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CANADIAN EXPLORATION SERVICES LTD

TIGER GOLD EXPLORATION CORP.

Q2945 – Harker Heritage Property – Ghost 1

3D Distributed Induced Polarization Survey

C Jason Ploeger, P.Geo. **January 28, 2022**

TIGER GOLD EXPLORATION CORPORATION

Abstract

CXS was contracted to perform a 3D Distributed IP survey on the Harker Heritage Property. The Survey was designed to investigate some known mineralization and to explore the remaining area for additional mineralization.

The 3D IP survey highlighted multiple a chargeability high trend with a corelating resistivity high. Within this trend an offset occurs. The interaction of these two features may indicate the existence of a mineralized alteration system.

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1. SURVEY DETAILS

1.1 Project Name

This project is known as the **Harker Heritage Property – Ghost 1 Grid**.

1.2 Client

TIGER GOLD EXPLORATION CORPORATION

1595 Griffiths Place
West Kelowna, BC
V1Z 2T7

1.3 Overview

CXS was contracted to perform a 3D Distributed IP survey on the Harker Heritage Property. The Survey was designed to investigate known mineralization and to explore the remaining area for additional mineralization. An infinite was located and placed at 587106E, 5362763N. Twenty logger locations were used with two orthogonal 100-metre dipoles at each logger site. A total of 12.6-line kilometres of current injection was performed at an injection interval of 50 metres. The Survey was performed between November 29th and December 10th, 2021.

1.4 Objective

The objective of the 3D distributed IP survey was to perform a detailed multidirectional reconnaissance survey of the area. The Survey was designed to target the extent of the known mineralization and locate additional targets for future exploration.

1.5 Survey & Physical Activities Undertaken

Survey/Physical Activity	Dates	Total Days in Field	Total Line Kilometres
Line Cutting	October 5th to October 29th, 2021	24	12.6
3D Distributed IP	November 29th and December 10th, 2021	10	12.6

Table 1: Survey and Physical Activity Details

1.6 Summary of Results, Conclusions & Recommendations

The 3D IP survey highlighted a multiple chargeability high trend with a correlating resistivity high. Within this trend, an offset occurs. The interaction of these two features may indicate the existence of a mineralized alteration system.

1.7 Co-ordinate System

Projection: UTM zone 17N
Datum: NAD83
UTM Coordinates near the center of grid: 587010 Easting and 5366787 Northing

2. SURVEY LOCATION DETAILS

2.1 LOCATION

The Harker Heritage Project – Ghost Grid 1 is located in Harker and Elliott Townships approximately 36 km north-northeast of Kirkland Lake, Ontario

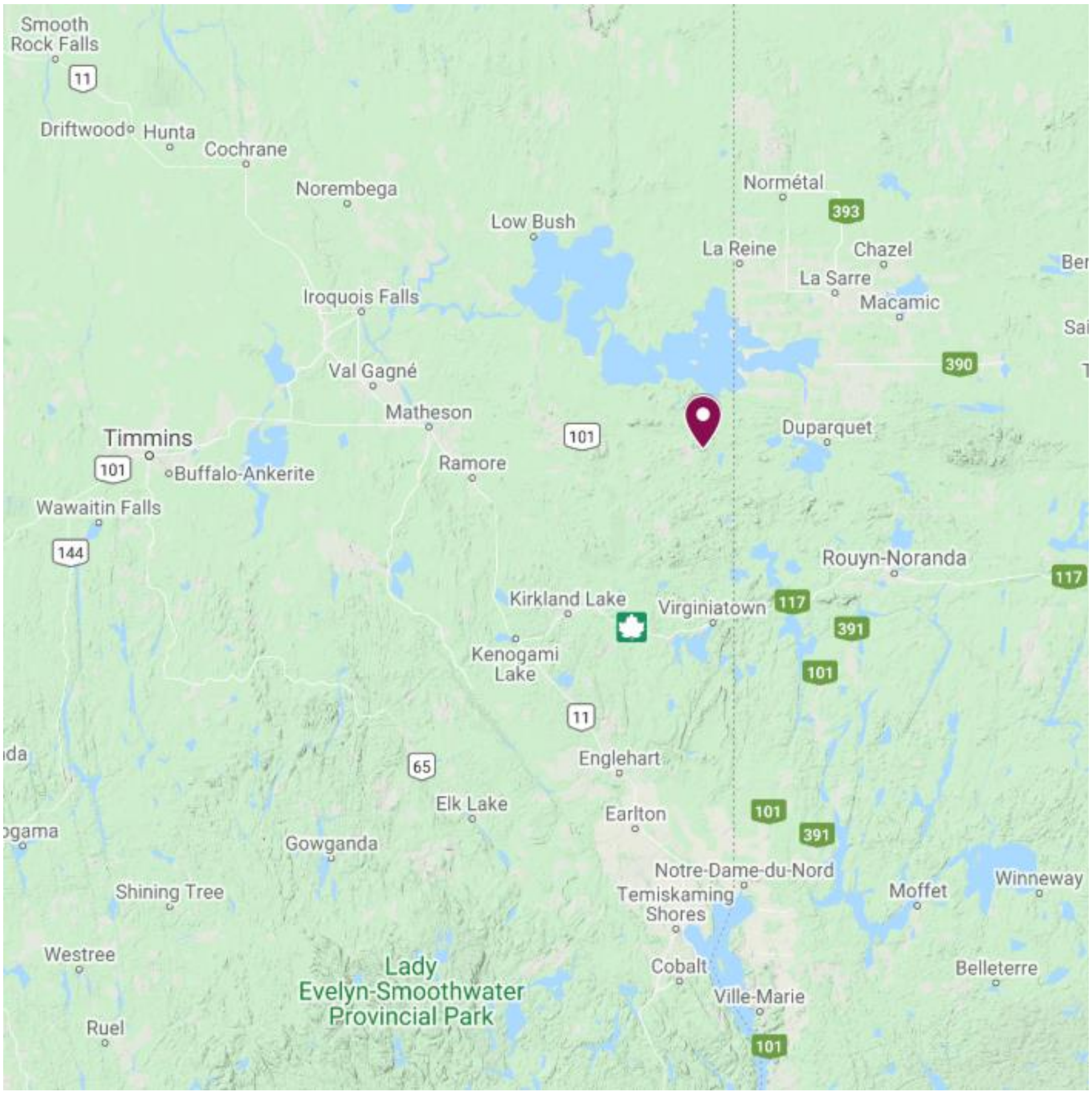

Figure 1: Location of the Harker Heritage Project (Map data ©2022 Google)

2.2 Access

Access to the survey area was via ATV and snowmachine via highway 672. An unnamed forestry access road was used to access the survey area. The access road was located 38.5 kilometres north on Highway 672 and the intersection of Highway 66.

2.3 Mining Claims

The survey area covers a portion of mining claims 193922, 103065, 315102, 327822, 192981, 112208, 159904, 307059, 335208 and 259834 all located in Elliott and Harker Townships, within the Larder Lake Mining Division.

Cell Number	Provincial Grid Cell ID	Ownership of Land	Township
193922	32D05K228	Tiger Gold Exploration Corporation	Elliott / Harker
103065	32D05K229	Tiger Gold Exploration Corporation	Elliott / Harker
315102	32D05K229	Tiger Gold Exploration Corporation	Elliott / Harker
327822	32D05K230	Tiger Gold Exploration Corporation	Elliott / Harker
192981	32D05K248	Tiger Gold Exploration Corporation	Elliott
112208	32D05K249	Tiger Gold Exploration Corporation	Elliott
159904	32D05K250	Tiger Gold Exploration Corporation	Elliott
307059	32D05K268	Tiger Gold Exploration Corporation	Elliott
335208	32D05K269	Tiger Gold Exploration Corporation	Elliott
259834	32D05K270	Tiger Gold Exploration Corporation	Elliott

Table 2: Mining Lands and Cells Information

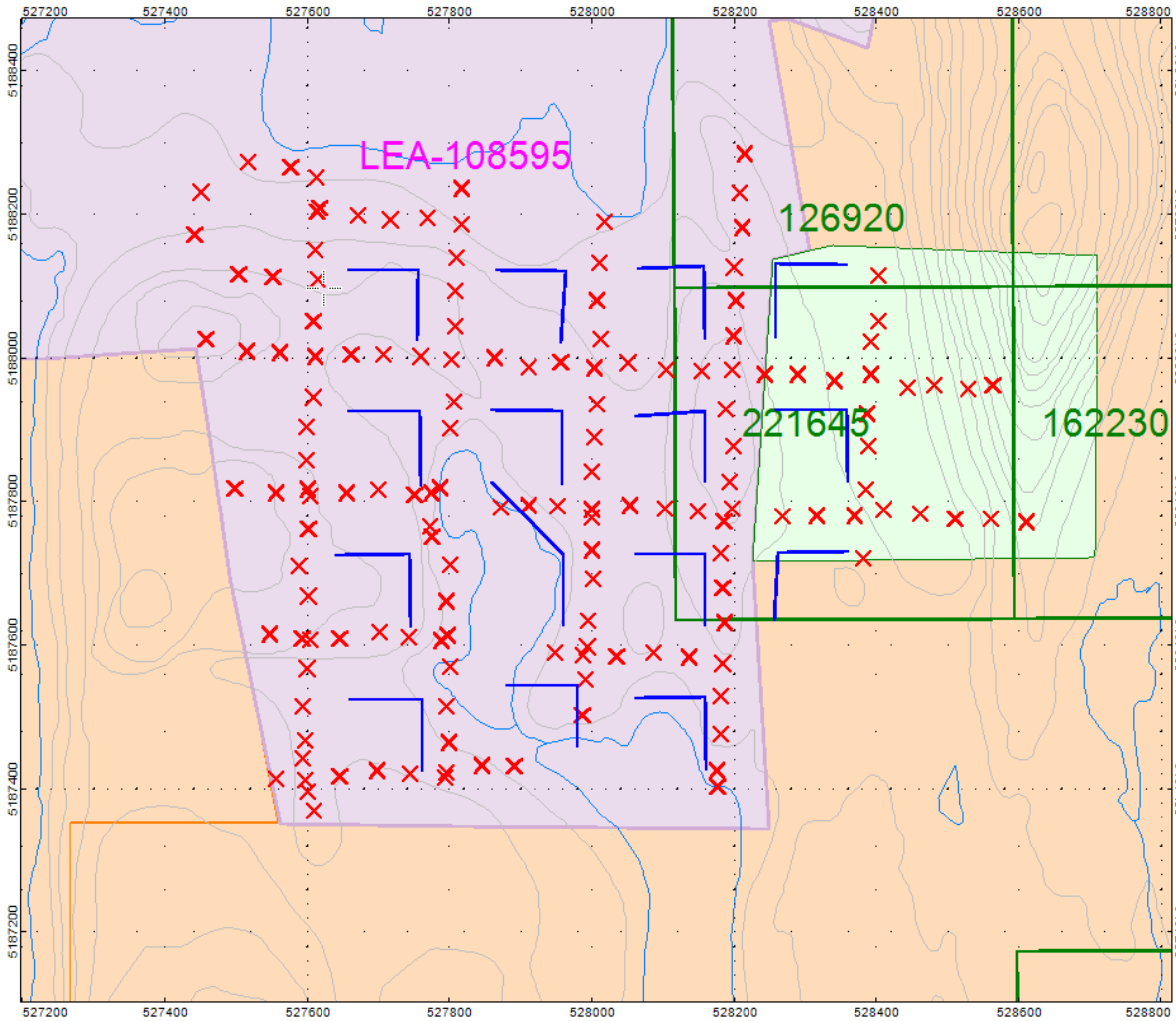

Figure 2: Operational Claim Map with 3D IP Electrode Sites – Red=Transmit Locations – Blue=Read Dipole

2.4 Property History

There have been many historical exploration projects carried out over the years all over the survey area. The following list describes details of the previous geoscience work which was collected by the Mines and Minerals division and provided by OGSEarth (MNDM & OGSEarth, 2021).

- **1982-1983: Phelps Dodge Corporation of Canada (File 432D05NW0090, 32D05NW0090)**
  Ground Geophysics, Geology
  In the year 1982 and 1983 Phelps Dodge reported performing a VLF survey

and mapping the geology over a portion of the property.

- **1984: Golden Harker Exploration Ltd. (File 32D05NW0088)**
  Diamond Drilling
  In the year 1984, Golden Harker reported drilling 2 diamond drill holes on a portion of the property totaling 886 feet.

- **1985 - 2012: Perrex Resources Inc. (File 32D05NW0022, 32D12SW0066, 32D05NW0100, 20000005891, 20000007246)**
  Ground Geophysics, Airborne Geophysics, Overburden Stripping and Geological
  During this period, Perrex and its various JV partners performed an airborne magnetometer and VLF survey. They also reported performing ground magnetometer and VLF along with some outcropping stripping and geological mapping.

- **1986-1987: Coastoro Resources Limited (File 32D05NW0069, 32D05NW0076)**
  Ground Geophysics and Geological

  During this period, Coastoro performed a ground magnetometer and VLF survey along with geological mapping over a portion of the survey area.

- **1994-1995: Charmichael (File 32D05NE0086, 32D05NW9401, 32D05NW0029)**
  Ground Geophysics and Geological

  During this period, Charmichael performed a ground magnetometer, VLF and IP surveys along with geological mapping over a portion of the survey area. He also reported performing some stripping and trenching.

- **1996: CDK Syndicate (File 32D05NW0126)**
  Ground Geophysics and Physical

  During 1996 CDK reported performing a ground VLF survey. They also reported performing some stripping and trenching.

- **1997-2002: Alex Perron (Files 32D05NW0169, 32D05NW2004, 32D05NW2022, 32D05NW2023, 32D05NW2063, 32D05NW2065, 32D05NW2066, 32D05NW2073, 32D05NW2081, 32D05NW2100,**

32D05NW2101, 32D05NW2102, 32D05NW2103, 32D05NW2104, 32D05NW2105, 32D05NW2114, 32D05NW2116, 32D05NW2117, 32D05NW2118, 32D05NW2119, 32D05NW2121, 32D05NW2122, 32D05NW2123, 32D05NW2124, 32D05NW2125, 32D05NW2126, 32D05NW2127, 32D05NW2077)
Ground Geophysics and Geological

During this period, Perron reported performing multiple ground magnetometer and VLF surveys along with geological mapping over portions of the survey area.

- **2003-2017: Tiger Gold Exploration Corporation (Files 32D05NW2137, 32D05NW2138, 32D05NW2141, 32D05NW2142, 32D05NW2143, 32D05NW2144, 32D05NW2177, 32D05NW2178, 32D05NW2154, 32D05NW2162, 32D05NW2164, 32D05NW2175, 20000002081, 20000001998, 20000002687, 20000005359, 20000005733, 20000006985, 20000008489, 20000014597, 20000014612, 20000014621, 20000014624, 20000013803, 20000013905, 20000014598, 20000014622, 20000002605, 20000008849, 20000008871, 20000015092)**
Ground Geophysics and Geological

  During this period, Tiger reported performing multiple ground magnetometer and VLF surveys along with geological mapping over portions of the survey area. They also report overburden stripping and trenching occurred.

2.5 General Regional/Local Geological Settings

General Geology:

The Harker Heritage property is in the Abitibi Greenstone Belt of the Canadian Shield. This belt is composed of a sequence of meta-volcanic and metasedimentary Archean age rocks that cover an area stretching about 220 miles from Timmins, Ontario, on the west to Val D'Or, Quebec, on the east.

The Harker Heritage property is situated within a sequence of iron and magnesium rich tholeiitic basalt flows known as the Kinojevis group. Stratigraphically, this group is about 30,000 feet thick and it occupies the core of a large east plunging synclino-rium.

The rocks from the Kinojevis group are overlain by younger, Blake River group calc-alkaline volcanics. Both have been folded into a large, east plunging synclinorium, the northern and southern limbs of which, have been cut by the major Porcupine

Destor and Kirkland Lake-Larder Lake fault zones, respectively. The Harker Heritage Property is situated about 5 miles south of the Destor Porcupine Fault zone near the Kinojevis-Blake River group.

2.6 Target of Interest

Targetting of the Survey revolved around the strike of historical mineralization. Northeast along strike is located the Iris and the Golden Harker, and southwest is additional gold showings. The purpose of this Survey is to determine if favourable mineralization occurs.

3. PLANNING

3.1 Exploration Permit/Plan

The exploration program was designed to use a recently cut grid and existing roads. The 3D Distributed Induced Polarization survey was performed over mining claims held by Tiger Gold Exploration Corporation. The required plan/permit is PR-20-000171 for the entire area of the survey coverage.

3.2 Survey Design

Specialized IP survey design software was used as a tool to assist in the targeting of the Survey. In this case a theoretical survey distribution scenario was established to determine the survey results coverage.

For optimal coverage, 18 receivers with 3 read electrodes each were planned in selected locations in between the current injection paths. The 3 read electrodes of each receiver were planned in 2 orthogonal directions, with 100-metre dipole lengths (grid north-south and grid east-west). Current injections were planned at 50-metre intervals along the newly cut lines and existing roads. An infinite location was chosen for this Survey to provide pole-dipole array. The infinite was planned to be at a location as far as possible from the grid, dependent on field conditions and access. A theoretical depth of 425 metres was obtained from the software with this layout.

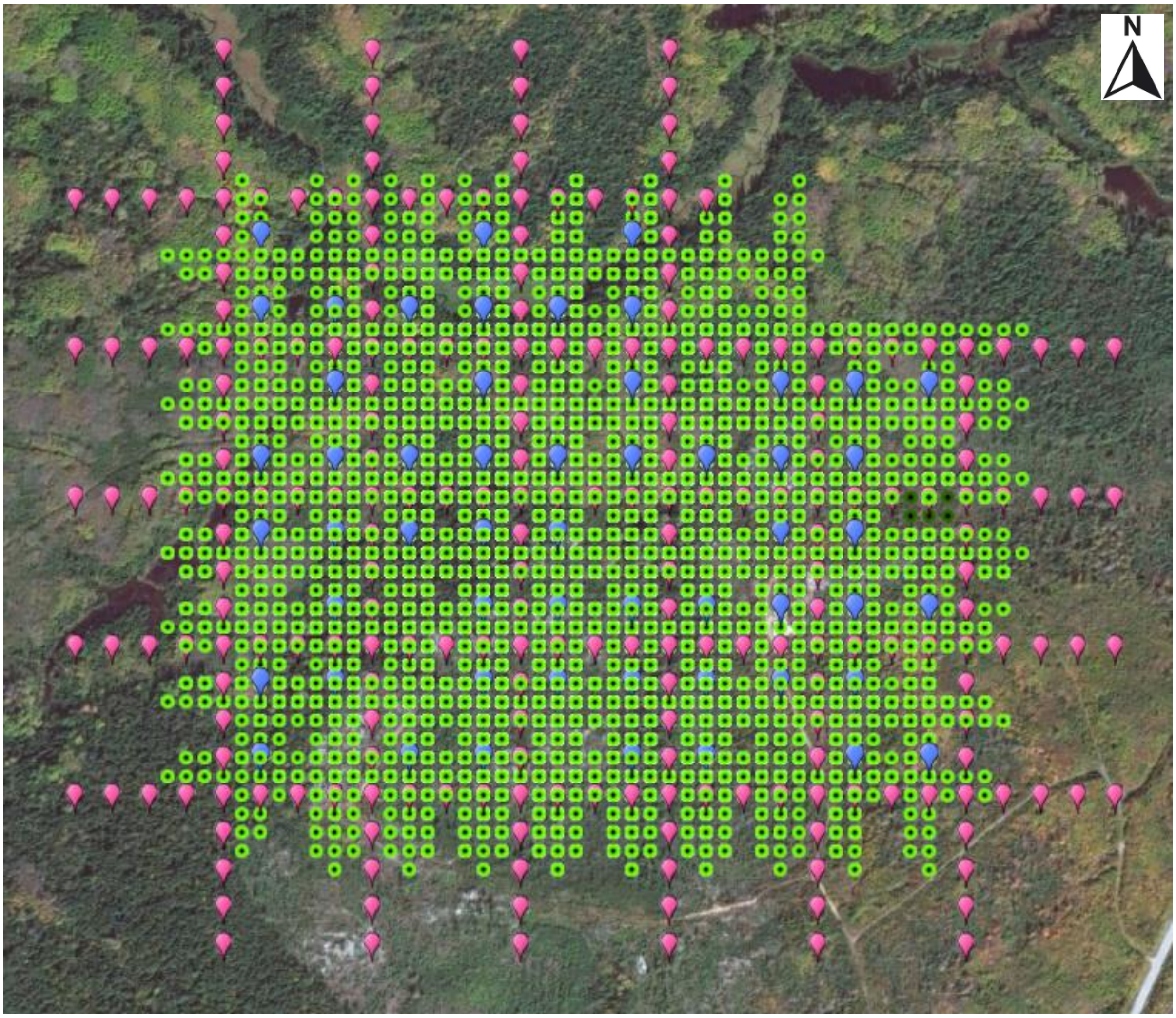

Figure 3: Survey Design Model Looking Down – Red=Current Injection, Blue=Receiver Electrodes, Green=Theoretical Data Point (©2022 Google, Image ©2022 Maxar Technologies)

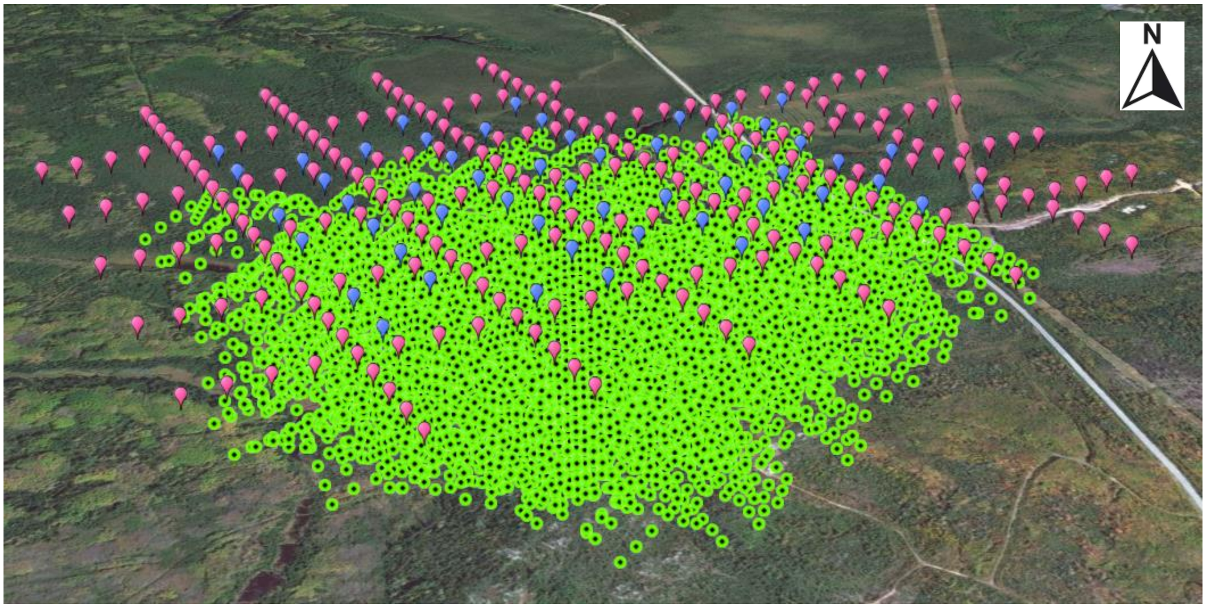

Figure 4: Survey Design Model Looking Northeast – Red=Current Injection, Blue=Receiver Electrodes, Green=Theoretical Data Point (©2022 Google, Image ©2022 CNES/Airbus)

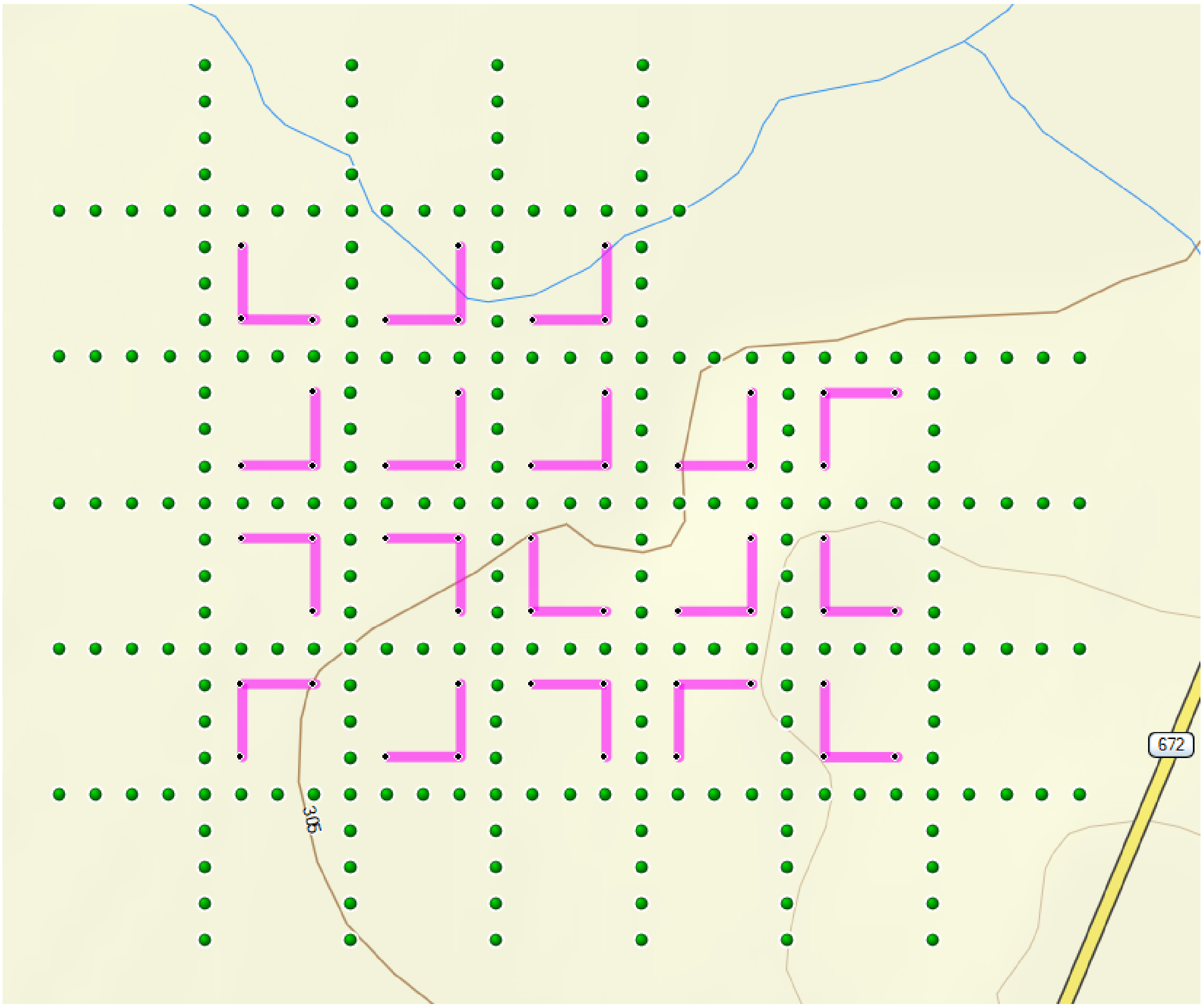

Figure 5: Planned Survey Layout – Green Circles=Current Injections, Pink Lines=Di-poles, Black Dots=Read Electrodes

4. SURVEY WORK UNDERTAKEN

4.1 Summary

CXS was contracted to perform a 3D IP survey over the Harker Heritage Project. The crew accessed the site on November 29th and completed the Survey on December 10th, 2021.

A total of 12.6 kilometres was covered with 240 injected current locations for this 3D Distributed Induced Polarization survey. Collected GPS locations were applied to the electrode field locations. The survey area footprint was 1.68 km^2 with irregular dimensions of (1.2 x1.4km) and was constrained by adjacent property alienations.

4.2 Survey Grid

A grid was cut along the intended current injection paths. The grid consisted of 6 north-south lines (200W, 400W, 600W, 800W, 1000W and 1200W. Five east-west tie lines (1000S, 800S, 600S, 400S and 200S), spaced at 200m intervals and the stations were picketed at 25-metre intervals. The grid was cut by Five on Line Contracting based out of Belleterre, Quebec in early November prior to the survey acquisition.

4.3 Survey Setup

18 receivers were placed in 18 previously selected locations scattered between the grid lines. Each receiver was connected to 2 relatively orthogonal, ~100-metre dipoles (grid north-south and grid east-west). The coordinates of the read electrodes were recorded by GPS and are listed in Table 3. Due to field conditions, exact locations and directions were not always achieved. The infinite location was chosen by the crew and located at 587106E 5362763N, approximately 4km south of the grid, located as far as possible to achieve a pole-dipole array scenario. The survey area footprint was 1.68 km^2 with the irregular dimensions of (1.2 x1.4km).

Read Electrode	UTM X (m)	UTM Y (m)
403-P1	586655	5367131
403-P2	586657	5367033
403-P3	586757	5367034
404-P1	586955	5367136
404-P2	586956	5367036
404-P3	586857	5367037
405-P1	587155	5367140
405-P2	587157	5367040

Read Electrode	UTM X (m)	UTM Y (m)
414-P1	587061	5366738
414-P2	587063	5366638
414-P3	587162	5366640
415-P1	587359	5366745
415-P2	587359	5366647
415-P3	587266	5366642
416-P1	587460	5366742
416-P2	587462	5366645

405-P3	587058	5367038	416-P3	587562	5366646
406-P1	587356	5367143	417-P1	586665	5366432
406-P2	587358	5367043	417-P2	586664	5366533
406-P3	587256	5367040	417-P3	586765	5366534
408-P1	586957	5366937	418-P1	586963	5366531
408-P2	586955	5366838	418-P2	586965	5366438
408-P3	586859	5366836	418-P3	586875	5366430
410-P1	587357	5366944	419-P1	587163	5366447
410-P2	587359	5366842	419-P2	587166	5366537
410-P3	587261	5366841	419-P3	587064	5366536
411-P1	587458	5366845	420-P1	587266	5366448
411-P2	587451	5366948	420-P2	587266	5366540
411-P3	587560	5366947	420-P3	587365	5366543
412-P1	586763	5366634	421-P1	587463	5366543
412-P2	586761	5366734	421-P2	587466	5366444
412-P3	586661	5366733	421-P3	587565	5366447
413-P1	586962	5366637			
413-P2	586961	5366736			
413-P3	586861	5366735			

Table 3: Receiver Electrode Coordinates

4.4 Data Acquisition

CXS began acquiring data on December 2nd, 2021. Current injection sites were injected along the recently established grid lines and existing roads at approximately 50-metre increments. GPS points were collected at each injection rod location prior to each current injection and recorded along with their respective injection details, such as injection file numbers and ground conditions. There was a total of 240 injection locations for this Survey.

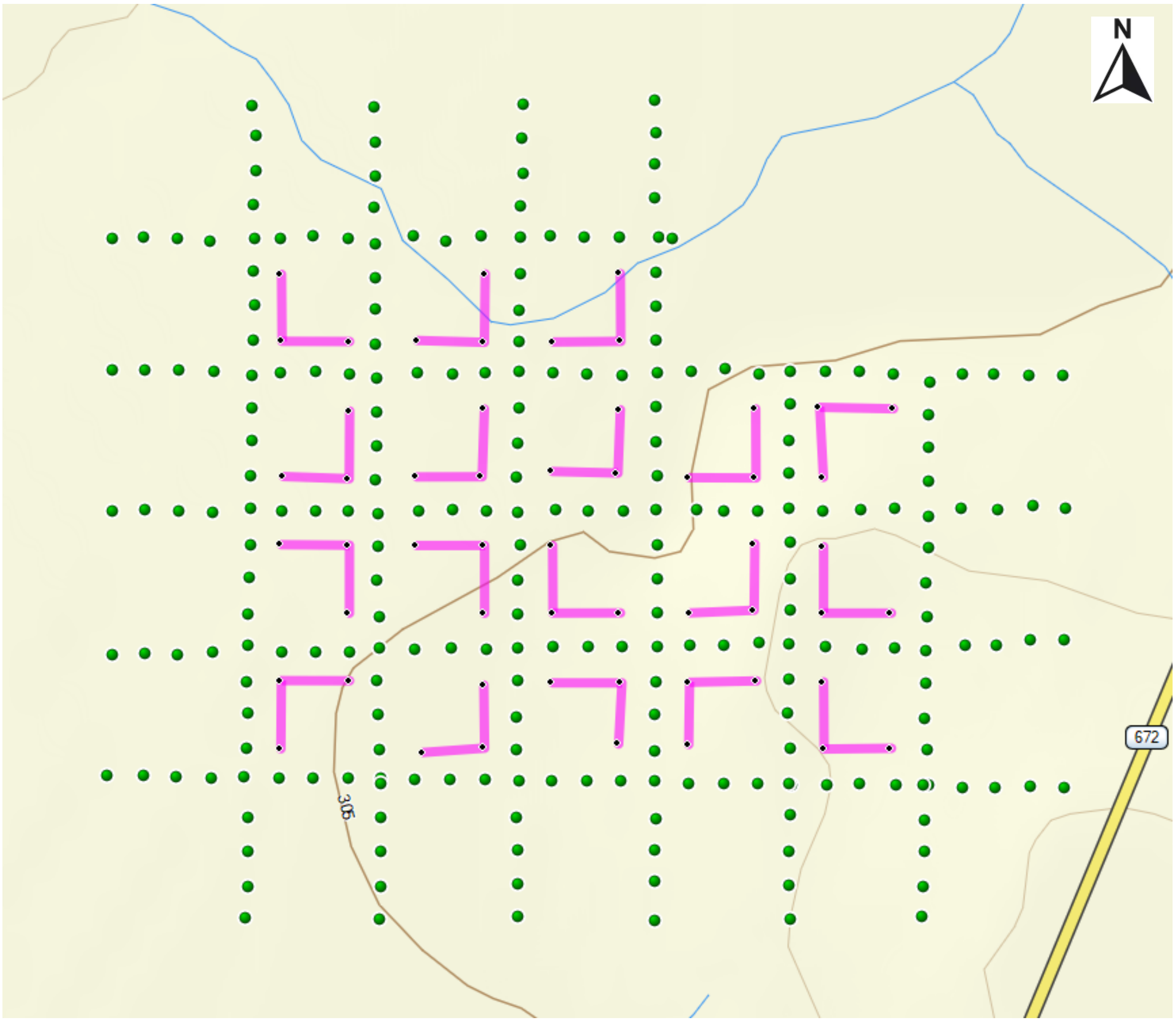

Figure 6: Actual Field Survey Layout with Injection Sites (green dots) in Mapsource

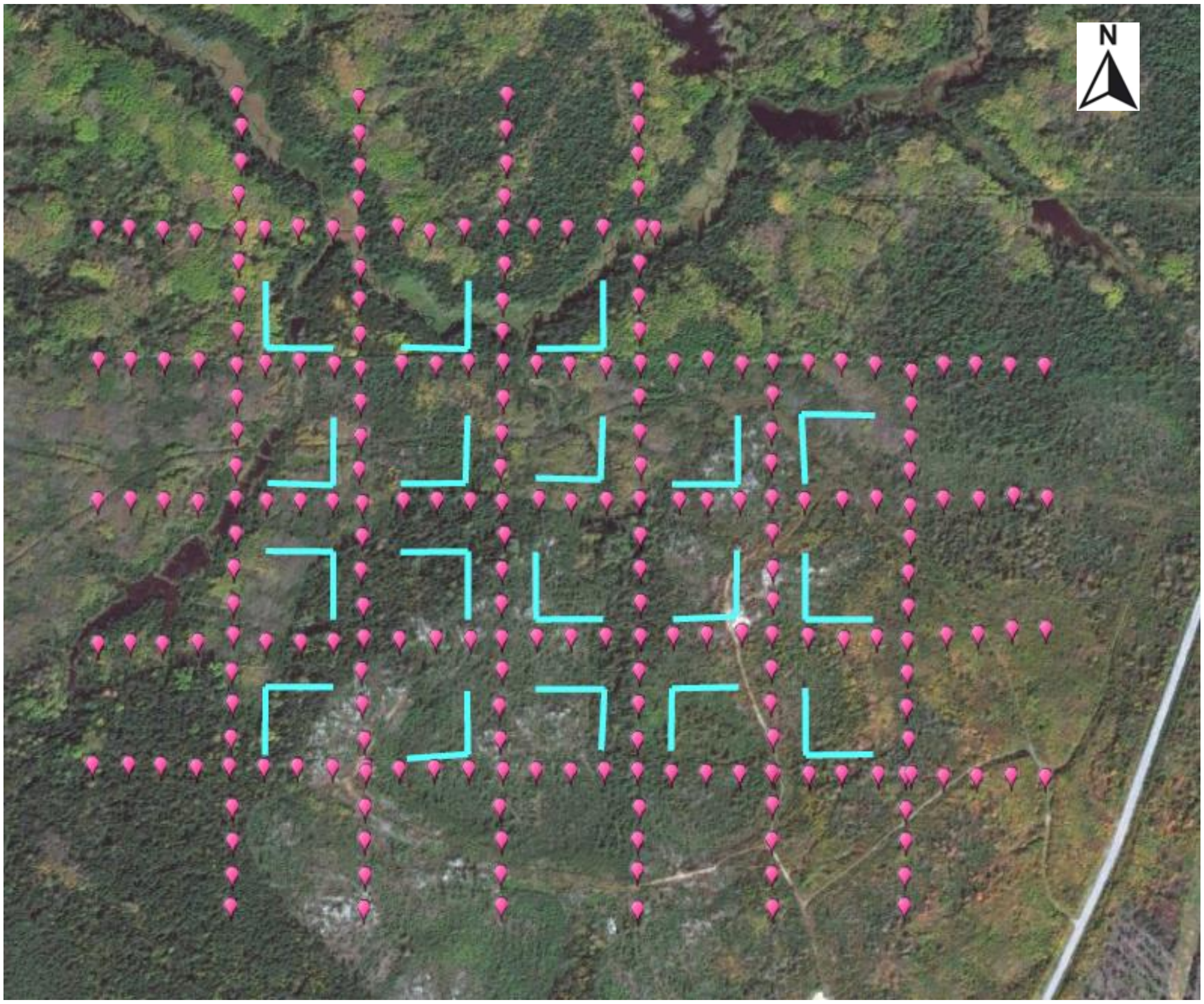

Figure 7: Receiver Dipole Orientations on Google Earth (©2022Google, Image ©2022 Maxar Technologies)

Figure 8: Topographical Relief with the Survey Deployment Looking Northeast (Image ©2022 Maxar Technologies, ©2022 Google)

4.5 Survey Log

3D IP Survey Log					
Date	**Description**	**Line**	**Min Extent**	**Max Extent**	**Total Survey (m)**
November 29th, 2021	Locate survey area and begin logger and infinite site setup.	-	-	-	-
November 30th, 2021	Continue to establish logger sites and infinite.	-	-	-	-
December 1st, 2021	Continue to establish logger sites and infinite.	-	-	-	-
December 2nd, 2021	Complete setup and begin 3DIP Survey.	1000S	1400W	400W	1000
	21 Injections and 1.0 km				
December 3, 2021	Continue 3DIP survey.	200W	1200S	400S	800
		400W	1200S	400S	800

3D IP Survey Log					
Date	**Description**	**Line**	**Min Extent**	**Max Extent**	**Total Survey (m)**
		1000S	400W	0W	400
	40 Injections and 2.0 km				
December 6, 2021	Continue 3DIP survey.	600W	1200S	0S	1200
		800W	1200S	0S	1200
	48 Injections and 2.4 km				
December 7, 2021	Continue 3DIP survey.	1000W	1200S	0S	1200
		1200W	1200S	0S	1200
	48 Injections and 2.4 km				
December 8, 2021	Continue 3DIP survey.	800S	1400W	0W	1400
		600S	1400W	0W	1400
		400S	600W	0W	600
	56 Injections and 3.2 km				
December 9th, 2021	Complete 3D IP survey and begin to recover gear.	400S	1400W	600W	800
		600S	1400W	600W	800
	27 Injections and 1.6 km				
December 10th, 2021	Recover gear.				
Total	**12.6 Line Kilometres / 240 Injections**				

Table 4: 3D IP Survey Log

4.6 Personnel

Crew Member	**Position**	**Resident**	**Province**
Bruce Lavalley	Crew Chief	Britt	Ontario
Claudia Moraga	Transmitter Operator	Britt	Ontario
Jonathan Lacaille	IP Technician	Larder Lake	Ontario

Richard Bates	IP Technician	Virginiatown	Ontario
Cameron Hansen	IP Technician	Larder Lake	Ontario
Tyler Peddie	IP Technician	Kirkland Lake	Ontario
Gunhee You	IP Technician	Calgary	Alberta
Five on Line Contracting	Line Cutters	Belleterre	Quebec
C Jason Ploeger	Senior Geophysicist	Larder Lake	Ontario

Table 5: CXS Induced Polarization Personnel

4.7 Field Notes: Condition and Culture

The average weather over the eight field days was -11.2°C and lows down to -28°C and daytime highs up to 4°C. Heavy snow was noted during the survey period.

No culture was observed over the course of the heavy that would impact the data.

Topographical features and ground characteristics along the read dipoles and current injection lines are noted in the following two tables (Table 6 & 7, respectively).

Logger Field Notes (Soil/Topography/Vegetation/Culture notes on dipoles and corresponding electrodes P1/P2/P3)		
402	**Soil**	P1, P2 & P3 Clay
	Topo	P1, P2 & P3 Flat
	Veg	P1 Pine, P2 & P3 Mixed
403	**Soil**	P1 Sandy Clay, P2 Clay, P3 Muddy Clay
	Topo	P1, P2 & P3 Flat
	Veg	P1 Pine, P2 & P3 Mixed
404	**Soil**	P1 & P3 Sandy Clay, P2 Clay
	Topo	P1, P2 & P3 Flat
	Veg	P1 & P3 Spruce/Pine, P2 Mixed
407	**Soil**	P1 Loam, P2 & P3 Clay
	Topo	P1, P2 & P3 Flat
	Veg	P1, P2 & P3 Pine
408	**Soil**	P1 Clay, P2 & P3 Loam
	Topo	P1, P2 & P3 Flat
	Veg	P1 Mixed, P2 Poplar, P3 Pine

Logger Field Notes (Soil/Topography/Vegetation/Culture notes on dipoles and corresponding electrodes P1/P2/P3)		
409	**Soil**	P1 Loam, P2 Wet mud, P3 Clay
	Topo	P1, P2 & P3 Flat
	Veg	P1 & P2 Poplar, P3 Mixed
410	**Soil**	P1, P2 & P3 Rocky clay
	Topo	P1 & P3 Slight sidehill, P2 Flat
	Veg	P1, P2 & P3 Mixed
411	**Soil**	P1 & P2 Clay, P3 Mud
	Topo	P1, P2 & P3 Flat
	Veg	P1 P2 & P3 Mixed
412	**Soil**	P1, P2 & P3 Swampy mud
	Topo	P1, P2 & P3 Flat
	Veg	P1 P2 & P3 Mixed
413	**Soil**	P1 Sandy rock, P2 & P3 Swampy mud
	Topo	P1, P2 & P3 Flat
	Veg	P1 P2 & P3 Mixed
414	**Soil**	P1 & P3 Rocky moss, P2 Loam
	Topo	P1, P2 & P3 Flat
	Veg	P1 P2 & P3 Pine
415	**Soil**	P1 Rocky clay, P2 & P3 Rocky mud
	Topo	P1 & P3 Flat, P2 Uphill
	Veg	P1, P2 & P3 Mixed
416	**Soil**	P1 Rocky moss, P2 & P3 Clay
	Topo	P1 Downhill, P2 Flat, P3 Slight downhill
	Veg	P1 & P2 Pine and P3 Mixed
417	**Soil**	P1 & P2 Swampy mud and P3 Rocky moss
	Topo	P1, P2 & P3 Flat
	Veg	P1, P2 & P3 Mixed
418	**Soil**	P1, P2 & P3 Rocky moss
	Topo	P1, P2 & P3 Flat
	Veg	P1, P2 & P3 Mixed

Logger Field Notes (Soil/Topography/Vegetation/Culture notes on dipoles and corresponding electrodes P1/P2/P3)		
419	**Soil**	P1, P2 & P3 Rocky moss
	Topo	P1, P2 & P3 Flat
	Veg	P1, P2 & P3 Mixed
420	**Soil**	P1 Soil, P2 Mud and P3 Rocky Soil
	Topo	P1 P2 & P3 Flat
	Veg	P1, P2 & P3 Mixed
421	**Soil**	P1, P2 & P3 Clay
	Topo	P1 Slight uphill, P2 & P3 Flat
	Veg	P1, P2 & P3 Pine
Infinite	**Soil**	Swamp black mud
	Topo	Low flat area
	Veg	Mixed
	Culture	None

Table 6: Logger Electrode & Dipole Field Notes

Date	Line	Station	UTM X (m)	UTM Y (m)	MSL Z (m)	Inf I (mA)	Injection Electrode Field Notes
02-Dec	1000S	1400W	586410	5366391	302	2000	Flat muddy
		1350W	586463	5366391	301	1200	Flat muddy
		1300W	586511	5366391	302	1200	Flat muddy
		1250W	586564	5366389	301	2000	Flat muddy
		1200W	586613	5366392	302	2000	slight uphill muddy
		1150W	586664	5366391	302	1800	Flat muddy
		1100W	586713	5366392	308	550	Uphill rocky
		1050W	586765	5366392	312	200	Uphill soil
		1000W	586815	5366392	311	500	Slight downhill soil
		950W	586864	5366391	309	1200	Slight downhill soil
		900W	586916	5366393	310	1900	Flat soil
		850W	586967	5366393	310	700	Flat soil
		800W	587018	5366391	313	300	Up and down rocky
		750W	587067	5366392	311	400	Slight downhill soil
		700W	587118	5366392	311	800	Flat soil

		650W	587168	5366394	308	2100	Flat clay
		600W	587217	5366394	309	900	Flat clay
		550W	587267	5366392	309	1950	Flat soil
		500W	587319	5366392	309	1600	Flat clay
		450W	587369	5366393	310	2200	Flat clay
		400W	587420	5366393	311	800	Flat rocky
03-Dec	1000S	350W	587471	5366393	331	300	Flat sandy rock
		300W	587520	5366395	339	700	Flat sand
		250W	587574	5366395	342	450	Flat sand
		200W	587622	5366395	343	450	Flat sand
		150W	587671	5366392	345	350	Flat sand
		100W	587719	5366393	342	250	Flat sand
		50W	587770	5366395	341	300	Flat sand
		0W	587821	5366394	346	600	Flat clay
	200W	1200S	587615	5366200	339	700	Flat soil
		1150S	587615	5366245	339	1700	Flat rocky soil
		1100S	587616	5366296	336	1000	Flat rocky soil
		1050S	587615	5366343	336	900	Flat rocky soil
		950S	587618	5366447	332	700	Flat soil
		900S	587614	5366494	332	600	Flat sand
		850S	587614	5366544	334	400	Flat sand
		800S	587614	5366592	330	200	Flat sand
		750S	587615	5366642	328	300	Flat sand
		700S	587614	5366692	323	450	Slight downhill sand
		650S	587615	5366744	327	350	Flat sand
		600S	587615	5366790	316	500	Slight downhill sand
		550S	587613	5366843	311	1700	Flat clay
		500S	587614	5366891	312	1300	Slight downhill clay
		450S	587614	5366941	313	1700	Flat clay
		400S	587614	5366988	309	2600	Flat clay
	400W	400S	587409	5367000	311	1200	Flat soil
		450S	587409	5366952	318	150	Uphill rocky sand
		500S	587407	5366899	319	200	Uphill rocky sand
		550S	587408	5366852	325	250	Uphill rocky sand
		600S	587410	5366800	332	250	Uphill rocky sand
		650S	587411	5366749	330	160	Uphill rocky sand
		700S	587413	5366696	337	350	Uphill rocky sand
		750S	587414	5366649	332	250	Uphill rocky sand
		800S	587413	5366599	331	250	Downhill sand

		850S	587413	5366548	327	350	Downhill sand
		900S	587413	5366497	319	250	Downhill sand
		950S	587417	5366446	318	1200	Slight downhill soil
		1050S	587418	5366347	319	1050	Flat rocky soil
		1100S	587417	5366294	320	600	Slight uphill rocky soil
		1150S	587418	5366244	329	600	Flat soil
		1200S	587420	5366195	328	700	Flat soil
06-Dec	600W	1200S	587220	5366189	336	250	Flat rocky
		1150S	587219	5366247	326	800	Flat soil
		1100S	587219	5366292	327	2400	Flat clay
		1050S	587221	5366339	328	1500	Flat clay
		950S	587216	5366439	326	2400	Flat clay
		900S	587217	5366493	326	2400	Flat clay
		850S	587217	5366541	326	1500	Flat clay
		800S	587218	5366592	323	950	Flat soil
		750S	587218	5366642	321	2100	Flat clay
		700S	587216	5366692	322	400	Flat soil
		650S	587216	5366741	320	600	Flat soil
		600S	587214	5366795	320	600	Flat soil
		550S	587215	5366845	318	1400	Flat soil
		500S	587213	5366894	315	1500	Flat soil
		450S	587212	5366946	318	1200	Flat clay
		400S	587212	5366996	316	1300	Flat clay
		350S	587210	5367044	314	1700	Flat clay
		300S	587208	5367094	314	1000	Flat clay
		250S	587208	5367143	314	650	Flat soil
		200S	587210	5367196	308	2700	Flat soil
		150S	587205	5367253	307	750	Flat soil
		100S	587203	5367303	314	700	Flat clay
		50S	587204	5367349	314	1100	Flat clay
		0S	587203	5367397	314	1400	Flat clay
	800W	0S	587009	5367388	315	1100	Flat clay
		100S	587008	5367338	312	1400	Flat clay
		150S	587009	5367287	314	1900	Flat clay
		200S	587007	5367238	314	1600	Flat clay
		250S	587007	5367192	311	1800	Flat clay
		300S	587009	5367138	309	2000	Flat clay
		350S	587007	5367084	307	2600	Flat swamp
		400S	587007	5367039	311	900	Flat mossy sand

		450S	587009	5366994	312	1400	Flat soil
		500S	587010	5366940	314	1100	Flat soil
		50S	587008	5366889	315	800	Flat clay
		550S	587007	5366839	312	2000	Flat soil
		600S	587010	5366787	313	1200	Flat soil
		650S	587015	5366739	313	2600	Flat muddy
		700S	587012	5366688	314	1100	Flat soil
		750S	587012	5366638	315	900	Flat soil
		800S	587013	5366587	317	2300	Flat soil
		850S	587014	5366540	318	1500	Flat soil
		900S	587011	5366486	318	1300	Uphill clay
		950S	587013	5366437	325	250	Uphill rocky
		1050S	587014	5366338	322	700	Up and down rocky
		1100S	587017	5366289	317	2200	Flat soil
		1150S	587017	5366239	319	1100	Flat soil
		1200S	587018	5366191	318	2200	Flat clay
07-Dec	1000W	1200S	586815	5366184	329	300	Flat sand
		1150S	586816	5366233	325	250	Flat rocky sand
		1100S	586815	5366286	323	350	Flat rocky sand
		1050S	586814	5366334	326	250	Flat sand
		950S	586812	5366434	321	300	Flat sand
		900S	586808	5366486	323	300	Slight uphill rocky
		850S	586806	5366535	322	350	slight downhill rocky
		800S	586809	5366584	312	1500	Flat clay
		750S	586807	5366631	310	2300	Flat clay
		700S	586803	5366683	311	2700	Flat clay
		650S	586804	5366733	309	1300	Flat clay
		600S	586803	5366782	307	2100	Flat clay
		550S	586798	5366832	305	1700	Flat clay
		500S	586800	5366881	303	2400	Flat clay beside creek
		450S	586799	5366932	306	650	Flat clay
		400S	586798	5366981	306	1500	Flat clay
		350S	586796	5367031	307	950	Flat clay
		300S	586795	5367083	308	1100	Flat clay
		250S	586795	5367129	302	3000	Slight downhill clay
		200S	586794	5367180	306	1400	Flat clay
		150S	586791	5367232	303	2500	Flat clay
		100S	586792	5367279	306	1000	Uphill clay
		50S	586791	5367328	307	750	Flat clay

		0S	586789	5367380	309	1000	Slight downhill clay
	1200W	0S	586608	5367381	300	2300	Flat clay beside creek
		100S	586616	5367335	307	1700	Uphill clay
		150S	586616	5367284	309	1200	Flat clay
		200S	586613	5367235	312	650	Flat clay
		250S	586617	5367184	312	600	Flat clay
		300S	586615	5367136	313	700	Flat clay
		350S	586617	5367087	310	1000	Flat clay
		400S	586615	5367035	314	2000	Flat soil
		450S	586615	5366983	313	2000	Flat soil
		500S	586615	5366935	312	2200	Flat clay
		50S	586616	5366887	313	800	Flat clay
		550S	586615	5366834	309	2300	Flat clay
		600S	586616	5366786	309	2300	Flat clay
		650S	586617	5366734	311	1300	Up and down clay
		700S	586615	5366684	317	1600	Flat clay
		750S	586615	5366631	313	1300	Slight uphill clay
		800S	586616	5366585	313	1800	Slight downhill clay
		850S	586614	5366531	316	900	Flat clay
		900S	586616	5366484	316	1100	Flat soil
		950S	586614	5366433	317	1800	Flat soil
		1050S	586618	5366331	316	1900	Flat soil
		1100S	586619	5366281	315	1100	Flat soil
		1150S	586619	5366231	314	2400	Flat clay
		1200S	586618	5366184	313	2100	Flat clay
08-Dec	800S	0W	587818	5366612	334	1200	Flat soil
		100W	587768	5366612	335	1000	Flat soil
		150W	587718	5366603	339	200	Flat sand
		250W	587672	5366601	337	250	Flat sand
		300W	587568	5366597	337	250	Flat sand
		350W	587520	5366593	338	300	Flat sand
		450W	587467	5366597	339	300	Flat sand
		500W	587368	5366600	331	300	Downhill sand
		50W	587316	5366596	328	500	Downhill sand
		550W	587267	5366595	322	600	Downhill sand
		650W	587167	5366592	320	600	Slight uphill sand
		700W	587116	5366590	324	600	Uphill sand
		750W	587065	5366589	323	200	Slight uphill rocky sand
		850W	586967	5366584	322	200	Slight uphill rocky sand

		900W	586915	5366585	323	350	Slight downhill rocky sand
		950W	586862	5366582	318	400	Downhill rocky sand
		1050W	586764	5366578	314	450	Slight downhill rocky sand
		1100W	586716	5366576	314	1200	Flat muddy
		1150W	586664	5366576	314	1100	Flat soil
		1250W	586563	5366574	311	2100	Flat clay
		1300W	586511	5366570	311	2100	Flat clay
		1350W	586463	5366572	313	1700	Flat clay
		1400W	586415	5366569	313	1100	Flat clay
	600S	1400W	586411	5366780	313	2300	Flat clay
		1350W	586460	5366783	312	2400	Flat clay
		1300W	586510	5366782	312	1900	Flat clay
		1250W	586560	5366780	310	1300	Flat clay
		1150W	586662	5366783	309	1450	Flat soil
		1100W	586712	5366784	312	2200	Flat soil
		1050W	586760	5366784	313	1500	Flat soil
		950W	586864	5366787	310	1700	Flat soil
		900W	586914	5366789	311	1800	Flat clay
		850W	586964	5366789	309	1400	Flat muddy
		750W	587065	5366793	314	1300	Flat clay
		700W	587112	5366790	313	2000	Flat soil
		650W	587165	5366792	310	1400	Flat clay
		550W	587273	5366795	322	400	Slight uphill rocky sand
		500W	587314	5366794	326	350	Uphill rocky sand
		450W	587363	5366795	328	250	Uphill rocky sand
		350W	587458	5366797	325	500	Slight downhill rocky sand
		300W	587514	5366799	324	350	Flat rocky sand
		250W	587565	5366802	320	350	Flat sandy soil
		150W	587664	5366802	323	1100	Flat soil
		100W	587717	5366803	321	1100	Flat rocky soil
		50W	587768	5366809	325	100	Flat rocky soil
		0W	587818	5366806	324	700	Flat soil
	400S	0W	587811	5367001	316	2600	Flat clay
		100W	587760	5367001	317	1400	Flat soil
		150W	587709	5367001	317	1500	Flat soil
		250W	587661	5367001	317	1000	Flat soil
		300W	587560	5366999	315	3000	Flat soil
		350W	587510	5367002	315	1800	Flat soil
		450W	587461	5367001	314	1600	Flat soil

		500W	587363	5366996	315	2500	Flat soil
		50W	587313	5367003	312	800	Flat soil
		550W	587262	5366998	313	600	Flat soil
09-Dec	400S	650W	587161	5366992	311	800	Flat soil
		700W	587107	5366992	311	600	Flat soil
		750W	587059	5366993	304	1200	Flat soil
		850W	586958	5366993	311	1400	Flat soil
		900W	586910	5366990	310	600	Slight downhill sandy soil
		950W	586859	5366990	308	1300	Flat soil
		1050W	586759	5366987	308	600	Flat soil
		1100W	586708	5366991	304	2400	Flat muddy
		1150W	586657	5366987	308	1000	Slight uphill soil
		1250W	586558	5366989	310	1700	Flat soil
		1300W	586507	5366988	312	2800	Flat soil
		1350W	586457	5366988	312	1800	Flat soil
		1400W	586410	5366987	313	1500	Flat soil
	200S	1400W	586406	5367182	314	1500	Flat soil
		1350W	586452	5367183	314	1800	Flat soil
		1300W	586502	5367182	314	1200	Flat soil
		1250W	586550	5367179	313	1100	Flat muddy
		1150W	586653	5367185	312	500	Flat soil
		1100W	586702	5367189	313	550	Flat soil
		1050W	586754	5367187	308	2100	Flat muddy
		950W	586850	5367191	312	750	Flat clay
		900W	586897	5367185	306	900	Flat soil
		850W	586949	5367193	304	1100	Flat soil
		750W	587052	5367194	304	1000	Flat soil
		700W	587101	5367193	305	500	Flat soil
		650W	587154	5367195	302	2300	Flat muddy
		550W	587231	5367194	304	1800	Flat muddy

Table 7: Current Injection Field Notes

4.8 SAFETY

Canadian Exploration Services Ltd prides itself in creating and maintaining a safe work environment for its employees. Each crew member is briefed on the jobsite location, equipment safety, standard operating procedures along with our health and safety manual. An emergency response plan is generated relating to the specific job and with the jobsite predominantly in the field, which is unpredictable, morning safety briefings are essential. Topics are generally chosen based on jobsite characteristics of the area, timing and crew experience.

Daily topics included:

Date	Safety Topic
November 29th, 2021	Beware of the ice conditions as they vary greatly. It may appear safe but may not be. Ice conditions may also vary greatly and change daily. During these freezup conditions, stay off the ice.
November 30th, 2021	Seatbelts are mandatory in all CXS vehicles
December 1st, 2021	Make sure your truck has a radio. When travelling on back roads, call milage every kilometer so that heavy trucks are aware of your location.
December 2nd, 2021	Power protocol for IP.
December 3rd, 2021	When loading and unloading a bike or skidoo make sure your ramp is secure and strong enough to support load. Also make sure it is securely attached to the vehicle.
December 6th, 2021	Sometimes you have to park on the side of the road. Make sure the that you and your vehicle are visible. Park where it is safe, put up cones, use 4 way or overhead flashers.
December 7th, 2021	There should be multiple exits in every situation. Machines have multiple points of exit note where they are and how they are used. Keep exits clear in case of emergency.
December 8th, 2021	Make sure you have the proper gear to wear for the job. Make sure it is in good condition and dry it is good practice to carry an extra pair of mitts and socks. Make sure to dry your gear every night.
December 9th, 2021	Cold weather diseases and how to recognize them.
December 10th, 2021	The conditions this year are causing varied conditions on the roads. The highways are snow covered to clear and they can change quickly. Pay attention.

Table 8: Daily Safety Topics

5. INSTRUMENTATION & METHODS

5.1 INSTRUMENTATION[1]

Fifteen 2-channel Full Waver IP receivers were employed for the 3D IP survey. The transmitter consisted of a GDDII (5kW) with a Honda 6500 as a power plant. Two current monitors were connected to the transmitter to record the current transmitted; one to record each 90s transmit and the second to continuously record throughout the day as a backup.

Time-domain IP surveys involve the measurement of the magnitude of the polarization voltage that results from the injection of pulsed current into the ground. Apparent resistivity and chargeability are the parameters of interest measured through this procedure.

5.2 THEORETICAL BASIS

Time-domain IP (TD-IP) surveys involve the measurement of the magnitude of the polarization voltage that results from the injection of pulsed current into the ground.

Two main mechanisms are known to be responsible for the IP effect, although the exact causes are still poorly understood. The main mechanism in rocks containing metallic conductors is electrode polarization (overvoltage effect). This results from the buildup of charge on either side of conductive grains within the rock matrix as they block the flow of current. On removal of this current, the ions responsible for the charge slowly diffuse back into the electrolyte (groundwater), and the potential difference across each grain slowly decays to zero.

The second mechanism, membrane polarization, results from a constriction of the flow of ions around narrow pore channels. It may also result from the excessive buildup of positive ions around clay particles. This cloud of positive ions similarly blocks the passage of negative ions through pore spaces within the rock. On removal of the applied voltage, the concentration of ions slowly returns to its original state resulting in the observed IP response.

In TD-IP, the current is usually applied in the form of a square waveform, with the polarization voltage being measured over a series of short time intervals after each current cut-off, following a short delay of approximately 0.5s. These readings are integrated to give the area under the decay curve. The integral voltage is divided by the observed steady voltage (the voltage due to the applied current, plus the polarization voltage) to give the apparent chargeability (Ma) measured in milliseconds. For

[1] Refer to appendix B for instrument specifications.

a given charging period and integration time the measured apparent chargeability provides qualitative information on the subsurface geology.

The polarization voltage is measured using a pair of non-polarizing electrodes like those used in spontaneous potential measurements and other IP techniques.

5.3 Survey Specifications

3D Distributed Induced Polarization Array

The 3D Distributed Induced Polarization array configuration was used for this Survey. This array consisted of 54 mobile stainless steel read electrodes and two current electrodes. Eighteen portable receivers were each connected to 3 read electrodes (P1, P2, and P3) to create two orthogonal components with 100m dipole spacing. The power location CA was chosen based on field conditions but placed throughout the survey area (randomly or in a grid-like manner). In this case, there were six north-south, spaced at 200m intervals and five east-west lines, also spaced at 200m, used for power locations. A road was also used for current locations. Along each line, the power transmits were injected at approximately every 50m. The transmitter operator controlled which remote electrode was being used. The infinite was located approximately 4 kilometres south of the survey area at 587106E and 5362763N. The infinite was placed in their locations to achieve a pole-dipole array configuration. The maximum theoretical depth obtained was approximately 450 metres. A two-second transmit cycle time was used for a duration of 90 seconds for approximately 12 stacks.

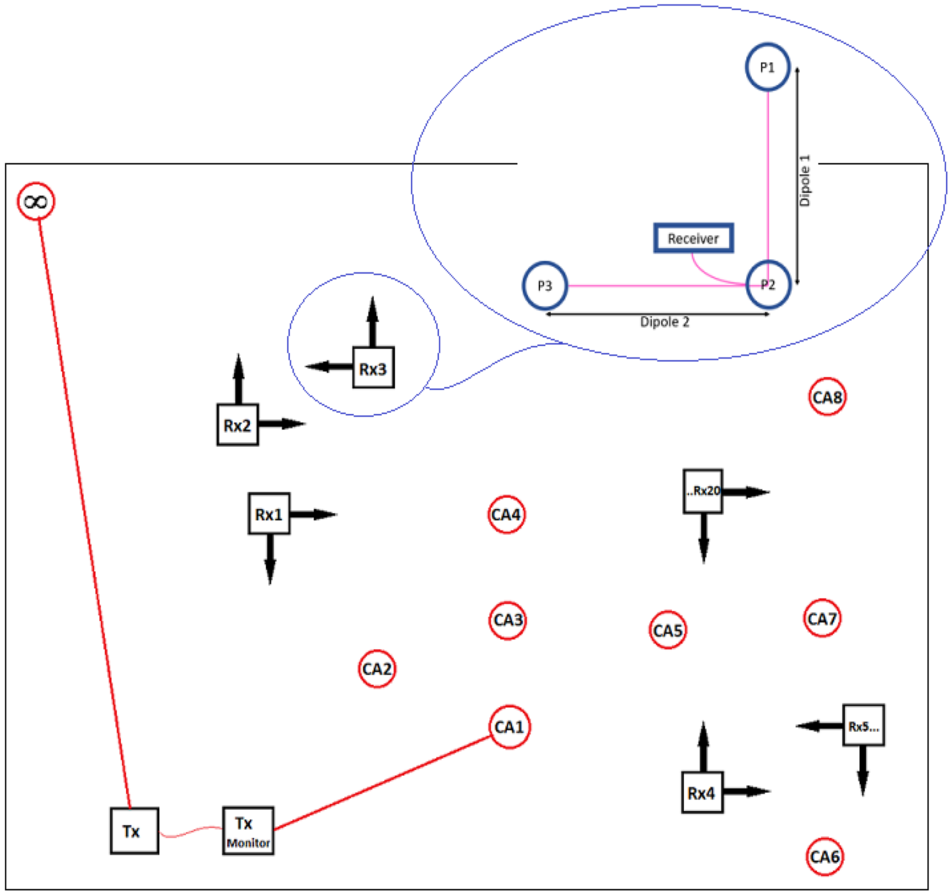

Figure 9: 3D Distributed IP Configuration

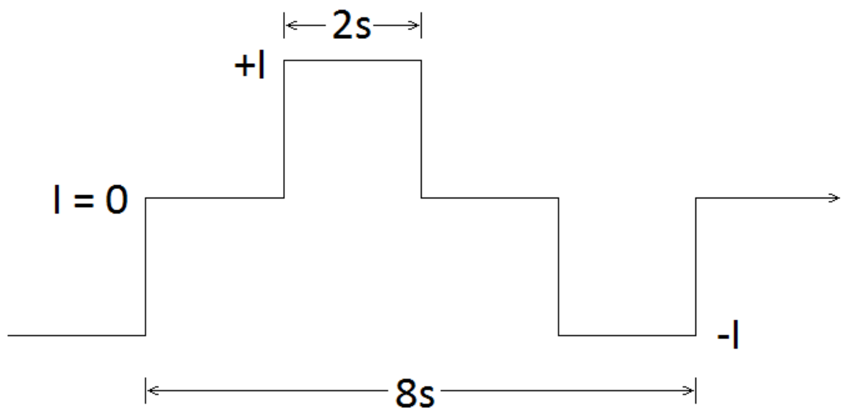

Figure 10: Transmit Cycle Used

6. QUALITY CONTROL & PROCESSING

6.1 Field Quality Control

Daily field quality control steps consisted of the following:

1. Resistivity checks – the resistivity of each dipole was recorded in the field pre- and post-acquisition to ensure dipoles were connected to the receiver properly and the electrode was well contacted with the ground.

2. GPS checks – internal GPS of each receiver was checked that they were placed in the proper position. GPS and injection file time stamps were compared to confirm correlation.

3. Data check – data was dumped daily and confirmed that the number of GPS points matched the number of injection files.

4. Backup – a second current monitor recorded the transmit cycles continuously throughout every acquisition day. If necessary, the backup was used.

5. Repeats – repeats of lines/data were taken if necessary.

6.2 Processing

In the office, processing of the data and quality control was done interchangeably. The steps included:

1. Import positions – GPS coordinates were imported into each corresponding current injection file (IAB) and receiver file (VMN) using the Fullwave Viewer Software.

2. GPS check – the imported positions were confirmed on Google Earth.

3. Synchronization check – in case of GPS lags or different time settings the synchronization of the files was checked to determine they match (Figure 12).

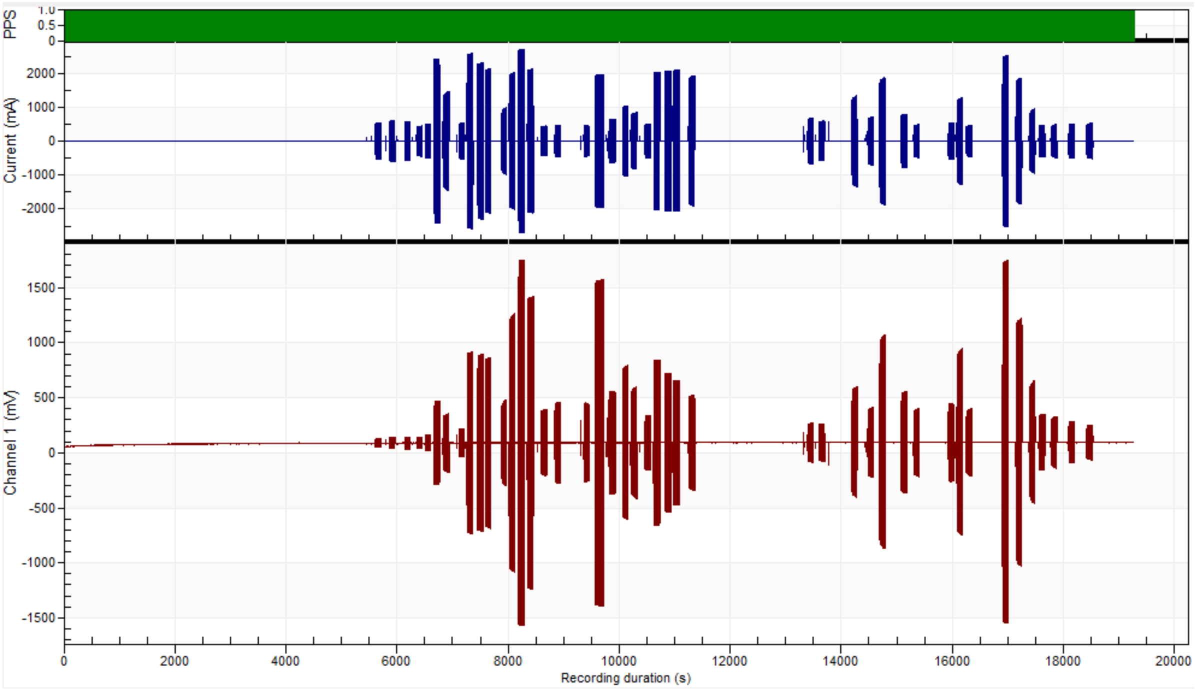

Figure 11: Receiver recordings (red) synchronized with the current injections (blue)

4. Prosys output – a complete .bin file was output from the Fullwave Viewer software.

5. Data quality control – values were viewed in the complete .bin file. Accepted values with a normal M1-M20 range would have a proper transmit cycle, a smooth curve, and a high amplitude low frequency narrow peak (Figure 13). Unaccepted values with an abnormal M1-M20 range (Figure 14, red circle) would not have proper signals (Figure 15). These abnormal values could be due to a few different things or a combination of the following; the dipole being too far from the current injected, the background noise being greater than that of the current injected, poor dipole coupling, and/or cultural features on surface causing coupling or a significant background noise interference. These were removed in the following step.

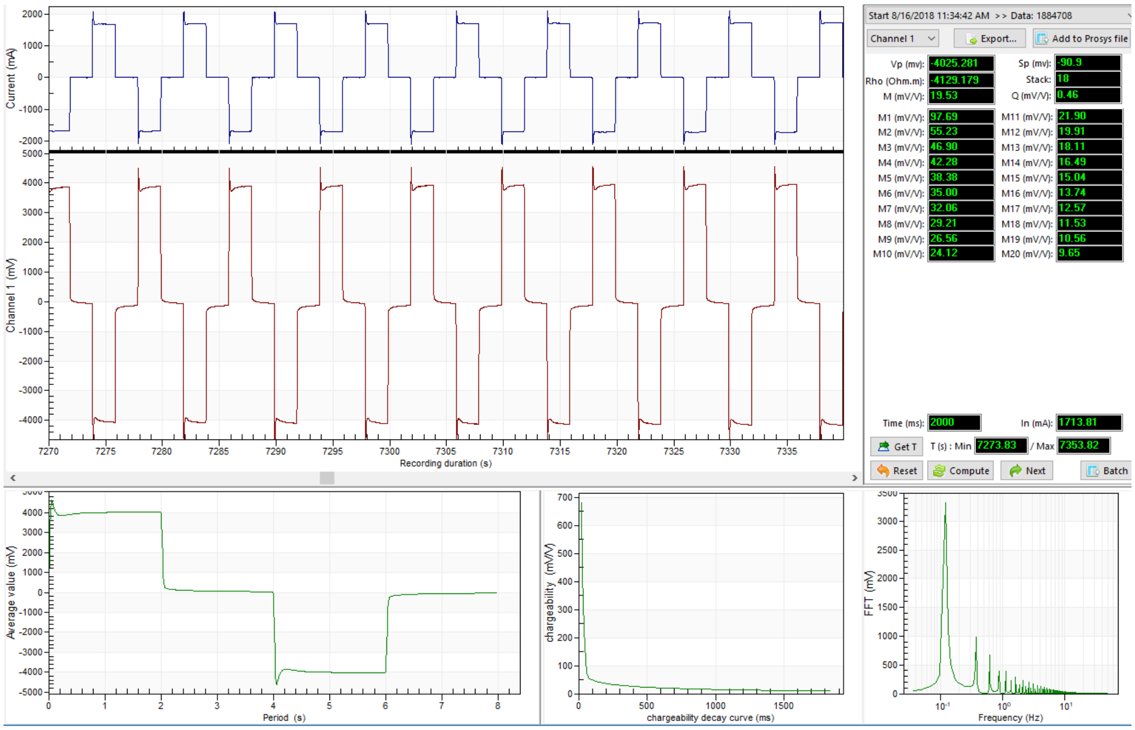

Figure 12: Good 90 second transmit/read pair. Injection (blue), read signal (red), transmit signal (bottom left), decay curve (bottom centre), FFT (bottom right).

M1 (...	M2 (...	M3 (...	M4 (...	M5 (...	M6 (...	M7 (...	M8 (...
69.11	45.44	39.99	36.58	33.48	30.76	28.53	26.05
75.78	48.86	41.69	37.53	34.34	31.16	27.97	25.89
75.73	50.14	43.65	39.60	36.34	33.18	30.49	27.90
81.56	54.13	46.51	41.97	38.16	34.65	31.68	28.80
69.46	44.71	38.75	35.17	32.20	29.45	27.06	24.76
94.25	66.44	57.79	52.34	47.77	43.66	40.14	36.61
128554.88	-11085.17	-14311.44	-14973.24	-16379.58	-4281.03	4318.25	-3929.44
67.53	41.83	35.59	32.24	29.36	26.65	24.26	22.33
65.87	42.73	37.79	34.62	31.80	29.44	27.04	24.97
91.27	62.90	54.94	49.39	45.30	41.31	37.83	34.67
91.55	63.34	55.08	50.01	45.57	41.54	38.07	34.83
124.30	92.27	80.17	72.73	66.38	61.02	56.01	50.97
66.66	44.00	37.08	32.36	29.95	27.68	24.13	22.05

Figure 13: Output .bin file viewed in Prosys. Larger abnormal M values circled in red.

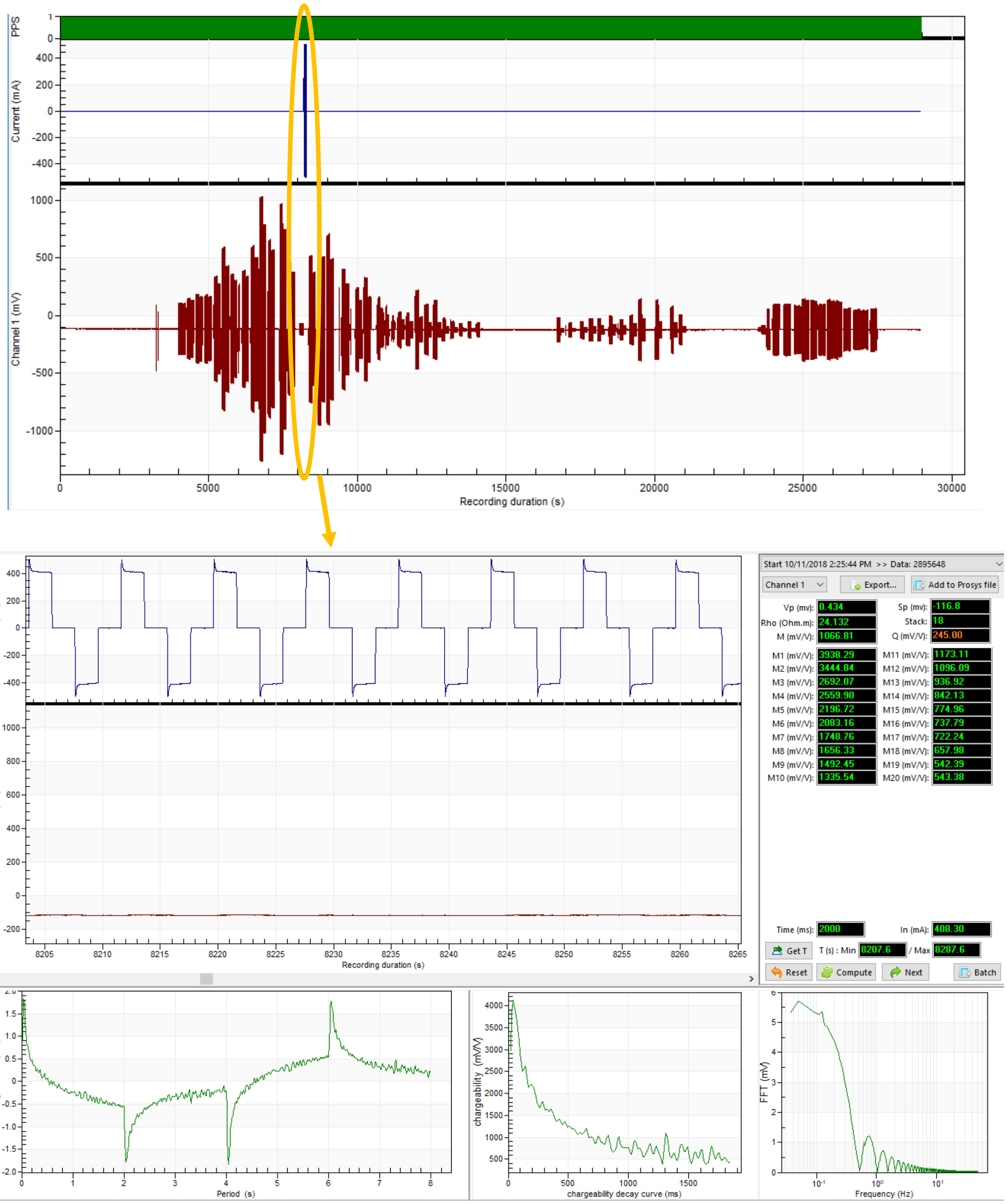

Figure 14: Signal, cycle, and curves of abnormal unaccepted M values.

6. Filtering – Values with unrealistic resistivities and chargeabilities, high standard deviations, large geometric factors, and that are oversaturated were filtered out (Figure 16).

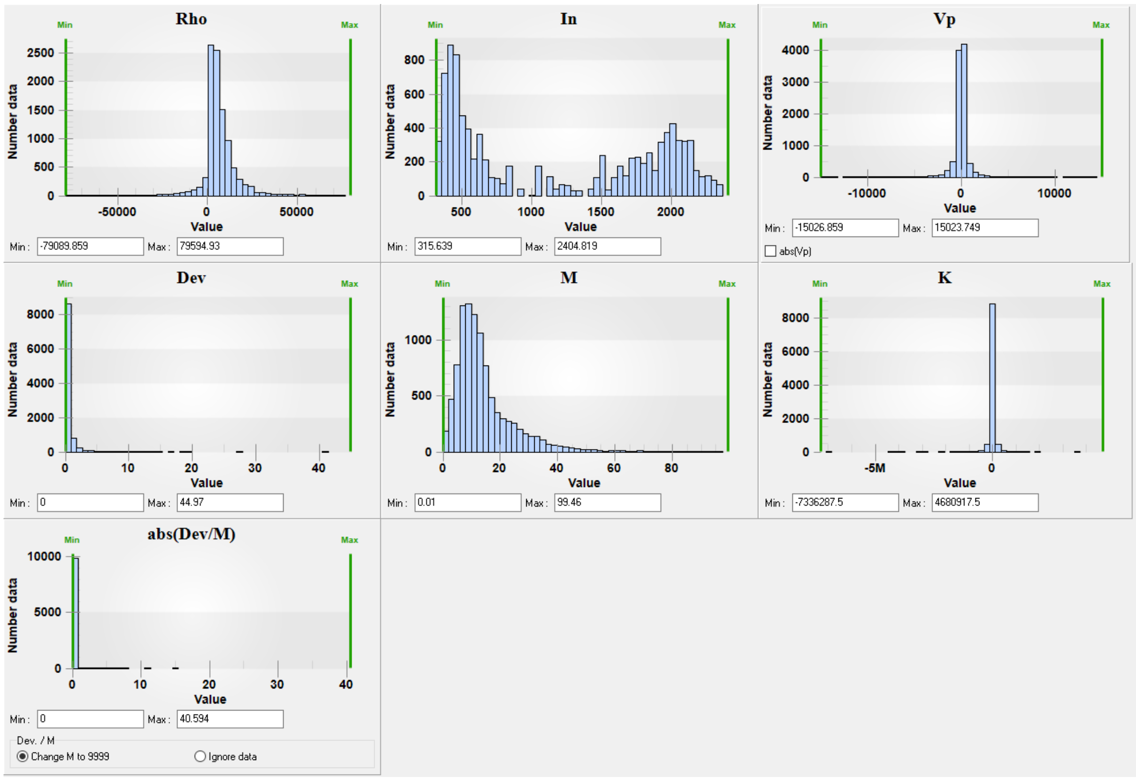

Figure 15: Filtering options

3D viewing of the raw calculated chargeability and resistivity results was observed in Geosoft Oasis (Figures 17-20; Y=North). Calculated report points from acquisition were recorded at a maximum depth of approximately 600 metres depth.

A total of 7612 filtered data points was collected from this 3D IP survey configuration over a period of 6 survey days of reading.

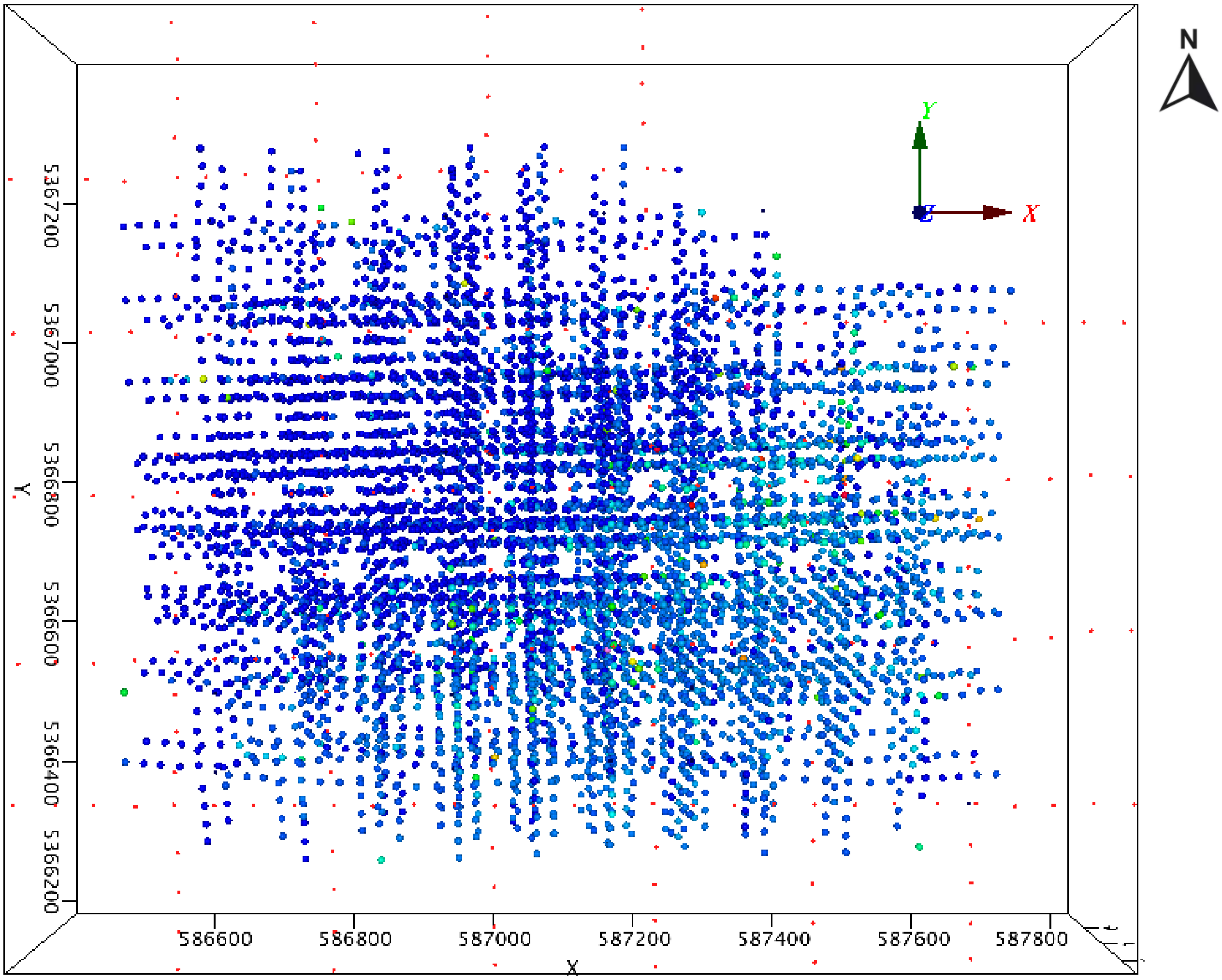

Figure 16: Measured chargeability data points with transmit locations (red dots) looking down.

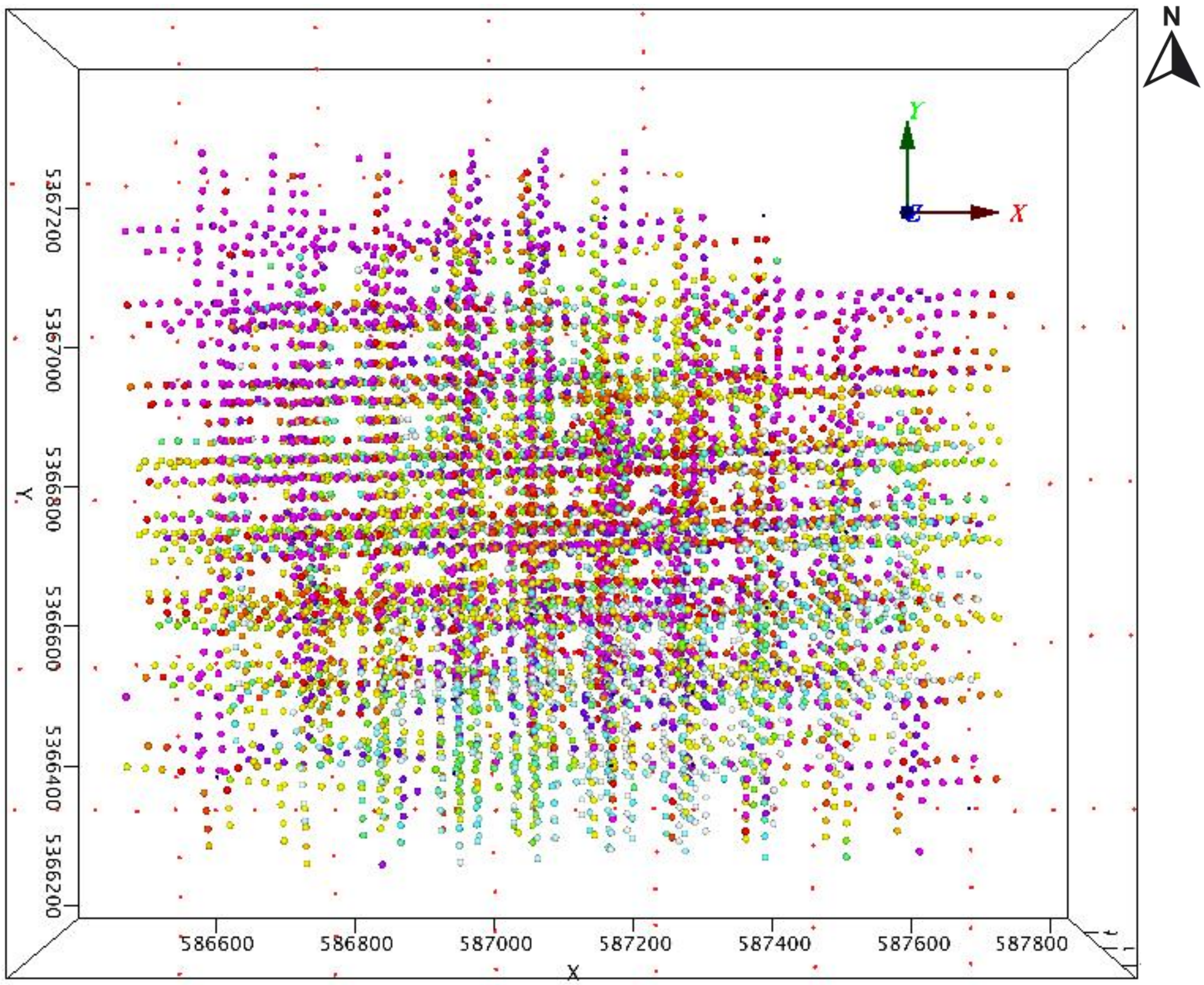

Figure 17: Top view of the complete set of measured resistivity data points

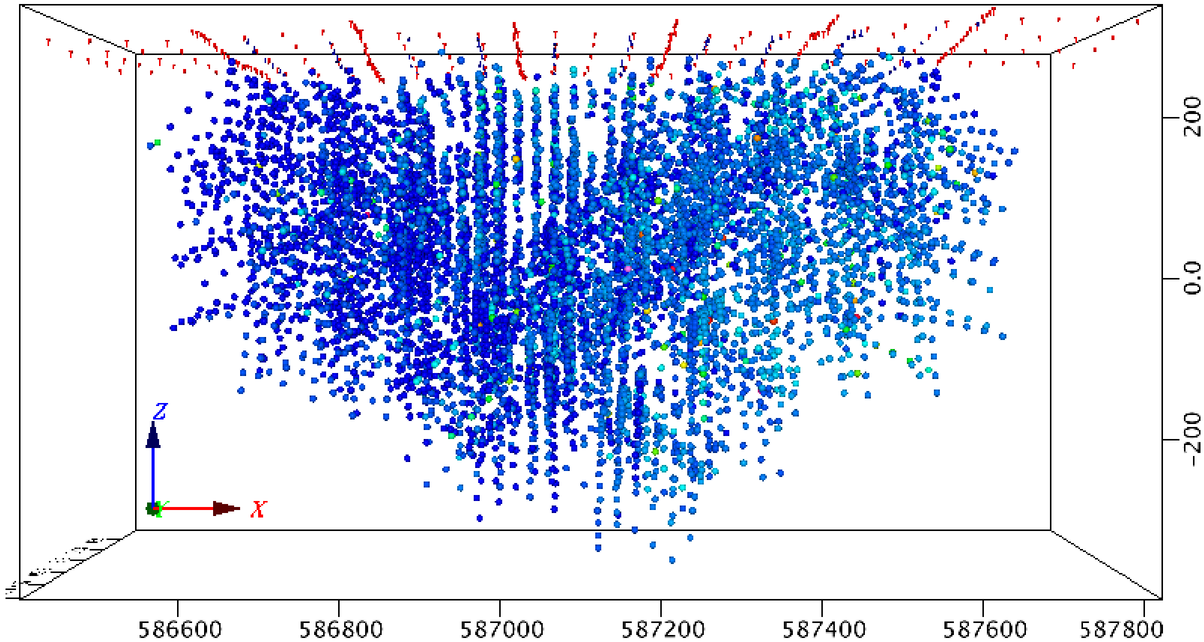

Figure 18: Side view of the complete measured chargeability dataset facing north

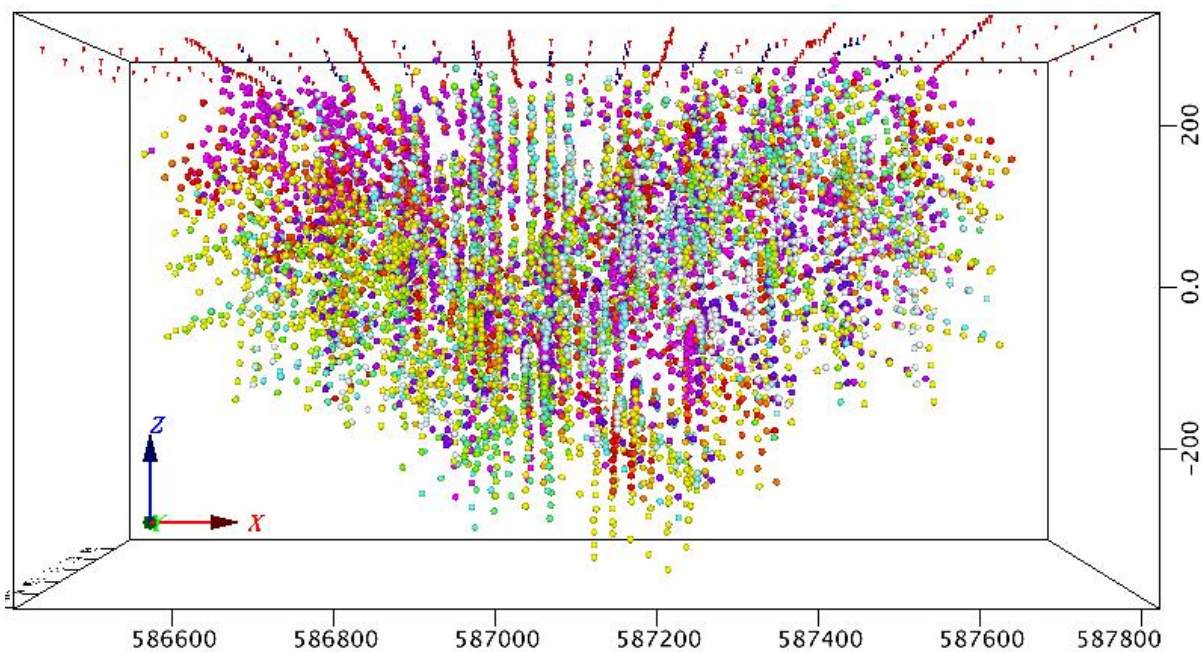

Figure 19: Side view of the complete measured resistivity dataset facing north

6.3 INVERSION

Inversions of the filtered data was done in RES3DINV Professional version 3.18.4. RES3DINV is a 3D inversion software specifically used for resistivity and induced polarization data. From the finalized Prosys file an export to a RES3DINV format was created with specific selections depending on the survey type completed. The selections seen in Figure 21 are standard 3D distributed IP array settings. Depending on the intended survey array type, including the remote may or may not be used. The topography was included in the dataset for inversion.

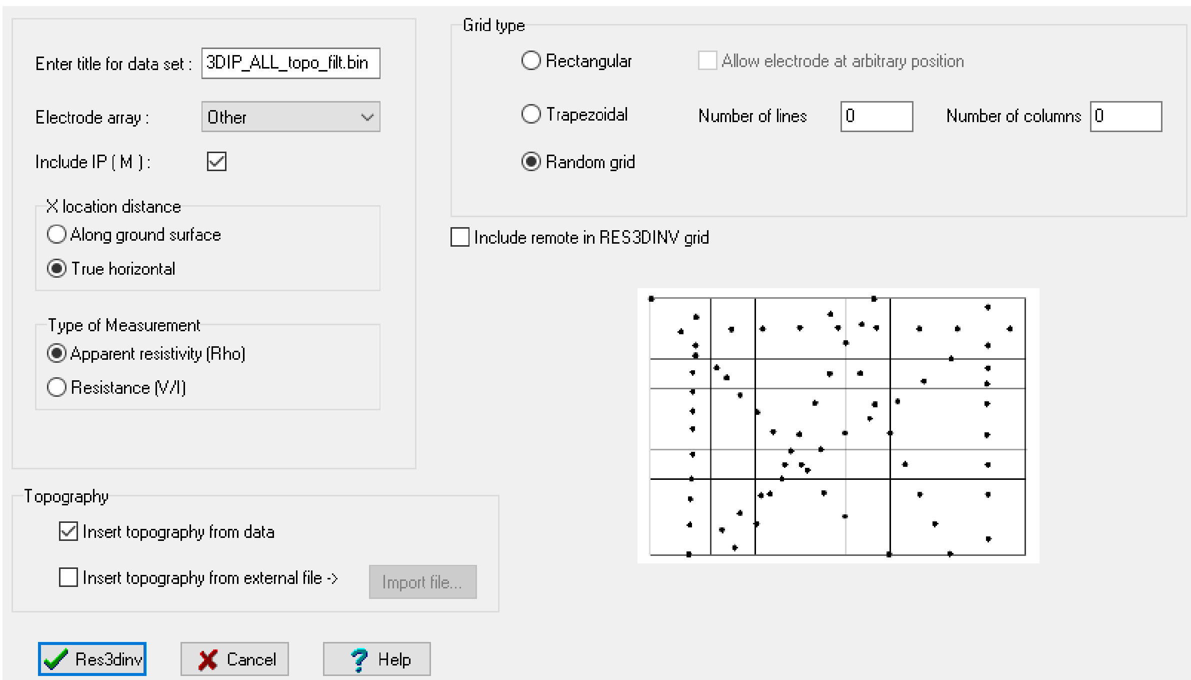

Figure 20: Export settings selection from Prosys to RES3DINV

Model grid settings were chosen based on the infinite locations and the dipole lengths. A uniform cell size was chosen to be ¼ or 1/5 of the dipole length, in this survey case a cell size of 25m was used. To reduce edge artifacts a few cells extension was added. Manual edits to the cell uniformity may be necessary depending on the location of the infinite. In this case manual edits were not made as the two remote electrodes were close to the survey layout. Both remotes were included in the inversion.

The theoretical maximum depth obtained from the Fullwave Designer was 380 metres. Calculated report points from acquisition were recorded at a maximum depth of approximately 600 metres depth. However, a maximum depth of 400 metres was used because resolution and sensitivity decrease as depth increases. Sensitivity values represent how well the model is constrained, with higher sensitivities providing less uncertainty and greater validity. To constrain and optimize both the resolution and sensitivity of the inversion a maximum depth of 725m was used.

Important inversion parameters used for the creation of the model are described in Table 9[2].

Parameter	Description
Refined Topography	Estimates topography of each interior node individually to take non-linear topography variations within each model block into account.
Higher Damping of 1st layer	Useful to avoid unusually large resistivity variations in the top layer (Loke and Dahlin 2010).
Diagonal Filter Components	Reduces effects of produced structures with boundaries aligned along the horizontal and vertical directions.
Robust Data Constraint	Attempts to minimize the absolute difference between the measured and calculated apparent resistivity values (Claerbout and Muir 1971). Less sensitive to very noisy data point.
Robust Model Constraint	Produces models with regions of more uniform resistivity values with sharper boundaries.
Incomplete Gauss-Newton	An approximate solution of the least-squares equation that uses an iterative linear conjugate-gradient method.
Reference Model	An additional constraint on the model to limit the deviation of the model resistivity from a homogenous reference model. This is normally the average of the apparent resistivity values.
Logarithm of Apparent Resistivity	In 2D systems it is ~impossible to determine whether the measured potential has the same sign as the transmitted current, thus it was assumed apparent resistivity is always positive and the logarithm is used. However, negative apparent resistivity values not caused by noise are observed in 3D distributed IP systems, especially with near-surface large resistivity contrasts and topography. Thus, the logarithm of apparent resistivity is not used because negative apparent resistivity values are real and kept throughout the inversion for a more accurate model. (Loke, 2018)
Forward Modeling Method	The finite-element method with a medium extended 4 horizontal node mesh between electrodes is used for datasets with topography and for improved accuracy.
Non-Linear IP Complex Method	The non-linear method calculates apparent IP using a complex resistivity formula. This method treats the conductivity as a complex quantity with real and imaginary components (Kenma et al. 2000). The complex conductivity and complex potential are calculated. These components are calculated in a two-step inversion process during each iteration. First the resistivity model is calculated, then the IP model is calculated.

[2] Refer to the RES3DINV manual and tutorial by Dr. M.H. Loke.

IP Model Transformation	The “range-bound” transformation method is used to ensure the model IP values produced by the inversion program does not exceed the lower or upper limits of 0-800 mV/V.

Table 9: Inversion Parameter Descriptions (© (1996-2018) M.H.Loke)

7. RESULTS, INTERPRETATION & CONCLUSIONS

7.1 RESULTS

The inversion was run through many iterations until an error convergence of less than 1% was achieved. Iteration 6 was the chosen version. Eight of the depth sections of the IP and resistivity from the RES3DINV viewer of iteration six is shown in the next two figures, respectively.

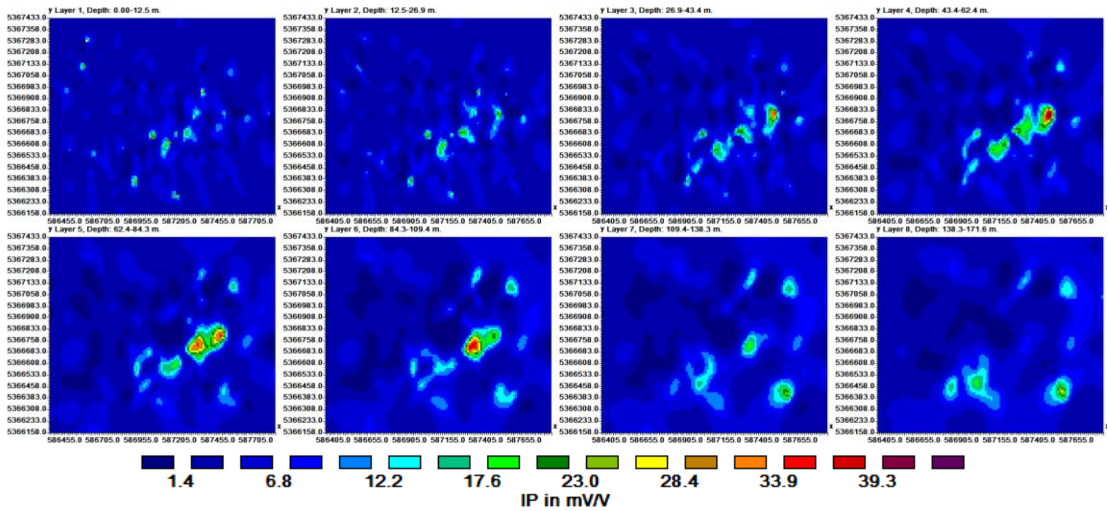

Figure 21: 8 IP depth sections ranging from 0-171.6m as viewed in RES3DINV

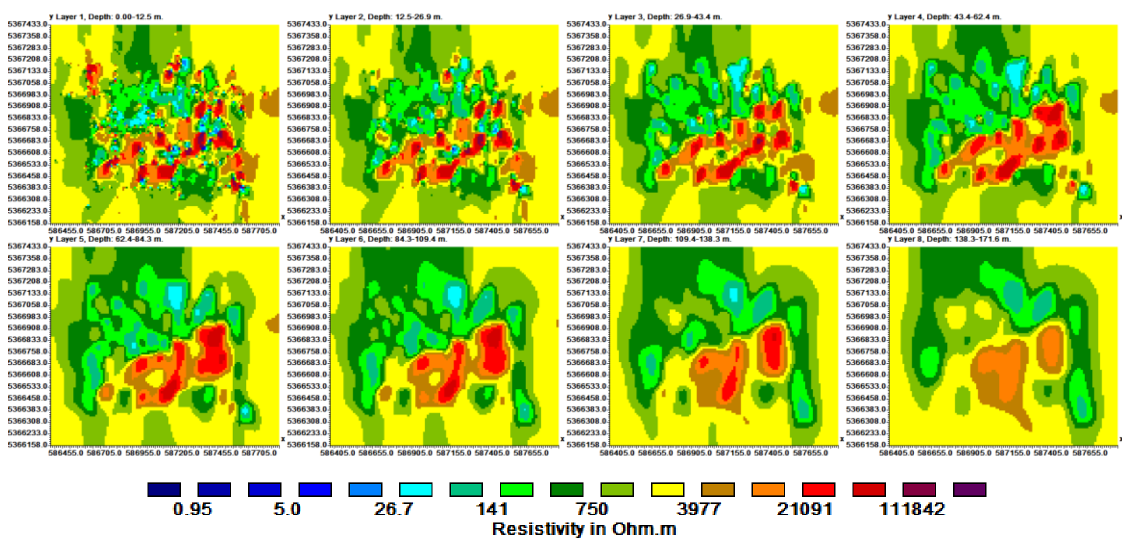

Figure 22: 8 resistivity depth sections ranging from 0-171.6m as viewed in RES3DINV

A final XYZ was output from the inversion iteration six and provided the resistivity, conductivity, chargeability, and sensitivity values at the centre and the corner of the model blocks. In this case, the resolution was also calculated. This was imported and modelled in Geosoft Oasis.

A horizontal slice of the chargeability and resistivity from the final inversion model overlaid in Google Earth is seen in the following two figures.

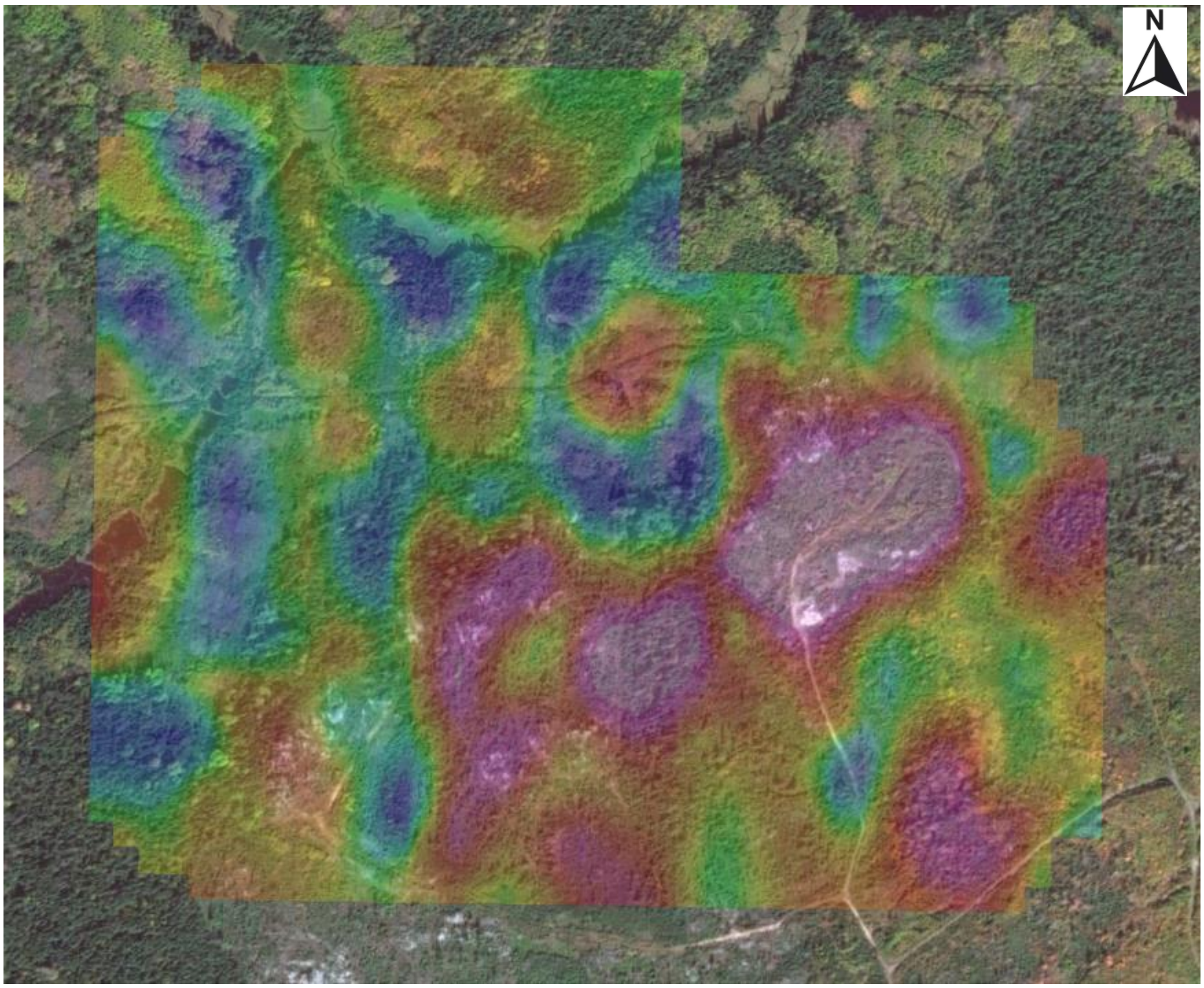

Figure 23: Chargeability grid (250m MSL) overlaying Google Earth. (©2022 Google, Image ©2022 Maxar Technologies)

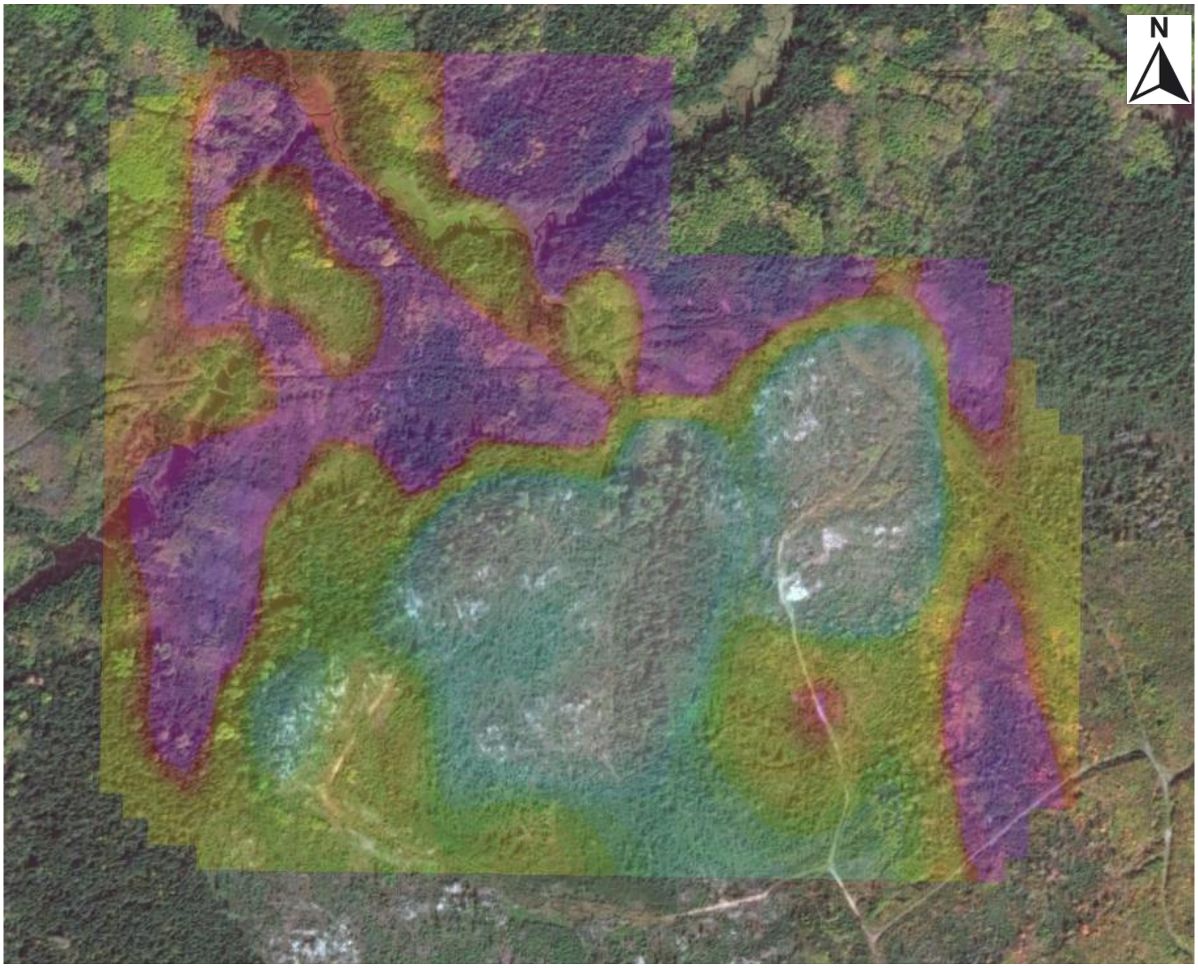

Figure 24: Resistivity grid (200m MSL) overlaying Google Earth. (©2022 Google, Image ©2022 Maxar Technologies)

7.2 Interpretations[3]

The targeting of the Survey revolved around the location of historical mineralization. The Survey was designed to assist in delineating and defining the mineralization along with exploring the remainder of the area for additional mineralization.

Figures 25 and 26 are examples of the 3D chargeability model at 18mV/V superimposed on a 100 metre MSL chargeability slice. Numerous chargeability anomalies appear within the model.

[3] Note for all interpretation figures North is in the Y-direction.

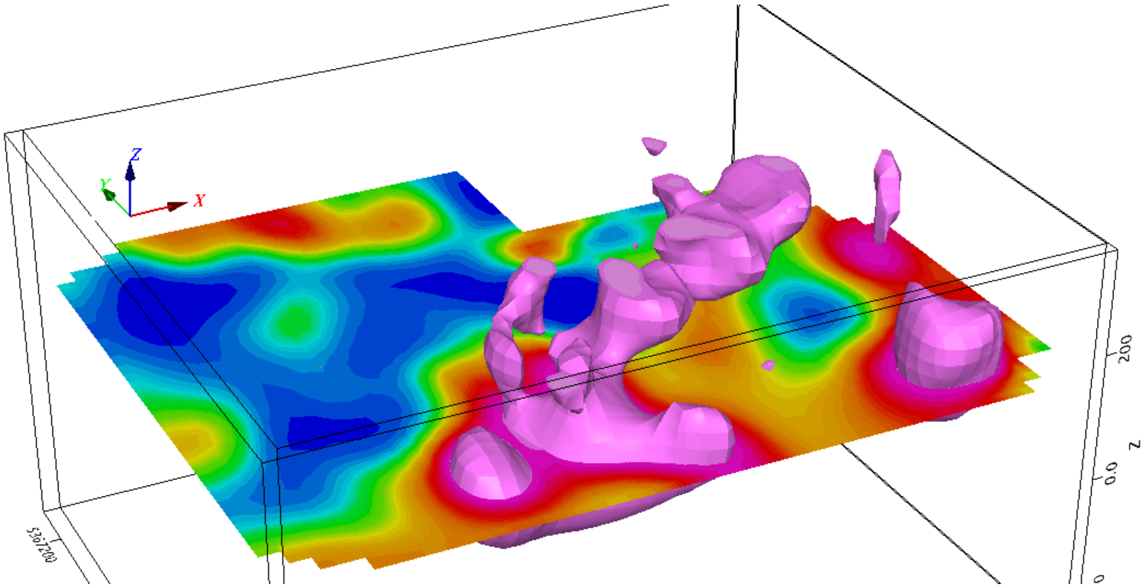

Figure 25: 3D chargeability voxel looking northeast with 150m MSL slice (purple voxel = >10mV/V)

A strong chargeability trend emerges from the inverted data set. This trend appears to strike at approximately 50-60 degrees across the survey area. An offset also appears along with this trend.

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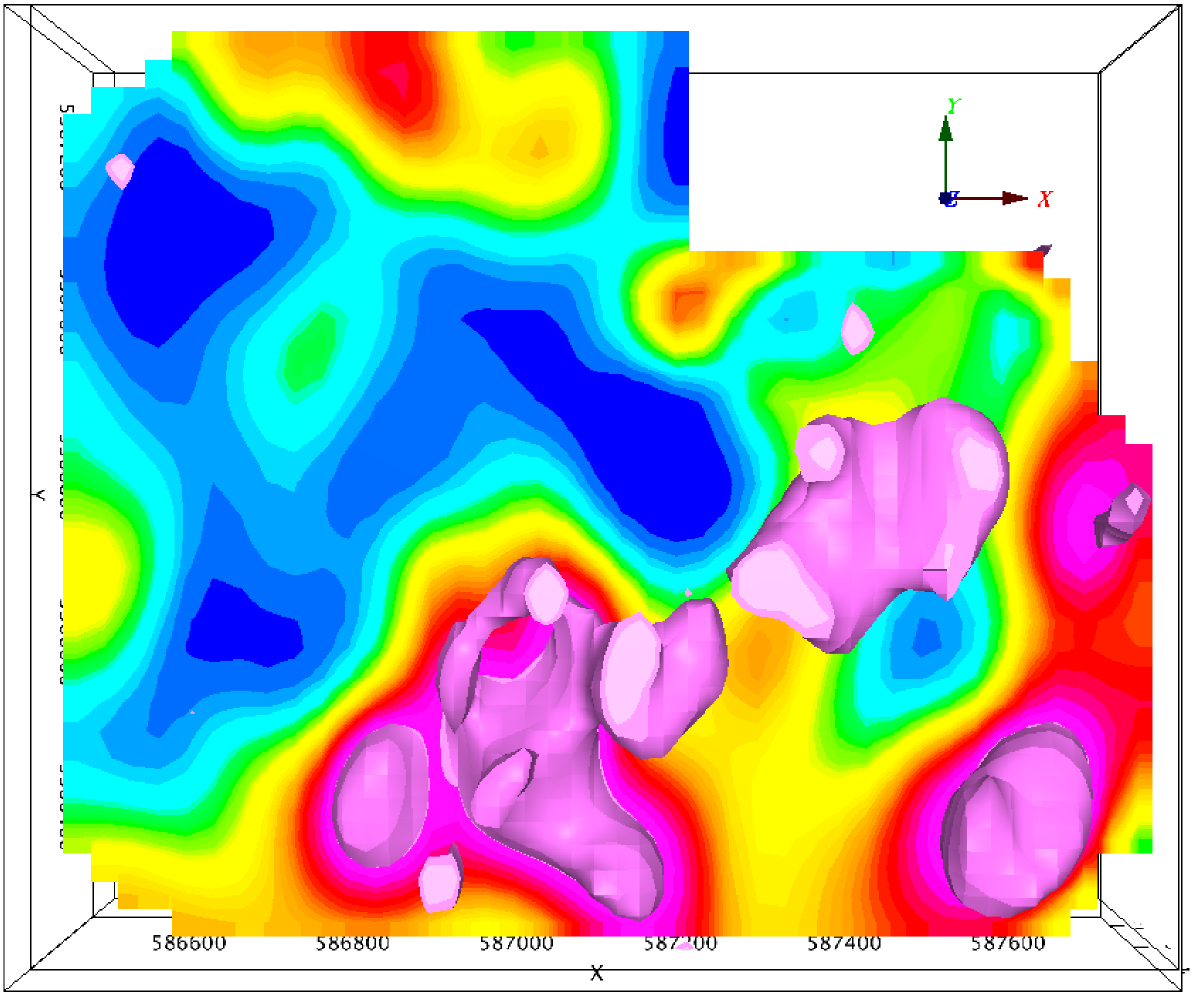


Figure 26: Top view of the 3D chargeability voxel with 150m MSL slice (purple voxel = >10mV/V)

Figure 29 shows the resistivity model of greater than 13000 ohms. meters on the resistivity 200m MSL plane. This indicates that the southern part of the survey area is more resistive than the northern part. This is divided by a 50-60 degree trend.

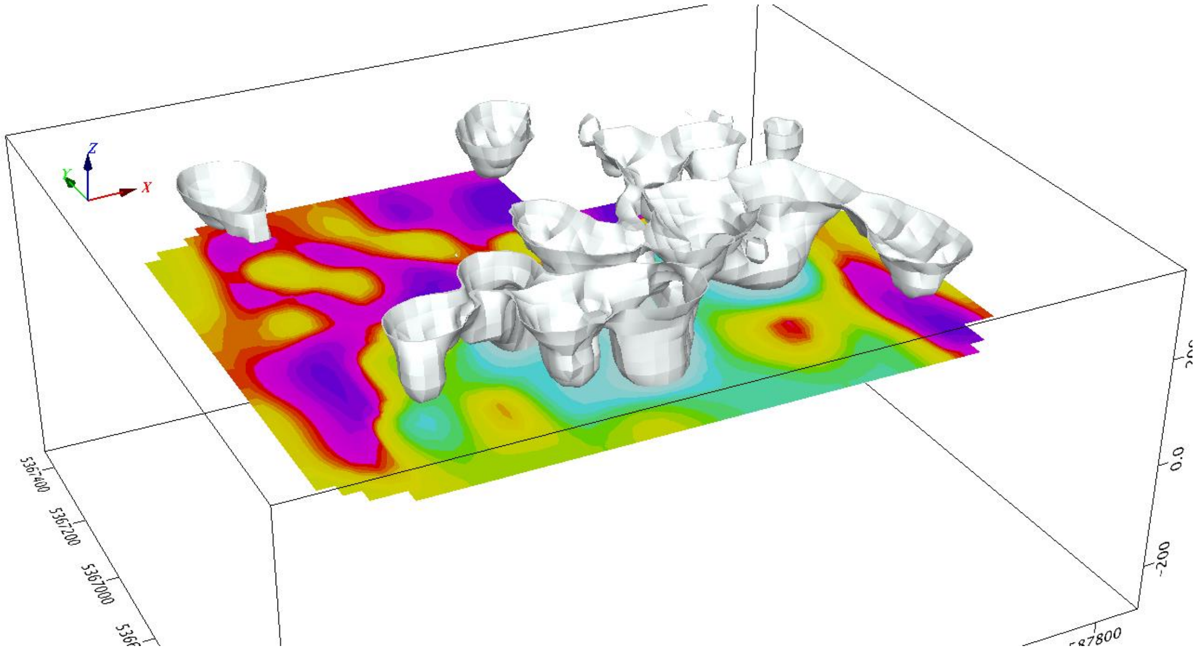


Figure 27: 3D resistivity voxel with 200m MSL slice (white voxel = >13000 ohm.meters)

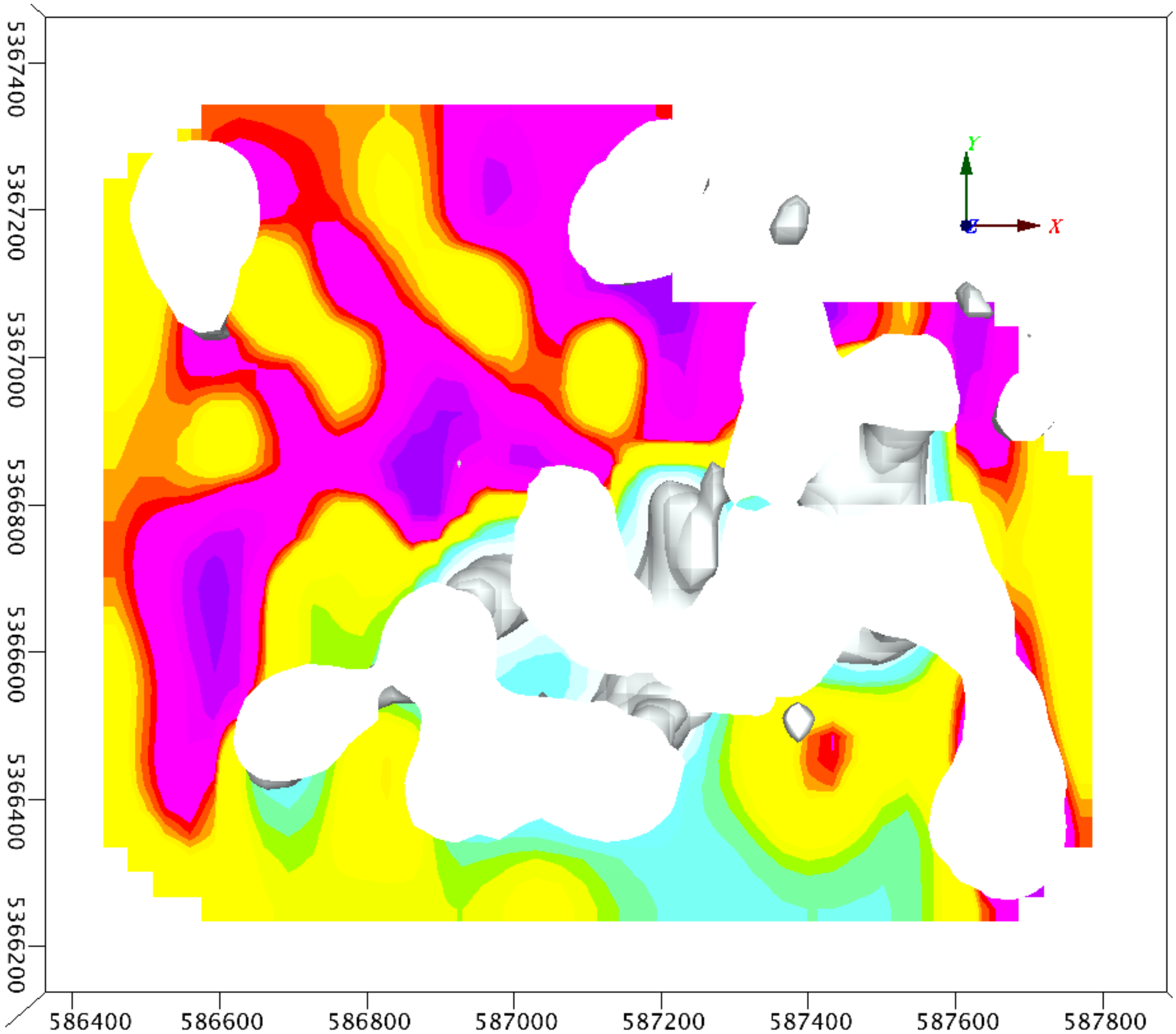


Figure 28: Resistivity model (white >13000 ohm.meters) on a resistivity 200m MSL plane

The chargeability high and low resistivity models were compared and are represented in figure 31.

Both of the chargeability and resistivity high trends appear to correlate to each other. This correlation indicates the possible existence of a mineralized alteration system existing. The north-south offset noted at lines 600W and 750S indicates the presence of a structure. The interaction of the two systems may create a favourable environment for mineralization.

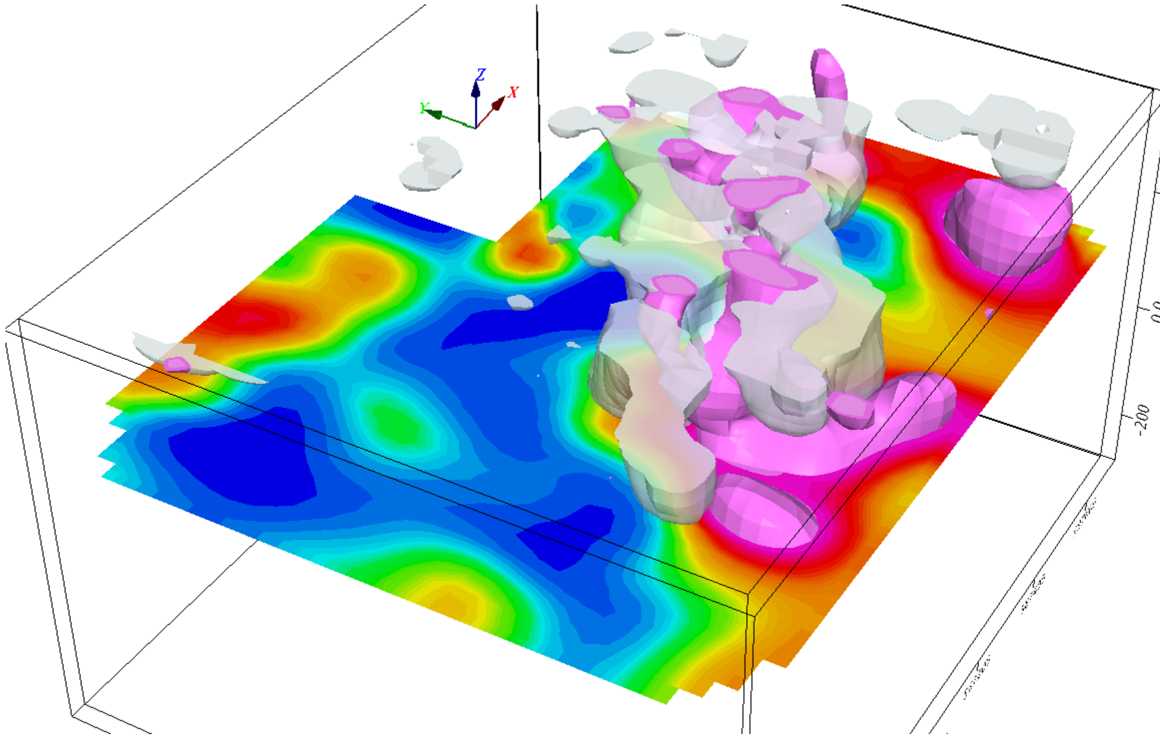


Figure 29: 3D chargeability voxel with 250m MSL chargeability slice (pink voxel = >10mV/V, white voxel = > 15000 ohm.meter)

7.3 Recommendations

It is recommended that historic work be compiled with historical work in the area. This may indicate the source of the anomalous trend.

Along the chargeability trend, there appear areas where the anomaly source may outcrop. These areas should be prospected and potentially stripped and mapped. Targeting should be at the following coordinates

Easting	Northing
587051	5366675
587137	5366592
587296	5366686
587344	5366818
587513	5366811

Table 10: Targeting Coordinates

7.4 Conclusions

The 3D IP survey highlighted multiple chargeability high trends with a correlating resistivity high. Within this trend, an offset occurs. The interaction of these two features may indicate the existence of a mineralized alteration system.

APPENDIX A

STATEMENT OF QUALIFICATIONS

I, C. Jason Ploeger, hereby declare that:

1. I am a professional geophysicist with residence in Larder Lake, Ontario and am presently employed as a Geophysicist and Geophysical Manager of Canadian Exploration Services Ltd. of Larder Lake, Ontario.

2. I am a Practicing Member of the Association of Professional Geoscientists, with membership number 2172.

3. I graduated with a Bachelor of Science degree in geophysics from the University of Western Ontario, in London Ontario, in 1999.

4. I have practiced my profession continuously since graduation in Africa, Bulgaria, Canada, Mexico and Mongolia.

5. I am a member of the Ontario Prospectors Association, a Director of the Northern Prospectors Association and a member of the Society of Exploration Geophysicists.

6. I do not have nor expect an interest in the properties and securities of **Tiger Gold Exploration Corporation.**

7. I am responsible for the final processing and validation of the survey results and the compilation of the presentation of this report. The statements made in this report represent my professional opinion based on my consideration of the information available to me at the time of writing this report.

C. Jason Ploeger, P.Geo., B.Sc.
Geophysical Manager
Canadian Exploration Services Ltd.

Larder Lake, ON
January 28th, 2022

APPENDIX B

IRIS V-FullWaver Receiver[4]

2 CHANNELS IP FULL WAVE RECORD

- 2 simultaneous dipoles
- Several weeks recording
- Time stamped data

V-Full Waver: this logger for electrical signal is a new concept of compact and low consumption unit designed for advanced Time Domain Induced Polarization, Resistivity and SP measurements. It can work in all field conditions, small, discrete, autonomous and can record continuously without operator.

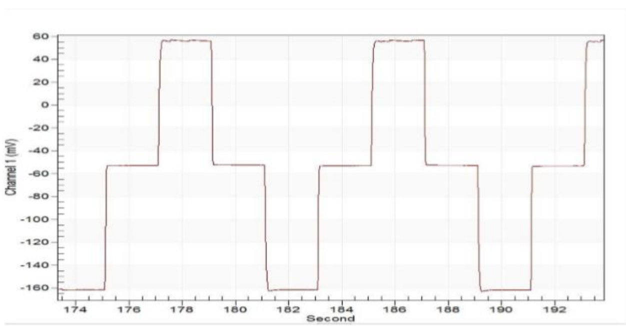
Compactness: light, discrete and easy to setup on the field, even on remote areas. Autonomous two dipoles logger, no need of the operator during acquisition. V-Full Waver allows a high productivity for dipole-dipole, gradient, extended pole-pole and other arrays. A network of several tens of channels can be quickly installed on the field for deep exploration and advanced processing (perpendicular dipoles, remote reference...)

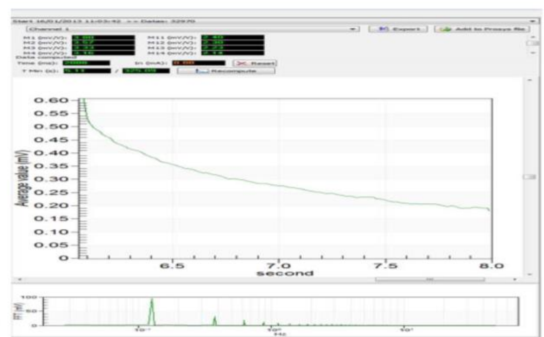
Internal GPS: an integrated GPS, very accurate and providing PPS signal (one pulse per second) allows to store all time series with time information. This is crucial to process data from several V-Full Waver loggers installed in a same area. This is also useful to correlate with injection dipole waveform, in case this has also been recorded with a I-Full Waver logger.

[4] Information obtained from http://www.iris-instruments.com/Pdf_file/V_fullwaver.pdf

High resolution: samples are recorded every 10 (ten) milliseconds (100 Hz sampling frequency). Data from several recorders can be merged and processed together with the Full Wave Viewer program delivered with the system. All data is synchronized through the GPS-PPS time stamping. A post acquisition processing permits to improve the signal-to-noise ratio. This also allows good quality IP data for deep investigations and for noisy areas.

Internal memory: the memory can store up to one month recording time. Then data can directly be transferred to a USB key in a few seconds.





TECHNICAL SPECIFICATIONS

• Max. input voltage: 15 V
• Protection: up to 1 000 V
• Accuracy: 0.2 % typical
• Resolution: 10 µV
• Sampling rate: 10 milli seconds (100 Hz)
• Induced Polarization (chargeability) measured every 10 milliseconds (200 IP windows for a 2 sec pulse)
• Input impedance: 100 MΩ
• Low pass filter Cut off frequency: 10 Hz
• Upper frequency which can be resolved: 50 Hz
• Frequency resolution: up to 34 micro Hz
• Internal GPS with PPS (one pulse per second)
• Time resolution: 250 micro seconds (time stamped samples)
• Battery test
• Contact resistance check

GENERAL SPECIFICATIONS

• LCD display, graphic and alpha numeric with 16 lines of 40 characters
• Data flash memory: one-month recording
• After acquisition: possibility of data storage on a USB key (8 GB or more).
• Power supply: internal Li-Ion rechargeable battery; optional external 12V standard car battery can be also used

- Autonomy: 20 operating hours with the internal Li-Ion battery
- Weather proof IP 67
- Shock resistant resin NK-7, case with handle
- Operating temperature: -20 °C to +70 °C
- Dimensions: 31 x 25 x 15 cm
- Weight: 2.8 kg

APPENDIX B

IRIS I-FullWaver Current Monitor[5]

IP Fullwave Record

• Recording injected current
• Several weeks recording
• Time stamped data

Fullwaver: this logger for electrical signal is a new concept of compact and low consumption unit designed for advanced Time Domain Induced Polarization, Resistivity and SP measurements. It can work in all field conditions, small, discrete, autonomous and can record continuously without operator. I-Fullwaver is connected in series on the AB injection line, it measures and logs very accurately the injected current IAB.

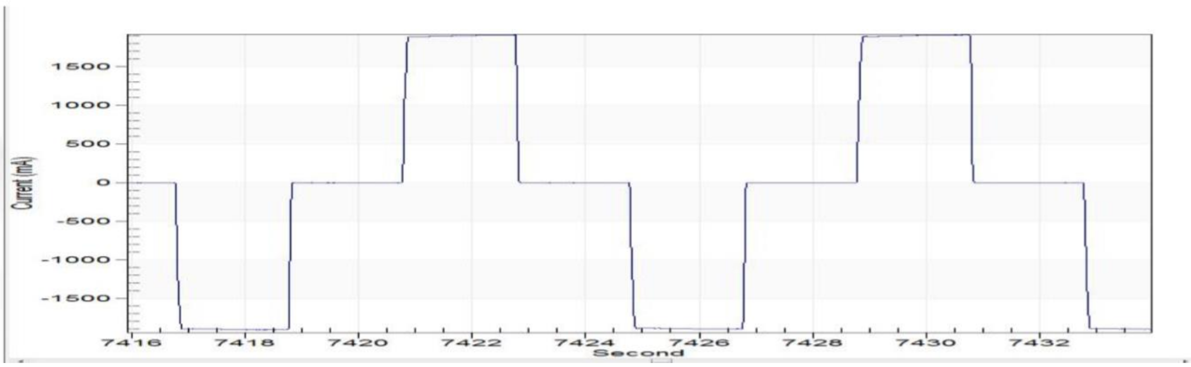
Compactness: light, discrete and easy to setup on the field, even on remote areas. This autonomous logger does not need any operator during the acquisition. I-Fullwaver is connected close to the transmitter or close to any injection electrode

Integrated GPS: an integrated gps, very accurate and providing PPS signal (one pulse per second) allows to store all time series with time information. This is crucial to correlate and process data with V-Fullwaver receiver loggers installed in a same area. This information displays the behaviour of the transmitter, its regulation specifications and the value of Iab in order to compute accurately the apparent resistivity.

[5] Information obtained from http://www.iris-instruments.com/Pdf_file/I_fullwaver.pdf

High resolution: samples are recorded every 10 (ten) milliseconds (100 Hz sampling frequency). Data from several recorders (for current and received voltages) can be merged and processed together with the FullWaveViewer program delivered with the system. All data is synchronized through the GPS-PPS time stamping. A post acquisition processing allows to improve the signal-to-noise ratio, giving good quality IP data for deep investigations in noisy areas.

Internal memory: the memory can store up to three months recording time. Then data can directly be transferred to a USB key in a few seconds.



TECHNICAL SPECIFICATIONS
- Current range: +/- 25 000 mA
- Current resolution: 0.1 mA
- Accuracy: +/- 1 mA
- Protection: up to 50 A and 3 000 V
- Magnetic sensor
- Magnetization offset (offset memory): up to 0.05%
- Offset calibration
- Sampling rate: 10 milliseconds (100 Hz)
- Integrated GPS with PPS (one pulse per second)
- Time resolution: 250 micro seconds (time stamped samples)
- Battery test

GENERAL SPECIFICATIONS
- LCD display, alpha numeric with 4 lines of 20 characters
- Data flash memory: three months recording
- After acquisition: possibility of data storage on a USB key (8 Gb or more).
- Power supply: internal Li-Ion rechargeable battery; optional external 12V standard car battery can be also used
- Autonomy: 20 operating hours with the internal Li-Ion battery.
- Weather proof IP 67
- Shock resistant resin NK-7, case with handle
- Operating temperature: -20 °C to +70 °C
- Dimensions: 31 x 25 x 15 cm
- Weight: 3.0 kg

APPENDIX B

GGD II 5kW

SPECIFICATIONS

- Protection against short circuits even at 0 ohms
- Output Voltage range: 150V to 2400V in 14 steps
- Power source is a standard 220/240V, 20/60 Hz source
- Displays electrode contact, transmitting power and current

ELECTRICAL CHARACTERISTICS

- Standard Time Base of 2 seconds for time domain – 2 seconds on, 2 seconds' off
- Optional Time Base of DC, 0.5, 1, 2, 4 or 8 seconds
- Output Current Range, 0.030 to 10A
- Output Voltage Range, 150 to 2400V in 14 steps
- Ability to Link 2 GDD transmitters to double power output

CONTROLS

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

DISPLAYS

- Output Current LCD: reads +- 0.0010A

- Electrode Contact Displayed when not Transmitting
- Output Power Displayed when Transmitting
- Automatic Thermostat controlled LCD heater for LCD
- Total Protection Against Short Circuits
- Indicator Lamps Indicate Overloads
-

GENERAL SPECIFICATIONS

- Weather proof
- Shock resistant pelican case
- Operating temperature: -40 °C to +65 °C
- Dimensions: 26 x 45 x 55 cm
- Weight: 40 kg

APPENDIX C

REFERENCES

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Loke, M.H. and Dahlin, T., 2010. Methods to Reduce Banding Effects in 3-D Resistivity Inversion. Near Surface 2010 – 16th European Meeting of Environmental and Engineering Geophysics 6 – 8 September 2010, Zurich, Switzerland, A16.

MNDM & OGSEarth. (2022). *OGSEarth*. Ontario Ministry of Northern Development and Mines.

APPENDIX D

DIGITAL DATA

The digital data contains

- PDF copy of this report
- PDF copy of the maps
- Raw data in binary format
- Raw data in CSV format
- Ascii XYZ of inversion results
- Packed Oasis maps
- Oasis databases
- 3D Oasis voxels created

APPENDIX E

LIST OF MAPS (IN MAP POCKET)

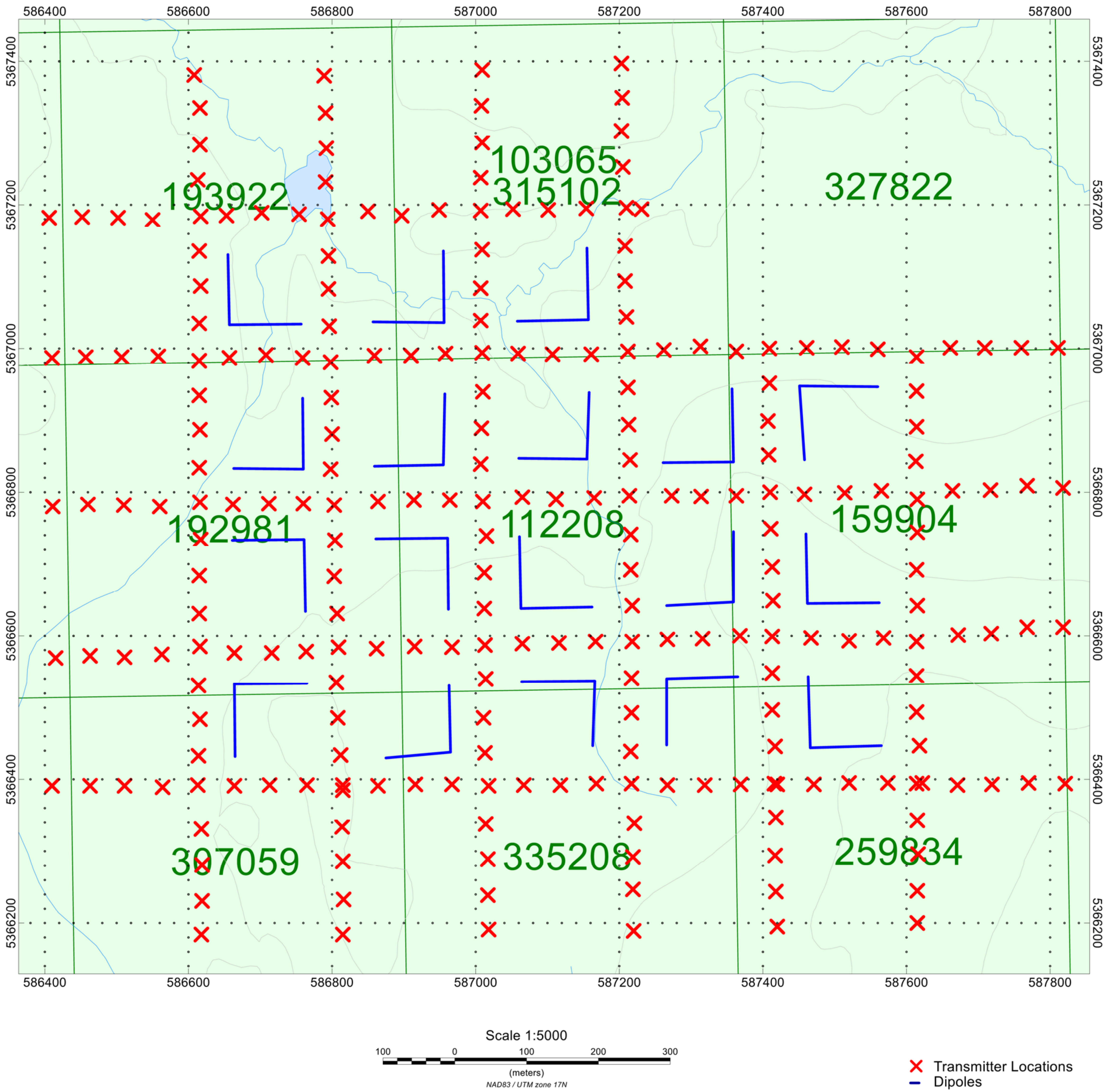
Grid Sketch (1:5000)

1) Q2945-Tiger-HarkerHeritage-Ghost1-3DIP-Layout-Claims

IP Plan Map (1:5000)

2) Q2945-Tiger-HarkerHeritage-Ghost1-3DIP-Chr-300MSL
3) Q2945-Tiger-HarkerHeritage-Ghost1-3DIP-Chr-250MSL
4) Q2945-Tiger-HarkerHeritage-Ghost1-3DIP-Chr-200MSL
5) Q2945-Tiger-HarkerHeritage-Ghost1-3DIP-Chr-150MSL
6) Q2945-Tiger-HarkerHeritage-Ghost1-3DIP-Chr-100MSL
7) Q2945-Tiger-HarkerHeritage-Ghost1-3DIP-Chr-50MSL
8) Q2945-Tiger-HarkerHeritage-Ghost1-3DIP-Chr-0MSL
9) Q2945-Tiger-HarkerHeritage-Ghost1-3DIP-Res-300MSL
10) Q2945-Tiger-HarkerHeritage-Ghost1-3DIP-Res-250MSL
11) Q2945-Tiger-HarkerHeritage-Ghost1-3DIP-Res-200MSL
12) Q2945-Tiger-HarkerHeritage-Ghost1-3DIP-Res-150MSL
13) Q2945-Tiger-HarkerHeritage-Ghost1-3DIP-Res-100MSL
14) Q2945-Tiger-HarkerHeritage-Ghost1-3DIP-Res-50MSL
15) Q2945-Tiger-HarkerHeritage-Ghost1-3DIP-Res-0MSL

TOTAL MAPS = 15



TIGER GOLD EXPLORATION CORPORATION

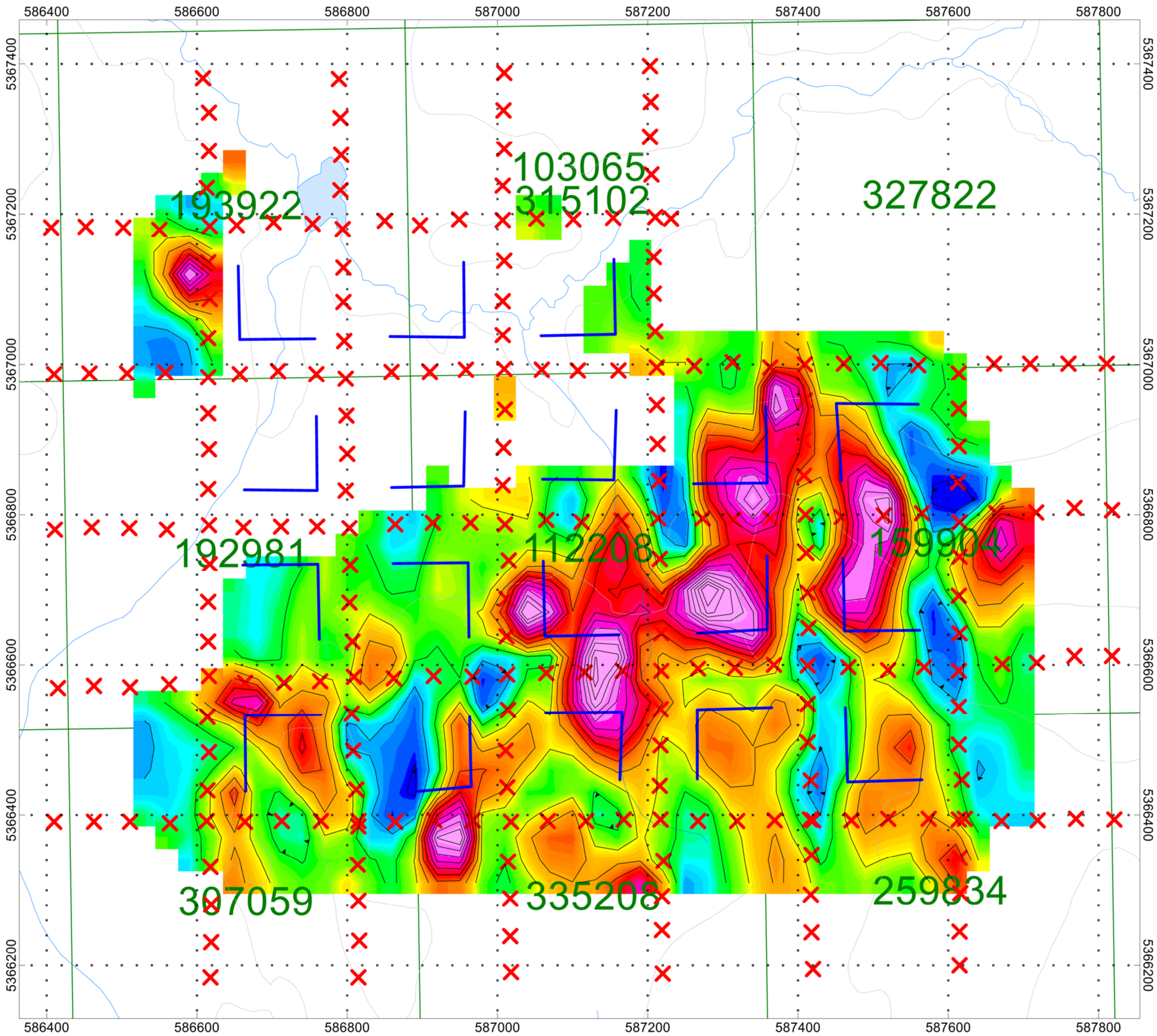
Harker Heritage Project - Ghost 1
Elliott and Harker Townships, Ontario

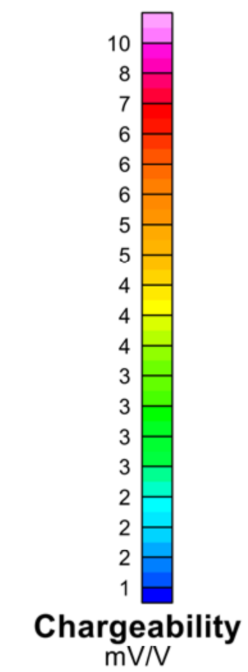
3D Distributed IP Array
Survey Layout
Operational Claim Fabric

Processed By: Jason Ploeger, P.Geo.
Map Drawn By: Jason Ploeger, P.Geo.
January 2022

CANADIAN EXPLORATION SERVICES LTD

Drawing: Q2945-TigerGold-Ghost1-3DIP-Layout-Claims





Scale 1:5000

100 0 100 200 300

(meters)

NAD83 / UTM zone 17N

Transmitter Locations

Dipoles

TIGER GOLD EXPLORATION CORPORATION

Harker Heritage Project - Ghost 1
Elliott and Harker Townships, Ontario

3D Distributed Induced Polarization Array
Chargeability Inversion Slice at 300m MSL

Interval: 2 seconds
Rx: Iris V-Fullwaver
Tx: GDD II (5 kW Time Domain)

Contour Intervals: 1

Processed By: Jason Ploeger, P.Geo.
Map Drawn By: Jason Ploeger, P.Geo.
January 2022

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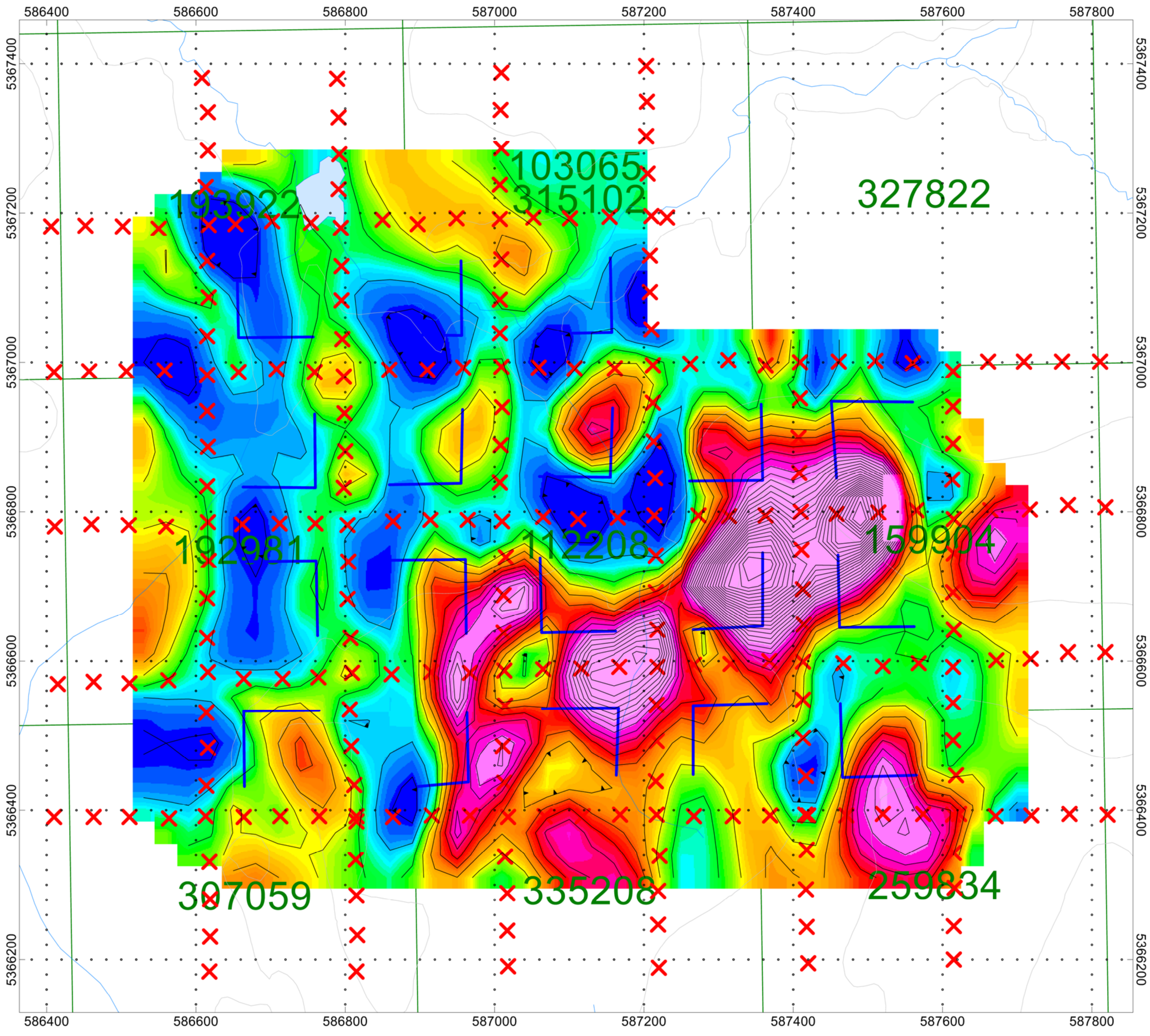
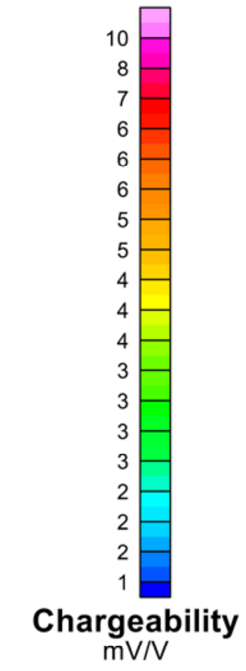
Drawing: Q2945-TigerGold-Ghost1-3DIP-Chr-300





TIGER GOLD EXPLORATION CORPORATION

Harker Heritage Project - Ghost 1
Elliott and Harker Townships, Ontario

3D Distributed Induced Polarization Array
Chargeability Inversion Slice at 250m MSL

Interval: 2 seconds
Rx: Iris V-Fullwaver
Tx: GDD II (5 kW Time Domain)

Contour Intervals: 1

Scale 1:5000

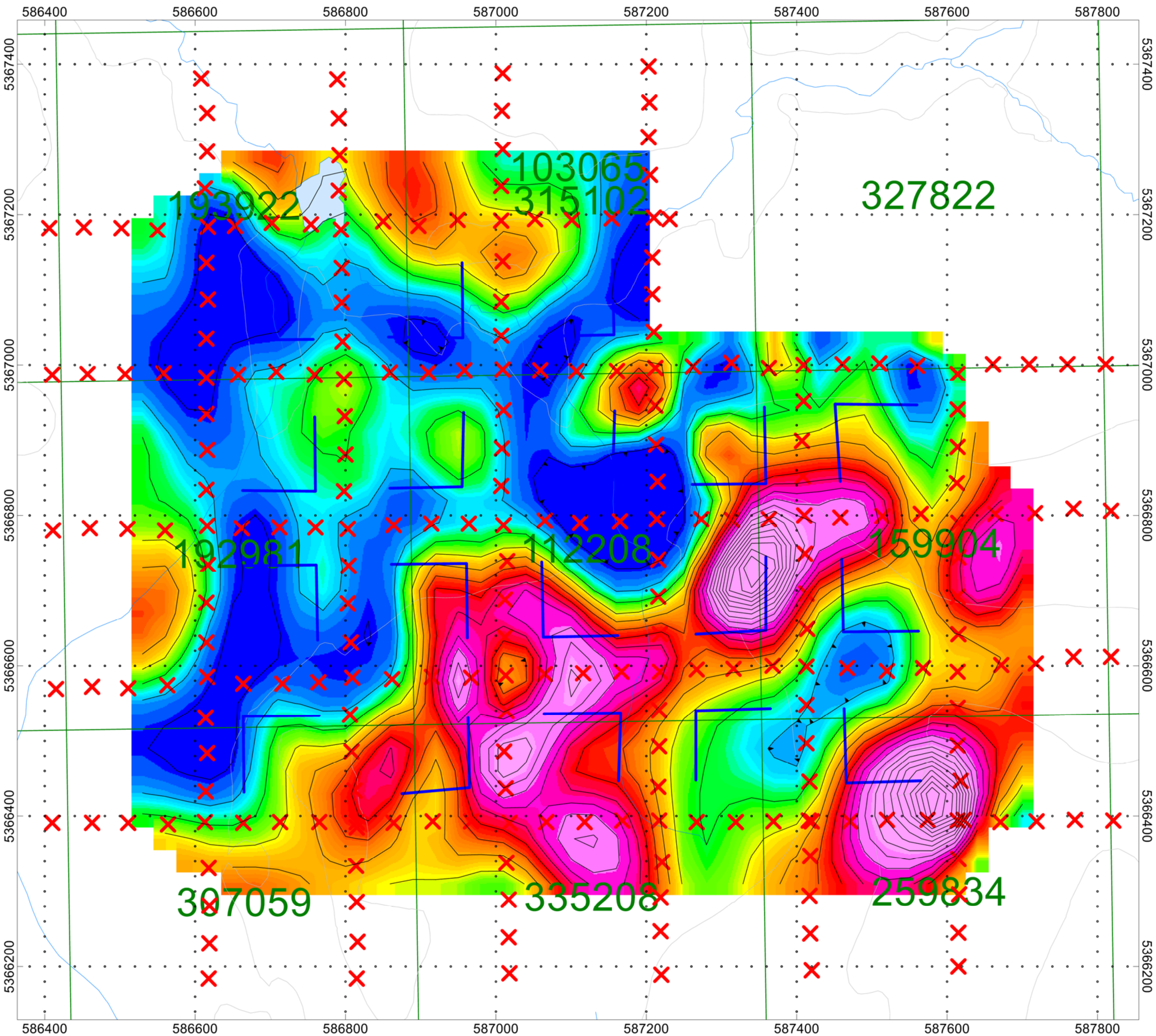
100 0 100 200 300
(meters)
NAD83 / UTM zone 17N

Transmitter Locations
Dipoles

Processed By: Jason Ploeger, P.Geo.
Map Drawn By: Jason Ploeger, P.Geo.
January 2022

CANADIAN EXPLORATION SERVICES LTD

Drawing: Q2945-TigerGold-Ghost1-3DIP-Chr-250



Chargeability
mV/V

Scale 1:5000
(meters)
NAD83 / UTM zone 17N

Transmitter Locations
Dipoles

TIGER GOLD EXPLORATION CORPORATION

Harker Heritage Project - Ghost 1
Elliott and Harker Townships, Ontario

3D Distributed Induced Polarization Array
Chargeability Inversion Slice at 200m MSL

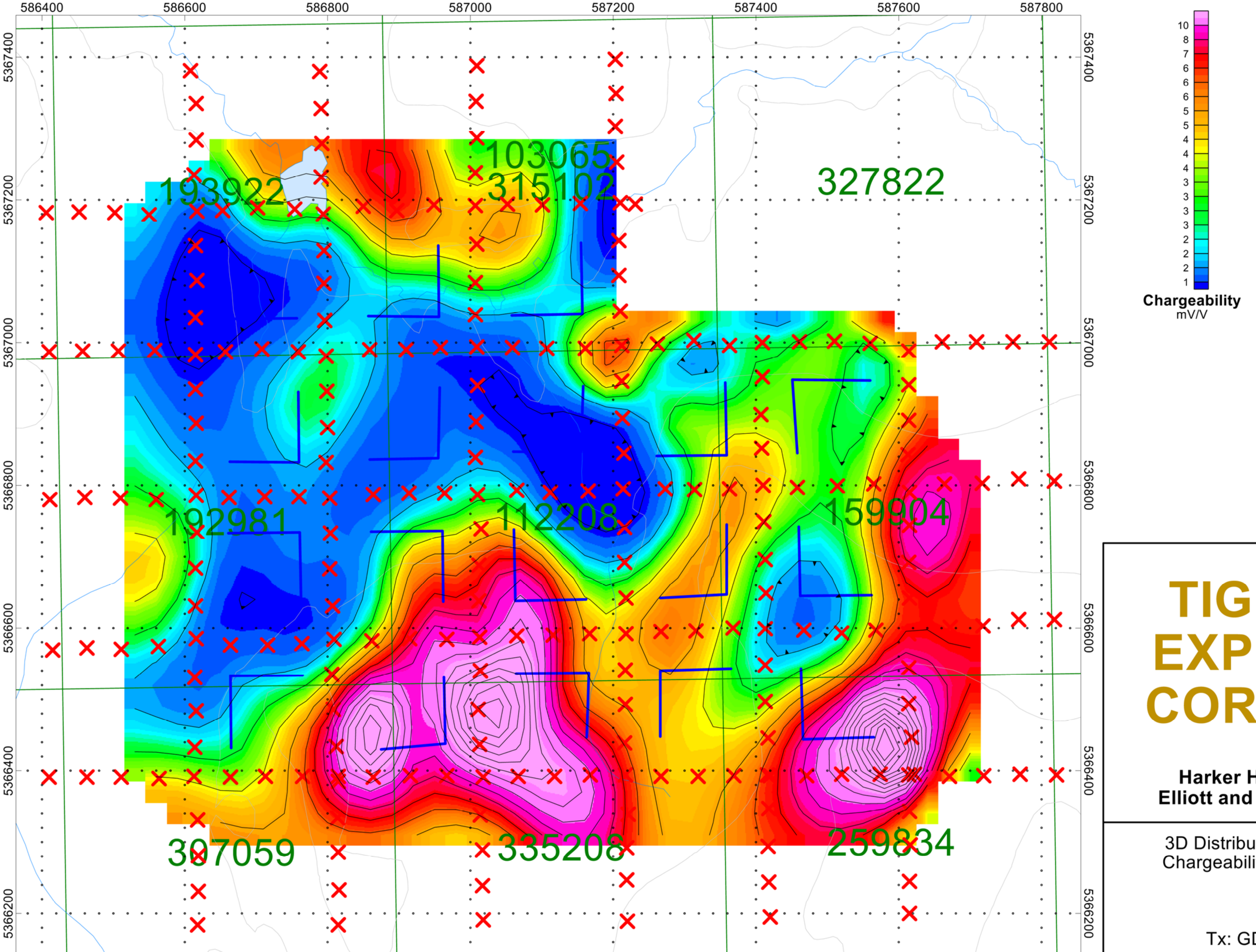
Interval: 2 seconds
Rx: Iris V-Fullwaver
Tx: GDD II (5 kW Time Domain)

Contour Intervals: 1

Processed By: Jason Ploeger, P.Geo.
Map Drawn By: Jason Ploeger, P.Geo.
January 2022

CXS
CANADIAN EXPLORATION SERVICES LTD

Drawing: Q2945-TigerGold-Ghost1-3DIP-Chr-200



Scale 1:5000

(meters)

NAD83 / UTM zone 17N

Transmitter Locations

Dipoles

TIGER GOLD EXPLORATION CORPORATION

Harker Heritage Project - Ghost 1
Elliott and Harker Townships, Ontario

3D Distributed Induced Polarization Array
Chargeability Inversion Slice at 150m MSL

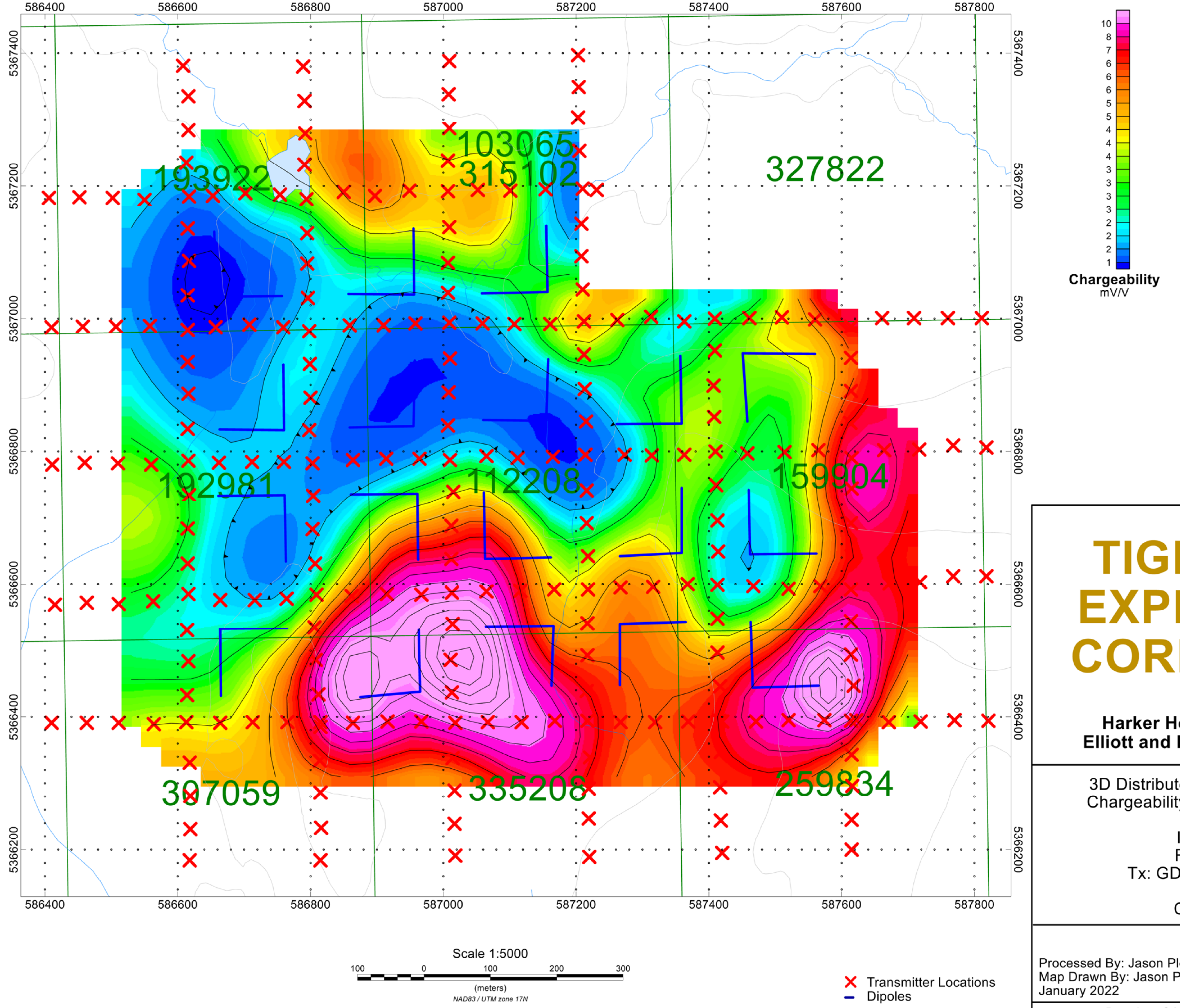
Interval: 2 seconds
Rx: Iris V-Fullwaver
Tx: GDD II (5 kW Time Domain)

Contour Intervals: 1

Processed By: Jason Ploeger, P.Geo.
Map Drawn By: Jason Ploeger, P.Geo.
January 2022

CANADIAN EXPLORATION SERVICES LTD

Drawing: Q2945-TigerGold-Ghost1-3DIP-Chr-150



TIGER GOLD EXPLORATION CORPORATION

Harker Heritage Project - Ghost 1
Elliott and Harker Townships, Ontario

3D Distributed Induced Polarization Array
Chargeability Inversion Slice at 100m MSL

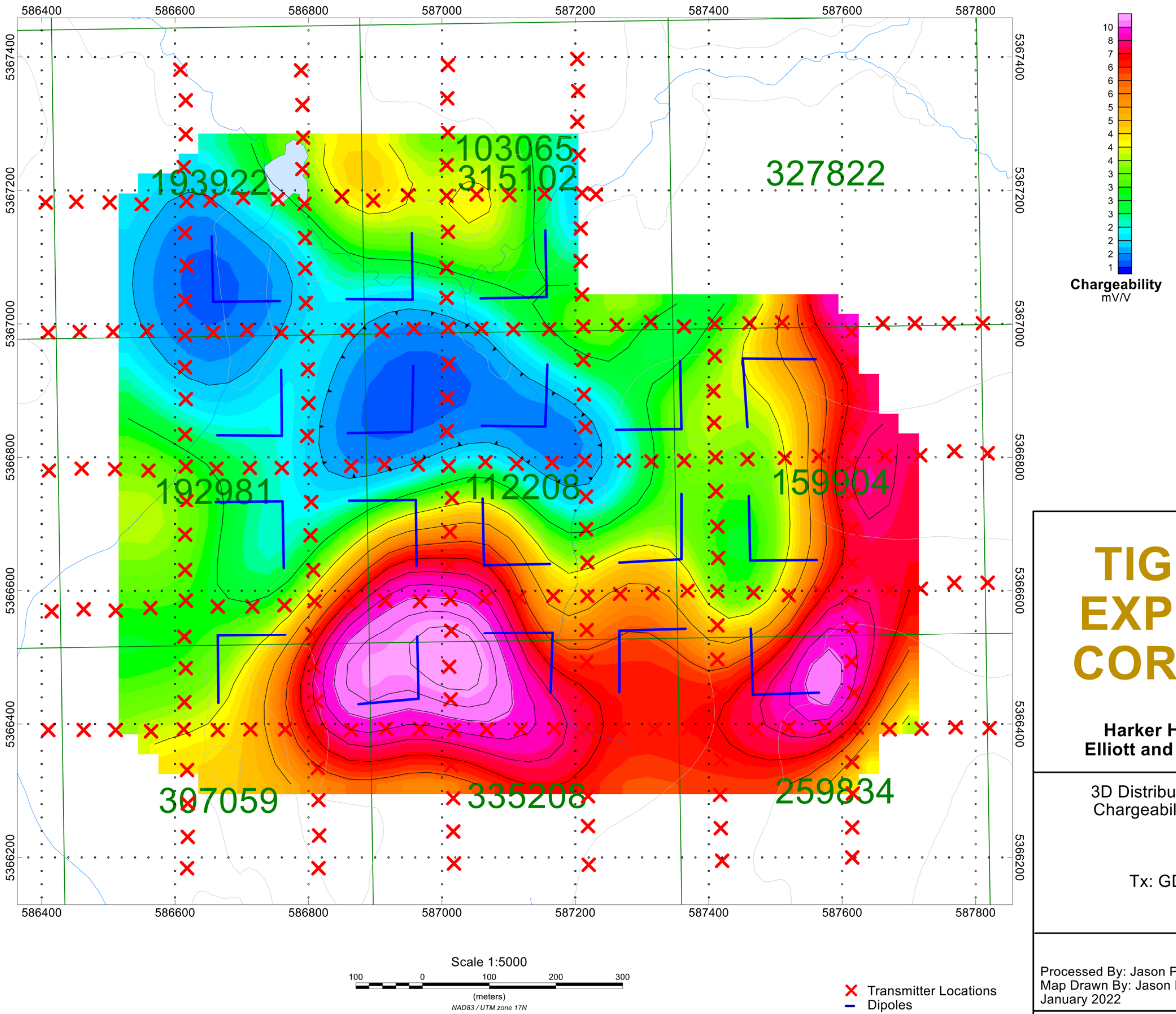
Interval: 2 seconds
Rx: Iris V-Fullwaver
Tx: GDD II (5 kW Time Domain)

Contour Intervals: 1

Processed By: Jason Ploeger, P.Geo.
Map Drawn By: Jason Ploeger, P.Geo.
January 2022

CXS CANADIAN EXPLORATION SERVICES LTD

Drawing: Q2945-TigerGold-Ghost1-3DIP-Chr-100



TIGER GOLD EXPLORATION CORPORATION

Harker Heritage Project - Ghost 1
Elliott and Harker Townships, Ontario

3D Distributed Induced Polarization Array
Chargeability Inversion Slice at 50m MSL

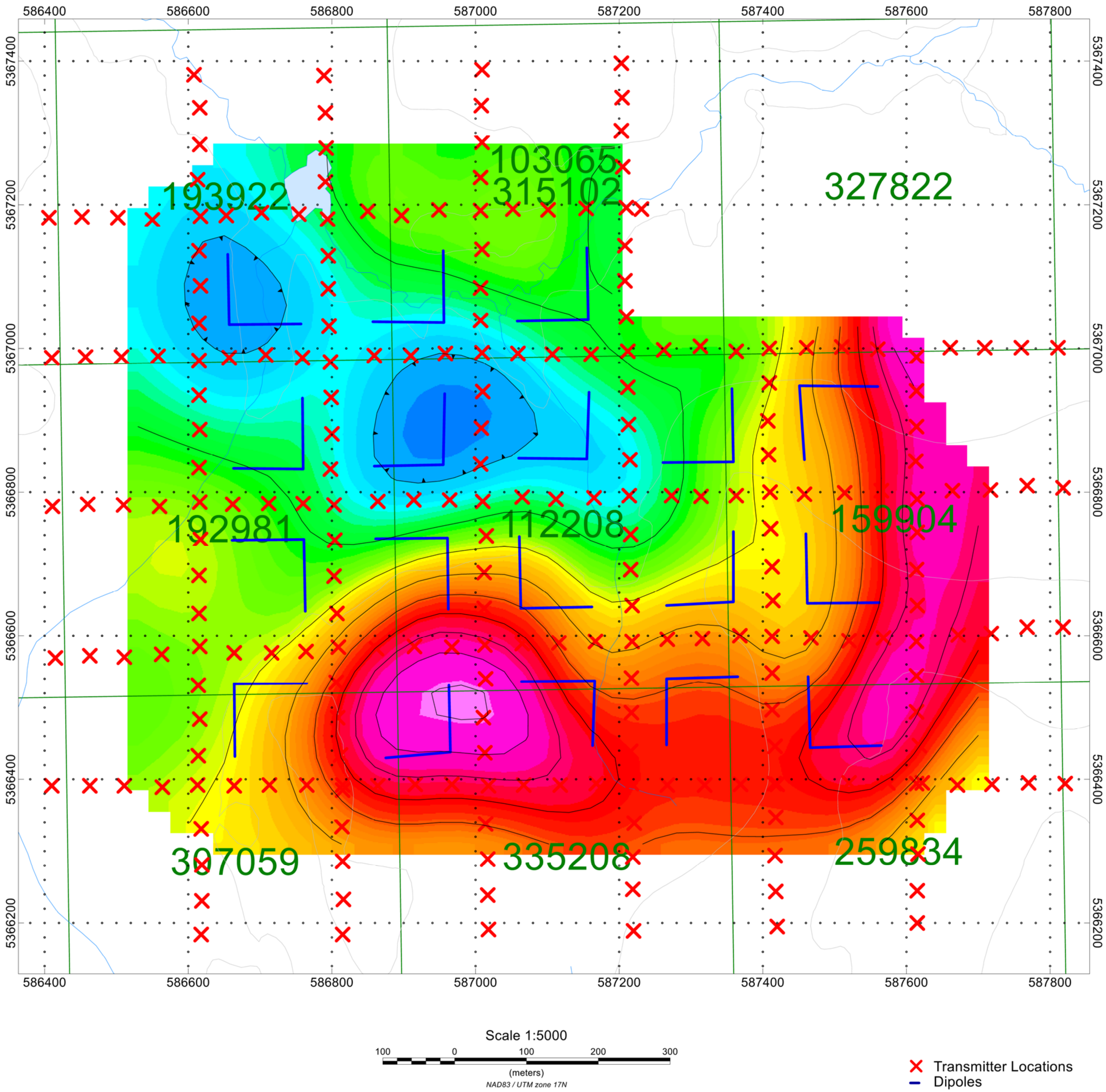
Interval: 2 seconds
Rx: Iris V-Fullwaver
Tx: GDD II (5 kW Time Domain)

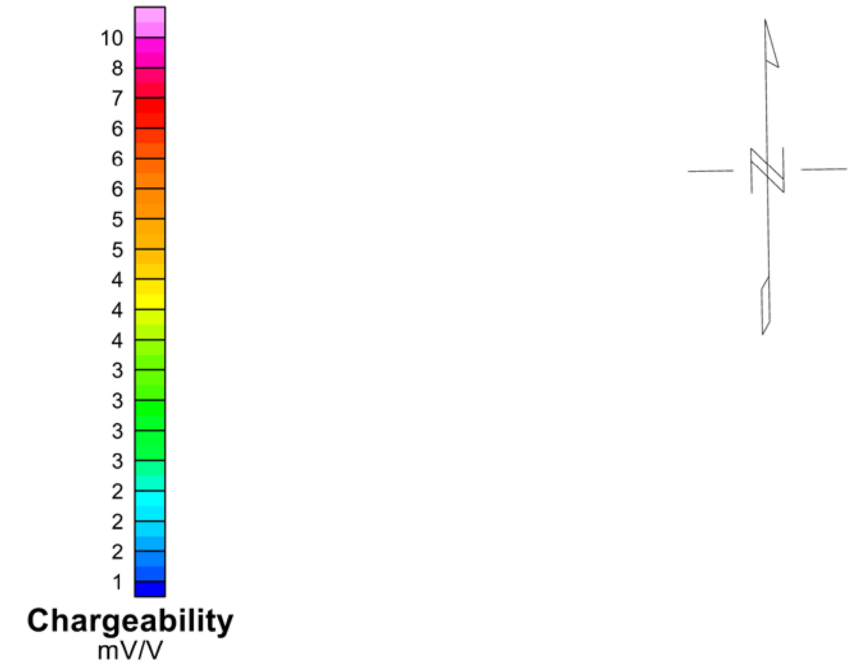
Contour Intervals: 1

Processed By: Jason Ploeger, P.Geo.
Map Drawn By: Jason Ploeger, P.Geo.
January 2022

CANADIAN EXPLORATION SERVICES LTD

Drawing: Q2945-TigerGold-Ghost1-3DIP-Chr-50





TIGER GOLD EXPLORATION CORPORATION

Harker Heritage Project - Ghost 1
Elliott and Harker Townships, Ontario

3D Distributed Induced Polarization Array
Chargeability Inversion Slice at 0m MSL

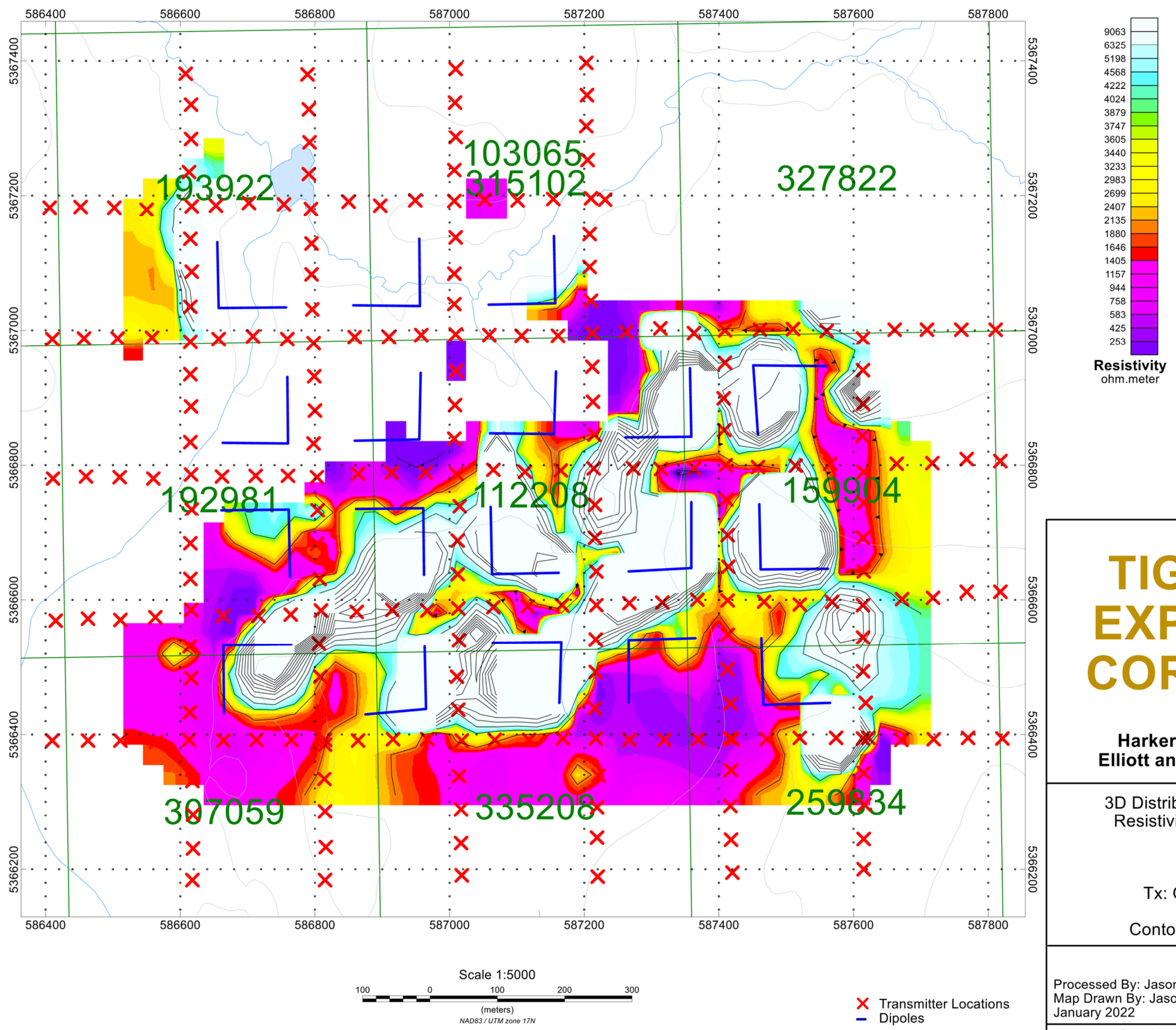
Interval: 2 seconds
Rx: Iris V-Fullwaver
Tx: GDD II (5 kW Time Domain)

Contour Intervals: 1

Processed By: Jason Ploeger, P.Geo.
Map Drawn By: Jason Ploeger, P.Geo.
January 2022

CXS CANADIAN EXPLORATION SERVICES LTD

Drawing: Q2945-TigerGold-Ghost1-3DIP-Chr-0



TIGER GOLD EXPLORATION CORPORATION

Harker Heritage Project - Ghost 1
Elliott and Harker Townships, Ontario

3D Distributed Induced Polarization Array
Resistivity Inversion Slice at 300m MSL

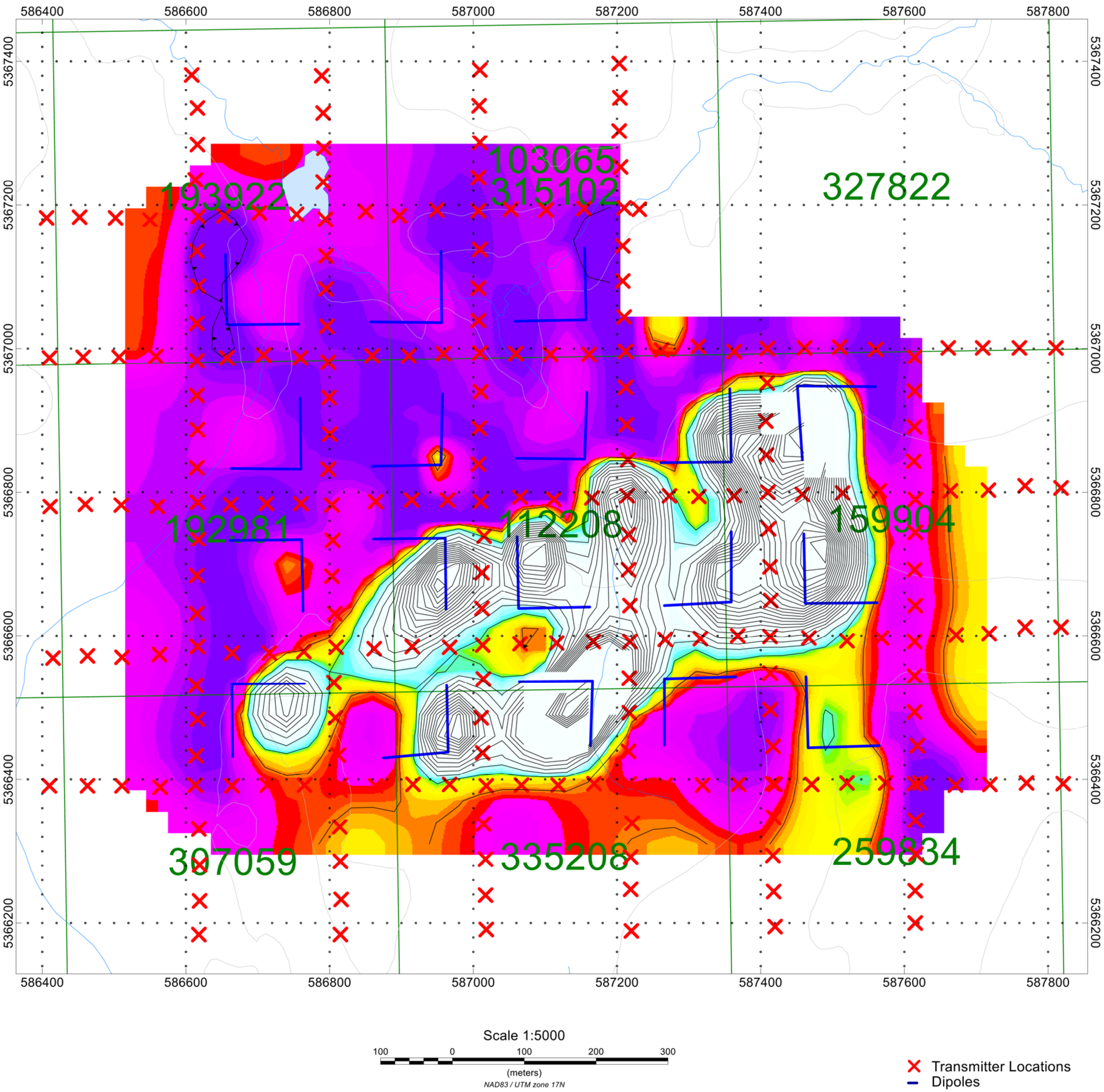
Interval: 2 seconds
Rx: Iris V-Fullwaver
Tx: GDD II (5 kW Time Domain)

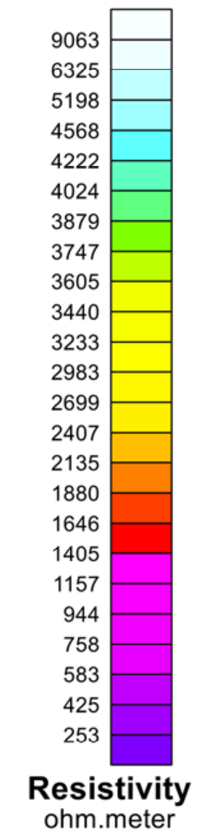
Contour Intervals: 2000 ohm.meter

Processed By: Jason Ploeger, P.Geo.
Map Drawn By: Jason Ploeger, P.Geo.
January 2022

CANADIAN EXPLORATION SERVICES LTD

Drawing: Q2945-TigerGold-Ghost1-3DIP-Res-300





TIGER GOLD EXPLORATION CORPORATION

Harker Heritage Project - Ghost 1
Elliott and Harker Townships, Ontario

3D Distributed Induced Polarization Array
Resistivity Inversion Slice at 250m MSL

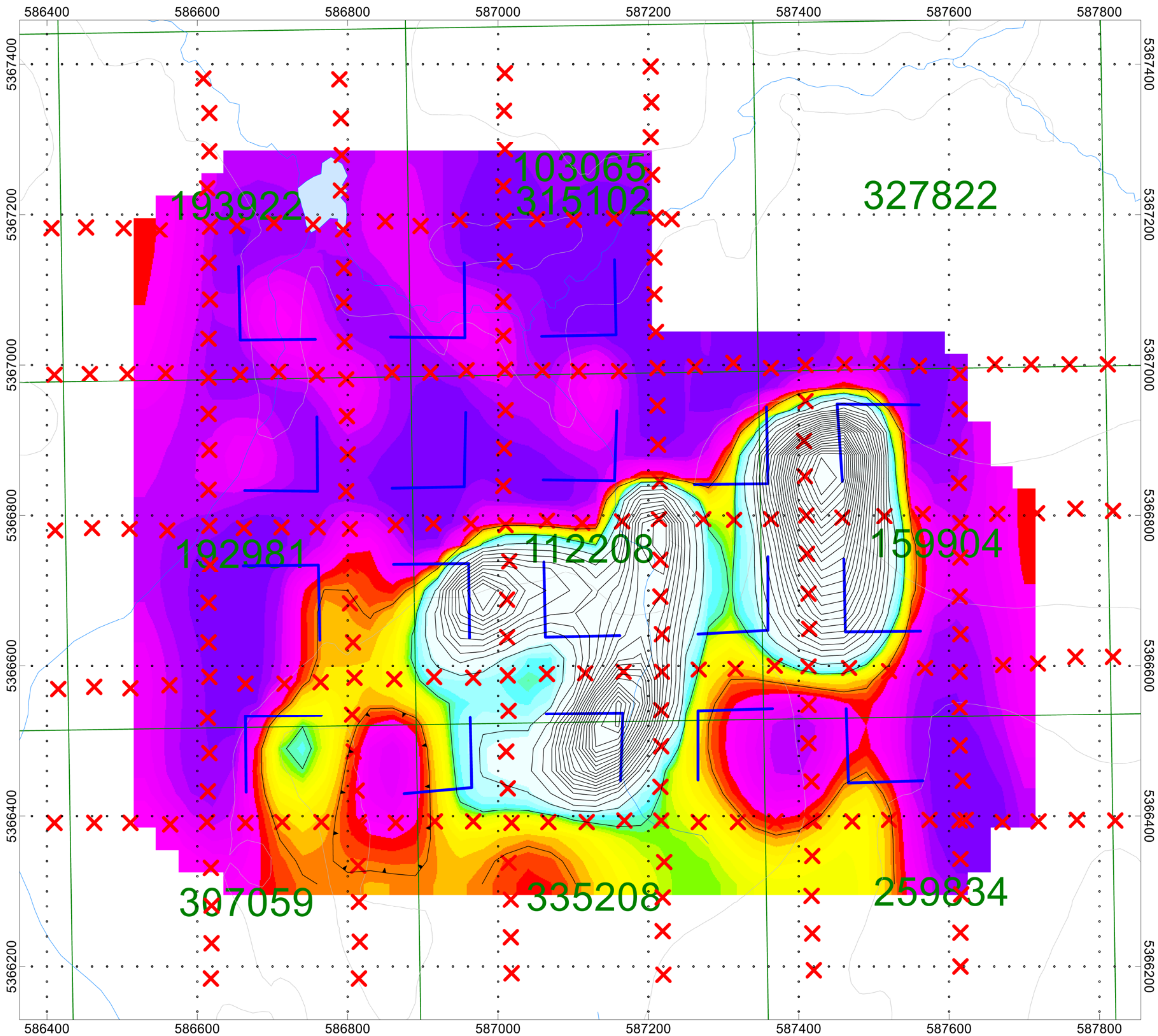
Interval: 2 seconds
Rx: Iris V-Fullwaver
Tx: GDD II (5 kW Time Domain)

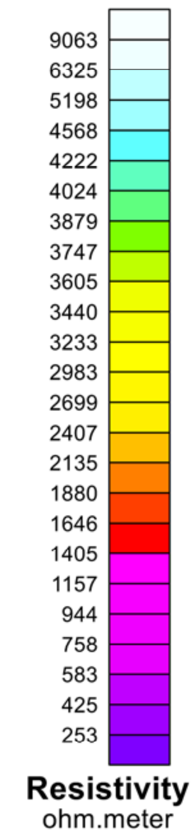
Contour Intervals: 2000 ohm.meter

Processed By: Jason Ploeger, P.Geo.
Map Drawn By: Jason Ploeger, P.Geo.
January 2022

CANADIAN EXPLORATION SERVICES LTD

Drawing: Q2945-TigerGold-Ghost1-3DIP-Res-250





Scale 1:5000

100 0 100 200 300

(meters)

NAD83 / UTM zone 17N

✕ Transmitter Locations

— Dipoles

TIGER GOLD EXPLORATION CORPORATION

Harker Heritage Project - Ghost 1
Elliott and Harker Townships, Ontario

3D Distributed Induced Polarization Array
Resistivity Inversion Slice at 200m MSL

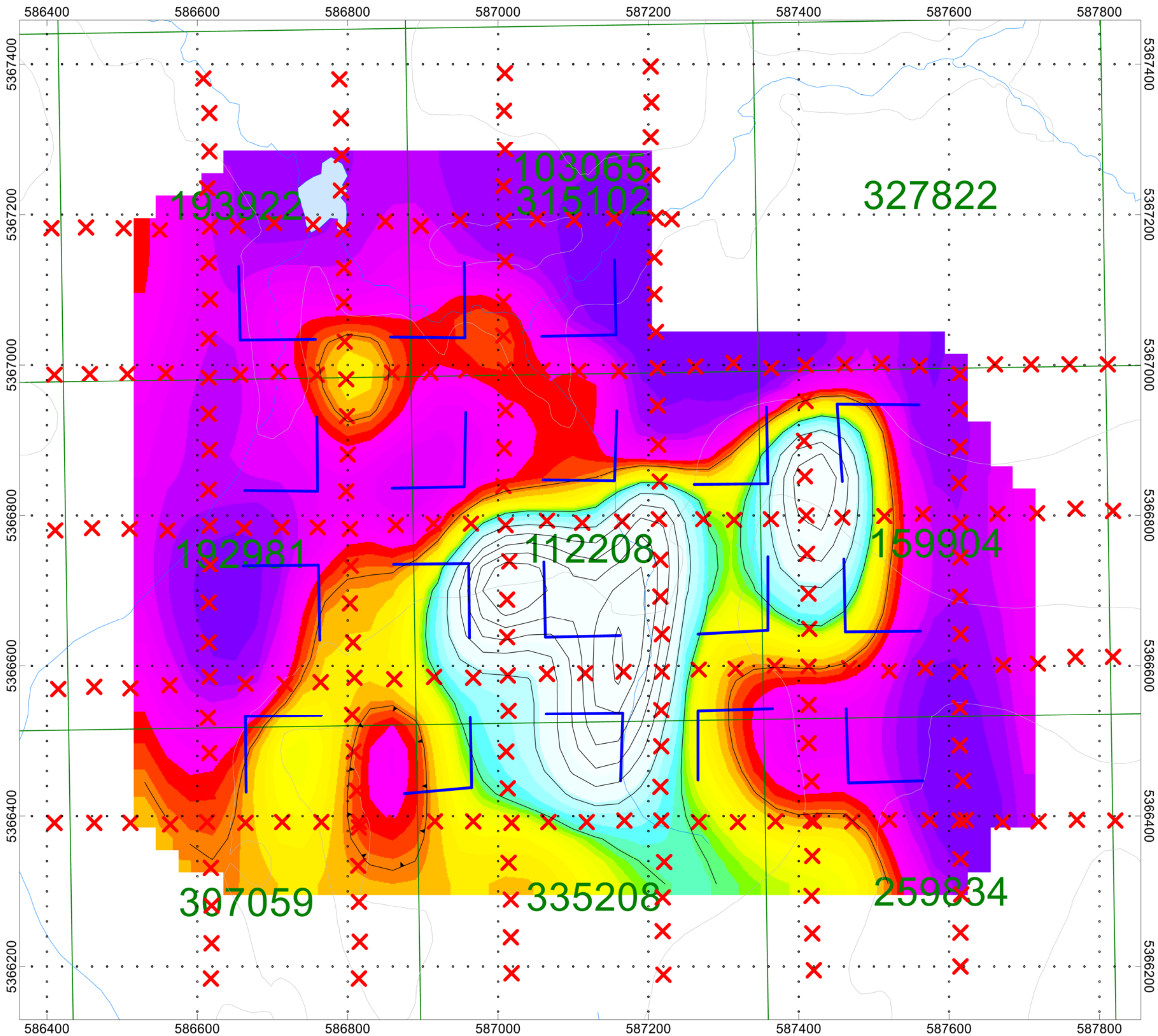
Interval: 2 seconds
Rx: Iris V-Fullwaver
Tx: GDD II (5 kW Time Domain)

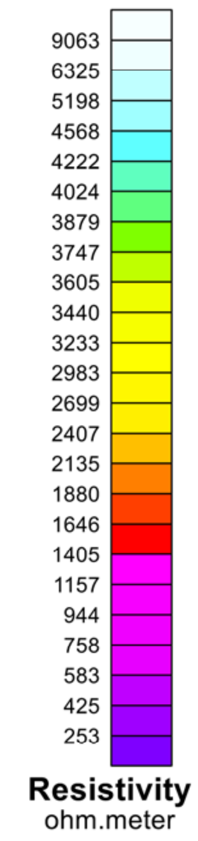
Contour Intervals: 2000 ohm.meter

Processed By: Jason Ploeger, P.Geo.
Map Drawn By: Jason Ploeger, P.Geo.
January 2022

CXS CANADIAN EXPLORATION SERVICES LTD

Drawing: Q2945-TigerGold-Ghost1-3DIP-Res-200





Scale 1:5000

100 0 100 200 300

(meters)

NAD83 / UTM zone 17N

Transmitter Locations

Dipoles

TIGER GOLD EXPLORATION CORPORATION

Harker Heritage Project - Ghost 1
Elliott and Harker Townships, Ontario

3D Distributed Induced Polarization Array
Resistivity Inversion Slice at 150m MSL

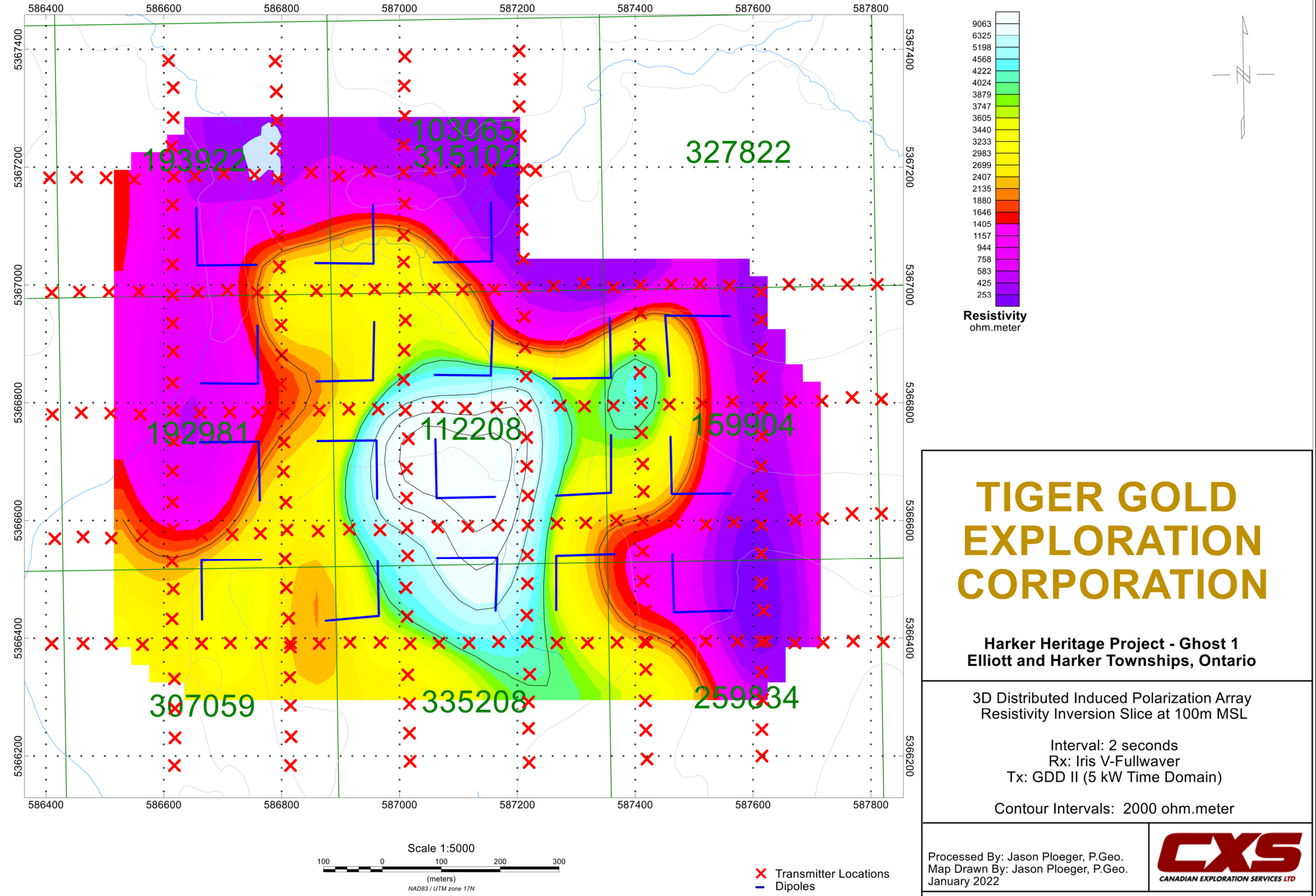
Interval: 2 seconds
Rx: Iris V-Fullwaver
Tx: GDD II (5 kW Time Domain)

Contour Intervals: 2000 ohm.meter

Processed By: Jason Ploeger, P.Geo.
Map Drawn By: Jason Ploeger, P.Geo.
January 2022

CANADIAN EXPLORATION SERVICES LTD

Drawing: Q2945-TigerGold-Ghost1-3DIP-Res-150



TIGER GOLD EXPLORATION CORPORATION

Harker Heritage Project - Ghost 1
Elliott and Harker Townships, Ontario

3D Distributed Induced Polarization Array
Resistivity Inversion Slice at 100m MSL

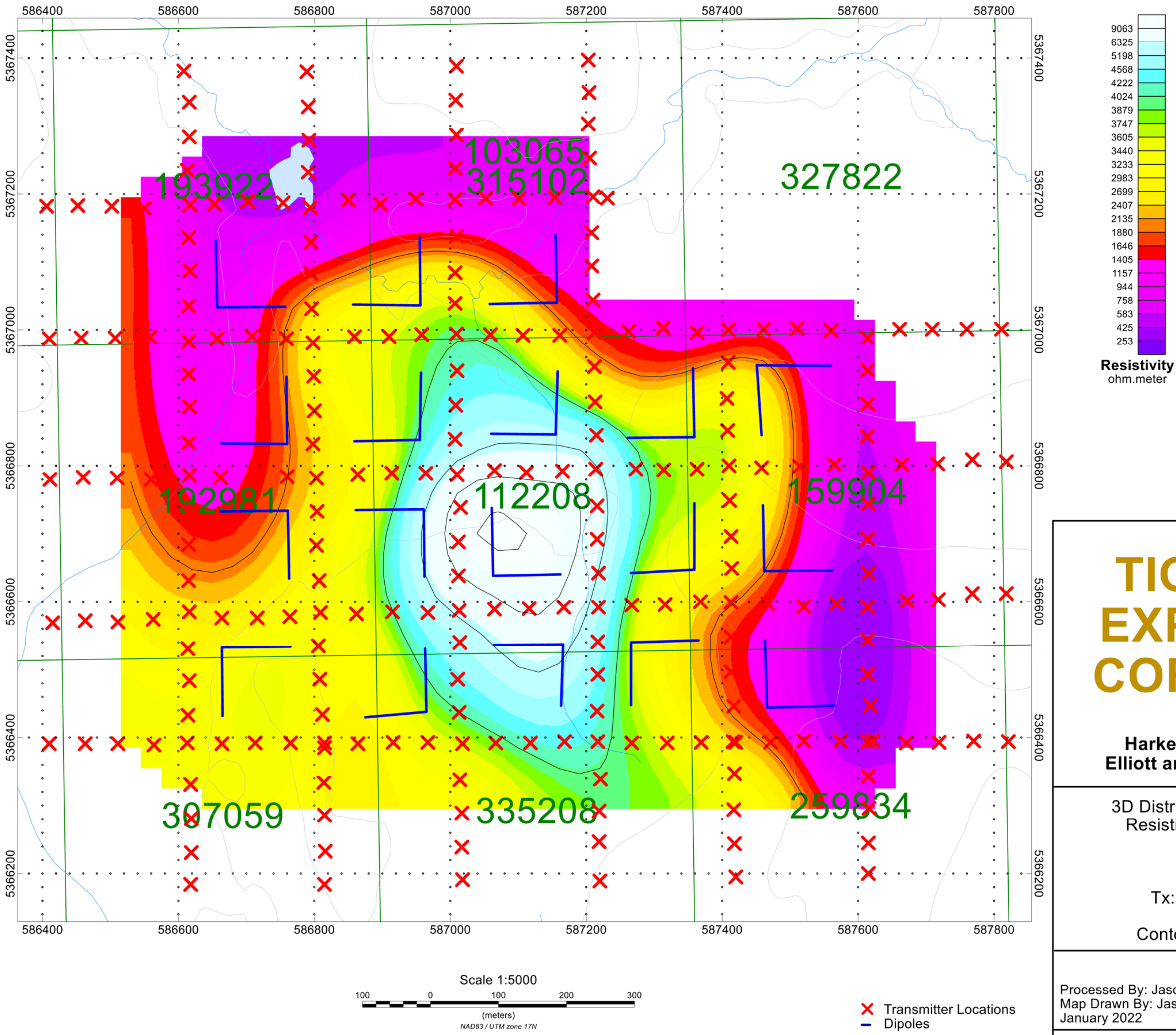
Interval: 2 seconds
Rx: Iris V-Fullwaver
Tx: GDD II (5 kW Time Domain)

Contour Intervals: 2000 ohm.meter

Processed By: Jason Ploeger, P.Geo.
Map Drawn By: Jason Ploeger, P.Geo.
January 2022

CANADIAN EXPLORATION SERVICES LTD

Drawing: Q2945-TigerGold-Ghost1-3DIP-Res-100



TIGER GOLD EXPLORATION CORPORATION

Harker Heritage Project - Ghost 1
Elliott and Harker Townships, Ontario

3D Distributed Induced Polarization Array
Resistivity Inversion Slice at 50m MSL

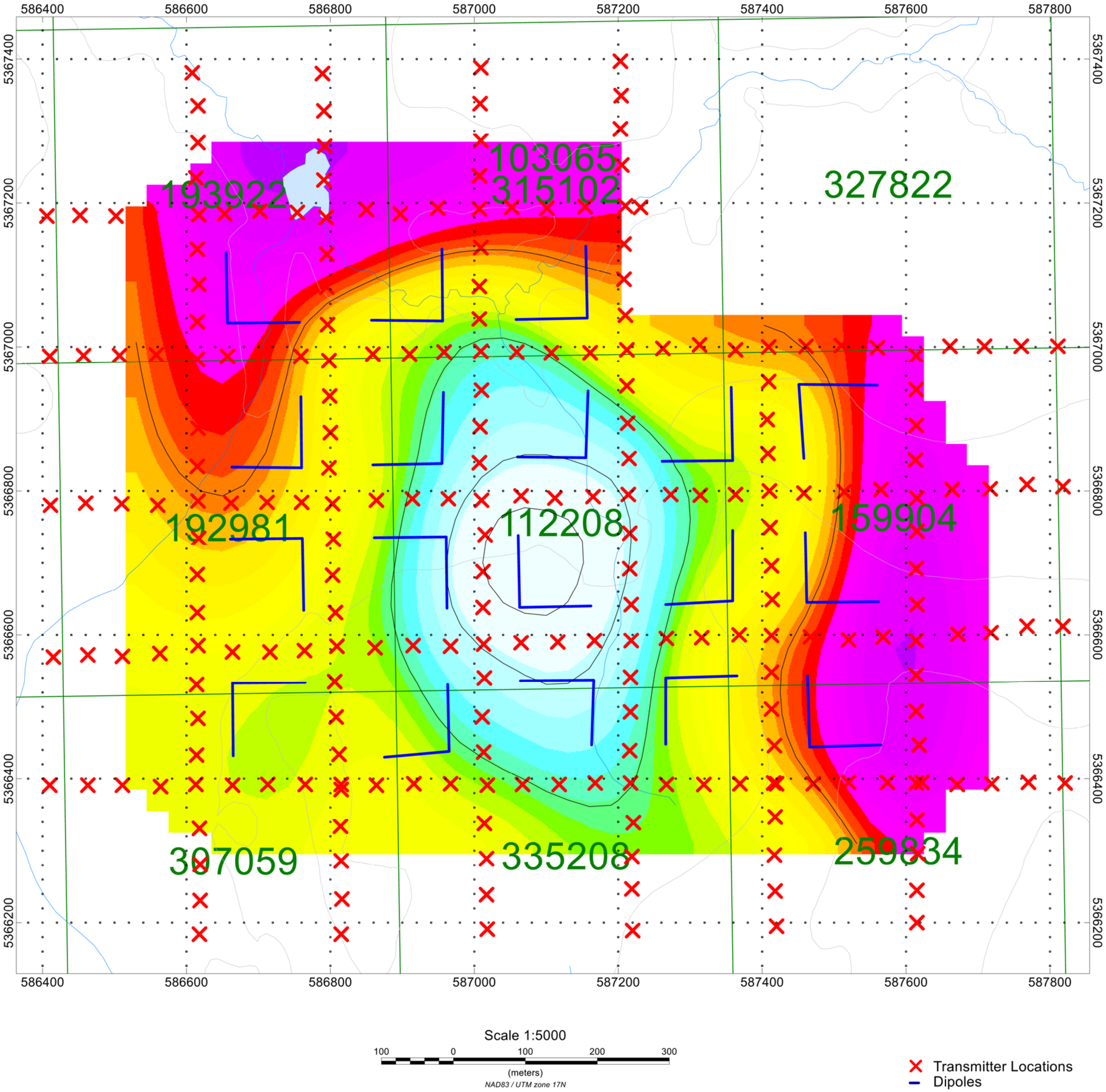
Interval: 2 seconds
Rx: Iris V-Fullwaver
Tx: GDD II (5 kW Time Domain)

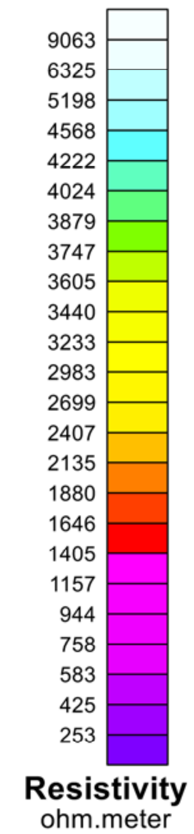
Contour Intervals: 2000 ohm.meter

Processed By: Jason Ploeger, P.Geo.
Map Drawn By: Jason Ploeger, P.Geo.
January 2022

CXS CANADIAN EXPLORATION SERVICES LTD

Drawing: Q2945-TigerGold-Ghost1-3DIP-Res-50





TIGER GOLD EXPLORATION CORPORATION

Harker Heritage Project - Ghost 1
Elliott and Harker Townships, Ontario

3D Distributed Induced Polarization Array
Resistivity Inversion Slice at 0m MSL

Interval: 2 seconds
Rx: Iris V-Fullwaver
Tx: GDD II (5 kW Time Domain)

Contour Intervals: 2000 ohm.meter

Processed By: Jason Ploeger, P.Geo.
Map Drawn By: Jason Ploeger, P.Geo.
January 2022

CANADIAN EXPLORATION SERVICES LTD

Drawing: Q2945-TigerGold-Ghost1-3DIP-Res-0

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