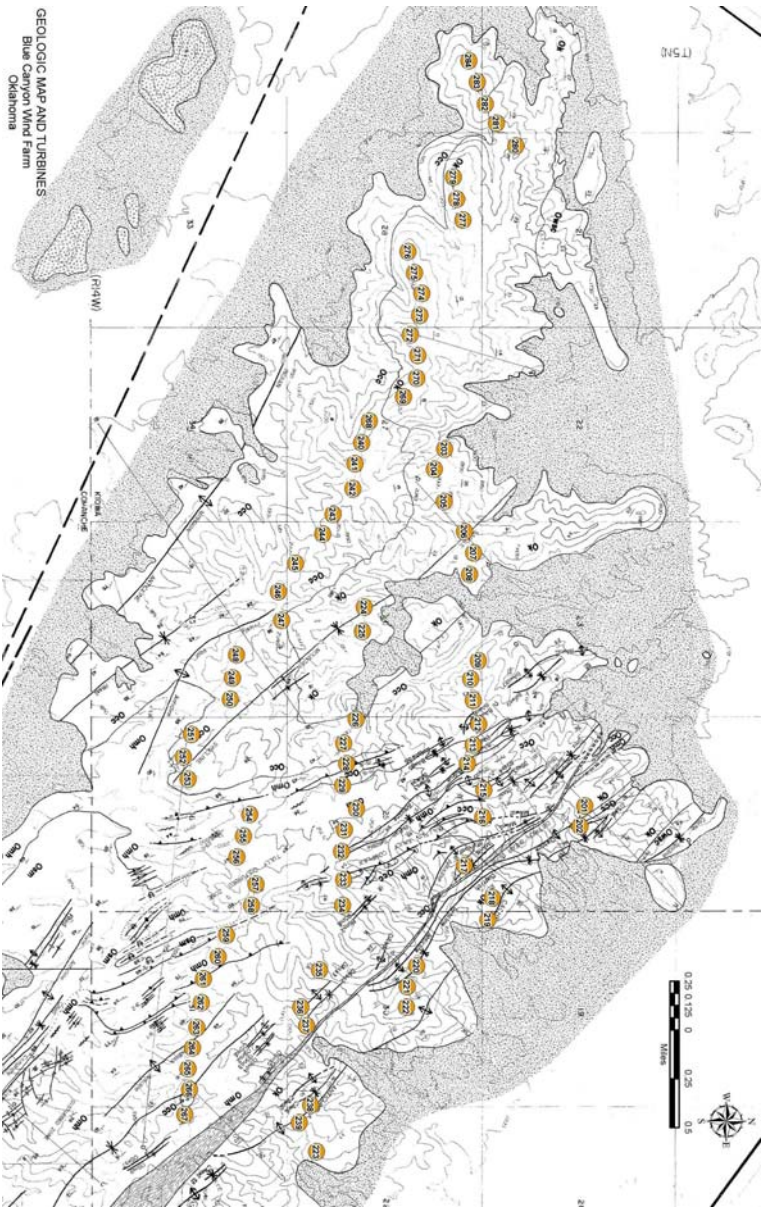


Seismic Characterization of Wind Turbine Sites Near Lawton, Oklahoma, by the MASW Method

APPENDIX III: Maps from Surface-Wave Imaging by Attenuation (SIA)

Choon B. Park and Richard D. Miller
Kansas Geological Survey
University of Kansas
1930 Constat Avenue
Lawrence, Kansas 66047-3726



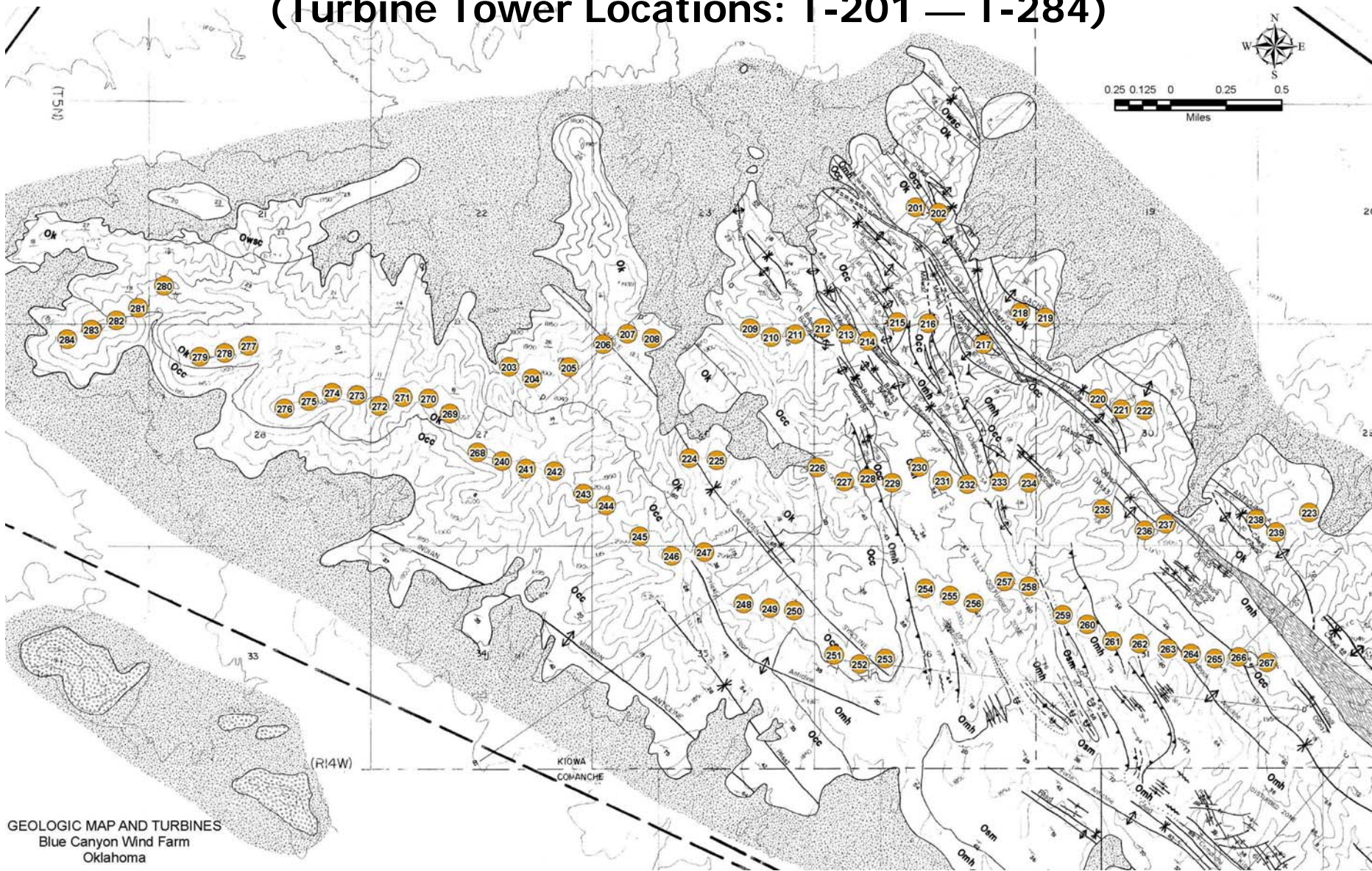
Final Report to

Rick Palm and Chris Kopchynski
Barr Engineering Company
4700 West 77th Street
Minneapolis, MN 55435-4803

Open-file Report 2005-22 (part 4 of 4)

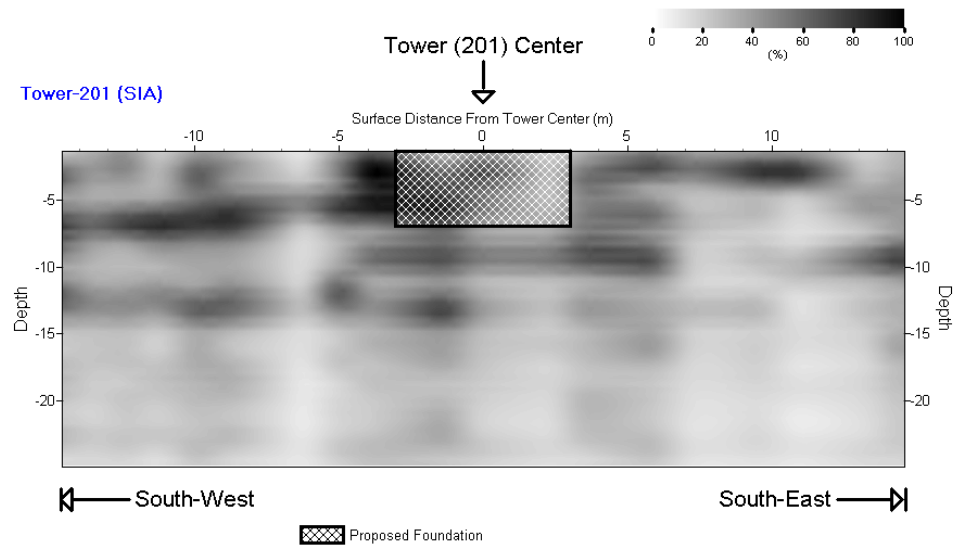
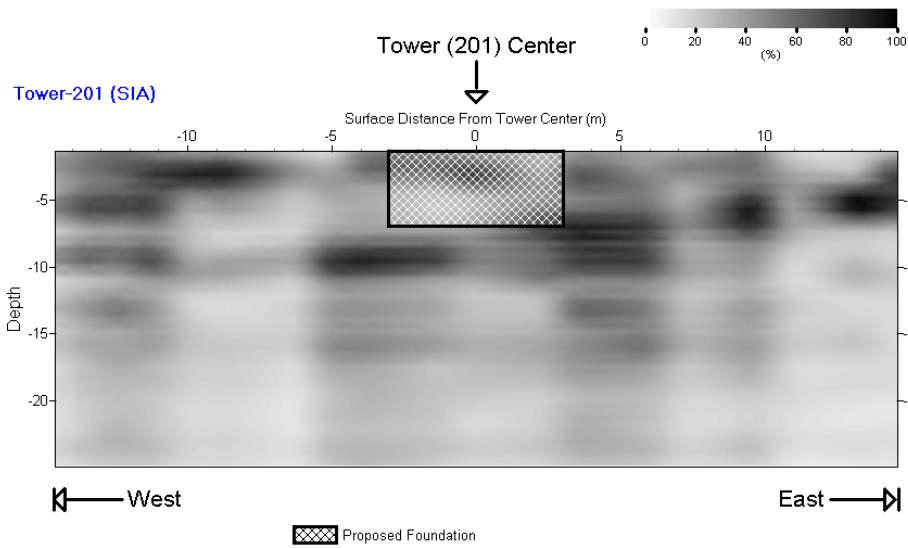
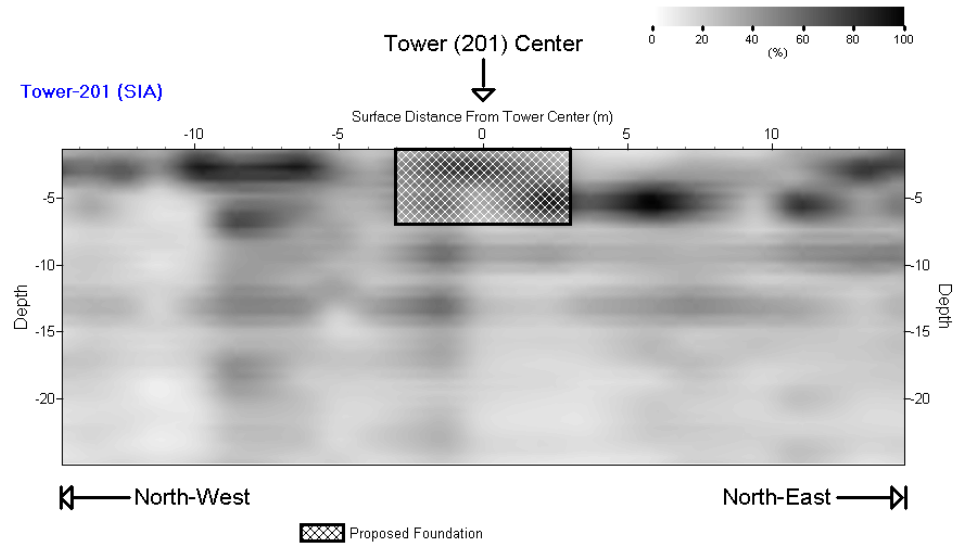
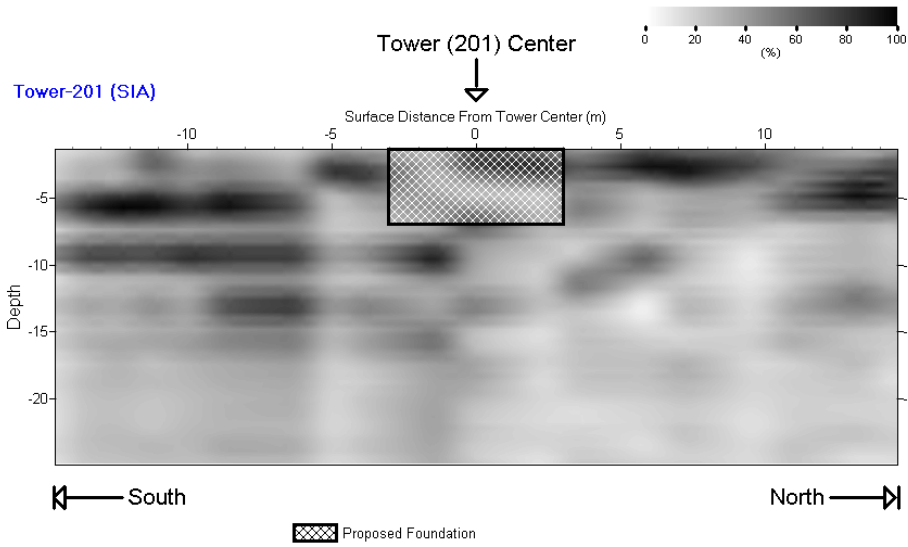
July 5, 2005

Blue Canyon Wind Mill Farm Phase II (Turbine Tower Locations: T-201 — T-284)

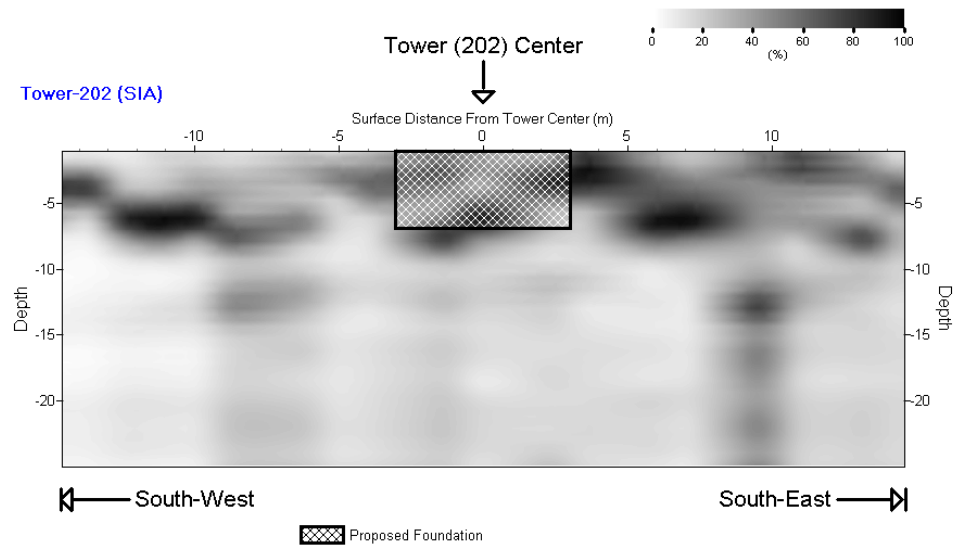
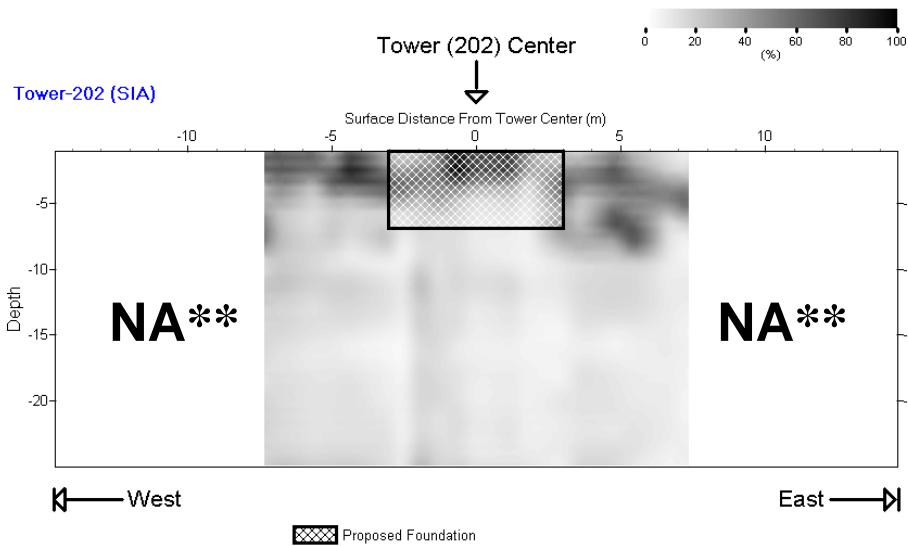
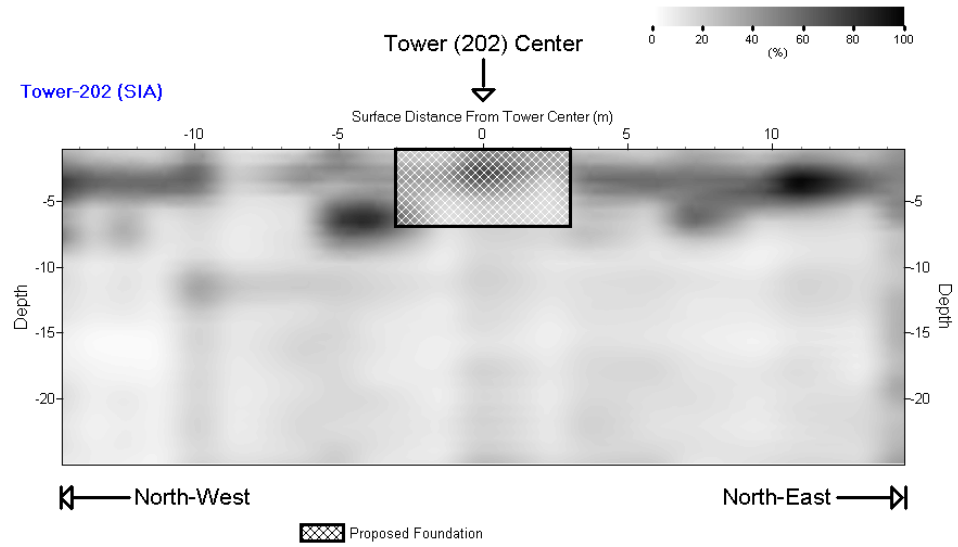
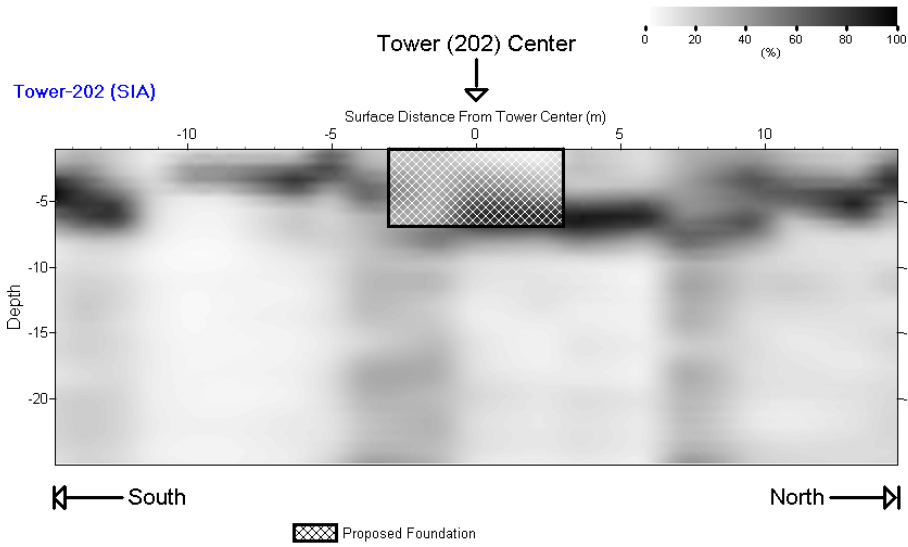


GEOLOGIC MAP AND TURBINES
Blue Canyon Wind Farm
Oklahoma

T-201

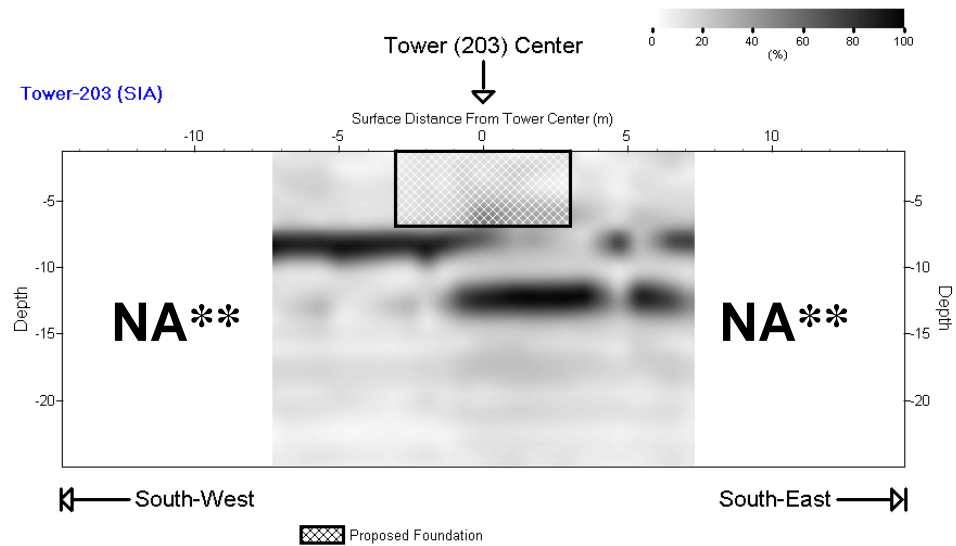
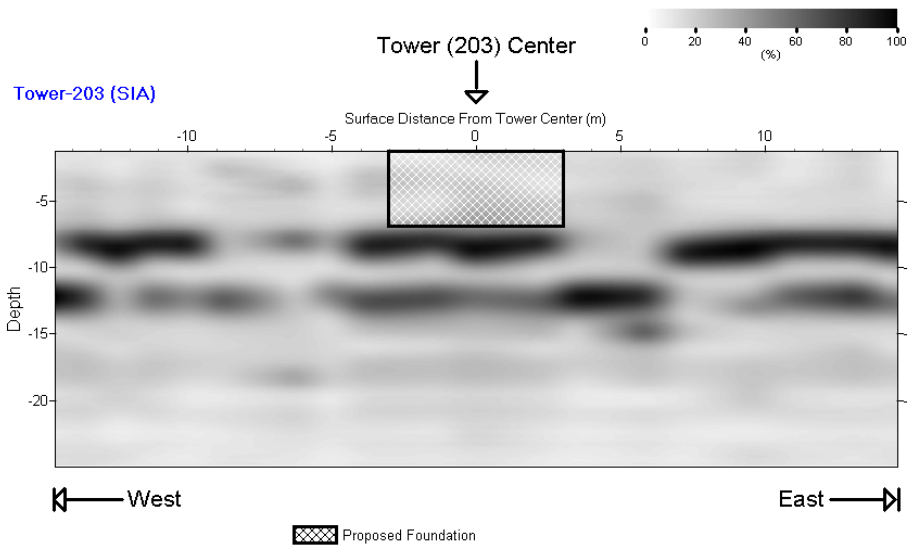
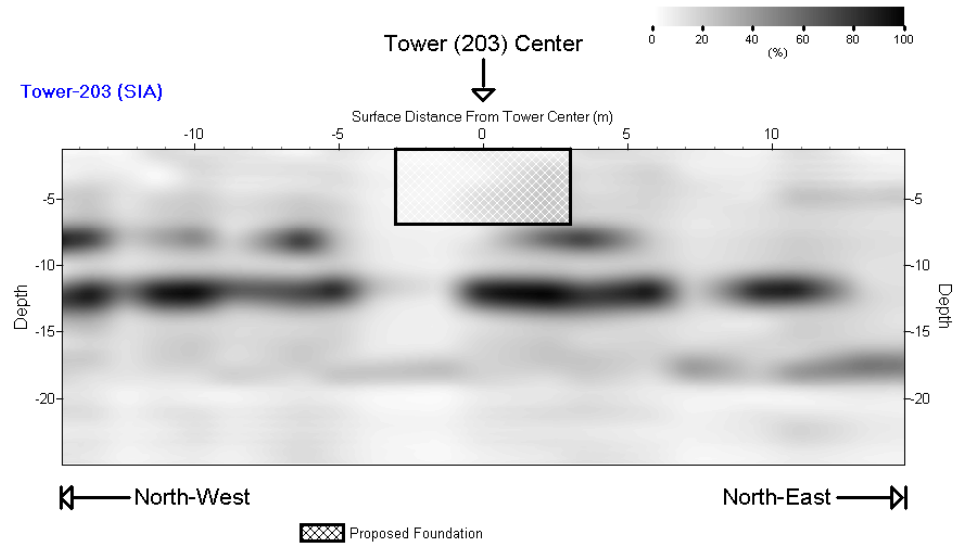
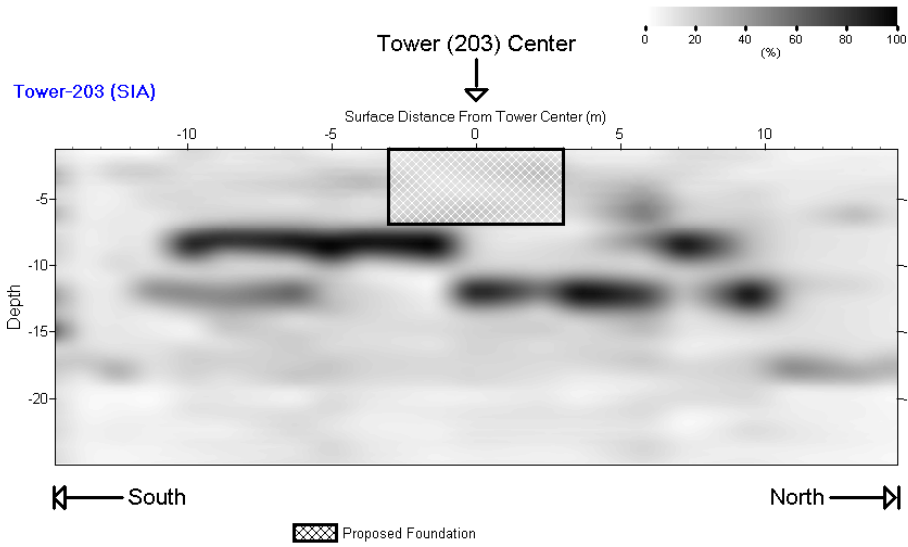


T-202



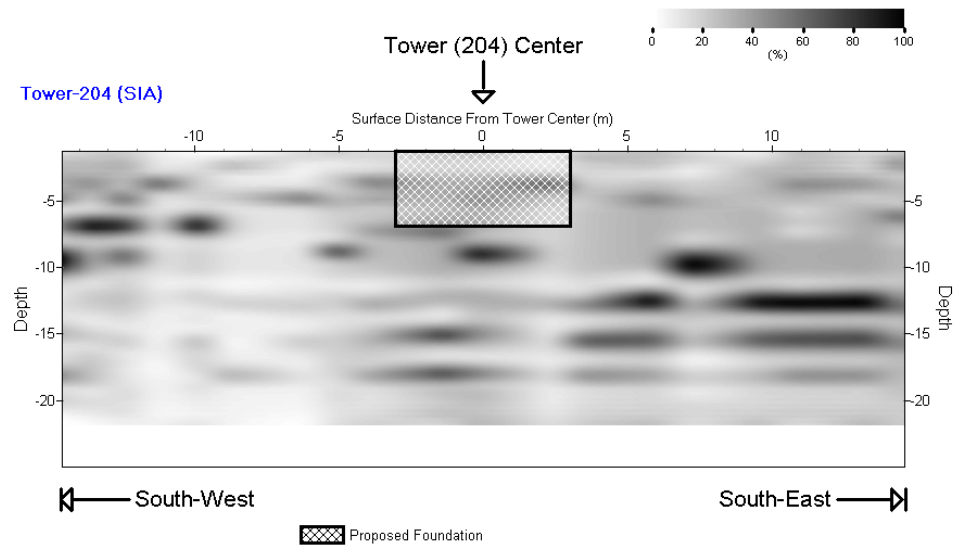
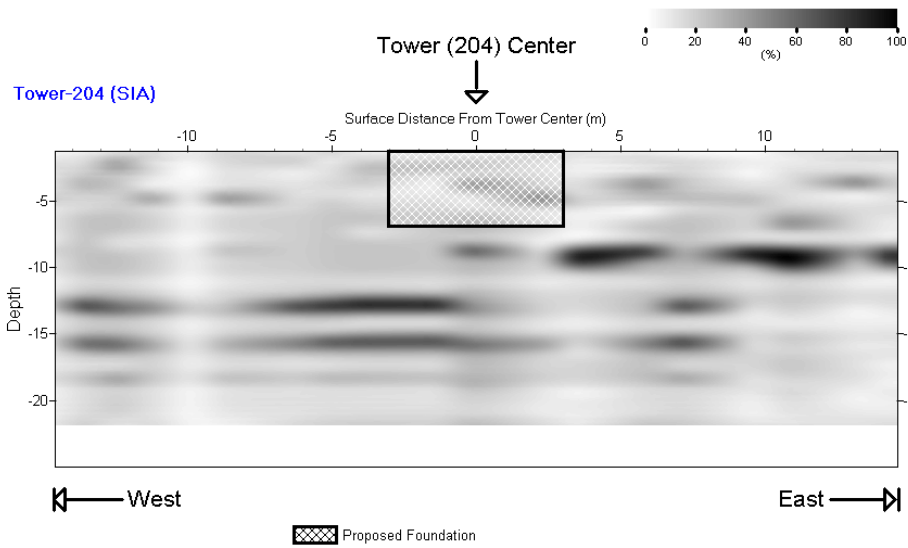
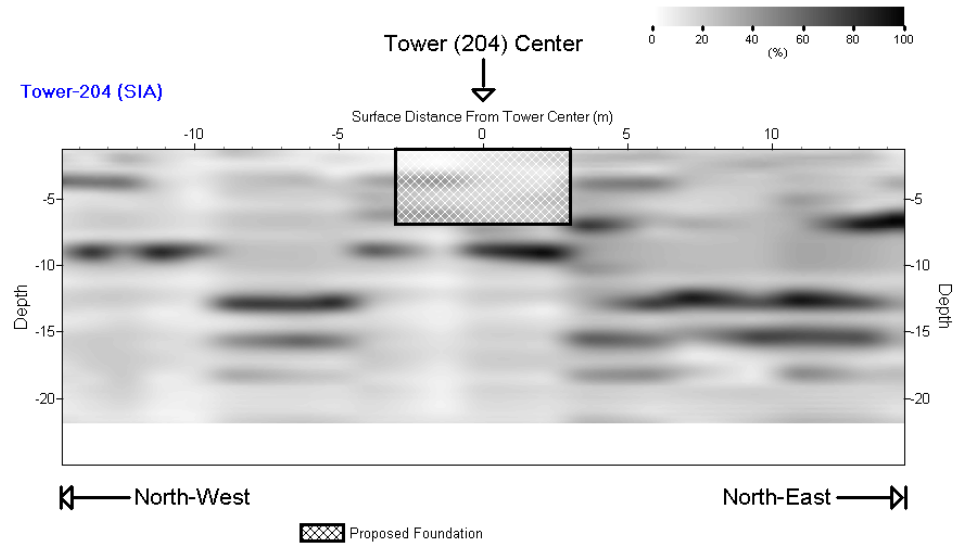
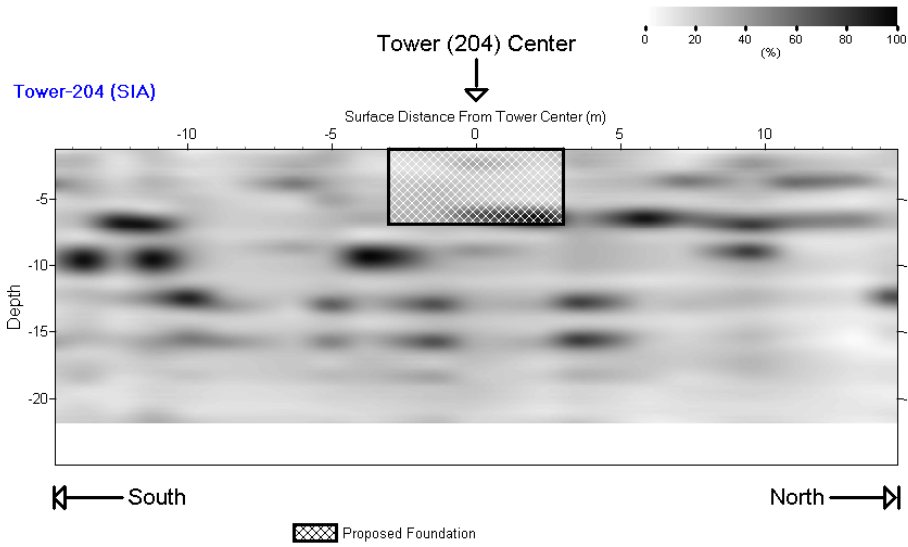
**A shorter receiver spacing of 2 ft was used due to terrain condition (steep drop off).

T-203

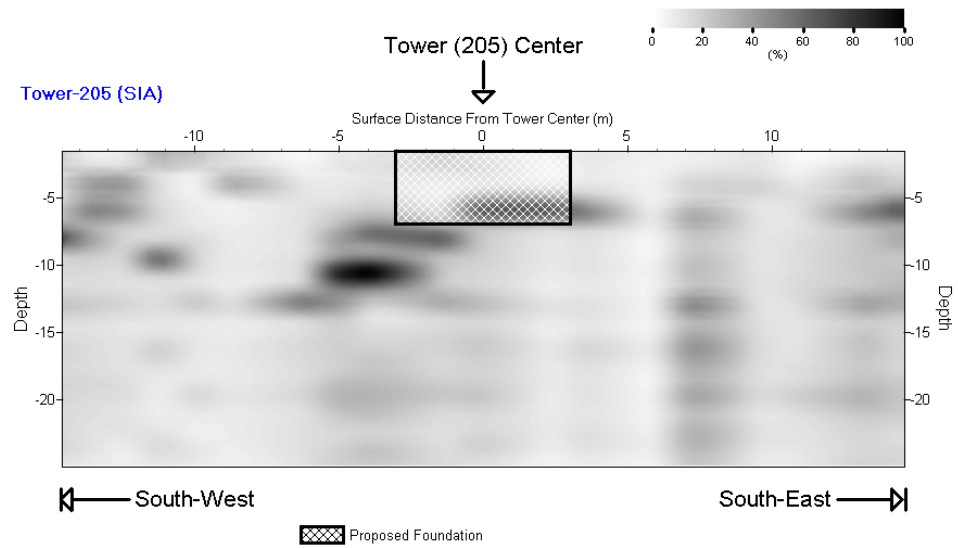
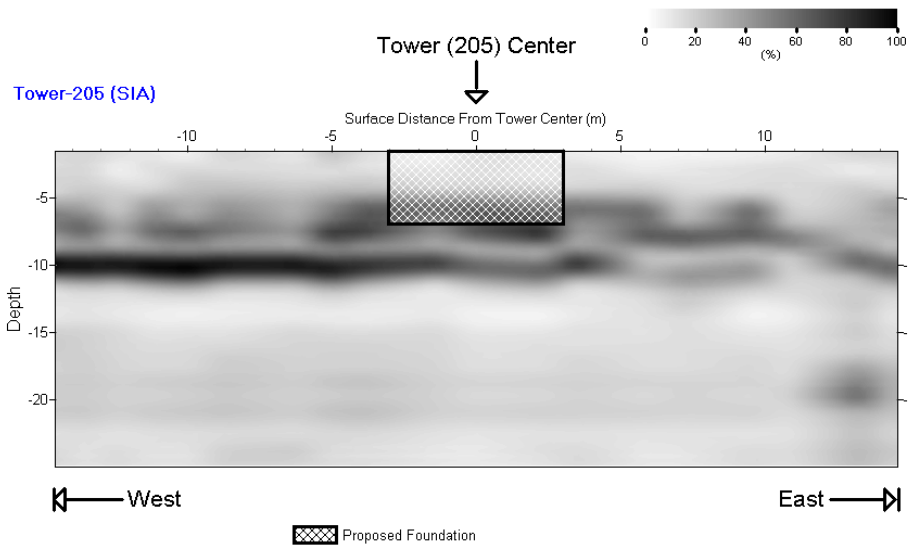
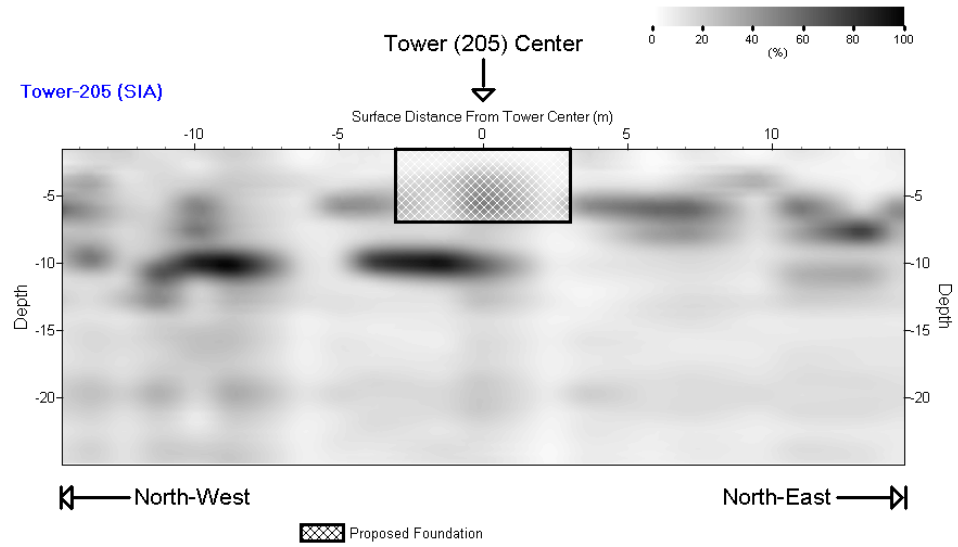
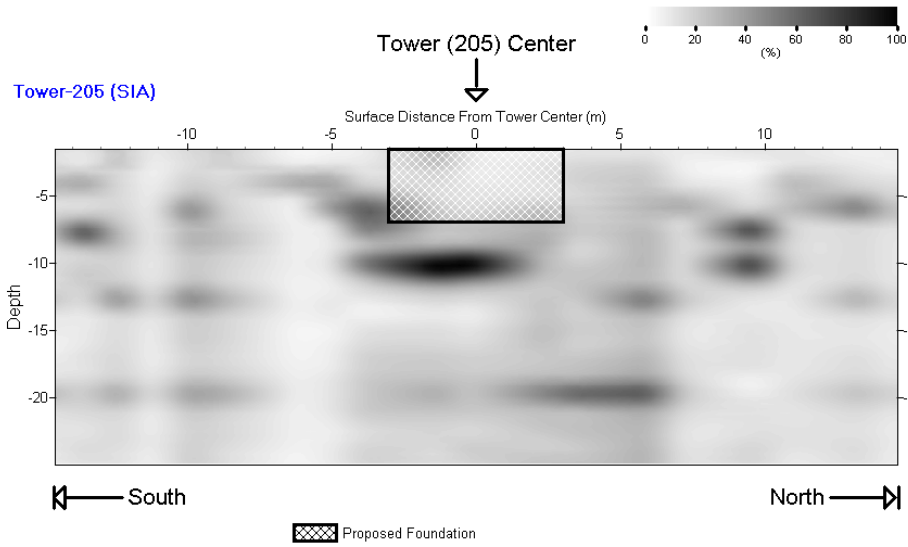


**A shorter receiver spacing of 2 ft was used due to terrain condition (steep drop off).

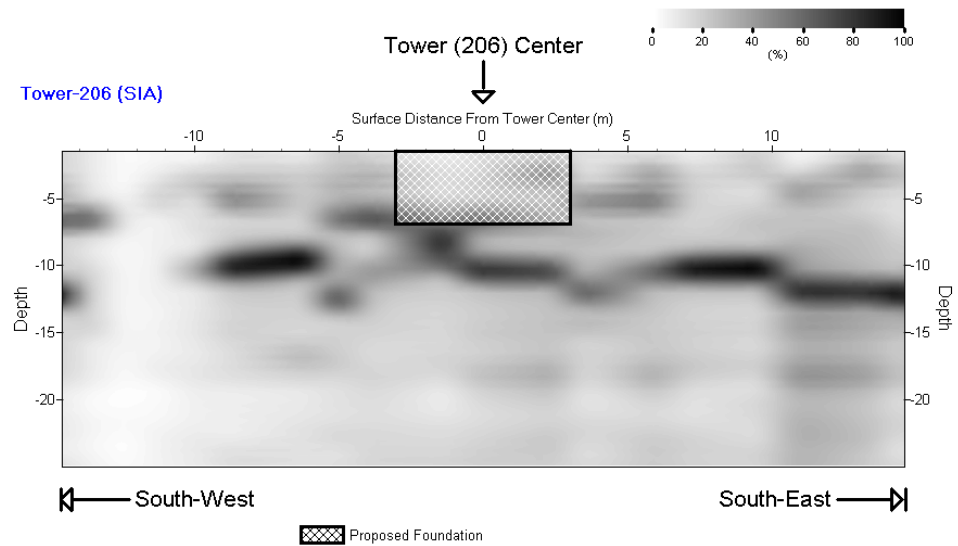
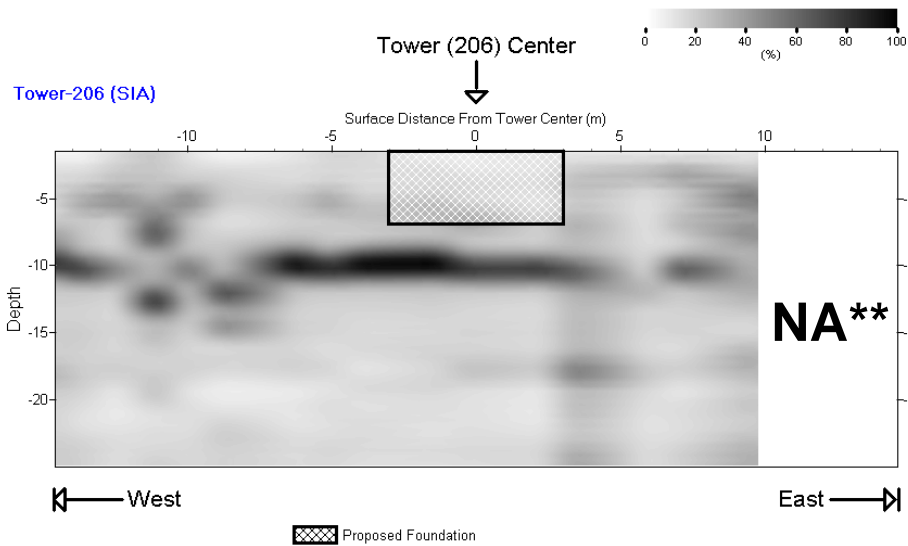
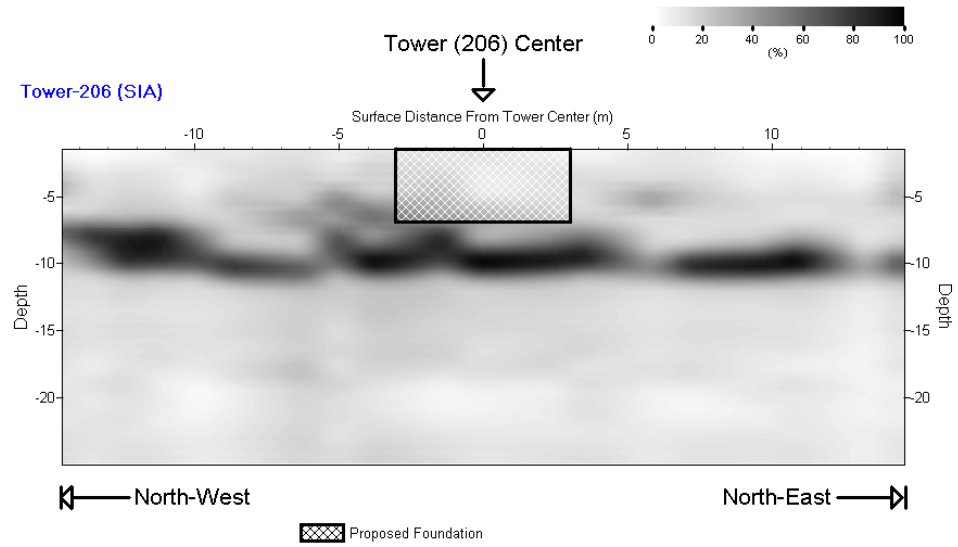
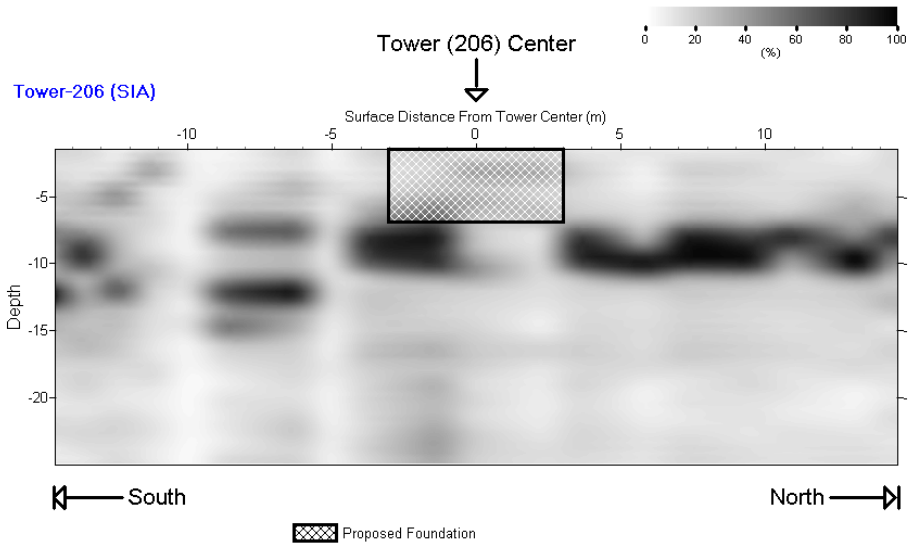
T-204



T-205



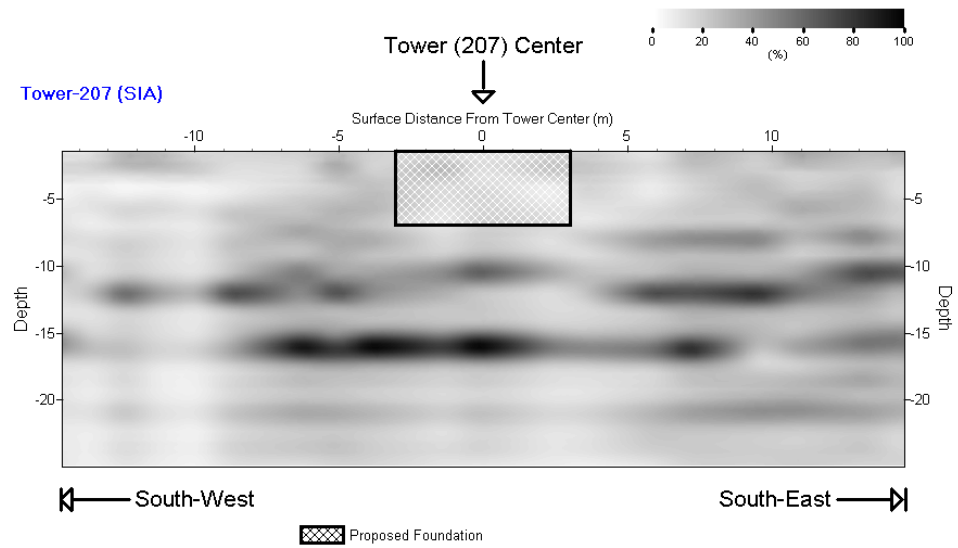
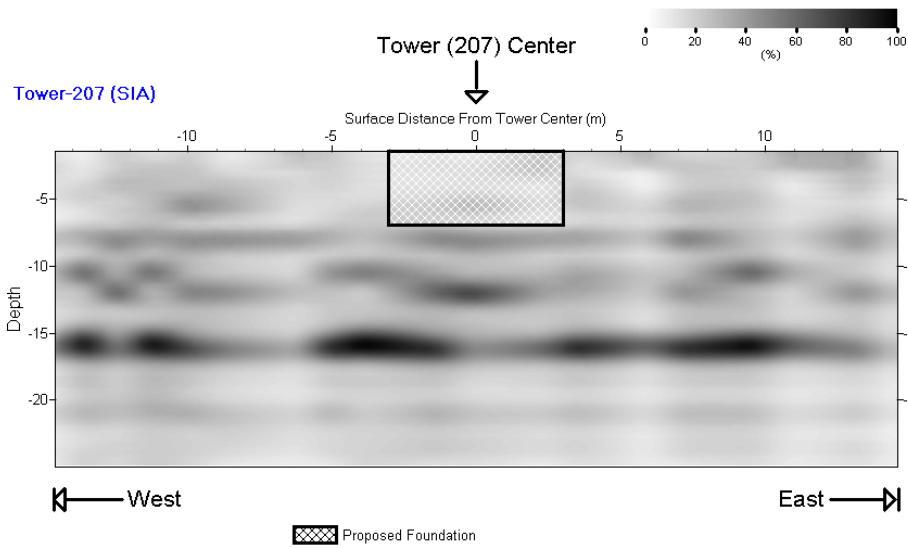
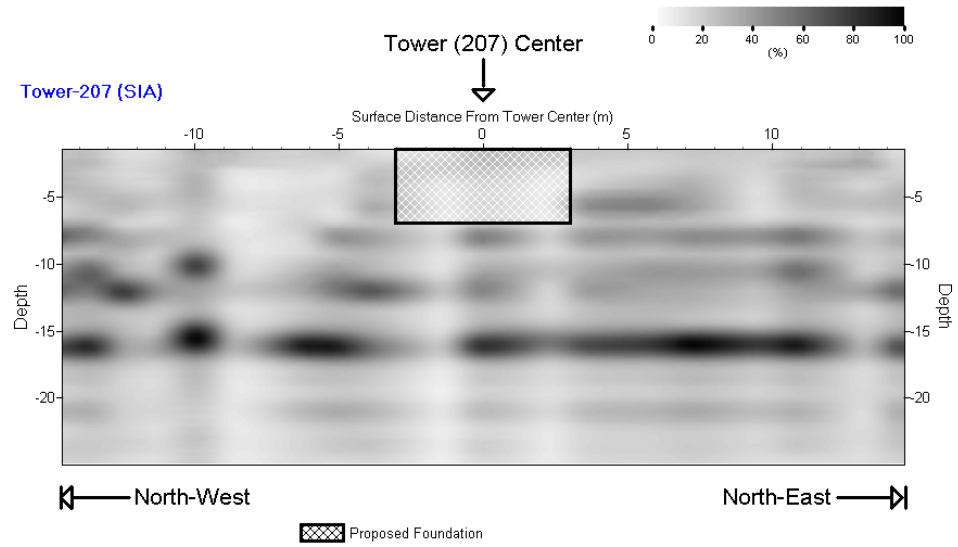
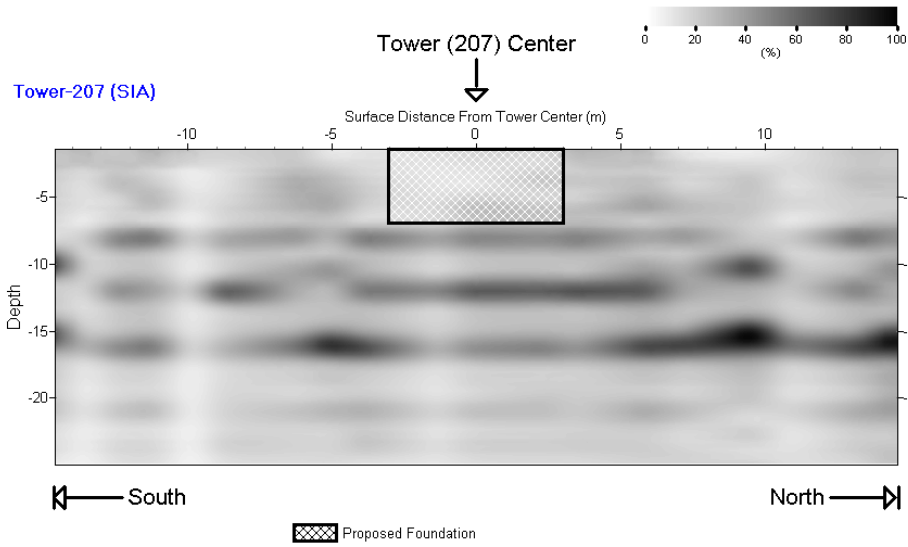
T-206*



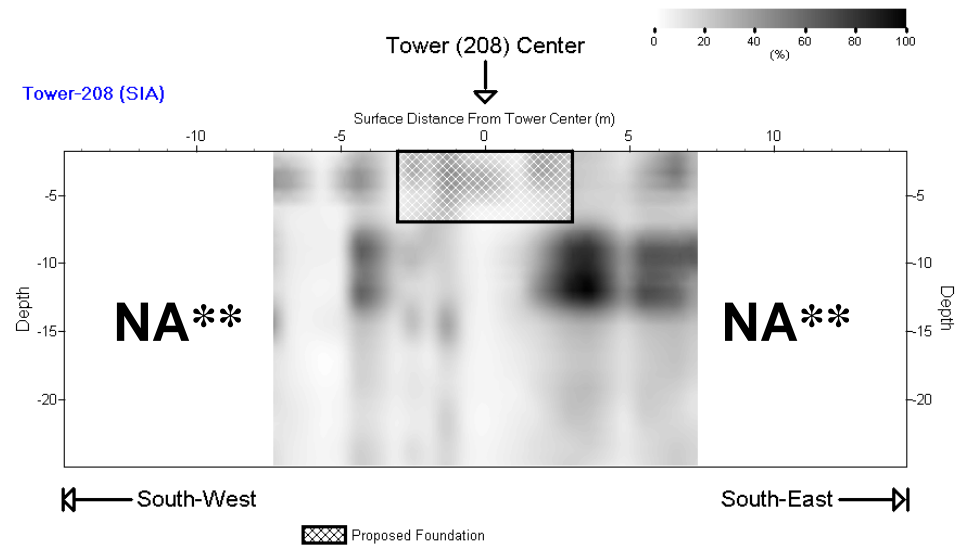
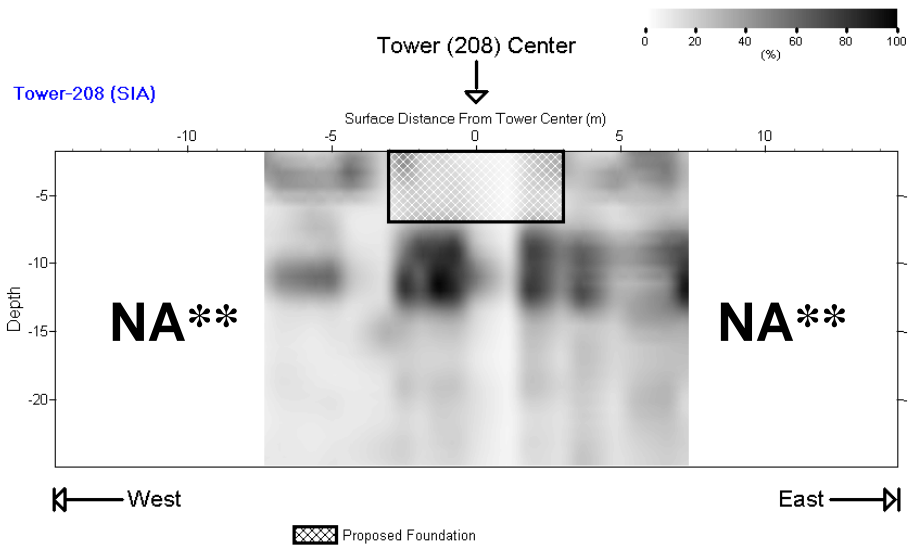
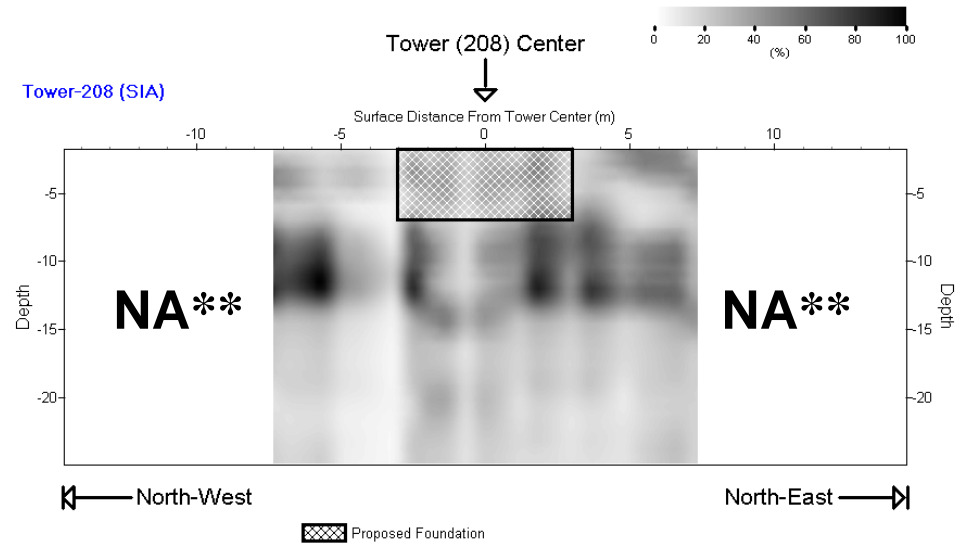
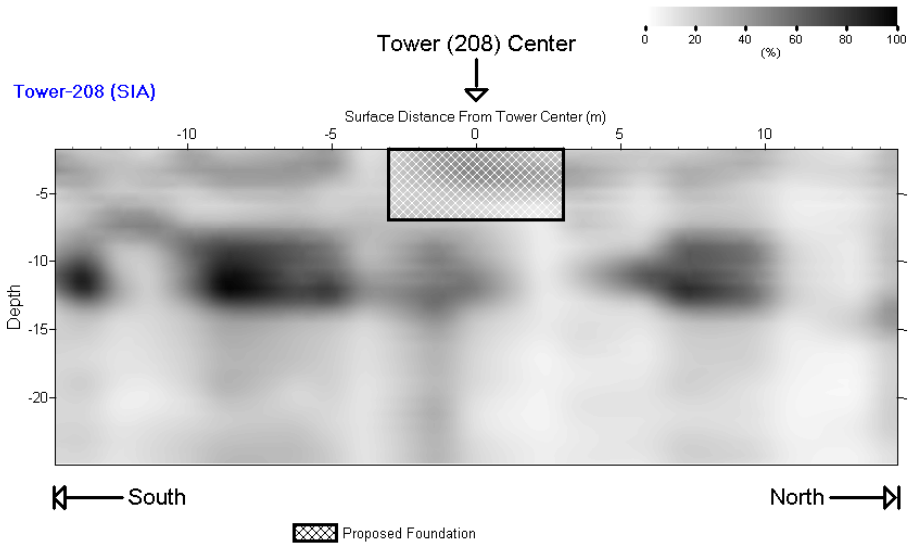
*Line 4 shifted to north by 6 stations (=24ft) from the planned position (12 stations south of tower center) due to terrain condition

**Data not acquired due to terrain condition (steep drop off)

T-207

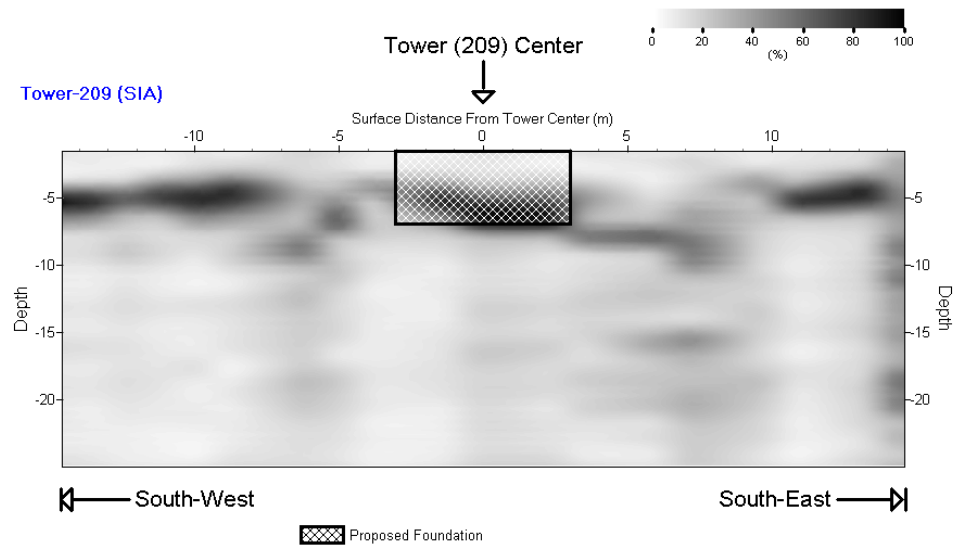
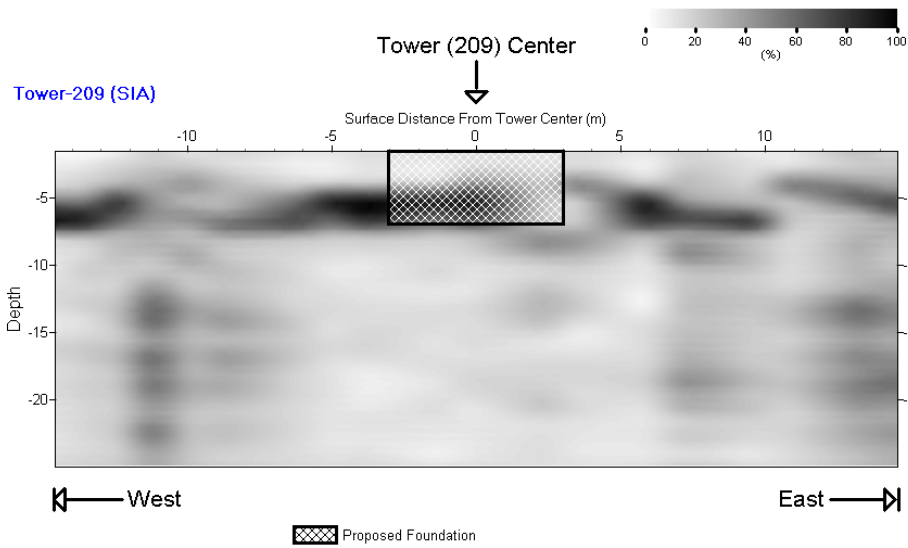
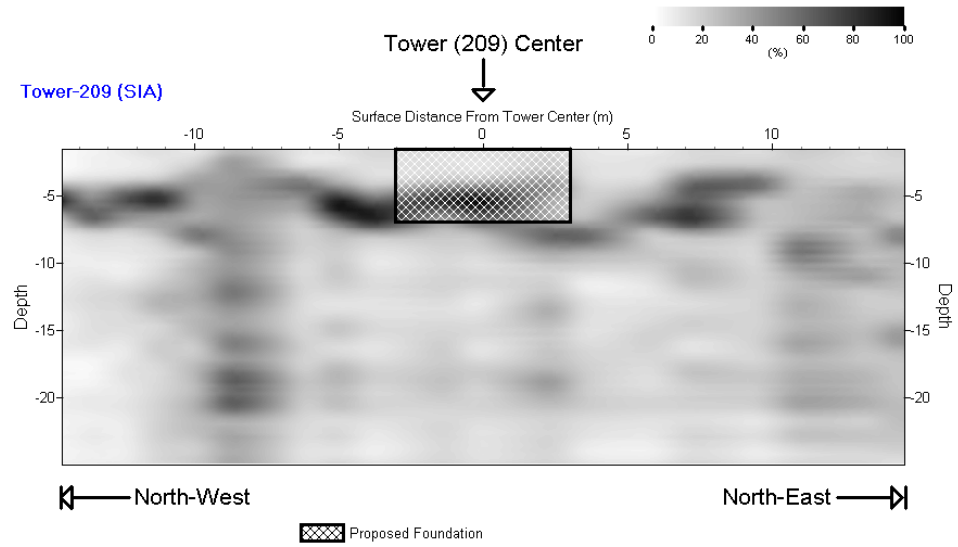
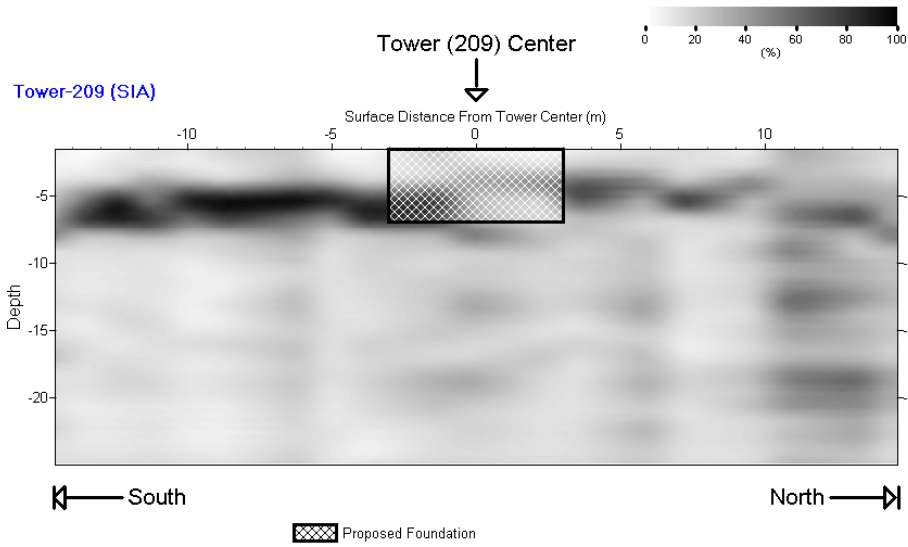


T-208**

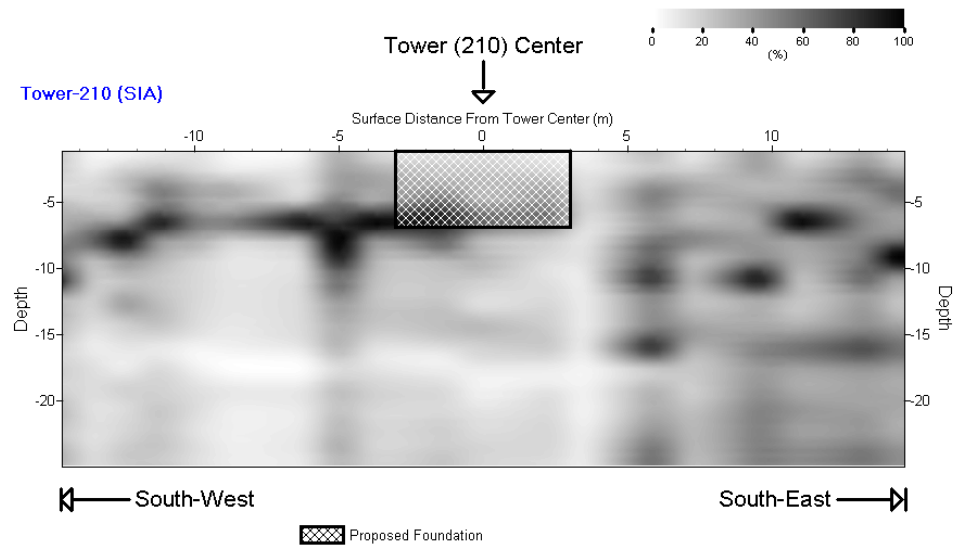
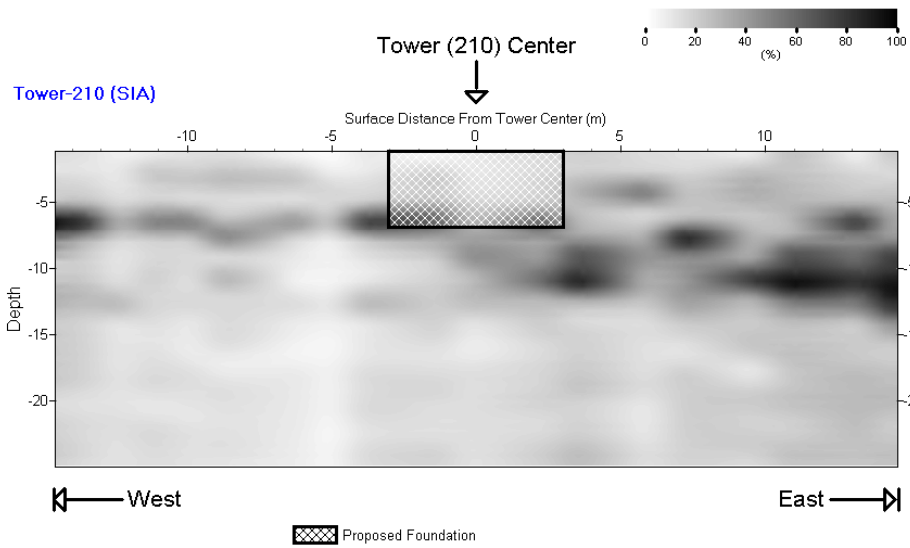
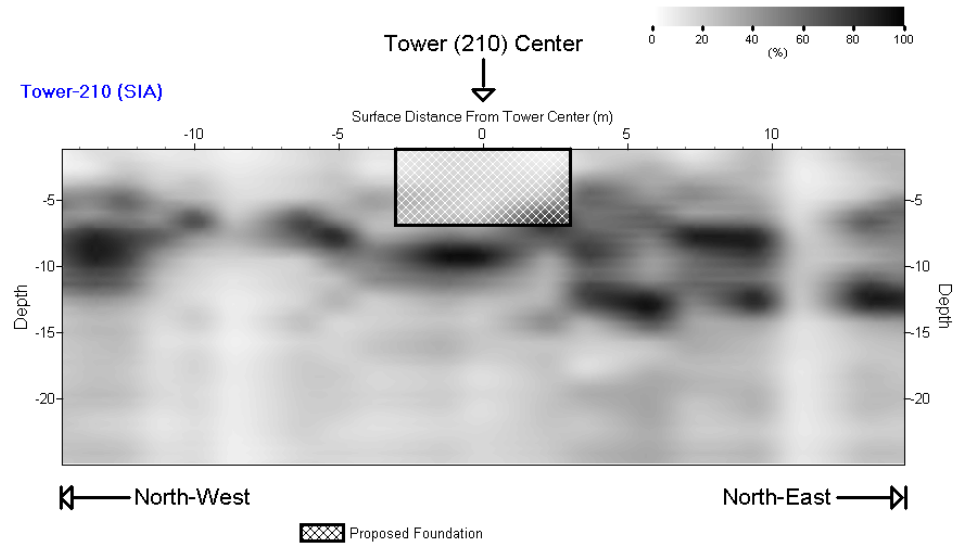
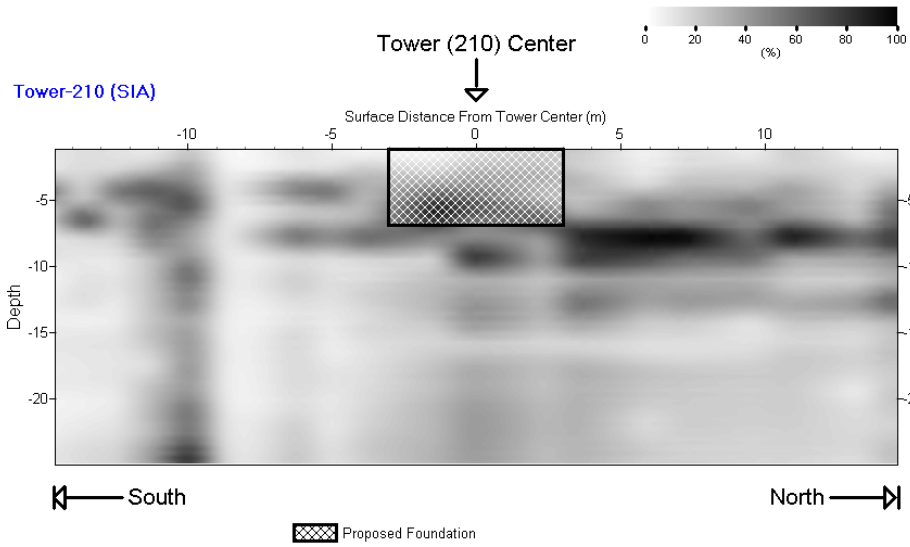


**All East-West lines (2, 3, and 4) used a shorter receiver spacing of 2 ft due to terrain condition (steep drop off).

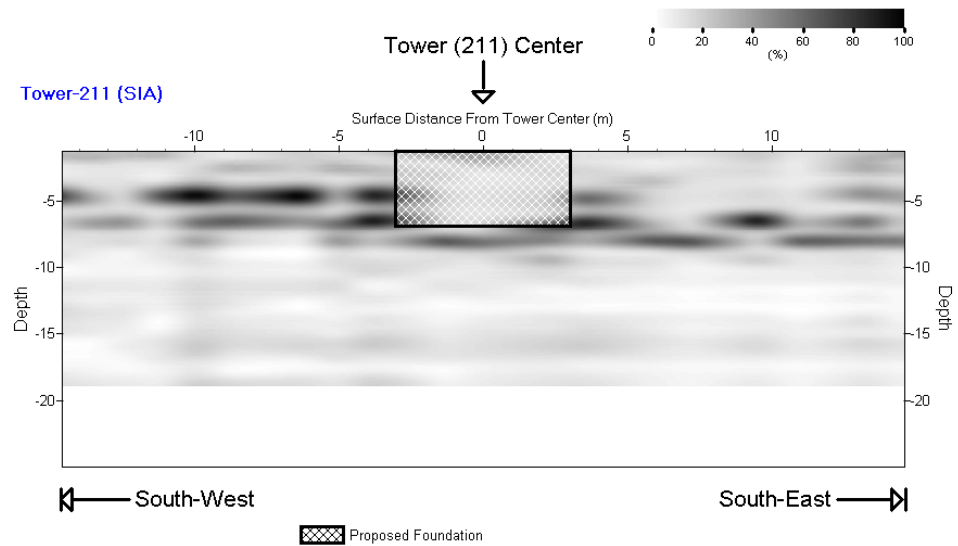
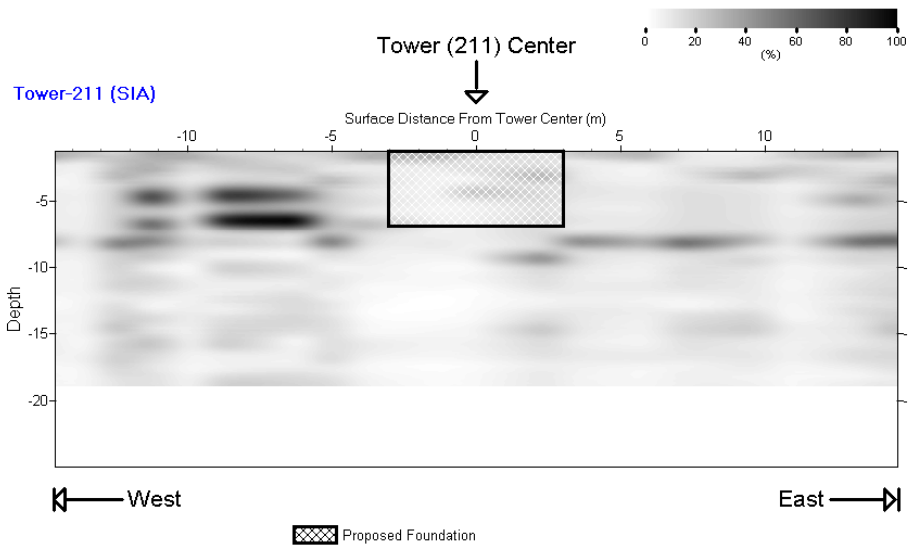
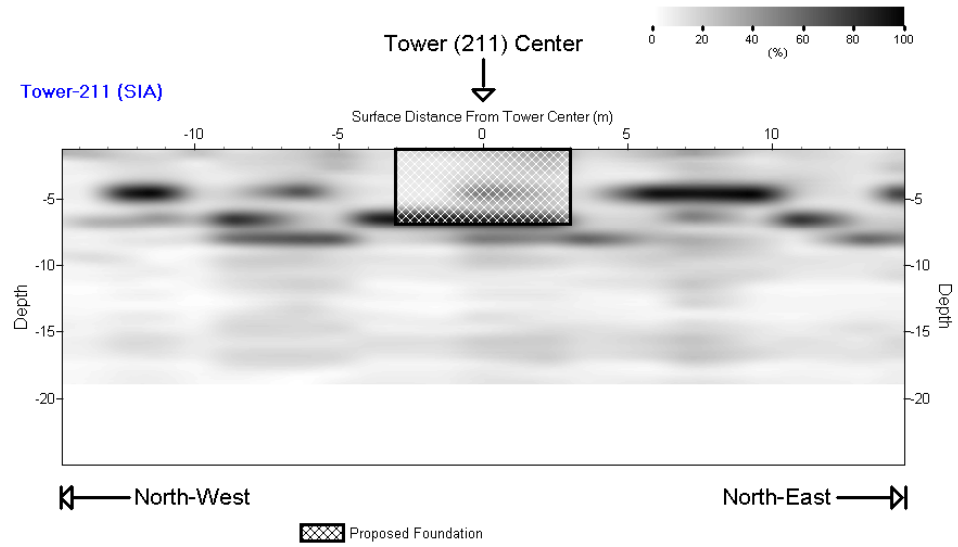
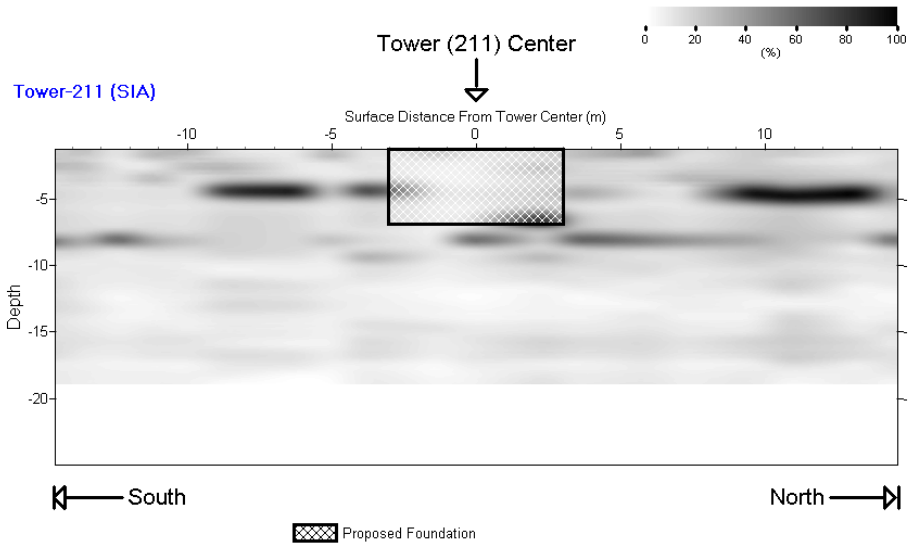
T-209



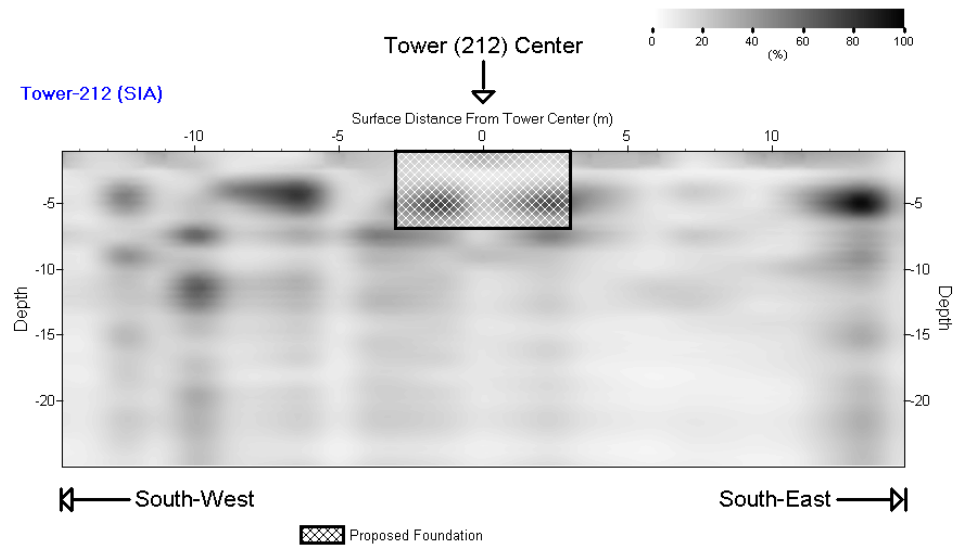
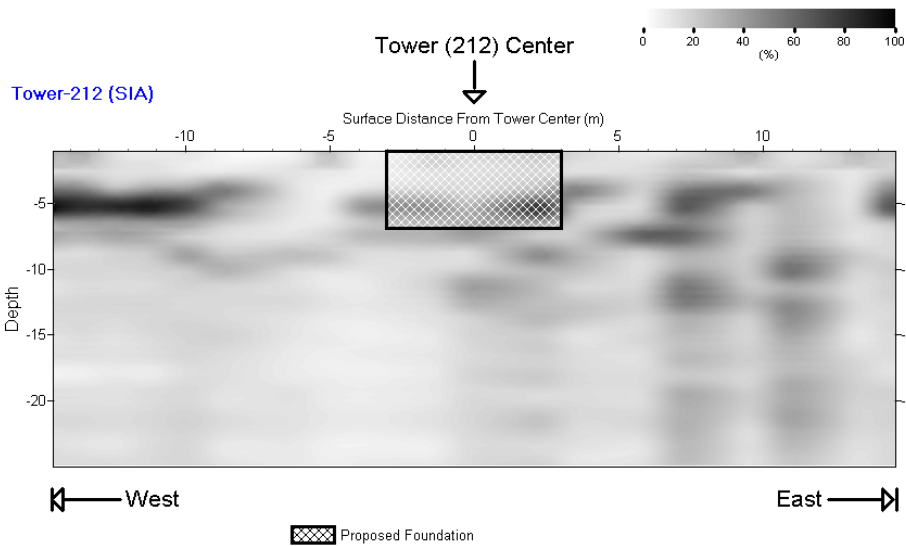
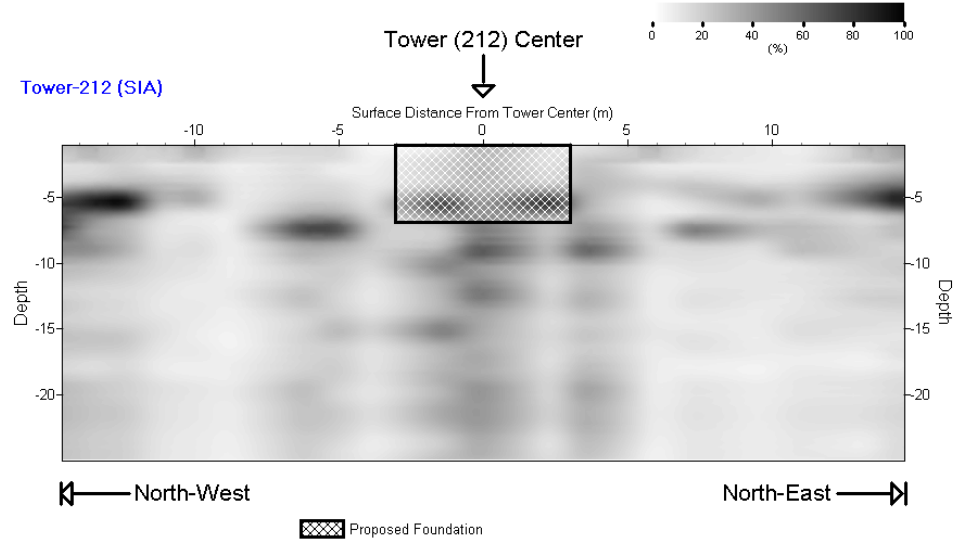
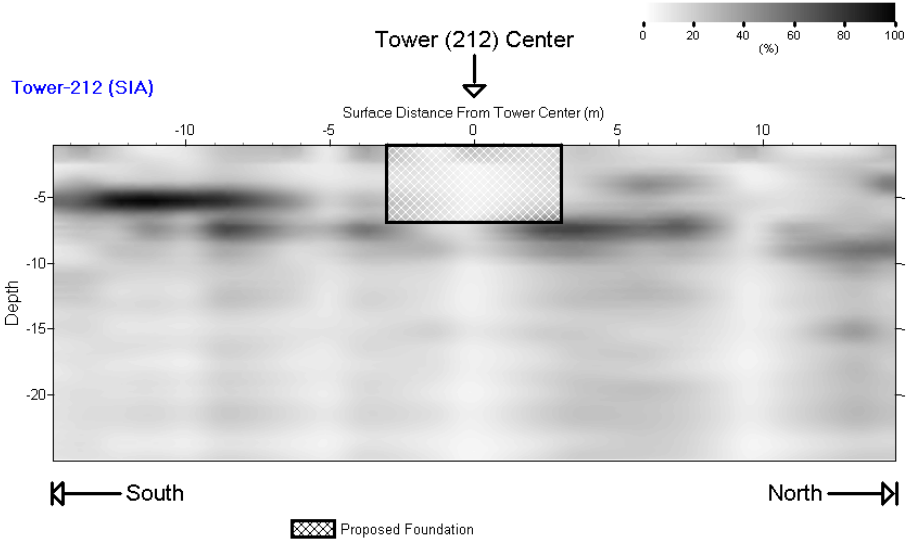
T-210



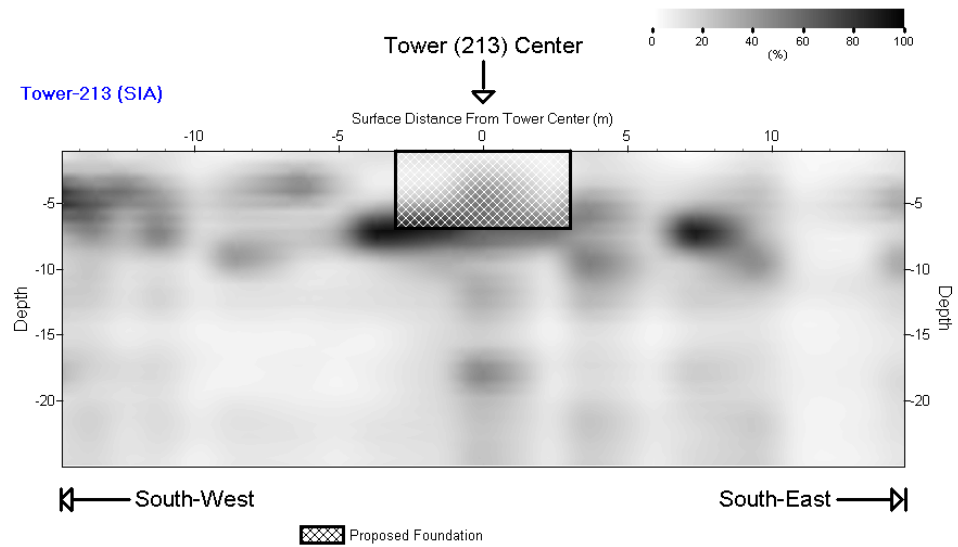
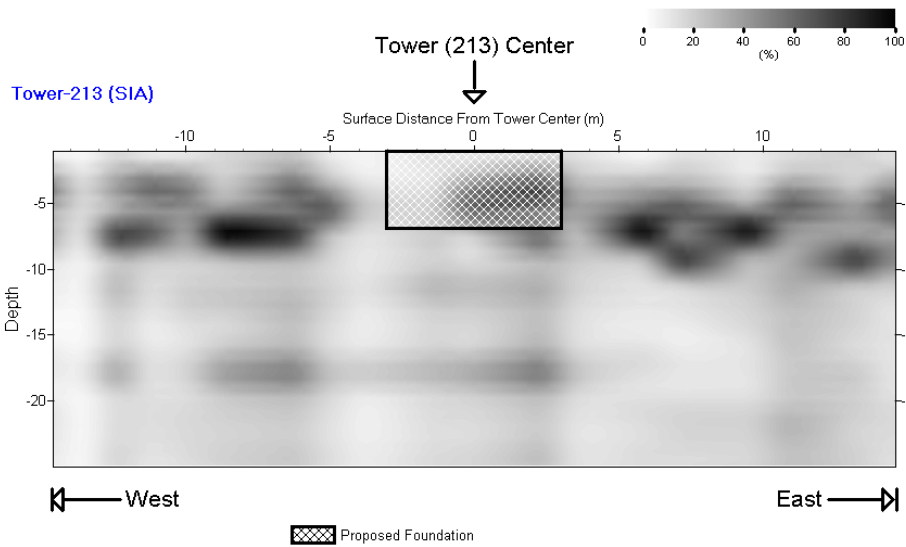
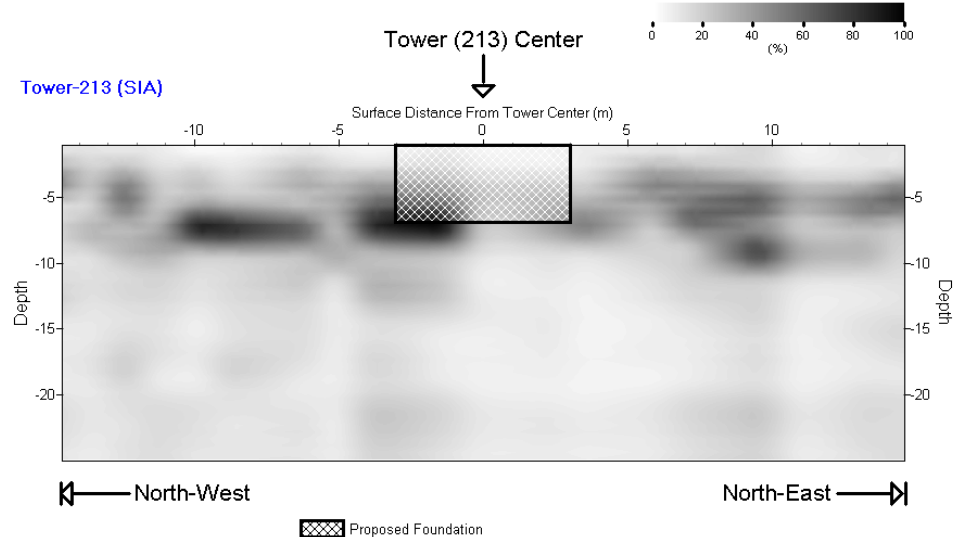
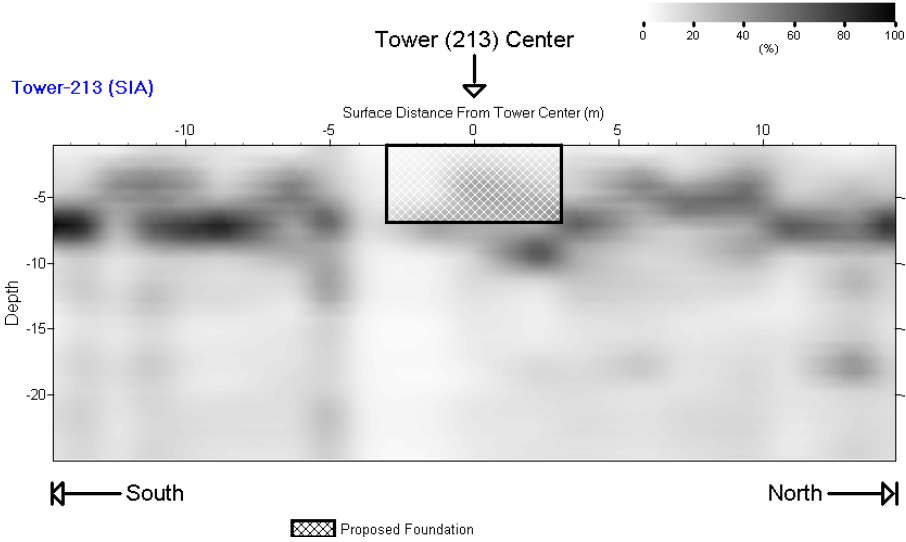
T-211



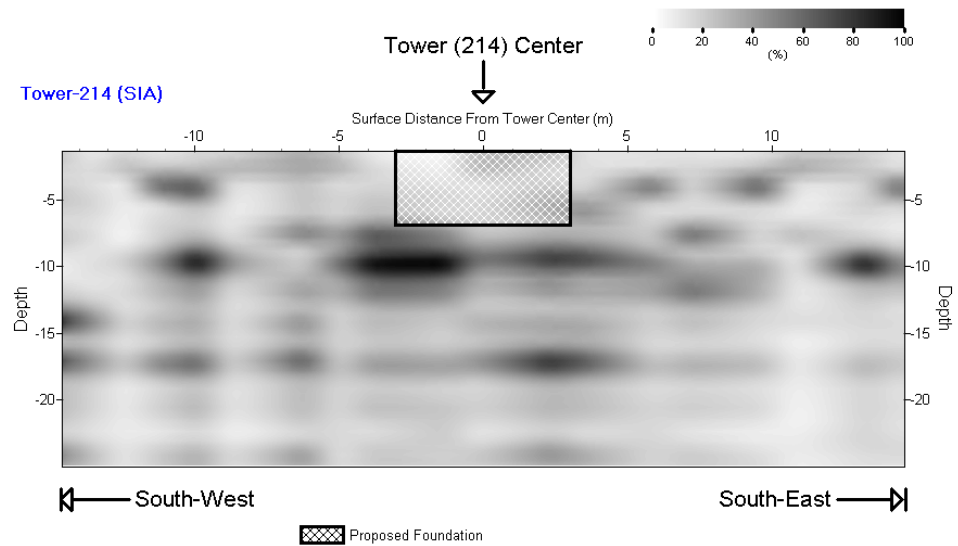
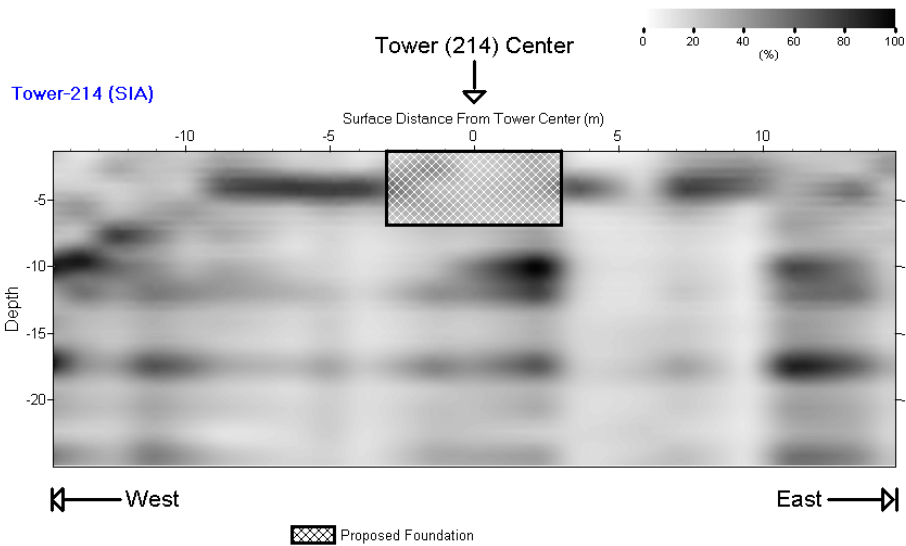
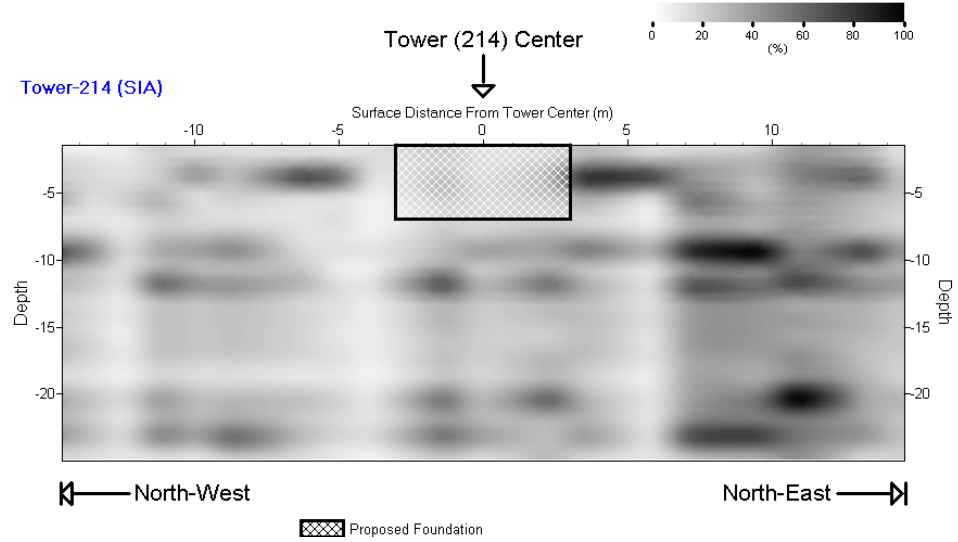
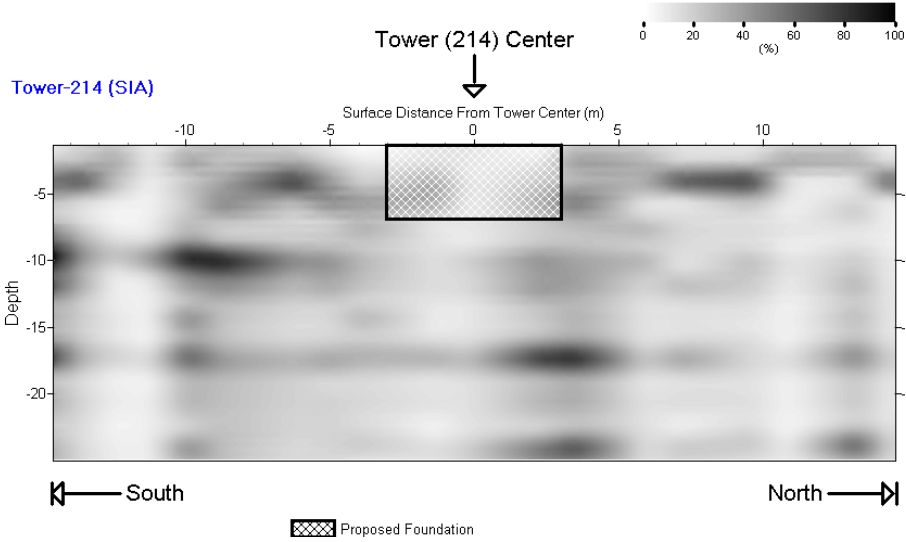
T-212



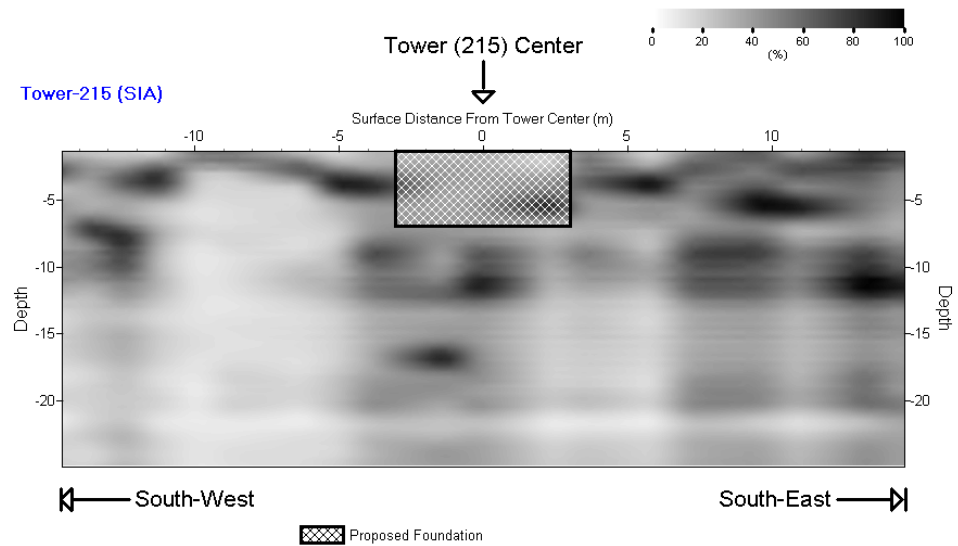
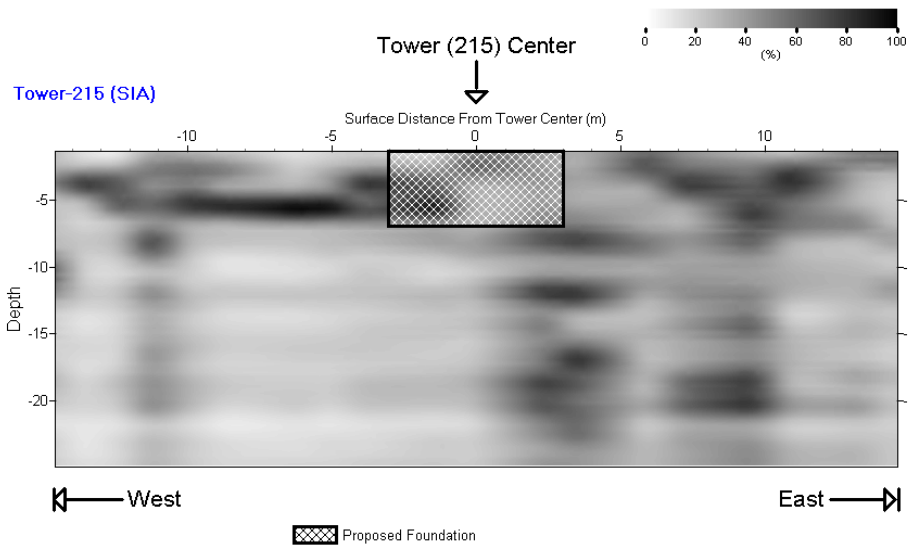
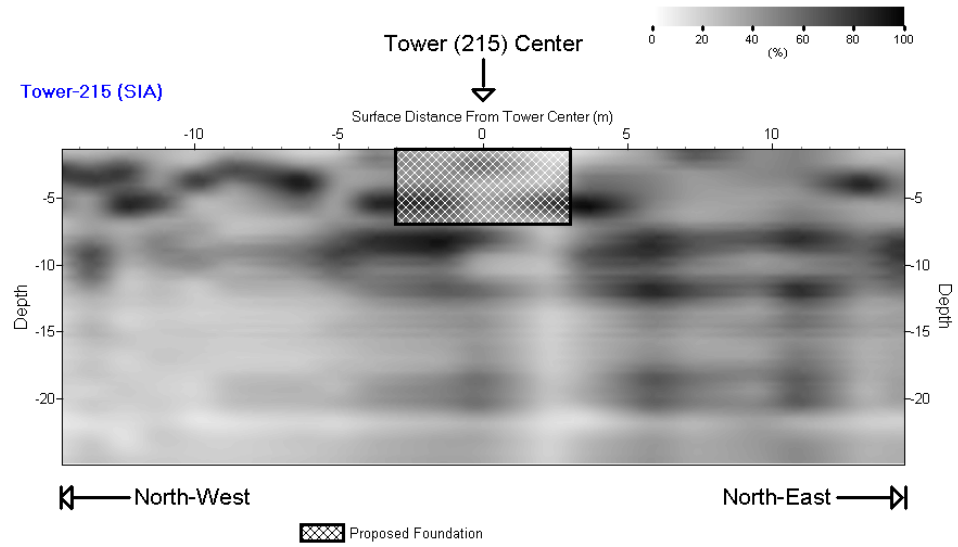
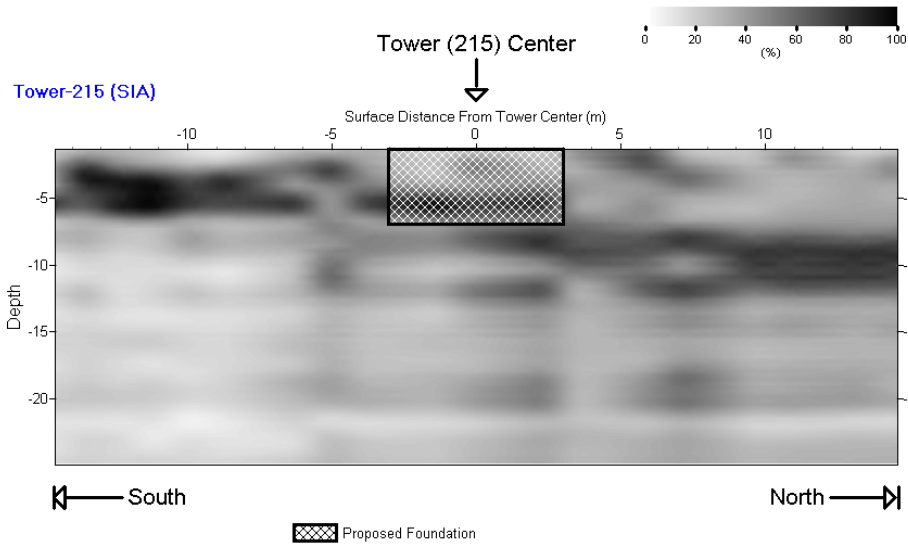
T-213



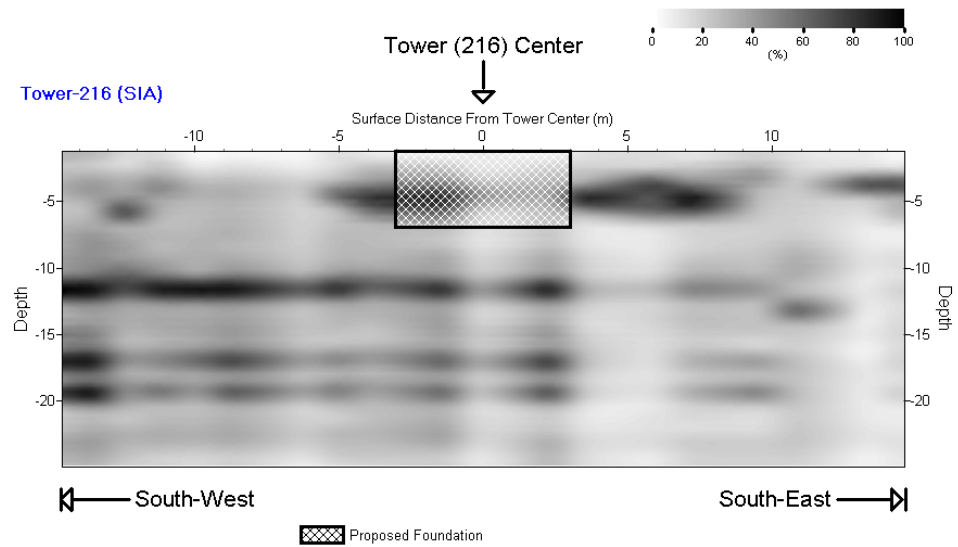
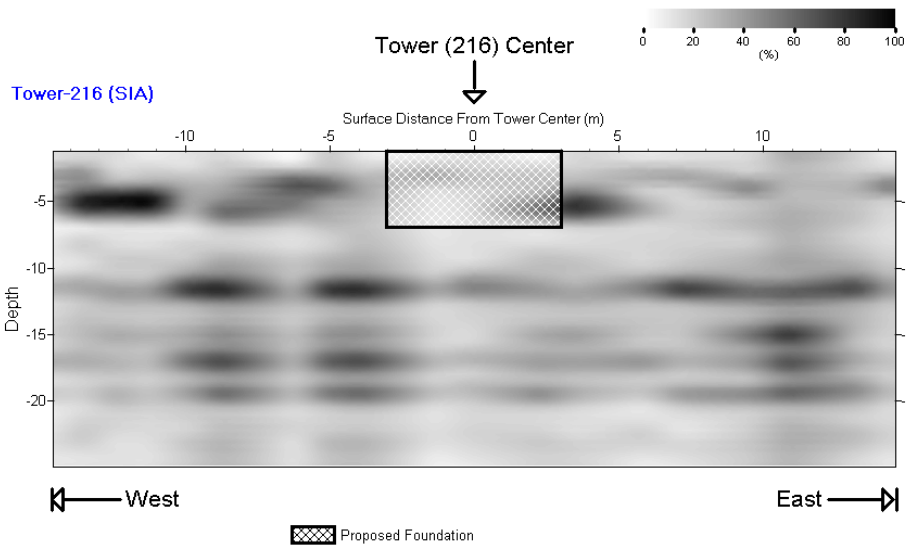
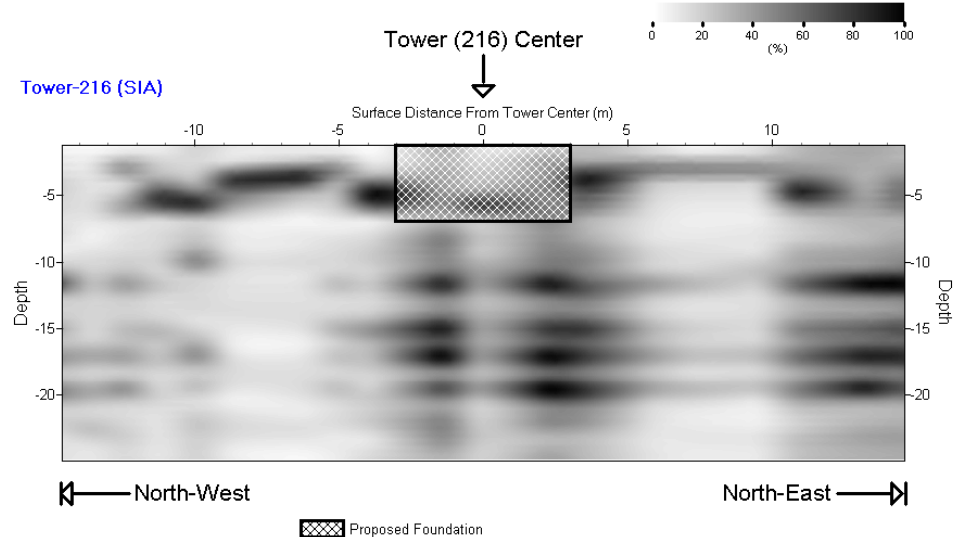
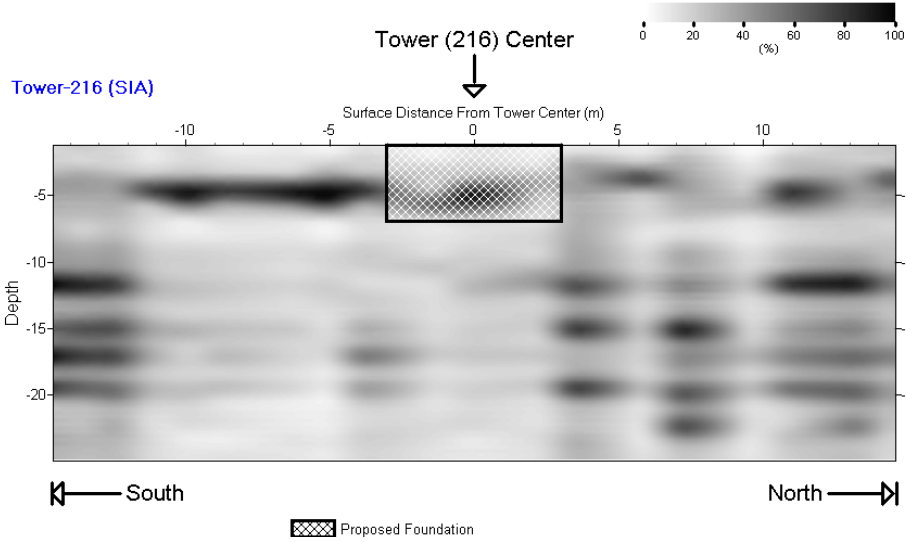
T-214



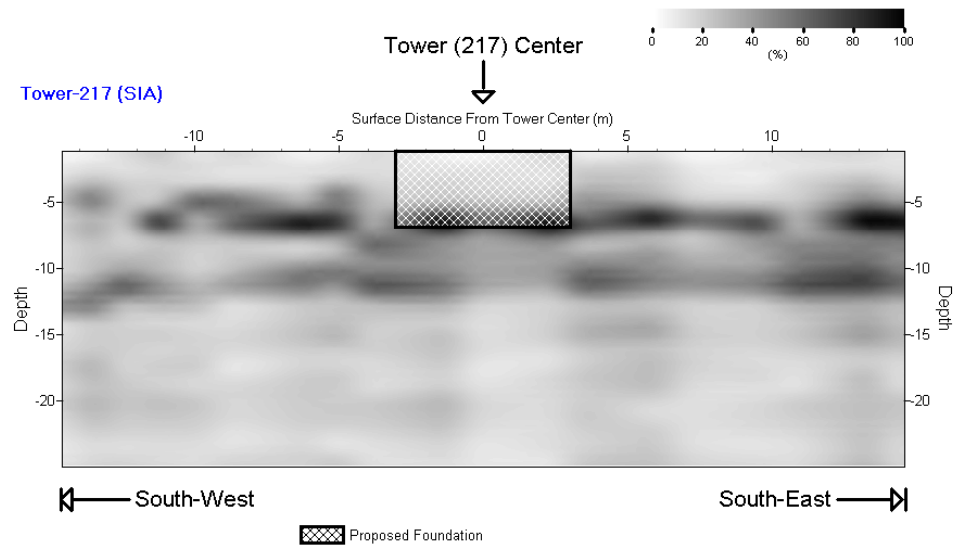
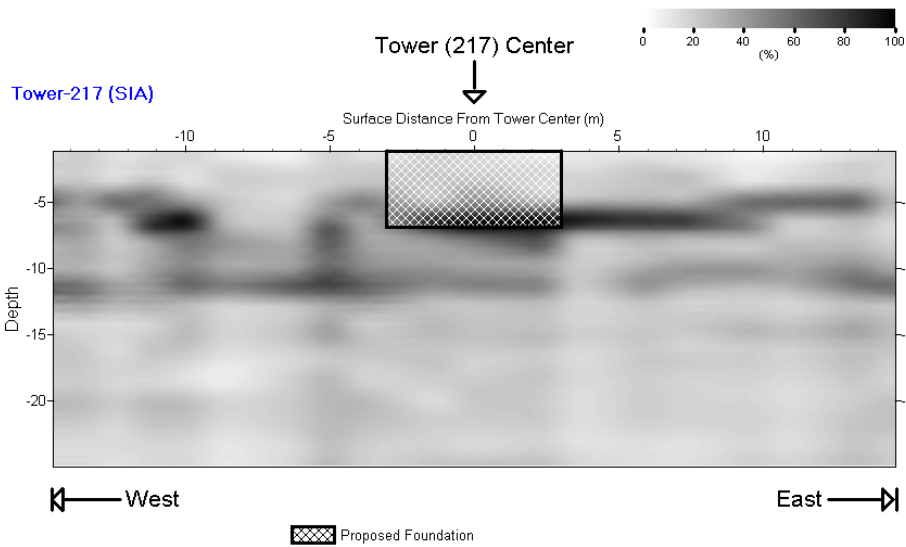
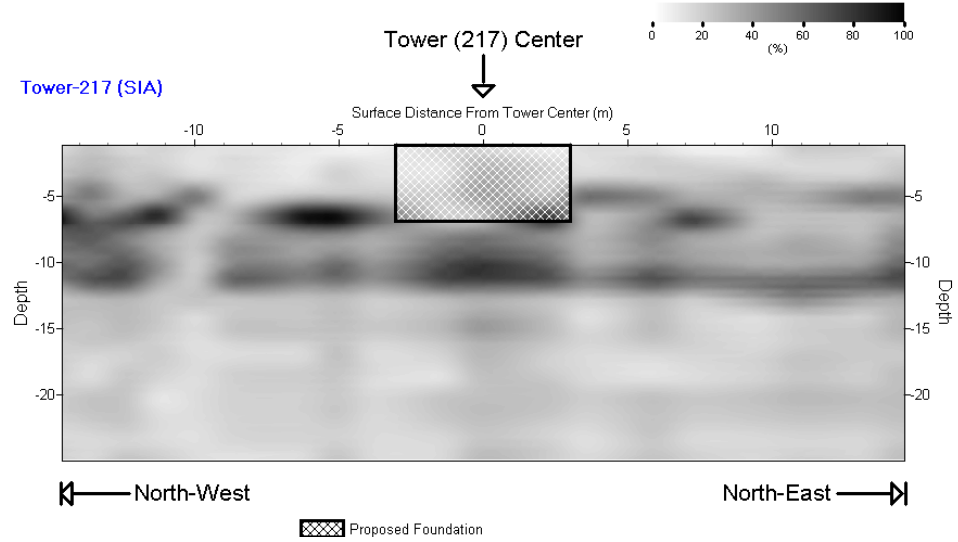
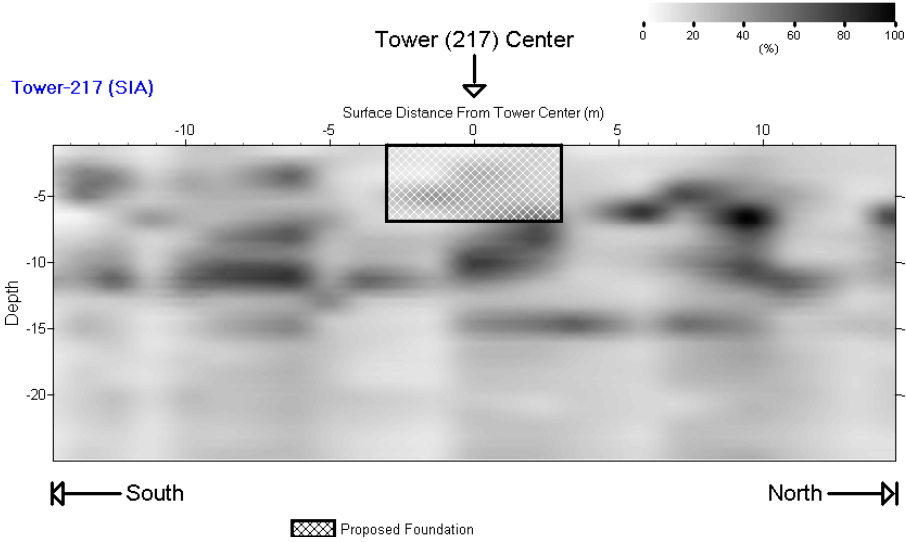
T-215



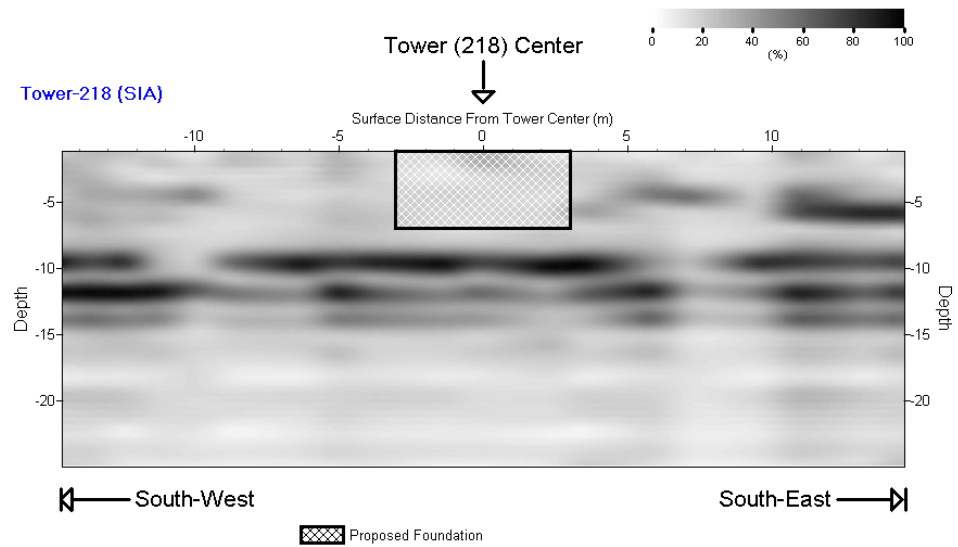
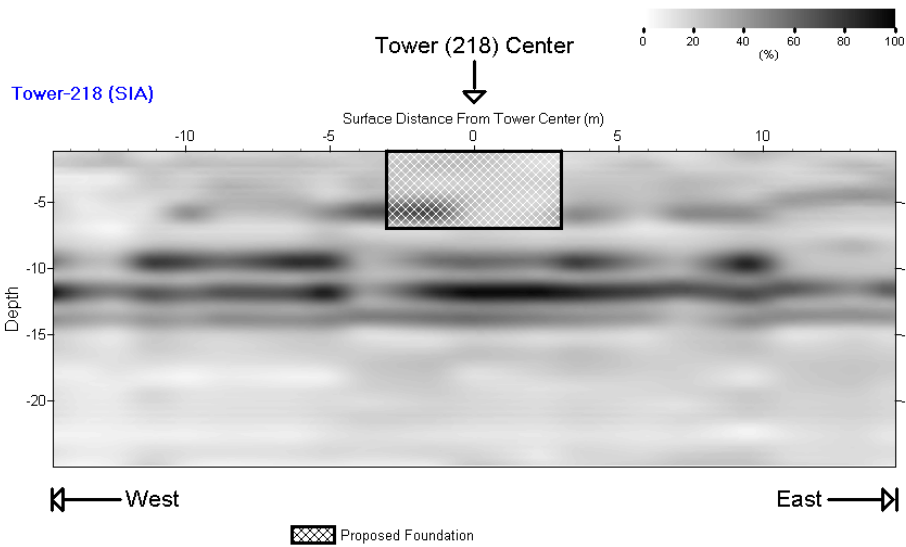
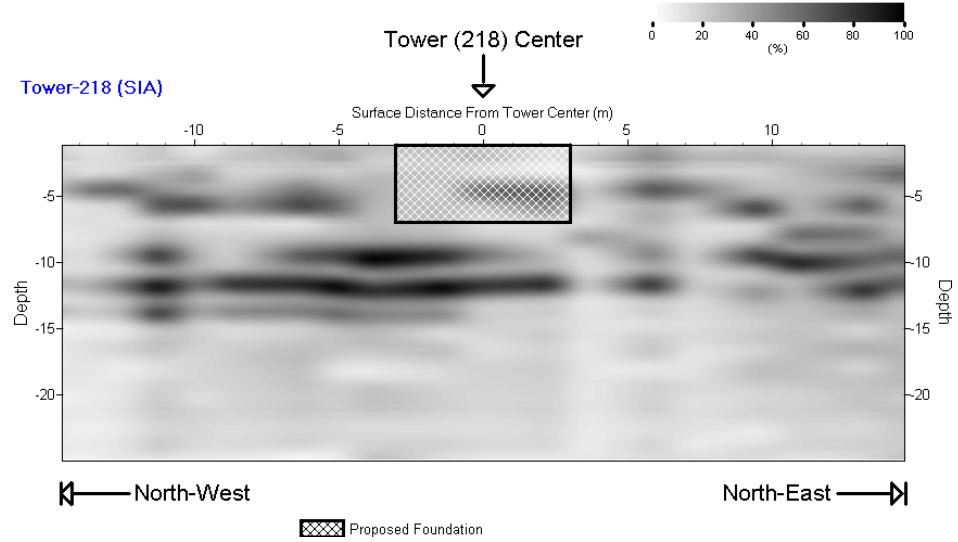
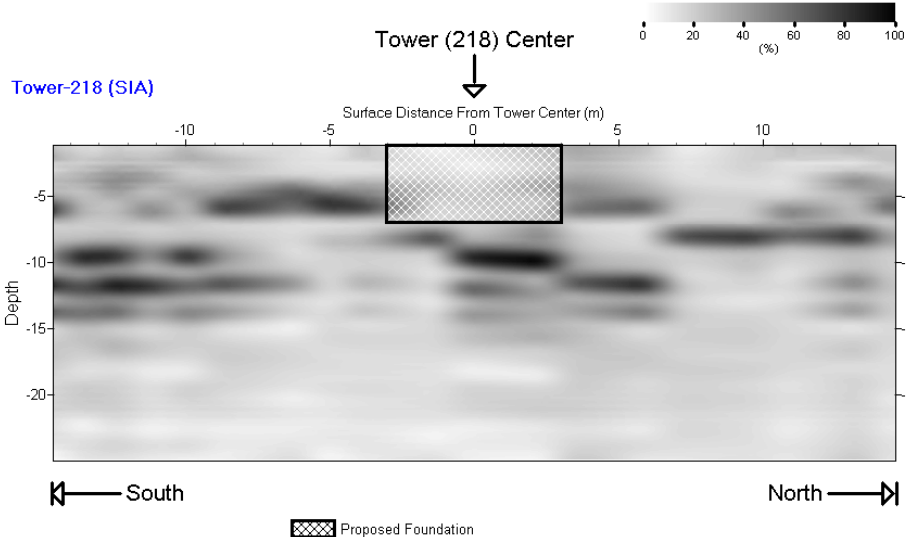
T-216



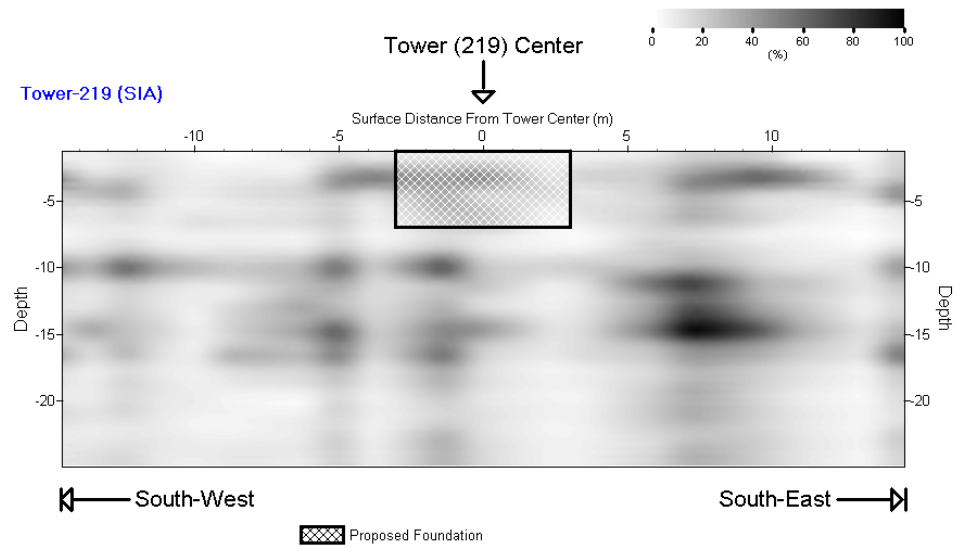
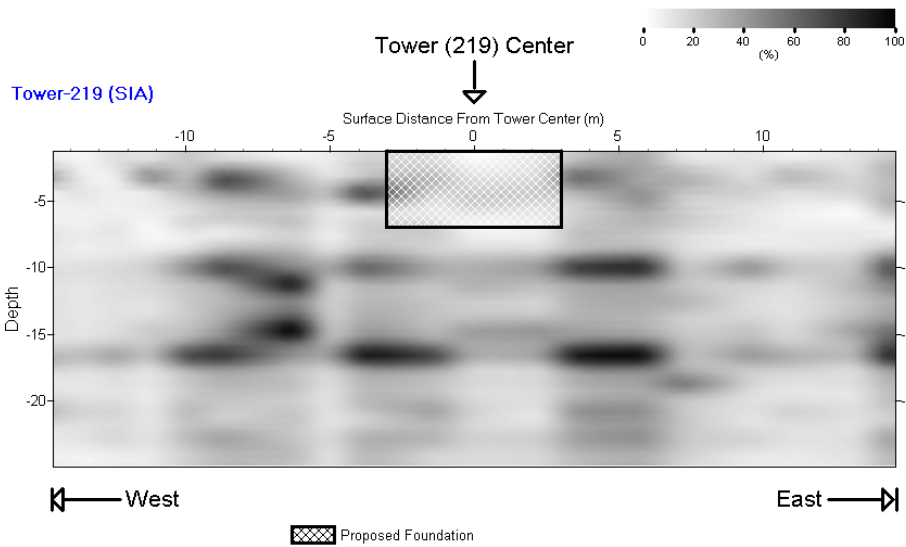
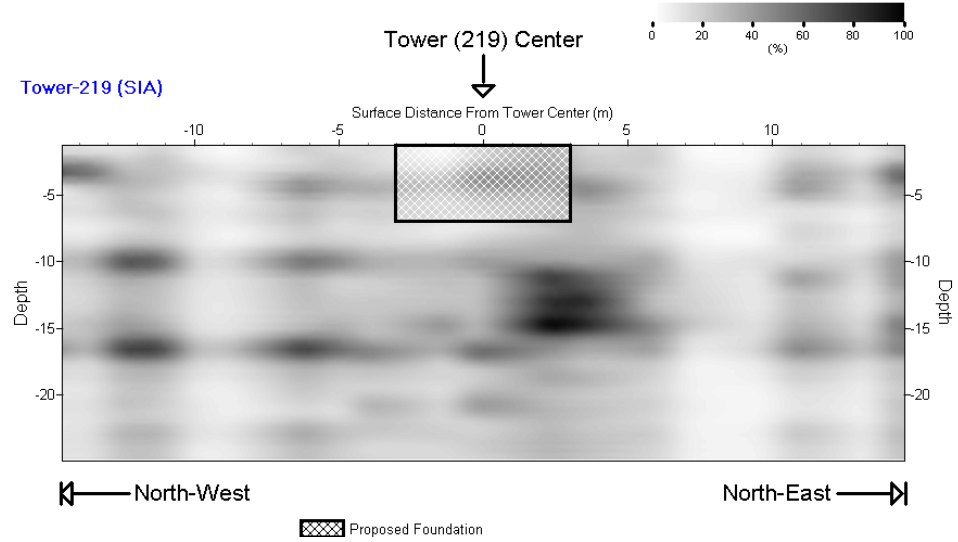
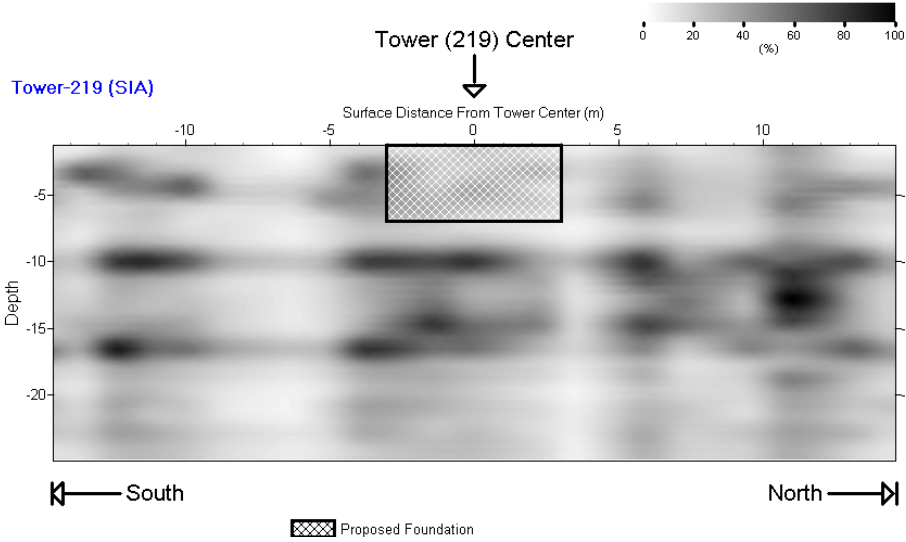
T-217



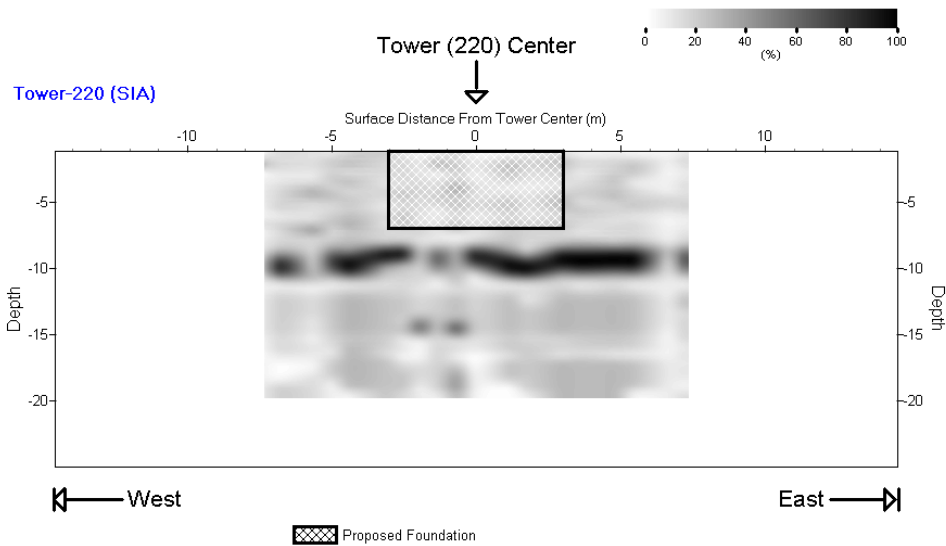
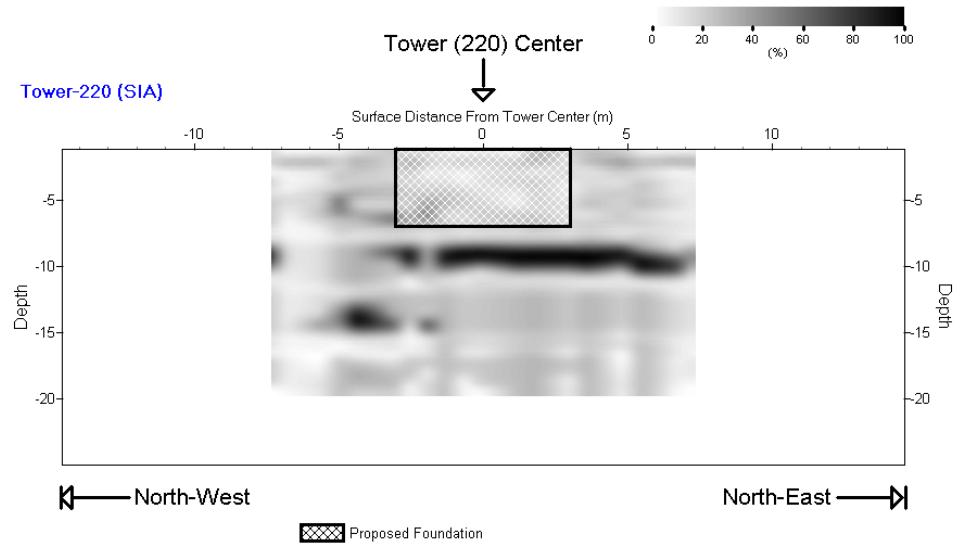
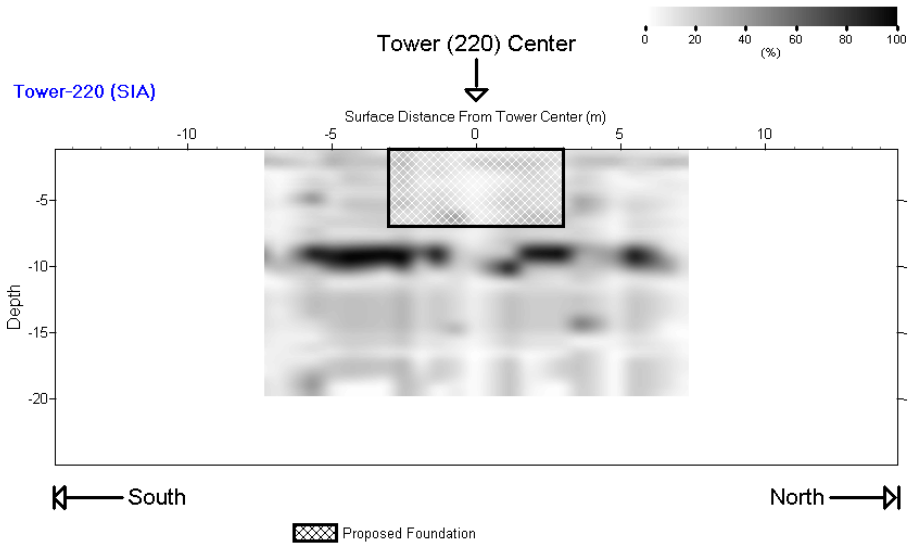
T-218



T-219

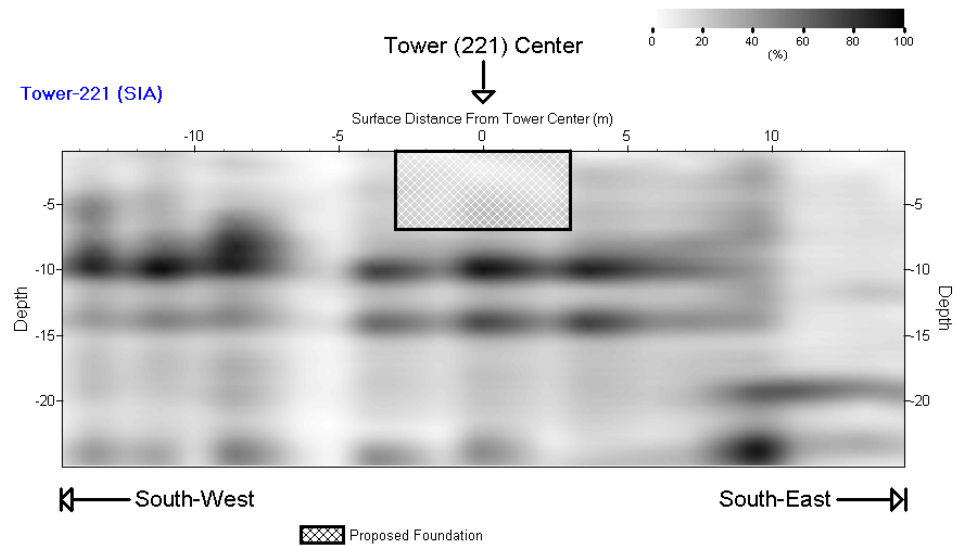
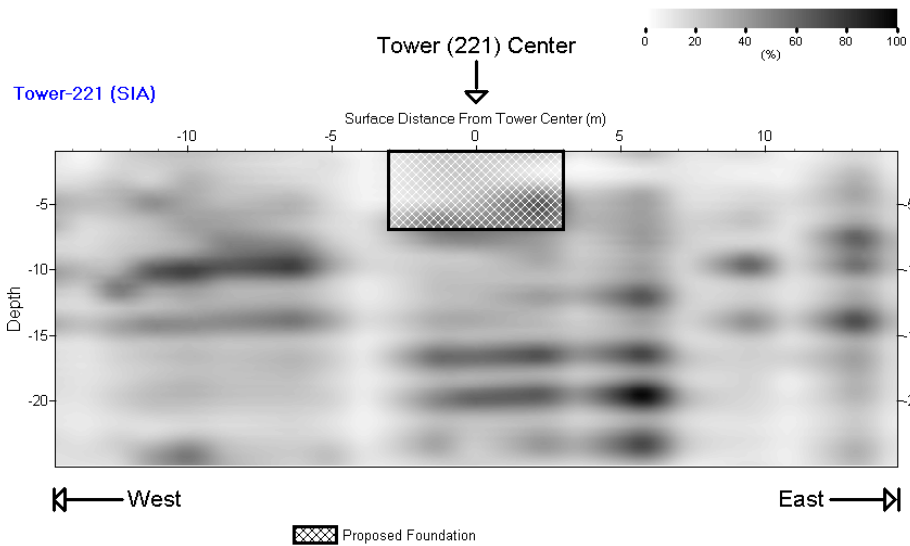
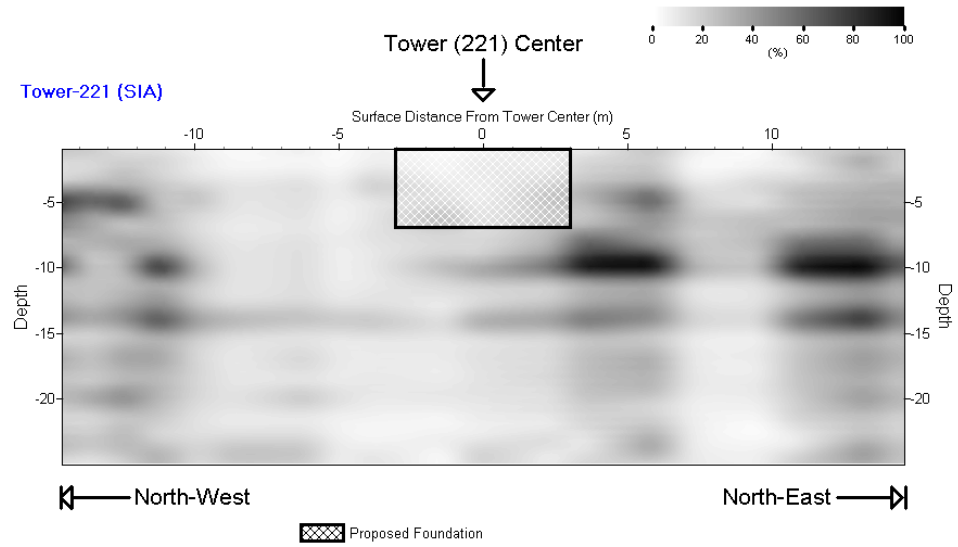
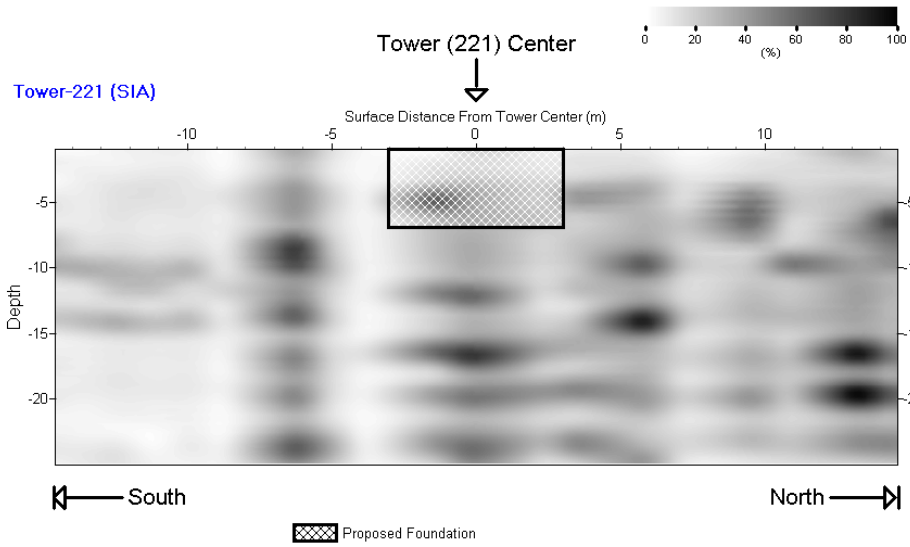


T-220**

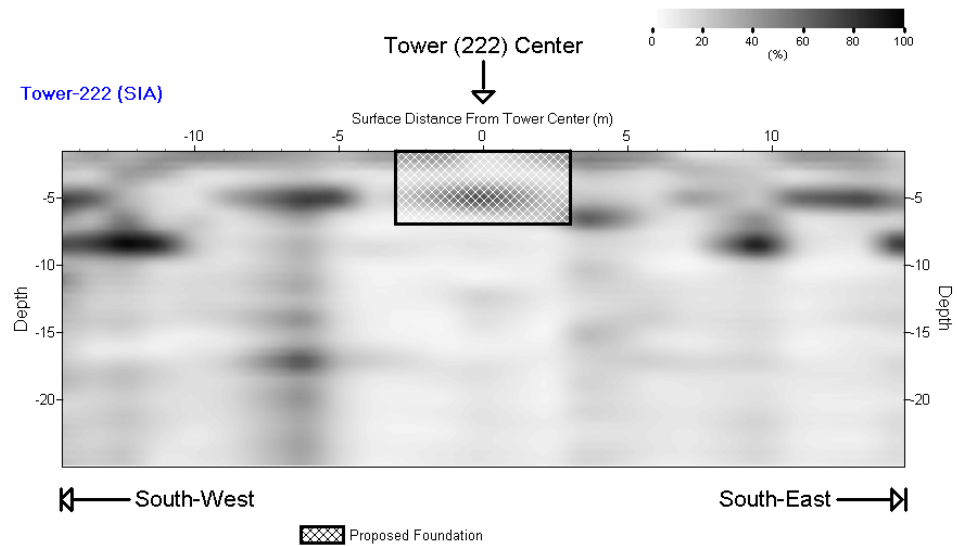
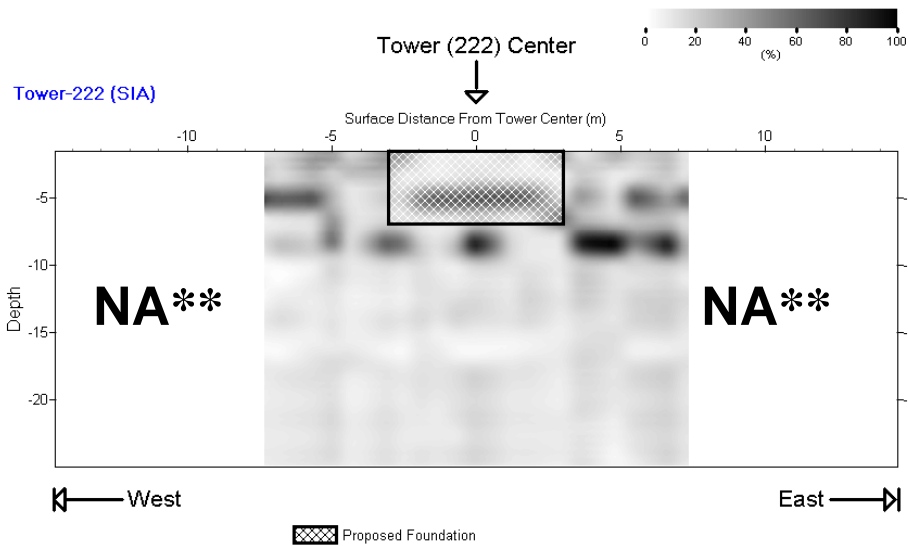
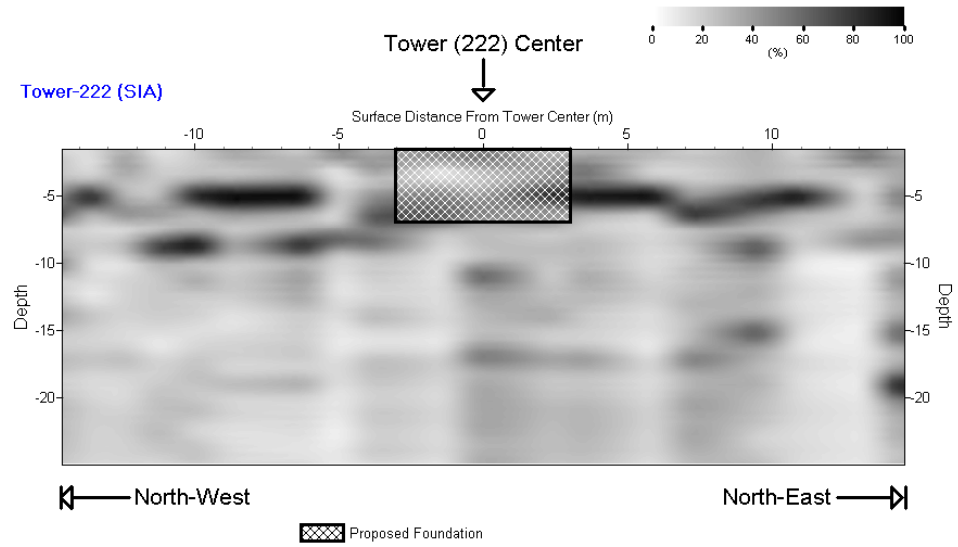
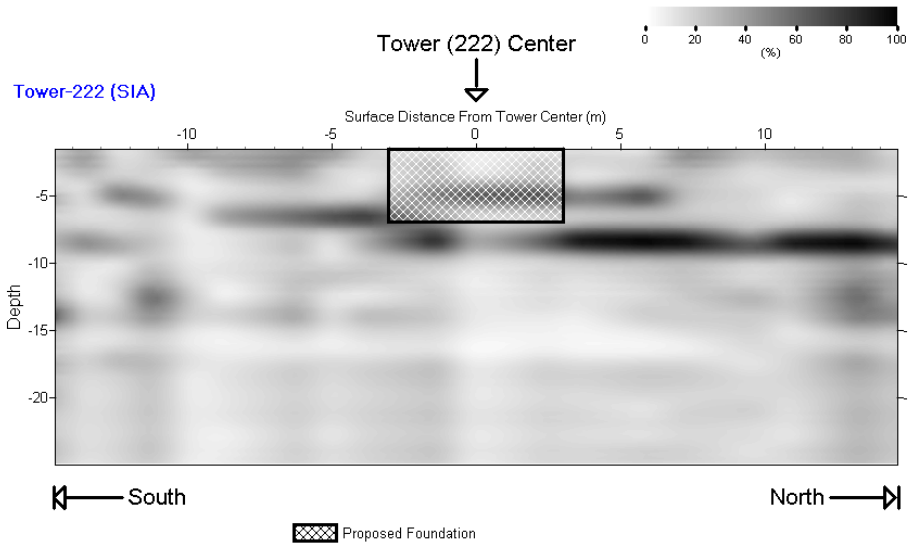


**A shorter receiver spacing of 2 ft was used and line 4 was not acquired due to terrain condition (steep drop off).

T-221

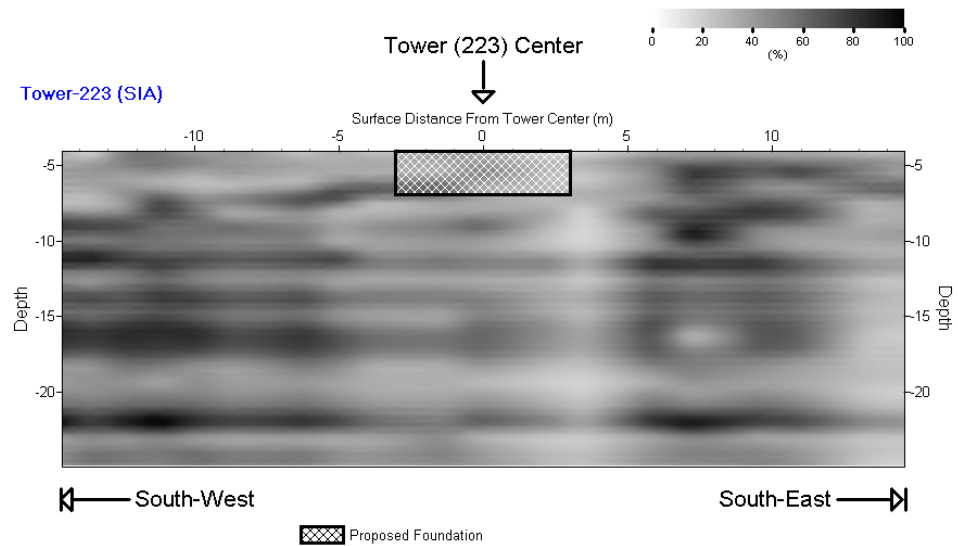
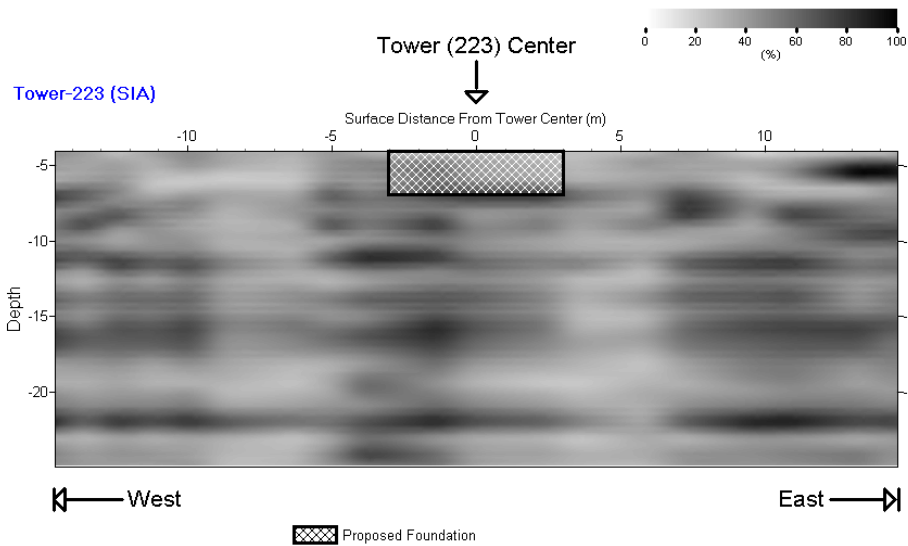
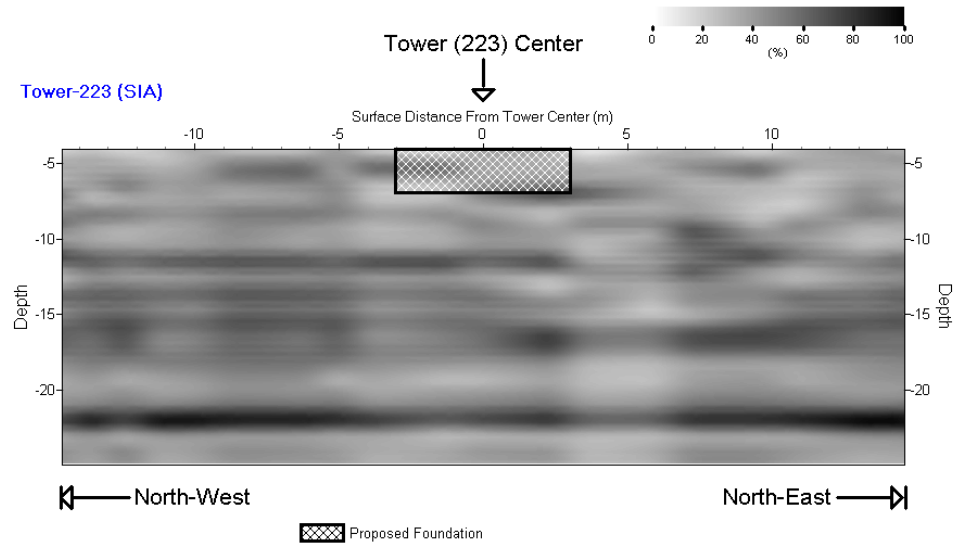
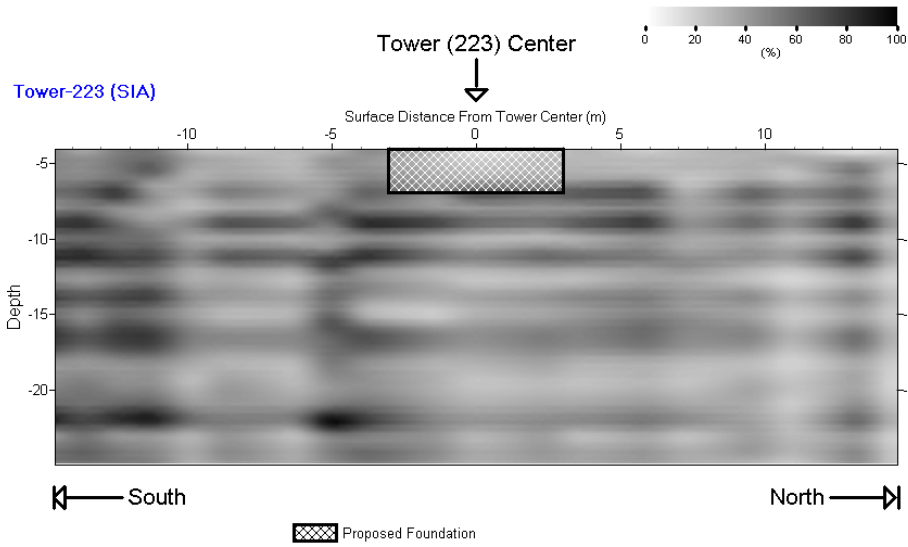


T-222

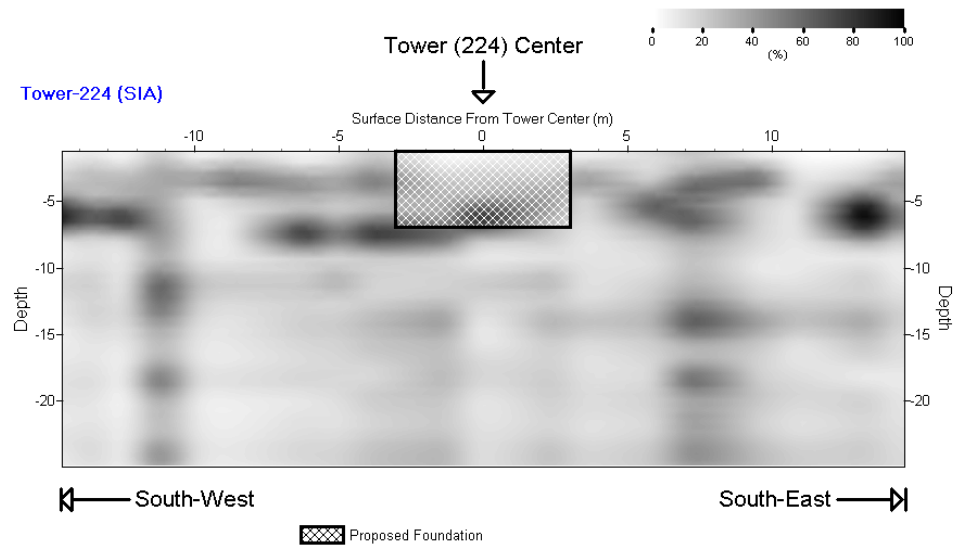
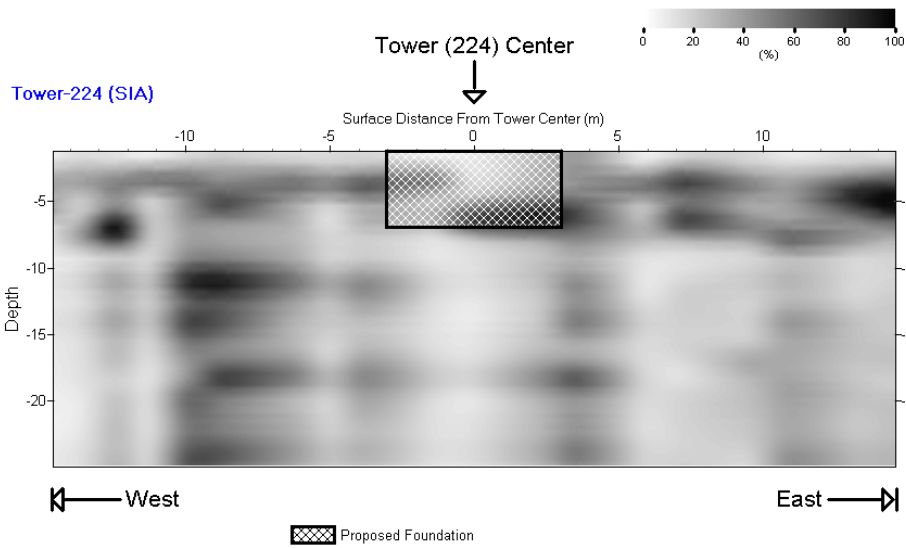
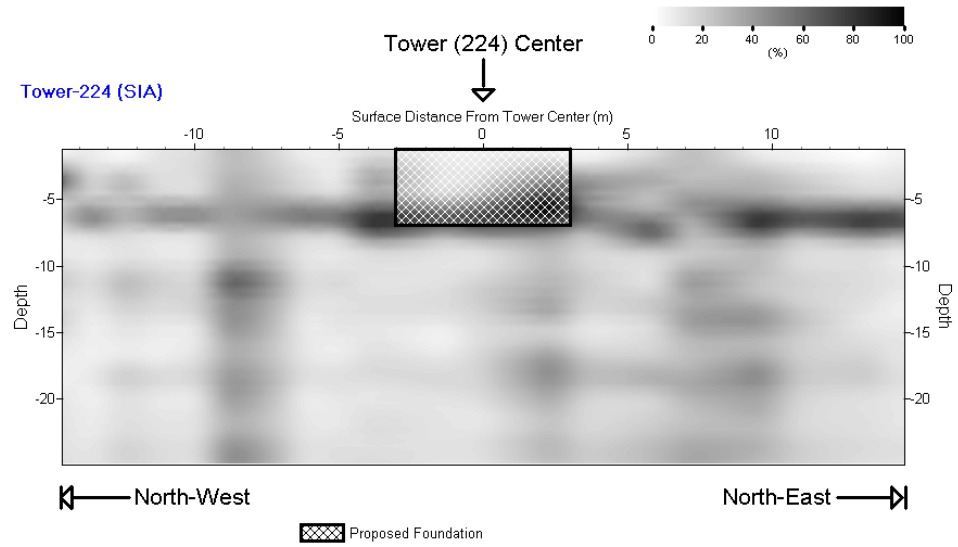
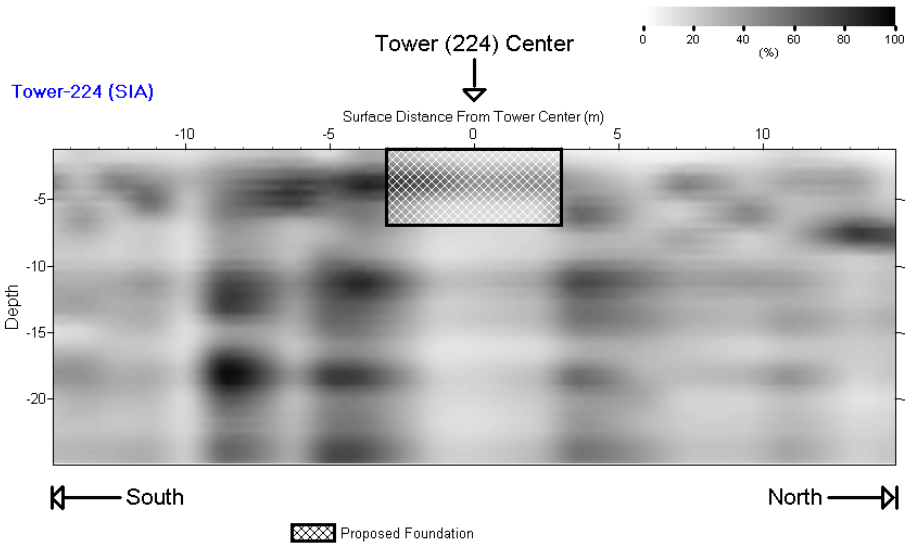


**A shorter receiver spacing of 2 ft was used due to terrain condition (steep drop off).

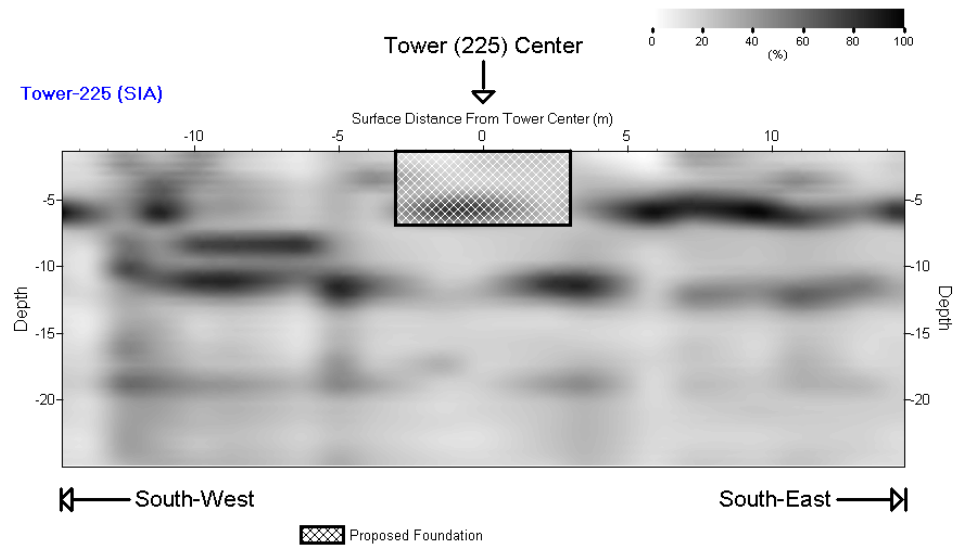
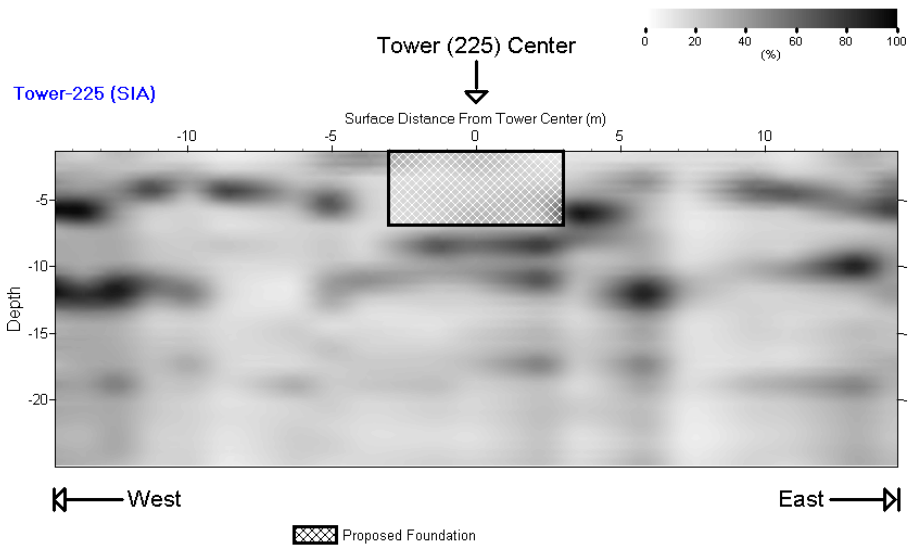
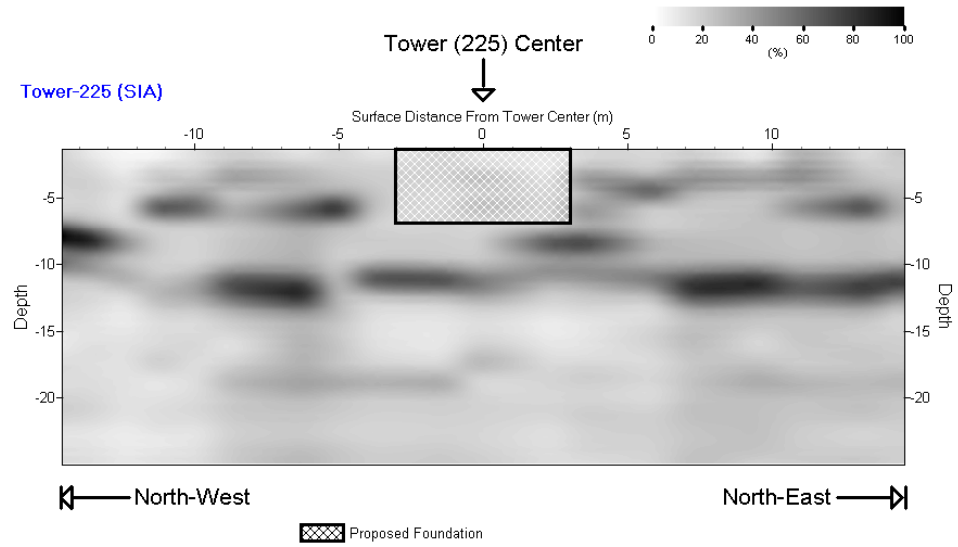
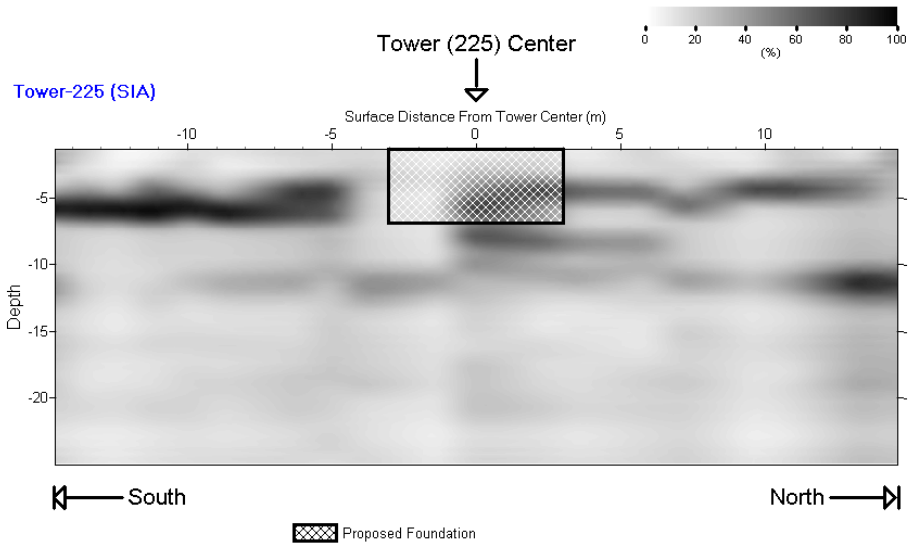
T-223



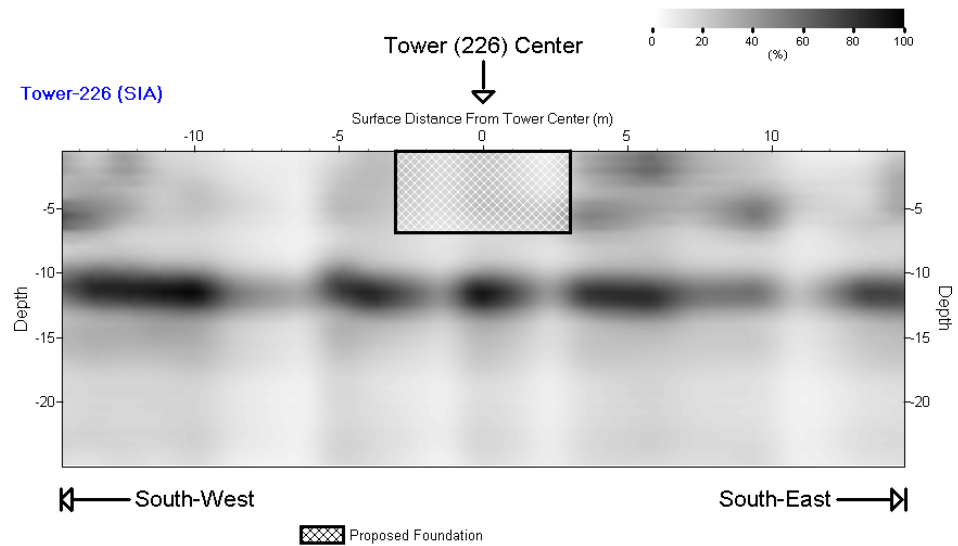
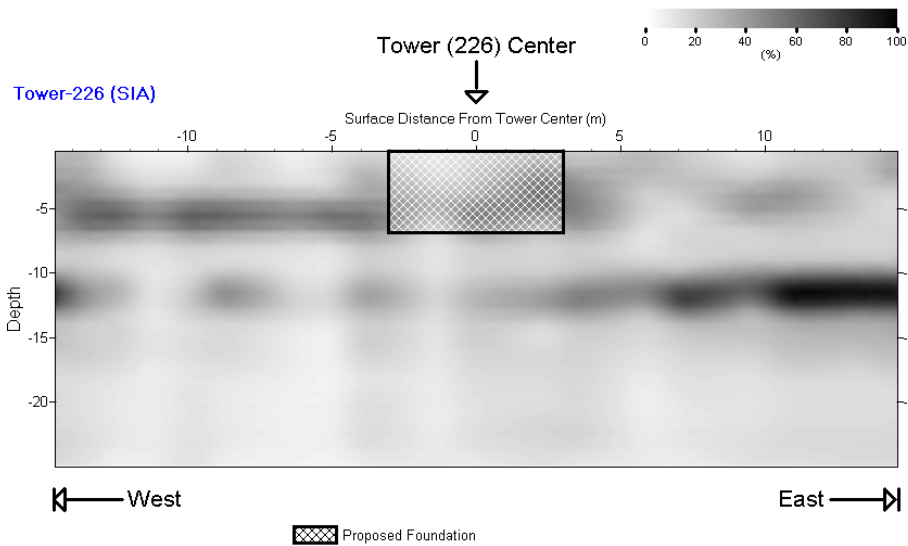
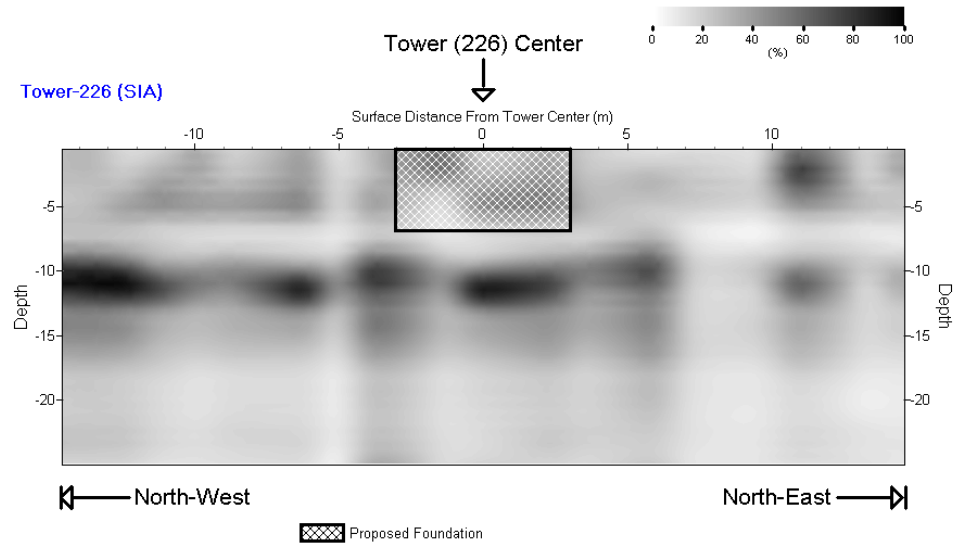
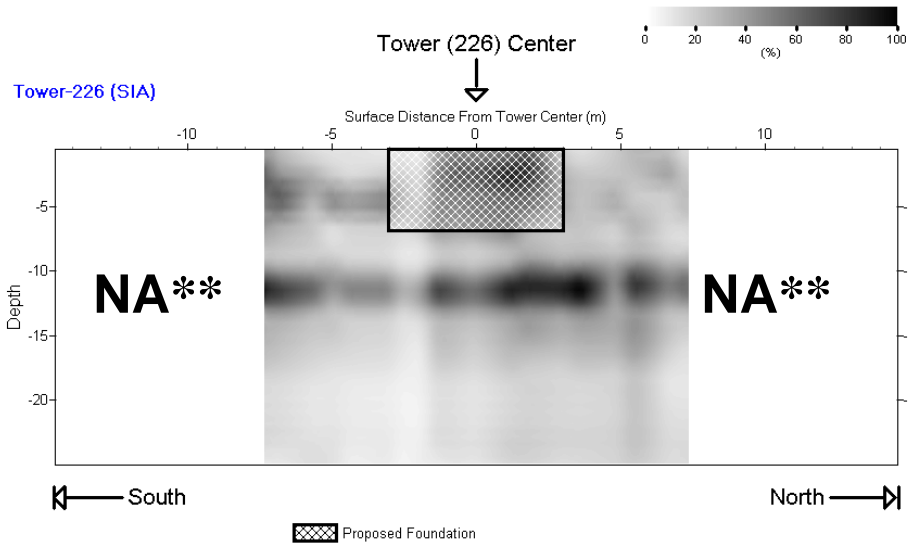
T-224



T-225

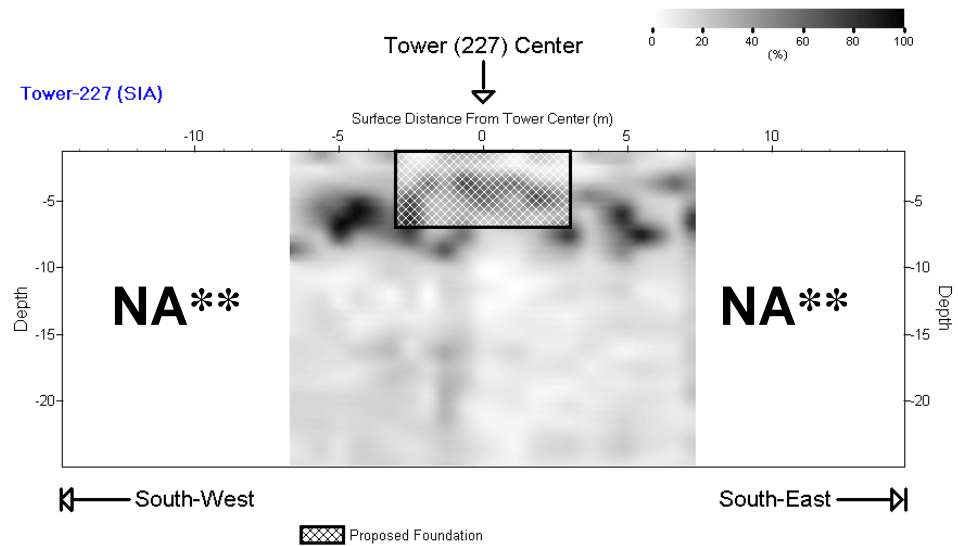
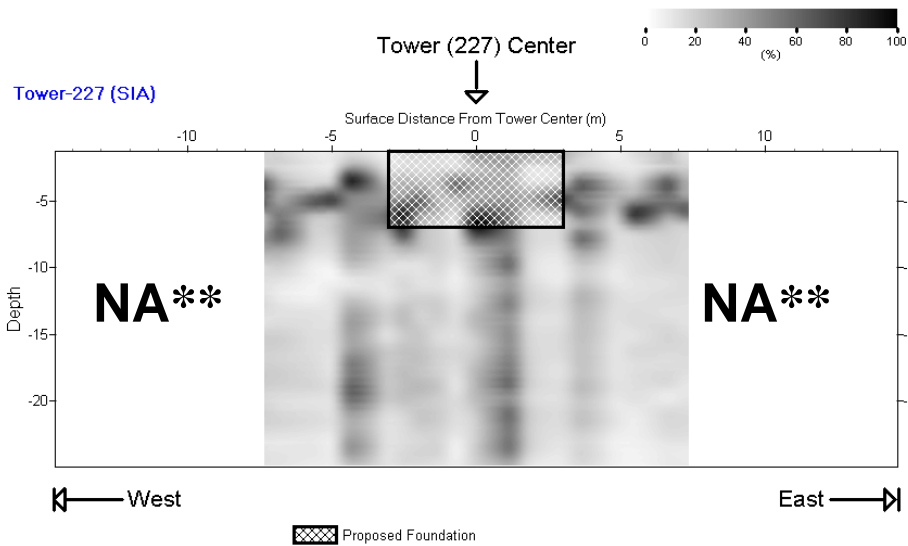
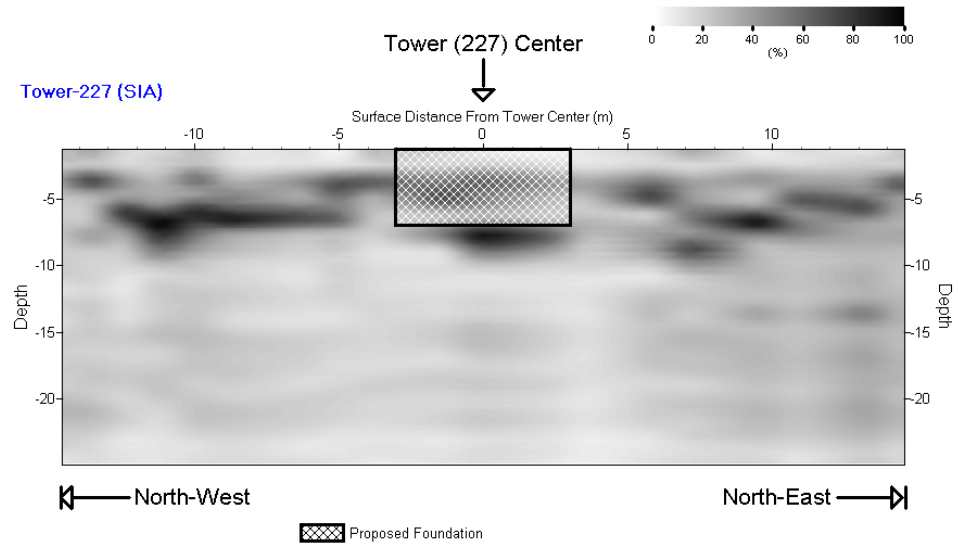
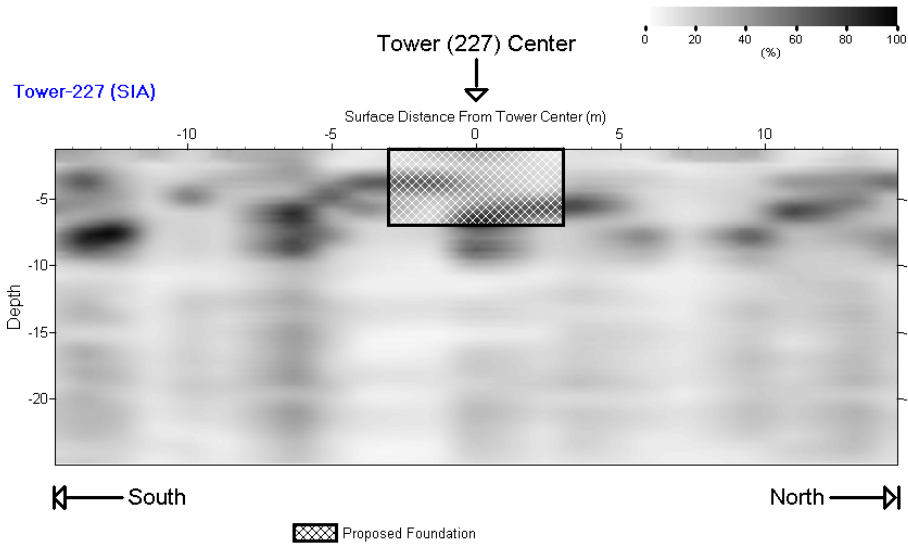


T-226



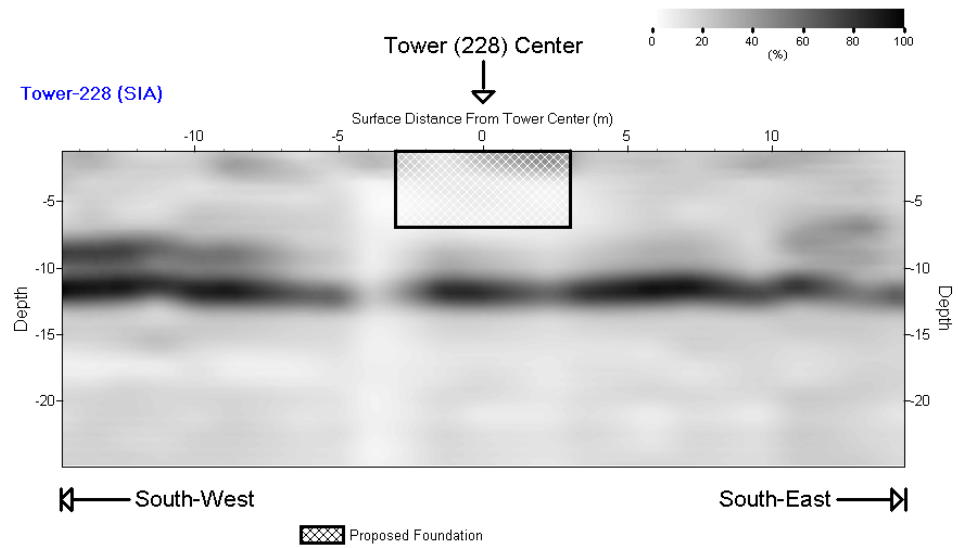
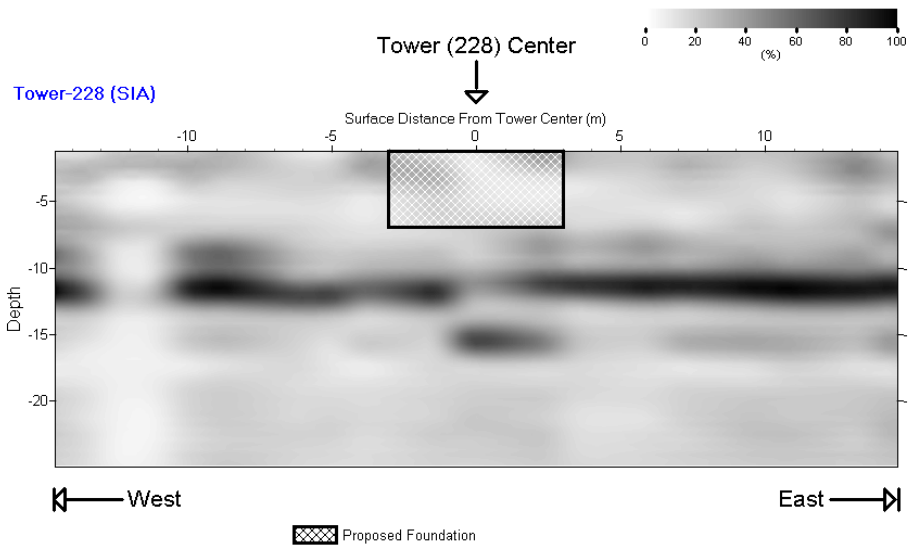
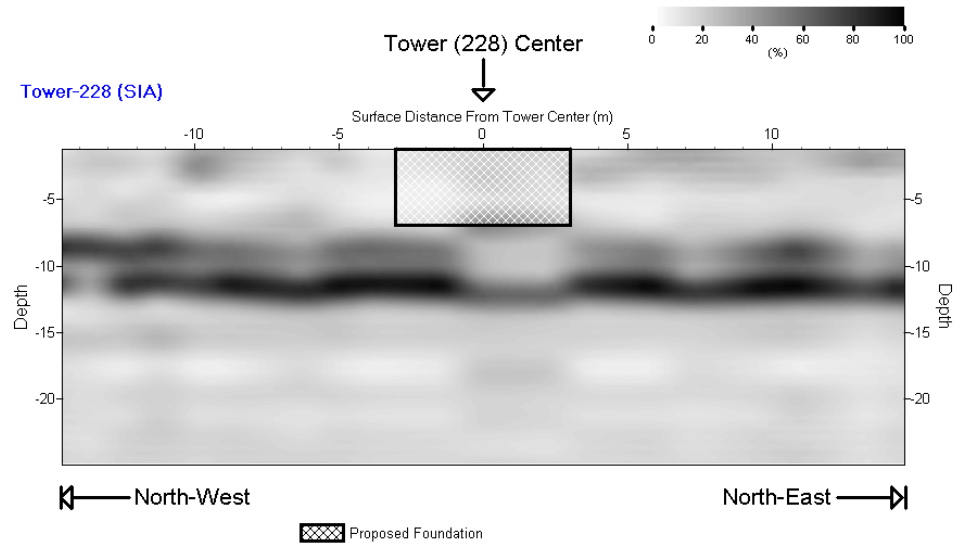
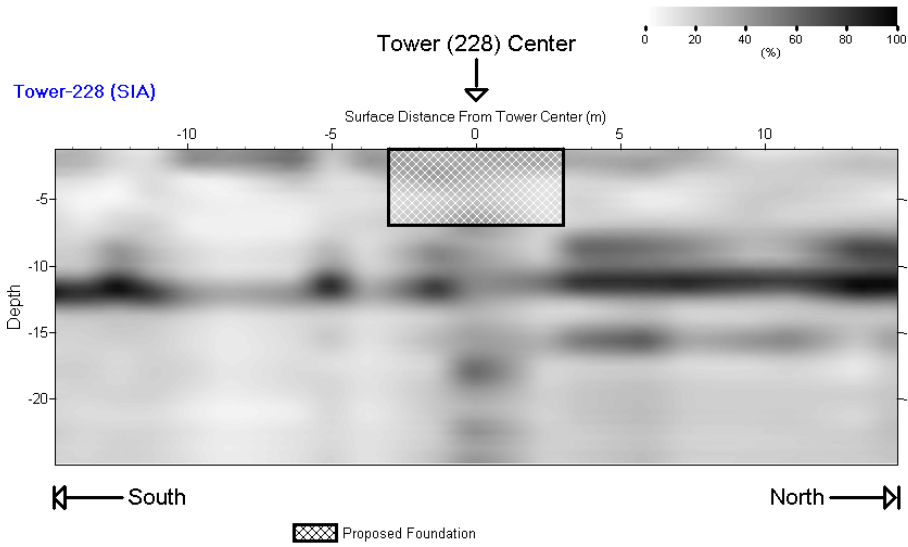
**A shorter receiver spacing of 2 ft was used due to terrain condition (steep drop off).

T-227

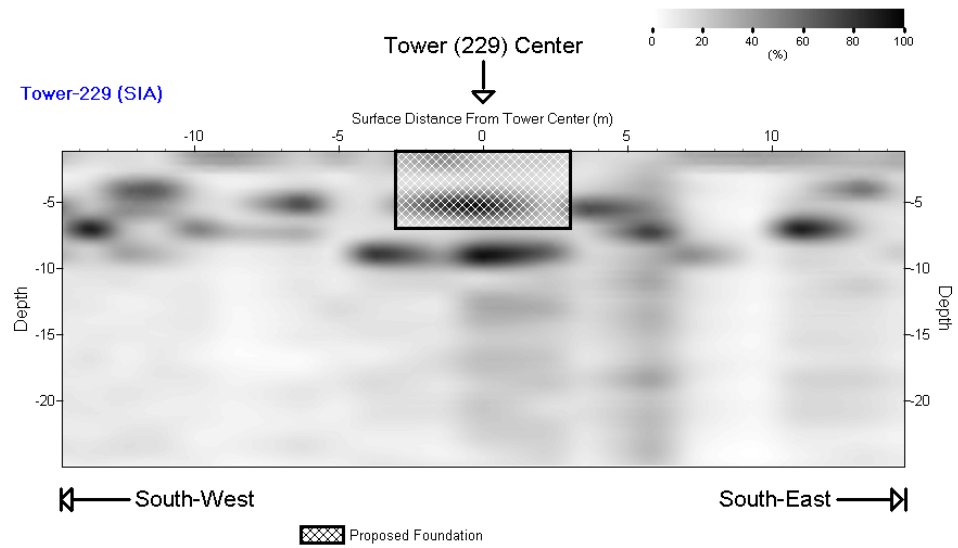
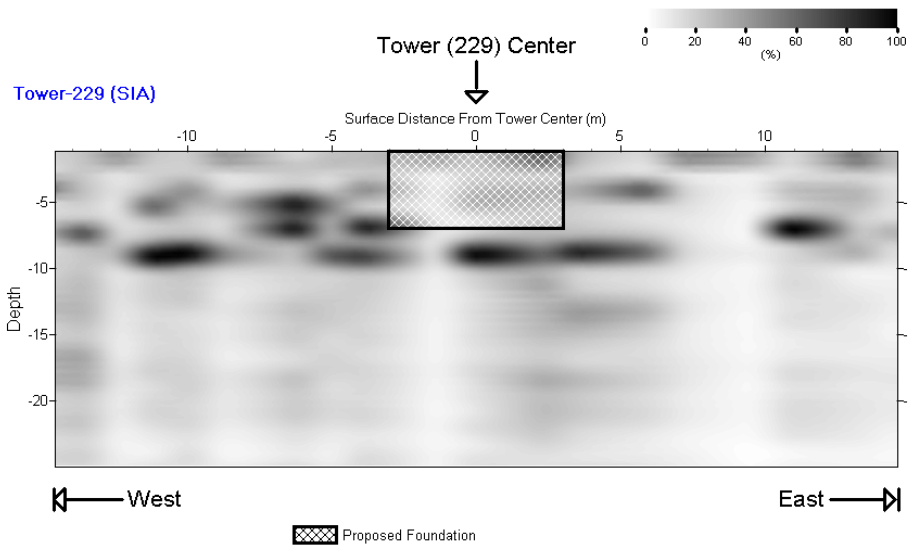
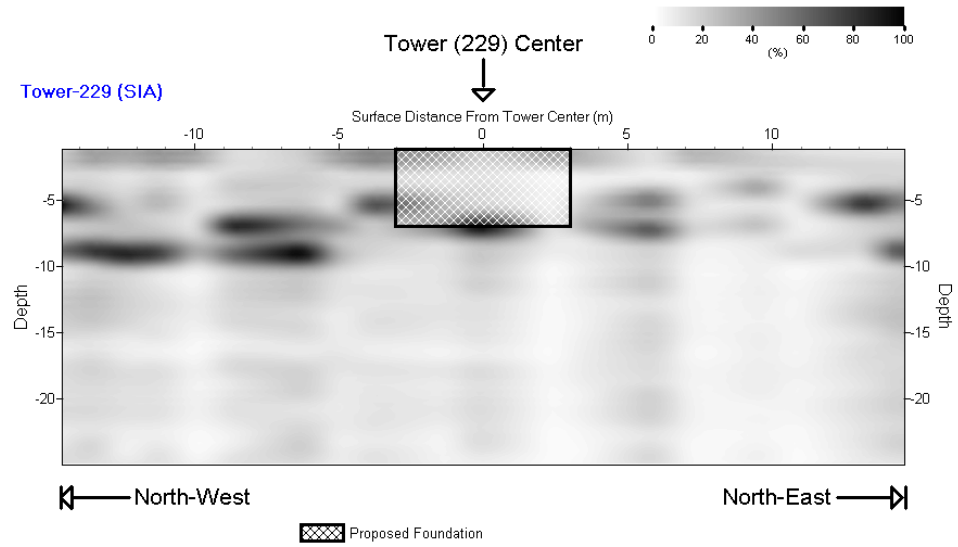
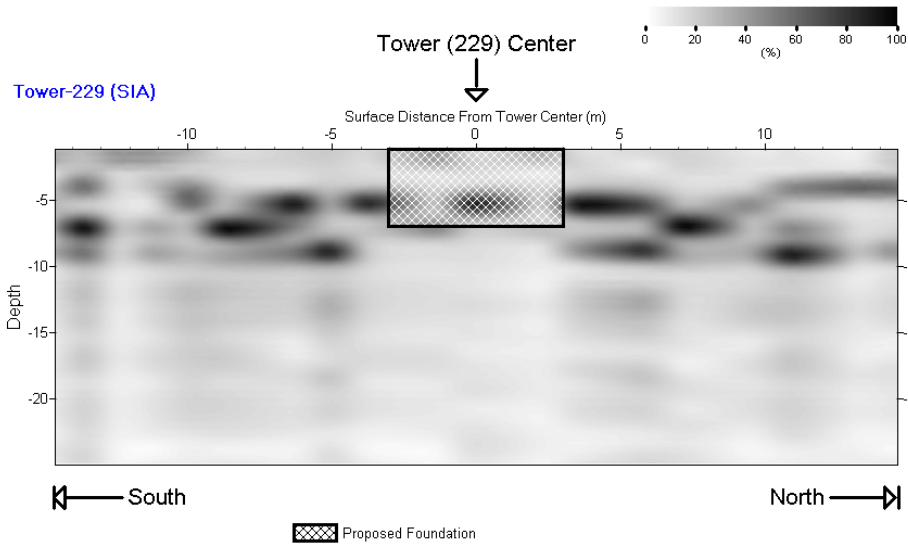


**A shorter receiver spacing of 2 ft was used due to terrain condition (steep drop off).

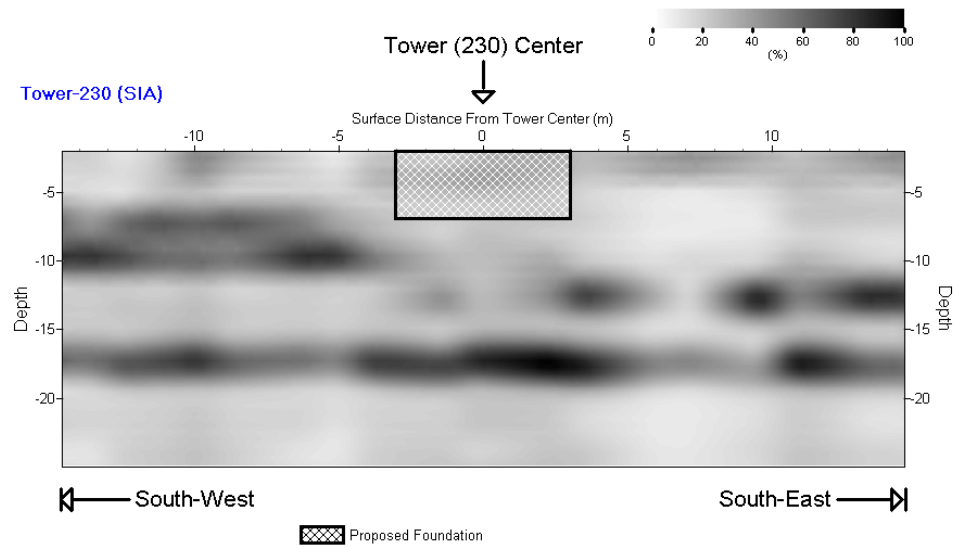
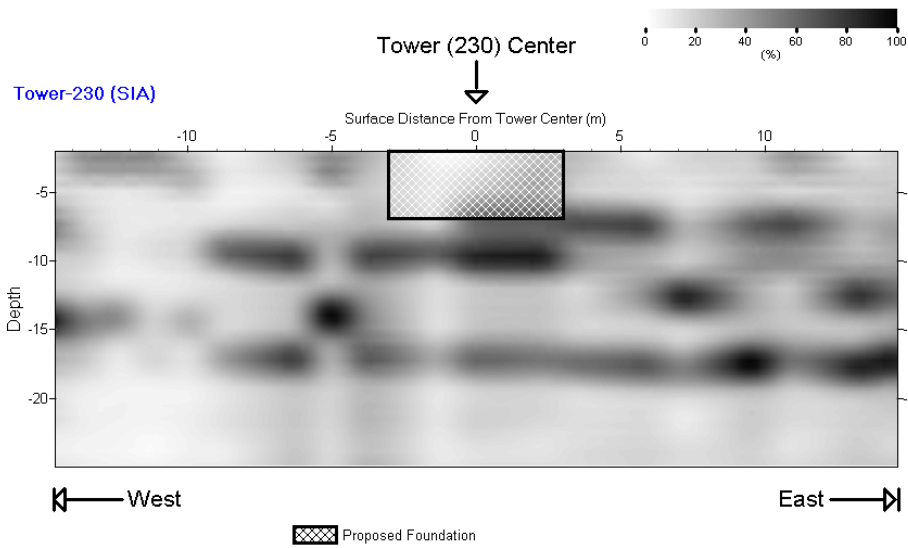
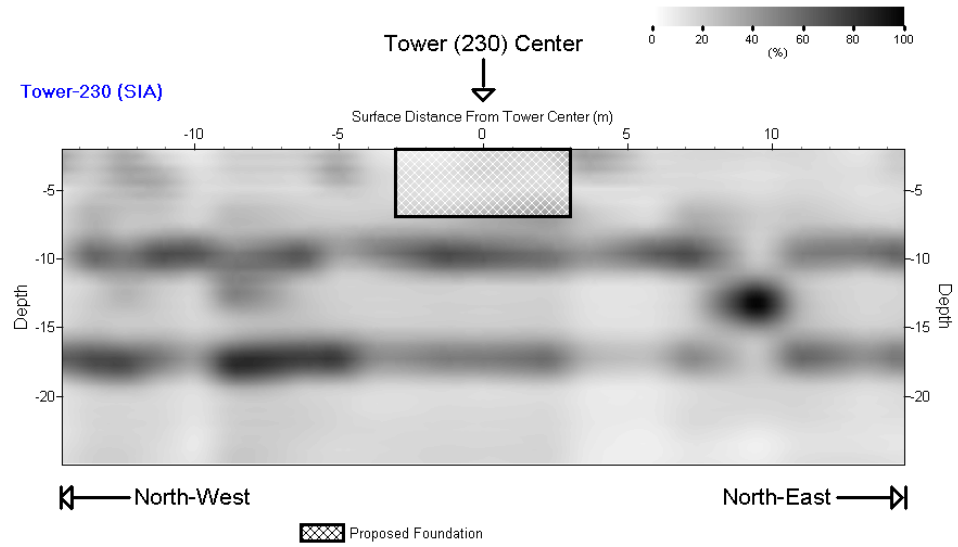
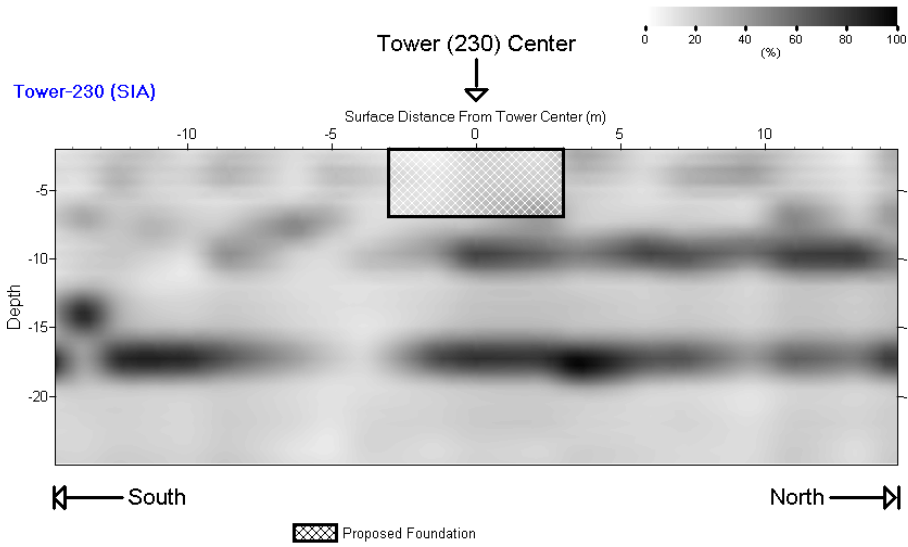
T-228



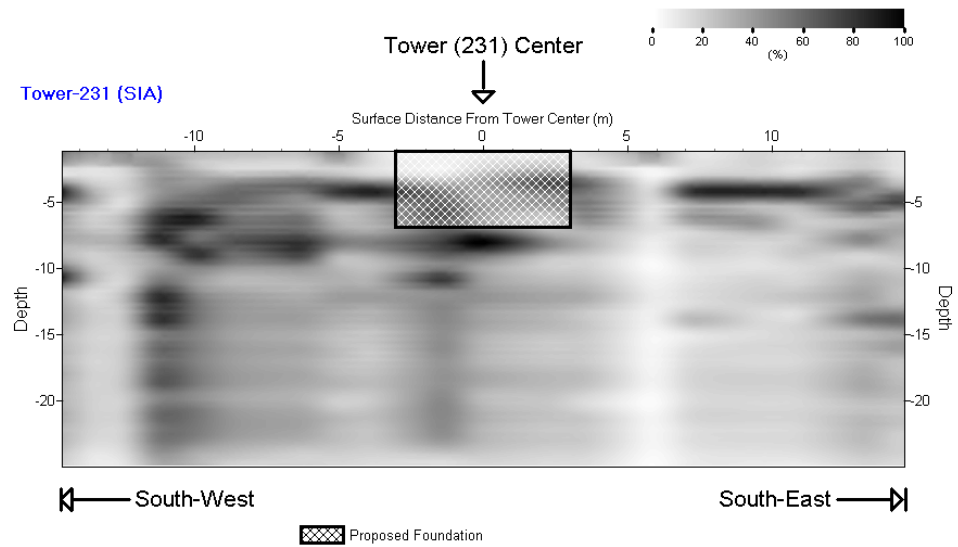
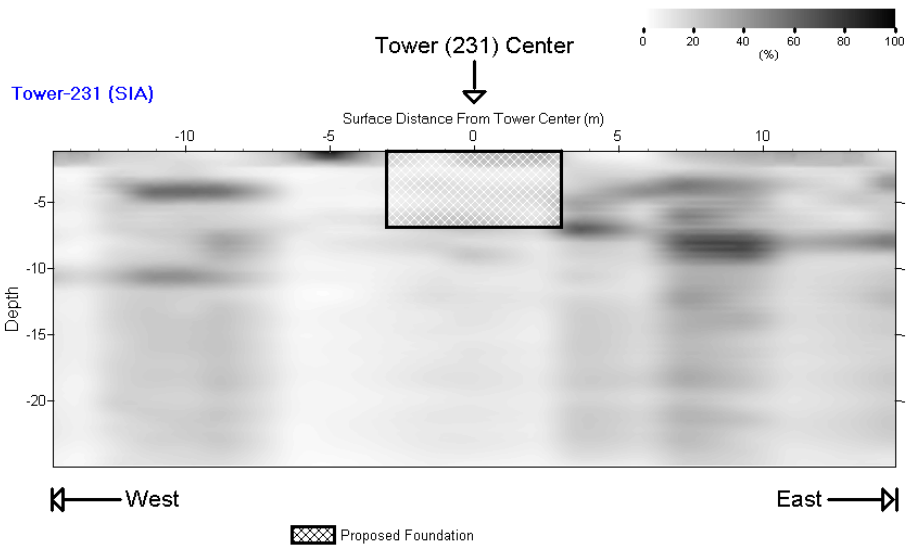
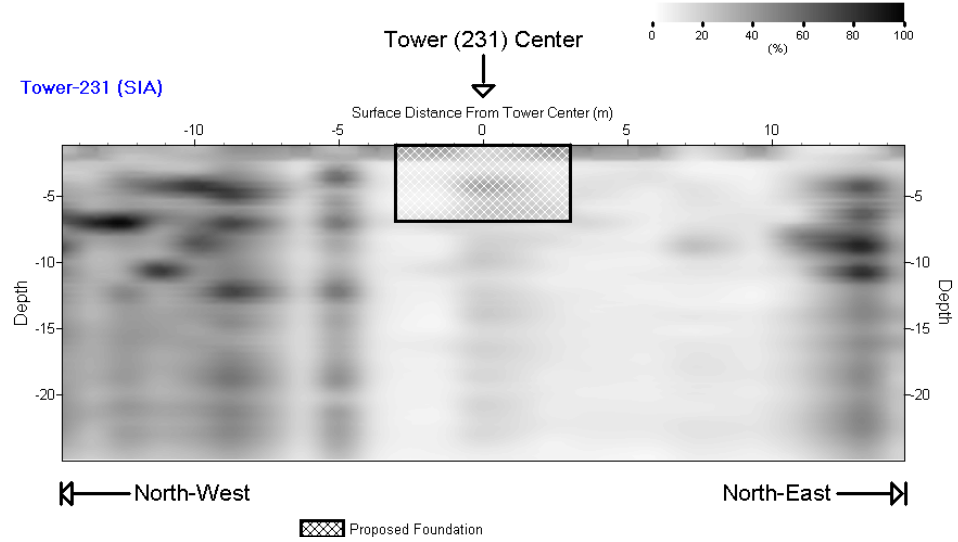
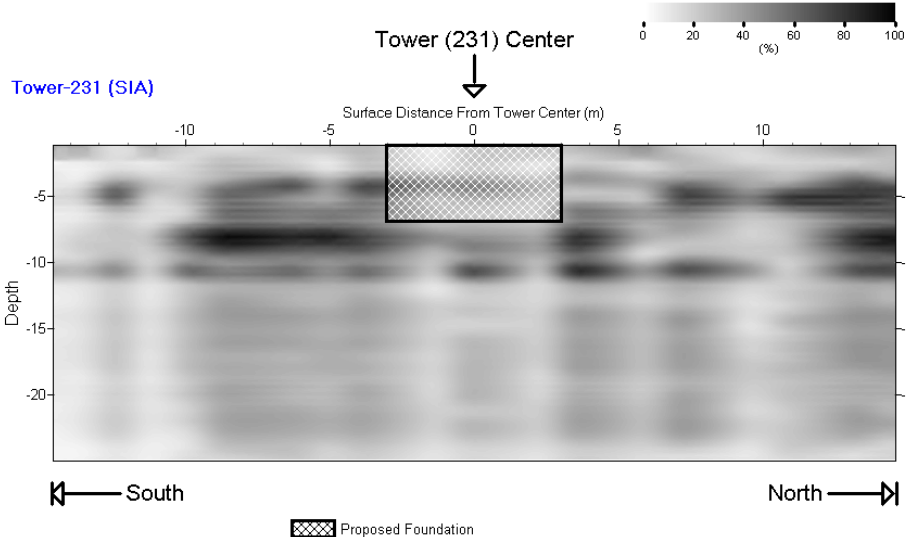
T-229



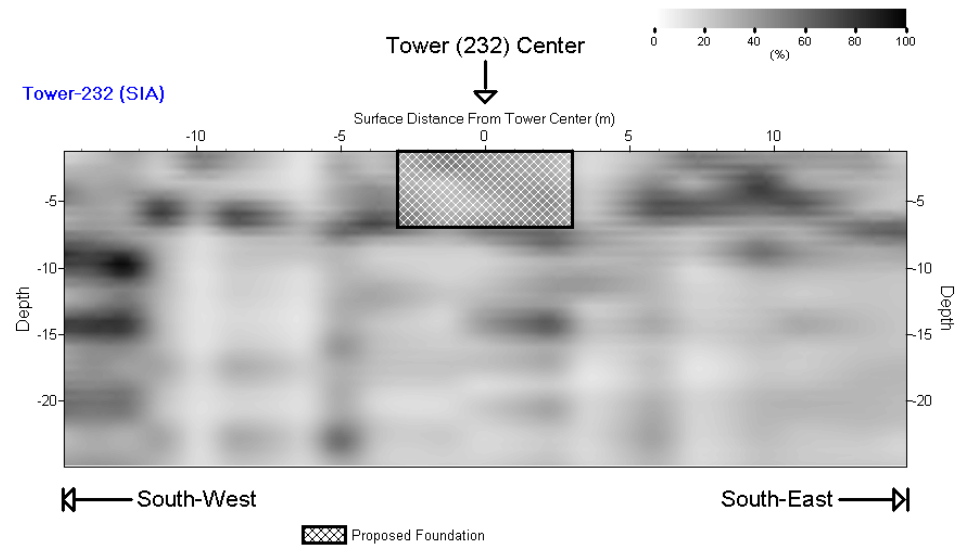
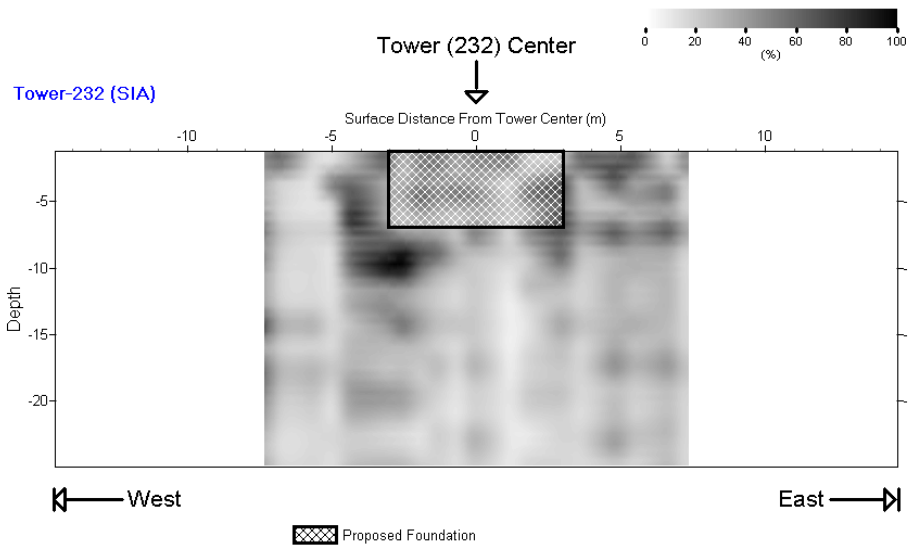
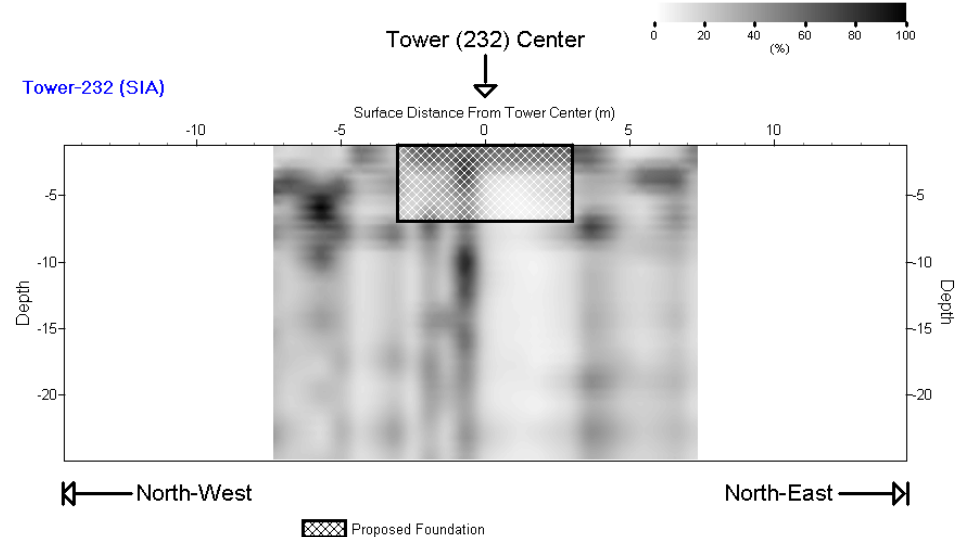
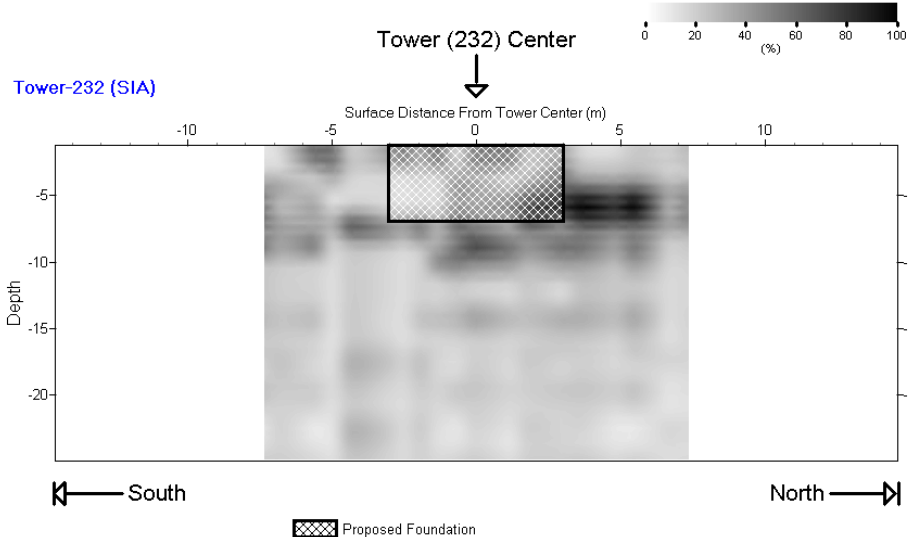
T-230



T-231

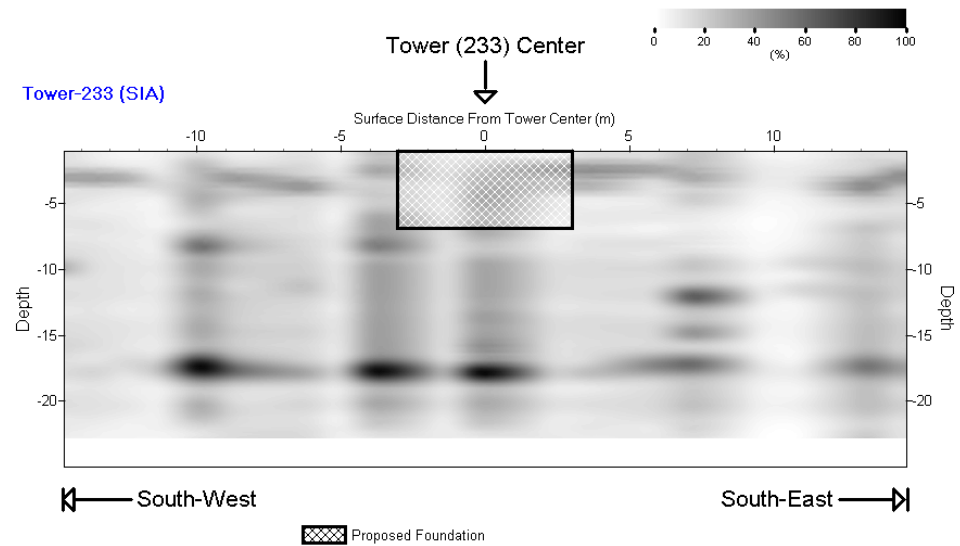
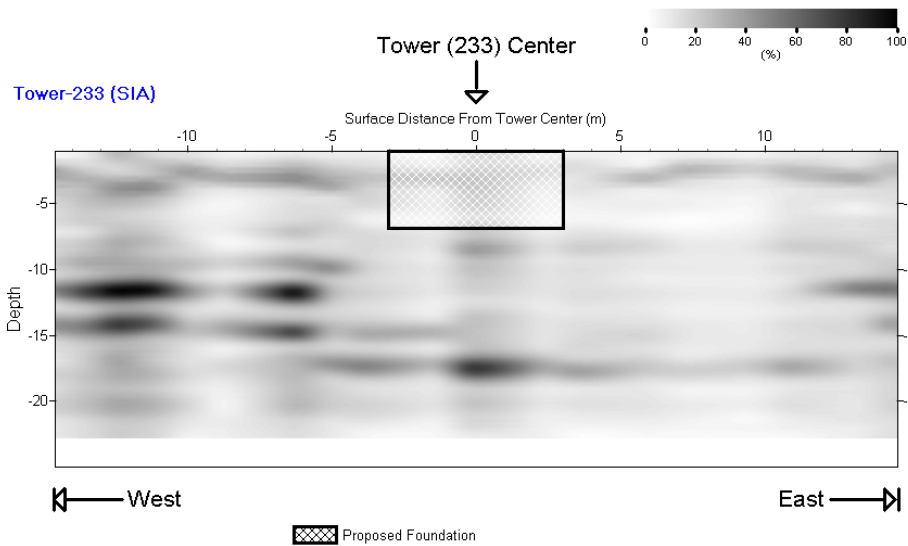
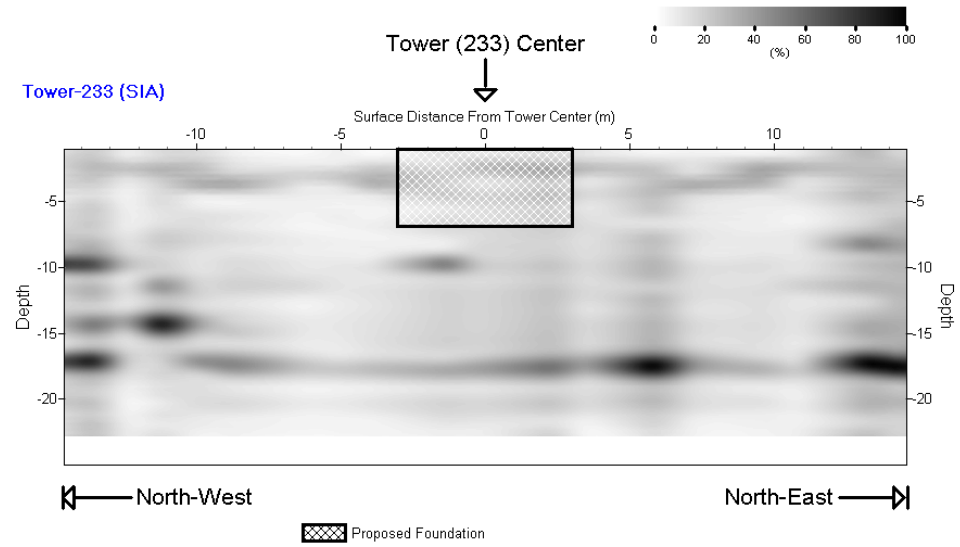
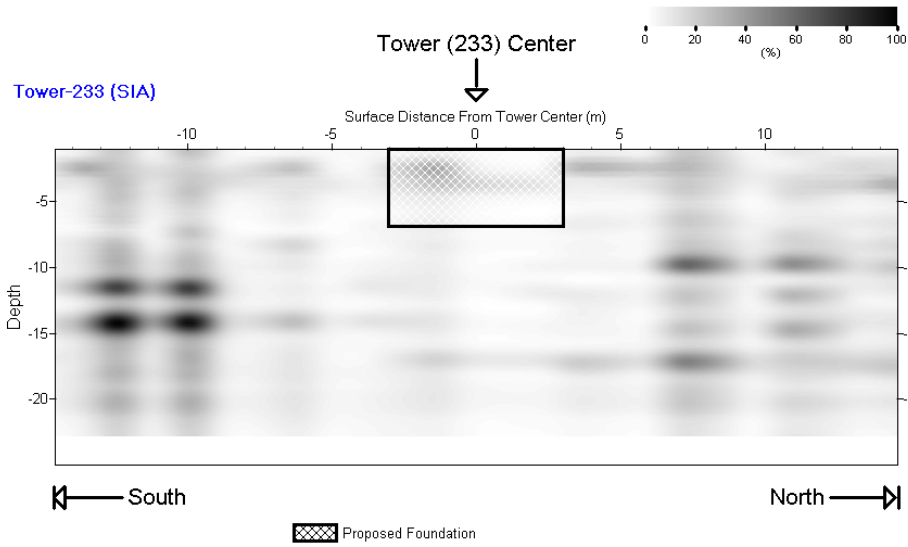


T-232**

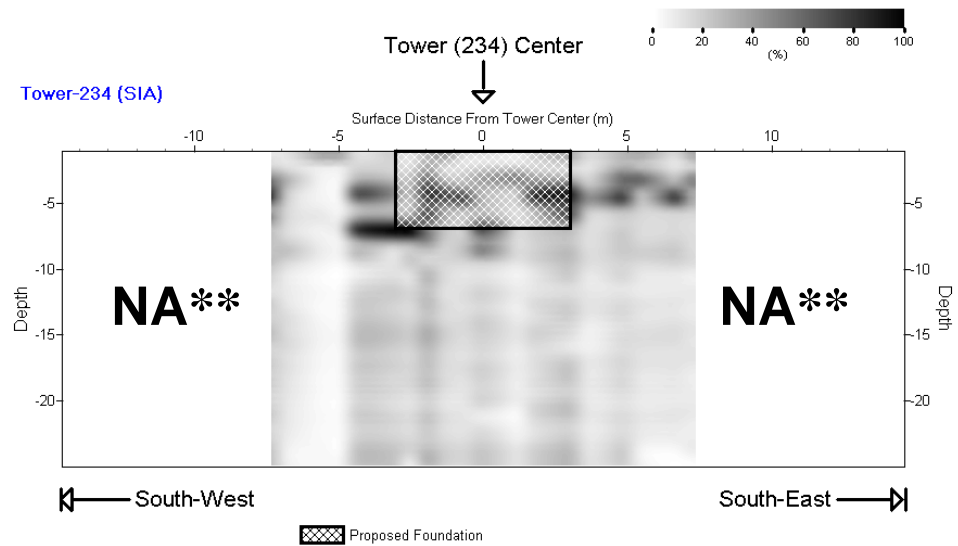
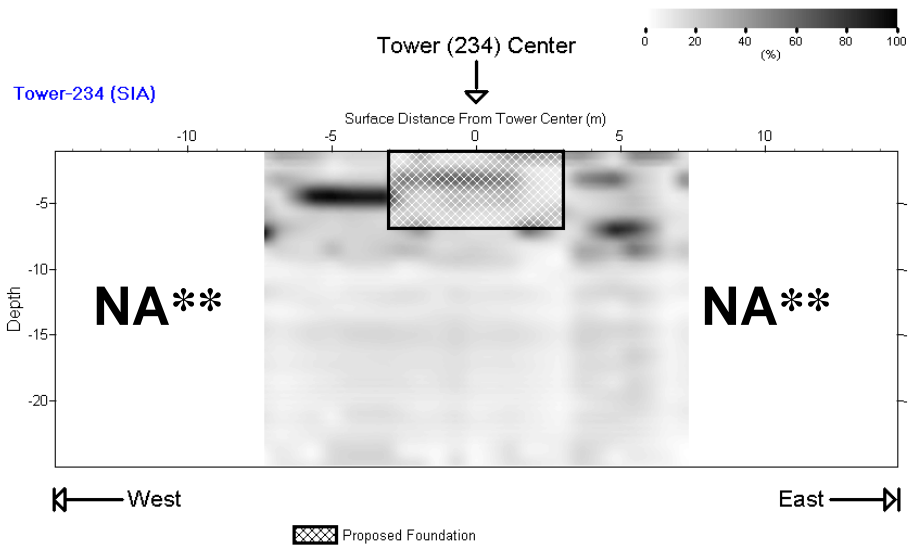
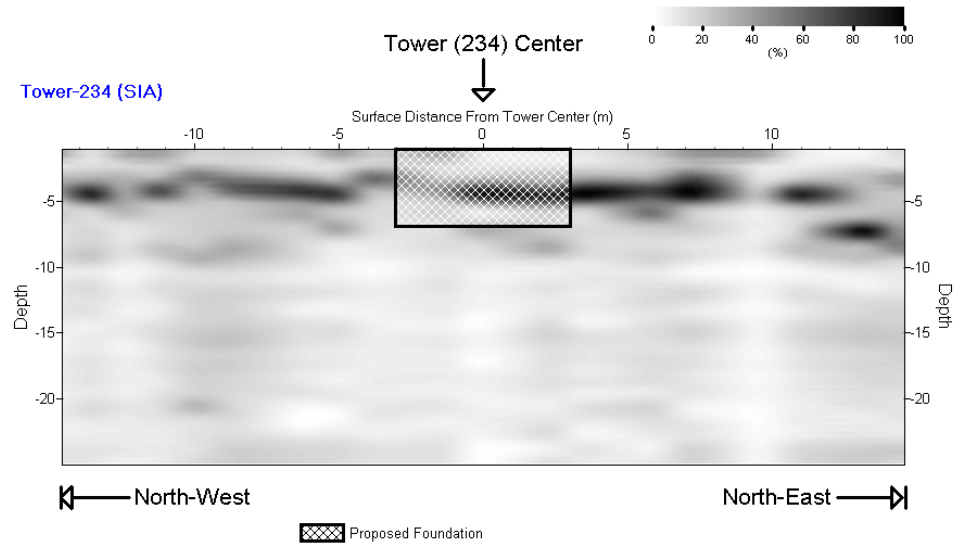
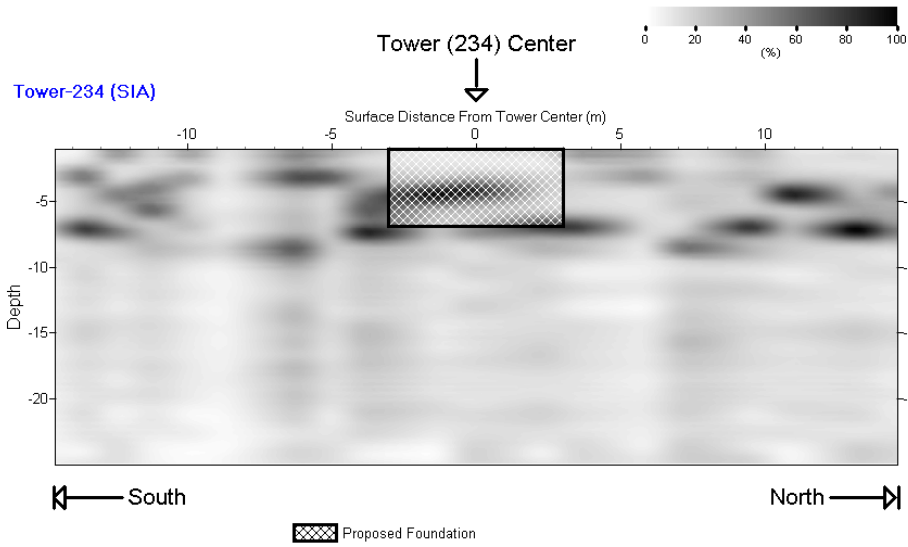


**A shorter receiver spacing of 2 ft was used for lines 1-3 due to terrain condition (steep drop off).

T-233

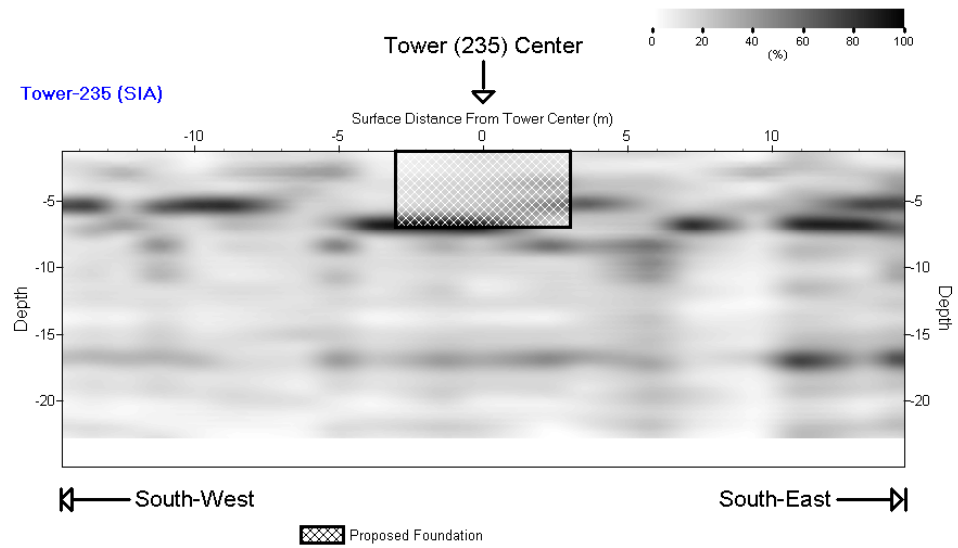
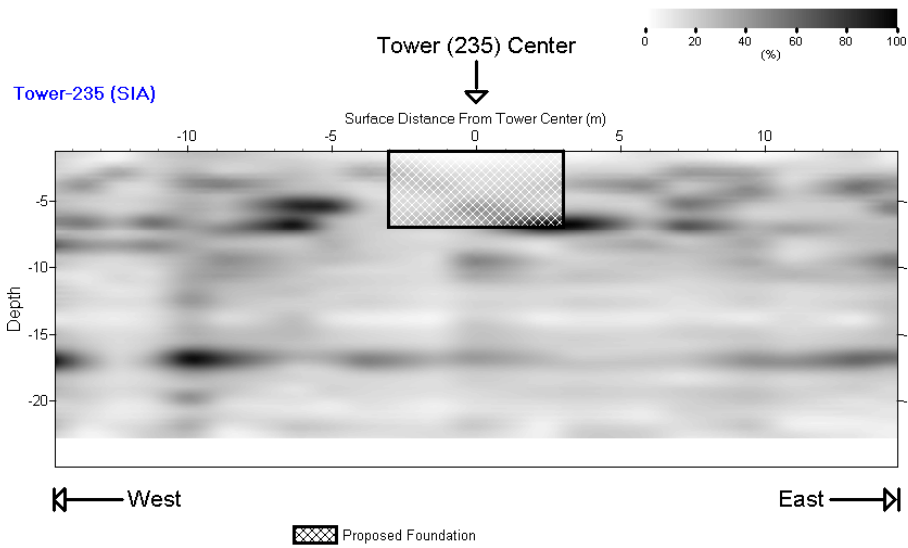
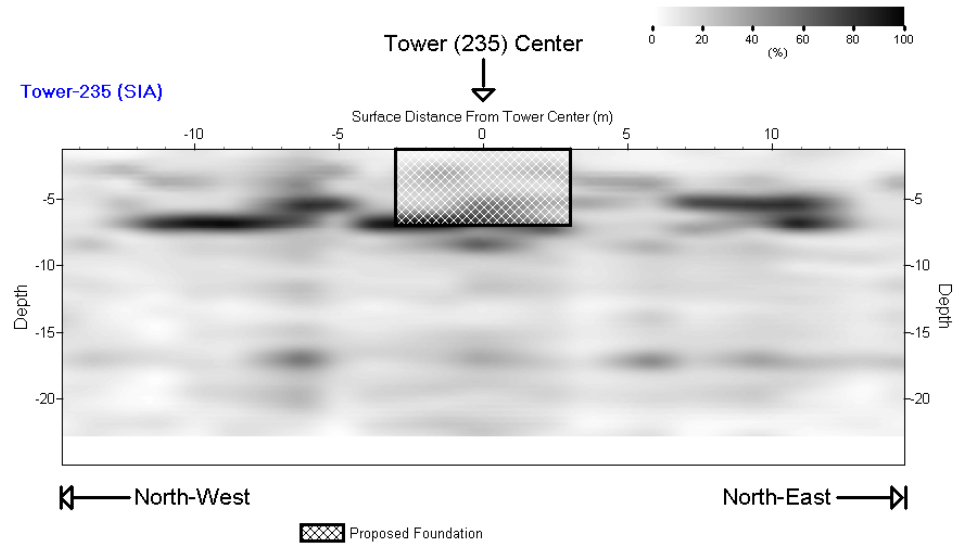
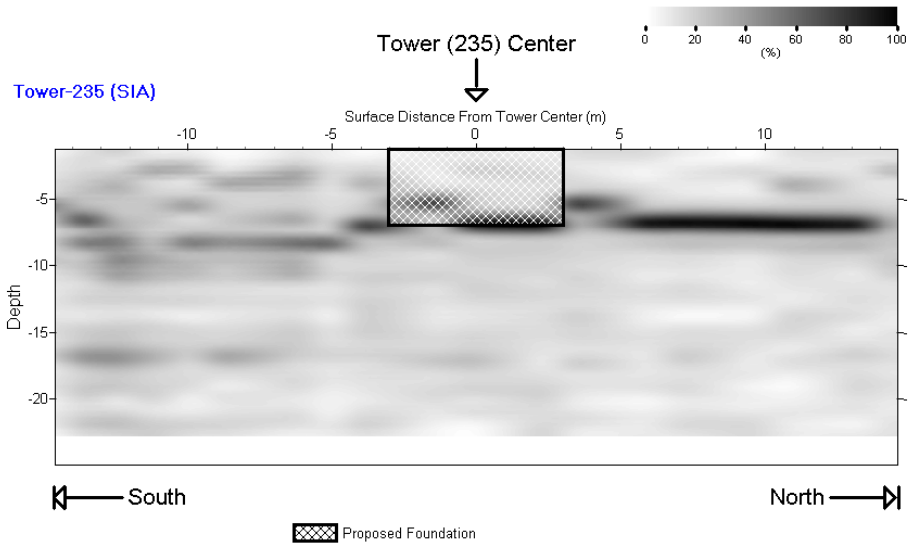


T-234

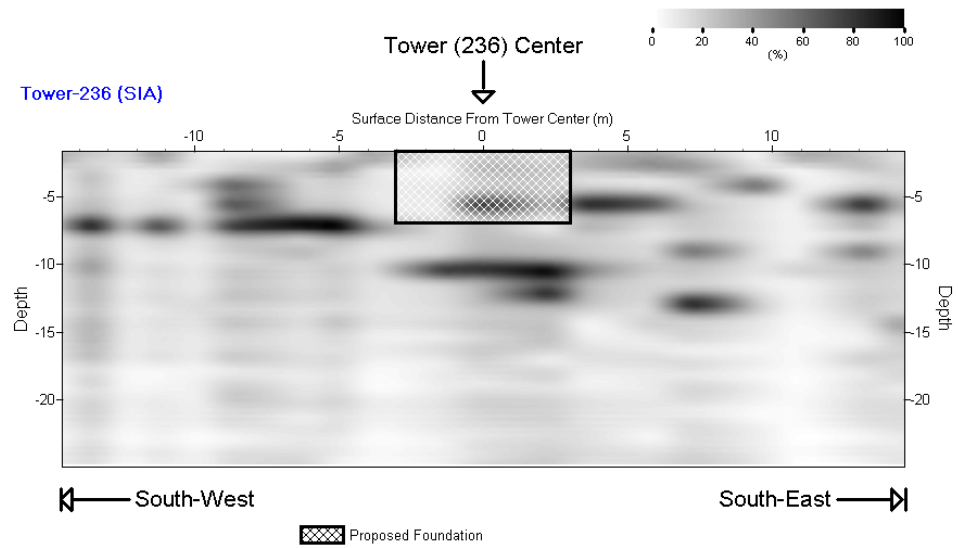
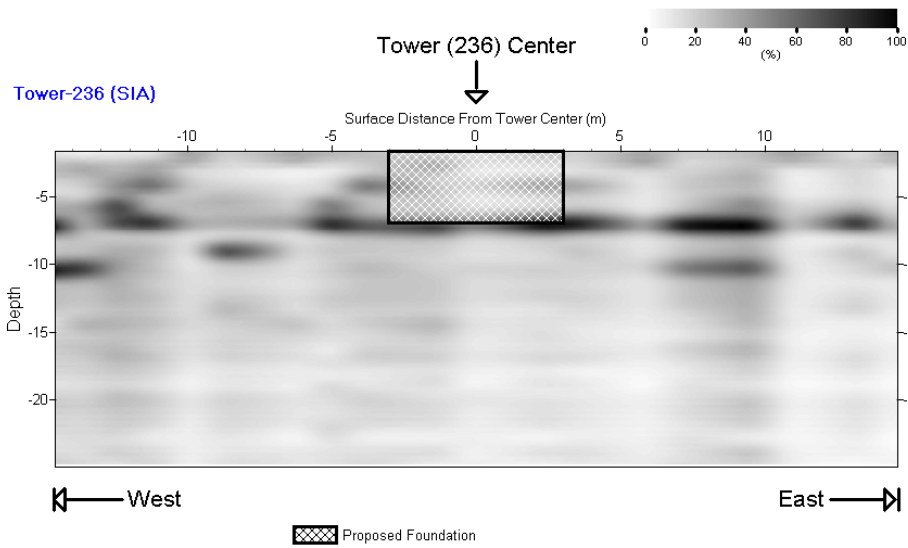
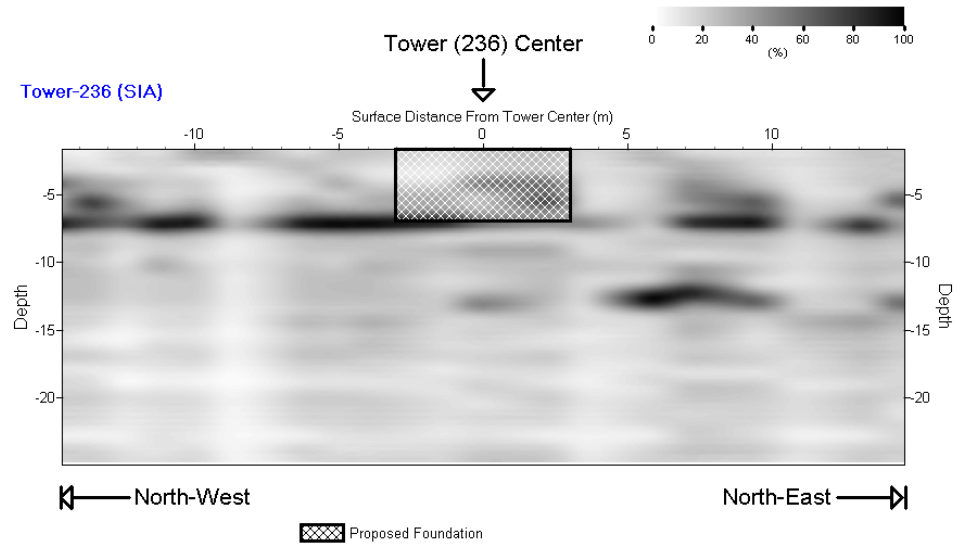
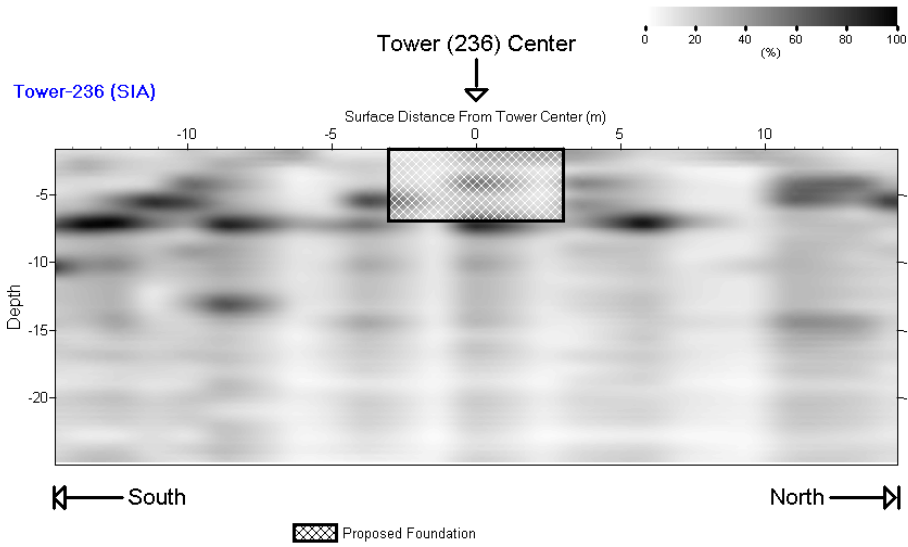


**A shorter receiver spacing of 2 ft was used due to terrain condition (steep drop off).

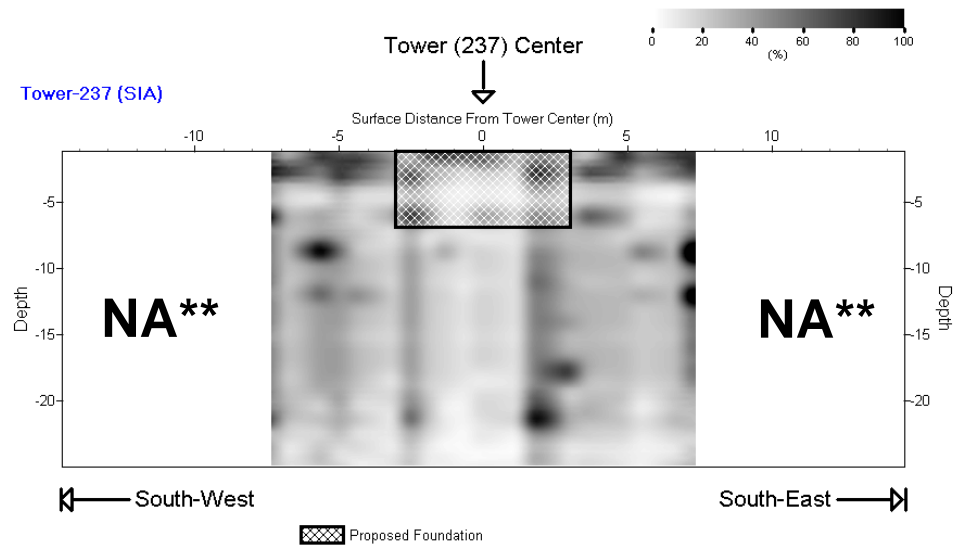
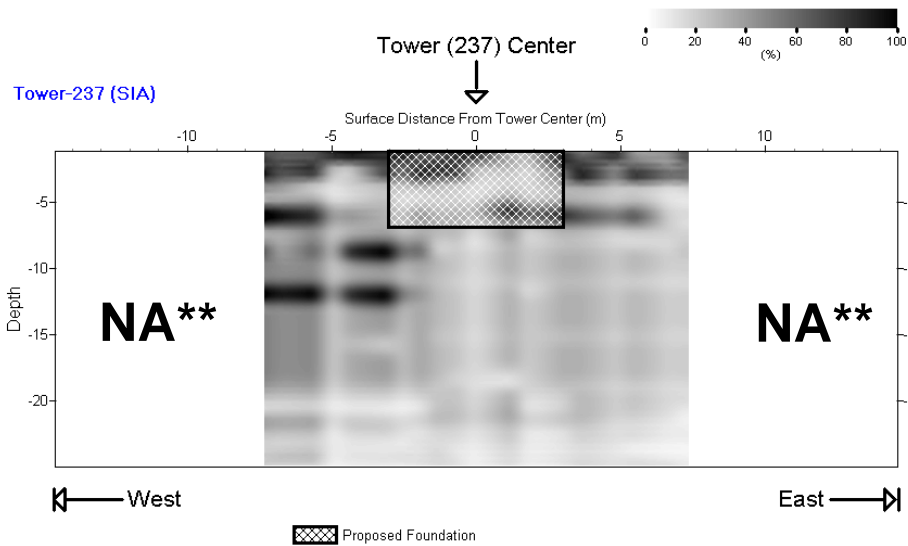
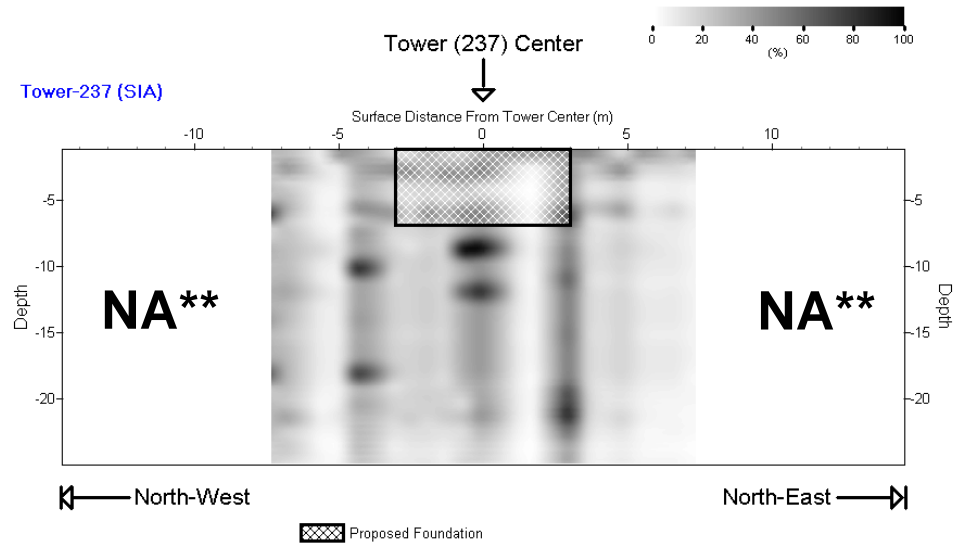
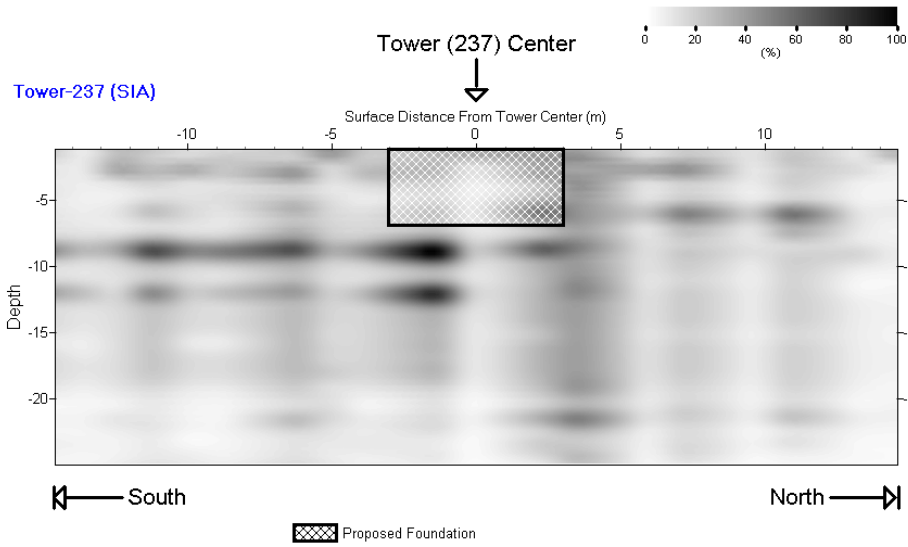
T-235



T-236

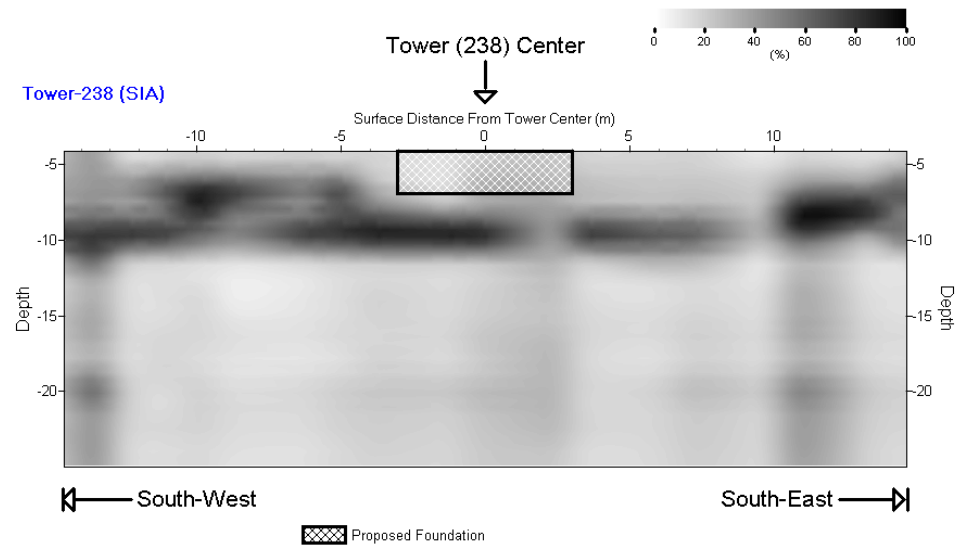
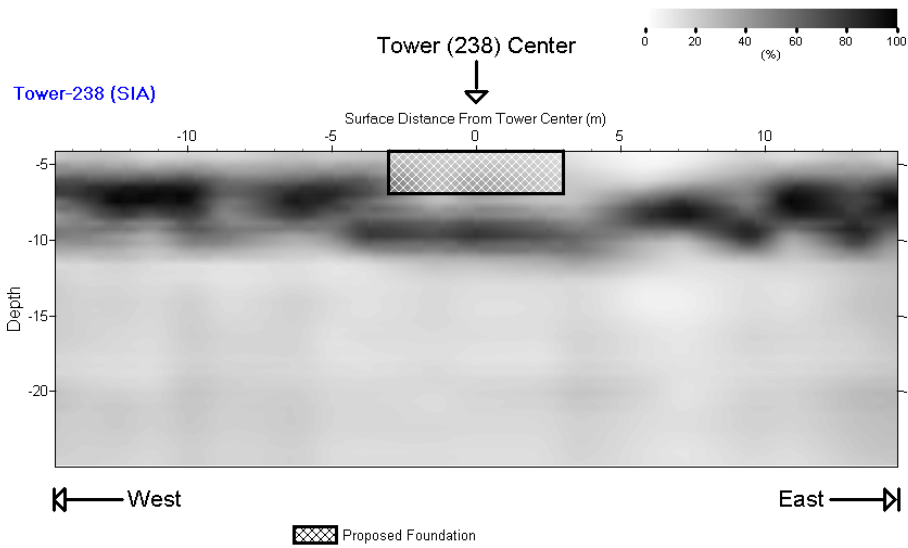
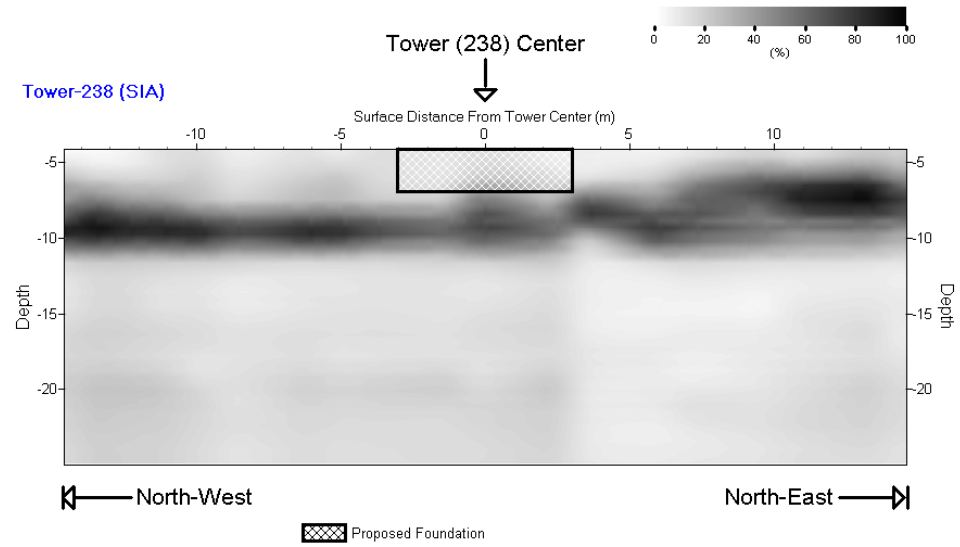
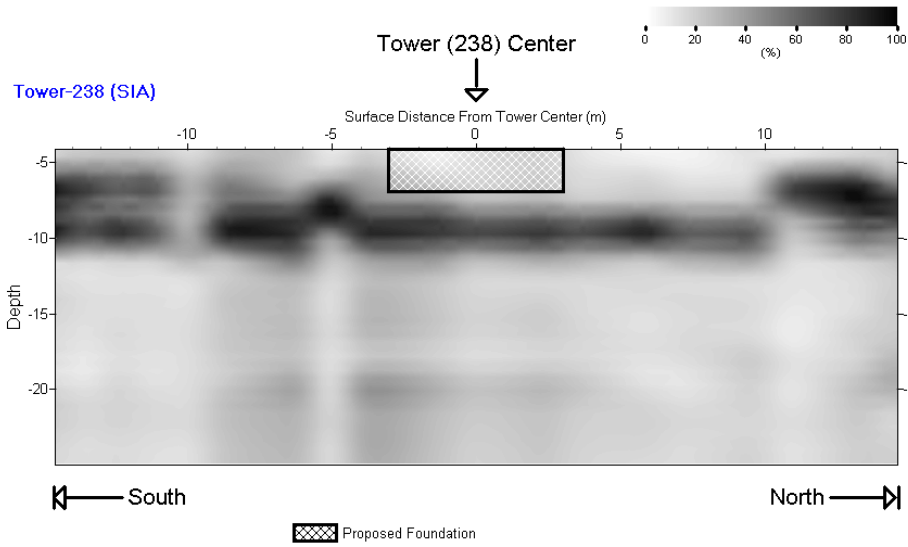


T-237

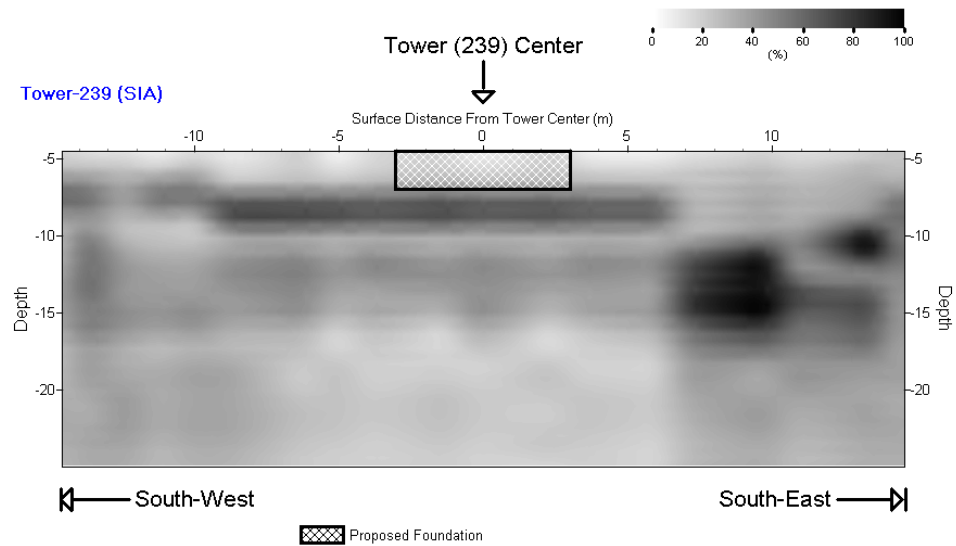
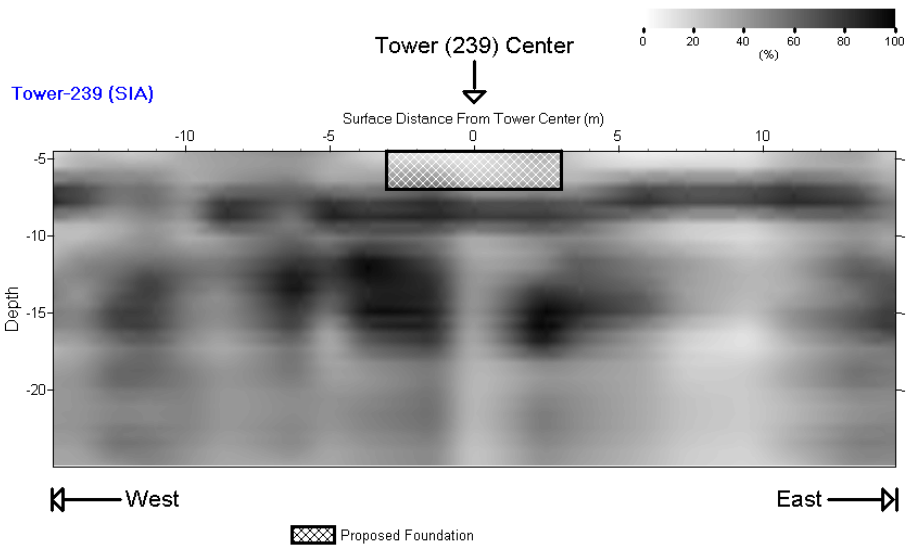
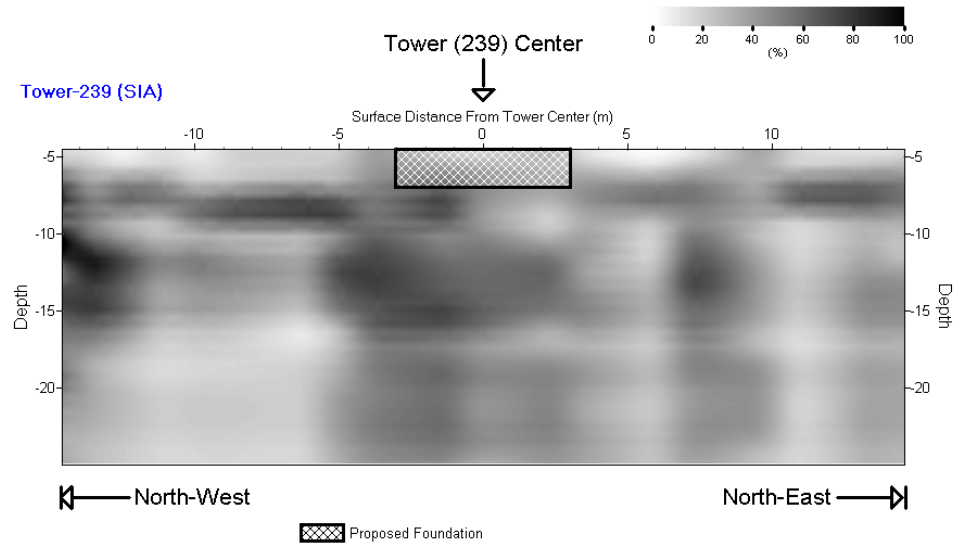
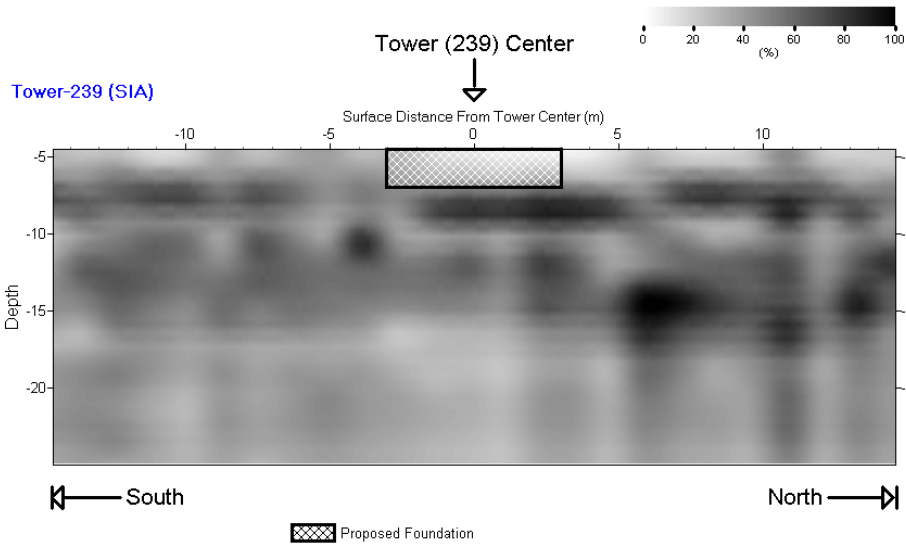


**Data not acquired due to terrain condition (shorter receiver spacing of 2 ft used)

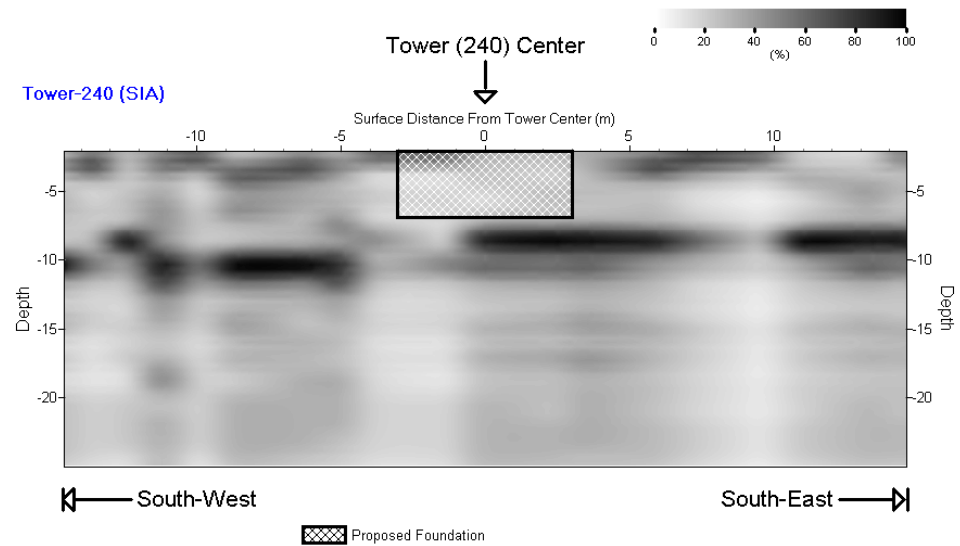
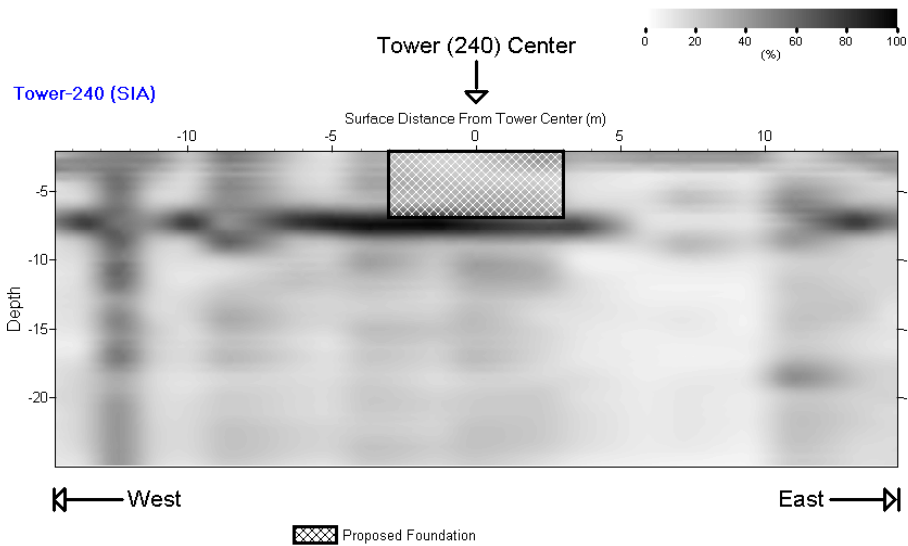
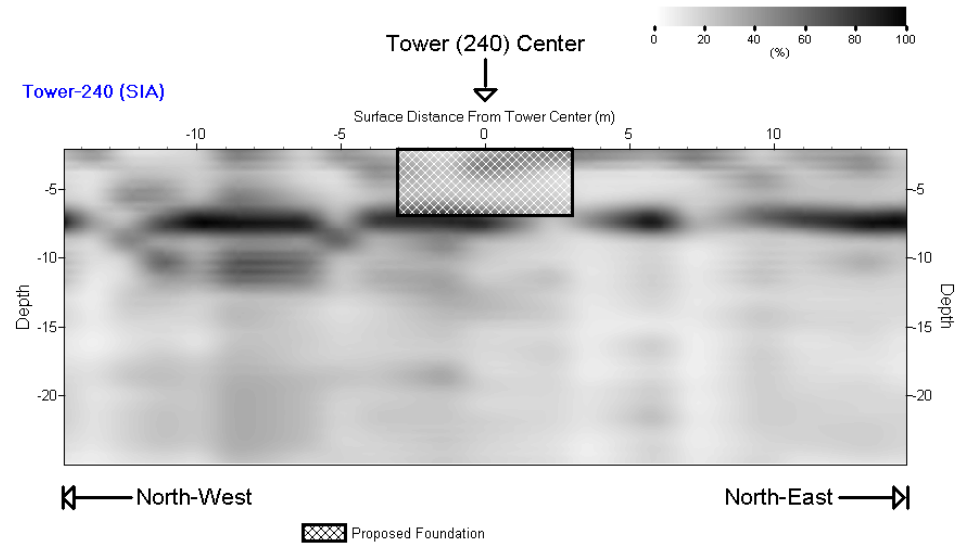
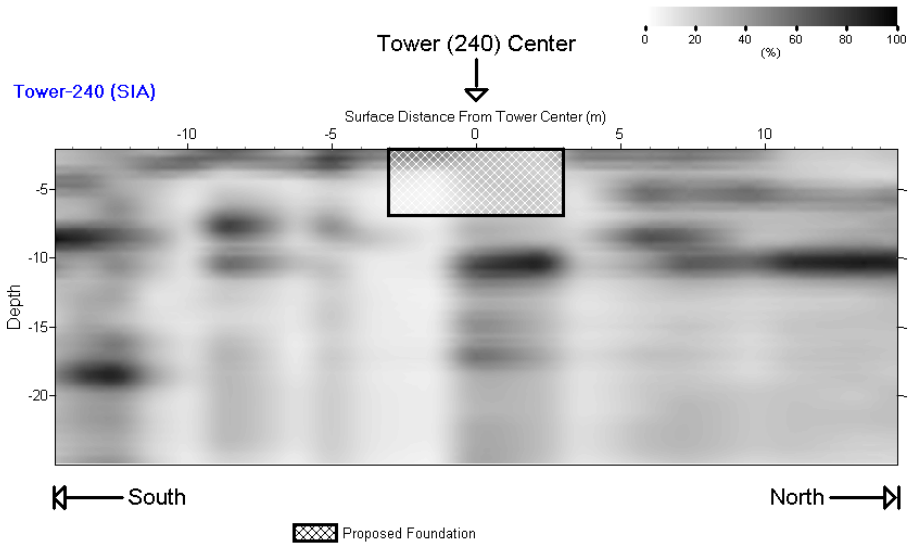
T-238



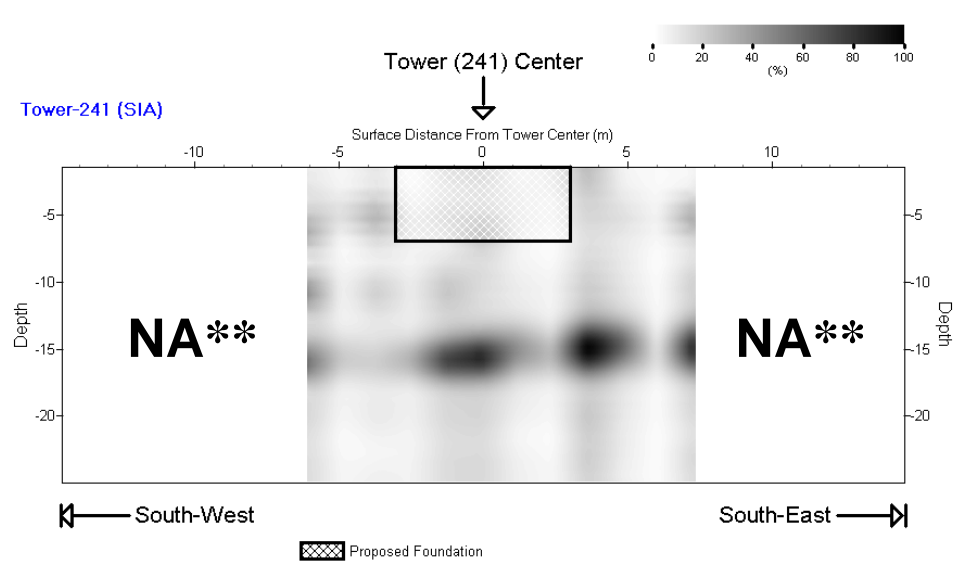
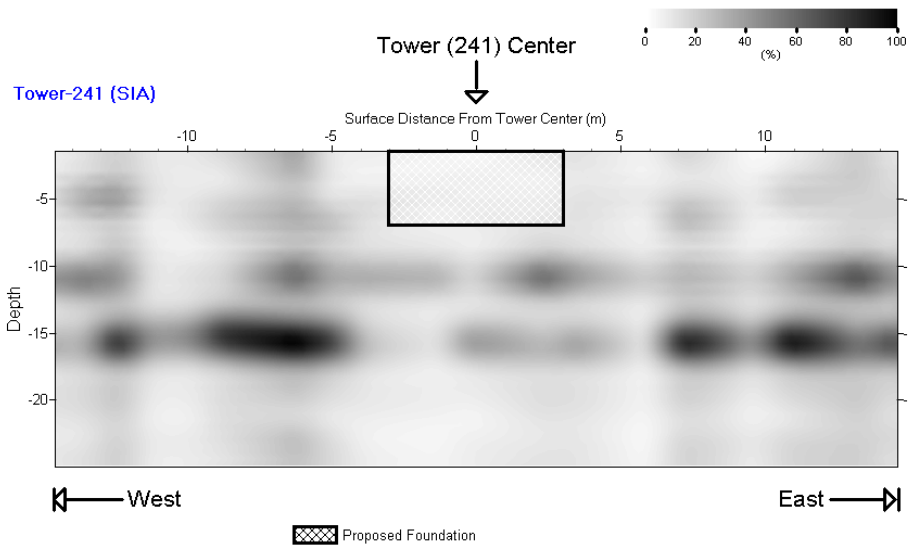
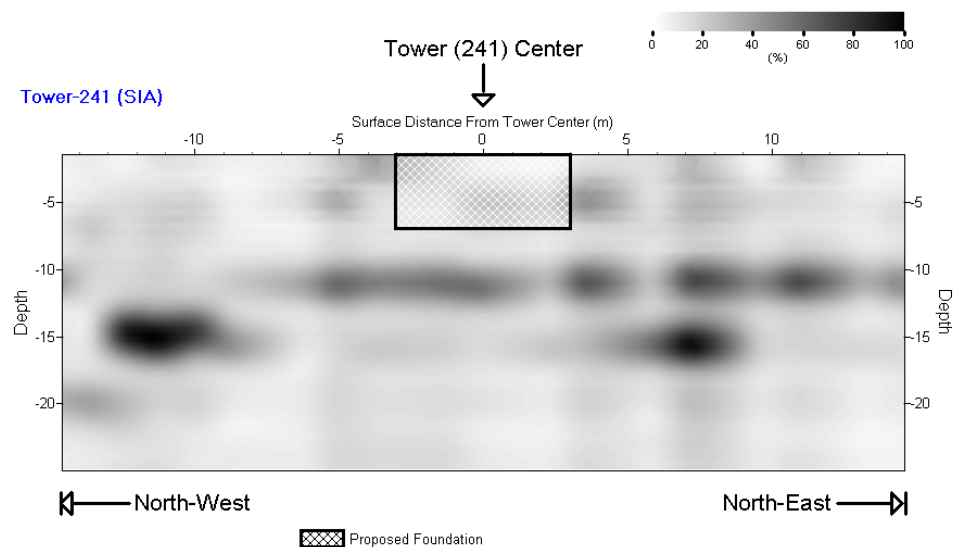
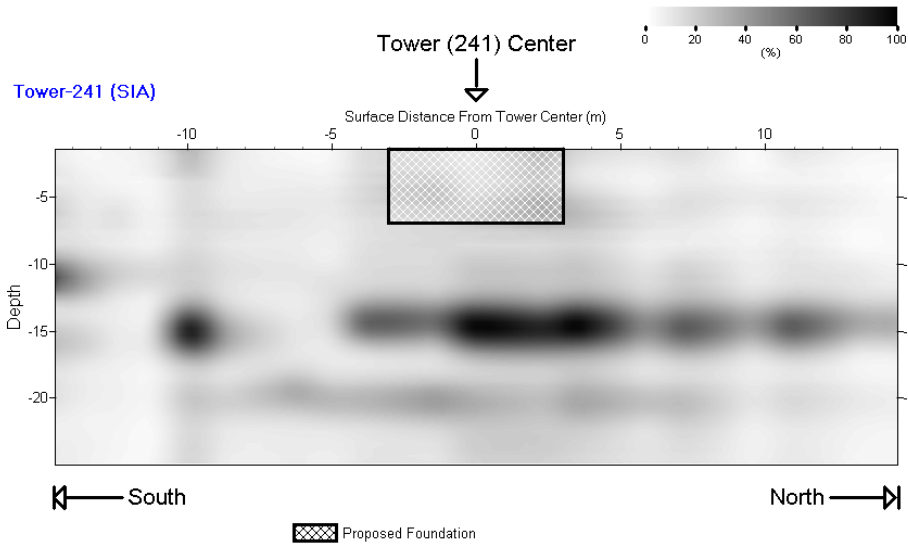
T-239



T-240

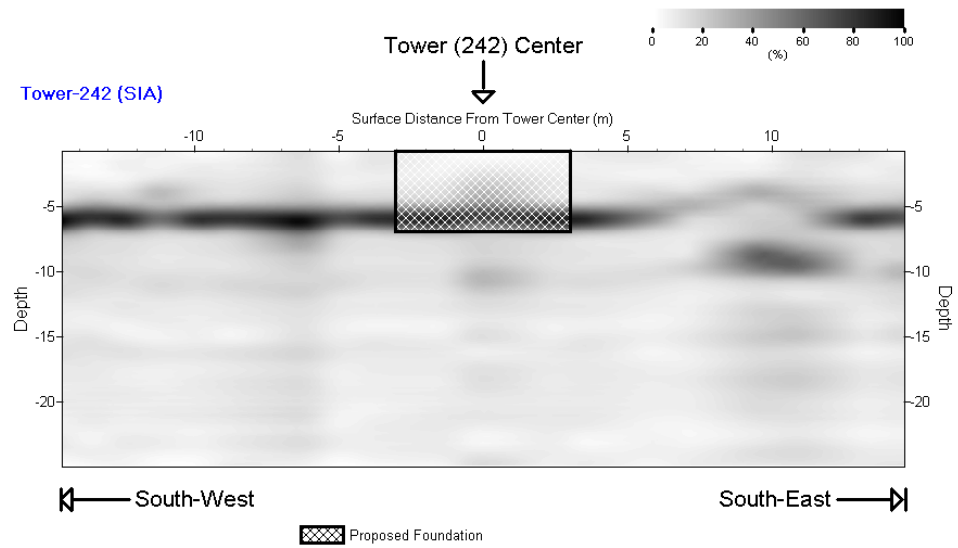
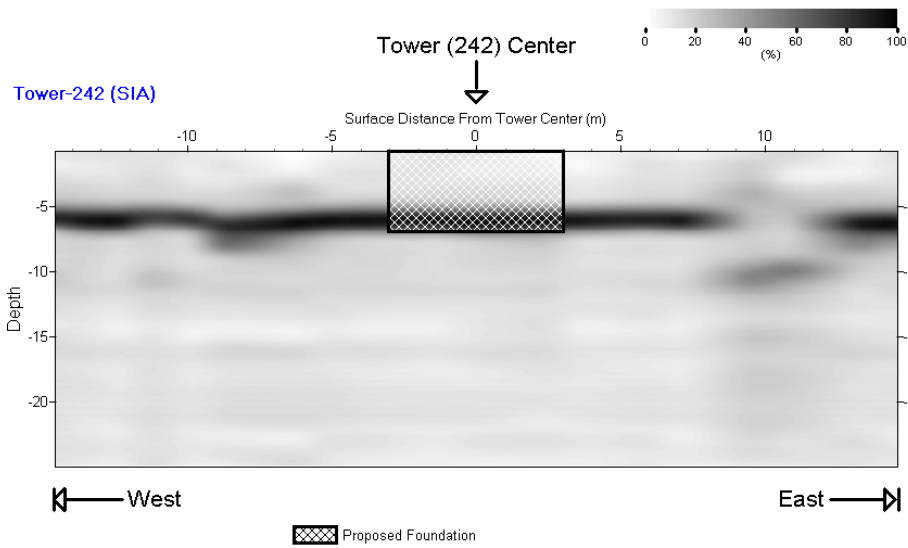
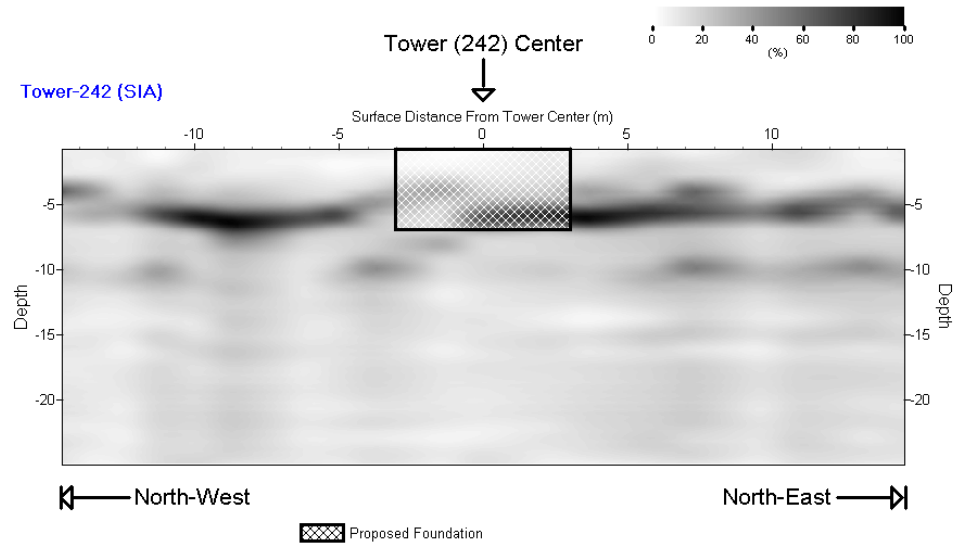
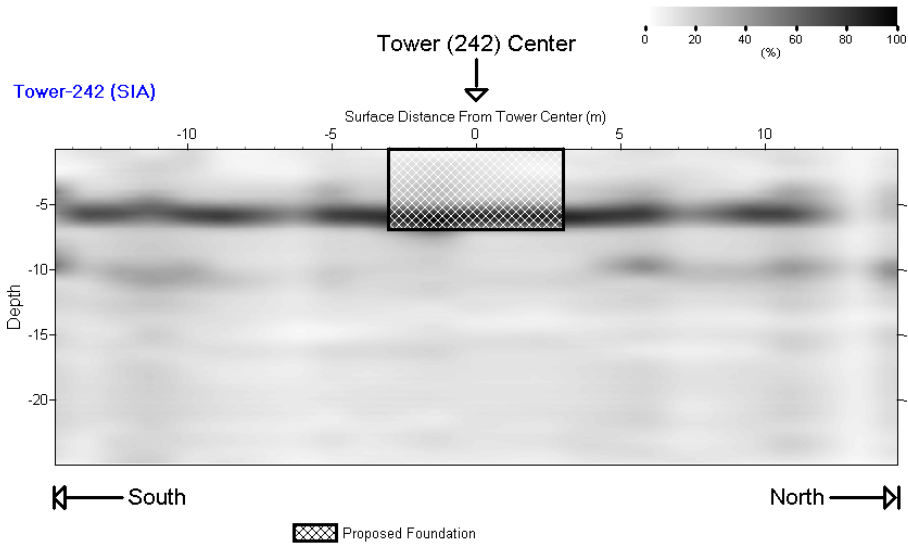


T-241

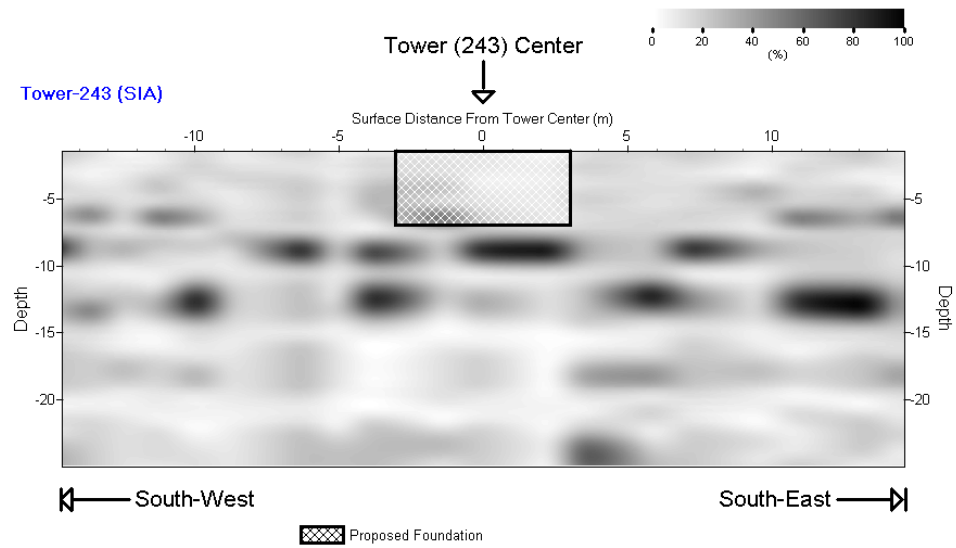
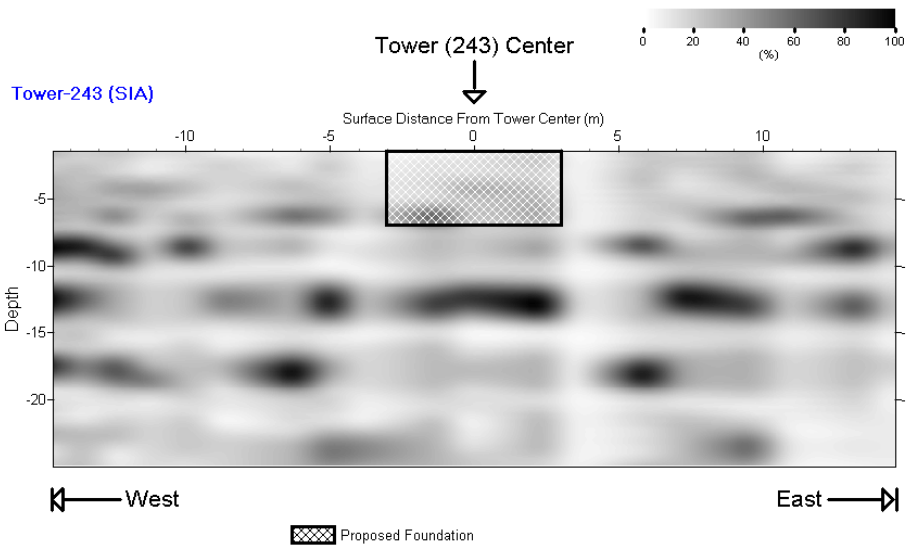
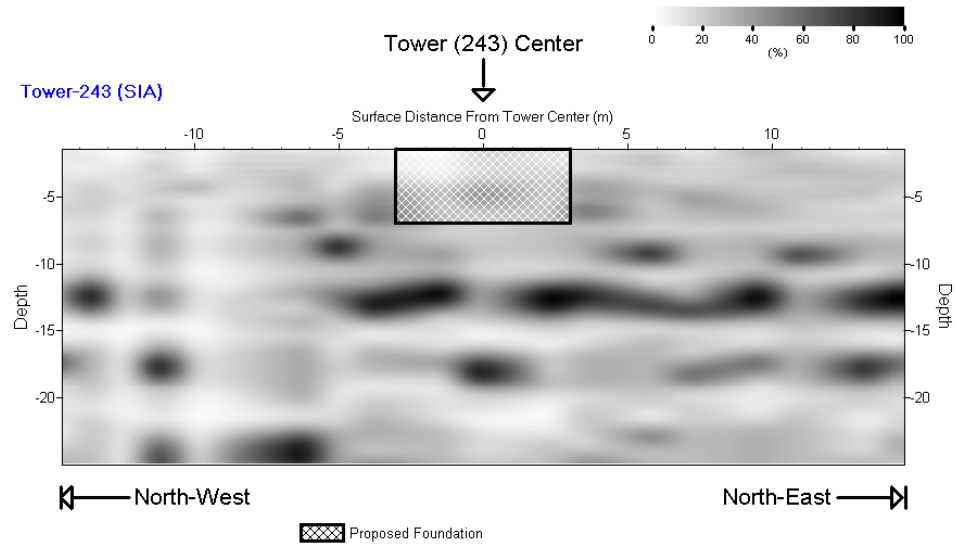
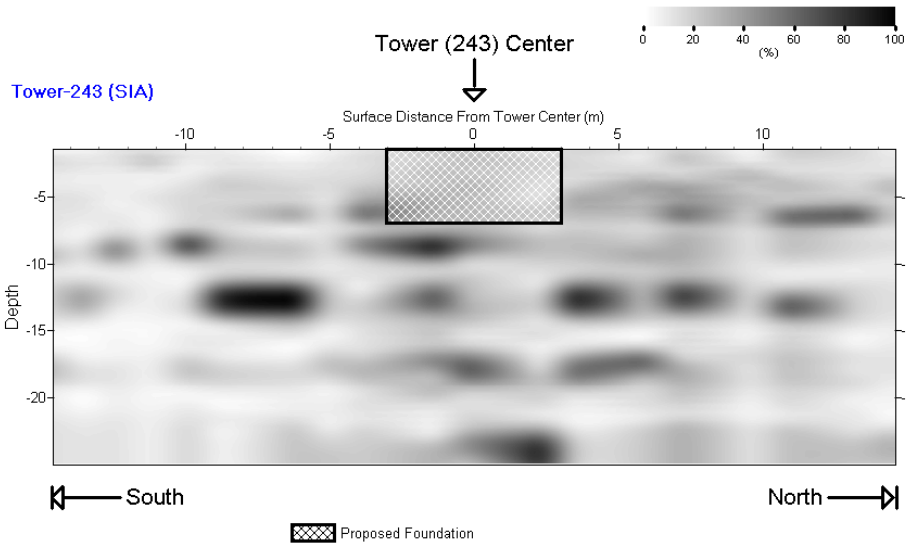


**Data not acquired due to terrain condition (steep drop off). A shorter receiver spacing of 2 ft was use.

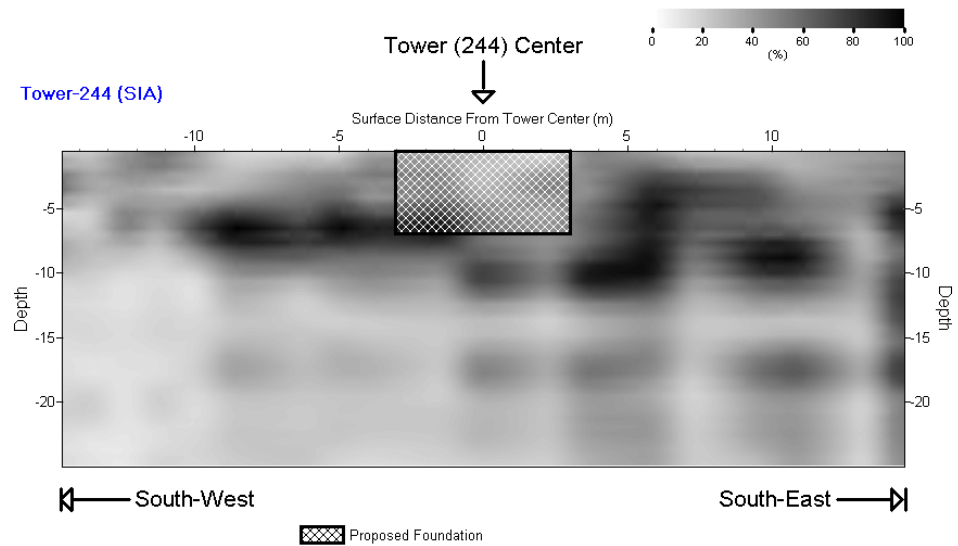
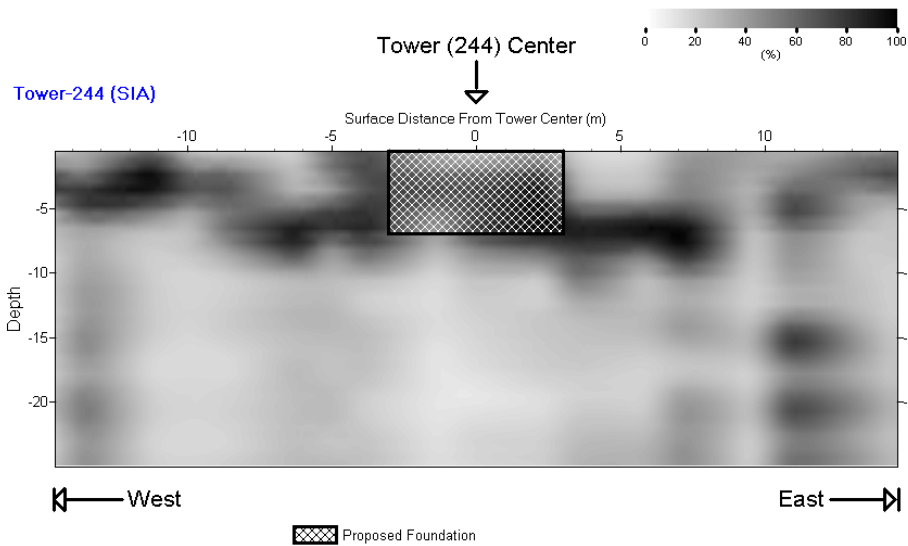
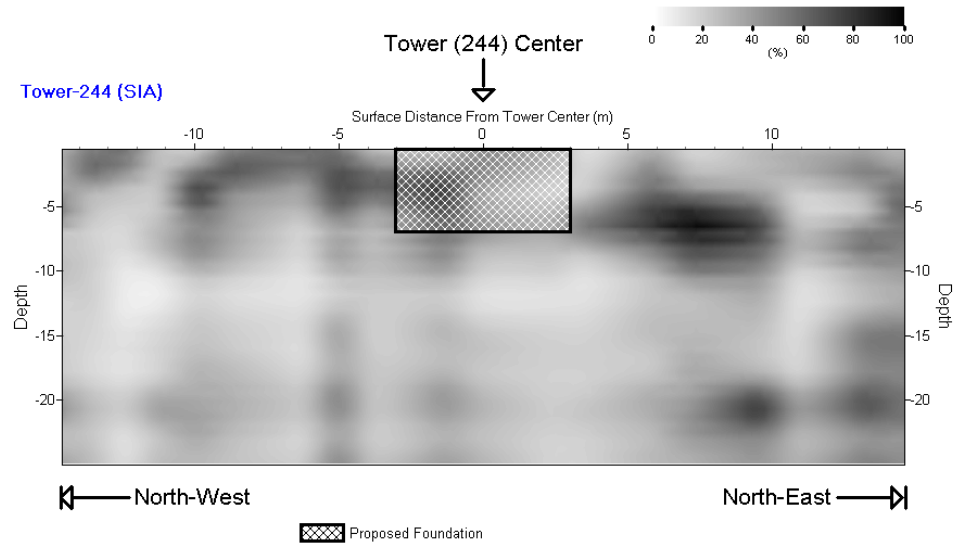
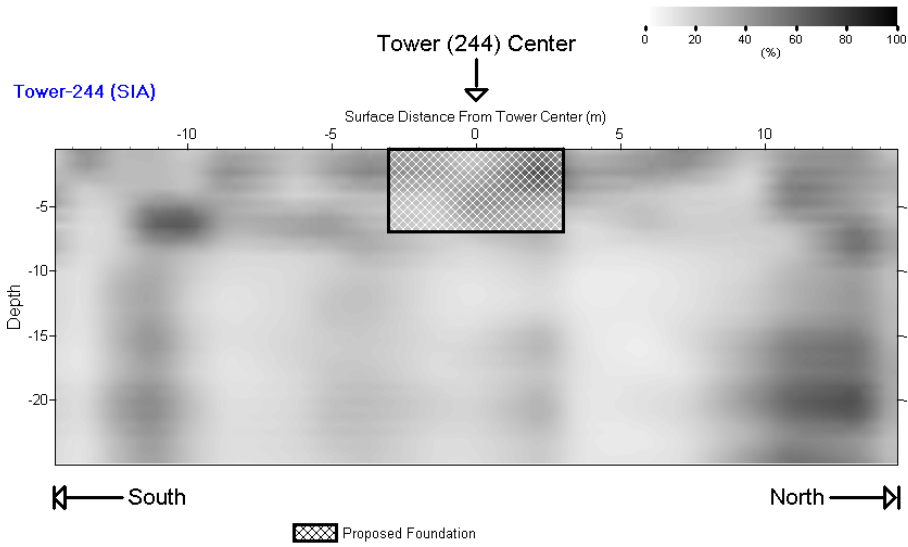
T-242



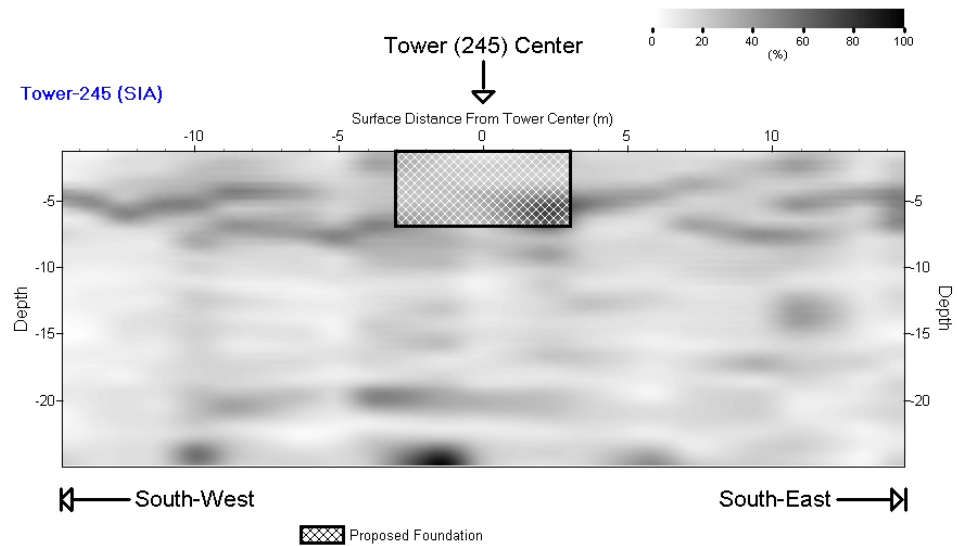
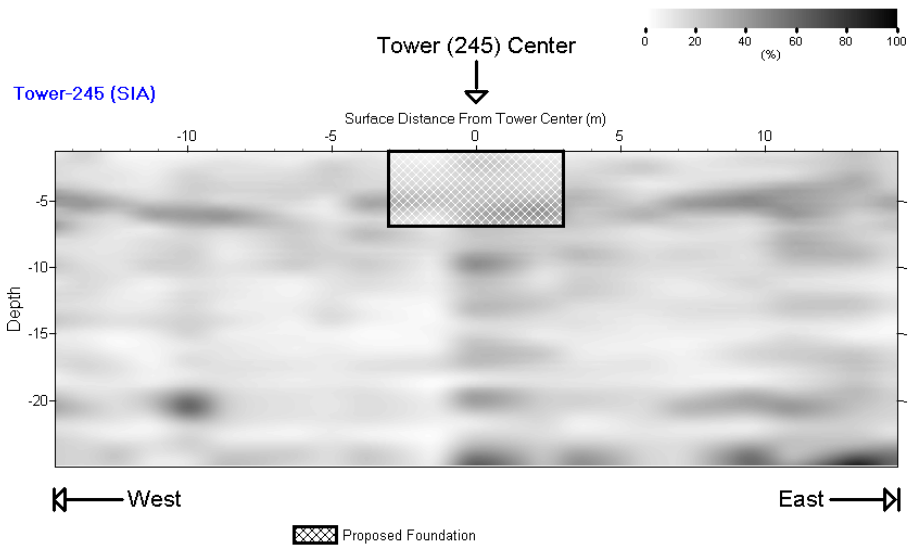
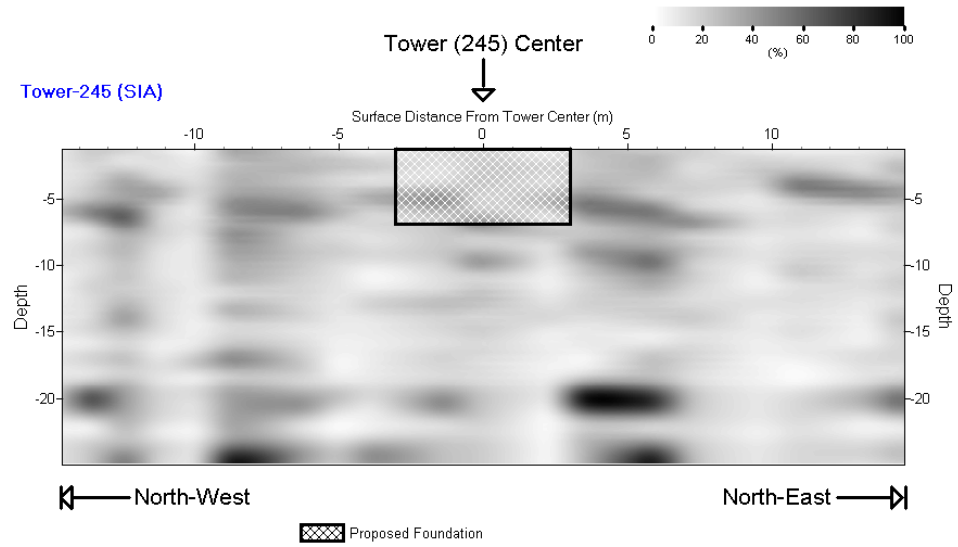
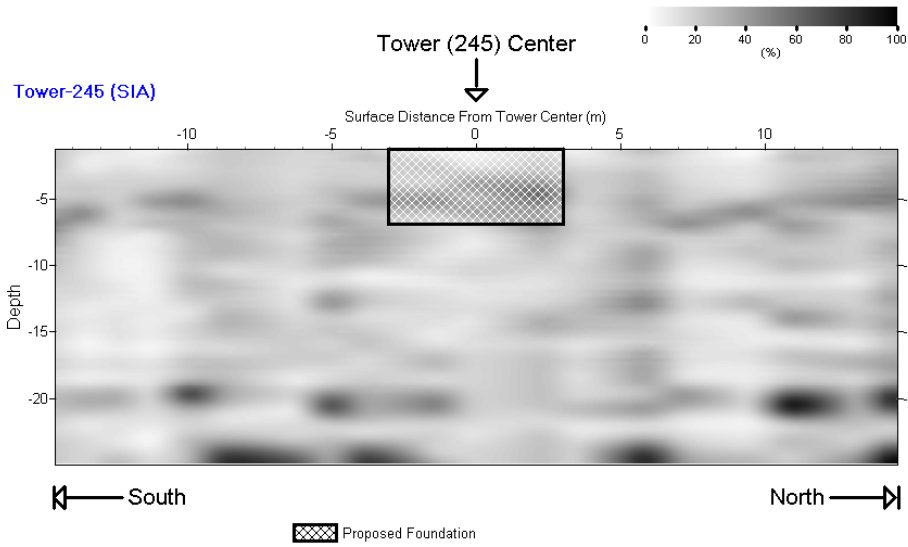
T-243



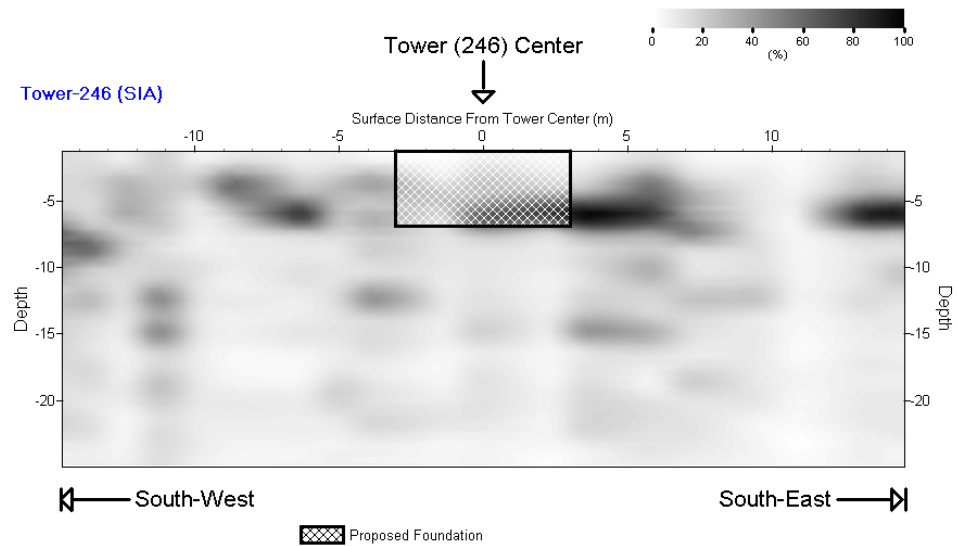
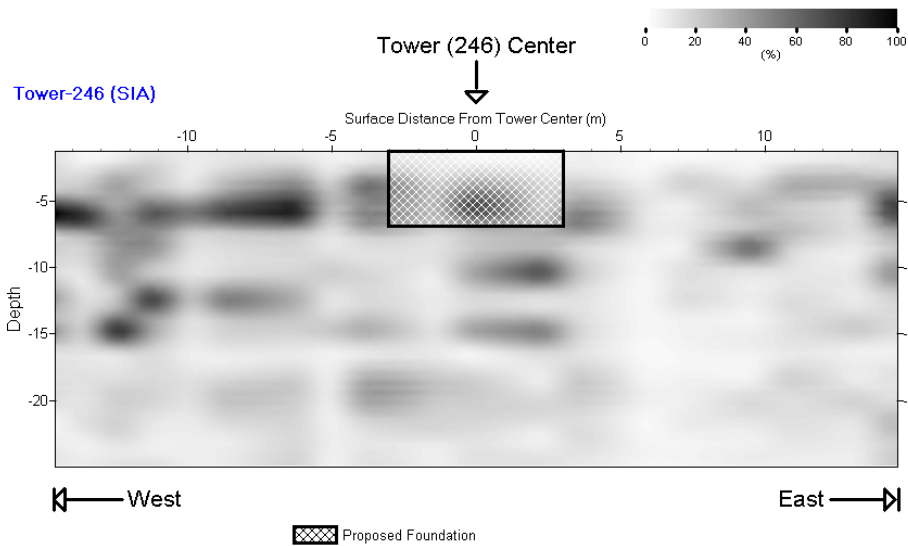
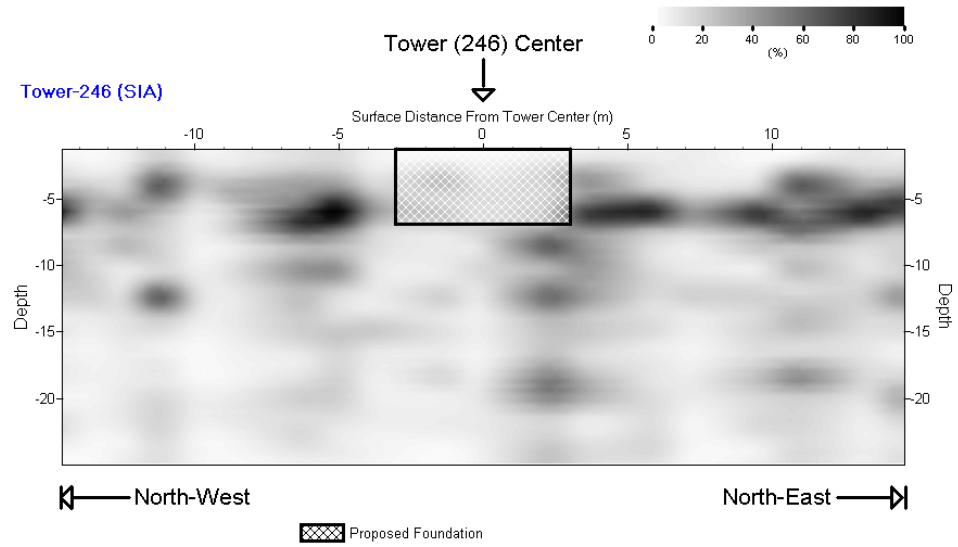
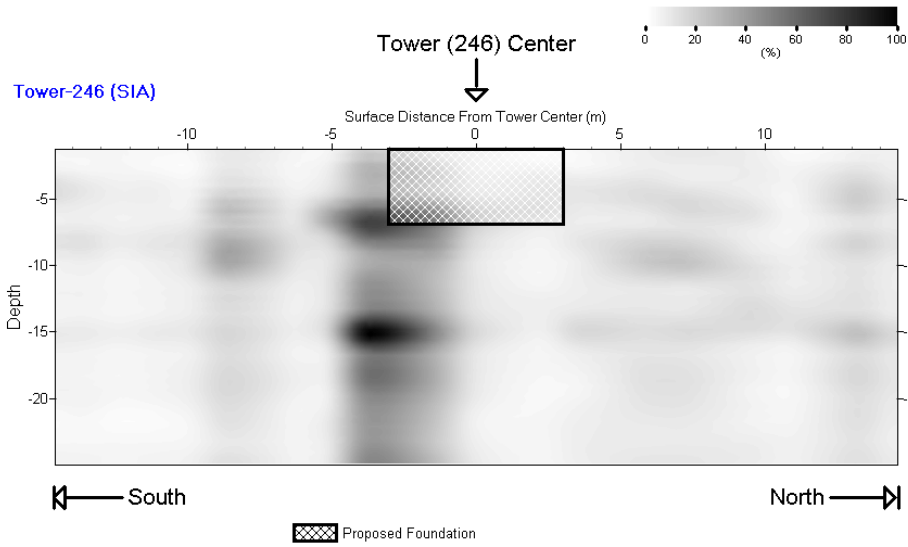
T-244



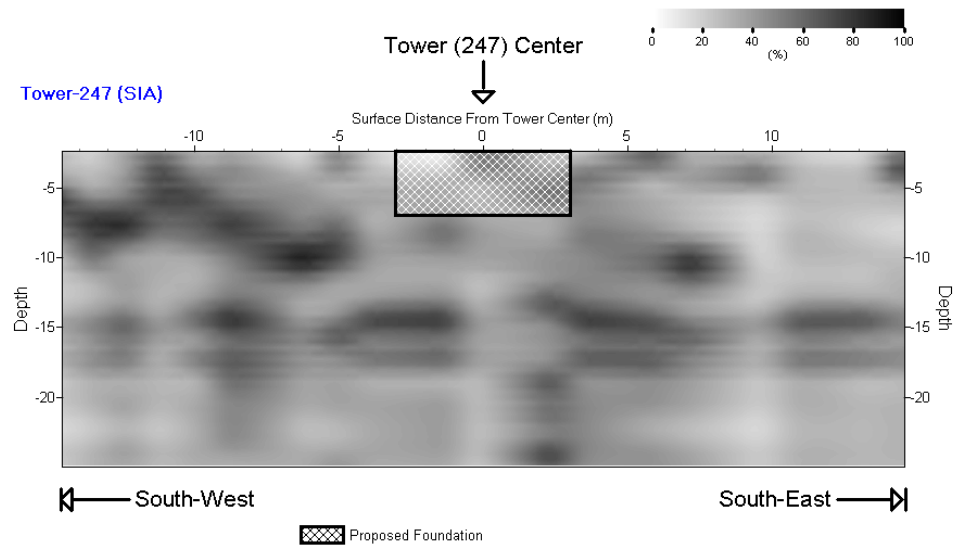
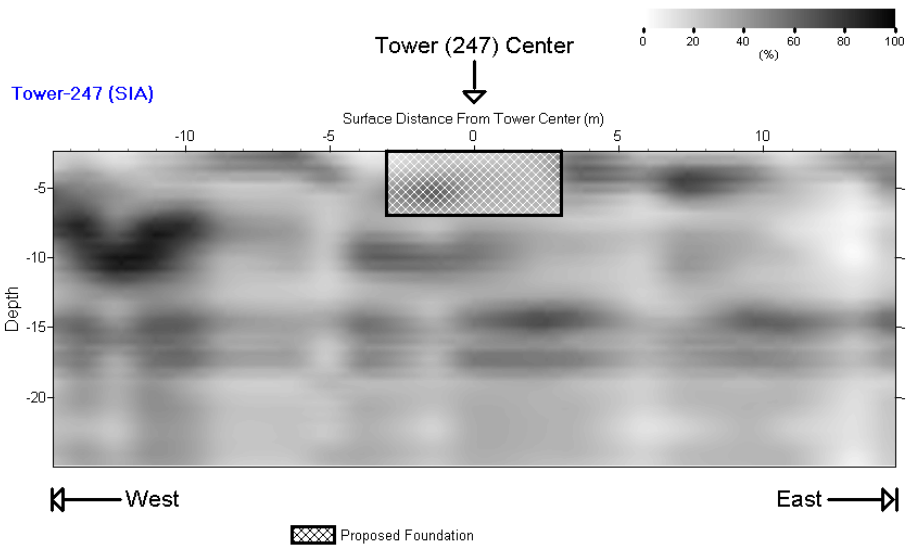
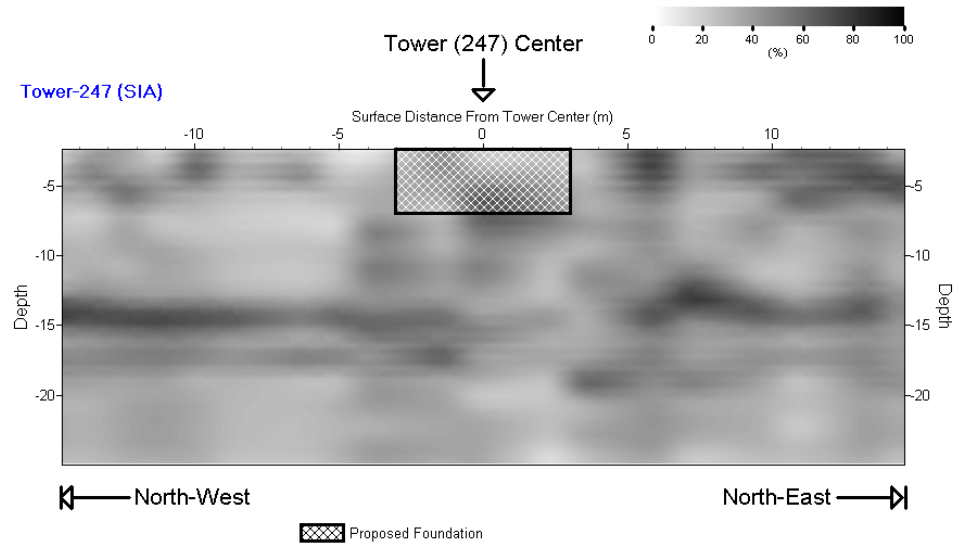
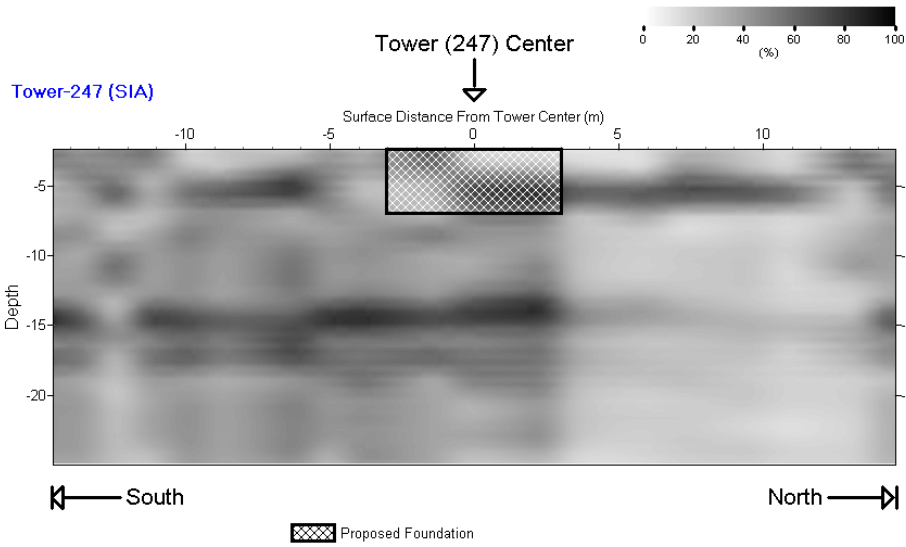
T-245



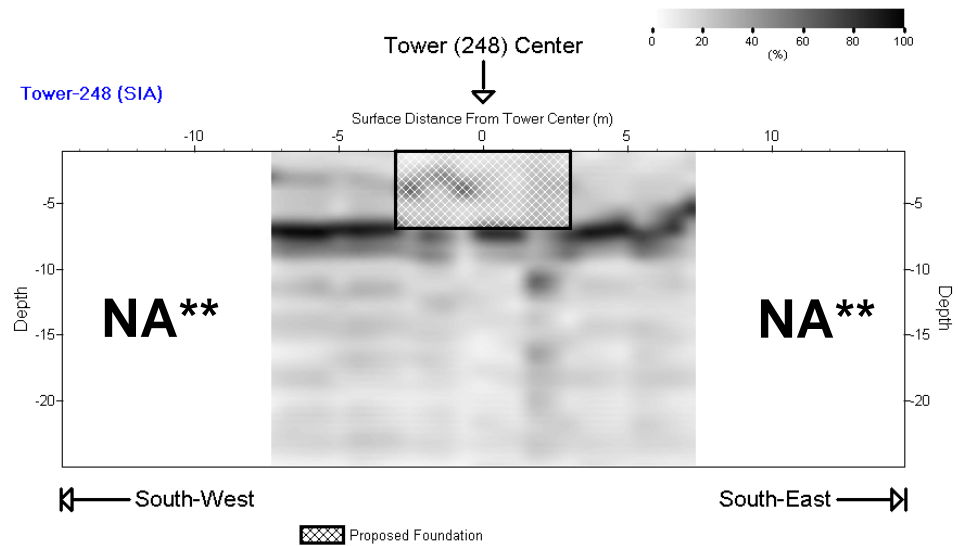
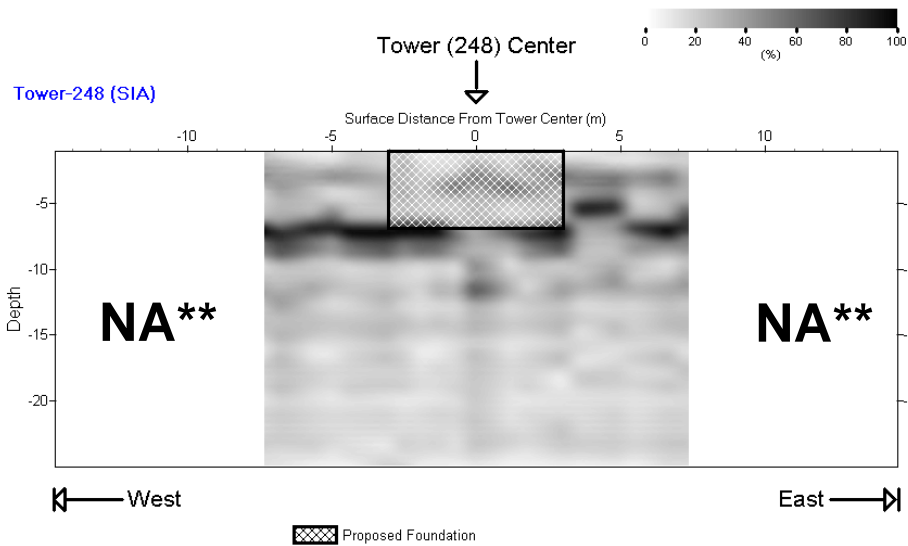
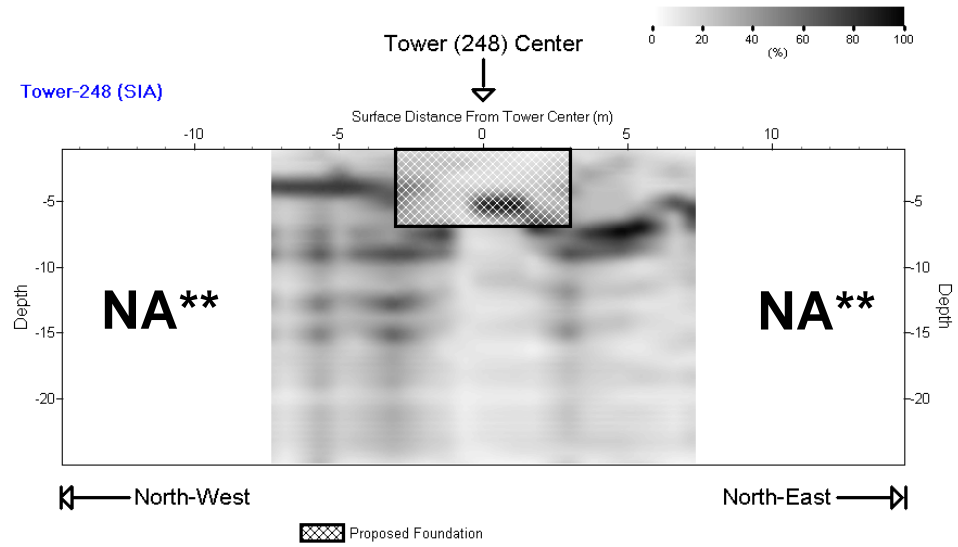
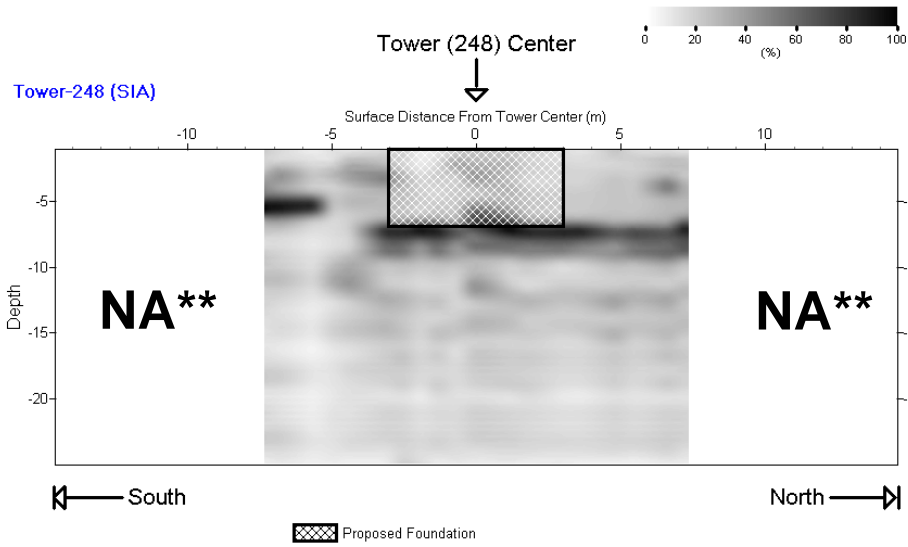
T-246



T-247

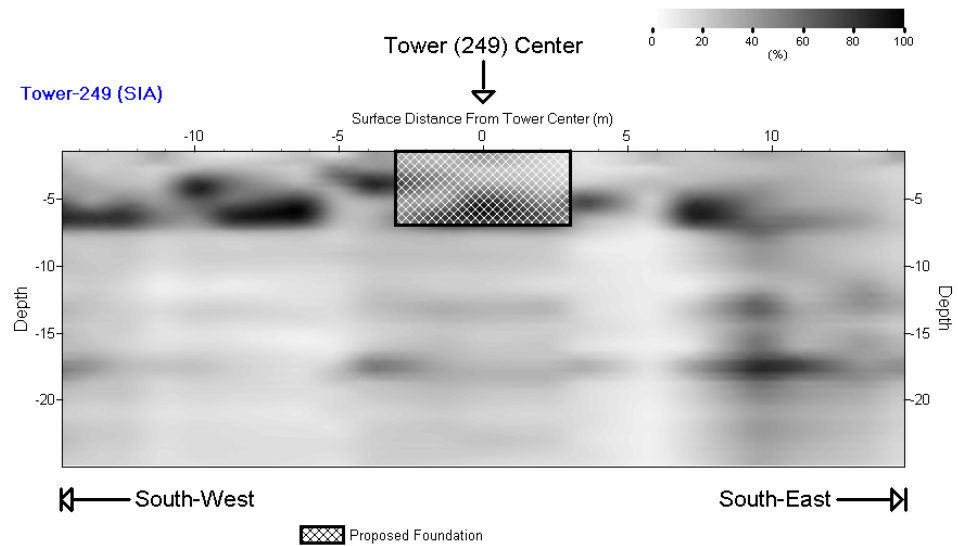
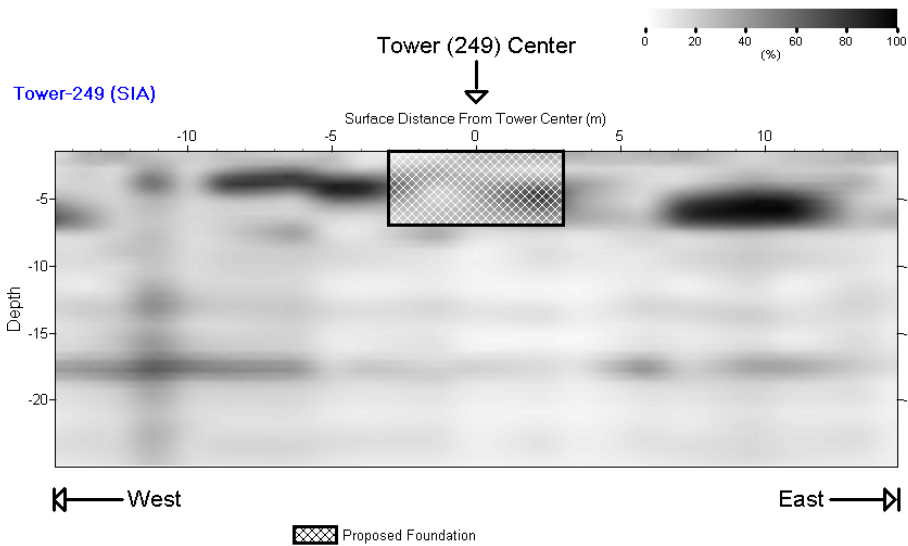
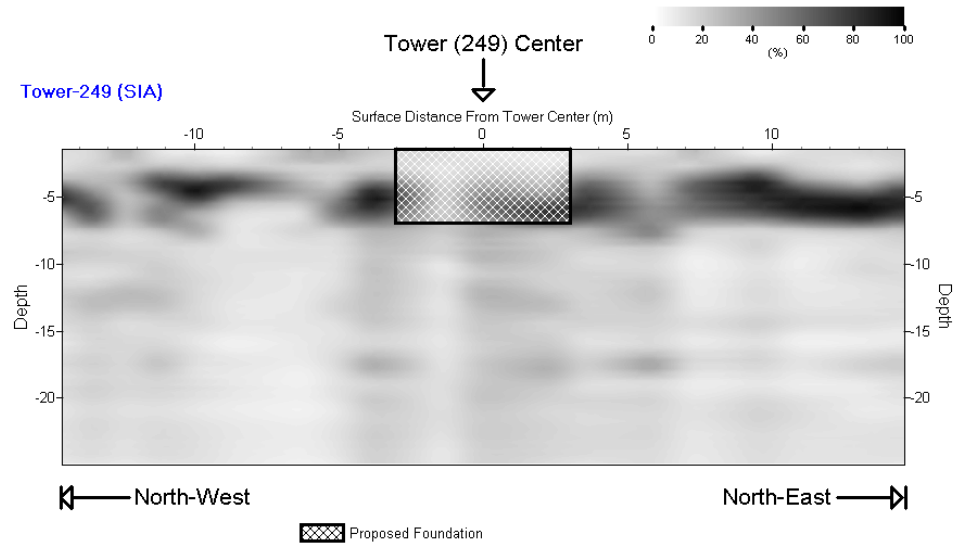
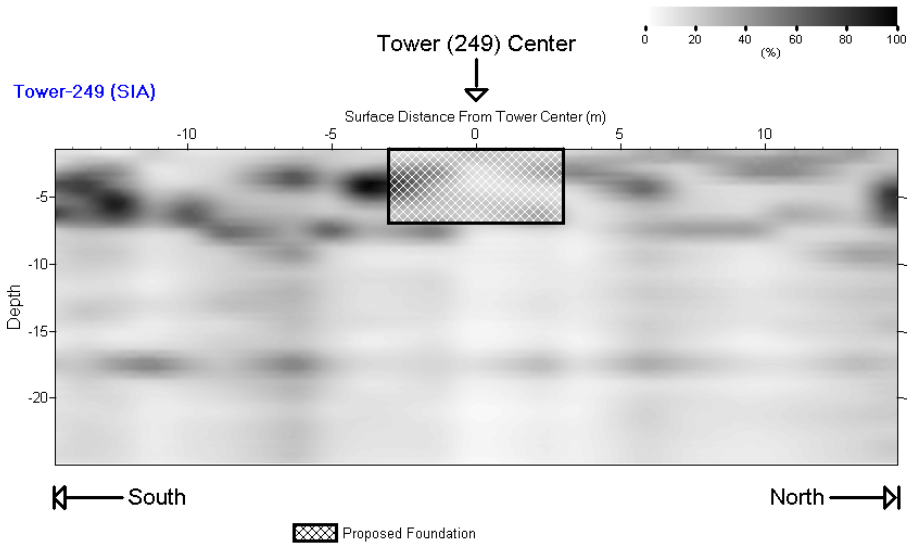


T-248

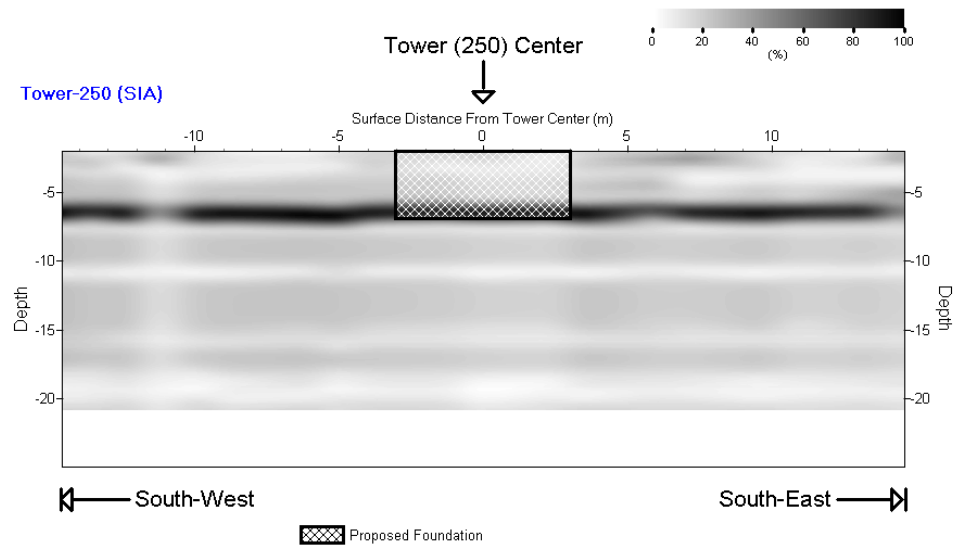
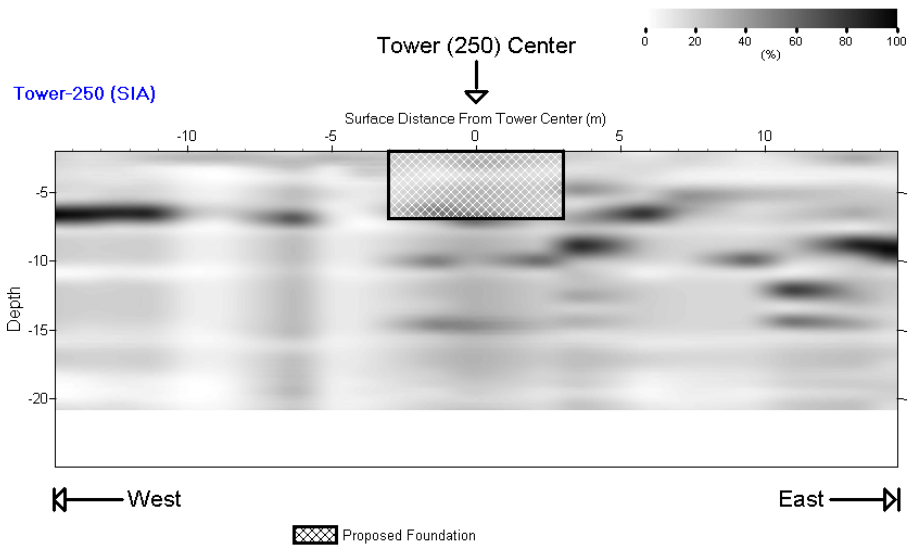
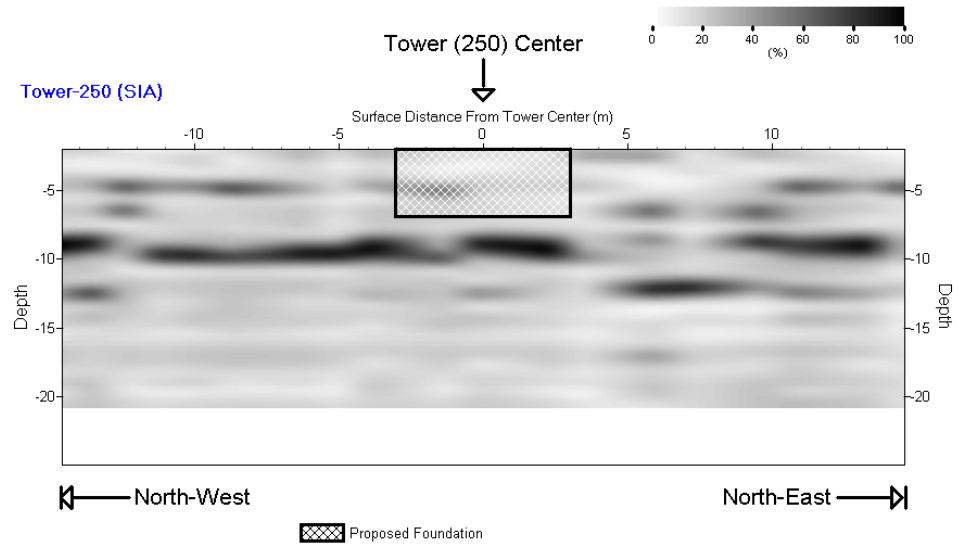
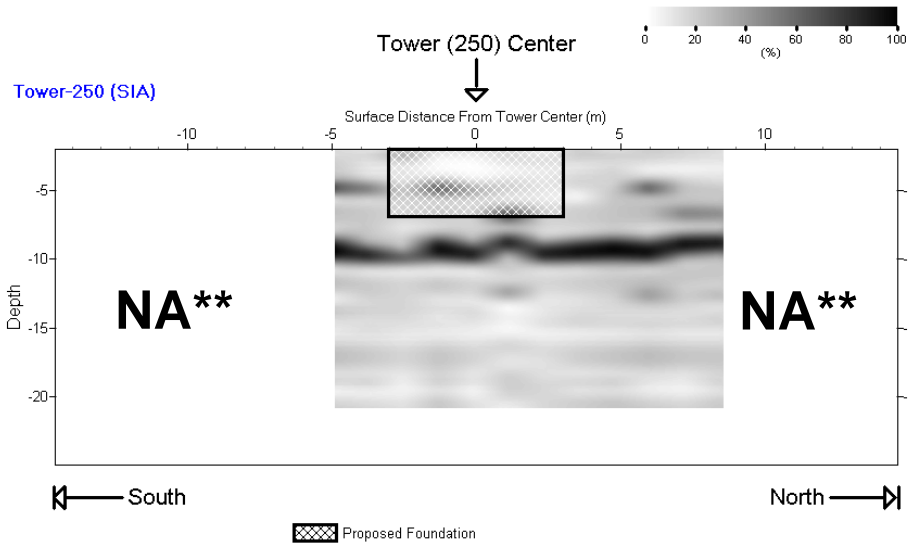


**Data not acquired due to terrain condition (shorter receiver spacing of 2 ft used)

T-249

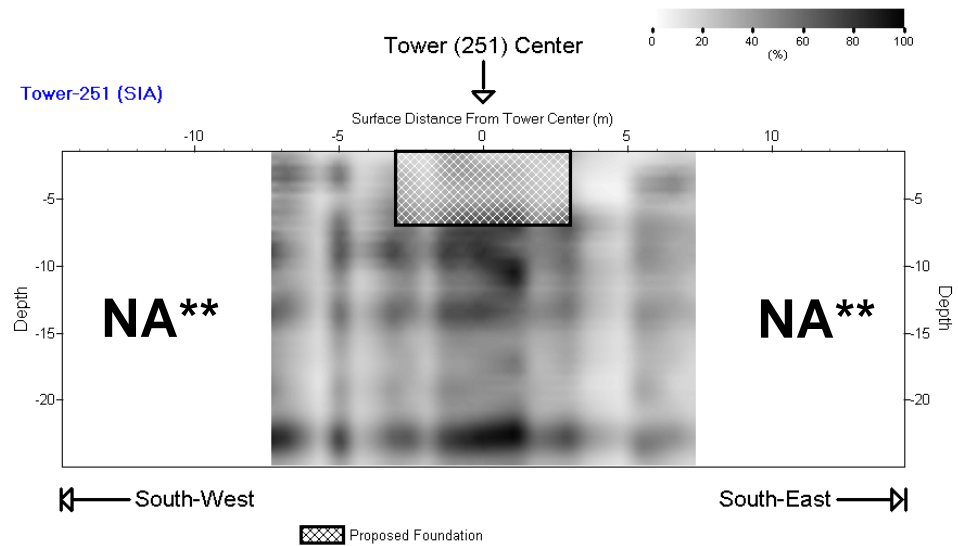
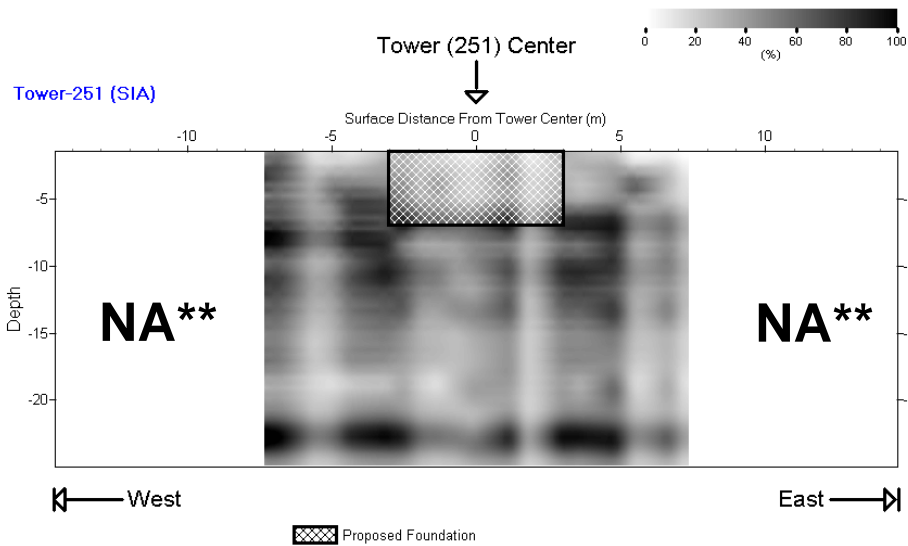
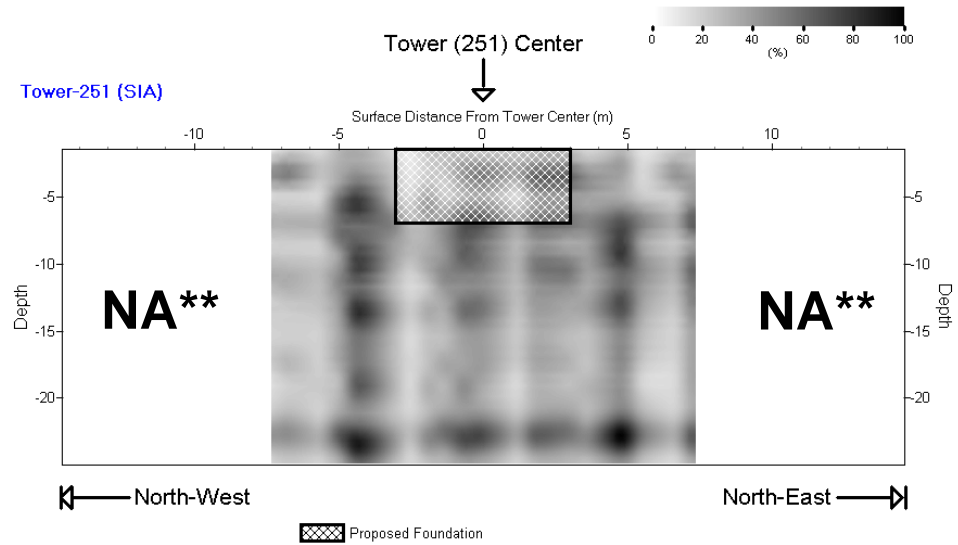
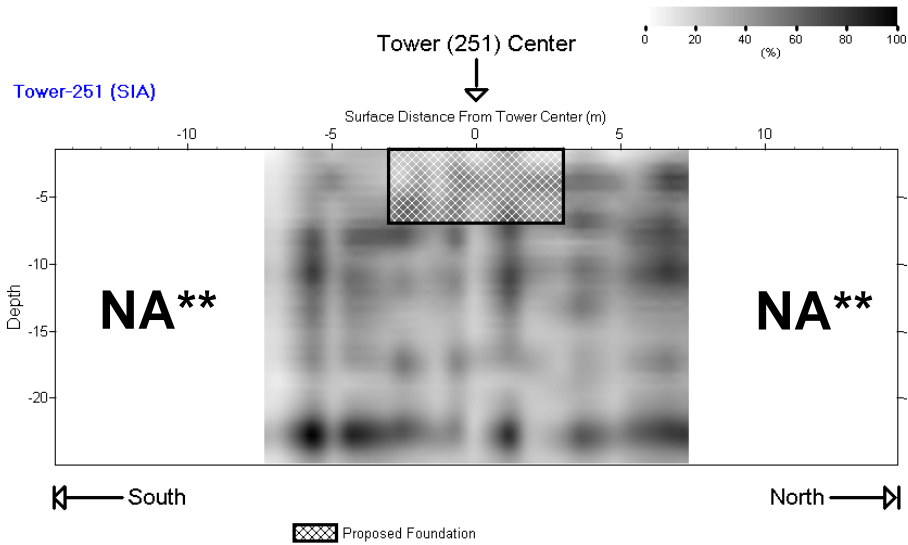


T-250



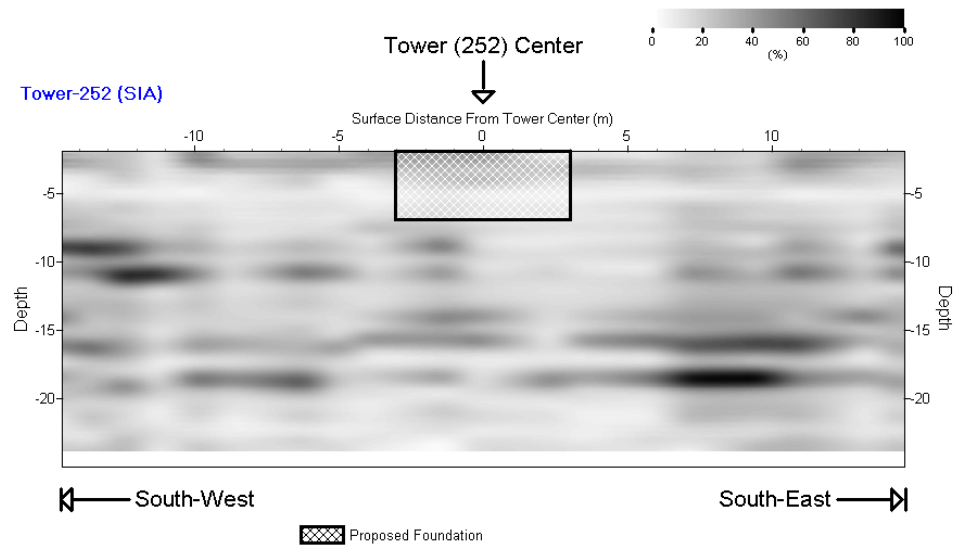
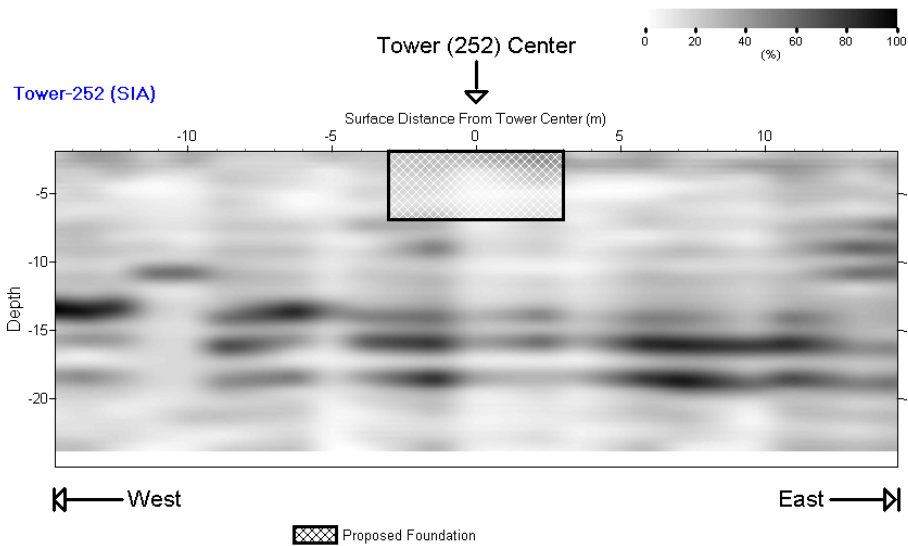
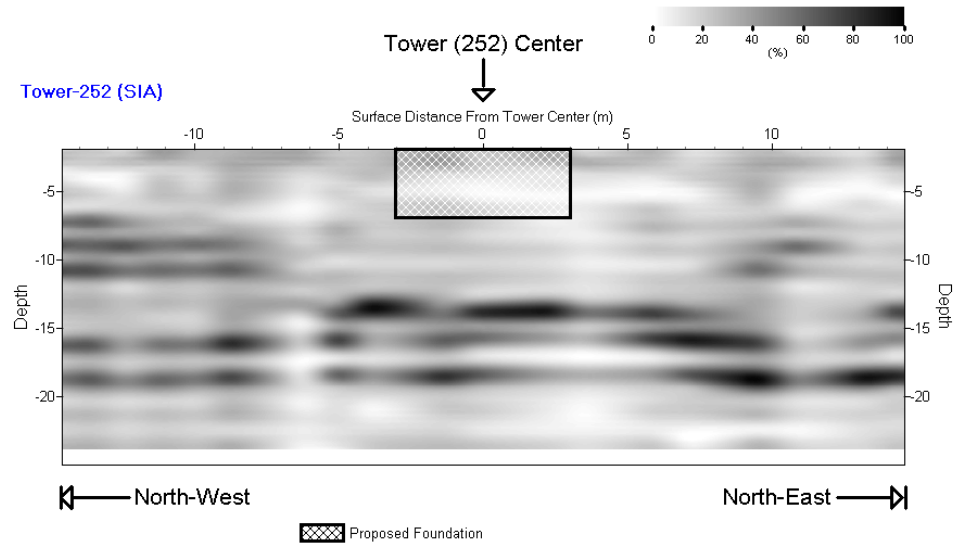
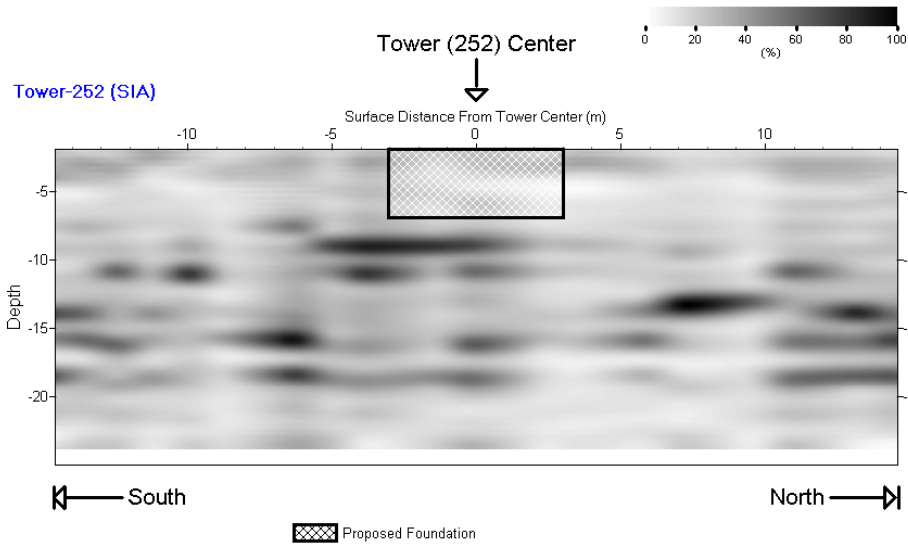
**Data not acquired due to terrain condition

T-251

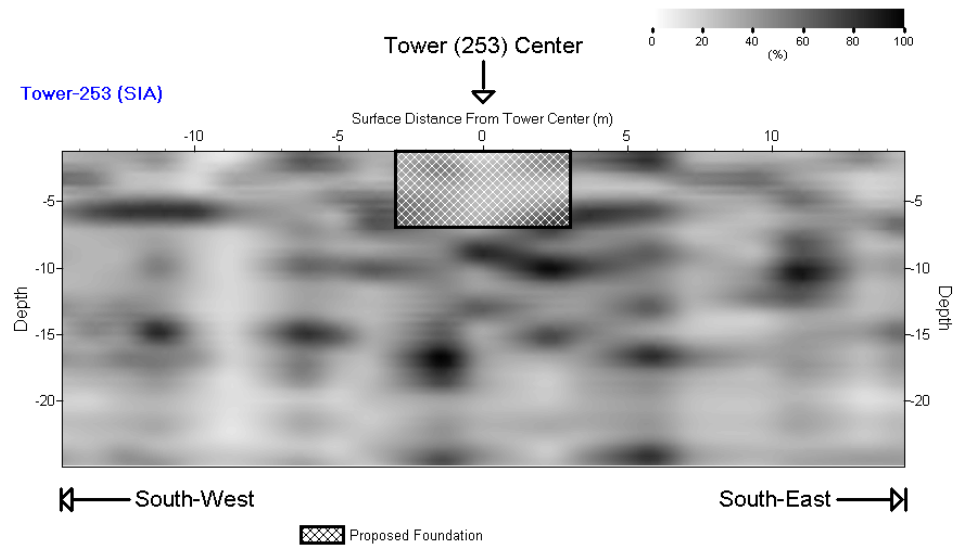
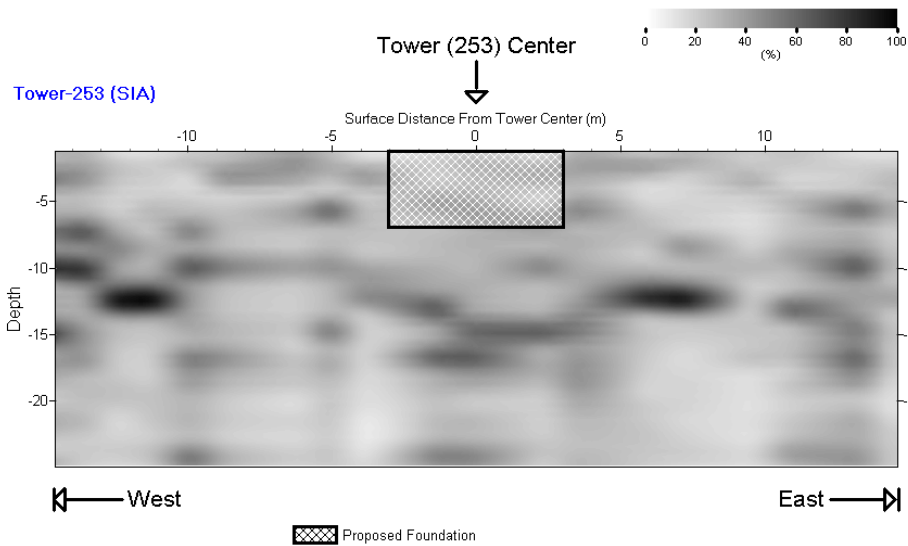
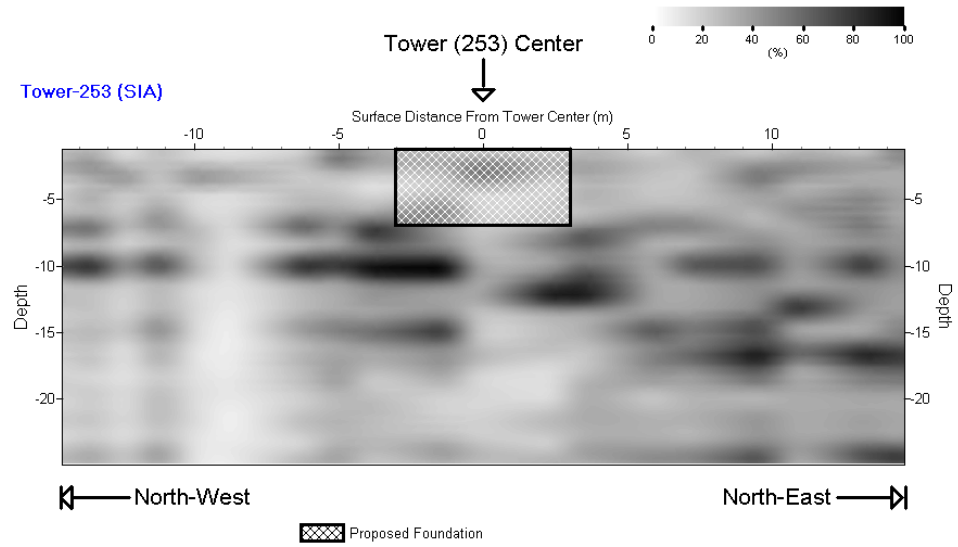
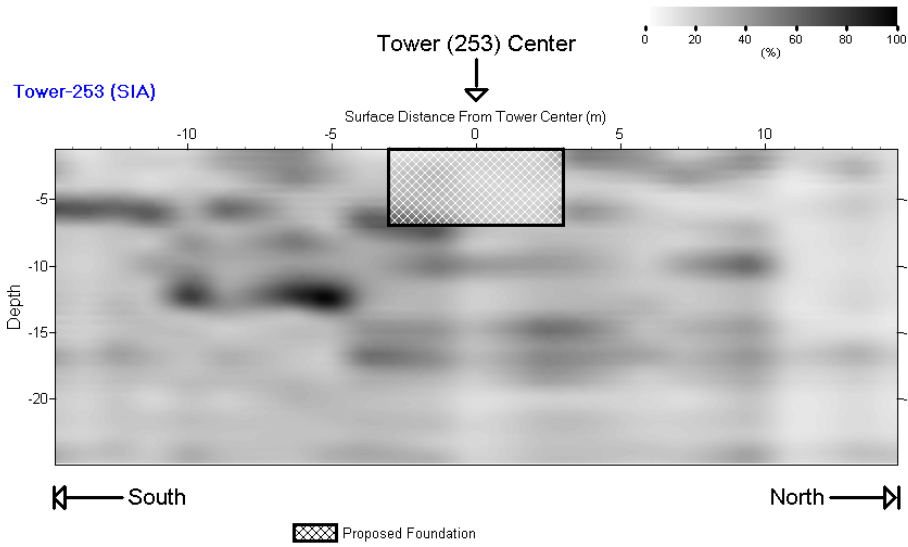


**Data not acquired due to terrain condition (shorter receiver spacing of 2 ft used)

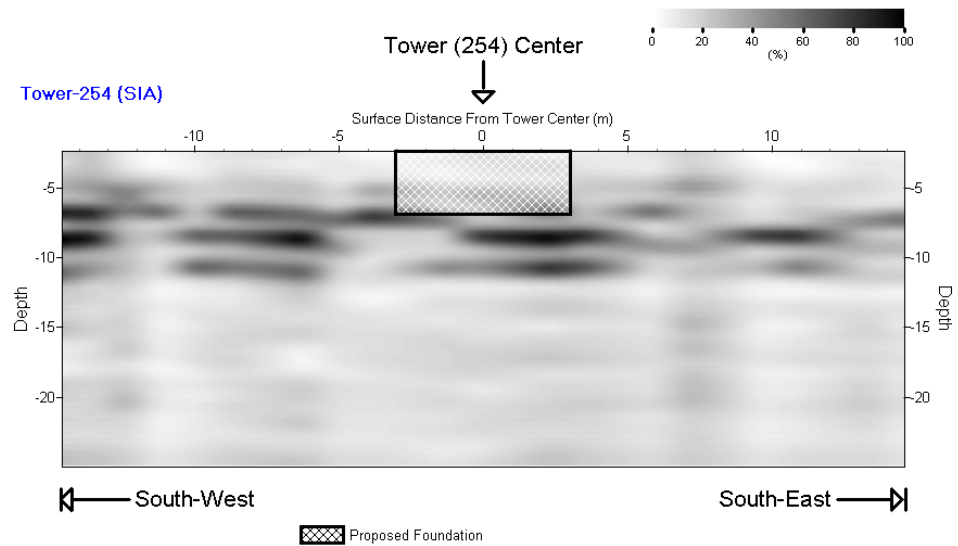
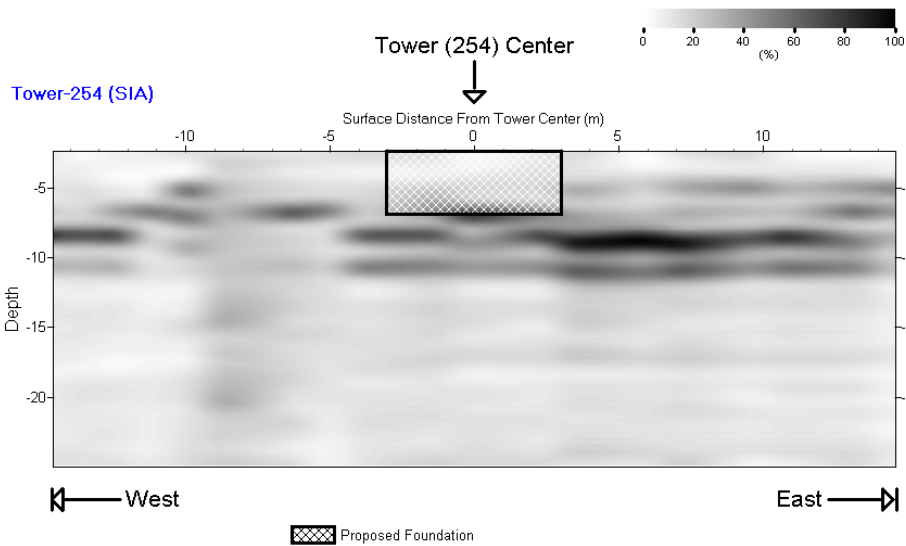
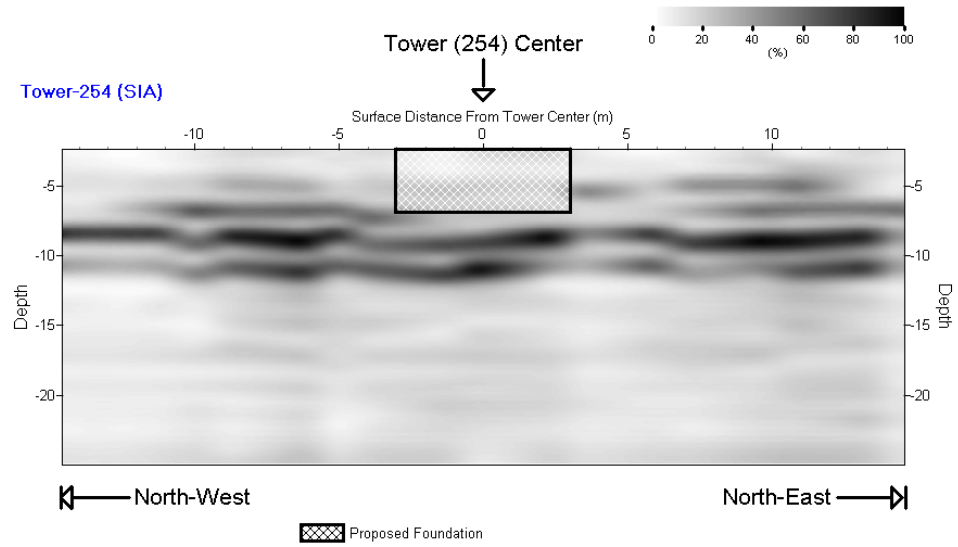
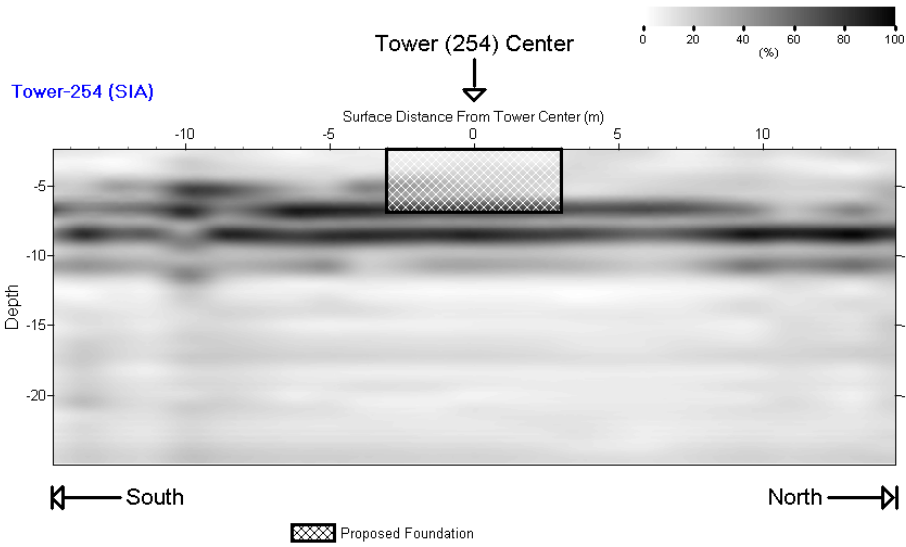
T-252



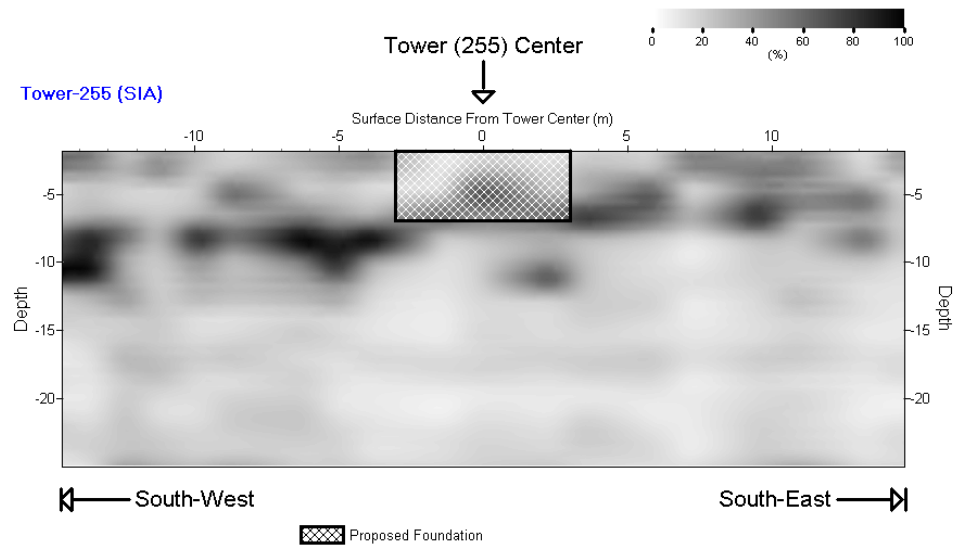
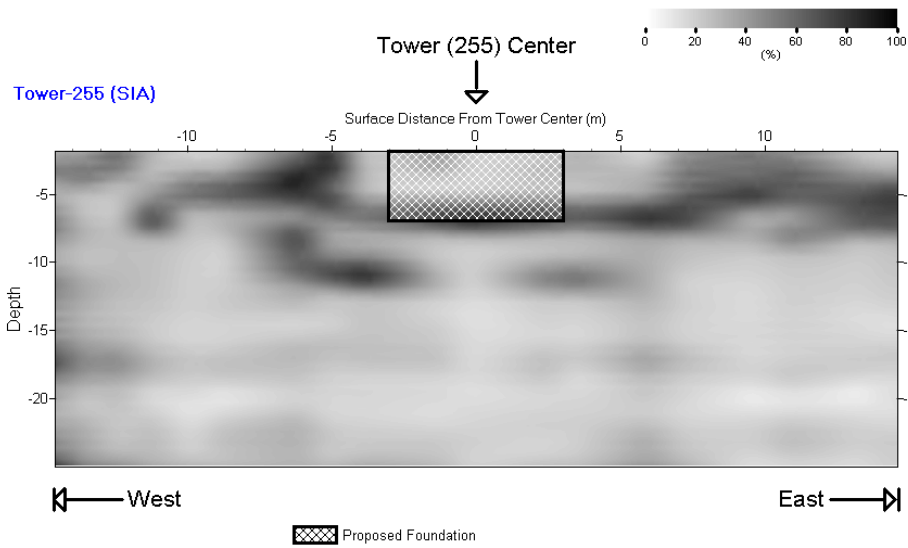
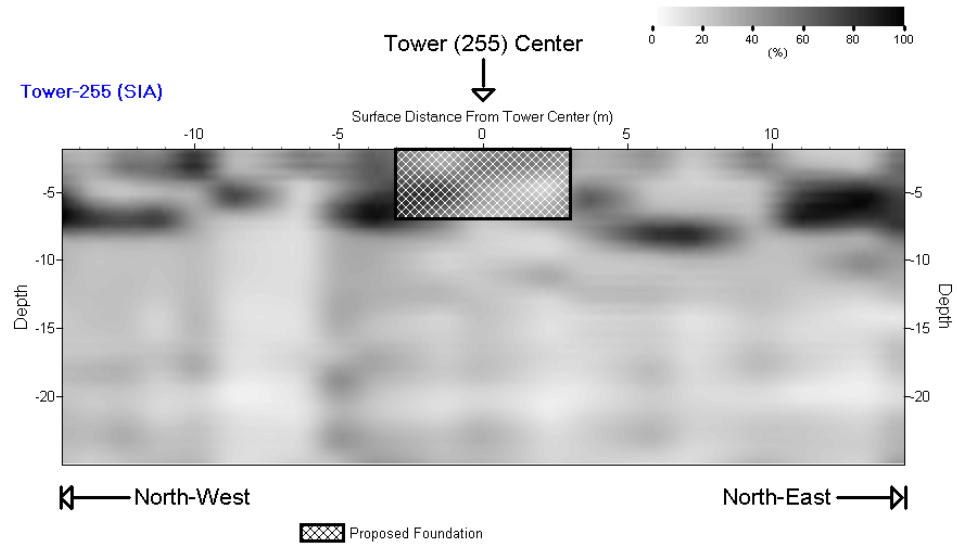
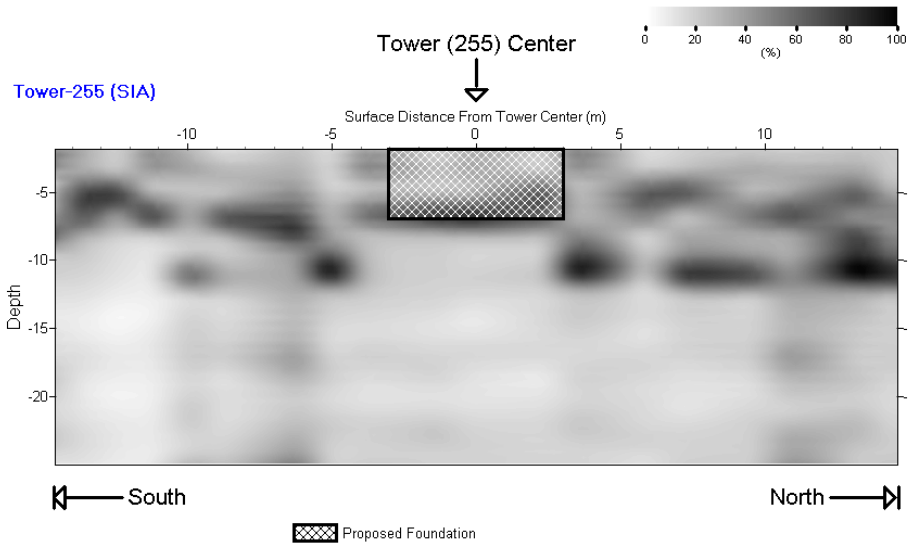
T-253



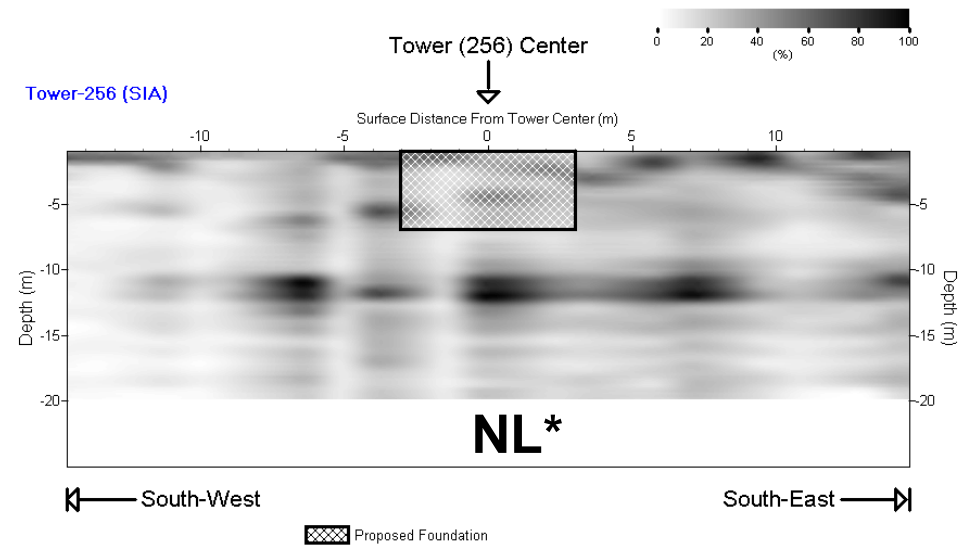
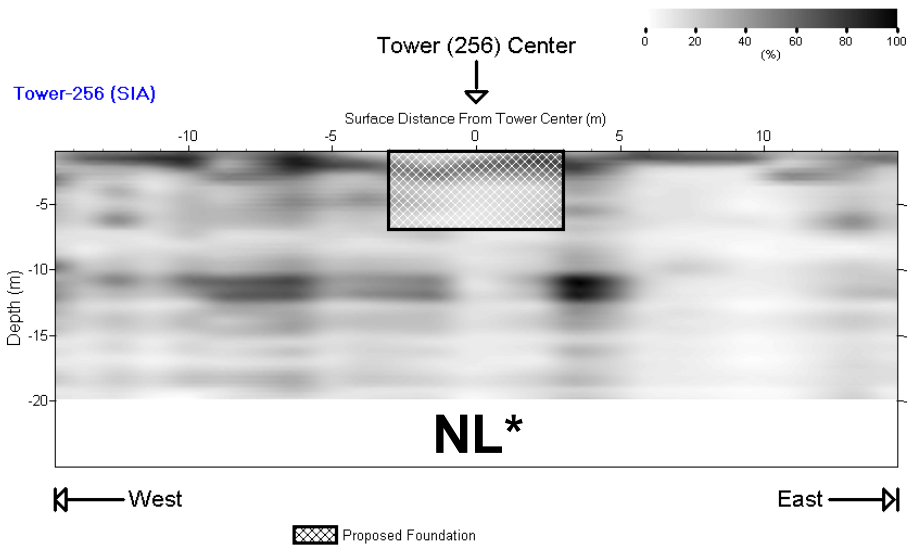
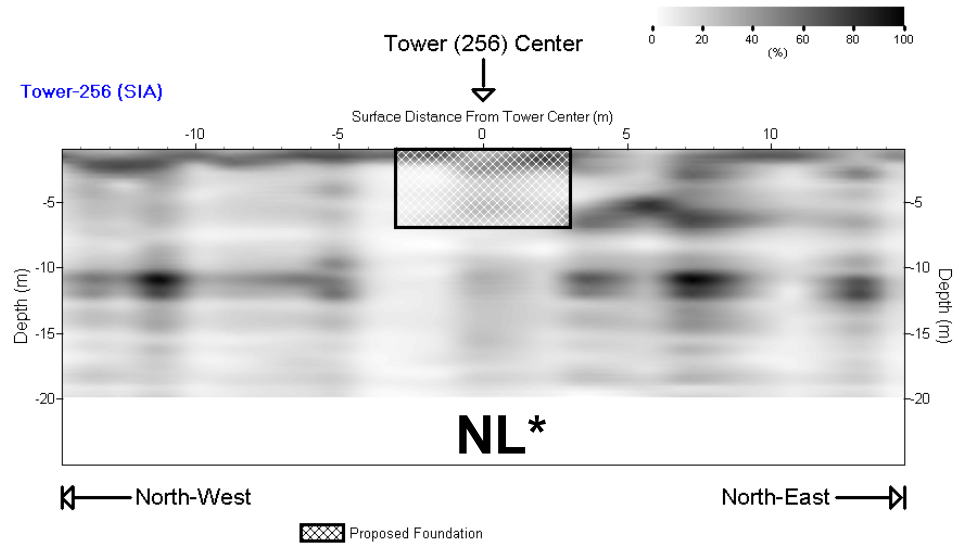
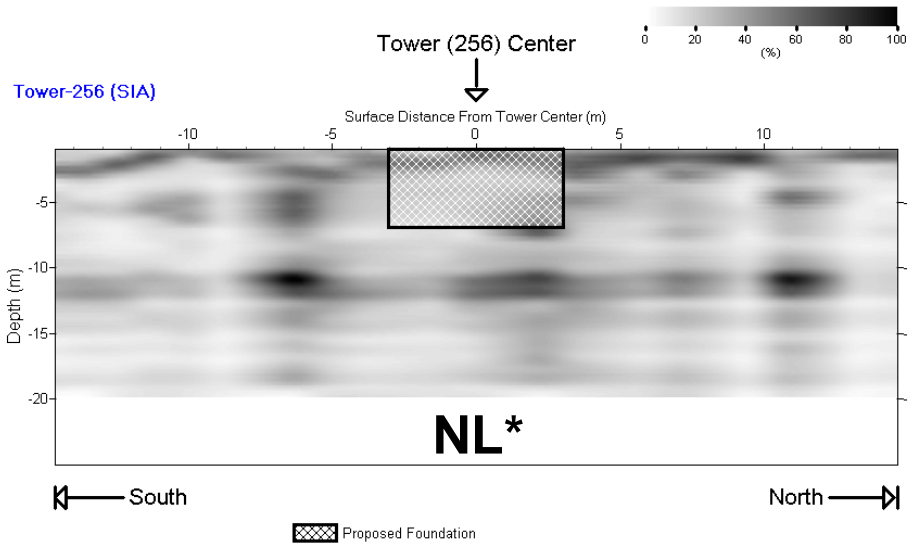
T-254



T-255

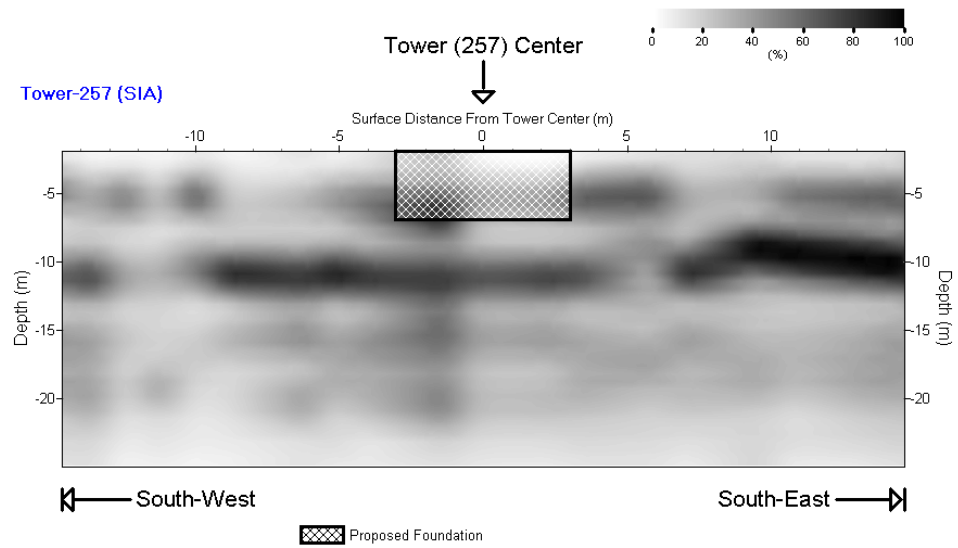
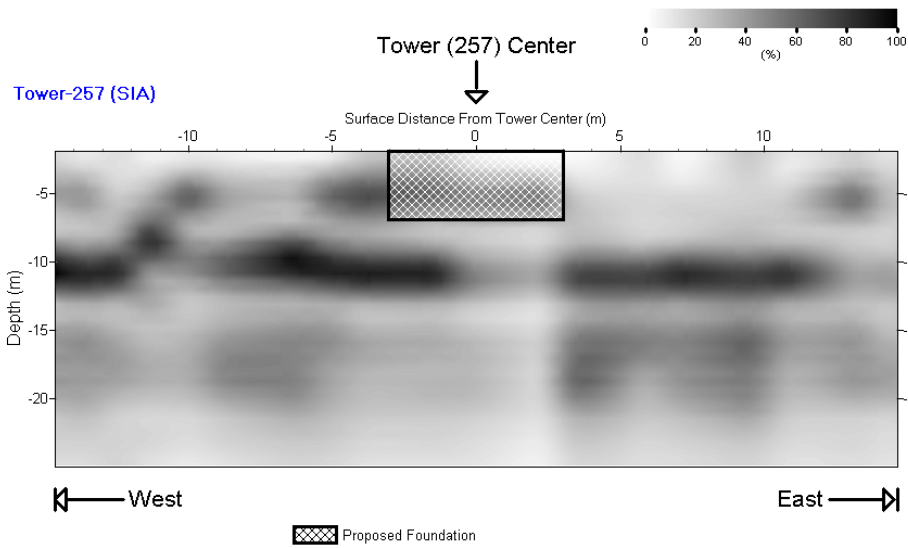
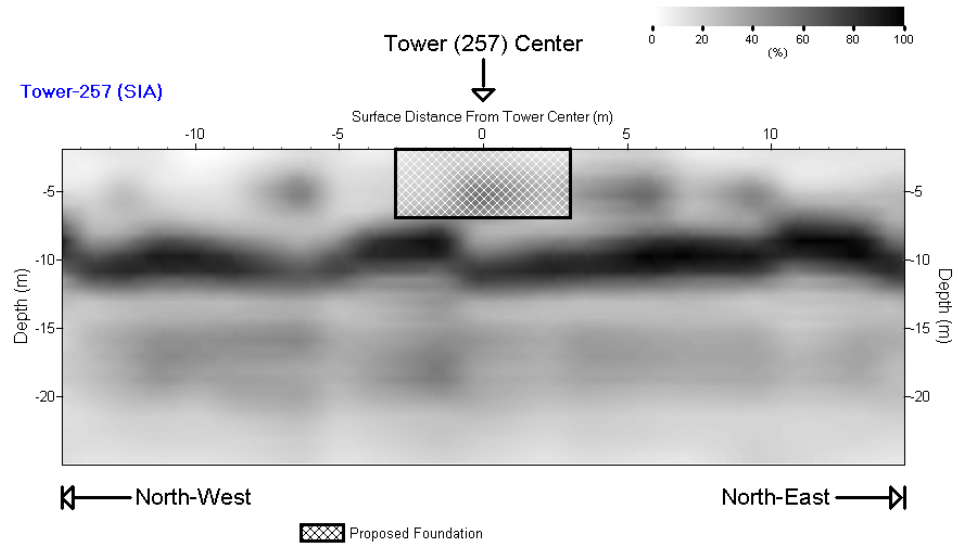
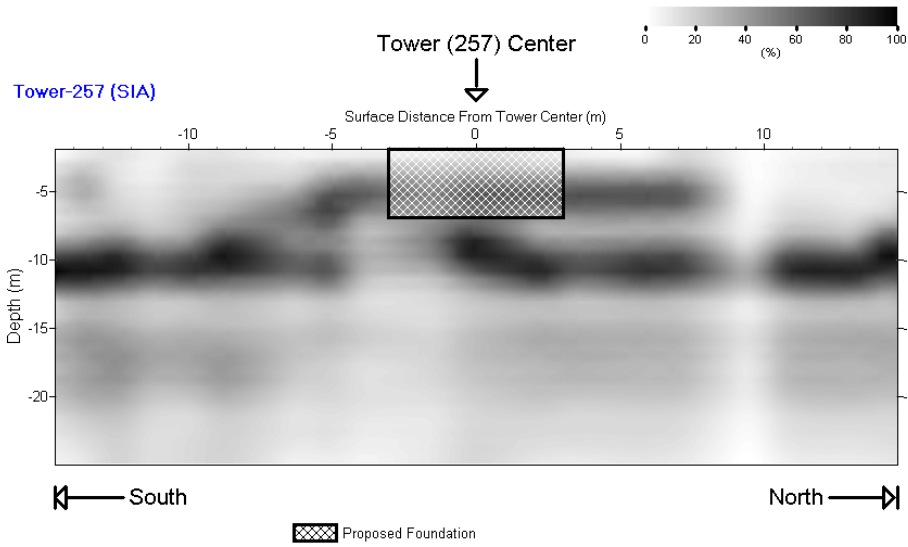


T-256

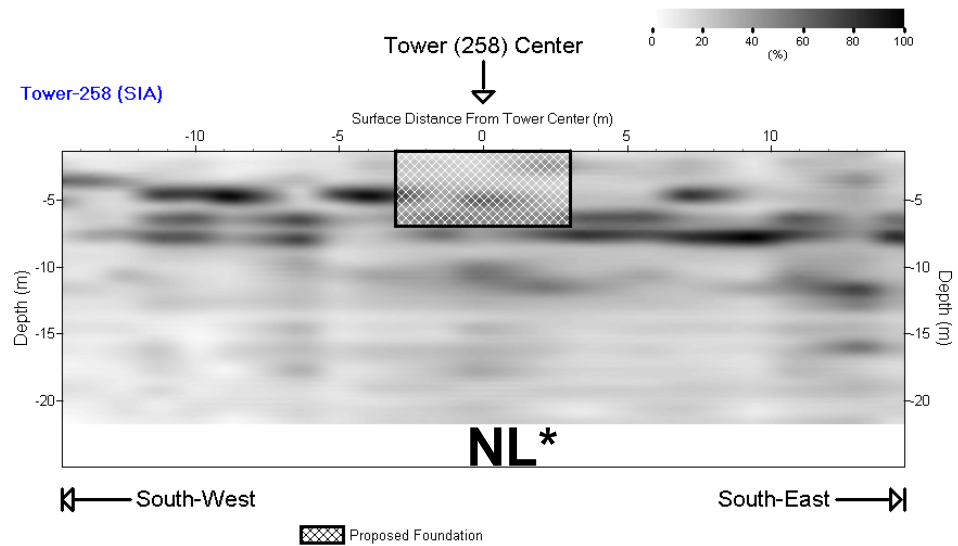
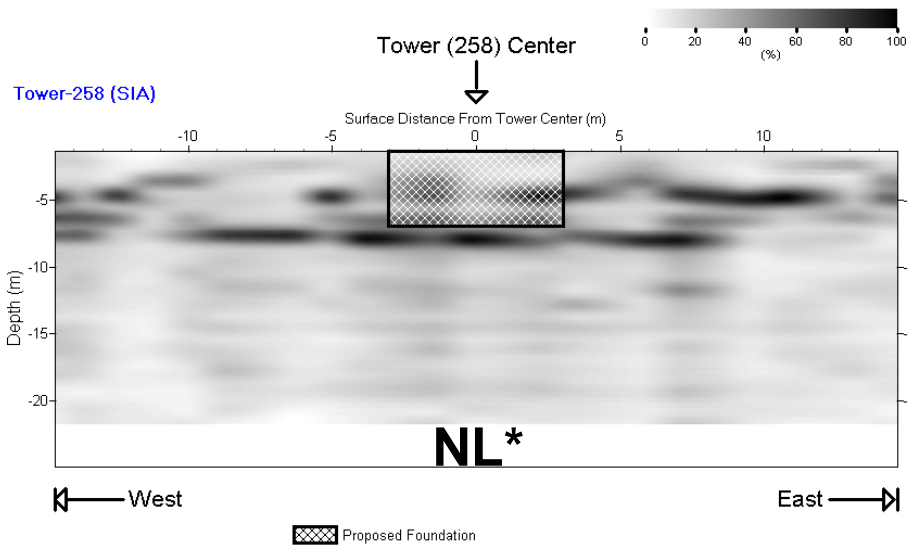
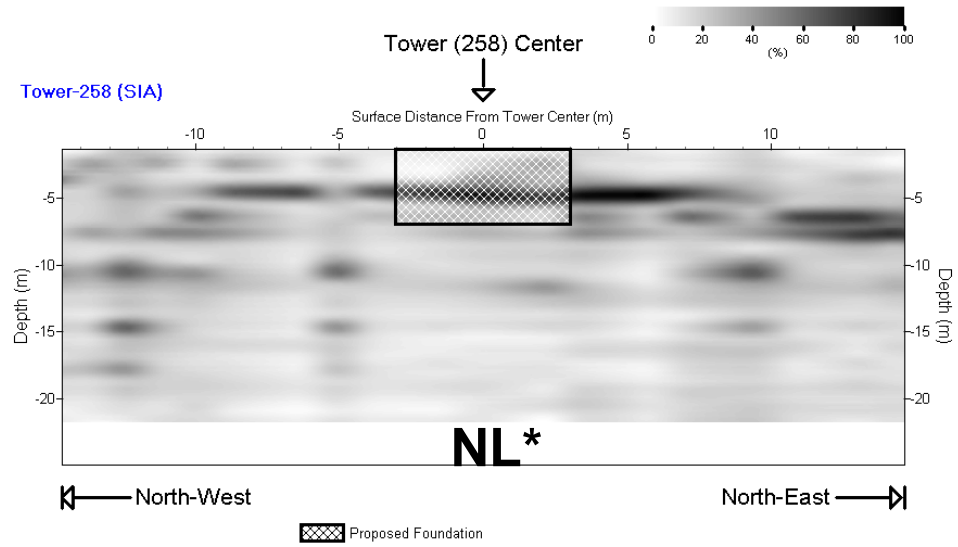
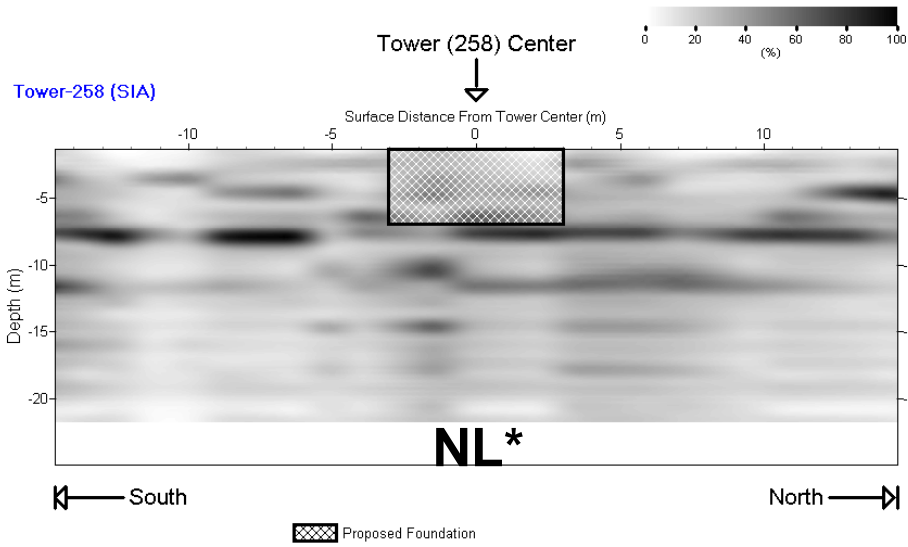


*Not low-enough frequencies to resolve this depth range

T-257

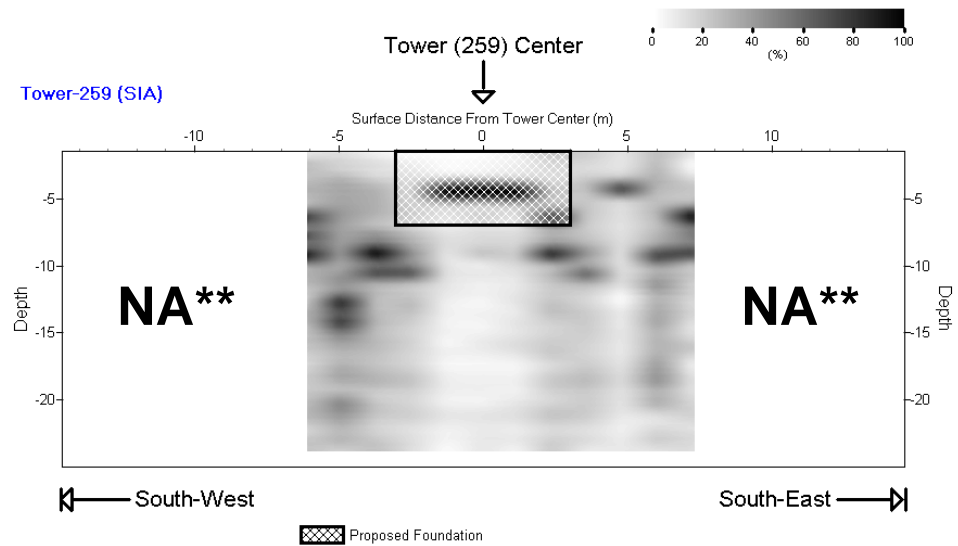
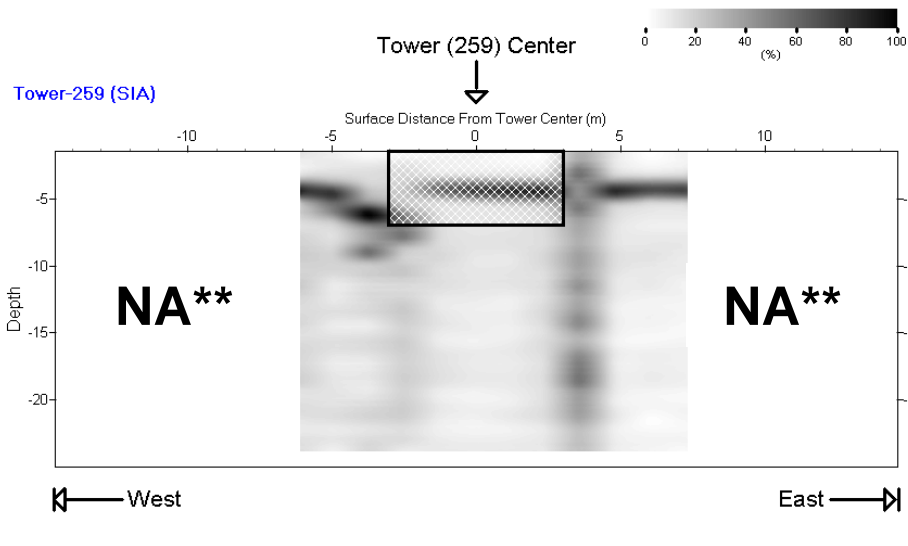
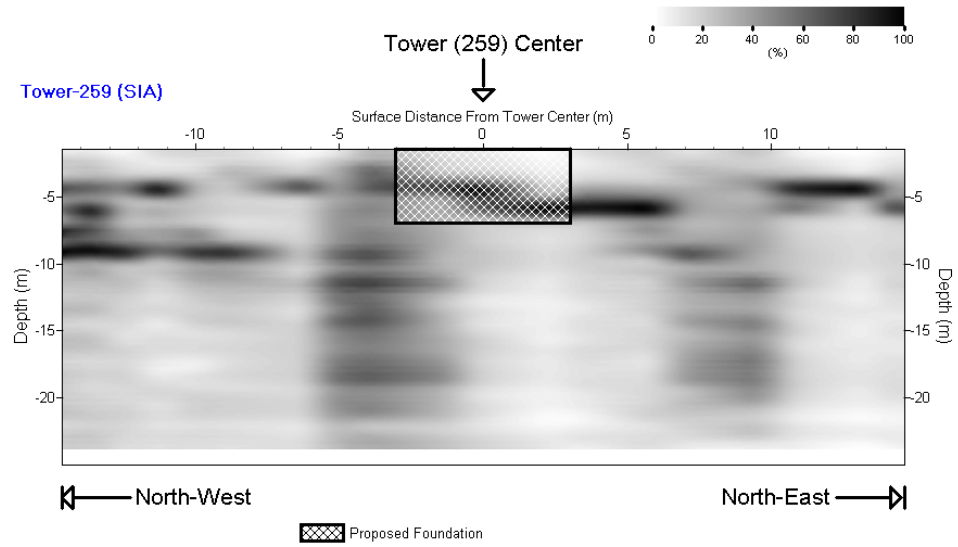
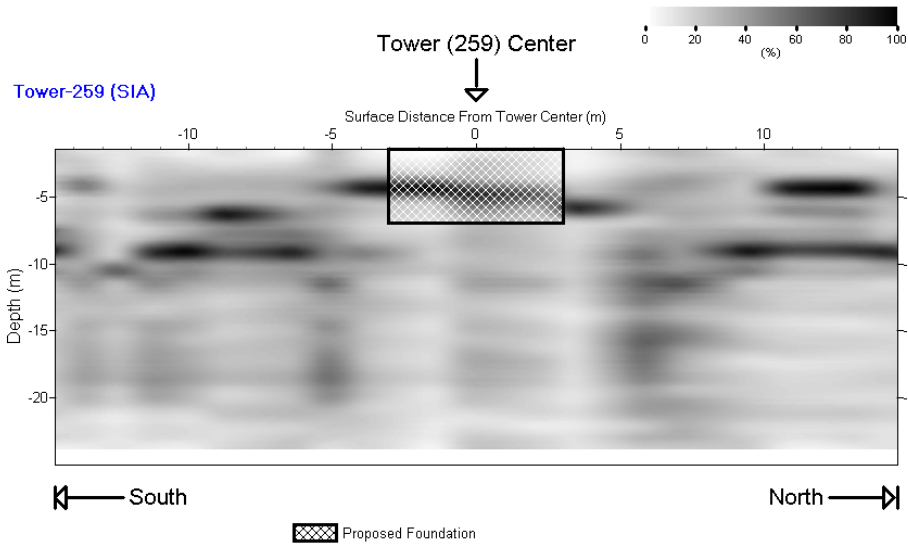


T-258



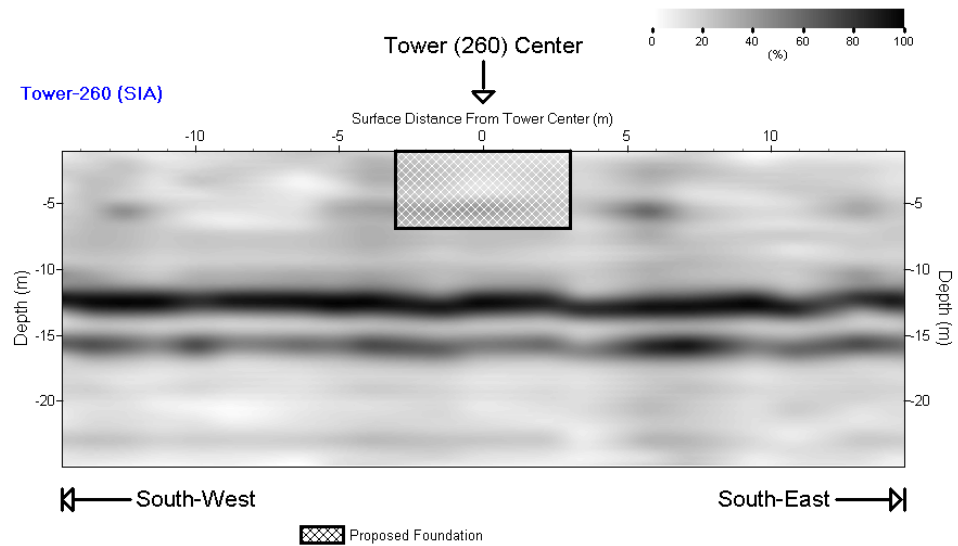
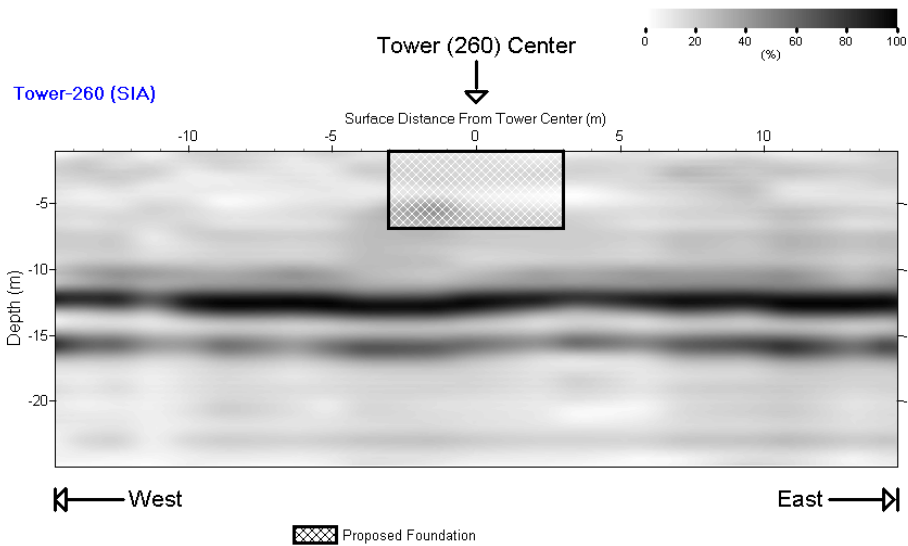
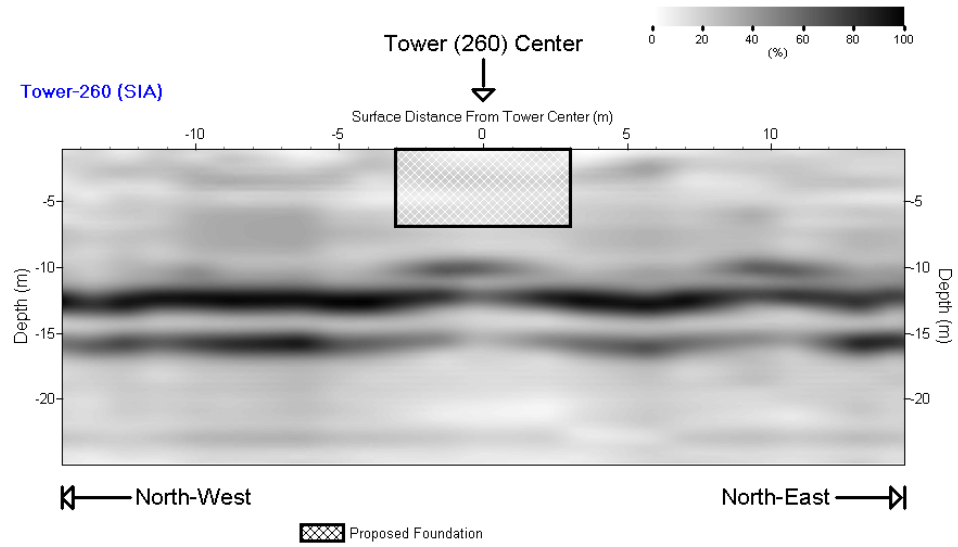
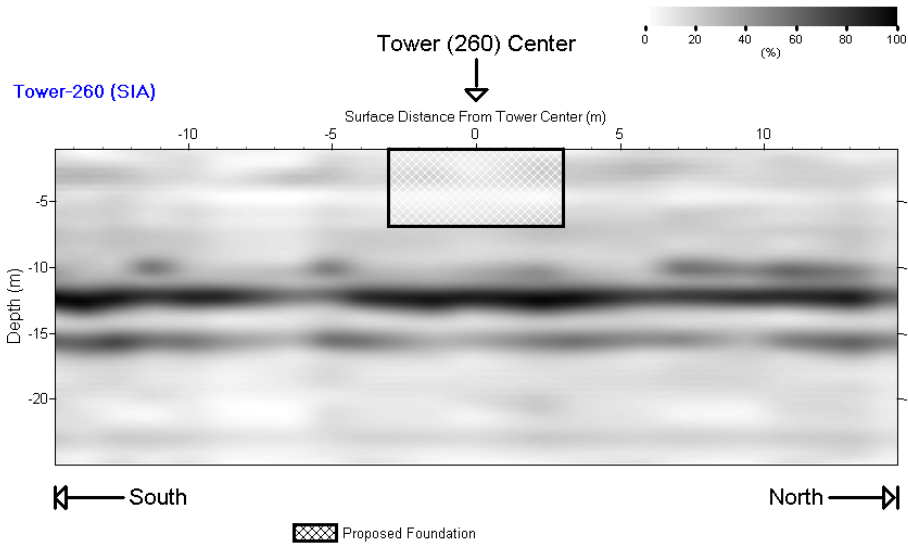
*Not low-enough frequencies to resolve this depth range

T-259

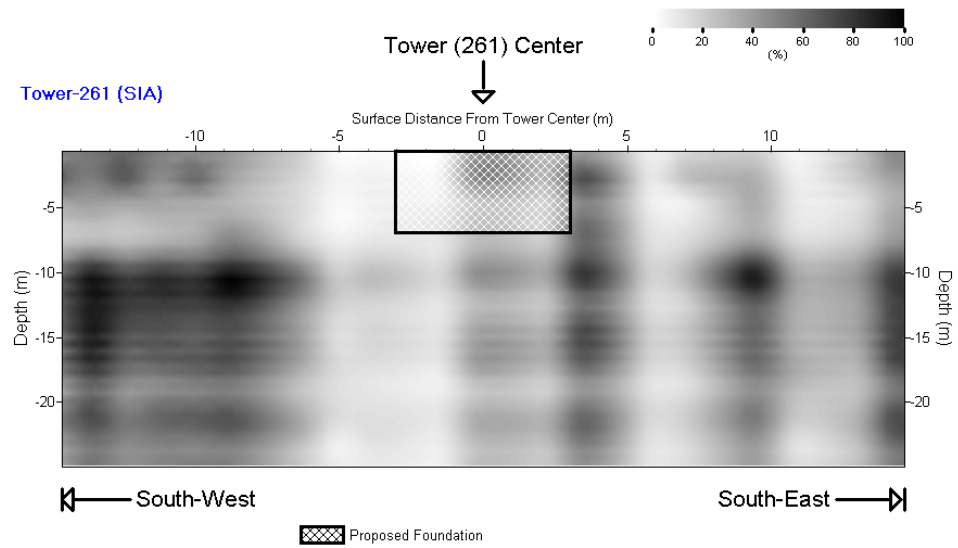
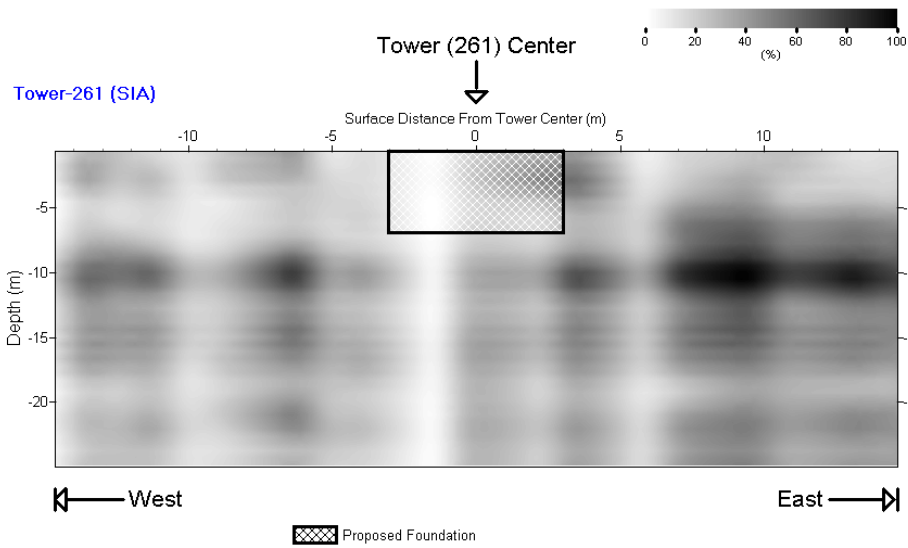
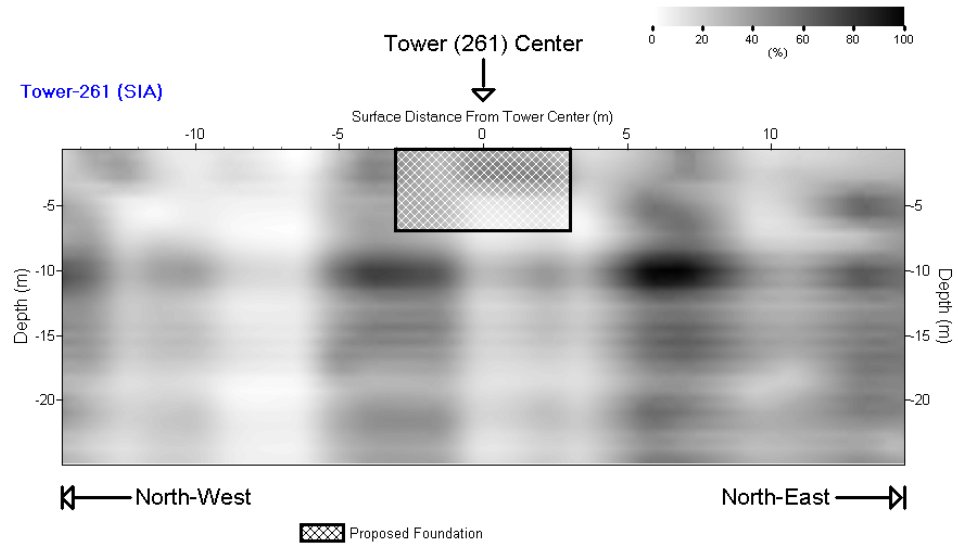
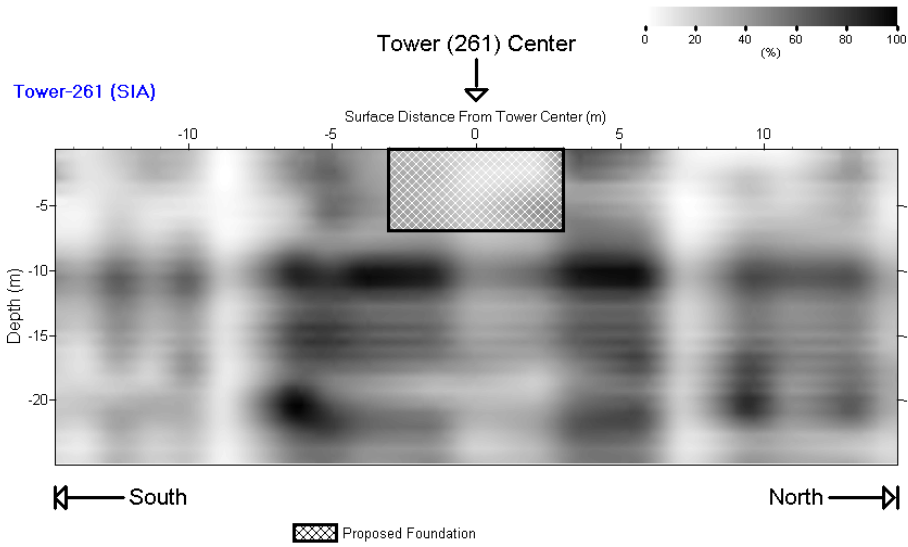


**Data not acquired due to terrain condition

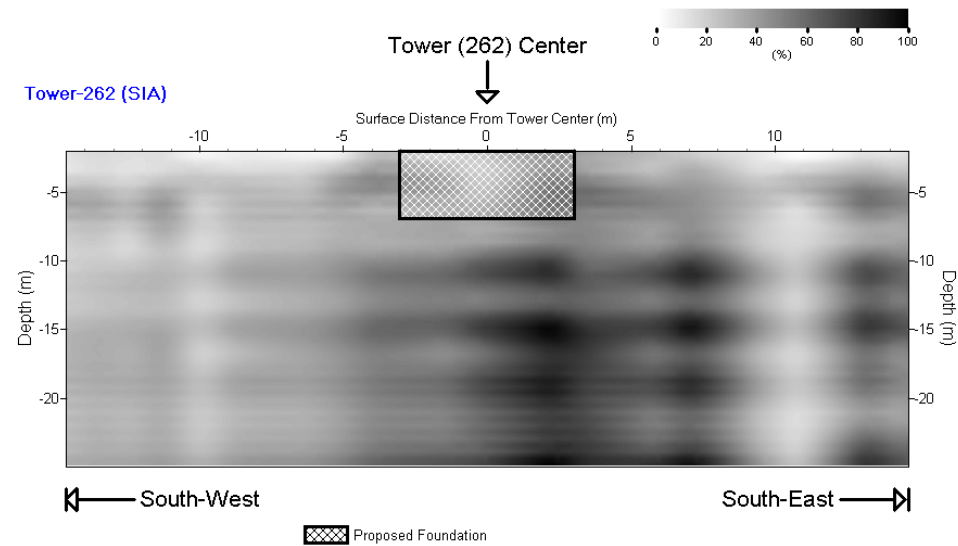
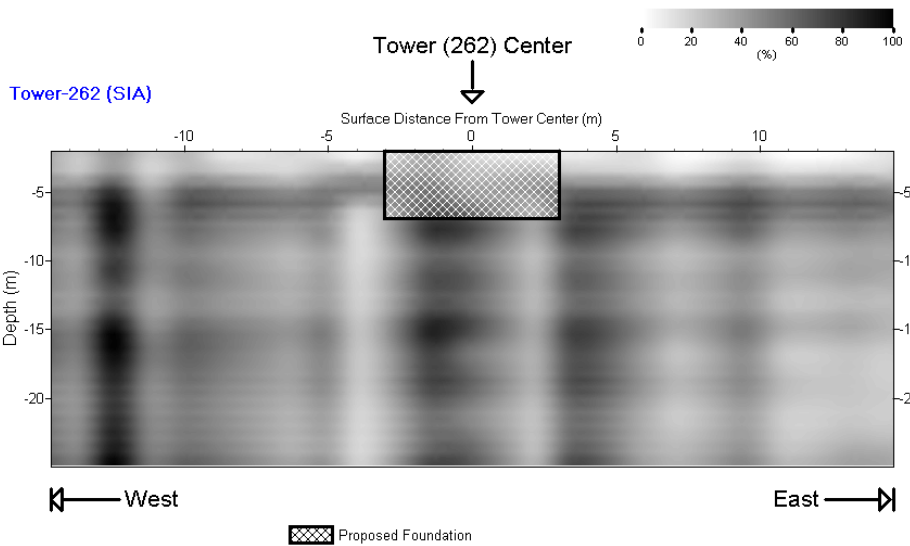
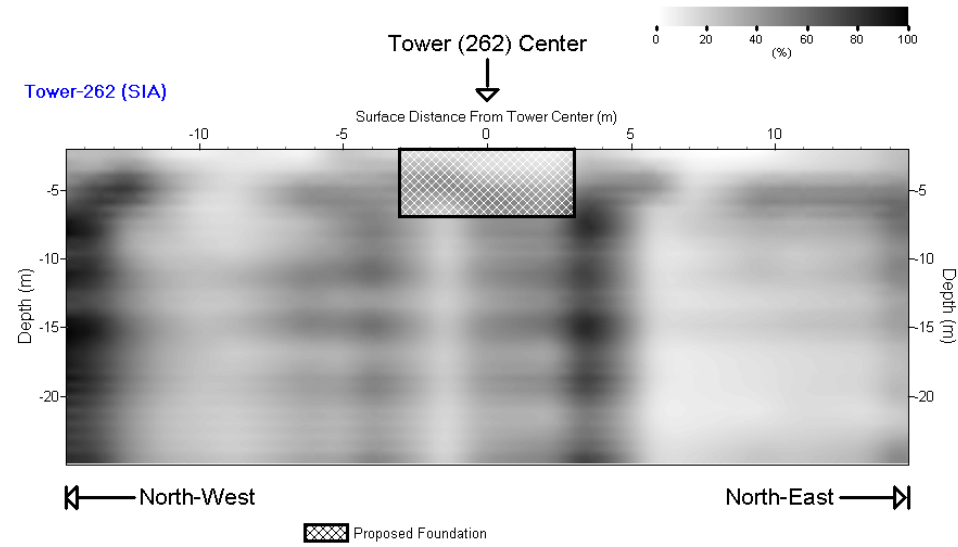
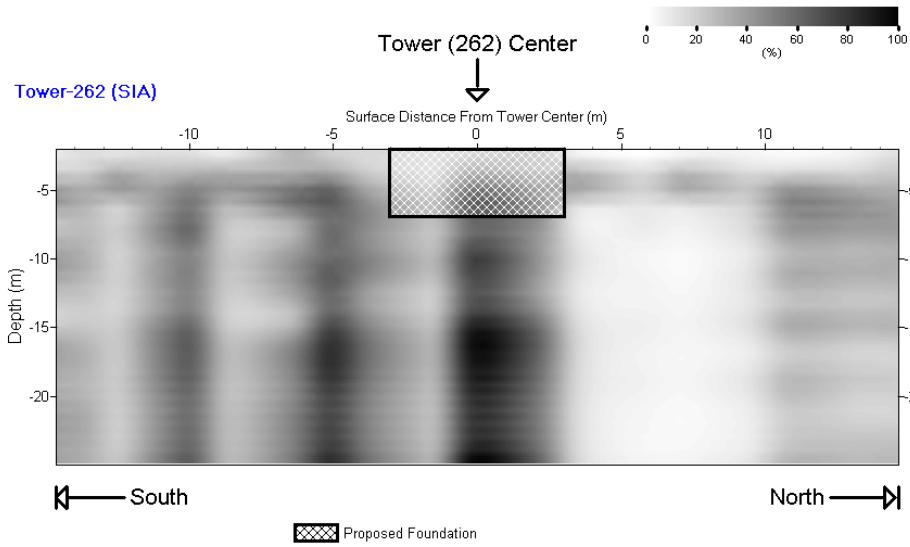
T-260



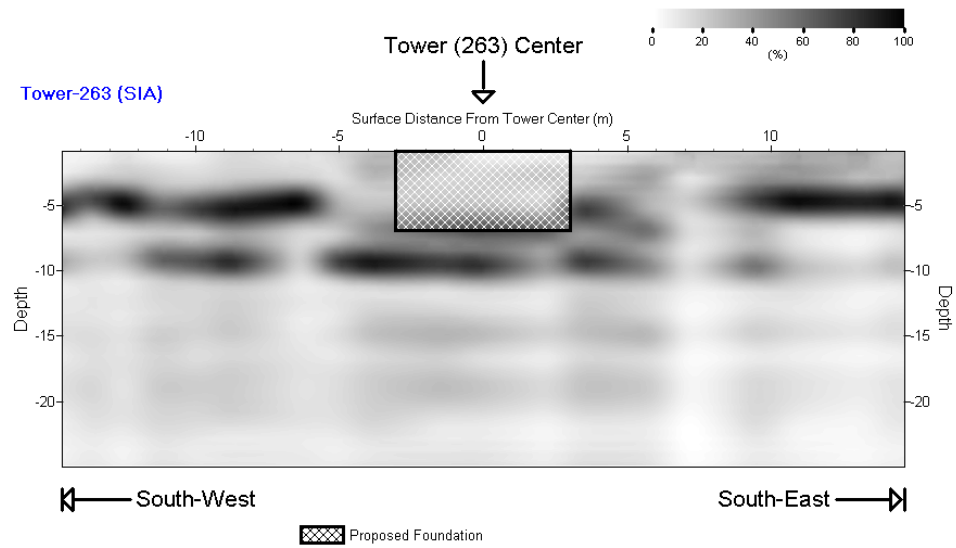
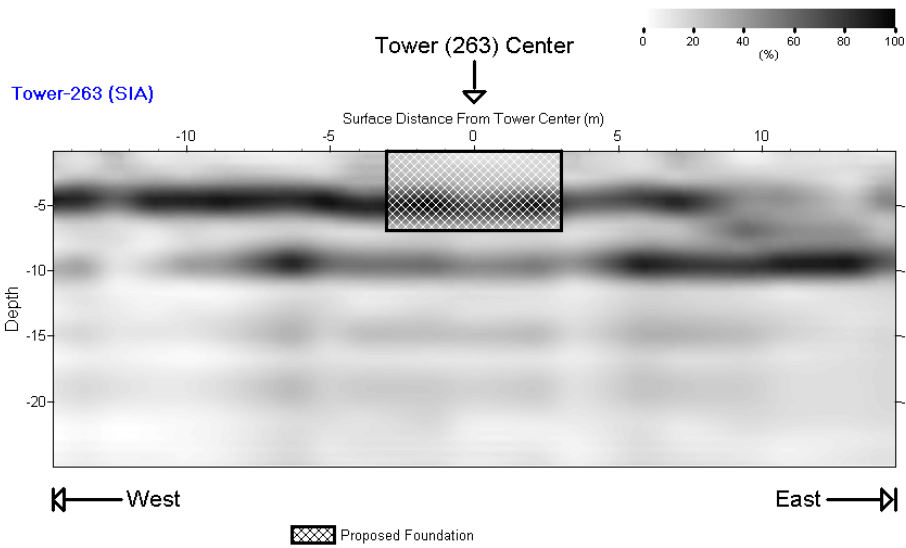
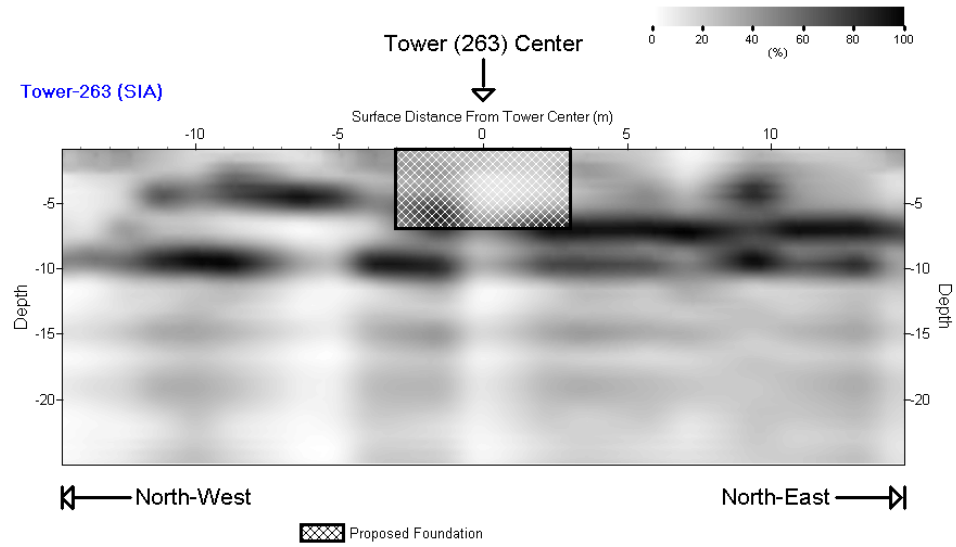
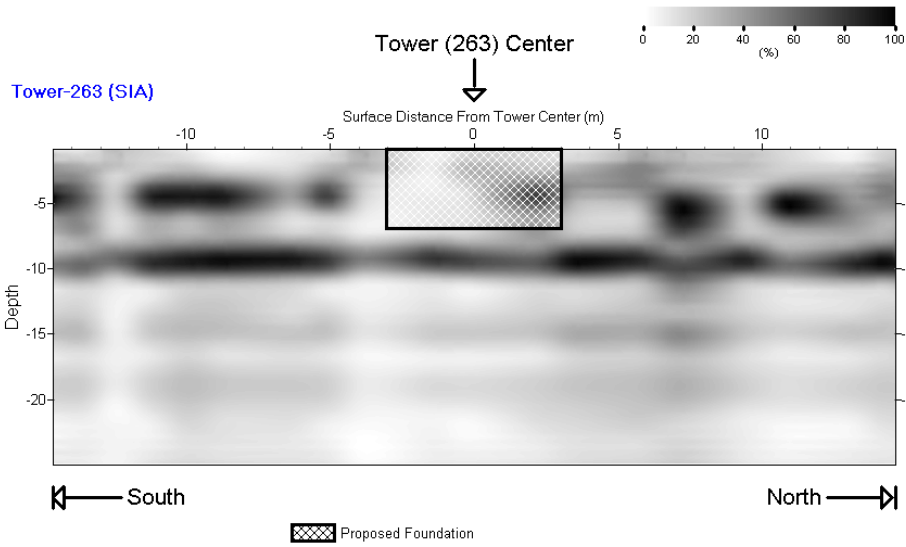
T-261



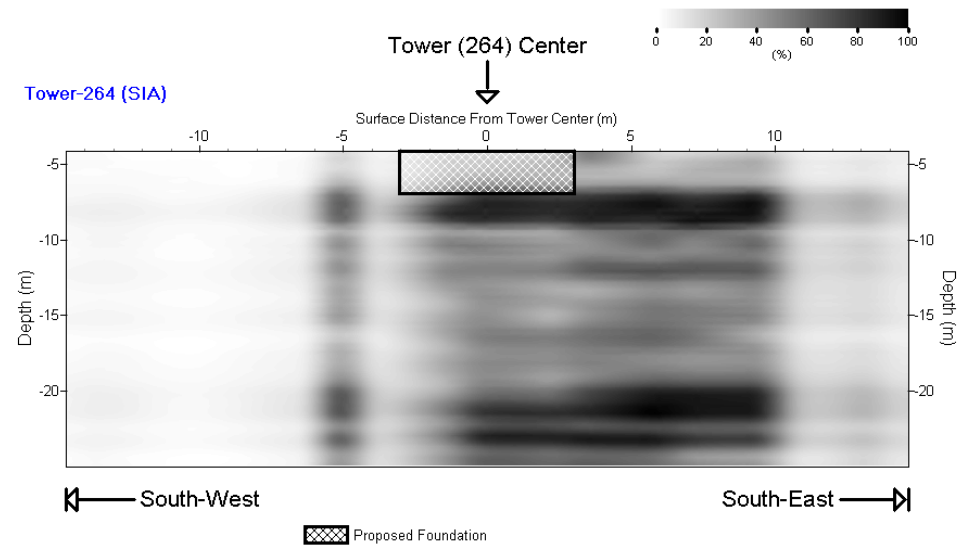
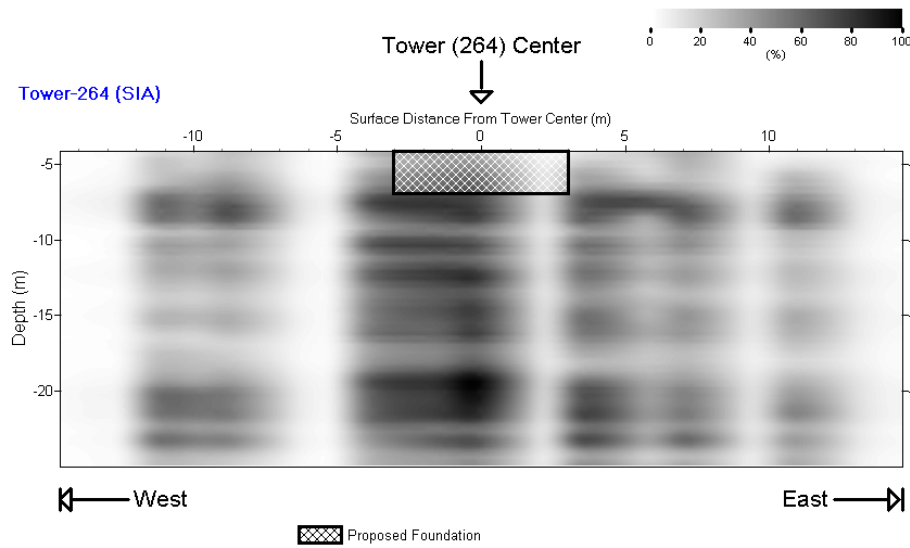
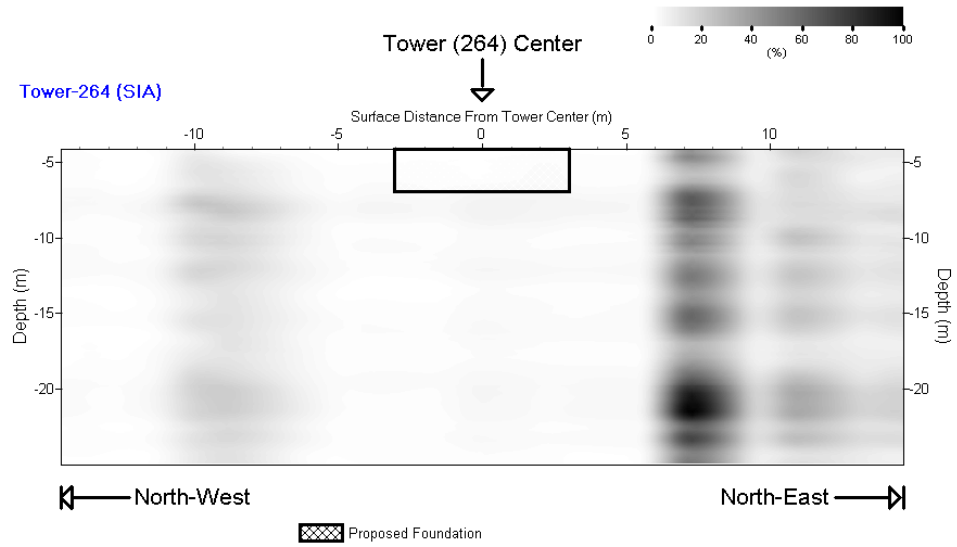
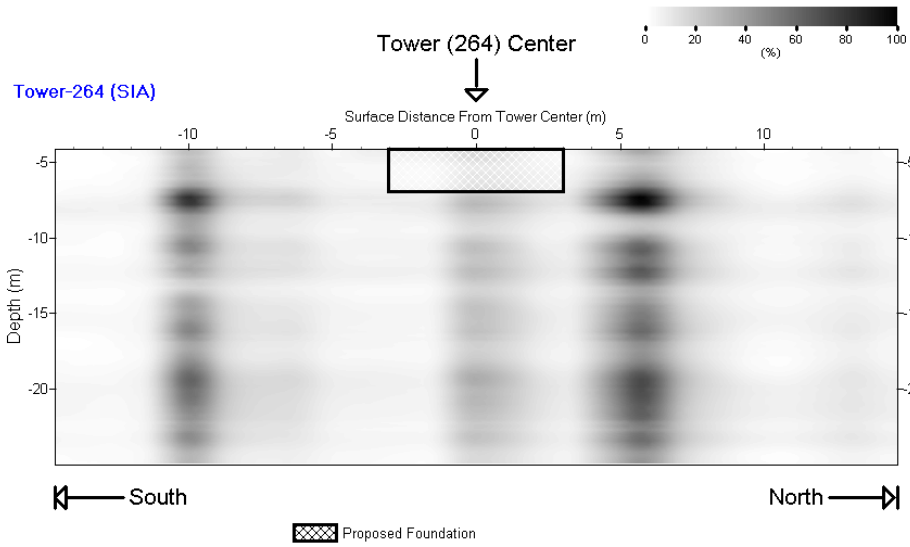
T-262



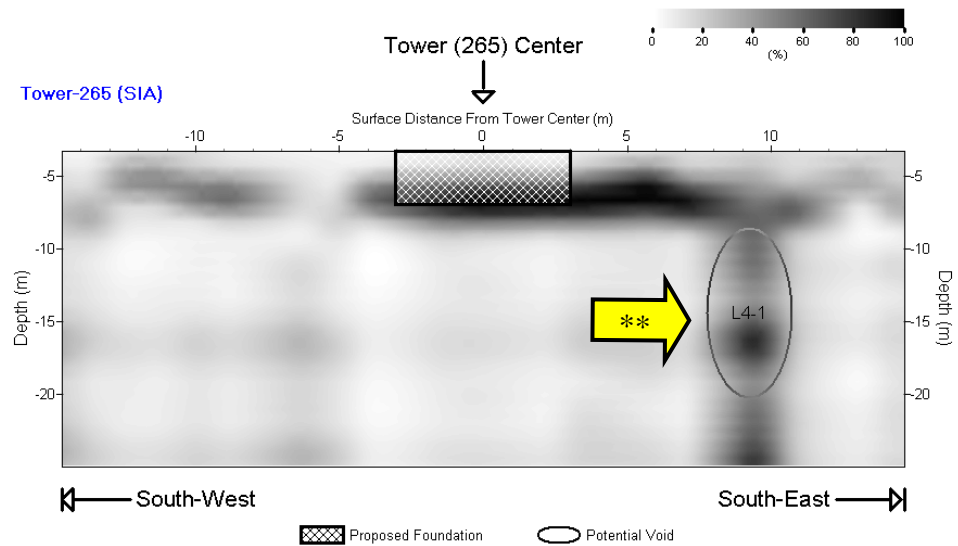
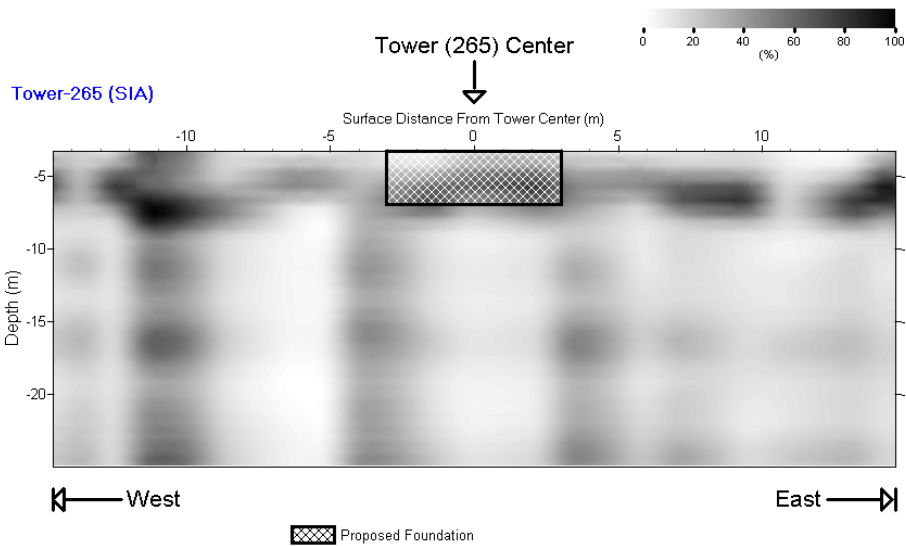
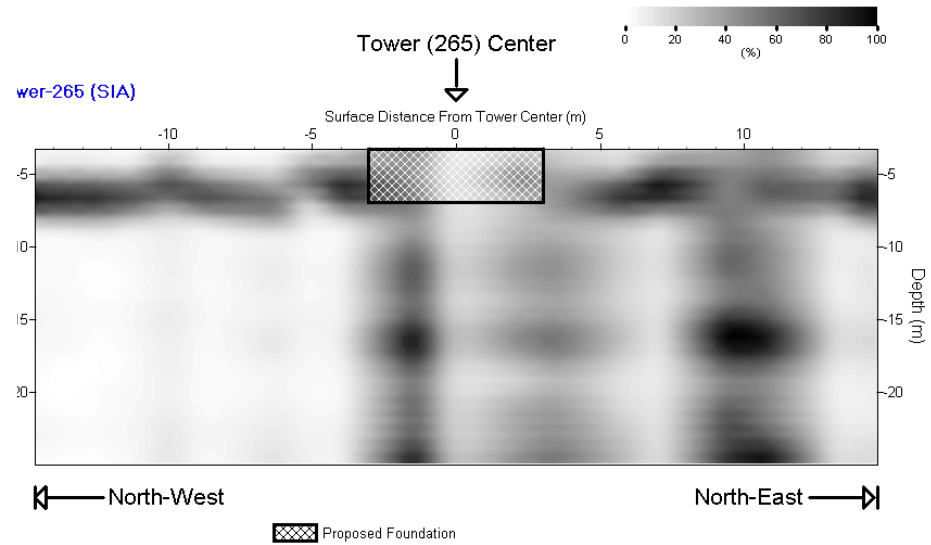
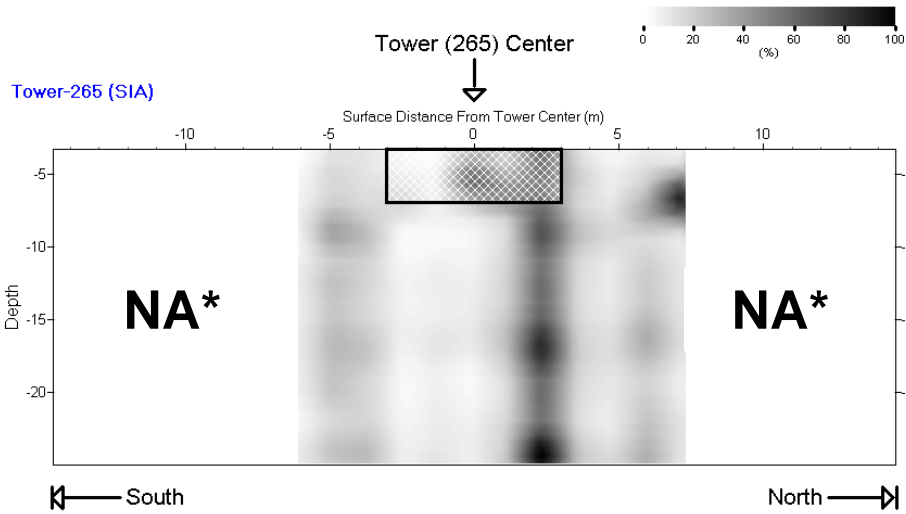
T-263



T-264

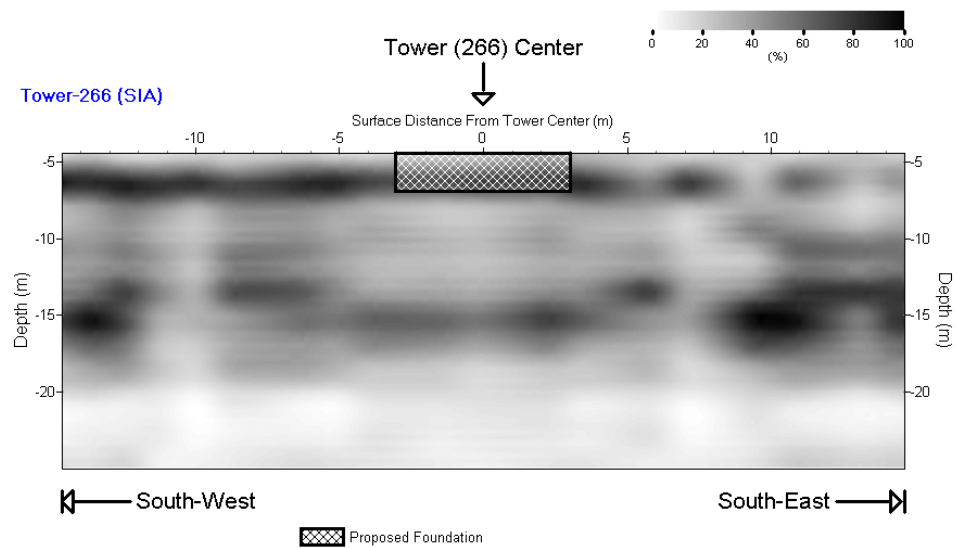
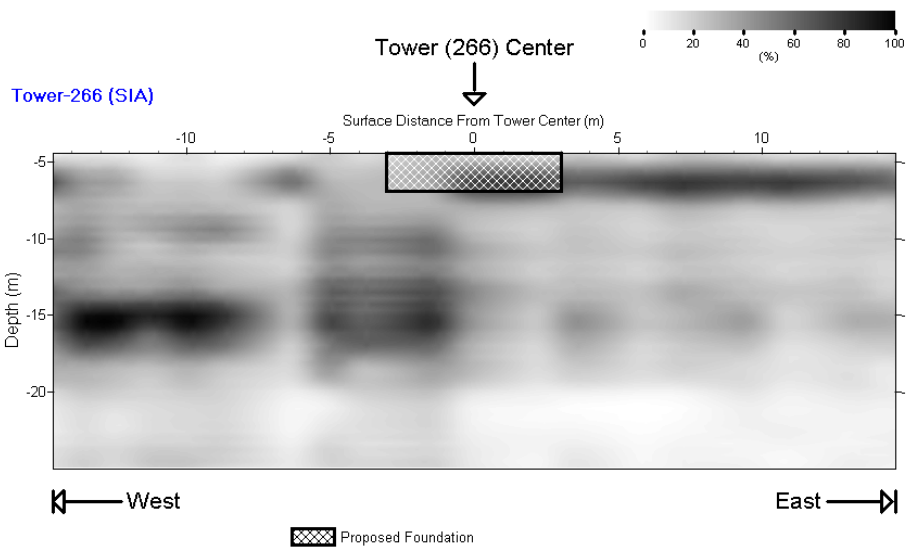
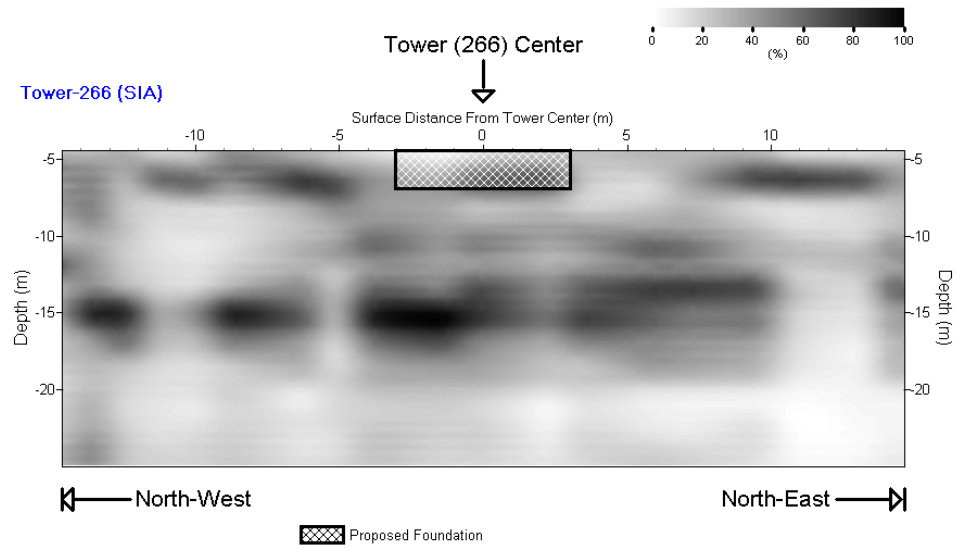
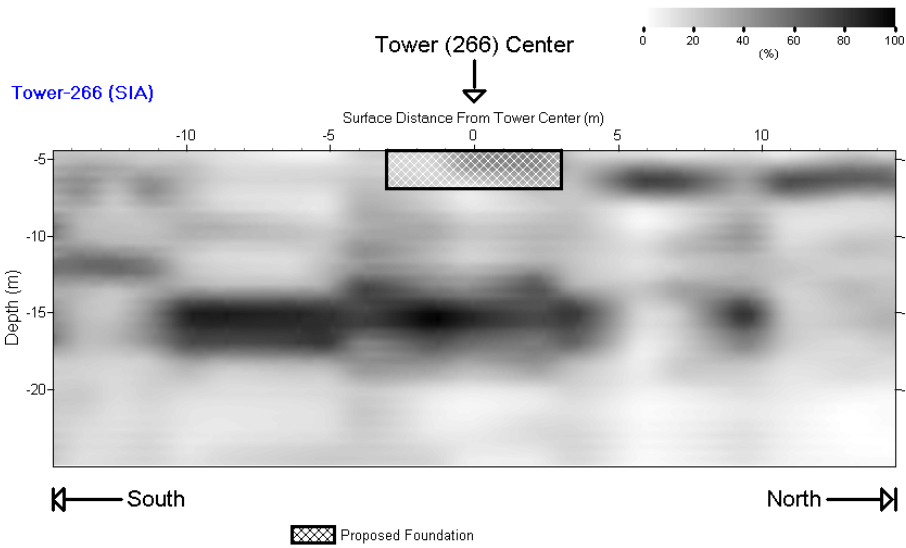


T-265

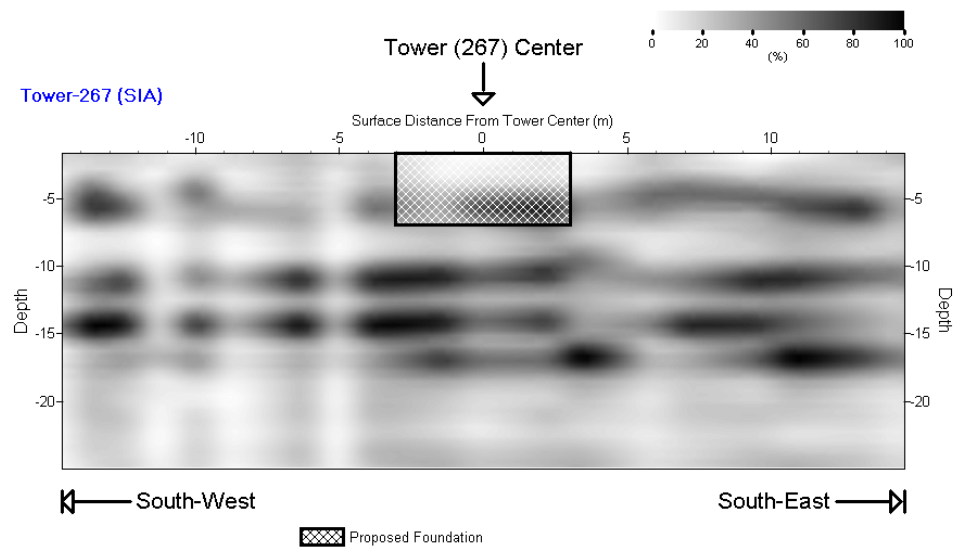
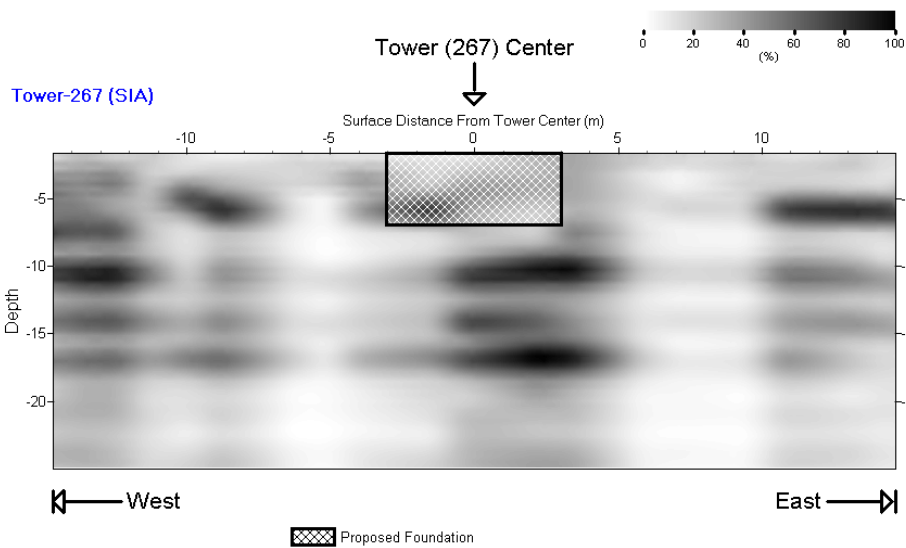
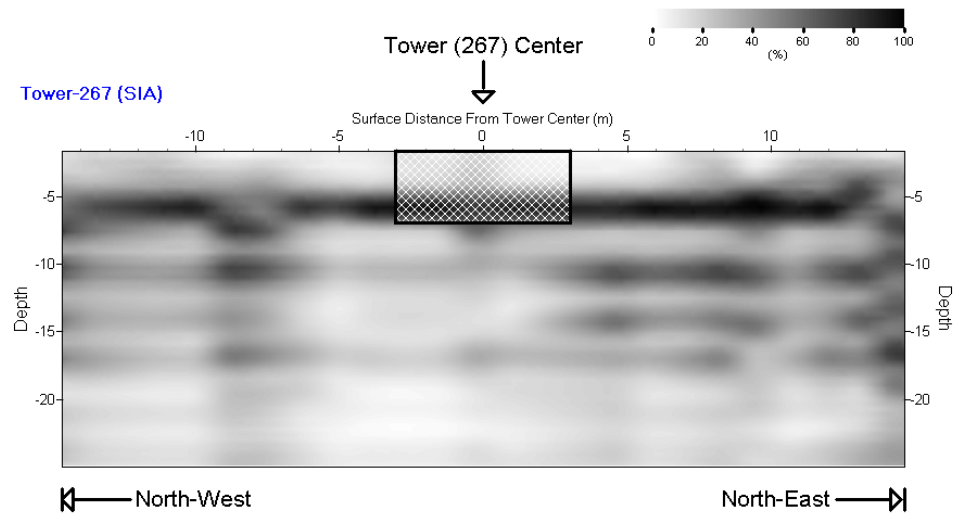
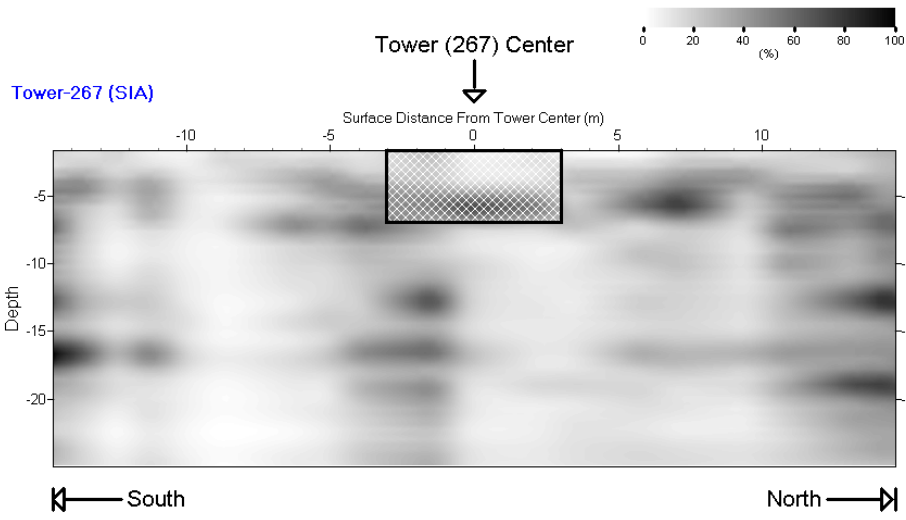


*Data not acquired due to terrain condition **Potential void (see separate text file for coordinates)

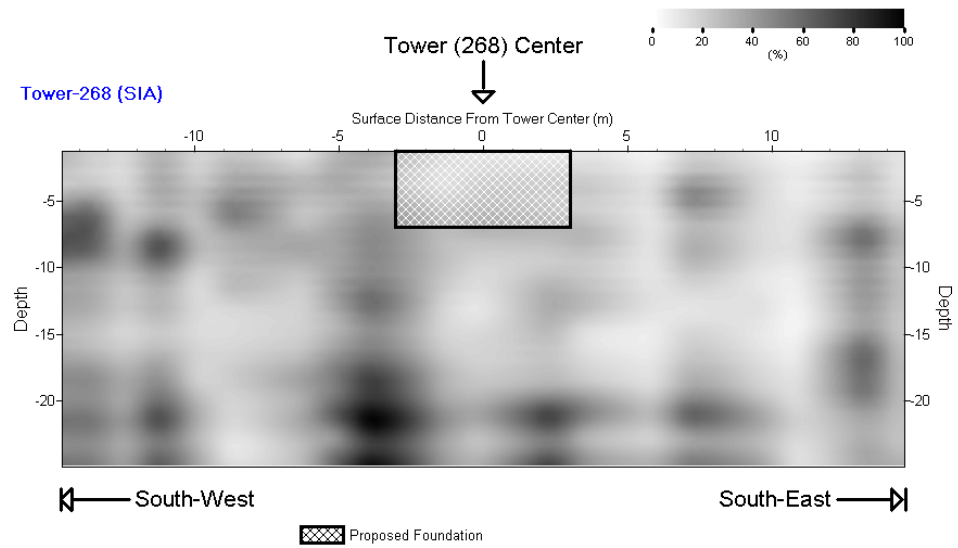
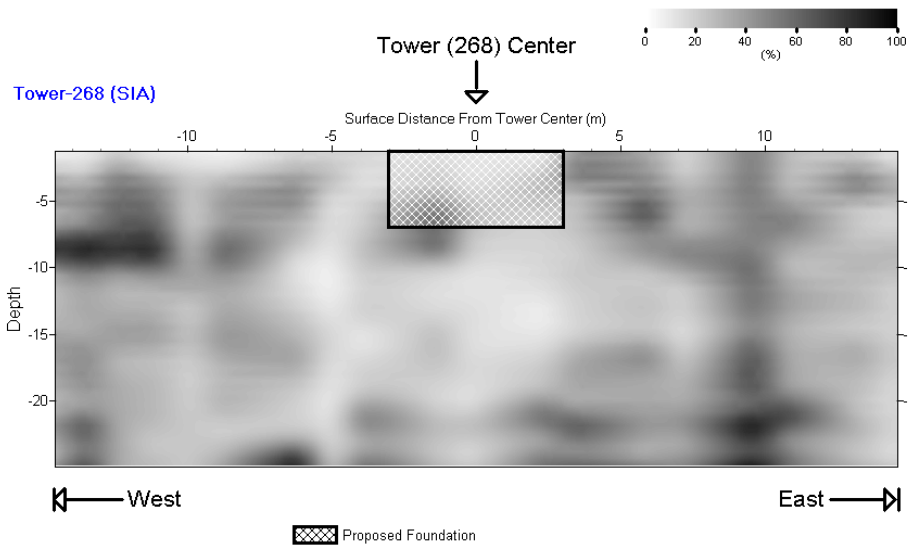
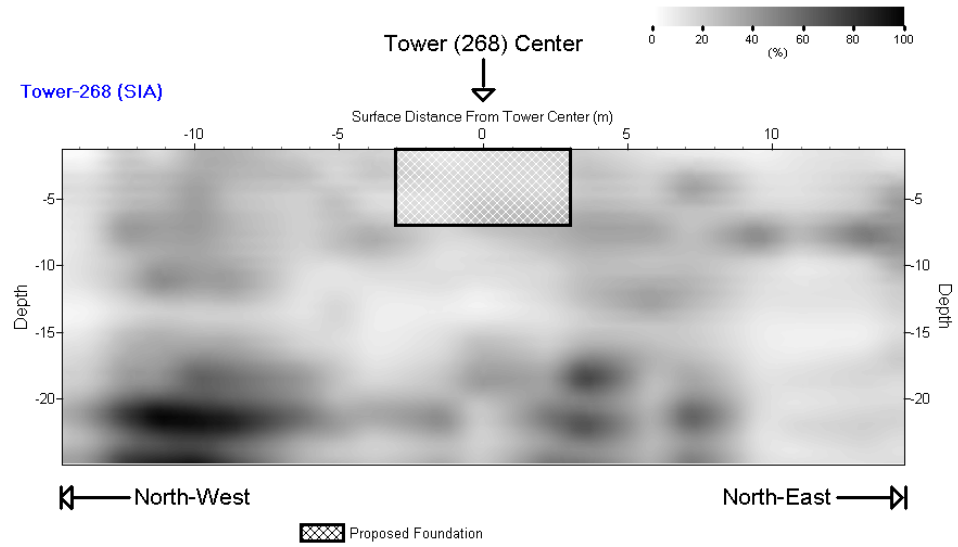
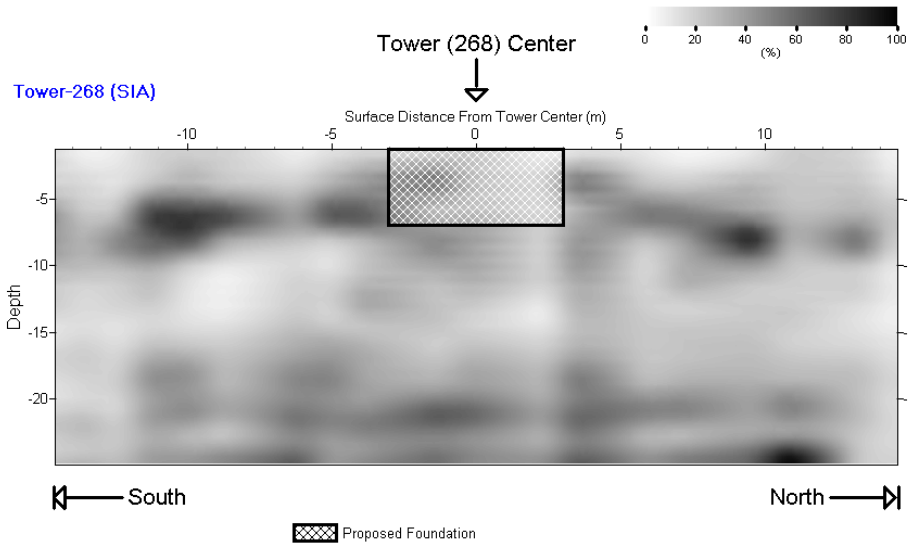
T-266



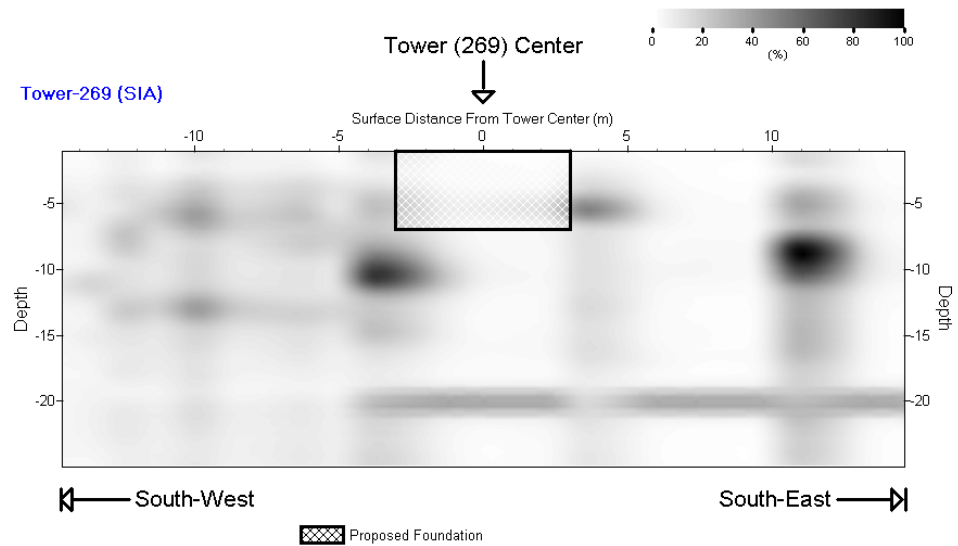
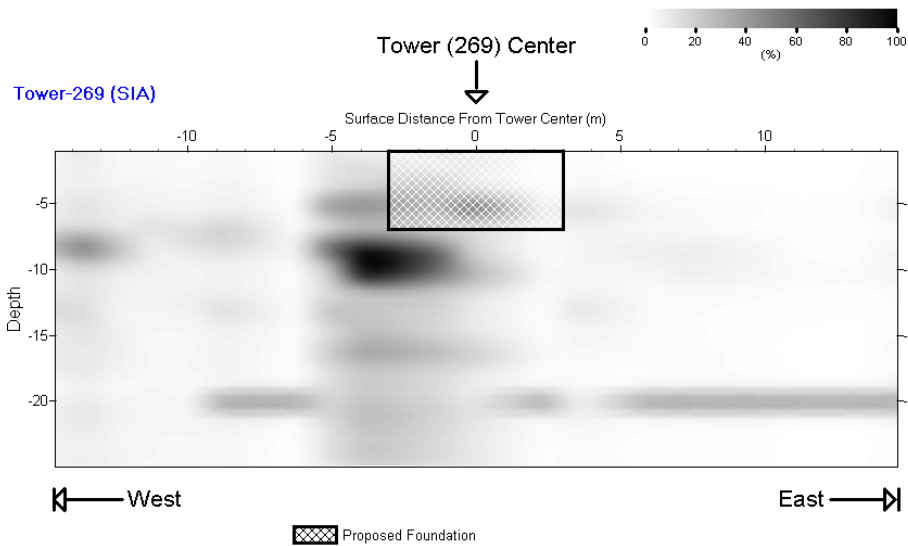
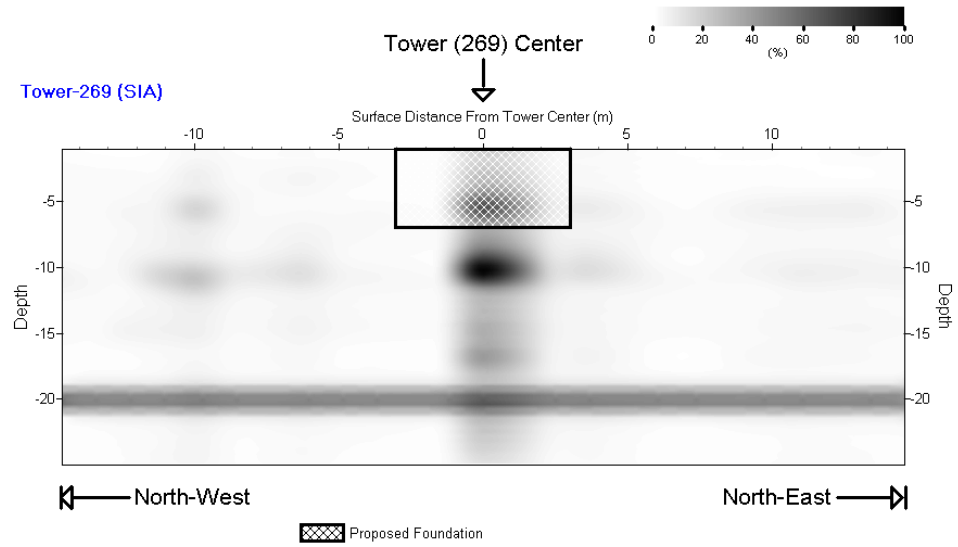
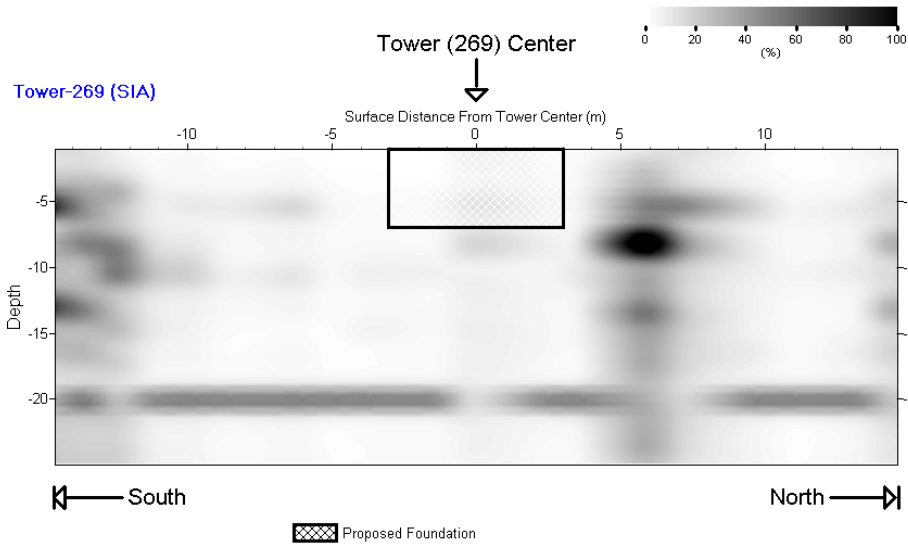
T-267



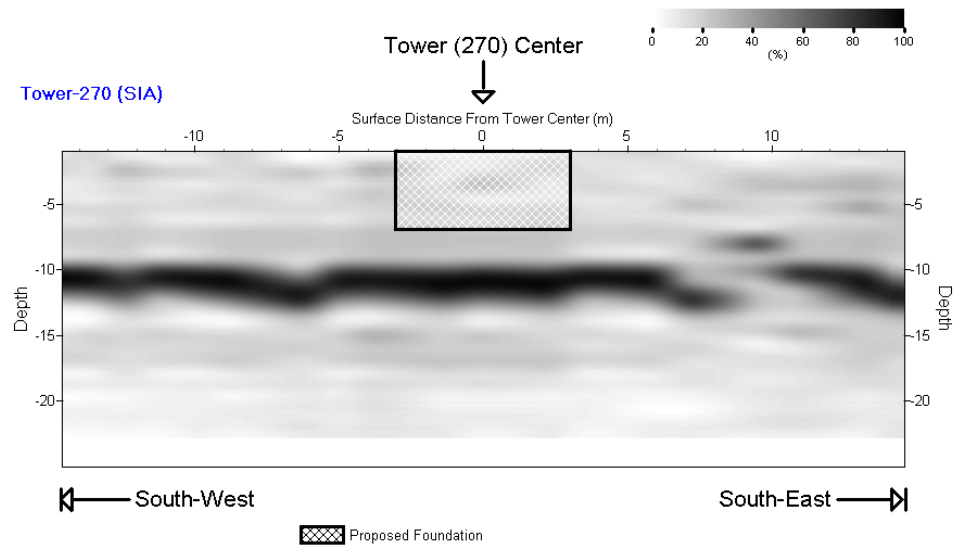
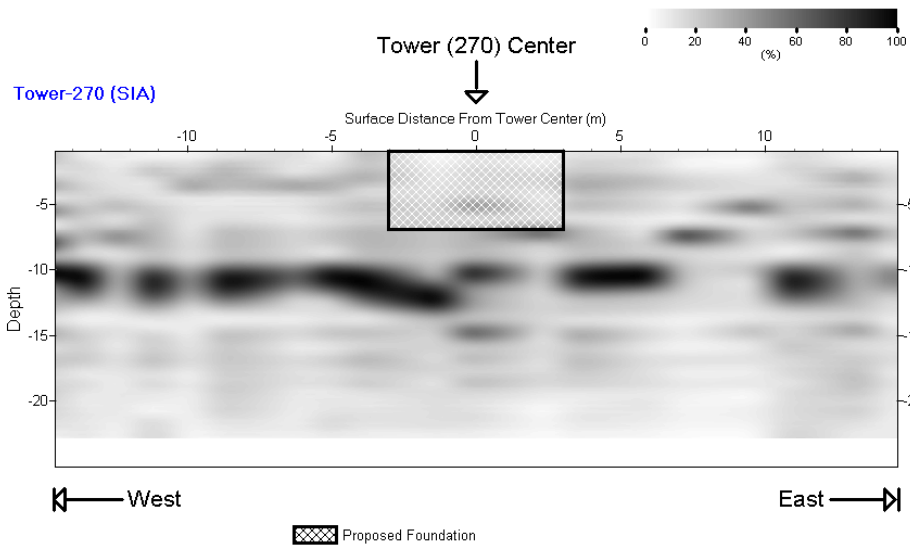
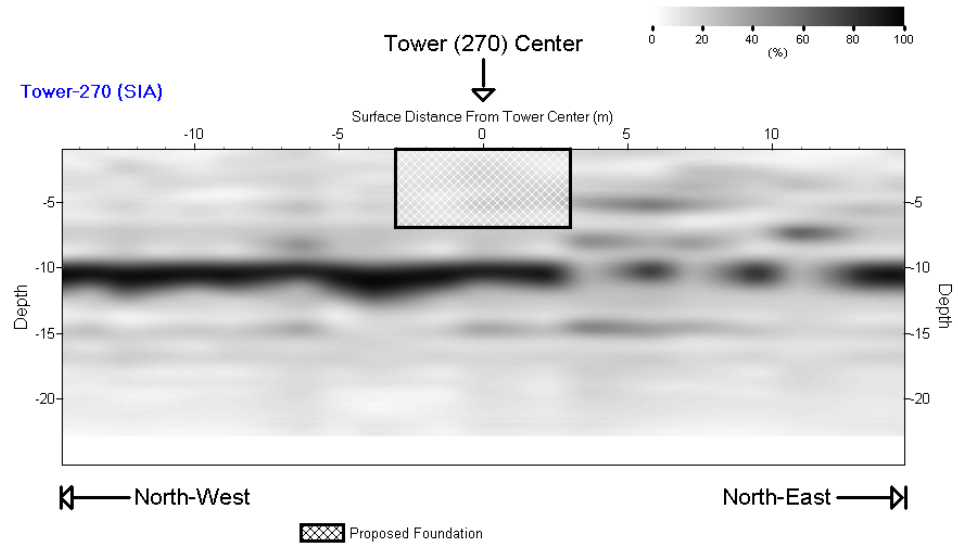
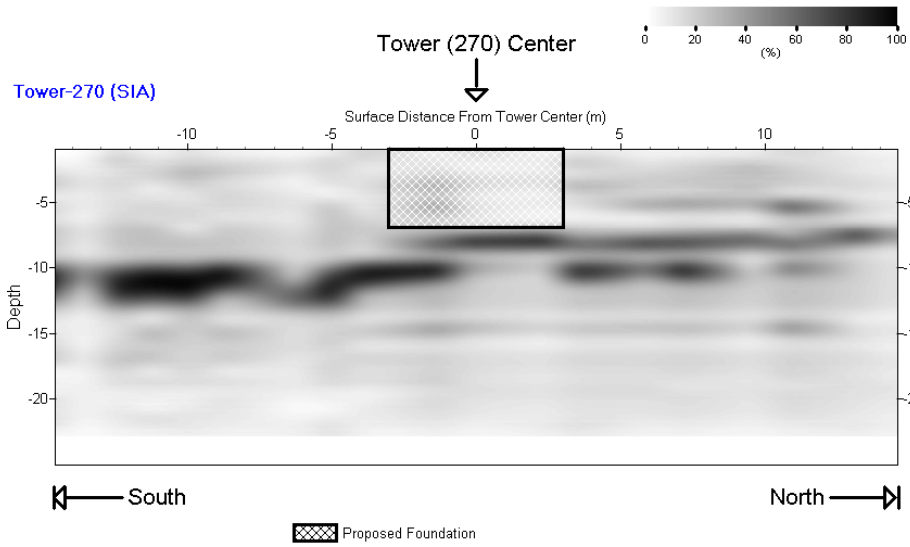
T-268



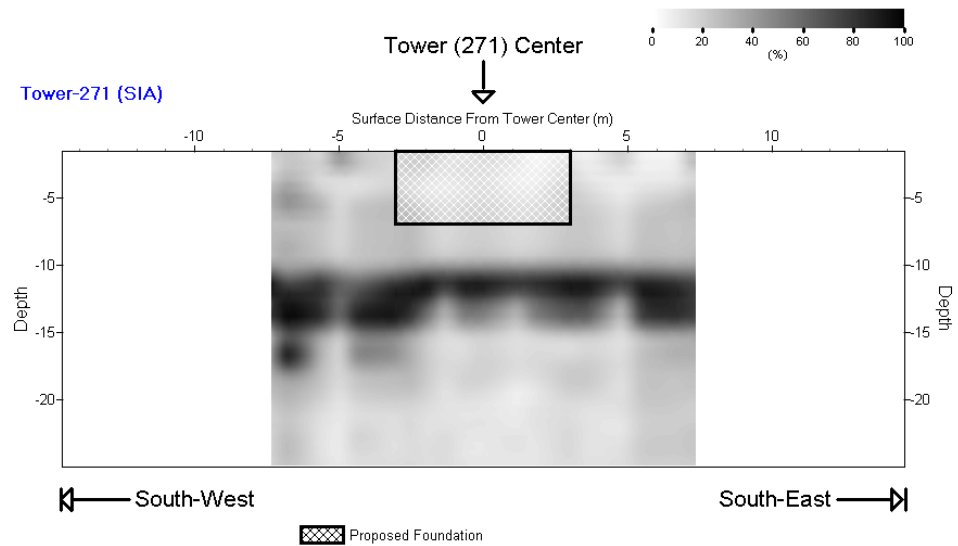
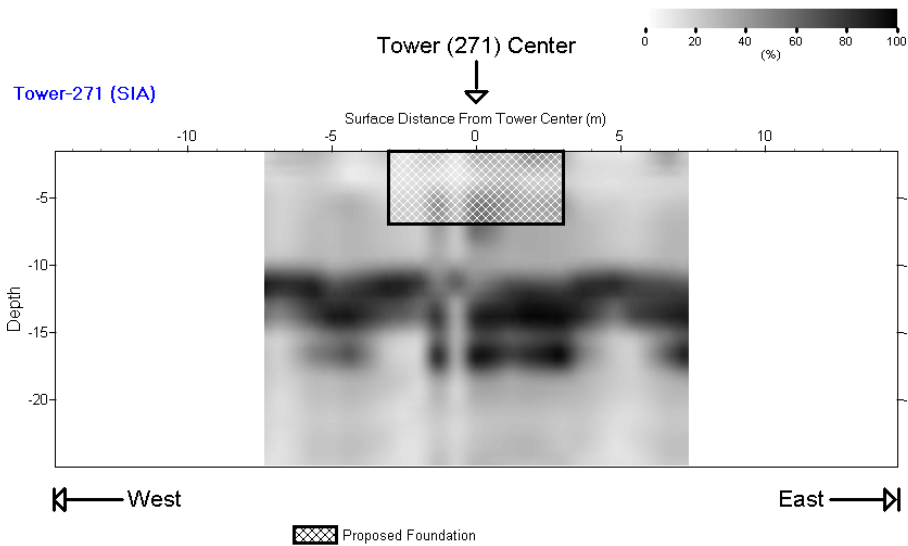
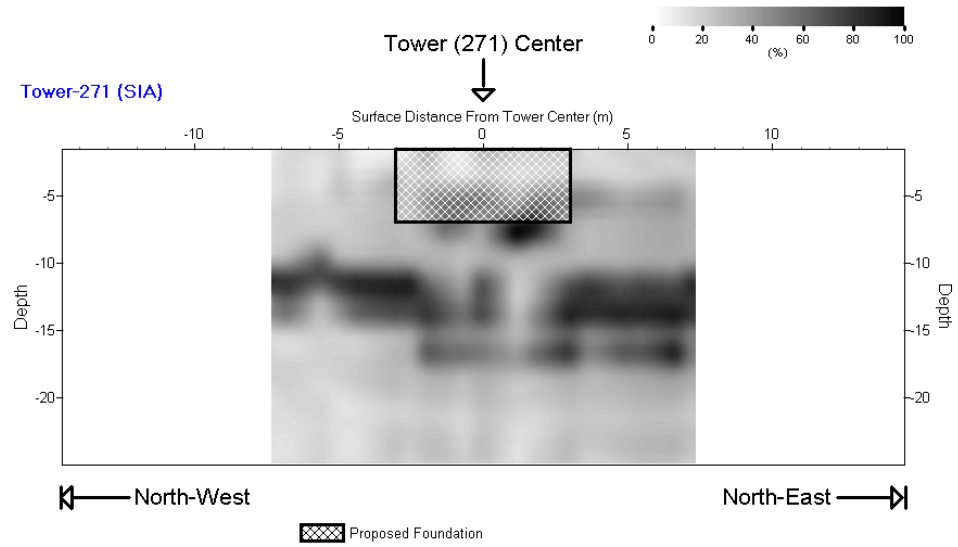
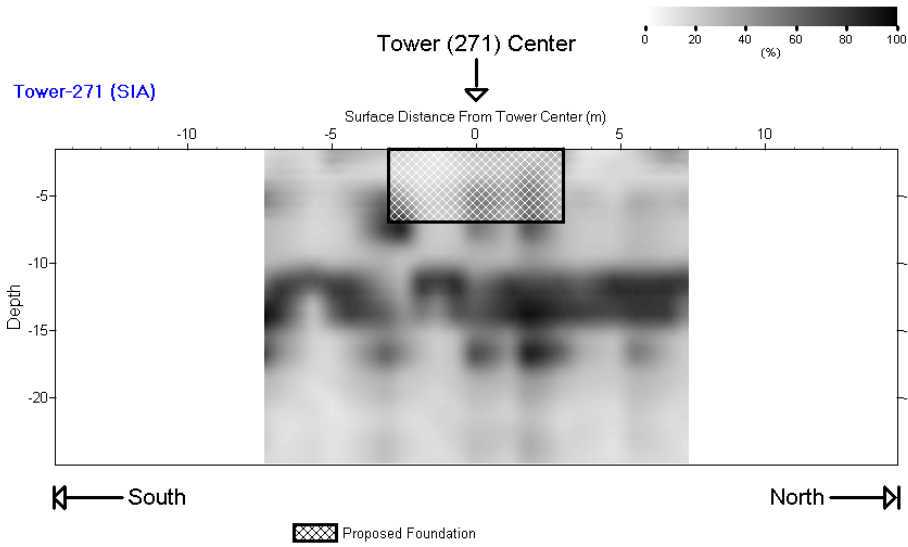
T-269



T-270

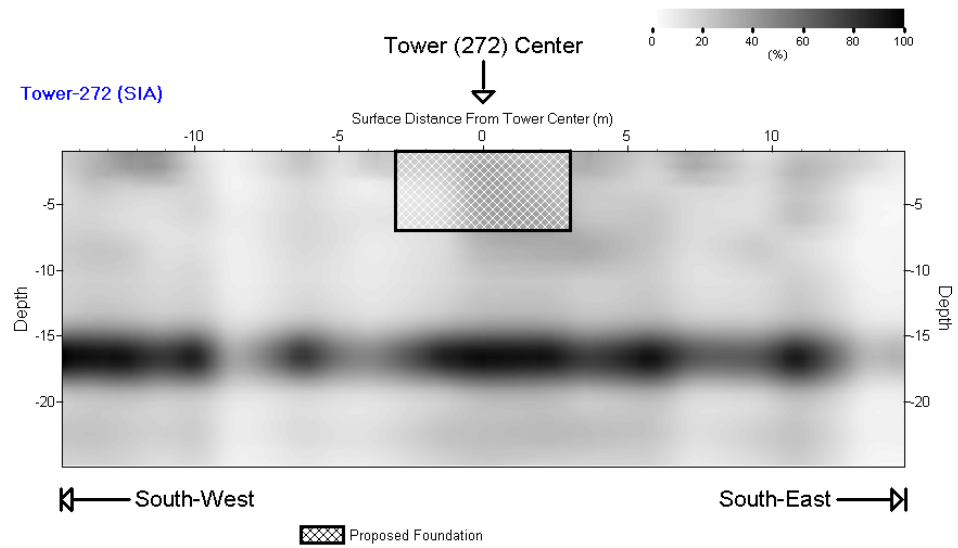
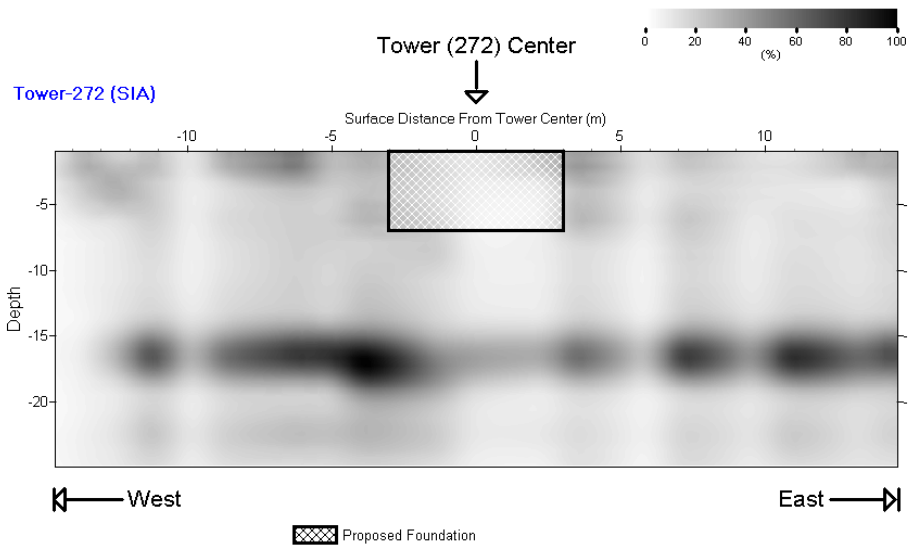
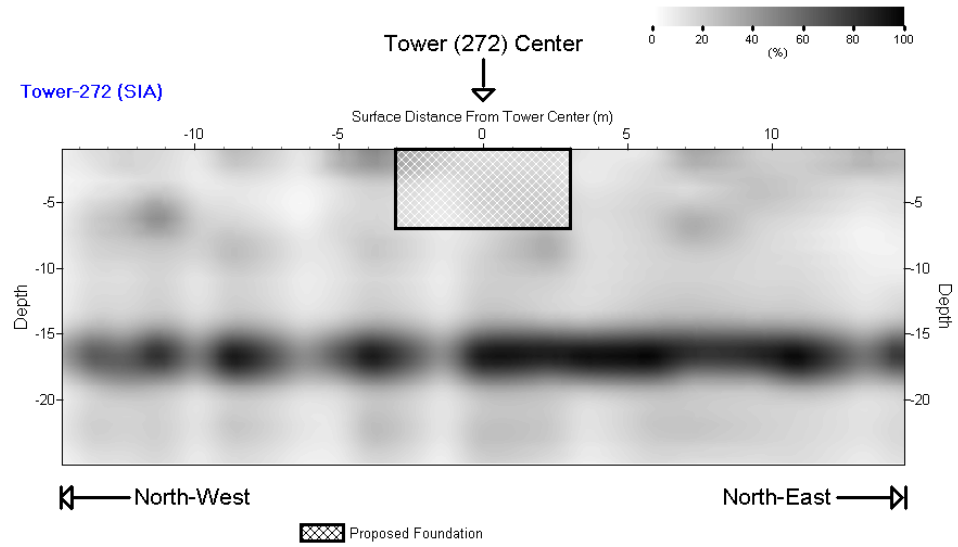
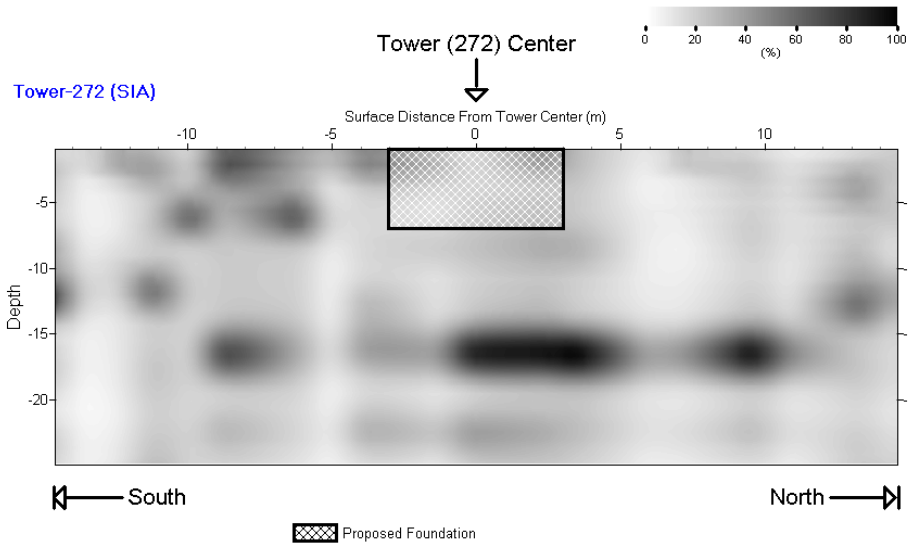


T-271**

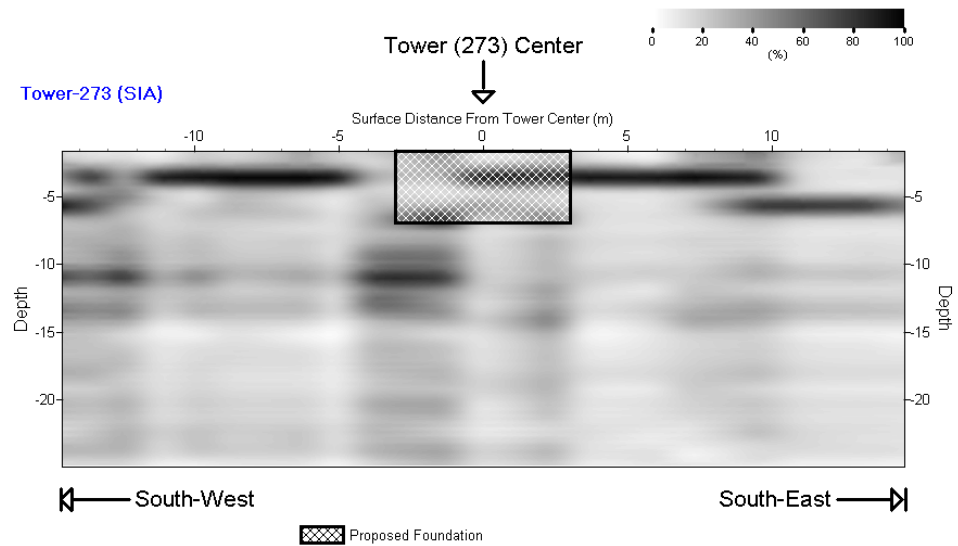
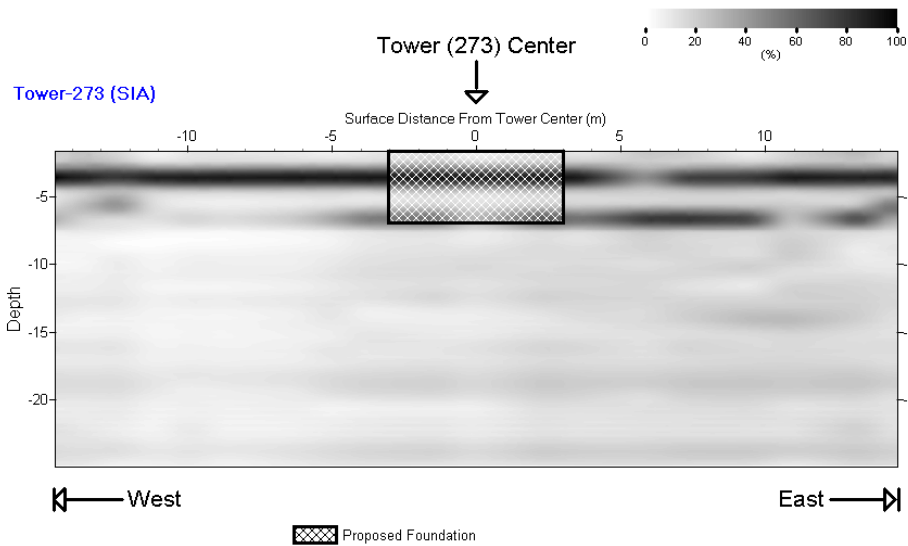
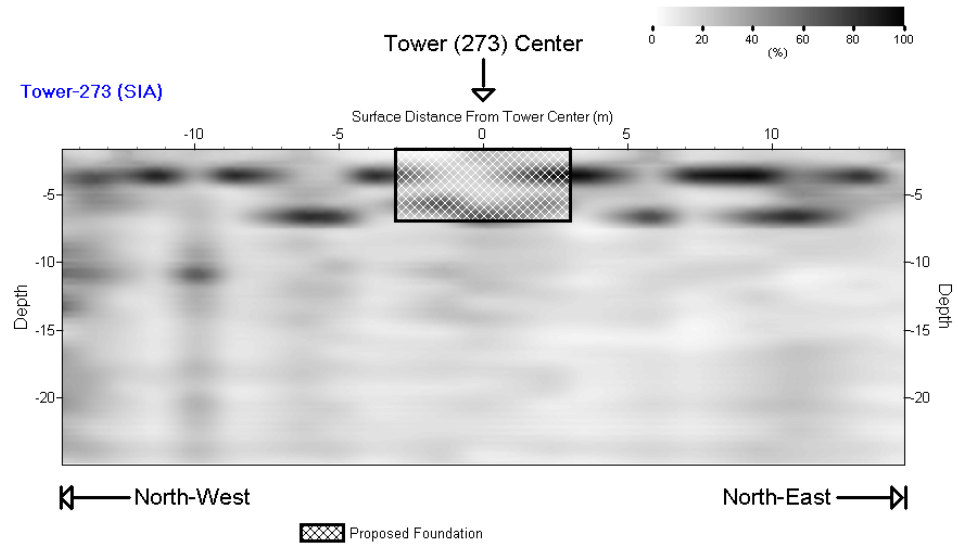
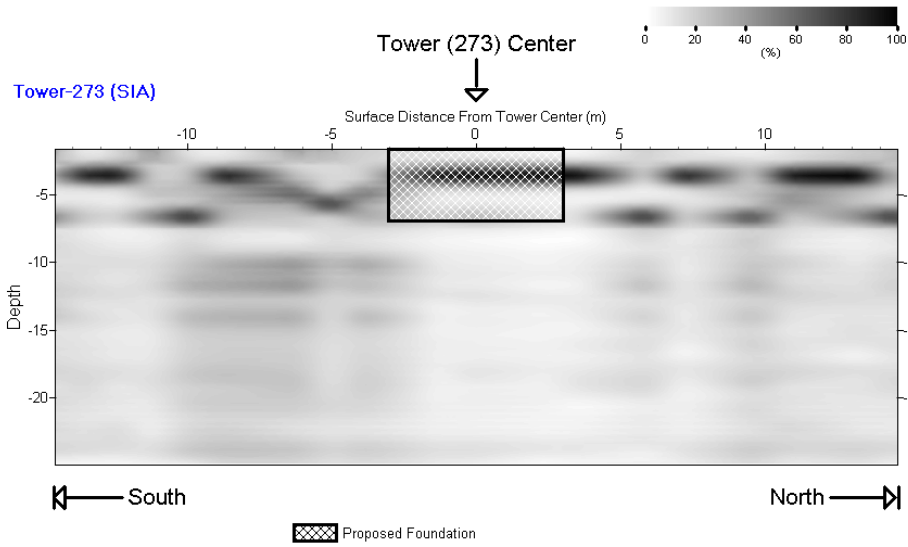


**A shorter receiver spacing (2 ft) was used for all four (4) lines due to terrain condition.

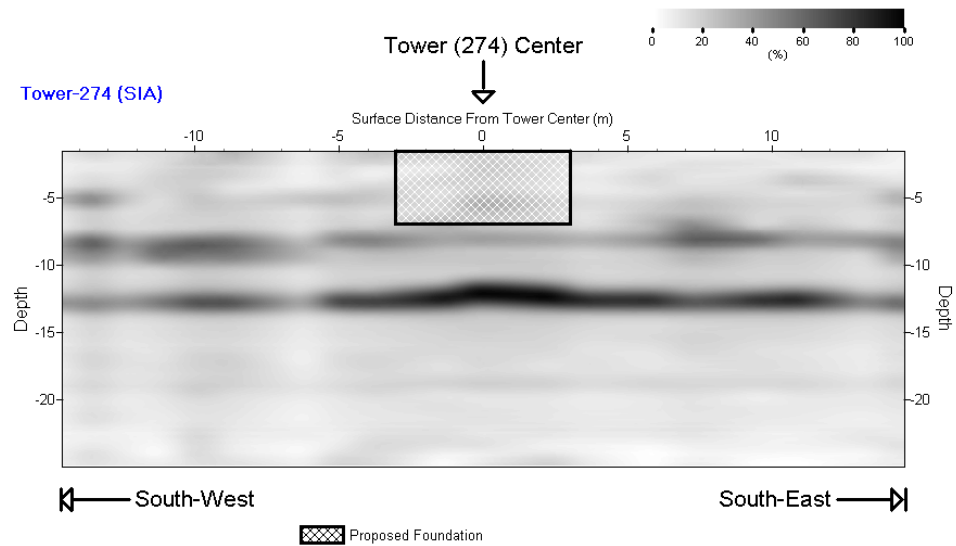
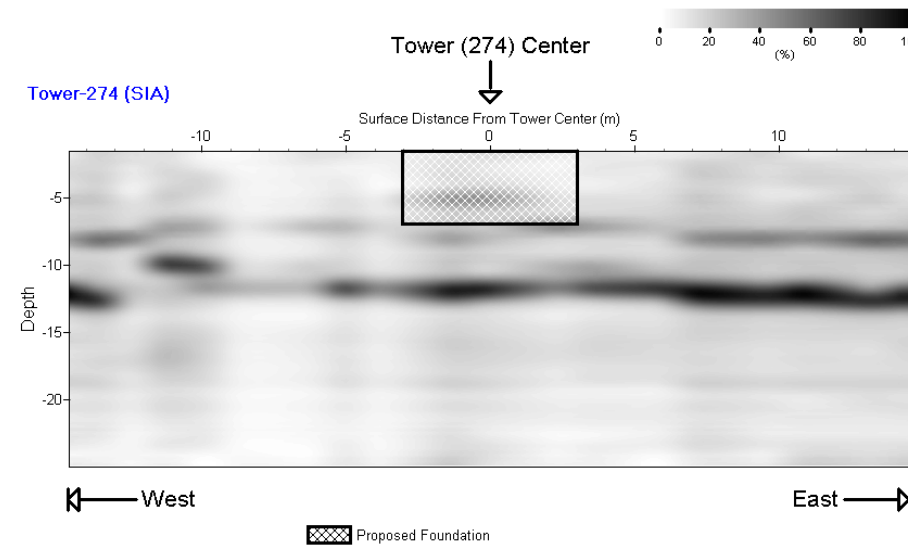
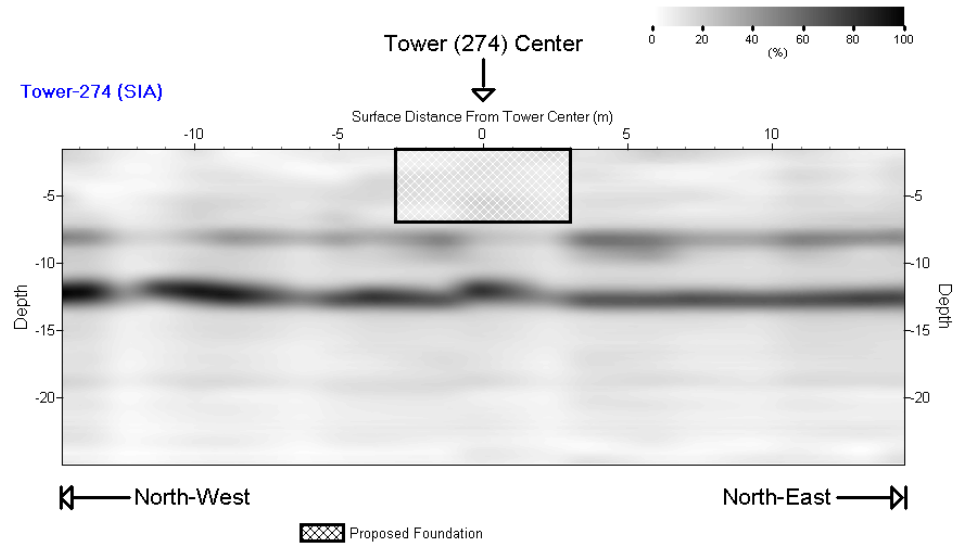
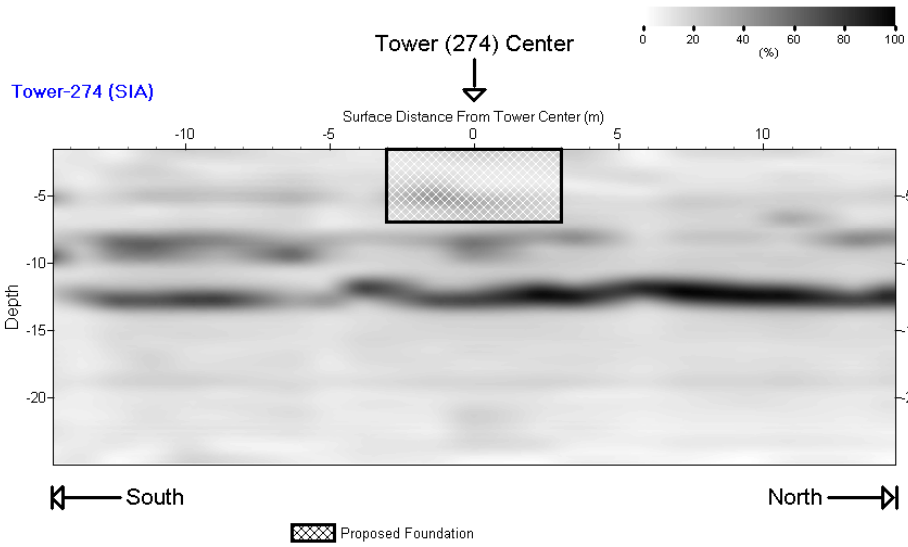
T-272



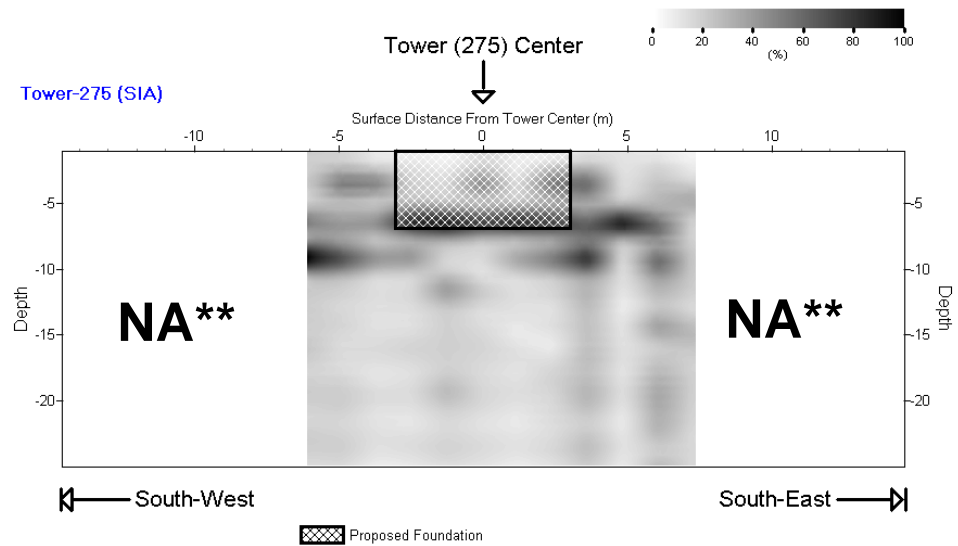
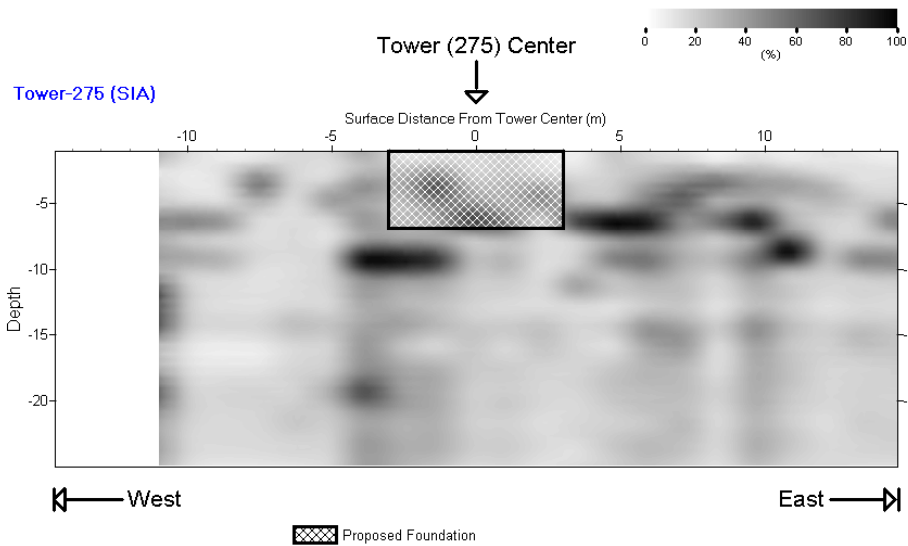
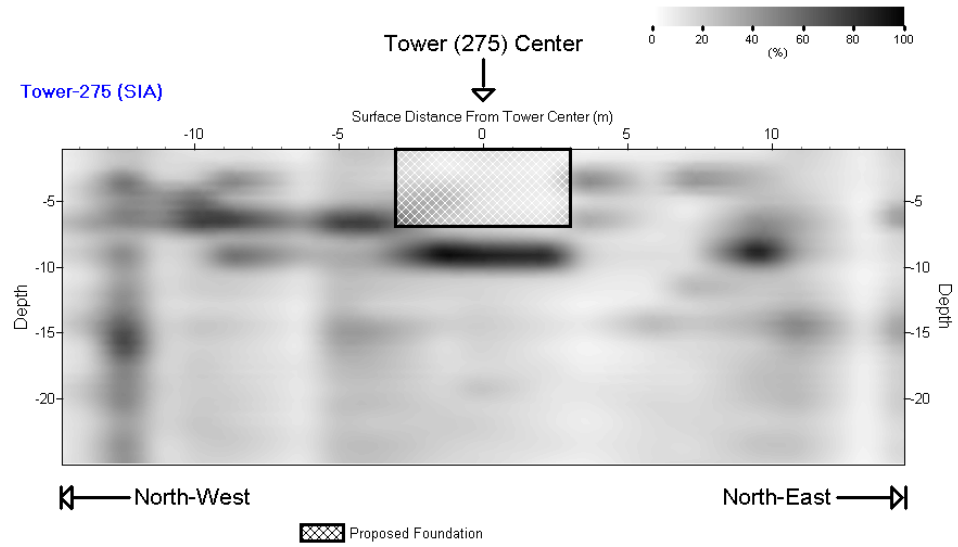
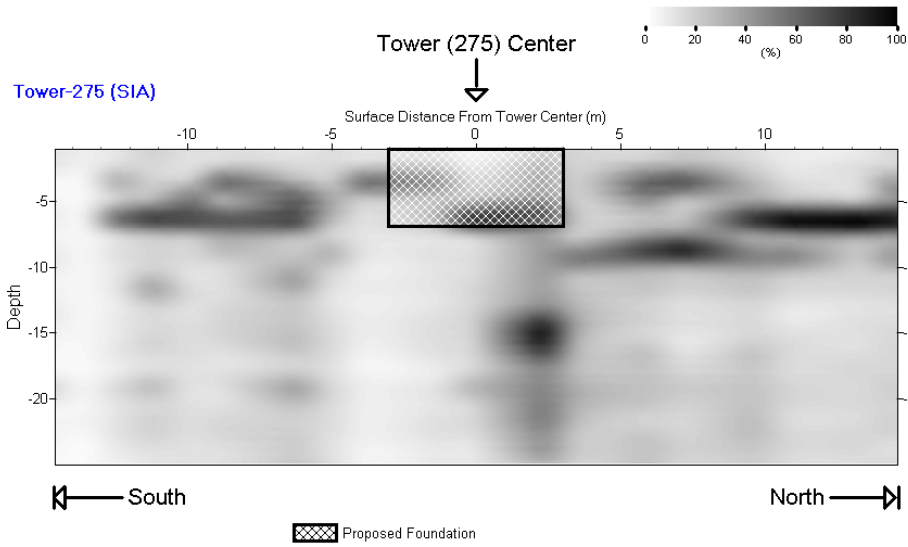
T-273



T-274

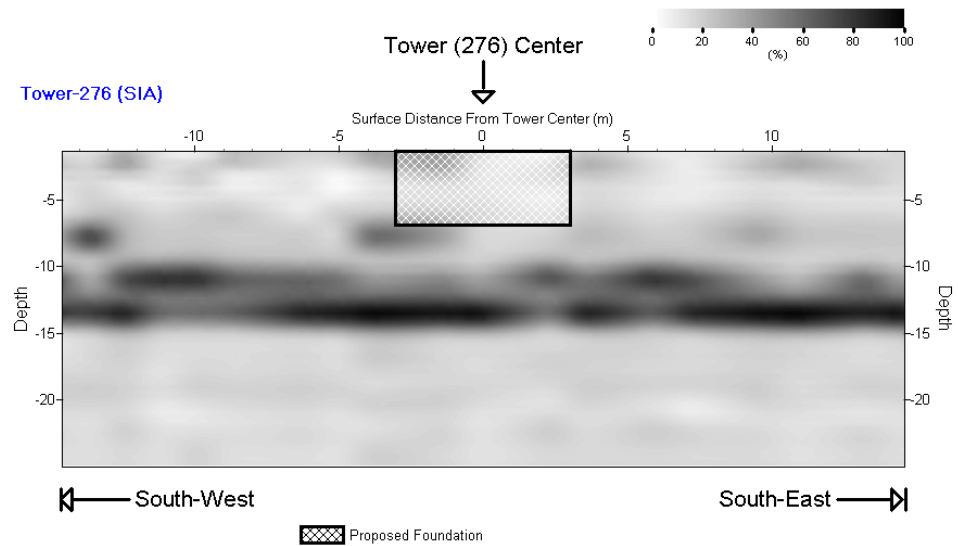
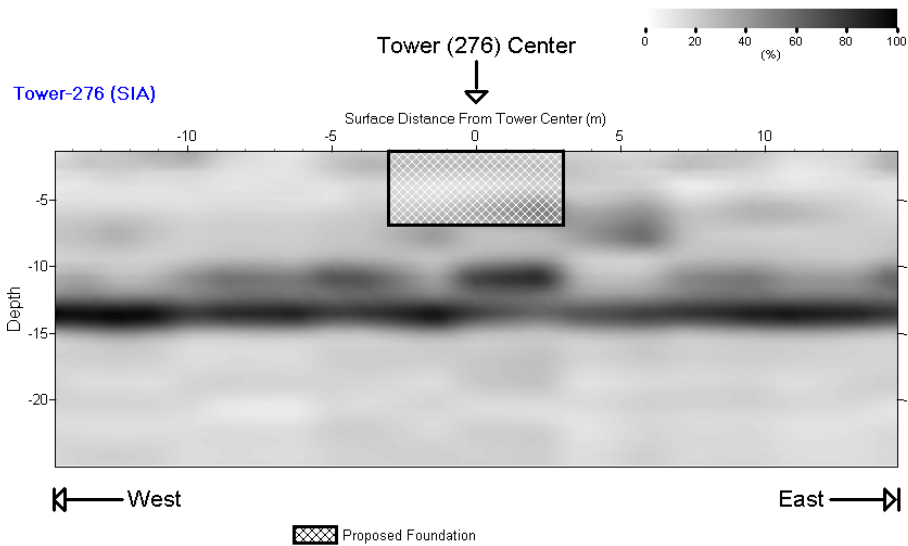
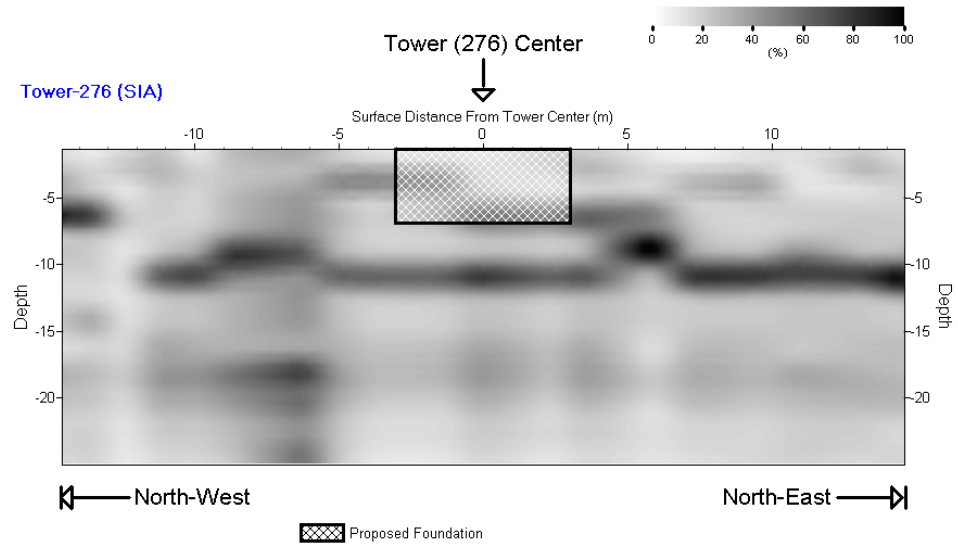
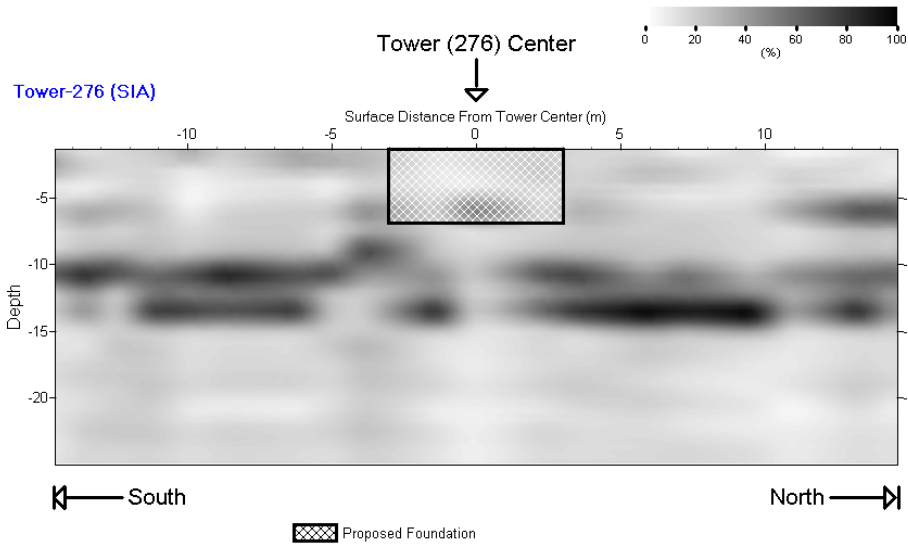


T-275

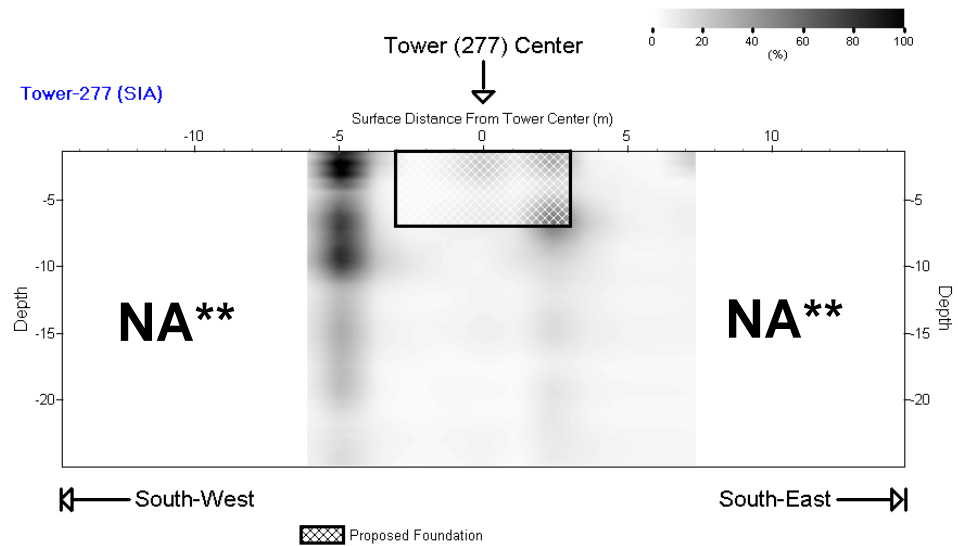
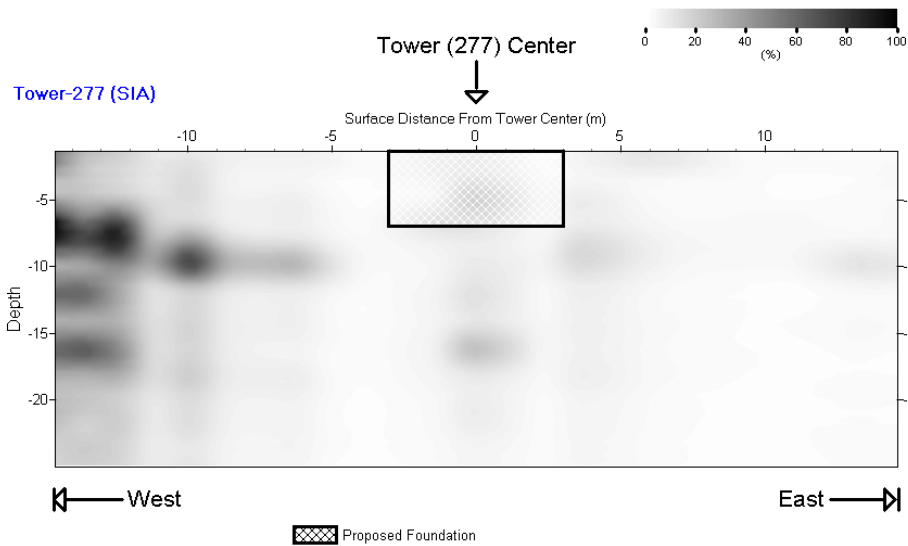
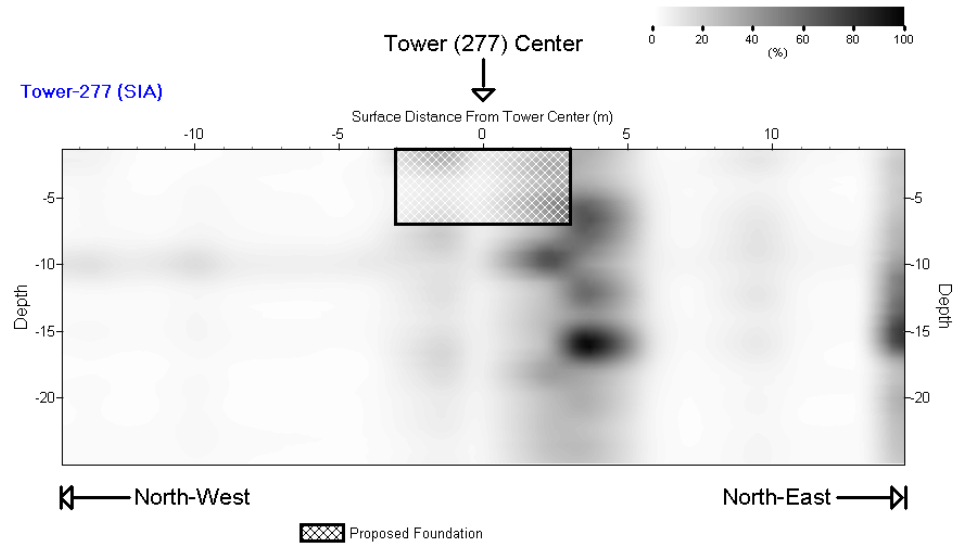
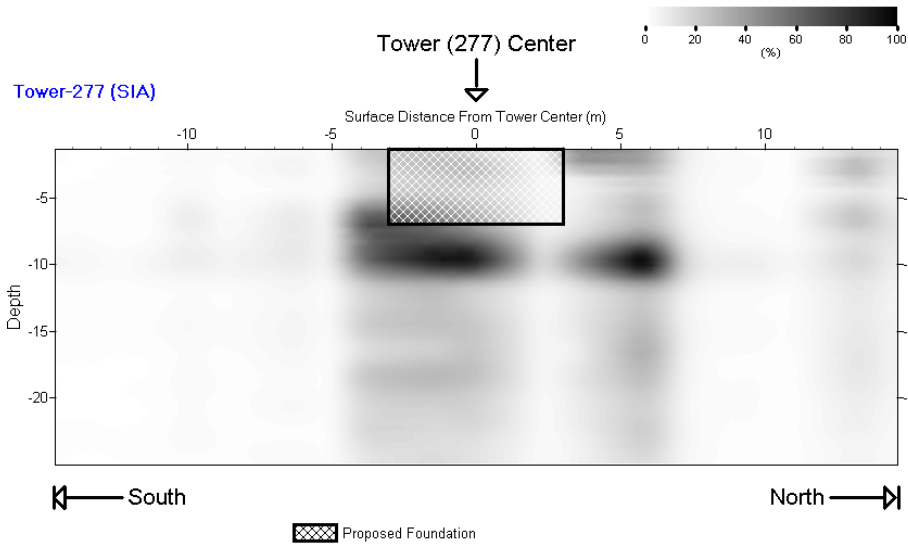


**Data not acquired due to terrain condition (seep drop off)

T-276

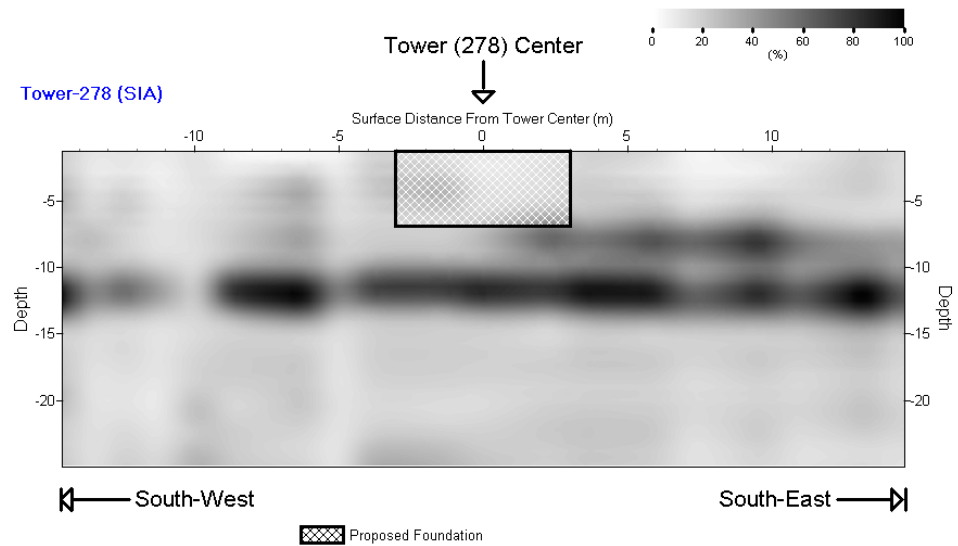
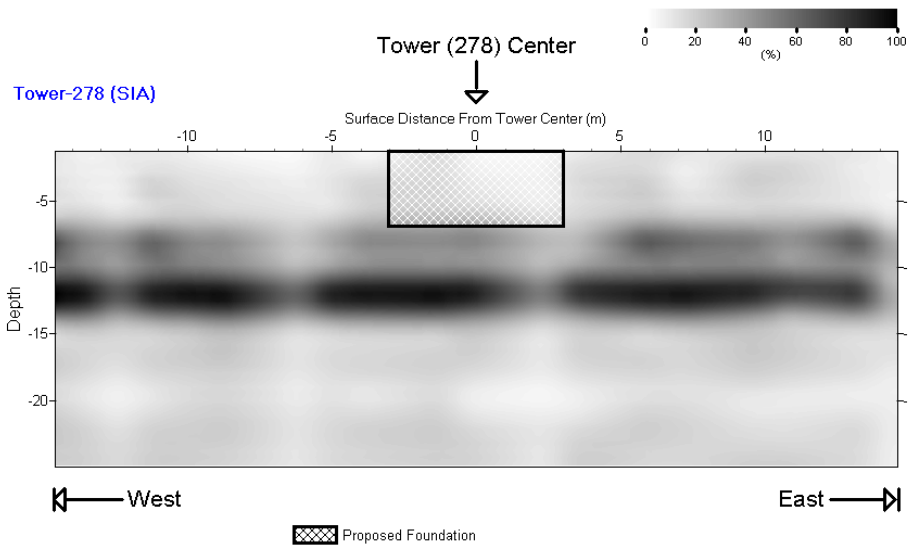
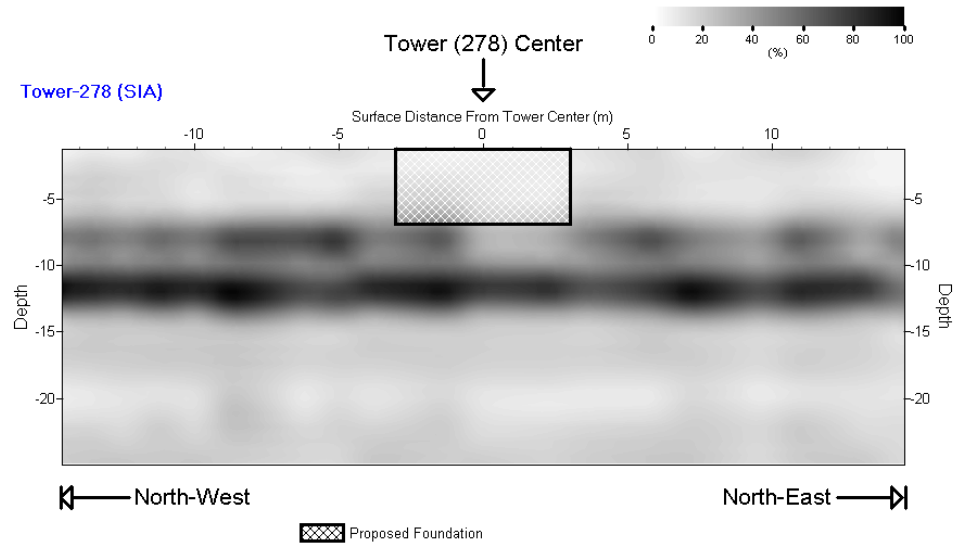
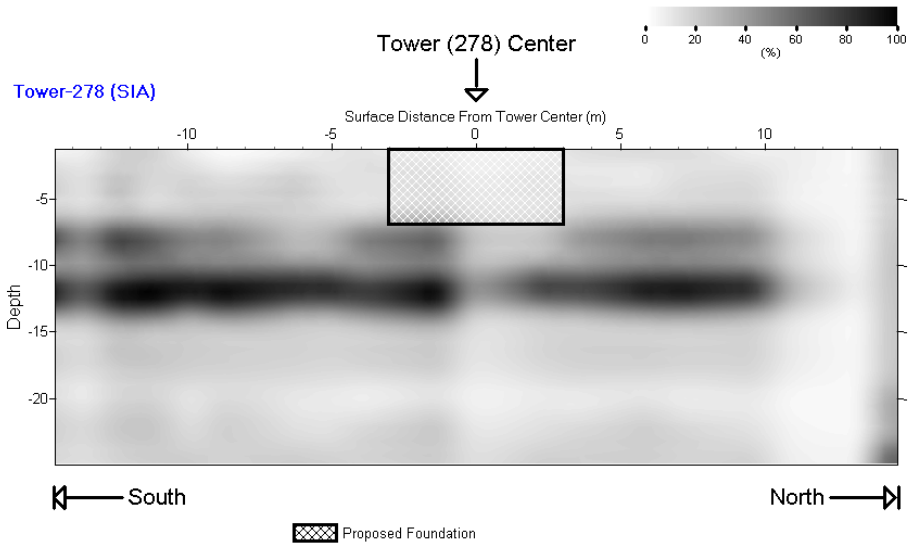


T-277

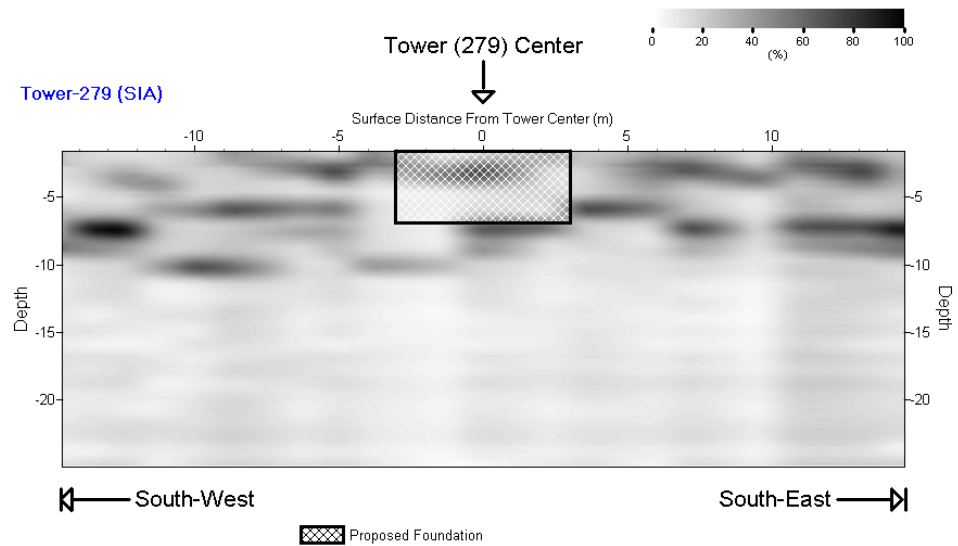
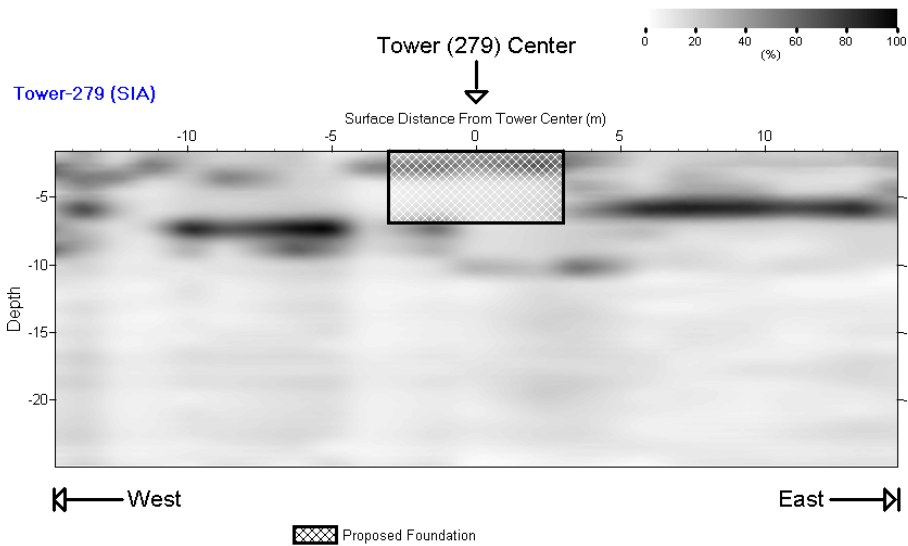
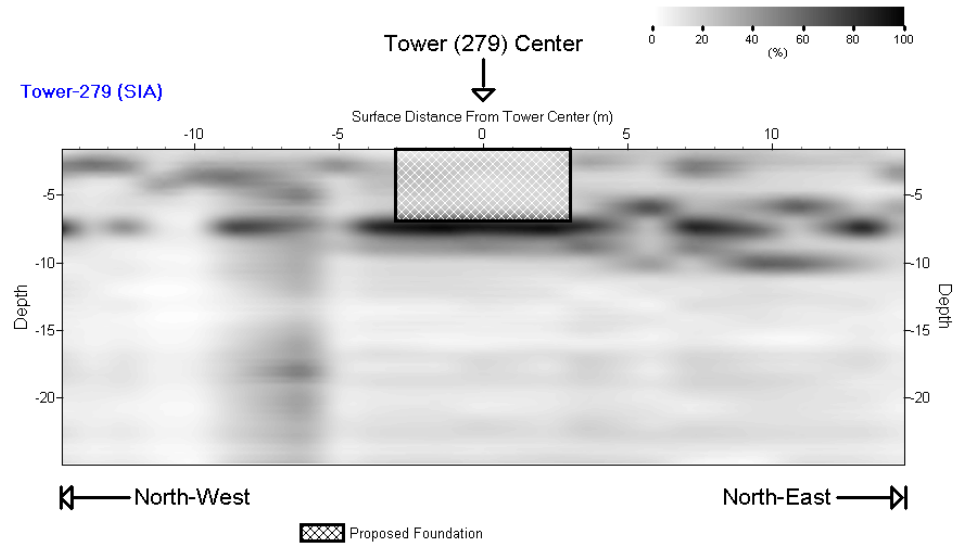
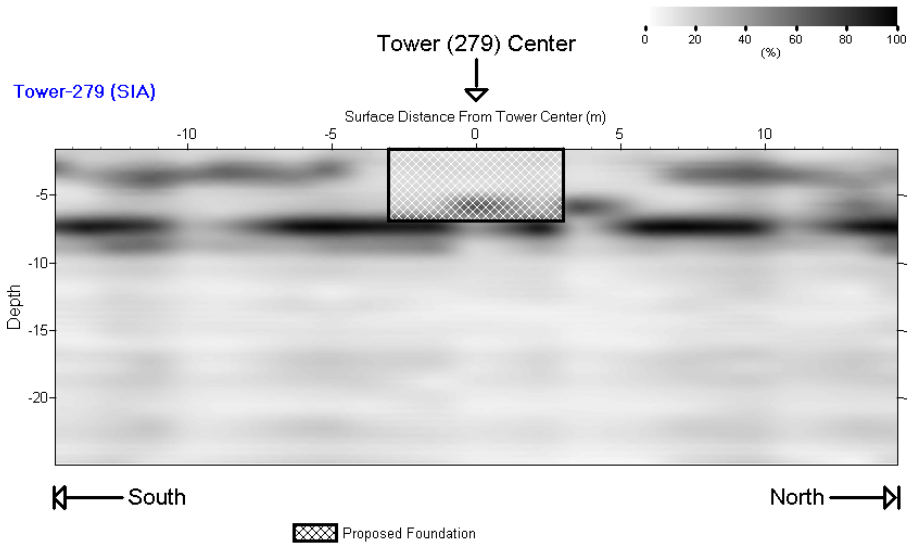


**Data not acquired due to terrain condition (steep drop off)

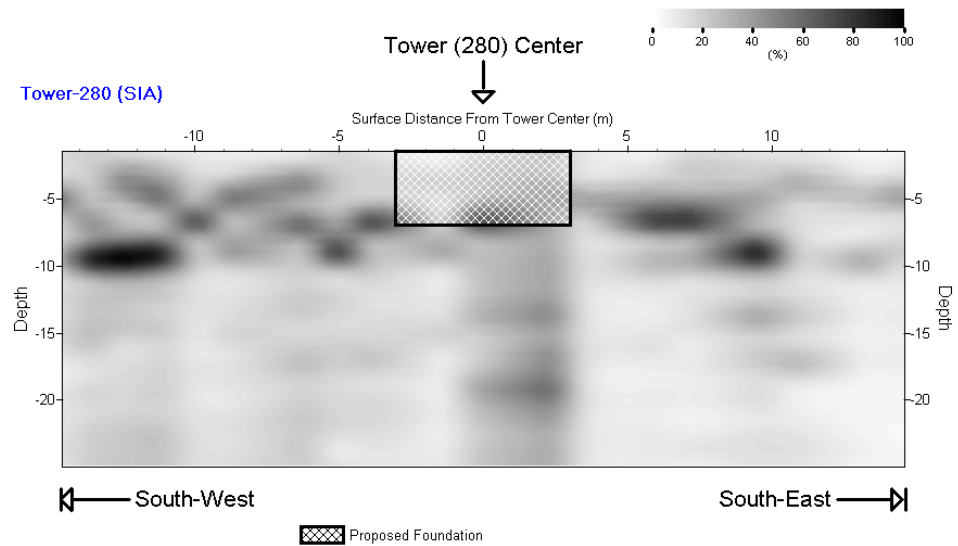
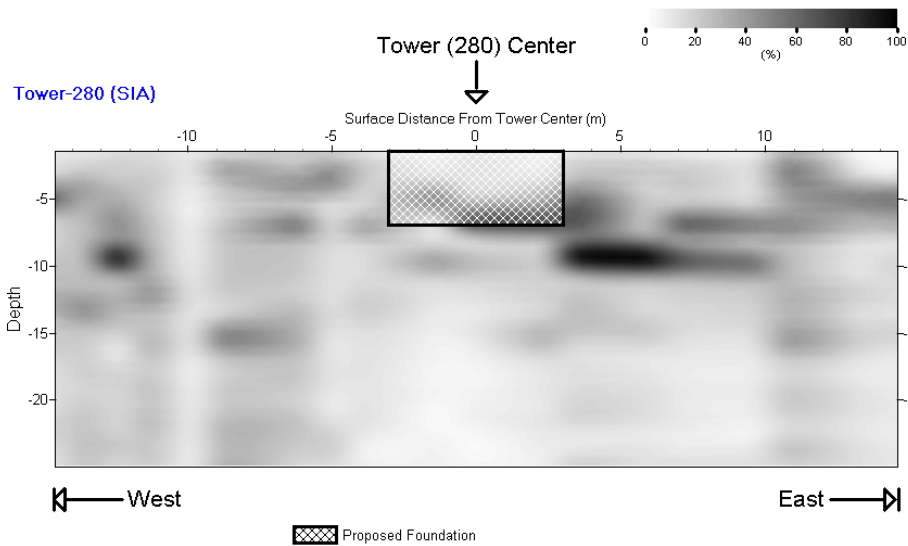
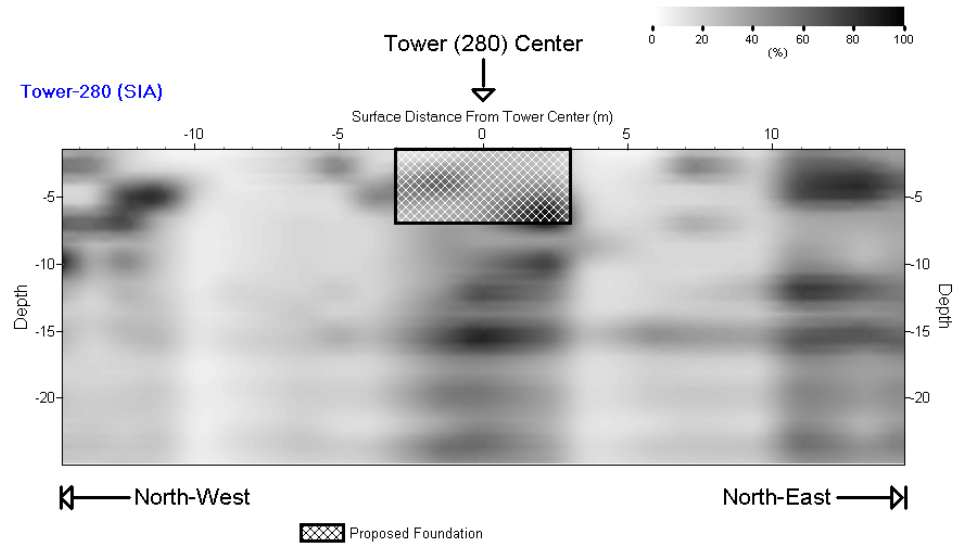
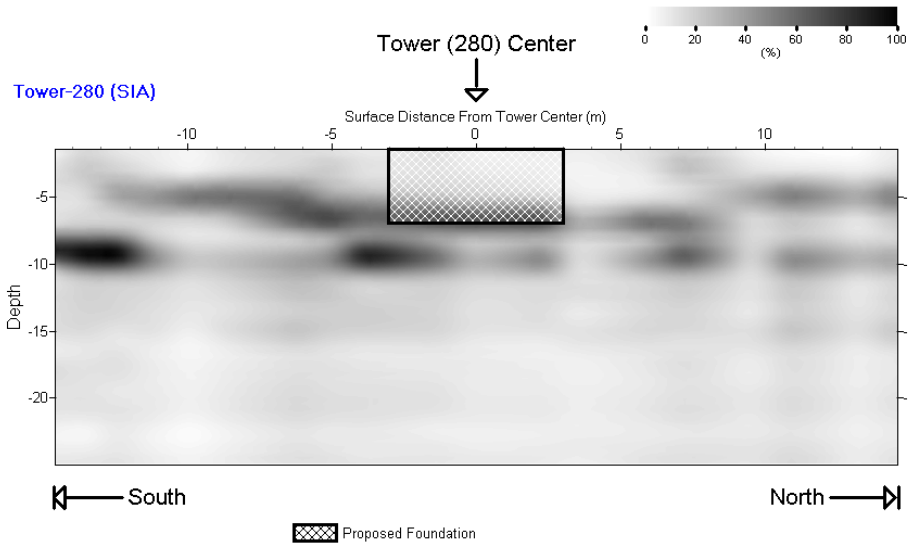
T-278



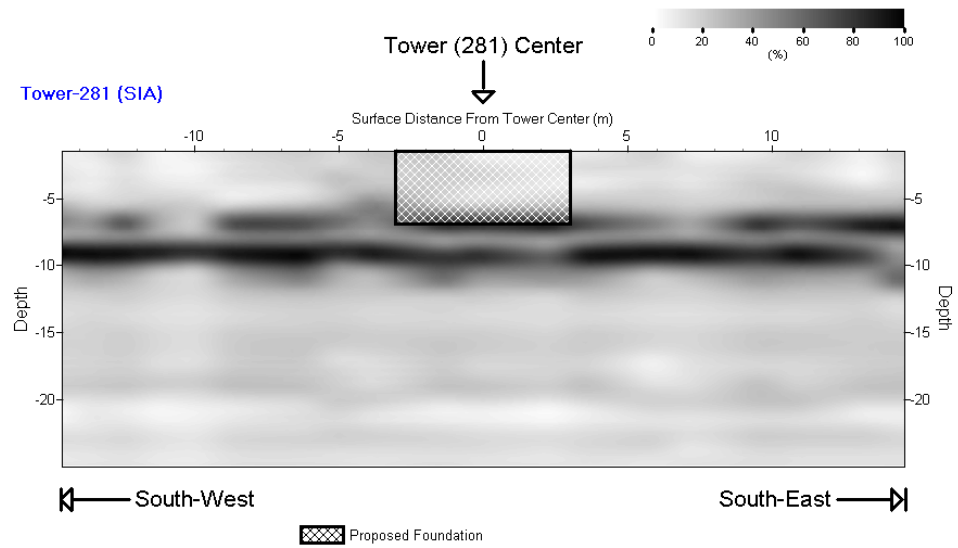
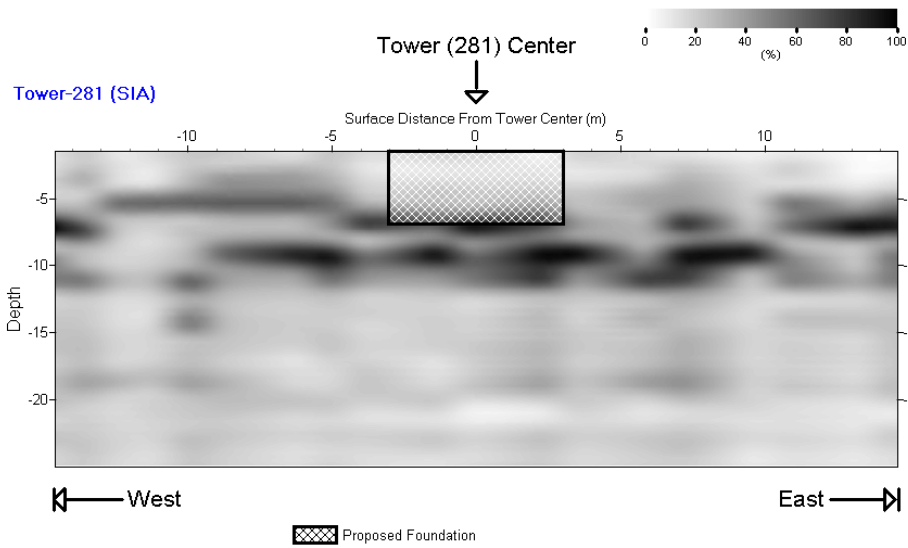
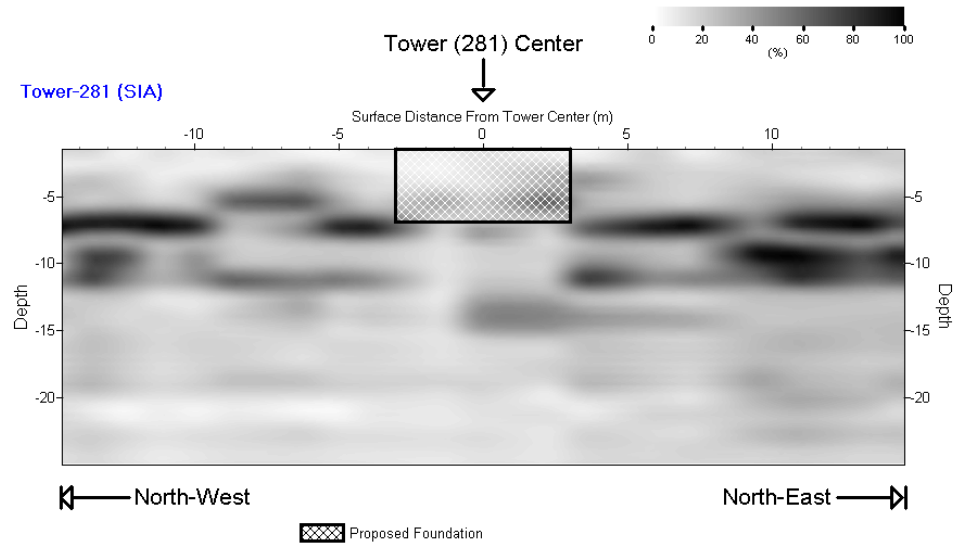
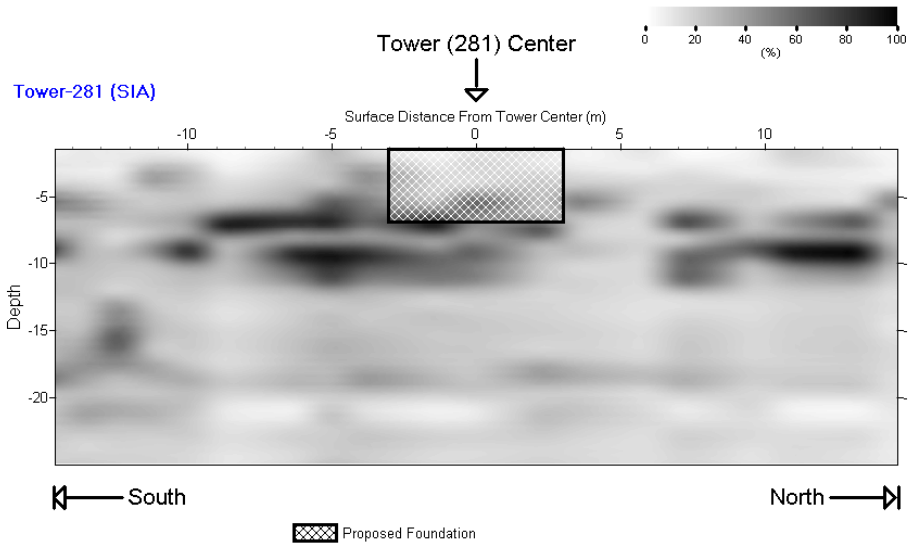
T-279



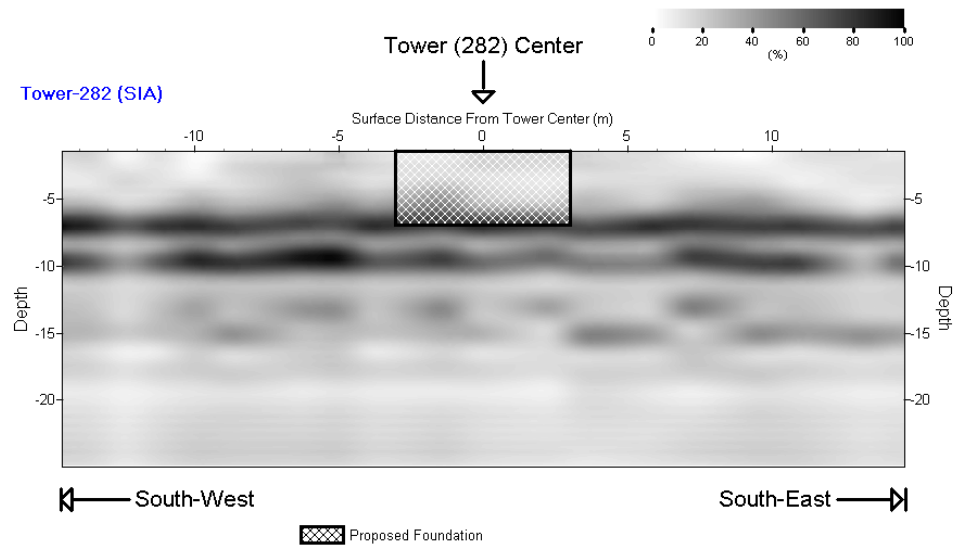
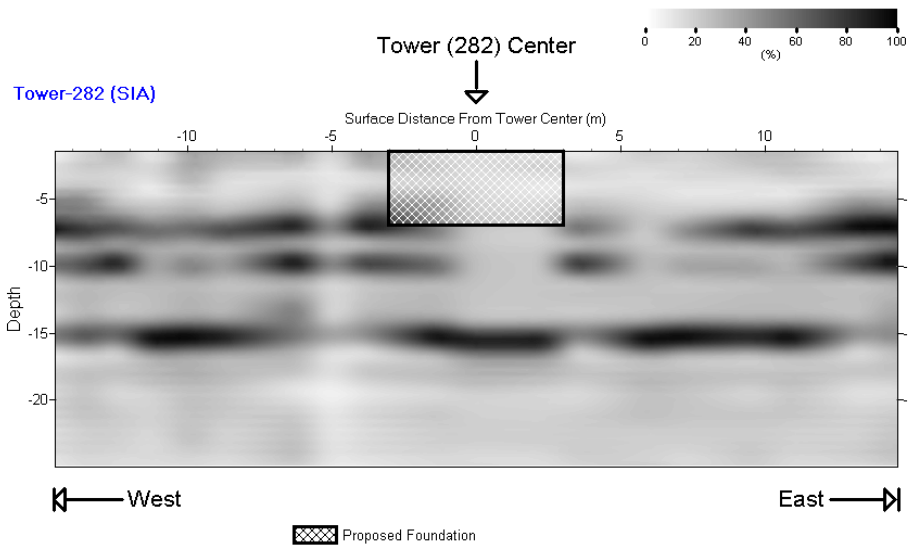
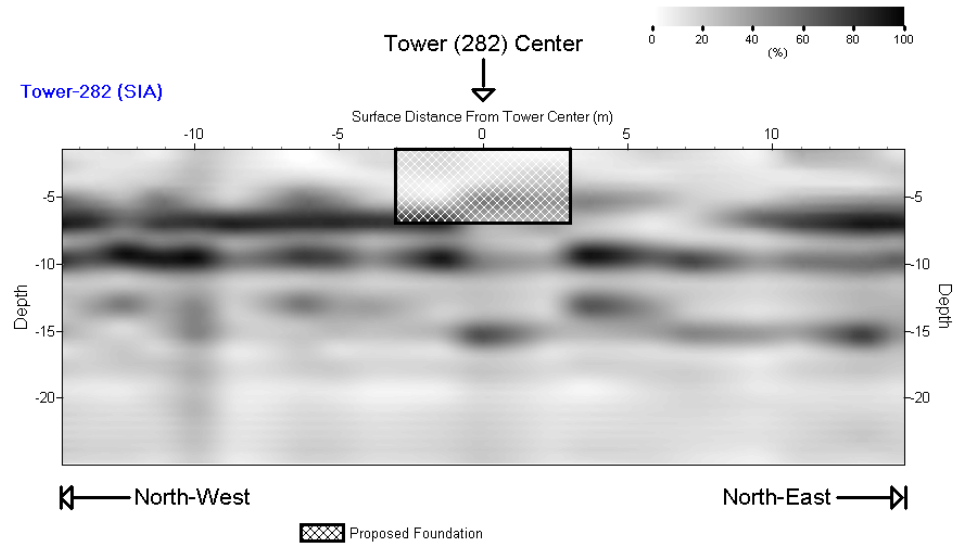
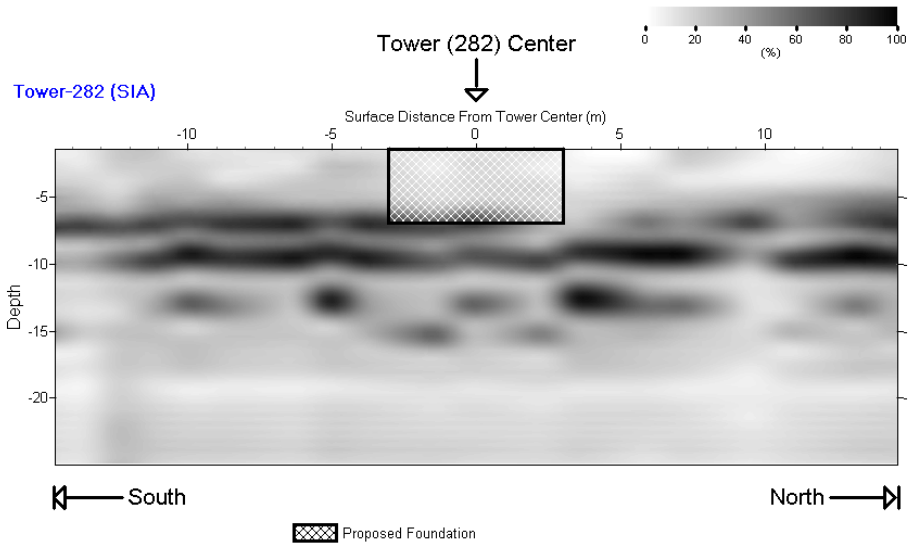
T-280



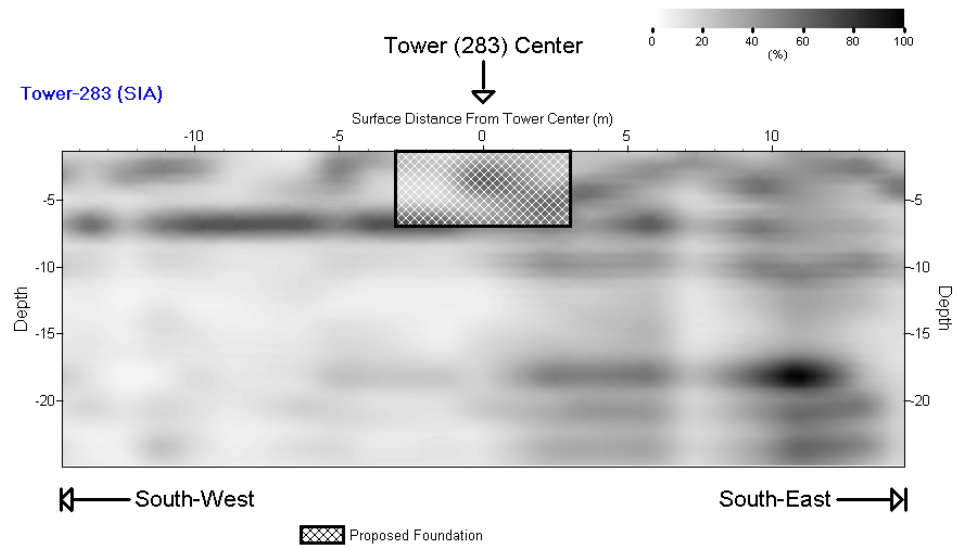
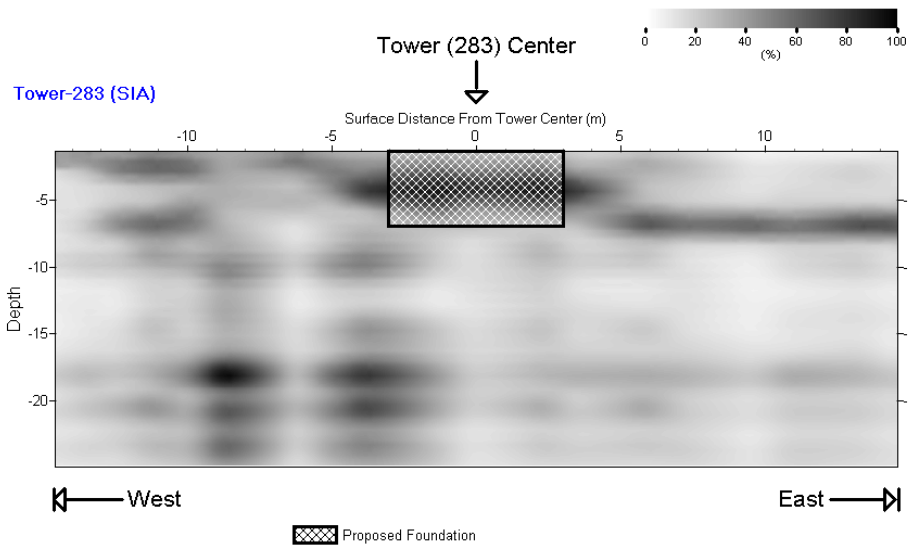
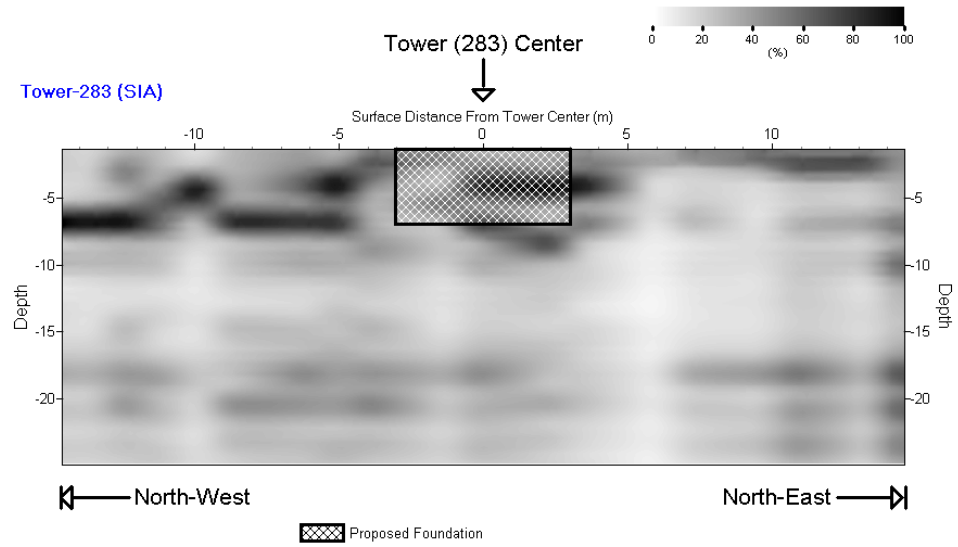
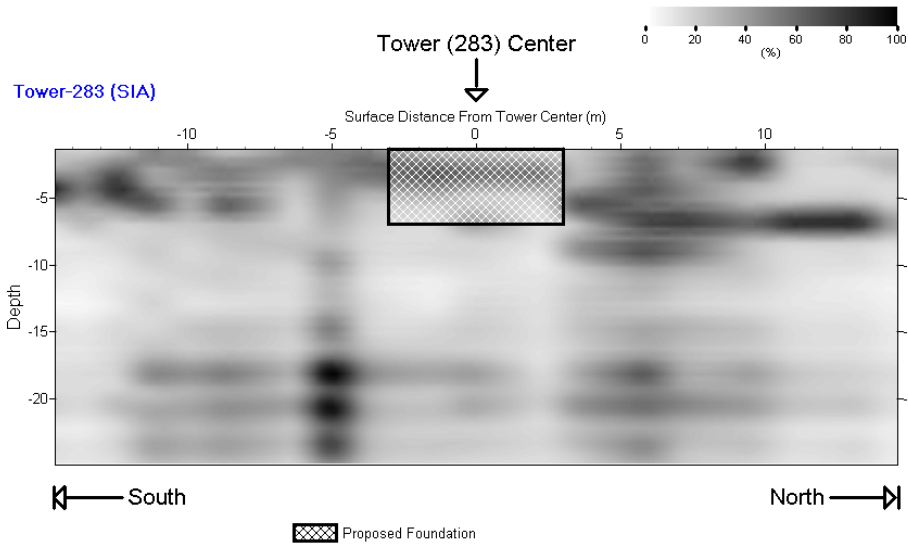
T-281



T-282



T-283



T-284

