.14	0.05	0.37	<0.01	0.007	0.18	15.9	11.5	0.70	657	0.68	0.01	0.20	22.5
S194141		19.65	7.09	0.12	0.22	<0.01	0.019	0.18	10.8	17.8	1.42	640	0.31	0.01	0.11	48.3
S194142		9.05	6.64	0.06	0.51	<0.01	0.018	0.29	15.0	21.1	1.20	550	1.13	0.01	0.46	41.2
S194143		0.53	0.29	<0.05	<0.02	<0.01	<0.005	0.01	0.5	1.0	0.04	198	0.32	<0.01	<0.05	2.2
S194144		17.05	7.15	0.07	0.40	<0.01	0.014	0.23	12.1	30.3	1.86	684	0.41	<0.01	0.08	64.5
S194150		2.77	3.67	0.06	0.09	<0.01	0.008	0.20	6.5	4.9	0.58	315	2.28	0.14	0.19	6.3
S194151		12.55	7.45	0.12	0.62	<0.01	0.009	0.74	18.9	21.2	1.03	1000	1.03	0.02	0.21	41.8
S194152		12.45	5.72	0.07	0.48	0.01	0.007	0.23	20.5	20.0	0.95	579	0.73	0.01	0.09	40.0
S194153		29.1	6.55	0.35	0.33	<0.01	0.009	0.06	11.6	12.2	1.01	341	1.47	<0.01	0.06	16.2
S194154		9.56	13.05	0.22	0.92	<0.01	0.022	1.42	25.5	34.9	1.51	581	1.48	0.05	0.30	50.4
S194155		35.7	5.88	0.27	0.28	<0.01	<0.005	0.18	8.6	14.4	0.56	259	0.25	<0.01	0.06	10.0
S194156		29.6	3.57	0.24	0.20	<0.01	<0.005	0.23	6.2	8.9	0.35	415	0.19	<0.01	0.09	9.8
S194157		10.30	8.31	0.06	0.59	<0.01	0.007	0.38	14.9	32.8	1.25	892	1.30	<0.01	0.11	14.1
S194158		9.24	3.03	0.05	0.31	0.01	0.008	0.17	17.7	3.6	0.75	760	0.72	0.01	<0.05	21.9



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Project: Savant Lake

**CERTIFICATE OF ANALYSIS TB16151458**

Sample Description	Method Analyte Units LOR	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	
		P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl
		ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm
S194126	730	1.0	44.0	0.001	0.21	0.21	19.7	1.4	0.4	53.9	0.01	0.01	0.5	0.441	0.15	
S194127	20	1.5	0.9	<0.001	0.30	1.48	11.1	0.4	<0.2	19.6	<0.01	0.01	<0.2	0.045	<0.02	
S194128	280	0.7	0.6	0.001	0.04	0.32	31.7	0.4	<0.2	10.4	<0.01	0.03	<0.2	0.008	<0.02	
S194129	300	0.4	0.4	0.001	0.02	0.21	34.7	0.3	0.3	5.0	<0.01	0.02	0.2	0.264	<0.02	
S194130	230	0.4	1.4	0.001	0.09	1.59	17.0	0.6	<0.2	26.5	<0.01	0.04	0.2	<0.005	<0.02	
S194131	290	1.1	0.3	0.001	1.91	4.16	43.4	0.4	<0.2	7.6	<0.01	0.03	<0.2	0.105	<0.02	
S194132	240	0.3	0.1	0.001	0.37	0.56	47.8	0.6	0.2	3.2	<0.01	0.02	<0.2	0.210	<0.02	
S194133	250	0.9	0.4	<0.001	0.11	0.62	4.2	2.1	0.2	10.8	<0.01	0.49	<0.2	0.208	<0.02	
S194134	240	0.5	2.0	0.001	1.42	2.80	13.1	0.8	<0.2	36.7	<0.01	0.05	0.2	<0.005	0.02	
S194135	90	0.4	3.3	0.003	0.81	2.31	4.4	0.5	<0.2	66.4	<0.01	0.02	<0.2	<0.005	<0.02	
S194136	200	0.5	2.3	0.001	0.99	1.77	13.5	0.4	<0.2	35.0	<0.01	0.02	0.2	<0.005	0.02	
S194137	420	32.7	16.6	<0.001	0.20	0.25	1.0	0.5	<0.2	150.5	<0.01	0.05	6.3	0.028	0.13	
S194138	600	6.0	27.3	<0.001	0.05	0.32	3.0	0.2	0.2	47.8	<0.01	0.03	7.8	0.073	0.18	
S194139	<10	0.6	0.5	<0.001	0.01	0.05	0.1	<0.2	<0.2	6.3	<0.01	<0.01	<0.2	<0.005	<0.02	
S194140	540	9.8	11.3	<0.001	0.03	0.32	1.6	0.2	<0.2	152.0	0.01	0.04	3.9	0.059	0.06	
S194141	940	2.8	14.1	<0.001	0.01	0.57	9.2	<0.2	0.2	150.5	<0.01	0.01	2.5	0.105	0.06	
S194142	550	24.9	20.3	0.001	0.10	0.41	4.1	0.3	0.3	99.4	0.01	0.07	5.7	0.123	0.14	
S194143	50	7.0	0.7	<0.001	0.01	<0.05	0.2	<0.2	<0.2	47.6	<0.01	0.01	<0.2	<0.005	<0.02	
S194144	680	4.4	18.0	0.001	0.12	0.49	5.9	0.4	<0.2	123.5	<0.01	0.01	3.8	0.039	0.10	
S194150	700	3.5	7.1	<0.001	0.02	0.11	1.7	0.2	0.2	55.6	<0.01	<0.01	2.5	0.100	0.05	
S194151	770	8.3	57.7	<0.001	0.10	0.40	3.8	0.4	0.2	143.0	0.01	0.03	5.2	0.106	0.31	
S194152	740	13.8	16.2	<0.001	0.09	0.38	2.8	0.3	<0.2	95.6	0.01	0.02	5.3	0.020	0.08	
S194153	950	4.1	8.0	<0.001	0.13	0.44	2.5	0.4	<0.2	38.8	<0.01	0.04	2.7	0.016	0.02	
S194154	730	11.1	128.5	<0.001	0.11	0.33	10.3	0.2	0.6	71.6	0.01	0.03	7.4	0.233	0.80	
S194155	780	13.9	12.3	<0.001	0.64	0.39	1.0	0.9	<0.2	36.6	<0.01	0.03	1.6	0.021	0.07	
S194156	790	10.1	16.2	<0.001	0.20	0.40	0.8	0.5	<0.2	66.0	<0.01	0.02	1.4	0.026	0.09	
S194157	750	14.6	31.1	<0.001	1.01	0.29	2.5	1.0	<0.2	516	<0.01	0.06	3.3	0.056	0.34	
S194158	450	14.6	8.7	<0.001	0.14	0.39	3.0	0.3	<0.2	357	<0.01	0.02	4.1	0.005	0.04	



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Project: Savant Lake

**CERTIFICATE OF ANALYSIS TB16151458**

Sample Description	Method Analyte Units LOR	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41
		U	V	W	Y	Zn	Zr
		ppm	ppm	ppm	ppm	ppm	ppm
		0.05	1	0.05	0.05	2	0.5
S194126		0.06	245	0.05	28.4	105	6.7
S194127		<0.05	63	17.80	3.05	34	1.2
S194128		<0.05	221	0.13	4.05	85	0.9
S194129		<0.05	284	0.08	12.10	99	1.9
S194130		<0.05	99	0.05	1.83	77	1.4
S194131		<0.05	282	9.12	4.99	100	2.5
S194132		<0.05	301	1.53	9.02	99	1.5
S194133		<0.05	129	0.71	5.22	129	2.7
S194134		<0.05	75	0.21	2.82	64	1.7
S194135		<0.05	20	0.39	1.79	24	0.6
S194136		<0.05	109	0.56	1.83	79	1.4
S194137		0.79	9	0.10	5.99	19	22.1
S194138		1.27	20	0.09	6.00	56	24.0
S194139		<0.05	1	<0.05	0.12	2	<0.5
S194140		0.45	30	0.12	4.33	30	13.3
S194141		0.32	92	0.24	6.76	37	7.9
S194142		0.74	43	0.15	6.63	60	17.7
S194143		<0.05	1	<0.05	0.72	3	<0.5
S194144		0.62	61	0.09	6.57	58	14.1
S194150		0.61	110	7.21	4.22	35	1.6
S194151		0.86	49	0.18	5.50	40	25.7
S194152		1.03	43	0.09	5.60	52	22.1
S194153		0.37	29	0.10	3.71	25	13.5
S194154		1.13	85	0.05	5.63	84	35.9
S194155		0.29	27	0.06	2.93	41	11.2
S194156		0.26	19	0.07	2.84	17	8.4
S194157		0.78	28	0.14	6.83	49	24.2
S194158		0.66	19	0.06	7.52	32	13.7

\*\*\*\*\* See Appendix Page for comments regarding this certificate \*\*\*\*\*



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**CERTIFICATE OF ANALYSIS TB16151458**

<b>CERTIFICATE COMMENTS</b>	
Applies to Method:	<p style="text-align: center;"><b>ANALYTICAL COMMENTS</b></p> <p>Gold determinations by this method are semi- quantitative due to the small sample weight used (0.5g).            ME- MS41</p>
Applies to Method:	<p style="text-align: center;"><b>LABORATORY ADDRESSES</b></p> <p>Processed at ALS Vancouver located at 2103 Dollarton Hwy, North Vancouver, BC, Canada.            FND- 02 ME- MS41</p>



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**CERTIFICATE TB16155432**

Project: Savant Lake  
 P.O. No.: NDR 1601  
 This report is for 74 Rock samples submitted to our lab in Thunder Bay, ON, Canada on 15- SEP- 2016.  
 The following have access to data associated with this certificate:  
 ROB DUNCAN                      SCOTT HEFFERNAN                      DAVE NUTTALL

SAMPLE PREPARATION	
ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
LOG- 23	Pulp Login - Rcvd with Barcode
CRU- QC	Crushing QC Test
PUL- QC	Pulverizing QC Test
CRU- 31	Fine crushing - 70% < 2mm
SPL- 21	Split sample - riffle splitter
PUL- 31	Pulverize split to 85% < 75 um

ANALYTICAL PROCEDURES		
ALS CODE	DESCRIPTION	INSTRUMENT
Au- AA23	Au 30g FA- AA finish	AAS
ME- MS41	Ultra Trace Aqua Regia ICP- MS	

To: EQUITY EXPLORATION CONSULTANTS LTD.  
 ATTN: DAVE NUTTALL  
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This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

\*\*\*\*\* See Appendix Page for comments regarding this certificate \*\*\*\*\*

Signature:   
 Colin Ramshaw, Vancouver Laboratory Manager



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**CERTIFICATE OF ANALYSIS TB16155432**

Sample Description	Method	WEI- 21	Au- AA23	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41
	Analyte	Recvd Wt.	Au	Ag	Al	As	Au	B	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr
Units		kg	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm
LOR		0.02	0.005	0.01	0.01	0.1	0.2	10	10	0.05	0.01	0.01	0.01	0.02	0.1	1
S193886		0.90	0.078	0.22	3.64	121.0	<0.2	<10	50	0.27	0.41	2.02	0.07	105.5	23.4	54
S193887		0.75	<0.005	0.02	1.41	1.2	<0.2	<10	40	0.26	0.03	1.54	0.07	23.6	16.5	333
S193888		0.83	<0.005	0.01	0.03	0.4	<0.2	10	10	0.05	0.03	0.02	0.01	0.80	0.3	14
S193889		1.44	0.006	0.10	0.59	3.0	<0.2	<10	60	0.17	0.27	1.73	0.07	24.3	8.8	20
S193890		1.82	<0.005	0.04	0.37	2.9	<0.2	<10	100	0.33	0.05	4.32	0.09	52.5	15.0	51
S193891		1.59	<0.005	0.07	0.34	1.2	<0.2	<10	30	<0.05	0.20	0.12	0.03	10.95	2.9	14
S193892		1.52	<0.005	0.03	1.72	6.1	<0.2	<10	40	0.47	0.08	2.75	0.14	59.3	7.2	10
S193893		0.96	<0.005	0.23	0.22	9.0	<0.2	<10	50	0.06	0.52	0.39	0.02	17.45	3.9	8
S193894		1.78	<0.005	0.03	0.23	1.6	<0.2	<10	30	0.06	0.07	2.42	0.03	10.45	2.2	9
S193895		1.78	<0.005	0.09	0.20	5.2	<0.2	<10	90	0.12	0.20	1.11	0.07	40.1	5.8	8
S193896		1.27	<0.005	0.27	0.24	2.1	<0.2	<10	40	0.10	0.49	1.91	0.12	27.8	8.7	15
S193897		1.49	<0.005	0.10	0.72	2.9	<0.2	<10	50	0.11	0.27	2.10	0.07	54.8	13.7	21
S193898		2.39	<0.005	0.24	0.44	2.2	<0.2	<10	40	0.11	0.46	2.10	0.09	17.50	8.0	26
S193899		1.95	<0.005	0.05	0.40	1.0	<0.2	<10	20	0.10	0.12	1.40	0.04	8.85	4.8	16
S193900		0.06	<0.005	0.07	1.29	0.6	<0.2	<10	120	0.08	0.05	0.73	0.05	14.55	7.7	14
S193901		2.81	<0.005	0.12	0.50	0.7	<0.2	<10	10	0.09	0.28	0.36	0.03	6.36	3.4	13
S193902		2.66	<0.005	0.14	0.20	1.8	<0.2	<10	40	0.12	0.18	2.07	0.08	22.2	7.6	16
S193903		0.77	<0.005	0.03	0.27	2.5	<0.2	<10	80	0.11	0.10	1.25	0.06	14.60	5.7	14
S193904		1.47	<0.005	0.07	2.15	4.5	<0.2	<10	240	0.87	0.16	1.09	0.04	40.7	19.7	82
S193905		1.18	<0.005	0.21	1.70	31.9	<0.2	<10	30	0.19	0.61	1.56	0.15	35.9	18.6	22
S193906		1.52	<0.005	0.05	1.56	2.0	<0.2	<10	190	0.43	0.16	1.56	0.10	21.5	5.8	23
S193907		1.05	<0.005	0.04	1.04	10.2	<0.2	<10	30	0.35	0.10	1.01	0.08	10.15	3.5	15
S193908		1.24	<0.005	0.07	0.21	2.2	<0.2	<10	50	0.12	0.42	0.32	0.13	9.87	4.5	15
S193909		1.48	0.171	1.52	0.86	>10000	0.2	<10	50	0.11	5.59	0.27	0.05	13.30	6.8	8
S193910		1.15	0.165	15.00	0.04	>10000	<0.2	<10	20	<0.05	41.7	0.01	0.09	3.57	10.0	10
S193911		0.74	0.020	0.24	3.14	990	<0.2	<10	100	0.37	0.78	0.70	0.11	33.1	18.0	50
S193912		1.32	0.007	0.97	2.74	804	<0.2	<10	50	0.31	2.67	0.73	0.16	31.2	18.6	40
S193913		0.89	<0.005	0.02	0.17	15.2	<0.2	<10	60	0.18	0.07	0.48	0.05	20.5	0.9	6
S193914		0.72	<0.005	0.05	0.06	10.1	<0.2	<10	10	<0.05	0.36	0.07	0.01	2.36	0.9	8
S193915		1.10	<0.005	0.05	2.62	7.4	<0.2	<10	30	0.14	0.18	1.16	0.11	46.8	24.2	85
S193916		0.82	<0.005	0.06	0.85	2.1	<0.2	<10	80	0.30	0.14	2.15	0.10	54.8	11.7	30
S193917		1.30	0.006	2.51	1.32	3.0	<0.2	<10	60	0.21	5.95	1.89	0.08	39.0	8.7	33
S194145		2.10	0.164	0.08	1.18	295	<0.2	<10	10	0.24	0.19	7.69	0.18	3.48	34.6	23
S194146		1.52	0.024	0.14	1.97	23.1	<0.2	<10	10	0.10	0.08	6.95	0.25	3.62	30.6	47
S194147		1.48	0.013	0.14	0.11	1.5	<0.2	<10	40	0.27	0.13	0.25	0.26	5.27	2.8	7
S194148		1.42	0.026	0.12	0.25	8.4	<0.2	<10	40	0.08	0.17	0.34	0.21	6.81	18.5	3
S194149		0.74	0.011	0.44	0.96	13.6	<0.2	<10	120	0.25	0.08	0.25	0.09	7.30	22.4	32
S194159		0.97	0.009	0.19	2.92	14.4	<0.2	<10	10	0.22	0.08	0.70	0.15	2.30	47.3	139
S194160		0.54	<0.005	<0.01	0.06	0.4	<0.2	<10	<10	<0.05	<0.01	0.10	<0.01	0.09	0.8	10
S194161		4.18	<0.005	0.09	2.76	12.6	<0.2	<10	<10	0.05	0.01	2.38	0.12	2.61	37.4	182



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**CERTIFICATE OF ANALYSIS TB16155432**

Sample Description	Method Analyte Units LOR	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	
		Cs	Cu	Fe	Ga	Ge	Hf	Hg	In	K	La	Li	Mg	Mn	Mo	Na
		ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%
S193886		2.52	357	12.30	10.75	0.58	0.68	0.04	0.028	0.18	53.2	64.9	4.01	582	1.17	<0.01
S193887		0.64	3.2	2.77	4.79	0.11	0.10	0.04	0.013	0.03	10.6	25.7	2.31	577	0.18	<0.01
S193888		<0.05	2.1	0.44	0.13	<0.05	<0.02	0.03	<0.005	0.01	0.4	0.4	0.02	62	0.17	<0.01
S193889		0.21	20.5	5.13	1.86	0.05	0.32	0.04	<0.005	0.18	12.5	5.5	0.40	678	0.75	0.01
S193890		1.02	46.4	8.27	2.23	0.11	0.33	0.02	0.009	0.23	24.0	5.6	1.74	673	0.19	0.03
S193891		0.18	4.5	0.96	1.16	<0.05	0.04	0.01	<0.005	0.07	5.4	3.4	0.17	169	0.19	0.01
S193892		1.27	17.1	11.20	7.29	0.20	0.56	0.02	0.022	0.12	28.7	9.9	0.71	740	2.05	0.02
S193893		0.34	2.8	1.20	0.66	<0.05	0.15	0.01	<0.005	0.12	7.9	1.8	0.12	242	0.28	<0.01
S193894		0.17	7.9	0.63	0.75	<0.05	0.07	0.02	<0.005	0.06	5.5	2.5	0.08	484	0.25	0.01
S193895		0.26	12.2	2.01	0.81	0.05	0.66	0.02	<0.005	0.14	21.3	1.0	0.14	333	0.27	0.02
S193896		0.18	35.4	3.87	0.90	0.05	0.38	<0.01	0.005	0.10	14.0	2.8	0.27	849	0.44	0.01
S193897		0.20	36.2	3.28	2.81	0.07	0.44	0.01	0.006	0.10	27.4	14.4	0.92	634	0.65	0.03
S193898		0.15	27.7	6.40	1.85	0.05	0.35	<0.01	0.006	0.06	9.0	8.0	0.70	653	0.52	0.01
S193899		0.06	11.8	29.0	4.56	0.27	0.18	<0.01	0.009	0.02	4.2	9.1	0.59	700	1.92	0.01
S193900		0.38	60.8	2.67	3.94	0.07	0.08	<0.01	0.007	0.20	6.8	5.0	0.56	322	2.34	0.14
S193901		0.07	14.5	17.70	2.47	0.13	0.11	<0.01	0.005	0.03	2.9	10.1	0.29	587	0.94	<0.01
S193902		0.22	40.6	3.02	0.69	<0.05	0.46	0.01	0.005	0.12	11.3	1.5	0.56	579	0.68	0.01
S193903		0.25	24.8	3.90	1.15	<0.05	0.17	0.02	<0.005	0.15	7.6	3.0	0.21	456	0.47	0.01
S193904		13.05	54.1	9.80	10.80	0.24	0.82	0.01	0.034	1.56	20.5	29.2	1.61	478	1.34	0.04
S193905		0.34	55.3	4.91	4.91	0.07	0.34	0.01	0.008	0.10	18.2	19.4	1.14	1020	0.95	0.02
S193906		2.85	13.6	26.8	5.41	0.85	0.43	<0.01	0.019	0.61	11.0	13.5	0.93	976	0.31	0.01
S193907		0.16	19.9	20.4	2.90	0.64	0.13	<0.01	0.014	0.01	5.1	4.9	0.20	718	1.12	0.01
S193908		0.28	17.9	3.93	0.81	<0.05	0.16	<0.01	0.005	0.07	4.8	2.0	0.10	824	0.66	0.02
S193909		0.54	224	12.00	3.40	0.10	0.08	<0.01	0.025	0.09	9.9	4.0	0.23	437	18.30	<0.01
S193910		0.05	8.5	2.77	0.21	<0.05	0.02	<0.01	0.010	0.03	2.2	0.4	0.01	94	33.0	<0.01
S193911		6.95	111.5	11.80	10.20	0.25	0.49	<0.01	0.021	0.52	19.5	20.7	1.25	721	1.68	0.01
S193912		0.56	90.6	11.35	6.89	0.12	0.53	<0.01	0.007	0.15	16.2	17.3	1.25	317	4.35	<0.01
S193913		0.38	5.1	1.26	0.54	<0.05	0.14	<0.01	<0.005	0.15	11.1	1.6	0.11	343	0.08	0.01
S193914		0.44	3.4	0.52	0.19	<0.05	0.04	<0.01	<0.005	0.04	1.2	0.6	0.01	118	0.25	<0.01
S193915		0.16	58.7	5.16	9.04	0.08	0.39	<0.01	0.017	0.07	24.4	28.3	1.83	704	0.37	0.02
S193916		1.58	47.2	14.85	4.67	0.12	0.49	<0.01	0.005	0.30	28.3	8.0	0.80	779	2.39	0.01
S193917		2.52	87.4	3.48	4.05	0.08	0.38	<0.01	0.008	0.27	20.1	21.8	0.75	451	0.11	0.02
S194145		0.07	204	7.96	3.90	0.18	0.02	0.03	0.049	<0.01	1.4	1.3	2.41	1070	0.49	<0.01
S194146		0.22	203	8.03	5.04	0.07	0.04	<0.01	0.054	0.02	1.5	9.4	2.36	1430	0.20	0.01
S194147		6.50	70.5	4.65	1.57	0.11	<0.02	0.14	0.157	0.11	2.5	0.2	0.10	123	0.31	0.01
S194148		1.97	676	7.01	1.35	0.10	0.02	<0.01	0.037	0.06	3.0	0.3	0.22	277	1.00	<0.01
S194149		24.2	655	12.20	3.49	0.15	0.07	0.53	0.174	0.32	3.2	0.2	0.78	1120	0.41	0.01
S194159		0.16	735	9.93	5.47	0.14	0.06	<0.01	0.085	0.01	1.0	5.8	2.46	640	0.56	<0.01
S194160		0.10	4.9	0.34	0.10	<0.05	<0.02	<0.01	<0.005	<0.01	<0.2	0.3	0.06	46	0.09	<0.01
S194161		0.09	208	4.65	3.96	0.11	0.08	<0.01	0.007	<0.01	1.0	7.9	2.03	1080	0.13	0.01



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		Nb	Ni	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th
		ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
S193886		0.08	33.4	1650	14.5	16.5	0.001	3.08	0.32	9.6	2.8	<0.2	185.5	<0.01	0.16	18.8
S193887		0.07	98.8	1000	3.7	2.4	<0.001	<0.01	0.13	6.2	0.2	<0.2	147.5	<0.01	0.02	0.7
S193888		0.07	1.3	10	0.9	0.5	<0.001	0.01	0.05	0.1	<0.2	<0.2	3.3	<0.01	0.01	<0.2
S193889		0.10	18.8	560	6.4	7.9	<0.001	0.12	0.16	1.0	0.4	<0.2	117.0	<0.01	0.05	3.1
S193890		0.31	37.7	1300	5.6	15.0	0.001	0.01	0.31	3.1	0.5	<0.2	627	<0.01	0.02	2.4
S193891		0.16	7.9	170	16.0	3.8	<0.001	0.01	0.10	0.4	<0.2	<0.2	13.9	<0.01	0.02	1.2
S193892		0.19	8.1	1130	8.2	10.6	<0.001	0.03	2.01	4.0	0.5	0.3	237	<0.01	0.02	3.4
S193893		0.15	4.6	600	19.0	6.1	<0.001	<0.01	0.16	0.5	0.2	<0.2	47.9	<0.01	0.03	1.2
S193894		0.09	4.4	100	6.2	2.9	<0.001	0.06	0.08	0.4	0.3	<0.2	106.0	<0.01	0.02	0.9
S193895		0.11	7.5	480	12.5	5.5	<0.001	0.04	0.45	1.0	0.2	<0.2	83.0	<0.01	0.03	5.3
S193896		0.09	16.9	350	34.3	4.1	<0.001	0.02	0.61	1.3	0.3	<0.2	131.5	<0.01	0.03	3.5
S193897		0.07	36.3	550	15.2	3.8	<0.001	0.06	0.36	1.7	0.2	<0.2	241	<0.01	0.04	6.0
S193898		0.08	18.2	430	22.4	2.8	<0.001	0.02	1.10	1.5	0.3	<0.2	197.5	<0.01	0.05	2.2
S193899		0.08	11.0	640	3.4	0.9	0.001	0.07	1.44	2.3	0.2	<0.2	135.5	<0.01	0.02	1.0
S193900		0.23	6.4	680	4.2	7.1	<0.001	<0.01	0.10	1.8	0.2	0.2	60.3	<0.01	0.01	2.7
S193901		0.07	7.7	450	9.1	1.2	<0.001	0.04	1.11	1.3	0.3	<0.2	38.6	<0.01	0.03	0.7
S193902		0.09	12.6	440	12.2	4.9	<0.001	0.10	0.75	1.3	0.3	<0.2	240	<0.01	0.05	3.3
S193903		0.09	12.2	390	6.3	6.2	<0.001	0.06	0.18	0.7	0.2	<0.2	225	<0.01	0.02	2.0
S193904		0.22	52.4	650	6.9	117.5	0.001	0.22	0.36	16.0	0.8	1.0	96.4	<0.01	0.06	5.6
S193905		0.12	56.8	670	42.6	3.9	<0.001	0.08	1.33	3.7	0.5	<0.2	181.0	0.01	0.08	5.9
S193906		0.24	15.4	1020	10.4	39.2	<0.001	0.05	0.79	5.0	0.4	0.5	192.0	<0.01	0.03	2.5
S193907		0.20	8.5	650	11.6	2.1	<0.001	0.17	2.72	3.1	0.5	<0.2	63.2	<0.01	0.04	1.0
S193908		0.25	10.7	530	17.3	4.9	<0.001	0.04	0.37	1.5	0.3	<0.2	33.8	<0.01	0.14	1.0
S193909		0.25	10.7	1410	161.0	8.2	0.001	3.72	8.34	1.4	7.3	<0.2	41.6	<0.01	4.48	0.4
S193910		0.08	21.0	60	1870	1.4	0.001	1.10	4.60	0.3	8.1	<0.2	4.7	<0.01	13.00	0.2
S193911		0.28	34.6	600	32.9	59.0	0.001	0.52	0.72	9.4	1.0	0.3	63.5	<0.01	0.18	3.4
S193912		0.10	42.5	470	159.5	10.5	<0.001	0.54	0.49	3.2	1.0	<0.2	87.7	<0.01	0.51	4.1
S193913		0.12	1.1	150	4.3	6.9	<0.001	<0.01	0.08	0.2	<0.2	<0.2	53.9	<0.01	0.02	2.0
S193914		0.13	2.4	20	11.2	3.5	<0.001	<0.01	0.09	0.2	<0.2	<0.2	8.7	<0.01	0.08	0.4
S193915		0.06	63.7	440	12.7	3.1	<0.001	0.11	0.20	5.4	0.6	<0.2	73.0	<0.01	0.05	4.3
S193916		0.20	27.7	1000	6.2	21.9	0.001	0.18	0.41	1.6	0.6	<0.2	212	<0.01	0.05	6.9
S193917		0.14	29.2	460	220	25.2	<0.001	0.01	0.16	3.0	1.3	<0.2	209	<0.01	0.91	3.8
S194145		0.07	28.2	670	1.0	0.1	0.001	1.06	2.78	7.2	3.4	<0.2	35.1	<0.01	0.96	<0.2
S194146		0.07	54.7	250	2.2	0.6	0.001	0.34	1.49	12.0	1.4	<0.2	41.6	<0.01	0.54	<0.2
S194147		0.17	1.3	520	2.5	5.6	0.001	0.20	0.42	0.2	6.9	0.4	4.0	<0.01	1.94	<0.2
S194148		0.15	6.8	810	1.3	2.7	0.002	1.01	0.58	0.3	4.0	<0.2	4.4	<0.01	0.50	<0.2
S194149		0.19	8.4	710	16.7	17.8	0.001	1.62	3.28	1.2	15.2	0.7	4.7	<0.01	1.97	0.2
S194159		0.16	48.4	180	3.9	0.4	0.001	2.14	1.41	4.6	12.6	0.4	1.7	<0.01	0.61	<0.2
S194160		0.07	2.7	10	<0.2	0.1	<0.001	0.01	<0.05	0.1	<0.2	<0.2	0.6	<0.01	0.03	<0.2
S194161		0.13	109.0	220	0.2	0.2	0.001	0.07	0.26	4.1	0.7	<0.2	10.7	<0.01	0.08	<0.2



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		Ti %	Ti ppm	U ppm	V ppm	W ppm	Y ppm	Zn ppm	Zr ppm
		0.005	0.02	0.05	1	0.05	0.05	2	0.5
S193886		0.033	0.11	1.24	99	0.35	9.08	73	29.5
S193887		0.006	0.03	0.09	37	0.15	2.98	39	4.8
S193888		<0.005	<0.02	<0.05	1	0.12	0.11	<2	<0.5
S193889		0.009	0.03	0.55	10	0.16	3.48	26	13.4
S193890		0.029	0.10	0.34	23	0.36	6.26	37	14.8
S193891		0.007	0.03	0.22	3	0.19	1.07	14	2.5
S193892		0.040	0.08	0.39	21	0.19	8.68	75	25.9
S193893		0.012	0.04	0.26	4	0.18	2.12	14	9.6
S193894		<0.005	0.02	0.19	2	0.09	2.48	6	2.9
S193895		0.008	0.03	0.79	4	0.09	3.08	22	28.1
S193896		<0.005	0.02	0.49	8	0.08	3.52	26	17.2
S193897		0.005	0.02	0.90	11	0.06	3.83	56	18.4
S193898		<0.005	0.02	0.57	20	0.11	2.61	30	13.9
S193899		<0.005	<0.02	0.29	33	0.23	1.94	20	7.3
S193900		0.103	0.05	0.68	105	6.30	4.16	35	1.6
S193901		<0.005	<0.02	0.19	18	0.13	1.68	14	4.6
S193902		0.006	0.03	0.55	5	0.06	2.92	16	18.9
S193903		<0.005	0.04	0.58	11	0.07	2.14	16	7.5
S193904		0.231	0.85	1.25	105	0.14	11.15	58	32.0
S193905		0.018	0.02	0.93	23	0.10	4.57	70	17.0
S193906		0.079	0.19	0.41	29	0.41	5.19	27	17.6
S193907		0.010	<0.02	0.23	15	0.21	4.05	23	6.1
S193908		0.011	0.03	0.23	7	0.18	2.08	24	7.6
S193909		0.012	0.08	0.30	33	1.69	3.66	35	3.2
S193910		<0.005	0.29	0.06	1	0.29	0.31	5	0.8
S193911		0.104	0.45	0.56	70	0.16	5.17	80	20.0
S193912		0.012	0.06	0.81	36	0.15	4.23	111	20.6
S193913		0.006	0.03	0.20	1	0.09	1.25	7	5.1
S193914		0.005	0.02	0.22	1	0.06	0.47	4	2.0
S193915		0.011	0.02	0.75	52	0.07	5.12	96	17.6
S193916		0.029	0.14	1.10	41	0.13	6.80	35	24.7
S193917		0.047	0.14	0.74	15	0.06	3.96	36	14.1
S194145		0.005	<0.02	<0.05	51	0.11	3.15	41	1.0
S194146		<0.005	0.04	<0.05	68	0.08	2.08	100	1.3
S194147		0.008	<0.02	<0.05	7	0.12	1.58	96	<0.5
S194148		0.007	<0.02	<0.05	7	0.12	3.51	14	1.6
S194149		0.057	0.07	0.05	20	0.17	7.67	35	2.6
S194159		0.172	<0.02	<0.05	77	0.08	3.49	104	1.2
S194160		<0.005	<0.02	<0.05	1	<0.05	0.06	<2	<0.5
S194161		0.230	<0.02	<0.05	70	0.07	4.26	63	1.7



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To: EQUITY EXPLORATION CONSULTANTS LTD.  
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**CERTIFICATE OF ANALYSIS TB16155432**

Sample Description	Method Analyte Units LOR	WEI- 21	Au- AA23	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	
		Recvd Wt. kg	Au ppm	Ag ppm	Al %	As ppm	Au ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Ce ppm	Co ppm	Cr ppm
S194162		0.87	<0.005	0.03	4.21	34.7	<0.2	<10	<10	<0.05	<0.01	7.37	0.06	1.04	38.6	311
S194163		2.29	<0.005	0.04	3.91	7.9	<0.2	<10	10	<0.05	0.01	0.75	0.07	0.63	38.5	128
S194164		1.63	0.009	0.25	4.15	15.5	<0.2	<10	<10	0.23	0.57	0.14	0.19	31.2	55.9	70
S194165		0.90	<0.005	0.08	1.50	6.4	<0.2	<10	110	0.18	0.28	0.81	0.07	47.3	12.1	24
S194166		0.57	<0.005	0.01	0.24	0.8	<0.2	<10	20	0.07	0.03	0.70	0.03	3.03	1.6	4
S194167		1.27	0.016	0.45	3.29	1080	<0.2	<10	30	0.50	0.78	0.10	0.04	20.9	15.2	28
S194168		0.80	0.028	0.30	1.15	922	<0.2	<10	40	0.15	0.39	0.03	0.01	11.10	5.7	17
S194169		1.25	<0.005	0.02	0.18	4.5	<0.2	<10	10	<0.05	0.04	1.53	0.02	4.19	1.4	12
S194170		0.85	<0.005	0.59	1.99	12.3	<0.2	<10	20	<0.05	1.32	0.02	0.02	14.25	3.6	7
S194171		1.00	<0.005	0.04	0.95	2.9	<0.2	<10	30	0.08	0.08	2.91	0.05	33.8	5.7	12
S194172		0.69	<0.005	0.05	2.24	2.1	<0.2	<10	120	0.19	0.17	0.72	0.06	60.4	18.7	44
S194173		0.79	<0.005	0.09	1.49	0.9	<0.2	<10	100	0.22	0.22	3.99	0.10	48.3	11.6	49
S194174		0.93	<0.005	0.03	3.24	1.6	<0.2	<10	100	0.24	0.05	2.46	0.09	51.0	9.1	19
S194175		0.06	3.05	0.66	2.38	158.5	3.0	<10	170	0.32	0.25	1.71	0.21	18.40	25.7	404
S194176		1.36	<0.005	0.07	0.12	1.2	<0.2	<10	10	<0.05	0.20	2.06	0.04	12.75	1.2	11
S194177		0.45	<0.005	0.09	1.95	0.9	<0.2	<10	50	0.22	0.30	0.37	0.03	35.5	10.9	46
S194178		0.61	<0.005	0.07	1.30	2.3	<0.2	<10	50	0.10	0.38	0.61	0.06	42.7	11.2	30
S194179		1.68	<0.005	0.42	1.85	2.4	<0.2	<10	80	0.14	1.21	1.56	0.10	49.3	13.1	32
S194180		1.12	<0.005	0.07	2.50	7.1	<0.2	<10	10	0.08	0.01	1.28	0.17	1.17	30.0	124
S194181		1.85	<0.005	0.06	3.02	20.6	<0.2	<10	10	0.08	0.02	1.44	0.13	1.35	36.9	137
S194182		1.82	0.256	0.02	1.35	2340	0.2	<10	<10	0.06	0.05	16.35	0.09	4.17	29.4	54
S194183		0.70	<0.005	0.09	1.86	30.2	<0.2	<10	50	0.16	0.20	1.56	0.12	45.1	23.2	40
S194184		0.84	<0.005	0.13	3.15	7.5	<0.2	<10	30	0.26	0.32	5.40	0.15	146.5	20.2	156
S194185		0.79	<0.005	0.06	2.10	40.3	<0.2	<10	50	0.19	0.35	0.42	0.08	33.3	23.6	46
S194186		0.92	<0.005	0.05	2.49	12.7	<0.2	<10	40	0.15	0.13	1.34	0.13	35.4	23.8	83
S194187		1.08	<0.005	0.03	0.60	3.1	<0.2	<10	180	0.69	0.12	1.64	0.06	20.3	9.4	36
S194188		2.21	<0.005	0.02	1.24	2.0	<0.2	<10	20	0.18	0.10	2.04	0.06	11.30	5.2	18
S194189		0.65	<0.005	0.02	3.99	1.4	<0.2	<10	20	0.20	0.04	2.30	0.06	40.2	22.5	85
S194190		0.88	<0.005	0.19	4.93	4.7	<0.2	<10	10	0.12	0.15	3.13	0.15	23.3	25.4	70
S194191		1.63	<0.005	0.05	2.00	4.4	<0.2	<10	40	0.17	0.09	1.14	0.09	24.6	19.0	59
S194192		1.24	<0.005	0.04	1.45	3.2	<0.2	<10	90	0.37	0.06	1.70	0.07	28.9	20.4	76
S194193		1.19	<0.005	0.04	0.23	1.0	<0.2	<10	20	0.14	0.13	2.13	0.05	8.46	5.7	19
S194194		3.17	<0.005	0.02	1.11	1.2	<0.2	<10	20	0.14	0.04	2.27	0.09	12.85	6.3	21
S194195		2.79	<0.005	0.17	0.30	36.2	<0.2	<10	60	0.13	0.81	2.76	0.10	19.00	9.3	54



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Sample Description	Method Analyte Units LOR	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	
		Cs	Cu	Fe	Ga	Ge	Hf	Hg	In	K	La	Li	Mg	Mn	Mo	Na
		ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%
S194162		0.06	146.5	6.26	10.10	0.26	0.03	<0.01	0.024	<0.01	0.4	13.6	4.02	1030	<0.05	0.01
S194163		0.09	109.5	6.09	4.93	0.10	0.03	<0.01	<0.005	<0.01	0.3	13.4	3.48	862	0.10	0.01
S194164		0.06	752	14.60	12.90	0.33	0.39	0.01	0.154	<0.01	14.8	6.9	2.72	688	6.17	<0.01
S194165		1.52	26.2	3.31	5.08	0.08	0.57	<0.01	0.013	0.36	22.2	24.9	0.76	539	0.70	0.01
S194166		0.13	5.1	30.8	2.05	0.42	0.04	<0.01	<0.005	0.02	1.5	3.6	0.19	537	0.08	<0.01
S194167		2.73	99.3	18.30	10.25	0.28	0.38	<0.01	0.012	0.50	10.6	24.9	1.34	577	0.57	<0.01
S194168		1.14	47.5	11.00	3.43	0.08	0.23	<0.01	0.006	0.26	5.8	8.7	0.42	269	0.50	<0.01
S194169		0.16	2.3	0.46	0.70	<0.05	0.02	<0.01	<0.005	0.03	2.1	2.4	0.09	198	0.11	0.01
S194170		1.22	115.0	11.10	6.42	0.19	0.06	<0.01	0.013	0.04	7.5	7.4	0.70	477	29.2	<0.01
S194171		0.44	9.2	2.24	3.22	0.05	0.22	<0.01	<0.005	0.13	18.3	8.0	0.56	557	0.44	0.02
S194172		2.80	39.7	4.06	7.90	0.11	0.48	<0.01	0.016	0.69	29.2	25.9	1.45	419	0.73	0.02
S194173		2.69	33.0	5.64	5.22	0.10	0.47	<0.01	0.006	0.54	24.3	16.5	0.85	1440	0.65	0.02
S194174		6.25	17.2	15.30	10.35	0.25	0.54	<0.01	0.009	0.76	25.4	46.6	1.70	757	1.20	0.01
S194175		2.07	81.6	4.77	6.04	0.08	0.21	0.11	0.025	0.53	9.5	13.7	2.08	783	5.02	0.16
S194176		0.34	3.1	0.38	0.42	<0.05	0.03	<0.01	<0.005	0.05	7.0	1.2	0.05	313	0.19	<0.01
S194177		2.25	16.9	12.80	8.00	0.21	0.23	<0.01	0.018	0.41	18.1	28.4	1.17	475	1.17	0.02
S194178		1.09	23.0	2.44	4.51	0.06	0.48	<0.01	0.005	0.27	22.4	13.9	0.87	316	0.47	0.02
S194179		2.42	50.7	3.79	6.69	0.09	0.42	<0.01	0.015	0.48	24.9	27.9	1.05	555	0.51	0.01
S194180		0.12	154.5	4.28	3.84	0.09	0.07	0.01	0.005	0.01	0.5	7.7	1.99	942	0.13	0.02
S194181		0.12	145.0	6.00	5.45	0.09	0.07	0.01	0.014	0.02	0.5	8.2	2.31	1080	0.10	0.02
S194182		0.06	228	5.34	3.46	0.15	0.04	0.01	0.028	<0.01	1.8	1.4	1.85	1680	0.10	<0.01
S194183		0.44	53.1	4.83	5.40	0.06	0.46	<0.01	0.010	0.16	23.9	18.4	1.30	765	0.32	0.01
S194184		2.87	22.1	5.94	10.95	0.21	0.20	<0.01	0.028	0.22	70.6	33.7	2.30	1080	0.45	0.02
S194185		0.57	27.7	5.23	6.57	0.05	0.69	0.01	0.010	0.15	15.9	21.9	1.46	566	0.35	0.01
S194186		0.30	50.3	4.64	8.24	0.06	0.61	<0.01	0.016	0.09	18.4	28.8	1.93	654	0.48	0.02
S194187		8.76	23.0	25.5	6.96	0.51	0.35	<0.01	0.017	0.52	10.9	5.7	0.82	447	0.10	0.03
S194188		0.38	13.9	25.6	4.66	0.19	0.21	<0.01	<0.005	0.06	6.0	13.1	0.95	377	0.08	<0.01
S194189		0.28	25.0	15.00	12.50	0.21	0.66	<0.01	0.028	0.03	21.1	38.3	1.61	582	1.51	0.01
S194190		0.29	164.5	12.75	13.40	0.32	0.32	<0.01	0.033	<0.01	12.0	10.9	1.79	1200	1.20	<0.01
S194191		0.38	50.4	15.80	7.73	0.11	0.45	<0.01	0.011	0.09	13.0	20.9	1.34	622	0.64	0.01
S194192		10.30	47.5	16.40	8.36	0.26	0.39	<0.01	0.017	0.56	15.6	14.7	1.18	436	0.07	0.03
S194193		0.17	16.7	21.7	2.99	0.12	0.18	<0.01	0.006	0.05	4.1	3.7	0.54	638	4.52	0.01
S194194		0.13	28.4	20.3	4.14	0.13	0.21	<0.01	0.008	0.04	6.4	19.3	0.83	858	1.87	0.01
S194195		1.05	1.3	1.80	0.98	<0.05	0.29	<0.01	0.006	0.21	9.9	5.4	1.43	628	0.11	0.02



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		Nb	Ni	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th
		ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
		0.05	0.2	10	0.2	0.1	0.001	0.01	0.05	0.1	0.2	0.2	0.2	0.01	0.01	0.2
S194162		0.09	117.0	170	<0.2	0.1	<0.001	<0.01	<0.05	14.8	0.5	<0.2	12.0	<0.01	0.04	<0.2
S194163		0.09	118.5	140	0.2	0.2	<0.001	0.05	0.14	2.4	0.4	<0.2	5.3	<0.01	0.03	<0.2
S194164		0.12	35.4	670	4.8	0.1	0.014	3.43	0.25	14.9	8.5	0.6	5.6	<0.01	2.93	3.1
S194165		0.33	32.3	550	34.6	28.2	<0.001	0.07	0.47	4.4	0.5	0.3	57.6	<0.01	0.06	8.1
S194166		0.08	3.3	630	2.0	1.3	<0.001	0.05	0.24	0.5	0.3	<0.2	104.0	<0.01	0.03	0.3
S194167		0.26	42.3	690	11.1	43.9	<0.001	8.14	0.65	4.6	0.8	0.2	7.3	<0.01	0.84	1.5
S194168		0.27	18.4	270	5.4	20.0	<0.001	3.95	0.47	1.8	0.5	<0.2	9.9	<0.01	0.76	1.1
S194169		0.19	2.7	80	1.3	1.8	<0.001	0.02	0.09	0.4	<0.2	<0.2	13.1	<0.01	0.02	0.4
S194170		0.17	8.1	590	4.8	4.9	0.001	1.48	0.36	1.3	2.5	<0.2	3.1	<0.01	0.40	1.0
S194171		0.14	13.2	380	8.4	9.1	<0.001	0.07	0.08	0.8	0.2	<0.2	159.0	<0.01	0.03	3.0
S194172		0.28	52.0	940	10.5	46.8	<0.001	0.12	0.32	4.5	0.6	0.2	54.6	<0.01	0.03	8.7
S194173		0.25	32.2	500	12.9	39.9	<0.001	0.10	0.19	2.1	0.5	<0.2	332	<0.01	0.05	4.9
S194174		0.15	18.7	1230	6.3	63.8	<0.001	0.08	0.48	2.3	0.4	<0.2	237	<0.01	0.01	5.5
S194175		0.10	226	340	17.7	25.1	0.001	0.35	2.11	5.0	0.5	1.4	86.5	<0.01	0.12	2.9
S194176		0.07	2.2	190	6.3	3.8	<0.001	<0.01	0.16	0.2	<0.2	<0.2	23.6	<0.01	0.05	0.5
S194177		0.18	29.6	570	12.0	33.1	<0.001	0.13	0.37	5.5	0.4	0.2	46.2	<0.01	0.04	4.6
S194178		0.17	25.5	460	12.2	19.4	<0.001	0.04	0.19	1.3	0.3	<0.2	36.5	<0.01	0.03	7.5
S194179		0.19	35.2	470	35.6	35.0	<0.001	0.14	0.28	4.2	0.5	0.2	85.8	0.01	0.16	6.8
S194180		0.07	87.6	200	0.4	0.7	0.001	0.02	0.12	2.8	0.3	<0.2	6.5	<0.01	0.04	<0.2
S194181		0.09	106.5	210	0.6	0.8	0.001	0.17	0.20	5.6	1.4	0.2	12.3	<0.01	0.13	<0.2
S194182		<0.05	74.6	10	0.5	0.1	0.001	2.02	0.59	13.1	2.0	<0.2	155.0	<0.01	0.12	<0.2
S194183		<0.05	74.7	440	13.6	6.6	<0.001	0.01	0.24	2.7	0.3	<0.2	66.5	<0.01	0.02	6.3
S194184		0.21	64.9	1570	31.7	21.5	<0.001	<0.01	0.49	8.3	0.7	0.3	324	0.01	0.04	11.7
S194185		0.05	63.1	400	12.5	6.4	<0.001	0.59	0.58	3.1	0.9	<0.2	26.3	<0.01	0.08	7.0
S194186		<0.05	70.4	280	10.6	3.9	<0.001	0.15	0.28	5.5	0.5	<0.2	56.3	<0.01	0.01	6.0
S194187		0.10	23.4	1050	3.4	51.3	<0.001	0.15	0.69	5.6	0.5	0.4	94.5	<0.01	0.02	1.8
S194188		<0.05	12.0	500	3.8	4.2	<0.001	0.64	0.41	1.3	0.4	<0.2	107.5	<0.01	0.06	1.2
S194189		0.06	77.8	680	4.0	2.6	<0.001	0.10	0.15	14.6	0.4	<0.2	203	<0.01	0.01	5.4
S194190		0.07	67.1	680	18.2	2.9	0.001	0.58	3.35	11.8	0.7	<0.2	151.5	<0.01	0.03	2.7
S194191		0.07	55.7	630	6.3	5.2	<0.001	0.17	0.41	4.1	0.4	<0.2	68.7	<0.01	0.02	3.2
S194192		<0.05	51.5	1530	9.2	59.0	<0.001	0.30	0.57	8.3	0.6	0.3	77.9	<0.01	0.01	3.1
S194193		<0.05	14.2	510	5.0	2.2	<0.001	0.23	0.66	1.5	0.4	<0.2	117.0	<0.01	0.02	1.3
S194194		<0.05	15.8	730	2.5	1.8	<0.001	0.10	0.16	2.4	0.3	<0.2	116.5	<0.01	0.01	1.1
S194195		0.08	47.6	80	24.5	12.1	<0.001	<0.01	0.10	3.2	0.2	<0.2	474	<0.01	0.10	2.1



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Page: 3 - D  
 Total # Pages: 3 (A - D)  
 Plus Appendix Pages  
 Finalized Date: 28- SEP- 2016  
 Account: EIA

Project: Savant Lake

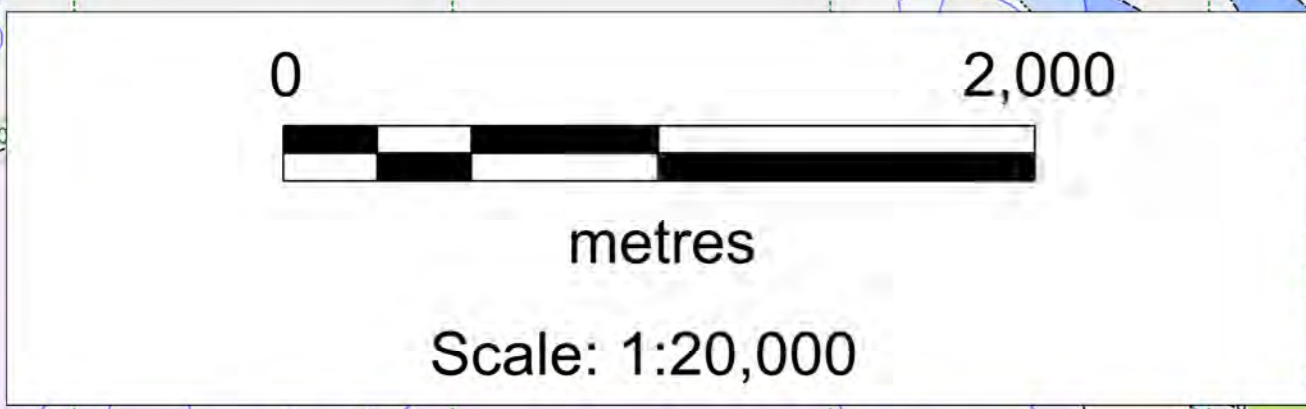
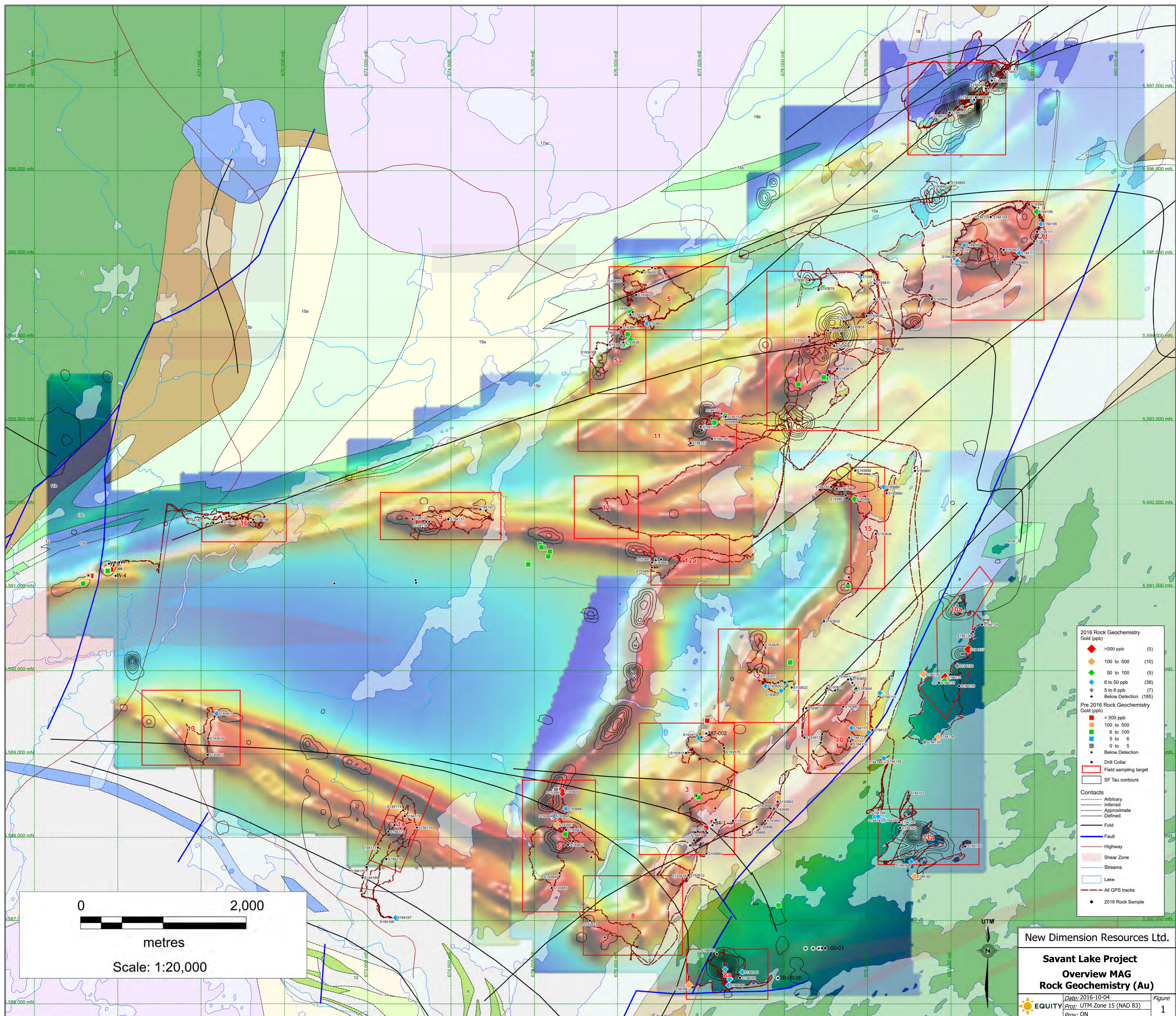
**CERTIFICATE OF ANALYSIS TB16155432**

Sample Description	Method Analyte Units LOR	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	
		Ti %	Ti ppm	U ppm	V ppm	W ppm	Y ppm	Zn ppm	Zr ppm
		0.005	0.02	0.05	1	0.05	0.05	2	0.5
S194162		0.158	<0.02	<0.05	181	0.19	4.65	49	1.1
S194163		0.142	<0.02	<0.05	73	0.07	1.12	53	0.7
S194164		0.030	<0.02	0.73	105	0.16	8.34	213	18.9
S194165		0.125	0.13	1.40	18	0.19	6.18	64	23.9
S194166		<0.005	<0.02	0.11	9	0.05	2.43	8	1.6
S194167		0.088	0.41	0.29	36	0.64	3.65	55	13.9
S194168		0.041	0.20	0.17	16	0.87	1.39	19	8.1
S194169		0.006	0.02	0.07	3	<0.05	0.75	6	0.9
S194170		0.023	0.06	0.15	12	0.17	2.77	19	2.8
S194171		0.015	0.09	0.45	6	<0.05	3.62	36	8.4
S194172		0.133	0.30	1.16	37	0.10	8.77	84	20.8
S194173		0.086	0.21	0.69	31	0.07	6.87	41	18.6
S194174		0.122	0.54	0.99	38	0.08	7.88	59	26.8
S194175		0.107	0.21	0.80	70	2.03	5.19	62	7.3
S194176		0.005	0.05	0.14	1	<0.05	1.21	5	1.3
S194177		0.086	0.23	0.97	50	0.06	5.64	42	8.2
S194178		0.042	0.18	1.44	17	0.06	4.70	61	19.9
S194179		0.073	0.31	1.14	24	0.08	7.75	62	16.1
S194180		0.214	<0.02	<0.05	64	0.06	1.87	73	1.3
S194181		0.231	<0.02	<0.05	84	0.08	2.13	87	1.4
S194182		0.005	<0.02	<0.05	54	0.09	7.90	18	1.4
S194183		0.011	0.04	0.88	22	0.07	4.01	80	18.2
S194184		0.115	0.24	1.41	68	0.20	11.40	84	10.5
S194185		0.014	0.08	1.18	30	0.10	4.56	74	28.2
S194186		0.022	0.02	0.75	52	0.06	5.36	78	23.6
S194187		0.082	0.23	0.27	71	0.07	4.01	31	13.1
S194188		0.008	0.02	0.23	27	<0.05	3.29	21	8.4
S194189		0.022	<0.02	0.90	96	0.17	6.71	69	27.0
S194190		0.018	<0.02	0.23	96	0.05	6.02	86	12.5
S194191		0.014	0.02	0.51	73	0.08	3.68	62	17.0
S194192		0.089	0.45	0.50	124	0.06	4.90	48	14.5
S194193		<0.005	<0.02	0.18	26	0.34	2.16	19	7.0
S194194		<0.005	<0.02	0.21	34	0.06	2.08	28	7.9
S194195		0.018	0.11	0.37	9	0.08	2.54	21	11.4



## **Appendix H**

Field Maps



- 2016 Rock Geochemistry Gold (ppb)**
- ◆ >500 ppb (5)
  - ◆ 100 to 500 (10)
  - ◆ 50 to 100 (5)
  - ◆ 6 to 50 ppb (39)
  - ◆ 5 to 6 ppb (7)
  - ◆ Below Detection (185)
- Pre 2016 Rock Geochemistry Gold (ppb)**
- > 500 ppb
  - 100 to 500
  - 6 to 100
  - 5 to 6
  - 0 to 5
  - Below Detection
- Drill Collar
  - Field sampling target
  - SF Tau contours
- Contacts**
- Arbitrary
  - Inferred
  - Approximate
  - Defined
- Other Features**
- Fold
  - Fault
  - Highway
  - Shear Zone
  - Streams
  - Lake
  - All GPS tracks
  - ◆ 2016 Rock Sample

## **Appendix I**

Equity Field Report

# INTERIM PROGRESS REPORT

**DATE:** October 4th, 2016

**PROJECT:** Savant Lake NDR-16-01

**CLIENT:** New Dimension Resources Ltd.

**PERIOD OF WORK:** August 22<sup>nd</sup> – September 15<sup>th</sup>, 2016

**LOCATION:** Savant Lake, Ontario, Canada

**CONTACT NUMBER:** Equity office (604) 688-9806

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This progress report summarises the work completed and preliminary findings of a mineral exploration prospecting program on the Savant Lake Property, Ontario. Attached with this report are the following:

- 1) An excel file containing a complete list of all samples collected, locations, descriptions, structural data and all lab results
- 2) An excel file that displays a list of all targets bearing anomalous gold and silver values
- 3) Target priority and exploration recommendations memo

## 2016 PROSPECTING SUMMARY

A four person crew collected a total of 261 surface rock samples from 16 target areas over 18 days of sampling from August 23<sup>rd</sup> – September 9th. On average 14.5 samples were collected per day. Figure one displays an overview map of the Savant Lake Project area and the locations of all 2016 samples collected.

Samples were sent to the ALS lab in Thunder Bay where they were prepped and later shipped to the ALS lab in Vancouver, BC. To date we have received lab results from all 261 samples. A total of 66 samples have returned anomalous gold values (>0.005 ppm Au) and 6 samples have returned anomalous silver values (>0.95 ppm Ag).

From September 10<sup>th</sup> – 14<sup>th</sup> two Equity geologists visited 10 of the sampled target areas with the objective to rank them in terms of priority for future exploration work on the property. The following targets and showings were visited: 1, 3 (host to L28, Shoal and the One Pine showings), 4, 6 (host to the Horseshoe and Snow Bird showings) 7, 8a, 10, 10a, 11a and Wiggle Creek. The investigation resulted in selecting five priority targets for future exploration work. In order of priority the targets selected are One Pine, L28/Shoal, Wiggle Creek, Target 10a and Horseshoe/Snow Bird.

## 2016 Prospecting Geology

The bedrock geology of the Savant Lake property consists of several lithologic units belonging to the Jutten Sedimentary Group, Jutten Volcanic Group and the Wimbrel Lake Formation. The traversed and sparsely mapped geology largely conforms to the regional interpretation of the Ontario Geological Survey. Outcrop is scarce (estimate of <10%) in the field area due to glacial till cover, swampy low land areas and thick vegetation. The best locations for exposure are in areas of higher topography where the veneer of till cover is thinner and along lake shores that have been scoured and exposed.

A primary observation is that the BIF on the property is not particularly well developed or thick. This is negative, even if fold thickened, as it means there is less volume of reactive rock present to be sulphidized allowing gold to drop out of the hydrothermal fluid.

The best mineralized showings observed generally consist of narrow quartz veining, typically 1 – 5 cm wide. The thickest veining (up to 50 cm wide) is seen at Wiggle Creek which has also seen the most extensive exploration (this may also be due to its highway access).

Most samples were taken from host rocks of banded iron formation (intercalated massive magnetite and chert), mafic volcanic flows/pillows or intercalated iron formation and metasediments (intermediate epiclastic volcanic sediments, mudstone, silt or wacke). They are usually Fe-stained on weathered surfaces and have sulphides at 0.5 – 2 % modal abundance, rarely higher than 5 % forming in foliation parallel bands, discordant stringers, isolated clots or occur weakly to strongly disseminated in the host.

There are four styles of mineralization observed on the property:

- 1) Iron formation or interbedded iron formation/meta-sediment hosted replacement-style sulphidation and associated discordant quartz-carbonate veining.
- 2) High grade visible gold and silver in quartz-carbonate veins hosted in iron formation.
- 3) Highly strained and or sheared mafic meta-volcanics with disseminated sulphides with coincidental occurrences of Au, Ag, Cu, Zn, and Pb.
- 4) Sediment hosted, very fine-grained to medium grained massive and semi-massive sulphide forming in continuous foliation parallel bands, stringers or clots.

Quartz/carbonate veins are found in almost all target areas and within all host rocks and are commonly in association with alteration minerals and or trace to weak (0.25 – 1 %) sulphide mineralization. In targets 1, 3, 7, 10 and 15, quartz veins associated with sulphide mineralization are noted to be dipping from 25-80 degrees SE and oriented approximately NE to SW, parallel to S2.

Ankerite, chlorite, muscovite, ferroan-dolomite, hematite, magnetite and quartz have been observed sparsely as alteration minerals; most commonly proximal to stock-work and sometimes isolated quartz veins that range from 2 mm – 50 cm in width.

Arsenopyrite, pyrrhotite and chalcopyrite have been noted in trace amounts, but usually only when pyrite is present as the dominant sulphide. As an exception, arsenopyrite has been noted as the dominant sulphide locally in rocks from the Wiggle Creek Showing, as well as targets 10a, 11 and 11a. Lab results show that samples with galena have returned anomalous silver values up to 15 ppm (S194910 – T11).



Figure 2. Mineralization style 1 from the L28 Showing (Target 3). Quartz veins discordant to banded iron formation with coarse pyrite mineralization concentrated in bedding parallel veins and fractures as well as disseminated in the host proximal to veins.



Figure 3. Mineralization style 2. Sample S193847 (38.8 ppm Au), target 6 area. Narrow 0.5 – 1 cm wide discordant quartz carbonate veins with iron oxide and chlorite selvage cut thickened iron formation. Visible gold found along vein-host rock contacts.



Figure 4 (Left). Mineralization style 1 from the Wiggle Creek Showing. Coarse-grained arsenopyrite is the dominant sulphide, disseminated in host proximal to discordant quartz/carbonate veins. Mineralization here is found in interbedded iron formation and metasediments.

Figure 5 (Right). Target 11, sample S193909. Folded banded iron formation hosting quartz carbonate veins and coarse arsenopyrite (5%) as dominant sulphide phase.

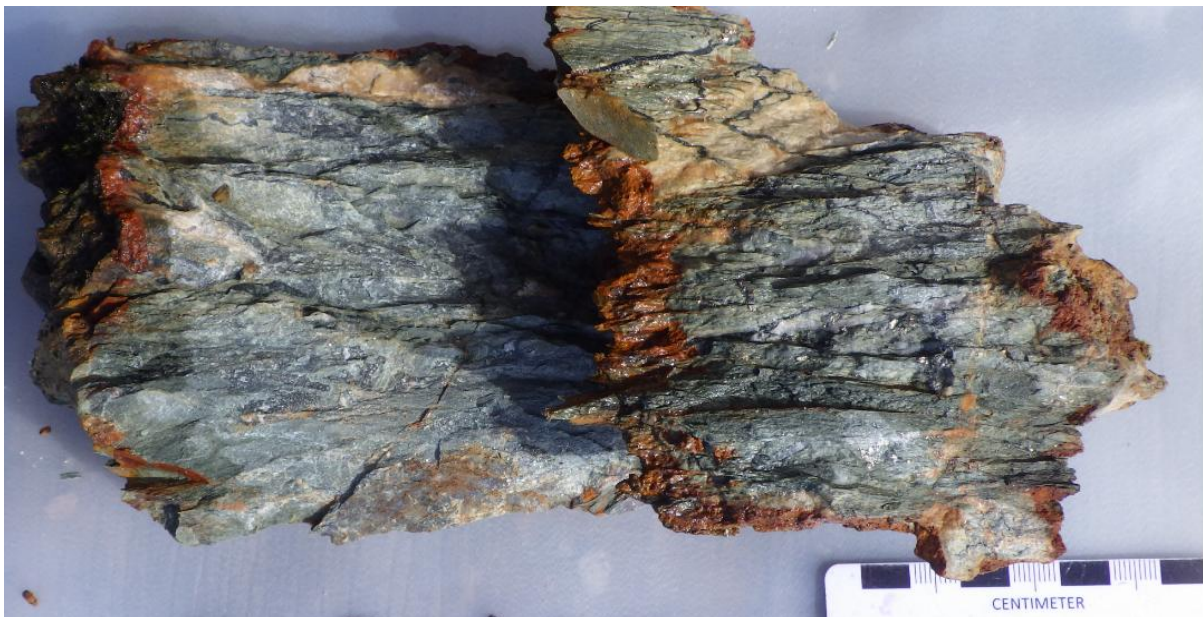


Figure 6. Mineralization style 3. Target 10a, sample S194136. Sheared and carbonated mafic metavolcanic with heavily disseminated fine-medium grained Arsenopyrite (3%) and trace Pyrite (1%). Alteration assemblage is chlorite, ankerite, biotite and silica.



Figure #. Sample S194110. Example of mineralization style 4, 1 – 2 mm wide band of pyrite-rich massive sulphide with minor chalcocopyrite and pyrrhotite within chlorite altered sediment host.

There are two notable property scale structural corridors on the Savant Lake Property.

- 1) The Girard Island Structural Corridor (GISC) hosts strongly developed D2 axial planar structures (up to 300 m wide at Girard Island) along a regional set of NW verging synform-antiform pairs (depicted on regional OGS structural map) trending 040 – 060. The tightly folded trend is approximately 4 km long and hosts from the SW to the NE, targets 8, 3 (including L28 & Shoal), 2, 10 and 10a together. Accompanying the folds is the NNE trending Savant Lake Fault. Quartz flooded fractures and fold noses are common within rocks of this structural zone.
- 2) The Kashawegamma Lake Shear Zone (KLSZ) which also runs NE-SW along the NW border of the property. This structural corridor links Wiggle Creek through Targets 16, 5, 5a, 4 and possibly target 7. Wiggle Creek is the best evidence of mineralization along this structure so far.

Targets 10a and 11a located east of the Savant Lake Fault along the east and south east areas of the property have been found to host narrow (1-4 m wide), mineralized and or sheared zones that dip steeply ( $80^{\circ}$  –  $90^{\circ}$ ) and strike towards an average azimuth of  $110^{\circ}$  (potential D1 structures). Mineralization style 3 occurs in these rocks. The structures in the D1 orientation could represent a third significant structural setting.

## **Appendix J**

Equity Proposal for Future Work

# MEMORANDUM

**DATE:** October 4th, 2016

**PROJECT:** Savant Lake NDR-16-01

**CLIENT:** New Dimension Resources Ltd.

**AUTHOR:** Dave Nuttall

**LOCATION:** Savant Lake, Ontario, Canada

**CONTACT NUMBER:** Equity office (604) 688-9806

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This memo summarizes the evaluation of prospective targets and offers recommendations for future exploration work at the Savant Lake Property for New Dimension Resources Ltd.

## TARGET EVALUATION

From September 11<sup>th</sup> – 14<sup>th</sup>, ten of the target sites were visited by Dave Nuttall and Rob Duncan of Equity Exploration Consultants Ltd, with the objective to provide a set of priority targets for future exploration work on the Savant Lake Property. Targets were evaluated based on the strength and style of mineralization as well as grade and the inferred size of the structures thought to be associated with mineralization.

Five priority target areas have been identified. The following is a list of these targets in order of priority: Target 3 North (One Pine showings), Target 3 South (L28/Shoal showings), Wiggle Creek, Target 10a and Target 6 (Horseshoe and Snow Bird showings). It appears evident that with the exception of target 10a, the strongest mineralization observed on the property to date, is located at the sites of known showings.

The best mineralized showings observed generally consist of narrow quartz veining, typically 1 – 5 cm wide. The thickest veining (up to 50 cm wide) is seen at Wiggle Creek which has also seen the most extensive exploration (this may also be due to its highway access).

Weakly anomalous gold mineralization encountered at Target 10a consists of disseminated pyrite and arsenopyrite hosted by structural zones. The current distribution of gold bearing samples and observed axial planar foliation and structures indicates potential for significant thickness to the mineralized zones.

In considering the next best steps for exploration at Savant Lake, we feel drilling short holes with either RAB or diamond drilling directly underneath the best target

areas will be the most efficient and effective means to determine the potential for significant gold mineralization. We feel that other exploration methods are either impractical (trenching) or will only provide inconclusive results (surface geochemistry and ground geophysics) making it difficult to determine if the property warrants further exploration.

## **TARGET PRIORITIZATION**

### **1) Target 3 (One Pine North and One Pine South showings)**

#### **Sampling Results**

- Historic and 2016 sampling data indicates 11 anomalous gold samples ranging from 0.01 – 40.87 ppm

#### **Structure and Mineralization**

- The target is situated along the Girard Island Structural Corridor (GISC) with compositional bedding trending 040° - 050° and discordant quartz veins oriented 040°, dipping steeply to the SE
- Mineralization is described as gold bearing sulphidation of interbedded BIF/meta-sediments (style 1 mineralization) cross cut by discordant quartz carbonate veins; analogous to that at L28 and Wiggle Creek

#### **Previous Work**

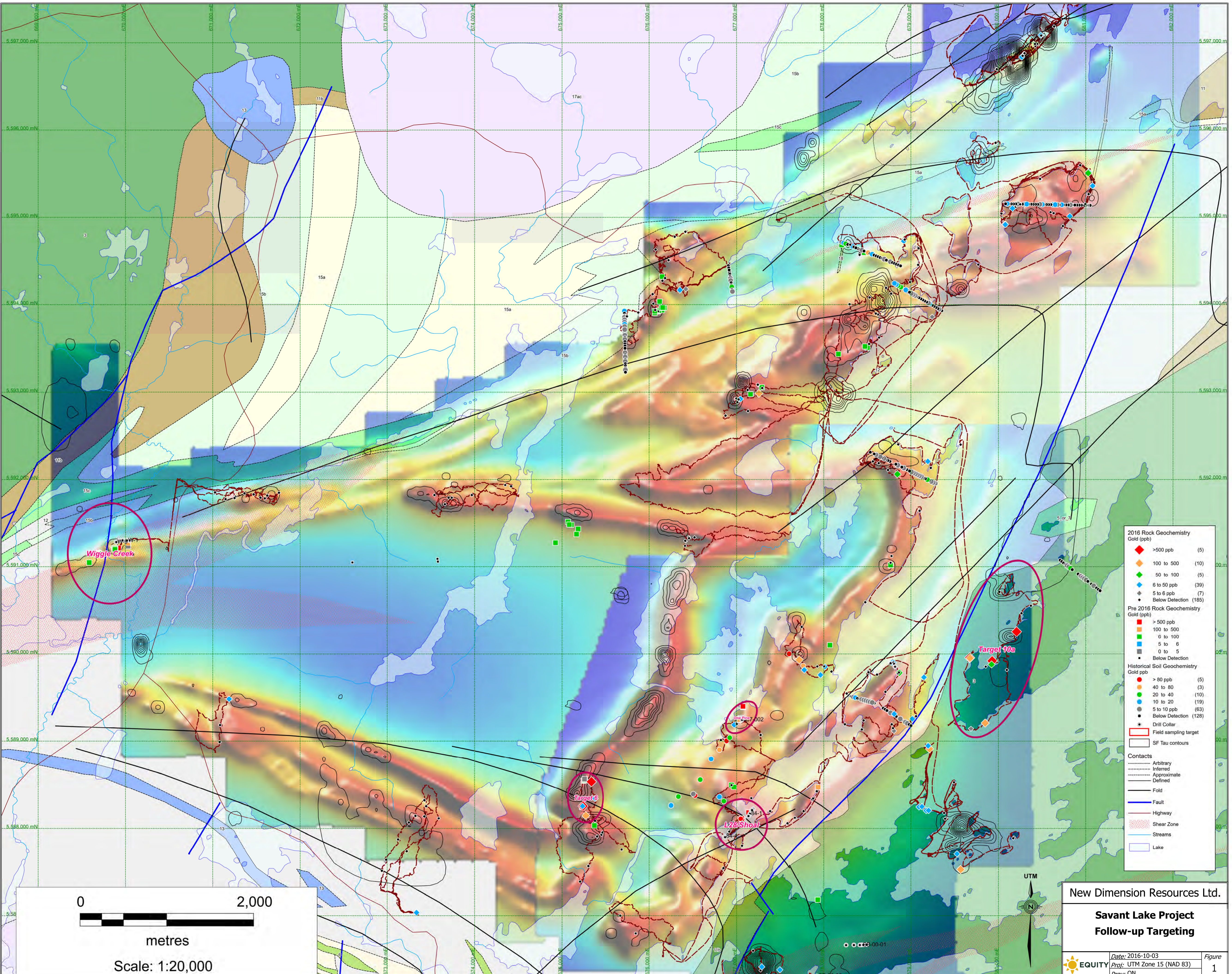
- One Pine North has not been drill tested
- There is one historic drill hole at One Pine South with no significant mineralization intersected
- Trenching has been done in this location before

#### **General Notes**

- VTEM map displays that One Pine showings may be located along the same iron formation trend hosting mineralization at L28 and Shoal in the SE area of target 3. If mineralized this trend is greater than 1.5 km long
- Distinct linear breaks are visible along the One Pine iron formation trend, D1 oriented (approximately 120°); these could be potential plumbing systems that would allow fluids to interact with the iron formation
- One Pine iron formation trend is underexplored to the NE into target 2 area and to the SE

#### **Recommended Work**

- Phase 1
  - Drill below mineralization at One Pine North
  - Drill below mineralization at One Pine South
- Phase 2 – follow up
  - Explore lateral surface continuity with geo-chemical soil and till sampling
  - Explore for structure; signs of iron formation alteration at depth using ground geophysics



**2016 Rock Geochemistry Gold (ppb)**

- ◆ >500 ppb (5)
- ◆ 100 to 500 (10)
- ◆ 50 to 100 (5)
- ◆ 6 to 50 ppb (39)
- ◆ 5 to 6 ppb (7)
- ◆ Below Detection (165)

**Pre 2016 Rock Geochemistry Gold (ppb)**

- > 500 ppb
- 100 to 500
- 5 to 100
- 5 to 6
- 0 to 5
- Below Detection

**Historical Soil Geochemistry Gold ppb**

- > 80 ppb (5)
- 40 to 80 (3)
- 20 to 40 (10)
- 10 to 20 (19)
- 5 to 10 ppb (63)
- Below Detection (128)

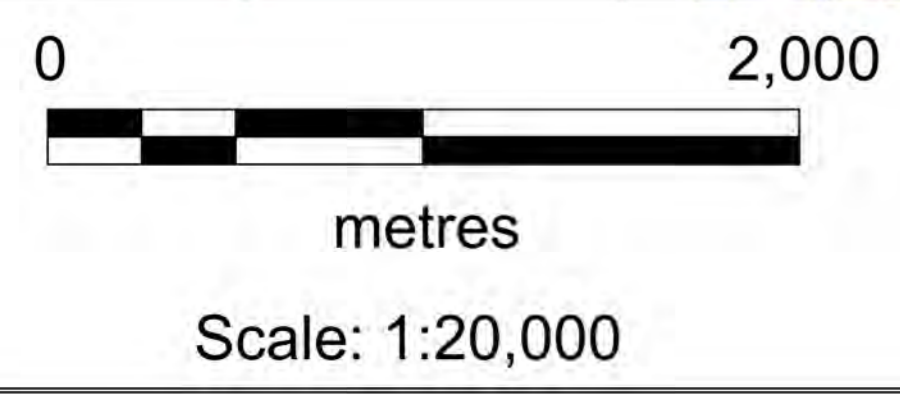
○ Drill Collar

□ Field sampling target

□ SF Tau contours

**Contacts**

- Arbitrary
- Inferred
- Approximate
- Defined
- Fold
- Fault
- Highway
- Shear Zone
- Streams
- Lake

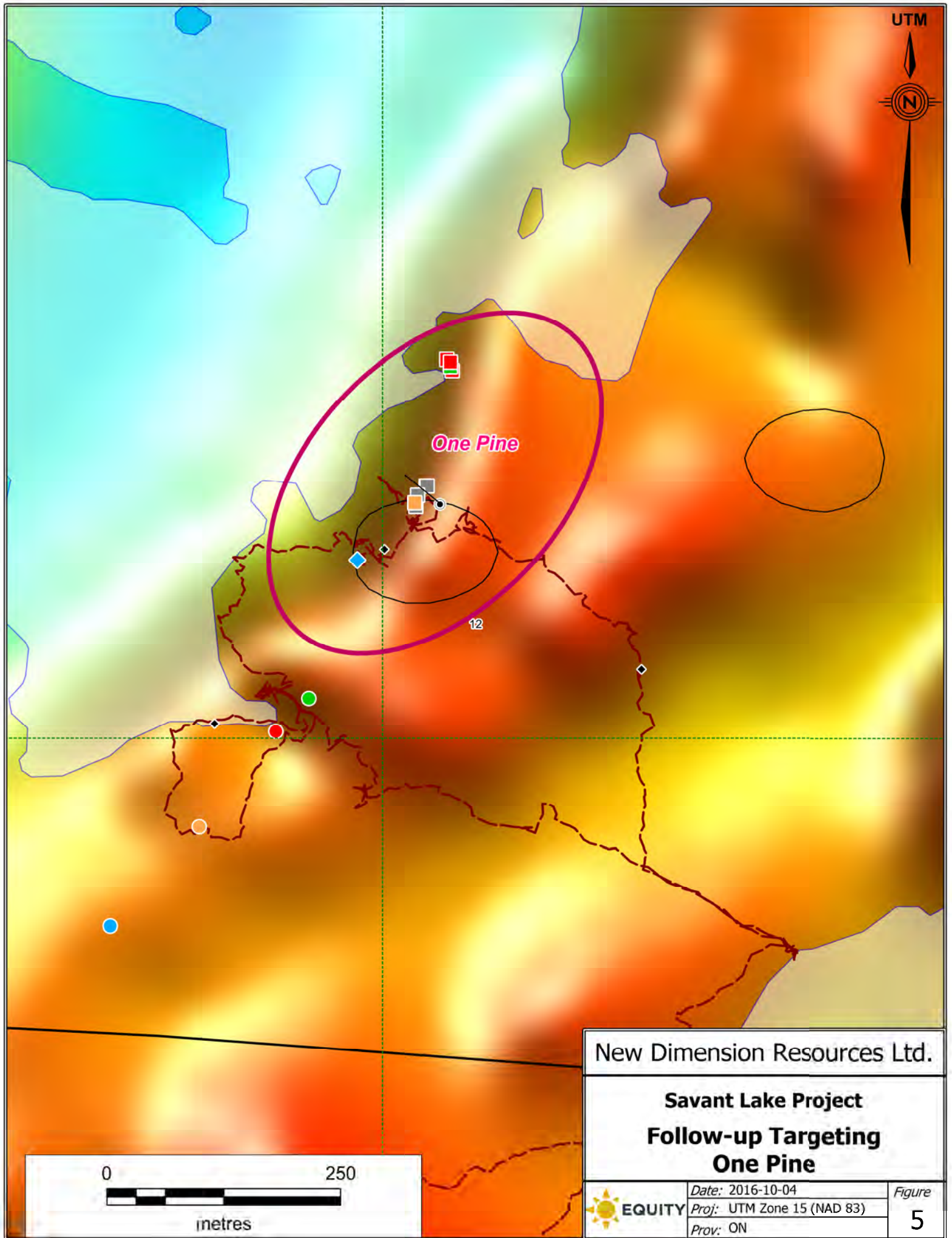


New Dimension Resources Ltd.

**Savant Lake Project  
Follow-up Targeting**


Date: 2016-10-03  
 Proj: UTM Zone 15 (NAD 83)  
 Prov: ON

Figure 1



New Dimension Resources Ltd.

**Savant Lake Project  
Follow-up Targeting  
One Pine**

	Date: 2016-10-04	<i>Figure</i> <b>5</b>
	Proj: UTM Zone 15 (NAD 83)	
	Prov: ON	

## 2) Target 3 (L28 and Shoal showings)

### Sampling Results

- Samples from the two showings run 0.019 – 32.35 ppm Au

### Structure and Mineralization

- Mineralization is described as gold bearing sulphidation of interbedded BIF/meta-sediments (style 1 mineralization) cross cut by discordant quartz carbonate veins; analogous to that at One Pine and Wiggle Creek
- Undulating to gently folded iron formation (060°/80) intersected by discordant quartz-carbonate veins dipping steeply and trending 040°
- Quartz flooded fold nose plunging steeply towards the NE
- Showings are situated at the confluence of a set of D1 and D2 fold axes
- L28 and Shoal appear to be separated by a trough in the mag trend

### Previous Work

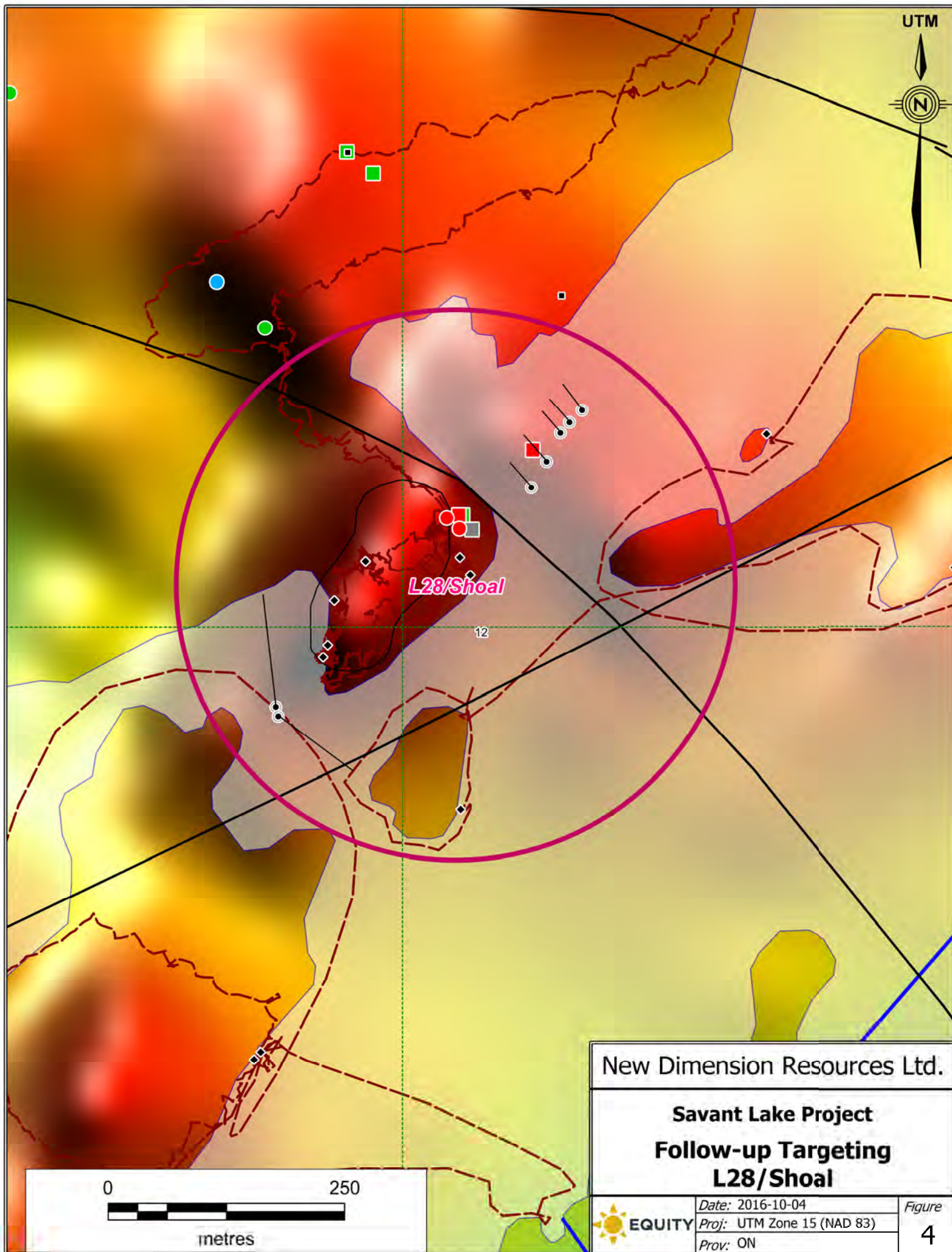
- Previous drilling does not test the area directly beneath the L28 showing or the interpreted iron formation trend that is folded to the NW from the L28 showing
- Historic drilling pattern suggests that the structure hosting mineralization may not have been well understood
- Trenching has been done in this location before

### General Notes

- L28 is exposed for approximately 20 m and may be linked to the Shoal showing 75 m to the NE
- Located on same interpreted iron formation trend as the One Pine showings to the NW

### Recommended Work

- Phase 1
  - Drill below mineralization at L28
  - Drill below mineralization at Shoal
- Phase 2
  - Explore lateral continuity with geo-chemical soil and till sampling
  - Explore for signs of iron formation alteration at depth using ground geophysics



### 3) Wiggle Creek Showing

#### Sampling Results

- Six surface samples returned between 1 – 10.83 ppm gold at main zone
- Four surface samples returned between 1.29 – 20.13 ppm gold at west trench
- Potential gold trend is up to 280 m strike length

#### Structure and Mineralization

- Mineralization is described as gold bearing sulphidation of interbedded BIF/meta-sediments (style 1 mineralization) cross cut by discordant quartz carbonate veins; analogous to that at L28 and One Pine
- Target hosts largest quartz vein observed on property thus far (tracked over 60 m strike length and up to 40 cm wide.)
- Situated along structural corridor (KLSZ)
- Cross-cut by north-south trending fault

#### Previous Work

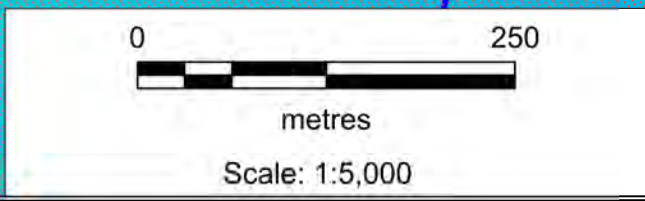
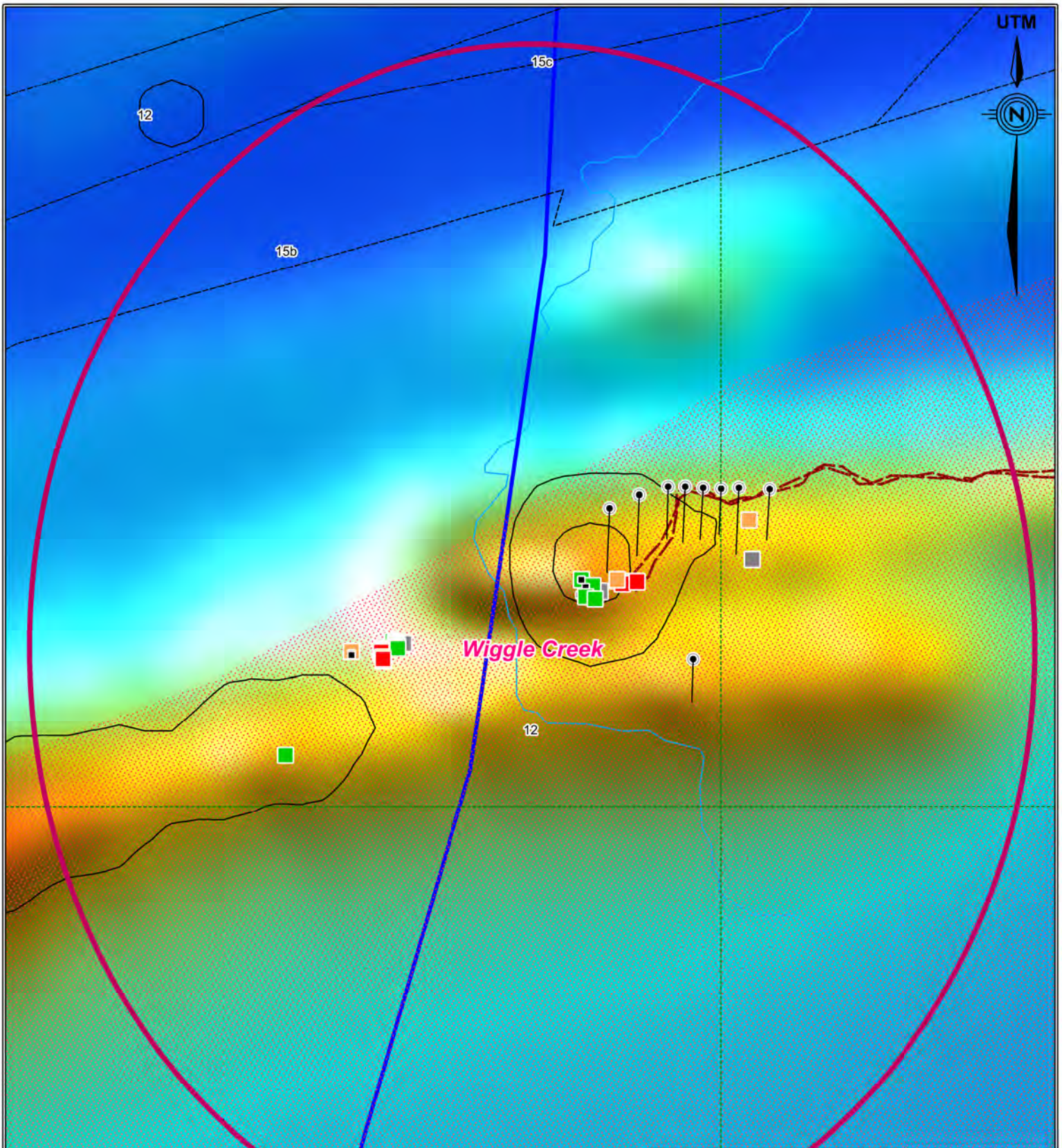
- All previous drill holes step out to the east from the north-south trending fault and plunge to the south (perpendicular to steeply north dipping quartz veins).
- Drill hole W9 is directed directly below main showing area but weakly anomalous results from samples

#### General Notes

- There are surface rock samples that have run gold to the W of the fault and have not been drill tested
- Due to lack of exposure, we do not know if the showing area is the extent or the best portion of this structure. Indications so far are that it might be
- The geophysical foot print around Wiggle also appears smaller than L28 and One Pine. It is for these reasons that Wiggle Creek is ranked below One Pine and L28
- Tao anomaly to the west of showings appears to be underexplored


#### Recommended Work

- Phase 1
  - Drill below mineralization at One Pine North
  - Drill below mineralization at One Pine South
- Phase 2 – follow up
  - Explore lateral surface continuity with geo-chemical soil and till sampling
  - Explore for signs of iron formation alteration at depth using ground geophysics



New Dimension Resources Ltd.

**Savant Lake Project  
Follow-up Targeting  
Willow Creek**

	Date: 2016-10-04	<i>Figure</i> 2
	Proj: UTM Zone 15 (NAD 83)	
	Prov: ON	

#### 4) Target 10a

##### **Sampling Results**

- Eight samples taken in the area contained weakly anomalous gold ranging from 0.005 ppm to 3.64 ppm

##### **Structure and Mineralization**

- Mineralization is found in 1 – 4 m wide strongly foliated and or sheared zones oriented approximately 110°, within the dominantly coherent mafic meta-volcanics that comprise most of the island
- Arsenopyrite and pyrite are the dominant sulphide phases. Chalcopyrite is present in trace amounts
- Anomalous gold mineralization occurring over a strike length of 500 m trending NE to SW

##### **Previous Work**

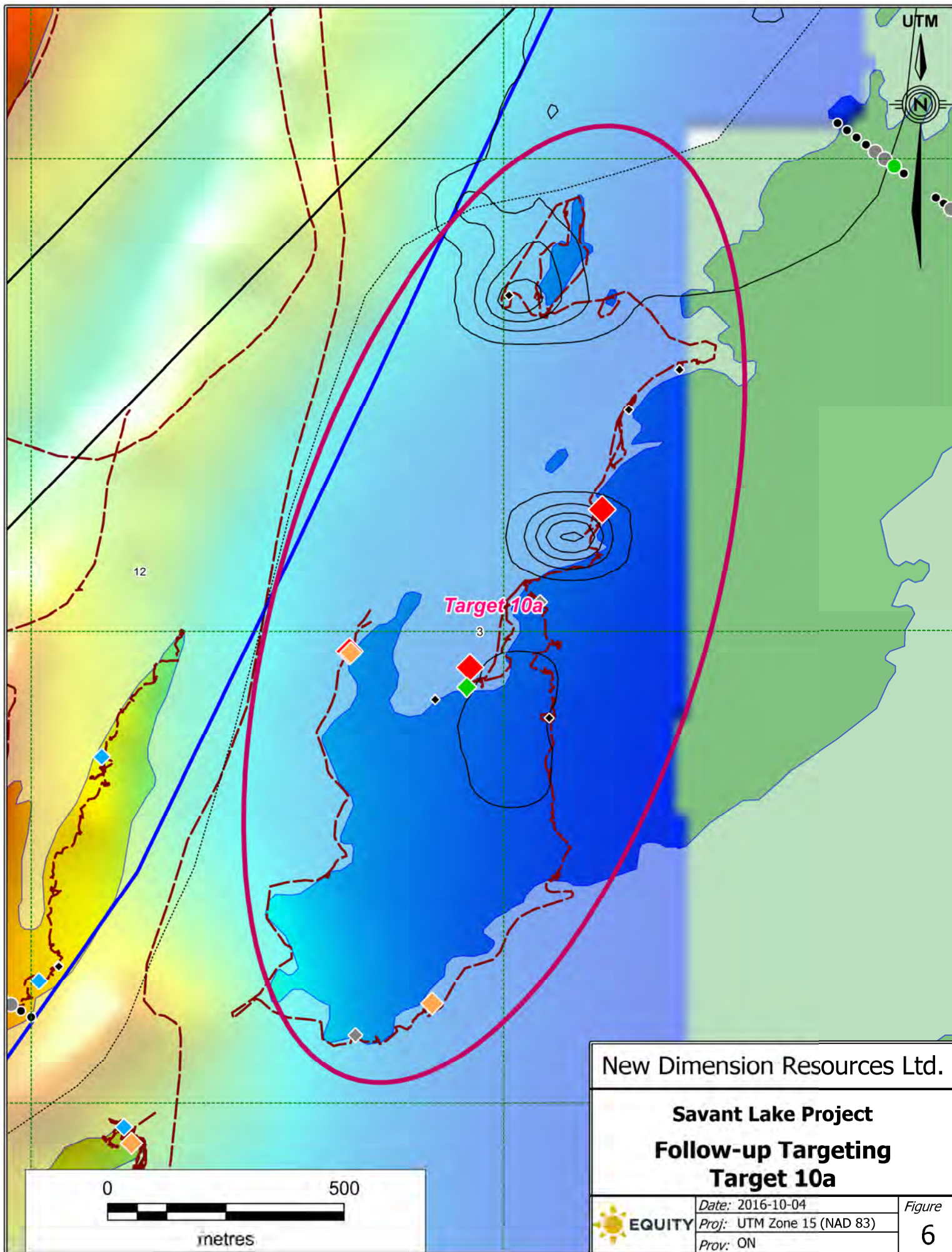
- No known exploration work in this target area
- Regional mapping by the OGS

##### **General Notes**

- This is a newly discovered area
- Mineralization does not appear to be directly related to quartz veining
- North end of target hosts three interpreted linear conductors >1 km long that run parallel to the Savant Lake Fault.
- This target is ranked highly because it is new and could be evaluated rapidly and cheaply to determine its size and grade
- Mineralization is similar in target 11a to the S


##### **Recommended Work**

- Phase 1
  - Ground geophysics (IP and resistivity) to test structural zones
  - Drill mineralized zones for true thickness
  - Drill linear conductor anomaly to the north that is under the lake



New Dimension Resources Ltd.

**Savant Lake Project  
Follow-up Targeting  
Target 10a**

	Date: 2016-10-04	<i>Figure</i> <b>6</b>
	Proj: UTM Zone 15 (NAD 83)	
	Prov: ON	

## 5) Horseshoe Trench & Snowbird

### Sampling Results

- 2016 sampling returned two high grade samples,
  - S193844: 14.25 ppm Au and 1.86 ppm Ag
  - S193847: 38.8 ppm Au and 4.03 ppm Ag
- Historic samples from Horseshoe range from 26.9 – 138.8 ppm gold

### Structure and Mineralization

- The Horseshoe Trench is host to one, possibly two, 1 – 4 cm wide vein(s) hosted within thickly bedded iron formation that contain high grade visible gold and anomalous silver values
- The Snowbird showing exhibits thick iron formation beds (up to 5 m thick) cross cut by quartz veins 2 mm – 3 cm wide. Several anomalous gold values have been returned from samples taken along a vein at this showing. The mineralized vein itself is exposed for 22 m of strike length

### Previous Work

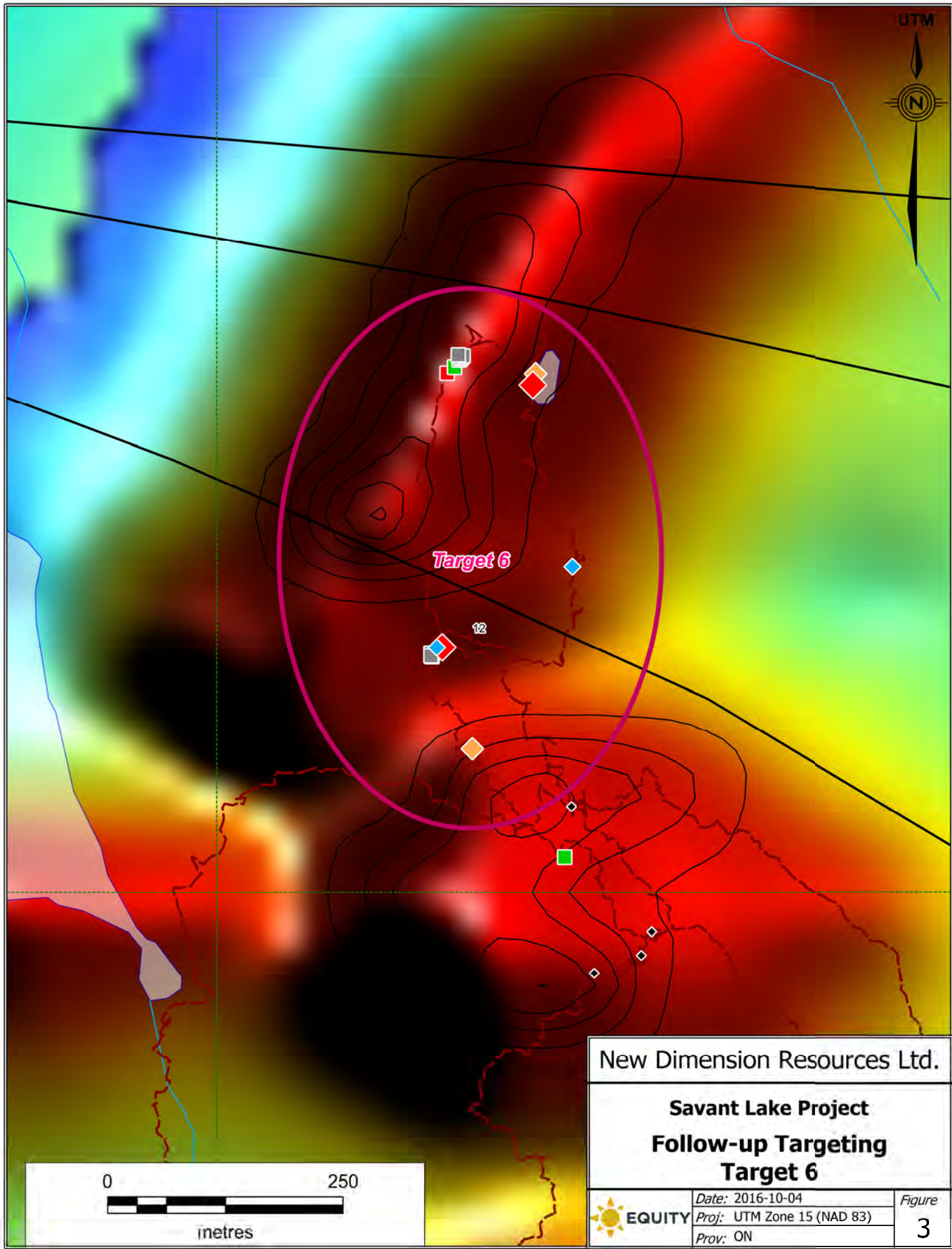
- Both locations show evidence of trenching and sampling
- No known drilling has been done here

### General Notes:

- Target is covered in thick vegetation and outcrop is sparse
- High grade mineralization here is localized, but if more or thicker veins or a vein network can be located this target could be more significant

### Recommended Work

- Phase 1
  - Drill gold bearing vein at the Horseshoe showing
  - Drill gold bearing vein at the Snow Bird showing
- Phase 2
  - Explore lateral surface continuity with geo-chemical soil and till sampling
  - Explore for signs of iron formation destruction at depth using ground geophysics



New Dimension Resources Ltd.

**Savant Lake Project  
Follow-up Targeting  
Target 6**



Date: 2016-10-04  
Proj: UTM Zone 15 (NAD 83)  
Prov: ON

Figure  
**3**

## **Appendix K**

October Geophysical Review

# **Geophysical Target Review and Recommendations**

## **On The Savant Lake Project**

Patricia Mining Division

Benner, Jutten, McCubbin, McGillis, Savant and  
Poisson Townships; Solitude Lake Area

Northwestern Ontario, Canada

50°26'42" N 90°31'21" W

675865 m E 5591063 m N (NAD 83, UTM Zone 15)

### **Prepared For:**



New Dimension Resources Ltd.  
Suite 960 – 789 West Pender Street  
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October 17, 2016

Steven Siemieniuk, P.Geol.

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## Introduction

In July of 2016, New Dimension Resources Ltd. (“NDR”) hired Equity Exploration Consultants Ltd. (“Equity”) of Vancouver, B.C. to plan out and execute a summer field program on the Savant Lake Project (the “Project”). On October 11, 2016, a conference call was held to review the results of the summer field program. This call resulted in NDR concluding that a review of geophysical targets and an assessment of what additional work remains prior to diamond drilling was the next step in the exploration process.

This report is being written at the request of New Dimension Resources Ltd. The objective is to review the current 18 high-priority 2016 VTEM Survey anomalies based on current geological understanding in an effort to:

- 1) Rank the anomalies and associated Maxwell plate models in order of priority;
- 2) Identify which anomalies and/or plates are considered ‘drill ready’; and
- 3) Recommend additional work in order to confidently move the targets to a ‘drill ready’ status.

This report and recommendations is being prepared with limited information. Despite a request for copies, the author has no personal field notes taken during the 2016 program as well as no maps, photos, or otherwise from other field members. This information was collected by Equity at the end of the job in September of 2016. Despite suggestions and requests during execution of the field program, the author has not visited all areas reviewed in this report.

### *2016 VTEM Survey*

NDR contracted Geotech Ltd. to fly a VTEM magnetic and time-domain electromagnetic (“TDEM”) survey over their recently optioned Savant Lake Project From May 15 to May 19, 2016. NDR also hired Mr. Martin St. Pierre of St. Pierre Geoconsultant Inc. to conduct QA/QC during the VTEM survey as well as to model the results of the survey and select conductors that are indicative of massive metallic sulfide mineralization (or graphite). After this initial phase, NDR conducted additional staking surrounding the project to cover conductors close to the Project boundary as well as to stake additional geologically prospective terrane.

The VTEM survey flown consisted of 10,309 line-km of 100 meter line-spaced heli-borne VTEM and magnetics. The time-domain electromagnetic survey was a success and resulted in a number of previously unknown conductors being identified versus

what was previously identified in a government frequency-domain electromagnetic survey. These conductors were analyzed and categorized by Martin St. Pierre as either: 1) Cultural; 2) High-Magnetic TDEM (HM-TDEM); or 3) Low-Magnetic TDEM (LM-TDEM).

The term High-Magnetic TDEM as used by Martin describes a conductive response that directly correlates between very high magnetic responses with low amplitude slow decay EM responses (Figure 1). These HM-TDEM responses have been attributed by Martin to a magnetite superparamagnetic (“SPM”) effect. While it is outside the scope of this report, the author is relatively satisfied with this explanation as the evidence provided in the EM and magnetic line profiles as well as the geological location of these conductors is quite convincing (multiple kilometers in strike length in what looks to be relatively undeformed magnetite iron formation). Figure 2 shows the line profiles for an LM-TDEM response as a comparison. It is important to note that SPM anomalies should not be entirely discounted as outlined by Mr. Jim Dawson of NDR (personal email communication). However, for the current scope of this report they are considered low priority and will not be discussed.

As a result of the SPM effect, the conductivity outlined in Geotech’s EM time-constant (Tau) grid files and associated deliverables should be used in conjunction with Martin St. Pierre’s discrimination between HM-TDEM responses and LM-TDEM responses in order to determine if the Tau response is likely due to the SPM effect or if it is more likely attributed to massive metallic sulfide or graphite mineralization.

Out of the entire survey there were a total of 10 line-profile responses attributed to probable cultural features, 491 line profile responses attributed to SPM (HM-TDEM) and 117 line profile responses attributed to possible metallic massive sulfide or graphite mineralization (LM-TDEM) (Figures 3 and 4).

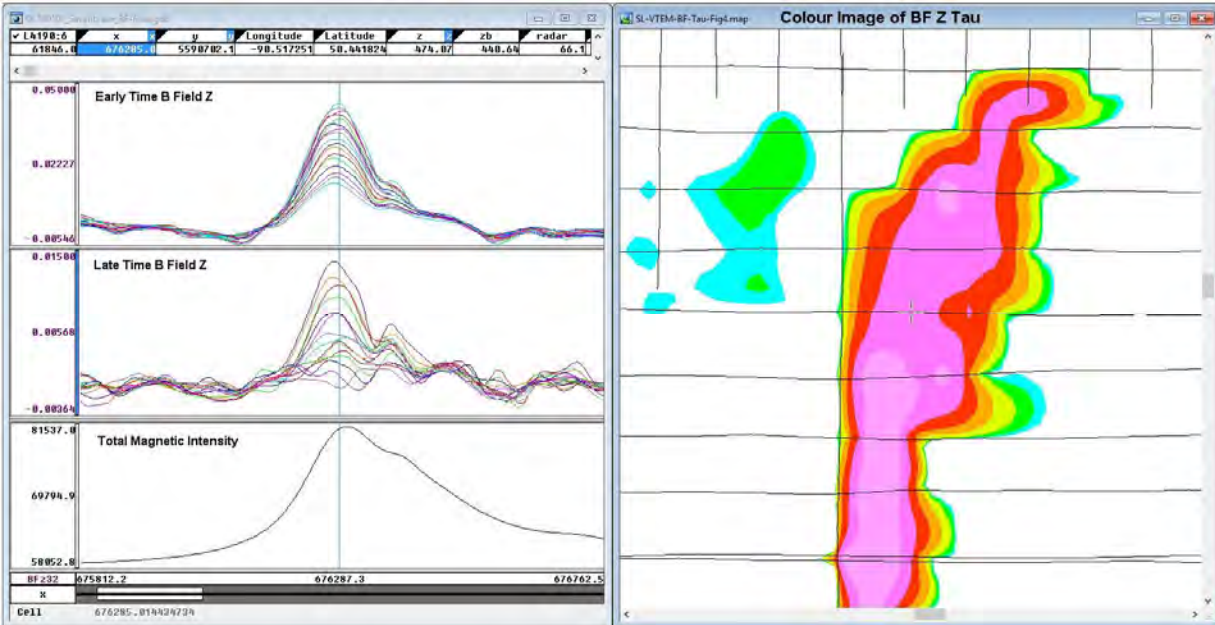


Figure 1: Line-profile example of SPM induced conductive response (HM-TDEM anomaly 12). Note the low amplitudes, slow decay, and the virtually perfect coincidence of conductivity with the highly magnetic lithologies including the magnetic shoulder (St. Pierre, 2016).

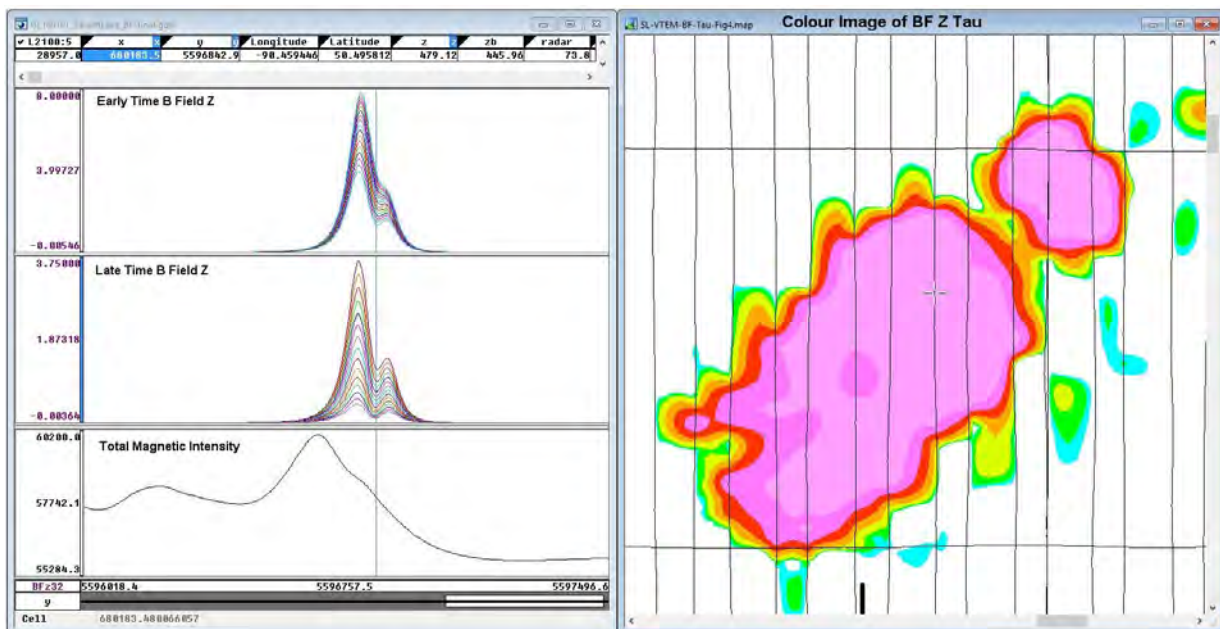


Figure 2: Line-profile example of typical non-SPM conductive response (LM-TDEM anomaly 8). Note the higher amplitudes, the lack of coincidence with the magnetic shoulder, and the double-peaked shape of the conductive line-profile suggestive of a thin southerly dipping body (St. Pierre, 2016).

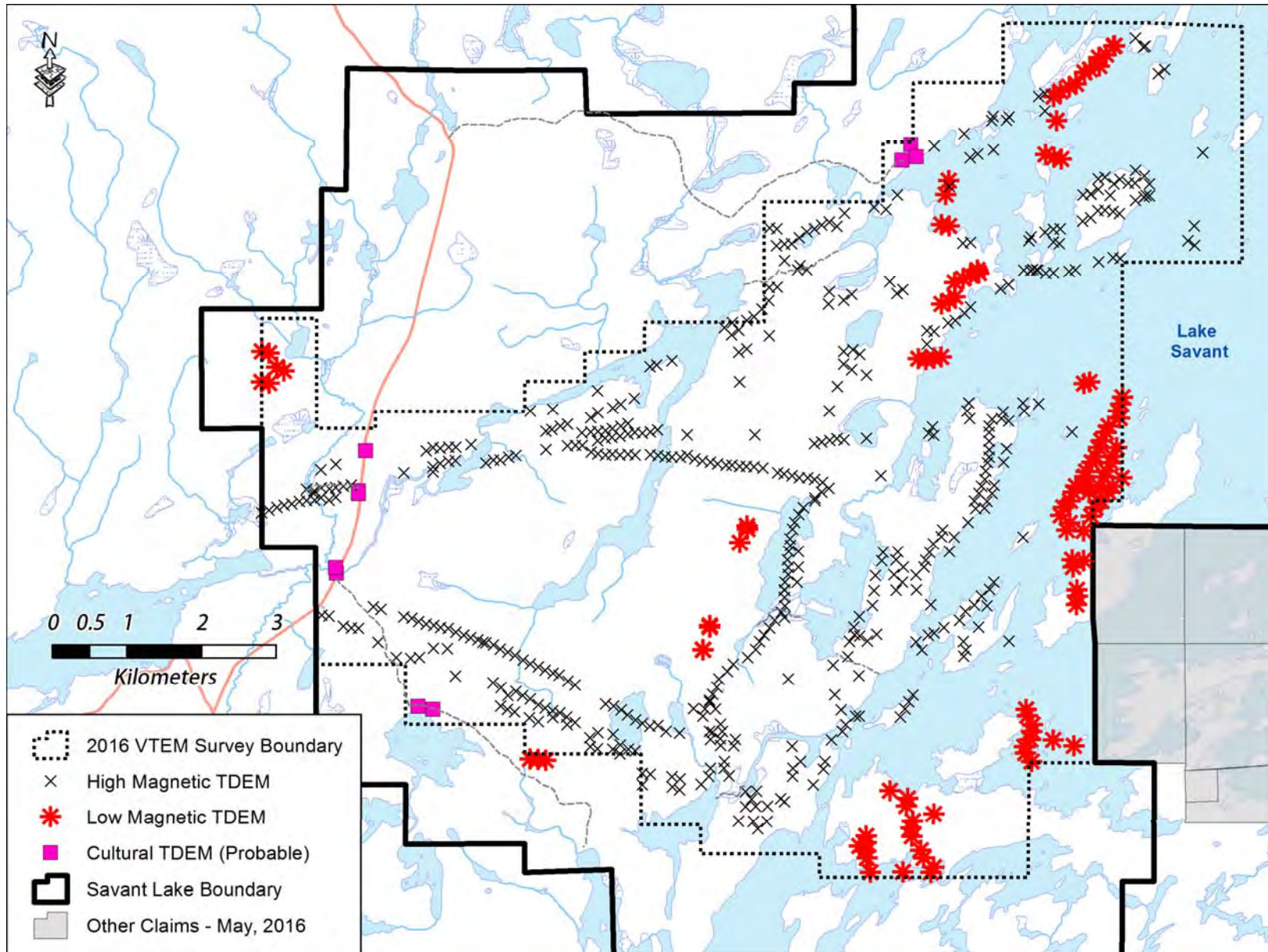


Figure 3: Map showing 2016 VTEM survey boundary with individual cultural, HM-TDEM and LM-TDEM line-profile conductors.

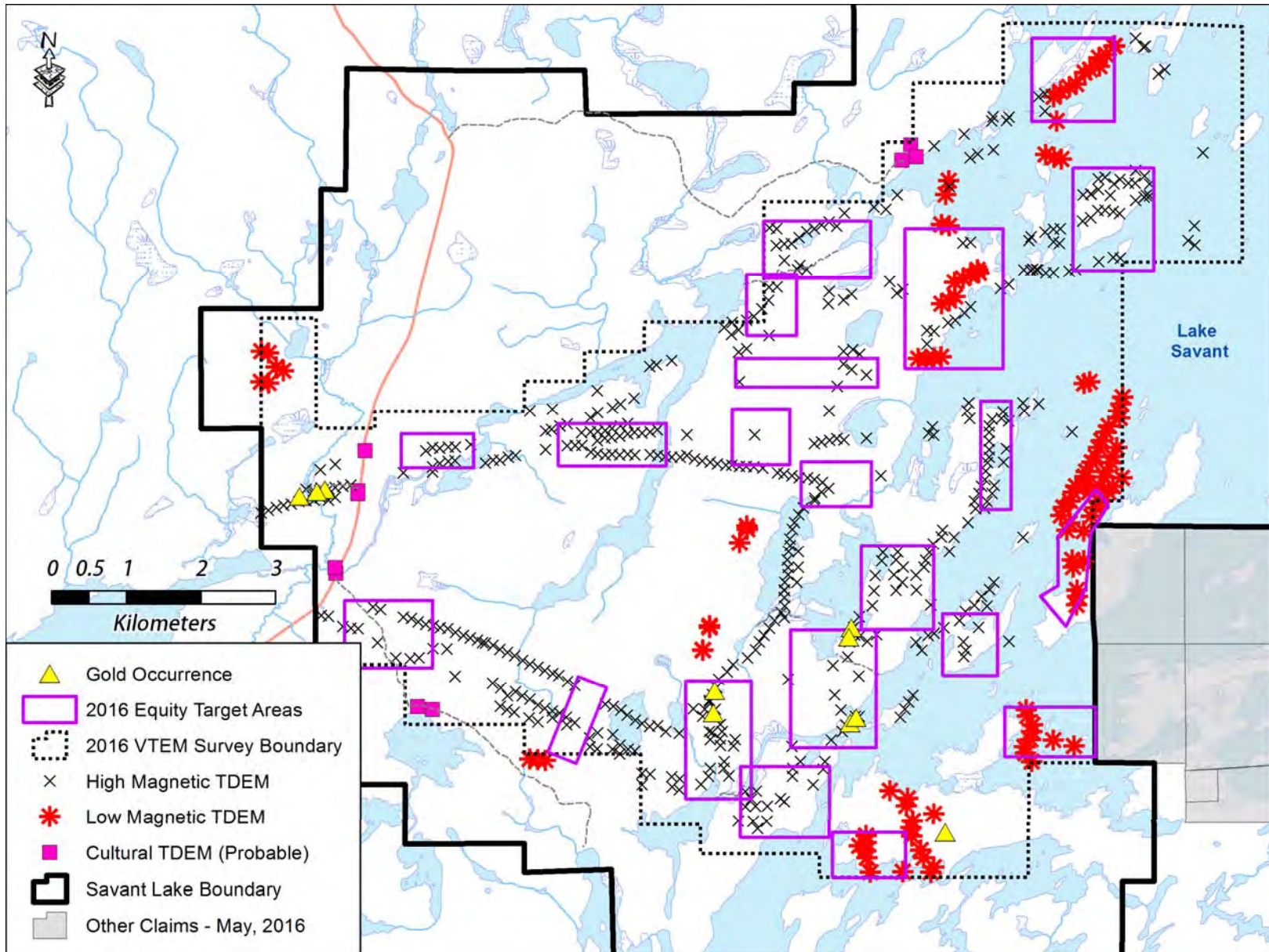


Figure 4: Map showing 2016 VTEM survey boundary, known gold occurrences and Equity Target Blocks with individual cultural, HM-TDEM and LM-TDEM line-profile conductors.

Conductive line profile responses clustered together were then grouped, assigned anomaly ID's and modelled by Martin St. Pierre. A total of twenty-five anomalies were identified during the interpretation of EM data with two being defined as cultural, five as SPM responses and eighteen as high priority low magnetic responses (LM-TDEM) (Table 1). A copy of Martin St. Pierre's final VTEM interpretation and modelling report is included as Appendix A.

Figures 5 through 8 show the anomaly numbers corresponding to Martin St. Pierre's anomalies with a polygon places around the associated LM-TDEM conductors. Because the anomalies were not specifically identified by Martin St. Pierre (other than resultant plates) the LM-TDEM anomalies have been bounded by the author using the EM time-constant (Tau) grid provided by Geosoft as well as encapsulating the LM-TDEM profile anomaly point data provided by Martin St. Pierre. An attempt to bound the HM-TDEM line-profile points in to anomalies has not been completed as these conductors were identified during the QA/QC phase of the VTEM survey and later attributed as SPM conductive responses. As such, conductors 1, 2, 3, 6 and 12 were not modelled by Martin St. Pierre. SPM responses should not be fully discounted at this stage and likely do warrant follow-up in future ground exploration programs.

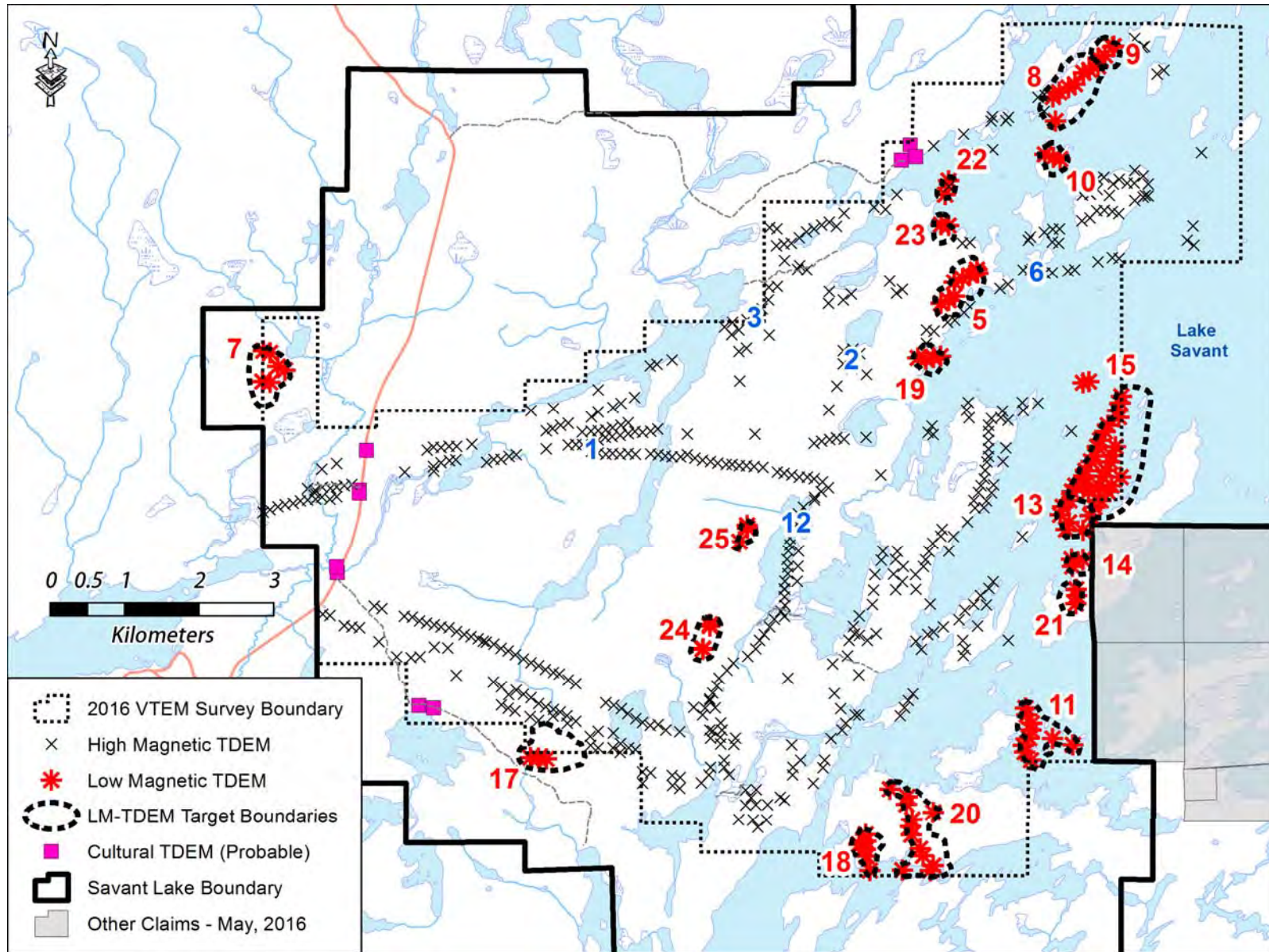


Figure 5: Map showing 2016 VTEM survey boundary and numbered anomalies identified by Martin St. Pierre. Note that only anomalies numbered in red are considered high priority as those in blue have been attributed to SPM-effect conductivity. Missing numbers in the sequence (1 to 25) have been identified as cultural.

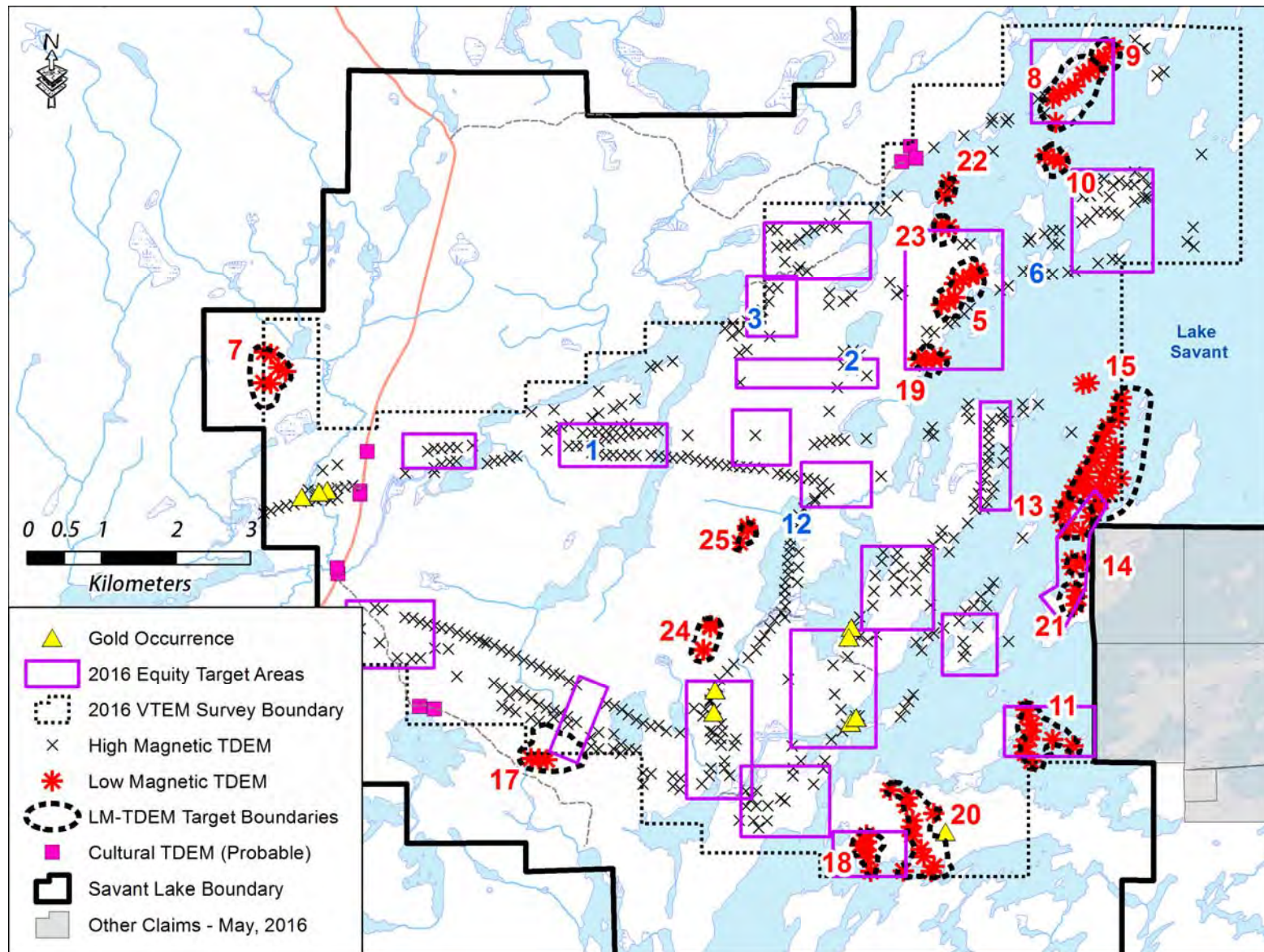


Figure 6: Map showing 2016 VTEM survey boundary, known gold occurrences and Equity Target blocks with numbered anomalies identified by Martin St. Pierre. Note that only anomalies numbered in red are considered high priority as those in blue have been attributed to SPM-effect conductivity. Missing numbers in the sequence (1 to 25) have been identified as cultural.

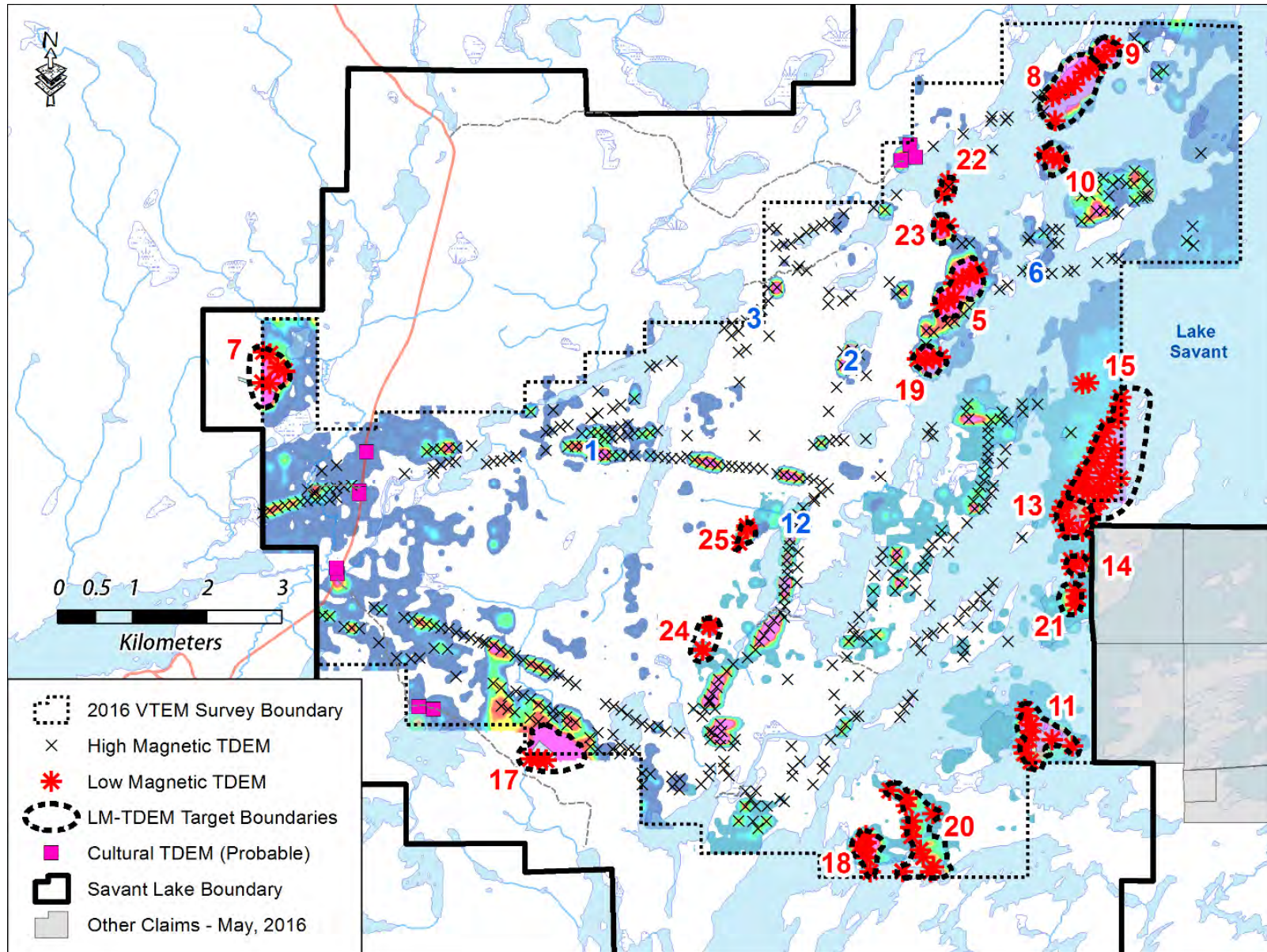


Figure 7: Map showing 2016 VTEM survey boundary, gridded EM time-constant (Tau) and numbered anomalies identified by Martin St. Pierre. Note that only anomalies numbered in red are considered high priority as those in blue have been attributed to SPM-effect conductivity. Missing numbers in the sequence (1 to 25) have been identified as cultural.

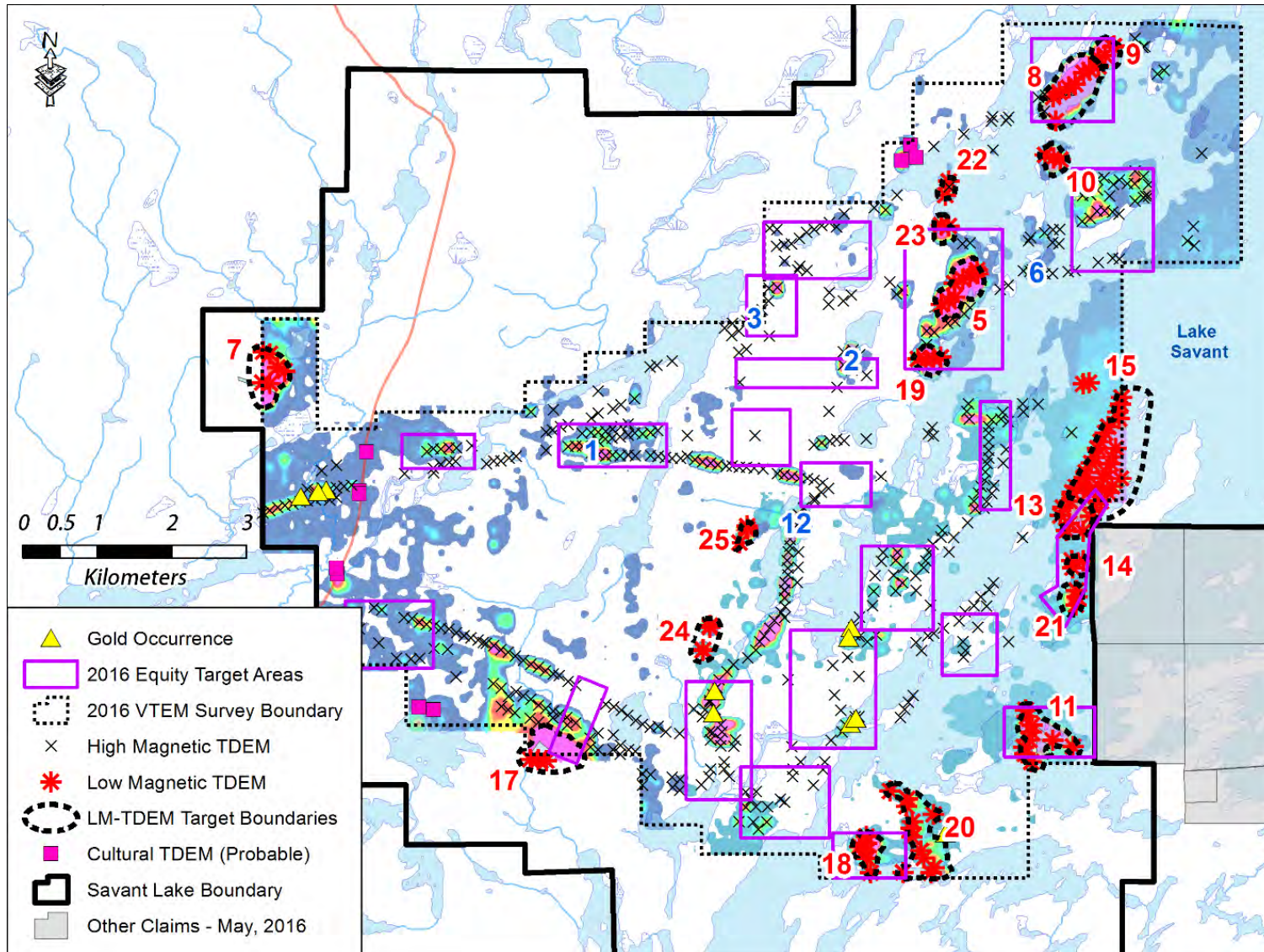


Figure 8: Map showing 2016 VTEM survey boundary, gridded EM time-constant (Tau), known gold occurrences and Equity Target blocks with numbered anomalies identified by Martin St. Pierre. Note that only anomalies numbered in red are considered high priority as those in blue have been attributed to SPM-effect conductivity. Missing numbers in the sequence (1 to 25) have been identified as cultural.

## Geophysical Target Selection

As mentioned previously, there are eighteen high priority targets in the area of the 2016 VTEM survey boundary. Of these eighteen high priority targets thirteen were modelled by Martin St. Pierre using EMIT Maxwell software with some resulting in multiple Maxwell plate solutions. Five were not modelled because the amplitudes were so low that meaningful solutions could not be produced. Bodies of small size or bodies of large size and significant depth can both greatly decrease amplitude responses.

Currently there are nine target areas that have been interpreted by Martin as falling in the iron formation package. Others fall outside of the iron formation package but that should not diminish their viability as drill targets although the target commodity may or may not be gold.

Table 1 outlines the 18 high priority target areas and their associated modelled Maxwell plate parameters along with their ranking by Martin (ranked only if a plate was modelled).

Table 2 outlines each targets drill-ready status as defined by Martin along with his recommended further work and comments.

\* Some items of note from Martin's report are as follows:

- 1) Plate 14-dBdt-Ch12-14 which falls outside of the iron formation package was not ranked by Martin. It can be assumed it would have a "non-iron formation" priority of approximately 5 (the same priority as plate 7B-BF-Ch10-12 to fit before the possible formational conductors having priorities 6 and 7).
- 2) Martin concludes that plate 8A is currently drill ready. It should read plate 8B (see discussion of Martin's report).
- 3) In Martin's report plate 15 is listed as drill ready, but not listed as such in conclusions. Possibly due to the conclusion of it being formational.

Table 3 outlines the author's ranking of geophysical targets from 1 through to 23. Three field maps over each anomaly area in order of original anomaly numbering scheme are provided as Appendix B

Table 1: Martin St. Pierre anomalies, modelled plates and parameters and rankings (1 being highest priority). Note that Martin has ranked the anomalies separately based on his interpretation of them being inside or outside of the target iron formation (St. Pierre, 2016).

LM-TDEM Anomaly Number	Plate Name	Easting	Northing	Z (m)	Center Top Depth (m)	Dip	Dip Direction	Rotation	Strike Length (m)	Depth Extent (m)	Surface Area (m2)	Cd (S/m)	Thickness (m)	CT (S)	Inside Iron Formation	Martin Priority - Inside IF	Martin Priority - Outside IF
5	5A-dBdt-Ch10-12Thick	678315	5593754	331	-74.1	85.0	150.0	4.9	450.0	44.2	19,890	10.0	10.0	100	Yes	2	
5	5B-dBdt-Ch23-25	678605	5594095	336	-68.5	82.1	149.7	13.3	230.9	44.8	10,344	N/A	N/A	446	Yes	2	
7	7A-BF-Ch15-17	669094	5592689	275	-173.7	70.0	202.8	13.4	536.3	108.5	58,189	N/A	N/A	93	No		4
7	7B-BF-Ch10-12	669423	5592835	270	-163.4	78.1	8.2	43.2	175.0	55.1	9,643	N/A	N/A	98	No		5
8	8A-BF-Ch15-17Thick	679917	5596539	212	-189.3	81.2	162.5	-11.2	359.7	108.1	38,884	10.7	28.7	307	Yes	1	
8	8B-BF-Ch25-27Thick	680171	5596822	400	-2.2	85.3	141.2	8.0	106.5	123.9	13,195	89.1	4.6	407	Yes	1	
9	9-BF-Ch25-27	680492	5597086	390	-12.9	86.3	306.1	-55.0	29.8	102.6	3,057	N/A	N/A	874	Yes	1	
10	10-dBdt-Ch13-15Thick	679792	5595713	379	-21.6	90.0	323.8	21.1	40.2	421.8	16,956	351.4	4.9	1,707	Yes	4	
11	11A-dBdt-Ch15-17	679499	5588062	358	-43.9	56.3	111.6	-9.7	107.9	586.5	63,283	N/A	N/A	409	No		1
11	11B-dBdt-Ch10-12	679555	5587805	229	-171.8	31.4	292.5	29.2	150.0	64.3	9,645	N/A	N/A	175	No		1
11	11C-dBdt-Ch15-17	679788	5587878	363	-38.4	46.4	39.0	-24.8	27.9	72.1	2,012	N/A	N/A	206	No		1
13	13-dBdt-Ch12-14	680001	5590773	237	-164.2	32.1	104.0	-17.5	256.3	51.1	13,097	N/A	N/A	175	No		3
14	14-dBdt-Ch12-14	680102	5590246	333	-70.0	63.6	155.0	77.2	35.8	38.7	1,385	N/A	N/A	345	No		
15	15-dBdt-Ch20-22	680623	5591314	354	-46.8	60.3	139.2	-3.3	412.6	161.8	66,759	N/A	N/A	92	No		5
17	17-dBdt-Ch14-16	672880	5587618	408	-22.5	73.2	41.1	1.2	302.6	706.9	213,908	N/A	N/A	23	No		6
18	18-BF-Ch20-22	677226	5586450	292	-117.7	28.3	32.7	-57.1	192.5	62.2	11,974	N/A	N/A	524	No		2
19	19-BF-Ch18-20	678170	5593029	240	-163.0	82.1	143.2	-49.2	347.2	65.2	22,637	N/A	N/A	276	Yes	3	
20	N/A - Unable to Model, Amplitude Too Low														No		
21	N/A - Unable to Model, Amplitude Too Low														No		
22	N/A - Unable to Model, Amplitude Too Low														Yes		
23	23-dBdt-Ch13-15	678283	5594788	347	-54.7	76.6	180.2	2.0	38.0	222.2	8,444	N/A	N/A	226	Yes	5	
24	N/A - Unable to Model, Amplitude Too Low														No		
25	N/A - Unable to Model, Amplitude Too Low														No		

\* UTM Values in NAD83, UTM Zone 15.

Table 2: Martin St. Pierre anomalies, rankings (1 being highest priority), additional geophysics recommended and comments. Note that Martin has ranked the anomalies separately based on his interpretation of them being inside or outside of the target iron formation (St. Pierre, 2016).

LM-TDEM Anomaly Number	Plate Name	Inside Iron Formation	Martin Priority - Inside IF	Martin Priority - Outside IF	Martin - Drill Ready?	Martin - Further Geophysics?	Martin - Comments
5	5A-dBdt-Ch10-12Thick	Yes	2		No	Ground TDEM	Plate 5A is located on the south flank of a high magnetic lithology.
5	5B-dBdt-Ch23-25	Yes	2		Possible, But Risky (Small Depth Extent)	Ground TDEM	Plate 5B is located in a low magnetic zone that may be truncating a high magnetic lithology possibly due to faulting or even demagnetization.
7	7A-BF-Ch15-17	No		4	No	Ground TDEM	Outside of IF package, CT would be higher if closer to surface, model is comprimised because the VTEM data is truncated
7	7B-BF-Ch10-12	No		5	No	Ground TDEM	Outside of IF package, CT would be higher if closer to surface, model is comprimised because the VTEM data is truncated
8	8A-BF-Ch15-17Thick	Yes	1		No	Ground TDEM	Loated at a point of where a high magnetic lithology weakens significantly in amplitude possibly indicating demagnetization.
8	8B-BF-Ch25-27Thick	Yes	1		YES - Ground TDEM Still Recommended	Ground TDEM	Located on the north flank of the high magnetic lithology where structural distortions exist.
9	9-BF-Ch25-27	Yes	1		No	Ground TDEM	Located on the north flank of the high magnetic lithology where structural distortions exist.
10	10-dBdt-Ch13-15Thick	Yes	4		No	Ground TDEM	Located at the southwest of a high magnetic lithology.
11	11A-dBdt-Ch15-17	No		1	YES - Ground TDEM Still Recommended	Ground TDEM	Model is of a thin 2D plate
11	11B-dBdt-Ch10-12	No		1	No	Ground TDEM	Model is of a thin 2D plate
11	11C-dBdt-Ch15-17	No		1	No	Ground TDEM	Model is of a thin 2D plate
13	13-dBdt-Ch12-14	No		3	No	Ground TDEM	No significant magnetic activity.
14	14-dBdt-Ch12-14	No			No	Ground TDEM	Located on eastern flank of magnetic high.
15	15-dBdt-Ch20-22	No		5	YES	Not Recommended, Possibly Formational (Low CT)	Possibly formational due to low CT, no significant magnetic activity.
17	17-dBdt-Ch14-16	No		6	No	Not Recommended, Possibly Formational (Low CT)	Recommends no work, no drilling. Could this change if he knows we now have the ground? Likely formational due to low CT and large size.

LM-TDEM Anomaly Number	Plate Name	Inside Iron Formation	Martin Priority - Inside IF	Martin Priority - Outside IF	Martin - Drill Ready?	Martin - Further Geophysics?	Martin - Comments
18	18-BF-Ch20-22	No		2	YES - Ground TDEM Still Recommended	Ground TDEM	No significant magnetic activity
19	19-BF-Ch18-20	Yes	3		No	Ground TDEM	Located on the southern flank of a high magnetic lithology and a small small localised magnetic high immediately to the south of the anomaly.
20	N/A - Unable to Model, Amplitude Too Low	No			No	Ground TDEM	Not been modelled as it is too weak to produce a valid solution. Consists of five responses forming a roughly N-NW trend located immediately east of anomaly 18.
21	N/A - Unable to Model, Amplitude Too Low	No			No	Ground TDEM	Not been modelled as it is too weak to produce a valid solution.
22	N/A - Unable to Model, Amplitude Too Low	Yes			No	Ground TDEM	Not been modelled as it is too weak to produce a valid solution.
23	23-dBdt-Ch13-15	Yes	5		No	Ground TDEM	Located on the northern flank of a high magnetic lithology
24	N/A - Unable to Model, Amplitude Too Low	No			No	Ground TDEM	At flight line suture point.
25	N/A - Unable to Model, Amplitude Too Low	No			No	Ground TDEM	At flight line suture point.

\* UTM Values in NAD83, UTM Zone 15.

Table 3: Ranking of targets by author from highest to lowest (1 to 23) along with general comments and recommended next steps.

Ranking	LM-TDEM Anomaly Number	Plate Name	Visited	Comments	Ranking Criteria	Recommended Next Steps
1	8	8A-BF-Ch15-17Thick	Yes	Plate under water.	IF host, appears to be thick from field investigation, proximity to KSZ, proximity to Klipfel Shear, largest modelled surface area of 8A, 8B and 9, fits into both Klipfel and Snow Musselwhite models, in area where magnetic lithology weakens significantly in amplitude (possible demagnetization).	Additional investigation and mapping focusing on areas of potential plate outcrop (8B and 9), conductivity testing of representative samples especially S194071 and S194064.
2	5	5B-dBdt-Ch23-25	No	Geology suggests clastic sed versus demagnetization of magnetite IF.	IF host, proximity to KSZ, possible demagnetization (shows up better on VD of mag), proximity to Klipfel shear, sil-carb alteration, located on mainland.	Additional investigation and mapping focusing on areas around plates and along extensions of anomaly axes.
3	5	5A-dBdt-Ch10-12Thick	No		IF host, proximity to KSZ, proximity to Klipfel Shear, sil-carb alteration, located on mainland.	Additional investigation and mapping focusing on areas around plates and along extensions of anomaly axes.
4	8	8B-BF-Ch25-27Thick	Yes	Zones that did appear to be pyritic sediments, further mapping should be done.	IF host, appears to be thick from field investigation, proximity to KSZ, proximity to Klipfel Shear, fits into both Klipfel and Snow Musselwhite models.	Additional investigation and mapping focusing on areas of potential plate outcrop (8B and 9), conductivity testing of representative samples especially S194071 and S194064.
5	9	9-BF-Ch25-27	Yes	Zones that did appear to be pyritic sediments, further mapping should be done.	IF host, appears to be thick from field investigation, proximity to KSZ, proximity to Klipfel Shear, fits into both Klipfel and Snow Musselwhite models.	Additional investigation and mapping focusing on areas of potential plate outcrop (8B and 9), conductivity testing of representative samples especially S194071 and S194064.
6	19	19-BF-Ch18-20	No	No exposure? No samples taken, could use better coverage.	IF host likely, located on mainland.	Investigation and mapping of mainland of conductor axis and plate.
7	18	18-BF-Ch20-22	Yes; Mapped	No explanation of conductors, seam of py in SBSZ ran Au	Proximity to SBSZ, proximity to Klipfel Shears, proximity to Stillar Bay gold occurrence, located on mainland.	Investigation, mapping and sampling for an additional day, focus on northern and northwestern anomalies (not much time spent there).
8	10	10-dBdt-Ch13-15Thick	No		Appears to be an IF host or there is one very close. Proximity to KSZ and Klipfel Shear.	Investigation, mapping and sampling of islands surrounding conductor and plate.
9	23	23-dBdt-Ch13-15	Yes (Partial)	Underwater but there is outcrop on mainland that is close and along strike of conductor axis - outside of Tau.	IF host likely, proximity to KSZ, proximity to Klipfel Shear.	Investigation, mapping and sampling on mainland in close proximity to conductive line-profile anomalies and conductor axis

Ranking	LM-TDEM Anomaly Number	Plate Name	Visited	Comments	Ranking Criteria	Recommended Next Steps
10	14	14-dBdt-Ch12-14	Yes	Area of isolated conductivity from 13 and 15. Contains new gold showing with highest gold value.	Proximity to SLF, in area of new gold showing discoveries, in area of alteration	Investigation, mapping and sampling of islands in area.
11	11	11A-dBdt-Ch15-17	Yes	Likely VMS	Likely VMS target.	Investigation, mapping and sampling of islands surrounding conductor and plate.
12	11	11B-dBdt-Ch10-12	Yes	Likely VMS, conductor axis trace from line-profile EM's in the SW lines up with S194182 (256 ppb Au)	Likely VMS target.	Investigation, mapping and sampling of islands surrounding conductor and plate.
13	11	11C-dBdt-Ch15-17	Yes	Likely VMS	Likely VMS target.	Investigation, mapping and sampling of islands surrounding conductor and plate.
14	13	13-dBdt-Ch12-14	Yes	Likely VMS	Likely VMS target, in string of conductors that could be interpreted as formational.	Investigation, mapping and sampling of islands surrounding conductor and plate.
15	20	N/A - Unable to Model, Amplitude Too Low	No	Close to Still Bay drilling and gold occurrence.	Weak amplitude / no model, proximity to Stillar Bay SZ, proximity to Klipfel Shears, proximity to Stillar Bay gold occurrence, located on mainland, Stargazer biogeochem anomaly.	Investigation, mapping and sampling focusing around areas of line-profile anomalies.
16	21	N/A - Unable to Model, Amplitude Too Low	Yes	Areas of isolated conductivity from 13 and 15. Contains new gold showing of 799 ppb Au. Conductor axes along strike of anomaly 14, along strike of alteration in sample S194128.	Weak amplitude / no model, proximity to SLF, in area of new gold showing discoveries, in area of alteration.	Investigation, mapping and sampling focusing on areas around line profile anomalies. Extensive outcrop along axis, not much time spent at all.
17	22	N/A - Unable to Model, Amplitude Too Low	No	Underwater but there is outcrop on mainland that is close - outside of Tau.	Weak amplitude / no model, IF host likely, proximity to KSZ, proximity to Klipfel Shear.	Investigation, mapping and sampling on mainland in close proximity to conductive line-profile anomalies.
18	24	N/A - Unable to Model, Amplitude Too Low	No	In clastic metasediments.	Weak amplitude / no model, clastic host, small extent.	Investigation, mapping and sampling focusing around areas of line-profile anomalies.
19	25	N/A - Unable to Model, Amplitude Too Low	No	In clastic metasediments.	Weak amplitude / no model, clastic host, small extent.	Investigation, mapping and sampling focusing around areas of line-profile anomalies.
20	7	7A-BF-Ch15-17	No	See 7B comments. Not mentioned as potentially formational and it is suspected that is because the plate was not modeled to extend out of the survey area.	Proximity to KSZ, proximity to Klipfel Shear.	Investigation, mapping and sampling focusing on areas around plates and along anomaly axes.

Ranking	LM-TDEM Anomaly Number	Plate Name	Visited	Comments	Ranking Criteria	Recommended Next Steps
21	7	7B-BF-Ch10-12	No	In Martin's conclusions he has this plate as being potentially formational due to low CT values (not mentioned in report body), but also reports that the CT would likely be higher if the body were closer to surface. The other two conductors suggested as being formational have CT's in the same range or lower than 7A and 7B (plates 15 and 17) and are modeled to be over 100 meters closer to surface.	Proximity to KSZ, proximity to Klipfel Shear, mentioned as possibly formational.	Investigation, mapping and sampling focusing on areas around plates and along anomaly axes.
22	17	17-dBdt-Ch14-16	Yes (Partial)	Recommends no work, no drilling. Could this change if he knows we now have the ground? S194170 looked VMSy.	Possibly formational, unknown extent, in area mapped in as arenaceous metasediments including siltstones. Could have pyritic/graphitic horizons.	Investigation, mapping and sampling in area of conductor plate and anomaly axis.
23	15	15-dBdt-Ch20-22	No	Possibly formational due to low CT	Possibly formational (long line of conductors), in large body of water.	Investigation, mapping and sampling islands in area.

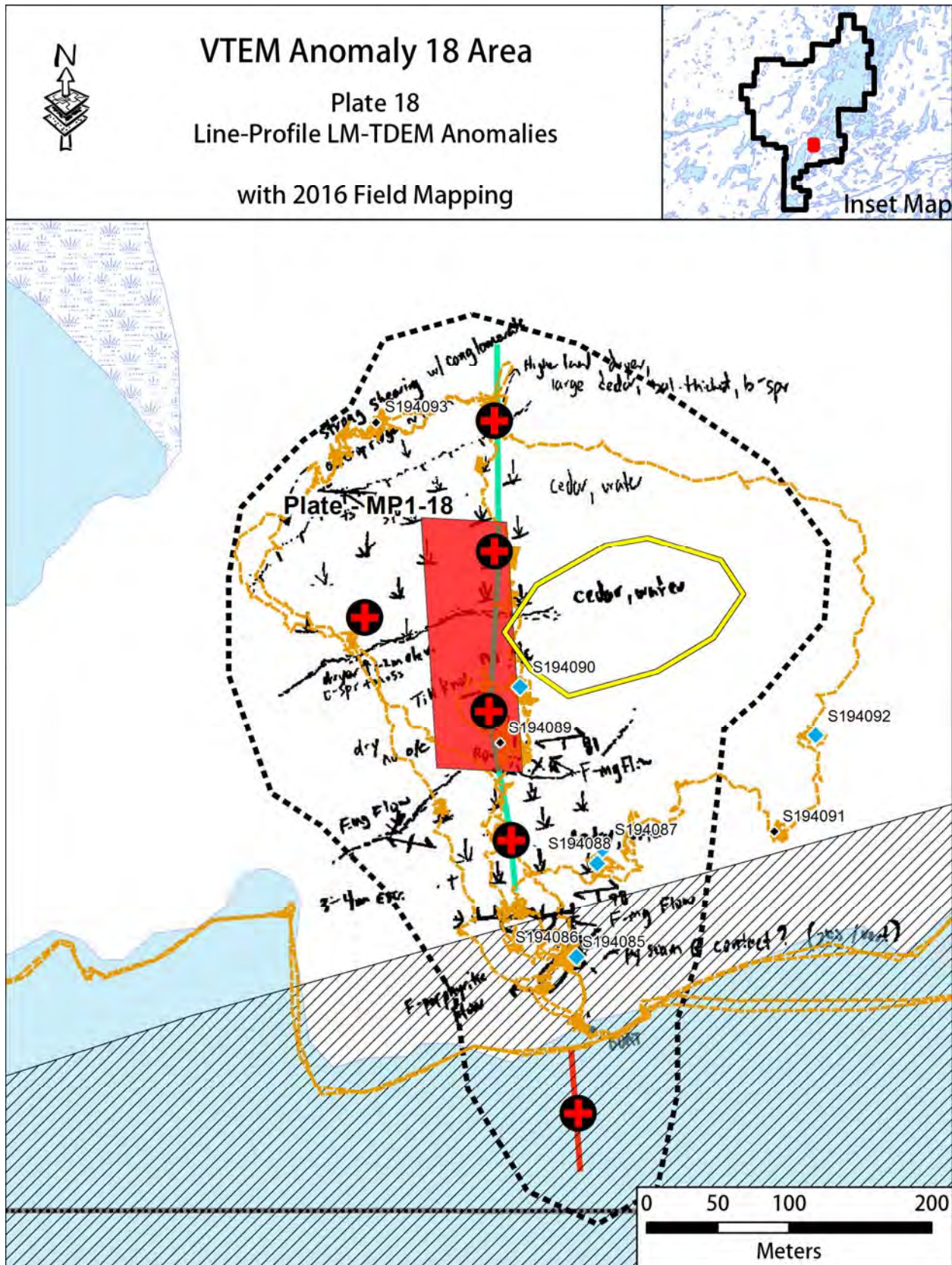
## Conclusions and Recommendations

It is of the author's opinion that currently there is not a sufficient level of data for any of the targets to recommend diamond drilling.

According to Martin St. Pierre, plate 8B is robust enough of a model that it could be diamond drilled but recommends a ground EM survey prior to drilling – especially if there will be other surveys conducted on the project. This is a valid step in the exploration process and minimises risk. Plate 5B could also possibly be drilled from the VTEM model, but because of it's small depth extent a ground EM survey is recommended prior to drilling.

It is recommended that the following be undertaken by NDR prior to finalizing targets for diamond drilling on the Savant Lake Property:

- 1) Re-assessment and analysis of current state of targets by field geologist(s) using all data available from 2016 field program (these rankings done without that data). Some areas currently recommended as being visited in the field may not be required to do so with the addition of this information.
- 2) Investigation and mapping (+/- sampling) over each geophysical anomaly identified in the 2016 VTEM survey similar to than in Figure 9 but in more detail (i.e. with some surficial geology, etc.).
  - a. Field geologist(s) responsible for drill decisions or assisting with drill decisions should visit each anomaly.
  - b. Drill setups and centers of 'top of plate' located in water should have lake bottom depth measurements taken if in the area. Coarse bathymetry does exist for the lake but is of significant age and hand contoured.
- 3) Conducting ground geophysics over each modelled plate (TDEM; possibly ground magnetics) and anomaly area and subsequent re-modelling.
- 4) An assessment of whether or not I.P. surveys over the lower amplitude conductors would be beneficial should be conducted by a geophysicist.



## References

2016. St. Pierre, M., Savant Lake Project VTEM Magnetic and TDEM Heliborne Survey Interpretation and Modelling, Internal Report for New Dimension Resources Ltd., 76 p.

## Appendices

## **Appendix A**

### Martin St. Pierre – 2016 VTEM Interpretation and Modelling Report

# SAVANT LAKE PROJECT VTEM MAGNETIC AND TDEM HELIBORNE SURVEY INTERPRETATION AND MODELLING

## INTRODUCTION

New Dimension Resources Ltd contracted Geotech Ltd to fly a VTEM magnetic and Time Domain Electromagnetic (TDEM) survey over its Savant Lake project located in western Ontario with NTS map sheets 52J07 and 52J08. The survey took place from May 15 to 19, 2016, and a total of 10,309 line km of data was collected. Due to significant changes in geological trends within the property the survey was separated into two blocks with flight lines perpendicular to each other.

The principal targeted commodity is gold hosted in replacement metallic sulphides contained with Iron Formations. These Formations dominate the magnetic data and produce extremely high amplitudes exceeding 100,000nT that actually saturating the airborne magnetic sensor. For this reason a number of lines were re-flown at higher elevations in order to acquire the data.

Analysis of the TDEM revealed an unusual correlation between the highly magnetic lithologies and low amplitude slow decay EM responses, which can be multi-kilometric in length. It was concluded that these responses, which are called High Magnetic TDEM, are caused by a magnetite Superparamagnetic Effect (SPM), and as such are of no economic interest. Also contained within the EM data are responses typical of classic conductors that are caused by either massive metallic sulphides or graphite. Invariably these responses are not coincident with the highly magnetic Iron Formations, and are called Low Magnetic TDEM. However, some are intermixed within them and others are outside of the Iron Formation package.

Interpretation of the EM data defined twenty five anomalies. Of these two are defined as cultural, five as related to high magnetic SPM responses and eighteen as low magnetic responses.

Of the eighteen low magnetic EM responses thirteen were modelled using the EMIT Maxwell software. Five were not modelled because their amplitudes were so low that meaningful solutions could not be produced.

Modelled solutions of the plates vary significantly in size with the largest measuring 303 m X 707 m and the smallest 39m X 36m. Conductivities also varied significantly from a low of 23.4 S to a high of 1,707 S.

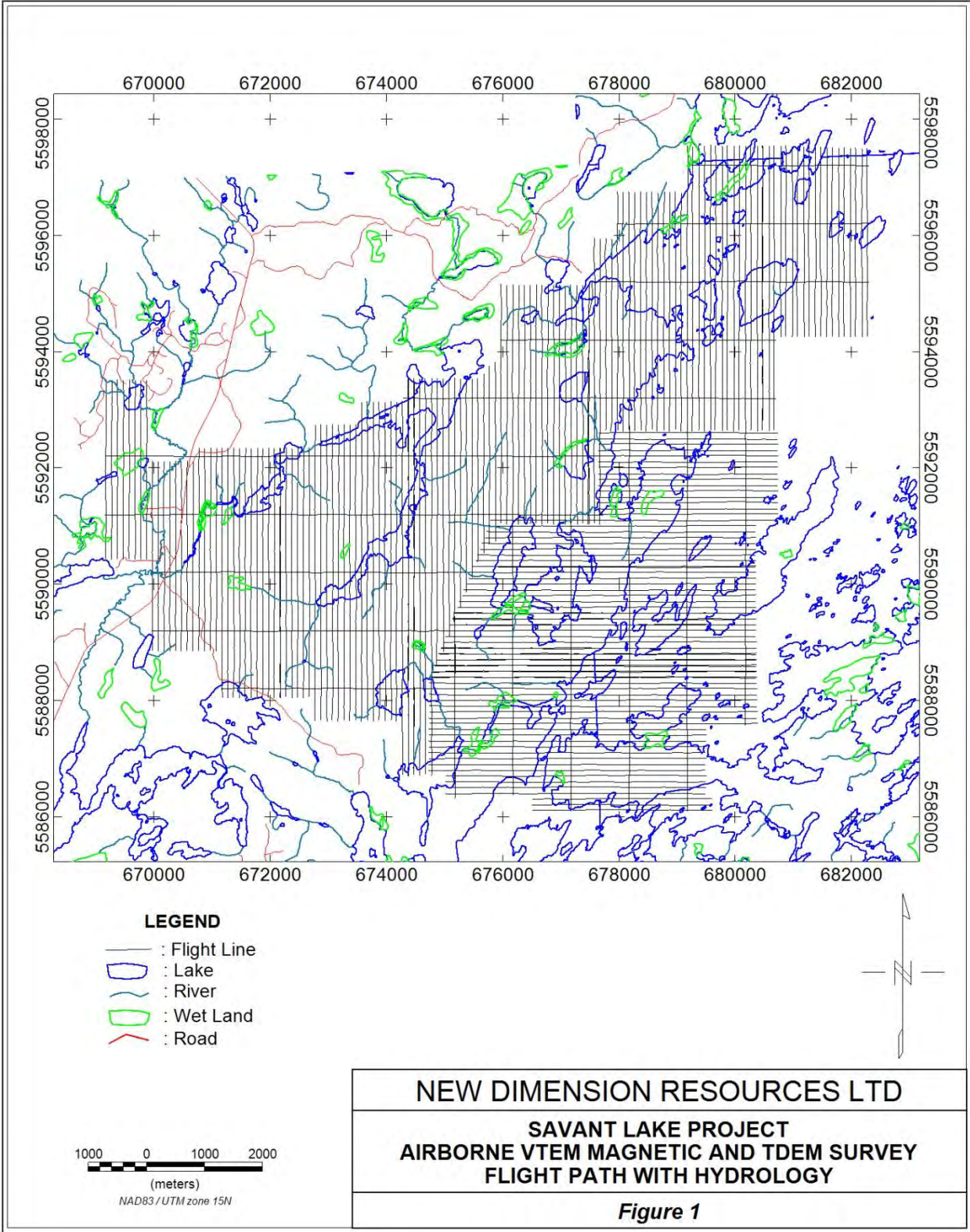
## **INTERPRETATION AND MODELLING RESULTS**

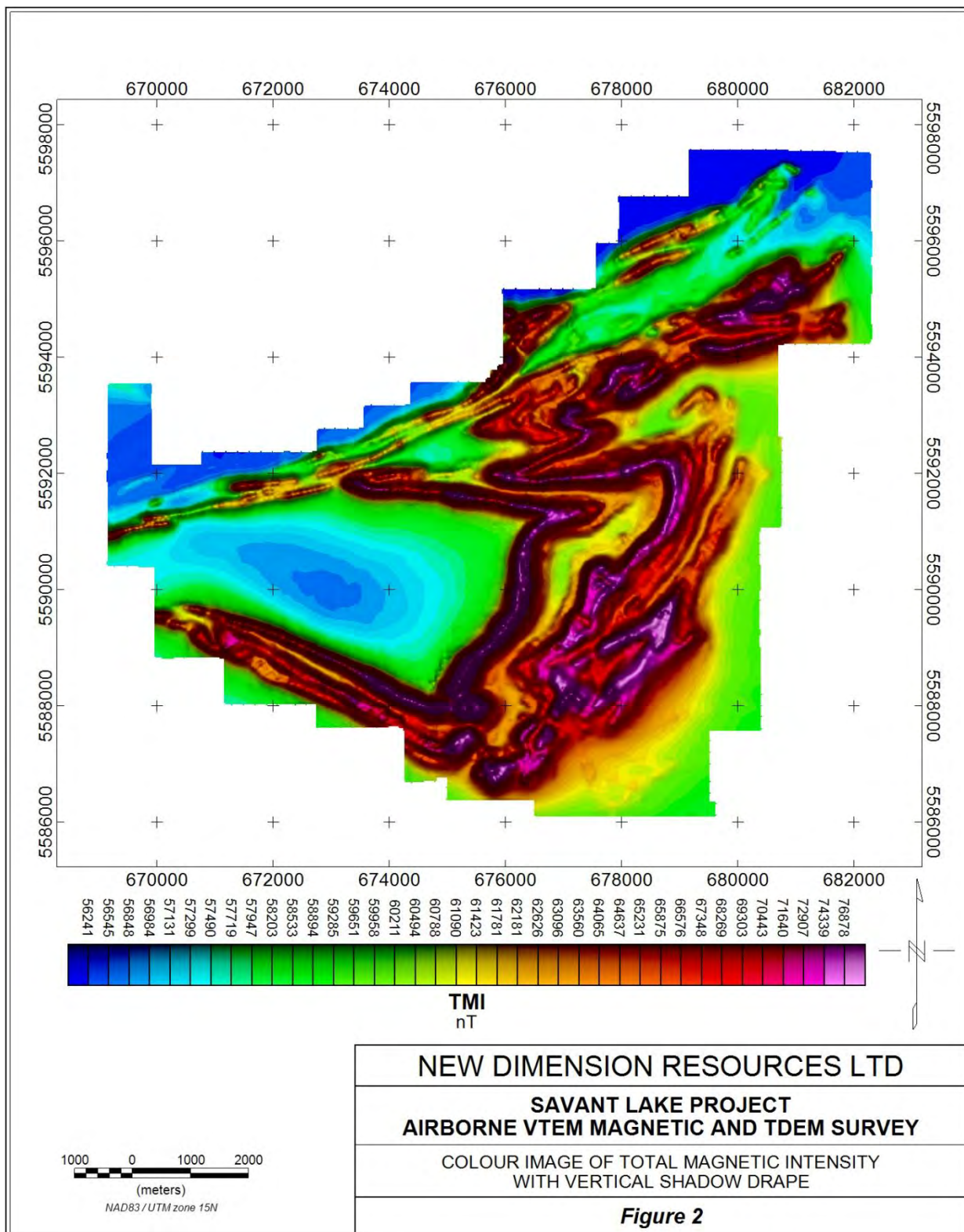
The VTEM Heliborne Magnetic and TDEM data collected over New Dimension Resources Ltd Savant Lake Project by Geotech Ltd consists of 10,309 line km of data. It was analysed and interpreted using Geosoft Oasis Montaj software, which permits interactive viewing of images and profiled data. It also contains a variety of tools and filters for data processing and map creation. EM anomalies were modelled using EMIT Maxwell software, which permits forward and inverse modelling of all types of EM data.

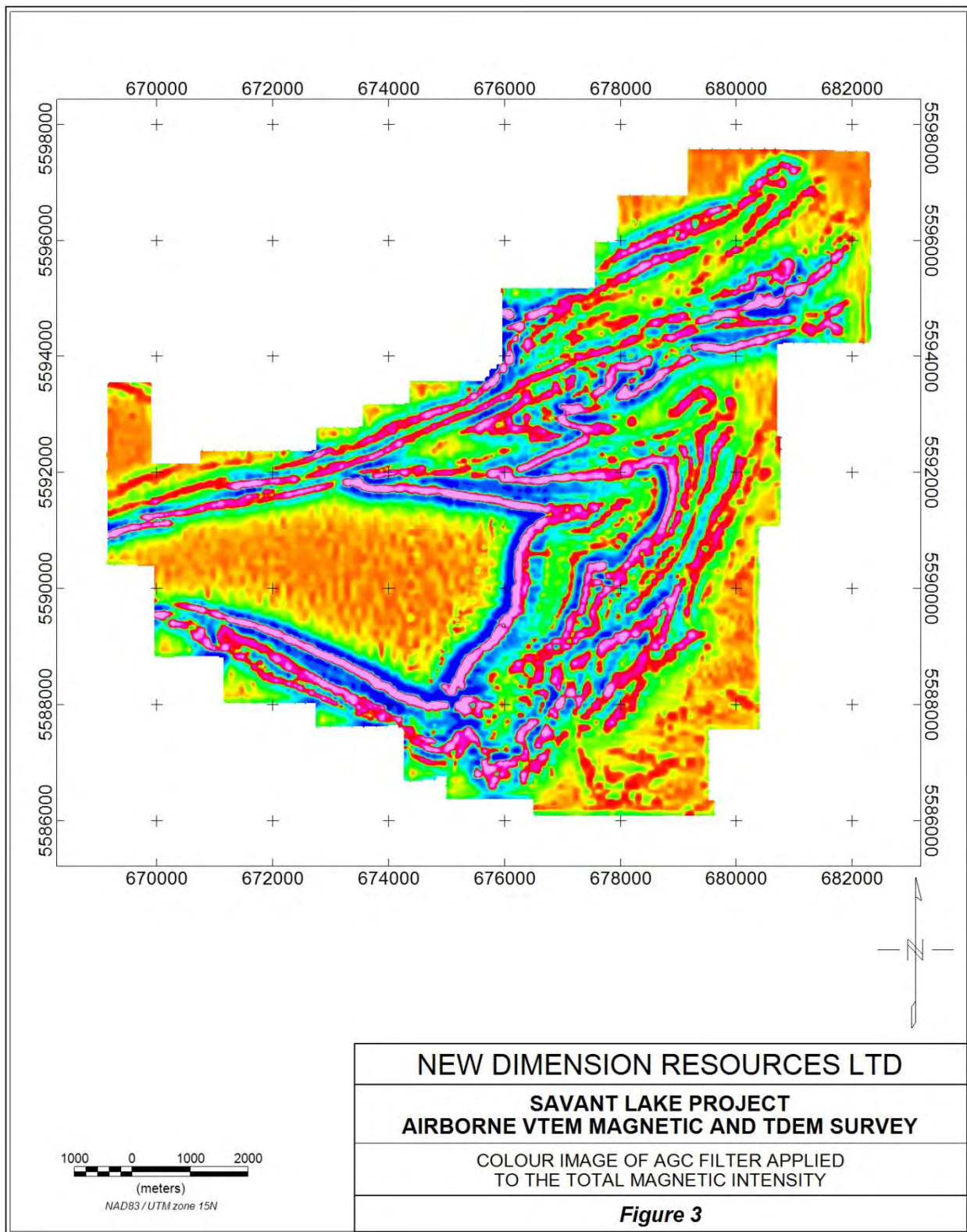
The VTEM survey was flown in two contiguous blocks with flight lines perpendicular to each other as shown in Figure 1. This was done to accommodate for strong changes in lithological trend direction as evidenced in the magnetic data presented in Figures 2 and 3. Figure 2 shows the Total Magnetic Intensity (TMI) and Figure 3 presents the TMI with an Automatic Gain Correction (AGC) applied to it, which enhances subtle trends difficult to distinguish in the TMI image.

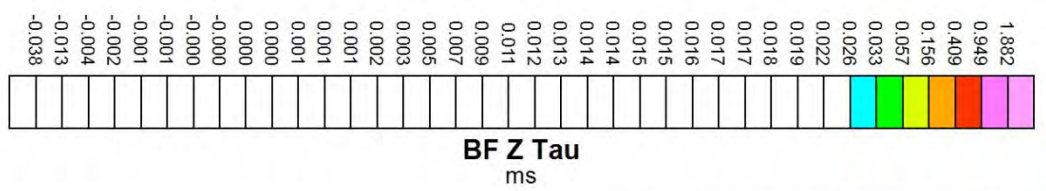
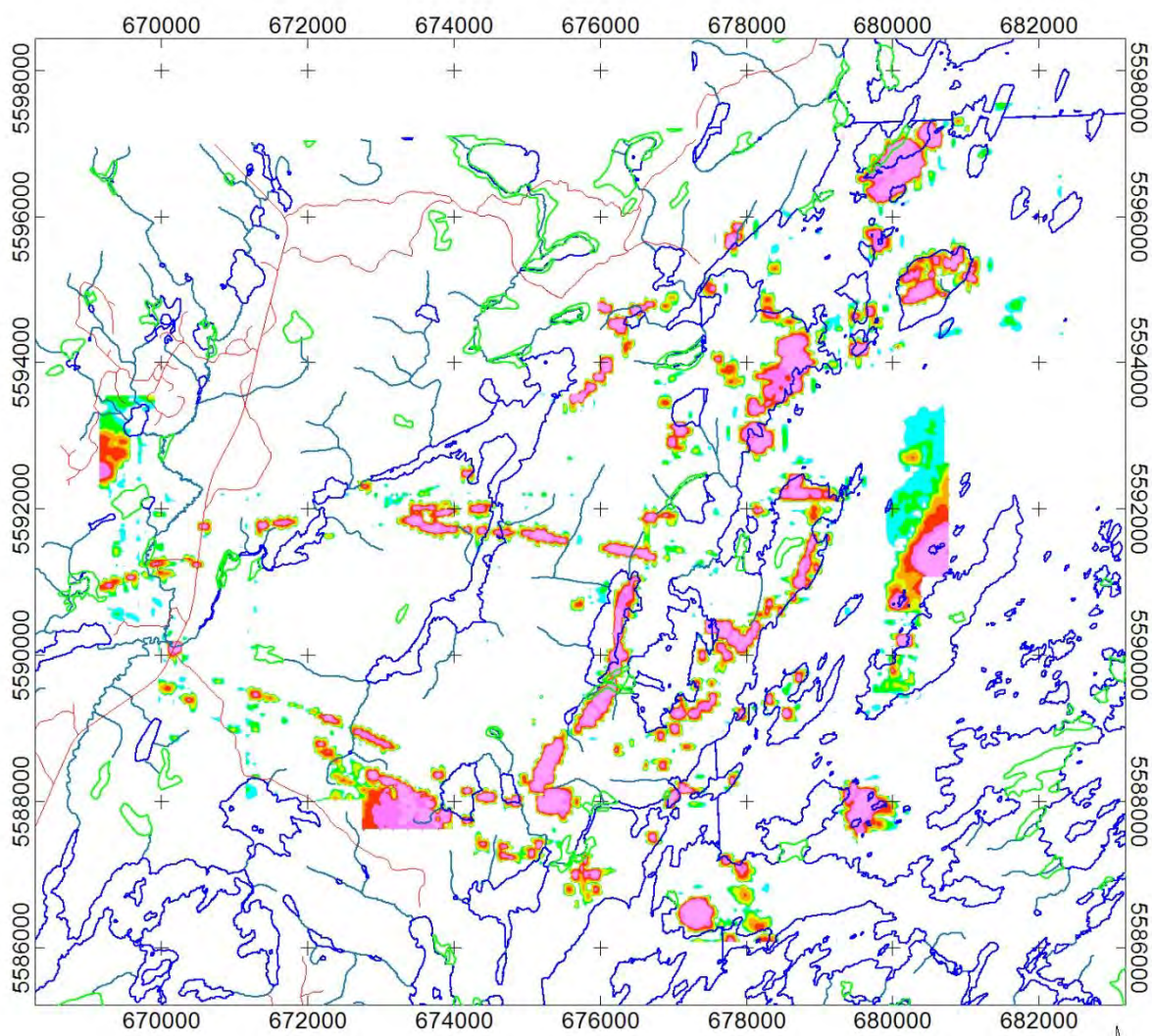
The EM data is presented as a B Field Z component Tau colour images in Figure 4. There is a strong correlation between the highly magnetic lithologies of the Iron Formation and the elevated Tau trends. However, there exists numerous high Tau anomalies that don't correlate with the highly magnetic trends.

The data was examined line by line and all EM responses were placed on an interpretation map presented in Figure 5. It contains three types of responses, which are defined as High Magnetic TDEM, Low Magnetic TDEM and Probably Cultural TDEM. The High Magnetic TDEM anomaly locations and axis are in black and form long strike length pattern that are coincident with the highly magnetic lithologies. The lithologies have extremely high magnetic susceptibility and create amplitudes in excess of 100,000nT, which actually saturated the airborne magnetic sensors forcing the Geotech to re-fly selected lines at higher altitude. The Low Magnetic TDEM anomalies are mostly contained within the east side of the survey area with the exception of anomalies 7, 17, 24 and 25. None of these anomalies are coincident with the highly magnetic Iron Formation; however the northeastern ones consisting of anomalies 5, 8, 9, 10, 19, 22, and 23 are located within the Iron Formation package. The remaining Low Magnetic TDEM anomalies may be contained with volcanic rocks.

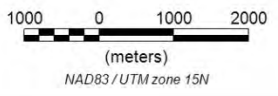








**BF Z Tau**  
ms



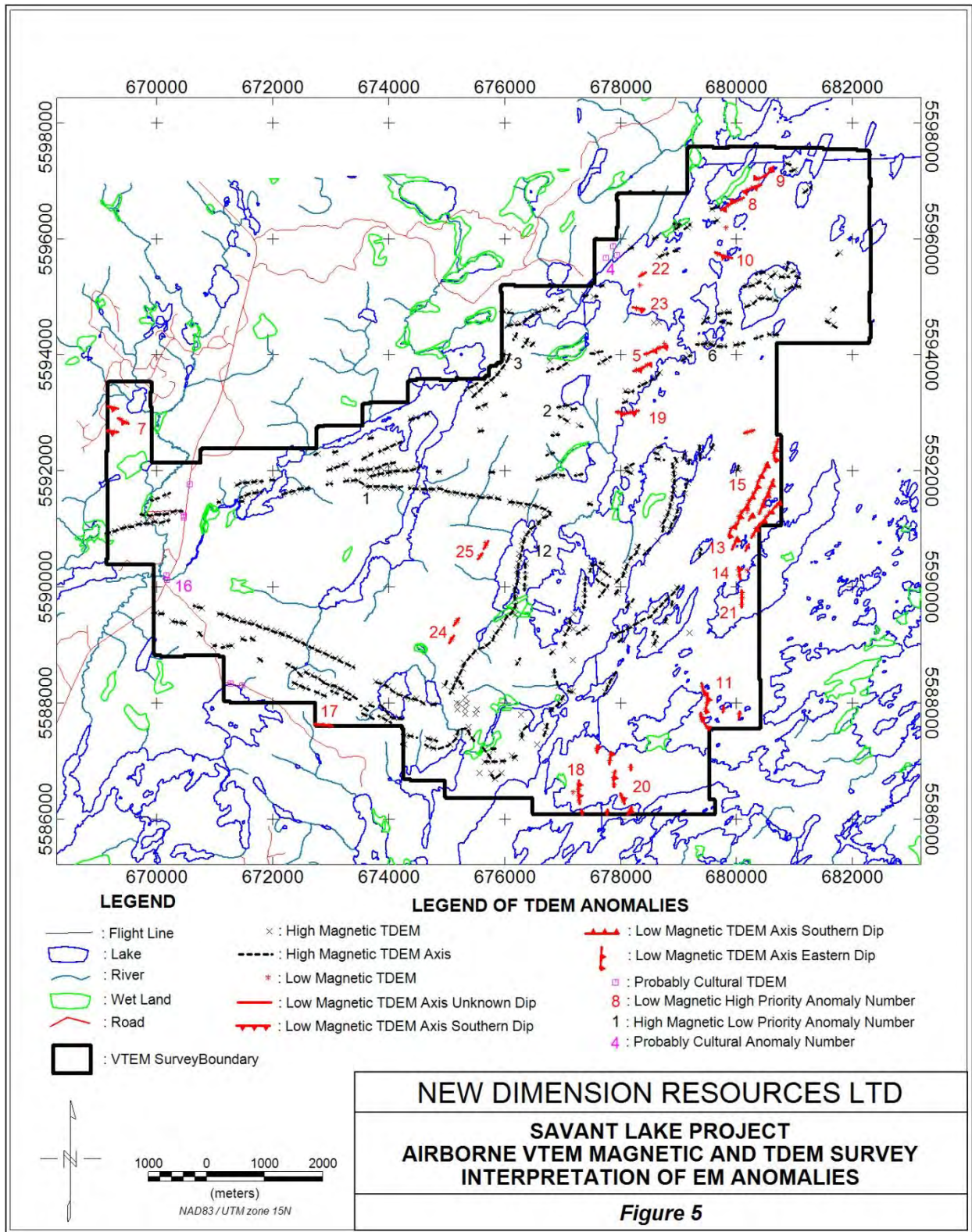
**NEW DIMENSION RESOURCES LTD**

**SAVANT LAKE PROJECT**

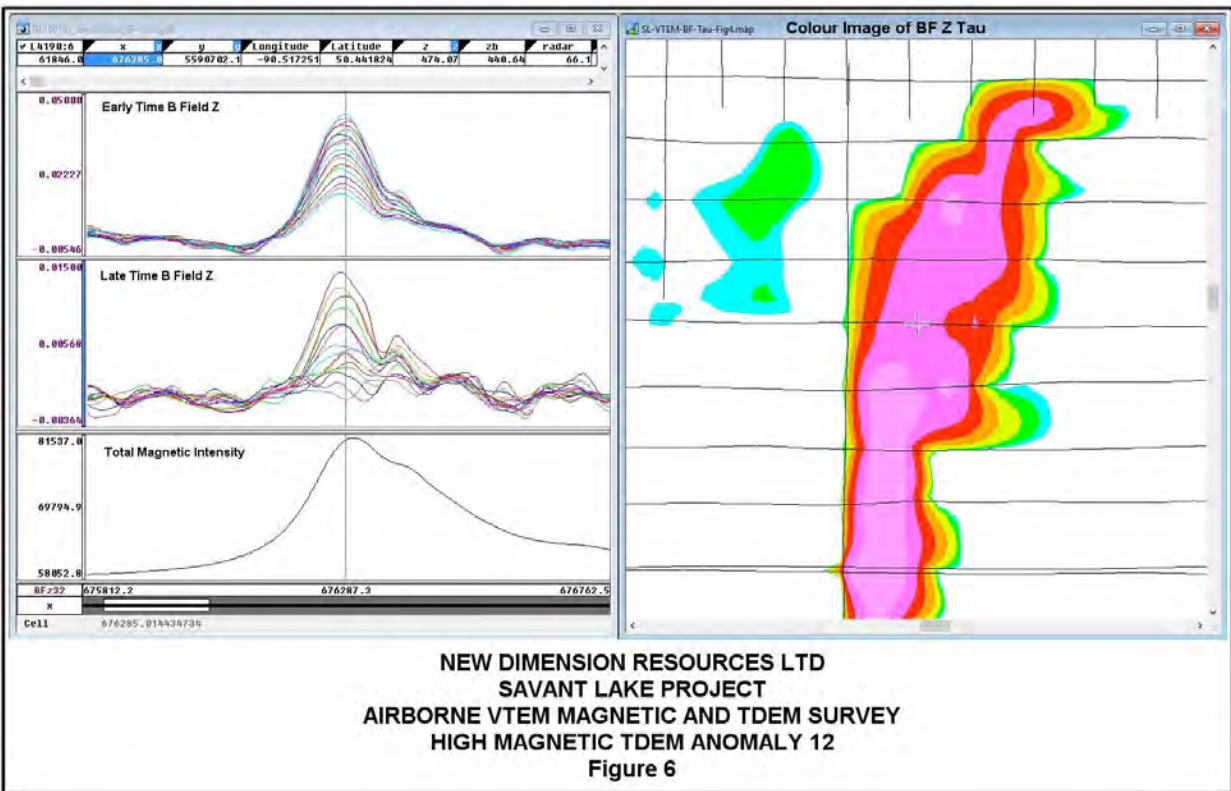
**AIRBORNE VTEM MAGNETIC AND TDEM SURVEY**

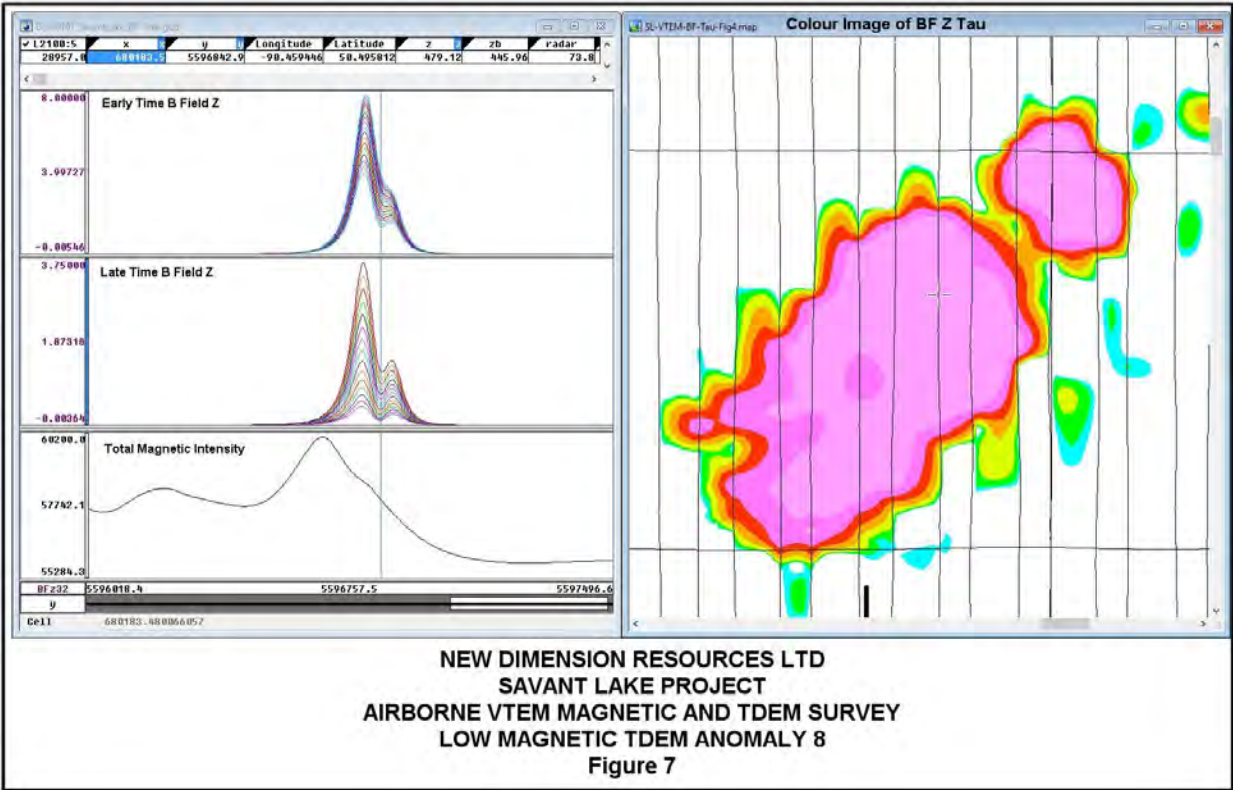
COLOUR IMAGE OF B FIELD Z TAU WITH HYDROLOGY

**Figure 4**



The character of the High Magnetic and Low Magnetic TDEM responses are very different. Figure 6 presents the High Magnetic response of anomaly 12 that is characterised by low amplitudes and slow decay. Typically slow decays are associated to highly conductive bodies, but in this case the virtually perfect coincidence with the highly magnetic lithologies, and the multi-kilometric strike lengths virtually guaranties that these anomalies are not associated to highly conductive bodies. It has been concluded that these responses are related to a Superparamagnetic effect related to induced secondary magnetic field of ultrafine to fine grained magnetite. Figure 7 presents the Low Magnetic TDEM response of anomaly 8. We see much higher amplitudes and the lack of coincidence with high magnetic response flanking it to the south. The double peaked shape is also characteristic of a thin southerly steeply dipping body probably caused by massive metallic sulphides. The High Magnetic TDEM anomalies do not show this characteristic shape. The high amplitudes seen in anomaly 8 is not always the case for the Low Magnetic TDEM anomalies, as bodies of small size and/or large depth can strongly decrease the amplitudes.





The following Table describes the classification of the anomalies defined in Figure 5 and if they have been modelled.

Table 1. Anomaly Classification

TDEM Anomaly Number	Anomaly Type	Modelled
1	High Magnetic TDEM	No
2	High Magnetic TDEM	No
3	High Magnetic TDEM	No
4	Probably Cultural TDEM	No
5	Low Magnetic TDEM	Yes
6	High Magnetic TDEM	No
7	Low Magnetic TDEM	Yes
8	Low Magnetic TDEM	Yes
9	Low Magnetic TDEM	Yes
10	Low Magnetic TDEM	Yes
11	Low Magnetic TDEM	Yes
12	High Magnetic TDEM	No
13	Low Magnetic TDEM	Yes
14	Low Magnetic TDEM	Yes
15	Low Magnetic TDEM	Yes
16	Probably Cultural TDEM	No

17	Low Magnetic TDEM	Yes
18	Low Magnetic TDEM	Yes
19	Low Magnetic TDEM	Yes
20	Low Magnetic TDEM	No
21	Low Magnetic TDEM	No
22	Low Magnetic TDEM	No
23	Low Magnetic TDEM	Yes
24	Low Magnetic TDEM	No
25	Low Magnetic TDEM	No

The High Magnetic TDEM anomalies could not be modelled as they do not react as conductors. Low Magnetic anomalies 20, 21, 22, 24 and 25 were not modelled as their amplitudes were too low to produce meaningful results.

Modelling of the TDEM data was carried out using EMIT Maxwell software. Modelling results presented bellow display the plate locations graphically and with geometric parameters. Also presented are the measured and modelled responses in profile format.

Definition of the plates geometric parameters are as follow:

E: Easting (m) Nad83 UTM15 (center top of plate)

N: Northing (m) Nad83 UTM15 (center top of plate)

Z: Elevation (m) (center top of plate)

D: Dip (Degrees)

DD: Dip Direction (Degrees)

Rot: Rotation around center top of plate in plane (Degrees)

SL: Strike Length (m)

DE: Depth Extent (m)

Th: Thickness (m) used for thick 3D plates

Cd: Conductivity (S/m)

CT: Conductivity Thickness Product (S) used for infinitely thin 2D plates.

In general the two most important characteristics of a modelled plate are its size (SL X DE) and its Conductivity (Cd) or Conductivity Thickness Product (CT). Typically the latter in time (higher channel number) that a conductor is responding the higher the Cd or CT become. This is because the higher values the slower the decay rate between channels. However, an anomaly with high Cd/CT can also have low amplitudes if it is small and/or deep, and the latter channels may be at noise levels. Invariably the latter channels one is able to use for modelling the higher the resultant Cd/CT. So if an anomaly is too weak to use late time channels the resultant Cd/CT will be lower. Modelled solutions of the plates vary significantly in size with the largest

measuring 303 m X 707 m and the smallest 39 m X 36 m. Conductivities also varied significantly from a low of 23.4 S to a high of 1,707 S.

### **Anomaly 5 Modelling Results**

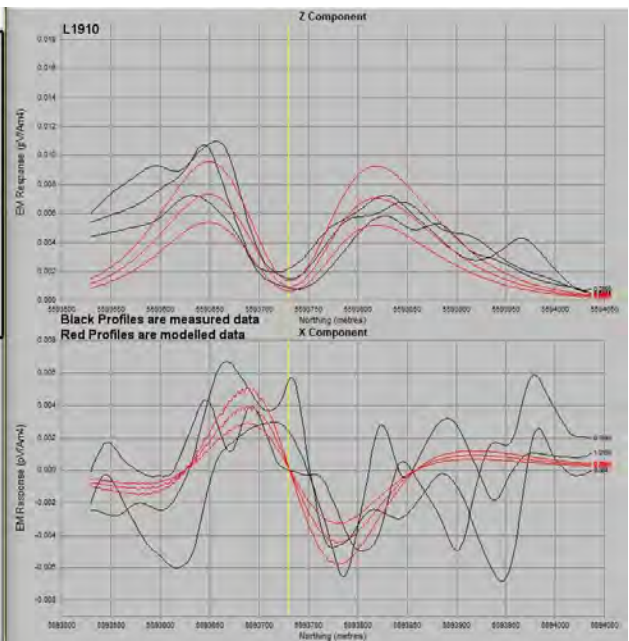
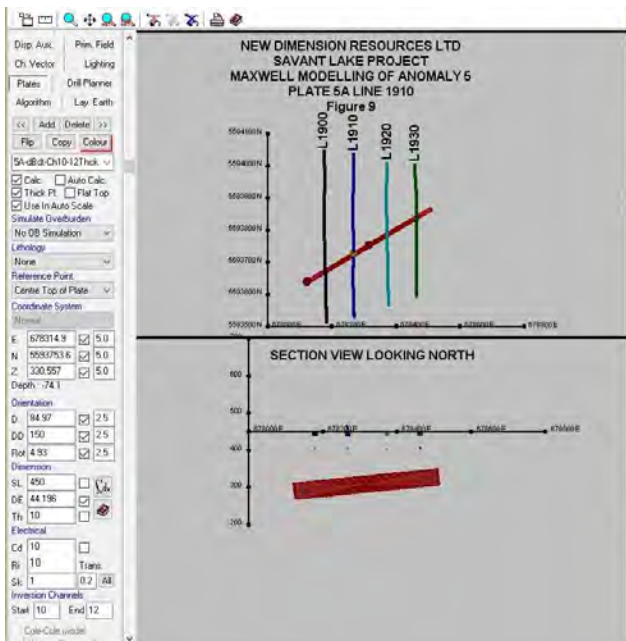
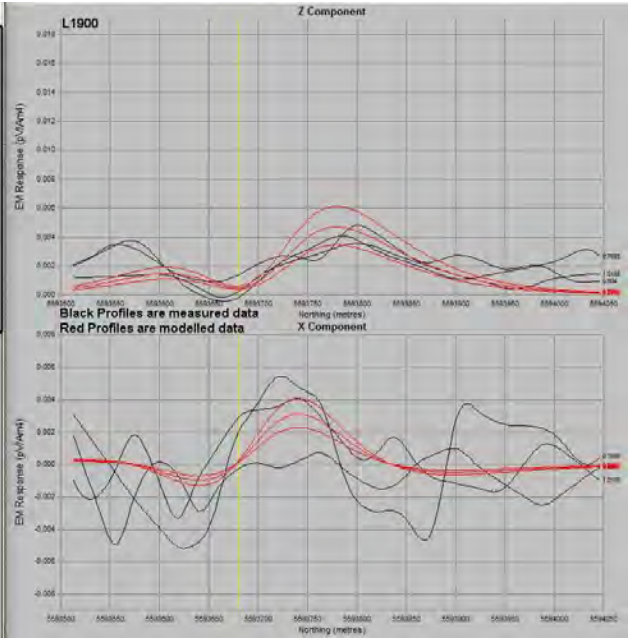
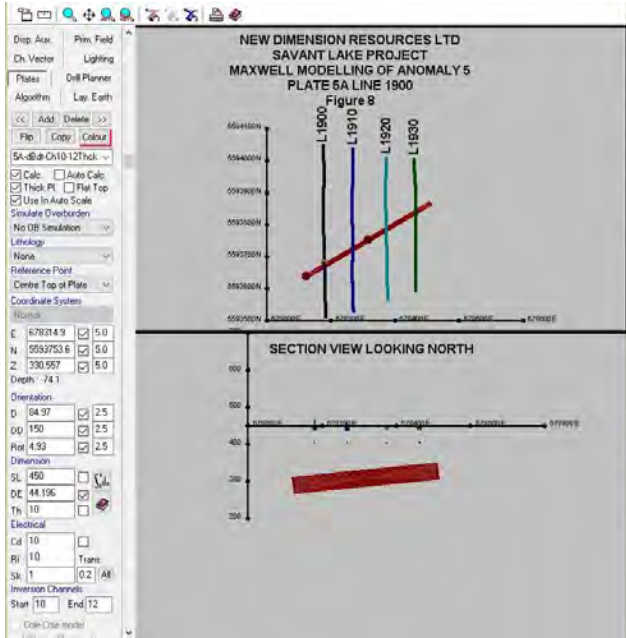
The modelling results for anomaly 5 are presented in Figures 8 to 16. In this case there are two plates called 5A and 5B. Figures 8 to 11 show the 5A modelling results and Figures 12 to 15 show the 5B modelling results. Figure 16 is a map of both plates within the local TMI colour image and hydrology.

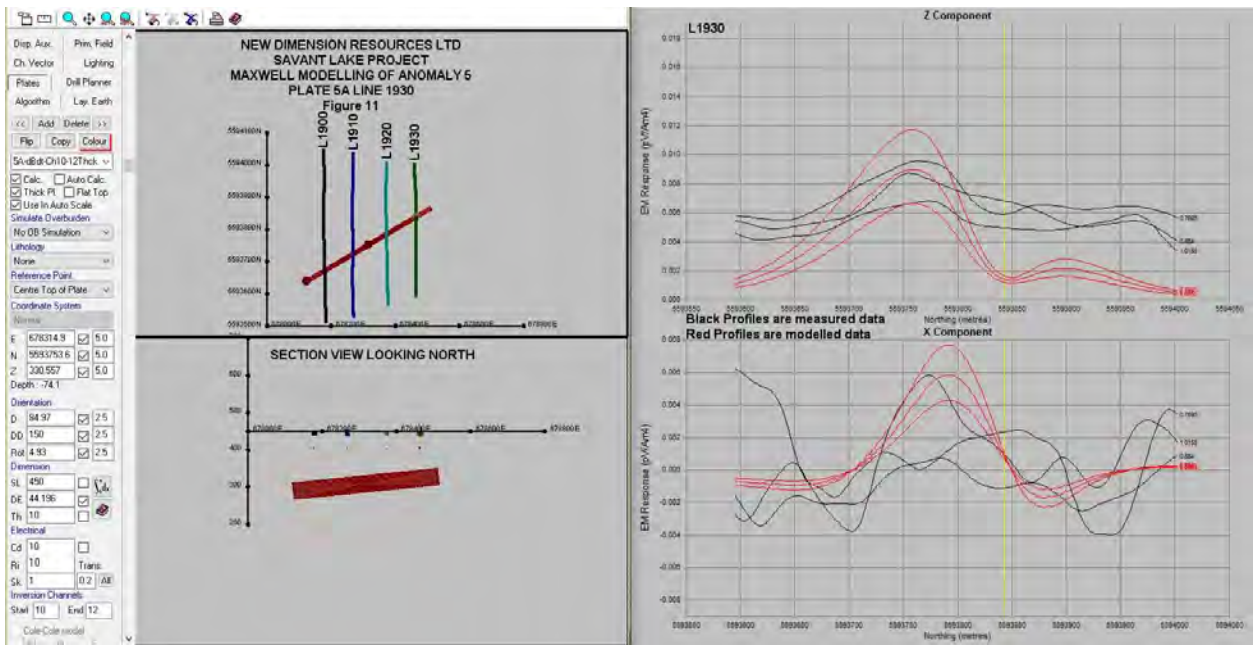
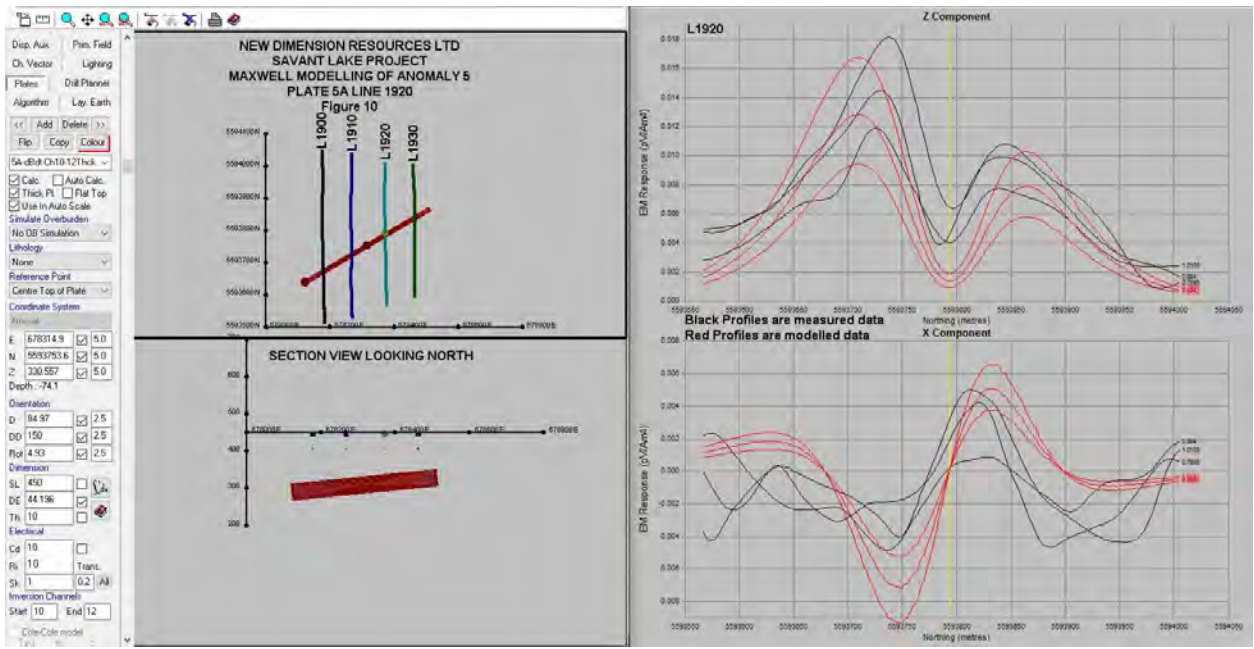
Plate 5A has weak amplitudes and the resultant model is of poor to moderate quality. A thick 3D plate was produced with SL of 450 m, a DE of 44.2 m, a Th of 10m and a Cd of 10 S/m, which produces a resultant low to moderate CT of 100 S. Depth to center top of plate is 74.1 m. Early channels 10 to 12 were used so the actual CT would probably be significantly higher if the body was closer to surface.

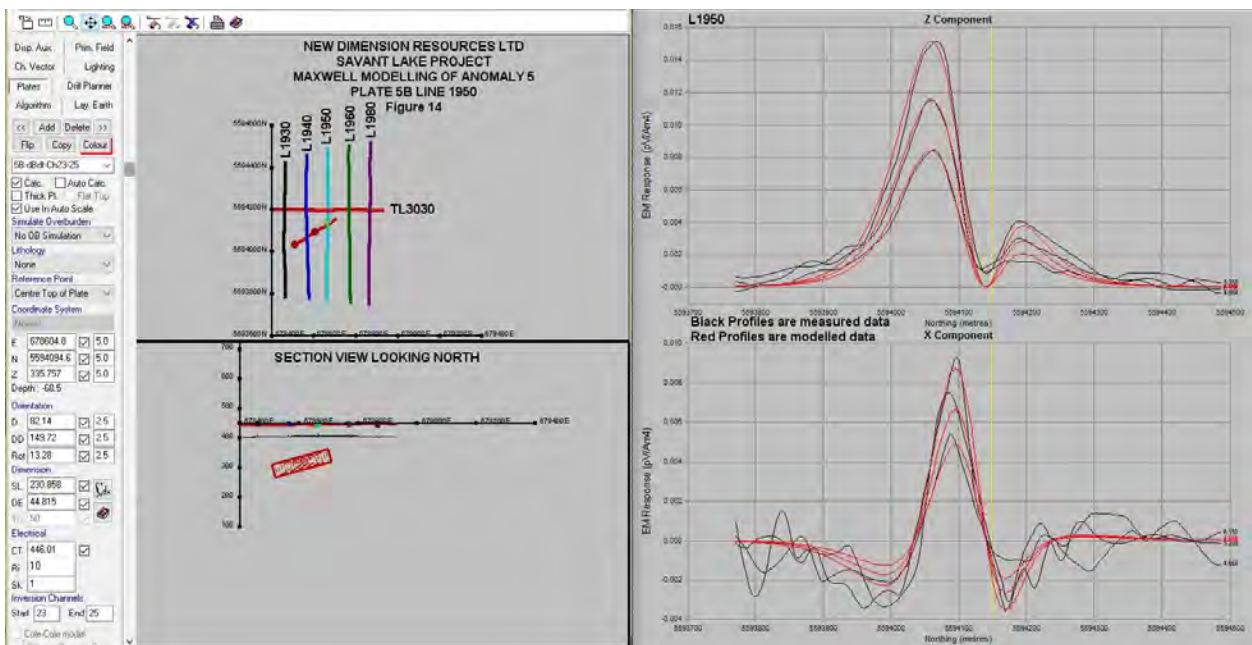
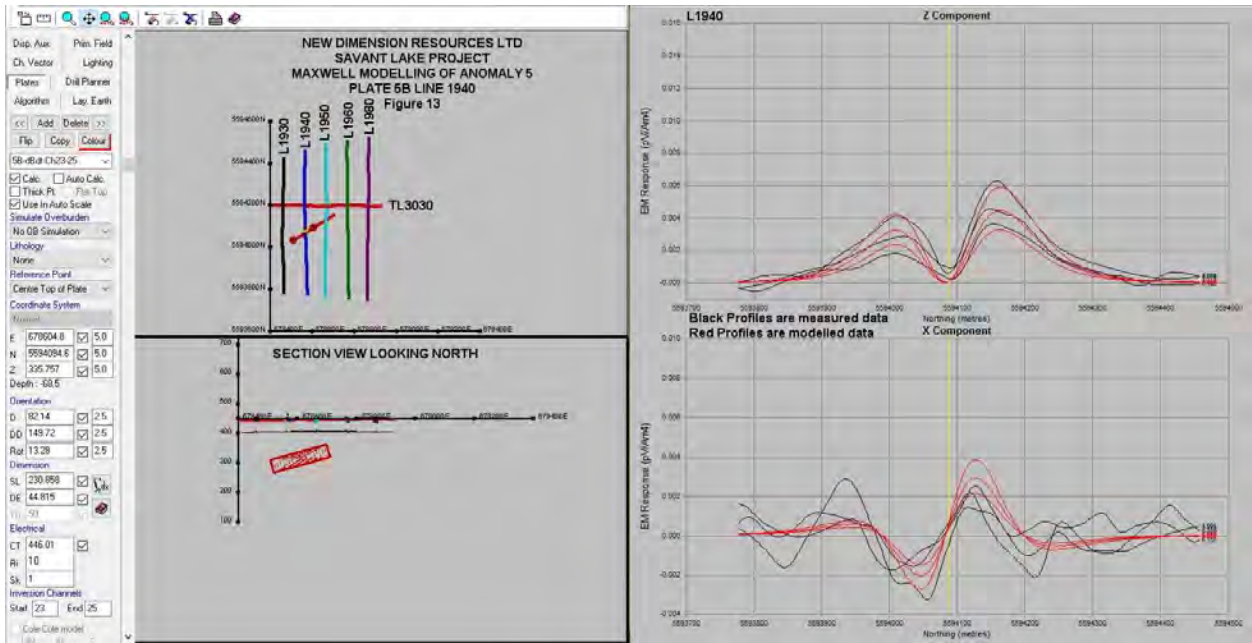
Plate 5B has moderate amplitudes and the resultant model is of moderate to good quality. A thin 2D plate was produced with SL of 230 m, a DE of 44.8 m, a high CT of 446 S. Depth to center top of plate is 68.5 m. Late channels 23 to 25 were used so the CT is close to its maximum value.

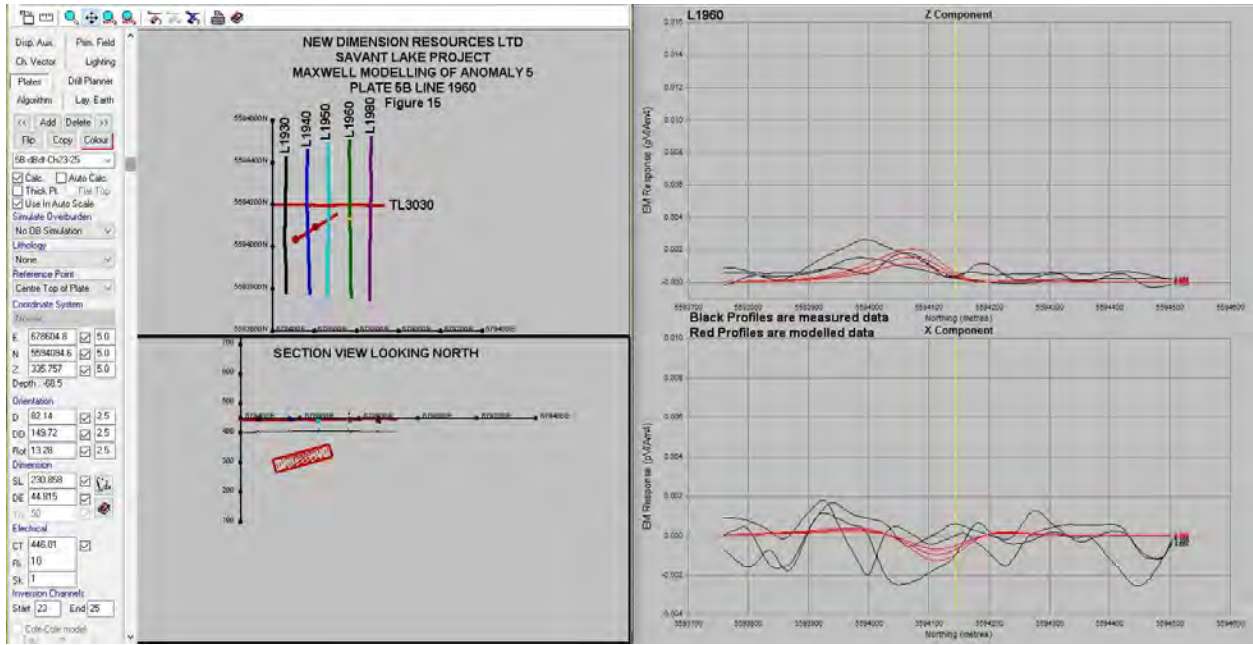
Both plates are presented in Figure 16 with a colour image of the TMI, and are located within the Iron Formation package. Plate 5A is located on the south flank of a high magnetic lithology and plate 5B is located in a low magnetic zone that may be truncating a high magnetic lithology possibly due to faulting or even demagnetisation. The plates are located on land close to a lake shore.

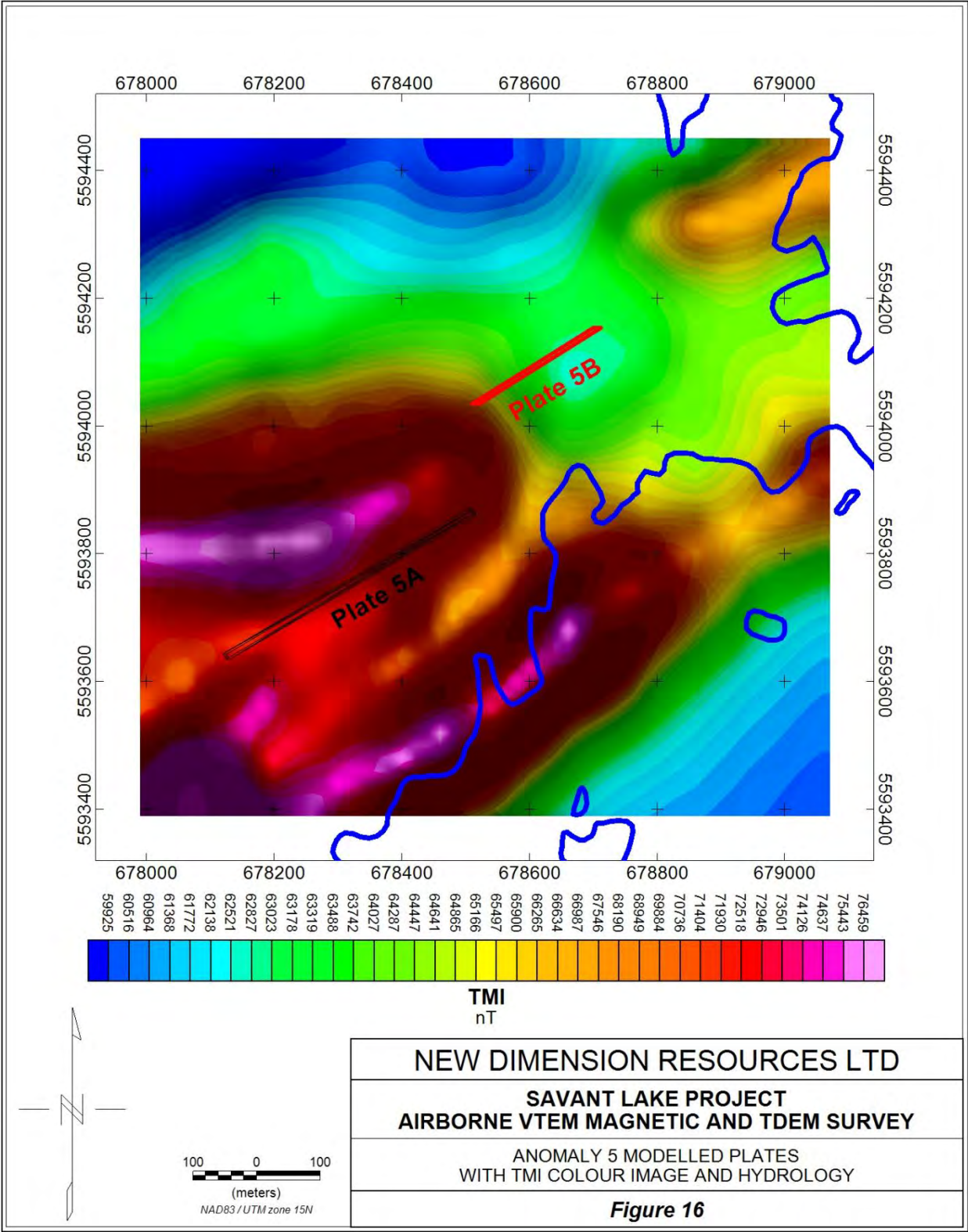
Drilling 5A from the airborne model is not recommended as the solution is of poor to moderate quality and the DE is small. Drilling 5B from the airborne model is feasible as the model is of moderate to good quality; however it is still risky due to the small DE. A ground TDEM survey over both plates is recommended.











## **Anomaly 7 Modelling Results**

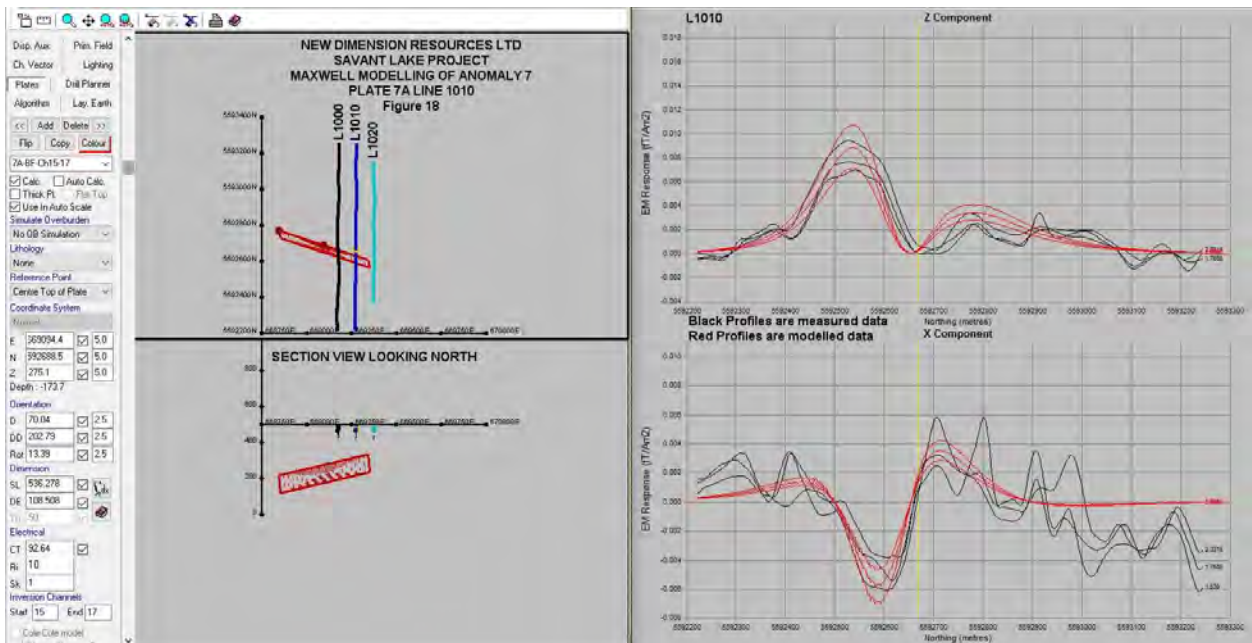
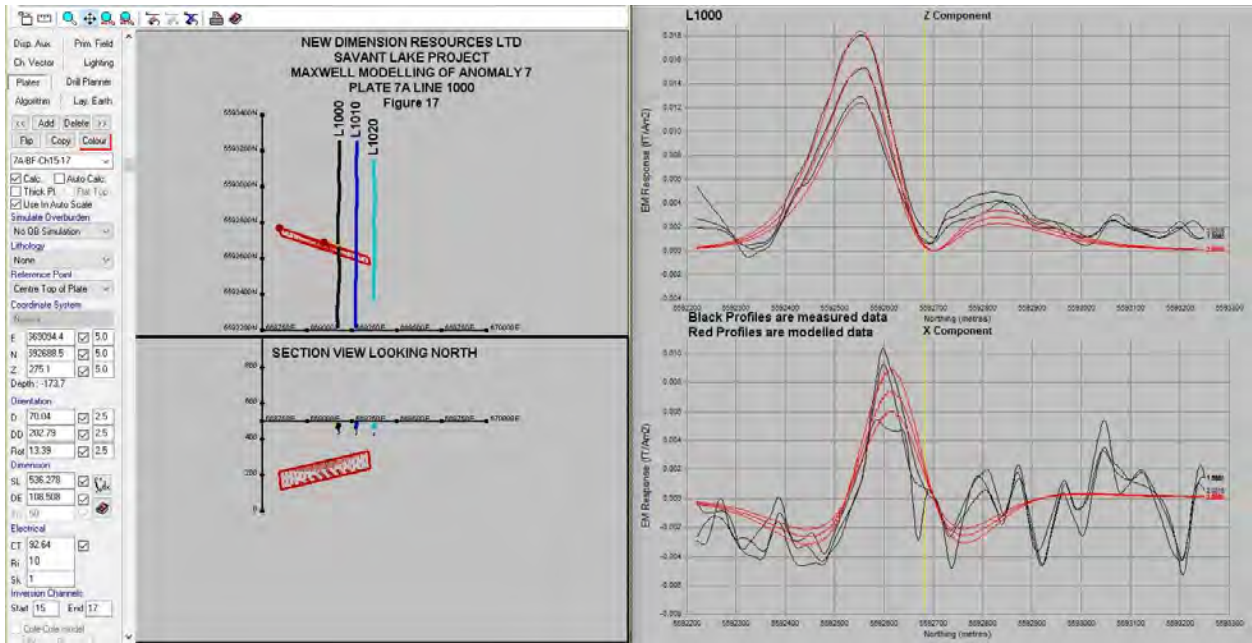
The modelling results for anomaly 7 are presented in Figures 17 to 23. In this case there are two plates called 7A and 7B. Figures 17 to 19 show the 7A modelling results and Figures 20 to 22 show the 7B modelling results. Figure 23 is a map of both plates within the local TMI colour image and hydrology.

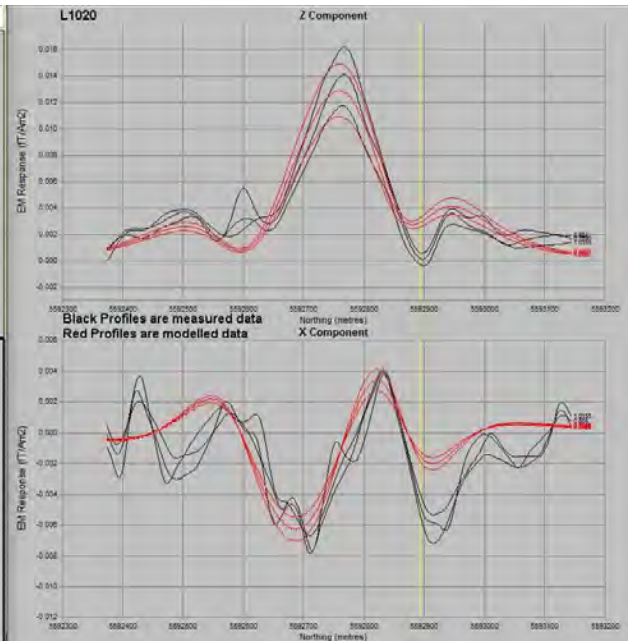
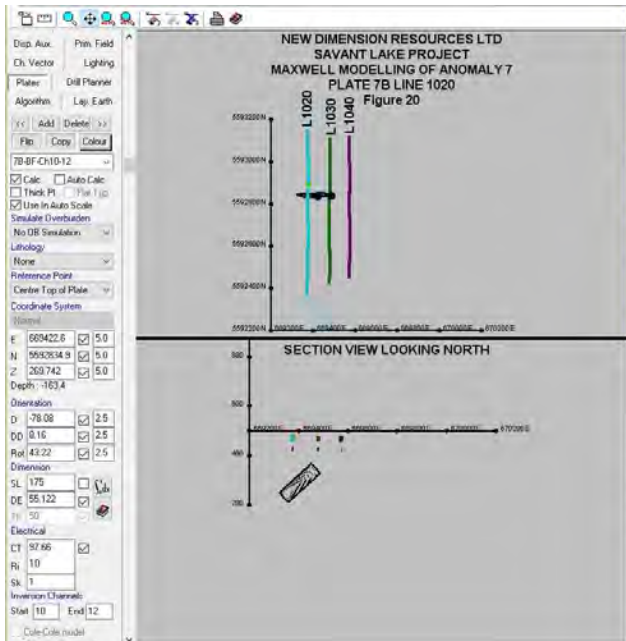
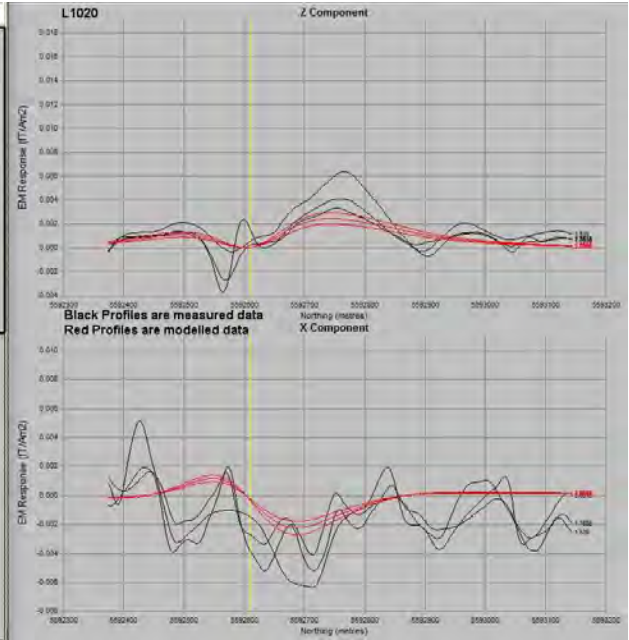
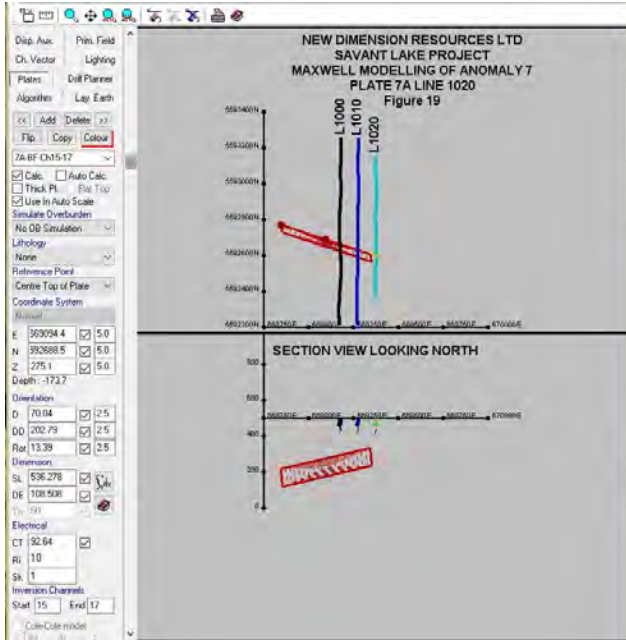
Plate 7A has moderate amplitudes and the resultant model is of moderate to good quality. A thin 2D plate was produced with SL of 536 m, a DE of 109 m, and a low to moderate CT of 93 S. Depth to center top of plate is 174 m. Mid time channels 15 to 17 were used so the actual CT would probably be moderately higher if the body was closer to surface. As the plate extends out of the survey area to the east the resultant model is somewhat compromised.

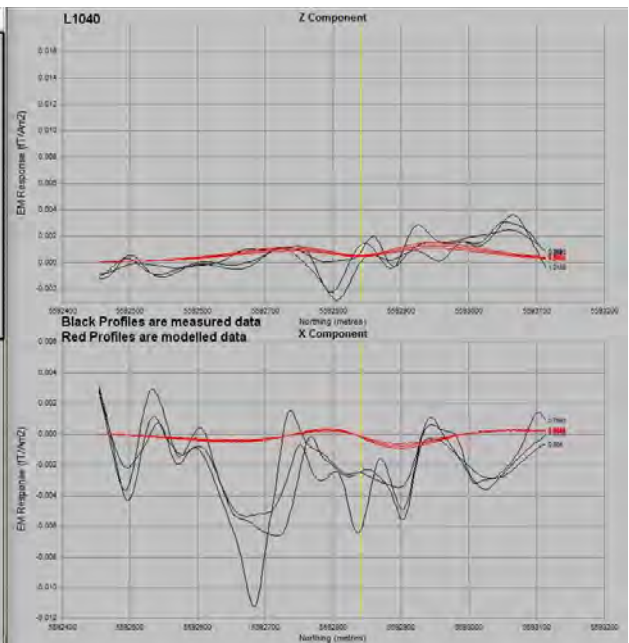
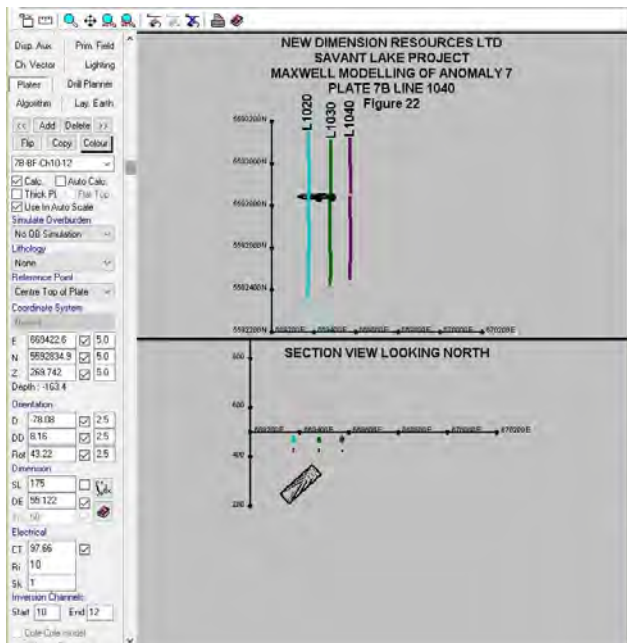
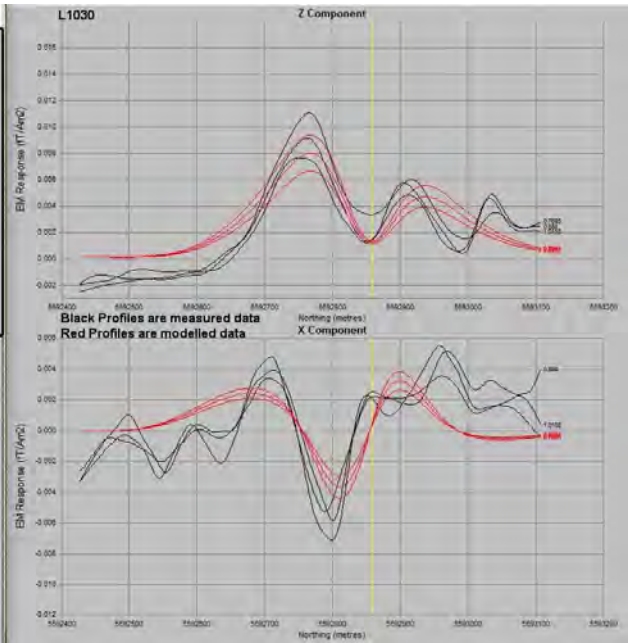
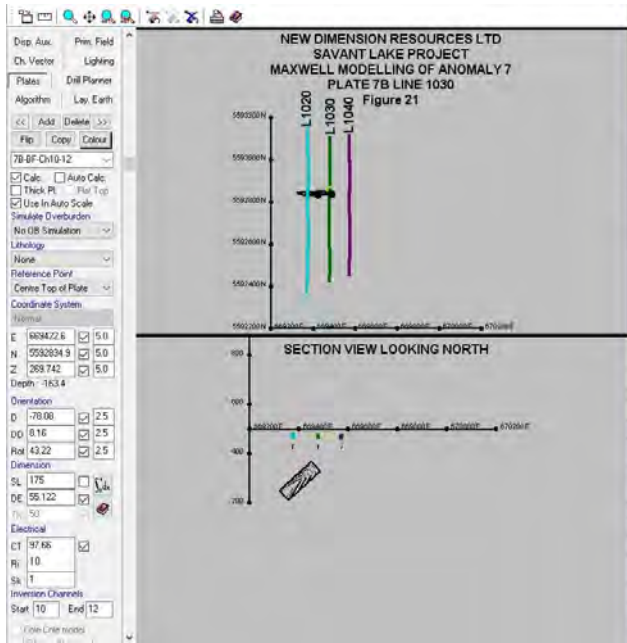
Plate 7B has low to moderate amplitudes and the resultant model is of low to moderate quality. A thin 2D plate was produced with SL of 175 m, a DE of 55.1 m, and a low to moderate CT of 98 S. Depth to center top of plate is 163 m, but since the plate is plunging its upper edge is closer to surface. Early channels 10 to 12 were used so the actual CT would probably be significantly higher if the body was closer to surface.

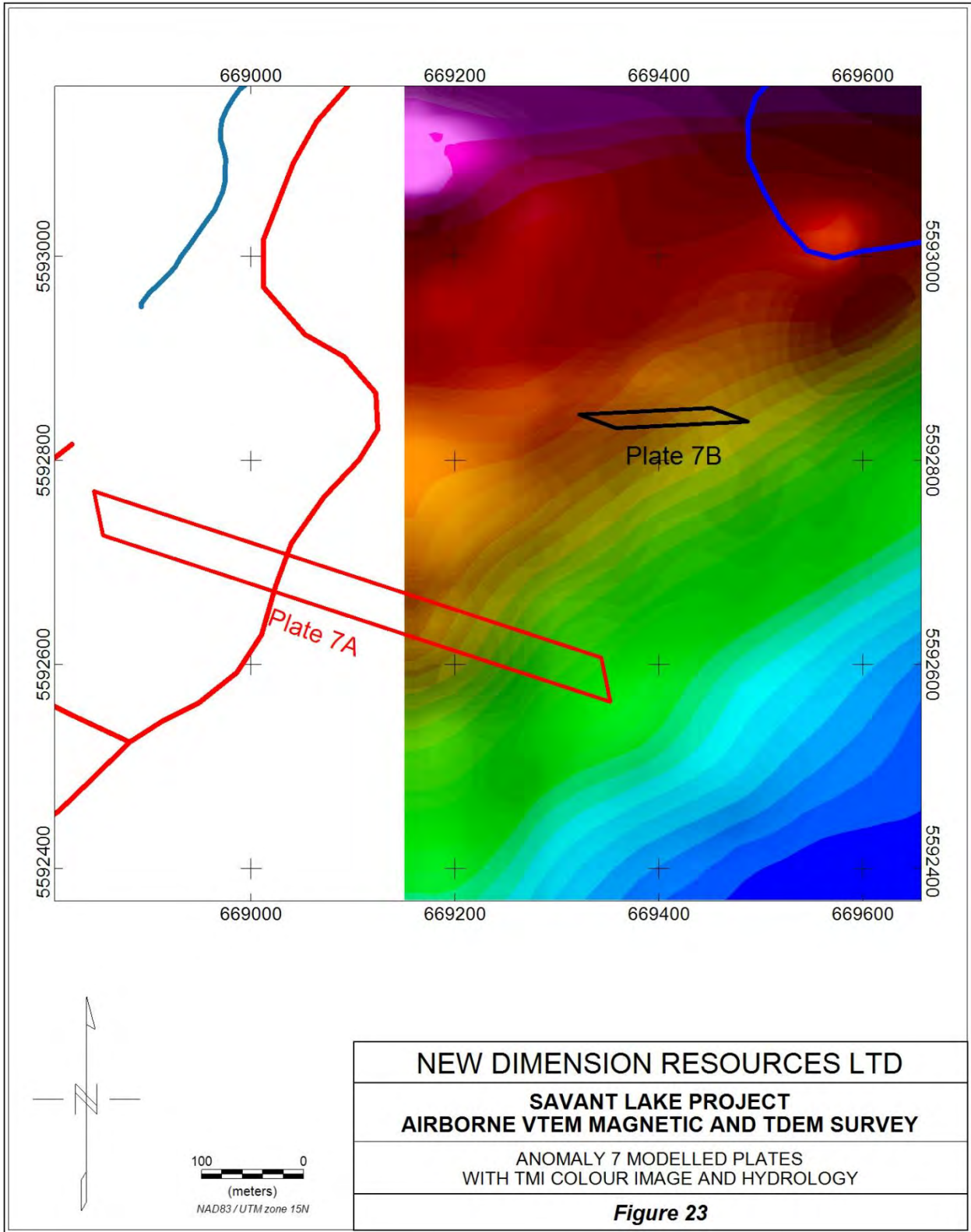
Both plates are presented in Figure 23 with a colour image of the TMI and hydrology. They are located outside of the Iron Formation package, possibly hosted within volcanics. Both plates are located on the south flank of a weak magnetic gradient, and are on land.

Drilling 7A from the airborne model is not recommended as the solution is partially compromised by it extending outside of the survey area to the west. Drilling 7B from the airborne model is not recommended as the solution is of poor to moderate quality and the DE is small. A ground TDEM survey over both plates is recommended.









## **Anomalies 8 and 9 Modelling Results**

The modelling results for anomalies 8 and 9 are presented in Figures 24 to 33. In this case there are two plates for anomaly 8 called 8A and 8B. Figures 24 to 26 show the 8A modelling results and Figures 27 to 29 show the 8B modelling results. Figures 30 to 32 show the modelling results for anomaly 9. Figure 33 is a map of the three plates within the local TMI colour image and hydrology.

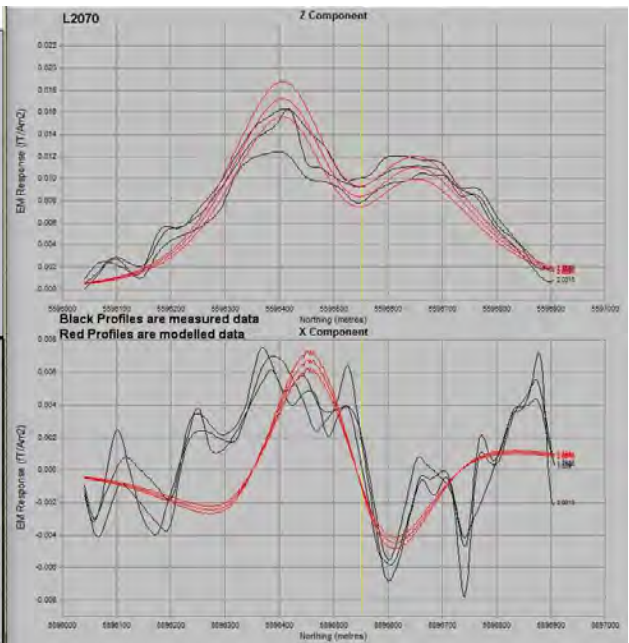
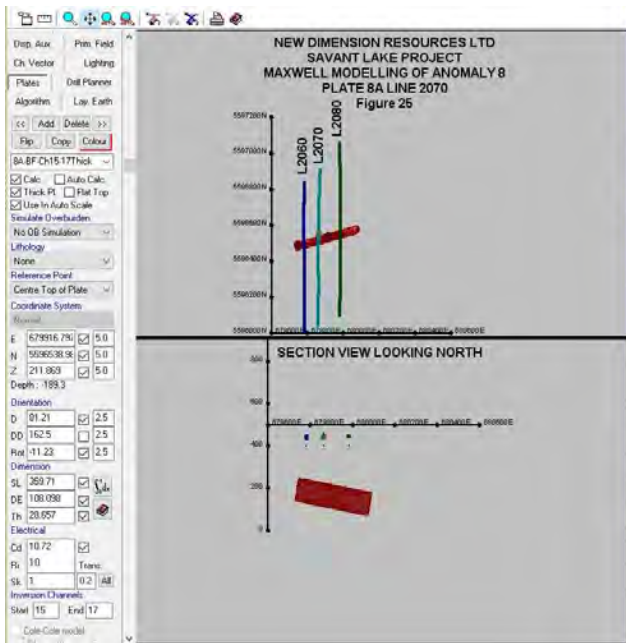
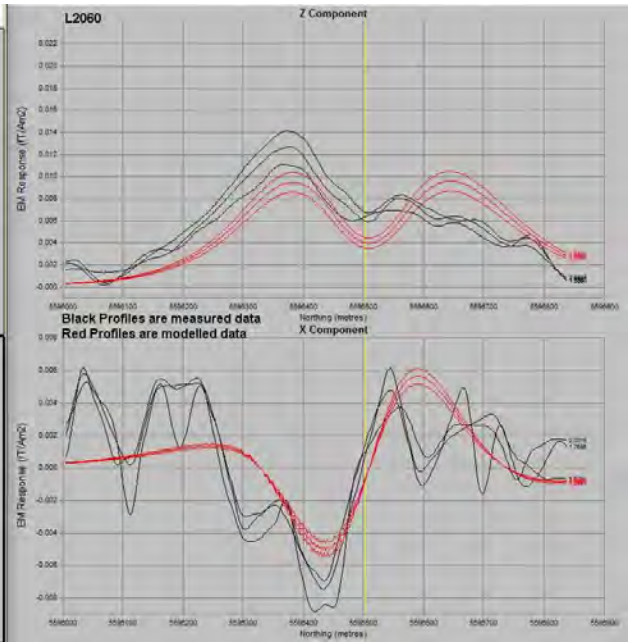
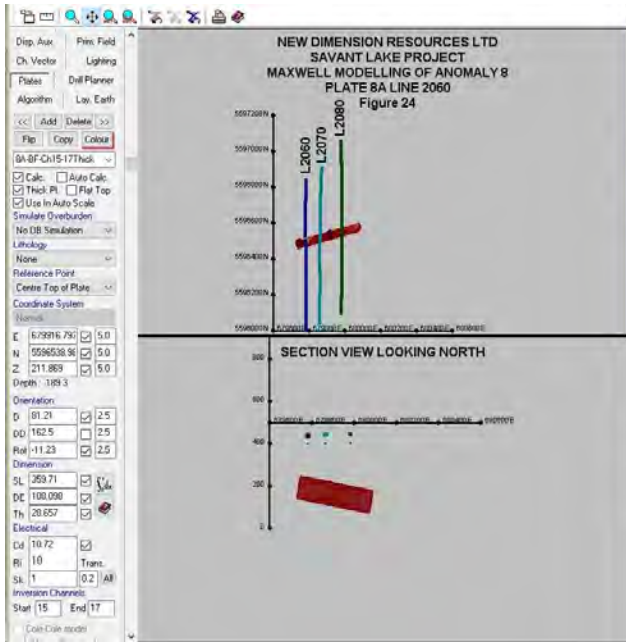
Plate 8A has low to moderate amplitudes and the resultant model is of low to moderate quality. A thick 3D plate was produced with SL of 360 m, a DE of 108 m, a Th of 29m and a Cd of 10.7 S/m, which produces a resultant high CT of 307 S. Depth to center top of plate is 189 m. Mid time channels 15 to 17 were used so the actual CT would probably be moderately higher if the body was closer to surface.

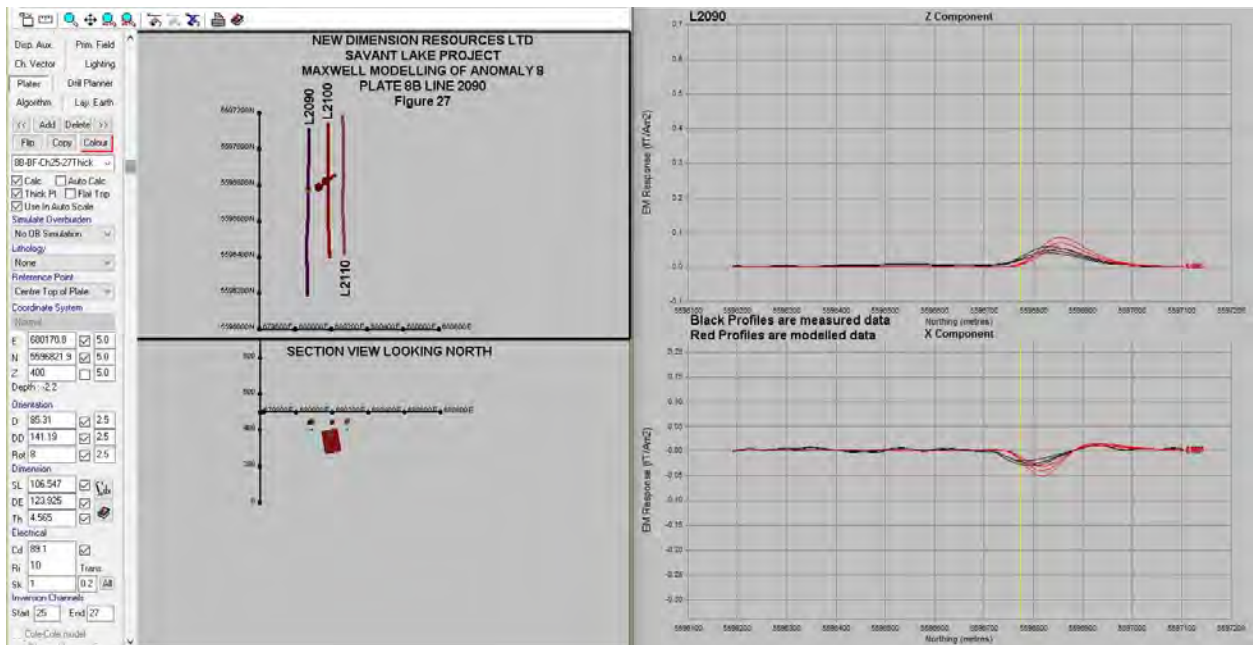
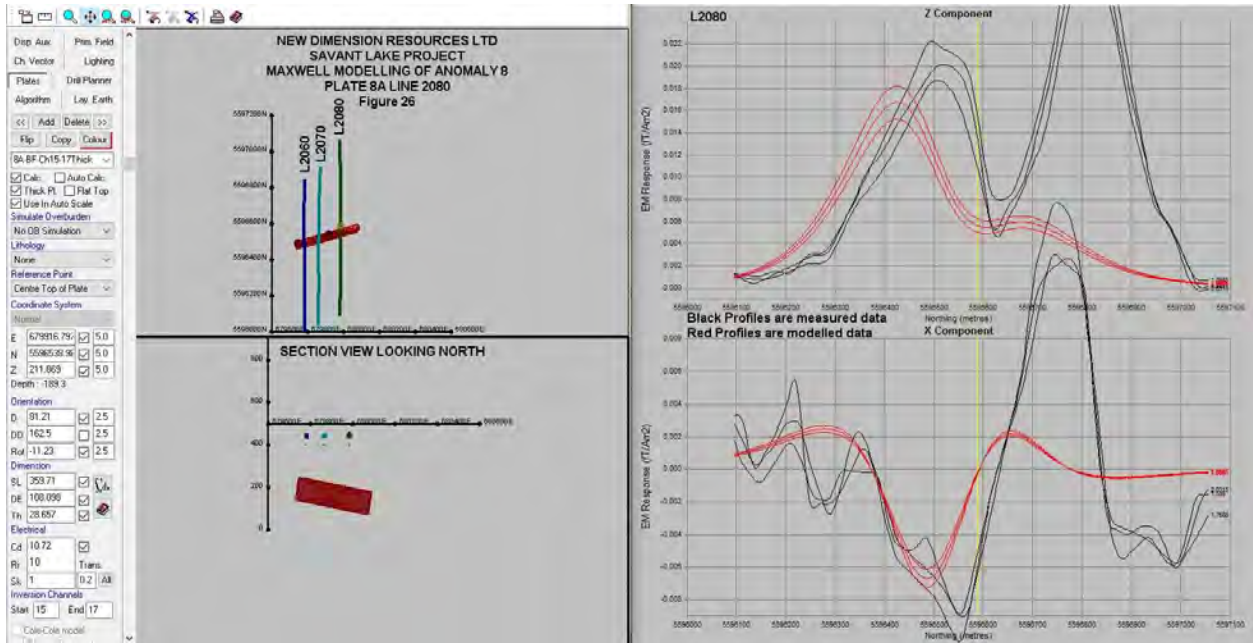
Plate 8B has high amplitudes and the resultant model is of good quality. A thick 3D plate was produced with SL of 107 m, a DE of 124 m, a Th of 4.5 m and a Cd of 89.1 S/m, which produces a resultant high CT of 401 S. Depth to center top of plate is 2.2 m. Latest time channels 25 to 27 were used so this represents the maximum CT.

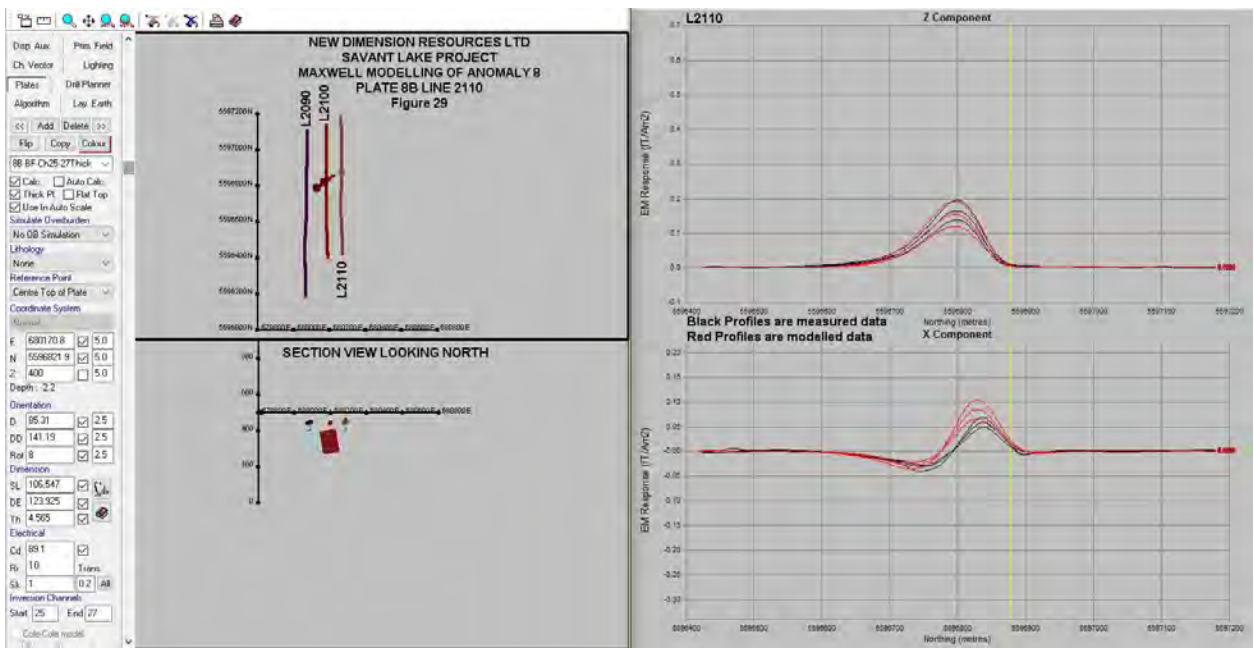
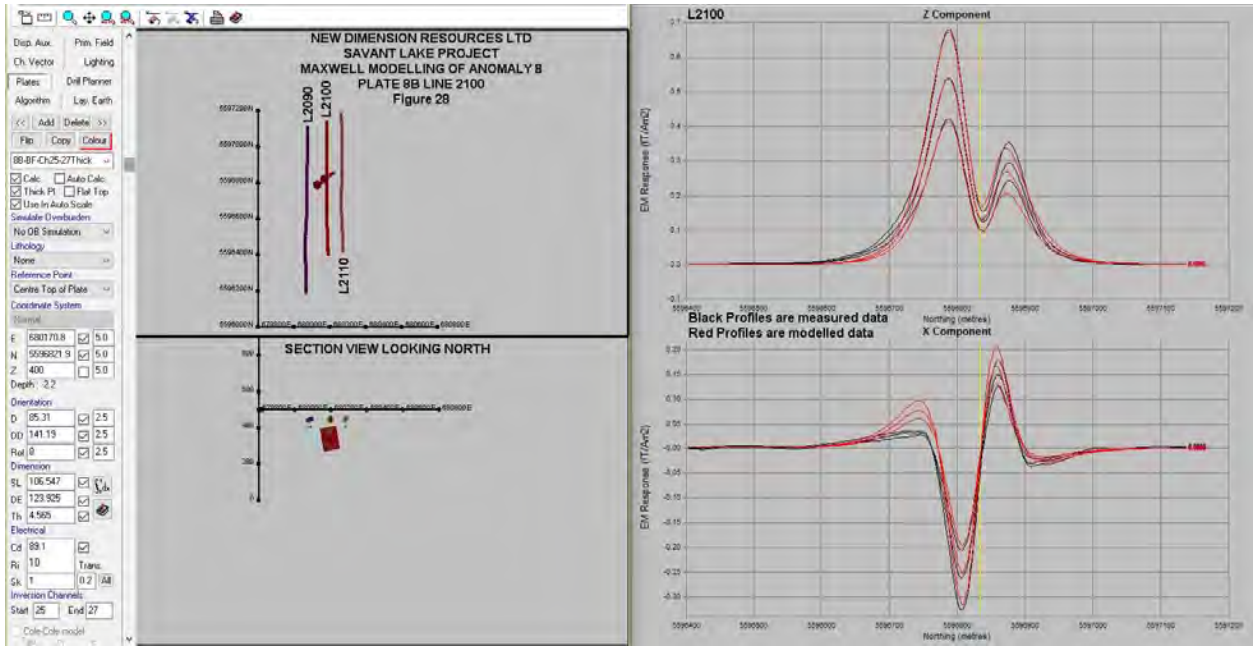
Plate 9 has moderate amplitudes and the resultant model is of moderate to good quality. A thin 2D plate was produced with SL of 30 m, a DE of 103 m, a high CT of 874 S. Depth to center top of plate is 12.9 m. Latest time channels 25 to 27 were used so this represents the maximum CT.

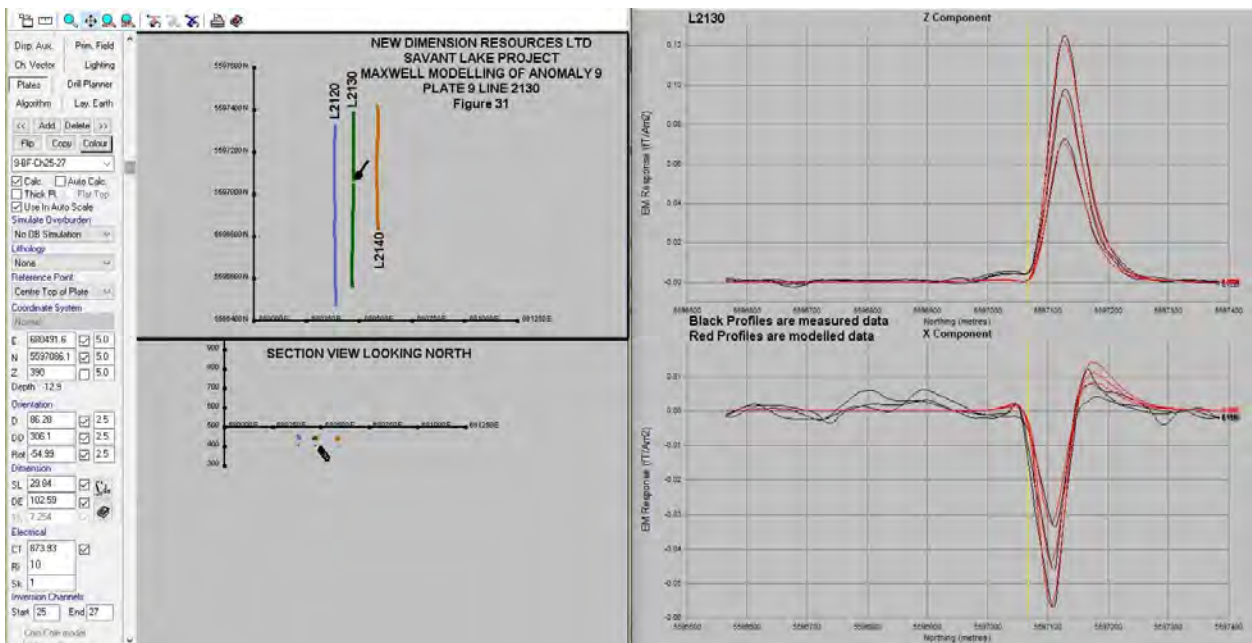
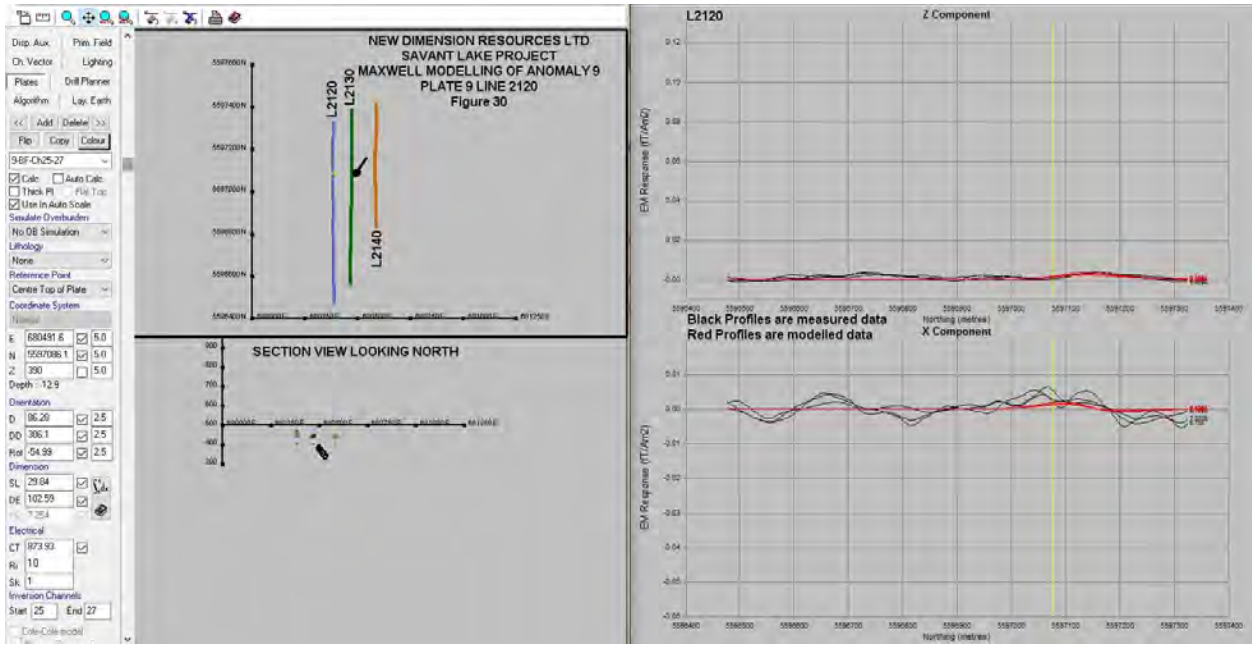
All three plates are presented in Figure 33 with a colour image of the TMI and hydrology. They are located within of the Iron Formation package. Plate 8A is located at a point of where a high magnetic lithology weakens significantly in amplitude, possibly indicating demagnetisation. Plates 8B and 9 are both located on the north flank of the high magnetic lithology where structural distortions seem to exist. Plate 8A is under a lake. Plate 8B is located on an island very close to shore and plate 9 straddle the shore of an island, but is mostly under a lake.

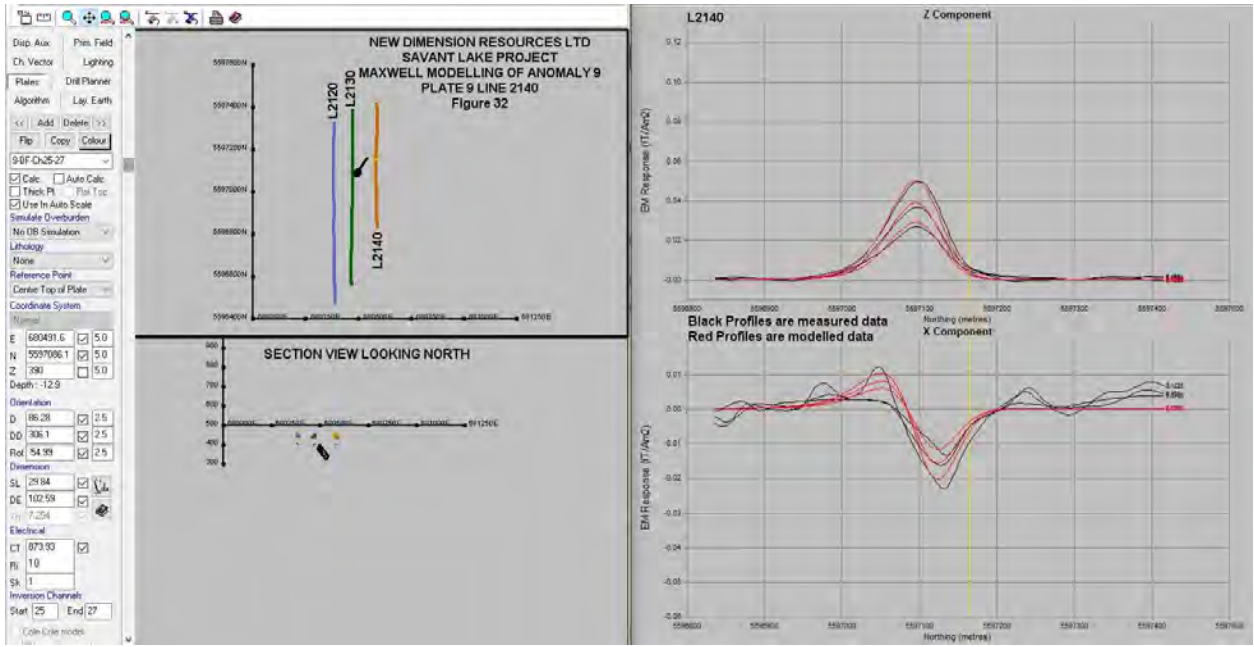
Drilling 8A from the airborne model is not recommended as the solution is of low to moderate quality and located at significant depth. Drilling 8B from the airborne is possible as the model is good and it is close to surface. Drilling 9 from the airborne model is not recommended as the plate is small in strike length and located between flight lines. A ground TDEM survey is recommended for both 8A and 9. Because 8B is located between 8A and 9 it might as well be survey with ground TDEM also.

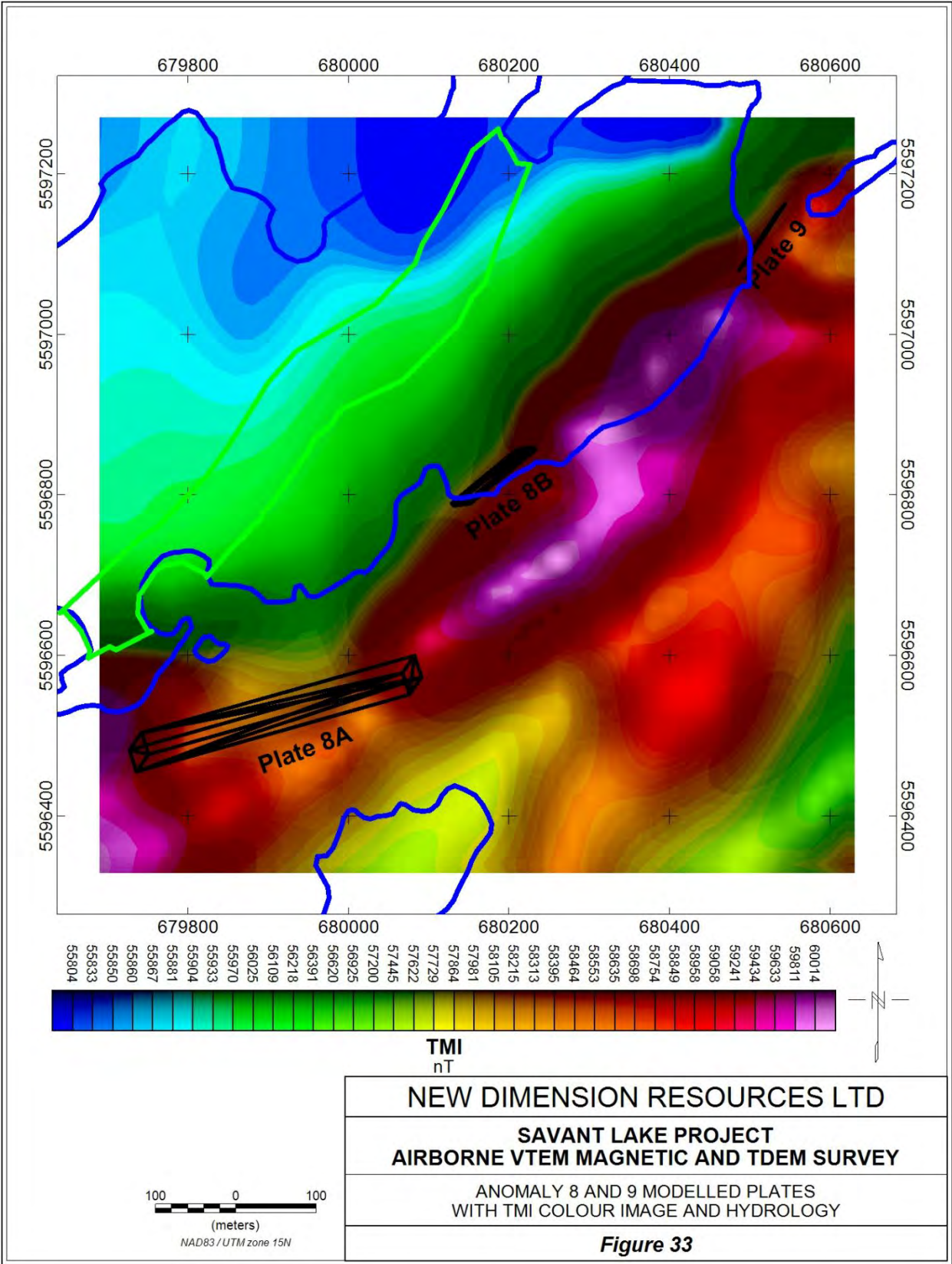












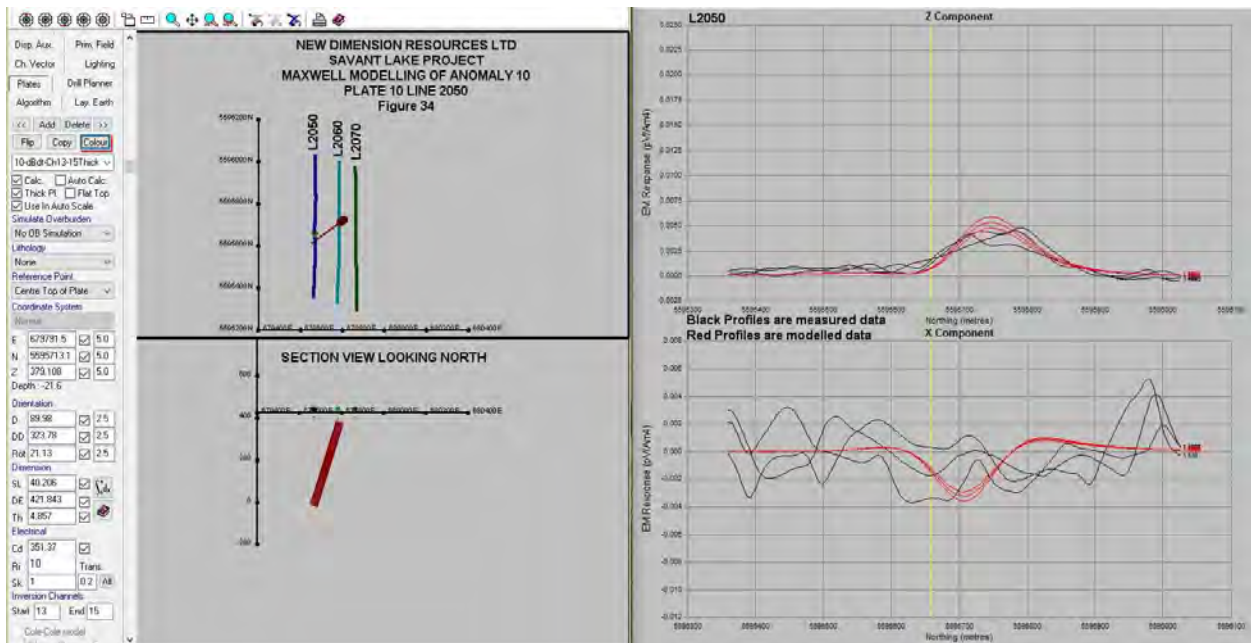
## Anomaly 10 Modelling Results

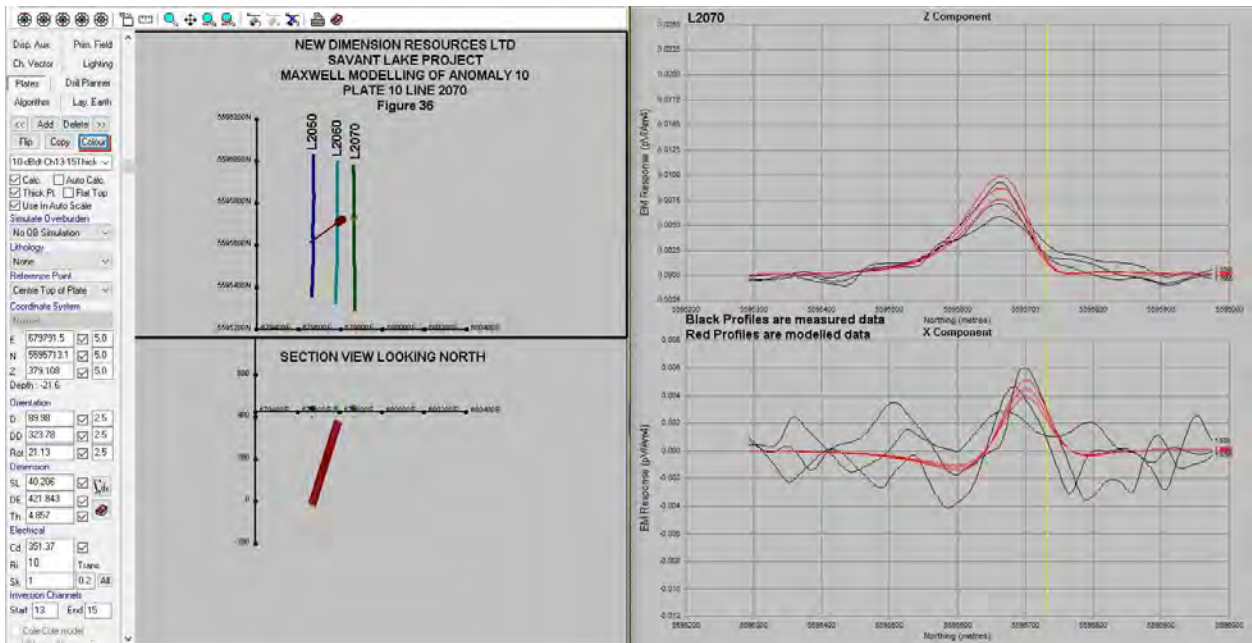
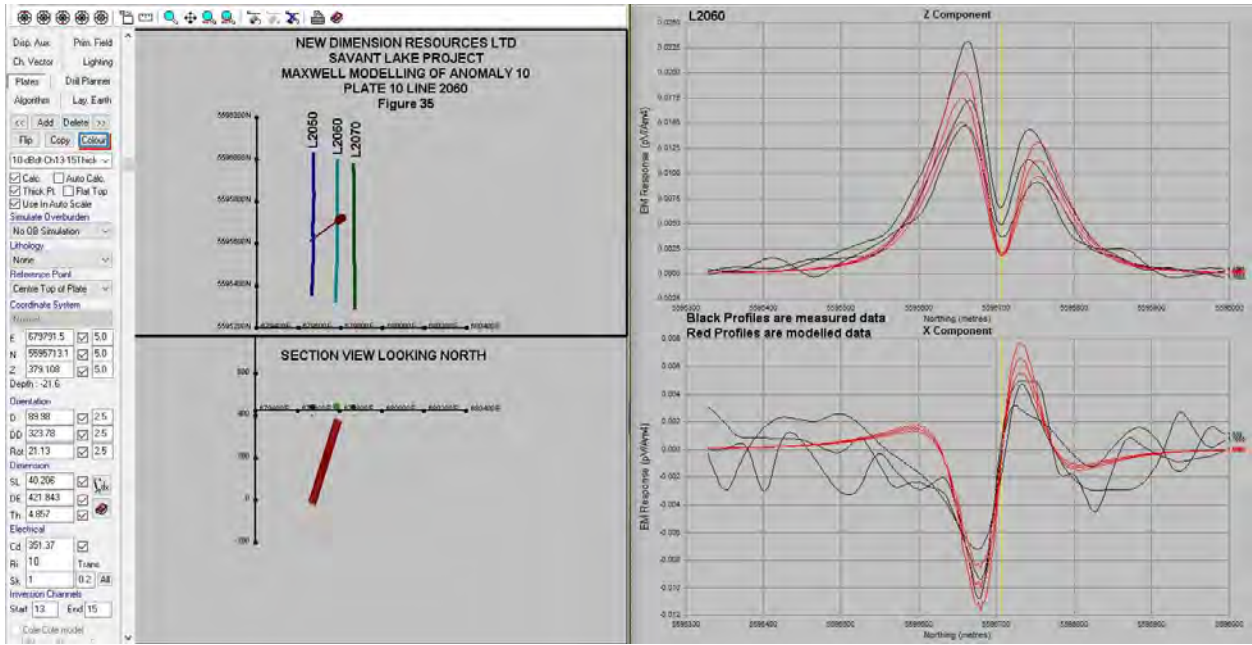
The modelling results for anomaly 10 are presented in Figures 34 to 37. Figures 34 to 36 show the plate 10 modelling results. Figure 37 is a map plate 10 within the local TMI colour image and hydrology.

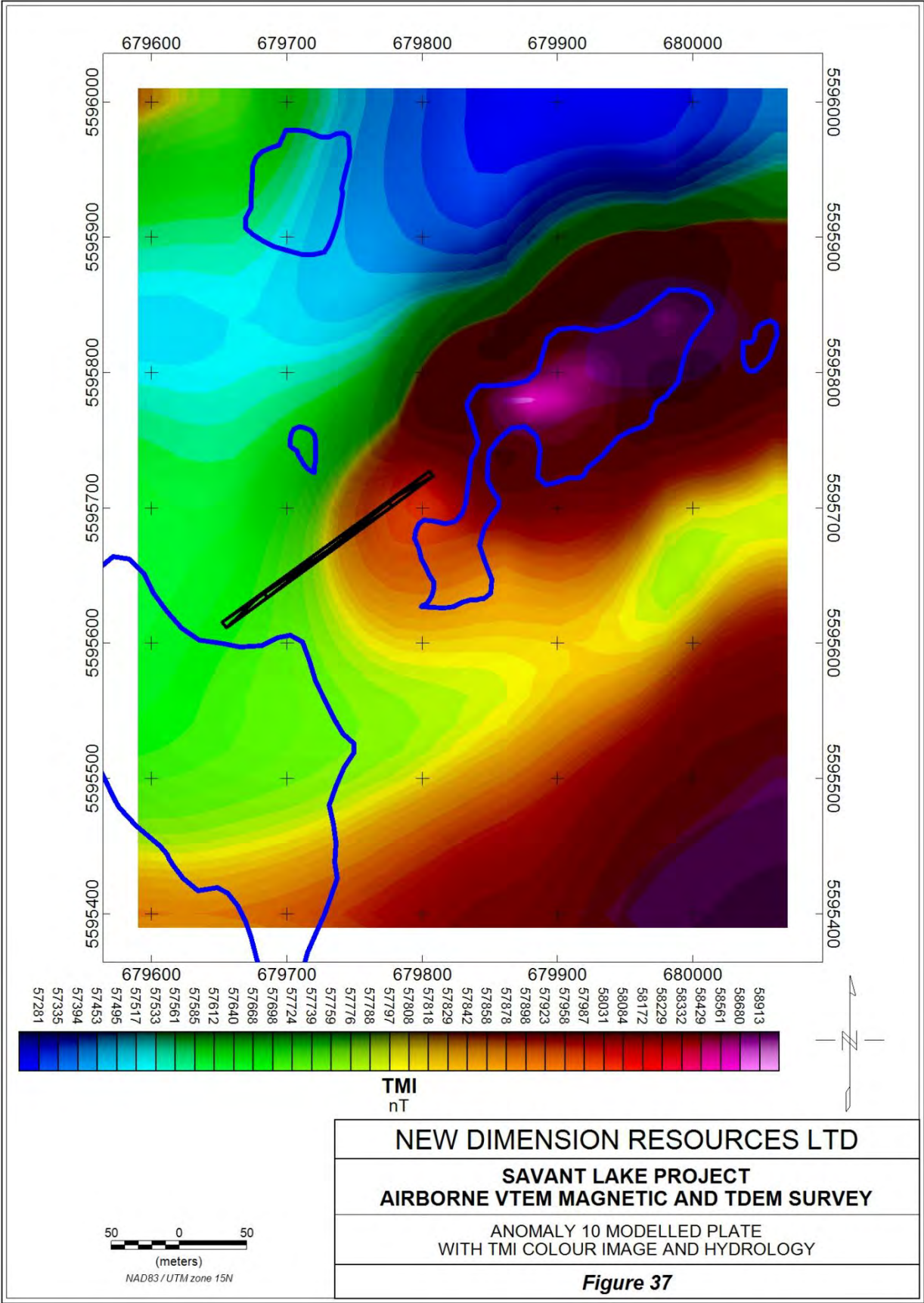
Plate 10 has low to moderate amplitudes and the resultant model is of moderate quality. A thick 3D plate was produced with SL of 40 m, a DE of 422 m, a Th of 4.9 m and a Cd of 351.4 S/m, which produces a resultant very high CT of 1,707 S. Depth to center top of plate is 21.6 m. Mid time channels 13 to 15 were used so the actual CT would probably be moderately higher if the body was closer to surface.

Plate 10 is presented in Figure 37 with a colour image of the TMI and hydrology. It is located within of the Iron Formation package, at the southwest end of a high magnetic lithology. It is located under a lake close to an island.

Drilling 10 from the airborne model is not recommended as the strike length is small. A ground TDEM survey is recommended.







## **Anomaly 11 Modelling Results**

The modelling results for anomaly 11 are presented in Figures 38 to 45. In this case there are three plates called 11A, 11B and 11C. Figures 38 and 39 show the 11A modelling results. Figures 40 and 41 show the 11C modelling results, and Figures 42 to 44 show the 11B modelling results. Figure 45 is a map of the three plates within the local TMI colour image and hydrology.

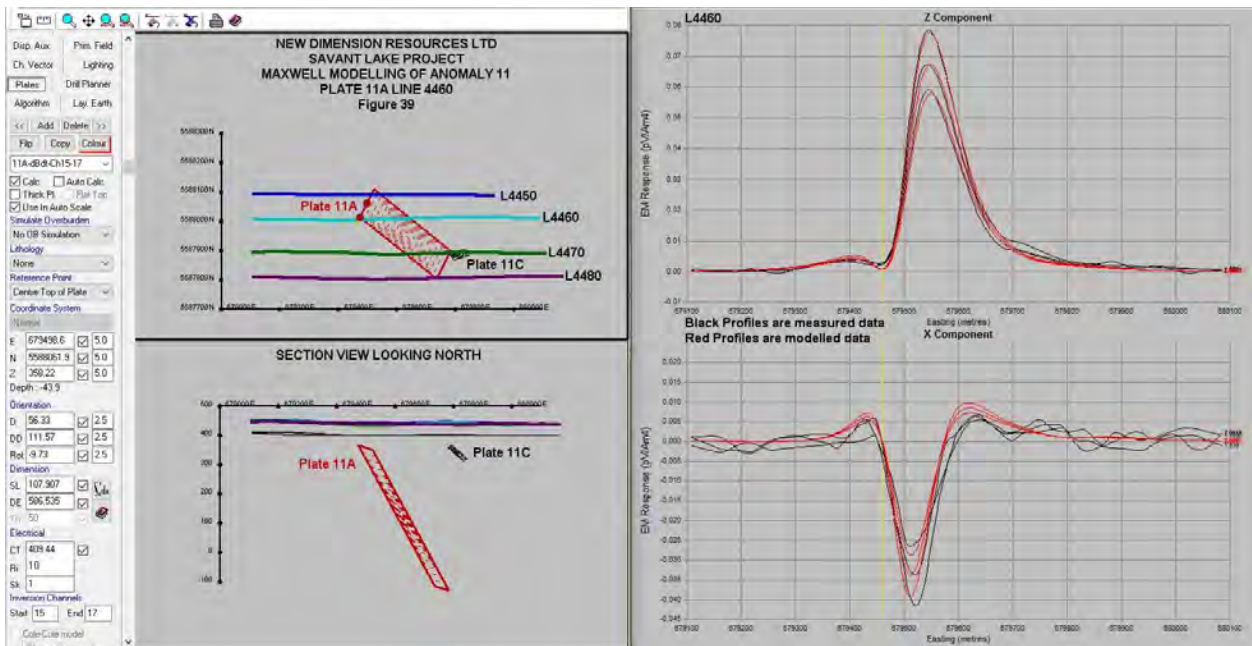
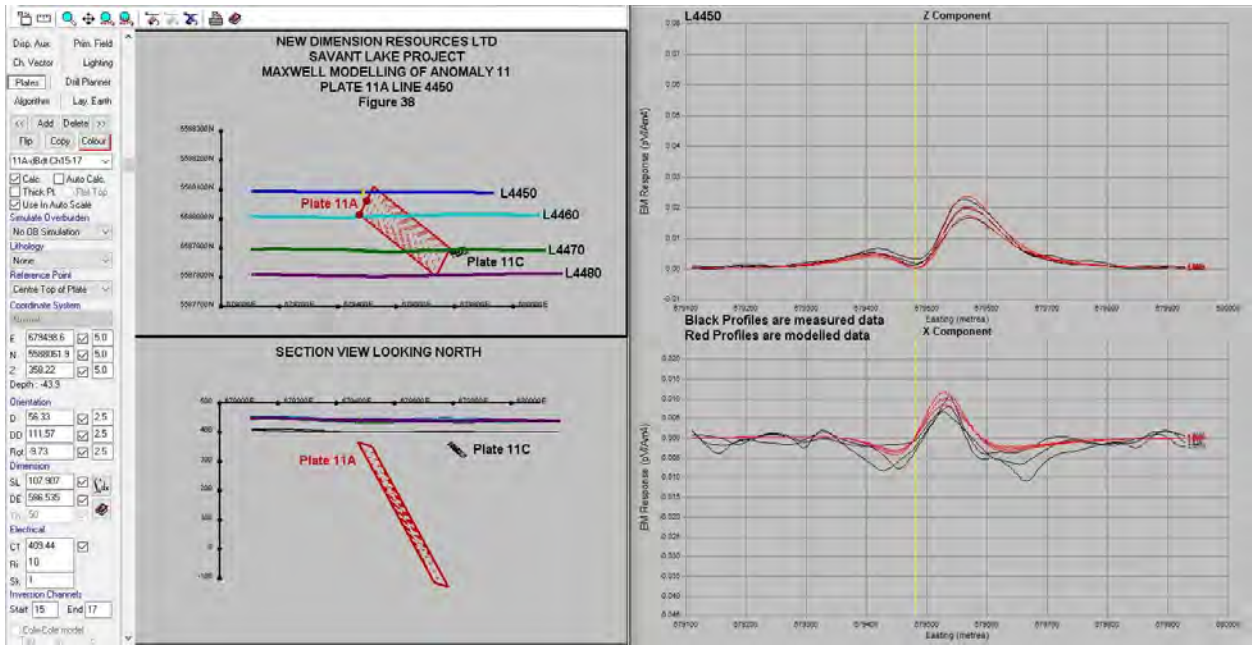
Plate 11A has low to moderate amplitudes and the resultant model is of moderate to high quality. A thin 2D plate was produced with SL of 108 m, a DE of 587 m, and a high CT of 409 S. Depth to center top of plate is 43.9 m. Mid time channels 15 to 17 were used so the actual CT would probably be moderately higher if the body was closer to surface.

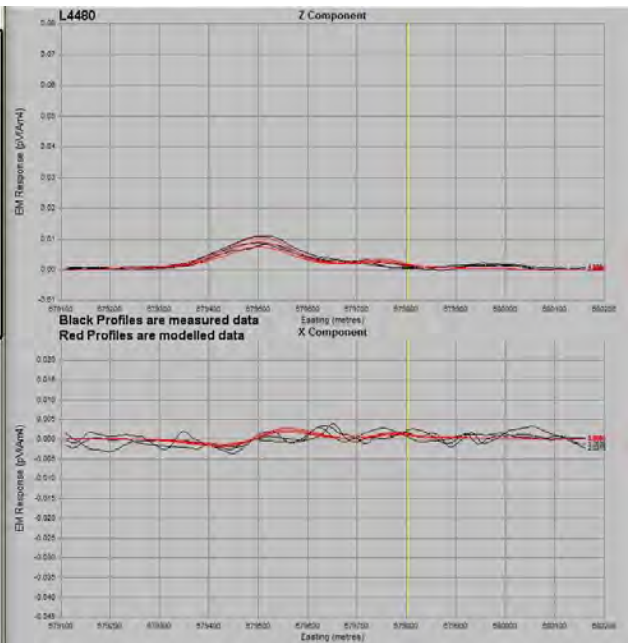
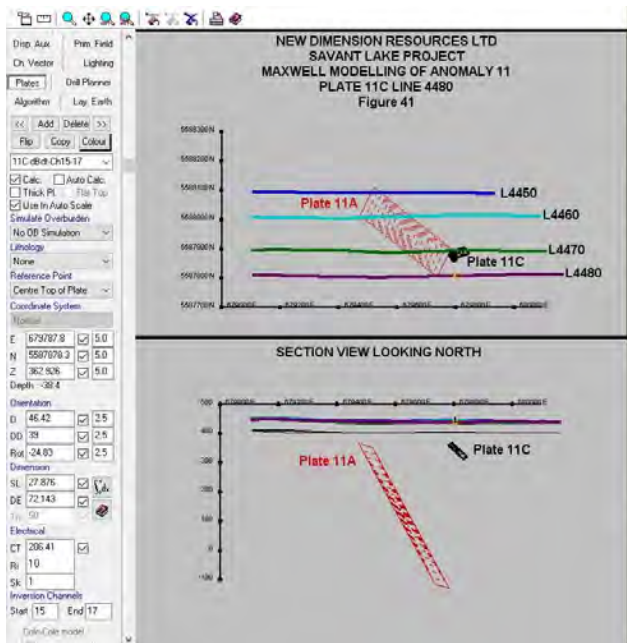
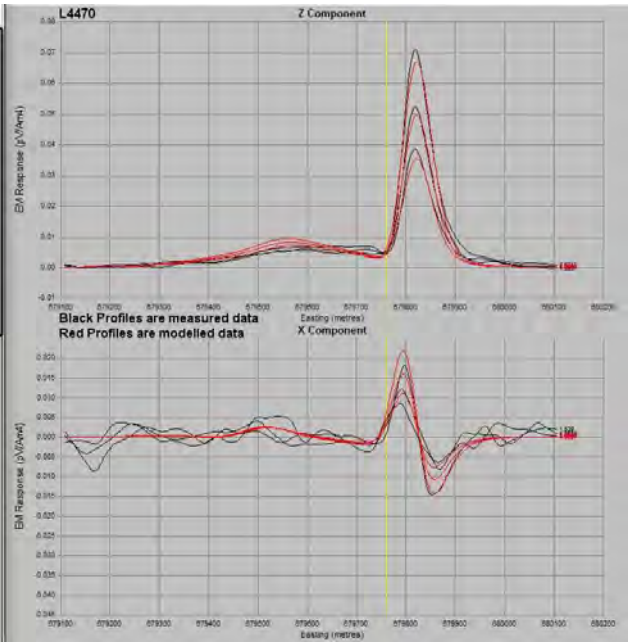
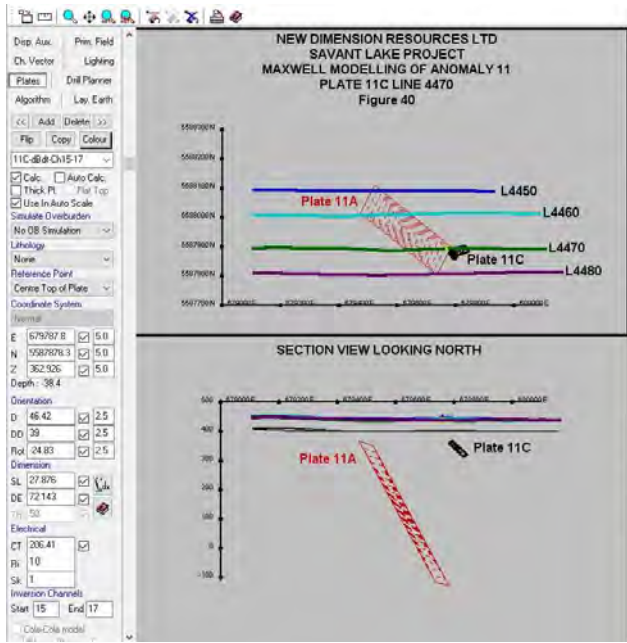
Plate 11C has low to moderate amplitudes and the resultant model is of good quality. A thin 2D plate was produced with SL of 28 m, a DE of 72 m, and a moderate to high CT of 206 S. Depth to center top of plate is 38.4 m. Mid time channels 15 to 17 were used so the actual CT would probably be moderately higher if the body was closer to surface.

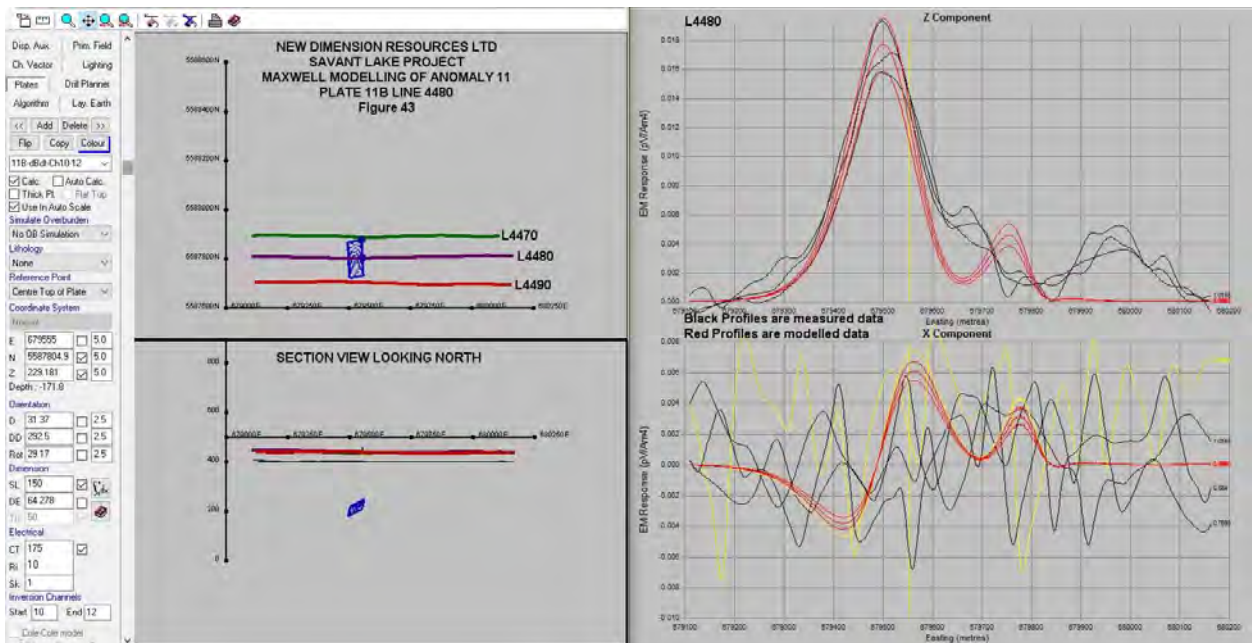
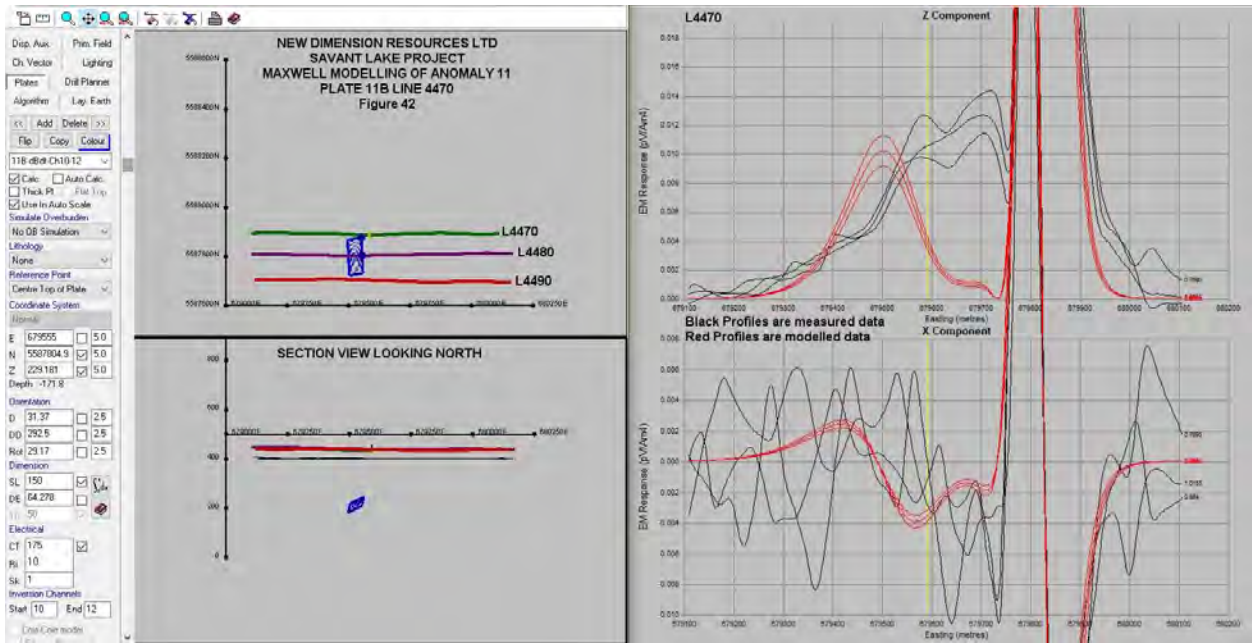
Plate 11B has moderate amplitudes and the resultant model is of low to moderate quality. A thin 2D plate was produced with SL of 150 m, a DE of 64.3 m, and a moderate to high CT of 175 S. Depth to center top of plate is 172 m. Early to mid time channels 10 to 12 were used so the actual CT would probably be significantly higher if the body was closer to surface.

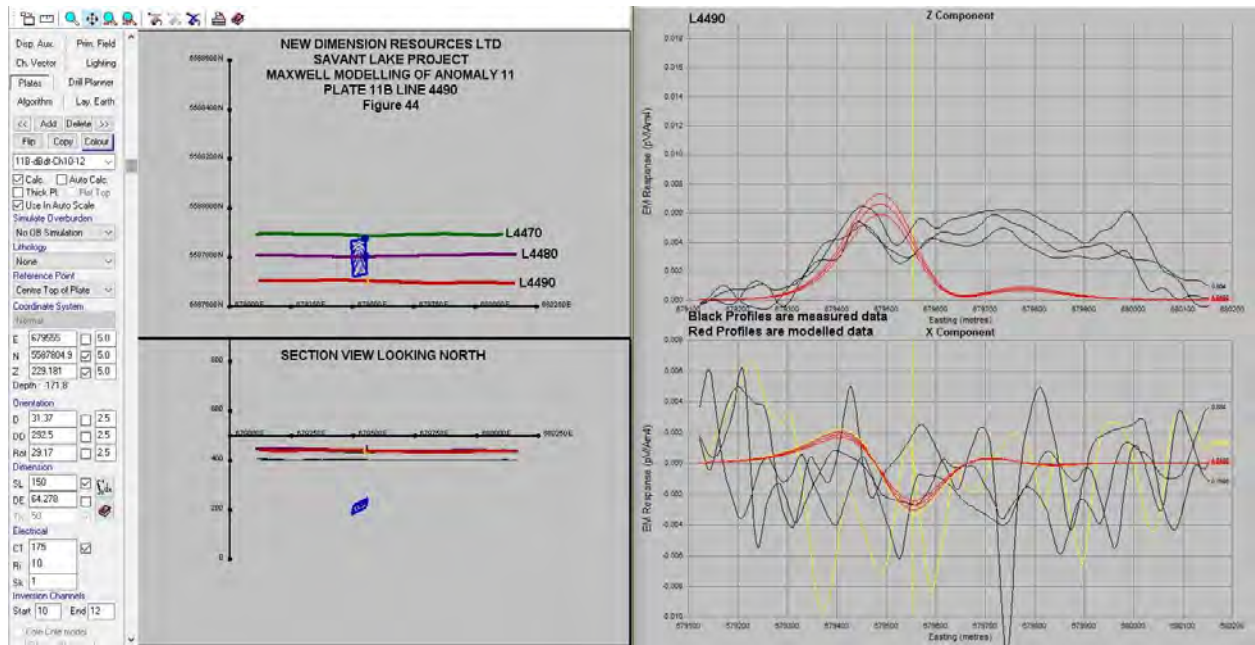
All three plates are presented in Figure 45 with a colour image of the TMI and hydrology. They are not contained within the Iron Formation package and may be hosted by volcanic rocks. Plates 11A and 11B are located near a weak magnetic high, whereas plate 11C has no magnetic activity. Plates 11A and 11C are under a lake, and plate 11B straddles the shore of an island.

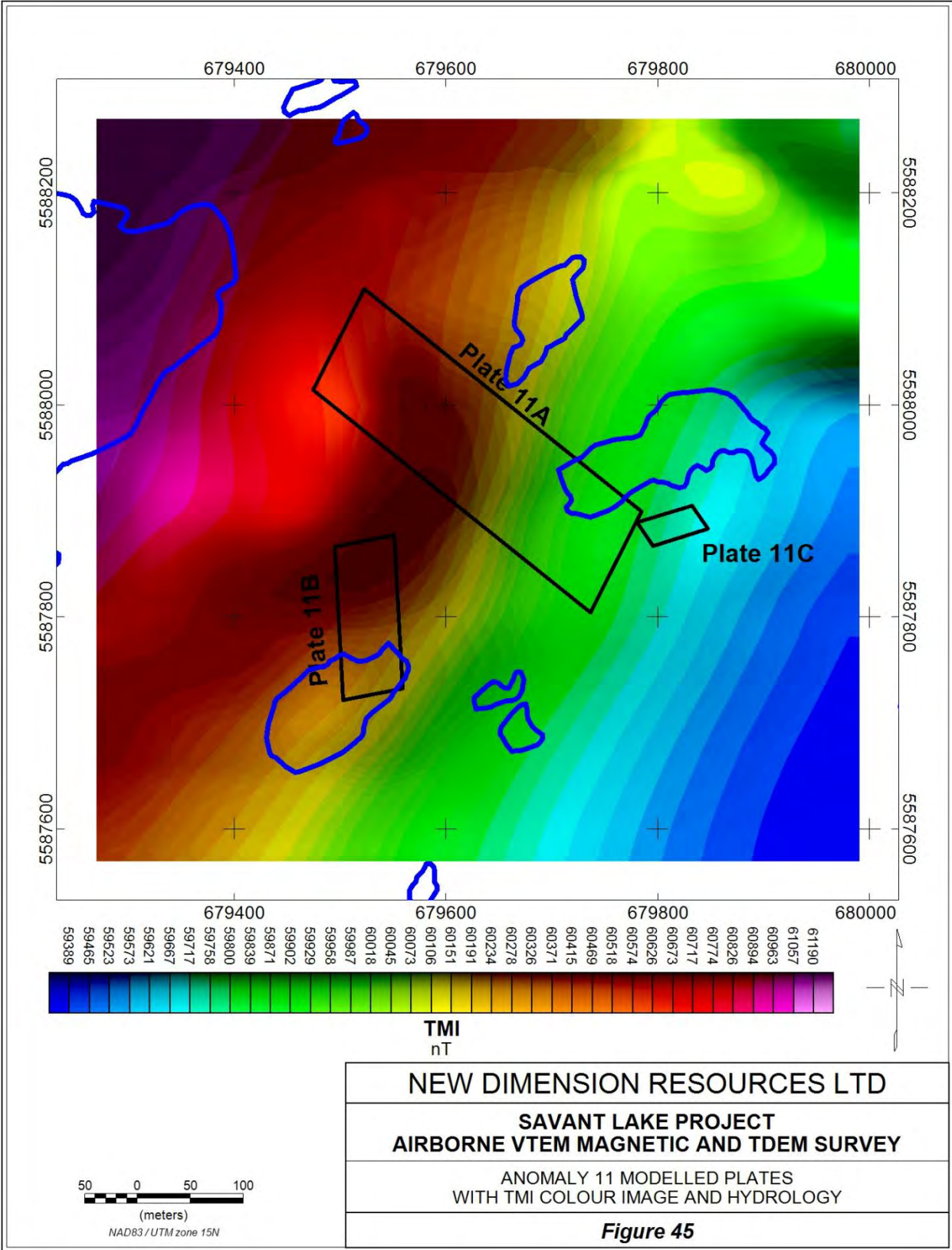
Drilling plate 11A from the airborne is possible as the it is relatively large and close to surface. Drilling plates 11B and 11C from the airborne is not recommended as 11C is too deep and 11C is too small. Since the plates are closely spaced it is recommended that all three plates be surveyed with ground TDEM.











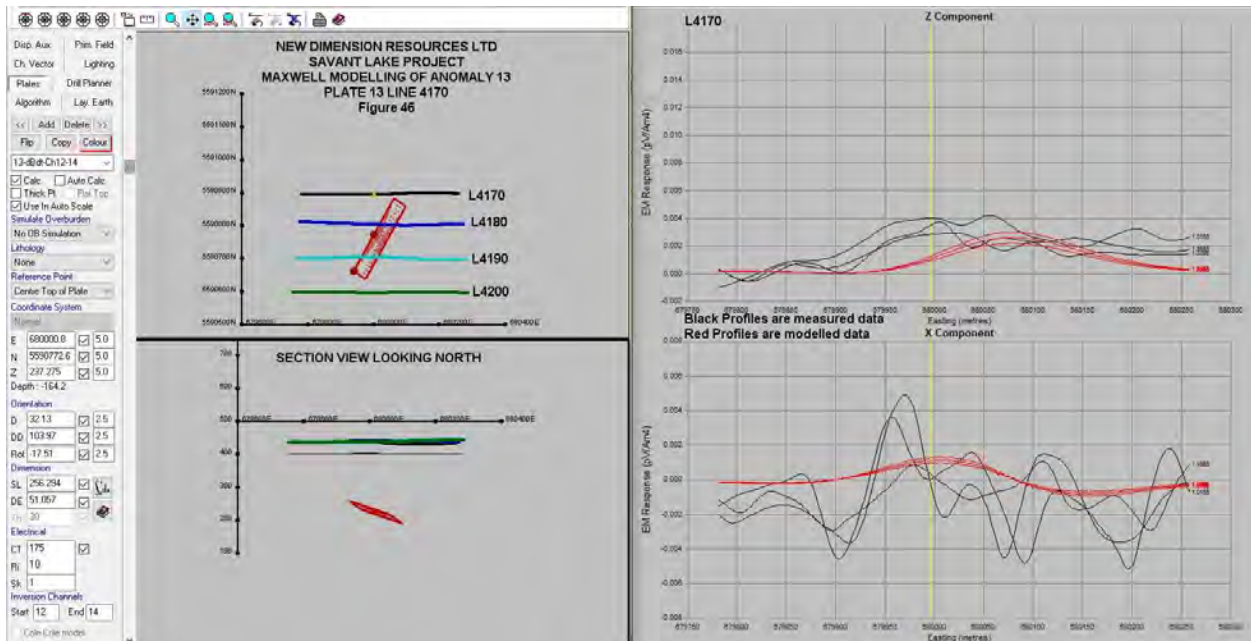
## Anomaly 13 Modelling Results

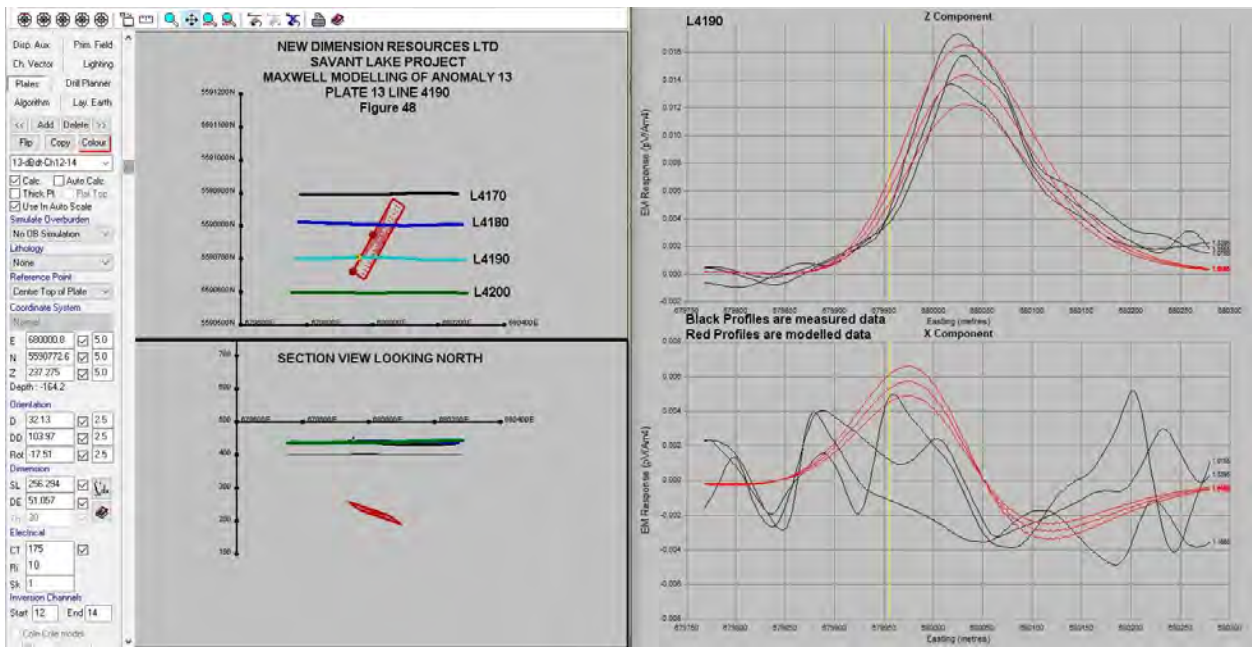
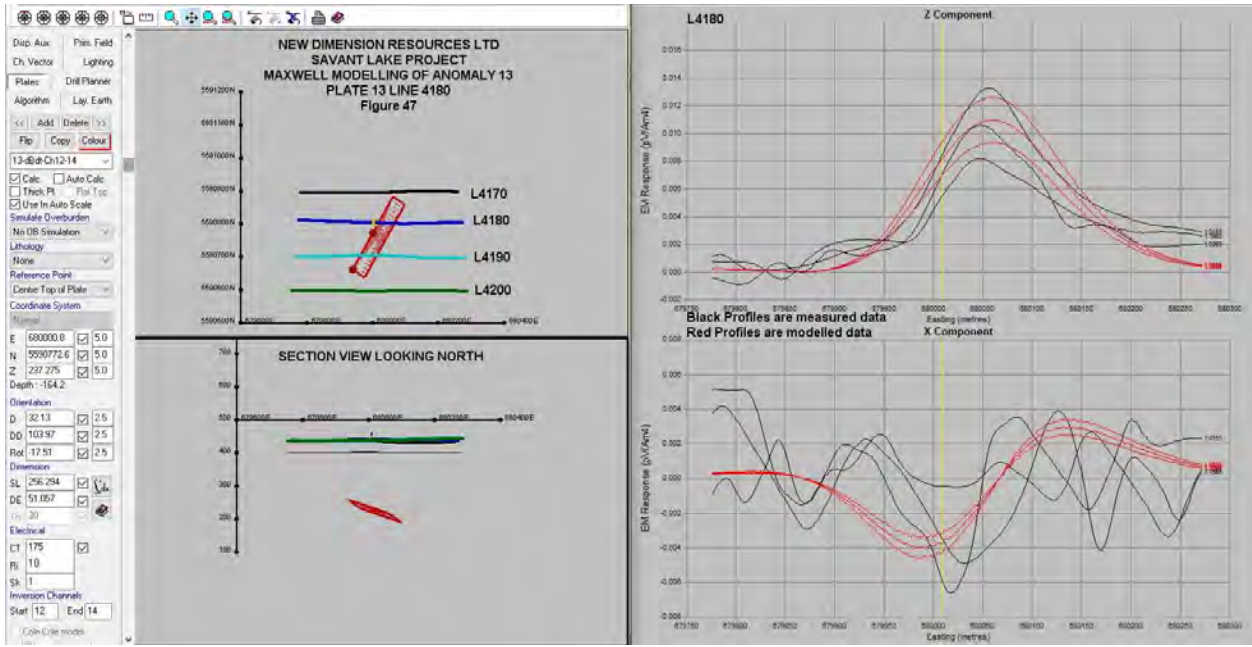
The modelling results for anomaly 13 are presented in Figures 46 to 50. Figures 46 to 49 show the plate 13 modelling results. Figure 50 is a map of plate 13 within the local TMI colour image and hydrology.

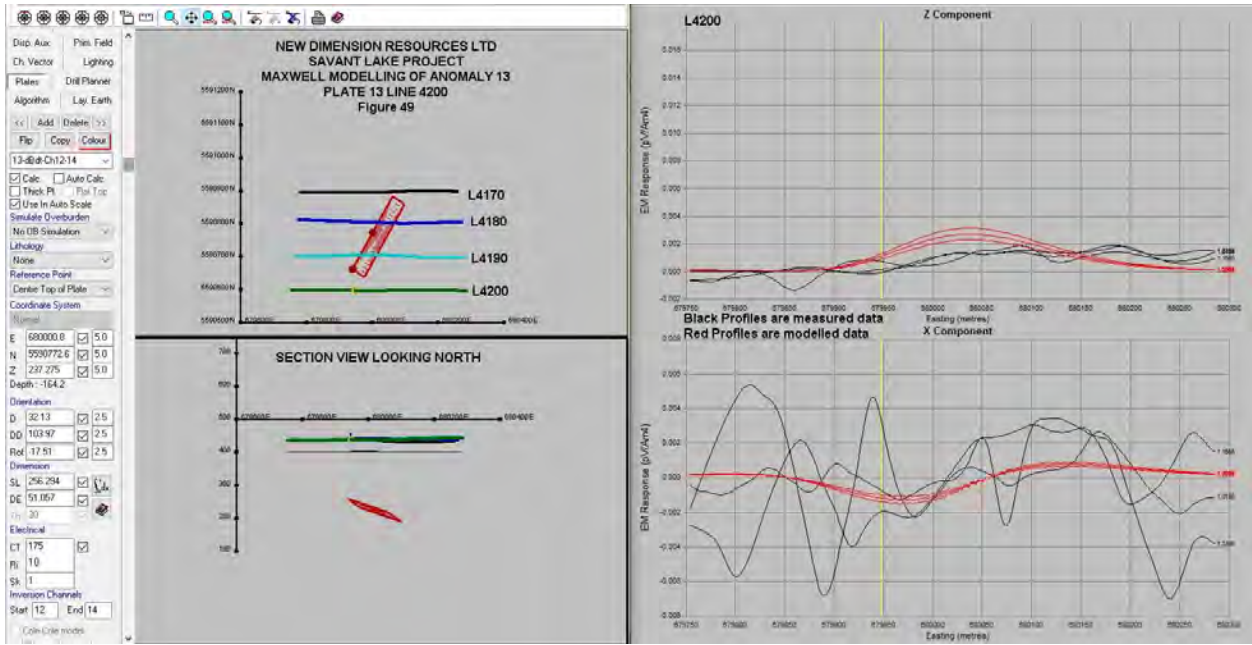
Plate 13 has low to moderate amplitudes and the resultant model is of low to moderate quality. A thin 2D plate was produced with SL of 256 m, a DE of 51 m and a moderate to high CT of 175 S. Depth to center top of plate is 164.2 m. Mid time channels 13 to 15 were used so the actual CT would probably be moderately higher if the body was closer to surface.

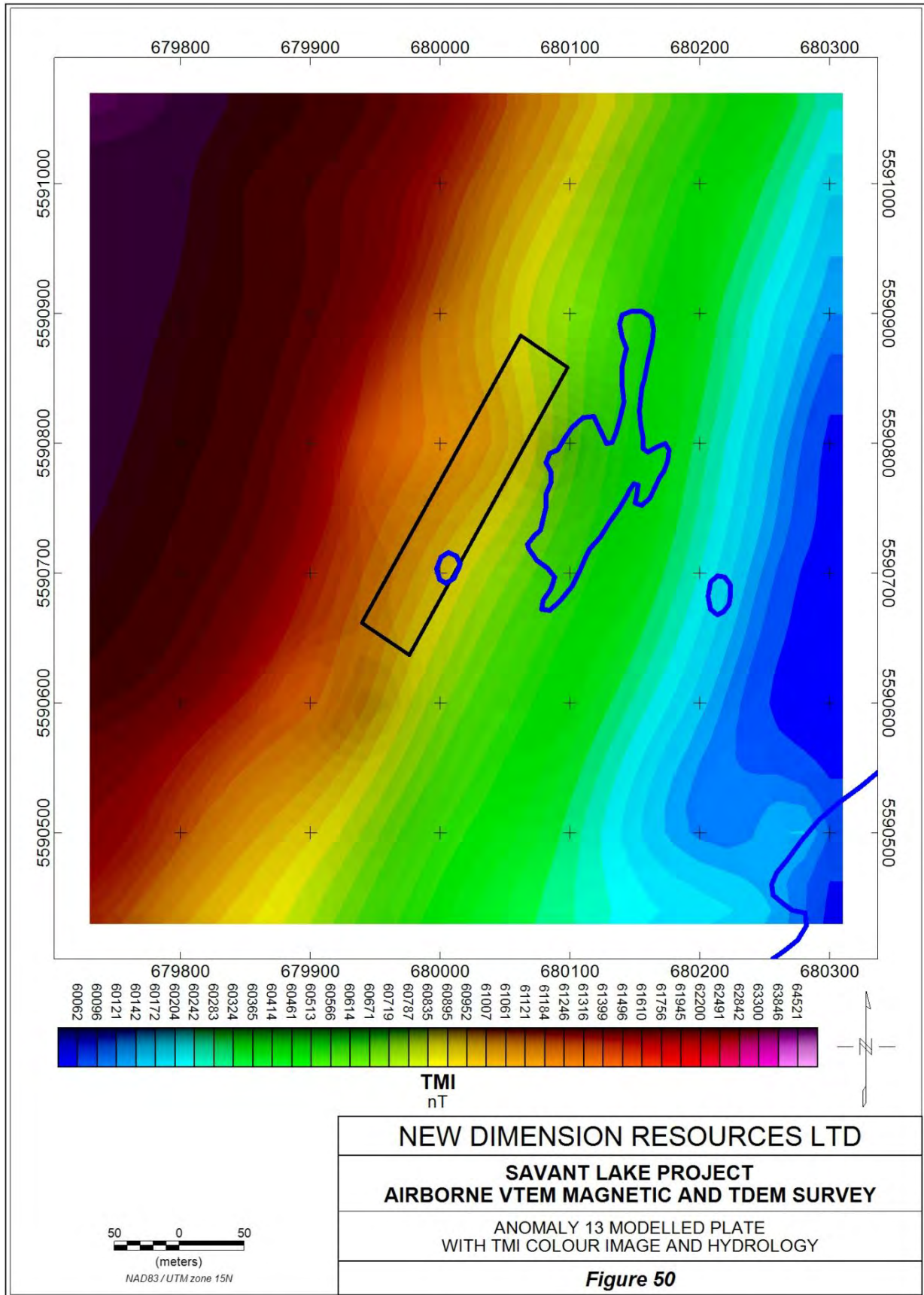
Plate 13 is presented in Figure 50 with a colour image of the TMI and hydrology. It has no significant magnetic activity. It is not contained within the Iron Formation package and may be hosted by volcanic rocks. It is located under a lake close to an island.

Drilling plate 13 from the airborne model is not recommended as solution is of low to moderate quality and it has significant depth. A ground TDEM survey is recommended.









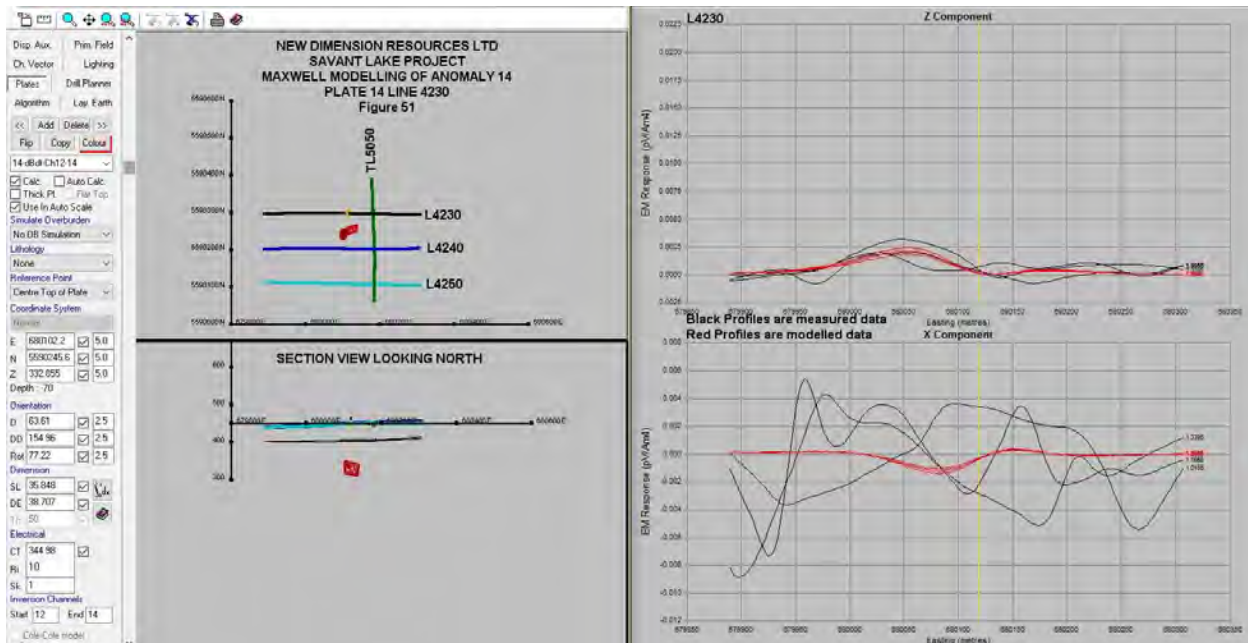
## Anomaly 14 Modelling Results

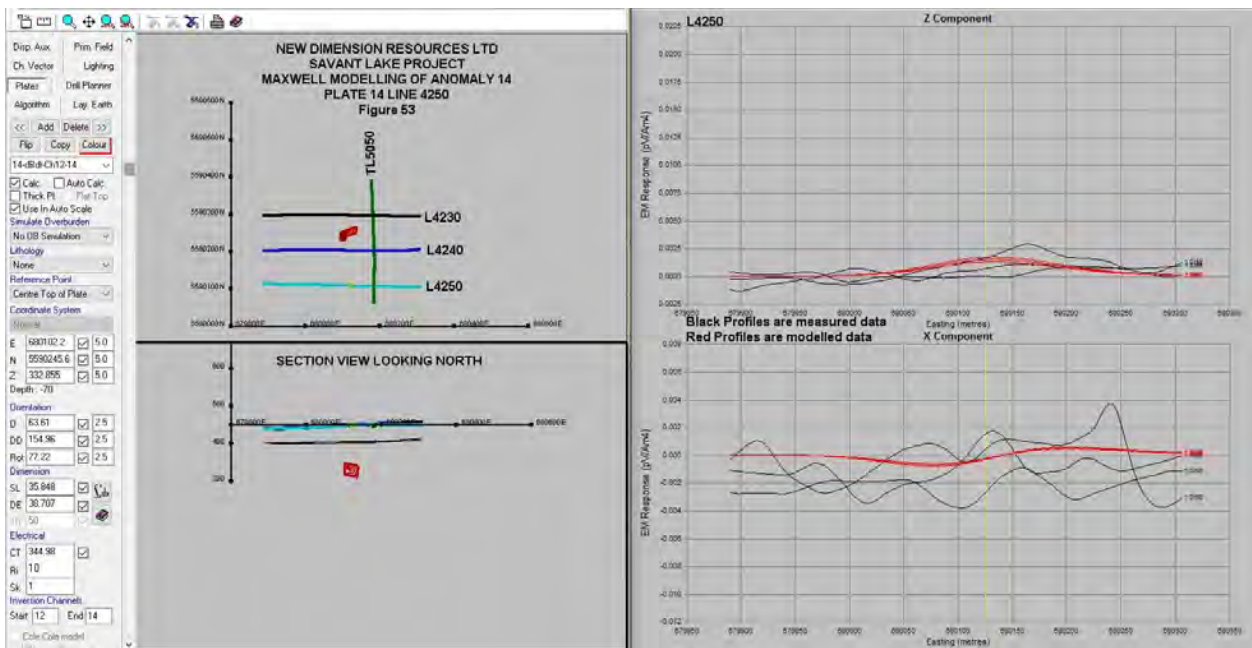
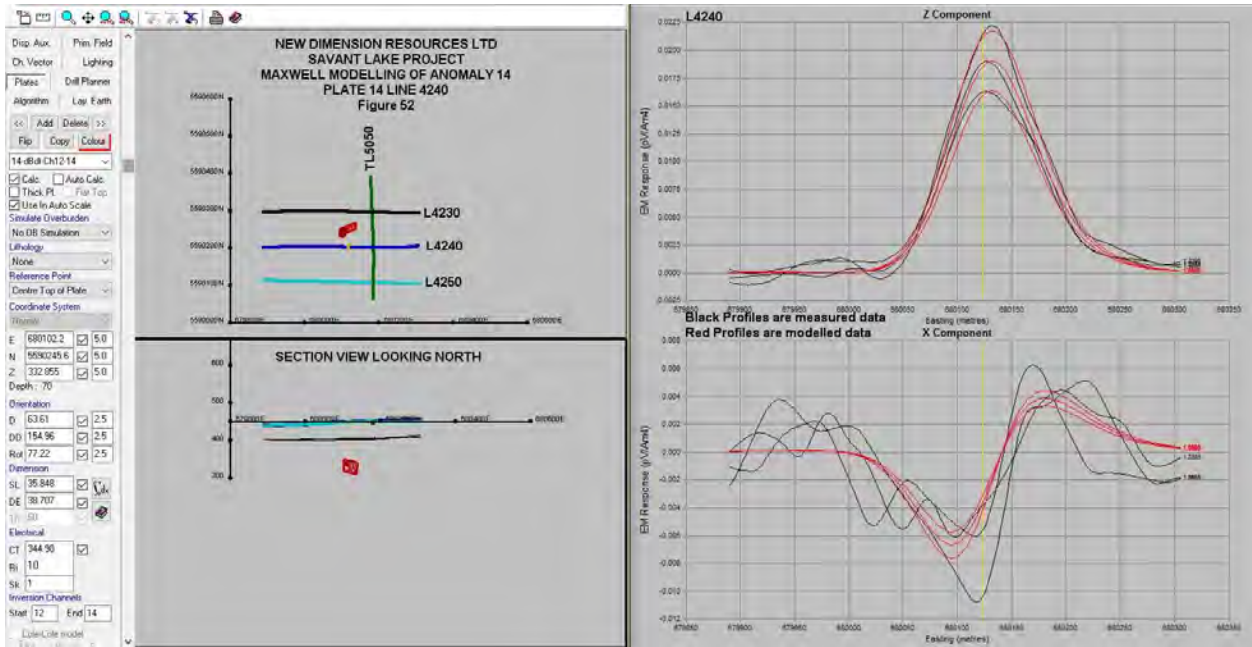
The modelling results for anomaly 14 are presented in Figures 51 to 54. Figures 51 to 53 show the plate 14 modelling results. Figure 54 is a map of plate 14 within the local TMI colour image and hydrology.

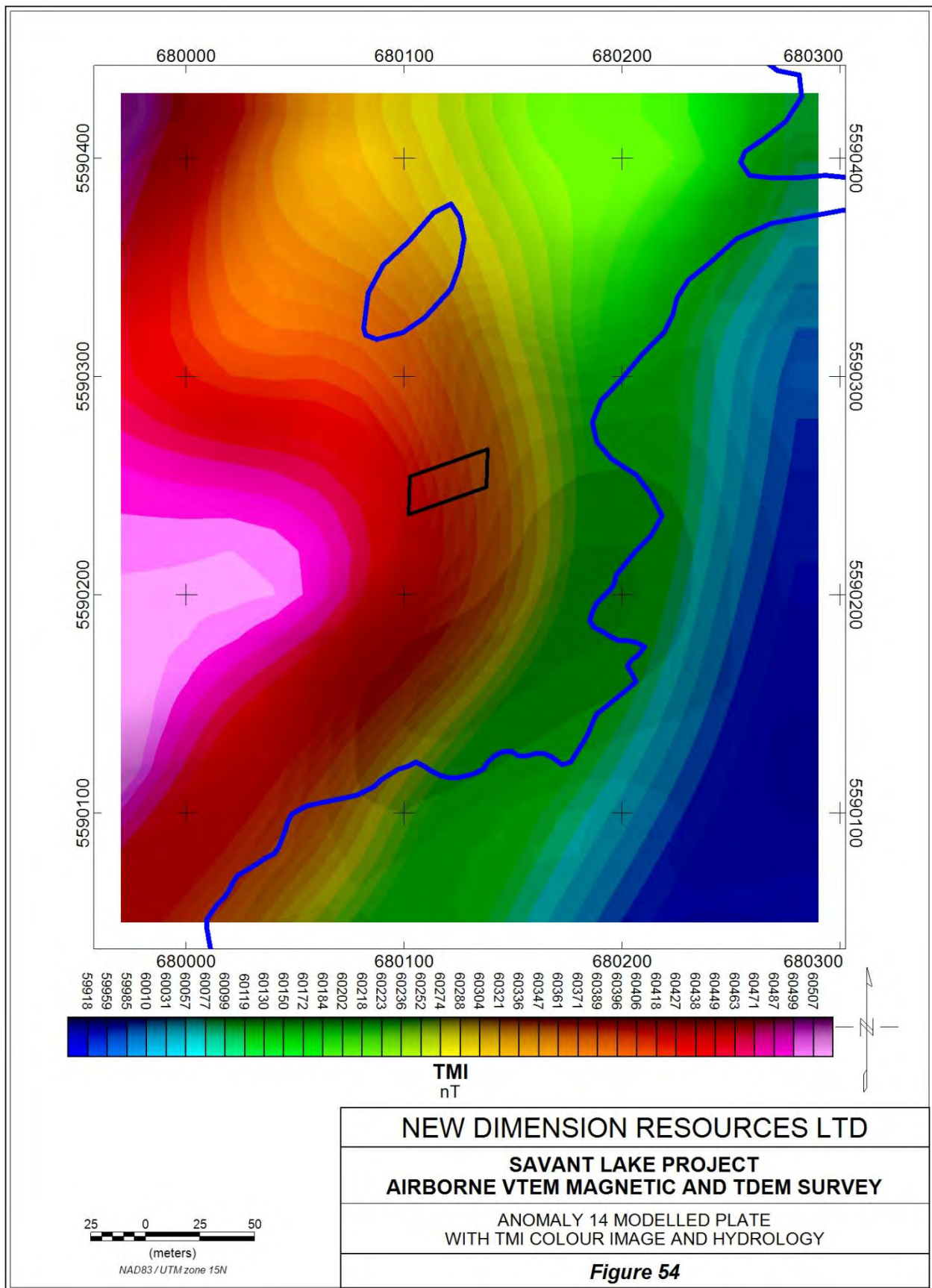
Plate 14 has low to moderate amplitudes and the resultant model is of moderate quality. A thin 2D plate was produced with SL of 36 m, a DE of 39 m and a high CT of 345 S. Depth to center top of plate is 70 m. Mid time channels 12 to 14 were used so the actual CT would probably be moderately higher if the body was closer to surface.

Plate 14 is presented in Figure 54 with a colour image of the TMI and hydrology. It is located on the eastern flank of a magnetic high. It is not contained within the Iron Formation package and may be hosted by volcanic rocks. It is located under a lake close to an island.

Drilling plate 14 from the airborne model is not recommended as it is quite small. A ground TDEM survey is recommended.







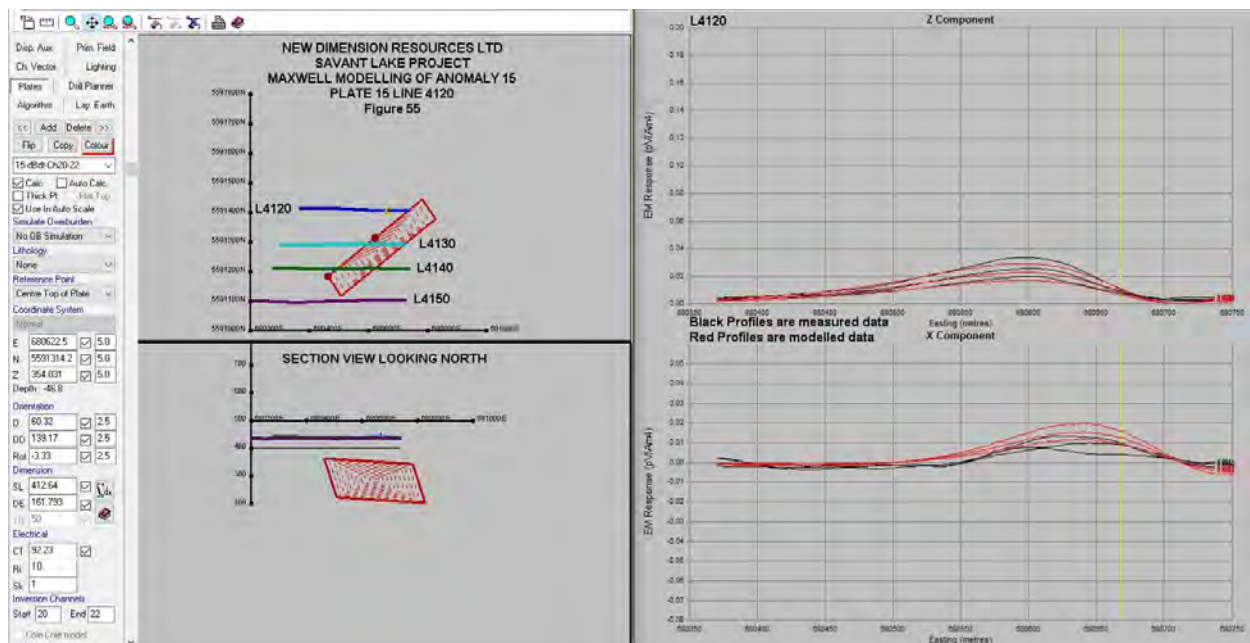
## Anomaly 15 Modelling Results

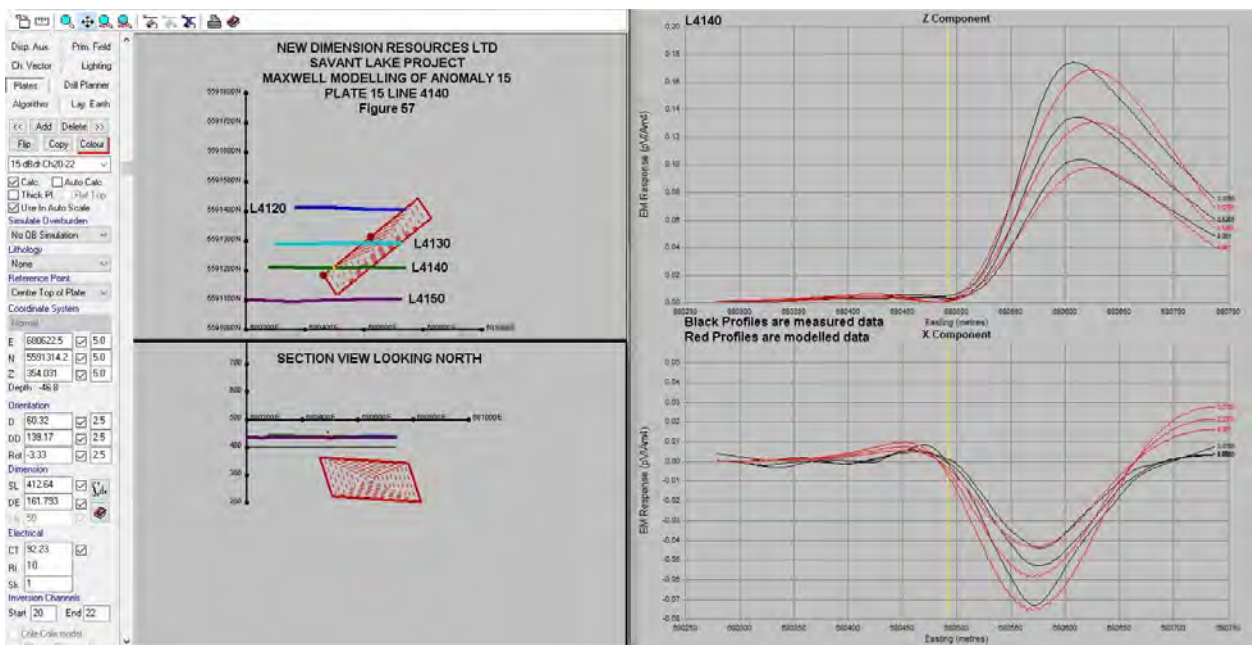
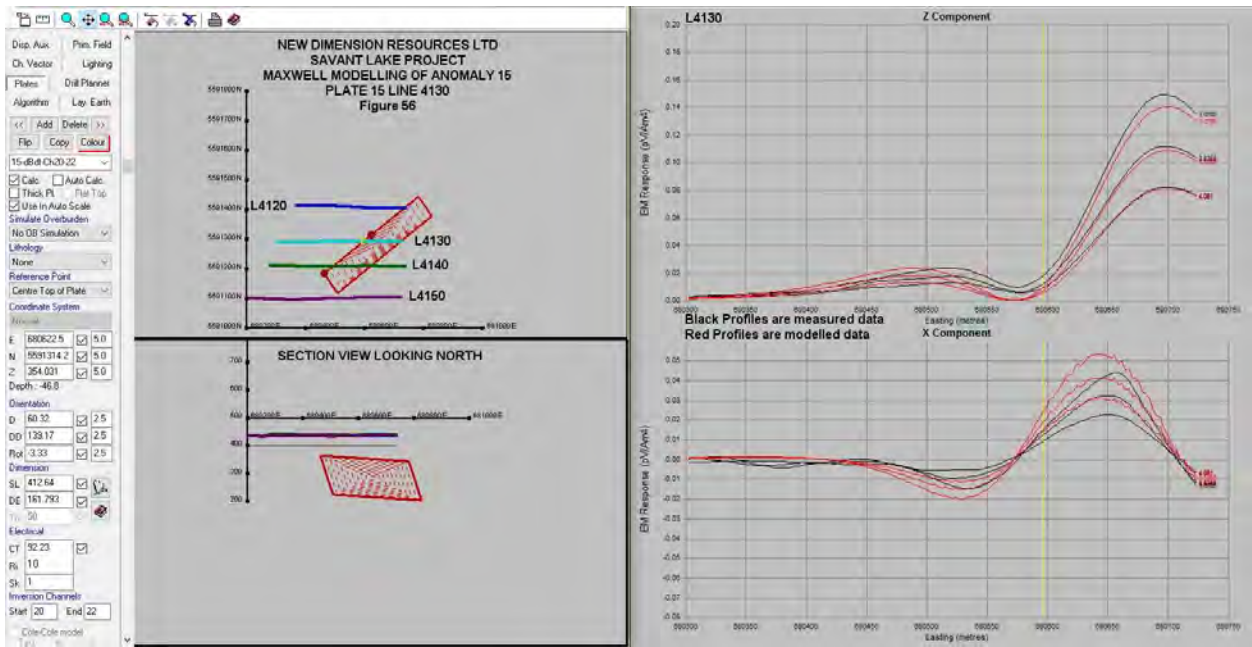
The modelling results for anomaly 15 are presented in Figures 55 to 59. Figures 55 to 58 show the plate 15 modelling results. Figure 59 is a map of plate 15 within the local TMI colour image and hydrology.

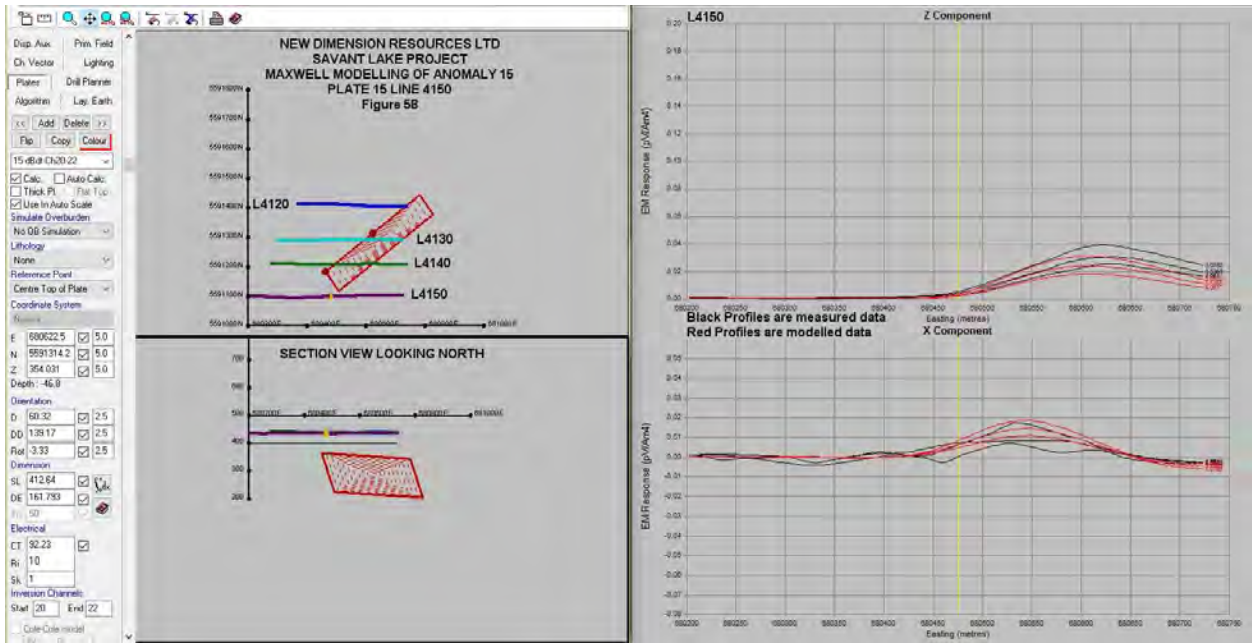
Plate 15 has moderate amplitudes and the resultant model is of moderate to high quality. A thin 2D plate was produced with SL of 412.6 m, a DE of 162 m and a moderate CT of 92 S. Depth to center top of plate is 46.8 m. Mid to late time channels 20 to 22 were used so the actual CT is close to this value.

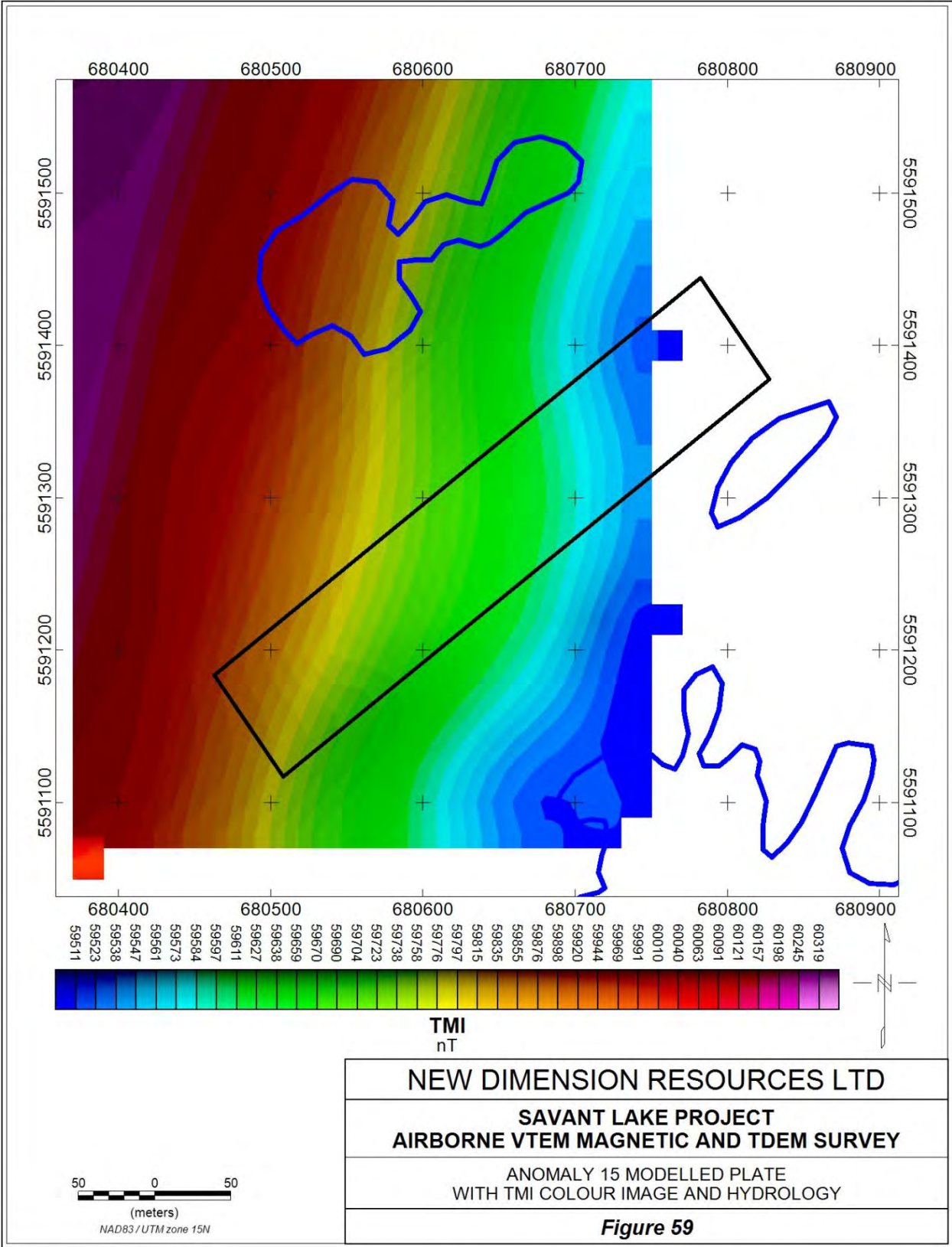
Plate 15 is presented in Figure 59 with a colour image of the TMI and hydrology. The plate extends off the survey area to the east, and has no significant magnetic activity. It is not contained within the Iron Formation package and may be hosted by volcanic rocks. It is located under a lake.

Drilling plate 15 from the airborne model is valid as it is relatively large and the solution is good. A ground TDEM survey is not recommended.









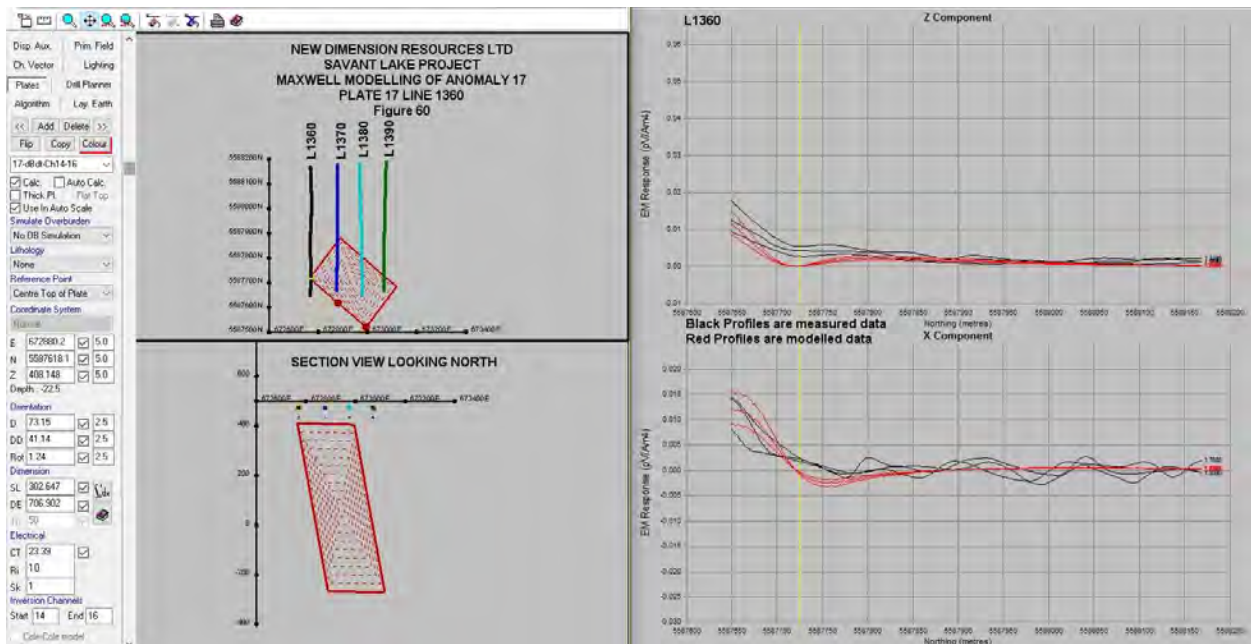
## Anomaly 17 Modelling Results

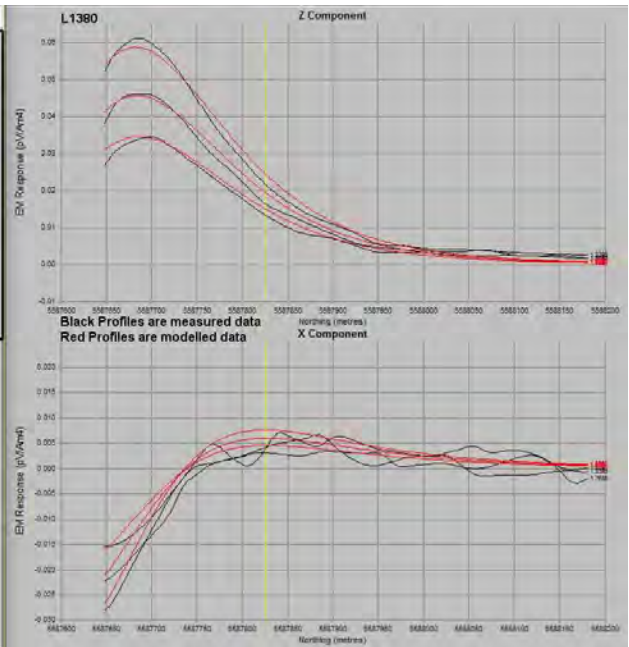
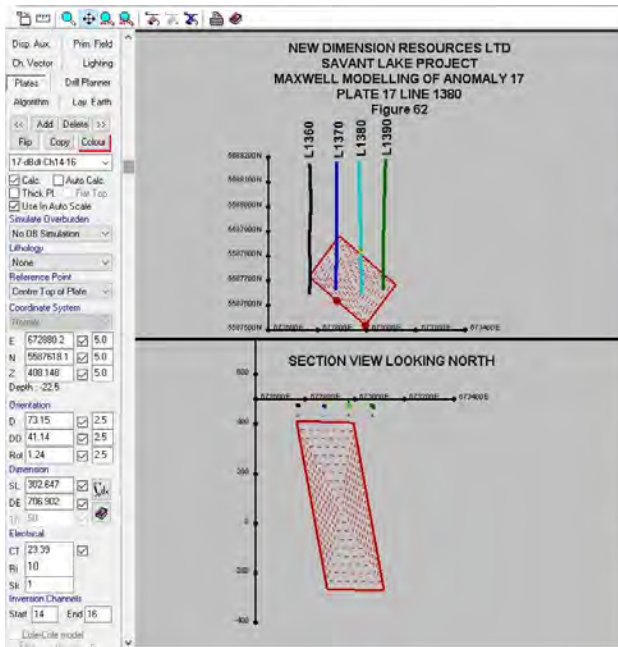
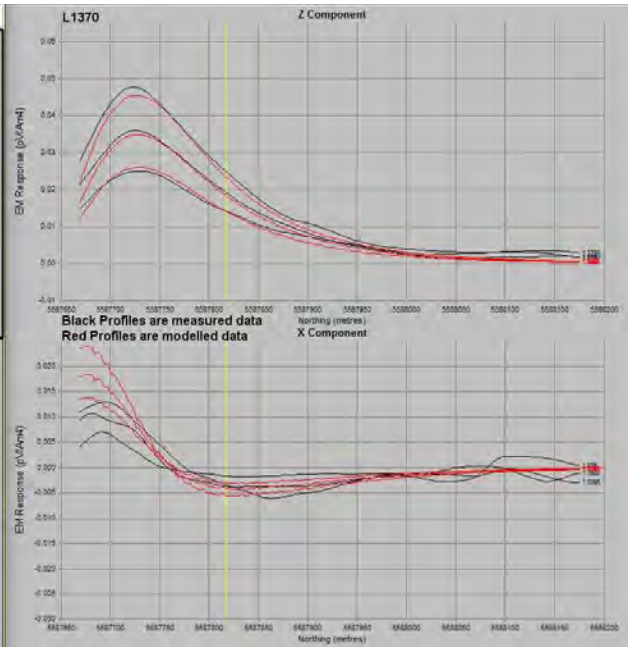
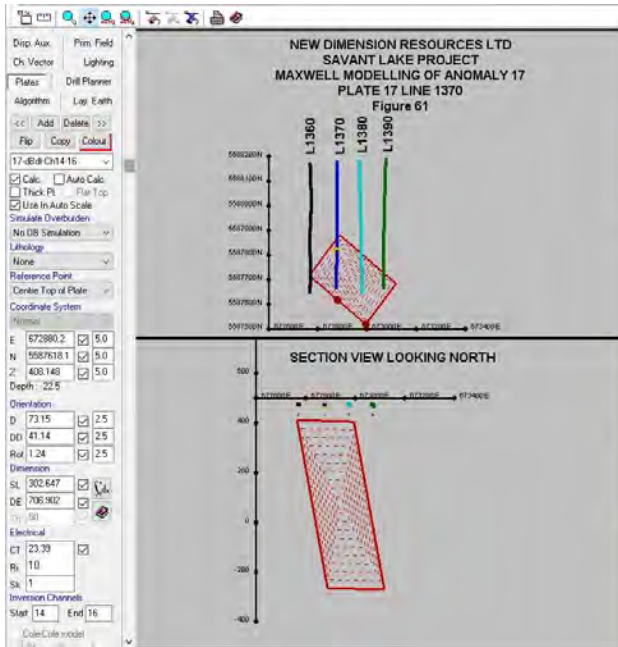
The modelling results for anomaly 17 are presented in Figures 60 to 64. Figures 60 to 63 show the plate 17 modelling results. Figure 64 is a map of plate 17 within the local TMI colour image and hydrology.

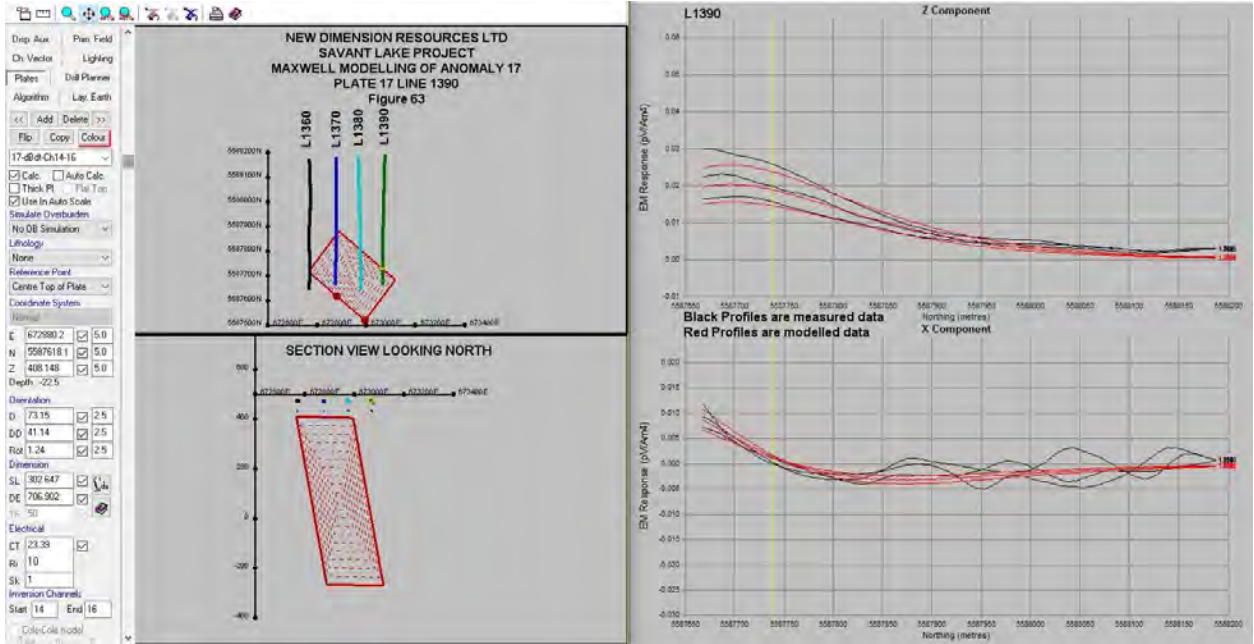
Plate 17 has low to moderate amplitudes and the resultant model is of moderate to high quality. A thin 2D plate was produced with SL of 303 m, a DE of 707 m and a low CT of 23.4 S. Depth to center top of plate is 22.5 m. Mid time channels 14 to 16 were used so the actual CT would be moderately higher.

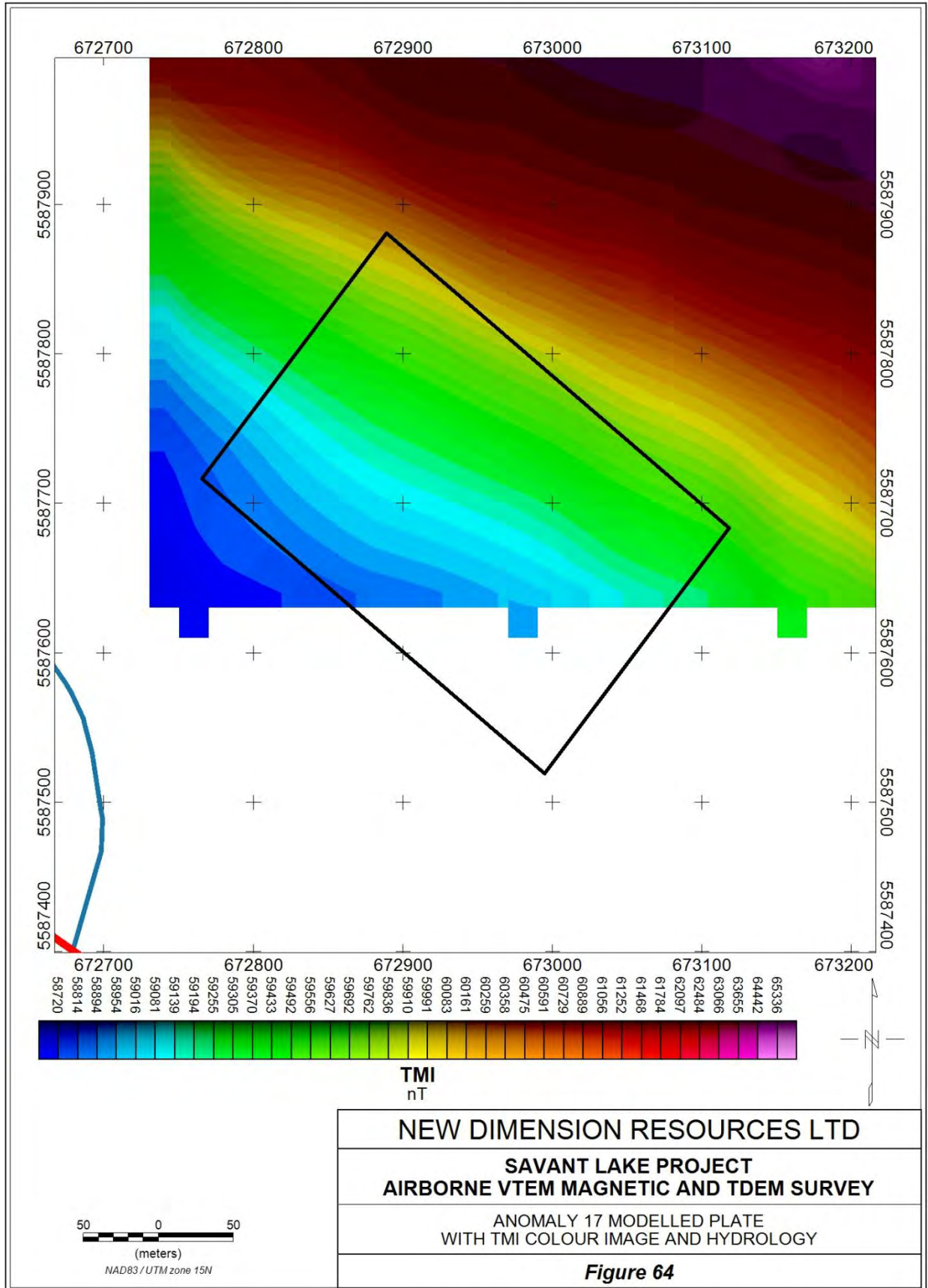
Plate 17 is presented in Figure 64 with a colour image of the TMI and hydrology. The plate extends off the survey area to the south. There is no significant magnetic activity. It is not contained within the Iron Formation package and may be hosted by volcanic rocks. It is located on land.

Drilling plate 17 from the airborne model is not recommended as the top edge of the plate is mostly south of the survey area. Considering the low CT and large size this conductor is probably formational in nature and no further work is recommended.









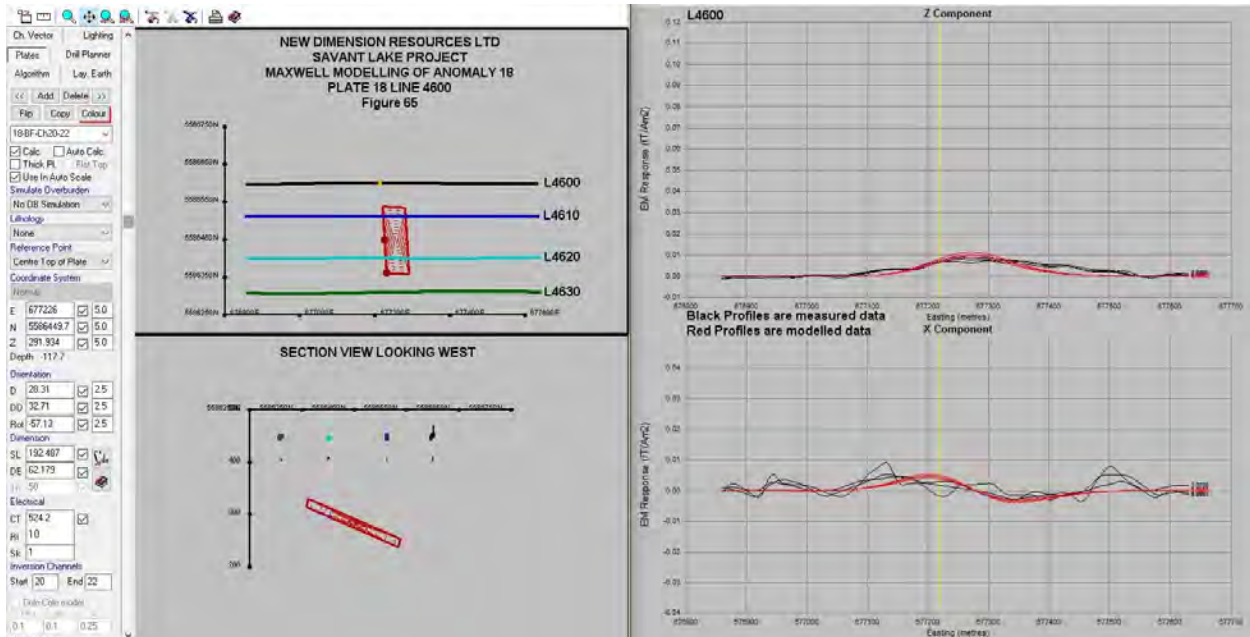
## Anomaly 18 Modelling Results

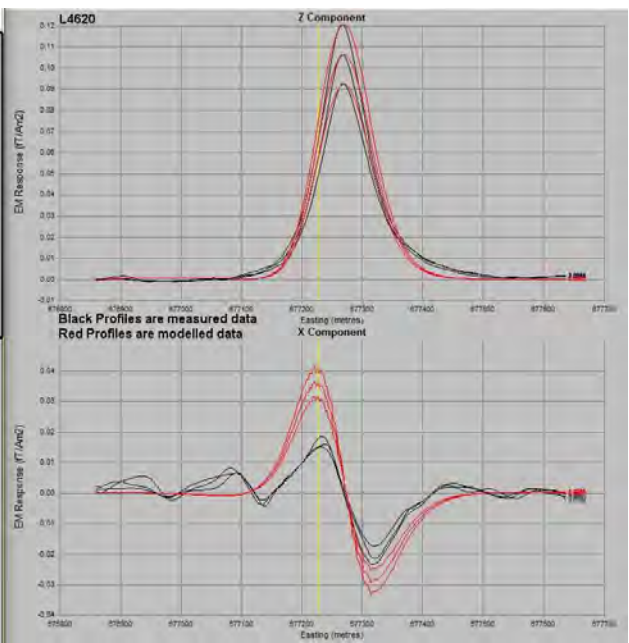
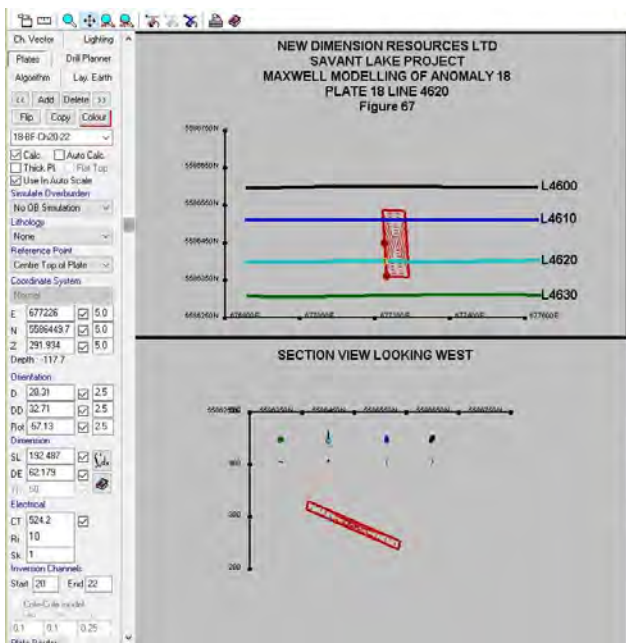
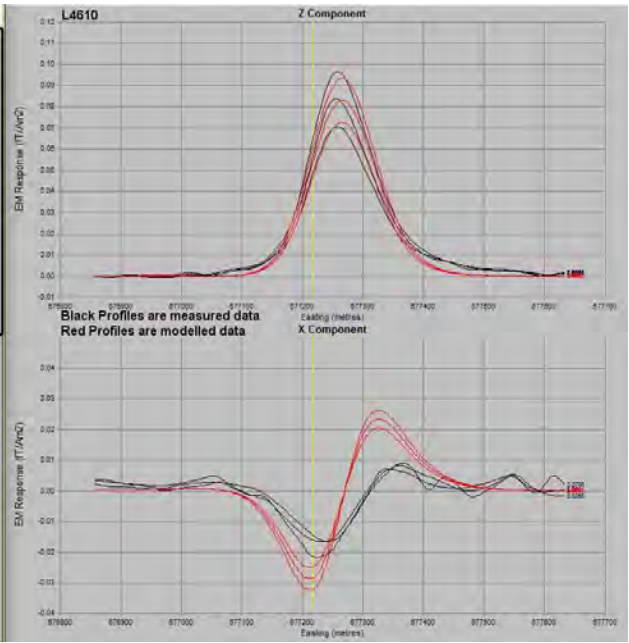
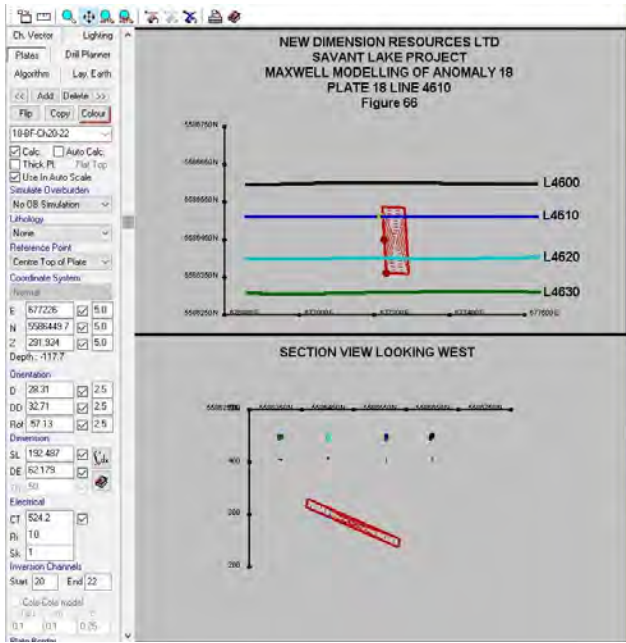
The modelling results for anomaly 18 are presented in Figures 65 to 69. Figures 65 to 68 show the plate 18 modelling results. Figure 69 is a map of plate 18 within the local TMI colour image and hydrology.

Plate 18 has moderate to high amplitudes and the resultant model is of moderate to high quality. A thin 2D plate was produced with SL of 192 m, a DE of 62 m and a high CT of 542 S. Depth to center top of plate is 117.7 m. Mid to late time channels 20 to 22 were used so the actual CT is close to this value.

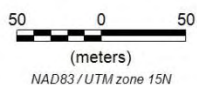
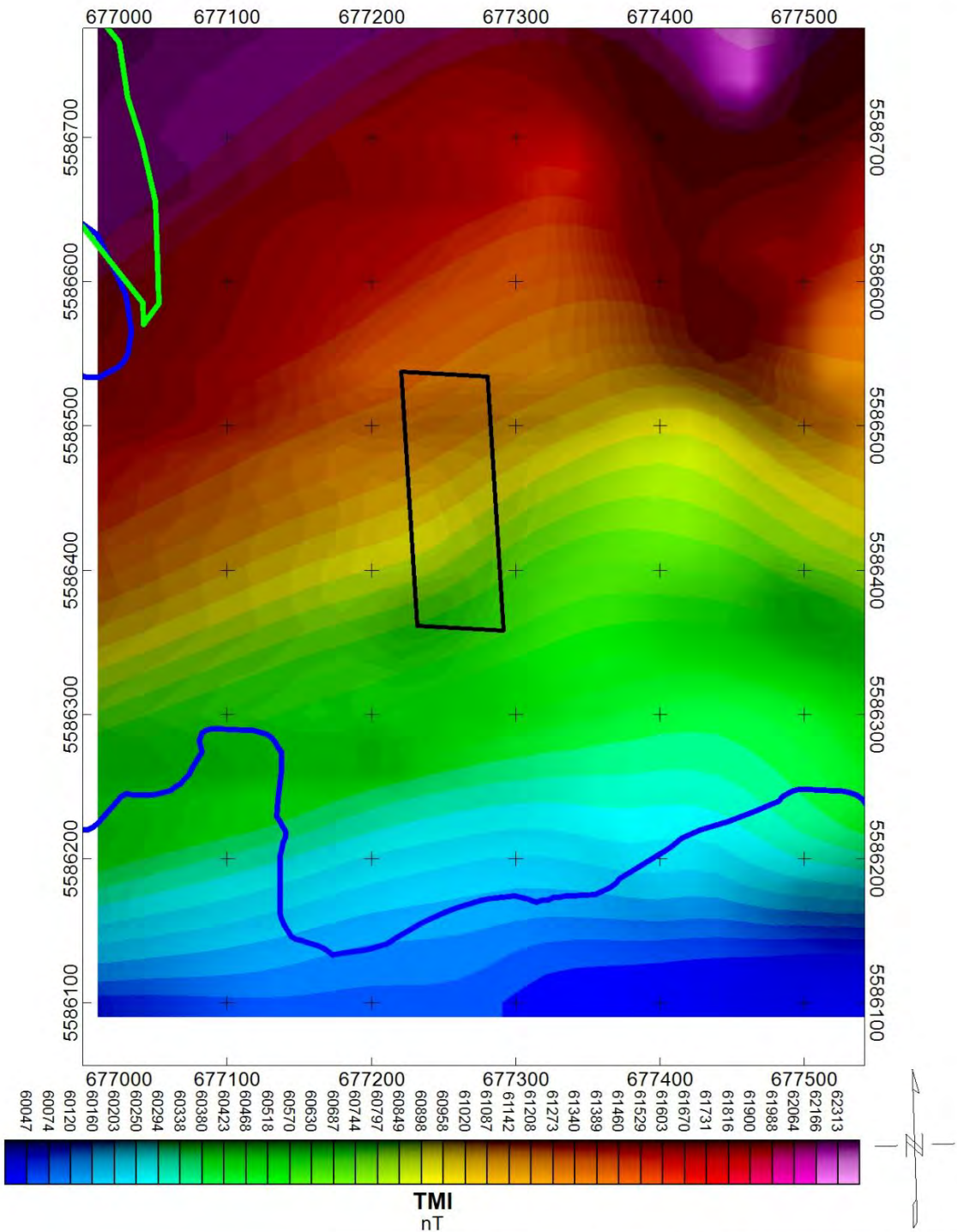
Plate 18 is presented in Figure 69 with a colour image of the TMI and hydrology. The plate has no significant magnetic activity. It is not contained within the Iron Formation package and may be hosted by volcanic rocks. It is located on land.

Drilling plate 18 from the airborne model is valid as it is close to flat lying and the solution is moderate to good. A ground TDEM survey is not recommended.









**NEW DIMENSION RESOURCES LTD**

**SAVANT LAKE PROJECT**  
**AIRBORNE VTEM MAGNETIC AND TDEM SURVEY**

ANOMALY 18 MODELLED PLATE  
WITH TMI COLOUR IMAGE AND HYDROLOGY

**Figure 69**

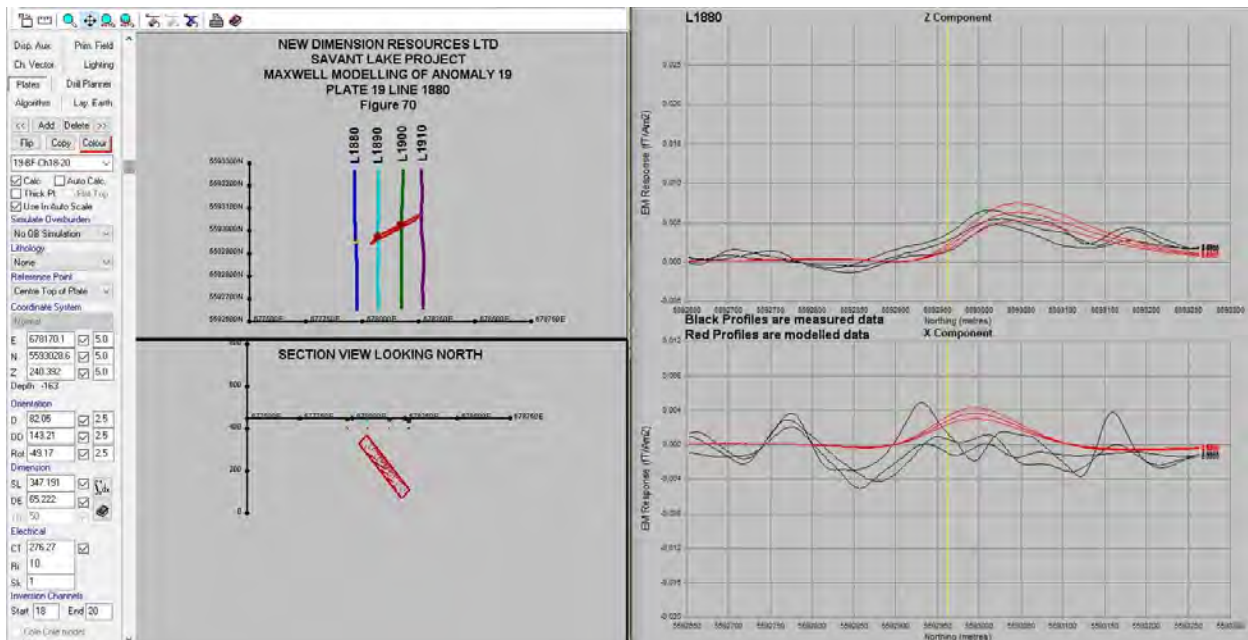
## Anomaly 19 Modelling Results

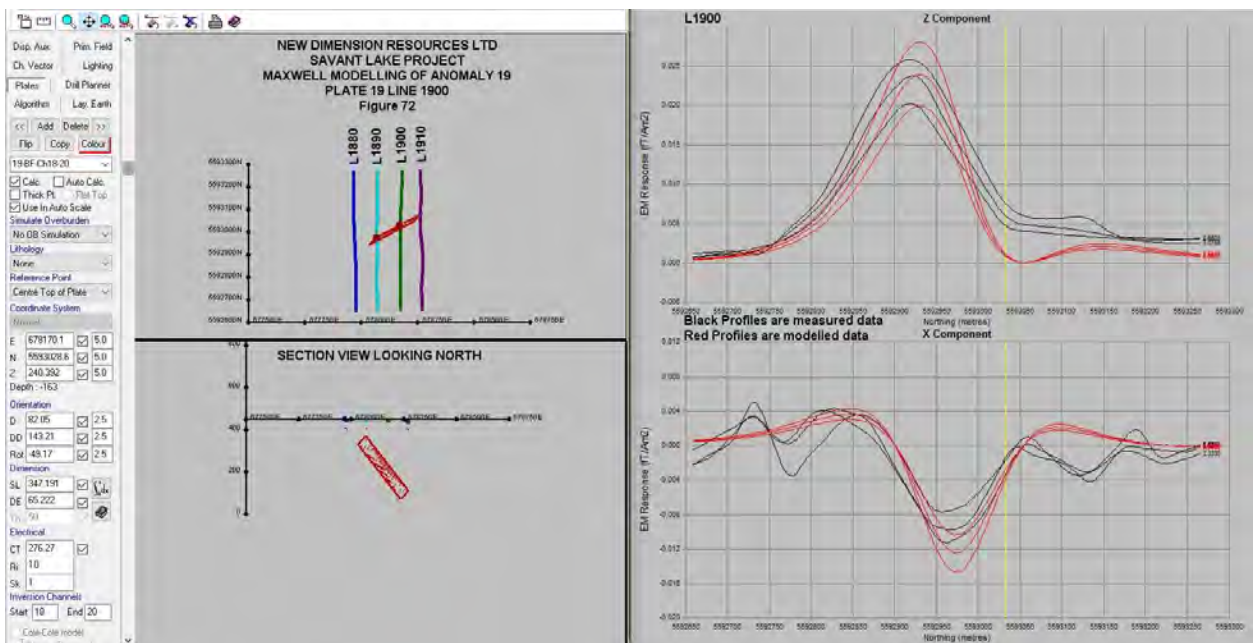
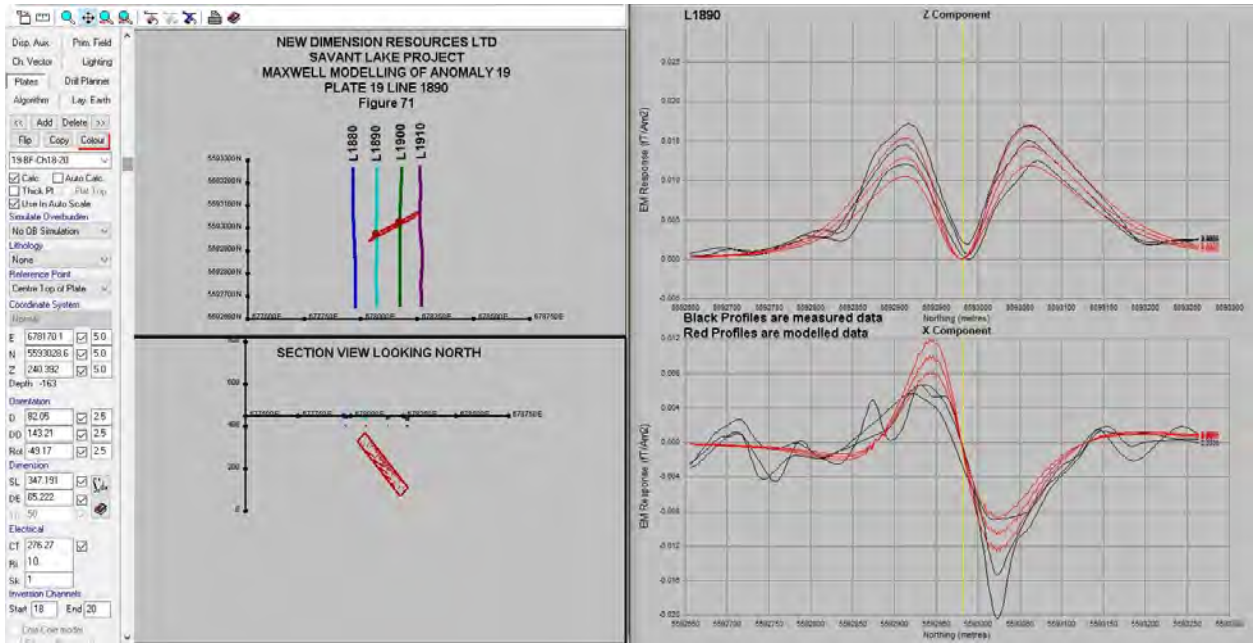
The modelling results for anomaly 19 are presented in Figures 70 to 74. Figures 70 to 73 show the plate 19 modelling results. Figure 74 is a map of plate 19 within the local TMI colour image and hydrology.

Plate 19 has low to moderate amplitudes and the resultant model is of moderate to high quality. A thin 2D plate was produced with SL of 347 m, a DE of 65 m and a moderate to high CT of 276 S. Depth to center top of plate is 163 m, but as the plate is plunging the top edge is much closer to surface. Mid to late time channels 18 to 20 were used so the actual CT is slightly higher.

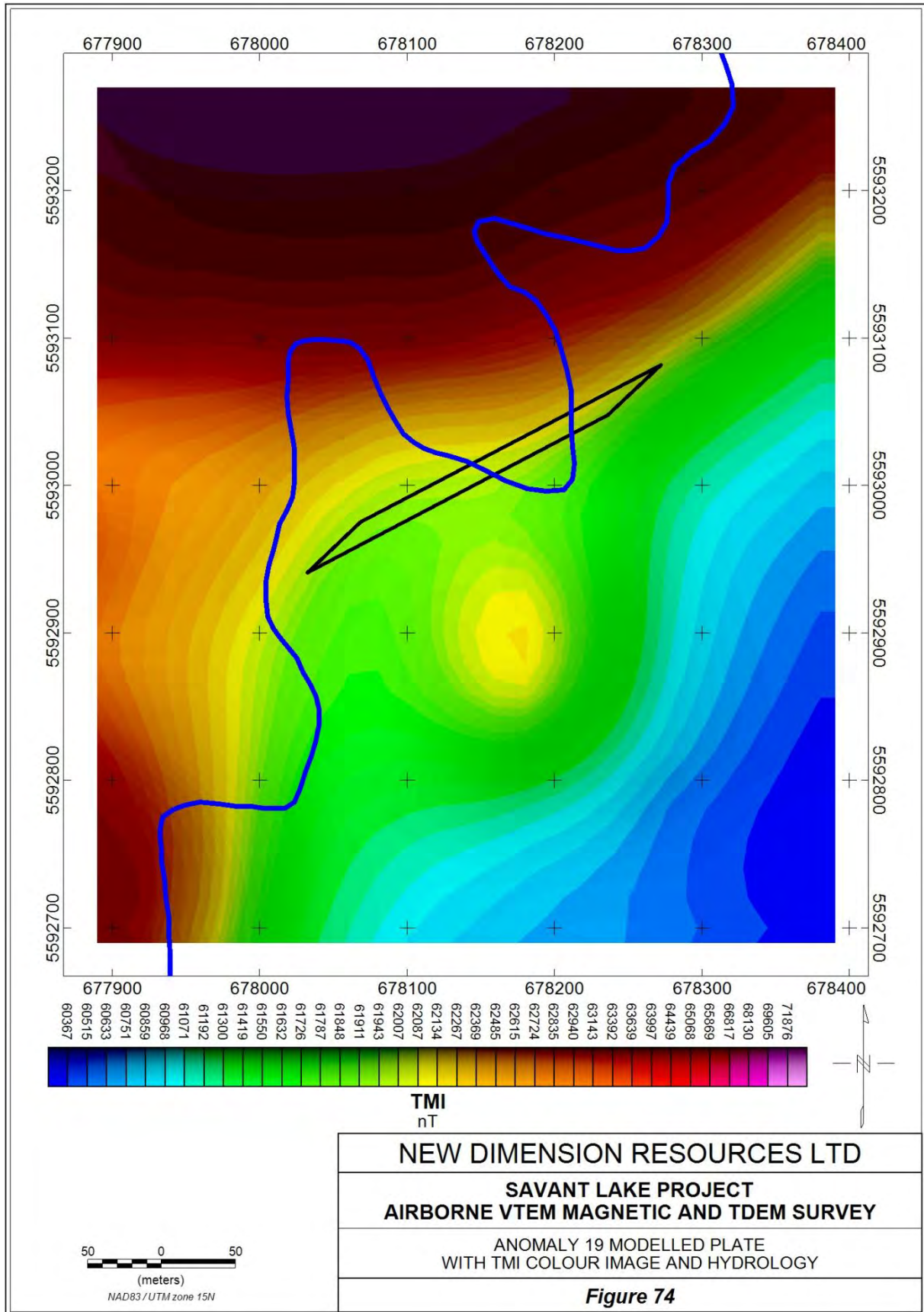
Plate 19 is presented in Figure 74 with a colour image of the TMI and hydrology. The plate is located on the southern flank of a high magnetic lithology and there is a small localised magnetic high immediately to its south. It is contained within the Iron Formation package. It straddles the shore of a lake.

Drilling plate 19 from the airborne model is not recommended as it is quite narrow. A ground TDEM survey is recommended.





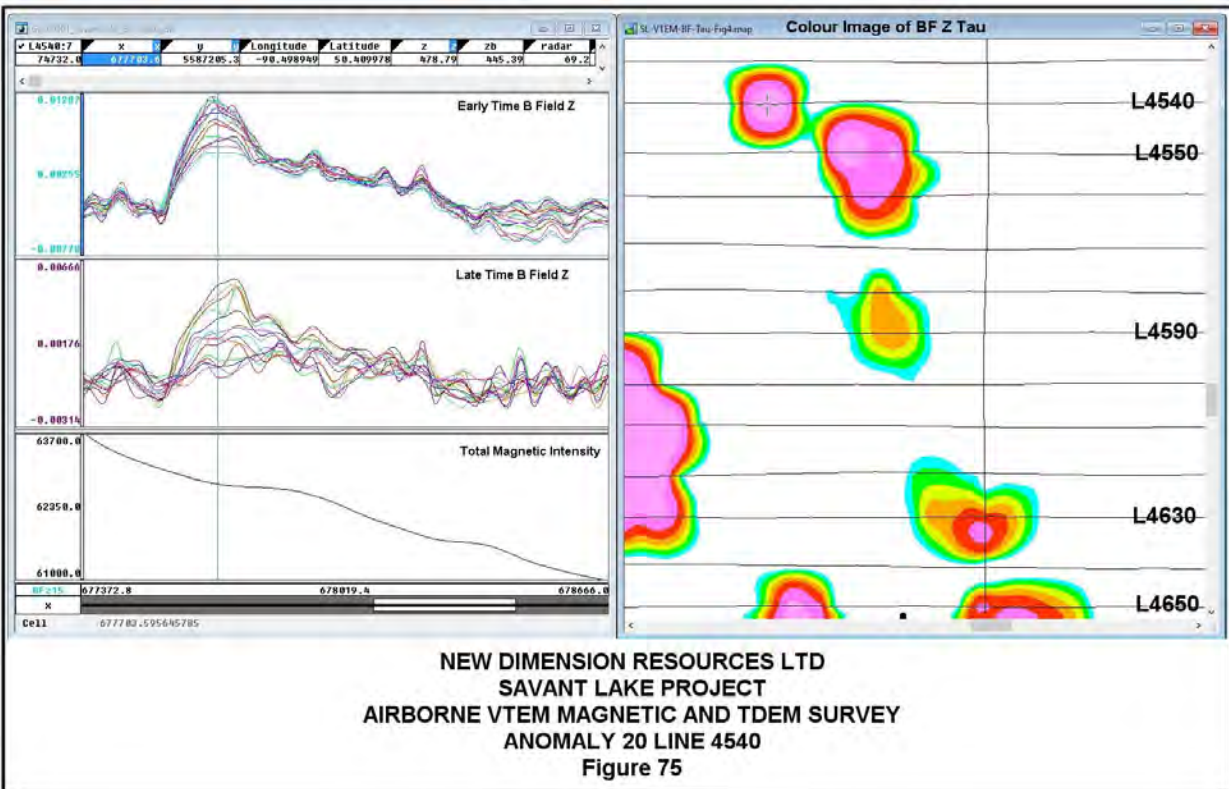


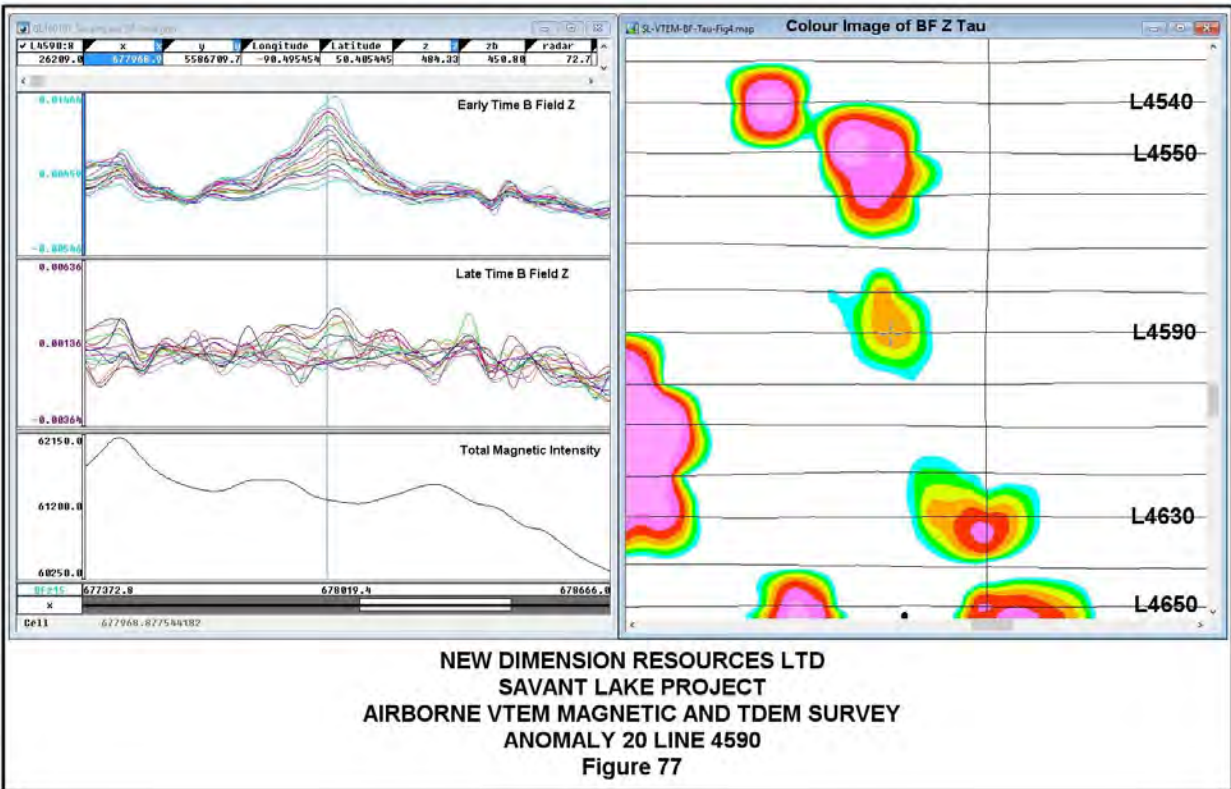
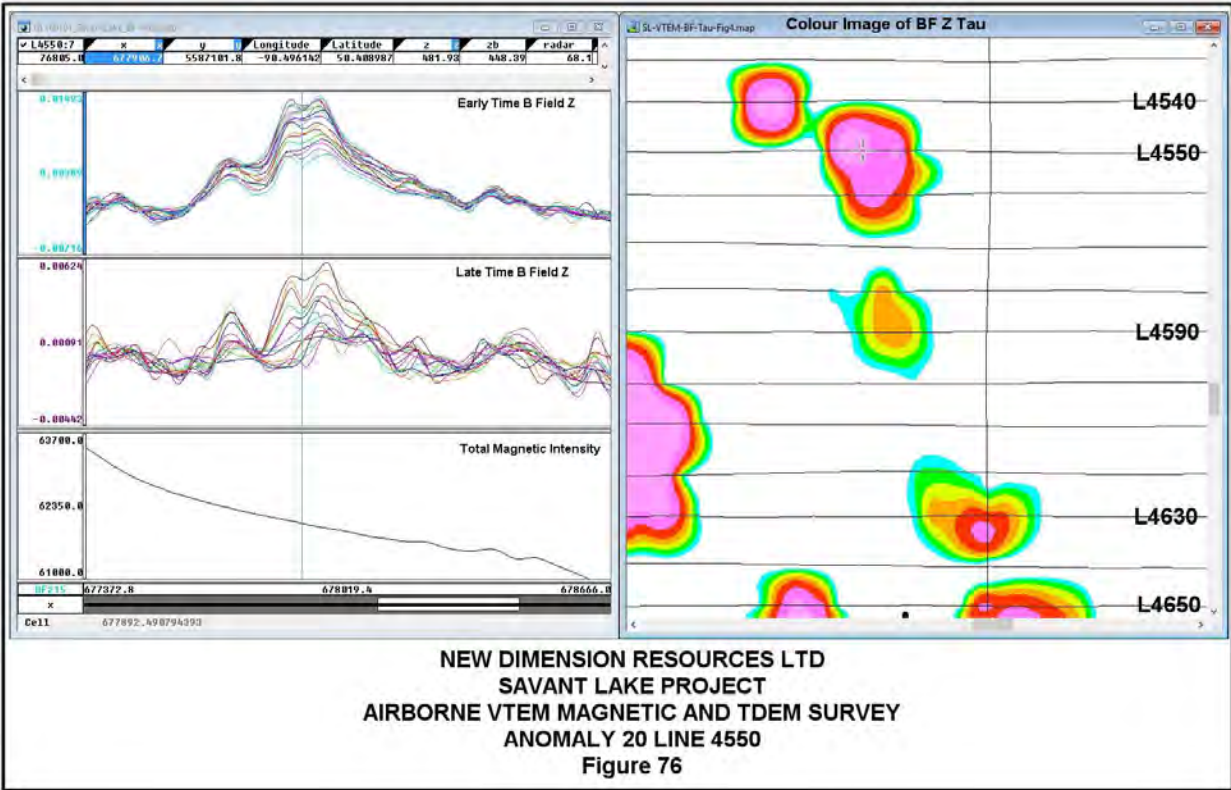


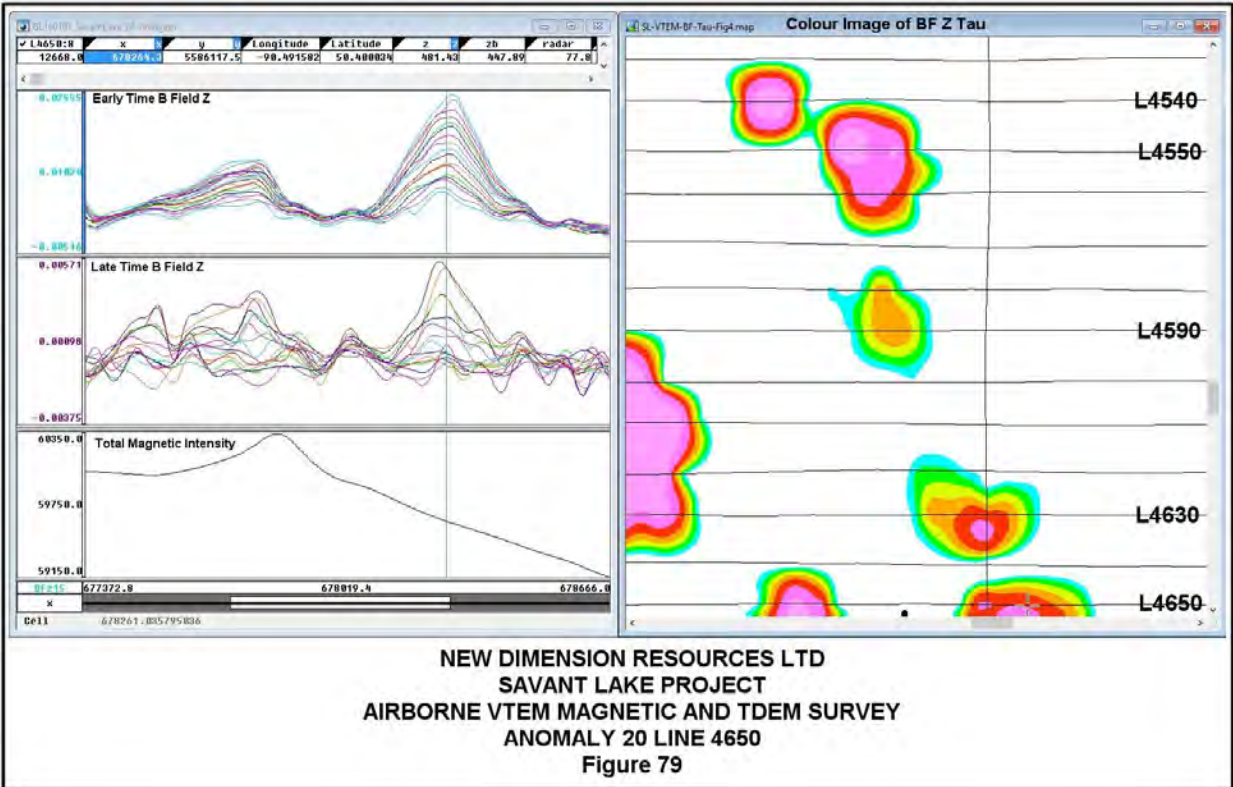
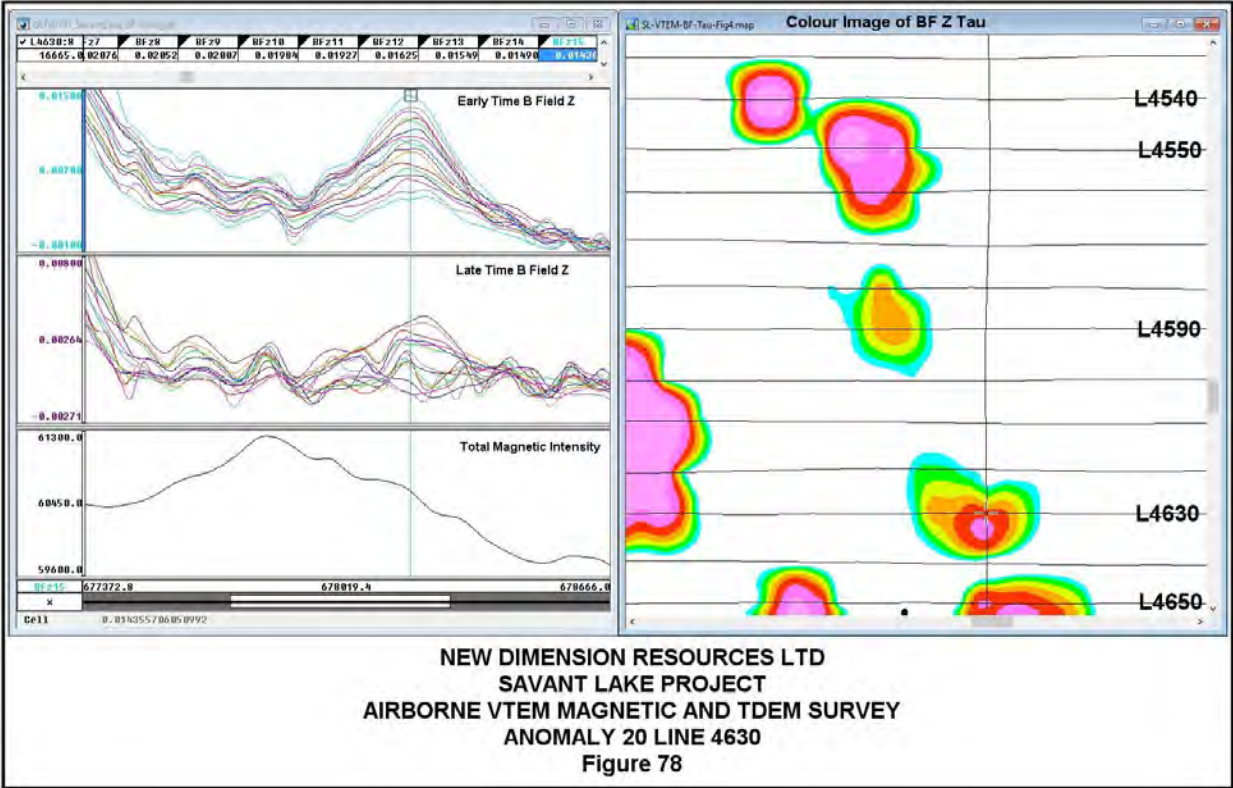
## Anomaly 20

Anomaly 20 is a Low Magnetic TDEM that has not been modelled as it is too weak to produce a valid solution. It consists of five responses forming a roughly N-NW trend that are located immediately to the east of anomaly 18, and are on land. They are not located within the Iron Formation package and may be hosted by volcanic. The responses are presented in Figures 75 to 79.

A ground TDEM survey is recommended.



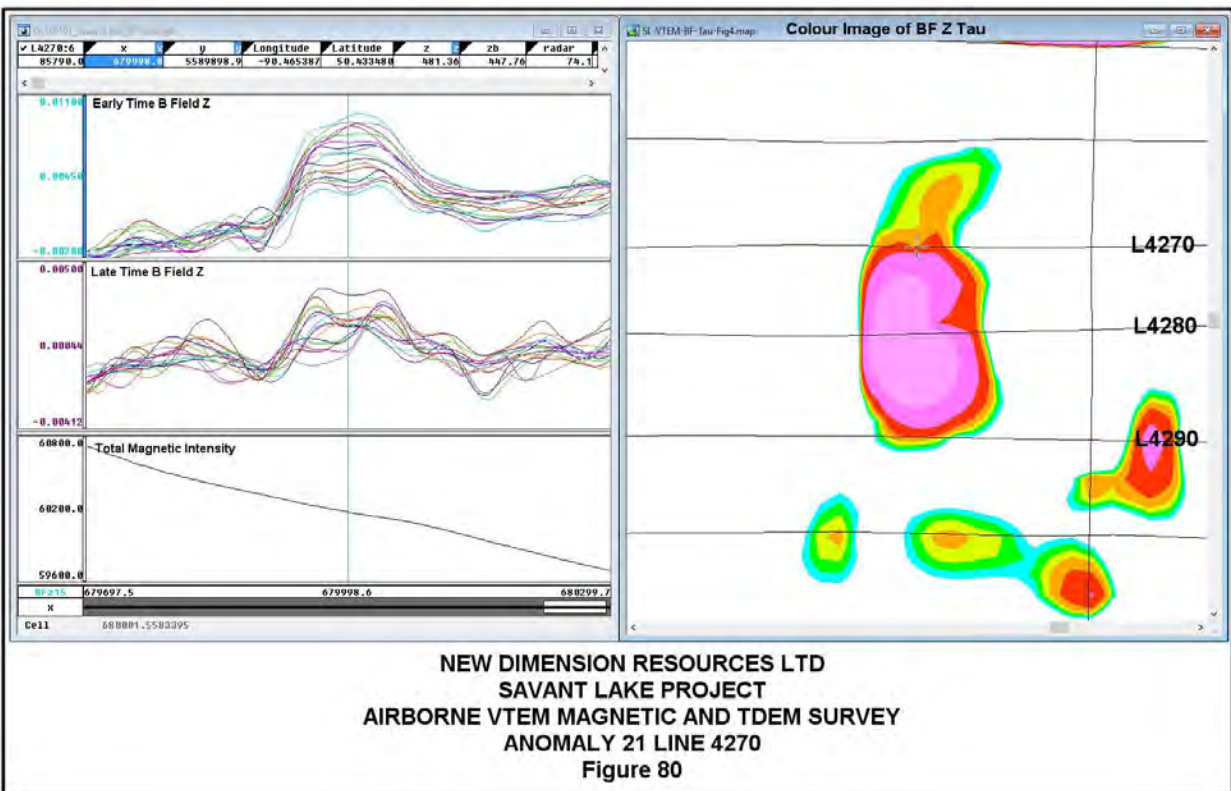


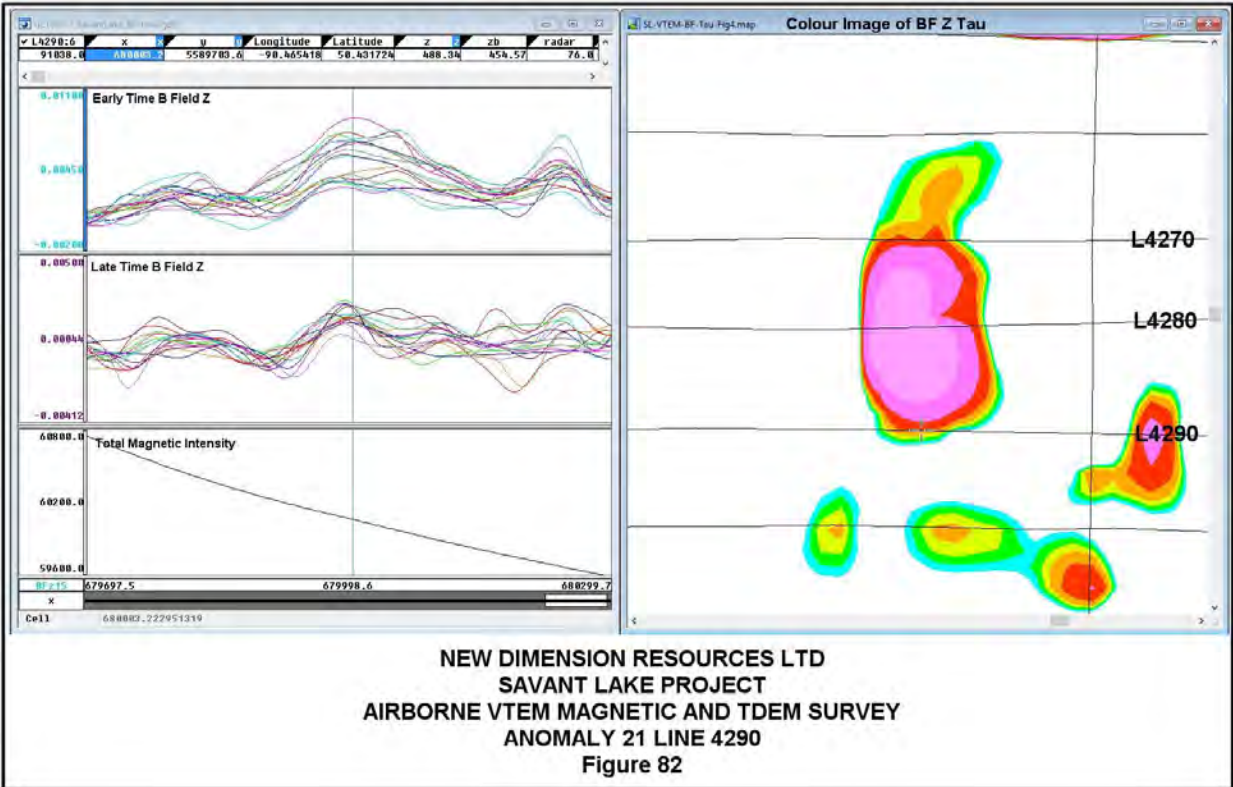
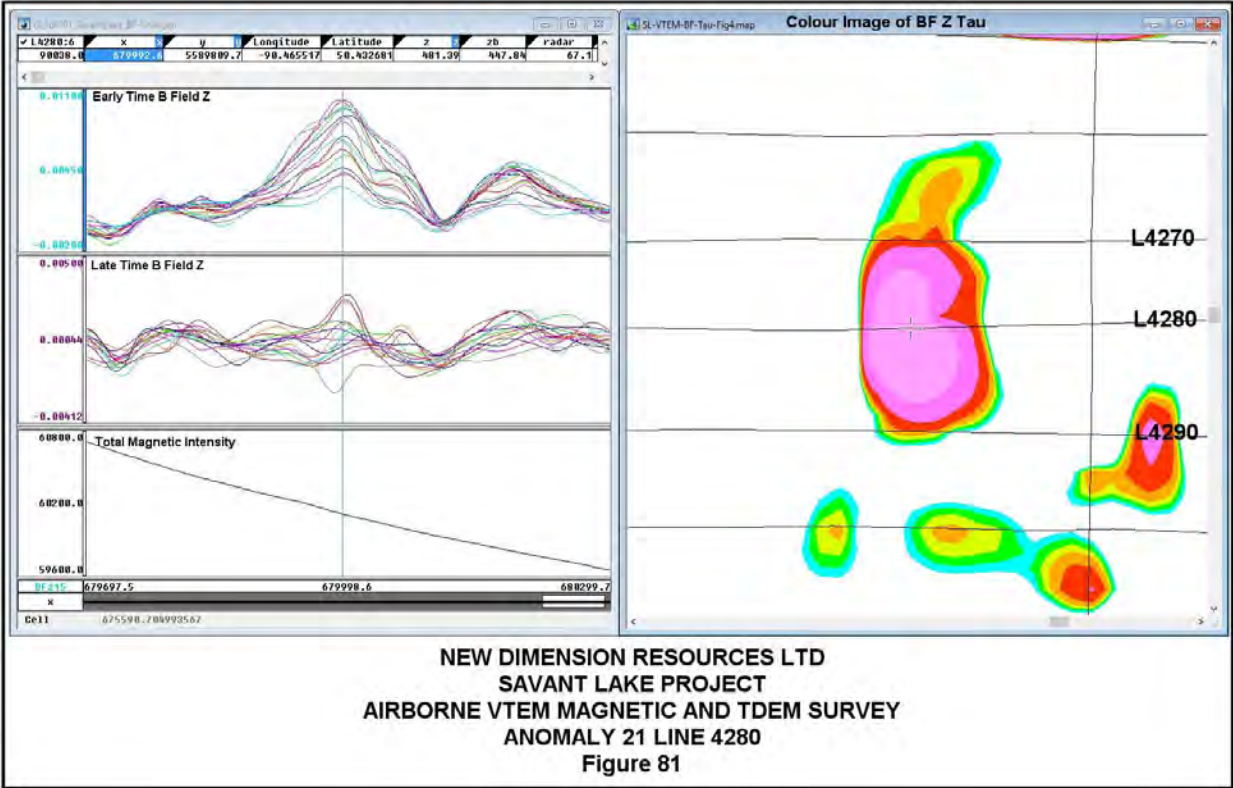


## Anomaly 21

Anomaly 21 is a Low Magnetic TDEM that has not been modelled as it is too weak to produce a valid solution. It consists of three responses forming a roughly N-S trend that are located immediately to the south of anomaly 14, and are on an Island. They are not located within the Iron Formation package and may be hosted by volcanic. The responses are presented in Figures 80 to 82.

A ground TDEM survey is recommended.

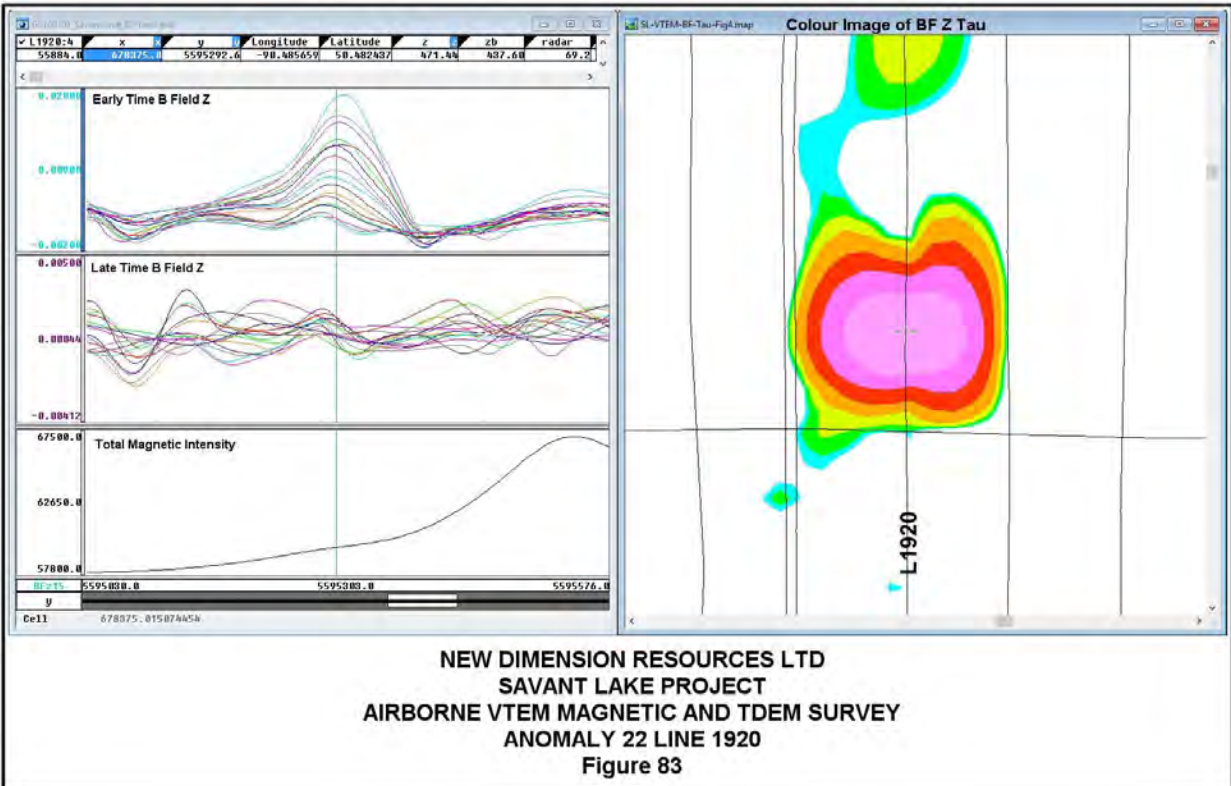




## Anomaly 22

Anomaly 21 is a Low Magnetic TDEM that has not been modelled as it is too weak to produce a valid solution. It consists of one responses located on in a lake. It is located within the Iron Formation package. The response is presented in Figures 83.

A ground TDEM survey is recommended.



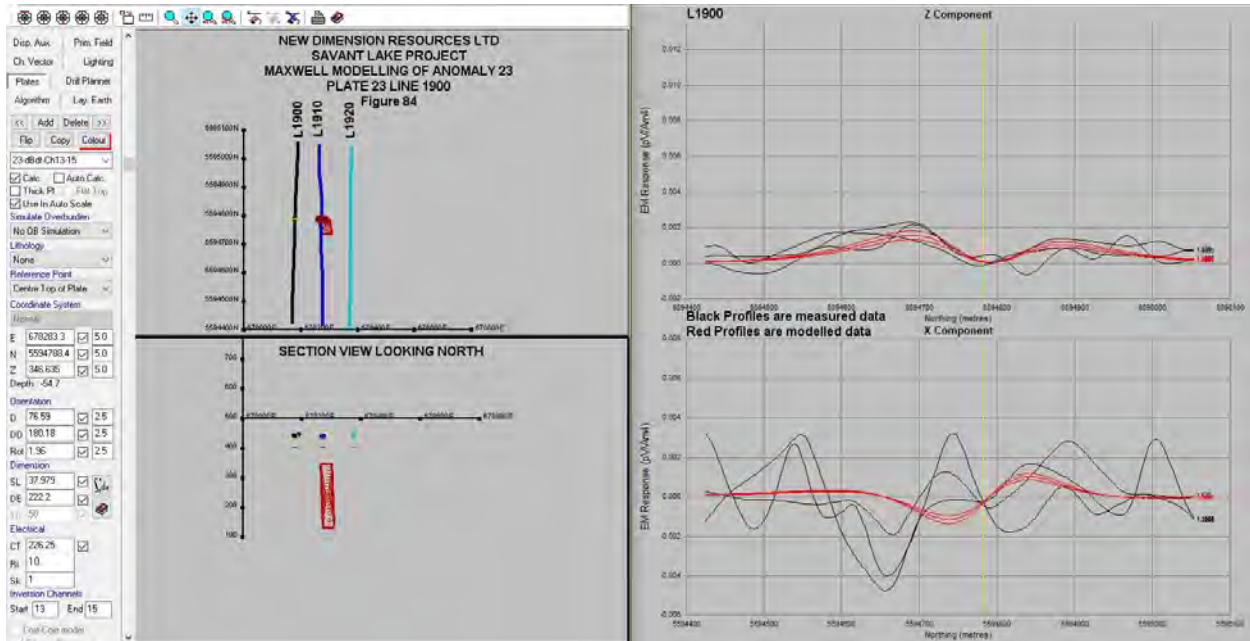
## Anomaly 23 Modelling Results

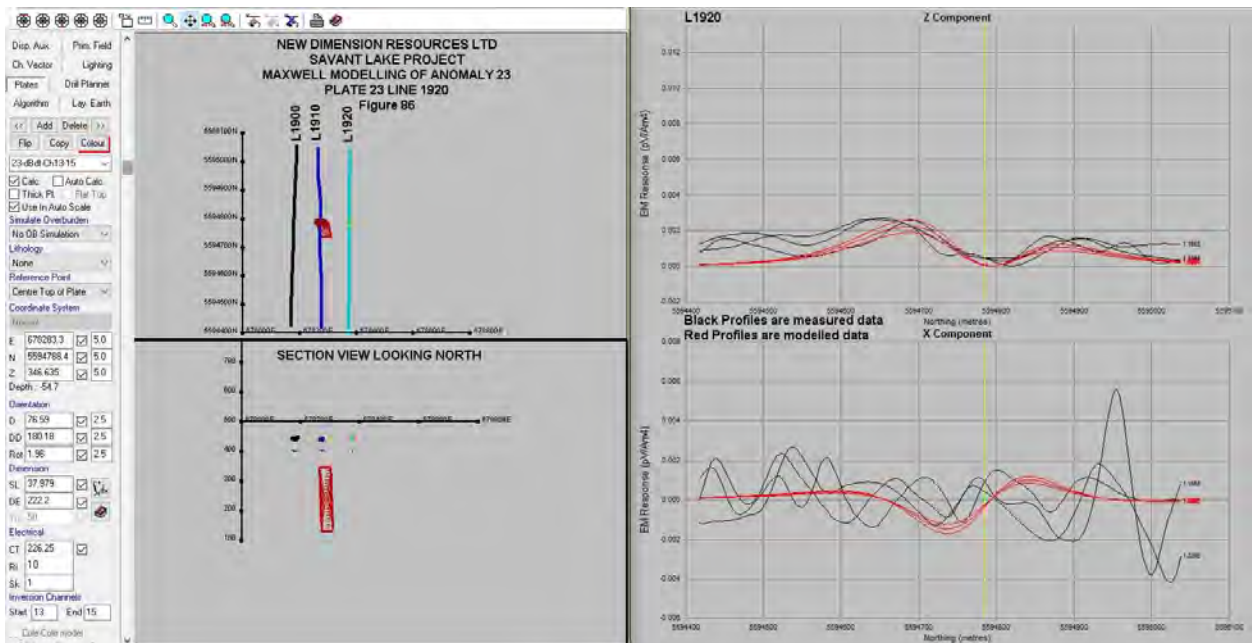
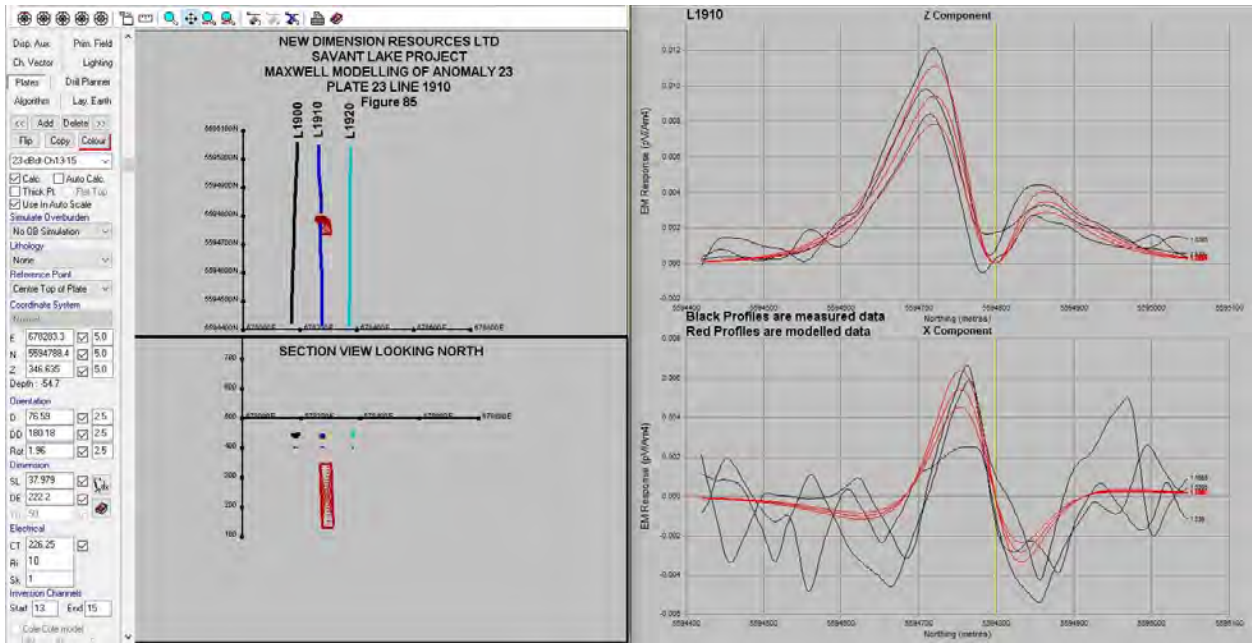
The modelling results for anomaly 23 are presented in Figures 84 to 87. Figures 84 to 86 show the plate 23 modelling results. Figure 86 is a map of plate 23 within the local TMI colour image and hydrology.

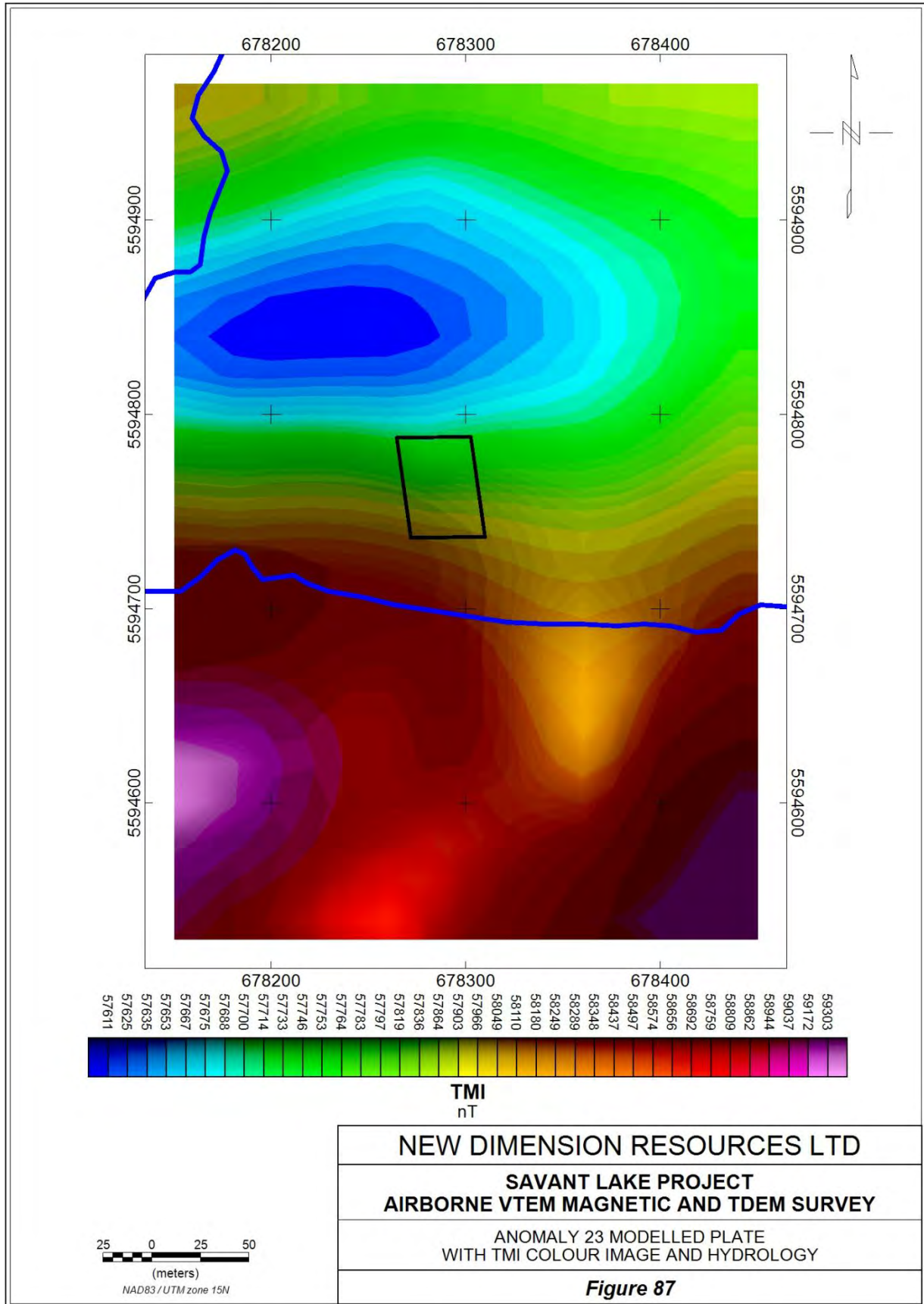
Plate 23 has low to moderate amplitudes and the resultant model is of moderate quality. A thin 2D plate was produced with SL of 38 m, a DE of 222 m and a moderate to high CT of 226 S. Depth to center top of plate is 54.7 m. Mid time channels 13 to 15 were used so the actual CT is moderately higher.

Plate 23 is presented in Figure 86 with a colour image of the TMI and hydrology. The plate is located on the northern flank of a high magnetic lithology. It is contained within the Iron Formation package. It is located in a lake close to shore.

Drilling plate 23 from the airborne model is not recommended as it is quite narrow. A ground TDEM survey is recommended.



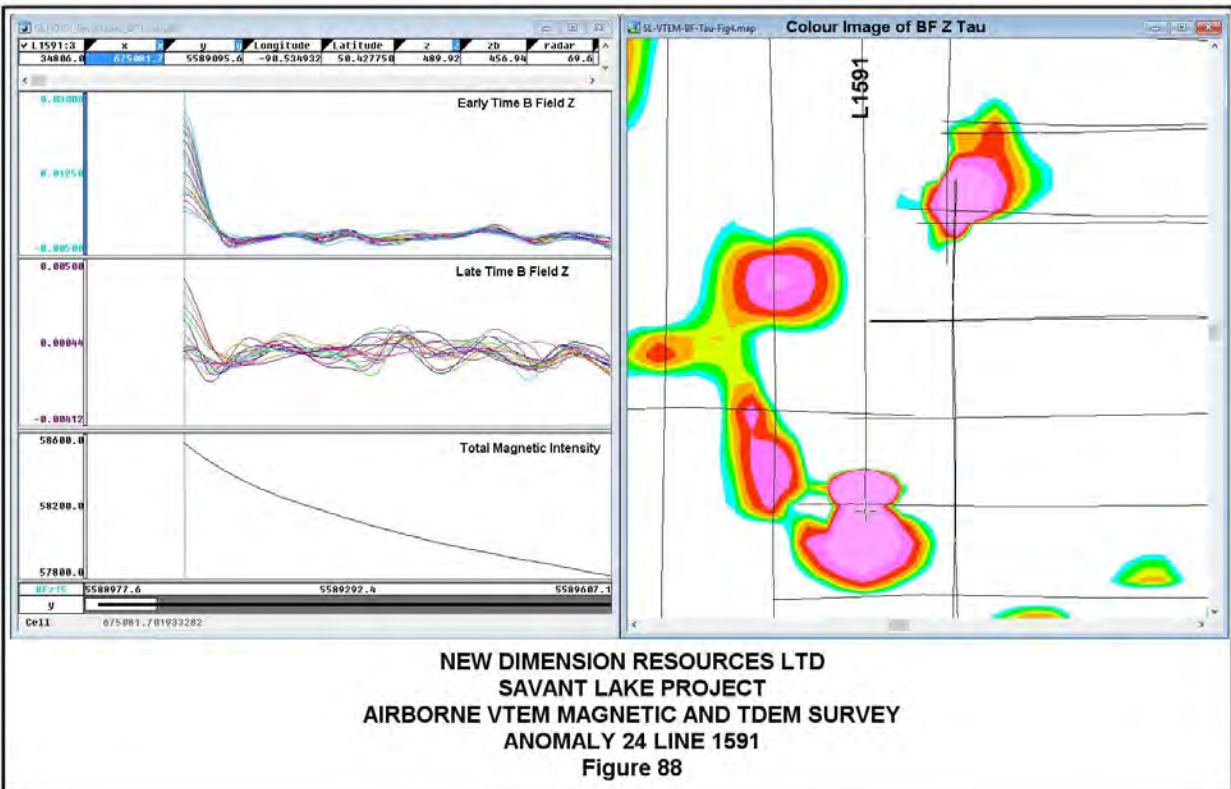


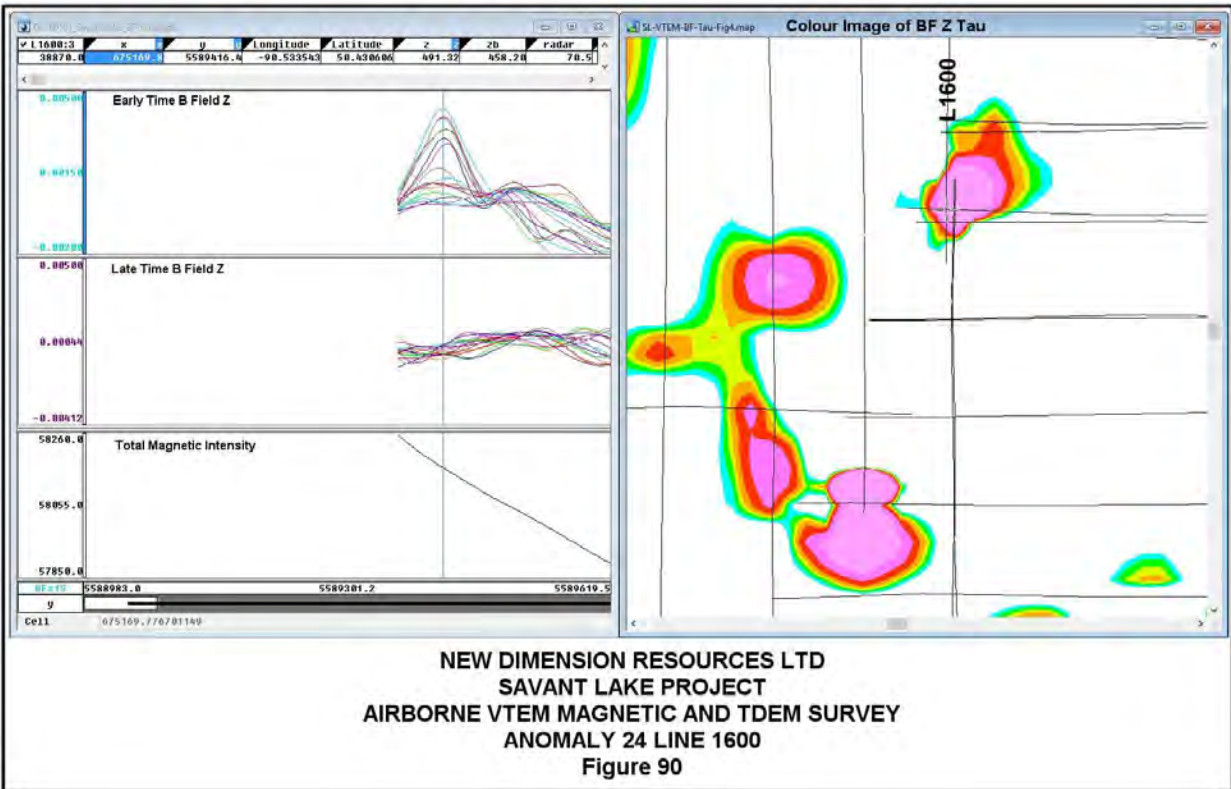
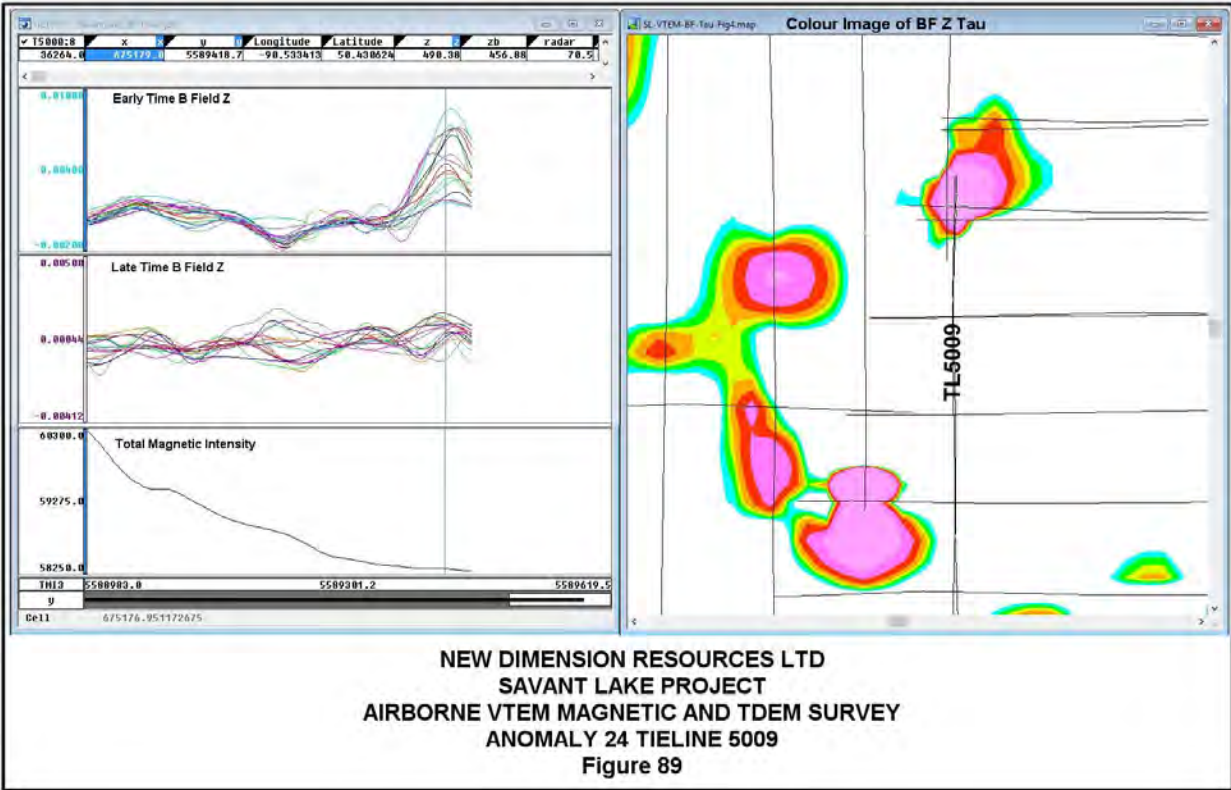


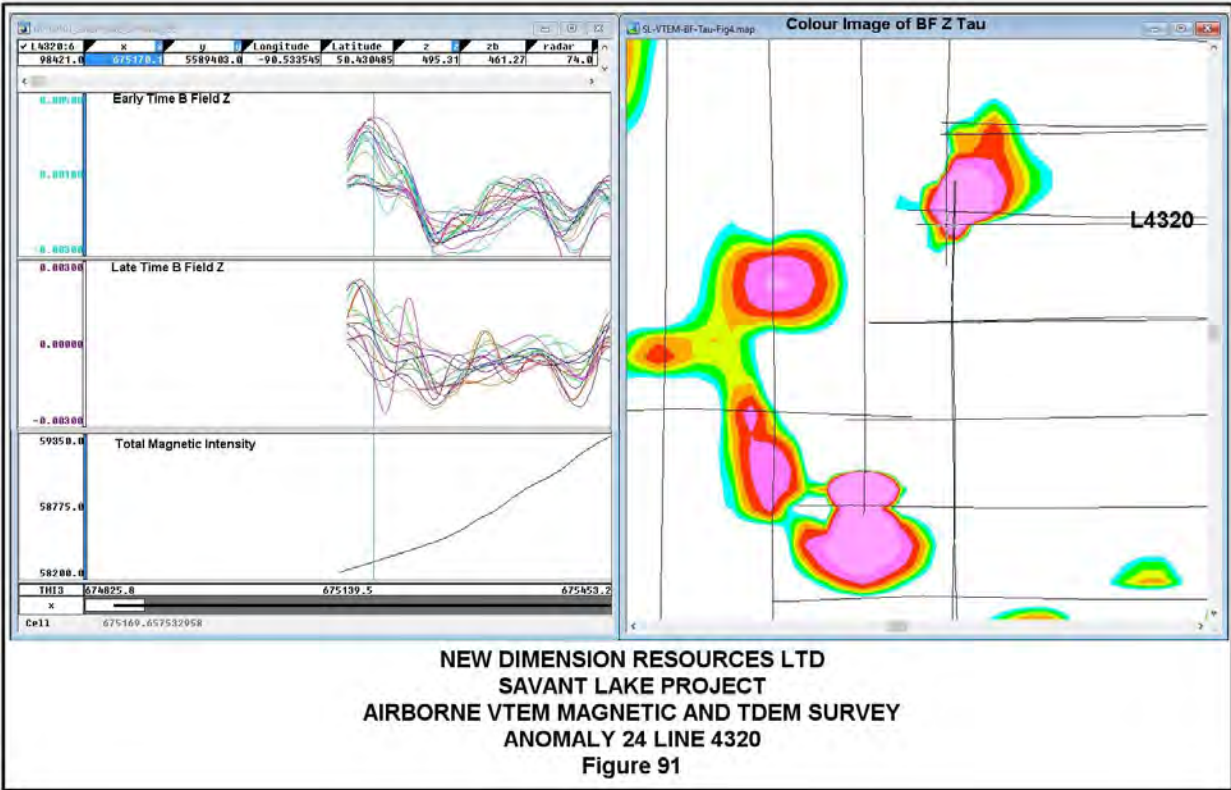
## Anomaly 24

Anomaly 24 is a Low Magnetic TDEM that has not been modelled as it is too weak to produce a valid solution. It is located at the suture point of the perpendicular flight line block, and consists of two responses forming a roughly N-NE trend located on land. They are not within the Iron Formation package and may be hosted by volcanic. The responses are presented in Figures 88 to 91.

A ground TDEM survey is recommended.



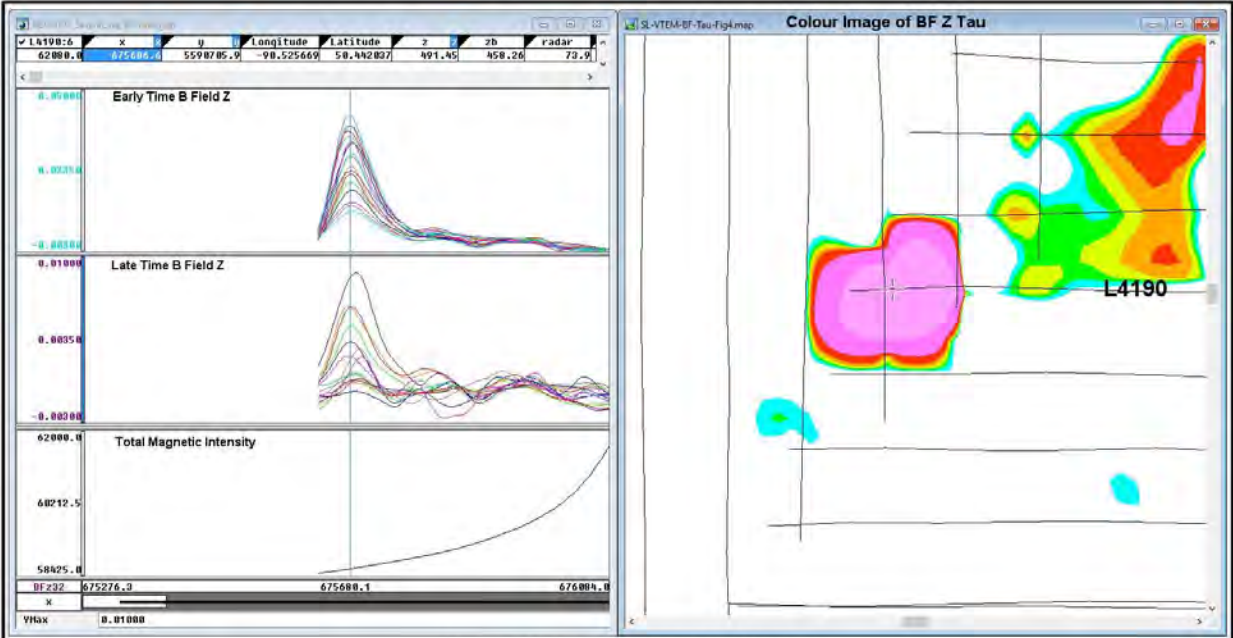




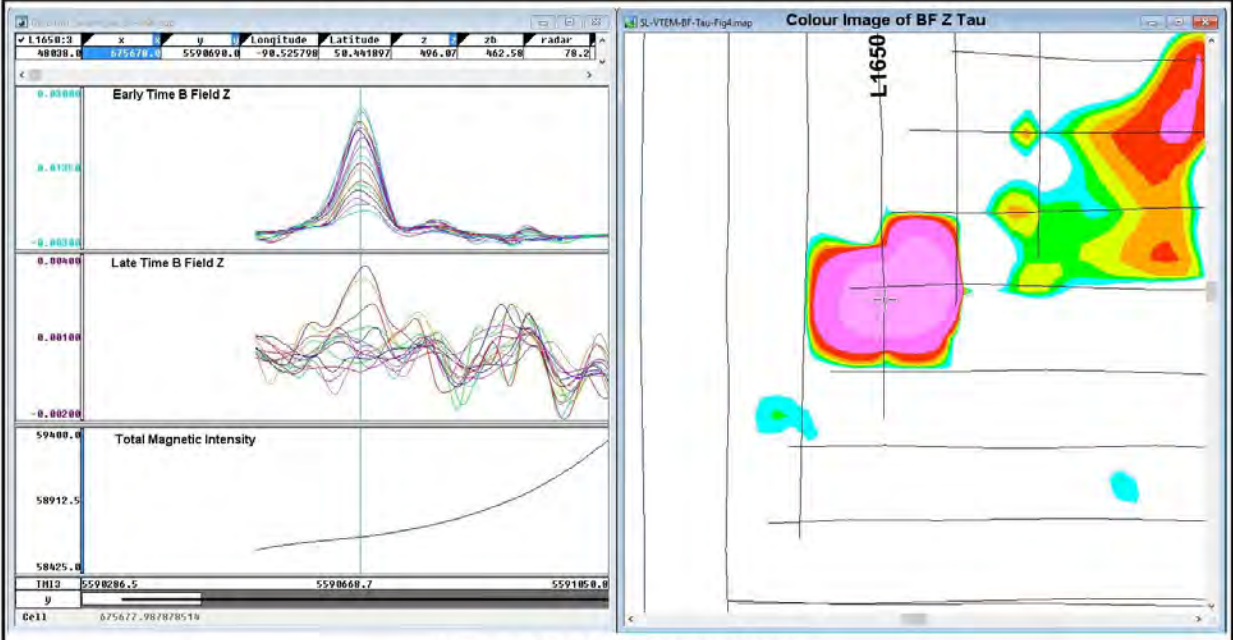
### Anomaly 25

Anomaly 25 is a Low Magnetic TDEM that has not been modelled as it is too weak to produce a valid solution. It is located at the suture point of the perpendicular flight line block, and consists of a single response located on land. It are not within the Iron Formation package and may be hosted by volcanic. The response is presented in Figures 92 and 93.

A ground TDEM survey is recommended.



NEW DIMENSION RESOURCES LTD  
 SAVANT LAKE PROJECT  
 AIRBORNE VTEM MAGNETIC AND TDEM SURVEY  
 ANOMALY 25 LINE 4190  
 Figure 92



NEW DIMENSION RESOURCES LTD  
 SAVANT LAKE PROJECT  
 AIRBORNE VTEM MAGNETIC AND TDEM SURVEY  
 ANOMALY 25 LINE 1650  
 Figure 93

The following table describes the geometric parameters of the modelled plates and help to form a basis for target prioritisation. The last column indicates if the anomaly is believed to inside or outside of the Iron Formation package in order to prioritise targets into the two groups. When exploring for base metals the CT is often used as an important prioritisation component; however for gold exploration it may not be as significant since higher metallic sulphide concentration does not necessarily relate to higher gold content. For this reason the prioritisation is based mostly on size potential.

Table 2. Low Magnetic TDEM Modelled Plate Parameters

Plate Name	E (m)	N (m)	Z (m)	Center top Depth (m)	Dip (Deg)	Dip Direction (Deg)	Rotation (Deg)	Strike Length (m)	Depth Extent (m)	Surface Area (m <sup>2</sup> )	Cd (S/m)	Thickness (m)	CT (S)	Inside Iron Formation
5A-dBdt-Ch10-12Thick	678315	5593754	331	-74.1	85.0	150.0	4.9	450.0	44.2	19890	10.0	10.0	100	Yes
5B-dBdt-Ch23-25	678605	5594095	336	-68.5	82.1	149.7	13.3	230.9	44.8	10344	N/A	N/A	446	Yes
7A-BF-Ch15-17	669094	5592689	275	-173.7	70.0	202.8	13.4	536.3	108.5	58189	N/A	N/A	93	No
7B-BF-Ch10-12	669423	5592835	270	-163.4	-78.1	8.2	43.2	175.0	55.1	9643	N/A	N/A	98	No
8A-BF-Ch15-17Thick	679917	5596539	212	-189.3	81.2	162.5	-11.2	359.7	108.1	38884	10.7	28.7	307	Yes
8B-BF-Ch25-27Thick	680171	5596822	400	-2.2	85.3	141.2	8.0	106.5	123.9	13195	89.1	4.6	407	Yes
9-BF-Ch25-27	680492	5597086	390	-12.9	86.3	306.1	-55.0	29.8	102.6	3057	N/A	N/A	874	Yes
10-dBdt-Ch13-15Thick	679792	5595713	379	-21.6	90.0	323.8	21.1	40.2	421.8	16956	351.4	4.9	1707	Yes
11A-dBdt-Ch15-17	679499	5588062	358	-43.9	56.3	111.6	-9.7	107.9	586.5	63283	N/A	N/A	409	No
11B-dBdt-Ch10-12	679555	5587805	229	-171.8	31.4	292.5	29.2	150.0	64.3	9645	N/A	N/A	175	No
11C-dBdt-Ch15-17	679788	5587878	363	-38.4	46.4	39.0	-24.8	27.9	72.1	2012	N/A	N/A	206	No
13-dBdt-Ch12-14	680001	5590773	237	-164.2	32.1	104.0	-17.5	256.3	51.1	13097	N/A	N/A	175	No
14-dBdt-Ch12-14	680102	5590246	333	-70.0	63.6	155.0	77.2	35.8	38.7	1385	N/A	N/A	345	No
15-dBdt-Ch20-22	680623	5591314	354	-46.8	60.3	139.2	-3.3	412.6	161.8	66759	N/A	N/A	92	No
17-dBdt-Ch14-16	672880	5587618	408	-22.5	73.2	41.1	1.2	302.6	706.9	213908	N/A	N/A	23	No
18-BF-Ch20-22	677226	5586450	292	-117.7	28.3	32.7	-57.1	192.5	62.2	11974	N/A	N/A	524	No
19-BF-Ch18-20	678170	5593029	240	-163.0	82.1	143.2	-49.2	347.2	65.2	22637	N/A	N/A	276	Yes
23-dBdt-Ch13-15	678283	5594788	347	-54.7	76.6	180.2	2.0	38.0	222.2	8444	N/A	N/A	226	Yes

The CT values within the Iron Formation vary from 100 S to 1707 S and the surface area varies from 3057 m<sup>2</sup> to 38,884 m<sup>2</sup>. Using the size potential the following target prioritisation has been defined.

Table 3. Iron Formation Modelled Plate Prioritisation

Plate names	Priority	Modelled Total Surface Area
8A-8B-9	1	55,136 m <sup>2</sup>
5A-5B	2	30,234 m <sup>2</sup>
19	3	22,637 m <sup>2</sup>
10	4	16,956 m <sup>2</sup>
23	5	8,444 m <sup>2</sup>

For the targets outside of the Iron Formation package Plates 7A, 15 and 17 extend outside of the survey area, have weak CT values and may represent formational features of low priority. Also an exception to the size potential rule was done for plate 18 as its high CT of 524 S is worth considering compared to the larger plate 13 with a CT of 175.

Table 4. Outside of Formation Modelled Plate Prioritisation

Plate names	Priority	Modelled Total Surface Area
11A-11B-11C	1	74,940 m <sup>2</sup>
18	2	11,974 m <sup>2</sup>
13	3	13,097 m <sup>2</sup>
7B	4	9,643 m <sup>2</sup>
7A	5	58,189 m <sup>2</sup>
15	6	66,759 m <sup>2</sup>
17	7	213,908 m <sup>2</sup>

At this time, the Low Magnetic Targets not modelled because of their low amplitudes (20, 21, 22, 24 and 25) should be of lowest priority. However, the anomaly 20 grouping of responses has the highest priority amongst them due to its size potential.

## CONCLUSIONS AND RECOMMENDATIONS

New Dimension Resources Ltd contracted Geotech Ltd to fly a VTEM magnetic and Time Domain Electromagnetic (TDEM) survey over its Savant Lake project located in western Ontario with NTS map sheets 52J07 and 52J08. The survey took place from May 15 to 19, 2016, and a total of 10,309 line km of data was collected. Due to significant changes in geological trends within the property the survey was separated into two blocks with flight lines perpendicular to each other.

The principal targeted commodity is gold hosted in replacement metallic sulphides contained with Iron Formations. These Formations dominate the magnetic data and produce extremely high amplitudes exceeding 100,000nT that actually saturating the airborne magnetic sensor.

Analysis of the TDEM revealed an unusual correlation between the highly magnetic lithologies and low amplitude slow decay EM responses, which can be multi-kilometric in length. It was concluded that these responses, which are called High Magnetic TDEM, are caused by a magnetite Superparamagnetic Effect (SPM), and as such are of no economic interest. Also contained within the EM data are responses typical of classic conductors that are caused by either massive metallic sulphides or graphite. Invariably these responses are not coincident with the highly magnetic Iron Formations, and are called Low Magnetic TDEM. However, some are intermixed within them and others are outside of the Iron Formation package.

Interpretation of the EM data defined twenty five anomalies. Of these two are defined as cultural, five as related to high magnetic SPM responses and eighteen as low magnetic responses.

Of the eighteen low magnetic EM responses thirteen were modelled using the EMIT Maxwell software. Five were not modelled because their amplitudes were so low that meaningful solutions could not be produced.

Modelled solutions of the plates vary significantly in size with the largest measuring 303 m X 707 m and the smallest 39m X 36m. Conductivities also varied significantly from a low of 23.4 S to a high of 1,707 S.

Prioritisation of the anomalies was separated into two groups consisting of inside the Iron Formation package and outside of it. When exploring for base metals the CT is often used as an important prioritisation component; however for gold exploration it may not be as significant since higher metallic sulphide concentration does not necessarily relate to higher gold content. For this reason the prioritisation is based mostly on size potential.

Because of modelling results often produced narrow bodies with varying depth and solution qualities it is recommended that almost all anomalies targeted for drilling be surveyed with ground TDEM. Only three models consisting of plates 8A, 11A and 18 considered robust enough to drill without ground TDEM surveys. However, both plates 8A and 11A are proximal to other plates that require ground TDEM, and it is recommended that they all be surveyed.

As there are significant variations in the modelled plate depths, it is probable that other conductive bodies were too deep to be detected by the VTEM survey. It is therefore highly recommended that drilling be supported by down hole TDEM, as it could detect these deeper bodies.

## **Appendix B**

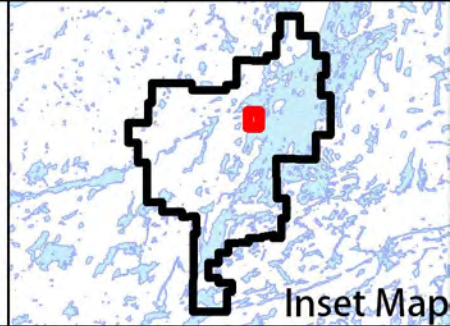
### Maps – Grouped by Anomaly Area



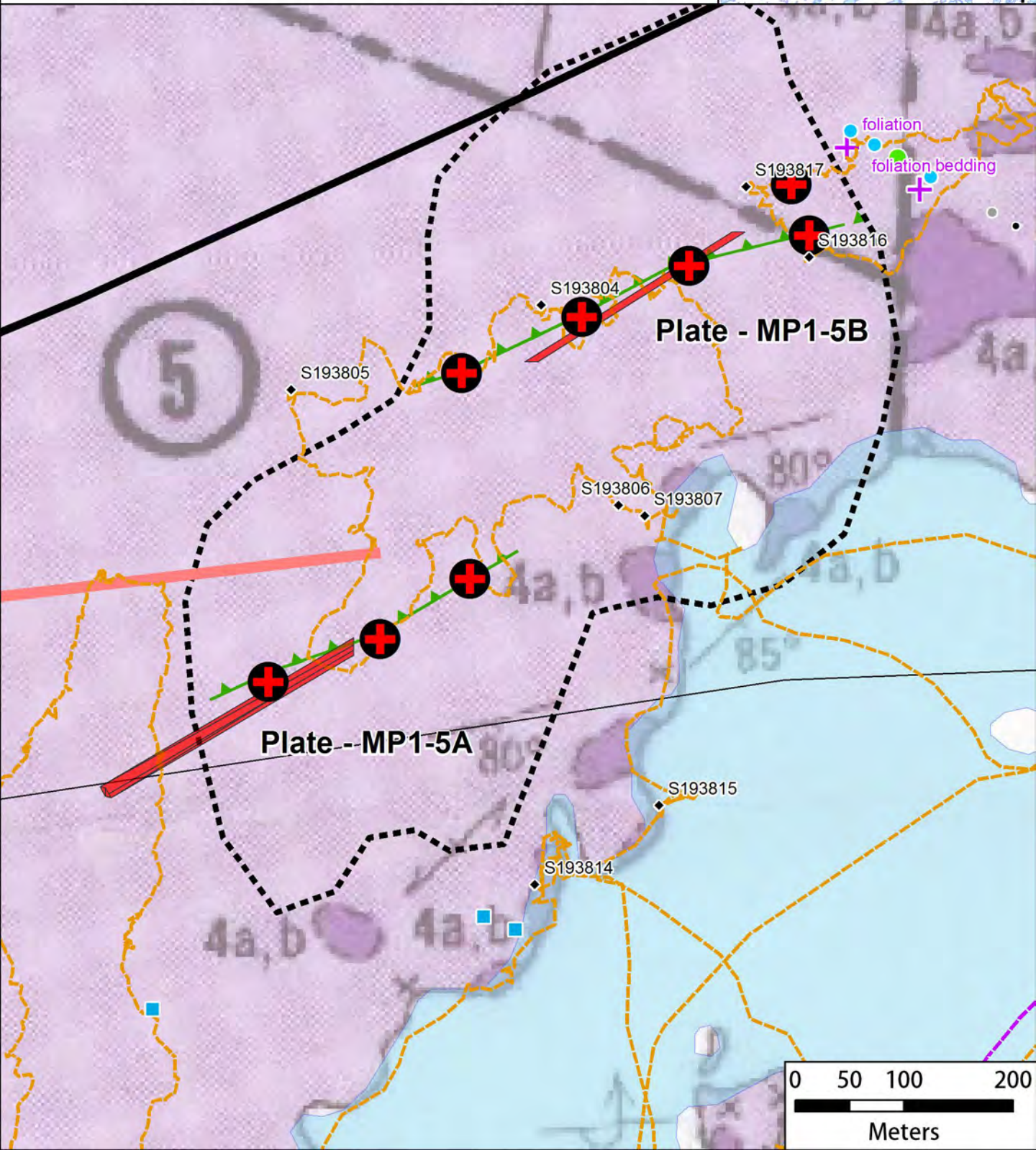
# VTEM Anomaly 5 Area

Plates 5A & 5B  
Line-Profile LM-TDEM Anomalies

with OGS Geology, GSC Structure, Klipfel Interp.



Inset Map

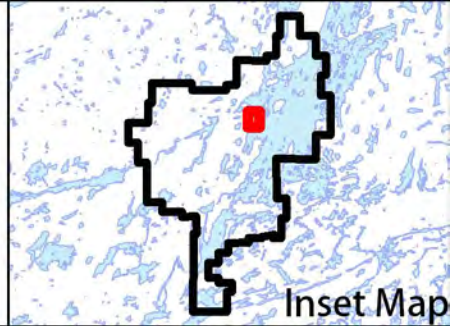




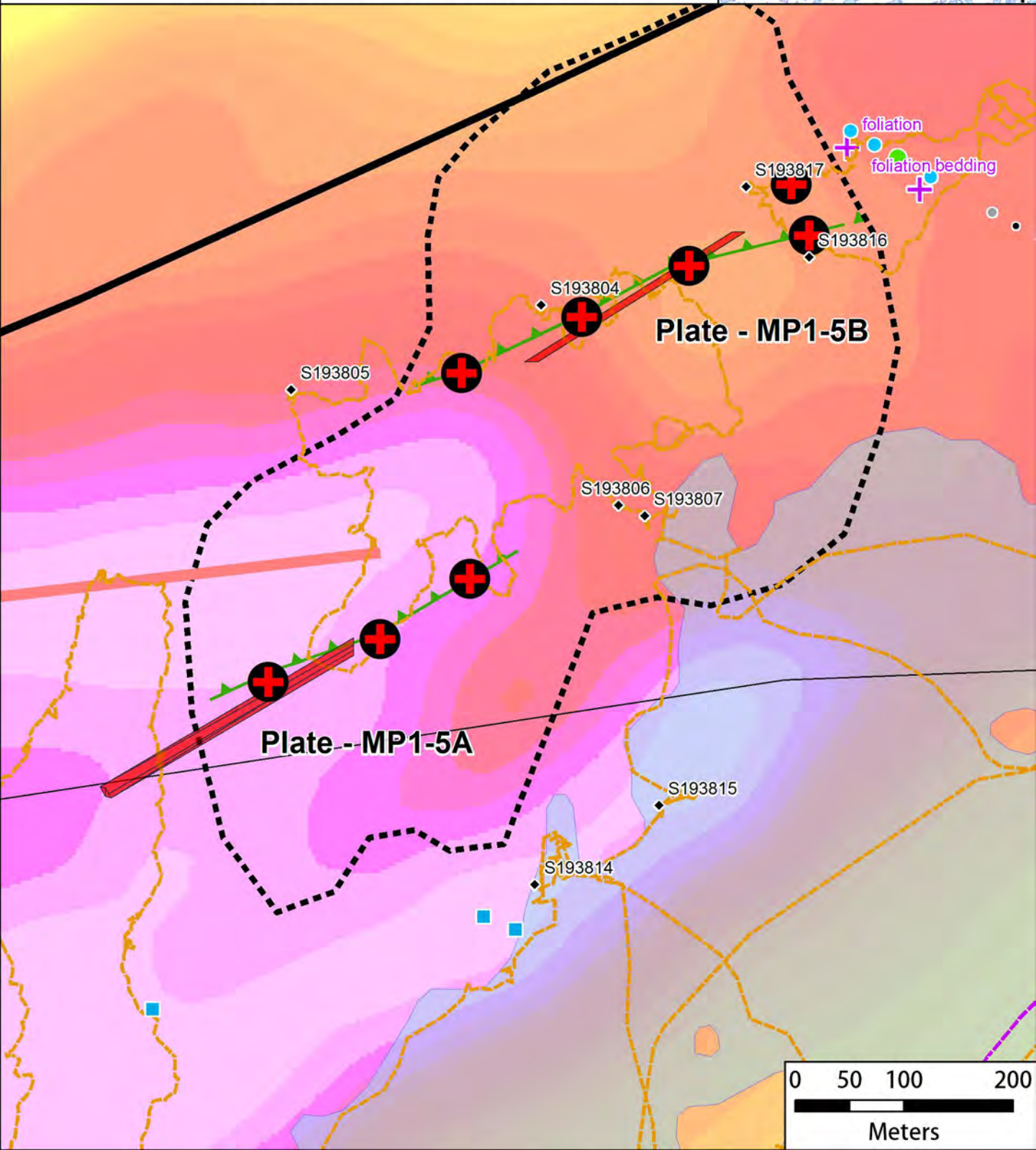
# VTEM Anomaly 5 Area

Plates 5A & 5B  
Line-Profile LM-TDEM Anomalies

with TMI, GSC Structure, Klipfel Interp.



Inset Map

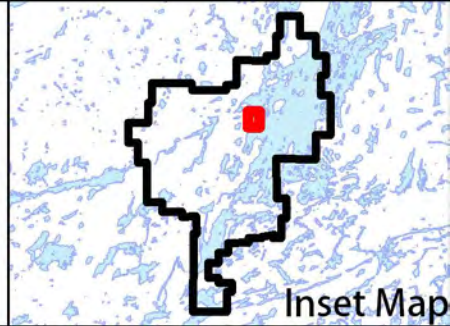




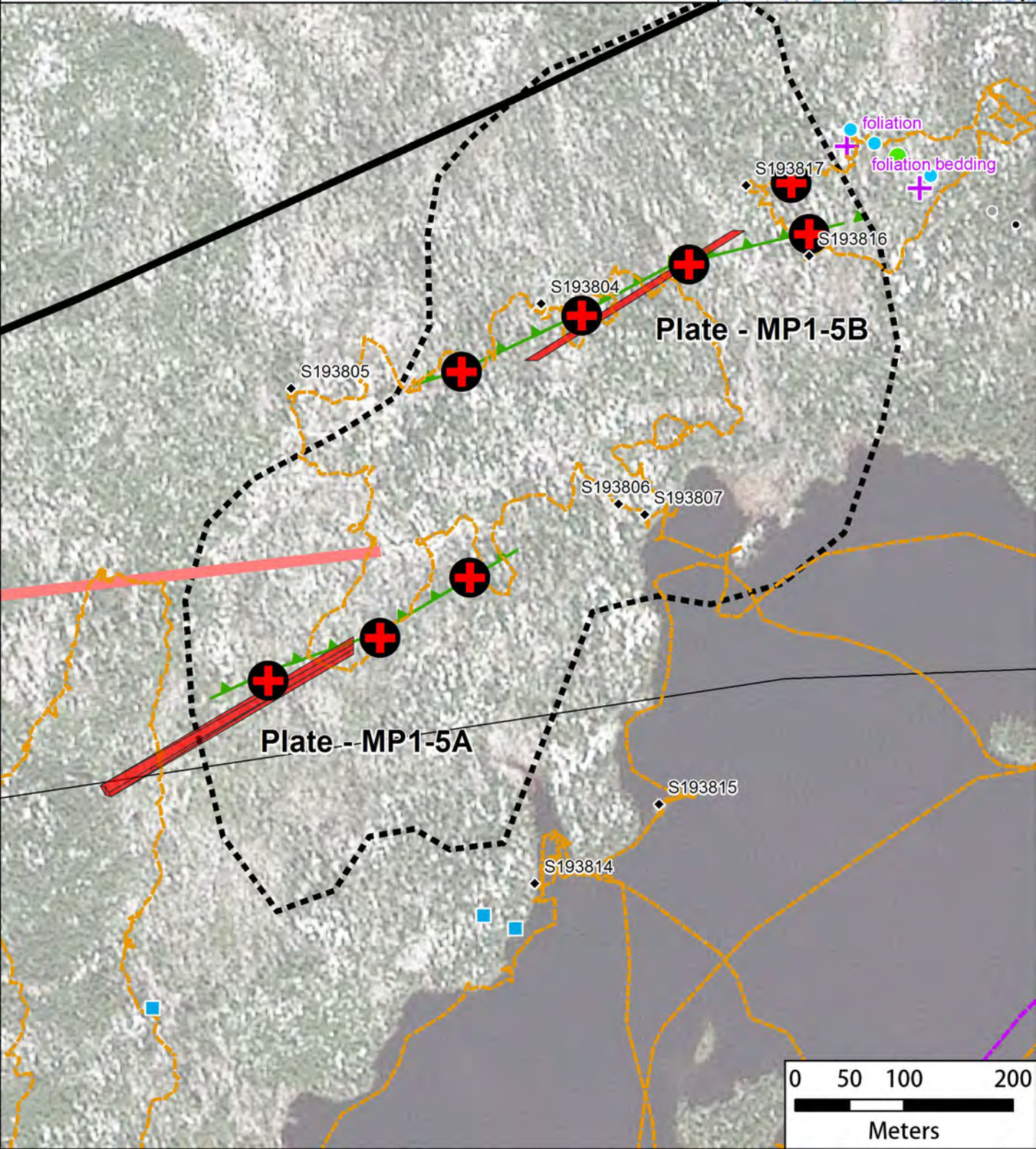
# VTEM Anomaly 5 Area

Plates 5A & 5B  
Line-Profile LM-TDEM Anomalies

with Imagery, GSC Structure, Klipfel Interp.



Inset Map





# VTEM Anomaly 7 Area

Plates 7A & 7B  
Line-Profile LM-TDEM Anomalies

with OGS Geology, GSC Structure, Klipfel Interp.

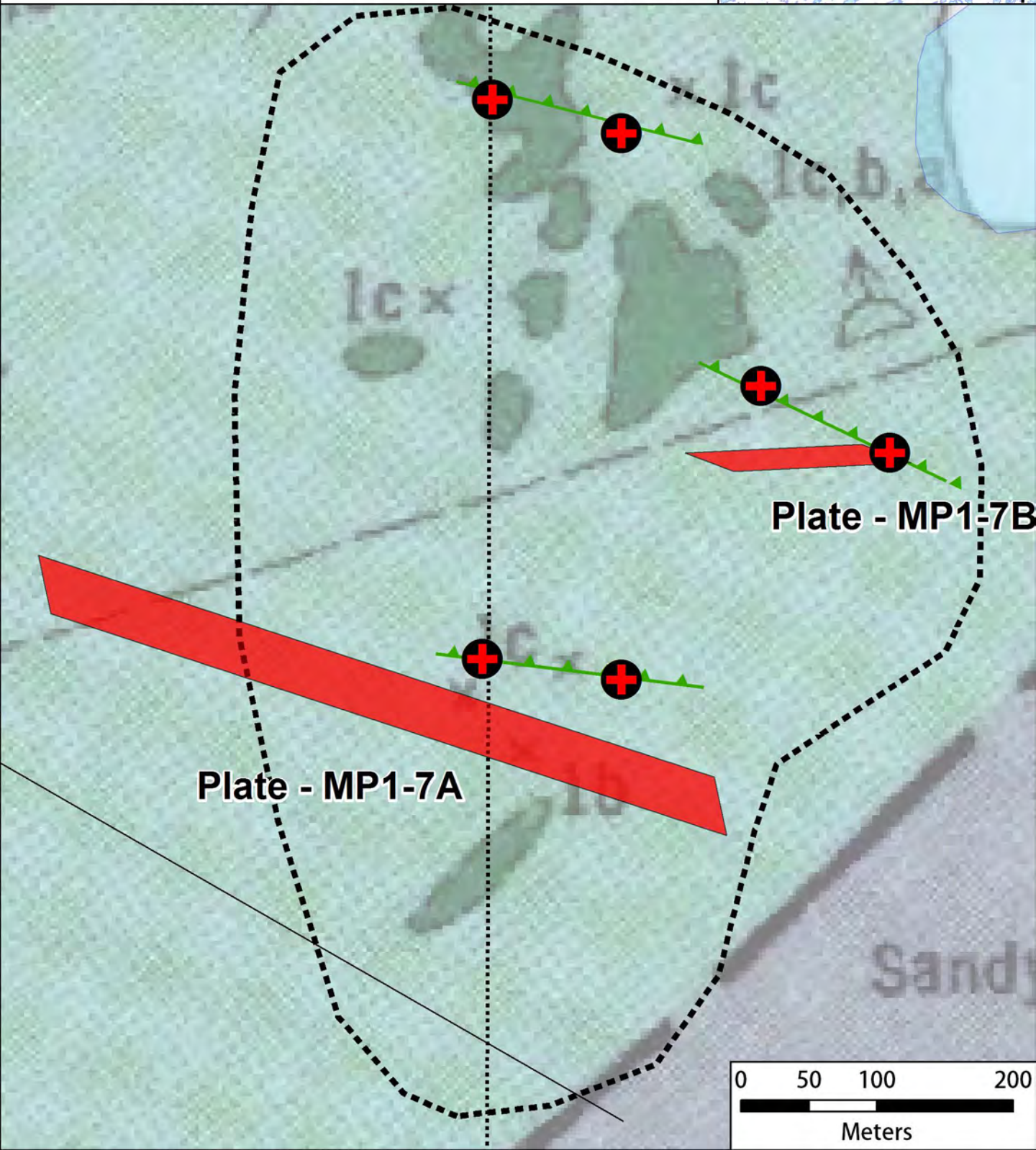
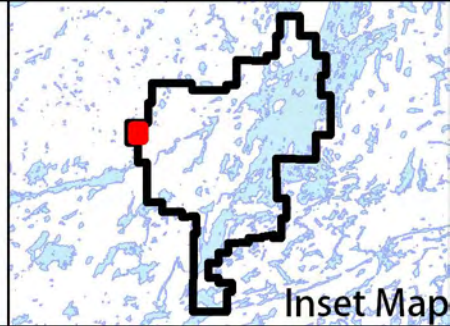
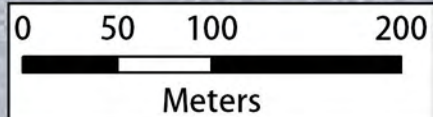


Plate - MP1-7B

Plate - MP1-7A

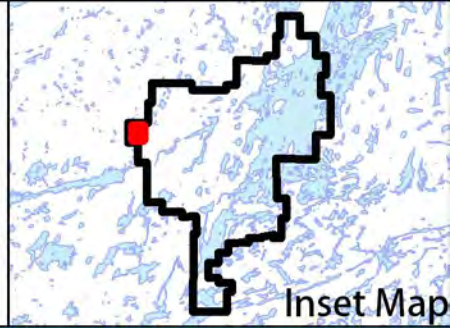




# VTEM Anomaly 7 Area

Plates 7A & 7B  
Line-Profile LM-TDEM Anomalies

with TMI, GSC Structure, Klipfel Interp.



Inset Map

Outside of 2016  
VTEM Survey Area

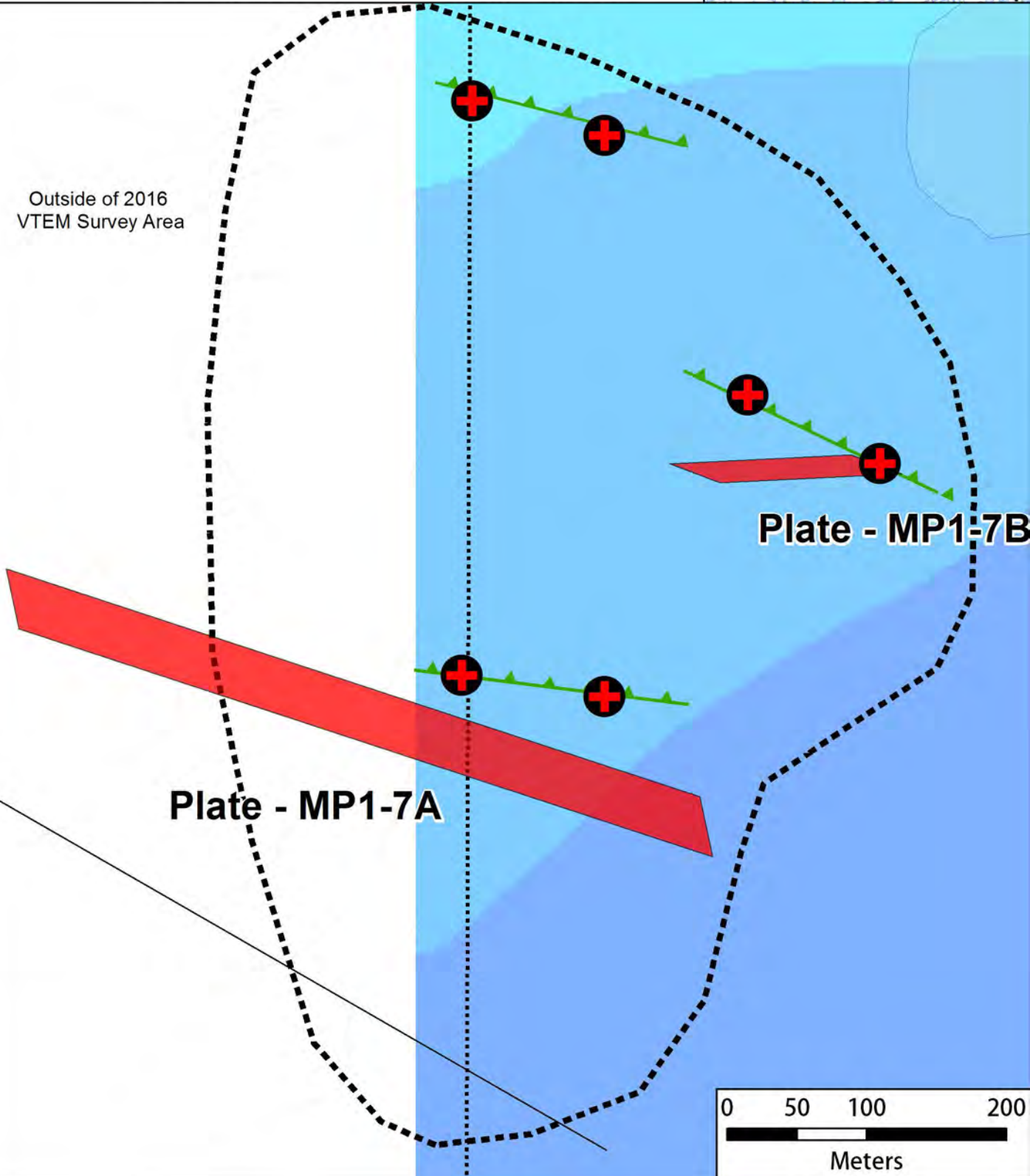
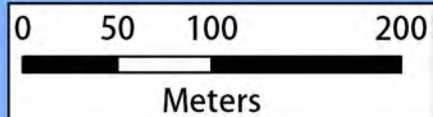


Plate - MP1-7B

Plate - MP1-7A

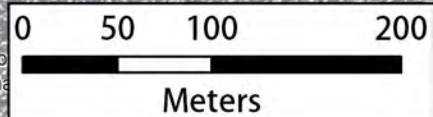
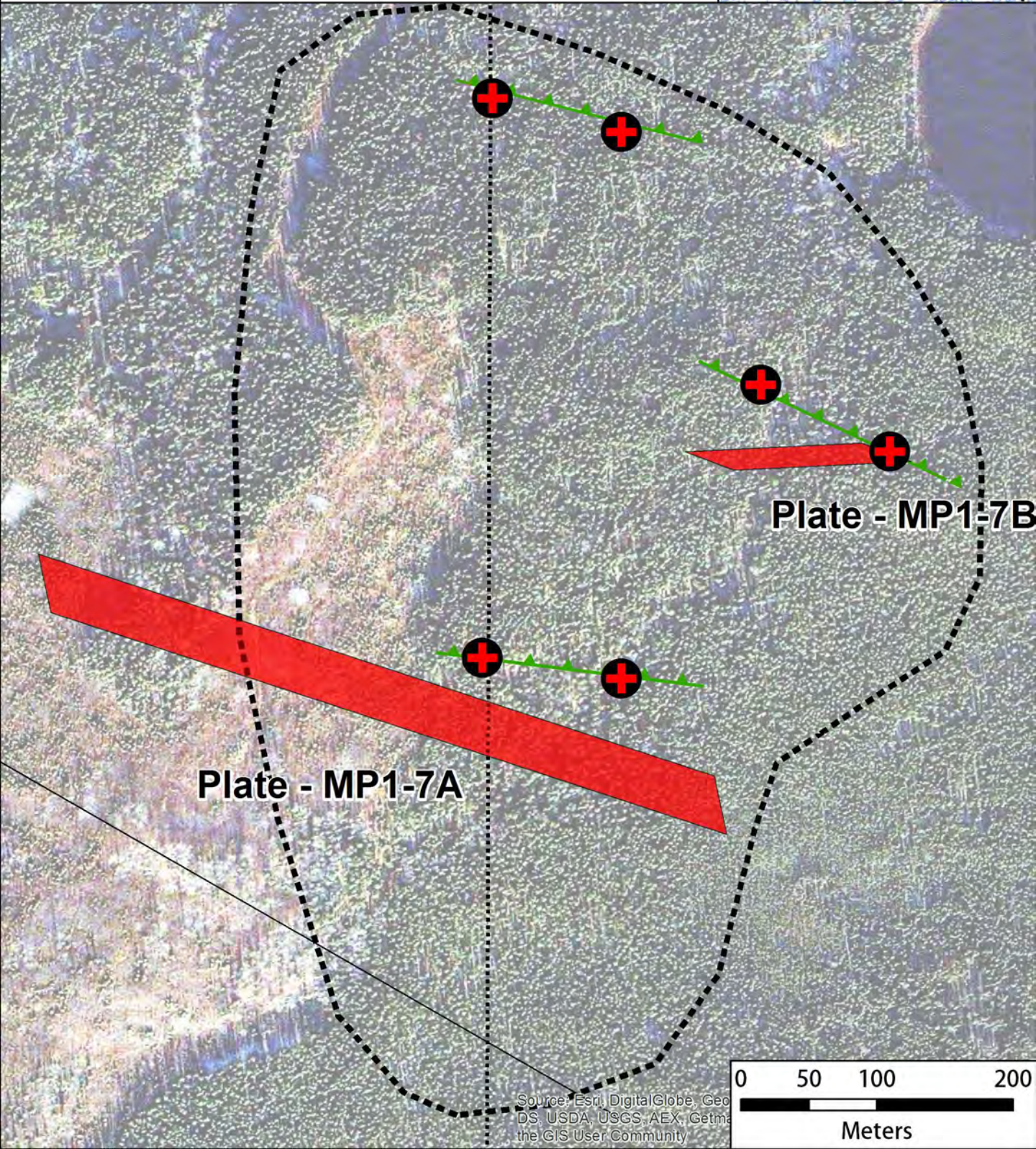
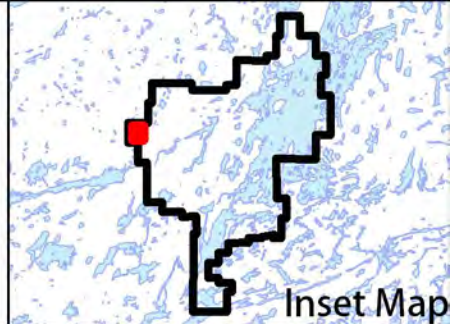




# VTEM Anomaly 7 Area

Plates 7A & 7B  
Line-Profile LM-TDEM Anomalies

with Imagery, GSC Structure, Klipfel Interp.



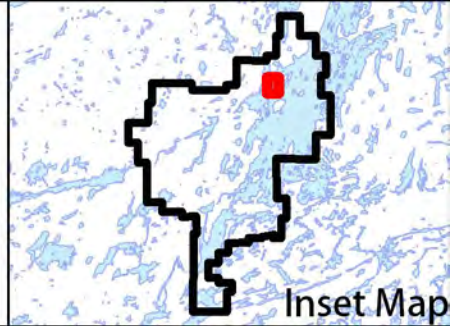
Source: Esri, DigitalGlobe, GeoDS, USDA, USGS, AEX, Getmap, the GIS User Community



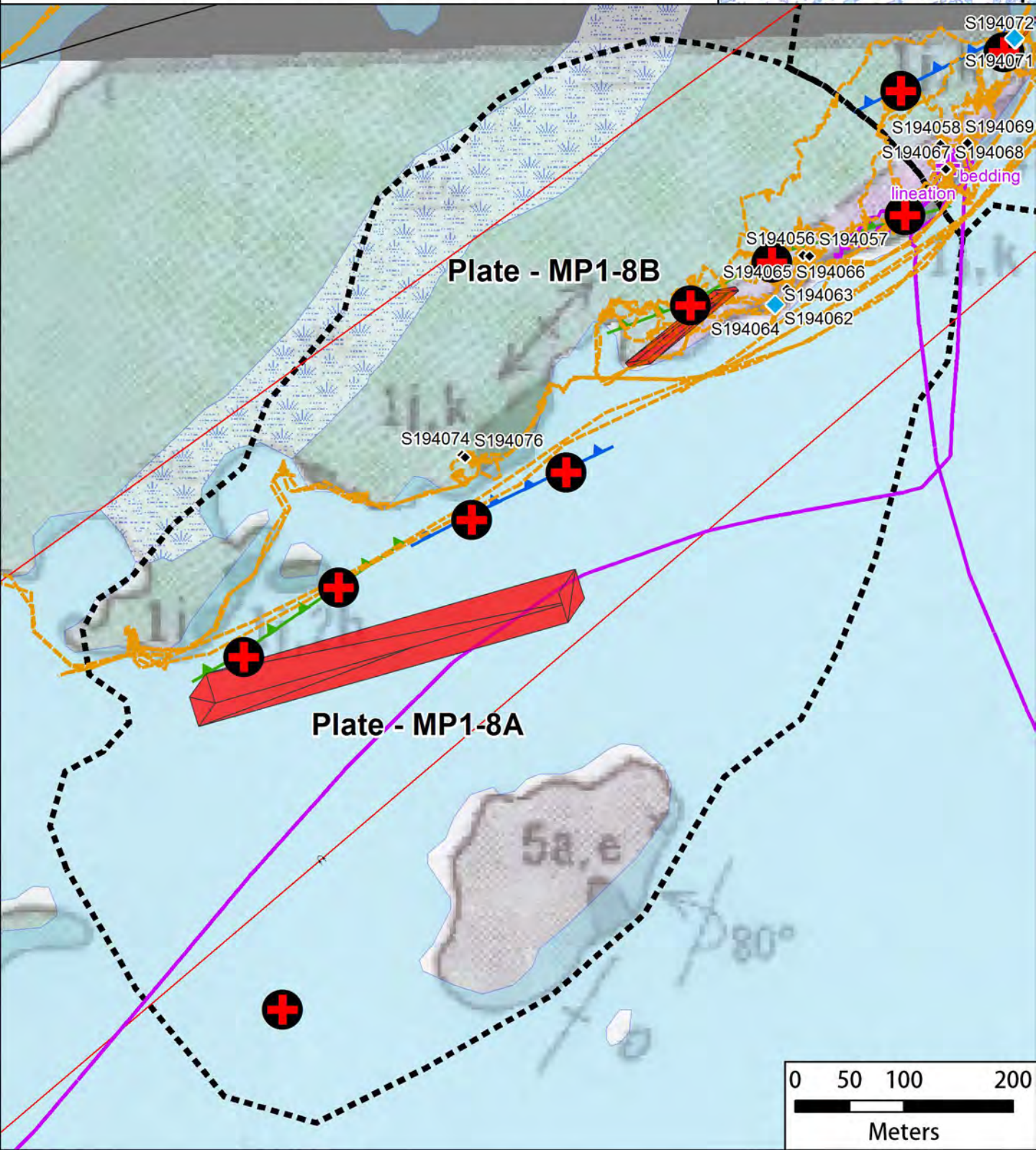
# VTEM Anomaly 8 Area

Plates 8A & 8B  
Line-Profile LM-TDEM Anomalies

with OGS Geology, GSC Structure, Klipfel Interp.



Inset Map

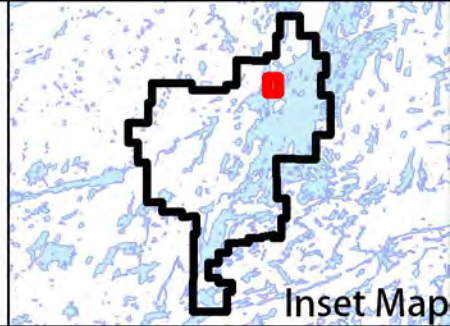




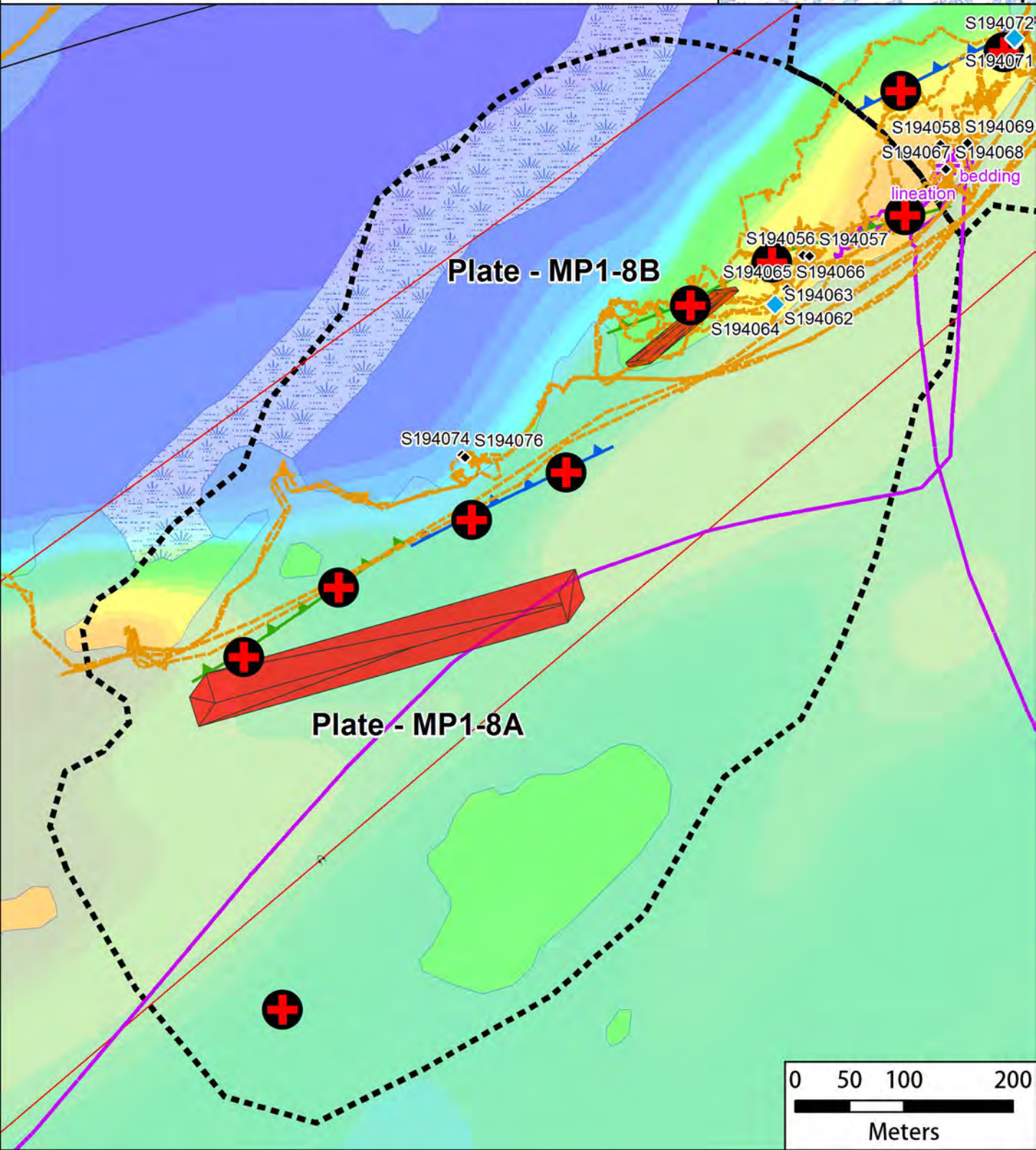
# VTEM Anomaly 8 Area

Plates 8A & 8B  
Line-Profile LM-TDEM Anomalies

with TMI, GSC Structure, Klipfel Interp.



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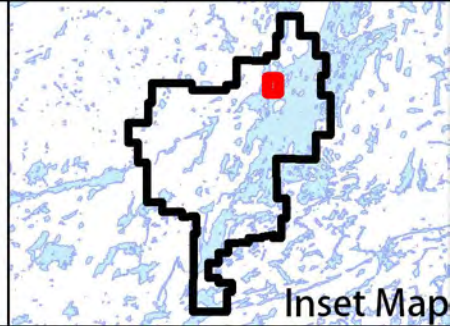




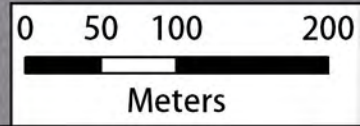
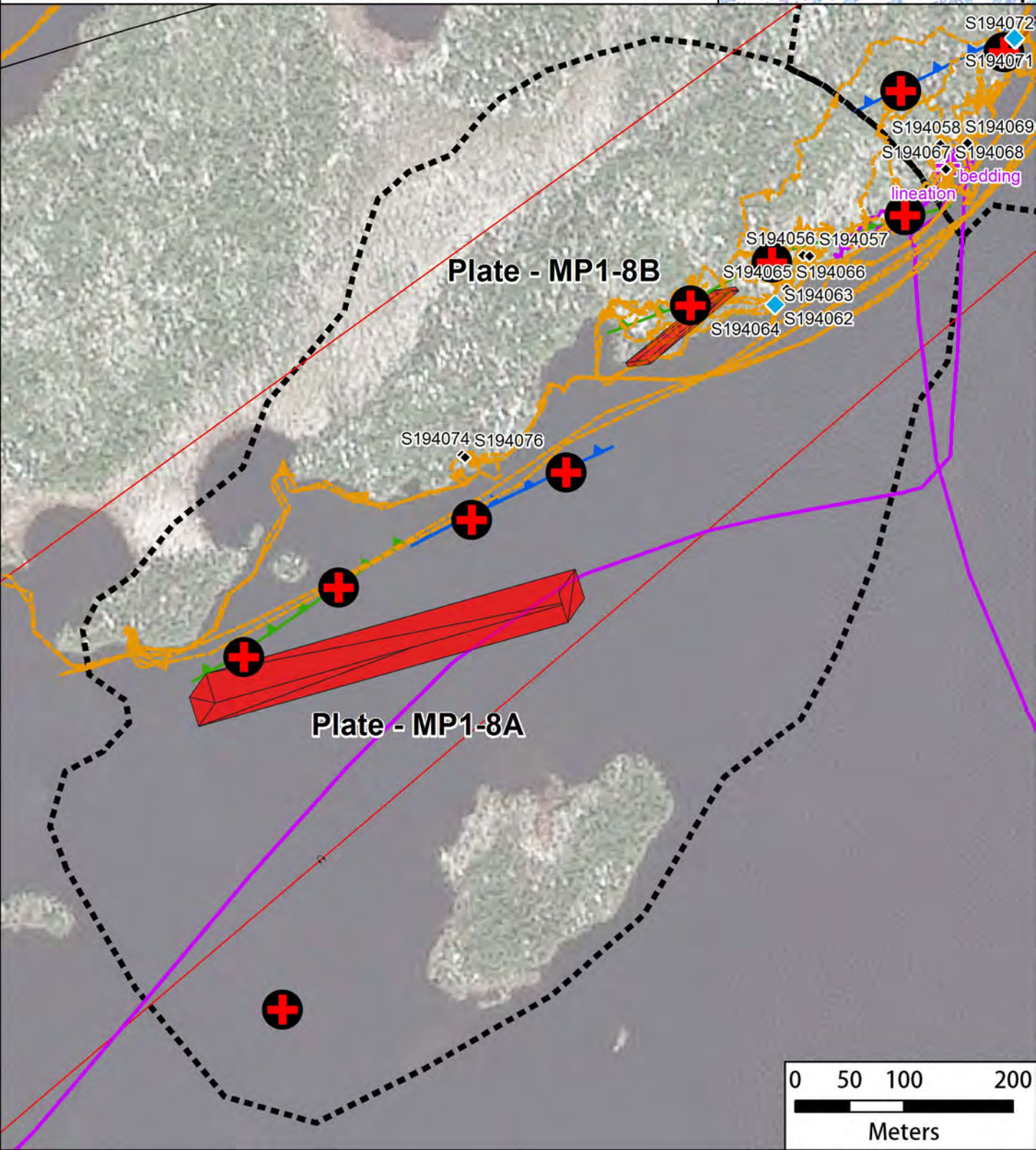
# VTEM Anomaly 8 Area

Plates 8A & 8B  
Line-Profile LM-TDEM Anomalies

with Imagery, GSC Structure, Klipfel Interp.



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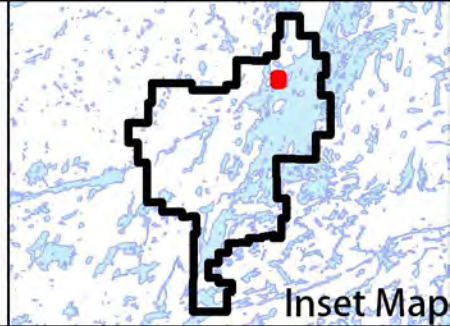




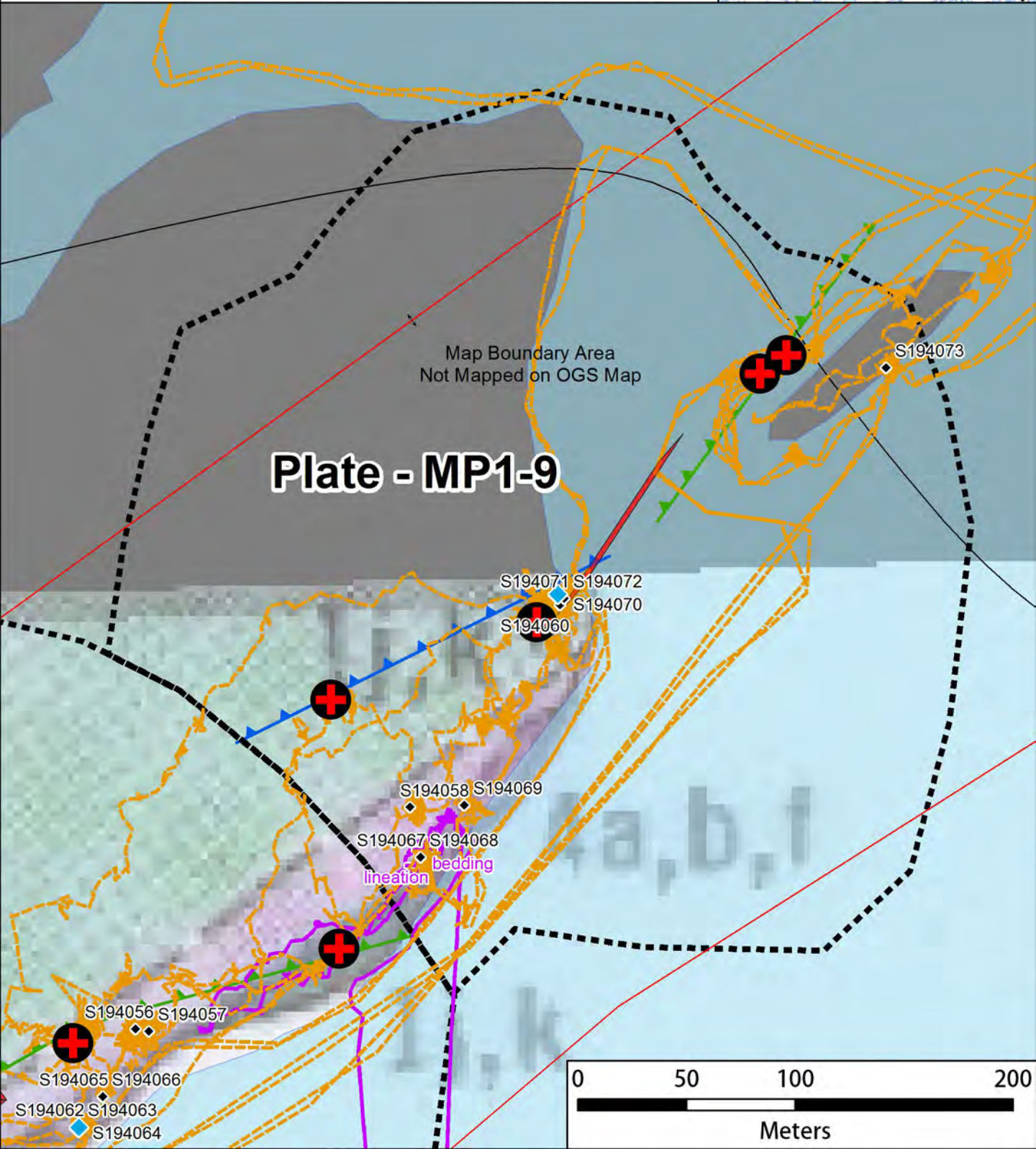
# VTEM Anomaly 9 Area

Plate 9  
Line-Profile LM-TDEM Anomalies

with OGS Geology, GSC Structure, Klipfel Interp.



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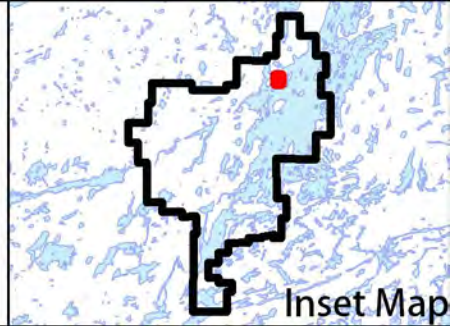




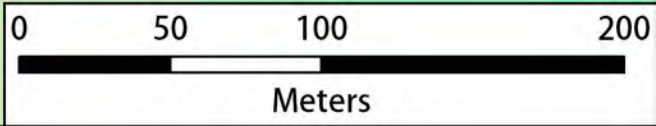
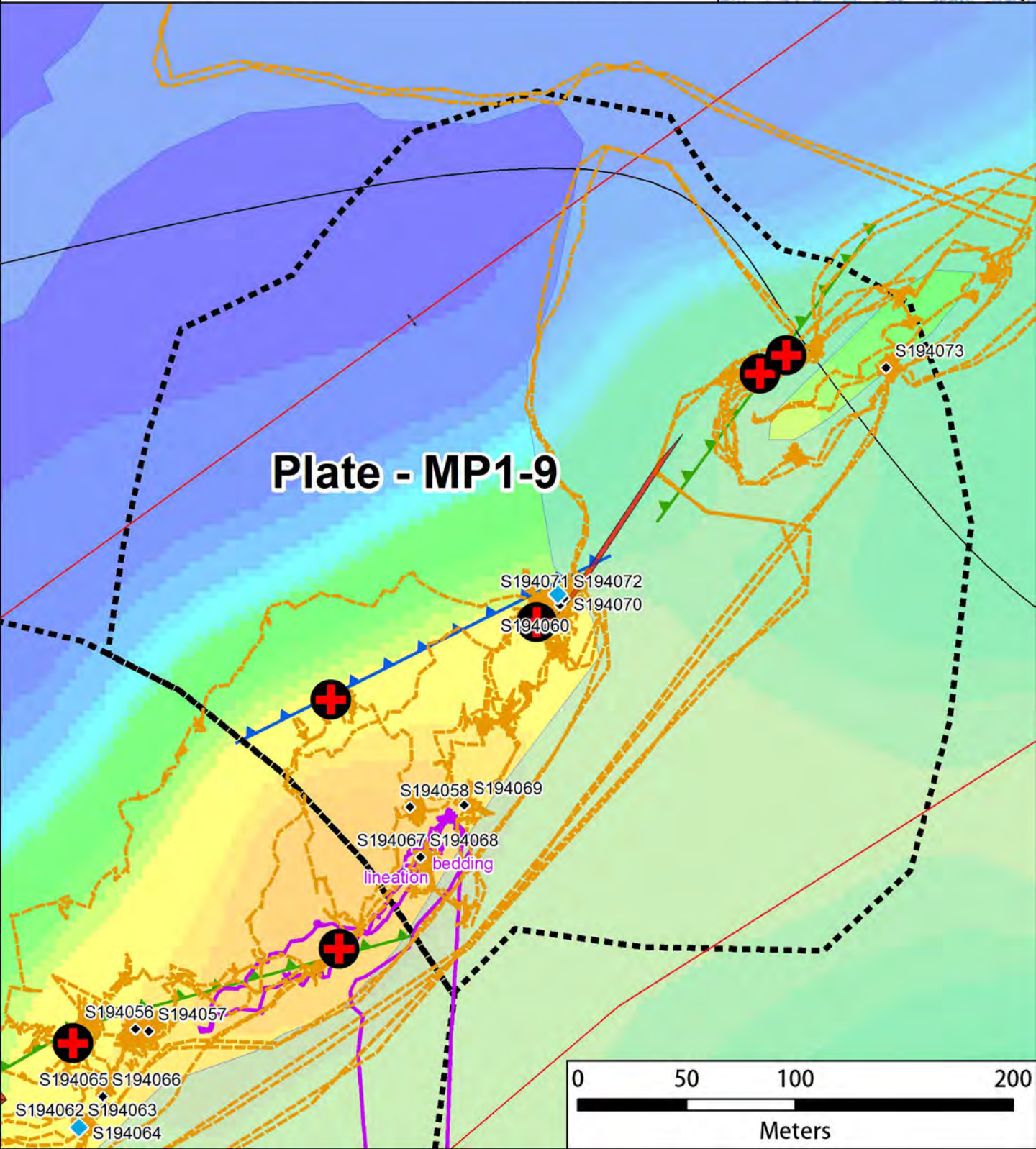
# VTEM Anomaly 9 Area

Plate 9  
Line-Profile LM-TDEM Anomalies

with TMI, GSC Structure, Klipfel Interp.



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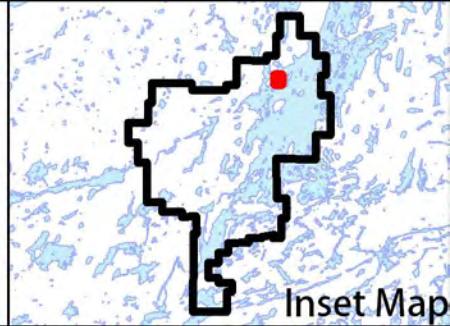




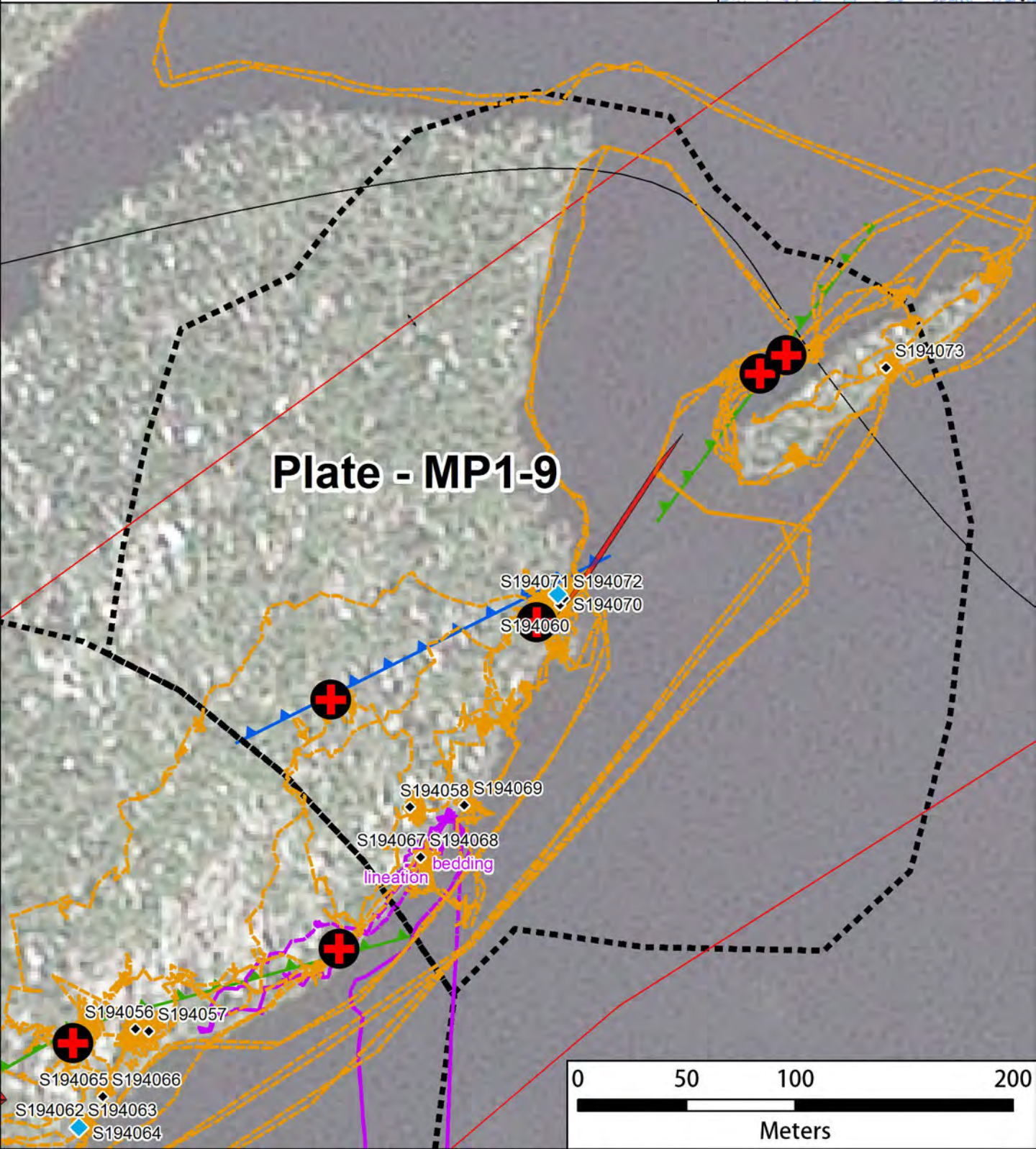
# VTEM Anomaly 9 Area

Plate 9  
Line-Profile LM-TDEM Anomalies

with Imagery, GSC Structure, Klipfel Interp.



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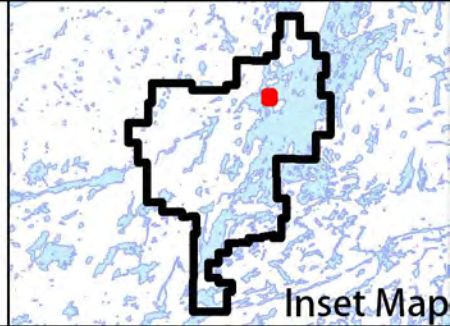




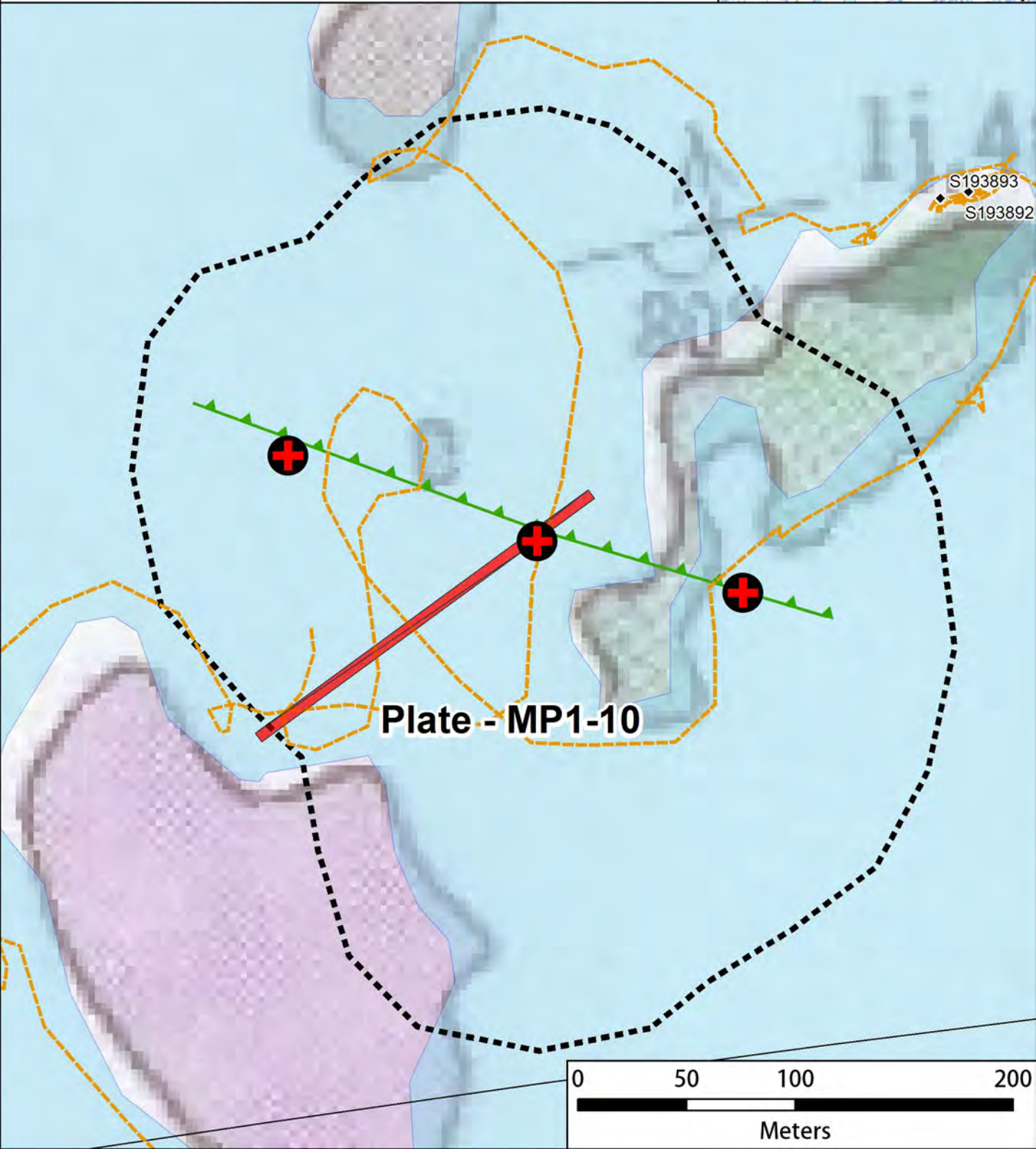
# VTEM Anomaly 10 Area

Plate 10  
Line-Profile LM-TDEM Anomalies

with OGS Geology, GSC Structure, Klipfel Interp.



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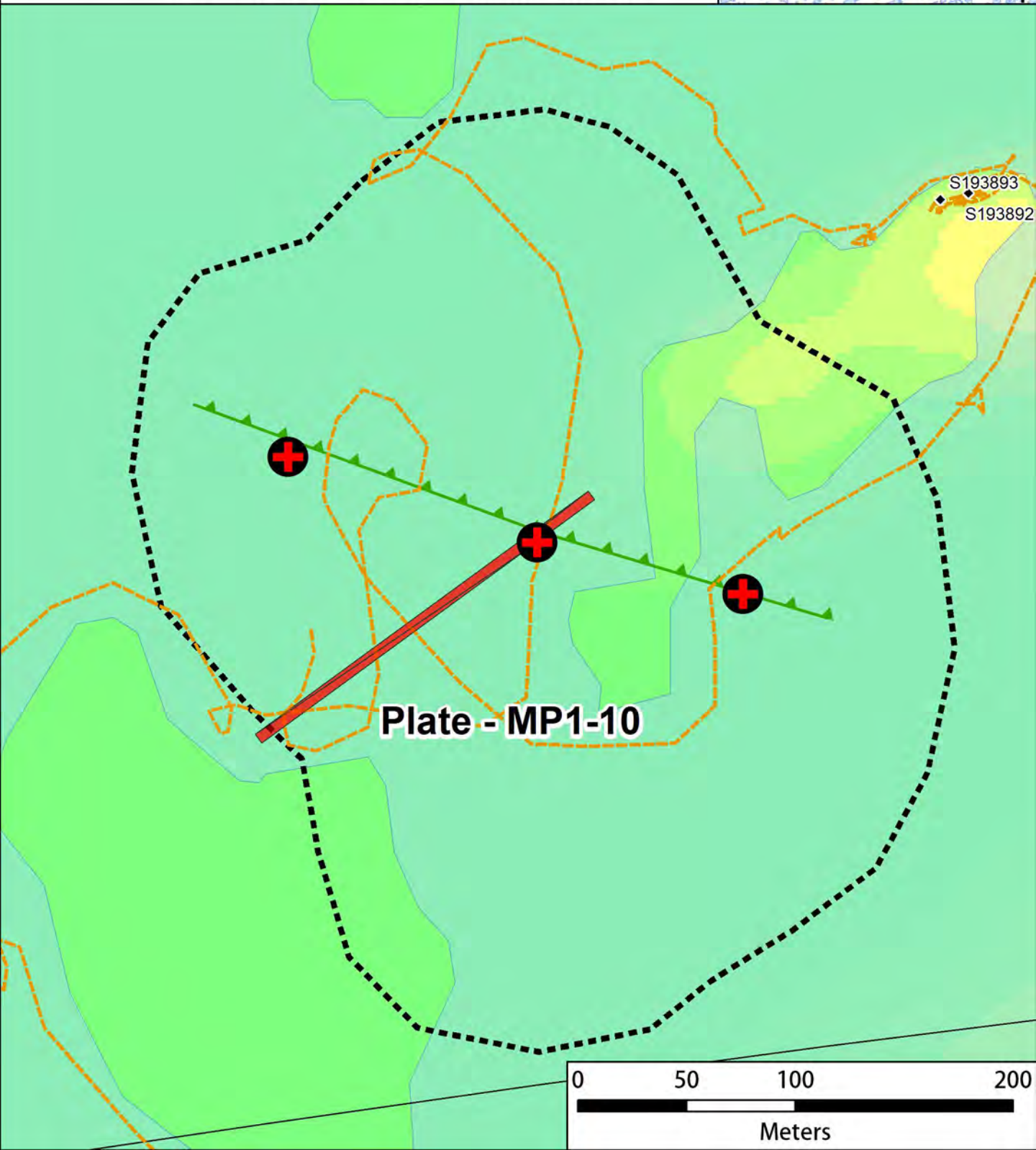
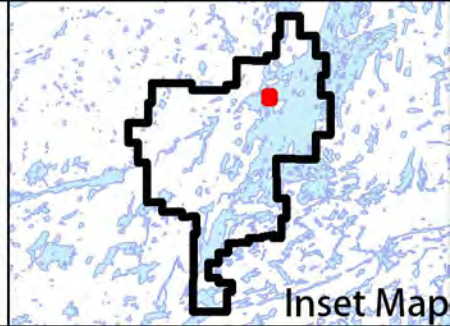


# VTEM Anomaly 10 Area

Plate 10

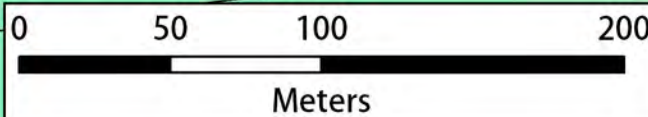
Line-Profile LM-TDEM Anomalies

with TMI, GSC Structure, Klipfel Interp.



S193893  
S193892

**Plate - MP1-10**

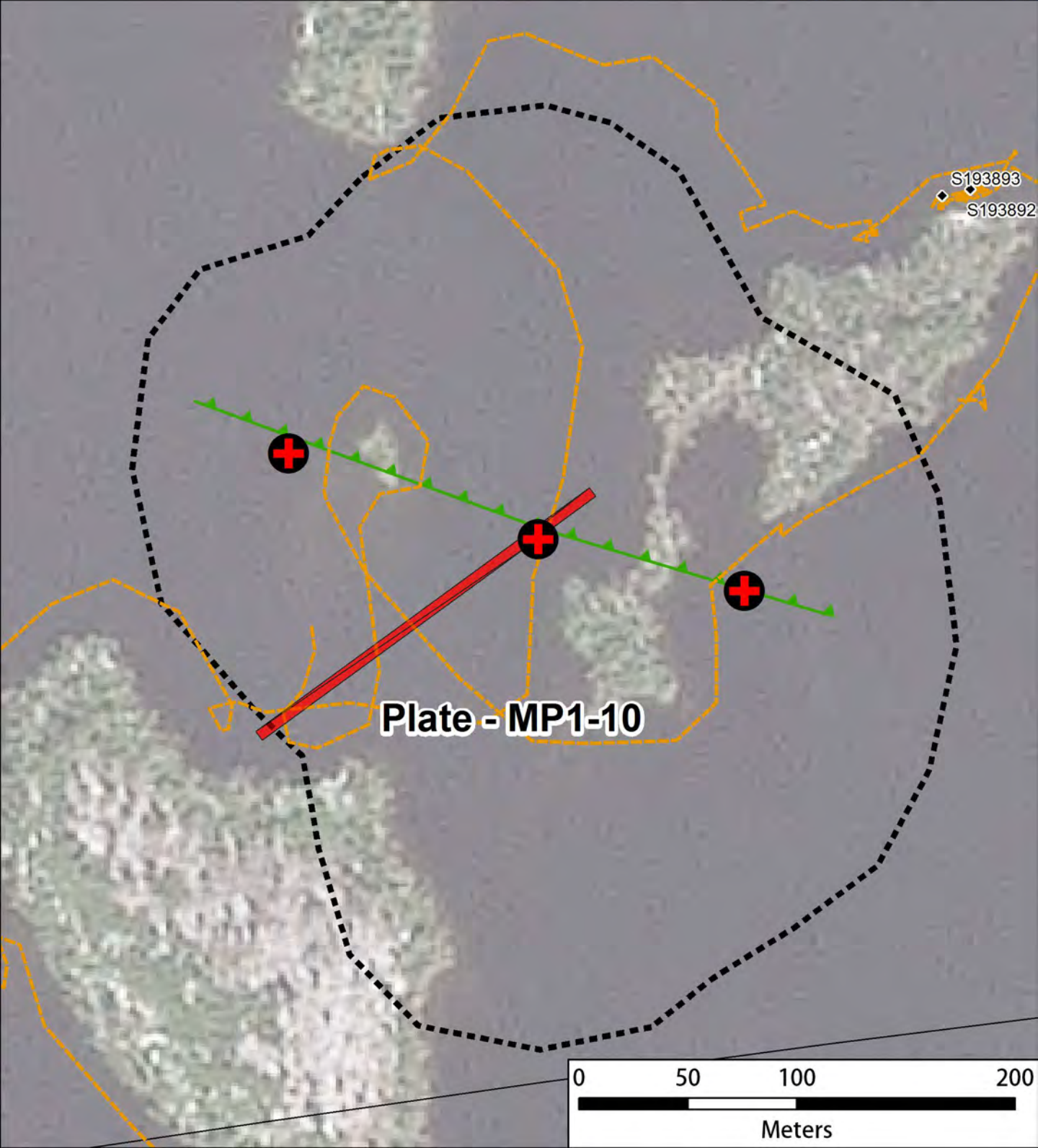
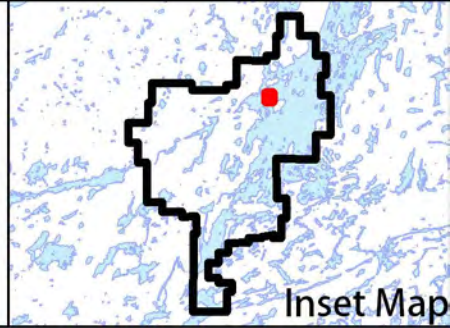




# VTEM Anomaly 10 Area

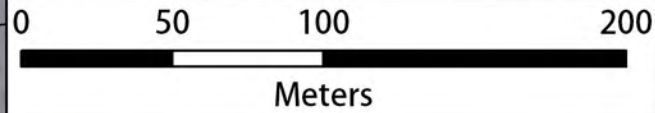
Plate 10  
Line-Profile LM-TDEM Anomalies

with Imagery, GSC Structure, Klipfel Interp.



S193893  
S193892

**Plate - MP1-10**

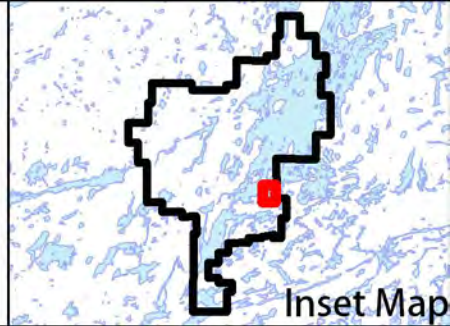




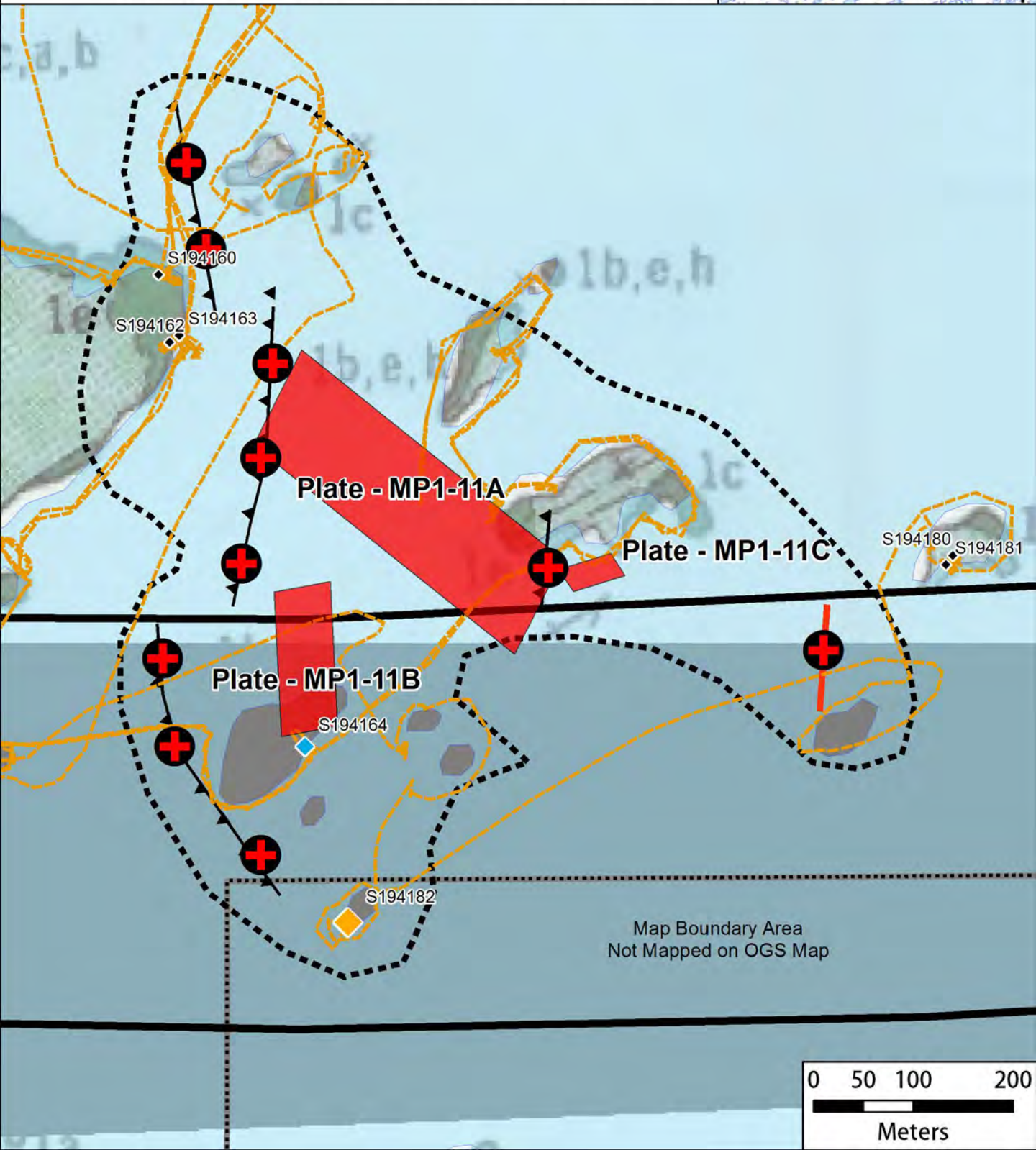
# VTEM Anomaly 11 Area

Plates 11A, 11B and 11C  
Line-Profile LM-TDEM Anomalies

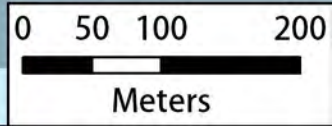
with OGS Geology, GSC Structure, Klipfel Interp.



Inset Map



Map Boundary Area  
Not Mapped on OGS Map

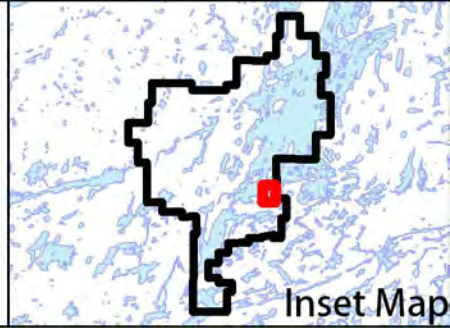




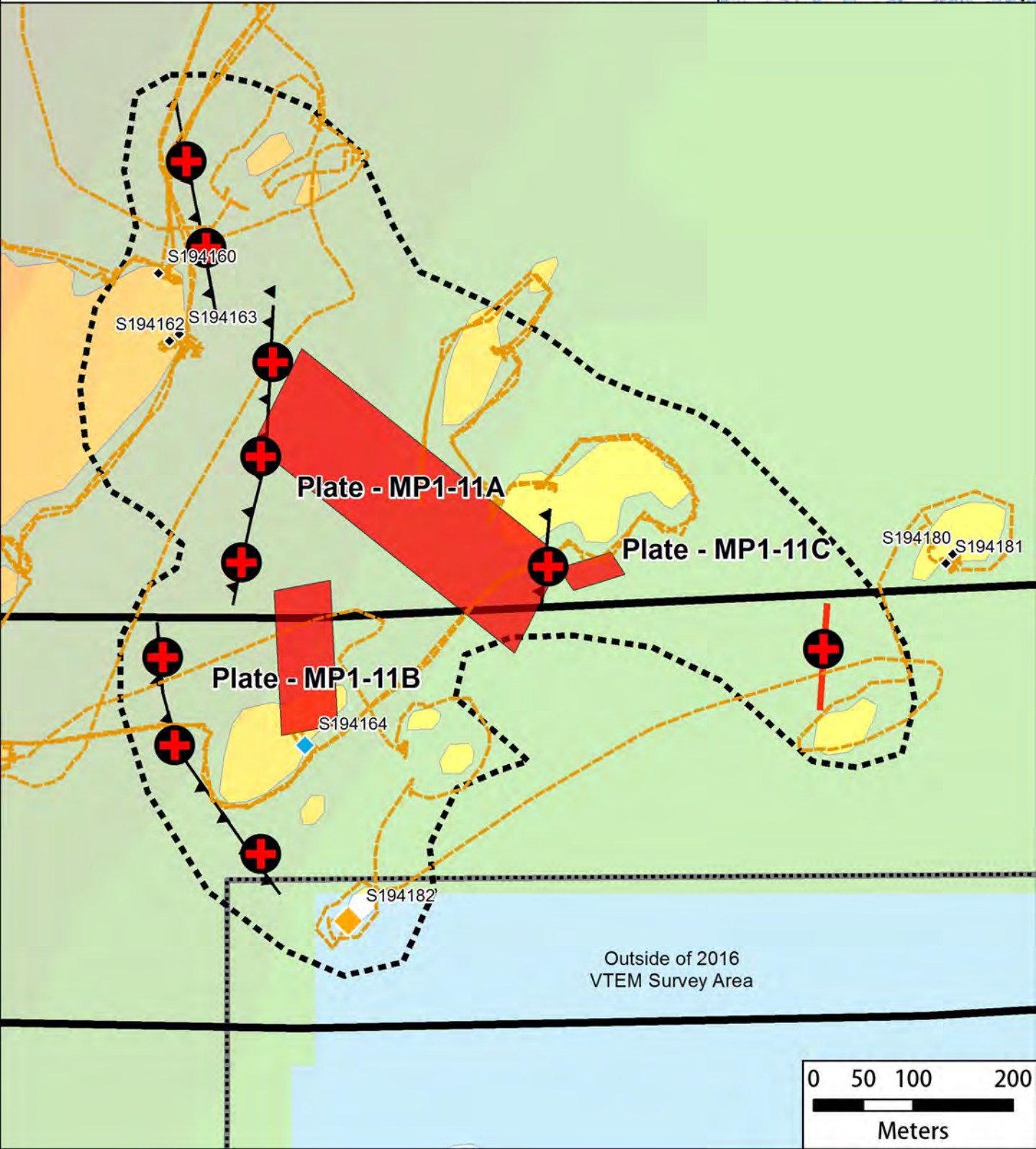
# VTEM Anomaly 11 Area

Plates 11A, 11B and 11C  
Line-Profile LM-TDEM Anomalies

with TMI, GSC Structure, Klipfel Interp.



Inset Map

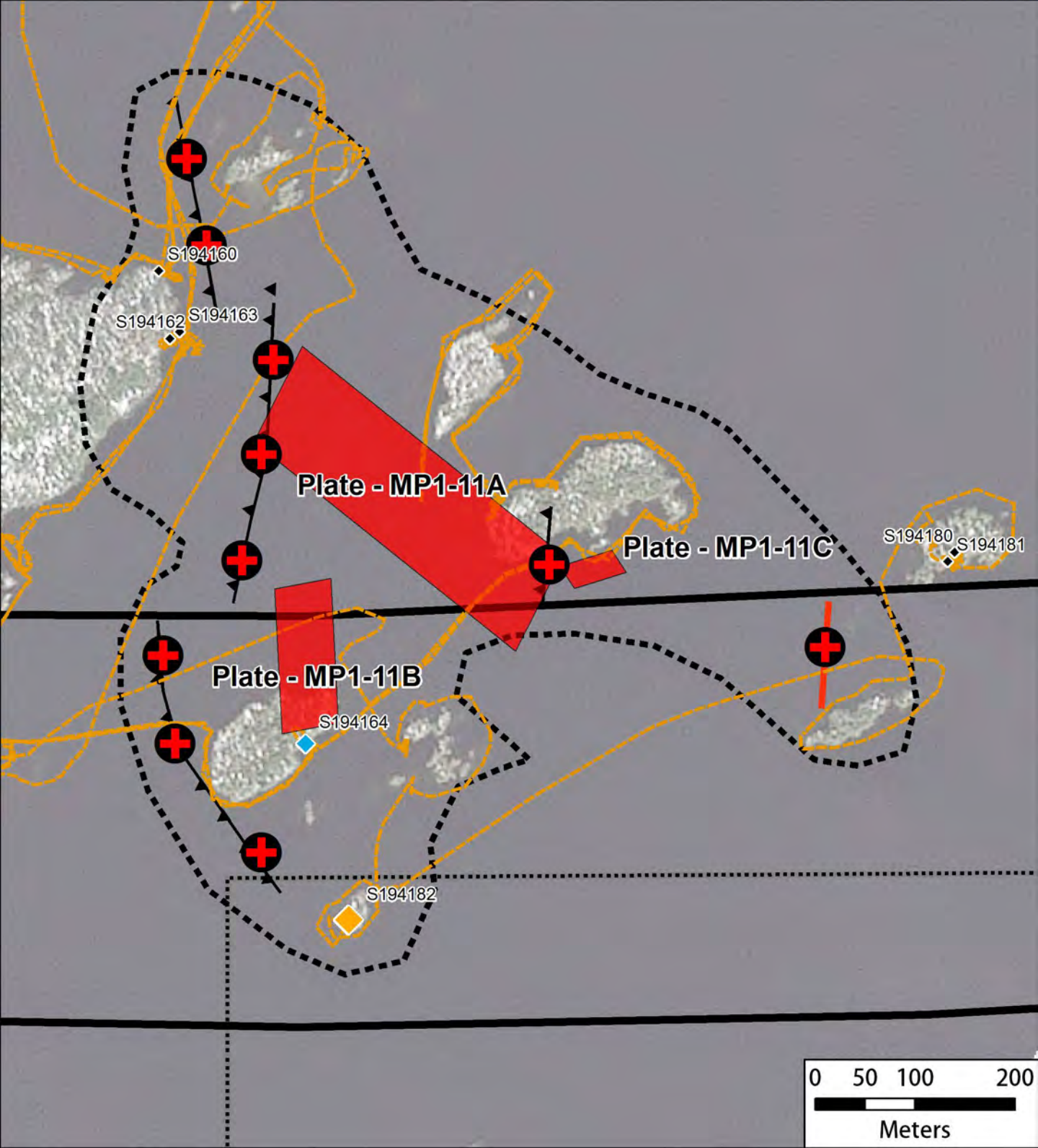
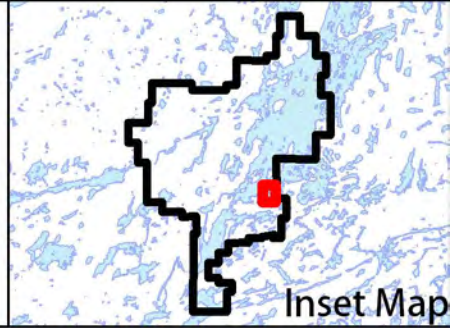




# VTEM Anomaly 11 Area

Plates 11A, 11B and 11C  
Line-Profile LM-TDEM Anomalies

with Imagery, GSC Structure, Klipfel Interp.

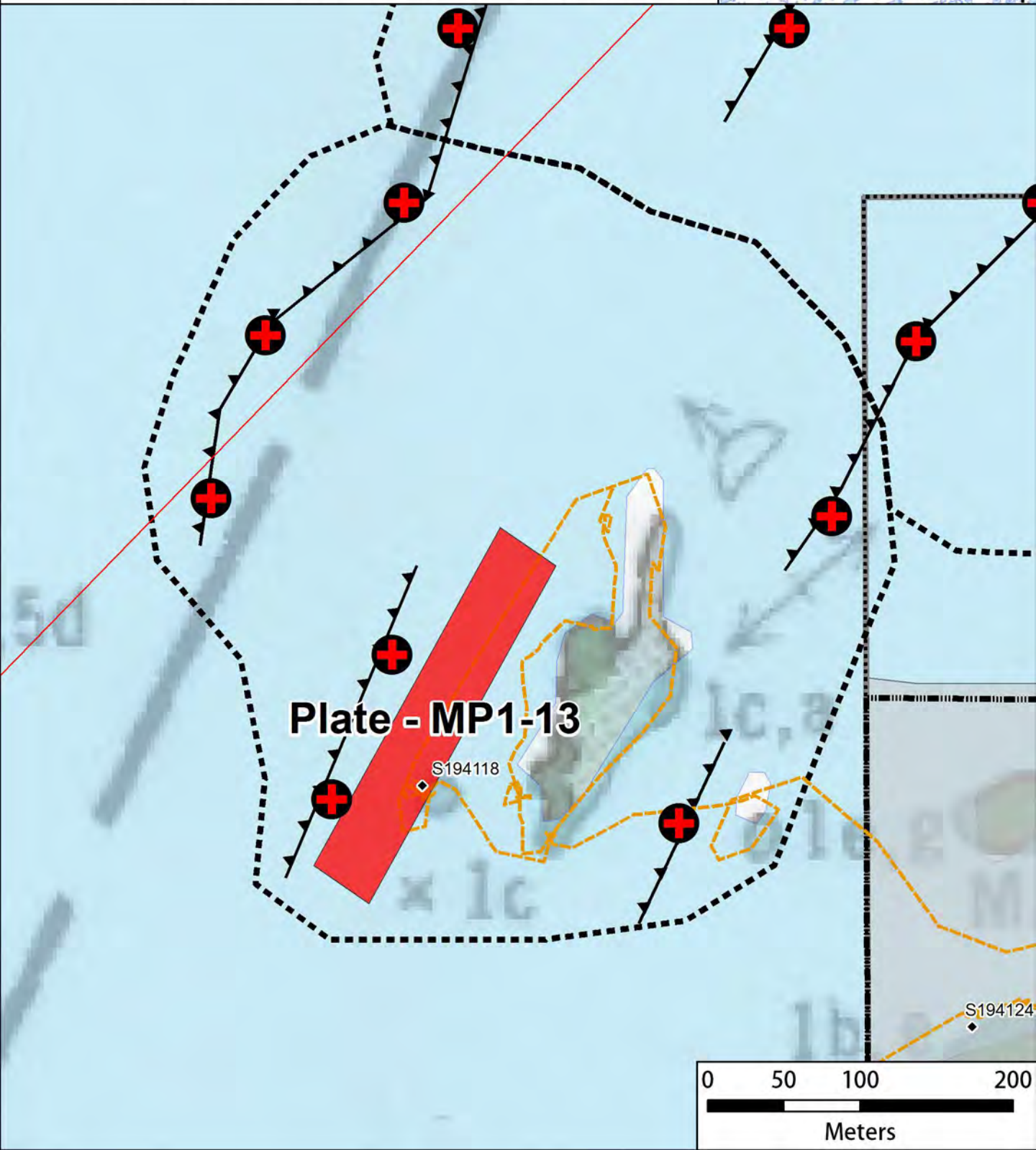




# VTEM Anomaly 13 Area

Plate 13  
Line-Profile LM-TDEM Anomalies

with OGS Geology, GSC Structure, Klipfel Interp.

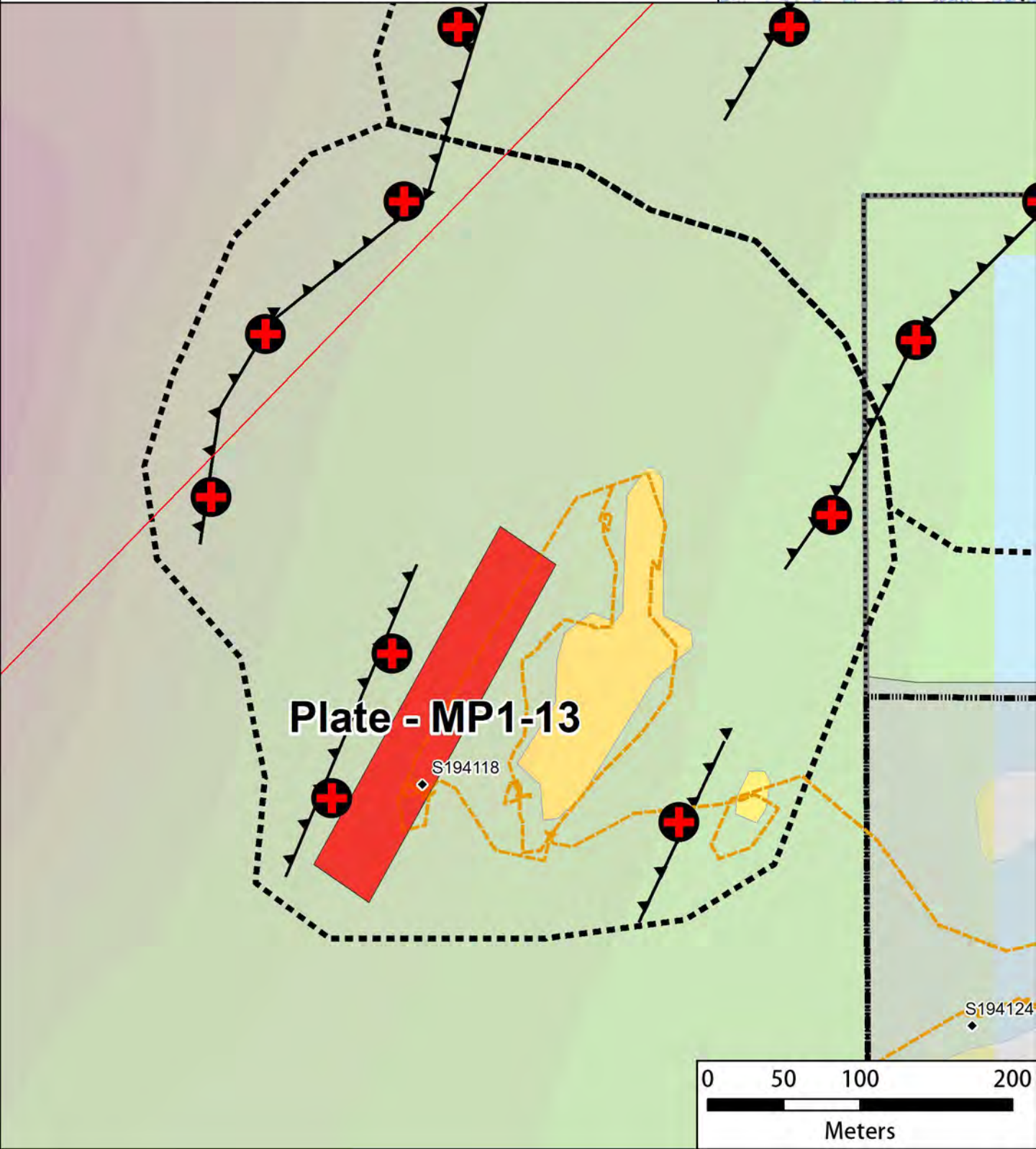
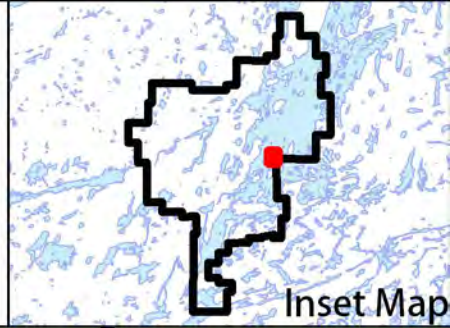




# VTEM Anomaly 13 Area

Plate 13  
Line-Profile LM-TDEM Anomalies

with TMI, GSC Structure, Klipfel Interp.

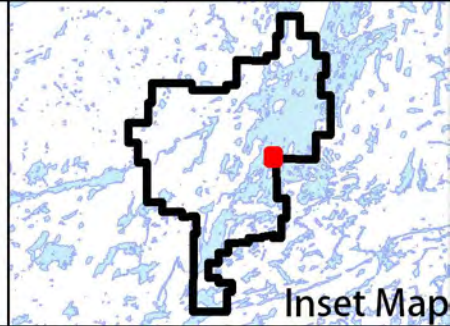




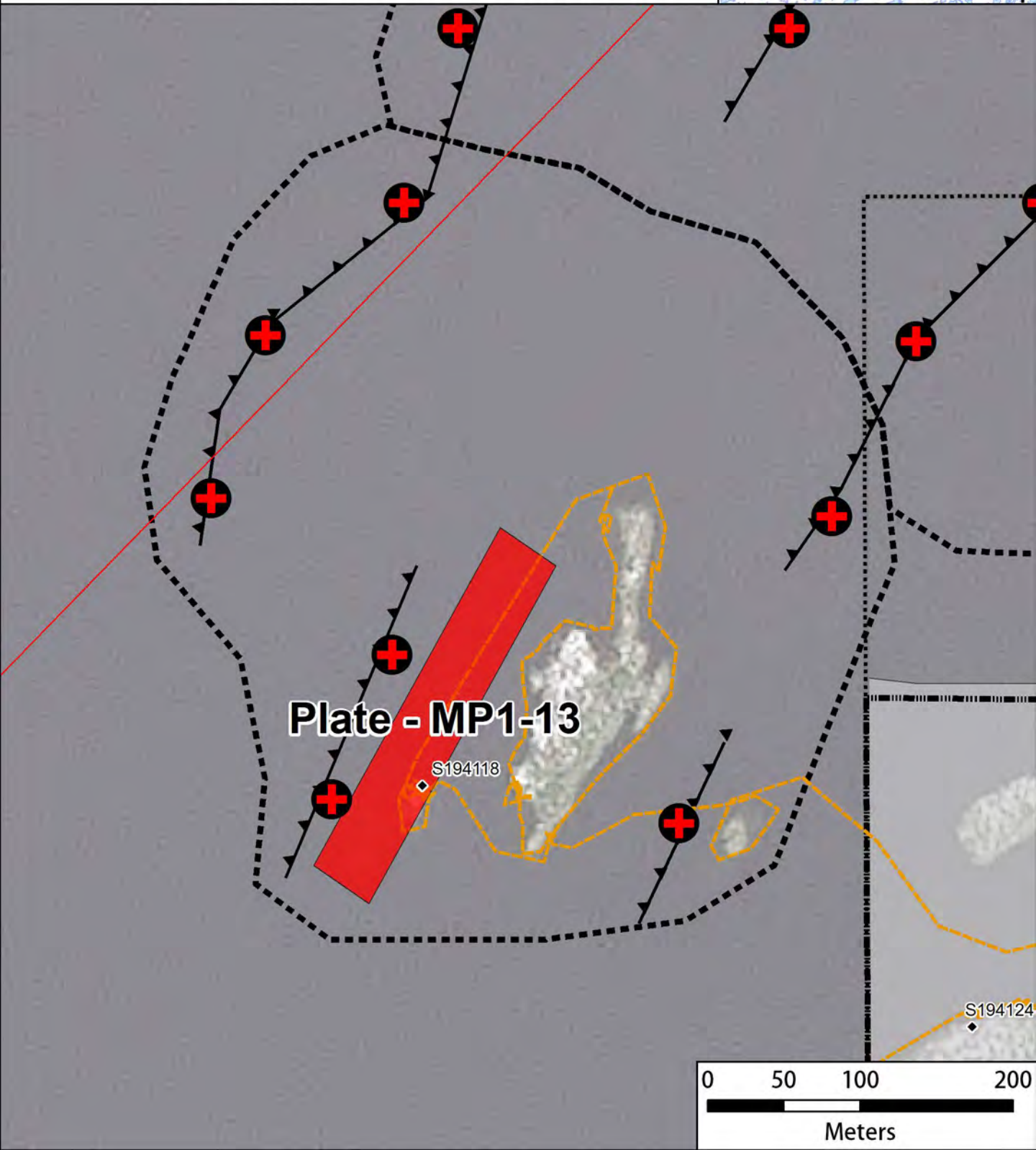
# VTEM Anomaly 13 Area

Plate 13  
Line-Profile LM-TDEM Anomalies

with Imagery, GSC Structure, Klipfel Interp.



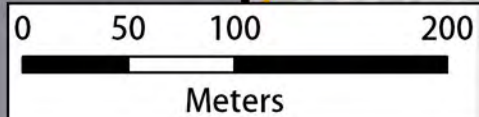
Inset Map



**Plate - MP1-13**

S194118

S194124

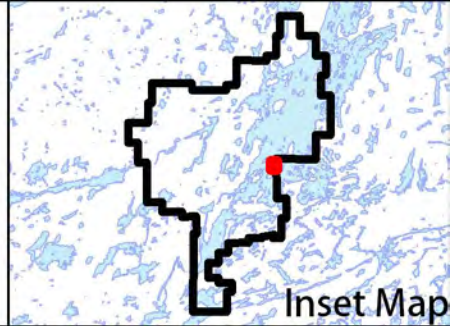




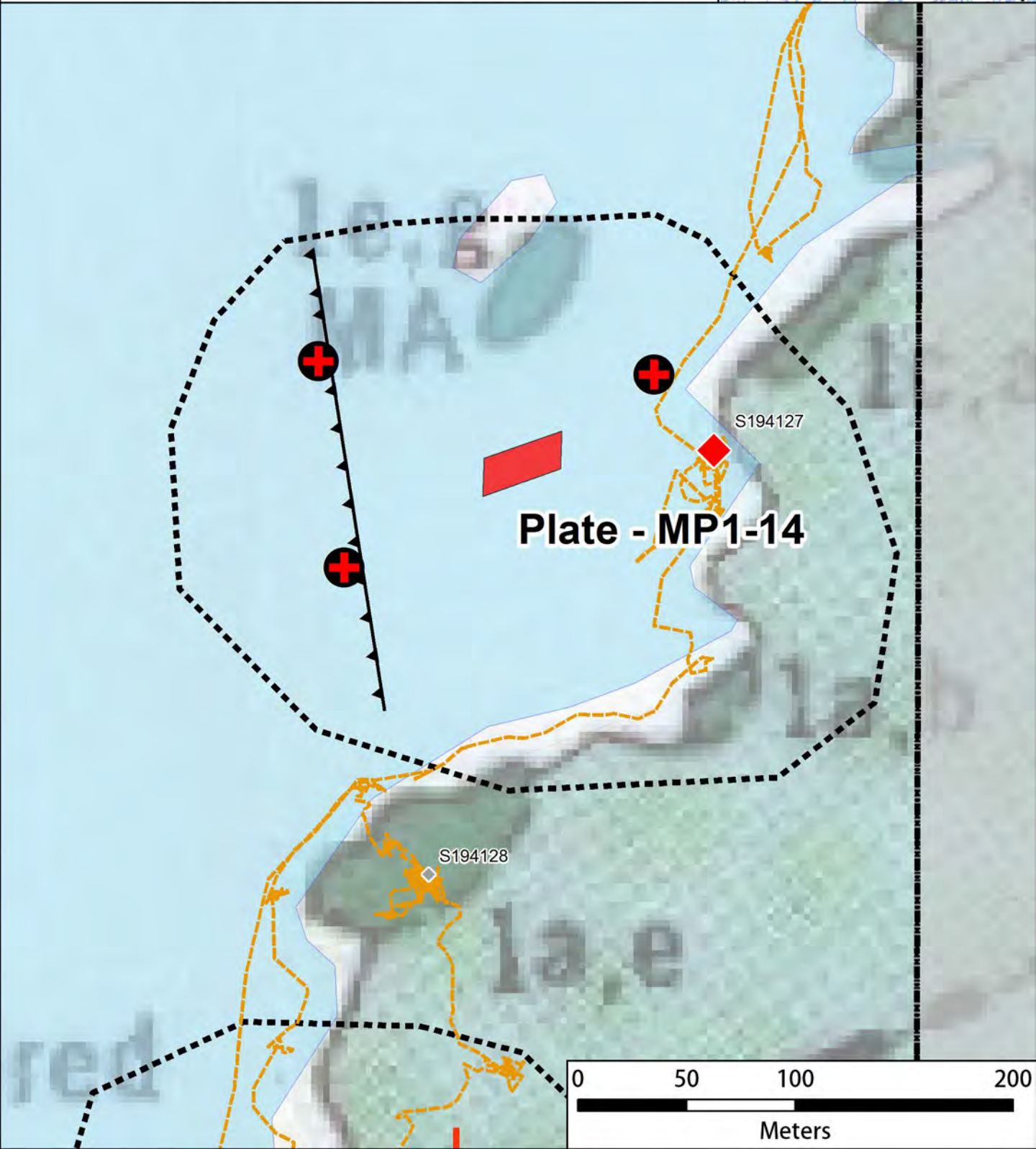
# VTEM Anomaly 14 Area

Plate 14  
Line-Profile LM-TDEM Anomalies

with OGS Geology, GSC Structure, Klipfel Interp.



Inset Map

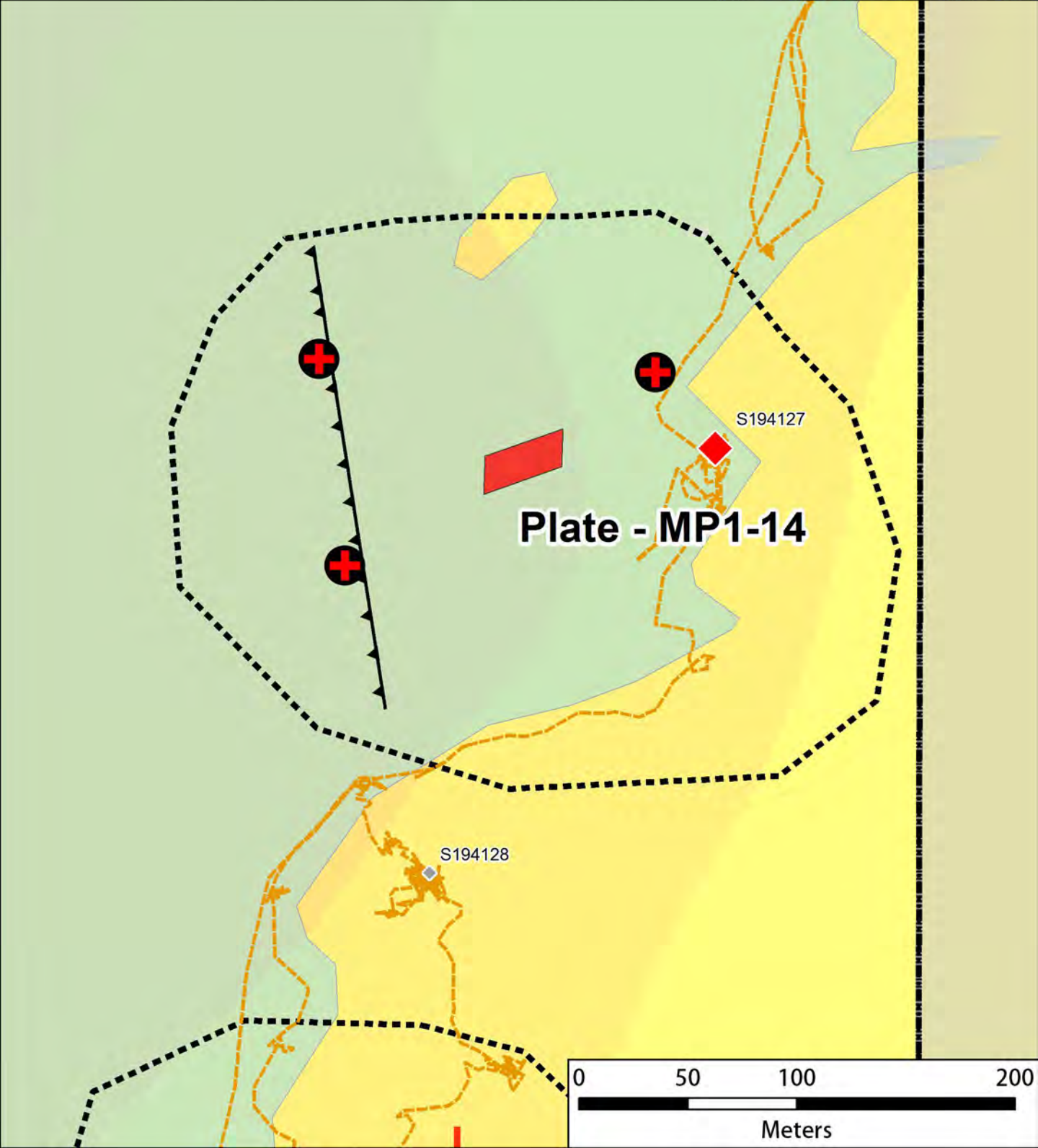
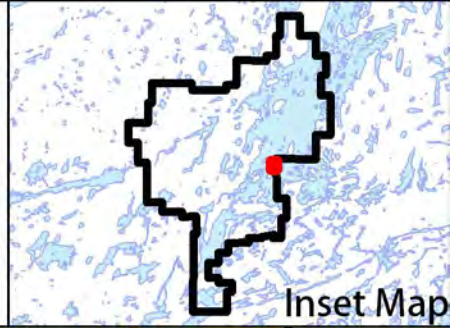




# VTEM Anomaly 14 Area

Plate 14  
Line-Profile LM-TDEM Anomalies

with TMI, GSC Structure, Klipfel Interp.

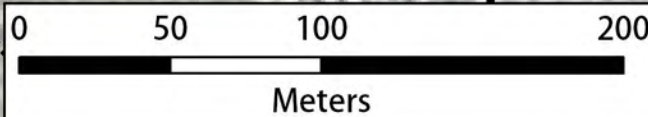
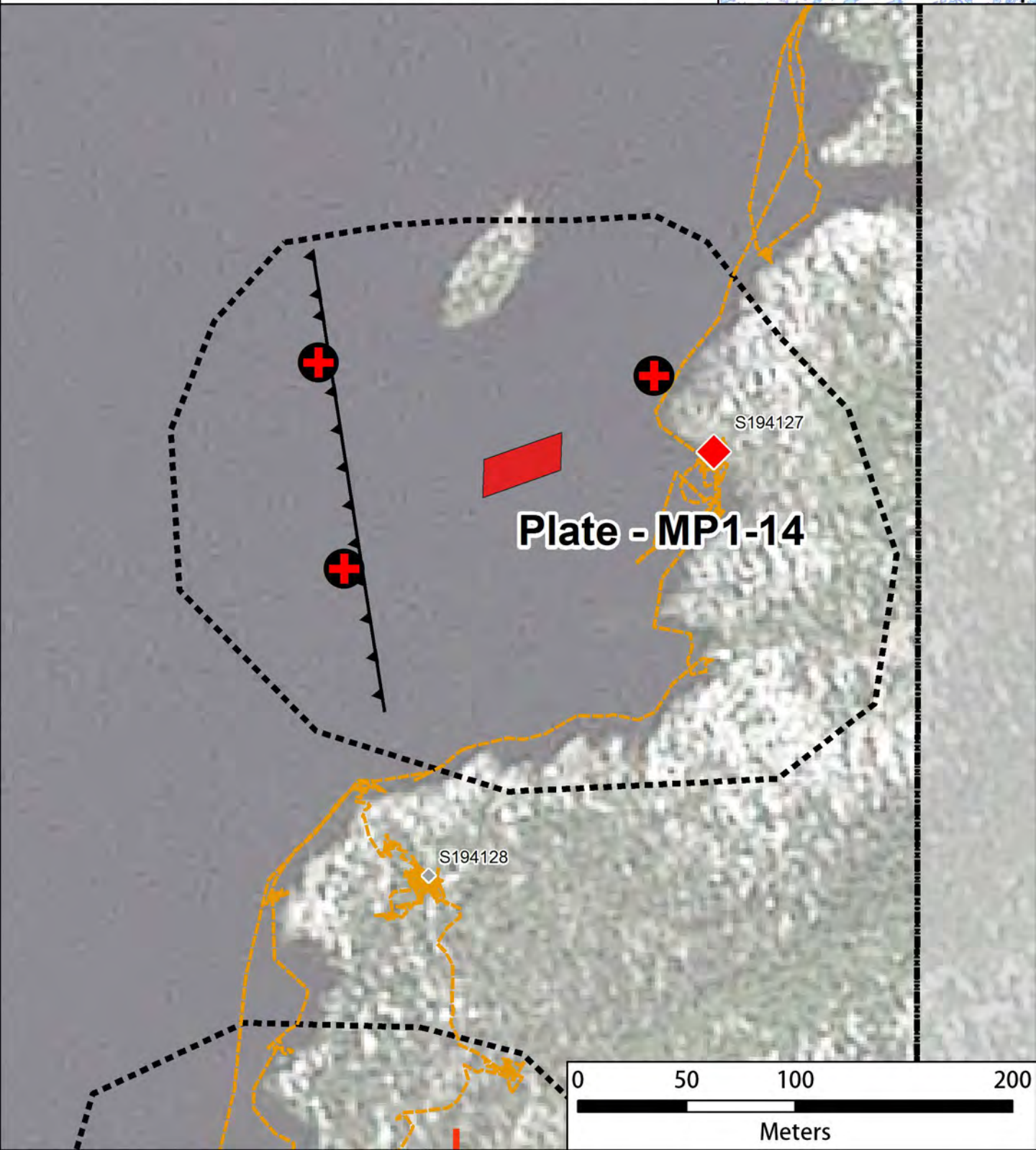
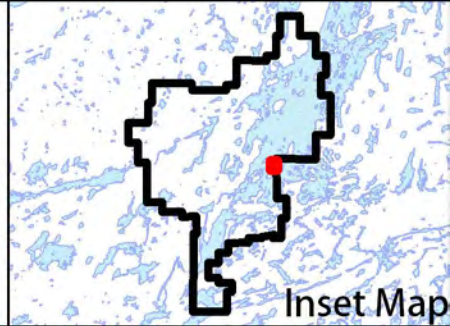




# VTEM Anomaly 14 Area

Plate 14  
Line-Profile LM-TDEM Anomalies

with Imagery, GSC Structure, Klipfel Interp.





# VTEM Anomaly 15 Area

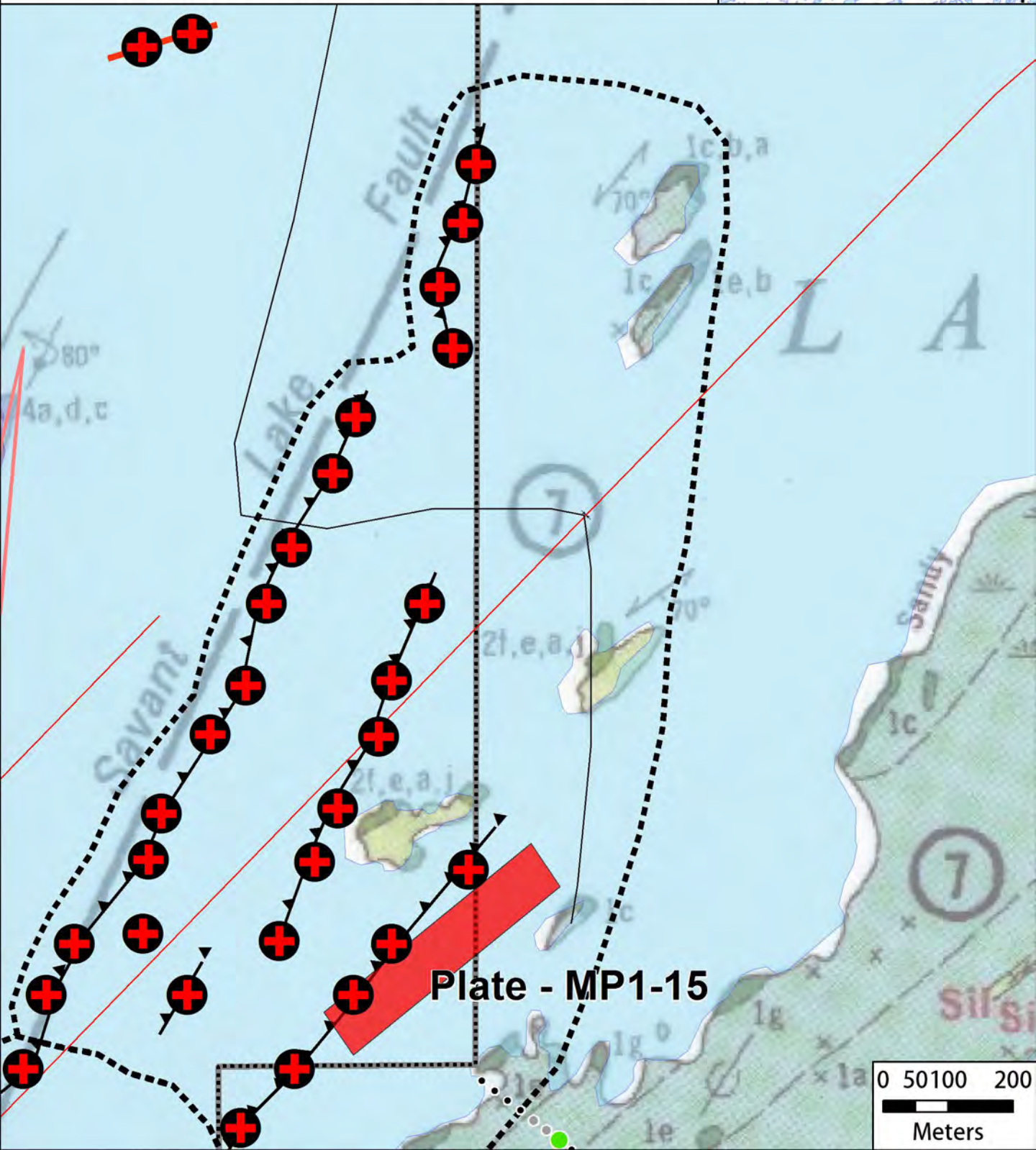
## Plate 15

### Line-Profile LM-TDEM Anomalies

with OGS Geology, GSC Structure, Klipfel Interp.



Inset Map





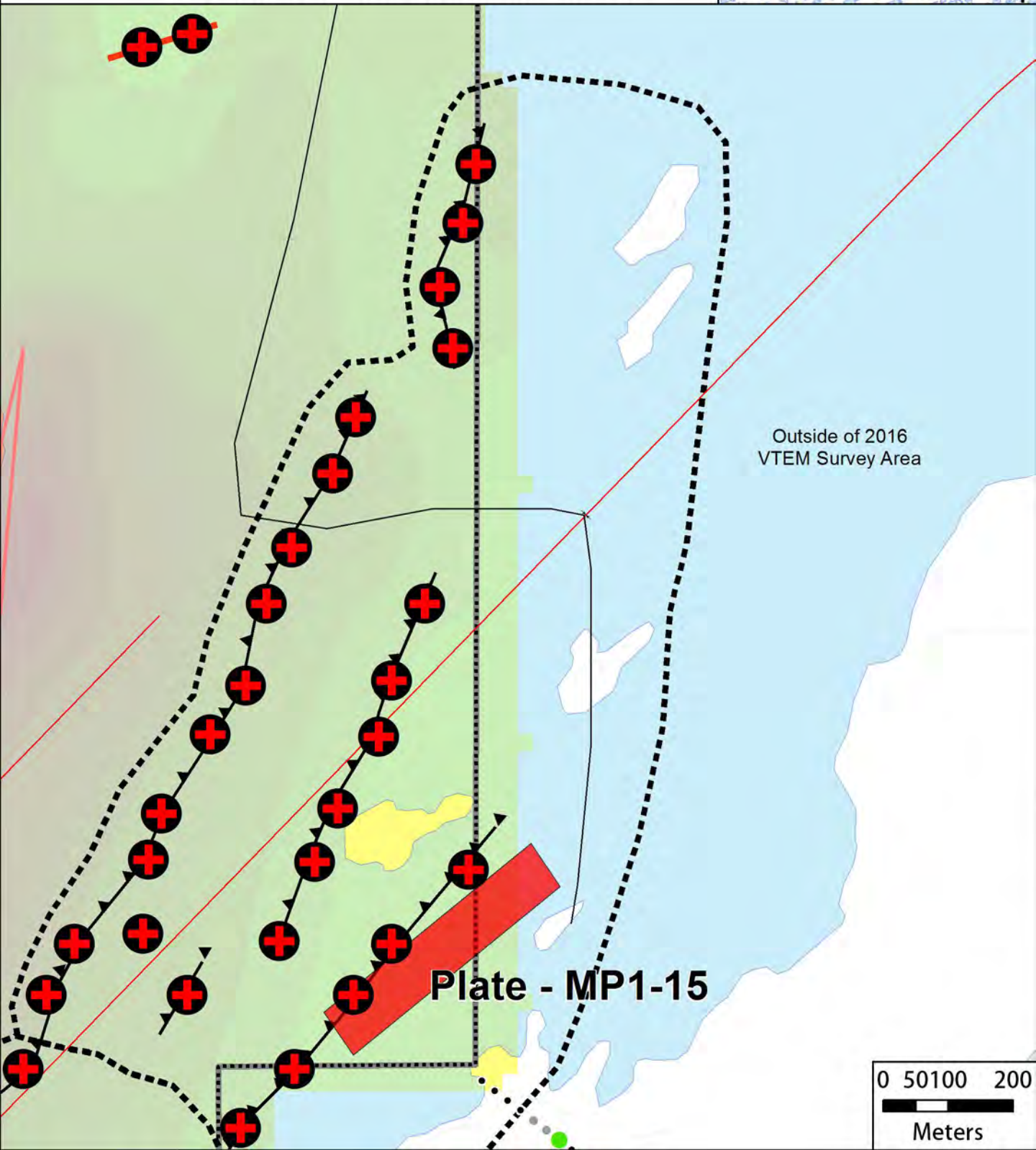
# VTEM Anomaly 15 Area

Plate 15  
Line-Profile LM-TDEM Anomalies

with TMI, GSC Structure, Klipfel Interp.



Inset Map



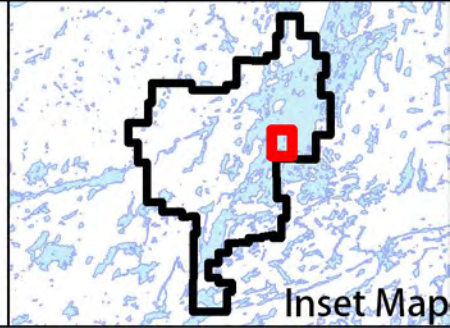


# VTEM Anomaly 15 Area

## Plate 15

### Line-Profile LM-TDEM Anomalies

with Imagery, GSC Structure, Klipfel Interp.



Inset Map

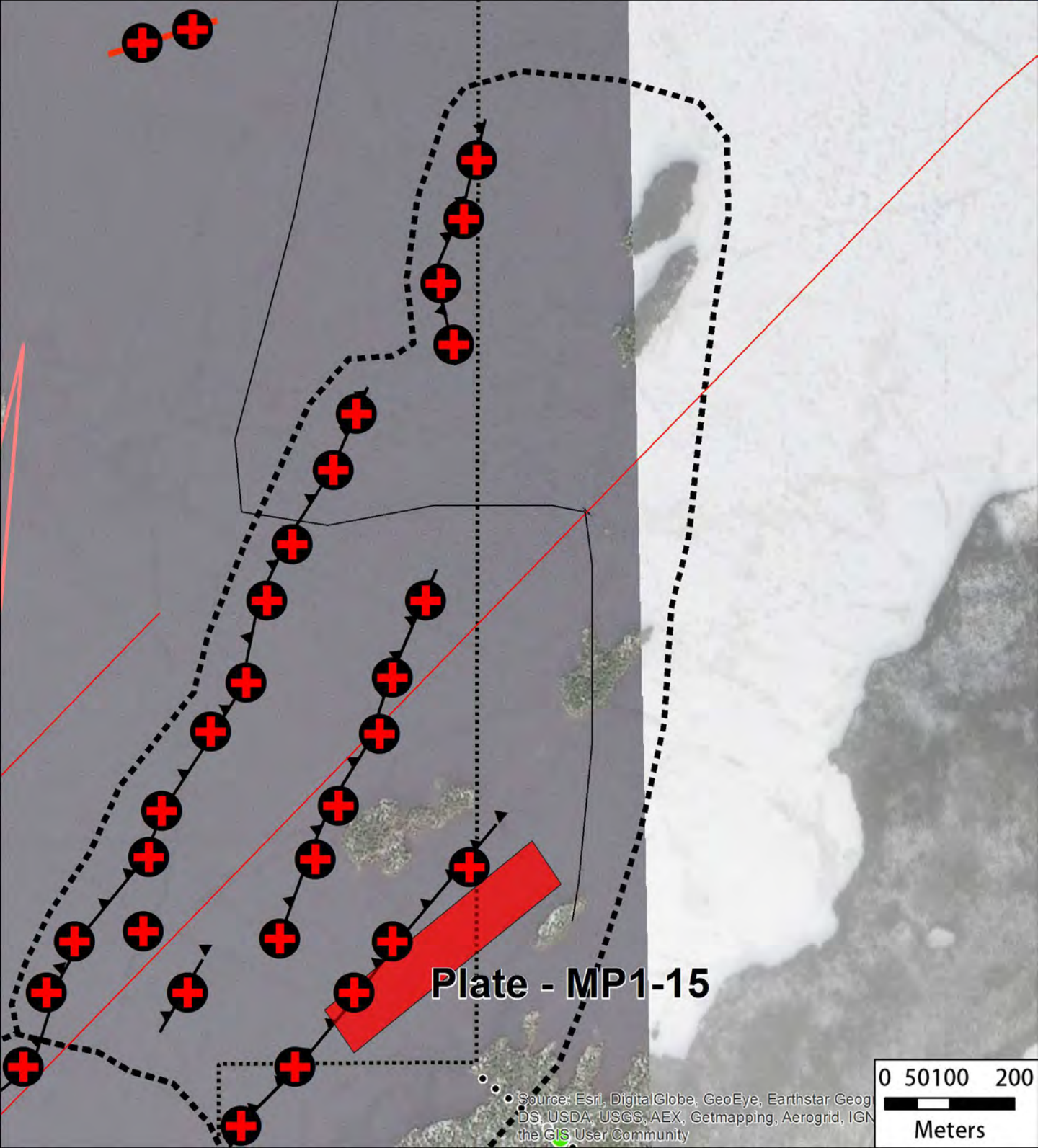
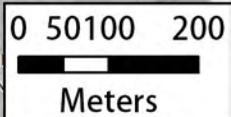


Plate - MP1-15



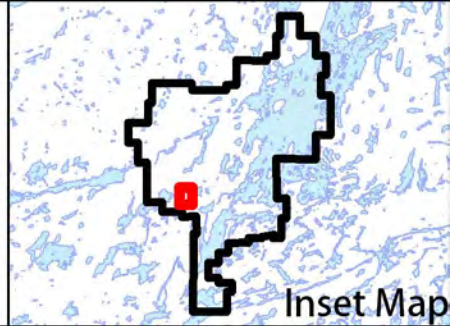
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, USGS, USDA, AEX, Getmapping, Aerogrid, IGN, the GIS User Community



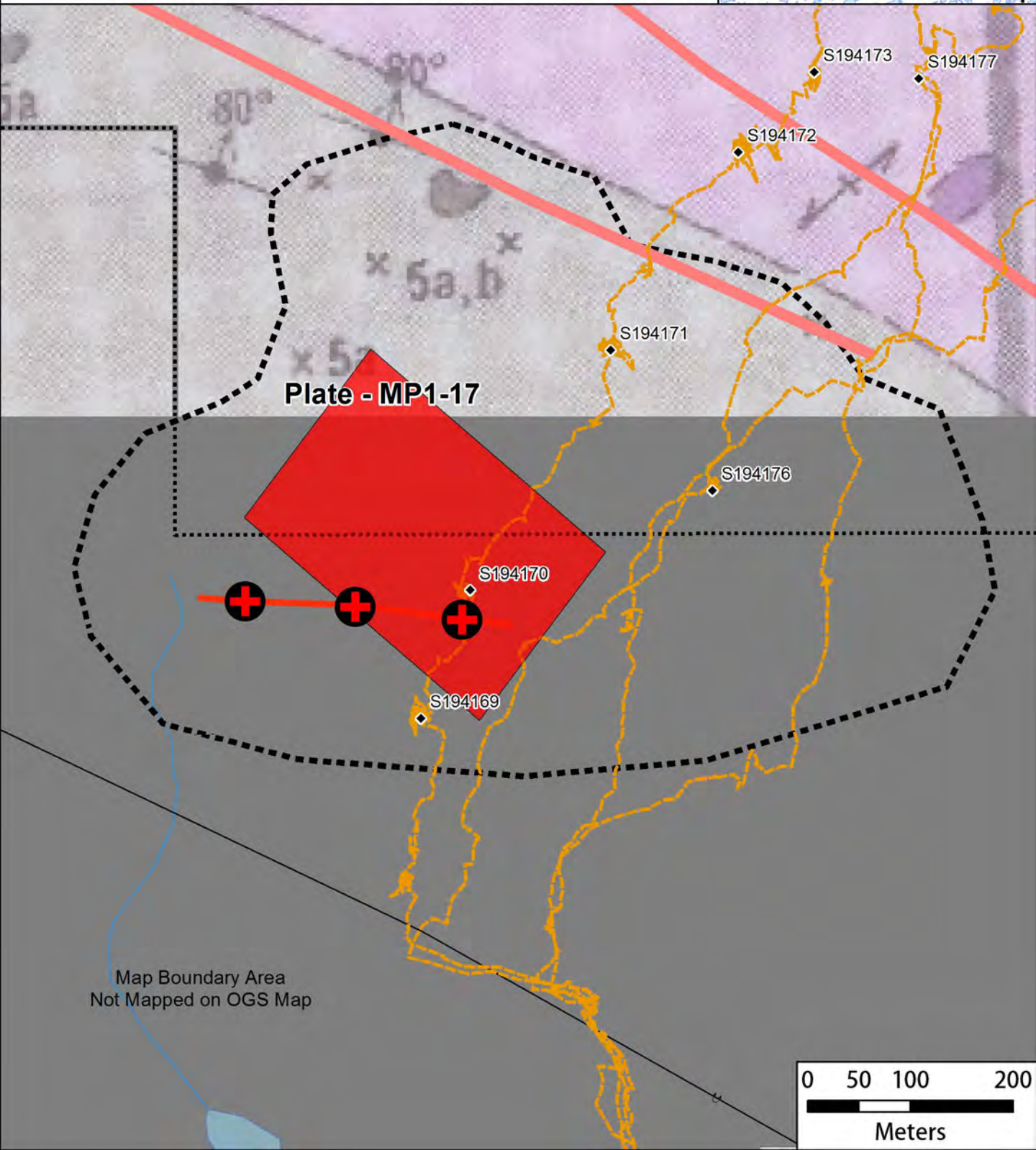
# VTEM Anomaly 17 Area

Plate 17  
Line-Profile LM-TDEM Anomalies

with OGS Geology, GSC Structure, Klipfel Interp.



Inset Map

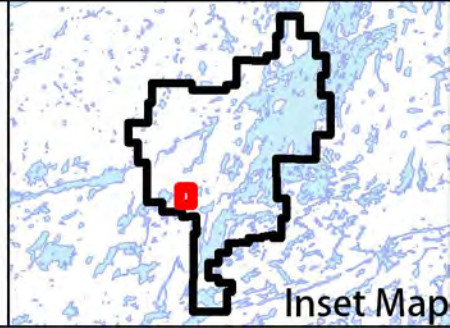




# VTEM Anomaly 17 Area

Plate 17  
Line-Profile LM-TDEM Anomalies

with TMI, GSC Structure, Klipfel Interp.



Inset Map

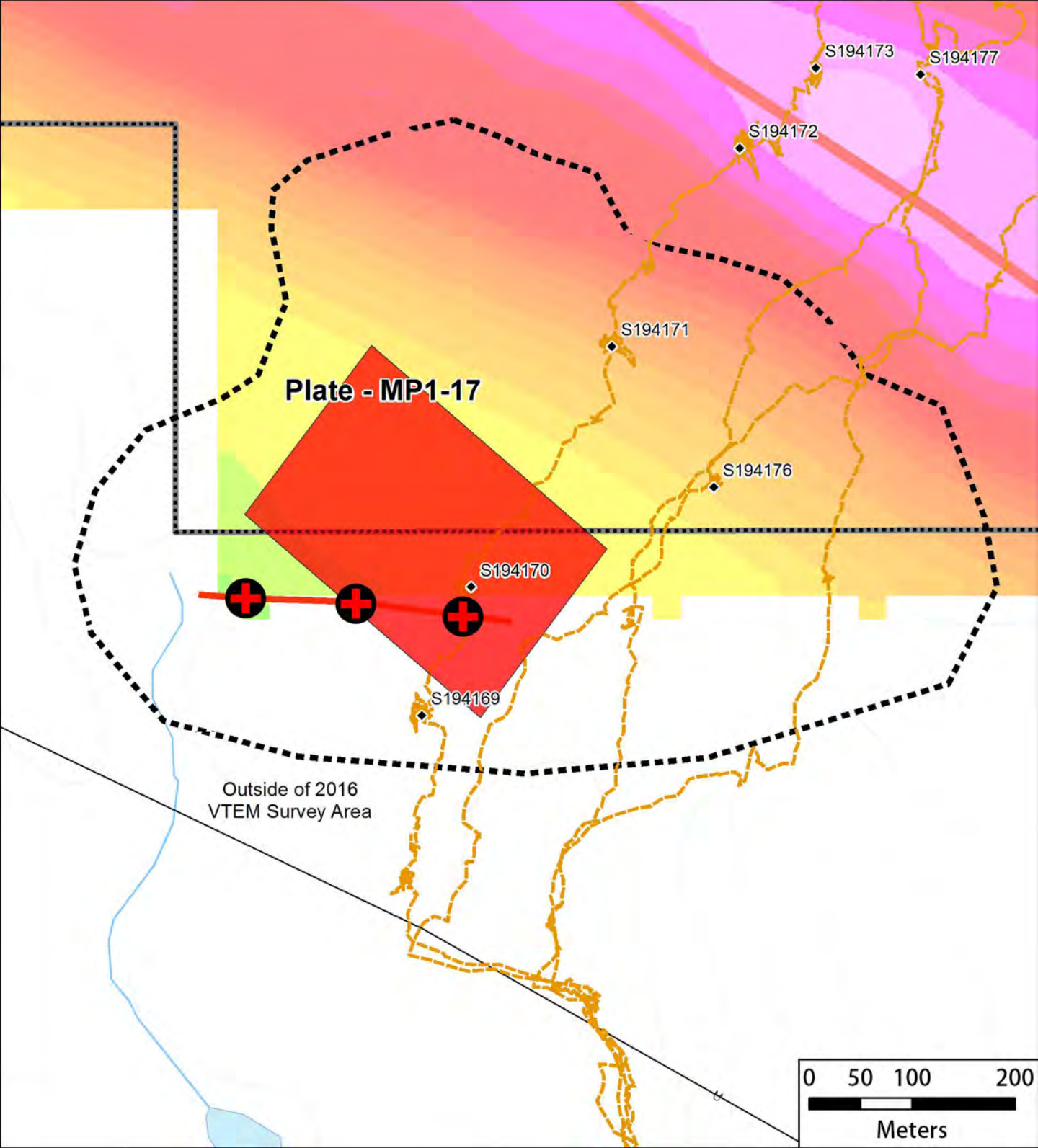


Plate - MP1-17

S194170

S194169

S194173

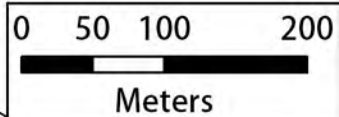
S194177

S194172

S194171

S194176

Outside of 2016  
VTEM Survey Area





# VTEM Anomaly 17 Area

Plate 17  
Line-Profile LM-TDEM Anomalies

with Imagery, GSC Structure, Klipfel Interp.



Inset Map

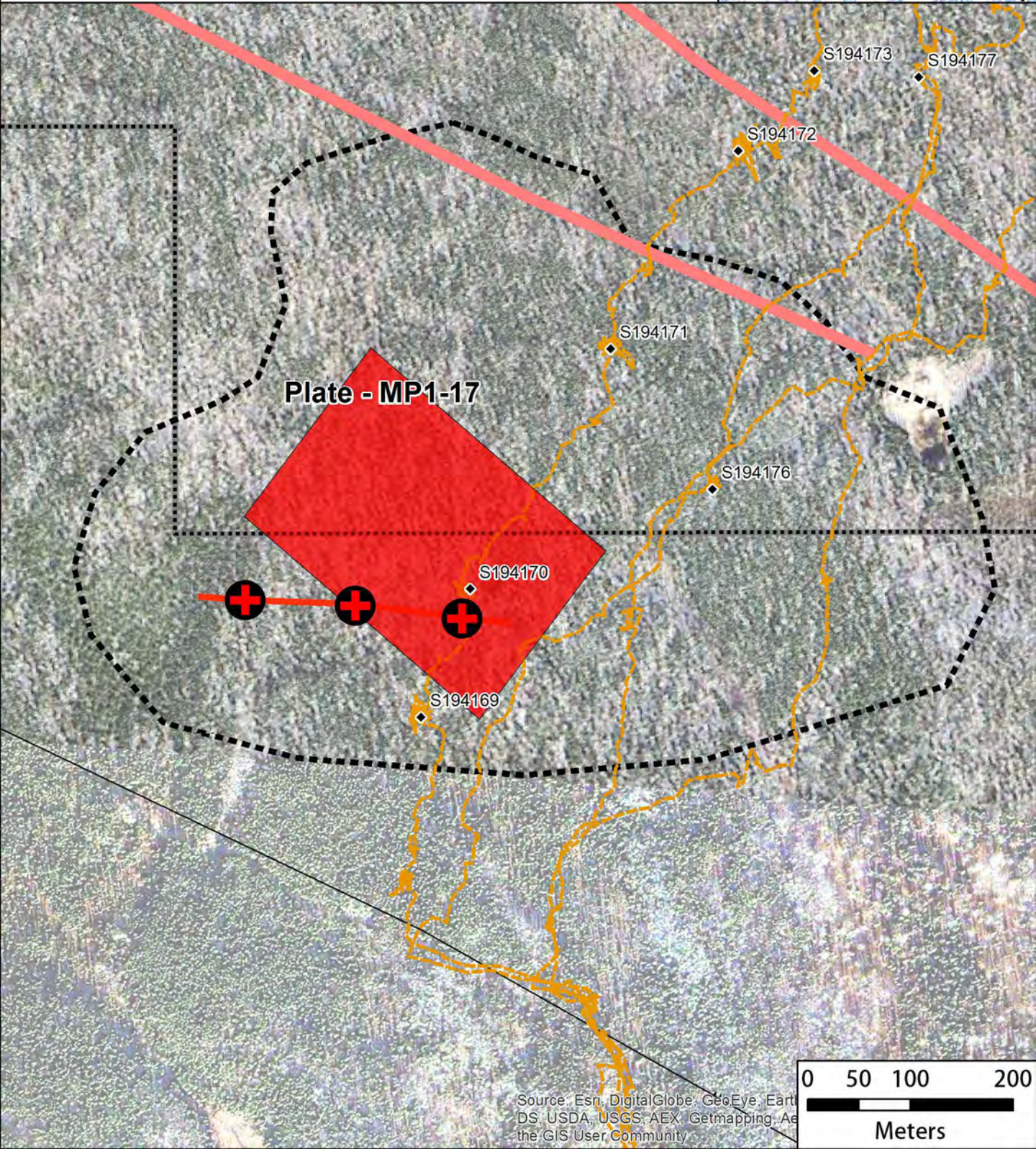


Plate - MP1-17

S194170

S194169

S194171

S194176

S194172

S194173

S194177

0 50 100 200

Meters

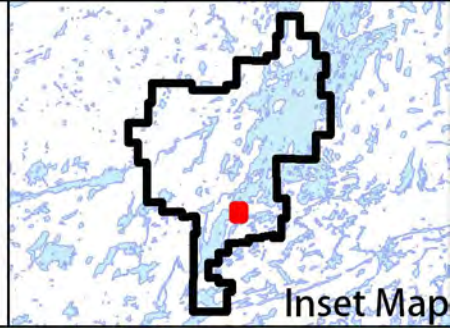
Source: Esri, DigitalGlobe, GeoEye, Earth  
DS, USDA, USGS, AEX, Getmapping, Aer  
the GIS User Community



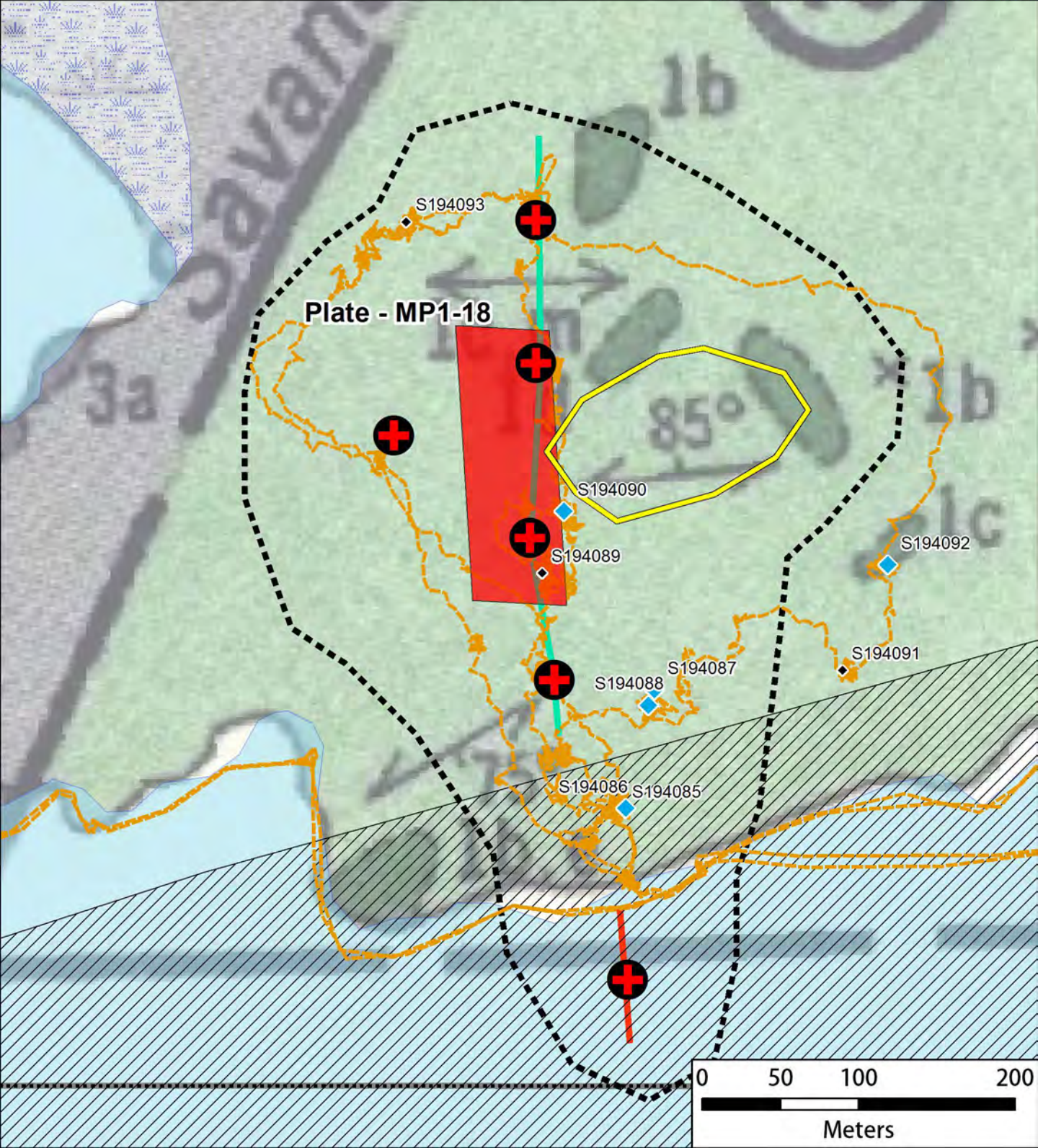
# VTEM Anomaly 18 Area

Plate 18  
Line-Profile LM-TDEM Anomalies

with OGS Geology, GSC Structure, Klipfel Interp.



Inset Map

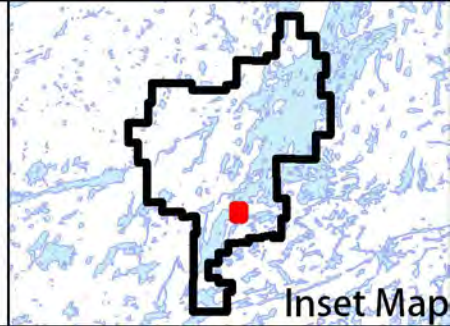




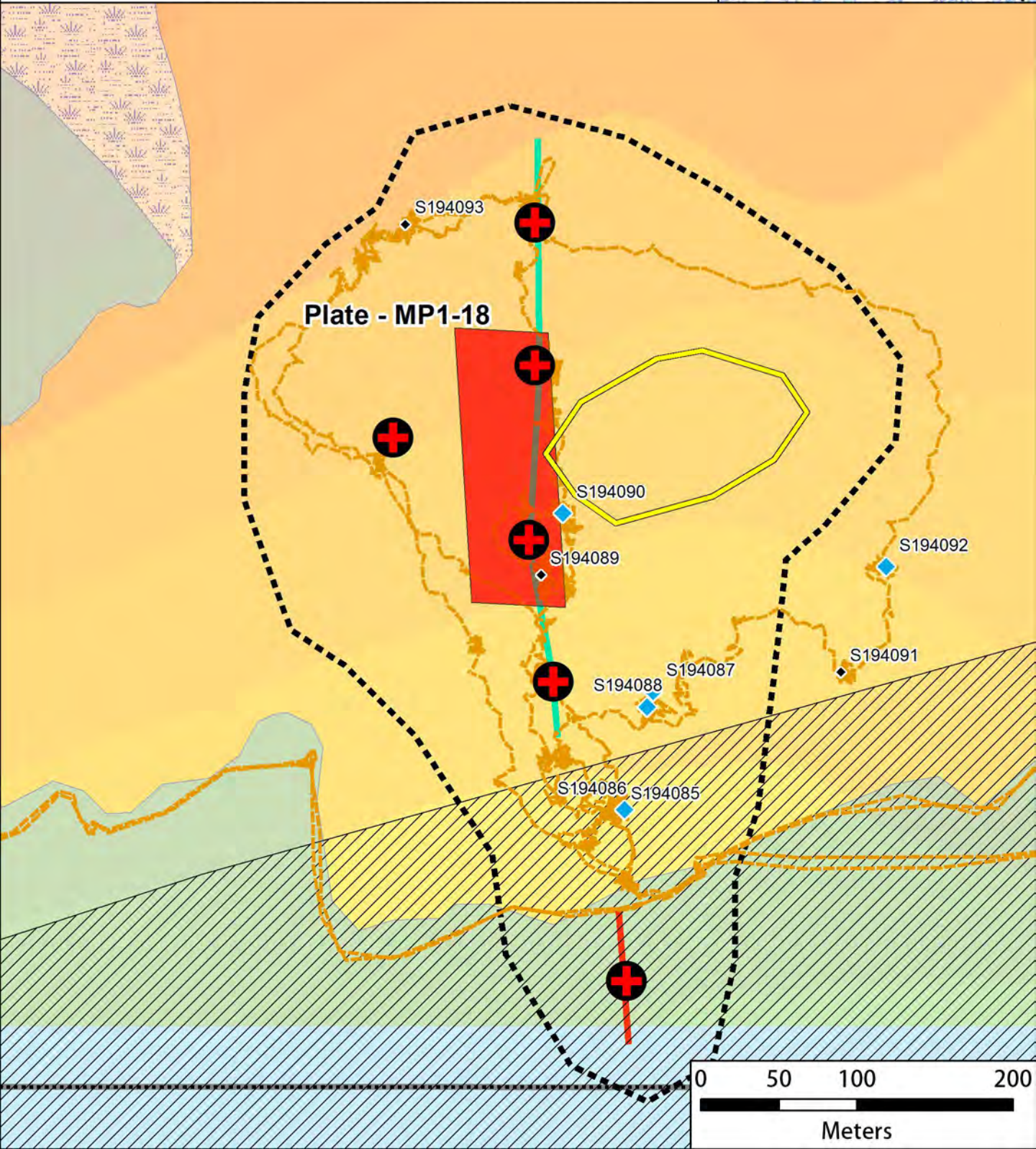
# VTEM Anomaly 18 Area

Plate 18  
Line-Profile LM-TDEM Anomalies

with TMI, GSC Structure, Klipfel Interp.



Inset Map

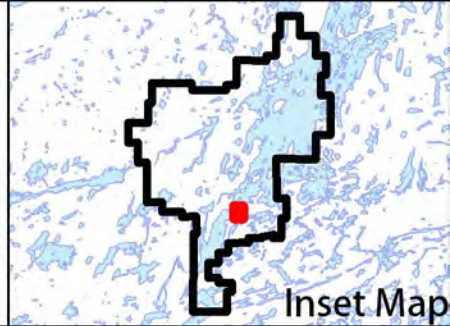




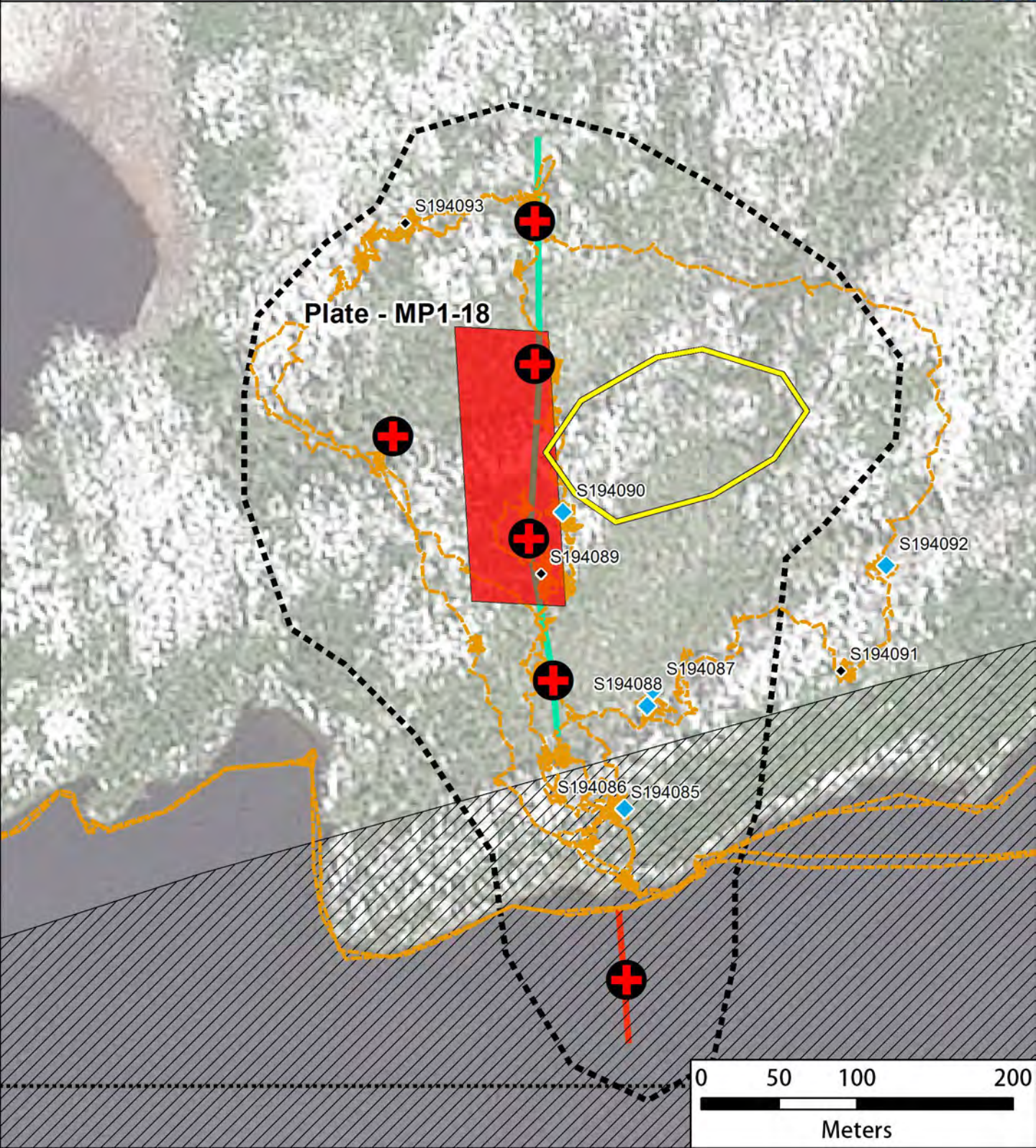
# VTEM Anomaly 18 Area

Plate 18  
Line-Profile LM-TDEM Anomalies

with Imagery, GSC Structure, Klipfel Interp.



Inset Map

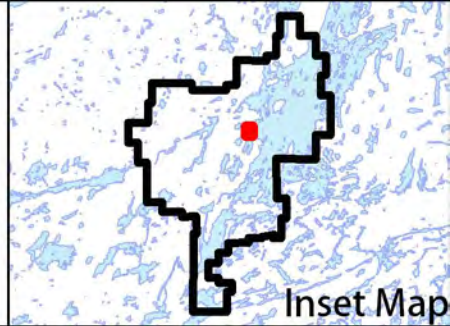




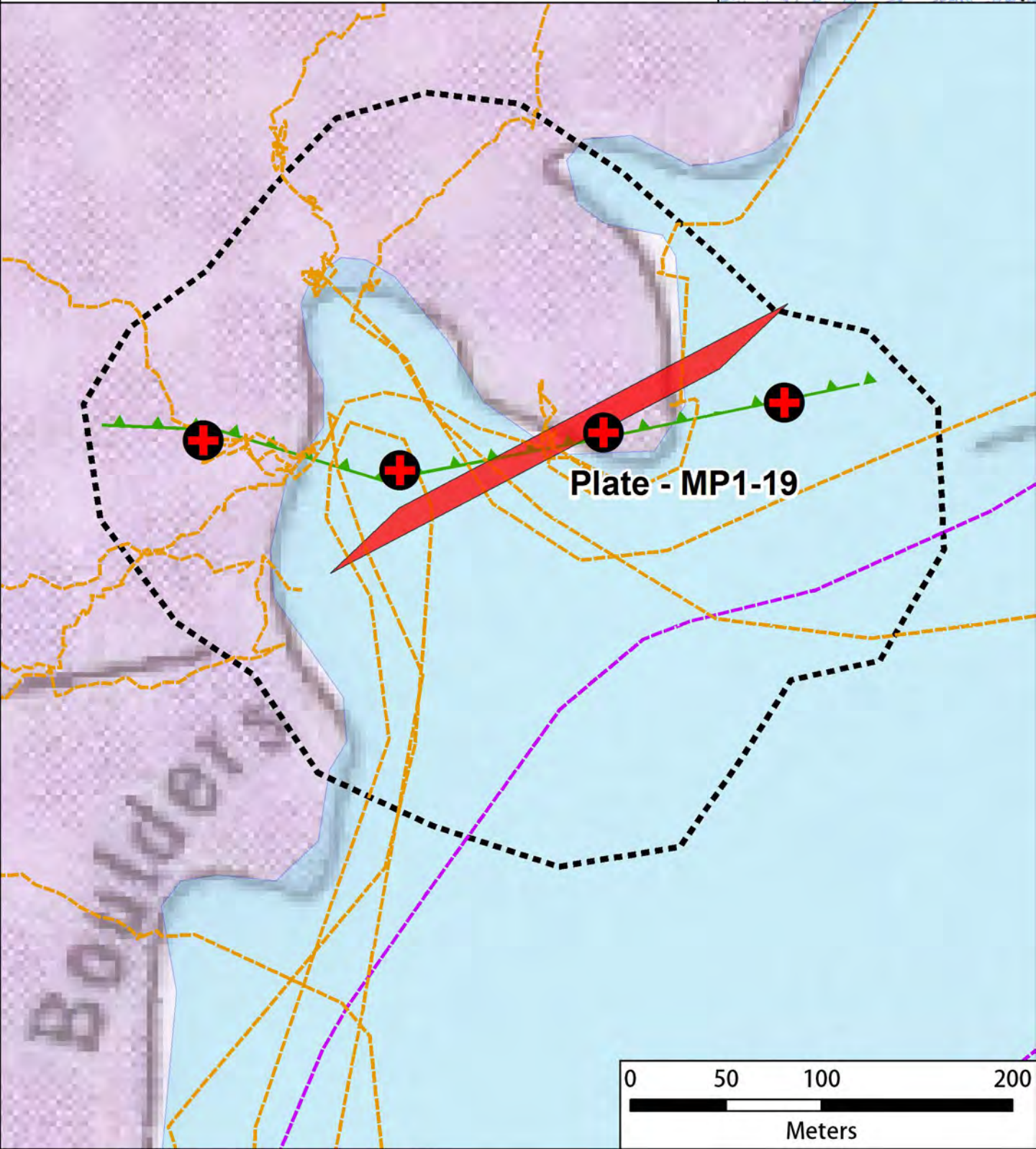
# VTEM Anomaly 19 Area

Plate 19  
Line-Profile LM-TDEM Anomalies

with OGS Geology, GSC Structure, Klipfel Interp.



Inset Map

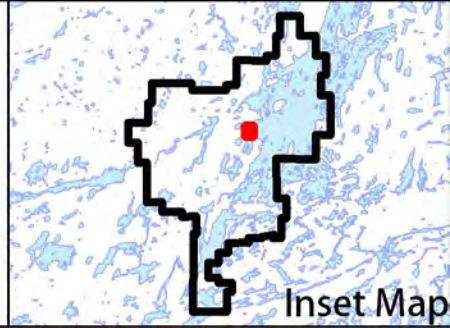




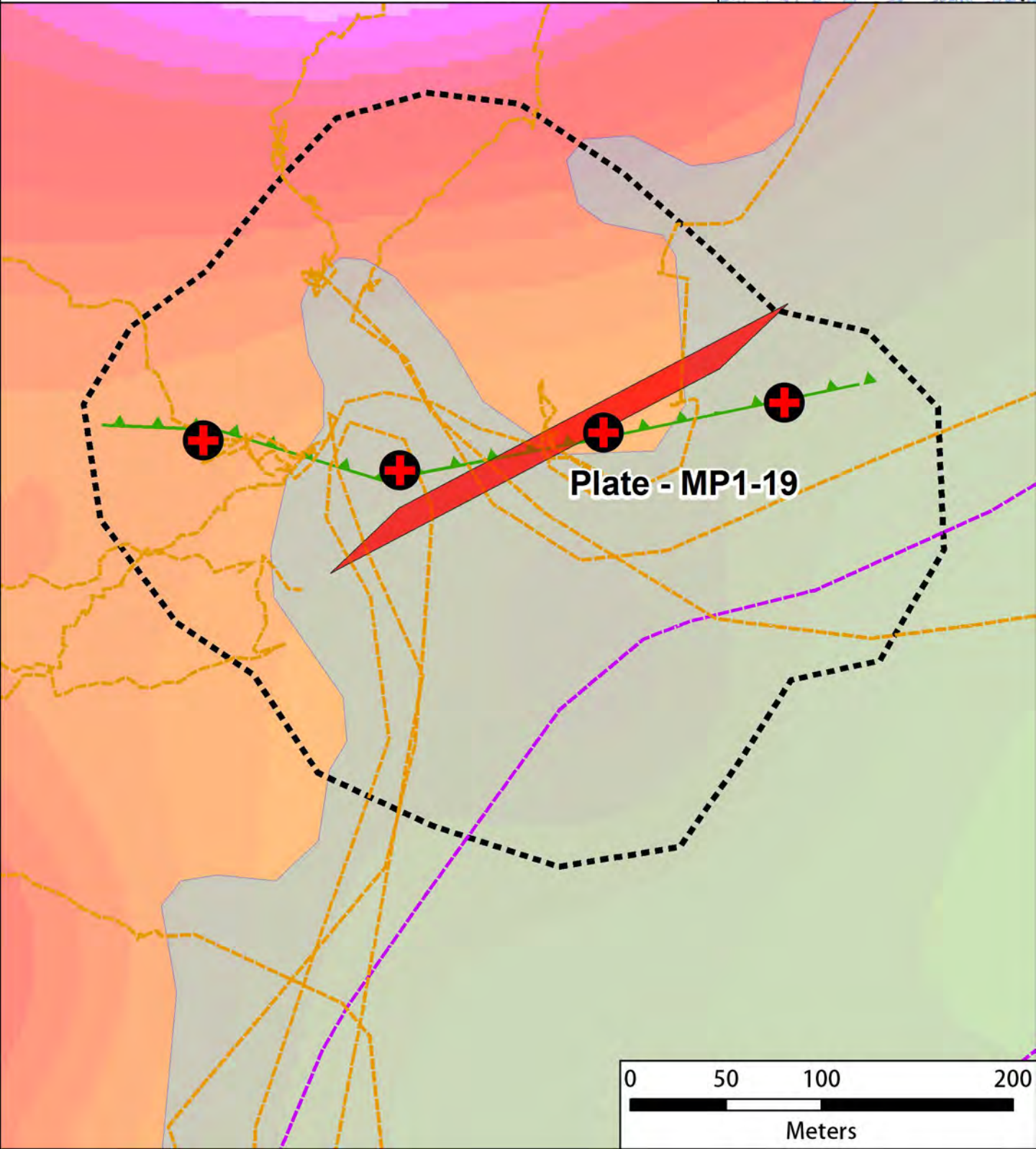
# VTEM Anomaly 19 Area

Plate 19  
Line-Profile LM-TDEM Anomalies

with TMI, GSC Structure, Klipfel Interp.



Inset Map

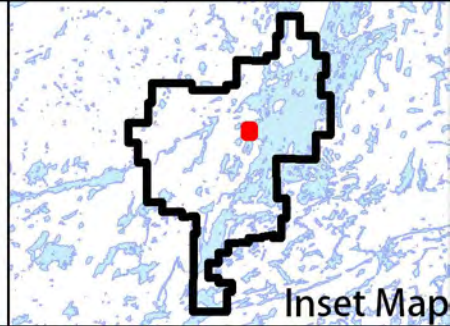




# VTEM Anomaly 19 Area

Plate 19  
Line-Profile LM-TDEM Anomalies

with Imagery, GSC Structure, Klipfel Interp.



Inset Map

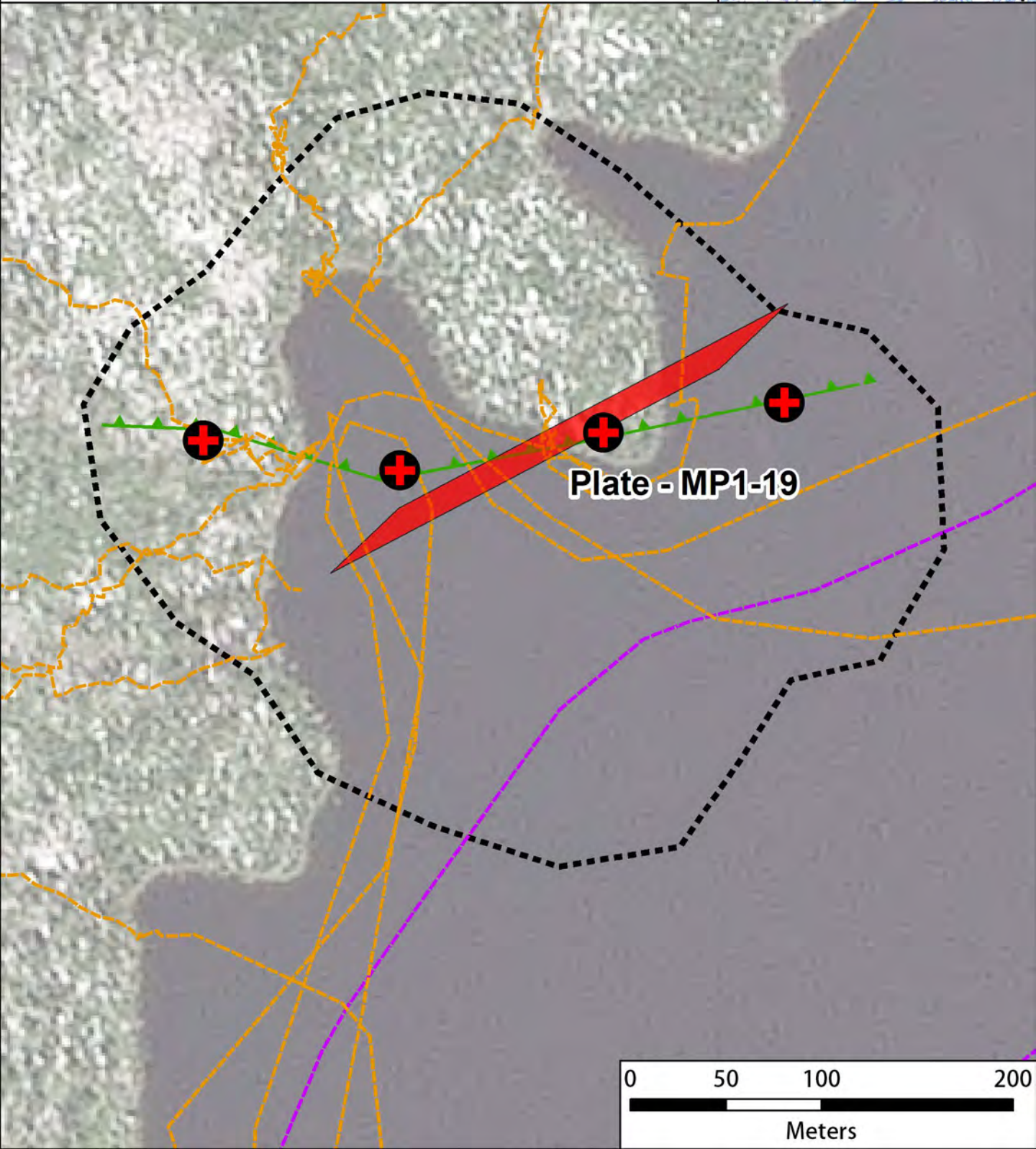
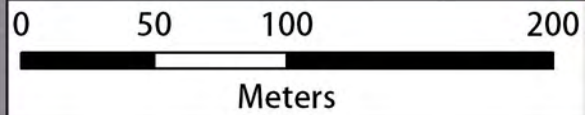


Plate - MP1-19







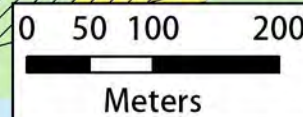
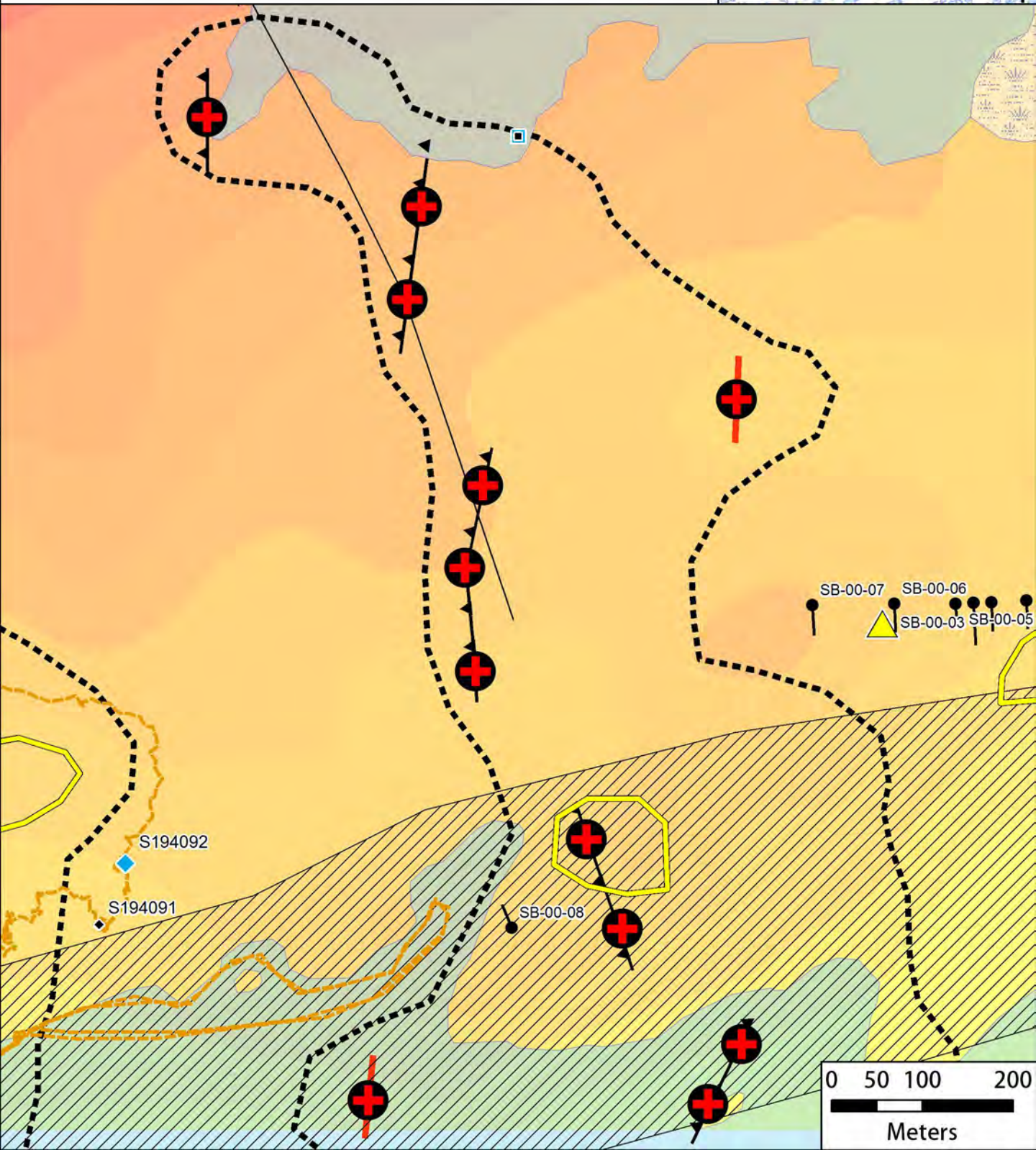
# VTEM Anomaly 20 Area

## Line-Profile LM-TDEM Anomalies

with TMI, GSC Structure, Klipfel Interp.



Inset Map

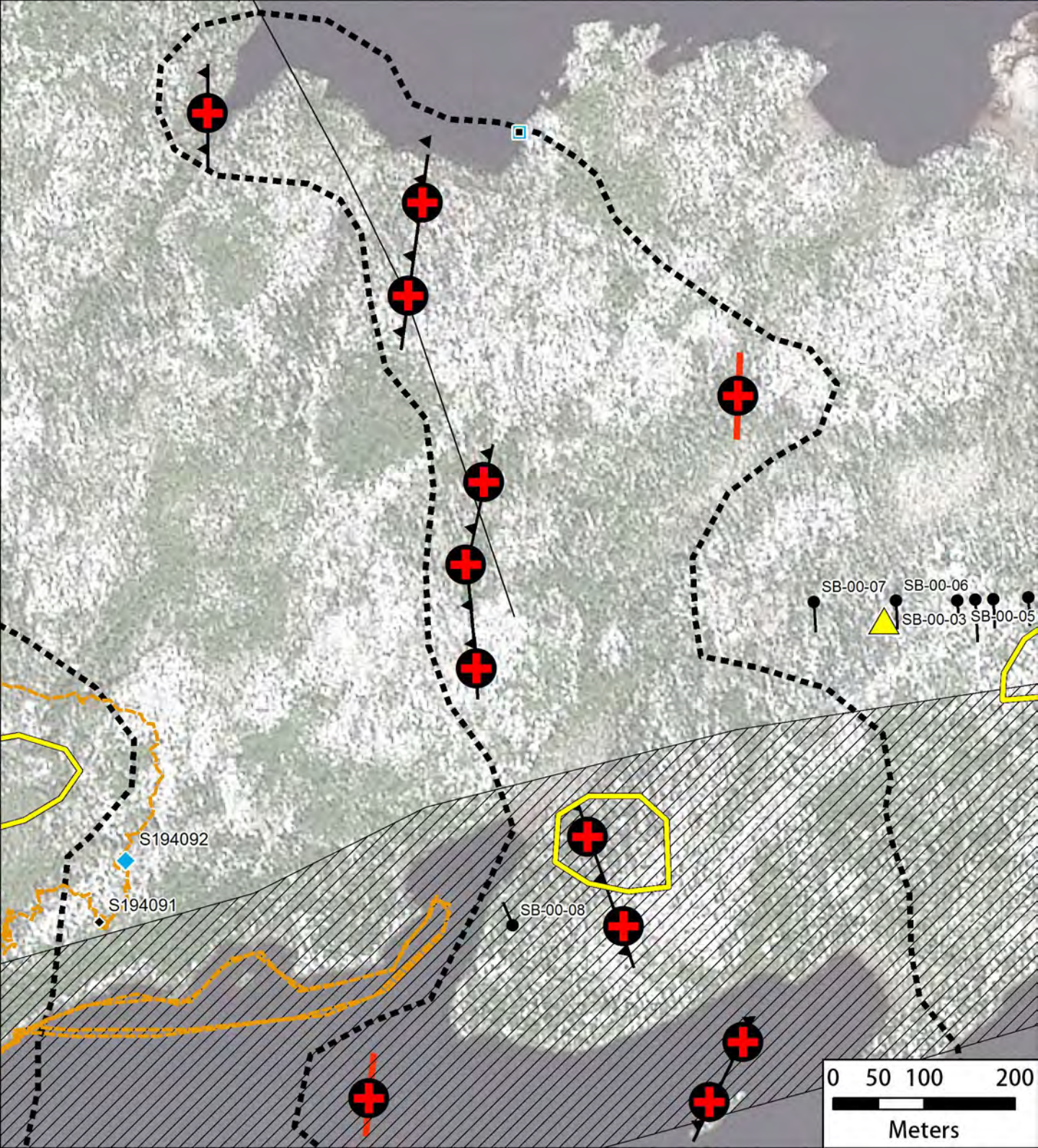
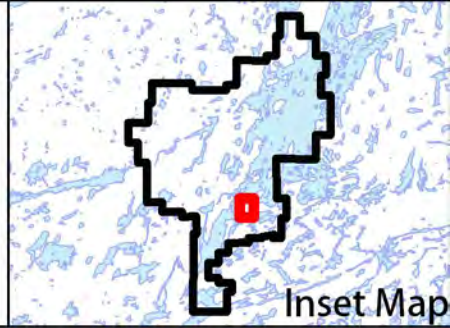




# VTEM Anomaly 20 Area

## Line-Profile LM-TDEM Anomalies

with Imagery, GSC Structure, Klipfel Interp.

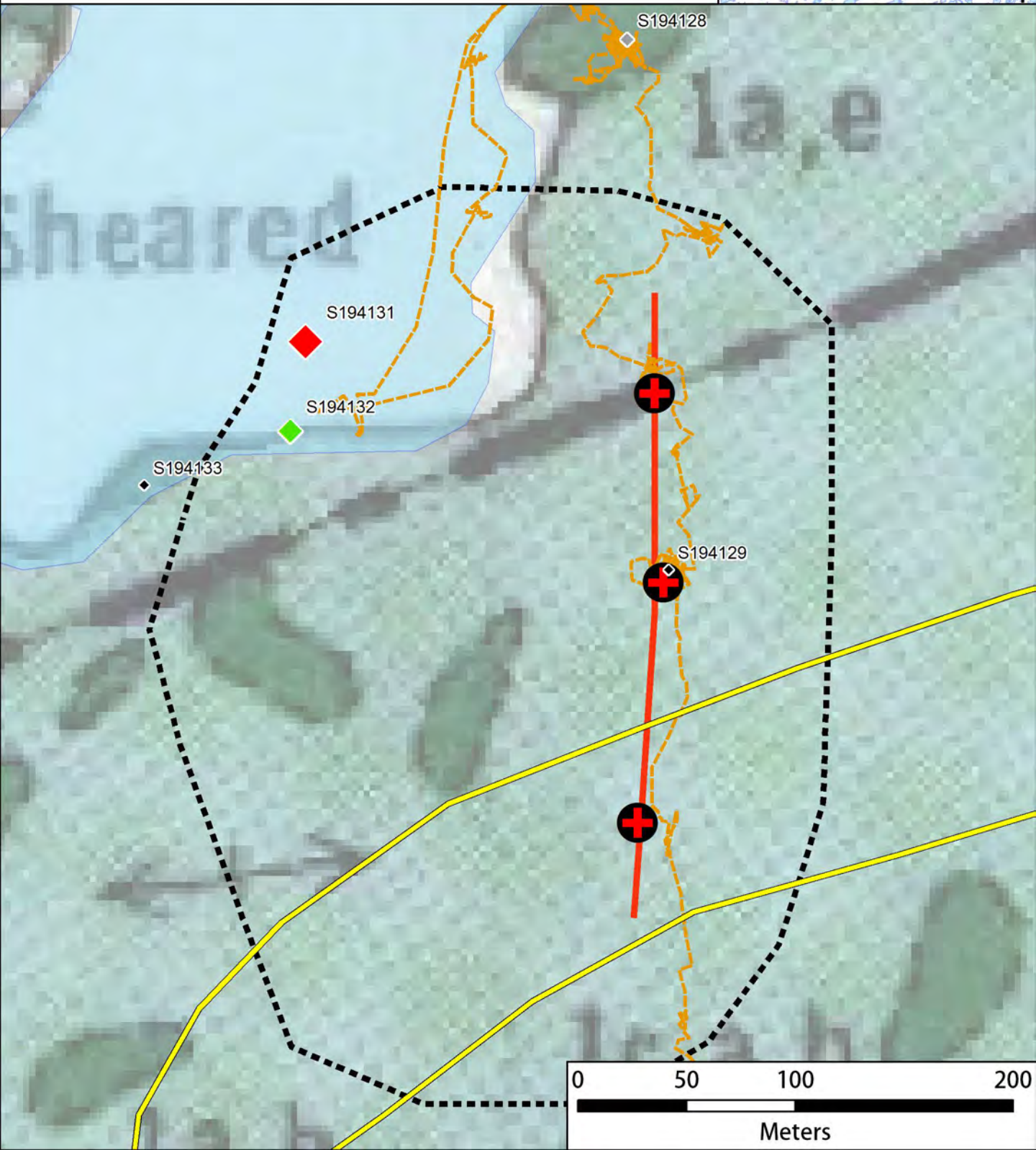
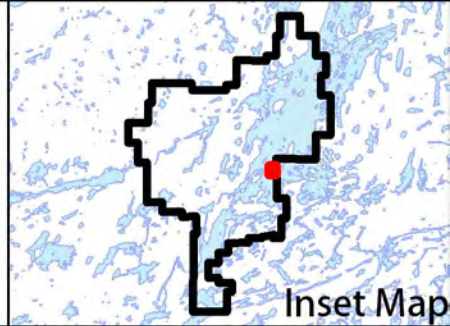




# VTEM Anomaly 21 Area

## Line-Profile LM-TDEM Anomalies

with OGS Geology, GSC Structure, Klipfel Interp.

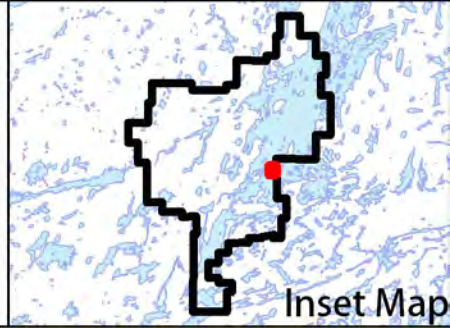




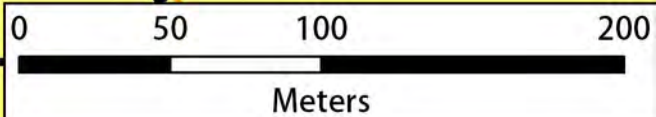
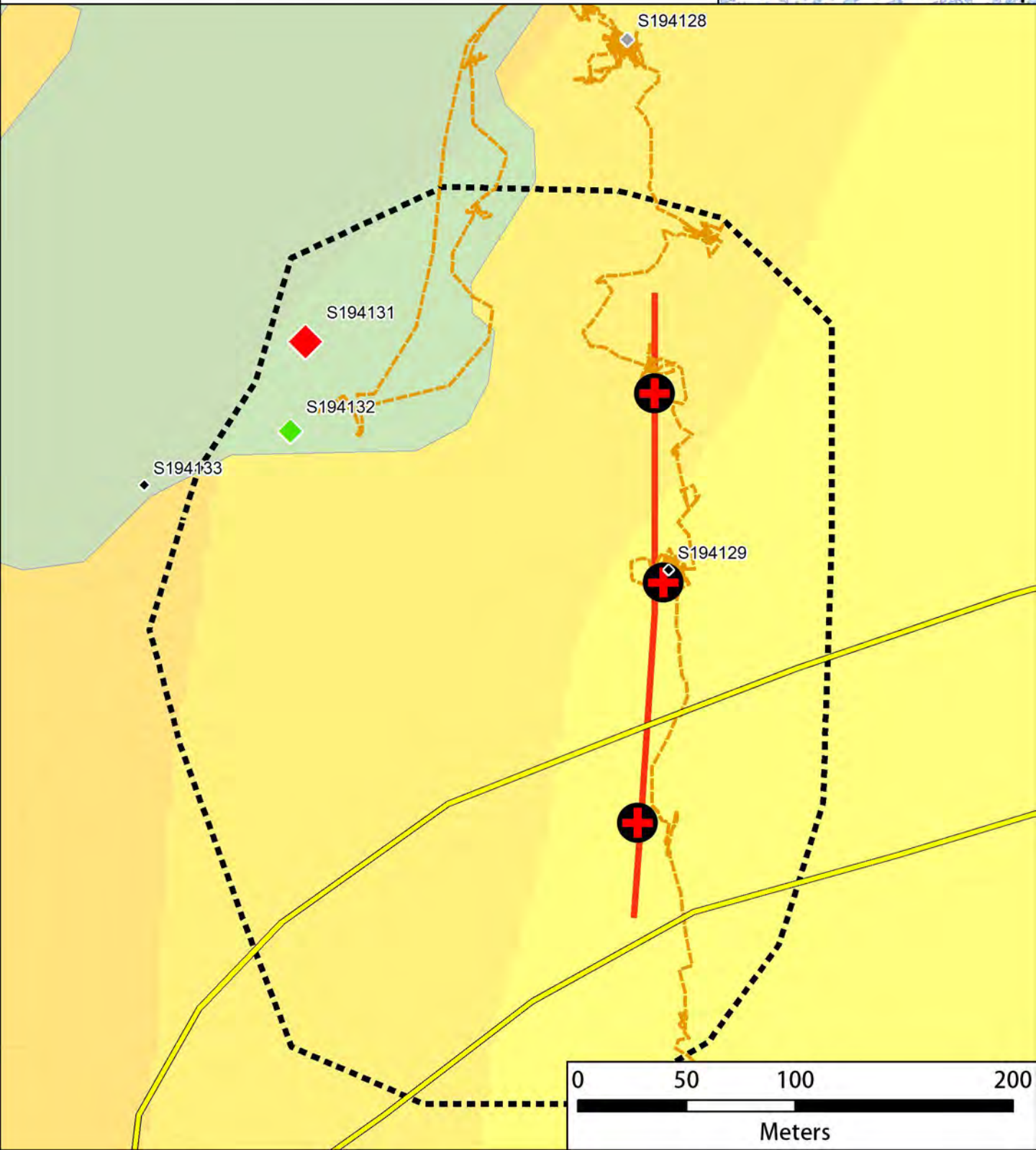
# VTEM Anomaly 21 Area

## Line-Profile LM-TDEM Anomalies

with TMI, GSC Structure, Klipfel Interp.



Inset Map

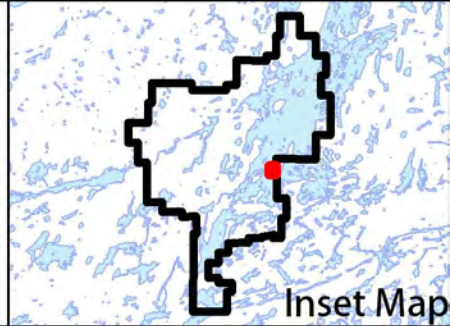




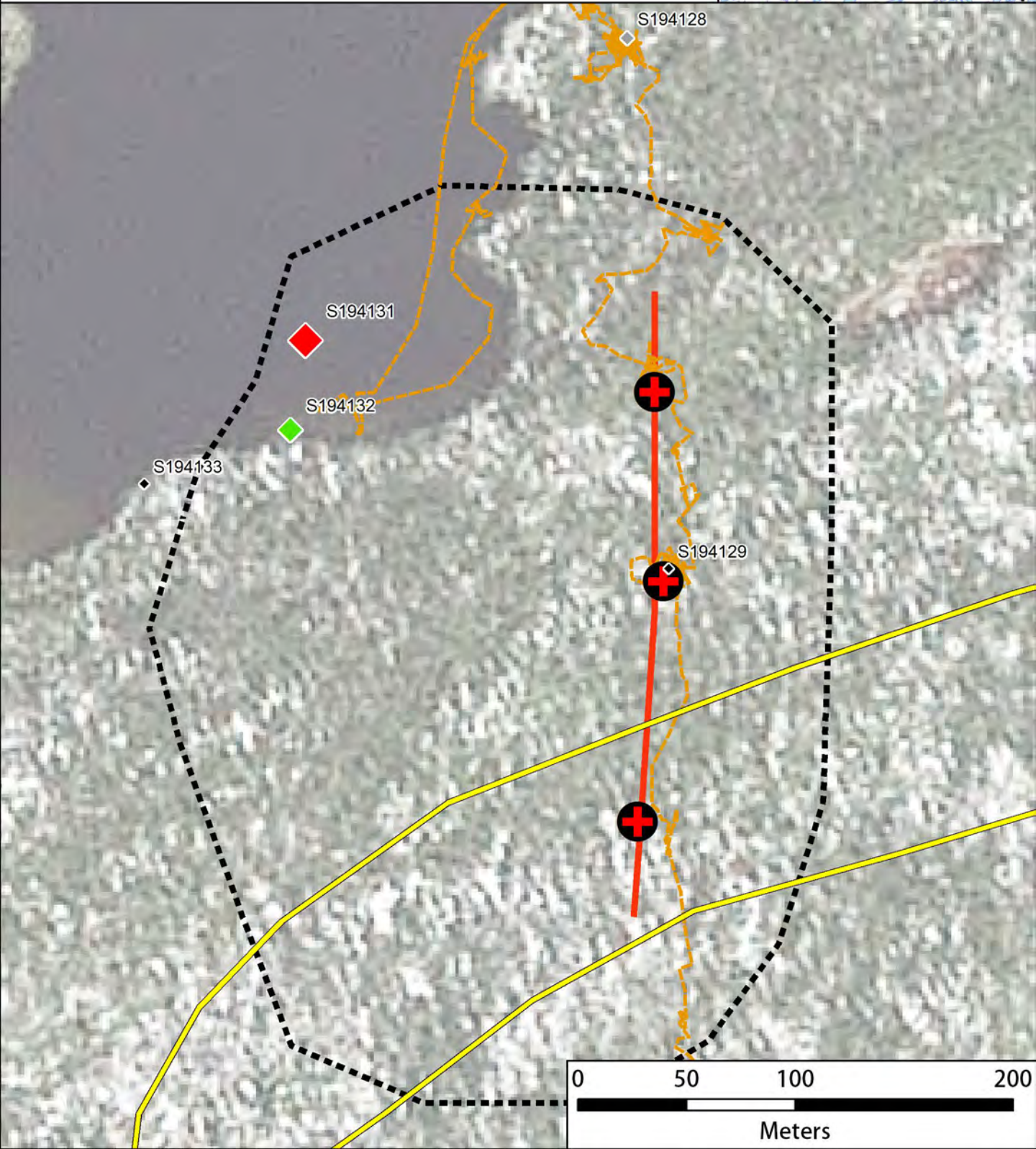
# VTEM Anomaly 21 Area

## Line-Profile LM-TDEM Anomalies

with Imagery, GSC Structure, Klipfel Interp.



Inset Map



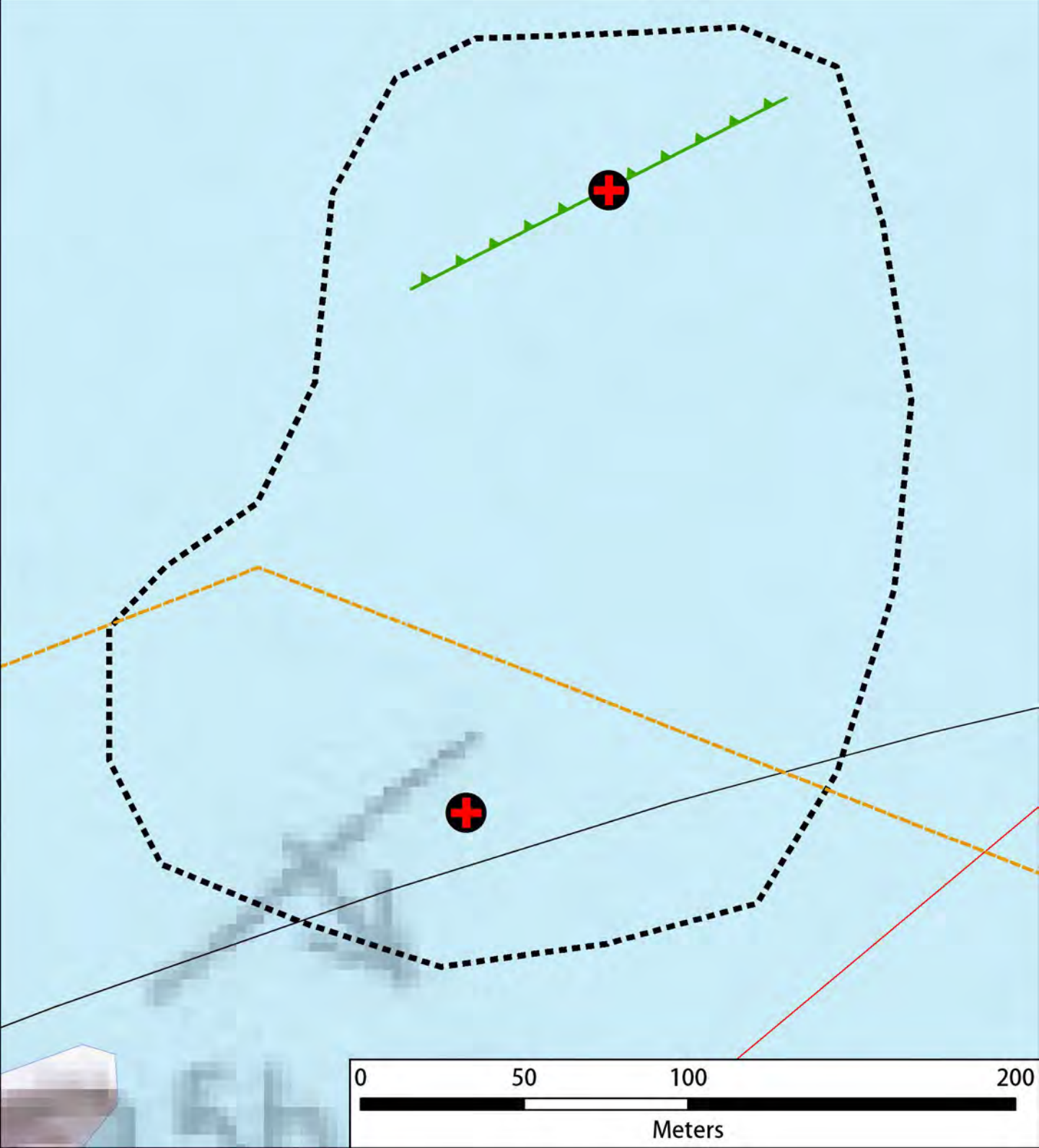
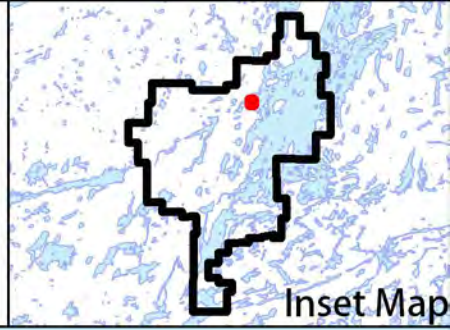
0 50 100 200  
Meters



# VTEM Anomaly 22 Area

Line-Profile LM-TDEM Anomalies

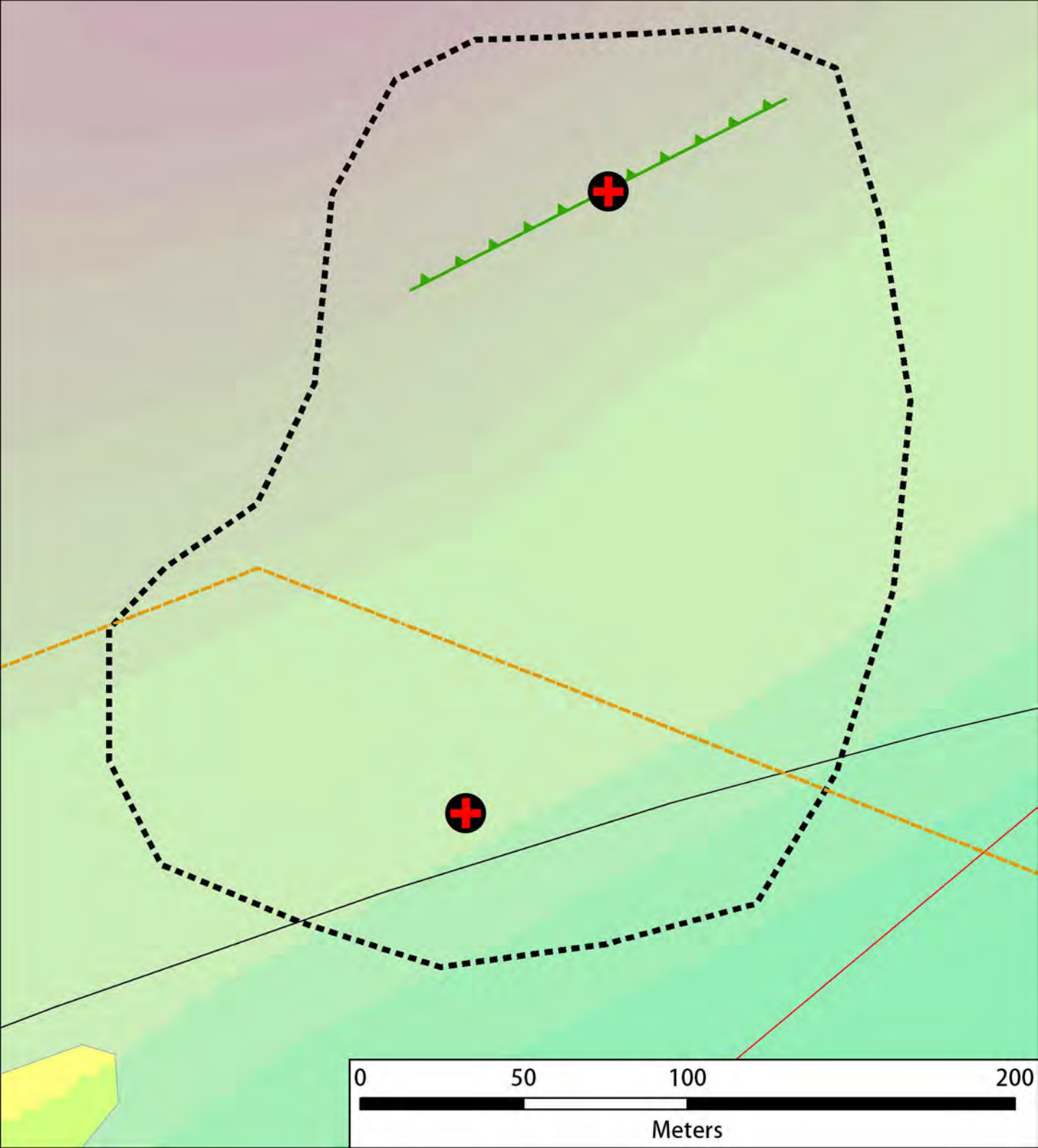
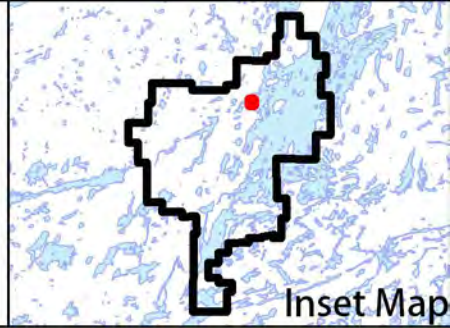
with OGS Geology, GSC Structure, Klipfel Interp.





# VTEM Anomaly 22 Area

Line-Profile LM-TDEM Anomalies  
with TMI, GSC Structure, Klipfel Interp.

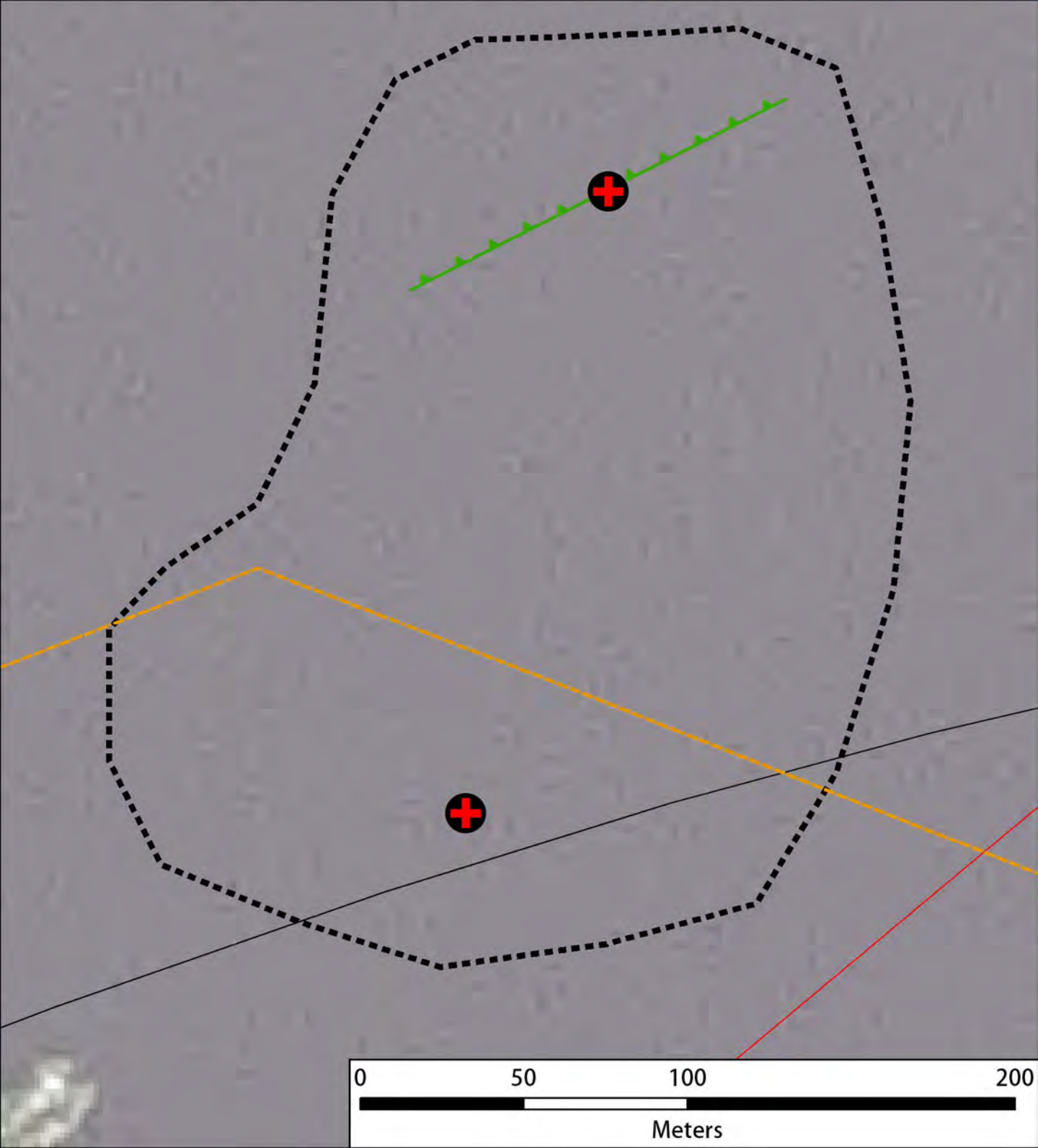
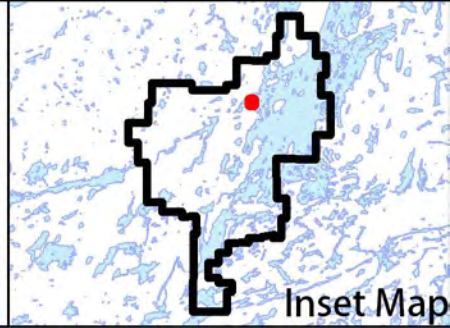




# VTEM Anomaly 22 Area

Line-Profile LM-TDEM Anomalies

with Imagery, GSC Structure, Klipfel Interp.

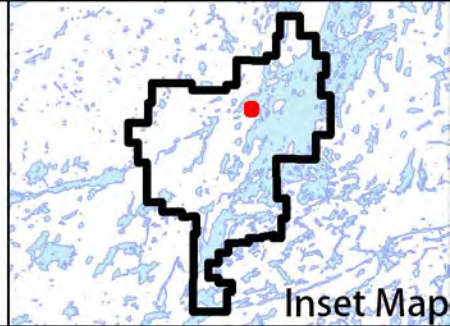




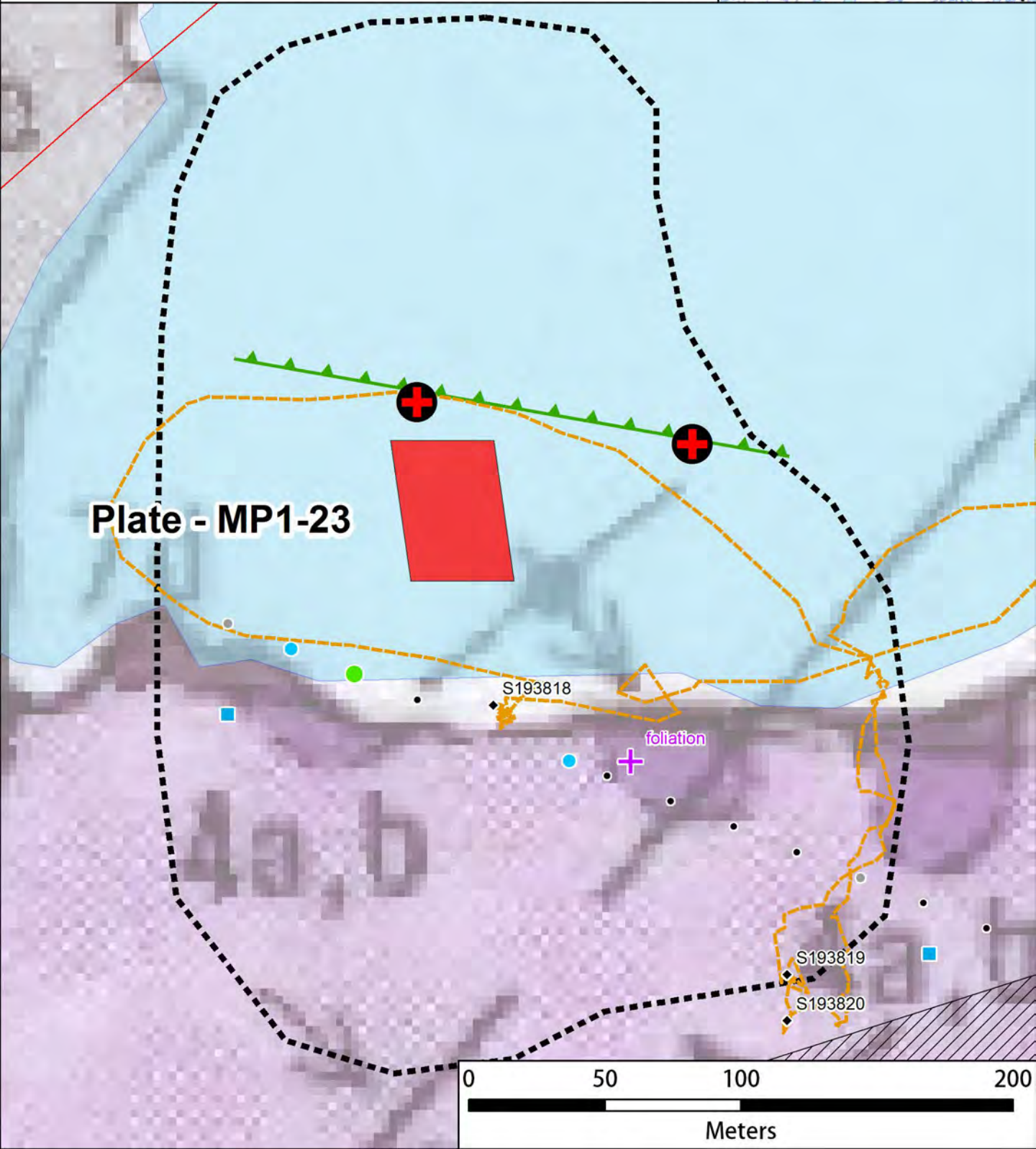
# VTEM Anomaly 23 Area

Plate 23  
Line-Profile LM-TDEM Anomalies

with OGS Geology, GSC Structure, Klipfel Interp.



Inset Map

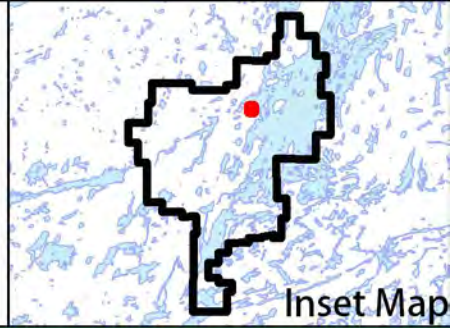




# VTEM Anomaly 23 Area

Plate 23  
Line-Profile LM-TDEM Anomalies

with TMI, GSC Structure, Klipfel Interp.



**Plate - MP1-23**



S193818

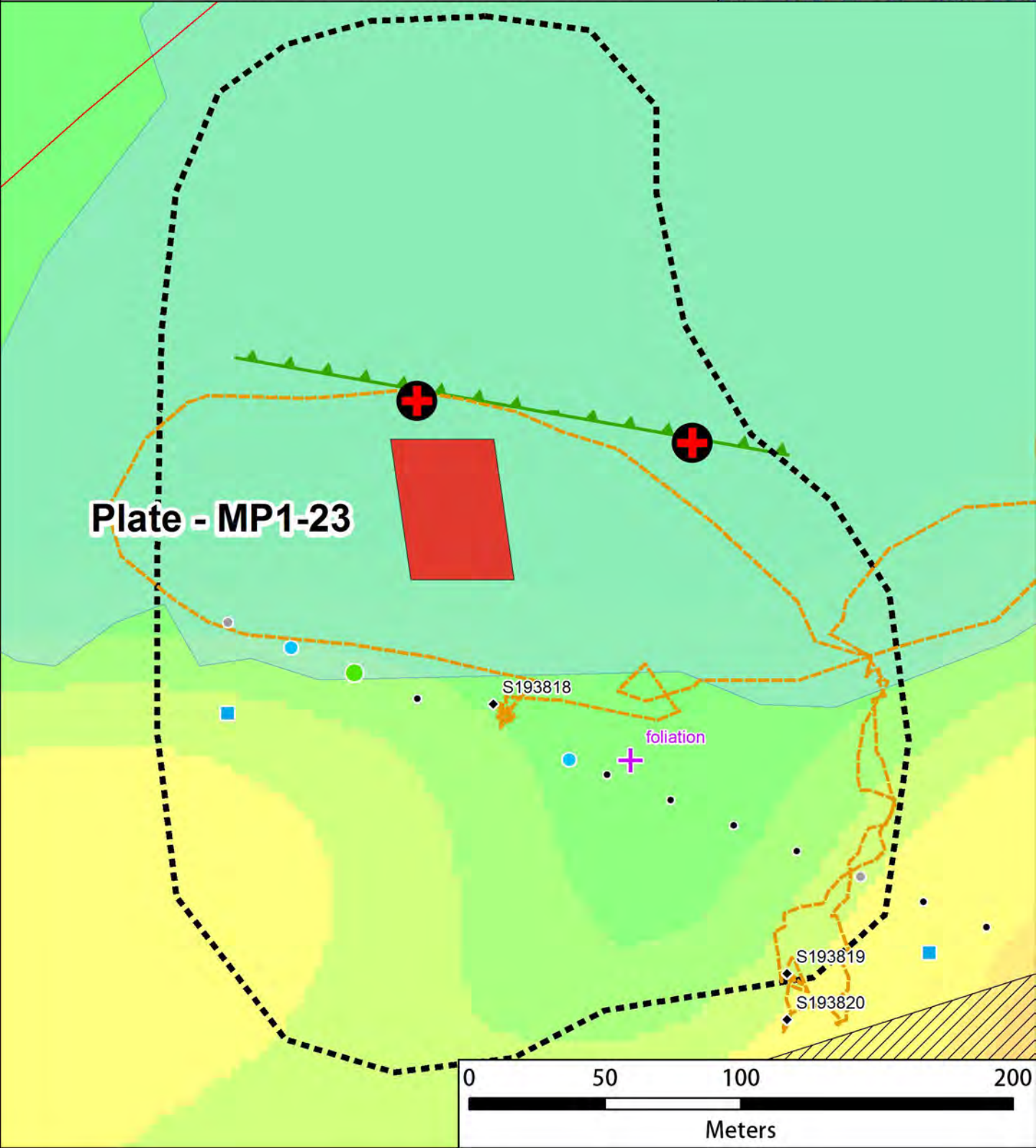
foliation

S193819

S193820

0 50 100 200

Meters

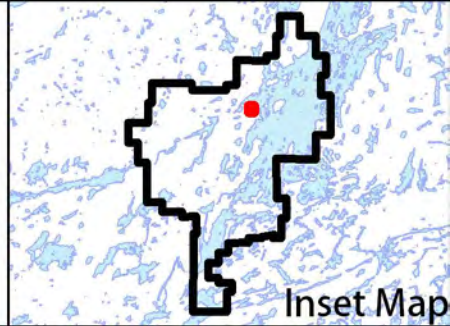




# VTEM Anomaly 23 Area

Plate 23  
Line-Profile LM-TDEM Anomalies

with Imagery, GSC Structure, Klipfel Interp.



Inset Map

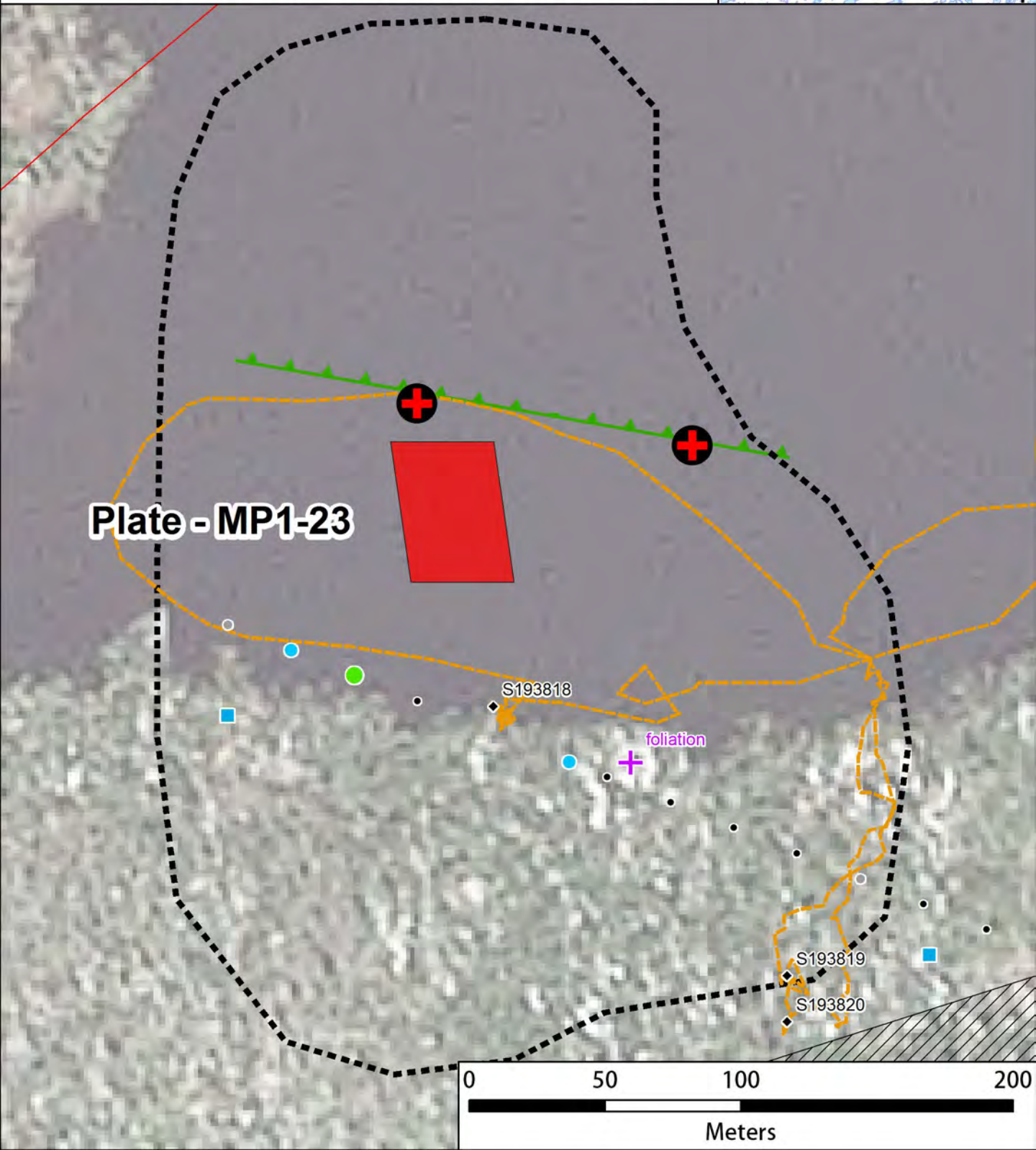


Plate - MP1-23

S193818

foliation

S193819

S193820

0 50 100 200

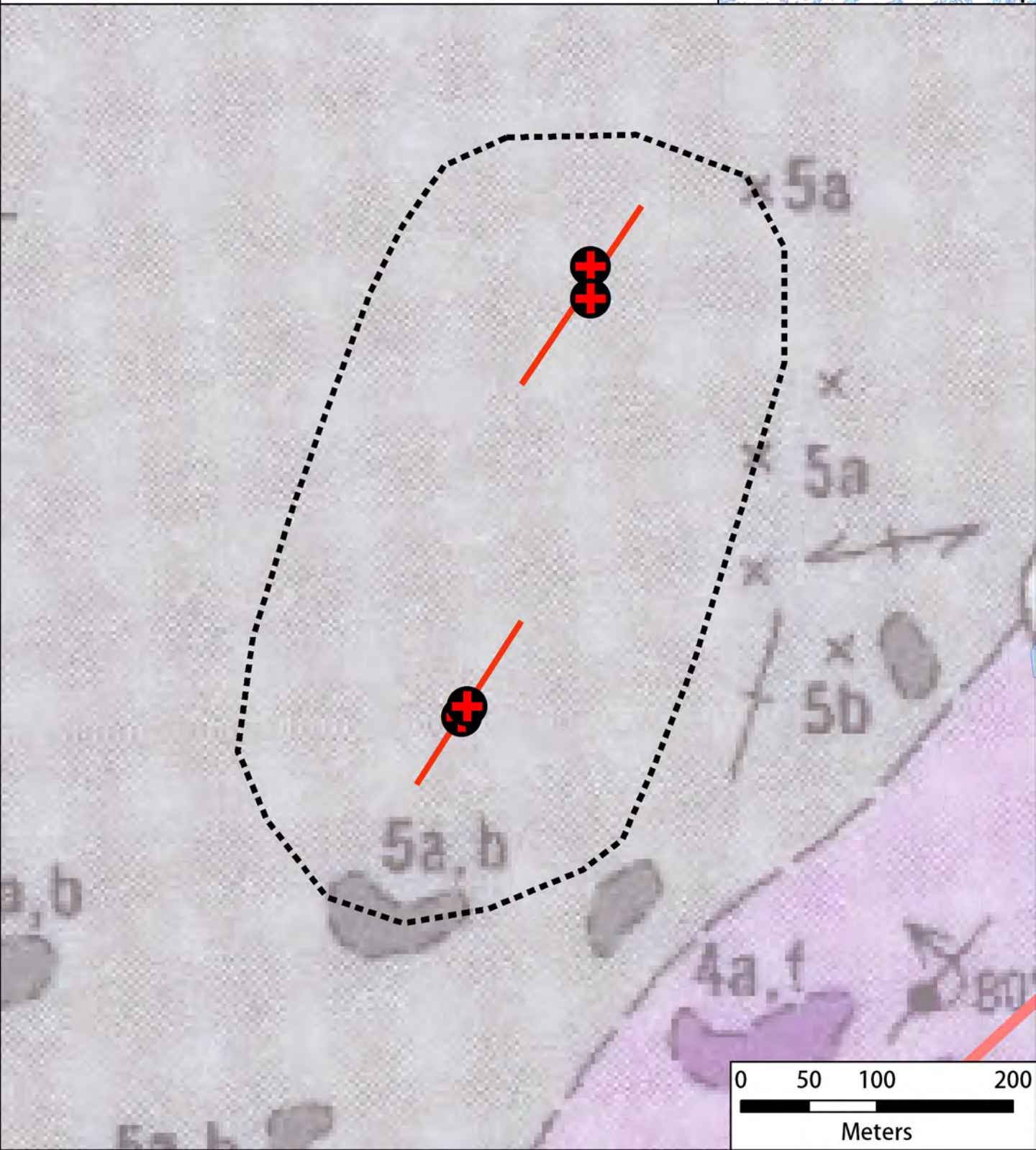
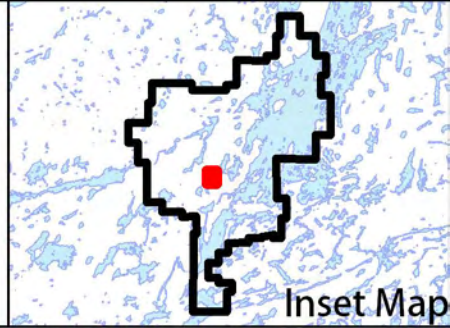
Meters



# VTEM Anomaly 24 Area

Line-Profile LM-TDEM Anomalies

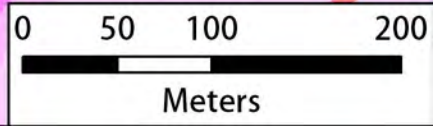
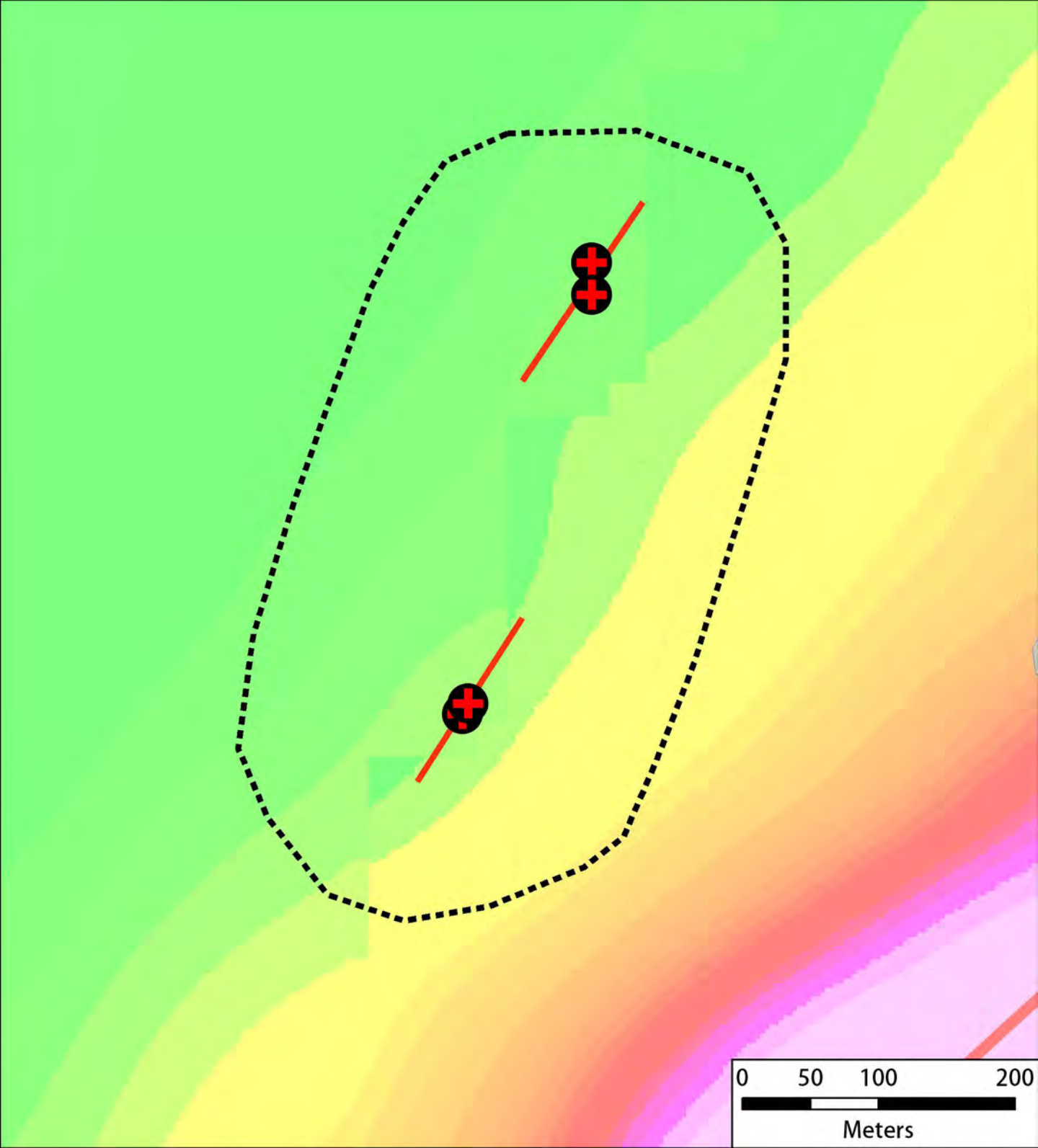
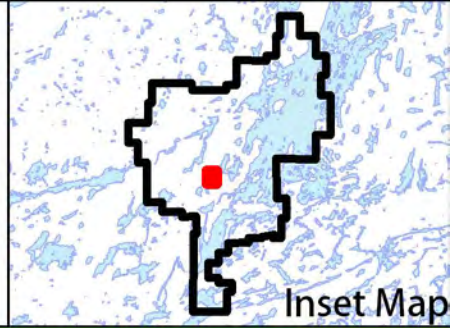
with OGS Geology, GSC Structure, Klipfel Interp.





# VTEM Anomaly 24 Area

Line-Profile LM-TDEM Anomalies  
with TMI, GSC Structure, Klipfel Interp.

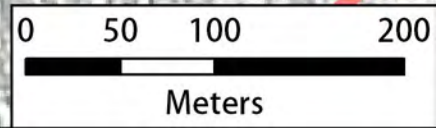
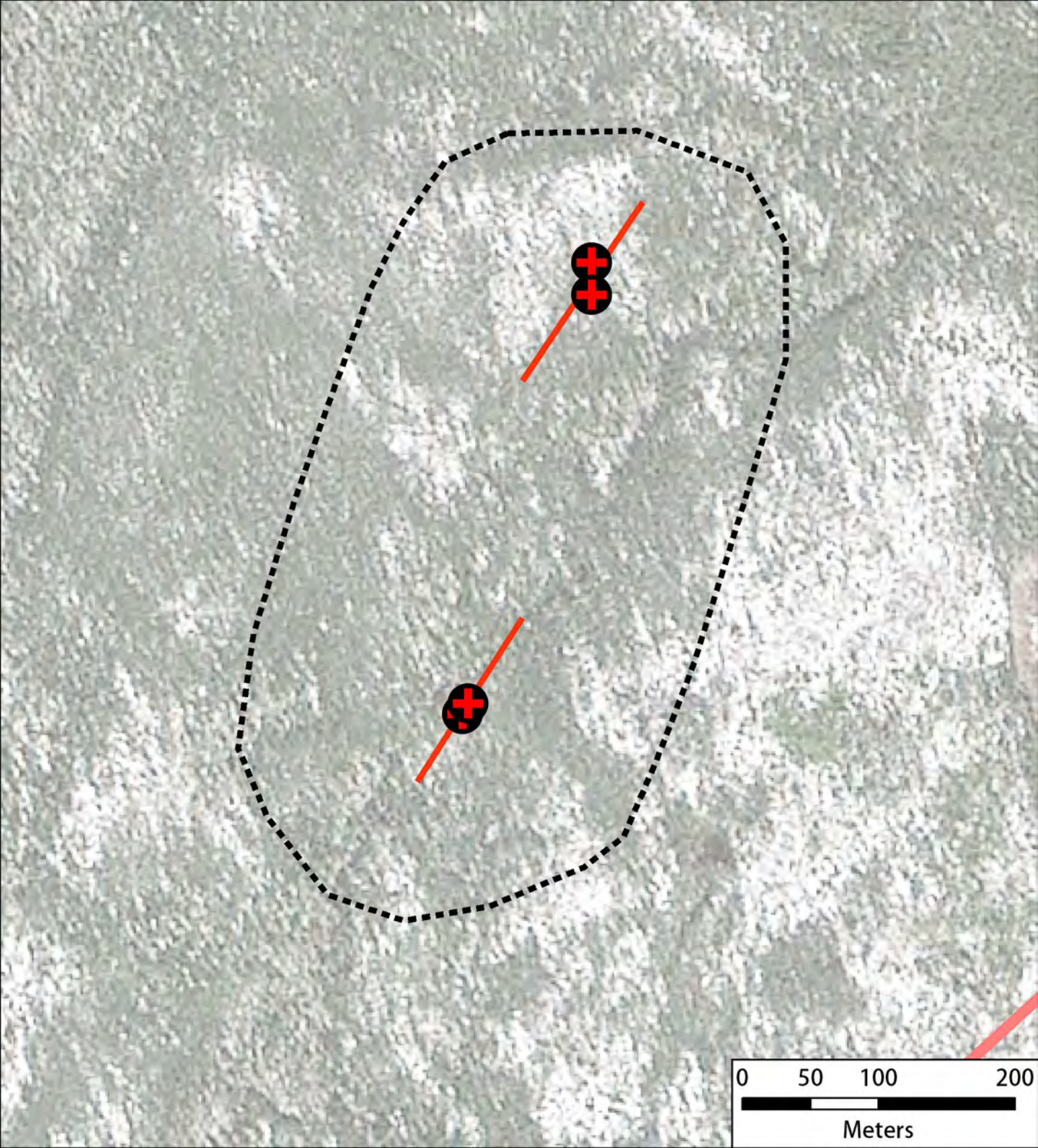
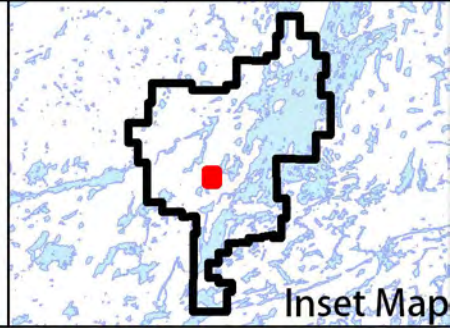




# VTEM Anomaly 24 Area

Line-Profile LM-TDEM Anomalies

with Imagery, GSC Structure, Klipfel Interp.

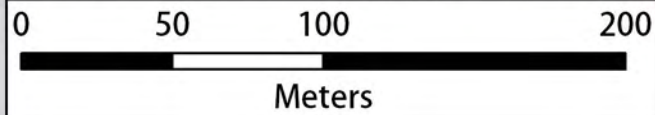
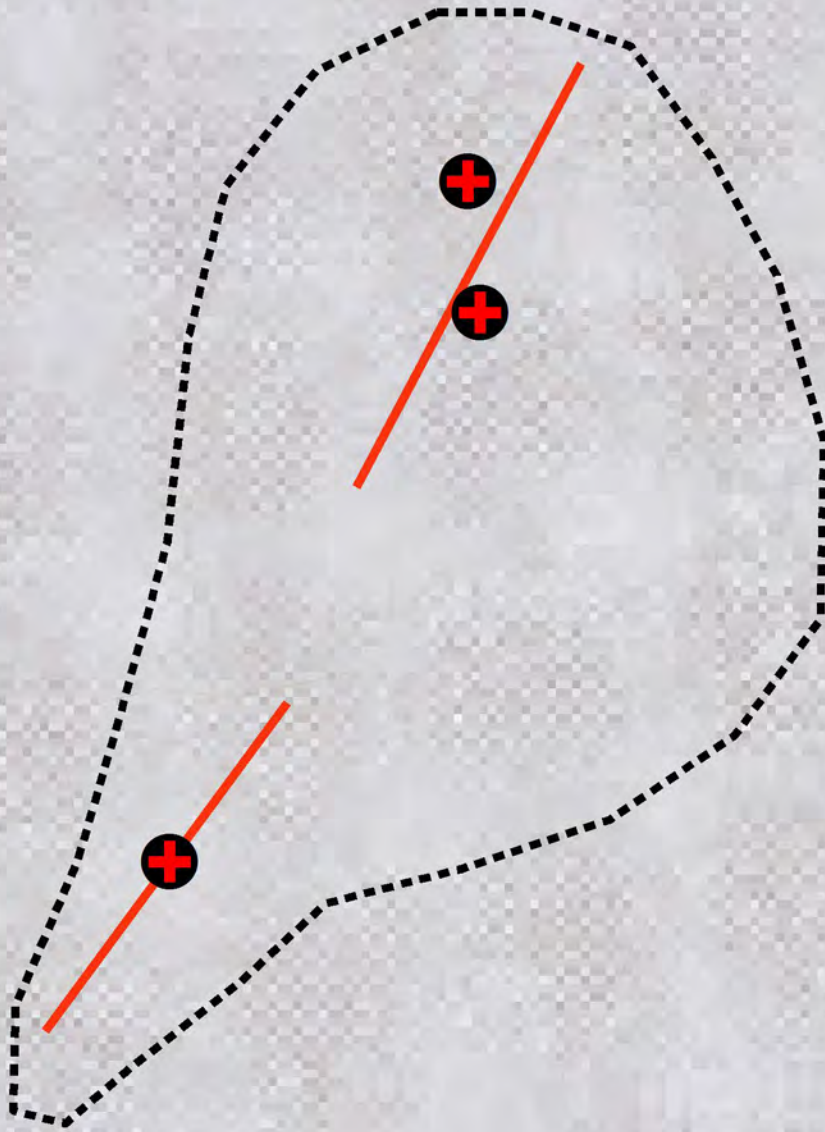
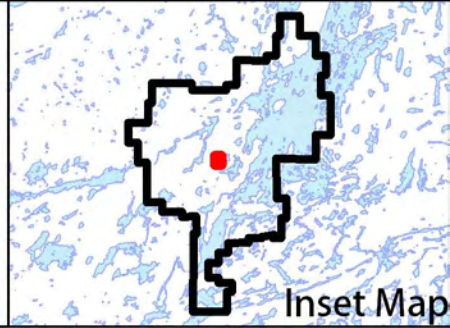




# VTEM Anomaly 25 Area

Line-Profile LM-TDEM Anomalies

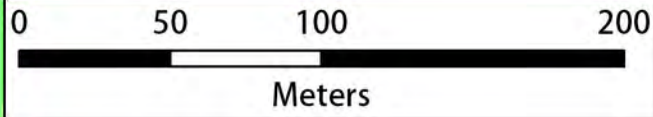
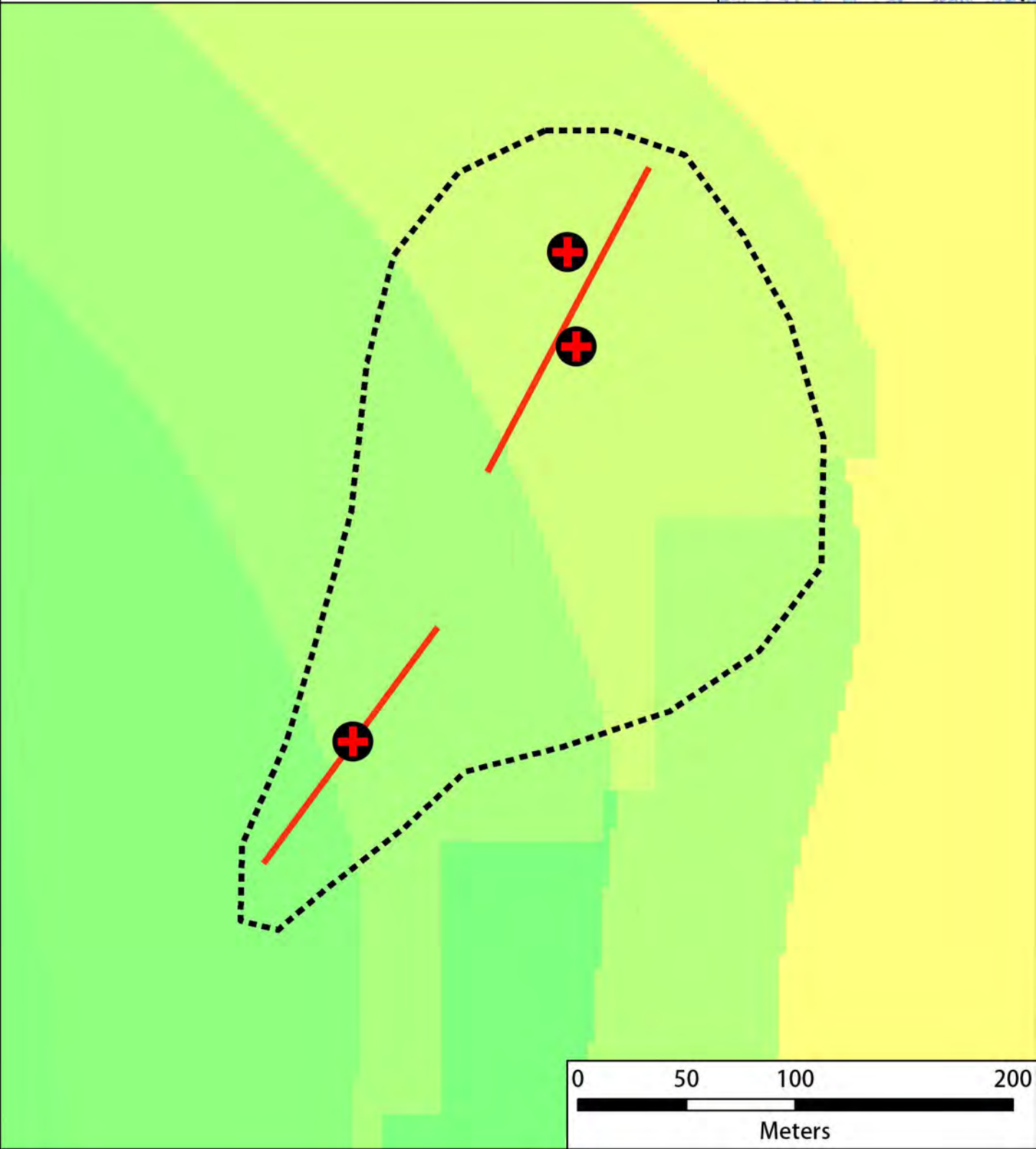
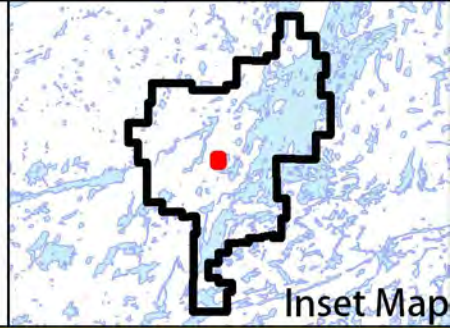
with OGS Geology, GSC Structure, Klipfel Interp.





# VTEM Anomaly 25 Area

Line-Profile LM-TDEM Anomalies  
with TMI, GSC Structure, Klipfel Interp.

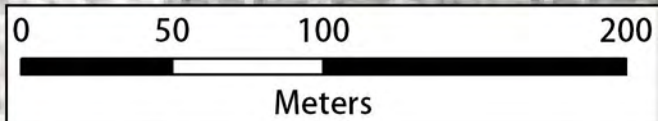
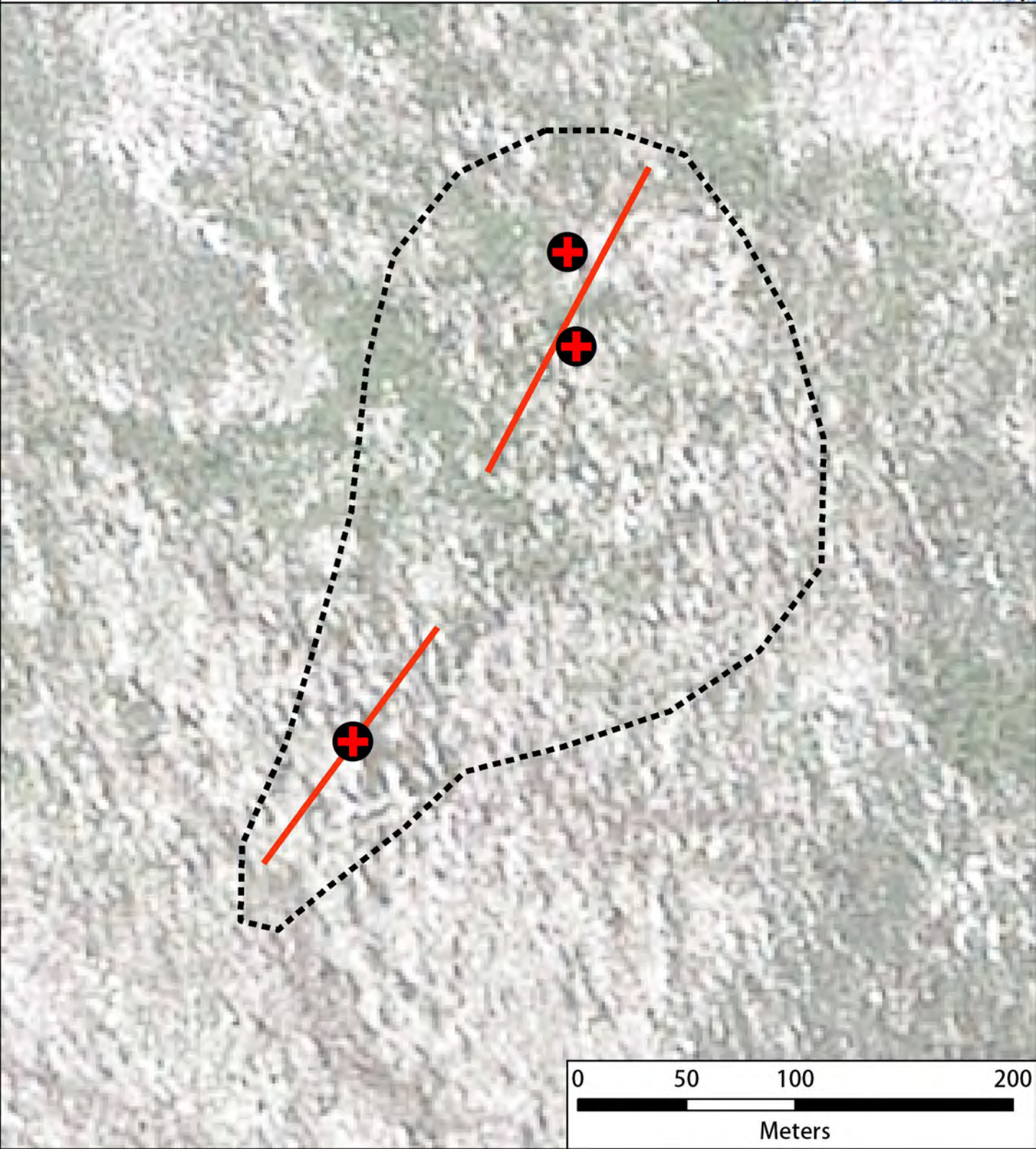
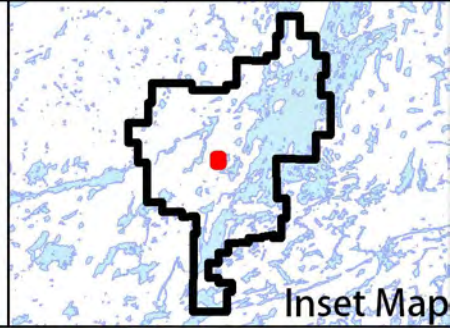




# VTEM Anomaly 25 Area

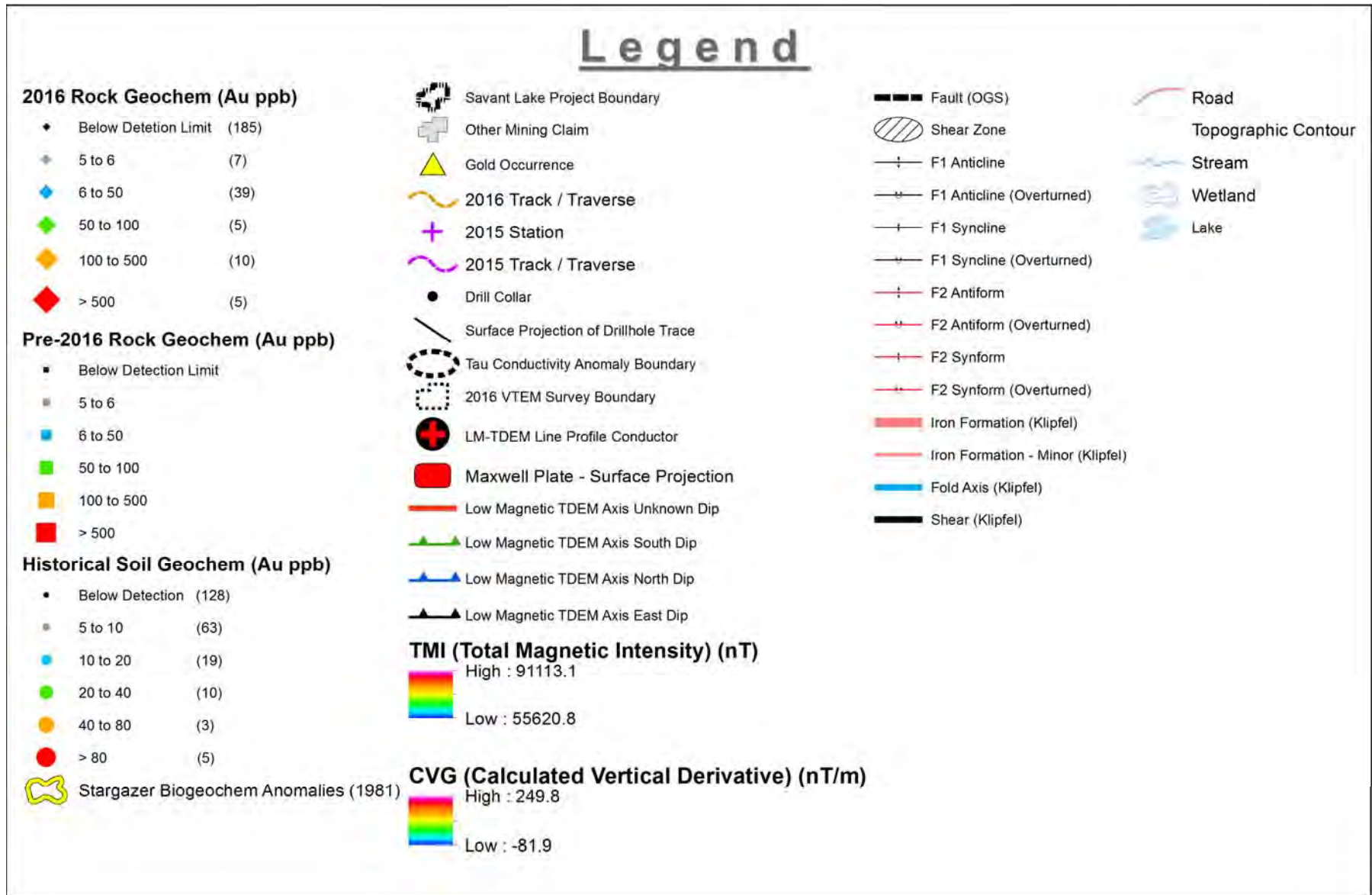
Line-Profile LM-TDEM Anomalies

with Imagery, GSC Structure, Klipfel Interp.



## **Appendix C**

### Map Legends



Geological Legend for OGS Maps

