Geophysical Field Report:
High Resolution Resistivity and Induced Polarization Survey

INDIAN RIVER Project
Resistivity/IP Survey: Phase II

Whitehorse Mining District
NTS: 115G/16

Work Performed On: May 27th – June 6th, 2017

FOR:

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Date: October 14th, 2017

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1.0 Introduction

White Gold Corporation ("WGO") headquartered in Toronto, ON commissioned Ground Truth Exploration Inc. ("Ground Truth") headquartered in Dawson City, YT to complete high resolution resistivity and induced polarization ("RES/IP") surveys on the Indian River ("IND") Property during the 2017 field season.

The purpose of the RES/IP survey is to identify geological structure and delineate extent of mineralized zones that are indicated by soil anomalies. This report details the results of the RES/IP surveys. Additional surveying and interpretation is left to WGO's discretion.

Figure 1 shows the proposed location of 15 RES/IP lines to be completed during the 2017 field season. Note that the 15 lines are placed to accommodate data from an existing RES/IP profile collected in 2014, which is located along the traverse indicated by green dots on the figure (representing planned 2017 RAB drill holes).

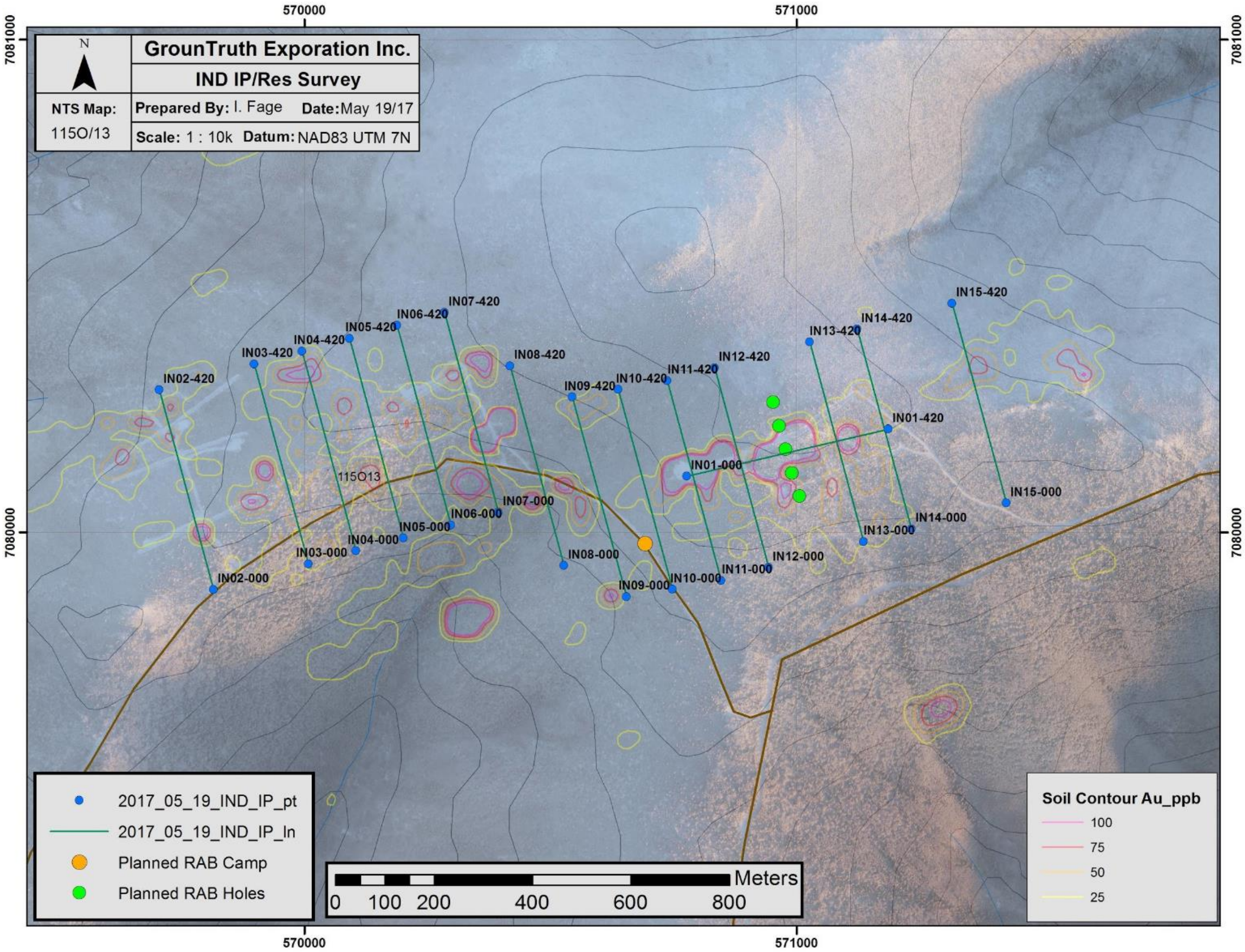


Figure 1: *IND Phase II Proposal showing contoured gold in soil anomalies. Green dots represent planned RAB drill holes for 2017. Note that there is a 2014 RES/IP profile of equal length and electrode spacing to the 2017 RES/IP lines that is located along the planned RAB holes.*

2.0 Survey Theory

Resistivity and Induced Polarization surveys are an appropriate approach to lode-source gold exploration in Yukon Territories because of the resistivity contrasts inherent to the mineralization and geological structures that are associated with gold deposits. The non-invasive nature of RES/IP combined with its cost efficiency make it a valuable contribution to exploration efforts.

RES/IP surveys involve current injection from the ground surface to induce an electric field that is a function of the conductivity distribution in the subsurface. A current injection typically uses one sink electrode and one source electrode. A measurement of potential field is then acquired across two electrodes that are different from the current electrodes. Hundreds of potential field measurements are made at intervals along the RES/IP traverse for successive current injections to generate the final raw profile of apparent subsurface resistivity.

There are a wide number of array types used to perform RES/IP surveys, each involving a different configuration of current and potential electrodes. Different arrays have strengths and weaknesses in terms of the length of the survey and the measurement sensitivity to vertical or horizontal subsurface features. GroundTruth utilizes an extended dipole-dipole array for the IND project to adequately image the target zones. Details on the extended dipole-dipole array can be found in Appendix C.

3 Survey Details

3.1 Personnel

The survey lines were conducted by two teams of GroundTruth Exploration personnel. The first team is composed of:

1. Jen Hanlon	Lead Geophysical Operator and Crew Chief
2. Norbert Kapa	Secondary Lead
3. Pawel Kapa	Geo Technician
4. Andrew Truax	Geo Technician
5. Tom Lacey	Geo Technician

And the second team is composed of:

1. Richard Daigle	Lead Geophysical Operator and Crew Chief
2. Nick McKay	Secondary Lead and GPS Technician
3. Jordan MacDonald	Geo Technician
4. Jason Daigle	Geo Technician
5. Frederic d'Amours-Lecler	Geo Technician

Both teams were on site on May 27th and 28th to conduct 2 survey lines. During this time team 1 was camped on site and team 2 drove to/from the worksite from Dawson. The 13 remaining survey lines were conducted only by team 1, who remained camped onsite.

3.2 Program Dates

Team 1:

Mobilize to IND:	May 26th
Field Surveys	May 27th – June 6th
Demob back to Dawson	June 7th

Team 2:

Truck transport to and from Dawson	May 27th – May 28th
Field Surveys	May 27th – May 28th

3.3 Survey Summary

Lines:	INDIP17-01 to -15
Number of Electrodes:	84
Electrode Spacing:	5m
Line Length:	415m
Array:	Extended dipole-dipole

Figure 2 shows the finished locations of the 15 IND profile lines. There is a close match to the proposed lines shown on Figure 1.

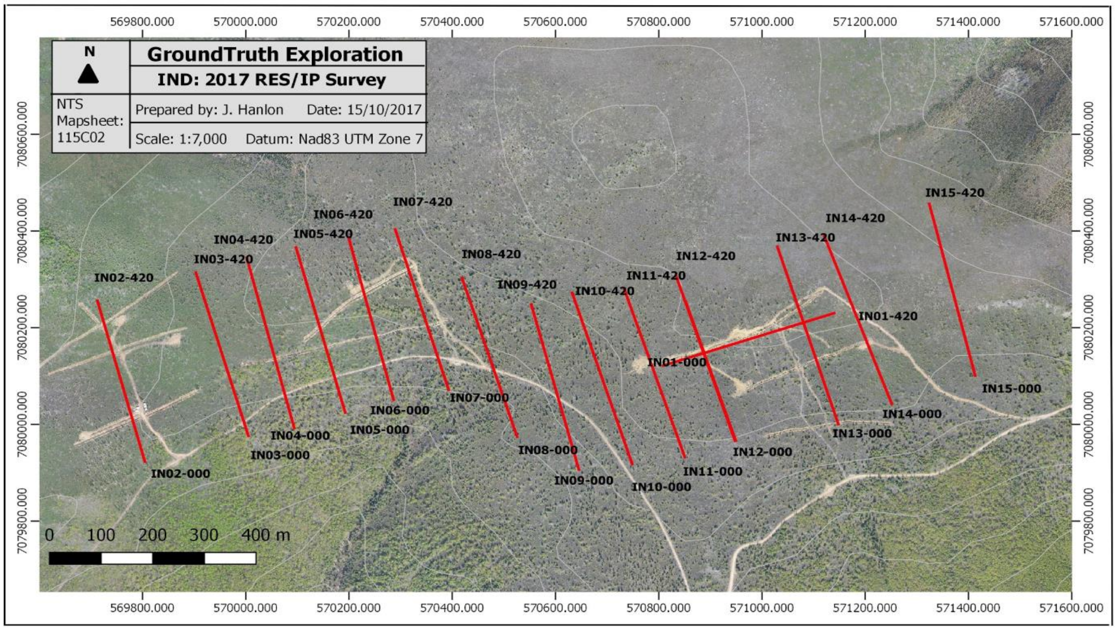


***Figure 2**: IND Phase II Finished grid showing topographic contours and aerial imagery.*

The terrain in the grid area is relatively dry and rocky, leading to moderate–high ground contact resistance ("CR") with the electrodes; generally 2,500–9,000 Ohms. Particularly on the northern slopes of the profile lines, the electrodes needed to be doubled and saturated with salt-solution to achieve the lowest CR values possible. In situations where one side of the traverse had better contacts than the other, the array measurement direction was chosen to read from low to high CR.

3.4 Field Survey Operating Procedures:

A crew of 5 GroundTruth personnel sets up and operates each survey. Brief operating procedures are as follows:

1. The midpoint of a traverse is located and the length of the line is sighted using a compass and GPS.
2. Minimal brush is cut along the line to place pickets and set up equipment.
3. 84 electrodes are diligently inserted into the ground, equivalently spaced along the line at 5m and hammered to a depth of 50cm (10% of electrode spacing).
4. Calcium Chloride (CaCl, 25% solution) is added to the base of all electrodes.
5. Cables are laid and connected to the electrodes.

6. Contact resistance test is conducted.
7. Extra electrodes and CaCl solution is added to each electrode with CR >2,000 Ohms. CR test is repeated.
8. Continue to add electrodes and CaCl until satisfactory CR values are achieved.
9. Operator initializes survey.
10. Operator uses DGPS and data collection software to document survey line parameters incl. electrode locations, topography, and notable geological/cultural features if present. Pickets are placed along the line every 50m.
11. Crew cuts and prepares the next survey line.

3.5 Data Processing

Immediately after each survey is completed in the field, the data measurements are downloaded and reviewed for integrity. Any field errors are thus addressed before moving the equipment. RES/IP datasets are processed daily by the lead operator using EarthImager2D software provided by Advanced Geosciences Inc. Outlier/noisy data are removed and each cleaned dataset is inverted. Terrain correction to the inversion mesh is applied from topographic measurements collected using a differential GPS. All raw data from the DGPS and SuperSting are archived for future consultation.

4 Survey Results

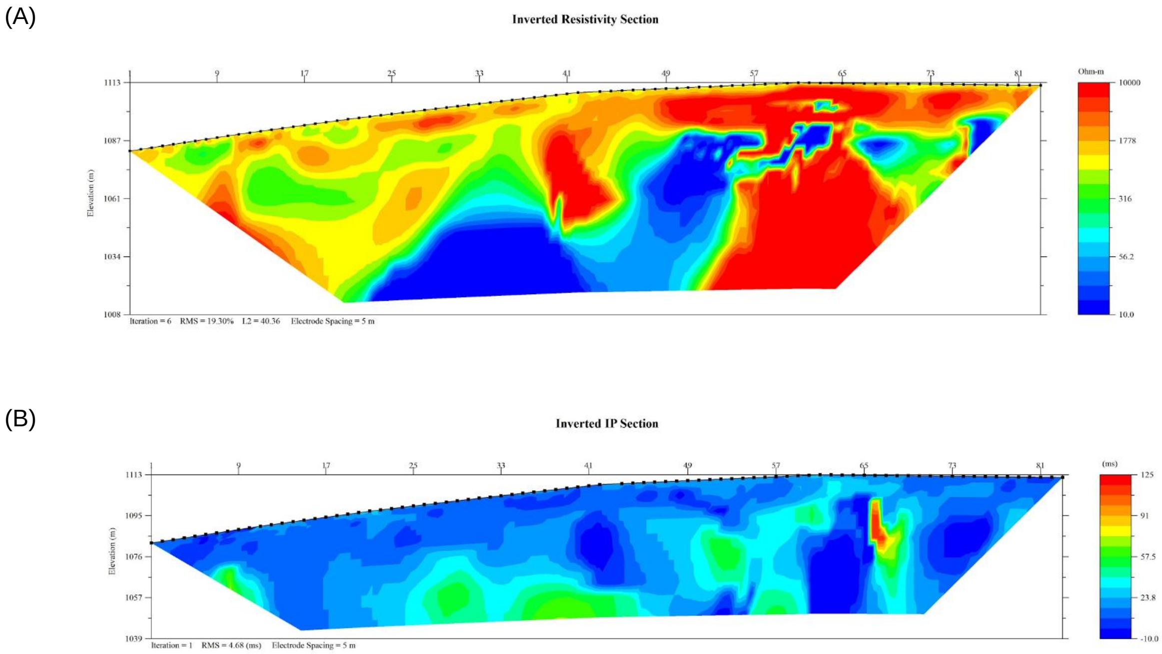
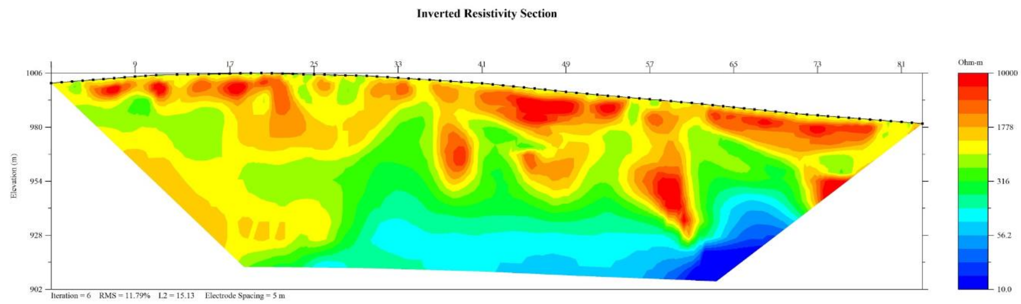


***Figure 3**: INDIP17-01 (crossline) sections. (**A**) Inverted resistivity (scale 10-10,000 Ohm-m). (**B**) Inverted IP (scale -10-125 ms). Note that due to high electrode CR values the representative depth of the IP section is approximately 60% that of the resistivity section.*

(A)



(B)

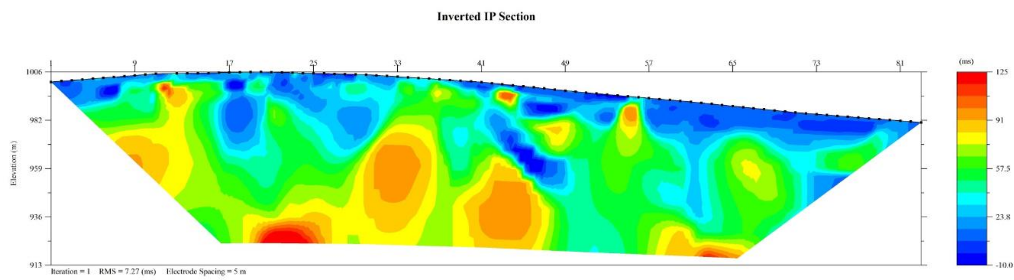
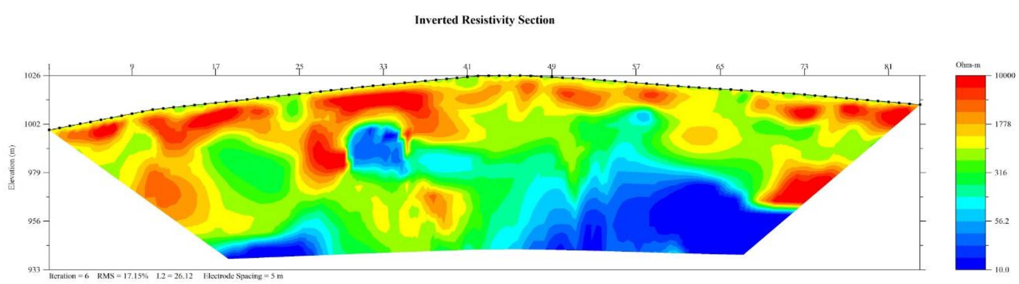


Figure 4*: INDIP17-02 sections. (****A****) Inverted resistivity (scale 10-10,000 Ohm-m). (****B****) Inverted IP (scale -10-125 ms).*

(A)



(B)

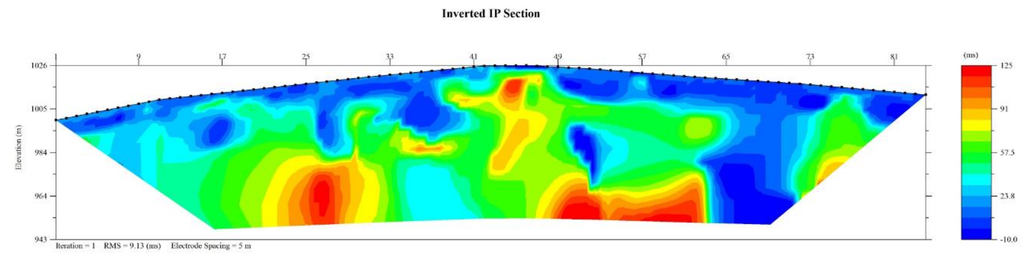
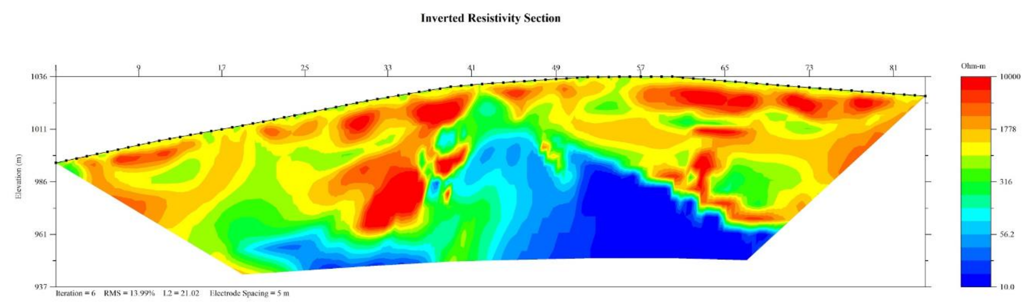


Figure 5*: INDIP17-03 sections. (****A****) Inverted resistivity (scale 10-10,000 Ohm-m). (****B****) Inverted IP (scale -10-125 ms).*

(A)



(B)

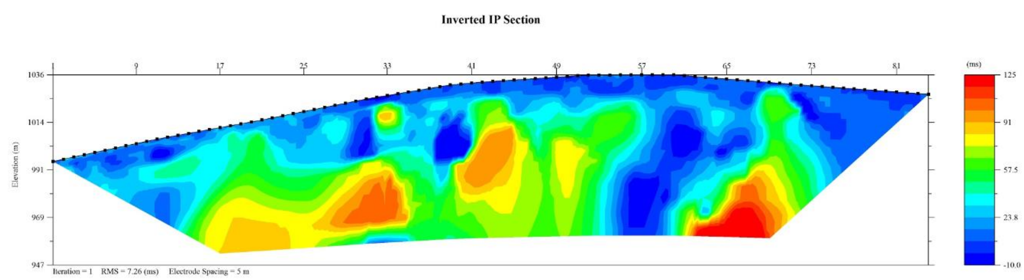
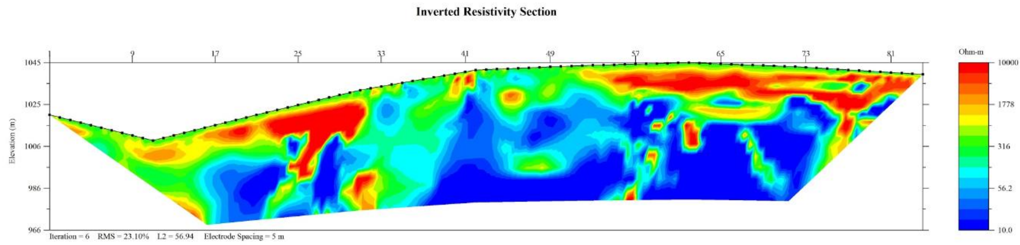


Figure 6*: INDIP17-04 sections. (****A****) Inverted resistivity (scale 10-10,000 Ohm-m). (****B****) Inverted IP (scale -10-125 ms).*

(A)



(B)

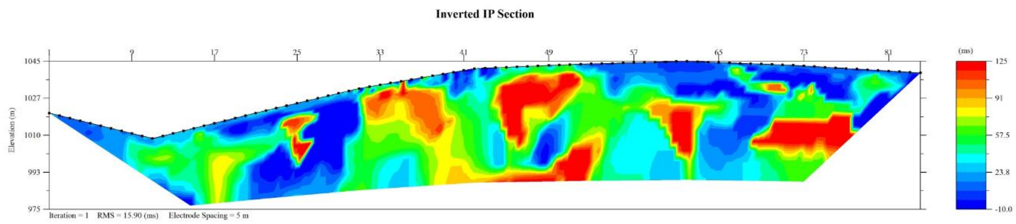
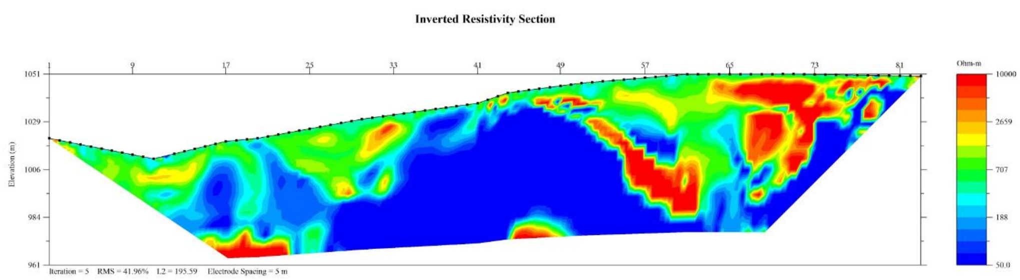


***Figure 7**: INDIP17-05 sections. (**A**) Inverted resistivity (scale 10-10,000 Ohm-m). (**B**) Inverted IP (scale -10-125 ms).*

(A)



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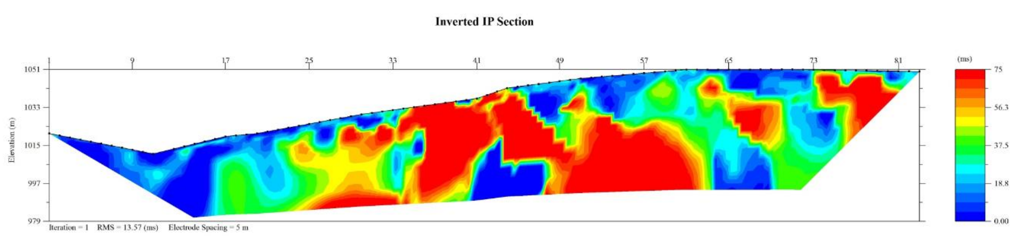
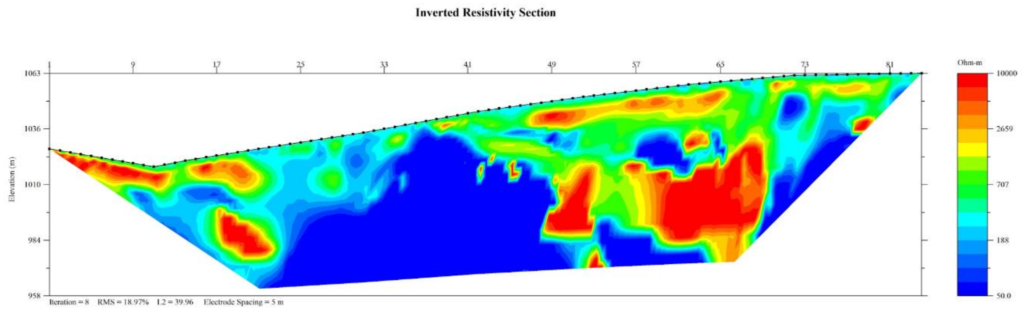


***Figure 8**: INDIP17-06 sections. (**A**) Inverted resistivity (scale 50-10,000 Ohm-m). (**B**) Inverted IP (scale 0-75 ms).*

(A)



(B)

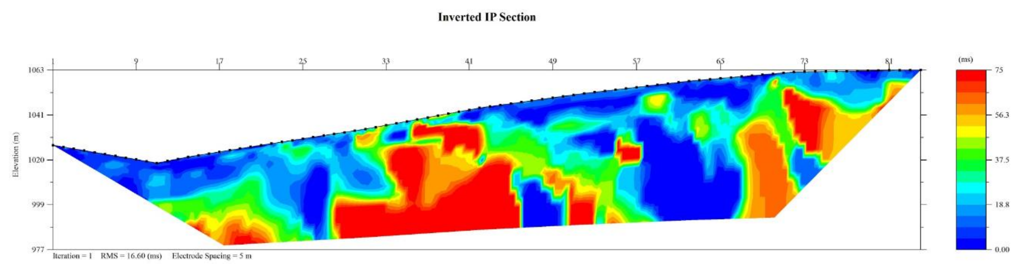
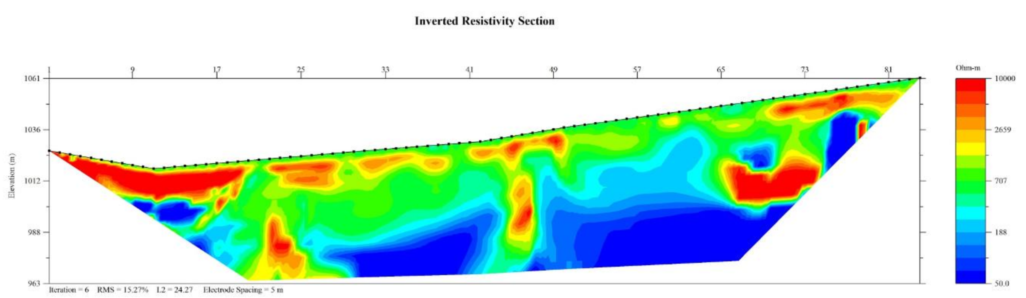


***Figure 9**: INDIP17-07 sections. (**A**) Inverted resistivity (scale 50-10,000 Ohm-m). (**B**) Inverted IP (scale 0-75 ms).*

(A)



(B)

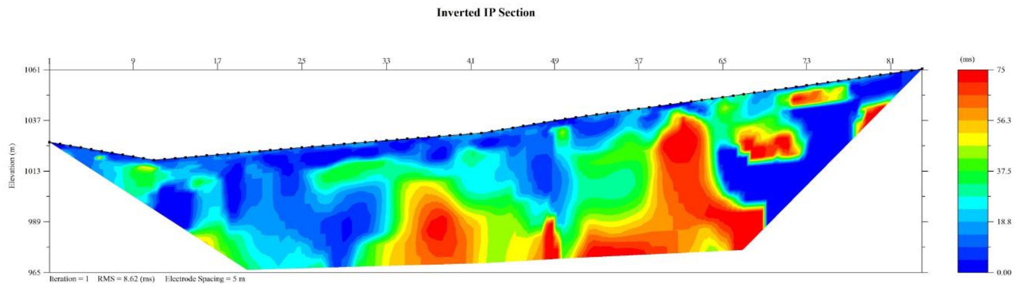
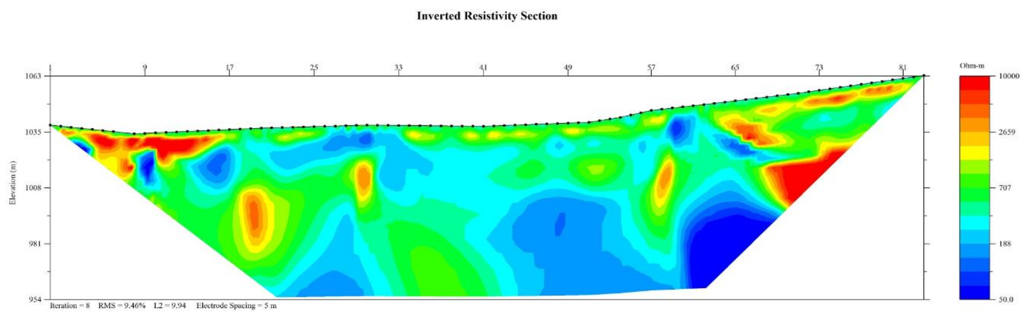


Figure 10*: INDIP17-08 sections. (****A****) Inverted resistivity (scale 50-10,000 Ohm-m). (****B****) Inverted IP (scale 0-75 ms).*

(A)



(B)

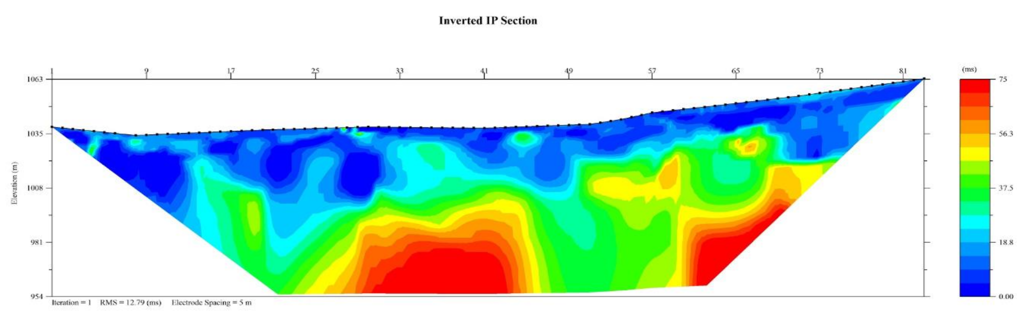
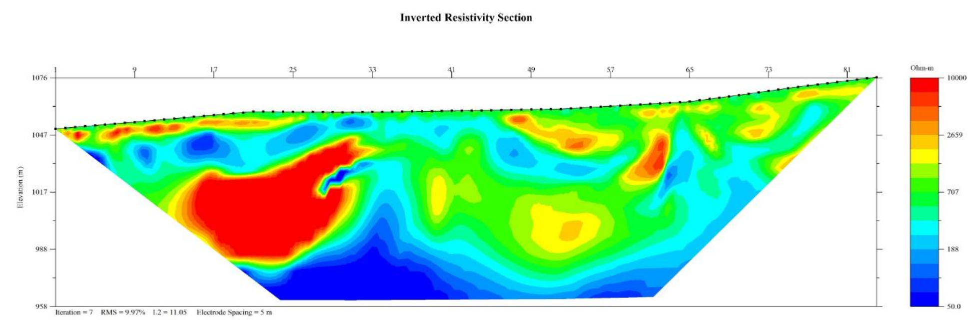


Figure 11*: INDIP17-09 sections. (****A****) Inverted resistivity (scale 50-10,000 Ohm-m). (****B****) Inverted IP (scale 0-75 ms).*

(A)



(B)

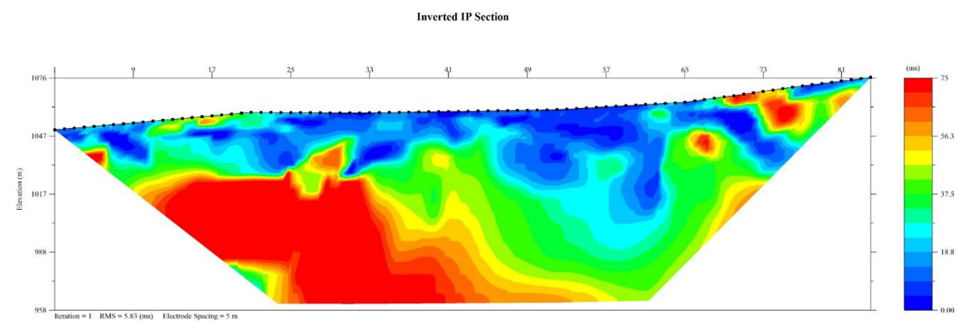
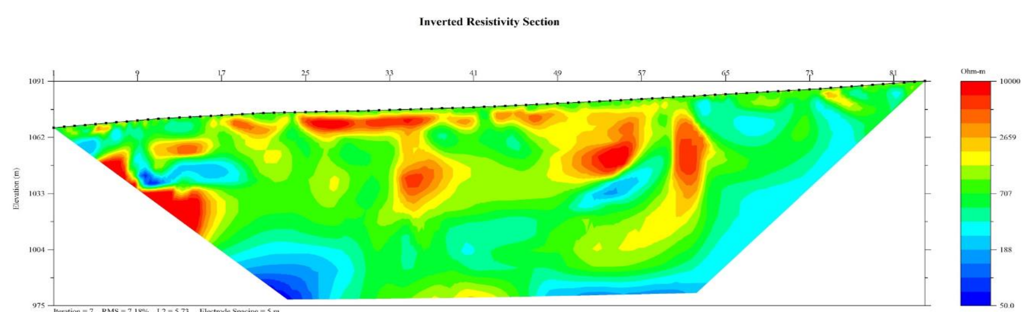


***Figure 12**: INDIP17-10 sections. (**A**) Inverted resistivity (scale 50-10,000 Ohm-m). (**B**) Inverted IP (scale 0-75 ms).*

(A)



(B)

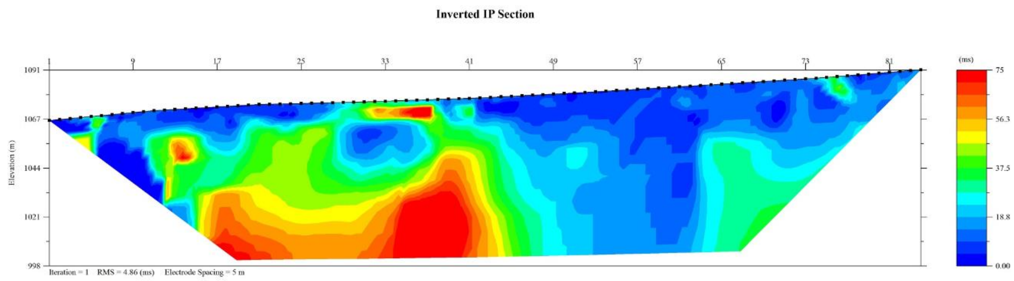
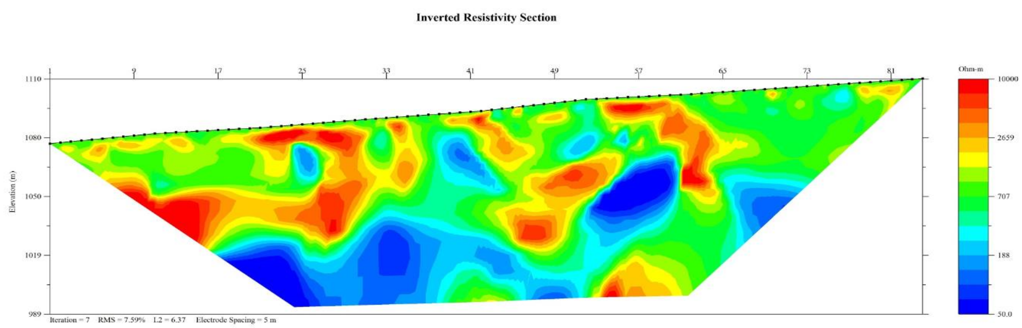


__Figure 13__: INDIP17-11 sections. (__A__) Inverted resistivity (scale 50-10,000 Ohm-m). (__B__) Inverted IP (scale 0-75 ms).

(A)



(B)

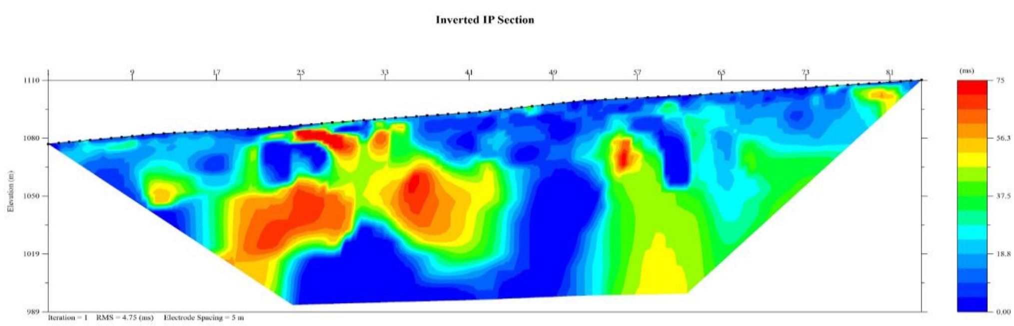
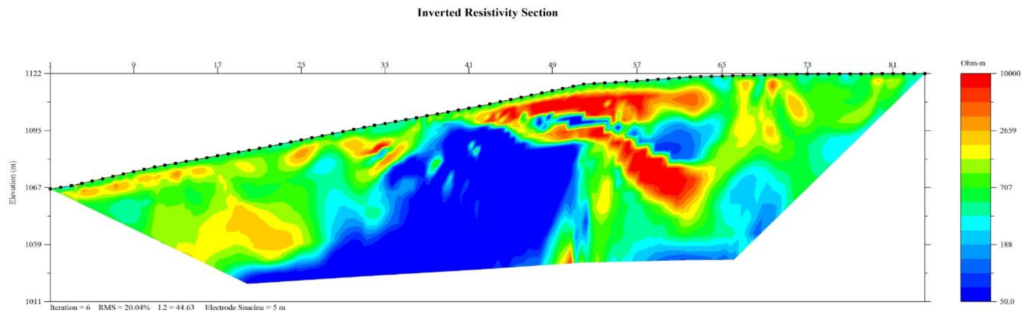


__Figure 14__: INDIP17-12 sections. (__A__) Inverted resistivity (scale 50-10,000 Ohm-m). (__B__) Inverted IP (scale 0-75 ms).

(A)



(B)

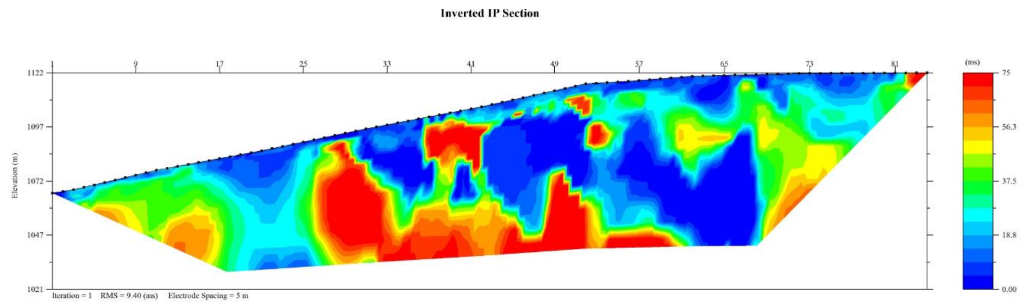
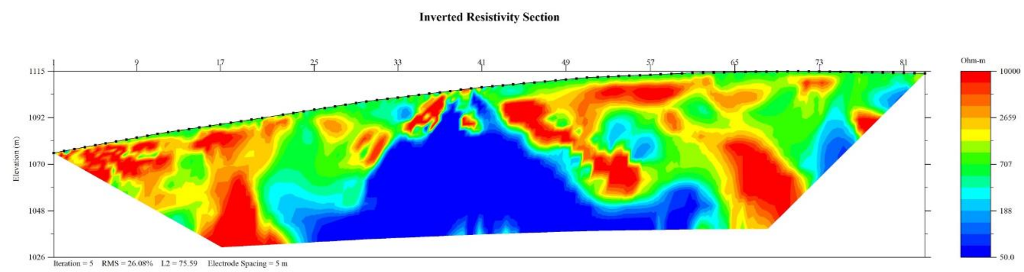


***Figure 15**: INDIP17-13 sections. (**A**) Inverted resistivity (scale 50-10,000 Ohm-m). (**B**) Inverted IP (scale 0-75 ms).*

(A)



(B)

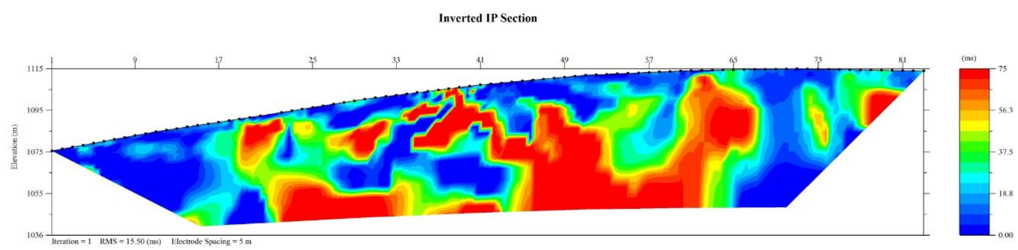
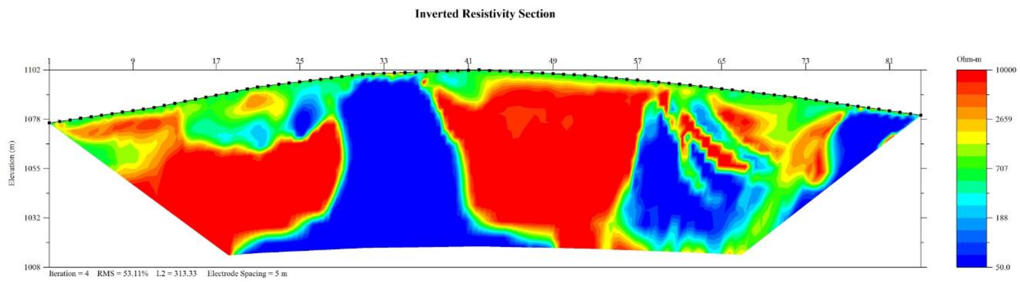


***Figure 16**: INDIP17-14 sections. (**A**) Inverted resistivity (scale 50-10,000 Ohm-m). (**B**) Inverted IP (scale 0-75 ms).*

(A)



(B)

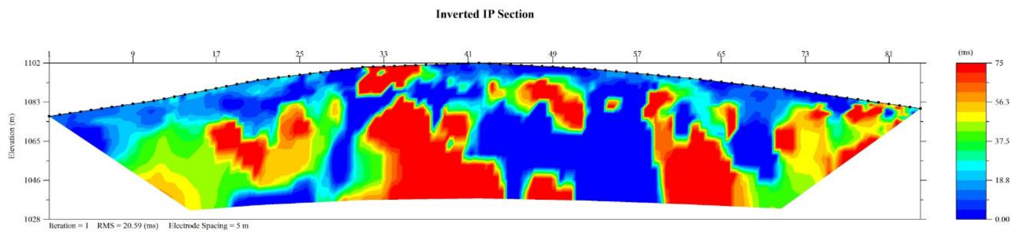


***Figure 17**: INDIP17-15 sections. (**A**) Inverted resistivity (scale 50-10,000 Ohm-m). (**B**) Inverted IP (scale 0-75 ms).*

5 Appendix A: Description of Files and File Structure

This section explains the file naming structure and data content for each project.

Each RES/IP traverse has a unique **Line ID** created by combining: (1) the three letter project code for the property or zone, (2) an IP or RES data designation, (3) the last two digits of the year the survey was read, and (4) an identifying number for the traverse within each property or zone.

> Example: ALBIP17-01, where ALB is the project code, IP is the type of data collected, 17 represents the year 2017, and 01 means that this is the first RES/IP dataset acquired on this property.

Each array dataset has a unique **Data File ID**. This ID is comprised by the date (yy-mm-dd), the first letter of the array type used (e.g. D for dipole-dipole or W for Wenner), and the number of times this array has been used that day.

> Example: 170813D1

File Structure and Content:

- DATA
  - └ Line ID
    - **Figures**
      - figures of merged data pseudosections and inversions
    - **GPS**
      - Contains the DGPS raw data
    - **Pictures**
      - Pictures along the line
    - **RAW**
      - **IP** (data with IP data-misfits removed)
      - **RES** (data with RES data-misfits removed)
      - unprocessed data from SuperSting unit
    - **XYZ**
      - Inverted data for RES and IP saved in XYZ format
    - **TRN**

- contains terrain correction file

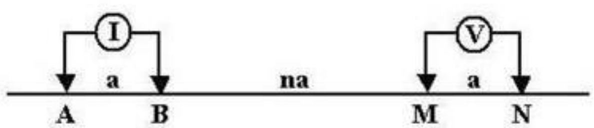
6 Appendix B: E SuperSting R1/IP technical specification

Measurement modes	Apparent resistivity, resistance, self potential (SP), induced polarization (IP), battery voltage
Measurement range	+/- 10V
Measuring resolution	Max 30 nV, depends on voltage level
Screen resolution	4 digits in engineering notation
Output current	1mA – 2 A continuous, measured to high accuracy
Output voltage	800 Vp-p, actual electrode voltage depends on transmitted current and ground resistivity
Output power	200 W
Input gain ranging	Automatic, always uses full dynamic range of receiver
Input impedance	>20 MΩ
SP compensation	Automatic cancellation of SP voltages during resistivity measurement. Constant and linearly varying SP cancels completely.
Type of IP measurement	Time domain chargability (M), six time slots measured and stored in memory
IP current transmission	ON+, OFF, ON-, OFF
IP time cycles	0.5, 1 , 2 , 4 and 8 seconds (combined resistivity/IP mode)
Measure cycles	Running average of measurement displayed after each cycle. Automatic cycle stop when reading errors fall below user set limit or user set max cycles are done.
Resistivity time cycles	Basic measure time is 0.4, 0.8, 1.2, 3.6, 7.2 or 14.4 seconds as selected by user via keyboard, autoranging and commutation adds about 1.4 s.
Signal processing	Continuous averaging after each complete cycle. Noise errors calculated and displayed as percentage of reading. Reading displayed as resistance (ΔV/I) and apparent resistivity (Ωm). Resistivity is calculated using user entered electrode array coordinates.
Noise suppression	Better than 100 dB at f>20 Hz Better than 120 dB at power line frequencies (16 2/3, 20, 50 and 60 Hz) for measure cycles of 1.2 s and above
Total accuracy	Better than 1% of reading in most cases (lab measurements). Field measurement accuracy depends on ground noise and resistivity. Instrument will calculate and display running estimate of measuring accuracy.
System calibration	Calibration is done digitally by the microprocessor based on correction values stored in memory.
Supported manual	Resistance, Schlumberger, Wenner, dipole-dipole, pole-dipole, pole-pole, SP-absolute, SP-gradient
Operating system	Stored in re-programmable flash memory. New version can be downloaded from our web site and stored in the flash memory.
Data storage	Full resolution reading average and error are stored along with user entered coordinates and time of day for each measurement. Storage is effected automatically in a job oriented file system
Data display	Apparent resistivity (Ohmmeter), injected current (mAmp) and measured voltage (mVolt) are displayed and stored in memory for each measurement
Memory capacity	The memory can store 24,468 measurements in Resistivity Mode and 14,966 measurements in combined Resistivity/IP Mode

Data transmission	RS-232C channel available to dump data from the instrument to a Windows type computer on user command.
Automatic multi-electrodes	The SuperSting is designed to run dipole-dipole, pole-dipole, pole-pole, Wenner and Schlumberger surveys including roll-along surveys completely automatic with the Swift Dual Mode Automatic Multi-electrode system (patent 6,404,203) or with switch box and passive cables. The SuperSting can run any other array by using user programmed command files. These files are ASCII files and can be created using a regular text editor. The command files are downloaded to the SuperSting RAM memory and can at any time be recalled and run. Therefore there is no need for a fragile computer in the field.
Manual measurements	The instrument has four banana pole screws for connecting current and potential electrodes during manual measurments
User controls	20 key tactile, weather proof keyboard with alpha numeric entry keys and function keys. On/off switch. Measure button. LCD night light switch (push to light).
Display	Graphics LCD display (16 lines x 30 characters) with night light.
Power supply, field	12V or 2x12 V DC external power (one or two 12 V batteries), connector on front panel.
Power supply, office	DC power supply
Operating time	Depends on survey conditions and size of battery used. Internal circuitry in auto mode adjusts current to save energy
Operating temperature	-5 to +50ºC
Weight	10.9 kg (24 lb.)
Dimensions	Width 184 mm (7.25"), length 406 mm (16") and height 273 mm (10.75”)

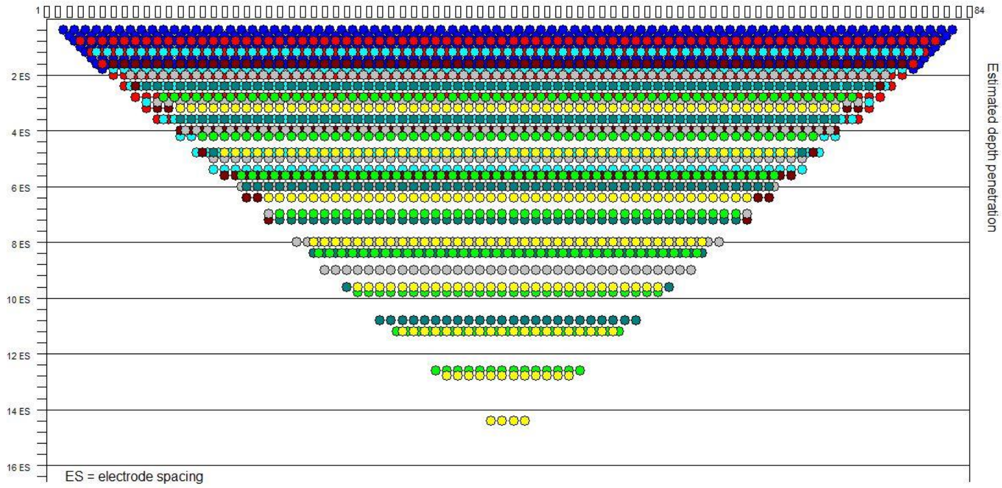
7 Appendix C: Extended Dipole-Dipole Array

The extended dipole-dipole array provides extended data coverage of the standard dipole-dipole array. The electrode configuration for dipole-dipole is shown below, where the current electrodes (A and B) and potential electrodes (M and N) are equivalently spaced by “a”, and separated by a factor “n” times the spacing “a”. A measurement of apparent resistivity can be calculated using the equation below the figure, where V = potential difference (V), I = current (Amp), and ρ_A = apparent resistivity (Ohm-m).



$$\rho_A = \frac{V}{I} \pi a n(n+1)(n+2).$$

Penetration depth of the extended dipole-dipole array (measurement locations shown below) is approximately 14 times the electrode spacing, which is equivalent to 70m using 5m electrode spacing, but is also dependent on: (1) the actual distribution of subsurface resistivity, and (2) the best achievable contact resistance values between the electrodes and the ground. The figure below shows the measurement locations (in pseudo depth) for an extended dipole-dipole array using 84 surface electrodes.


1
84
2 ES
4 ES
6 ES
8 ES
10 ES
12 ES
14 ES
16 ES
ES = electrode spacing
Estimated depth penetration