

1.4 Calibration of AEM Resistivity to Chloride Concentration

The calibration of the AEM data was conducted using a two-step approach as presented in [Fitterman and Prinos \(2011\)](#) and [Fitterman et al. \(2012\)](#). First a relationship ([Figure 1-16](#)) was determined between the AEM bulk or formation resistivities resulting from the AEM inversion models and formation water resistivities utilizing the September 2015 laboratory samples for the TPGW wells.

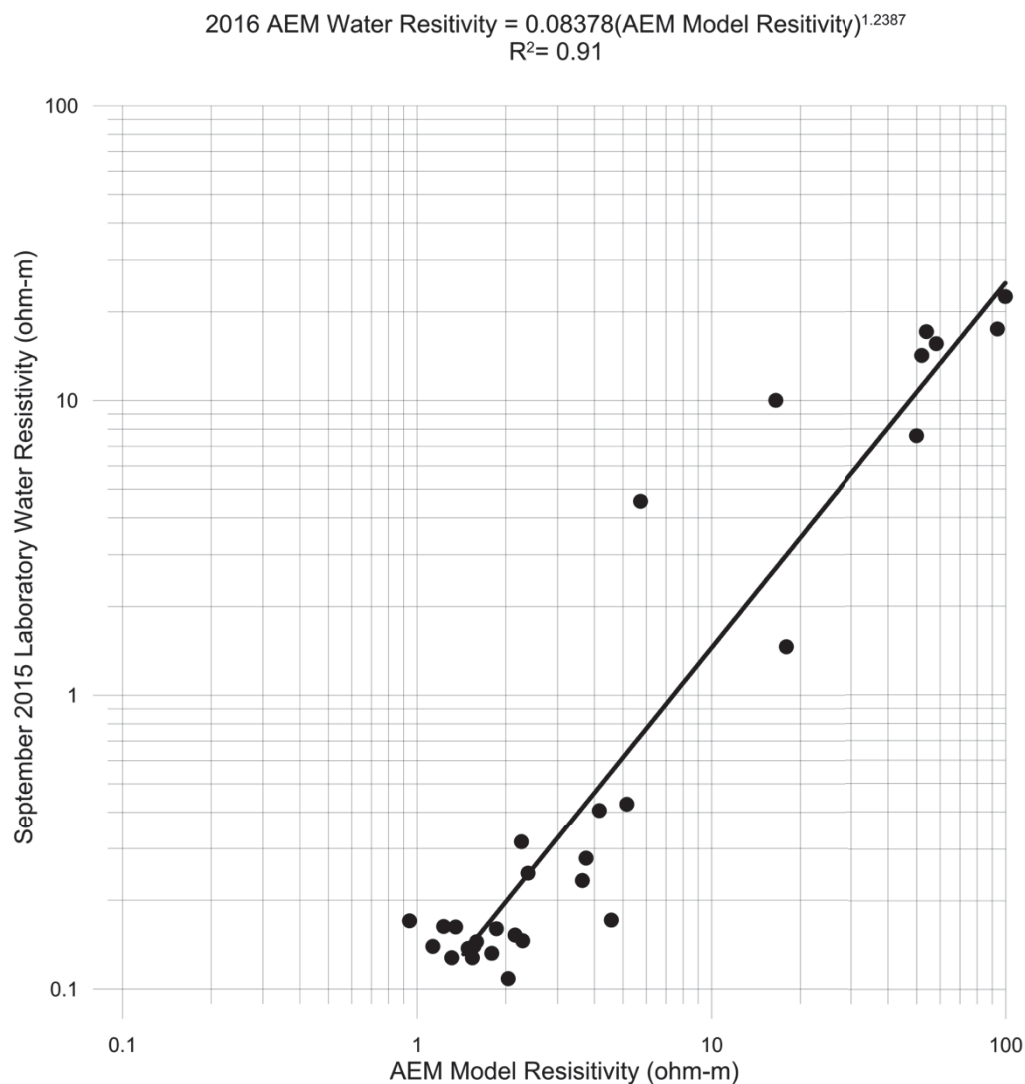


Figure 1-16: Cross-plot of AEM and formation water resistivities. The equation that describes the relationship is at the top of the figure.

The next step was to develop a relationship between formation water resistivities and chloride concentrations using the September 2015 laboratory sample data from the TPGW wells ([Figure 1-17](#)).

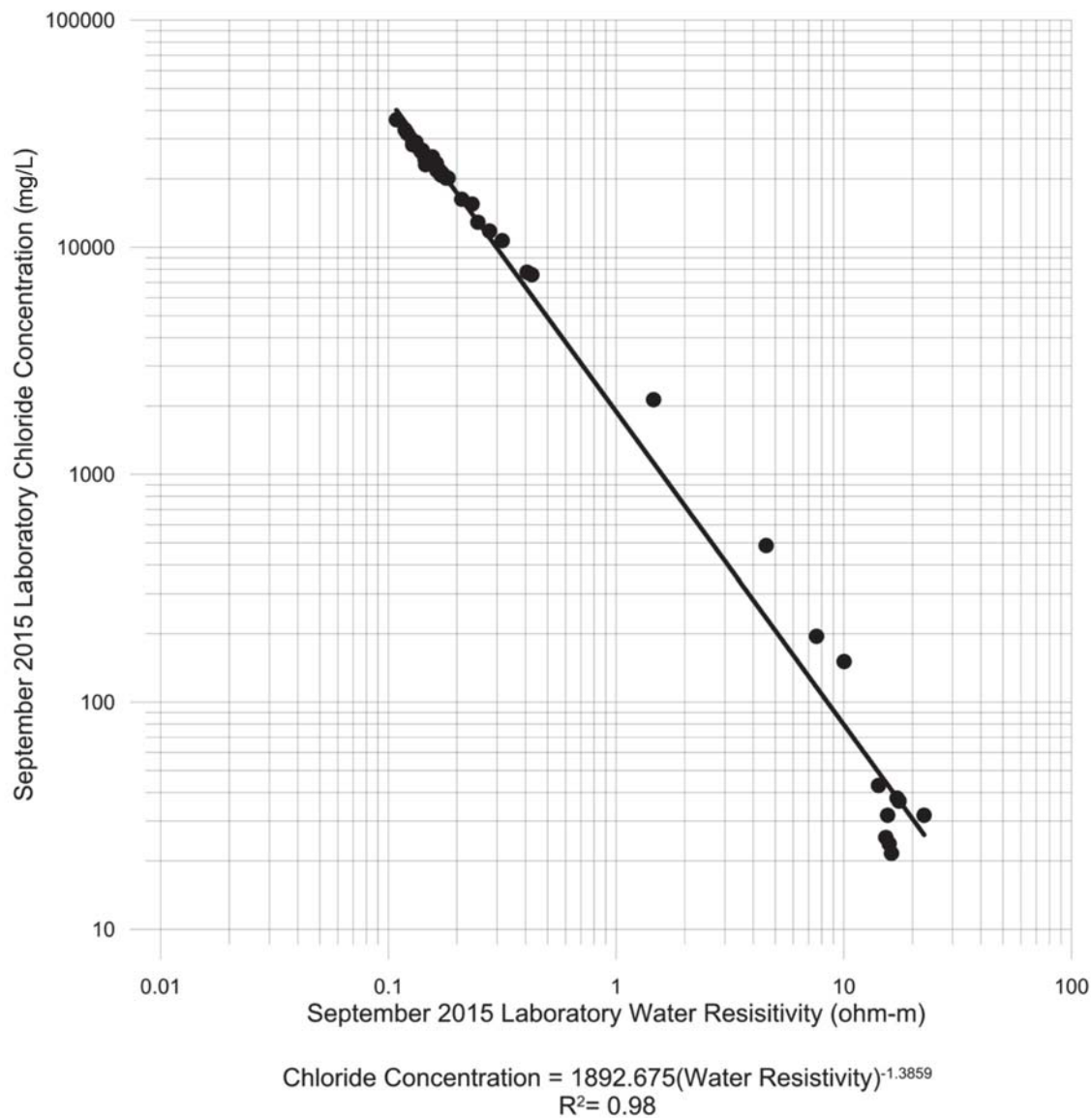


Figure 1-17: Cross-plot of formation water resistivities and chloride concentrations. The equation that describes the relationship is at the bottom of the figure.

After combining the above relationships shown in [Figure 1-16](#) and [Figure 1-17](#), the AEM inversion earth-model resistivities could be calibrated to the chloride concentrations measured in the September 2015 TPGW laboratory samples. After applying the calculations, a comparison can be made between the AEM-derived water resistivities and chloride concentrations and the September 2015 TPGW laboratory samples ([Figure 1-18](#) and [Figure 1-19](#)).

It is important to note that the calibration is not constrained below 20 (mg/L) or above 40,000 (mg/L). This is due to two important reasons: 1) Due to the fundamental physics, there is a reduced sensitivity of the AEM bulk resistivity values to the low chloride concentrations, as well as the high concentrations of TDS in the formation waters; and 2) the absence of calibration data points in these ranges from the September 2015 chloride concentration laboratory samples. The minimum lab sample, 21.6 (mg/L), was

from TPGW-9S, and the maximum, 36,400 (mg/L), was from TPGW-13S. Both TPGW-9 and TPGW-13 were outside the AEM survey coverage with no survey lines directly over, or close to, the boreholes.

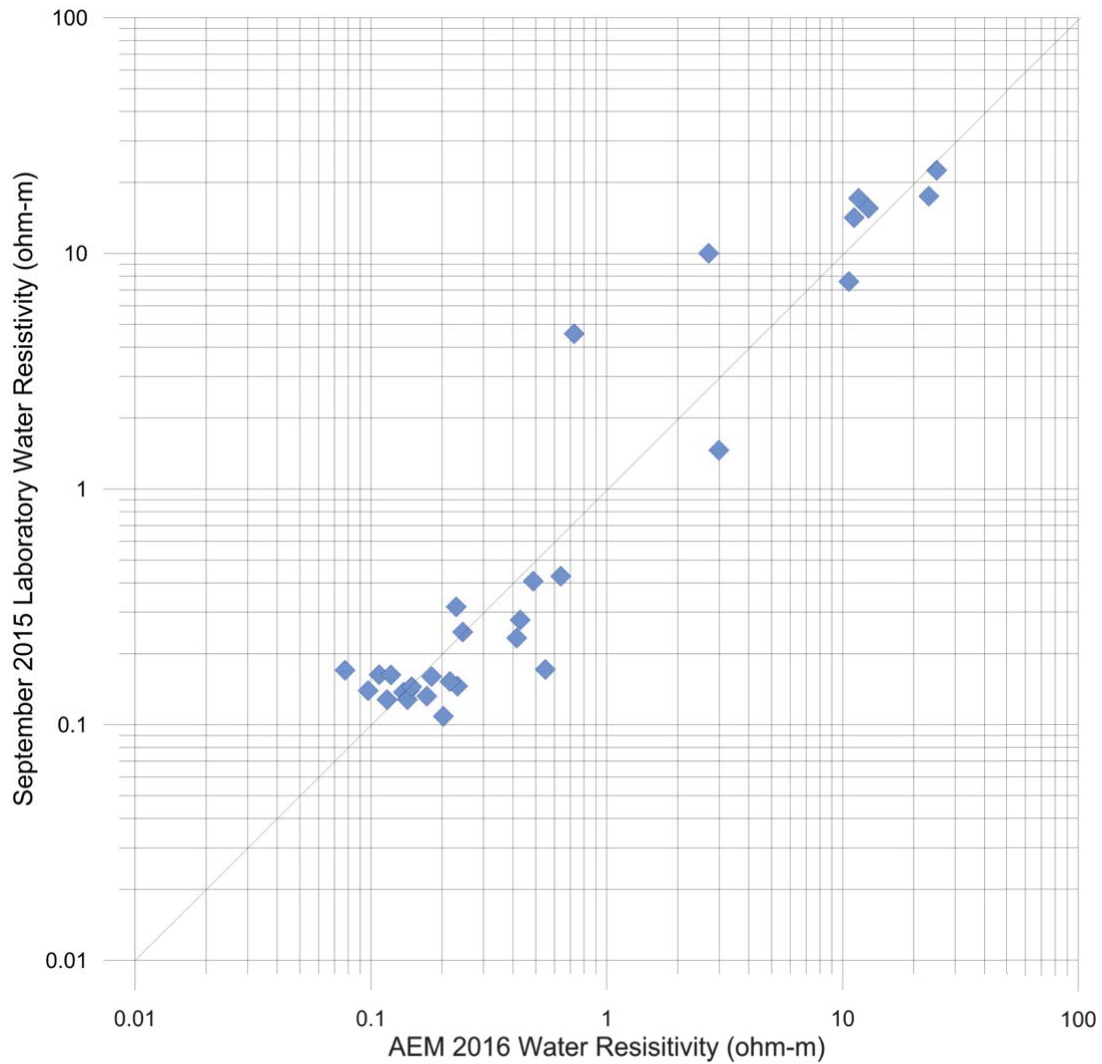


Figure 1-18: Cross-plot of AEM-derived and laboratory sample water resistivity. For reference, the black line represents a 1:1 relationship between the two data sets.

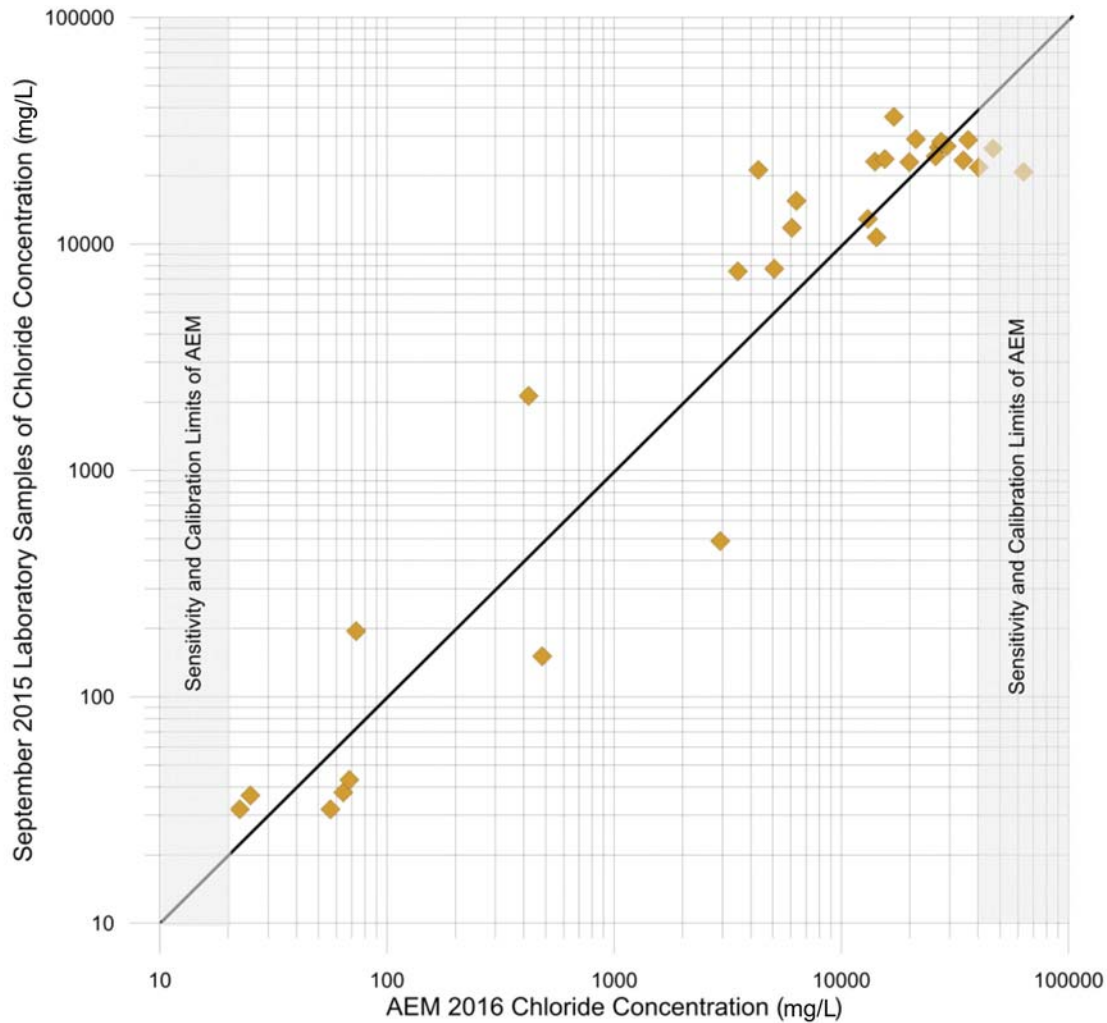


Figure 1-19: Cross-plot of AEM-derived and laboratory sample chloride concentrations. For reference, the black line represents a 1:1 relationship between the two data sets.

After the application of the formulas to the AEM resistivity model, the chloride concentration results can be inspected in a profile format in the proximity of the TPGW wells where AEM data was collected and inverted. These are the same locations as in [Table 1-3](#) that were used in the resistivity model verification process. [Figure 1-20](#) through [Figure 1-26](#) are the comparison of the TPGW wells and the calibrated chloride concentrations. All the 2D chloride concentration profiles can be found in Appendix 2 and depth slices and 3D views of chloride concentration can be found in Appendix 3.

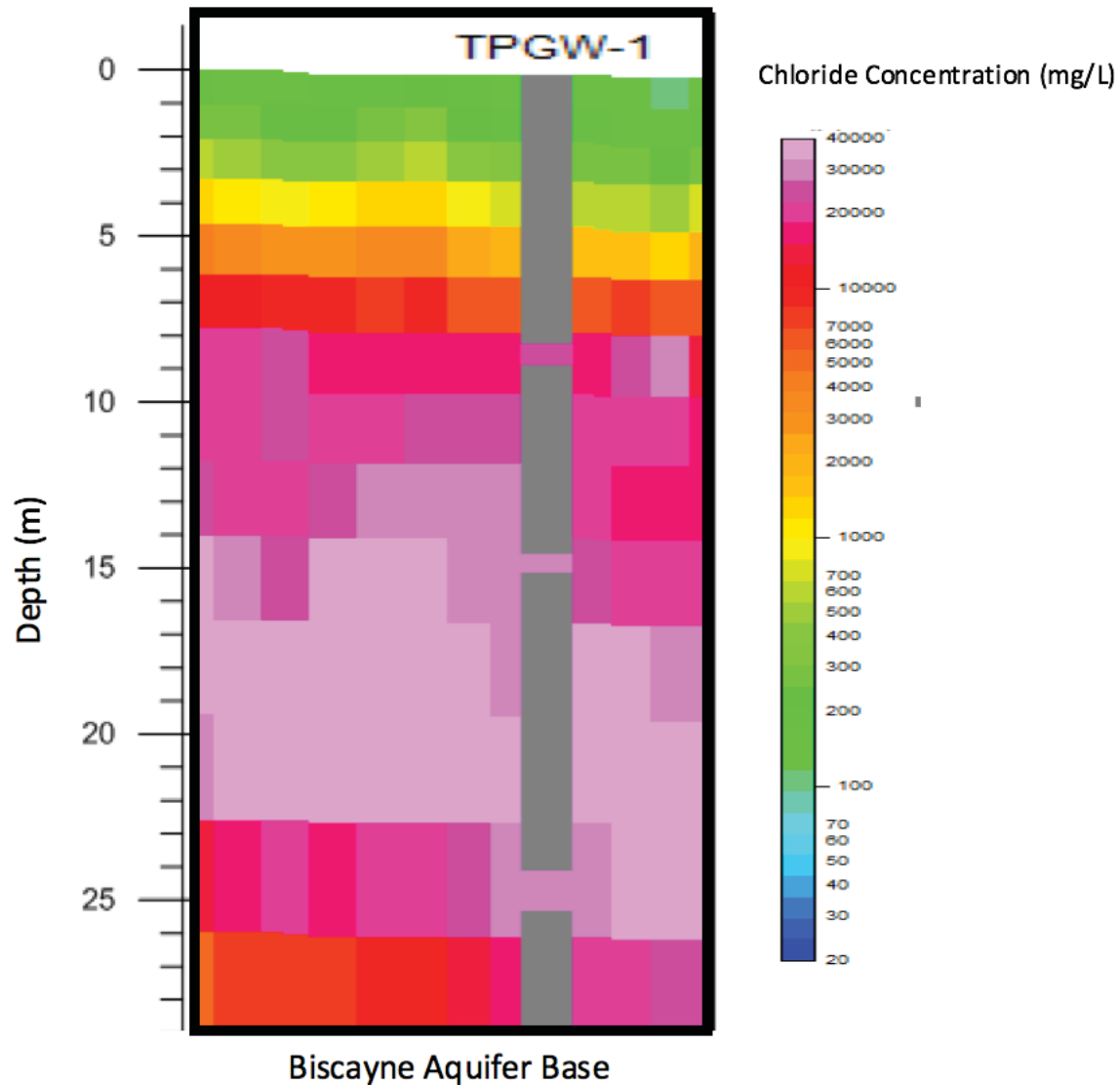


Figure 1-20: Portion of profile 11 and TPGW-1 illustrating the comparison between AEM-derived chloride concentrations and laboratory-determined chloride concentrations. Gray color indicates the location of logged boreholes with the screened intervals colored using the same color scale as the AEM-derived chloride concentrations. TPGW-1 was greater than 200 m from the profile. The bottom of the Biscayne Aquifer is from [Fish and Stewart \(1991\)](#).

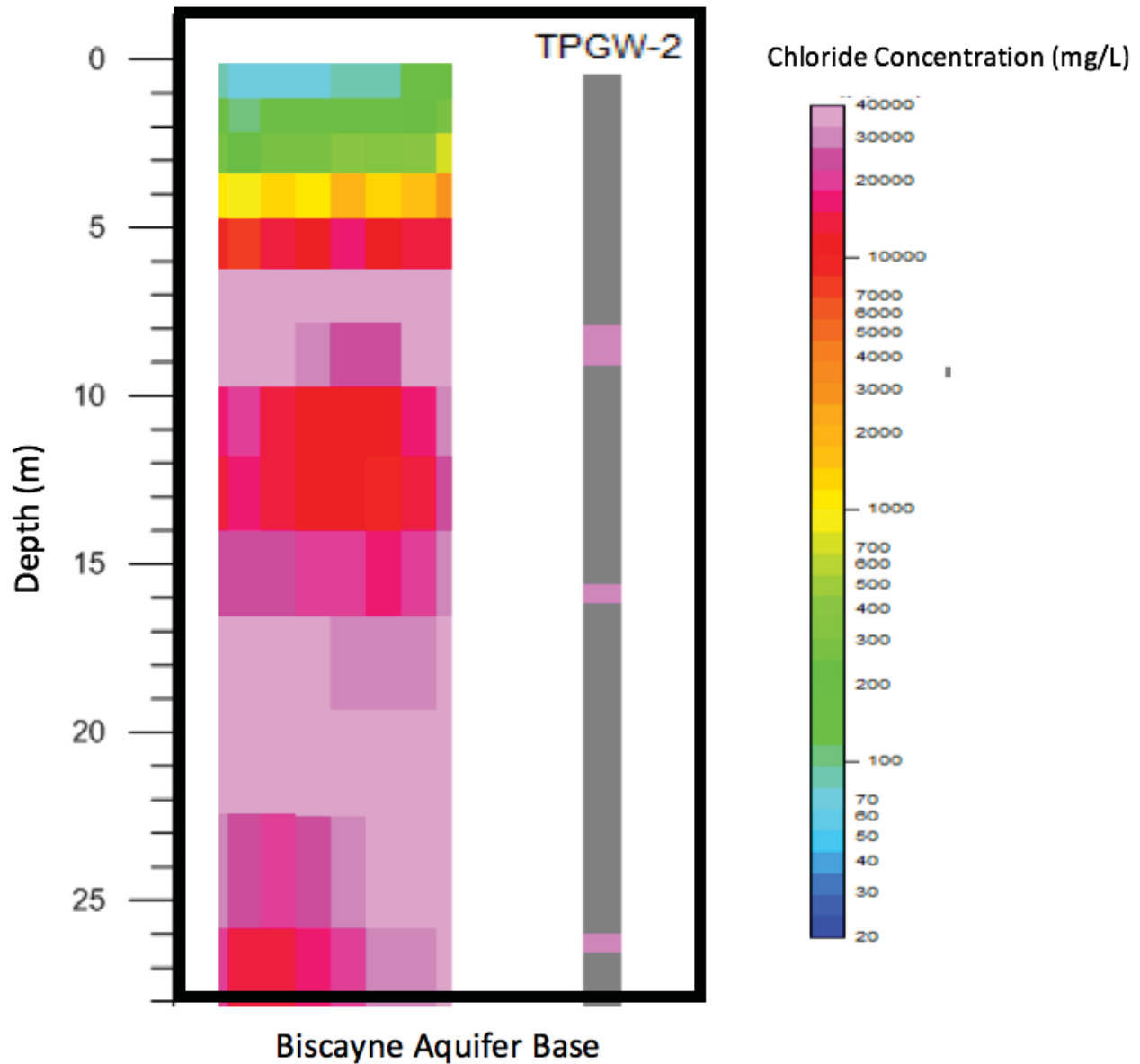


Figure 1-21: Portion of profile 40 and TPGW-2 illustrating the comparison between AEM-derived chloride concentrations and laboratory-determined chloride concentrations. Gray color indicates the location of logged boreholes with the screened intervals colored using the same color scale as the AEM-derived chloride concentrations. TPGW-2 was greater than 200 m from the profile. The bottom of the Biscayne Aquifer is from [Fish and Stewart \(1991\)](#).

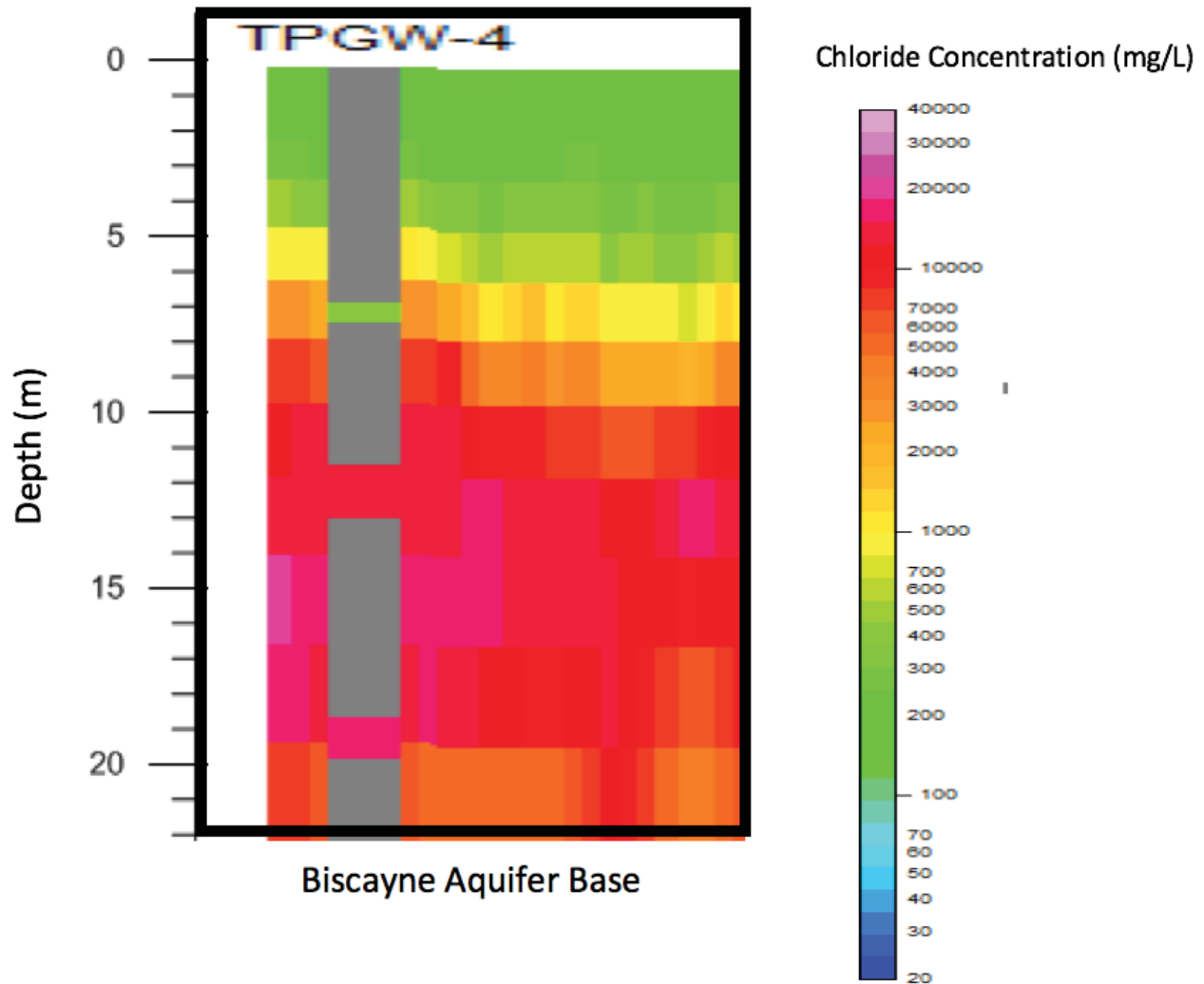


Figure 1-22: Portion of profile 46 and TPGW-4 illustrating the comparison between AEM-derived chloride concentrations and laboratory-determined chloride concentrations. Gray color indicates the location of logged boreholes with the screened intervals colored using the same color scale as the AEM-derived chloride concentrations. TPGW-4 was greater than 200 m from the profile. The bottom of the Biscayne Aquifer is from [Fish and Stewart \(1991\)](#).

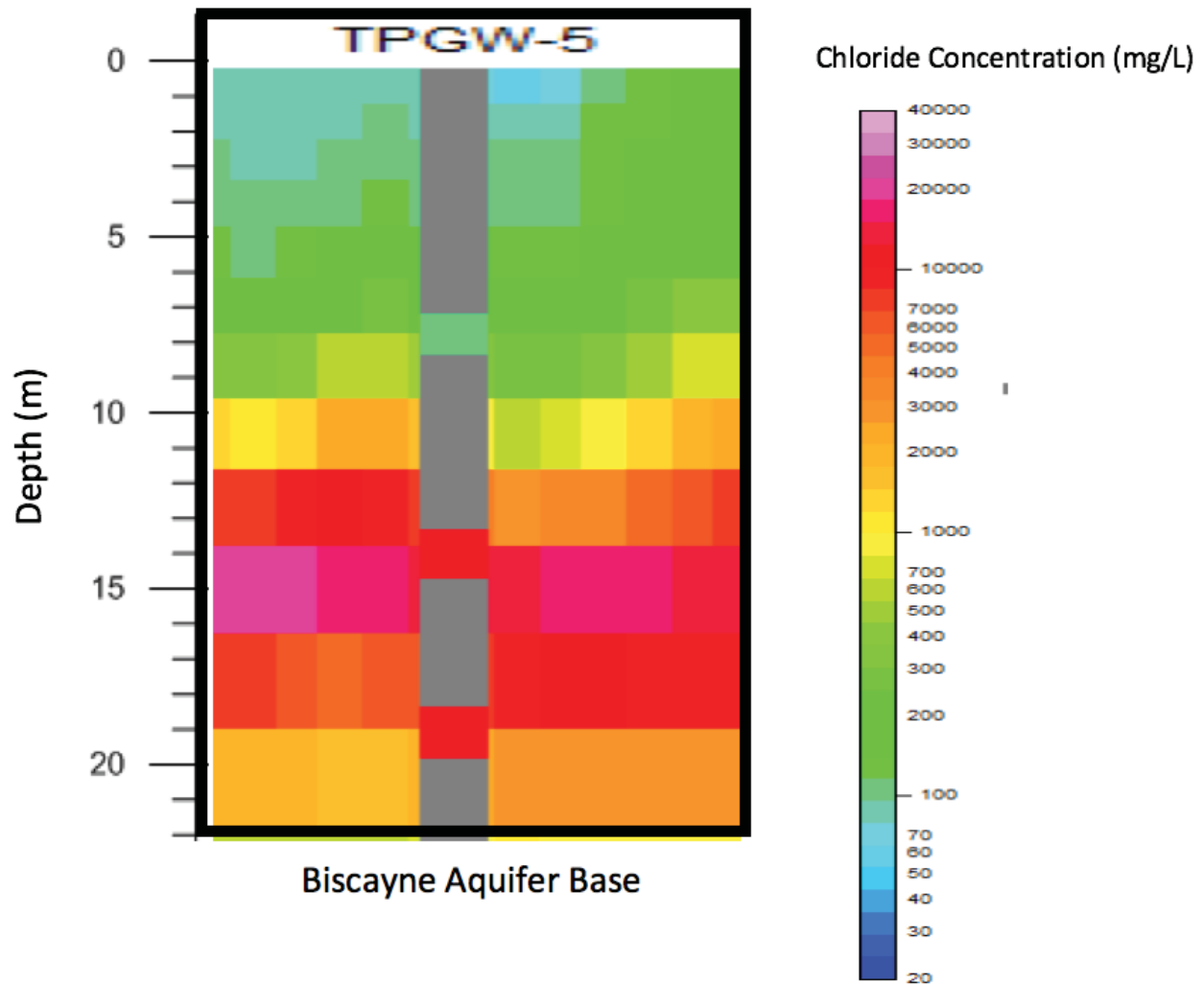


Figure 1-23: Portion of profile 18 and TPGW-5 illustrating the comparison between AEM-derived chloride concentrations and laboratory-determined chloride concentrations. Gray color indicates the location of logged boreholes with the screened intervals colored using the same color scale as the AEM-derived chloride concentrations. TPGW-5 was within 200 m of the profile. The bottom of the Biscayne Aquifer is from [Fish and Stewart \(1991\)](#).

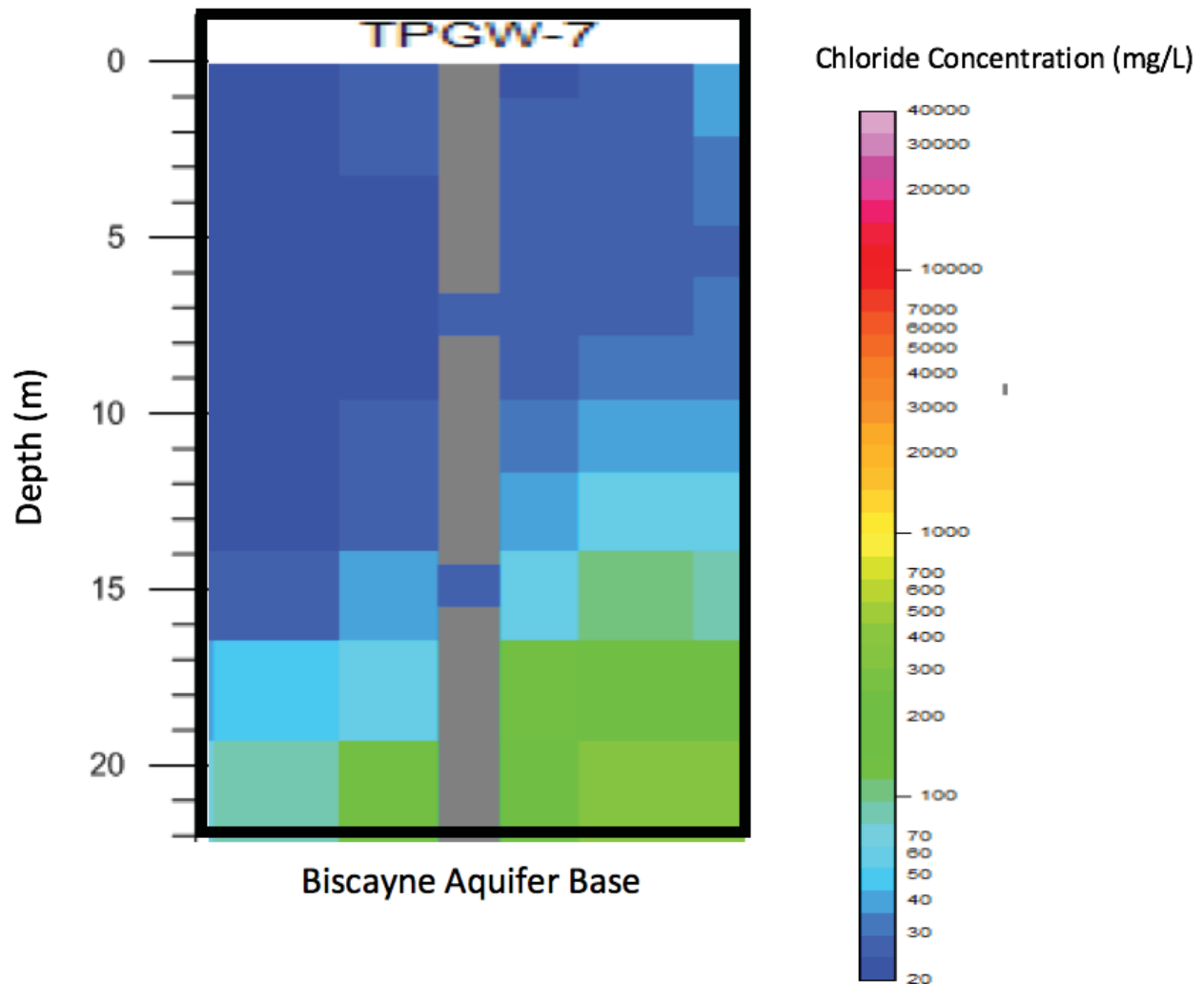


Figure 1-24: Portion of profile 12 and TPGW-7 illustrating the comparison between AEM-derived chloride concentrations and laboratory-determined chloride concentrations. Gray color indicates the location of logged boreholes with the screened intervals colored using the same color scale as the AEM-derived chloride concentrations. TPGW-7 was within 200 m of the profile. The bottom of the Biscayne Aquifer is from [Fish and Stewart \(1991\)](#).

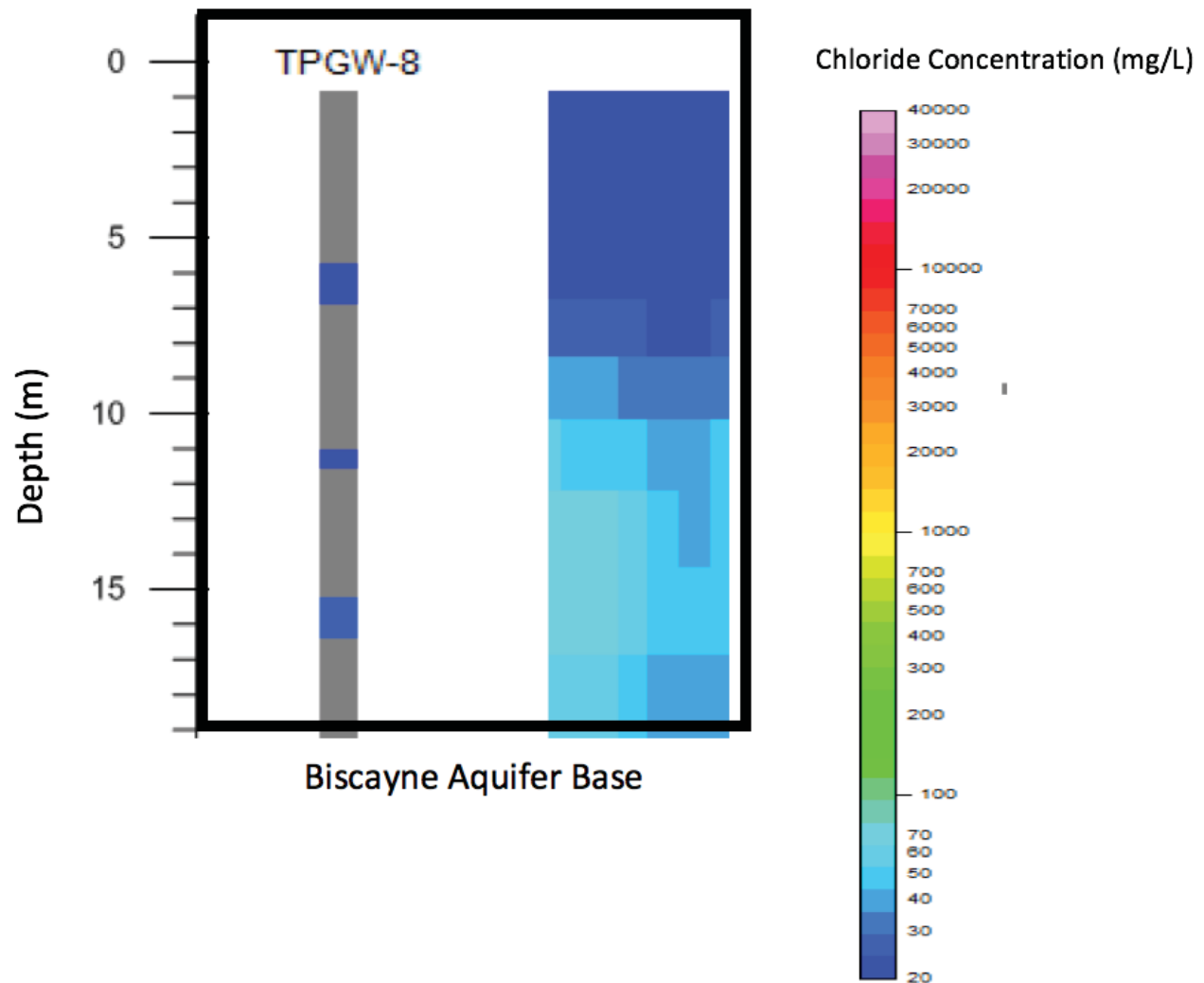


Figure 1-25: Portion of profile 24 and TPGW-8 illustrating the comparison between AEM-derived chloride concentrations and laboratory-determined chloride concentrations. Gray color indicates the location of logged boreholes with the screened intervals colored using the same color scale as the AEM-derived chloride concentrations. TPGW-8 was greater than 200 m from the profile. The bottom of the Biscayne Aquifer is from [Fish and Stewart \(1991\)](#).

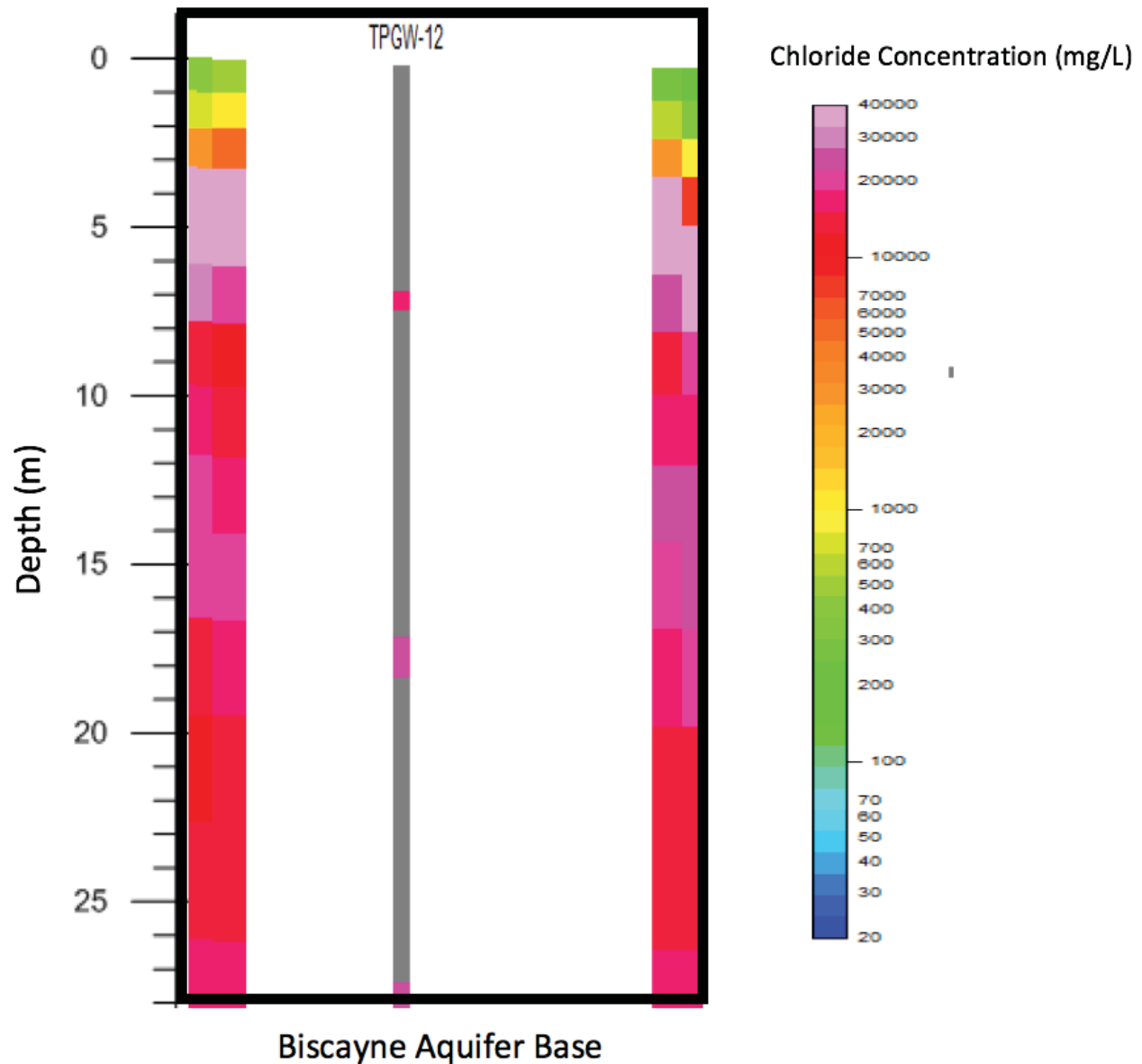


Figure 1-26: Portion of profile 4 and TPGW-12 illustrating the comparison between AEM-derived chloride concentrations and laboratory-determined chloride concentrations. Gray color indicates the location of logged boreholes with the screened intervals colored using the same color scale as the AEM-derived chloride concentrations. TPGW-12 was greater than 200 m from the profile. The bottom of the Biscayne Aquifer is from [Fish and Stewart \(1991\)](#).

1.5 Producing the Voxel Grid of Chloride Concentration

Chloride concentration values were calculated for the AEM survey area where the AEM data were not cut during decoupling and processing. They were gridded in three-dimensions using a minimum curvature algorithm with a smoothing function equal to five using [pbEncom Discover PA](#) version 15.0.13 (2016) at a 100 x 100-meter horizontal cell size with the vertical cell size controlled by the EM inversion model layering ([Table 1-4](#)). The voxel grid includes data from 0.0 (the surface) down to the base of the Biscayne Aquifer, (personal communication Craig Oural, ENERCON February 29, 2016). As a result of this low sensitivity and calibration limits of the AEM-chloride concentration relationship, the data were gridded with cut-off values of chloride concentration of 20 (mg/L) and 40,000 (mg/L), respectfully (see [Section 1.4](#)). By using these cutoff limits, the final voxel grid had 8.92% of data above 40,000 (mg/L) and 0.52% of the data below 20 (mg/L). The mean value of the voxel grid dataset is equal to 12,967 (mg/L).

Table 1-4: Resistivity Model Layers and Final Voxel Grid Nodes

Layer	From (m)	To (m)	Voxel Grid node (m)
1	0	-1	-1.02
2	-1	-2.1	-2.13
3	-2.1	-3.3	-3.35
4	-3.3	-4.7	-4.72
5	-4.7	-6.2	-6.25
6	-6.2	-7.9	-7.95
7	-7.9	-9.8	-9.85
8	-9.8	-11.9	-11.95
9	-11.9	-14.2	-14.28
10	-14.2	-16.8	-16.88
11	-16.8	-19.7	-19.77
12	-19.7	-22.9	-22.98
13	-22.9	-26.4	-26.5
14	-26.4	-30.3	-30.4

An example of a 3D voxel view of the AEM-derived chloride concentrations greater than 19,000 mg/L is presented in [Figure 1-27](#) and an example of a chloride concentration depth slice layer from the voxel is presented in [Figure 1-28](#). The data are presented down to the base of the Biscayne Aquifer as determined by [Fish and Stewart \(1991\)](#) and for chloride concentrations greater than 19,000 mg/L. Note that the color scale is different from that in [Figure 1-27](#) in order to show more variation in the range from 19,000 mg/L to 40,000 mg/L.

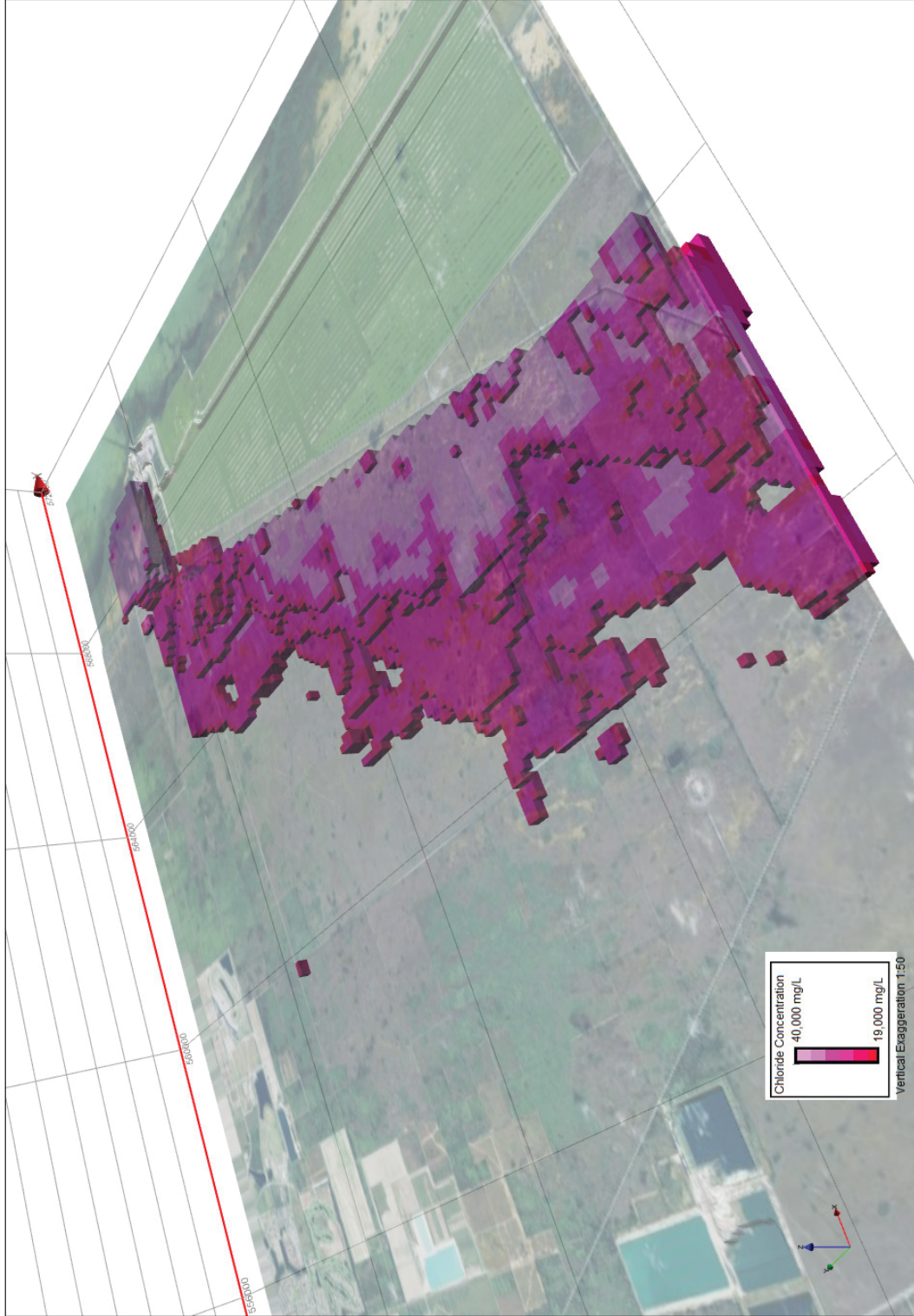


Figure 1-27: Example view of Turkey Point AEM chloride concentrations greater than 19,000 mg/L as a 3D voxel. The view is to the northeast. All 3D chloride concentration voxel views are included in Appendix 3.

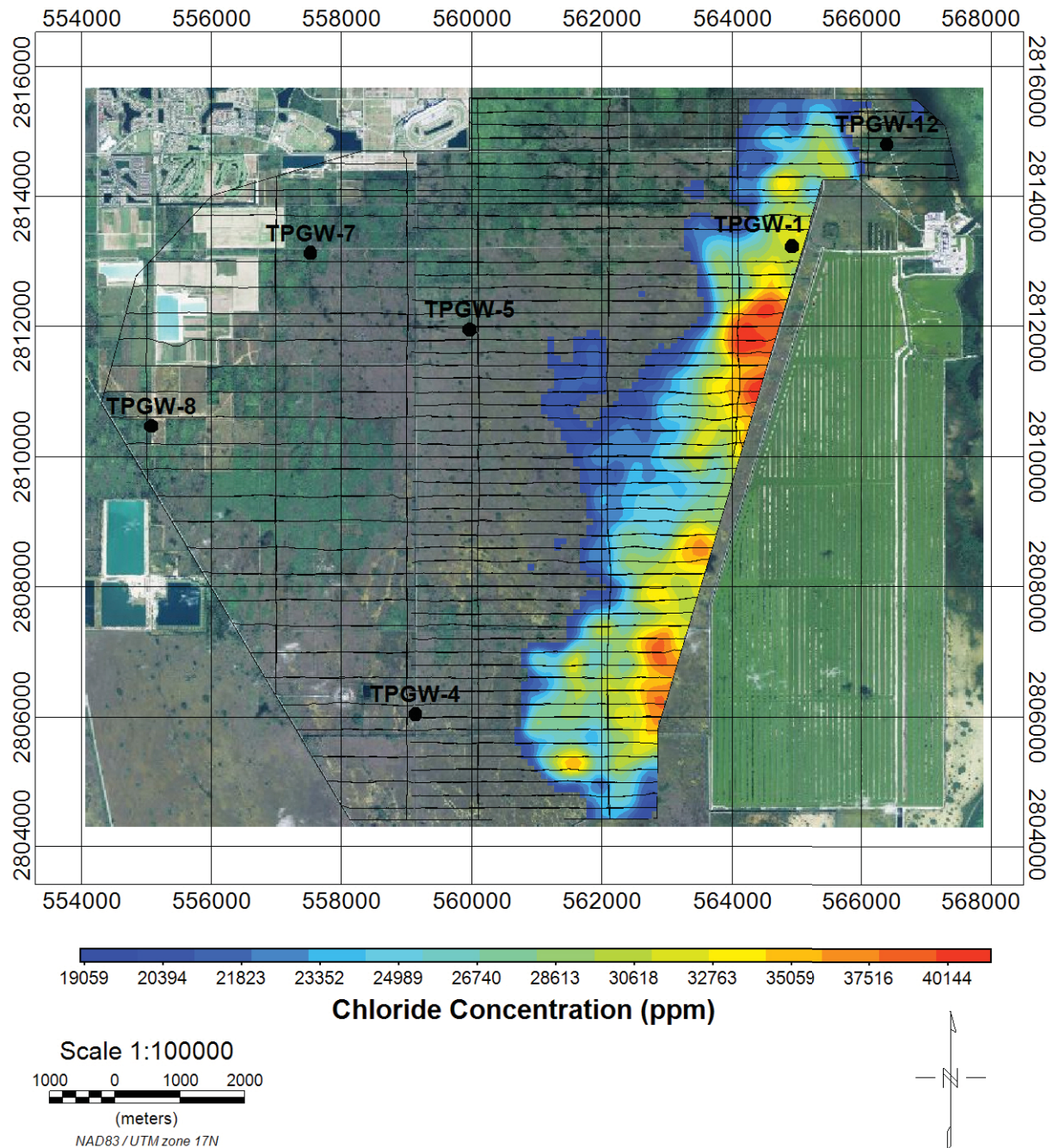


Figure 1-28: Example of 2D depth slice from the voxel of AEM-derived chloride concentrations, Layer 12 in this example (depths 19.7 m to 22.9 m). Boreholes with induction logs are indicated by black labeled squares. All 2D chloride concentration depth slices are in Appendix 2. Note that the color scale is different from that in [Figure 1-27](#) in order to show more variation in the range from 19,000 mg/L to 40,000 mg/L. The area is bounded by a black line which represents the AOI.

1.6 Comparison of Chloride Concentration from Other Studies

As a comparison, the calibration of AEM formation resistivity to formation water resistivity and then formation water resistivity to chloride concentration as determined by [Fitterman and Prinos \(2011\)](#) and [Fitterman et al. \(2012\)](#) for the conversion of borehole induction logs, ground based TEM soundings, and frequency-domain Helicopter Electrometric (HEM) data is compared to the calibrations determined for the 2016 AEM data. [Figure 1-29](#) and [Figure 1-30](#) are comparisons of the determination of the water resistivity and the chloride concentrations, respectfully.

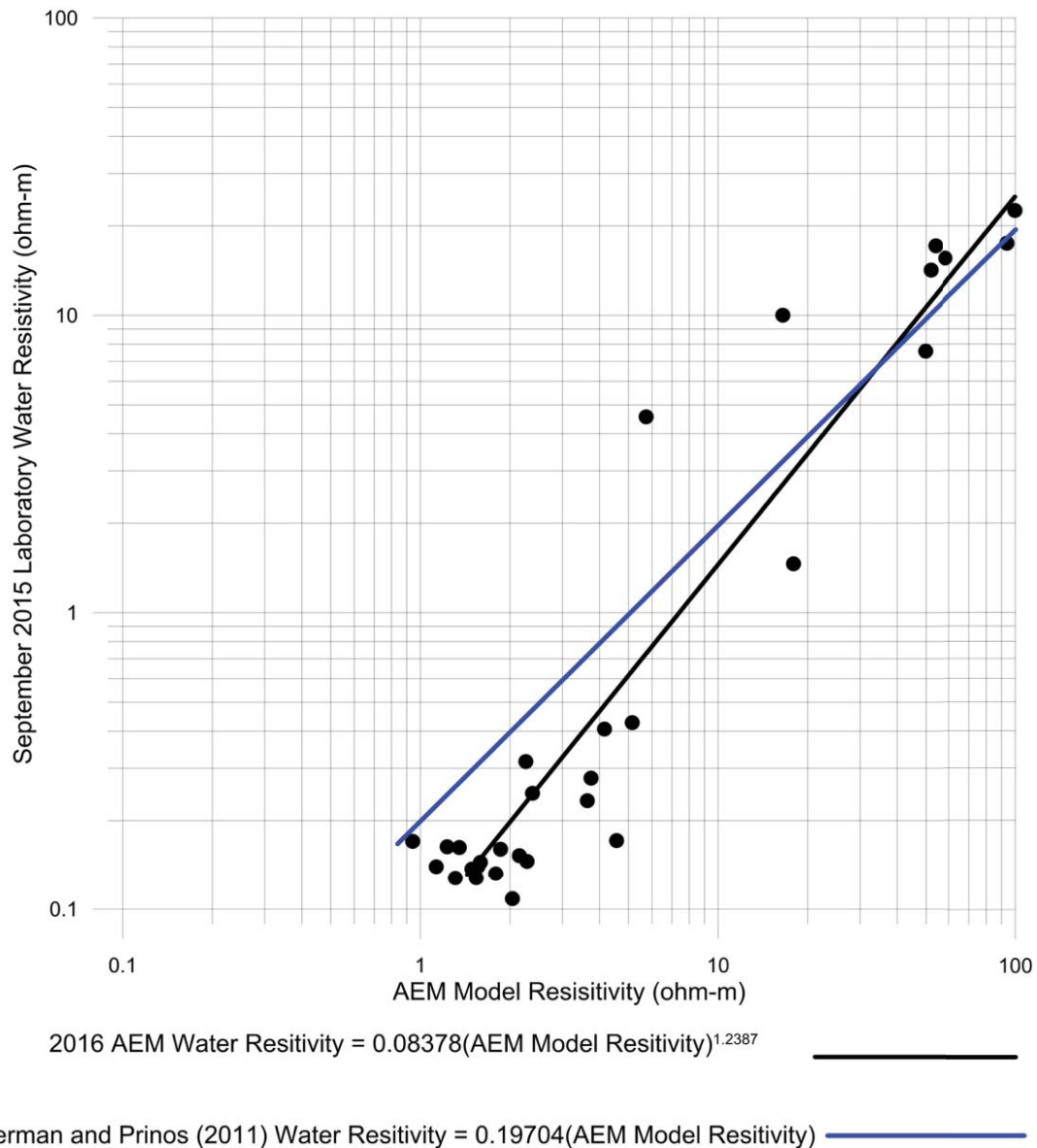


Figure 1-29: Cross-plot (black dots) of the AEM model resistivity and the September 2015 laboratory measurements of water resistivity. The black line is the fit determined for the conversion of the 2016 AEM resistivity data to water resistivity. For reference, the [Fitterman and Prinos \(2011\)](#) calibration for conversion of formation resistivity to water resistivity is shown as a blue line. Formulas for the lines are the bottom of the figure.

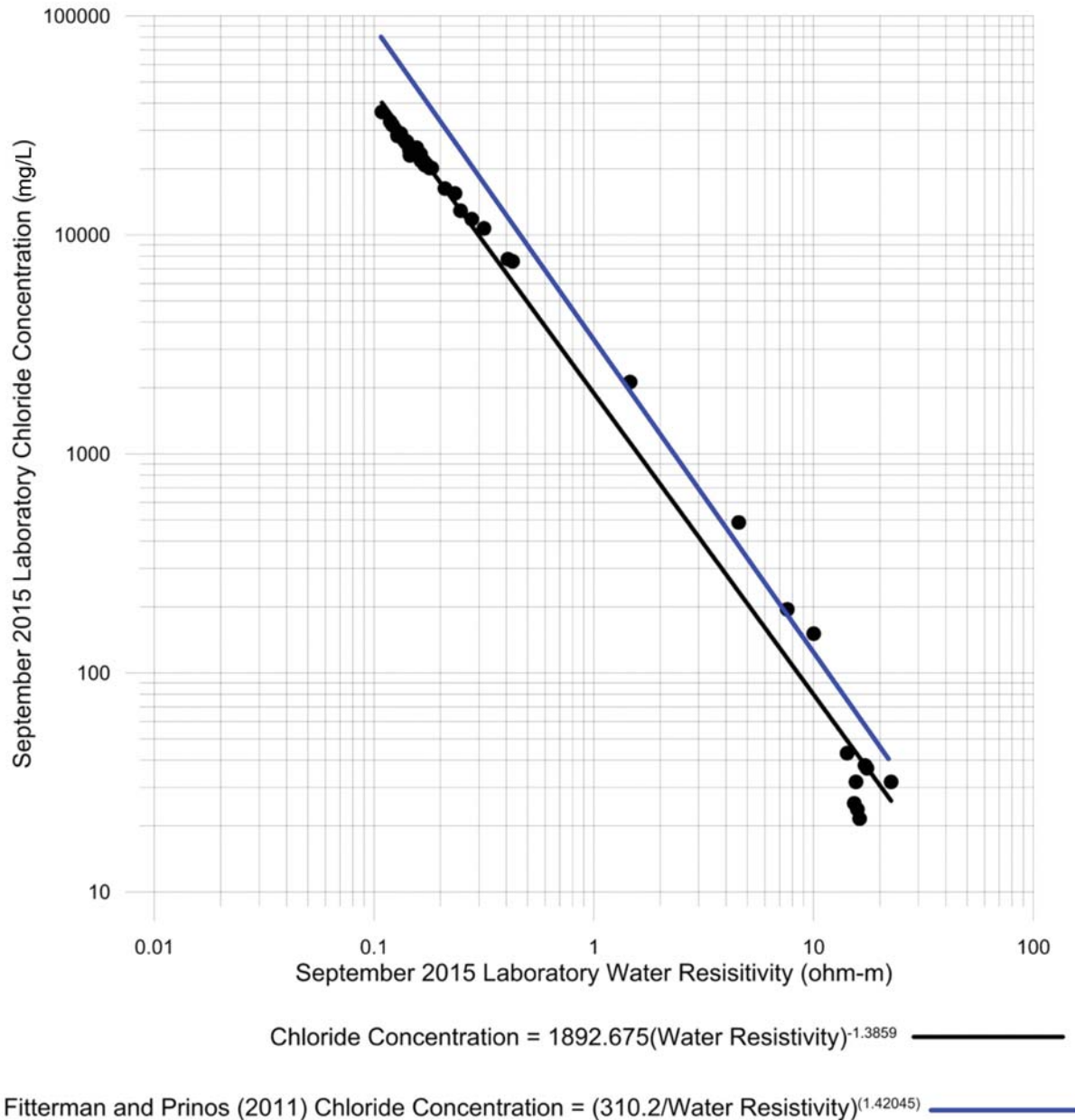


Figure 1-30: Cross-plot of the September 2015 laboratory measurements of water resistivity and the September 2015 laboratory measurements of chloride concentration (black dots). The black line is the fit determined for the conversion of September 2015 water resistivity to chloride concentration. For reference, the [Fitterman and Prinos \(2011\)](#) calibration relation for conversion of water resistivity to chloride concentration is shown as a blue line. Formulas for the lines are provided at the bottom of the figure.

The calibrations are not that far removed from each other with only a small offset with a slightly differing slope. This is not unexpected as the data sets that were used to determine the [Fitterman and Prinos \(2011\)](#) calibration and the 2016 AEM calibration are from the same area. It is also not unexpected that they are slightly different based on the datasets of control points that were used. The

[Fitterman and Prinos \(2011\)](#) calibration was based on the resistivity of water samples collected in monitoring wells in Miami-Dade County and the bulk aquifer resistivity measured by induction logs in the screened intervals of the same well and the 2016 AEM calibration based on the 2015 laboratory samples and the AEM Resistivity Model. The slight differences in the calibration can be also inspected via cross plots of the [Fitterman and Prinos \(2011\)](#) formulas applied to the 2016 AEM Resistivity Model to calculate the water resistivity ([Figure 1-31](#)) and the chloride concentrations ([Figure 1-32](#)).

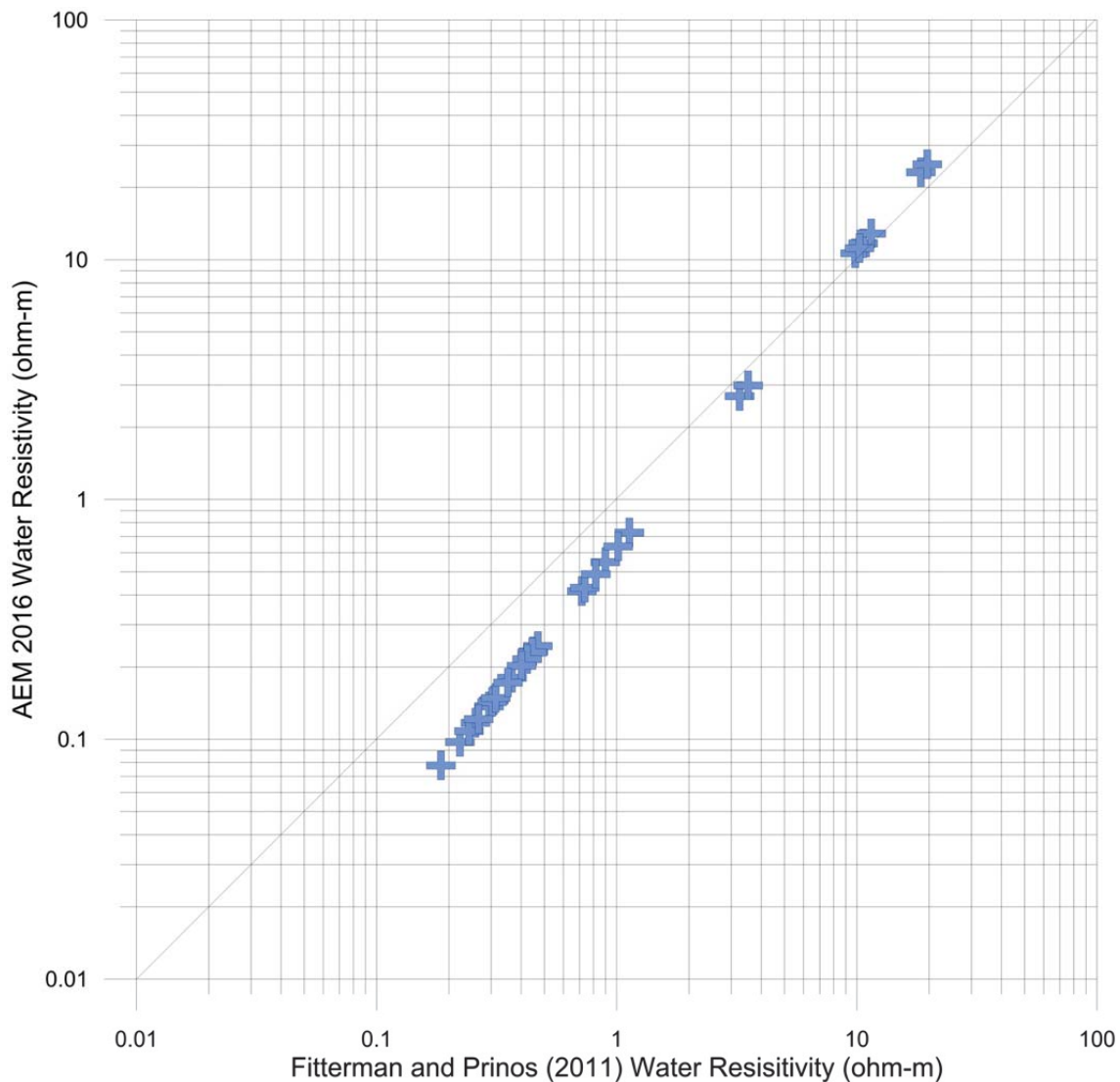


Figure 1-31: Cross-plot of the application of [Fitterman and Prinos \(2011\)](#) calibration and the AEM 2016-derived calibration for water resistivity. For reference, the black line represents a 1:1 relationship between the two data sets.

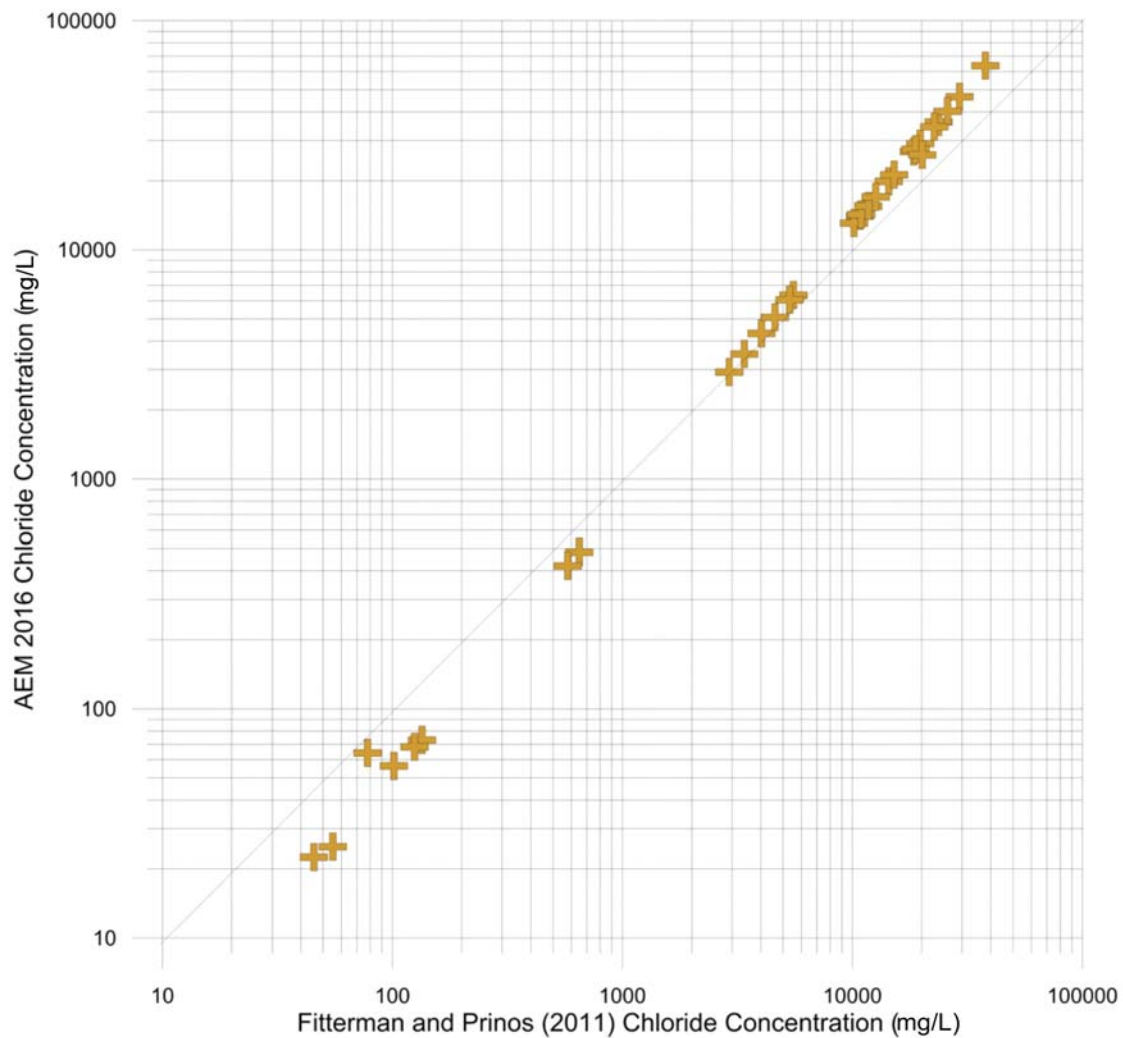


Figure 1-32: Cross-plot of the application of [Fitterman and Prinos \(2011\)](#) calibration and AEM 2016 derived calibration for chloride concentrations. For reference, the black line represents a 1:1 relationship between the two data sets.

1.6.1 Volume and Mass of Chloride Concentration Greater than 19,000 mg/L

The volume and mass of the material with chloride concentrations greater than 19,000 mg/L within the AOI have been estimated. Porosity for the Biscayne Aquifer was based on the calculations of [Wacker et al. \(2014\)](#) and communication with direction from ENERCON based on their experience in the project area.

Values of porosity were determined by the USGS from the results of sonic logs collected in the Biscayne aquifer from the Snapper Creek Well Field that is in central Miami-Dade County. These logs were acquired as part of detailed study of the Biscayne Aquifer in southeast Florida. Porosity values ranged from 17% to 81% depending on the materials encountered at depth. Based on discussions with ENERCON, a value of 30% porosity was selected as the average value for the project area (Craig Oural, Personal Comm., 29 March 2016).

To calculate the mass of chloride in the voxel model cells with greater than 19,000 mg/L chloride concentration, the following relation (Equation 1) was used for conversion from mg/L to mass per cubic meter:

$$ppm = \frac{1 \text{ mg}}{1 \text{ L}} \times \frac{1 \text{ g}}{1000 \text{ mg}} \times \frac{1 \text{ L}}{0.001 \text{ m}^3} = \frac{1 \text{ g}}{1 \text{ m}^3} \quad (1)$$

Next, a close examination of the chloride concentration voxel model was performed. The examined voxel model data are included in Appendix 4 and the columns described in [Table 2-2](#). Those voxel model cells containing chloride concentrations greater than 19,000 mg/L were identified. The thicknesses and volumes of each of these cells were then calculated using voxel cell dimensions of 100 m by 100 m by cell thickness (m). Finally the estimated mass of chloride in each cell of the AOI was calculated using Equation 2:

$$\text{Cell Mass} = (\text{Cell Chloride Concentration} > 19,000) \times (\text{Volume of Cell}) \times (\text{Porosity } (0.3)) \quad (2)$$

After adding the masses from each cell together, the estimated mass of chloride in those zones with chloride concentrations greater than 19,000 mg/L is approximately 3,042,471,451 kg.

1.7 Recommendations for Future Studies

The goal of this study was to determine the salinity of the waters in the Turkey Point survey area. Many previous studies have demonstrated the ability of electromagnetic data to determine the extent of salinity at many sites in the world (e.g., [Fitterman and Stewart 1986](#); [Goldman et al. 1991](#); [Frohlich et al. 1994](#); [Adepelumi et al. 2009](#); [Abdalla et al. 2010](#)). With AEM surveys high-resolution 3D voxel models of the salinity can be created and calibrated to the regional geology and salinity. This is accomplished by translating the AEM electrical resistivity model into a pore fluid model. This is a common practice in the petroleum industry using a variety of mixing models with the most common being [Archie \(1942\)](#). One of the most important keys in a successful transformation of a bulk resistivity model to a pore fluid model is the utilization of the calibration points obtained from borehole logs and water quality readings in the area. However, in many studies these data can be sparse.

In order to utilize the spatial character of the AEM data, a more rigorous approach is suggested by [Herckenrath et al. \(2013\)](#). In this approach the information that is available with a groundwater flow model is utilized to constrain the ambiguity of the determination of the salinity level of the pore fluid inherent in the Archie approach. Using the Archie approach, it is important to constrain the porosity or the salinity of the pore fluid. Traditionally this is done in the borehole using a porosity tool or knowing the fluid conductivity. When flying over an area that has limited data points and spatial variability, broad-based interpolation of porosity from boreholes can introduce errors into the estimation of the salinity of the pore fluid.

We recommend a coupled hydrogeophysical inversion approach (CHI) be implemented that combines the groundwater transport model under development (or completed) of the Area of Interest and the processed AEM data (see [Herckenrath et al., 2013](#) for more detail).

The resistivity data in this project show a great amount of detail and variety that is related to the aquifer structure within the survey area. While it was beyond the scope of this study to fully develop a hydrogeological framework, with the use of lithology logs and additional drilling on targets indicated within the AEM, a robust hydrogeological framework could be developed. This would aid in the understanding of the flow paths and ultimate fate of the saline waters within the study area.

2 Description of Data Delivered

[Table 2-1](#), [Table 2-2](#), and [Table 2-3](#) provide lists of the data columns of ASCII files contained in Appendix 4. These files contain the processed and inverted AEM resistivity data, the chloride concentration data used to create the voxel model, and the data included in the voxel model. The data in these files are presented down to the base of the Biscayne Aquifer as determined by [Fish and Stewart \(1991\)](#).

In particular,

- Data File – Processed and inverted AEM data
- Data File – AEM-derived Chloride concentration data
- Data File – Chloride concentrations in each voxel model cell including identification of cells with greater than 19,000 mg/L and the thickness and volume of those cells.

Table 2-1: Channel name, description, and units for TurkeyPt_AEM_Resistivity_Model_v1.csv with the AEM inversion results. Resistivity data are presented down to the base of the Biscayne Aquifer as determined by [Fish and Stewart \(1991\)](#).

Parameter	Description	Unit
LINE	Line Number	
Easting	Easting NAD83, UTM Zone 17 North	Meters [m]
Northing	Northing NAD83, UTM Zone 17 North	Meters [m]
Elevation	Elevation NAVD88	Meters [m]
RESDATA	Residual of individual sounding	
RHO[0] THROUGH RHO[29]	Inverted resistivity of each layer	Ohm-m
RHO_STD[0] THROUGH RHO_STD[29]	Standard deviation of inversion of each layer	Ohm-m
DEP_TOP[0] THROUGH DEP_TOP[29]	Depth to the top of individual model layers	Meters [m]
DEP_BOT[0] THROUGH DEP_BOT[29]	Depth to the bottom of individual model layers	Meters [m]
THK[0] THROUGH THK[29]	Thickness of individual layers	Meters [m]
DOI_UPPER	Conservative estimate of DOI*	Meters [m]
DOI_LOWER	Less conservative estimate of DOI*	Meters [m]

* For explanation of the DOI see [Christiansen and Auken \(2012\)](#).

[Table 2-2](#) contains the chloride concentration information derived from the voxel mode including all chloride concentrations in the voxel, chloride concentrations greater than 19,000 mg/L, and the thickness and volume of each voxel cell. The calculated cell volumes in [Table 2-2](#) are based on cell sizes of 100 m x 100 m x thickness of each cell. The file is in MSDOS ASCII format.

Table 2-2: Column description for the voxel grid file

***TurkeyPt_Voxel_Chloride_Concentrations_Volume_Mass_v3.csv*. Chloride concentrations are presented down to the base of the Biscayne Aquifer as determined by [Fish and Stewart \(1991\)](#).**

Parameter	Description	Unit
Easting	Easting NAD83, UTM Zone 17 North	Meters [m]
Northing	Northing NAD83, UTM Zone 17 North	Meters [m]
Elevation Bottom of Layer	Elevation NAVD 88	Meters [m]
CHLORIDE_MG/L	Calculated chloride concentration of each layer from 2016 calibration for each voxel cell	mg/L
CHLORIDE_MG/L_GT19000	Values of chloride concentrations greater than 19,000 mg/L in each voxel cell	mg/L
LAYER_THK_M	Thickness of each voxel layer down to the bottom of the Biscayne Aquifer	Meters (m)
VOLCHLLAYER_M3	Volume of each voxel cell containing chloride concentrations >19,000 mg/L	Cubic Meters
CELL_MASS_G	Calculated chloride mass per Eqtn 2	Grams

[Table 2-3](#) describes the data columns in the .csv file *TurkeyPoint_Data_Chloride_Concentration_v1.csv*. This file contains the AEM-derived chloride concentration data. Chloride concentrations are masked below the bottom of the Biscayne Aquifer.

Table 2-3: Channel name, description, and units for TurkeyPt_Data_Chloride_Concentration_v1.csv with X and Y locations, Elevation, and Chloride Concentrations presented down to the base of the Biscayne Aquifer as determined by [Fish and Stewart \(1991\)](#).

Parameter	Description	Unit
LINE	Line Number	
Easting	Easting NAD83, UTM Zone 17 North	Meters [m]
Northing	Northing NAD83, UTM Zone 17 North	Meters [m]
Elevation	Elevation NAVD 88	Meters [m]
ELEVBOTTOM_BISCAYNEAQ	Elevation of Bottom of Biscayne Aquifer NAVD 88	Meters (m)
DEPTH_TOP[0] THROUGH DEPTH_TOP[29]	Depth to the top of individual model layers	Meters [m]
DEPTH_BOTTOM[0] THROUGH DEPTH_BOTTOM[29]	Depth to the bottom of individual model layers	Meters [m]
THK[0] THROUGH THK[29]	Model layer thickness	Meters
CHLORIDE_MG/L_INTERP[0] THROUGH CHLORIDE_MG/L_INTERP[29]	Calculated chloride concentration of each layer from 2016 calibration with interpolation through gaps	mg/L
CHLORIDE_MG/L[0] THROUGH CHLORIDE_MG/L[29]	Calculated chloride concentration of each layer from 2016 calibration	mg/L
CHLORIDE_FITTERMAN[0] THROUGH CHLORIDE_FITTERMAN[29]	Calculated chloride concentration of each layer from Fitterman and Prinos (2011)	mg/L

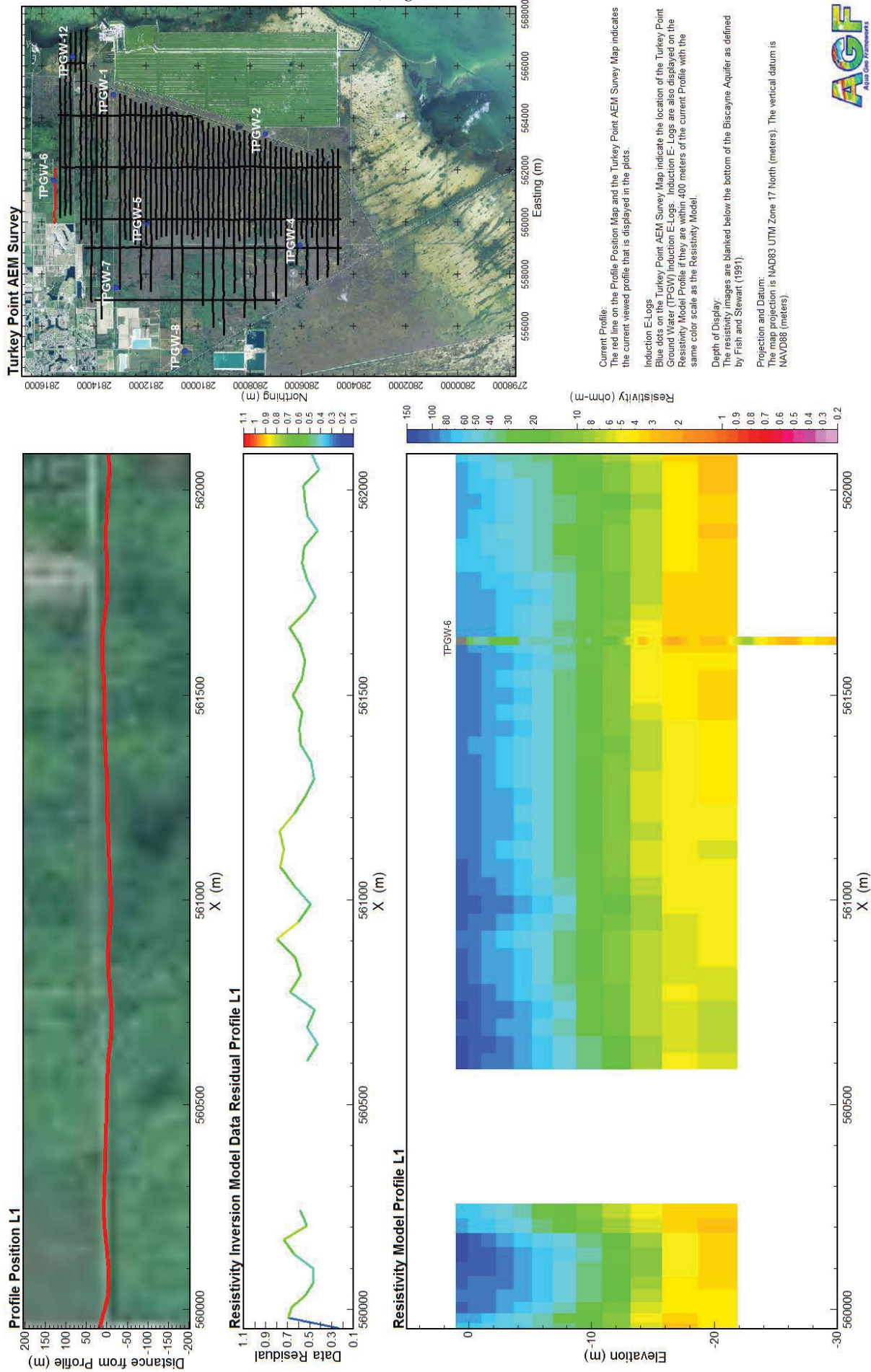
3 References

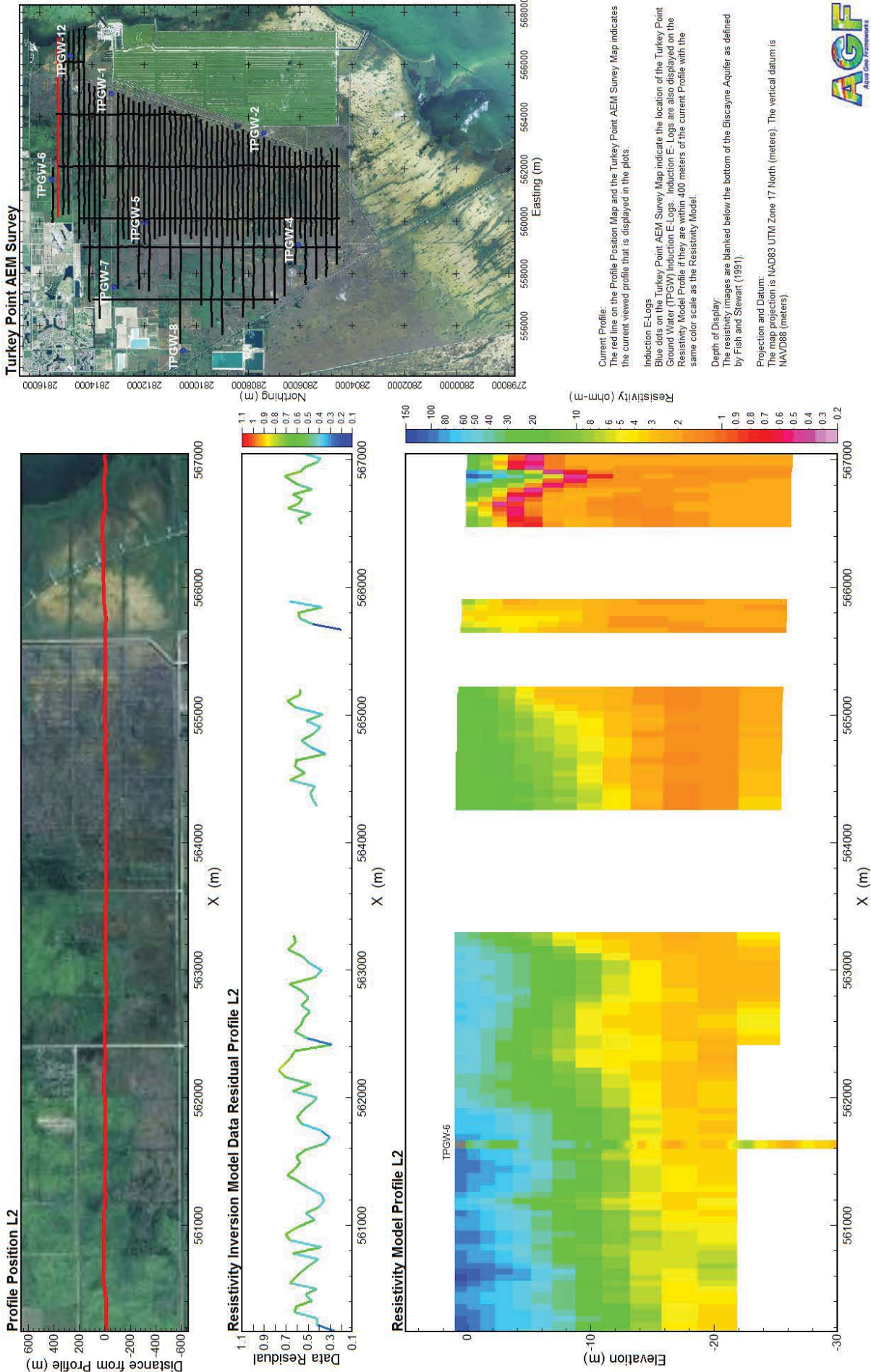
- Abdalla, O.A.E., Ali, M., Al-Higgi, K., Al-Zidi, H., El-Hussain, I., and Al-Hinai, S., 2010, Rate of seawater intrusion estimated by geophysical methods in an arid area: Al Khabourah, Oman. *Hydrogeology Journal* 18: 1437–1445.
- Adepelumi, A.A., Ako, B.D., Ajayi, T.R., Afolabi, O., and Omotoso, E.J., 2009, Delineation of saltwater intrusion into the freshwater aquifer of Lekki Peninsula, Lagos, Nigeria. *Environmental Geology* 56: 927–933.
- Archie, G.E., 1942, The electrical resistivity log as an aid in determining some reservoir characteristics. *Transactions of the American Institute of Mining and Metallurgical Engineers* 146: 54–61.
- Christensen, N. B., J. E. Reid, and M. Halkjaer, 2009, "Fast, laterally smooth inversion of airborne time-domain electromagnetic data." *Near Surface Geophysics*, p.599-612.
- Christiansen, A. V., and E. Auken, 2012, "A global measure for depth of investigation." *Geophysics*, Vol. 77, No. 4 WB171-177.
- Fish, J.E. and Stewart, M., 1991, Hydrogeology of the surficial aquifer system, Dade County, Florida: U.S. Geological Survey Water-Resources Investigations Report 90-4108, 62pp.
- Fitterman, D.V., Deszcz-Pan, M., and Prinos, S.T., 2012, Helicopter electromagnetic survey of the Model Land Area, Southeastern Miami-Dade County, Florida: U.S. Geological Survey Open-File Report 2012-1176, 77 p.
- Fitterman, D.V., and Prinos, S.T., 2011, Results of time-domain electromagnetic soundings in Miami-Dade and southern Broward Counties, Florida: U.S. Geological Survey Open-File Report 2011-1299, 289 p.
- Fitterman, D. V., and Deszcz-Pan., M., 1998, Helicopter EM mapping of saltwater intrusion in Everglades National Park, Florida: *Exploration Geophysics*, 29, 240–243, doi: <http://dx.doi.org/10.1071/EG998240>.
- Fitterman, D.V., and Stewart, M.T., 1986, Transient electromagnetic sounding for groundwater. *Geophysics* 51, no.4: 995–1005.
- Foged, Nikolaj, Esben Auken, Anders Vest Christiansen, and Kurt Ingvar Sorensen, 2013, "Test-site calibration and validation of airborne and ground based TEM systems." *Geophysics* 78, No.2: E95-E106.
- Frohlich, R.K., Urish, D.W., Fuller, J., and O'Reilly, M., 1994, Use of geoelectrical methods in groundwater pollution surveys in a coastal environment. *Journal of Applied Geophysics* 32: 139–154.

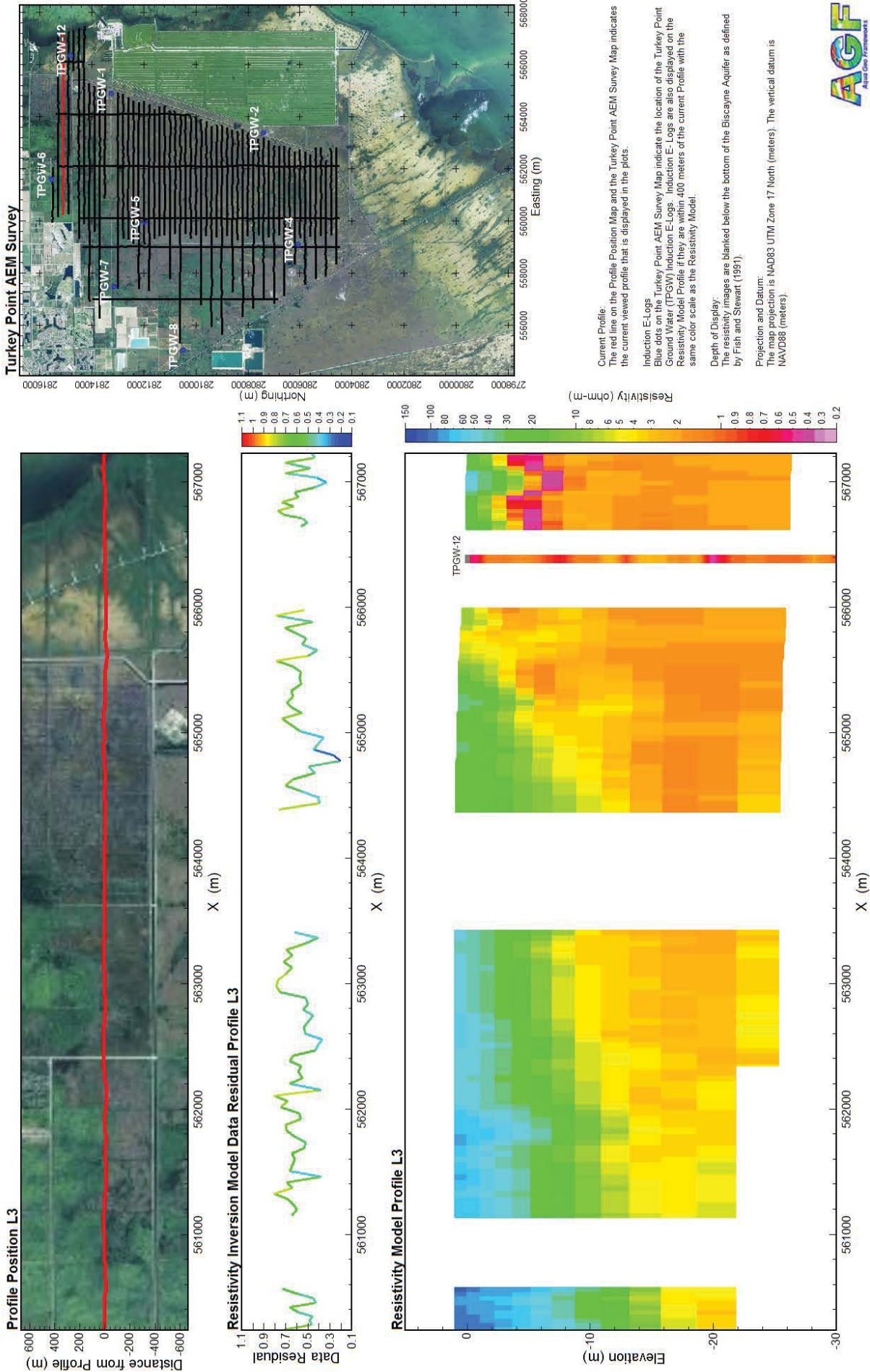
- Goldman, M., Gilad, D., Ronen, A., and Melloul, A., 1991, Mapping of seawater intrusion into the coastal aquifer of Israel by the time domain electromagnetic method. *Geoexploration* 28, no. 2: 153–174.
- Herckenrath, D., Odlum, N., Nenna, V., Knight, R., Auken, E., Bauer-Gottwein, P., 2013, Calibrating a salt water intrusion model with time-domain electromagnetic data: *Groundwater*, Vol 51 (3): 385-3
- HydroGeophysics Group, Aarhus University, 2010, "Validation of the SkyTEM system at the extended TEM test site." Aarhus, Denmark.
- HydroGeophysics Group, Aarhus University, 2011, "Guide for processing and inversion of SkyTEM data in Aarhus Workbench, Version 2.0."
- Ley-Cooper, Y. and Davis, 2010, A. Can a borehole conductivity log discredit a whole AEM survey?: ASEG Extended Abstracts, 2010, 1-5.
- Pitney Bowes, 2016, pbEncom Discover PA versions 15.0.13 (accessed March 3, 2016):
<https://www.pitneybowes.com/pbencom/products/geophysics/encom-pa.html>
- Schamper, C., E. Auken, and K. Sorensen, 2014, *Coil response inversion for very early time modelling of helicopter-borne time-domain electromagnetic data and mapping of near-surface Geologic Layers*. European Association of Geoscientists & Engineers, Geophysical Prospecting.
- SkyTem Airborne Surveys Worldwide, 2015, "Skytem.com." . <http://skytem.com/wp-content/uploads/2015/01/SkyTEM508-60-Hz.pdf>.
- SkyTEM, 2016, Data Report SkyTEM Survey: Turkey Point, Florida, USA, SkyTEM Airborne Surveys APS., Aarhus, Denmark, February 2016, p 52.
- Wacker, M. A., 2010, Tools and Data Acquisition of Borehole Geophysical Logging for the the Florida Power and Light Company Turkey Point Power Plant in Support of a Groundwater, Surface-Water and Ecological Monitoring Plan, Miami-Dade County, Florida: U.S. Geological Survey Open File Report 2010-1260, 6p.
- Wacker, M.A., Cunningham, K.J., and Williams, J.H., 2014, Geologic and hydrogeologic frameworks of the Biscayne aquifer in central Miami-Dade County, Florida: U.S. Geological Survey Scientific Investigations Report 2014–5138, 66 p., <http://dx.doi.org/10.3133/sir20145138>..

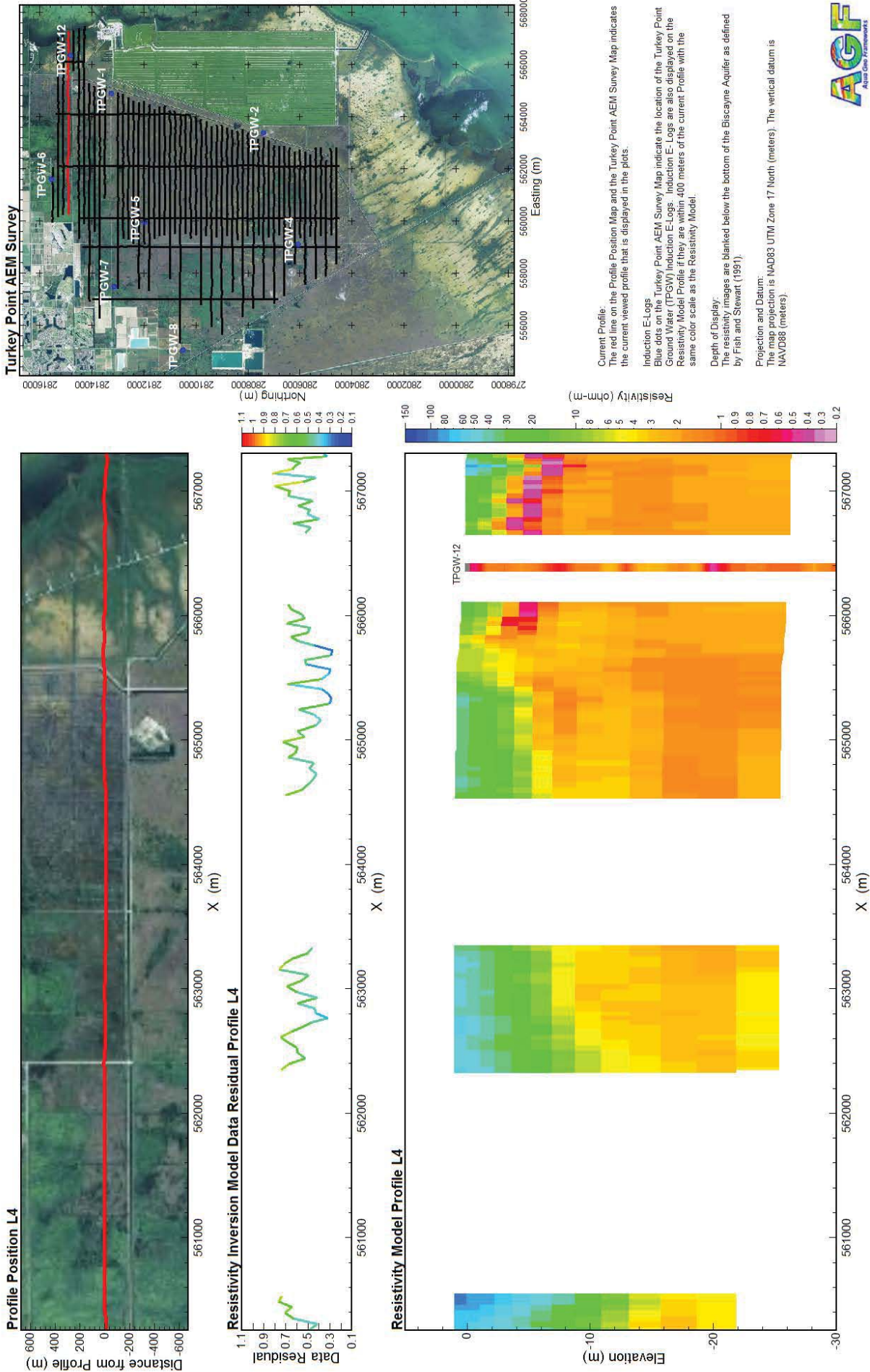
APPENDIX 1

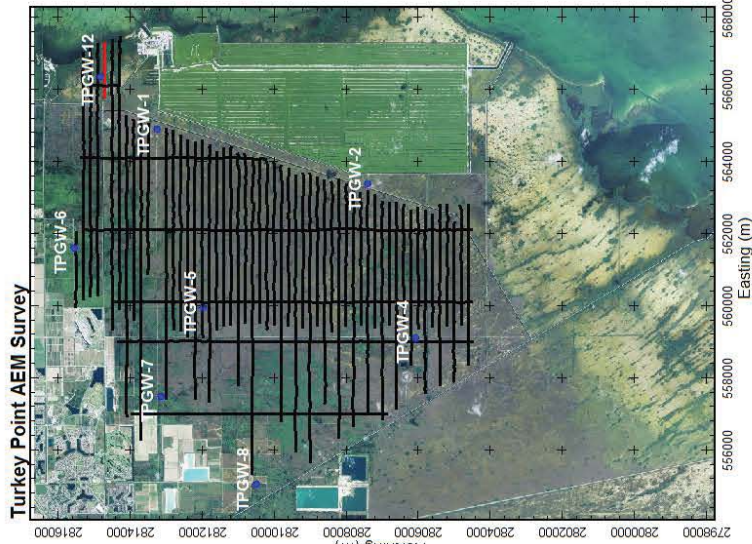
2D RESISTIVITY PROFILES





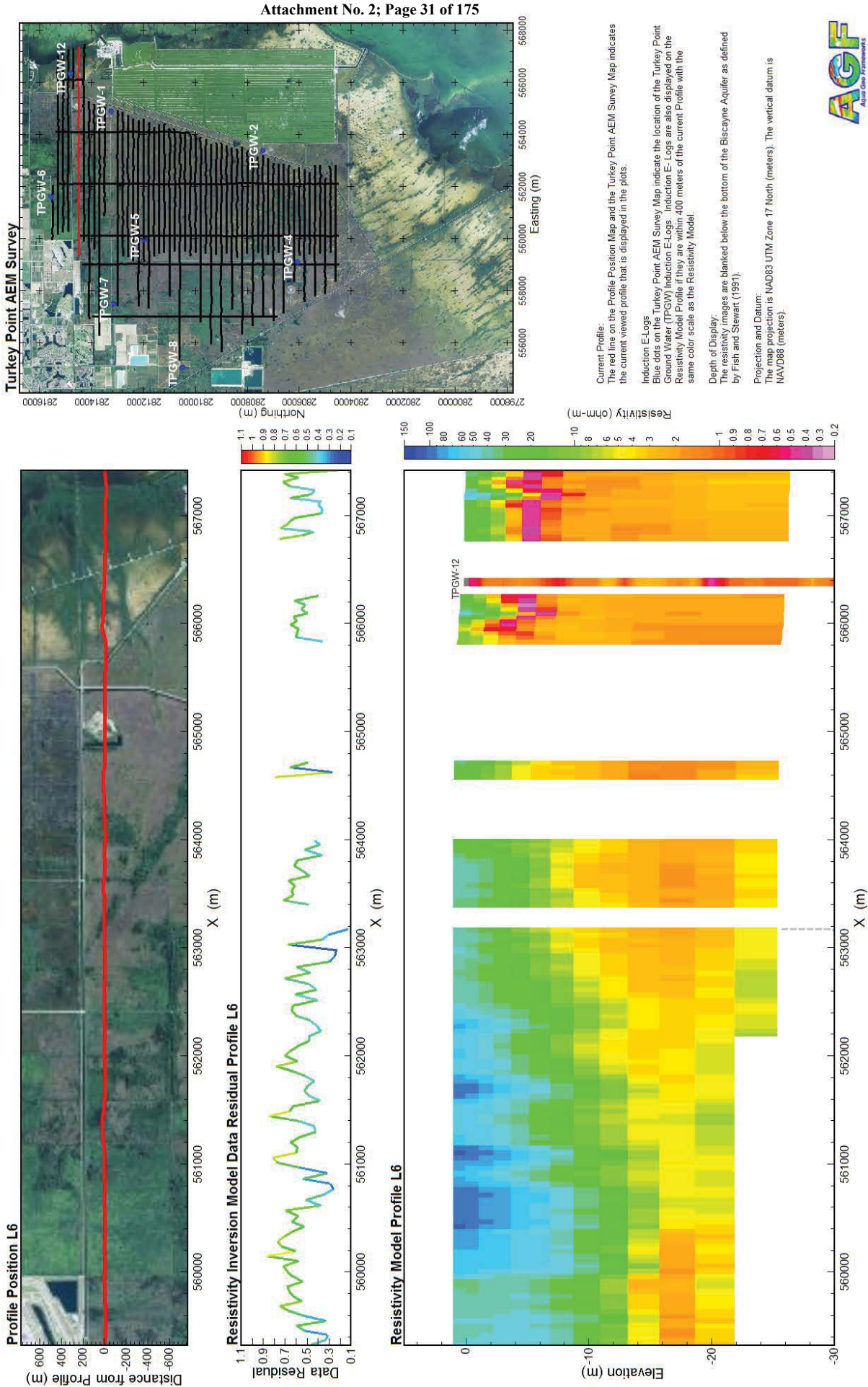


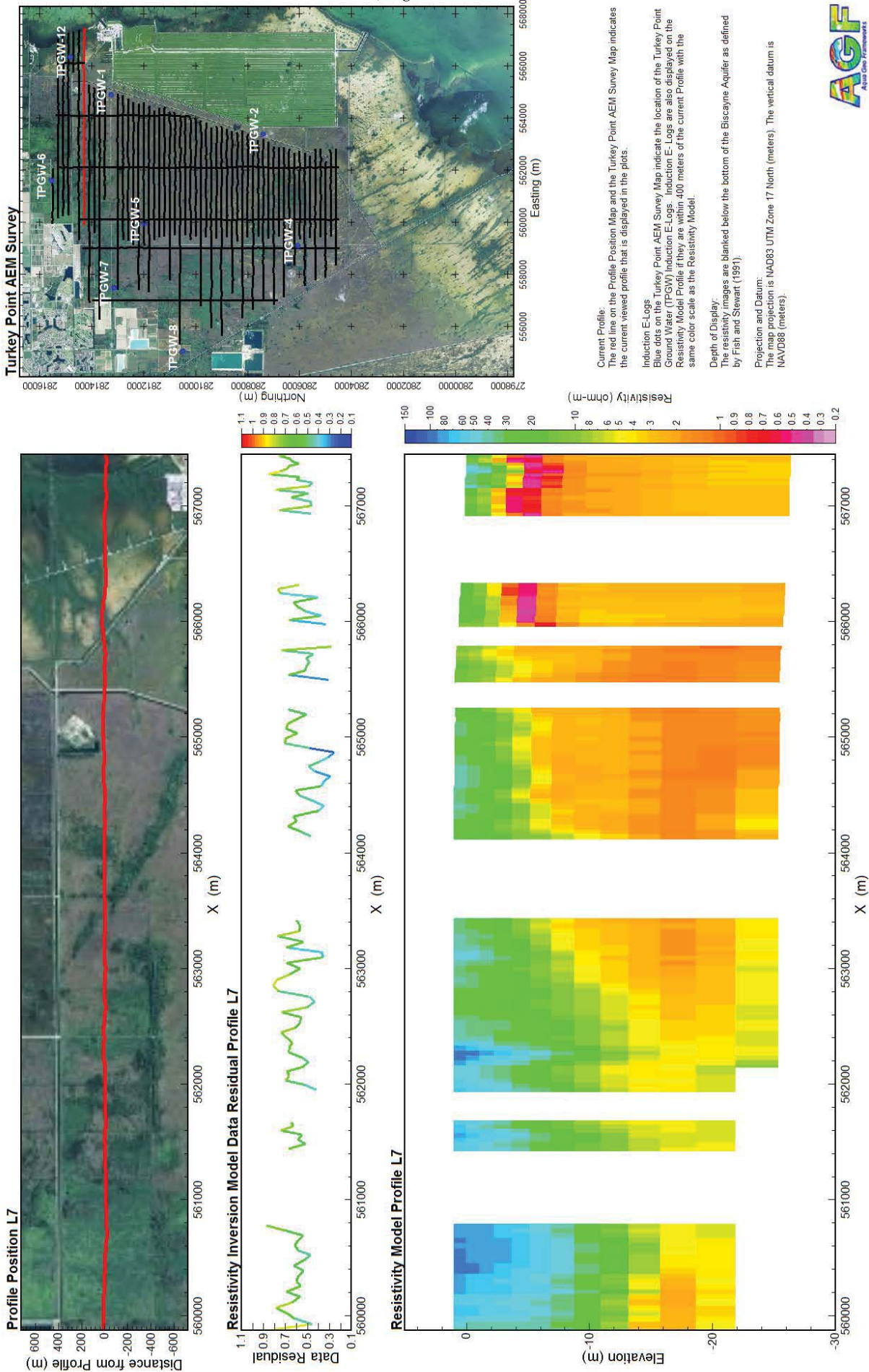


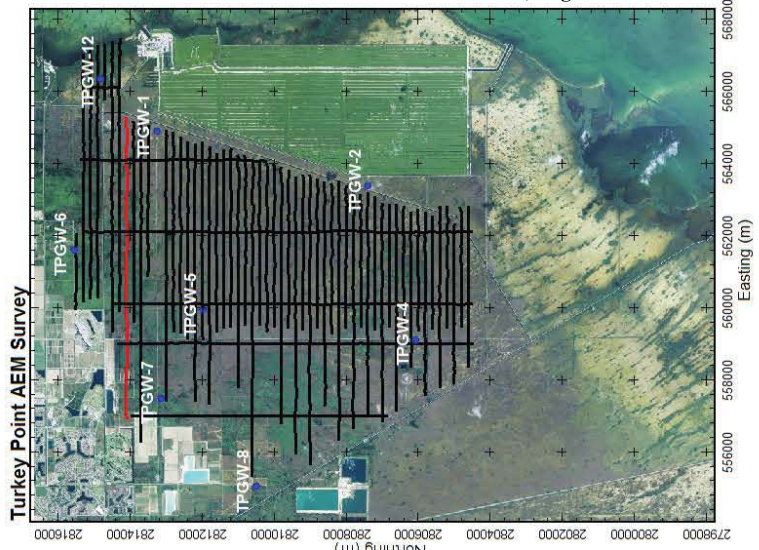
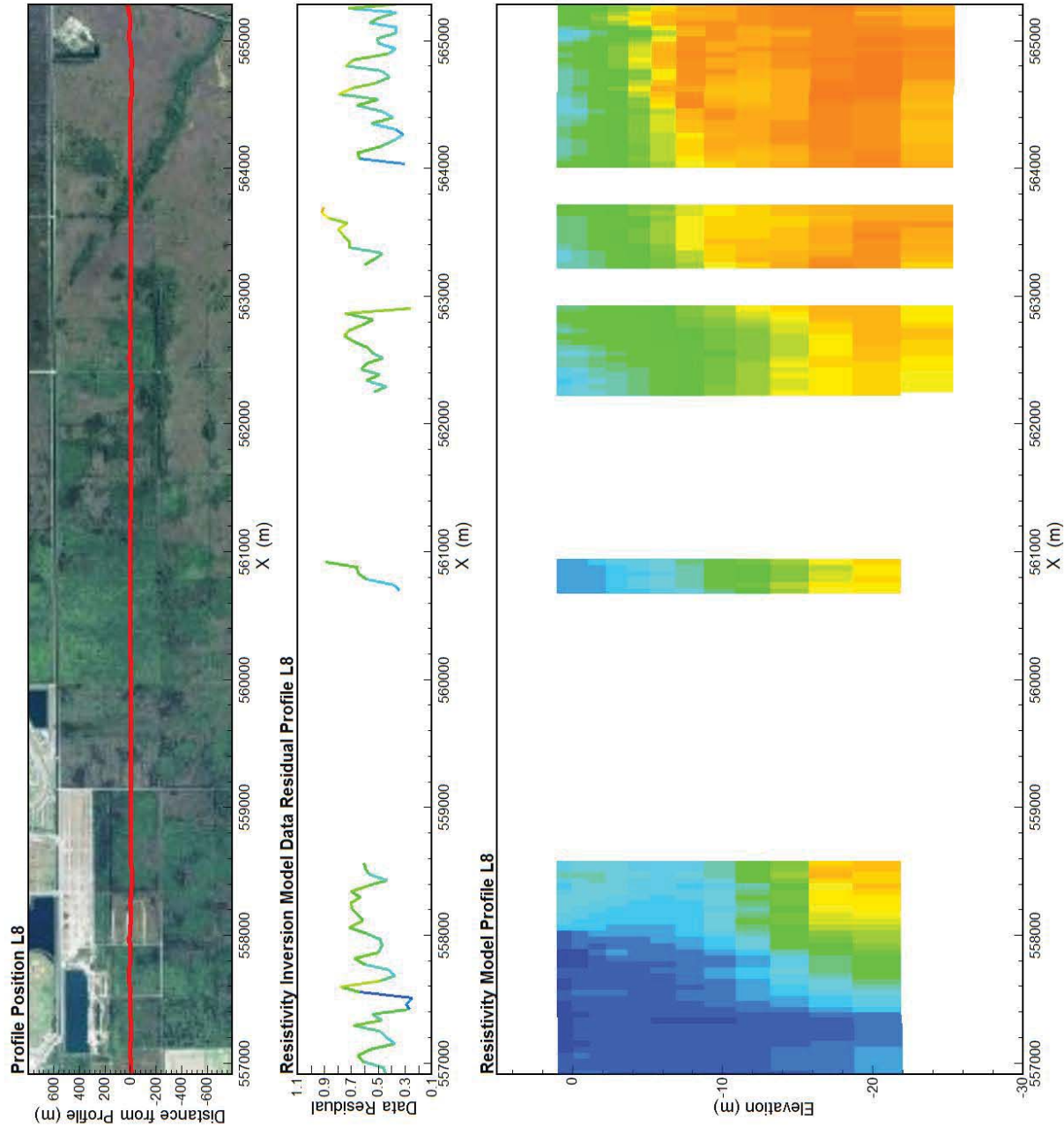


Projection and Datum:
The map projection is NAD83 UTM Zone 17 North (meters). The vertical datum is NAVD88 (meters).









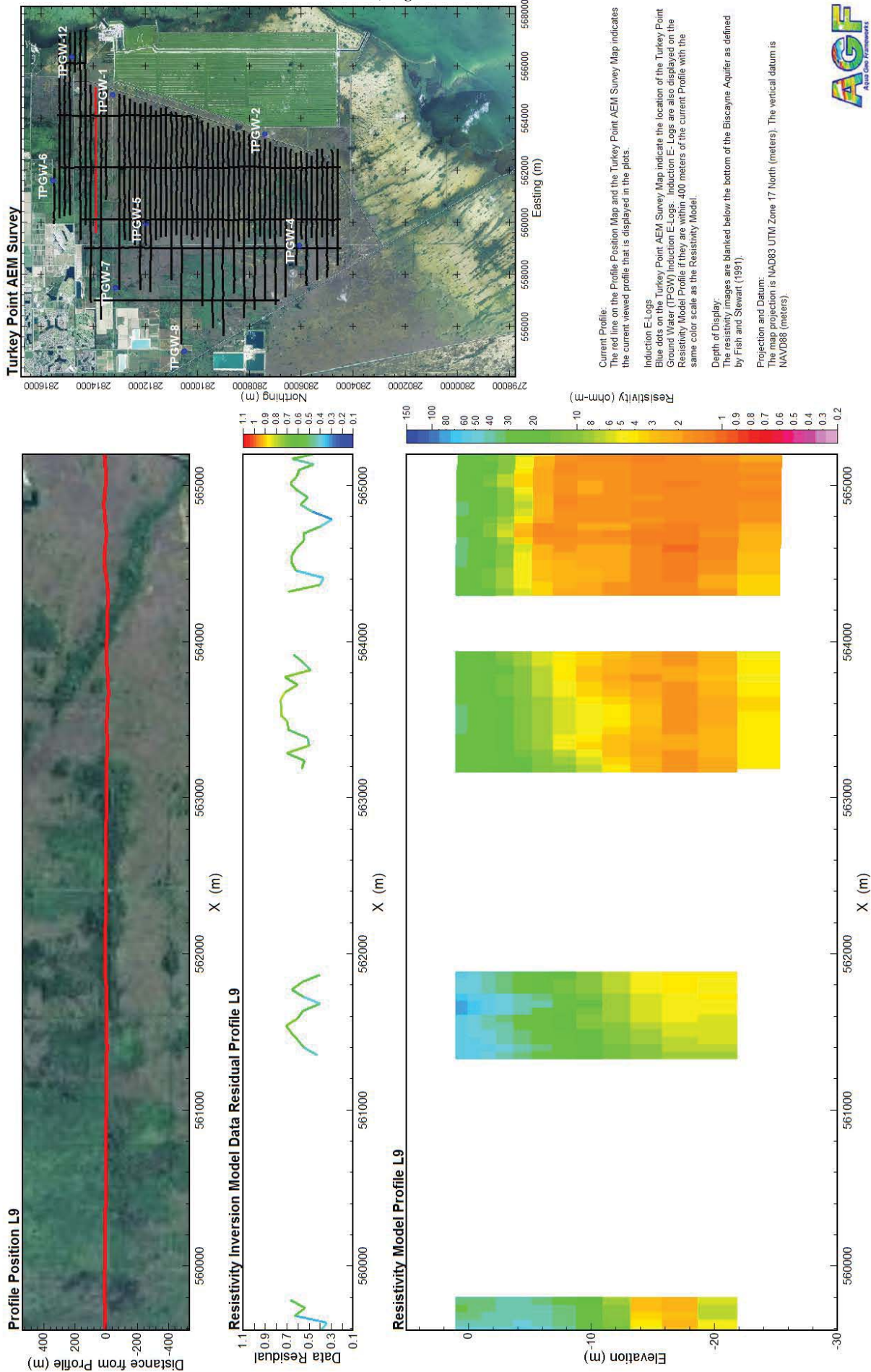
Current Profile:
The red line on the Profile Position Map and the Turkey Point AEM Survey Map indicates the current viewed profile that is displayed in the plots.

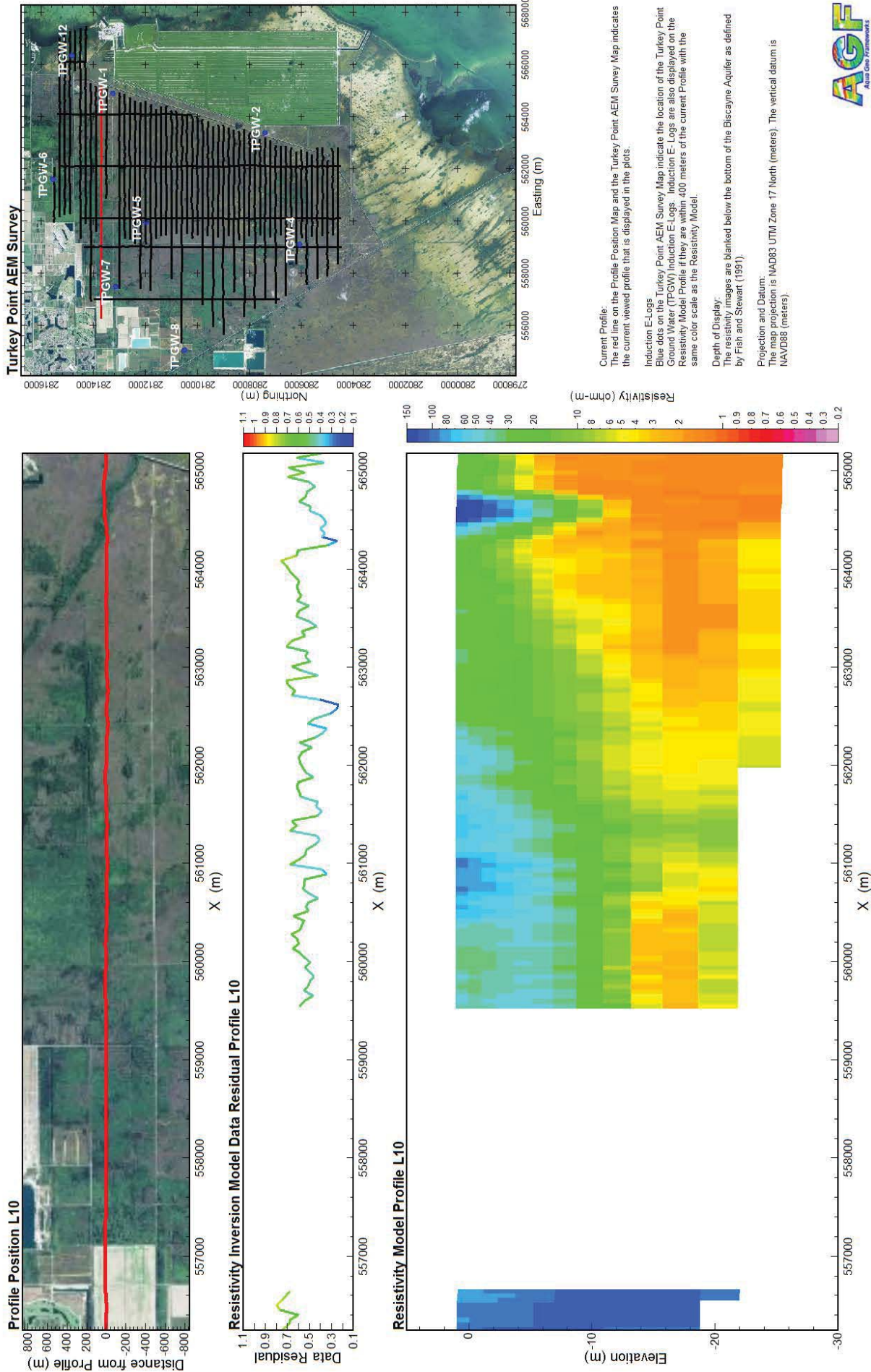
Induction E-Logs
Blue dots on the Turkey Point AEM Survey Map indicate the location of the Turkey Point Ground Water (TPGW) Induction E-Logs. Induction E-Logs are also displayed on the Resistivity Model Profile if they are within 400 meters of the current Profile with the same color scale as the Resistivity Model.

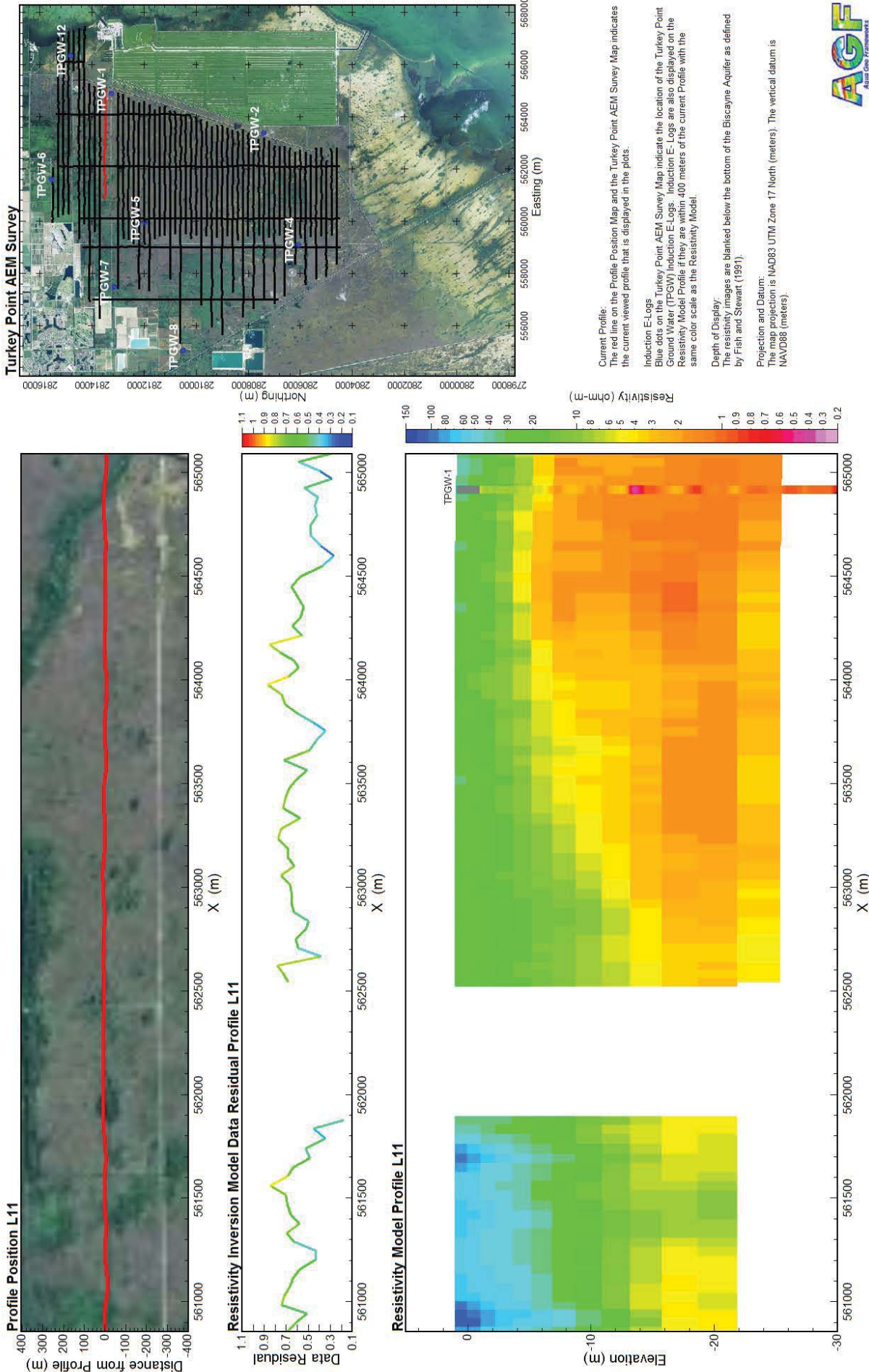
Depth of Display:
The resistivity images are blanked below the bottom of the Biscayne Aquifer as defined by Fish and Stewart (1991).

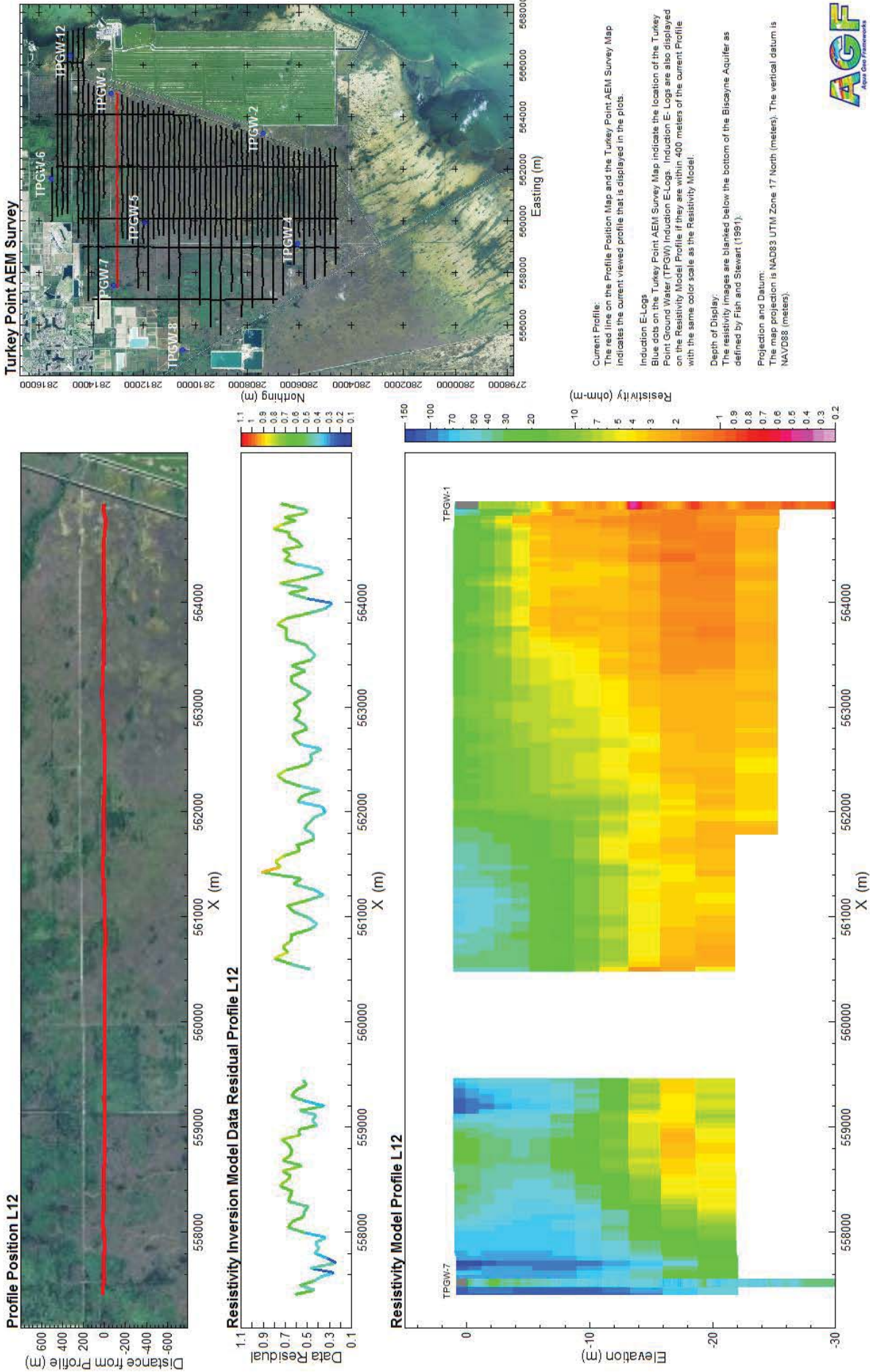
Projection and Datum:
The map projection is NAD83 UTM Zone 17 North (meters). The vertical datum is NAVD86 (meters).

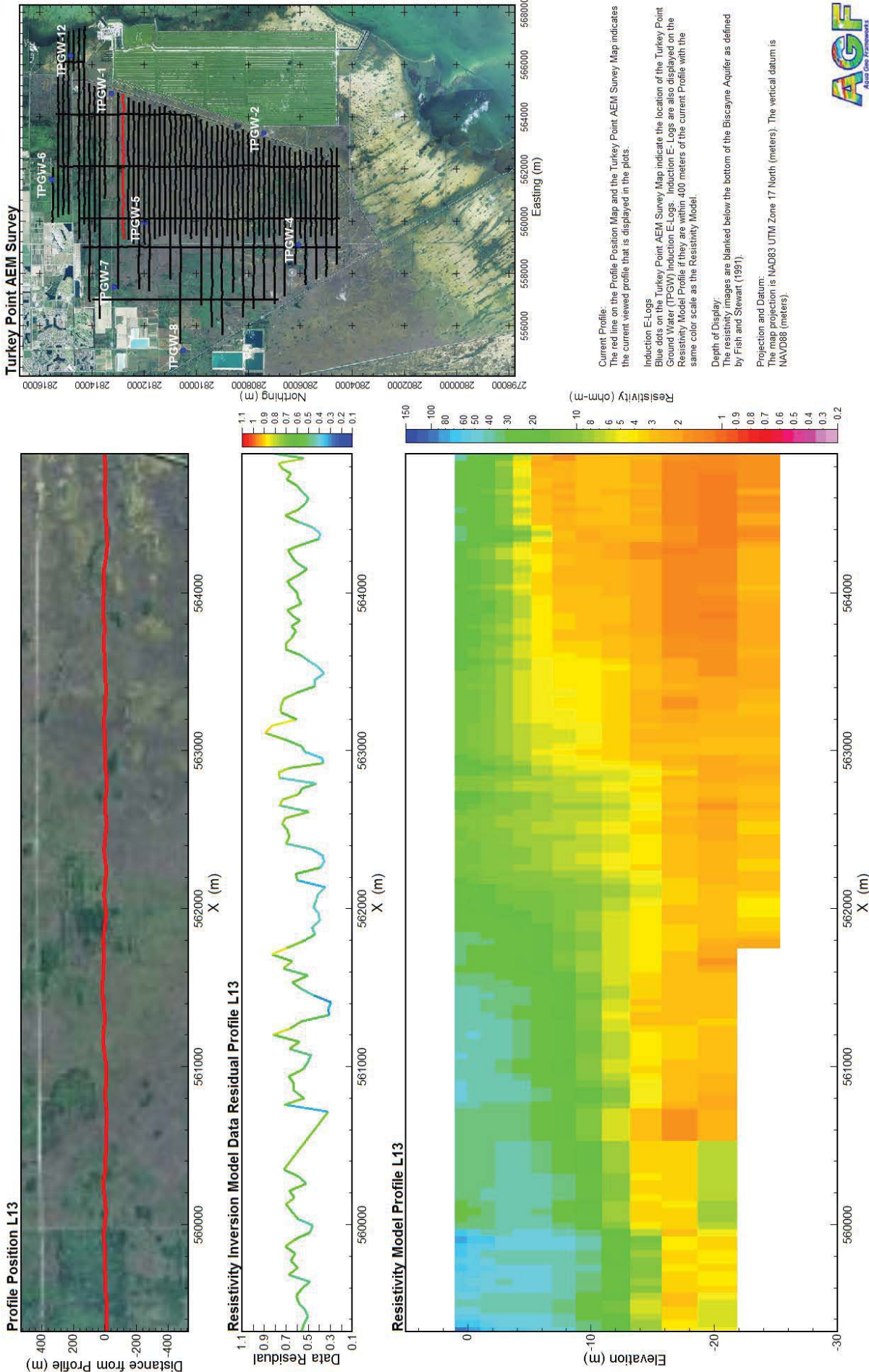


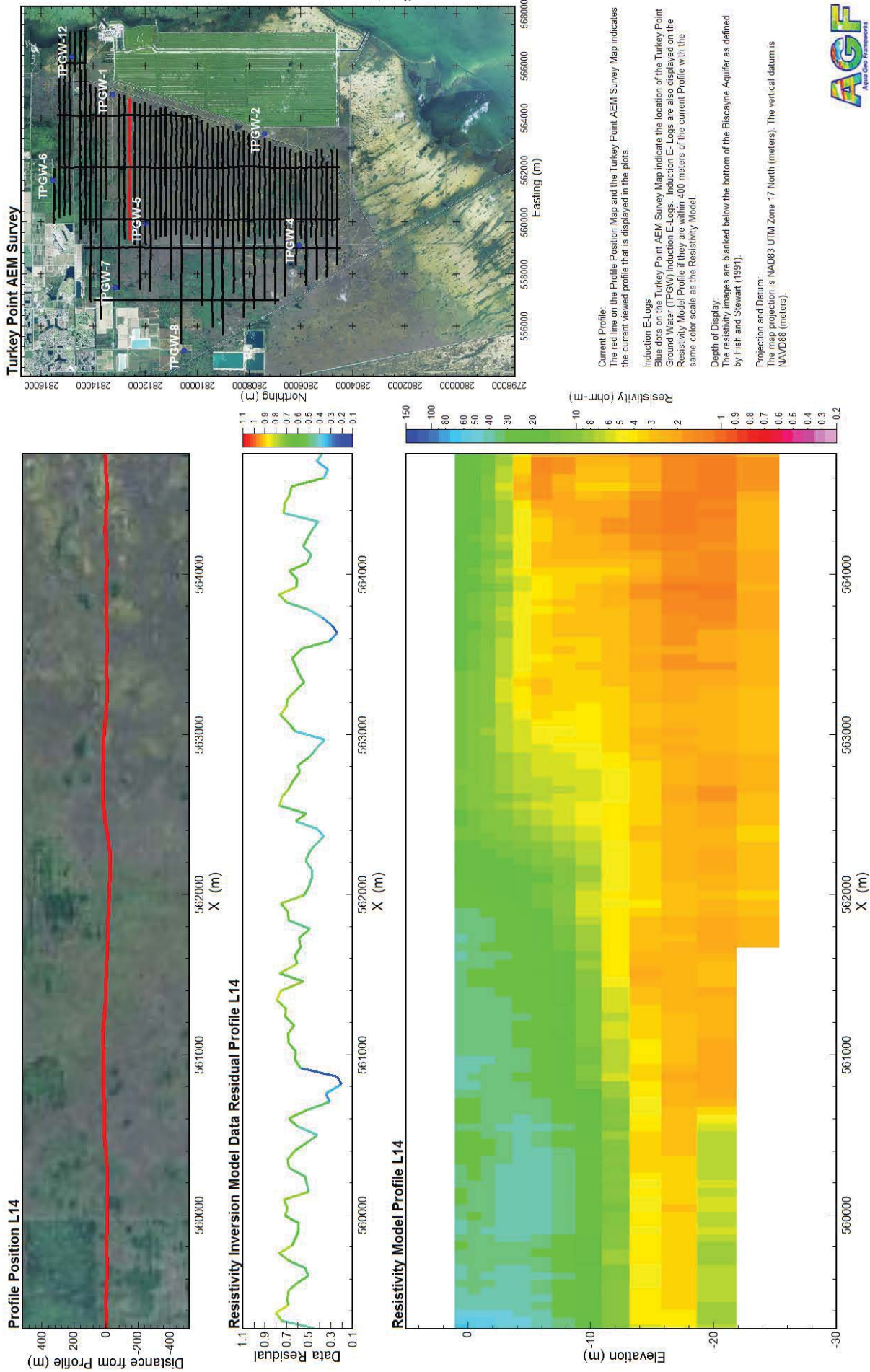


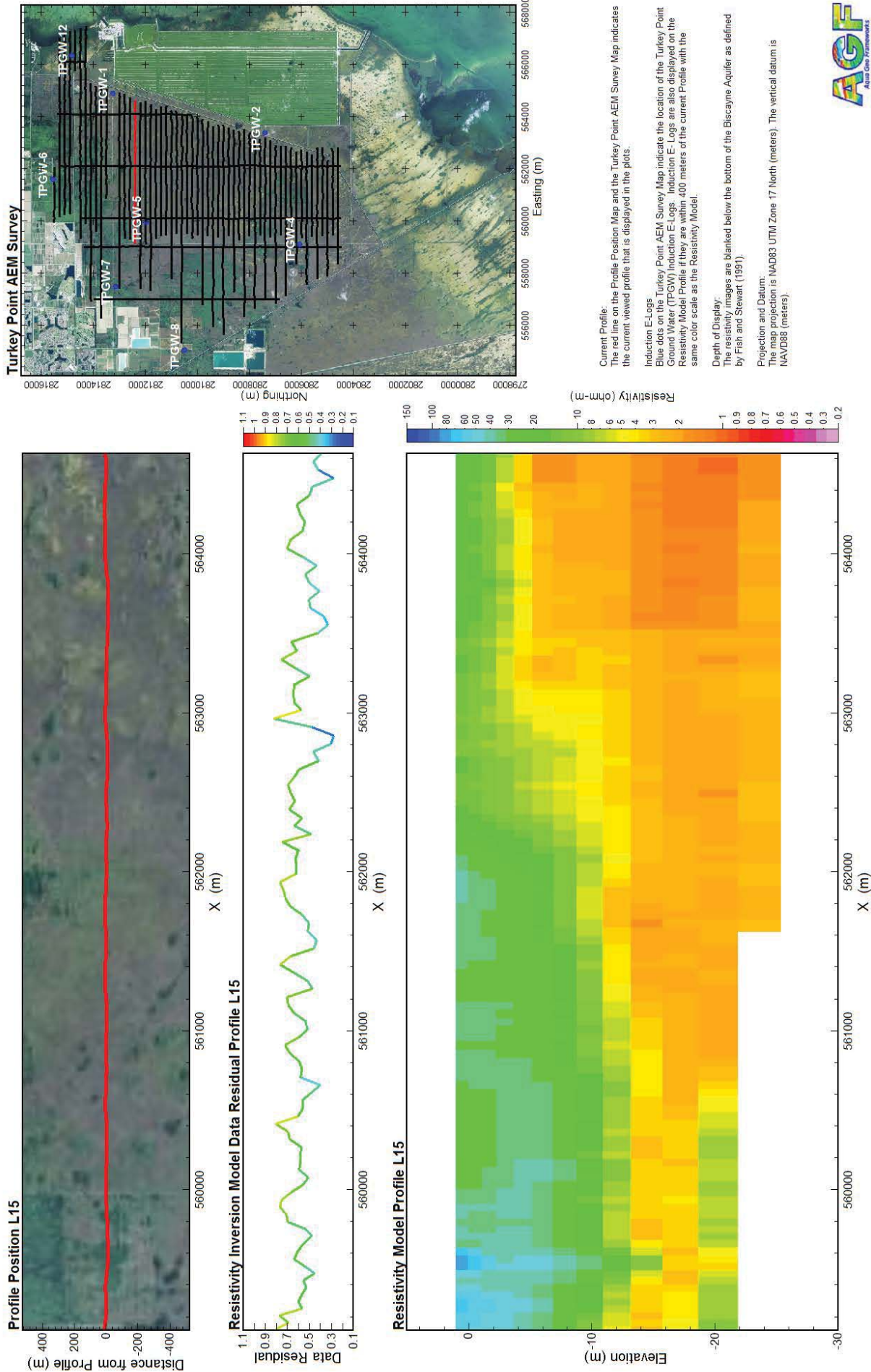


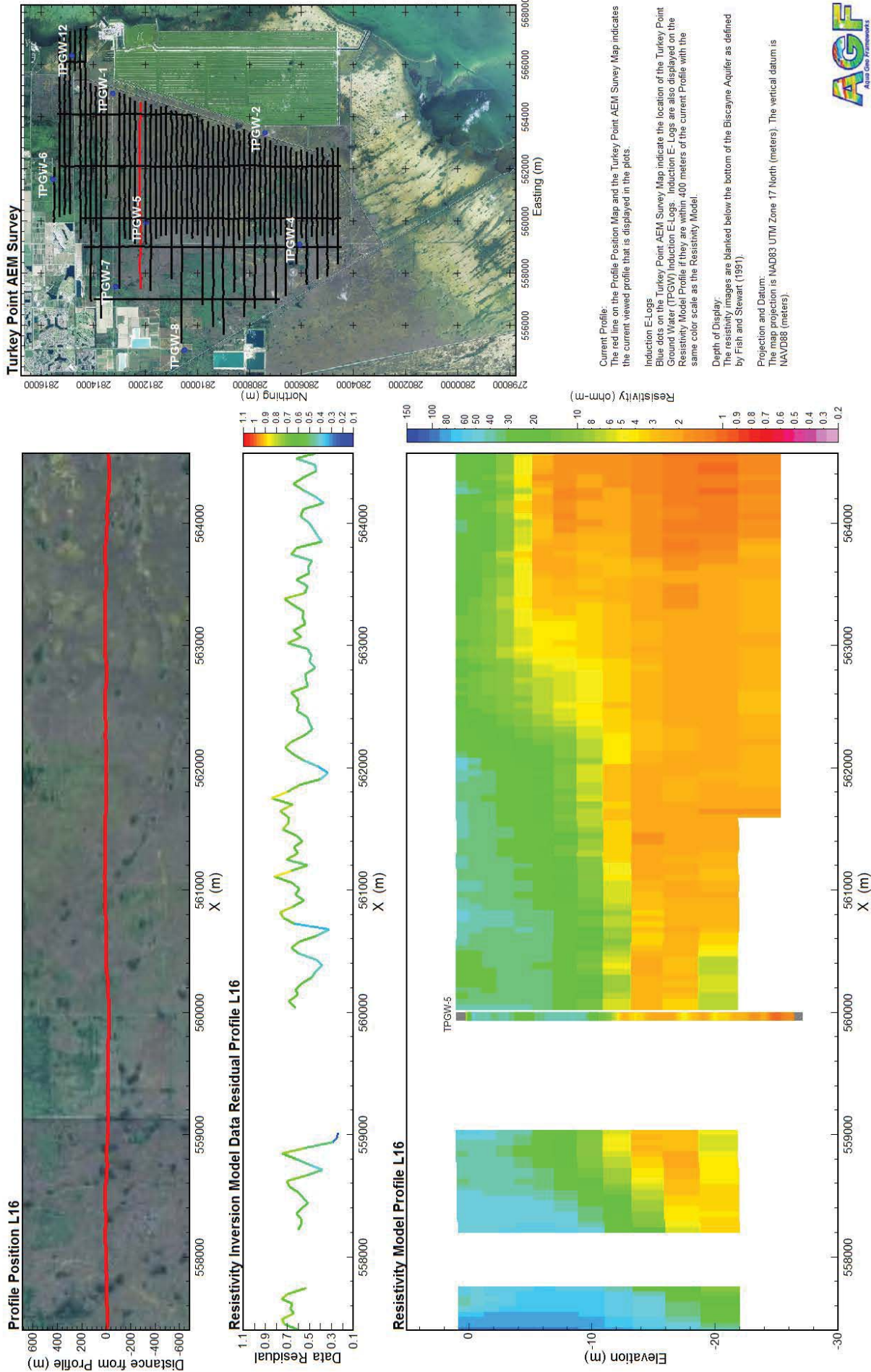


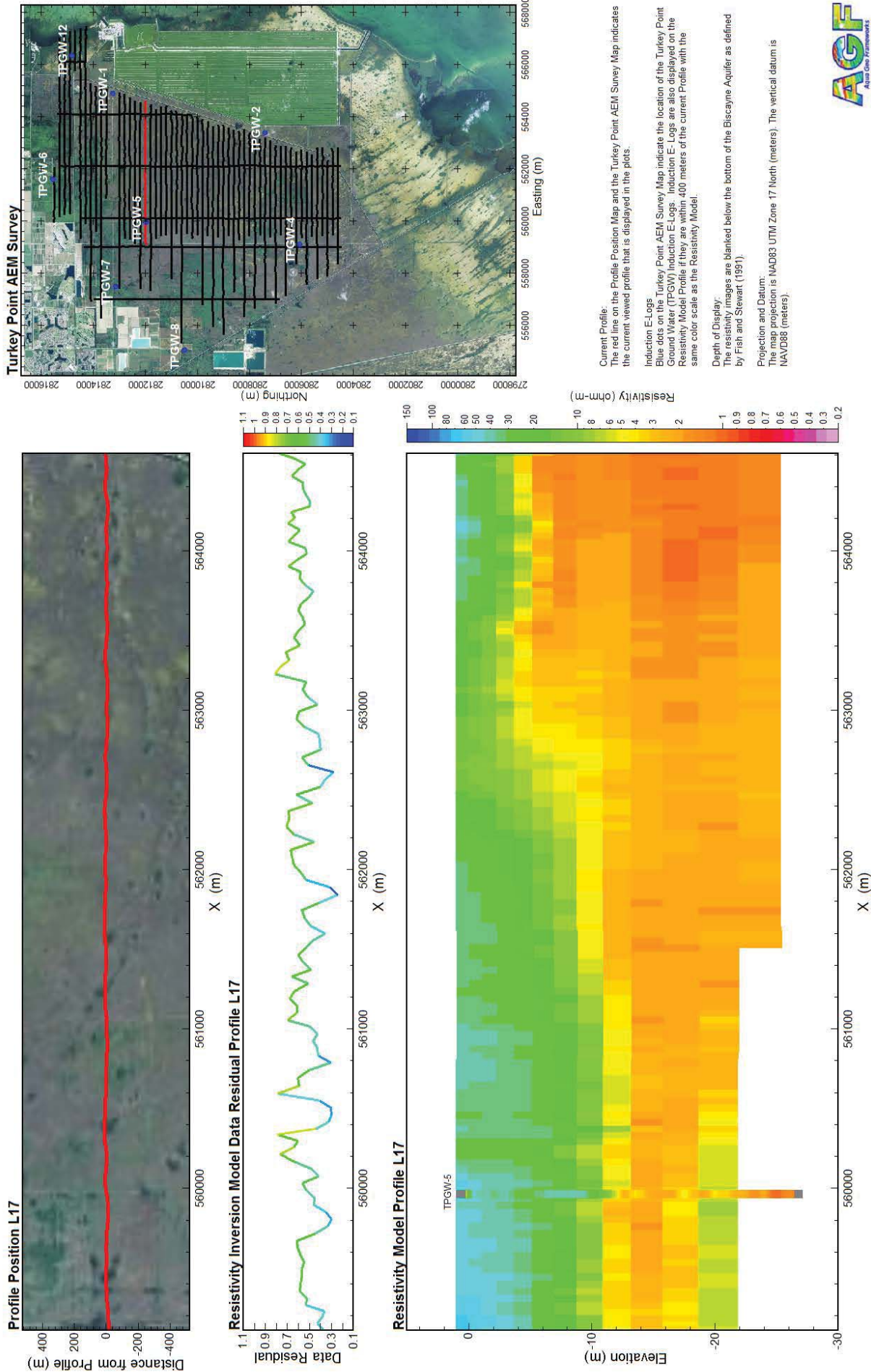


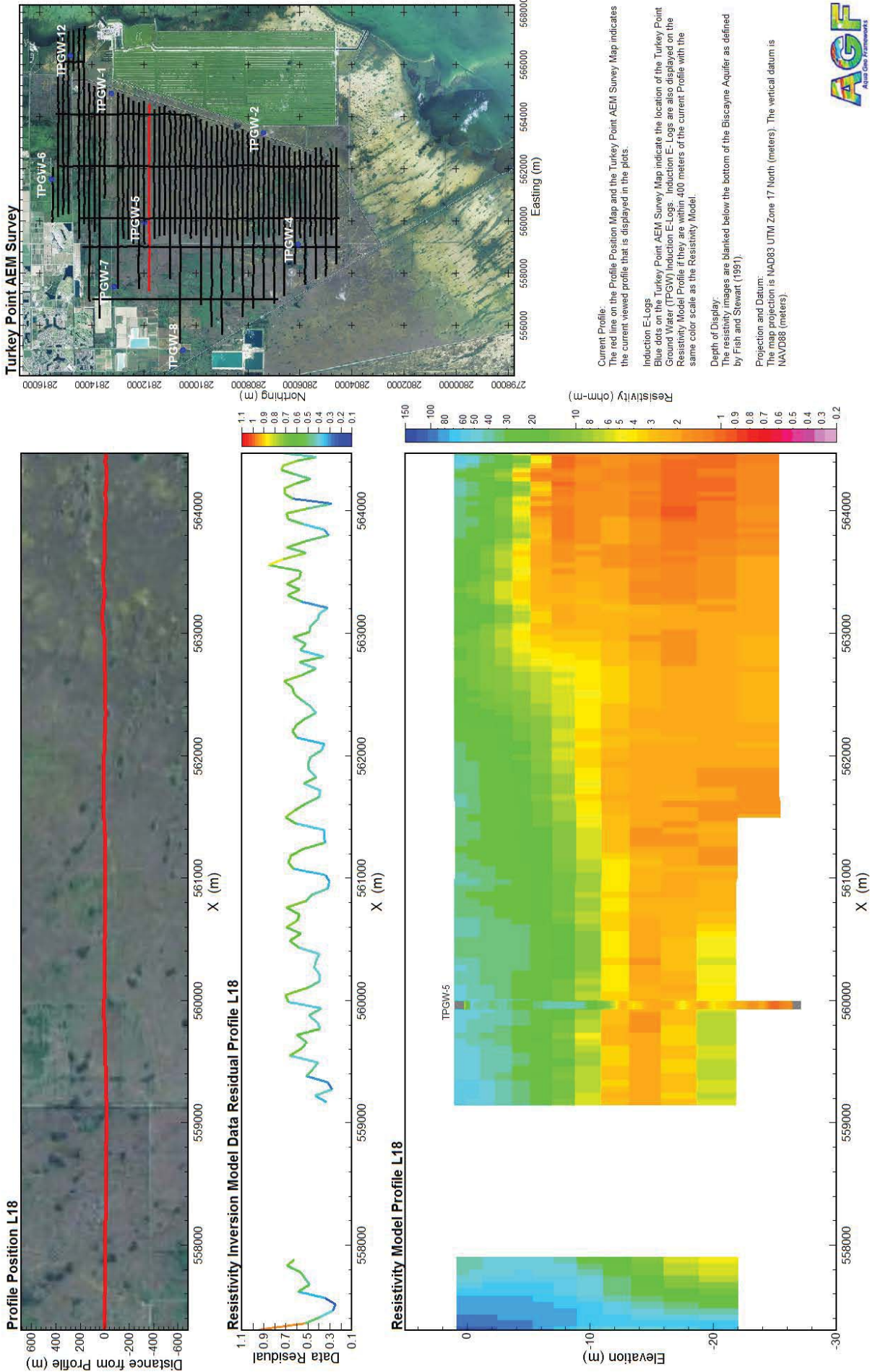


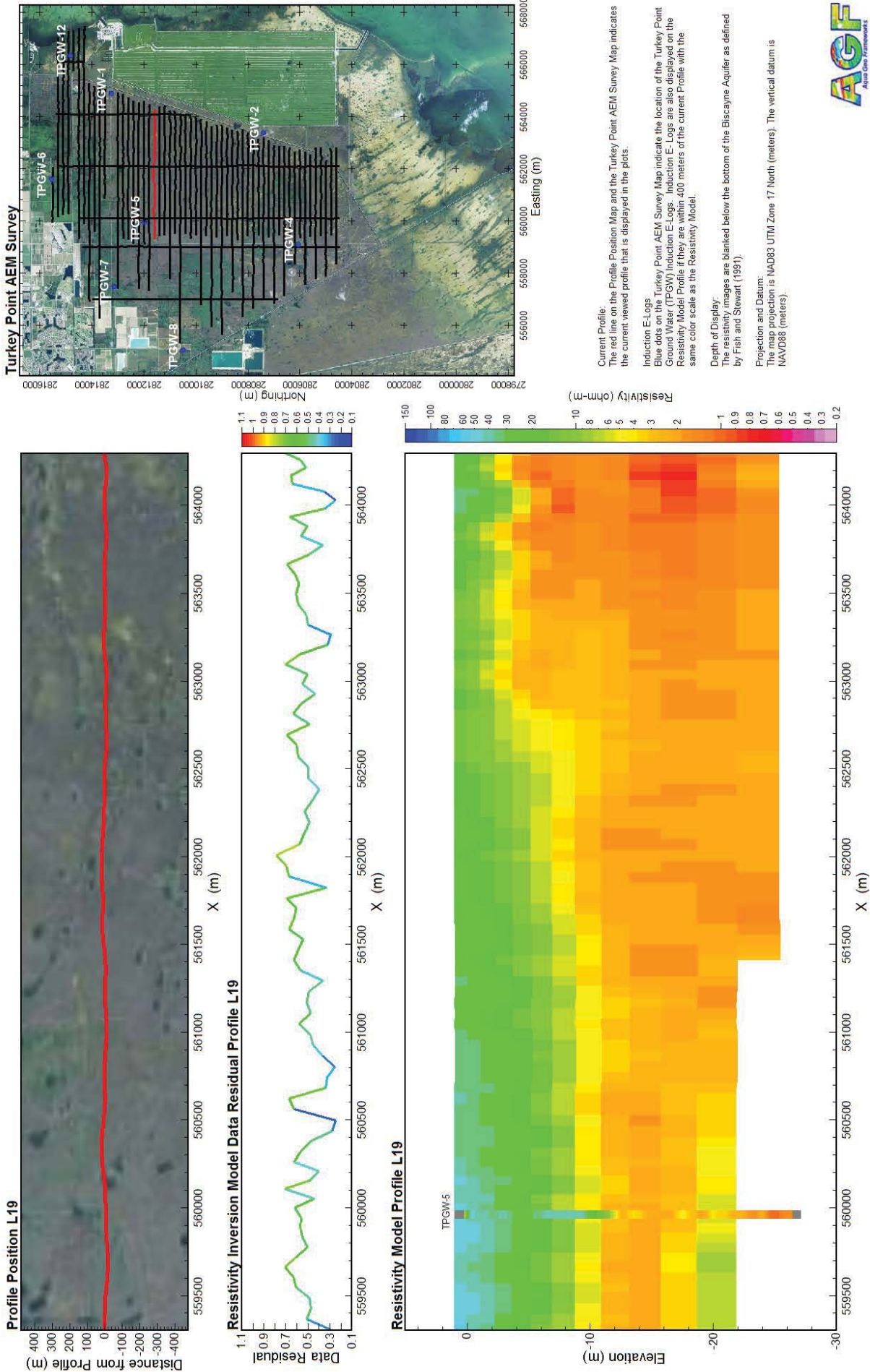


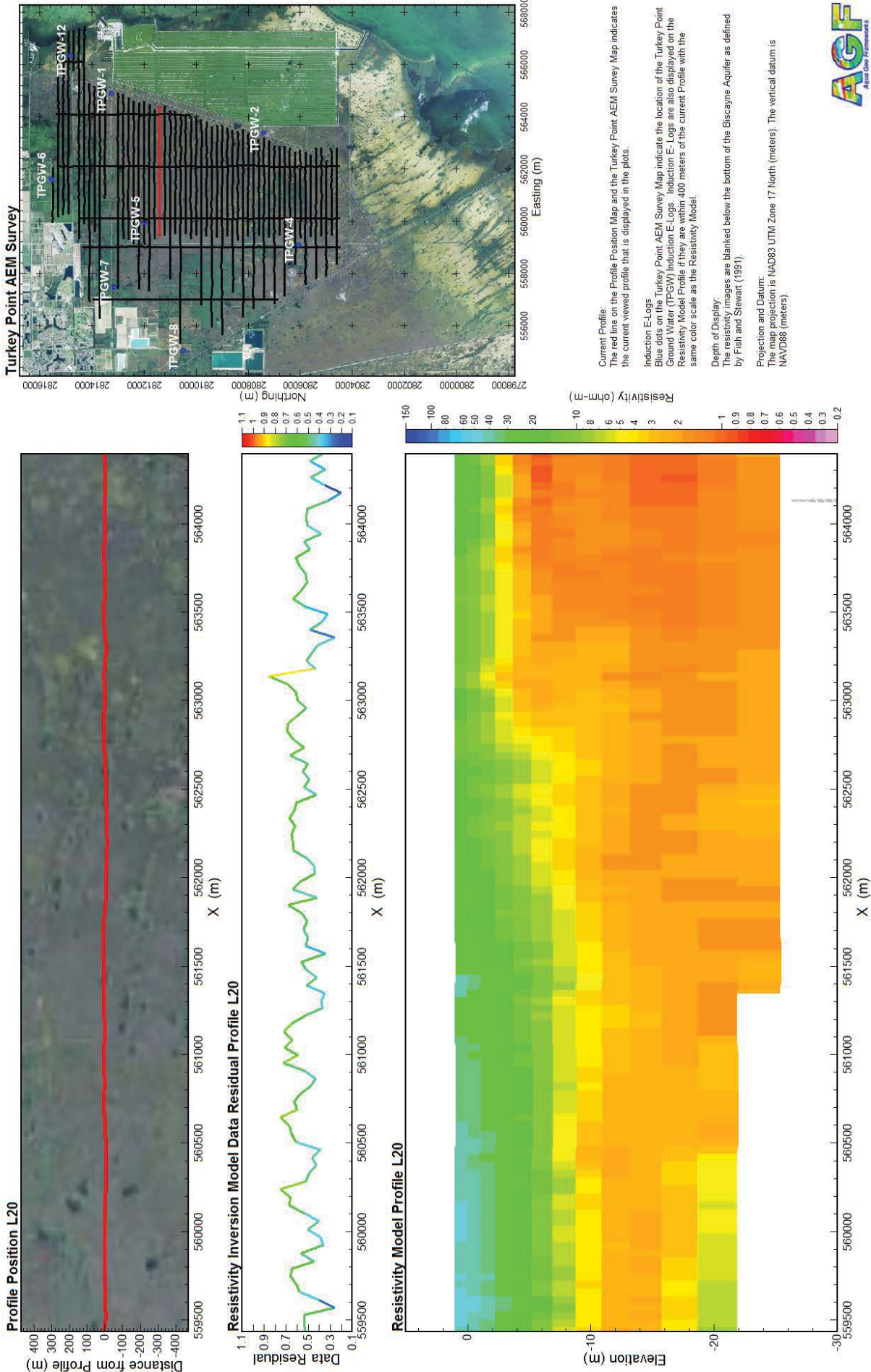


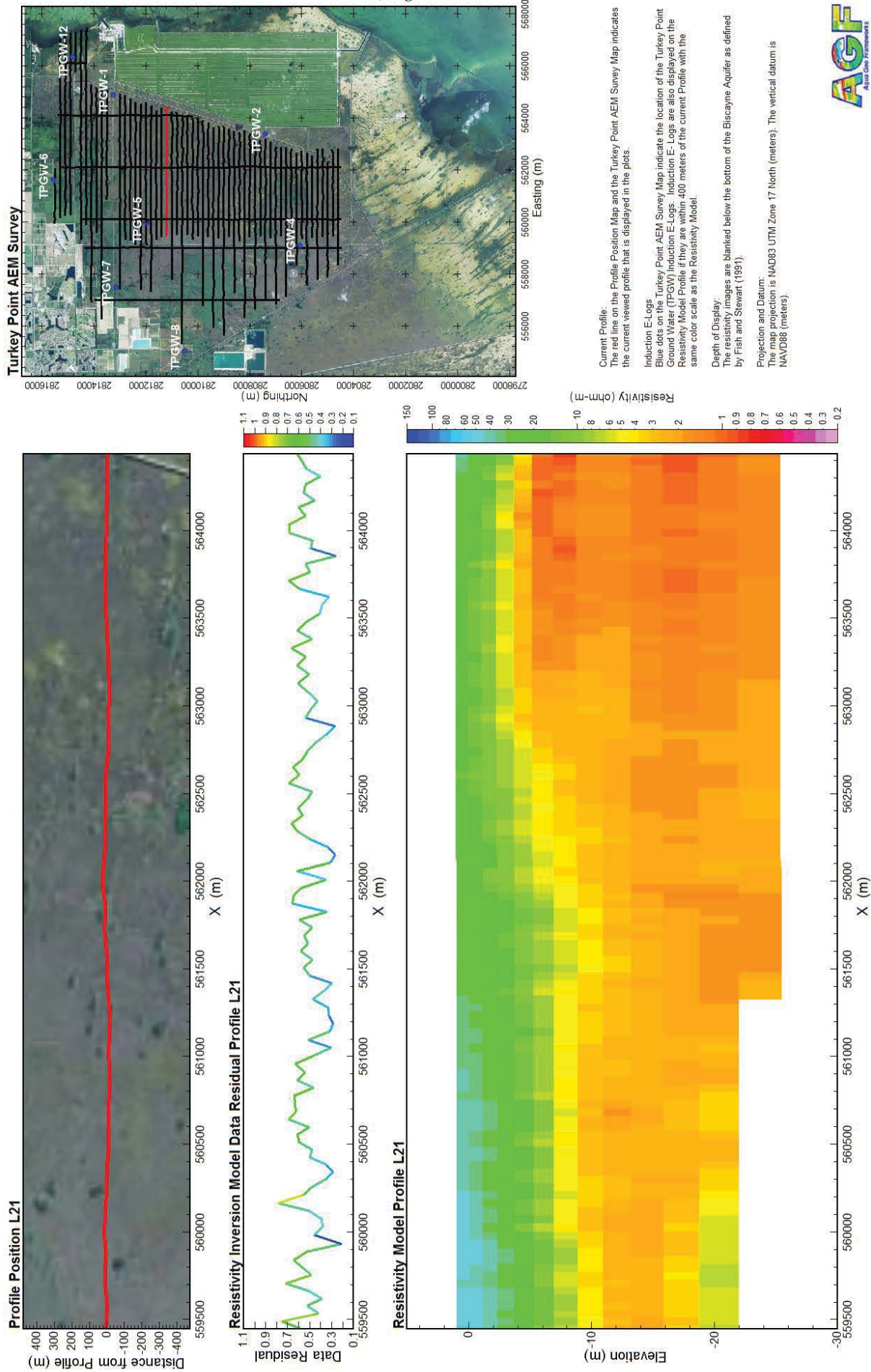


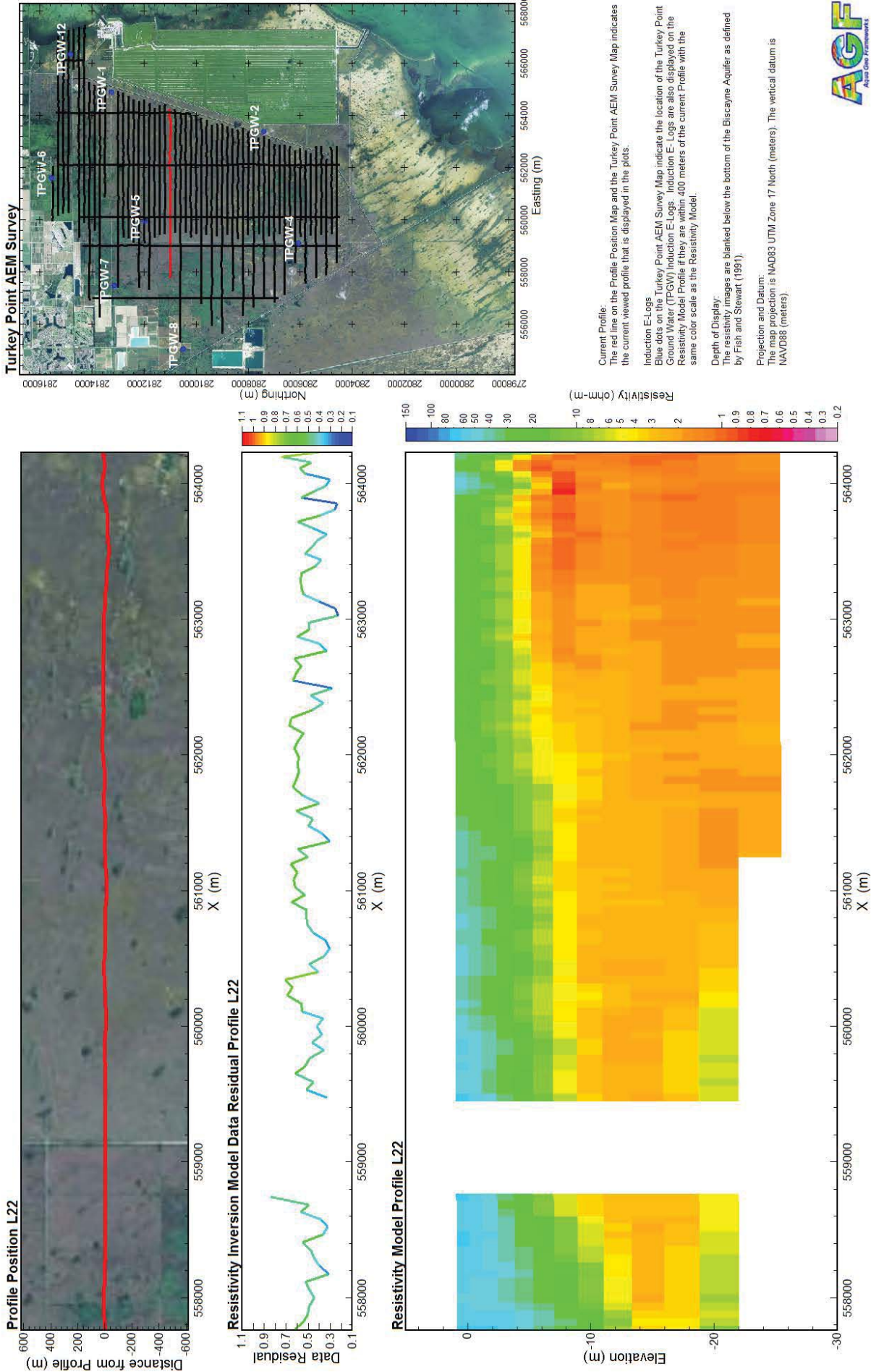


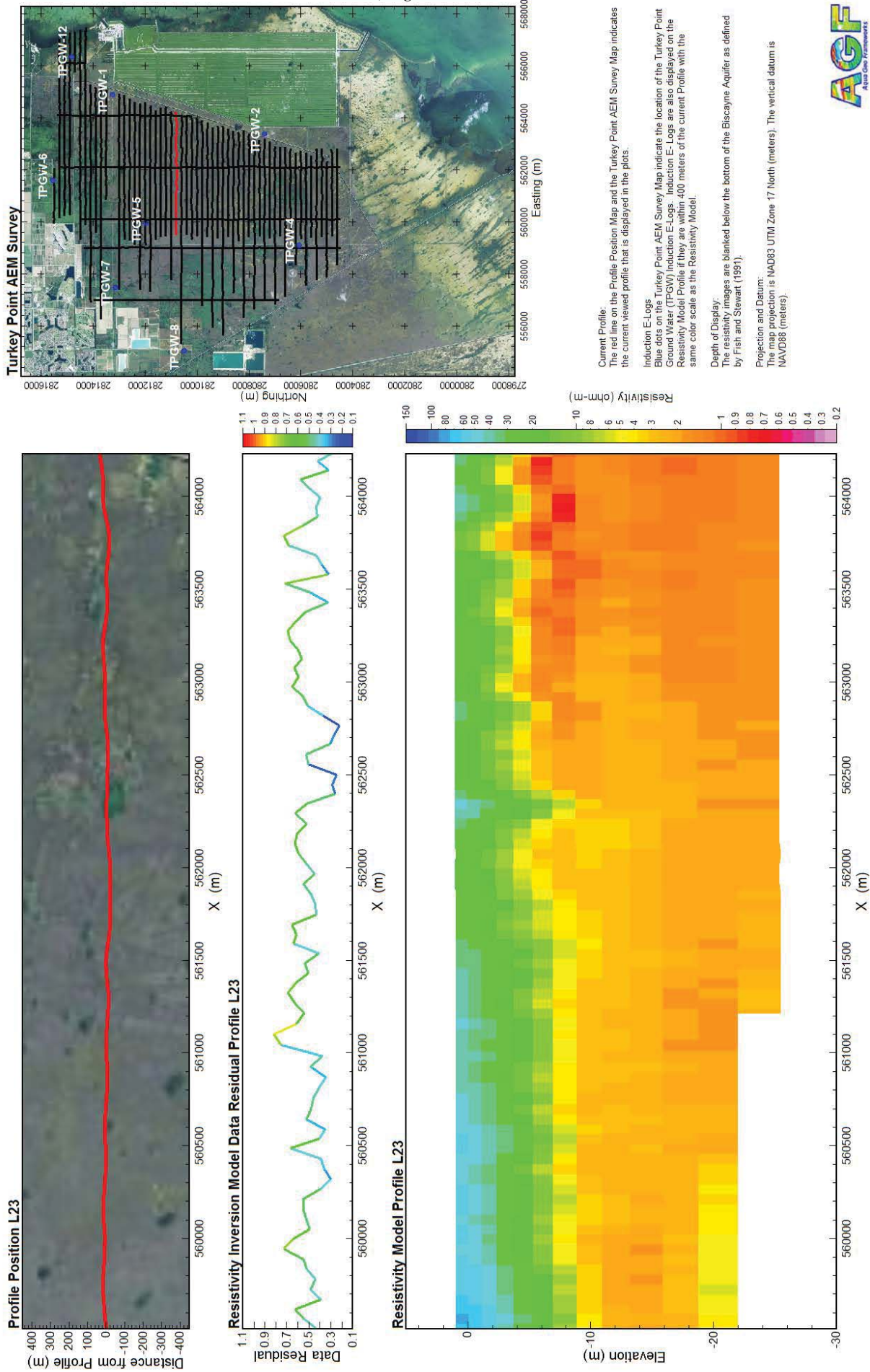


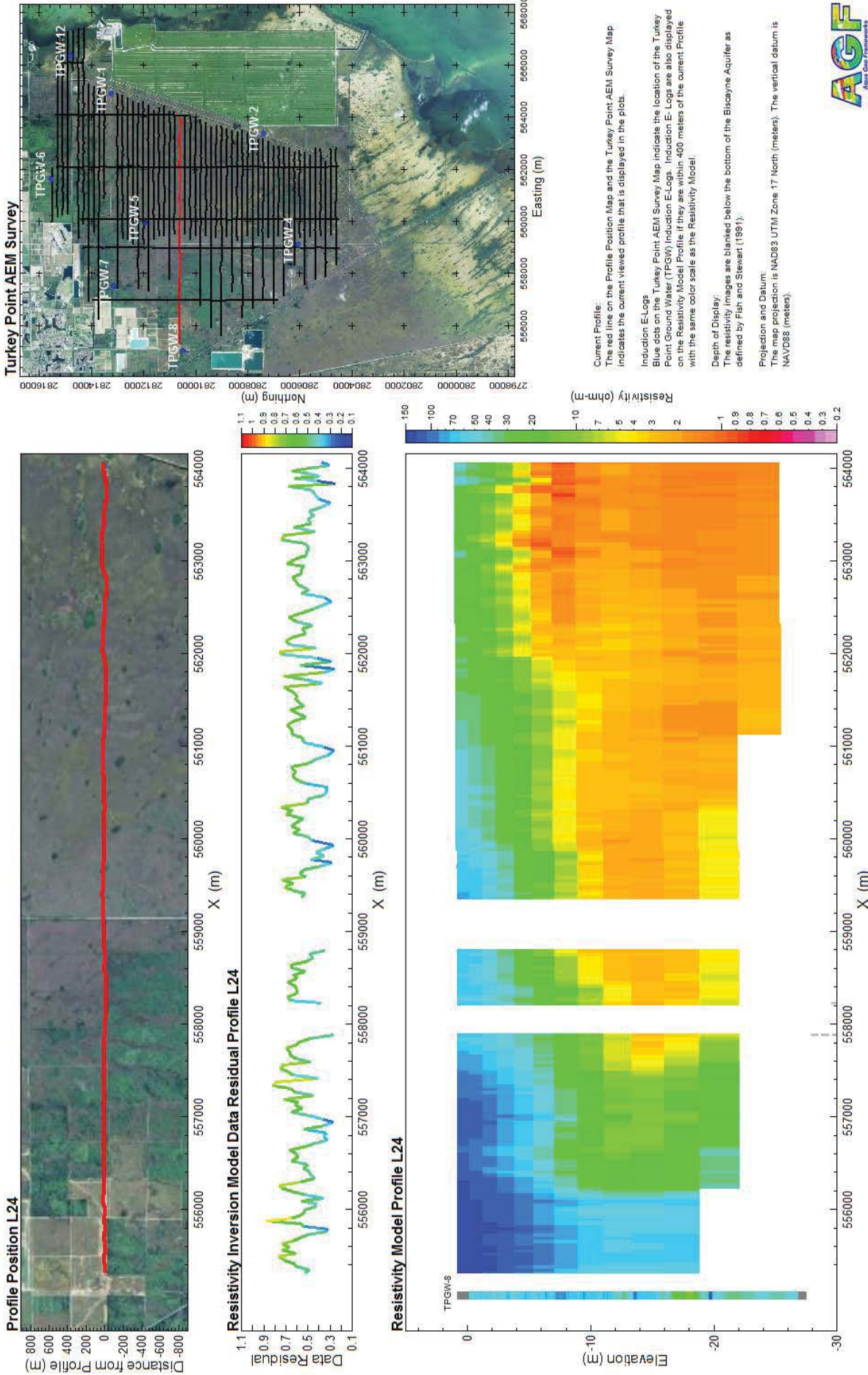


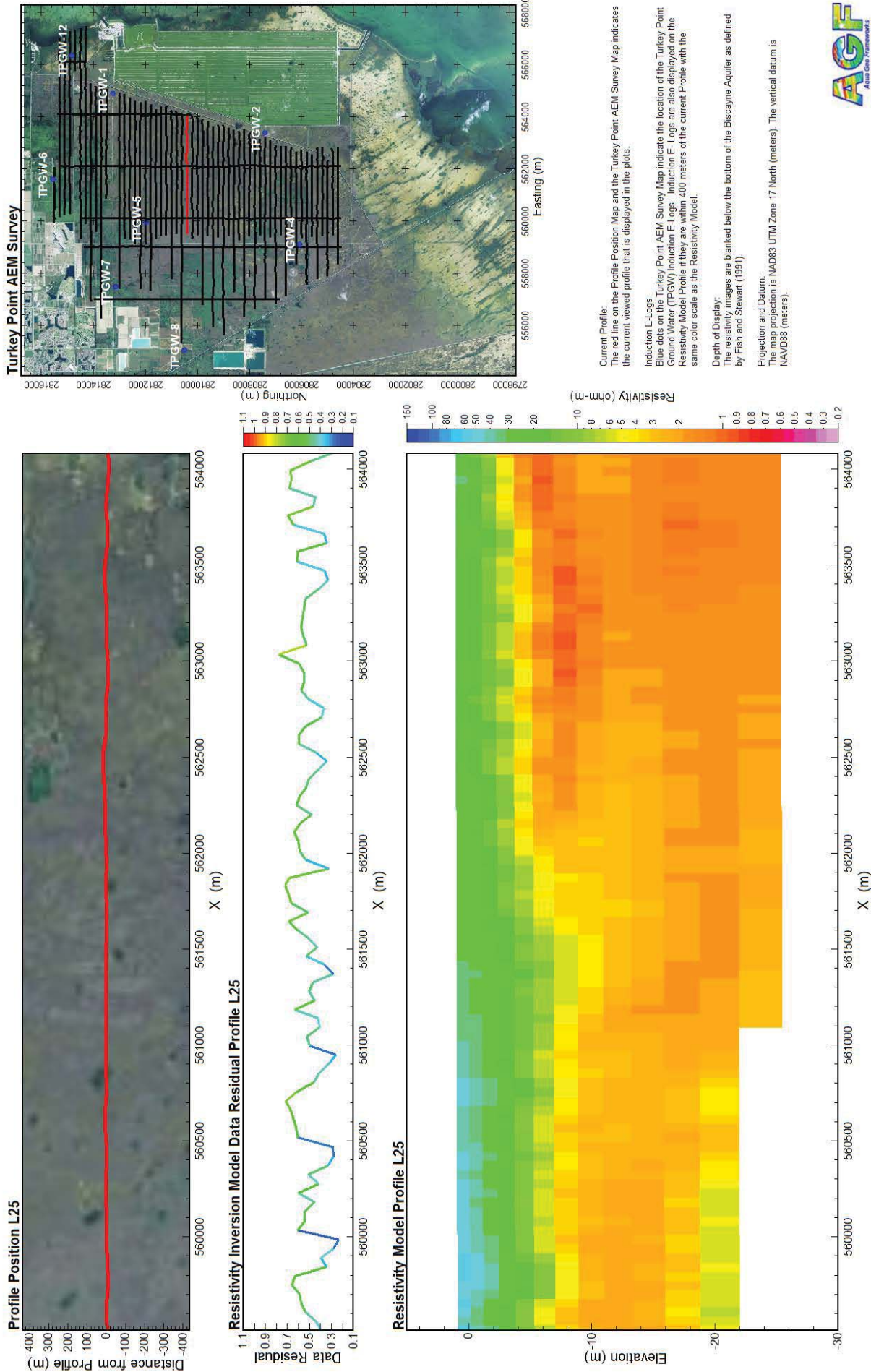


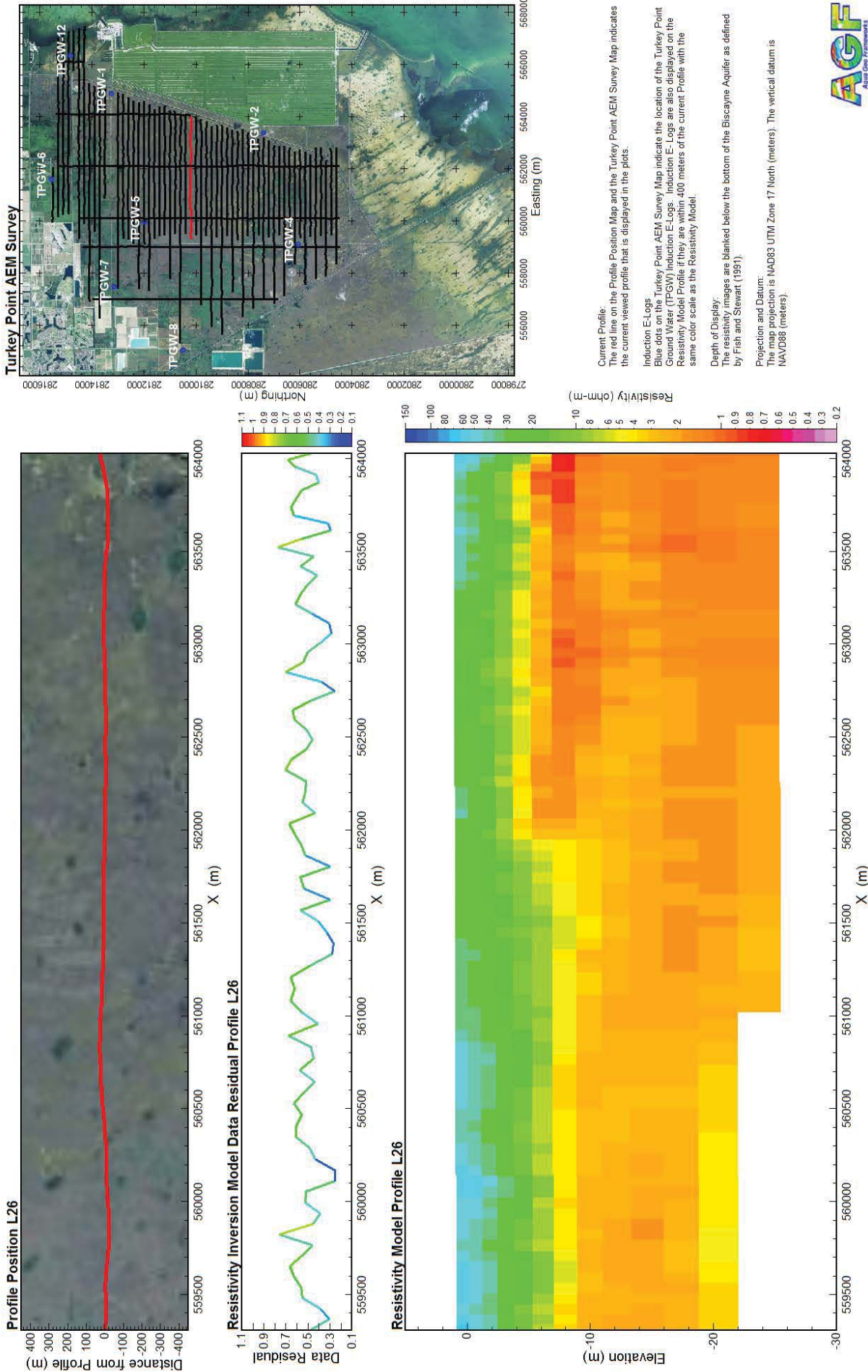


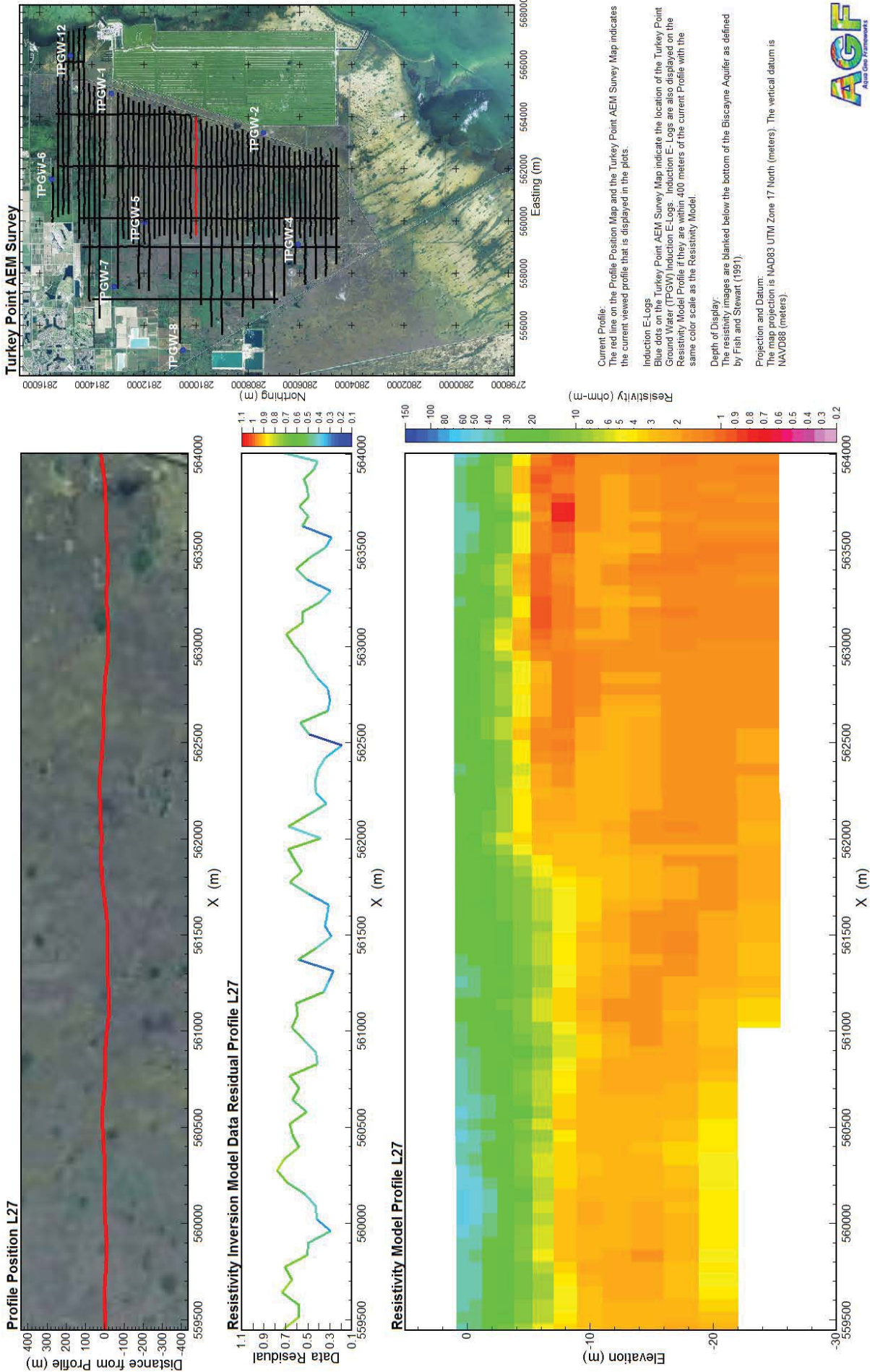


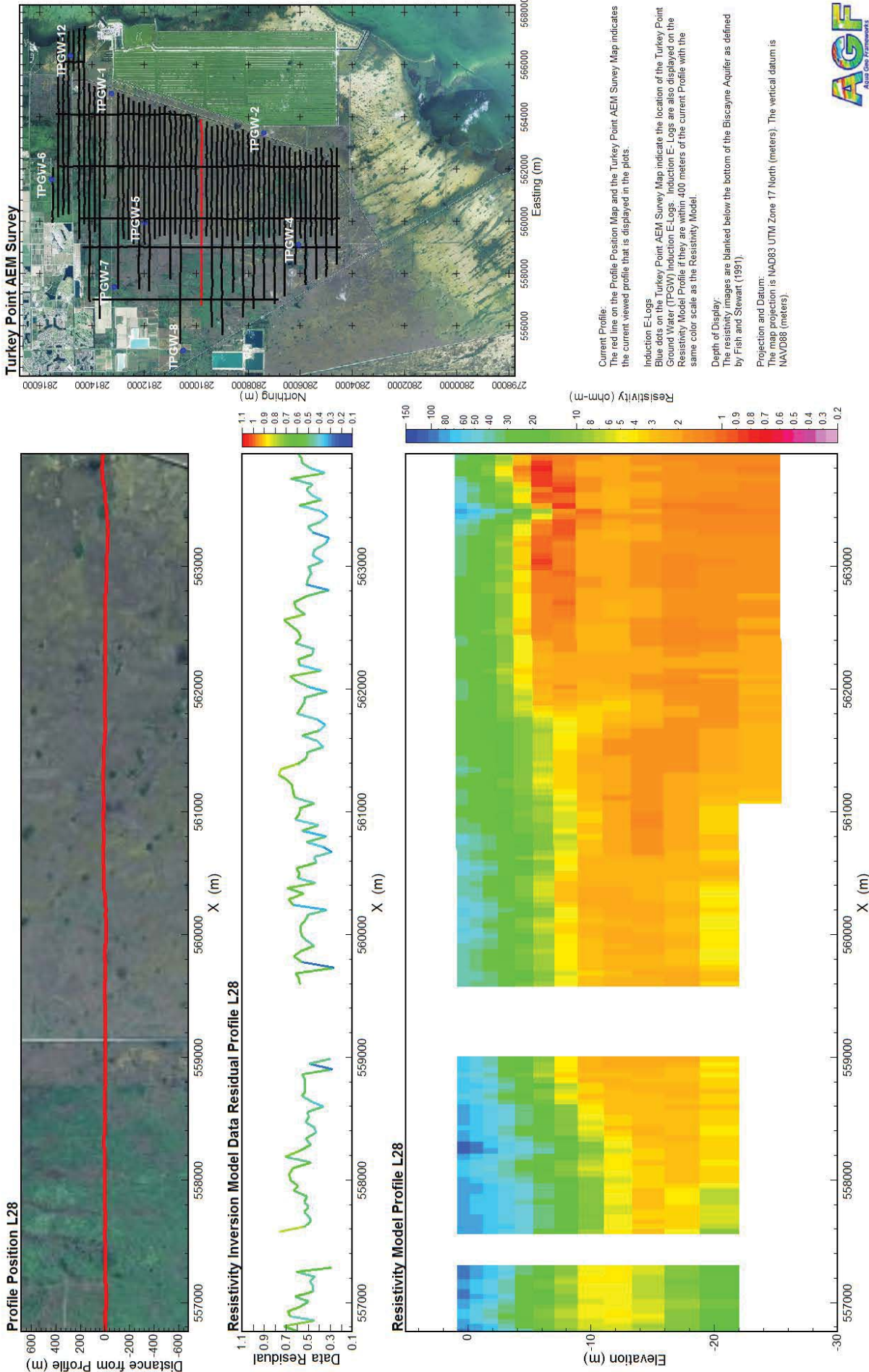


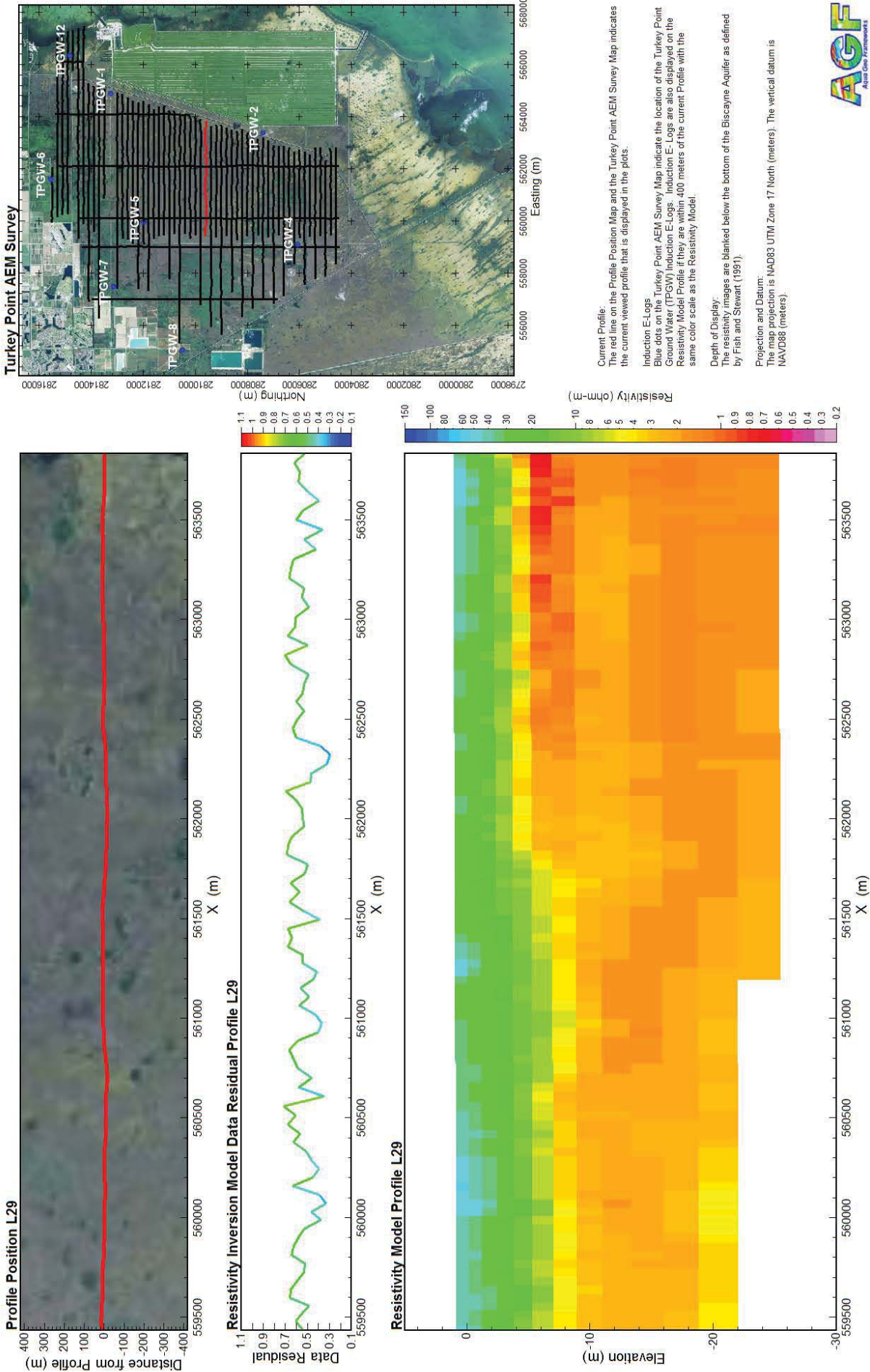


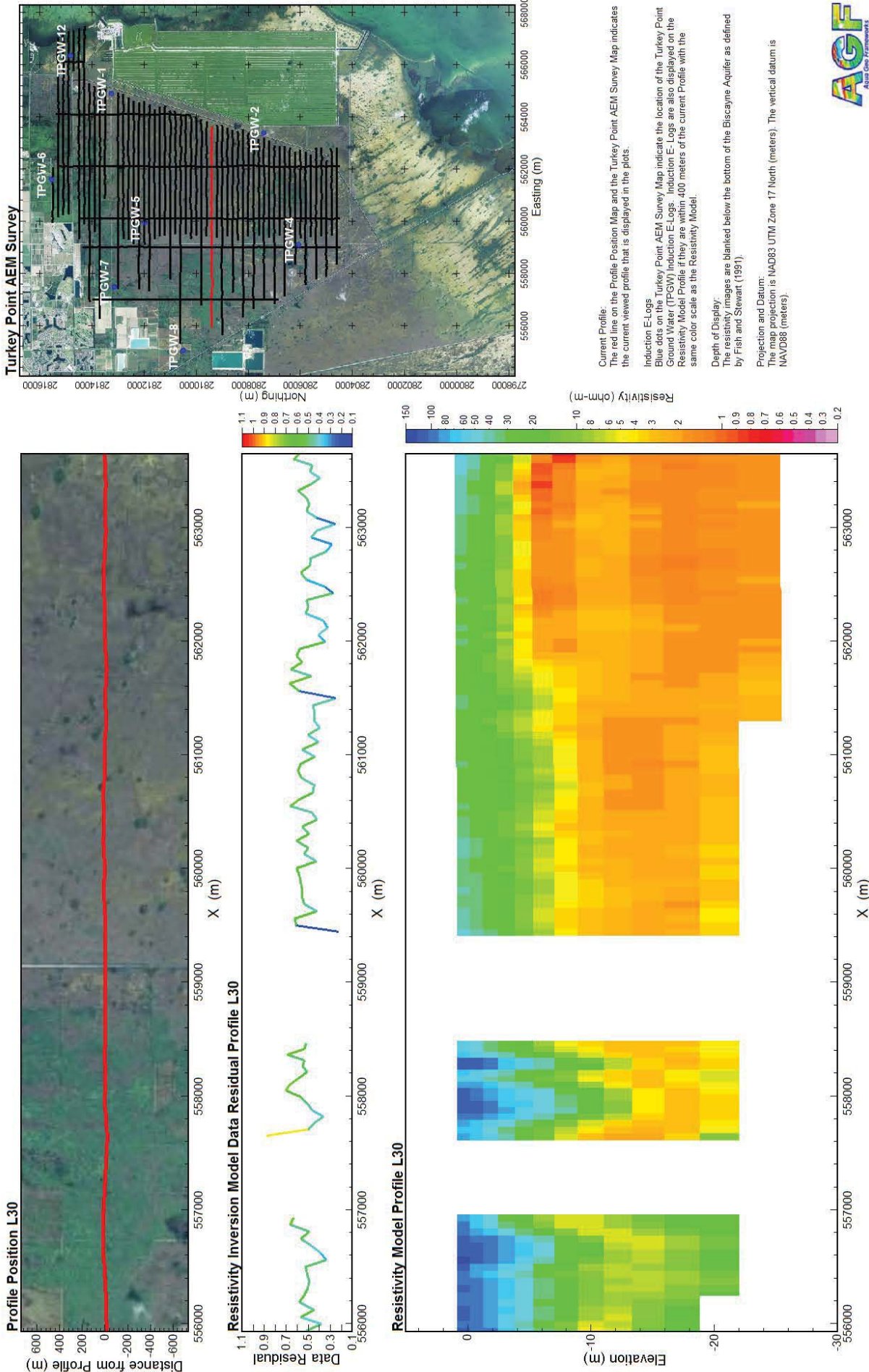


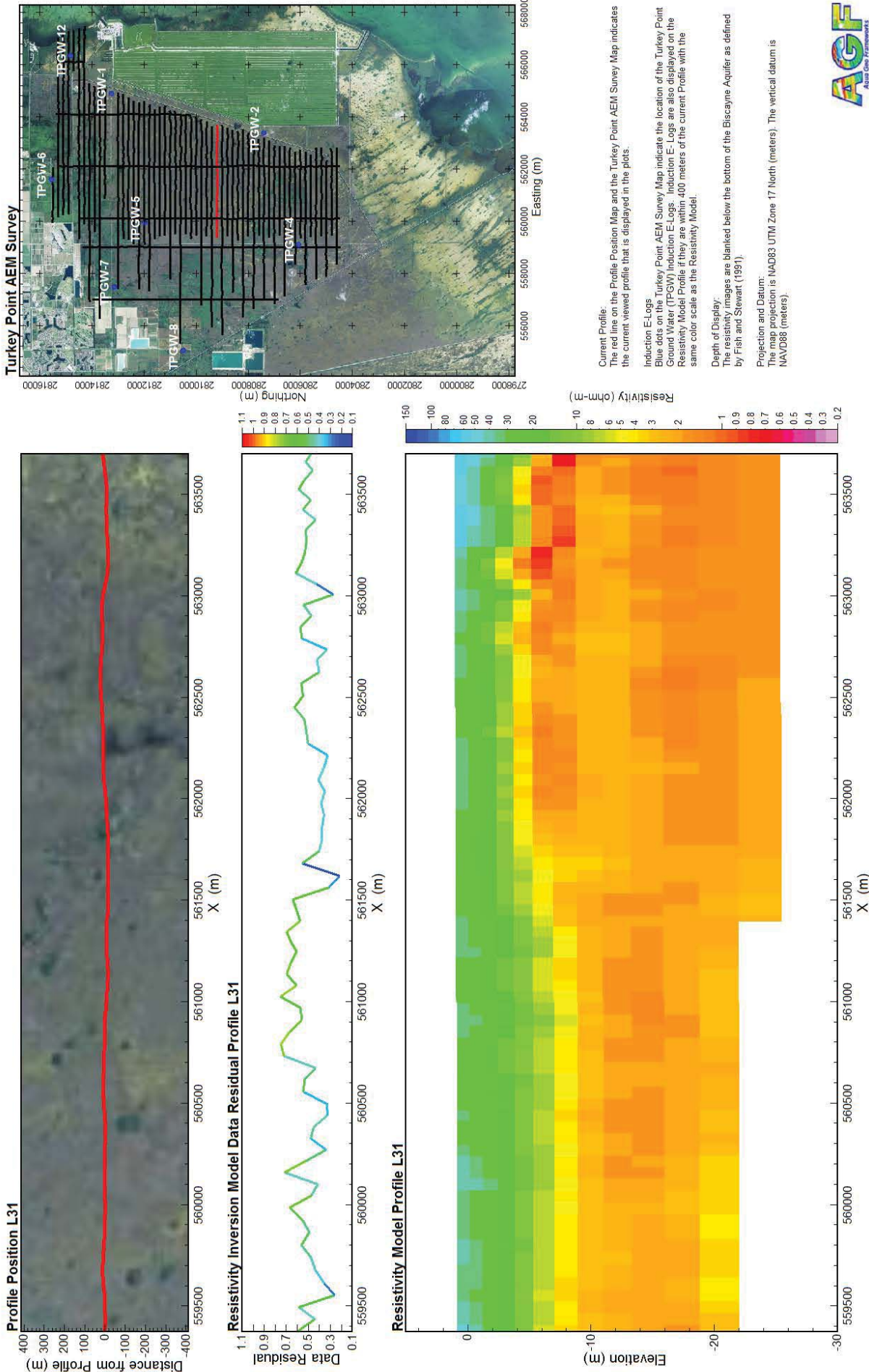


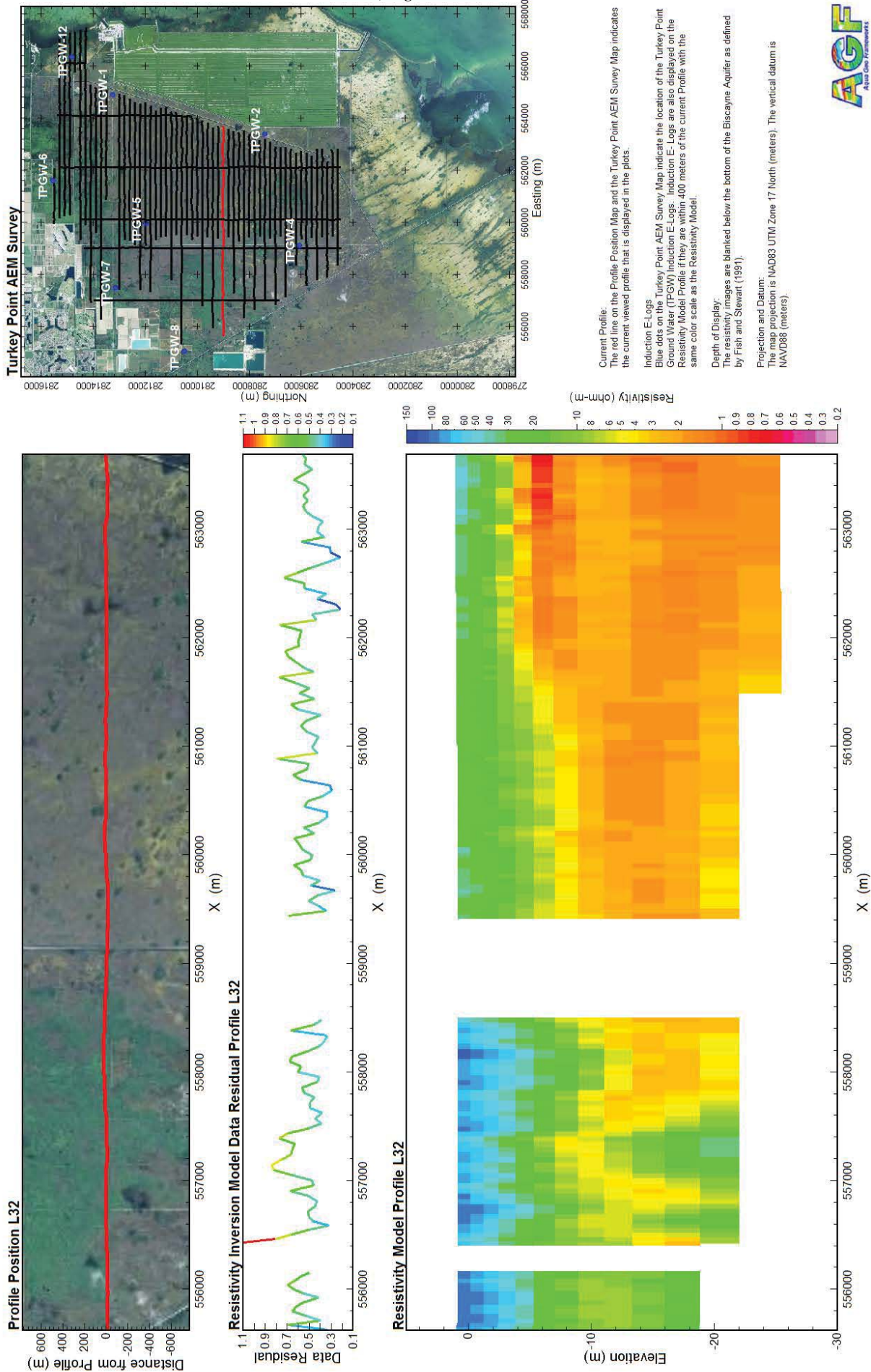


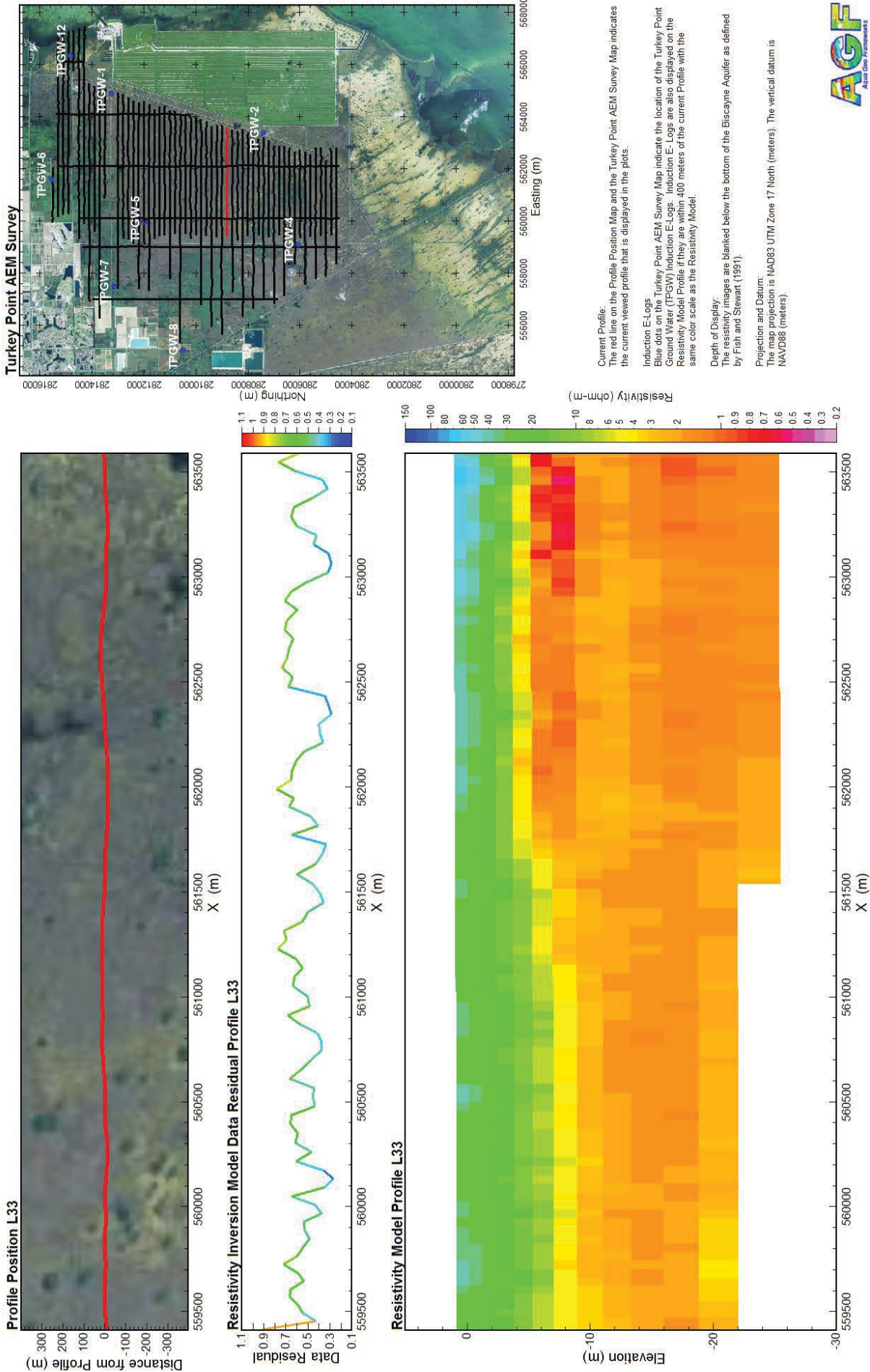


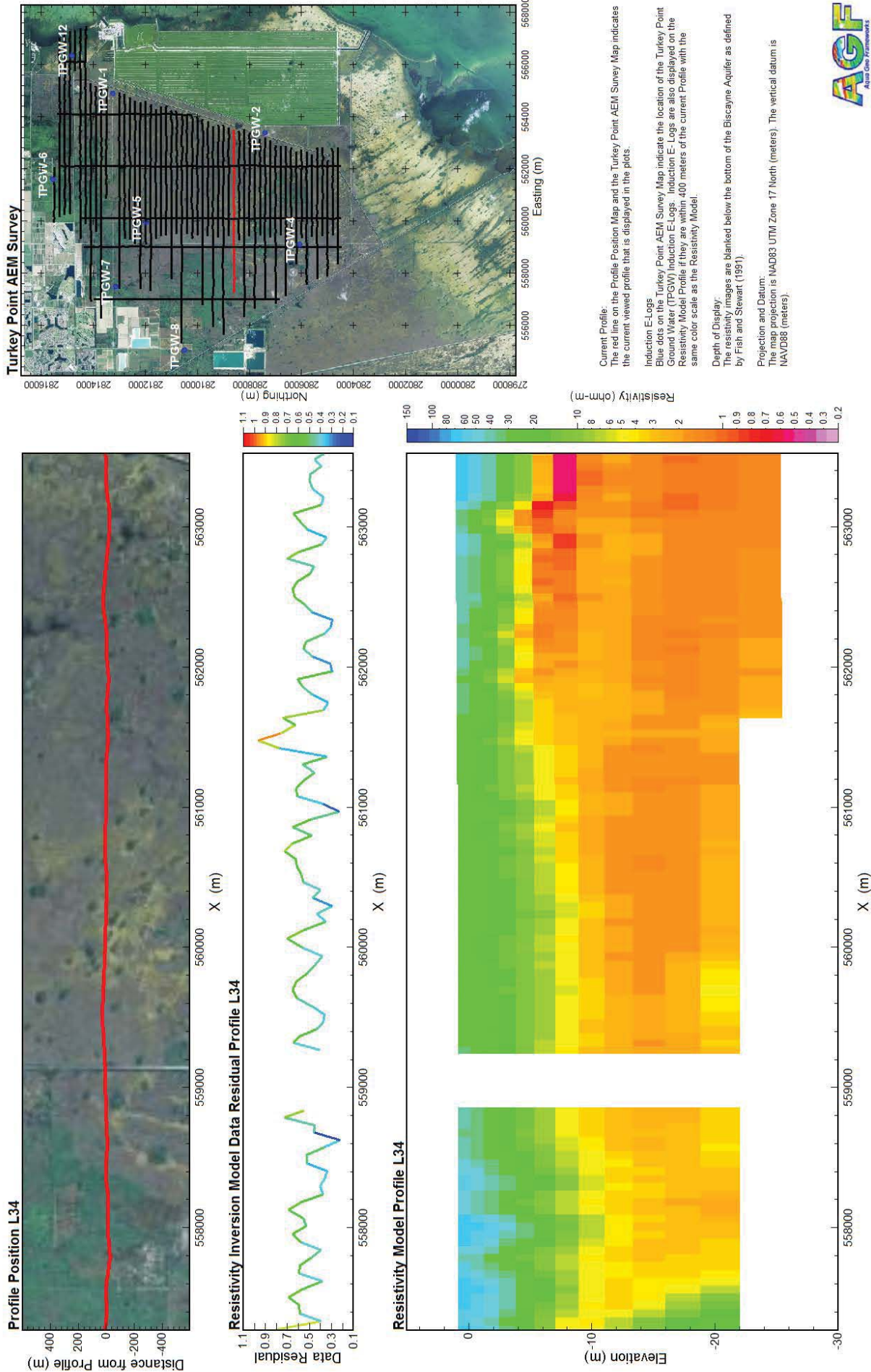


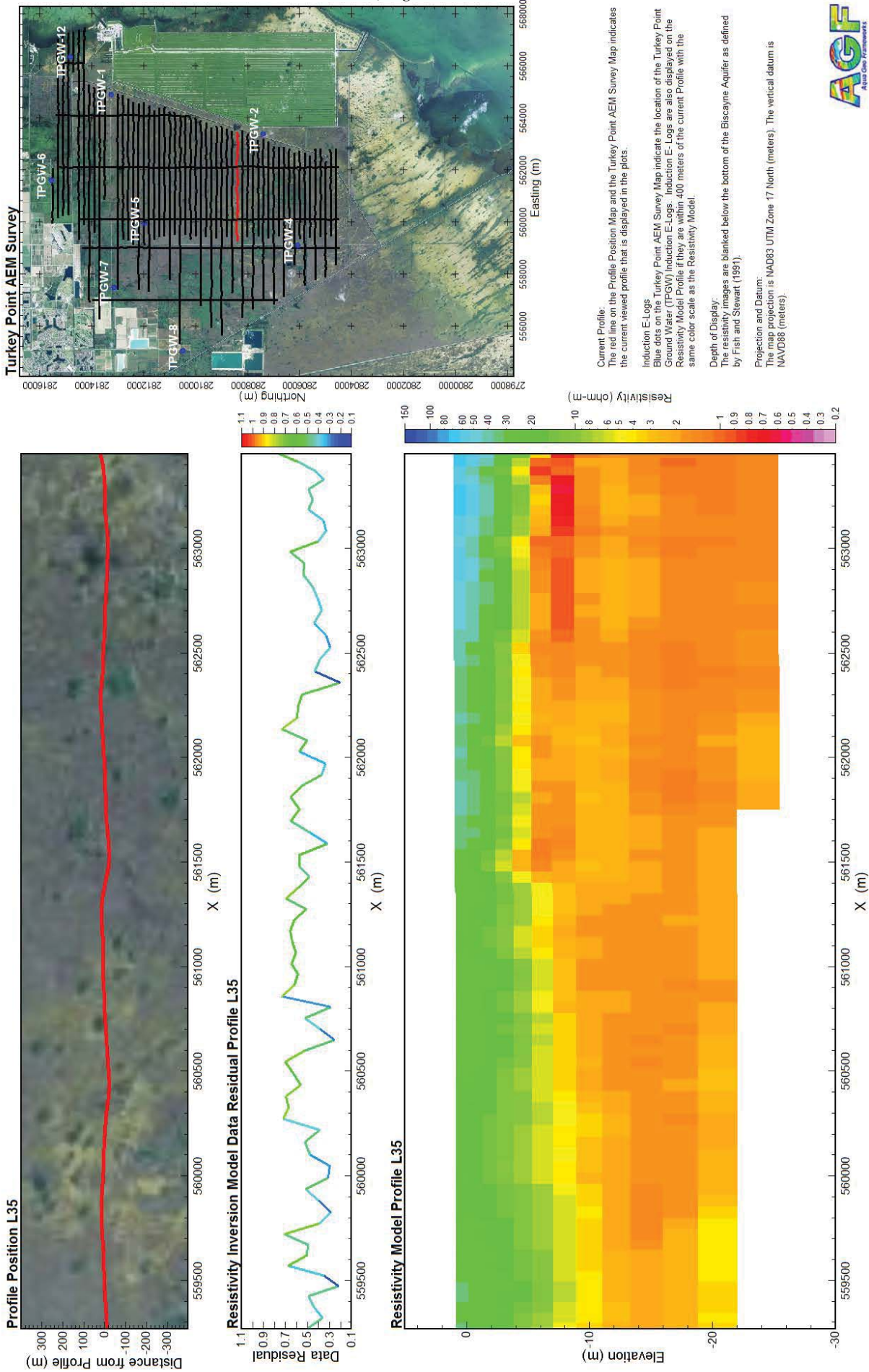


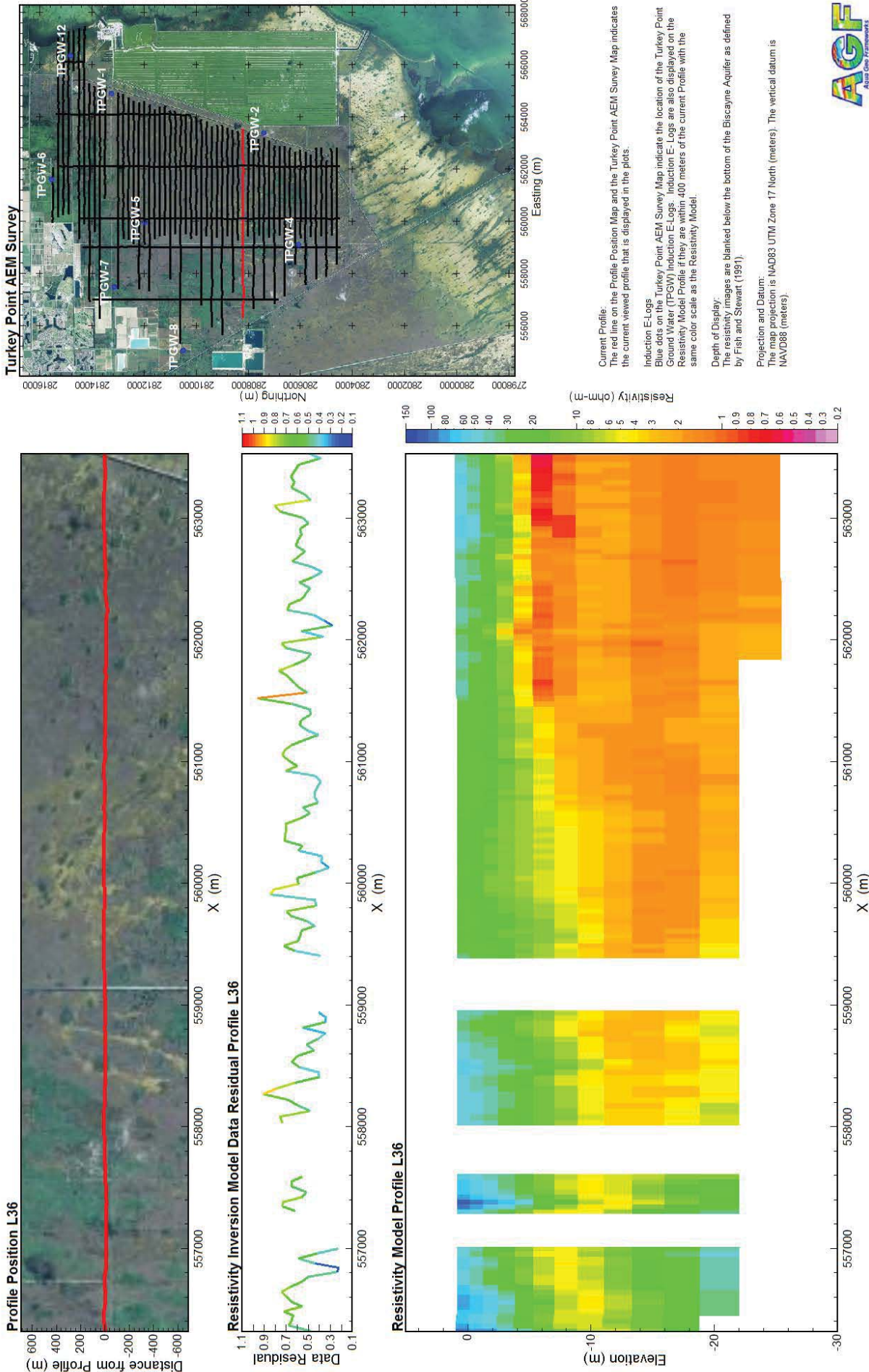


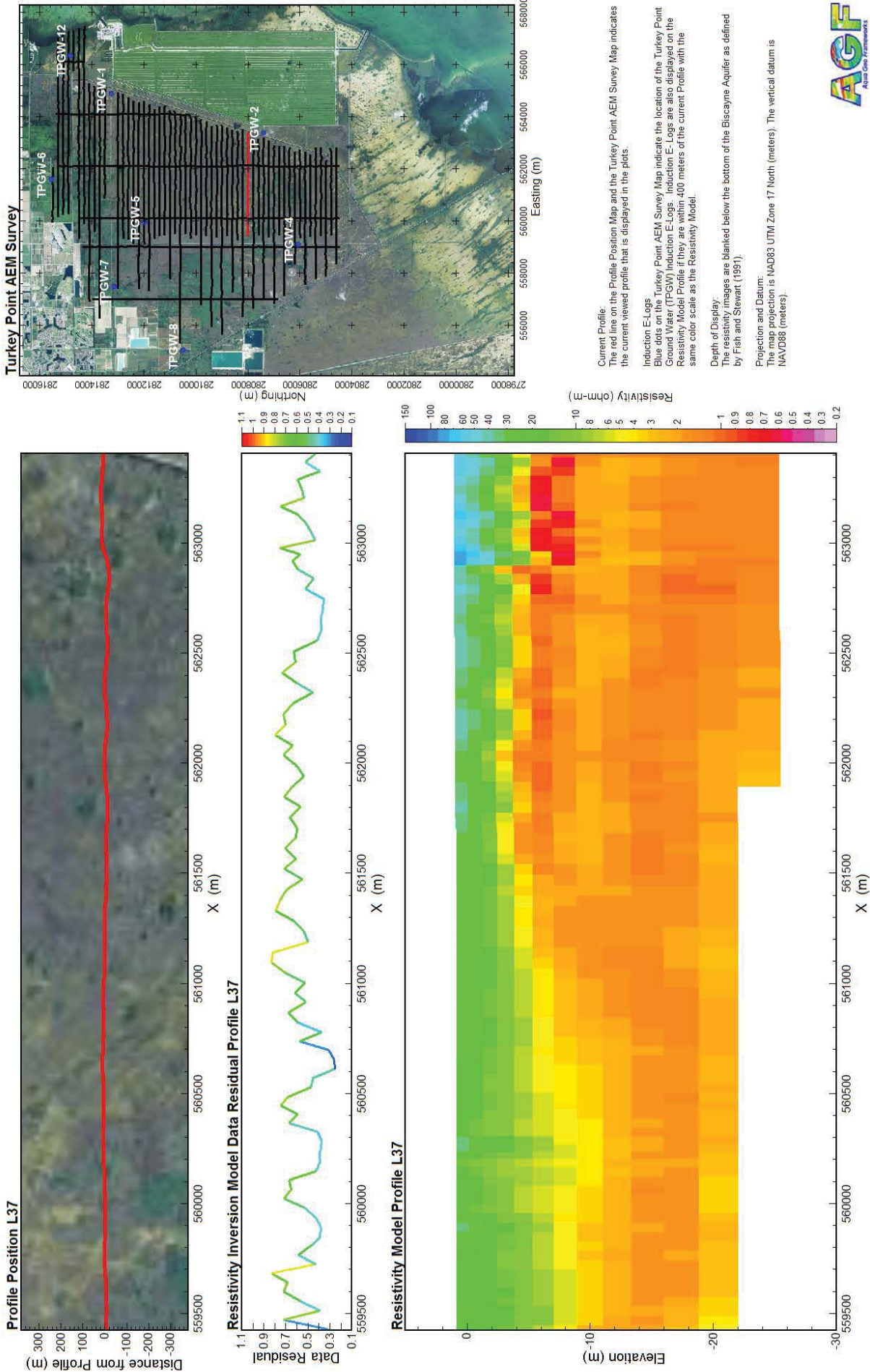


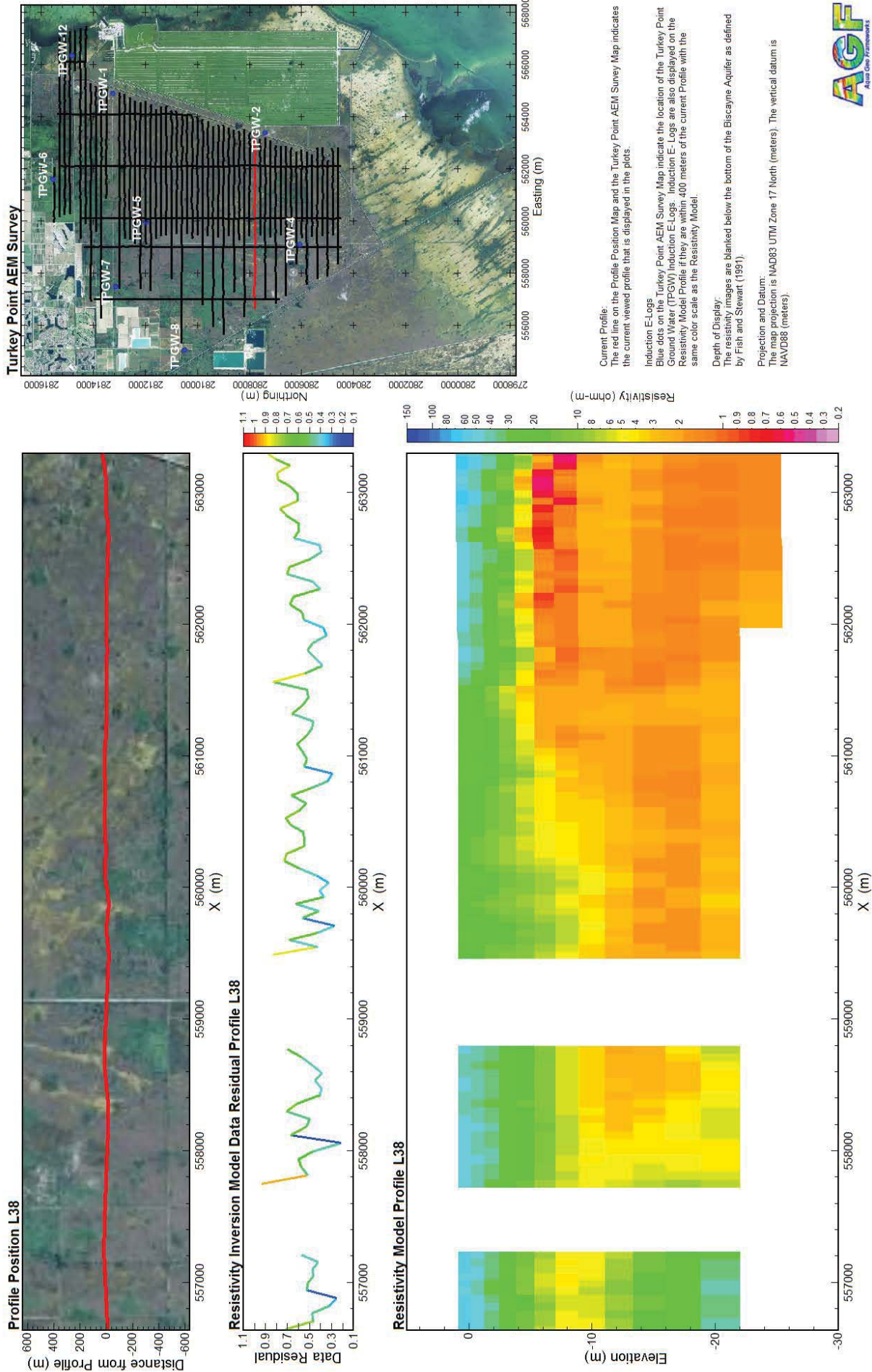


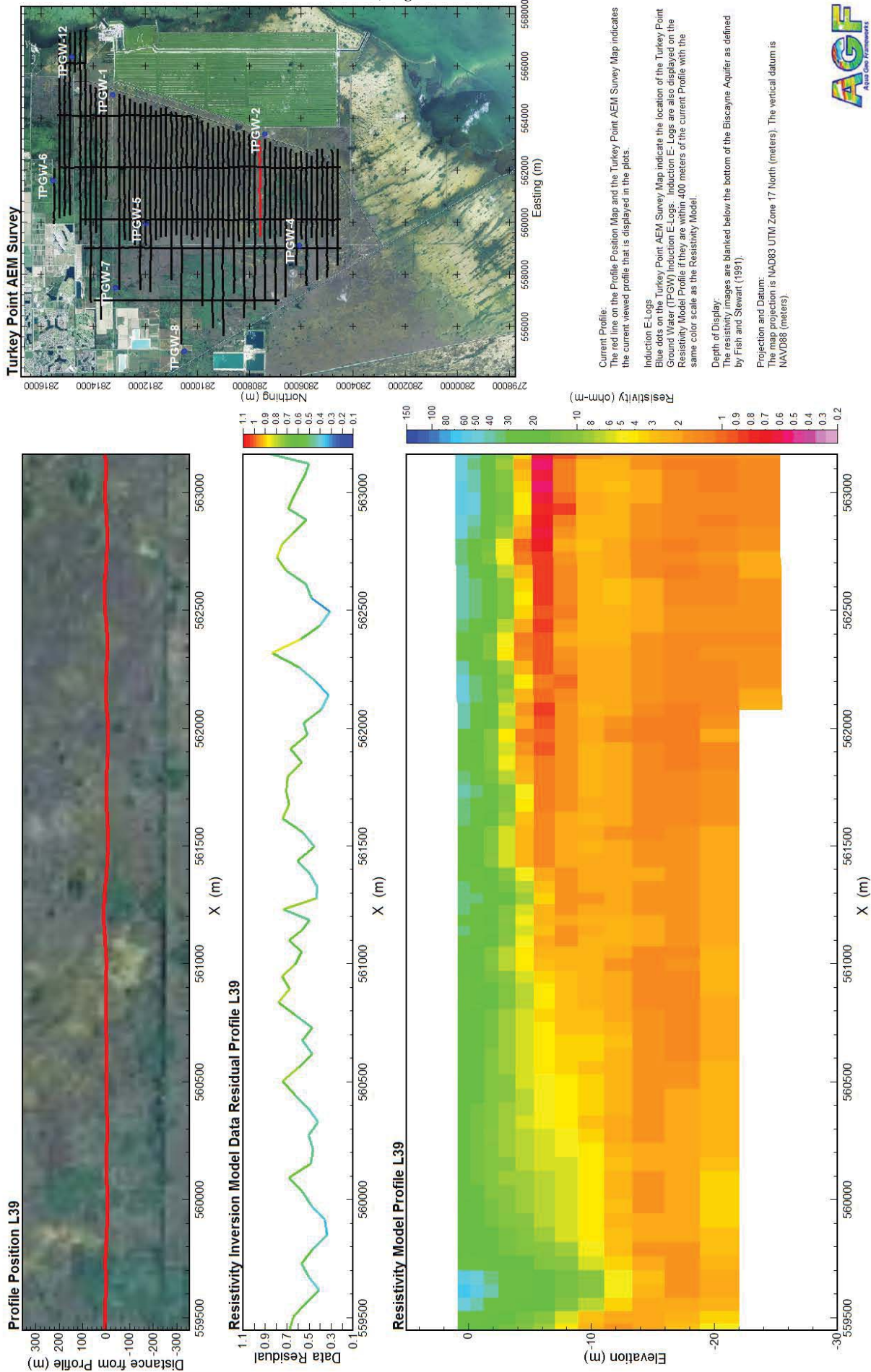


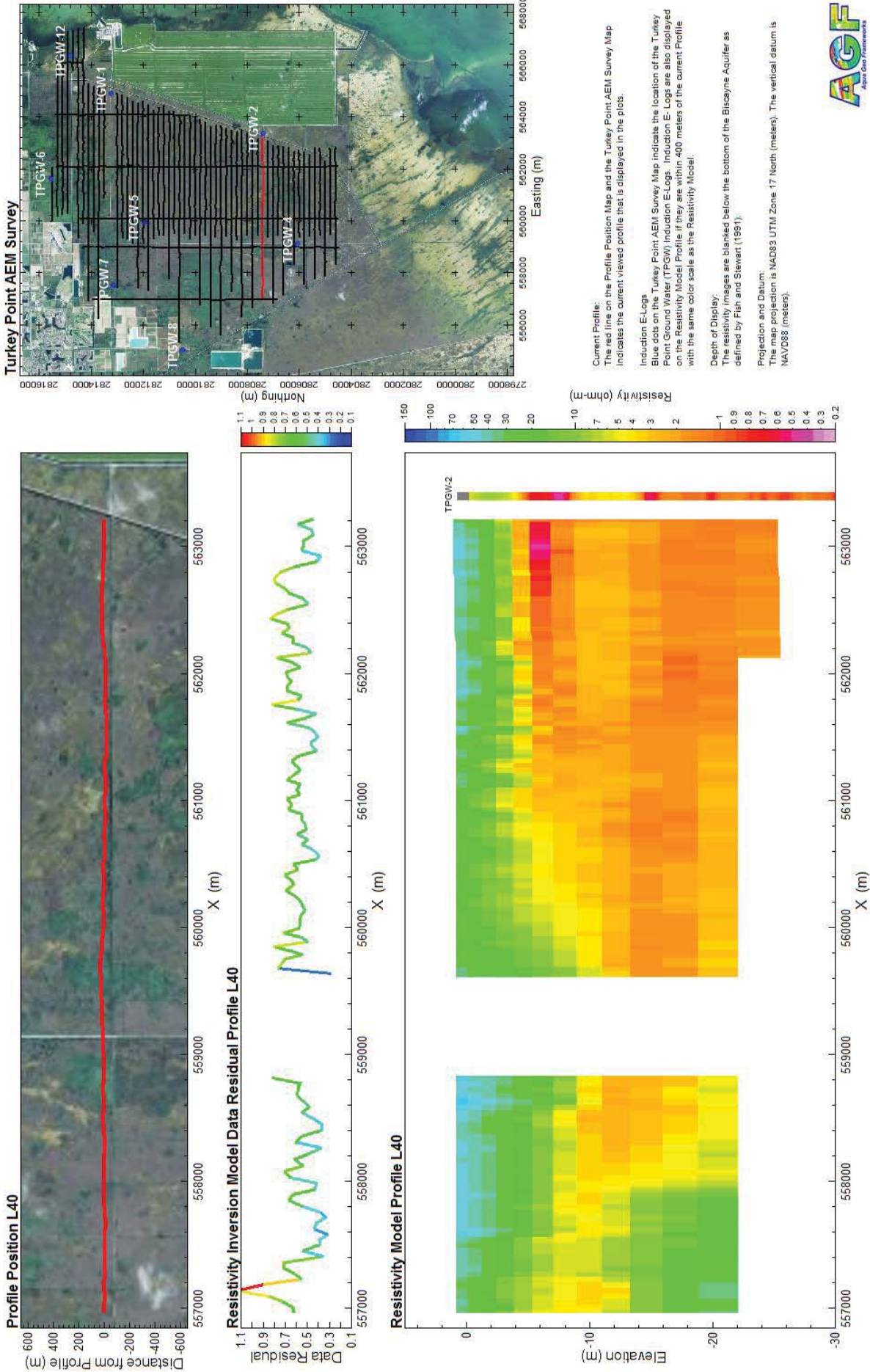


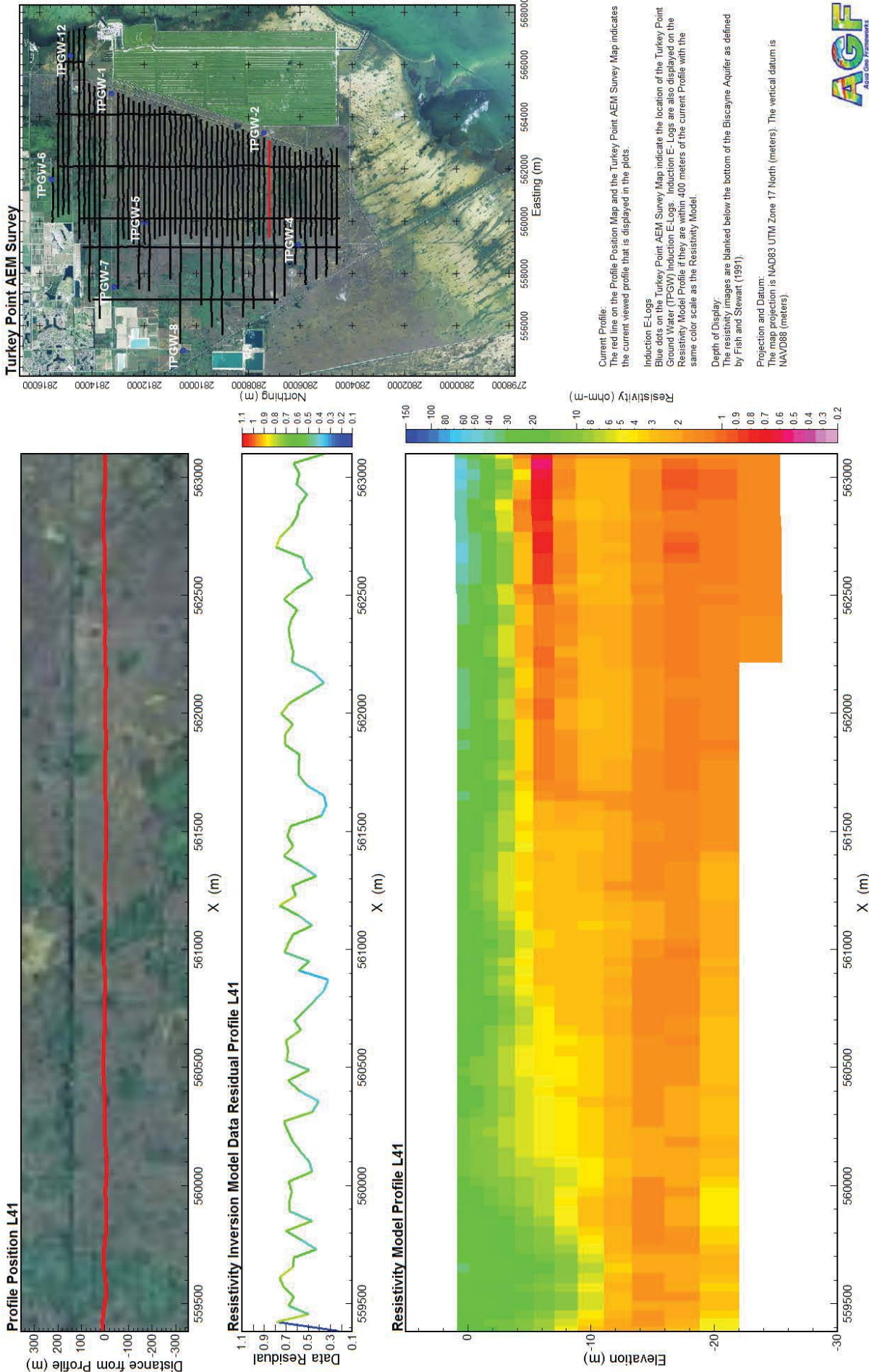


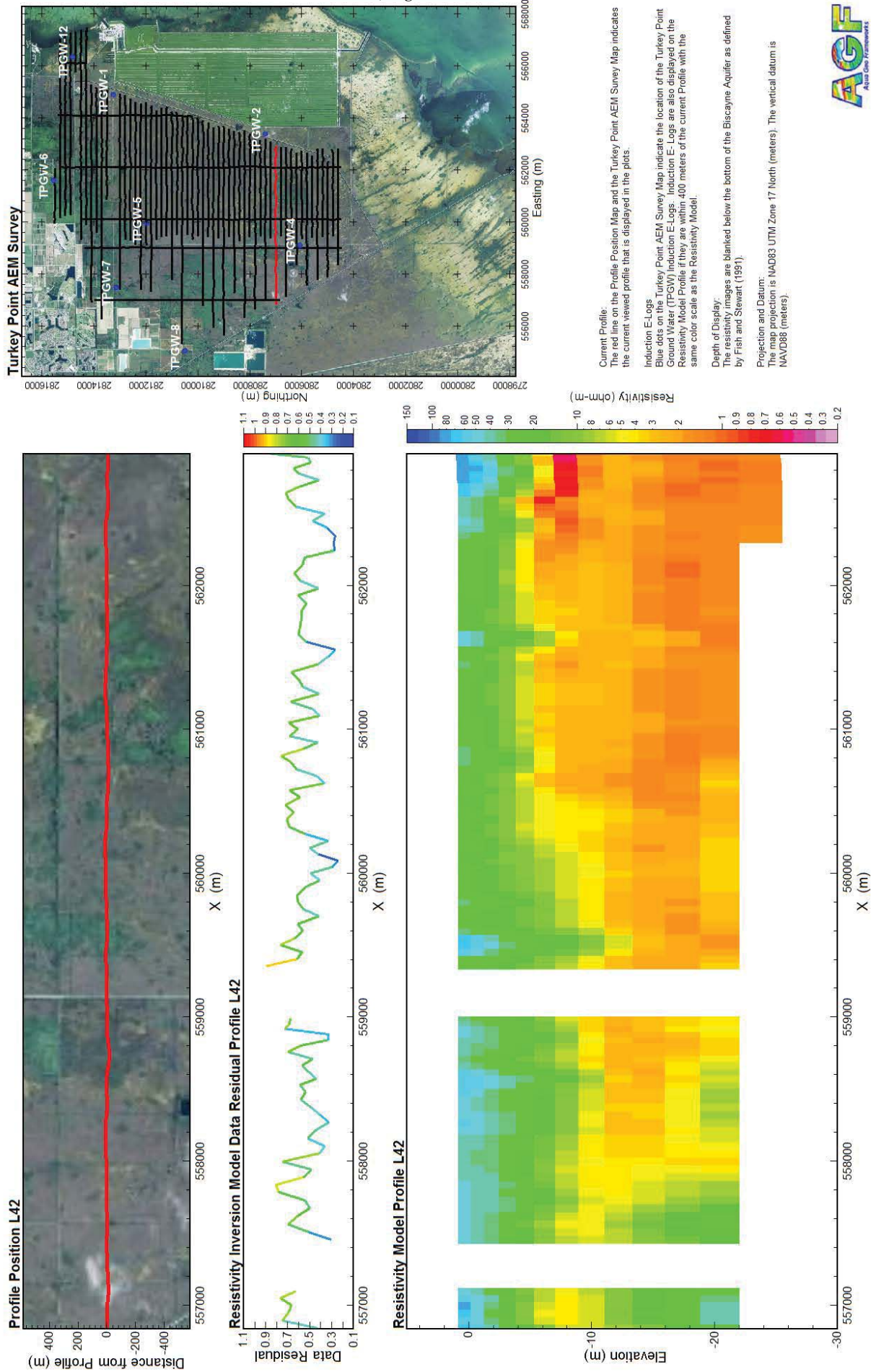


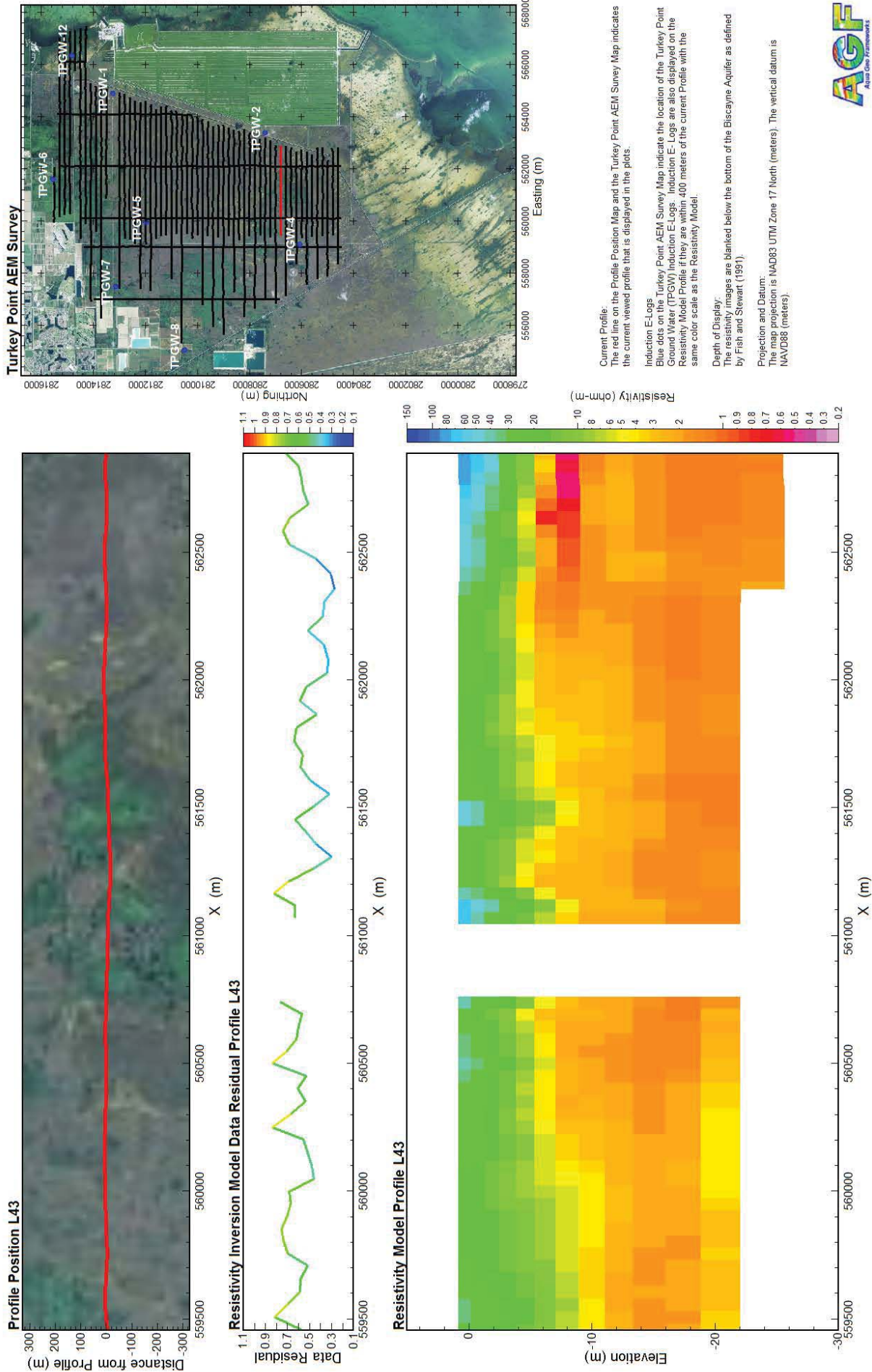


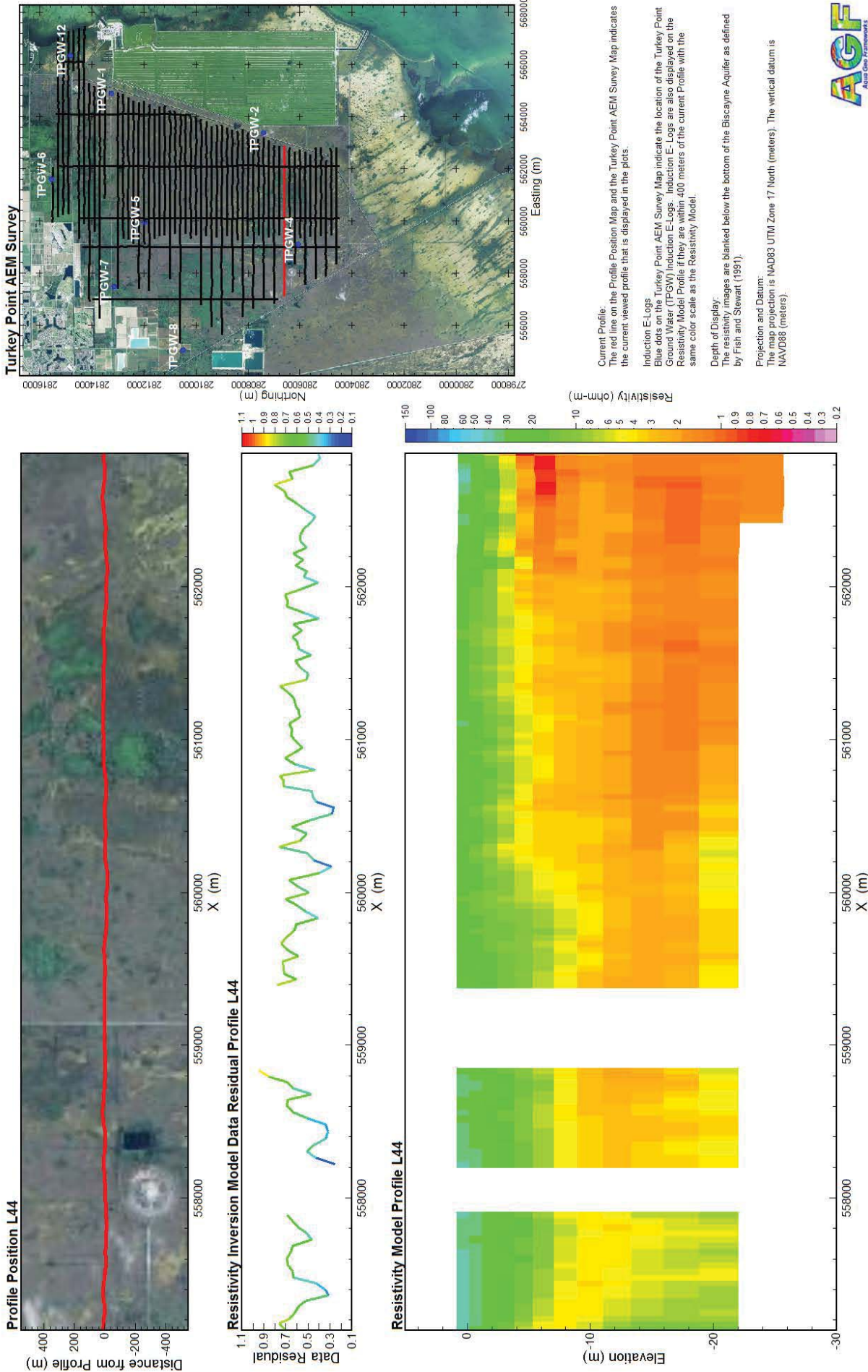


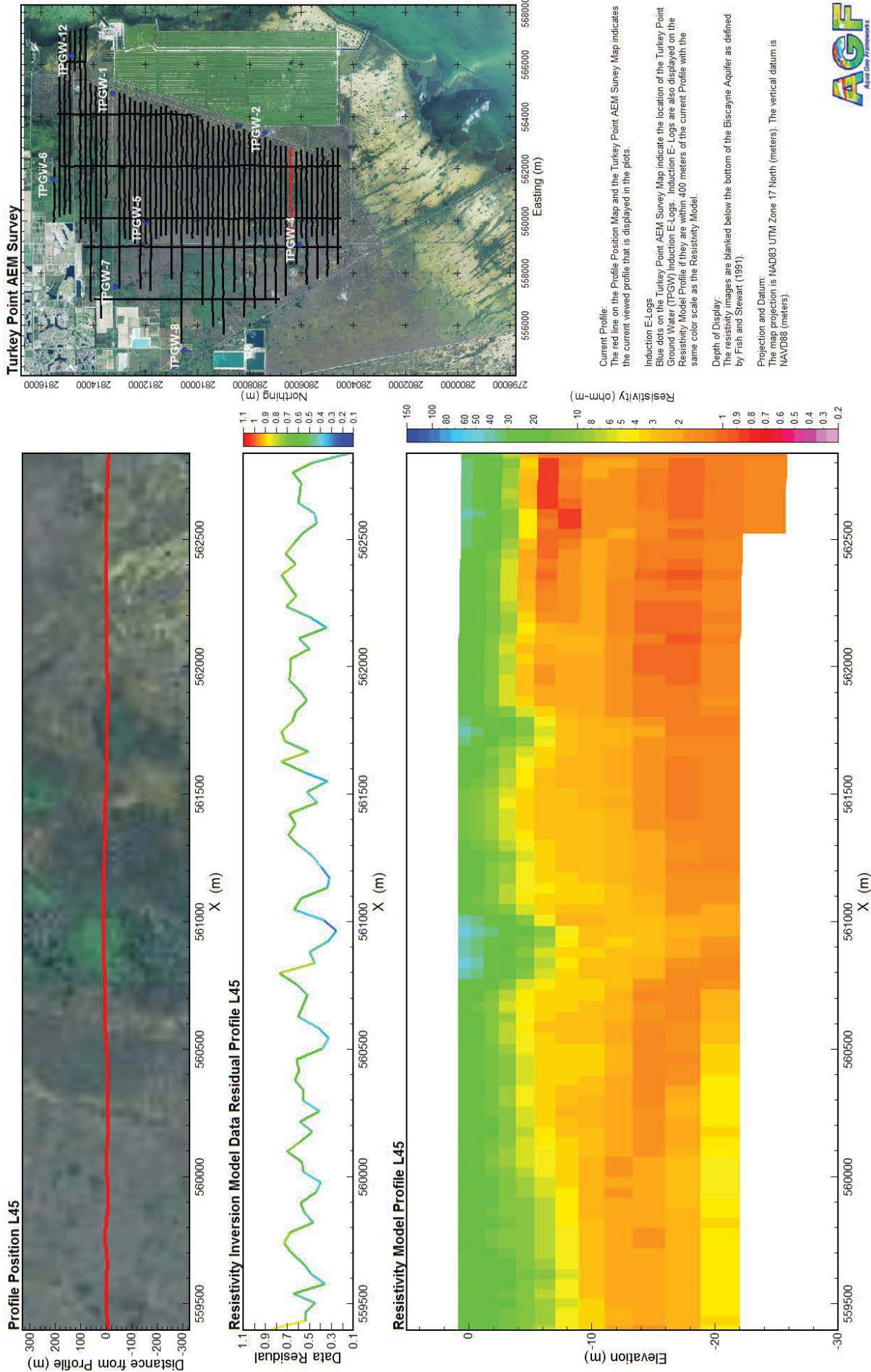


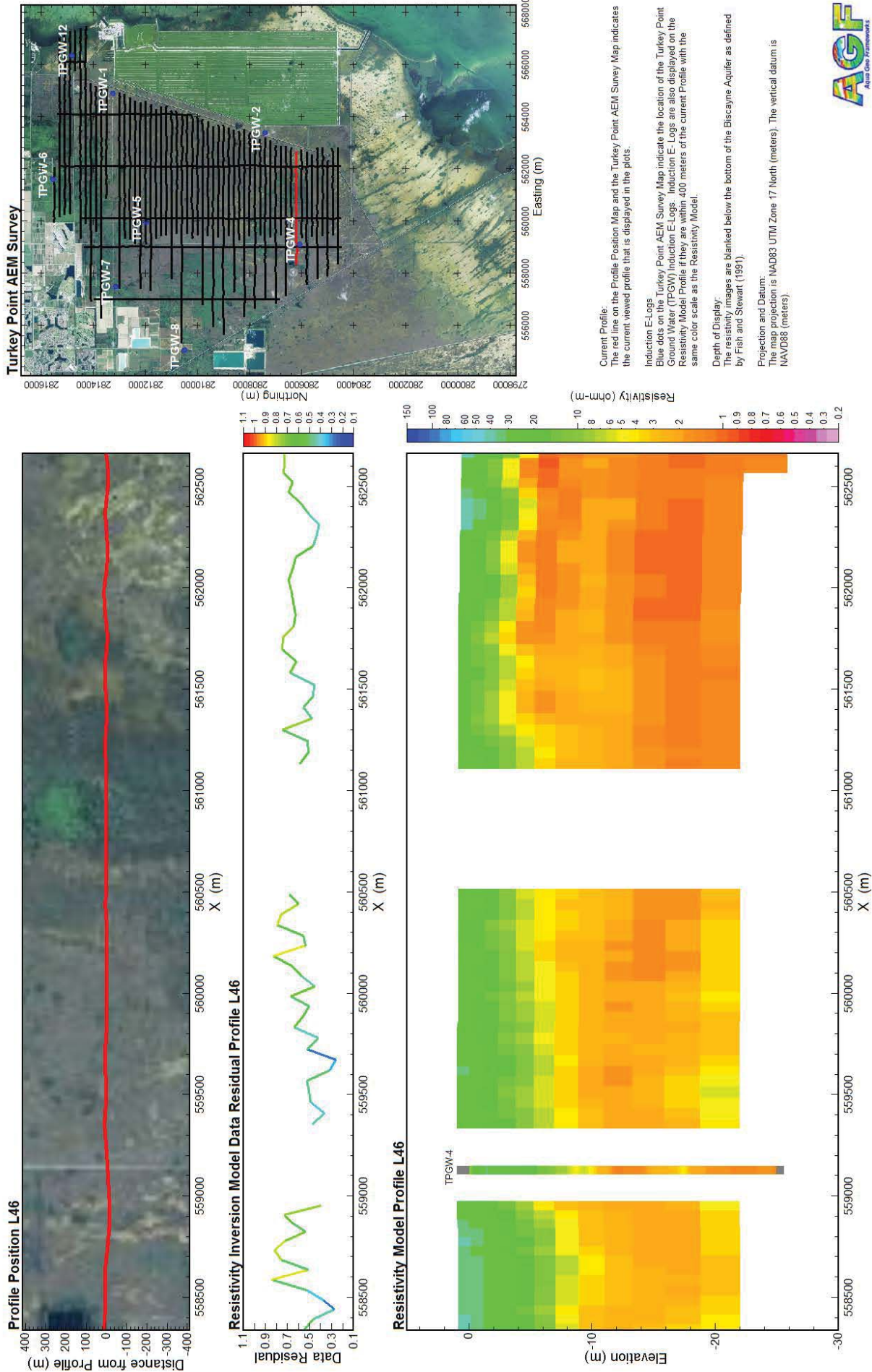


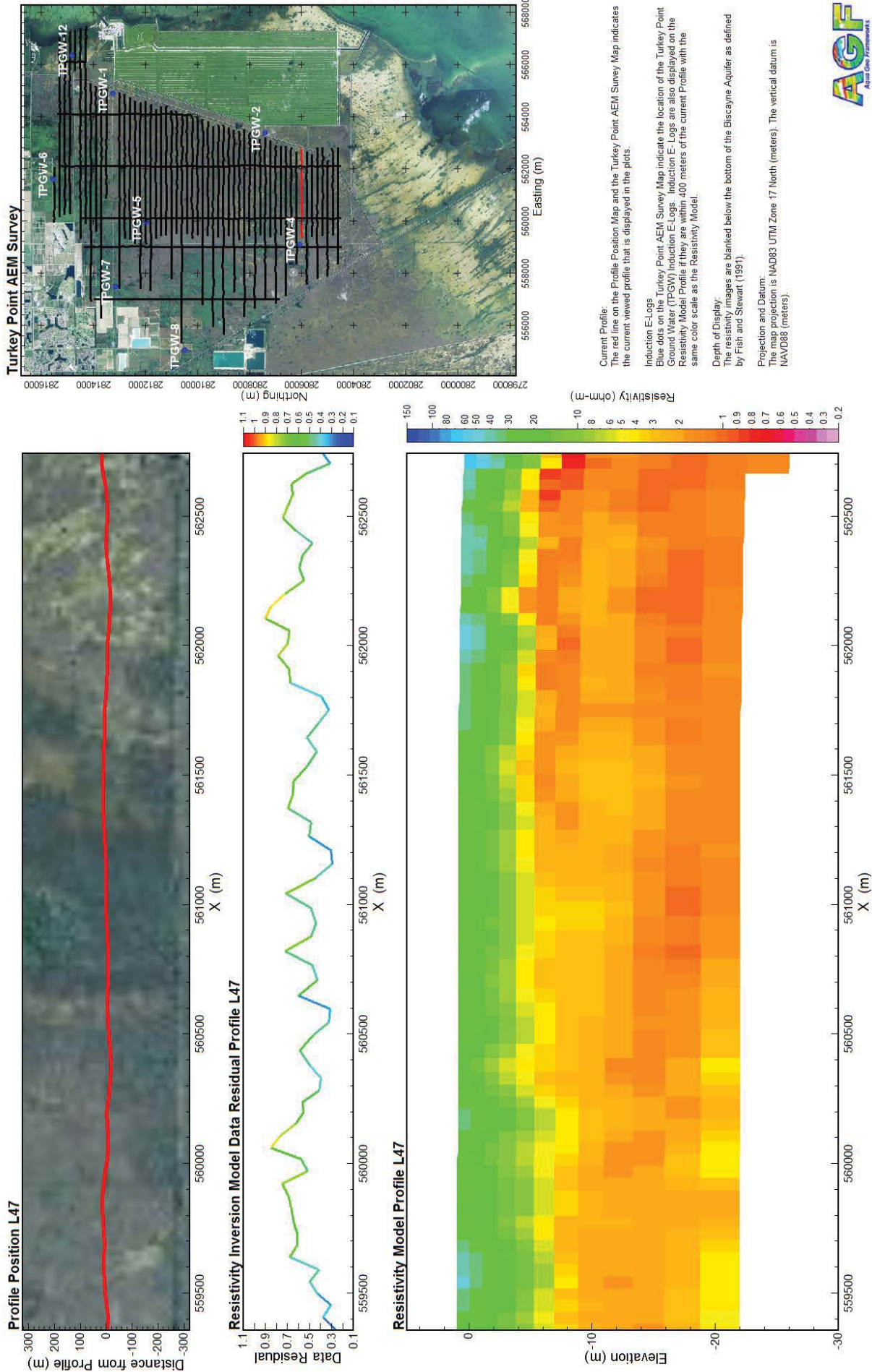


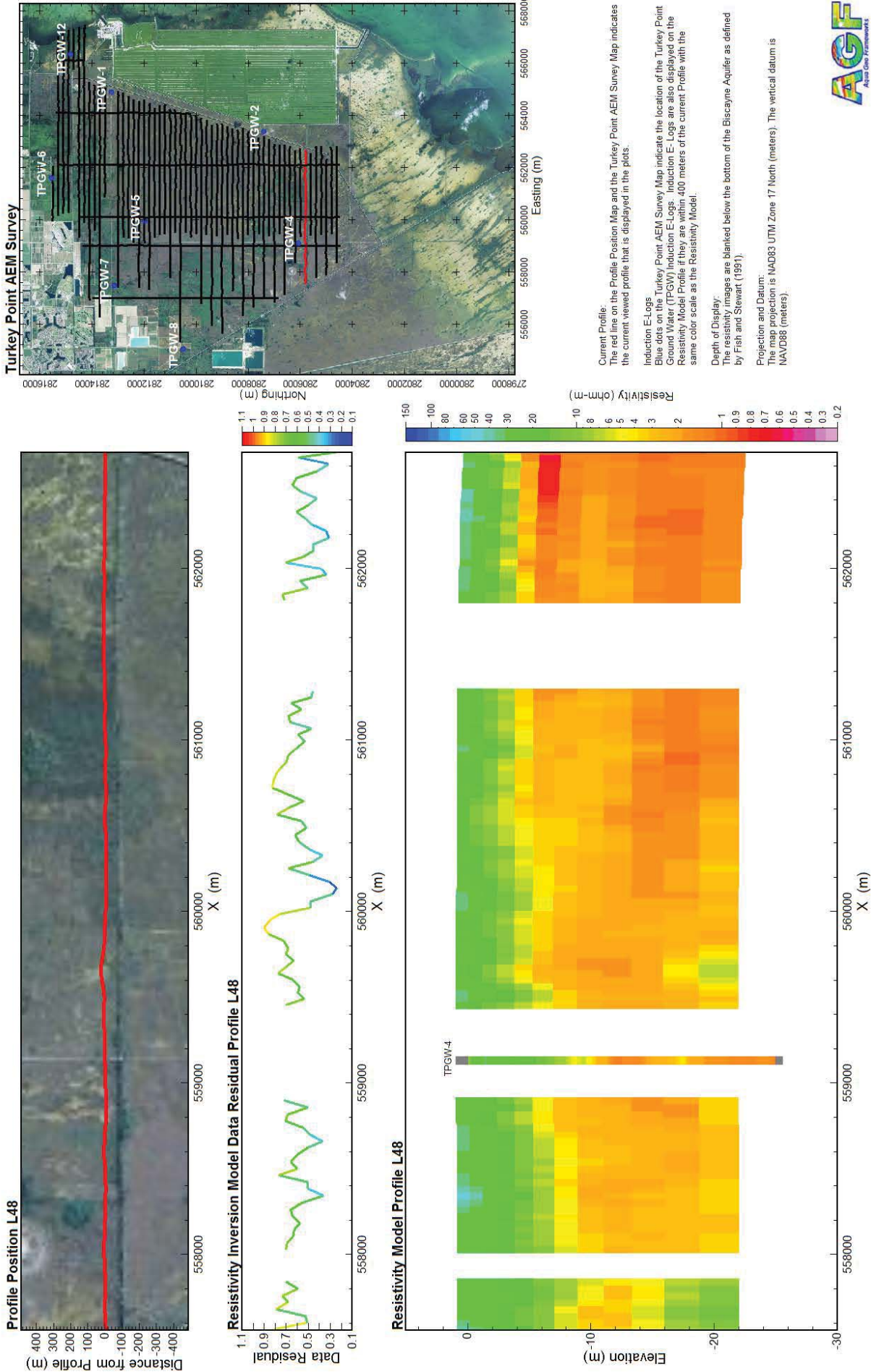


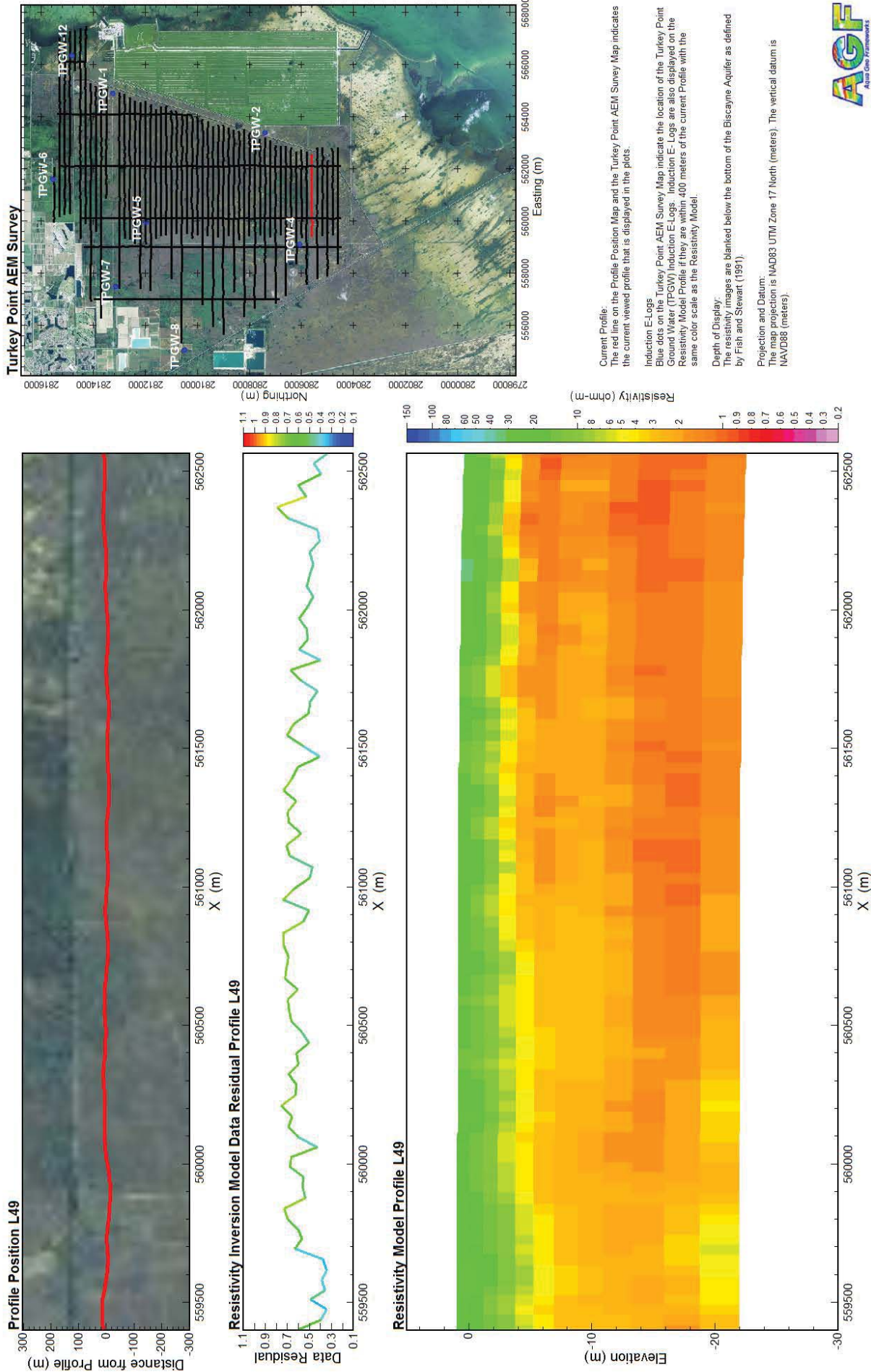


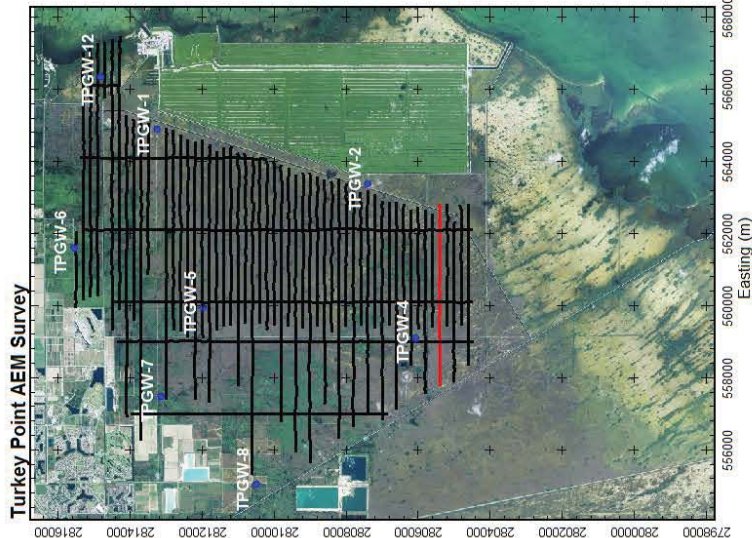






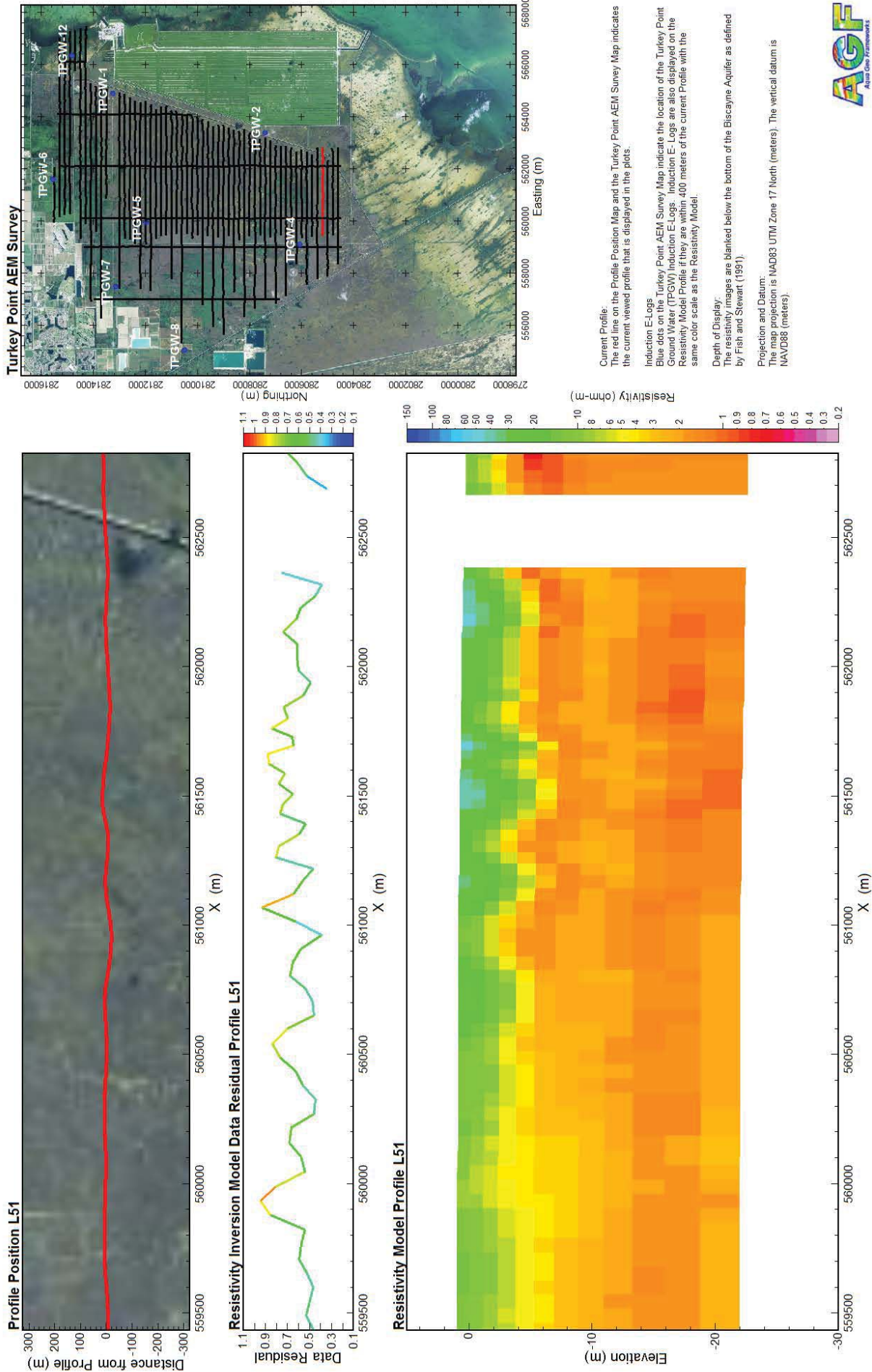


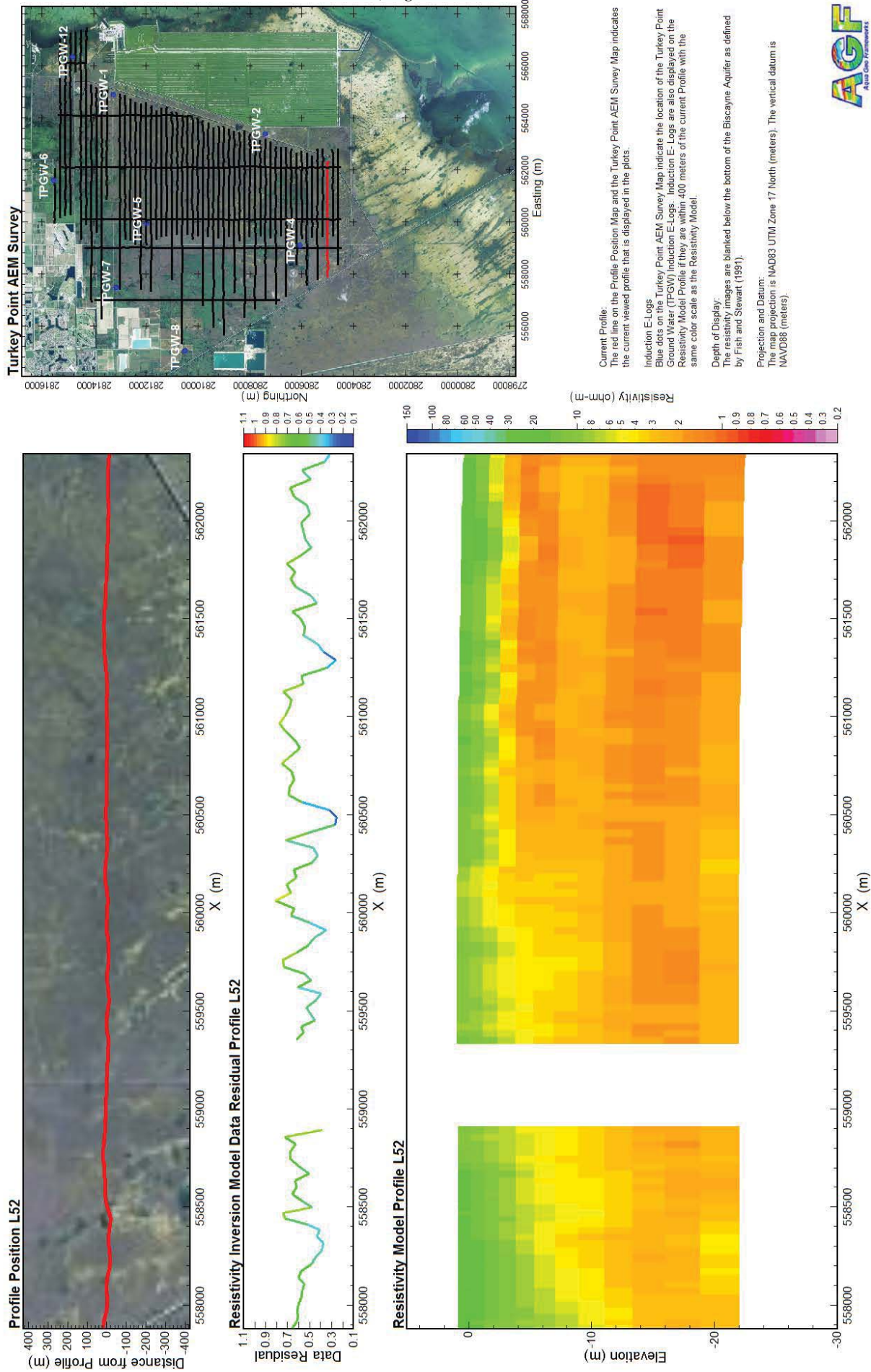


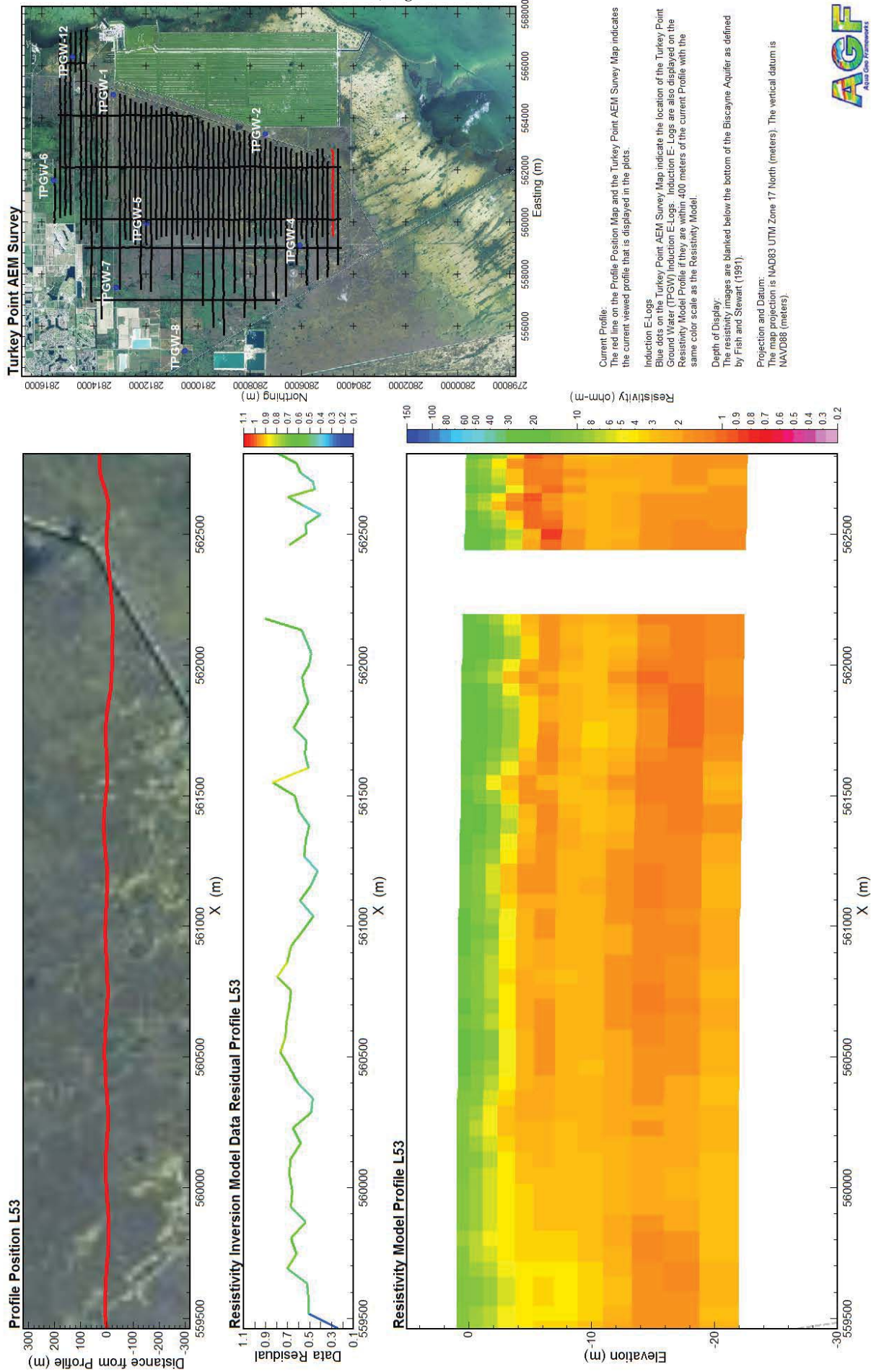


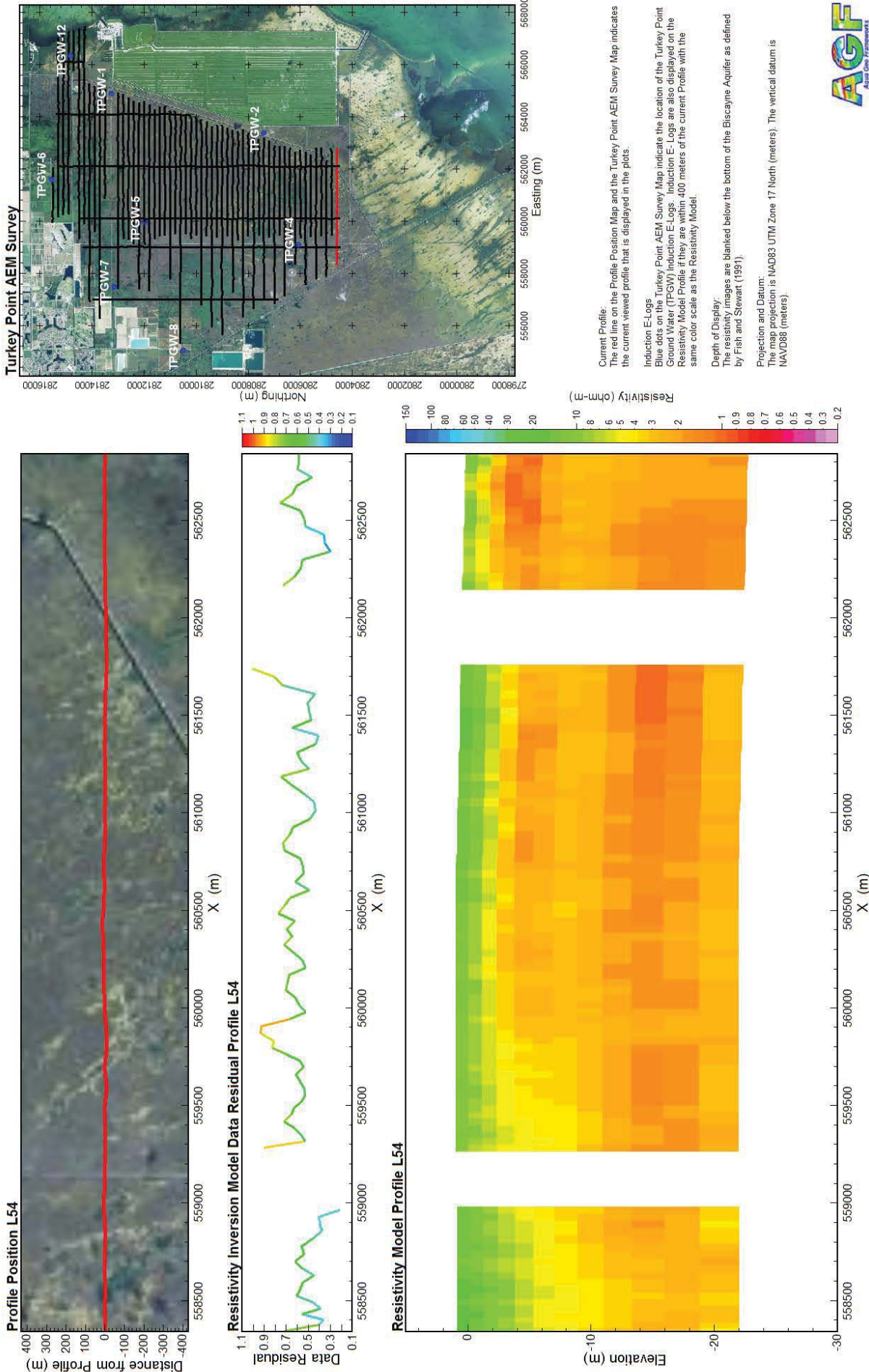
Projection and Datum:
The map projection is NAD83 UTM Zone 17 North (meters). The vertical datum is NAVD88 (meters).

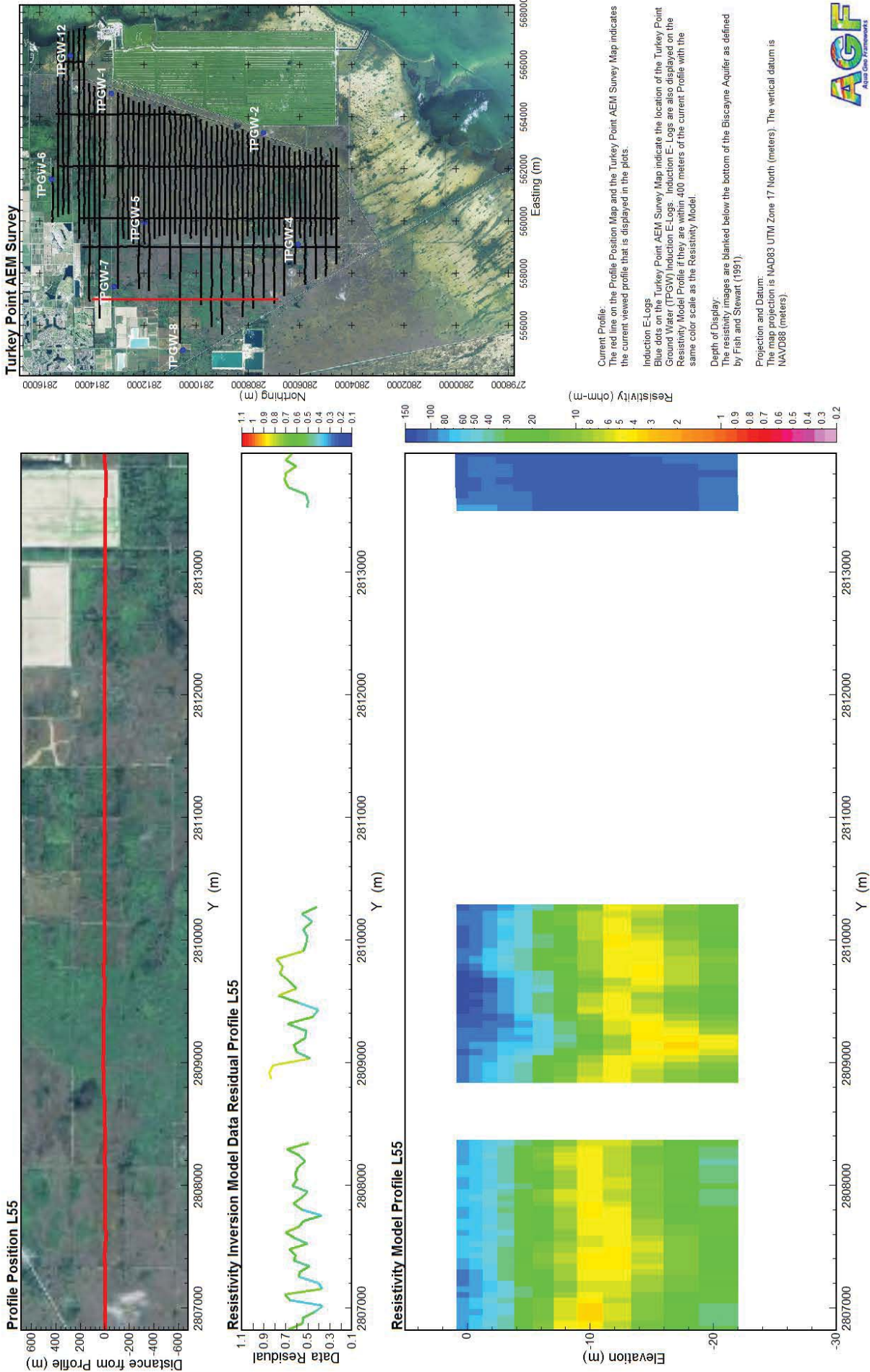


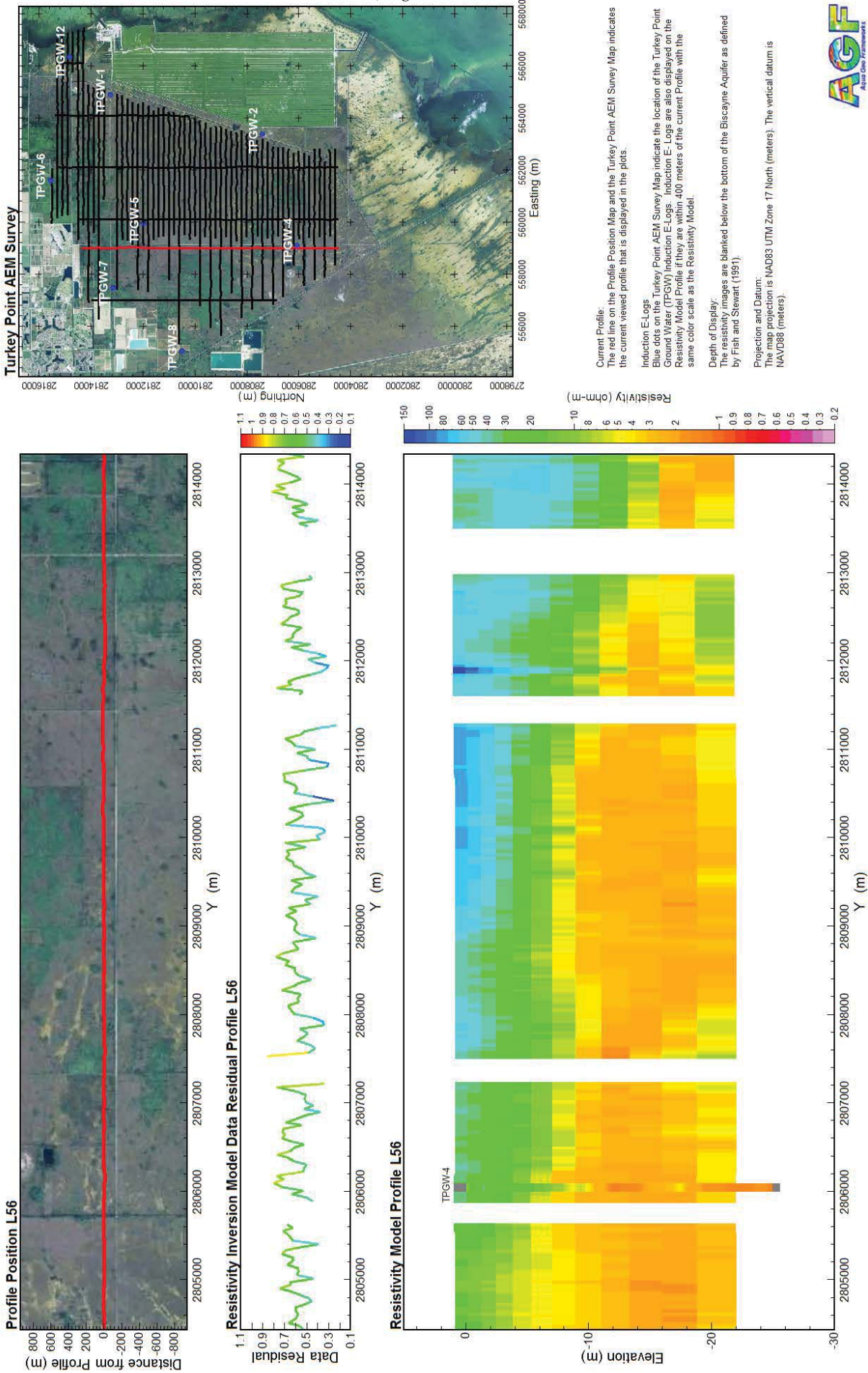


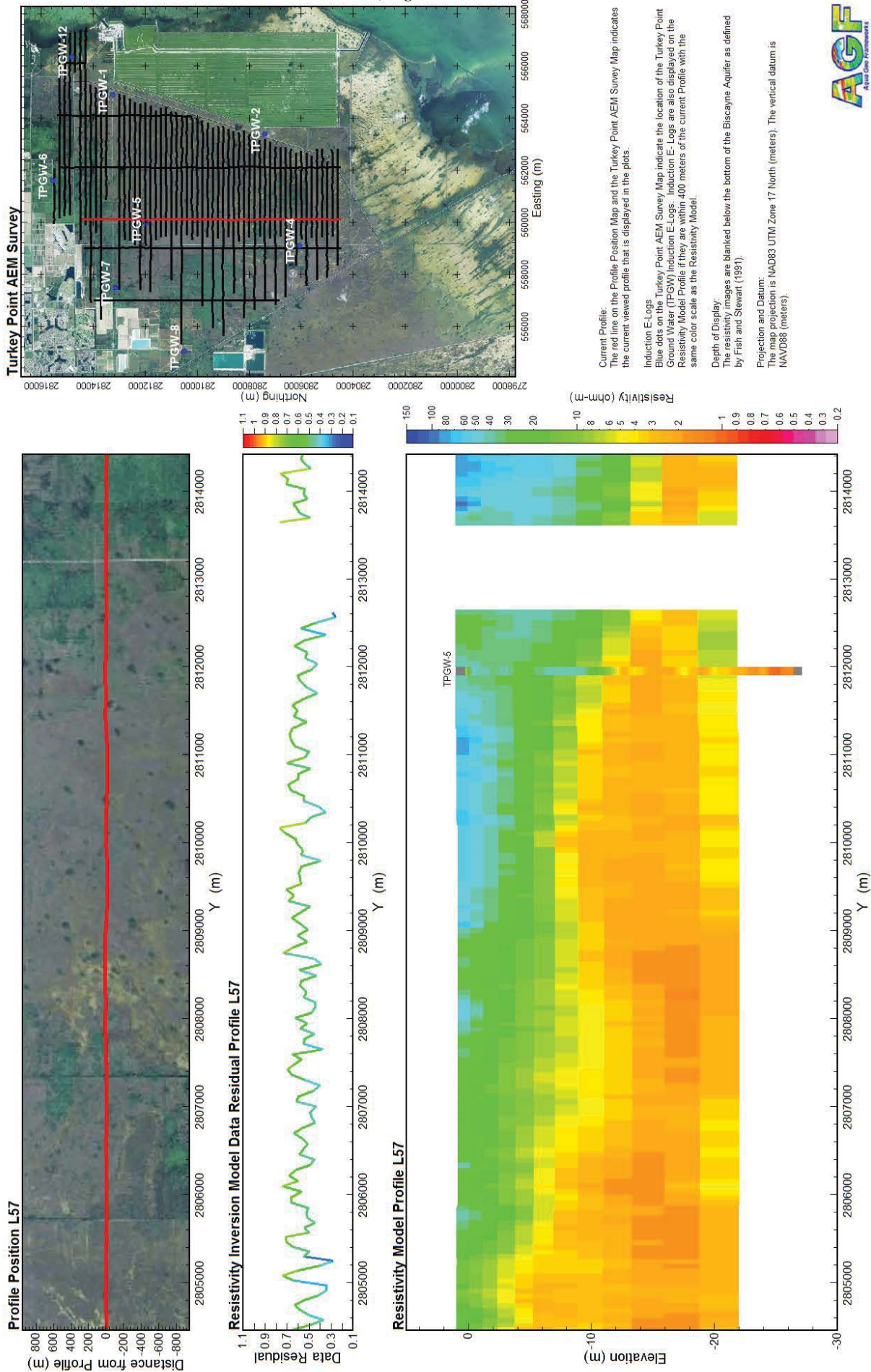


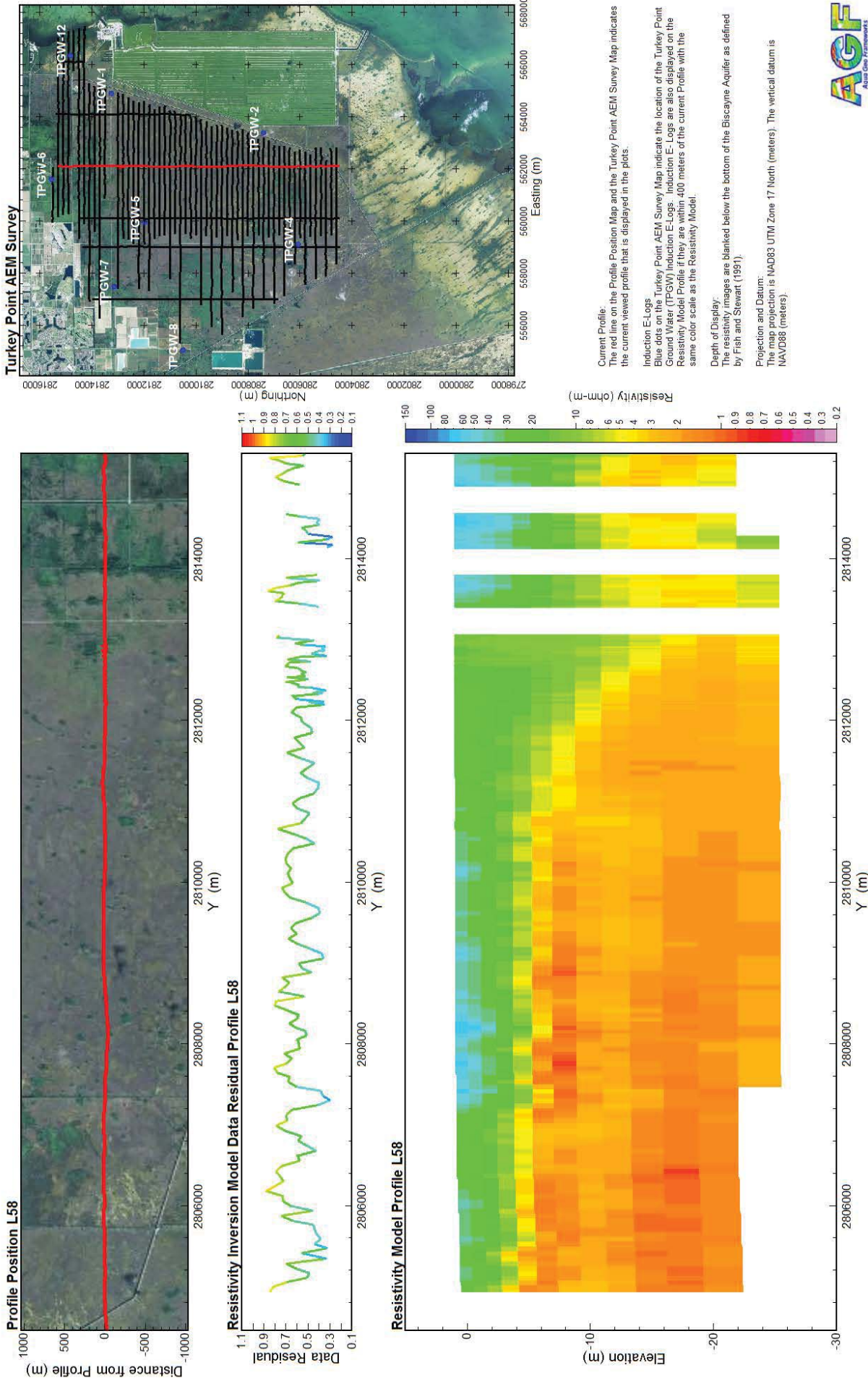


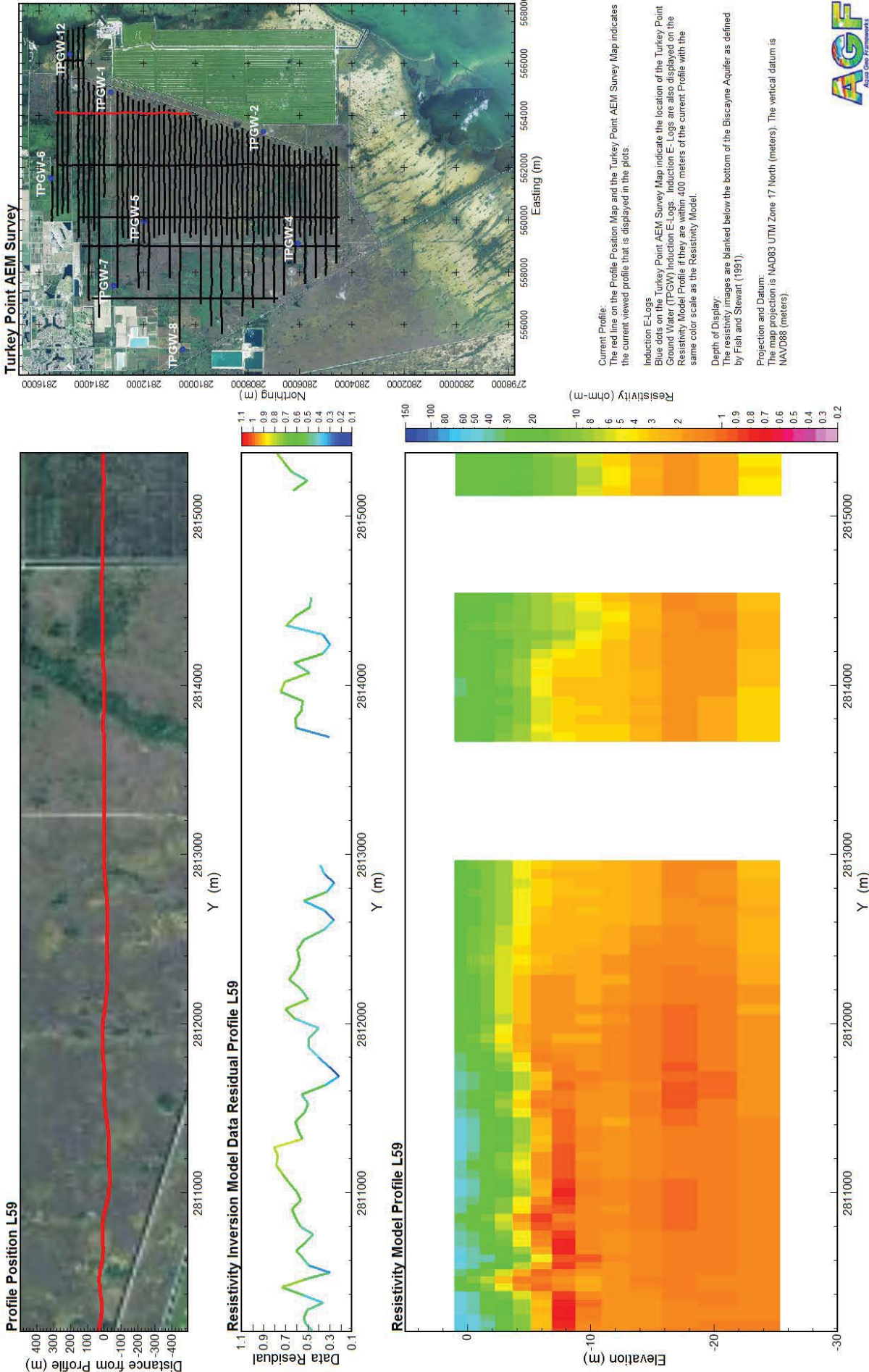


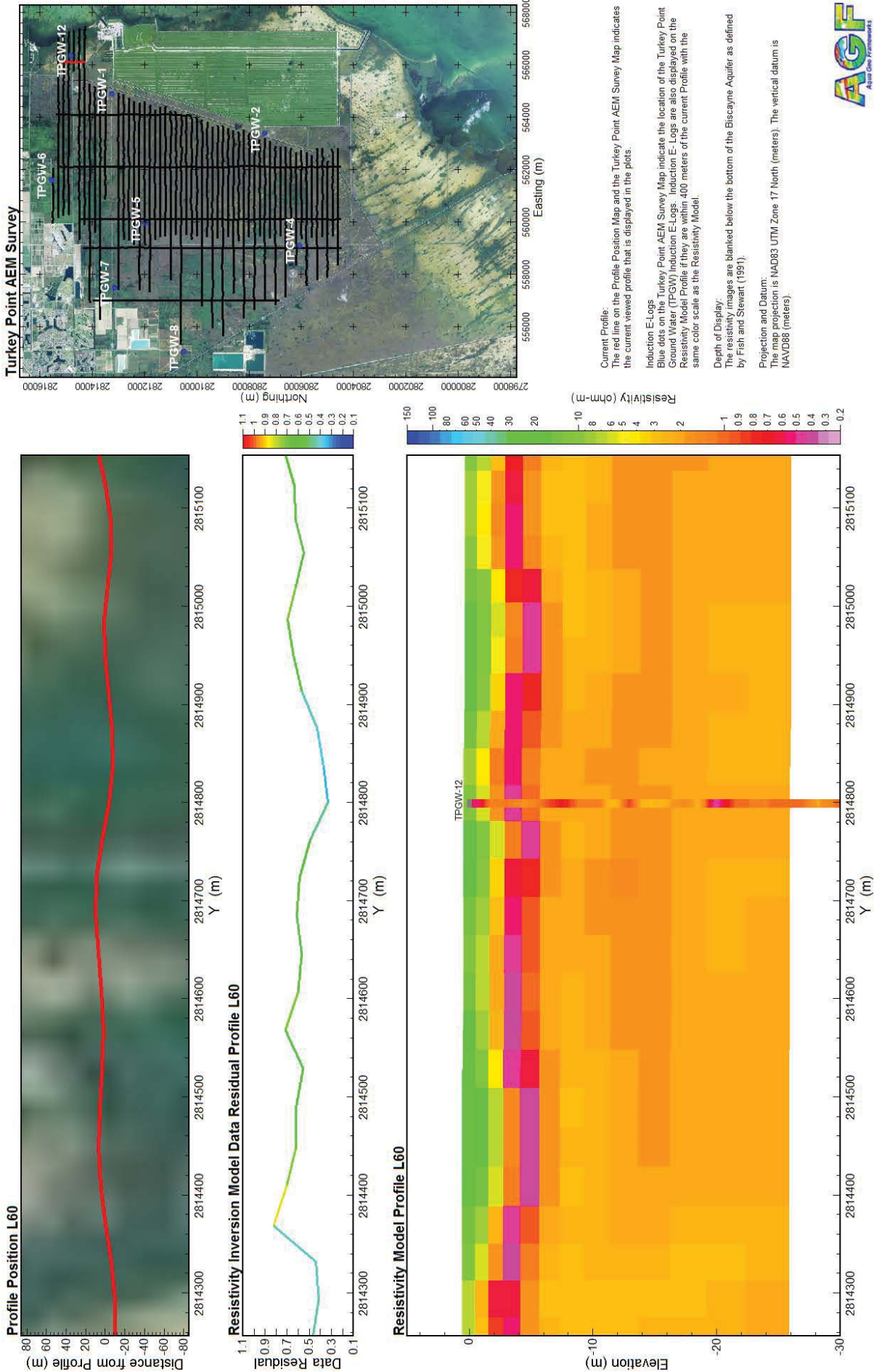






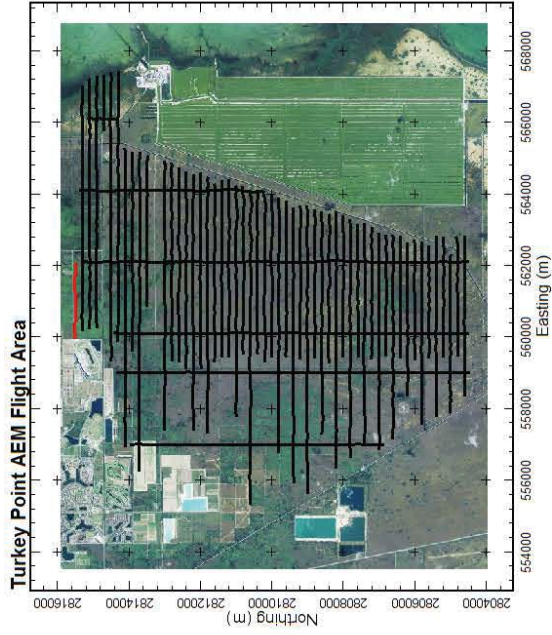
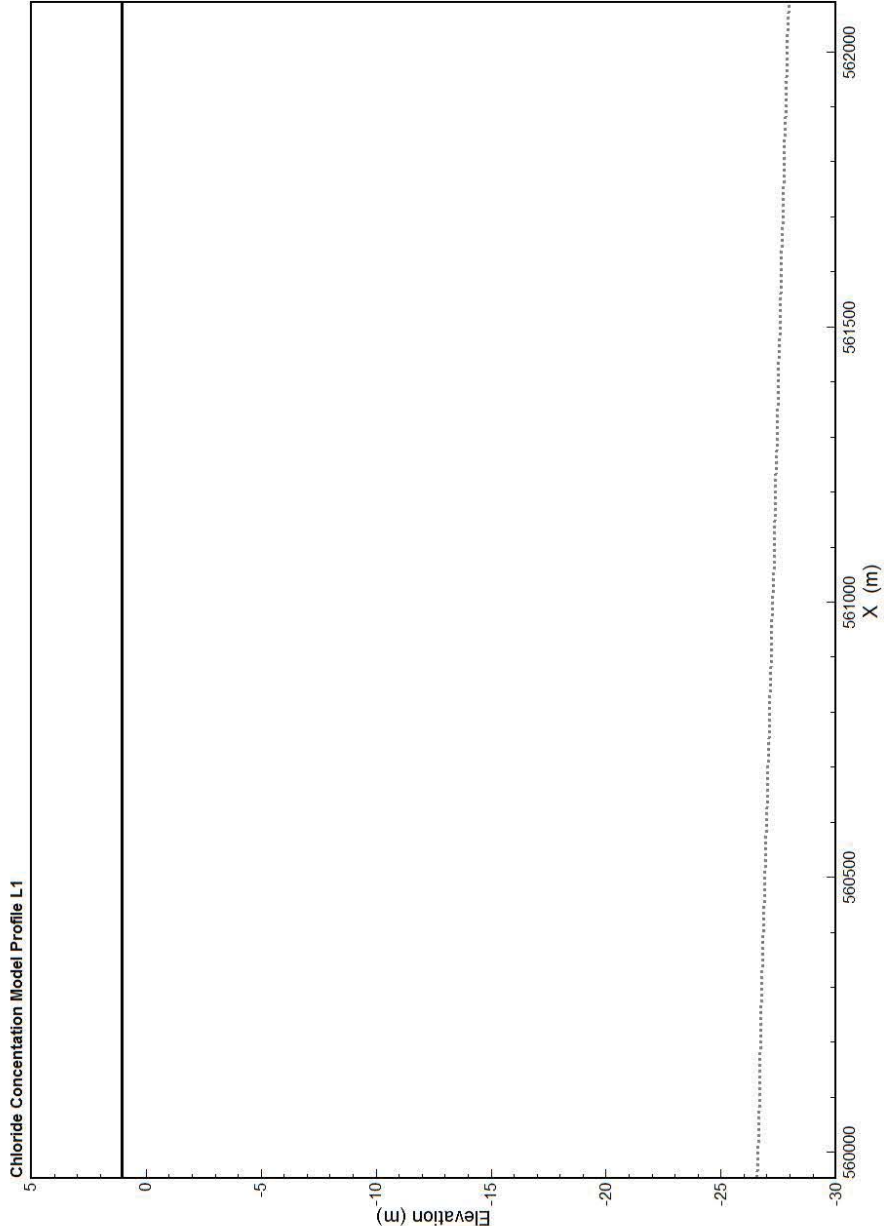
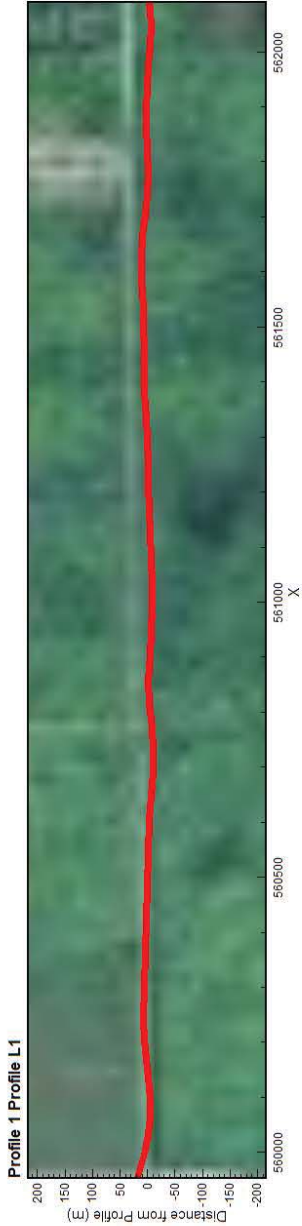






APPENDIX 2

2D CHLORIDE PROFILES



Current Profile:

The red line on the Profile Position Map and the Turkey Point AEM Survey Map indicates the current viewed Profile that is displayed in the Chloride Concentration Model Window.

TPGW Water Quality
The Profile displays Chloride Concentration > 19,000 mg/L.

Surfaces:

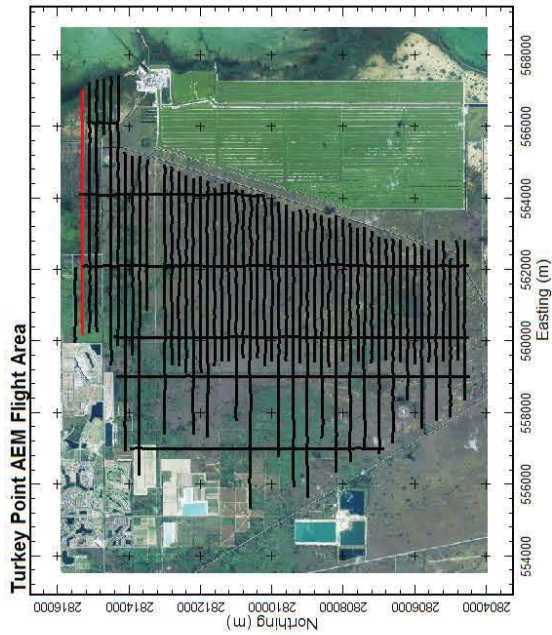
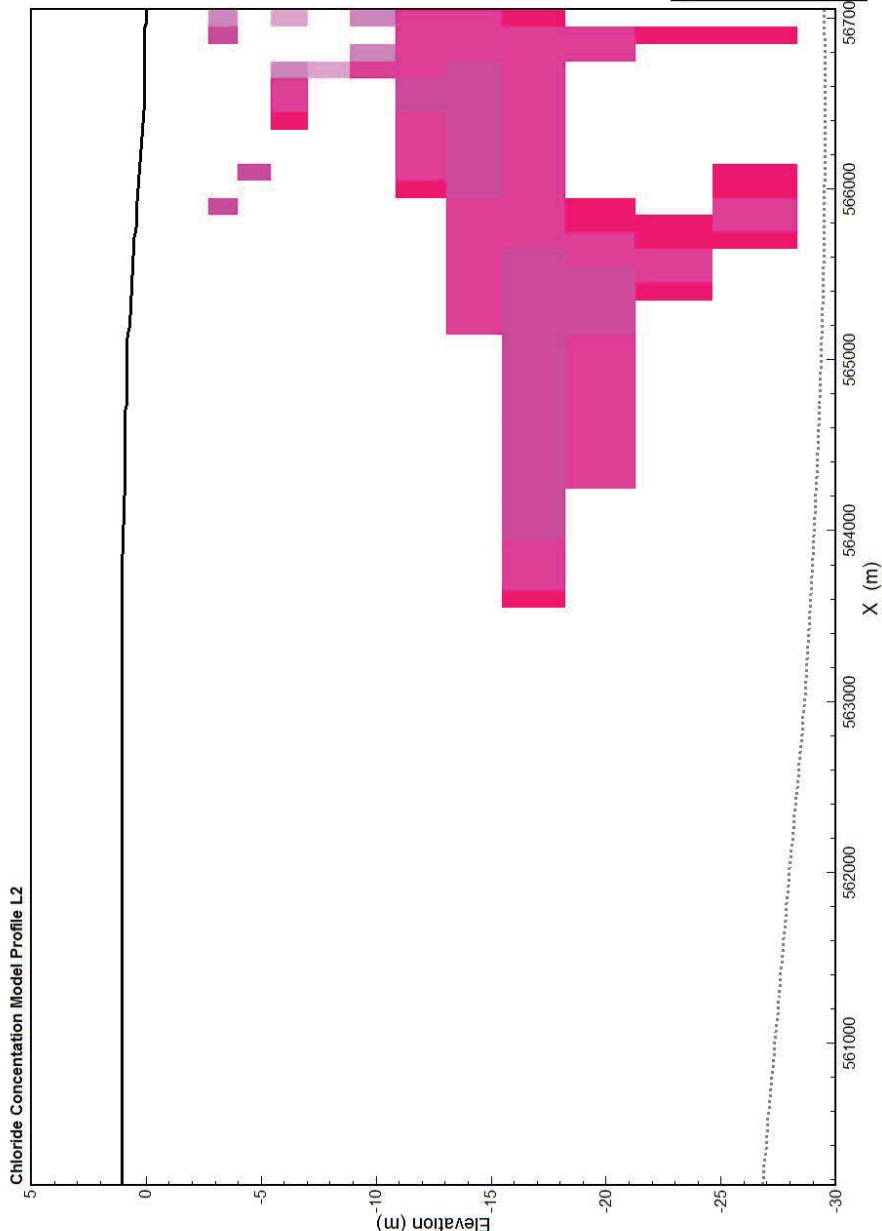
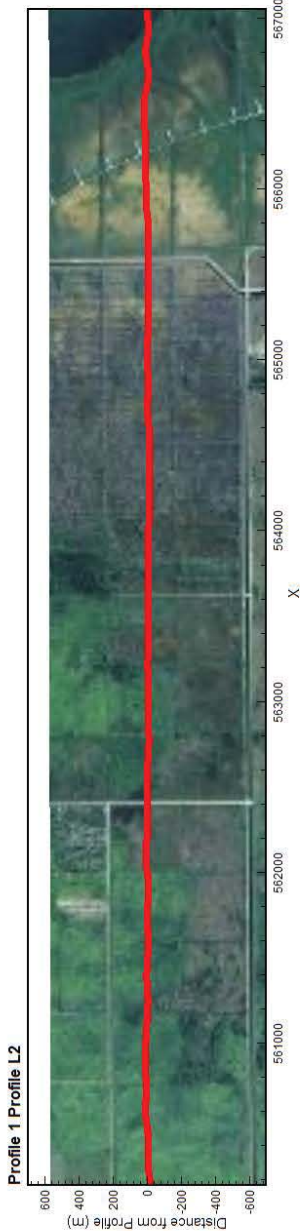
Surface elevation is indicated by the solid black line. The base of the Biscayne Aquifer as defined by Fish and Stewart (1991) is indicated by the dashed gray line.

Projection and Datum:

The map projection is NAD83 UTM Zone 17 North (meters). The vertical datum is NAVD88 (meters).

Images prepared by Aqua Geo Frameworks LLC. under contract to ENERCON Services Inc.





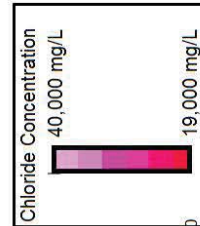
Current Profile:
The red line on the Profile Position Map and the Turkey Point AEM Survey Map indicates the current viewed Profile that is displayed in the Chloride Concentration Model Window.

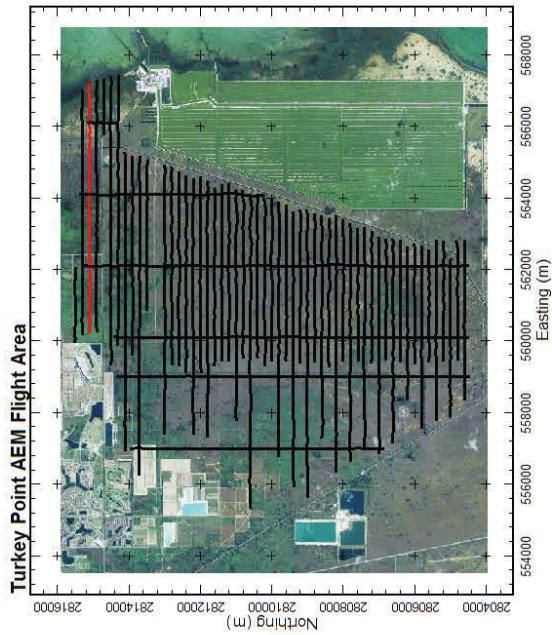
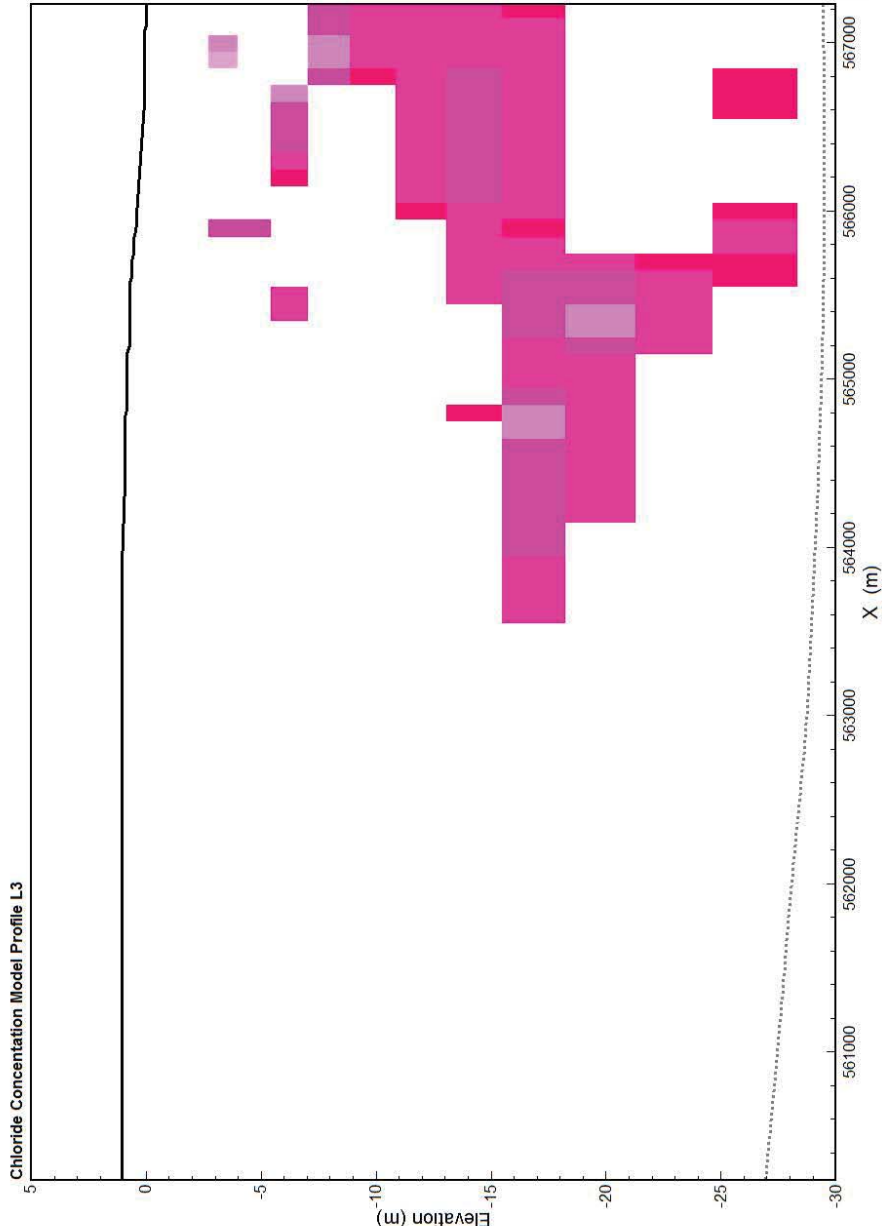
TPGW Water Quality
The Profile displays Chloride Concentration > 19,000 mg/L.

Surfaces:
Surface elevation is indicated by the solid black line. The base of the Biscayne Aquifer as defined by Fish and Stewart (1991) is indicated by the dashed gray line.

Projection and Datum:
The map projection is NAD83 UTM Zone 17 North (meters). The vertical datum is NAVD88 (meters).

Images prepared by Aqua Geo Frameworks LLC. under contract to ENERCON Services Inc.





Current Profile:

The red line on the Profile Position Map and the Turkey Point AEM Survey Map indicates the current viewed Profile that is displayed in the Chloride Concentration Model Window.

TPGW Water Quality
The Profile displays Chloride Concentration > 19,000 mg/L.

Surfaces:

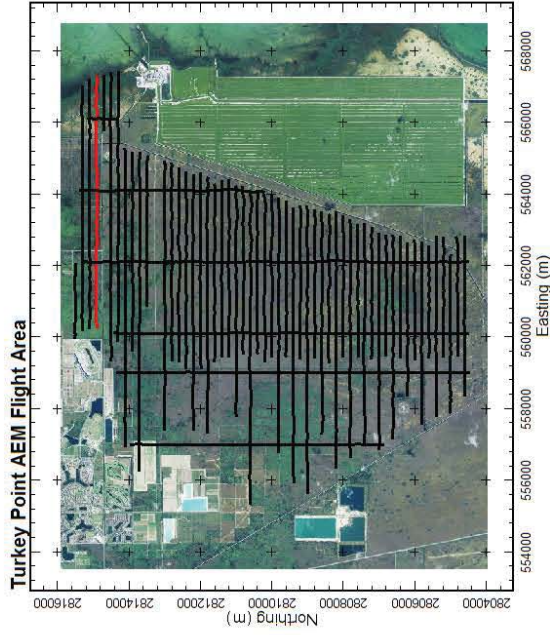
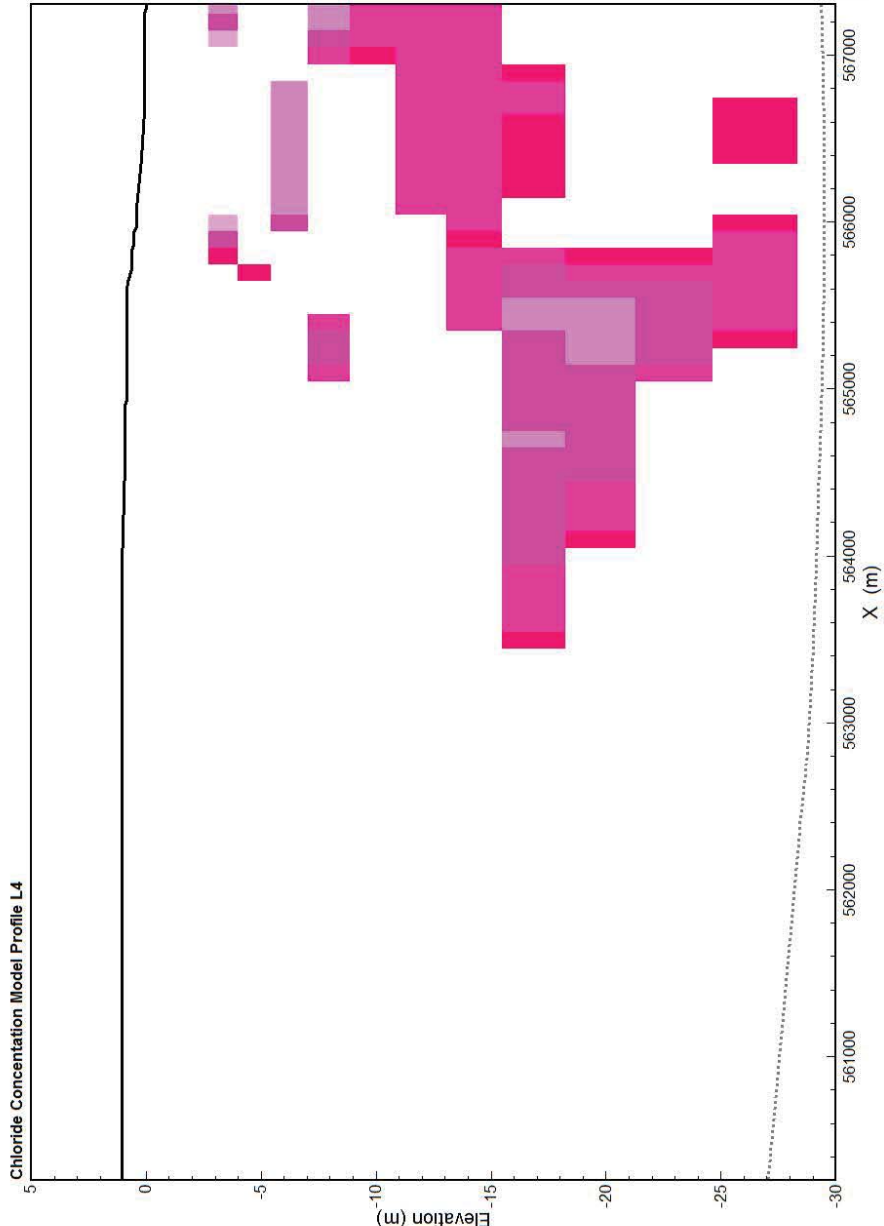
Surface elevation is indicated by the solid black line. The base of the Biscayne Aquifer as defined by Fish and Stewart (1991) is indicated by the dashed gray line.

Projection and Datum:

The map projection is NAD83 UTM Zone 17 North (meters). The vertical datum is NAVD88 (meters).

Images prepared by Aqua Geo Frameworks LLC. under contract to ENERCON Services Inc.





Current Profile:

The red line on the Profile Position Map and the Turkey Point AEM Survey Map indicates the current viewed Profile that is displayed in the Chloride Concentration Model Window.

TPGW Water Quality
The Profile displays Chloride Concentration > 19,000 mg/L.

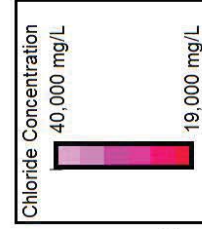
Surfaces:

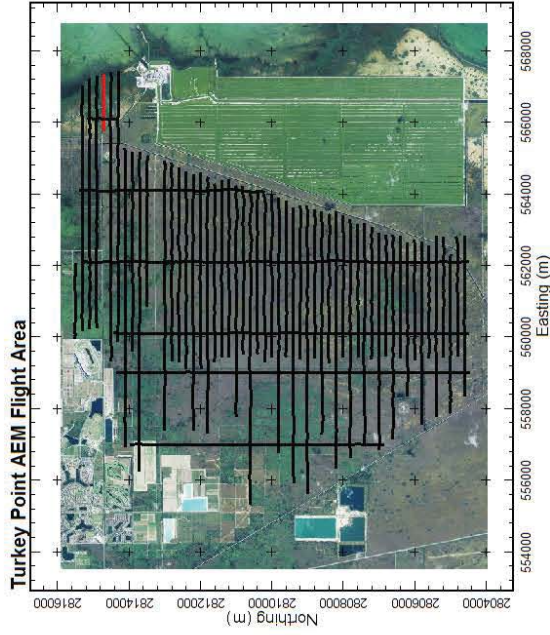
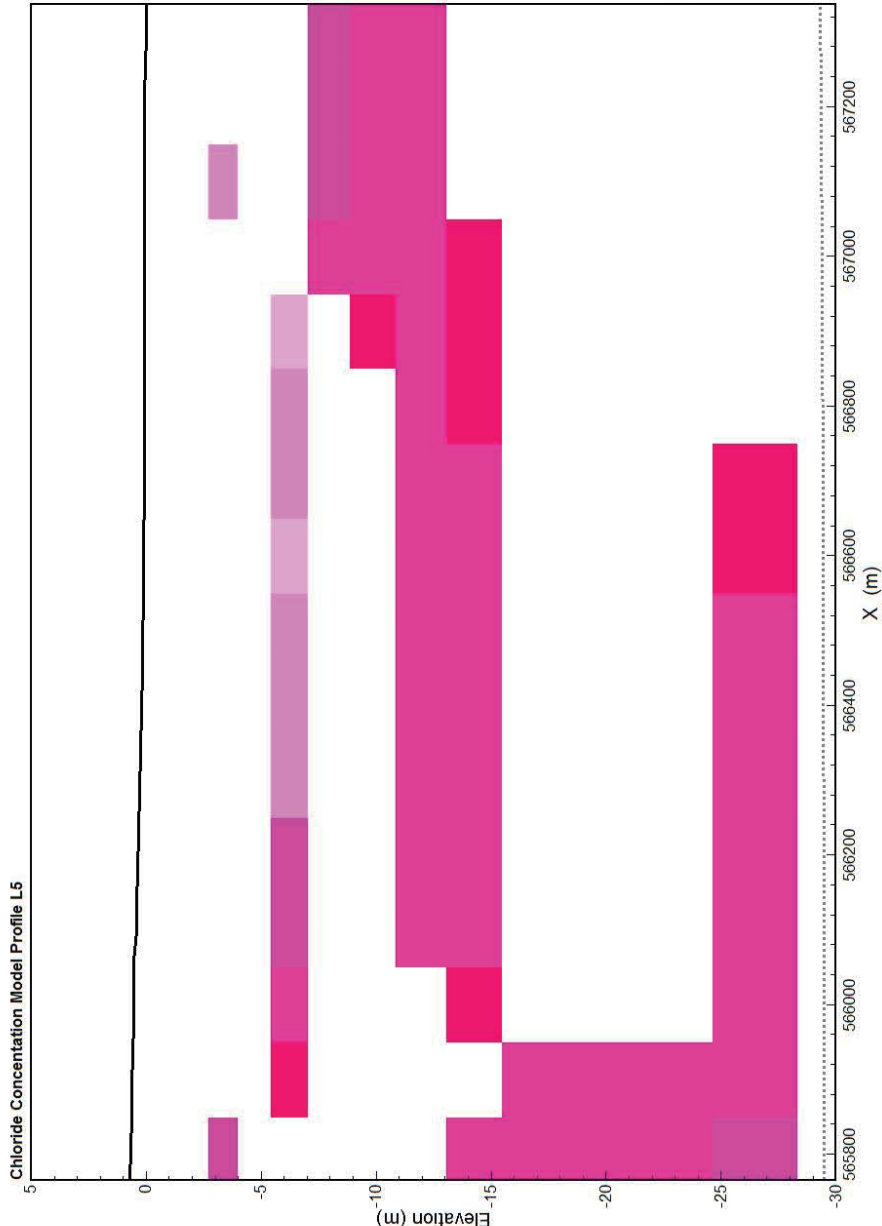
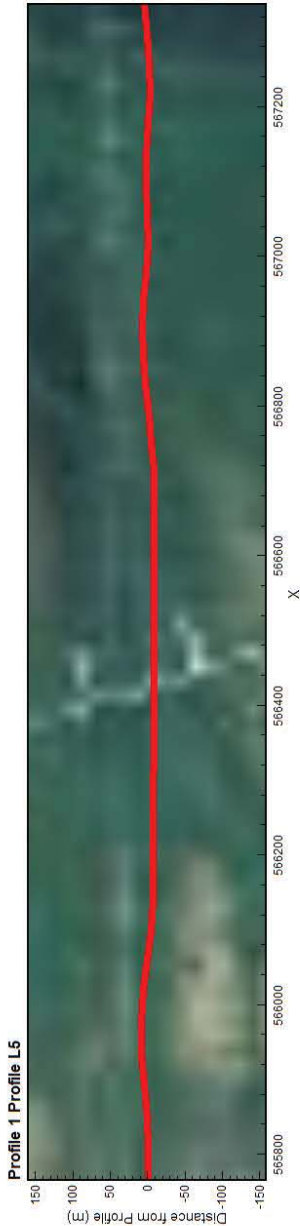
Surface elevation is indicated by the solid black line. The base of the Biscayne Aquifer as defined by Fish and Stewart (1991) is indicated by the dashed gray line.

Projection and Datum:

The map projection is NAD83 UTM Zone 17 North (meters). The vertical datum is NAVD88 (meters).

Images prepared by Aqua Geo Frameworks LLC. under contract to ENERCON Services Inc.





Current Profile:

The red line on the Profile Position Map and the Turkey Point AEM Survey Map indicates the current viewed Profile that is displayed in the Chloride Concentration Model Window.

TPGW Water Quality
The Profile displays Chloride Concentration > 19,000 mg/L.

Surfaces:

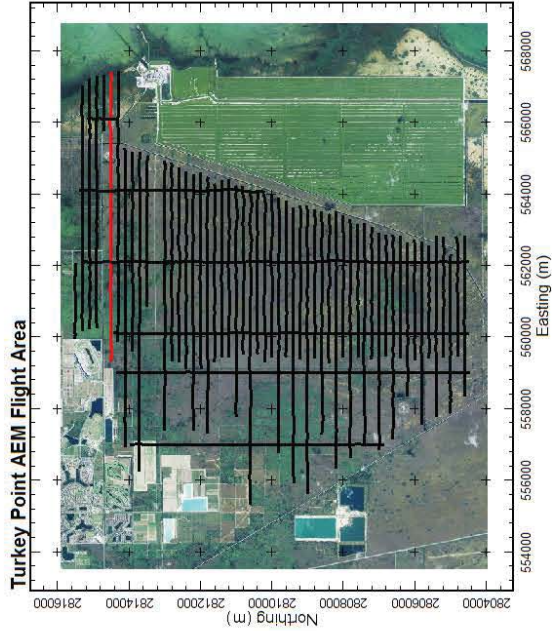
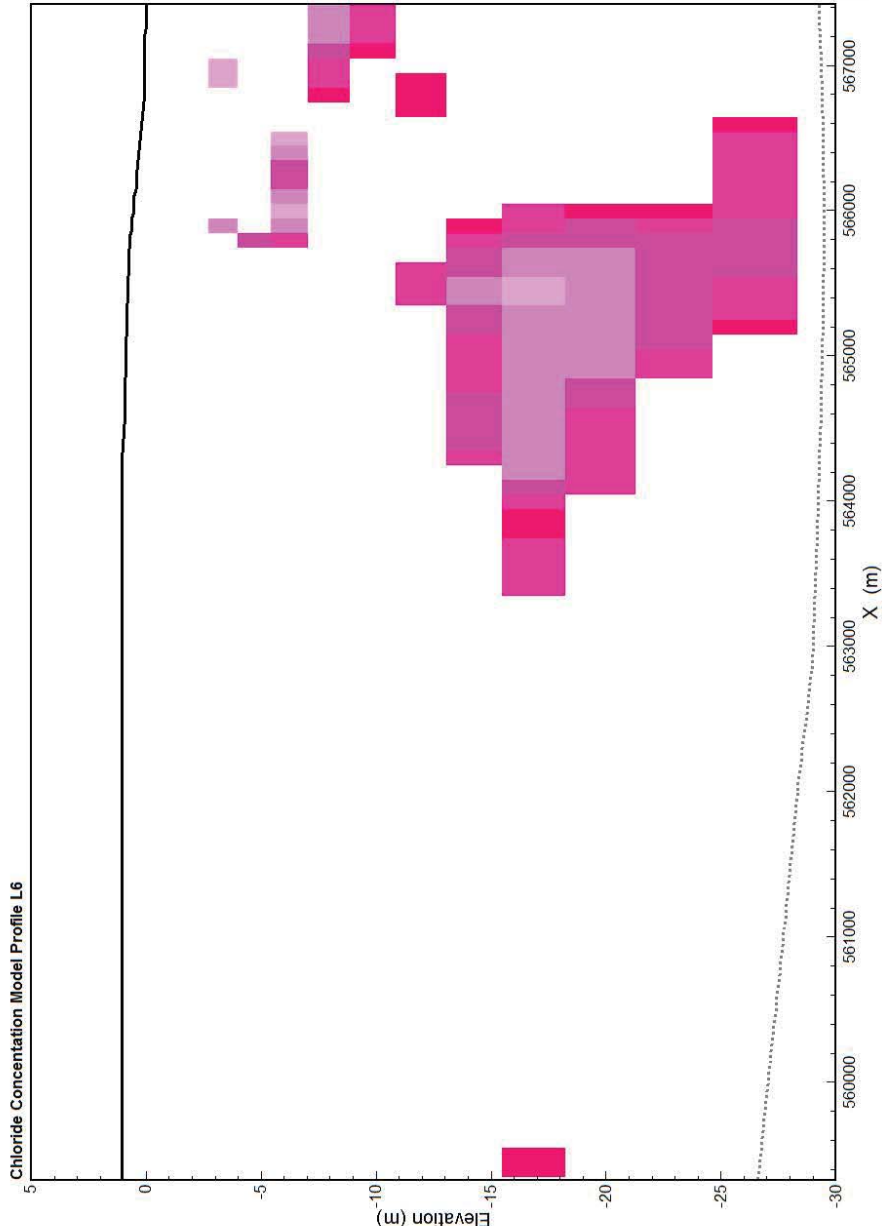
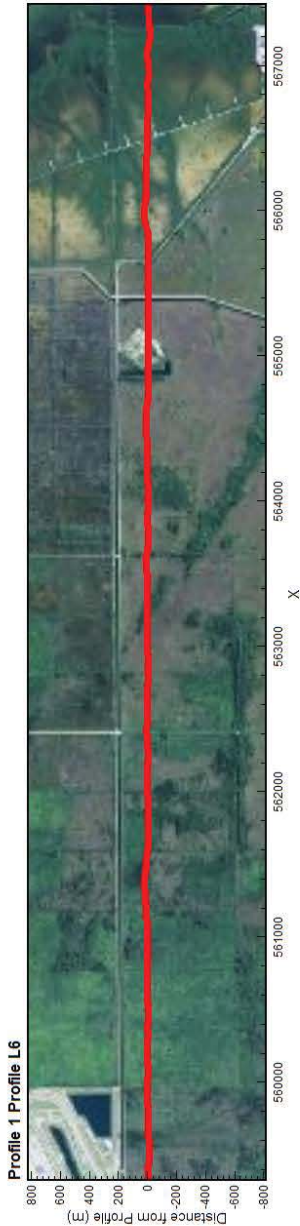
Surface elevation is indicated by the solid black line.
The base of the Biscayne Aquifer as defined by Fish and Stewart (1991) is indicated by the dashed gray line.

Projection and Datum:

The map projection is NAD83 UTM Zone 17 North (meters). The vertical datum is NAVD88 (meters).

Images prepared by Aqua Geo Frameworks LLC. under contract to ENERCON Services Inc.





Current Profile:

The red line on the Profile Position Map and the Turkey Point AEM Survey Map indicates the current viewed Profile that is displayed in the Chloride Concentration Model Window.

TPGW Water Quality
The Profile displays Chloride Concentration > 19,000 mg/L.

Surfaces:

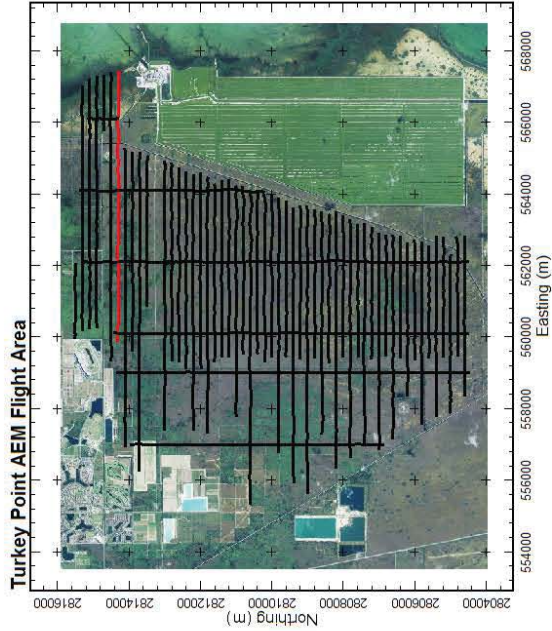
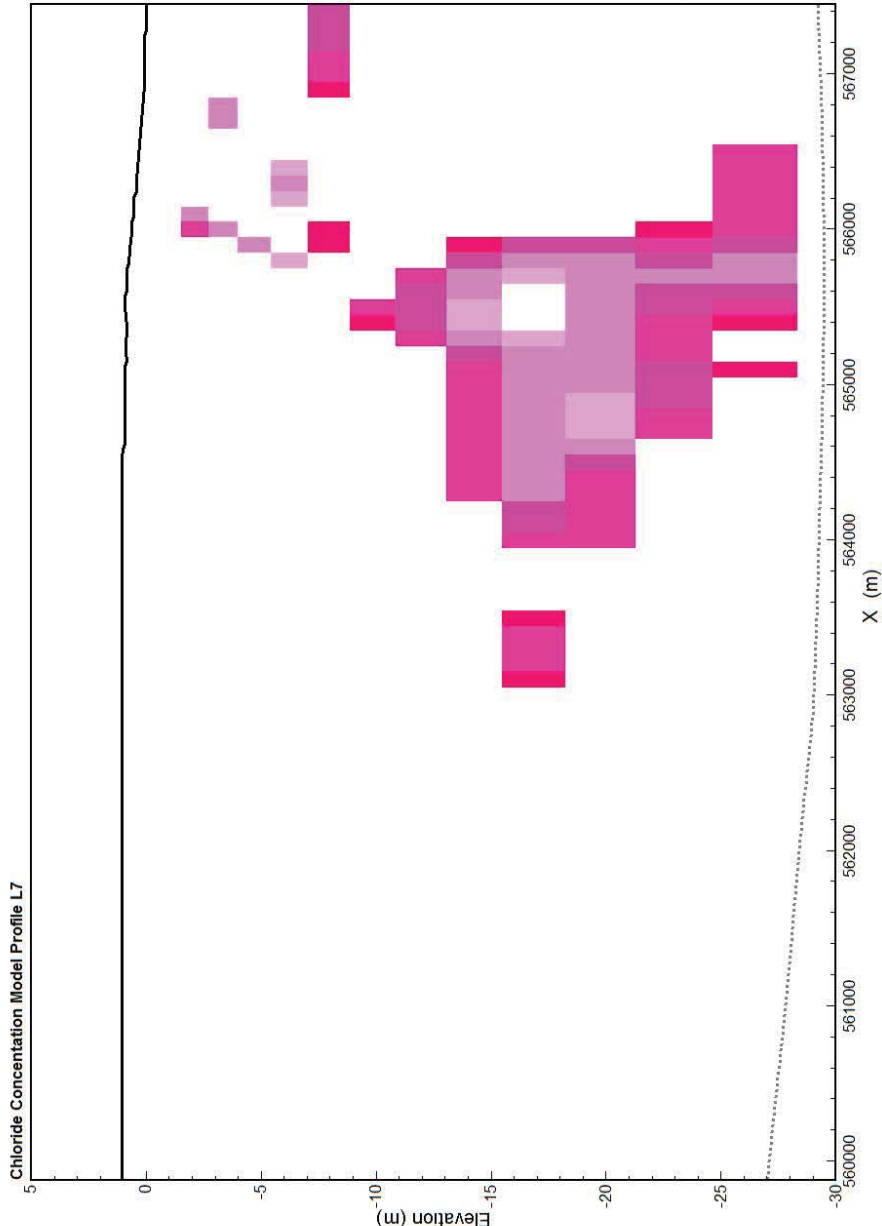
Surface elevation is indicated by the solid black line. The base of the Biscayne Aquifer as defined by Fish and Stewart (1991) is indicated by the dashed gray line.

Projection and Datum:

The map projection is NAD83 UTM Zone 17 North (meters). The vertical datum is NAVD88 (meters).

Images prepared by Aqua Geo Frameworks LLC. under contract to ENERCON Services Inc.





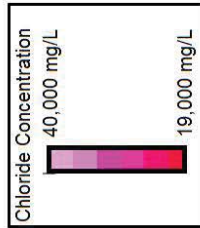
Current Profile:
The red line on the Profile Position Map and the Turkey Point AEM Survey Map indicates the current viewed Profile that is displayed in the Chloride Concentration Model Window.

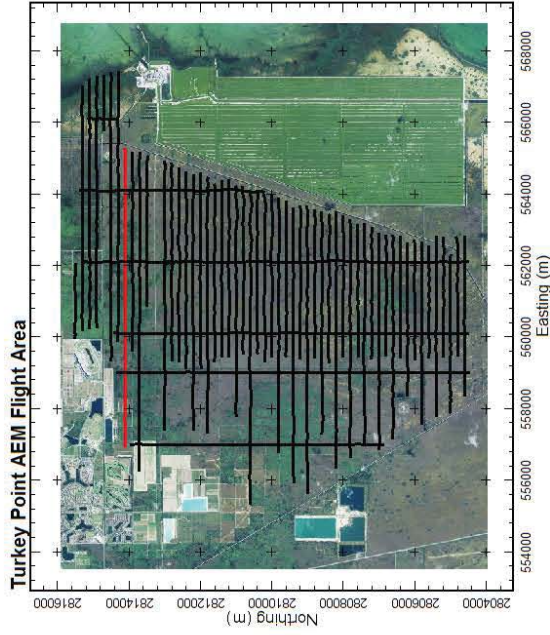
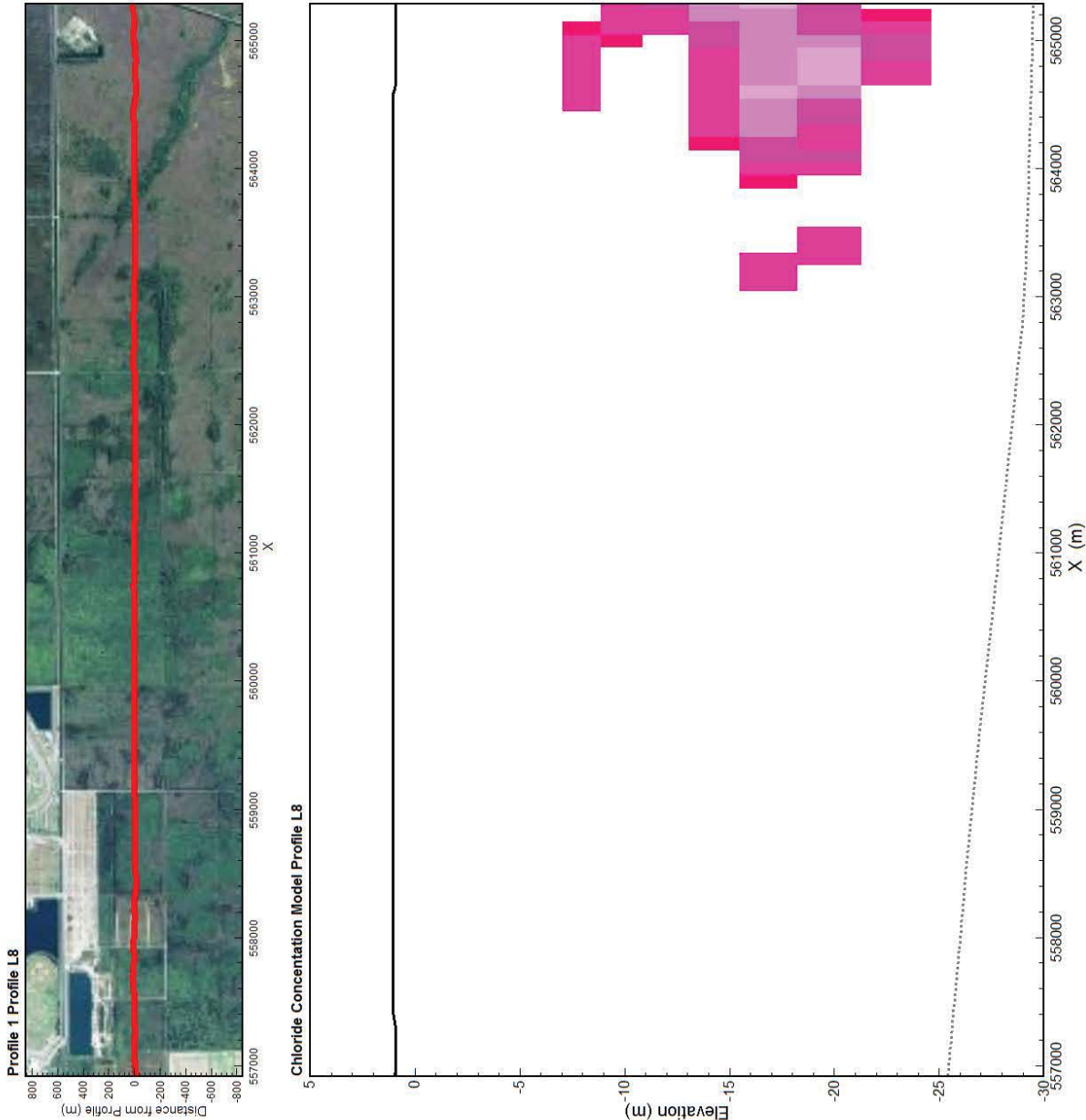
TPGW Water Quality
The Profile displays Chloride Concentration > 19,000 mg/L.

Surfaces:
Surface elevation is indicated by the solid black line. The base of the Biscayne Aquifer as defined by Fish and Stewart (1991) is indicated by the dashed gray line.

Projection and Datum:
The map projection is NAD83 UTM Zone 17 North (meters). The vertical datum is NAVD88 (meters).

Images prepared by Aqua Geo Frameworks LLC. under contract to ENERCON Services Inc.





Current Profile:

The red line on the Profile Position Map and the Turkey Point AEM Survey Map indicates the current viewed Profile that is displayed in the Chloride Concentration Model Window.

TPGW Water Quality
The Profile displays Chloride Concentration > 19,000 mg/L.

Surfaces:

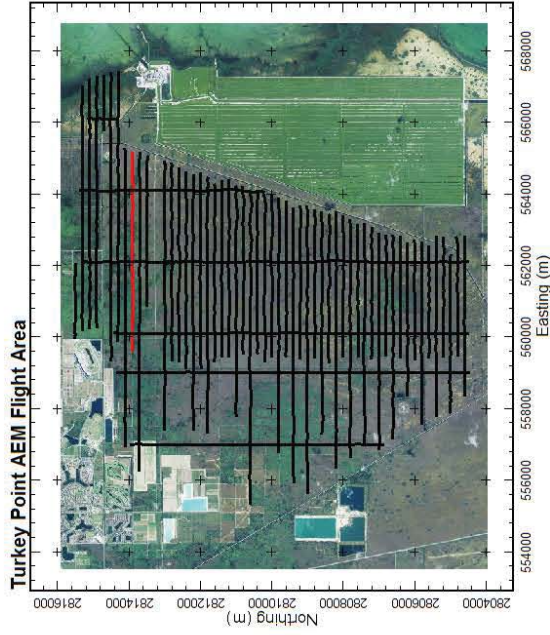
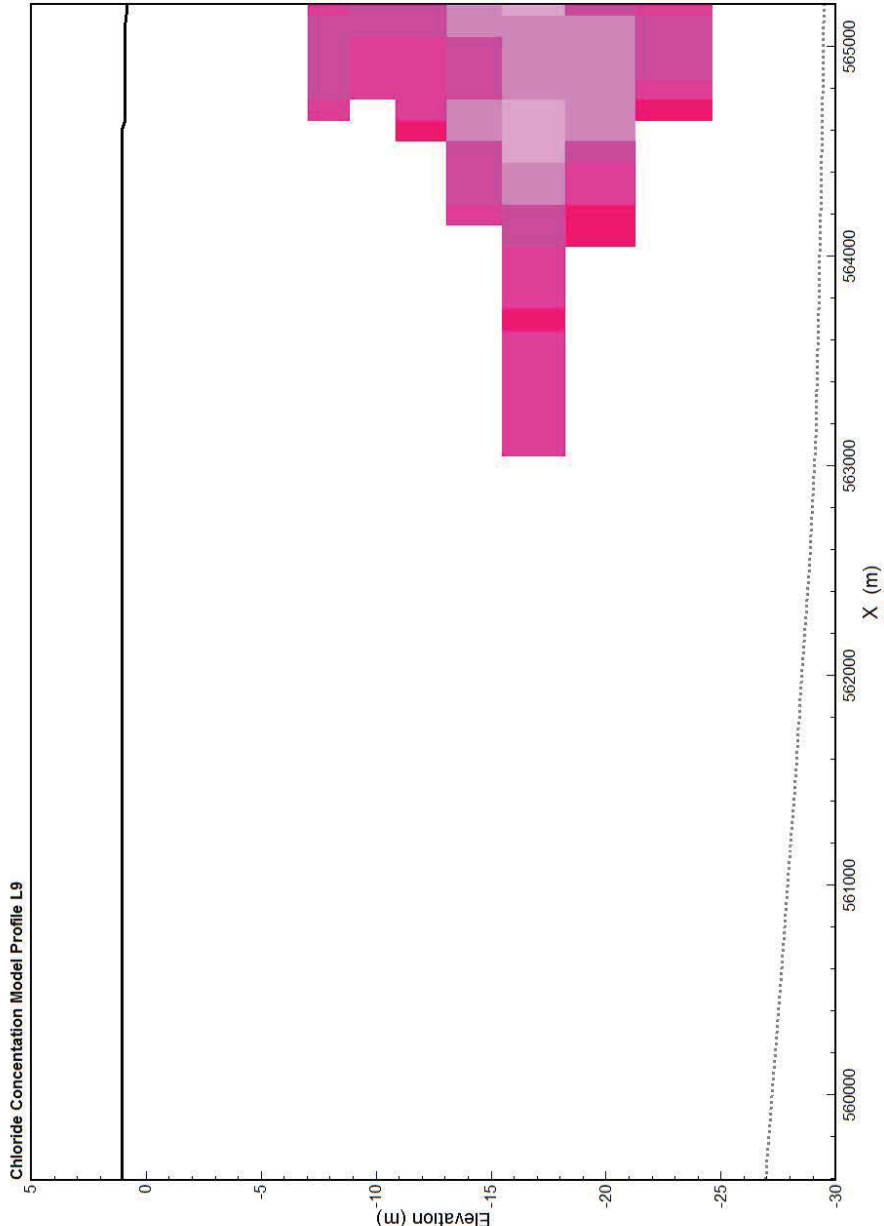
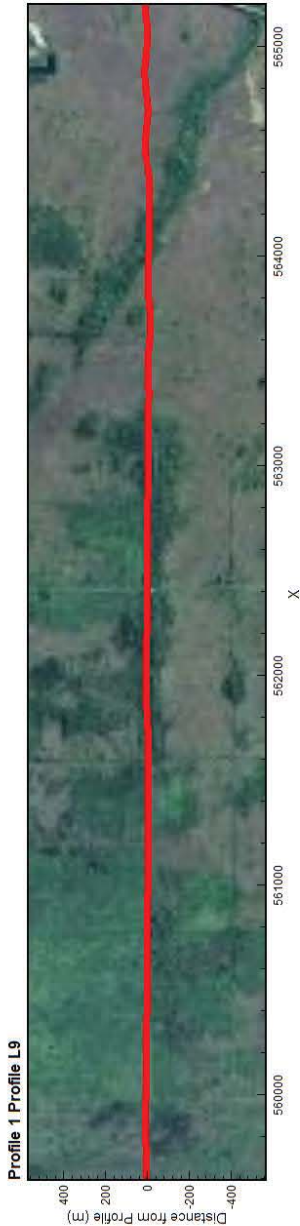
Surface elevation is indicated by the solid black line.
The base of the Biscayne Aquifer as defined by Fish and Stewart (1991) is indicated by the dashed gray line.

Projection and Datum:

The map projection is NAD83 UTM Zone 17 North (meters). The vertical datum is NAVD88 (meters).

Images prepared by Aqua Geo Frameworks LLC. under contract to ENERCON Services Inc.





Current Profile:

The red line on the Profile Position Map and the Turkey Point AEM Survey Map indicates the current viewed Profile that is displayed in the Chloride Concentration Model Window.

TPGW Water Quality
The Profile displays Chloride Concentration > 19,000 mg/L.

Surfaces:

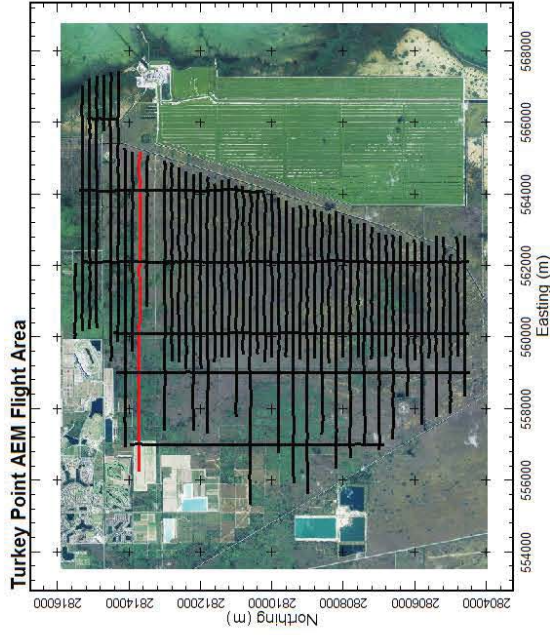
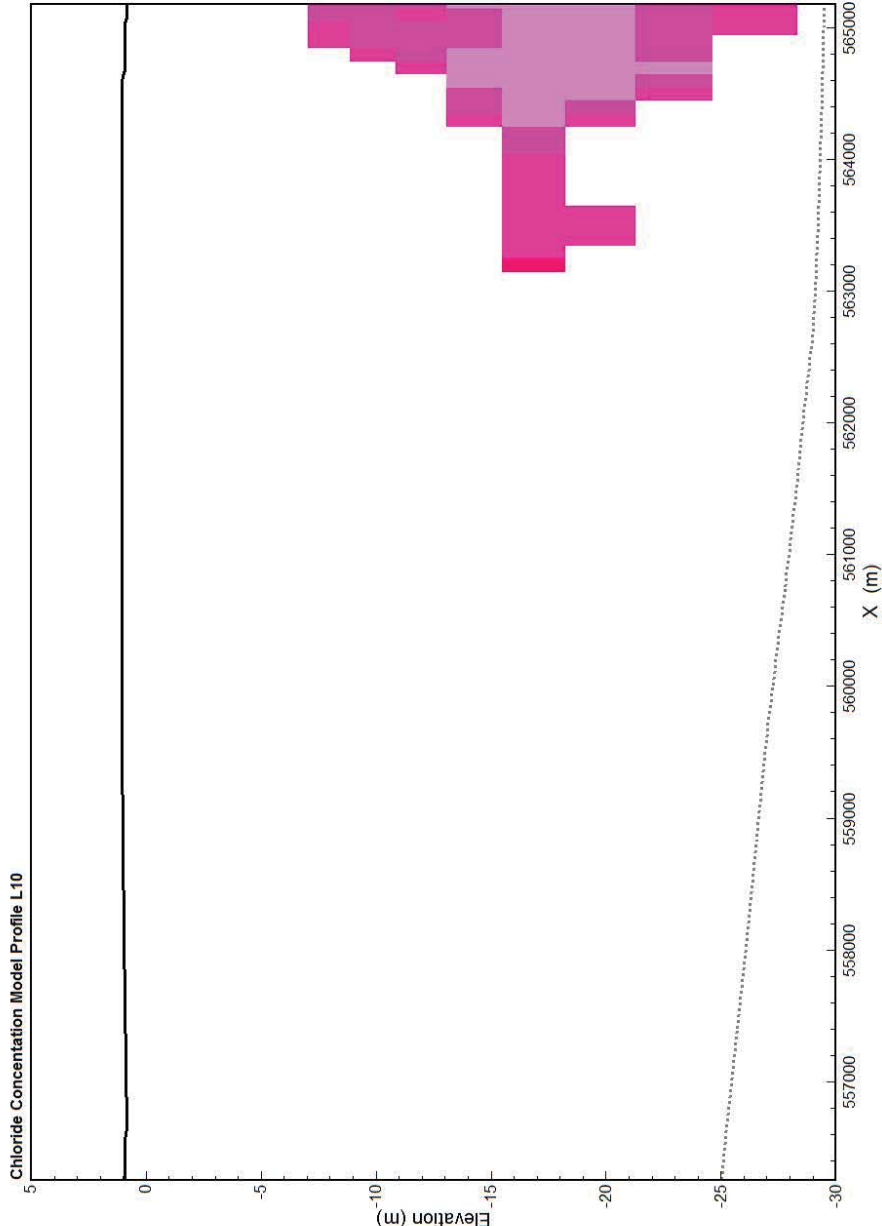
Surface elevation is indicated by the solid black line. The base of the Biscayne Aquifer as defined by Fish and Stewart (1991) is indicated by the dashed gray line.

Projection and Datum:

The map projection is NAD83 UTM Zone 17 North (meters). The vertical datum is NAVD88 (meters).

Images prepared by Aqua Geo Frameworks LLC. under contract to ENERCON Services Inc.





Current Profile:

The red line on the Profile Position Map and the Turkey Point AEM Survey Map indicates the current viewed Profile that is displayed in the Chloride Concentration Model Window.

TPGW Water Quality
The Profile displays Chloride Concentration > 19,000 mg/L.

Surfaces:

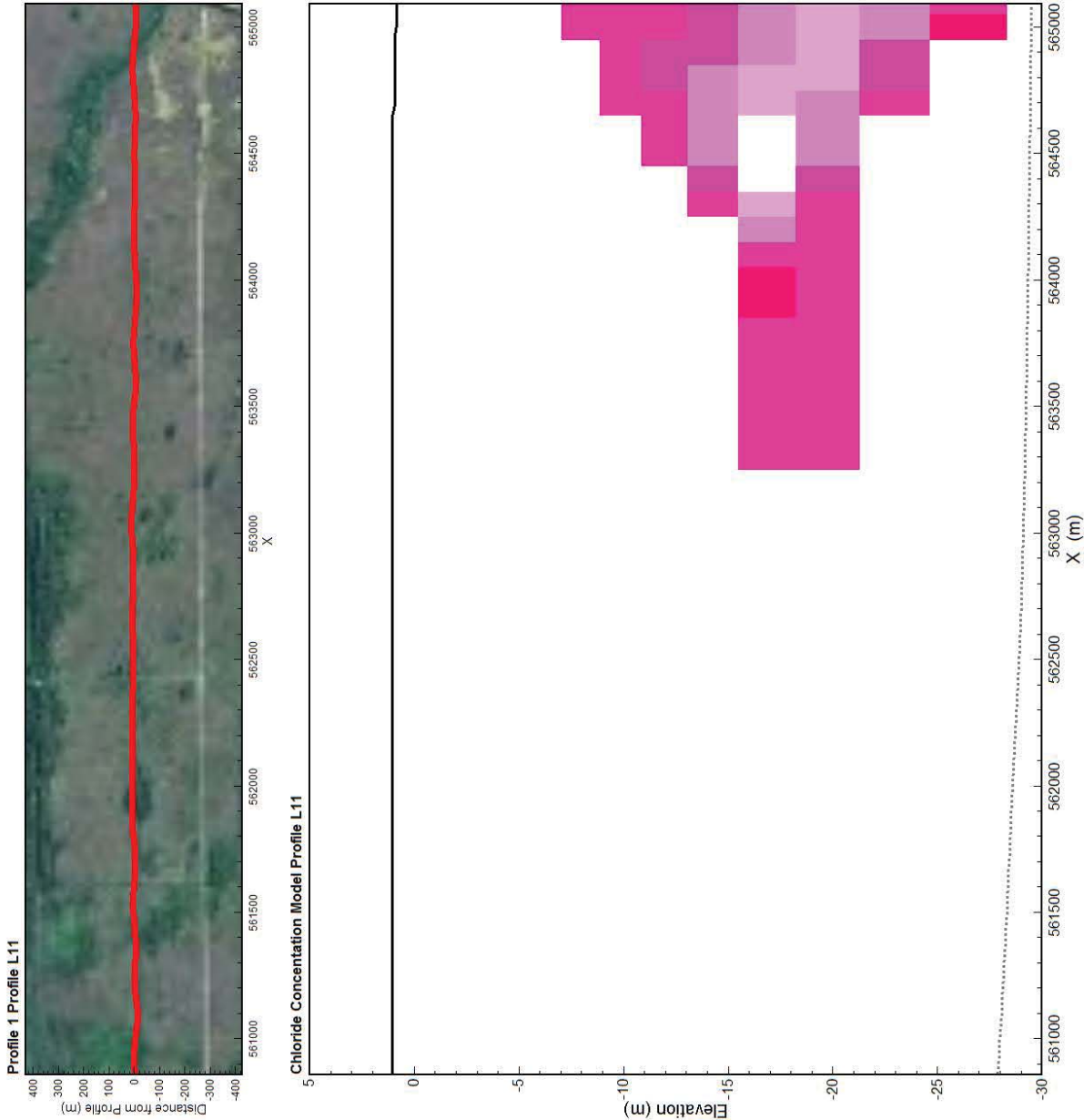
Surface elevation is indicated by the solid black line. The base of the Biscayne Aquifer as defined by Fish and Stewart (1991) is indicated by the dashed gray line.

Projection and Datum:

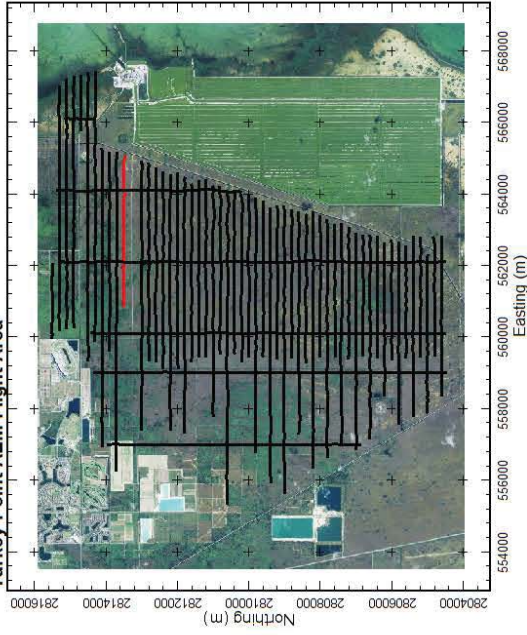
The map projection is NAD83 UTM Zone 17 North (meters). The vertical datum is NAVD88 (meters).

Images prepared by Aqua Geo Frameworks LLC. under contract to ENERCON Services Inc.





Turkey Point AEM Flight Area



Current Profile:

The red line on the Profile Position Map and the Turkey Point AEM Survey Map indicates the current viewed Profile that is displayed in the Chloride Concentration Model Window.

TPGW Water Quality
The Profile displays Chloride Concentration > 19,000 mg/L.

Surfaces:

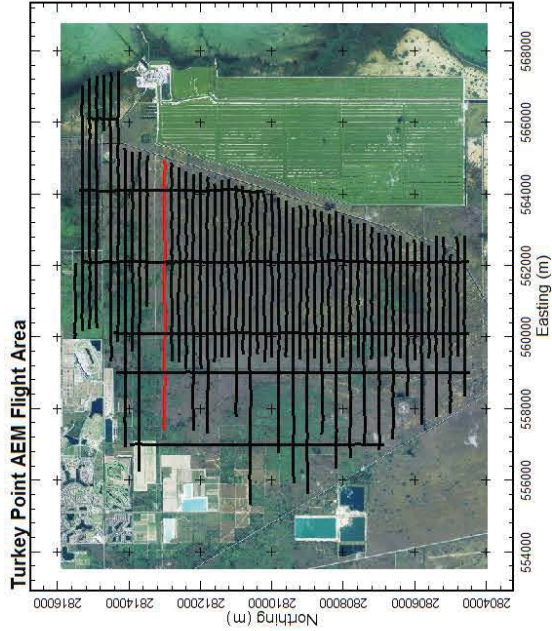
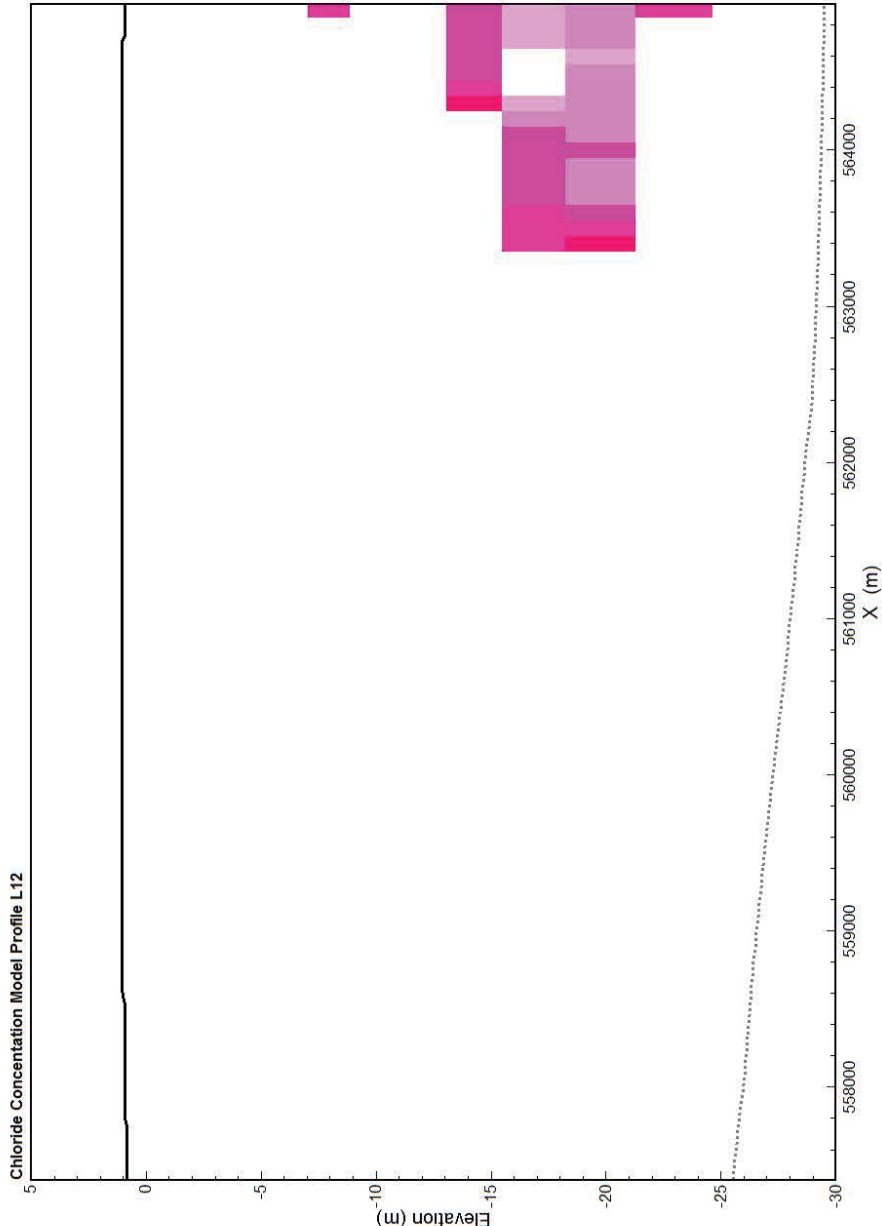
Surface elevation is indicated by the solid black line. The base of the Biscayne Aquifer as defined by Fish and Stewart (1991) is indicated by the dashed gray line.

Projection and Datum:

The map projection is NAD83 UTM Zone 17 North (meters). The vertical datum is NAVD88 (meters).

Images prepared by Aqua Geo Frameworks LLC. under contract to ENERCON Services Inc.





Current Profile:

The red line on the Profile Position Map and the Turkey Point AEM Survey Map indicates the current viewed Profile that is displayed in the Chloride Concentration Model Window.

TPGW Water Quality
The Profile displays Chloride Concentration > 19,000 mg/L.

Surfaces:

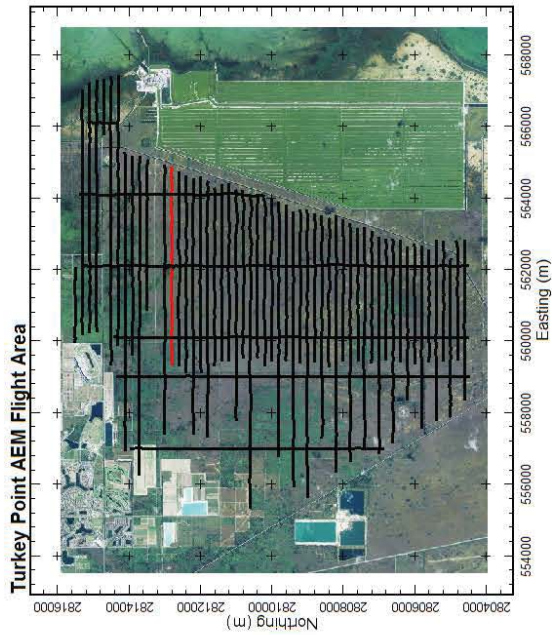
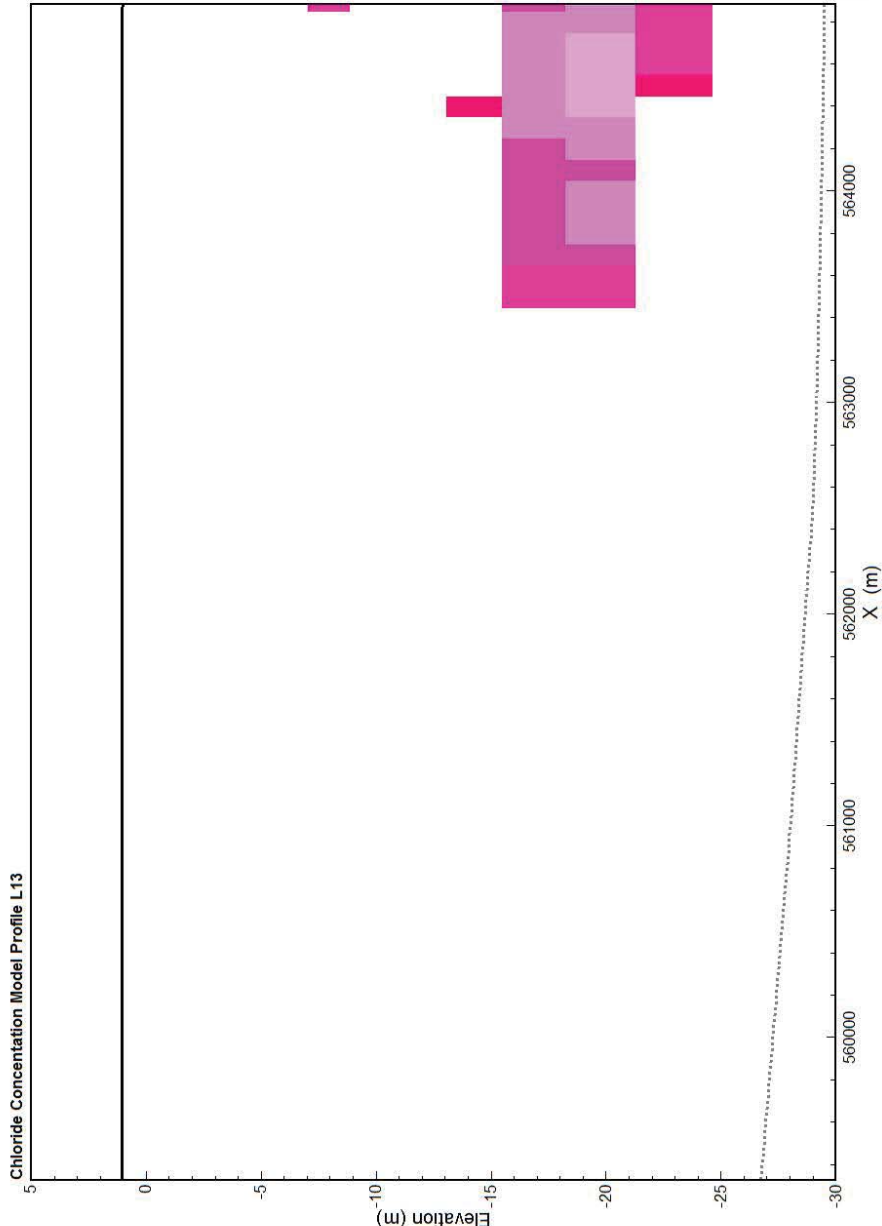
Surface elevation is indicated by the solid black line. The base of the Biscayne Aquifer as defined by Fish and Stewart (1991) is indicated by the dashed gray line.

Projection and Datum:

The map projection is NAD83 UTM Zone 17 North (meters). The vertical datum is NAVD88 (meters).

Images prepared by Aqua Geo Frameworks LLC. under contract to ENERCON Services Inc.





Current Profile:
The red line on the Profile Position Map and the Turkey Point AEM Survey Map indicates the current viewed Profile that is displayed in the Chloride Concentration Model Window.

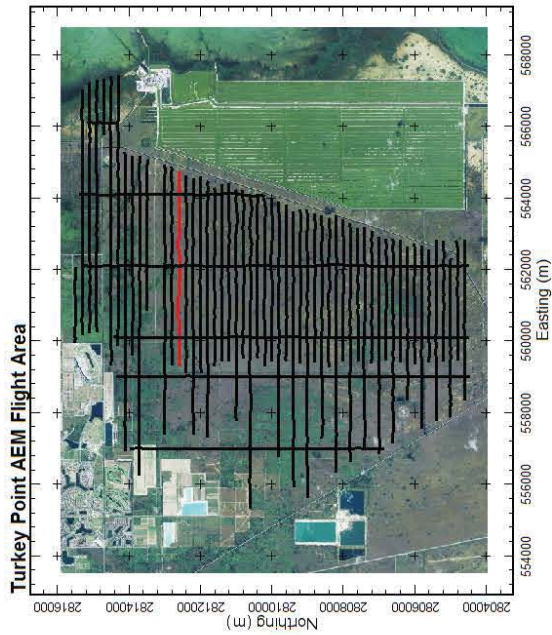
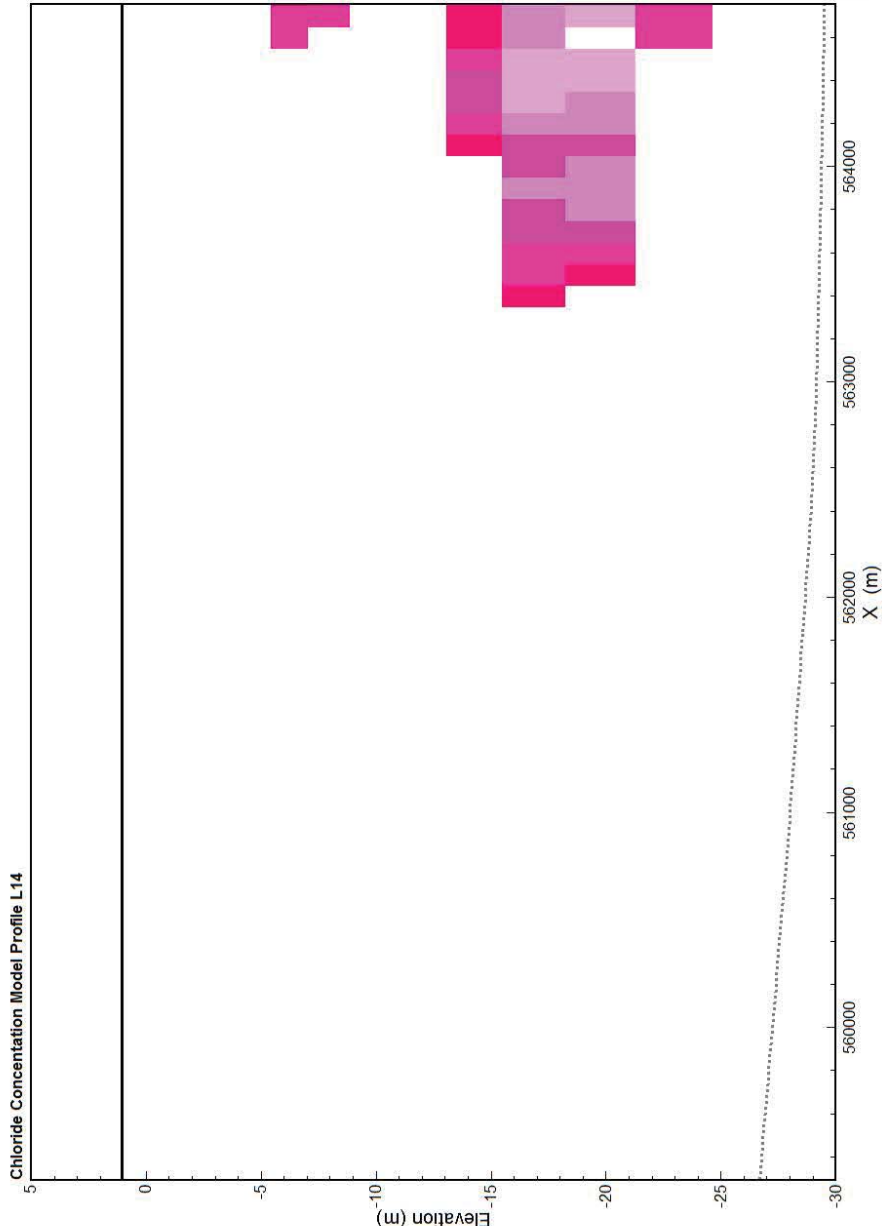
TPGW Water Quality
The Profile displays Chloride Concentration > 19,000 mg/L.

Surfaces:
Surface elevation is indicated by the solid black line. The base of the Biscayne Aquifer as defined by Fish and Stewart (1991) is indicated by the dashed gray line.

Projection and Datum:
The map projection is NAD83 UTM Zone 17 North (meters). The vertical datum is NAVD88 (meters).

Images prepared by Aqua Geo Frameworks LLC. under contract to ENERCON Services Inc.





Current Profile:

The red line on the Profile Position Map and the Turkey Point AEM Survey Map indicates the current viewed Profile that is displayed in the Chloride Concentration Model Window.

TPGW Water Quality
The Profile displays Chloride Concentration > 19,000 mg/L.

Surfaces:

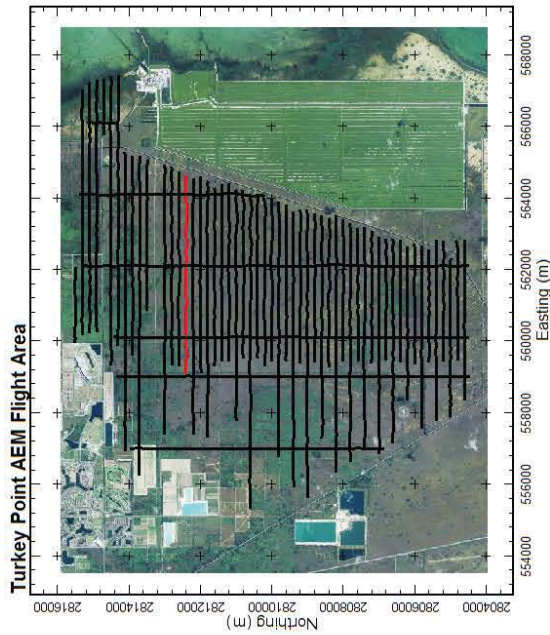
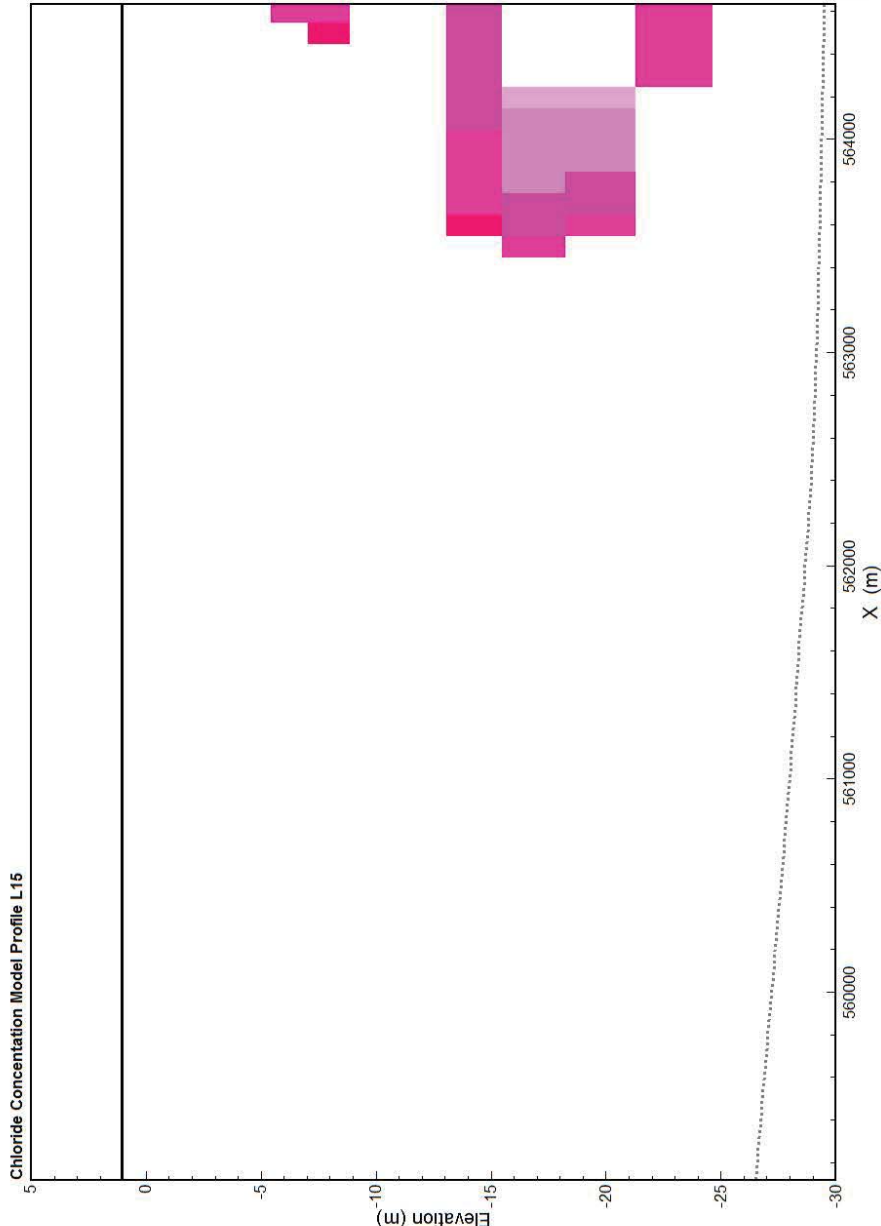
Surface elevation is indicated by the solid black line. The base of the Biscayne Aquifer as defined by Fish and Stewart (1991) is indicated by the dashed gray line.

Projection and Datum:

The map projection is NAD83 UTM Zone 17 North (meters). The vertical datum is NAVD88 (meters).

Images prepared by Aqua Geo Frameworks LLC. under contract to ENERCON Services Inc.





Current Profile:

The red line on the Profile Position Map and the Turkey Point AEM Survey Map indicates the current viewed Profile that is displayed in the Chloride Concentration Model Window.

TPGW Water Quality
The Profile displays Chloride Concentration > 19,000 mg/L.

Surfaces:

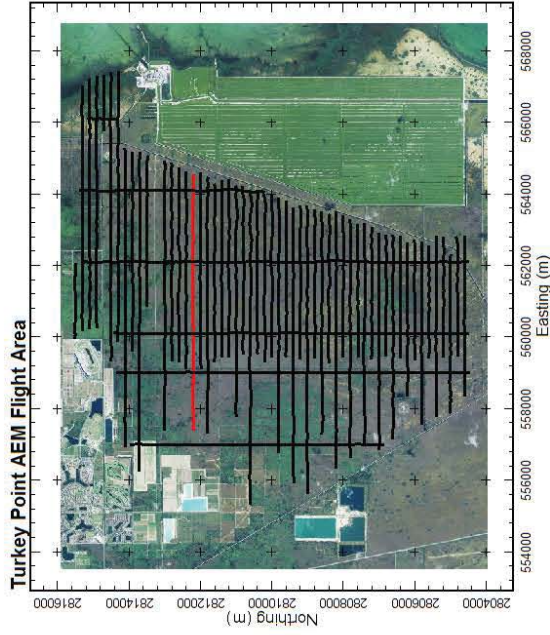
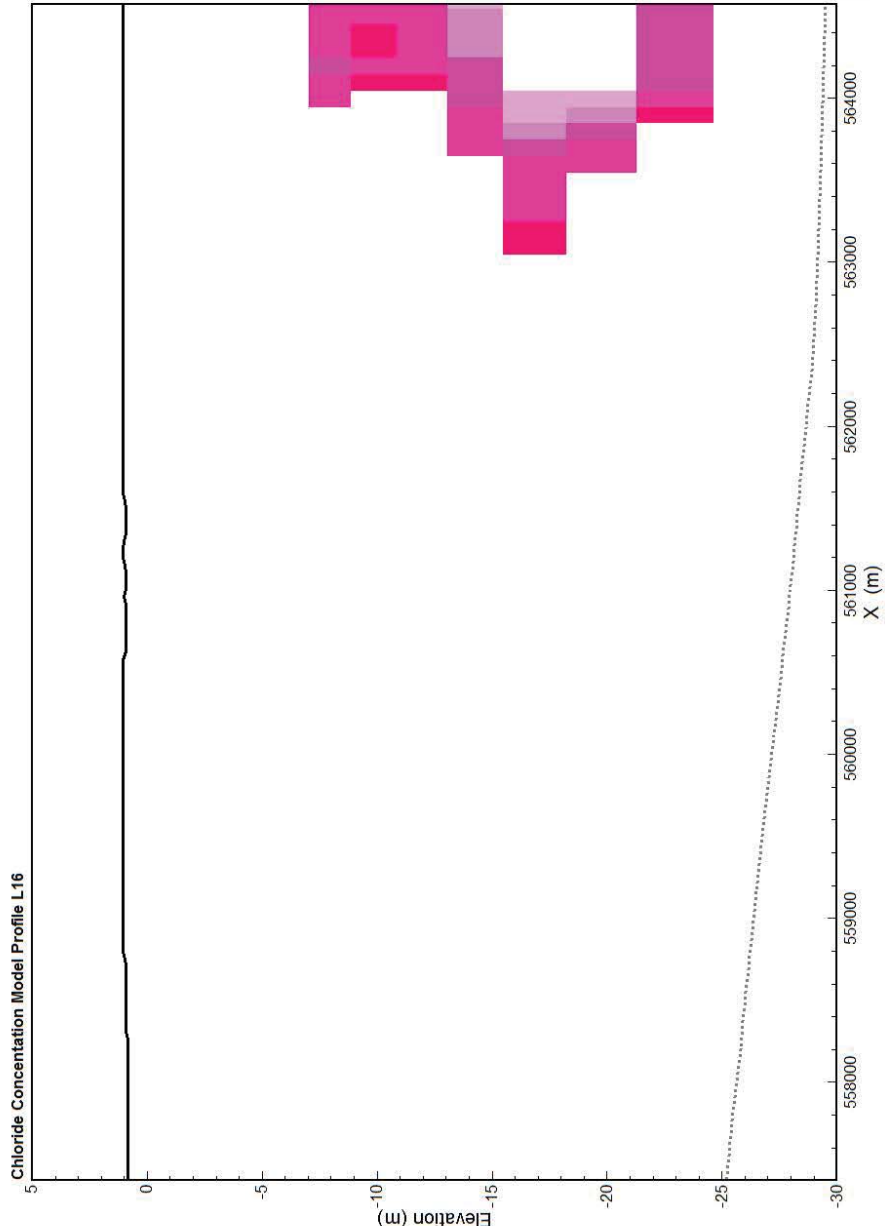
Surface elevation is indicated by the solid black line. The base of the Biscayne Aquifer as defined by Fish and Stewart (1991) is indicated by the dashed gray line.

Projection and Datum:

The map projection is NAD83 UTM Zone 17 North (meters). The vertical datum is NAVD88 (meters).

Images prepared by Aqua Geo Frameworks LLC. under contract to ENERCON Services Inc.





Current Profile:

The red line on the Profile Position Map and the Turkey Point AEM Survey Map indicates the current viewed Profile that is displayed in the Chloride Concentration Model Window.

TPGW Water Quality
The Profile displays Chloride Concentration > 19,000 mg/L.

Surfaces:

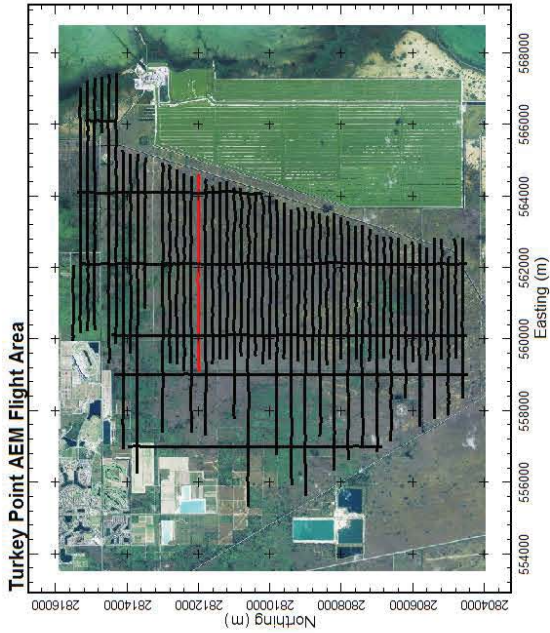
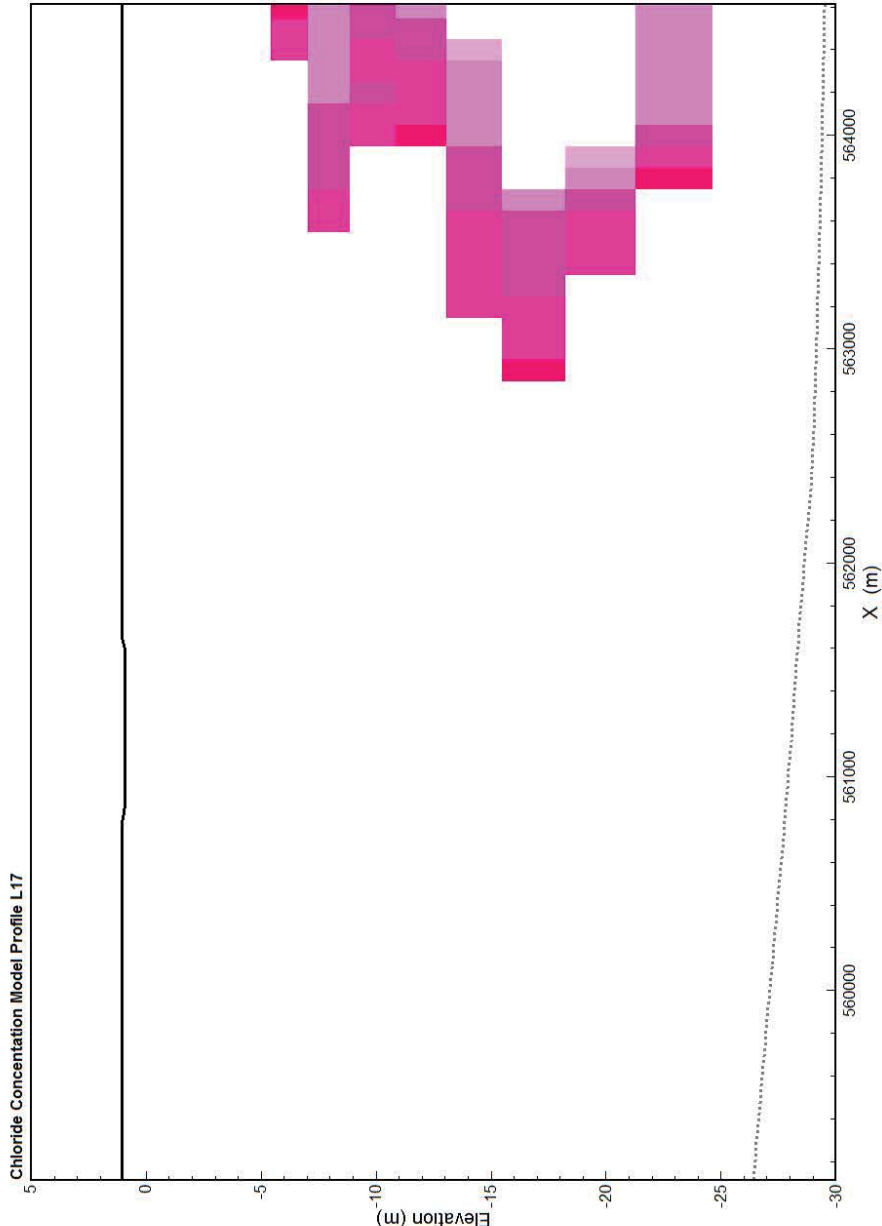
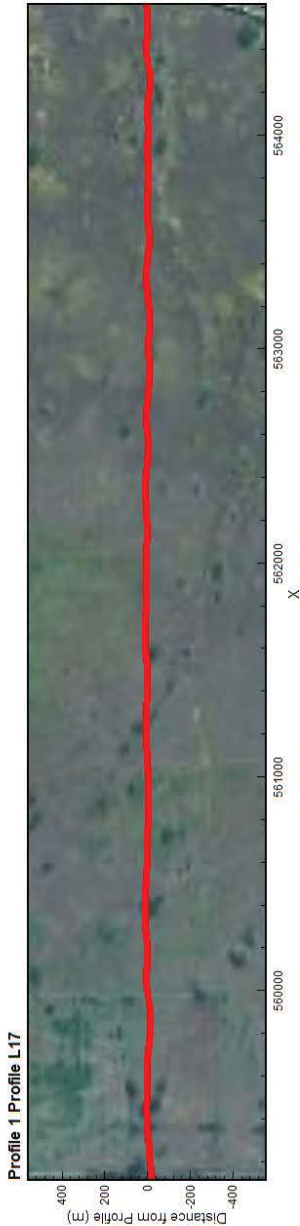
Surface elevation is indicated by the solid black line. The base of the Biscayne Aquifer as defined by Fish and Stewart (1991) is indicated by the dashed gray line.

Projection and Datum:

The map projection is NAD83 UTM Zone 17 North (meters). The vertical datum is NAVD88 (meters).

Images prepared by Aqua Geo Frameworks LLC. under contract to ENERCON Services Inc.





Current Profile:

The red line on the Profile Position Map and the Turkey Point AEM Survey Map indicates the current viewed Profile that is displayed in the Chloride Concentration Model Window.

TPGW Water Quality
The Profile displays Chloride Concentration > 19,000 mg/L.

Surfaces:

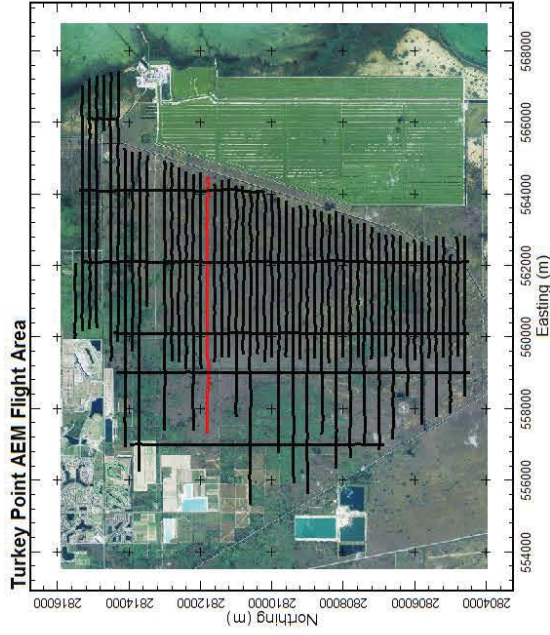
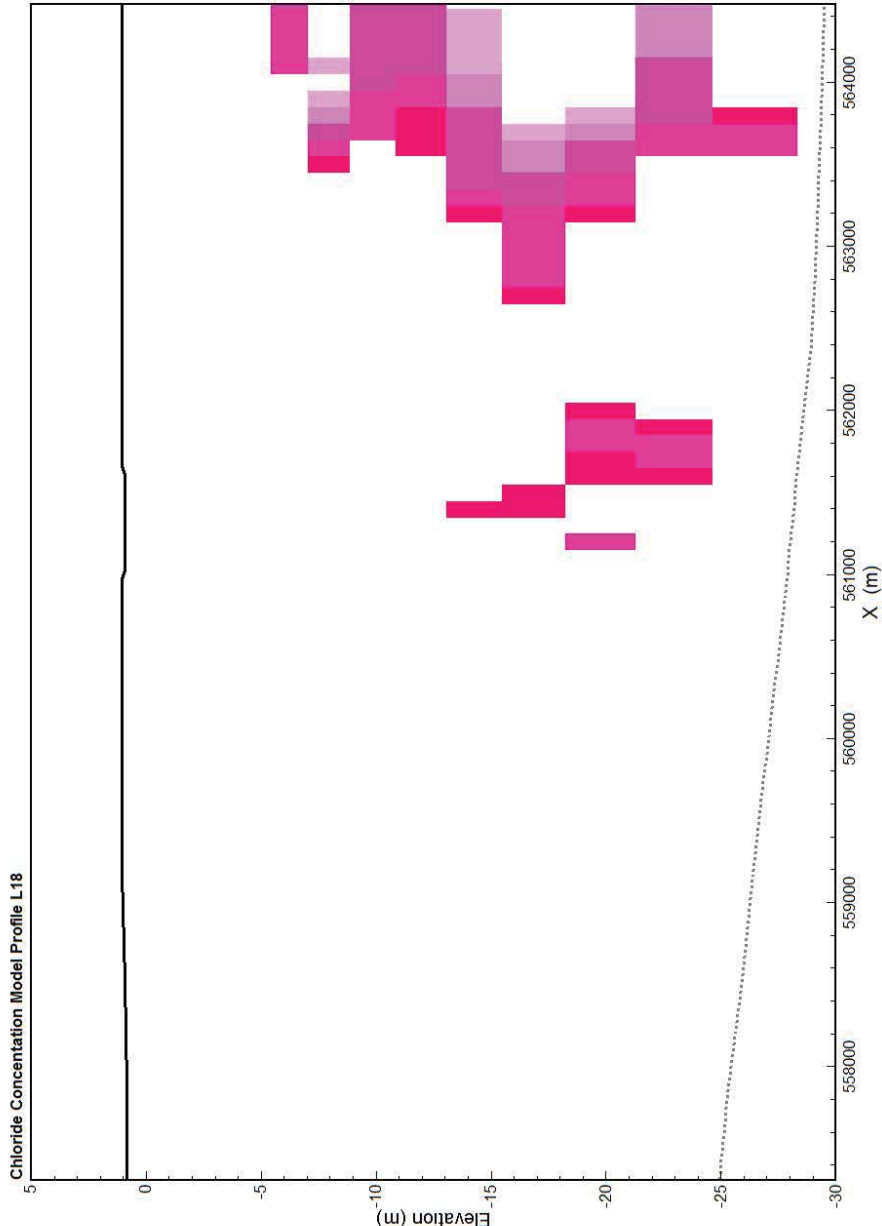
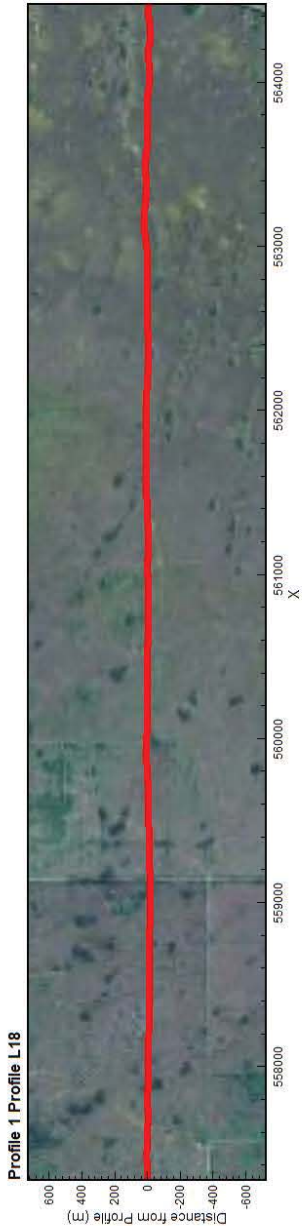
Surface elevation is indicated by the solid black line. The base of the Biscayne Aquifer as defined by Fish and Stewart (1991) is indicated by the dashed gray line.

Projection and Datum:

The map projection is NAD83 UTM Zone 17 North (meters). The vertical datum is NAVD88 (meters).

Images prepared by Aqua Geo Frameworks LLC. under contract to ENERCON Services Inc.





Current Profile:

The red line on the Profile Position Map and the Turkey Point AEM Survey Map indicates the current viewed Profile that is displayed in the Chloride Concentration Model Window.

TPGW Water Quality
The Profile displays Chloride Concentration > 19,000 mg/L.

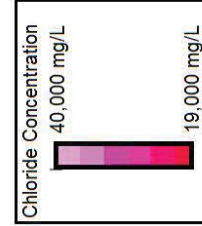
Surfaces:

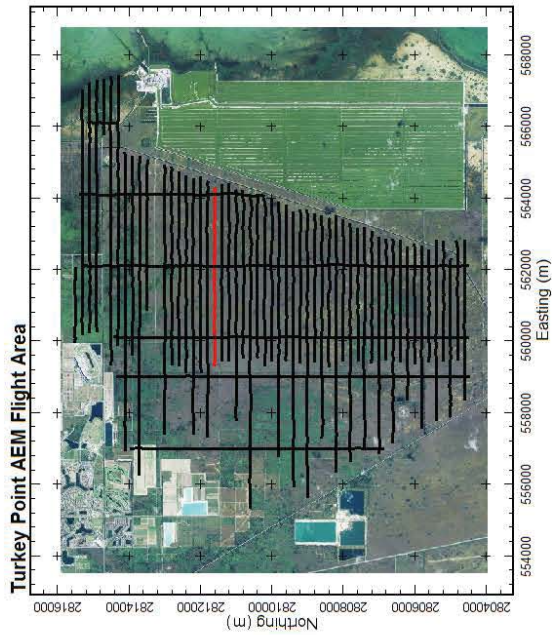
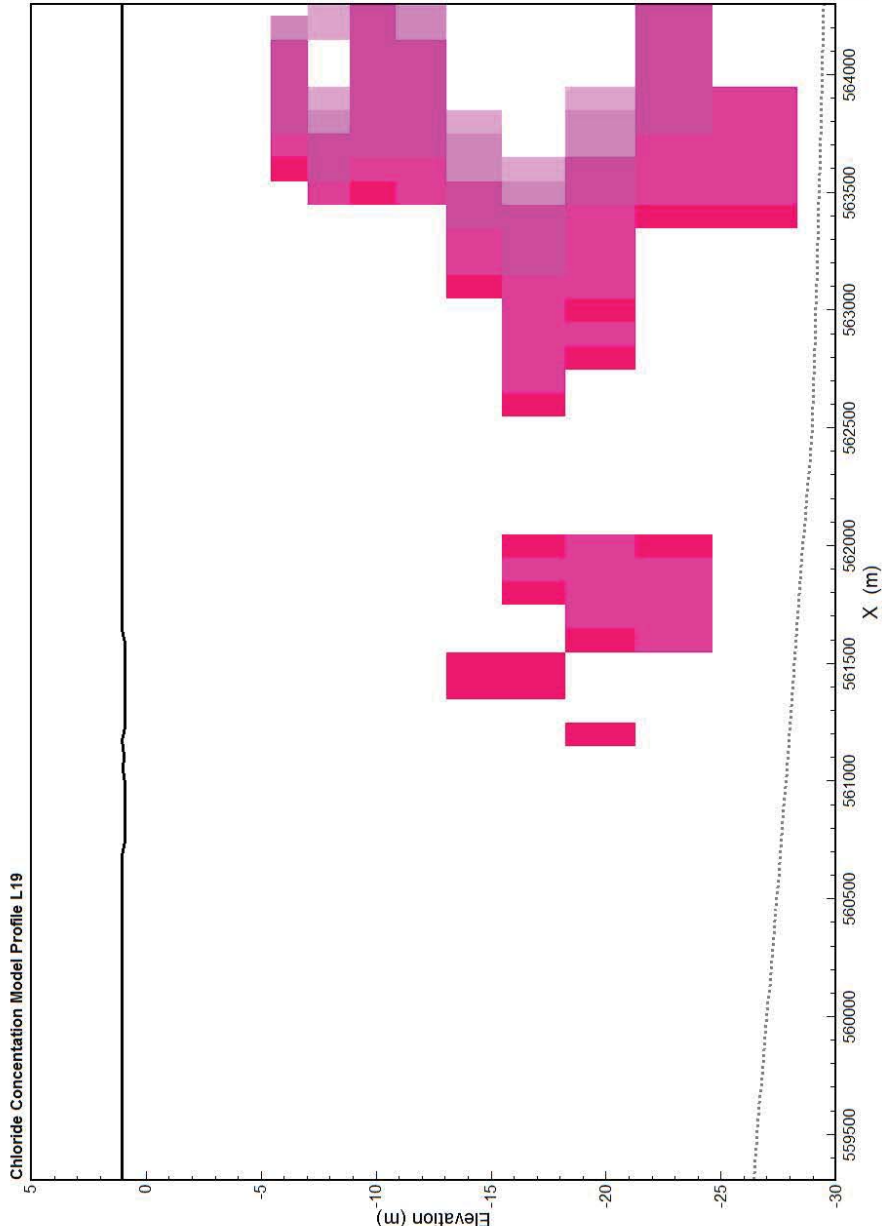
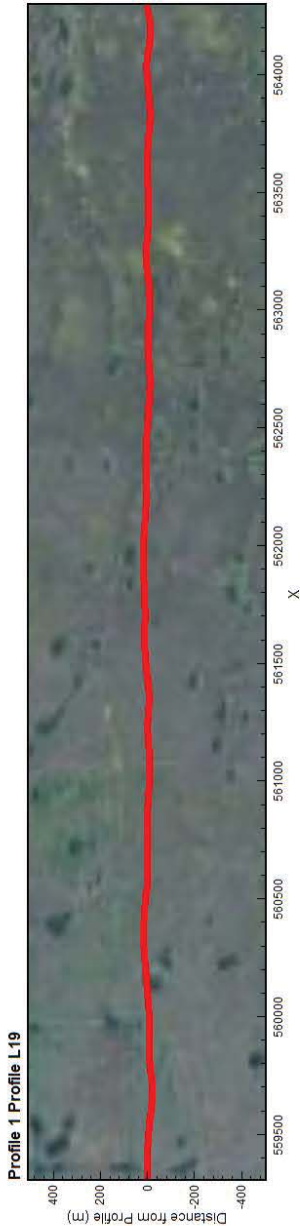
Surface elevation is indicated by the solid black line. The base of the Biscayne Aquifer as defined by Fish and Stewart (1991) is indicated by the dashed gray line.

Projection and Datum:

The map projection is NAD83 UTM Zone 17 North (meters). The vertical datum is NAVD88 (meters).

Images prepared by Aqua Geo Frameworks LLC. under contract to ENERCON Services Inc.





Current Profile:

The red line on the Profile Position Map and the Turkey Point AEM Survey Map indicates the current viewed Profile that is displayed in the Chloride Concentration Model Window.

TPGW Water Quality
The Profile displays Chloride Concentration > 19,000 mg/L.

Surfaces:

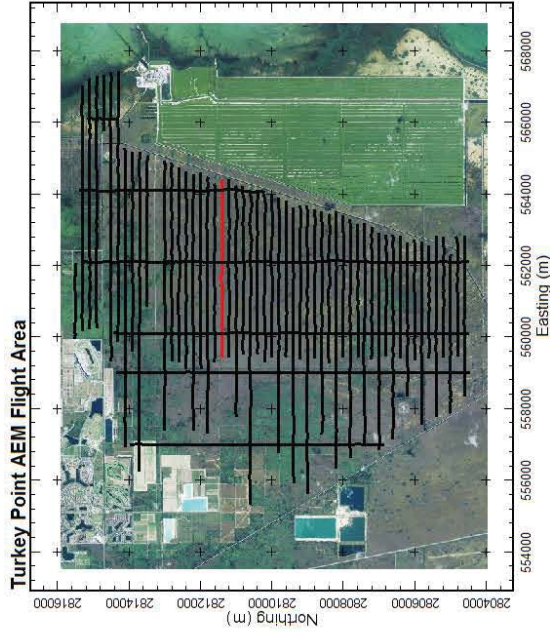
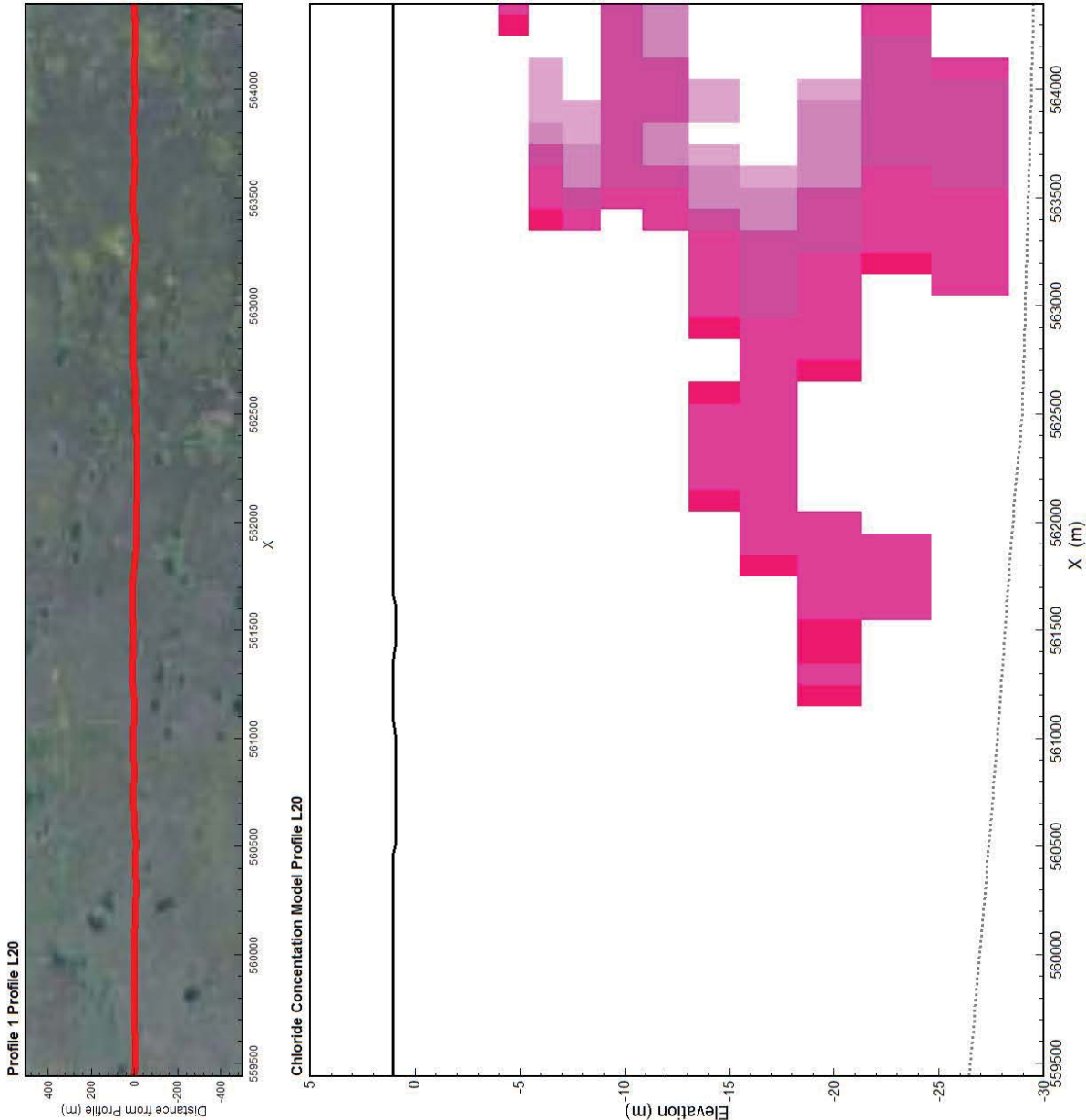
Surface elevation is indicated by the solid black line. The base of the Biscayne Aquifer as defined by Fish and Stewart (1991) is indicated by the dashed gray line.

Projection and Datum:

The map projection is NAD83 UTM Zone 17 North (meters). The vertical datum is NAVD88 (meters).

Images prepared by Aqua Geo Frameworks LLC. under contract to ENERCON Services Inc.





Current Profile:

The red line on the Profile Position Map and the Turkey Point AEM Survey Map indicates the current viewed Profile that is displayed in the Chloride Concentration Model Window.

TPGW Water Quality
The Profile displays Chloride Concentration > 19,000 mg/L.

Surfaces:

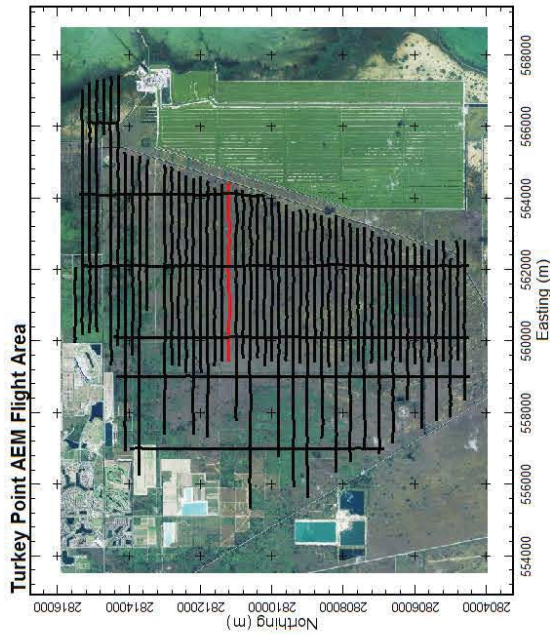
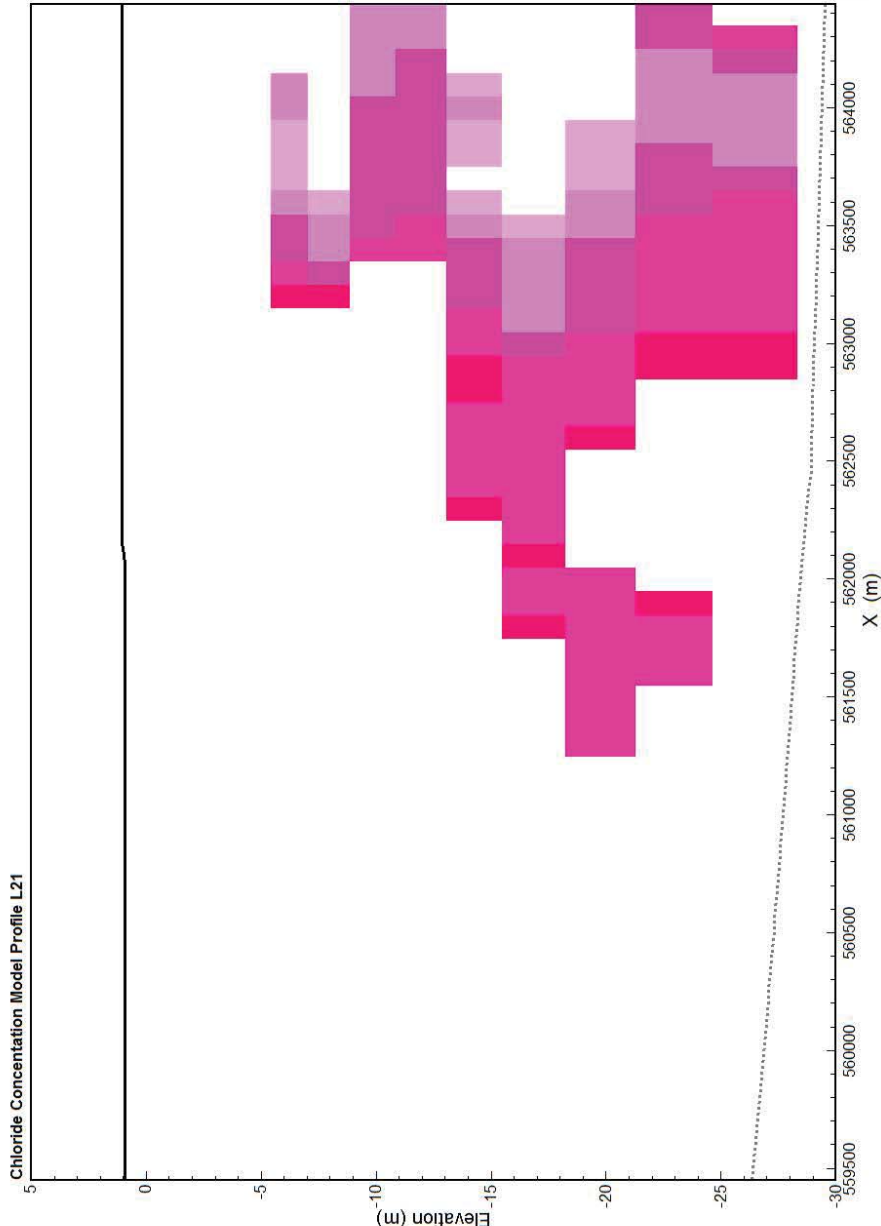
Surface elevation is indicated by the solid black line. The base of the Biscayne Aquifer as defined by Fish and Stewart (1991) is indicated by the dashed gray line.

Projection and Datum:

The map projection is NAD83 UTM Zone 17 North (meters). The vertical datum is NAVD88 (meters).

Images prepared by Aqua Geo Frameworks LLC. under contract to ENERCON Services Inc.





Current Profile:

The red line on the Profile Position Map and the Turkey Point AEM Survey Map indicates the current viewed Profile that is displayed in the Chloride Concentration Model Window.

TPGW Water Quality

The Profile displays Chloride Concentration > 19,000 mg/L.

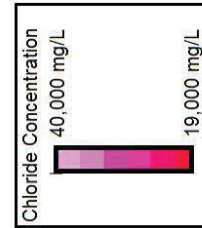
Surfaces:

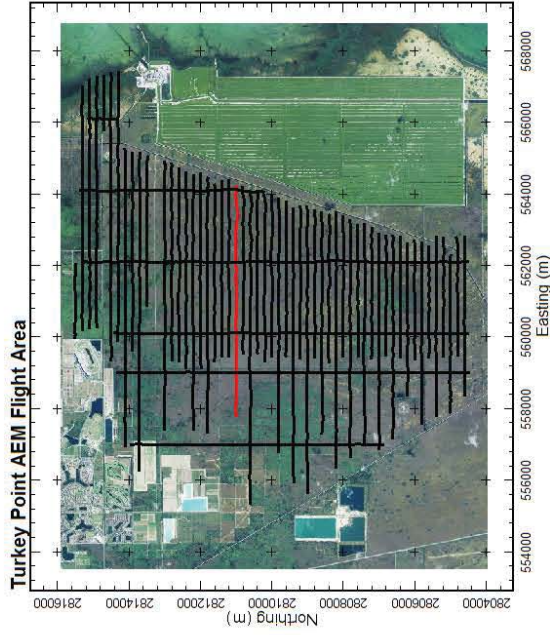
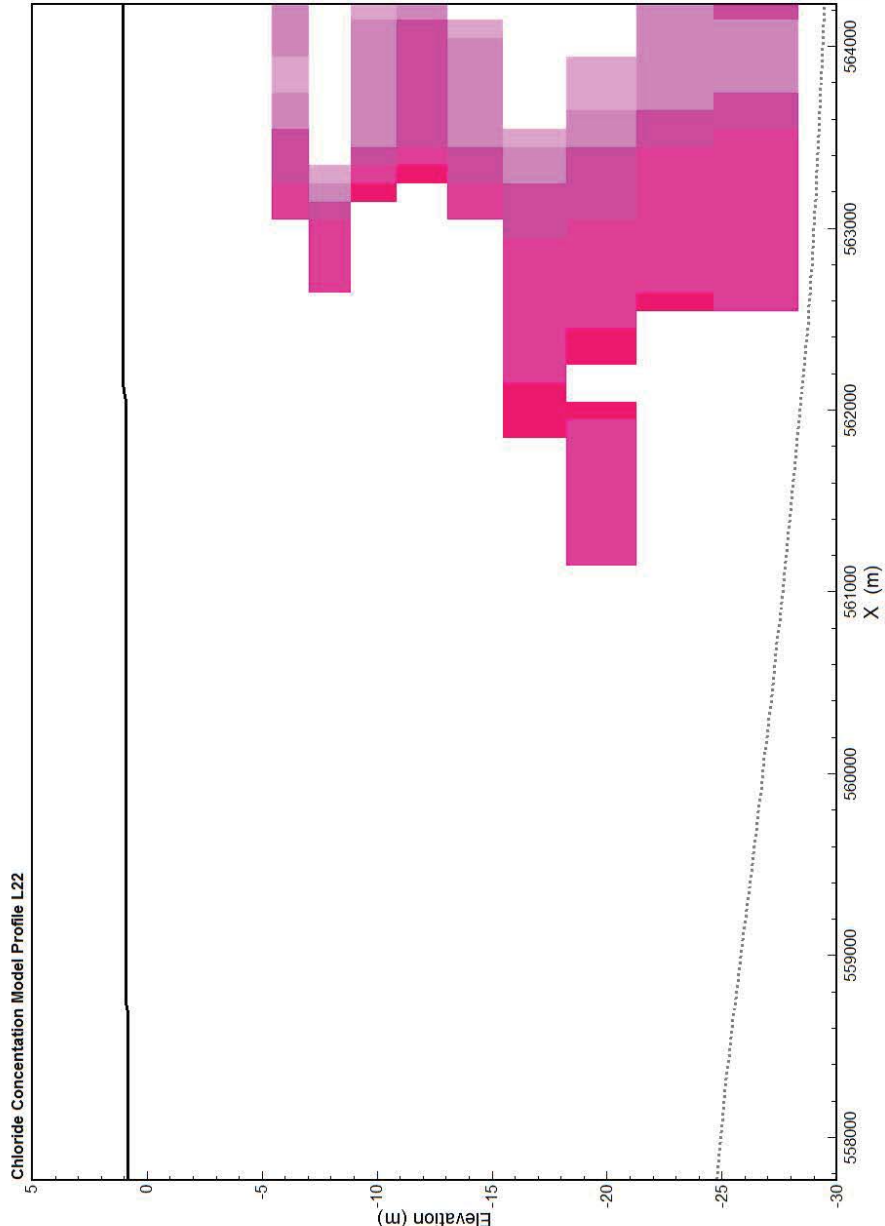
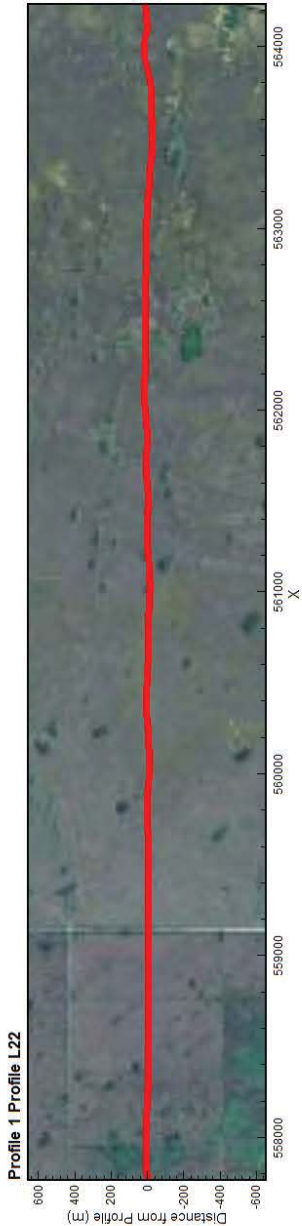
Surface elevation is indicated by the solid black line. The base of the Biscayne Aquifer as defined by Fish and Stewart (1991) is indicated by the dashed gray line.

Projection and Datum:

The map projection is NAD83 UTM Zone 17 North (meters). The vertical datum is NAVD88 (meters).

Images prepared by Aqua Geo Frameworks LLC. under contract to ENERCON Services Inc.





Current Profile:

The red line on the Profile Position Map and the Turkey Point AEM Survey Map indicates the current viewed Profile that is displayed in the Chloride Concentration Model Window.

TPGW Water Quality
The Profile displays Chloride Concentration > 19,000 mg/L.

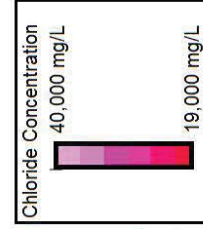
Surfaces:

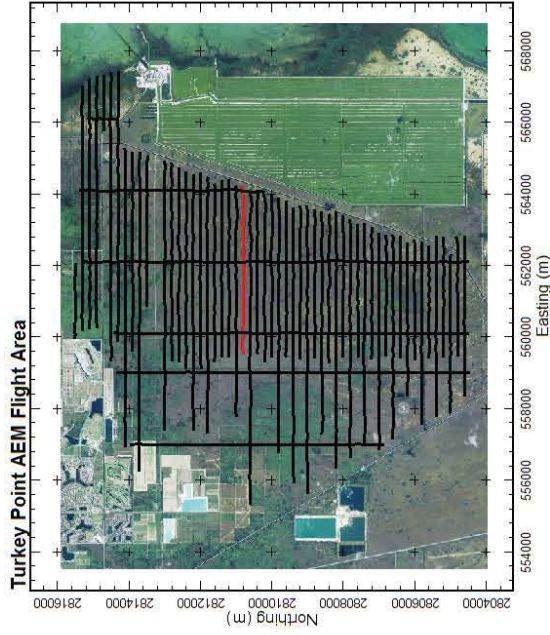
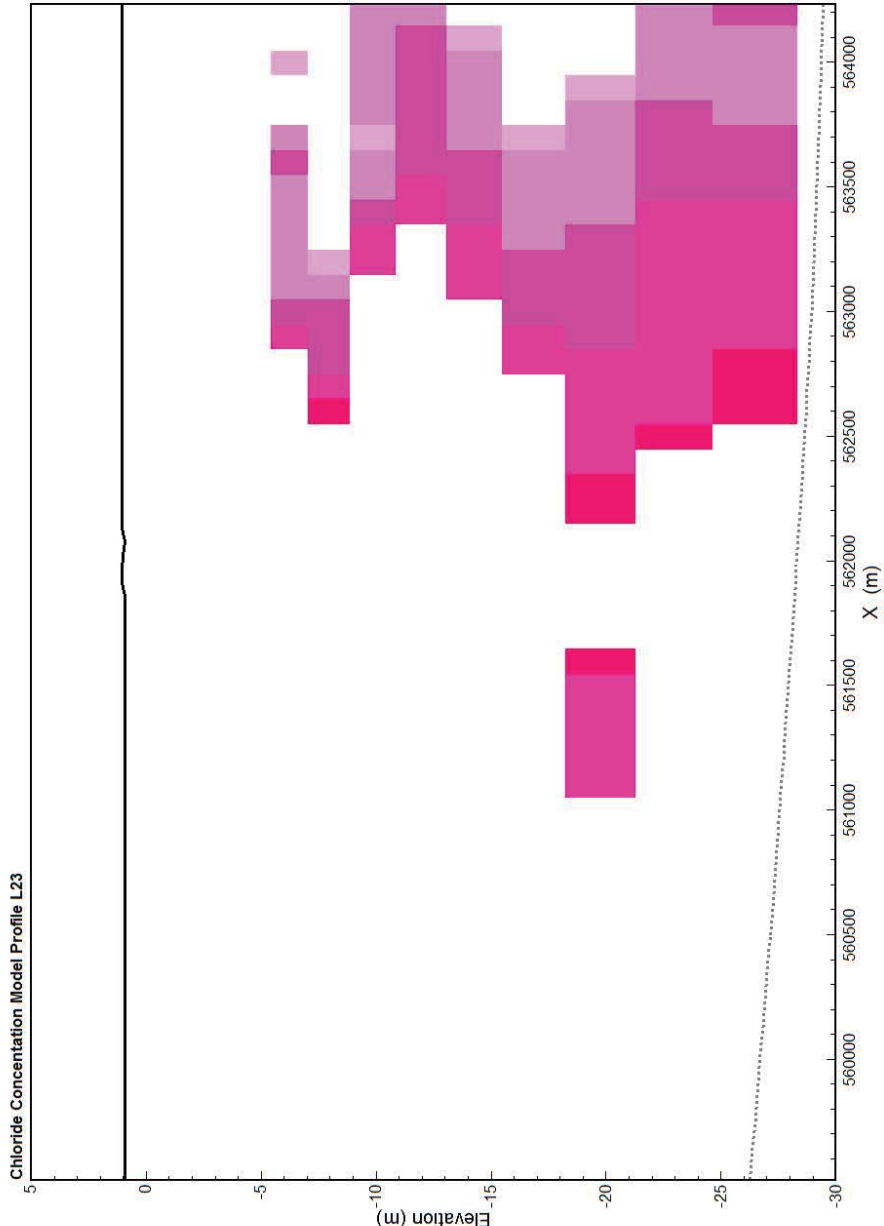
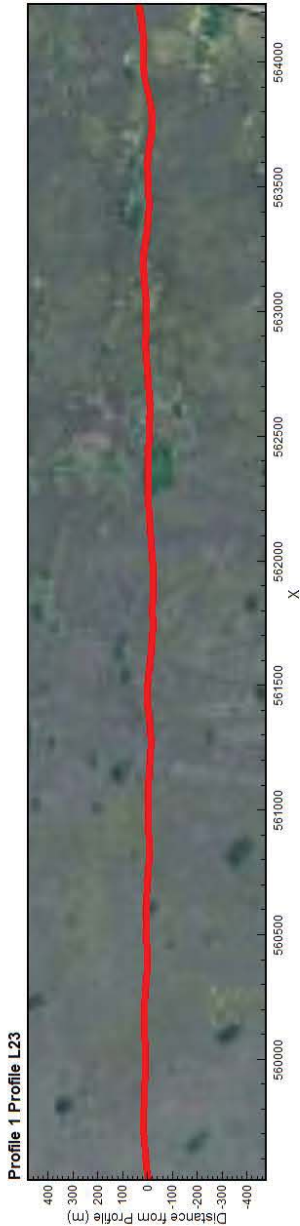
Surface elevation is indicated by the solid black line. The base of the Biscayne Aquifer as defined by Fish and Stewart (1991) is indicated by the dashed gray line.

Projection and Datum:

The map projection is NAD83 UTM Zone 17 North (meters). The vertical datum is NAVD88 (meters).

Images prepared by Aqua Geo Frameworks LLC. under contract to ENERCON Services Inc.





Current Profile:

The red line on the Profile Position Map and the Turkey Point AEM Survey Map indicates the current viewed Profile that is displayed in the Chloride Concentration Model Window.

TPGW Water Quality
The Profile displays Chloride Concentration > 19,000 mg/L.

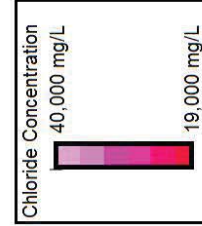
Surfaces:

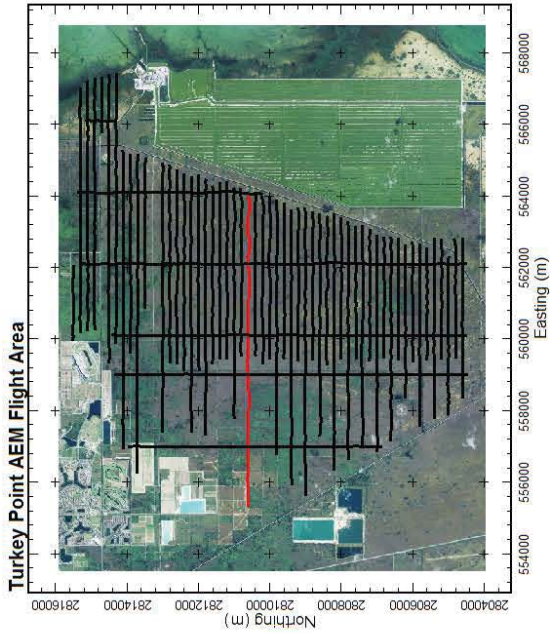
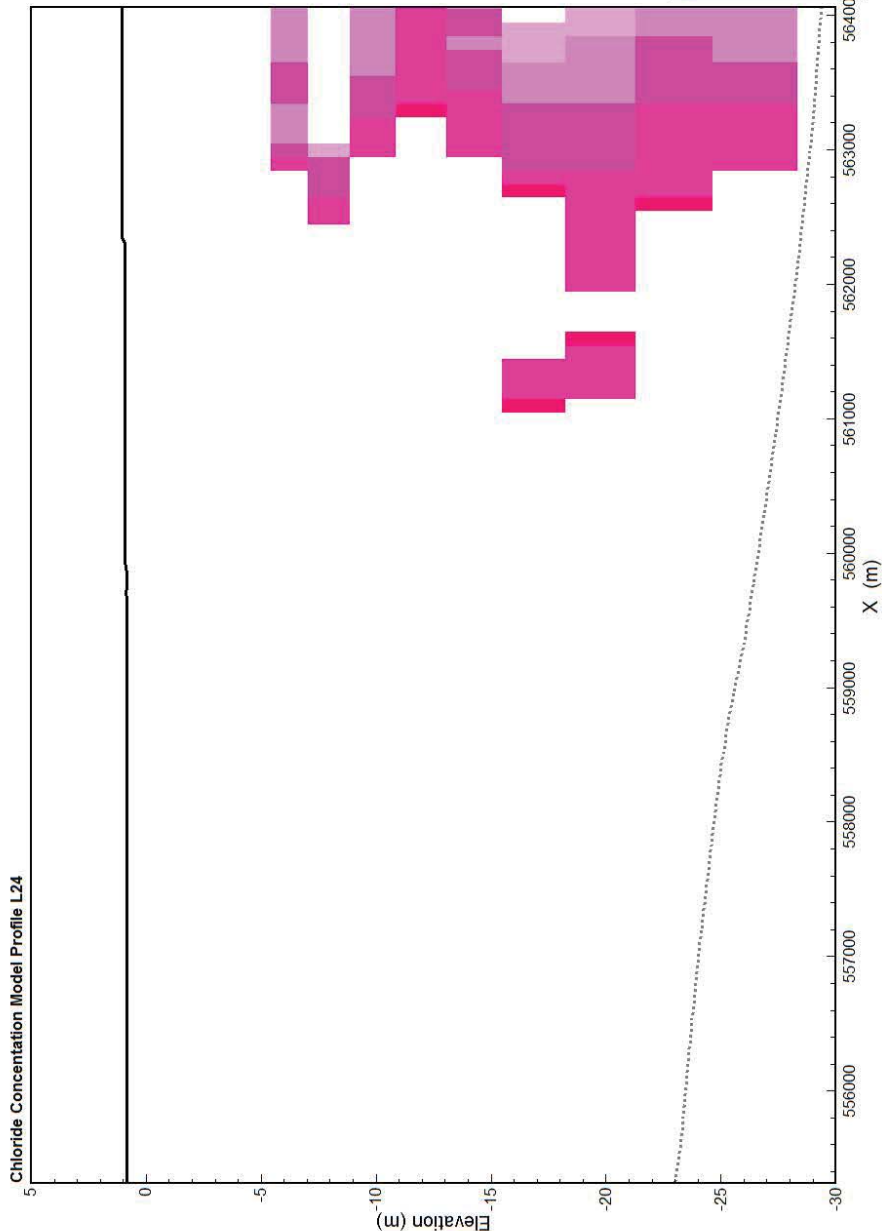
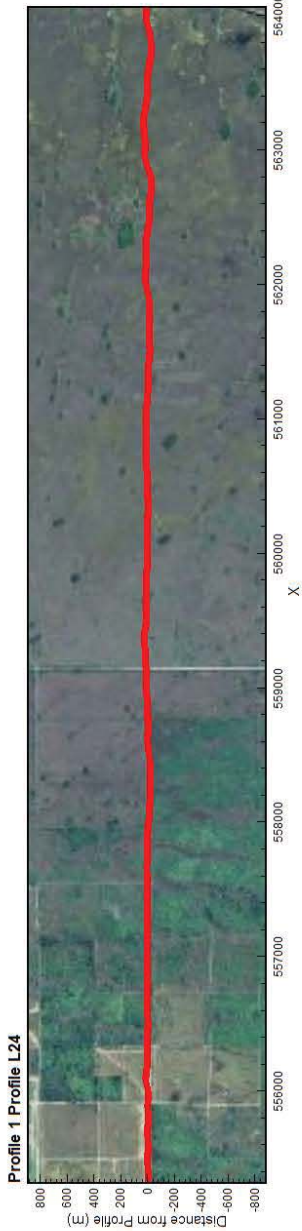
Surface elevation is indicated by the solid black line. The base of the Biscayne Aquifer as defined by Fish and Stewart (1991) is indicated by the dashed gray line.

Projection and Datum:

The map projection is NAD83 UTM Zone 17 North (meters). The vertical datum is NAVD88 (meters).

Images prepared by Aqua Geo Frameworks LLC. under contract to ENERCON Services Inc.





Current Profile:
The red line on the Profile Position Map and the Turkey Point AEM Survey Map indicates the current viewed Profile that is displayed in the Chloride Concentration Model Window.

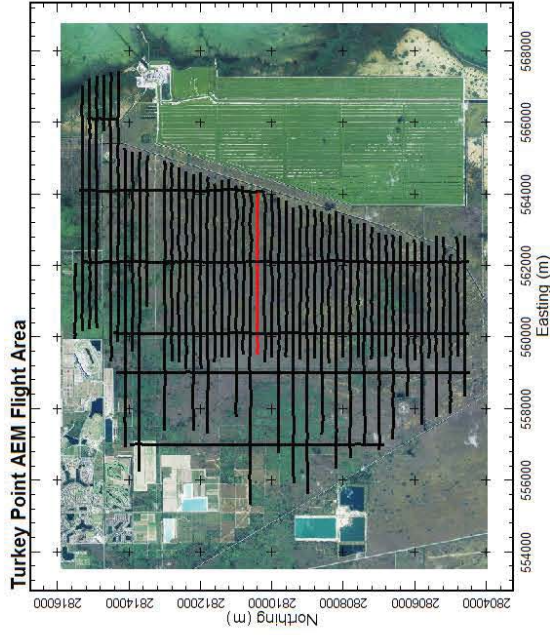
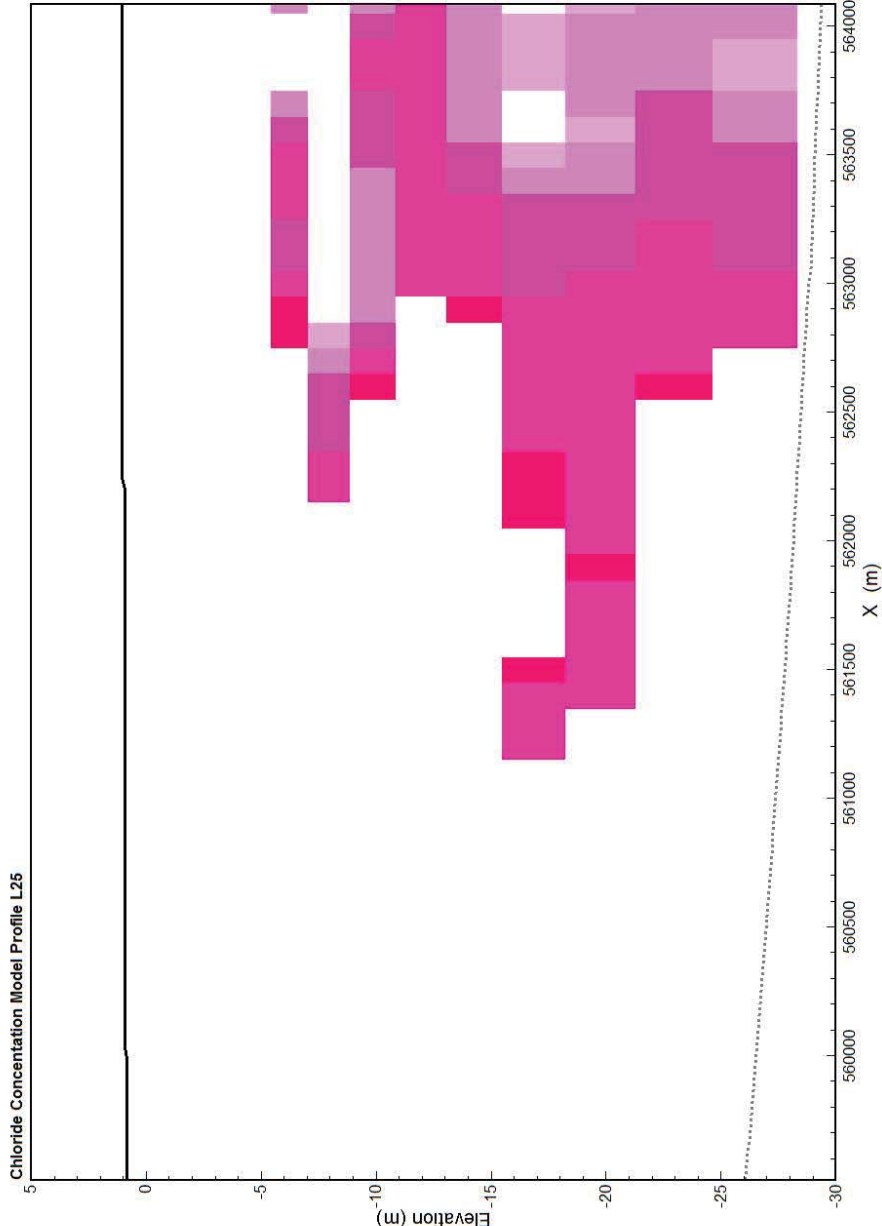
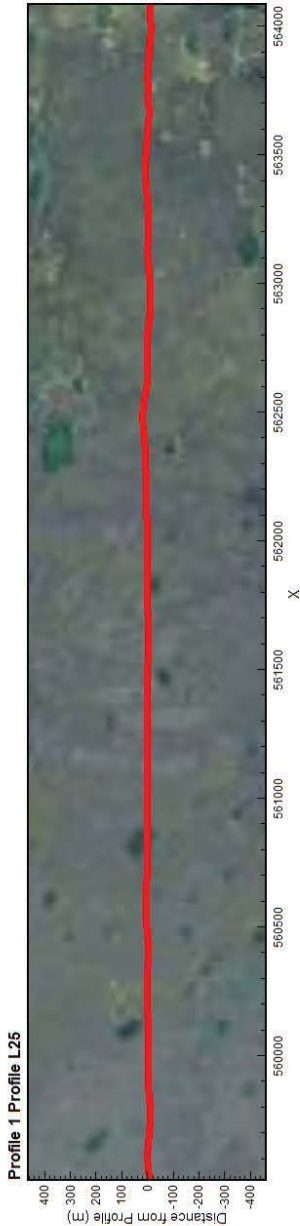
TPGW Water Quality
The Profile displays Chloride Concentration > 19,000 mg/L.

Surfaces:
Surface elevation is indicated by the solid black line. The base of the Biscayne Aquifer as defined by Fish and Stewart (1991) is indicated by the dashed gray line.

Projection and Datum:
The map projection is NAD83 UTM Zone 17 North (meters). The vertical datum is NAVD88 (meters).

Images prepared by Aqua Geo Frameworks LLC. under contract to ENERCON Services Inc.





Current Profile:

The red line on the Profile Position Map and the Turkey Point AEM Survey Map indicates the current viewed Profile that is displayed in the Chloride Concentration Model Window.

TPGW Water Quality
The Profile displays Chloride Concentration > 19,000 mg/L.

Surfaces:

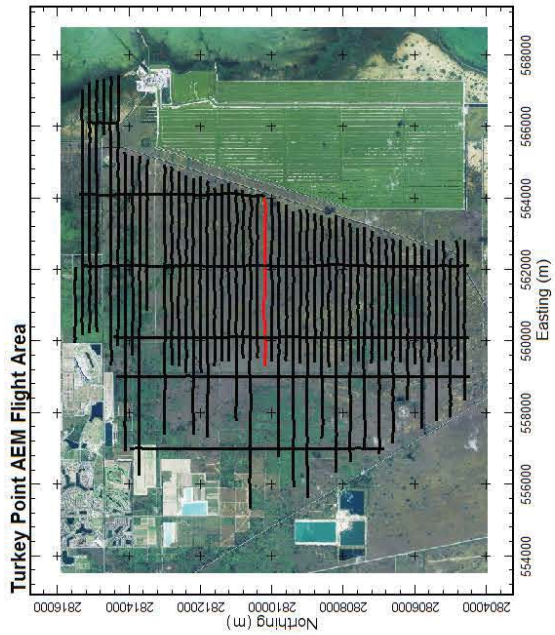
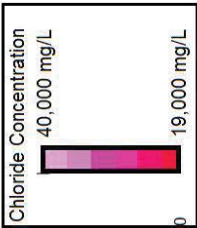
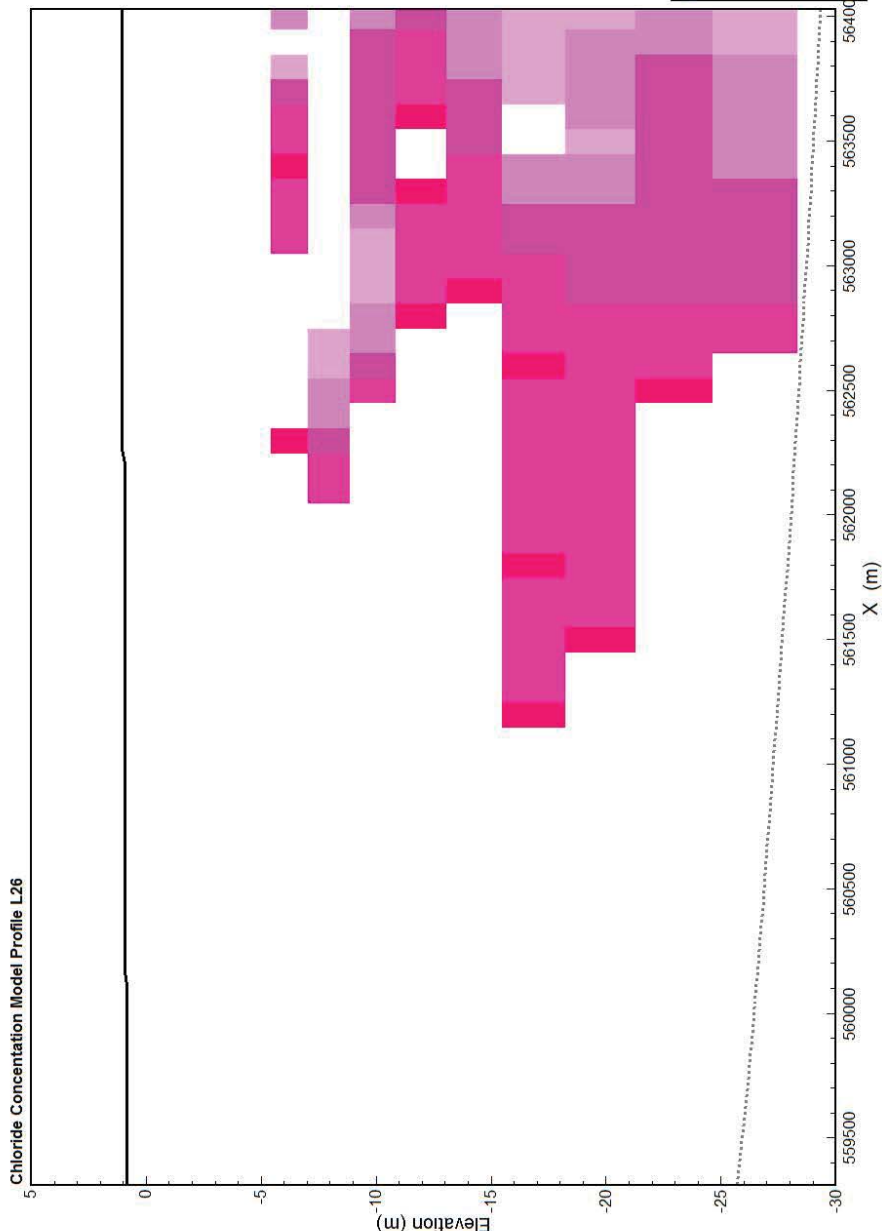
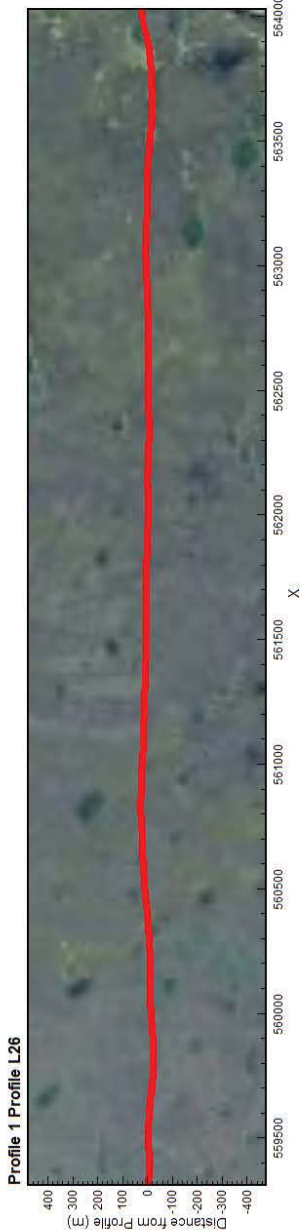
Surface elevation is indicated by the solid black line. The base of the Biscayne Aquifer as defined by Fish and Stewart (1991) is indicated by the dashed gray line.

Projection and Datum:

The map projection is NAD83 UTM Zone 17 North (meters). The vertical datum is NAVD88 (meters).

Images prepared by Aqua Geo Frameworks LLC. under contract to ENERCON Services Inc.





Current Profile:
The red line on the Profile Position Map and the Turkey Point AEM Survey Map indicates the current viewed Profile that is displayed in the Chloride Concentration Model Window.

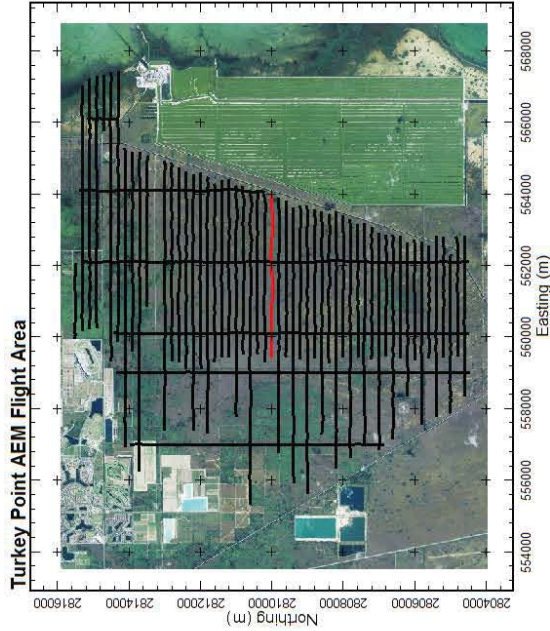
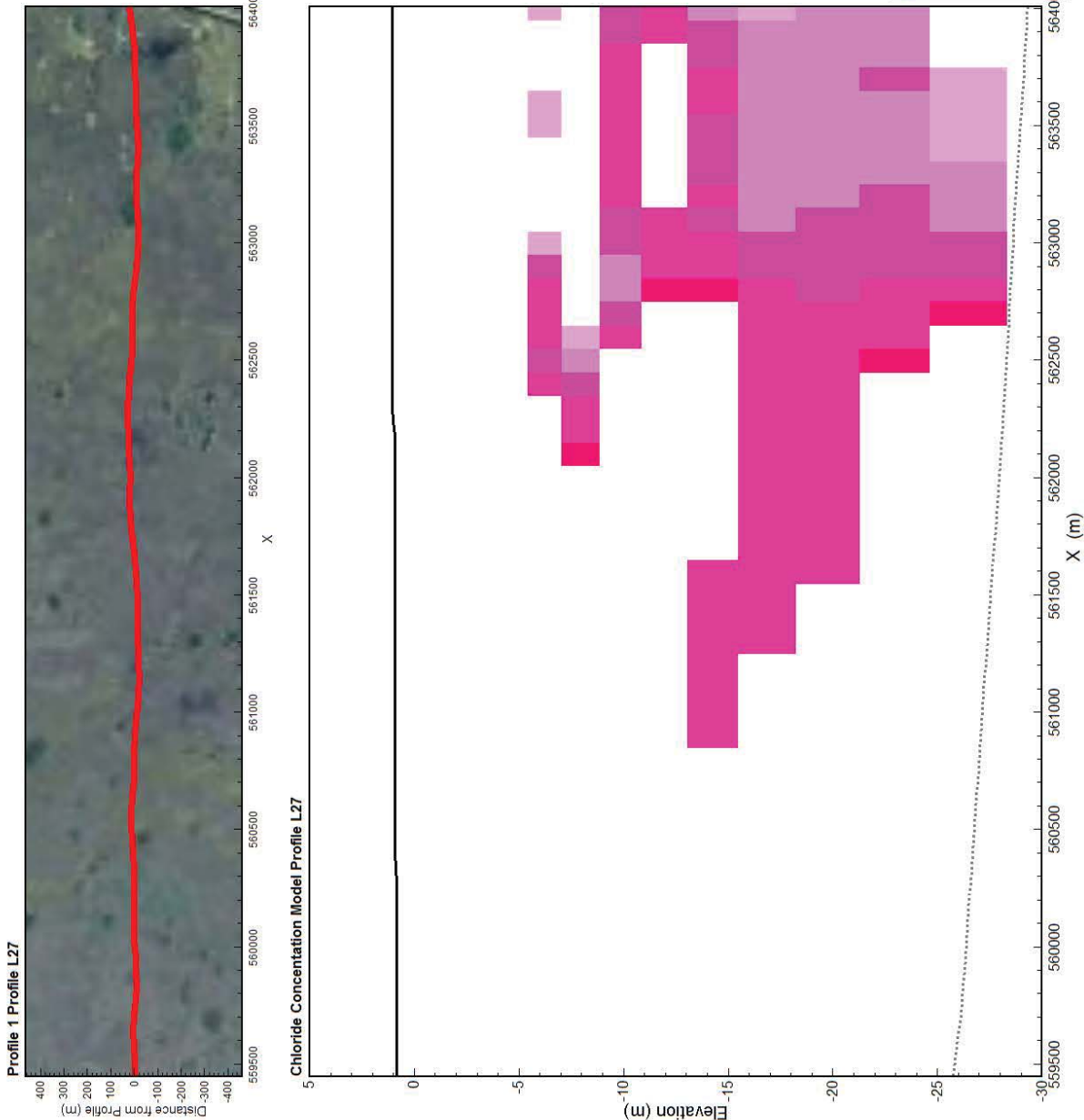
TPGW Water Quality
The Profile displays Chloride Concentration > 19,000 mg/L.

Surfaces:
Surface elevation is indicated by the solid black line. The base of the Biscayne Aquifer as defined by Fish and Stewart (1991) is indicated by the dashed gray line.

Projection and Datum:
The map projection is NAD83 UTM Zone 17 North (meters). The vertical datum is NAVD88 (meters).

Images prepared by Aqua Geo Frameworks LLC. under contract to ENERCON Services Inc.





Current Profile:
The red line on the Profile Position Map and the Turkey Point AEM Survey Map indicates the current viewed Profile that is displayed in the Chloride Concentration Model Window.

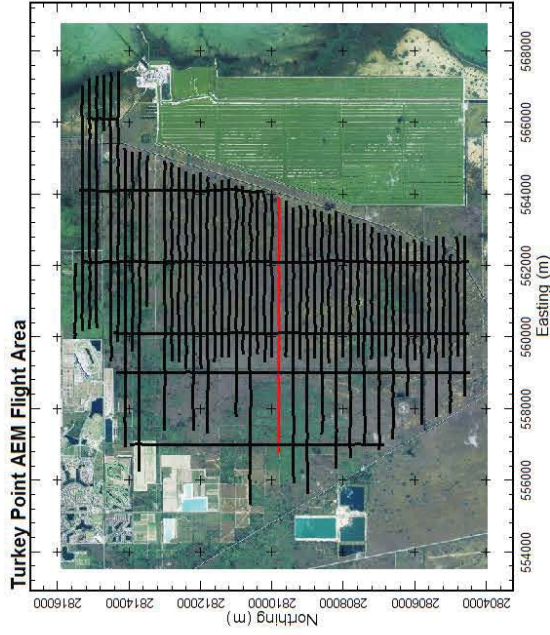
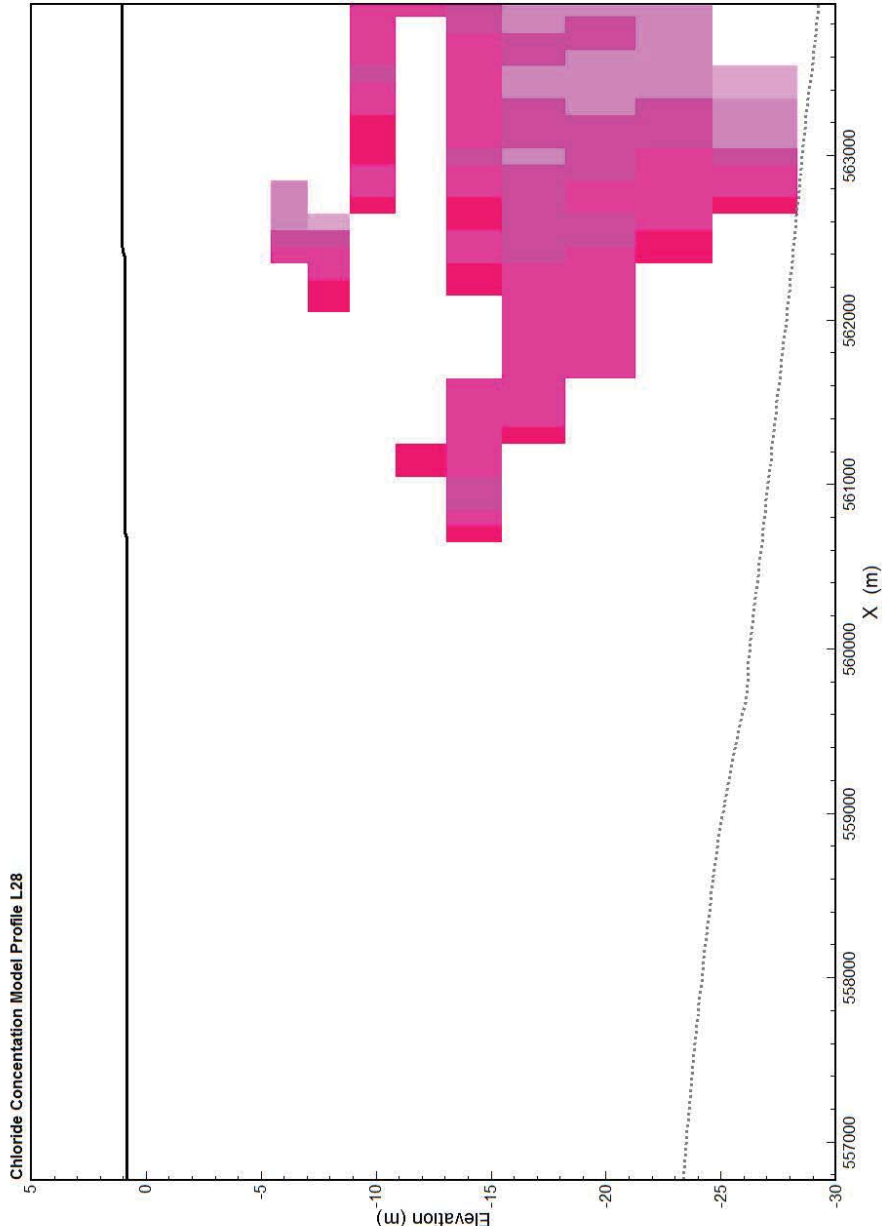
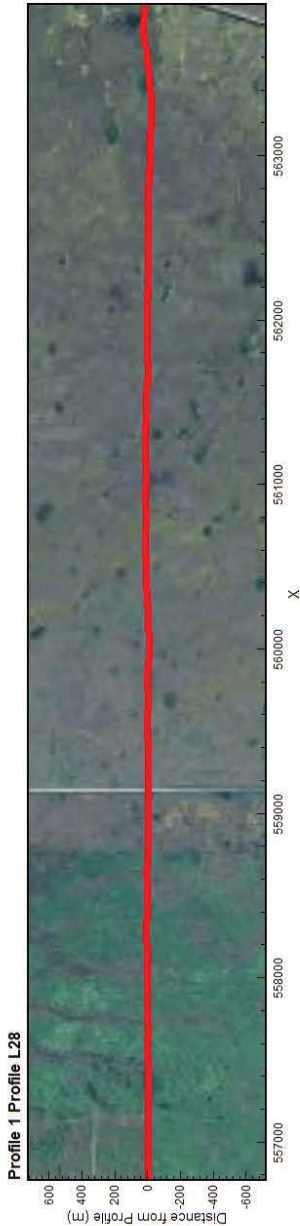
TPGW Water Quality
The Profile displays Chloride Concentration > 19,000 mg/L.

Surfaces:
Surface elevation is indicated by the solid black line. The base of the Biscayne Aquifer as defined by Fish and Stewart (1991) is indicated by the dashed gray line.

Projection and Datum:
The map projection is NAD83 UTM Zone 17 North (meters). The vertical datum is NAVD88 (meters).

Images prepared by Aqua Geo Frameworks LLC. under contract to ENERCON Services Inc.





Current Profile:

The red line on the Profile Position Map and the Turkey Point AEM Survey Map indicates the current viewed Profile that is displayed in the Chloride Concentration Model Window.

TPGW Water Quality

The Profile displays Chloride Concentration > 19,000 mg/L.

Surfaces:

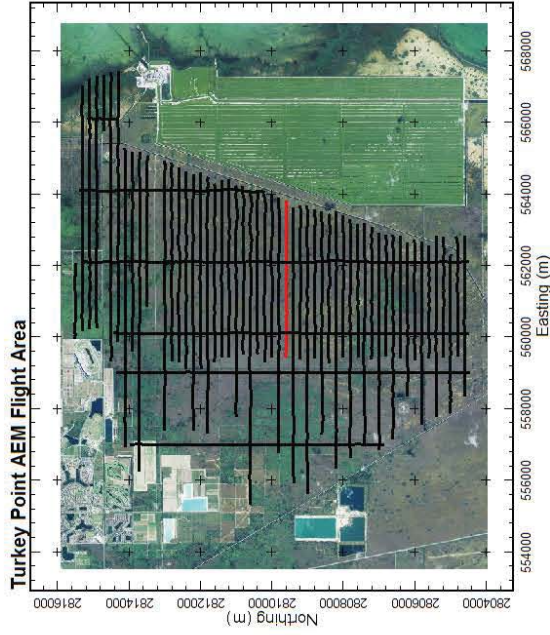
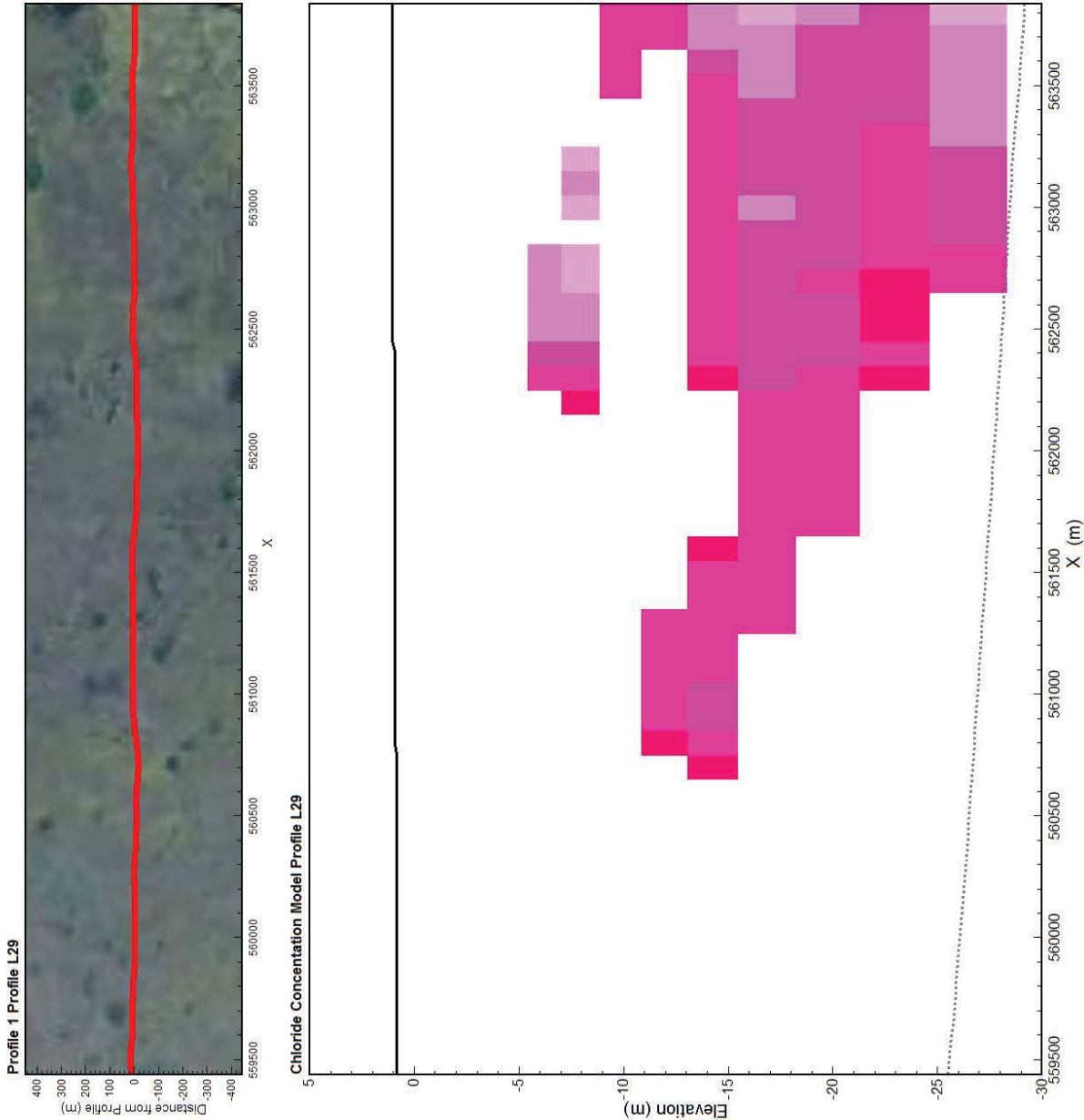
Surface elevation is indicated by the solid black line. The base of the Biscayne Aquifer as defined by Fish and Stewart (1991) is indicated by the dashed gray line.

Projection and Datum:

The map projection is NAD83 UTM Zone 17 North (meters). The vertical datum is NAVD88 (meters).

Images prepared by Aqua Geo Frameworks LLC. under contract to ENERCON Services Inc.





Current Profile:

The red line on the Profile Position Map and the Turkey Point AEM Survey Map indicates the current viewed Profile that is displayed in the Chloride Concentration Model Window.

TPGW Water Quality
The Profile displays Chloride Concentration > 19,000 mg/L.

Surfaces:

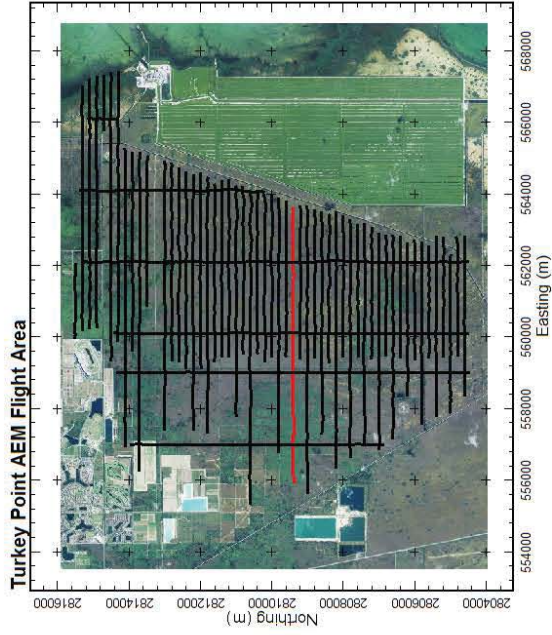
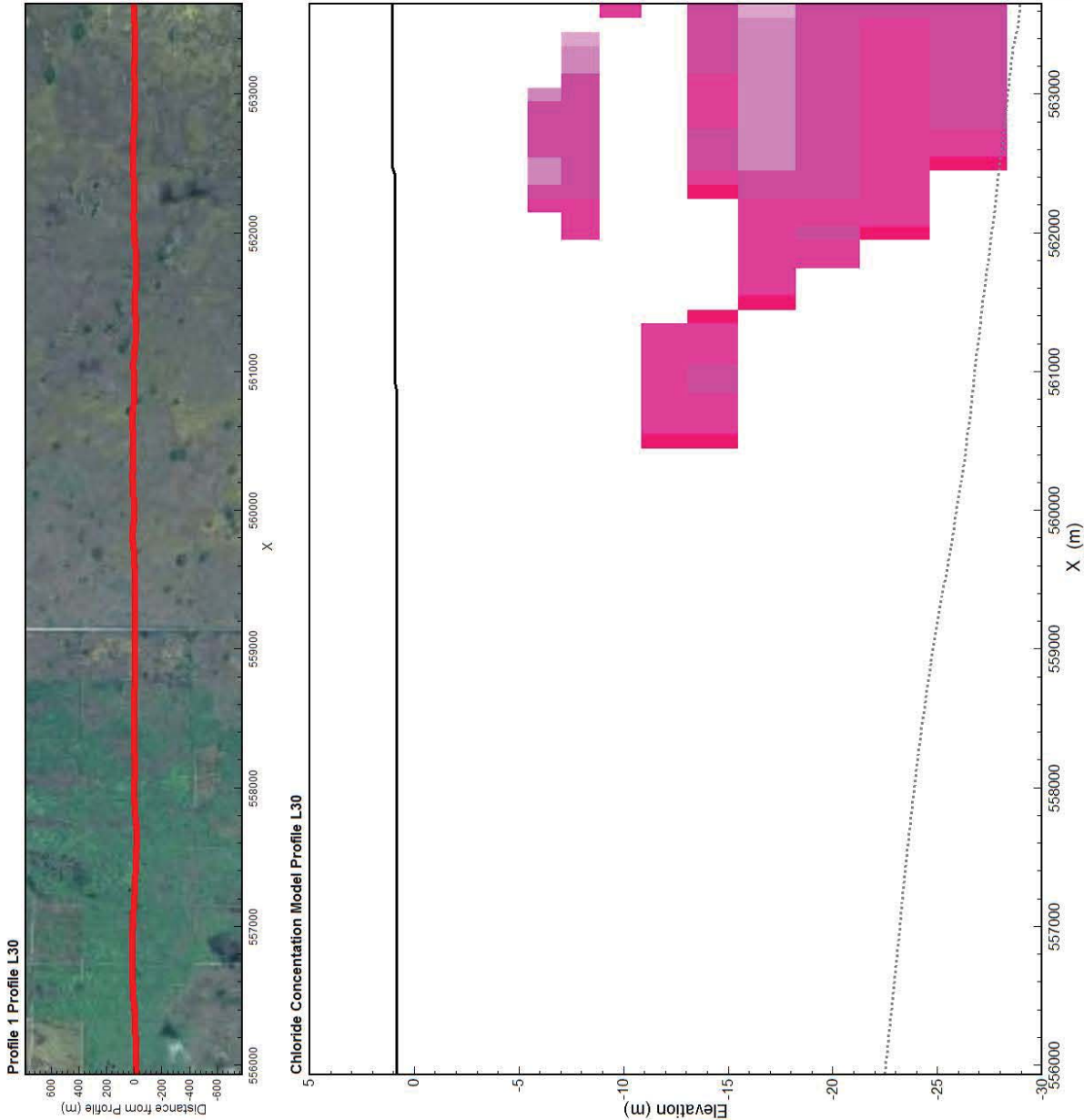
Surface elevation is indicated by the solid black line. The base of the Biscayne Aquifer as defined by Fish and Stewart (1991) is indicated by the dashed gray line.

Projection and Datum:

The map projection is NAD83 UTM Zone 17 North (meters). The vertical datum is NAVD88 (meters).

Images prepared by Aqua Geo Frameworks LLC. under contract to ENERCON Services Inc.





Current Profile:
The red line on the Profile Position Map and the Turkey Point AEM Survey Map indicates the current viewed Profile that is displayed in the Chloride Concentration Model Window.

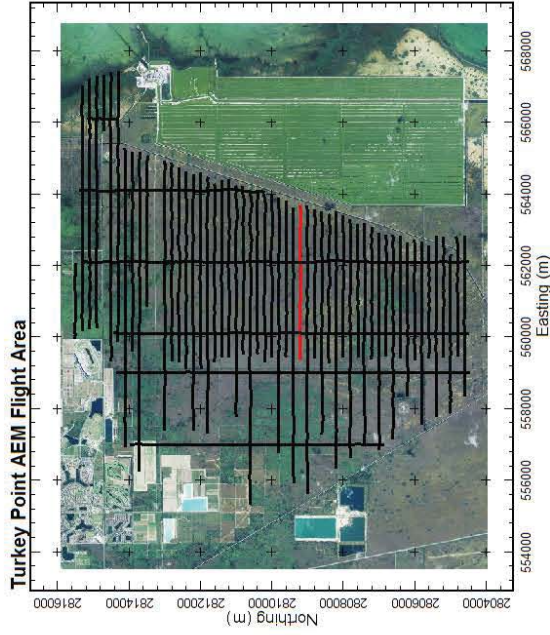
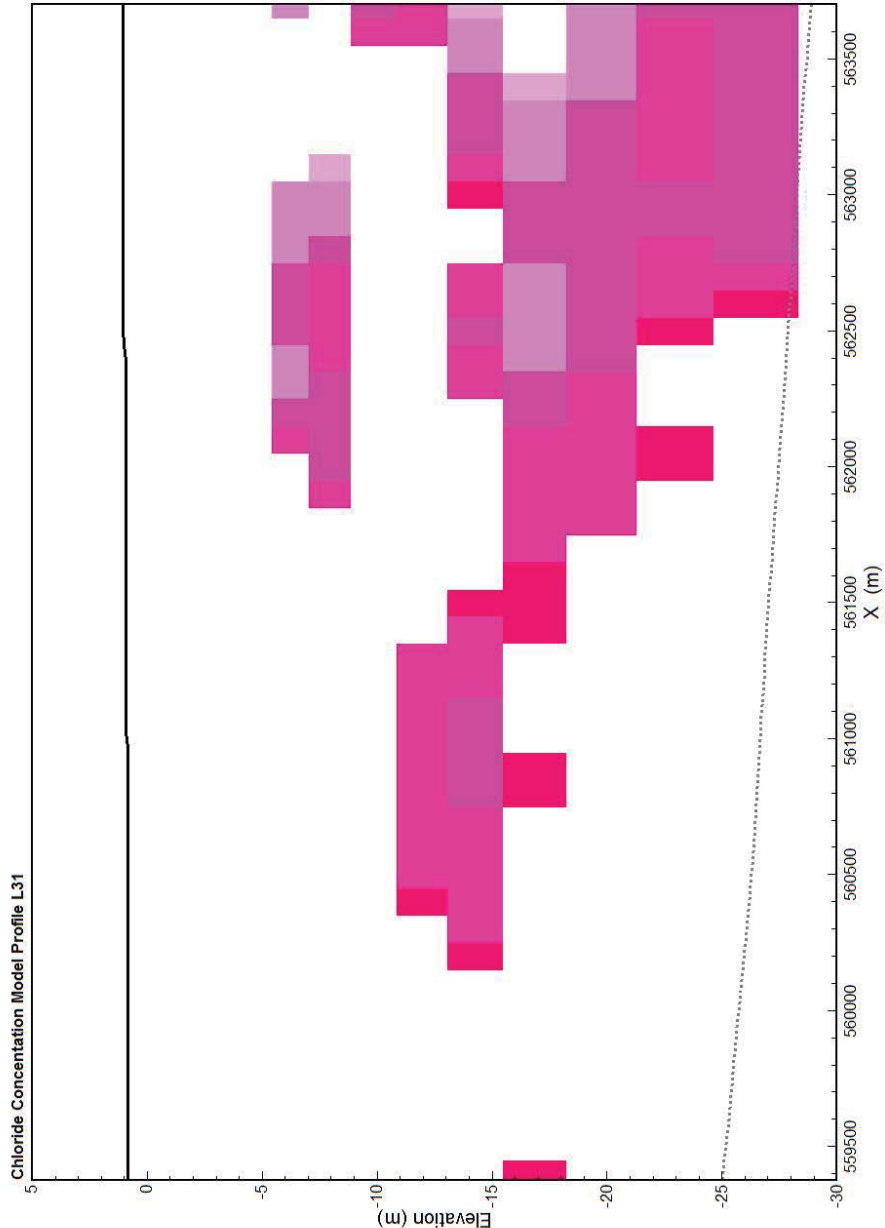
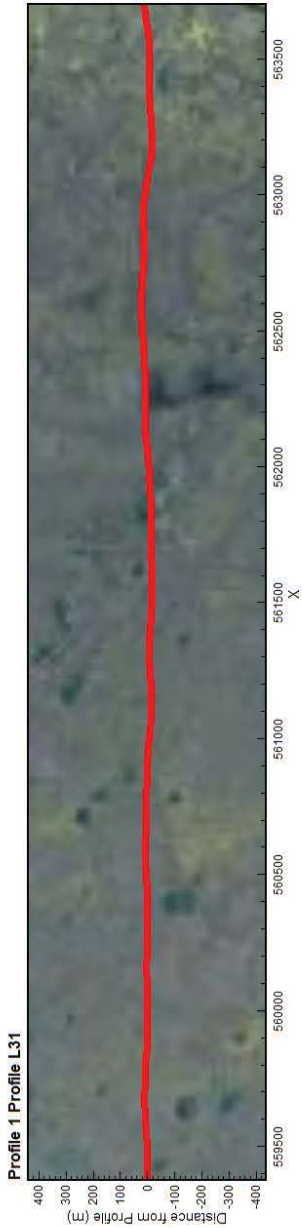
TPGW Water Quality
The Profile displays Chloride Concentration > 19,000 mg/L.

Surfaces:
Surface elevation is indicated by the solid black line. The base of the Biscayne Aquifer as defined by Fish and Stewart (1991) is indicated by the dashed gray line.

Projection and Datum:
The map projection is NAD83 UTM Zone 17 North (meters). The vertical datum is NAVD88 (meters).

Images prepared by Aqua Geo Frameworks LLC. under contract to ENERCON Services Inc.





Current Profile:

The red line on the Profile Position Map and the Turkey Point AEM Survey Map indicates the current viewed Profile that is displayed in the Chloride Concentration Model Window.

TPGW Water Quality
The Profile displays Chloride Concentration > 19,000 mg/L.

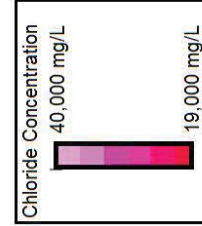
Surfaces:

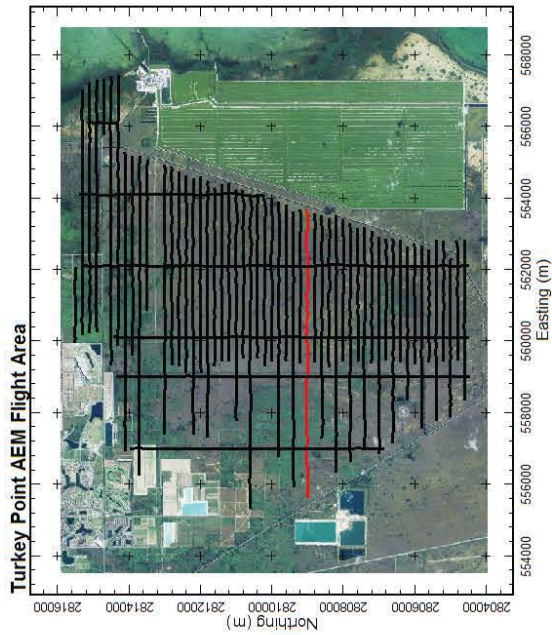
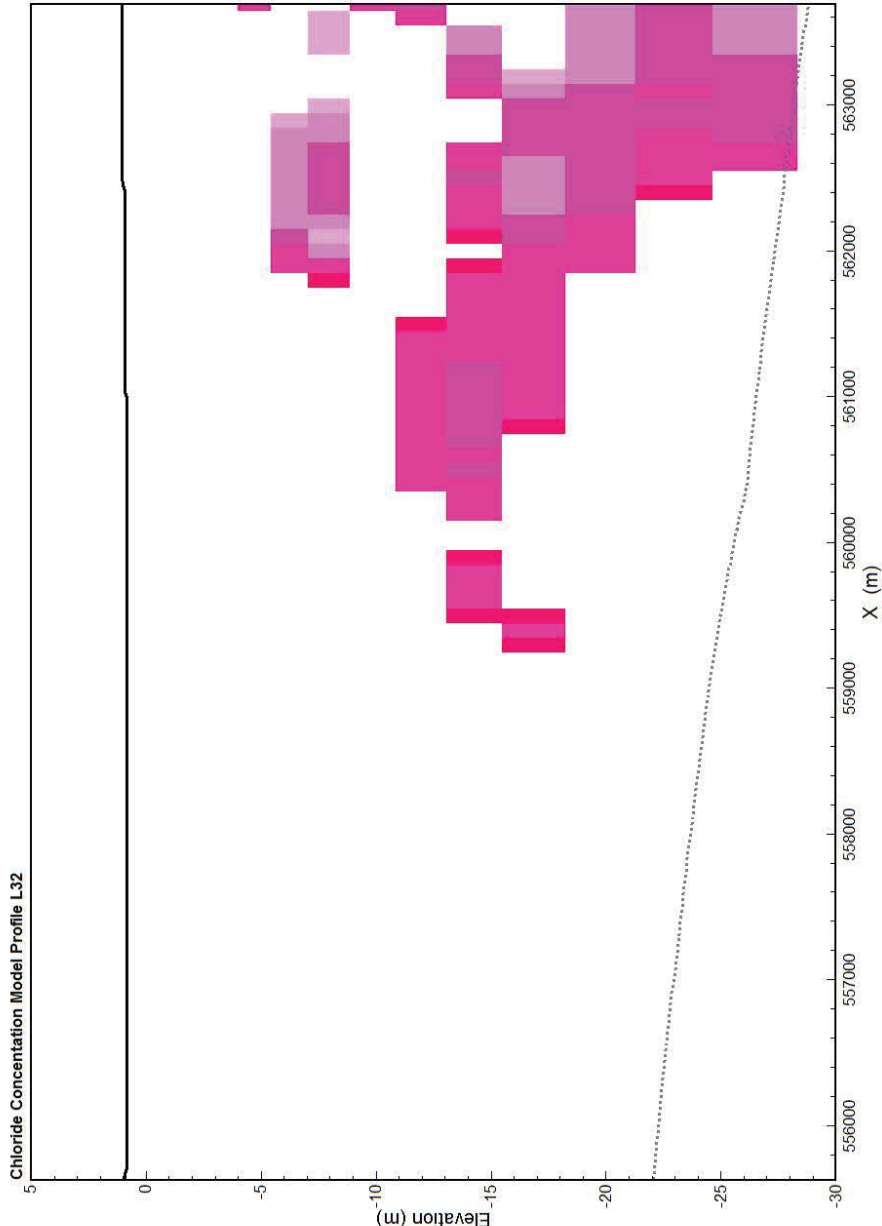
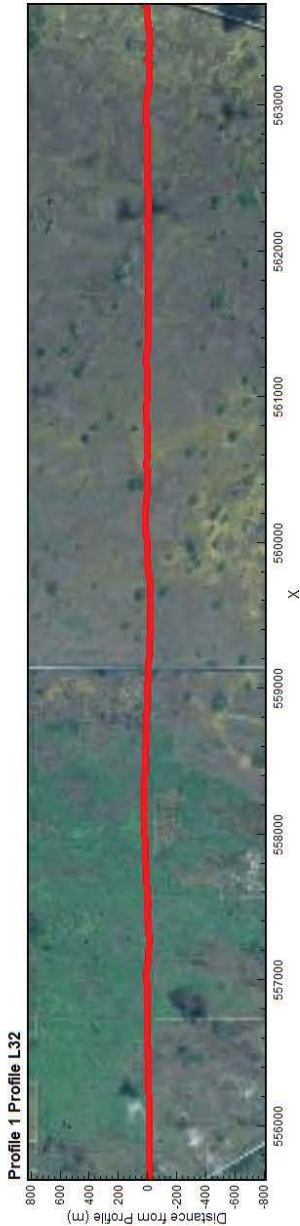
Surface elevation is indicated by the solid black line. The base of the Biscayne Aquifer as defined by Fish and Stewart (1991) is indicated by the dashed gray line.

Projection and Datum:

The map projection is NAD83 UTM Zone 17 North (meters). The vertical datum is NAVD88 (meters).

Images prepared by Aqua Geo Frameworks LLC. under contract to ENERCON Services Inc.





Current Profile:

The red line on the Profile Position Map and the Turkey Point AEM Survey Map indicates the current viewed Profile that is displayed in the Chloride Concentration Model Window.

TPGW Water Quality
The Profile displays Chloride Concentration > 19,000 mg/L.

Surfaces:

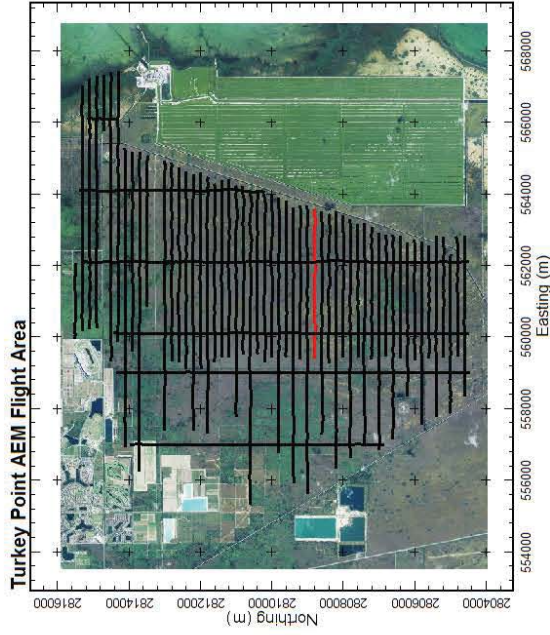
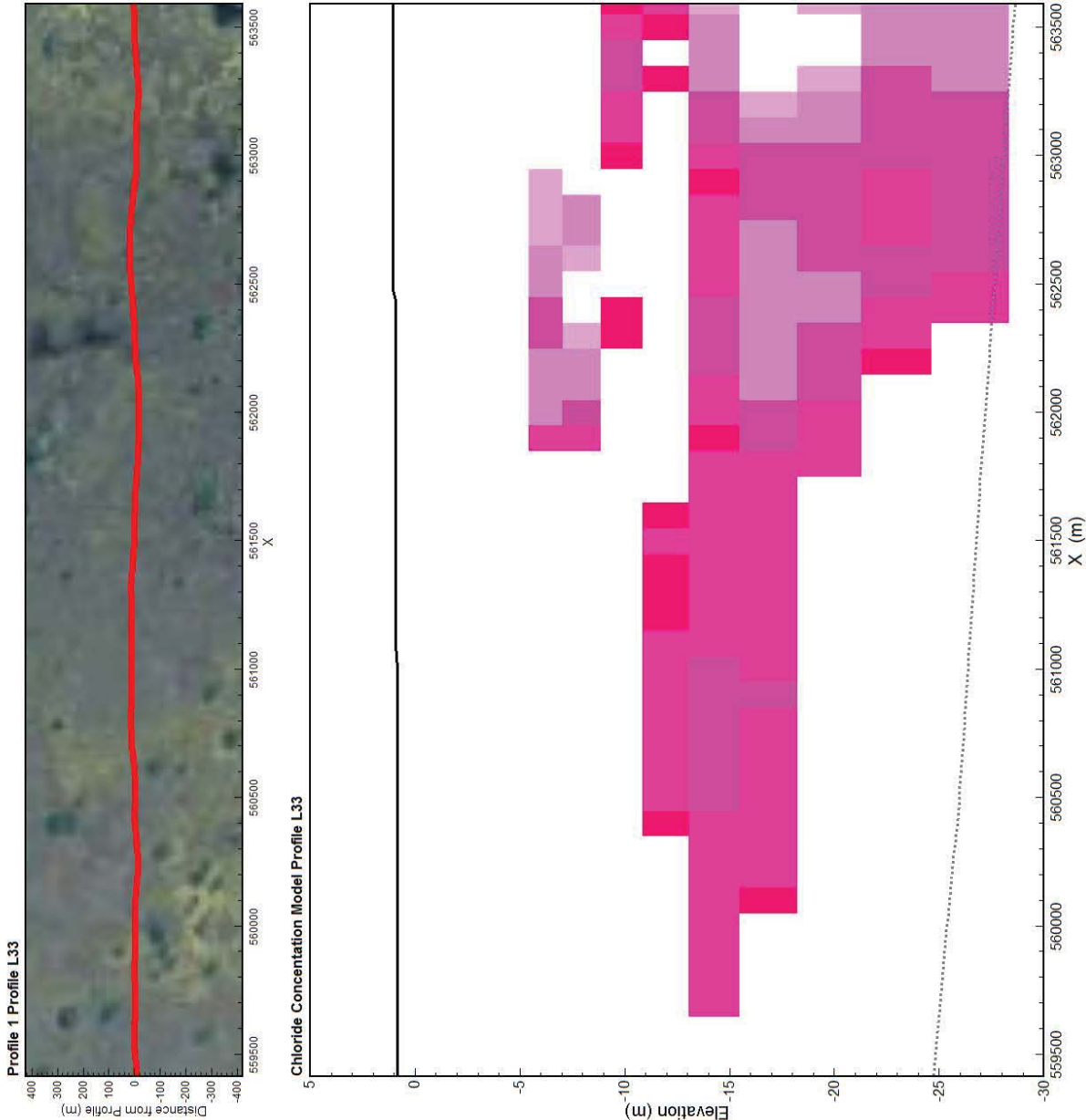
Surface elevation is indicated by the solid black line. The base of the Biscayne Aquifer as defined by Fish and Stewart (1991) is indicated by the dashed gray line.

Projection and Datum:

The map projection is NAD83 UTM Zone 17 North (meters). The vertical datum is NAVD88 (meters).

Images prepared by Aqua Geo Frameworks LLC. under contract to ENERCON Services Inc.





Current Profile:

The red line on the Profile Position Map and the Turkey Point AEM Survey Map indicates the current viewed Profile that is displayed in the Chloride Concentration Model Window.

TPGW Water Quality
The Profile displays Chloride Concentration > 19,000 mg/L.

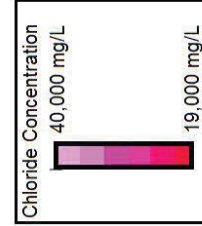
Surfaces:

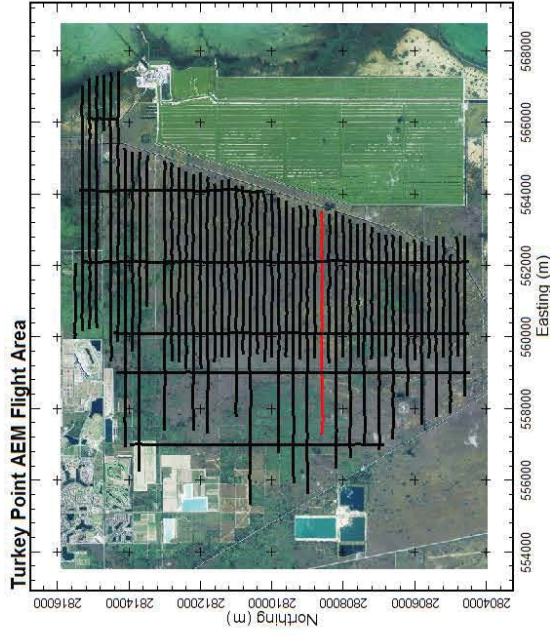
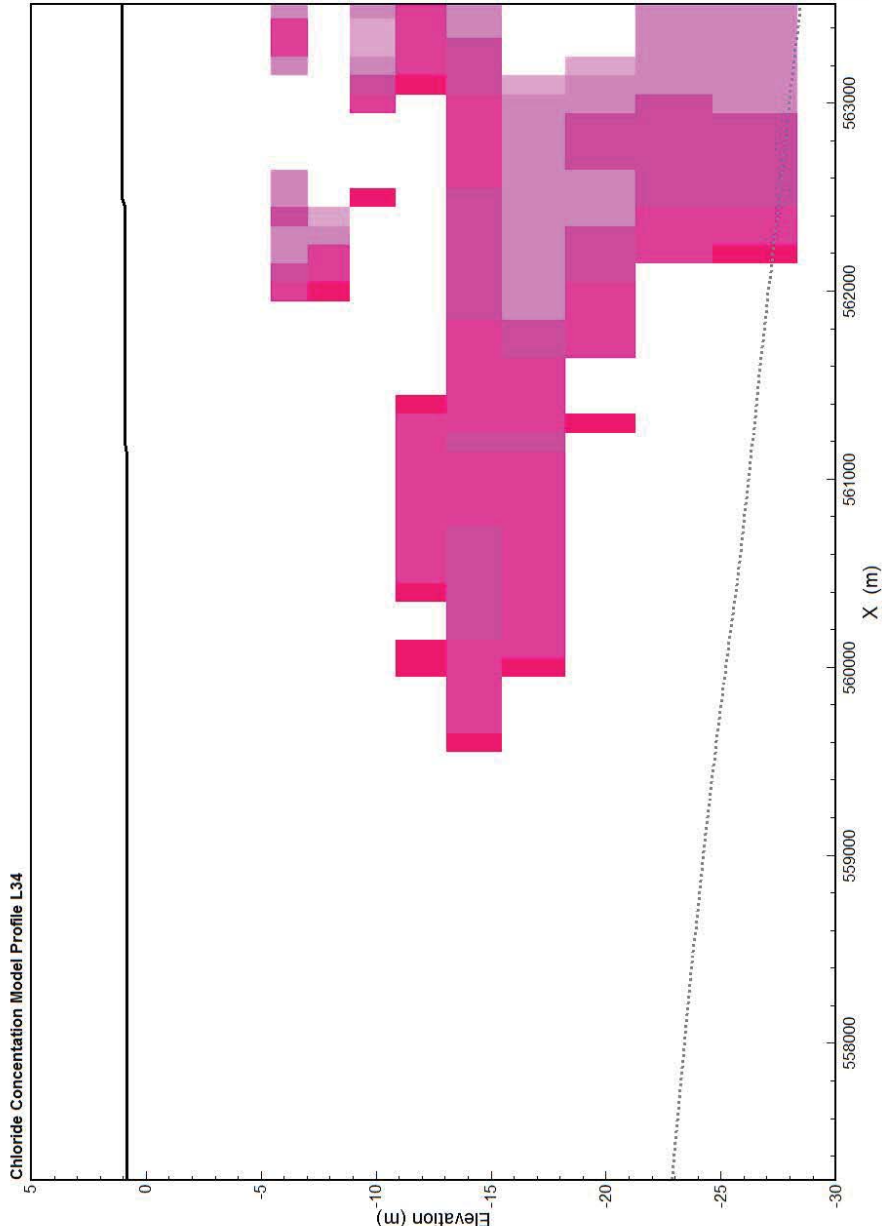
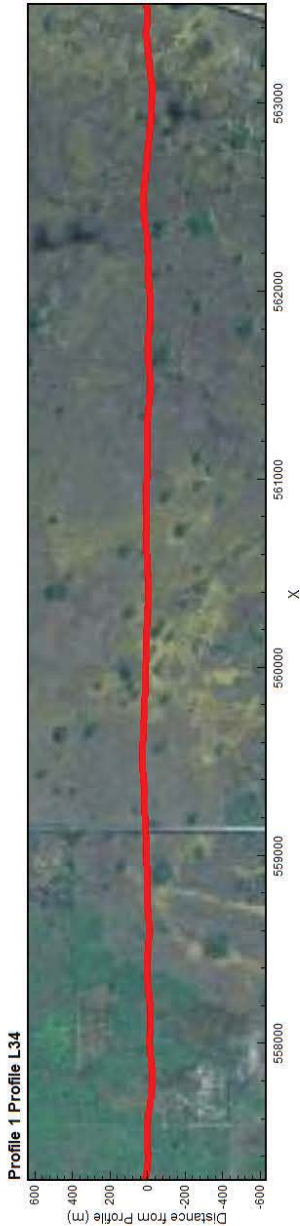
Surface elevation is indicated by the solid black line.
The base of the Biscayne Aquifer as defined by Fish and Stewart (1991) is indicated by the dashed gray line.

Projection and Datum:

The map projection is NAD83 UTM Zone 17 North (meters). The vertical datum is NAVD88 (meters).

Images prepared by Aqua Geo Frameworks LLC. under contract to ENERCON Services Inc.





Current Profile:

The red line on the Profile Position Map and the Turkey Point AEM Survey Map indicates the current viewed Profile that is displayed in the Chloride Concentration Model Window.

TPGW Water Quality
The Profile displays Chloride Concentration > 19,000 mg/L.

Surfaces:

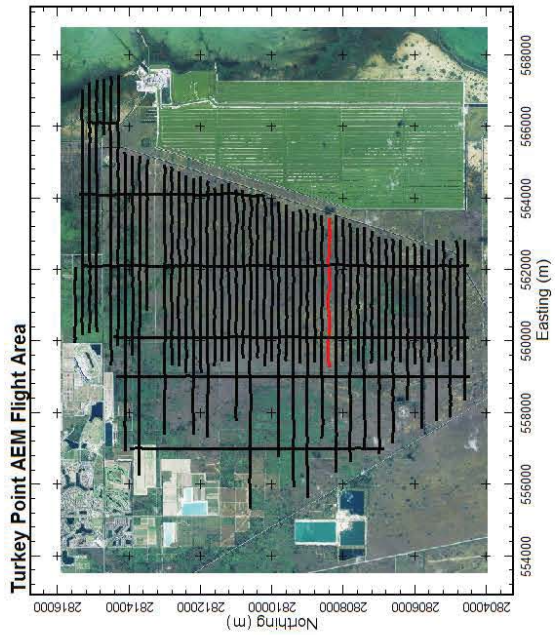
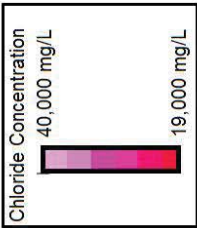
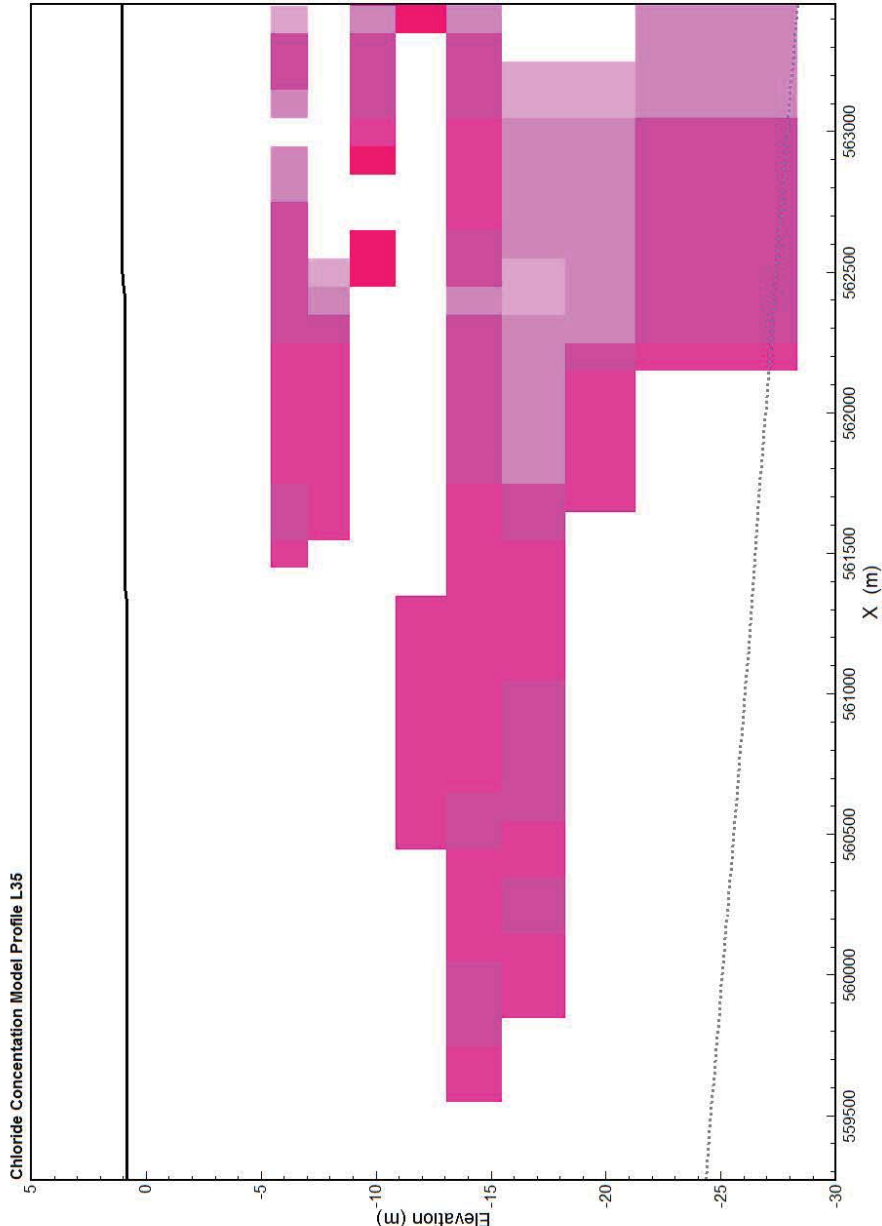
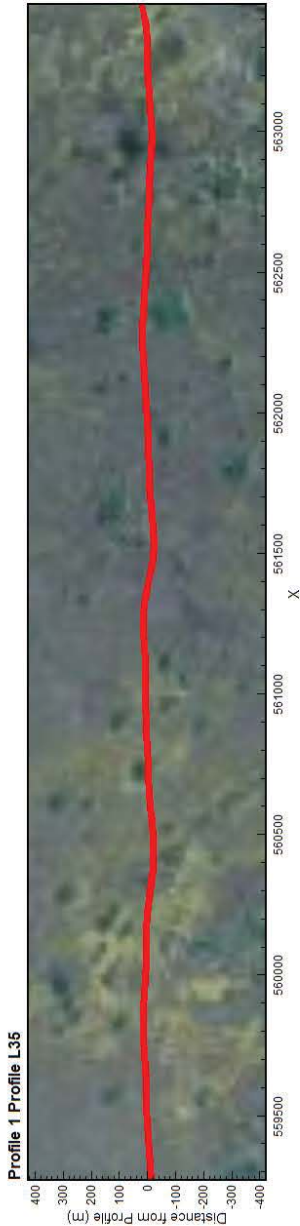
Surface elevation is indicated by the solid black line. The base of the Biscayne Aquifer as defined by Fish and Stewart (1991) is indicated by the dashed gray line.

Projection and Datum:

The map projection is NAD83 UTM Zone 17 North (meters). The vertical datum is NAVD88 (meters).

Images prepared by Aqua Geo Frameworks LLC. under contract to ENERCON Services Inc.





Current Profile:
The red line on the Profile Position Map and the Turkey Point AEM Survey Map indicates the current viewed Profile that is displayed in the Chloride Concentration Model Window.

TPGW Water Quality
The Profile displays Chloride Concentration > 19,000 mg/L.

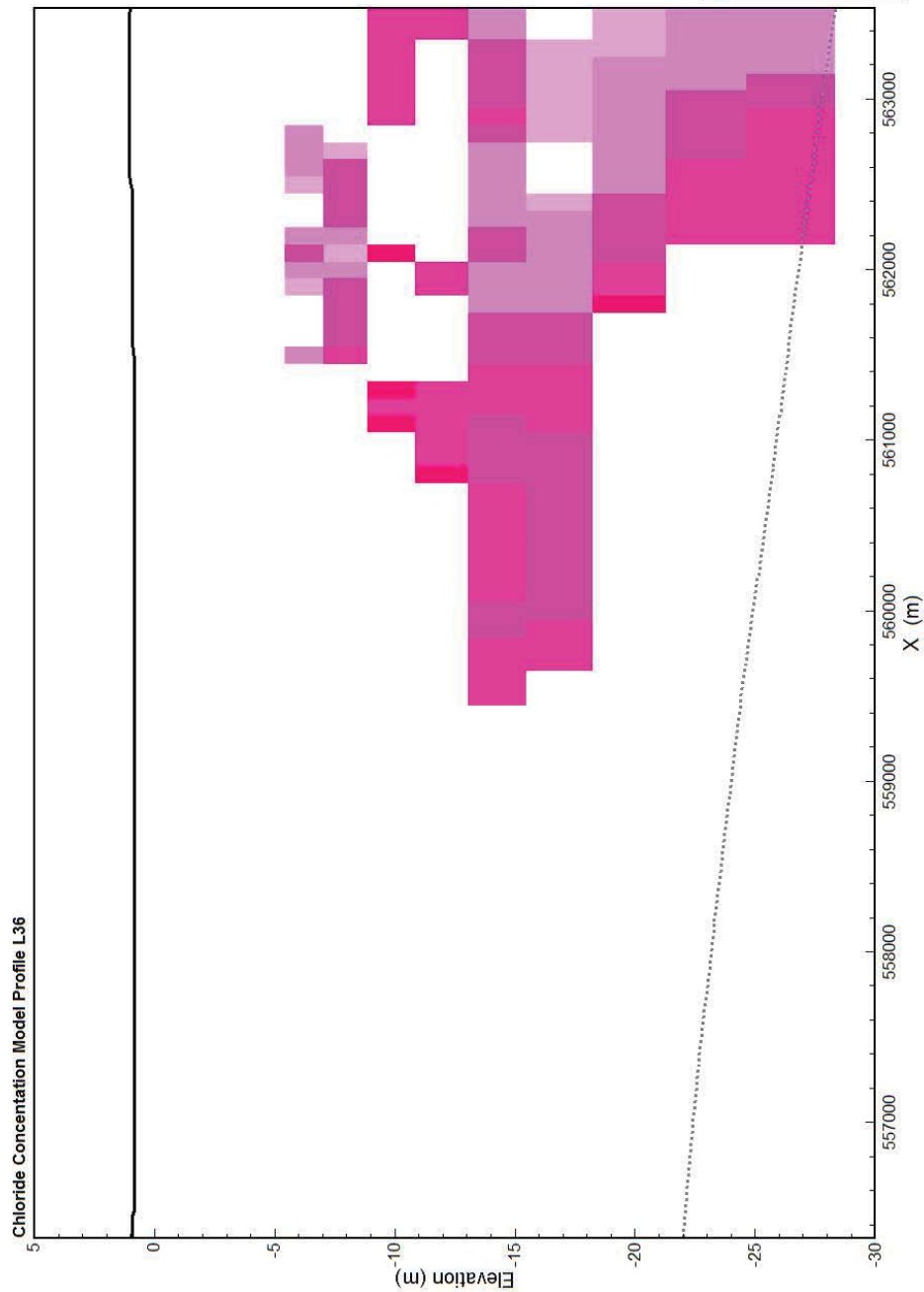
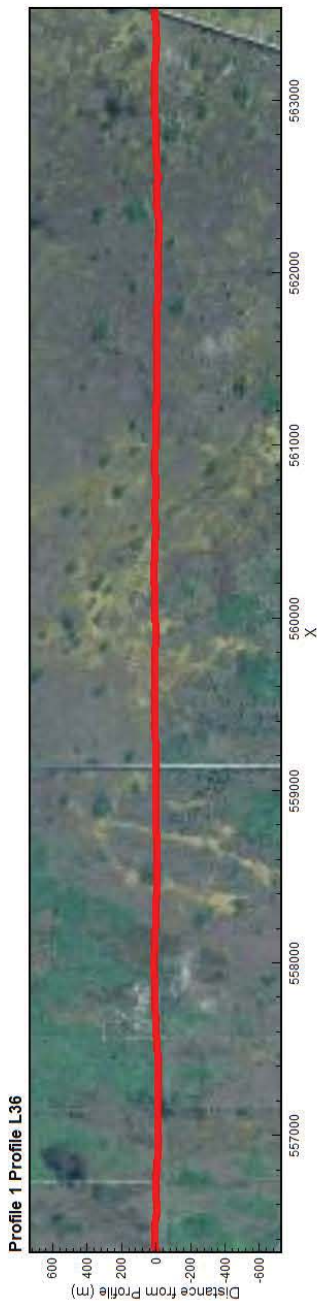
Surfaces:
Surface elevation is indicated by the solid black line. The base of the Biscayne Aquifer as defined by Fish and Stewart (1991) is indicated by the dashed gray line.

Projection and Datum:
The map projection is NAD83 UTM Zone 17 North (meters). The vertical datum is NAVD88 (meters).

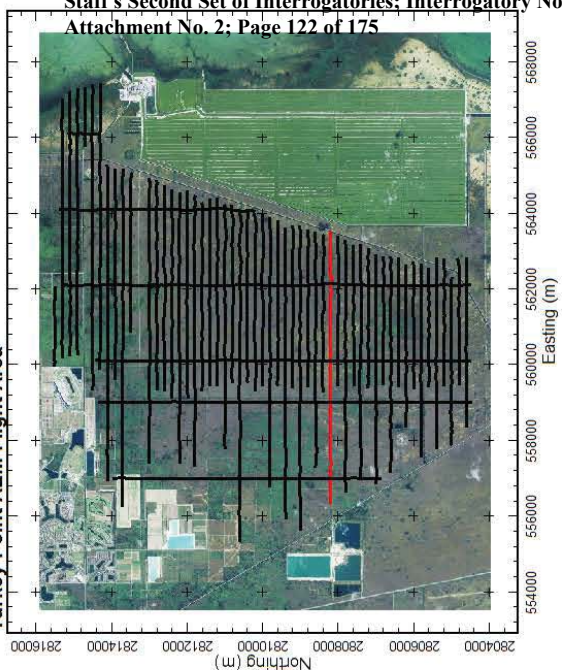
Images prepared by Aqua Geo Frameworks LLC. under contract to ENERCON Services Inc.



Florida Power & Light Company; Docket No. 20170007-EI
Staff's Second Set of Interrogatories; Interrogatory No. 39
Attachment No. 2; Page 122 of 175



Turkey Point AEM Flight Area



Current Profile:

The red line on the Profile Position Map and the Turkey Point AEM Survey Map indicates the current viewed Profile that is displayed in the Chloride Concentration Model Window.

TPGW Water Quality

The Profile displays Chloride Concentration > 19,000 mg/L.

Surfaces:

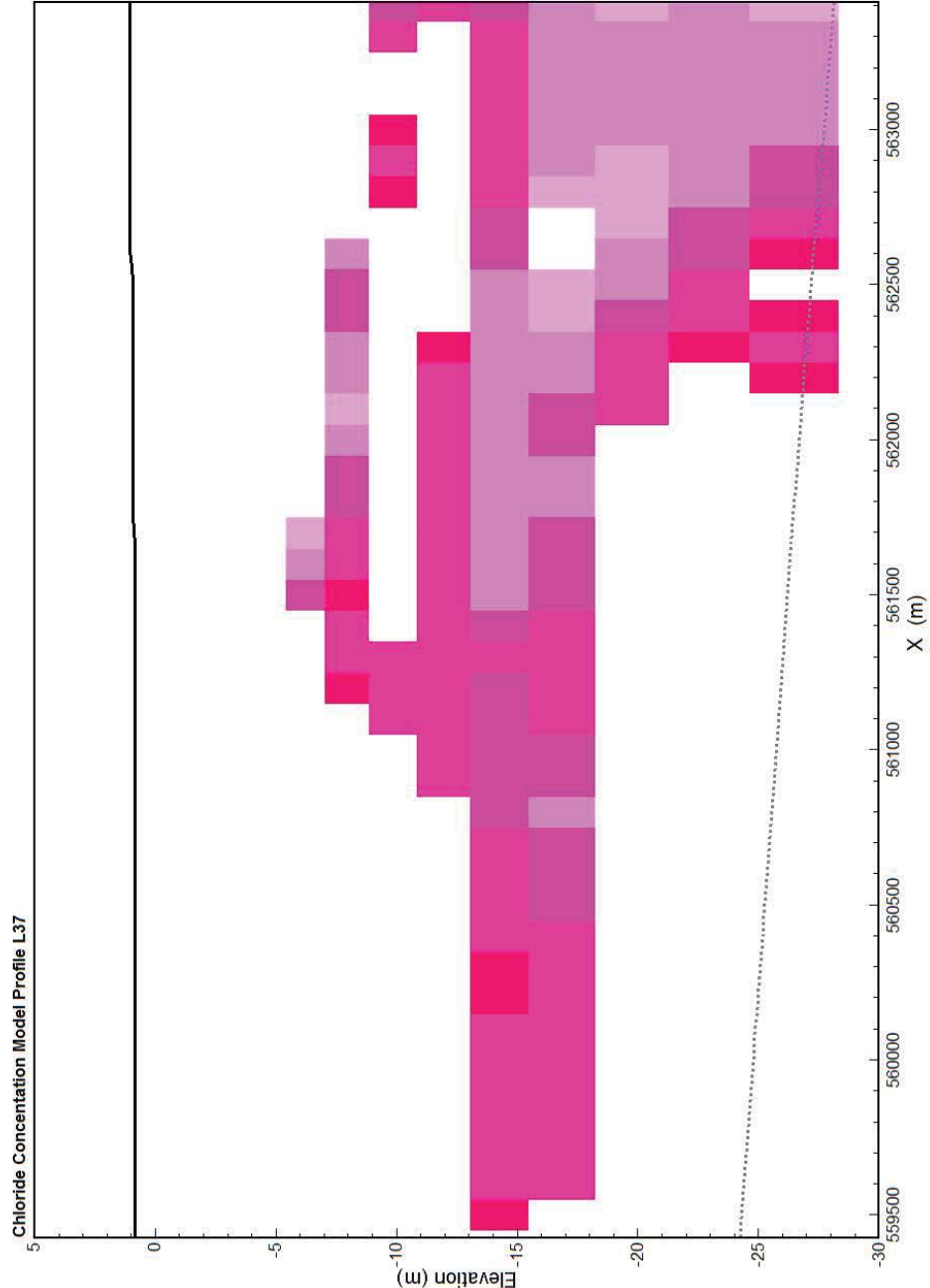
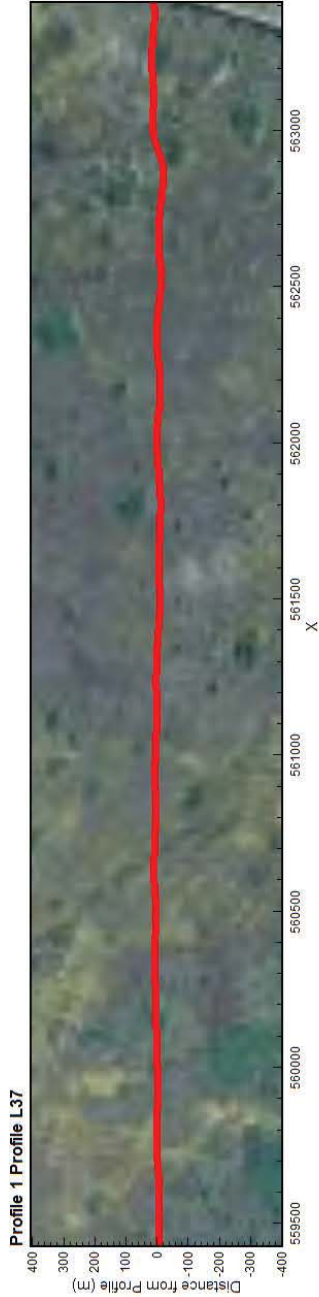
Surface elevation is indicated by the solid black line. The base of the Biscayne Aquifer as defined by Fish and Stewart (1991) is indicated by the dashed gray line.

Projection and Datum:

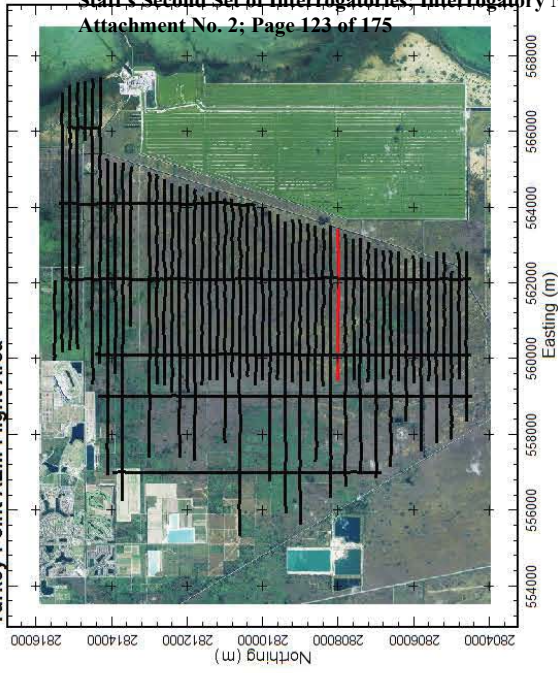
The map projection is NAD83 UTM Zone 17 North (meters). The vertical datum is NAVD88 (meters).

Images prepared by Aqua Geo Frameworks LLC under contract to ENERCON Services Inc.





Turkey Point AEM Flight Area



Current Profile:

The red line on the Profile Position Map and the Turkey Point AEM Survey Map indicates the current viewed Profile that is displayed in the Chloride Concentration Model Window.

TPGW Water Quality

The Profile displays Chloride Concentration > 19,000 mg/L.

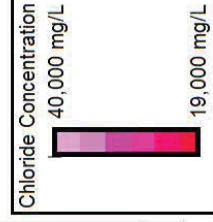
Surfaces:

Surface elevation is indicated by the solid black line. The base of the Biscayne Aquifer as defined by Fish and Stewart (1991) is indicated by the dashed gray line.

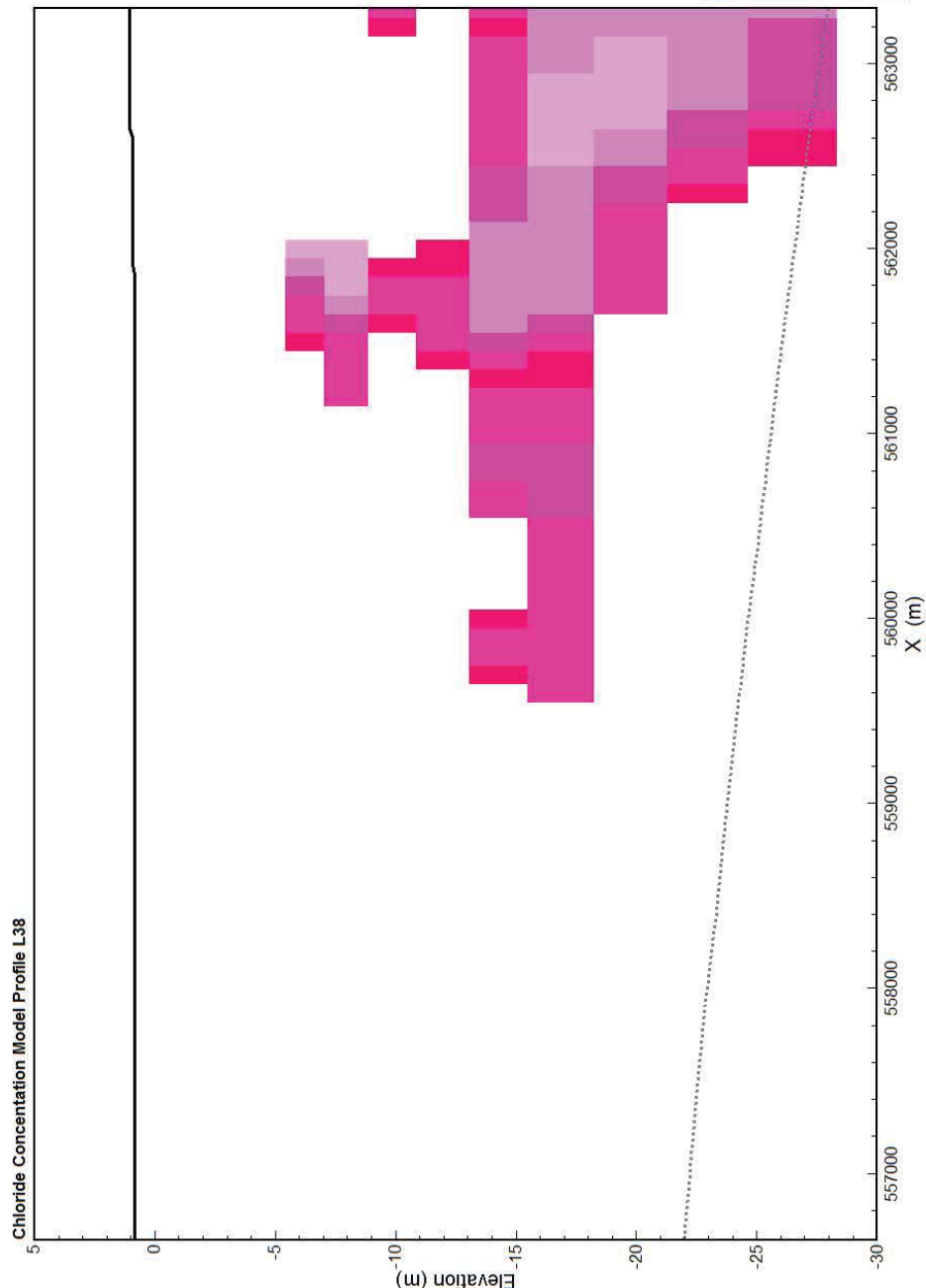
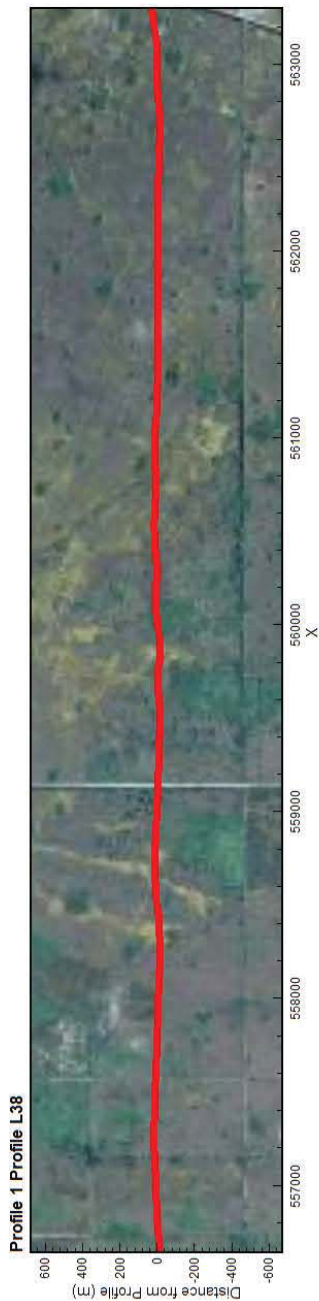
Projection and Datum:

The map projection is NAD83 UTM Zone 17 North (meters). The vertical datum is NAVD88 (meters).

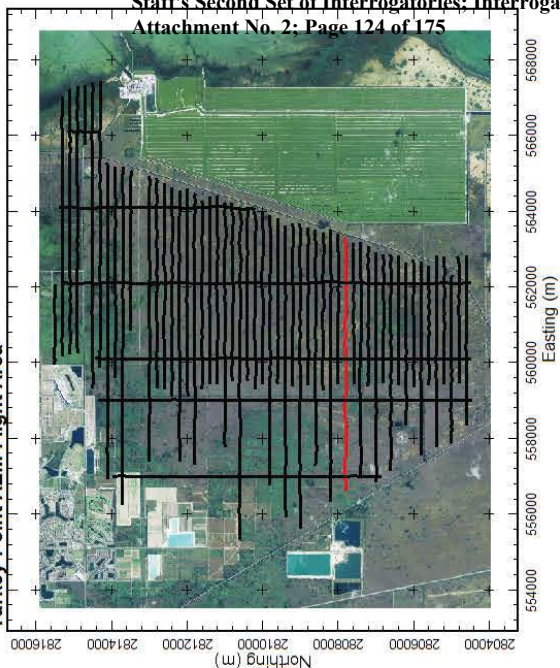
Images prepared by Aqua Geo Frameworks LLC under contract to ENERCON Services Inc.



Florida Power & Light Company; Docket No. 20170007-EI
Staff's Second Set of Interrogatories; Interrogatory No. 39
Attachment No. 2; Page 124 of 175



Turkey Point AEM Flight Area



Current Profile:

The red line on the Profile Position Map and the Turkey Point AEM Survey Map indicates the current viewed Profile that is displayed in the Chloride Concentration Model Window.

TPGW Water Quality

The Profile displays Chloride Concentration > 19,000 mg/L.

Surfaces:

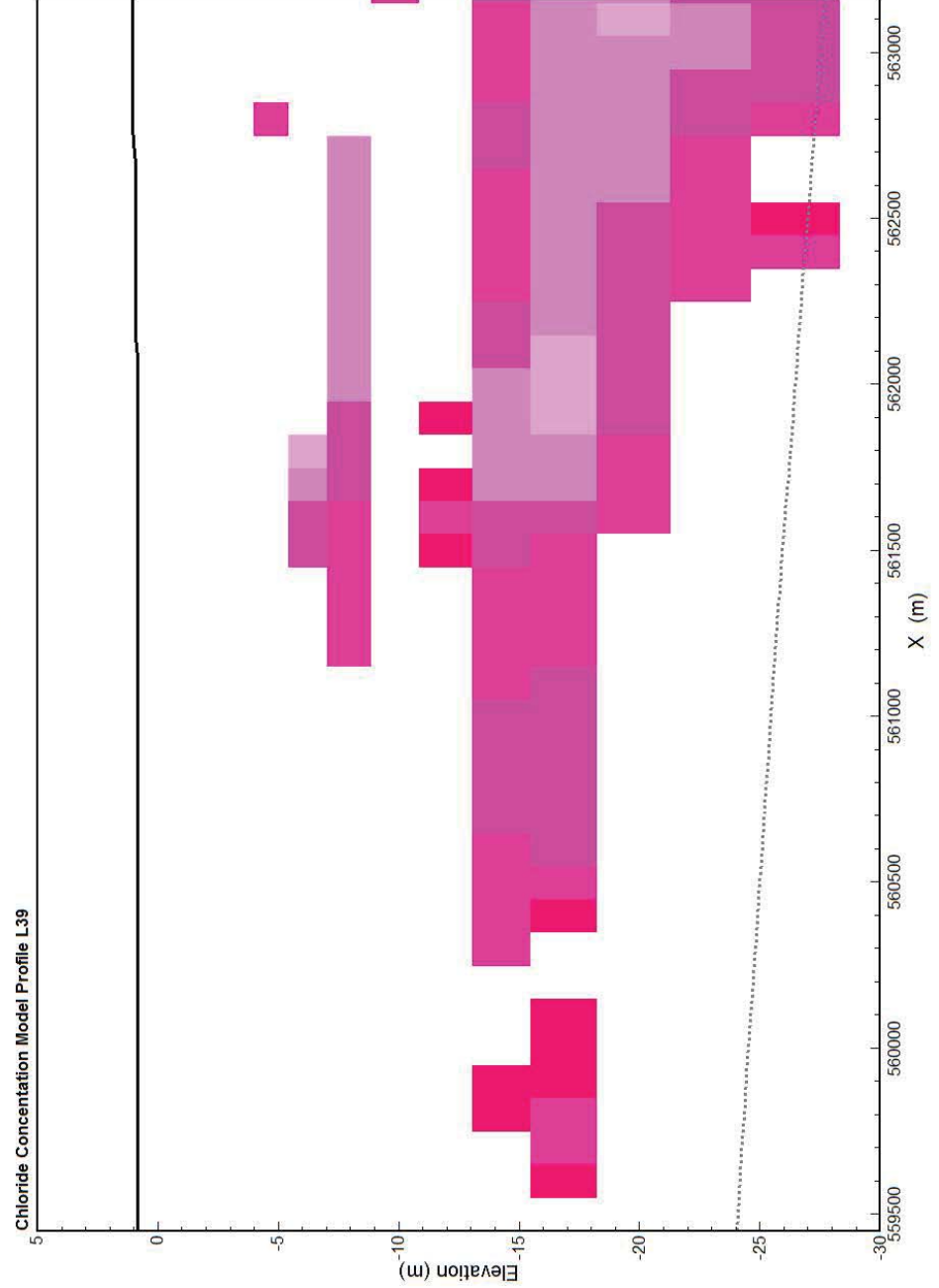
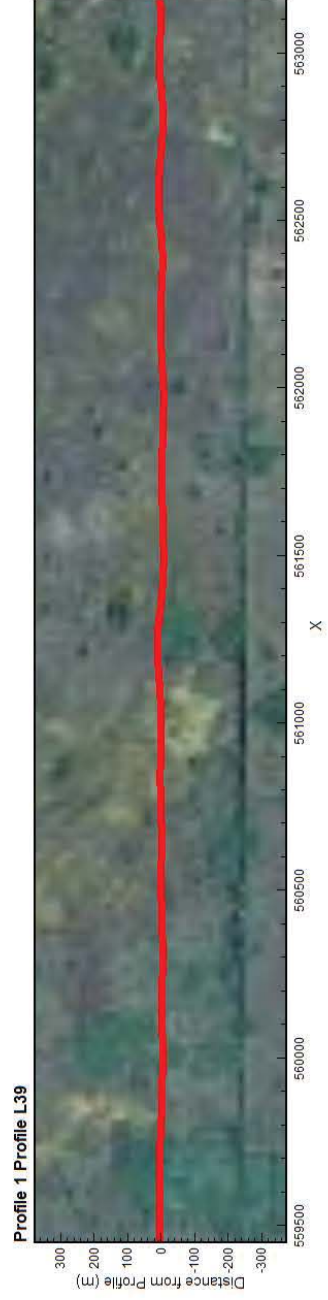
Surface elevation is indicated by the solid black line. The base of the Biscayne Aquifer as defined by Fish and Stewart (1991) is indicated by the dashed gray line.

Projection and Datum:

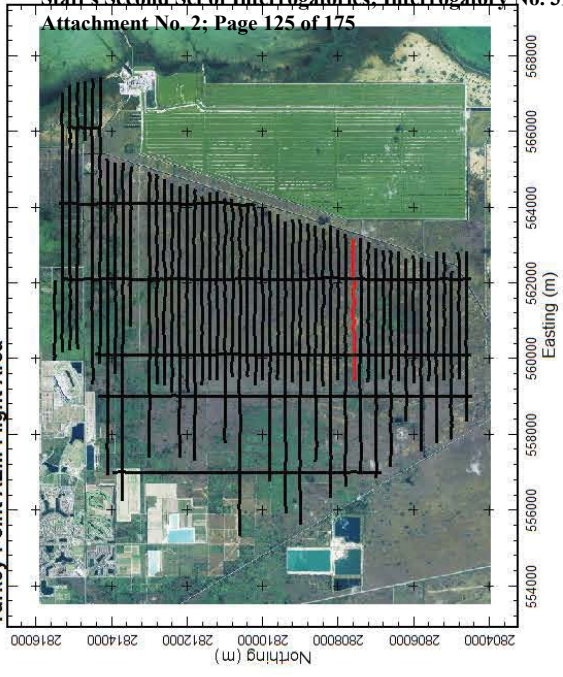
The map projection is NAD83 UTM Zone 17 North (meters). The vertical datum is NAVD88 (meters).

Images prepared by Aqua Geo Frameworks LLC under contract to ENERCON Services Inc.





Turkey Point AEM Flight Area



Current Profile:
The red line on the Profile Position Map and the Turkey Point AEM Survey Map indicates the current viewed Profile that is displayed in the Chloride Concentration Model Window.

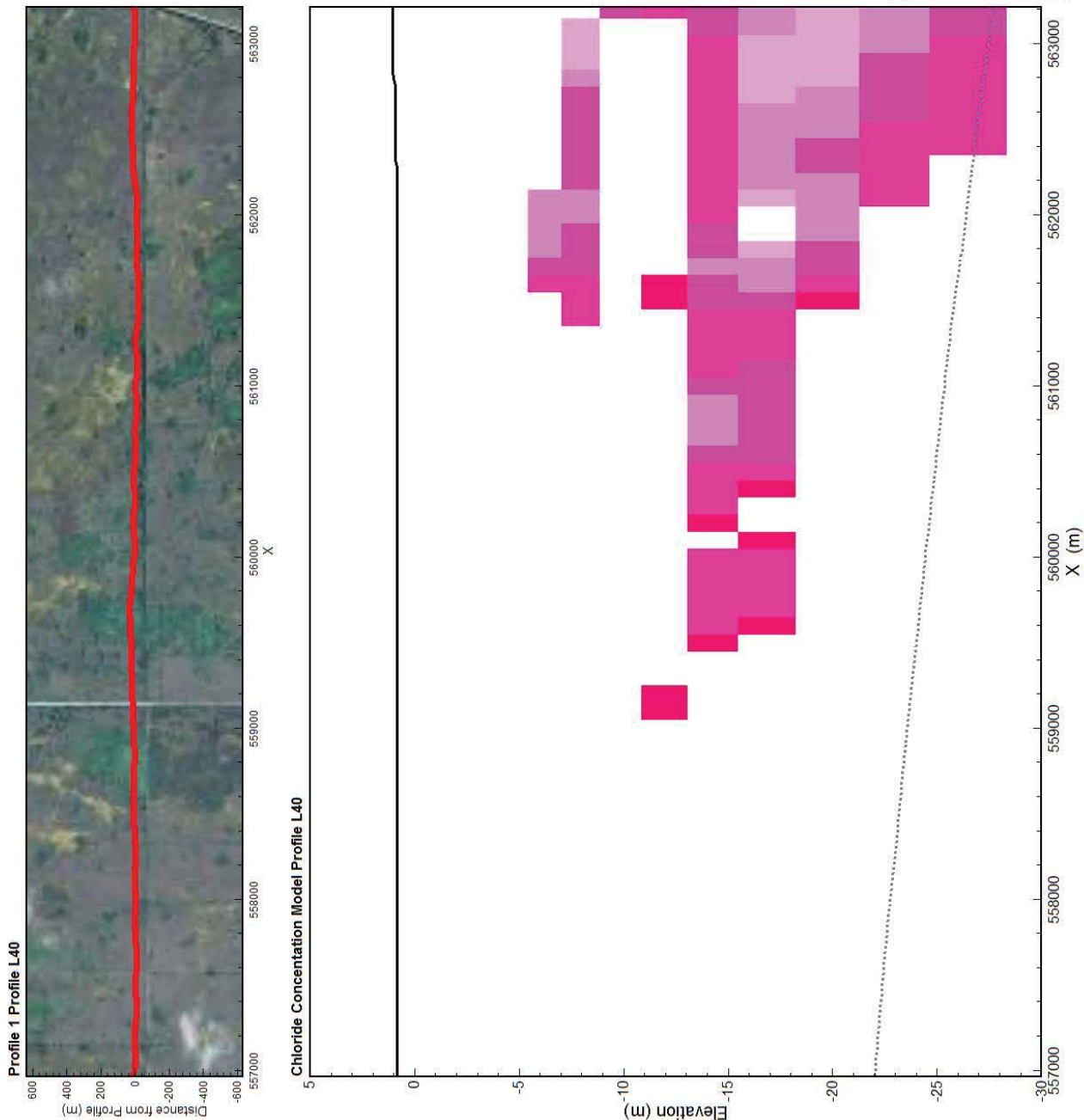
TPGW Water Quality
The Profile displays Chloride Concentration > 19,000 mg/L.

Surfaces:
Surface elevation is indicated by the solid black line.
The base of the Biscayne Aquifer as defined by Fish and Stewart (1991) is indicated by the dashed gray line.

Projection and Datum:
The map projection is NAD83 UTM Zone 17 North (meters). The vertical datum is NAVD88 (meters).

Images prepared by Aqua Geo Frameworks LLC under contract to ENERCON Services Inc.





Current Profile:
The red line on the Profile Position Map and the Turkey Point AEM Survey Map indicates the current viewed Profile that is displayed in the Chloride Concentration Model Window.

TPGW Water Quality
The Profile displays Chloride Concentration > 19,000 mg/L.

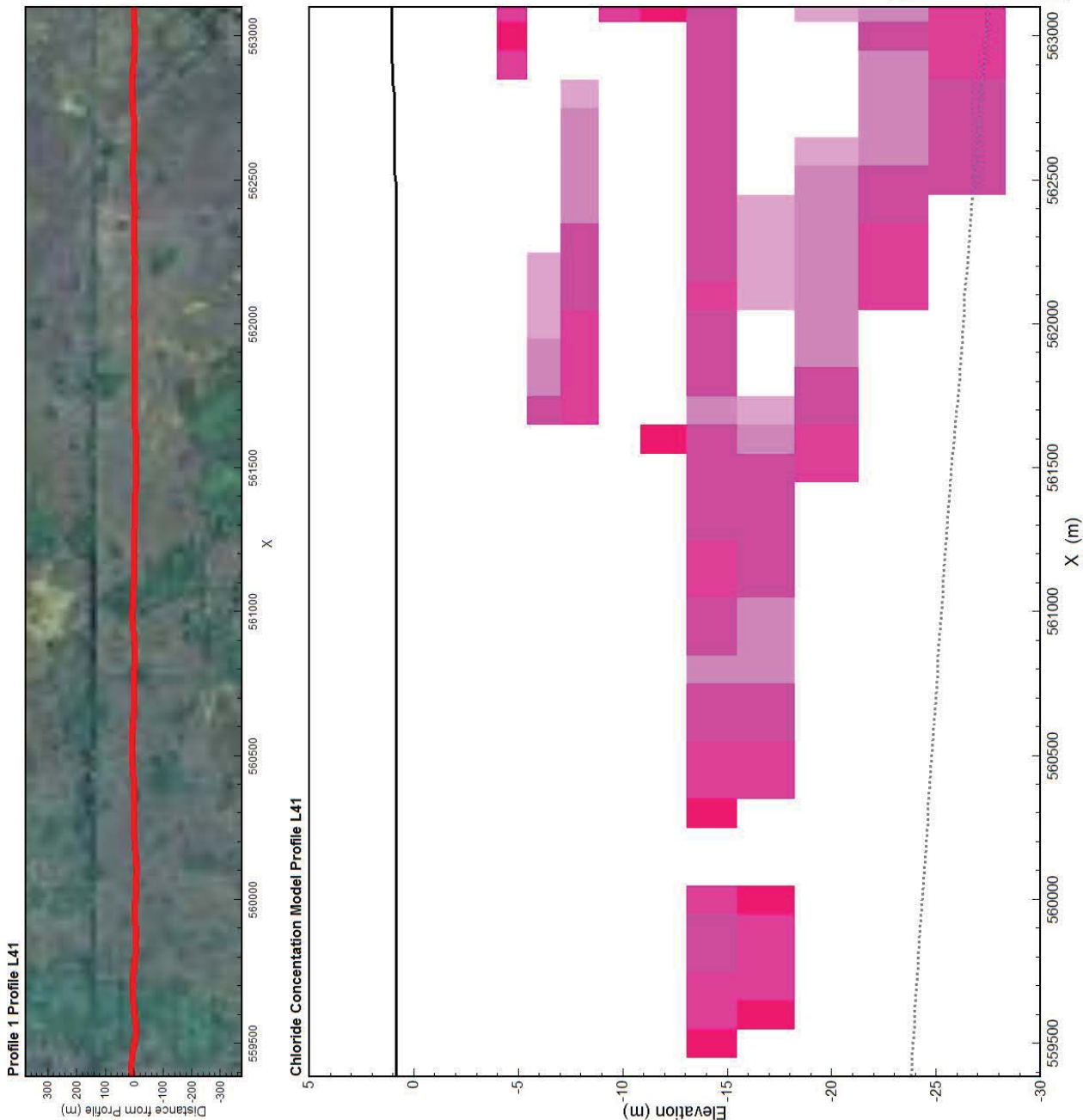
Surfaces:
Surface elevation is indicated by the solid black line.
The base of the Biscayne Aquifer as defined by Fish and Stewart (1991) is indicated by the dashed gray line.

Projection and Datum:

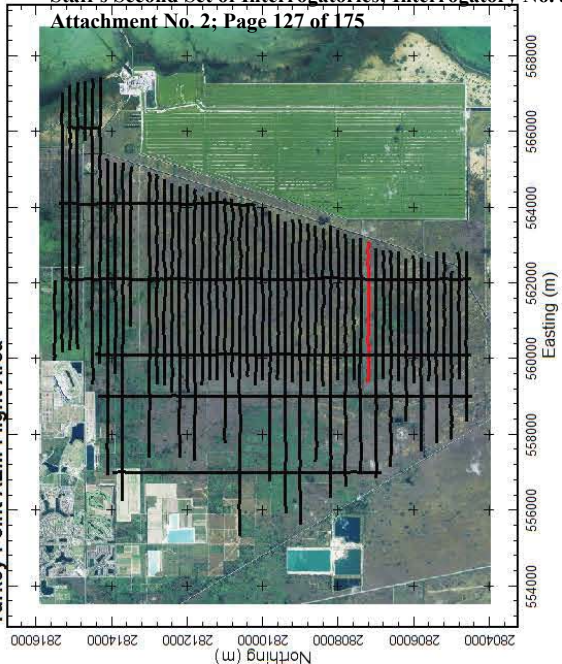
The map projection is NAD83 UTM Zone 17 North (meters). The vertical datum is NAVD88 (meters).

Images prepared by Aqua Geo Frameworks LLC under contract to ENERCON Services Inc.

Florida Power & Light Company; Docket No. 20170007-EI
Staff's Second Set of Interrogatories; Interrogatory No. 39
Attachment No. 2; Page 127 of 175



Turkey Point AEM Flight Area



Current Profile:

The red line on the Profile Position Map and the Turkey Point AEM Survey Map indicates the current viewed Profile that is displayed in the Chloride Concentration Model Window.

TPGW Water Quality

The Profile displays Chloride Concentration > 19,000 mg/L.

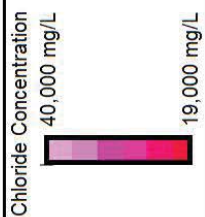
Surfaces:

Surface elevation is indicated by the solid black line. The base of the Biscayne Aquifer as defined by Fish and Stewart (1991) is indicated by the dashed gray line.

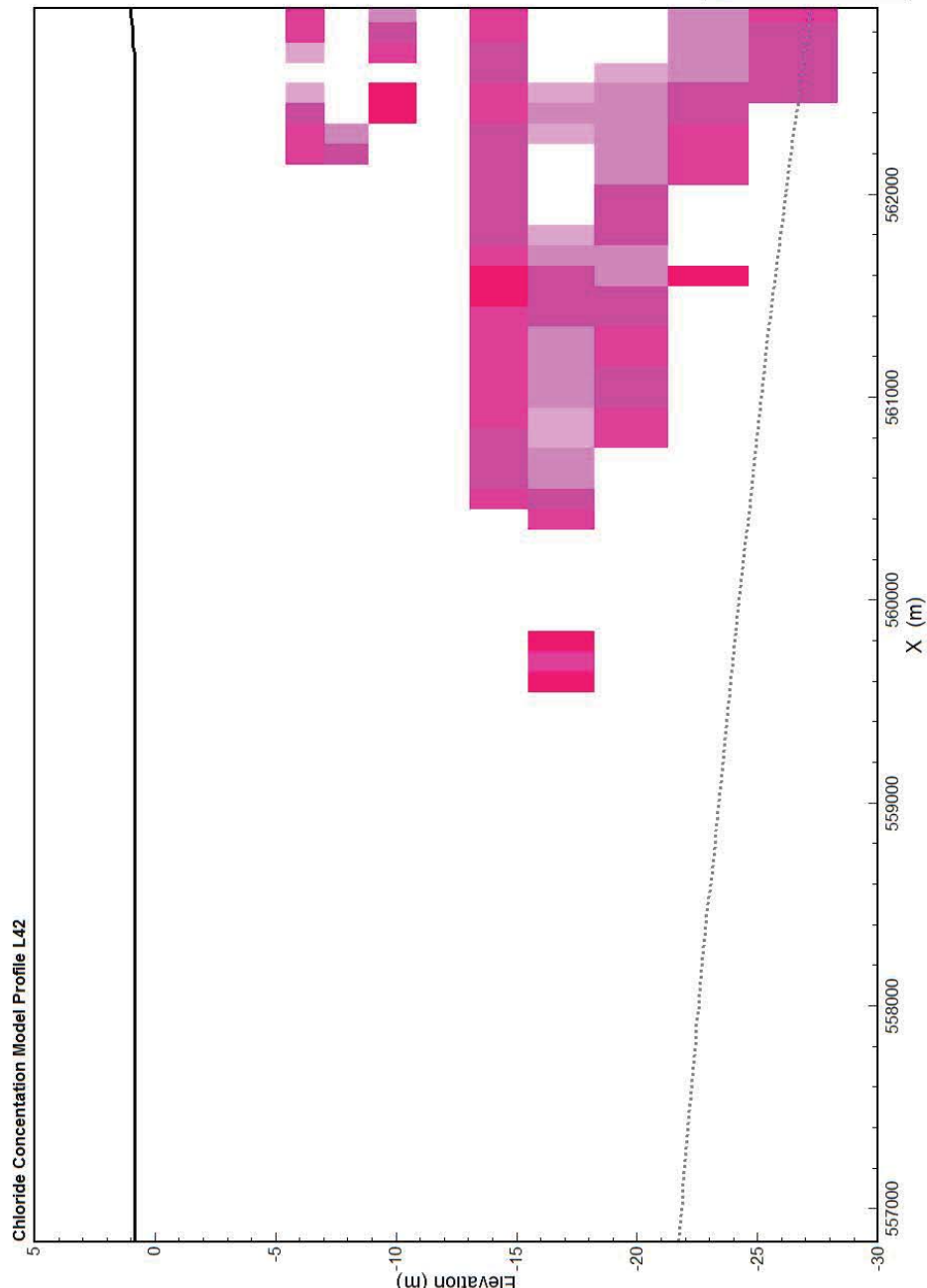
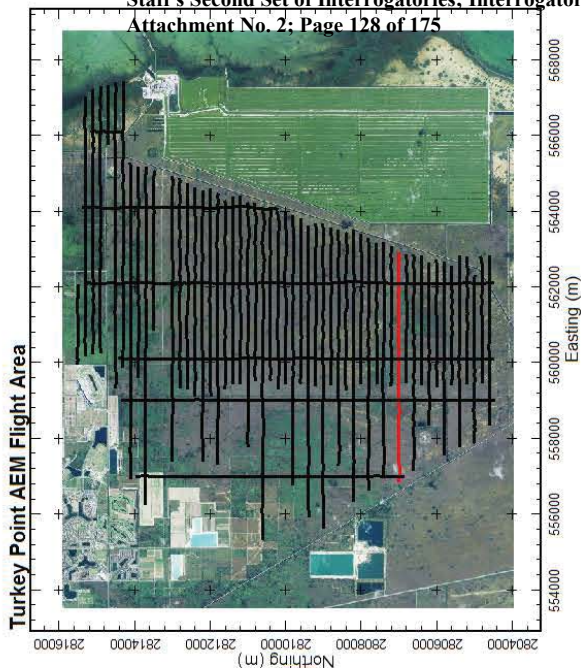
Projection and Datum:

The map projection is NAD83 UTM Zone 17 North (meters). The vertical datum is NAVD88 (meters).

Images prepared by Aqua Geo Frameworks LLC under contract to ENERCON Services Inc.



Florida Power & Light Company; Docket No. 20170007-EI
Staff's Second Set of Interrogatories; Interrogatory No. 39
Attachment No. 2; Page 128 of 175



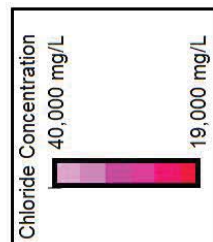
Current Profile:
The red line on the Profile Position Map and the Turkey Point AEM Survey Map indicates the current viewed Profile that is displayed in the Chloride Concentration Model Window.

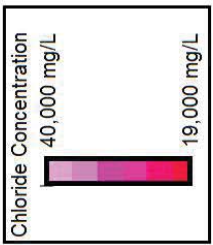
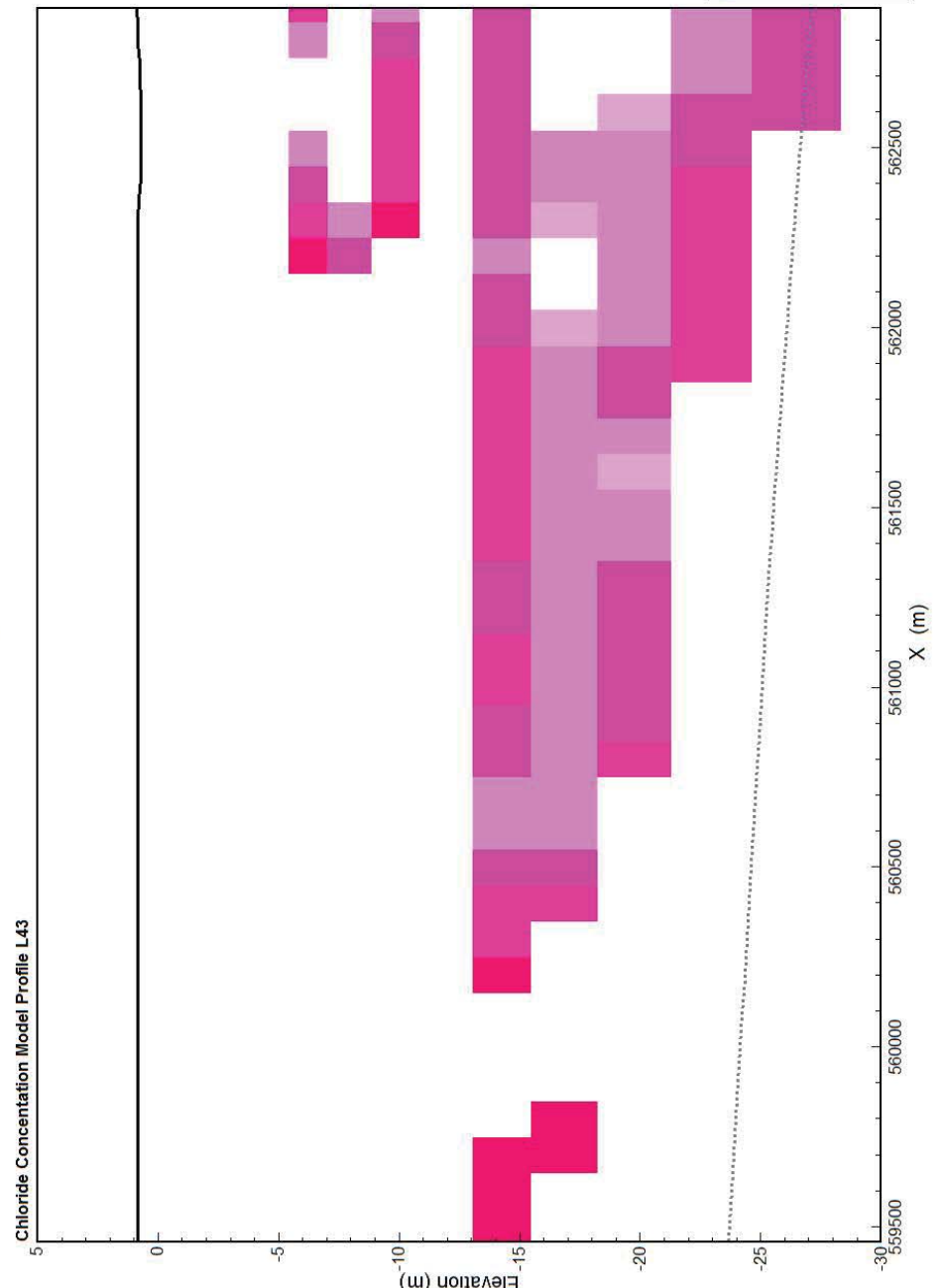
TPGW Water Quality
The Profile displays Chloride Concentration > 19,000 mg/L.

Surfaces:
Surface elevation is indicated by the solid black line. The base of the Biscayne Aquifer as defined by Fish and Stewart (1991) is indicated by the dashed gray line.

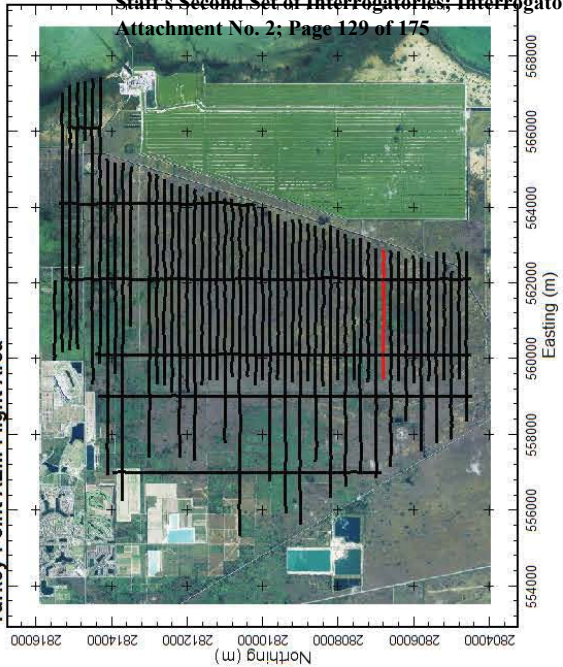
Projection and Datum:
The map projection is NAD83 UTM Zone 17 North (meters). The vertical datum is NAVD88 (meters).

Images prepared by Aqua Geo Frameworks LLC under contract to ENERCON Services Inc.





Turkey Point AEM Flight Area



Current Profile:
The red line on the Profile Position Map and the Turkey Point AEM Survey Map indicates the current viewed Profile that is displayed in the Chloride Concentration Model Window.

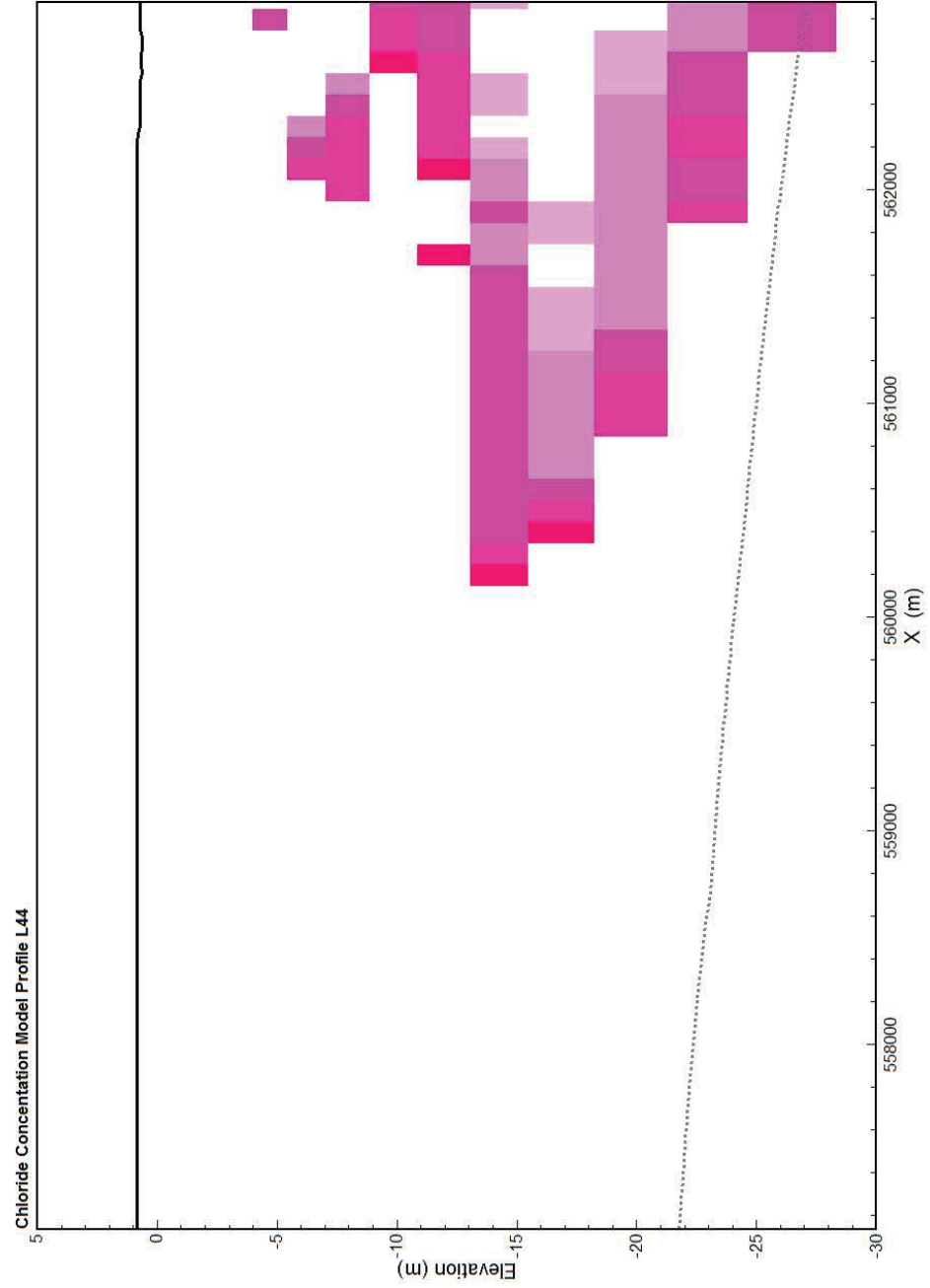
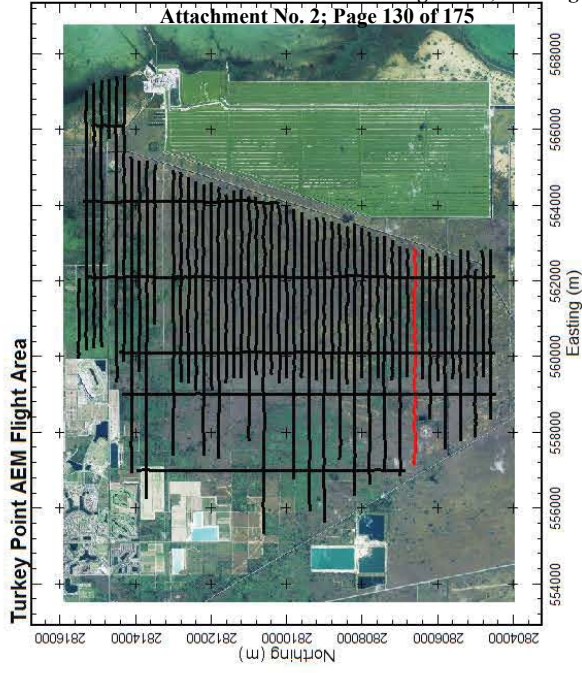
TPGW Water Quality
The Profile displays Chloride Concentration > 19,000 mg/L.

Surfaces:
Surface elevation is indicated by the solid black line. The base of the Biscayne Aquifer as defined by Fish and Stewart (1991) is indicated by the dashed gray line.

Projection and Datum:
The map projection is NAD83 UTM Zone 17 North (meters). The vertical datum is NAVD88 (meters).

Images prepared by Aqua Geo Frameworks LLC under contract to ENERCON Services Inc.





Current Profile:
The red line on the Profile Position Map and the Turkey Point AEM Survey Map indicates the current viewed Profile that is displayed in the Chloride Concentration Model Window.

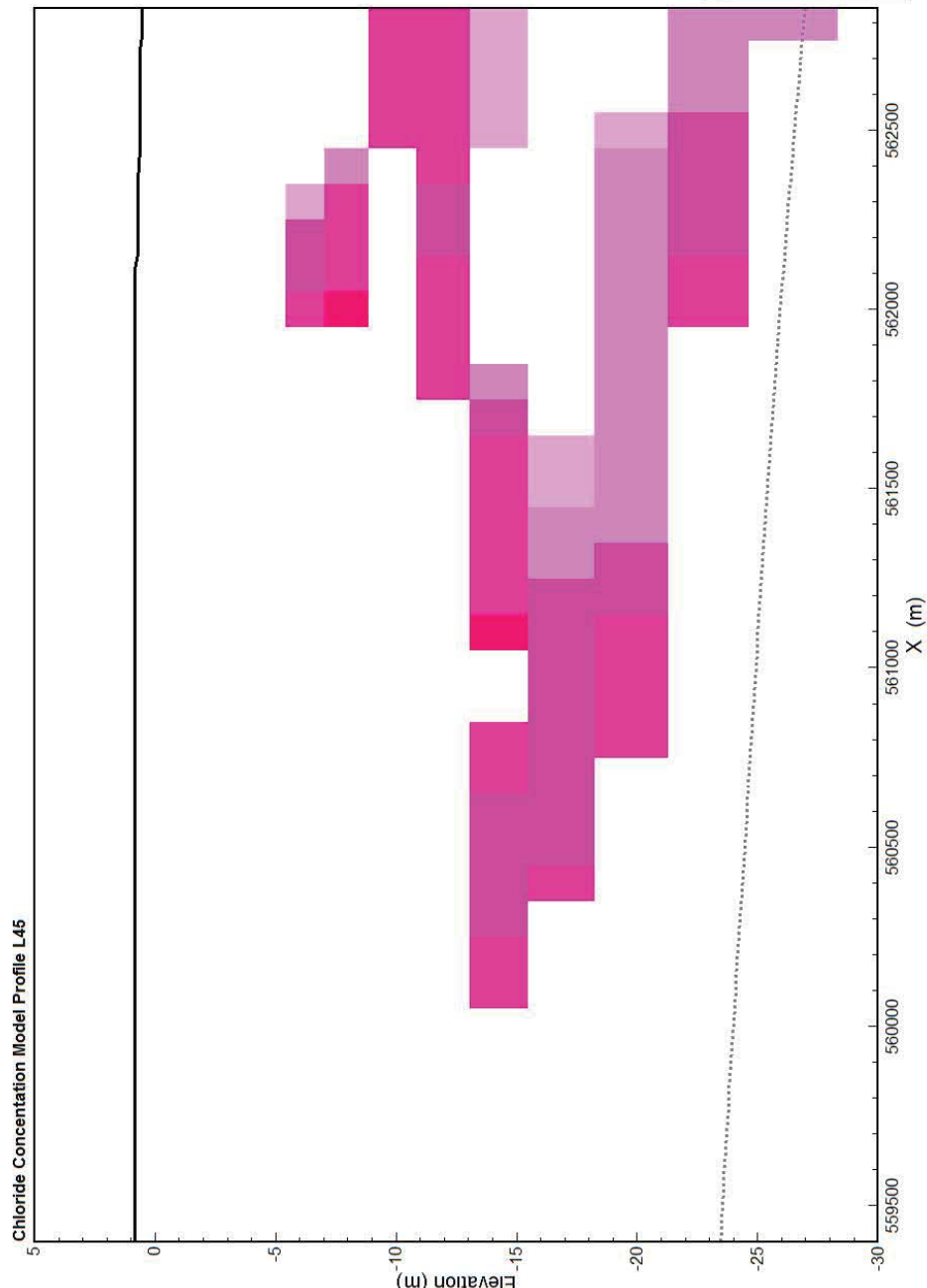
TPGW Water Quality
The Profile displays Chloride Concentration > 19,000 mg/L.

Surfaces:
Surface elevation is indicated by the solid black line. The base of the Biscayne Aquifer as defined by Fish and Stewart (1991) is indicated by the dashed gray line.

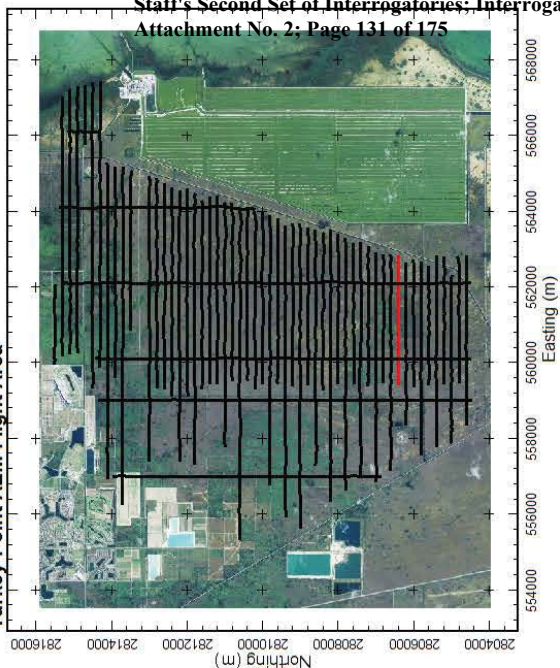
Projection and Datum:
The map projection is NAD83 UTM Zone 17 North (meters). The vertical datum is NAVD88 (meters).

Images prepared by Aqua Geo Frameworks LLC under contract to ENERCON Services Inc.





Turkey Point AEM Flight Area



Current Profile:

The red line on the Profile Position Map and the Turkey Point AEM Survey Map indicates the current viewed Profile that is displayed in the Chloride Concentration Model Window.

TPGW Water Quality
The Profile displays Chloride Concentration > 19,000 mg/L.

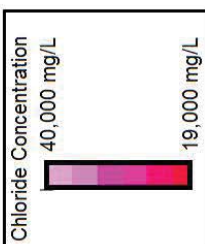
Surfaces:

Surface elevation is indicated by the solid black line.
The base of the Biscayne Aquifer as defined by Fish and Stewart (1991) is indicated by the dashed gray line.

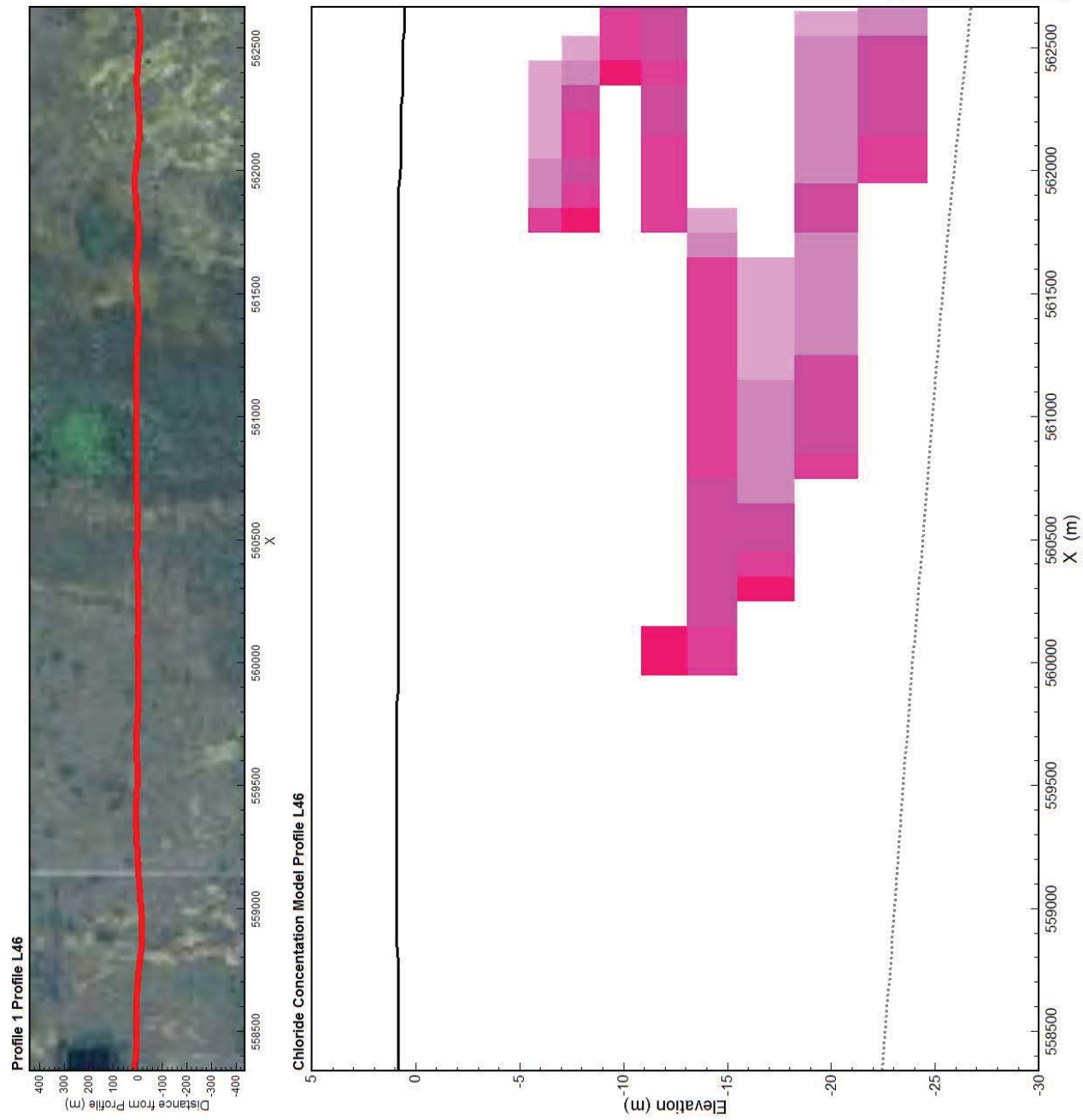
Projection and Datum:

The map projection is NAD83 UTM Zone 17 North (meters). The vertical datum is NAVD88 (meters).

Images prepared by Aqua Geo Frameworks LLC under contract to ENERCON Services Inc.



Florida Power & Light Company; Docket No. 20170007-EI
Staff's Second Set of Interrogatories; Interrogatory No. 39
Attachment No. 2; Page 132 of 175



Turkey Point AEM Flight Area

Current Profile:
The red line on the Profile Position Map and the Turkey Point AEM Survey Map indicates the current viewed Profile that is displayed in the Chloride Concentration Model Window.

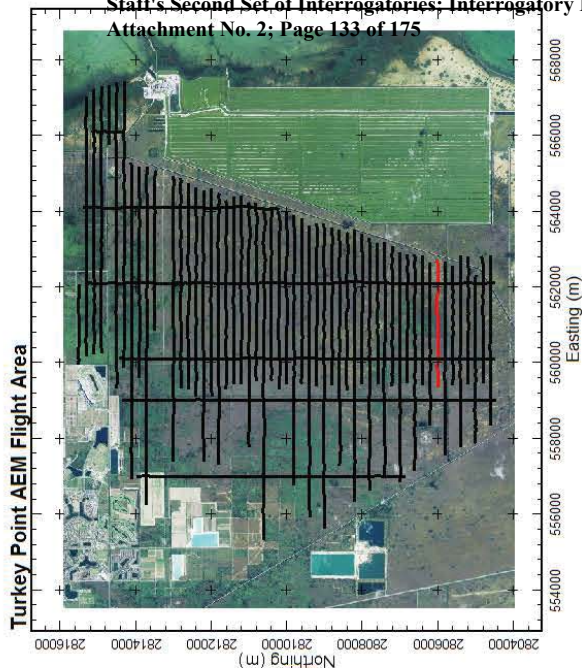
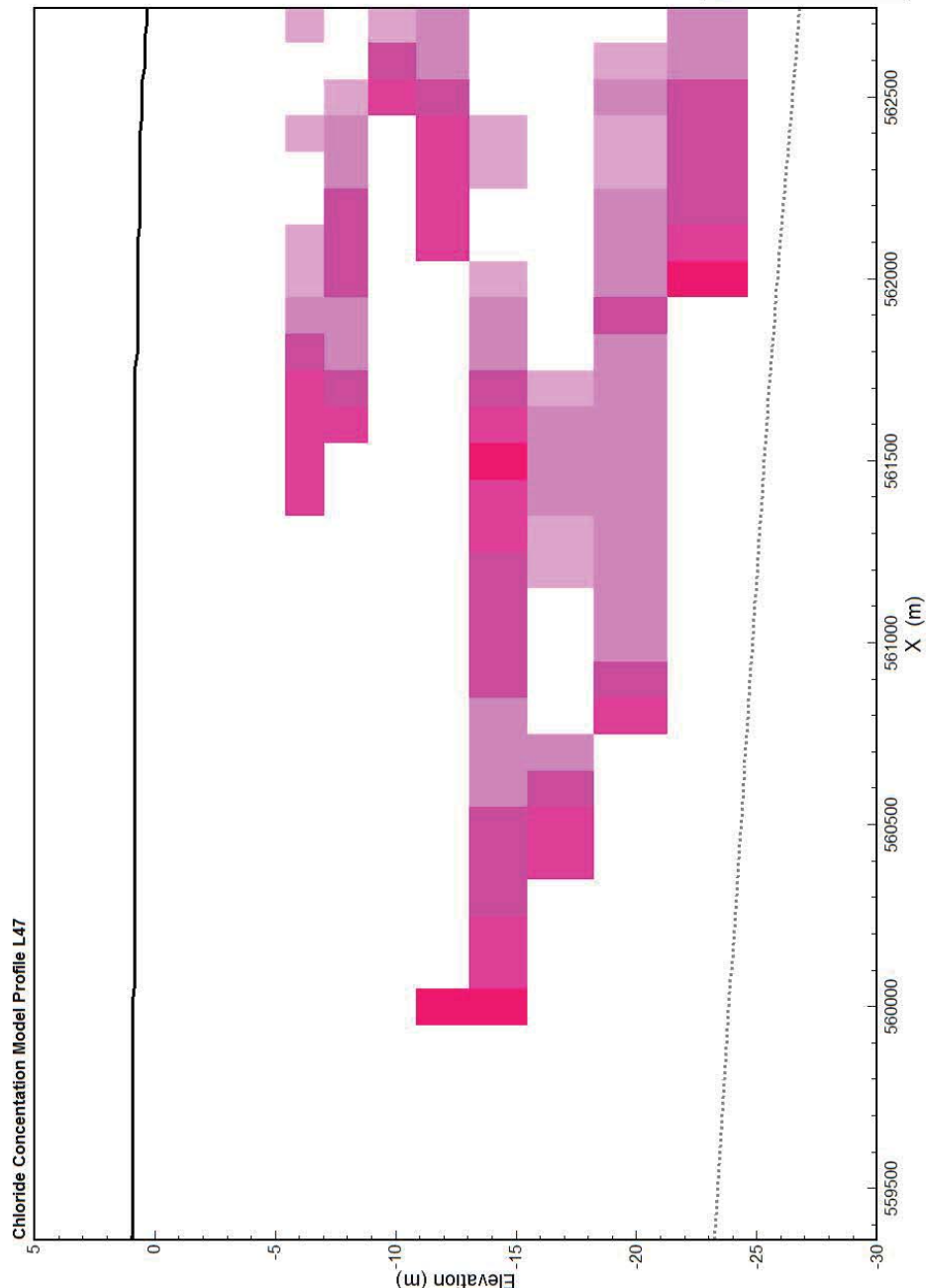
TPGW Water Quality
The Profile displays Chloride Concentration > 19,000 mg/L.

Surfaces:
Surface elevation is indicated by the solid black line. The base of the Biscayne Aquifer as defined by Fish and Stewart (1991) is indicated by the dashed gray line.

Projection and Datum:
The map projection is NAD83 UTM Zone 17 North (meters). The vertical datum is NAVD88 (meters).

Images prepared by Aqua Geo Frameworks LLC under contract to ENERCON Services Inc.





Current Profile:

The red line on the Profile Position Map and the Turkey Point AEM Survey Map indicates the current viewed Profile that is displayed in the Chloride Concentration Model Window.

TPGW Water Quality
The Profile displays Chloride Concentration > 19,000 mg/L.

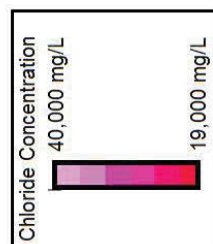
Surfaces:

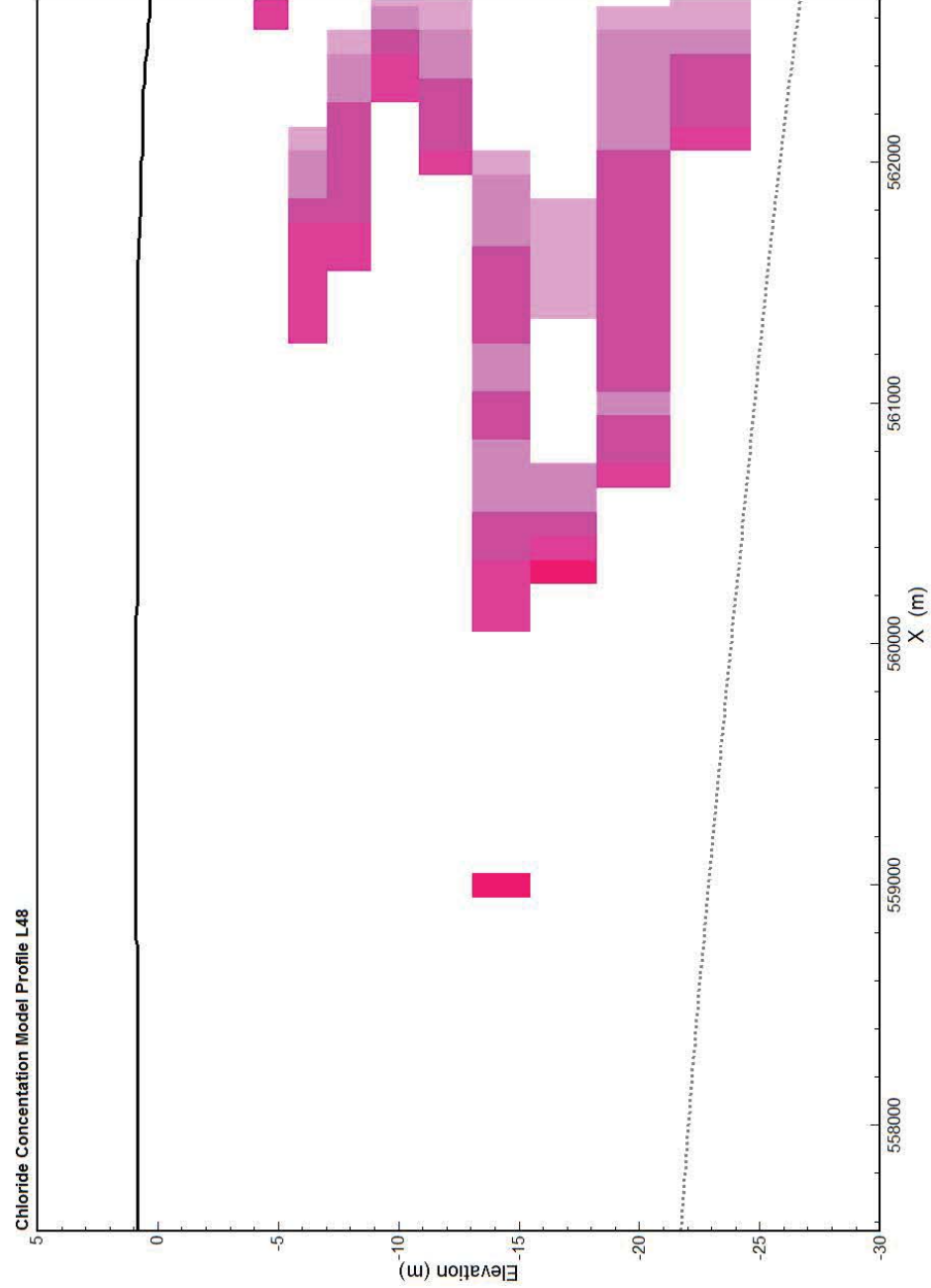
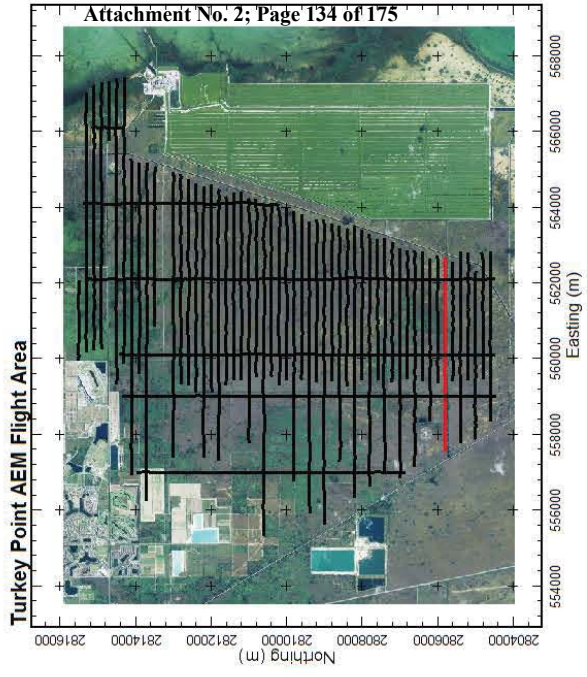
Surface elevation is indicated by the solid black line.
The base of the Biscayne Aquifer as defined by Fish and Stewart (1991) is indicated by the dashed gray line.

Projection and Datum:

The map projection is NAD83 UTM Zone 17 North (meters). The vertical datum is NAVD88 (meters).

Images prepared by Aqua Geo Frameworks LLC under contract to ENERCON Services Inc.





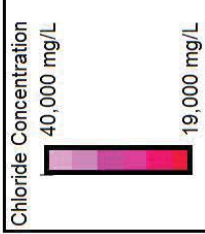
Current Profile:
The red line on the Profile Position Map and the Turkey Point AEM Survey Map indicates the current viewed Profile that is displayed in the Chloride Concentration Model Window.

TPGW Water Quality
The Profile displays Chloride Concentration > 19,000 mg/L.

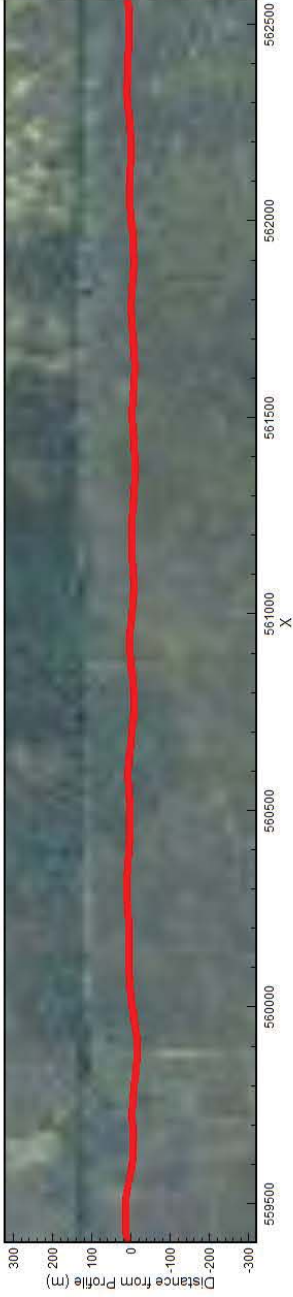
Surfaces:
Surface elevation is indicated by the solid black line. The base of the Biscayne Aquifer as defined by Fish and Stewart (1991) is indicated by the dashed gray line.

Projection and Datum:
The map projection is NAD83 UTM Zone 17 North (meters). The vertical datum is NAVD88 (meters).

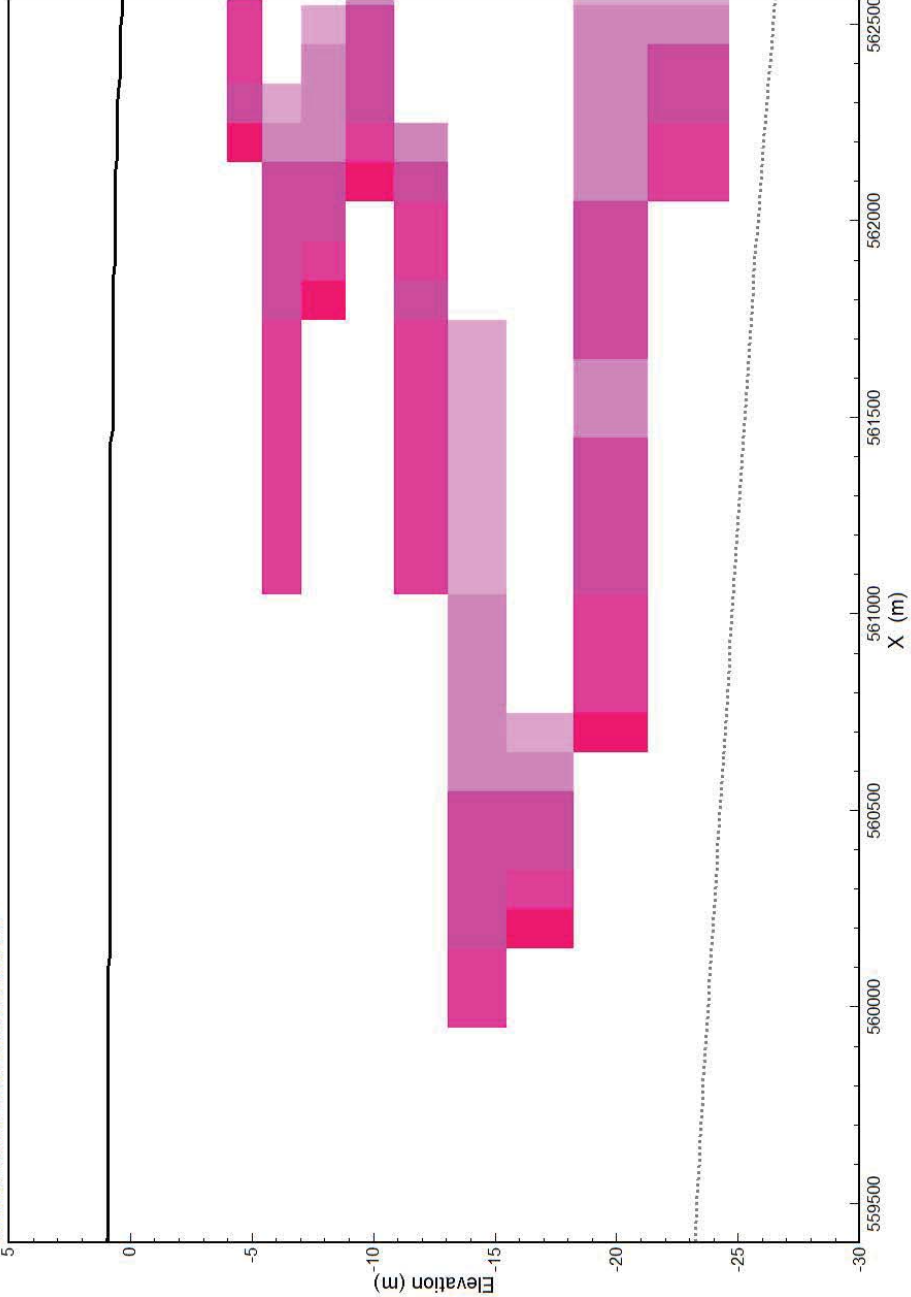
Images prepared by Aqua Geo Frameworks LLC under contract to ENERCON Services Inc.



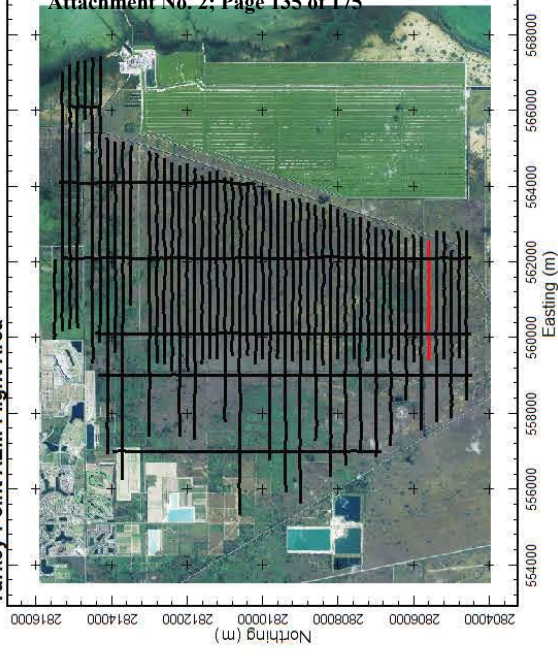
Profile 1 Profile L49



Chloride Concentration Model Profile L49



Turkey Point AEM Flight Area



Current Profile:

The red line on the Profile Position Map and the Turkey Point AEM Survey Map indicates the current viewed Profile that is displayed in the Chloride Concentration Model Window.

TPGW Water Quality

The Profile displays Chloride Concentration > 19,000 mg/L.

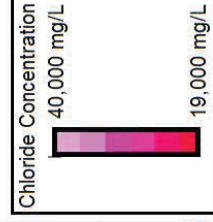
Surfaces:

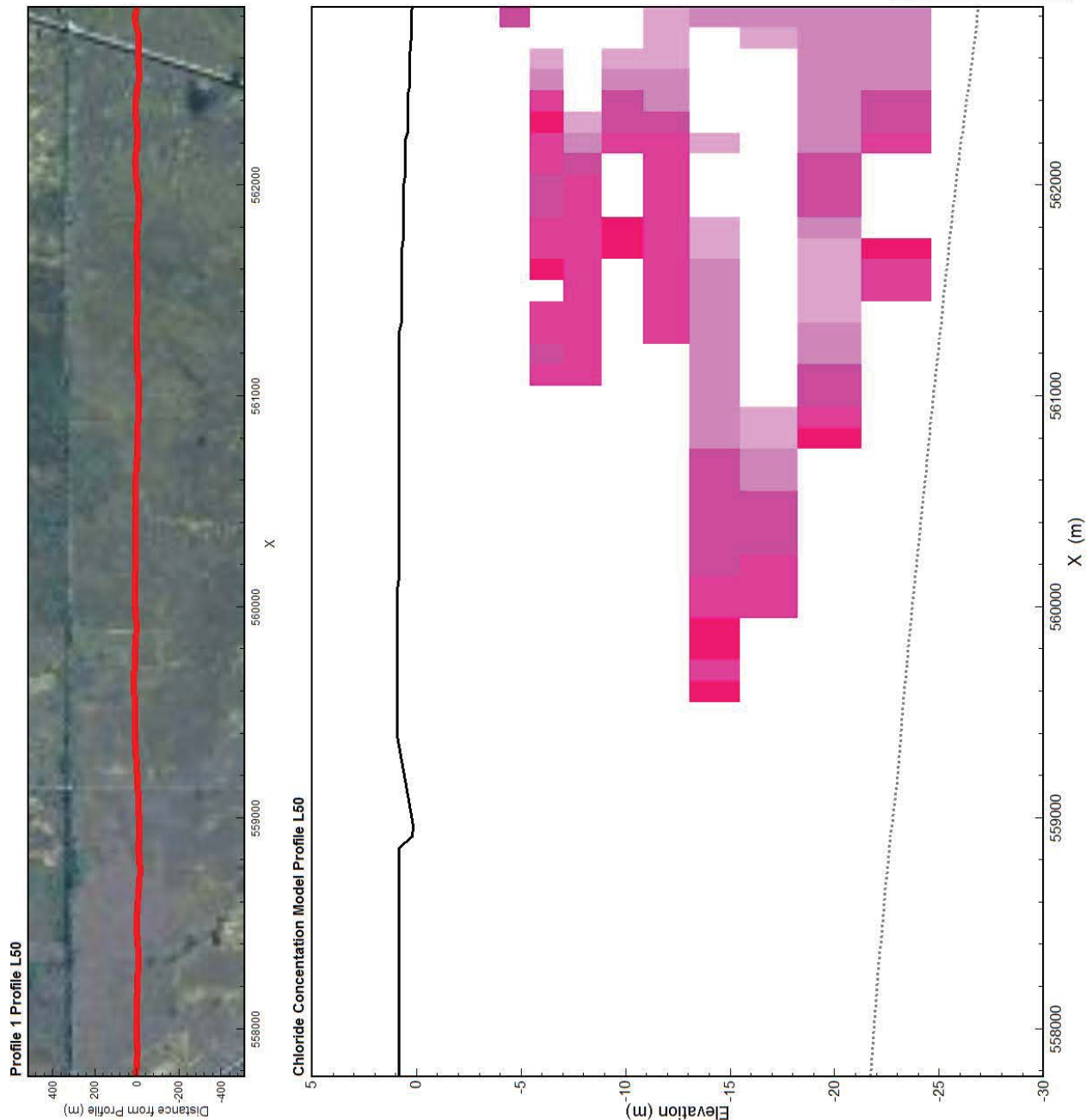
Surface elevation is indicated by the solid black line. The base of the Biscayne Aquifer as defined by Fish and Stewart (1991) is indicated by the dashed gray line.

Projection and Datum:

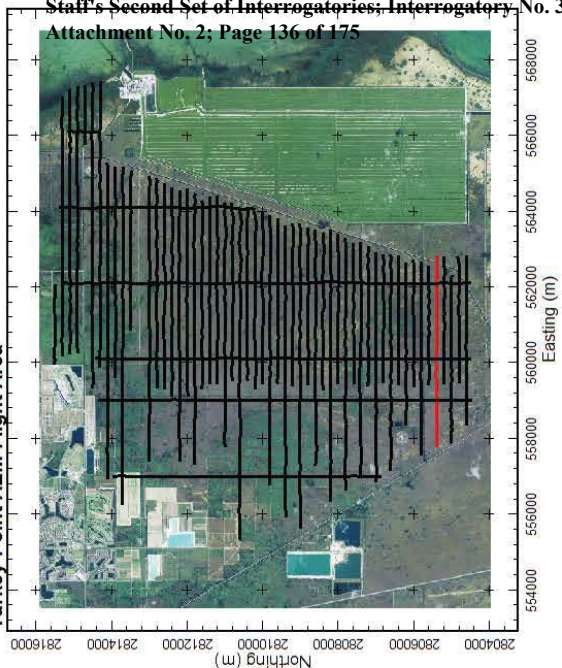
The map projection is NAD83 UTM Zone 17 North (meters). The vertical datum is NAVD88 (meters).

Images prepared by Aqua Geo Frameworks LLC under contract to ENERCON Services Inc.





Turkey Point AEM Flight Area



Current Profile:

The red line on the Profile Position Map and the Turkey Point AEM Survey Map indicates the current viewed Profile that is displayed in the Chloride Concentration Model Window.

TPGW Water Quality

The Profile displays Chloride Concentration > 19,000 mg/L.

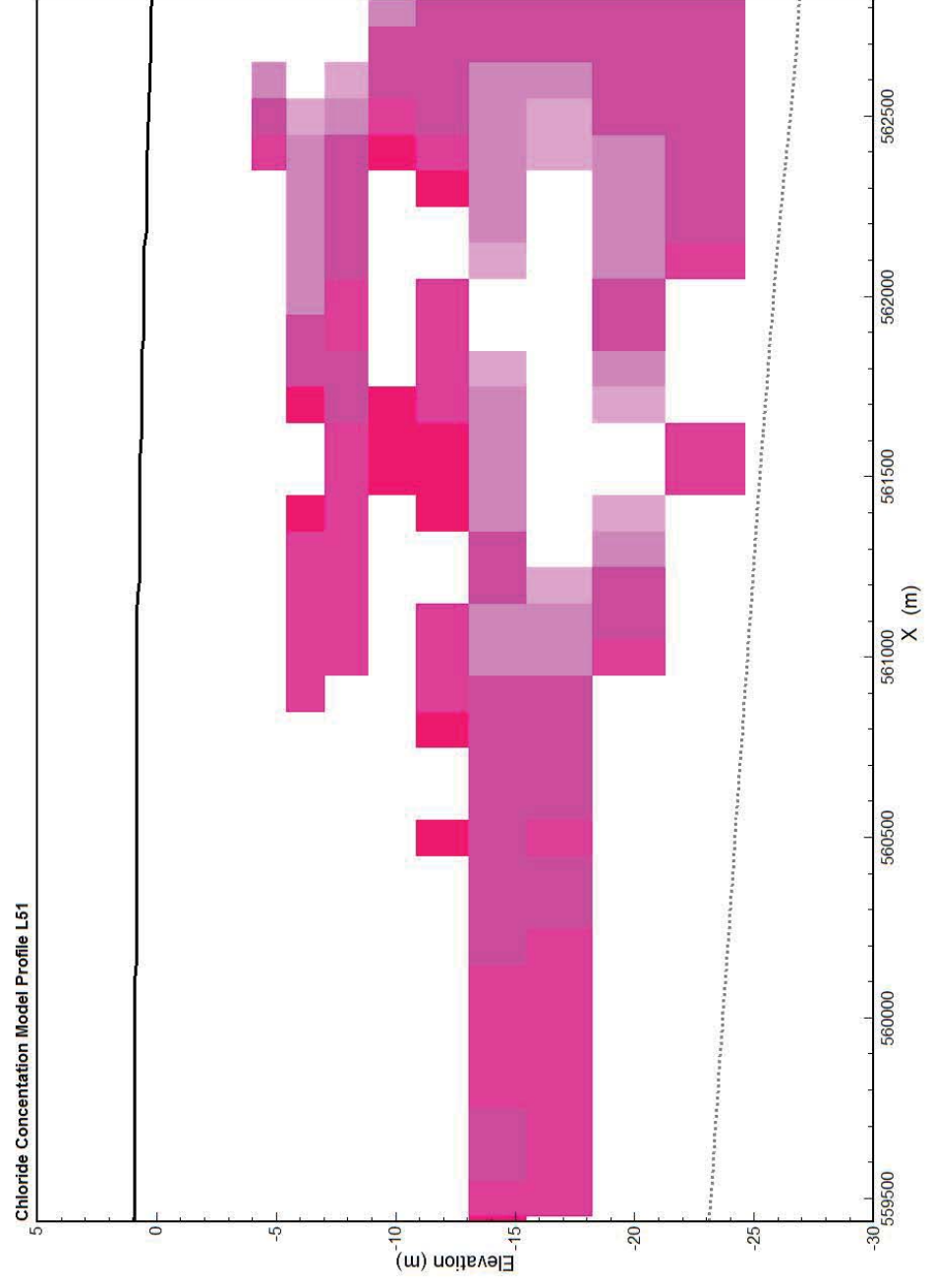
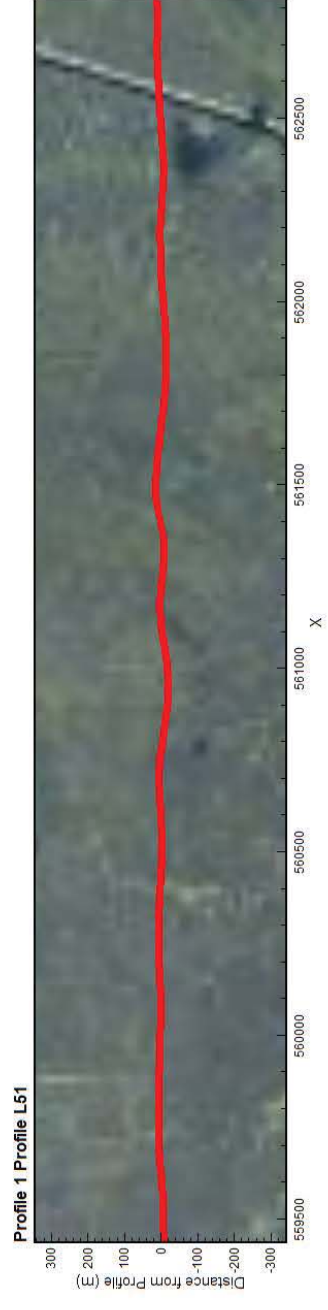
Surfaces:

Surface elevation is indicated by the solid black line. The base of the Biscayne Aquifer as defined by Fish and Stewart (1991) is indicated by the dashed gray line.

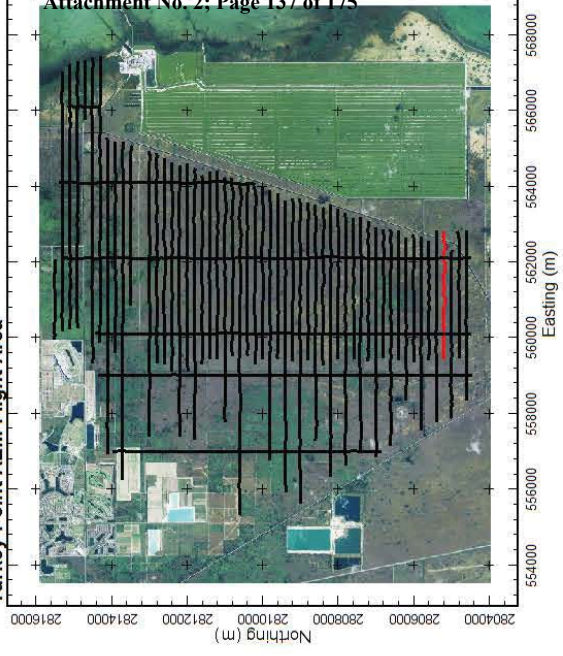
Projection and Datum:

The map projection is NAD83 UTM Zone 17 North (meters). The vertical datum is NAVD88 (meters).

Images prepared by Aqua Geo Frameworks LLC under contract to ENERCON Services Inc.



Turkey Point AEM Flight Area



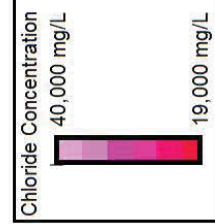
Current Profile:
The red line on the Profile Position Map and the Turkey Point AEM Survey Map indicates the current viewed Profile that is displayed in the Chloride Concentration Model Window.

TPGW Water Quality
The Profile displays Chloride Concentration > 19,000 mg/L.

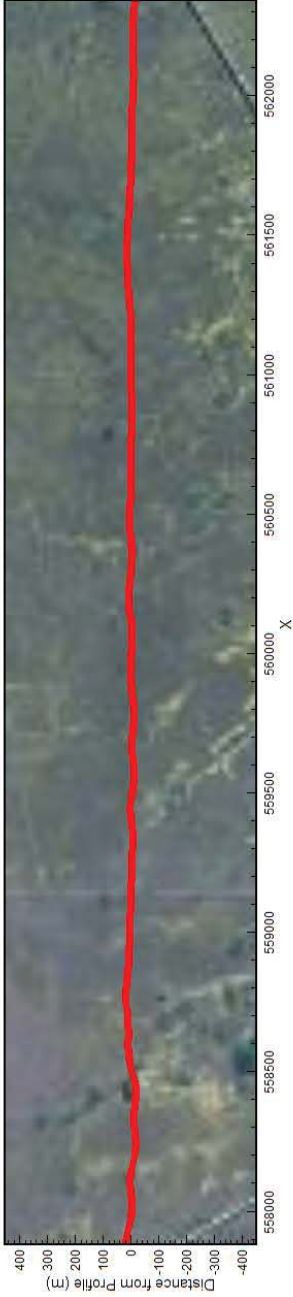
Surfaces:
Surface elevation is indicated by the solid black line.
The base of the Biscayne Aquifer as defined by Fish and Stewart (1991) is indicated by the dashed gray line.

Projection and Datum:
The map projection is NAD83 UTM Zone 17 North (meters). The vertical datum is NAVD88 (meters).

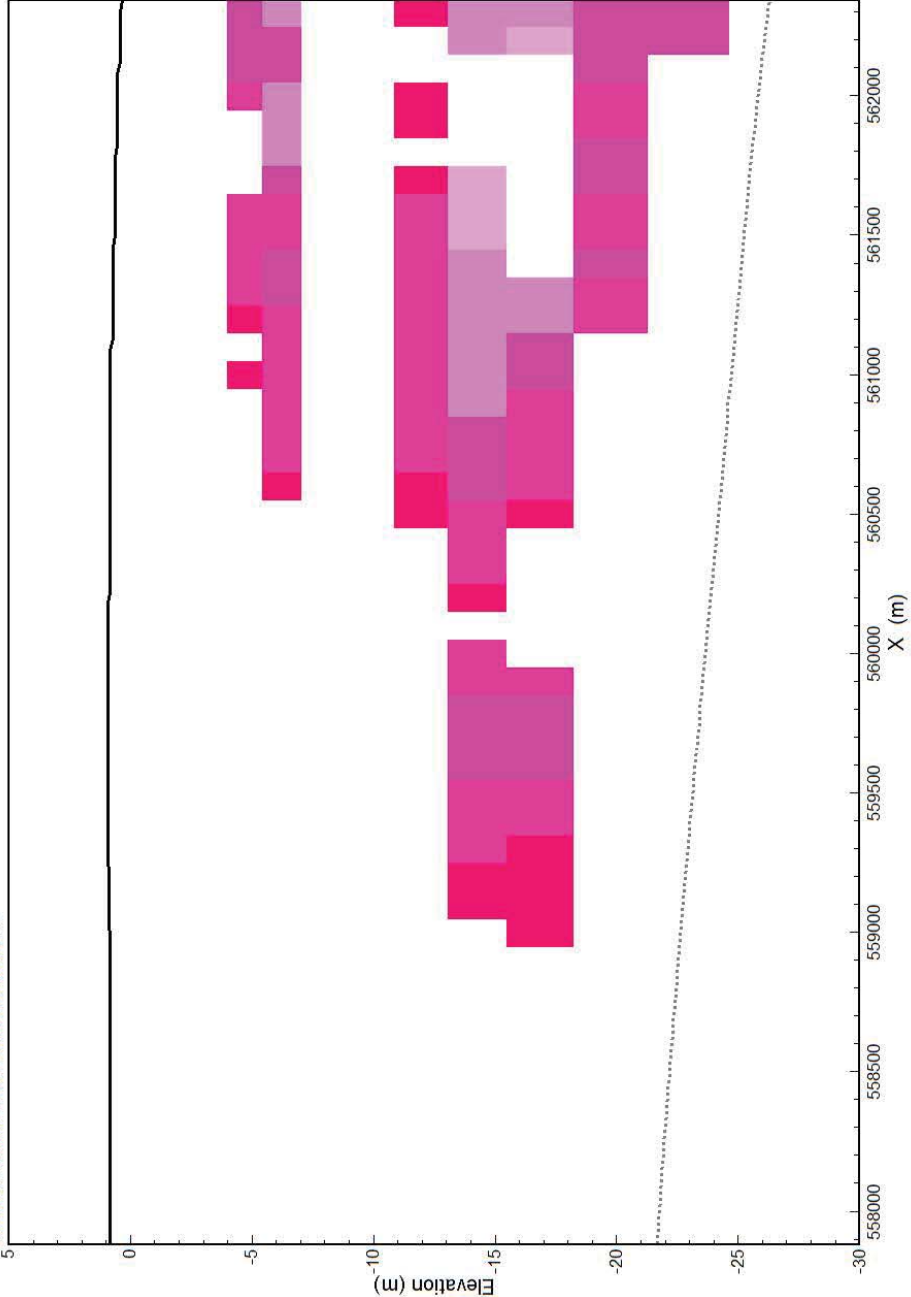
Images prepared by Aqua Geo Frameworks LLC under contract to ENERCON Services Inc.



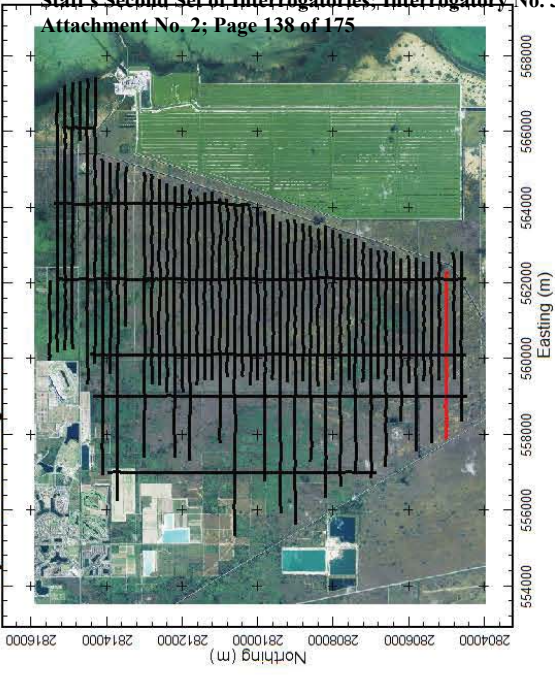
Profile 1 Profile L52



Chloride Concentration Model Profile L52



Turkey Point AEM Flight Area



Current Profile:

The red line on the Profile Position Map and the Turkey Point AEM Survey Map indicates the current viewed Profile that is displayed in the Chloride Concentration Model Window.

TPGW Water Quality

The Profile displays Chloride Concentration > 19,000 mg/L.

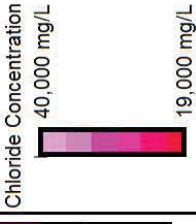
Surfaces:

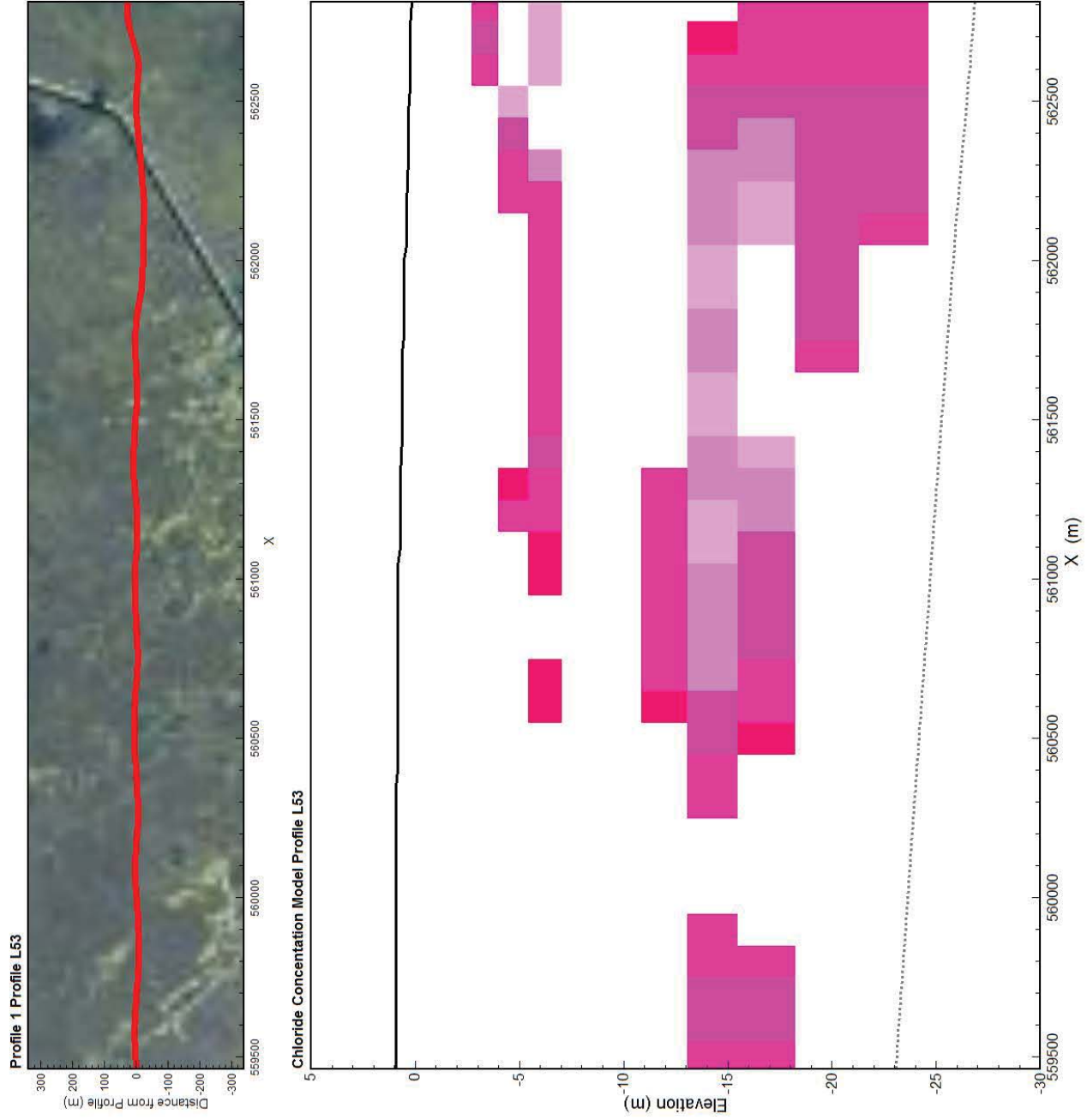
Surface elevation is indicated by the solid black line. The base of the Biscayne Aquifer as defined by Fish and Stewart (1991) is indicated by the dashed gray line.

Projection and Datum:

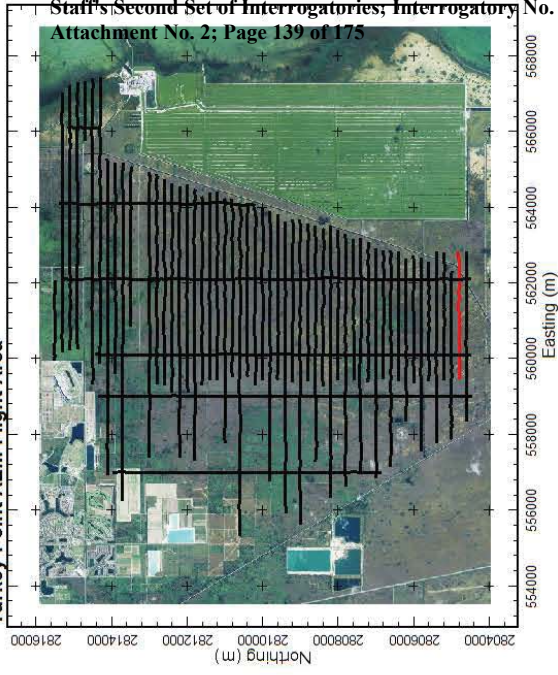
The map projection is NAD83 UTM Zone 17 North (meters). The vertical datum is NAVD88 (meters).

Images prepared by Aqua Geo Frameworks LLC under contract to ENERCON Services Inc.





Turkey Point AEM Flight Area



Florida Power & Light Company; Docket No. 20170007-EI
Staff's Second Set of Interrogatories; Interrogatory No. 39
Attachment No. 2; Page 139 of 175

Current Profile:
The red line on the Profile Position Map and the Turkey Point AEM Survey Map indicates the current viewed Profile that is displayed in the Chloride Concentration Model Window.

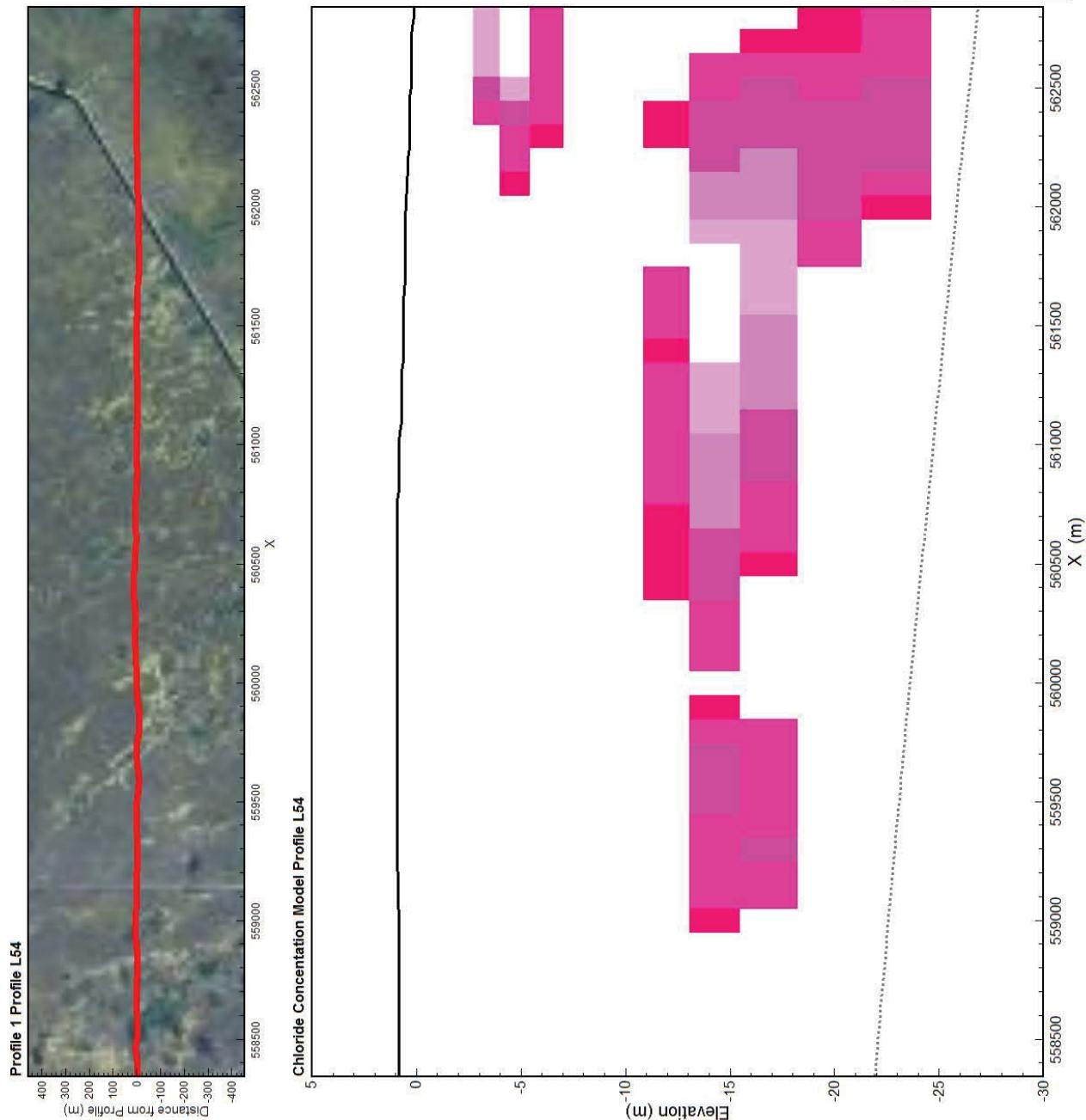
TPGW Water Quality
The Profile displays Chloride Concentration > 19,000 mg/L.

Surfaces:
Surface elevation is indicated by the solid black line.
The base of the Biscayne Aquifer as defined by Fish and Stewart (1991) is indicated by the dashed gray line.

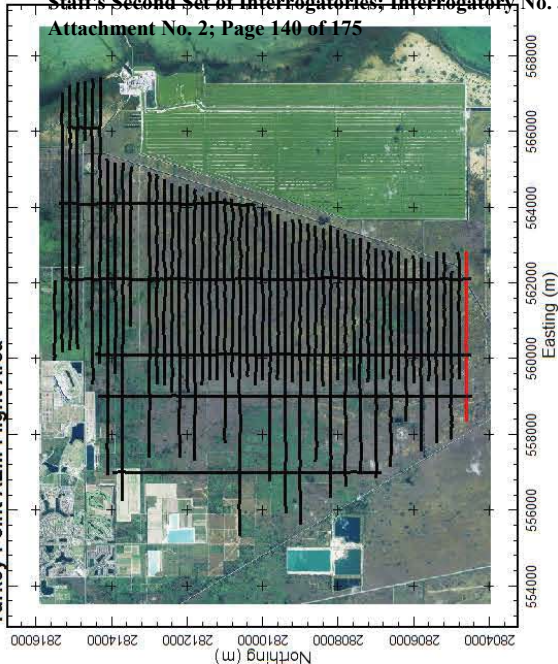
Projection and Datum:
The map projection is NAD83 UTM Zone 17 North (meters). The vertical datum is NAVD88 (meters).

Images prepared by Aqua Geo Frameworks LLC under contract to ENERCON Services Inc.





Turkey Point AEM Flight Area



Current Profile:

The red line on the Profile Position Map and the Turkey Point AEM Survey Map indicates the current viewed Profile that is displayed in the Chloride Concentration Model Window.

TPGW Water Quality
The Profile displays Chloride Concentration > 19,000 mg/L.

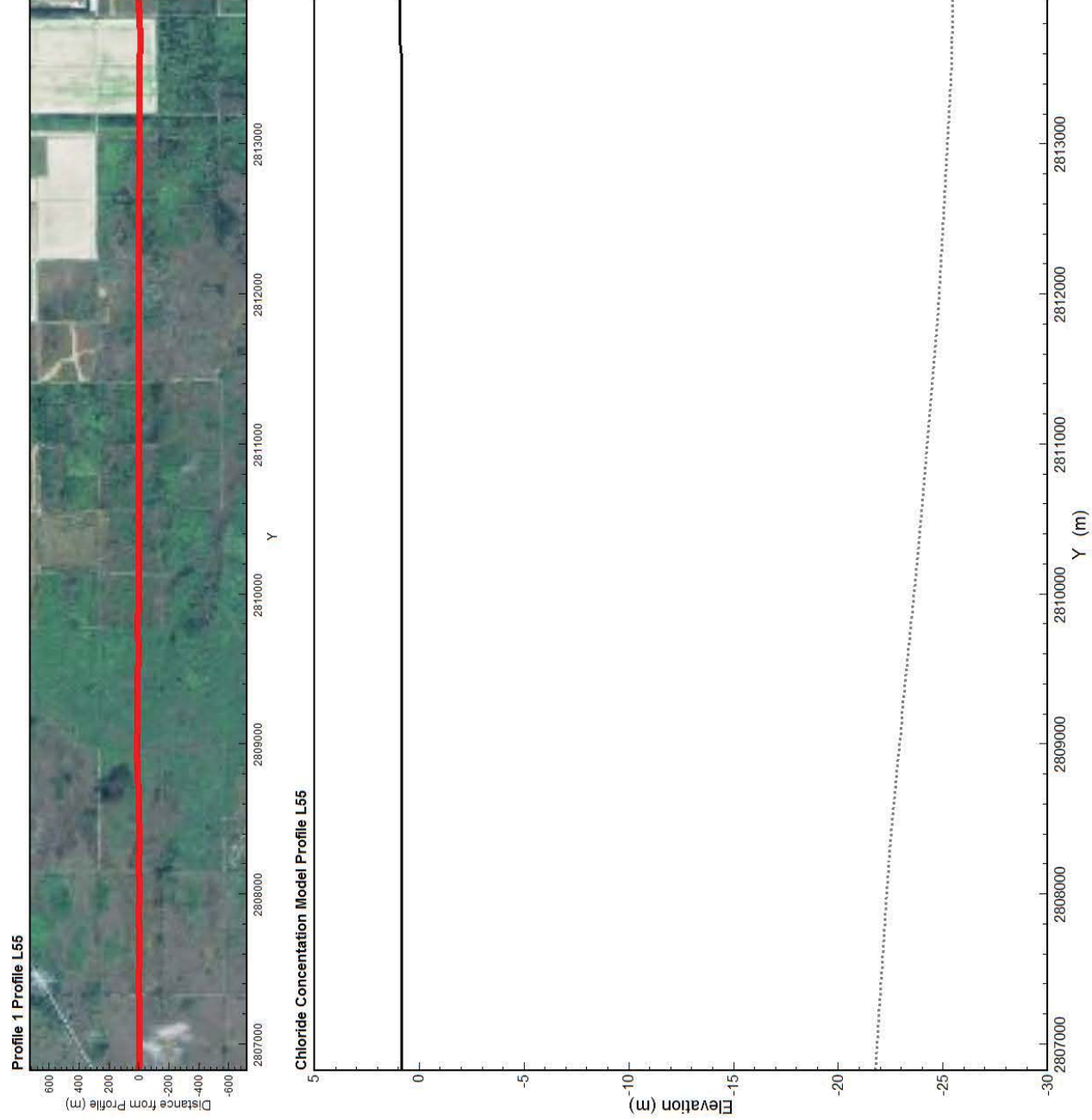
Surfaces:

Surface elevation is indicated by the solid black line. The base of the Biscayne Aquifer as defined by Fish and Stewart (1991) is indicated by the dashed gray line.

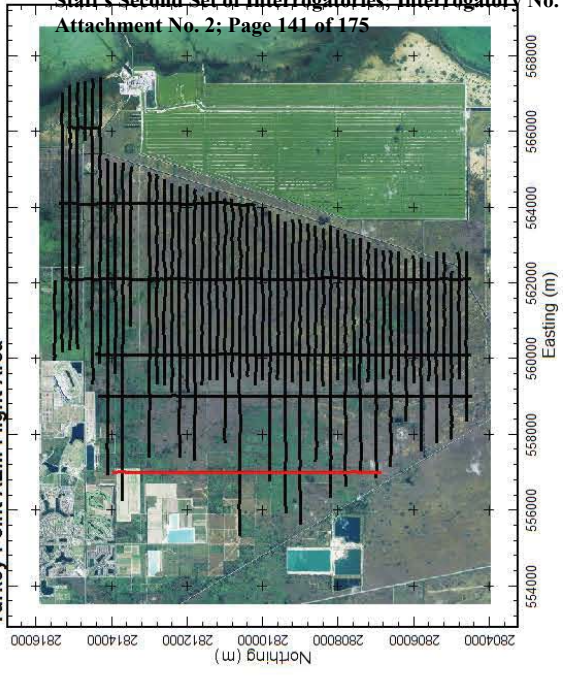
Projection and Datum:

The map projection is NAD83 UTM Zone 17 North (meters). The vertical datum is NAVD88 (meters).

Images prepared by Aqua Geo Frameworks LLC under contract to ENERCON Services Inc.



Turkey Point AEM Flight Area



Current Profile:
The red line on the Profile Position Map and the Turkey Point AEM Survey Map indicates the current viewed Profile that is displayed in the Chloride Concentration Model Window.

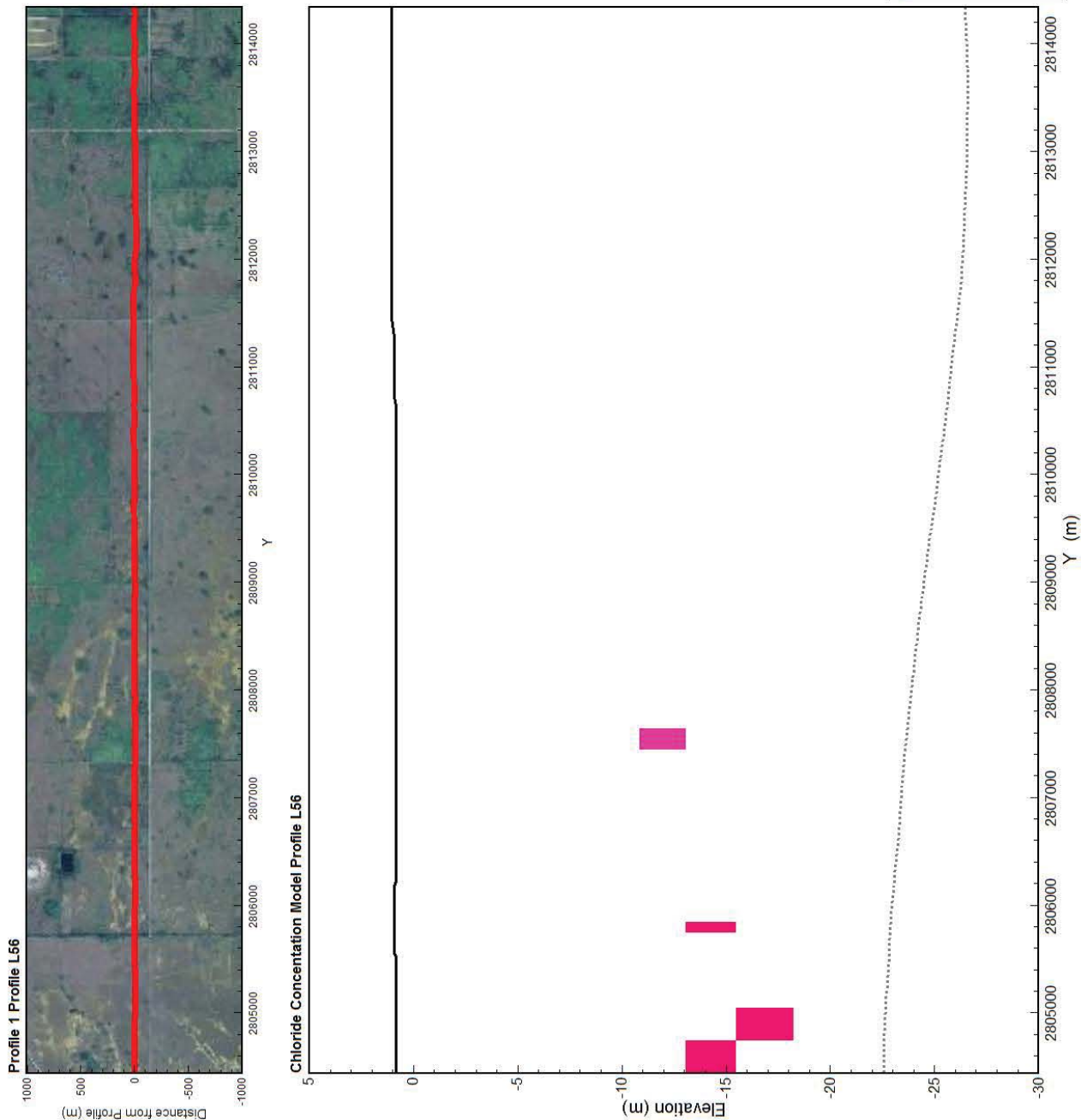
TPGW Water Quality
The Profile displays Chloride Concentration > 19,000 mg/L.

Surfaces:
Surface elevation is indicated by the solid black line. The base of the Biscayne Aquifer as defined by Fish and Stewart (1991) is indicated by the dashed gray line.

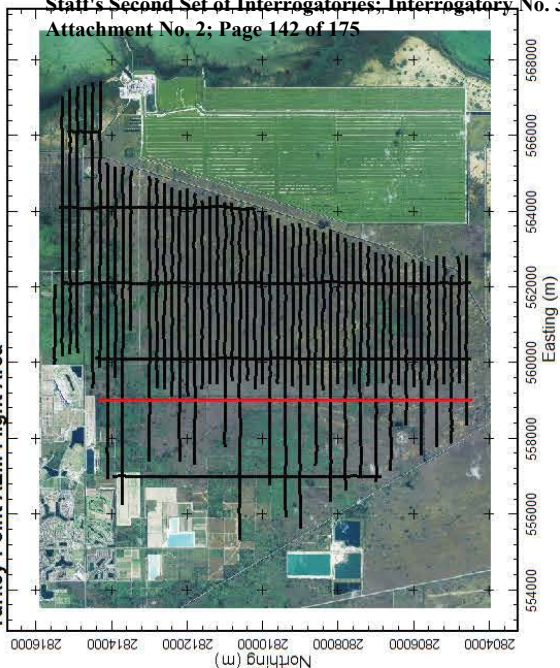
Projection and Datum:
The map projection is NAD83 UTM Zone 17 North (meters). The vertical datum is NAVD88 (meters).

Images prepared by Aqua Geo Frameworks LLC under contract to ENERCON Services Inc.





Turkey Point AEM Flight Area



Florida Power & Light Company; Docket No. 20170007-EI
Staff's Second Set of Interrogatories; Interrogatory No. 39
Attachment No. 2; Page 142 of 175

Current Profile:

The red line on the Profile Position Map and the Turkey Point AEM Survey Map indicates the current viewed Profile that is displayed in the Chloride Concentration Model Window.

TPGW Water Quality
The Profile displays Chloride Concentration > 19,000 mg/L.

Surfaces:

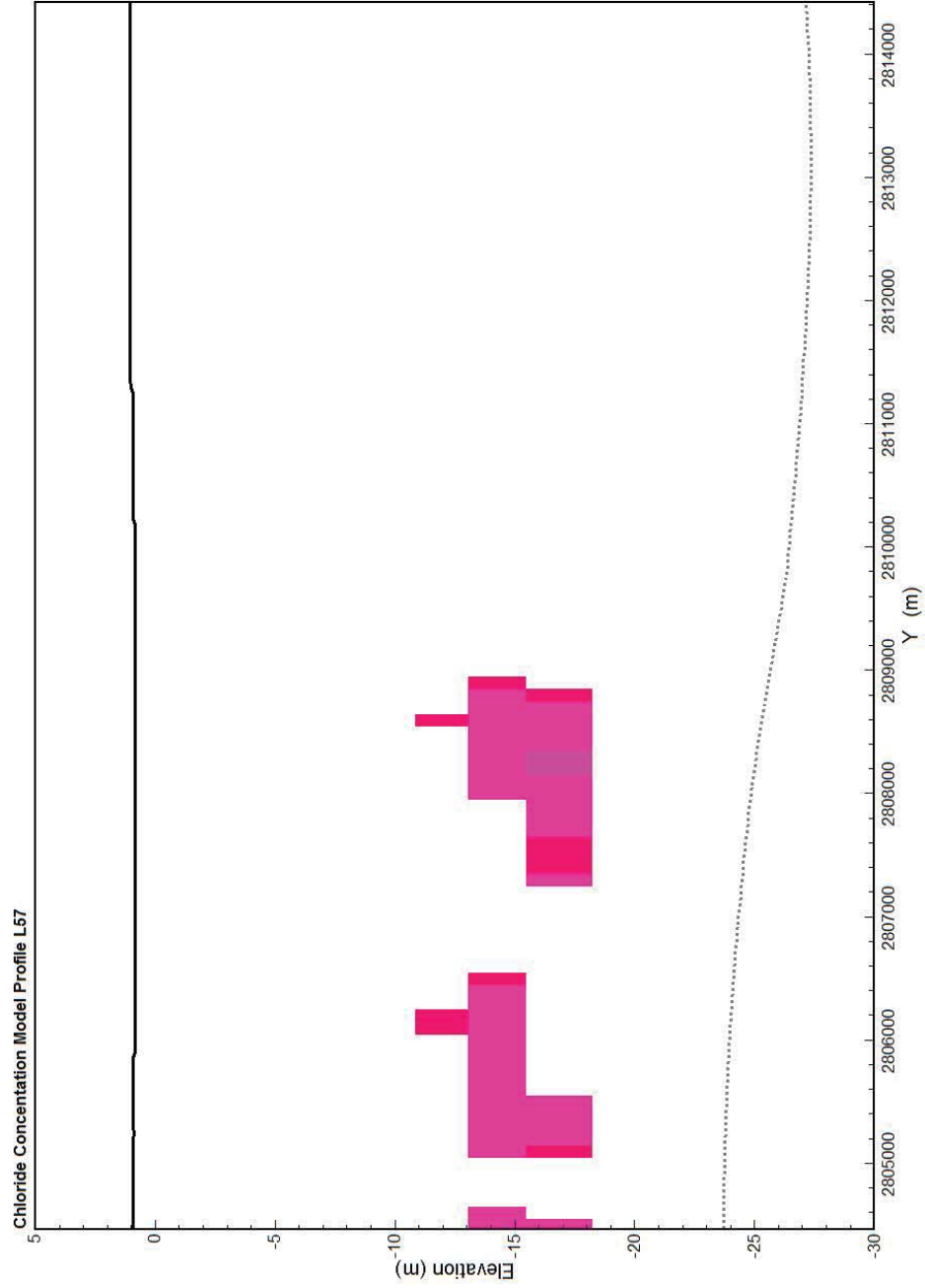
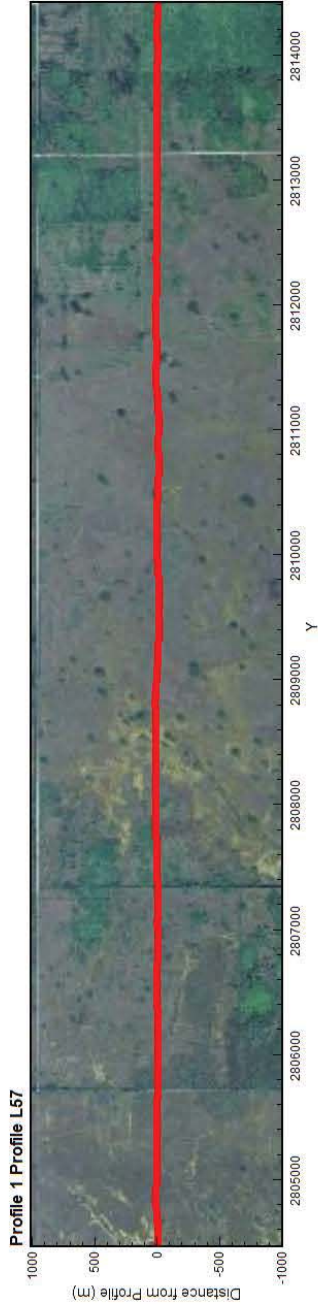
Surface elevation is indicated by the solid black line. The base of the Biscayne Aquifer as defined by Fish and Stewart (1991) is indicated by the dashed gray line.

Projection and Datum:

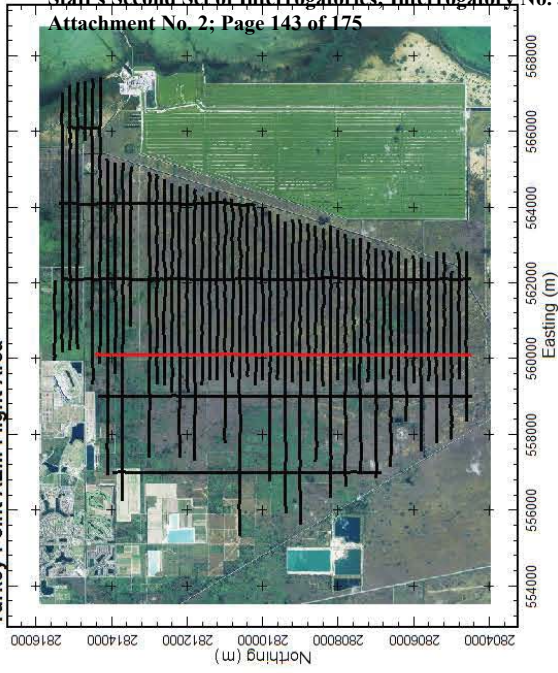
The map projection is NAD83 UTM Zone 17 North (meters). The vertical datum is NAVD88 (meters).

Images prepared by Aqua Geo Frameworks LLC under contract to ENERCON Services Inc.





Turkey Point AEM Flight Area



Current Profile:

The red line on the Profile Position Map and the Turkey Point AEM Survey Map indicates the current viewed Profile that is displayed in the Chloride Concentration Model Window.

TPGW Water Quality

The Profile displays Chloride Concentration > 19,000 mg/L.

Surfaces:

Surface elevation is indicated by the solid black line. The base of the Biscayne Aquifer as defined by Fish and Stewart (1991) is indicated by the dashed gray line.

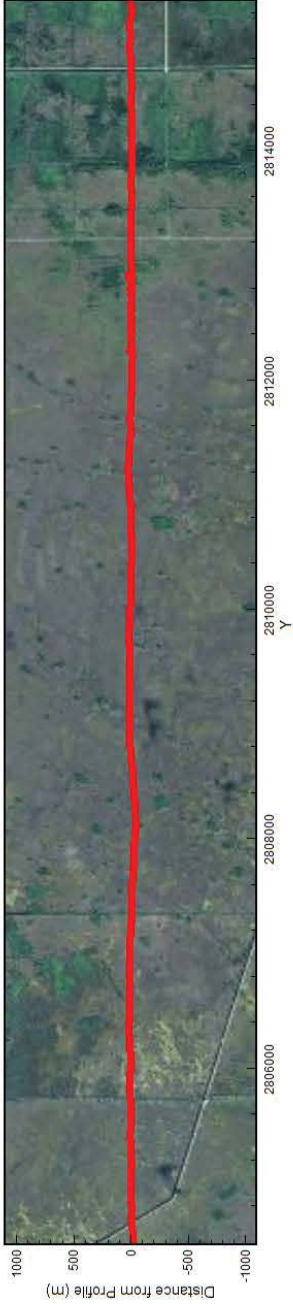
Projection and Datum:

The map projection is NAD83 UTM Zone 17 North (meters). The vertical datum is NAVD88 (meters).

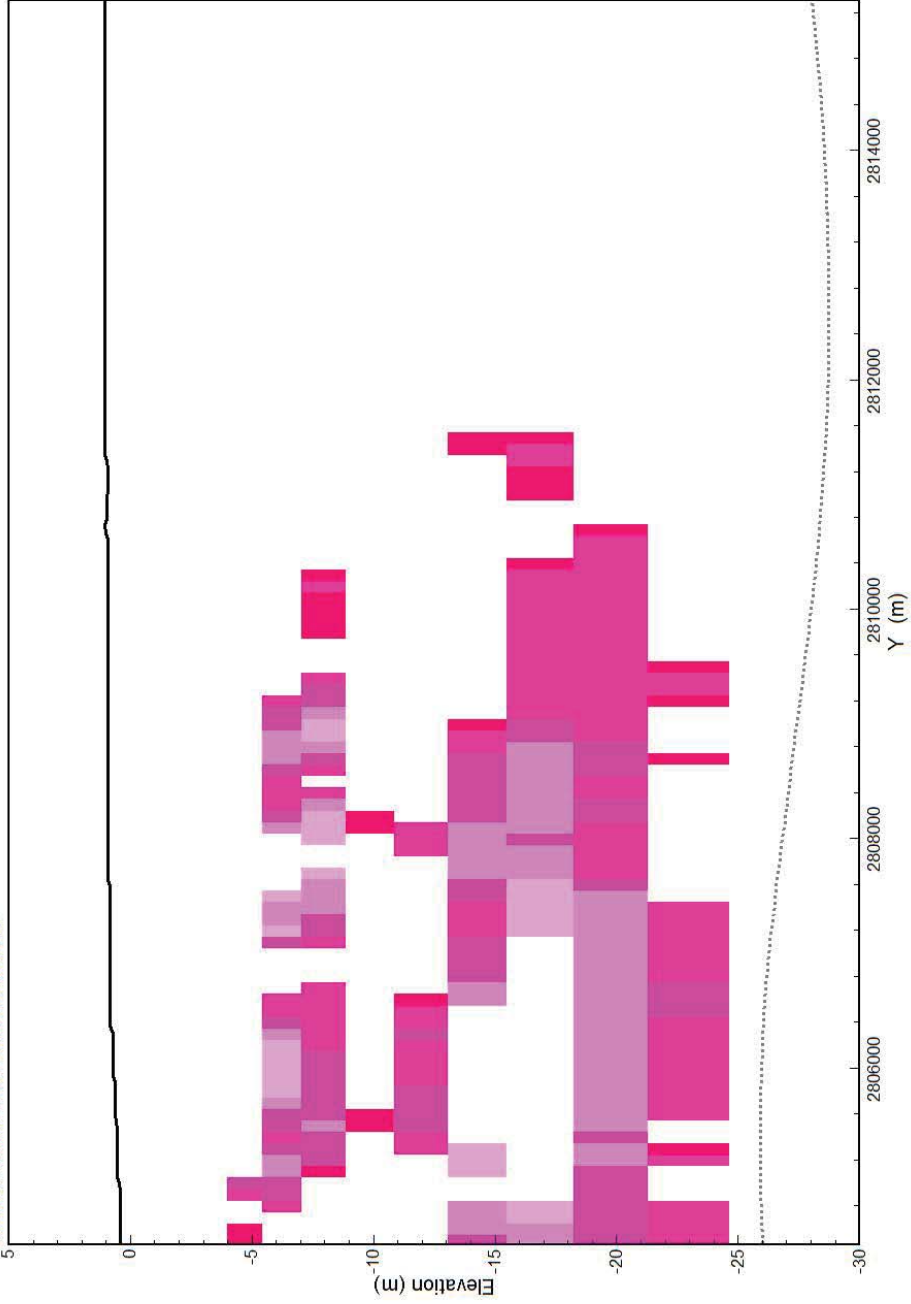
Images prepared by Aqua Geo Frameworks LLC under contract to ENERCON Services Inc.



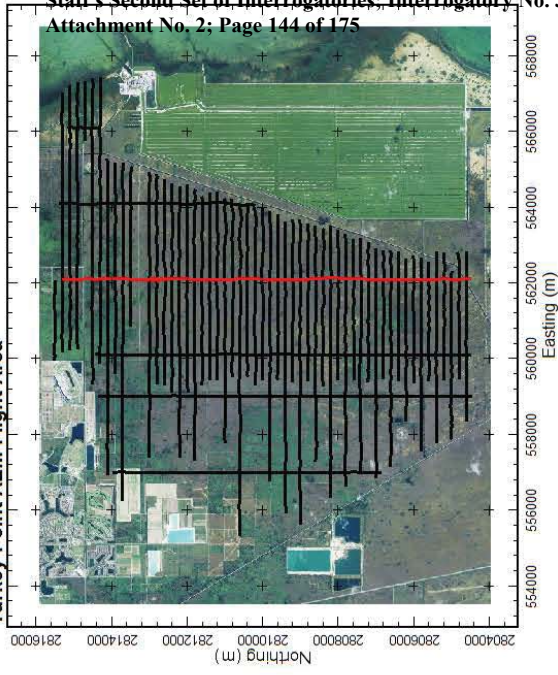
Profile 1 Profile L58



Chloride Concentration Model Profile L58



Turkey Point AEM Flight Area



Current Profile:

The red line on the Profile Position Map and the Turkey Point AEM Survey Map indicates the current viewed Profile that is displayed in the Chloride Concentration Model Window.

TPGW Water Quality

The Profile displays Chloride Concentration > 19,000 mg/L.

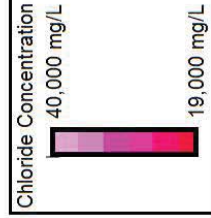
Surfaces:

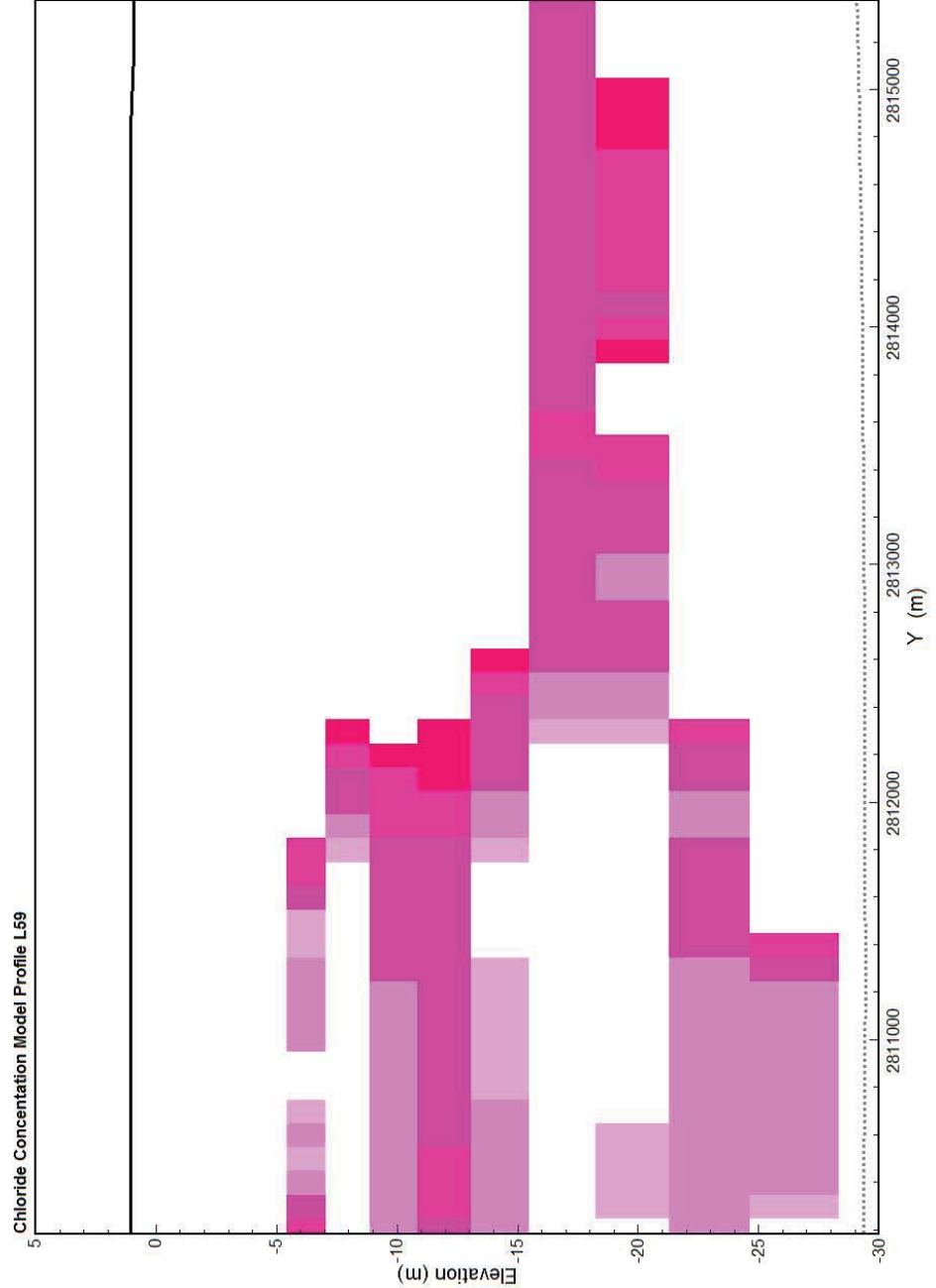
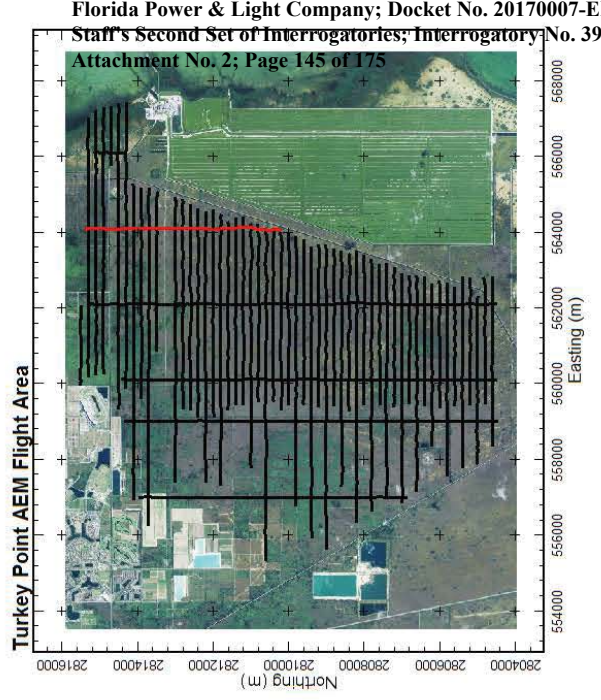
Surface elevation is indicated by the solid black line. The base of the Biscayne Aquifer as defined by Fish and Stewart (1991) is indicated by the dashed gray line.

Projection and Datum:

The map projection is NAD83 UTM Zone 17 North (meters). The vertical datum is NAVD88 (meters).

Images prepared by Aqua Geo Frameworks LLC under contract to ENERCON Services Inc.





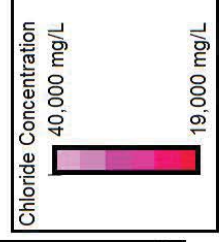
Current Profile:
The red line on the Profile Position Map and the Turkey Point AEM Survey Map indicates the current viewed Profile that is displayed in the Chloride Concentration Model Window.

TPGW Water Quality
The Profile displays Chloride Concentration > 19,000 mg/L.

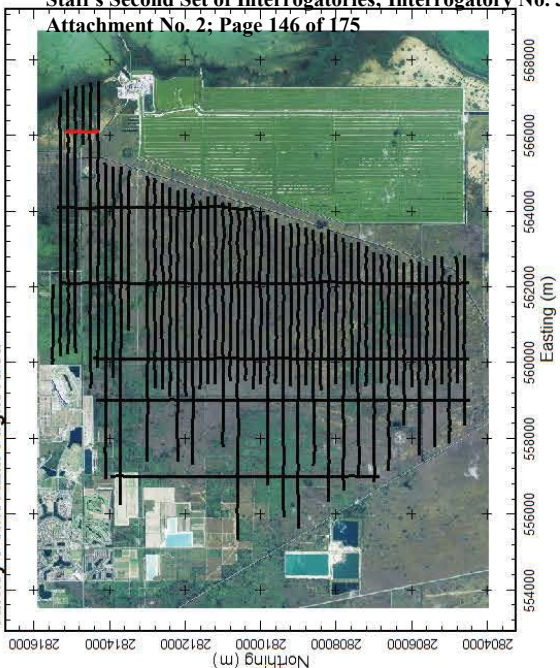
Surfaces:
Surface elevation is indicated by the solid black line. The base of the Biscayne Aquifer as defined by Fish and Stewart (1991) is indicated by the dashed gray line.

Projection and Datum:
The map projection is NAD83 UTM Zone 17 North (meters). The vertical datum is NAVD88 (meters).

Images prepared by Aqua Geo Frameworks LLC under contract to ENERCON Services Inc.



Turkey Point AEM Flight Area



Current Profile:

The red line on the Profile Position Map and the Turkey Point AEM Survey Map indicates the current viewed Profile that is displayed in the Chloride Concentration Model Window.

TPGW Water Quality

The Profile displays Chloride Concentration > 19,000 mg/L.

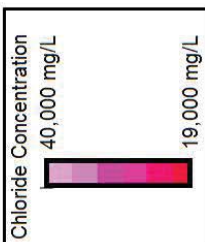
Surfaces:

Surface elevation is indicated by the solid black line. The base of the Biscayne Aquifer as defined by Fish and Stewart (1991) is indicated by the dashed gray line.

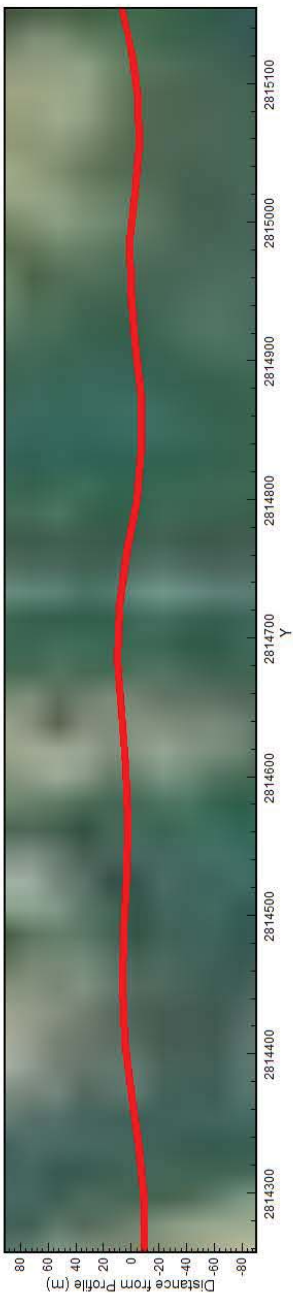
Projection and Datum:

The map projection is NAD83 UTM Zone 17 North (meters). The vertical datum is NAVD88 (meters).

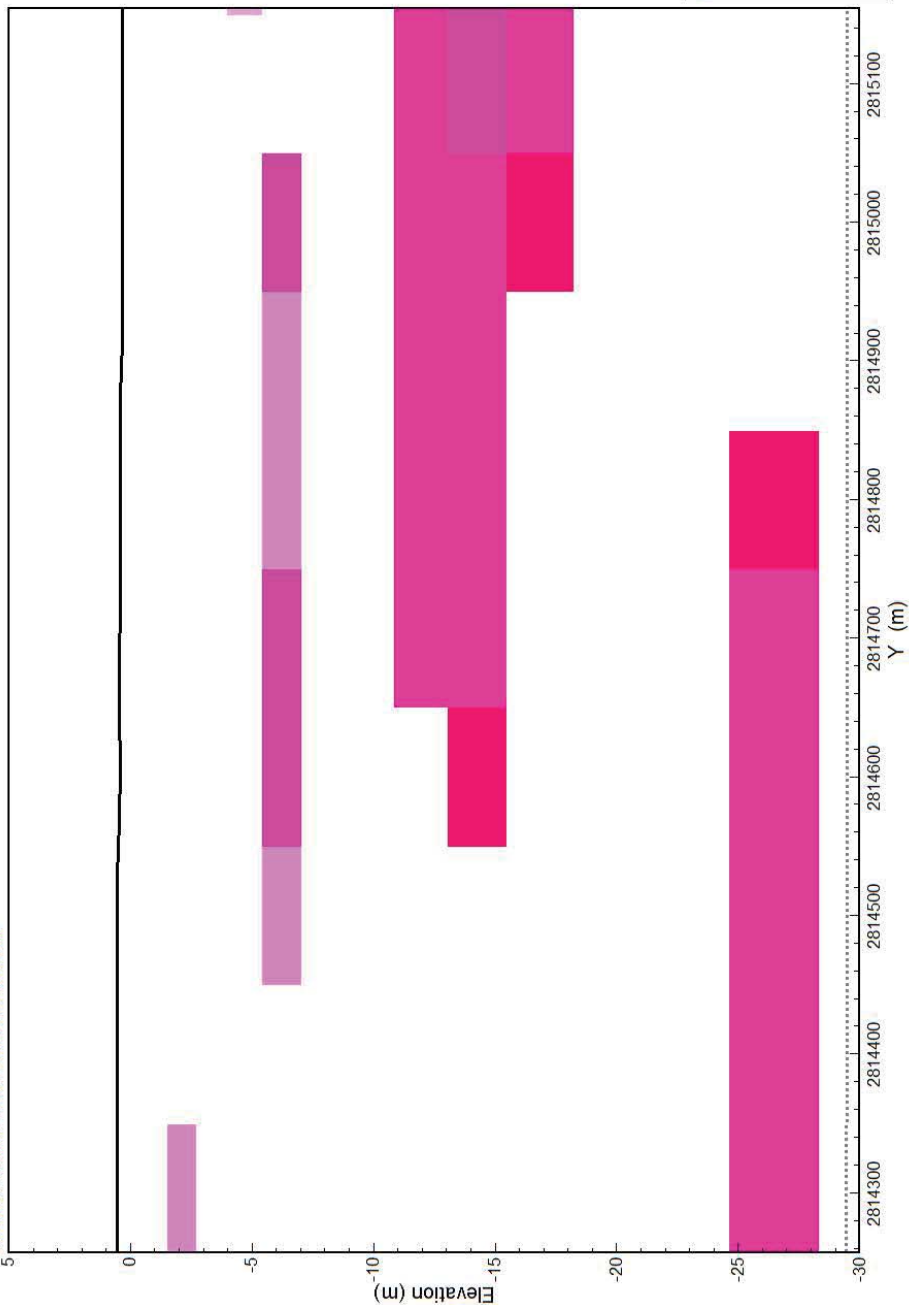
Images prepared by Aqua Geo Frameworks LLC under contract to ENERCON Services Inc.



Profile 1 Profile L60

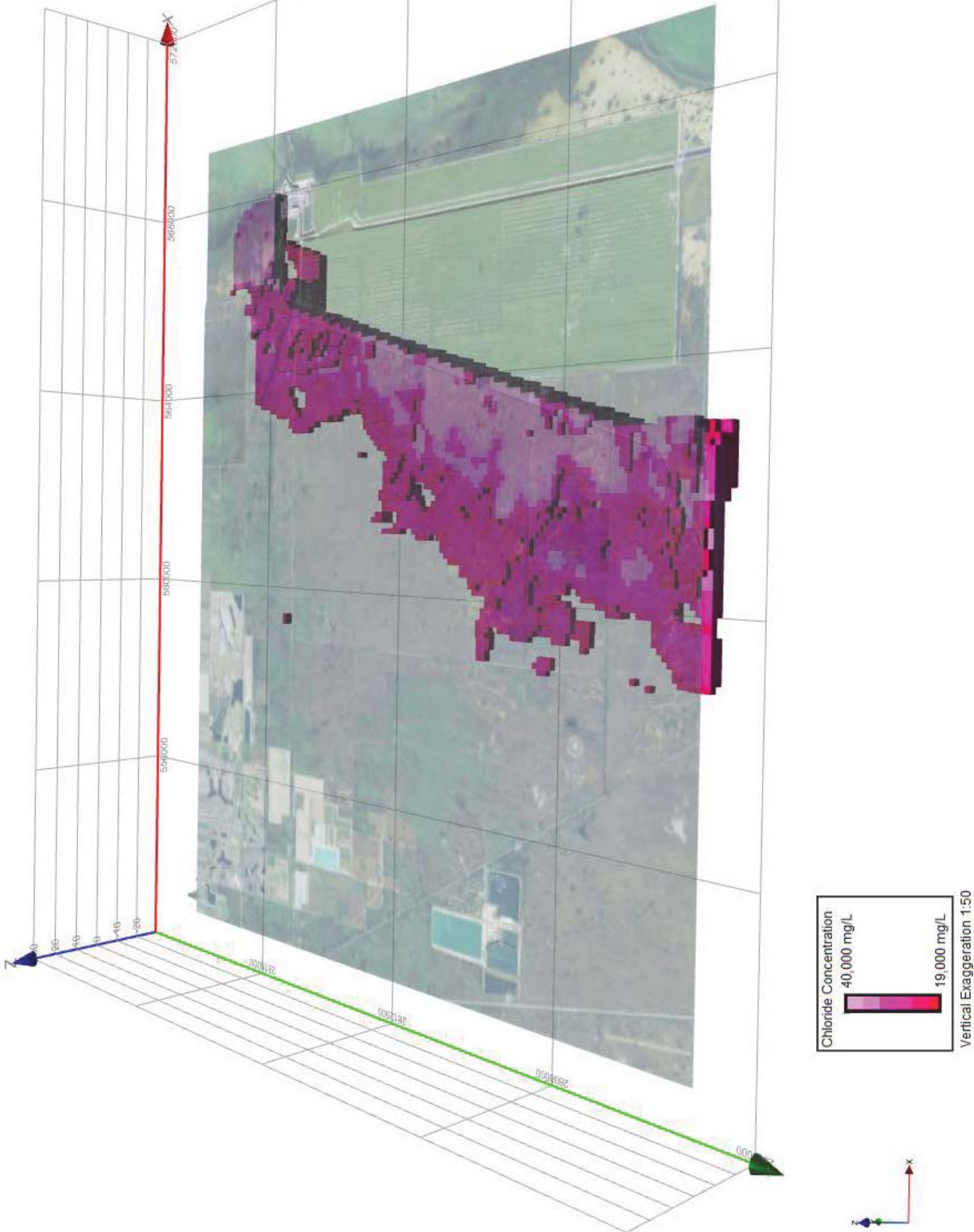


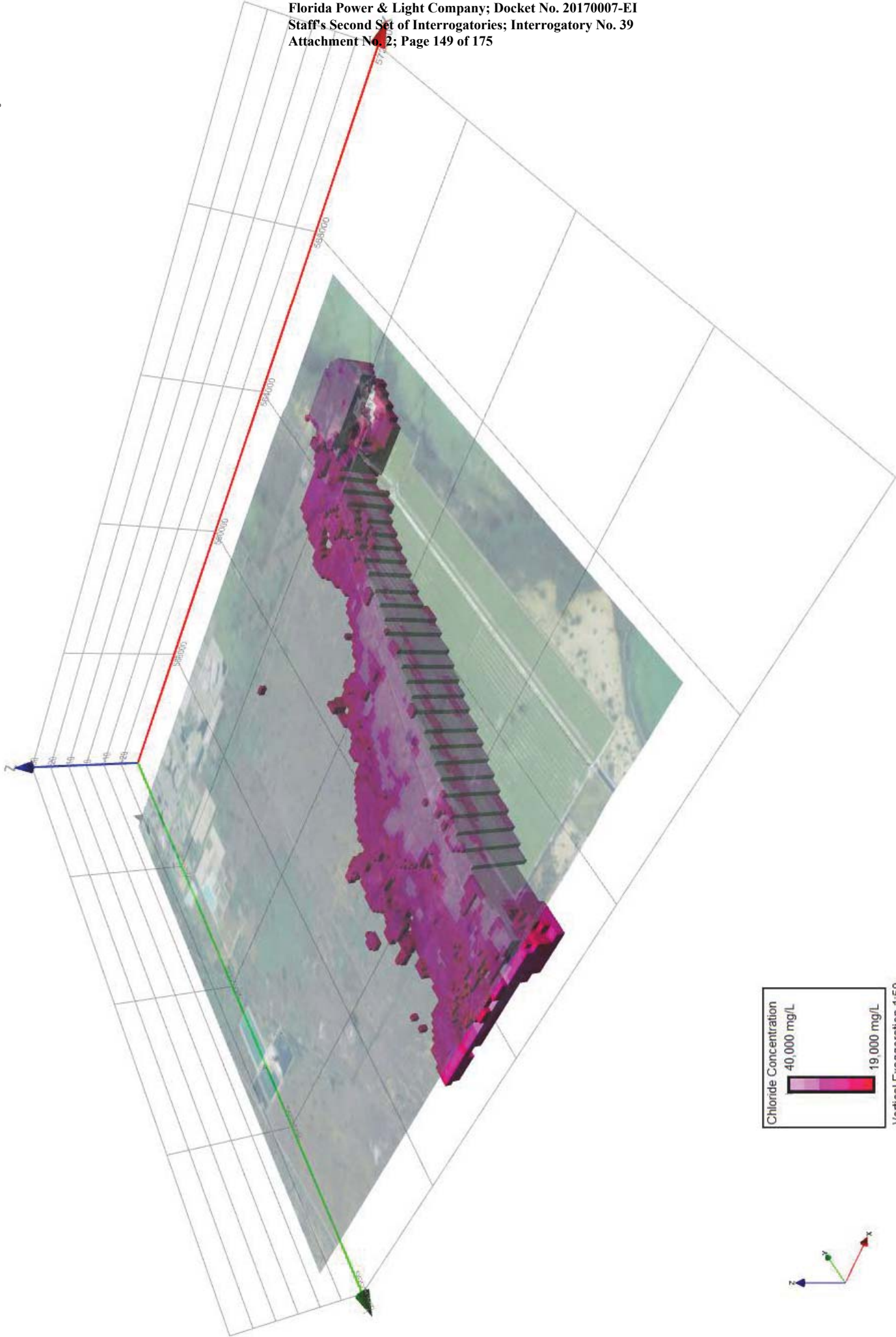
Chloride Concentration Model Profile L60

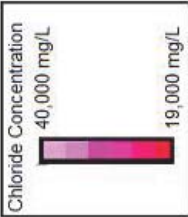
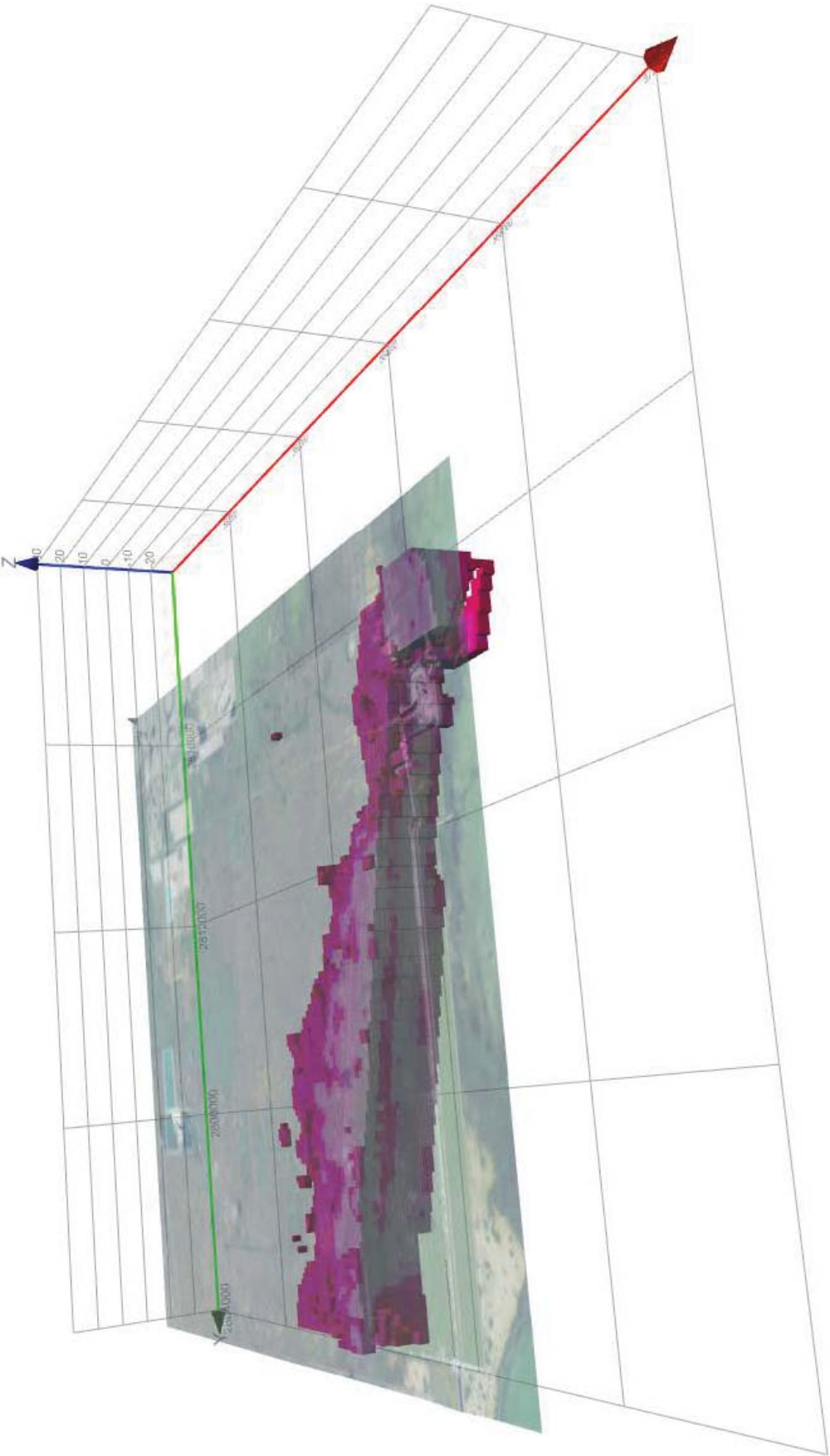


APPENDIX 3A

3D CHLORIDE VOXEL VIEWS

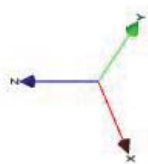
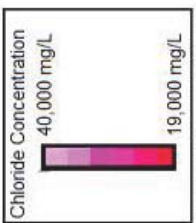
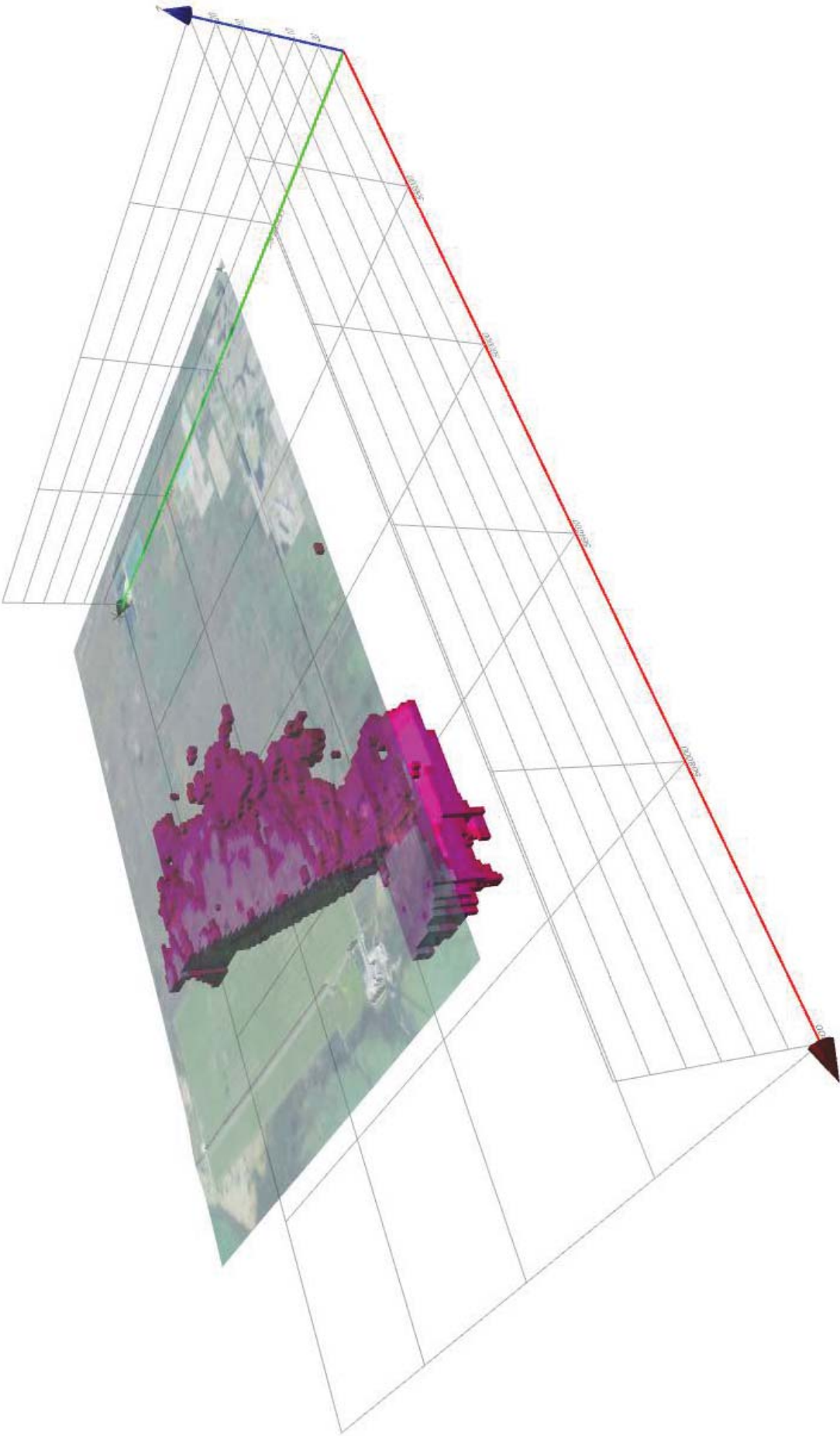


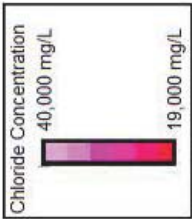
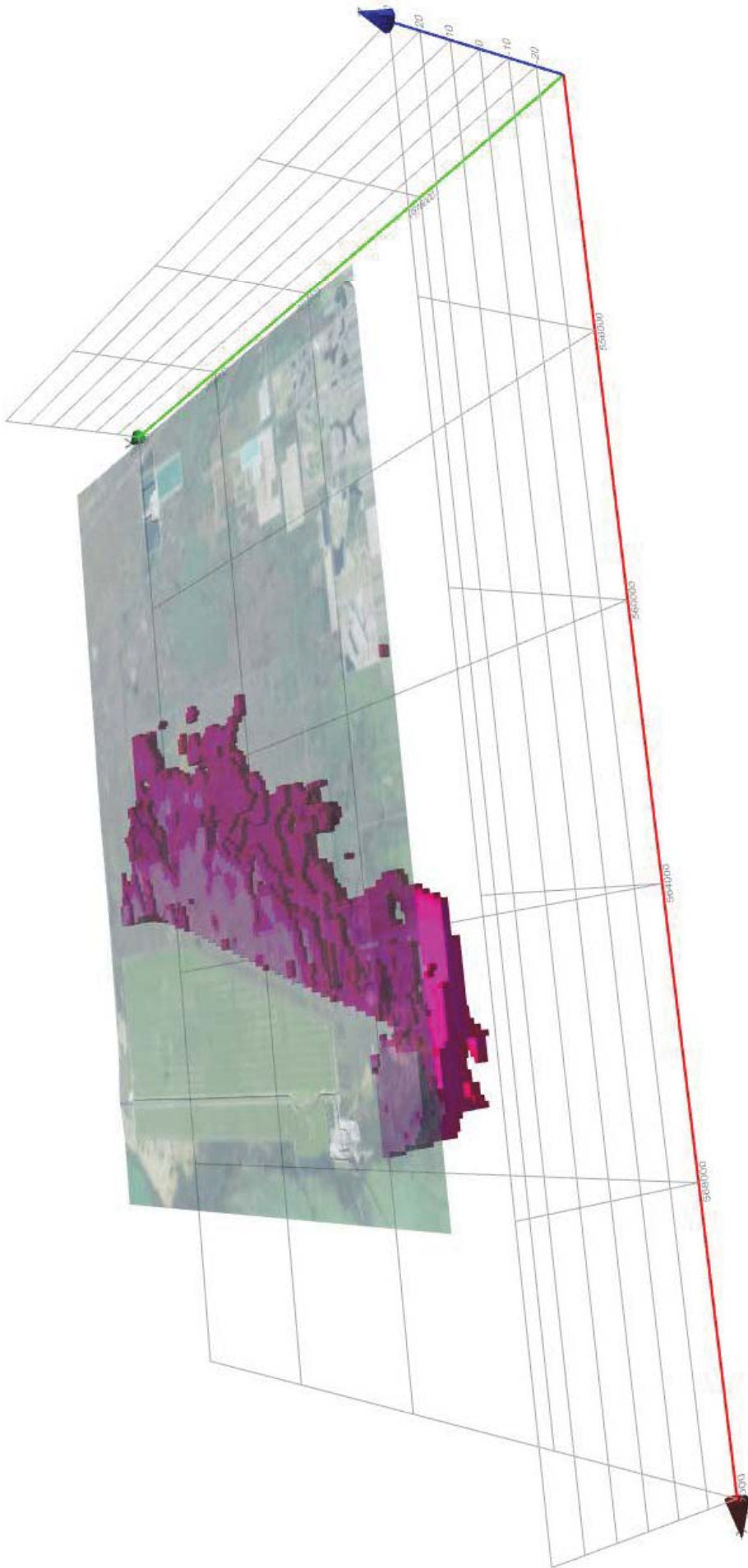




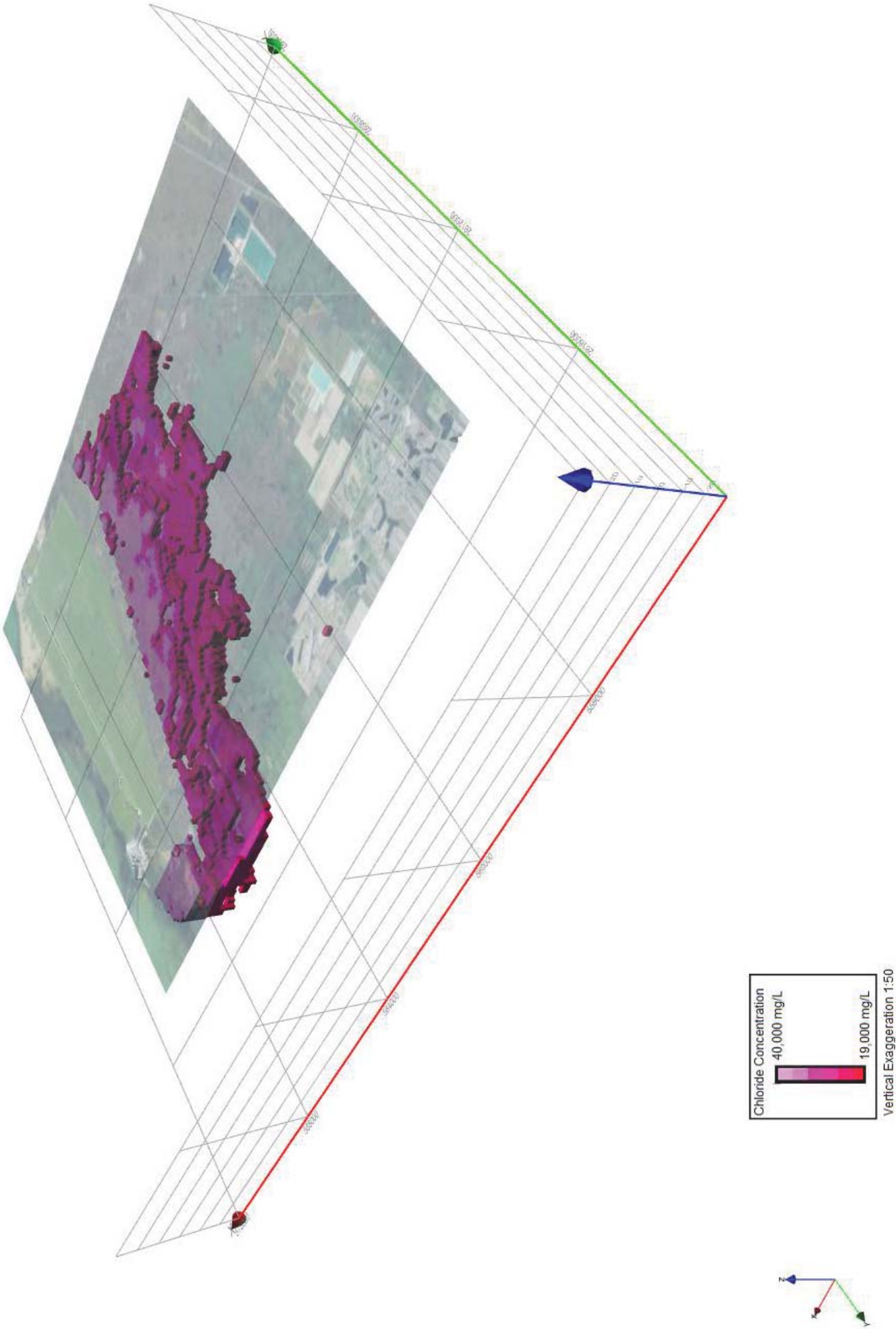
Vertical Exaggeration 1:50

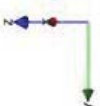
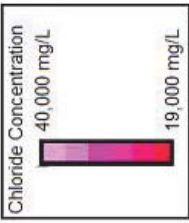
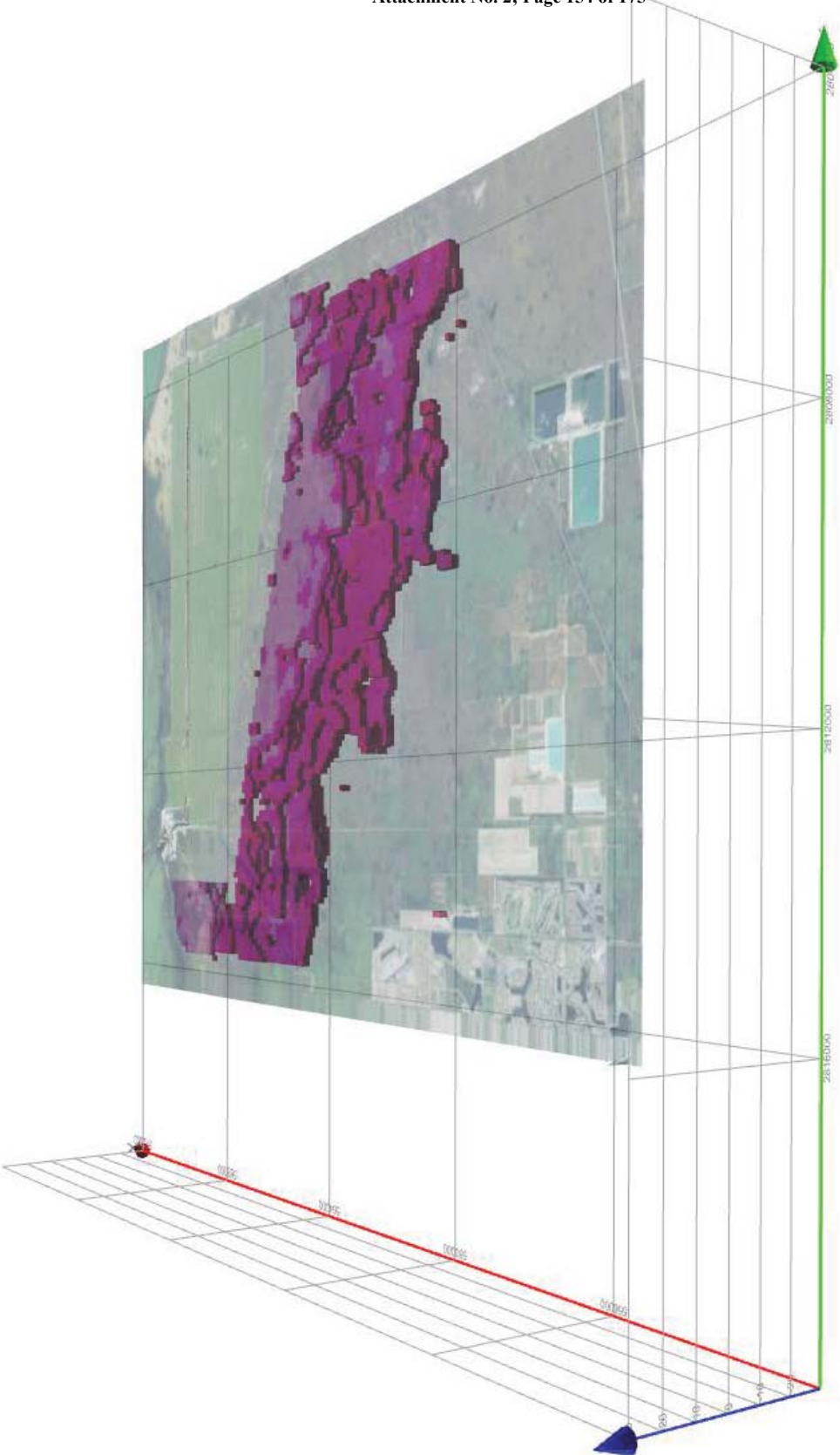


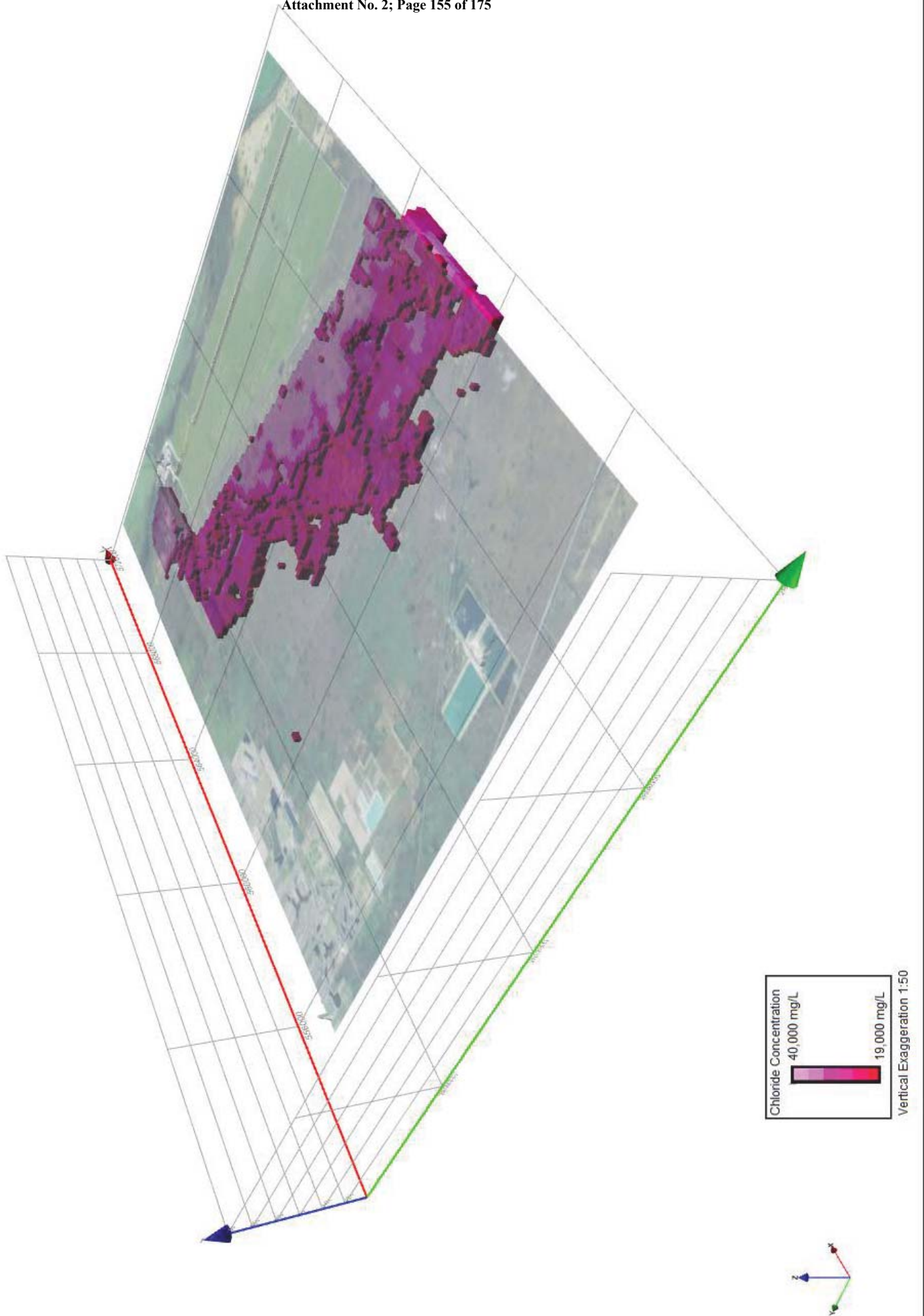


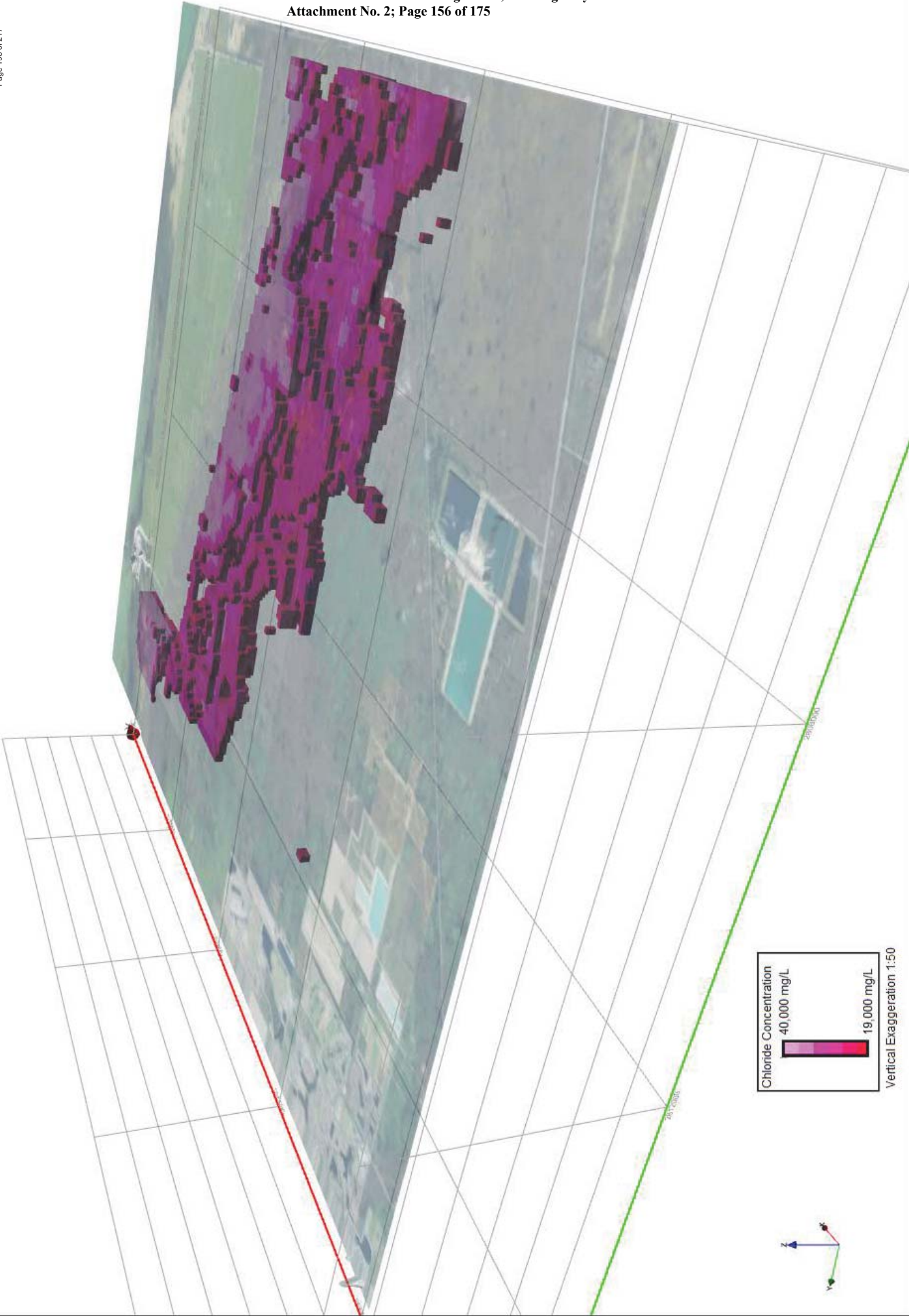


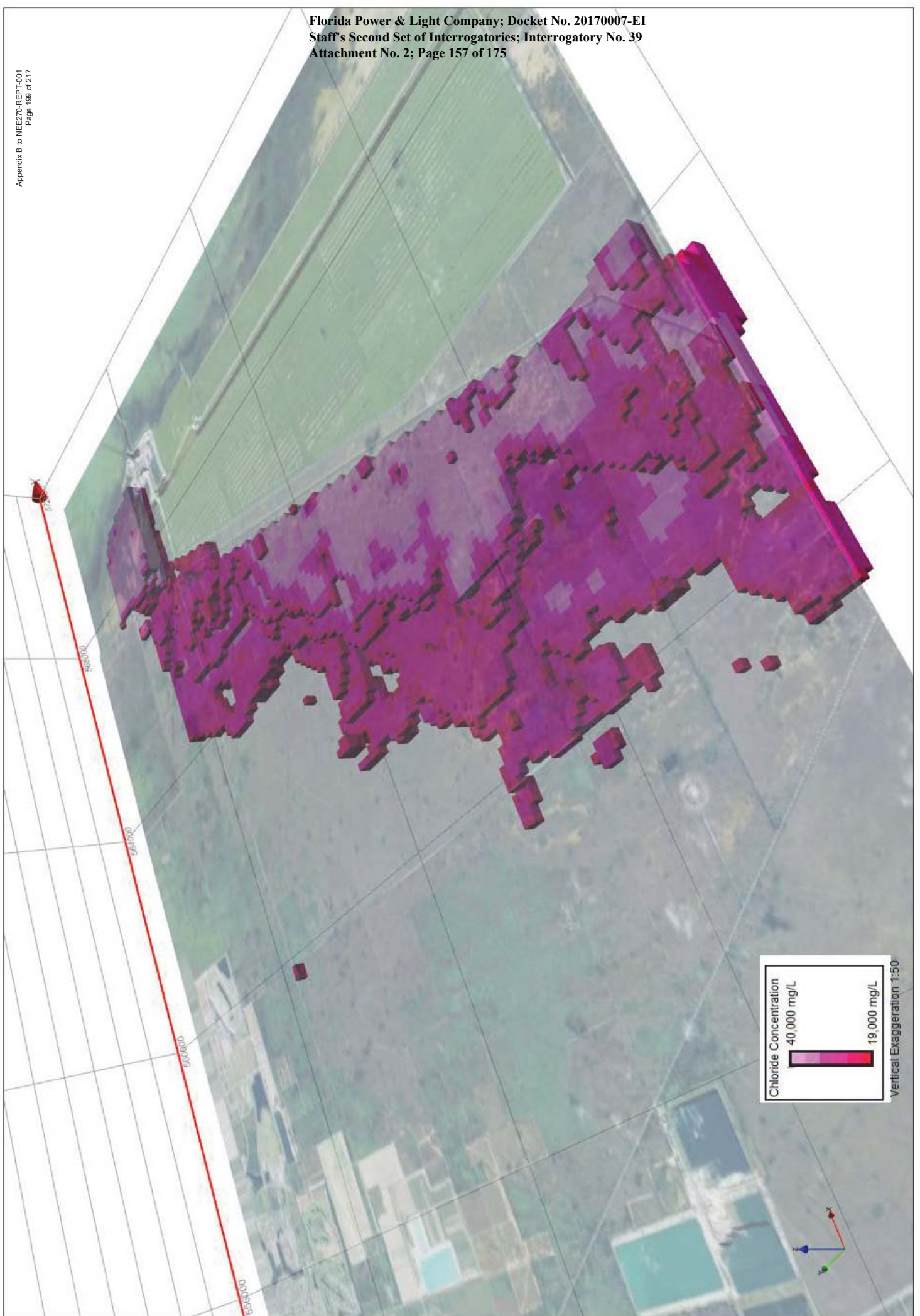
Appendix B to NEE270-REPT-001
Page 195 of 217

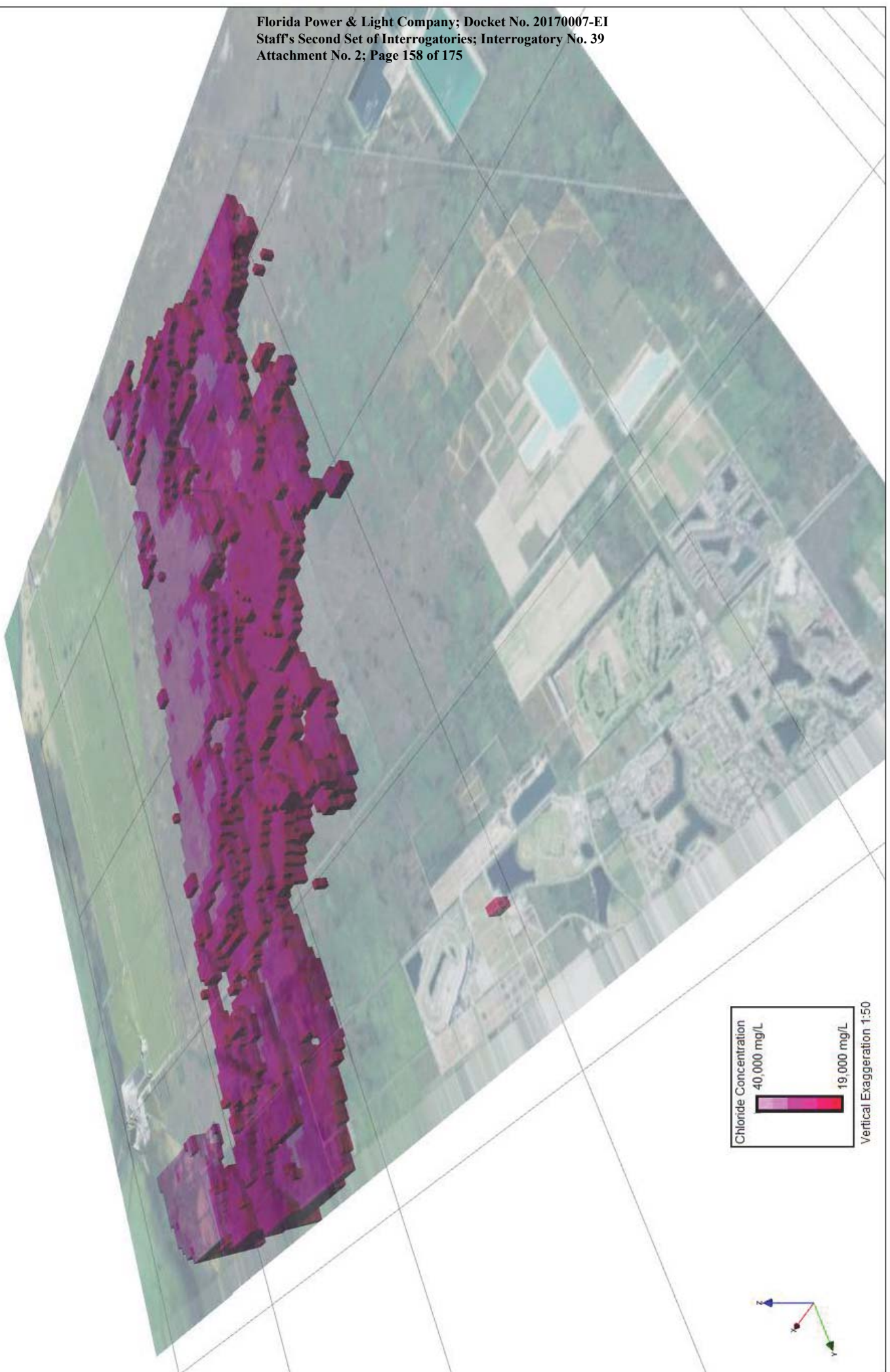


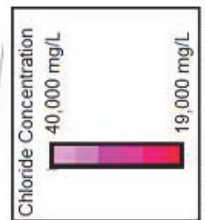
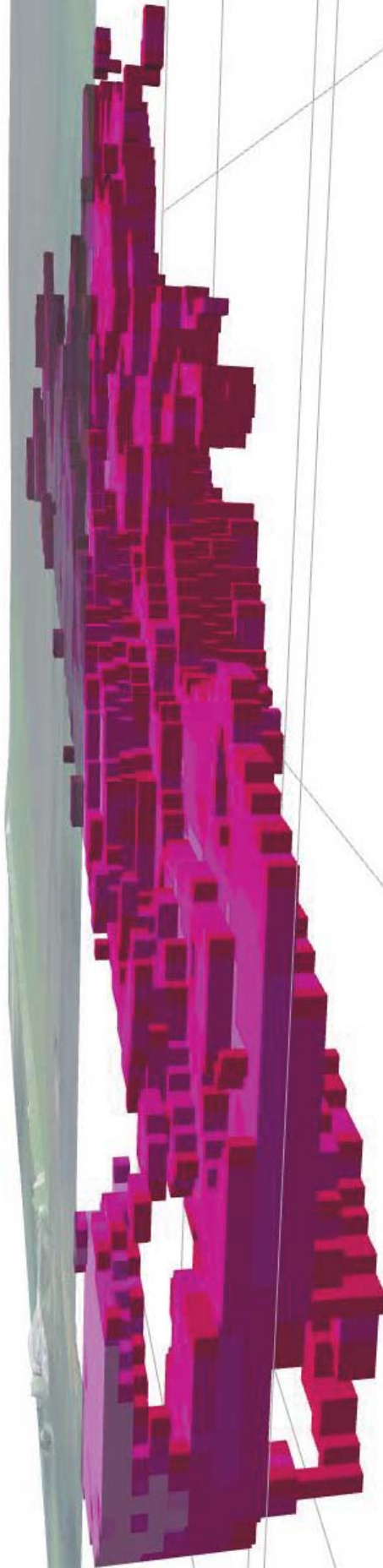


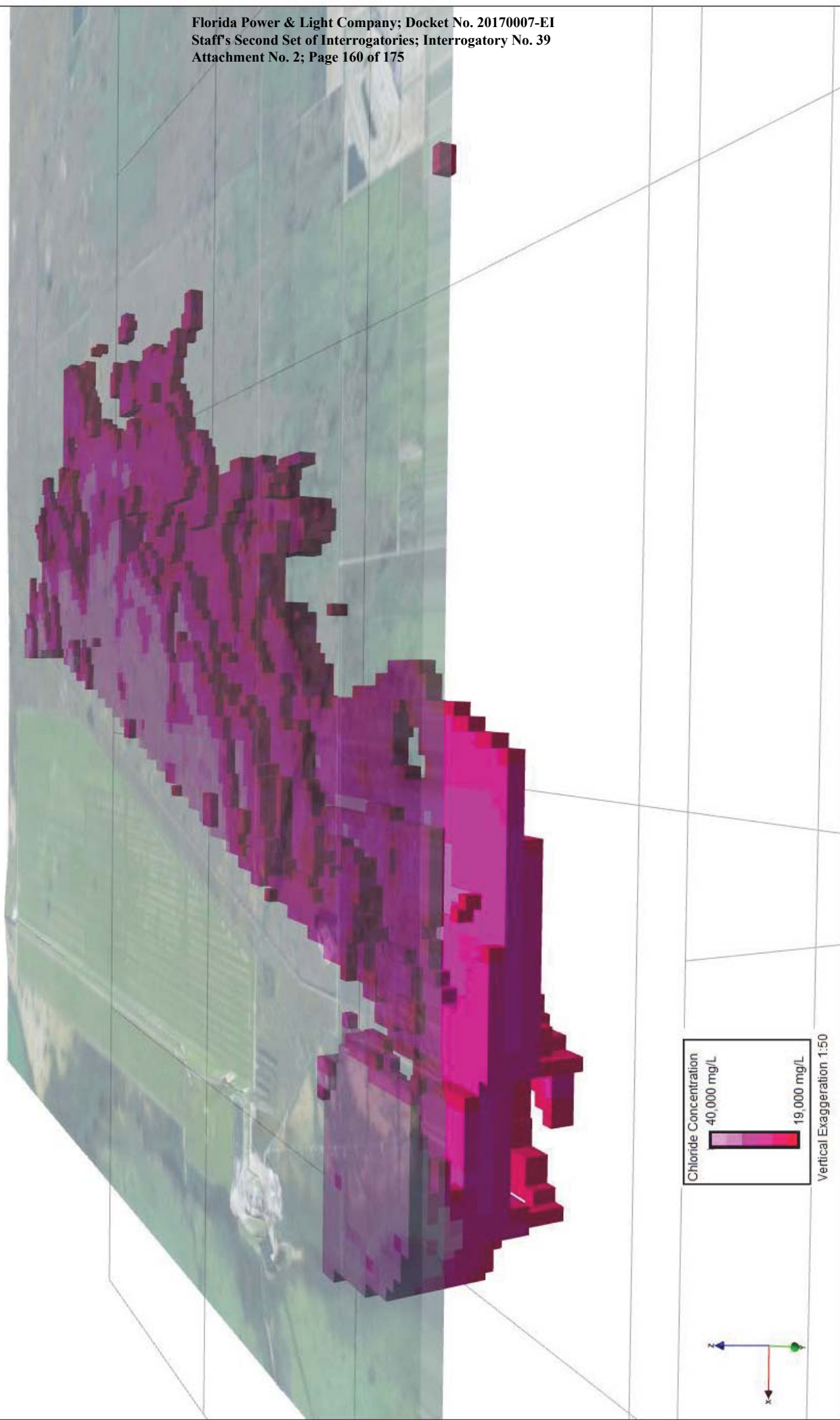








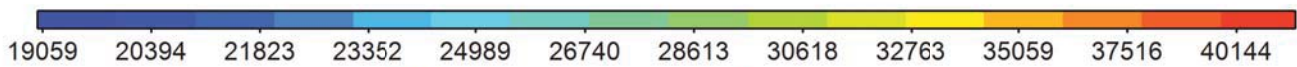
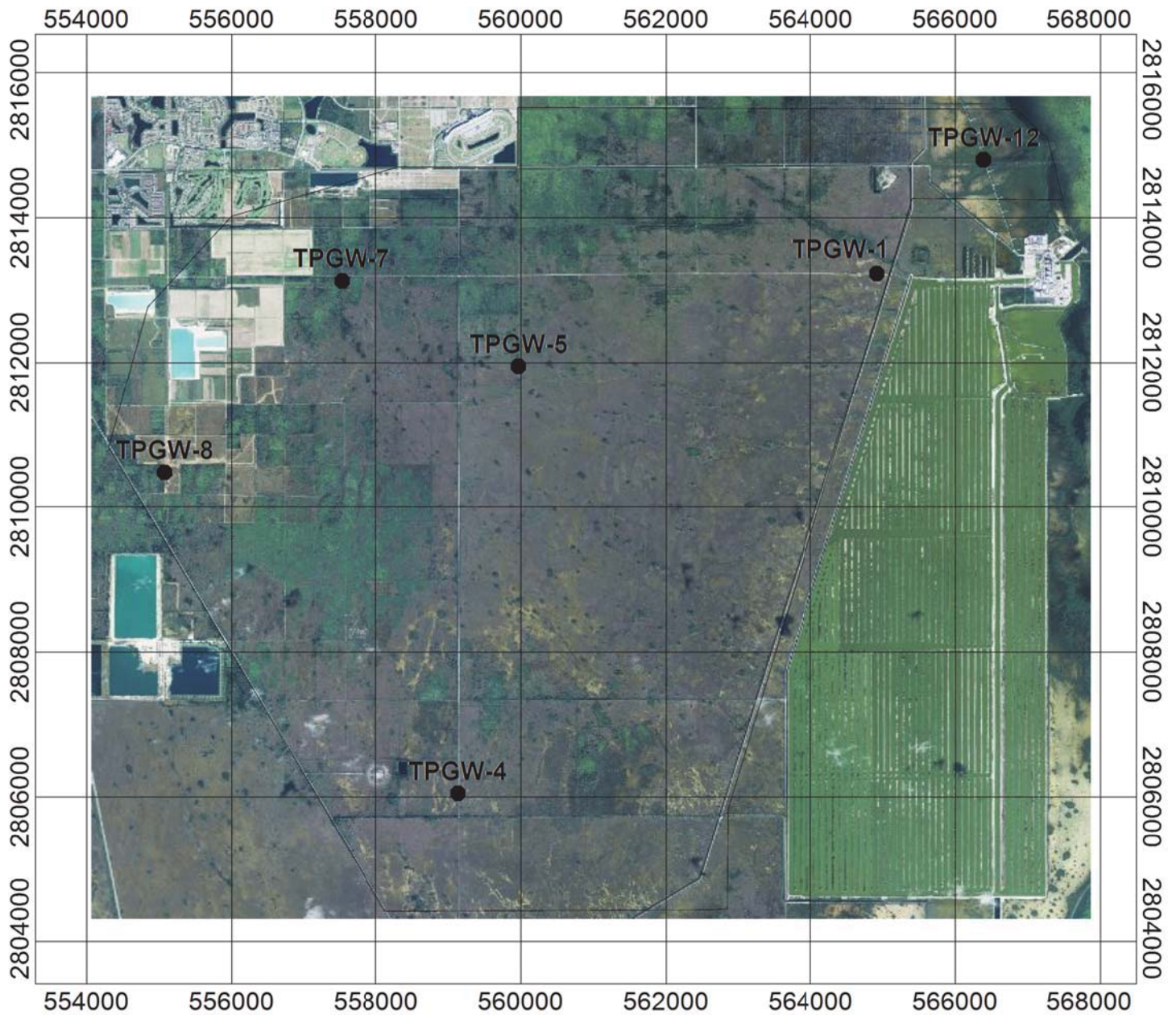




APPENDIX 3B

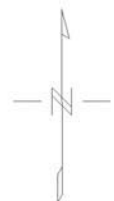
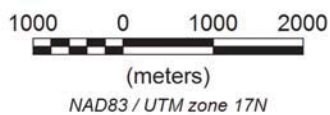
3D CHLORIDE SLICES

Appendix 3B



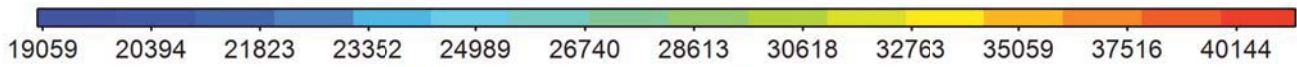
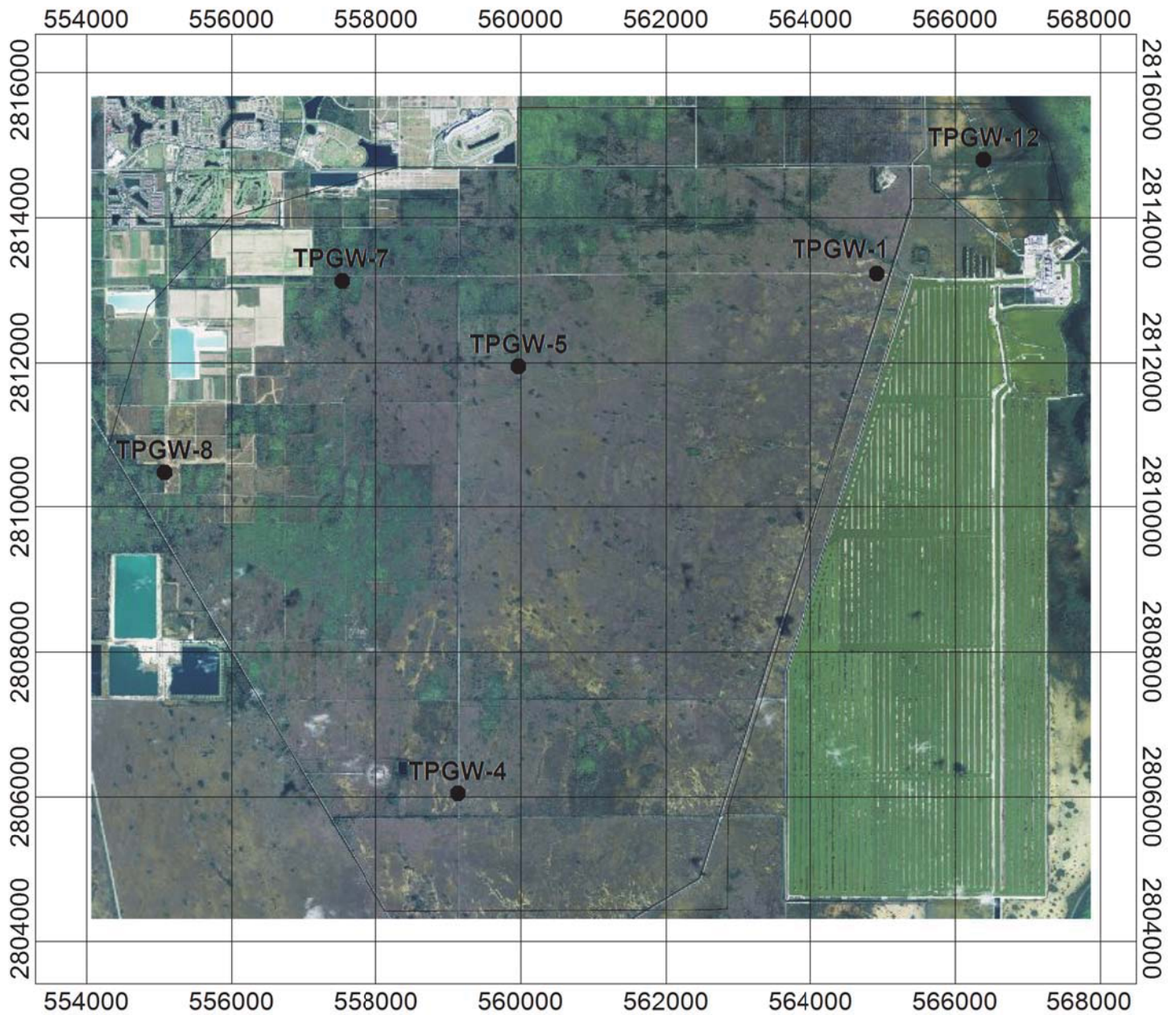
Chloride Concentration (ppm)

Layer 1 Chloride 0 m to -1 m



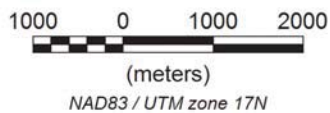
A3B-1

Appendix 3B



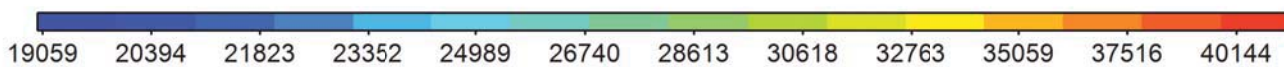
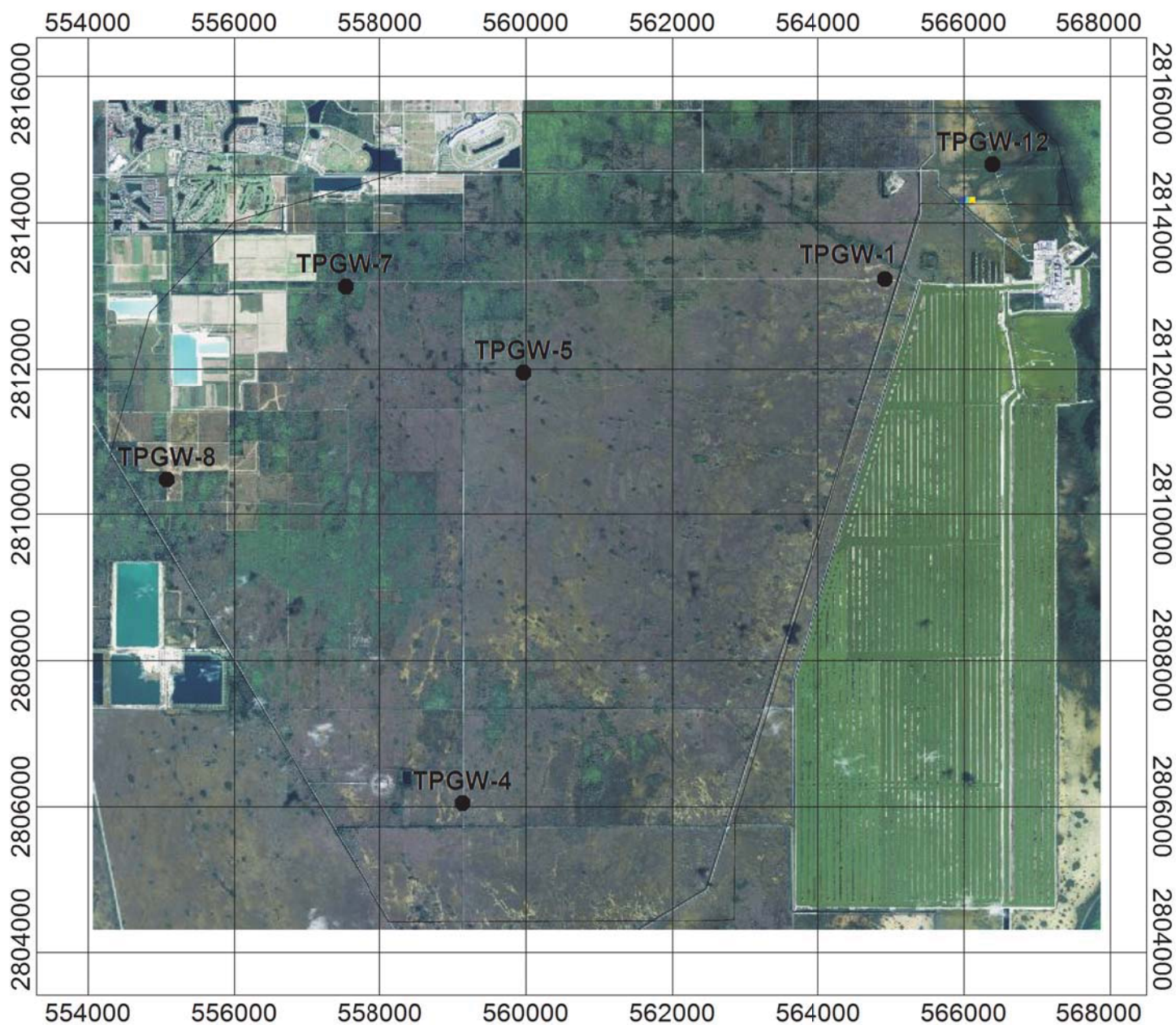
Chloride Concentration (ppm)

Layer 2 Chloride -1 m to -2.1 m



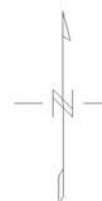
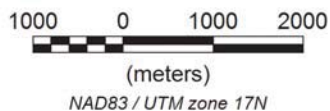
A3B-2

Appendix 3B



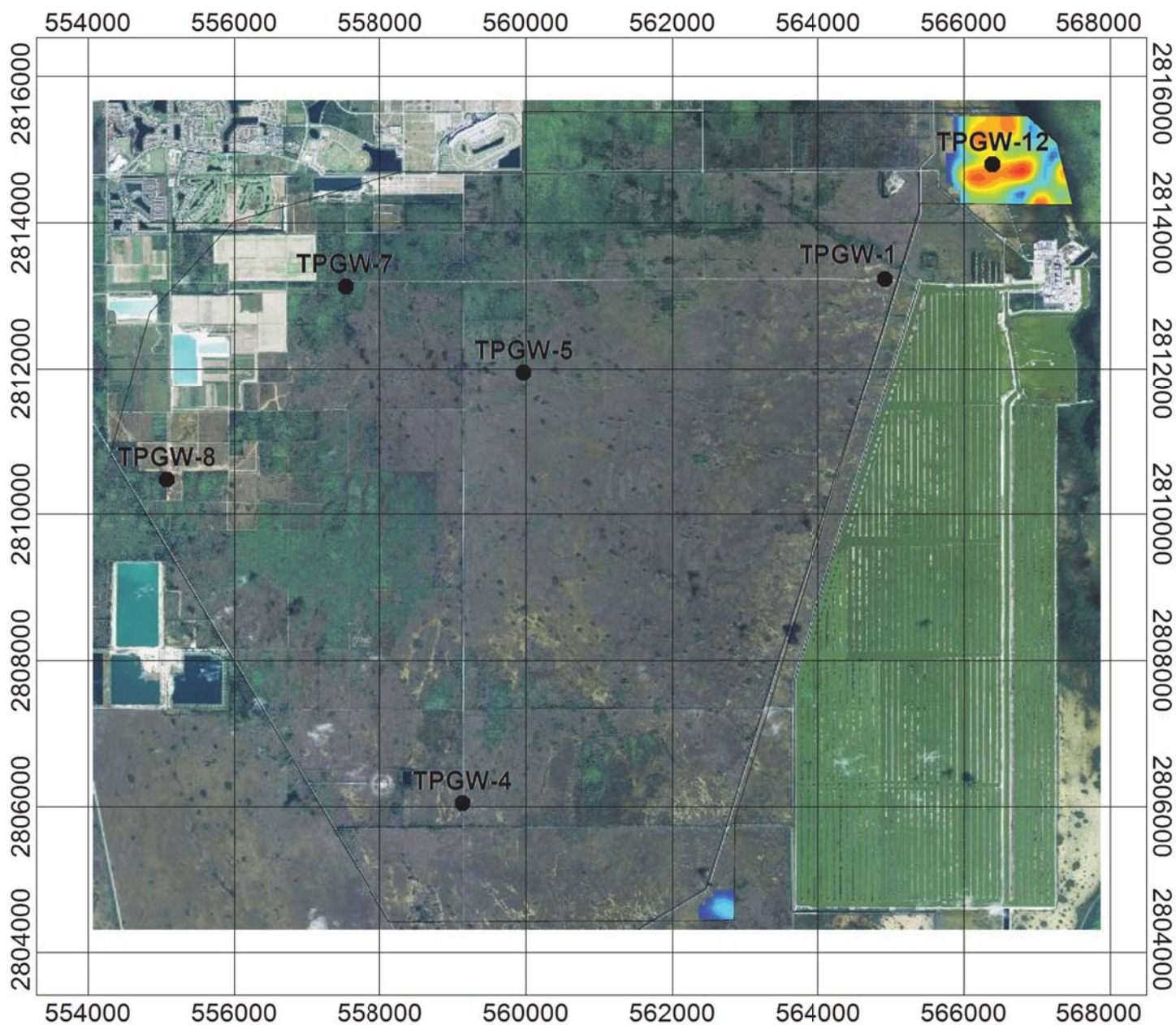
Chloride Concentration (ppm)

Layer 3 Chloride -2.1 m to -3.3 m



A3B-3

Appendix 3B



19059 20394 21823 23352 24989 26740 28613 30618 32763 35059 37516 40144

Chloride Concentration (ppm)

Layer 4 Chloride -3.3 m to -4.7 m

1000 0 1000 2000

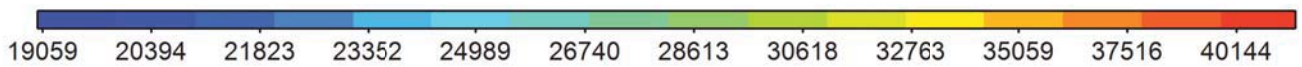
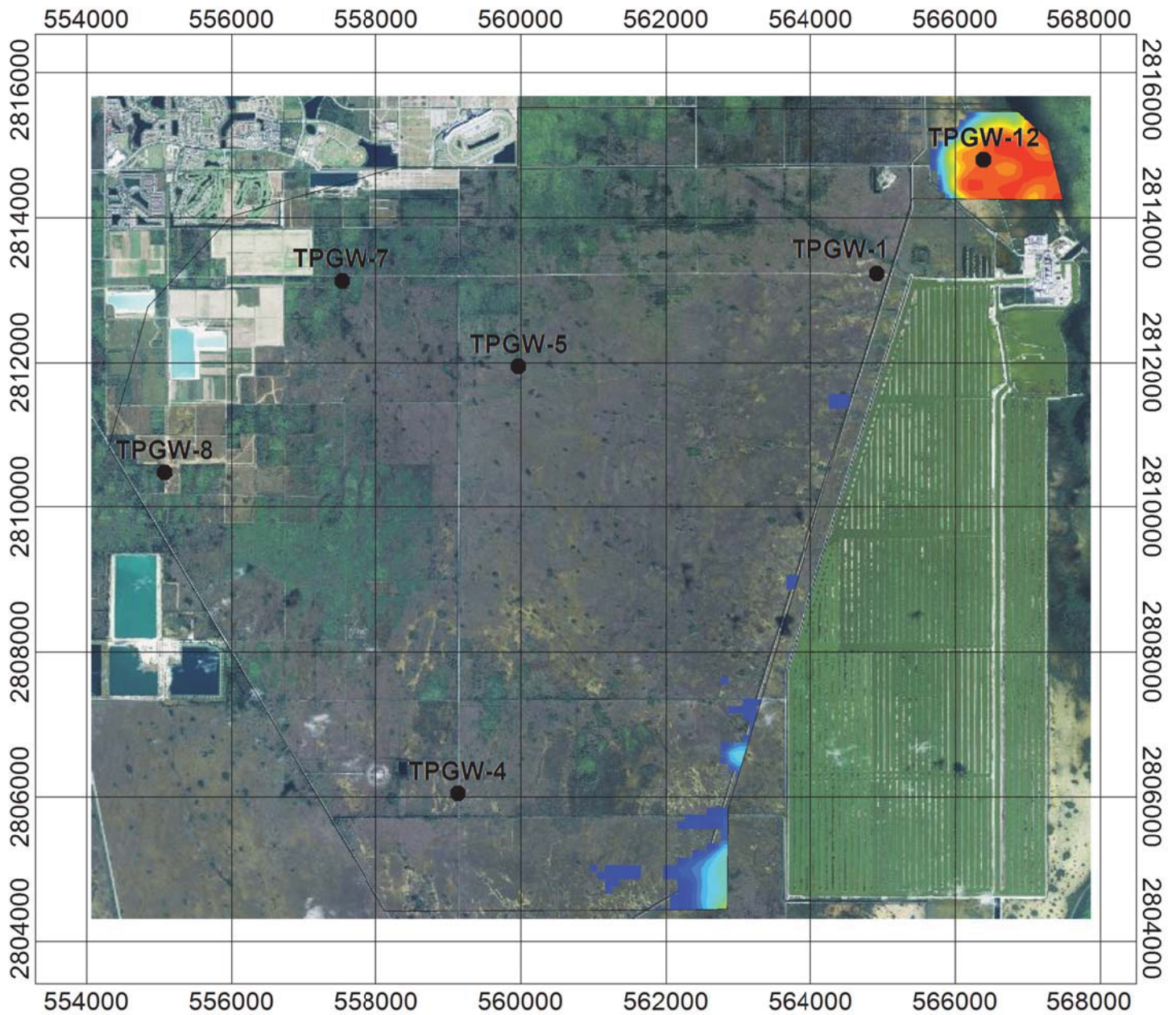
(meters)

NAD83 / UTM zone 17N



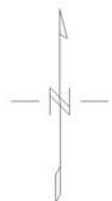
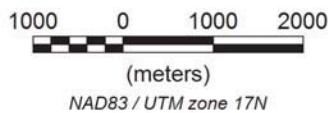
A3B-4

Appendix 3B



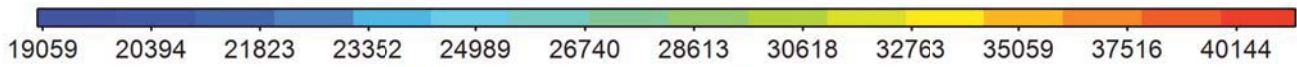
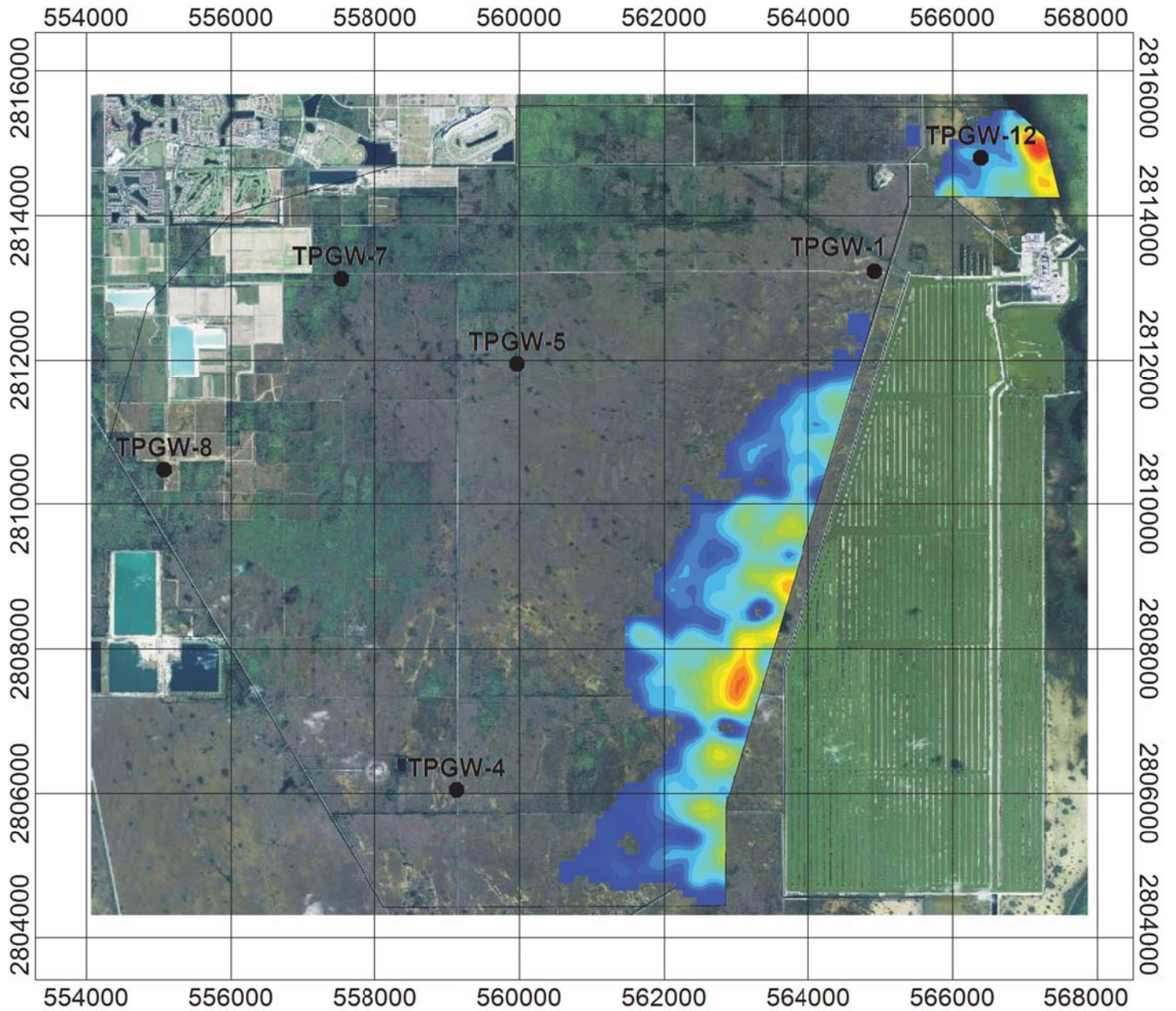
Chloride Concentration (ppm)

Layer 5 Chloride -4.7 m to -6.2 m



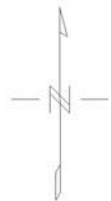
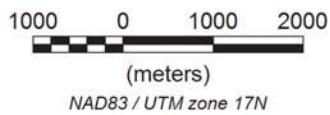
A3B-5

Appendix 3B



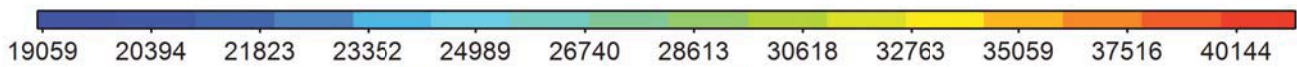
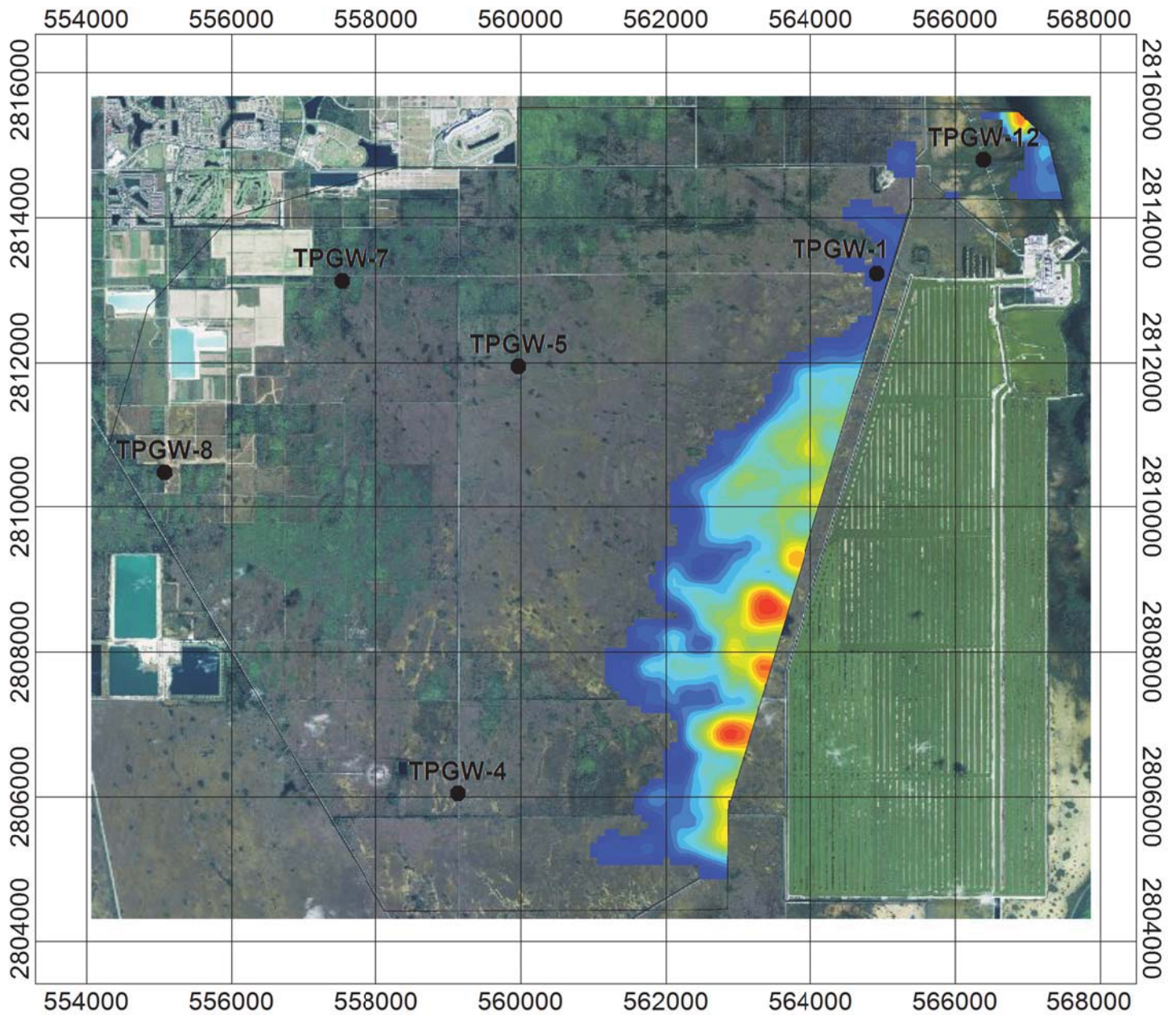
Chloride Concentration (ppm)

Layer 6 Chloride -6.2 m to -7.9 m



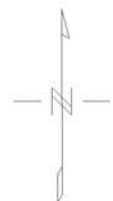
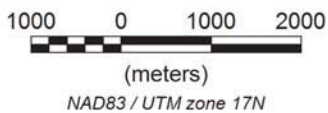
A3B-6

Appendix 3B



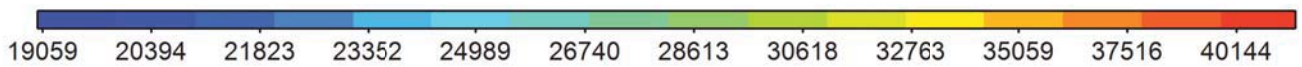
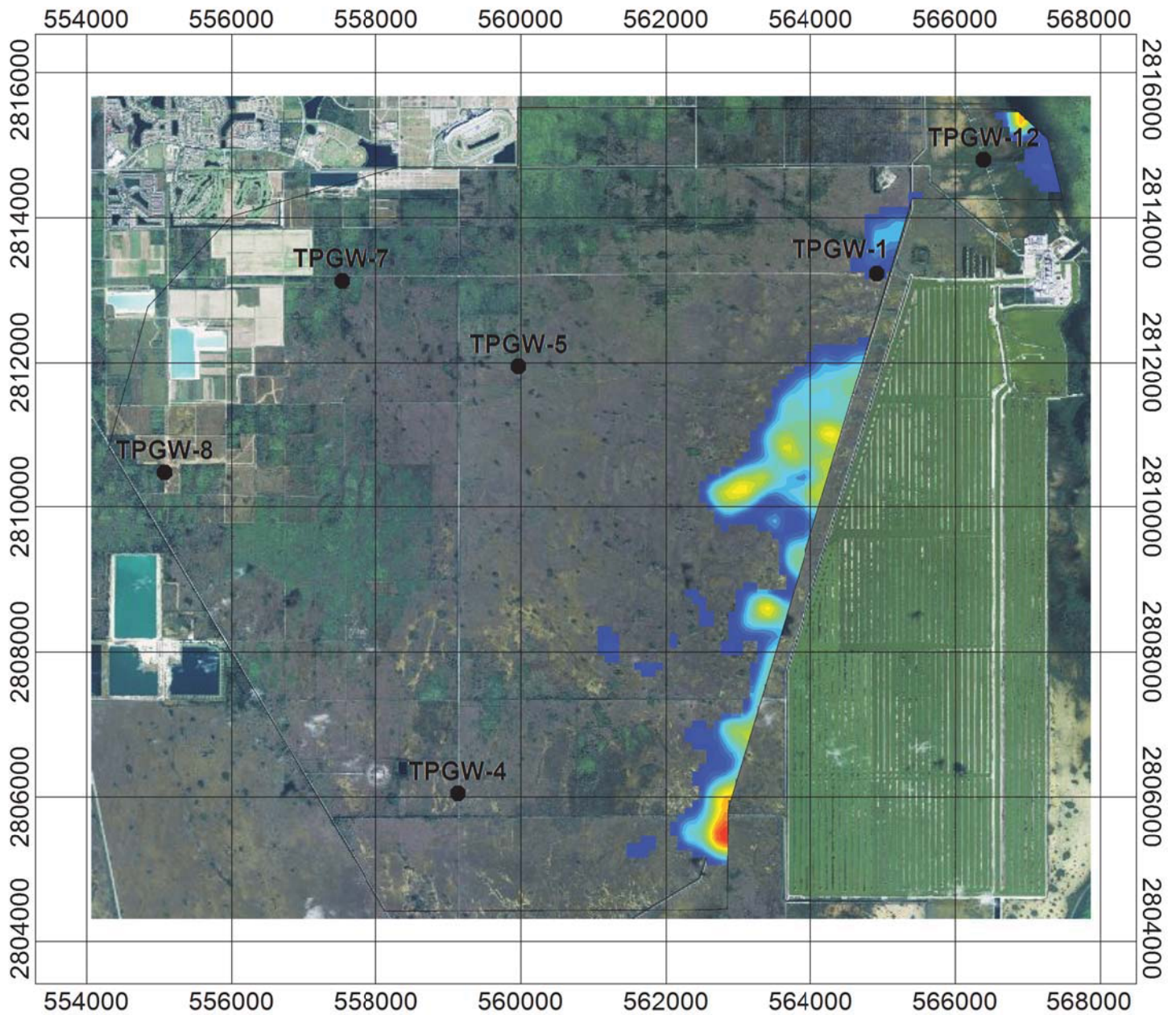
Chloride Concentration (ppm)

Layer 7 Chloride -7.9 m to -9.8 m



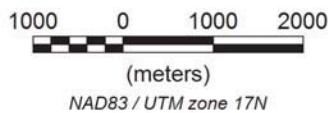
A3B-7

Appendix 3B



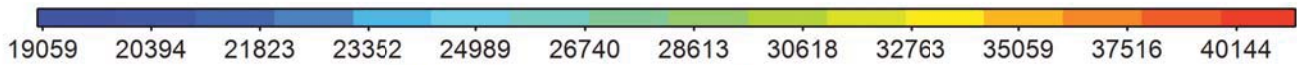
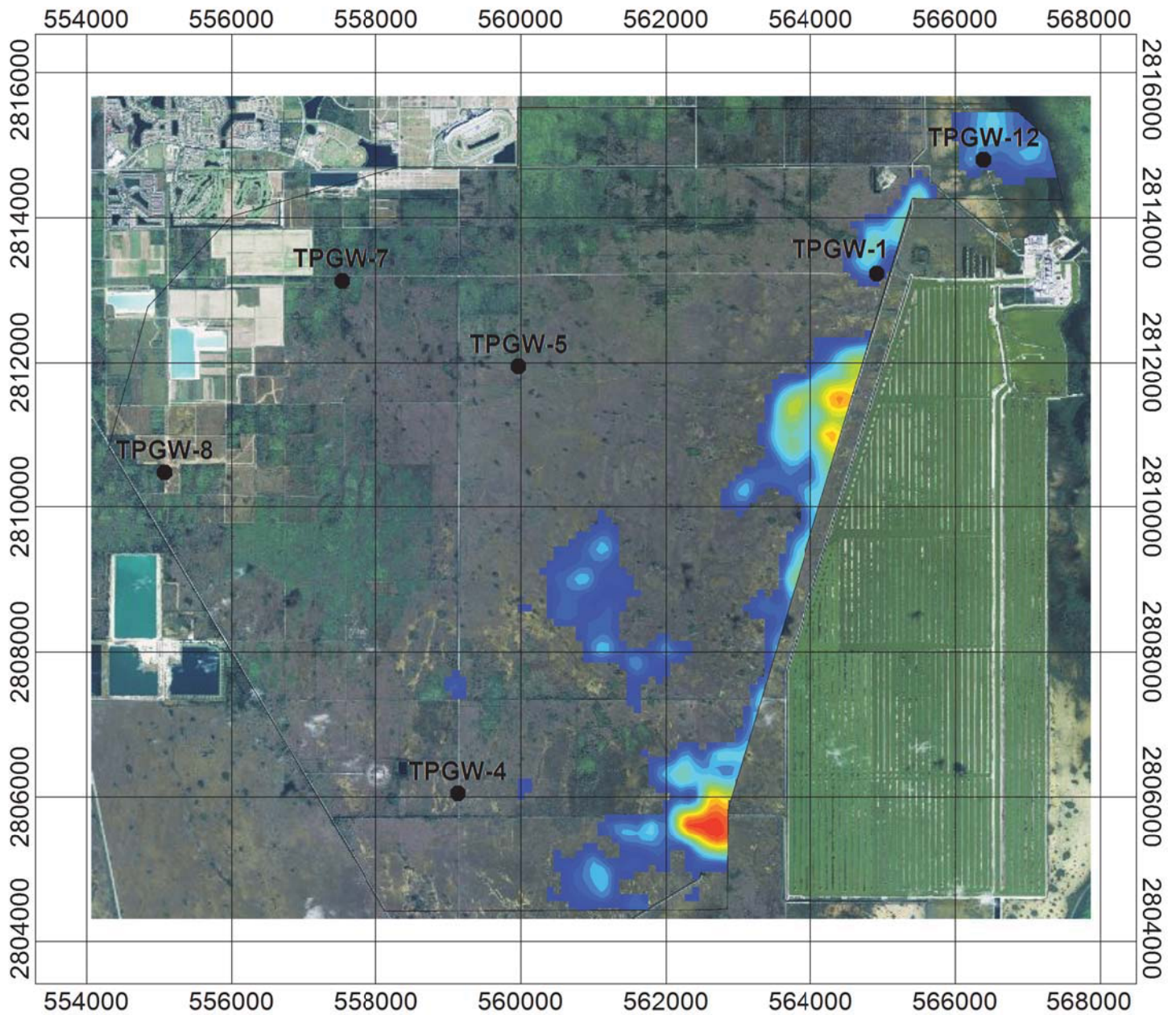
Chloride Concentration (ppm)

Layer 8 Chloride -9.8 m to -11.9 m



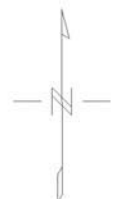
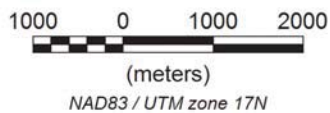
A3B-8

Appendix 3B



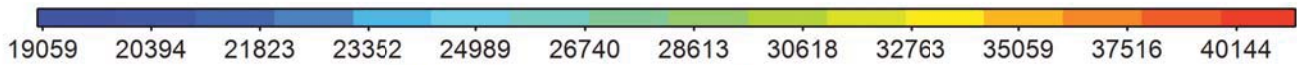
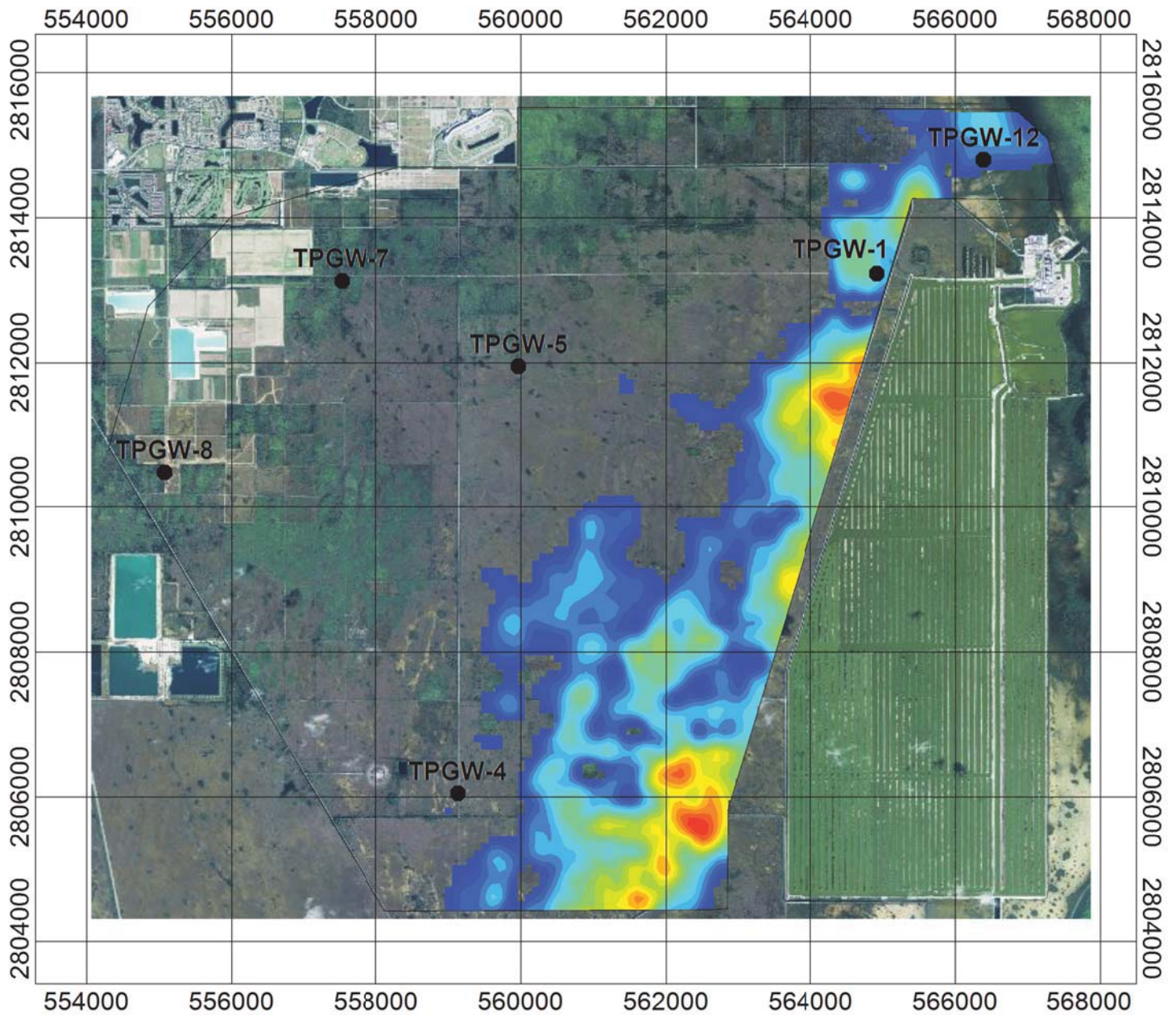
Chloride Concentration (ppm)

Layer 9 Chloride -11.9 m to -14.2 m



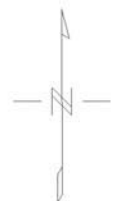
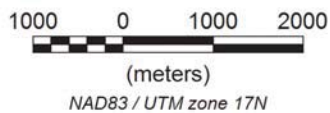
A3B-9

Appendix 3B



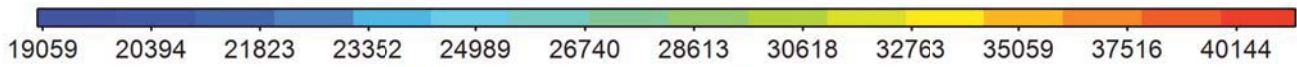
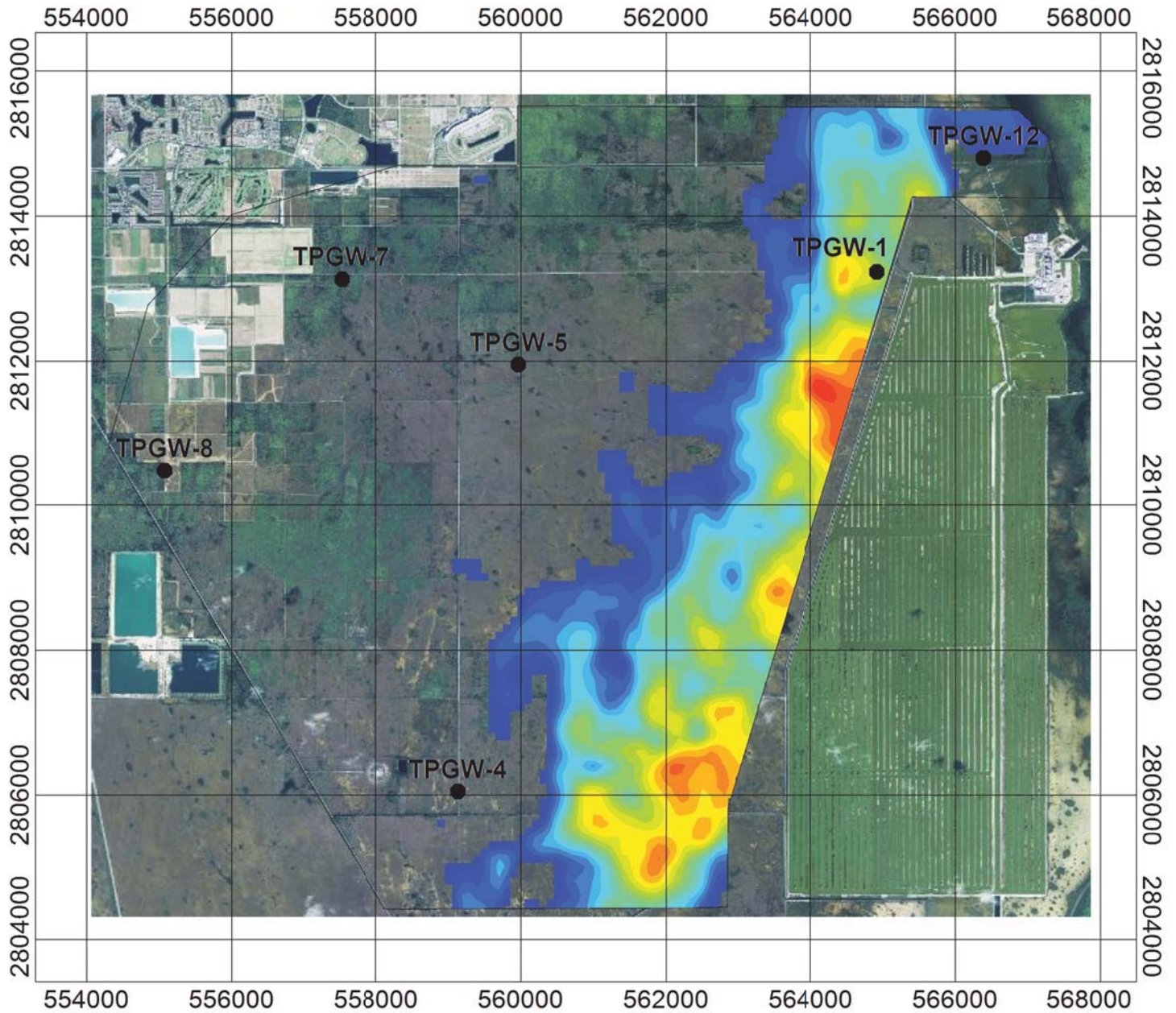
Chloride Concentration (ppm)

Layer 10 Chloride -14.2 m to -16.8 m



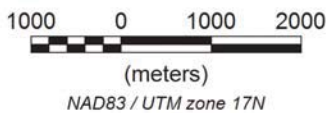
A3B-10

Appendix 3B



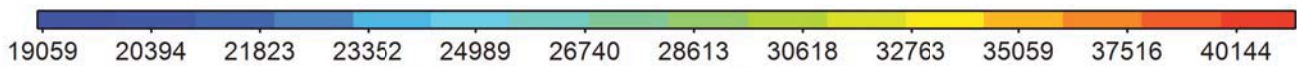
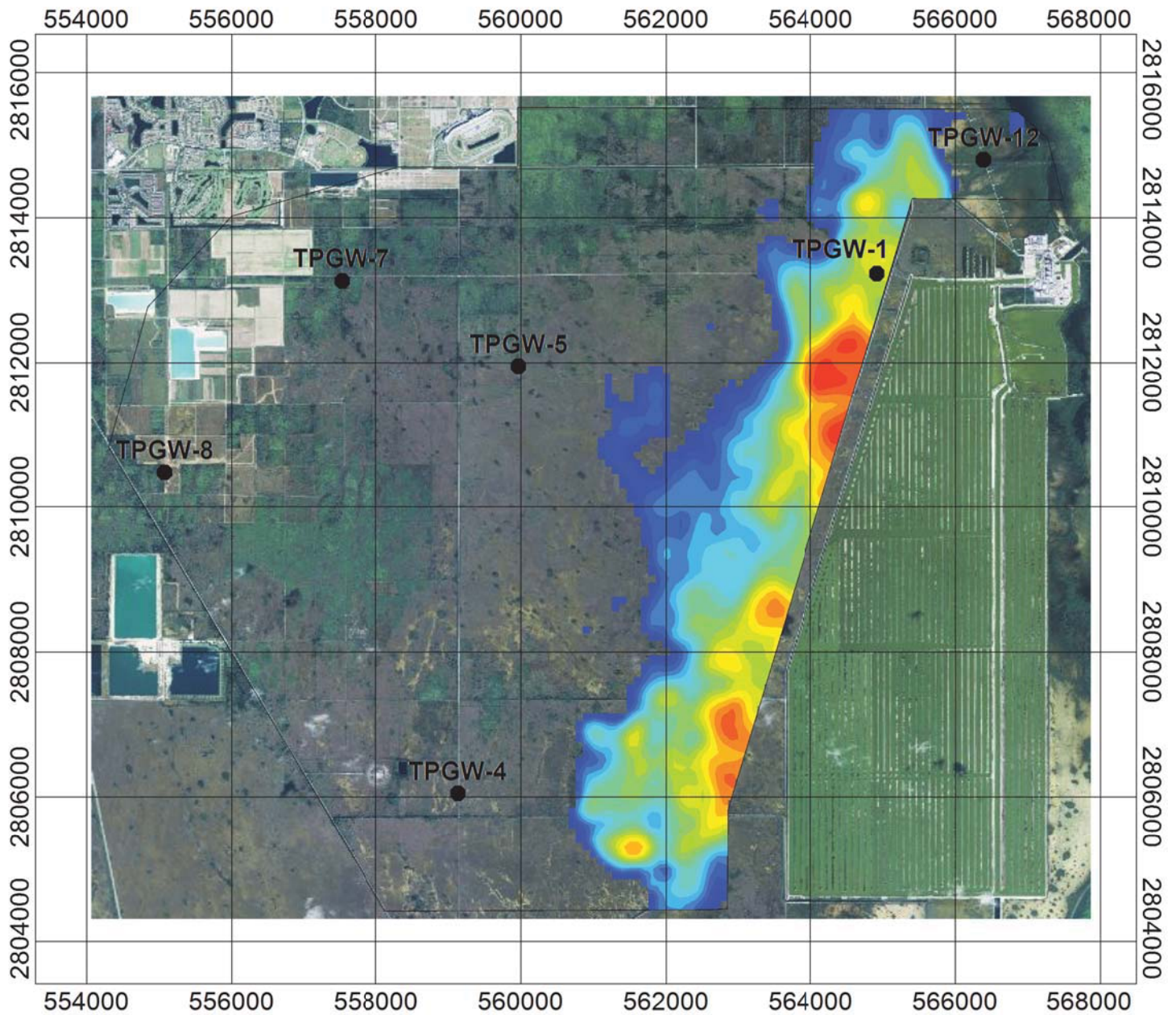
Chloride Concentration (ppm)

Layer 11 Chloride -16.8 m to -19.7 m



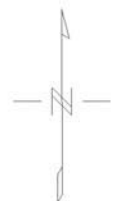
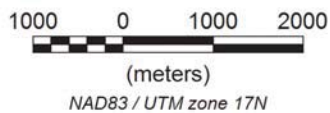
A3B-11

Appendix 3B



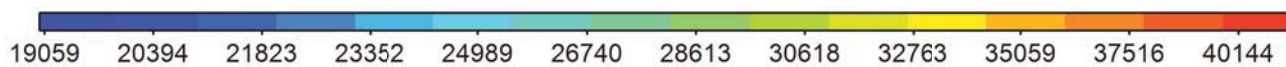
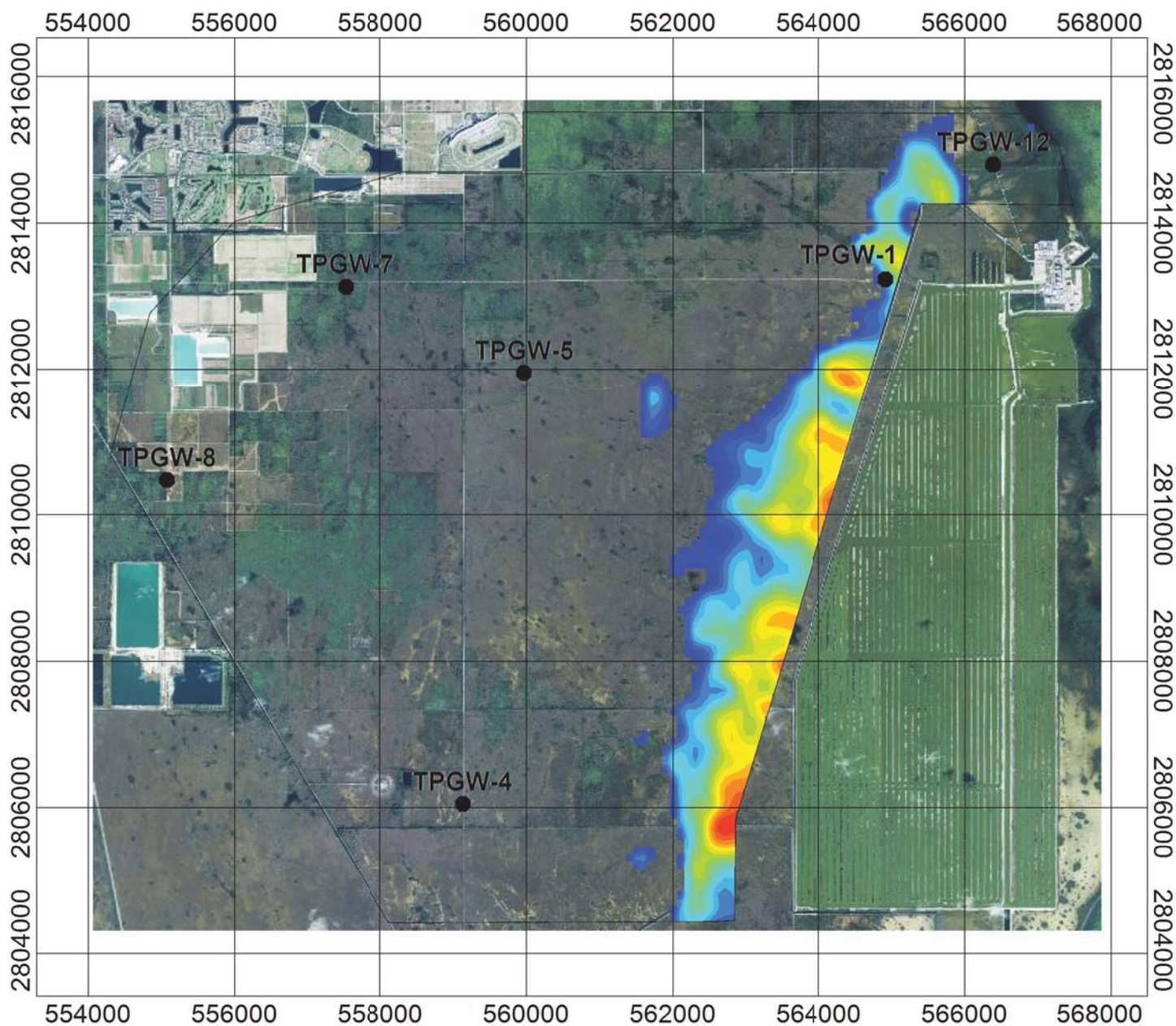
Chloride Concentration (ppm)

Layer 12 Chloride -19.7 m to -22.9 m



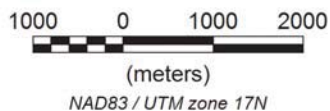
A3B-12

Appendix 3B



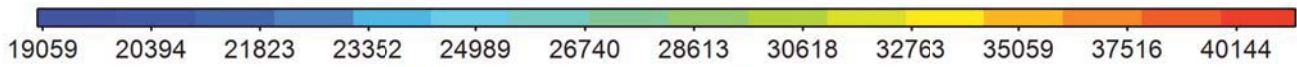
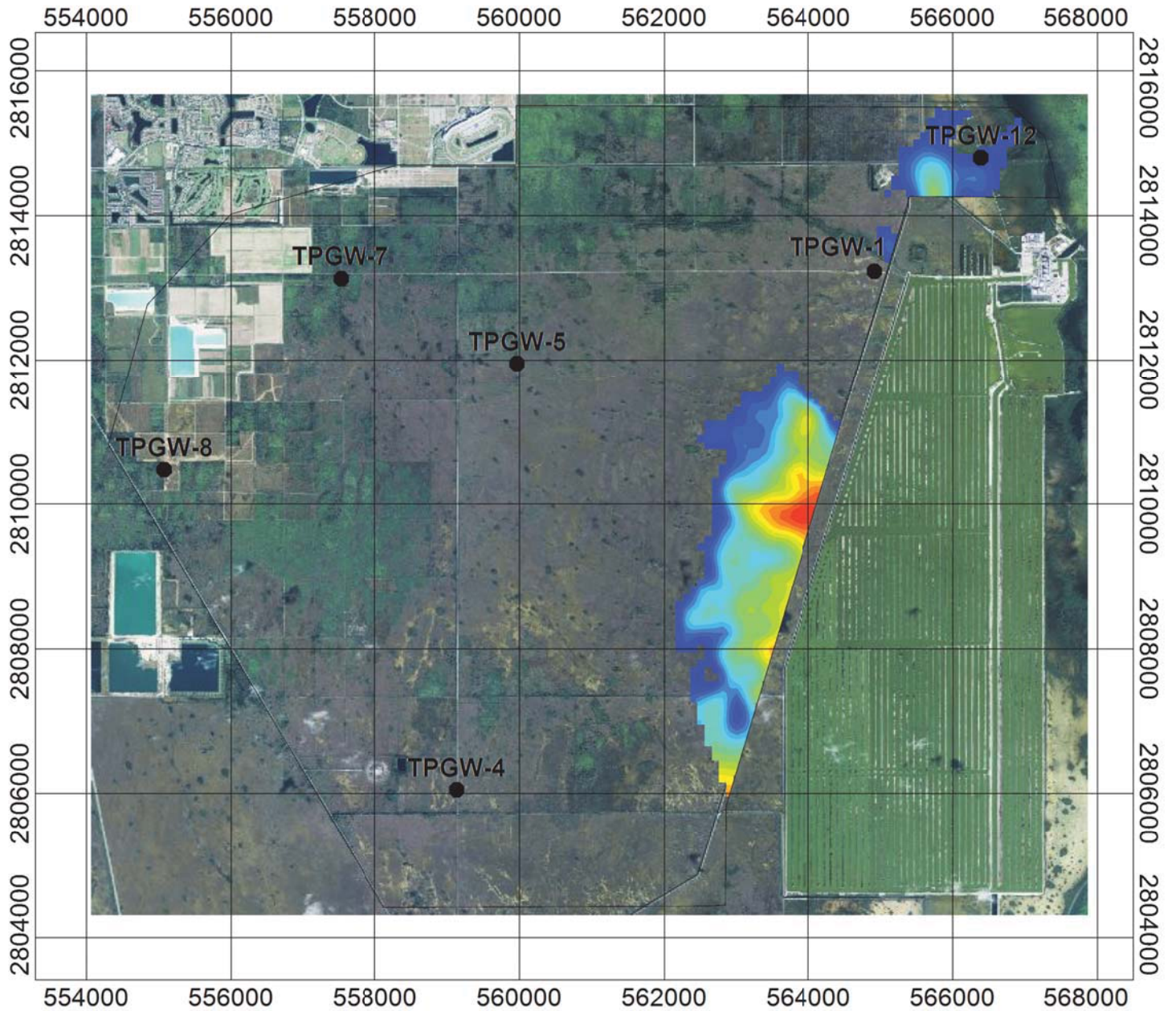
Chloride Concentration (ppm)

Layer 13 Chloride -22.9 m to -26.4 m



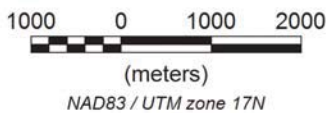
A3B-13

Appendix 3B



Chloride Concentration (ppm)

Layer 14 Chloride -26.4 m to -30.3 m



A3B-14