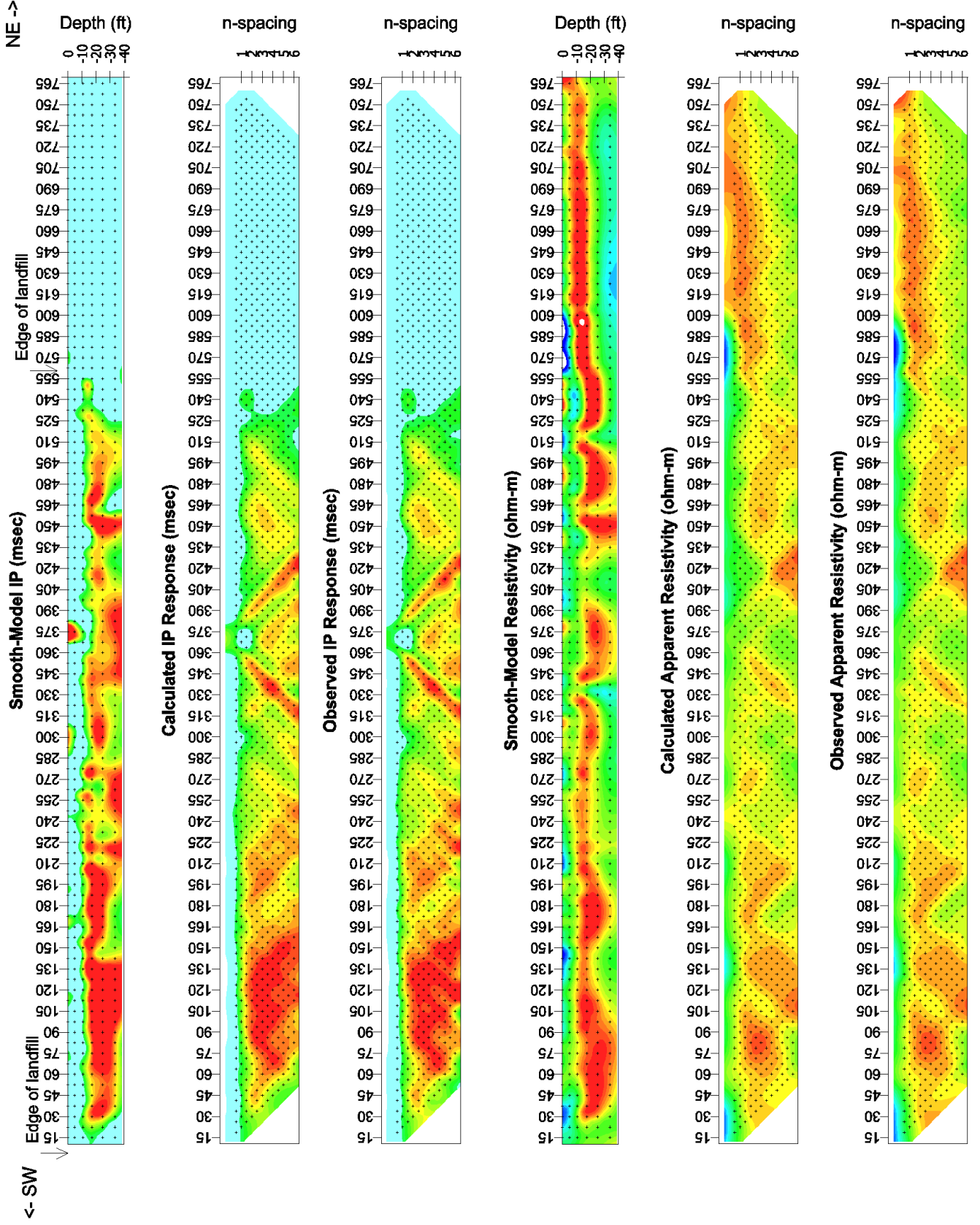


Cottonwood Landfill

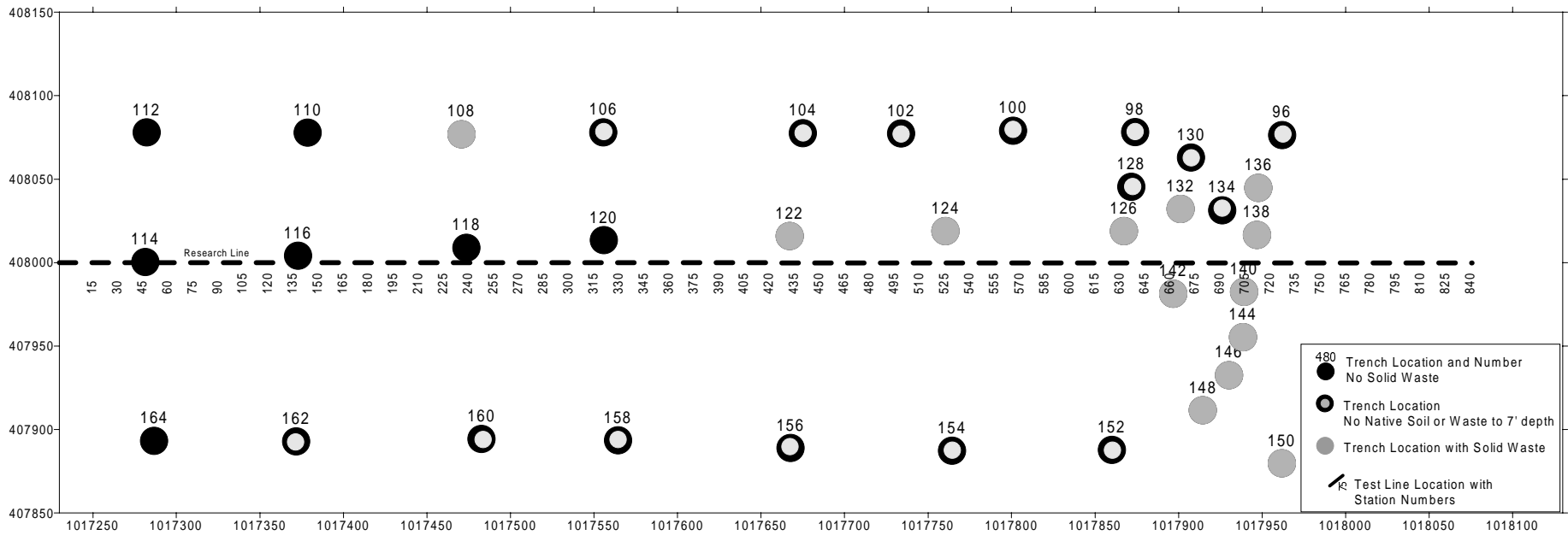


Down in the Dumps Workshop Notes

Cottonwood is a buried landfill near the Santa Cruz River in Tucson. Trenching has allowed approximate boundaries to be placed on the area, making it an excellent location to test the ZETA system. From the IP data a pit like structure is obvious and correlates well with edges from trenching.



Plan View of Los Reales West Side Investigation Trenching and Research Line Locations

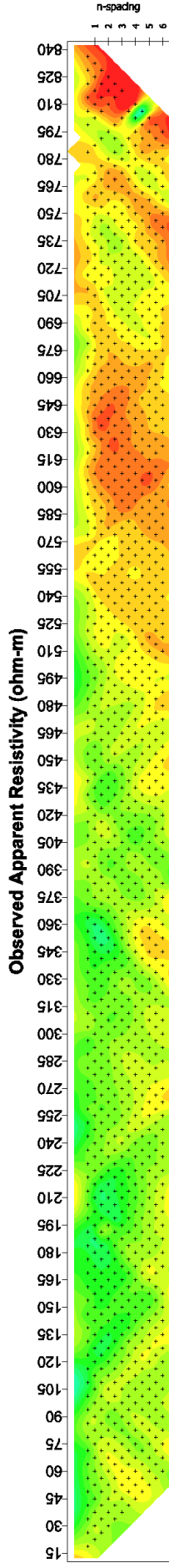
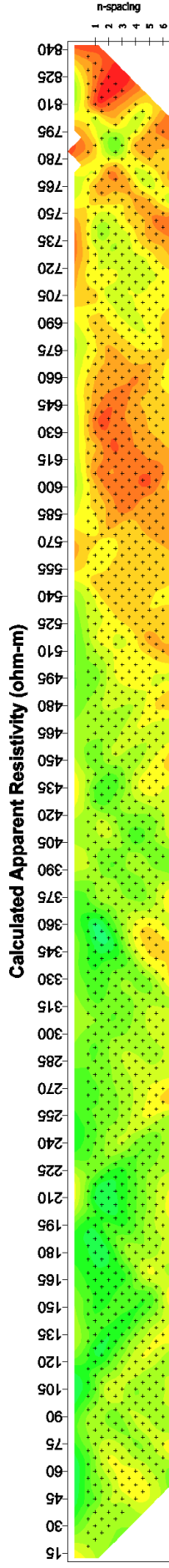
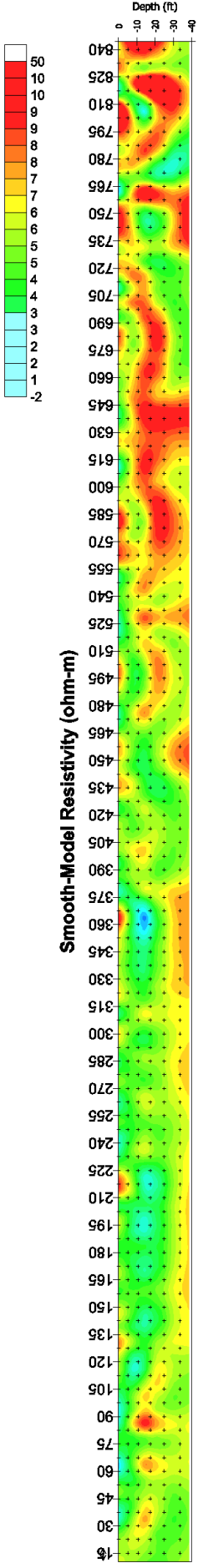
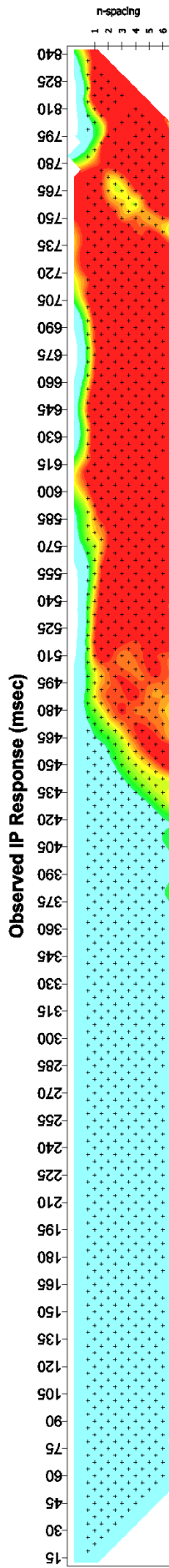
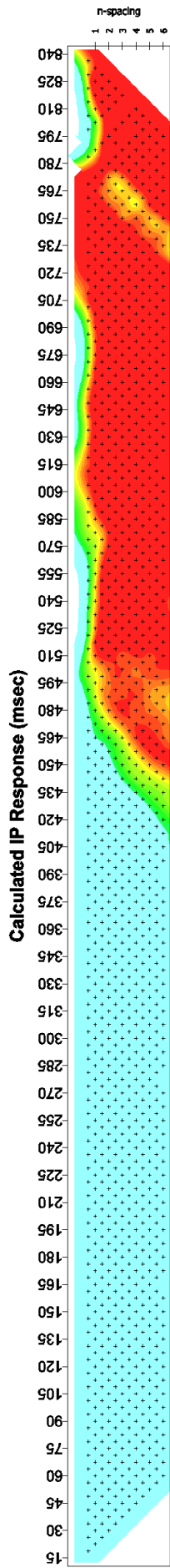
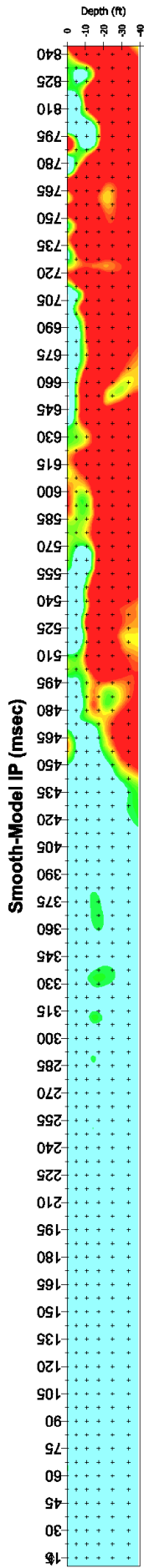


Down in the Dumps Workshop Notes

The map of the west side investigation of the Los Reales landfill shows trenches that intersect solid waste (grey), trenches that never encountered native soil or waste (black with grey dot), and trenches that hit native soil with no waste (black). The resistivity and IP test line is also located on the map.



Los Reales Landfill



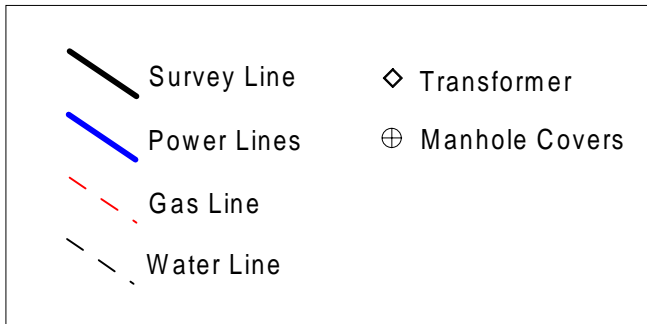
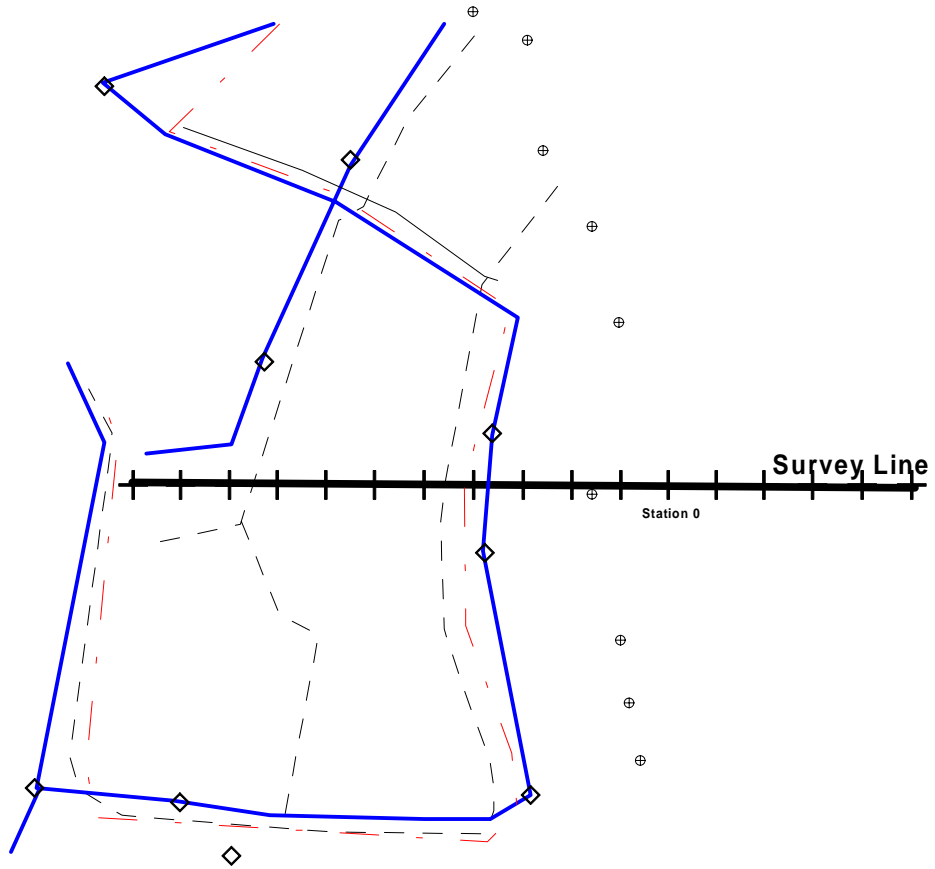
Down in the Dumps Workshop Notes

The IP data set collected along the research line at Los Reales clearly shows the contact between buried solid waste and no solid waste. Also, variations in the cover soil thickness can be seen in the data.



Prudence

(Survey line and cultural features locations)

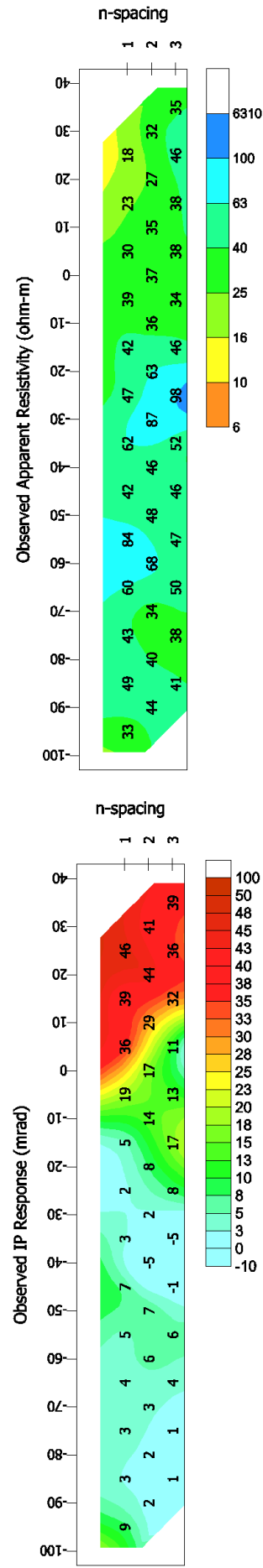
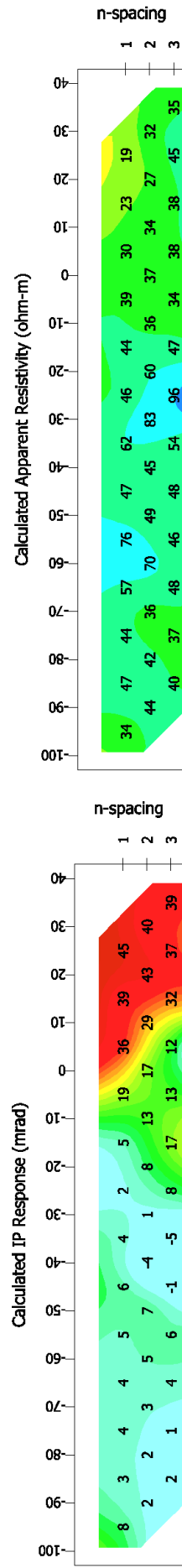
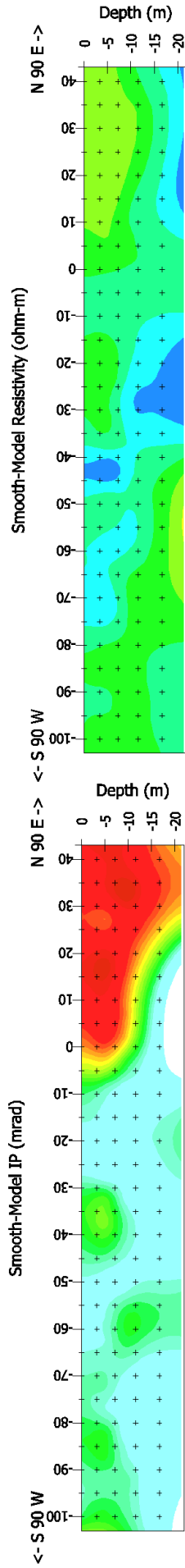


**Down in the Dumps
Workshop Notes**

The map of Prudence Road landfill shows all the cultural features that may interfere with data collection.



Prudence Road Landfill Line 100S



Down in the Dumps Workshop Notes

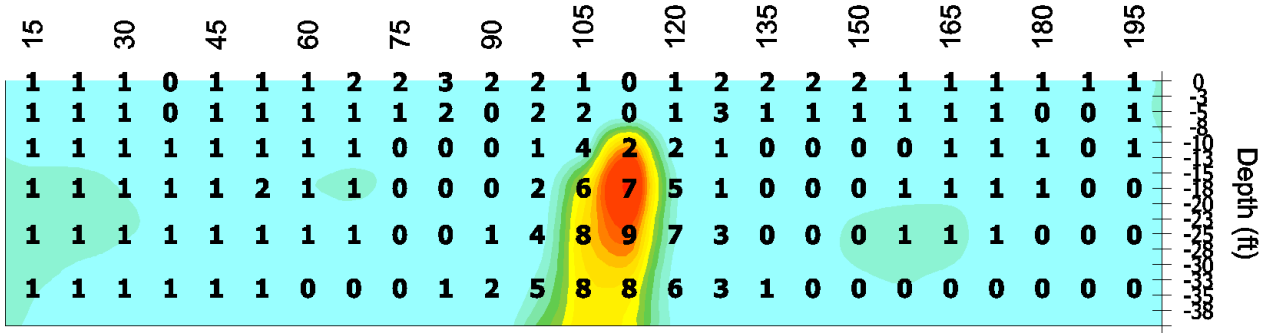
IP and resistivity results along 100S at the Prudence Road landfill. The edge of the buried pit is at approximately station 0. The effects of power line can be seen at station 40.



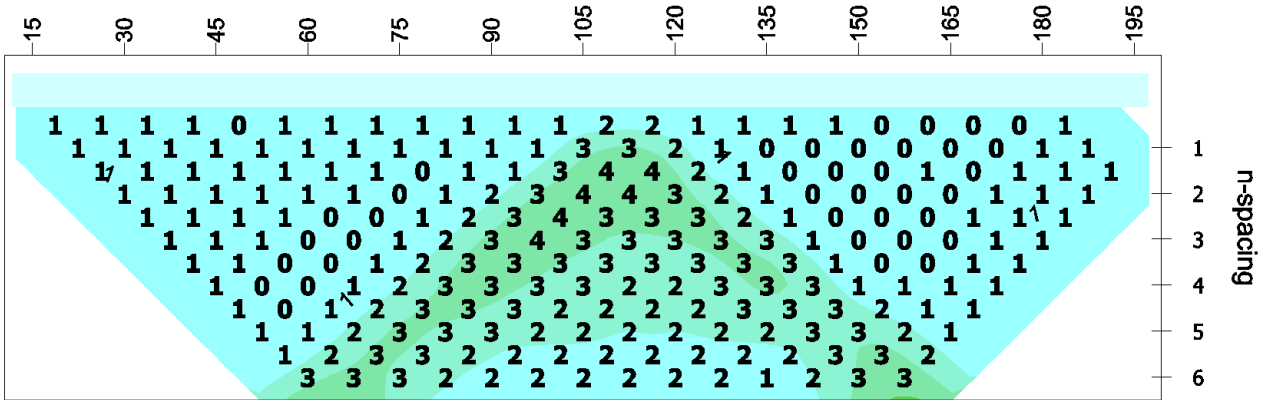
Engineering Anomaly

ERT Data Density

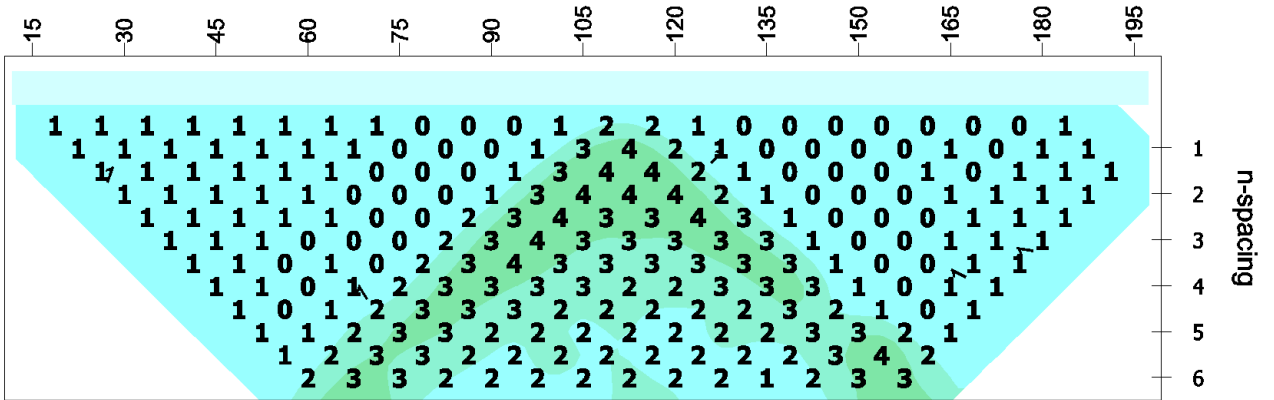
Smooth-Model IP (msec)



Calculated IP Response (msec)



Observed IP Response (msec)



Values in rounded milliseconds.
Contours: 1.0, 2.0, 3.0, ...

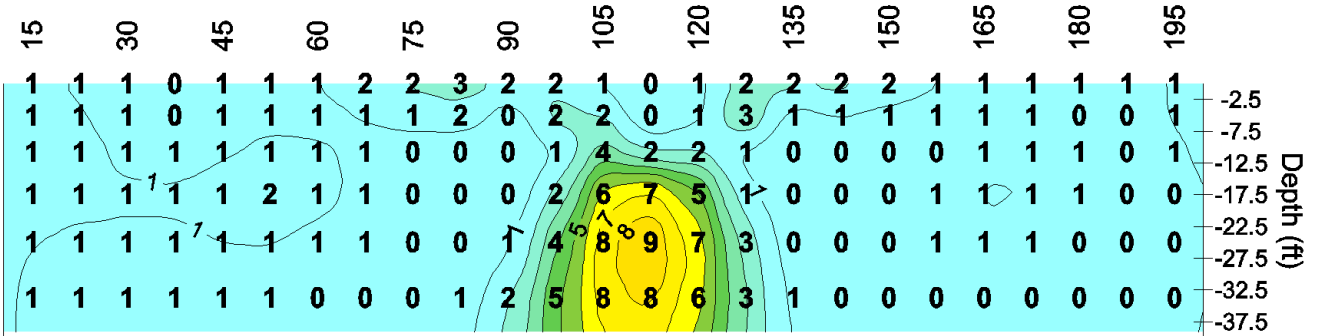
**Down in the Dumps
Workshop Notes**

IP data over a 5 ft. diameter, re-enforced, concrete pipe buried 10 feet below the surface.

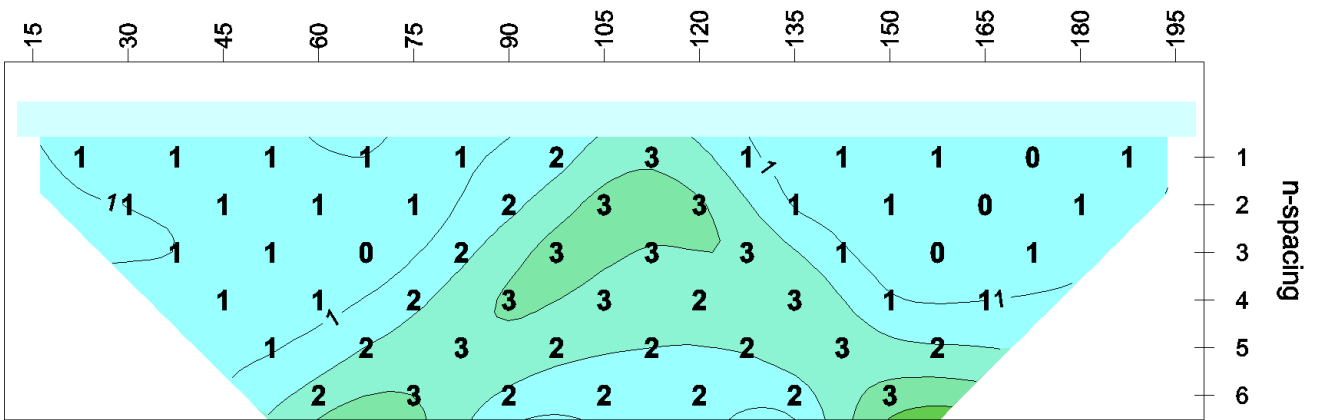


Engineering Anomaly 7-Spread Equivalent

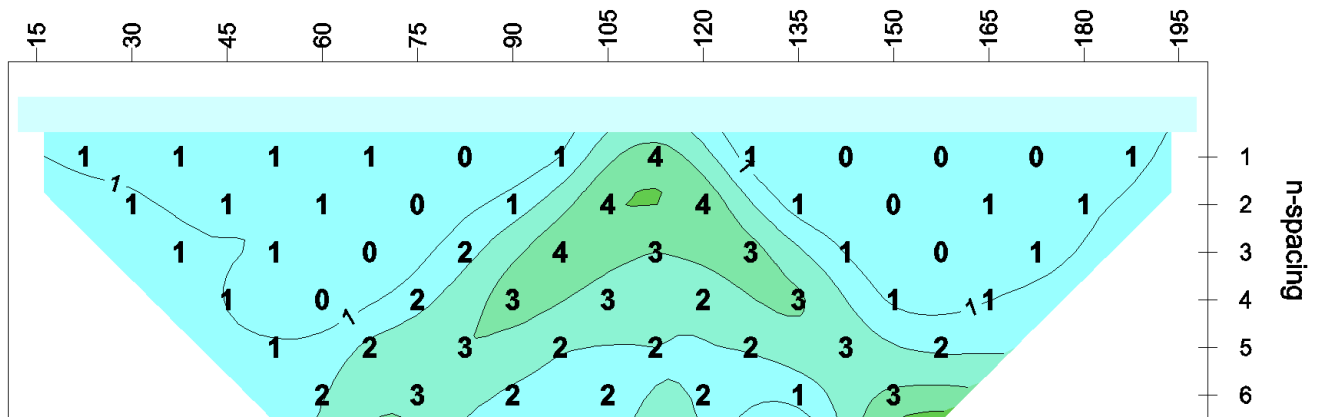
Smooth-Model IP (msec)



Calculated IP Response (msec)

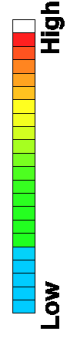
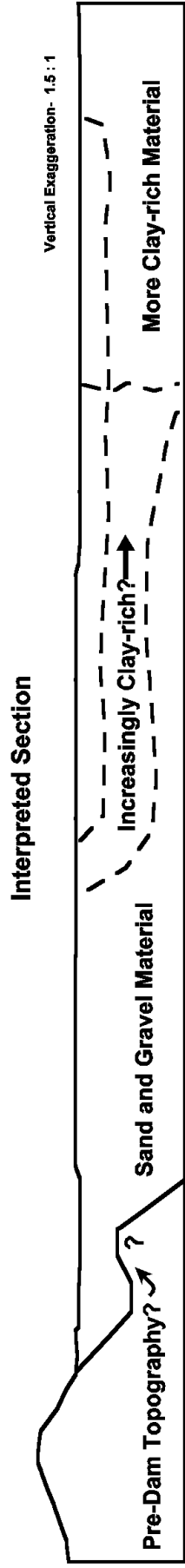
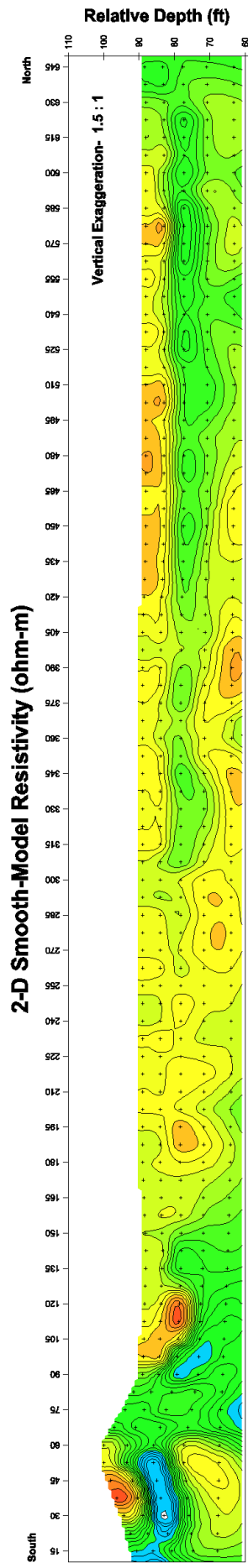
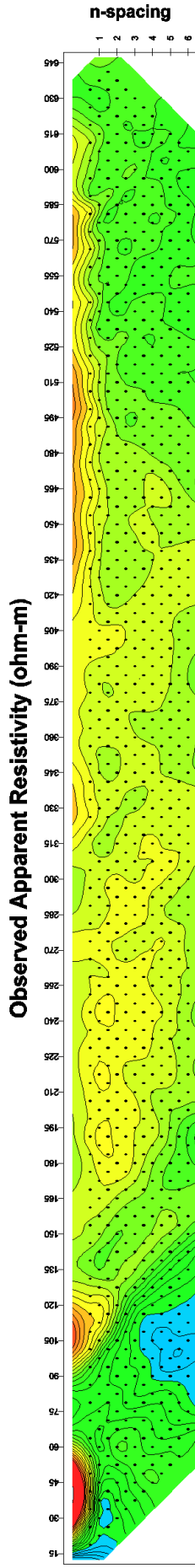


Observed IP Response (msec)



Values in rounded milliseconds.
Contours: 1.0, 2.0, 3.0, ...

Earthen Dam Study



Down in the Dumps Workshop Notes

Raw data, modeled results, and a preliminary interpretation for a line of data collected on an earthen dam. Data were collected to help location weak areas within the dam. A total of 954 data points were collected by a three person field crew in about 2.5 hours

