# FINAL STATUS SURVEY REPORT APPENDICES A, B, C, D, F, G, AND H

SUBSURFACE SOIL CHARACTERIZATION AND FSS PROJECT

NUCLEAR FUEL SERVICES NORTH SITE
Erwin, Tennessee

## SURVEY UNITS 2, 8, 9, 19, 20

*PREPARED FOR:*

NUCLEAR FUEL SERVICES, INC.

*PREPARED BY:*

MACTEC DEVELOPMENT CORPORATION
MACTEC PROJECT NO. 9120071235

REVISION 0
NOVEMBER 2009

WORK PERFORMED UNDER DOE CONTRACT NO. DE-AC12-04SN39427

MACTEC

# Appendix A

# Historical Dataset

# Appendix A.1

# Historical Dataset, Survey Unit 2

## Historical Dataset, Survey Unit 2

| Sample ID# | Sample Location | | Sample Depth (ft) | Contaminant Name | Analytical Result | Units | Period |
|---|---|---|---|---|---|---|---|
| | Easting | Northing | | | | | |
| 105-B1-1 | 3022483.58 | 674438.2897 | 0.5 | Am-241 | 0.3 | pCi/g | Pre |
| 105-B1-1 | 3022483.58 | 674438.2897 | 0.5 | Pu-238 | 0 | pCi/g | Pre |
| 105-B1-1 | 3022483.58 | 674438.2897 | 0.5 | Pu-239/240 | 0 | pCi/g | Pre |
| 105-B1-1 | 3022483.58 | 674438.2897 | 0.5 | Pu-241 | 0 | pCi/g | Pre |
| 105-B1-1 | 3022483.58 | 674438.2897 | 0.5 | Pu-242 | 0 | pCi/g | Pre |
| 105-B1-1 | 3022483.58 | 674438.2897 | 0.5 | Tc-99 | 0 | pCi/g | Pre |
| 105-B1-1 | 3022483.58 | 674438.2897 | 0.5 | Th-230 | 0.7 | pCi/g | Pre |
| 105-B1-1 | 3022483.58 | 674438.2897 | 0.5 | Th-232 | 1 | pCi/g | Pre |
| 105-B1-1 | 3022483.58 | 674438.2897 | 0.5 | U-233/234 | 1.4 | pCi/g | Pre |
| 105-B1-1 | 3022483.58 | 674438.2897 | 0.5 | U-235 | 0.1 | pCi/g | Pre |
| 105-B1-1 | 3022483.58 | 674438.2897 | 0.5 | U-238 | 0.6 | pCi/g | Pre |
| 107-B1-1 | 3022535.8 | 674398.4836 | 0.5 | Am-241 | -0.04 | pCi/g | Pre |
| 107-B1-1 | 3022535.8 | 674398.4836 | 0.5 | Pu-238 | -0.04 | pCi/g | Pre |
| 107-B1-1 | 3022535.8 | 674398.4836 | 0.5 | Pu-239/240 | 0.1 | pCi/g | Pre |
| 107-B1-1 | 3022535.8 | 674398.4836 | 0.5 | Pu-241 | 0 | pCi/g | Pre |
| 107-B1-1 | 3022535.8 | 674398.4836 | 0.5 | Pu-242 | 0 | pCi/g | Pre |
| 107-B1-1 | 3022535.8 | 674398.4836 | 0.5 | Tc-99 | 0 | pCi/g | Pre |
| 107-B1-1 | 3022535.8 | 674398.4836 | 0.5 | Th-230 | 1 | pCi/g | Pre |
| 107-B1-1 | 3022535.8 | 674398.4836 | 0.5 | Th-232 | 0.6 | pCi/g | Pre |
| 107-B1-1 | 3022535.8 | 674398.4836 | 0.5 | U-233/234 | 3.1 | pCi/g | Pre |
| 107-B1-1 | 3022535.8 | 674398.4836 | 0.5 | U-235 | 0.3 | pCi/g | Pre |
| 107-B1-1 | 3022535.8 | 674398.4836 | 0.5 | U-238 | 0.9 | pCi/g | Pre |
| 108-I1-1 | 3022575.827 | 674396.852 | 0.5 | Am-241 | 0.13 | pCi/g | Pre |
| 108-I1-1 | 3022575.827 | 674396.852 | 0.5 | Pu-238 | 0.03 | pCi/g | Pre |
| 108-I1-1 | 3022575.827 | 674396.852 | 0.5 | Pu-239/240 | 0.02 | pCi/g | Pre |
| 108-I1-1 | 3022575.827 | 674396.852 | 0.5 | Pu-241 | 0 | pCi/g | Pre |
| 108-I1-1 | 3022575.827 | 674396.852 | 0.5 | Pu-242 | 0 | pCi/g | Pre |
| 108-I1-1 | 3022575.827 | 674396.852 | 0.5 | Tc-99 | -0.4 | pCi/g | Pre |
| 108-I1-1 | 3022575.827 | 674396.852 | 0.5 | Th-230 | 1.2 | pCi/g | Pre |
| 108-I1-1 | 3022575.827 | 674396.852 | 0.5 | Th-232 | 0.8 | pCi/g | Pre |
| 108-I1-1 | 3022575.827 | 674396.852 | 0.5 | U-233/234 | 1.6 | pCi/g | Pre |
| 108-I1-1 | 3022575.827 | 674396.852 | 0.5 | U-235 | 0.1 | pCi/g | Pre |
| 108-I1-1 | 3022575.827 | 674396.852 | 0.5 | U-238 | 0.8 | pCi/g | Pre |
| 123-G2-1 | 3022966.105 | 674091.0957 | 0.5 | Am-241 | 0.03 | pCi/g | Pre |
| 123-G2-1 | 3022966.105 | 674091.0957 | 0.5 | Pu-238 | 0.02 | pCi/g | Pre |
| 123-G2-1 | 3022966.105 | 674091.0957 | 0.5 | Pu-239/240 | 0 | pCi/g | Pre |
| 123-G2-1 | 3022966.105 | 674091.0957 | 0.5 | Pu-241 | 0 | pCi/g | Pre |
| 123-G2-1 | 3022966.105 | 674091.0957 | 0.5 | Pu-242 | 0 | pCi/g | Pre |
| 123-G2-1 | 3022966.105 | 674091.0957 | 0.5 | Tc-99 | 0 | pCi/g | Pre |
| 123-G2-1 | 3022966.105 | 674091.0957 | 0.5 | Th-230 | 1.4 | pCi/g | Pre |
| 123-G2-1 | 3022966.105 | 674091.0957 | 0.5 | Th-232 | 1.5 | pCi/g | Pre |
| 123-G2-1 | 3022966.105 | 674091.0957 | 0.5 | U-233/234 | 1.4 | pCi/g | Pre |
| 123-G2-1 | 3022966.105 | 674091.0957 | 0.5 | U-235 | 0.1 | pCi/g | Pre |
| 123-G2-1 | 3022966.105 | 674091.0957 | 0.5 | U-238 | 0.9 | pCi/g | Pre |
| 131-C2-1 | 3022337.749 | 674512.3228 | 0.5 | Am-241 | -0.01 | pCi/g | Pre |
| 131-C2-1 | 3022337.749 | 674512.3228 | 0.5 | Pu-238 | 0.06 | pCi/g | Pre |
| 131-C2-1 | 3022337.749 | 674512.3228 | 0.5 | Pu-239/240 | 0 | pCi/g | Pre |
| 131-C2-1 | 3022337.749 | 674512.3228 | 0.5 | Pu-241 | -0.05 | pCi/g | Pre |
| 131-C2-1 | 3022337.749 | 674512.3228 | 0.5 | Pu-242 | 0 | pCi/g | Pre |
| 131-C2-1 | 3022337.749 | 674512.3228 | 0.5 | Tc-99 | 1.6 | pCi/g | Pre |
| 131-C2-1 | 3022337.749 | 674512.3228 | 0.5 | Th-230 | 0.1 | pCi/g | Pre |
| 131-C2-1 | 3022337.749 | 674512.3228 | 0.5 | Th-232 | 0.1 | pCi/g | Pre |
| 131-C2-1 | 3022337.749 | 674512.3228 | 0.5 | U-233/234 | 3.9 | pCi/g | Pre |
| 131-C2-1 | 3022337.749 | 674512.3228 | 0.5 | U-235 | 0.2 | pCi/g | Pre |

## Historical Dataset, Survey Unit 2

| Sample ID# | Sample Location | | Sample Depth (ft) | Contaminant Name | Analytical Result | Units | Period |
|---|---|---|---|---|---|---|---|
| | Easting | Northing | | | | | |
| 131-C2-1 | 3022337.749 | 674512.3228 | 0.5 | U-238 | 1.1 | pCi/g | Pre |
| 131-C2-2 | 3022337.749 | 674512.3228 | 1.5 | Am-241 | -0.02 | pCi/g | Pre |
| 131-C2-2 | 3022337.749 | 674512.3228 | 1.5 | Pu-238 | 0.04 | pCi/g | Pre |
| 131-C2-2 | 3022337.749 | 674512.3228 | 1.5 | Pu-239/240 | -0.02 | pCi/g | Pre |
| 131-C2-2 | 3022337.749 | 674512.3228 | 1.5 | Pu-241 | -0.08 | pCi/g | Pre |
| 131-C2-2 | 3022337.749 | 674512.3228 | 1.5 | Pu-242 | 0 | pCi/g | Pre |
| 131-C2-2 | 3022337.749 | 674512.3228 | 1.5 | Tc-99 | 0 | pCi/g | Pre |
| 131-C2-2 | 3022337.749 | 674512.3228 | 1.5 | Th-230 | 0.5 | pCi/g | Pre |
| 131-C2-2 | 3022337.749 | 674512.3228 | 1.5 | Th-232 | 0.8 | pCi/g | Pre |
| 131-C2-2 | 3022337.749 | 674512.3228 | 1.5 | U-233/234 | 0 | pCi/g | Pre |
| 131-C2-2 | 3022337.749 | 674512.3228 | 1.5 | U-235 | 0 | pCi/g | Pre |
| 131-C2-2 | 3022337.749 | 674512.3228 | 1.5 | U-238 | 0 | pCi/g | Pre |
| 134-B1-1 | 3022411.479 | 674451.9937 | 0.5 | Am-241 | 0.41 | pCi/g | Pre |
| 134-B1-1 | 3022411.479 | 674451.9937 | 0.5 | Pu-238 | 0 | pCi/g | Pre |
| 134-B1-1 | 3022411.479 | 674451.9937 | 0.5 | Pu-239/240 | 0 | pCi/g | Pre |
| 134-B1-1 | 3022411.479 | 674451.9937 | 0.5 | Pu-241 | 0 | pCi/g | Pre |
| 134-B1-1 | 3022411.479 | 674451.9937 | 0.5 | Pu-242 | 0 | pCi/g | Pre |
| 134-B1-1 | 3022411.479 | 674451.9937 | 0.5 | Tc-99 | 0 | pCi/g | Pre |
| 134-B1-1 | 3022411.479 | 674451.9937 | 0.5 | Th-230 | 0.6 | pCi/g | Pre |
| 134-B1-1 | 3022411.479 | 674451.9937 | 0.5 | Th-232 | 0.9 | pCi/g | Pre |
| 134-B1-1 | 3022411.479 | 674451.9937 | 0.5 | U-233/234 | 3.3 | pCi/g | Pre |
| 134-B1-1 | 3022411.479 | 674451.9937 | 0.5 | U-235 | 0.1 | pCi/g | Pre |
| 134-B1-1 | 3022411.479 | 674451.9937 | 0.5 | U-238 | 1 | pCi/g | Pre |
| 15-C8-1 | 3023093.112 | 674225.325 | 0.5 | Am-241 | 0.09 | pCi/g | Pre |
| 15-C8-1 | 3023093.112 | 674225.325 | 0.5 | Pu-238 | -0.07 | pCi/g | Pre |
| 15-C8-1 | 3023093.112 | 674225.325 | 0.5 | Pu-239/240 | 0.71 | pCi/g | Pre |
| 15-C8-1 | 3023093.112 | 674225.325 | 0.5 | Pu-241 | 0.38 | pCi/g | Pre |
| 15-C8-1 | 3023093.112 | 674225.325 | 0.5 | Pu-242 | 0 | pCi/g | Pre |
| 15-C8-1 | 3023093.112 | 674225.325 | 0.5 | Tc-99 | 1.9 | pCi/g | Pre |
| 15-C8-1 | 3023093.112 | 674225.325 | 0.5 | Th-230 | 0.5 | pCi/g | Pre |
| 15-C8-1 | 3023093.112 | 674225.325 | 0.5 | Th-232 | 0.7 | pCi/g | Pre |
| 15-C8-1 | 3023093.112 | 674225.325 | 0.5 | U-233/234 | 5.6 | pCi/g | Pre |
| 15-C8-1 | 3023093.112 | 674225.325 | 0.5 | U-235 | 0.2 | pCi/g | Pre |
| 15-C8-1 | 3023093.112 | 674225.325 | 0.5 | U-238 | 1.4 | pCi/g | Pre |
| 15-C8-2 | 3023093.112 | 674225.325 | 1.5 | Am-241 | 0.01 | pCi/g | Pre |
| 15-C8-2 | 3023093.112 | 674225.325 | 1.5 | Pu-238 | -0.01 | pCi/g | Pre |
| 15-C8-2 | 3023093.112 | 674225.325 | 1.5 | Pu-239/240 | 0.12 | pCi/g | Pre |
| 15-C8-2 | 3023093.112 | 674225.325 | 1.5 | Pu-241 | 0.03 | pCi/g | Pre |
| 15-C8-2 | 3023093.112 | 674225.325 | 1.5 | Pu-242 | 0 | pCi/g | Pre |
| 15-C8-2 | 3023093.112 | 674225.325 | 1.5 | Tc-99 | 2.2 | pCi/g | Pre |
| 15-C8-2 | 3023093.112 | 674225.325 | 1.5 | Th-230 | 1.1 | pCi/g | Pre |
| 15-C8-2 | 3023093.112 | 674225.325 | 1.5 | Th-232 | 1.6 | pCi/g | Pre |
| 15-C8-2 | 3023093.112 | 674225.325 | 1.5 | U-233/234 | 4.7 | pCi/g | Pre |
| 15-C8-2 | 3023093.112 | 674225.325 | 1.5 | U-235 | 0.4 | pCi/g | Pre |
| 15-C8-2 | 3023093.112 | 674225.325 | 1.5 | U-238 | 1.9 | pCi/g | Pre |
| 163-C3-1 | 3022294.368 | 674504.1335 | 0.5 | Am-241 | 0.61 | pCi/g | Pre |
| 163-C3-1 | 3022294.368 | 674504.1335 | 0.5 | Pu-238 | 0.11 | pCi/g | Pre |
| 163-C3-1 | 3022294.368 | 674504.1335 | 0.5 | Pu-239/240 | 1.68 | pCi/g | Pre |
| 163-C3-1 | 3022294.368 | 674504.1335 | 0.5 | Pu-241 | 2.75 | pCi/g | Pre |
| 163-C3-1 | 3022294.368 | 674504.1335 | 0.5 | Pu-242 | 0 | pCi/g | Pre |
| 163-C3-1 | 3022294.368 | 674504.1335 | 0.5 | Tc-99 | 3 | pCi/g | Pre |
| 163-C3-1 | 3022294.368 | 674504.1335 | 0.5 | Th-230 | 1.3 | pCi/g | Pre |
| 163-C3-1 | 3022294.368 | 674504.1335 | 0.5 | Th-232 | 2.1 | pCi/g | Pre |
| 163-C3-1 | 3022294.368 | 674504.1335 | 0.5 | U-233/234 | 21.9 | pCi/g | Pre |

## Historical Dataset, Survey Unit 2

| Sample ID# | Sample Location | | Sample Depth (ft) | Contaminant Name | Analytical Result | Units | Period |
|---|---|---|---|---|---|---|---|
| | Easting | Northing | | | | | |
| 163-C3-1 | 3022294.368 | 674504.1335 | 0.5 | U-235 | 0.9 | pCi/g | Pre |
| 163-C3-1 | 3022294.368 | 674504.1335 | 0.5 | U-238 | 3.6 | pCi/g | Pre |
| 163-D8-1 | 3022309.411 | 674496.7922 | 0.5 | Am-241 | 0.54 | pCi/g | Pre |
| 163-D8-1 | 3022309.411 | 674496.7922 | 0.5 | Pu-238 | 0.1 | pCi/g | Pre |
| 163-D8-1 | 3022309.411 | 674496.7922 | 0.5 | Pu-239/240 | 1.49 | pCi/g | Pre |
| 163-D8-1 | 3022309.411 | 674496.7922 | 0.5 | Pu-241 | 2.44 | pCi/g | Pre |
| 163-D8-1 | 3022309.411 | 674496.7922 | 0.5 | Pu-242 | 0 | pCi/g | Pre |
| 163-D8-1 | 3022309.411 | 674496.7922 | 0.5 | Tc-99 | 2.2 | pCi/g | Pre |
| 163-D8-1 | 3022309.411 | 674496.7922 | 0.5 | Th-230 | 1 | pCi/g | Pre |
| 163-D8-1 | 3022309.411 | 674496.7922 | 0.5 | Th-232 | 1.7 | pCi/g | Pre |
| 163-D8-1 | 3022309.411 | 674496.7922 | 0.5 | U-233/234 | 9.3 | pCi/g | Pre |
| 163-D8-1 | 3022309.411 | 674496.7922 | 0.5 | U-235 | 0.4 | pCi/g | Pre |
| 163-D8-1 | 3022309.411 | 674496.7922 | 0.5 | U-238 | 2 | pCi/g | Pre |
| 164-J9-1 | 3022350.061 | 674490.56 | 0.5 | Am-241 | -0.15 | pCi/g | Pre |
| 164-J9-1 | 3022350.061 | 674490.56 | 0.5 | Pu-238 | 0 | pCi/g | Pre |
| 164-J9-1 | 3022350.061 | 674490.56 | 0.5 | Pu-239/240 | 0 | pCi/g | Pre |
| 164-J9-1 | 3022350.061 | 674490.56 | 0.5 | Pu-241 | 0 | pCi/g | Pre |
| 164-J9-1 | 3022350.061 | 674490.56 | 0.5 | Pu-242 | 0 | pCi/g | Pre |
| 164-J9-1 | 3022350.061 | 674490.56 | 0.5 | Tc-99 | 0 | pCi/g | Pre |
| 164-J9-1 | 3022350.061 | 674490.56 | 0.5 | Th-230 | 0.2 | pCi/g | Pre |
| 164-J9-1 | 3022350.061 | 674490.56 | 0.5 | Th-232 | 0.3 | pCi/g | Pre |
| 164-J9-1 | 3022350.061 | 674490.56 | 0.5 | U-233/234 | 2.9 | pCi/g | Pre |
| 164-J9-1 | 3022350.061 | 674490.56 | 0.5 | U-235 | 0.1 | pCi/g | Pre |
| 164-J9-1 | 3022350.061 | 674490.56 | 0.5 | U-238 | 0.9 | pCi/g | Pre |
| 24-D4-1 | 3023012.555 | 674249.6005 | 0.5 | Am-241 | 0.06 | pCi/g | Pre |
| 24-D4-1 | 3023012.555 | 674249.6005 | 0.5 | Pu-238 | -0.03 | pCi/g | Pre |
| 24-D4-1 | 3023012.555 | 674249.6005 | 0.5 | Pu-239/240 | 0 | pCi/g | Pre |
| 24-D4-1 | 3023012.555 | 674249.6005 | 0.5 | Pu-241 | 0 | pCi/g | Pre |
| 24-D4-1 | 3023012.555 | 674249.6005 | 0.5 | Pu-242 | 0 | pCi/g | Pre |
| 24-D4-1 | 3023012.555 | 674249.6005 | 0.5 | Tc-99 | 0 | pCi/g | Pre |
| 24-D4-1 | 3023012.555 | 674249.6005 | 0.5 | Th-230 | 0.4 | pCi/g | Pre |
| 24-D4-1 | 3023012.555 | 674249.6005 | 0.5 | Th-232 | 0.7 | pCi/g | Pre |
| 24-D4-1 | 3023012.555 | 674249.6005 | 0.5 | U-233/234 | 0.8 | pCi/g | Pre |
| 24-D4-1 | 3023012.555 | 674249.6005 | 0.5 | U-235 | 0.3 | pCi/g | Pre |
| 24-D4-1 | 3023012.555 | 674249.6005 | 0.5 | U-238 | 0.6 | pCi/g | Pre |
| 32-C6-1 | 3022865.358 | 674316.4229 | 0.5 | Am-241 | 0.12 | pCi/g | Pre |
| 32-C6-1 | 3022865.358 | 674316.4229 | 0.5 | Pu-238 | 0.02 | pCi/g | Pre |
| 32-C6-1 | 3022865.358 | 674316.4229 | 0.5 | Pu-239/240 | 0.02 | pCi/g | Pre |
| 32-C6-1 | 3022865.358 | 674316.4229 | 0.5 | Pu-241 | 0 | pCi/g | Pre |
| 32-C6-1 | 3022865.358 | 674316.4229 | 0.5 | Pu-242 | 0 | pCi/g | Pre |
| 32-C6-1 | 3022865.358 | 674316.4229 | 0.5 | Tc-99 | 0 | pCi/g | Pre |
| 32-C6-1 | 3022865.358 | 674316.4229 | 0.5 | Th-230 | 0.8 | pCi/g | Pre |
| 32-C6-1 | 3022865.358 | 674316.4229 | 0.5 | Th-232 | 0.7 | pCi/g | Pre |
| 32-C6-1 | 3022865.358 | 674316.4229 | 0.5 | U-233/234 | 1.5 | pCi/g | Pre |
| 32-C6-1 | 3022865.358 | 674316.4229 | 0.5 | U-235 | 0.1 | pCi/g | Pre |
| 32-C6-1 | 3022865.358 | 674316.4229 | 0.5 | U-238 | 0.8 | pCi/g | Pre |
| 33-C5-1 | 3022888.857 | 674298.5102 | 0.5 | Am-241 | 0.05 | pCi/g | Pre |
| 33-C5-1 | 3022888.857 | 674298.5102 | 0.5 | Pu-238 | 0 | pCi/g | Pre |
| 33-C5-1 | 3022888.857 | 674298.5102 | 0.5 | Pu-239/240 | 0.2 | pCi/g | Pre |
| 33-C5-1 | 3022888.857 | 674298.5102 | 0.5 | Pu-241 | 0 | pCi/g | Pre |
| 33-C5-1 | 3022888.857 | 674298.5102 | 0.5 | Pu-242 | 0 | pCi/g | Pre |
| 33-C5-1 | 3022888.857 | 674298.5102 | 0.5 | Tc-99 | 0 | pCi/g | Pre |
| 33-C5-1 | 3022888.857 | 674298.5102 | 0.5 | Th-230 | 0.3 | pCi/g | Pre |
| 33-C5-1 | 3022888.857 | 674298.5102 | 0.5 | Th-232 | 0.6 | pCi/g | Pre |

## Historical Dataset, Survey Unit 2

| Sample ID# | Sample Location | | Sample Depth (ft) | Contaminant Name | Analytical Result | Units | Period |
|---|---|---|---|---|---|---|---|
| | Easting | Northing | | | | | |
| 33-C5-1 | 3022888.857 | 674298.5102 | 0.5 | U-233/234 | 1.1 | pCi/g | Pre |
| 33-C5-1 | 3022888.857 | 674298.5102 | 0.5 | U-235 | 0.1 | pCi/g | Pre |
| 33-C5-1 | 3022888.857 | 674298.5102 | 0.5 | U-238 | 0.7 | pCi/g | Pre |
| 34-D4-1 | 3022914.344 | 674283.2076 | 0.5 | Am-241 | 0.14 | pCi/g | Pre |
| 34-D4-1 | 3022914.344 | 674283.2076 | 0.5 | Pu-238 | 0.02 | pCi/g | Pre |
| 34-D4-1 | 3022914.344 | 674283.2076 | 0.5 | Pu-239/240 | 0.06 | pCi/g | Pre |
| 34-D4-1 | 3022914.344 | 674283.2076 | 0.5 | Pu-241 | 0 | pCi/g | Pre |
| 34-D4-1 | 3022914.344 | 674283.2076 | 0.5 | Pu-242 | 0 | pCi/g | Pre |
| 34-D4-1 | 3022914.344 | 674283.2076 | 0.5 | Tc-99 | 0 | pCi/g | Pre |
| 34-D4-1 | 3022914.344 | 674283.2076 | 0.5 | Th-230 | 0.5 | pCi/g | Pre |
| 34-D4-1 | 3022914.344 | 674283.2076 | 0.5 | Th-232 | 0.7 | pCi/g | Pre |
| 34-D4-1 | 3022914.344 | 674283.2076 | 0.5 | U-233/234 | 1.4 | pCi/g | Pre |
| 34-D4-1 | 3022914.344 | 674283.2076 | 0.5 | U-235 | 0 | pCi/g | Pre |
| 34-D4-1 | 3022914.344 | 674283.2076 | 0.5 | U-238 | 1.3 | pCi/g | Pre |
| 39-B1-1 | 3023033.083 | 674184.443 | 0.5 | Am-241 | -0.34 | pCi/g | Pre |
| 39-B1-1 | 3023033.083 | 674184.443 | 0.5 | Pu-238 | 0.01 | pCi/g | Pre |
| 39-B1-1 | 3023033.083 | 674184.443 | 0.5 | Pu-239/240 | 0 | pCi/g | Pre |
| 39-B1-1 | 3023033.083 | 674184.443 | 0.5 | Pu-241 | 0 | pCi/g | Pre |
| 39-B1-1 | 3023033.083 | 674184.443 | 0.5 | Pu-242 | 0 | pCi/g | Pre |
| 39-B1-1 | 3023033.083 | 674184.443 | 0.5 | Tc-99 | 0 | pCi/g | Pre |
| 39-B1-1 | 3023033.083 | 674184.443 | 0.5 | Th-230 | 1.2 | pCi/g | Pre |
| 39-B1-1 | 3023033.083 | 674184.443 | 0.5 | Th-232 | 1.2 | pCi/g | Pre |
| 39-B1-1 | 3023033.083 | 674184.443 | 0.5 | U-233/234 | 1.1 | pCi/g | Pre |
| 39-B1-1 | 3023033.083 | 674184.443 | 0.5 | U-235 | 0.1 | pCi/g | Pre |
| 39-B1-1 | 3023033.083 | 674184.443 | 0.5 | U-238 | 1.1 | pCi/g | Pre |
| 39-E6-1 | 3023052.102 | 674182.3221 | 0.5 | Am-241 | -0.19 | pCi/g | Pre |
| 39-E6-1 | 3023052.102 | 674182.3221 | 0.5 | Pu-238 | -0.1 | pCi/g | Pre |
| 39-E6-1 | 3023052.102 | 674182.3221 | 0.5 | Pu-239/240 | 0.1 | pCi/g | Pre |
| 39-E6-1 | 3023052.102 | 674182.3221 | 0.5 | Pu-241 | 0 | pCi/g | Pre |
| 39-E6-1 | 3023052.102 | 674182.3221 | 0.5 | Pu-242 | 0 | pCi/g | Pre |
| 39-E6-1 | 3023052.102 | 674182.3221 | 0.5 | Tc-99 | 0 | pCi/g | Pre |
| 39-E6-1 | 3023052.102 | 674182.3221 | 0.5 | Th-230 | 1.6 | pCi/g | Pre |
| 39-E6-1 | 3023052.102 | 674182.3221 | 0.5 | Th-232 | 1.3 | pCi/g | Pre |
| 39-E6-1 | 3023052.102 | 674182.3221 | 0.5 | U-233/234 | 1 | pCi/g | Pre |
| 39-E6-1 | 3023052.102 | 674182.3221 | 0.5 | U-235 | 0.2 | pCi/g | Pre |
| 39-E6-1 | 3023052.102 | 674182.3221 | 0.5 | U-238 | 0.9 | pCi/g | Pre |
| 39-F5-1 | 3023051.479 | 674186.9226 | 0.5 | Am-241 | -0.43 | pCi/g | Pre |
| 39-F5-1 | 3023051.479 | 674186.9226 | 0.5 | Pu-238 | 0 | pCi/g | Pre |
| 39-F5-1 | 3023051.479 | 674186.9226 | 0.5 | Pu-239/240 | 0 | pCi/g | Pre |
| 39-F5-1 | 3023051.479 | 674186.9226 | 0.5 | Pu-241 | 0 | pCi/g | Pre |
| 39-F5-1 | 3023051.479 | 674186.9226 | 0.5 | Pu-242 | 0 | pCi/g | Pre |
| 39-F5-1 | 3023051.479 | 674186.9226 | 0.5 | Tc-99 | 0 | pCi/g | Pre |
| 39-F5-1 | 3023051.479 | 674186.9226 | 0.5 | Th-230 | 1.3 | pCi/g | Pre |
| 39-F5-1 | 3023051.479 | 674186.9226 | 0.5 | Th-232 | 2.2 | pCi/g | Pre |
| 39-F5-1 | 3023051.479 | 674186.9226 | 0.5 | U-233/234 | 22.5 | pCi/g | Pre |
| 39-F5-1 | 3023051.479 | 674186.9226 | 0.5 | U-235 | 0.9 | pCi/g | Pre |
| 39-F5-1 | 3023051.479 | 674186.9226 | 0.5 | U-238 | 3.7 | pCi/g | Pre |
| 39-F5-2 | 3023051.479 | 674186.9226 | 1.5 | Am-241 | 0.19 | pCi/g | Pre |
| 39-F5-2 | 3023051.479 | 674186.9226 | 1.5 | Pu-238 | 0 | pCi/g | Pre |
| 39-F5-2 | 3023051.479 | 674186.9226 | 1.5 | Pu-239/240 | 0 | pCi/g | Pre |
| 39-F5-2 | 3023051.479 | 674186.9226 | 1.5 | Pu-241 | 0 | pCi/g | Pre |
| 39-F5-2 | 3023051.479 | 674186.9226 | 1.5 | Pu-242 | 0 | pCi/g | Pre |
| 39-F5-2 | 3023051.479 | 674186.9226 | 1.5 | Tc-99 | 0 | pCi/g | Pre |
| 39-F5-2 | 3023051.479 | 674186.9226 | 1.5 | Th-230 | 0.6 | pCi/g | Pre |

## Historical Dataset, Survey Unit 2

| Sample ID# | Sample Location | | Sample Depth (ft) | Contaminant Name | Analytical Result | Units | Period |
|---|---|---|---|---|---|---|---|
| | Easting | Northing | | | | | |
| 39-F5-2 | 3023051.479 | 674186.9226 | 1.5 | Th-232 | 0.9 | pCi/g | Pre |
| 39-F5-2 | 3023051.479 | 674186.9226 | 1.5 | U-233/234 | 6.2 | pCi/g | Pre |
| 39-F5-2 | 3023051.479 | 674186.9226 | 1.5 | U-235 | 0.3 | pCi/g | Pre |
| 39-F5-2 | 3023051.479 | 674186.9226 | 1.5 | U-238 | 1.6 | pCi/g | Pre |
| 49-A7-1 | 3022896.33 | 674243.3041 | 0.5 | Am-241 | -0.11 | pCi/g | Pre |
| 49-A7-1 | 3022896.33 | 674243.3041 | 0.5 | Pu-238 | -0.03 | pCi/g | Pre |
| 49-A7-1 | 3022896.33 | 674243.3041 | 0.5 | Pu-239/240 | 0.12 | pCi/g | Pre |
| 49-A7-1 | 3022896.33 | 674243.3041 | 0.5 | Pu-241 | -0.48 | pCi/g | Pre |
| 49-A7-1 | 3022896.33 | 674243.3041 | 0.5 | Pu-242 | 0 | pCi/g | Pre |
| 49-A7-1 | 3022896.33 | 674243.3041 | 0.5 | Tc-99 | 1.1 | pCi/g | Pre |
| 49-A7-1 | 3022896.33 | 674243.3041 | 0.5 | Th-230 | 0.9 | pCi/g | Pre |
| 49-A7-1 | 3022896.33 | 674243.3041 | 0.5 | Th-232 | 0.8 | pCi/g | Pre |
| 49-A7-1 | 3022896.33 | 674243.3041 | 0.5 | U-233/234 | 2.2 | pCi/g | Pre |
| 49-A7-1 | 3022896.33 | 674243.3041 | 0.5 | U-235 | 0.1 | pCi/g | Pre |
| 49-A7-1 | 3022896.33 | 674243.3041 | 0.5 | U-238 | 0.8 | pCi/g | Pre |
| 49-A7-2 | 3022896.33 | 674243.3041 | 1.5 | Am-241 | 0.01 | pCi/g | Pre |
| 49-A7-2 | 3022896.33 | 674243.3041 | 1.5 | Pu-238 | 0.03 | pCi/g | Pre |
| 49-A7-2 | 3022896.33 | 674243.3041 | 1.5 | Pu-239/240 | 0.03 | pCi/g | Pre |
| 49-A7-2 | 3022896.33 | 674243.3041 | 1.5 | Pu-241 | 0.03 | pCi/g | Pre |
| 49-A7-2 | 3022896.33 | 674243.3041 | 1.5 | Pu-242 | 0 | pCi/g | Pre |
| 49-A7-2 | 3022896.33 | 674243.3041 | 1.5 | Tc-99 | 1.6 | pCi/g | Pre |
| 49-A7-2 | 3022896.33 | 674243.3041 | 1.5 | Th-230 | 0.9 | pCi/g | Pre |
| 49-A7-2 | 3022896.33 | 674243.3041 | 1.5 | Th-232 | 1.5 | pCi/g | Pre |
| 49-A7-2 | 3022896.33 | 674243.3041 | 1.5 | U-233/234 | 3.9 | pCi/g | Pre |
| 49-A7-2 | 3022896.33 | 674243.3041 | 1.5 | U-235 | 0.2 | pCi/g | Pre |
| 49-A7-2 | 3022896.33 | 674243.3041 | 1.5 | U-238 | 1.1 | pCi/g | Pre |
| 50-A6-1 | 3022919.828 | 674225.3914 | 0.5 | Am-241 | 0.09 | pCi/g | Pre |
| 50-A6-1 | 3022919.828 | 674225.3914 | 0.5 | Pu-238 | 0.05 | pCi/g | Pre |
| 50-A6-1 | 3022919.828 | 674225.3914 | 0.5 | Pu-239/240 | 1.73 | pCi/g | Pre |
| 50-A6-1 | 3022919.828 | 674225.3914 | 0.5 | Pu-241 | 0.4 | pCi/g | Pre |
| 50-A6-1 | 3022919.828 | 674225.3914 | 0.5 | Pu-242 | 0 | pCi/g | Pre |
| 50-A6-1 | 3022919.828 | 674225.3914 | 0.5 | Tc-99 | 2.4 | pCi/g | Pre |
| 50-A6-1 | 3022919.828 | 674225.3914 | 0.5 | Th-230 | 0.6 | pCi/g | Pre |
| 50-A6-1 | 3022919.828 | 674225.3914 | 0.5 | Th-232 | 1 | pCi/g | Pre |
| 50-A6-1 | 3022919.828 | 674225.3914 | 0.5 | U-233/234 | 11.4 | pCi/g | Pre |
| 50-A6-1 | 3022919.828 | 674225.3914 | 0.5 | U-235 | 0.5 | pCi/g | Pre |
| 50-A6-1 | 3022919.828 | 674225.3914 | 0.5 | U-238 | 2.3 | pCi/g | Pre |
| 50-A6-2 | 3022919.828 | 674225.3914 | 1.5 | Am-241 | 0.02 | pCi/g | Pre |
| 50-A6-2 | 3022919.828 | 674225.3914 | 1.5 | Pu-238 | -0.04 | pCi/g | Pre |
| 50-A6-2 | 3022919.828 | 674225.3914 | 1.5 | Pu-239/240 | 0.61 | pCi/g | Pre |
| 50-A6-2 | 3022919.828 | 674225.3914 | 1.5 | Pu-241 | 0.07 | pCi/g | Pre |
| 50-A6-2 | 3022919.828 | 674225.3914 | 1.5 | Pu-242 | 0 | pCi/g | Pre |
| 50-A6-2 | 3022919.828 | 674225.3914 | 1.5 | Tc-99 | 1.8 | pCi/g | Pre |
| 50-A6-2 | 3022919.828 | 674225.3914 | 1.5 | Th-230 | 1.3 | pCi/g | Pre |
| 50-A6-2 | 3022919.828 | 674225.3914 | 1.5 | Th-232 | 2.1 | pCi/g | Pre |
| 50-A6-2 | 3022919.828 | 674225.3914 | 1.5 | U-233/234 | 5 | pCi/g | Pre |
| 50-A6-2 | 3022919.828 | 674225.3914 | 1.5 | U-235 | 0.2 | pCi/g | Pre |
| 50-A6-2 | 3022919.828 | 674225.3914 | 1.5 | U-238 | 1.3 | pCi/g | Pre |
| 51-G10-1 | 3022968.311 | 674213.1884 | 0.5 | Am-241 | -0.02 | pCi/g | Pre |
| 51-G10-1 | 3022968.311 | 674213.1884 | 0.5 | Pu-238 | 0 | pCi/g | Pre |
| 51-G10-1 | 3022968.311 | 674213.1884 | 0.5 | Pu-239/240 | 0 | pCi/g | Pre |
| 51-G10-1 | 3022968.311 | 674213.1884 | 0.5 | Pu-241 | 0 | pCi/g | Pre |
| 51-G10-1 | 3022968.311 | 674213.1884 | 0.5 | Pu-242 | 0 | pCi/g | Pre |
| 51-G10-1 | 3022968.311 | 674213.1884 | 0.5 | Tc-99 | 0 | pCi/g | Pre |

## Historical Dataset, Survey Unit 2

| Sample ID# | Sample Location | | Sample Depth (ft) | Contaminant Name | Analytical Result | Units | Period |
|---|---|---|---|---|---|---|---|
| | Easting | Northing | | | | | |
| 51-G10-1 | 3022968.311 | 674213.1884 | 0.5 | Th-230 | 0.8 | pCi/g | Pre |
| 51-G10-1 | 3022968.311 | 674213.1884 | 0.5 | Th-232 | 1.2 | pCi/g | Pre |
| 51-G10-1 | 3022968.311 | 674213.1884 | 0.5 | U-233/234 | 3.7 | pCi/g | Pre |
| 51-G10-1 | 3022968.311 | 674213.1884 | 0.5 | U-235 | 0.1 | pCi/g | Pre |
| 51-G10-1 | 3022968.311 | 674213.1884 | 0.5 | U-238 | 1.9 | pCi/g | Pre |
| 51-H9-1 | 3022967.688 | 674217.7889 | 0.5 | Am-241 | -0.06 | pCi/g | Pre |
| 51-H9-1 | 3022967.688 | 674217.7889 | 0.5 | Pu-238 | -0.02 | pCi/g | Pre |
| 51-H9-1 | 3022967.688 | 674217.7889 | 0.5 | Pu-239/240 | 0.07 | pCi/g | Pre |
| 51-H9-1 | 3022967.688 | 674217.7889 | 0.5 | Pu-241 | 0 | pCi/g | Pre |
| 51-H9-1 | 3022967.688 | 674217.7889 | 0.5 | Pu-242 | 0 | pCi/g | Pre |
| 51-H9-1 | 3022967.688 | 674217.7889 | 0.5 | Tc-99 | 2.5 | pCi/g | Pre |
| 51-H9-1 | 3022967.688 | 674217.7889 | 0.5 | Th-230 | 1.1 | pCi/g | Pre |
| 51-H9-1 | 3022967.688 | 674217.7889 | 0.5 | Th-232 | 0.8 | pCi/g | Pre |
| 51-H9-1 | 3022967.688 | 674217.7889 | 0.5 | U-233/234 | 2.1 | pCi/g | Pre |
| 51-H9-1 | 3022967.688 | 674217.7889 | 0.5 | U-235 | 0.2 | pCi/g | Pre |
| 51-H9-1 | 3022967.688 | 674217.7889 | 0.5 | U-238 | 1.3 | pCi/g | Pre |
| 52-B1-1 | 3023000.746 | 674250.351 | 0.5 | Am-241 | -0.12 | pCi/g | Pre |
| 52-B1-1 | 3023000.746 | 674250.351 | 0.5 | Pu-238 | -0.03 | pCi/g | Pre |
| 52-B1-1 | 3023000.746 | 674250.351 | 0.5 | Pu-239/240 | -0.04 | pCi/g | Pre |
| 52-B1-1 | 3023000.746 | 674250.351 | 0.5 | Pu-241 | 0 | pCi/g | Pre |
| 52-B1-1 | 3023000.746 | 674250.351 | 0.5 | Pu-242 | 0 | pCi/g | Pre |
| 52-B1-1 | 3023000.746 | 674250.351 | 0.5 | Tc-99 | 0 | pCi/g | Pre |
| 52-B1-1 | 3023000.746 | 674250.351 | 0.5 | Th-230 | 0.9 | pCi/g | Pre |
| 52-B1-1 | 3023000.746 | 674250.351 | 0.5 | Th-232 | 1 | pCi/g | Pre |
| 52-B1-1 | 3023000.746 | 674250.351 | 0.5 | U-233/234 | 1.2 | pCi/g | Pre |
| 52-B1-1 | 3023000.746 | 674250.351 | 0.5 | U-235 | 0.2 | pCi/g | Pre |
| 52-B1-1 | 3023000.746 | 674250.351 | 0.5 | U-238 | 1.3 | pCi/g | Pre |
| 54-C2-1 | 3023017.799 | 674158.9609 | 0.5 | Am-241 | -0.25 | pCi/g | Pre |
| 54-C2-1 | 3023017.799 | 674158.9609 | 0.5 | Pu-238 | -0.09 | pCi/g | Pre |
| 54-C2-1 | 3023017.799 | 674158.9609 | 0.5 | Pu-239/240 | 0.13 | pCi/g | Pre |
| 54-C2-1 | 3023017.799 | 674158.9609 | 0.5 | Pu-241 | 0 | pCi/g | Pre |
| 54-C2-1 | 3023017.799 | 674158.9609 | 0.5 | Pu-242 | 0 | pCi/g | Pre |
| 54-C2-1 | 3023017.799 | 674158.9609 | 0.5 | Tc-99 | 0 | pCi/g | Pre |
| 54-C2-1 | 3023017.799 | 674158.9609 | 0.5 | Th-230 | 1.2 | pCi/g | Pre |
| 54-C2-1 | 3023017.799 | 674158.9609 | 0.5 | Th-232 | 1.3 | pCi/g | Pre |
| 54-C2-1 | 3023017.799 | 674158.9609 | 0.5 | U-233/234 | 1.2 | pCi/g | Pre |
| 54-C2-1 | 3023017.799 | 674158.9609 | 0.5 | U-235 | 0.3 | pCi/g | Pre |
| 54-C2-1 | 3023017.799 | 674158.9609 | 0.5 | U-238 | 0.9 | pCi/g | Pre |
| 54-I8-1 | 3023045.394 | 674162.6803 | 0.5 | Am-241 | 0.01 | pCi/g | Pre |
| 54-I8-1 | 3023045.394 | 674162.6803 | 0.5 | Pu-238 | 0.09 | pCi/g | Pre |
| 54-I8-1 | 3023045.394 | 674162.6803 | 0.5 | Pu-239/240 | 0.03 | pCi/g | Pre |
| 54-I8-1 | 3023045.394 | 674162.6803 | 0.5 | Pu-241 | 0 | pCi/g | Pre |
| 54-I8-1 | 3023045.394 | 674162.6803 | 0.5 | Pu-242 | 0 | pCi/g | Pre |
| 54-I8-1 | 3023045.394 | 674162.6803 | 0.5 | Tc-99 | 0 | pCi/g | Pre |
| 54-I8-1 | 3023045.394 | 674162.6803 | 0.5 | Th-230 | 1.3 | pCi/g | Pre |
| 54-I8-1 | 3023045.394 | 674162.6803 | 0.5 | Th-232 | 1 | pCi/g | Pre |
| 54-I8-1 | 3023045.394 | 674162.6803 | 0.5 | U-233/234 | 0.9 | pCi/g | Pre |
| 54-I8-1 | 3023045.394 | 674162.6803 | 0.5 | U-235 | 0.2 | pCi/g | Pre |
| 54-I8-1 | 3023045.394 | 674162.6803 | 0.5 | U-238 | 1.2 | pCi/g | Pre |
| 55-C2-1 | 3023043.909 | 674139.0578 | 0.5 | Am-241 | -0.12 | pCi/g | Pre |
| 55-C2-1 | 3023043.909 | 674139.0578 | 0.5 | Pu-238 | 0.01 | pCi/g | Pre |
| 55-C2-1 | 3023043.909 | 674139.0578 | 0.5 | Pu-239/240 | 0.02 | pCi/g | Pre |
| 55-C2-1 | 3023043.909 | 674139.0578 | 0.5 | Pu-241 | 0 | pCi/g | Pre |
| 55-C2-1 | 3023043.909 | 674139.0578 | 0.5 | Pu-242 | 0 | pCi/g | Pre |

## Historical Dataset, Survey Unit 2

| Sample ID# | Sample Location | | Sample Depth (ft) | Contaminant Name | Analytical Result | Units | Period |
|---|---|---|---|---|---|---|---|
| | Easting | Northing | | | | | |
| 55-C2-1 | 3023043.909 | 674139.0578 | 0.5 | Tc-99 | 0 | pCi/g | Pre |
| 55-C2-1 | 3023043.909 | 674139.0578 | 0.5 | Th-230 | 1.3 | pCi/g | Pre |
| 55-C2-1 | 3023043.909 | 674139.0578 | 0.5 | Th-232 | 1 | pCi/g | Pre |
| 55-C2-1 | 3023043.909 | 674139.0578 | 0.5 | U-233/234 | 1.2 | pCi/g | Pre |
| 55-C2-1 | 3023043.909 | 674139.0578 | 0.5 | U-235 | 0.1 | pCi/g | Pre |
| 55-C2-1 | 3023043.909 | 674139.0578 | 0.5 | U-238 | 1.2 | pCi/g | Pre |
| 61-H4-1 | 3022699.765 | 674380.7657 | 0.5 | Am-241 | -0.04 | pCi/g | Pre |
| 61-H4-1 | 3022699.765 | 674380.7657 | 0.5 | Pu-238 | -0.06 | pCi/g | Pre |
| 61-H4-1 | 3022699.765 | 674380.7657 | 0.5 | Pu-239/240 | 0.06 | pCi/g | Pre |
| 61-H4-1 | 3022699.765 | 674380.7657 | 0.5 | Pu-241 | -0.17 | pCi/g | Pre |
| 61-H4-1 | 3022699.765 | 674380.7657 | 0.5 | Pu-242 | 0 | pCi/g | Pre |
| 61-H4-1 | 3022699.765 | 674380.7657 | 0.5 | Tc-99 | 1.8 | pCi/g | Pre |
| 61-H4-1 | 3022699.765 | 674380.7657 | 0.5 | Th-230 | 0.3 | pCi/g | Pre |
| 61-H4-1 | 3022699.765 | 674380.7657 | 0.5 | Th-232 | 0.5 | pCi/g | Pre |
| 61-H4-1 | 3022699.765 | 674380.7657 | 0.5 | U-233/234 | 5 | pCi/g | Pre |
| 61-H4-1 | 3022699.765 | 674380.7657 | 0.5 | U-235 | 0.2 | pCi/g | Pre |
| 61-H4-1 | 3022699.765 | 674380.7657 | 0.5 | U-238 | 1.3 | pCi/g | Pre |
| 61-H4-2 | 3022699.765 | 674380.7657 | 1.5 | Am-241 | -0.11 | pCi/g | Pre |
| 61-H4-2 | 3022699.765 | 674380.7657 | 1.5 | Pu-238 | 0 | pCi/g | Pre |
| 61-H4-2 | 3022699.765 | 674380.7657 | 1.5 | Pu-239/240 | 0.02 | pCi/g | Pre |
| 61-H4-2 | 3022699.765 | 674380.7657 | 1.5 | Pu-241 | -0.5 | pCi/g | Pre |
| 61-H4-2 | 3022699.765 | 674380.7657 | 1.5 | Pu-242 | 0 | pCi/g | Pre |
| 61-H4-2 | 3022699.765 | 674380.7657 | 1.5 | Tc-99 | 1.3 | pCi/g | Pre |
| 61-H4-2 | 3022699.765 | 674380.7657 | 1.5 | Th-230 | 0.9 | pCi/g | Pre |
| 61-H4-2 | 3022699.765 | 674380.7657 | 1.5 | Th-232 | 0.7 | pCi/g | Pre |
| 61-H4-2 | 3022699.765 | 674380.7657 | 1.5 | U-233/234 | 2.9 | pCi/g | Pre |
| 61-H4-2 | 3022699.765 | 674380.7657 | 1.5 | U-235 | 0.1 | pCi/g | Pre |
| 61-H4-2 | 3022699.765 | 674380.7657 | 1.5 | U-238 | 1 | pCi/g | Pre |
| 63-J1-1 | 3022748.128 | 674352.1509 | 0.5 | Am-241 | -0.17 | pCi/g | Pre |
| 63-J1-1 | 3022748.128 | 674352.1509 | 0.5 | Pu-238 | -0.16 | pCi/g | Pre |
| 63-J1-1 | 3022748.128 | 674352.1509 | 0.5 | Pu-239/240 | 0.04 | pCi/g | Pre |
| 63-J1-1 | 3022748.128 | 674352.1509 | 0.5 | Pu-241 | -0.75 | pCi/g | Pre |
| 63-J1-1 | 3022748.128 | 674352.1509 | 0.5 | Pu-242 | 0 | pCi/g | Pre |
| 63-J1-1 | 3022748.128 | 674352.1509 | 0.5 | Tc-99 | 1.5 | pCi/g | Pre |
| 63-J1-1 | 3022748.128 | 674352.1509 | 0.5 | Th-230 | 0.6 | pCi/g | Pre |
| 63-J1-1 | 3022748.128 | 674352.1509 | 0.5 | Th-232 | 0.9 | pCi/g | Pre |
| 63-J1-1 | 3022748.128 | 674352.1509 | 0.5 | U-233/234 | 3.2 | pCi/g | Pre |
| 63-J1-1 | 3022748.128 | 674352.1509 | 0.5 | U-235 | 0.1 | pCi/g | Pre |
| 63-J1-1 | 3022748.128 | 674352.1509 | 0.5 | U-238 | 1 | pCi/g | Pre |
| 63-J1-2 | 3022748.128 | 674352.1509 | 1.5 | Am-241 | 0.02 | pCi/g | Pre |
| 63-J1-2 | 3022748.128 | 674352.1509 | 1.5 | Pu-238 | 0.06 | pCi/g | Pre |
| 63-J1-2 | 3022748.128 | 674352.1509 | 1.5 | Pu-239/240 | 0 | pCi/g | Pre |
| 63-J1-2 | 3022748.128 | 674352.1509 | 1.5 | Pu-241 | 0.08 | pCi/g | Pre |
| 63-J1-2 | 3022748.128 | 674352.1509 | 1.5 | Pu-242 | 0 | pCi/g | Pre |
| 63-J1-2 | 3022748.128 | 674352.1509 | 1.5 | Tc-99 | 1.5 | pCi/g | Pre |
| 63-J1-2 | 3022748.128 | 674352.1509 | 1.5 | Th-230 | 0.1 | pCi/g | Pre |
| 63-J1-2 | 3022748.128 | 674352.1509 | 1.5 | Th-232 | 0.1 | pCi/g | Pre |
| 63-J1-2 | 3022748.128 | 674352.1509 | 1.5 | U-233/234 | 3.1 | pCi/g | Pre |
| 63-J1-2 | 3022748.128 | 674352.1509 | 1.5 | U-235 | 0.1 | pCi/g | Pre |
| 63-J1-2 | 3022748.128 | 674352.1509 | 1.5 | U-238 | 1 | pCi/g | Pre |
| 65-C4-1 | 3022794.262 | 674288.1026 | 0.5 | Am-241 | -0.02 | pCi/g | Pre |
| 65-C4-1 | 3022794.262 | 674288.1026 | 0.5 | Pu-238 | 0 | pCi/g | Pre |
| 65-C4-1 | 3022794.262 | 674288.1026 | 0.5 | Pu-239/240 | 0.07 | pCi/g | Pre |
| 65-C4-1 | 3022794.262 | 674288.1026 | 0.5 | Pu-241 | 0 | pCi/g | Pre |

## Historical Dataset, Survey Unit 2

| Sample ID# | Sample Location | | Sample Depth (ft) | Contaminant Name | Analytical Result | Units | Period |
|---|---|---|---|---|---|---|---|
| | Easting | Northing | | | | | |
| 65-C4-1 | 3022794.262 | 674288.1026 | 0.5 | Pu-242 | 0 | pCi/g | Pre |
| 65-C4-1 | 3022794.262 | 674288.1026 | 0.5 | Tc-99 | -1.9 | pCi/g | Pre |
| 65-C4-1 | 3022794.262 | 674288.1026 | 0.5 | Th-230 | 0.7 | pCi/g | Pre |
| 65-C4-1 | 3022794.262 | 674288.1026 | 0.5 | Th-232 | 0.5 | pCi/g | Pre |
| 65-C4-1 | 3022794.262 | 674288.1026 | 0.5 | U-233/234 | 0.5 | pCi/g | Pre |
| 65-C4-1 | 3022794.262 | 674288.1026 | 0.5 | U-235 | 0.1 | pCi/g | Pre |
| 65-C4-1 | 3022794.262 | 674288.1026 | 0.5 | U-238 | 0.9 | pCi/g | Pre |
| 67-A6-1 | 3022847.727 | 674239.0955 | 0.5 | Am-241 | -0.01 | pCi/g | Pre |
| 67-A6-1 | 3022847.727 | 674239.0955 | 0.5 | Pu-238 | 0.05 | pCi/g | Pre |
| 67-A6-1 | 3022847.727 | 674239.0955 | 0.5 | Pu-239/240 | 0.18 | pCi/g | Pre |
| 67-A6-1 | 3022847.727 | 674239.0955 | 0.5 | Pu-241 | -0.05 | pCi/g | Pre |
| 67-A6-1 | 3022847.727 | 674239.0955 | 0.5 | Pu-242 | 0 | pCi/g | Pre |
| 67-A6-1 | 3022847.727 | 674239.0955 | 0.5 | Tc-99 | 1.6 | pCi/g | Pre |
| 67-A6-1 | 3022847.727 | 674239.0955 | 0.5 | Th-230 | 0.6 | pCi/g | Pre |
| 67-A6-1 | 3022847.727 | 674239.0955 | 0.5 | Th-232 | 0.9 | pCi/g | Pre |
| 67-A6-1 | 3022847.727 | 674239.0955 | 0.5 | U-233/234 | 3.3 | pCi/g | Pre |
| 67-A6-1 | 3022847.727 | 674239.0955 | 0.5 | U-235 | 0.1 | pCi/g | Pre |
| 67-A6-1 | 3022847.727 | 674239.0955 | 0.5 | U-238 | 1 | pCi/g | Pre |
| 67-A6-2 | 3022847.727 | 674239.0955 | 1.5 | Am-241 | -0.08 | pCi/g | Pre |
| 67-A6-2 | 3022847.727 | 674239.0955 | 1.5 | Pu-238 | 0 | pCi/g | Pre |
| 67-A6-2 | 3022847.727 | 674239.0955 | 1.5 | Pu-239/240 | 0.08 | pCi/g | Pre |
| 67-A6-2 | 3022847.727 | 674239.0955 | 1.5 | Pu-241 | -0.38 | pCi/g | Pre |
| 67-A6-2 | 3022847.727 | 674239.0955 | 1.5 | Pu-242 | 0 | pCi/g | Pre |
| 67-A6-2 | 3022847.727 | 674239.0955 | 1.5 | Tc-99 | 1.5 | pCi/g | Pre |
| 67-A6-2 | 3022847.727 | 674239.0955 | 1.5 | Th-230 | 0.6 | pCi/g | Pre |
| 67-A6-2 | 3022847.727 | 674239.0955 | 1.5 | Th-232 | 1 | pCi/g | Pre |
| 67-A6-2 | 3022847.727 | 674239.0955 | 1.5 | U-233/234 | 3.1 | pCi/g | Pre |
| 67-A6-2 | 3022847.727 | 674239.0955 | 1.5 | U-235 | 0.1 | pCi/g | Pre |
| 67-A6-2 | 3022847.727 | 674239.0955 | 1.5 | U-238 | 1 | pCi/g | Pre |
| 68-D5-1 | 3022877.19 | 674229.0134 | 0.5 | Am-241 | 0.16 | pCi/g | Pre |
| 68-D5-1 | 3022877.19 | 674229.0134 | 0.5 | Pu-238 | 0.03 | pCi/g | Pre |
| 68-D5-1 | 3022877.19 | 674229.0134 | 0.5 | Pu-239/240 | 0.14 | pCi/g | Pre |
| 68-D5-1 | 3022877.19 | 674229.0134 | 0.5 | Pu-241 | 0 | pCi/g | Pre |
| 68-D5-1 | 3022877.19 | 674229.0134 | 0.5 | Pu-242 | 0 | pCi/g | Pre |
| 68-D5-1 | 3022877.19 | 674229.0134 | 0.5 | Tc-99 | 0 | pCi/g | Pre |
| 68-D5-1 | 3022877.19 | 674229.0134 | 0.5 | Th-230 | 1.3 | pCi/g | Pre |
| 68-D5-1 | 3022877.19 | 674229.0134 | 0.5 | Th-232 | 1.5 | pCi/g | Pre |
| 68-D5-1 | 3022877.19 | 674229.0134 | 0.5 | U-233/234 | 13 | pCi/g | Pre |
| 68-D5-1 | 3022877.19 | 674229.0134 | 0.5 | U-235 | 0.4 | pCi/g | Pre |
| 68-D5-1 | 3022877.19 | 674229.0134 | 0.5 | U-238 | 2 | pCi/g | Pre |
| 68-F5-1 | 3022881.167 | 674234.2338 | 0.5 | Am-241 | -0.06 | pCi/g | Pre |
| 68-F5-1 | 3022881.167 | 674234.2338 | 0.5 | Pu-238 | 0 | pCi/g | Pre |
| 68-F5-1 | 3022881.167 | 674234.2338 | 0.5 | Pu-239/240 | 0 | pCi/g | Pre |
| 68-F5-1 | 3022881.167 | 674234.2338 | 0.5 | Pu-241 | 0 | pCi/g | Pre |
| 68-F5-1 | 3022881.167 | 674234.2338 | 0.5 | Pu-242 | 0 | pCi/g | Pre |
| 68-F5-1 | 3022881.167 | 674234.2338 | 0.5 | Tc-99 | 0 | pCi/g | Pre |
| 68-F5-1 | 3022881.167 | 674234.2338 | 0.5 | Th-230 | 4.7 | pCi/g | Pre |
| 68-F5-1 | 3022881.167 | 674234.2338 | 0.5 | Th-232 | 8.9 | pCi/g | Pre |
| 68-F5-1 | 3022881.167 | 674234.2338 | 0.5 | U-233/234 | 54.9 | pCi/g | Pre |
| 68-F5-1 | 3022881.167 | 674234.2338 | 0.5 | U-235 | 2.1 | pCi/g | Pre |
| 68-F5-1 | 3022881.167 | 674234.2338 | 0.5 | U-238 | 6.8 | pCi/g | Pre |
| 68-F5-2 | 3022881.167 | 674234.2338 | 1.5 | Am-241 | 0.03 | pCi/g | Pre |
| 68-F5-2 | 3022881.167 | 674234.2338 | 1.5 | Pu-238 | 0 | pCi/g | Pre |
| 68-F5-2 | 3022881.167 | 674234.2338 | 1.5 | Pu-239/240 | 0 | pCi/g | Pre |

## Historical Dataset, Survey Unit 2

| Sample ID# | Sample Location | | Sample Depth (ft) | Contaminant Name | Analytical Result | Units | Period |
|---|---|---|---|---|---|---|---|
| | Easting | Northing | | | | | |
| 68-F5-2 | 3022881.167 | 674234.2338 | 1.5 | Pu-241 | 0 | pCi/g | Pre |
| 68-F5-2 | 3022881.167 | 674234.2338 | 1.5 | Pu-242 | 0 | pCi/g | Pre |
| 68-F5-2 | 3022881.167 | 674234.2338 | 1.5 | Tc-99 | 0 | pCi/g | Pre |
| 68-F5-2 | 3022881.167 | 674234.2338 | 1.5 | Th-230 | 1.2 | pCi/g | Pre |
| 68-F5-2 | 3022881.167 | 674234.2338 | 1.5 | Th-232 | 2 | pCi/g | Pre |
| 68-F5-2 | 3022881.167 | 674234.2338 | 1.5 | U-233/234 | 9.8 | pCi/g | Pre |
| 68-F5-2 | 3022881.167 | 674234.2338 | 1.5 | U-235 | 0.4 | pCi/g | Pre |
| 68-F5-2 | 3022881.167 | 674234.2338 | 1.5 | U-238 | 2.1 | pCi/g | Pre |
| 694-E8-1 | 3022913.121 | 674205.7496 | 0.5 | Am-241 | 0.08 | pCi/g | Pre |
| 694-E8-1 | 3022913.121 | 674205.7496 | 0.5 | Pu-238 | 0.01 | pCi/g | Pre |
| 694-E8-1 | 3022913.121 | 674205.7496 | 0.5 | Pu-239/240 | 0.21 | pCi/g | Pre |
| 694-E8-1 | 3022913.121 | 674205.7496 | 0.5 | Pu-241 | 0.34 | pCi/g | Pre |
| 694-E8-1 | 3022913.121 | 674205.7496 | 0.5 | Pu-242 | 0 | pCi/g | Pre |
| 694-E8-1 | 3022913.121 | 674205.7496 | 0.5 | Tc-99 | 1.4 | pCi/g | Pre |
| 694-E8-1 | 3022913.121 | 674205.7496 | 0.5 | Th-230 | 0.6 | pCi/g | Pre |
| 694-E8-1 | 3022913.121 | 674205.7496 | 0.5 | Th-232 | 0.9 | pCi/g | Pre |
| 694-E8-1 | 3022913.121 | 674205.7496 | 0.5 | U-233/234 | 2.8 | pCi/g | Pre |
| 694-E8-1 | 3022913.121 | 674205.7496 | 0.5 | U-235 | 0.1 | pCi/g | Pre |
| 694-E8-1 | 3022913.121 | 674205.7496 | 0.5 | U-238 | 1.1 | pCi/g | Pre |
| 69-F9-1 | 3022917.72 | 674206.3695 | 0.5 | Am-241 | 0.12 | pCi/g | Pre |
| 69-F9-1 | 3022917.72 | 674206.3695 | 0.5 | Pu-238 | -0.1 | pCi/g | Pre |
| 69-F9-1 | 3022917.72 | 674206.3695 | 0.5 | Pu-239/240 | 0 | pCi/g | Pre |
| 69-F9-1 | 3022917.72 | 674206.3695 | 0.5 | Pu-241 | 0 | pCi/g | Pre |
| 69-F9-1 | 3022917.72 | 674206.3695 | 0.5 | Pu-242 | 0 | pCi/g | Pre |
| 69-F9-1 | 3022917.72 | 674206.3695 | 0.5 | Tc-99 | 1.6 | pCi/g | Pre |
| 69-F9-1 | 3022917.72 | 674206.3695 | 0.5 | Th-230 | 1.6 | pCi/g | Pre |
| 69-F9-1 | 3022917.72 | 674206.3695 | 0.5 | Th-232 | 1 | pCi/g | Pre |
| 69-F9-1 | 3022917.72 | 674206.3695 | 0.5 | U-233/234 | 1.3 | pCi/g | Pre |
| 69-F9-1 | 3022917.72 | 674206.3695 | 0.5 | U-235 | 0.2 | pCi/g | Pre |
| 69-F9-1 | 3022917.72 | 674206.3695 | 0.5 | U-238 | 0.9 | pCi/g | Pre |
| 69-J3-1 | 3022910.007 | 674228.7521 | 0.5 | Am-241 | 0.55 | pCi/g | Pre |
| 69-J3-1 | 3022910.007 | 674228.7521 | 0.5 | Pu-238 | 0.06 | pCi/g | Pre |
| 69-J3-1 | 3022910.007 | 674228.7521 | 0.5 | Pu-239/240 | 1.5 | pCi/g | Pre |
| 69-J3-1 | 3022910.007 | 674228.7521 | 0.5 | Pu-241 | 2.46 | pCi/g | Pre |
| 69-J3-1 | 3022910.007 | 674228.7521 | 0.5 | Pu-242 | 0 | pCi/g | Pre |
| 69-J3-1 | 3022910.007 | 674228.7521 | 0.5 | Tc-99 | 2 | pCi/g | Pre |
| 69-J3-1 | 3022910.007 | 674228.7521 | 0.5 | Th-230 | 3.1 | pCi/g | Pre |
| 69-J3-1 | 3022910.007 | 674228.7521 | 0.5 | Th-232 | 3.2 | pCi/g | Pre |
| 69-J3-1 | 3022910.007 | 674228.7521 | 0.5 | U-233/234 | 8 | pCi/g | Pre |
| 69-J3-1 | 3022910.007 | 674228.7521 | 0.5 | U-235 | 0.3 | pCi/g | Pre |
| 69-J3-1 | 3022910.007 | 674228.7521 | 0.5 | U-238 | 2 | pCi/g | Pre |
| 71-F2-1 | 3022951.662 | 674180.4956 | 0.5 | Am-241 | 0.11 | pCi/g | Pre |
| 71-F2-1 | 3022951.662 | 674180.4956 | 0.5 | Pu-238 | 0.08 | pCi/g | Pre |
| 71-F2-1 | 3022951.662 | 674180.4956 | 0.5 | Pu-239/240 | 0.08 | pCi/g | Pre |
| 71-F2-1 | 3022951.662 | 674180.4956 | 0.5 | Pu-241 | 0 | pCi/g | Pre |
| 71-F2-1 | 3022951.662 | 674180.4956 | 0.5 | Pu-242 | 0 | pCi/g | Pre |
| 71-F2-1 | 3022951.662 | 674180.4956 | 0.5 | Tc-99 | 0 | pCi/g | Pre |
| 71-F2-1 | 3022951.662 | 674180.4956 | 0.5 | Th-230 | 1.4 | pCi/g | Pre |
| 71-F2-1 | 3022951.662 | 674180.4956 | 0.5 | Th-232 | 0.6 | pCi/g | Pre |
| 71-F2-1 | 3022951.662 | 674180.4956 | 0.5 | U-233/234 | 1.4 | pCi/g | Pre |
| 71-F2-1 | 3022951.662 | 674180.4956 | 0.5 | U-235 | 0.1 | pCi/g | Pre |
| 71-F2-1 | 3022951.662 | 674180.4956 | 0.5 | U-238 | 1.5 | pCi/g | Pre |
| 73-I9-1 | 3023028.123 | 674134.588 | 0.5 | Am-241 | 0.25 | pCi/g | Pre |
| 73-I9-1 | 3023028.123 | 674134.588 | 0.5 | Pu-238 | 0 | pCi/g | Pre |

## Historical Dataset, Survey Unit 2

| Sample ID# | Sample Location | | Sample Depth (ft) | Contaminant Name | Analytical Result | Units | Period |
|---|---|---|---|---|---|---|---|
| | Easting | Northing | | | | | |
| 73-I9-1 | 3023028.123 | 674134.588 | 0.5 | Pu-239/240 | 0.02 | pCi/g | Pre |
| 73-I9-1 | 3023028.123 | 674134.588 | 0.5 | Pu-241 | 0 | pCi/g | Pre |
| 73-I9-1 | 3023028.123 | 674134.588 | 0.5 | Pu-242 | 0 | pCi/g | Pre |
| 73-I9-1 | 3023028.123 | 674134.588 | 0.5 | Tc-99 | 0 | pCi/g | Pre |
| 73-I9-1 | 3023028.123 | 674134.588 | 0.5 | Th-230 | 1.1 | pCi/g | Pre |
| 73-I9-1 | 3023028.123 | 674134.588 | 0.5 | Th-232 | 1 | pCi/g | Pre |
| 73-I9-1 | 3023028.123 | 674134.588 | 0.5 | U-233/234 | 1 | pCi/g | Pre |
| 73-I9-1 | 3023028.123 | 674134.588 | 0.5 | U-235 | 0.2 | pCi/g | Pre |
| 73-I9-1 | 3023028.123 | 674134.588 | 0.5 | U-238 | 0.9 | pCi/g | Pre |
| 74-C2-1 | 3023024.026 | 674112.9559 | 0.5 | Am-241 | 0.02 | pCi/g | Pre |
| 74-C2-1 | 3023024.026 | 674112.9559 | 0.5 | Pu-238 | 0.08 | pCi/g | Pre |
| 74-C2-1 | 3023024.026 | 674112.9559 | 0.5 | Pu-239/240 | 0.07 | pCi/g | Pre |
| 74-C2-1 | 3023024.026 | 674112.9559 | 0.5 | Pu-241 | 0 | pCi/g | Pre |
| 74-C2-1 | 3023024.026 | 674112.9559 | 0.5 | Pu-242 | 0 | pCi/g | Pre |
| 74-C2-1 | 3023024.026 | 674112.9559 | 0.5 | Tc-99 | 1.4 | pCi/g | Pre |
| 74-C2-1 | 3023024.026 | 674112.9559 | 0.5 | Th-230 | 1.2 | pCi/g | Pre |
| 74-C2-1 | 3023024.026 | 674112.9559 | 0.5 | Th-232 | 1.1 | pCi/g | Pre |
| 74-C2-1 | 3023024.026 | 674112.9559 | 0.5 | U-233/234 | 1.9 | pCi/g | Pre |
| 74-C2-1 | 3023024.026 | 674112.9559 | 0.5 | U-235 | 0.2 | pCi/g | Pre |
| 74-C2-1 | 3023024.026 | 674112.9559 | 0.5 | U-238 | 1.3 | pCi/g | Pre |
| 83-B1-1 | 3022634.011 | 674364.8765 | 0.5 | Am-241 | 0 | pCi/g | Pre |
| 83-B1-1 | 3022634.011 | 674364.8765 | 0.5 | Pu-238 | 0.11 | pCi/g | Pre |
| 83-B1-1 | 3022634.011 | 674364.8765 | 0.5 | Pu-239/240 | 0.65 | pCi/g | Pre |
| 83-B1-1 | 3022634.011 | 674364.8765 | 0.5 | Pu-241 | 0 | pCi/g | Pre |
| 83-B1-1 | 3022634.011 | 674364.8765 | 0.5 | Pu-242 | 0 | pCi/g | Pre |
| 83-B1-1 | 3022634.011 | 674364.8765 | 0.5 | Tc-99 | -0.5 | pCi/g | Pre |
| 83-B1-1 | 3022634.011 | 674364.8765 | 0.5 | Th-230 | 0.5 | pCi/g | Pre |
| 83-B1-1 | 3022634.011 | 674364.8765 | 0.5 | Th-232 | 0.6 | pCi/g | Pre |
| 83-B1-1 | 3022634.011 | 674364.8765 | 0.5 | U-233/234 | 2.6 | pCi/g | Pre |
| 83-B1-1 | 3022634.011 | 674364.8765 | 0.5 | U-235 | 0.2 | pCi/g | Pre |
| 83-B1-1 | 3022634.011 | 674364.8765 | 0.5 | U-238 | 1.3 | pCi/g | Pre |
| 85-J1-1 | 3022702.136 | 674345.952 | 0.5 | Am-241 | -0.1 | pCi/g | Pre |
| 85-J1-1 | 3022702.136 | 674345.952 | 0.5 | Pu-238 | -0.07 | pCi/g | Pre |
| 85-J1-1 | 3022702.136 | 674345.952 | 0.5 | Pu-239/240 | 0.07 | pCi/g | Pre |
| 85-J1-1 | 3022702.136 | 674345.952 | 0.5 | Pu-241 | 0 | pCi/g | Pre |
| 85-J1-1 | 3022702.136 | 674345.952 | 0.5 | Pu-242 | 0 | pCi/g | Pre |
| 85-J1-1 | 3022702.136 | 674345.952 | 0.5 | Tc-99 | 3.3 | pCi/g | Pre |
| 85-J1-1 | 3022702.136 | 674345.952 | 0.5 | Th-230 | 0.9 | pCi/g | Pre |
| 85-J1-1 | 3022702.136 | 674345.952 | 0.5 | Th-232 | 1 | pCi/g | Pre |
| 85-J1-1 | 3022702.136 | 674345.952 | 0.5 | U-233/234 | 6.7 | pCi/g | Pre |
| 85-J1-1 | 3022702.136 | 674345.952 | 0.5 | U-235 | 0.1 | pCi/g | Pre |
| 85-J1-1 | 3022702.136 | 674345.952 | 0.5 | U-238 | 1 | pCi/g | Pre |
| 94-I8-1 | 3022953.411 | 674150.2823 | 0.5 | Am-241 | 0.06 | pCi/g | Pre |
| 94-I8-1 | 3022953.411 | 674150.2823 | 0.5 | Pu-238 | 0 | pCi/g | Pre |
| 94-I8-1 | 3022953.411 | 674150.2823 | 0.5 | Pu-239/240 | 0 | pCi/g | Pre |
| 94-I8-1 | 3022953.411 | 674150.2823 | 0.5 | Pu-241 | 0 | pCi/g | Pre |
| 94-I8-1 | 3022953.411 | 674150.2823 | 0.5 | Pu-242 | 0 | pCi/g | Pre |
| 94-I8-1 | 3022953.411 | 674150.2823 | 0.5 | Tc-99 | 0 | pCi/g | Pre |
| 94-I8-1 | 3022953.411 | 674150.2823 | 0.5 | Th-230 | 0.9 | pCi/g | Pre |
| 94-I8-1 | 3022953.411 | 674150.2823 | 0.5 | Th-232 | 1.5 | pCi/g | Pre |
| 94-I8-1 | 3022953.411 | 674150.2823 | 0.5 | U-233/234 | 0 | pCi/g | Pre |
| 94-I8-1 | 3022953.411 | 674150.2823 | 0.5 | U-235 | 0 | pCi/g | Pre |
| 94-I8-1 | 3022953.411 | 674150.2823 | 0.5 | U-238 | 0 | pCi/g | Pre |
| 94-I8-2 | 3022953.411 | 674150.2823 | 1.5 | Am-241 | 0.28 | pCi/g | Pre |

## Historical Dataset, Survey Unit 2

| Sample ID# | Sample Location | | Sample Depth (ft) | Contaminant Name | Analytical Result | Units | Period |
|---|---|---|---|---|---|---|---|
| | Easting | Northing | | | | | |
| 94-I8-2 | 3022953.411 | 674150.2823 | 1.5 | Pu-238 | 0 | pCi/g | Pre |
| 94-I8-2 | 3022953.411 | 674150.2823 | 1.5 | Pu-239/240 | 0 | pCi/g | Pre |
| 94-I8-2 | 3022953.411 | 674150.2823 | 1.5 | Pu-241 | 0 | pCi/g | Pre |
| 94-I8-2 | 3022953.411 | 674150.2823 | 1.5 | Pu-242 | 0 | pCi/g | Pre |
| 94-I8-2 | 3022953.411 | 674150.2823 | 1.5 | Tc-99 | 0 | pCi/g | Pre |
| 94-I8-2 | 3022953.411 | 674150.2823 | 1.5 | Th-230 | 0.8 | pCi/g | Pre |
| 94-I8-2 | 3022953.411 | 674150.2823 | 1.5 | Th-232 | 1.2 | pCi/g | Pre |
| 94-I8-2 | 3022953.411 | 674150.2823 | 1.5 | U-233/234 | 4.3 | pCi/g | Pre |
| 94-I8-2 | 3022953.411 | 674150.2823 | 1.5 | U-235 | 0.2 | pCi/g | Pre |
| 94-I8-2 | 3022953.411 | 674150.2823 | 1.5 | U-238 | 1.2 | pCi/g | Pre |
| 95-J4-1 | 3022971.065 | 674140.9507 | 0.5 | Am-241 | 0.08 | pCi/g | Pre |
| 95-J4-1 | 3022971.065 | 674140.9507 | 0.5 | Pu-238 | -0.03 | pCi/g | Pre |
| 95-J4-1 | 3022971.065 | 674140.9507 | 0.5 | Pu-239/240 | -0.01 | pCi/g | Pre |
| 95-J4-1 | 3022971.065 | 674140.9507 | 0.5 | Pu-241 | 0 | pCi/g | Pre |
| 95-J4-1 | 3022971.065 | 674140.9507 | 0.5 | Pu-242 | 0 | pCi/g | Pre |
| 95-J4-1 | 3022971.065 | 674140.9507 | 0.5 | Tc-99 | 0 | pCi/g | Pre |
| 95-J4-1 | 3022971.065 | 674140.9507 | 0.5 | Th-230 | 1.3 | pCi/g | Pre |
| 95-J4-1 | 3022971.065 | 674140.9507 | 0.5 | Th-232 | 1.2 | pCi/g | Pre |
| 95-J4-1 | 3022971.065 | 674140.9507 | 0.5 | U-233/234 | 1.2 | pCi/g | Pre |
| 95-J4-1 | 3022971.065 | 674140.9507 | 0.5 | U-235 | 0.2 | pCi/g | Pre |
| 95-J4-1 | 3022971.065 | 674140.9507 | 0.5 | U-238 | 1 | pCi/g | Pre |
| AOC5-SD-012 | 3023083.531 | 674261.5091 | 0.5 | Am-241 | 0.02 | pCi/g | Pre |
| AOC5-SD-012 | 3023083.531 | 674261.5091 | 0.5 | Pu-238 | 0.05 | pCi/g | Pre |
| AOC5-SD-012 | 3023083.531 | 674261.5091 | 0.5 | Pu-239/240 | 0.05 | pCi/g | Pre |
| AOC5-SD-012 | 3023083.531 | 674261.5091 | 0.5 | Pu-241 | 4.7 | pCi/g | Pre |
| AOC5-SD-012 | 3023083.531 | 674261.5091 | 0.5 | Pu-242 | 0 | pCi/g | Pre |
| AOC5-SD-012 | 3023083.531 | 674261.5091 | 0.5 | Tc-99 | 0.5 | pCi/g | Pre |
| AOC5-SD-012 | 3023083.531 | 674261.5091 | 0.5 | Th-230 | 0.6 | pCi/g | Pre |
| AOC5-SD-012 | 3023083.531 | 674261.5091 | 0.5 | Th-232 | 0.7 | pCi/g | Pre |
| AOC5-SD-012 | 3023083.531 | 674261.5091 | 0.5 | U-233/234 | 1.2 | pCi/g | Pre |
| AOC5-SD-012 | 3023083.531 | 674261.5091 | 0.5 | U-235 | 0 | pCi/g | Pre |
| AOC5-SD-012 | 3023083.531 | 674261.5091 | 0.5 | U-238 | 0.7 | pCi/g | Pre |
| AOCS-SD-005 | 3022276.091 | 674518.0656 | 0.5 | Am-241 | 1.97 | pCi/g | Pre |
| AOCS-SD-005 | 3022276.091 | 674518.0656 | 0.5 | Pu-238 | 0.22 | pCi/g | Pre |
| AOCS-SD-005 | 3022276.091 | 674518.0656 | 0.5 | Pu-239/240 | 5.43 | pCi/g | Pre |
| AOCS-SD-005 | 3022276.091 | 674518.0656 | 0.5 | Pu-241 | 70.4 | pCi/g | Pre |
| AOCS-SD-005 | 3022276.091 | 674518.0656 | 0.5 | Pu-242 | 0 | pCi/g | Pre |
| AOCS-SD-005 | 3022276.091 | 674518.0656 | 0.5 | Tc-99 | 3.7 | pCi/g | Pre |
| AOCS-SD-005 | 3022276.091 | 674518.0656 | 0.5 | Th-230 | 1 | pCi/g | Pre |
| AOCS-SD-005 | 3022276.091 | 674518.0656 | 0.5 | Th-232 | 2.1 | pCi/g | Pre |
| AOCS-SD-005 | 3022276.091 | 674518.0656 | 0.5 | U-233/234 | 29.9 | pCi/g | Pre |
| AOCS-SD-005 | 3022276.091 | 674518.0656 | 0.5 | U-235 | 0.7 | pCi/g | Pre |
| AOCS-SD-005 | 3022276.091 | 674518.0656 | 0.5 | U-238 | 4.4 | pCi/g | Pre |
| NSC-MCSD-001 | 3022276.714 | 674513.4651 | 0.5 | Am-241 | 0 | pCi/g | Pre |
| NSC-MCSD-001 | 3022276.714 | 674513.4651 | 0.5 | Pu-238 | 0 | pCi/g | Pre |
| NSC-MCSD-001 | 3022276.714 | 674513.4651 | 0.5 | Pu-239/240 | 0 | pCi/g | Pre |
| NSC-MCSD-001 | 3022276.714 | 674513.4651 | 0.5 | Pu-241 | 0 | pCi/g | Pre |
| NSC-MCSD-001 | 3022276.714 | 674513.4651 | 0.5 | Pu-242 | 0 | pCi/g | Pre |
| NSC-MCSD-001 | 3022276.714 | 674513.4651 | 0.5 | Tc-99 | 0 | pCi/g | Pre |
| NSC-MCSD-001 | 3022276.714 | 674513.4651 | 0.5 | Th-230 | 1.3 | pCi/g | Pre |
| NSC-MCSD-001 | 3022276.714 | 674513.4651 | 0.5 | Th-232 | 2.1 | pCi/g | Pre |
| NSC-MCSD-001 | 3022276.714 | 674513.4651 | 0.5 | U-233/234 | 5.9 | pCi/g | Pre |
| NSC-MCSD-001 | 3022276.714 | 674513.4651 | 0.5 | U-235 | 0.2 | pCi/g | Pre |
| NSC-MCSD-001 | 3022276.714 | 674513.4651 | 0.5 | U-238 | 1.5 | pCi/g | Pre |

# Appendix A.2

# Historical Dataset, Survey Unit 8

## Historical Dataset, Survey Unit 8

| Sample ID# | Sample Location | | Sample Depth (ft) | Contaminant Name | Analytical Result | Units | Period |
|---|---|---|---|---|---|---|---|
| | Easting | Northing | | | | | |
| 1705 | 3022217.558 | 674308.6949 | 5 | Am-241 | 84 | pCi/g | Post |
| 1705 | 3022217.558 | 674308.6949 | 5 | Th-232 | 7.1 | pCi/g | Post |
| 1705 | 3022217.558 | 674308.6949 | 5 | U-235 | 5.3 | pCi/g | Post |
| 1706 | 3022232.292 | 674322.5128 | 5 | Am-241 | 55 | pCi/g | Post |
| 1706 | 3022232.292 | 674322.5128 | 5 | Th-232 | 5.2 | pCi/g | Post |
| 1706 | 3022232.292 | 674322.5128 | 5 | U-235 | 1.2 | pCi/g | Post |
| 1708 | 3022217.558 | 674337.5869 | 5 | Am-241 | 24 | pCi/g | Post |
| 1708 | 3022217.558 | 674337.5869 | 5 | Th-232 | 6.2 | pCi/g | Post |
| 1708 | 3022217.558 | 674337.5869 | 5 | U-235 | 4.7 | pCi/g | Post |
| 1710 | 3022232.292 | 674350.1486 | 5 | Am-241 | 13 | pCi/g | Post |
| 1710 | 3022232.292 | 674350.1486 | 5 | Th-232 | 6.1 | pCi/g | Post |
| 1710 | 3022232.292 | 674350.1486 | 5 | U-235 | 0.79 | pCi/g | Post |
| 1712 | 3022217.558 | 674366.4788 | 5 | Am-241 | 84 | pCi/g | Post |
| 1712 | 3022217.558 | 674366.4788 | 5 | Th-232 | 8.9 | pCi/g | Post |
| 1712 | 3022217.558 | 674366.4788 | 5 | U-235 | 5.6 | pCi/g | Post |
| 1713 | 3022232.292 | 674380.2967 | 5 | Am-241 | 21 | pCi/g | Post |
| 1713 | 3022232.292 | 674380.2967 | 5 | Th-232 | 5.1 | pCi/g | Post |
| 1713 | 3022232.292 | 674380.2967 | 5 | U-235 | 1.9 | pCi/g | Post |
| 1714 | 3022245.973 | 674395.3708 | 5 | Am-241 | 82 | pCi/g | Post |
| 1714 | 3022245.973 | 674395.3708 | 5 | Th-232 | 4.8 | pCi/g | Post |
| 1714 | 3022245.973 | 674395.3708 | 5 | U-235 | 1.7 | pCi/g | Post |
| 1715 | 3022217.558 | 674395.3708 | 5 | Am-241 | 4.8 | pCi/g | Post |
| 1715 | 3022217.558 | 674395.3708 | 5 | Th-232 | 2.3 | pCi/g | Post |
| 1715 | 3022217.558 | 674395.3708 | 5 | U-235 | 1.6 | pCi/g | Post |
| 1716 | 3022232.292 | 674407.9325 | 5 | Am-241 | 5.9 | pCi/g | Post |
| 1716 | 3022232.292 | 674407.9325 | 5 | Th-232 | 3.3 | pCi/g | Post |
| 1716 | 3022232.292 | 674407.9325 | 5 | U-235 | 1.5 | pCi/g | Post |
| 1718 | 3022245.973 | 674423.0065 | 5 | Th-232 | 1.8 | pCi/g | Post |
| 1718 | 3022245.973 | 674423.0065 | 5 | U-235 | 0.14 | pCi/g | Post |
| 1719 | 3022217.558 | 674423.0065 | 5 | Am-241 | 31 | pCi/g | Post |
| 1719 | 3022217.558 | 674423.0065 | 5 | Th-232 | 11 | pCi/g | Post |
| 1719 | 3022217.558 | 674423.0065 | 5 | U-235 | 2.2 | pCi/g | Post |
| 1720 | 3022232.292 | 674436.8244 | 5 | Am-241 | 2.3 | pCi/g | Post |
| 1720 | 3022232.292 | 674436.8244 | 5 | Th-232 | 13 | pCi/g | Post |
| 1720 | 3022232.292 | 674436.8244 | 5 | U-235 | -0.17 | pCi/g | Post |
| 1721 | 3022245.973 | 674453.1547 | 5 | Am-241 | 1.1 | pCi/g | Post |
| 1721 | 3022245.973 | 674453.1547 | 5 | U-235 | 2.8 | pCi/g | Post |
| 1722 | 3022217.558 | 674453.1547 | 5 | Am-241 | 2.7 | pCi/g | Post |
| 1722 | 3022217.558 | 674453.1547 | 5 | Th-232 | 2.3 | pCi/g | Post |
| 1722 | 3022217.558 | 674453.1547 | 5 | U-235 | 1.1 | pCi/g | Post |
| 1723 | 3022232.292 | 674465.7164 | 5 | Am-241 | 2.5 | pCi/g | Post |
| 1723 | 3022232.292 | 674465.7164 | 5 | Th-232 | 4 | pCi/g | Post |
| 1723 | 3022232.292 | 674465.7164 | 5 | U-235 | 2 | pCi/g | Post |
| 1724 | 3022245.973 | 674480.7904 | 5 | Am-241 | 7.2 | pCi/g | Post |
| 1724 | 3022245.973 | 674480.7904 | 5 | Th-232 | 23 | pCi/g | Post |
| 1724 | 3022245.973 | 674480.7904 | 5 | U-235 | 11 | pCi/g | Post |
| 1728 | 3022217.558 | 674509.6824 | 5 | Am-241 | 1.7 | pCi/g | Post |
| 1728 | 3022217.558 | 674509.6824 | 5 | Th-232 | 6.6 | pCi/g | Post |
| 1728 | 3022217.558 | 674509.6824 | 5 | U-235 | 1.4 | pCi/g | Post |
| 195-B9-1 | 3022235.944 | 674503.2856 | 5.5 | Am-241 | 0.07 | pCi/g | Pre |
| 195-B9-1 | 3022235.944 | 674503.2856 | 5.5 | Th-232 | 1.6 | pCi/g | Pre |
| 195-B9-1 | 3022235.944 | 674503.2856 | 5.5 | U-235 | 0.1 | pCi/g | Pre |
| 195-B9-1 | 3022235.944 | 674503.2856 | 5.5 | Pu-238 | 0.01 | pCi/g | Pre |
| 195-B9-1 | 3022235.944 | 674503.2856 | 5.5 | Pu-239/240 | 0.19 | pCi/g | Pre |

## Historical Dataset, Survey Unit 8

| Sample ID# | Sample Location | | Sample Depth (ft) | Contaminant Name | Analytical Result | Units | Period |
|---|---|---|---|---|---|---|---|
| | Easting | Northing | | | | | |
| 195-B9-1 | 3022235.944 | 674503.2856 | 5.5 | Pu-241 | 0.31 | pCi/g | Pre |
| 195-B9-1 | 3022235.944 | 674503.2856 | 5.5 | Pu-242 | 0 | pCi/g | Pre |
| 195-B9-1 | 3022235.944 | 674503.2856 | 5.5 | Tc-99 | 1.4 | pCi/g | Pre |
| 195-B9-1 | 3022235.944 | 674503.2856 | 5.5 | Th-230 | 1 | pCi/g | Pre |
| 195-B9-1 | 3022235.944 | 674503.2856 | 5.5 | U-233/234 | 2.3 | pCi/g | Pre |
| 195-B9-1 | 3022235.944 | 674503.2856 | 5.5 | U-238 | 0.8 | pCi/g | Pre |
| 197-B8-1 | 3022285.552 | 674465.4698 | 5.5 | Am-241 | 0.75 | pCi/g | Pre |
| 197-B8-1 | 3022285.552 | 674465.4698 | 5.5 | Th-232 | 1.6 | pCi/g | Pre |
| 197-B8-1 | 3022285.552 | 674465.4698 | 5.5 | U-235 | 1.3 | pCi/g | Pre |
| 197-B8-1 | 3022285.552 | 674465.4698 | 5.5 | Pu-238 | 0.14 | pCi/g | Pre |
| 197-B8-1 | 3022285.552 | 674465.4698 | 5.5 | Pu-239/240 | 4.5 | pCi/g | Pre |
| 197-B8-1 | 3022285.552 | 674465.4698 | 5.5 | Pu-241 | 7.38 | pCi/g | Pre |
| 197-B8-1 | 3022285.552 | 674465.4698 | 5.5 | Pu-242 | 0 | pCi/g | Pre |
| 197-B8-1 | 3022285.552 | 674465.4698 | 5.5 | Tc-99 | 4.1 | pCi/g | Pre |
| 197-B8-1 | 3022285.552 | 674465.4698 | 5.5 | Th-230 | 1.4 | pCi/g | Pre |
| 197-B8-1 | 3022285.552 | 674465.4698 | 5.5 | U-233/234 | 40 | pCi/g | Pre |
| 197-B8-1 | 3022285.552 | 674465.4698 | 5.5 | U-238 | 3.8 | pCi/g | Pre |
| 198-B2-1 | 3022295.996 | 674457.5086 | 5.5 | Am-241 | 5.86 | pCi/g | Pre |
| 198-B2-1 | 3022295.996 | 674457.5086 | 5.5 | Th-232 | 3.6 | pCi/g | Pre |
| 198-B2-1 | 3022295.996 | 674457.5086 | 5.5 | U-235 | 3.6 | pCi/g | Pre |
| 198-B2-1 | 3022295.996 | 674457.5086 | 5.5 | Pu-238 | 2.4 | pCi/g | Pre |
| 198-B2-1 | 3022295.996 | 674457.5086 | 5.5 | Pu-239/240 | 60 | pCi/g | Pre |
| 198-B2-1 | 3022295.996 | 674457.5086 | 5.5 | Pu-241 | 98.4 | pCi/g | Pre |
| 198-B2-1 | 3022295.996 | 674457.5086 | 5.5 | Pu-242 | 0 | pCi/g | Pre |
| 198-B2-1 | 3022295.996 | 674457.5086 | 5.5 | Tc-99 | 10.1 | pCi/g | Pre |
| 198-B2-1 | 3022295.996 | 674457.5086 | 5.5 | Th-230 | 2 | pCi/g | Pre |
| 198-B2-1 | 3022295.996 | 674457.5086 | 5.5 | U-233/234 | 110 | pCi/g | Pre |
| 198-B2-1 | 3022295.996 | 674457.5086 | 5.5 | U-238 | 3.1 | pCi/g | Pre |
| 198-H9-1 | 3022326.202 | 674459.2376 | 5.5 | Am-241 | -0.15 | pCi/g | Pre |
| 198-H9-1 | 3022326.202 | 674459.2376 | 5.5 | Th-232 | 0.5 | pCi/g | Pre |
| 198-H9-1 | 3022326.202 | 674459.2376 | 5.5 | U-235 | 0.1 | pCi/g | Pre |
| 198-H9-1 | 3022326.202 | 674459.2376 | 5.5 | Pu-238 | -0.06 | pCi/g | Pre |
| 198-H9-1 | 3022326.202 | 674459.2376 | 5.5 | Pu-239/240 | 0.08 | pCi/g | Pre |
| 198-H9-1 | 3022326.202 | 674459.2376 | 5.5 | Pu-241 | 0.13 | pCi/g | Pre |
| 198-H9-1 | 3022326.202 | 674459.2376 | 5.5 | Pu-242 | 0 | pCi/g | Pre |
| 198-H9-1 | 3022326.202 | 674459.2376 | 5.5 | Tc-99 | 0.2 | pCi/g | Pre |
| 198-H9-1 | 3022326.202 | 674459.2376 | 5.5 | Th-230 | 0.7 | pCi/g | Pre |
| 198-H9-1 | 3022326.202 | 674459.2376 | 5.5 | U-233/234 | 2 | pCi/g | Pre |
| 198-H9-1 | 3022326.202 | 674459.2376 | 5.5 | U-238 | 0.9 | pCi/g | Pre |
| 199-B1-1 | 3022319.495 | 674439.5958 | 5.5 | Am-241 | -0.15 | pCi/g | Pre |
| 199-B1-1 | 3022319.495 | 674439.5958 | 5.5 | Th-232 | 1.2 | pCi/g | Pre |
| 199-B1-1 | 3022319.495 | 674439.5958 | 5.5 | U-235 | 0.2 | pCi/g | Pre |
| 199-B1-1 | 3022319.495 | 674439.5958 | 5.5 | Pu-238 | 0 | pCi/g | Pre |
| 199-B1-1 | 3022319.495 | 674439.5958 | 5.5 | Pu-239/240 | 0 | pCi/g | Pre |
| 199-B1-1 | 3022319.495 | 674439.5958 | 5.5 | Pu-241 | 0 | pCi/g | Pre |
| 199-B1-1 | 3022319.495 | 674439.5958 | 5.5 | Pu-242 | 0 | pCi/g | Pre |
| 199-B1-1 | 3022319.495 | 674439.5958 | 5.5 | Tc-99 | 0 | pCi/g | Pre |
| 199-B1-1 | 3022319.495 | 674439.5958 | 5.5 | Th-230 | 0.8 | pCi/g | Pre |
| 199-B1-1 | 3022319.495 | 674439.5958 | 5.5 | U-233/234 | 4.7 | pCi/g | Pre |
| 199-B1-1 | 3022319.495 | 674439.5958 | 5.5 | U-238 | 1.3 | pCi/g | Pre |
| 199-B1-2 | 3022319.495 | 674439.5958 | 6.5 | Am-241 | -0.01 | pCi/g | Pre |
| 199-B1-2 | 3022319.495 | 674439.5958 | 6.5 | Th-232 | 0.1 | pCi/g | Pre |
| 199-B1-2 | 3022319.495 | 674439.5958 | 6.5 | U-235 | 0 | pCi/g | Pre |
| 199-B1-2 | 3022319.495 | 674439.5958 | 6.5 | Pu-238 | 0 | pCi/g | Pre |

## Historical Dataset, Survey Unit 8

| Sample ID# | Sample Location | | Sample Depth (ft) | Contaminant Name | Analytical Result | Units | Period |
|---|---|---|---|---|---|---|---|
| | Easting | Northing | | | | | |
| 199-B1-2 | 3022319.495 | 674439.5958 | 6.5 | Pu-239/240 | 0 | pCi/g | Pre |
| 199-B1-2 | 3022319.495 | 674439.5958 | 6.5 | Pu-241 | 0 | pCi/g | Pre |
| 199-B1-2 | 3022319.495 | 674439.5958 | 6.5 | Pu-242 | 0 | pCi/g | Pre |
| 199-B1-2 | 3022319.495 | 674439.5958 | 6.5 | Tc-99 | 0 | pCi/g | Pre |
| 199-B1-2 | 3022319.495 | 674439.5958 | 6.5 | Th-230 | 0.1 | pCi/g | Pre |
| 199-B1-2 | 3022319.495 | 674439.5958 | 6.5 | U-233/234 | 0.4 | pCi/g | Pre |
| 199-B1-2 | 3022319.495 | 674439.5958 | 6.5 | U-238 | 0.2 | pCi/g | Pre |
| 199-C1-1 | 3022321.483 | 674442.206 | 5.5 | Am-241 | 0.2 | pCi/g | Pre |
| 199-C1-1 | 3022321.483 | 674442.206 | 5.5 | Th-232 | 0.6 | pCi/g | Pre |
| 199-C1-1 | 3022321.483 | 674442.206 | 5.5 | U-235 | 0.2 | pCi/g | Pre |
| 199-C1-1 | 3022321.483 | 674442.206 | 5.5 | Pu-238 | -0.03 | pCi/g | Pre |
| 199-C1-1 | 3022321.483 | 674442.206 | 5.5 | Pu-239/240 | 0.25 | pCi/g | Pre |
| 199-C1-1 | 3022321.483 | 674442.206 | 5.5 | Pu-241 | 0 | pCi/g | Pre |
| 199-C1-1 | 3022321.483 | 674442.206 | 5.5 | Pu-242 | 0 | pCi/g | Pre |
| 199-C1-1 | 3022321.483 | 674442.206 | 5.5 | Tc-99 | 0.1 | pCi/g | Pre |
| 199-C1-1 | 3022321.483 | 674442.206 | 5.5 | Th-230 | 0.8 | pCi/g | Pre |
| 199-C1-1 | 3022321.483 | 674442.206 | 5.5 | U-233/234 | 3.6 | pCi/g | Pre |
| 199-C1-1 | 3022321.483 | 674442.206 | 5.5 | U-238 | 1.1 | pCi/g | Pre |
| 200-I1-1 | 3022359.522 | 674437.9642 | 5.5 | Am-241 | 0.12 | pCi/g | Pre |
| 200-I1-1 | 3022359.522 | 674437.9642 | 5.5 | Th-232 | 0.9 | pCi/g | Pre |
| 200-I1-1 | 3022359.522 | 674437.9642 | 5.5 | U-235 | 0.3 | pCi/g | Pre |
| 200-I1-1 | 3022359.522 | 674437.9642 | 5.5 | Pu-238 | -0.03 | pCi/g | Pre |
| 200-I1-1 | 3022359.522 | 674437.9642 | 5.5 | Pu-239/240 | 0.05 | pCi/g | Pre |
| 200-I1-1 | 3022359.522 | 674437.9642 | 5.5 | Pu-241 | 0 | pCi/g | Pre |
| 200-I1-1 | 3022359.522 | 674437.9642 | 5.5 | Pu-242 | 0 | pCi/g | Pre |
| 200-I1-1 | 3022359.522 | 674437.9642 | 5.5 | Tc-99 | 0 | pCi/g | Pre |
| 200-I1-1 | 3022359.522 | 674437.9642 | 5.5 | Th-230 | 0.8 | pCi/g | Pre |
| 200-I1-1 | 3022359.522 | 674437.9642 | 5.5 | U-233/234 | 3.2 | pCi/g | Pre |
| 200-I1-1 | 3022359.522 | 674437.9642 | 5.5 | U-238 | 0.6 | pCi/g | Pre |
| 230-I2-1 | 3022211.703 | 674509.3871 | 5.5 | Am-241 | 0.08 | pCi/g | Pre |
| 230-I2-1 | 3022211.703 | 674509.3871 | 5.5 | Th-232 | 1.1 | pCi/g | Pre |
| 230-I2-1 | 3022211.703 | 674509.3871 | 5.5 | U-235 | 0.1 | pCi/g | Pre |
| 230-I2-1 | 3022211.703 | 674509.3871 | 5.5 | Pu-238 | 0 | pCi/g | Pre |
| 230-I2-1 | 3022211.703 | 674509.3871 | 5.5 | Pu-239/240 | 0 | pCi/g | Pre |
| 230-I2-1 | 3022211.703 | 674509.3871 | 5.5 | Pu-241 | 0 | pCi/g | Pre |
| 230-I2-1 | 3022211.703 | 674509.3871 | 5.5 | Pu-242 | 0 | pCi/g | Pre |
| 230-I2-1 | 3022211.703 | 674509.3871 | 5.5 | Tc-99 | 0 | pCi/g | Pre |
| 230-I2-1 | 3022211.703 | 674509.3871 | 5.5 | Th-230 | 0.7 | pCi/g | Pre |
| 230-I2-1 | 3022211.703 | 674509.3871 | 5.5 | U-233/234 | 3.5 | pCi/g | Pre |
| 230-I2-1 | 3022211.703 | 674509.3871 | 5.5 | U-238 | 1.1 | pCi/g | Pre |
| 232-C0-1 | 3022246.77 | 674457.9004 | 5.5 | Am-241 | -0.12 | pCi/g | Pre |
| 232-C0-1 | 3022246.77 | 674457.9004 | 5.5 | Th-232 | 1.2 | pCi/g | Pre |
| 232-C0-1 | 3022246.77 | 674457.9004 | 5.5 | U-235 | 0.5 | pCi/g | Pre |
| 232-C0-1 | 3022246.77 | 674457.9004 | 5.5 | Pu-238 | 0.01 | pCi/g | Pre |
| 232-C0-1 | 3022246.77 | 674457.9004 | 5.5 | Pu-239/240 | 0.41 | pCi/g | Pre |
| 232-C0-1 | 3022246.77 | 674457.9004 | 5.5 | Pu-241 | 0.67 | pCi/g | Pre |
| 232-C0-1 | 3022246.77 | 674457.9004 | 5.5 | Pu-242 | 0 | pCi/g | Pre |
| 232-C0-1 | 3022246.77 | 674457.9004 | 5.5 | Tc-99 | 1.3 | pCi/g | Pre |
| 232-C0-1 | 3022246.77 | 674457.9004 | 5.5 | Th-230 | 1.2 | pCi/g | Pre |
| 232-C0-1 | 3022246.77 | 674457.9004 | 5.5 | U-233/234 | 10 | pCi/g | Pre |
| 232-C0-1 | 3022246.77 | 674457.9004 | 5.5 | U-238 | 1.5 | pCi/g | Pre |
| 232-I2-1 | 3022263.922 | 674469.581 | 5.5 | Am-241 | 0.1 | pCi/g | Pre |
| 232-I2-1 | 3022263.922 | 674469.581 | 5.5 | Th-232 | 1.6 | pCi/g | Pre |
| 232-I2-1 | 3022263.922 | 674469.581 | 5.5 | U-235 | 0.2 | pCi/g | Pre |

## Historical Dataset, Survey Unit 8

| Sample ID# | Sample Location | | Sample Depth (ft) | Contaminant Name | Analytical Result | Units | Period |
|---|---|---|---|---|---|---|---|
| | Easting | Northing | | | | | |
| 232-I2-1 | 3022263.922 | 674469.581 | 5.5 | Pu-238 | -0.01 | pCi/g | Pre |
| 232-I2-1 | 3022263.922 | 674469.581 | 5.5 | Pu-239/240 | 0.64 | pCi/g | Pre |
| 232-I2-1 | 3022263.922 | 674469.581 | 5.5 | Pu-241 | 1.05 | pCi/g | Pre |
| 232-I2-1 | 3022263.922 | 674469.581 | 5.5 | Pu-242 | 0 | pCi/g | Pre |
| 232-I2-1 | 3022263.922 | 674469.581 | 5.5 | Tc-99 | 1.8 | pCi/g | Pre |
| 232-I2-1 | 3022263.922 | 674469.581 | 5.5 | Th-230 | 2.6 | pCi/g | Pre |
| 232-I2-1 | 3022263.922 | 674469.581 | 5.5 | U-233/234 | 7.3 | pCi/g | Pre |
| 232-I2-1 | 3022263.922 | 674469.581 | 5.5 | U-238 | 1.8 | pCi/g | Pre |
| 233-B5-1 | 3022283.947 | 674425.4357 | 5.5 | Am-241 | 13.87 | pCi/g | Pre |
| 233-B5-1 | 3022283.947 | 674425.4357 | 5.5 | Th-232 | 26.5 | pCi/g | Pre |
| 233-B5-1 | 3022283.947 | 674425.4357 | 5.5 | U-235 | 29 | pCi/g | Pre |
| 233-B5-1 | 3022283.947 | 674425.4357 | 5.5 | Pu-238 | 2.5 | pCi/g | Pre |
| 233-B5-1 | 3022283.947 | 674425.4357 | 5.5 | Pu-239/240 | 38.15 | pCi/g | Pre |
| 233-B5-1 | 3022283.947 | 674425.4357 | 5.5 | Pu-241 | 62.56 | pCi/g | Pre |
| 233-B5-1 | 3022283.947 | 674425.4357 | 5.5 | Pu-242 | 0 | pCi/g | Pre |
| 233-B5-1 | 3022283.947 | 674425.4357 | 5.5 | Tc-99 | 10.2 | pCi/g | Pre |
| 233-B5-1 | 3022283.947 | 674425.4357 | 5.5 | Th-230 | 12.5 | pCi/g | Pre |
| 233-B5-1 | 3022283.947 | 674425.4357 | 5.5 | U-233/234 | 784.8 | pCi/g | Pre |
| 233-B5-1 | 3022283.947 | 674425.4357 | 5.5 | U-238 | 41.2 | pCi/g | Pre |
| 233-B5-2 | 3022283.947 | 674425.4357 | 6.5 | Am-241 | 5.88 | pCi/g | Pre |
| 233-B5-2 | 3022283.947 | 674425.4357 | 6.5 | Th-232 | 15.2 | pCi/g | Pre |
| 233-B5-2 | 3022283.947 | 674425.4357 | 6.5 | U-235 | 21 | pCi/g | Pre |
| 233-B5-2 | 3022283.947 | 674425.4357 | 6.5 | Pu-238 | 1.06 | pCi/g | Pre |
| 233-B5-2 | 3022283.947 | 674425.4357 | 6.5 | Pu-239/240 | 16.18 | pCi/g | Pre |
| 233-B5-2 | 3022283.947 | 674425.4357 | 6.5 | Pu-241 | 26.53 | pCi/g | Pre |
| 233-B5-2 | 3022283.947 | 674425.4357 | 6.5 | Pu-242 | 0 | pCi/g | Pre |
| 233-B5-2 | 3022283.947 | 674425.4357 | 6.5 | Tc-99 | 9.1 | pCi/g | Pre |
| 233-B5-2 | 3022283.947 | 674425.4357 | 6.5 | Th-230 | 7.6 | pCi/g | Pre |
| 233-B5-2 | 3022283.947 | 674425.4357 | 6.5 | U-233/234 | 564.6 | pCi/g | Pre |
| 233-B5-2 | 3022283.947 | 674425.4357 | 6.5 | U-238 | 33 | pCi/g | Pre |
| 233-C8-1 | 3022293.768 | 674422.075 | 5.5 | Am-241 | 12.27 | pCi/g | Pre |
| 233-C8-1 | 3022293.768 | 674422.075 | 5.5 | Th-232 | 23.9 | pCi/g | Pre |
| 233-C8-1 | 3022293.768 | 674422.075 | 5.5 | U-235 | 28.7 | pCi/g | Pre |
| 233-C8-1 | 3022293.768 | 674422.075 | 5.5 | Pu-238 | 2.21 | pCi/g | Pre |
| 233-C8-1 | 3022293.768 | 674422.075 | 5.5 | Pu-239/240 | 33.75 | pCi/g | Pre |
| 233-C8-1 | 3022293.768 | 674422.075 | 5.5 | Pu-241 | 55.35 | pCi/g | Pre |
| 233-C8-1 | 3022293.768 | 674422.075 | 5.5 | Pu-242 | 0 | pCi/g | Pre |
| 233-C8-1 | 3022293.768 | 674422.075 | 5.5 | Tc-99 | 42.2 | pCi/g | Pre |
| 233-C8-1 | 3022293.768 | 674422.075 | 5.5 | Th-230 | 11.4 | pCi/g | Pre |
| 233-C8-1 | 3022293.768 | 674422.075 | 5.5 | U-233/234 | 776.9 | pCi/g | Pre |
| 233-C8-1 | 3022293.768 | 674422.075 | 5.5 | U-238 | 40.9 | pCi/g | Pre |
| 233-C8-2 | 3022293.768 | 674422.075 | 6.5 | Am-241 | 10.46 | pCi/g | Pre |
| 233-C8-2 | 3022293.768 | 674422.075 | 6.5 | Th-232 | 24.5 | pCi/g | Pre |
| 233-C8-2 | 3022293.768 | 674422.075 | 6.5 | U-235 | 31.2 | pCi/g | Pre |
| 233-C8-2 | 3022293.768 | 674422.075 | 6.5 | Pu-238 | 1.88 | pCi/g | Pre |
| 233-C8-2 | 3022293.768 | 674422.075 | 6.5 | Pu-239/240 | 28.76 | pCi/g | Pre |
| 233-C8-2 | 3022293.768 | 674422.075 | 6.5 | Pu-241 | 47.17 | pCi/g | Pre |
| 233-C8-2 | 3022293.768 | 674422.075 | 6.5 | Pu-242 | 0 | pCi/g | Pre |
| 233-C8-2 | 3022293.768 | 674422.075 | 6.5 | Tc-99 | 76.7 | pCi/g | Pre |
| 233-C8-2 | 3022293.768 | 674422.075 | 6.5 | Th-230 | 11.7 | pCi/g | Pre |
| 233-C8-2 | 3022293.768 | 674422.075 | 6.5 | U-233/234 | 846.7 | pCi/g | Pre |
| 233-C8-2 | 3022293.768 | 674422.075 | 6.5 | U-238 | 43.4 | pCi/g | Pre |
| 233-I8-1 | 3022305.697 | 674437.7362 | 5.5 | Am-241 | 1.01 | pCi/g | Pre |
| 233-I8-1 | 3022305.697 | 674437.7362 | 5.5 | Th-232 | 1.8 | pCi/g | Pre |

## Historical Dataset, Survey Unit 8

| Sample ID# | Sample Location | | Sample Depth (ft) | Contaminant Name | Analytical Result | Units | Period |
|---|---|---|---|---|---|---|---|
| | Easting | Northing | | | | | |
| 233-I8-1 | 3022305.697 | 674437.7362 | 5.5 | U-235 | 1.1 | pCi/g | Pre |
| 233-I8-1 | 3022305.697 | 674437.7362 | 5.5 | Pu-238 | 0.18 | pCi/g | Pre |
| 233-I8-1 | 3022305.697 | 674437.7362 | 5.5 | Pu-239/240 | 2.79 | pCi/g | Pre |
| 233-I8-1 | 3022305.697 | 674437.7362 | 5.5 | Pu-241 | 4.57 | pCi/g | Pre |
| 233-I8-1 | 3022305.697 | 674437.7362 | 5.5 | Pu-242 | 0 | pCi/g | Pre |
| 233-I8-1 | 3022305.697 | 674437.7362 | 5.5 | Tc-99 | 2.1 | pCi/g | Pre |
| 233-I8-1 | 3022305.697 | 674437.7362 | 5.5 | Th-230 | 1.1 | pCi/g | Pre |
| 233-I8-1 | 3022305.697 | 674437.7362 | 5.5 | U-233/234 | 27.5 | pCi/g | Pre |
| 233-I8-1 | 3022305.697 | 674437.7362 | 5.5 | U-238 | 4.3 | pCi/g | Pre |
| 233-I8-2 | 3022305.697 | 674437.7362 | 6.5 | Am-241 | -0.09 | pCi/g | Pre |
| 233-I8-2 | 3022305.697 | 674437.7362 | 6.5 | Th-232 | 0.9 | pCi/g | Pre |
| 233-I8-2 | 3022305.697 | 674437.7362 | 6.5 | U-235 | 0.3 | pCi/g | Pre |
| 233-I8-2 | 3022305.697 | 674437.7362 | 6.5 | Pu-238 | 0 | pCi/g | Pre |
| 233-I8-2 | 3022305.697 | 674437.7362 | 6.5 | Pu-239/240 | 0 | pCi/g | Pre |
| 233-I8-2 | 3022305.697 | 674437.7362 | 6.5 | Pu-241 | 0 | pCi/g | Pre |
| 233-I8-2 | 3022305.697 | 674437.7362 | 6.5 | Pu-242 | 0 | pCi/g | Pre |
| 233-I8-2 | 3022305.697 | 674437.7362 | 6.5 | Tc-99 | 0 | pCi/g | Pre |
| 233-I8-2 | 3022305.697 | 674437.7362 | 6.5 | Th-230 | 0.6 | pCi/g | Pre |
| 233-I8-2 | 3022305.697 | 674437.7362 | 6.5 | U-233/234 | 6.3 | pCi/g | Pre |
| 233-I8-2 | 3022305.697 | 674437.7362 | 6.5 | U-238 | 1.6 | pCi/g | Pre |
| 234-B1-1 | 3022299.612 | 674413.4939 | 5.5 | Am-241 | 0.1 | pCi/g | Pre |
| 234-B1-1 | 3022299.612 | 674413.4939 | 5.5 | Th-232 | 0.9 | pCi/g | Pre |
| 234-B1-1 | 3022299.612 | 674413.4939 | 5.5 | U-235 | 0.2 | pCi/g | Pre |
| 234-B1-1 | 3022299.612 | 674413.4939 | 5.5 | Pu-238 | 0.02 | pCi/g | Pre |
| 234-B1-1 | 3022299.612 | 674413.4939 | 5.5 | Pu-239/240 | 0.27 | pCi/g | Pre |
| 234-B1-1 | 3022299.612 | 674413.4939 | 5.5 | Pu-241 | 0.44 | pCi/g | Pre |
| 234-B1-1 | 3022299.612 | 674413.4939 | 5.5 | Pu-242 | 0 | pCi/g | Pre |
| 234-B1-1 | 3022299.612 | 674413.4939 | 5.5 | Tc-99 | 1.7 | pCi/g | Pre |
| 234-B1-1 | 3022299.612 | 674413.4939 | 5.5 | Th-230 | 0.6 | pCi/g | Pre |
| 234-B1-1 | 3022299.612 | 674413.4939 | 5.5 | U-233/234 | 4.2 | pCi/g | Pre |
| 234-B1-1 | 3022299.612 | 674413.4939 | 5.5 | U-238 | 1.2 | pCi/g | Pre |
| 234-B1-2 | 3022299.612 | 674413.4939 | 6.5 | Am-241 | 0.35 | pCi/g | Pre |
| 234-B1-2 | 3022299.612 | 674413.4939 | 6.5 | Th-232 | 1 | pCi/g | Pre |
| 234-B1-2 | 3022299.612 | 674413.4939 | 6.5 | U-235 | 0.2 | pCi/g | Pre |
| 234-B1-2 | 3022299.612 | 674413.4939 | 6.5 | Pu-238 | 0.06 | pCi/g | Pre |
| 234-B1-2 | 3022299.612 | 674413.4939 | 6.5 | Pu-239/240 | 0.97 | pCi/g | Pre |
| 234-B1-2 | 3022299.612 | 674413.4939 | 6.5 | Pu-241 | 1.58 | pCi/g | Pre |
| 234-B1-2 | 3022299.612 | 674413.4939 | 6.5 | Pu-242 | 0 | pCi/g | Pre |
| 234-B1-2 | 3022299.612 | 674413.4939 | 6.5 | Tc-99 | 1.7 | pCi/g | Pre |
| 234-B1-2 | 3022299.612 | 674413.4939 | 6.5 | Th-230 | 0.7 | pCi/g | Pre |
| 234-B1-2 | 3022299.612 | 674413.4939 | 6.5 | U-233/234 | 4.6 | pCi/g | Pre |
| 234-B1-2 | 3022299.612 | 674413.4939 | 6.5 | U-238 | 1.3 | pCi/g | Pre |
| 234-I7-1 | 3022329.196 | 674419.8234 | 5.5 | Am-241 | -0.08 | pCi/g | Pre |
| 234-I7-1 | 3022329.196 | 674419.8234 | 5.5 | Th-232 | 0.9 | pCi/g | Pre |
| 234-I7-1 | 3022329.196 | 674419.8234 | 5.5 | U-235 | 0.1 | pCi/g | Pre |
| 234-I7-1 | 3022329.196 | 674419.8234 | 5.5 | Pu-238 | 0 | pCi/g | Pre |
| 234-I7-1 | 3022329.196 | 674419.8234 | 5.5 | Pu-239/240 | 0 | pCi/g | Pre |
| 234-I7-1 | 3022329.196 | 674419.8234 | 5.5 | Pu-241 | 0 | pCi/g | Pre |
| 234-I7-1 | 3022329.196 | 674419.8234 | 5.5 | Pu-242 | 0 | pCi/g | Pre |
| 234-I7-1 | 3022329.196 | 674419.8234 | 5.5 | Tc-99 | 1.6 | pCi/g | Pre |
| 234-I7-1 | 3022329.196 | 674419.8234 | 5.5 | Th-230 | 0.6 | pCi/g | Pre |
| 234-I7-1 | 3022329.196 | 674419.8234 | 5.5 | U-233/234 | 3.6 | pCi/g | Pre |
| 234-I7-1 | 3022329.196 | 674419.8234 | 5.5 | U-238 | 1.1 | pCi/g | Pre |
| 234-I7-2 | 3022329.196 | 674419.8234 | 6.5 | Am-241 | 0.23 | pCi/g | Pre |

## Historical Dataset, Survey Unit 8

| Sample ID# | Sample Location | | Sample Depth (ft) | Contaminant Name | Analytical Result | Units | Period |
|---|---|---|---|---|---|---|---|
| | Easting | Northing | | | | | |
| 234-I7-2 | 3022329.196 | 674419.8234 | 6.5 | Th-232 | 0.7 | pCi/g | Pre |
| 234-I7-2 | 3022329.196 | 674419.8234 | 6.5 | U-235 | 0.1 | pCi/g | Pre |
| 234-I7-2 | 3022329.196 | 674419.8234 | 6.5 | Pu-238 | 0.04 | pCi/g | Pre |
| 234-I7-2 | 3022329.196 | 674419.8234 | 6.5 | Pu-239/240 | 0.64 | pCi/g | Pre |
| 234-I7-2 | 3022329.196 | 674419.8234 | 6.5 | Pu-241 | 1.05 | pCi/g | Pre |
| 234-I7-2 | 3022329.196 | 674419.8234 | 6.5 | Pu-242 | 0 | pCi/g | Pre |
| 234-I7-2 | 3022329.196 | 674419.8234 | 6.5 | Tc-99 | 1.1 | pCi/g | Pre |
| 234-I7-2 | 3022329.196 | 674419.8234 | 6.5 | Th-230 | 0.5 | pCi/g | Pre |
| 234-I7-2 | 3022329.196 | 674419.8234 | 6.5 | U-233/234 | 1.4 | pCi/g | Pre |
| 234-I7-2 | 3022329.196 | 674419.8234 | 6.5 | U-238 | 0.6 | pCi/g | Pre |
| 234-I7-3 | 3022329.196 | 674419.8234 | 7.5 | Am-241 | 0.25 | pCi/g | Pre |
| 234-I7-3 | 3022329.196 | 674419.8234 | 7.5 | Th-232 | 0.4 | pCi/g | Pre |
| 234-I7-3 | 3022329.196 | 674419.8234 | 7.5 | U-235 | 0.1 | pCi/g | Pre |
| 234-I7-3 | 3022329.196 | 674419.8234 | 7.5 | Pu-238 | 0.04 | pCi/g | Pre |
| 234-I7-3 | 3022329.196 | 674419.8234 | 7.5 | Pu-239/240 | 0.68 | pCi/g | Pre |
| 234-I7-3 | 3022329.196 | 674419.8234 | 7.5 | Pu-241 | 1.12 | pCi/g | Pre |
| 234-I7-3 | 3022329.196 | 674419.8234 | 7.5 | Pu-242 | 0 | pCi/g | Pre |
| 234-I7-3 | 3022329.196 | 674419.8234 | 7.5 | Tc-99 | 1.5 | pCi/g | Pre |
| 234-I7-3 | 3022329.196 | 674419.8234 | 7.5 | Th-230 | 0.3 | pCi/g | Pre |
| 234-I7-3 | 3022329.196 | 674419.8234 | 7.5 | U-233/234 | 2.8 | pCi/g | Pre |
| 234-I7-3 | 3022329.196 | 674419.8234 | 7.5 | U-238 | 0.9 | pCi/g | Pre |
| 234-I7-4 | 3022329.196 | 674419.8234 | 8.5 | Am-241 | 0.1 | pCi/g | Pre |
| 234-I7-4 | 3022329.196 | 674419.8234 | 8.5 | Th-232 | 1.5 | pCi/g | Pre |
| 234-I7-4 | 3022329.196 | 674419.8234 | 8.5 | U-235 | 0 | pCi/g | Pre |
| 234-I7-4 | 3022329.196 | 674419.8234 | 8.5 | Pu-238 | 0.02 | pCi/g | Pre |
| 234-I7-4 | 3022329.196 | 674419.8234 | 8.5 | Pu-239/240 | 0.26 | pCi/g | Pre |
| 234-I7-4 | 3022329.196 | 674419.8234 | 8.5 | Pu-241 | 0.43 | pCi/g | Pre |
| 234-I7-4 | 3022329.196 | 674419.8234 | 8.5 | Pu-242 | 0 | pCi/g | Pre |
| 234-I7-4 | 3022329.196 | 674419.8234 | 8.5 | Tc-99 | 0.9 | pCi/g | Pre |
| 234-I7-4 | 3022329.196 | 674419.8234 | 8.5 | Th-230 | 0.9 | pCi/g | Pre |
| 234-I7-4 | 3022329.196 | 674419.8234 | 8.5 | U-233/234 | 0.7 | pCi/g | Pre |
| 234-I7-4 | 3022329.196 | 674419.8234 | 8.5 | U-238 | 0.4 | pCi/g | Pre |
| 267-E4-1 | 3022215.199 | 674448.9607 | 5.5 | Am-241 | 0.12 | pCi/g | Pre |
| 267-E4-1 | 3022215.199 | 674448.9607 | 5.5 | Th-232 | 1.2 | pCi/g | Pre |
| 267-E4-1 | 3022215.199 | 674448.9607 | 5.5 | U-235 | 0.5 | pCi/g | Pre |
| 267-E4-1 | 3022215.199 | 674448.9607 | 5.5 | Pu-238 | 0.01 | pCi/g | Pre |
| 267-E4-1 | 3022215.199 | 674448.9607 | 5.5 | Pu-239/240 | 0.78 | pCi/g | Pre |
| 267-E4-1 | 3022215.199 | 674448.9607 | 5.5 | Pu-241 | 0 | pCi/g | Pre |
| 267-E4-1 | 3022215.199 | 674448.9607 | 5.5 | Pu-242 | 0 | pCi/g | Pre |
| 267-E4-1 | 3022215.199 | 674448.9607 | 5.5 | Tc-99 | 1.2 | pCi/g | Pre |
| 267-E4-1 | 3022215.199 | 674448.9607 | 5.5 | Th-230 | 1.5 | pCi/g | Pre |
| 267-E4-1 | 3022215.199 | 674448.9607 | 5.5 | U-233/234 | 14 | pCi/g | Pre |
| 267-E4-1 | 3022215.199 | 674448.9607 | 5.5 | U-238 | 1.4 | pCi/g | Pre |
| 269-F5-1 | 3022272.017 | 674409.7745 | 5.5 | Am-241 | 1.6 | pCi/g | Pre |
| 269-F5-1 | 3022272.017 | 674409.7745 | 5.5 | Th-232 | 2.2 | pCi/g | Pre |
| 269-F5-1 | 3022272.017 | 674409.7745 | 5.5 | U-235 | 1.6 | pCi/g | Pre |
| 269-F5-1 | 3022272.017 | 674409.7745 | 5.5 | Pu-238 | 0.29 | pCi/g | Pre |
| 269-F5-1 | 3022272.017 | 674409.7745 | 5.5 | Pu-239/240 | 4.4 | pCi/g | Pre |
| 269-F5-1 | 3022272.017 | 674409.7745 | 5.5 | Pu-241 | 7.22 | pCi/g | Pre |
| 269-F5-1 | 3022272.017 | 674409.7745 | 5.5 | Pu-242 | 0 | pCi/g | Pre |
| 269-F5-1 | 3022272.017 | 674409.7745 | 5.5 | Tc-99 | 2.4 | pCi/g | Pre |
| 269-F5-1 | 3022272.017 | 674409.7745 | 5.5 | Th-230 | 1.4 | pCi/g | Pre |
| 269-F5-1 | 3022272.017 | 674409.7745 | 5.5 | U-233/234 | 39.8 | pCi/g | Pre |
| 269-F5-1 | 3022272.017 | 674409.7745 | 5.5 | U-238 | 5.5 | pCi/g | Pre |

## Historical Dataset, Survey Unit 8

| Sample ID# | Sample Location | | Sample Depth (ft) | Contaminant Name | Analytical Result | Units | Period |
|---|---|---|---|---|---|---|---|
| | Easting | Northing | | | | | |
| 269-F5-2 | 3022272.017 | 674409.7745 | 6.5 | Am-241 | -0.12 | pCi/g | Pre |
| 269-F5-2 | 3022272.017 | 674409.7745 | 6.5 | Th-232 | 1.4 | pCi/g | Pre |
| 269-F5-2 | 3022272.017 | 674409.7745 | 6.5 | U-235 | 0 | pCi/g | Pre |
| 269-F5-2 | 3022272.017 | 674409.7745 | 6.5 | Pu-238 | 0 | pCi/g | Pre |
| 269-F5-2 | 3022272.017 | 674409.7745 | 6.5 | Pu-239/240 | 0 | pCi/g | Pre |
| 269-F5-2 | 3022272.017 | 674409.7745 | 6.5 | Pu-241 | 0 | pCi/g | Pre |
| 269-F5-2 | 3022272.017 | 674409.7745 | 6.5 | Pu-242 | 0 | pCi/g | Pre |
| 269-F5-2 | 3022272.017 | 674409.7745 | 6.5 | Tc-99 | 0 | pCi/g | Pre |
| 269-F5-2 | 3022272.017 | 674409.7745 | 6.5 | Th-230 | 0.9 | pCi/g | Pre |
| 269-F5-2 | 3022272.017 | 674409.7745 | 6.5 | U-233/234 | 0.6 | pCi/g | Pre |
| 269-F5-2 | 3022272.017 | 674409.7745 | 6.5 | U-238 | 0.3 | pCi/g | Pre |
| 270-C2-1 | 3022284.329 | 674388.0118 | 5.5 | Am-241 | 0.96 | pCi/g | Pre |
| 270-C2-1 | 3022284.329 | 674388.0118 | 5.5 | Th-232 | 1.9 | pCi/g | Pre |
| 270-C2-1 | 3022284.329 | 674388.0118 | 5.5 | U-235 | 1.3 | pCi/g | Pre |
| 270-C2-1 | 3022284.329 | 674388.0118 | 5.5 | Pu-238 | 0.17 | pCi/g | Pre |
| 270-C2-1 | 3022284.329 | 674388.0118 | 5.5 | Pu-239/240 | 2.63 | pCi/g | Pre |
| 270-C2-1 | 3022284.329 | 674388.0118 | 5.5 | Pu-241 | 4.31 | pCi/g | Pre |
| 270-C2-1 | 3022284.329 | 674388.0118 | 5.5 | Pu-242 | 0 | pCi/g | Pre |
| 270-C2-1 | 3022284.329 | 674388.0118 | 5.5 | Tc-99 | 2.6 | pCi/g | Pre |
| 270-C2-1 | 3022284.329 | 674388.0118 | 5.5 | Th-230 | 1.2 | pCi/g | Pre |
| 270-C2-1 | 3022284.329 | 674388.0118 | 5.5 | U-233/234 | 32.9 | pCi/g | Pre |
| 270-C2-1 | 3022284.329 | 674388.0118 | 5.5 | U-238 | 4.8 | pCi/g | Pre |
| 270-C2-2 | 3022284.329 | 674388.0118 | 6.5 | Am-241 | 1.24 | pCi/g | Pre |
| 270-C2-2 | 3022284.329 | 674388.0118 | 6.5 | Th-232 | 2.5 | pCi/g | Pre |
| 270-C2-2 | 3022284.329 | 674388.0118 | 6.5 | U-235 | 2.4 | pCi/g | Pre |
| 270-C2-2 | 3022284.329 | 674388.0118 | 6.5 | Pu-238 | 0.22 | pCi/g | Pre |
| 270-C2-2 | 3022284.329 | 674388.0118 | 6.5 | Pu-239/240 | 3.42 | pCi/g | Pre |
| 270-C2-2 | 3022284.329 | 674388.0118 | 6.5 | Pu-241 | 5.61 | pCi/g | Pre |
| 270-C2-2 | 3022284.329 | 674388.0118 | 6.5 | Pu-242 | 0 | pCi/g | Pre |
| 270-C2-2 | 3022284.329 | 674388.0118 | 6.5 | Tc-99 | 4.1 | pCi/g | Pre |
| 270-C2-2 | 3022284.329 | 674388.0118 | 6.5 | Th-230 | 1.5 | pCi/g | Pre |
| 270-C2-2 | 3022284.329 | 674388.0118 | 6.5 | U-233/234 | 61.7 | pCi/g | Pre |
| 270-C2-2 | 3022284.329 | 674388.0118 | 6.5 | U-238 | 7.4 | pCi/g | Pre |
| 270-F6-1 | 3022300.738 | 674387.8811 | 5.5 | Am-241 | -0.02 | pCi/g | Pre |
| 270-F6-1 | 3022300.738 | 674387.8811 | 5.5 | Th-232 | 0.7 | pCi/g | Pre |
| 270-F6-1 | 3022300.738 | 674387.8811 | 5.5 | U-235 | 0 | pCi/g | Pre |
| 270-F6-1 | 3022300.738 | 674387.8811 | 5.5 | Pu-238 | 0 | pCi/g | Pre |
| 270-F6-1 | 3022300.738 | 674387.8811 | 5.5 | Pu-239/240 | 0 | pCi/g | Pre |
| 270-F6-1 | 3022300.738 | 674387.8811 | 5.5 | Pu-241 | 0 | pCi/g | Pre |
| 270-F6-1 | 3022300.738 | 674387.8811 | 5.5 | Pu-242 | 0 | pCi/g | Pre |
| 270-F6-1 | 3022300.738 | 674387.8811 | 5.5 | Tc-99 | -0.8 | pCi/g | Pre |
| 270-F6-1 | 3022300.738 | 674387.8811 | 5.5 | Th-230 | 0.5 | pCi/g | Pre |
| 270-F6-1 | 3022300.738 | 674387.8811 | 5.5 | U-233/234 | 0.9 | pCi/g | Pre |
| 270-F6-1 | 3022300.738 | 674387.8811 | 5.5 | U-238 | 0.4 | pCi/g | Pre |
| 270-F6-2 | 3022300.738 | 674387.8811 | 6.5 | Am-241 | 0.04 | pCi/g | Pre |
| 270-F6-2 | 3022300.738 | 674387.8811 | 6.5 | Th-232 | 0.4 | pCi/g | Pre |
| 270-F6-2 | 3022300.738 | 674387.8811 | 6.5 | U-235 | 0.1 | pCi/g | Pre |
| 270-F6-2 | 3022300.738 | 674387.8811 | 6.5 | Pu-238 | 0.01 | pCi/g | Pre |
| 270-F6-2 | 3022300.738 | 674387.8811 | 6.5 | Pu-239/240 | 0.11 | pCi/g | Pre |
| 270-F6-2 | 3022300.738 | 674387.8811 | 6.5 | Pu-241 | 0.17 | pCi/g | Pre |
| 270-F6-2 | 3022300.738 | 674387.8811 | 6.5 | Pu-242 | 0 | pCi/g | Pre |
| 270-F6-2 | 3022300.738 | 674387.8811 | 6.5 | Tc-99 | 0.3 | pCi/g | Pre |
| 270-F6-2 | 3022300.738 | 674387.8811 | 6.5 | Th-230 | 0.3 | pCi/g | Pre |
| 270-F6-2 | 3022300.738 | 674387.8811 | 6.5 | U-233/234 | 2.8 | pCi/g | Pre |

## Historical Dataset, Survey Unit 8

| Sample ID# | Sample Location | | Sample Depth (ft) | Contaminant Name | Analytical Result | Units | Period |
|---|---|---|---|---|---|---|---|
| | Easting | Northing | | | | | |
| 270-F6-2 | 3022300.738 | 674387.8811 | 6.5 | U-238 | 0.9 | pCi/g | Pre |
| 270-I8-1 | 3022311.924 | 674391.7311 | 5.5 | Am-241 | 0.08 | pCi/g | Pre |
| 270-I8-1 | 3022311.924 | 674391.7311 | 5.5 | Th-232 | 0.4 | pCi/g | Pre |
| 270-I8-1 | 3022311.924 | 674391.7311 | 5.5 | U-235 | 0 | pCi/g | Pre |
| 270-I8-1 | 3022311.924 | 674391.7311 | 5.5 | Pu-238 | 0.01 | pCi/g | Pre |
| 270-I8-1 | 3022311.924 | 674391.7311 | 5.5 | Pu-239/240 | 0.22 | pCi/g | Pre |
| 270-I8-1 | 3022311.924 | 674391.7311 | 5.5 | Pu-241 | 0.36 | pCi/g | Pre |
| 270-I8-1 | 3022311.924 | 674391.7311 | 5.5 | Pu-242 | 0 | pCi/g | Pre |
| 270-I8-1 | 3022311.924 | 674391.7311 | 5.5 | Tc-99 | 0 | pCi/g | Pre |
| 270-I8-1 | 3022311.924 | 674391.7311 | 5.5 | Th-230 | 0.3 | pCi/g | Pre |
| 270-I8-1 | 3022311.924 | 674391.7311 | 5.5 | U-233/234 | 0 | pCi/g | Pre |
| 270-I8-1 | 3022311.924 | 674391.7311 | 5.5 | U-238 | 0 | pCi/g | Pre |
| 304-C3-1 | 3022188.729 | 674419.6286 | 5.5 | Am-241 | -0.1 | pCi/g | Pre |
| 304-C3-1 | 3022188.729 | 674419.6286 | 5.5 | Th-232 | 1.7 | pCi/g | Pre |
| 304-C3-1 | 3022188.729 | 674419.6286 | 5.5 | U-235 | 0.2 | pCi/g | Pre |
| 304-C3-1 | 3022188.729 | 674419.6286 | 5.5 | Pu-238 | 0 | pCi/g | Pre |
| 304-C3-1 | 3022188.729 | 674419.6286 | 5.5 | Pu-239/240 | 0 | pCi/g | Pre |
| 304-C3-1 | 3022188.729 | 674419.6286 | 5.5 | Pu-241 | 0 | pCi/g | Pre |
| 304-C3-1 | 3022188.729 | 674419.6286 | 5.5 | Pu-242 | 0 | pCi/g | Pre |
| 304-C3-1 | 3022188.729 | 674419.6286 | 5.5 | Tc-99 | 0 | pCi/g | Pre |
| 304-C3-1 | 3022188.729 | 674419.6286 | 5.5 | Th-230 | 1.1 | pCi/g | Pre |
| 304-C3-1 | 3022188.729 | 674419.6286 | 5.5 | U-233/234 | 4.1 | pCi/g | Pre |
| 304-C3-1 | 3022188.729 | 674419.6286 | 5.5 | U-238 | 1.2 | pCi/g | Pre |
| 304-C3-2 | 3022188.729 | 674419.6286 | 6.5 | Am-241 | -0.32 | pCi/g | Pre |
| 304-C3-2 | 3022188.729 | 674419.6286 | 6.5 | Th-232 | 1.3 | pCi/g | Pre |
| 304-C3-2 | 3022188.729 | 674419.6286 | 6.5 | U-235 | 0.2 | pCi/g | Pre |
| 304-C3-2 | 3022188.729 | 674419.6286 | 6.5 | Pu-238 | 0 | pCi/g | Pre |
| 304-C3-2 | 3022188.729 | 674419.6286 | 6.5 | Pu-239/240 | 0 | pCi/g | Pre |
| 304-C3-2 | 3022188.729 | 674419.6286 | 6.5 | Pu-241 | 0 | pCi/g | Pre |
| 304-C3-2 | 3022188.729 | 674419.6286 | 6.5 | Pu-242 | 0 | pCi/g | Pre |
| 304-C3-2 | 3022188.729 | 674419.6286 | 6.5 | Tc-99 | 0 | pCi/g | Pre |
| 304-C3-2 | 3022188.729 | 674419.6286 | 6.5 | Th-230 | 0.9 | pCi/g | Pre |
| 304-C3-2 | 3022188.729 | 674419.6286 | 6.5 | U-233/234 | 4.2 | pCi/g | Pre |
| 304-C3-2 | 3022188.729 | 674419.6286 | 6.5 | U-238 | 1.2 | pCi/g | Pre |
| 304-D0-1 | 3022182.884 | 674428.2097 | 5.5 | Am-241 | 0.01 | pCi/g | Pre |
| 304-D0-1 | 3022182.884 | 674428.2097 | 5.5 | Th-232 | 0.8 | pCi/g | Pre |
| 304-D0-1 | 3022182.884 | 674428.2097 | 5.5 | U-235 | 0 | pCi/g | Pre |
| 304-D0-1 | 3022182.884 | 674428.2097 | 5.5 | Pu-238 | 0 | pCi/g | Pre |
| 304-D0-1 | 3022182.884 | 674428.2097 | 5.5 | Pu-239/240 | 0 | pCi/g | Pre |
| 304-D0-1 | 3022182.884 | 674428.2097 | 5.5 | Pu-241 | 0 | pCi/g | Pre |
| 304-D0-1 | 3022182.884 | 674428.2097 | 5.5 | Pu-242 | 0 | pCi/g | Pre |
| 304-D0-1 | 3022182.884 | 674428.2097 | 5.5 | Tc-99 | 0 | pCi/g | Pre |
| 304-D0-1 | 3022182.884 | 674428.2097 | 5.5 | Th-230 | 0.5 | pCi/g | Pre |
| 304-D0-1 | 3022182.884 | 674428.2097 | 5.5 | U-233/234 | 1 | pCi/g | Pre |
| 304-D0-1 | 3022182.884 | 674428.2097 | 5.5 | U-238 | 0.5 | pCi/g | Pre |
| 304-F8-1 | 3022207.748 | 674417.5077 | 5.5 | Am-241 | 0.04 | pCi/g | Pre |
| 304-F8-1 | 3022207.748 | 674417.5077 | 5.5 | Th-232 | 1 | pCi/g | Pre |
| 304-F8-1 | 3022207.748 | 674417.5077 | 5.5 | U-235 | 0.2 | pCi/g | Pre |
| 304-F8-1 | 3022207.748 | 674417.5077 | 5.5 | Pu-238 | 0 | pCi/g | Pre |
| 304-F8-1 | 3022207.748 | 674417.5077 | 5.5 | Pu-239/240 | 0 | pCi/g | Pre |
| 304-F8-1 | 3022207.748 | 674417.5077 | 5.5 | Pu-241 | 0 | pCi/g | Pre |
| 304-F8-1 | 3022207.748 | 674417.5077 | 5.5 | Pu-242 | 0 | pCi/g | Pre |
| 304-F8-1 | 3022207.748 | 674417.5077 | 5.5 | Tc-99 | 0 | pCi/g | Pre |
| 304-F8-1 | 3022207.748 | 674417.5077 | 5.5 | Th-230 | 0.6 | pCi/g | Pre |

## Historical Dataset, Survey Unit 8

| Sample ID# | Sample Location | | Sample Depth (ft) | Contaminant Name | Analytical Result | Units | Period |
|---|---|---|---|---|---|---|---|
| | Easting | Northing | | | | | |
| 304-F8-1 | 3022207.748 | 674417.5077 | 5.5 | U-233/234 | 6 | pCi/g | Pre |
| 304-F8-1 | 3022207.748 | 674417.5077 | 5.5 | U-238 | 1.5 | pCi/g | Pre |
| 304-F8-2 | 3022207.748 | 674417.5077 | 6.5 | Am-241 | 0.16 | pCi/g | Pre |
| 304-F8-2 | 3022207.748 | 674417.5077 | 6.5 | Th-232 | 0.4 | pCi/g | Pre |
| 304-F8-2 | 3022207.748 | 674417.5077 | 6.5 | U-235 | 0.2 | pCi/g | Pre |
| 304-F8-2 | 3022207.748 | 674417.5077 | 6.5 | Pu-238 | 0 | pCi/g | Pre |
| 304-F8-2 | 3022207.748 | 674417.5077 | 6.5 | Pu-239/240 | 0 | pCi/g | Pre |
| 304-F8-2 | 3022207.748 | 674417.5077 | 6.5 | Pu-241 | 0 | pCi/g | Pre |
| 304-F8-2 | 3022207.748 | 674417.5077 | 6.5 | Pu-242 | 0 | pCi/g | Pre |
| 304-F8-2 | 3022207.748 | 674417.5077 | 6.5 | Tc-99 | 0 | pCi/g | Pre |
| 304-F8-2 | 3022207.748 | 674417.5077 | 6.5 | Th-230 | 0.3 | pCi/g | Pre |
| 304-F8-2 | 3022207.748 | 674417.5077 | 6.5 | U-233/234 | 4.4 | pCi/g | Pre |
| 304-F8-2 | 3022207.748 | 674417.5077 | 6.5 | U-238 | 1.2 | pCi/g | Pre |
| 305-E2-1 | 3022216.204 | 674406.9362 | 5.5 | Am-241 | 0.38 | pCi/g | Pre |
| 305-E2-1 | 3022216.204 | 674406.9362 | 5.5 | Th-232 | 1.2 | pCi/g | Pre |
| 305-E2-1 | 3022216.204 | 674406.9362 | 5.5 | U-235 | 0.3 | pCi/g | Pre |
| 305-E2-1 | 3022216.204 | 674406.9362 | 5.5 | Pu-238 | 0.07 | pCi/g | Pre |
| 305-E2-1 | 3022216.204 | 674406.9362 | 5.5 | Pu-239/240 | 1.04 | pCi/g | Pre |
| 305-E2-1 | 3022216.204 | 674406.9362 | 5.5 | Pu-241 | 1.71 | pCi/g | Pre |
| 305-E2-1 | 3022216.204 | 674406.9362 | 5.5 | Pu-242 | 0 | pCi/g | Pre |
| 305-E2-1 | 3022216.204 | 674406.9362 | 5.5 | Tc-99 | 2.1 | pCi/g | Pre |
| 305-E2-1 | 3022216.204 | 674406.9362 | 5.5 | Th-230 | 0.8 | pCi/g | Pre |
| 305-E2-1 | 3022216.204 | 674406.9362 | 5.5 | U-233/234 | 7.8 | pCi/g | Pre |
| 305-E2-1 | 3022216.204 | 674406.9362 | 5.5 | U-238 | 1.8 | pCi/g | Pre |
| 305-E2-2 | 3022216.204 | 674406.9362 | 6.5 | Am-241 | -0.15 | pCi/g | Pre |
| 305-E2-2 | 3022216.204 | 674406.9362 | 6.5 | Th-232 | 3.8 | pCi/g | Pre |
| 305-E2-2 | 3022216.204 | 674406.9362 | 6.5 | U-235 | 0.2 | pCi/g | Pre |
| 305-E2-2 | 3022216.204 | 674406.9362 | 6.5 | Pu-238 | -0.02 | pCi/g | Pre |
| 305-E2-2 | 3022216.204 | 674406.9362 | 6.5 | Pu-239/240 | 0.1 | pCi/g | Pre |
| 305-E2-2 | 3022216.204 | 674406.9362 | 6.5 | Pu-241 | 1.72 | pCi/g | Pre |
| 305-E2-2 | 3022216.204 | 674406.9362 | 6.5 | Pu-242 | 0 | pCi/g | Pre |
| 305-E2-2 | 3022216.204 | 674406.9362 | 6.5 | Tc-99 | 0.2 | pCi/g | Pre |
| 305-E2-2 | 3022216.204 | 674406.9362 | 6.5 | Th-230 | 5.6 | pCi/g | Pre |
| 305-E2-2 | 3022216.204 | 674406.9362 | 6.5 | U-233/234 | 4.1 | pCi/g | Pre |
| 305-E2-2 | 3022216.204 | 674406.9362 | 6.5 | U-238 | 0.8 | pCi/g | Pre |
| 307-C2-1 | 3022264.447 | 674361.9098 | 5.5 | Am-241 | 1.4 | pCi/g | Pre |
| 307-C2-1 | 3022264.447 | 674361.9098 | 5.5 | Th-232 | 2.5 | pCi/g | Pre |
| 307-C2-1 | 3022264.447 | 674361.9098 | 5.5 | U-235 | 1.6 | pCi/g | Pre |
| 307-C2-1 | 3022264.447 | 674361.9098 | 5.5 | Pu-238 | 0.25 | pCi/g | Pre |
| 307-C2-1 | 3022264.447 | 674361.9098 | 5.5 | Pu-239/240 | 3.84 | pCi/g | Pre |
| 307-C2-1 | 3022264.447 | 674361.9098 | 5.5 | Pu-241 | 6.3 | pCi/g | Pre |
| 307-C2-1 | 3022264.447 | 674361.9098 | 5.5 | Pu-242 | 0 | pCi/g | Pre |
| 307-C2-1 | 3022264.447 | 674361.9098 | 5.5 | Tc-99 | 3.7 | pCi/g | Pre |
| 307-C2-1 | 3022264.447 | 674361.9098 | 5.5 | Th-230 | 1.5 | pCi/g | Pre |
| 307-C2-1 | 3022264.447 | 674361.9098 | 5.5 | U-233/234 | 41.8 | pCi/g | Pre |
| 307-C2-1 | 3022264.447 | 674361.9098 | 5.5 | U-238 | 5.7 | pCi/g | Pre |
| 307-C2-2 | 3022264.447 | 674361.9098 | 6.5 | Am-241 | 0.14 | pCi/g | Pre |
| 307-C2-2 | 3022264.447 | 674361.9098 | 6.5 | Th-232 | 1.6 | pCi/g | Pre |
| 307-C2-2 | 3022264.447 | 674361.9098 | 6.5 | U-235 | 0.3 | pCi/g | Pre |
| 307-C2-2 | 3022264.447 | 674361.9098 | 6.5 | Pu-238 | 0.03 | pCi/g | Pre |
| 307-C2-2 | 3022264.447 | 674361.9098 | 6.5 | Pu-239/240 | 0.38 | pCi/g | Pre |
| 307-C2-2 | 3022264.447 | 674361.9098 | 6.5 | Pu-241 | 0.63 | pCi/g | Pre |
| 307-C2-2 | 3022264.447 | 674361.9098 | 6.5 | Pu-242 | 0 | pCi/g | Pre |
| 307-C2-2 | 3022264.447 | 674361.9098 | 6.5 | Tc-99 | 1.9 | pCi/g | Pre |

## Historical Dataset, Survey Unit 8

| Sample ID# | Sample Location | | Sample Depth (ft) | Contaminant Name | Analytical Result | Units | Period |
|---|---|---|---|---|---|---|---|
| | Easting | Northing | | | | | |
| 307-C2-2 | 3022264.447 | 674361.9098 | 6.5 | Th-230 | 1 | pCi/g | Pre |
| 307-C2-2 | 3022264.447 | 674361.9098 | 6.5 | U-233/234 | 6.4 | pCi/g | Pre |
| 307-C2-2 | 3022264.447 | 674361.9098 | 6.5 | U-238 | 1.6 | pCi/g | Pre |
| 307-I6-1 | 3022286.82 | 674369.6098 | 5.5 | Am-241 | 0.54 | pCi/g | Pre |
| 307-I6-1 | 3022286.82 | 674369.6098 | 5.5 | Th-232 | 0.9 | pCi/g | Pre |
| 307-I6-1 | 3022286.82 | 674369.6098 | 5.5 | U-235 | 0.3 | pCi/g | Pre |
| 307-I6-1 | 3022286.82 | 674369.6098 | 5.5 | Pu-238 | 0.1 | pCi/g | Pre |
| 307-I6-1 | 3022286.82 | 674369.6098 | 5.5 | Pu-239/240 | 1.47 | pCi/g | Pre |
| 307-I6-1 | 3022286.82 | 674369.6098 | 5.5 | Pu-241 | 2.42 | pCi/g | Pre |
| 307-I6-1 | 3022286.82 | 674369.6098 | 5.5 | Pu-242 | 0 | pCi/g | Pre |
| 307-I6-1 | 3022286.82 | 674369.6098 | 5.5 | Tc-99 | 2.1 | pCi/g | Pre |
| 307-I6-1 | 3022286.82 | 674369.6098 | 5.5 | Th-230 | 0.6 | pCi/g | Pre |
| 307-I6-1 | 3022286.82 | 674369.6098 | 5.5 | U-233/234 | 8.3 | pCi/g | Pre |
| 307-I6-1 | 3022286.82 | 674369.6098 | 5.5 | U-238 | 1.9 | pCi/g | Pre |
| 307-I6-2 | 3022286.82 | 674369.6098 | 6.5 | Am-241 | 0.03 | pCi/g | Pre |
| 307-I6-2 | 3022286.82 | 674369.6098 | 6.5 | Th-232 | 0.8 | pCi/g | Pre |
| 307-I6-2 | 3022286.82 | 674369.6098 | 6.5 | U-235 | 0.2 | pCi/g | Pre |
| 307-I6-2 | 3022286.82 | 674369.6098 | 6.5 | Pu-238 | 0.01 | pCi/g | Pre |
| 307-I6-2 | 3022286.82 | 674369.6098 | 6.5 | Pu-239/240 | 0.09 | pCi/g | Pre |
| 307-I6-2 | 3022286.82 | 674369.6098 | 6.5 | Pu-241 | 0.15 | pCi/g | Pre |
| 307-I6-2 | 3022286.82 | 674369.6098 | 6.5 | Pu-242 | 0 | pCi/g | Pre |
| 307-I6-2 | 3022286.82 | 674369.6098 | 6.5 | Tc-99 | 1.8 | pCi/g | Pre |
| 307-I6-2 | 3022286.82 | 674369.6098 | 6.5 | Th-230 | 0.5 | pCi/g | Pre |
| 307-I6-2 | 3022286.82 | 674369.6098 | 6.5 | U-233/234 | 5.1 | pCi/g | Pre |
| 307-I6-2 | 3022286.82 | 674369.6098 | 6.5 | U-238 | 1.4 | pCi/g | Pre |
| 345-I8-1 | 3022272.16 | 674339.5272 | 5.5 | Am-241 | 2.26 | pCi/g | Pre |
| 345-I8-1 | 3022272.16 | 674339.5272 | 5.5 | Th-232 | 3.1 | pCi/g | Pre |
| 345-I8-1 | 3022272.16 | 674339.5272 | 5.5 | U-235 | 2.5 | pCi/g | Pre |
| 345-I8-1 | 3022272.16 | 674339.5272 | 5.5 | Pu-238 | 1.11 | pCi/g | Pre |
| 345-I8-1 | 3022272.16 | 674339.5272 | 5.5 | Pu-239/240 | 14.69 | pCi/g | Pre |
| 345-I8-1 | 3022272.16 | 674339.5272 | 5.5 | Pu-241 | 24.1 | pCi/g | Pre |
| 345-I8-1 | 3022272.16 | 674339.5272 | 5.5 | Pu-242 | 0 | pCi/g | Pre |
| 345-I8-1 | 3022272.16 | 674339.5272 | 5.5 | Tc-99 | 0 | pCi/g | Pre |
| 345-I8-1 | 3022272.16 | 674339.5272 | 5.5 | Th-230 | 2.1 | pCi/g | Pre |
| 345-I8-1 | 3022272.16 | 674339.5272 | 5.5 | U-233/234 | 44.9 | pCi/g | Pre |
| 345-I8-1 | 3022272.16 | 674339.5272 | 5.5 | U-238 | 2 | pCi/g | Pre |
| 345-I8-2 | 3022272.16 | 674339.5272 | 6.5 | Am-241 | -0.14 | pCi/g | Pre |
| 345-I8-2 | 3022272.16 | 674339.5272 | 6.5 | Th-232 | 1 | pCi/g | Pre |
| 345-I8-2 | 3022272.16 | 674339.5272 | 6.5 | U-235 | 0.1 | pCi/g | Pre |
| 345-I8-2 | 3022272.16 | 674339.5272 | 6.5 | Pu-238 | 0 | pCi/g | Pre |
| 345-I8-2 | 3022272.16 | 674339.5272 | 6.5 | Pu-239/240 | 0 | pCi/g | Pre |
| 345-I8-2 | 3022272.16 | 674339.5272 | 6.5 | Pu-241 | 0 | pCi/g | Pre |
| 345-I8-2 | 3022272.16 | 674339.5272 | 6.5 | Pu-242 | 0 | pCi/g | Pre |
| 345-I8-2 | 3022272.16 | 674339.5272 | 6.5 | Tc-99 | -0.5 | pCi/g | Pre |
| 345-I8-2 | 3022272.16 | 674339.5272 | 6.5 | Th-230 | 0.6 | pCi/g | Pre |
| 345-I8-2 | 3022272.16 | 674339.5272 | 6.5 | U-233/234 | 1.7 | pCi/g | Pre |
| 345-I8-2 | 3022272.16 | 674339.5272 | 6.5 | U-238 | 0.7 | pCi/g | Pre |
| 385-E2-1 | 3022228.658 | 674314.9262 | 5.5 | Am-241 | 6.93 | pCi/g | Pre |
| 385-E2-1 | 3022228.658 | 674314.9262 | 5.5 | Th-232 | 11.4 | pCi/g | Pre |
| 385-E2-1 | 3022228.658 | 674314.9262 | 5.5 | U-235 | 7.9 | pCi/g | Pre |
| 385-E2-1 | 3022228.658 | 674314.9262 | 5.5 | Pu-238 | 3.39 | pCi/g | Pre |
| 385-E2-1 | 3022228.658 | 674314.9262 | 5.5 | Pu-239/240 | 47.94 | pCi/g | Pre |
| 385-E2-1 | 3022228.658 | 674314.9262 | 5.5 | Pu-241 | 78.61 | pCi/g | Pre |
| 385-E2-1 | 3022228.658 | 674314.9262 | 5.5 | Pu-242 | 0 | pCi/g | Pre |

## Historical Dataset, Survey Unit 8

| Sample ID# | Sample Location | | Sample Depth (ft) | Contaminant Name | Analytical Result | Units | Period |
|---|---|---|---|---|---|---|---|
| | Easting | Northing | | | | | |
| 385-E2-1 | 3022228.658 | 674314.9262 | 5.5 | Tc-99 | 9.2 | pCi/g | Pre |
| 385-E2-1 | 3022228.658 | 674314.9262 | 5.5 | Th-230 | 5.4 | pCi/g | Pre |
| 385-E2-1 | 3022228.658 | 674314.9262 | 5.5 | U-233/234 | 243.9 | pCi/g | Pre |
| 385-E2-1 | 3022228.658 | 674314.9262 | 5.5 | U-238 | 10.6 | pCi/g | Pre |
| 385-E2-2 | 3022228.658 | 674314.9262 | 6.5 | Am-241 | 0.14 | pCi/g | Pre |
| 385-E2-2 | 3022228.658 | 674314.9262 | 6.5 | Th-232 | 1.4 | pCi/g | Pre |
| 385-E2-2 | 3022228.658 | 674314.9262 | 6.5 | U-235 | 0.6 | pCi/g | Pre |
| 385-E2-2 | 3022228.658 | 674314.9262 | 6.5 | Pu-238 | 0.02 | pCi/g | Pre |
| 385-E2-2 | 3022228.658 | 674314.9262 | 6.5 | Pu-239/240 | 0.38 | pCi/g | Pre |
| 385-E2-2 | 3022228.658 | 674314.9262 | 6.5 | Pu-241 | 0.62 | pCi/g | Pre |
| 385-E2-2 | 3022228.658 | 674314.9262 | 6.5 | Pu-242 | 0 | pCi/g | Pre |
| 385-E2-2 | 3022228.658 | 674314.9262 | 6.5 | Tc-99 | 2.7 | pCi/g | Pre |
| 385-E2-2 | 3022228.658 | 674314.9262 | 6.5 | Th-230 | 0.9 | pCi/g | Pre |
| 385-E2-2 | 3022228.658 | 674314.9262 | 6.5 | U-233/234 | 16.3 | pCi/g | Pre |
| 385-E2-2 | 3022228.658 | 674314.9262 | 6.5 | U-238 | 3 | pCi/g | Pre |
| 385-I8-1 | 3022252.277 | 674313.4252 | 5.5 | Am-241 | 2.09 | pCi/g | Pre |
| 385-I8-1 | 3022252.277 | 674313.4252 | 5.5 | Th-232 | 2.7 | pCi/g | Pre |
| 385-I8-1 | 3022252.277 | 674313.4252 | 5.5 | U-235 | 1.1 | pCi/g | Pre |
| 385-I8-1 | 3022252.277 | 674313.4252 | 5.5 | Pu-238 | 1.2 | pCi/g | Pre |
| 385-I8-1 | 3022252.277 | 674313.4252 | 5.5 | Pu-239/240 | 13 | pCi/g | Pre |
| 385-I8-1 | 3022252.277 | 674313.4252 | 5.5 | Pu-241 | 21.32 | pCi/g | Pre |
| 385-I8-1 | 3022252.277 | 674313.4252 | 5.5 | Pu-242 | 0 | pCi/g | Pre |
| 385-I8-1 | 3022252.277 | 674313.4252 | 5.5 | Tc-99 | 0.8 | pCi/g | Pre |
| 385-I8-1 | 3022252.277 | 674313.4252 | 5.5 | Th-230 | 1.6 | pCi/g | Pre |
| 385-I8-1 | 3022252.277 | 674313.4252 | 5.5 | U-233/234 | 49 | pCi/g | Pre |
| 385-I8-1 | 3022252.277 | 674313.4252 | 5.5 | U-238 | 1.9 | pCi/g | Pre |
| 385-I8-2 | 3022252.277 | 674313.4252 | 6.5 | Am-241 | 0.07 | pCi/g | Pre |
| 385-I8-2 | 3022252.277 | 674313.4252 | 6.5 | Th-232 | 0.6 | pCi/g | Pre |
| 385-I8-2 | 3022252.277 | 674313.4252 | 6.5 | U-235 | 0 | pCi/g | Pre |
| 385-I8-2 | 3022252.277 | 674313.4252 | 6.5 | Pu-238 | 0.01 | pCi/g | Pre |
| 385-I8-2 | 3022252.277 | 674313.4252 | 6.5 | Pu-239/240 | 0.2 | pCi/g | Pre |
| 385-I8-2 | 3022252.277 | 674313.4252 | 6.5 | Pu-241 | 0.34 | pCi/g | Pre |
| 385-I8-2 | 3022252.277 | 674313.4252 | 6.5 | Pu-242 | 0 | pCi/g | Pre |
| 385-I8-2 | 3022252.277 | 674313.4252 | 6.5 | Tc-99 | -1.4 | pCi/g | Pre |
| 385-I8-2 | 3022252.277 | 674313.4252 | 6.5 | Th-230 | 0.4 | pCi/g | Pre |
| 385-I8-2 | 3022252.277 | 674313.4252 | 6.5 | U-233/234 | 0.2 | pCi/g | Pre |
| 385-I8-2 | 3022252.277 | 674313.4252 | 6.5 | U-238 | 0.1 | pCi/g | Pre |
| 425-I8-1 | 3022232.395 | 674287.3232 | 5.5 | Am-241 | 2.43 | pCi/g | Pre |
| 425-I8-1 | 3022232.395 | 674287.3232 | 5.5 | Th-232 | 3.2 | pCi/g | Pre |
| 425-I8-1 | 3022232.395 | 674287.3232 | 5.5 | U-235 | 1.6 | pCi/g | Pre |
| 425-I8-1 | 3022232.395 | 674287.3232 | 5.5 | Pu-238 | 0.44 | pCi/g | Pre |
| 425-I8-1 | 3022232.395 | 674287.3232 | 5.5 | Pu-239/240 | 6.68 | pCi/g | Pre |
| 425-I8-1 | 3022232.395 | 674287.3232 | 5.5 | Pu-241 | 10.95 | pCi/g | Pre |
| 425-I8-1 | 3022232.395 | 674287.3232 | 5.5 | Pu-242 | 0 | pCi/g | Pre |
| 425-I8-1 | 3022232.395 | 674287.3232 | 5.5 | Tc-99 | 2.1 | pCi/g | Pre |
| 425-I8-1 | 3022232.395 | 674287.3232 | 5.5 | Th-230 | 1.8 | pCi/g | Pre |
| 425-I8-1 | 3022232.395 | 674287.3232 | 5.5 | U-233/234 | 42.1 | pCi/g | Pre |
| 425-I8-1 | 3022232.395 | 674287.3232 | 5.5 | U-238 | 5.7 | pCi/g | Pre |
| 425-I8-2 | 3022232.395 | 674287.3232 | 6.5 | Am-241 | 0.32 | pCi/g | Pre |
| 425-I8-2 | 3022232.395 | 674287.3232 | 6.5 | Th-232 | 0.4 | pCi/g | Pre |
| 425-I8-2 | 3022232.395 | 674287.3232 | 6.5 | U-235 | 0.2 | pCi/g | Pre |
| 425-I8-2 | 3022232.395 | 674287.3232 | 6.5 | Pu-238 | 0.06 | pCi/g | Pre |
| 425-I8-2 | 3022232.395 | 674287.3232 | 6.5 | Pu-239/240 | 0.87 | pCi/g | Pre |
| 425-I8-2 | 3022232.395 | 674287.3232 | 6.5 | Pu-241 | 1.42 | pCi/g | Pre |

## Historical Dataset, Survey Unit 8

| Sample ID# | Sample Location | | Sample Depth (ft) | Contaminant Name | Analytical Result | Units | Period |
|---|---|---|---|---|---|---|---|
| | Easting | Northing | | | | | |
| 425-I8-2 | 3022232.395 | 674287.3232 | 6.5 | Pu-242 | 0 | | Pre |
| 425-I8-2 | 3022232.395 | 674287.3232 | 6.5 | Tc-99 | 0 | | Pre |
| 425-I8-2 | 3022232.395 | 674287.3232 | 6.5 | Th-230 | 0.3 | | Pre |
| 425-I8-2 | 3022232.395 | 674287.3232 | 6.5 | U-233/234 | 4.3 | | Pre |
| 425-I8-2 | 3022232.395 | 674287.3232 | 6.5 | U-238 | 1.2 | | Pre |
| AOC5-SD-006 | 3022254.746 | 674381.6822 | 5.5 | Am-241 | 8.15 | | Pre |
| AOC5-SD-006 | 3022254.746 | 674381.6822 | 5.5 | Th-232 | 6.2 | | Pre |
| AOC5-SD-006 | 3022254.746 | 674381.6822 | 5.5 | U-235 | 1.3 | | Pre |
| AOC5-SD-006 | 3022254.746 | 674381.6822 | 5.5 | Pu-238 | 1.26 | | Pre |
| AOC5-SD-006 | 3022254.746 | 674381.6822 | 5.5 | Pu-239/240 | 22.4 | | Pre |
| AOC5-SD-006 | 3022254.746 | 674381.6822 | 5.5 | Pu-241 | 63.1 | | Pre |
| AOC5-SD-006 | 3022254.746 | 674381.6822 | 5.5 | Pu-242 | 0 | | Pre |
| AOC5-SD-006 | 3022254.746 | 674381.6822 | 5.5 | Tc-99 | 5.7 | | Pre |
| AOC5-SD-006 | 3022254.746 | 674381.6822 | 5.5 | Th-230 | 2.8 | | Pre |
| AOC5-SD-006 | 3022254.746 | 674381.6822 | 5.5 | U-233/234 | 47.4 | | Pre |
| AOC5-SD-006 | 3022254.746 | 674381.6822 | 5.5 | U-238 | 12.1 | | Pre |

# Appendix A.3

# Historical Dataset, Survey Unit 9

## Historical Dataset, Survey Unit 9

| Sample ID# | Sample Location | | Sample Depth (ft) | Contaminant Name | Analytical Result | Units | Period |
|---|---|---|---|---|---|---|---|
| | Easting | Northing | | | | | |
| 07-S-002 | 3022184.775 | 674327.7491 | 7.0 | Am-241 | 2.21 | pCi/g | Pre |
| 07-S-002 | 3022184.775 | 674327.7491 | 7.0 | Pu-238 | 0.49 | pCi/g | Pre |
| 07-S-002 | 3022184.775 | 674327.7491 | 7.0 | Pu-239/240 | 12.25 | pCi/g | Pre |
| 07-S-002 | 3022184.775 | 674327.7491 | 7.0 | Pu-241 | 20.08 | pCi/g | Pre |
| 07-S-002 | 3022184.775 | 674327.7491 | 7.0 | Pu-242 | 0.03 | pCi/g | Pre |
| 07-S-002 | 3022184.775 | 674327.7491 | 7.0 | Tc-99 | 4.1 | pCi/g | Pre |
| 07-S-002 | 3022184.775 | 674327.7491 | 7.0 | Th-230 | 1.7 | pCi/g | Pre |
| 07-S-002 | 3022184.775 | 674327.7491 | 7.0 | Th-232 | 3.2 | pCi/g | Pre |
| 07-S-002 | 3022184.775 | 674327.7491 | 7.0 | U-233/234 | 66 | pCi/g | Pre |
| 07-S-002 | 3022184.775 | 674327.7491 | 7.0 | U-235 | 2.2 | pCi/g | Pre |
| 07-S-002 | 3022184.775 | 674327.7491 | 7.0 | U-238 | 9.3 | pCi/g | Pre |
| 07-S-003 | 3022184.775 | 674327.7491 | 8.0 | Am-241 | 19.2 | pCi/g | Pre |
| 07-S-003 | 3022184.775 | 674327.7491 | 10.0 | Pu-238 | 2.31 | pCi/g | Pre |
| 07-S-003 | 3022184.775 | 674327.7491 | 10.0 | Pu-239/240 | 69.6 | pCi/g | Pre |
| 07-S-003 | 3022184.775 | 674327.7491 | 10.0 | Pu-241 | 114.14 | pCi/g | Pre |
| 07-S-003 | 3022184.775 | 674327.7491 | 10.0 | Pu-242 | 0.07 | pCi/g | Pre |
| 07-S-003 | 3022184.775 | 674327.7491 | 10.0 | Tc-99 | 7.1 | pCi/g | Pre |
| 07-S-003 | 3022184.775 | 674327.7491 | 10.0 | Th-230 | 5.3 | pCi/g | Pre |
| 07-S-003 | 3022184.775 | 674327.7491 | 10.0 | Th-232 | 9.4 | pCi/g | Pre |
| 07-S-003 | 3022184.775 | 674327.7491 | 10.0 | U-233/234 | 405 | pCi/g | Pre |
| 07-S-003 | 3022184.775 | 674327.7491 | 10.0 | U-235 | 10.1 | pCi/g | Pre |
| 07-S-003 | 3022184.775 | 674327.7491 | 10.0 | U-238 | 85.8 | pCi/g | Pre |
| 07-S-004 | 3022184.775 | 674327.7491 | 11.0 | Am-241 | 9.58 | pCi/g | Pre |
| 07-S-004 | 3022184.775 | 674327.7491 | 11.0 | Pu-238 | 1.56 | pCi/g | Pre |
| 07-S-004 | 3022184.775 | 674327.7491 | 11.0 | Pu-239/240 | 37.9 | pCi/g | Pre |
| 07-S-004 | 3022184.775 | 674327.7491 | 11.0 | Pu-241 | 62.16 | pCi/g | Pre |
| 07-S-004 | 3022184.775 | 674327.7491 | 11.0 | Pu-242 | 0.02 | pCi/g | Pre |
| 07-S-004 | 3022184.775 | 674327.7491 | 11.0 | Tc-99 | 10.2 | pCi/g | Pre |
| 07-S-004 | 3022184.775 | 674327.7491 | 11.0 | Th-230 | 15.6 | pCi/g | Pre |
| 07-S-004 | 3022184.775 | 674327.7491 | 11.0 | Th-232 | 28.4 | pCi/g | Pre |
| 07-S-004 | 3022184.775 | 674327.7491 | 11.0 | U-233/234 | 828 | pCi/g | Pre |
| 07-S-004 | 3022184.775 | 674327.7491 | 11.0 | U-235 | 28.8 | pCi/g | Pre |
| 07-S-004 | 3022184.775 | 674327.7491 | 11.0 | U-238 | 111 | pCi/g | Pre |
| 07-S-006 | 3022167.001 | 674320.6691 | 7.0 | Am-241 | 1.1 | pCi/g | Pre |
| 07-S-006 | 3022167.001 | 674320.6691 | 7.0 | Pu-238 | 0.29 | pCi/g | Pre |
| 07-S-006 | 3022167.001 | 674320.6691 | 7.0 | Pu-239/240 | 3.44 | pCi/g | Pre |
| 07-S-006 | 3022167.001 | 674320.6691 | 7.0 | Pu-241 | 5.64 | pCi/g | Pre |
| 07-S-006 | 3022167.001 | 674320.6691 | 7.0 | Pu-242 | 0.09 | pCi/g | Pre |
| 07-S-006 | 3022167.001 | 674320.6691 | 7.0 | Tc-99 | 5.2 | pCi/g | Pre |
| 07-S-006 | 3022167.001 | 674320.6691 | 7.0 | Th-230 | 3.1 | pCi/g | Pre |
| 07-S-006 | 3022167.001 | 674320.6691 | 7.0 | Th-232 | 5.8 | pCi/g | Pre |
| 07-S-006 | 3022167.001 | 674320.6691 | 7.0 | U-233/234 | 131 | pCi/g | Pre |
| 07-S-006 | 3022167.001 | 674320.6691 | 7.0 | U-235 | 4.2 | pCi/g | Pre |
| 07-S-006 | 3022167.001 | 674320.6691 | 7.0 | U-238 | 15 | pCi/g | Pre |
| 07-S-007 | 3022167.001 | 674320.6691 | 10.0 | Am-241 | 0.3 | pCi/g | Pre |
| 07-S-007 | 3022167.001 | 674320.6691 | 10.0 | Pu-238 | 0.06 | pCi/g | Pre |
| 07-S-007 | 3022167.001 | 674320.6691 | 10.0 | Pu-239/240 | 0.54 | pCi/g | Pre |
| 07-S-007 | 3022167.001 | 674320.6691 | 10.0 | Pu-241 | 0.89 | pCi/g | Pre |
| 07-S-007 | 3022167.001 | 674320.6691 | 10.0 | Pu-242 | 0.01 | pCi/g | Pre |
| 07-S-007 | 3022167.001 | 674320.6691 | 10.0 | Tc-99 | 4 | pCi/g | Pre |
| 07-S-007 | 3022167.001 | 674320.6691 | 10.0 | Th-230 | 1 | pCi/g | Pre |
| 07-S-007 | 3022167.001 | 674320.6691 | 10.0 | Th-232 | 2 | pCi/g | Pre |
| 07-S-007 | 3022167.001 | 674320.6691 | 10.0 | U-233/234 | 60.3 | pCi/g | Pre |
| 07-S-007 | 3022167.001 | 674320.6691 | 10.0 | U-235 | 2 | pCi/g | Pre |

## Historical Dataset, Survey Unit 9

| Sample ID# | Sample Location | | Sample Depth (ft) | Contaminant Name | Analytical Result | Units | Period |
|---|---|---|---|---|---|---|---|
| | Easting | Northing | | | | | |
| 07-S-007 | 3022167.001 | 674320.6691 | 10.0 | U-238 | 7.5 | pCi/g | Pre |
| 07-S-008 | 3022167.001 | 674320.6691 | 11.0 | Am-241 | 52.3 | pCi/g | Pre |
| 07-S-008 | 3022167.001 | 674320.6691 | 11.0 | Pu-238 | 7.97 | pCi/g | Pre |
| 07-S-008 | 3022167.001 | 674320.6691 | 11.0 | Pu-239/240 | 226 | pCi/g | Pre |
| 07-S-008 | 3022167.001 | 674320.6691 | 11.0 | Pu-241 | 370.64 | pCi/g | Pre |
| 07-S-008 | 3022167.001 | 674320.6691 | 11.0 | Pu-242 | 0.08 | pCi/g | Pre |
| 07-S-008 | 3022167.001 | 674320.6691 | 11.0 | Tc-99 | 9.5 | pCi/g | Pre |
| 07-S-008 | 3022167.001 | 674320.6691 | 11.0 | Th-230 | 14.6 | pCi/g | Pre |
| 07-S-008 | 3022167.001 | 674320.6691 | 11.0 | Th-232 | 25.8 | pCi/g | Pre |
| 07-S-008 | 3022167.001 | 674320.6691 | 11.0 | U-233/234 | 661 | pCi/g | Pre |
| 07-S-008 | 3022167.001 | 674320.6691 | 11.0 | U-235 | 23.5 | pCi/g | Pre |
| 07-S-008 | 3022167.001 | 674320.6691 | 9.0 | U-238 | 101 | pCi/g | Pre |
| 07-S-010 | 3022168.869 | 674306.8676 | 7.0 | Am-241 | 8.89 | pCi/g | Pre |
| 07-S-010 | 3022168.869 | 674306.8676 | 7.0 | Pu-238 | 3.21 | pCi/g | Pre |
| 07-S-010 | 3022168.869 | 674306.8676 | 7.0 | Pu-239/240 | 90.3 | pCi/g | Pre |
| 07-S-010 | 3022168.869 | 674306.8676 | 7.0 | Pu-241 | 148.09 | pCi/g | Pre |
| 07-S-010 | 3022168.869 | 674306.8676 | 7.0 | Pu-242 | 0.04 | pCi/g | Pre |
| 07-S-010 | 3022168.869 | 674306.8676 | 7.0 | Tc-99 | 4.2 | pCi/g | Pre |
| 07-S-010 | 3022168.869 | 674306.8676 | 7.0 | Th-230 | 1.4 | pCi/g | Pre |
| 07-S-010 | 3022168.869 | 674306.8676 | 7.0 | Th-232 | 2.2 | pCi/g | Pre |
| 07-S-010 | 3022168.869 | 674306.8676 | 7.0 | U-233/234 | 64.7 | pCi/g | Pre |
| 07-S-010 | 3022168.869 | 674306.8676 | 7.0 | U-235 | 2.3 | pCi/g | Pre |
| 07-S-010 | 3022168.869 | 674306.8676 | 7.0 | U-238 | 10.2 | pCi/g | Pre |
| 07-S-011 | 3022168.869 | 674306.8676 | 10.0 | Am-241 | 1.86 | pCi/g | Pre |
| 07-S-011 | 3022168.869 | 674306.8676 | 10.0 | Pu-238 | 0.27 | pCi/g | Pre |
| 07-S-011 | 3022168.869 | 674306.8676 | 10.0 | Pu-239/240 | 2.94 | pCi/g | Pre |
| 07-S-011 | 3022168.869 | 674306.8676 | 10.0 | Pu-241 | 4.82 | pCi/g | Pre |
| 07-S-011 | 3022168.869 | 674306.8676 | 10.0 | Pu-242 | 0.06 | pCi/g | Pre |
| 07-S-011 | 3022168.869 | 674306.8676 | 10.0 | Tc-99 | 9.9 | pCi/g | Pre |
| 07-S-011 | 3022168.869 | 674306.8676 | 10.0 | Th-230 | 3.9 | pCi/g | Pre |
| 07-S-011 | 3022168.869 | 674306.8676 | 10.0 | Th-232 | 11.8 | pCi/g | Pre |
| 07-S-011 | 3022168.869 | 674306.8676 | 10.0 | U-233/234 | 904 | pCi/g | Pre |
| 07-S-011 | 3022168.869 | 674306.8676 | 10.0 | U-235 | 26.1 | pCi/g | Pre |
| 07-S-011 | 3022168.869 | 674306.8676 | 10.0 | U-238 | 97.2 | pCi/g | Pre |
| 07-S-013 | 3022154.951 | 674288.5962 | 7.0 | Am-241 | 1.16 | pCi/g | Pre |
| 07-S-013 | 3022154.951 | 674288.5962 | 7.0 | Pu-238 | 0.2 | pCi/g | Pre |
| 07-S-013 | 3022154.951 | 674288.5962 | 7.0 | Pu-239/240 | 4.27 | pCi/g | Pre |
| 07-S-013 | 3022154.951 | 674288.5962 | 7.0 | Pu-241 | 7 | pCi/g | Pre |
| 07-S-013 | 3022154.951 | 674288.5962 | 7.0 | Pu-242 | 0.01 | pCi/g | Pre |
| 07-S-013 | 3022154.951 | 674288.5962 | 7.0 | Tc-99 | 5.7 | pCi/g | Pre |
| 07-S-013 | 3022154.951 | 674288.5962 | 7.0 | Th-230 | 5.4 | pCi/g | Pre |
| 07-S-013 | 3022154.951 | 674288.5962 | 7.0 | Th-232 | 7.1 | pCi/g | Pre |
| 07-S-013 | 3022154.951 | 674288.5962 | 7.0 | U-233/234 | 199 | pCi/g | Pre |
| 07-S-013 | 3022154.951 | 674288.5962 | 7.0 | U-235 | 5.6 | pCi/g | Pre |
| 07-S-013 | 3022154.951 | 674288.5962 | 7.0 | U-238 | 27.2 | pCi/g | Pre |
| 07-S-014 | 3022154.951 | 674288.5962 | 10.0 | Am-241 | 1.47 | pCi/g | Pre |
| 07-S-014 | 3022154.951 | 674288.5962 | 10.0 | Pu-238 | 0.36 | pCi/g | Pre |
| 07-S-014 | 3022154.951 | 674288.5962 | 10.0 | Pu-239/240 | 4.2 | pCi/g | Pre |
| 07-S-014 | 3022154.951 | 674288.5962 | 10.0 | Pu-241 | 6.89 | pCi/g | Pre |
| 07-S-014 | 3022154.951 | 674288.5962 | 10.0 | Pu-242 | 0.05 | pCi/g | Pre |
| 07-S-014 | 3022154.951 | 674288.5962 | 10.0 | Tc-99 | 6.6 | pCi/g | Pre |
| 07-S-014 | 3022154.951 | 674288.5962 | 10.0 | Th-230 | 4.6 | pCi/g | Pre |
| 07-S-014 | 3022154.951 | 674288.5962 | 10.0 | Th-232 | 7 | pCi/g | Pre |
| 07-S-014 | 3022154.951 | 674288.5962 | 10.0 | U-233/234 | 179 | pCi/g | Pre |

## Historical Dataset, Survey Unit 9

| Sample ID# | Sample Location | | Sample Depth (ft) | Contaminant Name | Analytical Result | Units | Period |
|---|---|---|---|---|---|---|---|
| | Easting | Northing | | | | | |
| 07-S-014 | 3022154.951 | 674288.5962 | 10.0 | U-235 | 8.2 | pCi/g | Pre |
| 07-S-014 | 3022154.951 | 674288.5962 | 10.0 | U-238 | 21.1 | pCi/g | Pre |
| 07-S-016 | 3022152.843 | 674269.5743 | 7.0 | Am-241 | 0.16 | pCi/g | Pre |
| 07-S-016 | 3022152.843 | 674269.5743 | 7.0 | Pu-238 | 0.05 | pCi/g | Pre |
| 07-S-016 | 3022152.843 | 674269.5743 | 7.0 | Pu-239/240 | 0.63 | pCi/g | Pre |
| 07-S-016 | 3022152.843 | 674269.5743 | 7.0 | Pu-241 | 1.03 | pCi/g | Pre |
| 07-S-016 | 3022152.843 | 674269.5743 | 7.0 | Pu-242 | 0.04 | pCi/g | Pre |
| 07-S-016 | 3022152.843 | 674269.5743 | 7.0 | Tc-99 | 4.6 | pCi/g | Pre |
| 07-S-016 | 3022152.843 | 674269.5743 | 7.0 | Th-230 | 1 | pCi/g | Pre |
| 07-S-016 | 3022152.843 | 674269.5743 | 7.0 | Th-232 | 1.2 | pCi/g | Pre |
| 07-S-016 | 3022152.843 | 674269.5743 | 7.0 | U-233/234 | 62 | pCi/g | Pre |
| 07-S-016 | 3022152.843 | 674269.5743 | 7.0 | U-235 | 2.9 | pCi/g | Pre |
| 07-S-016 | 3022152.843 | 674269.5743 | 7.0 | U-238 | 9.5 | pCi/g | Pre |
| 07-S-017 | 3022152.843 | 674269.5743 | 10.0 | Am-241 | 0.36 | pCi/g | Pre |
| 07-S-017 | 3022152.843 | 674269.5743 | 10.0 | Pu-238 | 0.07 | pCi/g | Pre |
| 07-S-017 | 3022152.843 | 674269.5743 | 10.0 | Pu-239/240 | 1.07 | pCi/g | Pre |
| 07-S-017 | 3022152.843 | 674269.5743 | 10.0 | Pu-241 | 1.75 | pCi/g | Pre |
| 07-S-017 | 3022152.843 | 674269.5743 | 10.0 | Pu-242 | 0.05 | pCi/g | Pre |
| 07-S-017 | 3022152.843 | 674269.5743 | 10.0 | Tc-99 | 6.2 | pCi/g | Pre |
| 07-S-017 | 3022152.843 | 674269.5743 | 10.0 | Th-230 | 1.3 | pCi/g | Pre |
| 07-S-017 | 3022152.843 | 674269.5743 | 10.0 | Th-232 | 2.3 | pCi/g | Pre |
| 07-S-017 | 3022152.843 | 674269.5743 | 10.0 | U-233/234 | 229 | pCi/g | Pre |
| 07-S-017 | 3022152.843 | 674269.5743 | 10.0 | U-235 | 6.8 | pCi/g | Pre |
| 07-S-017 | 3022152.843 | 674269.5743 | 10.0 | U-238 | 29.3 | pCi/g | Pre |
| 07-S-018 | 3022152.843 | 674269.5743 | 11.0 | Am-241 | 0.37 | pCi/g | Pre |
| 07-S-018 | 3022152.843 | 674269.5743 | 11.0 | Pu-238 | 0.19 | pCi/g | Pre |
| 07-S-018 | 3022152.843 | 674269.5743 | 11.0 | Pu-239/240 | 1.9 | pCi/g | Pre |
| 07-S-018 | 3022152.843 | 674269.5743 | 11.0 | Pu-241 | 3.12 | pCi/g | Pre |
| 07-S-018 | 3022152.843 | 674269.5743 | 11.0 | Pu-242 | 0.04 | pCi/g | Pre |
| 07-S-018 | 3022152.843 | 674269.5743 | 11.0 | Tc-99 | 2.9 | pCi/g | Pre |
| 07-S-018 | 3022152.843 | 674269.5743 | 11.0 | Th-230 | 0.8 | pCi/g | Pre |
| 07-S-018 | 3022152.843 | 674269.5743 | 11.0 | Th-232 | 1.5 | pCi/g | Pre |
| 07-S-018 | 3022152.843 | 674269.5743 | 11.0 | U-233/234 | 86.4 | pCi/g | Pre |
| 07-S-018 | 3022152.843 | 674269.5743 | 11.0 | U-235 | 0.8 | pCi/g | Pre |
| 07-S-018 | 3022152.843 | 674269.5743 | 11.0 | U-238 | 16.3 | pCi/g | Pre |
| 07-S-020 | 3022134.326 | 674250.683 | 7.0 | Am-241 | 1.91 | pCi/g | Pre |
| 07-S-020 | 3022134.326 | 674250.683 | 7.0 | Pu-238 | 0.25 | pCi/g | Pre |
| 07-S-020 | 3022134.326 | 674250.683 | 7.0 | Pu-239/240 | 4.76 | pCi/g | Pre |
| 07-S-020 | 3022134.326 | 674250.683 | 7.0 | Pu-241 | 7.81 | pCi/g | Pre |
| 07-S-020 | 3022134.326 | 674250.683 | 7.0 | Pu-242 | 0.04 | pCi/g | Pre |
| 07-S-020 | 3022134.326 | 674250.683 | 7.0 | Tc-99 | 7.5 | pCi/g | Pre |
| 07-S-020 | 3022134.326 | 674250.683 | 7.0 | Th-230 | 2.9 | pCi/g | Pre |
| 07-S-020 | 3022134.326 | 674250.683 | 7.0 | Th-232 | 4.4 | pCi/g | Pre |
| 07-S-020 | 3022134.326 | 674250.683 | 7.0 | U-233/234 | 346 | pCi/g | Pre |
| 07-S-020 | 3022134.326 | 674250.683 | 7.0 | U-235 | 11.9 | pCi/g | Pre |
| 07-S-020 | 3022134.326 | 674250.683 | 7.0 | U-238 | 55.6 | pCi/g | Pre |
| 07-S-021 | 3022134.326 | 674250.683 | 10.0 | Am-241 | 12.3 | pCi/g | Pre |
| 07-S-021 | 3022134.326 | 674250.683 | 10.0 | Pu-238 | 1.65 | pCi/g | Pre |
| 07-S-021 | 3022134.326 | 674250.683 | 10.0 | Pu-239/240 | 45.2 | pCi/g | Pre |
| 07-S-021 | 3022134.326 | 674250.683 | 10.0 | Pu-241 | 74.13 | pCi/g | Pre |
| 07-S-021 | 3022134.326 | 674250.683 | 10.0 | Pu-242 | 0.03 | pCi/g | Pre |
| 07-S-021 | 3022134.326 | 674250.683 | 10.0 | Tc-99 | 11.4 | pCi/g | Pre |
| 07-S-021 | 3022134.326 | 674250.683 | 10.0 | Th-230 | 7.7 | pCi/g | Pre |
| 07-S-021 | 3022134.326 | 674250.683 | 10.0 | Th-232 | 17.6 | pCi/g | Pre |

## Historical Dataset, Survey Unit 9

| Sample ID# | Sample Location | | Sample Depth (ft) | Contaminant Name | Analytical Result | Units | Period |
|---|---|---|---|---|---|---|---|
| | Easting | Northing | | | | | |
| 07-S-021 | 3022134.326 | 674250.683 | 10.0 | U-233/234 | 695 | pCi/g | Pre |
| 07-S-021 | 3022134.326 | 674250.683 | 10.0 | U-235 | 39.7 | pCi/g | Pre |
| 07-S-021 | 3022134.326 | 674250.683 | 10.0 | U-238 | 75.3 | pCi/g | Pre |
| 07-S-021A | 3022134.326 | 674250.683 | 11.0 | Am-241 | 0.6 | pCi/g | Pre |
| 07-S-021A | 3022134.326 | 674250.683 | 11.0 | Pu-238 | 0.25 | pCi/g | Pre |
| 07-S-021A | 3022134.326 | 674250.683 | 11.0 | Pu-239/240 | 3.74 | pCi/g | Pre |
| 07-S-021A | 3022134.326 | 674250.683 | 11.0 | Pu-241 | 6.13 | pCi/g | Pre |
| 07-S-021A | 3022134.326 | 674250.683 | 11.0 | Pu-242 | 0.02 | pCi/g | Pre |
| 07-S-021A | 3022134.326 | 674250.683 | 11.0 | Tc-99 | 7.8 | pCi/g | Pre |
| 07-S-021A | 3022134.326 | 674250.683 | 11.0 | Th-230 | 1.4 | pCi/g | Pre |
| 07-S-021A | 3022134.326 | 674250.683 | 11.0 | Th-232 | 2.8 | pCi/g | Pre |
| 07-S-021A | 3022134.326 | 674250.683 | 11.0 | U-233/234 | 259 | pCi/g | Pre |
| 07-S-021A | 3022134.326 | 674250.683 | 11.0 | U-235 | 13.3 | pCi/g | Pre |
| 07-S-021A | 3022134.326 | 674250.683 | 11.0 | U-238 | 24.3 | pCi/g | Pre |
| 07-S-023 | 3022132.218 | 674231.6611 | 7.0 | Am-241 | 2.92 | pCi/g | Pre |
| 07-S-023 | 3022132.218 | 674231.6611 | 7.0 | Pu-238 | 1.11 | pCi/g | Pre |
| 07-S-023 | 3022132.218 | 674231.6611 | 7.0 | Pu-239/240 | 26.2 | pCi/g | Pre |
| 07-S-023 | 3022132.218 | 674231.6611 | 7.0 | Pu-241 | 42.97 | pCi/g | Pre |
| 07-S-023 | 3022132.218 | 674231.6611 | 7.0 | Pu-242 | 0.03 | pCi/g | Pre |
| 07-S-023 | 3022132.218 | 674231.6611 | 7.0 | Tc-99 | 4.8 | pCi/g | Pre |
| 07-S-023 | 3022132.218 | 674231.6611 | 7.0 | Th-230 | 21.4 | pCi/g | Pre |
| 07-S-023 | 3022132.218 | 674231.6611 | 7.0 | Th-232 | 11 | pCi/g | Pre |
| 07-S-023 | 3022132.218 | 674231.6611 | 7.0 | U-233/234 | 88 | pCi/g | Pre |
| 07-S-023 | 3022132.218 | 674231.6611 | 7.0 | U-235 | 3.4 | pCi/g | Pre |
| 07-S-023 | 3022132.218 | 674231.6611 | 7.0 | U-238 | 16.2 | pCi/g | Pre |
| 462-I8-2 | 3022134.184 | 674320.9303 | 7.0 | Am-241 | -0.04 | pCi/g | Pre |
| 462-I8-2 | 3022134.184 | 674320.9303 | 7.0 | Pu-238 | 0 | pCi/g | Pre |
| 462-I8-2 | 3022134.184 | 674320.9303 | 7.0 | Pu-239/240 | 0 | pCi/g | Pre |
| 462-I8-2 | 3022134.184 | 674320.9303 | 7.0 | Pu-241 | 0 | pCi/g | Pre |
| 462-I8-2 | 3022134.184 | 674320.9303 | 7.0 | Pu-242 | 0 | pCi/g | Pre |
| 462-I8-2 | 3022134.184 | 674320.9303 | 7.0 | Tc-99 | 0.1 | pCi/g | Pre |
| 462-I8-2 | 3022134.184 | 674320.9303 | 7.0 | Th-230 | 0.7 | pCi/g | Pre |
| 462-I8-2 | 3022134.184 | 674320.9303 | 7.0 | Th-232 | 1.1 | pCi/g | Pre |
| 462-I8-2 | 3022134.184 | 674320.9303 | 7.0 | U-233/234 | 5 | pCi/g | Pre |
| 462-I8-2 | 3022134.184 | 674320.9303 | 7.0 | U-235 | 0.2 | pCi/g | Pre |
| 462-I8-2 | 3022134.184 | 674320.9303 | 7.0 | U-238 | 1.3 | pCi/g | Pre |
| 501-I8-2 | 3022114.301 | 674294.8283 | 7.0 | Am-241 | 0.15 | pCi/g | Pre |
| 501-I8-2 | 3022114.301 | 674294.8283 | 7.0 | Pu-238 | 0.03 | pCi/g | Pre |
| 501-I8-2 | 3022114.301 | 674294.8283 | 7.0 | Pu-239/240 | 0.41 | pCi/g | Pre |
| 501-I8-2 | 3022114.301 | 674294.8283 | 7.0 | Pu-241 | 0.67 | pCi/g | Pre |
| 501-I8-2 | 3022114.301 | 674294.8283 | 7.0 | Pu-242 | 0 | pCi/g | Pre |
| 501-I8-2 | 3022114.301 | 674294.8283 | 7.0 | Tc-99 | 0.8 | pCi/g | Pre |
| 501-I8-2 | 3022114.301 | 674294.8283 | 7.0 | Th-230 | 0.8 | pCi/g | Pre |
| 501-I8-2 | 3022114.301 | 674294.8283 | 7.0 | Th-232 | 1.3 | pCi/g | Pre |
| 501-I8-2 | 3022114.301 | 674294.8283 | 7.0 | U-233/234 | 0.5 | pCi/g | Pre |
| 501-I8-2 | 3022114.301 | 674294.8283 | 7.0 | U-235 | 0 | pCi/g | Pre |
| 501-I8-2 | 3022114.301 | 674294.8283 | 7.0 | U-238 | 0.3 | pCi/g | Pre |
| 502-C2-2 | 3022112.816 | 674271.2059 | 7.0 | Am-241 | -0.06 | pCi/g | Pre |
| 502-C2-2 | 3022112.816 | 674271.2059 | 7.0 | Pu-238 | 0 | pCi/g | Pre |
| 502-C2-2 | 3022112.816 | 674271.2059 | 7.0 | Pu-239/240 | 0 | pCi/g | Pre |
| 502-C2-2 | 3022112.816 | 674271.2059 | 7.0 | Pu-241 | 0 | pCi/g | Pre |
| 502-C2-2 | 3022112.816 | 674271.2059 | 7.0 | Pu-242 | 0 | pCi/g | Pre |
| 502-C2-2 | 3022112.816 | 674271.2059 | 7.0 | Tc-99 | 1.7 | pCi/g | Pre |
| 502-C2-2 | 3022112.816 | 674271.2059 | 7.0 | Th-230 | 0.7 | pCi/g | Pre |

## Historical Dataset, Survey Unit 9

| Sample ID# | Sample Location | | Sample Depth (ft) | Contaminant Name | Analytical Result | Units | Period |
|---|---|---|---|---|---|---|---|
| | Easting | Northing | | | | | |
| 502-C2-2 | 3022112.816 | 674271.2059 | 7.0 | Th-232 | 1 | pCi/g | Pre |
| 502-C2-2 | 3022112.816 | 674271.2059 | 7.0 | U-233/234 | 4.3 | pCi/g | Pre |
| 502-C2-2 | 3022112.816 | 674271.2059 | 7.0 | U-235 | 0.2 | pCi/g | Pre |
| 502-C2-2 | 3022112.816 | 674271.2059 | 7.0 | U-238 | 1.2 | pCi/g | Pre |
| 541-C2-2 | 3022092.933 | 674245.1039 | 7.0 | Am-241 | 0.01 | pCi/g | Pre |
| 541-C2-2 | 3022092.933 | 674245.1039 | 7.0 | Pu-238 | 0 | pCi/g | Pre |
| 541-C2-2 | 3022092.933 | 674245.1039 | 7.0 | Pu-239/240 | 0.03 | pCi/g | Pre |
| 541-C2-2 | 3022092.933 | 674245.1039 | 7.0 | Pu-241 | 0.05 | pCi/g | Pre |
| 541-C2-2 | 3022092.933 | 674245.1039 | 7.0 | Pu-242 | 0 | pCi/g | Pre |
| 541-C2-2 | 3022092.933 | 674245.1039 | 7.0 | Tc-99 | 1.5 | pCi/g | Pre |
| 541-C2-2 | 3022092.933 | 674245.1039 | 7.0 | Th-230 | 0.4 | pCi/g | Pre |
| 541-C2-2 | 3022092.933 | 674245.1039 | 7.0 | Th-232 | 0.6 | pCi/g | Pre |
| 541-C2-2 | 3022092.933 | 674245.1039 | 7.0 | U-233/234 | 3.3 | pCi/g | Pre |
| 541-C2-2 | 3022092.933 | 674245.1039 | 7.0 | U-235 | 0.1 | pCi/g | Pre |
| 541-C2-2 | 3022092.933 | 674245.1039 | 7.0 | U-238 | 1 | pCi/g | Pre |
| 541-H3-2 | 3022105.485 | 674256.1646 | 7.0 | Am-241 | -0.05 | pCi/g | Pre |
| 541-H3-2 | 3022105.485 | 674256.1646 | 7.0 | Pu-238 | 0 | pCi/g | Pre |
| 541-H3-2 | 3022105.485 | 674256.1646 | 7.0 | Pu-239/240 | 0 | pCi/g | Pre |
| 541-H3-2 | 3022105.485 | 674256.1646 | 7.0 | Pu-241 | 0 | pCi/g | Pre |
| 541-H3-2 | 3022105.485 | 674256.1646 | 7.0 | Pu-242 | 0 | pCi/g | Pre |
| 541-H3-2 | 3022105.485 | 674256.1646 | 7.0 | Tc-99 | 1.5 | pCi/g | Pre |
| 541-H3-2 | 3022105.485 | 674256.1646 | 7.0 | Th-230 | 0.3 | pCi/g | Pre |
| 541-H3-2 | 3022105.485 | 674256.1646 | 7.0 | Th-232 | 0.4 | pCi/g | Pre |
| 541-H3-2 | 3022105.485 | 674256.1646 | 7.0 | U-233/234 | 3.1 | pCi/g | Pre |
| 541-H3-2 | 3022105.485 | 674256.1646 | 7.0 | U-235 | 0.1 | pCi/g | Pre |
| 541-H3-2 | 3022105.485 | 674256.1646 | 7.0 | U-238 | 1 | pCi/g | Pre |
| 581-I4-2 | 3022090.202 | 674230.6825 | 7.0 | Am-241 | 0.12 | pCi/g | Pre |
| 581-I4-2 | 3022090.202 | 674230.6825 | 7.0 | Pu-238 | 0.02 | pCi/g | Pre |
| 581-I4-2 | 3022090.202 | 674230.6825 | 7.0 | Pu-239/240 | 0.32 | pCi/g | Pre |
| 581-I4-2 | 3022090.202 | 674230.6825 | 7.0 | Pu-241 | 0.52 | pCi/g | Pre |
| 581-I4-2 | 3022090.202 | 674230.6825 | 7.0 | Pu-242 | 0 | pCi/g | Pre |
| 581-I4-2 | 3022090.202 | 674230.6825 | 7.0 | Tc-99 | 1.4 | pCi/g | Pre |
| 581-I4-2 | 3022090.202 | 674230.6825 | 7.0 | Th-230 | 1 | pCi/g | Pre |
| 581-I4-2 | 3022090.202 | 674230.6825 | 7.0 | Th-232 | 1.7 | pCi/g | Pre |
| 581-I4-2 | 3022090.202 | 674230.6825 | 7.0 | U-233/234 | 2.5 | pCi/g | Pre |
| 581-I4-2 | 3022090.202 | 674230.6825 | 7.0 | U-235 | 0.1 | pCi/g | Pre |
| 581-I4-2 | 3022090.202 | 674230.6825 | 7.0 | U-238 | 0.8 | pCi/g | Pre |

# Appendix A.4

# Historical Dataset, Survey Unit 19

## Historical Dataset, Survey Unit 19

| Sample ID# | Sample Location | | Sample Depth (ft) | Contaminant Name | Analytical Result | Units | Period |
|---|---|---|---|---|---|---|---|
| | Easting | Northing | | | | | |
| 09-S4-017 | 3022341.859 | 673858.2655 | 0.5 | Am-241 | 0.47 | pCi/g | Pre |
| 09-S4-017 | 3022341.859 | 673858.2655 | 0.5 | Pu-238 | 0.28 | pCi/g | Pre |
| 09-S4-017 | 3022341.859 | 673858.2655 | 0.5 | Pu-239/240 | 1.29 | pCi/g | Pre |
| 09-S4-017 | 3022341.859 | 673858.2655 | 0.5 | Pu-241 | 4.2 | pCi/g | Pre |
| 09-S4-017 | 3022341.859 | 673858.2655 | 0.5 | Pu-242 | 0 | pCi/g | Pre |
| 09-S4-017 | 3022341.859 | 673858.2655 | 0.5 | Tc-99 | 2.7 | pCi/g | Pre |
| 09-S4-017 | 3022341.859 | 673858.2655 | 0.5 | Th-230 | 0.9 | pCi/g | Pre |
| 09-S4-017 | 3022341.859 | 673858.2655 | 0.5 | Th-232 | 1.3 | pCi/g | Pre |
| 09-S4-017 | 3022341.859 | 673858.2655 | 0.5 | U-233/234 | 3 | pCi/g | Pre |
| 09-S4-017 | 3022341.859 | 673858.2655 | 0.5 | U-235 | 0.1 | pCi/g | Pre |
| 09-S4-017 | 3022341.859 | 673858.2655 | 0.5 | U-238 | 1.2 | pCi/g | Pre |
| 09-S5-018 | 3022341.859 | 673858.2655 | 2 | Am-241 | 0.59 | pCi/g | Pre |
| 09-S5-018 | 3022341.859 | 673858.2655 | 2 | Pu-238 | 0.75 | pCi/g | Pre |
| 09-S5-018 | 3022341.859 | 673858.2655 | 2 | Pu-239/240 | 1.63 | pCi/g | Pre |
| 09-S5-018 | 3022341.859 | 673858.2655 | 2 | Pu-241 | 3.07 | pCi/g | Pre |
| 09-S5-018 | 3022341.859 | 673858.2655 | 2 | Pu-242 | 0 | pCi/g | Pre |
| 09-S5-018 | 3022341.859 | 673858.2655 | 2 | Tc-99 | 1.7 | pCi/g | Pre |
| 09-S5-018 | 3022341.859 | 673858.2655 | 2 | Th-230 | 1 | pCi/g | Pre |
| 09-S5-018 | 3022341.859 | 673858.2655 | 2 | Th-232 | 1.6 | pCi/g | Pre |
| 09-S5-018 | 3022341.859 | 673858.2655 | 2 | U-233/234 | 85.8 | pCi/g | Pre |
| 09-S5-018 | 3022341.859 | 673858.2655 | 2 | U-235 | 2 | pCi/g | Pre |
| 09-S5-018 | 3022341.859 | 673858.2655 | 2 | U-238 | 1 | pCi/g | Pre |
| 09-S5-019 | 3022341.859 | 673858.2655 | 3.5 | Am-241 | 0.04 | pCi/g | Pre |
| 09-S5-019 | 3022341.859 | 673858.2655 | 3.5 | Pu-238 | 0.59 | pCi/g | Pre |
| 09-S5-019 | 3022341.859 | 673858.2655 | 3.5 | Pu-239/240 | 0.12 | pCi/g | Pre |
| 09-S5-019 | 3022341.859 | 673858.2655 | 3.5 | Pu-241 | 4.54 | pCi/g | Pre |
| 09-S5-019 | 3022341.859 | 673858.2655 | 3.5 | Pu-242 | 0 | pCi/g | Pre |
| 09-S5-019 | 3022341.859 | 673858.2655 | 3.5 | Tc-99 | 1.6 | pCi/g | Pre |
| 09-S5-019 | 3022341.859 | 673858.2655 | 3.5 | Th-230 | 0.9 | pCi/g | Pre |
| 09-S5-019 | 3022341.859 | 673858.2655 | 3.5 | Th-232 | 1.2 | pCi/g | Pre |
| 09-S5-019 | 3022341.859 | 673858.2655 | 3.5 | U-233/234 | 76.1 | pCi/g | Pre |
| 09-S5-019 | 3022341.859 | 673858.2655 | 3.5 | U-235 | 2.5 | pCi/g | Pre |
| 09-S5-019 | 3022341.859 | 673858.2655 | 3.5 | U-238 | 31 | pCi/g | Pre |
| 1015-G4-2 | 3022415.821 | 673520.3765 | 1.5 | Am-241 | 0.02 | pCi/g | Pre |
| 1015-G4-2 | 3022415.821 | 673520.3765 | 1.5 | Pu-238 | 0 | pCi/g | Pre |
| 1015-G4-2 | 3022415.821 | 673520.3765 | 1.5 | Pu-239/240 | 0 | pCi/g | Pre |
| 1015-G4-2 | 3022415.821 | 673520.3765 | 1.5 | Pu-241 | 0 | pCi/g | Pre |
| 1015-G4-2 | 3022415.821 | 673520.3765 | 1.5 | Pu-242 | 0 | pCi/g | Pre |
| 1015-G4-2 | 3022415.821 | 673520.3765 | 1.5 | Tc-99 | 0 | pCi/g | Pre |
| 1015-G4-2 | 3022415.821 | 673520.3765 | 1.5 | Th-230 | 0.6 | pCi/g | Pre |
| 1015-G4-2 | 3022415.821 | 673520.3765 | 1.5 | Th-232 | 0.9 | pCi/g | Pre |
| 1015-G4-2 | 3022415.821 | 673520.3765 | 1.5 | U-233/234 | 12.6 | pCi/g | Pre |
| 1015-G4-2 | 3022415.821 | 673520.3765 | 1.5 | U-235 | 0.5 | pCi/g | Pre |
| 1015-G4-2 | 3022415.821 | 673520.3765 | 1.5 | U-238 | 2.5 | pCi/g | Pre |
| 1016-D2-2 | 3022430.743 | 673496.6235 | 1.5 | Am-241 | -0.03 | pCi/g | Pre |
| 1016-D2-2 | 3022430.743 | 673496.6235 | 1.5 | Pu-238 | 0 | pCi/g | Pre |
| 1016-D2-2 | 3022430.743 | 673496.6235 | 1.5 | Pu-239/240 | 0 | pCi/g | Pre |
| 1016-D2-2 | 3022430.743 | 673496.6235 | 1.5 | Pu-241 | 0 | pCi/g | Pre |
| 1016-D2-2 | 3022430.743 | 673496.6235 | 1.5 | Pu-242 | 0 | pCi/g | Pre |
| 1016-D2-2 | 3022430.743 | 673496.6235 | 1.5 | Tc-99 | 0 | pCi/g | Pre |
| 1016-D2-2 | 3022430.743 | 673496.6235 | 1.5 | Th-230 | 1.9 | pCi/g | Pre |
| 1016-D2-2 | 3022430.743 | 673496.6235 | 1.5 | Th-232 | 3.2 | pCi/g | Pre |
| 1016-D2-2 | 3022430.743 | 673496.6235 | 1.5 | U-233/234 | 56.6 | pCi/g | Pre |
| 1016-D2-2 | 3022430.743 | 673496.6235 | 1.5 | U-235 | 2.2 | pCi/g | Pre |

## Historical Dataset, Survey Unit 19

| Sample ID# | Sample Location | | Sample Depth (ft) | Contaminant Name | Analytical Result | Units | Period |
|---|---|---|---|---|---|---|---|
| | Easting | Northing | | | | | |
| 1016-D2-2 | 3022430.743 | 673496.6235 | 1.5 | U-238 | 6.9 | pCi/g | Pre |
| 748-E8-1 | 3022274.259 | 673908.8422 | 0.5 | Am-241 | 0.12 | pCi/g | Pre |
| 748-E8-1 | 3022274.259 | 673908.8422 | 0.5 | Pu-238 | 0.12 | pCi/g | Pre |
| 748-E8-1 | 3022274.259 | 673908.8422 | 0.5 | Pu-239/240 | 2.3 | pCi/g | Pre |
| 748-E8-1 | 3022274.259 | 673908.8422 | 0.5 | Pu-241 | 3.47 | pCi/g | Pre |
| 748-E8-1 | 3022274.259 | 673908.8422 | 0.5 | Pu-242 | 0 | pCi/g | Pre |
| 748-E8-1 | 3022274.259 | 673908.8422 | 0.5 | Tc-99 | 8.6 | pCi/g | Pre |
| 748-E8-1 | 3022274.259 | 673908.8422 | 0.5 | Th-230 | 2.6 | pCi/g | Pre |
| 748-E8-1 | 3022274.259 | 673908.8422 | 0.5 | Th-232 | 6.6 | pCi/g | Pre |
| 748-E8-1 | 3022274.259 | 673908.8422 | 0.5 | U-233/234 | 390 | pCi/g | Pre |
| 748-E8-1 | 3022274.259 | 673908.8422 | 0.5 | U-235 | 11 | pCi/g | Pre |
| 748-E8-1 | 3022274.259 | 673908.8422 | 0.5 | U-238 | 6.5 | pCi/g | Pre |
| 749-B8-1 | 3022294.404 | 673881.1086 | 0.5 | Am-241 | 0.67 | pCi/g | Pre |
| 749-B8-1 | 3022294.404 | 673881.1086 | 0.5 | Pu-238 | 0.12 | pCi/g | Pre |
| 749-B8-1 | 3022294.404 | 673881.1086 | 0.5 | Pu-239/240 | 1.84 | pCi/g | Pre |
| 749-B8-1 | 3022294.404 | 673881.1086 | 0.5 | Pu-241 | 3.01 | pCi/g | Pre |
| 749-B8-1 | 3022294.404 | 673881.1086 | 0.5 | Pu-242 | 0 | pCi/g | Pre |
| 749-B8-1 | 3022294.404 | 673881.1086 | 0.5 | Tc-99 | 7.9 | pCi/g | Pre |
| 749-B8-1 | 3022294.404 | 673881.1086 | 0.5 | Th-230 | 4.5 | pCi/g | Pre |
| 749-B8-1 | 3022294.404 | 673881.1086 | 0.5 | Th-232 | 8.5 | pCi/g | Pre |
| 749-B8-1 | 3022294.404 | 673881.1086 | 0.5 | U-233/234 | 372.5 | pCi/g | Pre |
| 749-B8-1 | 3022294.404 | 673881.1086 | 0.5 | U-235 | 14 | pCi/g | Pre |
| 749-B8-1 | 3022294.404 | 673881.1086 | 0.5 | U-238 | 24.9 | pCi/g | Pre |
| 749-E8-1 | 3022300.369 | 673888.9392 | 0.5 | Am-241 | -0.03 | pCi/g | Pre |
| 749-E8-1 | 3022300.369 | 673888.9392 | 0.5 | Pu-238 | 0 | pCi/g | Pre |
| 749-E8-1 | 3022300.369 | 673888.9392 | 0.5 | Pu-239/240 | 0 | pCi/g | Pre |
| 749-E8-1 | 3022300.369 | 673888.9392 | 0.5 | Pu-241 | 0 | pCi/g | Pre |
| 749-E8-1 | 3022300.369 | 673888.9392 | 0.5 | Pu-242 | 0 | pCi/g | Pre |
| 749-E8-1 | 3022300.369 | 673888.9392 | 0.5 | Tc-99 | 6.3 | pCi/g | Pre |
| 749-E8-1 | 3022300.369 | 673888.9392 | 0.5 | Th-230 | 1.9 | pCi/g | Pre |
| 749-E8-1 | 3022300.369 | 673888.9392 | 0.5 | Th-232 | 3.4 | pCi/g | Pre |
| 749-E8-1 | 3022300.369 | 673888.9392 | 0.5 | U-233/234 | 195.8 | pCi/g | Pre |
| 749-E8-1 | 3022300.369 | 673888.9392 | 0.5 | U-235 | 7.4 | pCi/g | Pre |
| 749-E8-1 | 3022300.369 | 673888.9392 | 0.5 | U-238 | 16.1 | pCi/g | Pre |
| 750-B9-1 | 3022323.125 | 673859.2152 | 0.5 | Am-241 | -0.02 | pCi/g | Pre |
| 750-B9-1 | 3022323.125 | 673859.2152 | 0.5 | Pu-238 | 0 | pCi/g | Pre |
| 750-B9-1 | 3022323.125 | 673859.2152 | 0.5 | Pu-239/240 | 0 | pCi/g | Pre |
| 750-B9-1 | 3022323.125 | 673859.2152 | 0.5 | Pu-241 | 0 | pCi/g | Pre |
| 750-B9-1 | 3022323.125 | 673859.2152 | 0.5 | Pu-242 | 0 | pCi/g | Pre |
| 750-B9-1 | 3022323.125 | 673859.2152 | 0.5 | Tc-99 | 0 | pCi/g | Pre |
| 750-B9-1 | 3022323.125 | 673859.2152 | 0.5 | Th-230 | 1.8 | pCi/g | Pre |
| 750-B9-1 | 3022323.125 | 673859.2152 | 0.5 | Th-232 | 3 | pCi/g | Pre |
| 750-B9-1 | 3022323.125 | 673859.2152 | 0.5 | U-233/234 | 117.4 | pCi/g | Pre |
| 750-B9-1 | 3022323.125 | 673859.2152 | 0.5 | U-235 | 4.5 | pCi/g | Pre |
| 750-B9-1 | 3022323.125 | 673859.2152 | 0.5 | U-238 | 11.4 | pCi/g | Pre |
| 750-I2-1 | 3022318.766 | 673891.4187 | 0.5 | Am-241 | -0.04 | pCi/g | Pre |
| 750-I2-1 | 3022318.766 | 673891.4187 | 0.5 | Pu-238 | 0 | pCi/g | Pre |
| 750-I2-1 | 3022318.766 | 673891.4187 | 0.5 | Pu-239/240 | 0 | pCi/g | Pre |
| 750-I2-1 | 3022318.766 | 673891.4187 | 0.5 | Pu-241 | 0 | pCi/g | Pre |
| 750-I2-1 | 3022318.766 | 673891.4187 | 0.5 | Pu-242 | 0 | pCi/g | Pre |
| 750-I2-1 | 3022318.766 | 673891.4187 | 0.5 | Tc-99 | 0 | pCi/g | Pre |
| 750-I2-1 | 3022318.766 | 673891.4187 | 0.5 | Th-230 | 0.8 | pCi/g | Pre |
| 750-I2-1 | 3022318.766 | 673891.4187 | 0.5 | Th-232 | 1.2 | pCi/g | Pre |
| 750-I2-1 | 3022318.766 | 673891.4187 | 0.5 | U-233/234 | 1.4 | pCi/g | Pre |

## Historical Dataset, Survey Unit 19

| Sample ID# | Sample Location | | Sample Depth (ft) | Contaminant Name | Analytical Result | Units | Period |
|---|---|---|---|---|---|---|---|
| | Easting | Northing | | | | | |
| 750-I2-1 | 3022318.766 | 673891.4187 | 0.5 | U-235 | 0.1 | pCi/g | Pre |
| 750-I2-1 | 3022318.766 | 673891.4187 | 0.5 | U-238 | 0.6 | pCi/g | Pre |
| 751-B2-1 | 3022330.958 | 673853.2443 | 0.5 | Am-241 | 0.11 | pCi/g | Pre |
| 751-B2-1 | 3022330.958 | 673853.2443 | 0.5 | Pu-238 | 0 | pCi/g | Pre |
| 751-B2-1 | 3022330.958 | 673853.2443 | 0.5 | Pu-239/240 | 0 | pCi/g | Pre |
| 751-B2-1 | 3022330.958 | 673853.2443 | 0.5 | Pu-241 | 0 | pCi/g | Pre |
| 751-B2-1 | 3022330.958 | 673853.2443 | 0.5 | Pu-242 | 0 | pCi/g | Pre |
| 751-B2-1 | 3022330.958 | 673853.2443 | 0.5 | Tc-99 | 0 | pCi/g | Pre |
| 751-B2-1 | 3022330.958 | 673853.2443 | 0.5 | Th-230 | 0.9 | pCi/g | Pre |
| 751-B2-1 | 3022330.958 | 673853.2443 | 0.5 | Th-232 | 1.4 | pCi/g | Pre |
| 751-B2-1 | 3022330.958 | 673853.2443 | 0.5 | U-233/234 | 21.5 | pCi/g | Pre |
| 751-B2-1 | 3022330.958 | 673853.2443 | 0.5 | U-235 | 0.9 | pCi/g | Pre |
| 751-B2-1 | 3022330.958 | 673853.2443 | 0.5 | U-238 | 3.6 | pCi/g | Pre |
| 751-B2-2 | 3022330.958 | 673853.2443 | 1.5 | Am-241 | 0.04 | pCi/g | Pre |
| 751-B2-2 | 3022330.958 | 673853.2443 | 1.5 | Pu-238 | 0 | pCi/g | Pre |
| 751-B2-2 | 3022330.958 | 673853.2443 | 1.5 | Pu-239/240 | 0 | pCi/g | Pre |
| 751-B2-2 | 3022330.958 | 673853.2443 | 1.5 | Pu-241 | 0 | pCi/g | Pre |
| 751-B2-2 | 3022330.958 | 673853.2443 | 1.5 | Pu-242 | 0 | pCi/g | Pre |
| 751-B2-2 | 3022330.958 | 673853.2443 | 1.5 | Tc-99 | 0 | pCi/g | Pre |
| 751-B2-2 | 3022330.958 | 673853.2443 | 1.5 | Th-230 | 0.8 | pCi/g | Pre |
| 751-B2-2 | 3022330.958 | 673853.2443 | 1.5 | Th-232 | 1.3 | pCi/g | Pre |
| 751-B2-2 | 3022330.958 | 673853.2443 | 1.5 | U-233/234 | 33 | pCi/g | Pre |
| 751-B2-2 | 3022330.958 | 673853.2443 | 1.5 | U-235 | 1.3 | pCi/g | Pre |
| 751-B2-2 | 3022330.958 | 673853.2443 | 1.5 | U-238 | 4.8 | pCi/g | Pre |
| 752-B1-1 | 3022354.456 | 673835.3316 | 0.5 | Am-241 | 0.21 | pCi/g | Pre |
| 752-B1-1 | 3022354.456 | 673835.3316 | 0.5 | Pu-238 | 0 | pCi/g | Pre |
| 752-B1-1 | 3022354.456 | 673835.3316 | 0.5 | Pu-239/240 | 0 | pCi/g | Pre |
| 752-B1-1 | 3022354.456 | 673835.3316 | 0.5 | Pu-241 | 0 | pCi/g | Pre |
| 752-B1-1 | 3022354.456 | 673835.3316 | 0.5 | Pu-242 | 0 | pCi/g | Pre |
| 752-B1-1 | 3022354.456 | 673835.3316 | 0.5 | Tc-99 | 0 | pCi/g | Pre |
| 752-B1-1 | 3022354.456 | 673835.3316 | 0.5 | Th-230 | 1 | pCi/g | Pre |
| 752-B1-1 | 3022354.456 | 673835.3316 | 0.5 | Th-232 | 1.6 | pCi/g | Pre |
| 752-B1-1 | 3022354.456 | 673835.3316 | 0.5 | U-233/234 | 4.9 | pCi/g | Pre |
| 752-B1-1 | 3022354.456 | 673835.3316 | 0.5 | U-235 | 0.2 | pCi/g | Pre |
| 752-B1-1 | 3022354.456 | 673835.3316 | 0.5 | U-238 | 1.3 | pCi/g | Pre |
| 752-B1-2 | 3022354.456 | 673835.3316 | 1.5 | Am-241 | 0.01 | pCi/g | Pre |
| 752-B1-2 | 3022354.456 | 673835.3316 | 1.5 | Pu-238 | 0 | pCi/g | Pre |
| 752-B1-2 | 3022354.456 | 673835.3316 | 1.5 | Pu-239/240 | 0 | pCi/g | Pre |
| 752-B1-2 | 3022354.456 | 673835.3316 | 1.5 | Pu-241 | 0 | pCi/g | Pre |
| 752-B1-2 | 3022354.456 | 673835.3316 | 1.5 | Pu-242 | 0 | pCi/g | Pre |
| 752-B1-2 | 3022354.456 | 673835.3316 | 1.5 | Tc-99 | 0.1 | pCi/g | Pre |
| 752-B1-2 | 3022354.456 | 673835.3316 | 1.5 | Th-230 | 0.7 | pCi/g | Pre |
| 752-B1-2 | 3022354.456 | 673835.3316 | 1.5 | Th-232 | 1 | pCi/g | Pre |
| 752-B1-2 | 3022354.456 | 673835.3316 | 1.5 | U-233/234 | 1.1 | pCi/g | Pre |
| 752-B1-2 | 3022354.456 | 673835.3316 | 1.5 | U-235 | 0 | pCi/g | Pre |
| 752-B1-2 | 3022354.456 | 673835.3316 | 1.5 | U-238 | 0.5 | pCi/g | Pre |
| 790-D2-3 | 3022315.052 | 673832.3627 | 2.5 | Am-241 | -2.2 | pCi/g | Pre |
| 790-D2-3 | 3022315.052 | 673832.3627 | 2.5 | Pu-238 | 0 | pCi/g | Pre |
| 790-D2-3 | 3022315.052 | 673832.3627 | 2.5 | Pu-239/240 | 0 | pCi/g | Pre |
| 790-D2-3 | 3022315.052 | 673832.3627 | 2.5 | Pu-241 | 0 | pCi/g | Pre |
| 790-D2-3 | 3022315.052 | 673832.3627 | 2.5 | Pu-242 | 0 | pCi/g | Pre |
| 790-D2-3 | 3022315.052 | 673832.3627 | 2.5 | Tc-99 | 0 | pCi/g | Pre |
| 790-D2-3 | 3022315.052 | 673832.3627 | 2.5 | Th-230 | 1.5 | pCi/g | Pre |
| 790-D2-3 | 3022315.052 | 673832.3627 | 2.5 | Th-232 | 2.5 | pCi/g | Pre |

## Historical Dataset, Survey Unit 19

| Sample ID# | Sample Location | | Sample Depth (ft) | Contaminant Name | Analytical Result | Units | Period |
|---|---|---|---|---|---|---|---|
| | Easting | Northing | | | | | |
| 790-D2-3 | 3022315.052 | 673832.3627 | 2.5 | U-233/234 | 798 | pCi/g | Pre |
| 790-D2-3 | 3022315.052 | 673832.3627 | 2.5 | U-235 | 29.5 | pCi/g | Pre |
| 790-D2-3 | 3022315.052 | 673832.3627 | 2.5 | U-238 | 41.7 | pCi/g | Pre |
| 790-I8-3 | 3022340.659 | 673833.4719 | 2.5 | Am-241 | 0.19 | pCi/g | Pre |
| 790-I8-3 | 3022340.659 | 673833.4719 | 2.5 | Pu-238 | 0 | pCi/g | Pre |
| 790-I8-3 | 3022340.659 | 673833.4719 | 2.5 | Pu-239/240 | 0.06 | pCi/g | Pre |
| 790-I8-3 | 3022340.659 | 673833.4719 | 2.5 | Pu-241 | -0.26 | pCi/g | Pre |
| 790-I8-3 | 3022340.659 | 673833.4719 | 2.5 | Pu-242 | 0 | pCi/g | Pre |
| 790-I8-3 | 3022340.659 | 673833.4719 | 2.5 | Tc-99 | 1.4 | pCi/g | Pre |
| 790-I8-3 | 3022340.659 | 673833.4719 | 2.5 | Th-230 | 1.5 | pCi/g | Pre |
| 790-I8-3 | 3022340.659 | 673833.4719 | 2.5 | Th-232 | 1 | pCi/g | Pre |
| 790-I8-3 | 3022340.659 | 673833.4719 | 2.5 | U-233/234 | 42 | pCi/g | Pre |
| 790-I8-3 | 3022340.659 | 673833.4719 | 2.5 | U-235 | 1.1 | pCi/g | Pre |
| 790-I8-3 | 3022340.659 | 673833.4719 | 2.5 | U-238 | 8.7 | pCi/g | Pre |
| 791-D2-3 | 3022341.161 | 673812.4597 | 2.5 | Am-241 | 0.07 | pCi/g | Pre |
| 791-D2-3 | 3022341.161 | 673812.4597 | 2.5 | Pu-238 | 0 | pCi/g | Pre |
| 791-D2-3 | 3022341.161 | 673812.4597 | 2.5 | Pu-239/240 | 0 | pCi/g | Pre |
| 791-D2-3 | 3022341.161 | 673812.4597 | 2.5 | Pu-241 | 0 | pCi/g | Pre |
| 791-D2-3 | 3022341.161 | 673812.4597 | 2.5 | Pu-242 | 0 | pCi/g | Pre |
| 791-D2-3 | 3022341.161 | 673812.4597 | 2.5 | Tc-99 | 0 | pCi/g | Pre |
| 791-D2-3 | 3022341.161 | 673812.4597 | 2.5 | Th-230 | 1.4 | pCi/g | Pre |
| 791-D2-3 | 3022341.161 | 673812.4597 | 2.5 | Th-232 | 2.4 | pCi/g | Pre |
| 791-D2-3 | 3022341.161 | 673812.4597 | 2.5 | U-233/234 | 20.8 | pCi/g | Pre |
| 791-D2-3 | 3022341.161 | 673812.4597 | 2.5 | U-235 | 0.8 | pCi/g | Pre |
| 791-D2-3 | 3022341.161 | 673812.4597 | 2.5 | U-238 | 3.5 | pCi/g | Pre |
| 791-D2-4 | 3022341.161 | 673812.4597 | 3.5 | Am-241 | 0.39 | pCi/g | Pre |
| 791-D2-4 | 3022341.161 | 673812.4597 | 3.5 | Pu-238 | 0 | pCi/g | Pre |
| 791-D2-4 | 3022341.161 | 673812.4597 | 3.5 | Pu-239/240 | 0 | pCi/g | Pre |
| 791-D2-4 | 3022341.161 | 673812.4597 | 3.5 | Pu-241 | 0 | pCi/g | Pre |
| 791-D2-4 | 3022341.161 | 673812.4597 | 3.5 | Pu-242 | 0 | pCi/g | Pre |
| 791-D2-4 | 3022341.161 | 673812.4597 | 3.5 | Tc-99 | 0 | pCi/g | Pre |
| 791-D2-4 | 3022341.161 | 673812.4597 | 3.5 | Th-230 | 1 | pCi/g | Pre |
| 791-D2-4 | 3022341.161 | 673812.4597 | 3.5 | Th-232 | 1.6 | pCi/g | Pre |
| 791-D2-4 | 3022341.161 | 673812.4597 | 3.5 | U-233/234 | 14.4 | pCi/g | Pre |
| 791-D2-4 | 3022341.161 | 673812.4597 | 3.5 | U-235 | 0.6 | pCi/g | Pre |
| 791-D2-4 | 3022341.161 | 673812.4597 | 3.5 | U-238 | 2.8 | pCi/g | Pre |
| 791-I8-3 | 3022366.768 | 673813.5689 | 2.5 | Am-241 | -0.23 | pCi/g | Pre |
| 791-I8-3 | 3022366.768 | 673813.5689 | 2.5 | Pu-238 | 0 | pCi/g | Pre |
| 791-I8-3 | 3022366.768 | 673813.5689 | 2.5 | Pu-239/240 | 0 | pCi/g | Pre |
| 791-I8-3 | 3022366.768 | 673813.5689 | 2.5 | Pu-241 | 0 | pCi/g | Pre |
| 791-I8-3 | 3022366.768 | 673813.5689 | 2.5 | Pu-242 | 0 | pCi/g | Pre |
| 791-I8-3 | 3022366.768 | 673813.5689 | 2.5 | Tc-99 | 0 | pCi/g | Pre |
| 791-I8-3 | 3022366.768 | 673813.5689 | 2.5 | Th-230 | 0.7 | pCi/g | Pre |
| 791-I8-3 | 3022366.768 | 673813.5689 | 2.5 | Th-232 | 1.1 | pCi/g | Pre |
| 791-I8-3 | 3022366.768 | 673813.5689 | 2.5 | U-233/234 | 1.5 | pCi/g | Pre |
| 791-I8-3 | 3022366.768 | 673813.5689 | 2.5 | U-235 | 0.1 | pCi/g | Pre |
| 791-I8-3 | 3022366.768 | 673813.5689 | 2.5 | U-238 | 0.6 | pCi/g | Pre |
| 792-C2-3 | 3022365.283 | 673789.9464 | 2.5 | Am-241 | 0.18 | pCi/g | Pre |
| 792-C2-3 | 3022365.283 | 673789.9464 | 2.5 | Pu-238 | 0 | pCi/g | Pre |
| 792-C2-3 | 3022365.283 | 673789.9464 | 2.5 | Pu-239/240 | 0 | pCi/g | Pre |
| 792-C2-3 | 3022365.283 | 673789.9464 | 2.5 | Pu-241 | 0 | pCi/g | Pre |
| 792-C2-3 | 3022365.283 | 673789.9464 | 2.5 | Pu-242 | 0 | pCi/g | Pre |
| 792-C2-3 | 3022365.283 | 673789.9464 | 2.5 | Tc-99 | 0 | pCi/g | Pre |
| 792-C2-3 | 3022365.283 | 673789.9464 | 2.5 | Th-230 | 0.6 | pCi/g | Pre |

## Historical Dataset, Survey Unit 19

| Sample ID# | Sample Location | | Sample Depth (ft) | Contaminant Name | Analytical Result | Units | Period |
|---|---|---|---|---|---|---|---|
| | Easting | Northing | | | | | |
| 792-C2-3 | 3022365.283 | 673789.9464 | 2.5 | Th-232 | 1 | pCi/g | Pre |
| 792-C2-3 | 3022365.283 | 673789.9464 | 2.5 | U-233/234 | 8.6 | pCi/g | Pre |
| 792-C2-3 | 3022365.283 | 673789.9464 | 2.5 | U-235 | 0.3 | pCi/g | Pre |
| 792-C2-3 | 3022365.283 | 673789.9464 | 2.5 | U-238 | 1.9 | pCi/g | Pre |
| 792-G8-3 | 3022388.901 | 673788.4454 | 2.5 | Am-241 | 0 | pCi/g | Pre |
| 792-G8-3 | 3022388.901 | 673788.4454 | 2.5 | Pu-238 | 0 | pCi/g | Pre |
| 792-G8-3 | 3022388.901 | 673788.4454 | 2.5 | Pu-239/240 | 0 | pCi/g | Pre |
| 792-G8-3 | 3022388.901 | 673788.4454 | 2.5 | Pu-241 | 0 | pCi/g | Pre |
| 792-G8-3 | 3022388.901 | 673788.4454 | 2.5 | Pu-242 | 0 | pCi/g | Pre |
| 792-G8-3 | 3022388.901 | 673788.4454 | 2.5 | Tc-99 | 0 | pCi/g | Pre |
| 792-G8-3 | 3022388.901 | 673788.4454 | 2.5 | Th-230 | 0.8 | pCi/g | Pre |
| 792-G8-3 | 3022388.901 | 673788.4454 | 2.5 | Th-232 | 1.3 | pCi/g | Pre |
| 792-G8-3 | 3022388.901 | 673788.4454 | 2.5 | U-233/234 | 19.4 | pCi/g | Pre |
| 792-G8-3 | 3022388.901 | 673788.4454 | 2.5 | U-235 | 0.8 | pCi/g | Pre |
| 792-G8-3 | 3022388.901 | 673788.4454 | 2.5 | U-238 | 3.4 | pCi/g | Pre |
| 793-F8-3 | 3022413.023 | 673765.9322 | 2.5 | Am-241 | -0.26 | pCi/g | Pre |
| 793-F8-3 | 3022413.023 | 673765.9322 | 2.5 | Pu-238 | 0 | pCi/g | Pre |
| 793-F8-3 | 3022413.023 | 673765.9322 | 2.5 | Pu-239/240 | 0 | pCi/g | Pre |
| 793-F8-3 | 3022413.023 | 673765.9322 | 2.5 | Pu-241 | 0 | pCi/g | Pre |
| 793-F8-3 | 3022413.023 | 673765.9322 | 2.5 | Pu-242 | 0 | pCi/g | Pre |
| 793-F8-3 | 3022413.023 | 673765.9322 | 2.5 | Tc-99 | 0 | pCi/g | Pre |
| 793-F8-3 | 3022413.023 | 673765.9322 | 2.5 | Th-230 | 0.7 | pCi/g | Pre |
| 793-F8-3 | 3022413.023 | 673765.9322 | 2.5 | Th-232 | 1.1 | pCi/g | Pre |
| 793-F8-3 | 3022413.023 | 673765.9322 | 2.5 | U-233/234 | 21.3 | pCi/g | Pre |
| 793-F8-3 | 3022413.023 | 673765.9322 | 2.5 | U-235 | 0.8 | pCi/g | Pre |
| 793-F8-3 | 3022413.023 | 673765.9322 | 2.5 | U-238 | 3.6 | pCi/g | Pre |
| 794-C1-3 | 3022414.891 | 673752.1307 | 2.5 | Am-241 | -0.56 | pCi/g | Pre |
| 794-C1-3 | 3022414.891 | 673752.1307 | 2.5 | Pu-238 | 0 | pCi/g | Pre |
| 794-C1-3 | 3022414.891 | 673752.1307 | 2.5 | Pu-239/240 | 0 | pCi/g | Pre |
| 794-C1-3 | 3022414.891 | 673752.1307 | 2.5 | Pu-241 | 0 | pCi/g | Pre |
| 794-C1-3 | 3022414.891 | 673752.1307 | 2.5 | Pu-242 | 0 | pCi/g | Pre |
| 794-C1-3 | 3022414.891 | 673752.1307 | 2.5 | Tc-99 | 0 | pCi/g | Pre |
| 794-C1-3 | 3022414.891 | 673752.1307 | 2.5 | Th-230 | 2 | pCi/g | Pre |
| 794-C1-3 | 3022414.891 | 673752.1307 | 2.5 | Th-232 | 3.4 | pCi/g | Pre |
| 794-C1-3 | 3022414.891 | 673752.1307 | 2.5 | U-233/234 | 108.8 | pCi/g | Pre |
| 794-C1-3 | 3022414.891 | 673752.1307 | 2.5 | U-235 | 4.2 | pCi/g | Pre |
| 794-C1-3 | 3022414.891 | 673752.1307 | 2.5 | U-238 | 10.8 | pCi/g | Pre |
| 794-D2-3 | 3022419.49 | 673752.7506 | 2.5 | Am-241 | 0.29 | pCi/g | Pre |
| 794-D2-3 | 3022419.49 | 673752.7506 | 2.5 | Pu-238 | 0 | pCi/g | Pre |
| 794-D2-3 | 3022419.49 | 673752.7506 | 2.5 | Pu-239/240 | 0.07 | pCi/g | Pre |
| 794-D2-3 | 3022419.49 | 673752.7506 | 2.5 | Pu-241 | -0.09 | pCi/g | Pre |
| 794-D2-3 | 3022419.49 | 673752.7506 | 2.5 | Pu-242 | 0 | pCi/g | Pre |
| 794-D2-3 | 3022419.49 | 673752.7506 | 2.5 | Tc-99 | 1 | pCi/g | Pre |
| 794-D2-3 | 3022419.49 | 673752.7506 | 2.5 | Th-230 | 1.3 | pCi/g | Pre |
| 794-D2-3 | 3022419.49 | 673752.7506 | 2.5 | Th-232 | 1.4 | pCi/g | Pre |
| 794-D2-3 | 3022419.49 | 673752.7506 | 2.5 | U-233/234 | 52 | pCi/g | Pre |
| 794-D2-3 | 3022419.49 | 673752.7506 | 2.5 | U-235 | 2 | pCi/g | Pre |
| 794-D2-3 | 3022419.49 | 673752.7506 | 2.5 | U-238 | 15 | pCi/g | Pre |
| 795-F1-1 | 3022446.965 | 673740.0582 | 0.5 | Am-241 | 0 | pCi/g | Pre |
| 795-F1-1 | 3022446.965 | 673740.0582 | 0.5 | Pu-238 | -0.3 | pCi/g | Pre |
| 795-F1-1 | 3022446.965 | 673740.0582 | 0.5 | Pu-239/240 | 0.3 | pCi/g | Pre |
| 795-F1-1 | 3022446.965 | 673740.0582 | 0.5 | Pu-241 | 0.37 | pCi/g | Pre |
| 795-F1-1 | 3022446.965 | 673740.0582 | 0.5 | Pu-242 | 0 | pCi/g | Pre |
| 795-F1-1 | 3022446.965 | 673740.0582 | 0.5 | Tc-99 | 1.3 | pCi/g | Pre |

## Historical Dataset, Survey Unit 19

| Sample ID# | Sample Location | | Sample Depth (ft) | Contaminant Name | Analytical Result | Units | Period |
|---|---|---|---|---|---|---|---|
| | Easting | Northing | | | | | |
| 795-F1-1 | 3022446.965 | 673740.0582 | 0.5 | Th-230 | 1 | pCi/g | Pre |
| 795-F1-1 | 3022446.965 | 673740.0582 | 0.5 | Th-232 | 1.5 | pCi/g | Pre |
| 795-F1-1 | 3022446.965 | 673740.0582 | 0.5 | U-233/234 | 8 | pCi/g | Pre |
| 795-F1-1 | 3022446.965 | 673740.0582 | 0.5 | U-235 | 0.2 | pCi/g | Pre |
| 795-F1-1 | 3022446.965 | 673740.0582 | 0.5 | U-238 | 1.5 | pCi/g | Pre |
| 795-F1-2 | 3022446.965 | 673740.0582 | 1.5 | Am-241 | -0.01 | pCi/g | Pre |
| 795-F1-2 | 3022446.965 | 673740.0582 | 1.5 | Pu-238 | 0 | pCi/g | Pre |
| 795-F1-2 | 3022446.965 | 673740.0582 | 1.5 | Pu-239/240 | 0 | pCi/g | Pre |
| 795-F1-2 | 3022446.965 | 673740.0582 | 1.5 | Pu-241 | 0 | pCi/g | Pre |
| 795-F1-2 | 3022446.965 | 673740.0582 | 1.5 | Pu-242 | 0 | pCi/g | Pre |
| 795-F1-2 | 3022446.965 | 673740.0582 | 1.5 | Tc-99 | 0 | pCi/g | Pre |
| 795-F1-2 | 3022446.965 | 673740.0582 | 1.5 | Th-230 | 0.7 | pCi/g | Pre |
| 795-F1-2 | 3022446.965 | 673740.0582 | 1.5 | Th-232 | 1.1 | pCi/g | Pre |
| 795-F1-2 | 3022446.965 | 673740.0582 | 1.5 | U-233/234 | 6.6 | pCi/g | Pre |
| 795-F1-2 | 3022446.965 | 673740.0582 | 1.5 | U-235 | 0.3 | pCi/g | Pre |
| 795-F1-2 | 3022446.965 | 673740.0582 | 1.5 | U-238 | 1.6 | pCi/g | Pre |
| 795-F1-3 | 3022446.965 | 673740.0582 | 2.5 | Am-241 | -0.1 | pCi/g | Pre |
| 795-F1-3 | 3022446.965 | 673740.0582 | 2.5 | Pu-238 | 0 | pCi/g | Pre |
| 795-F1-3 | 3022446.965 | 673740.0582 | 2.5 | Pu-239/240 | 0 | pCi/g | Pre |
| 795-F1-3 | 3022446.965 | 673740.0582 | 2.5 | Pu-241 | 0 | pCi/g | Pre |
| 795-F1-3 | 3022446.965 | 673740.0582 | 2.5 | Pu-242 | 0 | pCi/g | Pre |
| 795-F1-3 | 3022446.965 | 673740.0582 | 2.5 | Tc-99 | 0 | pCi/g | Pre |
| 795-F1-3 | 3022446.965 | 673740.0582 | 2.5 | Th-230 | 0.5 | pCi/g | Pre |
| 795-F1-3 | 3022446.965 | 673740.0582 | 2.5 | Th-232 | 0.8 | pCi/g | Pre |
| 795-F1-3 | 3022446.965 | 673740.0582 | 2.5 | U-233/234 | 4.6 | pCi/g | Pre |
| 795-F1-3 | 3022446.965 | 673740.0582 | 2.5 | U-235 | 0.2 | pCi/g | Pre |
| 795-F1-3 | 3022446.965 | 673740.0582 | 2.5 | U-238 | 1.3 | pCi/g | Pre |
| 796-D2-2 | 3022471.709 | 673712.9445 | 1.5 | Am-241 | 0.08 | pCi/g | Pre |
| 796-D2-2 | 3022471.709 | 673712.9445 | 1.5 | Pu-238 | 0 | pCi/g | Pre |
| 796-D2-2 | 3022471.709 | 673712.9445 | 1.5 | Pu-239/240 | 0 | pCi/g | Pre |
| 796-D2-2 | 3022471.709 | 673712.9445 | 1.5 | Pu-241 | 0 | pCi/g | Pre |
| 796-D2-2 | 3022471.709 | 673712.9445 | 1.5 | Pu-242 | 0 | pCi/g | Pre |
| 796-D2-2 | 3022471.709 | 673712.9445 | 1.5 | Tc-99 | 0 | pCi/g | Pre |
| 796-D2-2 | 3022471.709 | 673712.9445 | 1.5 | Th-230 | 0.9 | pCi/g | Pre |
| 796-D2-2 | 3022471.709 | 673712.9445 | 1.5 | Th-232 | 1.4 | pCi/g | Pre |
| 796-D2-2 | 3022471.709 | 673712.9445 | 1.5 | U-233/234 | 2.3 | pCi/g | Pre |
| 796-D2-2 | 3022471.709 | 673712.9445 | 1.5 | U-235 | 0.1 | pCi/g | Pre |
| 796-D2-2 | 3022471.709 | 673712.9445 | 1.5 | U-238 | 0.8 | pCi/g | Pre |
| 796-D3-3 | 3022471.709 | 673712.9445 | 2.5 | Am-241 | 0 | pCi/g | Pre |
| 796-D3-3 | 3022471.709 | 673712.9445 | 2.5 | Pu-238 | 0 | pCi/g | Pre |
| 796-D3-3 | 3022471.709 | 673712.9445 | 2.5 | Pu-239/240 | 0 | pCi/g | Pre |
| 796-D3-3 | 3022471.709 | 673712.9445 | 2.5 | Pu-241 | 0 | pCi/g | Pre |
| 796-D3-3 | 3022471.709 | 673712.9445 | 2.5 | Pu-242 | 0 | pCi/g | Pre |
| 796-D3-3 | 3022471.709 | 673712.9445 | 2.5 | Tc-99 | 0 | pCi/g | Pre |
| 796-D3-3 | 3022471.709 | 673712.9445 | 2.5 | Th-230 | 0.5 | pCi/g | Pre |
| 796-D3-3 | 3022471.709 | 673712.9445 | 2.5 | Th-232 | 0.8 | pCi/g | Pre |
| 796-D3-3 | 3022471.709 | 673712.9445 | 2.5 | U-233/234 | 5.3 | pCi/g | Pre |
| 796-D3-3 | 3022471.709 | 673712.9445 | 2.5 | U-235 | 0.2 | pCi/g | Pre |
| 796-D3-3 | 3022471.709 | 673712.9445 | 2.5 | U-238 | 1.4 | pCi/g | Pre |
| 797-B1-2 | 3022491.231 | 673689.8114 | 1.5 | Am-241 | 0.05 | pCi/g | Pre |
| 797-B1-2 | 3022491.231 | 673689.8114 | 1.5 | Pu-238 | 0 | pCi/g | Pre |
| 797-B1-2 | 3022491.231 | 673689.8114 | 1.5 | Pu-239/240 | 0 | pCi/g | Pre |
| 797-B1-2 | 3022491.231 | 673689.8114 | 1.5 | Pu-241 | 0 | pCi/g | Pre |
| 797-B1-2 | 3022491.231 | 673689.8114 | 1.5 | Pu-242 | 0 | pCi/g | Pre |

## Historical Dataset, Survey Unit 19

| Sample ID# | Sample Location | | Sample Depth (ft) | Contaminant Name | Analytical Result | Units | Period |
|---|---|---|---|---|---|---|---|
| | Easting | Northing | | | | | |
| 797-B1-2 | 3022491.231 | 673689.8114 | 1.5 | Tc-99 | 0 | pCi/g | Pre |
| 797-B1-2 | 3022491.231 | 673689.8114 | 1.5 | Th-230 | 0.7 | pCi/g | Pre |
| 797-B1-2 | 3022491.231 | 673689.8114 | 1.5 | Th-232 | 1.2 | pCi/g | Pre |
| 797-B1-2 | 3022491.231 | 673689.8114 | 1.5 | U-233/234 | 3.3 | pCi/g | Pre |
| 797-B1-2 | 3022491.231 | 673689.8114 | 1.5 | U-235 | 0.1 | pCi/g | Pre |
| 797-B1-2 | 3022491.231 | 673689.8114 | 1.5 | U-238 | 1 | pCi/g | Pre |
| 798-B1-2 | 3022517.341 | 673669.9083 | 1.5 | Am-241 | -0.07 | pCi/g | Pre |
| 798-B1-2 | 3022517.341 | 673669.9083 | 1.5 | Pu-238 | 0 | pCi/g | Pre |
| 798-B1-2 | 3022517.341 | 673669.9083 | 1.5 | Pu-239/240 | 0 | pCi/g | Pre |
| 798-B1-2 | 3022517.341 | 673669.9083 | 1.5 | Pu-241 | 0 | pCi/g | Pre |
| 798-B1-2 | 3022517.341 | 673669.9083 | 1.5 | Pu-242 | 0 | pCi/g | Pre |
| 798-B1-2 | 3022517.341 | 673669.9083 | 1.5 | Tc-99 | 0 | pCi/g | Pre |
| 798-B1-2 | 3022517.341 | 673669.9083 | 1.5 | Th-230 | 0.8 | pCi/g | Pre |
| 798-B1-2 | 3022517.341 | 673669.9083 | 1.5 | Th-232 | 1.2 | pCi/g | Pre |
| 798-B1-2 | 3022517.341 | 673669.9083 | 1.5 | U-233/234 | 4.2 | pCi/g | Pre |
| 798-B1-2 | 3022517.341 | 673669.9083 | 1.5 | U-235 | 0.2 | pCi/g | Pre |
| 798-B1-2 | 3022517.341 | 673669.9083 | 1.5 | U-238 | 1.2 | pCi/g | Pre |
| 828-F3-3 | 3022275.647 | 673829.3939 | 2.5 | Am-241 | -0.29 | pCi/g | Pre |
| 828-F3-3 | 3022275.647 | 673829.3939 | 2.5 | Pu-238 | 0 | pCi/g | Pre |
| 828-F3-3 | 3022275.647 | 673829.3939 | 2.5 | Pu-239/240 | 0 | pCi/g | Pre |
| 828-F3-3 | 3022275.647 | 673829.3939 | 2.5 | Pu-241 | 0 | pCi/g | Pre |
| 828-F3-3 | 3022275.647 | 673829.3939 | 2.5 | Pu-242 | 0 | pCi/g | Pre |
| 828-F3-3 | 3022275.647 | 673829.3939 | 2.5 | Tc-99 | 4.6 | pCi/g | Pre |
| 828-F3-3 | 3022275.647 | 673829.3939 | 2.5 | Th-230 | 1.2 | pCi/g | Pre |
| 828-F3-3 | 3022275.647 | 673829.3939 | 2.5 | Th-232 | 2 | pCi/g | Pre |
| 828-F3-3 | 3022275.647 | 673829.3939 | 2.5 | U-233/234 | 78.6 | pCi/g | Pre |
| 828-F3-3 | 3022275.647 | 673829.3939 | 2.5 | U-235 | 3 | pCi/g | Pre |
| 828-F3-3 | 3022275.647 | 673829.3939 | 2.5 | U-238 | 8.7 | pCi/g | Pre |
| 837-D3-2 | 3022506.657 | 673645.0461 | 1.5 | Am-241 | -0.34 | pCi/g | Pre |
| 837-D3-2 | 3022506.657 | 673645.0461 | 1.5 | Pu-238 | 0 | pCi/g | Pre |
| 837-D3-2 | 3022506.657 | 673645.0461 | 1.5 | Pu-239/240 | 0 | pCi/g | Pre |
| 837-D3-2 | 3022506.657 | 673645.0461 | 1.5 | Pu-241 | 0 | pCi/g | Pre |
| 837-D3-2 | 3022506.657 | 673645.0461 | 1.5 | Pu-242 | 0 | pCi/g | Pre |
| 837-D3-2 | 3022506.657 | 673645.0461 | 1.5 | Tc-99 | 0 | pCi/g | Pre |
| 837-D3-2 | 3022506.657 | 673645.0461 | 1.5 | Th-230 | 0.7 | pCi/g | Pre |
| 837-D3-2 | 3022506.657 | 673645.0461 | 1.5 | Th-232 | 1 | pCi/g | Pre |
| 837-D3-2 | 3022506.657 | 673645.0461 | 1.5 | U-233/234 | 2.5 | pCi/g | Pre |
| 837-D3-2 | 3022506.657 | 673645.0461 | 1.5 | U-235 | 0.1 | pCi/g | Pre |
| 837-D3-2 | 3022506.657 | 673645.0461 | 1.5 | U-238 | 0.8 | pCi/g | Pre |
| 837-D3-3 | 3022506.657 | 673645.0461 | 2.5 | Am-241 | -0.07 | pCi/g | Pre |
| 837-D3-3 | 3022506.657 | 673645.0461 | 2.5 | Pu-238 | 0 | pCi/g | Pre |
| 837-D3-3 | 3022506.657 | 673645.0461 | 2.5 | Pu-239/240 | 0 | pCi/g | Pre |
| 837-D3-3 | 3022506.657 | 673645.0461 | 2.5 | Pu-241 | 0 | pCi/g | Pre |
| 837-D3-3 | 3022506.657 | 673645.0461 | 2.5 | Pu-242 | 0 | pCi/g | Pre |
| 837-D3-3 | 3022506.657 | 673645.0461 | 2.5 | Tc-99 | 0 | pCi/g | Pre |
| 837-D3-3 | 3022506.657 | 673645.0461 | 2.5 | Th-230 | 0.2 | pCi/g | Pre |
| 837-D3-3 | 3022506.657 | 673645.0461 | 2.5 | Th-232 | 0.3 | pCi/g | Pre |
| 837-D3-3 | 3022506.657 | 673645.0461 | 2.5 | U-233/234 | 0 | pCi/g | Pre |
| 837-D3-3 | 3022506.657 | 673645.0461 | 2.5 | U-235 | 0 | pCi/g | Pre |
| 837-D3-3 | 3022506.657 | 673645.0461 | 2.5 | U-238 | 0 | pCi/g | Pre |
| 837-D3-4 | 3022506.657 | 673645.0461 | 3.5 | Am-241 | 0 | pCi/g | Pre |
| 837-D3-4 | 3022506.657 | 673645.0461 | 3.5 | Pu-238 | 0 | pCi/g | Pre |
| 837-D3-4 | 3022506.657 | 673645.0461 | 3.5 | Pu-239/240 | 0 | pCi/g | Pre |
| 837-D3-4 | 3022506.657 | 673645.0461 | 3.5 | Pu-241 | 0 | pCi/g | Pre |

## Historical Dataset, Survey Unit 19

| Sample ID# | Sample Location | | Sample Depth (ft) | Contaminant Name | Analytical Result | Units | Period |
|---|---|---|---|---|---|---|---|
| | Easting | Northing | | | | | |
| 837-D3-4 | 3022506.657 | 673645.0461 | 3.5 | Pu-242 | 0 | pCi/g | Pre |
| 837-D3-4 | 3022506.657 | 673645.0461 | 3.5 | Tc-99 | 0 | pCi/g | Pre |
| 837-D3-4 | 3022506.657 | 673645.0461 | 3.5 | Th-230 | 0.8 | pCi/g | Pre |
| 837-D3-4 | 3022506.657 | 673645.0461 | 3.5 | Th-232 | 1.3 | pCi/g | Pre |
| 837-D3-4 | 3022506.657 | 673645.0461 | 3.5 | U-233/234 | 3.1 | pCi/g | Pre |
| 837-D3-4 | 3022506.657 | 673645.0461 | 3.5 | U-235 | 0.1 | pCi/g | Pre |
| 837-D3-4 | 3022506.657 | 673645.0461 | 3.5 | U-238 | 1 | pCi/g | Pre |
| 837-H7-2 | 3022525.054 | 673647.5257 | 1.5 | Am-241 | -0.01 | pCi/g | Pre |
| 837-H7-2 | 3022525.054 | 673647.5257 | 1.5 | Pu-238 | 0 | pCi/g | Pre |
| 837-H7-2 | 3022525.054 | 673647.5257 | 1.5 | Pu-239/240 | 0 | pCi/g | Pre |
| 837-H7-2 | 3022525.054 | 673647.5257 | 1.5 | Pu-241 | 0 | pCi/g | Pre |
| 837-H7-2 | 3022525.054 | 673647.5257 | 1.5 | Pu-242 | 0 | pCi/g | Pre |
| 837-H7-2 | 3022525.054 | 673647.5257 | 1.5 | Tc-99 | 0 | pCi/g | Pre |
| 837-H7-2 | 3022525.054 | 673647.5257 | 1.5 | Th-230 | 0.4 | pCi/g | Pre |
| 837-H7-2 | 3022525.054 | 673647.5257 | 1.5 | Th-232 | 0.6 | pCi/g | Pre |
| 837-H7-2 | 3022525.054 | 673647.5257 | 1.5 | U-233/234 | 4.5 | pCi/g | Pre |
| 837-H7-2 | 3022525.054 | 673647.5257 | 1.5 | U-235 | 0.2 | pCi/g | Pre |
| 837-H7-2 | 3022525.054 | 673647.5257 | 1.5 | U-238 | 1.3 | pCi/g | Pre |
| 837-H7-3 | 3022525.054 | 673647.5257 | 2.5 | Am-241 | -0.22 | pCi/g | Pre |
| 837-H7-3 | 3022525.054 | 673647.5257 | 2.5 | Pu-238 | 0 | pCi/g | Pre |
| 837-H7-3 | 3022525.054 | 673647.5257 | 2.5 | Pu-239/240 | 0 | pCi/g | Pre |
| 837-H7-3 | 3022525.054 | 673647.5257 | 2.5 | Pu-241 | 0 | pCi/g | Pre |
| 837-H7-3 | 3022525.054 | 673647.5257 | 2.5 | Pu-242 | 0 | pCi/g | Pre |
| 837-H7-3 | 3022525.054 | 673647.5257 | 2.5 | Tc-99 | 0 | pCi/g | Pre |
| 837-H7-3 | 3022525.054 | 673647.5257 | 2.5 | Th-230 | 0.7 | pCi/g | Pre |
| 837-H7-3 | 3022525.054 | 673647.5257 | 2.5 | Th-232 | 1.1 | pCi/g | Pre |
| 837-H7-3 | 3022525.054 | 673647.5257 | 2.5 | U-233/234 | 1.7 | pCi/g | Pre |
| 837-H7-3 | 3022525.054 | 673647.5257 | 2.5 | U-235 | 0.1 | pCi/g | Pre |
| 837-H7-3 | 3022525.054 | 673647.5257 | 2.5 | U-238 | 0.6 | pCi/g | Pre |
| 838-C2-2 | 3022528.167 | 673624.5232 | 1.5 | Am-241 | -0.2 | pCi/g | Pre |
| 838-C2-2 | 3022528.167 | 673624.5232 | 1.5 | Pu-238 | 0 | pCi/g | Pre |
| 838-C2-2 | 3022528.167 | 673624.5232 | 1.5 | Pu-239/240 | 0 | pCi/g | Pre |
| 838-C2-2 | 3022528.167 | 673624.5232 | 1.5 | Pu-241 | 0 | pCi/g | Pre |
| 838-C2-2 | 3022528.167 | 673624.5232 | 1.5 | Pu-242 | 0 | pCi/g | Pre |
| 838-C2-2 | 3022528.167 | 673624.5232 | 1.5 | Tc-99 | 0 | pCi/g | Pre |
| 838-C2-2 | 3022528.167 | 673624.5232 | 1.5 | Th-230 | 0.9 | pCi/g | Pre |
| 838-C2-2 | 3022528.167 | 673624.5232 | 1.5 | Th-232 | 1.5 | pCi/g | Pre |
| 838-C2-2 | 3022528.167 | 673624.5232 | 1.5 | U-233/234 | 7 | pCi/g | Pre |
| 838-C2-2 | 3022528.167 | 673624.5232 | 1.5 | U-235 | 0.3 | pCi/g | Pre |
| 838-C2-2 | 3022528.167 | 673624.5232 | 1.5 | U-238 | 1.7 | pCi/g | Pre |
| 838-C2-3 | 3022528.167 | 673624.5232 | 2.5 | Am-241 | 0 | pCi/g | Pre |
| 838-C2-3 | 3022528.167 | 673624.5232 | 2.5 | Pu-238 | 0 | pCi/g | Pre |
| 838-C2-3 | 3022528.167 | 673624.5232 | 2.5 | Pu-239/240 | 0 | pCi/g | Pre |
| 838-C2-3 | 3022528.167 | 673624.5232 | 2.5 | Pu-241 | 0 | pCi/g | Pre |
| 838-C2-3 | 3022528.167 | 673624.5232 | 2.5 | Pu-242 | 0 | pCi/g | Pre |
| 838-C2-3 | 3022528.167 | 673624.5232 | 2.5 | Tc-99 | 0 | pCi/g | Pre |
| 838-C2-3 | 3022528.167 | 673624.5232 | 2.5 | Th-230 | 0.5 | pCi/g | Pre |
| 838-C2-3 | 3022528.167 | 673624.5232 | 2.5 | Th-232 | 0.7 | pCi/g | Pre |
| 838-C2-3 | 3022528.167 | 673624.5232 | 2.5 | U-233/234 | 0.6 | pCi/g | Pre |
| 838-C2-3 | 3022528.167 | 673624.5232 | 2.5 | U-235 | 0 | pCi/g | Pre |
| 838-C2-3 | 3022528.167 | 673624.5232 | 2.5 | U-238 | 0.3 | pCi/g | Pre |
| 838-G6-2 | 3022546.564 | 673627.0028 | 1.5 | Am-241 | 0.66 | pCi/g | Pre |
| 838-G6-2 | 3022546.564 | 673627.0028 | 1.5 | Pu-238 | 0.1 | pCi/g | Pre |
| 838-G6-2 | 3022546.564 | 673627.0028 | 1.5 | Pu-239/240 | 0.8 | pCi/g | Pre |

## Historical Dataset, Survey Unit 19

| Sample ID# | Sample Location | | Sample Depth (ft) | Contaminant Name | Analytical Result | Units | Period |
|---|---|---|---|---|---|---|---|
| | Easting | Northing | | | | | |
| 838-G6-2 | 3022546.564 | 673627.0028 | 1.5 | Pu-241 | 2.21 | pCi/g | Pre |
| 838-G6-2 | 3022546.564 | 673627.0028 | 1.5 | Pu-242 | 0 | pCi/g | Pre |
| 838-G6-2 | 3022546.564 | 673627.0028 | 1.5 | Tc-99 | 0.4 | pCi/g | Pre |
| 838-G6-2 | 3022546.564 | 673627.0028 | 1.5 | Th-230 | 1.4 | pCi/g | Pre |
| 838-G6-2 | 3022546.564 | 673627.0028 | 1.5 | Th-232 | 1.3 | pCi/g | Pre |
| 838-G6-2 | 3022546.564 | 673627.0028 | 1.5 | U-233/234 | 5.2 | pCi/g | Pre |
| 838-G6-2 | 3022546.564 | 673627.0028 | 1.5 | U-235 | 0.2 | pCi/g | Pre |
| 838-G6-2 | 3022546.564 | 673627.0028 | 1.5 | U-238 | 1.6 | pCi/g | Pre |
| 838-G6-3 | 3022546.564 | 673627.0028 | 2.5 | Am-241 | -0.2 | pCi/g | Pre |
| 838-G6-3 | 3022546.564 | 673627.0028 | 2.5 | Pu-238 | 0 | pCi/g | Pre |
| 838-G6-3 | 3022546.564 | 673627.0028 | 2.5 | Pu-239/240 | 0 | pCi/g | Pre |
| 838-G6-3 | 3022546.564 | 673627.0028 | 2.5 | Pu-241 | 0 | pCi/g | Pre |
| 838-G6-3 | 3022546.564 | 673627.0028 | 2.5 | Pu-242 | 0 | pCi/g | Pre |
| 838-G6-3 | 3022546.564 | 673627.0028 | 2.5 | Tc-99 | 0 | pCi/g | Pre |
| 838-G6-3 | 3022546.564 | 673627.0028 | 2.5 | Th-230 | 0.7 | pCi/g | Pre |
| 838-G6-3 | 3022546.564 | 673627.0028 | 2.5 | Th-232 | 1.1 | pCi/g | Pre |
| 838-G6-3 | 3022546.564 | 673627.0028 | 2.5 | U-233/234 | 2 | pCi/g | Pre |
| 838-G6-3 | 3022546.564 | 673627.0028 | 2.5 | U-235 | 0.1 | pCi/g | Pre |
| 838-G6-3 | 3022546.564 | 673627.0028 | 2.5 | U-238 | 0.7 | pCi/g | Pre |
| 839-C2-2 | 3022554.277 | 673604.6202 | 1.5 | Am-241 | 0.17 | pCi/g | Pre |
| 839-C2-2 | 3022554.277 | 673604.6202 | 1.5 | Pu-238 | 0 | pCi/g | Pre |
| 839-C2-2 | 3022554.277 | 673604.6202 | 1.5 | Pu-239/240 | 0 | pCi/g | Pre |
| 839-C2-2 | 3022554.277 | 673604.6202 | 1.5 | Pu-241 | 0 | pCi/g | Pre |
| 839-C2-2 | 3022554.277 | 673604.6202 | 1.5 | Pu-242 | 0 | pCi/g | Pre |
| 839-C2-2 | 3022554.277 | 673604.6202 | 1.5 | Tc-99 | 0 | pCi/g | Pre |
| 839-C2-2 | 3022554.277 | 673604.6202 | 1.5 | Th-230 | 0.6 | pCi/g | Pre |
| 839-C2-2 | 3022554.277 | 673604.6202 | 1.5 | Th-232 | 1 | pCi/g | Pre |
| 839-C2-2 | 3022554.277 | 673604.6202 | 1.5 | U-233/234 | 4.3 | pCi/g | Pre |
| 839-C2-2 | 3022554.277 | 673604.6202 | 1.5 | U-235 | 0.2 | pCi/g | Pre |
| 839-C2-2 | 3022554.277 | 673604.6202 | 1.5 | U-238 | 1.2 | pCi/g | Pre |
| 839-E4-2 | 3022563.475 | 673605.86 | 1.5 | Am-241 | -0.3 | pCi/g | Pre |
| 839-E4-2 | 3022563.475 | 673605.86 | 1.5 | Pu-238 | 0 | pCi/g | Pre |
| 839-E4-2 | 3022563.475 | 673605.86 | 1.5 | Pu-239/240 | 0 | pCi/g | Pre |
| 839-E4-2 | 3022563.475 | 673605.86 | 1.5 | Pu-241 | 0 | pCi/g | Pre |
| 839-E4-2 | 3022563.475 | 673605.86 | 1.5 | Pu-242 | 0 | pCi/g | Pre |
| 839-E4-2 | 3022563.475 | 673605.86 | 1.5 | Tc-99 | 0 | pCi/g | Pre |
| 839-E4-2 | 3022563.475 | 673605.86 | 1.5 | Th-230 | 0.6 | pCi/g | Pre |
| 839-E4-2 | 3022563.475 | 673605.86 | 1.5 | Th-232 | 0.9 | pCi/g | Pre |
| 839-E4-2 | 3022563.475 | 673605.86 | 1.5 | U-233/234 | 3.8 | pCi/g | Pre |
| 839-E4-2 | 3022563.475 | 673605.86 | 1.5 | U-235 | 0.2 | pCi/g | Pre |
| 839-E4-2 | 3022563.475 | 673605.86 | 1.5 | U-238 | 1.1 | pCi/g | Pre |
| 839-E4-3 | 3022563.475 | 673605.86 | 2.5 | Am-241 | -0.01 | pCi/g | Pre |
| 839-E4-3 | 3022563.475 | 673605.86 | 2.5 | Pu-238 | 0 | pCi/g | Pre |
| 839-E4-3 | 3022563.475 | 673605.86 | 2.5 | Pu-239/240 | 0 | pCi/g | Pre |
| 839-E4-3 | 3022563.475 | 673605.86 | 2.5 | Pu-241 | 0 | pCi/g | Pre |
| 839-E4-3 | 3022563.475 | 673605.86 | 2.5 | Pu-242 | 0 | pCi/g | Pre |
| 839-E4-3 | 3022563.475 | 673605.86 | 2.5 | Tc-99 | 0 | pCi/g | Pre |
| 839-E4-3 | 3022563.475 | 673605.86 | 2.5 | Th-230 | 0.4 | pCi/g | Pre |
| 839-E4-3 | 3022563.475 | 673605.86 | 2.5 | Th-232 | 0.6 | pCi/g | Pre |
| 839-E4-3 | 3022563.475 | 673605.86 | 2.5 | U-233/234 | 1.7 | pCi/g | Pre |
| 839-E4-3 | 3022563.475 | 673605.86 | 2.5 | U-235 | 0.1 | pCi/g | Pre |
| 839-E4-3 | 3022563.475 | 673605.86 | 2.5 | U-238 | 0.6 | pCi/g | Pre |
| 874-C1-2 | 3022453.455 | 673640.2176 | 1.5 | Am-241 | 0.16 | pCi/g | Pre |
| 874-C1-2 | 3022453.455 | 673640.2176 | 1.5 | Pu-238 | 0.03 | pCi/g | Pre |

## Historical Dataset, Survey Unit 19

| Sample ID# | Sample Location | | Sample Depth (ft) | Contaminant Name | Analytical Result | Units | Period |
|---|---|---|---|---|---|---|---|
| | Easting | Northing | | | | | |
| 874-C1-2 | 3022453.455 | 673640.2176 | 1.5 | Pu-239/240 | 0.44 | pCi/g | Pre |
| 874-C1-2 | 3022453.455 | 673640.2176 | 1.5 | Pu-241 | 0.73 | pCi/g | Pre |
| 874-C1-2 | 3022453.455 | 673640.2176 | 1.5 | Pu-242 | 0 | pCi/g | Pre |
| 874-C1-2 | 3022453.455 | 673640.2176 | 1.5 | Tc-99 | 3.1 | pCi/g | Pre |
| 874-C1-2 | 3022453.455 | 673640.2176 | 1.5 | Th-230 | 1.1 | pCi/g | Pre |
| 874-C1-2 | 3022453.455 | 673640.2176 | 1.5 | Th-232 | 1.8 | pCi/g | Pre |
| 874-C1-2 | 3022453.455 | 673640.2176 | 1.5 | U-233/234 | 25.4 | pCi/g | Pre |
| 874-C1-2 | 3022453.455 | 673640.2176 | 1.5 | U-235 | 1 | pCi/g | Pre |
| 874-C1-2 | 3022453.455 | 673640.2176 | 1.5 | U-238 | 4 | pCi/g | Pre |
| 874-C1-3 | 3022453.455 | 673640.2176 | 2.5 | Am-241 | 0.14 | pCi/g | Pre |
| 874-C1-3 | 3022453.455 | 673640.2176 | 2.5 | Pu-238 | 0.03 | pCi/g | Pre |
| 874-C1-3 | 3022453.455 | 673640.2176 | 2.5 | Pu-239/240 | 0.39 | pCi/g | Pre |
| 874-C1-3 | 3022453.455 | 673640.2176 | 2.5 | Pu-241 | 0.63 | pCi/g | Pre |
| 874-C1-3 | 3022453.455 | 673640.2176 | 2.5 | Pu-242 | 0 | pCi/g | Pre |
| 874-C1-3 | 3022453.455 | 673640.2176 | 2.5 | Tc-99 | 1.6 | pCi/g | Pre |
| 874-C1-3 | 3022453.455 | 673640.2176 | 2.5 | Th-230 | 0.6 | pCi/g | Pre |
| 874-C1-3 | 3022453.455 | 673640.2176 | 2.5 | Th-232 | 1 | pCi/g | Pre |
| 874-C1-3 | 3022453.455 | 673640.2176 | 2.5 | U-233/234 | 3.8 | pCi/g | Pre |
| 874-C1-3 | 3022453.455 | 673640.2176 | 2.5 | U-235 | 0.2 | pCi/g | Pre |
| 874-C1-3 | 3022453.455 | 673640.2176 | 2.5 | U-238 | 1.1 | pCi/g | Pre |
| 875-C2-2 | 3022482.175 | 673618.3243 | 1.5 | Am-241 | 0.04 | pCi/g | Pre |
| 875-C2-2 | 3022482.175 | 673618.3243 | 1.5 | Pu-238 | 0.01 | pCi/g | Pre |
| 875-C2-2 | 3022482.175 | 673618.3243 | 1.5 | Pu-239/240 | 0.1 | pCi/g | Pre |
| 875-C2-2 | 3022482.175 | 673618.3243 | 1.5 | Pu-241 | 0.17 | pCi/g | Pre |
| 875-C2-2 | 3022482.175 | 673618.3243 | 1.5 | Pu-242 | 0 | pCi/g | Pre |
| 875-C2-2 | 3022482.175 | 673618.3243 | 1.5 | Tc-99 | 2 | pCi/g | Pre |
| 875-C2-2 | 3022482.175 | 673618.3243 | 1.5 | Th-230 | 0.9 | pCi/g | Pre |
| 875-C2-2 | 3022482.175 | 673618.3243 | 1.5 | Th-232 | 1.4 | pCi/g | Pre |
| 875-C2-2 | 3022482.175 | 673618.3243 | 1.5 | U-233/234 | 6.9 | pCi/g | Pre |
| 875-C2-2 | 3022482.175 | 673618.3243 | 1.5 | U-235 | 0.3 | pCi/g | Pre |
| 875-C2-2 | 3022482.175 | 673618.3243 | 1.5 | U-238 | 1.7 | pCi/g | Pre |
| 875-C2-3 | 3022482.175 | 673618.3243 | 2.5 | Am-241 | -0.15 | pCi/g | Pre |
| 875-C2-3 | 3022482.175 | 673618.3243 | 2.5 | Pu-238 | 0 | pCi/g | Pre |
| 875-C2-3 | 3022482.175 | 673618.3243 | 2.5 | Pu-239/240 | 0 | pCi/g | Pre |
| 875-C2-3 | 3022482.175 | 673618.3243 | 2.5 | Pu-241 | 0 | pCi/g | Pre |
| 875-C2-3 | 3022482.175 | 673618.3243 | 2.5 | Pu-242 | 0 | pCi/g | Pre |
| 875-C2-3 | 3022482.175 | 673618.3243 | 2.5 | Tc-99 | 1.4 | pCi/g | Pre |
| 875-C2-3 | 3022482.175 | 673618.3243 | 2.5 | Th-230 | 0.9 | pCi/g | Pre |
| 875-C2-3 | 3022482.175 | 673618.3243 | 2.5 | Th-232 | 1.4 | pCi/g | Pre |
| 875-C2-3 | 3022482.175 | 673618.3243 | 2.5 | U-233/234 | 2.5 | pCi/g | Pre |
| 875-C2-3 | 3022482.175 | 673618.3243 | 2.5 | U-235 | 0.1 | pCi/g | Pre |
| 875-C2-3 | 3022482.175 | 673618.3243 | 2.5 | U-238 | 0.8 | pCi/g | Pre |
| 875-I8-2 | 3022509.77 | 673622.0436 | 1.5 | Am-241 | 0.34 | pCi/g | Pre |
| 875-I8-2 | 3022509.77 | 673622.0436 | 1.5 | Pu-238 | 0.06 | pCi/g | Pre |
| 875-I8-2 | 3022509.77 | 673622.0436 | 1.5 | Pu-239/240 | 0.93 | pCi/g | Pre |
| 875-I8-2 | 3022509.77 | 673622.0436 | 1.5 | Pu-241 | 1.53 | pCi/g | Pre |
| 875-I8-2 | 3022509.77 | 673622.0436 | 1.5 | Pu-242 | 0 | pCi/g | Pre |
| 875-I8-2 | 3022509.77 | 673622.0436 | 1.5 | Tc-99 | 1.9 | pCi/g | Pre |
| 875-I8-2 | 3022509.77 | 673622.0436 | 1.5 | Th-230 | 0.8 | pCi/g | Pre |
| 875-I8-2 | 3022509.77 | 673622.0436 | 1.5 | Th-232 | 1.2 | pCi/g | Pre |
| 875-I8-2 | 3022509.77 | 673622.0436 | 1.5 | U-233/234 | 5.7 | pCi/g | Pre |
| 875-I8-2 | 3022509.77 | 673622.0436 | 1.5 | U-235 | 0.2 | pCi/g | Pre |
| 875-I8-2 | 3022509.77 | 673622.0436 | 1.5 | U-238 | 1.5 | pCi/g | Pre |
| 875-I8-3 | 3022509.77 | 673622.0436 | 2.5 | Am-241 | -0.69 | pCi/g | Pre |

## Historical Dataset, Survey Unit 19

| Sample ID# | Sample Location | | Sample Depth (ft) | Contaminant Name | Analytical Result | Units | Period |
|---|---|---|---|---|---|---|---|
| | Easting | Northing | | | | | |
| 875-I8-3 | 3022509.77 | 673622.0436 | 2.5 | Pu-238 | 0 | pCi/g | Pre |
| 875-I8-3 | 3022509.77 | 673622.0436 | 2.5 | Pu-239/240 | 0 | pCi/g | Pre |
| 875-I8-3 | 3022509.77 | 673622.0436 | 2.5 | Pu-241 | 0 | pCi/g | Pre |
| 875-I8-3 | 3022509.77 | 673622.0436 | 2.5 | Pu-242 | 0 | pCi/g | Pre |
| 875-I8-3 | 3022509.77 | 673622.0436 | 2.5 | Tc-99 | 1.3 | pCi/g | Pre |
| 875-I8-3 | 3022509.77 | 673622.0436 | 2.5 | Th-230 | 0.8 | pCi/g | Pre |
| 875-I8-3 | 3022509.77 | 673622.0436 | 2.5 | Th-232 | 1.2 | pCi/g | Pre |
| 875-I8-3 | 3022509.77 | 673622.0436 | 2.5 | U-233/234 | 2 | pCi/g | Pre |
| 875-I8-3 | 3022509.77 | 673622.0436 | 2.5 | U-235 | 0.1 | pCi/g | Pre |
| 875-I8-3 | 3022509.77 | 673622.0436 | 2.5 | U-238 | 0.7 | pCi/g | Pre |
| 876-D3-2 | 3022512.884 | 673599.0411 | 1.5 | Am-241 | -0.06 | pCi/g | Pre |
| 876-D3-2 | 3022512.884 | 673599.0411 | 1.5 | Pu-238 | 0 | pCi/g | Pre |
| 876-D3-2 | 3022512.884 | 673599.0411 | 1.5 | Pu-239/240 | 0 | pCi/g | Pre |
| 876-D3-2 | 3022512.884 | 673599.0411 | 1.5 | Pu-241 | 0 | pCi/g | Pre |
| 876-D3-2 | 3022512.884 | 673599.0411 | 1.5 | Pu-242 | 0 | pCi/g | Pre |
| 876-D3-2 | 3022512.884 | 673599.0411 | 1.5 | Tc-99 | 1.1 | pCi/g | Pre |
| 876-D3-2 | 3022512.884 | 673599.0411 | 1.5 | Th-230 | 0.8 | pCi/g | Pre |
| 876-D3-2 | 3022512.884 | 673599.0411 | 1.5 | Th-232 | 1.2 | pCi/g | Pre |
| 876-D3-2 | 3022512.884 | 673599.0411 | 1.5 | U-233/234 | 1.3 | pCi/g | Pre |
| 876-D3-2 | 3022512.884 | 673599.0411 | 1.5 | U-235 | 0.1 | pCi/g | Pre |
| 876-D3-2 | 3022512.884 | 673599.0411 | 1.5 | U-238 | 0.5 | pCi/g | Pre |
| 876-D3-3 | 3022512.884 | 673599.0411 | 2.5 | Am-241 | -0.18 | pCi/g | Pre |
| 876-D3-3 | 3022512.884 | 673599.0411 | 2.5 | Pu-238 | 0 | pCi/g | Pre |
| 876-D3-3 | 3022512.884 | 673599.0411 | 2.5 | Pu-239/240 | 0 | pCi/g | Pre |
| 876-D3-3 | 3022512.884 | 673599.0411 | 2.5 | Pu-241 | 0 | pCi/g | Pre |
| 876-D3-3 | 3022512.884 | 673599.0411 | 2.5 | Pu-242 | 0 | pCi/g | Pre |
| 876-D3-3 | 3022512.884 | 673599.0411 | 2.5 | Tc-99 | 1.6 | pCi/g | Pre |
| 876-D3-3 | 3022512.884 | 673599.0411 | 2.5 | Th-230 | 0.3 | pCi/g | Pre |
| 876-D3-3 | 3022512.884 | 673599.0411 | 2.5 | Th-232 | 0.4 | pCi/g | Pre |
| 876-D3-3 | 3022512.884 | 673599.0411 | 2.5 | U-233/234 | 4 | pCi/g | Pre |
| 876-D3-3 | 3022512.884 | 673599.0411 | 2.5 | U-235 | 0.2 | pCi/g | Pre |
| 876-D3-3 | 3022512.884 | 673599.0411 | 2.5 | U-238 | 1.1 | pCi/g | Pre |
| 876-H7-2 | 3022531.281 | 673601.5207 | 1.5 | Am-241 | 0.15 | pCi/g | Pre |
| 876-H7-2 | 3022531.281 | 673601.5207 | 1.5 | Pu-238 | 0.1 | pCi/g | Pre |
| 876-H7-2 | 3022531.281 | 673601.5207 | 1.5 | Pu-239/240 | 0.3 | pCi/g | Pre |
| 876-H7-2 | 3022531.281 | 673601.5207 | 1.5 | Pu-241 | -0.3 | pCi/g | Pre |
| 876-H7-2 | 3022531.281 | 673601.5207 | 1.5 | Pu-242 | 0 | pCi/g | Pre |
| 876-H7-2 | 3022531.281 | 673601.5207 | 1.5 | Tc-99 | 0.7 | pCi/g | Pre |
| 876-H7-2 | 3022531.281 | 673601.5207 | 1.5 | Th-230 | 1.7 | pCi/g | Pre |
| 876-H7-2 | 3022531.281 | 673601.5207 | 1.5 | Th-232 | 1.6 | pCi/g | Pre |
| 876-H7-2 | 3022531.281 | 673601.5207 | 1.5 | U-233/234 | 5.7 | pCi/g | Pre |
| 876-H7-2 | 3022531.281 | 673601.5207 | 1.5 | U-235 | 0.1 | pCi/g | Pre |
| 876-H7-2 | 3022531.281 | 673601.5207 | 1.5 | U-238 | 1.8 | pCi/g | Pre |
| 876-H7-3 | 3022531.281 | 673601.5207 | 2.5 | Am-241 | 0.3 | | Pre |
| 876-H7-3 | 3022531.281 | 673601.5207 | 2.5 | Pu-238 | -0.06 | | Pre |
| 876-H7-3 | 3022531.281 | 673601.5207 | 2.5 | Pu-239/240 | 0.06 | | Pre |
| 876-H7-3 | 3022531.281 | 673601.5207 | 2.5 | Pu-241 | -0.56 | | Pre |
| 876-H7-3 | 3022531.281 | 673601.5207 | 2.5 | Pu-242 | 0 | | Pre |
| 876-H7-3 | 3022531.281 | 673601.5207 | 2.5 | Tc-99 | 0.9 | | Pre |
| 876-H7-3 | 3022531.281 | 673601.5207 | 2.5 | Th-230 | 1.1 | | Pre |
| 876-H7-3 | 3022531.281 | 673601.5207 | 2.5 | Th-232 | 1.1 | | Pre |
| 876-H7-3 | 3022531.281 | 673601.5207 | 2.5 | U-233/234 | 2.7 | | Pre |
| 876-H7-3 | 3022531.281 | 673601.5207 | 2.5 | U-235 | 0.1 | | Pre |
| 876-H7-3 | 3022531.281 | 673601.5207 | 2.5 | U-238 | 1.3 | | Pre |

## Historical Dataset, Survey Unit 19

| Sample ID# | Sample Location | | Sample Depth (ft) | Contaminant Name | Analytical Result | Units | Period |
|---|---|---|---|---|---|---|---|
| | Easting | Northing | | | | | |
| 877-C2-2 | 3022534.394 | 673578.5182 | 1.5 | Am-241 | 0.19 | | Pre |
| 877-C2-2 | 3022534.394 | 673578.5182 | 1.5 | Pu-238 | 0.03 | | Pre |
| 877-C2-2 | 3022534.394 | 673578.5182 | 1.5 | Pu-239/240 | 0.53 | | Pre |
| 877-C2-2 | 3022534.394 | 673578.5182 | 1.5 | Pu-241 | 0.87 | | Pre |
| 877-C2-2 | 3022534.394 | 673578.5182 | 1.5 | Pu-242 | 0 | | Pre |
| 877-C2-2 | 3022534.394 | 673578.5182 | 1.5 | Tc-99 | 1.7 | | Pre |
| 877-C2-2 | 3022534.394 | 673578.5182 | 1.5 | Th-230 | 1 | | Pre |
| 877-C2-2 | 3022534.394 | 673578.5182 | 1.5 | Th-232 | 1.6 | | Pre |
| 877-C2-2 | 3022534.394 | 673578.5182 | 1.5 | U-233/234 | 4.5 | | Pre |
| 877-C2-2 | 3022534.394 | 673578.5182 | 1.5 | U-235 | 0.2 | | Pre |
| 877-C2-2 | 3022534.394 | 673578.5182 | 1.5 | U-238 | 1.2 | | Pre |
| 877-C2-3 | 3022534.394 | 673578.5182 | 2.5 | Am-241 | -0.23 | | Pre |
| 877-C2-3 | 3022534.394 | 673578.5182 | 2.5 | Pu-238 | 0 | | Pre |
| 877-C2-3 | 3022534.394 | 673578.5182 | 2.5 | Pu-239/240 | 0 | | Pre |
| 877-C2-3 | 3022534.394 | 673578.5182 | 2.5 | Pu-241 | 0 | | Pre |
| 877-C2-3 | 3022534.394 | 673578.5182 | 2.5 | Pu-242 | 0 | | Pre |
| 877-C2-3 | 3022534.394 | 673578.5182 | 2.5 | Tc-99 | 1.7 | | Pre |
| 877-C2-3 | 3022534.394 | 673578.5182 | 2.5 | Th-230 | 1.3 | | Pre |
| 877-C2-3 | 3022534.394 | 673578.5182 | 2.5 | Th-232 | 2.1 | | Pre |
| 877-C2-3 | 3022534.394 | 673578.5182 | 2.5 | U-233/234 | 4.4 | | Pre |
| 877-C2-3 | 3022534.394 | 673578.5182 | 2.5 | U-235 | 0.2 | | Pre |
| 877-C2-3 | 3022534.394 | 673578.5182 | 2.5 | U-238 | 1.2 | | Pre |
| 877-I2-2 | 3022546.324 | 673594.1794 | 1.5 | Am-241 | -0.55 | | Pre |
| 877-I2-2 | 3022546.324 | 673594.1794 | 1.5 | Pu-238 | 0 | | Pre |
| 877-I2-2 | 3022546.324 | 673594.1794 | 1.5 | Pu-239/240 | 0 | | Pre |
| 877-I2-2 | 3022546.324 | 673594.1794 | 1.5 | Pu-241 | 0 | | Pre |
| 877-I2-2 | 3022546.324 | 673594.1794 | 1.5 | Pu-242 | 0 | | Pre |
| 877-I2-2 | 3022546.324 | 673594.1794 | 1.5 | Tc-99 | 1.8 | | Pre |
| 877-I2-2 | 3022546.324 | 673594.1794 | 1.5 | Th-230 | 0.6 | | Pre |
| 877-I2-2 | 3022546.324 | 673594.1794 | 1.5 | Th-232 | 0.9 | | Pre |
| 877-I2-2 | 3022546.324 | 673594.1794 | 1.5 | U-233/234 | 5 | | Pre |
| 877-I2-2 | 3022546.324 | 673594.1794 | 1.5 | U-235 | 0.2 | | Pre |
| 877-I2-2 | 3022546.324 | 673594.1794 | 1.5 | U-238 | 1.3 | | Pre |
| 877-I2-3 | 3022546.324 | 673594.1794 | 2.5 | Am-241 | -0.08 | | Pre |
| 877-I2-3 | 3022546.324 | 673594.1794 | 2.5 | Pu-238 | 0 | | Pre |
| 877-I2-3 | 3022546.324 | 673594.1794 | 2.5 | Pu-239/240 | 0 | | Pre |
| 877-I2-3 | 3022546.324 | 673594.1794 | 2.5 | Pu-241 | 0 | | Pre |
| 877-I2-3 | 3022546.324 | 673594.1794 | 2.5 | Pu-242 | 0 | | Pre |
| 877-I2-3 | 3022546.324 | 673594.1794 | 2.5 | Tc-99 | 1.1 | | Pre |
| 877-I2-3 | 3022546.324 | 673594.1794 | 2.5 | Th-230 | 0.6 | | Pre |
| 877-I2-3 | 3022546.324 | 673594.1794 | 2.5 | Th-232 | 0.9 | | Pre |
| 877-I2-3 | 3022546.324 | 673594.1794 | 2.5 | U-233/234 | 1.3 | | Pre |
| 877-I2-3 | 3022546.324 | 673594.1794 | 2.5 | U-235 | 0.1 | | Pre |
| 877-I2-3 | 3022546.324 | 673594.1794 | 2.5 | U-238 | 0.5 | | Pre |
| 911-C2-2 | 3022410.074 | 673632.0283 | 1.5 | Am-241 | -0.09 | | Pre |
| 911-C2-2 | 3022410.074 | 673632.0283 | 1.5 | Pu-238 | 0 | | Pre |
| 911-C2-2 | 3022410.074 | 673632.0283 | 1.5 | Pu-239/240 | 0 | | Pre |
| 911-C2-2 | 3022410.074 | 673632.0283 | 1.5 | Pu-241 | 0 | | Pre |
| 911-C2-2 | 3022410.074 | 673632.0283 | 1.5 | Pu-242 | 0 | | Pre |
| 911-C2-2 | 3022410.074 | 673632.0283 | 1.5 | Tc-99 | 1.3 | | Pre |
| 911-C2-2 | 3022410.074 | 673632.0283 | 1.5 | Th-230 | 0.8 | | Pre |
| 911-C2-2 | 3022410.074 | 673632.0283 | 1.5 | Th-232 | 1.2 | | Pre |
| 911-C2-2 | 3022410.074 | 673632.0283 | 1.5 | U-233/234 | 20 | | Pre |
| 911-C2-2 | 3022410.074 | 673632.0283 | 1.5 | U-235 | 0.8 | | Pre |

## Historical Dataset, Survey Unit 19

| Sample ID# | Sample Location | | Sample Depth (ft) | Contaminant Name | Analytical Result | Units | Period |
|---|---|---|---|---|---|---|---|
| | Easting | Northing | | | | | |
| 911-C2-2 | 3022410.074 | 673632.0283 | 1.5 | U-238 | 3.4 | | Pre |
| 911-C2-3 | 3022410.074 | 673632.0283 | 2.5 | Am-241 | -0.05 | | Pre |
| 911-C2-3 | 3022410.074 | 673632.0283 | 2.5 | Pu-238 | 0 | | Pre |
| 911-C2-3 | 3022410.074 | 673632.0283 | 2.5 | Pu-239/240 | 0 | | Pre |
| 911-C2-3 | 3022410.074 | 673632.0283 | 2.5 | Pu-241 | 0 | | Pre |
| 911-C2-3 | 3022410.074 | 673632.0283 | 2.5 | Pu-242 | 0 | | Pre |
| 911-C2-3 | 3022410.074 | 673632.0283 | 2.5 | Tc-99 | 0.3 | | Pre |
| 911-C2-3 | 3022410.074 | 673632.0283 | 2.5 | Th-230 | 0.7 | | Pre |
| 911-C2-3 | 3022410.074 | 673632.0283 | 2.5 | Th-232 | 1.1 | | Pre |
| 911-C2-3 | 3022410.074 | 673632.0283 | 2.5 | U-233/234 | 4.4 | | Pre |
| 911-C2-3 | 3022410.074 | 673632.0283 | 2.5 | U-235 | 0.2 | | Pre |
| 911-C2-3 | 3022410.074 | 673632.0283 | 2.5 | U-238 | 1.2 | | Pre |
| 911-H7-2 | 3022433.07 | 673635.1278 | 1.5 | Am-241 | 0.1 | | Pre |
| 911-H7-2 | 3022433.07 | 673635.1278 | 1.5 | Pu-238 | 0.02 | | Pre |
| 911-H7-2 | 3022433.07 | 673635.1278 | 1.5 | Pu-239/240 | 0.27 | | Pre |
| 911-H7-2 | 3022433.07 | 673635.1278 | 1.5 | Pu-241 | 0.44 | | Pre |
| 911-H7-2 | 3022433.07 | 673635.1278 | 1.5 | Pu-242 | 0 | | Pre |
| 911-H7-2 | 3022433.07 | 673635.1278 | 1.5 | Tc-99 | 3 | | Pre |
| 911-H7-2 | 3022433.07 | 673635.1278 | 1.5 | Th-230 | 1.1 | | Pre |
| 911-H7-2 | 3022433.07 | 673635.1278 | 1.5 | Th-232 | 1.7 | | Pre |
| 911-H7-2 | 3022433.07 | 673635.1278 | 1.5 | U-233/234 | 22.5 | | Pre |
| 911-H7-2 | 3022433.07 | 673635.1278 | 1.5 | U-235 | 0.9 | | Pre |
| 911-H7-2 | 3022433.07 | 673635.1278 | 1.5 | U-238 | 3.7 | | Pre |
| 911-H7-3 | 3022433.07 | 673635.1278 | 2.5 | Am-241 | -0.07 | | Pre |
| 911-H7-3 | 3022433.07 | 673635.1278 | 2.5 | Pu-238 | 0 | | Pre |
| 911-H7-3 | 3022433.07 | 673635.1278 | 2.5 | Pu-239/240 | 0 | | Pre |
| 911-H7-3 | 3022433.07 | 673635.1278 | 2.5 | Pu-241 | 0 | | Pre |
| 911-H7-3 | 3022433.07 | 673635.1278 | 2.5 | Pu-242 | 0 | | Pre |
| 911-H7-3 | 3022433.07 | 673635.1278 | 2.5 | Tc-99 | 2 | | Pre |
| 911-H7-3 | 3022433.07 | 673635.1278 | 2.5 | Th-230 | 0.6 | | Pre |
| 911-H7-3 | 3022433.07 | 673635.1278 | 2.5 | Th-232 | 1 | | Pre |
| 911-H7-3 | 3022433.07 | 673635.1278 | 2.5 | U-233/234 | 6.6 | | Pre |
| 911-H7-3 | 3022433.07 | 673635.1278 | 2.5 | U-235 | 0.3 | | Pre |
| 911-H7-3 | 3022433.07 | 673635.1278 | 2.5 | U-238 | 1.6 | | Pre |
| 912-D3-2 | 3022440.782 | 673612.7452 | 1.5 | Am-241 | -0.31 | | Pre |
| 912-D3-2 | 3022440.782 | 673612.7452 | 1.5 | Pu-238 | 0 | | Pre |
| 912-D3-2 | 3022440.782 | 673612.7452 | 1.5 | Pu-239/240 | 0 | | Pre |
| 912-D3-2 | 3022440.782 | 673612.7452 | 1.5 | Pu-241 | 0 | | Pre |
| 912-D3-2 | 3022440.782 | 673612.7452 | 1.5 | Pu-242 | 0 | | Pre |
| 912-D3-2 | 3022440.782 | 673612.7452 | 1.5 | Tc-99 | 1.8 | | Pre |
| 912-D3-2 | 3022440.782 | 673612.7452 | 1.5 | Th-230 | 0.6 | | Pre |
| 912-D3-2 | 3022440.782 | 673612.7452 | 1.5 | Th-232 | 0.9 | | Pre |
| 912-D3-2 | 3022440.782 | 673612.7452 | 1.5 | U-233/234 | 5.3 | | Pre |
| 912-D3-2 | 3022440.782 | 673612.7452 | 1.5 | U-235 | 0.2 | | Pre |
| 912-D3-2 | 3022440.782 | 673612.7452 | 1.5 | U-238 | 1.4 | | Pre |
| 912-D3-3 | 3022440.782 | 673612.7452 | 2.5 | Am-241 | 0.05 | | Pre |
| 912-D3-3 | 3022440.782 | 673612.7452 | 2.5 | Pu-238 | 0.01 | | Pre |
| 912-D3-3 | 3022440.782 | 673612.7452 | 2.5 | Pu-239/240 | 0.15 | | Pre |
| 912-D3-3 | 3022440.782 | 673612.7452 | 2.5 | Pu-241 | 0.24 | | Pre |
| 912-D3-3 | 3022440.782 | 673612.7452 | 2.5 | Pu-242 | 0 | | Pre |
| 912-D3-3 | 3022440.782 | 673612.7452 | 2.5 | Tc-99 | 1.5 | | Pre |
| 912-D3-3 | 3022440.782 | 673612.7452 | 2.5 | Th-230 | 0.7 | | Pre |
| 912-D3-3 | 3022440.782 | 673612.7452 | 2.5 | Th-232 | 1 | | Pre |
| 912-D3-3 | 3022440.782 | 673612.7452 | 2.5 | U-233/234 | 2.9 | | Pre |

## Historical Dataset, Survey Unit 19

| Sample ID# | Sample Location | | Sample Depth (ft) | Contaminant Name | Analytical Result | Units | Period |
|---|---|---|---|---|---|---|---|
| | Easting | Northing | | | | | |
| 912-D3-3 | 3022440.782 | 673612.7452 | 2.5 | U-235 | 0.1 | | Pre |
| 912-D3-3 | 3022440.782 | 673612.7452 | 2.5 | U-238 | 0.9 | | Pre |
| 912-H7-2 | 3022459.179 | 673615.2248 | 1.5 | Am-241 | 3.71 | | Pre |
| 912-H7-2 | 3022459.179 | 673615.2248 | 1.5 | Pu-238 | 0.67 | | Pre |
| 912-H7-2 | 3022459.179 | 673615.2248 | 1.5 | Pu-239/240 | 10.21 | | Pre |
| 912-H7-2 | 3022459.179 | 673615.2248 | 1.5 | Pu-241 | 16.74 | | Pre |
| 912-H7-2 | 3022459.179 | 673615.2248 | 1.5 | Pu-242 | 0 | | Pre |
| 912-H7-2 | 3022459.179 | 673615.2248 | 1.5 | Tc-99 | 5.2 | | Pre |
| 912-H7-2 | 3022459.179 | 673615.2248 | 1.5 | Th-230 | 2.9 | | Pre |
| 912-H7-2 | 3022459.179 | 673615.2248 | 1.5 | Th-232 | 5.2 | | Pre |
| 912-H7-2 | 3022459.179 | 673615.2248 | 1.5 | U-233/234 | 109.1 | | Pre |
| 912-H7-2 | 3022459.179 | 673615.2248 | 1.5 | U-235 | 4.2 | | Pre |
| 912-H7-2 | 3022459.179 | 673615.2248 | 1.5 | U-238 | 10.8 | | Pre |
| 912-H7-3 | 3022459.179 | 673615.2248 | 2.5 | Am-241 | 0.05 | | Pre |
| 912-H7-3 | 3022459.179 | 673615.2248 | 2.5 | Pu-238 | 0.01 | | Pre |
| 912-H7-3 | 3022459.179 | 673615.2248 | 2.5 | Pu-239/240 | 0.13 | | Pre |
| 912-H7-3 | 3022459.179 | 673615.2248 | 2.5 | Pu-241 | 0.22 | | Pre |
| 912-H7-3 | 3022459.179 | 673615.2248 | 2.5 | Pu-242 | 0 | | Pre |
| 912-H7-3 | 3022459.179 | 673615.2248 | 2.5 | Tc-99 | 3.2 | | Pre |
| 912-H7-3 | 3022459.179 | 673615.2248 | 2.5 | Th-230 | 0.6 | | Pre |
| 912-H7-3 | 3022459.179 | 673615.2248 | 2.5 | Th-232 | 1 | | Pre |
| 912-H7-3 | 3022459.179 | 673615.2248 | 2.5 | U-233/234 | 26.4 | | Pre |
| 912-H7-3 | 3022459.179 | 673615.2248 | 2.5 | U-235 | 1 | | Pre |
| 912-H7-3 | 3022459.179 | 673615.2248 | 2.5 | U-238 | 4.1 | | Pre |
| 913-C2-2 | 3022462.293 | 673592.2223 | 1.5 | Am-241 | -0.14 | | Pre |
| 913-C2-2 | 3022462.293 | 673592.2223 | 1.5 | Pu-238 | 0 | | Pre |
| 913-C2-2 | 3022462.293 | 673592.2223 | 1.5 | Pu-239/240 | 0 | | Pre |
| 913-C2-2 | 3022462.293 | 673592.2223 | 1.5 | Pu-241 | 0 | | Pre |
| 913-C2-2 | 3022462.293 | 673592.2223 | 1.5 | Pu-242 | 0 | | Pre |
| 913-C2-2 | 3022462.293 | 673592.2223 | 1.5 | Tc-99 | 1.8 | | Pre |
| 913-C2-2 | 3022462.293 | 673592.2223 | 1.5 | Th-230 | 0.6 | | Pre |
| 913-C2-2 | 3022462.293 | 673592.2223 | 1.5 | Th-232 | 0.9 | | Pre |
| 913-C2-2 | 3022462.293 | 673592.2223 | 1.5 | U-233/234 | 4.9 | | Pre |
| 913-C2-2 | 3022462.293 | 673592.2223 | 1.5 | U-235 | 0.2 | | Pre |
| 913-C2-2 | 3022462.293 | 673592.2223 | 1.5 | U-238 | 1.3 | | Pre |
| 913-C2-3 | 3022462.293 | 673592.2223 | 2.5 | Am-241 | -0.03 | | Pre |
| 913-C2-3 | 3022462.293 | 673592.2223 | 2.5 | Pu-238 | 0 | | Pre |
| 913-C2-3 | 3022462.293 | 673592.2223 | 2.5 | Pu-239/240 | 0 | | Pre |
| 913-C2-3 | 3022462.293 | 673592.2223 | 2.5 | Pu-241 | 0 | | Pre |
| 913-C2-3 | 3022462.293 | 673592.2223 | 2.5 | Pu-242 | 0 | | Pre |
| 913-C2-3 | 3022462.293 | 673592.2223 | 2.5 | Tc-99 | 1.3 | | Pre |
| 913-C2-3 | 3022462.293 | 673592.2223 | 2.5 | Th-230 | 0.8 | | Pre |
| 913-C2-3 | 3022462.293 | 673592.2223 | 2.5 | Th-232 | 1.3 | | Pre |
| 913-C2-3 | 3022462.293 | 673592.2223 | 2.5 | U-233/234 | 2.1 | | Pre |
| 913-C2-3 | 3022462.293 | 673592.2223 | 2.5 | U-235 | 0.1 | | Pre |
| 913-C2-3 | 3022462.293 | 673592.2223 | 2.5 | U-238 | 0.8 | | Pre |
| 913-H7-2 | 3022485.289 | 673595.3217 | 1.5 | Am-241 | 0.36 | | Pre |
| 913-H7-2 | 3022485.289 | 673595.3217 | 1.5 | Pu-238 | -0.29 | | Pre |
| 913-H7-2 | 3022485.289 | 673595.3217 | 1.5 | Pu-239/240 | 1.1 | | Pre |
| 913-H7-2 | 3022485.289 | 673595.3217 | 1.5 | Pu-241 | 4.93 | | Pre |
| 913-H7-2 | 3022485.289 | 673595.3217 | 1.5 | Pu-242 | 0 | | Pre |
| 913-H7-2 | 3022485.289 | 673595.3217 | 1.5 | Tc-99 | 0.5 | | Pre |
| 913-H7-2 | 3022485.289 | 673595.3217 | 1.5 | Th-230 | 1.4 | | Pre |
| 913-H7-2 | 3022485.289 | 673595.3217 | 1.5 | Th-232 | 1.3 | | Pre |

## Historical Dataset, Survey Unit 19

| Sample ID# | Sample Location | | Sample Depth (ft) | Contaminant Name | Analytical Result | Units | Period |
|---|---|---|---|---|---|---|---|
| | Easting | Northing | | | | | |
| 913-H7-2 | 3022485.289 | 673595.3217 | 1.5 | U-233/234 | 5.2 | | Pre |
| 913-H7-2 | 3022485.289 | 673595.3217 | 1.5 | U-235 | 0.3 | | Pre |
| 913-H7-2 | 3022485.289 | 673595.3217 | 1.5 | U-238 | 1.7 | | Pre |
| 913-H7-3 | 3022485.289 | 673595.3217 | 2.5 | Am-241 | -0.06 | | Pre |
| 913-H7-3 | 3022485.289 | 673595.3217 | 2.5 | Pu-238 | 0.09 | | Pre |
| 913-H7-3 | 3022485.289 | 673595.3217 | 2.5 | Pu-239/240 | 0.22 | | Pre |
| 913-H7-3 | 3022485.289 | 673595.3217 | 2.5 | Pu-241 | 3.42 | | Pre |
| 913-H7-3 | 3022485.289 | 673595.3217 | 2.5 | Pu-242 | 0 | | Pre |
| 913-H7-3 | 3022485.289 | 673595.3217 | 2.5 | Tc-99 | 0.3 | | Pre |
| 913-H7-3 | 3022485.289 | 673595.3217 | 2.5 | Th-230 | 5.8 | | Pre |
| 913-H7-3 | 3022485.289 | 673595.3217 | 2.5 | Th-232 | 1.2 | | Pre |
| 913-H7-3 | 3022485.289 | 673595.3217 | 2.5 | U-233/234 | 5 | | Pre |
| 913-H7-3 | 3022485.289 | 673595.3217 | 2.5 | U-235 | 0.3 | | Pre |
| 913-H7-3 | 3022485.289 | 673595.3217 | 2.5 | U-238 | 2.9 | | Pre |
| 914-C2-2 | 3022488.402 | 673572.3192 | 1.5 | Am-241 | 0.08 | | Pre |
| 914-C2-2 | 3022488.402 | 673572.3192 | 1.5 | Pu-238 | 0.01 | | Pre |
| 914-C2-2 | 3022488.402 | 673572.3192 | 1.5 | Pu-239/240 | 0.22 | | Pre |
| 914-C2-2 | 3022488.402 | 673572.3192 | 1.5 | Pu-241 | 0.36 | | Pre |
| 914-C2-2 | 3022488.402 | 673572.3192 | 1.5 | Pu-242 | 0 | | Pre |
| 914-C2-2 | 3022488.402 | 673572.3192 | 1.5 | Tc-99 | 1.6 | | Pre |
| 914-C2-2 | 3022488.402 | 673572.3192 | 1.5 | Th-230 | 0.4 | | Pre |
| 914-C2-2 | 3022488.402 | 673572.3192 | 1.5 | Th-232 | 0.7 | | Pre |
| 914-C2-2 | 3022488.402 | 673572.3192 | 1.5 | U-233/234 | 3.4 | | Pre |
| 914-C2-2 | 3022488.402 | 673572.3192 | 1.5 | U-235 | 0.1 | | Pre |
| 914-C2-2 | 3022488.402 | 673572.3192 | 1.5 | U-238 | 1 | | Pre |
| 914-C2-3 | 3022488.402 | 673572.3192 | 2.5 | Am-241 | -0.23 | | Pre |
| 914-C2-3 | 3022488.402 | 673572.3192 | 2.5 | Pu-238 | 0 | | Pre |
| 914-C2-3 | 3022488.402 | 673572.3192 | 2.5 | Pu-239/240 | 0 | | Pre |
| 914-C2-3 | 3022488.402 | 673572.3192 | 2.5 | Pu-241 | 0 | | Pre |
| 914-C2-3 | 3022488.402 | 673572.3192 | 2.5 | Pu-242 | 0 | | Pre |
| 914-C2-3 | 3022488.402 | 673572.3192 | 2.5 | Tc-99 | 1.1 | | Pre |
| 914-C2-3 | 3022488.402 | 673572.3192 | 2.5 | Th-230 | 1.1 | | Pre |
| 914-C2-3 | 3022488.402 | 673572.3192 | 2.5 | Th-232 | 1.7 | | Pre |
| 914-C2-3 | 3022488.402 | 673572.3192 | 2.5 | U-233/234 | 1.3 | | Pre |
| 914-C2-3 | 3022488.402 | 673572.3192 | 2.5 | U-235 | 0.1 | | Pre |
| 914-C2-3 | 3022488.402 | 673572.3192 | 2.5 | U-238 | 0.5 | | Pre |
| 914-I8-2 | 3022515.998 | 673576.0386 | 1.5 | Am-241 | 0.24 | | Pre |
| 914-I8-2 | 3022515.998 | 673576.0386 | 1.5 | Pu-238 | 0.04 | | Pre |
| 914-I8-2 | 3022515.998 | 673576.0386 | 1.5 | Pu-239/240 | 0.66 | | Pre |
| 914-I8-2 | 3022515.998 | 673576.0386 | 1.5 | Pu-241 | 1.08 | | Pre |
| 914-I8-2 | 3022515.998 | 673576.0386 | 1.5 | Pu-242 | 0 | | Pre |
| 914-I8-2 | 3022515.998 | 673576.0386 | 1.5 | Tc-99 | 1.4 | | Pre |
| 914-I8-2 | 3022515.998 | 673576.0386 | 1.5 | Th-230 | 1 | | Pre |
| 914-I8-2 | 3022515.998 | 673576.0386 | 1.5 | Th-232 | 1.5 | | Pre |
| 914-I8-2 | 3022515.998 | 673576.0386 | 1.5 | U-233/234 | 2.6 | | Pre |
| 914-I8-2 | 3022515.998 | 673576.0386 | 1.5 | U-235 | 0.1 | | Pre |
| 914-I8-2 | 3022515.998 | 673576.0386 | 1.5 | U-238 | 0.9 | | Pre |
| 914-I8-3 | 3022515.998 | 673576.0386 | 2.5 | Am-241 | -0.11 | | Pre |
| 914-I8-3 | 3022515.998 | 673576.0386 | 2.5 | Pu-238 | 0 | | Pre |
| 914-I8-3 | 3022515.998 | 673576.0386 | 2.5 | Pu-239/240 | 0 | | Pre |
| 914-I8-3 | 3022515.998 | 673576.0386 | 2.5 | Pu-241 | 0 | | Pre |
| 914-I8-3 | 3022515.998 | 673576.0386 | 2.5 | Pu-242 | 0 | | Pre |
| 914-I8-3 | 3022515.998 | 673576.0386 | 2.5 | Tc-99 | 0.4 | | Pre |
| 914-I8-3 | 3022515.998 | 673576.0386 | 2.5 | Th-230 | 0.5 | | Pre |

## Historical Dataset, Survey Unit 19

| Sample ID# | Sample Location | | Sample Depth (ft) | Contaminant Name | Analytical Result | Units | Period |
|---|---|---|---|---|---|---|---|
| | Easting | Northing | | | | | |
| 914-I8-3 | 3022515.998 | 673576.0386 | 2.5 | Th-232 | 0.7 | | Pre |
| 914-I8-3 | 3022515.998 | 673576.0386 | 2.5 | U-233/234 | 0.1 | | Pre |
| 914-I8-3 | 3022515.998 | 673576.0386 | 2.5 | U-235 | 0 | | Pre |
| 914-I8-3 | 3022515.998 | 673576.0386 | 2.5 | U-238 | 0.1 | | Pre |
| 915-I2-2 | 3022526.441 | 673568.0774 | 1.5 | Am-241 | 0.22 | | Pre |
| 915-I2-2 | 3022526.441 | 673568.0774 | 1.5 | Pu-238 | 0.04 | | Pre |
| 915-I2-2 | 3022526.441 | 673568.0774 | 1.5 | Pu-239/240 | 0.6 | | Pre |
| 915-I2-2 | 3022526.441 | 673568.0774 | 1.5 | Pu-241 | 0.98 | | Pre |
| 915-I2-2 | 3022526.441 | 673568.0774 | 1.5 | Pu-242 | 0 | | Pre |
| 915-I2-2 | 3022526.441 | 673568.0774 | 1.5 | Tc-99 | 1.7 | | Pre |
| 915-I2-2 | 3022526.441 | 673568.0774 | 1.5 | Th-230 | 0.9 | | Pre |
| 915-I2-2 | 3022526.441 | 673568.0774 | 1.5 | Th-232 | 1.4 | | Pre |
| 915-I2-2 | 3022526.441 | 673568.0774 | 1.5 | U-233/234 | 4.1 | | Pre |
| 915-I2-2 | 3022526.441 | 673568.0774 | 1.5 | U-235 | 0.2 | | Pre |
| 915-I2-2 | 3022526.441 | 673568.0774 | 1.5 | U-238 | 1.2 | | Pre |
| 915-I2-3 | 3022526.441 | 673568.0774 | 2.5 | Am-241 | -0.41 | | Pre |
| 915-I2-3 | 3022526.441 | 673568.0774 | 2.5 | Pu-238 | 0 | | Pre |
| 915-I2-3 | 3022526.441 | 673568.0774 | 2.5 | Pu-239/240 | 0 | | Pre |
| 915-I2-3 | 3022526.441 | 673568.0774 | 2.5 | Pu-241 | 0 | | Pre |
| 915-I2-3 | 3022526.441 | 673568.0774 | 2.5 | Pu-242 | 0 | | Pre |
| 915-I2-3 | 3022526.441 | 673568.0774 | 2.5 | Tc-99 | 0 | | Pre |
| 915-I2-3 | 3022526.441 | 673568.0774 | 2.5 | Th-230 | 0.8 | | Pre |
| 915-I2-3 | 3022526.441 | 673568.0774 | 2.5 | Th-232 | 1.3 | | Pre |
| 915-I2-3 | 3022526.441 | 673568.0774 | 2.5 | U-233/234 | 0 | | Pre |
| 915-I2-3 | 3022526.441 | 673568.0774 | 2.5 | U-235 | -0.1 | | Pre |
| 915-I2-3 | 3022526.441 | 673568.0774 | 2.5 | U-238 | 0 | | Pre |
| 946-H7-2 | 3022387.078 | 673628.9289 | 1.5 | Am-241 | -0.09 | | Pre |
| 946-H7-2 | 3022387.078 | 673628.9289 | 1.5 | Pu-238 | 0 | | Pre |
| 946-H7-2 | 3022387.078 | 673628.9289 | 1.5 | Pu-239/240 | 0 | | Pre |
| 946-H7-2 | 3022387.078 | 673628.9289 | 1.5 | Pu-241 | 0 | | Pre |
| 946-H7-2 | 3022387.078 | 673628.9289 | 1.5 | Pu-242 | 0 | | Pre |
| 946-H7-2 | 3022387.078 | 673628.9289 | 1.5 | Tc-99 | 2 | | Pre |
| 946-H7-2 | 3022387.078 | 673628.9289 | 1.5 | Th-230 | 1.2 | | Pre |
| 946-H7-2 | 3022387.078 | 673628.9289 | 1.5 | Th-232 | 2 | | Pre |
| 946-H7-2 | 3022387.078 | 673628.9289 | 1.5 | U-233/234 | 6.7 | | Pre |
| 946-H7-2 | 3022387.078 | 673628.9289 | 1.5 | U-235 | 0.3 | | Pre |
| 946-H7-2 | 3022387.078 | 673628.9289 | 1.5 | U-238 | 1.6 | | Pre |
| 946-H7-3 | 3022387.078 | 673628.9289 | 2.5 | Am-241 | 0.11 | | Pre |
| 946-H7-3 | 3022387.078 | 673628.9289 | 2.5 | Pu-238 | 0.02 | | Pre |
| 946-H7-3 | 3022387.078 | 673628.9289 | 2.5 | Pu-239/240 | 0.31 | | Pre |
| 946-H7-3 | 3022387.078 | 673628.9289 | 2.5 | Pu-241 | 0.51 | | Pre |
| 946-H7-3 | 3022387.078 | 673628.9289 | 2.5 | Pu-242 | 0 | | Pre |
| 946-H7-3 | 3022387.078 | 673628.9289 | 2.5 | Tc-99 | 1.9 | | Pre |
| 946-H7-3 | 3022387.078 | 673628.9289 | 2.5 | Th-230 | 0.7 | | Pre |
| 946-H7-3 | 3022387.078 | 673628.9289 | 2.5 | Th-232 | 1 | | Pre |
| 946-H7-3 | 3022387.078 | 673628.9289 | 2.5 | U-233/234 | 6.2 | | Pre |
| 946-H7-3 | 3022387.078 | 673628.9289 | 2.5 | U-235 | 0.2 | | Pre |
| 946-H7-3 | 3022387.078 | 673628.9289 | 2.5 | U-238 | 1.5 | | Pre |
| 947-C2-2 | 3022390.191 | 673605.9263 | 1.5 | Am-241 | 0.5 | | Pre |
| 947-C2-2 | 3022390.191 | 673605.9263 | 1.5 | Pu-238 | 0.09 | | Pre |
| 947-C2-2 | 3022390.191 | 673605.9263 | 1.5 | Pu-239/240 | 1.36 | | Pre |
| 947-C2-2 | 3022390.191 | 673605.9263 | 1.5 | Pu-241 | 2.24 | | Pre |
| 947-C2-2 | 3022390.191 | 673605.9263 | 1.5 | Pu-242 | 0 | | Pre |
| 947-C2-2 | 3022390.191 | 673605.9263 | 1.5 | Tc-99 | 0.4 | | Pre |

## Historical Dataset, Survey Unit 19

| Sample ID# | Sample Location | | Sample Depth (ft) | Contaminant Name | Analytical Result | Units | Period |
|---|---|---|---|---|---|---|---|
| | Easting | Northing | | | | | |
| 947-C2-2 | 3022390.191 | 673605.9263 | 1.5 | Th-230 | 2 | | Pre |
| 947-C2-2 | 3022390.191 | 673605.9263 | 1.5 | Th-232 | 3.4 | | Pre |
| 947-C2-2 | 3022390.191 | 673605.9263 | 1.5 | U-233/234 | 46.4 | | Pre |
| 947-C2-2 | 3022390.191 | 673605.9263 | 1.5 | U-235 | 1.8 | | Pre |
| 947-C2-2 | 3022390.191 | 673605.9263 | 1.5 | U-238 | 6.1 | | Pre |
| 947-C2-3 | 3022390.191 | 673605.9263 | 2.5 | Am-241 | 0.02 | | Pre |
| 947-C2-3 | 3022390.191 | 673605.9263 | 2.5 | Pu-238 | 0 | | Pre |
| 947-C2-3 | 3022390.191 | 673605.9263 | 2.5 | Pu-239/240 | 0.05 | | Pre |
| 947-C2-3 | 3022390.191 | 673605.9263 | 2.5 | Pu-241 | 0.09 | | Pre |
| 947-C2-3 | 3022390.191 | 673605.9263 | 2.5 | Pu-242 | 0 | | Pre |
| 947-C2-3 | 3022390.191 | 673605.9263 | 2.5 | Tc-99 | 2.3 | | Pre |
| 947-C2-3 | 3022390.191 | 673605.9263 | 2.5 | Th-230 | 1 | | Pre |
| 947-C2-3 | 3022390.191 | 673605.9263 | 2.5 | Th-232 | 1.5 | | Pre |
| 947-C2-3 | 3022390.191 | 673605.9263 | 2.5 | U-233/234 | 10.9 | | Pre |
| 947-C2-3 | 3022390.191 | 673605.9263 | 2.5 | U-235 | 0.4 | | Pre |
| 947-C2-3 | 3022390.191 | 673605.9263 | 2.5 | U-238 | 2.3 | | Pre |
| 947-H7-2 | 3022413.187 | 673609.0258 | 1.5 | Am-241 | 4.01 | | Pre |
| 947-H7-2 | 3022413.187 | 673609.0258 | 1.5 | Pu-238 | 0.72 | | Pre |
| 947-H7-2 | 3022413.187 | 673609.0258 | 1.5 | Pu-239/240 | 11.01 | | Pre |
| 947-H7-2 | 3022413.187 | 673609.0258 | 1.5 | Pu-241 | 18.06 | | Pre |
| 947-H7-2 | 3022413.187 | 673609.0258 | 1.5 | Pu-242 | 0 | | Pre |
| 947-H7-2 | 3022413.187 | 673609.0258 | 1.5 | Tc-99 | 6 | | Pre |
| 947-H7-2 | 3022413.187 | 673609.0258 | 1.5 | Th-230 | 3.5 | | Pre |
| 947-H7-2 | 3022413.187 | 673609.0258 | 1.5 | Th-232 | 6.4 | | Pre |
| 947-H7-2 | 3022413.187 | 673609.0258 | 1.5 | U-233/234 | 163.5 | | Pre |
| 947-H7-2 | 3022413.187 | 673609.0258 | 1.5 | U-235 | 6.2 | | Pre |
| 947-H7-2 | 3022413.187 | 673609.0258 | 1.5 | U-238 | 14.2 | | Pre |
| 947-H7-3 | 3022413.187 | 673609.0258 | 2.5 | Am-241 | 0.97 | | Pre |
| 947-H7-3 | 3022413.187 | 673609.0258 | 2.5 | Pu-238 | 0.17 | | Pre |
| 947-H7-3 | 3022413.187 | 673609.0258 | 2.5 | Pu-239/240 | 2.67 | | Pre |
| 947-H7-3 | 3022413.187 | 673609.0258 | 2.5 | Pu-241 | 4.38 | | Pre |
| 947-H7-3 | 3022413.187 | 673609.0258 | 2.5 | Pu-242 | 0 | | Pre |
| 947-H7-3 | 3022413.187 | 673609.0258 | 2.5 | Tc-99 | 4.3 | | Pre |
| 947-H7-3 | 3022413.187 | 673609.0258 | 2.5 | Th-230 | 1.3 | | Pre |
| 947-H7-3 | 3022413.187 | 673609.0258 | 2.5 | Th-232 | 2.1 | | Pre |
| 947-H7-3 | 3022413.187 | 673609.0258 | 2.5 | U-233/234 | 62.2 | | Pre |
| 947-H7-3 | 3022413.187 | 673609.0258 | 2.5 | U-235 | 2.4 | | Pre |
| 947-H7-3 | 3022413.187 | 673609.0258 | 2.5 | U-238 | 7.4 | | Pre |
| 948-C2-2 | 3022416.301 | 673586.0233 | 1.5 | Am-241 | -0.02 | | Pre |
| 948-C2-2 | 3022416.301 | 673586.0233 | 1.5 | Pu-238 | 0 | | Pre |
| 948-C2-2 | 3022416.301 | 673586.0233 | 1.5 | Pu-239/240 | 0 | | Pre |
| 948-C2-2 | 3022416.301 | 673586.0233 | 1.5 | Pu-241 | 0 | | Pre |
| 948-C2-2 | 3022416.301 | 673586.0233 | 1.5 | Pu-242 | 0 | | Pre |
| 948-C2-2 | 3022416.301 | 673586.0233 | 1.5 | Tc-99 | 2.2 | | Pre |
| 948-C2-2 | 3022416.301 | 673586.0233 | 1.5 | Th-230 | 0.9 | | Pre |
| 948-C2-2 | 3022416.301 | 673586.0233 | 1.5 | Th-232 | 1.4 | | Pre |
| 948-C2-2 | 3022416.301 | 673586.0233 | 1.5 | U-233/234 | 8.9 | | Pre |
| 948-C2-2 | 3022416.301 | 673586.0233 | 1.5 | U-235 | 0.4 | | Pre |
| 948-C2-2 | 3022416.301 | 673586.0233 | 1.5 | U-238 | 2 | | Pre |
| 948-C2-3 | 3022416.301 | 673586.0233 | 2.5 | Am-241 | -0.14 | | Pre |
| 948-C2-3 | 3022416.301 | 673586.0233 | 2.5 | Pu-238 | 0 | | Pre |
| 948-C2-3 | 3022416.301 | 673586.0233 | 2.5 | Pu-239/240 | 0 | | Pre |
| 948-C2-3 | 3022416.301 | 673586.0233 | 2.5 | Pu-241 | 0 | | Pre |
| 948-C2-3 | 3022416.301 | 673586.0233 | 2.5 | Pu-242 | 0 | | Pre |

## Historical Dataset, Survey Unit 19

| Sample ID# | Sample Location | | Sample Depth (ft) | Contaminant Name | Analytical Result | Units | Period |
|---|---|---|---|---|---|---|---|
| | Easting | Northing | | | | | |
| 948-C2-3 | 3022416.301 | 673586.0233 | 2.5 | Tc-99 | 1.4 | | Pre |
| 948-C2-3 | 3022416.301 | 673586.0233 | 2.5 | Th-230 | 0.9 | | Pre |
| 948-C2-3 | 3022416.301 | 673586.0233 | 2.5 | Th-232 | 1.5 | | Pre |
| 948-C2-3 | 3022416.301 | 673586.0233 | 2.5 | U-233/234 | 2.3 | | Pre |
| 948-C2-3 | 3022416.301 | 673586.0233 | 2.5 | U-235 | 0.1 | | Pre |
| 948-C2-3 | 3022416.301 | 673586.0233 | 2.5 | U-238 | 0.8 | | Pre |
| 948-H7-2 | 3022439.297 | 673589.1228 | 1.5 | U-238 | 6.9 | | Pre |
| 948-H7-2 | 3022439.297 | 673589.1228 | 1.5 | Am-241 | 0.56 | | Pre |
| 948-H7-2 | 3022439.297 | 673589.1228 | 1.5 | Pu-238 | 0.1 | | Pre |
| 948-H7-2 | 3022439.297 | 673589.1228 | 1.5 | Pu-239/240 | 1.55 | | Pre |
| 948-H7-2 | 3022439.297 | 673589.1228 | 1.5 | Pu-241 | 2.54 | | Pre |
| 948-H7-2 | 3022439.297 | 673589.1228 | 1.5 | Pu-242 | 0 | | Pre |
| 948-H7-2 | 3022439.297 | 673589.1228 | 1.5 | Tc-99 | 4.1 | | Pre |
| 948-H7-2 | 3022439.297 | 673589.1228 | 1.5 | Th-230 | 2.8 | | Pre |
| 948-H7-2 | 3022439.297 | 673589.1228 | 1.5 | Th-232 | 5.1 | | Pre |
| 948-H7-2 | 3022439.297 | 673589.1228 | 1.5 | U-233/234 | 56.5 | | Pre |
| 948-H7-2 | 3022439.297 | 673589.1228 | 1.5 | U-235 | 2.2 | | Pre |
| 948-H7-3 | 3022439.297 | 673589.1228 | 2.5 | Am-241 | 0.08 | | Pre |
| 948-H7-3 | 3022439.297 | 673589.1228 | 2.5 | Pu-238 | 0.01 | | Pre |
| 948-H7-3 | 3022439.297 | 673589.1228 | 2.5 | Pu-239/240 | 0.22 | | Pre |
| 948-H7-3 | 3022439.297 | 673589.1228 | 2.5 | Pu-241 | 0.36 | | Pre |
| 948-H7-3 | 3022439.297 | 673589.1228 | 2.5 | Pu-242 | 0 | | Pre |
| 948-H7-3 | 3022439.297 | 673589.1228 | 2.5 | Tc-99 | 2 | | Pre |
| 948-H7-3 | 3022439.297 | 673589.1228 | 2.5 | Th-230 | 1 | | Pre |
| 948-H7-3 | 3022439.297 | 673589.1228 | 2.5 | Th-232 | 1.6 | | Pre |
| 948-H7-3 | 3022439.297 | 673589.1228 | 2.5 | U-233/234 | 6.8 | | Pre |
| 948-H7-3 | 3022439.297 | 673589.1228 | 2.5 | U-235 | 0.3 | | Pre |
| 948-H7-3 | 3022439.297 | 673589.1228 | 2.5 | U-238 | 1.7 | | Pre |
| 949-C2-2 | 3022442.41 | 673566.1203 | 1.5 | Am-241 | 0.11 | | Pre |
| 949-C2-2 | 3022442.41 | 673566.1203 | 1.5 | Pu-238 | 0.02 | | Pre |
| 949-C2-2 | 3022442.41 | 673566.1203 | 1.5 | Pu-239/240 | 0.31 | | Pre |
| 949-C2-2 | 3022442.41 | 673566.1203 | 1.5 | Pu-241 | 0.5 | | Pre |
| 949-C2-2 | 3022442.41 | 673566.1203 | 1.5 | Pu-242 | 0 | | Pre |
| 949-C2-2 | 3022442.41 | 673566.1203 | 1.5 | Tc-99 | 1.6 | | Pre |
| 949-C2-2 | 3022442.41 | 673566.1203 | 1.5 | Th-230 | 0.8 | | Pre |
| 949-C2-2 | 3022442.41 | 673566.1203 | 1.5 | Th-232 | 1.3 | | Pre |
| 949-C2-2 | 3022442.41 | 673566.1203 | 1.5 | U-233/234 | 3.5 | | Pre |
| 949-C2-2 | 3022442.41 | 673566.1203 | 1.5 | U-235 | 0.1 | | Pre |
| 949-C2-2 | 3022442.41 | 673566.1203 | 1.5 | U-238 | 1.1 | | Pre |
| 949-I7-2 | 3022467.395 | 673571.83 | 1.5 | Am-241 | 0.31 | | Pre |
| 949-I7-2 | 3022467.395 | 673571.83 | 1.5 | Pu-238 | 0.06 | | Pre |
| 949-I7-2 | 3022467.395 | 673571.83 | 1.5 | Pu-239/240 | 0.84 | | Pre |
| 949-I7-2 | 3022467.395 | 673571.83 | 1.5 | Pu-241 | 1.38 | | Pre |
| 949-I7-2 | 3022467.395 | 673571.83 | 1.5 | Pu-242 | 0 | | Pre |
| 949-I7-2 | 3022467.395 | 673571.83 | 1.5 | Tc-99 | 2.5 | | Pre |
| 949-I7-2 | 3022467.395 | 673571.83 | 1.5 | Th-230 | 1 | | Pre |
| 949-I7-2 | 3022467.395 | 673571.83 | 1.5 | Th-232 | 1.6 | | Pre |
| 949-I7-2 | 3022467.395 | 673571.83 | 1.5 | U-233/234 | 12.6 | | Pre |
| 949-I7-2 | 3022467.395 | 673571.83 | 1.5 | U-235 | 0.5 | | Pre |
| 949-I7-2 | 3022467.395 | 673571.83 | 1.5 | U-238 | 2.5 | | Pre |
| 949-I7-3 | 3022467.395 | 673571.83 | 2.5 | Am-241 | -0.23 | | Pre |
| 949-I7-3 | 3022467.395 | 673571.83 | 2.5 | Pu-238 | 0 | | Pre |
| 949-I7-3 | 3022467.395 | 673571.83 | 2.5 | Pu-239/240 | 0 | | Pre |
| 949-I7-3 | 3022467.395 | 673571.83 | 2.5 | Pu-241 | 0 | | Pre |

## Historical Dataset, Survey Unit 19

| Sample ID# | Sample Location | | Sample Depth (ft) | Contaminant Name | Analytical Result | Units | Period |
|---|---|---|---|---|---|---|---|
| | Easting | Northing | | | | | |
| 949-I7-3 | 3022467.395 | 673571.83 | 2.5 | Pu-242 | 0 | | Pre |
| 949-I7-3 | 3022467.395 | 673571.83 | 2.5 | Tc-99 | 1.7 | | Pre |
| 949-I7-3 | 3022467.395 | 673571.83 | 2.5 | Th-230 | 0.8 | | Pre |
| 949-I7-3 | 3022467.395 | 673571.83 | 2.5 | Th-232 | 1.2 | | Pre |
| 949-I7-3 | 3022467.395 | 673571.83 | 2.5 | U-233/234 | 4.7 | | Pre |
| 949-I7-3 | 3022467.395 | 673571.83 | 2.5 | U-235 | 0.2 | | Pre |
| 949-I7-3 | 3022467.395 | 673571.83 | 2.5 | U-238 | 1.3 | | Pre |
| 950-C2-2 | 3022468.52 | 673546.2172 | 1.5 | Am-241 | 0.68 | | Pre |
| 950-C2-2 | 3022468.52 | 673546.2172 | 1.5 | Pu-238 | 0.12 | | Pre |
| 950-C2-2 | 3022468.52 | 673546.2172 | 1.5 | Pu-239/240 | 1.86 | | Pre |
| 950-C2-2 | 3022468.52 | 673546.2172 | 1.5 | Pu-241 | 3.05 | | Pre |
| 950-C2-2 | 3022468.52 | 673546.2172 | 1.5 | Pu-242 | 0 | | Pre |
| 950-C2-2 | 3022468.52 | 673546.2172 | 1.5 | Tc-99 | 2.1 | | Pre |
| 950-C2-2 | 3022468.52 | 673546.2172 | 1.5 | Th-230 | 1.2 | | Pre |
| 950-C2-2 | 3022468.52 | 673546.2172 | 1.5 | Th-232 | 1.9 | | Pre |
| 950-C2-2 | 3022468.52 | 673546.2172 | 1.5 | U-233/234 | 7.8 | | Pre |
| 950-C2-2 | 3022468.52 | 673546.2172 | 1.5 | U-235 | 0.3 | | Pre |
| 950-C2-2 | 3022468.52 | 673546.2172 | 1.5 | U-238 | 1.8 | | Pre |
| 950-C2-3 | 3022468.52 | 673546.2172 | 2.5 | Am-241 | -0.07 | | Pre |
| 950-C2-3 | 3022468.52 | 673546.2172 | 2.5 | Pu-238 | 0 | | Pre |
| 950-C2-3 | 3022468.52 | 673546.2172 | 2.5 | Pu-239/240 | 0 | | Pre |
| 950-C2-3 | 3022468.52 | 673546.2172 | 2.5 | Pu-241 | 0 | | Pre |
| 950-C2-3 | 3022468.52 | 673546.2172 | 2.5 | Pu-242 | 0 | | Pre |
| 950-C2-3 | 3022468.52 | 673546.2172 | 2.5 | Tc-99 | 1.2 | | Pre |
| 950-C2-3 | 3022468.52 | 673546.2172 | 2.5 | Th-230 | 0.7 | | Pre |
| 950-C2-3 | 3022468.52 | 673546.2172 | 2.5 | Th-232 | 1 | | Pre |
| 950-C2-3 | 3022468.52 | 673546.2172 | 2.5 | U-233/234 | 1.5 | | Pre |
| 950-C2-3 | 3022468.52 | 673546.2172 | 2.5 | U-235 | 0.1 | | Pre |
| 950-C2-3 | 3022468.52 | 673546.2172 | 2.5 | U-238 | 0.6 | | Pre |
| 950-H7-2 | 3022491.516 | 673549.3167 | 1.5 | Am-241 | -0.04 | | Pre |
| 950-H7-2 | 3022491.516 | 673549.3167 | 1.5 | Pu-238 | 0 | | Pre |
| 950-H7-2 | 3022491.516 | 673549.3167 | 1.5 | Pu-239/240 | 0 | | Pre |
| 950-H7-2 | 3022491.516 | 673549.3167 | 1.5 | Pu-241 | 0 | | Pre |
| 950-H7-2 | 3022491.516 | 673549.3167 | 1.5 | Pu-242 | 0 | | Pre |
| 950-H7-2 | 3022491.516 | 673549.3167 | 1.5 | Tc-99 | 1.5 | | Pre |
| 950-H7-2 | 3022491.516 | 673549.3167 | 1.5 | Th-230 | 0.5 | | Pre |
| 950-H7-2 | 3022491.516 | 673549.3167 | 1.5 | Th-232 | 0.7 | | Pre |
| 950-H7-2 | 3022491.516 | 673549.3167 | 1.5 | U-233/234 | 3.2 | | Pre |
| 950-H7-2 | 3022491.516 | 673549.3167 | 1.5 | U-235 | 0.1 | | Pre |
| 950-H7-2 | 3022491.516 | 673549.3167 | 1.5 | U-238 | 1 | | Pre |
| 950-H7-3 | 3022491.516 | 673549.3167 | 2.5 | Am-241 | 0.05 | | Pre |
| 950-H7-3 | 3022491.516 | 673549.3167 | 2.5 | Pu-238 | 0.01 | | Pre |
| 950-H7-3 | 3022491.516 | 673549.3167 | 2.5 | Pu-239/240 | 0.14 | | Pre |
| 950-H7-3 | 3022491.516 | 673549.3167 | 2.5 | Pu-241 | 0.23 | | Pre |
| 950-H7-3 | 3022491.516 | 673549.3167 | 2.5 | Pu-242 | 0 | | Pre |
| 950-H7-3 | 3022491.516 | 673549.3167 | 2.5 | Tc-99 | 1.6 | | Pre |
| 950-H7-3 | 3022491.516 | 673549.3167 | 2.5 | Th-230 | 0.4 | | Pre |
| 950-H7-3 | 3022491.516 | 673549.3167 | 2.5 | Th-232 | 0.7 | | Pre |
| 950-H7-3 | 3022491.516 | 673549.3167 | 2.5 | U-233/234 | 3.7 | | Pre |
| 950-H7-3 | 3022491.516 | 673549.3167 | 2.5 | U-235 | 0.1 | | Pre |
| 950-H7-3 | 3022491.516 | 673549.3167 | 2.5 | U-238 | 1.1 | | Pre |
| 982-I8-2 | 3022424.014 | 673563.6407 | 1.5 | Am-241 | -0.28 | | Pre |
| 982-I8-2 | 3022424.014 | 673563.6407 | 1.5 | Pu-238 | 0 | | Pre |
| 982-I8-2 | 3022424.014 | 673563.6407 | 1.5 | Pu-239/240 | 0 | | Pre |

## Historical Dataset, Survey Unit 19

| Sample ID# | Sample Location | | Sample Depth (ft) | Contaminant Name | Analytical Result | Units | Period |
|---|---|---|---|---|---|---|---|
| | Easting | Northing | | | | | |
| 982-I8-2 | 3022424.014 | 673563.6407 | 1.5 | Pu-241 | 0 | | Pre |
| 982-I8-2 | 3022424.014 | 673563.6407 | 1.5 | Pu-242 | 0 | | Pre |
| 982-I8-2 | 3022424.014 | 673563.6407 | 1.5 | Tc-99 | 1.8 | | Pre |
| 982-I8-2 | 3022424.014 | 673563.6407 | 1.5 | Th-230 | 0.8 | | Pre |
| 982-I8-2 | 3022424.014 | 673563.6407 | 1.5 | Th-232 | 1.3 | | Pre |
| 982-I8-2 | 3022424.014 | 673563.6407 | 1.5 | U-233/234 | 4.8 | | Pre |
| 982-I8-2 | 3022424.014 | 673563.6407 | 1.5 | U-235 | 0.2 | | Pre |
| 982-I8-2 | 3022424.014 | 673563.6407 | 1.5 | U-238 | 1.3 | | Pre |
| 982-I8-3 | 3022424.014 | 673563.6407 | 2.5 | Am-241 | -0.1 | | Pre |
| 982-I8-3 | 3022424.014 | 673563.6407 | 2.5 | Pu-238 | 0 | | Pre |
| 982-I8-3 | 3022424.014 | 673563.6407 | 2.5 | Pu-239/240 | 0 | | Pre |
| 982-I8-3 | 3022424.014 | 673563.6407 | 2.5 | Pu-241 | 0 | | Pre |
| 982-I8-3 | 3022424.014 | 673563.6407 | 2.5 | Pu-242 | 0 | | Pre |
| 982-I8-3 | 3022424.014 | 673563.6407 | 2.5 | Tc-99 | 1.6 | | Pre |
| 982-I8-3 | 3022424.014 | 673563.6407 | 2.5 | Th-230 | 1 | | Pre |
| 982-I8-3 | 3022424.014 | 673563.6407 | 2.5 | Th-232 | 1.7 | | Pre |
| 982-I8-3 | 3022424.014 | 673563.6407 | 2.5 | U-233/234 | 3.7 | | Pre |
| 982-I8-3 | 3022424.014 | 673563.6407 | 2.5 | U-235 | 0.2 | | Pre |
| 982-I8-3 | 3022424.014 | 673563.6407 | 2.5 | U-238 | 1.1 | | Pre |
| 983-I8-2 | 3022450.123 | 673543.7377 | 1.5 | Am-241 | 0.01 | | Pre |
| 983-I8-2 | 3022450.123 | 673543.7377 | 1.5 | Pu-238 | 0 | | Pre |
| 983-I8-2 | 3022450.123 | 673543.7377 | 1.5 | Pu-239/240 | 0.02 | | Pre |
| 983-I8-2 | 3022450.123 | 673543.7377 | 1.5 | Pu-241 | 0.04 | | Pre |
| 983-I8-2 | 3022450.123 | 673543.7377 | 1.5 | Pu-242 | 0 | | Pre |
| 983-I8-2 | 3022450.123 | 673543.7377 | 1.5 | Tc-99 | 2 | | Pre |
| 983-I8-2 | 3022450.123 | 673543.7377 | 1.5 | Th-230 | 0.7 | | Pre |
| 983-I8-2 | 3022450.123 | 673543.7377 | 1.5 | Th-232 | 1.1 | | Pre |
| 983-I8-2 | 3022450.123 | 673543.7377 | 1.5 | U-233/234 | 6.5 | | Pre |
| 983-I8-2 | 3022450.123 | 673543.7377 | 1.5 | U-235 | 0.3 | | Pre |
| 983-I8-2 | 3022450.123 | 673543.7377 | 1.5 | U-238 | 1.6 | | Pre |
| 983-I8-3 | 3022450.123 | 673543.7377 | 2.5 | Am-241 | 0.11 | | Pre |
| 983-I8-3 | 3022450.123 | 673543.7377 | 2.5 | Pu-238 | 0.02 | | Pre |
| 983-I8-3 | 3022450.123 | 673543.7377 | 2.5 | Pu-239/240 | 0.3 | | Pre |
| 983-I8-3 | 3022450.123 | 673543.7377 | 2.5 | Pu-241 | 0.49 | | Pre |
| 983-I8-3 | 3022450.123 | 673543.7377 | 2.5 | Pu-242 | 0 | | Pre |
| 983-I8-3 | 3022450.123 | 673543.7377 | 2.5 | Tc-99 | 1.8 | | Pre |
| 983-I8-3 | 3022450.123 | 673543.7377 | 2.5 | Th-230 | 0.8 | | Pre |
| 983-I8-3 | 3022450.123 | 673543.7377 | 2.5 | Th-232 | 1.3 | | Pre |
| 983-I8-3 | 3022450.123 | 673543.7377 | 2.5 | U-233/234 | 5 | | Pre |
| 983-I8-3 | 3022450.123 | 673543.7377 | 2.5 | U-235 | 0.2 | | Pre |
| 983-I8-3 | 3022450.123 | 673543.7377 | 2.5 | U-238 | 1.3 | | Pre |
| 984-E6-2 | 3022463.058 | 673517.3744 | 1.5 | Am-241 | -0.18 | | Pre |
| 984-E6-2 | 3022463.058 | 673517.3744 | 1.5 | Pu-238 | 0 | | Pre |
| 984-E6-2 | 3022463.058 | 673517.3744 | 1.5 | Pu-239/240 | 0 | | Pre |
| 984-E6-2 | 3022463.058 | 673517.3744 | 1.5 | Pu-241 | 0 | | Pre |
| 984-E6-2 | 3022463.058 | 673517.3744 | 1.5 | Pu-242 | 0 | | Pre |
| 984-E6-2 | 3022463.058 | 673517.3744 | 1.5 | Tc-99 | 1.5 | | Pre |
| 984-E6-2 | 3022463.058 | 673517.3744 | 1.5 | Th-230 | 0.6 | | Pre |
| 984-E6-2 | 3022463.058 | 673517.3744 | 1.5 | Th-232 | 1 | | Pre |
| 984-E6-2 | 3022463.058 | 673517.3744 | 1.5 | U-233/234 | 2.8 | | Pre |
| 984-E6-2 | 3022463.058 | 673517.3744 | 1.5 | U-235 | 0.1 | | Pre |
| 984-E6-2 | 3022463.058 | 673517.3744 | 1.5 | U-238 | 0.9 | | Pre |
| 984-E6-3 | 3022463.058 | 673517.3744 | 2.5 | Am-241 | -0.38 | | Pre |
| 984-E6-3 | 3022463.058 | 673517.3744 | 2.5 | Pu-238 | 0 | | Pre |

## Historical Dataset, Survey Unit 19

| Sample ID# | Sample Location | | Sample Depth (ft) | Contaminant Name | Analytical Result | Units | Period |
|---|---|---|---|---|---|---|---|
| | Easting | Northing | | | | | |
| 984-E6-3 | 3022463.058 | 673517.3744 | 2.5 | Pu-239/240 | 0 | | Pre |
| 984-E6-3 | 3022463.058 | 673517.3744 | 2.5 | Pu-241 | 0 | | Pre |
| 984-E6-3 | 3022463.058 | 673517.3744 | 2.5 | Pu-242 | 0 | | Pre |
| 984-E6-3 | 3022463.058 | 673517.3744 | 2.5 | Tc-99 | 1.4 | | Pre |
| 984-E6-3 | 3022463.058 | 673517.3744 | 2.5 | Th-230 | 0.5 | | Pre |
| 984-E6-3 | 3022463.058 | 673517.3744 | 2.5 | Th-232 | 0.7 | | Pre |
| 984-E6-3 | 3022463.058 | 673517.3744 | 2.5 | U-233/234 | 2.4 | | Pre |
| 984-E6-3 | 3022463.058 | 673517.3744 | 2.5 | U-235 | 0.1 | | Pre |
| 984-E6-3 | 3022463.058 | 673517.3744 | 2.5 | U-238 | 0.8 | | Pre |
| 984-J3-2 | 3022465.166 | 673536.3963 | 1.5 | Am-241 | 0.13 | | Pre |
| 984-J3-2 | 3022465.166 | 673536.3963 | 1.5 | Pu-238 | 0.1 | | Pre |
| 984-J3-2 | 3022465.166 | 673536.3963 | 1.5 | Pu-239/240 | 1.5 | | Pre |
| 984-J3-2 | 3022465.166 | 673536.3963 | 1.5 | Pu-241 | -0.18 | | Pre |
| 984-J3-2 | 3022465.166 | 673536.3963 | 1.5 | Pu-242 | 0 | | Pre |
| 984-J3-2 | 3022465.166 | 673536.3963 | 1.5 | Tc-99 | 0.8 | | Pre |
| 984-J3-2 | 3022465.166 | 673536.3963 | 1.5 | Th-230 | 1.3 | | Pre |
| 984-J3-2 | 3022465.166 | 673536.3963 | 1.5 | Th-232 | 1.4 | | Pre |
| 984-J3-2 | 3022465.166 | 673536.3963 | 1.5 | U-233/234 | 17 | | Pre |
| 984-J3-2 | 3022465.166 | 673536.3963 | 1.5 | U-235 | 0.3 | | Pre |
| 984-J3-2 | 3022465.166 | 673536.3963 | 1.5 | U-238 | 1.6 | | Pre |

# Appendix A.5

# Historical Dataset, Survey Unit 20

## Historical Dataset, Survey Unit 20

| Sample ID# | Sample Location | | Sample Depth (ft) | Contaminant Name | Analytical Result | Units | Period |
|---|---|---|---|---|---|---|---|
| | Easting | Northing | | | | | |
| 904-I8-3 | 3022254.902 | 673775.069 | 12.5 | Am-241 | 0.04 | pCi/g | Pre |
| 904-I8-3 | 3022254.902 | 673775.069 | 12.5 | Pu-238 | 0.01 | pCi/g | Pre |
| 904-I8-3 | 3022254.902 | 673775.069 | 12.5 | Pu-239/240 | 0.12 | pCi/g | Pre |
| 904-I8-3 | 3022254.902 | 673775.069 | 12.5 | Pu-241 | 0.2 | pCi/g | Pre |
| 904-I8-3 | 3022254.902 | 673775.069 | 12.5 | Pu-242 | 0 | pCi/g | Pre |
| 904-I8-3 | 3022254.902 | 673775.069 | 12.5 | Tc-99 | 2 | pCi/g | Pre |
| 904-I8-3 | 3022254.902 | 673775.069 | 12.5 | Th-230 | 1.2 | pCi/g | Pre |
| 904-I8-3 | 3022254.902 | 673775.069 | 12.5 | Th-232 | 1.9 | pCi/g | Pre |
| 904-I8-3 | 3022254.902 | 673775.069 | 12.5 | U-233/234 | 6.5 | pCi/g | Pre |
| 904-I8-3 | 3022254.902 | 673775.069 | 12.5 | U-235 | 0.3 | pCi/g | Pre |
| 904-I8-3 | 3022254.902 | 673775.069 | 12.5 | U-238 | 1.6 | pCi/g | Pre |
| 904-I8-4 | 3022254.902 | 673775.069 | 13.5 | Am-241 | -0.22 | pCi/g | Pre |
| 904-I8-4 | 3022254.902 | 673775.069 | 13.5 | Pu-238 | 0 | pCi/g | Pre |
| 904-I8-4 | 3022254.902 | 673775.069 | 13.5 | Pu-239/240 | 0 | pCi/g | Pre |
| 904-I8-4 | 3022254.902 | 673775.069 | 13.5 | Pu-241 | 0 | pCi/g | Pre |
| 904-I8-4 | 3022254.902 | 673775.069 | 13.5 | Pu-242 | 0 | pCi/g | Pre |
| 904-I8-4 | 3022254.902 | 673775.069 | 13.5 | Tc-99 | 2.8 | pCi/g | Pre |
| 904-I8-4 | 3022254.902 | 673775.069 | 13.5 | Th-230 | 1.7 | pCi/g | Pre |
| 904-I8-4 | 3022254.902 | 673775.069 | 13.5 | Th-232 | 2.8 | pCi/g | Pre |
| 904-I8-4 | 3022254.902 | 673775.069 | 13.5 | U-233/234 | 17.6 | pCi/g | Pre |
| 904-I8-4 | 3022254.902 | 673775.069 | 13.5 | U-235 | 0.7 | pCi/g | Pre |
| 904-I8-4 | 3022254.902 | 673775.069 | 13.5 | U-238 | 3.1 | pCi/g | Pre |
| 905-F7-3 | 3022272.436 | 673749.3256 | 12.5 | Am-241 | -0.13 | pCi/g | Pre |
| 905-F7-3 | 3022272.436 | 673749.3256 | 12.5 | Pu-238 | 0 | pCi/g | Pre |
| 905-F7-3 | 3022272.436 | 673749.3256 | 12.5 | Pu-239/240 | 0 | pCi/g | Pre |
| 905-F7-3 | 3022272.436 | 673749.3256 | 12.5 | Pu-241 | 0 | pCi/g | Pre |
| 905-F7-3 | 3022272.436 | 673749.3256 | 12.5 | Pu-242 | 0 | pCi/g | Pre |
| 905-F7-3 | 3022272.436 | 673749.3256 | 12.5 | Tc-99 | 6.1 | pCi/g | Pre |
| 905-F7-3 | 3022272.436 | 673749.3256 | 12.5 | Th-230 | 11.2 | pCi/g | Pre |
| 905-F7-3 | 3022272.436 | 673749.3256 | 12.5 | Th-232 | 23.4 | pCi/g | Pre |
| 905-F7-3 | 3022272.436 | 673749.3256 | 12.5 | U-233/234 | 178.8 | pCi/g | Pre |
| 905-F7-3 | 3022272.436 | 673749.3256 | 12.5 | U-235 | 6.8 | pCi/g | Pre |
| 905-F7-3 | 3022272.436 | 673749.3256 | 12.5 | U-238 | 15.1 | pCi/g | Pre |
| 906-C2-3 | 3022279.526 | 673731.5435 | 12.5 | Am-241 | 0.85 | pCi/g | Pre |
| 906-C2-3 | 3022279.526 | 673731.5435 | 12.5 | Pu-238 | 0.15 | pCi/g | Pre |
| 906-C2-3 | 3022279.526 | 673731.5435 | 12.5 | Pu-239/240 | 2.33 | pCi/g | Pre |
| 906-C2-3 | 3022279.526 | 673731.5435 | 12.5 | Pu-241 | 3.82 | pCi/g | Pre |
| 906-C2-3 | 3022279.526 | 673731.5435 | 12.5 | Pu-242 | 0 | pCi/g | Pre |
| 906-C2-3 | 3022279.526 | 673731.5435 | 12.5 | Tc-99 | 46.3 | pCi/g | Pre |
| 906-C2-3 | 3022279.526 | 673731.5435 | 12.5 | Th-230 | 7.4 | pCi/g | Pre |
| 906-C2-3 | 3022279.526 | 673731.5435 | 12.5 | Th-232 | 14.7 | pCi/g | Pre |
| 906-C2-3 | 3022279.526 | 673731.5435 | 12.5 | U-233/234 | 498.1 | pCi/g | Pre |
| 906-C2-3 | 3022279.526 | 673731.5435 | 12.5 | U-235 | 18.6 | pCi/g | Pre |
| 906-C2-3 | 3022279.526 | 673731.5435 | 12.5 | U-238 | 30.3 | pCi/g | Pre |
| 907-C2-3 | 3022305.635 | 673711.6405 | 12.5 | Am-241 | -0.98 | pCi/g | Pre |
| 907-C2-3 | 3022305.635 | 673711.6405 | 12.5 | Pu-238 | 0 | pCi/g | Pre |
| 907-C2-3 | 3022305.635 | 673711.6405 | 12.5 | Pu-239/240 | 0 | pCi/g | Pre |
| 907-C2-3 | 3022305.635 | 673711.6405 | 12.5 | Pu-241 | 0 | pCi/g | Pre |
| 907-C2-3 | 3022305.635 | 673711.6405 | 12.5 | Pu-242 | 0 | pCi/g | Pre |
| 907-C2-3 | 3022305.635 | 673711.6405 | 12.5 | Tc-99 | 1.8 | pCi/g | Pre |
| 907-C2-3 | 3022305.635 | 673711.6405 | 12.5 | Th-230 | 2.5 | pCi/g | Pre |
| 907-C2-3 | 3022305.635 | 673711.6405 | 12.5 | Th-232 | 4.5 | pCi/g | Pre |
| 907-C2-3 | 3022305.635 | 673711.6405 | 12.5 | U-233/234 | 159.7 | pCi/g | Pre |
| 907-C2-3 | 3022305.635 | 673711.6405 | 12.5 | U-235 | 6.1 | pCi/g | Pre |

## Historical Dataset, Survey Unit 20

| Sample ID# | Sample Location | | Sample Depth (ft) | Contaminant Name | Analytical Result | Units | Period |
|---|---|---|---|---|---|---|---|
| | Easting | Northing | | | | | |
| 907-C2-3 | 3022305.635 | 673711.6405 | 12.5 | U-238 | 14 | pCi/g | Pre |
| 908-C2-3 | 3022331.745 | 673691.7374 | 12.5 | Am-241 | -0.3 | pCi/g | Pre |
| 908-C2-3 | 3022331.745 | 673691.7374 | 12.5 | Pu-238 | 0 | pCi/g | Pre |
| 908-C2-3 | 3022331.745 | 673691.7374 | 12.5 | Pu-239/240 | 0 | pCi/g | Pre |
| 908-C2-3 | 3022331.745 | 673691.7374 | 12.5 | Pu-241 | 0 | pCi/g | Pre |
| 908-C2-3 | 3022331.745 | 673691.7374 | 12.5 | Pu-242 | 0 | pCi/g | Pre |
| 908-C2-3 | 3022331.745 | 673691.7374 | 12.5 | Tc-99 | 9.7 | pCi/g | Pre |
| 908-C2-3 | 3022331.745 | 673691.7374 | 12.5 | Th-230 | 16.1 | pCi/g | Pre |
| 908-C2-3 | 3022331.745 | 673691.7374 | 12.5 | Th-232 | 34.9 | pCi/g | Pre |
| 908-C2-3 | 3022331.745 | 673691.7374 | 12.5 | U-233/234 | 274.3 | pCi/g | Pre |
| 908-C2-3 | 3022331.745 | 673691.7374 | 12.5 | U-235 | 10.3 | pCi/g | Pre |
| 908-C2-3 | 3022331.745 | 673691.7374 | 12.5 | U-238 | 20.2 | pCi/g | Pre |
| 909-B1-3 | 3022353.255 | 673671.2145 | 12.5 | Am-241 | 0.07 | pCi/g | Pre |
| 909-B1-3 | 3022353.255 | 673671.2145 | 12.5 | Pu-238 | 0.01 | pCi/g | Pre |
| 909-B1-3 | 3022353.255 | 673671.2145 | 12.5 | Pu-239/240 | 0.18 | pCi/g | Pre |
| 909-B1-3 | 3022353.255 | 673671.2145 | 12.5 | Pu-241 | 0.3 | pCi/g | Pre |
| 909-B1-3 | 3022353.255 | 673671.2145 | 12.5 | Pu-242 | 0 | pCi/g | Pre |
| 909-B1-3 | 3022353.255 | 673671.2145 | 12.5 | Tc-99 | 12.8 | pCi/g | Pre |
| 909-B1-3 | 3022353.255 | 673671.2145 | 12.5 | Th-230 | 4.8 | pCi/g | Pre |
| 909-B1-3 | 3022353.255 | 673671.2145 | 12.5 | Th-232 | 9.2 | pCi/g | Pre |
| 909-B1-3 | 3022353.255 | 673671.2145 | 12.5 | U-233/234 | 120 | pCi/g | Pre |
| 909-B1-3 | 3022353.255 | 673671.2145 | 12.5 | U-235 | 4.6 | pCi/g | Pre |
| 909-B1-3 | 3022353.255 | 673671.2145 | 12.5 | U-238 | 11.6 | pCi/g | Pre |
| 911-C2-2 | 3022410.074 | 673632.0283 | 6.5 | Am-241 | -0.09 | pCi/g | Pre |
| 911-C2-2 | 3022410.074 | 673632.0283 | 6.5 | Pu-238 | 0 | pCi/g | Pre |
| 911-C2-2 | 3022410.074 | 673632.0283 | 6.5 | Pu-239/240 | 0 | pCi/g | Pre |
| 911-C2-2 | 3022410.074 | 673632.0283 | 6.5 | Pu-241 | 0 | pCi/g | Pre |
| 911-C2-2 | 3022410.074 | 673632.0283 | 6.5 | Pu-242 | 0 | pCi/g | Pre |
| 911-C2-2 | 3022410.074 | 673632.0283 | 6.5 | Tc-99 | 1.3 | pCi/g | Pre |
| 911-C2-2 | 3022410.074 | 673632.0283 | 6.5 | Th-230 | 0.8 | pCi/g | Pre |
| 911-C2-2 | 3022410.074 | 673632.0283 | 6.5 | Th-232 | 1.2 | pCi/g | Pre |
| 911-C2-2 | 3022410.074 | 673632.0283 | 6.5 | U-233/234 | 20 | pCi/g | Pre |
| 911-C2-2 | 3022410.074 | 673632.0283 | 6.5 | U-235 | 0.8 | pCi/g | Pre |
| 911-C2-2 | 3022410.074 | 673632.0283 | 6.5 | U-238 | 3.4 | pCi/g | Pre |
| 911-C2-3 | 3022410.074 | 673632.0283 | 7.5 | Am-241 | -0.05 | pCi/g | Pre |
| 911-C2-3 | 3022410.074 | 673632.0283 | 7.5 | Pu-238 | 0 | pCi/g | Pre |
| 911-C2-3 | 3022410.074 | 673632.0283 | 7.5 | Pu-239/240 | 0 | pCi/g | Pre |
| 911-C2-3 | 3022410.074 | 673632.0283 | 7.5 | Pu-241 | 0 | pCi/g | Pre |
| 911-C2-3 | 3022410.074 | 673632.0283 | 7.5 | Pu-242 | 0 | pCi/g | Pre |
| 911-C2-3 | 3022410.074 | 673632.0283 | 7.5 | Tc-99 | 0.3 | pCi/g | Pre |
| 911-C2-3 | 3022410.074 | 673632.0283 | 7.5 | Th-230 | 0.7 | pCi/g | Pre |
| 911-C2-3 | 3022410.074 | 673632.0283 | 7.5 | Th-232 | 1.1 | pCi/g | Pre |
| 911-C2-3 | 3022410.074 | 673632.0283 | 7.5 | U-233/234 | 4.4 | pCi/g | Pre |
| 911-C2-3 | 3022410.074 | 673632.0283 | 7.5 | U-235 | 0.2 | pCi/g | Pre |
| 911-C2-3 | 3022410.074 | 673632.0283 | 7.5 | U-238 | 1.2 | pCi/g | Pre |
| 944-J9-3 | 3022344.057 | 673669.9747 | 12.5 | Am-241 | -0.01 | pCi/g | Pre |
| 944-J9-3 | 3022344.057 | 673669.9747 | 12.5 | Pu-238 | 0 | pCi/g | Pre |
| 944-J9-3 | 3022344.057 | 673669.9747 | 12.5 | Pu-239/240 | 0 | pCi/g | Pre |
| 944-J9-3 | 3022344.057 | 673669.9747 | 12.5 | Pu-241 | 0 | pCi/g | Pre |
| 944-J9-3 | 3022344.057 | 673669.9747 | 12.5 | Pu-242 | 0 | pCi/g | Pre |
| 944-J9-3 | 3022344.057 | 673669.9747 | 12.5 | Tc-99 | 5.2 | pCi/g | Pre |
| 944-J9-3 | 3022344.057 | 673669.9747 | 12.5 | Th-230 | 3.1 | pCi/g | Pre |
| 944-J9-3 | 3022344.057 | 673669.9747 | 12.5 | Th-232 | 5.6 | pCi/g | Pre |
| 944-J9-3 | 3022344.057 | 673669.9747 | 12.5 | U-233/234 | 111.8 | pCi/g | Pre |

## Historical Dataset, Survey Unit 20

| Sample ID# | Sample Location | | Sample Depth (ft) | Contaminant Name | Analytical Result | Units | Period |
|---|---|---|---|---|---|---|---|
| | Easting | Northing | | | | | |
| 944-J9-3 | 3022344.057 | 673669.9747 | 12.5 | U-235 | 4.3 | pCi/g | Pre |
| 944-J9-3 | 3022344.057 | 673669.9747 | 12.5 | U-238 | 11 | pCi/g | Pre |
| 945-I8-3 | 3022365.567 | 673649.4518 | 12.5 | Am-241 | -0.08 | pCi/g | Pre |
| 945-I8-3 | 3022365.567 | 673649.4518 | 12.5 | Pu-238 | 0 | pCi/g | Pre |
| 945-I8-3 | 3022365.567 | 673649.4518 | 12.5 | Pu-239/240 | 0 | pCi/g | Pre |
| 945-I8-3 | 3022365.567 | 673649.4518 | 12.5 | Pu-241 | 0 | pCi/g | Pre |
| 945-I8-3 | 3022365.567 | 673649.4518 | 12.5 | Pu-242 | 0 | pCi/g | Pre |
| 945-I8-3 | 3022365.567 | 673649.4518 | 12.5 | Tc-99 | 4.7 | pCi/g | Pre |
| 945-I8-3 | 3022365.567 | 673649.4518 | 12.5 | Th-230 | 2.4 | pCi/g | Pre |
| 945-I8-3 | 3022365.567 | 673649.4518 | 12.5 | Th-232 | 4.2 | pCi/g | Pre |
| 945-I8-3 | 3022365.567 | 673649.4518 | 12.5 | U-233/234 | 80.9 | pCi/g | Pre |
| 945-I8-3 | 3022365.567 | 673649.4518 | 12.5 | U-235 | 3.1 | pCi/g | Pre |
| 945-I8-3 | 3022365.567 | 673649.4518 | 12.5 | U-238 | 8.8 | pCi/g | Pre |
| 946-H7-2 | 3022387.078 | 673628.9289 | 6.5 | Am-241 | -0.09 | pCi/g | Pre |
| 946-H7-2 | 3022387.078 | 673628.9289 | 6.5 | Pu-238 | 0 | pCi/g | Pre |
| 946-H7-2 | 3022387.078 | 673628.9289 | 6.5 | Pu-239/240 | 0 | pCi/g | Pre |
| 946-H7-2 | 3022387.078 | 673628.9289 | 6.5 | Pu-241 | 0 | pCi/g | Pre |
| 946-H7-2 | 3022387.078 | 673628.9289 | 6.5 | Pu-242 | 0 | pCi/g | Pre |
| 946-H7-2 | 3022387.078 | 673628.9289 | 6.5 | Tc-99 | 2 | pCi/g | Pre |
| 946-H7-2 | 3022387.078 | 673628.9289 | 6.5 | Th-230 | 1.2 | pCi/g | Pre |
| 946-H7-2 | 3022387.078 | 673628.9289 | 6.5 | Th-232 | 2 | pCi/g | Pre |
| 946-H7-2 | 3022387.078 | 673628.9289 | 6.5 | U-233/234 | 6.7 | pCi/g | Pre |
| 946-H7-2 | 3022387.078 | 673628.9289 | 6.5 | U-235 | 0.3 | pCi/g | Pre |
| 946-H7-2 | 3022387.078 | 673628.9289 | 6.5 | U-238 | 1.6 | pCi/g | Pre |
| 946-H7-3 | 3022387.078 | 673628.9289 | 7.5 | Am-241 | 0.11 | pCi/g | Pre |
| 946-H7-3 | 3022387.078 | 673628.9289 | 7.5 | Pu-238 | 0.02 | pCi/g | Pre |
| 946-H7-3 | 3022387.078 | 673628.9289 | 7.5 | Pu-239/240 | 0.31 | pCi/g | Pre |
| 946-H7-3 | 3022387.078 | 673628.9289 | 7.5 | Pu-241 | 0.51 | pCi/g | Pre |
| 946-H7-3 | 3022387.078 | 673628.9289 | 7.5 | Pu-242 | 0 | pCi/g | Pre |
| 946-H7-3 | 3022387.078 | 673628.9289 | 7.5 | Tc-99 | 1.9 | pCi/g | Pre |
| 946-H7-3 | 3022387.078 | 673628.9289 | 7.5 | Th-230 | 0.7 | pCi/g | Pre |
| 946-H7-3 | 3022387.078 | 673628.9289 | 7.5 | Th-232 | 1 | pCi/g | Pre |
| 946-H7-3 | 3022387.078 | 673628.9289 | 7.5 | U-233/234 | 6.2 | pCi/g | Pre |
| 946-H7-3 | 3022387.078 | 673628.9289 | 7.5 | U-235 | 0.2 | pCi/g | Pre |
| 946-H7-3 | 3022387.078 | 673628.9289 | 7.5 | U-238 | 1.5 | pCi/g | Pre |

# Appendix B

# VSP Summary Reports

# APPENDIX B.1

# VSP SUMMARY REPORT, SURVEY UNIT 2

**Systematic sampling locations for comparing two population means or medians (site and reference) [nonparametric - MARSSIM]**

**Summary**

This report summarizes the sampling design used, associated statistical assumptions, as well as general guidelines for conducting post-sampling data analysis. Sampling plan components presented here include how many sampling locations to choose and where within the sampling area to collect those samples. The type of medium to sample (i.e., soil, groundwater, etc.) and how to analyze the samples (in-situ, fixed laboratory, etc.) are addressed in other sections of the sampling plan.

Table B-1 summarizes the sampling design developed. Figure B-1 shows sampling locations in the field and Table B-2 lists sampling location coordinates.

*Table B-1 Summary of Sampling Design, Survey Unit 2*

| SUMMARY OF SAMPLING DESIGN | |
|---|---|
| Primary Objective of Design | Compare a site mean or median to a reference area mean or median |
| Type of Sampling Design | Nonparametric |
| Sample Placement (Location) in the Field | Systematic with a random start location |
| Working (Null) Hypothesis | The difference between the medians(means) exceeds the threshold |
| Formula for calculating number of sampling locations | Wilcoxon Rank Sum Test - MARSSIM version |
| Calculated total number of samples for each site and reference area | 13 |
| Number of samples on map [a] | 18 |
| Number of selected sample areas [b] | 1 |
| Specified sampling area [c] | 38622.18 $ft^2$ |
| Size of grid / Area of grid cell [d] | 54.5063 feet / 2970.94 $ft^2$ |
| Grid pattern | Square |

[a] This number may differ from the calculated number because of 1) grid edge effects, 2) adding judgment samples, or 3) selecting or unselecting sample areas.
[b] The number of selected sample areas is the number of colored areas on the map of the site. These sample areas contain the locations where samples are collected.
[c] The sampling area is the total surface area of the selected colored sample areas on the map of the site.
[d] Size of grid / Area of grid cell gives the linear and square dimensions of the grid used to systematically place samples.

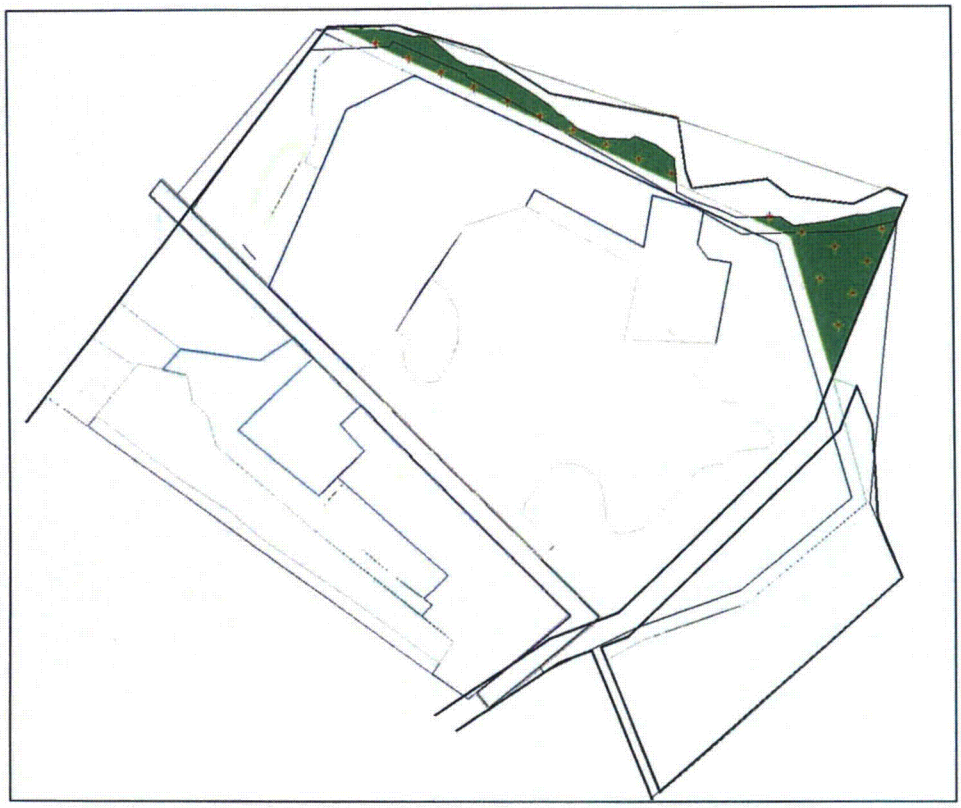

*Figure B-1 VSP-Generated Sample Locations, SU 2*

*Table B-2 Survey Unit 2 Corehole Locations, TN State Plane Coordinates*

| X Coordinate | Y Coordinate | Type | Reference/Survey Unit |
|---|---|---|---|
| 3023003.8764 | 674056.0947 | Systematic | Survey Unit |
| 3022977.2739 | 674128.4424 | Systematic | Survey Unit |
| 3023026.7490 | 674105.5698 | Systematic | Survey Unit |
| 3022307.4959 | 674498.1340 | Systematic | Survey Unit |
| 3022356.9709 | 674475.2613 | Systematic | Survey Unit |
| 3022406.4460 | 674452.3887 | Systematic | Survey Unit |
| 3022455.9210 | 674429.5161 | Systematic | Survey Unit |
| 3022505.3961 | 674406.6435 | Systematic | Survey Unit |
| 3022554.8711 | 674383.7709 | Systematic | Survey Unit |
| 3022604.3462 | 674360.8983 | Systematic | Survey Unit |
| 3022653.8212 | 674338.0257 | Systematic | Survey Unit |
| 3022703.2963 | 674315.1531 | Systematic | Survey Unit |
| 3022752.7713 | 674292.2805 | Systematic | Survey Unit |
| 3022901.1964 | 674223.6626 | Systematic | Survey Unit |
| 3022950.6715 | 674200.7900 | Systematic | Survey Unit |
| 3023000.1465 | 674177.9174 | Systematic | Survey Unit |
| 3023049.6216 | 674155.0448 | Systematic | Survey Unit |
| 3023072.4942 | 674204.5198 | Systematic | Survey Unit |

**Primary Sampling Objective**
The primary purpose of sampling at this site is to compare a site median or mean value with a reference area median or mean value. This is achieved by testing the difference between the site and reference area medians(means). The working hypothesis (or 'null' hypothesis) is that the difference between the site median(mean) and the reference area median(mean) is equal to or exceeds the threshold. The alternative hypothesis is that the difference is less than the threshold. VSP calculates the number of samples required to reject the null hypothesis in favor of the alternative one, given a selected sampling approach and inputs to the associated equation.

**Selected Sampling Approach**
A nonparametric systematic sampling approach with a random start was used to determine the number of samples and to specify sampling locations. A nonparametric formula was chosen because the conceptual model and historical information (e.g., historical data from this site or a very similar site) indicate that typical parametric assumptions may not be true.

Both parametric and non-parametric equations rely on assumptions about the population. Typically, however, non-parametric equations require fewer assumptions and allow for more uncertainty about the statistical distribution of values at the site. The trade-off is that if the parametric assumptions are valid, the required number of samples is usually less than if a non-parametric equation was used.

Locating the sample points over a systematic grid with a random start ensures spatial coverage of the site. Statistical analyses of systematically collected data are valid if a random start to the grid is used. One disadvantage of systematically collected samples is that spatial variability or patterns may not be discovered if the grid spacing is large relative to the spatial patterns.

**Number of Total Samples: Calculation Equation and Inputs**
The equation used to calculate the number of samples is based on Wilcoxon Rank Sum test published in MARSSIM (US EPA, et al, 1997). For this site, the null hypothesis is rejected in favor of the alternative one if the difference between the site and reference area median(mean) is sufficiently smaller than the threshold. The number of samples to collect is calculated so that if the inputs to the equation are true, the calculated number of samples will cause the null hypothesis to be rejected.

Equation B-1 and Equation B-2 were used to calculate the number of samples.

$$n + m = \frac{\left(z_{1-\alpha} + z_{1-\beta}\right)^2}{3(P_r - 0.5)^2}$$

*Equation B-1*

where

$$P_r = \Phi\left(\frac{\Delta}{\sqrt{2\left(s^2_{sample} + s^2_{analytical} / r\right)}}\right)$$

*Equation B-2*

where

$\Phi(z)$ is the cumulative standard normal distribution on $(-\infty,z)$ (see PNNL-13450 for details),

$P_r$ is the probability that a measurement collected from a random location at the study site is greater than a measurement collected from a random location in a reference area. See PNNL-13450 for details,

$n$ is the number of samples for the site and is equal to m,

$m$ is the number of samples for the reference area and is equal to n,

$S_{sample}$ is the estimated standard deviation of the measured values if measurements were made without analytical error,

$S_{analytical}$ is the estimated standard deviation of the measured values due to the analytical method,

$r$ is the number of replicate analyses per sample,

$\Delta$ is the width of the gray region,

$\alpha$ is the acceptable probability of incorrectly concluding the difference between the medians(means) is less than the threshold,

$\beta$ is the acceptable probability of incorrectly concluding the difference between the medians(means) exceeds the threshold,

$Z_{1-\alpha}$ is the value of the standard normal distribution such that the proportion of the distribution less than $Z_{1-\alpha}$ is $1-\alpha$,

$Z_{1-\beta}$ is the value of the standard normal distribution such that the proportion of the distribution less than $Z_{1-\beta}$ is $1-\beta$.

Note: MARSSIM suggests that the number of samples should be increased by at least 20% to account for missing or unusable data and uncertainty in the calculated value of n. VSP allows a user-supplied percent overage as discussed in MARSSIM (EPA 2000, p. 5-33).

The values of these inputs that result in the calculated number of sampling locations are presented in Table B-3.

*Table B-3 Input Parameters in VSP Sample Design*

| Parameter | Value |
|---|---|
| $S_{sample}$ | 1.1 |
| $S_{analytical}$ | 0 |
| $r$ | 1 |
| $\Delta$ | 1.5 |
| $\alpha$ | 5% |
| $\beta$ | 10% |
| $Z_{1-\alpha}$ | 1.64485 [a] |
| $Z_{1-\beta}$ | 1.28155 [b] |
| MARSSIM Overage | 0% |

[a] This value is automatically calculated by VSP based upon the user defined value of $\alpha$.
[b] This value is automatically calculated by VSP based upon the user defined value of $\beta$.

Figure B-2 is a performance goal diagram, described in EPA's QA/G-4 guidance (EPA, 2000). It shows the probability of concluding the sample area is dirty (the probability that the difference between the site median(mean) and the reference area median(mean) exceeds the threshold) on the vertical axis versus a range of possible true differences between the medians(means) on the horizontal axis. This graph contains all of the inputs to the number of samples equation and pictorially represents the calculation.

The red vertical line is shown at the threshold (action limit) on the horizontal axis. The width of the gray shaded area is equal to $\Delta$; the upper horizontal dashed blue line is positioned at $1-\alpha$ on the vertical axis; the lower horizontal dashed blue line is positioned at $\beta$ on the vertical axis. The vertical green line is positioned at one standard deviation below the threshold. The shape of the red curve corresponds to the estimates of variability. The calculated number of samples results in the curve that passes through the lower bound of $\Delta$ at $\beta$ and the upper bound of $\Delta$ at $1-\alpha$. If any of the inputs change, the number of samples that result in the correct curve changes.

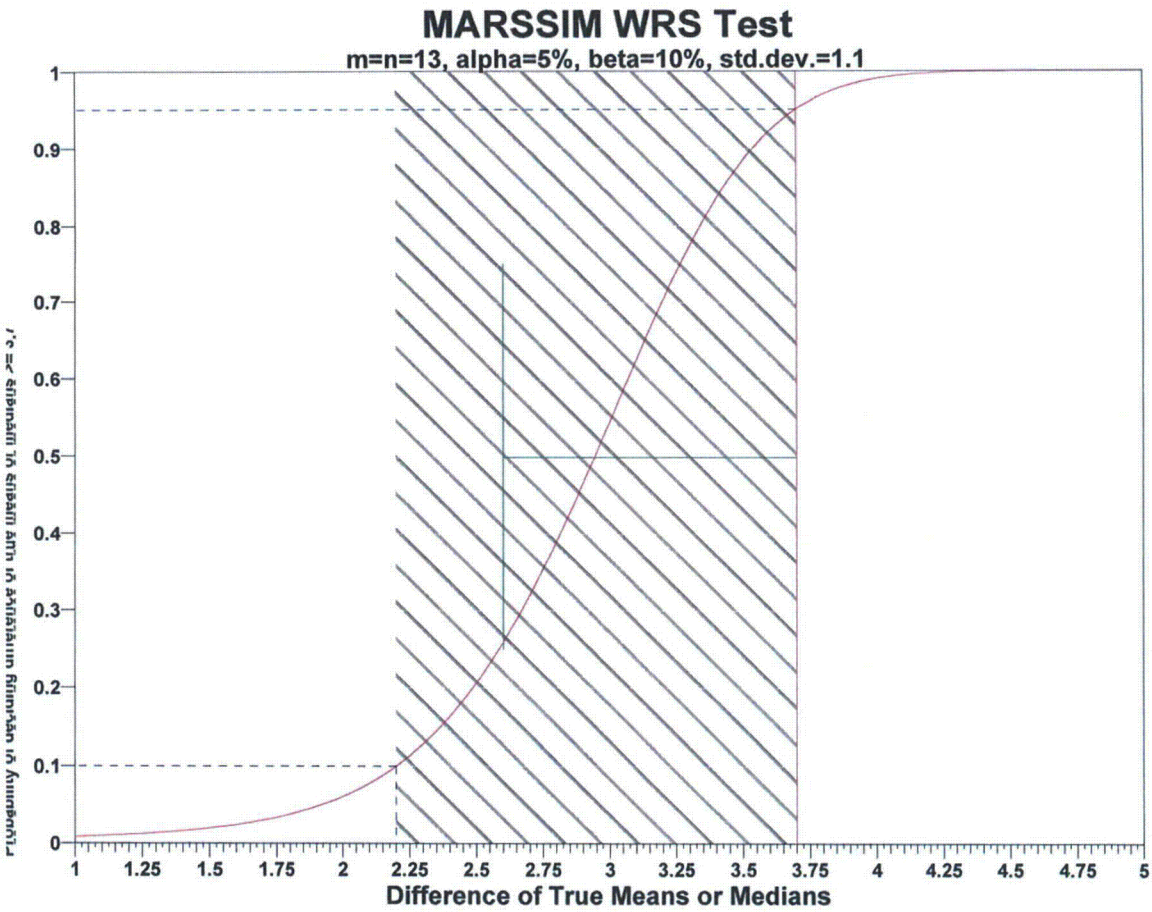


*Figure B-2 A-Priori Power Curve for WRS Test*

**Statistical Assumptions**

The assumptions associated with the formulas for computing the number of samples are:

1. although the population does not have to be normally distributed, the test statistic is approximately normally distributed,
2. the variances of the site and reference populations are equal,
3. the variance estimate, $S^2$, is reasonable and representative of the populations being sampled,
4. the population values are not spatially or temporally correlated, and
5. the sampling locations will be selected probabilistically.

The first four assumptions will be assessed in a post data collection analysis. The last assumption is valid because the gridded sample locations were selected based on a random start.

**Sensitivity Analysis**

The sensitivity of the calculation of number of samples was explored by varying s, LBGR, β and α and examining the resulting changes in the number of samples. Table B-4 shows the results of this analysis.

*Table B-4 Change in Number of Samples by Varying **LBGR**, **α**, and **β** Parameters*

| Number of Samples | | | | | | | |
|---|---|---|---|---|---|---|---|
| AL=3.7 | | α=5 | | α=10 | | α=15 | |
| | | s=2.2 | s=1.1 | s=2.2 | s=1.1 | s=2.2 | s=1.1 |
| LBGR=90 | β=5 | 53 | 17 | 42 | 13 | 35 | 11 |
| | β=10 | 42 | 13 | 32 | 10 | 27 | 9 |
| | β=15 | 35 | 11 | 27 | 9 | 21 | 7 |
| LBGR=80 | β=5 | 53 | 17 | 42 | 13 | 35 | 11 |
| | β=10 | 42 | 13 | 32 | 10 | 27 | 9 |
| | β=15 | 35 | 11 | 27 | 9 | 21 | 7 |
| LBGR=70 | β=5 | 53 | 17 | 42 | 13 | 35 | 11 |
| | β=10 | 42 | 13 | 32 | 10 | 27 | 9 |
| | β=15 | 35 | 11 | 27 | 9 | 21 | 7 |

s = Sampling Standard Deviation
LBGR = Lower Bound of Gray Region (% of Action Level)
β = Beta (%), Probability of mistakenly concluding that μ > action level
α = Alpha (%), Probability of mistakenly concluding that μ < action level
AL = Action Level (Threshold)

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# APPENDIX B.2

# VSP SUMMARY REPORT, SURVEY UNIT 8

**Systematic sampling locations for comparing two population means or medians (site and reference) [nonparametric - MARSSIM]**

**Summary**

This report summarizes the sampling design used, associated statistical assumptions, as well as general guidelines for conducting post-sampling data analysis. Sampling plan components presented here include how many sampling locations to choose and where within the sampling area to collect those samples. The type of medium to sample (i.e., soil, groundwater, etc.) and how to analyze the samples (in-situ, fixed laboratory, etc.) are addressed in other sections of the sampling plan.

Table B-1 summarizes the sampling design developed. Figure B-1 that shows sampling locations in the field and a table that lists sampling location coordinates are also provided below.

*Table B-1. Summary of Sampling Design, Survey Unit 8*

| SUMMARY OF SAMPLING DESIGN | |
|---|---|
| Primary Objective of Design | Compare a site mean or median to a reference area mean or median |
| Type of Sampling Design | Nonparametric |
| Sample Placement (Location) in the Field | Systematic with a random start location |
| Working (Null) Hypothesis | The difference between the medians(means) exceeds the threshold |
| Formula for calculating number of sampling locations | Wilcoxon Rank Sum Test - MARSSIM version |
| Calculated total number of samples for each site and reference area | 64 |
| Number of samples on map [a] | 64 |
| Number of selected sample areas [b] | 1 |
| Specified sampling area [c] | 12461.52 $ft^2$ |
| Size of grid / Area of grid cell [d] | 13.9539 feet / 194.711 $ft^2$ |
| Grid pattern | Square |

[a] This number may differ from the calculated number because of 1) grid edge effects, 2) adding judgment samples, or 3) selecting or unselecting sample areas.
[b] The number of selected sample areas is the number of colored areas on the map of the site. These sample areas contain the locations where samples are collected.
[c] The sampling area is the total surface area of the selected colored sample areas on the map of the site.
[d] Size of grid / Area of grid cell gives the linear and square dimensions of the grid used to systematically place samples.

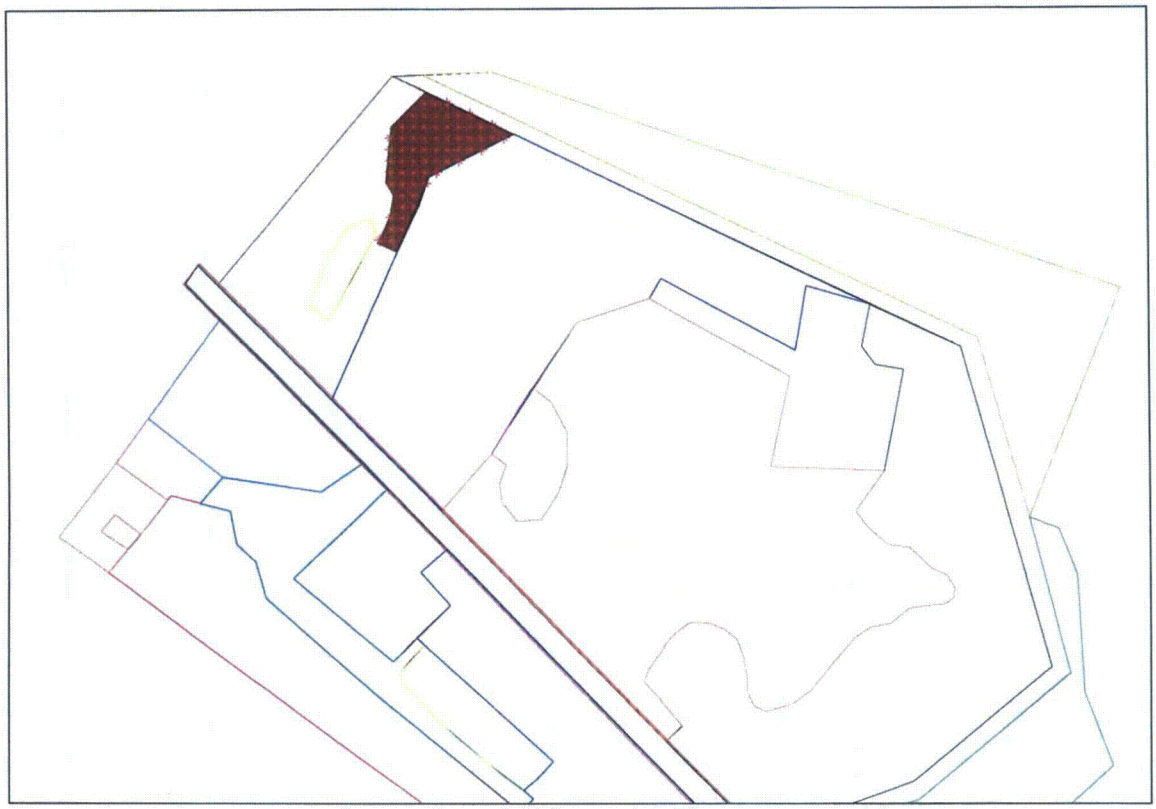

*Figure B-1 VSP-Generated Sample Locations, SU 8*

*Table B-2 Survey Unit 8 Corehole Locations, TN State Plane Coordinates*

| X Coordinate | Y Coordinate | Type | Reference/Survey Unit |
|---|---|---|---|
| 3022200.0623 | 674316.8039 | Systematic | Survey Unit |
| 3022214.0162 | 674316.8039 | Systematic | Survey Unit |
| 3022214.0162 | 674330.7578 | Systematic | Survey Unit |
| 3022227.9701 | 674330.7578 | Systematic | Survey Unit |
| 3022214.0162 | 674344.7117 | Systematic | Survey Unit |
| 3022227.9701 | 674344.7117 | Systematic | Survey Unit |
| 3022227.9701 | 674358.6656 | Systematic | Survey Unit |
| 3022241.9240 | 674358.6656 | Systematic | Survey Unit |
| 3022227.9701 | 674372.6195 | Systematic | Survey Unit |
| 3022241.9240 | 674372.6195 | Systematic | Survey Unit |
| 3022214.0162 | 674386.5734 | Systematic | Survey Unit |
| 3022227.9701 | 674386.5734 | Systematic | Survey Unit |
| 3022241.9240 | 674386.5734 | Systematic | Survey Unit |
| 3022255.8779 | 674386.5734 | Systematic | Survey Unit |
| 3022214.0162 | 674400.5273 | Systematic | Survey Unit |
| 3022227.9701 | 674400.5273 | Systematic | Survey Unit |
| 3022241.9240 | 674400.5273 | Systematic | Survey Unit |
| 3022255.8779 | 674400.5273 | Systematic | Survey Unit |
| 3022269.8318 | 674400.5273 | Systematic | Survey Unit |
| 3022214.0162 | 674414.4812 | Systematic | Survey Unit |

| | | | |
|---|---|---|---|
| 3022227.9701 | 674414.4812 | Systematic | Survey Unit |
| 3022241.9240 | 674414.4812 | Systematic | Survey Unit |
| 3022255.8779 | 674414.4812 | Systematic | Survey Unit |
| 3022269.8318 | 674414.4812 | Systematic | Survey Unit |
| 3022283.7857 | 674414.4812 | Systematic | Survey Unit |
| 3022297.7396 | 674414.4812 | Systematic | Survey Unit |
| 3022214.0162 | 674428.4351 | Systematic | Survey Unit |
| 3022227.9701 | 674428.4351 | Systematic | Survey Unit |
| 3022241.9240 | 674428.4351 | Systematic | Survey Unit |
| 3022255.8779 | 674428.4351 | Systematic | Survey Unit |
| 3022269.8318 | 674428.4351 | Systematic | Survey Unit |
| 3022283.7857 | 674428.4351 | Systematic | Survey Unit |
| 3022297.7396 | 674428.4351 | Systematic | Survey Unit |
| 3022311.6935 | 674428.4351 | Systematic | Survey Unit |
| 3022325.6474 | 674428.4351 | Systematic | Survey Unit |
| 3022214.0162 | 674442.3890 | Systematic | Survey Unit |
| 3022227.9701 | 674442.3890 | Systematic | Survey Unit |
| 3022241.9240 | 674442.3890 | Systematic | Survey Unit |
| 3022255.8779 | 674442.3890 | Systematic | Survey Unit |
| 3022269.8318 | 674442.3890 | Systematic | Survey Unit |
| 3022283.7857 | 674442.3890 | Systematic | Survey Unit |
| 3022297.7396 | 674442.3890 | Systematic | Survey Unit |
| 3022311.6935 | 674442.3890 | Systematic | Survey Unit |
| 3022325.6474 | 674442.3890 | Systematic | Survey Unit |
| 3022339.6013 | 674442.3890 | Systematic | Survey Unit |
| 3022353.5552 | 674442.3890 | Systematic | Survey Unit |
| 3022227.9701 | 674456.3429 | Systematic | Survey Unit |
| 3022241.9240 | 674456.3429 | Systematic | Survey Unit |
| 3022255.8779 | 674456.3429 | Systematic | Survey Unit |
| 3022269.8318 | 674456.3429 | Systematic | Survey Unit |
| 3022283.7857 | 674456.3429 | Systematic | Survey Unit |
| 3022297.7396 | 674456.3429 | Systematic | Survey Unit |
| 3022311.6935 | 674456.3429 | Systematic | Survey Unit |
| 3022325.6474 | 674456.3429 | Systematic | Survey Unit |
| 3022339.6013 | 674456.3429 | Systematic | Survey Unit |
| 3022241.9240 | 674470.2968 | Systematic | Survey Unit |
| 3022255.8779 | 674470.2968 | Systematic | Survey Unit |
| 3022269.8318 | 674470.2968 | Systematic | Survey Unit |
| 3022283.7857 | 674470.2968 | Systematic | Survey Unit |
| 3022297.7396 | 674470.2968 | Systematic | Survey Unit |
| 3022311.6935 | 674470.2968 | Systematic | Survey Unit |
| 3022255.8779 | 674484.2507 | Systematic | Survey Unit |
| 3022269.8318 | 674484.2507 | Systematic | Survey Unit |
| 3022283.7857 | 674484.2507 | Systematic | Survey Unit |

**Primary Sampling Objective**

The primary purpose of sampling at this site is to compare a site median or mean value with a reference area median or mean value. This is achieved by testing the difference between the site and reference area medians(means). The working hypothesis (or 'null' hypothesis) is that the difference between the site median(mean) and the reference area median(mean) is equal to or exceeds the threshold. The alternative hypothesis is that the difference is less than the threshold. VSP calculates the number of samples required to reject the null hypothesis in favor of the alternative one, given a selected sampling approach and inputs to the associated equation.

**Selected Sampling Approach**
A nonparametric systematic sampling approach with a random start was used to determine the number of samples and to specify sampling locations. A nonparametric formula was chosen because the conceptual model and historical information (e.g., historical data from this site or a very similar site) indicate that typical parametric assumptions may not be true.

Both parametric and non-parametric equations rely on assumptions about the population. Typically, however, non-parametric equations require fewer assumptions and allow for more uncertainty about the statistical distribution of values at the site. The trade-off is that if the parametric assumptions are valid, the required number of samples is usually less than if a non-parametric equation was used.

Locating the sample points over a systematic grid with a random start ensures spatial coverage of the site. Statistical analyses of systematically collected data are valid if a random start to the grid is used. One disadvantage of systematically collected samples is that spatial variability or patterns may not be discovered if the grid spacing is large relative to the spatial patterns.

**Number of Total Samples: Calculation Equation and Inputs**
The equation used to calculate the number of samples is based on Wilcoxon Rank Sum test published in MARSSIM (US EPA, et al, 1997). For this site, the null hypothesis is rejected in favor of the alternative one if the difference between the site and reference area median(mean) is sufficiently smaller than the threshold. The number of samples to collect is calculated so that if the inputs to the equation are true, the calculated number of samples will cause the null hypothesis to be rejected.

Equation B-1 and Equation B-2 were used to calculate the number of samples:

$$n + m = \frac{\left(z_{1-\alpha} + z_{1-\beta}\right)^2}{3\left(P_r - 0.5\right)^2}$$

*Equation B-1*

where

$$P_r = \Phi\left(\frac{\Delta}{\sqrt{2\left(s^2_{sample} + s^2_{analytical} / r\right)}}\right)$$

*Equation B-2*

where

$\Phi(z)$ is the cumulative standard normal distribution on $(-\infty,z)$ (see PNNL-13450 for details),
$P_r$ is the probability that a measurement collected from a random location at the study site is greater than a measurement collected from a random location in a reference area. See PNNL-13450 for details,
$n$ is the number of samples for the site and is equal to m,
$m$ is the number of samples for the reference area and is equal to n,
$S$ is the estimated standard deviation of the measured values including analytical error,

$\Delta$ is the width of the gray region,

$\alpha$ is the acceptable probability of incorrectly concluding the difference between the medians(means) is less than the threshold,

$\beta$ is the acceptable probability of incorrectly concluding the difference between the medians(means) exceeds the threshold,

$Z_{1-\alpha}$ is the value of the standard normal distribution such that the proportion of the distribution less than $Z_{1-\alpha}$ is $1-\alpha$,

$Z_{1-\beta}$ is the value of the standard normal distribution such that the proportion of the distribution less than $Z_{1-\beta}$ is $1-\beta$.

Note: MARSSIM suggests that the number of samples should be increased by at least 20% to account for missing or unusable data and uncertainty in the calculated value of n. VSP allows a user-supplied percent overage as discussed in MARSSIM (EPA 2000, p. 5-33).

The values of these inputs that result in the calculated number of sampling locations are presented in Table B-3.

*Table B-3 Input Parameters in VSP Sample Design*

| Parameter | Value |
|---|---|
| $S$ | 2.5 |
| $\Delta$ | 1.5 |
| $\alpha$ | 5% |
| $\beta$ | 10% |
| $Z_{1-\alpha}$ | 1.64485 [a] |
| $Z_{1-\beta}$ | 1.28155 [b] |
| MARSSIM Overage | 20% |

[a] This value is automatically calculated by VSP based upon the user defined value of $\alpha$.
[b] This value is automatically calculated by VSP based upon the user defined value of $\beta$.

Figure B-2 is a performance goal diagram, described in EPA's QA/G-4 guidance (EPA, 2000). It shows the probability of concluding the sample area is dirty (the probability that the difference between the site median(mean) and the reference area median(mean) exceeds the threshold) on the vertical axis versus a range of possible true differences between the medians(means) on the horizontal axis. This graph contains all of the inputs to the number of samples equation and pictorially represents the calculation.

The red vertical line is shown at the threshold (action limit) on the horizontal axis. The width of the gray shaded area is equal to $\Delta$; the upper horizontal dashed blue line is positioned at $1-\alpha$ on the vertical axis; the lower horizontal dashed blue line is positioned at $\beta$ on the vertical axis. The vertical green line is positioned at one standard deviation below the threshold. The shape of the red curve corresponds to the estimates of variability. The calculated number of samples results in the curve that passes through the lower bound of $\Delta$ at $\beta$ and the upper bound of $\Delta$ at $1-\alpha$. If any of the inputs change, the number of samples that result in the correct curve changes.

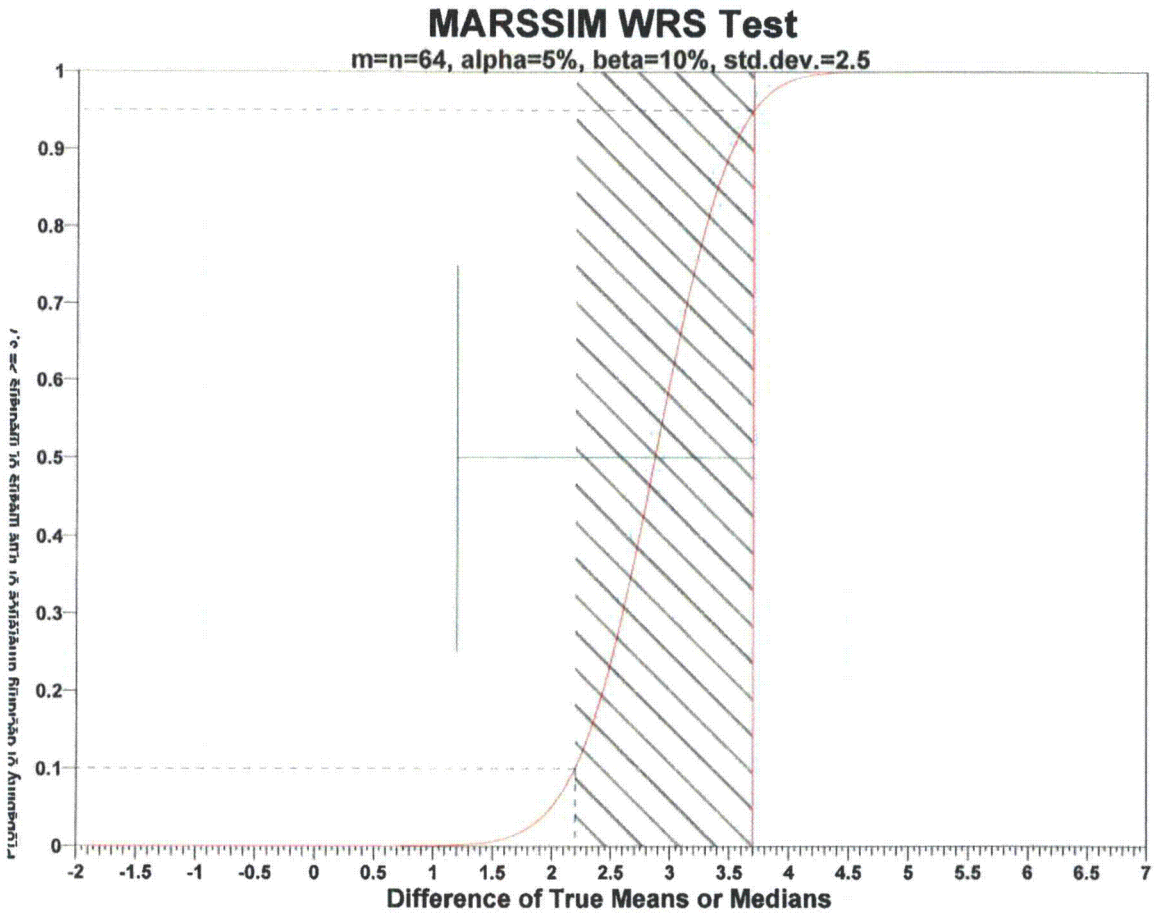


*Figure B-2 A-Priori Power Curve for WRS Test*

**Statistical Assumptions**

The assumptions associated with the formulas for computing the number of samples are:

1. although the population does not have to be normally distributed, the test statistic is approximately normally distributed,
2. the variances of the site and reference populations are equal,
3. the variance estimate, $S^2$, is reasonable and representative of the populations being sampled,
4. the population values are not spatially or temporally correlated, and
5. the sampling locations will be selected probabilistically.

The first four assumptions will be assessed in a post data collection analysis. The last assumption is valid because the gridded sample locations were selected based on a random start.

**Sensitivity Analysis**

The sensitivity of the calculation of number of samples was explored by varying s, LBGR, $\beta$ and $\alpha$ and examining the resulting changes in the number of samples. Table B-4 shows the results of this analysis.

*Table B-4 Change in Number of Samples by Varying **LBGR**, **α**, and **β** Parameters*

| Number of Samples | | | | | | | |
|---|---|---|---|---|---|---|---|
| AL=3.7 | | α=5 | | α=10 | | α=15 | |
| | | s=5 | s=2.5 | s=5 | s=2.5 | s=5 | s=2.5 |
| LBGR=90 | β=5 | 308 | 81 | 244 | 64 | 204 | 54 |
| | β=10 | 244 | 64 | 188 | 50 | 153 | 41 |
| | β=15 | 204 | 54 | 153 | 41 | 123 | 33 |
| LBGR=80 | β=5 | 308 | 81 | 244 | 64 | 204 | 54 |
| | β=10 | 244 | 64 | 188 | 50 | 153 | 41 |
| | β=15 | 204 | 54 | 153 | 41 | 123 | 33 |
| LBGR=70 | β=5 | 308 | 81 | 244 | 64 | 204 | 54 |
| | β=10 | 244 | 64 | 188 | 50 | 153 | 41 |
| | β=15 | 204 | 54 | 153 | 41 | 123 | 33 |

s = Standard Deviation
LBGR = Lower Bound of Gray Region (% of Action Level)
β = Beta (%), Probability of mistakenly concluding that μ > action level
α = Alpha (%), Probability of mistakenly concluding that μ < action level
AL = Action Level (Threshold)

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# APPENDIX B.3

# VSP SUMMARY REPORT, SURVEY UNIT 9

**Systematic sampling locations for comparing two population means or medians (site and reference) [nonparametric - MARSSIM]**

**Summary**

This report summarizes the sampling design used, associated statistical assumptions, as well as general guidelines for conducting post-sampling data analysis. Sampling plan components presented here include how many sampling locations to choose and where within the sampling area to collect those samples. The type of medium to sample (i.e., soil, groundwater, etc.) and how to analyze the samples (in-situ, fixed laboratory, etc.) are addressed in other sections of the sampling plan.

Table B-1 summarizes the sampling design developed. Figure B-1 shows sampling locations in the field and Table B-2 lists sampling location coordinates.

*Table B-1 Summary of Sampling Design, Survey Unit 9*

| SUMMARY OF SAMPLING DESIGN | |
|---|---|
| Primary Objective of Design | Compare a site mean or median to a reference area mean or median |
| Type of Sampling Design | Nonparametric |
| Sample Placement (Location) in the Field | Systematic with a random start location |
| Working (Null) Hypothesis | The difference between the medians(means) exceeds the threshold |
| Formula for calculating number of sampling locations | Wilcoxon Rank Sum Test - MARSSIM version |
| Calculated total number of samples for each site and reference area | 42 |
| Number of samples on map [a] | 42 |
| Number of selected sample areas [b] | 1 |
| Specified sampling area [c] | 4316.00 $ft^2$ |
| Size of grid / Area of grid cell [d] | 10.1372 feet / 102.762 $ft^2$ |
| Grid pattern | Square |

[a] This number may differ from the calculated number because of 1) grid edge effects, 2) adding judgment samples, or 3) selecting or unselecting sample areas.
[b] The number of selected sample areas is the number of colored areas on the map of the site. These sample areas contain the locations where samples are collected.
[c] The sampling area is the total surface area of the selected colored sample areas on the map of the site.
[d] Size of grid / Area of grid cell gives the linear and square dimensions of the grid used to systematically place samples.

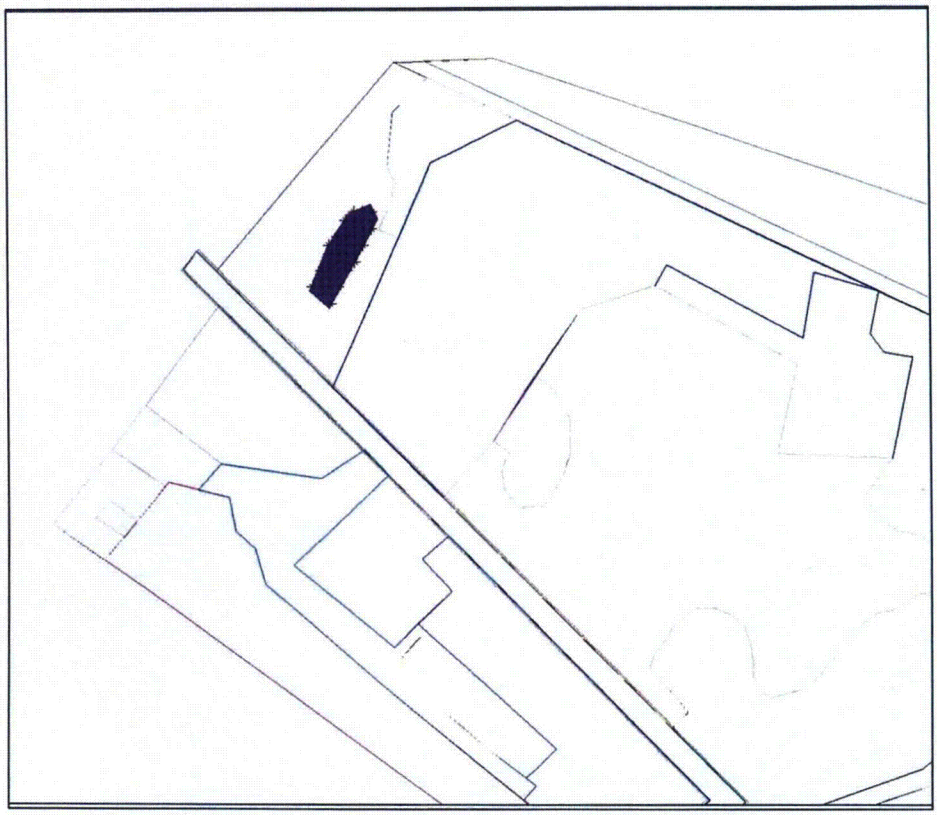

*Figure B-1 VSP-Generated Sample Locations, SU 9*

*Table B-2 Survey Unit 9 Corehole Locations, TN State Plane Coordinates*

| X Coordinate | Y Coordinate | Type | Reference/Survey Unit |
|---|---|---|---|
| 3022137.4871 | 674223.4430 | Systematic | Survey Unit 9 |
| 3022127.3499 | 674233.5802 | Systematic | Survey Unit 9 |
| 3022137.4871 | 674233.5802 | Systematic | Survey Unit 9 |
| 3022117.2128 | 674243.7173 | Systematic | Survey Unit 9 |
| 3022127.3499 | 674243.7173 | Systematic | Survey Unit 9 |
| 3022137.4871 | 674243.7173 | Systematic | Survey Unit 9 |
| 3022147.6243 | 674243.7173 | Systematic | Survey Unit 9 |
| 3022127.3499 | 674253.8545 | Systematic | Survey Unit 9 |
| 3022137.4871 | 674253.8545 | Systematic | Survey Unit 9 |
| 3022147.6243 | 674253.8545 | Systematic | Survey Unit 9 |
| 3022127.3499 | 674263.9916 | Systematic | Survey Unit 9 |
| 3022137.4871 | 674263.9916 | Systematic | Survey Unit 9 |
| 3022147.6243 | 674263.9916 | Systematic | Survey Unit 9 |
| 3022157.7614 | 674263.9916 | Systematic | Survey Unit 9 |
| 3022137.4871 | 674274.1288 | Systematic | Survey Unit 9 |
| 3022147.6243 | 674274.1288 | Systematic | Survey Unit 9 |
| 3022157.7614 | 674274.1288 | Systematic | Survey Unit 9 |
| 3022167.8986 | 674274.1288 | Systematic | Survey Unit 9 |
| 3022137.4871 | 674284.2659 | Systematic | Survey Unit 9 |
| 3022147.6243 | 674284.2659 | Systematic | Survey Unit 9 |

| | | | |
|---|---|---|---|
| 3022157.7614 | 674284.2659 | Systematic | Survey Unit 9 |
| 3022167.8986 | 674284.2659 | Systematic | Survey Unit 9 |
| 3022137.4871 | 674294.4031 | Systematic | Survey Unit 9 |
| 3022147.6243 | 674294.4031 | Systematic | Survey Unit 9 |
| 3022157.7614 | 674294.4031 | Systematic | Survey Unit 9 |
| 3022167.8986 | 674294.4031 | Systematic | Survey Unit 9 |
| 3022178.0357 | 674294.4031 | Systematic | Survey Unit 9 |
| 3022147.6243 | 674304.5402 | Systematic | Survey Unit 9 |
| 3022157.7614 | 674304.5402 | Systematic | Survey Unit 9 |
| 3022167.8986 | 674304.5402 | Systematic | Survey Unit 9 |
| 3022178.0357 | 674304.5402 | Systematic | Survey Unit 9 |
| 3022157.7614 | 674314.6774 | Systematic | Survey Unit 9 |
| 3022167.8986 | 674314.6774 | Systematic | Survey Unit 9 |
| 3022178.0357 | 674314.6774 | Systematic | Survey Unit 9 |
| 3022188.1729 | 674314.6774 | Systematic | Survey Unit 9 |
| 3022157.7614 | 674324.8146 | Systematic | Survey Unit 9 |
| 3022167.8986 | 674324.8146 | Systematic | Survey Unit 9 |
| 3022178.0357 | 674324.8146 | Systematic | Survey Unit 9 |
| 3022188.1729 | 674324.8146 | Systematic | Survey Unit 9 |
| 3022167.8986 | 674334.9517 | Systematic | Survey Unit 9 |
| 3022178.0357 | 674334.9517 | Systematic | Survey Unit 9 |
| 3022188.1729 | 674334.9517 | Systematic | Survey Unit 9 |

**Primary Sampling Objective**
The primary purpose of sampling at this site is to compare a site median or mean value with a reference area median or mean value. This is achieved by testing the difference between the site and reference area medians(means). The working hypothesis (or 'null' hypothesis) is that the difference between the site median(mean) and the reference area median(mean) is equal to or exceeds the threshold. The alternative hypothesis is that the difference is less than the threshold. VSP calculates the number of samples required to reject the null hypothesis in favor of the alternative one, given a selected sampling approach and inputs to the associated equation.

**Selected Sampling Approach**
A nonparametric systematic sampling approach with a random start was used to determine the number of samples and to specify sampling locations. A nonparametric formula was chosen because the conceptual model and historical information (e.g., historical data from this site or a very similar site) indicate that typical parametric assumptions may not be true.

Both parametric and non-parametric equations rely on assumptions about the population. Typically, however, non-parametric equations require fewer assumptions and allow for more uncertainty about the statistical distribution of values at the site. The trade-off is that if the parametric assumptions are valid, the required number of samples is usually less than if a non-parametric equation was used.

Locating the sample points over a systematic grid with a random start ensures spatial coverage of the site. Statistical analyses of systematically collected data are valid if a random start to the grid is used. One disadvantage of systematically collected samples is that spatial variability or patterns may not be discovered if the grid spacing is large relative to the spatial patterns.

**Number of Total Samples: Calculation Equation and Inputs**
The equation used to calculate the number of samples is based on Wilcoxon Rank Sum test published in MARSSIM (US EPA, et al, 1997). For this site, the null hypothesis is rejected in favor of the alternative one if the difference between the site and reference area median(mean) is sufficiently smaller than the threshold. The number of samples to collect is calculated so that if

the inputs to the equation are true, the calculated number of samples will cause the null hypothesis to be rejected.

Equation B-1 and Equation B-2 were used to calculate the number of samples.

$$n + m = \frac{\left(z_{1-\alpha} + z_{1-\beta}\right)^2}{3(P_r - 0.5)^2}$$

*Equation B-1*

where

$$P_r = \Phi\left(\frac{\Delta}{\sqrt{2\left(s^2_{sample} + s^2_{analytical} / r\right)}}\right)$$

*Equation B-2*

where

| | |
|---|---|
| $\Phi(z)$ | is the cumulative standard normal distribution on $(-\infty,z)$ (see PNNL-13450 for details), |
| $P_r$ | is the probability that a measurement collected from a random location at the study site is greater than a measurement collected from a random location in a reference area. See PNNL-13450 for details, |
| $n$ | is the number of samples for the site and is equal to m, |
| $m$ | is the number of samples for the reference area and is equal to n, |
| S | is the estimated standard deviation of the measured values including analytical error, |
| $\Delta$ | is the width of the gray region, |
| $\alpha$ | is the acceptable probability of incorrectly concluding the difference between the medians(means) is less than the threshold, |
| $\beta$ | is the acceptable probability of incorrectly concluding the difference between the medians(means) exceeds the threshold, |
| $Z_{1-\alpha}$ | is the value of the standard normal distribution such that the proportion of the distribution less than $Z_{1-\alpha}$ is $1-\alpha$, |
| $Z_{1-\beta}$ | is the value of the standard normal distribution such that the proportion of the distribution less than $Z_{1-\beta}$ is $1-\beta$. |

Note: MARSSIM suggests that the number of samples should be increased by at least 20% to account for missing or unusable data and uncertainty in the calculated value of n. VSP allows a user-supplied percent overage as discussed in MARSSIM (EPA 2000, p. 5-33).

The values of these inputs that result in the calculated number of sampling locations are presented in Table B-3.

*Table B-3 Input Parameters in VSP Sample Design*

| Parameter | Value |
|---|---|
| $S$ | 2 |
| $\Delta$ | 1.5 |
| $\alpha$ | 5% |
| $\beta$ | 10% |
| $Z_{1-\alpha}$ | 1.64485 [a] |
| $Z_{1-\beta}$ | 1.28155 [b] |
| MARSSIM Overage | 20% |

[a] This value is automatically calculated by VSP based upon the user defined value of $\alpha$.
[b] This value is automatically calculated by VSP based upon the user defined value of $\beta$.

Figure B-2 is a performance goal diagram, described in EPA's QA/G-4 guidance (EPA, 2000). It shows the probability of concluding the sample area is dirty (the probability that the difference between the site median(mean) and the reference area median(mean) exceeds the threshold) on the vertical axis versus a range of possible true differences between the medians(means) on the horizontal axis. This graph contains all of the inputs to the number of samples equation and pictorially represents the calculation.

The red vertical line is shown at the threshold (action limit) on the horizontal axis. The width of the gray shaded area is equal to $\Delta$; the upper horizontal dashed blue line is positioned at 1-$\alpha$ on the vertical axis; the lower horizontal dashed blue line is positioned at $\beta$ on the vertical axis. The vertical green line is positioned at one standard deviation below the threshold. The shape of the red curve corresponds to the estimates of variability. The calculated number of samples results in the curve that passes through the lower bound of $\Delta$ at $\beta$ and the upper bound of $\Delta$ at 1-$\alpha$. If any of the inputs change, the number of samples that result in the correct curve changes.

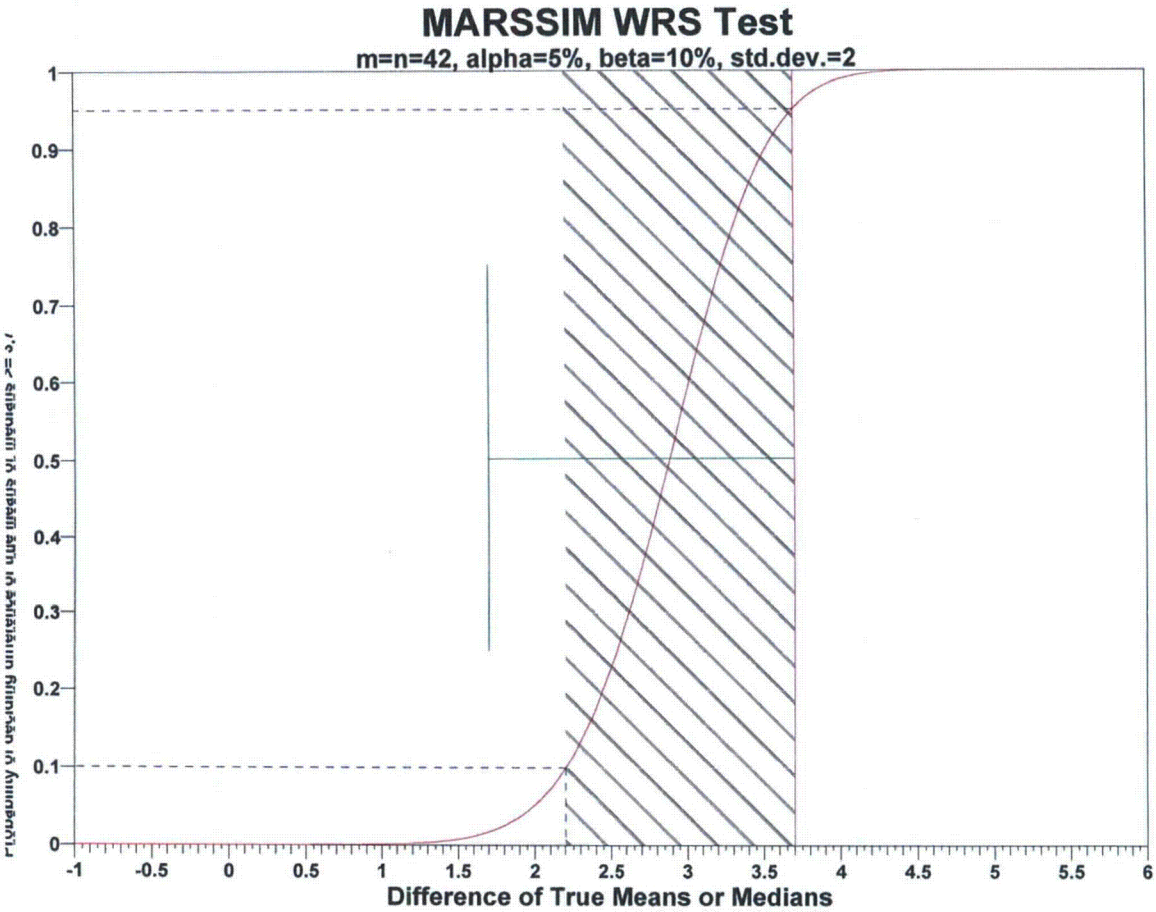


*Figure B-2 A-Priori Power Curve for WRS Test*

**Statistical Assumptions**

The assumptions associated with the formulas for computing the number of samples are:

1. although the population does not have to be normally distributed, the test statistic is approximately normally distributed,
2. the variances of the site and reference populations are equal,
3. the variance estimate, $S^2$, is reasonable and representative of the populations being sampled,
4. the population values are not spatially or temporally correlated, and
5. the sampling locations will be selected probabilistically.

The first four assumptions will be assessed in a post data collection analysis. The last assumption is valid because the gridded sample locations were selected based on a random start.

**Sensitivity Analysis**

The sensitivity of the calculation of number of samples was explored by varying s, LBGR, β and α and examining the resulting changes in the number of samples. Table B-4 shows the results of this analysis.

*Table B-4 Change in Number of Samples by Varying **LBGR**, **α**, and **β**.*

| Number of Samples | | | | | | | |
|---|---|---|---|---|---|---|---|
| AL=3.7 | | α=5 | | α=10 | | α=15 | |
| | | s=4 | s=2 | s=4 | s=2 | s=4 | s=2 |
| LBGR=90 | β=5 | 198 | 54 | 158 | 42 | 132 | 36 |
| | β=10 | 158 | 42 | 122 | 33 | 99 | 27 |
| | β=15 | 132 | 36 | 99 | 27 | 80 | 22 |
| LBGR=80 | β=5 | 198 | 54 | 158 | 42 | 132 | 36 |
| | β=10 | 158 | 42 | 122 | 33 | 99 | 27 |
| | β=15 | 132 | 36 | 99 | 27 | 80 | 22 |
| LBGR=70 | β=5 | 198 | 54 | 158 | 42 | 132 | 36 |
| | β=10 | 158 | 42 | 122 | 33 | 99 | 27 |
| | β=15 | 132 | 36 | 99 | 27 | 80 | 22 |

s = Standard Deviation
LBGR = Lower Bound of Gray Region (% of Action Level)
β = Beta (%), Probability of mistakenly concluding that μ > action level
α = Alpha (%), Probability of mistakenly concluding that μ < action level
AL = Action Level (Threshold)

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# APPENDIX B.4

# VSP SUMMARY REPORT, SURVEY UNIT 19

**Systematic sampling locations for comparing two population means or medians (site and reference) [nonparametric - MARSSIM]**

**Summary**
This report summarizes the sampling design used, associated statistical assumptions, as well as general guidelines for conducting post-sampling data analysis. Sampling plan components presented here include how many sampling locations to choose and where within the sampling area to collect those samples. The type of medium to sample (i.e., soil, groundwater, etc.) and how to analyze the samples (in-situ, fixed laboratory, etc.) are addressed in other sections of the sampling plan.

Table B-1 summarizes the sampling design developed. Figure B-1 shows sampling locations in the field and Table B-2 lists sampling location coordinates.

*Table B-1 Summary of Sampling Design, Survey Unit 19*

| SUMMARY OF SAMPLING DESIGN | |
|---|---|
| Primary Objective of Design | Compare a site mean or median to a reference area mean or median |
| Type of Sampling Design | Nonparametric |
| Sample Placement (Location) in the Field | Systematic with a random start location |
| Working (Null) Hypothesis | The difference between the medians(means) exceeds the threshold |
| Formula for calculating number of sampling locations | Wilcoxon Rank Sum Test - MARSSIM version |
| Calculated total number of samples for each site and reference area | 18 |
| Number of samples on map [a] | 18 |
| Number of selected sample areas [b] | 1 |
| Specified sampling area [c] | 54270.56 $ft^2$ |
| Size of grid / Area of grid cell [d] | 54.9093 feet / 3015.03 $ft^2$ |
| Grid pattern | Square |

[a] This number may differ from the calculated number because of 1) grid edge effects, 2) adding judgment samples, or 3) selecting or unselecting sample areas.
[b] The number of selected sample areas is the number of colored areas on the map of the site. These sample areas contain the locations where samples are collected.
[c] The sampling area is the total surface area of the selected colored sample areas on the map of the site.
[d] Size of grid / Area of grid cell gives the linear and square dimensions of the grid used to systematically place samples.

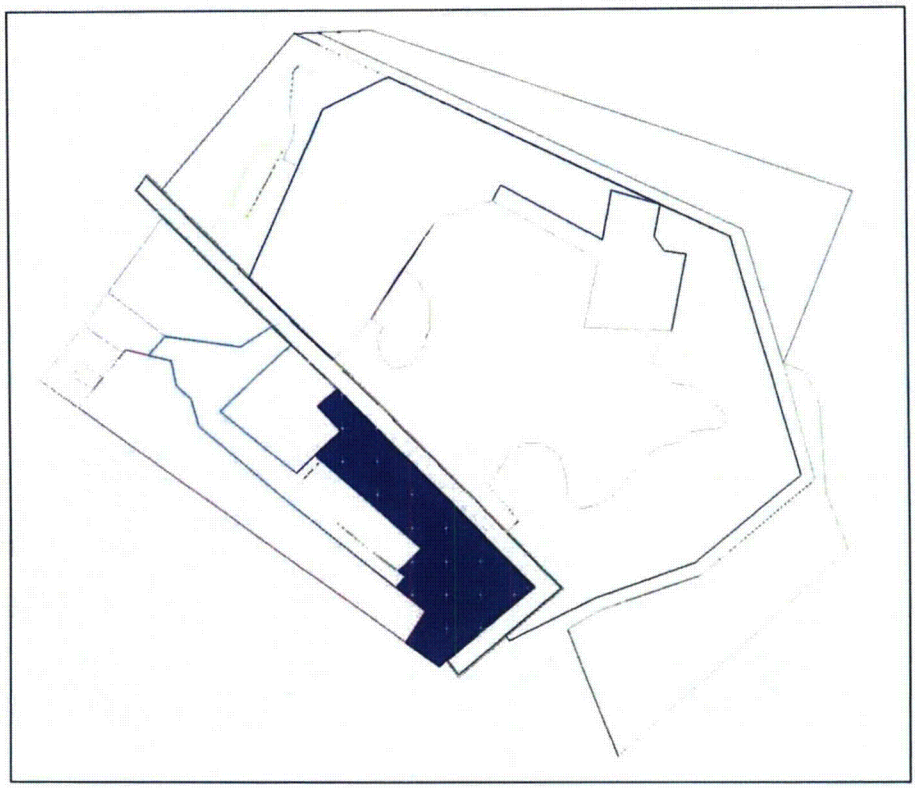

*Figure B-1 VSP-Generated Sample Locations, SU 19*

*Table B-2 Survey Unit 19 Corehole Locations, TN State Plane Coordinates*

| X Coordinate | Y Coordinate | Type | Reference/Survey Unit |
|---|---|---|---|
| 3022451.9039 | 673540.6232 | Systematic | Survey Unit |
| 3022506.8132 | 673540.6232 | Systematic | Survey Unit |
| 3022396.9946 | 673595.5325 | Systematic | Survey Unit |
| 3022451.9039 | 673595.5325 | Systematic | Survey Unit |
| 3022506.8132 | 673595.5325 | Systematic | Survey Unit |
| 3022561.7225 | 673595.5325 | Systematic | Survey Unit |
| 3022396.9946 | 673650.4418 | Systematic | Survey Unit |
| 3022451.9039 | 673650.4418 | Systematic | Survey Unit |
| 3022506.8132 | 673650.4418 | Systematic | Survey Unit |
| 3022396.9946 | 673705.3511 | Systematic | Survey Unit |
| 3022451.9039 | 673705.3511 | Systematic | Survey Unit |
| 3022342.0853 | 673760.2604 | Systematic | Survey Unit |
| 3022396.9946 | 673760.2604 | Systematic | Survey Unit |
| 3022287.1760 | 673815.1697 | Systematic | Survey Unit |
| 3022342.0853 | 673815.1697 | Systematic | Survey Unit |
| 3022287.1760 | 673870.0790 | Systematic | Survey Unit |
| 3022342.0853 | 673870.0790 | Systematic | Survey Unit |
| 3022287.1760 | 673924.9883 | Systematic | Survey Unit |

**Primary Sampling Objective**
The primary purpose of sampling at this site is to compare a site median or mean value with a reference area median or mean value. This is achieved by testing the difference between the site and reference area medians(means). The working hypothesis (or 'null' hypothesis) is that the difference between the site median(mean) and the reference area median(mean) is equal to or exceeds the threshold. The alternative hypothesis is that the difference is less than the threshold. VSP calculates the number of samples required to reject the null hypothesis in favor of the alternative one, given a selected sampling approach and inputs to the associated equation.

**Selected Sampling Approach**
A nonparametric systematic sampling approach with a random start was used to determine the number of samples and to specify sampling locations. A nonparametric formula was chosen because the conceptual model and historical information (e.g., historical data from this site or a very similar site) indicate that typical parametric assumptions may not be true.

Both parametric and non-parametric equations rely on assumptions about the population. Typically, however, non-parametric equations require fewer assumptions and allow for more uncertainty about the statistical distribution of values at the site. The trade-off is that if the parametric assumptions are valid, the required number of samples is usually less than if a non-parametric equation was used.

Locating the sample points over a systematic grid with a random start ensures spatial coverage of the site. Statistical analyses of systematically collected data are valid if a random start to the grid is used. One disadvantage of systematically collected samples is that spatial variability or patterns may not be discovered if the grid spacing is large relative to the spatial patterns.

**Number of Total Samples: Calculation Equation and Inputs**
The equation used to calculate the number of samples is based on Wilcoxon Rank Sum test published in MARSSIM (US EPA, et al, 1997). For this site, the null hypothesis is rejected in favor of the alternative one if the difference between the site and reference area median(mean) is sufficiently smaller than the threshold. The number of samples to collect is calculated so that if the inputs to the equation are true, the calculated number of samples will cause the null hypothesis to be rejected.

Equation B-1 and Equation B-2 were used to calculate the number of samples.

$$n + m = \frac{\left(z_{1-\alpha} + z_{1-\beta}\right)^2}{3\left(P_r - 0.5\right)^2}$$

*Equation B-1*

where

$$P_r = \Phi\left(\frac{\Delta}{\sqrt{2\left(s^2_{sample} + s^2_{analytical} / r\right)}}\right)$$

*Equation B-2*

where

$\Phi(z)$ is the cumulative standard normal distribution on $(-\infty,z)$ (see PNNL-13450 for details),

$P_r$ is the probability that a measurement collected from a random location at the study site is greater than a measurement collected from a random location in a reference area. See PNNL-13450 for details,

$n$ is the number of samples for the site and is equal to m,

$m$ is the number of samples for the reference area and is equal to n,

$S$ is the estimated standard deviation of the measured values including analytical error,

$\Delta$ is the width of the gray region,

$\alpha$ is the acceptable probability of incorrectly concluding the difference between the medians(means) is less than the threshold,

$\beta$ is the acceptable probability of incorrectly concluding the difference between the medians(means) exceeds the threshold,

$Z_{1-\alpha}$ is the value of the standard normal distribution such that the proportion of the distribution less than $Z_{1-\alpha}$ is $1-\alpha$,

$Z_{1-\beta}$ is the value of the standard normal distribution such that the proportion of the distribution less than $Z_{1-\beta}$ is $1-\beta$.

Note: MARSSIM suggests that the number of samples should be increased by at least 20% to account for missing or unusable data and uncertainty in the calculated value of n. VSP allows a user-supplied percent overage as discussed in MARSSIM (EPA 2000, p. 5-33).

The values of these inputs that result in the calculated number of sampling locations are presented in Table B-3:

*Table B-3 Input Parameters in VSP Sample Design*

| Parameter | Value |
|---|---|
| $S$ | 1.2 |
| $\Delta$ | 1.5 |
| $\alpha$ | 5% |
| $\beta$ | 10% |
| $Z_{1-\alpha}$ | 1.64485 [a] |
| $Z_{1-\beta}$ | 1.28155 [b] |
| MARSSIM Overage | 20% |

[a] This value is automatically calculated by VSP based upon the user defined value of $\alpha$.
[b] This value is automatically calculated by VSP based upon the user defined value of $\beta$.

Figure B-2 is a performance goal diagram, described in EPA's QA/G-4 guidance (EPA, 2000). It shows the probability of concluding the sample area is dirty (the probability that the difference between the site median(mean) and the reference area median(mean) exceeds the threshold) on the vertical axis versus a range of possible true differences between the medians(means) on the horizontal axis. This graph contains all of the inputs to the number of samples equation and pictorially represents the calculation.

The red vertical line is shown at the threshold (action limit) on the horizontal axis. The width of the gray shaded area is equal to $\Delta$; the upper horizontal dashed blue line is positioned at $1-\alpha$ on the vertical axis; the lower horizontal dashed blue line is positioned at $\beta$ on the vertical axis. The vertical green line is positioned at one standard deviation below the threshold. The shape of the red curve corresponds to the estimates of variability. The calculated number of samples results in the curve that passes through the lower bound of $\Delta$ at $\beta$ and the upper bound of $\Delta$ at $1-\alpha$. If any of the inputs change, the number of samples that result in the correct curve changes.

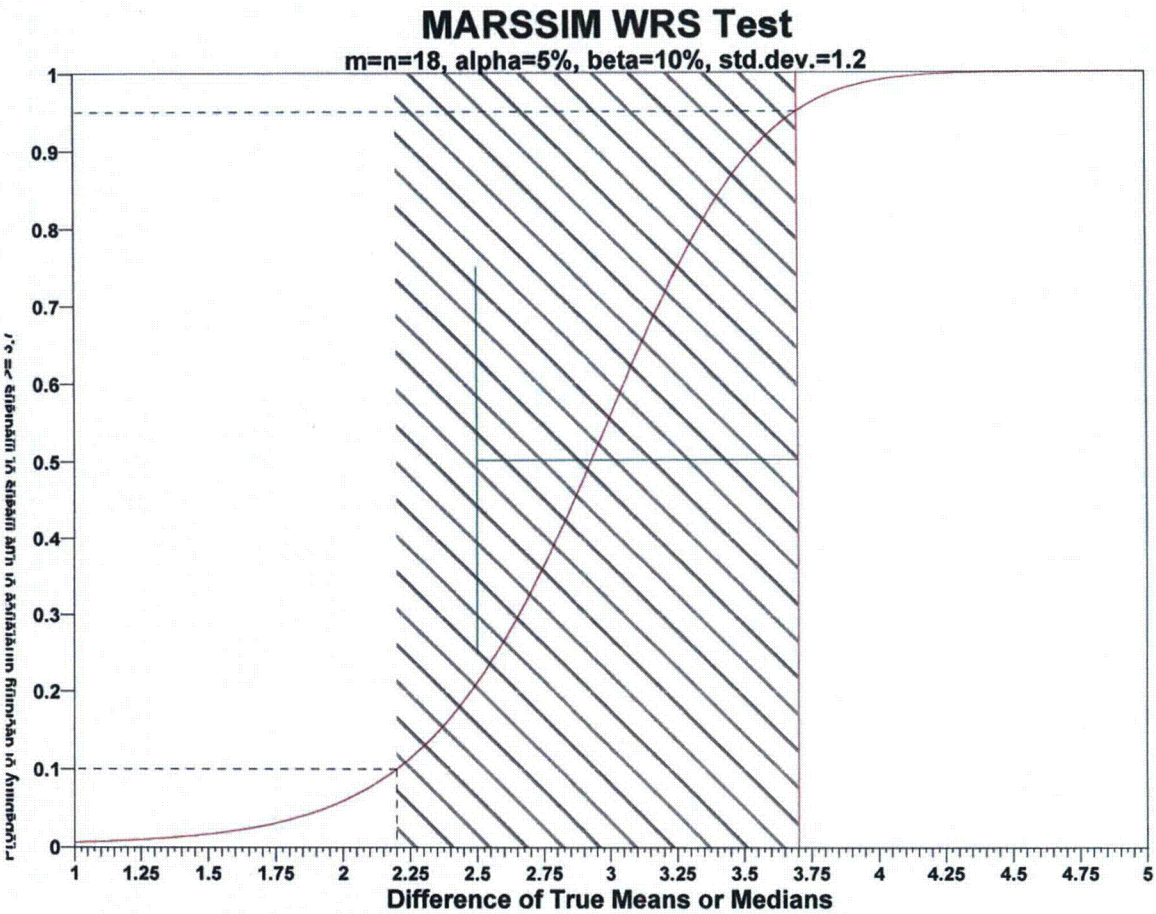


*Figure B-2 A-Priori Power Curve for WRS Test*

**Statistical Assumptions**

The assumptions associated with the formulas for computing the number of samples are:

1. although the population does not have to be normally distributed, the test statistic is approximately normally distributed,
2. the variances of the site and reference populations are equal,
3. the variance estimate, $S^2$, is reasonable and representative of the populations being sampled,
4. the population values are not spatially or temporally correlated, and
5. the sampling locations will be selected probabilistically.

The first four assumptions will be assessed in a post data collection analysis. The last assumption is valid because the gridded sample locations were selected based on a random start.

**Sensitivity Analysis**

The sensitivity of the calculation of number of samples was explored by varying LBGR, $\beta$ and $\alpha$ and examining the resulting changes in the number of samples. Table B-4 shows the results of this analysis.

*Table B-4* *Change in Number of Samples by Varying **LBGR**, **α**, and **β** parameters*

| Number of Samples | | | | |
|---|---|---|---|---|
| AL=3.7 | | α=5 | α=10 | α=15 |
| LBGR=90 | β=5 | 23 | 18 | 16 |
| | β=10 | 18 | 15 | 12 |
| | β=15 | 16 | 12 | 10 |
| LBGR=80 | β=5 | 23 | 18 | 16 |
| | β=10 | 18 | 15 | 12 |
| | β=15 | 16 | 12 | 10 |
| LBGR=70 | β=5 | 23 | 18 | 16 |
| | β=10 | 18 | 15 | 12 |
| | β=15 | 16 | 12 | 10 |

LBGR = Lower Bound of Gray Region (% of Action Level)
β = Beta (%), Probability of mistakenly concluding that μ > action level
α = Alpha (%), Probability of mistakenly concluding that μ < action level
AL = Action Level (Threshold)

This report was automatically produced* by Visual Sample Plan (VSP) software version 4.6b.

Software and documentation available at http://dqo.pnl.gov/vsp

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* - The report contents may have been modified or reformatted by end-user of software.

# APPENDIX B.5

# VSP SUMMARY REPORT, SURVEY UNIT 20

**Systematic sampling locations for detecting an area of elevated values (hot spot)**

This report summarizes the sampling design used, associated statistical assumptions, as well as general guidelines for conducting post-sampling data analysis. Sampling plan components presented here include how many sampling locations to choose and where within the sampling area to collect those samples. The type of medium to sample (i.e., soil, groundwater, etc.) and how to analyze the samples (in-situ, fixed laboratory, etc.) are addressed in other sections of the sampling plan.

Table B-1 summarizes the sampling design developed. Figure B-1 shows sampling locations in the field and Table B-2 lists sampling location coordinates.

*Table B-1 Summary of Sampling Design, Survey Unit 20*

| SUMMARY OF SAMPLING DESIGN | |
|---|---|
| Primary Objective of Design | Detect the presence of a hot spot that has a specified size and shape |
| Type of Sampling Design | Hot spot |
| Sample Placement (Location) in the Field | Systematic (Hot Spot) with a random start location |
| Formula for calculating number of sampling locations | Singer and Wickman algorithm |
| Calculated total number of samples | 22 |
| Type of samples | Point Samples |
| Number of samples on map [a] | 22 |
| Number of selected sample areas [b] | 1 |
| Specified sampling area [c] | 11786.93 $ft^2$ |
| Grid pattern | Square |
| Size of grid / Area of grid [d] | 7.07 meters / 538.03 $m^2$ |

[a] This number may differ from the calculated number because of 1) grid edge effects, 2) adding judgment samples, or 3) selecting or unselecting sample areas.
[b] The number of selected sample areas is the number of colored areas on the map of the site. These sample areas contain the locations where samples are collected.
[c] The sampling area is the total surface area of the selected colored sample areas on the map of the site.
[d] Size of grid / Area of grid gives the linear and square dimensions of the grid spacing used to systematically place samples.

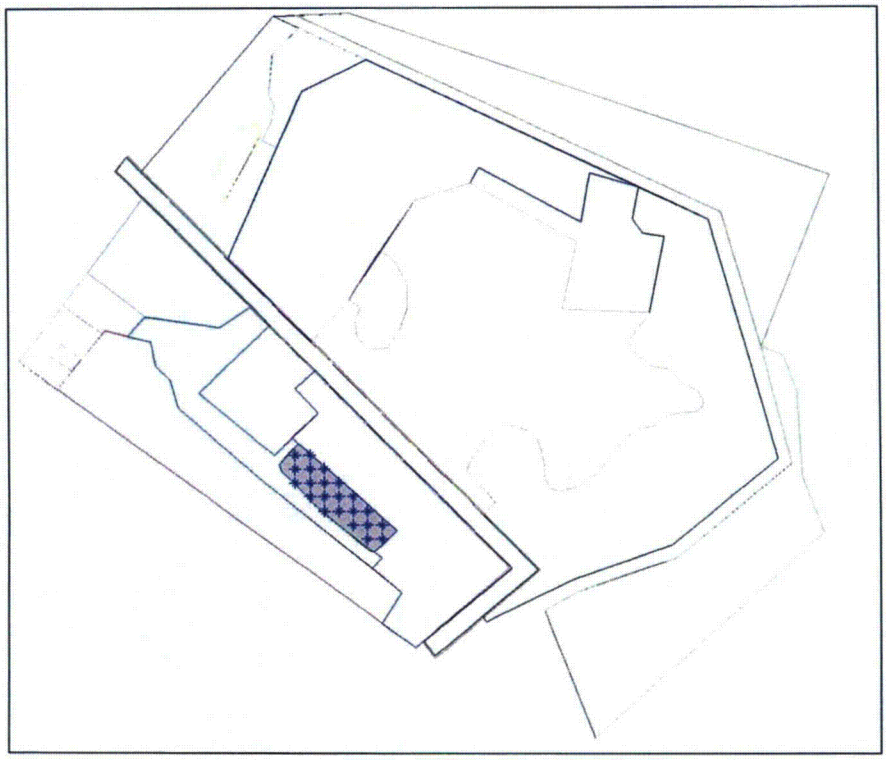

*Figure B-1 VSP-Generated Locations, SU 20*

*Table B-2 Survey Unit 20 Corehole Locations, TN State Plane Coordinates*

| X Coordinate | Y Coordinate | Type | Reference/Survey Unit |
|---|---|---|---|
| 3022362.7291 | 673657.5192 | Hotspot | Reference |
| 3022385.9245 | 673657.5192 | Hotspot | Reference |
| 3022339.5336 | 673680.7147 | Hotspot | Reference |
| 3022362.7291 | 673680.7147 | Hotspot | Reference |
| 3022385.9245 | 673680.7147 | Hotspot | Reference |
| 3022293.1427 | 673703.9102 | Hotspot | Reference |
| 3022316.3381 | 673703.9102 | Hotspot | Reference |
| 3022339.5336 | 673703.9102 | Hotspot | Reference |
| 3022362.7291 | 673703.9102 | Hotspot | Reference |
| 3022269.9472 | 673727.1056 | Hotspot | Reference |
| 3022293.1427 | 673727.1056 | Hotspot | Reference |
| 3022316.3381 | 673727.1056 | Hotspot | Reference |
| 3022339.5336 | 673727.1056 | Hotspot | Reference |
| 3022246.7517 | 673750.3011 | Hotspot | Reference |
| 3022269.9472 | 673750.3011 | Hotspot | Reference |
| 3022293.1427 | 673750.3011 | Hotspot | Reference |
| 3022316.3381 | 673750.3011 | Hotspot | Reference |
| 3022246.7517 | 673773.4966 | Hotspot | Reference |
| 3022269.9472 | 673773.4966 | Hotspot | Reference |
| 3022293.1427 | 673773.4966 | Hotspot | Reference |
| 3022246.7517 | 673796.6920 | Hotspot | Reference |
| 3022269.9472 | 673796.6920 | Hotspot | Reference |

**Primary Sampling Objective**
The primary purpose of sampling at this site is to detect "hot spots" (local areas of elevated concentration) of a given size and shape with a specified probability, 1-β.

**Selected Sampling Approach**
This sampling approach requires systematic grid sampling with a random start. If a systematic grid is not used, the probability of detecting a hot spot of a given size and shape will be different than desired or calculated.

**Number of Total Samples: Calculation Equation and Inputs**
The algorithm used to calculate the grid size (and hence, the number of samples) is based on work by Singer for locating geologic deposits [see Singer (1972, 1975) and PNNL-13450 for details]. Inputs to the algorithm include the size, shape, and orientation of a hot spot of interest, an acceptable probability of not finding a hot spot, the desired type of sampling grid, and the sampling budget. For this design, the smallest hot spot that could be detected was calculated based on a given grid size and other parameters.

The inputs to the algorithm that result in the smallest hot spot that could be detected are presented in Table B-3.

*Table B-3 Input Parameters in VSP Sample Design*

| Parameter | Description | Value |
|---|---|---|
| **Inputs** | | |
| 1-β | Probability of detection | 90.96% |
| Grid Type | Grid pattern (Square, Triangular or Rectangular) | Square |
| Grid Size | Spacing between samples | 7.07 meters |
| Grid Area | Area represented by one grid | 538.03 $m^2$ |
| Sample Type | Point samples or square cells | Points |
| Hot Spot Shape | Hot spot height to width ratio | 1 |
| Angle | Angle of orientation between hot spot and grid | Random |
| Sampling Area | Total area to sample | 11786.93 $ft^2$ |
| **Outputs** | | |
| Hot Spot Size | Length of hot spot semi-major axis | 13.0892 feet |
| Hot Spot Area [a] | Area of hot spot (Length$^2$ * Shape * $\pi$) | 50.0039 $m^2$ |

[a] Length of semi-major axis is used by algorithm. Hot spot area is provided for informational purposes.

Figure B-2 shows the relationship between number of samples and the probability of finding the hot spot. The dashed blue line shows the actual number of samples for this design (which may differ from the optimum number of samples because of edge effects).

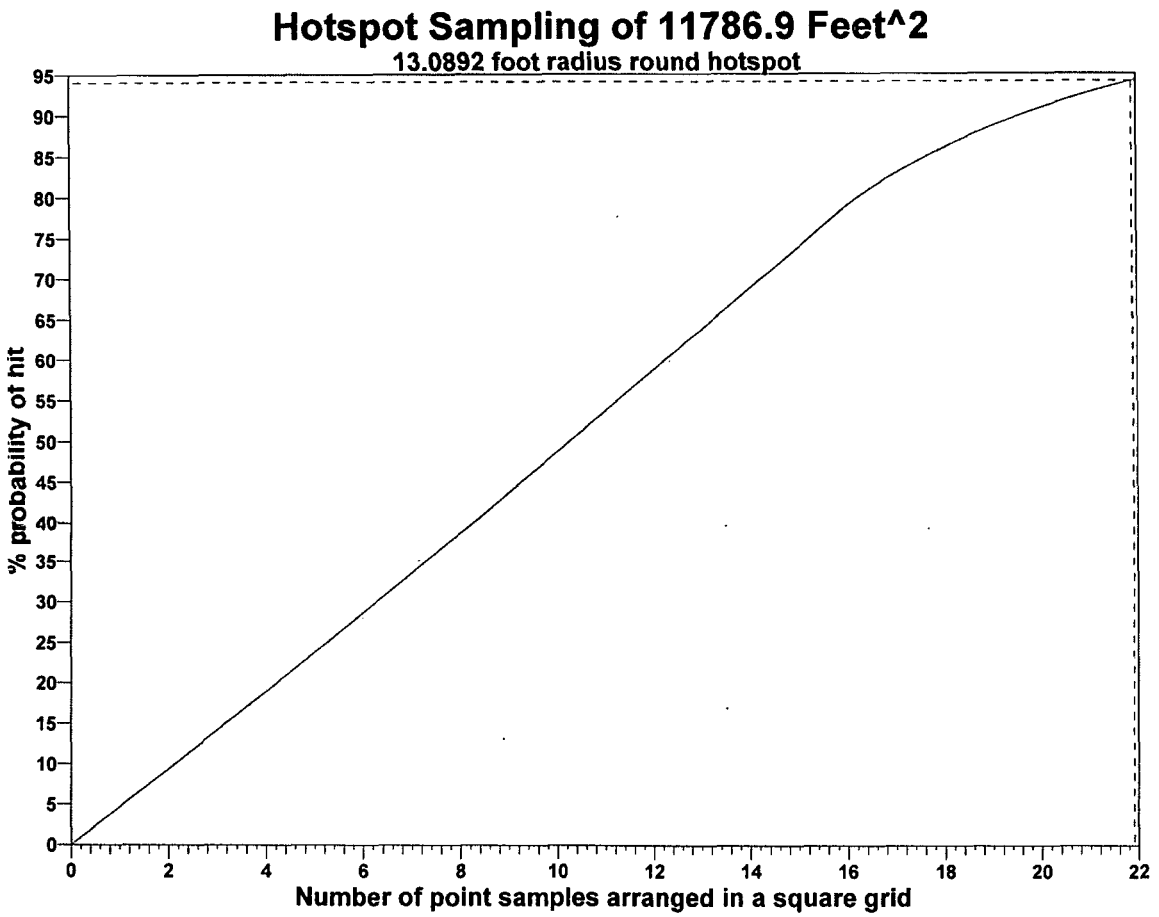


*Figure B-2 Probability of Identifying a Hot Spot vs. Number of Samples*

**Statistical Assumptions**

The assumptions associated with the sample spacing algorithm are that:

1. the target hot spot (its projection onto the coordinate plane) is circular or elliptical,
2. samples are taken on a square, rectangular, or triangular grid,
3. a very small proportion of the area being studied will be sampled (the sample is much smaller than the hot spot of interest),
4. the level of contamination that classifies a hot spot is well defined, and
5. there are no misclassification errors (a hot spot is not mistakenly overlooked or an area is not mistakenly identified as a hot spot).

These assumptions cannot be validated through data collection. The size and shape of a hot spot of interest are well defined prior to determining the number of samples and the measured value that defines a hot spot is well above the detection limit for the analytical methods that will be used. Grid sampling will be carried out to the level achievable; topographic, vegetative, and other features that prevent sampling at the specified coordinates will be noted and their influence recognized.

**Sensitivity Analysis**

The sensitivity of the calculation of number of samples was explored by varying 1-β, Shp and Size and examining the resulting changes in the number of samples. Table B-4 shows the results of this analysis.

*Table B-4 Change in Number of Samples by Varying Hot Spot Size and Shape*

| Number of Samples | | | | |
|---|---|---|---|---|
| | | Size=6.54458 | Size=13.0892 | Size=19.6337 |
| 1-β=85.96 | Shp=0.8 | 101 | 26 | 12 |
| | Shp=0.9 | 88 | 22 | 10 |
| | Shp=1 | 79 | 20 | 9 |
| 1-β=90.96 | Shp=0.8 | 111 | 28 | 13 |
| | Shp=0.9 | 98 | 25 | 11 |
| | Shp=1 | 88 | 22 | 10 |
| 1-β=95.96 | Shp=0.8 | 127 | 32 | 15 |
| | Shp=0.9 | 114 | 29 | 13 |
| | Shp=1 | 103 | 26 | 12 |

1-β = Probability of Hit (%)
Shp = Hot Spot Shape (Height to Width Ratio)
Size = Hot Spot Size (Length of Semi-major Axis)

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# APPENDIX C

# MACTEC'S FIELD SAMPLE TRACKING PROGRAM

MACTEC and NFS chose to implement MACTEC's computer-based Field Sample Tracking Program for the *Subsurface Soil Characterization and FSS Project* at NFS' North Site due to the complexity of the required sampling regime and due to the large number of samples (more than 4000) that were scheduled to be collected over the duration of the project. Aside from the large number of soil cores and vertical segments of each core (a sample), each sample had the potential to have several subsamples isolated for various purposes, including a number of non-radiological parameters. Adding to the complexity of the prescribed sampling regime was the need to pre-process the primary soil subsample by drying and grinding to assure that appropriate sample homogeneity was achieved prior to splitting to one of three designated analytical laboratories (Figure C-1).

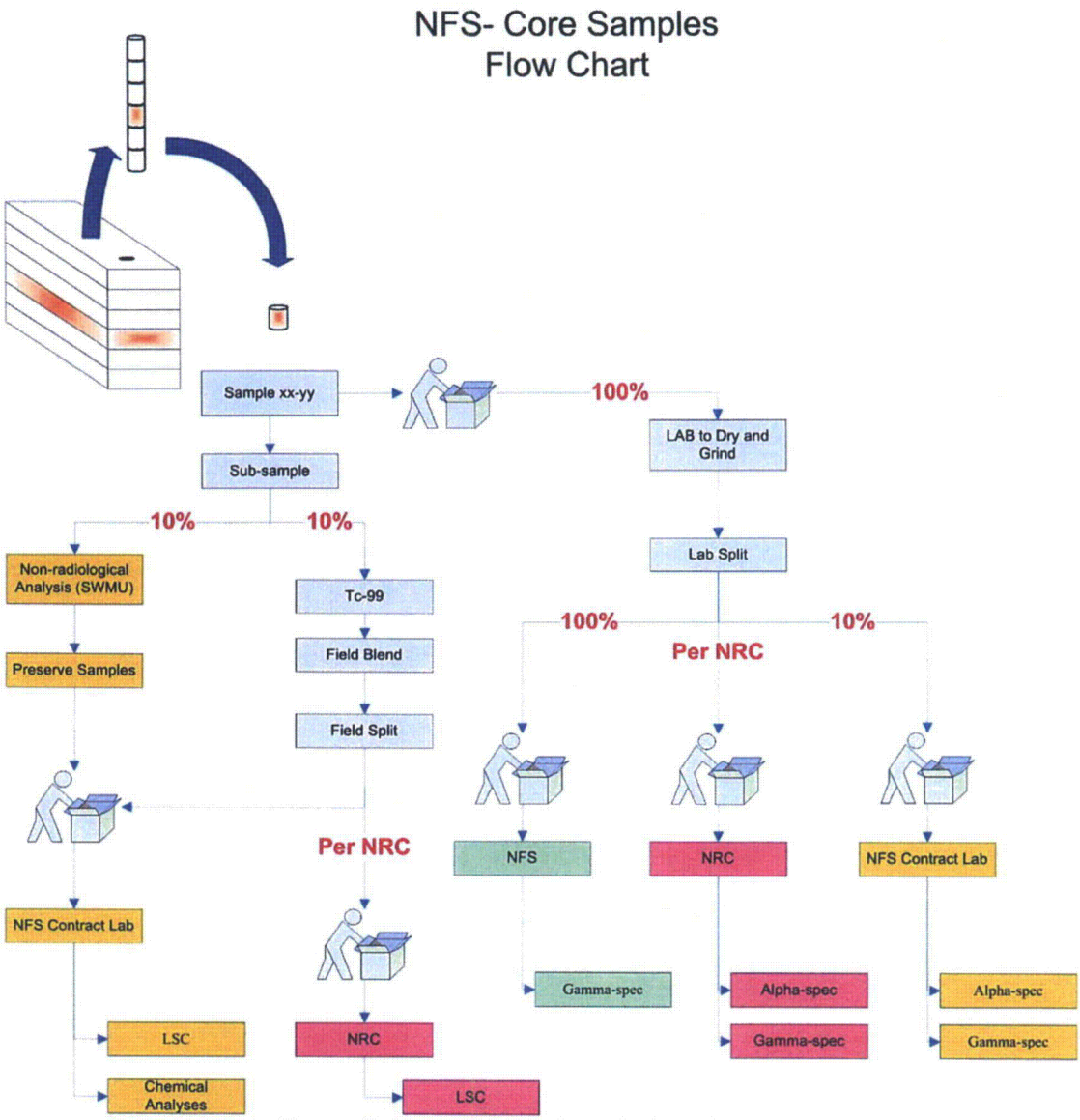



*Figure C-1 Project Sample Flow Diagram*

The Field Sample Tracking Program is a proprietary, MACTEC-developed database that consists of a "front-end" user interface (Figure C-2) that serves to input sample data, and a main "back-end" database that organizes and catalogues all of the relevant sample and sample program data. The program is built on Microsoft's Access database software application.

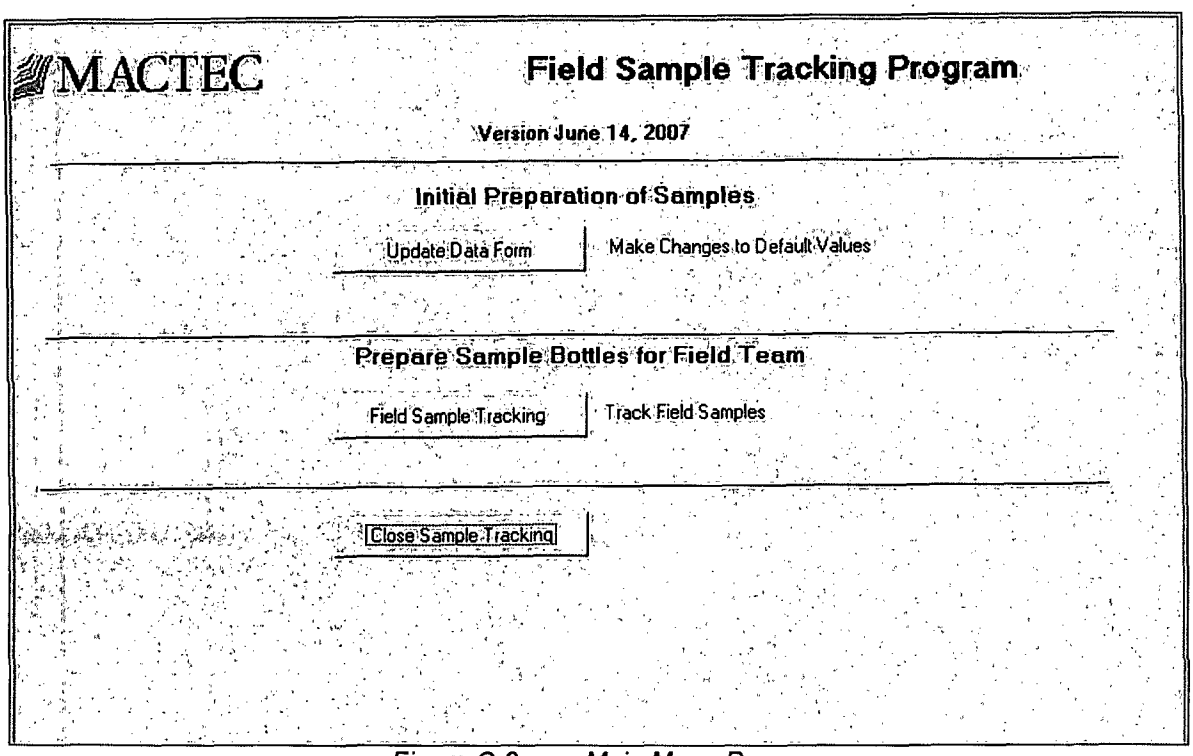



*Figure C-2 Main Menu Page*

## C.1 FIELD SAMPLE TRACKING PROGRAM SETUP

The Field Sample Tracking Program has an array of functions that can be enabled depending upon the requirements and demands of the sampling regime it supports. It is designed to implement and be compatible with the sample collection, documentation, and custody standards required by the EPA. The system was enhanced for this project to incorporate the ability to print unique barcodes on the labels for each sample container (Figure C-3).

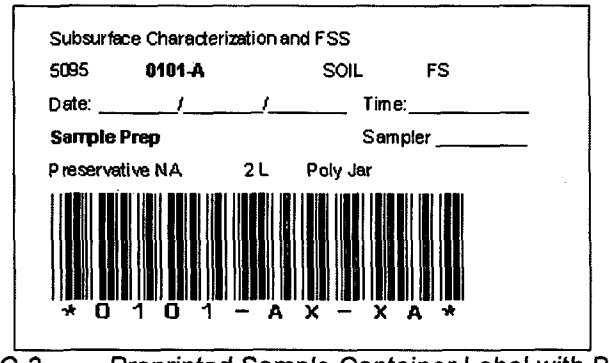



*Figure C-3 Preprinted Sample Container Label with Barcode*

To reduce the opportunity for transcription errors, a barcode reader was included to allow the user to scan the barcodes attached to samples that had been collected through various steps in the sample management process (Figure C-4).

*Figure C-4 Barcode Scanning Pistol*

The program contains a catalogue of the various analytical methods that were available to the project sampling team (Figure C-5).

Tbl Method

| Method | Matrix | Number of Bottles | Preservative | Bottle Material | Bottle Size | Lab |
|---|---|---|---|---|---|---|
| Sample Prep | S | 1 | NA | Poly Jar | 2 | TELEDYNE |
| Gamma Spec (NFS) | S | 0 | NA | Poly Jar | 250 | TELEDYNE |
| Alpha / Gamma Spec (Paragon) | S | 0 | NA | Poly Jar | 500 | TELEDYNE |
| Alpha / Gamma Spec (ORISE) | S | 0 | NA | Poly Jar | 500 | TELEDYNE |
| Tc-99 (ORISE) | S | 1 | 4 Deg. C | Centrifuge 1 | 50 | ORISE |
| Tc-99 (Paragon) | S | 1 | 4 Deg. C | Centrifuge 1 | 50 | PARAGON |
| VOCs (Paragon) | S | 1 | 4 Deg. C | Terracore K | 1 | PARAGON |
| SVOCs / PCBs / Metals* (Paragon) | S | 1 | 4 Deg. C | Glass | 8 | PARAGON |
| BLANK, VOCs | L | 2 | HCl, 4 Deg. C | Glass | 40 | PARAGON |
| BLANK, SVOCs | L | 2 | 4 Deg. C | Glass | 1 | PARAGON |
| BLANK, PCBs | L | 1 | 4 Deg. C | Glass | 1 | PARAGON |
| BLANK, Metals (6010 - As, Be; 7470 - H | L | 1 | HNO3; 4 Deg. C | Poly Bottle | 500 | PARAGON |
| BLANK, Metals (7196A - Hex Chromium) | L | 1 | 4 Deg. C | Poly Bottle | 250 | PARAGON |
| Gamma Spec / DUPLICATE (NFS) | S | 0 | NA | Poly Jar | 250 | TELEDYNE |
| Alpha / Gamma Spec / DUPLICATE (Pars | S | 0 | NA | Poly Jar | 500 | TELEDYNE |
| Tc-99 / DUPLICATE (Paragon) | S | 1 | 4 Deg. C | Centrifuge 1 | 50 | PARAGON |
| BLANK, Tc-99 (Paragon) | L | 1 | HNO3 | Poly Bottle | 1 | PARAGON |
| BLANK, Alpha/Gamma Spec (Paragon) | L | 1 | HNO3 | Poly Bottle | 1 | PARAGON |

Close

Record: 1 of 18

*Figure C-5 Catalogue of Available Analytical Methods*

The database was preloaded and labeled with records to contain the sample data for 749 cores (the number of coreholes originally planned within the 19 survey units in this project), each with 10 vertically segmented sample intervals. A sequential 4-digit number is assigned to each corehole (e.g., 0001 through 0749). Alphabetic characters (A through J) were assigned to each 1-meter vertical increment from a single soil core. For example, the vertical increment from the ground surface to 1 meter below the ground surface removed from corehole number 0001 is assigned the sample number 0001-A. Every sample was assigned to sample preparation (prep) by Teledyne and gamma spectroscopy by NFS. When opened to *Track Field Samples*, the main data entry screen shows the first sample record in the system. The preloaded information regarding this sample is visible in Figure C-6.

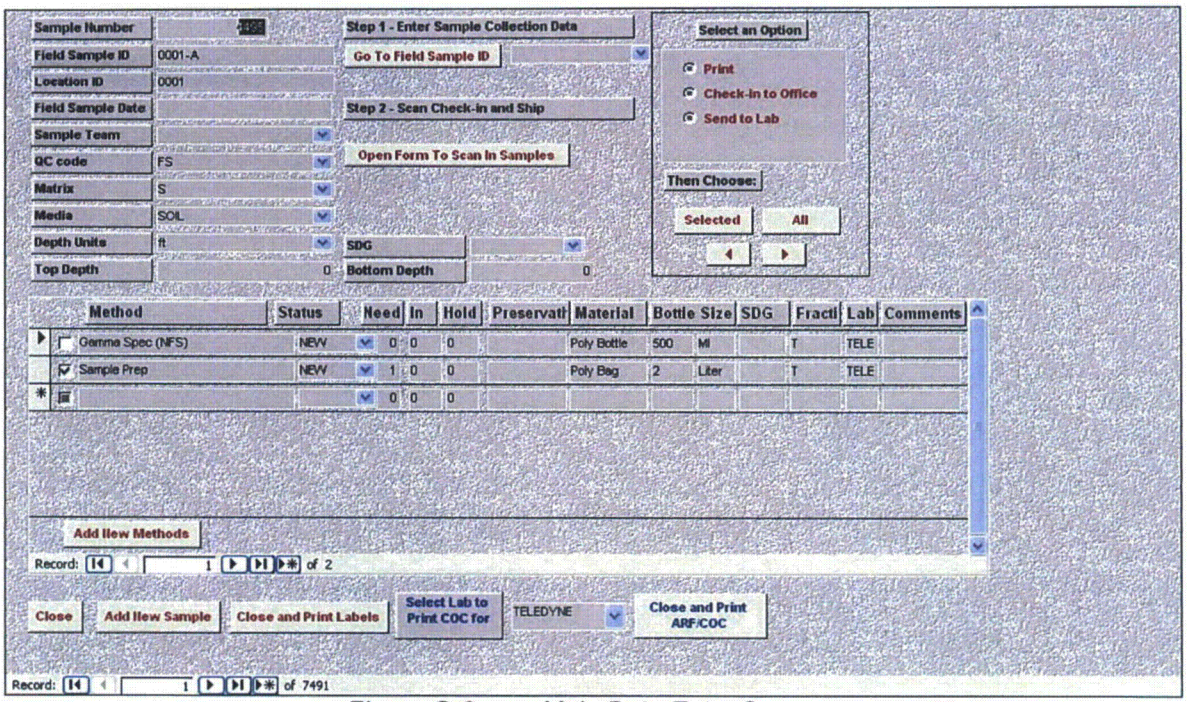



*Figure C-6 Main Data Entry Screen*

## C.2 FIELD SAMPLE TRACKING PROGRAM OPERATIONS

Once the sample records were preloaded into the database, the user would navigate to the appropriate sample record in order to implement the various processes embedded within the program and to add the field-specific data. A particular sample record can be located within the database using any one of several navigation options designed into the program (red circled areas in Figure C-7). Each has its advantage in different situations.

The basic processes available to the user in the Field Sample Tracking Program are

- assigning the appropriate analytical methods for the sample;

- printing labels (with barcodes) for use during sample collection;
- "Checking In" collected samples from the field to the secured sample storage area in the field sample office; and
- preparing samples for shipment to various offsite laboratories, including the automatic generation of sample Chain of Custody (COC) paperwork and electronic COC data files.

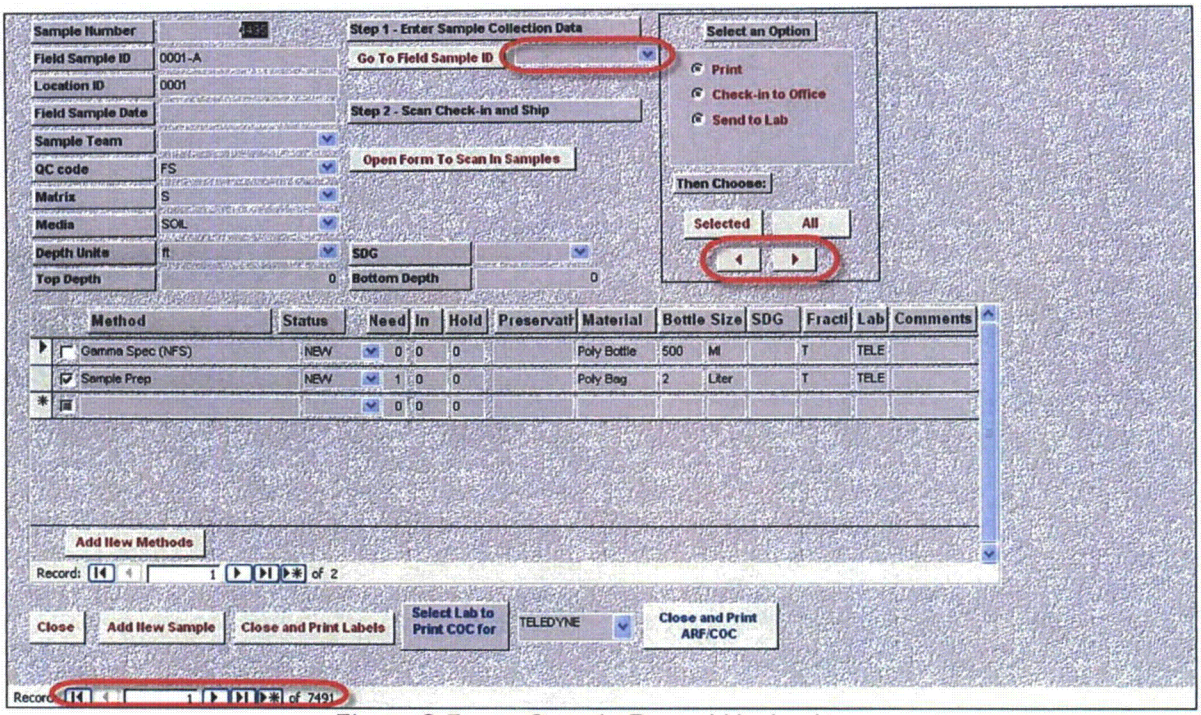



*Figure C-7 Sample Record Navigation*

## C.2.1 Adding New Samples

The database has a built-in capability that allows the user in the field to accommodate samples that are collected, however, for a variety of possible reasons, had not been preloaded in the database (Figure C-8). For example, trip blanks, equipment blanks, matrix spikes, and matrix duplicates could not be preselected and are, therefore, added to the database "on-the-fly" by the field sampling team in the field as they are collected.

## C.2.2 Specifying Analytical Methods for a Sample

New or additional analytical methods are also added "on-the-fly." With the appropriate Field Sample ID number displayed in the database, the user simply clicks on the Add New Methods button (Figure C-9). A new window opens up to provide the suite analytical methods available to the user to select from (Figure C-10). From this window, multiple analytical methods can be selected and added to the suite of methods specified for the given sample. When the Add Methods button at the bottom of the window is pushed, the user is returned to the main window of the program where the newly added methods will appear (Figure C-11).

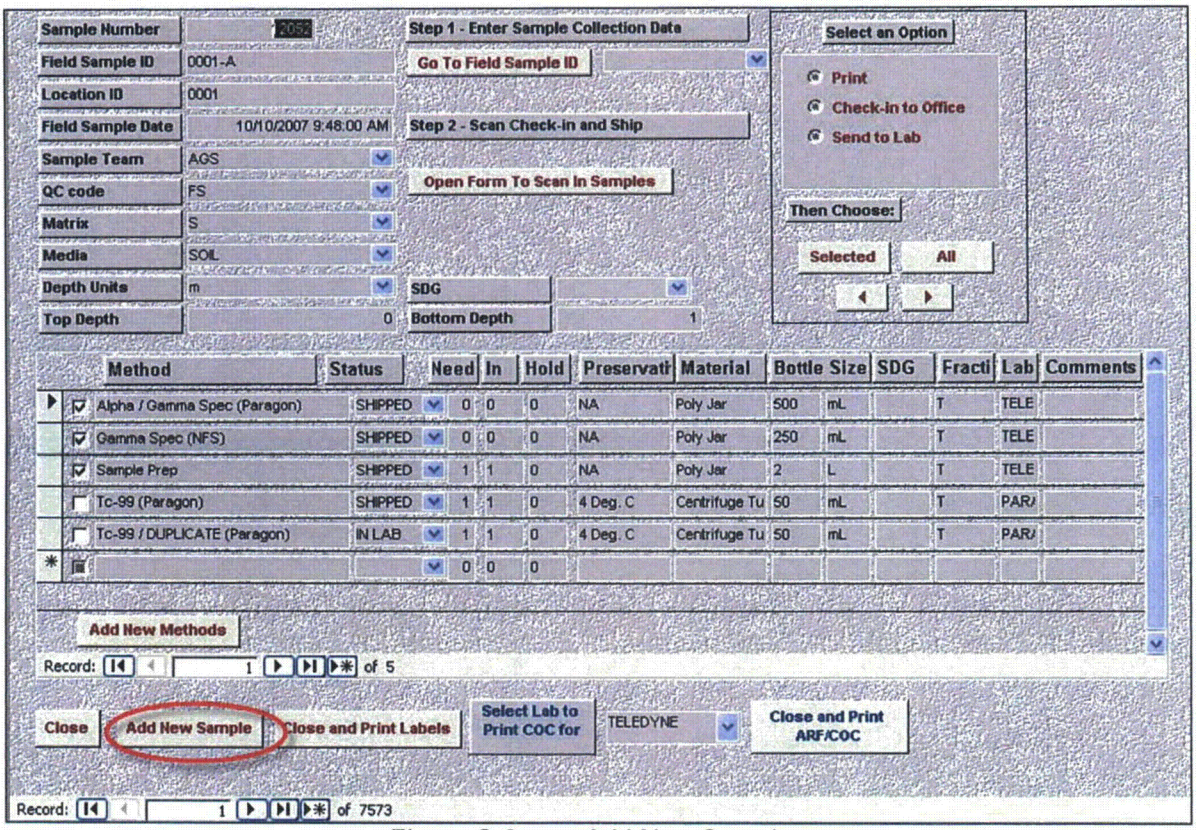



*Figure C-8 Add New Sample*

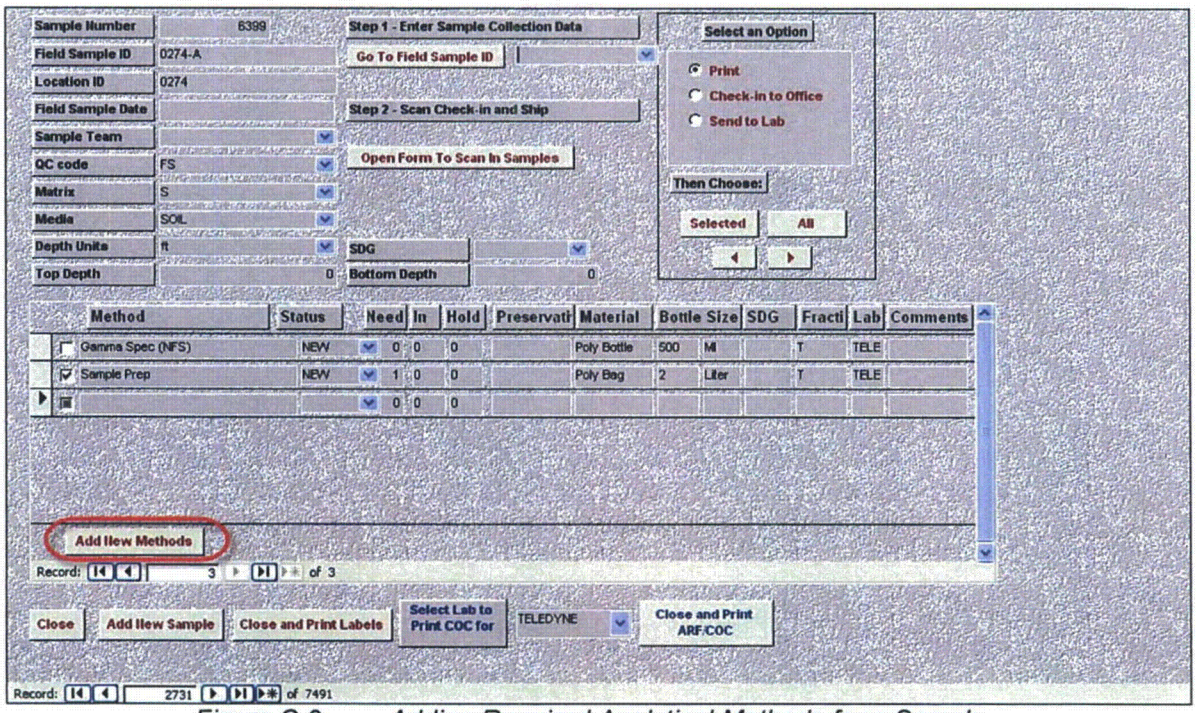
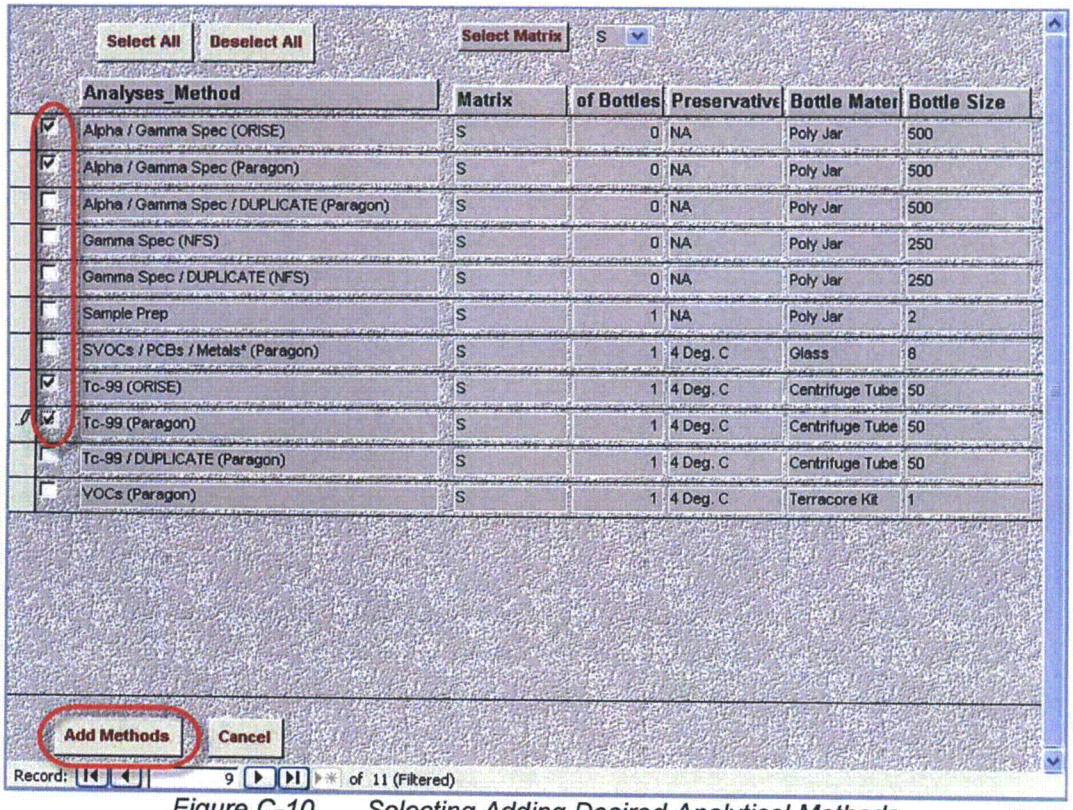



*Figure C-9 Adding Required Analytical Methods for a Sample*



Select All | Deselect All | Select Matrix | S

| | Analyses_Method | Matrix | of Bottles | Preservative | Bottle Mater | Bottle Size |
|---|---|---|---|---|---|---|
| ☑ | Alpha / Gamma Spec (ORISE) | S | 0 | NA | Poly Jar | 500 |
| ☑ | Alpha / Gamma Spec (Paragon) | S | 0 | NA | Poly Jar | 500 |
| ☐ | Alpha / Gamma Spec / DUPLICATE (Paragon) | S | 0 | NA | Poly Jar | 500 |
| ☐ | Gamma Spec (NFS) | S | 0 | NA | Poly Jar | 250 |
| ☐ | Gamma Spec / DUPLICATE (NFS) | S | 0 | NA | Poly Jar | 250 |
| ☐ | Sample Prep | S | 1 | NA | Poly Jar | 2 |
| ☐ | SVOCs / PCBs / Metals* (Paragon) | S | 1 | 4 Deg. C | Glass | 8 |
| ☑ | Tc-99 (ORISE) | S | 1 | 4 Deg. C | Centrifuge Tube | 50 |
| ☑ | Tc-99 (Paragon) | S | 1 | 4 Deg. C | Centrifuge Tube | 50 |
| ☐ | Tc-99 / DUPLICATE (Paragon) | S | 1 | 4 Deg. C | Centrifuge Tube | 50 |
| ☐ | VOCs (Paragon) | S | 1 | 4 Deg. C | Terracore Kit | 1 |

Add Methods | Cancel

Record: 9 of 11 (Filtered)

*Figure C-10 Selecting Adding Desired Analytical Methods*

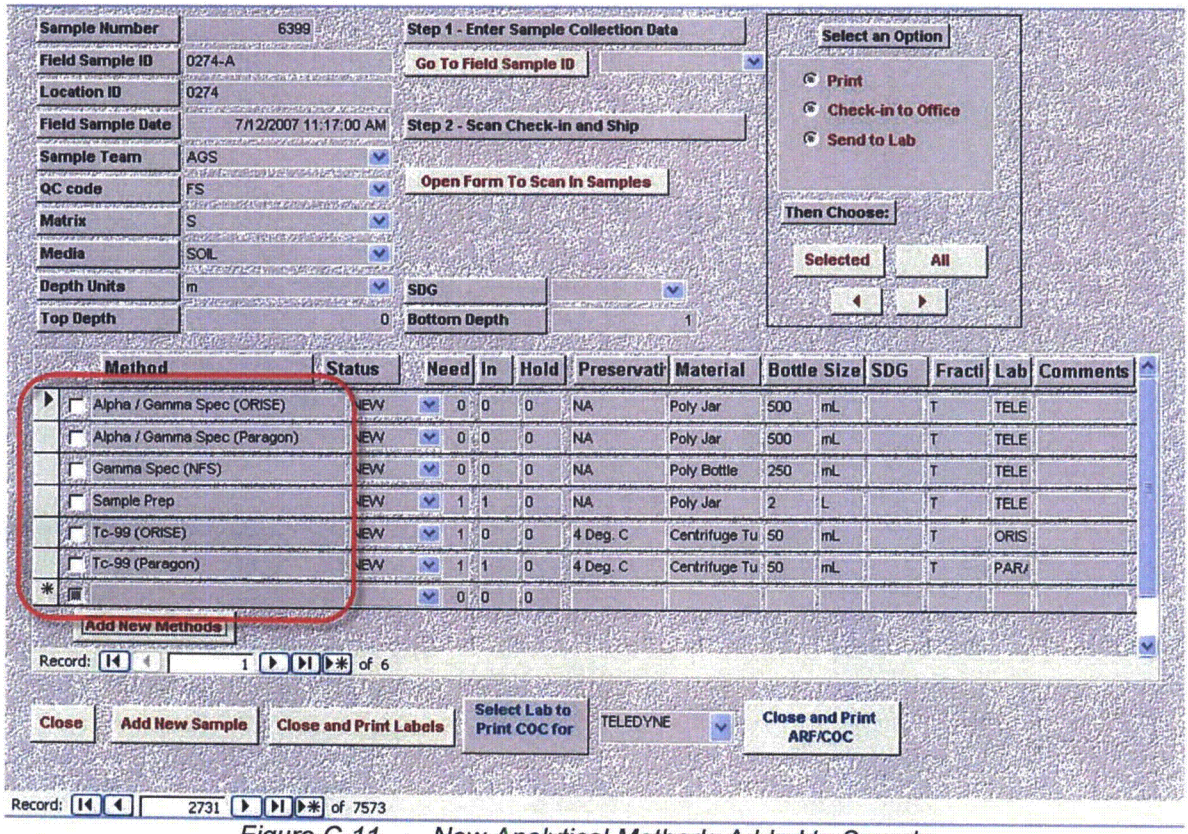



*Figure C-11 New Analytical Methods Added to Sample*

## C.2.3 Sample Status

One of the key data management attributes of the Field Sample Tracking Program is its ability to progressively track the status of a sample in the database. The program assigns one of six status codes to each analytical method assigned to every sample.

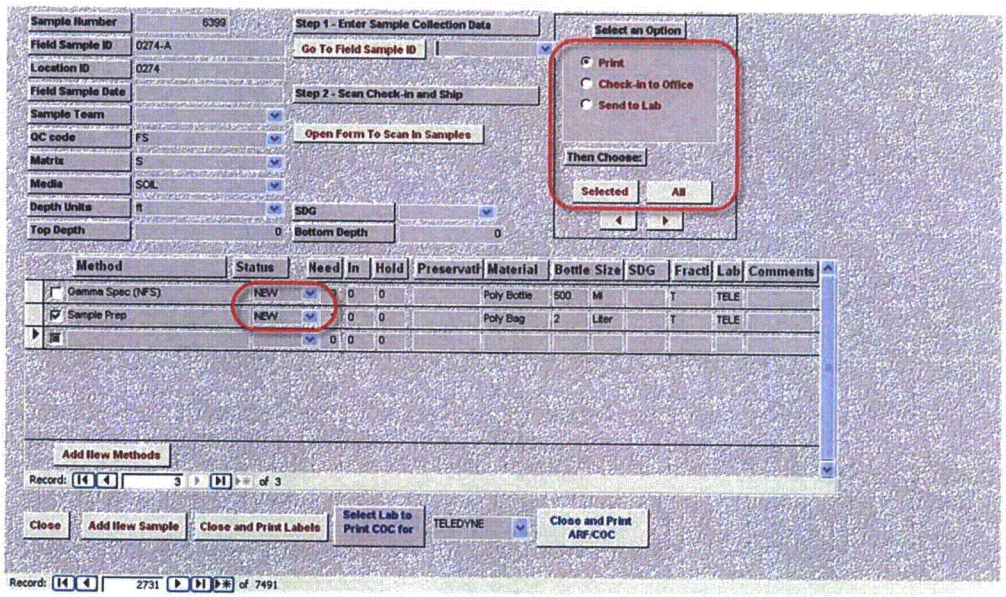



*Figure C-12 Sample Status Designation*

The status codes available are:

- **NEW** – The NEW status is initially assigned (automatically) to each sample/method that is added to the database, indicating that the sample/method has been created in the Field Sample Tracking Program, but no other actions have been recorded.
- **PRINT** – Indicates that the program is ready to print sample container labels for these select samples/methods. The program will generate labels for only those samples/methods which have been given a status of PRINT by the user.
- **PRINTED** – Indicates that sample label(s) have been printed and that the sample is ready to be collected.
- **IN LAB** – After the sample is collected and the user "checks in" the samples to sample control office, the status changes to IN LAB indicating that the sample has been collected and is in storage.
- **SHIP** – When the sample team is ready to ship samples to an offsite laboratory, the Field Sample Tracking Program allows the user to scan the barcodes on each sample that is packaged for shipment. When these samples are scanned (out of the storage locker and into a shipping container), the status changes to SHIP indicating that the sample is ready to be included on the COC documentation in preparation for shipment.
- **SHIPPED** – After all samples to be shipped have been updated to the SHIP status, the user executes a routine within the program that automatically generates both a hard copy and ASCII format electronic deliverable (COC) that is provided to the selected laboratory along with the samples to be assayed. When the COC has been generated, the status changes to SHIPPED indicating that the sample has been shipped to the laboratory and that analytical data for that sample is forthcoming.

### C.2.4 Chain of Sample Custody

As a means of assuring the integrity and continuity of a shipment of a group of samples that are to be delivered to an offsite laboratory, the Field Sample Tracking Program generates both hard copy (paper or image) and ASCII-formatted electronic COCs. Once samples have been collected, checked in, and then designated and prepared for shipment (the status has been changed to SHIP), the program will prepare the shipping paperwork automatically. To prepare the shipping paperwork the user executes a subroutine in the program by:

1. Selecting the appropriate laboratory from the pull-down list, and
2. Pressing the *Close and Print ARF/COC* button.

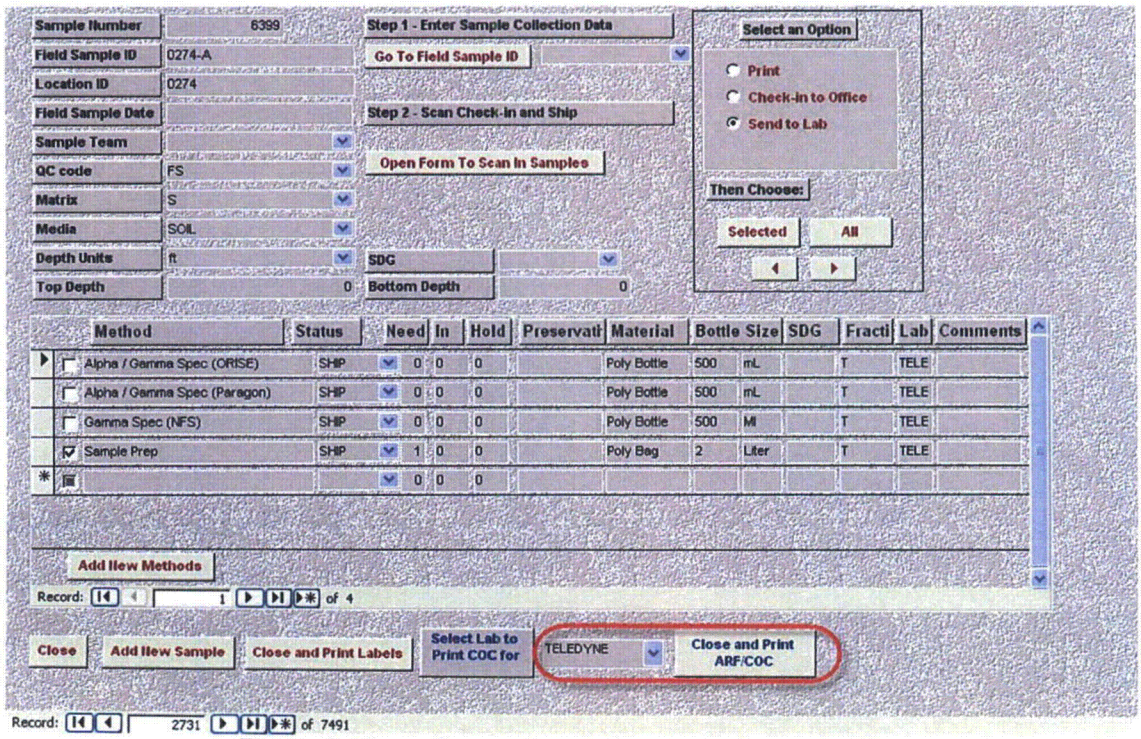



*Figure C-13 Generation of Sample Shipping Records*

## Sample Chain of Custody/Analysis Request Form

**Subsurface Characterization and FSS**

NFS/MACTEC
Scott Morris
423-743-9141 ext 1439
3/158 FON 1234567

**Lab: Teledyne Brown Engineering**

ATTN: Sample Receiving, FLAG/F CODE: MA002-2SRS G07
2508 Quality Lane
Knoxville, TN 37921
Phone: (865) 934-0379
Fax: (865) 934-0396
Jonesbak@tbe.com

| Samp # | Sample Date | Sample Time | Field Sample ID | Method / Barcode ID | Qty Total | Qty Each | Bottle Size and Material | Preservative | Media | Method | Fraction |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 6399 | 07/12/07 | 11:17 | 0271-A | | 1 | | | | | | |
| | | | | | | 0 | 250 m L Poly Bottle | NA | SOIL | Gamma Spec (NFS) | T |
| | | | | 0271-AX-XA | | 1 | 2 L Poly Jar | NA | SOIL | Sample Prep | T |
| | | | | | | 0 | 500 m L Poly Jar | NA | SOIL | Aptia / Gamma Spec (Paragon) | T |

*Note: All samples are grab samples*

This chain of sample custody record has been verified by the Sampling Team Leader (or designee) to be complete and accurate

Sampling Team Leader: _____ / _____ Date: __/__/__ Time: _____
Print Signature mm dd yy 24hour

Relinquished By: _____ Date: __/__/__ Time: _____ Received By: _____ Date: __/__/__ Time: _____

Relinquished By: _____ Date: __/__/__ Time: _____ Received By: _____ Date: __/__/__ Time: _____

*Knowingly or willfully falsifying or concealing a material fact on this form, or making false, fictitious, or fraudulent statements or representations herein could constitute a felony punishable under Federal Statute

*Friday, December 07, 2007* MACTEC *Page 1 of 1*

*Figure C-14 Example Sample Chain of Custody Form*

TELEDYNE1115COC.txt - Notepad

File Edit Format View Help

```
"Temp_sample_no","coc Lab Id","Sampling Organization","Client
Name","Project_No","BarCodeText","Field_Sample_ID","Field_Sample_date","Matrix","Media","QC_
code","Depth_uom","top_depth","bottom_depth","analysis_method","fraction","Number
Needed","Number returned","Bottle Size","Bottle
Material","Bottle_size_units","Preservative","Hold Time","Comment","Note"
6513,"Teledyne Brown Engineering","NFS/MACTEC","Subsurface Characterization and FSS","NFS
PO# 1234567","0293-AX-XA","0293-A",11/12/2007 14:55:00,"S","SOIL","FS","m",0.00,1.00,"Sample
Prep","T",1,1,"2","Poly Jar","L","NA",0,,"All samples are grab samples"
6514,"Teledyne Brown Engineering","NFS/MACTEC","Subsurface Characterization and FSS","NFS
PO# 1234567","0293-BX-XA","0293-B",11/12/2007 15:00:00,"S","SOIL","FS","m",1.00,2.00,"Sample
Prep","T",1,1,"2","Poly Jar","L","NA",0,,"All samples are grab samples"
6515,"Teledyne Brown Engineering","NFS/MACTEC","Subsurface Characterization and FSS","NFS
PO# 1234567","0293-CX-XA","0293-C",11/12/2007 15:02:00,"S","SOIL","FS","m",2.00,3.00,"Sample
Prep","T",1,1,"2","Poly Jar","L","NA",0,,"All samples are grab samples"
6519,"Teledyne Brown Engineering","NFS/MACTEC","Subsurface Characterization and FSS","NFS
PO# 1234567","0294-AX-XA","0294-A",11/12/2007 15:35:00,"S","SOIL","FS","m",0.00,1.00,"Sample
Prep","T",1,1,"2","Poly Jar","L","NA",0,,"All samples are grab samples"
6520,"Teledyne Brown Engineering","NFS/MACTEC","Subsurface Characterization and FSS","NFS
PO# 1234567","0294-BX-XA","0294-B",11/12/2007 15:37:00,"S","SOIL","FS","m",1.00,2.00,"Sample
Prep","T",1,1,"2","Poly Jar","L","NA",0,,"All samples are grab samples"
6521,"Teledyne Brown Engineering","NFS/MACTEC","Subsurface Characterization and FSS","NFS
PO# 1234567","0294-CX-XA","0294-C",11/12/2007 15:41:00,"S","SOIL","FS","m",2.00,3.00,"Sample
Prep","T",1,1,"2","Poly Jar","L","NA",0,,"All samples are grab samples"
6525,"Teledyne Brown Engineering","NFS/MACTEC","Subsurface Characterization and FSS","NFS
PO# 1234567","0295-AX-XA","0295-A",11/12/2007 16:05:00,"S","SOIL","FS","m",0.00,1.00,"Sample
Prep","T",1,1,"2","Poly Jar","L","NA",0,,"All samples are grab samples"
6526,"Teledyne Brown Engineering","NFS/MACTEC","Subsurface Characterization and FSS","NFS
PO# 1234567","0295-BX-XA","0295-B",11/12/2007 16:09:00,"S","SOIL","FS","m",1.00,2.00,"Sample
Prep","T",1,1,"2","Poly Jar","L","NA",0,,"All samples are grab samples"
6527,"Teledyne Brown Engineering","NFS/MACTEC","Subsurface Characterization and FSS","NFS
PO# 1234567","0295-CX-XA","0295-C",11/12/2007 16:15:00,"S","SOIL","FS","m",2.00,3.00,"Sample
Prep","T",1,1,"2","Poly Jar","L","NA",0,,"All samples are grab samples"
6528,"Teledyne Brown Engineering","NFS/MACTEC","Subsurface Characterization and FSS","NFS
PO# 1234567","0295-DX-XA","0295-D",11/12/2007 16:20:00,"S","SOIL","FS","m",3.00,4.00,"Sample
Prep","T",1,1,"2","Poly Jar","L","NA",0,,"All samples are grab samples"
```

*Figure C-15 Example ASCII-formatted Electronic Chain of Custody File*

## C.3 MANAGING ANALYTICAL DATA

In addition to its utility for managing sample collection data in the field, the Field Sampling Tracking Program is also used by MACTEC as a component of its data validation process. Data from the Field Sample Tracking Program is merged into a master database designed by MACTEC along with the analytical data results received from the various laboratories. This master database is, like the Field Sample Tracking Program, a MACTEC proprietary database design. The database is called "TEDS" (an acronym for Technical Environmental Database System). Once the data is merged into TEDS, a variety of data queries can be executed to qualify, verify, evaluate and validate the data. The principal contribution of the Field Sample Tracking Program to the TEDS database is the ability to verify that the laboratory provided analytical results for every sample and every analyte that was specified by the field sampling team.

# Appendix D

# Soil Boring Logs

# Appendix D.1

# Soil Boring Logs, Survey Unit 2

# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0016

| | | | |
|---|---|---|---|
| **Date Started:** 10/02/07 | **Drilling Contractor:** Bartlongyear | **Page** 1 | **of** 2 |
| **Date Completed:** 10/02/07 | **Driller:** J. Robinson | **Survey Unit:** 2 | |
| **Logged By:** S. Kelly | **Equipment:** Minisonic #1402 | **Elevation:** TBD | |

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 0-5 | FILL | SW | 0-14 gr. si. SAND, moist, strong brown (7.5YR 4/6) gravel is f-c; some "zones" of clayey silty sand (~6-10') |
| 1 | 0.3 | 95% | | | |
| 2 | 0.6 | | | | |
| 3 | 0.9 | | | | |
| 4 | 1.2 | | | | |
| 5 | 1.5 | 5-10 | | | |
| 6 | 1.8 | 100% | | | |
| 7 | 2.1 | | | | |
| 8 | 2.4 | | | | |
| 9 | 2.7 | | | | |
| 10 | 3.1 | 10-15 | | | |
| 11 | 3.4 | 100% | | | |
| 12 | 3.7 | | | | driller indicates "firm" material encountered @ ~14 feet; assume residual soil is @ ~14'; difficult to determine depth to water, as driller is charging rods w/ water to extrude the soil core |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | Residual @ ~14 | SW-ML | 14-25: si. gr. SAND, wet, strong brown (7.5YR 4/6) to yellowish brown (10YR 5/8); difficult to determine changes in strata; intervals containing organic material (gray & brown in color, very silty/clayey) |
| 15 | 4.6 | 15-20 | Alluvial | | |
| 16 | 4.9 | ~~25%~~ 100% | @ 10/2/07 | | |
| 17 | 5.2 | | | | |
| 18 | 5.5 | | | | |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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NFS File Classification: DCM-23-05-02

# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0016

| | | |
|---|---|---|
| **Date Started:** 10/02/07 | **Drilling Contractor:** Boart Longyear | **Page** 2 **of** 2 |
| **Date Completed:** 10/02/07 | **Driller:** J. Robinson | **Survey Unit:** 2 |
| **Logged By:** S. Kelly | **Equipment:** mini Sonic #1902 | **Elevation:** TBD |

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 20-25 25% | Alluvial | | 25-33 - micaceous f-m SAND, wet, strong brown (7.5YR 4/6), some silt and dk. gray (10YR 4/1) |
| 21 | 6.4 | | | | |
| 22 | 6.7 | | | | |
| 23 | 7.0 | | | | |
| 24 | 7.3 | | | | |
| 25 | 7.6 | 25-33 100% | | SP-SM | |
| 26 | 7.9 | | | | |
| 27 | 8.2 | | | | |
| 28 | 8.5 | | | | |
| 29 | 8.8 | | | | |
| 30 | 9.2 | | | | |
| 31 | 9.5 | | | | |
| 32 | 9.8 | | | | |
| 33 | 10.1 | | | | boring terminated @ 33' |
| 34 | 10.4 | | | | |
| 35 | 10.7 | | | | |
| 36 | 11.0 | | | | |
| 37 | 11.3 | | | | |
| 38 | 11.6 | | | | |
| 39 | 11.9 | | | | |
| 40 | 12.2 | | | | |

**Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered**
**Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)**

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NFS File Classification: DCM-23-05-02

# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0017

**Date Started:** 10/02/07 **Drilling Contractor:** Boart Longyear **Page** 1 **of** 2

**Date Completed:** 10/02/07 **Driller:** J. Robinson **Survey Unit:** 2

**Logged By:** S. Kelly **Equipment:** Mini Sonic #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 0-5 25% | FILL | SM | 0-13 si. gr. SAND, moist, strong brown (7.5YR 4/6), becoming more siltly (clayey?) w/ depth; trace organics (fill from relocation of Banner Springs Branch - excavated material) |
| 1 | 0.3 | | | | |
| 2 | 0.6 | | | | |
| 3 | 0.9 | | | | |
| 4 | 1.2 | | | | |
| 5 | 1.5 | 5-10 50% | | | |
| 6 | 1.8 | | | | |
| 7 | 2.1 | | | | |
| 8 | 2.4 | | | | |
| 9 | 2.7 | | | | |
| 10 | 3.1 | 10-15 60% | | | |
| 11 | 3.4 | | | | |
| 12 | 3.7 | | | | (12-13 abundant organics (twigs, roots, etc.) |
| 13 | 4.0 | | | SM | 13-17 - si. f-m SAND, v. moist, yellowish yellow (10YR 6/8) mottled/laminations of gray (10YR 6/1); becoming organic (strong organic odor & twigs), roots present @ 15-17' |
| 14 | 4.3 | | | | |
| 15 | 4.6 | 15-20 100% | | | |
| 16 | 4.9 | | | | |
| 17 | 5.2 | | Alluvial | SM | 17-20 si. SAND, moist, yellowish brown (10YR 5/8) little f-m angular to SR gravel |
| 18 | 5.5 | | | | |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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NFS File Classification: DCM-23-05-02

# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0017

| | | | | | |
|---|---|---|---|---|---|
| **Date Started:** 10/02/07 | **Drilling Contractor:** Boart Longyear | **Page** 2 | **of** 2 | | |
| **Date Completed:** 10/02/07 | **Driller:** J. Robinson | **Survey Unit:** 2 | | | |
| **Logged By:** S. Kelly | **Equipment:** mini Sonic #1902 | **Elevation:** TBD | | | |

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 20-25 | Alluvial/ | ML- | 20-24.5 : sa. SILT to si. SAND, wet, |
| 21 | 6.4 | 100% | FP = | SM | brown (10YR 4/3) and grayish brown (10YR 5/3) |
| | | | | | organics (roots) observed |
| 22 | 6.7 | | | | |
| 23 | 7.0 | | | | |
| 24 | 7.3 | | | | |
| 25 | 7.6 | | Alluvial | SW- | 24.5-33 si. gr. SAND to si. sa. GRAVEL, wet |
| | | 25-33 | | GW | yellowish brown (10YR 5/8); gravel is f-c |
| 26 | 7.9 | 100% | | | angular to SR |
| 27 | 8.2 | | | | |
| 28 | 8.5 | | | | |
| 29 | 8.8 | | | | |
| 30 | 9.2 | | | | |
| 31 | 9.5 | | | | |
| 32 | 9.8 | | | | |
| 33 | 10.1 | | | | boring terminated @ 33' |
| 34 | 10.4 | | | | |
| 35 | 10.7 | | | | |
| 36 | 11.0 | | | | |
| 37 | 11.3 | | | | |
| 38 | 11.6 | | | | |
| 39 | 11.9 | | | | |
| 40 | 12.2 | | | | |

**Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered**
**Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)**

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NFS File Classification: DCM-23-05-02

# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0018

| | | | |
|---|---|---|---|
| **Date Started:** 10/02/07 | **Drilling Contractor:** Bourt Longyear | **Page** 1 | **of** 2 |
| **Date Completed:** 10/02/07 | **Driller:** J. Robinson | **Survey Unit:** 2 | |
| **Logged By:** S. Kelly | **Equipment:** mini Sonic #1402 | **Elevation:** TBD | |

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 0-5 75% | FILL | SW | 0-5 sl. gr. SAND, moist, strong brown (2.5YR 4/6) gravel is f-c angular to WR (fmr. Banners Springs Branch excavated soil) @ 10/02/07 |
| 1 | 0.3 | | | | |
| 2 | 0.6 | | | | |
| 3 | 0.9 | | | | |
| 4 | 1.2 | | | | |
| 5 | 1.5 | 5-10 100% | | | |
| 6 | 1.8 | | | | |
| 7 | 2.1 | | | | |
| 8 | 2.4 | | | | |
| 9 | 2.7 | | | | |
| 10 | 3.1 | 10-15 100% | | | |
| 11 | 3.4 | | | | (11-13 si. f m SAND, wet) |
| 12 | 3.7 | | | | |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | 15-20 100% | Old topsoil FP | SM | 15-16 organic si. f m SAND, wet, v. dk. brown (10YR 2/2) w/ organics (f. roots, wood) |
| 16 | 4.9 | | Alluvial | SM-ML | grading to dk. gray (10YR 4/1) ~~16-20~~ si. f-m SAND ~~to SAL~~ @ 10/02/07 sa. SILT, wet, strong brown (7.5YR 5/6), trace to little c. sand & gravel (f-m angular to SA) |
| 17 | 5.2 | | | | |
| 18 | 5.5 | | | | |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0018

Date Started: 10/02/07 Drilling Contractor: Boart Longyear Page 2 of 2

Date Completed: 10/02/07 Driller: J-Robinson Survey Unit: 2

Logged By: S. Kelly Equipment: Mini Sonic #1402 Elevation: TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 20-25 | Alluvial | SM- | |
| 21 | 6.4 | 100% | | ML | |
| 22 | 6.7 | | | SW | 22-25 gr. SAND, moist, yellowish brown (10YR 5/6) |
| 23 | 7.0 | | | | gravel is f-c angular to SA |
| 24 | 7.3 | | | | |
| 25 | 7.6 | | ▽ | | |
| | | 25-33 | = | SP- | 25-33 f-c SAND, wet, brownish yellow (10YR 6/8) |
| 26 | 7.9 | 100% | | SW | little silt & gravel (f-m, SA-SR); mottled w/ |
| | | | | | lt. gray (10YR 7/1) from 25-27 |
| 27 | 8.2 | | | | |
| 28 | 8.5 | | | | |
| 29 | 8.8 | | | | |
| 30 | 9.2 | | | | |
| 31 | 9.5 | | | | |
| 32 | 9.8 | | | | |
| 33 | 10.1 | | | | boring terminated @ 33' |
| 34 | 10.4 | | | | |
| 35 | 10.7 | | | | |
| 36 | 11.0 | | | | |
| 37 | 11.3 | | | | |
| 38 | 11.6 | | | | |
| 39 | 11.9 | | | | |
| 40 | 12.2 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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NFS File Classification: DCM-23-05-02

# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0019

**Date Started:** 10/4/2007 **Drilling Contractor:** BOART LONGYEAR **Page** 1 **of** 1

**Date Completed:** 10/4/2007 **Driller:** JAMES ROBINSON **Survey Unit:** 2 10/4/07

**Logged By:** Rodney Clark **Equipment:** MINISONIC #1407 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | 0.3 | 0'-5' | FILL | CH | 0'-2' gr, sa, si, CLAY, moist, yellowish red (5YR 5/6) high plasticity, gr is A-SR |
| 2 | 0.6 | | | | |
| 3 | 0.9 | 100% | Alluvial | SW | 2'-7' si, gr, SAND, moist-wet, brown (10YR 5/3) gr is A-WR, root & organics observed |
| 4 | 1.2 | | ~~FILL~~ 10/4/07 | | |
| 5 | 1.5 | | | | |
| 6 | 1.8 | 5'-10' | | | |
| 7 | 2.1 | | | | 7'-10' si, gr, f-c SAND, wet, dark yellowish brown (10YR 4/4) gr is f-c & SR-WR |
| 8 | 2.4 | 100% | Alluvial | | |
| 9 | 2.7 | | | | |
| 10 | 3.1 | | | | 10'-13' SAA except yellowish brown (10YR 5/6) |
| 11 | 3.4 | 10'-15' | | | |
| 12 | 3.7 | 100% | | | 13'-15' si, sa, GRAVEL, wet, yellowish brown, gr is f-c & SR-WR |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | | GW | |
| 15 | 4.6 | | | | 15'-19' si, gr, f-c SAND, wet, yellowish brown (10YR 5/6) gr is f-c & SR & WR |
| 16 | 4.9 | 15'-20' | | SW | |
| 17 | 5.2 | 100% | | | |
| 18 | 5.5 | | | | |
| 19 | 5.8 | | | | 19'-20' si, sa, GRAVEL, moist, light bluish gray (GLEY 2 7/1) gr is A. dolostone (Rome Fm) |
| 20 | 6.1 | | Residuum | GW | Terminate Boring @ 20' |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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NFS File Classification: DCM-23-05-02

# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0020

**Date Started:** 10/4/2007 **Drilling Contractor:** BOART LONGYEAR **Page** 1 **of** 1

**Date Completed:** 10/4/2007 **Driller:** JAMES ROBINSON **Survey Unit:** 2

**Logged By:** Rodney Clark **Equipment:** MINISONIC #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | 0.3 | 0'-5' | FILL / Topsoil | CH | 0'-2.5' gr, sa, si, CLAY, moist, yellowish red (5YR 4/6) gr is A-WR, roots observed, high plasticity |
| 2 | 0.6 | | | | 2.5'-7' si, gr, f-c SAND, moist, brown (10YR 5/3) gr is SR-WR & f-c |
| 3 | 0.9 | 4'/5' | | SW | |
| 4 | 1.2 | | Alluvial | | |
| 5 | 1.5 | | | | |
| 6 | 1.8 | 5'-10' | | | |
| 7 | 2.1 | | ▽ | | 7'-7.5' gr, si, SAND, wet, very dark grayish brown (10YR 3/2) gr is SR-WR & f-c |
| 8 | 2.4 | 3.5'/5' | | | |
| 9 | 2.7 | | | | 7.5'-12' SAA except yellowish brown (10YR 5/6) |
| 10 | 3.1 | | | | |
| 11 | 3.4 | 10'-15' | | | |
| 12 | 3.7 | | | | 12'-16' SAA except brownish yellow (10YR 6/8) |
| 13 | 4.0 | 100% | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | | | | |
| 16 | 4.9 | 15'-18.5' | | | 16'-17.5' si, sa, GRAVEL, wet, brownish yellow, gr is f-c & SR-WR |
| 17 | 5.2 | 100% | | GW | |
| 18 | 5.5 | | RESIDUUM / BEDROCK | ML / GW | 17.5'-17.8' gr, SILT, wet, brownish yellow, gr is A. shale/dolostone (Residuum) 17.8'-18.5' si, sa, GRAVEL, moist, light olive gray (GLEY 2 7/1) gr is A. dolostone (Rome Fm.) |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | Terminate Boring @ 18.5' |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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NFS File Classification: DCM-23-05-02

# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0021

**Date Started:** 10/4/2007 **Drilling Contractor:** BOART LONGYEAR **Page** 1 **of** 1

**Date Completed:** 10/4/2007 **Driller:** JAMES ROBINSON **Survey Unit:** 2

**Logged By:** Rodney Clark **Equipment:** MINISONIC #M02 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | 0.3 | 0'-5' | Fill / Topsoil | ML | 0'-1.5' gr, sa, SILT, moist, yellowish red (5YR 5/8), roots observed, gr is A |
| 2 | 0.6 | | | SW | 1.5'-3' gr, si, SAND, moist, brown (10YR 4/3) gr is A-SR, roots observed |
| 3 | 0.9 | 100% | | | |
| 4 | 1.2 | | Alluvial | | 3'-6.5' SAA except strong brown (7.5YR 5/6) & gr is SR-WR & f-c |
| 5 | 1.5 | | | | |
| 6 | 1.8 | 5'-10' | ▽ | | 6.5'-12' si gr f-c SAND, wet, very pale brown (10YR 7/3) gr is SR-WR, f-c |
| 7 | 2.1 | 4.5'/5' | | | |
| 8 | 2.4 | | | | |
| 9 | 2.7 | | | | |
| 10 | 3.1 | 10'-15' | | | |
| 11 | 3.4 | | | | 12'-13.5' si f-m SAND, wet, yellowish brown (10YR 5/4), trace of gr & c. sa., micaceous |
| 12 | 3.7 | 100% | | SM | |
| 13 | 4.0 | | | | 13.5'-16.5' si, gr, f-c SAND, wet, yellowish brown |
| 14 | 4.3 | | | SW | |
| 15 | 4.6 | 15'-16.5' | | | |
| 16 | 4.9 | | | | 16.5'-18.5' sa, GRAVEL, moist-dry, light bluish gray (GLEY2 7/1) gr. is A. dolostone (Rome Fm) |
| 17 | 5.2 | 100% | Bedrock | GW | |
| 18 | 5.5 | | | | |
| 19 | 5.8 | | | | Terminate Boring @ 18.5' |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0022

**Date Started:** 10/4/2007 **Drilling Contractor:** BOART LONGYEAR **Page** 1 **of** 1

**Date Completed:** 10/4/2007 **Driller:** JAMES ROBINSON **Survey Unit:** 2

**Logged By:** Rodney Clark **Equipment:** MINISONIC #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | 0.3 | 0'-5' | | SW | 0'-5' gr, si, f-c SAND, moist, strong brown (7.5YR 5/6), gr. is A-SR & f-c, roots observed |
| 2 | 0.6 | | FILL / Topsoil | | |
| 3 | 0.9 | 3"/5' | | | |
| 4 | 1.2 | | | | |
| 5 | 1.5 | | | | 5'-6 SAA except gr is SR-WR & no roots observed |
| 6 | 1.8 | 5'-10' | ▽ | | |
| 7 | 2.1 | 11"/5' | Alluvial | | 6'-10' si, gr, f-c SAND, wet, very pale brown (10YR 7/4) gr is f-c & SR-WR |
| 8 | 2.4 | | | | |
| 9 | 2.7 | | | | |
| 10 | 3.1 | 10'-12' | | | 10'-12' SAA except light yellowish brown (10YR 6/4) |
| 11 | 3.4 | | | | |
| 12 | 3.7 | 100% | | | 12'-17' SAA except yellowish brown (10YR 5/6) |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | 15'-17' | | | |
| 16 | 4.9 | 100% | | | |
| 17 | 5.2 | | Bedrock | GW | 17'- sa GRAVEL, moist, light blue gray (GLEY2 7/1) gr is A, dolostone |
| 18 | 5.5 | | | | Rome Formation |
| 19 | 5.8 | | | | Terminate Boring @ 17' |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0023

**Date Started:** 10/5/07 **Drilling Contractor:** BOART LONGYEAR **Page** 1 **of** 1

**Date Completed:** 10/5/07 **Driller:** James Robinson **Survey Unit:** 2

**Logged By:** Rodney Clark **Equipment:** Mini Sonic #11102 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | 0.3 | 0'-5' | Topsoil/ FILL | CL | 0'-1" gr, sa, si, CLAY, moist, strong brown (7.5YR 5/6) roots & organics observed, gravel is A-WR |
| 2 | 0.6 | | Alluvial | SW | 1'-5' si, gr, f-c SAND, moist, yellowish brown (7.5YR 5/6) gr is SR-WR |
| 3 | 0.9 | 3.5'/5' | | | |
| 4 | 1.2 | | | | |
| 5 | 1.5 | | | | |
| 6 | 1.8 | 5'-10' | | | 5'-7' si, gr, f-c SAND, moist, dark yellowish brown (10YR 4/4) gr is SR-WR & f-c |
| 7 | 2.1 | | | | 7'-10' - SAA except yellow (10YR 7/6) |
| 8 | 2.4 | 4'/5' | | | |
| 9 | 2.7 | | | | |
| 10 | 3.1 | | | | |
| 11 | 3.4 | 10'-15' | | SW-GW | 10'-15.5' si, gr, f-c SAND - si, sa, GRAVEL, wet, yellowish brown (10YR 6/6) gr is SR-WR & f-c |
| 12 | 3.7 | 4'/5' | | | |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | | | | |
| 16 | 4.9 | 15'-18.5' | | | 15.5-17.5' gr, sa, SILT, moist-wet brownish yellow (10YR 6/6) gr is A. shale/mudstone/dolostone |
| 17 | 5.2 | 100% | Residuum | ML | |
| 18 | 5.5 | | Bedrock | GW | 17.5'-18.5' sa, GRAVEL, moist, light bluish gray (GLEY2 7/1) gr is A. dolostone (Rome Fm) |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | Terminate Boring ~~at~~ 18.5' |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.:** 0024

**Date Started:** 10/5/07 **Drilling Contractor:** BOART LONGYEAR **Page** 1 **of** 2

**Date Completed:** 10/5/07 **Driller:** JAMES ROBINSON **Survey Unit:** •2

**Logged By:** Rodney Clark **Equipment:** MINISONIC #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | 0.3 | 0'-5' | Topsoil | SW | 0'-5' si, gr, f-c SAND, moist, yellowish brown (10YR 5/4) gr is A. WR, roots observed (0'-2') |
| 2 | 0.6 | | | | |
| 3 | 0.9 | 4'/5' | Alluvial | | |
| 4 | 1.2 | | | | |
| 5 | 1.5 | | | | 5'-7' SAA |
| 6 | 1.8 | 5'-10' | | | |
| 7 | 2.1 | 4'/5' | ▽ | | 7'-10' si, f-SAND, wet, brown (10YR 4/3) trace of c-m SAND, low plasticity |
| 8 | 2.4 | | | | |
| 9 | 2.7 | | | SM | |
| 10 | 3.1 | | | | |
| 11 | 3.4 | 10'-15' | | SW | 10'-12.5' si, gr, f-c SAND, wet, brown, gr. is f-c & SR-WR |
| 12 | 3.7 | 2'/5' | | | |
| 13 | 4.0 | | | | 12.5'-20' SAA except yellowish brown (10YR 5/6) & (10YR 5/4) |
| 14 | 4.3 | | | | |
| 15 | 4.6 | | | | |
| 16 | 4.9 | 15'-20' | | | |
| 17 | 5.2 | | | | |
| 18 | 5.5 | 100% | | | |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | SW/GW | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0024

Date Started: 10/5/07 Drilling Contractor: BOART LONGYEAR Page 2 of 2

Date Completed: 10/5/07 Driller: James Robinson Survey Unit: 2

Logged By: Rodney Clark Equipment: Minisonic #1402 Elevation: TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 21 | 6.4 | 20'-25' | | SW/GW | 20'-25' si, gr, f-c SAND - si, sa, GRAVEL, wet yellowish brown (10YR 5/6) gr is SR-WR & f-c |
| 22 | 6.7 | 100% | | | |
| 23 | 7.0 | | | | |
| 24 | 7.3 | | | | |
| 25 | 7.6 | | Residuum | ML | 24.5'-25' gr. SILT, wet, brownish yellow (10YR 6/8), gr is A. shale/mudstone (Rome Formation) |
| 26 | 7.9 | | | | |
| 27 | 8.2 | | | | Terminate Boring @ 25' |
| 28 | 8.5 | | | | |
| 29 | 8.8 | | | | |
| 30 | 9.2 | | | | |
| 31 | 9.5 | | | | |
| 32 | 9.8 | | | | |
| 33 | 10.1 | | | | |
| 34 | 10.4 | | | | |
| 35 | 10.7 | | | | |
| 36 | 11.0 | | | | |
| 37 | 11.3 | | | | |
| 38 | 11.6 | | | | |
| 39 | 11.9 | | | | |
| 40 | 12.2 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0025

**Date Started:** 10/5/07 **Drilling Contractor:** BART LONGYEAR **Page** 1 **of** 1

**Date Completed:** 10/5/07 **Driller:** JAMES ROBINSON **Survey Unit:** 2

**Logged By:** Rodney Clark **Equipment:** MINIC SONIC #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | 0.3 | 0'-5' | | SW | 0'-4' si, gr, f-c SAND, moist, brownish yellow (10YR 6/6) gr is A - WR, roots observed |
| 2 | 0.6 | | | | |
| 3 | 0.9 | 100% | FILL | | 4'-5' gr, ca, SILT, moist, very dark grayish brown (10YR 3/2) gr is A., roots & organics observed |
| 4 | 1.2 | | | ML | 5'-10 si, gr f-c SAND, moist, yellowish brown (10YR 5/6) gr is A-WR roots observed 5-6 |
| 5 | 1.5 | | | | |
| 6 | 1.8 | 5'-10' | | SW | |
| 7 | 2.1 | | | | |
| 8 | 2.4 | 3'/5' | | | |
| 9 | 2.7 | | | | |
| 10 | 3.1 | | | | 10'-15' SAA |
| 11 | 3.4 | 10'-15' | | | |
| 12 | 3.7 | | Alluvial | | |
| 13 | 4.0 | 100% | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | | ▽ | | Rc 11/8/07 |
| 16 | 4.9 | 15'-20' | | | 15'-18' si, gr, f-c SAND, wet, brownish yellow (10YR 6/8) gr is f-c + SR-WR |
| 17 | 5.2 | 100% | | | |
| 18 | 5.5 | | | | 18'-20' - gr. SILT, wet, brownish yellow (10YR 6/8), gr is A. shale/mudstone Rome Formation |
| 19 | 5.8 | | | ML | |
| 20 | 6.1 | | | | Terminate Boring @ 20' |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0026

**Date Started:** 10/5/07 **Drilling Contractor:** BOART LONGYEAR **Page** 1 **of** 2

**Date Completed:** 10/5/07 **Driller:** JAMES ROBINSON **Survey Unit:** 2

**Logged By:** Rodney Clark **Equipment:** MINISONIC #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | 0.3 | 0'-5' | FILL | SW | 0'-2' si, gr, f-c SAND, moist, brownish yellow (10YR 6/8) gr is A-WR, roots observed |
| 2 | 0.6 | | | | 2'-3' SAA except very pale brown (10YR 7/4) # no roots observed |
| 3 | 0.9 | 100% | | | |
| 4 | 1.2 | | | | 3'-7' SAA except yellowish brown (10YR 5/6) # loose |
| 5 | 1.5 | | | | |
| 6 | 1.8 | 5'-10' | | | |
| 7 | 2.1 | | | | 7'-12' si, gr, f-c SAND, moist, brownish yellow (10YR 6/6), gr is f-c # SR-WR |
| 8 | 2.4 | 4.5'/5' | Alluvial | | |
| 9 | 2.7 | | | | |
| 10 | 3.1 | 10'-15' | | | |
| 11 | 3.4 | | | | |
| 12 | 3.7 | 4'/5' | ▽ | | 12'-14' si, gr, f-c SAND, wet, yellowish brown (10YR 5/6), gr is f-c # SR-WR |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | | SW | 14'- si, gr, f-c SAND - si, sa, GRAVEL, wet, yellowish brown (10YR 5/6) gr is f-c # SR-WR |
| 15 | 4.6 | | | GW | |
| 16 | 4.9 | 15'-20' | | | |
| 17 | 5.2 | 3'/5' | | | |
| 18 | 5.5 | | | | |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | |

**Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered**

**Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)**

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0026

**Date Started:** 10/5/07 **Drilling Contractor:** BOART LONGYEAR **Page** 2 **of** 2

**Date Completed:** 10/5/07 **Driller:** JAMES ROBINSON **Survey Unit:** 2

**Logged By:** Rach **Equipment:** MINISONIC #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 20'-25' | | | |
| 21 | 6.4 | | | | |
| 22 | 6.7 | 100% | | | 22'-23' - gr, SILT, wet, brownish yellow (10YR 6/8) |
| | | | Residuum | ML | gr is A - dolostone/slab (mudstone |
| 23 | 7.0 | | | | Residual (Rone Formation) |
| 24 | 7.3 | | | | |
| 25 | 7.6 | | | | Terminate Boring @ 23' |
| | | RC 11/6/07 | | | |
| 26 | 7.9 | | | | |
| 27 | 8.2 | | | | |
| 28 | 8.5 | | | | |
| 29 | 8.8 | | | | |
| 30 | 9.2 | | | | |
| 31 | 9.5 | | | | |
| 32 | 9.8 | | | | |
| 33 | 10.1 | | | | |
| 34 | 10.4 | | | | |
| 35 | 10.7 | | | | |
| 36 | 11.0 | | | | |
| 37 | 11.3 | | | | |
| 38 | 11.6 | | | | |
| 39 | 11.9 | | | | |
| 40 | 12.2 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0027

| | | | |
|---|---|---|---|
| **Date Started:** 10/08/07 | **Drilling Contractor:** Boart Longyear | **Page** 1 **of** 1 | |
| **Date Completed:** 10/08/07 | **Driller:** J. Robinson | **Survey Unit:** 2 | |
| **Logged By:** S. Kelly | **Equipment:** mini Sonic #1402 | **Elevation:** TBD | |

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 0-5 | Topsoil | SW | 0-3 si. gr. SAND, slightly moist, dk brown (7.5YR 3/3) w/ organics (roots) (@ surface gravel is f-c angular to SR |
| 1 | 0.3 | 75% | | | |
| 2 | 0.6 | | | | |
| 3 | 0.9 | | Alluvial | SW | 3-18 si. gr. SAND moist to wet, dk yellowish brown to yellowish brown (10YR 3/4) (10YR 3/4) gravel is f-c angular to WR |
| 4 | 1.2 | | | | |
| 5 | 1.5 | 5-10 | | | |
| 6 | 1.8 | 50% | | | |
| 7 | 2.1 | | | | |
| 8 | 2.4 | | ▽ | | |
| 9 | 2.7 | | | | |
| 10 | 3.1 | 10-15 | | | |
| 11 | 3.4 | 100% | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | 15-20 | | | |
| 16 | 4.9 | 100% | | | |
| 17 | 5.2 | | | | |
| 18 | 5.5 | | | | |
| 19 | 5.8 | | Residuum | ML | 18-20 weathered tone: SILT, moist, pale brown (10YR 7/8) |
| 20 | 6.1 | | | | boring terminated @ 20' / (10YR 6/3) lt. gray |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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NFS File Classification: DCM-23-05-02

# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0028

**Date Started:** 10/08/07 **Drilling Contractor:** Bourt Mayear **Page** 1 **of** 2

**Date Completed:** 10/08/07 **Driller:** J. Robinson **Survey Unit:** 2

**Logged By:** S. Kelly **Equipment:** mini Sonic #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 0-5 | Topsoil | SW | 0-1.5 si. gr. SAND, slightly moist, dk. yellowish |
| 1 | 0.3 | 100% | | | brown (10YR 4/4) gravel is f-m (SA-SR) |
| | | | | | w/ organics @ surface |
| 2 | 0.6 | | Alluvial | SW | 1.5- si. gr. SAND, slightly moist, yellowish |
| | | | | | brown (10YR 5/6), gravel is f-c SA-SR, |
| 3 | 0.9 | | | | slightly cemented |
| 4 | 1.2 | | | | |
| 5 | 1.5 | | | | |
| | | 5-10 | | | |
| 6 | 1.8 | 100% | | | |
| 7 | 2.1 | | | | |
| 8 | 2.4 | | | | |
| 9 | 2.7 | | | | |
| 10 | 3.1 | | ! | | |
| | | 10-15 | | SM | 10-14.5 si. f-m SAND, wet, dk. yellowish brown |
| 11 | 3.4 | 60% | | | (10YR 4/4) w/ dk. grayish brown (10YR 4/2) |
| | | | | | mottles |
| 12 | 3.7 | | | | |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | | | SP | 14.5-16 micaceous f-m SAND, wet, strong |
| | | 15-20 | | | brown (7.5YR 4/6) |
| 16 | 4.9 | 100% | | | |
| | | | | SW-GW | 16-25 si. gr. SAND to si. sa. GRAVEL, wet/ |
| 17 | 5.2 | | | | saturated, strong brown (7.5YR 5/8) gravel |
| | | | | | is f-c angular to WR |
| 18 | 5.5 | | | | |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0028

| | | |
|---|---|---|
| **Date Started:** 10/08/07 | **Drilling Contractor:** Beart Longyear | **Page** 2 **of** 2 |
| **Date Completed:** 10/08/07 | **Driller:** J. Robinson | **Survey Unit:** 2 |
| **Logged By:** S. Kelly | **Equipment:** minisonic #1402 | **Elevation:** TBD |

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 20-25 | Alluvial | SW-GW | |
| 21 | 6.4 | | | | |
| 22 | 6.7 | | | | |
| 23 | 7.0 | | | | |
| 24 | 7.3 | | | | |
| 25 | 7.6 | 25-30 75% | Residuum | SM-GM | 25-30 weathered Rome: gr. SILT to si. GRAVEL wet to dry (pulverized rock), yellowish brown (10YR 5/8) to |
| 26 | 7.9 | | | | |
| 27 | 8.2 | | | | |
| 28 | 8.5 | | | | |
| 29 | 8.8 | | | | |
| 30 | 9.2 | | | | boring terminated @ 30' |
| 31 | 9.5 | | | | |
| 32 | 9.8 | | | | |
| 33 | 10.1 | | | | |
| 34 | 10.4 | | | | |
| 35 | 10.7 | | | | |
| 36 | 11.0 | | | | |
| 37 | 11.3 | | | | |
| 38 | 11.6 | | | | |
| 39 | 11.9 | | | | |
| 40 | 12.2 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered
Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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NFS File Classification: DCM-23-05-02

# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0029

| | | | |
|---|---|---|---|
| **Date Started:** 10/08/07 | **Drilling Contractor:** Boart Longyear | **Page** 1 **of** 2 | |
| **Date Completed:** 10/08/07 | **Driller:** J. Robinson | **Survey Unit:** 2 | |
| **Logged By:** Sikelly | **Equipment:** mini Sonic #1402 | **Elevation:** TBD | |

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 0-5 | Topsoil / FP | SM | 0-5 si f-m SAND, moist dk yellowish |
| 1 | 0.3 | 100% | | | brown (10YR 3/2) trace f. roots, trace |
| | | | | | f-m gravel (SA-SR) |
| 2 | 0.6 | | | | |
| 3 | 0.9 | | | | |
| 4 | 1.2 | | | | |
| 5 | 1.5 | 5-10 | Alluvial | SW | 5-14 gr. SAND, slightly moist, yellowish |
| 6 | 1.8 | 100% | | | brown (10YR 5/8) slightly cemented, |
| | | | | | gravel is f-c angular to |
| 7 | 2.1 | | | | |
| 8 | 2.4 | | | | |
| 9 | 2.7 | | | | |
| 10 | 3.1 | | ? | | |
| | | 10-15 | | | |
| 11 | 3.4 | 50% | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | | ML-SM | 14-25 d. sa. SILT, wet, yellowish brown (10YR |
| 15 | 4.6 | | | | 5/8) micaceous, coarsening to si. f-m SAND |
| | | 15-20 | | | and gray 10YR 5/1), laminated |
| 16 | 4.9 | 100% | | | |
| 17 | 5.2 | | | | |
| 18 | 5.5 | | | | |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | |

**Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered**

**Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)**

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0029

| | | |
|---|---|---|
| **Date Started:** 10/08/07 | **Drilling Contractor:** Boart Longyear | **Page** 2 **of** 2 |
| **Date Completed:** 10/08/07 | **Driller:** J. Robinson | **Survey Unit:** 2 |
| **Logged By:** S. Kelly | **Equipment:** mini Sonic #1402 | **Elevation:** TBD |

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 20-25 | Alluvial | SW | 20-24 gr. m-v. coarse SAND, wet, yellowish |
| 21 | 6.4 | 100% | | | brown (10YR 5/4) micaceous; gravel is |
| | | | | | f-m SA to WR |
| 22 | 6.7 | | | | |
| 23 | 7.0 | | | | |
| 24 | 7.3 | | | | to gr. SAND |
| | | | | SW-GW | 24-33 si. sa. GRAVEL, wet, dk. yellowish brown |
| 25 | 7.6 | 25-33 | | | (10YR 4/4) gravel is f-c, SA-WR |
| 26 | 7.9 | 100% | | | |
| 27 | 8.2 | | | | |
| 28 | 8.5 | | | | |
| 29 | 8.8 | | | | |
| 30 | 9.2 | | | | |
| 31 | 9.5 | | | | |
| 32 | 9.8 | | | | |
| 33 | 10.1 | | | | boring terminated @ 33' |
| 34 | 10.4 | | | | |
| 35 | 10.7 | | | | |
| 36 | 11.0 | | | | |
| 37 | 11.3 | | | | |
| 38 | 11.6 | | | | |
| 39 | 11.9 | | | | |
| 40 | 12.2 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0030

| | | | |
|---|---|---|---|
| **Date Started:** 10/03/07 | **Drilling Contractor:** Boart Longyear | **Page** 1 | **of** 2 |
| **Date Completed:** 10/03/07 | **Driller:** J. Robinson | **Survey Unit:** 2 | |
| **Logged By:** S. Kelly | **Equipment:** mini Simic #1402 | **Elevation:** TBD | |

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | 0.3 | 0-5 100% | FILL | SW | 0-2 gr. si. SAND, dry / moist, strong brown (7.5 YR 4/6) gravel is f-c, angular to SA |
| 2 | 0.6 | | Alluvial | SM | 2-4 si. f-m SAND, moist, dk. yellowish brown (10YR 4/6) trace fine roots |
| 3 | 0.9 | | | | |
| 4 | 1.2 | | | SW | 4-13 slightly silty, gr. SAND, moist, reddish yellow (7.5 YR 6/8) gravel is f-c angular to |
| 5 | 1.5 | 5-10 | | | |
| 6 | 1.8 | 100% | | | |
| 7 | 2.1 | | | | |
| 8 | 2.4 | | | | |
| 9 | 2.7 | | | | |
| 10 | 3.1 | 10-15 | | | |
| 11 | 3.4 | 100% | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | | ▽ | SW | 13-18 si. gr. m-c SAND, wet, reddish yellow (7.5 YR 6/8) to strong brown (7.5 YR 5/6) gravel is f-c SA to WR |
| 14 | 4.3 | | | | |
| 15 | 4.6 | 15-20 | | | |
| 16 | 4.9 | 100% | | | |
| 17 | 5.2 | | | | |
| 18 | 5.5 | | | SP | 18-19.5 si. micaceous f-m SAND, wet, strong brown (7.5 YR 4/6) |
| 19 | 5.8 | | | SM | |
| 20 | 6.1 | | | SW-GW | 19.5-33 si. gr. SAND to si. sa. GRAVEL, wet yellowish brown (10 YR 5/8) gravel is f-c SA-WR |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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NFS File Classification: DCM-23-05-02

# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0030

**Date Started:** 10/03/07 **Drilling Contractor:** Boart Longyear **Page** 2 **of** 2

**Date Completed:** 10/03/07 **Driller:** J. Robinson **Survey Unit:** 2

**Logged By:** S. Kelly **Equipment:** mini Sonic #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 20-25 | Alluvial | SW- | |
| 21 | 6.4 | 100% | | GW | |
| 22 | 6.7 | | | | |
| 23 | 7.0 | | | | |
| 24 | 7.3 | | | | |
| 25 | 7.6 | 25-33 | | | |
| 26 | 7.9 | 100% | | | |
| 27 | 8.2 | | | | |
| 28 | 8.5 | | | | |
| 29 | 8.8 | | | | |
| 30 | 9.2 | | | | |
| 31 | 9.5 | | | | |
| 32 | 9.8 | | | | |
| 33 | 10.1 | | | | boring terminated @ 33' |
| 34 | 10.4 | | | | |
| 35 | 10.7 | | | | |
| 36 | 11.0 | | | | |
| 37 | 11.3 | | | | |
| 38 | 11.6 | | | | |
| 39 | 11.9 | | | | |
| 40 | 12.2 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0031

**Date Started:** 10/03/07 **Drilling Contractor:** Boart Longyear **Page** 1 **of** 2

**Date Completed:** 10/03/07 **Driller:** J. Robinson **Survey Unit:** 2

**Logged By:** S. Kelly **Equipment:** mini Sonic #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 0-5 80% | FILL | SM-SW | 0-4.5 ~~or~~ Darwin si. SAND, moist, strong brown (7.5YR 4/6) little coarse-v.c. sand and gravel (angular to SR), organics (roots, twigs, etc), micaceous |
| 1 | 0.3 | | | | |
| 2 | 0.6 | | | | |
| 3 | 0.9 | | | | |
| 4 | 1.2 | | | | |
| 5 | 1.5 | 5-10 100% | Alluvial | MH/SW | 4.5-5 organic SILT, moist, v.dk. brown (10YR 2/2) to wet 5-10 si.gr. SAND, moist, strong brown (10YR 5/6) gravel is f-c angular to SR |
| 6 | 1.8 | | | | |
| 7 | 2.1 | | | | |
| 8 | 2.4 | | | | |
| 9 | 2.7 | | | | |
| 10 | 3.1 | 10-15 75% | | | |
| 11 | 3.4 | | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | ▽ | | |
| 15 | 4.6 | 15-20 100% | | ML | 15-18 cl. SILT to cl. f.sa. SILT wet, reddish yellow (7.5YR 6/8) and lt. gray (10YR 7/1) |
| 16 | 4.9 | | | | |
| 17 | 5.2 | | | | |
| 18 | 5.5 | | | SM-SW | 18-20 si. f-c SAND grading to si.gr. SAND, wet, brownish yellow (10YR 6/8); gravel is f-c, angular to SR |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0031

**Date Started:** 10/03/07 **Drilling Contractor:** Boart Longyear **Page** 2 **of** 2

**Date Completed:** 10/03/07 **Driller:** J. Robinson **Survey Unit:** 2

**Logged By:** S. Kelly **Equipment:** mini Sonic #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 20-25 | Alluvial | SW | |
| 21 | 6.4 | 100% | | | |
| 22 | 6.7 | | | | |
| 23 | 7.0 | | | | |
| 24 | 7.3 | | | | |
| 25 | 7.6 | | | | |
| | | 25-33 | | | |
| 26 | 7.9 | 100% | | | |
| 27 | 8.2 | | | | |
| 28 | 8.5 | | | | |
| 29 | 8.8 | | | | |
| 30 | 9.2 | | | | |
| 31 | 9.5 | | | | |
| 32 | 9.8 | | | | |
| 33 | 10.1 | | Residuum | ML | 32.8'-33': weathered zone: SILT, moist, strong brown (7.5YR 5/6) little f-m angular gravel (mudstone/dolostone) |
| 34 | 10.4 | | | | 100% Boring terminated @ 33' |
| 35 | 10.7 | | | | |
| 36 | 11.0 | | | | |
| 37 | 11.3 | | | | |
| 38 | 11.6 | | | | |
| 39 | 11.9 | | | | |
| 40 | 12.2 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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NFS File Classification: DCM-23-05-02

# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0032

| | | | |
|---|---|---|---|
| Date Started: 10/03/07 | Drilling Contractor: Boart Longyear | Page 1 of 2 | |
| Date Completed: 10/03/07 | Driller: J. Robinson | Survey Unit: 2 | |
| Logged By: S. Kelly | Equipment: Mini Sonic #1402 | Elevation: TBD | |

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 0-5 | FILL | ~~GW~~ SW | 0 gr. si. SAND, moist, strong brown (7.5YR 4/6) to brown (10YR 4/3) w/ organics (roots, limbs, etc.) organic-rich "layers" are wet & very silty/clayey |
| 1 | 0.3 | 80% | | | |
| 2 | 0.6 | | | | |
| 3 | 0.9 | | | | |
| 4 | 1.2 | | | | |
| 5 | 1.5 | 5-10 | | | |
| 6 | 1.8 | 100% | | | |
| 7 | 2.1 | | | | |
| 8 | 2.4 | | | | |
| 9 | 2.7 | | | | |
| 10 | 3.1 | 10-15 | Alluvial | ML | b/t 10 & 12' is bottom of fill - hard to determine based on material encountered; assume 10' based on relative elevation |
| 11 | 3.4 | 100% | | | |
| 12 | 3.7 | | | | 10-13 sa. cl. SILT, moist, dk. grayish brown (10YR 4/2) w/ organics (cedar & f. roots) |
| 13 | 4.0 | | | ML-SM | 13-23 f. sa. SILT, moist, strong brown (7.5YR 5/6) grading to si. f-m SAND (slightly cemented) |
| 14 | 4.3 | | | | |
| 15 | 4.6 | 15-20 | | | |
| 16 | 4.9 | 100% | | | |
| 17 | 5.2 | | | | |
| 18 | 5.5 | | | | |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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NFS File Classification: DCM-23-05-02

# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0032

| | | |
|---|---|---|
| **Date Started:** 10/03/07 | **Drilling Contractor:** Bart Longyear | **Page** 2 **of** 2 |
| **Date Completed:** 10/03/07 | **Driller:** J. Robinson | **Survey Unit:** 2 |
| **Logged By:** S. Kelly | **Equipment:** mini Sonic #1402 | **Elevation:** TBD |

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 20-25 | Alluvial | ML- | |
| 21 | 6.4 | 100% | | SM | |
| 22 | 6.7 | | | | |
| 23 | 7.0 | | ! | SM | 23-25 si. cl. f-m SAND, wet, strong |
| 24 | 7.3 | | | | brown (7.5YR 5/6) & gray (10YR 6/1) possibly organic |
| 25 | 7.6 | | | | (SA) 10/3/07 |
| | | 25-33 | | ML | 25 ~~28~~-27 cl. f. sa. SILT, wet, grayish |
| 26 | 7.9 | 100% | | | brown (10YR 5/2) |
| 27 | 8.2 | | | | |
| | | | | SM | |
| 28 | 8.5 | | | | 27 (SA) 10/3/07 |
| | | | | | ~~28-29~~ si f-m SAND grading to |
| 29 | 8.8 | | | Wash | f-c SAND, wet, gray 10YR 5/1 |
| | | | (SA) 10/3/07 | SP- | 29-31 micaceous si. f-m SAND, dk. |
| 30 | 9.2 | | | SM | gray (10YR 4/1) |
| 31 | 9.5 | | | | |
| | | | | | 31-33 same as above but strong brown |
| 32 | 9.8 | | | | 10YR 4/6 |
| 33 | 10.1 | | | | |
| 34 | 10.4 | | | | |
| 35 | 10.7 | | | | |
| 36 | 11.0 | | | | |
| 37 | 11.3 | | | | |
| 38 | 11.6 | | | | |
| 39 | 11.9 | | | | |
| 40 | 12.2 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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NFS File Classification: DCM-23-05-02

# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0033

| | | | |
|---|---|---|---|
| **Date Started:** 10/03/07 | **Drilling Contractor:** Boart Longyear | **Page** 1 | **of** 2 |
| **Date Completed:** 10/03/07 | **Driller:** J. Robinson | **Survey Unit:** 2 | |
| **Logged By:** S. Kelly | **Equipment:** Mini Sonic #1402 | **Elevation:** TBD | |

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 0-5 | FILL | SW | 0-4 si. gr. SAND, moist, strong brown |
| 1 | 0.3 | 100% | | | (7.5YR 4/6) w/ organics (limbs, roots, etc) |
| | | | | | gravel is f-c, angular to SR (from |
| 2 | 0.6 | | | | Banner Springs Branch relocation excavation) |
| 3 | 0.9 | | | | |
| 4 | 1.2 | | Alluvial | ML | 4-7 sa. SILT to si. f-m SAND, moist |
| 5 | 1.5 | 5-10 | | | strong brown (7.5YR 4/6), trace fine |
| 6 | 1.8 | 100% | | | roots |
| 7 | 2.1 | | | SW | 7-8.5 si. gr. SAND, moist, yellowish |
| 8 | 2.4 | | | | brown (10YR 5/8) slightly cemented |
| 9 | 2.7 | | | | |
| 10 | 3.1 | 10-15 | | | |
| 11 | 3.4 | 100% | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | | ▽ | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | 15-20 | | ML-SM | 15-18 cl. sa. SILT grading to si. f-m SAND, wet |
| 16 | 4.9 | 100% | | | reddish yellow (7.5YR 6/8) trace, coarse to v.c. |
| | | | | | sand (angular to SR) to little |
| 17 | 5.2 | | | | |
| 18 | 5.5 | | | ML-SM | 18-19 cl. sa. SILT to cl. si. f-m SAND, wet |
| 19 | 5.8 | | | SM | dk. gray (10YR 4/1) w/ organics (decomposed |
| | | | | | roots, little c-v.c SAND and f-m gravel (angular |
| 20 | 6.1 | | | | to SR) → 24 @ 10/3/07 |
| | | | | | 19-~~20~~ micaceous si. f-m SAND, wet strong brown (7.5YR 4/6) |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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NFS File Classification: DOM 23.05.02

# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0033

**Date Started:** 10/03/07 **Drilling Contractor:** Beart Longyear **Page** 2 **of** 2

**Date Completed:** 10/03/07 **Driller:** J. Robinson **Survey Unit:** 2

**Logged By:** S. Kelly **Equipment:** mini Sonic #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 20-25 100% | Alluvial | SM | |
| 21 | 6.4 | | | | |
| 22 | 6.7 | | | | |
| 23 | 7.0 | | | | |
| 24 | 7.3 | | | | 24-26: fi. gr. SAND, wet, yellowish brown (10YR5/8) gravel is f-c, angular to SR |
| 25 | 7.6 | 25-26.5 100% | | | |
| 26 | 7.9 | | Residuum | ML-GM | 26-26.5 weathered zone: gr. SILT to si. |
| 27 | 8.2 | | | | boring terminated @ 26.5' / GRAVEL, moist to dry (pulverized) yellowish brown (10YR5/8) gravel is angular (mudstone/dolostone) |
| 28 | 8.5 | | | | |
| 29 | 8.8 | | | | |
| 30 | 9.2 | | | | |
| 31 | 9.5 | | | | |
| 32 | 9.8 | | | | |
| 33 | 10.1 | | | | |
| 34 | 10.4 | | | | |
| 35 | 10.7 | | | | |
| 36 | 11.0 | | | | |
| 37 | 11.3 | | | | |
| 38 | 11.6 | | | | |
| 39 | 11.9 | | | | |
| 40 | 12.2 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 1019

**Date Started:** 10/24/08 **Drilling Contractor:** BART LONGYEAR **Page** 1 **of** 1

**Date Completed:** 10/24/08 **Driller:** JAMES ROBINSON **Survey Unit:** 2

**Logged By:** Rodney Clark **Equipment:** MINISONIC **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 0'-5' | | | 0'-2.5' - gr. sa. SILT (ML) moist, red (2.5YR 5/6), little organics, slightly plastic FILL MATERIAL |
| 1 | 0.3 | | FILL | ML | |
| 2 | 0.6 | 4'/5' | | | |
| 3 | 0.9 | | | SW | 2.5'-6.5' si. gr f-m SAND (SW/SM), wet, moist, yellowish brown (10YR 5/4), gr is A-SR granite & gneiss / FILL material, some MICA |
| 4 | 1.2 | | | SM | |
| 5 | 1.5 | | | ▽ | |
| | | 5'-10' | | | |
| 6 | 1.8 | | | | 6.5'-19.5' si. gr f-c SAND, wet, yellowish brown, gr is SR-WR alluvium & up to 2" diameter, mostly f-c quartz sand |
| 7 | 2.1 | 4'/5' | Alluvial | SW | |
| 8 | 2.4 | | | | |
| 9 | 2.7 | | | | |
| 10 | 3.1 | 10'-15' | | | |
| 11 | 3.4 | | | | |
| 12 | 3.7 | 5'/5' | | | |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | 15'-20' | | | |
| 16 | 4.9 | | | | |
| 17 | 5.2 | 5'/5' | | | |
| 18 | 5.5 | | | | 19.5'-20' (observed in drill bit) si. cl. GRAVEL (GW), moist, light gray (GLEY 1 7/N/1), gr is dolostone / ROME FM. |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | Residuum | GW | Terminate Boring @ 20.0' |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 1020

**Date Started:** 10/24/08 **Drilling Contractor:** BART LONGYEAR **Page** 1 **of** 1

**Date Completed:** 10/24/08 **Driller:** JAMES ROBINSON **Survey Unit:** 2

**Logged By:** Rodney Clark **Equipment:** MINISONIC **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | 0.3 | 0'-5' | Fill | ML | 0'-5' gr. sa. cl. SILT (ML), moist, red (2.5YR 5/6) little some organics (roots, sticks), gr. is A-SR slightly plastic, some f. sand, some clay |
| 2 | 0.6 | 4'/5' | | | |
| 3 | 0.9 | | | | |
| 4 | 1.2 | | | | |
| 5 | 1.5 | 5'-10' | | ▽ | 5'-18.5' cl. gr. si. f-c SAND (SW) wet. yellowish brown (10YR 5/6) gr. is SR-WR alluvium, mostly m-c grained quartz sand |
| 6 | 1.8 | | | | |
| 7 | 2.1 | 1.5'/5' | Alluvial | SW | |
| 8 | 2.4 | | | | |
| 9 | 2.7 | | | | |
| 10 | 3.1 | 10'-15' | | | |
| 11 | 3.4 | | | | |
| 12 | 3.7 | 4'/5' | | | |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | 15'-20' | | | |
| 16 | 4.9 | | | | |
| 17 | 5.2 | 5'/5' | | | |
| 18 | 5.5 | | | | |
| 19 | 5.8 | | Residual Bedrock | GW | 18.5'-20' cl. si. GRAVEL (GW) moist, dry. light gray (GLEY 1 7/N/1). gravel is laminated dolostone/Rome Formation |
| 20 | 6.1 | | | | Terminate Boring @ 20.0' |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 1021

**Date Started:** 10/24/08 **Drilling Contractor:** BOART LONGYEAR **Page** 1 **of** 1

**Date Completed:** 10/24/08 **Driller:** JAMES ROBINSON **Survey Unit:** 2

**Logged By:** Rodney Clark **Equipment:** MINISONIC **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 0-5' | | | |
| 1 | 0.3 | | Fill | ML | 0-5' dk gr sa SILT (ML) moist, red (2.5YR 5/6) |
| 2 | 0.6 | 4/5' | | | some organics, trace of plastic (man-made) debris FILL material, gr is A. a little |
| 3 | 0.9 | | | | |
| 4 | 1.2 | | | | |
| 5 | 1.5 | | | ▽ | |
| | | 5'-10' | | | 5'-18.5' dk gr si f-c SAND (SW), wet |
| 6 | 1.8 | | Alluvial | SW | yellowish brown (10YR 5/6). some gr is SR-WR |
| 7 | 2.1 | 4/5' | | | alluvium, mostly m-c quartz sand |
| 8 | 2.4 | | | | |
| 9 | 2.7 | | | | |
| 10 | 3.1 | | | | |
| | | 10'-15' | | | |
| 11 | 3.4 | | | | |
| 12 | 3.7 | 4/5' | | | |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | | | | |
| | | 15'-20' | | | |
| 16 | 4.9 | | | | |
| 17 | 5.2 | 4/5' | | | |
| 18 | 5.5 | | | | |
| 19 | 5.8 | | Residuum/ Bedrock | GW | 18.5' si cl GRAVEL (GW) moist-dry light gray (GLEY 1 7/N) gr is dolostone Rone Fm |
| 20 | 6.1 | | | | Terminate Boring @ 20.0' |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 2020

**Date Started:** 10/23/08 **Drilling Contractor:** BOART LONGYEAR **Page** 1 **of** 1

**Date Completed:** 10/23/08 **Driller:** JAMES ROBINSON **Survey Unit:** 2

**Logged By:** Rodney Clark **Equipment:** MINISONIC **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 0'-5' | Fill | | |
| 1 | 0.3 | | Alluvial | SW | 0'-15' si. gr f-c SAND (SW) wet yellowish brown (10YR 5/6) gr is SR-WR alluvium, mostly quartz sand. |
| 2 | 0.6 | 5'/5' | | | |
| 3 | 0.9 | | | | |
| 4 | 1.2 | | | | |
| 5 | 1.5 | | | ▽ | |
| | | 5'-10' | | | |
| 6 | 1.8 | | | | |
| 7 | 2.1 | 5'/5' | | | |
| 8 | 2.4 | | | | |
| 9 | 2.7 | | | | |
| 10 | 3.1 | | | | |
| | | 10'-15' | | | |
| 11 | 3.4 | | | | |
| 12 | 3.7 | 5'/5' | | | |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | | | 15'-16.5' |
| 15 | 4.6 | | | | si. gravel, dry (GW) light gray (GLEY 1 7/N/L) gr is dolostone (Rome Fm.) |
| | | 15'-16.5' | | | |
| 16 | 4.9 | 1.5'/1.5' | Bedrock | GW | |
| | | | | | Terminate Boring @ 16.5' |
| 17 | 5.2 | | | | |
| 18 | 5.5 | | | | |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | |

**Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered**

**Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)**

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# SOIL BORING RECORD

## NFS Subsurface Soil Characterization and Final Status Survey

## MACTEC Project 9120-07-1235

**BORING NO.** 2021

**Date Started:** 10/23/08 **Drilling Contractor:** BOART LONGYEAR **Page** 1 **of** 1

**Date Completed:** 10/23/08 **Driller:** JAMES ROBINSON **Survey Unit:** 2

**Logged By:** Rodney Clark **Equipment:** MINISON IC **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | 0.3 | 0'-5' | Alluvial | SW | 0'-13.5' si. gr. f-c SAND, wet (SW), yellowish brown (10YR 5/6), gr. is SR-WR alluvium mostly quartz sand |
| 2 | 0.6 | 5'/5' | | | |
| 3 | 0.9 | | | | |
| 4 | 1.2 | | | | |
| 5 | 1.5 | 5'-10' | | | |
| 6 | 1.8 | | | | |
| 7 | 2.1 | 5'/5' | | | |
| 8 | 2.4 | | | | |
| 9 | 2.7 | | | | |
| 10 | 3.1 | 10'-15' | | | |
| 11 | 3.4 | | | | |
| 12 | 3.7 | 5'/5' | | | |
| 13 | 4.0 | | | | 13.5'-15' |
| 14 | 4.3 | | Residuum | GW | d. si. GRAVEL, moist-wet, white (5Y 8/1) gr. Eddystone/Weathered Rock Fm. |
| 15 | 4.6 | | | | terminate Boring @ 15.0' |
| 16 | 4.9 | | | | |
| 17 | 5.2 | | | | |
| 18 | 5.5 | | | | |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# Appendix D.2

# Soil Boring Logs, Survey Unit 8

# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0145

**Date Started:** 9/6/07 **Drilling Contractor:** BOART LONGYEAR **Page** 1 **of** 1

**Date Completed:** 9/6/07 **Driller:** JAMES ROBINSON **Survey Unit:** 8

**Logged By:** Rodney Clark **Equipment:** MiniSonic #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | 0.3 | 0'-5' | Alluvial | SW | (0'-4') si, gr, f-c SAND, moist, pale brown (10YR 6/3) gravel is ~~SR~~ RG 9/6/07 f-c & SR-WR |
| 2 | 0.6 | | | | |
| 3 | 0.9 | 100% | | | |
| 4 | 1.2 | | ▽ | | encountered water table @ appx. 4' bgs |
| 5 | 1.5 | | | | (4'-13') - SAA except brown (10YR 5/3) & wet |
| 6 | 1.8 | 5'-10' | | | |
| 7 | 2.1 | | | | |
| 8 | 2.4 | 100% | | | |
| 9 | 2.7 | | | | |
| 10 | 3.1 | | | | |
| 11 | 3.4 | 10'-15' | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | 100% | | | (13'-19.5') - SAA except yellowish brown 10YR 5/6 |
| 14 | 4.3 | | | | |
| 15 | 4.6 | | | | |
| 16 | 4.9 | 15'-20' | | | |
| 17 | 5.2 | | | | |
| 18 | 5.5 | 100% | | | |
| 19 | 5.8 | | | | 19.5'-20' gravelly SILT, wet, brownish yellow (10YR 6/6) gravel is ~~SR-WR~~ angular, shale (Rome Fm.) |
| 20 | 6.1 | | Residuum | ML | Terminate Boring @ 20' |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0146

| | | | | | |
|---|---|---|---|---|---|
| **Date Started:** | 9/6/07 | **Drilling Contractor:** | Boart Longyear | **Page** 1 | **of** 1 |
| **Date Completed:** | 9/6/07 | **Driller:** | James Robinson | **Survey Unit:** | 8 |
| **Logged By:** | Rodney Clark | **Equipment:** | MiniSonic #1402 | **Elevation:** | TBD |

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | 0.3 | 0'-5' | Alluvial | | 0'-8' si, gr, SAND, wet, very pale brown (10YR 7/3) gravel is SR-WR # f-c |
| 2 | 0.6 | 1.5'/5' | | SW | |
| 3 | 0.9 | | ↑ | | W.T. encountered @ 2'-5' |
| 4 | 1.2 | | ▽ | | |
| 5 | 1.5 | | ↓ DTD | | |
| 6 | 1.8 | 5'-10' | | | |
| 7 | 2.1 | | | | |
| 8 | 2.4 | 100% | | | 8'-10' si, f-c SAND, wet, olive-gray (5Y 5/2) micaceous, trace of gravel (SR-WR f-c mostly quartz SAND) |
| 9 | 2.7 | | | SM | |
| 10 | 3.1 | | | | |
| 11 | 3.4 | 10'-15' | | SW | 10'-19.5' si, gr, SAND - si, sa, GRAVEL, wet, yellowish brown (10YR 5/4-5/6) gravel is WR-SR # up to 2" diameter |
| 12 | 3.7 | | | | |
| 13 | 4.0 | 100% | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | | | | |
| 16 | 4.9 | 15'-20' | | | |
| 17 | 5.2 | 3.5'/5' | | | |
| 18 | 5.6 | | | | |
| 19 | 5.8 | | | | 19.5'-20' gravelly, SILT, wet, yellowish brown (10YR 5/6) gravel is angular, laminated, shale (Rome Formation) |
| 20 | 6.1 | | Residuum | ML | Terminate boring @ 20' |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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DTD = difficult to determine water table depth approx 1 meter above base

# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0147

**Date Started:** 9/6/07 **Drilling Contractor:** Bart Longyear **Page** 1 **of** 1

**Date Completed:** 9/6/07 **Driller:** James Robinson **Survey Unit:** 8

**Logged By:** Rodney Clark **Equipment:** Minisonic #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | 0.3 | 0'-5' | Alluvial | SW | 0'-4.8' si, gr, f-c SAND, moist-wet, very pale brown (10YR 7/3), gravel is f-c ≠ SA-WR |
| 2 | 0.6 | | | | |
| 3 | 0.9 | 100% | | | |
| 4 | 1.2 | | | | |
| 5 | 1.5 | | | SM | 4.8'-5' si, f-m SAND, moist, olive (gray 5Y 5/2) micaceos, mostly quartz sand |
| 6 | 1.8 | 5'-10' | | SM | 5'-6.5' si, gr, SAND, wet, very pale brown gravel is f-c ≠ SA-WR |
| 7 | 2.1 | | | | 6.5'-8.5' si, SAND, wet, very dark grayish brown (10YR 3/2) micaceos, trace of gravel, gravel is f-c ≠ SR-WR |
| 8 | 2.4 | 100% | | SM | |
| 9 | 2.7 | | | SW | 8.5'-16.5' si, gr, f-c SAND, wet, yellowish brown (10YR 5/6), gravel is f-c ≠ SA-WR |
| 10 | 3.1 | | | | |
| 11 | 3.4 | 10'-15' | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | 100% | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | | | | |
| 16 | 4.9 | 15'-20' | | | 16.5'-20' gravelly, SILT, wet, brownish yellow (10YR 6/6), gravel is angular laminated, Shale (Rome Formation) |
| 17 | 5.2 | 100% | | | |
| 18 | 5.5 | | Residuum | ML | |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | Terminate boring @ 20' |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0148

**Date Started:** 9/6/07 **Drilling Contractor:** Boart Longyear **Page** 1 **of** 1

**Date Completed:** 9/6/07 **Driller:** James Robinson **Survey Unit:** 8

**Logged By:** Rodney Clark **Equipment:** Minisonic #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | 0.3 | 0'-5' | Alluvial | SW | 0'-2' gr, sa, SILT, moist, very dark grayish brown (10YR 3/2) organics observed (roots) |
| 2 | 0.6 | | | | 2'-7' gr, SAND, moist, very pale brown (10YR 7/3), gravel is SR-WR & f-c |
| 3 | 0.9 | 100% | | | |
| 4 | 1.2 | | | | |
| 5 | 1.5 | | | | |
| 6 | 1.8 | 5'-10' | | | |
| 7 | 2.1 | | | | 7'-8' SAA except wet & light brownish gray (2.5Y 6/2) |
| 8 | 2.4 | | | | |
| 9 | 2.7 | 100% | | SM | 8'-10' si, SAND, moist, olive gray (5Y 4/2) micaceous, ~~trace of gravel~~ gravel f-c, SR-WR. |
| 10 | 3.1 | | ▽ | | |
| 11 | 3.4 | 10'-15' | | SW | 10'-14 si, gr, SAND (f-c) wet, olive gray gravel is SR-WR & f-c |
| 12 | 3.7 | 100% | | | |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | | | 14'-18' SAA except brownish yellow (10YR 6/6) |
| 15 | 4.6 | | | | |
| 16 | 4.9 | 15'-20' | | | |
| 17 | 5.2 | | | | |
| 18 | 5.5 | | | | 18'-19' si, sa, GRAVEL, wet, brownish yellow. |
| 19 | 5.8 | 100% | | GW | |
| 20 | 6.1 | | Residuum | GW | 19'-20' - si, GRAVEL, moist, very pale brown (10YR 7/3) gravel is angular Shale ROME FM. Terminate boring @ 20' |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0149

| | | | | | |
|---|---|---|---|---|---|
| **Date Started:** 9/6/07 | **Drilling Contractor:** BART LONGYEAR | **Page** 1 | **of** 1 | | |
| **Date Completed:** 9/6/07 | **Driller:** Jones Robinson | **Survey Unit:** 8 | | | |
| **Logged By:** Rodney Clark | **Equipment:** Mini 50 | **Elevation:** TBD | | | |

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | 0.3 | 0'-5' | Alluvial | SW | 0'-8' si, gr, SAND, brown (10YR 5/3), moist, gravel is f-c & SR-WR |
| 2 | 0.6 | 3'/5' | | | |
| 3 | 0.9 | | | | |
| 4 | 1.2 | | | | |
| 5 | 1.5 | | ▽ | | 5'-8' SAA except grayish brown (10YR 5/2) |
| 6 | 1.8 | 5'-10' | | | |
| 7 | 2.1 | | | | |
| 8 | 2.4 | 100% | | SW, GW | 8'-17' si, gr, f-c SAND to si, sa, GRAVEL wet, yellowish brown (10YR 5/6) gravel is f-c & SR to WR |
| 9 | 2.7 | | | | |
| 10 | 3.1 | 10'-15' | | | |
| 11 | 3.4 | | | | |
| 12 | 3.7 | 100% | | | |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | 15'-18' | | | |
| 16 | 4.9 | | | | |
| 17 | 5.2 | 100% | Residuum | ML | 17'-18' gravelly, SILT, wet, brownish yellow (10YR 6/8), grav is limestone/dolomite (angular) Rome Fm. |
| 18 | 5.5 | | | | |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | Terminate boring @ 18' |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0150

**Date Started:** 9/7/07 **Drilling Contractor:** Boart Longyear **Page** 1 **of** 1

**Date Completed:** 9/7/07 **Driller:** James Robinson **Survey Unit:** 8

**Logged By:** Rodney Clark **Equipment:** MiniSonic #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | 0.3 | 0'-5' | SW | | 0'-5' si, gr, SAND, moist, very pale brown (10YR 7/3), gravel is f-c, SR-WR |
| 2 | 0.6 | 100% | | | |
| 3 | 0.9 | | | | |
| 4 | 1.2 | | | | |
| 5 | 1.5 | | | | 5'-10' SAA except brown. |
| 6 | 1.8 | 5'-10' | | | B (wet at 7') |
| 7 | 2.1 | | ▽ | | |
| 8 | 2.4 | 100% | | | |
| 9 | 2.7 | | | | |
| 10 | 3.1 | | | | |
| 11 | 3.4 | 10'-15' | | | 11.5'-12.5' si, f SAND, wet, grayish brown (2.5Y 5/2) trace of gravels micaceous |
| 12 | 3.7 | | SM | | 12.5-19.8' si, gr, f SAND, wet, brownish yellow (10YR 6/6) gravel is f-c & SR to WR |
| 13 | 4.0 | 100% | SW | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | | | | |
| 16 | 4.9 | 15'-20' | | | |
| 17 | 5.2 | | | | |
| 18 | 5.5 | 4'/5' | | | |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | ML | Residuum | 19.8'-20' gravelly SILT, wet, brownish yellow (10YR 6/8) gravel is angular, laminated, Shale (Rome Fm) |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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NFS File Classification: DCM-23-05-02

# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0151

Date Started: 9/7/07 Drilling Contractor: BOART LONGYEAR Page 1 of 1

Date Completed: 9/7/07 Driller: James Robinson Survey Unit: 8

Logged By: Rodney Clark Equipment: Minisonic #1402 Elevation: TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | 0.3 | 0'-5' | SW RC 9/7/07 | SW | 0'-1.5' si, gr, f-m SAND, moist, brown gravel is f-m # SR-WR, organics observed |
| 2 | 0.6 | | | | 1.5-5' si, gr, f-c SAND, moist, very pale brown (10YR 7/3) gravel is f-c # SR to WR |
| 3 | 0.9 | 100% | SW RC 9/7/07 | | |
| 4 | 1.2 | | Alluvial | | |
| 5 | 1.5 | | | | |
| 6 | 1.8 | 5'-10' | | | |
| 7 | 2.1 | | | | 7-9' SAA except wet, olive gray (5Y 4/2) # micaceous |
| 8 | 2.4 | 4'/5' | | | |
| 9 | 2.7 | | | | 9-14.5' si, gr, f-c SAND, wet, yellowish brown (10YR 5/4), gravel is f-c & SR-WR |
| 10 | 3.1 | | | | |
| 11 | 3.4 | 10'-15' | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | 100% | | | |
| 14 | 4.3 | | | | 14.5'-15' gravelly, SILT, wet, brownish yellow (10YR 6/6), gravel is angular, laminated, Shale (Rome Fm) |
| 15 | 4.6 | | RESIDUUM | ML | |
| 16 | 4.9 | | | | Terminate Boring @ 15' |
| 17 | 5.2 | | | | |
| 18 | 5.5 | | | | |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0152

**Date Started:** 9/1/07 **Drilling Contractor:** BOART LONGYEAR **Page** 1 **of** 1

**Date Completed:** 9/7/07 **Driller:** JAMES ROBINSON **Survey Unit:** 8

**Logged By:** Rodney Clark **Equipment:** MINISONIC # 4102 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | 0.3 | 0'-5' | Top Soil | ML | 0'-2' sa, SILT, moist, very pale brown, (10 YR 7/4) trace of SR-WR gravel, low plasticity, organics (roots) observed |
| 2 | 0.6 | | | | |
| 3 | 0.9 | 4'/5' | Alluvial | SW | 2'-6' gra, si, f-c SAND, moist, pale brown (10YR 6/3) gravel is f-c & SR-WR |
| 4 | 1.2 | | | | |
| 5 | 1.5 | | | | |
| 6 | 1.8 | 5'-10' | RE 9/7/07 | | 6'-8' si, f-m SAND, moist to wet, brown (10YR 5/3) micaceous, trace of gravel |
| 7 | 2.1 | | | SM | |
| 8 | 2.4 | 100% | | | 8'-10' si, gr, f-c SAND, wet, pale brown (10YR 6/3) gravel is f-c & SR to WR mostly m quartz sand |
| 9 | 2.7 | | | SW | |
| 10 | 3.1 | 10'-15' | | | |
| 11 | 3.4 | | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | 100% | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | 15'-17.5' | | | 15.5'-17.3' si, sa, GRAVEL, wet yellowish brown (10YR 5/6) gravel is SR-WR & f-c |
| 16 | 4.9 | 100% | | GW | 17.3'-17.5' gravelly, SILT, moist, light bluish gray (5GY 7/1) gravel is angular, dolostone |
| 17 | 5.2 | | Residuum | ML | Terminate Boring @ 17.5' |
| 18 | 5.5 | | | | |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0153

| | | | |
|---|---|---|---|
| **Date Started:** 9/7/07 | **Drilling Contractor:** BOART LONGYEAR | **Page** 1 | **of** 1 |
| **Date Completed:** 9/7/07 | **Driller:** T. ROBINSON | **Survey Unit:** 8 | |
| **Logged By:** Rodney Clark | **Equipment:** Minisonic #11102 | **Elevation:** TBD | |

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | 0.3 | 0'-5' | Alluvial | SW | 0'-2' si, gr, f-m SAND, moist, brown (10YR 4/3) gravel is f-c, WR, organics observed |
| 2 | 0.6 | | | | 2'-7' si, gr, f-c, SAND, very pale brown (10YR 7/4), gravel is SR-WR & f-c |
| 3 | 0.9 | 100% | | | |
| 4 | 1.2 | | | | |
| 5 | 1.5 | 5'-10' | | | color change @ 5' to dark grayish brown (10YR 3/2) |
| 6 | 1.8 | | | | |
| 7 | 2.1 | 100% | ▽ | | 7'-8.5' si, f-c SAND, (olive gray 5Y 4/2) wet, micaceous, mostly quartz SAND |
| 8 | 2.4 | | | SM | |
| 9 | 2.7 | | | SW | 8.5'-10' si, gr, SAND, light yellowish brown (10YR 6/4) wet, gravel is f-c & SR-WR |
| 10 | 3.1 | | | | |
| 11 | 3.4 | 10'-15' | | | |
| 12 | 3.7 | | | | 10' SAA except color is yellowish brown (10YR 5/6) |
| 13 | 4.0 | 100% | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | | | | |
| 16 | 4.9 | 15'-16.5' 100% | Residuum | ML | 16.0'-16.5' gravelly, SILT, light bluish gray (GLEY 2 7/1), gravel is limey, mudstone & dolostone (Rome Formation) |
| 17 | 5.2 | | | | |
| 18 | 5.6 | | | | Terminate Boring @ 16.5' |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0154

| | | | | | |
|---|---|---|---|---|---|
| **Date Started:** | 9/7/2007 | **Drilling Contractor:** | BOART LONGYEAR | **Page** 1 | **of** 1 |
| **Date Completed:** | 9/7/2007 | **Driller:** | JAMES ROBINSON | **Survey Unit:** | 8 |
| **Logged By:** | Rodney Clark | **Equipment:** | MINISONIC #1402 | **Elevation:** | TBD |

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | 0.3 | 0'-5' | FILL | SW | 0'-2' gr, si, SAND, moist, brown (7.5YR 4/3) organics observed (roots) gravel is A-SR |
| 2 | 0.6 | | | | |
| 3 | 0.9 | 4.5/5' | Alluvial | SW | 2'-5' si, gr, f-c SAND, moist, very pale brown (10YR 7/4) gravel is SR-WR & f-c |
| 4 | 1.2 | | | | |
| 5 | 1.5 | | | | 5'-7 SAA except brown (10YR 7/3) |
| 6 | 1.8 | 5'-10' | | | |
| 7 | 2.1 | 100% | ▽ | | |
| 8 | 2.4 | | | | 7'-10' SAA except wet & observed localized lenses of si, SAND |
| 9 | 2.7 | | | | |
| 10 | 3.1 | 10'-15' | | SW GW | 10'-17' si gr, f-c SAND, wet, yellowish brown (10YR 5/6), gravel is f-c & SR to WR w/ lenses of si, sa, GRAVEL |
| 11 | 3.4 | | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | 100% | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | 15'-17' | | | |
| 16 | 4.9 | | | | |
| 17 | 5.2 | 100% | ↑ Residuum | | 17' - gravelly SILT, moist, light bluish gray (GLEY 2 7/1), gravel is angular dolomite Rome Formation |
| 18 | 5.5 | | | | Note: observed Rome Fm. in cuttings in drill bit. |
| 19 | 5.8 | | | | Terminate Boring @ 17' |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0155

| | | | |
|---|---|---|---|
| **Date Started:** 9/12/07 | **Drilling Contractor:** Bart Longyear | **Page** 1 | **of** 1 |
| **Date Completed:** 9/12/07 | **Driller:** J. Robinson | **Survey Unit:** 8 | |
| **Logged By:** S. Kelly | **Equipment:** mini Sonic #1402 | **Elevation:** TBD | |

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 0-5 | Alluvial | SW | 0-8 gr SAND, dry to moist v. pale |
| 1 | 0.3 | 75% | | | brown (10YR 7/3); gravel is angular to |
| | | | | | SA, f-c |
| 2 | 0.6 | | | | |
| 3 | 0.9 | | | | |
| 4 | 1.2 | | | | |
| 5 | 1.5 | 5-10 | | | |
| 6 | 1.8 | 100% | | | |
| 7 | 2.1 | | ! | | |
| 8 | 2.4 | | | SW | 8-13 gr. SAND, wet, brown (10YR 4/3) gravel |
| 9 | 2.7 | | | | is f-c SA-WR |
| 10 | 3.1 | 10-15 | | | |
| 11 | 3.4 | 120% | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | | | SW- | 13-19 si. gr. SAND to si. sa. GRAVEL, wet, |
| 14 | 4.3 | | | GW | yellowish brown (10YR 5/8) |
| 15 | 4.6 | 15-20 | | | |
| 16 | 4.9 | 100% | | | |
| 17 | 5.2 | | | | |
| 18 | 5.5 | | | | |
| 19 | 5.8 | | Residuum | ML- | 19-20 weathered Rome; gr. SILT to si. GRAVEL, moist |
| 20 | 6.1 | | | GM | yellowish brown (10YR 5/4) to white (dry rock) gravel |
| | | | | | boring terminated @ 20' is angular dolomite |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0156

| | | | | | |
|---|---|---|---|---|---|
| **Date Started:** | 9/7/2007 | **Drilling Contractor:** | BOART LONGYEAR | **Page** 1 | **of** 1 |
| **Date Completed:** | 9/7/2007 | **Driller:** | JAMES ROBINSON | **Survey Unit:** | 8 |
| **Logged By:** | Rodney Clark | **Equipment:** | Minisonic #1402 | **Elevation:** | TBD |

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | 0.3 | 0'-5' | Alluvial | SW | 0'-7' si, gr, f-c SAND, moist, brownish yellow (10YR 6/6) gravel is f-c & SR to WR |
| 2 | 0.6 | 1.5'/5' | | | |
| 3 | 0.9 | | | | |
| 4 | 1.2 | | | | |
| 5 | 1.5 | | | | |
| 6 | 1.8 | 5'-10' | | | |
| 7 | 2.1 | | ▽ | | 7'-15' SAA except brown (10YR 5/3) & wet |
| 8 | 2.4 | 3'/5' | | | |
| 9 | 2.7 | | | | |
| 10 | 3.1 | | | | |
| 11 | 3.4 | 10'-15' | | | |
| 12 | 3.7 | 100% | | | |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | | | | 15'-18', si, f-c sa GRAVEL, wet, brownish yellow (10YR 6/6) gravel is f-c & SR to WR |
| 16 | 4.9 | 15'-18' | | GW | |
| 17 | 5.2 | 100% | | | 17.5'-18' gravelly, SILT, moist, light bluish gray (GLEY 2 7/1) gravel is angular, dolostone |
| 18 | 5.5 | | RESIDUUM | | Terminate Boring @ 18' |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0157

**Date Started:** 9/10/2007 **Drilling Contractor:** BOART LONGYEAR **Page** 1 **of** 1

**Date Completed:** 9/10/2007 **Driller:** JAMES ROBINSON **Survey Unit:** 8

**Logged By:** Rodney Clark **Equipment:** MINI SONIC #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | 0.3 | 0'-5' | FILL/Topsoil | ML | 0'-2' sandy SILT, moist, dark grayish brown (10YR 4/2) organics (roots) observed |
| 2 | 0.6 | 100% | FILL | SW | 2'-3' si, gr, SAND, moist, very pale brown (10YR 7/3) gravel is f-c & SR-WR |
| 3 | 0.9 | | | | |
| 4 | 1.2 | | | | 3'-5' si, gr, SAND, moist, grayish brown (10YR 5/2) gravel is f-c & SR-WR |
| 5 | 1.5 | | | | |
| 6 | 1.8 | 5'-10' | Alluvial | | |
| 7 | 2.1 | | ▽ | | 5'-10' SAA except light brownish gray (10YR 6/2) |
| 8 | 2.4 | 100% | | | wet @ 7' (water table) |
| 9 | 2.7 | | | | |
| 10 | 3.1 | | | | |
| 11 | 3.4 | 10'-15' | | SW-GW | 10'-16.5' si, gr, SAND to si, sa, GRAVEL wet, yellowish brown (10YR 5/6) gravel is f-c SR to WR |
| 12 | 3.7 | | | | |
| 13 | 4.0 | 100% | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | | | | |
| 16 | 4.9 | 15'-17' 100% | | | 16.5'-17' sa, GRAVEL, dry, light bluish gray (GLEY 2 7/1) gravel is angular dolostone (Rome Formation) |
| 17 | 5.2 | | Residuum | GW | |
| 18 | 5.5 | | | | Terminate Boring @ 17' |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0158

**Date Started:** 9/11/07 **Drilling Contractor:** BOART LONGYEAR **Page** 1 **of** 1

**Date Completed:** 9/11/07 **Driller:** JAMES ROBINSON **Survey Unit:** 8

**Logged By:** Rodney Clark **Equipment:** MINISONIC #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | 0.3 | 0'-5' | FILL | SM | 0-1.5 si, f-m, SAND, moist, brownish yellow (10YR 6/6) |
| 2 | 0.6 | | Topsoil/Fill | ML | 1.5 - 2.5 f-sa, SILT, moist, gray (7.5Y 5/1), low plasticity, roots observed |
| 3 | 0.9 | 100% | | SW | |
| 4 | 1.2 | | Alluvial | | 2.5'-5' si, gr, f-c SAND, moist, very pale brown (10YR 7/4) gravel is f-c & SR-WR |
| 5 | 1.5 | | ▽ | | |
| 6 | 1.8 | 5'-10' | | | 5'-13' SAA except pale brown & wet |
| 7 | 2.1 | 3'/5' | | | |
| 8 | 2.4 | | | | |
| 9 | 2.7 | | | | |
| 10 | 3.1 | | | | |
| 11 | 3.4 | 10'-15' | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | 100% | | | 13'-16' si, gr, f-c SAND to si, f-c sa, GRAVEL, wet, yellowish brown (10YR 5/6) gravel is f-c & SR-WR |
| 14 | 4.3 | | | | |
| 15 | 4.6 | | | | |
| 16 | 4.9 | 15'-17 | | | 16'-17' gravelly SILT, wet, brownish yellow, gravel is angular (light bluish gray) dolostone |
| 17 | 5.2 | 100% | Residuum | ML | |
| 18 | 5.5 | | | | Terminate Boring @ 17' |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | |

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Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0159

| | | | |
|---|---|---|---|
| **Date Started:** 9/12/07 | **Drilling Contractor:** Bartlmayear | **Page** 1 **of** 1 | |
| **Date Completed:** 9/12/07 | **Driller:** T. Robinson | **Survey Unit:** 8 | |
| **Logged By:** S. Kelly | **Equipment:** mini Sonic #1902 | **Elevation:** TBD | |

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 0-5 90% | Fill / topsoil | SW | 0-3: gr. SAND, dry, brown (7.5YR 5/3) w/ organics (grass, roots) gravel is angular to SA, f-m |
| 1 | 0.3 | | | | |
| 2 | 0.6 | | | | |
| 3 | 0.9 | | Alluvial | SW | 3-7 gr. SAND, dry, v. pale brown (10YR 7/3) gravel is f-m angular to SR |
| 4 | 1.2 | | | | |
| 5 | 1.5 | 5-10 75% | | | |
| 6 | 1.8 | | | | |
| 7 | 2.1 | | FP | SM | 7-7.5 si. f-m SAND, wet, gray (7.5YR 5/1) to black w/ some organics (fine roots), trace f-m SA-SWR gravel |
| 8 | 2.4 | | Alluvial | SW-GW | 7.5-18.5 si. gr. SAND to si. sa. GRAVEL, wet / saturated, gray (10YR 5/1) to grayish brown (10YR 5/2); gravel is f-c SA to WR |
| 9 | 2.7 | | | | |
| 10 | 3.1 | 10-15 100% | | | |
| 11 | 3.4 | | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | 15-19.5 100% | | | |
| 16 | 4.9 | | | | |
| 17 | 5.2 | | | | |
| 18 | 5.5 | | | | 18.5-19.5 |
| 19 | 5.8 | | Residuum | ML-GM | ~~weath~~ weathered Rome: gr. SILT to si. GRAVEL, moist, yellowish brown (10YR 5/8) & lt. gray (GLEY1 7/N) |
| 20 | 6.1 | | | | Boring terminated @ 19.5' / gravel is angular dolomite |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0160

**Date Started:** 9/12/07 **Drilling Contractor:** Boart Longyear **Page** 1 **of** 1

**Date Completed:** 9/12/07 **Driller:** J. Robinson **Survey Unit:** 8

**Logged By:** S. Kelly **Equipment:** mini Sonic #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 0-5 | FILL/ | SW | 0-2 gr. SAND, dry, brown (10YR 4/3), with |
| 1 | 0.3 | 100% | topsoil | | organics (fine roots) gravel is angular to SA, f-m |
| 2 | 0.6 | | Alluvial | SW | 2-3.5 gr. SAND, dry, v. pale brown (10YR 7/3) gravel |
| 3 | 0.9 | | | | is f-c, angular to SR |
| 4 | 1.2 | | FD | SM | 3.5-4 si. cl. f-m SAND, v. moist, dk gray |
| | | | Alluvial | SW | 10YR 4/1 |
| 5 | 1.5 | | | | 4-9 si. gr. SAND, moist to wet, gray (10YR 5/1) |
| | | 5-10 | | | gravel is f-c SA to WR |
| 6 | 1.8 | 100% | | | |
| 7 | 2.1 | | | | |
| 8 | 2.4 | | | | |
| 9 | 2.7 | | | | |
| | | | | SW | 9-10 micaceous gr. SAND, wet, dk gray |
| 10 | 3.1 | | | | (GLEY 1 4/N) |
| | | 10-15 | | SW-GW | 10-18 si. gr. SAND to si. sa GRAVEL wet/ |
| 11 | 3.4 | | | | saturated, yellowish brown (10YR 5/8), gravel |
| | | | | | is f-c, SA to WR |
| 12 | 3.7 | | | | |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | | | | |
| | | 15-19.5 | | | |
| 16 | 4.9 | 100% | | | |
| 17 | 5.2 | | | | |
| 18 | 5.5 | | Residuum | GW | 18-19.5 weathered Rock: si. GRAVEL, moist to |
| 19 | 5.8 | | | | dry yellowish brown (10YR 5/8) to lt. gray (GLEY 1 7/N) |
| | | | | | gravel is angular dolomite |
| 20 | 6.1 | | | | boring terminated @ 19.5' |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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NFS File Classification: DCM-23-05-02

# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0161

**Date Started:** 9/10/2007 **Drilling Contractor:** BOART LONGYEAR **Page** 1 **of** 1

**Date Completed:** 9/10/2007 **Driller:** JAMES ROBINSON **Survey Unit:** 8

**Logged By:** Rodney Clark **Equipment:** MiniSonic #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | 0.3 | 0'-5' | FILL/ TOPSOIL | ML | 0'-3.5' gr, sa, SILT, moist, dark grayish brown (10YR 4/2) organic, (roots) obseded, gravel is angular - VR |
| 2 | 0.6 | | | | |
| 3 | 0.9 | 4.5'/5 | | | 3.5'-7' si, gr, f-c SAND, moist, light brownish gray (10YR 6/2) gravel is f-c A-SR |
| 4 | 1.2 | | Alluvial | SW | |
| 5 | 1.5 | | | | |
| 6 | 1.8 | 5'-10' | | | Recovered lower part of 5'-10 interval |
| 7 | 2.1 | | ↑ ▽ ↓ | | water table estimated @ 7' BGS |
| 8 | 2.4 | 2'/5' | | SW-GW | 7'-14' si, gr, f-c, SAND to si, sa GRAVEL wet, light brownish gray, gravel is SA-WR |
| 9 | 2.7 | | | | |
| 10 | 3.1 | | | | |
| 11 | 3.4 | 10'-15' | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | 100% | | | |
| 14 | 4.3 | | | | 14'-16.5' SAA except yellowish brown (10YR 5/6) |
| 15 | 4.6 | | | | |
| 16 | 4.9 | 15'-17' 100% | | | 16.5'-17' gr, SILT, wet, yellowish red (5YR 5/6) gravel is angular, light bluish gray (GLEY 2 7/1) laminated, dolostone (Rome Formation) |
| 17 | 5.2 | | RESIDUUM | ML | |
| 18 | 5.5 | | | | |
| 19 | 5.8 | | | | Terminate Boring @ 17' |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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NFS File Classification: DCM-23-05-02

# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0162

**Date Started:** 9/11/07 **Drilling Contractor:** BOART LONGYEAR **Page** 1 **of** 1

**Date Completed:** 9/11/07 **Driller:** JAMES ROBINSON **Survey Unit:** 8

**Logged By:** RODNEY CLARK **Equipment:** MINISONIC #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | | Fill/Topsoil | ML | 0'-0.5' fmsa, SILT, moist, brown (10YR 5/3) |
| 1 | 0.3 | 0-5' | | SW | trace of organics observed |
| 2 | 0.6 | | FILL | | 0.5'-4' si, f-c gr f-c SAND, moist, light brownish gray (10YR 6/2) gravel is SR & WR |
| 3 | 0.9 | 4'/5' | | | |
| 4 | 1.2 | | | | 4'-5' SAA except light yellowish brown (10YR 6/4) |
| 5 | 1.5 | 5'-10' | Alluvial | | |
| 6 | 1.8 | | ▽ | | 5'-13' SAA except pale brown (10YR 6/3) & wet |
| 7 | 2.1 | 100% | | | |
| 8 | 2.4 | | | | |
| 9 | 2.7 | | | | |
| 10 | 3.1 | | | | |
| 11 | 3.4 | 10'-15' | | | 13'-15.5' SAA except brownish yellow (10YR 6/6) |
| 12 | 3.7 | | | | |
| 13 | 4.0 | 100% | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | 15'-16' | | | 15.5'-16' si, GRAVEL, dry, light bluish gray (GLEY 2 7/5B) Angular, dolostone (Bone Formation) |
| 16 | 4.9 | 100% | Residuum | GW | |
| 17 | 5.2 | | | | Terminate Boring @ 16' |
| 18 | 5.5 | | | | |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0163

| | | | | | |
|---|---|---|---|---|---|
| **Date Started:** | 9/20/2007 | **Drilling Contractor:** | BOART LONGYEAR | **Page** 1 | **of** 1 |
| **Date Completed:** | 9/20/2007 | **Driller:** | JAMES ROBINSON | **Survey Unit:** | 8 |
| **Logged By:** | Rodney Clark | **Equipment:** | MINISONIC #1402 | **Elevation:** | TBD |

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | | | ML | 0'-0.5' gr, sa, SILT, moist, very dark grayish brown (10YR 3/2) |
| 1 | 0.3 | 0'-5' | FILL | SW | gr is A-SR, organics and roots observed<br>0.5-4' si, gr, f-c SAND, moist, olive yellow (2.5Y 6/6) |
| 2 | 0.6 | | | | mostly m-f SAND, organics observed |
| 3 | 0.9 | 4.5'/5' | | | |
| 4 | 1.2 | | | | 4'-14' gr, si, f-c SAND, moist-wet, very pale brown |
| 5 | 1.5 | | Alluvial | | light yellow brown (10YR 7/4 & 6/4)<br>gravel is SR-WR, to f-c |
| 6 | 1.8 | 5'-10' | | | |
| 7 | 2.1 | | | | |
| 8 | 2.4 | 4'/5' | | | |
| 9 | 2.7 | | | | |
| 10 | 3.1 | | | | |
| 11 | 3.4 | 10'-15' | | | |
| 12 | 3.7 | 100% | | | |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | | | 14'-18.5' si, gr, f-c SAND, wet, yellowish brown (10YR 5/8) gr is SR-WR |
| 15 | 4.6 | | | SW-GW | also si, sa, GRAVEL |
| 16 | 4.9 | 15'-19.5' | | | |
| 17 | 5.2 | | | | |
| 18 | 5.5 | 100% | | | 18.5'-19.5' sa, GRAVEL, dry, light bluish gray (GLEY 2 7/10B), gravel is A dolostone (Rogue Formation) |
| 19 | 5.8 | | Bedrock | GW | |
| 20 | 6.1 | | | | Terminate Boring @ 19.5' |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0164

| | | | | | |
|---|---|---|---|---|---|
| **Date Started:** 9/13/07 | **Drilling Contractor:** Boart Longyear | **Page** 1 of 1 |
| **Date Completed:** 9/13/07 | **Driller:** J. Robinson | **Survey Unit:** 8 |
| **Logged By:** S. Kelly | **Equipment:** mini Sonic #1402 | **Elevation:** TBD |

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | 0.3 | 0-5 100% | Fill/ topsoil | SW | 0-2 gr. SAND, dry, brown (10YR5/3) gravel if f-c angular to SR |
| 2 | 0.6 | | Alluvial | SW | 2-4 gr. m-c SAND, moist yellowish brown (10YR 5/8) gravel is f-c, SA-SR |
| 3 | 0.9 | | | | |
| 4 | 1.2 | | | SW | 4-7 gr. SAND, moist, pale brown (10YR 6/3) gravel is f-m SA-SR |
| 5 | 1.5 | 5-10 ~~100%~~ 90% | | | |
| 6 | 1.8 | | 9/13/07 | | |
| 7 | 2.1 | | ▽ | SW-GW | 7-15 slightly si. gr. SAND to si. sa. GRAVEL, wet, gray (10YR 5/1) gravel is f-c SA to SR |
| 8 | 2.4 | | | | |
| 9 | 2.7 | | | | |
| 10 | 3.1 | 10-15 100% | | | |
| 11 | 3.4 | | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | 15-19 100% | | | 15-18.7 - same but yellowish brown |
| 16 | 4.9 | | | | |
| 17 | 5.2 | | | | |
| 18 | 5.5 | | | | |
| 19 | 5.8 | | Residuum | Lean | 18.7-19 weathered Rock si. GRAVEL, wet, yellowish brown (10YR 5/8) to lt. gray (GLEY1 7/N) (angular dolomite) |
| 20 | 6.1 | | | | boring terminated @ 19' |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0165

| | | | | | |
|---|---|---|---|---|---|
| **Date Started:** 9/12/07 | | **Drilling Contractor:** Boart Longyear | | **Page** 1 | **of** 1 |
| **Date Completed:** 9/12/07 | | **Driller:** J. Robinson | | **Survey Unit:** 8 | |
| **Logged By:** S. Kelly | | **Equipment:** minisonic #1402 | | **Elevation:** TBD | |

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 0-5 100% | Fill / topsoil | SW | 0-3 gr. SAND, dry, brown (10YR 4/3), gravel is f-m, angular to SR |
| 1 | 0.3 | | | | |
| 2 | 0.6 | | | | |
| 3 | 0.9 | | Alluvial | SW | 3-8 gr SAND, dry to moist, v. pale brown (10YR 7/4) gravel is f-c, angular to SR |
| 4 | 1.2 | | | | |
| 5 | 1.5 | 5-10 70% | | | |
| 6 | 1.8 | | | | |
| 7 | 2.1 | | | | |
| 8 | 2.4 | | | SW-GW | 8-15 si. gr. SAND to si. sa. GRAVEL, wet/saturated, gray (10YR 5/1) gravel is f-c, angular to |
| 9 | 2.7 | | | | |
| 10 | 3.1 | 10-15 100% | | | |
| 11 | 3.4 | | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | 15-19.5 100% | | SW-GW | 15-18.5 - si. gr. SAND to si. sa. GRAVEL, wet/saturated, yellowish brown (10YR 5/8) |
| 16 | 4.9 | | | | |
| 17 | 5.2 | | | | |
| 18 | 5.5 | | | | |
| 19 | 5.8 | | Residuum | GW | 18.5-19.5 weathered Rome: si. GRAVEL, moist/wet, lt. gray (GLEY 1 7/N) gravel is angular dolomite |
| 20 | 6.1 | | | | boring terminated @ 19.5' |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0166

**Date Started:** 9/10/2007 **Drilling Contractor:** BOART LONGYEAR **Page** 1 **of** 1

**Date Completed:** 9/10/2007 **Driller:** JAMES ROBINSON **Survey Unit:** 8

**Logged By:** Rodney M. Clark **Equipment:** MINISONIC #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | 0.3 | 0'-5' | Fill/topsoil | ML | 0'-2' gr, sa, SILT, moist, dark grayish brown (10YR 4/2) organics observed, gravel f-c ~ A-SA |
| 2 | 0.6 | 100% | FILL | SM | 2'-3' si, f-c SAND, moist, light brownish gray, (10YR 6/2) |
| 3 | 0.9 | | | | 3'-5.5' gr, Sa, SILT, moist, dark grayish brown, organics observed, fine sand 0'-2' SILT. |
| 4 | 1.2 | | | ML | |
| 5 | 1.5 | | | | |
| 6 | 1.8 | 5'-10' | Alluvial | SW | 5.5'-14' si, gr, fc SAND, wet, light brownish gray, gravel is f-c ~ SR to WR |
| 7 | 2.1 | | | | |
| 8 | 2.4 | 100% | | | |
| 9 | 2.7 | | | | |
| 10 | 3.1 | | | | |
| 11 | 3.4 | 10'-15' | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | 100% | | | |
| 14 | 4.3 | | | SW-GW | 14'-16.8, si, f-c Sa, GRAVEL, wet, yellowish brown (10YR 5/6) gravel is f-c ~ SR ~ WR |
| 15 | 4.6 | 15'-17' | | | |
| 16 | 4.9 | 100% | | | |
| 17 | 5.2 | | Residuum | GW | 16.8'-17' sandy, GRAVEL, dry, light olive gray (GLEY 2 7/1) angular, dolo stone (Rome Fm) |
| 18 | 5.5 | | | | Terminate Boring @ 17' |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0167

**Date Started:** 9/11/07 **Drilling Contractor:** BOART LONGYEAR **Page** 1 **of** 1

**Date Completed:** 9/11/07 **Driller:** JAMES ROBINSON **Survey Unit:** 8

**Logged By:** Rodney Clark **Equipment:** MINISONIC #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | 0.3 | 0'-5' | Topsoil/fill | ML | 0'-1' si, f-m SAND, moist, brown (10YR 4/3), roots observed, trace of angular gravel |
| 2 | 0.6 | 4.5'/5 | FILL | GW | 1'-3' si, f-c sandy GRAVEL, moist-wet, brown 10YR 4/3 |
| 3 | 0.9 | | | | 3'-12' si, gr, f-c SAND wet, light gray (10YR 7/1) gravel is f-c & SR-WR |
| 4 | 1.2 | | Alluvial | SW | |
| 5 | 1.5 | | | | |
| 6 | 1.8 | 5'-10' | | | |
| 7 | 2.1 | | | | |
| 8 | 2.4 | 100% | | | |
| 9 | 2.7 | | | | |
| 10 | 3.1 | | | | |
| 11 | 3.4 | 10'-15' | | | |
| 12 | 3.7 | | | | 12'-16' si, gr, f-c SAND to si, f-c sa GRAVEL wet, yellowish brown (10YR 5/6) gravel is f-c & SR to WR |
| 13 | 4.0 | 100% | | SW GW | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | 15'-17' | | | |
| 16 | 4.9 | 100% | BEDROCK RESIDUUM | GW | 16'-17' sa, GRAVEL, dry, light bluish gray (GLEY 2 7/1) gravel is angular, dolostone (Rome Formation) |
| 17 | 5.2 | | | | Terminate Boring @ 17' |
| 18 | 5.5 | | | | |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0168

| | | | | | |
|---|---|---|---|---|---|
| **Date Started:** | 9/11/07 | **Drilling Contractor:** | BOART LONGYEAR | **Page** 1 | **of** 1 |
| **Date Completed:** | 9/11/07 | **Driller:** | JAMES ROBINSON | **Survey Unit:** | 8 |
| **Logged By:** | RODNEY CLARK | **Equipment:** | MINISONIC #1402 | **Elevation:** | TBD |

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | 0.3 | 0'-5 | FILL | SW | 0'-1' gr, si, f-c SAND, moist, brown (10YR 4/3) roots observed, trace of angular gravel |
| 2 | 0.6 | 3'/5' | Alluvial | | 1'-5 si, gr, f-c SAND, moist to wet, very pale brown (10YR 7/4) gravel is SR-WR |
| 3 | 0.9 | | | | |
| 4 | 1.2 | | ▽ | ▽ | |
| 5 | 1.5 | 5'-10' | | | 5'-7' SAA except brown (10YR 5/3) & wet |
| 6 | 1.8 | | | | |
| 7 | 2.1 | 100% | | | 7'-9' SAA except gray (5Y 6/1) & micaceous |
| 8 | 2.4 | | | | |
| 9 | 2.7 | | | SW-GW | 9'-14.9 si, f-c, gr, & c SAND to si, f-c sa, GRAVEL, wet, yellowish brown (10YR 5/6) gravel is SR-WR |
| 10 | 3.1 | 10'-15' | | | |
| 11 | 3.4 | | | | |
| 12 | 3.7 | 100% | | | |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | | | 14.9'-15' gravelly, SILT, wet, brownish yellow (10YR 6/6), gravel is angular (light olive gray 5Y 6/2) dolostone Rome Formation |
| 15 | 4.6 | | RESIDUAL | ML | |
| 16 | 4.9 | | | | |
| 17 | 5.2 | | | | Terminate Boring @ 15' |
| 18 | 5.5 | | | | |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0169

**Date Started:** 9/20/07 **Drilling Contractor:** BOART LONGYEAR **Page** 1 **of** 1

**Date Completed:** 9/20/07 **Driller:** JAMES ROBINSON **Survey Unit:** 8

**Logged By:** Rodney Clark **Equipment:** MINISONIC #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | 0.3 | 0'-5' | | ML | 0'-2.5' gr, sa, SILT, moist, very dark grayish brown (10YR 3/2), gr is FA-SA, / roots observed |
| 2 | 0.6 | | | | |
| 3 | 0.9 | 3.5'/5' | Fill | SW | 2.5'-6' si, gr, f-c SAND, moist-wet, brownish yellow (10YR 6/6), gr is A-SR |
| 4 | 1.2 | | | | |
| 5 | 1.5 | | ▽ | | |
| 6 | 1.8 | 5'-10' | | | 6'-10' SAA except light brownish gray 10YR 6/2 & wet & gr is SR-WR |
| 7 | 2.1 | | Alluvial | | |
| 8 | 2.4 | 4'/5' | | | |
| 9 | 2.7 | | | | |
| 10 | 3.1 | | | | 10'-~~13.5~~ 13.5 si, gr, SAND, wet, pale brown (10YR 6/3) gr is SR-WR & f-c (Re 9/20/07) |
| 11 | 3.4 | 10'-15' | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | 100% | | | 13.5'-18.5' SAA except yellowish brown (10YR 5/6) |
| 14 | 4.3 | | | | |
| 15 | 4.6 | 15'-19.5' | | | |
| 16 | 4.9 | | | | |
| 17 | 5.2 | | | | |
| 18 | 5.5 | 100% | | | 18.5'-19.0' - gr SILT, wet, brownish yellow (10YR 6/8) gr is A. dolostone (Rome Formation) |
| 19 | 5.8 | | Residuum | ML | |
| | | | Bedrock | GW | 19.0'-19.5' sa, GRAVEL, clay, light bluish gray (GLEY 2 7/10B) gr is A. dolostone (Rome Formation). Terminate Boring @ 19.5' |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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NFS File Classification: DCM-23-05-02

# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0170

| | | | |
|---|---|---|---|
| **Date Started:** 9/20/2007 | **Drilling Contractor:** BOART LONGYEAR | **Page** 1 | **of** 1 |
| **Date Completed:** 9/20/2007 | **Driller:** James Robinson | **Survey Unit:** 8 | |
| **Logged By:** Rodney Clark | **Equipment:** MINISONIC #1402 | **Elevation:** TBD | |

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | 0.3 | 0'-5' | | ML | 0'-3.5' gr, sa, SILT, moist, very dark grayish brown (10YR 3/2) gr is A, roots observed |
| 2 | 0.6 | | Fill | | |
| 3 | 0.9 | 100% | | | |
| 4 | 1.2 | | | SW | 3.5'-5' si, gr, SAND, moist, very pale brown (10YR 7/4) gr is SA-WR |
| 5 | 1.5 | | ▽ | | 5'-14' |
| 6 | 1.8 | 5'-10' | Alluvial | | SAA except light yellowish brown (10YR 5/6) & wet |
| 7 | 2.1 | | | | |
| 8 | 2.4 | 100% | | | |
| 9 | 2.7 | | | | |
| 10 | 3.1 | | | | |
| 11 | 3.4 | 10'-15' | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | | | 14'-17' si, f-c sa, f-c GRAVEL, wet, yellowish brown (10YR 5/6) gr is WR-SR |
| 15 | 4.6 | | | GW | |
| 16 | 4.9 | 15'-19' | | | |
| 17 | 5.2 | 100% | | | 17'-18' gr, SILT, moist, brownish yellow (10YR 6/6) gr is A. dolostone |
| 18 | 5.5 | TC 9/20/07 | ~~Residuum~~ | ML | |
| 19 | 5.8 | | ~~Bedrock~~ | GW | 18'-19' sa, GRAVEL, dry, light bluish gray (GEY2 7/10B), gr is A. dolostone ~~Rome Formation~~ |
| 20 | 6.1 | | | | Terminate Boring @ 19' |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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NFS File Classification: DCM-23-05-02

# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0171

| | | | | | |
|---|---|---|---|---|---|
| **Date Started:** 9/13/07 | **Drilling Contractor:** Beart Longyear | | **Page** 1 | **of** 1 | |
| **Date Completed:** 9/13/07 | **Driller:** ~~Beart Long~~ J. Robinson | | **Survey Unit:** 8 | | |
| **Logged By:** S. Kelly | **Equipment:** Mini Sonic #1402 | | **Elevation:** TBD | | |

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 0-5 | Fill/ | SW- | 0-4 organic rich gr. SAND, moist, v.dk. brown |
| 1 | 0.3 | 90% | topsoil | SM | (10YR 2/2) gravel is angular to SA, becoming |
| | | | | | silty w/depth (organic material appears |
| 2 | 0.6 | | | | to be from grubbing/clearing activities - |
| | | | | | relatively recent). |
| 3 | 0.9 | | | | |
| 4 | 1.2 | | | | |
| | | | Alluvial | SW | 4-7 gl. gr. SAND, moist to wet, yellowish brown |
| 5 | 1.5 | | ▽ | | (10YR 5/6) gravel is f-c SA to WR |
| | | 5-10 | | | |
| 6 | 1.8 | 100% | | | |
| 7 | 2.1 | | | | |
| | | | | SW- | 7-17.8 - si. gr. SAND to si. sa. GRAVEL, wet/ |
| 8 | 2.4 | | | GW | saturated yellowish brown (10YR 5/4) gravel |
| | | | | | is f-c SA ~~to SR~~ WR |
| 9 | 2.7 | | | | |
| 10 | 3.1 | | | | |
| | | 10-15 | | | |
| 11 | 3.4 | 100% | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | | | | |
| | | 15-18 | | | |
| 16 | 4.9 | 100% | | | |
| 17 | 5.2 | | | | |
| 18 | 5.5 | | | | ~~17~~ 8-18 weathered Rock gr. SILT, wet, pale |
| | | | | | boring terminated @ 18' brown (10YR 6/4) |
| 19 | 5.8 | | Residuum | GM | angular gravel (dolomite) |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0172

| | | | |
|---|---|---|---|
| **Date Started:** 9/13/07 | **Drilling Contractor:** Boartlongyear | **Page** 1 **of** 1 | |
| **Date Completed:** 9/13/07 | **Driller:** J. Robinson | **Survey Unit:** B | |
| **Logged By:** S. Kelly | **Equipment:** mini Sonic #1902 | **Elevation:** TBD | |

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | 0.3 | 0-5 75% | Fill/ topsoil | SM | 0-3.3 organic rich si. SAND, moist, v. dk. brown (10YR 2/2) trace f-m gravel (angular to SR) organics are roots & wood from recent clearing & grubbing |
| 2 | 0.6 | | | | |
| 3 | 0.9 | | | | |
| 4 | 1.2 | | Alluvial D | SW | 7 9/13/07 ~~to~~ 9/13/07 3.3-14 gr. m-c SAND, moist to wet, yellowish brown (10YR 5/8) to brown (10YR 4/3) gravel is f-c angular to WR |
| 5 | 1.5 | 5-10 100% | | | |
| 6 | 1.8 | | | | |
| 7 | 2.1 | | | | |
| 8 | 2.4 | | | SW-GW | 7-14 si. gr. SAND to si. sa. GRAVEL, wet / saturated, brown (10YR 5/3) ~~to yellowish~~ 9/13/07, gravel is f-c SA-WR |
| 9 | 2.7 | | | | |
| 10 | 3.1 | 10-15 100% | | | |
| 11 | 3.4 | | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | | | 17.5 ~~14-18.5~~ 9/13/07 - same but yellowish brown (10YR 5/6) |
| 15 | 4.6 | 15-18.5 100% | | | |
| 16 | 4.9 | | | | |
| 17 | 5.2 | | | | |
| 18 | 5.5 | | Residuum | ML-GM | 17.5-18.5 weathered Rome: gr. SILT to si. GRAVEL moist / dry, lt. gray (GLEY1 7/N) ~~to~~ & yellowish brown (10YR 5/8) 9/13/07 |
| 19 | 5.8 | | | | boring terminated @ 18.5' gravel is angular dolomite |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0173

**Date Started:** 9/10/2007 **Drilling Contractor:** BOART LONGYEAR **Page** 1 **of** 1

**Date Completed:** 9/10/2007 **Driller:** JAMES ROBINSON **Survey Unit:** 8

**Logged By:** Rodney Clark **Equipment:** MiniSonic #1407 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | 0.3 | 0'-5' | FILL | ML | 0'-0.5' sa, SILT, moist, dark grayish brown (10YR 4/2), organics observed, glass observed |
| 2 | 0.6 | 3.5'/5' | Alluvial | SW | 0.5'-5' si, f-c gr, f-c SAND, moist, light yellowish brown (10YR 6/4) gravel is SR-WR |
| 3 | 0.9 | | | | |
| 4 | 1.2 | | | | |
| 5 | 1.5 | | ▽ | | 5'-10' si, f-c, gr, f-c SAND, light gray (10YR 7/1) wet, gravel is SR-WR |
| 6 | 1.8 | 5'-10' | | | |
| 7 | 2.1 | | | | |
| 8 | 2.4 | 4.5'/5' | | | |
| 9 | 2.7 | | | | |
| 10 | 3.1 | | | | 10'-16' SAA except brown (10YR 5/3) |
| 11 | 3.4 | 10'-15' | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | 100% | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | 15'-17 | | | |
| 16 | 4.9 | 100% | Residuum | GW | 16'-17' silty GRAVEL, wet, light bluish gray (GLEY 2 7/1) gravel is angular dolostone (ROME FORMATION) |
| 17 | 5.2 | | | | |
| 18 | 5.5 | | | | Terminate Boring @ 17' |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0174

**Date Started:** 9/10/2007 **Drilling Contractor:** Beart Longyear **Page** 1 **of** 1

**Date Completed:** 9/10/2007 **Driller:** James Robinson **Survey Unit:** 8

**Logged By:** Rodney Clark **Equipment:** Minisonic #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 0'-5' | | | |
| 1 | 0.3 | | Fill | ML | 0'-2' sandy SILT, wet, very dark grayish brown (10YR 3/2) |
| 2 | 0.6 | 4'/5' | | | |
| 3 | 0.9 | | Alluvial | SW | 2'-13' si, gr, f-c SAND, wet, gravel is f-c ~ WR-SR (gray 5Y 5/1) up to 2" in diameter |
| 4 | 1.2 | | | | |
| 5 | 1.5 | | | | |
| 6 | 1.8 | 5'-10' | | | |
| 7 | 2.1 | | | | |
| 8 | 2.4 | 4'/5' | | | |
| 9 | 2.7 | | | | |
| 10 | 3.1 | | | | |
| 11 | 3.4 | 10'-15' | | | |
| 12 | 3.7 | 100% | | | |
| 13 | 4.0 | | | SW-GW | 13'-15.5' si, f-c sa, GRAVEL to si, f-c GRAVEL f-c SAND, wet, yellowish brown (10YR 5/6) gravel is SR-WR |
| 14 | 4.3 | | | | |
| 15 | 4.6 | 15'-16.5' | | | |
| 16 | 4.9 | 100% | Residuum | ML | 15.5'-16.5' gr SILT, wet, yellowish brown (10YR 5/8) gravel is angular dolostone (Rome Formation) |
| 17 | 5.2 | | | | |
| 18 | 5.5 | | | | Terminate Boring @ 16.5' |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0175

| | | | |
|---|---|---|---|
| **Date Started:** 9/11/07 | **Drilling Contractor:** BOART LONGYEAR | **Page** 1 | **of** 1 |
| **Date Completed:** 9/11/07 | **Driller:** JAMES ROBINSON | **Survey Unit:** 8 | |
| **Logged By:** RODNEY CLARK | **Equipment:** MINI SONIC #1402 | **Elevation:** TBD | |

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | | FILL/topsoil | ML | 0'-0.5 sa, SILT, moist, dark grayish brown (10YR 4/2) trace of gravel, roots observed |
| 1 | 0.3 | 0'-5' | | SW | |
| 2 | 0.6 | | FILL | | 0.5'-2.5 si, gr, f-c SAND, wet, brownish yellow (10YR 6/6), gravel is f-c & SR-WR |
| 3 | 0.9 | 3/5' | ▽ | | 2.5'-5' SAA except grayish brown (10YR 5/2) |
| 4 | 1.2 | | Alluvial | | 5'-8.5' SAA except brownish yellow (10YR 6/6) |
| 5 | 1.5 | | | | |
| 6 | 1.8 | 5'-10' | | | |
| 7 | 2.1 | | | | |
| 8 | 2.4 | 100% | | | 8.5'-13' si, gr, f-c, SAND, greenish gray (GLEY1 5/5GY) wet, gravel is f-c & SR-WR, micaceous |
| 9 | 2.7 | | | | |
| 10 | 3.1 | | | | |
| 11 | 3.4 | 10'-15' | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | | | | 13'-15.5' si, gr, f-c SAND, wet, strong brown (7.5YR 5/6) gravel is f-c & SR-WR |
| 14 | 4.3 | | | | |
| 15 | 4.6 | | | | |
| 16 | 4.9 | 15'-16' 100% | Residuum ↑ Bedrock | GW | 15.5'-16' sa, GRAVEL, dry, light bluish gray (GLEY2 7/5B) gravel is angular, dolostone (Rome Formation) |
| 17 | 5.2 | | | | |
| 18 | 5.5 | | | | Terminate Boring @ 16' |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0176

**Date Started:** 9/20/2007 **Drilling Contractor:** BOART LONGYEAR **Page** 1 **of** 1

**Date Completed:** 9/20/2007 **Driller:** JAMES ROBINSON **Survey Unit:** 8

**Logged By:** Rodney Clark **Equipment:** MINISONIC #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | 0.3 | 0'-5' | | | 0'-4' gr, sa, SILT, moist, very dark grayish brown (10YR 3/2), gr: is A-SA, roots and organics observed |
| 2 | 0.6 | | | ML | |
| 3 | 0.9 | 4'/5' | FILL | | 4'-6' si, gr, SAND, moist, brownish yellow 10YR 6/6, gr is A-WR |
| 4 | 1.2 | | | | |
| 5 | 1.5 | | ▽ | SW | |
| 6 | 1.8 | 5'-10' | | | 6'-10 si, f-c gr, f-c SAND, wet, light brownish gray (10YR 6/2), gr is SR-WR |
| 7 | 2.1 | | Alluvial | | |
| 8 | 2.4 | 100% | | | |
| 9 | 2.7 | | | | |
| 10 | 3.1 | | | | |
| 11 | 3.4 | 10'-15' | | | 10'-13.5 SAA except pale brown (10YR 6/3) |
| 12 | 3.7 | | | | |
| 13 | 4.0 | 100% | | | 13.5-18' si, gr, f-c SAND-si, sa, f-c GRAVEL wet, gr is f-c, F SR-WR yellowish brown (10YR 5/8) |
| 14 | 4.3 | | | SW-GW | |
| 15 | 4.6 | | | | |
| 16 | 4.9 | 15'-19.5' | | | |
| 17 | 5.2 | | | | |
| 18 | 5.5 | 100% | Residuum | ML | 18'-18.5' gravelly, SILT, wet, brownish yellow (10YR 6/8), gr is A dolostone |
| 19 | 5.8 | | GW | GW | 18.5'-19.5' sa, GRAVEL, dry, light olive gray (GLEY2 7/1), gr is A dolostone (KOMC FORMATION) |
| 20 | 6.1 | | | | Terminate Boring @ 19.5' |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0177

| | | | | | |
|---|---|---|---|---|---|
| **Date Started:** | 9/19/07 | **Drilling Contractor:** | BOART LONGYEAR | **Page** | 1 of 1 |
| **Date Completed:** | 9/19/07 | **Driller:** | JAMES ROBINSON | **Survey Unit:** | 8 |
| **Logged By:** | Rodney Clark | **Equipment:** | MINISONIC #1402 | **Elevation:** | TBD |

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | 0.3 | 0'-5' | FILL | ML | 0'-2.5' gr, sa, SILT, moist, very dark grayish brown (10YR 3/2) gr. is A-SA, roots & organics observed |
| 2 | 0.6 | | | | |
| 3 | 0.9 | 4'/5' | 9/19/07 | SW | 2.5'-5' gr, si, SAND, moist, strong brown (7.5YR 5/6) gr is SR-ANR |
| 4 | 1.2 | | | | |
| 5 | 1.5 | | | | SAA except yellowish brown (10YR 5/6) & wet |
| 6 | 1.8 | 5'-10' | Alluvial | | |
| 7 | 2.1 | 100% | | | |
| 8 | 2.4 | | | | 8'-10' SAA except grayish brown |
| 9 | 2.7 | | | | |
| 10 | 3.1 | | | | 10'-17' sa, gr, f-c SAND, wet, brownish yellow (10YR 6/6) gr is f-c & SR-WR |
| 11 | 3.4 | 10'-15' | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | 100% | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | | | | |
| 16 | 4.9 | 15'-18' | | | |
| 17 | 5.2 | 100% | | | 17'-18' sa, GRAVEL, dry, light bluish gray (GLEY 2 7/10B) gravel is A. dolostone (Rome Formation) |
| 18 | 5.5 | | BEDROCK | GW | |
| 19 | 5.8 | | | | Terminate Boring @ 18' |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0178

Date Started: 9/19/07 Drilling Contractor: BOART LONGYEAR Page 1 of 1

Date Completed: 9/19/07 Driller: JAMES ROBINSON Survey Unit: 8

Logged By: Rodney Clark Equipment: MINISONIC #1902 Elevation: TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | 0.3 | 0'-5' | | ML | 0'-3.5' gr, sa SILT, moist, very dark grayish brown (10YR 3/2), organics & roots observed, gr is SR-WR |
| 2 | 0.6 | | | | |
| 3 | 0.9 | 100% | | | |
| 4 | 1.2 | | FILL | SW | 3.5'-5' si gr SAND, moist, brownish yellow (10YR 6/6), gr is A & f-c |
| 5 | 1.5 | | | | |
| 6 | 1.8 | 5'-10' | Alluvial | | 5'-8' SAA except brown (10YR 5/3) |
| 7 | 2.1 | | | | |
| 8 | 2.4 | 100% | | | 8'-10' si gr f-c SAND, wet, pale brown (10YR 6/3) gr is f-c & SR-WR |
| 9 | 2.7 | | | | |
| 10 | 3.1 | | | | |
| 11 | 3.4 | 10'-15' | | | 10'-17.5' SAA except brown (10YR 5/3) & yellowish brown (10YR 5/4) |
| 12 | 3.7 | 100% | | | |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | | | | |
| 16 | 4.9 | 15'-18' | | | |
| 17 | 5.2 | 100% | | | 17.5'-18' sa GRAVEL, dry, light bluish gray (GLEY 7/10B) gravel is A dolostone (Romo Formation) |
| 18 | 5.5 | | BEDROCK | SW | |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | Terminate Boring @ 18' |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0179

**Date Started:** 9/19/07 **Drilling Contractor:** BOART LONGYEAR **Page** 1 **of** 1

**Date Completed:** 9/19/07 **Driller:** JAMES ROBINSON **Survey Unit:** 8

**Logged By:** Rodney Clark **Equipment:** MINISONIC #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | 0.3 | 0'-5' | | SW | 0'-1 gr, si, SAND, moist, strong brown (7.5YR 4/6) gr is A, organics observed |
| 2 | 0.6 | | | ML | 1'-5.5' gr, sa, SILT, moist, very dark brown (7.5YR 2.5/2), abundant roots & organics gr. is A-SR |
| 3 | 0.9 | 100% | FILL | | |
| 4 | 1.2 | | | | |
| 5 | 1.5 | | | | 5.5'-7.5' gr, si, SAND, moist, light yellowish brown (10YR 6/4) gr is SR-WR |
| 6 | 1.8 | 5'-10' | Alluvial | SW | |
| 7 | 2.1 | | ▽ | | 7.5'-14.5' SAA except wet |
| 8 | 2.4 | 100% | | | |
| 9 | 2.7 | | | | |
| 10 | 3.1 | | | | |
| 11 | 3.4 | 10'-15' | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | 100% | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | | | | 14.5'-18.5' si, f-c gr, f-c SAND, wet brownish yellow (10YR 6/6) gr is SR-WR |
| 16 | 4.9 | 15'-20' | | | |
| 17 | 5.2 | | | | |
| 18 | 5.5 | | | | 18.5'-19' gravelly SILT, wet, brownish yellow (10YR 6/8) gravel is A-SR, gravel is dolostone |
| 19 | 5.8 | | Residuum | ML | 19'-20' Sa, GRAVEL, moist, light bluish gray (GLEY 2 7/10B), gr is A. dolostone (Rome Formation) |
| 20 | 6.1 | | Bedrock | GW | — Terminate Boring @ 20' |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0180

**Date Started:** 9/17/07 **Drilling Contractor:** BOART LONGYEAR **Page** 1 **of** 1

**Date Completed:** 9/17/07 **Driller:** James Robinson **Survey Unit:** 8

**Logged By:** Rodney Clark **Equipment:** MiniSonic #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | 0.3 | 0'-5' | | | 0'-4.8' gr, f-c sa, SILT, moist, very dark grayish brown (10YR 3/2) roots observed organics observed, gravel is A |
| 2 | 0.6 | | FILL | | |
| 3 | 0.9 | 100% | | ML | |
| 4 | 1.2 | | | | 4.8'-5.2' gr, si, f-c SAND, moist-wet yellowish brown (10YR 5/6) gravel is SR-WR |
| 5 | 1.5 | | ▽ | | |
| 6 | 1.8 | 5'-10' | | SW | 5.2'-9' SAA except gray (10YR 6/1), mostly si, f. SAND, micaceous |
| 7 | 2.1 | | Alluvial | | |
| 8 | 2.4 | 100% | | | |
| 9 | 2.7 | | | | 9'-15.5' si, f-c gr, f-c SAND, wet brown (10YR 5/3) gravel is SR-WR |
| 10 | 3.1 | | | | |
| 11 | 3.4 | 10'-15' | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | 100% | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | | | | 15.5'-16.5' gravelly SILT, wet brownish yellow (10YR 6/8) gravel is A-WR some gravel alluvial, some gravel is A. shale |
| | | 15'-17' | | | |
| 16 | 4.9 | 100% | Residuum | ML | |
| 17 | 5.2 | | Bedrock | SW | 16.5'-17' sa GRAVEL dry, light bluish gray (GLEY 2 7/1) gravel is A. Dolostone (Rome Formation) |
| 18 | 5.5 | | | | |
| 19 | 5.8 | | | | Terminate Boring @ 17' |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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NFS File Classification: DCM-23-05-02

# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0181

| | | | | | |
|---|---|---|---|---|---|
| Date Started: 9/13/07 | Drilling Contractor: Boart Longyear | Page 1 of 1 |
| Date Completed: 9/13/07 | Driller: J. Robinson | Survey Unit: 8 |
| Logged By: S. Kelly | Equipment: mini sonic #1402 | Elevation: TBD |

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 0-5 | FILL | SM | 0-3.5 organic-rich si. SAND, moist, v. dk. |
| 1 | 0.3 | 50% | topsoil | | brown (10YR 2/2), organics ~~is~~ are roots/wood |
| | | | | | from recent clearing/grubbing (SD 9/13/07), trace |
| 2 | 0.6 | | | | fm SA-SR gravel |
| 3 | 0.9 | | | | |
| 4 | 1.2 | | Alluvial | SW | 3.5-8 si. gr. SAND, moist to wet, yellowish |
| | | | | | brown (10YR 5/8) gravel is f-c SA to SR |
| 5 | 1.5 | 5-10 | | | |
| 6 | 1.8 | 80% | | | |
| 7 | 2.1 | | | | |
| 8 | 2.4 | | | | c (SD) 9/13/07 |
| | | | | SP | 8-11 micaceous f-m SAND, wet, dk gray |
| 9 | 2.7 | | | | (GLEY 1 4/N) trace SR-WR, f-c gravel |
| 10 | 3.1 | 10-15 | | | |
| 11 | 3.4 | 100% | | | |
| | | | | SW-GW | 11-16 si. gr. SAND to si. sa. GRAVEL, wet/ |
| 12 | 3.7 | | | | saturated, brown (10YR 5/3) gravel is |
| | | | | | f-c SA to WR |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | 15-17 | | | |
| 16 | 4.9 | 100% | | | NOTE: |
| | | | Residuum | GM-ML | weathered Bonne: gravelly SILT to si. GRAVEL |
| 17 | 5.2 | | | | moist/dry, light gray (GLEY 1 4/N) & brown (7.5YR 5/4) |
| | | | | | boring terminated @ 17' / gravel is angular |
| 18 | 5.5 | | | | dolomite |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0182

**Date Started:** 9/17/07 **Drilling Contractor:** BOART LONGYEAR **Page** 1 **of** 1

**Date Completed:** 9/17/07 **Driller:** James ROBINSON **Survey Unit:** 8

**Logged By:** Rodney Clark **Equipment:** MINISONIC #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | 0.3 | 0'-5' | FILL | | 0-4.5 gravelly, sandy, SILT, moist, very dark grayish brown (10YR 3/2), organics & roots observed, gravel is angular, f-c |
| 2 | 0.6 | | | ML | |
| 3 | 0.9 | 100% | | | |
| 4 | 1.2 | | | | 4'-16' si, f-c gr, f-c SAND, moist-wet, yellowish brown (10YR 5/3), gravel is SR-WR |
| 5 | 1.5 | | | | |
| 6 | 1.8 | 5'-10' | Alluvial | SW | |
| 7 | 2.1 | No Recovery | | | |
| 8 | 2.4 | Some of | | | |
| 9 | 2.7 | 10'-15' sample contains | | | |
| 10 | 3.1 | 5'-10' sample | ▽ | | |
| 11 | 3.4 | 10'-15' | | | |
| 12 | 3.7 | 7'/5' | | | |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | | | | |
| 16 | 4.9 | 15'-18' | | | 16'-17' si, gr, f-c SAND, wet, brown (10YR 5/3) gravel is SR-WR less gravel & micaceous, mostly quartz sand |
| 17 | 5.2 | 100% | Residuum | ML | |
| 18 | 5.5 | | BEDROCK | GW | 17.0'-17.5' gravelly, SILT, moist, brownish yellow (10YR 6/6) gravel is SR-WR |
| 19 | 5.8 | | | | 17.5'-18' - sandy GRAVEL, dry, light bluish gray (GLEY 2 7/1) gravel & angular dolomite. Terminate Boring @ 18' |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0193

**Date Started:** 9/10/2007 **Drilling Contractor:** BOART LONGYEAR **Page** 1 **of** 1

**Date Completed:** 9/10/2007 **Driller:** James Robinson **Survey Unit:** 8

**Logged By:** Rodney Clark **Equipment:** Minisonic #1462 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | 0.3 | 0'-5' | FILL | SW | 0'-1.5' si, gr, f-c SAND, moist, yellowish brown (10YR 5/6) gravel is SR-WR |
| 2 | 0.6 | 4'/5 | Alluvial | SM | 1.5-4' si, f-m SAND, wet, olive gray (5Y 4/2) micaceous, trace of gravel |
| 3 | 0.9 | | ▽ | | |
| 4 | 1.2 | | | SW | 4'-14' si, gr, f-c SAND, wet, grayish brown (10YR 5/2) gravel is SR-WR #f-c |
| 5 | 1.5 | | | | |
| 6 | 1.8 | 5'-10' | | | |
| 7 | 2.1 | | | | |
| 8 | 2.4 | 100% | | | |
| 9 | 2.7 | | | | |
| 10 | 3.1 | | | | |
| 11 | 3.4 | 10'-15' | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | 100% | | | |
| 14 | 4.3 | | | | 14'-15.5' SAA except yellowish brown (10YR 5/6) |
| 15 | 4.6 | 15'-16.5' | | | |
| 16 | 4.9 | 100% | Residuum | ML GW | 15.5-16.5' gravelly SILT, wet, brownish yellow (10YR 6/6) gravel is angular dolostone |
| 17 | 5.2 | | Bedrock | | 16'-16.5' GRAVEL, dry, light olive gray (5GY 7/1), gravel is angular dolostone |
| 18 | 5.5 | | | | |
| 19 | 5.8 | | | | Terminate Boring @ 16.5' |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0184

| | | | | | |
|---|---|---|---|---|---|
| **Date Started:** 9/12/07 | **Drilling Contractor:** Boart Longyear | **Page** 1 | **of** 1 | | |
| **Date Completed:** 9/12/07 | **Driller:** J. Robinson | **Survey Unit:** B | | | |
| **Logged By:** S. Kelly | **Equipment:** Mini Sonic #1402 | **Elevation:** TBD | | | |

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 0-5 | Alluvial | SW | 0-3 gr. SAND, moist to wet, dk. brown |
| 1 | 0.3 | 70% | | | (10YR 3/3) to yellowish brown (10YR 5/8) |
| 2 | 0.6 | | ? | | |
| 3 | 0.9 | | | SW-GW | 3-9.5 gr. SAND to sa. GRAVEL, wet, gray (GLEY 1 5/N) gravel is f-c angular to WR, micaceous |
| 4 | 1.2 | | | | |
| 5 | 1.5 | 5-10 | | | |
| 6 | 1.8 | 100% | | | |
| 7 | 2.1 | | | | |
| 8 | 2.4 | | | | |
| 9 | 2.7 | | | | |
| 10 | 3.1 | | | SW-GW | 9.5-14.9 same but yellowish brown (10YR 5/8) |
| | | 10-15 | | | |
| 11 | 3.4 | 100% | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | | ~~Residuum~~ | ML | 14.9-15 weathered zone: gr. SILT, wet, light brown (10YR 6/4) gravel is angular dolomite |
| | | | | | boring terminated @ 15' |
| 16 | 4.9 | | | | |
| 17 | 5.2 | | | | |
| 18 | 5.5 | | | | |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0185

**Date Started:** 9/24/07 **Drilling Contractor:** Boart Longyear **Page** 1 **of** 1

**Date Completed:** 9/24/07 **Driller:** J. Robinson **Survey Unit:** 8

**Logged By:** S. Kelly **Equipment:** mini Sonic #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 0-5 | FILL/ | SW | 0-4 gr. si. SAND, moist, v. dk. brown (10YR 2/2), |
| 1 | 0.3 | 50% | Topsoil | | gravel is angular (from fill); trace organics |
| 2 | 0.6 | | | | |
| 3 | 0.9 | | | | |
| 4 | 1.2 | | Alluvial? | SW-GW | 4-5 gr. m-v.c. SAND to si. sa. GRAVEL, moist to wet, yellowish brown (10YR 5/8), grading to grayish brown (10YR 5/2) |
| 5 | 1.5 | 5-10 | | | |
| 6 | 1.8 | 100% | | | |
| 7 | 2.1 | | | | |
| 8 | 2.4 | | | | |
| 9 | 2.7 | | | | |
| 10 | 3.1 | 10-15 | | | |
| 11 | 3.4 | 100% | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | 15-17 | | | |
| 16 | 4.9 | 100% | | | |
| 17 | 5.2 | | Residuum | ML-GM | 16.5-17: weathered Rome: gr. SILT to si. |
| | | | | | boring terminated @ 17' GRAVEL, moist, |
| 18 | 5.5 | | | | yellowish brown (10YR 5/8) to lt. |
| 19 | 5.8 | | | | gray (10YR 7/1); gravel is angular (dolomite) |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0186

**Date Started:** 9/19/2007 **Drilling Contractor:** BOART LONGYEAR **Page** 1 **of** 1

**Date Completed:** 9/19/2007 **Driller:** JAMES ROBINSON **Survey Unit:** 8

**Logged By:** Rodney Clark **Equipment:** MINISONIC #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | 0.3 | 0'-5' | | | 0'-3' gr, sa, SILT, moist, very dark grayish brown (10YR 3/2) gr. is A. organics & root observed |
| 2 | 0.6 | 3.5'/5' | FILL | ML | |
| 3 | 0.9 | | | | 3'-5' si, gr, f-c SAND, moist, yellowish brown (10YR 5/4) gr is SR-WR & f-c |
| 4 | 1.2 | | Alluvial | SW | |
| 5 | 1.5 | | ▽ | | 5'-8' SAA except wet |
| 6 | 1.8 | 5'-10' | | | |
| 7 | 2.1 | 100% | | | |
| 8 | 2.4 | | | | 8'-10' SAA except light yellowish brown (10YR 6/4) wet |
| 9 | 2.7 | | | | |
| 10 | 3.1 | | | | 10'-17' si, gr, f-c SAND, brownish yellow (10YR 6/6) gr is f-c & SR & WR |
| 11 | 3.4 | 10'-15' | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | 100% | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | | | | |
| 16 | 4.9 | 15'-18' | | | |
| 17 | 5.2 | 100% | | | 17'-17.5' gravelly SILT, wet, brownish yellow (10YR 6/6) gravel is A-WR (alluvial & residuum) |
| 18 | 5.5 | | Residuum / Bedrock | ML / GW | 17.5'-18' si, sa, GRAVEL, moist, light olive gray (5Y 6/2) (10B) gravel is A. dolostone (Rome Formation) |
| 19 | 5.8 | | | | Terminate Boring @ 18' |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0187

**Date Started:** 9/19/2007 **Drilling Contractor:** BOART LONGYEAR **Page** 1 **of** 1

**Date Completed:** 9/19/2007 **Driller:** JAMES ROBINSON **Survey Unit:** 8

**Logged By:** Rodney Clark **Equipment:** MINISONIC #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | 0.3 | 0'-5' | FILL | ML | 0'-3.5' gr, sa, SILT, moist, very dark grayish brown (10YR 3/2) gr is A-SR, roots & organics |
| 2 | 0.6 | | | | |
| 3 | 0.9 | 4'/5' | | | |
| 4 | 1.2 | | Alluvial | SW | 3.5'-5' si gr, f-c SAND yellowish brown (10YR 5/8) gr is SR-WR |
| 5 | 1.5 | | | | 5'-8' SAA except wet |
| 6 | 1.8 | 5'-10' | | | |
| 7 | 2.1 | | | | |
| 8 | 2.4 | 100% | | | 8'-10' si gr, f-c SAND, wet, light yellowish brown (10YR 6/4) gr is SR-WR & f-c |
| 9 | 2.7 | | | | |
| 10 | 3.1 | | | | 10'-13' SAA except yellowish brown (10YR 5/4) |
| 11 | 3.4 | 10'-15' | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | 100% | | GW | 13'-18' si, sa, GRAVEL, wet, brownish yellow (10YR 6/8), gravel is SR-WR & f-c |
| 14 | 4.3 | | | | |
| 15 | 4.6 | | | | |
| 16 | 4.9 | 15'-20' | | | |
| 17 | 5.2 | | | | |
| 18 | 5.5 | 100% | | | 18'-20' si, sa, GRAVEL, dry, light bluish gray (GLEY 7/10B) gravel is A. dolostone (Rome Fm.) |
| 19 | 5.8 | | Bedrock | GW | |
| 20 | 6.1 | | | | Terminate Boring @ 20' |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0188

**Date Started:** 9/19/2007 **Drilling Contractor:** BOART LONGYEAR **Page** 1 **of** 1

**Date Completed:** 9/19/2007 **Driller:** JAMES ROBINSON **Survey Unit:** 8

**Logged By:** Rodney Clark **Equipment:** MINISONIC #1407 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | 0.3 | 0'-5' | FILL | ML | 0'-3' gr, sa, SILT, moist, very dark grayish brown (10YR 3/2) gr is A-SAL, organic observed |
| 2 | 0.6 | | | | |
| 3 | 0.9 | 100% | Alluvial | SW | 3'-5' si, gr, f-c, SAND, moist, strong brown (7.5YR 5/6), gr is SR-WR & f-c |
| 4 | 1.2 | | | | |
| 5 | 1.5 | 5'-10' | POOR RECOVERY W.T. difficult to determine due to poor recovery | | 5'-15' si, gr, f-c SAND, wet brown (10YR 5/3) gr is SR-WR & f-c |
| 6 | 1.8 | | | | |
| 7 | 2.1 | 1.5'/5' | | | |
| 8 | 2.4 | | | | |
| 9 | 2.7 | | | | |
| 10 | 3.1 | 10'-15' | | | |
| 11 | 3.4 | | | | |
| 12 | 3.7 | 4'/5' | | | |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | 15'-19.5' | | | 15'-19' SAA except yellowish brown (10YR 5/6) |
| 16 | 4.9 | | | | |
| 17 | 5.2 | 100% | | | |
| 18 | 5.5 | | | | |
| 19 | 5.8 | | Bedrock | GW | 19'-19.5' sa, GRAVEL, moist, light bluish gray (GLEY 2/1) gravel is A. dolostone (Rome Formation) |
| 20 | 6.1 | | | | Terminate Boring @ 19.5' |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0189

| | | | | | |
|---|---|---|---|---|---|
| **Date Started:** 9/19/2007 | **Drilling Contractor:** BART LONGYEAR | **Page** 1 | **of** 1 | | |
| **Date Completed:** 9/19/2007 | **Driller:** James Robinson | **Survey Unit:** 8 | | | |
| **Logged By:** Rodney Clark | **Equipment:** Minisonic #1402 | **Elevation:** TBD | | | |

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | 0.3 | 0'-5' | | ML | 0'-3' gr, sa, SILT, moist, very dark grayish brown (10YR 3/2) gr is A, abundant organics & roots observed |
| 2 | 0.6 | | FILL | | |
| 3 | 0.9 | 4'/5' | | SW | 3'-5' si, gr, f-m SAND, moist, brownish yellow (10YR 6/8), gr is SR-WR & f-c |
| 4 | 1.2 | | | | |
| 5 | 1.5 | | ▽ | | |
| 6 | 1.8 | 5'-10' | | | 5'-8' si, gr, f-c SAND, wet, yellowish brown (10YR 5/6), gr is SR-WR & f-c trace of clay |
| 7 | 2.1 | | Alluvial | | |
| 8 | 2.4 | 3.5'/5' | | | 8'-10' SAA except light yellowish brown (10YR 6/4) & no clay |
| 9 | 2.7 | | | | |
| 10 | 3.1 | | | | |
| 11 | 3.4 | 10'-15' | | | 10'-15' SAA except yellowish brown (10YR 5/4) |
| 12 | 3.7 | 100% | | | |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | | | | |
| 16 | 4.9 | 15'-20' | | | 15'-19.9' si, gr, f-c SAND, wet, brownish yellow (10YR 6/8), gr is f-c & SR-WR |
| 17 | 5.2 | 100% | | | |
| 18 | 5.5 | | | | |
| 19 | 5.8 | | | | 19.9'-20' sa, GRAVEL, moist, light blue gray (GEY2 7/1) gr is A dolostone (Rare-MX) |
| 20 | 6.1 | | | | Terminate Boring @ 20' |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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NFS File Classification: DCM-23-05-02

# SOIL BORING RECORD.

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1236**

**BORING NO.** 0190

**Date Started:** 9/25/07 **Drilling Contractor:** Boart Longyear **Page** 1 **of** 1

**Date Completed:** 9/25/07 **Driller:** J. Robinson **Survey Unit:** B

**Logged By:** S. Kelly **Equipment:** mini sonic #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 0-5 100% | FILL/ topsoil | SW | 0-3 - si. gr. SAND, dry/moist, brownish yellow (10YR 6/8) to dk. brown (10YR 3/3) w/ trace organics, gravel is angular (imported gravel) |
| 1 | 0.3 | | | | |
| 2 | 0.6 | | | | |
| 3 | 0.9 | | Alluvial | SW | 3-8 gr. SAND, moist to wet, yellowish brown (10YR 5/8) gravel is f-c SA-SR |
| 4 | 1.2 | | | | |
| 5 | 1.5 | 5-10 100% | | | |
| 6 | 1.8 | | | | |
| 7 | 2.1 | | ▼ | | |
| 8 | 2.4 | | | SW-GW | 8-19.5 gr. SAND to si. sa. GRAVEL, wet, gray (10YR 5/1), micaceous, gravel is f-c, increased silt w/depth; SA-WR |
| 9 | 2.7 | | | | |
| 10 | 3.1 | 10-15 100% | | | grades to yellowish brown (10YR 5/8) |
| 11 | 3.4 | | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | 15-20 100% | | | |
| 16 | 4.9 | | | | |
| 17 | 5.2 | | | | |
| 18 | 5.5 | | | | |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | Residuum | GM | 19.5-20 weathered Rome: si. GRAVEL, moist 9/25/07 yellowish brown (10YR 5/8) & lt. gray (10YR 7/1) gravel is angular dolomite |

boring terminated @ 20'

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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NFS File Classification: DCM-23-05-02

# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0191

**Date Started:** 9/17/07 **Drilling Contractor:** BOART LONGYEAR **Page** 1 **of** 1

**Date Completed:** 9/17/07 **Driller:** JAMES ROBINSON **Survey Unit:** 8

**Logged By:** Rodney Clark **Equipment:** MINISONIC #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | 0.3 | 0'-5' | | ML | 0'-2.5' gr, f-c sa, SILT, moist, very dark grayish brown (10YR 3/2), organics & roots observed, gravel is A-SR |
| 2 | 0.6 | | FILL | | |
| 3 | 0.9 | 3.5'/5' | | SW | 2.5'-5' si, gr, f-c SAND, moist, yellowish brown (10YR 5/6) gravel is SR-A |
| 4 | 1.2 | | | | |
| 5 | 1.5 | | | | |
| 6 | 1.8 | 5'-10' | Alluvial | | 5'-10' si, f-c gr, f-c SAND, wet, yellowish brown (10YR 5/6) gravel is SR-WR |
| 7 | 2.1 | | | | |
| 8 | 2.4 | 3'/5' | | | |
| 9 | 2.7 | | | | |
| 10 | 3.1 | | | | 10'-12' SAA except gray (10YR 5/1) & micaceous |
| 11 | 3.4 | 10'-15' | | | |
| 12 | 3.7 | 100% | | | 12'-16.8' si, f-c gr, f-c SAND, wet, yellow brown (10YR 5/6) gravel is SR-WR |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | 15'-17' | | | |
| 16 | 4.9 | 100% | | | |
| 17 | 5.2 | | Residuum | ML | 16.8'-17' gravelly, SILT, wet, brownish yellow (10YR 6/6), gravel is A. dolostone/shale (Rome Formation) |
| 18 | 5.5 | | | | |
| 19 | 5.8 | | | | Terminate Boring @ 17' |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0192

**Date Started:** 9/17/07 **Drilling Contractor:** BEART LONGYEAR **Page** 1 **of** 1

**Date Completed:** 9/17/07 **Driller:** JAMES ROBINSON **Survey Unit:** 8

**Logged By:** Rodney Clark **Equipment:** MINISONIC #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | 0.3 | 0'-5' | | ML | 0'-3' gr, f-c SA, SILT, moist, very dark grayish brown (10YR 3/2) roots observed |
| 2 | 0.6 | | | | |
| 3 | 0.9 | 3.5'/5' | FILL | | |
| 4 | 1.2 | | | SW | 3'-5' gr, si, f-c SAND, moist, brown (7.5YR 5/4) gravel is f-c # SA-WR-A, some brick observed |
| 5 | 1.5 | | ▽ | | |
| 6 | 1.8 | 5'-10' | Alluvial | | 5'-7.5' si, gr, f-c SAND, wet, yellow brown (10YR 5/6) gravel is SR-WR # f-c |
| 7 | 2.1 | | | | |
| 8 | 2.4 | 100% | | | |
| 9 | 2.7 | | | | 7.5'-11' gr, si, f-c SAND, gray (10YR 5/1) moist, wet, mostly m-f SAND micaceous, gravel SR-WR |
| 10 | 3.1 | | | | |
| 11 | 3.4 | 10'-15' | | | 11'-16.5' si, f-c, gr, f-c SAND, wet, yellowish brown (10YR 5/6) |
| 12 | 3.7 | | | | |
| 13 | 4.0 | 100% | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | 15'-17.5' | | | 16.5'-17' gravelly SILT, wet, brownish yellow (10YR 5/6), gravel is A-SR, some dolomite |
| 16 | 4.9 | 100% | | | |
| 17 | 5.2 | | Residuum / Bedrock | ML / GW | 17'-17.5' sandy GRAVEL, dry, light bluish gray (GLEY 7/1), gravel is A, dolomite (Rome Formation) |
| 18 | 5.5 | | | | |
| 19 | 5.8 | | | | Terminate Boring @ 17.5' |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0193

**Date Started:** 9/18/07 **Drilling Contractor:** BOART LONGYEAR **Page** 1 **of** 1

**Date Completed:** 9/18/07 **Driller:** JAMES ROBINSON **Survey Unit:** 8

**Logged By:** Rodney Clark **Equipment:** Mursonic #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | 0.3 | 0'-5' | | | 0'-4' gr, f-c sa, SILT, moist, very dark grayish brown (10YR 3/2) gr. is A, organics & roots observed |
| 2 | 0.6 | | FILL | ML | |
| 3 | 0.9 | 3'/5' | | | |
| 4 | 1.2 | | | | 4'-15.5' si, f-c gr, f-c SAND, wet, yellowish brown (10YR 5/6), gr. is SR-WR |
| 5 | 1.5 | | | SW | |
| 6 | 1.8 | 5'-10' | Alluvial | | |
| 7 | 2.1 | No Recovery Recovered Some of 5'-10' sample in 10'-15' interval | | | |
| 8 | 2.4 | | | | |
| 9 | 2.7 | | | | |
| 10 | 3.1 | | | | |
| 11 | 3.4 | 10'-15' | | | |
| 12 | 3.7 | 7'/5' | | | |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | 15'-17' | | | 15.5'-16.5' gr, SILT, moist, (brownish yellow) (10YR 6/6), gravel is A, shale/dolostone |
| 16 | 4.9 | 100% | Residuum | ML | |
| 17 | 5.2 | | Bedrock | GW | 16.5'-17' sa, GRAVEL, dry, gray (10YR 6/1), gravel is A. dolostone Ronde Formation |
| 18 | 5.5 | | | | |
| 19 | 5.8 | | | | Terminate Boring @ 17' |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0194

| | | | |
|---|---|---|---|
| **Date Started:** 9/24/07 | **Drilling Contractor:** Boart Longyear | **Page** 1 | **of** 1 |
| **Date Completed:** 9/24/07 | **Driller:** J. Robinson | **Survey Unit:** 8 | |
| **Logged By:** S. Kelly | **Equipment:** mini Sonic #1402 | **Elevation:** TBD | |

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 0-5 | FILL | SW | 0-4.5 - fill used to "build up" drilling |
| 1 | 0.3 | 40% | | | platform over former "ditch"; si. gr. SAND, |
| | | | | | moist, strong brown (7.5YR 5/6) |
| 2 | 0.6 | | | | |
| 3 | 0.9 | | | | |
| 4 | 1.2 | | | | |
| | | | Alluvial | SW | 4.5-10 si. gr. SAND, wet/saturated, gray (10YR |
| 5 | 1.5 | 5-10 | | | 5/1) micaceous; gravel is f-c angular to SR |
| 6 | 1.8 | 100% | | | |
| 7 | 2.1 | | | | |
| 8 | 2.4 | | | | |
| 9 | 2.7 | | | | |
| 10 | 3.1 | 10-15 | | SW-GW | 10-17 si. gr. SAND to si. sa. GRAVEL, wet/ |
| 11 | 3.4 | 100% | | | saturated, yellowish brown (10YR 5/4); gravel |
| | | | | | is f-c angular to WR |
| 12 | 3.7 | | | | |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | 15-18.5 | | | |
| 16 | 4.9 | 100% | | | |
| 17 | 5.2 | | Residuum | ML-GM | 17-18.5: weathered Rome: gr. SILT to si. GRAVEL, |
| 18 | 5.5 | | | | lt. gray (10YR 7/1) & yellowish brown (10YR 5/8) gravel |
| | | | | | is angular |
| 19 | 5.8 | | | | boring terminated @ 18.5 (dolomite) |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 095

**Date Started:** 9/21/07 **Drilling Contractor:** Boart Longyear **Page** 1 **of** 1

**Date Completed:** 9/21/07 **Driller:** J. Robinson **Survey Unit:** 8

**Logged By:** S. Kelly **Equipment:** mini Sonic #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS (8/21/07) | DESCRIPTION (9/21/07) |
|---|---|---|---|---|---|
| | | 0-5 | FILL | ~~SW~~ | 0-3 SILT, moist, strong brown (7.5YR 5/6) |
| 1 | 0.3 | 75% | | ML | |
| 2 | 0.6 | | | | |
| 3 | 0.9 | | | SM | 3-4 organic-rich, si. SAND, moist, v. dk brown (10YR 2/2) |
| 4 | 1.2 | | Alluvial | SW | 4-8 si. gr. SAND, moist to wet, strong brown (7.5YR 5/6) gravel is f-c SA-SR |
| 5 | 1.5 | 5-10 | | | |
| 6 | 1.8 | 50% | | | |
| 7 | 2.1 | | | | |
| 8 | 2.4 | | | SW | 8-10 micaceous f-c SAND, wet, dk. gray (GLEY1 4/N) some f-c gravel SA-WR |
| 9 | 2.7 | | | | |
| 10 | 3.1 | 10-15 | | SW-GW | 10-15 si. gr. SAND to si. sa. GRAVEL, wet / saturated lt. brownish gray (10YR 6/2) |
| 11 | 3.4 | 100% | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | 15-20 | | | |
| 16 | 4.9 | 100% | | | |
| 17 | 5.2 | | | | |
| 18 | 5.5 | | | | |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | Residuum | GM | 19.5-20 weathered Rome si. GRAVEL, wet to moist, lt. gray (GLEY1 4/N) yellowish brown (10YR 5/8) gravel is angular (dolomite) |

Boring terminated @ 19.5'

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0196

Date Started: 9/21/07 Drilling Contractor: Beart Longyear Page 1 of 1

Date Completed: 9/21/07 Driller: F. Robinson Survey Unit: 8

Logged By: S. Kelly Equipment: mini Sonic #1902 Elevation: TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 0-5 50% | FILL | SW | 0-4 gr. SAND, moist, v. dk. brown (10YR 2/2), with some organics & piece of glass |
| 1 | 0.3 | | | | |
| 2 | 0.6 | | | | |
| 3 | 0.9 | | | | |
| 4 | 1.2 | | Alluvial ? | SW-GW | 4-9 si. gr. SAND and si. sa. GRAVEL, moist to wet, dk. yellowish brown (10YR 4/4) gravel is f-c angular to WR |
| 5 | 1.5 | 5-10 75% | | | |
| 6 | 1.8 | | | | |
| 7 | 2.1 | | | | |
| 8 | 2.4 | | | | |
| 9 | 2.7 | | | SP | 9-10 micaceous f-c SAND, wet, dk. gray (GLEY1 4/N) little gravel (f-m SA-WR) |
| 10 | 3.1 | 10-15 100% | | SW-GW | 10-17.5? same as 4-9 |
| 11 | 3.4 | | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | 15-18.5 100% | | | |
| 16 | 4.9 | | | | |
| 17 | 5.2 | | | | |
| 18 | 5.5 | | Residuum | GM | 17.5-18.5 weathered Rock, si. GRAVEL, moist, (7.5YR 6/6) reddish yellow |
| 19 | 5.8 | | | | boring terminated @ 18.5' |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0197

| | | | | | |
|---|---|---|---|---|---|
| **Date Started:** | 9/21/07 | **Drilling Contractor:** | Boart Longyear | **Page** | 1 of 1 |
| **Date Completed:** | 9/21/07 | **Driller:** | J. Robinson | **Survey Unit:** | 8 |
| **Logged By:** | S. Kelly | **Equipment:** | mini sonic #1402 | **Elevation:** | TBD |

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 0-5 | FILL | SW | 0-4 organic-rich si. gr. SAND, moist |
| 1 | 0.3 | 75% | | | (black 2.5YR 2.5/1) organics include wood |
| | | | | | & roots; glass pieces observed |
| 2 | 0.6 | | | | |
| 3 | 0.9 | | | | |
| 4 | 1.2 | | Alluvial II | SW | 4-7 SAND, moist, strong brown (7.5YR 4/6) |
| 5 | 1.5 | | | | little f-c SA-SR gravel |
| | | 5-10 | | | |
| 6 | 1.8 | 100% | | | |
| 7 | 2.1 | | | SW-GW | 7-18.5 si. gr. SAND to si-sa. GRAVEL, wet, yellowish |
| 8 | 2.4 | | | | brown (10YR 5/4) to lt. brownish gray (10YR 6/2) |
| | | | | | gravel is f-c angular to SR |
| 9 | 2.7 | | | | |
| 10 | 3.1 | 10-15 | | | |
| 11 | 3.4 | 100% | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | 15-19.5 | | | |
| 16 | 4.9 | 100% | | | |
| 17 | 5.2 | | | | |
| 18 | 5.5 | | | | |
| 19 | 5.8 | | Residuum | GW-GM | 18.5-19.5 weathered Rock: si. sa. GRAVEL, moist, |
| | | | | | lt. gray (GLEY1 7/N) & white & pale brown (10YR 6/3) |
| 20 | 6.1 | | | | boring terminated @ 19.5'; gravel is angular (dolomite) |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0198

| | | | |
|---|---|---|---|
| **Date Started:** 9/21/07 | **Drilling Contractor:** Bear Longyear | **Page** 1 | **of** 1 |
| **Date Completed:** 9/21/07 | **Driller:** J. Robinson | **Survey Unit:** 8 | |
| **Logged By:** S. Kelly | **Equipment:** Mini Sonic #402 | **Elevation:** TBD | |

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 0-5 | FILL | GW | 0-4 sa. GRAVEL, moist, dk. gray (GLEY 1 4/N), |
| 1 | 0.3 | 50% | | | gravel is angular fr |
| 2 | 0.6 | | | | |
| 3 | 0.9 | | | | |
| 4 | 1.2 | | | ML | 4-4.5 gr. SILT, dk. brown (7.5YR 3/4), |
| 5 | 1.5 | | Possible Fill | SW | trace organics (fine roots, gravel is f-m angular |
| | | 5-7 | | | 4.5-7 gr. SAND, moist, brownish yellow |
| 6 | 1.8 | 100% | | | (10YR 6/6) gravel is f-c angular to SR |
| 7 | 2.1 | | Alluvial | SW-GW | 7-15 (1) gr. SAND to si. sa. GRAVEL, wet, |
| 8 | 2.4 | | | | yellowish brown (10YR 5/8) to gray (10YR 6/1) |
| 9 | 2.7 | | | | gravel is angular to WR |
| 10 | 3.1 | 10-15 | | | |
| 11 | 3.4 | 100% | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | 15-20 | | SW-GW | 15- same but yellowish brown |
| 16 | 4.9 | 100% | | | |
| 17 | 5.2 | | | | |
| 18 | 5.5 | | | | |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | Residuum | GM | 19.5-20: weathered Rome: si. GRAVEL, moist, lt. gray |
| | | | | | boring terminated @ 20' (GLEY 1 7/N), gravel is angular (dolomite) |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0199

**Date Started:** 9/21/07 **Drilling Contractor:** Boart Longyear **Page** 1 **of** 1

**Date Completed:** 9/21/07 **Driller:** J. Robinson **Survey Unit:** 8

**Logged By:** S. Kelly **Equipment:** mini Sonic #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 0-5 | FILL | GW-SW | 0-4.5 - si. sa. GRAVEL, moist, dk. brown (10YR 3/3) to gray GLEY1 (6/N), trace to little organics (fine roots), gravel is f-c, angular |
| 1 | 0.3 | 50% | | | |
| 2 | 0.6 | | | | |
| 3 | 0.9 | | | | |
| 4 | 1.2 | | | | |
| 5 | 1.5 | 5-10 | Possible Fill | SW | 4.5-7 si. gr. SAND, moist, brownish yellow (10YR 6/8) gravel is f-m angular to SA |
| 6 | 1.8 | 100% | | | |
| 7 | 2.1 | | Alluvial = 0 | SW-GW | 7-15 si. gr. SAND to si. sa. GRAVEL, wet, yellowish brown (10YR 5/8) to lt. yellowish brown (2.5Y 6/3) gravel is f-c angular to SR |
| 8 | 2.4 | | | | |
| 9 | 2.7 | | | | |
| 10 | 3.1 | 10-15 | | | |
| 11 | 3.4 | 100% | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | 15-20 | | | 15-18.7 same but yellowish brown (10YR 5/8) and gravel is SA to WR |
| 16 | 4.9 | 100% | | | |
| 17 | 5.2 | | | | |
| 18 | 5.5 | | | | |
| 19 | 5.8 | | Residuum | GW-ML | 18.7-20 weathered Rome: gr. SILT to si. GRAVEL, moist, pale brown (10YR 6/3) & lt. gray (GLEY 1 7/N) gravel is angular (dolomite |
| 20 | 6.1 | | | | boring terminated @ ~~15~~ 20' |

(SD) 9/24/07

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0200

**Date Started:** 9/17/07 **Drilling Contractor:** BOART LONGYEAR **Page** 1 **of** 1

**Date Completed:** 9/17/07 **Driller:** JAMES ROBINSON **Survey Unit:** 8

**Logged By:** Rodney Clark **Equipment:** Minisonic HHQ **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | 0.3 | 0'-5' | | | 0'-4' gr, f-c sa, SILT, moist, very dark grayish brown (10YR 3/2) gravel is a organics observed (foreign debris observed) |
| 2 | 0.6 | | FILL | ML | |
| 3 | 0.9 | 100% | | | plastic, glass, rubber, light bulb) stopped work - Hot RT "Scan" material - No detection w/ instruments |
| 4 | 1.2 | | | | |
| 5 | 1.5 | | | SW | 4'-5' gr, si, f-c SAND, moist, yellowish brown (10YR 6/6), gravel is A SR |
| 6 | 1.8 | 5'-10' | Alluvial | | 5'-8' si, gr, f-c SAND, wet yellowish brown (10YR 5/8) gr is SR-WR |
| 7 | 2.1 | | | | |
| 8 | 2.4 | 100% | | | |
| 9 | 2.7 | | | | 8'-10' SAA except brown (10YR 5/3) & micaceous |
| 10 | 3.1 | | | | |
| 11 | 3.4 | 10'-15' | | | 10'-15' si, f-c gr, f-c SAND, wet brown (10YR 5/3) gravel is SR-WR |
| 12 | 3.7 | | | | 15'-17 SAA except brownish yellow (10YR 6/8) |
| 13 | 4.0 | 100% | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | 15'-18' | | | |
| 16 | 4.9 | | | | |
| 17 | 5.2 | 100% | | | |
| 18 | 5.5 | | Residuum | ML | 17'-18' gravelly SILT, wet, brownish yellow gravel is angular shale/dolostone |
| 19 | 5.8 | | | | Terminate Boring @ 18' |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0201

**Date Started:** 9/18/07 **Drilling Contractor:** BOART LONGYEAR **Page** 1 **of** 1

**Date Completed:** 9/18/07 **Driller:** JAMES ROBINSON **Survey Unit:** 8

**Logged By:** Rodney Clark **Equipment:** MINISONIC #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | 0.3 | 0'-5' | Fill | ML | 0'-3.5' gr, sa, SILT, moist, yellow dark grayish brown (10YR 3/2), gr is A, trace of glass debris |
| 2 | 0.6 | | | | |
| 3 | 0.9 | 100% | | | 3.5'-5': si, gr, f-c SAND, moist brown (10YR 5/3) gravel is A-WR |
| 4 | 1.2 | | | SW | |
| 5 | 1.5 | | ▽ | | 5'-8' SAA except wet |
| 6 | 1.8 | 5'-10' | Alluvial | | |
| 7 | 2.1 | | | | |
| 8 | 2.4 | 100% | | | 8'-9.5' si, f-m SAND, wet gray (10YR 5/1) micaceous, trace of gravel |
| 9 | 2.7 | | | SM | |
| 10 | 3.1 | 10'-15' | | SW-GW | 9.5'-18' si, gr, f-c SAND - si, sa, GRAVEL, wet, yellowish brown (10YR 5/6) gr is SR-WR & f-c |
| 11 | 3.4 | | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | 100% | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | 15'-18' | | | |
| 16 | 4.9 | | | | |
| 17 | 5.2 | 100% | | | |
| 18 | 5.5 | | Bedrock | GW | 18' - Driller indicated he hit bedrock @ 18'. Cuttings in the drill bit confirmed sa, GRAVEL, dry, light bluish gray (GLEY 2 7/1) gravel is dolostone (Rome Formation) Terminate boring @ 18' |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0202

| | | | | | |
|---|---|---|---|---|---|
| **Date Started:** | 9/18/07 | **Drilling Contractor:** | BOART LONGYEAR | **Page** 1 | **of** 1 |
| **Date Completed:** | 9/18/07 | **Driller:** | JAMES ROBINSON | **Survey Unit:** | 8 |
| **Logged By:** | Rodney Clark | **Equipment:** | JAMES ROBINSON | **Elevation:** | TBD |

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | 0.3 | 0'-5' | | | 0'-4' gr, sa, SILT, moist, very dark grayish brown (10YR 3/2) gr is A., organics & roots observed |
| 2 | 0.6 | 1/5' | FILL | ML | 4'-13' si, gr, f-c SAND, wet, yellowish brown (10YR 5/6) brown (10YR 5/3), gr. is SR-WR mostly quartz sand |
| 3 | 0.9 | | | | |
| 4 | 1.2 | (Root jammed core barrel) | ▽ | | |
| 5 | 1.5 | | ALLUVIAL | SW | |
| 6 | 1.8 | 5'-10' | | | |
| 7 | 2.1 | 4/5 | | | |
| 8 | 2.4 | | | | |
| 9 | 2.7 | | | | |
| 10 | 3.1 | | | | |
| 11 | 3.4 | 10'-15' | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | 100% | | | |
| 14 | 4.3 | | | SW GW | 13'-16' si, gr, f-c, SANDY, si, f-c sa, GRAVEL, wet, brownish yellow (10YR 6/6) gr. is SR-WR |
| 15 | 4.6 | | | | |
| 16 | 4.9 | 15'-18' | | | |
| 17 | 5.2 | 100% | Residuum | ML | 16'-17' gr. SILT, wet, brownish yellow (10YR 6/8) gr. is A. ~~shale/dolostone~~ (Residuum) |
| 18 | 5.5 | | Bedrock | GW | 17'-18' sa, GRAVEL, clay, light blue gray (GLEY 2 7/1) gravel is A. dolostone (Rome Formation) |
| 19 | 5.8 | | | | Terminate Boring @ 18' |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0203

| | | | | | |
|---|---|---|---|---|---|
| **Date Started:** 9/18/07 | **Drilling Contractor:** BOART LONGYEAR | **Page** 1 of 1 |
| **Date Completed:** 9/18/07 | **Driller:** JAMES ROBINSON | **Survey Unit:** 8 |
| **Logged By:** Rodney Clark | **Equipment:** MINISONIC #402 | **Elevation:** TBD |

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | 0.3 | 0'-5' | | | 0'-5' gr, sa, SILT, moist-wet, very dark grayish brown (10YR 3/2) gr is A, abundant roots observed |
| 2 | 0.6 | | FILL | ML | |
| 3 | 0.9 | 1'/5' | | | |
| 4 | 1.2 | (Roots jammed core barrel) | ▽ | | |
| 5 | 1.5 | | | | |
| 6 | 1.8 | 5'-10' | Alluvial | SW | 5'-10' si, f-c gr, f-c SAND, wet, brown (10YR 5/3), gr is SR-WR gr is f-c |
| 7 | 2.1 | | | | |
| 8 | 2.4 | 2'/5' | | | |
| 9 | 2.7 | | | | |
| 10 | 3.1 | | | | 10'-14' si, sa, GRAVEL, wet, yellowish brown (10YR 5/6), gr is SR-WR |
| 11 | 3.4 | 10'-15' | | GW | |
| 12 | 3.7 | 100% | | | |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | | | 14'-17' si, gr, f-c SAND, wet, yellowish brown, gr is f-c & SR-WR |
| 15 | 4.6 | | | SW | |
| 16 | 4.9 | 15'-18½' | | | |
| 17 | 5.2 | 100% | | | 17'-18' gr, SILT, wet, brownish yellow (10YR 6/8) gravel is SR & WR, gravel is shale / quartz conglomerate (residuum actively weathered by past alluvial process) |
| 18 | 5.5 | | RESIDUUM | ML | |
| 19 | 5.8 | | BEDROCK | GW | 18'-18.5 sa, GRAVEL, dry, light blue gray (GLEY 2 7/1) (Rome Formation) |
| 20 | 6.1 | | | | Terminate Boring @ 18.5' |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0204

| | | | | | |
|---|---|---|---|---|---|
| Date Started: | 9/18/07 | Drilling Contractor: | BOARY LONGYEAR | Page 1 | of 1 |
| Date Completed: | 9/18/07 | Driller: | JAMES ROBINSON | Survey Unit: | 8 |
| Logged By: | Rodney Clark | Equipment: | MINISONIC #1402 | Elevation: | TBD |

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | 0.3 | 0'-5' | | CH | 0'-1' gr, si, CLAY, moist, yellowish red (5YR 5/6) high plasticity |
| 2 | 0.6 | 100% | Fill | ML | 1'-3' gr, sa, SILT, moist, very dark grayish brown (10YR 3/2) gr is A, organics observed |
| 3 | 0.9 | | | SW | 3'-5' si, gr, f-c SAND, moist, brownish yellow (10YR 6/8) gr is A-SR |
| 4 | 1.2 | | | | |
| 5 | 1.5 | | ▽ | | 5'-7' SAA except wet & brown (10YR 5/3) |
| 6 | 1.8 | 5'-10' | | | |
| 7 | 2.1 | | | | |
| 8 | 2.4 | 100% | Alluvial | SM | 7'-8' si f-m SAND, wet, brown, micaceous |
| 9 | 2.7 | | | SW | 8'-14' si, gr, f-c, SAND, wet yellowish brown (10YR 5/4) gr is SR-WR |
| 10 | 3.1 | | | | 14'-15' SAA except brownish yellow (10YR 6/8) |
| 11 | 3.4 | 10'-15' | | | 15'-18' si, gr, f-c SAND, wet, brownish yellow, gravel is SR-WR |
| 12 | 3.7 | 100% | | | |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | | | | |
| 16 | 4.9 | 15'-18' | | | |
| 17 | 5.2 | 100% | | | |
| 18 | 5.5 | | Bedrock | GW | 18' - sa, GRAVEL, dry, light bluish gray (GLEY 7/1) gravel is A, dolostone (Bolivar Formation) |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | Terminated @ 18' |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0205

**Date Started:** 9/18/07 **Drilling Contractor:** BOART LONGYEAR **Page** 1 **of** 1

**Date Completed:** 9/18/07 **Driller:** JAMES ROBINSON **Survey Unit:** 8

**Logged By:** Rodney Clark **Equipment:** MINI SONIC **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | 0.3 | 0'-5' | | | 0'-5' gr, si, CLAY, moist, yellowish red (5YR 5/6) laminated, high plasticity |
| 2 | 0.6 | 100% | FILL | CH | |
| 3 | 0.9 | | | | |
| 4 | 1.2 | | | | |
| 5 | 1.5 | | ▽ | | 5'-7' si, gr, f-c SAND, wet, brown (10YR 5/3) gr is f-c & SR-WR |
| 6 | 1.8 | 5'-10' | | SW | |
| 7 | 2.1 | | Alluvial | | |
| 8 | 2.4 | 100% | | SM | 7'-9' si, f-m SAND, wet, light olive brown (2.5Y 5/3) micaceous |
| 9 | 2.7 | | | | |
| 10 | 3.1 | | | SW | 9'-15' si, gr, f-c SAND, wet, yellowish brown (10YR 5/8) gr is SR-WR |
| 11 | 3.4 | 10'-15' | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | 100% | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | | | | 15'-18.5' SAA except brownish yellow (10YR 6/8) |
| 16 | 4.9 | 15'-19.5' | | | |
| 17 | 5.2 | | | | |
| 18 | 5.5 | 100% | | | |
| 19 | 5.8 | | Bedrock | ML GW | 18.5'-19' gr, SILT, wet, brownish yellow (10YR 6/6) gr is SR-WR, some conglomerates observed |
| 20 | 6.1 | | | | 19'-19.5' sa, si, GRAVEL, moist, light bluish gray (GLEY 2 7/1) gravel is angular dolostone (Rome Fm.) |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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Terminate boring @ 19.5'

# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0206

**Date Started:** 9/24/07 **Drilling Contractor:** Boart Longyear **Page** 1 **of** 1

**Date Completed:** 9/24/07 **Driller:** J. Robinson **Survey Unit:** 8

**Logged By:** S. Kelly **Equipment:** mini Sonic #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 0-5 | FILL | SW | 0-3.5 SAND, moist, v. dk brown (10YR 2/2), |
| 1 | 0.3 | 50% | topsoil | | little silt & gravel (angular to SA, f-c), glass |
| | | | | | fragments (1/4" ϕ) |
| 2 | 0.6 | | | | |
| 3 | 0.9 | | | | |
| | | | | | |
| 4 | 1.2 | | Alluvial | | 3.5-8.5 gr. m-c SAND, moist to wet, yellowish |
| | | | | | brown (10YR 5/8), little silt, gravel is f-c, ~~SA-SR~~ 9/24/07 |
| 5 | 1.5 | | | | angular to WR |
| | | 5-10 | | | |
| 6 | 1.8 | 100% | | | |
| 7 | 2.1 | | | | |
| 8 | 2.4 | | | | |
| 9 | 2.7 | | | SP | 8.5-12 micaceous f-~~m~~ c SAND, wet, brown |
| | | | | | (10YR 4/3) 9/24/07 |
| 10 | 3.1 | 10-15 | | | |
| 11 | 3.4 | 100% | | | |
| 12 | 3.7 | | | | 12-17.5 si. gr. SAND to si. sa. GRAVEL, wet/saturated, |
| 13 | 4.0 | | | | yellowish brown (10YR 5/8) gravel is |
| | | | | | f-c, SA to WR |
| 14 | 4.3 | | | | |
| 15 | 4.6 | | | | |
| | | 15-18.5 | | | |
| 16 | 4.9 | 100% | | | |
| 17 | 5.2 | | | | |
| 18 | 5.5 | | Residuum | ML-GM | 17.5-18.5 Weathered Rock; gr. SILT to si. GRAVEL, |
| | | | | | wet to moist, lt. gray (10YR 7/1) & lt. yellowish |
| 19 | 5.8 | | | | boring terminated @ 18.5' / brown (10YR 6/4); gravel |
| | | | | | is angular dolomite |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0207

**Date Started:** 9/24/07 **Drilling Contractor:** Boart Longyear **Page** 1 **of** 1

**Date Completed:** 9/24/07 **Driller:** J. Robinson **Survey Unit:** 8

**Logged By:** S. Kelly **Equipment:** mini sonic #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 0-5 | FILL | SW | 0-2.5 organic rich si. gr. SAND, moist, |
| 1 | 0.3 | 100% | topsoil | | v. dk brown (10YR 2/2) |
| 2 | 0.6 | | | | |
| | | | | | (SW) 9/24/07 |
| 3 | 0.9 | | Alluvial | SW | 2.5-8.9 gr m-v.c. SAND, moist to wet |
| | | | | | yellowish brown (10YR 5/8) grading to |
| 4 | 1.2 | | | | lt. brownish gray (10YR 6/2) |
| 5 | 1.5 | | ▽ | | |
| | | 5-10 | | | |
| 6 | 1.8 | 100% | | | |
| 7 | 2.1 | | | | |
| 8 | 2.4 | | | | |
| 9 | 2.7 | | | | (SW) 9/24/07 |
| | | | | SP | 9-13 micaceous f-c SAND, wet, ~~dk~~ gray |
| 10 | 3.1 | | | | (10YR 5/1), trace f-m gravel |
| | | 10-15 | | | |
| 11 | 3.4 | 100% | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | | | SW- | 13-19.7 si. gr. SAND, to si. sa. GRAVEL, wet/ |
| 14 | 4.3 | | | GW | saturated, yellowish brown (10YR 5/8), gravel is |
| | | | | | f-c, angular to WR |
| 15 | 4.6 | | | | |
| | | 15-20 | | | |
| 16 | 4.9 | 100% | | | |
| 17 | 5.2 | | | | |
| 18 | 5.5 | | | | |
| 19 | 5.8 | | | | |
| | | | | | (SW) 9/24/07 |
| 20 | 6.1 | | | | ~~W~~ 19.7-20 - weathered Rock, si. sa. GRAVEL, moist |
| | | | Residuum | GM | boring terminated @ 20' / lt. gray (10YR 7/1) gravel is angular dolomite. |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0208

**Date Started:** 9/25/07 **Drilling Contractor:** Beart Longyear **Page** 1 **of** 1

**Date Completed:** 9/25/07 **Driller:** J. Robinson **Survey Unit:** 8

**Logged By:** S. Kelly **Equipment:** mini Sonic #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 0-5 | FILL | SM- | 0-4.5 sl. gr. SAND, moist, strong brown (7.5YR 5/6) |
| 1 | 0.3 | 75% | | GW | w/ imported gravel & organics in matrix |
| 2 | 0.6 | | | | |
| 3 | 0.9 | | | | |
| 4 | 1.2 | | | | |
| 5 | 1.5 | | Alluvial | SW- | 4.5-19.8 sl. gr. SAND to sl. sa. GRAVEL, wet, |
| | | 5-10 | | GW | strong brown (7.5YR 4/6) w/ organics |
| 6 | 1.8 | 100% | | | near top of strata (fine roots, twigs) |
| | | | | | gravel is f to angular to WR ; color |
| 7 | 2.1 | | | | grades to yellowish brown (10YR 5/8) |
| 8 | 2.4 | | | | |
| 9 | 2.7 | | | | |
| 10 | 3.1 | | | | |
| | | 10-15 | | | |
| 11 | 3.4 | 100% | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | | | | |
| | | 15-20 | | | |
| 16 | 4.9 | 100% | | | |
| 17 | 5.2 | | | | |
| 18 | 5.5 | | | | |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | Residuum | GM | 19.8-20 weathered Rock: sl. GRAVEL, moist, H. gray (10YR 7/1) to brownish yellow (10YR 6/6) gravel is angular (dolomite) |

boring terminated @ 19.8' 20' (BD) 9/25/07

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# Appendix D.3

# Soil Boring Logs, Survey Unit 9

# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 8/21/07 ET0209

| | | | |
|---|---|---|---|
| **Date Started:** 8/21/07 | **Drilling Contractor:** Boart Longyear | **Page** 1 | **of** 1 |
| **Date Completed:** 8/21/07 | **Driller:** J. Robinson | **Survey Unit:** 9 | |
| **Logged By:** S. Kelly | **Equipment:** mini Sonic #1402 | **Elevation:** TBD | |

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 0-2.5 | Alluvial | SW | 0-5 gr. SAND, moist, lt brownish gray (10YR 6/2) |
| 1 | 0.3 | 100% | | | gravel is SA to SR up to 1"Ø sand is m-vc coarse |
| 2 | 0.6 | | | | |
| | | | D | | |
| 3 | 0.9 | 2.5-5 5% | | | (2.5-5 driller indicated little/no resistance advancing drill rods) |
| 4 | 1.2 | | | | |
| 5 | 1.5 | 5-10 | | SW | 5-8 si. gr. SAND, wet/saturated gray (10YR 6/1) |
| 6 | 1.8 | 100% | | | ~~coarsening~~ (SA) 8/21/07 gravel up to 2.5"Ø (SR) (@ ~7.5-8') |
| 7 | 2.1 | | | | |
| 8 | 2.4 | | | SW | 8-16.5 si. gr. SAND, wet, yellowish brown (10YR 5/6) gravel is angular to SR up to 3"Ø |
| 9 | 2.7 | | | | |
| 10 | 3.1 | 10-15 | | | |
| 11 | 3.4 | 100% | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | 15-19 | | | |
| 16 | 4.9 | (SA) 8/21/07 100% | | | |
| 17 | 5.2 | | Residuum | ML | 16.5-19 weathered Rome, gr. SILT, wet, yellowish brown (10YR 5/8) to ~~dk. yellowish brown~~ (10YR 4/3), gravel is angular (dolomite/mudstone fragments) up to 0.5"Ø (SA) 8/21/07 |
| 18 | 5.5 | | | | |
| 19 | 5.8 | | | | boring terminated @ 16.5' |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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SA = subangular
SR = subrounded

# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0210

**Date Started:** 8/22/07 **Drilling Contractor:** Boart Longyear **Page** 1 **of** 1

**Date Completed:** 8/22/07 **Driller:** J. Robinson **Survey Unit:** 9

**Logged By:** S. Kelly **Equipment:** mini Sonic #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 0-2.5 | Alluvial | SW | 0-3 gr. SAND (med-coarse), v. moist to wet, gray (7.5YR) gravel is SA to SR up to 1.5" ϕ |
| 1 | 0.3 | 100% | | | |
| 2 | 0.6 | | | | |
| 3 | 0.9 | 2.5-5 100% | | SW | 3-9 micaceous fine SAND, wet, dk. gray (7.5YR 4/1) gr. 8/22/07 8/22/07 8/22/07 ; generally coarsening downward to gr. SAND; gravel SA to SR up to 1.5" ϕ |
| 4 | 1.2 | | | | |
| 5 | 1.5 | 5-10 | | | |
| 6 | 1.8 | 85% | | | |
| 7 | 2.1 | | | | |
| 8 | 2.4 | | | | |
| 9 | 2.7 | | | SW | 9-10 si. gr. SAND, wet/saturated, yellowish brown (10YR 5/8) gravel is SA to SR up to 2" ϕ |
| 10 | 3.1 | 10-15 | | | |
| 11 | 3.4 | 80% | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | 15-20 | | | |
| 16 | 4.9 | 100% | | | |
| 17 | 5.2 | | | | |
| 18 | 5.5 | | Residuum | ML-GM | 18-20 weathered Rome; gr. SILT to si. GRAVEL wet, yellowish brown (10YR 5/8); gravel is angular |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | boring terminated @ 20' |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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NFS File Classification: DCM-23-05-02

SA = subangular

SR = subrounded

# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0211

**Date Started:** 8/21/07 **Drilling Contractor:** Brent Lowrey Inc **Page** 1 **of** 1

**Date Completed:** 8/21/07 **Driller:** T. Robinson **Survey Unit:** 9

**Logged By:** S. Kelly **Equipment:** Mini Sonic #1902 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 0-2.5 | Alluvial | SW | 0-3 gr. SAND, moist to wet, brown (10YR 5/3) |
| 1 | 0.3 | 80% | | | grading to dark gray (10YR 4/1); gravel is |
| | | | | | SA to SR up to 2" ϕ; organics (roots) |
| 2 | 0.6 | | ▽ | | upper ~3" |
| | | 2.5-5 | | | |
| 3 | 0.9 | 100% | | SP-SW | 3.95 micaceous f-m SAND, wet, dk. gray |
| 4 | 1.2 | | | | (GLEY 1 4/N); little gravel (SA-SR up to 1.5" ϕ) |
| 5 | 1.5 | | | | |
| | | 5-10 | | | |
| 6 | 1.8 | 90% | | | |
| 7 | 2.1 | | | | |
| 8 | 2.4 | | | | |
| 9 | 2.7 | | | | |
| 10 | 3.1 | | | SW-GW | 9.5-13 si. gr. SAND, wet, saturated, yellowish |
| | | 10-15 | | | brown (10YR 5/6); gravel angular to SR up |
| 11 | 3.4 | 50% | | | to 3" ϕ; coarsening downward to |
| | | | | | sandy gravel |
| 12 | 3.7 | | | | |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | | | | |
| | | 15-20 | | | |
| 16 | 4.9 | 100% | | | |
| 17 | 5.2 | | | | |
| 18 | 5.5 | | | | 17.5 @ 8/21/07 |
| 19 | 5.8 | | Residuum | ML-GM | 18.5-20 Weathered Rome, gr. SILT to si. GRAVEL, |
| | | | | | wet, brownish yellow (10YR 6/6) gravel is up to 1.5" ϕ |
| 20 | 6.1 | | | | angular (dolomite, mudstone fragments) |
| | | | | | Boring terminated @ 20' |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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SR = Subrounded

# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0212

| | | | |
|---|---|---|---|
| **Date Started:** 8/22/07 | **Drilling Contractor:** Dean Longyear | **Page** 1 **of** 1 | |
| **Date Completed:** 8/22/07 | **Driller:** J. Robinson | **Survey Unit:** 9 | |
| **Logged By:** S. Kelly | **Equipment:** mini Sonic #1402 | **Elevation:** TBD | |

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 0-2.5 | Alluvial | SW | 0-5 gr. Sl. SAND, moist to wet, dk. reddish |
| 1 | 0.3 | 100% | | | gray (5YR 4/2) gravel is angular to SR up |
| | | | | | to 1.5" ϕ |
| 2 | 0.6 | | | | |
| 3 | 0.9 | 2.5-5 | | | No recovery 2.5-5'; driller indicates no |
| | | NR | | | resistance when advancing drill rods |
| 4 | 1.2 | 0% | | | (assume bottom of upper strata @ 5') |
| 5 | 1.5 | | | | |
| | | 5-10 | | SP-SW | 5-9.5 micaceous f-m SAND, wet, coarsening |
| 6 | 1.8 | 100% | | | downward; gravel is angular to SR up |
| | | | | | to 2" ϕ |
| 7 | 2.1 | | | | |
| 8 | 2.4 | | | | |
| 9 | 2.7 | | | | |
| | | | | SW | 9.5-12 gr. sl. SAND, wet/saturated, strong |
| 10 | 3.1 | 10-15 | | | brown (7.5YR 5/6) gravel is angular to SR |
| 11 | 3.4 | 100% | | | up to 2" ϕ |
| 12 | 3.7 | | | ML-~~GM~~ | 12-15 weathered Rome; SILT to gr. SILT, wet |
| 13 | 4.0 | | Residuum | | strong brown (7.5YR 5/6) to v. pale brown |
| | | | | | 8/22/07 (10YR 7/3) gravel is angular (mudstone/ |
| 14 | 4.3 | | | | dolomite rock fragments) up to 1" ϕ |
| 15 | 4.6 | | | | boring terminated @ 15' |
| 16 | 4.9 | | | | |
| 17 | 5.2 | | | | |
| 18 | 5.5 | | | | |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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SR = Subrounded

# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0213

| | | | |
|---|---|---|---|
| **Date Started:** 8/22/07 | **Drilling Contractor:** Beart Longyear | **Page** 1 | **of** 1 |
| **Date Completed:** 8/22/07 | **Driller:** J. Robinson | **Survey Unit:** 9 | |
| **Logged By:** S. Kelly | **Equipment:** mini Sonic #1402 | **Elevation:** TBD | |

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 0-2.5 | Alluvial | SW | 0-7 m-c SAND, moist to wet, lt. gray |
| 1 | 0.3 | 75% | | | (2.5YR 7/1); trace f. gravel up to 0.75" ϕ |
| 2 | 0.6 | | 0 | | |
| 3 | 0.9 | 2.5-5 | | | (No recovery 2.5-5'; driller indicates, |
| | | NR | | | no resistance advancing drill rods & |
| 4 | 1.2 | 0% | | | wet soil) |
| 5 | 1.5 | 5-10 | | | |
| 6 | 1.8 | 100% | | | |
| 7 | 2.1 | | | SP-SW | 7-9 micaceous f-m SAND, wet; gray (GLEY 1 |
| 8 | 2.4 | | | | 5/N) coarsening downward to gr. |
| | | | | | SAND, gravel angular to SR up to 2" ϕ |
| 9 | 2.7 | | | SW-GW | 9-14 si. gr. SAND, wet (saturated), strong brown |
| 10 | 3.1 | 10-15 | | | (7.5YR 5/6); coarsening downward to sa. GRAVEL |
| | | | | | gravel is angular to SR up to 3" ϕ |
| 11 | 3.4 | 100% | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | Residuum | ML-GM | 14-15 weathered Rock; gr. SILT to si. |
| 15 | 4.6 | | | | GRAVEL, wet, yellowish brown (10YR 5/8) gravel is |
| | | | | | boring terminated @ 15' / angular |
| 16 | 4.9 | | | | up to 1.5" ϕ |
| | | | | | (dolomite / mudstone |
| 17 | 5.2 | | | | fragments) |
| 18 | 5.5 | | | | |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | |

**Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered**

**Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)**

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0214

| | | | |
|---|---|---|---|
| **Date Started:** 8/22/07 | **Drilling Contractor:** Boart Longyear | **Page** 1 | **of** 1 |
| **Date Completed:** 8/22/07 | **Driller:** J. Robinson | **Survey Unit:** 9 | |
| **Logged By:** S. Kelly | **Equipment:** minisonic #1402 | **Elevation:** TBD | |

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 0-2.5 | Alluvial | SW | 0-6.5 gr. SAND, moist to wet, gray (2.5YR 5/1) |
| 1 | 0.3 | 100% | | | gravel is SA to SR up to 2" ϕ |
| | | | D E | | |
| 2 | 0.6 | | | | |
| | | 2.5-5 | | | |
| 3 | 0.9 | 80% | | | |
| 4 | 1.2 | | | | |
| 5 | 1.5 | | | | |
| | | 5-10 | | | |
| 6 | 1.8 | 100% | | | |
| 7 | 2.1 | | | SW | 6.5-8 micaceous f-m SAND, wet, dark gray (GLEY1 4/N); trace coarse sand (mica) |
| 8 | 2.4 | | | | |
| 9 | 2.7 | | | SW-SP | 8- si. gr. SAND, wet, yellowish brown (10YR 5/4) gravel is SA to WR up to 2.5" ϕ general coarsening downward to si. SA GRAVEL |
| 10 | 3.1 | | | | |
| | | 10-15 | | | |
| 11 | 3.4 | 100% | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | | Residuum | ML-GM | 13-15 weathered Rome: gr. SILT to si. GRAVEL, wet (some is dry), lt. yellowish brown (10YR 6/4) |
| 14 | 4.3 | | | | |
| 15 | 4.6 | | | | boring terminated @ 15' |
| 16 | 4.9 | | | | |
| 17 | 5.2 | | | | |
| 18 | 5.5 | | | | |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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SA = subangular WR = well rounded
SR = subrounded

NFS File Classification: DCM-23-05-02

# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0215

**Date Started:** 8/22/07 **Drilling Contractor:** Boart Longyear **Page** 1 **of** 1

**Date Completed:** 8/22/07 **Driller:** J. Robinson **Survey Unit:** 9

**Logged By:** S. Kelly **Equipment:** mini Sonic #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 0-2.5 | Alluvial | SW | 0-3.3 gr. si. SAND, moist to wet, lt. brownish |
| 1 | 0.3 | 75% | | | gray (10YR 6/2) gravel is SA to SR up to 2" ϕ |
| | | | ▽ | | |
| 2 | 0.6 | | | | |
| | | 2.5-5 | | | |
| 3 | 0.9 | 100% | | SP-SW | 3.3-8 - micaceous f-m SAND, wet, dk. gray |
| 4 | 1.2 | | | | (GLEY1 4/N) - little gravel (SA - SR up to 1" ϕ) |
| | | | | | } coarse sand |
| 5 | 1.5 | 5-10 | | | |
| 6 | 1.8 | 100% | | | |
| 7 | 2.1 | | | | |
| | | | | | to si. sa. GRAVEL |
| 8 | 2.4 | | | SW-GW | 8-13 si. gr. SAND, wet, yellowish brown (10YR 5/6) |
| 9 | 2.7 | | | | gravel is SA to WR up to 3" ϕ |
| 10 | 3.1 | 10-15 | | | |
| 11 | 3.4 | | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | | Residuum | ML-GM | 13-15: weathered Rome, gr. SILT to si. GRAVEL, |
| 14 | 4.3 | | | | wet, yellowish brown (10YR 5/6) gravel is angular |
| | | | | | (dolomite/mudstone fragments) up to 1.5" ϕ |
| 15 | 4.6 | | | | boring terminated @ 15' |
| 16 | 4.9 | | | | |
| 17 | 5.2 | | | | |
| 18 | 5.5 | | | | |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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SR = subrounded
WR = well rounded

NFS File Classification: DCM-23-05-02

# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0216

| | | | | | |
|---|---|---|---|---|---|
| **Date Started:** 8/22/07 | **Drilling Contractor:** Boart Longyear | **Page:** 1 | **of** 1 | | |
| **Date Completed:** 8/22/07 | **Driller:** J. Robinson | **Survey Unit:** 9 | | | |
| **Logged By:** S. Kelly | **Equipment:** Minisonic #1402 | **Elevation:** TBD | | | |

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 0-2.5 | Alluvial | SW | 0-7 M-C SAND, moist to wet, pinkish |
| 1 | 0.3 | 100% | | | gray (7.5YR 6/2); little gravel SA-SR up |
| | | | P | | to 1.5"ϕ |
| 2 | 0.6 | | | | |
| 3 | 0.9 | 2.5-5 | | | |
| | | 100% | | | |
| 4 | 1.2 | | | | |
| 5 | 1.5 | 5-10 | | | |
| 6 | 1.8 | 100% | | | |
| 7 | 2.1 | | | SW | 7-9.5 micaceous SAND, wet, dark |
| 8 | 2.4 | | | | gray (GLEY 1 4/N); grading to |
| | | | | | gr. M-C SAND, gravel is SA to WR |
| 9 | 2.7 | | | | up to 2"ϕ |
| 10 | 3.1 | | | SW-GW | 9.5-14.5 sl. gr. SAND to sl. sa. GRAVEL, |
| | | 10-15 | | | wet, 8/22/07 strong brown (7.5YR 5/6); |
| 11 | 3.4 | 100% | | | gravel is SA to WR up to 2.5"ϕ |
| 12 | 3.7 | | | | |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | | Residuum | MC/CAM | 14.5-15: weathered Rock: gr. SILT TO |
| | | | | | boring terminated @ 15' |
| 16 | 4.9 | | | | sl. GRAVEL, wet, yellowish |
| | | | | | brown (10YR 5/8) |
| 17 | 5.2 | | | | gravel is angular |
| | | | | | (dolomite/mudstone frag- |
| 18 | 5.5 | | | | ments) up to 1"ϕ |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0217

**Date Started:** 8/23/07 **Drilling Contractor:** Brown Longyear **Page** 1 **of** 1

**Date Completed:** 8/23/07 **Driller:** J. Robinson **Survey Unit:** 9

**Logged By:** S. Kelly **Equipment:** mini Sonic #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | 0.3 | 0-2.5 100% | Alluvial | SW | 0-7.5 gr. SAND, moist to wet, gray (10YR 6/1) to lt. brownish gray (10YR 6/2) gravel is SA to SR up to 1" ϕ |
| 2 | 0.6 | | | | |
| 3 | 0.9 | 2.5-5 100% | | | -organics (wood) present @ 3.5' ("specks") |
| 4 | 1.2 | | | | |
| 5 | 1.5 | 5-10 100% | | SW-SP | 4.5-9 micaceous gr. SAND, wet, dk. gray (GLEY 1 4/N), trace organics (wood fragments), coarsening downward to gr f-v.coarse SAND |
| 6 | 1.8 | | | | |
| 7 | 2.1 | | | | |
| 8 | 2.4 | | | | |
| 9 | 2.7 | | | SW-GW | 9-17 si. gr. SAND to sa. si. GRAVEL, wet/saturated, yellowish brown (10YR 5/6); gravel is f-c, angular to subrounded |
| 10 | 3.1 | 10-15 100% | | | |
| 11 | 3.4 | | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | 15-20 100% | | | |
| 16 | 4.9 | | | | |
| 17 | 5.2 | | Residuum | mt-GW | 17- weathered Rome; gr. SILT to si. GRAVEL, wet, dk. yellowish brown (10YR 4/4) to brownish yellow (10YR 6/8); gravel is angular (dolomite/mudstone fragments) up to |
| 18 | 5.5 | | | | |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | boring terminated @ 20' |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0218

**Date Started:** 8/23/07 **Drilling Contractor:** Boart Longyear **Page** 1 **of** 1

**Date Completed:** 8/23/07 **Driller:** J. Robinson **Survey Unit:** 9

**Logged By:** S. Kelly **Equipment:** minisonic #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 0-2.5 75% (restin Run #2) | Alluvial | SW | 0-1 organic si. gr. SAND, wet, lt. brownish gray (10YR 6/2) gravel SR up to 1.5" ϕ 1-3.3 gr. SAND, wet, grayish brown (10YR 5/2) gravel is f-m SA to WR |
| 1 | 0.3 | | | | |
| 2 | 0.6 | | | | |
| 3 | 0.9 | 2.5-5 100% | | | |
| 4 | 1.2 | | | SP SW | 3.3-9 micaceous f-c SAND, wet, dk. gray (10YR 4/1); coarsening downward to gr. SAND (gravel is f-c angular to SR) |
| 5 | 1.5 | 5-10 | | | |
| 6 | 1.8 | | | | |
| 7 | 2.1 | | | | |
| 8 | 2.4 | | | | |
| 9 | 2.7 | | | SW-GW | 9-12.5 gr. SAND to sa. GRAVEL, wet/saturated, strong brown (7.5YR 5/6) gravel is f-c SA to WR |
| 10 | 3.1 | 10-15 100% | | | |
| 11 | 3.4 | | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | 15-20 100% | | | |
| 16 | 4.9 | | | | |
| 17 | 5.2 | | | | |
| 18 | 5.5 | | Residuum | ML-GM | 17.5-20 weathered Rome: gr. SILT to si. GRAVEL, wet, yellowish brown (10YR 6/8) gravel is angular up to 2" ϕ (mudstone) |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | boring terminated @ 20' |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0219

| | | | |
|---|---|---|---|
| **Date Started:** 8/23/07 | **Drilling Contractor:** Boart Longyear | **Page** 1 | **of** 11 |
| **Date Completed:** 8/23/07 | **Driller:** J. Robinson | **Survey Unit:** 9 | |
| **Logged By:** S. Kelly | **Equipment:** mini Sonic #1102 | **Elevation:** TBD | |

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 0-2.5 | Alluvial | SW | 0-2.5 · gr. SAND (f-v.coarse) moist to |
| 1 | 0.3 | 100% | ▽ | | wet, lt. brownish gray (10YR 6/2) gravel |
| | | | | | is f-c SA to SR |
| 2 | 0.6 | | | | |
| | | 2.5-5 | | SW | 2.5-13 micaceous f-c SAND, wet, dk gray |
| 3 | 0.9 | 100% | | | (10YR 4/1) coarsening downward to |
| 4 | 1.2 | | | | gr. SAND with gravel layer @ ~7.5-10' |
| 5 | 1.5 | 5-10 | | | |
| 6 | 1.8 | 100% | | | |
| 7 | 2.1 | | | | |
| 8 | 2.4 | | | | |
| 9 | 2.7 | | | | |
| 10 | 3.1 | 10-15 | | | |
| 11 | 3.4 | 100% | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | | | SW-GW | 13-16.5 gr. si. SAND to si. sa. GRAVEL, wet, |
| 14 | 4.3 | | | | strong brown (~~10YR~~ 7.5YR 5/6) gravel is f-c |
| | | | | | angular to WR @ 08/23/07 |
| 15 | 4.6 | 15-20 | | | |
| 16 | 4.9 | 100% | | | |
| 17 | 5.2 | | Residuum | ML-GM | 16.5-20 weathered Rock; gr. SILT to si. GRAVEL, |
| | | | | | wet, yellowish brown (10YR 5/6), gravel |
| 18 | 5.5 | | | | is angular (mudstone fragments) |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | Boring terminated @ 20' |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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NFS File Classification: DCM-23-05-02

# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0220

| | | | |
|---|---|---|---|
| **Date Started:** 8/23/07 | **Drilling Contractor:** Boart Longyear | **Page** 1 | **of** 1 |
| **Date Completed:** 8/23/07 | **Driller:** J. Robinson | **Survey Unit:** 9 | |
| **Logged By:** S. Kelly | **Equipment:** mini Sonic #1402 | **Elevation:** TBD | |

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 0-2.5 100% | Alluvial | SW | 0-6.5 gr. m-v.coarse SAND, moist to wet, grayish brown (10YR 5/2) to lt. grayish brown (10YR 6/2); gravel is f-m SA-SR |
| 1 | 0.3 | | | | |
| 2 | 0.6 | | | | |
| 3 | 0.9 | 2.5-5 100% | | | |
| 4 | 1.2 | | | | |
| 5 | 1.5 | 5-10 100% | | | |
| 6 | 1.8 | | | | |
| 7 | 2.1 | | | SW | 6.5-9 micaceous f-c SAND, wet, dark gray (GLEY 1 4/N), coarsening downward to gr. SAND; gravel is f-c SA to SR |
| 8 | 2.4 | | | | |
| 9 | 2.7 | | | SW-GW | 9-14 Si. gr. SAND to si. sa. GRAVEL, wet, yellowish brown (10YR 5/6) |
| 10 | 3.1 | 10-15 100% | | | |
| 11 | 3.4 | | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | Residuum | GM | 14-15 weathered Rock; Si. GRAVEL, wet, yellowish brown (10YR 5/8) gravel is angular mudstone boring terminated @ 15' |
| 15 | 4.6 | | | | |
| 16 | 4.9 | | | | |
| 17 | 5.2 | | | | |
| 18 | 5.5 | | | | |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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NFS File Classification: DCM-23-05-02

# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0221

**Date Started:** 8/23/07 **Drilling Contractor:** Bear Longyear **Page** 1 **of** 1

**Date Completed:** 8/23/07 **Driller:** T. Robinson **Survey Unit:** 9

**Logged By:** S. Kelly **Equipment:** mini Sonic #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 0-2.5 | FP | SM | 0-0.5 organic rich si. SAND, wet, lt. brownish |
| 1 | 0.3 | 80% | Alluvial | SW | gray (10YR 6/2) |
| | | | | | 0.5-2.7 gr. m-v.coarse SAND, wet, gray (10YR |
| 2 | 0.6 | | | | 6/1) gravel is ~~[illegible]~~ 8/23/07 f-c. SA to WR |
| | | 2.5-5 | | | |
| 3 | 0.9 | 100% | | | |
| 4 | 1.2 | | | | 3.7 micaceous f-c SAND, wet, dk gray |
| | | | | SW | (GLEY 1 4/N); gravel is f-c SA to SR (coarsening |
| 5 | 1.5 | | | | downward to gr. SAND) |
| | | 5-10 | | | 5-10 low recovery due to 3" ϕ cobble/gravel |
| 6 | 1.8 | 5% | | | in drill rod; bottom of strata assumed |
| | | | | | to be 10' |
| 7 | 2.1 | | | | |
| 8 | 2.4 | | | | |
| 9 | 2.7 | | | | |
| 10 | 3.1 | | | | 10-13.3 si. gr. SAND to si. sa. GRAVEL, wet/saturated |
| | | 10-15 | | SW-GW | yellowish brown (10YR 5/6) |
| 11 | 3.4 | 100% | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | | | | |
| | | | | | 13.3-15 weathered Rock, SILT to gr. SILT, wet |
| 14 | 4.3 | | Residuum | ML | brownish yellow (10YR 6/8) to yellowish brown |
| | | | | | (10YR 5/8) gravel is angular mudstone |
| 15 | 4.6 | | | | boring terminated @ 15' |
| 16 | 4.9 | | | | |
| 17 | 5.2 | | | | |
| 18 | 5.5 | | | | |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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NFS File Classification: DCM-23-05-02 FP = floodplain

# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0222

| | | | |
|---|---|---|---|
| **Date Started:** 8/23/07 | **Drilling Contractor:** Beart Longyear | **Page** 1 | **of** 1 |
| **Date Completed:** 8/23/07 | **Driller:** J. Robinson | **Survey Unit:** 9 | |
| **Logged By:** S. Kelly | **Equipment:** mini Sonic #1402 | **Elevation:** TBD | |

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 0-2.5 75% | Alluvial | SW | 0-5 gr. si. SAND, wet, dk gray (10YR 4/1) |
| 1 | 0.3 | | | | |
| 2 | 0.6 | | | | |
| 3 | 0.9 | 2.5-5 NR 0% | | | 2.5-5 no recovery; driller indicates no/little resistance advancing drillrods |
| 4 | 1.2 | | | | |
| 5 | 1.5 | 5-10 100% | | SW | 5-9 micaceous f-c SAND, wet, dk gray (GLEY1 4/N); coarsening downward to gr. SAND ^, gravel is f-c SA to WR |
| 6 | 1.8 | | | | |
| 7 | 2.1 | | | | |
| 8 | 2.4 | | | | |
| 9 | 2.7 | | | SW-GW | 9-19 si. gr. SAND to si. sa. GRAVEL, wet/saturated, yellowish brown (10YR 5/6) gravel is f-c SA to WR |
| 10 | 3.1 | 10-15 100% | | | |
| 11 | 3.4 | | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | 15-20 100% | | | |
| 16 | 4.9 | | | | |
| 17 | 5.2 | | | | |
| 18 | 5.5 | | | | |
| 19 | 5.8 | | Residuum | ML-GM | 19-20 weathered Rome, gr SILT to si GRAVEL, wet brownish yellow (10YR 6/8) gravel is angular mudstone |
| 20 | 6.1 | | | | boring terminated @ 20' |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 023

**Date Started:** 8/24/07 **Drilling Contractor:** Beart Longyear **Page** 1 **of** 1

**Date Completed:** 8/24/07 **Driller:** J. Robinson **Survey Unit:** 9

**Logged By:** S. Kelly **Equipment:** mini Sonic #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 0-2.5 50% | Alluvial | SW | 0-3.5 gr. SAND, wet, reddish gray (5YR 5/2) some very dk. gray (5YR 3/1) si. Sand |
| 1 | 0.3 | | | | |
| 2 | 0.6 | | | | |
| 3 | 0.9 | 2.5-5 100% | | | |
| 4 | 1.2 | | | SW | 3.5-9 micaceous f-c SAND, wet, dk gray (GLEY 1 4/N), some organic "specks" (wood fragment) from 3.5-5', coarsening downward to gr. SAND, gravel is f-c SA to SR |
| 5 | 1.5 | 5-10 100% | | | |
| 6 | 1.8 | | | | |
| 7 | 2.1 | | | | |
| 8 | 2.4 | | | | |
| 9 | 2.7 | | | SW-GW | 9-13.5 si. gr. SAND to si. sa. GRAVEL, wet/saturated |
| 10 | 3.1 | 10-15 100% | | | |
| 11 | 3.4 | | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | Residuum | ML-GM | 13.5-15 weathered Rome; gr. SILT to si. GRAVEL, moist, strong brown (7.5YR 4/6) gravel is angular mudstone fragments |
| 15 | 4.6 | | | | boring terminated @ 15' |
| 16 | 4.9 | | | | |
| 17 | 5.2 | | | | |
| 18 | 5.5 | | | | |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0224

| | | | |
|---|---|---|---|
| **Date Started:** 8/24/07 | **Drilling Contractor:** Beart Longyear | **Page** 1 | **of** 1 |
| **Date Completed:** 8/24/07 | **Driller:** J. Robinson | **Survey Unit:** 9 | |
| **Logged By:** S. Kelly | **Equipment:** mini Sonic #1402 | **Elevation:** TBD | |

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 0-2.5 | Alluvial | SW | 0-7 f-m gr. SAND, wet lt. brown (7.5 YR 6/3) |
| 1 | 0.3 | 100% | | | coarsening to f-c gravel (SA to WR) |
| 2 | 0.6 | | | | |
| 3 | 0.9 | 2.5-5 100% | | | |
| 4 | 1.2 | | | | |
| 5 | 1.5 | 5-10 | | | |
| 6 | 1.8 | 100% | | | |
| 7 | 2.1 | | | SW-GW | 7-9 micaceous f-c SAND, wet, dk gray (GLEY 1 4/N) coarsening downward to sa. GRAVEL; gravel is SA to WR |
| 8 | 2.4 | | | | |
| 9 | 2.7 | | | SW-GW | 9-14 si. gr. SAND to si. sa. GRAVEL, wet/saturated yellowish brown (10YR 5/4); gravel is SA to WR |
| 10 | 3.1 | 10-15 | | | |
| 11 | 3.4 | 100% | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | Residuum | ML | 14-15 weathered Rome gr. sa. SILT, wet yellowish brown 10YR (7/8); gravel is angular (mudstone and sandstone? fragments) |
| 15 | 4.6 | | | | |
| 16 | 4.9 | | | | boring terminated @ 15' |
| 17 | 5.2 | | | | |
| 18 | 5.5 | | | | |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0225

**Date Started:** 8/24/07 **Drilling Contractor:** Boart Longyear **Page** 1 **of** 2

**Date Completed:** 8/24/07 **Driller:** J. Robinson **Survey Unit:** 9

**Logged By:** SKelly **Equipment:** mini Sonic #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 0-2.5 | Alluvial | SW | 0-7 f-c gr. SAND, wet lt. brownish gray (10YR 6/2) gravel is SA - SR |
| 1 | 0.3 | 100% 80% | | | |
| 2 | 0.6 | | | | |
| 3 | 0.9 | 2.5-5 75% | | | |
| 4 | 1.2 | | | | |
| 5 | 1.5 | 5-10 | | | |
| 6 | 1.8 | 100% | | | |
| 7 | 2.1 | | | SW | 7-9 micaceous f-c SAND, wet, dk. gray (GLEY1 4/N) organic "specks" (wood fragments) coarsening downward to gr(f-c) SAND |
| 8 | 2.4 | | | | |
| 9 | 2.7 | | | SW-GW | 9-15 si. gr. SAND to si. sa. GRAVEL, wet/saturated strong brown (7.5YR 5/6) gravel is SA to WR |
| 10 | 3.1 | 10-15 100% | | | |
| 11 | 3.4 | | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | 15-20 NR 0% | Residuum* see note next page | ML | 15-25: weathered Rome: SILT to gr. SILT, wet/saturated, yellowish brown (10YR 5/8) gravel is angular (mudstone/sandstone? fragments) |
| 16 | 4.9 | | | | |
| 17 | 5.2 | | | | |
| 18 | 5.5 | | | | |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0225

**Date Started:** 8/24/07 **Drilling Contractor:** Beal/Longyear **Page** 2 **of** 2

**Date Completed:** 8/24/07 **Driller:** T. Robinson **Survey Unit:** 9

**Logged By:** S. Kelly **Equipment:** mini Sonic #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 20-25 | Residuum | ML | |
| 21 | 6.4 | 100% | | | (No recovery 15-20 - driller indicates |
| 22 | 6.7 | | | | no resistance advancing drill rods 15-25', |
| | | | | | therefore assume top of weathered Rome |
| 23 | 7.0 | | | | @ 15' where weathered Rome is wet |
| | | | | | silt with little gravel, so soft material |
| 24 | 7.3 | | | | not captured in rods) |
| 25 | 7.6 | | | | boring terminated @ 25' |
| 26 | 7.9 | | | | |
| 27 | 8.2 | | | | |
| 28 | 8.5 | | | | |
| 29 | 8.8 | | | | |
| 30 | 9.2 | | | | |
| 31 | 9.5 | | | | |
| 32 | 9.8 | | | | |
| 33 | 10.1 | | | | |
| 34 | 10.4 | | | | |
| 35 | 10.7 | | | | |
| 36 | 11.0 | | | | |
| 37 | 11.3 | | | | |
| 38 | 11.6 | | | | |
| 39 | 11.9 | | | | |
| 40 | 12.2 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0226

**Date Started:** 8/24/07 **Drilling Contractor:** Boart Longyear **Page** 1 **of** 1

**Date Completed:** 8/24/07 **Driller:** J. Robinson **Survey Unit:** 9

**Logged By:** S. Kelly **Equipment:** mini Sonic #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 0-2.5 | Alluvial | SW | 0-6.5 f-mgr. SAND, wet, gray (7.5YR 5/1) gravel |
| 1 | 0.3 | 100% | | | is SA to WR @ 8/24/07 |
| 2 | 0.6 | | | | |
| 3 | 0.9 | 2.5-5 100% | | | |
| 4 | 1.2 | | | | |
| 5 | 1.5 | 5-10 | | | |
| 6 | 1.8 | 100% | | | @ 8/24/07 |
| 7 | 2.1 | | | SW-SM | 6.5-8.5 micaceous f-m SAND wet (increasing silt w/depth) dk gray (GLEY 1 4/N) to brown (10YR 4/3) organic "specks" (wood fragments) from 6.5-7.5, coarsening to SA to WR, f-m |
| 8 | 2.4 | | | | |
| 9 | 2.7 | | | SW-GW | 8.5-17.5 si. gr. SAND to si. sa. gravel, wet/saturated, dk. yellowish brown (10YR 4/4) gravel is f-c, SA to WR |
| 10 | 3.1 | 10-15 | | | |
| 11 | 3.4 | 100% | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | 15-20 | | | |
| 16 | 4.9 | 100% | | | |
| 17 | 5.2 | | | | |
| 18 | 5.5 | | Residuum | MC-GM | 17.5-20 weathered Rome, gr. SILT to si. GRAVEL, wet, yellowish brown (10YR 5/8) gravel is angular (mudstone/dolomite fragments) |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | Boring terminated @ 20' |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0227

**Date Started:** 8/24/07 **Drilling Contractor:** Boart Longyear **Page** 1 **of** 1

**Date Completed:** 8/24/07 **Driller:** J. Robinson **Survey Unit:** 9

**Logged By:** S. Kelly **Equipment:** mini Sonic #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 0-2.5 100% | Alluvial | SW | 0-4 ~~gr.~~ m-c SAND, moist to wet, pinkish gray (7.5YR 6/2) to gray (7.5YR 5/1), with organics (wood fragments) trace to little gravel is f-c SA to SR |
| 1 | 0.3 | | | | |
| 2 | 0.6 | | | | |
| 3 | 0.9 | 2.5-5 100% | | | |
| 4 | 1.2 | | | SW | 4-9 micaceous f-m SAND, wet, dk. greenish gray (GLEY 1, 4/1 10Y); coarsening downward to gr. SAND (gravel is f-c SA to SR) |
| 5 | 1.5 | 5-10 100% | | | |
| 6 | 1.8 | | | | |
| 7 | 2.1 | | | | |
| 8 | 2.4 | | | | |
| 9 | 2.7 | | | SW-GW | 9-14.8 si. gr. SAND to si. sa. GRAVEL, wet/saturated, yellowish brown (10YR 5/6) gravel is f-c SA to |
| 10 | 3.1 | 10-15 100% | | | |
| 11 | 3.4 | | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | | Residuum | GW | 14.8-15 weathered Rome; si. GRAVEL, moist, lt. yellowish brown (10YR 6/4) gravel is angular (mudstone/dolomite) |
| 16 | 4.9 | | | | boring terminated @ 15' |
| 17 | 5.2 | | | | |
| 18 | 5.5 | | | | |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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NFS File Classification: DCM-23-05-02

# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0228

| | | | |
|---|---|---|---|
| **Date Started:** 8/24/07 | **Drilling Contractor:** Boart Longyear | **Page** 1 | **of** 2 |
| **Date Completed:** 8/24/07 | **Driller:** J. Robinson | **Survey Unit:** 9 | |
| **Logged By:** S. Kelly | **Equipment:** mini Sonic #402 | **Elevation:** TBD | |

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 0-2.5 100% | Alluvial | SW | 0-3.5 m-c SAND, moist to wet, brown (10YR 5/3) little f-m gravel (SA to SR) & organics @ surface, trace to little silt |
| 1 | 0.3 | | | | |
| 2 | 0.6 | | ▽ | | |
| 3 | 0.9 | 2.5-5 100% | | | |
| 4 | 1.2 | | | SP-SW | 3.5-10 micaceous f-m SAND, wet, dk. gray (GLEY1 4/N) coarsening downward to gr. SAND (f-c gravel SA to SR) |
| 5 | 1.5 | 5-10% | | | |
| 6 | 1.8 | | | | |
| 7 | 2.1 | | | | |
| 8 | 2.4 | | | | |
| 9 | 2.7 | | | | |
| 10 | 3.1 | 10-15 100% | | SW | 10-15 si. gr. SAND to si. sa. GRAVEL, wet/saturated, strong brown (7.5YR 5/6) gravel is f-c SA to WR |
| 11 | 3.4 | | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | 15-23 40% | Residuum | ML-GM | 15-23: weathered Rome: gr. SILT to si. GRAVEL, wet/saturated, yellowish brown (10YR 5/8) gravel is angular (moderate) |
| 16 | 4.9 | | | | |
| 17 | 5.2 | | | | |
| 18 | 5.5 | | | | driller indicates no resistance advancing drill rods ~15-22'; therefore top of weathered Rome is assumed to be 15' where soft silt (residuum) was presumably encountered |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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NFS File Classification: DCM-23-05-02

# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0228

**Date Started:** 8/24/07 **Drilling Contractor:** Boart Longyear **Page** 2 **of** 2

**Date Completed:** 8/24/07 **Driller:** J. Robinson **Survey Unit:** 9

**Logged By:** S. Kelly **Equipment:** mini Sonic #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | | Residuum | ML-GM | |
| 21 | 6.4 | | | | |
| 22 | 6.7 | | | | |
| 23 | 7.0 | | | | |
| 24 | 7.3 | | | | Boring terminated @ 23' |
| 25 | 7.6 | | | | |
| 26 | 7.9 | | | | |
| 27 | 8.2 | | | | |
| 28 | 8.5 | | | | |
| 29 | 8.8 | | | | |
| 30 | 9.2 | | | | |
| 31 | 9.5 | | | | |
| 32 | 9.8 | | | | |
| 33 | 10.1 | | | | |
| 34 | 10.4 | | | | |
| 35 | 10.7 | | | | |
| 36 | 11.0 | | | | |
| 37 | 11.3 | | | | |
| 38 | 11.6 | | | | |
| 39 | 11.9 | | | | |
| 40 | 12.2 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0229

**Date Started:** 8/27/07 **Drilling Contractor:** Boart Longyear **Page** 1 **of** 1

**Date Completed:** 8/27/07 **Driller:** J. Robinson **Survey Unit:** 9

**Logged By:** S. Kelly **Equipment:** mini Sonic #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | 0.3 | 0-2.5 25% | Alluvial? | SW | 0-6.5 gr. SAND, wet, grayish brown (10YR 5/2), gravel is f-c SA-SR |
| 2 | 0.6 | | | | |
| 3 | 0.9 | 2.5-5 100% | | | |
| 4 | 1.2 | | | | organic ~~br~~ silty layer @ 3.8-4' (SK 8/27/07); organic "specks" (decomposing wood) below |
| 5 | 1.5 | 5-10 100% | | | |
| 6 | 1.8 | | | | |
| 7 | 2.1 | | | SW | 6.5-10 micaceous f-m SAND, wet, dk gray (GREY 4/N) grading to si. f-c gravelly SAND, grayish brown (10YR 5/2) gravel is SA-WR |
| 8 | 2.4 | | | | trace organics ("specks" of decomposing organic material) |
| 9 | 2.7 | | | | |
| 10 | 3.1 | (SK 8/27/07) 5-10 75% | | SW-GW | 10-13.8 si. gr. SAND to si. sa. GRAVEL, wet / saturated, yellowish brown (10YR 5/8) |
| 11 | 3.4 | 100% | | | gravel is f-c SA to WR |
| 12 | 3.7 | | | | |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | RESIDUUM | ML-GM | 13.8-15 weathered bone: gr. SILT to si GRAVEL, moist to dry (pulverized rock), brownish yellow (10YR 6/6) gravel is angular (dolomite / mudstone) |
| 15 | 4.6 | | | | boring terminated @ 15' up to 15" |
| 16 | 4.9 | | | | |
| 17 | 5.2 | | | | |
| 18 | 5.5 | | | | |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0230

**Date Started:** 8/27/07 **Drilling Contractor:** Beart Longyear **Page** 1 **of** 1

**Date Completed:** 8/27/07 **Driller:** J. Robinson **Survey Unit:** 9

**Logged By:** S. Kelly **Equipment:** mini Sonic #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 0-2.5 100% | Alluvial ? | SW | 0-3.5 sl. gr. SAND, wet, gray (10YR 5/1), trace organics (f. roots, wood) gravel is f-c, SA to SR |
| 1 | 0.3 | | | | |
| 2 | 0.6 | | | | |
| 3 | 0.9 | 2.5-5 100% | | | |
| 4 | 1.2 | | | SW | 3.5-9 micaceous f-m SAND, wet, dk. gray (GLEY 1 4/N) |
| 5 | 1.5 | 5-10 50% | | | |
| 6 | 1.8 | | | | |
| 7 | 2.1 | | | | |
| 8 | 2.4 | | | | |
| 9 | 2.7 | | | SW-GW | 9-14 sl. gr. SAND to sl. sa. GRAVEL, GW 8/27/07 ~~wet~~ / saturated; gravel is f-c, SA to WR, yellowish brown (10YR 5/8) |
| 10 | 3.1 | 10-15 100% | | | |
| 11 | 3.4 | | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | residuum | ML-GM | 14-15: weathered Rock; gr SILT to sl. GRAVEL moist, yellowish yellow (10YR 7/6) gravel is angular (mudstone/dolomite) |
| 15 | 4.6 | | | | boring terminated @ 15' / UD to 1.5' ⊘ |
| 16 | 4.9 | | | | |
| 17 | 5.2 | | | | |
| 18 | 5.5 | | | | |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0231

| | | | |
|---|---|---|---|
| **Date Started:** 8/27/07 | **Drilling Contractor:** Boart Longyear | **Page** 1 | **of** 1 |
| **Date Completed:** 8/27/07 | **Driller:** J. Robinson | **Survey Unit:** 9 | |
| **Logged By:** S. Kelly | **Equipment:** mini Sonic #1402 | **Elevation:** TBD | |

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 0-2.5 50% | Alluvial | SW | 0-5 si. gr. SAND, wet, grayish brown (10YR 5/2), organics @ surface (~3") gravel is SA to SR f-c grained |
| 1 | 0.3 | | | | |
| 2 | 0.6 | | | | |
| 3 | 0.9 | 2.5-5 75% | | | |
| 4 | 1.2 | | | | |
| 5 | 1.5 | 5-10 NR 0% | | | 5-10 - no recovery - soft sediments are not captured by drill rods (fall out of the bottom - assume this is the unconsolidated sand ~~encountered~~ encountered in adjacent (SD) 8/27/07 borings; assume that sl. gr. SAND encountered at 10' |
| 6 | 1.8 | | | | |
| 7 | 2.1 | | | | |
| 8 | 2.4 | | | | |
| 9 | 2.7 | | | | |
| 10 | 3.1 | 10-15 100% | | SW-GW | 10-15.2: si. gr SAND to (SD) 8/27/07 ~~gr~~ si. SA. GRAVEL, wet/saturated, yellowish brown (10YR 5/8) gravel is f-c, SA to WR |
| 11 | 3.4 | | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | 15-16 100% | Residuum | ML-GM | 15.2-16: weathered Rome; gr. SILT to si. GRAVEL, moist, brownish yellow (10YR 6/6) gravel is angular (dolomite/mudstone) |
| 16 | 4.9 | | | | boring terminated @ 16' |
| 17 | 5.2 | | | | |
| 18 | 5.5 | | | | |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0232

**Date Started:** 8/27/07 **Drilling Contractor:** Boart Longyear **Page** 1 **of** 1

**Date Completed:** 8/27/07 **Driller:** J. Robinson **Survey Unit:** 9

**Logged By:** Skelly **Equipment:** mini-Sonic #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 0-2.5 | Alluvial? | SW | 0-6.5 gr. SAND, moist to wet, brown (7.5YR 5/2) |
| 1 | 0.3 | 100% | | | to v. dk. gray (7.5YR 3/1) gravel is f-c, SA |
| | | | | | to SR with silt rich organic layers |
| 2 | 0.6 | | | | |
| 3 | 0.9 | 2.5-5 | | | |
| | | 50% | | | |
| 4 | 1.2 | | | | |
| 5 | 1.5 | 5-10 | | | |
| 6 | 1.8 | 100% | | | |
| 7 | 2.1 | | | SW | 6.5-9 micaceous f-m SAND, wet, dk gray (GLEY1 4/N) grading to si. grav. SAND; |
| 8 | 2.4 | | | | gravel is f-c SA to WR |
| 9 | 2.7 | | | | |
| | | | | SW-GW | 9-16 si. gr. SAND to si. sa. GRAVEL, wet/saturated; |
| 10 | 3.1 | 10-15 | | | gravel is f-c, SA to WR, yellowish brown (10YR 5/4) |
| 11 | 3.4 | 100% | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | | | | 16 @ 8/27/07 |
| | | 15-17 | | | 15-17: weathered Rome; SILT to gr. SILT to |
| 16 | 4.9 | 100% | | | si. GRAVEL, saturated to dry (pulverized road), |
| | | | Residuum | mc-GM | yellowish brown (10YR 5/8) to lt. gray (GLEY1 7/N) |
| 17 | 5.2 | | | | gravel is angular (dolomite) |
| | | | | | boring terminated @ 17' |
| 18 | 5.5 | | | | |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0233

**Date Started:** 8/27/07 **Drilling Contractor:** Boart Longyear **Page** 1 **of** 1

**Date Completed:** 8/27/07 **Driller:** J. Robinson **Survey Unit:** 9

**Logged By:** S. Kelly **Equipment:** mini-Sonic #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 0-2.5 | Alluvial | SW | 0-3.3 gr. si. SAND, moist to wet, v. dk. gray |
| 1 | 0.3 | 100% | | | (7.5YR 3/1), gravel is f-c, SA to SR, trace/ |
| | | | | | little organics 0-0.5' |
| 2 | 0.6 | | | | |
| | | 2.5-5 | | | |
| 3 | 0.9 | 100% | | | |
| | | | | SW | 3.3-5 micaceous f-c SAND, wet, dk. greenish |
| 4 | 1.2 | | | | gray (GLEY 1 4/1 10Y), with organic fragments |
| | | | | | ("specks" of decomposing wood), grading |
| 5 | 1.5 | | | | to si. gr. SAND, gravel is f-c SA to ~~SR~~ WR |
| | | 5-10 | | | |
| 6 | 1.8 | 100% | | | |
| 7 | 2.1 | | | | |
| 8 | 2.4 | | | | |
| 9 | 2.7 | | | | |
| 10 | 3.1 | | | SW-GW | 9.5-19 si. gr. SAND to si. sa. GRAVEL, wet/ |
| | | 10-15 | | | Saturated, lt. yellowish brown (10YR 6/4) |
| 11 | 3.4 | 100% | | | gravel is f-c SA to WR |
| 12 | 3.7 | | | | |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | | | | |
| | | 15-20 | | | |
| 16 | 4.9 | 100% | | | |
| 17 | 5.2 | | | | |
| 18 | 5.5 | | | | |
| 19 | 5.8 | | Residuum | ML | 19-20 weathered Rock; gr. SILT, wet/saturated |
| 20 | 6.1 | | | | yellowish brown (10YR 5/8) gravel is angular, |
| | | | | | boring terminated @ 20' (mudstone/dolomite) |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0234

**Date Started:** 8/27/07 **Drilling Contractor:** Boart Longyear **Page** 1 **of** 1

**Date Completed:** 8/27/07 **Driller:** J. Robinson **Survey Unit:** 9

**Logged By:** S. Kelly **Equipment:** mini Sonic #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 0-2.5.0 | Alluvial | SW | 0-3.5 si. gr. SAND, wet (gray 10YR 5/1) to |
| 1 | 0.3 | 80% | | | black (10YR 2/1) from 2.5-2.7', with |
| | | 8/27/07 | | | organics ("speck" of wood) |
| 2 | 0.6 | | | | |
| 3 | 0.9 | | | | |
| 4 | 1.2 | | | SW | 3.5-8.5 micaceous f-m SAND, wet, dk gray (GLEY 1 4/N). grading to si. gr. SAND, gravel |
| 5 | 1.5 | 5-10 | | | is f-c SA to WR |
| 6 | 1.8 | 100% | | | |
| 7 | 2.1 | | | SM | (6.5-7.5 v. dk. brown si. SAND, organic rich? causing dk. color) |
| 8 | 2.4 | | | | |
| 9 | 2.7 | | | SW-GW | 8.5-12.5 si. gr. SAND to si. SA. GRAVEL, wet/saturated yellowish brown (10YR 5/8); gravel is |
| 10 | 3.1 | 10-15 | | | f-c, SA to WR |
| 11 | 3.4 | 100% | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | 15-20 | | | |
| 16 | 4.9 | 100% | | | |
| 17 | 5.2 | | | | |
| 18 | 5.5 | | Residuum | SML-GM | 17.5-20: weathered Rome; gr. SILT to si. GRAVEL, wet, yellowish brown (10YR 5/8); gravel is angular |
| 19 | 5.8 | | | | (dolomite/limestone) |
| 20 | 6.1 | | | | boring terminated @ 20' |

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0235

**Date Started:** 8/28/07 **Drilling Contractor:** Boart Longyear **Page** 1 **of** 1

**Date Completed:** 8/28/07 **Driller:** J. Robinson **Survey Unit:** 9

**Logged By:** S. Kelly **Equipment:** mini Sonic #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | @ 8/28/07 DESCRIPTION |
|---|---|---|---|---|---|
| | | 0-5 | Alluvial | ~~SW~~ ML | 0-1 Organic-rich SA. SILT, wet, dark |
| 1 | 0.3 | 90% | | | gray (10YR 4/1) |
| | | | | SW | 1-8 f-c SAND, wet, gray (10YR 5/1), little |
| 2 | 0.6 | | | | gravel (f-m, SA-SR), trace organics, |
| | | | | | micaceous |
| 3 | 0.9 | | | | |
| 4 | 1.2 | | | | |
| 5 | 1.5 | 5-10 | | | |
| 6 | 1.8 | 100% | | | |
| 7 | 2.1 | | | | |
| 8 | 2.4 | | | SW-GW | 8-13 si. gr. SAND to si. sa. GRAVEL, wet/saturated, |
| 9 | 2.7 | | | | yellowish brown (10YR 5/8), gravel is |
| | | | | | f-c (SA-WR) |
| 10 | 3.1 | 10-15 | | | |
| 11 | 3.4 | 100% | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | | Residuum | ML-GM | 13-15: weathered Rock; gr. SILT to si. GRAVEL, |
| 14 | 4.3 | | | | moist, yellow (10YR 7/6) to lt. gray (10YR 7/2) |
| | | | | | gravel: angular (dolomite fragments up |
| 15 | 4.6 | | | | to 0.5" Ø |
| | | | | | boring terminated @ 15 |
| 16 | 4.9 | | | | |
| 17 | 5.2 | | | | |
| 18 | 5.5 | | | | |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0236

**Date Started:** 8/28/07 **Drilling Contractor:** Brart Longyear **Page** 1 **of** 1

**Date Completed:** 8/28/07 **Driller:** J. Robinson **Survey Unit:** 9

**Logged By:** S. Kelly **Equipment:** mini Sonic #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 0-2.5 | Alluvial/ | SM- | 0-3 organic-rich si. SAND, moist, v.dk. |
| 1 | 0.3 | 100% | FP | SW | brown (10YR 2/2) w/ gravel (f-c SA to SR) |
| 2 | 0.6 | | | | |
| 3 | 0.9 | 2.5-5 | | | |
| | | 100% | | SW | 3-9 micaceous f-m SAND, wet, dk. gray |
| 4 | 1.2 | | | | (GLEY1 4/N), trace organic material; grading |
| | | | | | into f-c SA-WR gr. si. SAND (f-c) |
| 5 | 1.5 | 5-10 | | | |
| 6 | 1.8 | 100% | | | |
| 7 | 2.1 | | | | |
| 8 | 2.4 | | | | |
| 9 | 2.7 | | | SW- | 9-17.2 gr. si. SAND to si. sa. GRAVEL, wet/ |
| 10 | 3.1 | | | GW | saturated, yellowish brown (10YR 5/8), gravel |
| | | 10-15 | | | is f-c (SA to WR) |
| 11 | 3.4 | 100% | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | 15-20 | | | |
| 16 | 4.9 | 80% | | | |
| 17 | 5.2 | | | | |
| | | | | | 17.2-20 weathered Rome; gr. SILT to si. |
| 18 | 5.5 | | Residuum | ML- | GRAVEL, wet/saturated, yellowish brown |
| | | | | GM | (10YR 5/8) gravel is angular (dolomite/ |
| 19 | 5.8 | | | | mudstone) up to 1" ϕ |
| 20 | 6.1 | | | | boring terminated @ 20' |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0237

**Date Started:** 8/28/07 **Drilling Contractor:** Boart Longyear **Page** 1 **of** 1

**Date Completed:** 8/28/07 **Driller:** J. Robinson **Survey Unit:** 9

**Logged By:** S. Kelly **Equipment:** Mini. Sonic #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 0-2.5 | Alluvial/ | SM | 0-3 organic-rich si. SAND, moist to wet, grayish |
| 1 | 0.3 | 80% | FP | | brown (10YR 5/2) w/ v. dk. brown (10YR 2/2) |
| | | | | | organic layers (roots/wood), some f-m gravel |
| 2 | 0.6 | | | | (SA-SR) |
| 3 | 0.9 | 2.5-5 | | | |
| | | 100% | | SW | 3-9 micaceous f-m SAND, wet, dk. gray (GLEY1 4/N) |
| 4 | 1.2 | | | | grading to si. gr. SAND, gravel is f-c SA to |
| | | | | | WR, trace organics |
| 5 | 1.5 | 5-10 | | | |
| 6 | 1.8 | 100% | | | |
| 7 | 2.1 | | | | |
| 8 | 2.4 | | | | |
| 9 | 2.7 | | | SW | 9-16.5 si. grav. SAND to si. sa GRAVEL, wet/ |
| 10 | 3.1 | | | GW | saturated, yellowish brown (10YR 5/8) gravel is |
| | | 10-15 | | | f-c SA to WR |
| 11 | 3.4 | 100% | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | 15-20 | | | |
| 16 | 4.9 | 100% | | | |
| 17 | 5.2 | | Residuum | ML-GM | 16.5-20 weathered Rome: gr. SILT to si. GRAVEL brownish yellow (10YR 6/8) to yellow (10YR |
| 18 | 5.5 | | | | 7/6) gravel is angular (mudstone to dolomite) |
| | | | | | up to 1" ϕ |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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NFS File Classification: DCM-23-05-02

# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0238

**Date Started:** 8/28/07 **Drilling Contractor:** Beart Longyear **Page** 1 **of** 1

**Date Completed:** 8/28/07 **Driller:** J. Robinson **Survey Unit:** 9

**Logged By:** S. Kelly **Equipment:** mini Sonic #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 0-5 | Alluvial/ | SW | 0-3 gr. si. SAND, wet, grayish brown (10YR |
| 1 | 0.3 | 80% | FP | | 5/2), with organics (decreasing with depth - |
| | | | | | roots to decomposing wood) gravel is |
| 2 | 0.6 | | | | f-c, SA to SR |
| 3 | 0.9 | | | SW | 3-9.5 micaceous f-m SAND, wet, dk. |
| 4 | 1.2 | | | | gray (GLEY 1 4/N), trace organic |
| | | | | | "specks" (roots/decomposing wood); |
| 5 | 1.5 | 5-10 | | | grading to si. gr. SAND. gravel f-m, SA-SR |
| 6 | 1.8 | 100% | | | |
| 7 | 2.1 | | | | |
| 8 | 2.4 | | | | |
| 9 | 2.7 | | | | |
| 10 | 3.1 | | | SW-GW | 9.5-16.5: si. gr. SAND to si. sa. GRAVEL, wet/ |
| | | 15-10 | | | saturated, yellowish brown (10YR 5/8); gravel is |
| 11 | 3.4 | 100% | | | f-c, SA to WR |
| 12 | 3.7 | | | | |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | 15-20 | | | |
| 16 | 4.9 | 100% | | | |
| 17 | 5.2 | | Residuum | ML-GM | 16.5-20: weathered Rome: gr. SILT to si. GRAVEL, |
| | | | | | wet to moist, brownish yellow (10YR 6/8) to |
| 18 | 5.5 | | | | yellow (10YR 7/6), gravel is angular (mudstone |
| | | | | | to dolomite) |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | boring terminated @ 20' |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0239

**Date Started:** 9/28/07 **Drilling Contractor:** Boart Longyear **Page** 1 **of** 1

**Date Completed:** 9/28/07 **Driller:** J. Robinson **Survey Unit:** 9

**Logged By:** S. Kelly **Equipment:** mini Sonic **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 0-5 | Alluvial/ FP | ML | 0-1 organic-rich sa. SILT, moist/wet, v. |
| 1 | 0.3 | 80% | | | dk. brown (10YR 2/2) |
| | | | | SW-SM | 1-6.5 organic-rich si. f-c SAND, wet, v. dk. |
| 2 | 0.6 | | | | grayish brown (10YR 3/2), little f-m SA-SR |
| | | | | | gravel |
| 3 | 0.9 | | | | |
| 4 | 1.2 | | | | |
| 5 | 1.5 | 5-10 | | | |
| 6 | 1.8 | 100% | | | |
| 7 | 2.1 | | | SW | 6.5-9 micaceous f-m SAND, wet, dk. gray |
| | | | | | (GLEY1 4/N) grading to f-c SA to WR |
| 8 | 2.4 | | | | gr. si. f-c SAND |
| 9 | 2.7 | | | | |
| | | | | SW-GW | 9-10.5 si. gr. SAND to si. sa. GRAVEL wet/ |
| 10 | 3.1 | | | | saturated, yellowish brown (10YR 5/8) gravel |
| | | 10-15 | | | is f-c SA to WR |
| 11 | 3.4 | 90% | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | | | | |
| | | 15-20 | | | |
| 16 | 4.9 | 100% | | | |
| 17 | 5.2 | | Residuum | ML-GM | 16.5-20 weathered Rome: gr. SILT to si. GRAVEL, |
| | | | | | wet to moist, brownish yellow (10YR 6/8) to |
| 18 | 5.5 | | | | yellow (10YR 7/6); gravel is angular (limestone |
| | | | | | to dolomite) |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | boring terminated @ 20' |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0240

| | | | |
|---|---|---|---|
| **Date Started:** 8/28/07 | **Drilling Contractor:** Earth Longyear | **Page** 1 **of** 1 | |
| **Date Completed:** 8/28/07 | **Driller:** T. Robinson | **Survey Unit:** 9 | |
| **Logged By:** S. Kelly | **Equipment:** mini-Sonic #1402 | **Elevation:** TBD | |

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 0-5 | Alluvial/ | SW- | 0-3 si. gr. SAND, moist to wet, v. dk. grayish |
| 1 | 0.3 | 90% | FP | ML | brown (10YR 3/2) with organic-rich silt |
| | | | | | "layers" |
| 2 | 0.6 | | | | |
| 3 | 0.9 | | | | |
| | | | | SW | 3-9.5 micaceous f-m SAND, wet, dk. gray |
| 4 | 1.2 | | | | (GLEY 1 4/N); grades to sl. gravelly sand |
| | | | | | (gravel is f-c, SA to WR) |
| 5 | 1.5 | 5-10 | | | |
| 6 | 1.8 | 100% | | | |
| 7 | 2.1 | | | | |
| 8 | 2.4 | | | | |
| 9 | 2.7 | | | | |
| | | | | SW = | 9.5-14.7 si. gr. SAND to ~~gr.~~ 8/28/07 sl. sa. GRAVEL, |
| 10 | 3.1 | 10-15 | | GW | wet/saturated, yellowish brown (10YR 5/8) |
| 11 | 3.4 | 100% | | | gravel is f-c SA to WR |
| 12 | 3.7 | | | | |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | | Residuum | ML-GML | 14.7-15: weathered rock; sl. GRAVEL, wet, |
| | | | | 8/28/07 | boring terminated @ 15' |
| 16 | 4.9 | | | | yellowish brown (10YR 5/6) angular |
| 17 | 5.2 | | | | (mudstone) |
| 18 | 5.5 | | | | |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0241

**Date Started:** 8/28/07 **Drilling Contractor:** Beart Longyear **Page** 1 **of** 1

**Date Completed:** 8/28/07 **Driller:** J. Robinson **Survey Unit:** 9

**Logged By:** S. Kelly **Equipment:** mini Sonic #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 0-5 | Alluvial | SM-SW | 0-3 organic-rich si. gr. SAND, moist to wet, dk gray (7.5 YR 4/1) gravel is f-c, SA-SR WR |
| 1 | 0.3 | 100% | FP | | |
| 2 | 0.6 | | | | |
| 3 | 0.9 | | | SW | 3-9 micaceous f-m SAND, wet, dk. gray (GLEY 1 4/N) grading to si. gr. SAND, gravel is f-c SA to WR |
| 4 | 1.2 | | | | |
| 5 | 1.5 | 5-10 | | | |
| 6 | 1.8 | 100% | | | |
| 7 | 2.1 | | | | |
| 8 | 2.4 | | | | |
| 9 | 2.7 | | | SW-GW | 9-17 si. gr. SAND to si. SA. GRAVEL, wet/saturated yellowish brown (10YR 5/8) gravel is f-c, SA to WR |
| 10 | 3.1 | 10-15 | | | |
| 11 | 3.4 | 80% | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | 15-20 | | | |
| 16 | 4.9 | 100% | | | |
| 17 | 5.2 | | Residuum | ML-GM | 17-20: weathered Rome: gr. SILT to si. GRAVEL, wet, yellowish brown (10YR 5/8) and brown (10YR 5/3) gravel is angular (mudstone/dolomite) |
| 18 | 5.5 | | | | |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | Boring terminated @ 20' |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0242

**Date Started:** 8/29/07 **Drilling Contractor:** Boart Longyear **Page** 1 **of** 1

**Date Completed:** 8/29/07 **Driller:** J. Robinson **Survey Unit:** 9

**Logged By:** S. Kelly **Equipment:** mini Smic #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 0-5 | Alluvial | SW | 0-~1 si. gr. SAND, moist to wet, grayish |
| 1 | 0.3 | 90% | fill | | brown (10YR 5/2) with organics |
| | | | | SW | 1-~3 si. gr. SAND, wet, gray (10YR 5/1) |
| 2 | 0.6 | | | | gravel is f-m SA to SR |
| 3 | 0.9 | | | SW | 3-10 micaceous f-m SAND, wet, dk. gray |
| 4 | 1.2 | | | | (GLEY 1 4/N) grading to gr. f-c SAND; gravel |
| | | | | | is f-c SA to SR si. |
| 5 | 1.5 | 5-10 | | | |
| 6 | 1.8 | 50% | | | |
| 7 | 2.1 | | | | |
| 8 | 2.4 | | | | |
| 9 | 2.7 | | | | |
| 10 | 3.1 | 10-15 | | | 10-18 si gr. SAND to si. sa. GRAVEL, wet/ |
| 11 | 3.4 | 100% | | | saturated, yellowish brown (10YR 5/4); gravel |
| | | | | | is f-c, SA to WR |
| 12 | 3.7 | | | | |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | 15-20 | | | |
| 16 | 4.9 | 100% | | | |
| 17 | 5.2 | | | | |
| 18 | 5.5 | | Residuum | WC-GM | 18-20 weathered Rock: gr. SILT to si. GRAVEL, |
| 19 | 5.8 | | | | wet to moist, yellowish brown (10YR 5/8) to |
| | | | | | lt. yellowish brown (10YR 6/4), gravel is |
| 20 | 6.1 | | | | angular (mudstone/dolomite) |
| | | | | | boring terminated @ 20' |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0243

**Date Started:** 8/29/07 **Drilling Contractor:** Brent Longyear **Page** 1 **of** 1

**Date Completed:** 8/27/07 **Driller:** J. Robinson **Survey Unit:** 9

**Logged By:** S. Kelly **Equipment:** minisonic # VP02 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 0-5 | Alluvial | SW | 0-2 gr. si. SAND, moist to wet, lt. |
| 1 | 0.3 | 80% | FP | | brownish gray (10YR 6/2) with organics |
| | | | | | (roots & decomposing organic material) |
| 2 | 0.6 | | | | gravel is f-c SA to SR |
| | | | | SW | 2-7 gr. med SAND, wet, gray (10YR 5/1) |
| 3 | 0.9 | | | | gravel is f-c, SA to WR |
| 4 | 1.2 | | | | |
| 5 | 1.5 | 5-10 | | | |
| 6 | 1.8 | 100% | | | |
| 7 | 2.1 | | | | 9.5 |
| | | | | SW | 7-8 micaceous f m SAND, wet, dk. gray |
| 8 | 2.4 | | | | (GLEY1 4/N) coarsening to si. gr. SAND |
| | | | | | (gravel is f-c, SA to WR) gravelly c-v.c. |
| 9 | 2.7 | | | | Sand from 8-8.5 |
| 10 | 3.1 | | | SW- | 9.5-18 si. gr. SAND to si. SA. GRAVEL, |
| | | 10-15 | | GW | wet yellowish brown (10YR 5/8) gravel is |
| 11 | 3.4 | 100% | | | f-c, angular - WR |
| 12 | 3.7 | | | | |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | 15-20 | | | |
| 16 | 4.9 | 100% | | | |
| 17 | 5.2 | | | | |
| 18 | 5.5 | | Residuum | ML- | 18-20: weathered Rome: gr. SILT to si. GRAVEL |
| 19 | 5.8 | | | GM | wet, yellowish brown (10YR 5/8), gravel is |
| | | | | | angular (mudstone / dolomite) |
| 20 | 6.1 | | | | boring terminated @ 20' |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0244

**Date Started:** 8/29/07 **Drilling Contractor:** Boart Longyear **Page** 1 **of** 1

**Date Completed:** 8/29/07 **Driller:** J. Robinson **Survey Unit:** 9

**Logged By:** S. Kelly **Equipment:** mini Sonic #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 0-5 | Alluvial/ FP-1 | SW | 8/29/07 0-~8 si-gr. SAND, wet, lt. brownish gray (10YR 6/2) to dk. gray (GLEY 1 4/N), micaceous, organic-rich; little gravel (f-c SA-SR) |
| 1 | 0.3 | 50% | | | |
| 2 | 0.6 | | | | |
| 3 | 0.9 | | | | 8/29/07 (hard to ~~discern discern~~ discern strata breaks due to poor recovery & slough material in lower interval. |
| 4 | 1.2 | | | | |
| 5 | 1.5 | 5-10 | | | |
| 6 | 1.8 | 50% | | | |
| 7 | 2.1 | | | | |
| 8 | 2.4 | | | SW | 8/29/07 8-10 si. gr. SAND, wet/saturated, gray (10YR 5/1), gravel is angular - SR |
| 9 | 2.7 | | | | |
| 10 | 3.1 | 10-15 | | SW-GW | 10-14.5 si. gr. SAND to si. sa. GRAVEL, wet/saturated, yellowish brown (10YR 5/8) |
| 11 | 3.4 | 100% | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | 15-20 | Residuum | ML-GM | 14.5-17 weathered Rome; gr. SILT to si. GRAVEL, moist, yellowish brown (10YR 5/8) to lt. gray (10YR 7/1) gravel is angular (dolomite/limestone) |
| 16 | 4.9 | 17 100% | | | |
| 17 | 5.2 | | | | boring terminated @ 17' |
| 18 | 5.5 | | | | |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0245

**Date Started:** 8/29/07 **Drilling Contractor:** Boart Longyear **Page** 1 **of** 1

**Date Completed:** 8/29/07 **Driller:** J. Robinson **Survey Unit:** 9

**Logged By:** S. Kelly **Equipment:** mini Sonic #1482 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 0-5 | Alluvial/ | SW | 0-3 si. gr. SAND, moist to wet, dk. gray |
| 1 | 0.3 | 90% | FP | | (10YR 4/1) w/ organics, gravel is f-c SA-SR |
| 2 | 0.6 | | | | |
| 3 | 0.9 | | | SW | 3-9 f-m SAND, wet, greenish gray (GLEY 1 |
| 4 | 1.2 | | | | 5/1 10Y to 5/1 5GY), becoming micaceous |
| | | | | | and grading to si. gr. SAND; gravel is |
| 5 | 1.5 | | | | f-c, SA-WR |
| | | 5-10 | | | |
| 6 | 1.8 | 100% | | | |
| 7 | 2.1 | | | | |
| 8 | 2.4 | | | | |
| 9 | 2.7 | | | | |
| | | | | SW-GW | 9-14 si. gr. SAND to si. sa. GRAVEL, wet/ |
| 10 | 3.1 | | | | saturated, yellowish brown (10YR 5/8) |
| | | 10-15 | | | gravel is f-c SA-WR |
| 11 | 3.4 | 100% | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | Residuum | ML-GM | 14-15 weathered Rome: gr. SILT to si. GRAVEL, |
| 15 | 4.6 | | | | wet to moist, yellowish brown (10YR 5/8) to |
| | | | | | boring terminated @ 15' / lt. gray (10YR 7/1) |
| 16 | 4.9 | | | | gravel is angular |
| | | | | | (dolomite/limestone) |
| 17 | 5.2 | | | | |
| 18 | 5.5 | | | | |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0246

| | | | |
|---|---|---|---|
| **Date Started:** 8/29/07 | **Drilling Contractor:** Boart Longyear | **Page** 1 | **of** 1 |
| **Date Completed:** 8/29/07 | **Driller:** J. Robinson | **Survey Unit:** 9 | |
| **Logged By:** S. Kelly | **Equipment:** mini Sonic #1402 | **Elevation:** TBD | |

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 0-5 | Alluvial | SW | 0-3 si. gr. SAND, wet, grayish brown |
| 1 | 0.3 | 75% | FP | | (10YR 5/2) w/ organics; gravel is SA to SR, |
| | | | | | f-c |
| 2 | 0.6 | | | | |
| 3 | 0.9 | | | SW | 3-8.5 micaceous f-c SAND, wet, dk. gray |
| 4 | 1.2 | | | | (GLEY1 4/N); grading to si. gr. SAND, |
| | | | | | 8/29/07 gravel is f-c SA to WR |
| 5 | 1.5 | 5-10 | | | |
| 6 | 1.8 | 100% | | | |
| 7 | 2.1 | | | | |
| 8 | 2.4 | | | | |
| 9 | 2.7 | | | | 8.5-14.5: si. gr. SAND to si. sa. GRAVEL, |
| | | | | | 8/29/07 wet/saturated, yellowish brown (10YR 5/8) |
| 10 | 3.1 | | | SW-GW | to strong brown (7.5YR 5/6); gravel is f-c, |
| | | 10-15 | | | SA to WR |
| 11 | 3.4 | 100% | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | | Residuum | GW | 14.5-15 - weathered Rock: si. GRAVEL, wet, |
| | | | | | boring terminated @ 15 / yellowish brown |
| 16 | 4.9 | | | | (10YR 5/8) gravel is |
| | | | | | angular (mud stone) |
| 17 | 5.2 | | | | |
| 18 | 5.5 | | | | |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0247

**Date Started:** 8/29/07 **Drilling Contractor:** Beart Longyear **Page** 1 **of** 1

**Date Completed:** ~~8/29/07~~ 9/5/07 **Driller:** J. Robinson **Survey Unit:** 9

**Logged By:** S. Kelly / Rodney Clark **Equipment:** mini Sonic #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 0-5 75% | Alluvial/ FP | SW | 0-2 si. gr. SAND, moist to wet, lt. brownish gray (10YR 5/2), with organics, gravel is f-c, SA-SR |
| 1 | 0.3 | | | | |
| 2 | 0.6 | | | SW | 2-8.5 gr. SAND, wet, gray (10YR 5/1) to dk. gray (GLEY 1 4/N) micaceous; grading to si. gr. SAND gravel is f-c, SA-WR |
| 3 | 0.9 | | | | |
| 4 | 1.2 | | | | |
| 5 | 1.5 | 5-10 100% | | | |
| 6 | 1.8 | | | | |
| 7 | 2.1 | | | | |
| 8 | 2.4 | | | | |
| 9 | 2.7 | | | SW-GW | 8.5-19' si. gr. SAND to si. sa. GRAVEL, wet/ Saturated, yellowish brown (10YR 5/4); gravel is f-c, SA-WR |
| 10 | 3.1 | 10'-15' | | | Due to mechanical problems w/ drilling rod handles SAMPLES D, E, & F were collected on 9/5/2007 |
| 11 | 3.4 | 4.5'/5' | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | 15'-20' | | | |
| 16 | 4.9 | | | | |
| 17 | 5.2 | 100% | | | |
| 18 | 5.5 | | | | |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | Residuum | GW | Silty GRAVEL, moist, very dark gray (10YR 3/1) gravel is angular, laminated mudstone/claystone Bone Formation (Terminate Boring @ 20') |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0248

**Date Started:** 9/5/07 **Drilling Contractor:** BOART LONGYEAR **Page** 1 **of** 1

**Date Completed:** 9/5/07 **Driller:** JAMES ROBINSON **Survey Unit:** 9

**Logged By:** Rodney Clark **Equipment:** MINI SONIC #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | 0.3 | 0'-5' | Alluvial / F.P. | SW | 0'-1' si, gr, SAND, moist dark grayish brown (10YR 4/2) organics observed, gravel is SR-WR |
| 2 | 0.6 | 100% | | SM | 1'-2.5' si, SAND, moist, brown (10YR 4/3) micaceous, organics observed, coarsening downwards |
| 3 | 0.9 | | | | 2.5'-4' si, SAND, wet, gray (10YR 6/1) micaceous SAND f-m gravel. |
| 4 | 1.2 | | | | 4'-8 si, gr, SAND, wet, gray, some gravel, mostly quartz sand, micaceous |
| 5 | 1.5 | 5'-10' | | SW | |
| 6 | 1.8 | | | | |
| 7 | 2.1 | | | | |
| 8 | 2.4 | 100% | | | (8'-16.2' si, gr, SAND to si, sa, GRAVEL yellowish brown (10YR 5/6) wet, gravel is SR-WR up to 2" in diameter f-c |
| 9 | 2.7 | | | | |
| 10 | 3.1 | 10'-15' | | | |
| 11 | 3.4 | | | | |
| 12 | 3.7 | 100% | | | |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | 15'-16.5' | | | 16.2'-16.5' |
| 16 | 4.9 | 100% | Residuum | ML | gravelly SILT, moist, yellowish brown (10YR 5/8), |
| 17 | 5.2 | | | | gravel is angular dolomite (Rome Formation) |
| 18 | 5.5 | | | | terminate Boring @ 16.5' |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0249

**Date Started:** 9/6/07 **Drilling Contractor:** Foart Longyear **Page** 1 **of** 1

**Date Completed:** 9/6/07 **Driller:** James Robinson **Survey Unit:** 9

**Logged By:** Rodney Clark **Equipment:** Mini Sonic #1401 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | 0.3 | 0'-5' | Alluvial / F.P. | SW | 0'-1' si, gr, SAND, moist, dark grayish brown (10YR 4/2), organics observed, lense of sandy SILT |
| 2 | 0.6 | | | | 1'-7 si, gr, SAND, moist, pale brown (10YR 6/3) |
| 3 | 0.9 | 3'/5' | | | |
| 4 | 1.2 | | | | |
| 5 | 1.5 | | | | |
| 6 | 1.8 | 5'-10' | | | |
| 7 | 2.1 | | ▽ | | 7'-8' lense of si, SAND, wet, gray (5Y 5/1) micaceous, mostly quartz sand |
| 8 | 2.4 | 100% | | SM | |
| 9 | 2.7 | | | SW | 8'-14.5' si, gr, SAND, wet, brown (10YR 5/3) - yellowish brown (10YR 5/4) |
| 10 | 3.1 | | | | |
| 11 | 3.4 | 10'-15' | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | 100% | | | |
| 14 | 4.3 | | | | 14.5-15' generally SILT, moist, yellowish brown gravel is angular, Shale (Rome formation) |
| 15 | 4.6 | | Residuum | ML | |
| 16 | 4.9 | | | | Terminate Boring @ 15' |
| 17 | 5.2 | | | | |
| 18 | 5.5 | | | | |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0250

**Date Started:** 9/5/2007 **Drilling Contractor:** BOART LONGYEAR **Page** 1 **of** 1

**Date Completed:** 9/5/2007 **Driller:** J. Robinson **Survey Unit:** 9

**Logged By:** Rodney Clark **Equipment:** Mini Sonic #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | 0.3 | 0'-5' | Alluvial | SW | 0'-1.5' si, gr, SAND, moist, brown (10YR 4/3) organics observed, gravel SR-WR |
| 2 | 0.6 | 3'/5' | F.P. | SW | 1.5'-8' SAA except light yellowish brown 10YR 6/4 & decreased in silt content |
| 3 | 0.9 | | | | |
| 4 | 1.2 | | | | |
| 5 | 1.5 | | | | |
| 6 | 1.8 | 5'-10' | | | |
| 7 | 2.1 | | | | |
| 8 | 2.4 | 4'/5' | ▽ | SW-SW | 8'-10' gr, Si, SAND, light brownish gray wet 10YR 6/2, micaceous, less gravel, gravel SR-WR |
| 9 | 2.7 | | | | |
| 10 | 3.1 | | | SW | 10'-17' si, gr, SAND, wet, yellowish brown (10YR 5/6), gravel is SR-WR & up to 2" in diameter |
| 11 | 3.4 | 10'-15' | | | |
| 12 | 3.7 | 3'/5' | | | |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | | | | |
| 16 | 4.9 | 15'-17.5' | | | |
| 17 | 5.2 | | Residuum | ML | 17'-17.5' gravelly, SILT, wet, yellowish brown (10YR 5/8), gravel is angular, dolomite (Rome FM.) |
| 18 | 5.5 | | | | |
| 19 | 5.8 | | | | Terminate Boring @ 17.5' |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# Appendix D.4

# Soil Boring Logs, Survey Unit 19

# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0710

**Date Started:** 10/22/07 **Drilling Contractor:** BOART LONGYEAR **Page** 1 **of** 1

**Date Completed:** 10/22/07 **Driller:** JAMES ROBINSON **Survey Unit:** 19

**Logged By:** Rodney Clark **Equipment:** MINISONIC # 1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | 0.3 | 0'-5' | Topsoil | ML | 0'-1' gr, sa, SILT, moist, very dark grayish brown (10YR 3/2), roots & organics observed |
| 2 | 0.6 | 100% | Alluvial | SW | 1'-4.5' si, gr, f-c SAND, moist, gray (2.5Y 5/1), gr is f-c & SR-WR |
| 3 | 0.9 | | | | |
| 4 | 1.2 | | | | |
| 5 | 1.5 | | ▽ | | 4.5'-10' SAA except wet & yellowish brown (10YR 5/6) |
| 6 | 1.8 | 5'-10' | | | |
| 7 | 2.1 | 100% | | | |
| 8 | 2.4 | | | | |
| 9 | 2.7 | | | | |
| 10 | 3.1 | | | | 10'-14' SAA except brownish yellow (10YR 6/6) |
| 11 | 3.4 | 10'-15' | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | 100% | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | | Residuum | ML | 14'-15' gravelly, SILT, moist, brownish yellow (10YR 6/8), gr. is A. laminated shale/mudstone (Pierre Fm) |
| 16 | 4.9 | | | | Driller indicated hard drilling from 14'-15' |
| 17 | 5.2 | | | | Terminate Boring @ 15' |
| 18 | 5.5 | | | | |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0711

**Date Started:** 10/22/07 **Drilling Contractor:** BART LOWBYEAR **Page** 1 **of** 2

**Date Completed:** 10/22/07 **Driller:** JAMES ROBINSON **Survey Unit:** 19

**Logged By:** Rodney Clark **Equipment:** MINISONIC #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | 0.3 | 0'-5' | Topsoil | ML | 0'-1' gr, sa, SILT, moist, ~~very~~ wet dark grayish brown (10YR 3/2) gr. is SR-WR, abundant organics (roots & debris) |
| 2 | 0.6 | | Perched S. Water | SW | |
| 3 | 0.9 | 100% | Alluvial | | 1'-3' si, gr, f-c SAND, moist, olive (5Y 5/3) gr is SR-WR & f-c, micaceous |
| 4 | 1.2 | | | | |
| 5 | 1.5 | | W.T. | | 3'-5' SAA except yellowish brown (10YR 5/4) |
| 6 | 1.8 | 5'-10' | | | |
| 7 | 2.1 | | | | 5'-8.5' SAA except light olive-brown (2.5Y 5/3) |
| 8 | 2.4 | 100% | | | |
| 9 | 2.7 | | | ML | |
| 10 | 3.1 | | | SW | 8.5'-9' gr, sa, SILT, wet, olive yellow (2.5Y 6/6) gr is f-c & SR-WR |
| 11 | 3.4 | 10'-15' | | | 9'-10' si, gr, f-c SAND, wet, dark yellowish brown (10YR 4/4) gr is f-c & SR-WR |
| 12 | 3.7 | 100% | | | |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | | | 10'-24.5' SAA except yellowish brown (10YR 5/4) |
| 15 | 4.6 | | | | |
| 16 | 4.9 | 15'-20' | | | |
| 17 | 5.2 | | | | |
| 18 | 5.5 | 100% | | | |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0711

**Date Started:** 10/22/07 **Drilling Contractor:** BOART LONGYEAR **Page** 2 **of** 2

**Date Completed:** 10/22/07 **Driller:** JAMES ROBINSON **Survey Unit:** 19

**Logged By:** Rodney Clark **Equipment:** MINISONIC #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 21 | 6.4 | 20'-25' | Alluvial | SW | |
| 22 | 6.7 | | | | |
| 23 | 7.0 | 100% | | | |
| 24 | 7.3 | | | | |
| 25 | 7.6 | | Residuum | ML | 24.5'-25' gr. SILT, moist, brown/yellow (10YR 6/8), gr. to A. shale/mudstone (Rome Fm) |
| 26 | 7.9 | | | | |
| 27 | 8.2 | | | | Terminate Boring @ 25' |
| 28 | 8.5 | | | | |
| 29 | 8.8 | | | | |
| 30 | 9.2 | | | | |
| 31 | 9.5 | | | | |
| 32 | 9.8 | | | | |
| 33 | 10.1 | | | | |
| 34 | 10.4 | | | | |
| 35 | 10.7 | | | | |
| 36 | 11.0 | | | | |
| 37 | 11.3 | | | | |
| 38 | 11.6 | | | | |
| 39 | 11.9 | | | | |
| 40 | 12.2 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0712

**Date Started:** 10/17/07 **Drilling Contractor:** Boart Longyear **Page** 1 **of** 1

**Date Completed:** 10/17/07 **Driller:** J. Robinson **Survey Unit:** 19

**Logged By:** S. Kelly **Equipment:** mini Sonic #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 0-5 | Possible | SW | 0-1.5 gr. SAND, moist, yellowish red (5YR |
| 1 | 0.3 | 85% | Fill | | 4/6) gravel is f-c angular to WR, with |
| | | | ▽ | | organics (roots) |
| 2 | 0.6 | | Alluvial | SW-GW | 1.5-3.5 si. gr. SAND, wet, dk. gray (10YR 4/1) gravel is f-c SA-WR |
| 3 | 0.9 | | | | |
| 4 | 1.2 | | | | 3.5-18 si. gr. SAND to si. ~~gr~~ sa. GRAVEL, wet, yellowish brown (10YR 5/4) gravel is f-c, SA to WR |
| 5 | 1.5 | 5-10 | | | |
| 6 | 1.8 | 75% | | | |
| 7 | 2.1 | | | | |
| 8 | 2.4 | | | | |
| 9 | 2.7 | | | | |
| 10 | 3.1 | 10-15 | | | |
| 11 | 3.4 | 100% | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | 15-20 | | | |
| 16 | 4.9 | 100% | | | |
| 17 | 5.2 | | | | |
| 18 | 5.5 | | Residuum | ML-GM | 18-20 weathered Rome: gr. SILT to si. GRAVEL, |
| 19 | 5.8 | | | | wet, brownish yellow (10YR 6/6) to yellowish brown (10YR 5/8); gravel is angular dolomite |
| 20 | 6.1 | | | | overlying shale/ (SM 5-20) mudstone(?) |
| | | | | | boring terminated @ 20' |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 07B

| | | | | | |
|---|---|---|---|---|---|
| **Date Started:** 10/19/07 | **Drilling Contractor:** Beart Longyear | **Page** 1 | **of** 2 | | |
| **Date Completed:** 10/19/07 | **Driller:** J. Robinson | **Survey Unit:** 19 | | | |
| **Logged By:** S. Kelly | **Equipment:** mini Sonic #1402 | **Elevation:** TBD | | | |

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 0-5 | Alluvial | SW | 0-3.5 gr. SAND, wet, dk. gray (GLEY1 4/N), |
| 1 | 0.3 | 75% | | | gravel is f-m SR-WR |
| | | | ! | | |
| 2 | 0.6 | | | | |
| 3 | 0.9 | | | | |
| 4 | 1.2 | | | SW | 3.5-3.3 si. gr. SAND to si. sa. GRAVEL, wet to |
| | | | | | moist (slightly cemented zones), strong brown |
| 5 | 1.5 | | | | (7.5YR 4/6) to yellowish brown (10YR 5/8) |
| | | 5-10 | | | |
| 6 | 1.8 | 100% | | | |
| 7 | 2.1 | | | | |
| 8 | 2.4 | | | | |
| 9 | 2.7 | | | | |
| 10 | 3.1 | | | | |
| | | 10-15 | | | |
| 11 | 3.4 | 100% | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | | | | |
| | | 15-20 | | | |
| 16 | 4.9 | 80% | | | |
| 17 | 5.2 | | | | |
| 18 | 5.5 | | | | |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | |

**Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered**
**Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)**

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0713

**Date Started:** 10/19/07 **Drilling Contractor:** Boart Longyear **Page** 2 **of** 2

**Date Completed:** 10/19/07 **Driller:** J. Robinson **Survey Unit:** 19

**Logged By:** S. Kelly **Equipment:** mini Sonic #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 20-33 75% | Alluvial | SW-GW | |
| 21 | 6.4 | | | | |
| 22 | 6.7 | | | | |
| 23 | 7.0 | | | | |
| 24 | 7.3 | | | | |
| 25 | 7.6 | | | | |
| 26 | 7.9 | | | | |
| 27 | 8.2 | | | | |
| 28 | 8.5 | | | | |
| 29 | 8.8 | | | | |
| 30 | 9.2 | | | | |
| 31 | 9.5 | | | | |
| 32 | 9.8 | | | | |
| 33 | 10.1 | | | | boring terminated @ 33' |
| 34 | 10.4 | | | | |
| 35 | 10.7 | | | | |
| 36 | 11.0 | | | | |
| 37 | 11.3 | | | | |
| 38 | 11.6 | | | | |
| 39 | 11.9 | | | | |
| 40 | 12.2 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0714

**Date Started:** 10/22/07 **Drilling Contractor:** BOART LONGYEAR **Page** 1 **of** 2

**Date Completed:** 10/22/07 **Driller:** JAMES ROBINSON **Survey Unit:** 19

**Logged By:** Rodney Clark **Equipment:** MINISONIC #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | 0.3 | 0'-5' | Topsoil / Perched Surface Water | Topsoil / ML | 0'-2' gr, sa, SILT, wet, very dark grayish brown (10YR 3/2), abundant roots & organics |
| 2 | 0.6 | | | | |
| 3 | 0.9 | 1'/5' | | SW | 2'-5' si, gr, f-c SAND, wet, gray (5Y 5/1) |
| 4 | 1.2 | | Alluvial | | |
| 5 | 1.5 | | | | 5'-7.5' si, gr, f-c SAND, most wet, yellowish red (5YR 4/6) gr is f-c & SR-WR |
| 6 | 1.8 | 5'-10' | | | |
| 7 | 2.1 | | | | |
| 8 | 2.4 | 100% | | | 7.5'-15' SAA except wet & yellowish brown 10YR 5/6 |
| 9 | 2.7 | | | | |
| 10 | 3.1 | | | | |
| 11 | 3.4 | 10'-15' | | | |
| 12 | 3.7 | 100% | | | |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | | | | 15'-20' si, sa, GRAVEL, wet, yellowish brown, gr is f-c & SR-WR |
| 16 | 4.9 | 15'-20' | | GW | |
| 17 | 5.2 | 4'/5' | | | |
| 18 | 5.5 | | | | |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0714

Date Started: 10/22/07 Drilling Contractor: BART LONGYEAR Page 2 of 2

Date Completed: 10/22/07 Driller: JAMES ROBINSON Survey Unit: 19

Logged By: Rodney Clark Equipment: MINISONIC #1402 Elevation: TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 21 | 6.4 | 20'-25' | Alluvial | GW | |
| 22 | 6.7 | | | | |
| 23 | 7.0 | 4'/5' | | | |
| 24 | 7.3 | | Residuum | ML | 23'-25' gr. SILT, moist, yellow (10YR 7/6), gr is A. laminated shale/mudstone Rome Formation |
| 25 | 7.6 | | | | |
| 26 | 7.9 | | | | Terminate Boring @ 25' |
| 27 | 8.2 | | | | |
| 28 | 8.5 | | | | |
| 29 | 8.8 | | | | |
| 30 | 9.2 | | | | |
| 31 | 9.5 | | | | |
| 32 | 9.8 | | | | |
| 33 | 10.1 | | | | |
| 34 | 10.4 | | | | |
| 35 | 10.7 | | | | |
| 36 | 11.0 | | | | |
| 37 | 11.3 | | | | |
| 38 | 11.6 | | | | |
| 39 | 11.9 | | | | |
| 40 | 12.2 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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NFS File Classification: DCM-23-05-02

# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0715

| | | | |
|---|---|---|---|
| **Date Started:** 10/16/07 | **Drilling Contractor:** BART LONGYEAR | **Page** 1 | **of** 2 |
| **Date Completed:** 10/16/07 | **Driller:** JAMES ROBINSON | **Survey Unit:** 19 | |
| **Logged By:** Rodney Clark | **Equipment:** MINISONIC #1402 | **Elevation:** TBD | |

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | 0.3 | 0'-5' | Topsoil / Fill | ML | 0'-3' gr, sa, SILT, moist, brown (10YR 4/3) gr is A-WR, abundant roots & organics observed. |
| 2 | 0.6 | | | | |
| 3 | 0.9 | 4/5' | | | |
| 4 | 1.2 | | Alluvial | SW | 3'-5' si, gr, f-c SAND, moist, pale yellow (2.5Y 8/2) gr is SR-WR & f-c |
| 5 | 1.5 | | | | |
| 6 | 1.8 | 5'-10' | | | 5'-10' si, gr, f-c SAND, moist, light yellowish brown (10YR 6/4) gr is f-c & SR-WR |
| 7 | 2.1 | | | | |
| 8 | 2.4 | 100% | | | |
| 9 | 2.7 | | | | |
| 10 | 3.1 | | ▽ | | 10'-13.5' SAA except wet & brownish yellow (10YR 6/6) |
| 11 | 3.4 | 10'-15' | | | |
| 12 | 3.7 | 100% | | | |
| 13 | 4.0 | | | | 13.5'-17' si, sa, GRAVEL, wet, brownish yellow, gr is f-c & SR-WR |
| 14 | 4.3 | | | GW | |
| 15 | 4.6 | | | | |
| 16 | 4.9 | 15'-20' | | | |
| 17 | 5.2 | | | | 17'-33 si, gr, f-c SAND - si, sa, GRAVEL wet, brownish yellow gr is f-c & SR-WR |
| 18 | 5.5 | | | SW/GW | |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | |

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0715

**Date Started:** 10/16/07 **Drilling Contractor:** BART LONGYEAR **Page** 2 **of** 2

**Date Completed:** 10/16/07 **Driller:** JAMES ROBINSON **Survey Unit:** 19

**Logged By:** Rodney Clark **Equipment:** MINISONIC #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 21 | 6.4 | 20'-25' | SW/GW Rc 8/4/1/0 | SW/GW | - SAA - |
| 22 | 6.7 | | | | |
| 23 | 7.0 | 100% | Alluvial | | |
| 24 | 7.3 | | | | |
| 25 | 7.6 | | | | |
| 26 | 7.9 | 25'-33' | | | |
| 27 | 8.2 | | | | |
| 28 | 8.5 | 7/8" | | | |
| 29 | 8.8 | | | | |
| 30 | 9.2 | | | | |
| 31 | 9.5 | | | | |
| 32 | 9.8 | | | | |
| 33 | 10.1 | | | | Terminate Boring @ 33' (10 Meters) |
| 34 | 10.4 | | | | |
| 35 | 10.7 | | | | |
| 36 | 11.0 | | | | |
| 37 | 11.3 | | | | |
| 38 | 11.6 | | | | |
| 39 | 11.9 | | | | |
| 40 | 12.2 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered
Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0716

Date Started: 10/19/07 Drilling Contractor: Earthlongyear Page 1 of 2

Date Completed: 10/19/07 Driller: J. Robinson Survey Unit: 19

Logged By: S. Kelly Equipment: mini Sonic #1402 Elevation: TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 0-5 | FP | SW | 0-1.5 si. gr. SAND, moist, ~~black~~ ; w/ |
| 1 | 0.3 | 60% | | | organics |
| | | | Alluvial | SW | 1.5-9.5 - si. gr. SAND, wet, greenish gray (GLEY2 5/1 5BG) to dk. gray (10YR 4/1), gravel is f-c, SA to WR |
| 2 | 0.6 | | | | |
| 3 | 0.9 | | | | |
| 4 | 1.2 | | | | |
| 5 | 1.5 | | | SW-GW | 4.5 32 si. gr. SAND to si. sa. GRAVEL wet, strong brown (7.5YR 5/6 to yellowish brown (10YR 5/8) gravel is f-c, angular to WR ; increasing silt content with depth |
| | | 5-10 | | | |
| 6 | 1.8 | 80% | | | |
| 7 | 2.1 | | | | |
| 8 | 2.4 | | | | |
| 9 | 2.7 | | | | |
| 10 | 3.1 | 10-15 | | | |
| 11 | 3.4 | 100% | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | 15-20 | | | |
| 16 | 4.9 | 100% | | | |
| 17 | 5.2 | | | | |
| 18 | 5.5 | | | | |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0716

**Date Started:** 10/19/07 **Drilling Contractor:** Boart Longyear **Page** 2 **of** 2

**Date Completed:** 10/19/07 **Driller:** J. Robinson **Survey Unit:** 19

**Logged By:** S. Kelly **Equipment:** mini Sonic #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 20-33 | Alluvial | SW-GW | |
| 21 | 6.4 | 40% | | | |
| 22 | 6.7 | | | | |
| 23 | 7.0 | | | | |
| 24 | 7.3 | | | | |
| 25 | 7.6 | | | | |
| 26 | 7.9 | | | | |
| 27 | 8.2 | | | | |
| 28 | 8.5 | | | | |
| 29 | 8.8 | | | | |
| 30 | 9.2 | | | | |
| 31 | 9.5 | | | | |
| 32 | 9.8 | | residuum | GW | 32-33: weathered Rome: si. GRAVEL, wet, yellowish brown (10YR5/8); gravel is angular (mudstone/shale) |
| 33 | 10.1 | | | | boring terminated @ 33' |
| 34 | 10.4 | | | | |
| 35 | 10.7 | | | | |
| 36 | 11.0 | | | | |
| 37 | 11.3 | | | | |
| 38 | 11.6 | | | | |
| 39 | 11.9 | | | | |
| 40 | 12.2 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0717

| | | | |
|---|---|---|---|
| Date Started: 10/19/07 | Drilling Contractor: Beart Langyear | Page 1 of 2 | |
| Date Completed: 10/19/07 | Driller: J. Pearinger | Survey Unit: 19 | |
| Logged By: S. Kelly | Equipment: mini Sonic #1402 | Elevation: TBD | |

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 0-5 | FP | SM | 0-1 Si. cl. SAND, ~~wet~~ v. pale brown (10YR |
| 1 | 0.3 | 80% | ! | | 7/3); black with organics |
| | | | Alluvial? | SW | 1-2.5 si./cl., gr. SAND, wet, gray (GLEY1 |
| 2 | 0.6 | | | | 5/1 N), gravel is f-c SA-WR |
| | | | | SW-GW | 2.5-25 si. gr. SAND to si. sa. GRAVEL, wet/ |
| 3 | 0.9 | | | | saturated, strong brown (7.5YR 5/6) to yellowish |
| 4 | 1.2 | | | | brown (10YR 5/8), gravel is f-c angular to WR |
| 5 | 1.6 | 5-10 | | | |
| 6 | 1.8 | 100% | | | |
| 7 | 2.1 | | | | |
| 8 | 2.4 | | | | |
| 9 | 2.7 | | | | |
| 10 | 3.1 | 10-15 | | | |
| 11 | 3.4 | 100% | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | 15-20 | | | |
| 16 | 4.9 | 100% | | | |
| 17 | 5.2 | | | | |
| 18 | 5.5 | | | | |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0717

**Date Started:** 10/19/07 **Drilling Contractor:** Boart Longyear **Page** 2 **of** 2

**Date Completed:** 10/19/07 **Driller:** J-Robinson **Survey Unit:** 19

**Logged By:** S. Kelly **Equipment:** mini Sonic #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 20-25 75% | Alluvial | SW-GW | |
| 21 | 6.4 | | | | |
| 22 | 6.7 | | | | |
| 23 | 7.0 | | | | |
| 24 | 7.3 | | | | |
| 25 | 7.6 | 25-32 10% | Residuum | GM | 25-32: weathered zone: very hard drilling; driller using water to advance ~~through cobble/boulder~~ @ 10/19/07 formation (dolomite/dolostone?) therefore little returns, mainly gravel sized dolostone, @ ~30 more shaley/mudstone (silty gravel, moist reddish yellow (7.5 YR 7/6) |
| 26 | 7.9 | | | | |
| 27 | 8.2 | | | | |
| 28 | 8.5 | | | | |
| 29 | 8.8 | | | | |
| 30 | 9.2 | | | | |
| 31 | 9.5 | | | | |
| 32 | 9.8 | | | | boring terminated @ 32' |
| 33 | 10.1 | | | | |
| 34 | 10.4 | | | | |
| 35 | 10.7 | | | | |
| 36 | 11.0 | | | | |
| 37 | 11.3 | | | | |
| 38 | 11.6 | | | | |
| 39 | 11.9 | | | | |
| 40 | 12.2 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0718

**Date Started:** 10/16/07 **Drilling Contractor:** BOART LONGYEAR **Page** 1 **of** 2

**Date Completed:** 10/16/07 **Driller:** JAMES ROBINSON **Survey Unit:** 19

**Logged By:** Rodney Hoch **Equipment:** MINISONIC #1407 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | 0.3 | 0'-5' | Topsoil / Fill | SW / Topsoil / Fill | 0'-2.5' si, gr, f-c SAND, moist, brown (7.5YR 5/4), gr. is A & f-c, roots observed |
| 2 | 0.6 | 4'/5' | | | |
| 3 | 0.9 | | (Note: Unlike next well) Floodplain | ML | 2.5'-7' cl, SILT, moist, very dark grayish brown (10YR 3/2), very organic, abundant roots & organics observed, trace of sand & gravel |
| 4 | 1.2 | | | | |
| 5 | 1.5 | | | | |
| 6 | 1.8 | 5'-10' | | | |
| 7 | 2.1 | 4'/5' | | | 7'-8' gr, si, f-c SAND, moist, greenish gray (GLEY 1 6/1), gr. is SR-WR & f-c |
| 8 | 2.4 | | Alluvial | SW | 8'-10 SAA except light yellowish brown (10YR 6/4) |
| 9 | 2.7 | | | | |
| 10 | 3.1 | | ▽ | | 10'-13' cl, gr, f-c sa, SILT, wet, brown (10YR 5/3), gr is f-c & SR-WR low plasticity |
| 11 | 3.4 | 10'-15' | | ML | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | 100% | | | 13'-20' si, gr, f-c SAND - si, sa, GRAVEL wet, yellowish brown (10YR 5/6) gr is f-c & SR-WR |
| 14 | 4.3 | | | SW/GW | |
| 15 | 4.6 | | | | |
| 16 | 4.9 | 15'-20' | | | |
| 17 | 5.2 | | | | |
| 18 | 5.5 | 100% | | | |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0716

| | | | | | |
|---|---|---|---|---|---|
| **Date Started:** | 10/16/07 | **Drilling Contractor:** | BOART LONGYEAR | **Page** | 2 of 2 |
| **Date Completed:** | 10/16/07 | **Driller:** | JAMES ROBINSON | **Survey Unit:** | 19 |
| **Logged By:** | Rodney Clark | **Equipment:** | MINISONIC #402 | **Elevation:** | TBD |

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 21 | 6.4 | 20'-25' | Alluvial | GW | 20'-25' GRAVEL, wet, gr. is SR-WR ¾-c |
| 22 | 6.7 | | | | (6" rock core = 24'-25.5' of quartzite |
| 23 | 7.0 | 2/5' | | | Driller indicates extremely hard drilling @ 24'-25.5' |
| 24 | 7.3 | | | | |
| 25 | 7.6 | | Alluvial (Boulder) | | |
| 26 | 7.9 | 25'-27' 4½' | Floodplain | CL | 25.5'-26.5' SA, Si, CLAY, wet, stiff, brown (7.5YR 4/6), low plasticity |
| 27 | 8.2 | | Residuum | ML | gr. SILT, brownish yellow (10YR 6/6) gr is A. shale (Rome Fm) Terminate Boring @ 27' |
| 28 | 8.5 | | | | |
| 29 | 8.8 | | | | |
| 30 | 9.2 | | | | |
| 31 | 9.5 | | | | |
| 32 | 9.8 | | | | |
| 33 | 10.1 | | | | |
| 34 | 10.4 | | | | |
| 35 | 10.7 | | | | |
| 36 | 11.0 | | | | |
| 37 | 11.3 | | | | |
| 38 | 11.6 | | | | |
| 39 | 11.9 | | | | |
| 40 | 12.2 | | | | |

**Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered**

**Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)**

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0719

**Date Started:** 10/23/07 **Drilling Contractor:** BOART LONGYEAR **Page** 1 **of** 2

**Date Completed:** 10/23/07 **Driller:** JAMES ROBINSON **Survey Unit:** 19

**Logged By:** Rodney Clark **Equipment:** MINISONIC **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | 0.3 | 0'-5' | Alluvial | SW | 0'-3' si, gr, f-c SAND, wet, brownish yellow (10YR 6/6), gr is SR-WR, 3f-c |
| 2 | 0.6 | | | | |
| 3 | 0.9 | 4'/5' | | | 3'-5' SAA except light yellowish brown (10YR 6/4) |
| 4 | 1.2 | | | | |
| 5 | 1.5 | | | | 5'-15' SAA except brownish yellow |
| 6 | 1.8 | 5'-10' | | | |
| 7 | 2.1 | | | | |
| 8 | 2.4 | 100% | | | |
| 9 | 2.7 | | | | |
| 10 | 3.1 | | | | |
| 11 | 3.4 | 10'-15' | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | 100% | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | | | | 15'-24' cl, si, gr, f-c SAND, wet, brownish yellow, gr is f-c SR-WR |
| 16 | 4.9 | 15'-20' | | | |
| 17 | 5.2 | 100% | | | |
| 18 | 5.5 | | | | |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | |

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Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0719

**Date Started:** 10/23/07 **Drilling Contractor:** BOART LONGYEAR **Page** 2 **of** 2

**Date Completed:** 10/23/07 **Driller:** JAMES ROBINSON **Survey Unit:** 19

**Logged By:** Rodney Clark **Equipment:** MINISONIC #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 21 | 6.4 | 20'-25' | | | |
| 22 | 6.7 | | | | |
| 23 | 7.0 | 100% | Alluvial | | |
| 24 | 7.3 | | | | 24'-25' gr, SILT, wet, brown xl yellow, gr is A. laminated shale/mudstone |
| 25 | 7.6 | | ~~Residuum~~ Alluvial Rc 10/23/07 | ML | Cobbled (Rome Formation) |
| 26 | 7.9 | 25'-28' | Alluvial | | 25'-28' sj gr f-c SAND, wet, yellowish brown (10YR 5/6), gr is SR-WR ff |
| 27 | 8.2 | 1.5'/3' | | SW | |
| 28 | 8.5 | | | Rc 10/23/07 | 28'-31.5' gr, SILT, moist, yellowish brown (10YR 5/6) gr is A. shale/ SR-WR Alluvium |
| 29 | 8.8 | 28'-33' | | ML | |
| 30 | 9.2 | 100% | | | |
| 31 | 9.5 | | | | |
| 32 | 9.8 | | Residuum | ML | 31.5'-33' gr, SILT, moist, yellowish brown (10YR 5/6) gr is A. shale/mudstone (Rome Fm) |
| 33 | 10.1 | | | | Terminate Boring @ 33' |
| 34 | 10.4 | | | | |
| 35 | 10.7 | | | | |
| 36 | 11.0 | | | | |
| 37 | 11.3 | | | | |
| 38 | 11.6 | | | | |
| 39 | 11.9 | | | | |
| 40 | 12.2 | | | | |

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Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0720

**Date Started:** 10/17/07 **Drilling Contractor:** Boart Longyear **Page** 1 **of** 1

**Date Completed:** 10/17/07 **Driller:** J. Robinson **Survey Unit:** 19

**Logged By:** S. Kelly **Equipment:** mini Sonic #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 0-5 25% | Possible Fill | SW | 0-4.5 gr. si. SAND, moist, dk. yellowish brown (10YR 4/4) gravel is angular to SR, f-m |
| 1 | 0.3 | | | | |
| 2 | 0.6 | | | | |
| 3 | 0.9 | | | | |
| 4 | 1.2 | | | | |
| 5 | 1.5 | | Alluvial | ML / SW | 4.5-5 gr. sa. SILT, v. moist, dk. yellowish brown |
| | | 5-10 100% | | | 5-8 si./cl. gr. SAND, wet, olivish gray (GLEY 2 6/1 5PB) gravel is f-m angular to WR |
| 6 | 1.8 | | | | |
| 7 | 2.1 | | | | |
| 8 | 2.4 | | | SW | 8-16 si. gr. SAND, moist to wet, slightly cemented & laminated, yellowish brown (10YR 5/8) gravel is f-c, angular to WR |
| 9 | 2.7 | | | | |
| 10 | 3.1 | 10-15 100% | | | |
| 11 | 3.4 | | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | 15-18.5 100% | | | |
| 16 | 4.9 | | Residuum | ML-GM | 16-18.5 weathered Rome: gr. SILT to si. GRAVEL, moist to dry (pulverized rock) yellowish brown (10YR 5/4) gravel is angular dolomite/dolostone |
| 17 | 5.2 | | | | |
| 18 | 5.5 | | | | |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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NFS File Classification: DCM-23-05-02

# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0721

**Date Started:** 10/29/07 **Drilling Contractor:** BART LONGYEAR **Page** 1 **of** 2

**Date Completed:** 10/29/07 **Driller:** JAMES ROBINSON **Survey Unit:** ~~20~~ 19

**Logged By:** Rodney Clark **Equipment:** MINISONIC #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | 0.3 | 0'-5' | Alluvial | SW | 0'-23' si gr f-c SAND, wet, yellowish brown (10YR 5/6), gr. is f-c & SR-WR |
| 2 | 0.6 | | | | |
| 3 | 0.9 | 3'/5' | | | |
| 4 | 1.2 | | | | |
| 5 | 1.5 | | | | |
| 6 | 1.8 | 5'-10' | | | |
| 7 | 2.1 | | | | |
| 8 | 2.4 | 100% | | | |
| 9 | 2.7 | | | | |
| 10 | 3.1 | | | | |
| 11 | 3.4 | 10'-15' | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | 100% | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | | | | |
| 16 | 4.9 | 15'-20' | | | |
| 17 | 5.2 | 100% | | | |
| 18 | 5.5 | | | | |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0721

**Date Started:** 10/29/07 **Drilling Contractor:** BORRT LONGYEAR **Page** 2 **of** 2

**Date Completed:** 10/29/07 **Driller:** JAMES ROBINSON **Survey Unit:** 19

**Logged By:** Rodney Clark **Equipment:** MINISONIC #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 21 | 6.4 | 20'-25' | | | |
| 22 | 6.7 | | | | |
| 23 | 7.0 | 100% | Alluvial | SW | 23'-25' cl, si, gr, f-c SAND, wet, brownish yellow (10YR 6/8) gr is f-c & A-WR, gr is SR-WR Alluvium & A. shale (weathered Rome Fm) |
| 24 | 7.3 | | | | |
| 25 | 7.6 | | | | |
| 26 | 7.9 | 25'-33' | | | 25'-28' cl, si, gr, f-c SAND, wet, brownish yellow (10YR 6/8), gr is minimal, but f-c and SR, mostly coarse SAND |
| 27 | 8.2 | | | | |
| 28 | 8.5 | | | | 28'-32' cl, si, sa, GRAVEL, wet, brownish yellow, gr is f-c & SR-WR |
| 29 | 8.8 | 100% | | | |
| 30 | 9.2 | | | GW | |
| 31 | 9.5 | | | | |
| 32 | 9.8 | | | | 32'-33' cl, gr, SILT, brownish yellow (10YR 6/8) gr is A. shale (Rome Fm) SILT is laminated |
| 33 | 10.1 | | Residuum | ML | |
| 34 | 10.4 | | | | Terminate Boring @ 33' (10.1 meters) |
| 35 | 10.7 | | | | |
| 36 | 11.0 | | | | |
| 37 | 11.3 | | | | |
| 38 | 11.6 | | | | |
| 39 | 11.9 | | | | |
| 40 | 12.2 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0722

**Date Started:** 10/23/07 **Drilling Contractor:** BOART LONGYEAR **Page** 1 **of** 2

**Date Completed:** 10/23/07 **Driller:** JAMES ROBINSON **Survey Unit:** 19

**Logged By:** Rodney Clark **Equipment:** MINISONIC #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | 0.3 | 0'-5' | WT. 0.0' Alluvial | SW | 0'-4' si, gr, f-c SAND, wet, yellowish brown (10YR 5/6), gr is f-c & SR-WR |
| 2 | 0.6 | 100% | | | 4'-6' SAA except olive yellow (2.5Y 6/6) |
| 3 | 0.9 | | | | |
| 4 | 1.2 | | | | |
| 5 | 1.5 | | | | |
| 6 | 1.8 | 5'-10' | | | 6'-8' SAA except yellowish brown |
| 7 | 2.1 | 100% | | | 8'-10 si, gr, f-c SAND, moist, light yellowish brown (10YR 6/4) gr is A-WR (8'-8.5' crusted cobble by drill rig) |
| 8 | 2.4 | | | GW | |
| 9 | 2.7 | | | SW | 10'-14' ~~SAA~~ si, gr, f-c SAND, wet, yellowish brown (10YR 5/6) gr is f-c & SR-WR |
| 10 | 3.1 | 10'-15' | Re 10/23/07 | | |
| 11 | 3.4 | | | | |
| 12 | 3.7 | 4.5'/5' | | | |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | | SW | 14'-15' si, gr, f-c SAND, moist, brownish yellow (10YR 5/6) gr. is weathered cobble w/ relict parent rock structure observed |
| 15 | 4.6 | | | | |
| 16 | 4.9 | 15'-20' | | SW | 15'-18' si, sa, GRAVEL, wet, yellowish brown, gr is f-c & SR-WR |
| 17 | 5.2 | 100% | | | |
| 18 | 5.5 | | | | |
| 19 | 5.8 | | | SW | 18'- si, gr, f-c SAND, wet, yellowish brown, gr. is f-c & SR-WR |
| 20 | 6.1 | | | | |

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Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0722

Date Started: 10/22/07 Drilling Contractor: BOART LONGYEAR Page 2 of 2

Date Completed: 10/23/07 Driller: JAMES ROBINSON Survey Unit: 19

Logged By: Rodney Clark Equipment: MINISONIC #1402 Elevation: TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 21 | 6.4 | ~~20'-25~~ | Alluvial | SW | ~~20'-25~~ |
| 22 | 6.7 | | | | |
| 23 | 7.0 | 100% | | | |
| 24 | 7.3 | | | | |
| 25 | 7.6 | | | | |
| 26 | 7.9 | 25'-28' | | SW/SW | 25'-28' SAA except trace gravel mostly f-c SAND |
| 27 | 8.2 | 100% | | | |
| 28 | 8.5 | | | | |
| 29 | 8.8 | 28'-33' | | SW | 28'-33 Si, gr, f-c SAND, wet, yellowish brown, gr is f-c & SR-WR |
| 30 | 9.2 | 100% | | | |
| 31 | 9.5 | | | | |
| 32 | 9.8 | | | | |
| 33 | 10.1 | | | | Terminate Boring @ 33' |
| 34 | 10.4 | | | | |
| 35 | 10.7 | | | | |
| 36 | 11.0 | | | | |
| 37 | 11.3 | | | | |
| 38 | 11.6 | | | | |
| 39 | 11.9 | | | | |
| 40 | 12.2 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0723

**Date Started:** 10/23/07 **Drilling Contractor:** BOART LONGYEAR **Page** 1 **of** 2

**Date Completed:** 10/23/07 **Driller:** JAMES ROBINSON **Survey Unit:** 19

**Logged By:** Rodney Clark **Equipment:** MINISONIC #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 0'-5' | Topsoil | ML | 0'-0.5' sa gr SILT, wet, brown (10YR 5/3) |
| 1 | 0.3 | | | SW | gr is SR-WR, abundant organics observed |
| 2 | 0.6 | | Alluvial | | |
| 3 | 0.9 | 100% | | | 0.5'-5' si, gr, f-c SAND, wet, brownish yellow (10YR 6/8), gr is f-c & SR-WR |
| 4 | 1.2 | | | | |
| 5 | 1.5 | | | | 5'-10' SAA except brown (10YR 5/3) |
| 6 | 1.8 | 5'-10' | | | |
| 7 | 2.1 | | | | |
| 8 | 2.4 | 100% | | | |
| 9 | 2.7 | | | | |
| 10 | 3.1 | | | | 10'-15' SAA except brownish-yellow |
| 11 | 3.4 | 10'-15' | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | 100% | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | | | | 15'-20' cl, si, gr, f-c SAND, wet, brownish yellow, gr is f-c & SR-WR, some gravel heavily weathered |
| 16 | 4.9 | 15'-20' | | | |
| 17 | 5.2 | 100% | | | |
| 18 | 5.5 | | | | |
| 19 | 5.8 | | | | 19.5'-20' Notch Alluvium of Ravenna Fm Mudstone & Shale |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0723

**Date Started:** 10/23/07 **Drilling Contractor:** BOART LONGYEAR **Page** 2 **of** 2

**Date Completed:** 10/23/07 **Driller:** JAMES ROBINSON **Survey Unit:** 19

**Logged By:** Rodney Clark **Equipment:** MINISONIC #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 21 | 6.4 | 20'-25' | Alluvial | SW | (20'-28') cl, sl, gr, f-c SAND, wet, strong brown (7.5YR 5/6), gr is SR-WR |
| 22 | 6.7 | | | | slightly consolidated from 23'-28' |
| 23 | 7.0 | 100% | | | |
| 24 | 7.3 | | | | |
| 25 | 7.6 | | | | |
| 26 | 7.9 | 25'-28' | | | |
| 27 | 8.2 | 100% | | | Hard Drilling @ 28' |
| 28 | 8.5 | | | | Observed Mudstone/Shale in drill bit cuttings |
| 29 | 8.8 | | Rome Fm. Residuum | HL | 28'- Rome Formation |
| | | | | | Terminate Boring @ 28' |
| 30 | 9.2 | | | | |
| 31 | 9.5 | | | | |
| 32 | 9.8 | | | | |
| 33 | 10.1 | | | | |
| 34 | 10.4 | | | | |
| 35 | 10.7 | | | | |
| 36 | 11.0 | | | | |
| 37 | 11.3 | | | | |
| 38 | 11.6 | | | | |
| 39 | 11.9 | | | | |
| 40 | 12.2 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0724

| | | | | | |
|---|---|---|---|---|---|
| **Date Started:** 10/26/07 | **Drilling Contractor:** Bear Kingpear | **Page** 1 | **of** 2 | | |
| **Date Completed:** 10/26/07 | **Driller:** J. Robinson | **Survey Unit:** 19 | | | |
| **Logged By:** S. Kelly | **Equipment:** mini Sonic #1402 | **Elevation:** TBD | | | |

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 0-5 75% | Alluvial | SW-GW | 0-26 si.gr. SAND to si.sa. GRAVEL, wet, yellowish brown (10YR 5/8), gravel is f-c, angular to WR; zones of slightly to moderately cemented alluvium ~~[illegible]~~ laminated w/ fine grained sediments) 10/26/07 |
| 1 | 0.3 | | | | |
| 2 | 0.6 | | | | |
| 3 | 0.9 | | | | |
| 4 | 1.2 | | | | |
| 5 | 1.5 | 5-10 100% | | | |
| 6 | 1.8 | | | | |
| 7 | 2.1 | | | | |
| 8 | 2.4 | | | | |
| 9 | 2.7 | | | | |
| 10 | 3.1 | 10-15 100% | | | |
| 11 | 3.4 | | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | 15-20 100% | | | |
| 16 | 4.9 | | | | |
| 17 | 5.2 | | | | |
| 18 | 5.5 | | | | |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered.
Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0724

**Date Started:** 10/26/07 **Drilling Contractor:** Boart Longyear **Page** 2 **of** 3

**Date Completed:** 10/26/07 **Driller:** J. Robinson **Survey Unit:** 19

**Logged By:** S. Kilb **Equipment:** mini Sonic #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 20-25 | Alluvial | SW-GW | |
| 21 | 6.4 | 100% | | | |
| 22 | 6.7 | | | | |
| 23 | 7.0 | | | | @ 23 becoming dk. reddish gray (5YR 4/2) from weathered Rowe sediments |
| 24 | 7.3 | | | | |
| 25 | 7.6 | | | | |
| | | 25-33 | | | |
| 26 | 7.9 | 85% | | | |
| | | | Residuum | GM | 26-33 weathered Rowe: si. cl. GRAVEL, wet to moist, brownish yellow (10YR 6/8) gravel is angular (mudstone/shale) |
| 27 | 8.2 | | | | |
| 28 | 8.5 | | | | |
| 29 | 8.8 | | | | |
| 30 | 9.2 | | | | |
| 31 | 9.5 | | | | |
| 32 | 9.8 | | | | |
| 33 | 10.1 | | | | Boring terminated @ 33' |
| 34 | 10.4 | | | | |
| 35 | 10.7 | | | | |
| 36 | 11.0 | | | | |
| 37 | 11.3 | | | | |
| 38 | 11.6 | | | | |
| 39 | 11.9 | | | | |
| 40 | 12.2 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0725

**Date Started:** 10/26/07 **Drilling Contractor:** Boart Longyear **Page** 1 **of** 2

**Date Completed:** 10/26/07 **Driller:** J. Robinson **Survey Unit:** 19

**Logged By:** S. Kelly **Equipment:** mini Sonic #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 0-5 | Alluvial | SW | 0-2.0 gr. cl./si. SAND, moist to wet, lt. |
| 1 | 0.3 | 95% | | | gray (GLEY1 7/N) |
| 2 | 0.6 | | | | |
| | | | | SW | 2-2.5 cl./si. SAND, moist, lt. gray (GLEY1 7/N) |
| 3 | 0.9 | | | SM | and brownish yellow (10 YR 6/8) |
| | | | | | 2.5-5 si. SAND v. moist to wet, yellowish |
| 4 | 1.2 | | | | brown (10YR 5/8), trace gravel (f-c, SA-SR) |
| 5 | 1.5 | | | | |
| | | 5-10 | | SW | 5- si. gr. SAND to si. sa. GRAVEL, wet to |
| 6 | 1.8 | 100% | | | moist (moderately to slightly cemented) ~~2.5-10~~ yellowish |
| | | | | | brown (10YR 5/8) gravel is f-c, angular to |
| 7 | 2.1 | | | | |
| 8 | 2.4 | | | | |
| 9 | 2.7 | | | | |
| 10 | 3.1 | | | | |
| | | 10-15 | | | |
| 11 | 3.4 | 100% | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | | | | |
| | | 15-20 | | | |
| 16 | 4.9 | 100% | | | |
| 17 | 5.2 | | | | |
| 18 | 5.5 | | | | |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0725

| | | | | | |
|---|---|---|---|---|---|
| **Date Started:** | 10/26/07 | **Drilling Contractor:** | Bartlongyear | **Page** | 2 of 2 |
| **Date Completed:** | 10/26/07 | **Driller:** | J. Robinson | **Survey Unit:** | 17 |
| **Logged By:** | S. Kelly | **Equipment:** | mini sonic #1402 | **Elevation:** | TBD |

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 20-25 100% | Alluvial | SW-GW | |
| 21 | 6.4 | | | | |
| 22 | 6.7 | | | | |
| 23 | 7.0 | | | | 22.5-32.5 Same but very silty/clayey ¾ color is strong brown (7.5YR5/6) ~~orange~~ GW 10/26/07 |
| 24 | 7.3 | | | | gravel is f-c, angular (broken cobbles/gravel) to SR |
| 25 | 7.6 | 25-33 100% | | | |
| 26 | 7.9 | | | | |
| 27 | 8.2 | | | | |
| 28 | 8.5 | | | | |
| 29 | 8.8 | | | | |
| 30 | 9.2 | | | | |
| 31 | 9.5 | | | | |
| 32 | 9.8 | | | | |
| 33 | 10.1 | | Residuum | ML-GM | 32.5-33: weathered Rome: gr. SILT to si. GRAVEL, wet, brownish yellow gravel is angular |
| 34 | 10.4 | | | | boring terminated @ 33' (mudstone/shale) |
| 35 | 10.7 | | | | |
| 36 | 11.0 | | | | |
| 37 | 11.3 | | | | |
| 38 | 11.6 | | | | |
| 39 | 11.9 | | | | |
| 40 | 12.2 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0726

**Date Started:** 10/16/07 **Drilling Contractor:** BOART LONGYEAR **Page** 1 **of** 2

**Date Completed:** 10/16/07 **Driller:** JAMES ROBINSON **Survey Unit:** 19

**Logged By:** Rodney Clark **Equipment:** MINISONIC #402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | 0.3 | 0'-5' | Alluvial | SW | 0'-4.5' si, gr, f-c SAND, moist, light gray (10YR 7/2) gr is f-c & SR-WR (some gravel/cobble are pulverized by drill. |
| 2 | 0.6 | | | | |
| 3 | 0.9 | 100% | | | |
| 4 | 1.2 | | | | 4.5'-5' si, gr, f-c SAND, moist, brownish yellow (10YR 6/8), gr, f-c & SR-WR |
| 5 | 1.5 | | | | |
| 6 | 1.8 | 5'-10' | | MH | 5'-6' cl, sa, SILT, moist, very pale brown (10YR 7/4), high plasticity, micaceous. |
| 7 | 2.1 | 100% | | SW | |
| 8 | 2.4 | | | | 6-7.5 gr, si, f-c SAND, moist, light yellowish brown (2.5Y 6/3) micaceous |
| 9 | 2.7 | | | SM | |
| 10 | 3.1 | | ▼ | | 7.5'-10' si, f-m SAND, moist, strong brown (7.5YR 5/6) micaceous, laminated |
| 11 | 3.4 | 10'-15' | | SW | |
| 12 | 3.7 | | | | 10'-14.5' si, gr, f-c SAND, wet, yellowish brown (10YR 5/6), gr is f-c & SR-WR |
| 13 | 4.0 | 100% | | | |
| 14 | 4.3 | | | GW | 14.5'-15.0' GRAVEL, dry, dark thistle gray (GLEY 2 4/5 PB), gr is (schist/amphibolite) & cobble (Alluvium) |
| 15 | 4.6 | | | SW | |
| 16 | 4.9 | 15'-16.5' 100% | | | 15'-19' si, gr, f-c SAND, wet, strong brown (7.5YR 5/8), gr is f-c & SR-WR |
| 17 | 5.2 | 16.5'-20' | | | |
| 18 | 5.5 | 100% | | | |
| 19 | 5.8 | | | GW | 19'- f-c sa, GRAVEL, moist, dry, very pale brown (10YR 8/3) gravel is SR-WR & f-c (Quartzite) |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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NFS File Classification: DCM-23-05-02

# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0726

**Date Started:** 10/16/07 **Drilling Contractor:** BOART LONGYEAR **Page** 2 **of** 2

**Date Completed:** 10/16/07 **Driller:** JAMES ROBINSON **Survey Unit:** 19

**Logged By:** Rodney Clark **Equipment:** MINISONIC #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 21 | 6.4 | 20'-25' | Alluvial | SW/GW | (20'-32.5') si, gr, f-c SAND- si, sa, GRAVEL, wet, yellowish brown (10YR 5/8), gr is f-c ≡ SR-WR |
| 22 | 6.7 | 100% | | | |
| 23 | 7.0 | | | | |
| 24 | 7.3 | | | | |
| 25 | 7.6 | | | | |
| 26 | 7.9 | 25'-33' | | | |
| 27 | 8.2 | | | | |
| 28 | 8.5 | | | | |
| 29 | 8.8 | | | | |
| 30 | 9.2 | 100% | | | |
| 31 | 9.5 | | | | 32.5'-33' gr. SILT, brownish yellow, (10YR 6/8), gr is A. Shale/mudstone Rome Formation) |
| 32 | 9.8 | | | | |
| 33 | 10.1 | | Bedrock | M2 | Terminate Boring @ 33' |
| 34 | 10.4 | | | | |
| 35 | 10.7 | | | | |
| 36 | 11.0 | | | | |
| 37 | 11.3 | | | | |
| 38 | 11.6 | | | | |
| 39 | 11.9 | | | | |
| 40 | 12.2 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0727

**Date Started:** 10/16/2007 **Drilling Contractor:** BART LONGYEAR **Page** 1 **of** 1

**Date Completed:** 10/16/2007 **Driller:** JAMES ROBINSON **Survey Unit:** 19

**Logged By:** Rodney Clark **Equipment:** MINISONIC #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | 0.3 | 0'-5' | Alluvial | SW | 0'-5' si, gr, f-c SAND, moist, very pale brown (10YR 7/4) gr is f-c & SR-WR |
| 2 | 0.6 | 100% | | | |
| 3 | 0.9 | | | | |
| 4 | 1.2 | | | | |
| 5 | 1.5 | | | | |
| 6 | 1.8 | 5'-10' | (Perched W.T.) | ML | 5'-8' gr, sa, SILT, moist, very pale brown (10YR 7/4) gr is SR-WR, low plasticity |
| 7 | 2.1 | 100% | | | moist-wet |
| 8 | 2.4 | | | MH | 8'-9.8' cl, sa, SILT, moist, light yellowish brown (10YR 6/4), high plasticity micaceous, laminated & trace of gravel (weathered ≈ A) |
| 9 | 2.7 | | | | |
| 10 | 3.1 | | | | |
| 11 | 3.4 | 10'-15' | (W.T.) | SW | 9.8'-13.5' si, gr, f-c SAND, wet, yellowish brown (10YR 5/6), gr is f-c & SR-WR |
| 12 | 3.7 | 100% | | | |
| 13 | 4.0 | | | | 13.5'-15' SAA except moist (more gravel) |
| 14 | 4.3 | | | | |
| 15 | 4.6 | | | | 15'-16.5' si, gr, f-c SAND, wet, yellowish brown, gr is f-c & SR-WR |
| 16 | 4.9 | 15'-20' | | | |
| 17 | 5.2 | 100% | | MH | 16.5'-20' gr, SILT, yellowish red (5YR 5/6) gr is A. shale fragments (Residual Dove Formation) high plasticity laminations |
| 18 | 5.5 | | Residuum | | |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | Terminate Boring @ 20' |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# Appendix D.5

# Soil Boring Logs, Survey Unit 20

# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0728

**Date Started:** 11/5/07 **Drilling Contractor:** BOART LONGYEAR **Page** 1 **of** 1

**Date Completed:** 11/5/07 **Driller:** JAMES ROBINSON **Survey Unit:** 20

**Logged By:** Rodney Clark **Equipment:** MINISONIC HMR **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 0'-5' | | | |
| 1 | 0.3 | | Alluvial | ML | 0'-2.5' gr, sa, cl, SILT, moist, very dark gray (7.5YR 3/1) gr is A-SR ∓ roots ∓ organics observed |
| 2 | 0.6 | | Topsoil | | |
| | | 3'/5' | | | |
| 3 | 0.9 | | | | |
| 4 | 1.2 | | Alluvial | SW | 2.5'-10' cl, si, gr, f-c SAND, with yellowish brown (10YR 5/6) gr is f-c, ∗ A-SR |
| 5 | 1.5 | 5'-10' | | | |
| 6 | 1.8 | | | | |
| 7 | 2.1 | | | | |
| 8 | 2.4 | 4'/5' | | | |
| 9 | 2.7 | | | | |
| 10 | 3.1 | 10'-15' | | ML | 10'-15' cl, gr, SILT, moist, brownish yellow (10YR 6/8) gr is A. laminated, fissile, Shale — Weathered Rome Fm. |
| 11 | 3.4 | | | | |
| 12 | 3.7 | | Residuum | | |
| 13 | 4.0 | 100% | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | | | | Terminate Boring @ 15' |
| 16 | 4.9 | | | | |
| 17 | 5.2 | | | | |
| 18 | 5.5 | | | | |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0729

**Date Started:** 11/5/07 **Drilling Contractor:** BOART LONGYEAR **Page** 1 **of** 1

**Date Completed:** 11/5/07 **Driller:** JAMES ROBINSON **Survey Unit:** 20

**Logged By:** Rodney Clark **Equipment:** MINISONIC #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT ▽ | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | 0.3 | 0'-7' | W.T. @ surface (Spring!) | SW | 0'-3.5' si, gr f-c SAND, wet yellowish brown (10YR 5/6), gr. is f-c & SA-SR |
| 2 | 0.6 | | | | |
| 3 | 0.9 | 5'/7' | Alluvial | | |
| 4 | 1.2 | | | | 3.5'-7' gr, silt, wet-moist, very pale brown (10YR 7/4), gr. f. & A. laminated, fissle, weak red (2.5YR 5/2) Shale - Weathered Rome FM. |
| 5 | 1.5 | | Residuum | ML | |
| 6 | 1.8 | | | | |
| 7 | 2.1 | | | | Terminate Boring @ 7' |
| 8 | 2.4 | | | | |
| 9 | 2.7 | | | | |
| 10 | 3.1 | | | | |
| 11 | 3.4 | | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | | | | |
| 16 | 4.9 | | | | |
| 17 | 5.2 | | | | |
| 18 | 5.5 | | | | |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0730

Date Started: 11/5/07 Drilling Contractor: Robert Longyear Page 1 of 1

Date Completed: 11/5/07 Driller: James Robinson Survey Unit: 20

Logged By: Rodney McClark Equipment: Mini Sonic #1207 Elevation: TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | 0.3 | 0'-5' | Alluvial | SW | 0'-9' si, gr, f-c SAND, wet, yellowish brown (10YR 5/6), gr is f-c & SA-SR |
| 2 | 0.6 | | | | |
| 3 | 0.9 | 15'/5' | W.T. is @ or near surface | | |
| 4 | 1.2 | | | | |
| 5 | 1.5 | | | | |
| 6 | 1.8 | 5'-10' | | | |
| 7 | 2.1 | | | | |
| 8 | 2.4 | 100% | | | |
| 9 | 2.7 | | | | 9'-10' gr. SILT, moist, brownish yellow (10YR 6/6) gr. is A-Shale Weathered Rock M. |
| 10 | 3.1 | | Residuum | ML | Terminate Boring @ 10' |
| 11 | 3.4 | | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | | | | |
| 16 | 4.9 | | | | |
| 17 | 5.2 | | | | |
| 18 | 5.5 | | | | |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0731

| | | | |
|---|---|---|---|
| **Date Started:** 10/29/07 | **Drilling Contractor:** BART LONGYEAR | **Page** 1 | **of** 2 |
| **Date Completed:** 10/29/07 | **Driller:** JAMES ROBINSON | **Survey Unit:** 20 | |
| **Logged By:** Rodney Clark | **Equipment:** MINISONIC #1007 | **Elevation:** TBD | |

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT ▽ | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | 0.3 | 0'-5' | (MLT. ⊘ Surface) | SW | 0'-9' si, gr, f-c SAND, wet, yellowish |
| 2 | 0.6 | | Alluvial | | brown (10YR 5/6), gr is SA-SR |
| 3 | 0.9 | 100% | | | Alluvium |
| 4 | 1.2 | | | | * Boring is in close proximity of |
| 5 | 1.5 | | | | Barker Elk Spring - samples are |
| 6 | 1.8 | 5'-10' | | SW | saturated & extremely loose |
| 7 | 2.1 | | | | |
| 8 | 2.4 | 100% | | | |
| 9 | 2.7 | | | | 9'-30' gr, SILT, wet, brownish yellow (10YR 6/8) |
| 10 | 3.1 | | | ML | gr is A. Shale - None Fnd. |
| 11 | 3.4 | 10'-30' | Residuum | | silt is extremely loose - difficult |
| 12 | 3.7 | | | | to retrieve sample |
| 13 | 4.0 | | | | 0'-30' very soft drilling |
| 14 | 4.3 | 5'/20' | | | Unable to recover |
| 15 | 4.6 | | | | Rep. Samples from 10'-25' |
| 16 | 4.9 | | | | 5' sample represents |
| 17 | 5.2 | | | | 25'-30' |
| 18 | 5.5 | | | | |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0731

**Date Started:** 10/29/07 **Drilling Contractor:** BOART LONGYEAR **Page** 2 **of** 2

**Date Completed:** 10/29/07 **Driller:** JAMES ROBINSON **Survey Unit:** 20

**Logged By:** Rodney Clark **Equipment:** MINISONIC #HD2 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 21 | 6.4 | | | | |
| 22 | 6.7 | | | | |
| 23 | 7.0 | | | | |
| 24 | 7.3 | | | | |
| 25 | 7.6 | | | | 25'-29' gr, SILT, wet, brownish yellow |
| | | | | ML | (10YR 6/8), gr is A. shale - |
| 26 | 7.9 | | | | Rome Fm |
| 27 | 8.2 | | | | |
| | | | | | Hard Drilling from 29'-30' |
| 28 | 8.5 | | | | |
| 29 | 8.8 | | | | - si. GRAVEL, wet, yellowish brown (10YR 5/6) |
| | | | Bedrock | GW | gr is A. shale - Rome Fm |
| 30 | 9.2 | | | | Terminated Boring |
| 31 | 9.5 | | | | |
| 32 | 9.8 | | | | |
| 33 | 10.1 | | | | |
| 34 | 10.4 | | | | |
| 35 | 10.7 | | | | |
| 36 | 11.0 | | | | |
| 37 | 11.3 | | | | |
| 38 | 11.6 | | | | |
| 39 | 11.9 | | | | |
| 40 | 12.2 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0732

**Date Started:** 10/25/07 **Drilling Contractor:** BART LONGEAR **Page** 1 **of** 1

**Date Completed:** 10/25/07 **Driller:** JAMES ROBINSON **Survey Unit:** 20

**Logged By:** Rodney Clark **Equipment:** MINISONIC #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT ▽ | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | 0.3 | 0'-10' | W.T. @ Surface (Spring!) | | 0'-10' Si, gr, f-c SAND, wet, yellowish brown (10YR 5/6), gr is f-c & SR-WR |
| 2 | 0.6 | | | | |
| 3 | 0.9 | 3'/10' | Alluvial | SW | |
| 4 | 1.2 | | | | |
| 5 | 1.5 | Poor Recovery | | | |
| 6 | 1.6 | | | | |
| 7 | 2.1 | | | | |
| 8 | 2.4 | | | | |
| 9 | 2.7 | | | | |
| 10 | 3.1 | | | | |
| 11 | 3.4 | 10'-15' | | | 10'-20' gr, SILT, wet-moist (strong brown 7.5YR 5/6 - brownish yellow 10YR 6/6) gr is A. shale - Weathered Rona Fm. |
| 12 | 3.7 | | | | |
| 13 | 4.0 | 3'/5' | Residuum | ML | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | | | | |
| 16 | 4.9 | 15'-20' | | | |
| 17 | 5.2 | | | | |
| 18 | 5.5 | 100% | | | |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | Terminate Boring @ 20' |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0733

**Date Started:** 10/26/07 **Drilling Contractor:** Boart Longyear **Page** 1 **of** 1

**Date Completed:** 10/26/07 **Driller:** J. Robinson **Survey Unit:** 17-20 (SD) 10/26/07

**Logged By:** S. Kelly **Equipment:** Mini Sonic #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 0-5 50% | Alluvial | | 0-13 si/cl. gr. SAND to si/cl. sa. GRAVEL, wet, ~~orange-tan~~ brown (10YR 5/8) gravel is f-c |
| 1 | 0.3 | | | | ~~(5) 10/26/07~~ yellowish |
| 2 | 0.6 | | | | SA to WR |
| 3 | 0.9 | | | | |
| 4 | 1.2 | | | | |
| 5 | 1.5 | 5-10 100% | | | |
| 6 | 1.8 | | | | |
| 7 | 2.1 | | | | |
| 8 | 2.4 | | | | |
| 9 | 2.7 | | | | |
| 10 | 3.1 | 10-15 100% | | | |
| 11 | 3.4 | | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | | | | 13-17 weathered bone: si. GRAVEL wet to moist (pulverized rock), brown (10YR 5/3) gravel is angular (mudstone to dolostone) |
| 14 | 4.3 | | | | |
| 15 | 4.6 | 15-17 100% | | | |
| 16 | 4.9 | | | | |
| 17 | 5.2 | | | | boring terminated @ 17' |
| 18 | 5.5 | | | | |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0734

Date Started: 11/2/07 Drilling Contractor: BOART LONGYEAR Page 1 of 2

Date Completed: 11/2/07 Driller: JAMES ROBINSON Survey Unit: 20

Logged By: Rodney Clark Equipment: MINISONIC #1402 Elevation: TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | 0.3 | 0'-5' | W.T. is @ or near surface | SW | 0'-22.5' sl gr, f-c SAND, wet, yellowish brown (10YR 5/6), gr is f-c ≠ A-SR, Alluvium |
| 2 | 0.6 | | Alluvial | | |
| 3 | 0.9 | 100% | | | |
| 4 | 1.2 | | | | |
| 5 | 1.5 | | | | |
| 6 | 1.8 | 5'-10' | | | |
| 7 | 2.1 | | | | |
| 8 | 2.4 | 100% | | | |
| 9 | 2.7 | | | | |
| 10 | 3.1 | | | | "very soft" drilling from 10-22.5' |
| 11 | 3.4 | 10'-25' | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | 8/15' | | | |
| 14 | 4.3 | (Poor | | | |
| 15 | 4.6 | Recovery) | | | |
| 16 | 4.9 | | | | |
| 17 | 5.2 | | | | |
| 18 | 5.5 | | | | |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0734

**Date Started:** 11/2/07 **Drilling Contractor:** BOART LONGYEAR **Page** 2 **of** 2

**Date Completed:** 11/2/07 **Driller:** JAMES ROBINSON **Survey Unit:** 20

**Logged By:** Rodney Clarke **Equipment:** MINISONIC #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 21 | 6.4 | | Alluvial | SW | |
| 22 | 6.7 | | | | |
| 23 | 7.0 | | | | 22.5'-25' gr, SILT, moist, brownish yellow (10YR 5/8), gr is A. reddish gray (5YR 5/2), laminated, fissile shale |
| 24 | 7.3 | | Residuum | ML | Weathered Rome Formation |
| 25 | 7.6 | | | | Terminate Boring @ 25' |
| 26 | 7.9 | | | | |
| 27 | 8.2 | | | | |
| 28 | 8.5 | | | | |
| 29 | 8.8 | | | | |
| 30 | 9.2 | | | | |
| 31 | 9.5 | | | | |
| 32 | 9.8 | | | | |
| 33 | 10.1 | | | | |
| 34 | 10.4 | | | | |
| 35 | 10.7 | | | | |
| 36 | 11.0 | | | | |
| 37 | 11.3 | | | | |
| 38 | 11.6 | | | | |
| 39 | 11.9 | | | | |
| 40 | 12.2 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0735

Date Started: 10/31/07 Drilling Contractor: BOART LONGYEAR Page 1 of 2

Date Completed: 10/31/07 Driller: JAMES ROBINSON Survey Unit: 20

Logged By: Rodney Clark Equipment: MINISONIC #1402 Elevation: TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | 0.3 | 0'-5' | W.T. @ or near surface Alluvial | SM | 0'-2' gr, si, cl, SAND, wet, brown (10YR 4/3) abundant roots & organics observed |
| 2 | 0.6 | | | | |
| 3 | 0.9 | 2/5' | | | 2'-13 si, gr, f-c SAND, wet, yellowish brown (10YR 5/6), gr is f-c & SA-SR |
| 4 | 1.2 | | | | |
| 5 | 1.5 | | | | |
| 6 | 1.8 | 5'-10' | | | |
| 7 | 2.1 | | | | |
| 8 | 2.4 | 3/5' | | | |
| 9 | 2.7 | | | | |
| 10 | 3.1 | | | | |
| 11 | 3.4 | 10'-15' | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | 100% | | | 13'-15' si, f-m SAND, wet, yellowish brown, trace of f. gravel & coarse sand (SA-SR) mid coarse most quartz sand |
| 14 | 4.3 | | | SM | |
| 15 | 4.6 | | | | 15'-17' si, gr, f-c, SAND, wet, yellowish brown gr is f-c & SA-WR |
| 16 | 4.9 | 15'-20' | | ML | |
| 17 | 5.2 | | | | 17'-19' gr, sa, SILT, wet, most yellowish brown slightly cemented/consolidated, gr is A. shale of Rome Fm & SA-WR Alluvium (Gneiss & Quartz) |
| 18 | 5.5 | 100% | | | |
| 19 | 5.8 | | | | 19'-20' gr, SILT, moist, strong brown (7.5YR 5/6) gr. is A. shale, Rome Fm |
| 20 | 6.1 | | Residuum RC 10/31/07 | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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NFS File Classification: DCM-23-05-02

# SOIL BORING RECORD

**NF6 Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0735

**Date Started:** 10/31/07 **Drilling Contractor:** BOART LONGYEAR **Page** 2 **of** 2

**Date Completed:** 10/31/07 **Driller:** JAMES ROBINSON **Survey Unit:** 20

**Logged By:** Rodney Clark **Equipment:** MINISONIC #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 20'-22' | Residuum | | |
| 21 | 6.4 | | | | 21'-22' GRAVEL, moist-dry, white (7.5YR 8/1) as is A. dolostone of Rone Fm. (Bedrock) |
| 22 | 6.7 | 80% | Bedrock | GW | |
| 23 | 7.0 | | | | Terminate Boring @ 22' |
| 24 | 7.3 | | | | |
| 25 | 7.6 | | | | |
| 26 | 7.9 | | | | |
| 27 | 8.2 | | | | |
| 28 | 8.5 | | | | |
| 29 | 8.8 | | | | |
| 30 | 9.2 | | | | |
| 31 | 9.5 | | | | |
| 32 | 9.8 | | | | |
| 33 | 10.1 | | | | |
| 34 | 10.4 | | | | |
| 35 | 10.7 | | | | |
| 36 | 11.0 | | | | |
| 37 | 11.3 | | | | |
| 38 | 11.6 | | | | |
| 39 | 11.9 | | | | |
| 40 | 12.2 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0736

**Date Started:** 11/5/07 **Drilling Contractor:** BOART LONGYEAR **Page** 1 **of** 2

**Date Completed:** 11/5/07 **Driller:** JAMES ROBINSON **Survey Unit:** 20

**Logged By:** Rodney Clark **Equipment:** MINISONIC #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | 0.3 | 0'-5' | N.T. soil rock surface Alluvial | SW | 0'-21' clayey gr f-c SAND, wet, yellowish brown (10YR 5/6) gr is f-c SR A-SR Alluvial |
| 2 | 0.6 | 2'/5' | | | |
| 3 | 0.9 | | | | |
| 4 | 1.2 | | | | |
| 5 | 1.5 | | | | |
| 6 | 1.8 | 5'-10' | | | |
| 7 | 2.1 | | | | |
| 8 | 2.4 | 4'/5' | | | |
| 9 | 2.7 | | | | |
| 10 | 3.1 | | | | |
| 11 | 3.4 | 10'-15' | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | 1'/5' | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | | | | |
| 16 | 4.9 | 15'-20' | | | |
| 17 | 5.2 | | | | |
| 18 | 5.5 | 3'/5' | | | |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0736

**Date Started:** 11/5/07 **Drilling Contractor:** BOART LONGYEAR **Page** 2 **of** 2

**Date Completed:** 11/5/07 **Driller:** JAMES ROBINSON **Survey Unit:** 20

**Logged By:** Rodney Clark **Equipment:** MINISONIC #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 21 | 6.4 | 20'-25' | Alluvial | SW | |
| 22 | 6.7 | | | | 21'-25' gr. SILT, moist-wet, dark grayish brown (10YR 5/2) → brownish yellow (10YR 6/8) gr is A. laminata, A. fissilex Shale & A. dolostone |
| 23 | 7.0 | | Residuum | ML | Woodward Rose Fm. |
| 24 | 7.3 | | | | |
| 25 | 7.6 | | | | Terminate Boring @ 25' |
| 26 | 7.9 | | | | |
| 27 | 8.2 | | | | |
| 28 | 8.5 | | | | |
| 29 | 8.8 | | | | |
| 30 | 9.2 | | | | |
| 31 | 9.5 | | | | |
| 32 | 9.8 | | | | |
| 33 | 10.1 | | | | |
| 34 | 10.4 | | | | |
| 35 | 10.7 | | | | |
| 36 | 11.0 | | | | |
| 37 | 11.3 | | | | |
| 38 | 11.6 | | | | |
| 39 | 11.9 | | | | |
| 40 | 12.2 | | | | |

**Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered**
**Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)**

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0737

Date Started: 11/2/07 Drilling Contractor: BOART LONGYEAR Page 1 of 1

Date Completed: 11/2/07 Driller: JAMES ROBINSON Survey Unit: 20

Logged By: Rodney Clark Equipment: MINISONIC #1402 Elevation: TBD.

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | 0.3 | 0'-5' | Alluvial | SW | 0'-9' si, gr, f-c SAND, wet, yellowish brown (10YR 5/6) gr is A-SR & f-c alluvium |
| 2 | 0.6 | | | | |
| 3 | 0.9 | 2'/5' | | | |
| 4 | 1.2 | | | | |
| 5 | 1.5 | | | | |
| 6 | 1.8 | 5'-10' | | | |
| 7 | 2.1 | | | | |
| 8 | 2.4 | 100% | | | |
| 9 | 2.7 | | | SM | 9'-10' si, f-m SAND, wet, yellowish brown, relict rock structure decayed weathered cobble |
| 10 | 3.1 | | | | |
| 11 | 3.4 | 10'-15' | | SW | 10'-18.5' si, gr, f-c SAND, wet, brown (10YR 5/3), gr is SA-SR & f-c alluvium |
| 12 | 3.7 | | | | |
| 13 | 4.0 | 100% | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | | | | |
| 16 | 4.9 | 15'-20' | | | |
| 17 | 5.2 | | | | |
| 18 | 5.5 | 100% | | | ≡Weathered Rome Formation |
| 19 | 5.8 | | Residuum | ML | 18.5'-20' gr, SILT, moist, reddish gray (5YR 5/2), gr. is A. laminated fissile shale & varies from reddish gray to weak red (2.5YR 4/2). |
| 20 | 6.1 | | | | Terminate Boring @ 20' |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0738

Date Started: 11/2/07 Drilling Contractor: BARRY LONGEAR Page 1 of 1

Date Completed: 11/2/07 Driller: JAMES ROBINSON Survey Unit: 20

Logged By: Rodney Clark Equipment: MINISONIC #1402 Elevation: TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | 0.3 | 0'-5' | Alluvial | SW | 0'-5' si, gr, f-c SAND, wet, yellowish brown (10YR 5/6) gr. is A-SR & f-c alluvium |
| 2 | 0.6 | | | | |
| 3 | 0.9 | 1'/5' | | | |
| 4 | 1.2 | | | | |
| 5 | 1.5 | | | | |
| 6 | 1.8 | 5'-10' | | SM | 5'-6' si, f-m SAND, wet, yellowish brown, micaceous |
| 7 | 2.1 | | | SW | 6'-10' si, gr, f-c SAND, wet, yellowish brown gr is f-c & SA-SR alluvium slightly cemented |
| 8 | 2.4 | 4'/5' | | | |
| 9 | 2.7 | | | | |
| 10 | 3.1 | | | | 10'-13' SAA except not cemented |
| 11 | 3.4 | 10'-15' | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | 3'/5' | | | 13'-16' cl, si, gr, f-c SAND, wet, yellowish brown gr is f-c & SA-WR alluvium slightly cemented |
| 14 | 4.3 | | | | |
| 15 | 4.6 | | | | |
| 16 | 4.9 | 15'-20' | | | 16'-20' gr, SILT, moist, brownish yellow (10YR 6/8), gr. is A. laminated, fissile, weak red (2.5YR 5/2) & yellowish brown |
| 17 | 5.2 | | | | |
| 18 | 5.5 | 100% | Residuum | | Shale - Weathered Rome Fm. |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | Terminate Boring @ 20' |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0739

**Date Started:** 11/1/07 **Drilling Contractor:** BOART LONGYEAR **Page** 1 **of** 1

**Date Completed:** 11/1/07 **Driller:** JAMES ROBINSON **Survey Unit:** 20

**Logged By:** Rodney Clark **Equipment:** MINISONIC #1407 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | 0.3 | 0'-5' | ULT @ or near surface Alluvia | SW | 0'-8.5' sl, gr, f-c SAND, wet, brownish yellow (10YR 6/6), gr is f-c ~ SA-SR alluvium |
| 2 | 0.6 | | | | |
| 3 | 0.9 | 100% | | | |
| 4 | 1.2 | | | | |
| 5 | 1.5 | | | | |
| 6 | 1.8 | 5'-10' | | | |
| 7 | 2.1 | | | | |
| 8 | 2.4 | 3'/5 | | | |
| 9 | 2.7 | | | | 8.5'-15' cl, si, gr, f-c SAND, wet, yellowish brown (10YR 5/6), slightly cement, gr. is A. shale of Rome Fm ~ SR-WR Alluvium |
| 10 | 3.1 | | | | |
| 11 | 3.4 | 10'-15' | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | 100% | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | | | | |
| 16 | 4.9 | 15'-20' | | ML | 15'-20' gr, SILT, wet, brownish yellow (10YR 6/8) gr is A-Shale of Rome Fm. Shale is laminated & fissile |
| 17 | 5.2 | | Residuum | | |
| 18 | 5.5 | | | | |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | Terminate Boring @ 20' |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0740

Date Started: 10/30/07 Drilling Contractor: BOART LONGYEAR Page 1 of 2

Date Completed: 10/30/07 Driller: JAMES ROBINSON Survey Unit: 20

Logged By: Rodney Clark Equipment: MINISONIC #1402 Elevation: TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | 0.3 | 0'-5' | W.T. @ or near surface | SW | 0'-13' si, gr, f-c SAND, wet, yellowish brown (10YR 5/6), gr is SA-WR & f-c alluvium |
| 2 | 0.6 | | Alluvial | | |
| 3 | 0.9 | 100% | | | |
| 4 | 1.2 | | | | |
| 5 | 1.5 | | | | |
| 6 | 1.8 | 5'-10' | | | |
| 7 | 2.1 | | | | |
| 8 | 2.4 | 100% | | | |
| 9 | 2.7 | | | | |
| 10 | 3.1 | | | | |
| 11 | 3.4 | 10'-15' | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | 100% | | | 13'-17' SAA except slightly cemented & slightly consolidated |
| 14 | 4.3 | | | | |
| 15 | 4.6 | | | | |
| 16 | 4.9 | 15'-20' | | | |
| 17 | 5.2 | | | | 17'-19' si, sa, GRAVEL, wet, strong brown (7.5YR 5/6) gr is f-c & SR & WR |
| 18 | 5.5 | 100% | | GW | |
| 19 | 5.8 | | | | 19'-20' gr, sa, cl, SILT, moist, yellow (10YR 7/6) sa & gr is A-SR & f-c |
| 20 | 6.1 | | | ML / GW | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0740

**Date Started:** 10/30/07 **Drilling Contractor:** BOART LONGYEAR **Page** 2 **of** 2

**Date Completed:** 10/30/07 **Driller:** JAMES ROBINSON **Survey Unit:** 20

**Logged By:** Rodney Clark **Equipment:** MINISONIC # K102 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 21 | 6.4 | 20'-25' | | | 20'-23' Si, sa, GRAVEL, wet, yellowish brown, gr is |
| 22 | 6.7 | | | GW | f-c ⅗ SR-WR |
| 23 | 7.0 | 100% | | | 23'-27' gr, SILT, wet-moist, brownish yellow |
| 24 | 7.3 | | | ML | (10YR 6/8) gr is A. shale/mudstone |
| 25 | 7.6 | | Residuum | | Weathered Rone F-m. |
| 26 | 7.9 | 25'-30' | | | |
| 27 | 8.2 | | | | 27'-30' sa GRAVEL, moist-dry, white |
| 28 | 8.5 | 100% | | | (7.5YR 8/1), gr is A. dolostone |
| 29 | 8.8 | | Bedrock | GW | Rone F-m. |
| 30 | 9.2 | | | | Terminate Boring @ 30' |
| 31 | 9.5 | | | | |
| 32 | 9.8 | | | | |
| 33 | 10.1 | | | | |
| 34 | 10.4 | | | | |
| 35 | 10.7 | | | | |
| 36 | 11.0 | | | | |
| 37 | 11.3 | | | | |
| 38 | 11.6 | | | | |
| 39 | 11.9 | | | | |
| 40 | 12.2 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0741

**Date Started:** 11/1/07 **Drilling Contractor:** BOART LONGYEAR **Page** 1 **of** 1

**Date Completed:** 11/1/07 **Driller:** JAMES ROBINSON **Survey Unit:** 20

**Logged By:** Rodney Clark **Equipment:** MINISONIC #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | 0.3 | 0'-5' | Alluvial | SW | 0'-10' si, gr, f-c SAND, wet, yellowish |
| 2 | 0.6 | 2.5'/5' | | | brown (10YR 5/6) gr is A-SR alluvium |
| 3 | 0.9 | | | | |
| 4 | 1.2 | | | | |
| 5 | 1.5 | | | | |
| 6 | 1.8 | 5'-10 | | | |
| 7 | 2.1 | | | | |
| 8 | 2.4 | 4'/5' | | | |
| 9 | 2.7 | | | | |
| 10 | 3.1 | | | | |
| 11 | 3.4 | 10'-15' | | SW/GW | 10'-13.5' si, gr, f-c SAND, wet, yellowish brown |
| 12 | 3.7 | | | | gr is A. shale of Rome Fm |
| 13 | 4.0 | 100% | | | & SR Alluvium & is f-c |
| | | | | | abundant coarse gravel |
| 14 | 4.3 | | Residuum | MC | 13.5'-15' sa gr, SILT, moist, brownish |
| 15 | 4.6 | | | | yellow (10YR 6/6), gr is A. shale of |
| | | | | | Rome Fm, shale is laminated & |
| 16 | 4.9 | | | | fissile |
| 17 | 5.2 | | | | Terminate Boring @ 15' |
| 18 | 5.5 | | | | |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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NFS File Classification: DCM-23-05-02

# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0742

| | | | | | |
|---|---|---|---|---|---|
| **Date Started:** | 10/30/07 | **Drilling Contractor:** | BOART LONGYEAR | **Page** | 1 of 2 |
| **Date Completed:** | 10/30/07 | **Driller:** | JAMES ROBINSON | **Survey Unit:** | 20 |
| **Logged By:** | Rodney Clark | **Equipment:** | MINISONIC #1402 | **Elevation:** | TBD |

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | | W.T @ or near surface | | |
| 1 | 0.3 | 0'-5' | Alluvial | SW | 0'-13' si, gr, f-c SAND, wet, yellowish brown (10YR 5/6), gr. is f-c & SA-WR |
| 2 | 0.6 | | | | |
| 3 | 0.9 | 15'/15' | | | |
| 4 | 1.2 | | | | |
| 5 | 1.5 | | | | |
| 6 | 1.8 | 5'-10' | | | |
| 7 | 2.1 | | | | |
| 8 | 2.4 | 100% | | | |
| 9 | 2.7 | | | | |
| 10 | 3.1 | | | | |
| 11 | 3.4 | 10'-15' | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | 100% | | | 13'-15' si, gr, f-c SAND, wet, weak red, (2.5YR 4/2), gr is A-SR & f-c gr is SR Alluvium (quartzite) & A. Shale (Rome Fm.) |
| 14 | 4.3 | | | | |
| 15 | 4.6 | | | | 15'-20' - si, gr, f-c SAND, wet, brownish yellow (10YR 6/8) gr is f-c & SR-SA |
| 16 | 4.9 | 15'-20' | | | |
| 17 | 5.2 | | | | |
| 18 | 5.5 | 100% | | | 18' TD 10/30/07 |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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NFS File Classification: DCM-23-05-02

# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0742

**Date Started:** 10/30/07 **Drilling Contractor:** BOART LONGYEAR **Page** 2 **of** 2

**Date Completed:** 10/30/07 **Driller:** JAMES ROBINSON **Survey Unit:** 20

**Logged By:** Rodney Clark **Equipment:** MINISONIC #11482 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 21 | 6.4 | 20'-25' | | | |
| 22 | 6.7 | | | ML | 22'-25' cl, gr, SILT, wet-moist, brownish yellow, (10YR 6/6), gr is A. Shale/mudstone — weathered Rome Fm. |
| 23 | 7.0 | 100% | Residuum | | |
| 24 | 7.3 | | | | |
| 25 | 7.6 | | | | Terminate Boring @ 25' |
| 26 | 7.9 | | | | |
| 27 | 8.2 | | | | |
| 28 | 8.5 | | | | |
| 29 | 8.8 | | | | |
| 30 | 9.2 | | | | |
| 31 | 9.5 | | | | |
| 32 | 9.8 | | | | |
| 33 | 10.1 | | | | |
| 34 | 10.4 | | | | |
| 35 | 10.7 | | | | |
| 36 | 11.0 | | | | |
| 37 | 11.3 | | | | |
| 38 | 11.6 | | | | |
| 39 | 11.9 | | | | |
| 40 | 12.2 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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NFS File Classification: DCM-23-05-02

# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0743

**Date Started:** 11/5/07 **Drilling Contractor:** BOART LONGYEAR **Page** 1 **of** 2

**Date Completed:** 11/5/07 **Driller:** JAMES ROBINSON **Survey Unit:** 20

**Logged By:** Rodney M. Clark **Equipment:** MINISONIC #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT ▽ | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | 0.3 | 0'-5' | W.T. @ or near surface | | 0'-13' si, gr, f-c SAND, wet, yellowish brown (10YR 5/6) gr is f-c & SA-WR |
| 2 | 0.6 | | Alluvial | SW | |
| 3 | 0.9 | 1/5' | | | |
| 4 | 1.2 | | | | |
| 5 | 1.5 | | | | |
| 6 | 1.8 | 5'-10' | | | |
| 7 | 2.1 | | | | |
| 8 | 2.4 | 100% | | | |
| 9 | 2.7 | | | | |
| 10 | 3.1 | | | | |
| 11 | 3.4 | 10'-15' | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | 100% | | | 13'-14' gr, f-c SAND, moist yellowish red (5YR 5/6), gr is A & weathered |
| 14 | 4.3 | | | | * also yellowish red. |
| 15 | 4.6 | | | ML | 14'-15' cl, gr, sa, SILT, moist, yellowish brown (10YR 5/6), gr. is A. |
| 16 | 4.9 | 15'-20' | | SW | 15'-22' cl, si, gr, f-c SAND, wet, yellowish brown (gr is f-c & SA-WR |
| 17 | 5.2 | | | | |
| 18 | 5.5 | 100% | | | |
| 19 | 5.6 | | | | |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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NFS File Classification: DCM-23-05-02

# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0743

**Date Started:** 11/5/07 **Drilling Contractor:** BOART LONGYEAR **Page** 2 **of** 2

**Date Completed:** 11/5/07 **Driller:** JAMES ROBINSON **Survey Unit:** 20

**Logged By:** Rodney M. Clark **Equipment:** MINISONIC #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 21 | 6.4 | 20'-25' | Alluvial | SW | |
| 22 | 6.7 | | | | 22'-25' gr, SILT, moist, brownish yellow, (10YR 6/8), gr is A. laminate, fissle, shale - Weathered Rome Fm. |
| 23 | 7.0 | 100% | Residuum | ML | |
| 24 | 7.3 | | | | |
| 25 | 7.6 | | | | Terminate Boring @ 25' |
| 26 | 7.9 | | | | |
| 27 | 8.2 | | | | |
| 28 | 8.5 | | | | |
| 29 | 8.8 | | | | |
| 30 | 9.2 | | | | |
| 31 | 9.5 | | | | |
| 32 | 9.8 | | | | |
| 33 | 10.1 | | | | |
| 34 | 10.4 | | | | |
| 35 | 10.7 | | | | |
| 36 | 11.0 | | | | |
| 37 | 11.3 | | | | |
| 38 | 11.6 | | | | |
| 39 | 11.9 | | | | |
| 40 | 12.2 | | | | |

**Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered**

**Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)**

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0744

**Date Started:** 10/25/07 **Drilling Contractor:** BHART LONGYEAR **Page** 1 **of** 2

**Date Completed:** 10/25/07 **Driller:** JAMES ROBINSON **Survey Unit:** 20

**Logged By:** [illegible] **Equipment:** MINISONIC HHD2 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | 0.3 | 0'-5' | Alluvial | SW | 0'-6' si, gr, f-c SAND, wet, yellowish brown (10YR 5/6) gr. is SR-WR & f-c |
| 2 | 0.6 | 3'/5' | | | |
| 3 | 0.9 | (4" core bind) | | | |
| 4 | 1.2 | | | | |
| 5 | 1.5 | | | | |
| 6 | 1.8 | 5'-10' | | | 6'-9' gr, sa, si, CLAY, wet, yellowish brown, micaceous, |
| 7 | 2.1 | | | CL | |
| 8 | 2.4 | 3'/5' | | | |
| 9 | 2.7 | (3" core bind) | | | 9'-13' cl, si, gr, f-c SAND, wet, yellowish brown, mostly f-m SAND, some gr, gr is f & SR-WR |
| 10 | 3.1 | | | SW | |
| 11 | 3.4 | 10'-15' | | | |
| 12 | 3.7 | | | | 13'-22' cl, si, gr, f-c SAND, wet, yellowish brown - strong brown, increased gr, gr is f-c & SR-WR |
| 13 | 4.0 | 100% | | | |
| 14 | 4.3 | (3" core bind) | | | |
| 15 | 4.6 | | | | |
| 16 | 4.9 | 15'-20' | | | |
| 17 | 5.2 | 100% | | | |
| 18 | 5.6 | | | | |
| 19 | 5.8 | (5" core bind) | | | |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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NFS File Classification: DCM-23-05-02

# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0744

**Date Started:** 10/25/07 **Drilling Contractor:** BOART LONGYEAR **Page** 2 **of** ____

**Date Completed:** 10/25/07 **Driller:** JAMES ROBINSON **Survey Unit:** 20

**Logged By:** Rodney Clark **Equipment:** MINISONIC #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 21 | 6.4 | 20'-25' | Alluvial | SW | 22'-25' d si gr f-c SAND, wet, reddish yellow (7.5YR 6/6), gr is f-c ≠ A-WR, gr include Abundant A. shale (reddish yellow 5YR 6/6) & Rome Fm ≠ WR-SR Quartzite ≠ Granite |
| 22 | 6.7 | | | | |
| 23 | 7.0 | 100% | | | |
| 24 | 7.3 | | | | |
| 25 | 7.6 | | | | |
| 26 | 7.9 | 25'-33' | | | |
| 27 | 8.2 | | | | |
| 28 | 8.5 | 100% | | | |
| 29 | 8.8 | | | | |
| 30 | 9.2 | | | | |
| 31 | 9.5 | | | | |
| 32 | 9.8 | | Residuum | GW | 32'-33' (Weathered Rome Fm) si GRAVEL, wet, weak red (10R 5/2), gr is A. laminated shale (Rome Fm) |
| 33 | 10.1 | | | | |
| 34 | 10.4 | | | | |
| 35 | 10.7 | | | | Terminate Boring @ 33' |
| 36 | 11.0 | | | | |
| 37 | 11.3 | | | | |
| 38 | 11.6 | | | | |
| 39 | 11.9 | | | | |
| 40 | 12.2 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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NFS File Classification: DCM-23-05-02

# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0745

**Date Started:** 10/31/07 **Drilling Contractor:** BART LONGYEAR **Page** 1 **of** 2

**Date Completed:** 10/31/07 **Driller:** James ROBINSON **Survey Unit:** 20

**Logged By:** Rodney Clark **Equipment:** MINISONIC #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | | W.T. @ surface | | |
| 1 | 0.3 | 0'-5' | Alluvial | SW | 0'-12' sp, gr, f-c SAND, wet, yellowish brown (10YR 5/6) gr is f-c & A-SR alluvium |
| 2 | 0.6 | | | | |
| 3 | 0.9 | 3'/5' | | | |
| 4 | 1.2 | | | | |
| 5 | 1.5 | | | | |
| 6 | 1.8 | 5'-10' | | | |
| 7 | 2.1 | | | | |
| 8 | 2.4 | 100% | | | |
| 9 | 2.7 | | | | |
| 10 | 3.1 | | | | |
| 11 | 3.4 | 10'-15' | | | |
| 12 | 3.7 | 100% | | | 12'-20' SAA except gr is f-c & A-SR fl. gravel is shale/mudstone of Rome FM / SR Gravel is (Quartzites, Gneiss, Schist, etc....) Alluvium |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | | | | |
| 16 | 4.9 | 15'-20' | | | |
| 17 | 5.2 | | | | |
| 18 | 5.5 | 100% | | | |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | GW | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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NFS File Classification: DCM-23-05-02

# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0745

**Date Started:** 10/31/07 **Drilling Contractor:** BART LONGYEAR **Page** 2 **of** 2

**Date Completed:** 10/31/07 **Driller:** JAMES ROBINSON **Survey Unit:** 20

**Logged By:** [illegible] **Equipment:** MINISONIC #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | 20'-25' | | | |
| 21 | 6.4 | | | GW | 20'-25' cl, si, sa, f-c GRAVEL, wet, brownish yellow (10YR 6/6); GRAVEL is A-SR to f-c, some gravel is A shale of Rone Fm. |
| 22 | 6.7 | | | | |
| 23 | 7.0 | 100% | | | |
| 24 | 7.3 | | | | |
| 25 | 7.6 | | | | |
| 26 | 7.9 | 25'-33' | | | 25'-33 gr, SILT, moist, brownish yellow, gr is A, shale, silt is laminated shows relict structure — ≡ Weathered Rone Formation |
| 27 | 8.2 | | | | |
| 28 | 8.5 | 6"/8' | Residuum | ML | |
| 29 | 8.8 | | | | |
| 30 | 9.2 | | | | |
| 31 | 9.5 | | | | |
| 32 | 9.8 | | | | |
| 33 | 10.1 | | | | Terminate Boring @ 33' |
| 34 | 10.4 | | | | |
| 35 | 10.7 | | | | |
| 36 | 11.0 | | | | |
| 37 | 11.3 | | | | |
| 38 | 11.6 | | | | |
| 39 | 11.9 | | | | |
| 40 | 12.2 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0146

Date Started: 10/25/2007 Drilling Contractor: BOART LONGYEAR Page 1 of 1

Date Completed: 10/25/2007 Driller: JAMES ROBINSON Survey Unit: 20

Logged By: Rodney Clark Equipment: Minisonic #1402 Elevation: TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | | W.T | | |
| 1 | 0.3 | 0'-5' | | | 0'-13.5' si, gr, f-c SAND, wet, brownish yellow (10YR 6/6), gr is f-c & SR-WR, (0'-1') organics observed (sticks & leaves) gr is alluvium (Quartzites, Gneiss, etc) |
| 2 | 0.6 | 4'/5' | Alluvial | SW | |
| 3 | 0.9 | | | | |
| 4 | 1.2 | | | | |
| 5 | 1.5 | | | | |
| 6 | 1.8 | 5'-10' | | | |
| 7 | 2.1 | 100% | | | |
| 8 | 2.4 | | | | |
| 9 | 2.7 | | | | |
| 10 | 3.1 | | | | |
| 11 | 3.4 | 10'-15' | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | 100% | | | 13.5'-15' |
| 14 | 4.3 | | Residuum/ Bedrock | GW | sa, si, GRAVEL, moist, weak red (10R 4/3) gr is weathered Rome Fm. (Shale) laminations observed. |
| 15 | 4.6 | | | | |
| 16 | 4.9 | | | | Terminate Boring @ 15' |
| 17 | 5.2 | | | | |
| 18 | 5.5 | | | | |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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NFS File Classification: DCM-23-05-02

# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0746

**Date Started:** 10/24/07 **Drilling Contractor:** BOART LONGYEAR **Page** 1 **of** 2

**Date Completed:** 10/24/07 **Driller:** JAMES ROBINSON **Survey Unit:** 20

**Logged By:** Rodney Clark **Equipment:** MINISONIC #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | 0.3 | 0'-5' | Alluvial | SW | 0'-10' si, gr, f-c SAND, wet, yellowish brown (10YR 5/6), gr is f-c & SR-WR |
| 2 | 0.6 | 1/5' | | | |
| 3 | 0.9 | | | | |
| 4 | 1.2 | | | | |
| 5 | 1.5 | | | | |
| 6 | 1.8 | 5'-10' | | | |
| 7 | 2.1 | ~~100%~~ | | | |
| 8 | 2.4 | 3.5'/5' | | | |
| 9 | 2.7 | | | | |
| 10 | 3.1 | | | | 10'-13' si, sa, GRAVEL, yellowish brown gr is f-c & SR-WR |
| 11 | 3.4 | 10'-15' | | GW | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | 100% | | SW | 13'-18' si, gr, f-c SAND, wet, yellowish brown, gr is f-c & SR-WR |
| 14 | 4.3 | | | | |
| 15 | 4.6 | | | | 18'-25' cl, si, gr, f-c SAND, wet, yellowish brown, gr is f-c & A-WR, gr consists of A-weathered shale (Rome Fm) & SR-WR Alluvial (gneiss & quartzite) laminations in unit observed, slightly consolidated |
| 16 | 4.9 | 15'-20' | | | |
| 17 | 5.2 | | | | |
| 18 | 5.5 | 100% | | | |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0746

**Date Started:** 10/24/07 **Drilling Contractor:** BOART LONGYEAR **Page** 2 **of** 2

**Date Completed:** 10/24/07 **Driller:** JAMES ROBINSON **Survey Unit:** 10

**Logged By:** Rodney Clark **Equipment:** MINISONIC #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 21 | 6.4 | 20'-25' | | | |
| 22 | 6.7 | | Alluvial | | |
| 23 | 7.0 | 100% | | | |
| 24 | 7.3 | | | | |
| 25 | 7.6 | | | | Unable to complete boring to required depth due to drill casing drift/ drill casing cannot be advanced/ |
| 26 | 7.9 | | | | |
| 27 | 8.2 | | | | |
| 28 | 8.5 | | | | Redrill on (10/25/07) |
| 29 | 8.8 | | | | |
| 30 | 9.2 | | | | |
| 31 | 9.5 | | | | |
| 32 | 9.8 | | | | |
| 33 | 10.1 | | | | |
| 34 | 10.4 | | | | |
| 35 | 10.7 | | | | |
| 36 | 11.0 | | | | |
| 37 | 11.3 | | | | |
| 38 | 11.6 | | | | |
| 39 | 11.9 | | | | |
| 40 | 12.2 | | | | |

**Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered**

**Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)**

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0747

**Date Started:** 10/30/07 **Drilling Contractor:** BOART LONGYEAR **Page** 2 **of** 2

**Date Completed:** 10/30/07 **Driller:** JAMES ROBINSON **Survey Unit:** 20

**Logged By:** Rodney Clark **Equipment:** MINISONIC #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | 0.3 | 0'-5' | Alluvial | SW | 0'-11' si, gr, f-c SAND, wet, yellowish brown (10YR 5/6) gr is SR-WR & f-c |
| 2 | 0.6 | | | | |
| 3 | 0.9 | 100% | W.T. @ or near Surface | | |
| 4 | 1.2 | | | | |
| 5 | 1.5 | | | | |
| 6 | 1.8 | 5'-10' | | | |
| 7 | 2.1 | | | | |
| 8 | 2.4 | 3.5'/5' | | | |
| 9 | 2.7 | | | | |
| 10 | 3.1 | | | | |
| 11 | 3.4 | 10'-15' | Alluvial | SW | 11'-20' cl, si, gr, f-c SAND, wet, yellowish brown, gr is f-c & SA-WR interval slightly cemented & slightly consolidated |
| 12 | 3.7 | 100% | | | |
| 13 | 4.0 | | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | | | | |
| 16 | 4.9 | 15'-20' | | | |
| 17 | 5.2 | | | | |
| 18 | 5.5 | 100% | | | |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0747

**Date Started:** 10/30/07 **Drilling Contractor:** BOART LONGYEAR **Page** 2 **of** 2

**Date Completed:** 10/30/07 **Driller:** JAMES ROBINSON **Survey Unit:** 20

**Logged By:** Rodney York **Equipment:** MINISONIC #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 21 | 6.4 | 20'-25' | | | |
| 22 | 6.7 | | | | 22'-28.5' SAA except some gr is fl. Shale -Weathered Rome Fm mixed w/ SR-VNR alluvium |
| 23 | 7.0 | 100% | | | |
| 24 | 7.3 | | | | |
| 25 | 7.6 | | | | |
| 26 | 7.9 | 25'-32' | | | |
| 27 | 8.2 | | | | |
| 28 | 8.5 | 5/7' | | | 28.5'-32' gr. SILT, moist, brown/yellow (10YR 5/6) gr w fl. Shale -Weathered Rome Fm- |
| 29 | 8.8 | | | | |
| 30 | 9.2 | | Residuum | ML | |
| 31 | 9.5 | | | | |
| 32 | 9.8 | | | | Terminate Boring @ 32' |
| 33 | 10.1 | | | | |
| 34 | 10.4 | | | | |
| 35 | 10.7 | | | | |
| 36 | 11.0 | | | | |
| 37 | 11.3 | | | | |
| 38 | 11.6 | | | | |
| 39 | 11.9 | | | | |
| 40 | 12.2 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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NFS File Classification: DCM-23-05-02

# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0748

Date Started: 10/31/07 Drilling Contractor: BOART LONGYEAR Page 1 of 2

Date Completed: 10/31/07 Driller: JAMES ROBINSON Survey Unit: 20

Logged By: Rodney Clark Equipment: MINIGONIC #1402 Elevation: TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| | | | W.T @ surface | | |
| 1 | 0.3 | 0'-5' | Alluvial | SW | 0'-7' si, gr, f-c SAND, wet, brownish yellow (10YR 6/6), gr. is f-c & A-SR |
| 2 | 0.6 | | | | A. gr is Quartzite, interval slightly cemented |
| 3 | 0.9 | 100% | | | |
| 4 | 1.2 | | | | |
| 5 | 1.5 | | | | |
| 6 | 1.8 | 5'-10' | | | |
| 7 | 2.1 | | | | 7'-12' cl, si, gr, f-c SAND, wet, yellowish brown (10YR 5/6) gr is A-SR & f-c |
| 8 | 2.4 | 100% | | | |
| 9 | 2.7 | | | | |
| 10 | 3.1 | | | | |
| 11 | 3.4 | 10'-15' | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | 100% | | ML | 12'-15' sa, gr, SILT, moist, weak red (2.5YR 5/2) SILT is laminated, gr is A. slate & laminated mudstone, potentially from Rone Fm. interval is slightly consolidated/cemented |
| 14 | 4.3 | | | | |
| 15 | 4.6 | | | | |
| 16 | 4.9 | 15'-20' | | SW | 15'-23' cl, si, gr, f-c SAND, wet, yellowish brown (10YR 5/6), gr is SA-SR & f-c |
| 17 | 5.2 | | | | |
| 18 | 5.5 | 100% | | | |
| 19 | 5.8 | | | | |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

MACTEC

Knowingly or willfully falsifying or concealing a material fact on this form, or making false, fictitious or fraudulent statements or representations herein could consititute a felony punishable under Federal Statutes.

NFS File Classification: DCM-23-05-02

# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0748

Date Started: 10/31/07 Drilling Contractor: BART LONGYEAR Page 2 of 2

Date Completed: 10/31/07 Driller: JAMES ROBINSON Survey Unit: 20

Logged By: [illegible] Equipment: MINISONIC #1402 Elevation: TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 21 | 6.4 | 20'-25' | Alluvial | SW | |
| 22 | 6.7 | | | | |
| 23 | 7.0 | 100% | | | 23'-25' sl, gr, f-c SAND, moist, strong brown (7.5YR 5/6) gr is f-m & SR-WR Alluvium, interval slightly cemented/consolidated |
| 24 | 7.3 | | | | |
| 25 | 7.6 | | | | 25'-28' si, gr, f-c SAND, wet, yellowish brown (10YR 5/6), gr. is subrounded fine & ASR |
| 26 | 7.9 | 25'-28' | | | |
| 27 | 8.2 | 100% | | | |
| 28 | 8.5 | | | | |
| 29 | 8.8 | 28'-33' | | GW | 29'-32' cl, si, sa, GRAVEL, wet, yellowish brown, gr is f-c & SR-WR |
| 30 | 9.2 | 100% | | | |
| 31 | 9.5 | | | | |
| 32 | 9.8 | | | SW | 32'-33' cl, si, gr, f-c SAND, moist, strong brown gr is f-m & SR-WR, slightly cemented/consolidated |
| 33 | 10.1 | | | | |
| 34 | 10.4 | | | | Terminate Boring @ 33' (10.1 meters) |
| 35 | 10.7 | | | | |
| 36 | 11.0 | | | | |
| 37 | 11.3 | | | | |
| 38 | 11.6 | | | | |
| 39 | 11.9 | | | | |
| 40 | 12.2 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

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NFS File Classification: DCM-23-05-02

# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0749

**Date Started:** 11/1/07 **Drilling Contractor:** BART LONGYEAR **Page** 1 **of** 2

**Date Completed:** 11/1/07 **Driller:** JAMES ROBINSON **Survey Unit:** 20

**Logged By:** Rodney Clark **Equipment:** MINISONIC #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT ▽ | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | 0.3 | 0'-5' | WT is at surface | SW | 0'-15' si, gr, f-c SAND, wet, brownish yellow (10YR 6/6) gr is A-SR & f-c |
| 2 | 0.8 | | Alluvial | | alluvium |
| 3 | 0.9 | 3'/5' | | | |
| 4 | 1.2 | | | | |
| 5 | 1.5 | | | | |
| 6 | 1.8 | 5'-10' | | | |
| 7 | 2.1 | | | | |
| 8 | 2.4 | 100% | | | |
| 9 | 2.7 | | | | |
| 10 | 3.1 | | | | |
| 11 | 3.4 | 10'-15' | | | |
| 12 | 3.7 | | | | |
| 13 | 4.0 | 100% | | | |
| 14 | 4.3 | | | | |
| 15 | 4.6 | | | | 15'-17.5' si, sa, GRAVEL, wet, brownish yellow, GR is SR-WR & f-c |
| 16 | 4.9 | 15'-20' | | GW | |
| 17 | 5.2 | | | | |
| 18 | 5.5 | | | | 17.5'-20' sa, gr, cl, SILT, moist, brown 7.5YR 4/3, gr is A. Shale of |
| 19 | 5.8 | | | ML | Rone Fm & SR-WR Alluvium & f-c, silt is laminated & slightly cemented |
| 20 | 6.1 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

MACTEC

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NFS File Classification: DCM-23-05-02

# SOIL BORING RECORD

**NFS Subsurface Soil Characterization and Final Status Survey**

**MACTEC Project 9120-07-1235**

**BORING NO.** 0749

**Date Started:** 11/1/07 **Drilling Contractor:** BART LONGEAR **Page** 1 **of** 2

**Date Completed:** 11/1/07 **Driller:** JAMES ROBINSON **Survey Unit:** 20

**Logged By:** Rodney Clark **Equipment:** MINISONIC #1402 **Elevation:** TBD

| DEPTH (ft) | DEPTH (m) | RUN / RECOVERY | STRATA / UNIT | USCS | DESCRIPTION |
|---|---|---|---|---|---|
| 21 | 6.4 | 20'-25' | | GW | 20'-21.5' si, sa, GRAVEL, wet, brownish yellow gr is A-SR & f-c alluvium |
| 22 | 6.7 | | | | |
| 23 | 7.0 | | | SW | 21.5'-24' si, gr, f-c SAND, wet, brownish yellow, gr is SR-WR & f-c alluvium |
| 24 | 7.3 | 100% | | | |
| 25 | 7.6 | | | | |
| 26 | 7.9 | 25'-33' | | | |
| 27 | 8.2 | | | | |
| 28 | 8.5 | 100% | | | |
| 29 | 8.8 | | | | 29'-33' gr, sa, SILT, moist, dark yellowish brown (10YR 4/4), gr is SR-WR & fine alluvium |
| 30 | 9.2 | | | ML | iron staining & bleaching observed |
| 31 | 9.5 | | | | |
| 32 | 9.8 | | | | |
| 33 | 10.1 | | | | Terminate Boring @ 33' |
| 34 | 10.4 | | | | |
| 35 | 10.7 | | | | |
| 36 | 11.0 | | | | |
| 37 | 11.3 | | | | |
| 38 | 11.6 | | | | |
| 39 | 11.9 | | | | |
| 40 | 12.2 | | | | |

Run = Drill Run Interval; Recovery (%) = Run Interval / Amount Recovered

Strata/Unit = deposition/formation (e.g., fill, alluvial, floodplain, residuum, bedrock, etc.)

MACTEC

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NFS File Classification: DCM-23-05-02

# Appendix F

# Reference Background Area Dataset

## Reference Background Area Dataset

| Sample ID | Corehole ID # | Depth Interval | RBA Number | Analytical Result, pCi/g | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | Th-230 | Th-232 | U-233/234 | U-235/236 | U-238 |
| 2146 | 1 | 1 | 1-1 | 1.520 | 1.460 | 1.350 | 0.096 | 1.470 |
| 2154 | 2 | 1 | 2-1 | 1.470 | 1.390 | 1.340 | 0.094 | 1.220 |
| 2164 | 3 | 1 | 3-1 | 1.940 | 1.540 | 1.680 | 0.073 | 1.510 |
| 2175 | 4 | 1 | 4-1 | 1.620 | 1.530 | 1.240 | 0.069 | 1.190 |
| 2183 | 5 | 1 | 5-1 | 1.500 | 1.610 | 1.780 | 0.110 | 1.430 |
| 2195 | 6 | 1 | 6-1 | 1.680 | 1.870 | 1.420 | 0.130 | 1.610 |
| 2204 | 7 | 1 | 7-1 | 1.620 | 1.520 | 1.390 | 0.111 | 1.200 |
| 2213 | 8 | 1 | 8-1 | 1.870 | 1.670 | 1.730 | 0.129 | 1.510 |
| 2225 | 9 | 1 | 9-1 | 1.780 | 1.300 | 1.620 | 0.180 | 1.420 |
| 2230 | 10 | 1 | 10-1 | 1.370 | 1.730 | 1.300 | 0.076 | 1.640 |
| 2236 | 11 | 1 | 11-1 | 1.600 | 1.480 | 1.550 | 0.098 | 1.460 |
| 2240 | 12 | 1 | 12-1 | 1.720 | 1.690 | 1.190 | 0.138 | 1.380 |
| 2244 | 13 | 1 | 13-1 | 2.290 | 1.880 | 1.810 | 0.170 | 1.420 |
| 2250 | 14 | 1 | 14-1 | 1.640 | 1.710 | 1.560 | 0.056 | 1.390 |
| 2255 | 15 | 1 | 15-1 | 1.780 | 1.340 | 1.670 | 0.104 | 1.630 |
| 2259 | 16 | 1 | 16-1 | 1.300 | 1.210 | 1.620 | 0.091 | 1.330 |
| 2264 | 17 | 1 | 17-1 | 1.650 | 1.670 | 1.560 | 0.190 | 1.440 |
| 2269 | 18 | 1 | 18-1 | 1.560 | 1.760 | 1.340 | 0.076 | 1.360 |
| 2274 | 19 | 1 | 19-1 | 1.790 | 1.710 | 1.500 | 0.170 | 1.320 |
| 2279 | 20 | 1 | 20-1 | 1.550 | 1.670 | 1.440 | 0.130 | 1.590 |
| 2284 | 21 | 1 | 21-1 | 1.610 | 1.450 | 1.580 | 0.119 | 1.160 |
| 2307 | 22 | 1 | 22-1 | 1.820 | 1.550 | 1.640 | 0.000 | 1.640 |
| 2312 | 23 | 1 | 23-1 | 1.080 | 1.490 | 1.310 | 0.210 | 1.410 |
| 2316 | 24 | 1 | 24-1 | 1.480 | 1.480 | 1.410 | 0.102 | 1.410 |
| 2320 | 25 | 1 | 25-1 | 1.430 | 1.630 | 1.380 | 0.083 | 1.370 |
| 2325 | 26 | 1 | 26-1 | 1.850 | 1.610 | 1.280 | 0.000 | 1.530 |
| 2330 | 27 | 1 | 27-1 | 1.330 | 1.530 | 1.710 | 0.230 | 1.300 |
| 2335 | 28 | 1 | 28-1 | 1.390 | 1.490 | 1.370 | 0.079 | 1.530 |
| 2340 | 29 | 1 | 29-1 | 1.630 | 1.670 | 1.670 | 0.170 | 1.480 |
| 2345 | 30 | 1 | 30-1 | 1.450 | 1.380 | 1.570 | 0.122 | 1.600 |
| 2350 | 31 | 1 | 31-1 | 1.490 | 1.640 | 1.460 | 0.077 | 1.570 |
| 2355 | 32 | 1 | 32-1 | 1.390 | 1.860 | 1.270 | 0.119 | 1.570 |
| 2358 | 33 | 1 | 33-1 | 1.850 | 1.500 | 1.390 | 0.160 | 1.640 |
| 2364 | 34 | 1 | 34-1 | 1.850 | 1.690 | 1.620 | 0.033 | 1.750 |
| 2370 | 35 | 1 | 35-1 | 1.540 | 1.390 | 2.000 | 0.330 | 1.540 |
| 2376 | 36 | 1 | 36-1 | 1.490 | 1.390 | 1.870 | 0.180 | 1.630 |
| 2381 | 37 | 1 | 37-1 | 1.810 | 1.430 | 1.810 | 0.280 | 1.230 |
| 2386 | 38 | 1 | 38-1 | 1.700 | 1.980 | 1.640 | 0.229 | 1.260 |
| 2391 | 39 | 1 | 39-1 | 1.650 | 1.690 | 1.430 | 0.168 | 1.400 |
| 2396 | 40 | 1 | 40-1 | 1.130 | 1.620 | 1.490 | 0.106 | 1.330 |
| 2400 | 41 | 1 | 41-1 | 1.230 | 1.200 | 1.520 | 0.196 | 1.550 |
| 2405 | 42 | 1 | 42-1 | 1.550 | 1.710 | 1.440 | 0.047 | 1.600 |
| 2410 | 43 | 1 | 43-1 | 1.900 | 1.740 | 1.830 | 0.208 | 1.550 |
| 2415 | 44 | 1 | 44-1 | 1.550 | 1.590 | 1.680 | 0.240 | 1.540 |
| 2416 | 45 | 1 | 45-1 | 1.800 | 1.550 | 1.450 | 0.082 | 1.530 |
| 2421 | 46 | 1 | 46-1 | 1.730 | 1.320 | 1.560 | 0.098 | 1.570 |
| 2426 | 47 | 1 | 47-1 | 1.530 | 1.560 | 1.560 | 0.246 | 1.520 |
| 2435 | 48 | 1 | 48-1 | 1.670 | 1.550 | 1.730 | 0.180 | 1.320 |
| 2440 | 49 | 1 | 49-1 | 1.800 | 1.410 | 1.630 | 0.120 | 1.590 |

## Reference Background Area Dataset

| Sample ID | Corehole ID # | Depth Interval | RBA Number | Analytical Result, pCi/g | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | Th-230 | Th-232 | U-233/234 | U-235/236 | U-238 |
| 2445 | 50 | 1 | 50-1 | 1.750 | 1.390 | 1.720 | 0.330 | 1.560 |
| 2450 | 51 | 1 | 51-1 | 2.090 | 1.540 | 1.960 | 0.180 | 1.810 |
| 2455 | 52 | 1 | 52-1 | 1.910 | 1.360 | 1.920 | 0.260 | 1.660 |
| 2460 | 53 | 1 | 53-1 | 2.130 | 1.530 | 1.560 | 0.260 | 1.340 |
| 2465 | 54 | 1 | 54-1 | 1.640 | 1.580 | 1.600 | 0.113 | 1.800 |
| 2470 | 55 | 1 | 55-1 | 1.450 | 1.520 | 1.820 | 0.129 | 1.450 |
| 2476 | 56 | 1 | 56-1 | 1.560 | 1.860 | 1.620 | 0.072 | 1.210 |
| 2480 | 57 | 1 | 57-1 | 1.450 | 1.610 | 1.410 | 0.130 | 1.310 |
| 2485 | 58 | 1 | 58-1 | 1.540 | 1.510 | 1.350 | 0.145 | 1.300 |
| 2490 | 59 | 1 | 59-1 | 1.670 | 1.700 | 2.140 | 0.200 | 1.410 |
| 2495 | 60 | 1 | 60-1 | 1.780 | 1.620 | 1.810 | 0.150 | 1.290 |
| 2499 | 61 | 1 | 61-1 | 1.920 | 2.030 | 1.480 | 0.149 | 1.380 |
| 2504 | 62 | 1 | 62-1 | 1.430 | 1.490 | 1.530 | 0.132 | 1.370 |
| 2509 | 63 | 1 | 63-1 | 1.640 | 1.720 | 1.460 | 0.200 | 1.470 |
| 2513 | 64 | 1 | 64-1 | 1.680 | 1.360 | 1.740 | 0.160 | 1.410 |
| 2517 | 65 | 1 | 65-1 | 1.950 | 1.940 | 1.760 | 0.132 | 1.460 |
| 2522 | 66 | 1 | 66-1 | 1.420 | 1.410 | 1.780 | 0.142 | 1.410 |
| 2527 | 67 | 1 | 67-1 | 1.600 | 1.510 | 1.470 | 0.126 | 1.370 |
| 2532 | 68 | 1 | 68-1 | 1.750 | 1.570 | 1.610 | 0.130 | 1.820 |
| 2537 | 69 | 1 | 69-1 | 1.710 | 1.560 | 2.780 | 0.120 | 1.650 |
| 2542 | 70 | 1 | 70-1 | 1.710 | 1.690 | 3.520 | 0.420 | 1.790 |
| 2547 | 71 | 1 | 71-1 | 1.610 | 1.430 | 1.240 | 0.110 | 1.280 |
| 2552 | 72 | 1 | 72-1 | 1.660 | 1.300 | 1.400 | 0.114 | 1.610 |
| 2557 | 73 | 1 | 73-1 | 1.710 | 2.080 | 1.660 | 0.126 | 1.490 |
| 2561 | 74 | 1 | 74-1 | 1.540 | 1.540 | 2.100 | 0.150 | 1.480 |
| 2566 | 75 | 1 | 75-1 | 1.620 | 1.480 | 1.610 | 0.046 | 1.450 |
| 2569 | 76 | 1 | 76-1 | 1.590 | 1.190 | 2.240 | 0.140 | 1.910 |
| 2572 | 77 | 1 | 77-1 | 1.870 | 1.260 | 1.690 | 0.030 | 1.100 |
| 2578 | 78 | 1 | 78-1 | 1.820 | 1.660 | 1.730 | -0.050 | 1.410 |
| 2583 | 79 | 1 | 79-1 | 2.430 | 1.930 | 1.880 | 0.120 | 1.580 |
| 2587 | 80 | 1 | 80-1 | 2.140 | 1.560 | 1.530 | 0.090 | 1.410 |
| 2591 | 81 | 1 | 81-1 | 1.880 | 1.680 | 1.220 | 0.190 | 1.730 |
| 2595 | 82 | 1 | 82-1 | 1.690 | 1.580 | 1.450 | 0.076 | 1.380 |
| 2599 | 83 | 1 | 83-1 | 2.310 | 1.830 | 1.780 | 0.200 | 1.380 |
| 2603 | 84 | 1 | 84-1 | 1.330 | 1.590 | 1.490 | 0.103 | 1.540 |
| 2608 | 85 | 1 | 85-1 | 1.530 | 1.770 | 3.360 | 0.150 | 2.140 |
| 2148 | 1 | 2 | 1-2 | 1.150 | 1.320 | 1.250 | 0.115 | 1.310 |
| 2156 | 2 | 2 | 2-2 | 1.440 | 1.610 | 1.450 | 0.105 | 1.510 |
| 2166 | 3 | 2 | 3-2 | 1.380 | 1.350 | 1.480 | 0.099 | 1.540 |
| 2174 | 4 | 2 | 4-2 | 1.920 | 1.840 | 1.570 | 0.131 | 1.330 |
| 2185 | 5 | 2 | 5-2 | 1.850 | 1.420 | 1.520 | 0.134 | 1.370 |
| 2196 | 6 | 2 | 6-2 | 1.690 | 1.870 | 1.480 | 0.140 | 1.620 |
| 2206 | 7 | 2 | 7-2 | 1.390 | 1.800 | 1.300 | 0.260 | 1.430 |
| 2217 | 8 | 2 | 8-2 | 1.890 | 1.810 | 1.820 | 0.136 | 1.690 |
| 2226 | 9 | 2 | 9-2 | 1.710 | 1.830 | 1.870 | 0.048 | 1.210 |
| 2233 | 10 | 2 | 10-2 | 1.610 | 1.530 | 1.920 | 0.120 | 1.040 |
| 2237 | 11 | 2 | 11-2 | 1.740 | 1.640 | 1.330 | 0.094 | 1.340 |
| 2241 | 12 | 2 | 12-2 | 1.550 | 1.740 | 1.830 | 0.260 | 1.600 |
| 2245 | 13 | 2 | 13-2 | 1.950 | 1.550 | 1.580 | 0.059 | 1.360 |

## Reference Background Area Dataset

| Sample ID | Corehole ID # | Depth Interval | RBA Number | Analytical Result, pCi/g | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | Th-230 | Th-232 | U-233/234 | U-235/236 | U-238 |
| 2251 | 14 | 2 | 14-2 | 1.890 | 1.610 | 1.610 | 0.092 | 1.290 |
| 2254 | 15 | 2 | 15-2 | 1.580 | 1.280 | 1.370 | 0.139 | 1.380 |
| 2260 | 16 | 2 | 16-2 | 1.620 | 1.610 | 1.590 | 0.056 | 1.470 |
| 2265 | 17 | 2 | 17-2 | 1.310 | 1.310 | 1.320 | 0.056 | 1.310 |
| 2270 | 18 | 2 | 18-2 | 1.280 | 1.070 | 1.010 | 0.060 | 1.410 |
| 2275 | 19 | 2 | 19-2 | 1.440 | 1.350 | 1.340 | 0.110 | 1.320 |
| 2280 | 20 | 2 | 20-2 | 1.900 | 1.530 | 1.290 | 0.091 | 1.510 |
| 2285 | 21 | 2 | 21-2 | 1.850 | 1.670 | 1.690 | 0.270 | 1.630 |
| 2308 | 22 | 2 | 22-2 | 1.920 | 1.500 | 1.680 | 0.220 | 1.440 |
| 2313 | 23 | 2 | 23-2 | 1.380 | 1.500 | 1.330 | 0.116 | 1.290 |
| 2317 | 24 | 2 | 24-2 | 1.270 | 1.470 | 1.100 | 0.036 | 1.370 |
| 2321 | 25 | 2 | 25-2 | 1.530 | 1.720 | 1.390 | 0.074 | 1.680 |
| 2326 | 26 | 2 | 26-2 | 1.490 | 1.570 | 1.470 | 0.107 | 1.610 |
| 2331 | 27 | 2 | 27-2 | 1.530 | 2.180 | 1.490 | 0.260 | 1.490 |
| 2336 | 28 | 2 | 28-2 | 1.930 | 1.600 | 1.260 | 0.180 | 1.530 |
| 2341 | 29 | 2 | 29-2 | 1.630 | 1.730 | 1.550 | 0.230 | 1.630 |
| 2346 | 30 | 2 | 30-2 | 1.420 | 1.530 | 1.680 | 0.066 | 1.550 |
| 2351 | 31 | 2 | 31-2 | 1.660 | 1.240 | 1.340 | 0.052 | 1.330 |
| 2356 | 32 | 2 | 32-2 | 1.770 | 1.740 | 1.470 | 0.140 | 1.180 |
| 2362 | 33 | 2 | 33-2 | 1.630 | 1.770 | 1.570 | 0.136 | 1.480 |
| 2366 | 34 | 2 | 34-2 | 1.540 | 1.480 | 1.640 | 0.136 | 1.400 |
| 2371 | 35 | 2 | 35-2 | 1.480 | 1.560 | 1.540 | 0.290 | 1.430 |
| 2375 | 36 | 2 | 36-2 | 1.720 | 1.330 | 1.600 | 0.023 | 1.470 |
| 2377 | 37 | 2 | 37-2 | 1.850 | 1.570 | 1.470 | 0.230 | 0.990 |
| 2387 | 38 | 2 | 38-2 | 1.810 | 1.940 | 1.580 | 0.104 | 1.460 |
| 2392 | 39 | 2 | 39-2 | 1.910 | 2.000 | 1.570 | 0.212 | 1.720 |
| 2395 | 40 | 2 | 40-2 | 1.340 | 1.620 | 1.470 | 0.233 | 1.290 |
| 2401 | 41 | 2 | 41-2 | 1.880 | 1.880 | 1.500 | 0.136 | 1.430 |
| 2406 | 42 | 2 | 42-2 | 1.940 | 1.740 | 1.440 | 0.184 | 1.300 |
| 2411 | 43 | 2 | 43-2 | 2.050 | 1.710 | 2.200 | 0.370 | 2.450 |
| 2417 | 44 | 2 | 44-2 | 1.680 | 1.580 | 1.660 | 0.020 | 1.540 |
| 2422 | 45 | 2 | 45-2 | 1.610 | 1.830 | 1.310 | 0.154 | 1.440 |
| 2427 | 46 | 2 | 46-2 | 1.550 | 1.660 | 1.790 | 0.155 | 1.510 |
| 2431 | 47 | 2 | 47-2 | 1.410 | 1.720 | 1.610 | 0.162 | 1.440 |
| 2436 | 48 | 2 | 48-2 | 1.780 | 1.420 | 1.840 | 0.270 | 1.670 |
| 2441 | 49 | 2 | 49-2 | 1.520 | 1.870 | 1.940 | 0.170 | 1.690 |
| 2447 | 50 | 2 | 50-2 | 1.590 | 1.470 | 1.650 | 0.084 | 1.300 |
| 2451 | 51 | 2 | 51-2 | 2.160 | 1.570 | 1.630 | 0.260 | 1.670 |
| 2456 | 52 | 2 | 52-2 | 1.820 | 1.770 | 1.400 | 0.161 | 1.390 |
| 2461 | 53 | 2 | 53-2 | 1.500 | 1.160 | 1.490 | 0.132 | 1.470 |
| 2466 | 54 | 2 | 54-2 | 1.800 | 1.500 | 1.600 | 0.180 | 1.290 |
| 2471 | 55 | 2 | 55-2 | 1.150 | 1.490 | 1.410 | 0.053 | 1.400 |
| 2475 | 56 | 2 | 56-2 | 1.450 | 1.450 | 1.580 | 0.100 | 1.320 |
| 2481 | 57 | 2 | 57-2 | 1.300 | 1.400 | 1.960 | 0.151 | 1.670 |
| 2486 | 58 | 2 | 58-2 | 1.540 | 1.400 | 1.460 | 0.044 | 1.410 |
| 2491 | 59 | 2 | 59-2 | 1.710 | 1.700 | 1.780 | 0.250 | 1.560 |
| 2496 | 60 | 2 | 60-2 | 2.150 | 1.890 | 1.720 | 0.142 | 1.840 |
| 2500 | 61 | 2 | 61-2 | 1.900 | 1.750 | 1.680 | 0.190 | 1.300 |
| 2505 | 62 | 2 | 62-2 | 1.520 | 1.530 | 1.370 | 0.250 | 1.280 |

## Reference Background Area Dataset

| Sample ID | Corehole ID # | Depth Interval | RBA Number | Analytical Result, pCi/g | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | Th-230 | Th-232 | U-233/234 | U-235/236 | U-238 |
| 2510 | 63 | 2 | 63-2 | 1.560 | 1.260 | 1.270 | 0.088 | 1.420 |
| 2514 | 64 | 2 | 64-2 | 2.020 | 1.900 | 1.410 | 0.022 | 1.280 |
| 2518 | 65 | 2 | 65-2 | 1.530 | 1.530 | 1.950 | 0.050 | 1.210 |
| 2523 | 66 | 2 | 66-2 | 1.510 | 1.850 | 1.410 | 0.065 | 1.510 |
| 2528 | 67 | 2 | 67-2 | 1.640 | 1.670 | 1.600 | 0.124 | 1.300 |
| 2533 | 68 | 2 | 68-2 | 1.640 | 1.530 | 1.580 | 0.100 | 1.640 |
| 2538 | 69 | 2 | 69-2 | 1.680 | 1.730 | 1.490 | 0.136 | 1.730 |
| 2543 | 70 | 2 | 70-2 | 1.180 | 1.580 | 1.690 | 0.110 | 1.330 |
| 2548 | 71 | 2 | 71-2 | 2.190 | 1.950 | 1.650 | 0.190 | 1.450 |
| 2553 | 72 | 2 | 72-2 | 1.650 | 1.660 | 1.930 | 0.150 | 1.550 |
| 2558 | 73 | 2 | 73-2 | 1.660 | 1.820 | 1.350 | 0.136 | 1.380 |
| 2562 | 74 | 2 | 74-2 | 1.580 | 1.690 | 1.520 | 0.240 | 1.310 |
| 2565 | 75 | 2 | 75-2 | 1.470 | 1.740 | 1.450 | 0.143 | 1.610 |
| 2570 | 76 | 2 | 76-2 | 1.850 | 1.850 | 1.170 | 0.060 | 1.510 |
| 2574 | 77 | 2 | 77-2 | 1.850 | 1.530 | 1.440 | 0.190 | 1.520 |
| 2579 | 78 | 2 | 78-2 | 1.590 | 2.200 | 1.480 | 0.110 | 1.390 |
| 2584 | 79 | 2 | 79-2 | 1.620 | 1.970 | 1.420 | 0.195 | 1.600 |
| 2588 | 80 | 2 | 80-2 | 2.030 | 1.870 | 2.270 | 0.040 | 1.690 |
| 2592 | 81 | 2 | 81-2 | 1.480 | 1.480 | 1.190 | -0.010 | 1.380 |
| 2596 | 82 | 2 | 82-2 | 1.850 | 1.980 | 2.280 | 0.040 | 1.490 |
| 2600 | 83 | 2 | 83-2 | 1.490 | 1.360 | 1.500 | 0.070 | 1.400 |
| 2604 | 84 | 2 | 84-2 | 1.810 | 1.420 | 1.570 | 0.180 | 1.660 |
| 2609 | 85 | 2 | 85-2 | 1.820 | 1.790 | 1.460 | 0.120 | 1.840 |
| 2150 | 1 | 3 | 1-3 | 1.940 | 1.900 | 1.600 | 0.095 | 1.510 |
| 2158 | 2 | 3 | 2-3 | 1.680 | 1.800 | 1.600 | 0.110 | 1.740 |
| 2168 | 3 | 3 | 3-3 | 1.600 | 2.110 | 1.280 | 0.075 | 1.230 |
| 2179 | 4 | 3 | 4-3 | 1.230 | 1.420 | 1.340 | 0.073 | 1.350 |
| 2188 | 5 | 3 | 5-3 | 1.690 | 1.610 | 1.570 | 0.133 | 1.430 |
| 2198 | 6 | 3 | 6-3 | 1.590 | 2.130 | 1.170 | 0.210 | 1.620 |
| 2207 | 7 | 3 | 7-3 | 1.370 | 1.560 | 1.610 | 0.170 | 1.520 |
| 2216 | 8 | 3 | 8-3 | 1.490 | 1.590 | 1.330 | 0.160 | 1.290 |
| 2227 | 9 | 3 | 9-3 | 1.510 | 1.470 | 1.140 | 0.109 | 0.870 |
| 2235 | 10 | 3 | 10-3 | 1.830 | 1.670 | 1.490 | 0.140 | 1.590 |
| 2238 | 11 | 3 | 11-3 | 1.640 | 1.880 | 1.370 | 0.094 | 1.250 |
| 2243 | 12 | 3 | 12-3 | 1.650 | 1.680 | 1.540 | 0.063 | 1.520 |
| 2246 | 13 | 3 | 13-3 | 1.870 | 1.550 | 1.190 | 0.085 | 1.290 |
| 2252 | 14 | 3 | 14-3 | 1.270 | 1.590 | 1.500 | 0.181 | 1.290 |
| 2257 | 15 | 3 | 15-3 | 1.600 | 1.630 | 1.360 | 0.150 | 1.170 |
| 2261 | 16 | 3 | 16-3 | 1.680 | 1.540 | 1.370 | 0.082 | 1.110 |
| 2266 | 17 | 3 | 17-3 | 1.470 | 1.690 | 1.060 | 0.200 | 1.320 |
| 2271 | 18 | 3 | 18-3 | 1.350 | 1.560 | 1.360 | 0.034 | 1.390 |
| 2276 | 19 | 3 | 19-3 | 1.540 | 1.670 | 1.390 | 0.160 | 1.640 |
| 2281 | 20 | 3 | 20-3 | 1.820 | 1.880 | 1.590 | 0.128 | 1.390 |
| 2286 | 21 | 3 | 21-3 | 1.360 | 1.800 | 1.440 | 0.126 | 1.280 |
| 2309 | 22 | 3 | 22-3 | 1.490 | 1.370 | 1.850 | 0.220 | 1.150 |
| 2314 | 23 | 3 | 23-3 | 1.470 | 1.680 | 1.410 | 0.083 | 1.380 |
| 2318 | 24 | 3 | 24-3 | 1.410 | 1.660 | 1.540 | 0.107 | 1.400 |
| 2322 | 25 | 3 | 25-3 | 1.760 | 1.520 | 1.490 | 0.110 | 1.160 |
| 2327 | 26 | 3 | 26-3 | 1.600 | 1.440 | 1.850 | 0.230 | 1.400 |

## Reference Background Area Dataset

| Sample ID | Corehole ID # | Depth Interval | RBA Number | Analytical Result, pCi/g | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | Th-230 | Th-232 | U-233/234 | U-235/236 | U-238 |
| 2332 | 27 | 3 | 27-3 | 1.690 | 1.550 | 1.400 | 0.085 | 1.240 |
| 2337 | 28 | 3 | 28-3 | 1.410 | 1.830 | 1.800 | 0.160 | 1.090 |
| 2342 | 29 | 3 | 29-3 | 1.580 | 2.100 | 1.090 | 0.110 | 1.130 |
| 2347 | 30 | 3 | 30-3 | 1.550 | 1.670 | 1.440 | 0.093 | 1.390 |
| 2352 | 31 | 3 | 31-3 | 2.040 | 1.900 | 1.250 | 0.070 | 1.340 |
| 2357 | 32 | 3 | 32-3 | 1.720 | 1.660 | 1.530 | 0.090 | 1.310 |
| 2361 | 33 | 3 | 33-3 | 1.600 | 1.840 | 1.630 | 0.150 | 1.250 |
| 2367 | 34 | 3 | 34-3 | 1.780 | 1.840 | 1.850 | 0.240 | 1.440 |
| 2372 | 35 | 3 | 35-3 | 1.360 | 1.510 | 1.510 | 0.117 | 1.460 |
| 2378 | 36 | 3 | 36-3 | 1.490 | 1.870 | 1.780 | 0.180 | 1.590 |
| 2382 | 37 | 3 | 37-3 | 1.620 | 1.670 | 1.810 | 0.230 | 1.330 |
| 2388 | 38 | 3 | 38-3 | 1.620 | 1.520 | 1.770 | 0.183 | 1.590 |
| 2393 | 39 | 3 | 39-3 | 1.700 | 1.610 | 1.910 | 0.221 | 1.830 |
| 2397 | 40 | 3 | 40-3 | 1.590 | 1.820 | 1.280 | 0.141 | 1.410 |
| 2402 | 41 | 3 | 41-3 | 1.750 | 1.270 | 1.550 | 0.197 | 1.290 |
| 2407 | 42 | 3 | 42-3 | 1.400 | 1.910 | 1.460 | 0.129 | 1.440 |
| 2412 | 43 | 3 | 43-3 | 1.670 | 1.790 | 2.260 | 0.310 | 2.850 |
| 2418 | 44 | 3 | 44-3 | 2.070 | 2.130 | 1.650 | 0.250 | 1.730 |
| 2423 | 45 | 3 | 45-3 | 1.450 | 1.730 | 1.480 | 0.024 | 1.530 |
| 2428 | 46 | 3 | 46-3 | 1.540 | 1.900 | 1.460 | 0.213 | 1.380 |
| 2433 | 47 | 3 | 47-3 | 1.450 | 1.650 | 1.560 | 0.210 | 1.350 |
| 2437 | 48 | 3 | 48-3 | 1.490 | 1.610 | 1.540 | 0.140 | 1.380 |
| 2442 | 49 | 3 | 49-3 | 1.590 | 1.820 | 1.350 | 0.160 | 1.630 |
| 2446 | 50 | 3 | 50-3 | 2.020 | 1.620 | 1.850 | 0.200 | 1.510 |
| 2452 | 51 | 3 | 51-3 | 1.720 | 1.560 | 1.720 | 0.122 | 1.820 |
| 2457 | 52 | 3 | 52-3 | 2.050 | 1.830 | 1.510 | 0.250 | 1.390 |
| 2462 | 53 | 3 | 53-3 | 1.480 | 1.700 | 1.450 | 0.210 | 1.480 |
| 2467 | 54 | 3 | 54-3 | 1.760 | 1.880 | 1.900 | 0.151 | 1.540 |
| 2472 | 55 | 3 | 55-3 | 1.500 | 1.770 | 1.390 | 0.200 | 1.360 |
| 2477 | 56 | 3 | 56-3 | 1.510 | 2.130 | 1.850 | 0.039 | 1.320 |
| 2482 | 57 | 3 | 57-3 | 1.410 | 1.540 | 1.950 | 0.113 | 1.520 |
| 2487 | 58 | 3 | 58-3 | 1.540 | 1.590 | 1.380 | 0.200 | 1.080 |
| 2492 | 59 | 3 | 59-3 | 1.630 | 1.970 | 1.390 | 0.146 | 1.380 |
| 2497 | 60 | 3 | 60-3 | 1.390 | 1.490 | 1.690 | 0.200 | 1.660 |
| 2501 | 61 | 3 | 61-3 | 1.720 | 1.860 | 1.790 | 0.114 | 1.520 |
| 2506 | 62 | 3 | 62-3 | 1.090 | 1.720 | 1.340 | 0.053 | 1.100 |
| 2511 | 63 | 3 | 63-3 | 1.780 | 1.830 | 1.620 | 0.230 | 1.270 |
| 2515 | 64 | 3 | 64-3 | 1.430 | 1.630 | 1.200 | 0.073 | 1.090 |
| 2519 | 65 | 3 | 65-3 | 1.620 | 1.490 | 1.490 | 0.067 | 1.450 |
| 2524 | 66 | 3 | 66-3 | 1.410 | 1.800 | 1.360 | 0.156 | 1.360 |
| 2529 | 67 | 3 | 67-3 | 1.660 | 1.830 | 1.480 | 0.130 | 1.430 |
| 2534 | 68 | 3 | 68-3 | 1.770 | 2.100 | 1.230 | 0.230 | 1.070 |
| 2539 | 69 | 3 | 69-3 | 1.860 | 1.610 | 1.750 | 0.051 | 1.180 |
| 2544 | 70 | 3 | 70-3 | 1.580 | 1.600 | 1.410 | 0.180 | 1.790 |
| 2549 | 71 | 3 | 71-3 | 1.450 | 1.750 | 1.100 | 0.130 | 1.450 |
| 2554 | 72 | 3 | 72-3 | 1.660 | 1.780 | 1.460 | 0.180 | 1.280 |
| 2559 | 73 | 3 | 73-3 | 1.270 | 1.360 | 1.570 | 0.190 | 1.170 |
| 2563 | 74 | 3 | 74-3 | 1.330 | 1.710 | 1.330 | 0.140 | 1.420 |
| 2567 | 75 | 3 | 75-3 | 1.730 | 1.600 | 1.350 | 0.120 | 1.210 |

## Reference Background Area Dataset

| Sample ID | Corehole ID # | Depth Interval | RBA Number | Analytical Result, pCi/g | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | Th-230 | Th-232 | U-233/234 | U-235/236 | U-238 |
| 2571 | 76 | 3 | 76-3 | 1.410 | 1.630 | 1.120 | 0.210 | 0.880 |
| 2576 | 77 | 3 | 77-3 | 1.440 | 1.300 | 1.260 | 0.030 | 1.000 |
| 2580 | 78 | 3 | 78-3 | 1.310 | 1.350 | 1.330 | 0.060 | 1.310 |
| 2585 | 79 | 3 | 79-3 | 1.750 | 1.510 | 1.160 | 0.110 | 0.880 |
| 2589 | 80 | 3 | 80-3 | 1.510 | 1.520 | 0.870 | 0.020 | 0.740 |
| 2593 | 81 | 3 | 81-3 | 2.270 | 1.590 | 1.220 | 0.110 | 1.210 |
| 2597 | 82 | 3 | 82-3 | 1.700 | 1.840 | 1.130 | 0.090 | 1.240 |
| 2601 | 83 | 3 | 83-3 | 1.650 | 2.680 | 1.480 | 0.180 | 1.450 |
| 2605 | 84 | 3 | 84-3 | 1.640 | 1.930 | 1.590 | 0.130 | 1.260 |
| 2610 | 85 | 3 | 85-3 | 1.810 | 1.850 | 1.550 | 0.110 | 1.500 |
| 2152 | 1 | 4 | 1-4 | 1.830 | 2.260 | 1.620 | 0.073 | 1.290 |
| 2160 | 2 | 4 | 2-4 | 1.460 | 1.740 | 1.430 | 0.099 | 1.410 |
| 2170 | 3 | 4 | 3-4 | 1.410 | 2.020 | 1.220 | 0.103 | 1.190 |
| 2181 | 4 | 4 | 4-4 | 1.230 | 1.650 | 0.950 | 0.093 | 0.920 |
| 2191 | 5 | 4 | 5-4 | 1.440 | 1.870 | 1.040 | 0.120 | 1.170 |
| 2199 | 6 | 4 | 6-4 | 1.760 | 1.490 | 1.520 | 0.300 | 1.210 |
| 2211 | 7 | 4 | 7-4 | 1.360 | 1.430 | 1.040 | 0.163 | 0.990 |
| 2221 | 8 | 4 | 8-4 | 1.560 | 1.520 | 1.300 | 0.180 | 1.060 |
| 2234 | 9 | 4 | 9-4 | 1.750 | 2.720 | 1.720 | 0.170 | 1.720 |
| 2239 | 10 | 4 | 10-4 | 1.170 | 1.560 | 1.070 | 0.051 | 0.870 |
| 2242 | 11 | 4 | 11-4 | 1.440 | 1.480 | 1.140 | 0.147 | 1.100 |
| 2247 | 12 | 4 | 12-4 | 2.310 | 1.610 | 1.270 | 0.062 | 1.320 |
| 2249 | 13 | 4 | 13-4 | 1.390 | 1.870 | 1.570 | 0.066 | 1.560 |
| 2258 | 14 | 4 | 14-4 | 1.720 | 1.930 | 1.800 | 0.210 | 1.130 |
| 2262 | 15 | 4 | 15-4 | 1.420 | 1.650 | 1.220 | 0.118 | 1.280 |
| 2267 | 16 | 4 | 16-4 | 1.630 | 2.220 | 1.350 | 0.140 | 1.340 |
| 2272 | 17 | 4 | 17-4 | 1.720 | 1.560 | 1.150 | 0.069 | 1.110 |
| 2277 | 18 | 4 | 18-4 | 1.430 | 1.580 | 1.380 | 0.100 | 1.090 |
| 2282 | 19 | 4 | 19-4 | 1.200 | 1.260 | 1.390 | 0.121 | 1.170 |
| 2287 | 20 | 4 | 20-4 | 1.480 | 1.800 | 1.420 | 0.060 | 1.370 |
| 2310 | 21 | 4 | 21-4 | 1.810 | 1.660 | 1.490 | 0.230 | 1.470 |
| 2315 | 22 | 4 | 22-4 | 1.960 | 1.740 | 1.280 | 0.121 | 1.440 |
| 2319 | 23 | 4 | 23-4 | 1.410 | 1.370 | 1.560 | 0.230 | 1.370 |
| 2323 | 24 | 4 | 24-4 | 1.270 | 1.620 | 1.380 | 0.190 | 1.490 |
| 2328 | 25 | 4 | 25-4 | 1.530 | 1.660 | 1.210 | 0.098 | 1.220 |
| 2333 | 26 | 4 | 26-4 | 1.160 | 1.470 | 1.250 | 0.076 | 1.240 |
| 2338 | 27 | 4 | 27-4 | 1.450 | 1.530 | 1.310 | 0.080 | 1.060 |
| 2343 | 28 | 4 | 28-4 | 1.400 | 1.960 | 1.410 | 0.080 | 1.250 |
| 2348 | 29 | 4 | 29-4 | 1.480 | 1.770 | 1.840 | 0.220 | 1.240 |
| 2353 | 30 | 4 | 30-4 | 1.510 | 1.850 | 1.330 | 0.101 | 1.000 |
| 2359 | 31 | 4 | 31-4 | 1.150 | 1.740 | 1.500 | 0.210 | 1.390 |
| 2363 | 32 | 4 | 32-4 | 1.240 | 1.470 | 1.660 | 0.120 | 1.180 |
| 2368 | 33 | 4 | 33-4 | 1.320 | 1.810 | 1.190 | 0.044 | 1.310 |
| 2373 | 34 | 4 | 34-4 | 1.390 | 1.670 | 1.220 | 0.190 | 1.060 |
| 2379 | 35 | 4 | 35-4 | 1.310 | 1.460 | 1.100 | 0.130 | 1.100 |
| 2383 | 36 | 4 | 36-4 | 1.560 | 1.560 | 1.370 | 0.130 | 1.240 |
| 2384 | 37 | 4 | 37-4 | 1.230 | 1.550 | 1.590 | 0.182 | 1.290 |
| 2389 | 38 | 4 | 38-4 | 1.210 | 1.400 | 1.510 | 0.158 | 1.080 |
| 2399 | 39 | 4 | 39-4 | 1.510 | 1.770 | 1.250 | 0.150 | 1.290 |

## Reference Background Area Dataset

| Sample ID | Corehole ID # | Depth Interval | RBA Number | Analytical Result, pCi/g | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | Th-230 | Th-232 | U-233/234 | U-235/236 | U-238 |
| 2403 | 40 | 4 | 40-4 | 1.300 | 1.940 | 1.060 | 0.092 | 1.160 |
| 2408 | 41 | 4 | 41-4 | 1.310 | 1.760 | 1.220 | 0.066 | 1.240 |
| 2413 | 42 | 4 | 42-4 | 1.230 | 1.600 | 1.220 | 0.113 | 1.100 |
| 2419 | 43 | 4 | 43-4 | 1.190 | 1.540 | 1.370 | 0.102 | 1.070 |
| 2424 | 44 | 4 | 44-4 | 1.280 | 1.300 | 1.160 | 0.096 | 1.160 |
| 2429 | 45 | 4 | 45-4 | 1.230 | 1.390 | 1.110 | 0.183 | 1.140 |
| 2432 | 46 | 4 | 46-4 | 1.020 | 1.290 | 1.230 | 0.179 | 1.180 |
| 2438 | 47 | 4 | 47-4 | 0.710 | 1.360 | 1.110 | 0.140 | 0.820 |
| 2443 | 48 | 4 | 48-4 | 0.900 | 1.110 | 1.120 | 0.087 | 1.140 |
| 2448 | 49 | 4 | 49-4 | 1.210 | 1.460 | 1.290 | 0.170 | 1.310 |
| 2453 | 50 | 4 | 50-4 | 1.570 | 1.370 | 0.900 | 0.120 | 0.890 |
| 2458 | 51 | 4 | 51-4 | 1.160 | 1.770 | 1.530 | 0.180 | 1.330 |
| 2464 | 52 | 4 | 52-4 | 1.210 | 1.550 | 1.340 | 0.068 | 1.220 |
| 2468 | 53 | 4 | 53-4 | 1.540 | 1.690 | 1.820 | 0.059 | 1.370 |
| 2474 | 54 | 4 | 54-4 | 1.320 | 1.560 | 1.290 | 0.190 | 1.040 |
| 2478 | 55 | 4 | 55-4 | 1.490 | 1.810 | 1.280 | 0.107 | 1.040 |
| 2483 | 56 | 4 | 56-4 | 1.420 | 1.600 | 1.200 | 0.120 | 1.020 |
| 2488 | 57 | 4 | 57-4 | 1.450 | 1.790 | 1.350 | 0.210 | 1.430 |
| 2493 | 58 | 4 | 58-4 | 0.840 | 1.340 | 0.880 | 0.052 | 0.930 |
| 2498 | 59 | 4 | 59-4 | 1.830 | 1.180 | 1.130 | 0.121 | 0.990 |
| 2502 | 60 | 4 | 60-4 | 0.930 | 1.030 | 1.160 | 0.082 | 0.520 |
| 2507 | 61 | 4 | 61-4 | 0.680 | 1.530 | 1.110 | 0.170 | 1.030 |
| 2512 | 62 | 4 | 62-4 | 0.900 | 1.520 | 1.600 | 0.090 | 0.720 |
| 2516 | 63 | 4 | 63-4 | 0.710 | 0.950 | 0.890 | 0.122 | 0.750 |
| 2520 | 64 | 4 | 64-4 | 1.250 | 1.060 | 1.030 | 0.180 | 0.890 |
| 2525 | 65 | 4 | 65-4 | 1.420 | 1.290 | 1.030 | 0.076 | 1.180 |
| 2530 | 66 | 4 | 66-4 | 1.160 | 1.210 | 0.870 | 0.121 | 0.800 |
| 2535 | 67 | 4 | 67-4 | 1.240 | 1.620 | 1.130 | 0.102 | 1.340 |
| 2540 | 68 | 4 | 68-4 | 1.330 | 1.930 | 1.650 | 0.100 | 1.270 |
| 2545 | 69 | 4 | 69-4 | 1.160 | 1.380 | 1.120 | 0.091 | 1.010 |
| 2550 | 70 | 4 | 70-4 | 1.540 | 1.740 | 1.150 | 0.123 | 1.040 |
| 2555 | 71 | 4 | 71-4 | 1.120 | 1.430 | 1.030 | 0.111 | 1.110 |
| 2560 | 72 | 4 | 72-4 | 1.170 | 1.480 | 1.090 | 0.200 | 0.910 |
| 2564 | 73 | 4 | 73-4 | 1.030 | 1.140 | 0.680 | 0.036 | 0.550 |
| 2568 | 74 | 4 | 74-4 | 0.860 | 0.870 | 1.100 | 0.020 | 0.930 |
| 2573 | 75 | 4 | 75-4 | 1.090 | 1.310 | 0.770 | 0.020 | 0.660 |
| 2575 | 76 | 4 | 76-4 | 1.960 | 3.540 | 0.930 | 0.121 | 0.690 |
| 2581 | 77 | 4 | 77-4 | 1.280 | 1.530 | 0.880 | 0.010 | 0.900 |
| 2586 | 78 | 4 | 78-4 | 1.110 | 1.310 | 1.070 | 0.050 | 0.860 |
| 2590 | 79 | 4 | 79-4 | 1.350 | 1.690 | 0.980 | 0.130 | 0.620 |
| 2594 | 80 | 4 | 80-4 | 1.130 | 1.760 | 0.920 | 0.060 | 0.650 |
| 2598 | 81 | 4 | 81-4 | 0.830 | 1.160 | 0.600 | 0.121 | 0.820 |
| 2602 | 82 | 4 | 82-4 | 1.370 | 1.180 | 1.260 | 0.090 | 0.750 |
| 2606 | 83 | 4 | 83-4 | 1.080 | 1.350 | 1.410 | 0.140 | 0.950 |
| 2611 | 84 | 4 | 84-4 | 1.360 | 1.460 | 1.190 | 0.121 | 0.890 |
| AVG | 85 | 4 | 85-4 | 1.332 | 1.585 | 1.242 | 0.121 | 1.100 |
| 2162 | 1 | 5 | 1-5 | 1.060 | 1.630 | 1.010 | 0.099 | 1.130 |
| 2172 | 2 | 5 | 2-5 | 1.020 | 1.900 | 1.430 | 0.164 | 1.140 |
| 2177 | 3 | 5 | 3-5 | 1.760 | 2.050 | 0.650 | 0.034 | 1.010 |

## Reference Background Area Dataset

| Sample ID | Corehole ID # | Depth Interval | RBA Number | Analytical Result, pCi/g | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | Th-230 | Th-232 | U-233/234 | U-235/236 | U-238 |
| 2193 | 4 | 5 | 4-5 | 1.960 | 2.360 | 1.950 | 0.240 | 1.350 |
| 2203 | 5 | 5 | 5-5 | 1.470 | 2.030 | 1.050 | 0.060 | 1.030 |
| 2212 | 6 | 5 | 6-5 | 0.890 | 2.050 | 0.880 | 0.150 | 0.640 |
| 2222 | 7 | 5 | 7-5 | 0.930 | 1.590 | 0.690 | 0.130 | 0.700 |
| 2248 | 8 | 5 | 8-5 | 1.550 | 1.770 | 1.330 | 0.087 | 1.110 |
| 2253 | 9 | 5 | 9-5 | 1.100 | 1.600 | 1.240 | 0.103 | 1.100 |
| 2256 | 10 | 5 | 10-5 | 1.190 | 1.160 | 1.300 | 0.220 | 1.170 |
| 2263 | 11 | 5 | 11-5 | 1.280 | 1.310 | 1.020 | 0.120 | 1.090 |
| 2268 | 12 | 5 | 12-5 | 1.300 | 1.900 | 1.170 | 0.055 | 1.100 |
| 2273 | 13 | 5 | 13-5 | 1.360 | 2.010 | 1.120 | 0.180 | 1.150 |
| 2278 | 14 | 5 | 14-5 | 1.280 | 1.800 | 0.890 | 0.110 | 1.220 |
| 2283 | 15 | 5 | 15-5 | 1.960 | 1.970 | 1.020 | 0.160 | 1.130 |
| 2288 | 16 | 5 | 16-5 | 1.020 | 1.520 | 1.130 | 0.053 | 0.980 |
| 2311 | 17 | 5 | 17-5 | 1.210 | 1.840 | 1.070 | 0.034 | 0.950 |
| 2324 | 18 | 5 | 18-5 | 1.370 | 1.570 | 1.620 | 0.125 | 1.050 |
| 2329 | 19 | 5 | 19-5 | 2.040 | 1.750 | 1.610 | 0.290 | 0.920 |
| 2334 | 20 | 5 | 20-5 | 1.460 | 1.910 | 1.340 | 0.125 | 1.310 |
| 2339 | 21 | 5 | 21-5 | 1.650 | 1.710 | 1.600 | 0.083 | 1.080 |
| 2344 | 22 | 5 | 22-5 | 1.370 | 1.550 | 2.160 | 0.150 | 1.950 |
| 2349 | 23 | 5 | 23-5 | 1.310 | 1.960 | 1.150 | 0.220 | 1.740 |
| 2354 | 24 | 5 | 24-5 | 1.040 | 1.270 | 0.790 | 0.054 | 1.090 |
| 2360 | 25 | 5 | 25-5 | 1.230 | 1.810 | 1.330 | 0.170 | 1.000 |
| 2365 | 26 | 5 | 26-5 | 0.820 | 1.050 | 0.670 | 0.087 | 0.570 |
| 2369 | 27 | 5 | 27-5 | 1.400 | 1.730 | 0.890 | 0.140 | 0.950 |
| 2374 | 28 | 5 | 28-5 | 1.390 | 1.490 | 1.450 | 0.160 | 1.340 |
| 2380 | 29 | 5 | 29-5 | 1.430 | 1.850 | 1.450 | 0.125 | 1.180 |
| 2385 | 30 | 5 | 30-5 | 1.460 | 1.850 | 1.400 | 0.151 | 1.150 |
| 2390 | 31 | 5 | 31-5 | 1.300 | 1.610 | 1.070 | 0.114 | 1.060 |
| 2394 | 32 | 5 | 32-5 | 1.450 | 1.710 | 1.400 | 0.125 | 1.340 |
| 2398 | 33 | 5 | 33-5 | 1.610 | 1.750 | 1.440 | 0.158 | 1.250 |
| 2404 | 34 | 5 | 34-5 | 0.910 | 1.530 | 1.160 | 0.137 | 0.920 |
| 2409 | 35 | 5 | 35-5 | 1.440 | 1.950 | 1.820 | 0.188 | 1.570 |
| 2414 | 36 | 5 | 36-5 | 1.250 | 1.490 | 1.320 | 0.168 | 1.200 |
| 2420 | 37 | 5 | 37-5 | 1.110 | 1.400 | 1.040 | 0.125 | 1.030 |
| 2425 | 38 | 5 | 38-5 | 1.200 | 1.860 | 1.130 | 0.178 | 1.150 |
| 2430 | 39 | 5 | 39-5 | 0.850 | 1.230 | 0.620 | 0.064 | 0.600 |
| 2434 | 40 | 5 | 40-5 | 0.970 | 1.530 | 1.220 | 0.125 | 0.790 |
| 2439 | 41 | 5 | 41-5 | 0.880 | 1.220 | 1.110 | 0.160 | 1.380 |
| 2444 | 42 | 5 | 42-5 | 1.150 | 1.390 | 0.840 | 0.080 | 0.880 |
| 2449 | 43 | 5 | 43-5 | 1.020 | 1.230 | 0.860 | 0.126 | 0.820 |
| 2454 | 44 | 5 | 44-5 | 1.310 | 1.410 | 1.300 | 0.055 | 1.160 |
| 2459 | 45 | 5 | 45-5 | 1.290 | 1.770 | 1.260 | 0.150 | 1.540 |
| 2463 | 46 | 5 | 46-5 | 1.350 | 1.280 | 1.020 | 0.052 | 1.140 |
| 2469 | 47 | 5 | 47-5 | 1.110 | 2.110 | 0.910 | 0.064 | 0.920 |
| 2473 | 48 | 5 | 48-5 | 1.110 | 1.610 | 1.160 | 0.101 | 0.910 |
| 2479 | 49 | 5 | 49-5 | 1.390 | 1.580 | 1.190 | 0.145 | 0.960 |
| 2484 | 50 | 5 | 50-5 | 1.010 | 1.390 | 0.860 | 0.043 | 0.820 |
| 2489 | 51 | 5 | 51-5 | 1.130 | 0.840 | 0.590 | 0.125 | 0.660 |
| 2494 | 52 | 5 | 52-5 | 1.310 | 1.770 | 1.410 | 0.250 | 1.130 |

## Reference Background Area Dataset

| Sample ID | Corehole ID # | Depth Interval | RBA Number | Analytical Result, pCi/g | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | Th-230 | Th-232 | U-233/234 | U-235/236 | U-238 |
| 2503 | 53 | 5 | 53-5 | 1.040 | 1.360 | 0.920 | 0.167 | 1.070 |
| 2508 | 54 | 5 | 54-5 | 0.630 | 0.880 | 1.120 | 0.160 | 1.070 |
| 2521 | 55 | 5 | 55-5 | 0.590 | 1.190 | 1.040 | 0.120 | 0.610 |
| 2526 | 56 | 5 | 56-5 | 0.970 | 1.470 | 1.100 | 0.067 | 0.780 |
| 2531 | 57 | 5 | 57-5 | 1.750 | 2.310 | 1.430 | 0.120 | 0.950 |
| 2536 | 58 | 5 | 58-5 | 1.590 | 1.920 | 1.110 | 0.120 | 0.980 |
| 2541 | 59 | 5 | 59-5 | 1.120 | 2.130 | 0.790 | 0.058 | 1.050 |
| 2546 | 60 | 5 | 60-5 | 1.080 | 2.510 | 0.680 | 0.057 | 0.720 |
| 2551 | 61 | 5 | 61-5 | 0.950 | 1.270 | 0.990 | 0.082 | 0.920 |
| 2582 | 62 | 5 | 62-5 | 1.630 | 2.090 | 1.450 | 0.140 | 1.290 |
| 2607 | 63 | 5 | 63-5 | 1.280 | 1.960 | 1.040 | 0.030 | 0.960 |
| 2612 | 64 | 5 | 64-5 | 1.370 | 2.110 | 1.490 | 0.270 | 1.240 |
| AVG | 65 | 5 | 65-5 | 1.257 | 1.670 | 1.161 | 0.125 | 1.066 |
| AVG | 66 | 5 | 66-5 | 1.257 | 1.670 | 1.161 | 0.125 | 1.066 |
| AVG | 67 | 5 | 67-5 | 1.257 | 1.670 | 1.161 | 0.125 | 1.066 |
| AVG | 68 | 5 | 68-5 | 1.257 | 1.670 | 1.161 | 0.125 | 1.066 |
| AVG | 69 | 5 | 69-5 | 1.257 | 1.670 | 1.161 | 0.125 | 1.066 |
| AVG | 70 | 5 | 70-5 | 1.257 | 1.670 | 1.161 | 0.125 | 1.066 |
| AVG | 71 | 5 | 71-5 | 1.257 | 1.670 | 1.161 | 0.125 | 1.066 |
| AVG | 72 | 5 | 72-5 | 1.257 | 1.670 | 1.161 | 0.125 | 1.066 |
| AVG | 73 | 5 | 73-5 | 1.257 | 1.670 | 1.161 | 0.125 | 1.066 |
| AVG | 74 | 5 | 74-5 | 1.257 | 1.670 | 1.161 | 0.125 | 1.066 |
| AVG | 75 | 5 | 75-5 | 1.257 | 1.670 | 1.161 | 0.125 | 1.066 |
| AVG | 76 | 5 | 76-5 | 1.257 | 1.670 | 1.161 | 0.125 | 1.066 |
| AVG | 77 | 5 | 77-5 | 1.257 | 1.670 | 1.161 | 0.125 | 1.066 |
| AVG | 78 | 5 | 78-5 | 1.257 | 1.670 | 1.161 | 0.125 | 1.066 |
| AVG | 79 | 5 | 79-5 | 1.257 | 1.670 | 1.161 | 0.125 | 1.066 |
| AVG | 80 | 5 | 80-5 | 1.257 | 1.670 | 1.161 | 0.125 | 1.066 |
| AVG | 81 | 5 | 81-5 | 1.257 | 1.670 | 1.161 | 0.125 | 1.066 |
| AVG | 82 | 5 | 82-5 | 1.257 | 1.670 | 1.161 | 0.125 | 1.066 |
| AVG | 83 | 5 | 83-5 | 1.257 | 1.670 | 1.161 | 0.125 | 1.066 |
| AVG | 84 | 5 | 84-5 | 1.257 | 1.670 | 1.161 | 0.125 | 1.066 |
| AVG | 85 | 5 | 85-5 | 1.257 | 1.670 | 1.161 | 0.125 | 1.066 |

# Appendix G

# Radiological Dataset

# Appendix G.1

# Radiological Dataset, Survey Unit 2

## Survey Unit 02 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0016-A | FS | PARAGON | LSC | Tc-99 | -0.59 | 0.96 | 1.64 | U |
| 0016-A | FS | PARAGON | LSC | Pu-241 | -1.6 | 3.3 | 5.7 | U |
| 0016-A | FS | PARAGON | Gamma | Am-241 | -0.006 | 0.081 | 0.143 | U |
| 0016-A | FS | PARAGON | Gamma | Th-232 | 1.21 | 0.42 | 0.67 | J |
| 0016-A | FS | PARAGON | Gamma | U-235 | 0.07 | 0.32 | 0.55 | U |
| 0016-A | FS | PARAGON | Alpha | Am-241 | 0.004 | 0.01 | 0.015 | U |
| 0016-A | FS | PARAGON | Alpha | Pu-238 | 0 | 0.012 | 0.018 | U |
| 0016-A | FS | PARAGON | Alpha | Pu-239/240 | 0.014 | 0.014 | 0.018 | U |
| 0016-A | FS | PARAGON | Alpha | Pu-242 | 0.008 | 0.013 | 0.024 | U |
| 0016-A | FS | PARAGON | Alpha | Th-230 | 1.16 | 0.23 | 0.06 | |
| 0016-A | FS | PARAGON | Alpha | Th-232 | 1.36 | 0.26 | 0.04 | |
| 0016-A | FS | PARAGON | Alpha | U-233/234 | 1.18 | 0.23 | 0.05 | |
| 0016-A | FS | PARAGON | Alpha | U-235 | 0.064 | 0.04 | 0.036 | |
| 0016-A | FS | PARAGON | Alpha | U-238 | 1.03 | 0.21 | 0.03 | |
| 0016-A | FS | NFS | Gamma | Am-241 | 0.0978 | 0.2776 | 0.4692 | U |
| 0016-A | FS | NFS | Gamma | Th-232 | 1.389 | 0.2468 | 0.389 | |
| 0016-A | FS | NFS | Gamma | U-235 | 0.086 | 0.0579 | 0.0976 | U |
| 0016-A | FS | NFS | Gamma | U-238 | -10.29 | -6.037 | 10.52 | U |
| 0016-A | LR | PARAGON | Gamma | Am-241 | 0.061 | 0.095 | 0.157 | U |
| 0016-A | LR | PARAGON | Gamma | Th-232 | 1.19 | 0.44 | 0.72 | J |
| 0016-A | LR | PARAGON | Gamma | U-235 | 0.22 | 0.34 | 0.56 | U |
| 0016-A-DUP | FD | PARAGON | LSC | Tc-99 | -0.32 | 0.94 | 1.6 | U |
| 0016-B | FS | NFS | Gamma | Am-241 | -0.1579 | -0.4544 | 0.772 | U |
| 0016-B | FS | NFS | Gamma | Th-232 | 0.9073 | 0.2394 | 0.386 | |
| 0016-B | FS | NFS | Gamma | U-235 | 0.1145 | 0.0539 | 0.0892 | |
| 0016-B | FS | NFS | Gamma | U-238 | -3.509 | -14.51 | 10.22 | U |
| 0016-C | FS | NFS | Gamma | Am-241 | 0.2565 | 0.2828 | 0.4759 | U |
| 0016-C | FS | NFS | Gamma | Th-232 | 1.273 | 0.2632 | 0.4202 | |
| 0016-C | FS | NFS | Gamma | U-235 | 0.1204 | 0.0585 | 0.0976 | |
| 0016-C | FS | NFS | Gamma | U-238 | -9.978 | -5.619 | 9.844 | U |
| 0016-D | FS | NFS | Gamma | Am-241 | 0.0866 | 0.4465 | 0.7557 | U |
| 0016-D | FS | NFS | Gamma | Th-232 | 0.9785 | 0.2565 | 0.4037 | |
| 0016-D | FS | NFS | Gamma | U-235 | 0.0527 | 0.0631 | 0.1063 | U |
| 0016-D | FS | NFS | Gamma | U-238 | 3.817 | 5.59 | 9.439 | U |
| 0016-E | FS | NFS | Gamma | Am-241 | -0.064 | -0.2891 | 0.4909 | U |
| 0016-E | FS | NFS | Gamma | Th-232 | 1.197 | 0.2516 | 0.4003 | |
| 0016-E | FS | NFS | Gamma | U-235 | 0.1502 | 0.0583 | 0.0967 | |
| 0016-E | FS | NFS | Gamma | U-238 | 3.356 | 5.501 | 8.915 | U |
| 0016-F | FS | NFS | Gamma | Am-241 | 0.2059 | 0.4403 | 0.7436 | U |
| 0016-F | FS | NFS | Gamma | Th-232 | 0.8002 | 0.2517 | 0.4108 | |
| 0016-F | FS | NFS | Gamma | U-235 | 0.0505 | 0.0606 | 0.0992 | U |
| 0016-F | FS | NFS | Gamma | U-238 | 5.337 | 4.865 | 8.15 | U |
| 0016-G | FS | NFS | Gamma | Am-241 | -0.032 | -0.2673 | 0.4539 | U |
| 0016-G | FS | NFS | Gamma | Th-232 | 1.018 | 0.2905 | 0.4736 | |
| 0016-G | FS | NFS | Gamma | U-235 | 0.0615 | 0.0573 | 0.0964 | U |
| 0016-G | FS | NFS | Gamma | U-238 | -9.626 | -7.269 | 12.57 | U |
| 0016-H | FS | NFS | Gamma | Am-241 | 0.3704 | 0.2724 | 0.4564 | U |
| 0016-H | FS | NFS | Gamma | Th-232 | 1.232 | 0.2959 | 0.4791 | |
| 0016-H | FS | NFS | Gamma | U-235 | 0.0456 | 0.0574 | 0.0968 | U |
| 0016-H | FS | NFS | Gamma | U-238 | 6.817 | 5.426 | 9.066 | U |
| 0016-I | FS | NFS | Gamma | Am-241 | -0.3298 | -0.4099 | 0.7004 | U |
| 0016-I | FS | NFS | Gamma | Th-232 | 1.645 | 0.2896 | 0.4587 | |
| 0016-I | FS | NFS | Gamma | U-235 | 0.0539 | 0.0631 | 0.1059 | U |

## Survey Unit 02 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0016-I | FS | NFS | Gamma | U-238 | -0.2324 | -6.273 | 10.71 | U |
| 0016-J | FS | NFS | Gamma | Am-241 | 0.112 | 0.3074 | 0.5197 | U |
| 0016-J | FS | NFS | Gamma | Th-232 | 1.18 | 0.2926 | 0.4723 | |
| 0016-J | FS | NFS | Gamma | U-235 | 0.0411 | 0.0629 | 0.1061 | U |
| 0016-J | FS | NFS | Gamma | U-238 | 3.431 | 6.319 | 13.47 | U |
| 0017-A | FS | NFS | Gamma | Am-241 | 0.1434 | 0.2779 | 0.4691 | U |
| 0017-A | FS | NFS | Gamma | Th-232 | 1.285 | 0.2444 | 0.3861 | |
| 0017-A | FS | NFS | Gamma | U-235 | 0.2083 | 0.057 | 0.094 | |
| 0017-A | FS | NFS | Gamma | U-238 | -5.654 | -5.116 | 9.547 | U |
| 0017-B | FS | NFS | Gamma | Am-241 | 0.3615 | 0.6311 | 0.7754 | U |
| 0017-B | FS | NFS | Gamma | Th-232 | 1.239 | 0.2217 | 0.3432 | |
| 0017-B | FS | NFS | Gamma | U-235 | 0.1543 | 0.0542 | 0.089 | |
| 0017-B | FS | NFS | Gamma | U-238 | 0.4638 | 5.389 | 9.378 | U |
| 0017-C | FS | NFS | Gamma | Am-241 | 0.0141 | 0.2996 | 0.5076 | U |
| 0017-C | FS | NFS | Gamma | Th-232 | 1.303 | 0.2452 | 0.3864 | |
| 0017-C | FS | NFS | Gamma | U-235 | 0.1169 | 0.0587 | 0.0983 | |
| 0017-C | FS | NFS | Gamma | U-238 | -13.97 | -6.682 | 11.69 | U |
| 0017-D | FS | NFS | Gamma | Am-241 | -0.1707 | -0.4688 | 0.7968 | U |
| 0017-D | FS | NFS | Gamma | Th-232 | 1.203 | 0.2535 | 0.4028 | |
| 0017-D | FS | NFS | Gamma | U-235 | 0.1883 | 0.0595 | 0.0979 | |
| 0017-D | FS | NFS | Gamma | U-238 | -4.647 | -5.864 | 11.48 | U |
| 0017-D-DUP | FD | NFS | Gamma | Am-241 | -0.4356 | -0.3081 | 0.5275 | U |
| 0017-D-DUP | FD | NFS | Gamma | Th-232 | 1.909 | 0.2526 | 0.3832 | |
| 0017-D-DUP | FD | NFS | Gamma | U-235 | 0.0504 | 0.0608 | 0.1022 | U |
| 0017-D-DUP | FD | NFS | Gamma | U-238 | -1.161 | -8.584 | 11.9 | U |
| 0017-E | FS | PARAGON | LSC | Tc-99 | -1.13 | 0.91 | 1.57 | U |
| 0017-E | FS | PARAGON | LSC | Pu-241 | -1.4 | 2.9 | 5 | U |
| 0017-E | FS | PARAGON | Gamma | Am-241 | -0.023 | 0.095 | 0.172 | U |
| 0017-E | FS | PARAGON | Gamma | Th-232 | 0.95 | 0.47 | 0.83 | J |
| 0017-E | FS | PARAGON | Gamma | U-235 | 0.14 | 0.36 | 0.61 | U |
| 0017-E | FS | PARAGON | Alpha | Am-241 | 0.0037 | 0.0091 | 0.005 | U |
| 0017-E | FS | PARAGON | Alpha | Pu-238 | 0 | 0.011 | 0.006 | U |
| 0017-E | FS | PARAGON | Alpha | Pu-239/240 | 0 | 0.011 | 0.016 | U |
| 0017-E | FS | PARAGON | Alpha | Pu-242 | 0.0015 | 0.0092 | 0.0178 | U |
| 0017-E | FS | PARAGON | Alpha | Th-230 | 1.09 | 0.21 | 0.05 | |
| 0017-E | FS | PARAGON | Alpha | Th-232 | 1.05 | 0.2 | 0.03 | |
| 0017-E | FS | PARAGON | Alpha | U-233/234 | 0.91 | 0.2 | 0.04 | |
| 0017-E | FS | PARAGON | Alpha | U-235 | 0.055 | 0.037 | 0.03 | |
| 0017-E | FS | PARAGON | Alpha | U-238 | 0.91 | 0.2 | 0.03 | |
| 0017-E | FS | NFS | Gamma | Am-241 | 0.2903 | 0.3921 | 0.6607 | U |
| 0017-E | FS | NFS | Gamma | Th-232 | 1.559 | 0.2713 | 0.4273 | |
| 0017-E | FS | NFS | Gamma | U-235 | 0.0224 | 0.0568 | 0.0961 | U |
| 0017-E | FS | NFS | Gamma | U-238 | -4.984 | -5.173 | 11.08 | U |
| 0017-E | LR | PARAGON | LSC | Pu-241 | -1.3 | 3.1 | 5.3 | U |
| 0017-E | LR | PARAGON | Alpha | Pu-242 | 0.012 | 0.014 | 0.023 | U |
| 0017-E | LR | PARAGON | Alpha | Th-230 | 0.95 | 0.18 | 0.05 | R |
| 0017-E | LR | PARAGON | Alpha | Th-232 | 0.96 | 0.19 | 0.02 | |
| 0017-F | FS | NFS | Gamma | Am-241 | -0.1907 | -0.2371 | 0.4047 | U |
| 0017-F | FS | NFS | Gamma | Th-232 | 0.8693 | 0.1864 | 0.295 | |
| 0017-F | FS | NFS | Gamma | U-235 | 0.0866 | 0.0468 | 0.0781 | |
| 0017-F | FS | NFS | Gamma | U-238 | -3.521 | -5.868 | 10.08 | U |
| 0017-G | FS | NFS | Gamma | Am-241 | -0.1259 | -0.3317 | 0.5652 | U |
| 0017-G | FS | NFS | Gamma | Th-232 | 0.4652 | 0.2391 | 0.3941 | |

## Survey Unit 02 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0017-G | FS | NFS | Gamma | U-235 | 0.0515 | 0.0554 | 0.0888 | U |
| 0017-G | FS | NFS | Gamma | U-238 | 0.8767 | 5.305 | 8.976 | U |
| 0017-H | FS | NFS | Gamma | Am-241 | -0.3901 | -0.3562 | 0.6104 | U |
| 0017-H | FS | NFS | Gamma | Th-232 | 0.6734 | 0.3065 | 0.4829 | |
| 0017-H | FS | NFS | Gamma | U-235 | 0.1647 | 0.056 | 0.0925 | |
| 0017-H | FS | NFS | Gamma | U-238 | 11.83 | 6.607 | 10.35 | |
| 0017-I | FS | NFS | Gamma | Am-241 | 0.0094 | -0.2862 | 0.4849 | U |
| 0017-I | FS | NFS | Gamma | Th-232 | 1.836 | 0.2209 | 0.3333 | |
| 0017-I | FS | NFS | Gamma | U-235 | 0.1326 | 0.0531 | 0.0883 | |
| 0017-I | FS | NFS | Gamma | U-238 | -9.09 | -5.332 | 9.303 | U |
| 0017-J | FS | NFS | Gamma | Am-241 | -0.2578 | -0.3772 | 0.6433 | U |
| 0017-J | FS | NFS | Gamma | Th-232 | 1.336 | 0.2509 | 0.3981 | |
| 0017-J | FS | NFS | Gamma | U-235 | 0.1095 | 0.0539 | 0.0894 | |
| 0017-J | FS | NFS | Gamma | U-238 | -1.182 | -16.18 | 9.331 | U |
| 0018-A | FS | NFS | Gamma | Am-241 | 0.2721 | 0.3842 | 0.6475 | U |
| 0018-A | FS | NFS | Gamma | Th-232 | 1.561 | 0.2716 | 0.4306 | |
| 0018-A | FS | NFS | Gamma | U-235 | 0.0296 | 0.057 | 0.0952 | U |
| 0018-A | FS | NFS | Gamma | U-238 | -0.0533 | -5.628 | 10.2 | U |
| 0018-B | FS | PARAGON | LSC | Tc-99 | -0.78 | 0.94 | 1.61 | U |
| 0018-B | FS | PARAGON | LSC | Pu-241 | -1.3 | 3 | 5.1 | U |
| 0018-B | FS | PARAGON | Gamma | Am-241 | 0.083 | 0.082 | 0.131 | U |
| 0018-B | FS | PARAGON | Gamma | Th-232 | 1.27 | 0.35 | 0.65 | |
| 0018-B | FS | PARAGON | Gamma | U-235 | 0.04 | 0.29 | 0.5 | U |
| 0018-B | FS | PARAGON | Alpha | Am-241 | 0.008 | 0.013 | 0.019 | U |
| 0018-B | FS | PARAGON | Alpha | Pu-238 | 0 | 0.011 | 0.021 | U |
| 0018-B | FS | PARAGON | Alpha | Pu-239/240 | 0.014 | 0.011 | 0.006 | |
| 0018-B | FS | PARAGON | Alpha | Pu-242 | 0.01 | 0.011 | 0.017 | U |
| 0018-B | FS | PARAGON | Alpha | Th-230 | 1.01 | 0.19 | 0.04 | |
| 0018-B | FS | PARAGON | Alpha | Th-232 | 1.23 | 0.23 | 0.01 | |
| 0018-B | FS | PARAGON | Alpha | U-233/234 | 1.03 | 0.22 | 0.06 | |
| 0018-B | FS | PARAGON | Alpha | U-235 | 0.002 | 0.021 | 0.038 | U |
| 0018-B | FS | PARAGON | Alpha | U-238 | 0.83 | 0.19 | 0.05 | |
| 0018-B | FS | NFS | Gamma | Am-241 | -0.0362 | -0.2999 | 0.5088 | U |
| 0018-B | FS | NFS | Gamma | Th-232 | 1.292 | 0.2463 | 0.3902 | |
| 0018-B | FS | NFS | Gamma | U-235 | 0.0021 | 0.0573 | 0.097 | U |
| 0018-B | FS | NFS | Gamma | U-238 | -7.999 | -6.52 | 11.27 | U |
| 0018-B | LR | PARAGON | Alpha | Am-241 | -0.002 | 0.0096 | 0.0212 | U |
| 0018-B | LR | PARAGON | Alpha | Pu-238 | -0.005 | 0.011 | 0.025 | U |
| 0018-B | LR | PARAGON | Alpha | Pu-239/240 | 0.007 | 0.011 | 0.017 | U |
| 0018-B | LR | PARAGON | Alpha | U-233/234 | 1.17 | 0.25 | 0.04 | |
| 0018-B | LR | PARAGON | Alpha | U-235 | 0.078 | 0.047 | 0.018 | |
| 0018-B | LR | PARAGON | Alpha | U-238 | 0.9 | 0.2 | 0.04 | |
| 0018-C | FS | NFS | Gamma | Am-241 | 0.2768 | 0.3843 | 0.6476 | U |
| 0018-C | FS | NFS | Gamma | Th-232 | 1.316 | 0.2914 | 0.4672 | |
| 0018-C | FS | NFS | Gamma | U-235 | 0.0329 | 0.0635 | 0.0996 | U |
| 0018-C | FS | NFS | Gamma | U-238 | 1.174 | 5.842 | 10.01 | U |
| 0018-D | FS | NFS | Gamma | Am-241 | -0.2042 | -0.2979 | 0.5077 | U |
| 0018-D | FS | NFS | Gamma | Th-232 | 1.301 | 0.2355 | 0.3725 | |
| 0018-D | FS | NFS | Gamma | U-235 | 0.0866 | 0.0544 | 0.0909 | U |
| 0018-D | FS | NFS | Gamma | U-238 | -7.896 | -6.506 | 11.25 | U |
| 0018-E | FS | NFS | Gamma | Am-241 | 0.2821 | 0.3591 | 0.6048 | U |
| 0018-E | FS | NFS | Gamma | Th-232 | 0.8764 | 0.2949 | 0.4851 | |
| 0018-E | FS | NFS | Gamma | U-235 | 0.0623 | 0.0535 | 0.0886 | U |

## Survey Unit 02 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0018-E | FS | NFS | Gamma | U-238 | 5.958 | 5.338 | 8.944 | U |
| 0018-F | FS | NFS | Gamma | Am-241 | -0.1883 | -0.2964 | 0.5049 | U |
| 0018-F | FS | NFS | Gamma | Th-232 | 1.446 | 0.2472 | 0.3851 | |
| 0018-F | FS | NFS | Gamma | U-235 | 0.0643 | 0.0603 | 0.1013 | U |
| 0018-F | FS | NFS | Gamma | U-238 | -6.619 | -7.257 | 12.5 | U |
| 0018-G | FS | NFS | Gamma | Am-241 | -0.1849 | -0.2677 | 0.4565 | U |
| 0018-G | FS | NFS | Gamma | Th-232 | 0.9309 | 0.259 | 0.422 | |
| 0018-G | FS | NFS | Gamma | U-235 | 0.0552 | 0.0517 | 0.0867 | U |
| 0018-G | FS | NFS | Gamma | U-238 | -0.7918 | -5.952 | 10.16 | U |
| 0018-H | FS | NFS | Gamma | Am-241 | 0.1922 | 0.2313 | 0.3894 | U |
| 0018-H | FS | NFS | Gamma | Th-232 | 0.6456 | 0.2293 | 0.3764 | |
| 0018-H | FS | NFS | Gamma | U-235 | 0.0575 | 0.0465 | 0.078 | U |
| 0018-H | FS | NFS | Gamma | U-238 | -3.16 | -8.676 | 8.536 | U |
| 0018-I | FS | NFS | Gamma | Am-241 | 0.0844 | 0.3292 | 0.5578 | U |
| 0018-I | FS | NFS | Gamma | Th-232 | 1.06 | 0.203 | 0.3187 | |
| 0018-I | FS | NFS | Gamma | U-235 | 0.0464 | 0.0511 | 0.086 | U |
| 0018-I | FS | NFS | Gamma | U-238 | 3.048 | 4.662 | 7.877 | U |
| 0018-I-DUP | FD | NFS | Gamma | Am-241 | -0.4723 | -0.2418 | 0.4161 | U |
| 0018-I-DUP | FD | NFS | Gamma | Th-232 | 0.6444 | 0.1936 | 0.3138 | |
| 0018-I-DUP | FD | NFS | Gamma | U-235 | 0.0604 | 0.0487 | 0.0817 | U |
| 0018-I-DUP | FD | NFS | Gamma | U-238 | 0.0736 | 3.823 | 6.542 | U |
| 0018-J | FS | NFS | Gamma | Am-241 | -0.17 | -0.2644 | 0.4508 | U |
| 0018-J | FS | NFS | Gamma | Th-232 | 0.5901 | 0.2256 | 0.3702 | |
| 0018-J | FS | NFS | Gamma | U-235 | -0.0227 | -0.0507 | 0.0861 | U |
| 0018-J | FS | NFS | Gamma | U-238 | 8.351 | 5.855 | 9.773 | U |
| 0019-A | FS | NFS | Gamma | Am-241 | 0.6558 | 0.3369 | 0.5617 | |
| 0019-A | FS | NFS | Gamma | Th-232 | 2.006 | 0.3243 | 0.5052 | |
| 0019-A | FS | NFS | Gamma | U-235 | 0.2086 | 0.0757 | 0.1251 | |
| 0019-A | FS | NFS | Gamma | U-238 | 6.119 | 13.32 | 22.12 | U |
| 0019-B | FS | NFS | Gamma | Am-241 | 0.0662 | 0.3142 | 0.5326 | U |
| 0019-B | FS | NFS | Gamma | Th-232 | 1.17 | 0.2146 | 0.3372 | |
| 0019-B | FS | NFS | Gamma | U-235 | 0.0598 | 0.0544 | 0.0865 | U |
| 0019-B | FS | NFS | Gamma | U-238 | 4.064 | 5.369 | 9.053 | U |
| 0019-C | FS | NFS | Gamma | Am-241 | 0.1305 | 0.2614 | 0.4414 | U |
| 0019-C | FS | NFS | Gamma | Th-232 | 0.5906 | 0.2337 | 0.3825 | |
| 0019-C | FS | NFS | Gamma | U-235 | 0.1106 | 0.0545 | 0.0908 | |
| 0019-C | FS | NFS | Gamma | U-238 | -2.42 | -5.437 | 9.345 | U |
| 0019-D | FS | NFS | Gamma | Am-241 | 0.0417 | 0.3947 | 0.6688 | U |
| 0019-D | FS | NFS | Gamma | Th-232 | 0.9438 | 0.2648 | 0.4305 | |
| 0019-D | FS | NFS | Gamma | U-235 | 0.038 | 0.0527 | 0.0889 | U |
| 0019-D | FS | NFS | Gamma | U-238 | -17.09 | -6.789 | 11.92 | U |
| 0019-E | FS | NFS | Gamma | Am-241 | -0.4197 | -0.4065 | 0.6952 | U |
| 0019-E | FS | NFS | Gamma | Th-232 | 1.664 | 0.2798 | 0.4438 | |
| 0019-E | FS | NFS | Gamma | U-235 | 0.1218 | 0.0571 | 0.0951 | |
| 0019-E | FS | NFS | Gamma | U-238 | -5.08 | -5.111 | 8.882 | U |
| 0019-F | FS | NFS | Gamma | Am-241 | -0.1274 | -0.4019 | 0.6832 | U |
| 0019-F | FS | NFS | Gamma | Th-232 | 1.23 | 0.2248 | 0.3548 | |
| 0019-F | FS | NFS | Gamma | U-235 | 0.11 | 0.0487 | 0.0796 | |
| 0019-F | FS | NFS | Gamma | U-238 | 1.728 | 5.271 | 8.949 | U |
| 0020-A | FS | PARAGON | LSC | Tc-99 | -0.32 | 0.94 | 1.59 | U |
| 0020-A | FS | PARAGON | LSC | Pu-241 | 0.2 | 3.1 | 5.3 | U |
| 0020-A | FS | PARAGON | Gamma | Am-241 | 0.012 | 0.08 | 0.141 | U |
| 0020-A | FS | PARAGON | Gamma | Th-232 | 0.82 | 0.36 | 0.7 | J |

## Survey Unit 02 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0020-A | FS | PARAGON | Gamma | U-235 | -0.26 | 0.26 | 0.51 | U |
| 0020-A | FS | PARAGON | Alpha | Am-241 | 0.026 | 0.015 | 0.005 | |
| 0020-A | FS | PARAGON | Alpha | Pu-238 | -0.003 | 0.012 | 0.019 | U |
| 0020-A | FS | PARAGON | Alpha | Pu-239/240 | 0.096 | 0.036 | 0.019 | |
| 0020-A | FS | PARAGON | Alpha | Pu-242 | 0.007 | 0.012 | 0.021 | U |
| 0020-A | FS | PARAGON | Alpha | Th-230 | 0.91 | 0.18 | 0.06 | |
| 0020-A | FS | PARAGON | Alpha | Th-232 | 0.72 | 0.15 | 0.03 | |
| 0020-A | FS | PARAGON | Alpha | U-233/234 | 1.22 | 0.23 | 0.05 | |
| 0020-A | FS | PARAGON | Alpha | U-235 | 0.04 | 0.032 | 0.044 | U |
| 0020-A | FS | PARAGON | Alpha | U-238 | 0.89 | 0.18 | 0.02 | |
| 0020-A | FS | NFS | Gamma | Am-241 | 0.6505 | 0.2686 | 0.4452 | |
| 0020-A | FS | NFS | Gamma | Th-232 | 0.951 | 0.2445 | 0.3939 | |
| 0020-A | FS | NFS | Gamma | U-235 | 0.0828 | 0.0572 | 0.0959 | U |
| 0020-A | FS | NFS | Gamma | U-238 | 2.368 | 5.277 | 9.097 | U |
| 0020-A | LR | PARAGON | Gamma | Am-241 | 0.012 | 0.076 | 0.132 | U |
| 0020-A | LR | PARAGON | Gamma | Th-232 | 0.52 | 0.25 | 0.43 | J |
| 0020-A | LR | PARAGON | Gamma | U-235 | 0.26 | 0.27 | 0.44 | U |
| 0020-B | FS | NFS | Gamma | Am-241 | 2.137 | 0.4589 | 0.7395 | |
| 0020-B | FS | NFS | Gamma | Th-232 | 2.125 | 0.2302 | 0.3402 | |
| 0020-B | FS | NFS | Gamma | U-235 | 0.4481 | 0.0622 | 0.0984 | |
| 0020-B | FS | NFS | Gamma | U-238 | 0.0395 | 8.028 | 10.19 | U |
| 0020-C | FS | NFS | Gamma | Am-241 | 5.228 | 0.5959 | 0.9418 | |
| 0020-C | FS | NFS | Gamma | Th-232 | 11.37 | 0.4678 | 0.632 | |
| 0020-C | FS | NFS | Gamma | U-235 | 2.125 | 0.1048 | 0.1576 | |
| 0020-C | FS | NFS | Gamma | U-238 | 35.8 | 7.998 | 12.92 | |
| 0020-D | FS | NFS | Gamma | Am-241 | -0.3393 | -0.4328 | 0.7378 | U |
| 0020-D | FS | NFS | Gamma | Th-232 | 1.278 | 0.2799 | 0.4498 | J |
| 0020-D | FS | NFS | Gamma | U-235 | 0.0588 | 0.055 | 0.0924 | UJ |
| 0020-D | FS | NFS | Gamma | U-238 | 5.291 | 5.133 | 8.616 | U |
| 0020-D-DUP | FD | NFS | Gamma | Am-241 | -0.0088 | -0.3177 | 0.538 | U |
| 0020-D-DUP | FD | NFS | Gamma | Th-232 | 2.517 | 0.2829 | 0.4311 | J |
| 0020-D-DUP | FD | NFS | Gamma | U-235 | 0.334 | 0.0616 | 0.1003 | J |
| 0020-D-DUP | FD | NFS | Gamma | U-238 | -7.723 | -7.137 | 12.28 | U |
| 0020-E | FS | NFS | Gamma | Am-241 | -0.0724 | -0.4215 | 0.7155 | U |
| 0020-E | FS | NFS | Gamma | Th-232 | 2.771 | 0.2459 | 0.3558 | |
| 0020-E | FS | NFS | Gamma | U-235 | 0.3187 | 0.0654 | 0.1048 | |
| 0020-E | FS | NFS | Gamma | U-238 | 8.07 | 5.412 | 9.017 | U |
| 0021-A | FS | NFS | Gamma | Am-241 | -0.3903 | -0.356 | 0.6091 | U |
| 0021-A | FS | NFS | Gamma | Th-232 | 1.126 | 0.2642 | 0.4232 | |
| 0021-A | FS | NFS | Gamma | U-235 | 0.2126 | 0.0611 | 0.1005 | |
| 0021-A | FS | NFS | Gamma | U-238 | 2.643 | 3.406 | 7.096 | U |
| 0021-B | FS | NFS | Gamma | Am-241 | 0.1119 | 0.2749 | 0.4646 | U |
| 0021-B | FS | NFS | Gamma | Th-232 | 0.0163 | 0.2183 | 0.3716 | U |
| 0021-B | FS | NFS | Gamma | U-235 | 0.0562 | 0.0537 | 0.0899 | U |
| 0021-B | FS | NFS | Gamma | U-238 | 1.724 | 5.152 | 8.922 | U |
| 0021-C | FS | NFS | Gamma | Am-241 | 0.3367 | 0.315 | 0.5287 | U |
| 0021-C | FS | NFS | Gamma | Th-232 | 0.6848 | 0.2175 | 0.3549 | |
| 0021-C | FS | NFS | Gamma | U-235 | 0.0722 | 0.0445 | 0.0744 | U |
| 0021-C | FS | NFS | Gamma | U-238 | 7.503 | 4.244 | 7.011 | |
| 0021-D | FS | PARAGON | LSC | Tc-99 | -0.4 | 1.1 | 1.8 | U |
| 0021-D | FS | PARAGON | LSC | Pu-241 | 4 | 3.9 | 6.3 | U |
| 0021-D | FS | PARAGON | Gamma | Am-241 | -0.001 | 0.074 | 0.132 | U |
| 0021-D | FS | PARAGON | Gamma | Th-232 | 0.96 | 0.32 | 0.51 | |

## Survey Unit 02 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0021-D | FS | PARAGON | Gamma | U-235 | 0.05 | 0.28 | 0.49 | U |
| 0021-D | FS | PARAGON | Alpha | Am-241 | 0.008 | 0.013 | 0.007 | J |
| 0021-D | FS | PARAGON | Alpha | Pu-238 | 0 | 0.019 | 0.01 | U |
| 0021-D | FS | PARAGON | Alpha | Pu-239/240 | -0.004 | 0.019 | 0.035 | U |
| 0021-D | FS | PARAGON | Alpha | Pu-242 | 0.006 | 0.012 | 0.008 | U |
| 0021-D | FS | PARAGON | Alpha | Th-230 | 0.69 | 0.14 | 0.05 | |
| 0021-D | FS | PARAGON | Alpha | Th-232 | 1.06 | 0.2 | 0.02 | |
| 0021-D | FS | PARAGON | Alpha | U-233/234 | 1 | 0.22 | 0.08 | |
| 0021-D | FS | PARAGON | Alpha | U-235 | 0.073 | 0.048 | 0.02 | J |
| 0021-D | FS | PARAGON | Alpha | U-238 | 0.84 | 0.2 | 0.06 | |
| 0021-D | FS | NFS | Gamma | Am-241 | 0.7155 | 0.266 | 0.4395 | |
| 0021-D | FS | NFS | Gamma | Th-232 | 1.264 | 0.211 | 0.3264 | |
| 0021-D | FS | NFS | Gamma | U-235 | 0.1532 | 0.0539 | 0.0893 | |
| 0021-D | FS | NFS | Gamma | U-238 | 7.408 | 5.007 | 8.342 | U |
| 0021-D | LR | PARAGON | Alpha | Am-241 | 0.013 | 0.012 | 0.007 | |
| 0021-D | LR | PARAGON | Alpha | Pu-238 | 0 | 0.01 | 0.02 | U |
| 0021-D | LR | PARAGON | Alpha | Pu-239/240 | 0.009 | 0.012 | 0.02 | U |
| 0021-E | FS | NFS | Gamma | Am-241 | -0.2513 | -0.3075 | 0.605 | U |
| 0021-E | FS | NFS | Gamma | Th-232 | 1.576 | 0.2362 | 0.3671 | |
| 0021-E | FS | NFS | Gamma | U-235 | 0.1326 | 0.0722 | 0.1207 | |
| 0021-E | FS | NFS | Gamma | U-238 | 2.56 | 4.99 | 8.449 | U |
| 0022-A | FS | NFS | Gamma | Am-241 | 0.0235 | 0.2427 | 0.4114 | U |
| 0022-A | FS | NFS | Gamma | Th-232 | 0.0901 | 0.1933 | 0.3312 | U |
| 0022-A | FS | NFS | Gamma | U-235 | -0.0159 | -0.051 | 0.0858 | U |
| 0022-A | FS | NFS | Gamma | U-238 | -6.996 | -11.65 | 9.657 | U |
| 0022-B | FS | NFS | Gamma | Am-241 | -0.5264 | -0.3156 | 0.5437 | U |
| 0022-B | FS | NFS | Gamma | Th-232 | 0.3593 | 0.2209 | 0.3614 | U |
| 0022-B | FS | NFS | Gamma | U-235 | 0.1038 | 0.067 | 0.1123 | U |
| 0022-B | FS | NFS | Gamma | U-238 | 7.132 | 3.923 | 6.315 | |
| 0022-C | FS | NFS | Gamma | Am-241 | 0.4074 | 0.2403 | 0.4011 | |
| 0022-C | FS | NFS | Gamma | Th-232 | 0.457 | 0.2055 | 0.3387 | |
| 0022-C | FS | NFS | Gamma | U-235 | 0.1122 | 0.0489 | 0.0812 | |
| 0022-C | FS | NFS | Gamma | U-238 | 1.327 | 5.147 | 8.747 | U |
| 0022-D | FS | NFS | Gamma | Am-241 | -0.0963 | -0.353 | 0.6009 | U |
| 0022-D | FS | NFS | Gamma | Th-232 | 1.356 | 0.2459 | 0.3885 | J |
| 0022-D | FS | NFS | Gamma | U-235 | 0.1435 | 0.0749 | 0.1253 | |
| 0022-D | FS | NFS | Gamma | U-238 | 4.162 | 5.373 | 8.447 | U |
| 0022-D-DUP | FD | NFS | Gamma | Am-241 | 0.2467 | 0.2822 | 0.4749 | U |
| 0022-D-DUP | FD | NFS | Gamma | Th-232 | 0.2851 | 0.2795 | 0.4732 | UJ |
| 0022-D-DUP | FD | NFS | Gamma | U-235 | 0.0755 | 0.055 | 0.0922 | U |
| 0022-D-DUP | FD | NFS | Gamma | U-238 | 3.618 | 5.767 | 9.684 | U |
| 0022-E | FS | NFS | Gamma | Am-241 | -0.497 | -0.3367 | 0.579 | U |
| 0022-E | FS | NFS | Gamma | Th-232 | 0.7381 | 0.2597 | 0.4267 | |
| 0022-E | FS | NFS | Gamma | U-235 | 0.1288 | 0.0747 | 0.1248 | |
| 0022-E | FS | NFS | Gamma | U-238 | -0.2801 | -94.31 | 8.917 | U |
| 0023-A | FS | NFS | Gamma | Am-241 | 0.0508 | 0.2649 | 0.4844 | U |
| 0023-A | FS | NFS | Gamma | Th-232 | 0.8076 | 0.2033 | 0.3265 | |
| 0023-A | FS | NFS | Gamma | U-235 | 0.0898 | 0.0731 | 0.1188 | U |
| 0023-A | FS | NFS | Gamma | U-238 | 3.24 | 6.796 | 7.607 | U |
| 0023-B | FS | PARAGON | LSC | Tc-99 | -0.03 | 0.82 | 1.38 | U |
| 0023-B | FS | PARAGON | LSC | Pu-241 | 1.2 | 3.4 | 5.6 | U |
| 0023-B | FS | PARAGON | Gamma | Am-241 | 0.003 | 0.062 | 0.109 | U |
| 0023-B | FS | PARAGON | Gamma | Th-232 | 0.7 | 0.3 | 0.48 | J |

## Survey Unit 02 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0023-B | FS | PARAGON | Gamma | U-235 | 0.04 | 0.23 | 0.4 | U |
| 0023-B | FS | PARAGON | Alpha | Am-241 | 0 | 0.017 | 0.01 | U |
| 0023-B | FS | PARAGON | Alpha | Pu-238 | 0 | 0.012 | 0.017 | U |
| 0023-B | FS | PARAGON | Alpha | Pu-239/240 | 0.002 | 0.012 | 0.006 | U |
| 0023-B | FS | PARAGON | Alpha | Pu-242 | -0.001 | 0.011 | 0.021 | U |
| 0023-B | FS | PARAGON | Alpha | Th-230 | 0.344 | 0.081 | 0.046 | |
| 0023-B | FS | PARAGON | Alpha | Th-232 | 0.43 | 0.094 | 0.024 | |
| 0023-B | FS | PARAGON | Alpha | U-233/234 | 0.75 | 0.15 | 0.01 | |
| 0023-B | FS | PARAGON | Alpha | U-235 | 0.012 | 0.016 | 0.027 | U |
| 0023-B | FS | PARAGON | Alpha | U-238 | 0.444 | 0.099 | 0.026 | |
| 0023-B | FS | NFS | Gamma | Am-241 | -0.3543 | -0.2449 | 0.4204 | U |
| 0023-B | FS | NFS | Gamma | Th-232 | 0.676 | 0.2211 | 0.3599 | |
| 0023-B | FS | NFS | Gamma | U-235 | 0.0199 | 0.0488 | 0.0823 | U |
| 0023-B | FS | NFS | Gamma | U-238 | -1.339 | -6.307 | 10.77 | U |
| 0023-B | LR | PARAGON | LSC | Pu-241 | 0.9 | 2.9 | 4.8 | U |
| 0023-B | LR | PARAGON | Alpha | Pu-242 | 0.0005 | 0.0093 | 0.0206 | U |
| 0023-B | LR | PARAGON | Alpha | Th-230 | 0.345 | 0.081 | 0.045 | R |
| 0023-B | LR | PARAGON | Alpha | Th-232 | 0.467 | 0.099 | 0.014 | |
| 0023-C | FS | NFS | Gamma | Am-241 | -0.2514 | -0.322 | 0.5511 | U |
| 0023-C | FS | NFS | Gamma | Th-232 | 0.5952 | 0.1762 | 0.282 | |
| 0023-C | FS | NFS | Gamma | U-235 | 0.1178 | 0.049 | 0.0812 | |
| 0023-C | FS | NFS | Gamma | U-238 | 3.544 | 5.215 | 8.166 | U |
| 0023-D | FS | NFS | Gamma | Am-241 | -0.0934 | -0.2248 | 0.3829 | U |
| 0023-D | FS | NFS | Gamma | Th-232 | 0.8136 | 0.2134 | 0.3425 | |
| 0023-D | FS | NFS | Gamma | U-235 | 0.0447 | 0.0472 | 0.0792 | U |
| 0023-D | FS | NFS | Gamma | U-238 | -6.063 | -6.822 | 11.73 | U |
| 0023-E | FS | NFS | Gamma | Am-241 | -0.1084 | -0.3218 | 0.5484 | U |
| 0023-E | FS | NFS | Gamma | Th-232 | 0.5654 | 0.176 | 0.2849 | |
| 0023-E | FS | NFS | Gamma | U-235 | 0.104 | 0.052 | 0.0859 | |
| 0023-E | FS | NFS | Gamma | U-238 | 11.31 | 4.044 | 6.53 | |
| 0024-A | FS | PARAGON | LSC | Tc-99 | -0.23 | 0.76 | 1.3 | UJ |
| 0024-A | FS | PARAGON | LSC | Pu-241 | 0.5 | 3.3 | 5.6 | U |
| 0024-A | FS | PARAGON | Gamma | Am-241 | -0.011 | 0.069 | 0.125 | U |
| 0024-A | FS | PARAGON | Gamma | Th-232 | 0.45 | 0.24 | 0.46 | U |
| 0024-A | FS | PARAGON | Gamma | U-235 | 0.05 | 0.27 | 0.48 | U |
| 0024-A | FS | PARAGON | Alpha | Am-241 | 0.012 | 0.012 | 0.006 | J |
| 0024-A | FS | PARAGON | Alpha | Pu-238 | -0.004 | 0.011 | 0.021 | U |
| 0024-A | FS | PARAGON | Alpha | Pu-239/240 | 0.018 | 0.014 | 0.016 | |
| 0024-A | FS | PARAGON | Alpha | Pu-242 | 0.01 | 0.013 | 0.021 | U |
| 0024-A | FS | PARAGON | Alpha | Th-230 | 0.54 | 0.11 | 0.05 | |
| 0024-A | FS | PARAGON | Alpha | Th-232 | 0.6 | 0.12 | 0.02 | |
| 0024-A | FS | PARAGON | Alpha | U-233/234 | 0.98 | 0.21 | 0.04 | |
| 0024-A | FS | PARAGON | Alpha | U-235 | 0.04 | 0.031 | 0.015 | |
| 0024-A | FS | PARAGON | Alpha | U-238 | 0.53 | 0.13 | 0.05 | |
| 0024-A | FS | NFS | Gamma | Am-241 | -0.0661 | -0.2331 | 0.3965 | U |
| 0024-A | FS | NFS | Gamma | Th-232 | 0.6751 | 0.2342 | 0.3834 | |
| 0024-A | FS | NFS | Gamma | U-235 | -0.0622 | -0.051 | 0.0869 | U |
| 0024-A | FS | NFS | Gamma | U-238 | 4.731 | 5.322 | 8.956 | U |
| 0024-B | FS | NFS | Gamma | Am-241 | -0.0592 | -0.3224 | 0.5487 | U |
| 0024-B | FS | NFS | Gamma | Th-232 | 0.7864 | 0.1771 | 0.2803 | |
| 0024-B | FS | NFS | Gamma | U-235 | 0.1771 | 0.0503 | 0.082 | |
| 0024-B | FS | NFS | Gamma | U-238 | -3.576 | -5.448 | 9.382 | U |
| 0024-C | FS | NFS | Gamma | Am-241 | 0.0432 | 0.2794 | 0.4732 | U |

## Survey Unit 02 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0024-C | FS | NFS | Gamma | Th-232 | 0.9492 | 0.3038 | 0.5015 | |
| 0024-C | FS | NFS | Gamma | U-235 | -0.0198 | -0.0612 | 0.104 | U |
| 0024-C | FS | NFS | Gamma | U-238 | 2.065 | 7.082 | 12.01 | U |
| 0024-D | FS | NFS | Gamma | Am-241 | 0.0185 | 0.3083 | 0.5231 | U |
| 0024-D | FS | NFS | Gamma | Th-232 | 0.6336 | 0.2089 | 0.341 | |
| 0024-D | FS | NFS | Gamma | U-235 | 0.0889 | 0.0578 | 0.0968 | U |
| 0024-D | FS | NFS | Gamma | U-238 | 5.648 | 4.774 | 8.182 | U |
| 0024-D-DUP | FD | NFS | Gamma | Am-241 | -0.1108 | -0.2568 | 0.4371 | U |
| 0024-D-DUP | FD | NFS | Gamma | Th-232 | 1.127 | 0.4879 | 0.8135 | |
| 0024-D-DUP | FD | NFS | Gamma | U-235 | 0.1088 | 0.0521 | 0.0869 | |
| 0024-D-DUP | FD | NFS | Gamma | U-238 | -0.4165 | -4.22 | 7.239 | U |
| 0024-E | FS | NFS | Gamma | Am-241 | -0.2729 | -0.3671 | 0.6274 | U |
| 0024-E | FS | NFS | Gamma | Th-232 | 1.1 | 0.7719 | 0.1296 | |
| 0024-E | FS | NFS | Gamma | U-235 | 0.1011 | 0.0545 | 0.0909 | |
| 0024-E | FS | NFS | Gamma | U-238 | -10.72 | -6.254 | 10.92 | U |
| 0024-F | FS | NFS | Gamma | Am-241 | 0.2786 | 0.2407 | 0.4038 | U |
| 0024-F | FS | NFS | Gamma | Th-232 | 0.8089 | 0.4889 | 0.8204 | U |
| 0024-F | FS | NFS | Gamma | U-235 | 0.0686 | 0.0527 | 0.088 | U |
| 0024-F | FS | NFS | Gamma | U-238 | 1.298 | 3.983 | 6.909 | U |
| 0024-G | FS | NFS | Gamma | Am-241 | 0.2168 | 0.3344 | 0.5639 | UH |
| 0024-G | FS | NFS | Gamma | Th-232 | 1.04 | 0.2289 | 0.367 | HJ |
| 0024-G | FS | NFS | Gamma | U-235 | 0.0404 | 0.0485 | 0.0819 | UH |
| 0024-G | FS | NFS | Gamma | U-238 | -3.373 | -6.446 | 11.05 | UH |
| 0025-A | FS | NFS | Gamma | Am-241 | -0.2055 | -1.466 | 0.5434 | U |
| 0025-A | FS | NFS | Gamma | Th-232 | 0.6897 | 0.7453 | 1.252 | U |
| 0025-A | FS | NFS | Gamma | U-235 | 0.0599 | 0.0543 | 0.0879 | U |
| 0025-A | FS | NFS | Gamma | U-238 | -4.745 | -3.29 | 9.053 | U |
| 0025-B | FS | NFS | Gamma | Am-241 | -0.408 | -0.3477 | 0.5961 | U |
| 0025-B | FS | NFS | Gamma | Th-232 | 0.4799 | 0.7383 | 1.242 | U |
| 0025-B | FS | NFS | Gamma | U-235 | 0.0701 | 0.057 | 0.0895 | U |
| 0025-B | FS | NFS | Gamma | U-238 | 0.9159 | 4.376 | 7.462 | U |
| 0025-C | FS | NFS | Gamma | Am-241 | -0.6114 | -0.353 | 0.6074 | U |
| 0025-C | FS | NFS | Gamma | Th-232 | 0.9389 | 0.7545 | 1.268 | U |
| 0025-C | FS | NFS | Gamma | U-235 | 0.07 | 0.0523 | 0.0851 | U |
| 0025-C | FS | NFS | Gamma | U-238 | 5.12 | 5.181 | 8.717 | U |
| 0025-D | FS | NFS | Gamma | Am-241 | 0.204 | 0.2709 | 0.4564 | U |
| 0025-D | FS | NFS | Gamma | Th-232 | 1.571 | 0.4855 | 0.8053 | |
| 0025-D | FS | NFS | Gamma | U-235 | 0.0766 | 0.0547 | 0.0917 | U |
| 0025-D | FS | NFS | Gamma | U-238 | -7.476 | -5.565 | 9.668 | U |
| 0025-E | FS | NFS | Gamma | Am-241 | 0.0674 | 0.3073 | 0.5205 | U |
| 0025-E | FS | NFS | Gamma | Th-232 | 0.9394 | 0.6358 | 1.068 | U |
| 0025-E | FS | NFS | Gamma | U-235 | 0.1 | 0.0479 | 0.0798 | |
| 0025-E | FS | NFS | Gamma | U-238 | -15.1 | -5.849 | 10.27 | U |
| 0025-F | FS | NFS | Gamma | Am-241 | -0.1011 | -0.2512 | 0.4272 | U |
| 0025-F | FS | NFS | Gamma | Th-232 | 0.938 | 0.4605 | 0.7696 | |
| 0025-F | FS | NFS | Gamma | U-235 | 0.0818 | 0.0534 | 0.0891 | U |
| 0025-F | FS | NFS | Gamma | U-238 | 5.026 | 4.36 | 7.302 | U |
| 0026-A | FS | NFS | Gamma | Am-241 | -0.2863 | -0.2923 | 0.4987 | UH |
| 0026-A | FS | NFS | Gamma | Th-232 | 1.158 | 0.2555 | 0.4099 | HJ |
| 0026-A | FS | NFS | Gamma | U-235 | 0.1483 | 0.0543 | 0.0901 | HJ |
| 0026-A | FS | NFS | Gamma | U-238 | 8.344 | 4.978 | 8.264 | HJ |
| 0026-A-DUP | FD | NFS | Gamma | Am-241 | -0.5182 | -0.4178 | 0.7149 | UH |
| 0026-A-DUP | FD | NFS | Gamma | Th-232 | 0.9766 | 0.2905 | 0.4758 | HJ |

## Survey Unit 02 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0026-A-DUP | FD | NFS | Gamma | U-235 | 0.0939 | 0.057 | 0.0937 | HJ |
| 0026-A-DUP | FD | NFS | Gamma | U-238 | -2.819 | -6.5 | 11.14 | UH |
| 0026-B | FS | PARAGON | LSC | Tc-99 | -0.25 | 0.92 | 1.56 | U |
| 0026-B | FS | PARAGON | LSC | Pu-241 | 0.4 | 4 | 6.8 | U |
| 0026-B | FS | PARAGON | Gamma | Am-241 | 0.052 | 0.075 | 0.124 | U |
| 0026-B | FS | PARAGON | Gamma | Th-232 | 0.97 | 0.34 | 0.54 | J |
| 0026-B | FS | PARAGON | Gamma | U-235 | 0.07 | 0.29 | 0.5 | U |
| 0026-B | FS | PARAGON | Alpha | Am-241 | 0.012 | 0.012 | 0.015 | U |
| 0026-B | FS | PARAGON | Alpha | Pu-238 | -0.002 | 0.012 | 0.018 | U |
| 0026-B | FS | PARAGON | Alpha | Pu-239/240 | -0.007 | 0.015 | 0.034 | U |
| 0026-B | FS | PARAGON | Alpha | Pu-242 | 0.011 | 0.014 | 0.02 | U |
| 0026-B | FS | PARAGON | Alpha | Th-230 | 0.79 | 0.16 | 0.06 | |
| 0026-B | FS | PARAGON | Alpha | Th-232 | 0.93 | 0.19 | 0.02 | |
| 0026-B | FS | PARAGON | Alpha | U-233/234 | 0.96 | 0.19 | 0.03 | |
| 0026-B | FS | PARAGON | Alpha | U-235 | 0.028 | 0.022 | 0.025 | |
| 0026-B | FS | PARAGON | Alpha | U-238 | 0.69 | 0.14 | 0.03 | |
| 0026-B | FS | NFS | Gamma | Am-241 | -0.1278 | -0.2686 | 0.457 | UH |
| 0026-B | FS | NFS | Gamma | Th-232 | 0.88 | 0.2512 | 0.4121 | HJ |
| 0026-B | FS | NFS | Gamma | U-235 | 0.0528 | 0.0579 | 0.0977 | UH |
| 0026-B | FS | NFS | Gamma | U-238 | -5.767 | -6.243 | 10.77 | UH |
| 0026-B | LR | PARAGON | LSC | Tc-99 | -0.64 | 0.86 | 1.47 | U |
| 0026-C | FS | NFS | Gamma | Am-241 | -0.3909 | -0.2933 | 0.5042 | UH |
| 0026-C | FS | NFS | Gamma | Th-232 | 0.3989 | 0.209 | 0.3386 | HJ |
| 0026-C | FS | NFS | Gamma | U-235 | -0.0446 | -0.0472 | 0.0808 | UH |
| 0026-C | FS | NFS | Gamma | U-238 | 5.069 | 4.471 | 7.011 | UH |
| 0026-D | FS | NFS | Gamma | Am-241 | -0.4752 | -0.2593 | 0.4454 | UH |
| 0026-D | FS | NFS | Gamma | Th-232 | 0.8452 | 0.1847 | 0.2907 | HJ |
| 0026-D | FS | NFS | Gamma | U-235 | 0.097 | 0.0492 | 0.082 | HJ |
| 0026-D | FS | NFS | Gamma | U-238 | -0.8088 | -2.235 | 8.147 | UH |
| 0026-E | FS | NFS | Gamma | Am-241 | -0.1292 | -0.3189 | 0.5436 | UH |
| 0026-E | FS | NFS | Gamma | Th-232 | 0.5115 | 0.2534 | 0.4146 | HJ |
| 0026-E | FS | NFS | Gamma | U-235 | 0.0466 | 0.0496 | 0.0798 | UH |
| 0026-E | FS | NFS | Gamma | U-238 | -4.661 | -5.407 | 9.344 | UH |
| 0026-F | FS | NFS | Gamma | Am-241 | 0.0252 | 0.2587 | 0.4382 | UH |
| 0026-F | FS | NFS | Gamma | Th-232 | 0.9602 | 0.225 | 0.3613 | HJ |
| 0026-F | FS | NFS | Gamma | U-235 | 0.0577 | 0.054 | 0.0903 | UH |
| 0026-F | FS | NFS | Gamma | U-238 | -10.84 | -6.164 | 10.71 | UH |
| 0026-G | FS | NFS | Gamma | Am-241 | -0.0176 | -0.3007 | 0.51 | UH |
| 0026-G | FS | NFS | Gamma | Th-232 | 0.2953 | 0.3521 | 0.5899 | UH |
| 0026-G | FS | NFS | Gamma | U-235 | 0.0503 | 0.0656 | 0.1102 | UH |
| 0026-G | FS | NFS | Gamma | U-238 | 2.105 | 7.399 | 12.82 | UH |
| 0027-A | FS | NFS | Gamma | Am-241 | -0.3979 | -0.3544 | 0.6071 | U |
| 0027-A | FS | NFS | Gamma | Th-232 | 1.099 | 0.2294 | 0.3622 | |
| 0027-A | FS | NFS | Gamma | U-235 | 0.1954 | 0.0524 | 0.085 | |
| 0027-A | FS | NFS | Gamma | U-238 | 4.51 | 4.993 | 8.118 | U |
| 0027-B | FS | NFS | Gamma | Am-241 | 0.0587 | 0.2365 | 0.4004 | U |
| 0027-B | FS | NFS | Gamma | Th-232 | 0.5507 | 0.2111 | 0.3461 | |
| 0027-B | FS | NFS | Gamma | U-235 | 0.1296 | 0.0478 | 0.079 | |
| 0027-B | FS | NFS | Gamma | U-238 | 6.187 | 3.851 | 6.502 | U |
| 0027-C | FS | NFS | Gamma | Am-241 | -0.6548 | -0.323 | 0.5574 | U |
| 0027-C | FS | NFS | Gamma | Th-232 | 0.7982 | 0.2245 | 0.3584 | |
| 0027-C | FS | NFS | Gamma | U-235 | 0.0816 | 0.0479 | 0.0782 | |
| 0027-C | FS | NFS | Gamma | U-238 | 0.8995 | 5.343 | 9.054 | U |

## Survey Unit 02 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0027-D | FS | NFS | Gamma | Am-241 | 0.0797 | 0.2411 | 0.4078 | U |
| 0027-D | FS | NFS | Gamma | Th-232 | 1.012 | 0.4119 | 0.6848 | |
| 0027-D | FS | NFS | Gamma | U-235 | 0.1225 | 0.0549 | 0.0914 | |
| 0027-D | FS | NFS | Gamma | U-238 | 1.468 | 6.471 | 10.98 | U |
| 0027-E | FS | NFS | Gamma | Am-241 | -0.2641 | -0.483 | 0.8208 | U |
| 0027-E | FS | NFS | Gamma | Th-232 | 1.425 | 0.2676 | 0.4251 | |
| 0027-E | FS | NFS | Gamma | U-235 | 0.0611 | 0.0485 | 0.0814 | U |
| 0027-E | FS | NFS | Gamma | U-238 | 1.747 | 4.89 | 8.304 | U |
| 0027-F | FS | NFS | Gamma | Am-241 | 0.2093 | 0.2541 | 0.4278 | U |
| 0027-F | FS | NFS | Gamma | Th-232 | 1.223 | 0.4336 | 0.7189 | |
| 0027-F | FS | NFS | Gamma | U-235 | 0.0295 | 0.0584 | 0.0987 | U |
| 0027-F | FS | NFS | Gamma | U-238 | 8.335 | 7.625 | 11.52 | U |
| 0027-F-DUP | FD | NFS | Gamma | Am-241 | 0.453 | 0.5268 | 0.8863 | U |
| 0027-F-DUP | FD | NFS | Gamma | Th-232 | 1.727 | 0.2543 | 0.3962 | |
| 0027-F-DUP | FD | NFS | Gamma | U-235 | 0.0451 | 0.0577 | 0.0965 | U |
| 0027-F-DUP | FD | NFS | Gamma | U-238 | 2.297 | 4.833 | 8.193 | U |
| 0028-A | FS | PARAGON | LSC | Tc-99 | -0.61 | 0.86 | 1.47 | U |
| 0028-A | FS | PARAGON | LSC | Pu-241 | 0.7 | 3.7 | 6.2 | U |
| 0028-A | FS | PARAGON | Gamma | Am-241 | -0.4 | 0.65 | 1.19 | U |
| 0028-A | FS | PARAGON | Gamma | Th-232 | 0.5 | 0.23 | 0.47 | |
| 0028-A | FS | PARAGON | Gamma | U-235 | 0.19 | 0.26 | 0.43 | U |
| 0028-A | FS | PARAGON | Alpha | Am-241 | 0.015 | 0.012 | 0.007 | |
| 0028-A | FS | PARAGON | Alpha | Pu-238 | -0.002 | 0.012 | 0.018 | U |
| 0028-A | FS | PARAGON | Alpha | Pu-239/240 | 0.017 | 0.018 | 0.026 | U |
| 0028-A | FS | PARAGON | Alpha | Pu-242 | 0.002 | 0.012 | 0.023 | U |
| 0028-A | FS | PARAGON | Alpha | Th-230 | 0.77 | 0.15 | 0.04 | |
| 0028-A | FS | PARAGON | Alpha | Th-232 | 0.87 | 0.17 | 0.02 | |
| 0028-A | FS | PARAGON | Alpha | U-233/234 | 1.34 | 0.26 | 0.05 | |
| 0028-A | FS | PARAGON | Alpha | U-235 | 0.068 | 0.042 | 0.038 | |
| 0028-A | FS | PARAGON | Alpha | U-238 | 0.78 | 0.17 | 0.04 | |
| 0028-A | FS | NFS | Gamma | Am-241 | -0.1167 | -0.2643 | 0.4497 | U |
| 0028-A | FS | NFS | Gamma | Th-232 | 0.8458 | 0.4347 | 0.7257 | |
| 0028-A | FS | NFS | Gamma | U-235 | 0.15 | 0.0546 | 0.0903 | |
| 0028-A | FS | NFS | Gamma | U-238 | 3.011 | 6.641 | 11.24 | U |
| 0028-B | FS | NFS | Gamma | Am-241 | -0.4548 | -0.482 | 0.8209 | U |
| 0028-B | FS | NFS | Gamma | Th-232 | 1.309 | 0.2482 | 0.392 | |
| 0028-B | FS | NFS | Gamma | U-235 | 0.0443 | 0.0507 | 0.082 | U |
| 0028-B | FS | NFS | Gamma | U-238 | -4.295 | -4.958 | 8.598 | U |
| 0028-C | FS | NFS | Gamma | Am-241 | -0.253 | -0.2553 | 0.4364 | U |
| 0028-C | FS | NFS | Gamma | Th-232 | 1.067 | 0.4198 | 0.697 | |
| 0028-C | FS | NFS | Gamma | U-235 | 0.0935 | 0.0558 | 0.0933 | |
| 0028-C | FS | NFS | Gamma | U-238 | 9.251 | 6.959 | 10.28 | U |
| 0028-D | FS | NFS | Gamma | Am-241 | -0.4462 | -0.6084 | 1.035 | U |
| 0028-D | FS | NFS | Gamma | Th-232 | 2.079 | 0.3288 | 0.5143 | |
| 0028-D | FS | NFS | Gamma | U-235 | 0.1183 | 0.0601 | 0.0995 | |
| 0028-D | FS | NFS | Gamma | U-238 | 2.423 | 5.917 | 10.07 | U |
| 0028-E | FS | NFS | Gamma | Am-241 | -0.2378 | -0.3066 | 0.5228 | U |
| 0028-E | FS | NFS | Gamma | Th-232 | 1.585 | 0.4648 | 0.766 | |
| 0028-E | FS | NFS | Gamma | U-235 | 0.1091 | 0.0636 | 0.1064 | |
| 0028-E | FS | NFS | Gamma | U-238 | -0.0317 | -8.205 | 13.96 | U |
| 0028-F | FS | NFS | Gamma | Am-241 | 0.2437 | 0.5392 | 0.9101 | U |
| 0028-F | FS | NFS | Gamma | Th-232 | 2.001 | 0.2766 | 0.4336 | |
| 0028-F | FS | NFS | Gamma | U-235 | 0.1001 | 0.0551 | 0.092 | |

## Survey Unit 02 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0028-F | FS | NFS | Gamma | U-238 | 1.886 | 6.262 | 9.129 | U |
| 0028-G | FS | NFS | Gamma | Am-241 | 0.8383 | 0.4276 | 0.7099 | HJ |
| 0028-G | FS | NFS | Gamma | Th-232 | 1.709 | 0.3065 | 0.483 | HJ |
| 0028-G | FS | NFS | Gamma | U-235 | 0.1708 | 0.0614 | 0.1016 | HJ |
| 0028-G | FS | NFS | Gamma | U-238 | 0.2693 | 8.213 | 13.79 | UH |
| 0028-H | FS | NFS | Gamma | Am-241 | 0.6663 | 0.4314 | 0.7204 | UH |
| 0028-H | FS | NFS | Gamma | Th-232 | 1.539 | 0.3229 | 0.5144 | HJ |
| 0028-H | FS | NFS | Gamma | U-235 | 0.2435 | 0.0628 | 0.103 | HJ |
| 0028-H | FS | NFS | Gamma | U-238 | 8.902 | 6.45 | 10.84 | UH |
| 0029-A | FS | NFS | Gamma | Am-241 | 0.0839 | 0.281 | 0.4754 | UH |
| 0029-A | FS | NFS | Gamma | Th-232 | 1.196 | 0.2714 | 0.4373 | HJ |
| 0029-A | FS | NFS | Gamma | U-235 | 0.0976 | 0.0581 | 0.0972 | HJ |
| 0029-A | FS | NFS | Gamma | U-238 | -3.889 | -6.088 | 10.47 | UH |
| 0029-B | FS | PARAGON | LSC | Tc-99 | -0.12 | 0.95 | 1.61 | U |
| 0029-B | FS | PARAGON | LSC | Pu-241 | -1 | 3.6 | 6.1 | U |
| 0029-B | FS | PARAGON | Gamma | Am-241 | -0.01 | 0.078 | 0.14 | U |
| 0029-B | FS | PARAGON | Gamma | Th-232 | 0.74 | 0.33 | 0.62 | |
| 0029-B | FS | PARAGON | Gamma | U-235 | 0.01 | 0.3 | 0.53 | U |
| 0029-B | FS | PARAGON | Alpha | Am-241 | 0.022 | 0.017 | 0.018 | |
| 0029-B | FS | PARAGON | Alpha | Pu-238 | -0.002 | 0.011 | 0.02 | U |
| 0029-B | FS | PARAGON | Alpha | Pu-239/240 | 0.011 | 0.011 | 0.006 | J |
| 0029-B | FS | PARAGON | Alpha | Pu-242 | 0.009 | 0.012 | 0.008 | J |
| 0029-B | FS | PARAGON | Alpha | Th-230 | 0.9 | 0.17 | 0.05 | |
| 0029-B | FS | PARAGON | Alpha | Th-232 | 0.87 | 0.16 | 0.03 | |
| 0029-B | FS | PARAGON | Alpha | U-233/234 | 0.85 | 0.17 | 0.04 | |
| 0029-B | FS | PARAGON | Alpha | U-235 | 0.032 | 0.028 | 0.042 | U |
| 0029-B | FS | PARAGON | Alpha | U-238 | 0.8 | 0.16 | 0.02 | |
| 0029-B | FS | NFS | Gamma | Am-241 | -0.0561 | -0.3471 | 0.5902 | UH |
| 0029-B | FS | NFS | Gamma | Th-232 | 0.7327 | 0.2512 | 0.4124 | HJ |
| 0029-B | FS | NFS | Gamma | U-235 | 0.0617 | 0.0498 | 0.0835 | UH |
| 0029-B | FS | NFS | Gamma | U-238 | 5.709 | 5.857 | 9.842 | UH |
| 0029-B-DUP | FD | PARAGON | LSC | Tc-99 | -0.3 | 0.99 | 1.68 | U |
| 0029-C | FS | NFS | Gamma | Am-241 | -0.2328 | -0.2289 | 0.3916 | UH |
| 0029-C | FS | NFS | Gamma | Th-232 | 0.6233 | 0.1832 | 0.2933 | HJ |
| 0029-C | FS | NFS | Gamma | U-235 | 0.0185 | 0.0494 | 0.0836 | UH |
| 0029-C | FS | NFS | Gamma | U-238 | -1.534 | -5.115 | 8.767 | UH |
| 0029-D | FS | NFS | Gamma | Am-241 | -0.7818 | -0.3648 | 0.6282 | UH |
| 0029-D | FS | NFS | Gamma | Th-232 | 1.487 | 0.2146 | 0.3272 | HJ |
| 0029-D | FS | NFS | Gamma | U-235 | -0.0159 | -0.0513 | 0.0869 | UH |
| 0029-D | FS | NFS | Gamma | U-238 | 2.169 | 6.278 | 10.65 | UH |
| 0029-D-DUP | FD | NFS | Gamma | Am-241 | -0.0555 | -0.2608 | 0.443 | UH |
| 0029-D-DUP | FD | NFS | Gamma | Th-232 | 0.3406 | 0.2551 | 0.4269 | UHJ |
| 0029-D-DUP | FD | NFS | Gamma | U-235 | 0.0434 | 0.0525 | 0.0883 | UH |
| 0029-D-DUP | FD | NFS | Gamma | U-238 | 3.604 | 4.861 | 8.198 | UH |
| 0029-E | FS | NFS | Gamma | Am-241 | 0.0739 | 0.3783 | 0.6409 | UH |
| 0029-E | FS | NFS | Gamma | Th-232 | 1.127 | 0.2746 | 0.4425 | HJ |
| 0029-E | FS | NFS | Gamma | U-235 | 0.1182 | 0.0532 | 0.088 | HJ |
| 0029-E | FS | NFS | Gamma | U-238 | 1.827 | 6.602 | 11.21 | UH |
| 0029-F | FS | NFS | Gamma | Am-241 | -0.019 | -0.259 | 0.4396 | UH |
| 0029-F | FS | NFS | Gamma | Th-232 | 1.132 | 0.2522 | 0.4035 | HJ |
| 0029-F | FS | NFS | Gamma | U-235 | 0.0376 | 0.0562 | 0.0948 | UH |
| 0029-F | FS | NFS | Gamma | U-238 | 5.096 | 4.882 | 8.191 | UH |
| 0029-G | FS | NFS | Gamma | Am-241 | 0.1358 | 0.2533 | 0.4276 | UH |

## Survey Unit 02 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0029-G | FS | NFS | Gamma | Th-232 | 0.6165 | 0.2269 | 0.3707 | HJ |
| 0029-G | FS | NFS | Gamma | U-235 | 0.0741 | 0.0546 | 0.0913 | UH |
| 0029-G | FS | NFS | Gamma | U-238 | 9.225 | 5.98 | 9.748 | UH |
| 0029-H | FS | NFS | Gamma | Am-241 | -0.122 | -0.261 | 0.4442 | UH |
| 0029-H | FS | NFS | Gamma | Th-232 | 0.5317 | 0.2311 | 0.3815 | HJ |
| 0029-H | FS | NFS | Gamma | U-235 | 0.0637 | 0.0519 | 0.0872 | UH |
| 0029-H | FS | NFS | Gamma | U-238 | -2.378 | -6.106 | 10.45 | UH |
| 0029-I | FS | NFS | Gamma | Am-241 | 0.1889 | 0.338 | 0.5706 | UH |
| 0029-I | FS | NFS | Gamma | Th-232 | 0.6943 | 0.2759 | 0.4526 | HJ |
| 0029-I | FS | NFS | Gamma | U-235 | 0.0453 | 0.0611 | 0.0939 | UH |
| 0029-I | FS | NFS | Gamma | U-238 | 4.074 | 5.51 | 9.294 | UH |
| 0029-J | FS | NFS | Gamma | Am-241 | -0.3194 | -0.2488 | 0.4262 | UH |
| 0029-J | FS | NFS | Gamma | Th-232 | 0.5487 | 0.1911 | 0.3109 | HJ |
| 0029-J | FS | NFS | Gamma | U-235 | 0.019 | 0.0525 | 0.0875 | UH |
| 0029-J | FS | NFS | Gamma | U-238 | 2.164 | 4.929 | 9.229 | UH |
| 0029-J-DUP | LR | NFS | Gamma | Am-241 | -0.2682 | -0.34 | 0.5809 | UH |
| 0029-J-DUP | LR | NFS | Gamma | Th-232 | 0.6443 | 0.2366 | 0.3897 | HJ |
| 0029-J-DUP | LR | NFS | Gamma | U-235 | 0.0887 | 0.048 | 0.0801 | HJ |
| 0029-J-DUP | LR | NFS | Gamma | U-238 | -2.388 | -3.319 | 8.755 | UH |
| 0030-A | FS | NFS | Gamma | Am-241 | 0.5805 | 0.396 | 0.6619 | U |
| 0030-A | FS | NFS | Gamma | Th-232 | 1.452 | 0.3282 | 0.5222 | |
| 0030-A | FS | NFS | Gamma | U-235 | 0.0652 | 0.0626 | 0.1046 | U |
| 0030-A | FS | NFS | Gamma | U-238 | -3.977 | -6.555 | 11.48 | U |
| 0030-A-DUP | FD | NFS | Gamma | Am-241 | 0.0675 | 0.2939 | 0.4973 | U |
| 0030-A-DUP | FD | NFS | Gamma | Th-232 | 1.63 | 0.2747 | 0.433 | |
| 0030-A-DUP | FD | NFS | Gamma | U-235 | -0.0255 | -0.0624 | 0.1059 | U |
| 0030-A-DUP | FD | NFS | Gamma | U-238 | -5.306 | -6.461 | 11.13 | U |
| 0030-B | FS | PARAGON | LSC | Tc-99 | -0.78 | 0.81 | 1.39 | U |
| 0030-B | FS | PARAGON | LSC | Pu-241 | -2 | 2.7 | 4.6 | U |
| 0030-B | FS | PARAGON | Gamma | Am-241 | 0.12 | 0.99 | 1.72 | U |
| 0030-B | FS | PARAGON | Gamma | Th-232 | 0.9 | 0.29 | 0.47 | |
| 0030-B | FS | PARAGON | Gamma | U-235 | 0.03 | 0.34 | 0.59 | U |
| 0030-B | FS | PARAGON | Alpha | Am-241 | 0.002 | 0.013 | 0.026 | U |
| 0030-B | FS | PARAGON | Alpha | Pu-238 | 0.005 | 0.015 | 0.029 | U |
| 0030-B | FS | PARAGON | Alpha | Pu-239/240 | -0.002 | 0.013 | 0.029 | U |
| 0030-B | FS | PARAGON | Alpha | Pu-242 | 0.02 | 0.013 | 0.005 | |
| 0030-B | FS | PARAGON | Alpha | Th-230 | 0.89 | 0.18 | 0.05 | |
| 0030-B | FS | PARAGON | Alpha | Th-232 | 0.91 | 0.18 | 0.02 | |
| 0030-B | FS | PARAGON | Alpha | U-233/234 | 1 | 0.21 | 0.05 | |
| 0030-B | FS | PARAGON | Alpha | U-235 | 0.015 | 0.03 | 0.056 | U |
| 0030-B | FS | PARAGON | Alpha | U-238 | 0.76 | 0.17 | 0.04 | |
| 0030-B | FS | NFS | Gamma | Am-241 | 0.3547 | 0.3708 | 0.6233 | U |
| 0030-B | FS | NFS | Gamma | Th-232 | 0.9746 | 0.2656 | 0.4313 | |
| 0030-B | FS | NFS | Gamma | U-235 | 0.0848 | 0.0621 | 0.104 | U |
| 0030-B | FS | NFS | Gamma | U-238 | -1.166 | -5.53 | 9.481 | U |
| 0030-C | FS | NFS | Gamma | Am-241 | -0.1119 | -0.2561 | 0.4358 | U |
| 0030-C | FS | NFS | Gamma | Th-232 | 0.6948 | 0.2085 | 0.3381 | |
| 0030-C | FS | NFS | Gamma | U-235 | 0.0635 | 0.0448 | 0.075 | U |
| 0030-C | FS | NFS | Gamma | U-238 | -2.361 | -4.871 | 8.375 | U |
| 0030-D | FS | NFS | Gamma | Am-241 | 0.3804 | 0.3302 | 0.5535 | U |
| 0030-D | FS | NFS | Gamma | Th-232 | 0.663 | 0.2295 | 0.3763 | |
| 0030-D | FS | NFS | Gamma | U-235 | 0.1063 | 0.0517 | 0.086 | |
| 0030-D | FS | NFS | Gamma | U-238 | -1.904 | -7.647 | 7.923 | U |

## Survey Unit 02 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0030-E | FS | NFS | Gamma | Am-241 | -0.38 | -1.381 | 0.432 | U |
| 0030-E | FS | NFS | Gamma | Th-232 | 0.6703 | 0.2352 | 0.3863 | |
| 0030-E | FS | NFS | Gamma | U-235 | 0.0015 | 0.0493 | 0.0836 | U |
| 0030-E | FS | NFS | Gamma | U-238 | 0.342 | 2.353 | 8.61 | U |
| 0030-F | FS | NFS | Gamma | Am-241 | -0.1114 | -0.3787 | 0.6443 | U |
| 0030-F | FS | NFS | Gamma | Th-232 | 0.9365 | 0.2943 | 0.4837 | |
| 0030-F | FS | NFS | Gamma | U-235 | 0.1141 | 0.0621 | 0.102 | |
| 0030-F | FS | NFS | Gamma | U-238 | -2.616 | -6.809 | 10.06 | U |
| 0030-G | FS | NFS | Gamma | Am-241 | -0.5598 | -0.3169 | 0.5463 | U |
| 0030-G | FS | NFS | Gamma | Th-232 | 0.5689 | 0.2311 | 0.381 | |
| 0030-G | FS | NFS | Gamma | U-235 | 0.0299 | 0.0526 | 0.0889 | U |
| 0030-G | FS | NFS | Gamma | U-238 | 8.91 | 5.863 | 9.772 | U |
| 0030-H | FS | NFS | Gamma | Am-241 | -0.3459 | -0.3499 | 0.599 | U |
| 0030-H | FS | NFS | Gamma | Th-232 | 1.04 | 0.24 | 0.3873 | |
| 0030-H | FS | NFS | Gamma | U-235 | 0.0579 | 0.0518 | 0.0861 | U |
| 0030-H | FS | NFS | Gamma | U-238 | 11.83 | 5.402 | 9.073 | |
| 0030-I | FS | NFS | Gamma | Am-241 | 0.0422 | 0.398 | 0.6744 | U |
| 0030-I | FS | NFS | Gamma | Th-232 | 1.698 | 0.2587 | 0.405 | |
| 0030-I | FS | NFS | Gamma | U-235 | 0.0949 | 0.0545 | 0.091 | |
| 0030-I | FS | NFS | Gamma | U-238 | -11.74 | -78.68 | 9.227 | U |
| 0030-J | FS | NFS | Gamma | Am-241 | 0.5598 | 0.3383 | 0.5335 | |
| 0030-J | FS | NFS | Gamma | Th-232 | 1.262 | 0.2151 | 0.3361 | |
| 0030-J | FS | NFS | Gamma | U-235 | 0.1162 | 0.0502 | 0.0836 | |
| 0030-J | FS | NFS | Gamma | U-238 | -0.4095 | -5.186 | 8.858 | U |
| 0031-A | FS | PARAGON | LSC | Tc-99 | 0.07 | 0.93 | 1.57 | U |
| 0031-A | FS | PARAGON | LSC | Pu-241 | -1.2 | 2.8 | 4.8 | U |
| 0031-A | FS | PARAGON | Gamma | Am-241 | 0 | 1.1 | 1.9 | U |
| 0031-A | FS | PARAGON | Gamma | Th-232 | 1.1 | 0.41 | 0.78 | J |
| 0031-A | FS | PARAGON | Gamma | U-235 | 0.24 | 0.38 | 0.64 | U |
| 0031-A | FS | PARAGON | Alpha | Am-241 | 0.016 | 0.012 | 0.006 | U |
| 0031-A | FS | PARAGON | Alpha | Pu-238 | 0.002 | 0.011 | 0.006 | U |
| 0031-A | FS | PARAGON | Alpha | Pu-239/240 | 0 | 0.011 | 0.02 | U |
| 0031-A | FS | PARAGON | Alpha | Pu-242 | 0.01 | 0.011 | 0.017 | U |
| 0031-A | FS | PARAGON | Alpha | Th-230 | 1.02 | 0.19 | 0.04 | |
| 0031-A | FS | PARAGON | Alpha | Th-232 | 0.96 | 0.18 | 0.01 | |
| 0031-A | FS | PARAGON | Alpha | U-233/234 | 0.92 | 0.2 | 0.03 | |
| 0031-A | FS | PARAGON | Alpha | U-235 | 0.075 | 0.045 | 0.017 | J |
| 0031-A | FS | PARAGON | Alpha | U-238 | 0.94 | 0.21 | 0.01 | |
| 0031-A | FS | NFS | Gamma | Am-241 | 0.3358 | 0.2921 | 0.4903 | U |
| 0031-A | FS | NFS | Gamma | Th-232 | 0.9671 | 0.2985 | 0.4902 | |
| 0031-A | FS | NFS | Gamma | U-235 | 0.1408 | 0.0598 | 0.0994 | |
| 0031-A | FS | NFS | Gamma | U-238 | 2.77 | 7.475 | 9.871 | U |
| 0031-B | FS | NFS | Gamma | Am-241 | 0.5057 | 0.3816 | 0.6388 | U |
| 0031-B | FS | NFS | Gamma | Th-232 | 0.6645 | 0.3032 | 0.505 | |
| 0031-B | FS | NFS | Gamma | U-235 | 0.1757 | 0.0616 | 0.1013 | |
| 0031-B | FS | NFS | Gamma | U-238 | 0.461 | 6.234 | 10.15 | U |
| 0031-C | FS | NFS | Gamma | Am-241 | 0.2041 | 0.2391 | 0.4025 | U |
| 0031-C | FS | NFS | Gamma | Th-232 | 0.2544 | 0.2161 | 0.3621 | U |
| 0031-C | FS | NFS | Gamma | U-235 | -0.0102 | -0.0499 | 0.0846 | U |
| 0031-C | FS | NFS | Gamma | U-238 | 2.023 | 7.474 | 9.131 | U |
| 0031-D | FS | NFS | Gamma | Am-241 | -0.0753 | -0.8168 | 1.388 | U |
| 0031-D | FS | NFS | Gamma | Th-232 | 0.8696 | 0.3713 | 0.6036 | |
| 0031-D | FS | NFS | Gamma | U-235 | 0.049 | 0.1143 | 0.1932 | U |

## Survey Unit 02 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0031-D | FS | NFS | Gamma | U-238 | 9.741 | 7.95 | 13.29 | U |
| 0031-E | FS | NFS | Gamma | Am-241 | -0.0787 | -0.237 | 0.4032 | U |
| 0031-E | FS | NFS | Gamma | Th-232 | 0.2429 | 0.2161 | 0.3625 | U |
| 0031-E | FS | NFS | Gamma | U-235 | -0.006 | -0.0498 | 0.0844 | U |
| 0031-E | FS | NFS | Gamma | U-238 | 4.444 | 5.132 | 8.639 | U |
| 0031-F | FS | NFS | Gamma | Am-241 | -0.3744 | -0.3572 | 0.6116 | U |
| 0031-F | FS | NFS | Gamma | Th-232 | 1.214 | 0.2473 | 0.3893 | |
| 0031-F | FS | NFS | Gamma | U-235 | 0.0978 | 0.0578 | 0.0958 | |
| 0031-F | FS | NFS | Gamma | U-238 | 6.71 | 5.782 | 9.687 | U |
| 0031-F-DUP | FD | NFS | Gamma | Am-241 | 0.3795 | 0.2792 | 0.4678 | U |
| 0031-F-DUP | FD | NFS | Gamma | Th-232 | 1.059 | 0.2651 | 0.4288 | |
| 0031-F-DUP | FD | NFS | Gamma | U-235 | 0.0134 | 0.0589 | 0.1 | U |
| 0031-F-DUP | FD | NFS | Gamma | U-238 | 2.883 | 6.382 | 10.8 | U |
| 0031-G | FS | NFS | Gamma | Am-241 | 0.0019 | 0.3195 | 0.4485 | U |
| 0031-G | FS | NFS | Gamma | Th-232 | 1.227 | 0.2505 | 0.4 | |
| 0031-G | FS | NFS | Gamma | U-235 | 0.0038 | 0.054 | 0.0916 | U |
| 0031-G | FS | NFS | Gamma | U-238 | -1.747 | -5.911 | 10.12 | U |
| 0031-H | FS | NFS | Gamma | Am-241 | -0.5939 | -0.2667 | 0.459 | U |
| 0031-H | FS | NFS | Gamma | Th-232 | 1.311 | 0.1982 | 0.3039 | |
| 0031-H | FS | NFS | Gamma | U-235 | 0.0392 | 0.0531 | 0.0894 | U |
| 0031-H | FS | NFS | Gamma | U-238 | -14.59 | -5.854 | 10.28 | U |
| 0031-I | FS | NFS | Gamma | Am-241 | -0.0529 | -0.3476 | 0.427 | U |
| 0031-I | FS | NFS | Gamma | Th-232 | 0.8933 | 0.2243 | 0.3618 | |
| 0031-I | FS | NFS | Gamma | U-235 | 0.0013 | 0.0533 | 0.0903 | U |
| 0031-I | FS | NFS | Gamma | U-238 | -0.3903 | -4.642 | 7.938 | U |
| 0031-J | FS | NFS | Gamma | Am-241 | -0.0904 | -0.2941 | 0.4995 | U |
| 0031-J | FS | NFS | Gamma | Th-232 | 1.21 | 0.2449 | 0.409 | |
| 0031-J | FS | NFS | Gamma | U-235 | -0.0104 | -0.0541 | 0.0918 | U |
| 0031-J | FS | NFS | Gamma | U-238 | 8.283 | 6.12 | 10.24 | U |
| 0032-A | FS | PARAGON | LSC | Tc-99 | -0.34 | 0.93 | 1.58 | U |
| 0032-A | FS | PARAGON | LSC | Pu-241 | -2 | 2.8 | 4.8 | U |
| 0032-A | FS | PARAGON | Gamma | Am-241 | -0.039 | 0.081 | 0.148 | U |
| 0032-A | FS | PARAGON | Gamma | Th-232 | 0.84 | 0.33 | 0.67 | |
| 0032-A | FS | PARAGON | Gamma | U-235 | 0.09 | 0.31 | 0.54 | U |
| 0032-A | FS | PARAGON | Alpha | Am-241 | 0.002 | 0.011 | 0.022 | U |
| 0032-A | FS | PARAGON | Alpha | Pu-238 | 0 | 0.011 | 0.02 | U |
| 0032-A | FS | PARAGON | Alpha | Pu-239/240 | 0.022 | 0.016 | 0.016 | |
| 0032-A | FS | PARAGON | Alpha | Pu-242 | -0.0006 | 0.0097 | 0.0237 | U |
| 0032-A | FS | PARAGON | Alpha | Th-230 | 0.96 | 0.19 | 0.06 | |
| 0032-A | FS | PARAGON | Alpha | Th-232 | 1.19 | 0.23 | 0.04 | |
| 0032-A | FS | PARAGON | Alpha | U-233/234 | 1.3 | 0.29 | 0.1 | |
| 0032-A | FS | PARAGON | Alpha | U-235 | 0.059 | 0.053 | 0.065 | U |
| 0032-A | FS | PARAGON | Alpha | U-238 | 1.23 | 0.28 | 0.08 | |
| 0032-A | FS | NFS | Gamma | Am-241 | 0.0038 | 0.3763 | 0.6386 | U |
| 0032-A | FS | NFS | Gamma | Th-232 | 1.066 | 0.2741 | 0.445 | |
| 0032-A | FS | NFS | Gamma | U-235 | 0.1256 | 0.0618 | 0.103 | |
| 0032-A | FS | NFS | Gamma | U-238 | 2.018 | 5.981 | 10.15 | U |
| 0032-B | FS | NFS | Gamma | Am-241 | 0.1237 | 0.295 | 0.4985 | U |
| 0032-B | FS | NFS | Gamma | Th-232 | 1.212 | 0.2899 | 0.468 | |
| 0032-B | FS | NFS | Gamma | U-235 | 0.1169 | 0.0615 | 0.1027 | |
| 0032-B | FS | NFS | Gamma | U-238 | 2.87 | 4.951 | 11.05 | U |
| 0032-C | FS | NFS | Gamma | Am-241 | 0.006 | 0.3801 | 0.6448 | U |
| 0032-C | FS | NFS | Gamma | Th-232 | 1.617 | 0.2701 | 0.4237 | |

## Survey Unit 02 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0032-C | FS | NFS | Gamma | U-235 | 0.0338 | 0.07 | 0.1097 | U |
| 0032-C | FS | NFS | Gamma | U-238 | 4.446 | 6.299 | 10.56 | U |
| 0032-D | FS | NFS | Gamma | Am-241 | 0.4502 | 0.3001 | 0.5023 | U |
| 0032-D | FS | NFS | Gamma | Th-232 | 1.369 | 0.2669 | 0.4236 | |
| 0032-D | FS | NFS | Gamma | U-235 | 0.1064 | 0.0617 | 0.1031 | |
| 0032-D | FS | NFS | Gamma | U-238 | 4.984 | 6.866 | 10.97 | U |
| 0032-E | FS | NFS | Gamma | Am-241 | 0.2345 | 0.3857 | 0.6508 | U |
| 0032-E | FS | NFS | Gamma | Th-232 | 1.96 | 0.2598 | 0.3912 | |
| 0032-E | FS | NFS | Gamma | U-235 | 0.1853 | 0.0656 | 0.1057 | |
| 0032-E | FS | NFS | Gamma | U-238 | 5.861 | 6.624 | 11.15 | U |
| 0032-F | FS | NFS | Gamma | Am-241 | -0.1752 | -0.2963 | 0.5047 | U |
| 0032-F | FS | NFS | Gamma | Th-232 | 1.31 | 0.2877 | 0.4624 | |
| 0032-F | FS | NFS | Gamma | U-235 | 0.065 | 0.0599 | 0.1007 | U |
| 0032-F | FS | NFS | Gamma | U-238 | -8.35 | -7.493 | 12.92 | U |
| 0032-G | FS | NFS | Gamma | Am-241 | -0.0208 | -0.4274 | 0.7258 | U |
| 0032-G | FS | NFS | Gamma | Th-232 | 1.029 | 0.3231 | 0.5268 | |
| 0032-G | FS | NFS | Gamma | U-235 | 0.2536 | 0.0589 | 0.0953 | |
| 0032-G | FS | NFS | Gamma | U-238 | 11.89 | 7.475 | 12.63 | U |
| 0032-H | FS | NFS | Gamma | Am-241 | 0.0474 | 0.402 | 0.6814 | U |
| 0032-H | FS | NFS | Gamma | Th-232 | 1.395 | 0.2771 | 0.4392 | |
| 0032-H | FS | NFS | Gamma | U-235 | 0.1672 | 0.0572 | 0.0941 | |
| 0032-H | FS | NFS | Gamma | U-238 | 0.5998 | 5.883 | 10.03 | U |
| 0032-I | FS | NFS | Gamma | Am-241 | -0.6132 | -0.4495 | 0.7704 | U |
| 0032-I | FS | NFS | Gamma | Th-232 | 2.226 | 0.3037 | 0.469 | |
| 0032-I | FS | NFS | Gamma | U-235 | 0.1099 | 0.0684 | 0.1123 | U |
| 0032-I | FS | NFS | Gamma | U-238 | -6.889 | -7.572 | 13.07 | U |
| 0032-J | FS | NFS | Gamma | Am-241 | 0.0554 | 0.4217 | 0.7147 | U |
| 0032-J | FS | NFS | Gamma | Th-232 | 1.355 | 0.2693 | 0.4237 | |
| 0032-J | FS | NFS | Gamma | U-235 | 0.2174 | 0.0614 | 0.1009 | |
| 0032-J | FS | NFS | Gamma | U-238 | 2.172 | 6.728 | 11.42 | U |
| 0032-J-DUP | FD | NFS | Gamma | Am-241 | 0.3489 | 0.3031 | 0.5089 | U |
| 0032-J-DUP | FD | NFS | Gamma | Th-232 | 1.193 | 0.299 | 0.4929 | |
| 0032-J-DUP | FD | NFS | Gamma | U-235 | 0.0203 | 0.0597 | 0.1003 | U |
| 0032-J-DUP | FD | NFS | Gamma | U-238 | 12.08 | 7.194 | 11.57 | |
| 0033-A | FS | NFS | Gamma | Am-241 | -0.5773 | -0.3817 | 0.6549 | U |
| 0033-A | FS | NFS | Gamma | Th-232 | 1.18 | 0.2272 | 0.3556 | |
| 0033-A | FS | NFS | Gamma | U-235 | 0.0731 | 0.0542 | 0.0908 | U |
| 0033-A | FS | NFS | Gamma | U-238 | 6.436 | 5.149 | 8.597 | U |
| 0033-B | FS | PARAGON | LSC | Tc-99 | -0.2 | 1 | 1.7 | U |
| 0033-B | FS | PARAGON | LSC | Pu-241 | 1.3 | 3.9 | 6.6 | U |
| 0033-B | FS | PARAGON | Gamma | Am-241 | -0.59 | 0.87 | 1.61 | U |
| 0033-B | FS | PARAGON | Gamma | Th-232 | 1.01 | 0.35 | 0.67 | J |
| 0033-B | FS | PARAGON | Gamma | U-235 | 0.32 | 0.41 | 0.68 | U |
| 0033-B | FS | PARAGON | Alpha | Am-241 | 0.017 | 0.014 | 0.016 | U |
| 0033-B | FS | PARAGON | Alpha | Pu-238 | 0.002 | 0.011 | 0.006 | U |
| 0033-B | FS | PARAGON | Alpha | Pu-239/240 | 0.05 | 0.024 | 0.017 | |
| 0033-B | FS | PARAGON | Alpha | Pu-242 | 0.004 | 0.012 | 0.019 | U |
| 0033-B | FS | PARAGON | Alpha | Th-230 | 1.09 | 0.2 | 0.04 | |
| 0033-B | FS | PARAGON | Alpha | Th-232 | 1.1 | 0.2 | 0.02 | |
| 0033-B | FS | PARAGON | Alpha | U-233/234 | 1.44 | 0.3 | 0.05 | |
| 0033-B | FS | PARAGON | Alpha | U-235 | 0.045 | 0.037 | 0.036 | |
| 0033-B | FS | PARAGON | Alpha | U-238 | 1.1 | 0.24 | 0.02 | |
| 0033-B | FS | NFS | Gamma | Am-241 | -0.6418 | -0.2947 | 0.507 | U |

## Survey Unit 02 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0033-B | FS | NFS | Gamma | Th-232 | 1.37 | 0.2761 | 0.4436 | |
| 0033-B | FS | NFS | Gamma | U-235 | 0.0378 | 0.0572 | 0.0964 | U |
| 0033-B | FS | NFS | Gamma | U-238 | 3.007 | 6.269 | 10.43 | U |
| 0033-B | LR | PARAGON | LSC | Tc-99 | -0.65 | 0.96 | 1.64 | U |
| 0033-B-DUP | FD | PARAGON | LSC | Pu-241 | -0.2 | 2.9 | 4.9 | U |
| 0033-B-DUP | FD | PARAGON | Gamma | Am-241 | 0.002 | 0.09 | 0.159 | U |
| 0033-B-DUP | FD | PARAGON | Gamma | Th-232 | 1.42 | 0.48 | 0.68 | J |
| 0033-B-DUP | FD | PARAGON | Gamma | U-235 | 0.28 | 0.37 | 0.61 | U |
| 0033-B-DUP | FD | PARAGON | Alpha | Am-241 | 0.016 | 0.012 | 0.005 | U |
| 0033-B-DUP | FD | PARAGON | Alpha | Pu-238 | -0.002 | 0.01 | 0.02 | U |
| 0033-B-DUP | FD | PARAGON | Alpha | Pu-239/240 | 0.053 | 0.023 | 0.006 | |
| 0033-B-DUP | FD | PARAGON | Alpha | Pu-242 | 0.0022 | 0.0088 | 0.0196 | U |
| 0033-B-DUP | FD | PARAGON | Alpha | Th-230 | 0.99 | 0.19 | 0.05 | |
| 0033-B-DUP | FD | PARAGON | Alpha | Th-232 | 1.08 | 0.2 | 0.02 | |
| 0033-B-DUP | FD | PARAGON | Alpha | U-233/234 | 1.44 | 0.28 | 0.09 | |
| 0033-B-DUP | FD | PARAGON | Alpha | U-235 | 0.058 | 0.045 | 0.059 | U |
| 0033-B-DUP | FD | PARAGON | Alpha | U-238 | 1.15 | 0.23 | 0.06 | |
| 0033-C | FS | NFS | Gamma | Am-241 | -0.2127 | -0.3324 | 0.5676 | U |
| 0033-C | FS | NFS | Gamma | Th-232 | 0.4312 | 0.2145 | 0.353 | |
| 0033-C | FS | NFS | Gamma | U-235 | 0.0725 | 0.0481 | 0.0777 | U |
| 0033-C | FS | NFS | Gamma | U-238 | 5.239 | 4.432 | 7.413 | U |
| 0033-C-DUP | FD | NFS | Gamma | Am-241 | -0.2655 | -0.2486 | 0.4255 | U |
| 0033-C-DUP | FD | NFS | Gamma | Th-232 | 0.8531 | 0.223 | 0.362 | |
| 0033-C-DUP | FD | NFS | Gamma | U-235 | 0.0033 | 0.0499 | 0.0846 | U |
| 0033-C-DUP | FD | NFS | Gamma | U-238 | 1.028 | 5.887 | 9.583 | U |
| 0033-D | FS | NFS | Gamma | Am-241 | -0.3478 | -0.3387 | 0.5802 | U |
| 0033-D | FS | NFS | Gamma | Th-232 | 0.5511 | 0.1933 | 0.3147 | |
| 0033-D | FS | NFS | Gamma | U-235 | 0.0492 | 0.0483 | 0.0812 | U |
| 0033-D | FS | NFS | Gamma | U-238 | -8.57 | -5.536 | 9.653 | U |
| 0033-E | FS | NFS | Gamma | Am-241 | -0.3446 | -0.2497 | 0.423 | U |
| 0033-E | FS | NFS | Gamma | Th-232 | 0.8485 | 0.2256 | 0.3646 | |
| 0033-E | FS | NFS | Gamma | U-235 | 0.0675 | 0.0496 | 0.0832 | U |
| 0033-E | FS | NFS | Gamma | U-238 | -3.205 | -6.424 | 11 | U |
| 0033-F | FS | NFS | Gamma | Am-241 | -0.6251 | -0.4305 | 0.7383 | U |
| 0033-F | FS | NFS | Gamma | Th-232 | 1.702 | 0.2568 | 0.3957 | |
| 0033-F | FS | NFS | Gamma | U-235 | 0.1118 | 0.0634 | 0.1059 | |
| 0033-F | FS | NFS | Gamma | U-238 | -3.687 | -7.064 | 12.13 | U |
| 0033-G | FS | NFS | Gamma | Am-241 | 0.2717 | 0.2982 | 0.5017 | U |
| 0033-G | FS | NFS | Gamma | Th-232 | 1.273 | 0.3325 | 0.5422 | |
| 0033-G | FS | NFS | Gamma | U-235 | 0.0163 | 0.0634 | 0.1075 | U |
| 0033-G | FS | NFS | Gamma | U-238 | 3.134 | 6.569 | 11.12 | U |
| 0033-G-DUP | FD | NFS | Gamma | Am-241 | -0.511 | -0.4075 | 0.6987 | U |
| 0033-G-DUP | FD | NFS | Gamma | Th-232 | 1.128 | 0.3265 | 0.5339 | |
| 0033-G-DUP | FD | NFS | Gamma | U-235 | 0.1582 | 0.0624 | 0.1035 | |
| 0033-G-DUP | FD | NFS | Gamma | U-238 | 11.63 | 7.978 | 12.29 | U |
| 0033-H | FS | NFS | Gamma | Am-241 | -0.4719 | -0.309 | 0.5294 | U |
| 0033-H | FS | NFS | Gamma | Th-232 | 1.355 | 0.2641 | 0.4188 | |
| 0033-H | FS | NFS | Gamma | U-235 | 0.0316 | 0.0639 | 0.1079 | U |
| 0033-H | FS | NFS | Gamma | U-238 | 1.833 | 6.079 | 10.32 | U |
| 1019-A | FS | NFS | Gamma | Am-241 | -0.2241 | -0.3246 | 0.5529 | U |
| 1019-A | FS | NFS | Gamma | Th-232 | 1.688 | 0.2791 | 0.438 | |
| 1019-A | FS | NFS | Gamma | U-235 | 0.146 | 0.0635 | 0.1057 | |
| 1019-A | FS | NFS | Gamma | U-238 | 8.337 | 5.668 | 9.444 | U |

## Survey Unit 02 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 1019-B | FS | NFS | Gamma | Am-241 | -0.3627 | -0.3986 | 0.6809 | U |
| 1019-B | FS | NFS | Gamma | Th-232 | 1.636 | 0.2456 | 0.3829 | |
| 1019-B | FS | NFS | Gamma | U-235 | 0.084 | 0.0588 | 0.0971 | U |
| 1019-B | FS | NFS | Gamma | U-238 | 4.17 | 23.15 | 11.03 | U |
| 1019-B-DUP | FD | NFS | Gamma | Am-241 | 0.1397 | 0.2783 | 0.4699 | U |
| 1019-B-DUP | FD | NFS | Gamma | Th-232 | 1.908 | 0.2697 | 0.4206 | |
| 1019-B-DUP | FD | NFS | Gamma | U-235 | 0.2187 | 0.0582 | 0.095 | |
| 1019-B-DUP | FD | NFS | Gamma | U-238 | -1.871 | -10.69 | 10.4 | U |
| 1019-C | FS | NFS | Gamma | Am-241 | 0.064 | 0.3178 | 0.5383 | U |
| 1019-C | FS | NFS | Gamma | Th-232 | 0.7012 | 0.2338 | 0.3813 | |
| 1019-C | FS | NFS | Gamma | U-235 | 0.1202 | 0.0494 | 0.0817 | |
| 1019-C | FS | NFS | Gamma | U-238 | 7.896 | 4.637 | 7.69 | |
| 1019-D | FS | PARAGON | LSC | Tc-99 | 0.11 | 0.94 | 1.57 | U |
| 1019-D | FS | PARAGON | LSC | Pu-241 | 2.3 | 4 | 6.7 | U |
| 1019-D | FS | PARAGON | Gamma | Am-241 | 0.34 | 0.4 | 0.65 | U |
| 1019-D | FS | PARAGON | Gamma | Th-232 | 1.09 | 0.24 | 0.41 | |
| 1019-D | FS | PARAGON | Gamma | U-235 | -0.09 | 0.24 | 0.42 | U |
| 1019-D | FS | PARAGON | Alpha | Am-241 | 0.009 | 0.011 | 0.006 | U |
| 1019-D | FS | PARAGON | Alpha | Pu-238 | 0.0016 | 0.0079 | 0.0044 | U |
| 1019-D | FS | PARAGON | Alpha | Pu-239/240 | 0.01 | 0.011 | 0.017 | U |
| 1019-D | FS | PARAGON | Alpha | Pu-242 | 0 | 0.014 | 0.028 | U |
| 1019-D | FS | PARAGON | Alpha | Th-230 | 0.81 | 0.17 | 0.08 | |
| 1019-D | FS | PARAGON | Alpha | Th-232 | 1.31 | 0.25 | 0.04 | |
| 1019-D | FS | PARAGON | Alpha | U-233/234 | 1.15 | 0.26 | 0.07 | |
| 1019-D | FS | PARAGON | Alpha | U-235 | 0.039 | 0.038 | 0.054 | U |
| 1019-D | FS | PARAGON | Alpha | U-238 | 0.92 | 0.22 | 0.07 | |
| 1019-D | FS | NFS | Gamma | Am-241 | -0.1324 | -0.2912 | 0.495 | U |
| 1019-D | FS | NFS | Gamma | Th-232 | 1.636 | 0.2639 | 0.4156 | |
| 1019-D | FS | NFS | Gamma | U-235 | 0.0531 | 0.0533 | 0.0896 | U |
| 1019-D | FS | NFS | Gamma | U-238 | -8.25 | -5.942 | 10.3 | U |
| 1019-D | LR | PARAGON | LSC | Tc-99 | 1 | 1 | 1.6 | U |
| 1019-D | LR | PARAGON | Gamma | Am-241 | -0.13 | 0.47 | 0.82 | U |
| 1019-D | LR | PARAGON | Gamma | Th-232 | 0.87 | 0.24 | 0.46 | |
| 1019-D | LR | PARAGON | Gamma | U-235 | 0.21 | 0.27 | 0.45 | U |
| 1019-E | FS | NFS | Gamma | Am-241 | 0.1906 | 0.3544 | 0.5981 | U |
| 1019-E | FS | NFS | Gamma | Th-232 | 1.42 | 0.3226 | 0.523 | |
| 1019-E | FS | NFS | Gamma | U-235 | 0.0792 | 0.0525 | 0.0873 | U |
| 1019-E | FS | NFS | Gamma | U-238 | -1.128 | -5.535 | 9.465 | U |
| 1019-F | FS | NFS | Gamma | Am-241 | 0.2481 | 0.2579 | 0.4336 | U |
| 1019-F | FS | NFS | Gamma | Th-232 | 1.29 | 0.2454 | 0.3912 | |
| 1019-F | FS | NFS | Gamma | U-235 | 0.0459 | 0.051 | 0.0858 | U |
| 1019-F | FS | NFS | Gamma | U-238 | 5.044 | 4.086 | 6.829 | U |
| 1020-A | FS | NFS | Gamma | Am-241 | -0.2779 | -0.3512 | 0.5981 | U |
| 1020-A | FS | NFS | Gamma | Th-232 | 2.016 | 0.3339 | 0.5302 | |
| 1020-A | FS | NFS | Gamma | U-235 | 0.1524 | 0.0663 | 0.1104 | |
| 1020-A | FS | NFS | Gamma | U-238 | 5.215 | 5.756 | 9.694 | U |
| 1020-B | FS | NFS | Gamma | Am-241 | -0.0522 | -0.3943 | 0.6697 | U |
| 1020-B | FS | NFS | Gamma | Th-232 | 1.288 | 0.2677 | 0.429 | |
| 1020-B | FS | NFS | Gamma | U-235 | 0.1287 | 0.0614 | 0.1024 | |
| 1020-B | FS | NFS | Gamma | U-238 | 14.18 | 6.86 | 11.05 | |
| 1020-C | FS | NFS | Gamma | Am-241 | -0.2913 | -0.3533 | 0.6036 | U |
| 1020-C | FS | NFS | Gamma | Th-232 | 0.707 | 0.2585 | 0.4237 | |
| 1020-C | FS | NFS | Gamma | U-235 | 0.1217 | 0.0529 | 0.0861 | |

## Survey Unit 02 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 1020-C | FS | NFS | Gamma | U-238 | 9.573 | 5.291 | 9.809 | U |
| 1020-D | FS | NFS | Gamma | Am-241 | 0.1178 | 0.3604 | 0.6097 | U |
| 1020-D | FS | NFS | Gamma | Th-232 | 1.331 | 0.2448 | 0.3873 | |
| 1020-D | FS | NFS | Gamma | U-235 | 0.1141 | 0.0578 | 0.0898 | |
| 1020-D | FS | NFS | Gamma | U-238 | 17.24 | 5.559 | 9.027 | |
| 1020-E | FS | NFS | Gamma | Am-241 | 0.0133 | 0.2942 | 0.4985 | U |
| 1020-E | FS | NFS | Gamma | Th-232 | 0.8196 | 0.3179 | 0.5253 | |
| 1020-E | FS | NFS | Gamma | U-235 | 0.1069 | 0.062 | 0.1037 | |
| 1020-E | FS | NFS | Gamma | U-238 | -12.53 | -6.293 | 11.01 | U |
| 1020-F | FS | NFS | Gamma | Am-241 | 0.4521 | 0.3711 | 0.6216 | U |
| 1020-F | FS | NFS | Gamma | Th-232 | 0.2912 | 0.2448 | 0.4105 | U |
| 1020-F | FS | NFS | Gamma | U-235 | 0.1329 | 0.0501 | 0.081 | |
| 1020-F | FS | NFS | Gamma | U-238 | 3.684 | 5.122 | 8.643 | U |
| 1020-F-DUP | FD | NFS | Gamma | Am-241 | -0.0108 | -0.261 | 0.4428 | U |
| 1020-F-DUP | FD | NFS | Gamma | Th-232 | 0.9888 | 0.2109 | 0.3342 | |
| 1020-F-DUP | FD | NFS | Gamma | U-235 | 0.1149 | 0.0515 | 0.0857 | |
| 1020-F-DUP | FD | NFS | Gamma | U-238 | -4.295 | -4.613 | 7.7 | U |
| 1021-A | FS | NFS | Gamma | Am-241 | 0.0326 | 0.3316 | 0.5615 | U |
| 1021-A | FS | NFS | Gamma | Th-232 | 1.474 | 0.3507 | 0.5686 | |
| 1021-A | FS | NFS | Gamma | U-235 | 0.3205 | 0.0662 | 0.108 | |
| 1021-A | FS | NFS | Gamma | U-238 | -10.43 | -6.939 | 12.24 | U |
| 1021-B | FS | NFS | Gamma | Am-241 | 0.3555 | 0.2973 | 0.5825 | U |
| 1021-B | FS | NFS | Gamma | Th-232 | 1.113 | 0.2241 | 0.3517 | |
| 1021-B | FS | NFS | Gamma | U-235 | -0.0234 | -0.0575 | 0.0979 | U |
| 1021-B | FS | NFS | Gamma | U-238 | -5.948 | -5.482 | 9.526 | U |
| 1021-C | FS | PARAGON | LSC | Tc-99 | 0.24 | 0.88 | 1.47 | U |
| 1021-C | FS | PARAGON | LSC | Pu-241 | 0.4 | 3.8 | 6.5 | U |
| 1021-C | FS | PARAGON | Gamma | Am-241 | 0.11 | 0.39 | 0.67 | U |
| 1021-C | FS | PARAGON | Gamma | Th-232 | 0.47 | 0.21 | 0.37 | J |
| 1021-C | FS | PARAGON | Gamma | U-235 | 0.11 | 0.23 | 0.38 | U |
| 1021-C | FS | PARAGON | Alpha | Am-241 | 0.127 | 0.037 | 0.014 | U |
| 1021-C | FS | PARAGON | Alpha | Pu-238 | 0.002 | 0.01 | 0.006 | U |
| 1021-C | FS | PARAGON | Alpha | Pu-239/240 | 0.123 | 0.041 | 0.034 | |
| 1021-C | FS | PARAGON | Alpha | Pu-242 | 0.029 | 0.016 | 0.015 | U |
| 1021-C | FS | PARAGON | Alpha | Th-230 | 0.54 | 0.12 | 0.07 | |
| 1021-C | FS | PARAGON | Alpha | Th-232 | 0.5 | 0.11 | 0.02 | |
| 1021-C | FS | PARAGON | Alpha | U-233/234 | 0.89 | 0.2 | 0.05 | |
| 1021-C | FS | PARAGON | Alpha | U-235 | 0.046 | 0.04 | 0.057 | U |
| 1021-C | FS | PARAGON | Alpha | U-238 | 0.52 | 0.14 | 0.05 | |
| 1021-C | FS | NFS | Gamma | Am-241 | 0.2109 | 0.2421 | 0.4074 | U |
| 1021-C | FS | NFS | Gamma | Th-232 | 0.4426 | 0.2108 | 0.3484 | |
| 1021-C | FS | NFS | Gamma | U-235 | 0.1114 | 0.0486 | 0.0808 | |
| 1021-C | FS | NFS | Gamma | U-238 | -5.452 | -4.61 | 8.025 | U |
| 1021-D | FS | NFS | Gamma | Am-241 | 0.4266 | 0.3401 | 0.5697 | U |
| 1021-D | FS | NFS | Gamma | Th-232 | 1.108 | 0.2016 | 0.3126 | |
| 1021-D | FS | NFS | Gamma | U-235 | 0.0869 | 0.055 | 0.089 | U |
| 1021-D | FS | NFS | Gamma | U-238 | -3.133 | -5.001 | 8.946 | U |
| 1021-E | FS | NFS | Gamma | Am-241 | -0.4264 | -0.2634 | 0.4516 | U |
| 1021-E | FS | NFS | Gamma | Th-232 | 1.275 | 0.2308 | 0.3651 | |
| 1021-E | FS | NFS | Gamma | U-235 | 0.0545 | 0.0507 | 0.0849 | U |
| 1021-E | FS | NFS | Gamma | U-238 | -12.73 | -5.99 | 10.46 | U |
| 1021-E-DUP | FD | NFS | Gamma | Am-241 | 0.0226 | 0.2627 | 0.4452 | U |
| 1021-E-DUP | FD | NFS | Gamma | Th-232 | 1.045 | 0.2505 | 0.3974 | |

## Survey Unit 02 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 1021-E-DUP | FD | NFS | Gamma | U-235 | 0.0348 | 0.0528 | 0.0878 | U |
| 1021-E-DUP | FD | NFS | Gamma | U-238 | 8.27 | 4.44 | 7.342 | |
| 1021-F | FS | NFS | Gamma | Am-241 | -0.3283 | -0.2748 | 0.4703 | U |
| 1021-F | FS | NFS | Gamma | Th-232 | 0.5443 | 0.2714 | 0.4502 | |
| 1021-F | FS | NFS | Gamma | U-235 | 0.041 | 0.0551 | 0.0925 | U |
| 1021-F | FS | NFS | Gamma | U-238 | -5.978 | -6.185 | 10.68 | U |
| 2020-A | FS | NFS | Gamma | Am-241 | 0.3997 | 0.4049 | 0.6805 | U |
| 2020-A | FS | NFS | Gamma | Th-232 | 1.338 | 0.2909 | 0.4684 | |
| 2020-A | FS | NFS | Gamma | U-235 | 0.1607 | 0.0645 | 0.1053 | |
| 2020-A | FS | NFS | Gamma | U-238 | -7.491 | -6.974 | 12.06 | U |
| 2020-B | FS | NFS | Gamma | Am-241 | 0.183 | 0.2471 | 0.4163 | U |
| 2020-B | FS | NFS | Gamma | Th-232 | 0.3918 | 0.2657 | 0.444 | U |
| 2020-B | FS | NFS | Gamma | U-235 | 0.1102 | 0.0535 | 0.0892 | |
| 2020-B | FS | NFS | Gamma | U-238 | -8.685 | -5.773 | 10.04 | U |
| 2020-C | FS | PARAGON | LSC | Tc-99 | 0.07 | 0.91 | 1.54 | U |
| 2020-C | FS | PARAGON | LSC | Pu-241 | -1.1 | 3.6 | 6.2 | U |
| 2020-C | FS | PARAGON | Gamma | Am-241 | 0.029 | 0.077 | 0.131 | U |
| 2020-C | FS | PARAGON | Gamma | Th-232 | 0.87 | 0.35 | 0.51 | J |
| 2020-C | FS | PARAGON | Gamma | U-235 | -0.29 | 0.24 | 0.46 | U |
| 2020-C | FS | PARAGON | Alpha | Am-241 | 0.029 | 0.022 | 0.031 | U |
| 2020-C | FS | PARAGON | Alpha | Pu-238 | -0.003 | 0.014 | 0.027 | U |
| 2020-C | FS | PARAGON | Alpha | Pu-239/240 | 0.041 | 0.028 | 0.035 | |
| 2020-C | FS | PARAGON | Alpha | Pu-242 | 0.036 | 0.018 | 0.017 | U |
| 2020-C | FS | PARAGON | Alpha | Th-230 | 0.59 | 0.13 | 0.07 | |
| 2020-C | FS | PARAGON | Alpha | Th-232 | 0.82 | 0.17 | 0.03 | |
| 2020-C | FS | PARAGON | Alpha | U-233/234 | 0.91 | 0.24 | 0.13 | |
| 2020-C | FS | PARAGON | Alpha | U-235 | 0.061 | 0.055 | 0.072 | U |
| 2020-C | FS | PARAGON | Alpha | U-238 | 0.51 | 0.16 | 0.08 | |
| 2020-C | FS | NFS | Gamma | Am-241 | -0.0528 | -0.3612 | 0.6135 | U |
| 2020-C | FS | NFS | Gamma | Th-232 | 1.161 | 0.2443 | 0.3828 | |
| 2020-C | FS | NFS | Gamma | U-235 | 0.0491 | 0.0567 | 0.0946 | U |
| 2020-C | FS | NFS | Gamma | U-238 | -0.4478 | -4.921 | 8.424 | U |
| 2020-D | FS | NFS | Gamma | Am-241 | 0.371 | 0.2617 | 0.4382 | U |
| 2020-D | FS | NFS | Gamma | Th-232 | 1.104 | 0.2487 | 0.3994 | |
| 2020-D | FS | NFS | Gamma | U-235 | 0.0972 | 0.0535 | 0.0893 | |
| 2020-D | FS | NFS | Gamma | U-238 | -2.111 | -5.149 | 8.84 | U |
| 2020-E | FS | NFS | Gamma | Am-241 | 0.2476 | 0.3826 | 0.645 | U |
| 2020-E | FS | NFS | Gamma | Th-232 | 1.068 | 0.216 | 0.3437 | |
| 2020-E | FS | NFS | Gamma | U-235 | 0.0583 | 0.0527 | 0.0858 | U |
| 2020-E | FS | NFS | Gamma | U-238 | -0.6963 | -4.583 | 8.481 | U |
| 2021-A | FS | NFS | Gamma | Am-241 | 0.1182 | 0.3105 | 0.5252 | U |
| 2021-A | FS | NFS | Gamma | Th-232 | 0.9782 | 0.2818 | 0.4608 | |
| 2021-A | FS | NFS | Gamma | U-235 | 0.0438 | 0.0495 | 0.0814 | U |
| 2021-A | FS | NFS | Gamma | U-238 | -1.494 | -5.401 | 9.26 | U |
| 2021-B | FS | PARAGON | LSC | Tc-99 | 0.45 | 0.96 | 1.59 | U |
| 2021-B | FS | PARAGON | LSC | Pu-241 | 1.1 | 4 | 6.6 | U |
| 2021-B | FS | PARAGON | Gamma | Am-241 | 0.05 | 0.26 | 0.44 | UJ |
| 2021-B | FS | PARAGON | Gamma | Th-232 | 0.56 | 0.17 | 0.35 | J |
| 2021-B | FS | PARAGON | Gamma | U-235 | 0.21 | 0.17 | 0.27 | UJ |
| 2021-B | FS | PARAGON | Alpha | Am-241 | 0.018 | 0.013 | 0.013 | U |
| 2021-B | FS | PARAGON | Alpha | Pu-238 | 0.0016 | 0.008 | 0.0044 | U |
| 2021-B | FS | PARAGON | Alpha | Pu-239/240 | 0.0066 | 0.0081 | 0.0121 | U |
| 2021-B | FS | PARAGON | Alpha | Pu-242 | 0.008 | 0.0096 | 0.0148 | U |

## Survey Unit 02 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 2021-B | FS | PARAGON | Alpha | Th-230 | 0.54 | 0.15 | 0.1 | |
| 2021-B | FS | PARAGON | Alpha | Th-232 | 0.75 | 0.18 | 0.01 | |
| 2021-B | FS | PARAGON | Alpha | U-233/234 | 0.93 | 0.22 | 0.06 | |
| 2021-B | FS | PARAGON | Alpha | U-235 | 0.087 | 0.056 | 0.043 | |
| 2021-B | FS | PARAGON | Alpha | U-238 | 0.6 | 0.16 | 0.05 | |
| 2021-B | FS | NFS | Gamma | Am-241 | -0.4257 | -0.2824 | 0.4837 | U |
| 2021-B | FS | NFS | Gamma | Th-232 | 1.389 | 0.2411 | 0.3802 | |
| 2021-B | FS | NFS | Gamma | U-235 | 0.1055 | 0.0489 | 0.0812 | |
| 2021-B | FS | NFS | Gamma | U-238 | 0.5218 | 4.991 | 8.537 | U |
| 2021-B | LR | PARAGON | Alpha | Am-241 | 0.0091 | 0.0097 | 0.0133 | U |
| 2021-B | LR | PARAGON | Alpha | Pu-238 | -0.0019 | 0.0094 | 0.0141 | U |
| 2021-B | LR | PARAGON | Alpha | Pu-239/240 | 0.013 | 0.014 | 0.021 | U |
| 2021-B | LR | PARAGON | Alpha | U-233/234 | 0.9 | 0.21 | 0.05 | |
| 2021-B | LR | PARAGON | Alpha | U-235 | 0.056 | 0.041 | 0.019 | |
| 2021-B | LR | PARAGON | Alpha | U-238 | 0.65 | 0.16 | 0.03 | |
| 2021-B-DUP | FD | PARAGON | LSC | Pu-241 | 1.1 | 3.8 | 6.4 | U |
| 2021-B-DUP | FD | PARAGON | Gamma | Am-241 | -0.45 | 0.41 | 0.73 | U |
| 2021-B-DUP | FD | PARAGON | Gamma | Th-232 | 0.75 | 0.21 | 0.37 | |
| 2021-B-DUP | FD | PARAGON | Gamma | U-235 | 0.17 | 0.22 | 0.36 | U |
| 2021-B-DUP | FD | PARAGON | Alpha | Am-241 | 0.018 | 0.013 | 0.013 | U |
| 2021-B-DUP | FD | PARAGON | Alpha | Pu-238 | 0 | 0.0086 | 0.0047 | U |
| 2021-B-DUP | FD | PARAGON | Alpha | Pu-239/240 | 0.0053 | 0.0093 | 0.0163 | U |
| 2021-B-DUP | FD | PARAGON | Alpha | Pu-242 | 0.0079 | 0.0095 | 0.0146 | U |
| 2021-B-DUP | FD | PARAGON | Alpha | Th-230 | 0.7 | 0.15 | 0.07 | |
| 2021-B-DUP | FD | PARAGON | Alpha | Th-232 | 0.66 | 0.14 | 0.03 | |
| 2021-B-DUP | FD | PARAGON | Alpha | U-233/234 | 1.18 | 0.26 | 0.05 | |
| 2021-B-DUP | FD | PARAGON | Alpha | U-235 | 0.02 | 0.027 | 0.039 | U |
| 2021-B-DUP | FD | PARAGON | Alpha | U-238 | 0.72 | 0.18 | 0.02 | |
| 2021-B-DUP | LR | PARAGON | LSC | Pu-241 | 0.1 | 3.8 | 6.5 | U |
| 2021-B-DUP | LR | PARAGON | Alpha | Pu-242 | 0.019 | 0.013 | 0.015 | U |
| 2021-B-DUP | LR | PARAGON | Alpha | Th-230 | 0.62 | 0.15 | 0.09 | R |
| 2021-B-DUP | LR | PARAGON | Alpha | Th-232 | 0.74 | 0.17 | 0.03 | |
| 2021-C | FS | NFS | Gamma | Am-241 | 0.3282 | 0.3919 | 0.6595 | U |
| 2021-C | FS | NFS | Gamma | Th-232 | 1.425 | 0.3391 | 0.5509 | |
| 2021-C | FS | NFS | Gamma | U-235 | 0.1417 | 0.0541 | 0.0896 | |
| 2021-C | FS | NFS | Gamma | U-238 | -1.028 | -5.702 | 9.745 | U |
| 2021-D | FS | NFS | Gamma | Am-241 | -0.0603 | -0.284 | 0.4821 | U |
| 2021-D | FS | NFS | Gamma | Th-232 | 1.036 | 0.263 | 0.4262 | |
| 2021-D | FS | NFS | Gamma | U-235 | 0.0475 | 0.0532 | 0.0896 | U |
| 2021-D | FS | NFS | Gamma | U-238 | 6.626 | 4.472 | 7.44 | U |
| 2021-D-DUP | FD | NFS | Gamma | Am-241 | -0.1674 | -0.3448 | 0.5878 | U |
| 2021-D-DUP | FD | NFS | Gamma | Th-232 | 0.8626 | 0.3094 | 0.5096 | |
| 2021-D-DUP | FD | NFS | Gamma | U-235 | -0.033 | -0.053 | 0.0904 | U |
| 2021-D-DUP | FD | NFS | Gamma | U-238 | 5.611 | 4.836 | 8.203 | U |
| 2021-E | FS | NFS | Gamma | Am-241 | 0.1695 | 0.3645 | 0.6158 | U |
| 2021-E | FS | NFS | Gamma | Th-232 | 1.4 | 0.3336 | 0.5447 | |
| 2021-E | FS | NFS | Gamma | U-235 | 0.0874 | 0.0539 | 0.0883 | U |
| 2021-E | FS | NFS | Gamma | U-238 | 1.681 | 7.03 | 10.51 | U |
| EB-02 | EB | PARAGON | LSC | Pu-241 | 2.6 | 5.1 | 8.5 | U |
| EB-02 | EB | PARAGON | LSC | Tc-99 | -1.4 | 6.5 | 11 | U |
| EB-02 | EB | PARAGON | Gamma | Am-241 | -1.3 | 5 | 8.5 | U |
| EB-02 | EB | PARAGON | Gamma | Th-232 | 12 | 12 | 23 | U |
| EB-02 | EB | PARAGON | Gamma | U-235 | 2 | 14 | 24 | U |

## Survey Unit 02 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| EB-02 | EB | PARAGON | Alpha | Am-241 | 0.016 | 0.028 | 0.021 | U |
| EB-02 | EB | PARAGON | Alpha | Pu-238 | -0.004 | 0.024 | 0.043 | U |
| EB-02 | EB | PARAGON | Alpha | Pu-239/240 | 0.012 | 0.025 | 0.053 | U |
| EB-02 | EB | PARAGON | Alpha | Pu-242 | 0.041 | 0.038 | 0.048 | U |
| EB-02 | EB | PARAGON | Alpha | Th-230 | 0.046 | 0.06 | 0.113 | U |
| EB-02 | EB | PARAGON | Alpha | Th-232 | 0.003 | 0.017 | 0.026 | U |
| EB-02 | EB | PARAGON | Alpha | U-233/234 | 0.042 | 0.059 | 0.115 | U |
| EB-02 | EB | PARAGON | Alpha | U-235 | 0.003 | 0.044 | 0.083 | U |
| EB-02 | EB | PARAGON | Alpha | U-238 | 0.02 | 0.038 | 0.08 | U |
| EB-02 | LR | PARAGON | LSC | Tc-99 | -5.2 | 6.6 | 11.3 | U |
| EB-02 | LR | PARAGON | Gamma | Am-241 | 4 | 35 | 58 | U |
| EB-02 | LR | PARAGON | Gamma | Th-232 | 4 | 17 | 29 | U |
| EB-02 | LR | PARAGON | Gamma | U-235 | 11 | 19 | 32 | U |
| EB-024 | EB | PARAGON | Alpha | Th-230 | 0.044 | 0.068 | 0.131 | U |
| EB-024 | EB | PARAGON | Alpha | Th-232 | -0.004 | 0.021 | 0.057 | U |

# Appendix G.2

# Radiological Dataset, Survey Unit 8

## Survey Unit 08 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0145-A | FS | PARAGON | LSC | Tc-99 | 0.02 | 0.85 | 1.44 | U |
| 0145-A | FS | PARAGON | LSC | Pu-241 | 0.3 | 2.8 | 4.7 | U |
| 0145-A | FS | PARAGON | Gamma | Am-241 | -0.02 | 0.56 | 0.96 | U |
| 0145-A | FS | PARAGON | Gamma | Th-232 | 0.61 | 0.28 | 0.46 | J |
| 0145-A | FS | PARAGON | Gamma | U-235 | -0.37 | 0.36 | 0.65 | U |
| 0145-A | FS | PARAGON | Alpha | Am-241 | 0.019 | 0.015 | 0.016 | |
| 0145-A | FS | PARAGON | Alpha | Pu-238 | 0.0092 | 0.0091 | 0.005 | J |
| 0145-A | FS | PARAGON | Alpha | Pu-239/240 | 0.018 | 0.013 | 0.013 | |
| 0145-A | FS | PARAGON | Alpha | Pu-242 | 0.036 | 0.019 | 0.014 | |
| 0145-A | FS | PARAGON | Alpha | Th-230 | 0.51 | 0.11 | 0.05 | |
| 0145-A | FS | PARAGON | Alpha | Th-232 | 0.56 | 0.12 | 0.02 | |
| 0145-A | FS | PARAGON | Alpha | U-233/234 | 2.06 | 0.4 | 0.04 | |
| 0145-A | FS | PARAGON | Alpha | U-235 | 0.094 | 0.053 | 0.018 | |
| 0145-A | FS | PARAGON | Alpha | U-238 | 0.56 | 0.15 | 0.04 | |
| 0145-A | FS | NFS | Gamma | Am-241 | 0.241 | 0.3241 | 0.546 | U |
| 0145-A | FS | NFS | Gamma | Th-232 | 0.5866 | 0.2175 | 0.3568 | |
| 0145-A | FS | NFS | Gamma | U-235 | 0.1503 | 0.0512 | 0.0843 | |
| 0145-A | FS | NFS | Gamma | U-238 | 1.044 | 6.464 | 10.99 | U |
| 0145-A | LR | PARAGON | Alpha | Am-241 | 0.034 | 0.025 | 0.029 | |
| 0145-A | LR | PARAGON | Alpha | Pu-238 | 0.002 | 0.011 | 0.022 | U |
| 0145-A | LR | PARAGON | Alpha | Pu-239/240 | 0.021 | 0.016 | 0.019 | |
| 0145-A | LR | PARAGON | Alpha | U-233/234 | 2.37 | 0.46 | 0.08 | |
| 0145-A | LR | PARAGON | Alpha | U-235 | 0.102 | 0.058 | 0.045 | |
| 0145-A | LR | PARAGON | Alpha | U-238 | 0.55 | 0.15 | 0.06 | |
| 0145-B | FS | NFS | Gamma | Am-241 | -0.0961 | -0.3685 | 0.6245 | U |
| 0145-B | FS | NFS | Gamma | Th-232 | 0.645 | 0.1942 | 0.3173 | |
| 0145-B | FS | NFS | Gamma | U-235 | 0.0725 | 0.0478 | 0.0794 | U |
| 0145-B | FS | NFS | Gamma | U-238 | -7.157 | -5.767 | 9.981 | U |
| 0145-C | FS | NFS | Gamma | Am-241 | -0.1645 | -0.3769 | 0.6417 | U |
| 0145-C | FS | NFS | Gamma | Th-232 | 1.402 | 0.2259 | 0.3553 | |
| 0145-C | FS | NFS | Gamma | U-235 | 0.0435 | 0.0578 | 0.0934 | U |
| 0145-C | FS | NFS | Gamma | U-238 | 8.984 | 5.822 | 9.708 | U |
| 0145-D | FS | NFS | Gamma | Am-241 | 0.4362 | 0.3951 | 0.664 | U |
| 0145-D | FS | NFS | Gamma | Th-232 | 1.359 | 0.2424 | 0.384 | |
| 0145-D | FS | NFS | Gamma | U-235 | 0.044 | 0.0534 | 0.0883 | U |
| 0145-D | FS | NFS | Gamma | U-238 | 1.277 | 5.291 | 8.794 | U |
| 0145-E | FS | NFS | Gamma | Am-241 | -0.1859 | -0.3817 | 0.6504 | U |
| 0145-E | FS | NFS | Gamma | Th-232 | 1.07 | 0.2585 | 0.4182 | |
| 0145-E | FS | NFS | Gamma | U-235 | 0.0867 | 0.0598 | 0.094 | U |
| 0145-E | FS | NFS | Gamma | U-238 | 3.086 | 6.407 | 10.84 | U |
| 0145-F | FS | NFS | Gamma | Am-241 | -0.1289 | -0.418 | 0.7083 | U |
| 0145-F | FS | NFS | Gamma | Th-232 | 1.081 | 0.2396 | 0.3825 | |
| 0145-F | FS | NFS | Gamma | U-235 | 0.0801 | 0.0547 | 0.0912 | U |
| 0145-F | FS | NFS | Gamma | U-238 | 2.421 | 5.583 | 9.419 | U |
| 0145-F-DUP | FD | NFS | Gamma | Am-241 | -0.0179 | -0.3749 | 0.6364 | U |
| 0145-F-DUP | FD | NFS | Gamma | Th-232 | 0.9901 | 0.2573 | 0.415 | |
| 0145-F-DUP | FD | NFS | Gamma | U-235 | 0.0428 | 0.0586 | 0.0954 | U |
| 0145-F-DUP | FD | NFS | Gamma | U-238 | 14.42 | 5.869 | 9.689 | |
| 0146-A | FS | NFS | Gamma | Am-241 | -0.2191 | -0.3868 | 0.6564 | U |
| 0146-A | FS | NFS | Gamma | Th-232 | 0.6755 | 0.1997 | 0.3232 | |
| 0146-A | FS | NFS | Gamma | U-235 | 0.2495 | 0.0514 | 0.083 | |
| 0146-A | FS | NFS | Gamma | U-238 | 4.85 | 4.179 | 6.992 | U |
| 0146-B | FS | NFS | Gamma | Am-241 | 0.372 | 0.322 | 0.5399 | U |

## Survey Unit 08 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0146-B | FS | NFS | Gamma | Th-232 | 0.6129 | 0.2315 | 0.3754 | |
| 0146-B | FS | NFS | Gamma | U-235 | 0.1819 | 0.0516 | 0.0832 | |
| 0146-B | FS | NFS | Gamma | U-238 | 4.903 | 6.096 | 10.27 | U |
| 0146-C | FS | NFS | Gamma | Am-241 | -0.7088 | -0.4332 | 0.7385 | U |
| 0146-C | FS | NFS | Gamma | Th-232 | 1.474 | 0.2528 | 0.3926 | |
| 0146-C | FS | NFS | Gamma | U-235 | 0.05 | 0.0556 | 0.0933 | U |
| 0146-C | FS | NFS | Gamma | U-238 | 1.96 | 5.516 | 9.361 | U |
| 0146-D | FS | NFS | Gamma | Am-241 | 0.3893 | 0.3981 | 0.6689 | U |
| 0146-D | FS | NFS | Gamma | Th-232 | 1.967 | 0.2578 | 0.391 | |
| 0146-D | FS | NFS | Gamma | U-235 | 0.078 | 0.0659 | 0.1026 | U |
| 0146-D | FS | NFS | Gamma | U-238 | 13.51 | 5.825 | 9.592 | |
| 0146-E | FS | NFS | Gamma | Am-241 | -0.0852 | -0.2794 | 0.4747 | U |
| 0146-E | FS | NFS | Gamma | Th-232 | 1.972 | 0.2941 | 0.4656 | |
| 0146-E | FS | NFS | Gamma | U-235 | 0.1486 | 0.0605 | 0.1001 | |
| 0146-E | FS | NFS | Gamma | U-238 | 10.74 | 4.937 | 8.162 | |
| 0146-F | FS | NFS | Gamma | Am-241 | -0.3984 | -0.4317 | 0.7375 | U |
| 0146-F | FS | NFS | Gamma | Th-232 | 1.048 | 0.294 | 0.4807 | |
| 0146-F | FS | NFS | Gamma | U-235 | 0.0921 | 0.0627 | 0.105 | U |
| 0146-F | FS | NFS | Gamma | U-238 | -10.97 | -6.554 | 11.42 | U |
| 0147-A | FS | NFS | Gamma | Am-241 | 0.007 | 0.2422 | 0.4108 | U |
| 0147-A | FS | NFS | Gamma | Th-232 | 1.107 | 0.2442 | 0.3937 | |
| 0147-A | FS | NFS | Gamma | U-235 | 0.138 | 0.0531 | 0.0875 | |
| 0147-A | FS | NFS | Gamma | U-238 | 4.039 | 4.547 | 7.65 | U |
| 0147-B | FS | NFS | Gamma | Am-241 | 0.382 | 0.3398 | 0.57 | U |
| 0147-B | FS | NFS | Gamma | Th-232 | 0.7504 | 0.2652 | 0.4241 | |
| 0147-B | FS | NFS | Gamma | U-235 | 0.2153 | 0.0537 | 0.0878 | |
| 0147-B | FS | NFS | Gamma | U-238 | -5.884 | -15.37 | 8.847 | U |
| 0147-C | FS | NFS | Gamma | Am-241 | -0.2521 | -0.278 | 0.4742 | U |
| 0147-C | FS | NFS | Gamma | Th-232 | 1.53 | 0.2383 | 0.372 | |
| 0147-C | FS | NFS | Gamma | U-235 | 0.1425 | 0.056 | 0.093 | |
| 0147-C | FS | NFS | Gamma | U-238 | 3.427 | 6.647 | 11.24 | U |
| 0147-D | FS | NFS | Gamma | Am-241 | -0.3516 | -0.3804 | 0.6499 | U |
| 0147-D | FS | NFS | Gamma | Th-232 | 1.776 | 0.2169 | 0.3228 | |
| 0147-D | FS | NFS | Gamma | U-235 | 0.1119 | 0.0599 | 0.0945 | |
| 0147-D | FS | NFS | Gamma | U-238 | 6.148 | 6.925 | 11.65 | U |
| 0147-E | FS | NFS | Gamma | Am-241 | -0.343 | -0.3262 | 0.5571 | U |
| 0147-E | FS | NFS | Gamma | Th-232 | 1.633 | 0.2569 | 0.403 | |
| 0147-E | FS | NFS | Gamma | U-235 | 0.0541 | 0.0632 | 0.1062 | U |
| 0147-E | FS | NFS | Gamma | U-238 | 10.59 | 6.88 | 11.48 | U |
| 0148-A | FS | NFS | Gamma | Am-241 | 0.6988 | 0.3644 | 0.6055 | |
| 0148-A | FS | NFS | Gamma | Th-232 | 0.79 | 0.2421 | 0.3951 | |
| 0148-A | FS | NFS | Gamma | U-235 | 0.4162 | 0.059 | 0.0937 | |
| 0148-A | FS | NFS | Gamma | U-238 | 8.171 | 6.571 | 11 | U |
| 0148-B | FS | NFS | Gamma | Am-241 | 0.1994 | 0.2486 | 0.4187 | U |
| 0148-B | FS | NFS | Gamma | Th-232 | 0.9965 | 0.1894 | 0.2977 | |
| 0148-B | FS | NFS | Gamma | U-235 | 0.1309 | 0.052 | 0.086 | |
| 0148-B | FS | NFS | Gamma | U-238 | 4.761 | 5.756 | 9.694 | U |
| 0148-C | FS | NFS | Gamma | Am-241 | 0.393 | 0.3166 | 0.5303 | U |
| 0148-C | FS | NFS | Gamma | Th-232 | 0.8424 | 0.2225 | 0.3593 | |
| 0148-C | FS | NFS | Gamma | U-235 | 0.1064 | 0.0514 | 0.0855 | |
| 0148-C | FS | NFS | Gamma | U-238 | -5.404 | -7.369 | 12.64 | U |
| 0148-C-DUP | FD | NFS | Gamma | Am-241 | 0.0339 | 0.2551 | 0.4321 | U |
| 0148-C-DUP | FD | NFS | Gamma | Th-232 | 1.009 | 0.1951 | 0.3064 | |

## Survey Unit 08 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0148-C-DUP | FD | NFS | Gamma | U-235 | 0.146 | 0.0498 | 0.0819 | |
| 0148-C-DUP | FD | NFS | Gamma | U-238 | 7.212 | 6.185 | 10.14 | U |
| 0148-D | FS | NFS | Gamma | Am-241 | -0.4764 | -0.3614 | 0.6199 | U |
| 0148-D | FS | NFS | Gamma | Th-232 | 0.7008 | 0.2411 | 0.396 | |
| 0148-D | FS | NFS | Gamma | U-235 | 0.2281 | 0.053 | 0.0858 | |
| 0148-D | FS | NFS | Gamma | U-238 | -0.0681 | -7.053 | 12 | U |
| 0148-E | FS | NFS | Gamma | Am-241 | -0.0293 | -0.2706 | 0.4593 | U |
| 0148-E | FS | NFS | Gamma | Th-232 | 0.876 | 0.232 | 0.3795 | |
| 0148-E | FS | NFS | Gamma | U-235 | 0.1109 | 0.0558 | 0.093 | |
| 0148-E | FS | NFS | Gamma | U-238 | 9.691 | 6.216 | 10.37 | U |
| 0148-F | FS | NFS | Gamma | Am-241 | 0.1782 | 0.3318 | 0.5603 | U |
| 0148-F | FS | NFS | Gamma | Th-232 | 0.4201 | 0.2297 | 0.3752 | |
| 0148-F | FS | NFS | Gamma | U-235 | 0.059 | 0.0543 | 0.0867 | U |
| 0148-F | FS | NFS | Gamma | U-238 | -0.2421 | -7.176 | 12.21 | U |
| 0149-A | FS | PARAGON | LSC | Tc-99 | 3.2 | 1.1 | 1.4 | |
| 0149-A | FS | PARAGON | LSC | Pu-241 | 1.5 | 2.3 | 3.8 | U |
| 0149-A | FS | PARAGON | Gamma | Am-241 | 0.23 | 0.89 | 1.57 | U |
| 0149-A | FS | PARAGON | Gamma | Th-232 | 0.74 | 0.41 | 0.71 | J |
| 0149-A | FS | PARAGON | Gamma | U-235 | 0.27 | 0.37 | 0.62 | U |
| 0149-A | FS | PARAGON | Alpha | Am-241 | 0.144 | 0.045 | 0.026 | |
| 0149-A | FS | PARAGON | Alpha | Pu-238 | 0.015 | 0.012 | 0.014 | |
| 0149-A | FS | PARAGON | Alpha | Pu-239/240 | 0.286 | 0.065 | 0.014 | |
| 0149-A | FS | PARAGON | Alpha | Pu-242 | 0.0004 | 0.0075 | 0.0167 | U |
| 0149-A | FS | PARAGON | Alpha | Th-230 | 0.56 | 0.12 | 0.05 | |
| 0149-A | FS | PARAGON | Alpha | Th-232 | 0.77 | 0.16 | 0.04 | |
| 0149-A | FS | PARAGON | Alpha | U-233/234 | 4.8 | 0.89 | 0.08 | |
| 0149-A | FS | PARAGON | Alpha | U-235 | 0.176 | 0.086 | 0.062 | |
| 0149-A | FS | PARAGON | Alpha | U-238 | 0.72 | 0.19 | 0.05 | |
| 0149-A | FS | NFS | Gamma | Am-241 | 0.4387 | 0.2513 | 0.4204 | |
| 0149-A | FS | NFS | Gamma | Th-232 | 1.184 | 0.1934 | 0.2981 | |
| 0149-A | FS | NFS | Gamma | U-235 | 0.1281 | 0.0517 | 0.0853 | |
| 0149-A | FS | NFS | Gamma | U-238 | 7.617 | 4.674 | 7.764 | U |
| 0149-A | LR | PARAGON | Alpha | Am-241 | 0.108 | 0.035 | 0.015 | |
| 0149-A | LR | PARAGON | Alpha | Pu-238 | 0.025 | 0.015 | 0.014 | |
| 0149-A | LR | PARAGON | Alpha | Pu-239/240 | 0.246 | 0.058 | 0.005 | |
| 0149-A | LR | PARAGON | Alpha | U-233/234 | 4.96 | 0.89 | 0.09 | |
| 0149-A | LR | PARAGON | Alpha | U-235 | 0.198 | 0.085 | 0.058 | |
| 0149-A | LR | PARAGON | Alpha | U-238 | 0.84 | 0.2 | 0.06 | |
| 0149-B | FS | NFS | Gamma | Am-241 | 0.5161 | 0.3387 | 0.5656 | U |
| 0149-B | FS | NFS | Gamma | Th-232 | 1.018 | 0.251 | 0.4052 | |
| 0149-B | FS | NFS | Gamma | U-235 | 0.2017 | 0.0543 | 0.0885 | |
| 0149-B | FS | NFS | Gamma | U-238 | 7.098 | 8.1 | 9.699 | U |
| 0149-C | FS | NFS | Gamma | Am-241 | -0.1371 | -0.2986 | 0.5076 | U |
| 0149-C | FS | NFS | Gamma | Th-232 | 1.803 | 0.2615 | 0.4092 | |
| 0149-C | FS | NFS | Gamma | U-235 | 0.0264 | 0.0598 | 0.1009 | U |
| 0149-C | FS | NFS | Gamma | U-238 | -3.772 | -6.659 | 11.4 | U |
| 0149-D | FS | NFS | Gamma | Am-241 | -0.329 | -0.3846 | 0.6563 | U |
| 0149-D | FS | NFS | Gamma | Th-232 | 1.783 | 0.2321 | 0.3569 | |
| 0149-D | FS | NFS | Gamma | U-235 | 0.1499 | 0.0576 | 0.0938 | |
| 0149-D | FS | NFS | Gamma | U-238 | -0.8912 | -6.227 | 10.62 | U |
| 0149-E | FS | NFS | Gamma | Am-241 | -0.3501 | -0.2674 | 0.4579 | U |
| 0149-E | FS | NFS | Gamma | Th-232 | 0.8397 | 0.2197 | 0.3552 | |
| 0149-E | FS | NFS | Gamma | U-235 | 0.0629 | 0.0518 | 0.0854 | U |

## Survey Unit 08 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0149-E | FS | NFS | Gamma | U-238 | 5.838 | 5.296 | 8.884 | U |
| 0150-A | FS | NFS | Gamma | Am-241 | 0.8559 | 0.312 | 0.5106 | |
| 0150-A | FS | NFS | Gamma | Th-232 | 0.1403 | 0.2545 | 0.413 | U |
| 0150-A | FS | NFS | Gamma | U-235 | 0.2135 | 0.0523 | 0.0836 | |
| 0150-A | FS | NFS | Gamma | U-238 | 2.89 | 6.382 | 9.513 | U |
| 0150-B | FS | NFS | Gamma | Am-241 | 0.0126 | 0.283 | 0.4796 | U |
| 0150-B | FS | NFS | Gamma | Th-232 | 0.8069 | 0.1992 | 0.3189 | |
| 0150-B | FS | NFS | Gamma | U-235 | 0.5937 | 0.0556 | 0.0855 | |
| 0150-B | FS | NFS | Gamma | U-238 | 6.107 | 4.893 | 8.185 | U |
| 0150-B-DUP | FD | NFS | Gamma | Am-241 | 0.2209 | 0.3666 | 0.6185 | U |
| 0150-B-DUP | FD | NFS | Gamma | Th-232 | 0.7021 | 0.2123 | 0.3453 | |
| 0150-B-DUP | FD | NFS | Gamma | U-235 | 0.6856 | 0.0572 | 0.0844 | |
| 0150-B-DUP | FD | NFS | Gamma | U-238 | 8.985 | 5.347 | 8.323 | |
| 0150-C | FS | NFS | Gamma | Am-241 | 0.1763 | 0.2506 | 0.4223 | U |
| 0150-C | FS | NFS | Gamma | Th-232 | 0.6681 | 0.2105 | 0.3412 | |
| 0150-C | FS | NFS | Gamma | U-235 | 0.0637 | 0.05 | 0.0838 | U |
| 0150-C | FS | NFS | Gamma | U-238 | 0.5801 | 5.5 | 9.359 | U |
| 0150-D | FS | NFS | Gamma | Am-241 | 0.2709 | 0.3882 | 0.6542 | U |
| 0150-D | FS | NFS | Gamma | Th-232 | 1.48 | 0.2331 | 0.364 | |
| 0150-D | FS | NFS | Gamma | U-235 | 0.1388 | 0.055 | 0.0908 | |
| 0150-D | FS | NFS | Gamma | U-238 | 14.25 | 5.085 | 8.272 | |
| 0150-E | FS | NFS | Gamma | Am-241 | 0.1129 | 0.2547 | 0.4303 | U |
| 0150-E | FS | NFS | Gamma | Th-232 | 1.592 | 0.2427 | 0.3789 | |
| 0150-E | FS | NFS | Gamma | U-235 | 0.0811 | 0.051 | 0.0847 | U |
| 0150-E | FS | NFS | Gamma | U-238 | 8.958 | 5.179 | 8.601 | |
| 0150-F | FS | NFS | Gamma | Am-241 | -0.0441 | -0.3468 | 0.5894 | U |
| 0150-F | FS | NFS | Gamma | Th-232 | 0.6037 | 0.2827 | 0.47 | |
| 0150-F | FS | NFS | Gamma | U-235 | 0.0696 | 0.0654 | 0.1056 | U |
| 0150-F | FS | NFS | Gamma | U-238 | 1.202 | 4.672 | 7.949 | U |
| 0151-A | FS | NFS | Gamma | Am-241 | 0.438 | 0.2695 | 0.4506 | U |
| 0151-A | FS | NFS | Gamma | Th-232 | 1.347 | 0.252 | 0.4013 | |
| 0151-A | FS | NFS | Gamma | U-235 | 0.2954 | 0.0588 | 0.0957 | |
| 0151-A | FS | NFS | Gamma | U-238 | -0.3156 | -16.05 | 10.42 | U |
| 0151-B | FS | NFS | Gamma | Am-241 | 0.2858 | 0.3615 | 0.6087 | U |
| 0151-B | FS | NFS | Gamma | Th-232 | 1.172 | 0.2526 | 0.4064 | |
| 0151-B | FS | NFS | Gamma | U-235 | 0.2372 | 0.063 | 0.1037 | |
| 0151-B | FS | NFS | Gamma | U-238 | 5.116 | 4.992 | 7.642 | U |
| 0151-C | FS | PARAGON | LSC | Tc-99 | -0.16 | 0.96 | 1.62 | U |
| 0151-C | FS | NFS | Gamma | Am-241 | 0.022 | 0.296 | 0.5013 | U |
| 0151-C | FS | NFS | Gamma | Th-232 | 1.962 | 0.3076 | 0.4905 | |
| 0151-C | FS | NFS | Gamma | U-235 | 0.1972 | 0.0563 | 0.0928 | |
| 0151-C | FS | NFS | Gamma | U-238 | 11.67 | 5.975 | 9.923 | |
| 0151-C | LR | PARAGON | LSC | Tc-99 | 0.25 | 0.99 | 1.65 | U |
| 0151-D | FS | NFS | Gamma | Am-241 | 0.2271 | 0.3945 | 0.6656 | U |
| 0151-D | FS | NFS | Gamma | Th-232 | 1.565 | 0.2857 | 0.4576 | |
| 0151-D | FS | NFS | Gamma | U-235 | 0.0397 | 0.0809 | 0.1188 | U |
| 0151-D | FS | NFS | Gamma | U-238 | 4.474 | 4.998 | 8.209 | U |
| 0151-E | FS | NFS | Gamma | Am-241 | -0.5689 | -0.2803 | 0.4811 | U |
| 0151-E | FS | NFS | Gamma | Th-232 | 1.68 | 0.2422 | 0.3774 | |
| 0151-E | FS | NFS | Gamma | U-235 | -0.014 | -0.0537 | 0.0911 | U |
| 0151-E | FS | NFS | Gamma | U-238 | 0.8811 | 6.273 | 10.65 | U |
| 0152-A | FS | NFS | Gamma | Am-241 | 0.2844 | 0.3332 | 0.6058 | U |
| 0152-A | FS | NFS | Gamma | Th-232 | 1.322 | 0.2662 | 0.419 | |

## Survey Unit 08 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0152-A | FS | NFS | Gamma | U-235 | 0.0753 | 0.0686 | 0.1154 | U |
| 0152-A | FS | NFS | Gamma | U-238 | -7.907 | -6.901 | 10.34 | U |
| 0152-A-DUP | FD | NFS | Gamma | Am-241 | -0.2495 | -0.271 | 0.4627 | U |
| 0152-A-DUP | FD | NFS | Gamma | Th-232 | 1.104 | 0.2823 | 0.4586 | |
| 0152-A-DUP | FD | NFS | Gamma | U-235 | 0.0134 | 0.0554 | 0.0937 | U |
| 0152-A-DUP | FD | NFS | Gamma | U-238 | 11.17 | 5.388 | 8.988 | |
| 0152-B | FS | NFS | Gamma | Am-241 | 0.2558 | 0.3127 | 0.5264 | U |
| 0152-B | FS | NFS | Gamma | Th-232 | 0.5251 | 0.2282 | 0.3748 | |
| 0152-B | FS | NFS | Gamma | U-235 | 0.4664 | 0.0636 | 0.1014 | |
| 0152-B | FS | NFS | Gamma | U-238 | -1.35 | -5.808 | 8.292 | U |
| 0152-C | FS | NFS | Gamma | Am-241 | -0.252 | -0.2787 | 0.4757 | U |
| 0152-C | FS | NFS | Gamma | Th-232 | 1.417 | 0.2854 | 0.4572 | |
| 0152-C | FS | NFS | Gamma | U-235 | 0.0864 | 0.0562 | 0.0938 | U |
| 0152-C | FS | NFS | Gamma | U-238 | 3.167 | 5.762 | 12.16 | U |
| 0152-D | FS | NFS | Gamma | Am-241 | 0.3823 | 0.3369 | 0.5649 | U |
| 0152-D | FS | NFS | Gamma | Th-232 | 0.9788 | 0.2588 | 0.4203 | |
| 0152-D | FS | NFS | Gamma | U-235 | 0.3368 | 0.065 | 0.105 | |
| 0152-D | FS | NFS | Gamma | U-238 | 3.278 | 4.86 | 8.209 | U |
| 0152-E | FS | NFS | Gamma | Am-241 | -0.3231 | -0.2694 | 0.4607 | U |
| 0152-E | FS | NFS | Gamma | Th-232 | 1.322 | 0.2425 | 0.3848 | |
| 0152-E | FS | NFS | Gamma | U-235 | 0.0132 | 0.0537 | 0.0903 | U |
| 0152-E | FS | NFS | Gamma | U-238 | 1.849 | 6.031 | 10.23 | U |
| 0153-A | FS | PARAGON | LSC | Tc-99 | 0.94 | 0.9 | 1.44 | U |
| 0153-A | FS | PARAGON | LSC | Pu-241 | 3.6 | 2.8 | 4.4 | U |
| 0153-A | FS | PARAGON | Gamma | Am-241 | 0.96 | 0.76 | 1.22 | U |
| 0153-A | FS | PARAGON | Gamma | Th-232 | 1.17 | 0.39 | 0.67 | J |
| 0153-A | FS | PARAGON | Gamma | U-235 | -0.13 | 0.47 | 0.83 | U |
| 0153-A | FS | PARAGON | Alpha | Am-241 | 0.62 | 0.13 | 0.01 | |
| 0153-A | FS | PARAGON | Alpha | Pu-238 | 0.085 | 0.034 | 0.028 | J |
| 0153-A | FS | PARAGON | Alpha | Pu-239/240 | 1.79 | 0.32 | 0.02 | |
| 0153-A | FS | PARAGON | Alpha | Pu-242 | 0.027 | 0.016 | 0.013 | |
| 0153-A | FS | PARAGON | Alpha | Th-230 | 1 | 0.19 | 0.05 | |
| 0153-A | FS | PARAGON | Alpha | Th-232 | 1.17 | 0.22 | 0.02 | |
| 0153-A | FS | PARAGON | Alpha | U-233/234 | 11.2 | 1.9 | 0.1 | |
| 0153-A | FS | PARAGON | Alpha | U-235 | 0.42 | 0.13 | 0.04 | |
| 0153-A | FS | PARAGON | Alpha | U-238 | 1.6 | 0.33 | 0.06 | |
| 0153-A | FS | NFS | Gamma | Am-241 | 0.4687 | 0.373 | 0.6709 | U |
| 0153-A | FS | NFS | Gamma | Th-232 | 1.339 | 0.2824 | 0.4472 | |
| 0153-A | FS | NFS | Gamma | U-235 | 0.4571 | 0.0731 | 0.1161 | |
| 0153-A | FS | NFS | Gamma | U-238 | 0.9068 | 4.886 | 8.331 | U |
| 0153-A-DUP | FD | PARAGON | LSC | Pu-241 | 4.7 | 3 | 4.6 | |
| 0153-A-DUP | FD | PARAGON | Gamma | Am-241 | 0.42 | 0.35 | 0.54 | U |
| 0153-A-DUP | FD | PARAGON | Gamma | Th-232 | 0.97 | 0.33 | 0.7 | |
| 0153-A-DUP | FD | PARAGON | Gamma | U-235 | 0.6 | 0.45 | 0.71 | U |
| 0153-A-DUP | FD | PARAGON | Alpha | Am-241 | 0.64 | 0.13 | 0.02 | |
| 0153-A-DUP | FD | PARAGON | Alpha | Pu-238 | 0.111 | 0.038 | 0.021 | |
| 0153-A-DUP | FD | PARAGON | Alpha | Pu-239/240 | 1.9 | 0.34 | 0.03 | |
| 0153-A-DUP | FD | PARAGON | Alpha | Pu-242 | 0.023 | 0.016 | 0.017 | |
| 0153-A-DUP | FD | PARAGON | Alpha | Th-230 | 0.95 | 0.18 | 0.05 | |
| 0153-A-DUP | FD | PARAGON | Alpha | Th-232 | 1.17 | 0.22 | 0.02 | |
| 0153-A-DUP | FD | PARAGON | Alpha | U-233/234 | 10.3 | 1.7 | 0 | |
| 0153-A-DUP | FD | PARAGON | Alpha | U-235 | 0.3 | 0.1 | 0.02 | |
| 0153-A-DUP | FD | PARAGON | Alpha | U-238 | 1.37 | 0.28 | 0.01 | |

## Survey Unit 08 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0153-A-DUP | LR | PARAGON | Gamma | Am-241 | 0.8 | 0.58 | 0.88 | U |
| 0153-A-DUP | LR | PARAGON | Gamma | Th-232 | 1.06 | 0.46 | 0.65 | J |
| 0153-A-DUP | LR | PARAGON | Gamma | U-235 | 0.47 | 0.4 | 0.61 | U |
| 0153-B | FS | NFS | Gamma | Am-241 | -0.2519 | -0.2985 | 0.5087 | U |
| 0153-B | FS | NFS | Gamma | Th-232 | 1.576 | 0.2914 | 0.4668 | |
| 0153-B | FS | NFS | Gamma | U-235 | 0.1994 | 0.0556 | 0.0917 | |
| 0153-B | FS | NFS | Gamma | U-238 | -1.405 | -6.273 | 11.35 | U |
| 0153-C | FS | NFS | Gamma | Am-241 | -0.1743 | -0.3986 | 0.6783 | U |
| 0153-C | FS | NFS | Gamma | Th-232 | 1.993 | 0.2749 | 0.4284 | |
| 0153-C | FS | NFS | Gamma | U-235 | 0.1335 | 0.0715 | 0.1191 | |
| 0153-C | FS | NFS | Gamma | U-238 | -12.39 | -5.946 | 10.45 | U |
| 0153-D | FS | NFS | Gamma | Am-241 | 0.2714 | 0.2725 | 0.4581 | U |
| 0153-D | FS | NFS | Gamma | Th-232 | 1.852 | 0.2627 | 0.413 | |
| 0153-D | FS | NFS | Gamma | U-235 | -0.0318 | -0.0579 | 0.0976 | U |
| 0153-D | FS | NFS | Gamma | U-238 | 3.449 | 5.783 | 10.69 | U |
| 0153-E | FS | NFS | Gamma | Am-241 | -0.148 | -0.3568 | 0.6074 | U |
| 0153-E | FS | NFS | Gamma | Th-232 | 1.375 | 0.2447 | 0.3891 | |
| 0153-E | FS | NFS | Gamma | U-235 | 0.1441 | 0.0636 | 0.106 | |
| 0153-E | FS | NFS | Gamma | U-238 | -1.007 | -5.083 | 8.703 | U |
| 0153-E-DUP | FD | NFS | Gamma | Am-241 | -0.2059 | -0.2699 | 0.4602 | U |
| 0153-E-DUP | FD | NFS | Gamma | Th-232 | 1.462 | 0.2663 | 0.4239 | |
| 0153-E-DUP | FD | NFS | Gamma | U-235 | -0.0393 | -0.0555 | 0.0943 | U |
| 0153-E-DUP | FD | NFS | Gamma | U-238 | 3.121 | 5.917 | 10.76 | U |
| 0154-A | FS | PARAGON | LSC | Tc-99 | 0.18 | 0.85 | 1.42 | U |
| 0154-A | FS | NFS | Gamma | Am-241 | 1.338 | 0.4212 | 0.6874 | |
| 0154-A | FS | NFS | Gamma | Th-232 | 1.7 | 0.271 | 0.4163 | |
| 0154-A | FS | NFS | Gamma | U-235 | 0.5969 | 0.0755 | 0.1199 | |
| 0154-A | FS | NFS | Gamma | U-238 | 0.3355 | 5.149 | 8.789 | U |
| 0154-B | FS | NFS | Gamma | Am-241 | -0.1687 | -0.2578 | 0.4394 | U |
| 0154-B | FS | NFS | Gamma | Th-232 | 0.5225 | 0.2707 | 0.4503 | |
| 0154-B | FS | NFS | Gamma | U-235 | 0.2385 | 0.0531 | 0.0866 | |
| 0154-B | FS | NFS | Gamma | U-238 | 2.512 | 5.873 | 9.946 | U |
| 0154-C | FS | NFS | Gamma | Am-241 | 0.0941 | 0.3858 | 0.6532 | U |
| 0154-C | FS | NFS | Gamma | Th-232 | 1.471 | 0.3025 | 0.4875 | |
| 0154-C | FS | NFS | Gamma | U-235 | 0.1464 | 0.0715 | 0.1164 | |
| 0154-C | FS | NFS | Gamma | U-238 | -0.8305 | -5.9 | 10.09 | U |
| 0154-D | FS | NFS | Gamma | Am-241 | -0.6187 | -0.2997 | 0.5138 | U |
| 0154-D | FS | NFS | Gamma | Th-232 | 2.398 | 0.2796 | 0.4316 | |
| 0154-D | FS | NFS | Gamma | U-235 | 0.173 | 0.0591 | 0.098 | |
| 0154-D | FS | NFS | Gamma | U-238 | 8.986 | 4.999 | 8.288 | |
| 0154-E | FS | NFS | Gamma | Am-241 | -0.1756 | -0.3911 | 0.6658 | U |
| 0154-E | FS | NFS | Gamma | Th-232 | 1.384 | 0.2666 | 0.4183 | |
| 0154-E | FS | NFS | Gamma | U-235 | 0.1039 | 0.059 | 0.098 | |
| 0154-E | FS | NFS | Gamma | U-238 | 3.682 | 4.755 | 8.016 | U |
| 0155-A | FS | NFS | Gamma | Am-241 | -0.4384 | -0.234 | 0.4029 | U |
| 0155-A | FS | NFS | Gamma | Th-232 | 0.6863 | 0.229 | 0.3747 | |
| 0155-A | FS | NFS | Gamma | U-235 | 0.0971 | 0.0503 | 0.0833 | |
| 0155-A | FS | NFS | Gamma | U-238 | 4.374 | 5.007 | 8.427 | U |
| 0155-B | FS | PARAGON | LSC | Tc-99 | 0.22 | 0.85 | 1.43 | U |
| 0155-B | FS | NFS | Gamma | Am-241 | -0.2753 | -0.3318 | 0.5675 | U |
| 0155-B | FS | NFS | Gamma | Th-232 | 0.5798 | 0.2517 | 0.4167 | |
| 0155-B | FS | NFS | Gamma | U-235 | 0.132 | 0.0547 | 0.0903 | |
| 0155-B | FS | NFS | Gamma | U-238 | -5.922 | -4.614 | 9.014 | U |

## Survey Unit 08 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0155-C | FS | NFS | Gamma | Am-241 | -0.2022 | -0.2625 | 0.4476 | U |
| 0155-C | FS | NFS | Gamma | Th-232 | 1.388 | 0.2552 | 0.4035 | |
| 0155-C | FS | NFS | Gamma | U-235 | 0.0263 | 0.0569 | 0.0921 | U |
| 0155-C | FS | NFS | Gamma | U-238 | -2.146 | -6.293 | 10.76 | U |
| 0155-D | FS | NFS | Gamma | Am-241 | -0.4817 | -0.3573 | 0.6125 | U |
| 0155-D | FS | NFS | Gamma | Th-232 | 1.24 | 0.2655 | 0.429 | |
| 0155-D | FS | NFS | Gamma | U-235 | 0.0968 | 0.0527 | 0.0877 | |
| 0155-D | FS | NFS | Gamma | U-238 | -2.066 | -5.212 | 8.948 | U |
| 0155-E | FS | NFS | Gamma | Am-241 | -0.1108 | -2683 | 0.4563 | U |
| 0155-E | FS | NFS | Gamma | Th-232 | 1.68 | 0.2553 | 0.4013 | |
| 0155-E | FS | NFS | Gamma | U-235 | 0.0554 | 0.0502 | 0.0844 | U |
| 0155-E | FS | NFS | Gamma | U-238 | 4.884 | 5.706 | 9.322 | U |
| 0155-F | FS | NFS | Gamma | Am-241 | -0.7015 | -0.3972 | 0.6833 | U |
| 0155-F | FS | NFS | Gamma | Th-232 | 1.627 | 0.2611 | 0.4091 | |
| 0155-F | FS | NFS | Gamma | U-235 | 0.1096 | 0.0588 | 0.098 | |
| 0155-F | FS | NFS | Gamma | U-238 | 4.698 | 4.765 | 8.118 | U |
| 0156-A | FS | NFS | Gamma | Am-241 | -0.3033 | -0.2269 | 0.3892 | U |
| 0156-A | FS | NFS | Gamma | Th-232 | 0.3515 | 0.2337 | 0.3903 | U |
| 0156-A | FS | NFS | Gamma | U-235 | 0.0334 | 0.0489 | 0.0825 | U |
| 0156-A | FS | NFS | Gamma | U-238 | 3.384 | 4.538 | 7.654 | U |
| 0156-B | FS | NFS | Gamma | Am-241 | -0.3004 | -0.3153 | 0.5393 | U |
| 0156-B | FS | NFS | Gamma | Th-232 | 0.8061 | 0.2139 | 0.3419 | |
| 0156-B | FS | NFS | Gamma | U-235 | 0.1344 | 0.05 | 0.0804 | |
| 0156-B | FS | NFS | Gamma | U-238 | 3.693 | 3.89 | 6.521 | U |
| 0156-C | FS | NFS | Gamma | Am-241 | -0.4077 | -0.2968 | 0.5078 | U |
| 0156-C | FS | NFS | Gamma | Th-232 | 1.496 | 0.2732 | 0.4352 | |
| 0156-C | FS | NFS | Gamma | U-235 | 0.2335 | 0.0564 | 0.0921 | |
| 0156-C | FS | NFS | Gamma | U-238 | -4.024 | -10.68 | 10.3 | U |
| 0156-D | FS | NFS | Gamma | Am-241 | -0.0174 | -0.354 | 0.6009 | U |
| 0156-D | FS | NFS | Gamma | Th-232 | 1.279 | 0.2322 | 0.3657 | |
| 0156-D | FS | NFS | Gamma | U-235 | 0.0504 | 0.0573 | 0.0935 | U |
| 0156-D | FS | NFS | Gamma | U-238 | -1.59 | -4.865 | 8.36 | U |
| 0156-E | FS | NFS | Gamma | Am-241 | 0.0049 | 0.2599 | 0.4406 | U |
| 0156-E | FS | NFS | Gamma | Th-232 | 1.699 | 0.2295 | 0.352 | |
| 0156-E | FS | NFS | Gamma | U-235 | 0.1078 | 0.0558 | 0.0923 | |
| 0156-E | FS | NFS | Gamma | U-238 | -2.115 | -5.579 | 9.556 | U |
| 0156-E-DUP | FD | NFS | Gamma | Am-241 | -0.4807 | -0.3618 | 0.6197 | U |
| 0156-E-DUP | FD | NFS | Gamma | Th-232 | 0.7813 | 0.2469 | 0.3961 | |
| 0156-E-DUP | FD | NFS | Gamma | U-235 | 0.0987 | 0.0529 | 0.0868 | |
| 0156-E-DUP | FD | NFS | Gamma | U-238 | -2.721 | -4.154 | 8.353 | U |
| 0156-F | FS | NFS | Gamma | Am-241 | -0.1536 | -0.2494 | 0.4253 | U |
| 0156-F | FS | NFS | Gamma | Th-232 | 0.686 | 0.2093 | 0.3398 | |
| 0156-F | FS | NFS | Gamma | U-235 | 0.1564 | 0.0502 | 0.0828 | |
| 0156-F | FS | NFS | Gamma | U-238 | -3.078 | -5.311 | 9.138 | U |
| 0157-A | FS | PARAGON | LSC | Tc-99 | 3.5 | 1.1 | 1.4 | |
| 0157-A | FS | PARAGON | LSC | Pu-241 | 5.6 | 3.1 | 4.6 | |
| 0157-A | FS | PARAGON | Gamma | Am-241 | 1.26 | 0.9 | 1.38 | U |
| 0157-A | FS | PARAGON | Gamma | Th-232 | 1.05 | 0.29 | 0.47 | |
| 0157-A | FS | PARAGON | Gamma | U-235 | 1.07 | 0.35 | 0.54 | |
| 0157-A | FS | PARAGON | Alpha | Am-241 | 1.35 | 0.34 | 0.12 | |
| 0157-A | FS | PARAGON | Alpha | Pu-238 | 0.24 | 0.095 | 0.055 | |
| 0157-A | FS | PARAGON | Alpha | Pu-239/240 | 4.16 | 0.75 | 0.09 | |
| 0157-A | FS | PARAGON | Alpha | Pu-242 | 0.039 | 0.021 | 0.014 | R |

## Survey Unit 08 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0157-A | FS | PARAGON | Alpha | Th-230 | 1.04 | 0.31 | 0.26 | |
| 0157-A | FS | PARAGON | Alpha | Th-232 | 1.57 | 0.38 | 0.03 | |
| 0157-A | FS | PARAGON | Alpha | U-233/234 | 38.7 | 6.7 | 0.2 | |
| 0157-A | FS | PARAGON | Alpha | U-235 | 1 | 0.39 | 0.08 | |
| 0157-A | FS | PARAGON | Alpha | U-238 | 2.01 | 0.57 | 0.18 | |
| 0157-A | FS | NFS | Gamma | Am-241 | 1.306 | 0.4256 | 0.6992 | |
| 0157-A | FS | NFS | Gamma | Th-232 | 1.287 | 0.3091 | 0.4863 | |
| 0157-A | FS | NFS | Gamma | U-235 | 1.313 | 0.0745 | 0.1065 | |
| 0157-A | FS | NFS | Gamma | U-238 | 1.103 | 5.186 | 8.83 | U |
| 0157-B | FS | NFS | Gamma | Am-241 | 0.1888 | 0.2479 | 0.4177 | U |
| 0157-B | FS | NFS | Gamma | Th-232 | 0.8342 | 0.23 | 0.3733 | |
| 0157-B | FS | NFS | Gamma | U-235 | 0.2517 | 0.0538 | 0.0878 | |
| 0157-B | FS | NFS | Gamma | U-238 | -5.058 | -11.1 | 9.088 | U |
| 0157-C | FS | NFS | Gamma | Am-241 | 0.0529 | 0.3954 | 0.6697 | U |
| 0157-C | FS | NFS | Gamma | Th-232 | 1.328 | 0.2737 | 0.4389 | |
| 0157-C | FS | NFS | Gamma | U-235 | 0.0781 | 0.059 | 0.099 | U |
| 0157-C | FS | NFS | Gamma | U-238 | -0.8287 | -5.994 | 9.354 | U |
| 0157-D | FS | NFS | Gamma | Am-241 | -0.1744 | -0.2563 | 0.4369 | U |
| 0157-D | FS | NFS | Gamma | Th-232 | 1.017 | 0.2397 | 0.387 | |
| 0157-D | FS | NFS | Gamma | U-235 | 0.0879 | 0.0526 | 0.0873 | |
| 0157-D | FS | NFS | Gamma | U-238 | -0.679 | -7.736 | 9.406 | U |
| 0157-E | FS | NFS | Gamma | Am-241 | -0.4562 | -0.3817 | 0.6527 | U |
| 0157-E | FS | NFS | Gamma | Th-232 | 1.051 | 0.2776 | 0.4493 | |
| 0157-E | FS | NFS | Gamma | U-235 | 0.0968 | 0.0557 | 0.0931 | |
| 0157-E | FS | NFS | Gamma | U-238 | -1.432 | -5.524 | 9.203 | U |
| 0158-A | FS | PARAGON | LSC | Tc-99 | 1.04 | 0.87 | 1.38 | UJ |
| 0158-A | FS | NFS | Gamma | Am-241 | -0.3258 | -0.324 | 0.5531 | U |
| 0158-A | FS | NFS | Gamma | Th-232 | 1.646 | 0.2943 | 0.4588 | |
| 0158-A | FS | NFS | Gamma | U-235 | 1.529 | 0.0811 | 0.1155 | |
| 0158-A | FS | NFS | Gamma | U-238 | 2.77 | 7.188 | 12.19 | U |
| 0158-B | FS | NFS | Gamma | Am-241 | -0.5522 | -0.3579 | 0.6145 | U |
| 0158-B | FS | NFS | Gamma | Th-232 | 0.9172 | 0.2545 | 0.3983 | |
| 0158-B | FS | NFS | Gamma | U-235 | 0.7409 | 0.0631 | 0.0955 | |
| 0158-B | FS | NFS | Gamma | U-238 | -6.013 | -5.67 | 9.817 | U |
| 0158-C | FS | NFS | Gamma | Am-241 | -0.0896 | -0.2901 | 0.4928 | U |
| 0158-C | FS | NFS | Gamma | Th-232 | 1.794 | 0.2561 | 0.3998 | |
| 0158-C | FS | NFS | Gamma | U-235 | 0.182 | 0.0529 | 0.087 | |
| 0158-C | FS | NFS | Gamma | U-238 | 9.673 | 5.996 | 9.995 | U |
| 0158-D | FS | NFS | Gamma | Am-241 | -0.4595 | -0.3876 | 0.6628 | U |
| 0158-D | FS | NFS | Gamma | Th-232 | 1.284 | 0.2508 | 0.3964 | |
| 0158-D | FS | NFS | Gamma | U-235 | 0.1984 | 0.0566 | 0.0909 | |
| 0158-D | FS | NFS | Gamma | U-238 | 8.04 | 5.238 | 8.664 | U |
| 0158-D-DUP | FD | NFS | Gamma | Am-241 | -0.0205 | -0.2834 | 0.4805 | U |
| 0158-D-DUP | FD | NFS | Gamma | Th-232 | 1.367 | 0.2713 | 0.4368 | |
| 0158-D-DUP | FD | NFS | Gamma | U-235 | 0.0694 | 0.0536 | 0.0884 | U |
| 0158-D-DUP | FD | NFS | Gamma | U-238 | 0.414 | 6.363 | 10.81 | U |
| 0158-E | FS | NFS | Gamma | Am-241 | -0.3935 | -0.3523 | 0.6028 | U |
| 0158-E | FS | NFS | Gamma | Th-232 | 1.107 | 0.212 | 0.3358 | |
| 0158-E | FS | NFS | Gamma | U-235 | 0.073 | 0.0587 | 0.0888 | U |
| 0158-E | FS | NFS | Gamma | U-238 | 0.3407 | 5.393 | 9.186 | U |
| 0159-A | FS | NFS | Gamma | Am-241 | 0.1657 | 0.2687 | 0.4533 | U |
| 0159-A | FS | NFS | Gamma | Th-232 | 1.362 | 0.2618 | 0.4175 | |
| 0159-A | FS | NFS | Gamma | U-235 | 0.0403 | 0.0525 | 0.0884 | U |

## Survey Unit 08 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0159-A | FS | NFS | Gamma | U-238 | 6.014 | 6.14 | 10.32 | U |
| 0159-B | FS | NFS | Gamma | Am-241 | 0.1288 | 0.3159 | 0.5342 | U |
| 0159-B | FS | NFS | Gamma | Th-232 | 0.4757 | 0.2159 | 0.3599 | |
| 0159-B | FS | NFS | Gamma | U-235 | 0.0854 | 0.0482 | 0.0804 | |
| 0159-B | FS | NFS | Gamma | U-238 | -0.0892 | -5.394 | 9.209 | U |
| 0159-C | FS | NFS | Gamma | Am-241 | 0.0329 | 0.2545 | 0.4311 | U |
| 0159-C | FS | NFS | Gamma | Th-232 | 0.5936 | 0.2962 | 0.4926 | |
| 0159-C | FS | NFS | Gamma | U-235 | 0.0446 | 0.0505 | 0.0849 | U |
| 0159-C | FS | NFS | Gamma | U-238 | 2.073 | 6.591 | 11.17 | U |
| 0159-D | FS | NFS | Gamma | Am-241 | 0.3411 | 0.3982 | 0.6699 | U |
| 0159-D | FS | NFS | Gamma | Th-232 | 1.366 | 0.2306 | 0.361 | |
| 0159-D | FS | NFS | Gamma | U-235 | 0.0924 | 0.0549 | 0.0899 | |
| 0159-D | FS | NFS | Gamma | U-238 | -2.479 | -5.98 | 10.25 | U |
| 0159-E | FS | NFS | Gamma | Am-241 | -0.0881 | -0.2575 | 0.4374 | U |
| 0159-E | FS | NFS | Gamma | Th-232 | -0.1496 | -0.4538 | 0.7713 | U |
| 0159-E | FS | NFS | Gamma | U-235 | 0.0138 | 0.0541 | 0.0916 | U |
| 0159-E | FS | NFS | Gamma | U-238 | -2.289 | -8.82 | 15.03 | U |
| 0159-F | FS | NFS | Gamma | Am-241 | 0.0006 | 0.3791 | 0.6433 | U |
| 0159-F | FS | NFS | Gamma | Th-232 | 1.056 | 0.2391 | 0.3831 | |
| 0159-F | FS | NFS | Gamma | U-235 | 0.0677 | 0.0591 | 0.0972 | U |
| 0159-F | FS | NFS | Gamma | U-238 | -10.2 | -7.117 | 12.34 | U |
| 0160-A | FS | NFS | Gamma | Am-241 | 0.2745 | 0.2737 | 0.4263 | U |
| 0160-A | FS | NFS | Gamma | Th-232 | 0.7383 | 0.1956 | 0.3142 | |
| 0160-A | FS | NFS | Gamma | U-235 | 0.1315 | 0.0533 | 0.0884 | |
| 0160-A | FS | NFS | Gamma | U-238 | -5.615 | -5.645 | 9.751 | U |
| 0160-B | FS | NFS | Gamma | Am-241 | -0.2857 | -0.3388 | 0.5796 | U |
| 0160-B | FS | NFS | Gamma | Th-232 | 0.985 | 0.2076 | 0.3298 | |
| 0160-B | FS | NFS | Gamma | U-235 | 0.0999 | 0.0504 | 0.0839 | |
| 0160-B | FS | NFS | Gamma | U-238 | 0.0509 | 4.463 | 7.63 | U |
| 0160-C | FS | NFS | Gamma | Am-241 | 0.172 | 0.2465 | 0.4155 | U |
| 0160-C | FS | NFS | Gamma | Th-232 | 0.9616 | 0.1854 | 0.291 | |
| 0160-C | FS | NFS | Gamma | U-235 | 0.0742 | 0.053 | 0.0887 | U |
| 0160-C | FS | NFS | Gamma | U-238 | -6.696 | -5.656 | 9.253 | U |
| 0160-C-DUP | FD | NFS | Gamma | Am-241 | -0.1612 | -0.3542 | 0.6036 | U |
| 0160-C-DUP | FD | NFS | Gamma | Th-232 | 0.9077 | 0.2185 | 0.3486 | |
| 0160-C-DUP | FD | NFS | Gamma | U-235 | 0.137 | 0.0554 | 0.0893 | |
| 0160-C-DUP | FD | NFS | Gamma | U-238 | -3.487 | -5.051 | 8.713 | U |
| 0160-D | FS | NFS | Gamma | Am-241 | 0.1437 | 0.2745 | 0.4634 | U |
| 0160-D | FS | NFS | Gamma | Th-232 | 0.9521 | 0.2101 | 0.3357 | |
| 0160-D | FS | NFS | Gamma | U-235 | 0.0725 | 0.0541 | 0.0907 | U |
| 0160-D | FS | NFS | Gamma | U-238 | 1.875 | 5.238 | 8.979 | U |
| 0160-E | FS | NFS | Gamma | Am-241 | -0.4643 | -0.3897 | 0.6667 | U |
| 0160-E | FS | NFS | Gamma | Th-232 | 1.522 | 0.231 | 0.3613 | |
| 0160-E | FS | NFS | Gamma | U-235 | 0.0237 | 0.0598 | 0.101 | U |
| 0160-E | FS | NFS | Gamma | U-238 | -2.182 | -5.39 | 9.248 | U |
| 0160-F | FS | NFS | Gamma | Am-241 | 0.4148 | 0.2532 | 0.4229 | U |
| 0160-F | FS | NFS | Gamma | Th-232 | 0.278 | 0.2206 | 0.3692 | U |
| 0160-F | FS | NFS | Gamma | U-235 | 0.1768 | 0.055 | 0.0908 | |
| 0160-F | FS | NFS | Gamma | U-238 | -7.56 | -6.409 | 11.08 | U |
| 0161-A | FS | PARAGON | LSC | Tc-99 | 5.6 | 1.3 | 1.4 | J |
| 0161-A | FS | PARAGON | LSC | Pu-241 | 8.8 | 3.5 | 4.8 | |
| 0161-A | FS | PARAGON | Gamma | Am-241 | 1.51 | 0.27 | 0.19 | |
| 0161-A | FS | PARAGON | Gamma | Th-232 | 1.24 | 0.37 | 0.67 | |

## Survey Unit 08 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0161-A | FS | PARAGON | Gamma | U-235 | 0.99 | 0.37 | 0.65 | |
| 0161-A | FS | PARAGON | Alpha | Am-241 | 1.34 | 0.23 | 0 | |
| 0161-A | FS | PARAGON | Alpha | Pu-238 | 0.214 | 0.052 | 0.013 | |
| 0161-A | FS | PARAGON | Alpha | Pu-239/240 | 4.03 | 0.66 | 0.02 | |
| 0161-A | FS | PARAGON | Alpha | Pu-242 | 0.005 | 0.013 | 0.026 | U |
| 0161-A | FS | PARAGON | Alpha | Th-230 | 1 | 0.18 | 0.04 | |
| 0161-A | FS | PARAGON | Alpha | Th-232 | 1.73 | 0.3 | 0.02 | |
| 0161-A | FS | PARAGON | Alpha | U-233/234 | 27 | 4.5 | 0.1 | |
| 0161-A | FS | PARAGON | Alpha | U-235 | 0.89 | 0.21 | 0.02 | |
| 0161-A | FS | PARAGON | Alpha | U-238 | 1.91 | 0.37 | 0.03 | |
| 0161-A | FS | NFS | Gamma | Am-241 | 0.7383 | 0.3243 | 0.5398 | |
| 0161-A | FS | NFS | Gamma | Th-232 | 1.826 | 0.2699 | 0.4232 | |
| 0161-A | FS | NFS | Gamma | U-235 | 1.206 | 0.0659 | 0.0957 | |
| 0161-A | FS | NFS | Gamma | U-238 | -2.551 | -7.863 | 9.74 | U |
| 0161-A | LR | PARAGON | LSC | Tc-99 | 3.2 | 1.1 | 1.4 | |
| 0161-B | FS | NFS | Gamma | Am-241 | -0.2132 | -0.361 | 0.6156 | U |
| 0161-B | FS | NFS | Gamma | Th-232 | 1.047 | 0.2111 | 0.3328 | |
| 0161-B | FS | NFS | Gamma | U-235 | 0.4589 | 0.0573 | 0.09 | |
| 0161-B | FS | NFS | Gamma | U-238 | -9.988 | -5.821 | 10.17 | U |
| 0161-C | FS | NFS | Gamma | Am-241 | 0.2185 | 0.2708 | 0.456 | U |
| 0161-C | FS | NFS | Gamma | Th-232 | 1.921 | 0.2438 | 0.3736 | |
| 0161-C | FS | NFS | Gamma | U-235 | 0.13 | 0.0565 | 0.0941 | |
| 0161-C | FS | NFS | Gamma | U-238 | -0.865 | -5.858 | 9.995 | U |
| 0161-D | FS | NFS | Gamma | Am-241 | 0.1348 | 0.3617 | 0.6116 | U |
| 0161-D | FS | NFS | Gamma | Th-232 | 1.388 | 0.2528 | 0.3997 | |
| 0161-D | FS | NFS | Gamma | U-235 | 0.1808 | 0.0576 | 0.0951 | |
| 0161-D | FS | NFS | Gamma | U-238 | 0.6867 | 4.847 | 8.265 | U |
| 0161-D-DUP | FD | NFS | Gamma | Am-241 | -0.353 | -0.3055 | 0.5216 | U |
| 0161-D-DUP | FD | NFS | Gamma | Th-232 | 1.782 | 0.2177 | 0.3297 | |
| 0161-D-DUP | FD | NFS | Gamma | U-235 | 0.049 | 0.0556 | 0.0933 | U |
| 0161-D-DUP | FD | NFS | Gamma | U-238 | -1.278 | -5.613 | 9.587 | U |
| 0161-E | FS | NFS | Gamma | Am-241 | 0.0793 | 0.3651 | 0.6183 | U |
| 0161-E | FS | NFS | Gamma | Th-232 | 1.022 | 0.2465 | 0.3991 | |
| 0161-E | FS | NFS | Gamma | U-235 | 0.098 | 0.0546 | 0.0893 | |
| 0161-E | FS | NFS | Gamma | U-238 | -3.008 | -5.02 | 8.656 | U |
| 0162-A | FS | NFS | Gamma | Am-241 | -0.2035 | -0.3615 | 0.6165 | U |
| 0162-A | FS | NFS | Gamma | Th-232 | 0.6779 | 0.2798 | 0.4355 | |
| 0162-A | FS | NFS | Gamma | U-235 | 0.3586 | 0.0594 | 0.0931 | |
| 0162-A | FS | NFS | Gamma | U-238 | -5.882 | -5.593 | 9.69 | U |
| 0162-B | FS | NFS | Gamma | Am-241 | 0.1607 | 0.2404 | 0.4054 | U |
| 0162-B | FS | NFS | Gamma | Th-232 | -0.2157 | -0.3432 | 0.5867 | U |
| 0162-B | FS | NFS | Gamma | U-235 | 0.3302 | 0.0559 | 0.091 | |
| 0162-B | FS | NFS | Gamma | U-238 | -2.463 | -6.685 | 11.45 | U |
| 0162-C | FS | NFS | Gamma | Am-241 | -0.514 | -0.4165 | 0.7125 | U |
| 0162-C | FS | NFS | Gamma | Th-232 | 1.5 | 0.2539 | 0.3927 | |
| 0162-C | FS | NFS | Gamma | U-235 | 0.118 | 0.0615 | 0.101 | |
| 0162-C | FS | NFS | Gamma | U-238 | -7.735 | -6.168 | 10.69 | U |
| 0162-D | FS | NFS | Gamma | Am-241 | -0.2211 | -0.2819 | 0.4802 | U |
| 0162-D | FS | NFS | Gamma | Th-232 | 2.017 | 0.2259 | 0.3385 | |
| 0162-D | FS | NFS | Gamma | U-235 | 0.049 | 0.0544 | 0.0902 | U |
| 0162-D | FS | NFS | Gamma | U-238 | -1.339 | -5.663 | 9.674 | U |
| 0162-E | FS | NFS | Gamma | Am-241 | -0.0296 | -0.3686 | 0.6256 | U |
| 0162-E | FS | NFS | Gamma | Th-232 | 1.412 | 0.2351 | 0.3686 | |

## Survey Unit 08 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0162-E | FS | NFS | Gamma | U-235 | 0.0783 | 0.0525 | 0.0878 | U |
| 0162-E | FS | NFS | Gamma | U-238 | -3.454 | -5.59 | 9.615 | U |
| 0163-A | FS | NFS | Gamma | Am-241 | 0.2031 | 0.3512 | 0.5928 | U |
| 0163-A | FS | NFS | Gamma | Th-232 | 1.041 | 0.2534 | 0.401 | |
| 0163-A | FS | NFS | Gamma | U-235 | 0.1326 | 0.0527 | 0.0873 | |
| 0163-A | FS | NFS | Gamma | U-238 | -4.802 | -5.11 | 8.869 | U |
| 0163-B | FS | NFS | Gamma | Am-241 | 0.359 | 0.2308 | 0.3935 | U |
| 0163-B | FS | NFS | Gamma | Th-232 | 0.687 | 0.2046 | 0.3316 | |
| 0163-B | FS | NFS | Gamma | U-235 | 0.1277 | 0.0517 | 0.0859 | |
| 0163-B | FS | NFS | Gamma | U-238 | -3.217 | -6.335 | 10.85 | U |
| 0163-C | FS | NFS | Gamma | Am-241 | 0.1972 | 0.3276 | 0.5527 | U |
| 0163-C | FS | NFS | Gamma | Th-232 | 1.047 | 0.243 | 0.393 | |
| 0163-C | FS | NFS | Gamma | U-235 | 0.0625 | 0.0559 | 0.0938 | U |
| 0163-C | FS | NFS | Gamma | U-238 | -1.148 | -4.731 | 7.851 | U |
| 0163-D | FS | NFS | Gamma | Am-241 | -0.2773 | -0.2902 | 0.4949 | U |
| 0163-D | FS | NFS | Gamma | Th-232 | 1.166 | 0.2512 | 0.406 | |
| 0163-D | FS | NFS | Gamma | U-235 | 0.1794 | 0.0548 | 0.0905 | |
| 0163-D | FS | NFS | Gamma | U-238 | 8.502 | 6.129 | 10.25 | U |
| 0163-E | FS | NFS | Gamma | Am-241 | -1.008 | -0.4213 | 0.7228 | U |
| 0163-E | FS | NFS | Gamma | Th-232 | 1.882 | 0.2549 | 0.3959 | |
| 0163-E | FS | NFS | Gamma | U-235 | 0.1042 | 0.0609 | 0.0956 | |
| 0163-E | FS | NFS | Gamma | U-238 | -7.085 | -5.64 | 9.78 | U |
| 0163-F | FS | NFS | Gamma | Am-241 | 0.1503 | 0.2626 | 0.4431 | U |
| 0163-F | FS | NFS | Gamma | Th-232 | 1.326 | 0.237 | 0.3748 | |
| 0163-F | FS | NFS | Gamma | U-235 | -0.0278 | -0.0564 | 0.0959 | U |
| 0163-F | FS | NFS | Gamma | U-238 | -3.662 | -6.732 | 11.52 | U |
| 0164-A | FS | NFS | Gamma | Am-241 | 0.095 | 0.231 | 0.3851 | U |
| 0164-A | FS | NFS | Gamma | Th-232 | 0.4222 | 0.1974 | 0.3264 | |
| 0164-A | FS | NFS | Gamma | U-235 | 0.0676 | 0.0479 | 0.0797 | U |
| 0164-A | FS | NFS | Gamma | U-238 | -2.712 | -4.449 | 7.667 | U |
| 0164-B | FS | NFS | Gamma | Am-241 | 0.5102 | 0.3202 | 0.5338 | U |
| 0164-B | FS | NFS | Gamma | Th-232 | 0.583 | 0.2248 | 0.3637 | |
| 0164-B | FS | NFS | Gamma | U-235 | 0.1167 | 0.0531 | 0.0867 | |
| 0164-B | FS | NFS | Gamma | U-238 | 2.798 | 6.02 | 10.19 | U |
| 0164-C | FS | NFS | Gamma | Am-241 | -0.27 | -0.2925 | 0.4989 | U |
| 0164-C | FS | NFS | Gamma | Th-232 | 1.388 | 0.2419 | 0.3835 | |
| 0164-C | FS | NFS | Gamma | U-235 | 0.153 | 0.0533 | 0.0881 | |
| 0164-C | FS | NFS | Gamma | U-238 | 0.5262 | 4.789 | 8.155 | U |
| 0164-D | FS | NFS | Gamma | Am-241 | -0.3485 | -0.4227 | 0.7208 | U |
| 0164-D | FS | NFS | Gamma | Th-232 | 1.893 | 0.2481 | 0.382 | |
| 0164-D | FS | NFS | Gamma | U-235 | 0.0882 | 0.0605 | 0.0999 | U |
| 0164-D | FS | NFS | Gamma | U-238 | 8.616 | 6.586 | 11.02 | U |
| 0164-E | FS | NFS | Gamma | Am-241 | -0.4487 | -0.2852 | 0.4881 | U |
| 0164-E | FS | NFS | Gamma | Th-232 | 1.316 | 0.2208 | 0.3508 | |
| 0164-E | FS | NFS | Gamma | U-235 | 0.2056 | 0.0523 | 0.086 | |
| 0164-E | FS | NFS | Gamma | U-238 | -2.463 | -5.042 | 8.644 | U |
| 0164-F | FS | NFS | Gamma | Am-241 | -1.332 | -0.4299 | 0.739 | U |
| 0164-F | FS | NFS | Gamma | Th-232 | 1.354 | 0.2772 | 0.4426 | |
| 0164-F | FS | NFS | Gamma | U-235 | 0.0853 | 0.0616 | 0.0999 | U |
| 0164-F | FS | NFS | Gamma | U-238 | 9.69 | 6.385 | 10.05 | U |
| 0165-A | FS | PARAGON | LSC | Tc-99 | 0.22 | 0.83 | 1.39 | UJ |
| 0165-A | FS | PARAGON | LSC | Pu-241 | 1 | 2.2 | 3.6 | UJ |
| 0165-A | FS | PARAGON | Gamma | Am-241 | -0.01 | 0.65 | 1.17 | U |

## Survey Unit 08 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0165-A | FS | PARAGON | Gamma | Th-232 | 0.97 | 0.41 | 0.59 | J |
| 0165-A | FS | PARAGON | Gamma | U-235 | 0.23 | 0.4 | 0.67 | U |
| 0165-A | FS | PARAGON | Alpha | Am-241 | 0.162 | 0.043 | 0.013 | |
| 0165-A | FS | PARAGON | Alpha | Pu-238 | 0.033 | 0.017 | 0.005 | |
| 0165-A | FS | PARAGON | Alpha | Pu-239/240 | 0.55 | 0.11 | 0.01 | |
| 0165-A | FS | PARAGON | Alpha | Pu-242 | 0.009 | 0.0087 | 0.0121 | UJ |
| 0165-A | FS | PARAGON | Alpha | Th-230 | 0.74 | 0.17 | 0.06 | |
| 0165-A | FS | PARAGON | Alpha | Th-232 | 0.97 | 0.21 | 0.02 | |
| 0165-A | FS | PARAGON | Alpha | U-233/234 | 4.81 | 0.84 | 0.05 | |
| 0165-A | FS | PARAGON | Alpha | U-235 | 0.179 | 0.073 | 0.033 | |
| 0165-A | FS | PARAGON | Alpha | U-238 | 1.03 | 0.22 | 0.05 | |
| 0165-A | FS | NFS | Gamma | Am-241 | 0.1336 | 0.28 | 0.4729 | U |
| 0165-A | FS | NFS | Gamma | Th-232 | 1.172 | 0.2503 | 0.401 | |
| 0165-A | FS | NFS | Gamma | U-235 | 0.2044 | 0.0543 | 0.0893 | |
| 0165-A | FS | NFS | Gamma | U-238 | 2.21 | 7.957 | 8.564 | U |
| 0165-A | LR | PARAGON | Gamma | Am-241 | 0.22 | 0.11 | 0.15 | |
| 0165-A | LR | PARAGON | Gamma | Th-232 | 1.1 | 0.37 | 0.61 | J |
| 0165-A | LR | PARAGON | Gamma | U-235 | 0.17 | 0.31 | 0.52 | U |
| 0165-B | FS | NFS | Gamma | Am-241 | 0.2282 | 0.3395 | 0.5723 | U |
| 0165-B | FS | NFS | Gamma | Th-232 | 0.788 | 0.2087 | 0.3349 | |
| 0165-B | FS | NFS | Gamma | U-235 | 0.0339 | 0.0481 | 0.0803 | U |
| 0165-B | FS | NFS | Gamma | U-238 | -7.313 | -5.314 | 9.255 | U |
| 0165-B-DUP | FD | NFS | Gamma | Am-241 | 0.0294 | 0.2425 | 0.4108 | U |
| 0165-B-DUP | FD | NFS | Gamma | Th-232 | 1.13 | 0.1765 | 0.2681 | |
| 0165-B-DUP | FD | NFS | Gamma | U-235 | 0.0394 | 0.0469 | 0.0784 | U |
| 0165-B-DUP | FD | NFS | Gamma | U-238 | 5.342 | 3.936 | 6.704 | U |
| 0165-C | FS | NFS | Gamma | Am-241 | 0.0695 | 0.3836 | 0.6496 | U |
| 0165-C | FS | NFS | Gamma | Th-232 | 1.662 | 0.2481 | 0.3837 | |
| 0165-C | FS | NFS | Gamma | U-235 | 0.0995 | 0.0579 | 0.0928 | |
| 0165-C | FS | NFS | Gamma | U-238 | 1.91 | 5.362 | 8.981 | U |
| 0165-D | FS | NFS | Gamma | Am-241 | 1.276 | 0.6212 | 1.036 | |
| 0165-D | FS | NFS | Gamma | Th-232 | 7.031 | 1.054 | 1.574 | |
| 0165-D | FS | NFS | Gamma | U-235 | 0.2568 | 0.1569 | 0.2627 | U |
| 0165-D | FS | NFS | Gamma | U-238 | 32.97 | 21.54 | 34.68 | U |
| 0165-E | FS | NFS | Gamma | Am-241 | -0.3787 | -0.4025 | 0.6869 | U |
| 0165-E | FS | NFS | Gamma | Th-232 | 1.106 | 0.2738 | 0.4321 | |
| 0165-E | FS | NFS | Gamma | U-235 | -0.0162 | -0.0674 | 0.1013 | U |
| 0165-E | FS | NFS | Gamma | U-238 | 3.604 | 5.322 | 8.984 | U |
| 0165-F | FS | NFS | Gamma | Am-241 | 0.09 | 0.3394 | 0.5746 | U |
| 0165-F | FS | NFS | Gamma | Th-232 | 1.159 | 0.2104 | 0.3319 | |
| 0165-F | FS | NFS | Gamma | U-235 | 0.0017 | 0.0522 | 0.0886 | U |
| 0165-F | FS | NFS | Gamma | U-238 | -1.101 | -5.622 | 8.344 | U |
| 0166-A | FS | NFS | Gamma | Am-241 | -0.0667 | -0.3279 | 0.5562 | U |
| 0166-A | FS | NFS | Gamma | Th-232 | 1.339 | 0.276 | 0.4426 | |
| 0166-A | FS | NFS | Gamma | U-235 | 1.293 | 0.0677 | 0.0975 | |
| 0166-A | FS | NFS | Gamma | U-238 | 6.248 | 5.021 | 8.395 | U |
| 0166-B | FS | NFS | Gamma | Am-241 | 0.1549 | 0.3724 | 0.6295 | U |
| 0166-B | FS | NFS | Gamma | Th-232 | 1.048 | 0.2526 | 0.4028 | |
| 0166-B | FS | NFS | Gamma | U-235 | 0.1552 | 0.0574 | 0.0952 | |
| 0166-B | FS | NFS | Gamma | U-238 | -7.623 | -5.656 | 9.849 | U |
| 0166-C | FS | NFS | Gamma | Am-241 | 0.1364 | 0.3802 | 0.6419 | U |
| 0166-C | FS | NFS | Gamma | Th-232 | 1.756 | 0.2475 | 0.3849 | |
| 0166-C | FS | NFS | Gamma | U-235 | 0.1488 | 0.0559 | 0.0926 | |

## Survey Unit 08 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0166-C | FS | NFS | Gamma | U-238 | 1.082 | 5.362 | 9.063 | U |
| 0166-D | FS | NFS | Gamma | Am-241 | 0.4808 | 0.37 | 0.6195 | U |
| 0166-D | FS | NFS | Gamma | Th-232 | 1.447 | 0.2461 | 0.3887 | |
| 0166-D | FS | NFS | Gamma | U-235 | 0.0362 | 0.0634 | 0.0971 | U |
| 0166-D | FS | NFS | Gamma | U-238 | 3.751 | 5.784 | 9.765 | U |
| 0166-E | FS | NFS | Gamma | Am-241 | 0.2069 | 0.3603 | 0.6076 | U |
| 0166-E | FS | NFS | Gamma | Th-232 | 0.7069 | 0.1975 | 0.3197 | |
| 0166-E | FS | NFS | Gamma | U-235 | -0.0141 | -0.0495 | 0.0842 | U |
| 0166-E | FS | NFS | Gamma | U-238 | -4.316 | -5.313 | 9.149 | U |
| 0167-A | FS | PARAGON | LSC | Tc-99 | 7.3 | 2.2 | 2.7 | |
| 0167-A | FS | NFS | Gamma | Am-241 | 2.997 | 0.5466 | 0.8648 | |
| 0167-A | FS | NFS | Gamma | Th-232 | 3.615 | 0.3291 | 0.4832 | |
| 0167-A | FS | NFS | Gamma | U-235 | 2.316 | 0.0903 | 0.1172 | |
| 0167-A | FS | NFS | Gamma | U-238 | 7.02 | 5.706 | 8.807 | U |
| 0167-B | FS | NFS | Gamma | Am-241 | -0.1708 | -0.405 | 0.6887 | U |
| 0167-B | FS | NFS | Gamma | Th-232 | 1.905 | 0.2726 | 0.4211 | |
| 0167-B | FS | NFS | Gamma | U-235 | 0.1847 | 0.0599 | 0.0991 | |
| 0167-B | FS | NFS | Gamma | U-238 | -2.169 | -2.745 | 9.405 | U |
| 0167-C | FS | NFS | Gamma | Am-241 | 0.7712 | 0.39 | 0.6476 | |
| 0167-C | FS | NFS | Gamma | Th-232 | 2.031 | 0.2629 | 0.4058 | |
| 0167-C | FS | NFS | Gamma | U-235 | 0.1492 | 0.0603 | 0.0983 | |
| 0167-C | FS | NFS | Gamma | U-238 | -4.29 | -6.191 | 10.64 | U |
| 0167-D | FS | NFS | Gamma | Am-241 | -0.5527 | -0.3974 | 0.6798 | U |
| 0167-D | FS | NFS | Gamma | Th-232 | 1.69 | 0.2439 | 0.3742 | |
| 0167-D | FS | NFS | Gamma | U-235 | 0.1101 | 0.0572 | 0.0948 | |
| 0167-D | FS | NFS | Gamma | U-238 | 1.458 | 4.093 | 9.754 | U |
| 0167-E | FS | NFS | Gamma | Am-241 | -0.5186 | -0.3803 | 0.6509 | U |
| 0167-E | FS | NFS | Gamma | Th-232 | 1.205 | 0.2213 | 0.3454 | |
| 0167-E | FS | NFS | Gamma | U-235 | 0.0054 | 0.0541 | 0.0917 | U |
| 0167-E | FS | NFS | Gamma | U-238 | 2.879 | 5.56 | 8.808 | U |
| 0168-A | FS | NFS | Gamma | Am-241 | 0.2646 | 0.3989 | 0.6447 | U |
| 0168-A | FS | NFS | Gamma | Th-232 | 1.258 | 0.202 | 0.3074 | |
| 0168-A | FS | NFS | Gamma | U-235 | 0.4884 | 0.056 | 0.0868 | |
| 0168-A | FS | NFS | Gamma | U-238 | 4.634 | 5.049 | 8.582 | U |
| 0168-A-DUP | FD | NFS | Gamma | Am-241 | 0.1741 | 0.3494 | 0.5899 | U |
| 0168-A-DUP | FD | NFS | Gamma | Th-232 | 1.244 | 0.1772 | 0.2697 | |
| 0168-A-DUP | FD | NFS | Gamma | U-235 | 0.547 | 0.0541 | 0.082 | |
| 0168-A-DUP | FD | NFS | Gamma | U-238 | 2.576 | 4.93 | 8.344 | U |
| 0168-B | FS | NFS | Gamma | Am-241 | -0.4045 | -0.382 | 0.6526 | U |
| 0168-B | FS | NFS | Gamma | Th-232 | 1.342 | 0.2216 | 0.3424 | |
| 0168-B | FS | NFS | Gamma | U-235 | 0.3094 | 0.0568 | 0.0904 | |
| 0168-B | FS | NFS | Gamma | U-238 | -3.726 | -5.952 | 10.22 | U |
| 0168-C | FS | PARAGON | LSC | Tc-99 | -0.13 | 0.86 | 1.46 | U |
| 0168-C | FS | NFS | Gamma | Am-241 | -0.0518 | -0.3833 | 0.6508 | U |
| 0168-C | FS | NFS | Gamma | Th-232 | 1.777 | 0.2425 | 0.3696 | |
| 0168-C | FS | NFS | Gamma | U-235 | 0.0213 | 0.0629 | 0.0965 | U |
| 0168-C | FS | NFS | Gamma | U-238 | 0.5358 | 5.39 | 9.735 | U |
| 0168-C-DUP | FD | PARAGON | LSC | Tc-99 | -0.11 | 0.98 | 1.65 | U |
| 0168-D | FS | NFS | Gamma | Am-241 | 0.2802 | 0.3775 | 0.6358 | U |
| 0168-D | FS | NFS | Gamma | Th-232 | 0.9693 | 0.2764 | 0.4375 | |
| 0168-D | FS | NFS | Gamma | U-235 | 0.093 | 0.0571 | 0.0944 | U |
| 0168-D | FS | NFS | Gamma | U-238 | 1.486 | 5.028 | 9.431 | U |
| 0168-E | FS | NFS | Gamma | Am-241 | 0.1611 | 0.3779 | 0.6386 | U |

## Survey Unit 08 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0168-E | FS | NFS | Gamma | Th-232 | 1.389 | 0.2125 | 0.3303 | |
| 0168-E | FS | NFS | Gamma | U-235 | 0.0261 | 0.055 | 0.0928 | U |
| 0168-E | FS | NFS | Gamma | U-238 | 6.776 | 4.889 | 8.155 | U |
| 0169-A | FS | PARAGON | LSC | Tc-99 | 3.3 | 1.2 | 1.6 | |
| 0169-A | FS | PARAGON | LSC | Pu-241 | 4.6 | 7.2 | 11.9 | U |
| 0169-A | FS | PARAGON | Gamma | Am-241 | 1.52 | 0.72 | 0.94 | |
| 0169-A | FS | PARAGON | Gamma | Th-232 | 1.73 | 0.55 | 0.69 | J |
| 0169-A | FS | PARAGON | Gamma | U-235 | 1.06 | 0.53 | 0.75 | |
| 0169-A | FS | PARAGON | Alpha | Am-241 | 1.65 | 0.31 | 0.01 | |
| 0169-A | FS | PARAGON | Alpha | Pu-238 | 0.292 | 0.081 | 0.01 | |
| 0169-A | FS | PARAGON | Alpha | Pu-239/240 | 4.71 | 0.79 | 0.01 | |
| 0169-A | FS | PARAGON | Alpha | Pu-242 | 0.046 | 0.039 | 0.051 | U |
| 0169-A | FS | PARAGON | Alpha | Th-230 | 1.04 | 0.25 | 0.14 | |
| 0169-A | FS | PARAGON | Alpha | Th-232 | 1.66 | 0.35 | 0.05 | |
| 0169-A | FS | PARAGON | Alpha | U-233/234 | 29.7 | 5 | 0.1 | |
| 0169-A | FS | PARAGON | Alpha | U-235 | 0.92 | 0.28 | 0.08 | |
| 0169-A | FS | PARAGON | Alpha | U-238 | 2.24 | 0.5 | 0.09 | |
| 0169-A | FS | NFS | Gamma | Am-241 | 1.686 | 0.4546 | 0.7399 | |
| 0169-A | FS | NFS | Gamma | Th-232 | 2.428 | 0.2855 | 0.4331 | |
| 0169-A | FS | NFS | Gamma | U-235 | 1.337 | 0.0748 | 0.1063 | |
| 0169-A | FS | NFS | Gamma | U-238 | -0.9221 | -5.305 | 9.09 | U |
| 0169-B | FS | NFS | Gamma | Am-241 | 0.1663 | 0.1583 | 0.415 | U |
| 0169-B | FS | NFS | Gamma | Th-232 | 0.7165 | 0.205 | 0.3315 | |
| 0169-B | FS | NFS | Gamma | U-235 | 0.1727 | 0.0531 | 0.0875 | |
| 0169-B | FS | NFS | Gamma | U-238 | -1.941 | -6.35 | 10.85 | U |
| 0169-C | FS | NFS | Gamma | Am-241 | 0.1525 | 0.3757 | 0.635 | U |
| 0169-C | FS | NFS | Gamma | Th-232 | 1.719 | 0.2831 | 0.4479 | |
| 0169-C | FS | NFS | Gamma | U-235 | 0.1429 | 0.0572 | 0.0944 | |
| 0169-C | FS | NFS | Gamma | U-238 | -2.816 | -8.247 | 9.796 | U |
| 0169-D | FS | NFS | Gamma | Am-241 | -0.4246 | -0.2998 | 0.5127 | U |
| 0169-D | FS | NFS | Gamma | Th-232 | 1.259 | 0.2511 | 0.4015 | J |
| 0169-D | FS | NFS | Gamma | U-235 | 0.0776 | 0.0576 | 0.0966 | U |
| 0169-D | FS | NFS | Gamma | U-238 | 3.025 | 8.871 | 11.3 | U |
| 0169-D-DUP | FD | NFS | Gamma | Am-241 | -0.3706 | -0.4121 | 0.7039 | U |
| 0169-D-DUP | FD | NFS | Gamma | Th-232 | 2.11 | 0.2681 | 0.4083 | J |
| 0169-D-DUP | FD | NFS | Gamma | U-235 | 0.1062 | 0.0599 | 0.0961 | |
| 0169-D-DUP | FD | NFS | Gamma | U-238 | -2.732 | -5.684 | 9.769 | U |
| 0169-E | FS | NFS | Gamma | Am-241 | -0.0828 | -0.2674 | 0.4543 | U |
| 0169-E | FS | NFS | Gamma | Th-232 | 1.038 | 0.2227 | 0.3585 | |
| 0169-E | FS | NFS | Gamma | U-235 | 0.0975 | 0.0515 | 0.0853 | |
| 0169-E | FS | NFS | Gamma | U-238 | 5.169 | 9.422 | 10.04 | U |
| 0169-F | FS | NFS | Gamma | Am-241 | -0.5758 | -0.3628 | 0.6223 | U |
| 0169-F | FS | NFS | Gamma | Th-232 | 1.139 | 0.2379 | 0.3822 | |
| 0169-F | FS | NFS | Gamma | U-235 | 0.0774 | 0.0499 | 0.0835 | U |
| 0169-F | FS | NFS | Gamma | U-238 | 1.301 | 4.699 | 7.313 | U |
| 0170-A | FS | NFS | Gamma | Am-241 | 0.1912 | 0.2814 | 0.4743 | U |
| 0170-A | FS | NFS | Gamma | Th-232 | 1.134 | 0.25 | 0.4024 | |
| 0170-A | FS | NFS | Gamma | U-235 | 0.2063 | 0.0591 | 0.0974 | |
| 0170-A | FS | NFS | Gamma | U-238 | -0.6102 | -6.763 | 11.52 | U |
| 0170-B | FS | NFS | Gamma | Am-241 | -0.2651 | -0.3632 | 0.6207 | U |
| 0170-B | FS | NFS | Gamma | Th-232 | 1.185 | 0.2325 | 0.3688 | |
| 0170-B | FS | NFS | Gamma | U-235 | 0.0638 | 0.0513 | 0.0861 | U |
| 0170-B | FS | NFS | Gamma | U-238 | -5.401 | -19.33 | 8.201 | U |

## Survey Unit 08 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0170-C | FS | NFS | Gamma | Am-241 | -0.0009 | -0.2823 | 0.4784 | U |
| 0170-C | FS | NFS | Gamma | Th-232 | 1.114 | 0.2533 | 0.4088 | |
| 0170-C | FS | NFS | Gamma | U-235 | 0.0619 | 0.0554 | 0.0931 | U |
| 0170-C | FS | NFS | Gamma | U-238 | 5.231 | 6.279 | 10.57 | U |
| 0170-D | FS | NFS | Gamma | Am-241 | -0.2695 | -0.3985 | 0.6792 | U |
| 0170-D | FS | NFS | Gamma | Th-232 | 1.775 | 0.2764 | 0.4361 | |
| 0170-D | FS | NFS | Gamma | U-235 | 0.1142 | 0.0558 | 0.0913 | |
| 0170-D | FS | NFS | Gamma | U-238 | 3.448 | 4.881 | 8.237 | U |
| 0170-E | FS | NFS | Gamma | Am-241 | -0.2656 | -0.2719 | 0.4639 | U |
| 0170-E | FS | NFS | Gamma | Th-232 | 1.412 | 0.243 | 0.3847 | |
| 0170-E | FS | NFS | Gamma | U-235 | 0.1572 | 0.0535 | 0.0886 | |
| 0170-E | FS | NFS | Gamma | U-238 | 2.576 | 6.154 | 10.42 | U |
| 0170-F | FS | NFS | Gamma | Am-241 | 0.1816 | 0.3504 | 0.5918 | U |
| 0170-F | FS | NFS | Gamma | Th-232 | 1.24 | 0.2443 | 0.39 | |
| 0170-F | FS | NFS | Gamma | U-235 | 0.1617 | 0.0502 | 0.0823 | |
| 0170-F | FS | NFS | Gamma | U-238 | -4.837 | -4.999 | 8.662 | U |
| 0171-A | FS | NFS | Gamma | Am-241 | -0.3839 | -0.292 | 0.4998 | U |
| 0171-A | FS | NFS | Gamma | Th-232 | 0.8868 | 0.2476 | 0.4024 | |
| 0171-A | FS | NFS | Gamma | U-235 | 0.2359 | 0.0592 | 0.0966 | |
| 0171-A | FS | NFS | Gamma | U-238 | -4.234 | -5.378 | 9.279 | U |
| 0171-B | FS | NFS | Gamma | Am-241 | 0.0801 | 0.3762 | 0.6371 | U |
| 0171-B | FS | NFS | Gamma | Th-232 | 0.754 | 0.282 | 0.4609 | |
| 0171-B | FS | NFS | Gamma | U-235 | 0.2492 | 0.06 | 0.0981 | |
| 0171-B | FS | NFS | Gamma | U-238 | 9.6 | 6.577 | 10.97 | U |
| 0171-C | FS | PARAGON | LSC | Tc-99 | 0.25 | 0.86 | 1.43 | U |
| 0171-C | FS | PARAGON | LSC | Pu-241 | 0.5 | 2.6 | 4.5 | U |
| 0171-C | FS | PARAGON | Gamma | Am-241 | 0.3 | 1.1 | 1.9 | U |
| 0171-C | FS | PARAGON | Gamma | Th-232 | 1.3 | 0.36 | 0.53 | |
| 0171-C | FS | PARAGON | Gamma | U-235 | -0.12 | 0.36 | 0.66 | U |
| 0171-C | FS | PARAGON | Alpha | Am-241 | 0.01 | 0.01 | 0.014 | U |
| 0171-C | FS | PARAGON | Alpha | Pu-238 | -0.0018 | 0.0087 | 0.0166 | U |
| 0171-C | FS | PARAGON | Alpha | Pu-239/240 | 0.012 | 0.014 | 0.021 | U |
| 0171-C | FS | PARAGON | Alpha | Pu-242 | 0.021 | 0.014 | 0.006 | |
| 0171-C | FS | PARAGON | Alpha | Th-230 | 0.67 | 0.13 | 0.04 | |
| 0171-C | FS | PARAGON | Alpha | Th-232 | 1.21 | 0.22 | 0.02 | |
| 0171-C | FS | PARAGON | Alpha | U-233/234 | 0.79 | 0.18 | 0.03 | |
| 0171-C | FS | PARAGON | Alpha | U-235 | 0.024 | 0.026 | 0.033 | U |
| 0171-C | FS | PARAGON | Alpha | U-238 | 0.6 | 0.15 | 0.03 | |
| 0171-C | FS | NFS | Gamma | Am-241 | 0.2699 | 0.2865 | 0.4819 | U |
| 0171-C | FS | NFS | Gamma | Th-232 | 1.545 | 0.2499 | 0.394 | |
| 0171-C | FS | NFS | Gamma | U-235 | 0.18 | 0.0557 | 0.0921 | |
| 0171-C | FS | NFS | Gamma | U-238 | 3.383 | 4.904 | 8.118 | U |
| 0171-D | FS | NFS | Gamma | Am-241 | 0.0261 | 0.3922 | 0.6648 | U |
| 0171-D | FS | NFS | Gamma | Th-232 | 1.428 | 0.2684 | 0.4275 | |
| 0171-D | FS | NFS | Gamma | U-235 | 0.1088 | 0.0659 | 0.1039 | |
| 0171-D | FS | NFS | Gamma | U-238 | 8.13 | 6.554 | 10.97 | U |
| 0171-D-DUP | FD | NFS | Gamma | Am-241 | -0.3142 | -0.2736 | 0.4675 | U |
| 0171-D-DUP | FD | NFS | Gamma | Th-232 | 1.207 | 0.2616 | 0.4203 | |
| 0171-D-DUP | FD | NFS | Gamma | U-235 | 0.1135 | 0.0579 | 0.0966 | |
| 0171-D-DUP | FD | NFS | Gamma | U-238 | 8.397 | 6.062 | 10.17 | U |
| 0171-E | FS | NFS | Gamma | Am-241 | -0.6917 | -0.3775 | 0.6486 | U |
| 0171-E | FS | NFS | Gamma | Th-232 | 1.29 | 0.2853 | 0.461 | |
| 0171-E | FS | NFS | Gamma | U-235 | 0.1225 | 0.0568 | 0.0939 | |

## Survey Unit 08 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0171-E | FS | NFS | Gamma | U-238 | 0.6928 | 5.192 | 10.13 | U |
| 0171-F | FS | NFS | Gamma | Am-241 | -0.3243 | -0.277 | 0.4733 | U |
| 0171-F | FS | NFS | Gamma | Th-232 | 1.623 | 0.2197 | 0.3356 | |
| 0171-F | FS | NFS | Gamma | U-235 | 0.0691 | 0.057 | 0.0958 | U |
| 0171-F | FS | NFS | Gamma | U-238 | 7.032 | 6.274 | 10.16 | U |
| 0172-A | FS | NFS | Gamma | Am-241 | -0.3732 | -0.4075 | 0.6962 | U |
| 0172-A | FS | NFS | Gamma | Th-232 | 1.303 | 0.2897 | 0.4683 | |
| 0172-A | FS | NFS | Gamma | U-235 | 0.4403 | 0.0637 | 0.1001 | |
| 0172-A | FS | NFS | Gamma | U-238 | 6.909 | 5.522 | 9.233 | U |
| 0172-B | FS | NFS | Gamma | Am-241 | -0.6254 | -0.2679 | 0.4616 | U |
| 0172-B | FS | NFS | Gamma | Th-232 | 0.6195 | 0.2255 | 0.3701 | |
| 0172-B | FS | NFS | Gamma | U-235 | 0.1088 | 0.051 | 0.0848 | |
| 0172-B | FS | NFS | Gamma | U-238 | 10.12 | 5.181 | 8.572 | |
| 0172-C | FS | NFS | Gamma | Am-241 | -0.5085 | -0.4194 | 0.7176 | U |
| 0172-C | FS | NFS | Gamma | Th-232 | 1.801 | 0.2891 | 0.4581 | |
| 0172-C | FS | NFS | Gamma | U-235 | 0.1413 | 0.0571 | 0.0948 | |
| 0172-C | FS | NFS | Gamma | U-238 | 6.93 | 5.264 | 8.792 | U |
| 0172-D | FS | NFS | Gamma | Am-241 | -0.0463 | -0.2768 | 0.4697 | U |
| 0172-D | FS | NFS | Gamma | Th-232 | 1.645 | 0.2498 | 0.3916 | |
| 0172-D | FS | NFS | Gamma | U-235 | 0.1555 | 0.0547 | 0.0906 | |
| 0172-D | FS | NFS | Gamma | U-238 | 12.18 | 5.477 | 9.014 | |
| 0172-E | FS | NFS | Gamma | Am-241 | -0.5417 | -0.3477 | 0.5962 | U |
| 0172-E | FS | NFS | Gamma | Th-232 | 0.9229 | 0.2929 | 0.4827 | |
| 0172-E | FS | NFS | Gamma | U-235 | 0.089 | 0.057 | 0.0954 | U |
| 0172-E | FS | NFS | Gamma | U-238 | -0.6291 | -3.317 | 9.578 | U |
| 0172-F | FS | NFS | Gamma | Am-241 | -0.1604 | -0.2442 | 0.4168 | U |
| 0172-F | FS | NFS | Gamma | Th-232 | 0.3976 | 0.2177 | 0.3568 | |
| 0172-F | FS | NFS | Gamma | U-235 | 0.0869 | 0.0513 | 0.0857 | |
| 0172-F | FS | NFS | Gamma | U-238 | 5.911 | 5.857 | 9.839 | U |
| 0173-A | FS | PARAGON | LSC | Tc-99 | 0.5 | 1 | 1.7 | U |
| 0173-A | FS | PARAGON | LSC | Pu-241 | 0.8 | 2.6 | 4.4 | U |
| 0173-A | FS | PARAGON | Gamma | Am-241 | -0.36 | 0.69 | 1.19 | U |
| 0173-A | FS | PARAGON | Gamma | Th-232 | 1 | 0.3 | 0.53 | |
| 0173-A | FS | PARAGON | Gamma | U-235 | 0.53 | 0.48 | 0.77 | U |
| 0173-A | FS | PARAGON | Alpha | Am-241 | 0.392 | 0.082 | 0.005 | |
| 0173-A | FS | PARAGON | Alpha | Pu-238 | 0.067 | 0.026 | 0.005 | |
| 0173-A | FS | PARAGON | Alpha | Pu-239/240 | 1.21 | 0.22 | 0.01 | |
| 0173-A | FS | PARAGON | Alpha | Pu-242 | 0.0068 | 0.0085 | 0.0127 | U |
| 0173-A | FS | PARAGON | Alpha | Th-230 | 0.83 | 0.16 | 0.04 | |
| 0173-A | FS | PARAGON | Alpha | Th-232 | 1.16 | 0.21 | 0.02 | |
| 0173-A | FS | PARAGON | Alpha | U-233/234 | 27.6 | 4.5 | 0 | |
| 0173-A | FS | PARAGON | Alpha | U-235 | 0.77 | 0.19 | 0.04 | |
| 0173-A | FS | PARAGON | Alpha | U-238 | 1.94 | 0.37 | 0.03 | |
| 0173-A | FS | NFS | Gamma | Am-241 | 0.5189 | 0.4016 | 0.6727 | U |
| 0173-A | FS | NFS | Gamma | Th-232 | 1.429 | 0.2391 | 0.3716 | |
| 0173-A | FS | NFS | Gamma | U-235 | 1.144 | 0.0695 | 0.0993 | |
| 0173-A | FS | NFS | Gamma | U-238 | 12.06 | 6.587 | 10.37 | |
| 0173-A | LR | PARAGON | LSC | Pu-241 | 1.8 | 2.8 | 4.6 | U |
| 0173-A | LR | PARAGON | Gamma | Am-241 | 0.27 | 0.47 | 0.8 | U |
| 0173-A | LR | PARAGON | Gamma | Th-232 | 0.98 | 0.39 | 0.46 | J |
| 0173-A | LR | PARAGON | Gamma | U-235 | 0.6 | 0.35 | 0.57 | |
| 0173-A | LR | PARAGON | Alpha | Pu-242 | 0.068 | 0.028 | 0.014 | |
| 0173-A | LR | PARAGON | Alpha | Th-230 | 0.71 | 0.14 | 0.04 | J |

## Survey Unit 08 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0173-A | LR | PARAGON | Alpha | Th-232 | 1.15 | 0.21 | 0.01 | |
| 0173-B | FS | NFS | Gamma | Am-241 | -0.0322 | -0.3768 | 0.6396 | U |
| 0173-B | FS | NFS | Gamma | Th-232 | 1.177 | 0.2254 | 0.3597 | |
| 0173-B | FS | NFS | Gamma | U-235 | 0.1887 | 0.0553 | 0.089 | |
| 0173-B | FS | NFS | Gamma | U-238 | 5.561 | 4.986 | 7.758 | U |
| 0173-C | FS | NFS | Gamma | Am-241 | 0.1774 | 0.3462 | 0.5845 | U |
| 0173-C | FS | NFS | Gamma | Th-232 | 0.6798 | 0.2233 | 0.3663 | |
| 0173-C | FS | NFS | Gamma | U-235 | 0.0193 | 0.0514 | 0.0869 | U |
| 0173-C | FS | NFS | Gamma | U-238 | 1.294 | 5.37 | 9.122 | U |
| 0173-D | FS | NFS | Gamma | Am-241 | 0.0414 | 0.3466 | 0.6399 | U |
| 0173-D | FS | NFS | Gamma | Th-232 | 1.249 | 0.2156 | 0.3384 | |
| 0173-D | FS | NFS | Gamma | U-235 | 0.1027 | 0.052 | 0.0864 | |
| 0173-D | FS | NFS | Gamma | U-238 | -4.917 | -5.748 | 9.894 | U |
| 0173-E | FS | NFS | Gamma | Am-241 | 0.0537 | 0.3625 | 0.6142 | U |
| 0173-E | FS | NFS | Gamma | Th-232 | 0.9163 | 0.2359 | 0.3833 | |
| 0173-E | FS | NFS | Gamma | U-235 | 0.1519 | 0.0515 | 0.0851 | |
| 0173-E | FS | NFS | Gamma | U-238 | 8.962 | 5.774 | 9.624 | U |
| 0174-A | FS | NFS | Gamma | Am-241 | 0.6694 | 0.4452 | 0.7579 | U |
| 0174-A | FS | NFS | Gamma | Th-232 | 2.295 | 0.2787 | 0.429 | |
| 0174-A | FS | NFS | Gamma | U-235 | 1.028 | 0.0698 | 0.1055 | |
| 0174-A | FS | NFS | Gamma | U-238 | 0.4566 | 5.731 | 9.757 | U |
| 0174-A-DUP | FD | NFS | Gamma | Am-241 | 2.156 | 0.4406 | 0.7045 | |
| 0174-A-DUP | FD | NFS | Gamma | Th-232 | 2.299 | 0.2624 | 0.3968 | |
| 0174-A-DUP | FD | NFS | Gamma | U-235 | 1.263 | 0.0744 | 0.1067 | |
| 0174-A-DUP | FD | NFS | Gamma | U-238 | 16.99 | 5.783 | 9.412 | |
| 0174-B | FS | NFS | Gamma | Am-241 | 1.329 | 0.4631 | 0.7602 | |
| 0174-B | FS | NFS | Gamma | Th-232 | 1.901 | 0.2499 | 0.3828 | |
| 0174-B | FS | NFS | Gamma | U-235 | 0.8033 | 0.0698 | 0.1044 | |
| 0174-B | FS | NFS | Gamma | U-238 | 6.553 | 6.028 | 9.695 | U |
| 0174-C | FS | NFS | Gamma | Am-241 | 0.4306 | 0.3759 | 0.6305 | U |
| 0174-C | FS | NFS | Gamma | Th-232 | 1.288 | 0.2615 | 0.4083 | |
| 0174-C | FS | NFS | Gamma | U-235 | 0.1818 | 0.0561 | 0.0926 | |
| 0174-C | FS | NFS | Gamma | U-238 | -0.6354 | -5.57 | 9.508 | U |
| 0174-D | FS | NFS | Gamma | Am-241 | 0.7006 | 0.405 | 0.6747 | |
| 0174-D | FS | NFS | Gamma | Th-232 | 1.937 | 0.2314 | 0.3543 | |
| 0174-D | FS | NFS | Gamma | U-235 | 0.3725 | 0.0603 | 0.0963 | |
| 0174-D | FS | NFS | Gamma | U-238 | 7.522 | 4.868 | 7.99 | U |
| 0174-E | FS | NFS | Gamma | Am-241 | 0.0429 | 0.389 | 0.6577 | U |
| 0174-E | FS | NFS | Gamma | Th-232 | 0.8648 | 0.2187 | 0.3565 | |
| 0174-E | FS | NFS | Gamma | U-235 | 0.0143 | 0.0519 | 0.0878 | U |
| 0174-E | FS | NFS | Gamma | U-238 | -10.65 | -6.102 | 10.6 | U |
| 0175-A | FS | NFS | Gamma | Am-241 | 0.0867 | 0.3646 | 0.6173 | U |
| 0175-A | FS | NFS | Gamma | Th-232 | 1.035 | 0.2708 | 0.4403 | |
| 0175-A | FS | NFS | Gamma | U-235 | 0.5738 | 0.0563 | 0.0866 | |
| 0175-A | FS | NFS | Gamma | U-238 | 5.34 | 11.35 | 19.17 | U |
| 0175-A-DUP | FD | NFS | Gamma | Am-241 | 0.7236 | 0.3414 | 0.5657 | |
| 0175-A-DUP | FD | NFS | Gamma | Th-232 | 1.201 | 0.2359 | 0.3773 | |
| 0175-A-DUP | FD | NFS | Gamma | U-235 | 0.5578 | 0.0534 | 0.0822 | |
| 0175-A-DUP | FD | NFS | Gamma | U-238 | -3.017 | -11.17 | 18.96 | U |
| 0175-B | FS | NFS | Gamma | Am-241 | 0.2046 | 0.3182 | 0.5366 | U |
| 0175-B | FS | NFS | Gamma | Th-232 | 0.6271 | 0.2494 | 0.4121 | |
| 0175-B | FS | NFS | Gamma | U-235 | 0.4817 | 0.0549 | 0.0849 | |
| 0175-B | FS | NFS | Gamma | U-238 | 4.906 | 11.14 | 18.82 | U |

## Survey Unit 08 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0175-C | FS | NFS | Gamma | Am-241 | 0.2896 | 0.3714 | 0.6253 | U |
| 0175-C | FS | NFS | Gamma | Th-232 | 1.776 | 0.2775 | 0.4372 | |
| 0175-C | FS | NFS | Gamma | U-235 | 0.1739 | 0.0593 | 0.0957 | |
| 0175-C | FS | NFS | Gamma | U-238 | 0.9314 | 11.19 | 18.95 | U |
| 0175-D | FS | NFS | Gamma | Am-241 | -0.2531 | -52.55 | 0.6531 | U |
| 0175-D | FS | NFS | Gamma | Th-232 | 1.325 | 0.2566 | 0.4095 | |
| 0175-D | FS | NFS | Gamma | U-235 | 0.1182 | 0.0536 | 0.0893 | |
| 0175-D | FS | NFS | Gamma | U-238 | 2.234 | 5.651 | 9.576 | U |
| 0175-E | FS | NFS | Gamma | Am-241 | -0.0707 | -0.3331 | 0.5662 | U |
| 0175-E | FS | NFS | Gamma | Th-232 | 0.9009 | 0.209 | 0.3338 | |
| 0175-E | FS | NFS | Gamma | U-235 | 0.0692 | 0.0549 | 0.0819 | U |
| 0175-E | FS | NFS | Gamma | U-238 | 1.495 | 5.008 | 8.503 | U |
| 0176-A | FS | NFS | Gamma | Am-241 | 0.93 | 0.3301 | 0.5463 | |
| 0176-A | FS | NFS | Gamma | Th-232 | 1.633 | 0.2948 | 0.4686 | |
| 0176-A | FS | NFS | Gamma | U-235 | 0.5774 | 0.0702 | 0.1116 | |
| 0176-A | FS | NFS | Gamma | U-238 | 5.467 | 6.306 | 11.53 | U |
| 0176-B | FS | NFS | Gamma | Am-241 | -0.0231 | -0.3256 | 0.5533 | U |
| 0176-B | FS | NFS | Gamma | Th-232 | 1.285 | 0.2029 | 0.3129 | |
| 0176-B | FS | NFS | Gamma | U-235 | 0.1357 | 0.0488 | 0.0779 | |
| 0176-B | FS | NFS | Gamma | U-238 | -0.0685 | -4.67 | 7.986 | U |
| 0176-B-DUP | FD | NFS | Gamma | Am-241 | -0.2589 | -0.4548 | 0.4217 | U |
| 0176-B-DUP | FD | NFS | Gamma | Th-232 | 0.3808 | 0.1943 | 0.325 | |
| 0176-B-DUP | FD | NFS | Gamma | U-235 | 0.1145 | 0.0492 | 0.0818 | |
| 0176-B-DUP | FD | NFS | Gamma | U-238 | -5.898 | -5.165 | 8.953 | U |
| 0176-C | FS | PARAGON | LSC | Tc-99 | 0.12 | 0.89 | 1.49 | U |
| 0176-C | FS | PARAGON | LSC | Pu-241 | -0.5 | 2.9 | 4.9 | U |
| 0176-C | FS | PARAGON | Gamma | Am-241 | -0.19 | 0.54 | 1.02 | U |
| 0176-C | FS | PARAGON | Gamma | Th-232 | 1.02 | 0.4 | 0.58 | J |
| 0176-C | FS | PARAGON | Gamma | U-235 | -0.01 | 0.3 | 0.56 | U |
| 0176-C | FS | PARAGON | Alpha | Am-241 | 0.0095 | 0.0094 | 0.0052 | J |
| 0176-C | FS | PARAGON | Alpha | Pu-238 | -0.002 | 0.012 | 0.017 | U |
| 0176-C | FS | PARAGON | Alpha | Pu-239/240 | 0.014 | 0.012 | 0.006 | U |
| 0176-C | FS | PARAGON | Alpha | Pu-242 | 0.015 | 0.013 | 0.015 | |
| 0176-C | FS | PARAGON | Alpha | Th-230 | 0.7 | 0.14 | 0.04 | |
| 0176-C | FS | PARAGON | Alpha | Th-232 | 0.98 | 0.18 | 0.02 | |
| 0176-C | FS | PARAGON | Alpha | U-233/234 | 0.97 | 0.22 | 0.09 | |
| 0176-C | FS | PARAGON | Alpha | U-235 | 0.043 | 0.038 | 0.052 | U |
| 0176-C | FS | PARAGON | Alpha | U-238 | 0.63 | 0.16 | 0.05 | |
| 0176-C | FS | NFS | Gamma | Am-241 | -0.3703 | -0.3742 | 0.6396 | U |
| 0176-C | FS | NFS | Gamma | Th-232 | 1.473 | 0.3078 | 0.4864 | |
| 0176-C | FS | NFS | Gamma | U-235 | -0.0089 | -0.0558 | 0.0954 | U |
| 0176-C | FS | NFS | Gamma | U-238 | 0.8276 | 5.943 | 10.11 | U |
| 0176-C-DUP | FD | PARAGON | LSC | Pu-241 | -0.4 | 2.4 | 4.2 | U |
| 0176-C-DUP | FD | PARAGON | Gamma | Am-241 | 0.06 | 0.57 | 1.02 | U |
| 0176-C-DUP | FD | PARAGON | Gamma | Th-232 | 1.25 | 0.43 | 0.84 | |
| 0176-C-DUP | FD | PARAGON | Gamma | U-235 | 0.14 | 0.36 | 0.62 | U |
| 0176-C-DUP | FD | PARAGON | Alpha | Am-241 | 0.011 | 0.011 | 0.014 | U |
| 0176-C-DUP | FD | PARAGON | Alpha | Pu-238 | 0.002 | 0.012 | 0.022 | U |
| 0176-C-DUP | FD | PARAGON | Alpha | Pu-239/240 | 0.007 | 0.012 | 0.017 | U |
| 0176-C-DUP | FD | PARAGON | Alpha | Pu-242 | 0.0016 | 0.0082 | 0.0159 | U |
| 0176-C-DUP | FD | PARAGON | Alpha | Th-230 | 0.59 | 0.12 | 0.04 | |
| 0176-C-DUP | FD | PARAGON | Alpha | Th-232 | 0.91 | 0.17 | 0.02 | |
| 0176-C-DUP | FD | PARAGON | Alpha | U-233/234 | 0.72 | 0.17 | 0.05 | |

## Survey Unit 08 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0176-C-DUP | FD | PARAGON | Alpha | U-235 | 0.037 | 0.033 | 0.035 | |
| 0176-C-DUP | FD | PARAGON | Alpha | U-238 | 0.6 | 0.15 | 0.04 | |
| 0176-D | FS | NFS | Gamma | Am-241 | -0.3086 | -0.2849 | 0.4862 | U |
| 0176-D | FS | NFS | Gamma | Th-232 | 1.331 | 0.2555 | 0.4103 | |
| 0176-D | FS | NFS | Gamma | U-235 | 0.0735 | 0.0547 | 0.0918 | U |
| 0176-D | FS | NFS | Gamma | U-238 | -9.144 | -6.327 | 10.94 | U |
| 0176-E | FS | NFS | Gamma | Am-241 | -0.0301 | -0.3386 | 0.5753 | U |
| 0176-E | FS | NFS | Gamma | Th-232 | 0.8675 | 0.281 | 0.4602 | |
| 0176-E | FS | NFS | Gamma | U-235 | 0.0382 | 0.0579 | 0.0868 | U |
| 0176-E | FS | NFS | Gamma | U-238 | -4.455 | -6.116 | 10.51 | U |
| 0176-F | FS | NFS | Gamma | Am-241 | -0.1386 | -0.2712 | 0.4616 | U |
| 0176-F | FS | NFS | Gamma | Th-232 | 0.4671 | 0.2215 | 0.3666 | |
| 0176-F | FS | NFS | Gamma | U-235 | 0.1571 | 0.0513 | 0.0845 | |
| 0176-F | FS | NFS | Gamma | U-238 | -5.531 | -6.039 | 10.4 | U |
| 0177-A | FS | PARAGON | LSC | Tc-99 | 0.2 | 1 | 1.7 | U |
| 0177-A | FS | PARAGON | LSC | Pu-241 | -0.1 | 2.3 | 3.9 | U |
| 0177-A | FS | PARAGON | Gamma | Am-241 | 0.23 | 0.64 | 1.11 | U |
| 0177-A | FS | PARAGON | Gamma | Th-232 | 1.28 | 0.48 | 0.61 | J |
| 0177-A | FS | PARAGON | Gamma | U-235 | 0.37 | 0.47 | 0.77 | U |
| 0177-A | FS | PARAGON | Alpha | Am-241 | 0.082 | 0.028 | 0.014 | |
| 0177-A | FS | PARAGON | Alpha | Pu-238 | 0.024 | 0.014 | 0.005 | |
| 0177-A | FS | PARAGON | Alpha | Pu-239/240 | 0.244 | 0.059 | 0.018 | |
| 0177-A | FS | PARAGON | Alpha | Pu-242 | 0.0015 | 0.0077 | 0.0148 | U |
| 0177-A | FS | PARAGON | Alpha | Th-230 | 0.93 | 0.18 | 0.05 | |
| 0177-A | FS | PARAGON | Alpha | Th-232 | 1.16 | 0.21 | 0.02 | |
| 0177-A | FS | PARAGON | Alpha | U-233/234 | 3.91 | 0.7 | 0.09 | |
| 0177-A | FS | PARAGON | Alpha | U-235 | 0.138 | 0.066 | 0.044 | |
| 0177-A | FS | PARAGON | Alpha | U-238 | 1.11 | 0.24 | 0.06 | |
| 0177-A | FS | NFS | Gamma | Am-241 | 0.2107 | 0.2861 | 0.482 | U |
| 0177-A | FS | NFS | Gamma | Th-232 | 1.693 | 0.2822 | 0.4455 | |
| 0177-A | FS | NFS | Gamma | U-235 | 0.1905 | 0.0617 | 0.1021 | |
| 0177-A | FS | NFS | Gamma | U-238 | -2.496 | -8.2 | 11.44 | U |
| 0177-B | FS | NFS | Gamma | Am-241 | 0.3037 | 0.3068 | 0.5155 | U |
| 0177-B | FS | NFS | Gamma | Th-232 | 0.7306 | 0.2264 | 0.3667 | |
| 0177-B | FS | NFS | Gamma | U-235 | -0.0268 | -0.0539 | 0.0839 | U |
| 0177-B | FS | NFS | Gamma | U-238 | 3.649 | 4.848 | 8.172 | U |
| 0177-C | FS | NFS | Gamma | Am-241 | 0.317 | 0.2826 | 0.4746 | U |
| 0177-C | FS | NFS | Gamma | Th-232 | 1.382 | 0.2826 | 0.4621 | |
| 0177-C | FS | NFS | Gamma | U-235 | 0.0657 | 0.0594 | 0.0999 | U |
| 0177-C | FS | NFS | Gamma | U-238 | 4.494 | 6.32 | 10.66 | U |
| 0177-D | FS | NFS | Gamma | Am-241 | -0.199 | -0.4253 | 0.7239 | U |
| 0177-D | FS | NFS | Gamma | Th-232 | 1.769 | 0.2668 | 0.4192 | |
| 0177-D | FS | NFS | Gamma | U-235 | 0.001 | 0.0605 | 0.0979 | U |
| 0177-D | FS | NFS | Gamma | U-238 | 1.997 | 5.666 | 9.612 | U |
| 0177-E | FS | NFS | Gamma | Am-241 | 0.4983 | 0.3293 | 0.5498 | U |
| 0177-E | FS | NFS | Gamma | Th-232 | 1.283 | 0.2266 | 0.3546 | |
| 0177-E | FS | NFS | Gamma | U-235 | 0.0163 | 0.0495 | 0.0838 | U |
| 0177-E | FS | NFS | Gamma | U-238 | 0.177 | 6.094 | 9.707 | U |
| 0178-A | FS | NFS | Gamma | Am-241 | 0.4654 | 0.2964 | 0.4956 | U |
| 0178-A | FS | NFS | Gamma | Th-232 | 1.403 | 0.2629 | 0.4196 | |
| 0178-A | FS | NFS | Gamma | U-235 | 0.1675 | 0.0599 | 0.0993 | |
| 0178-A | FS | NFS | Gamma | U-238 | 5.915 | 6.353 | 11.02 | U |
| 0178-B | FS | NFS | Gamma | Am-241 | 0.0979 | 0.348 | 0.5893 | U |

## Survey Unit 08 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0178-B | FS | NFS | Gamma | Th-232 | 0.6577 | 0.2096 | 0.3415 | |
| 0178-B | FS | NFS | Gamma | U-235 | 0.0093 | 0.0473 | 0.0787 | U |
| 0178-B | FS | NFS | Gamma | U-238 | 6.654 | 4.479 | 7.424 | U |
| 0178-C | FS | NFS | Gamma | Am-241 | 0.032 | 0.2779 | 0.4707 | U |
| 0178-C | FS | NFS | Gamma | Th-232 | 1.413 | 0.2503 | 0.3995 | |
| 0178-C | FS | NFS | Gamma | U-235 | -0.0049 | -0.0543 | 0.0921 | U |
| 0178-C | FS | NFS | Gamma | U-238 | 2.501 | 6.071 | 10.28 | U |
| 0178-D | FS | NFS | Gamma | Am-241 | 0.0394 | 0.3883 | 0.6582 | U |
| 0178-D | FS | NFS | Gamma | Th-232 | 0.808 | 0.2905 | 0.4574 | |
| 0178-D | FS | NFS | Gamma | U-235 | -0.0327 | -0.0547 | 0.0926 | U |
| 0178-D | FS | NFS | Gamma | U-238 | -3.552 | -5.743 | 9.881 | U |
| 0178-E | FS | NFS | Gamma | Am-241 | -0.4942 | -0.2634 | 0.452 | U |
| 0178-E | FS | NFS | Gamma | Th-232 | 1.187 | 0.2459 | 0.3971 | |
| 0178-E | FS | NFS | Gamma | U-235 | 0.084 | 0.0517 | 0.0865 | U |
| 0178-E | FS | NFS | Gamma | U-238 | 6.96 | 5.272 | 8.696 | U |
| 0178-E-DUP | FD | NFS | Gamma | Am-241 | 0.1726 | 0.3689 | 0.6232 | U |
| 0178-E-DUP | FD | NFS | Gamma | Th-232 | 1.177 | 0.2374 | 0.3794 | |
| 0178-E-DUP | FD | NFS | Gamma | U-235 | 0.052 | 0.0496 | 0.0834 | U |
| 0178-E-DUP | FD | NFS | Gamma | U-238 | 7.135 | 4.653 | 7.707 | U |
| 0178-F | FS | NFS | Gamma | Am-241 | -0.0356 | -0.2861 | 0.4853 | U |
| 0178-F | FS | NFS | Gamma | Th-232 | 1.373 | 0.2233 | 0.3485 | |
| 0178-F | FS | NFS | Gamma | U-235 | 0.0738 | 0.0494 | 0.0827 | U |
| 0178-F | FS | NFS | Gamma | U-238 | -2.034 | -5.753 | 9.846 | U |
| 0179-A | FS | NFS | Gamma | Am-241 | -0.8631 | -0.4202 | 0.7248 | U |
| 0179-A | FS | NFS | Gamma | Th-232 | 1.417 | 0.319 | 0.5134 | |
| 0179-A | FS | NFS | Gamma | U-235 | 0.3518 | 0.0794 | 0.1296 | |
| 0179-A | FS | NFS | Gamma | U-238 | 8.861 | 8.979 | 14.43 | U |
| 0179-B | FS | PARAGON | LSC | Tc-99 | 0.2 | 0.97 | 1.62 | U |
| 0179-B | FS | PARAGON | LSC | Pu-241 | -0.3 | 2.5 | 4.3 | U |
| 0179-B | FS | PARAGON | Gamma | Am-241 | -0.09 | 0.57 | 0.98 | U |
| 0179-B | FS | PARAGON | Gamma | Th-232 | 0.54 | 0.26 | 0.46 | J |
| 0179-B | FS | PARAGON | Gamma | U-235 | -0.02 | 0.35 | 0.61 | U |
| 0179-B | FS | PARAGON | Alpha | Am-241 | 0.008 | 0.01 | 0.006 | J |
| 0179-B | FS | PARAGON | Alpha | Pu-238 | -0.014 | 0.017 | 0.04 | U |
| 0179-B | FS | PARAGON | Alpha | Pu-239/240 | 0.002 | 0.015 | 0.03 | U |
| 0179-B | FS | PARAGON | Alpha | Pu-242 | 0.009 | 0.01 | 0.015 | U |
| 0179-B | FS | PARAGON | Alpha | Th-230 | 0.375 | 0.086 | 0.047 | |
| 0179-B | FS | PARAGON | Alpha | Th-232 | 0.48 | 0.1 | 0.02 | |
| 0179-B | FS | PARAGON | Alpha | U-233/234 | 0.94 | 0.21 | 0.08 | |
| 0179-B | FS | PARAGON | Alpha | U-235 | 0.025 | 0.029 | 0.045 | U |
| 0179-B | FS | PARAGON | Alpha | U-238 | 0.39 | 0.11 | 0.06 | |
| 0179-B | FS | NFS | Gamma | Am-241 | -0.2716 | -0.2492 | 0.4261 | U |
| 0179-B | FS | NFS | Gamma | Th-232 | 0.7997 | 0.2015 | 0.3238 | |
| 0179-B | FS | NFS | Gamma | U-235 | -0.0604 | -0.0478 | 0.0819 | U |
| 0179-B | FS | NFS | Gamma | U-238 | -2.722 | -18.95 | 8.886 | U |
| 0179-B | LR | PARAGON | Alpha | Am-241 | 0.004 | 0.02 | 0.037 | U |
| 0179-B | LR | PARAGON | Alpha | Pu-238 | 0.0037 | 0.0091 | 0.0136 | U |
| 0179-B | LR | PARAGON | Alpha | Pu-239/240 | 0.02 | 0.016 | 0.02 | U |
| 0179-B | LR | PARAGON | Alpha | U-233/234 | 0.95 | 0.21 | 0.04 | |
| 0179-B | LR | PARAGON | Alpha | U-235 | 0.041 | 0.034 | 0.033 | |
| 0179-B | LR | PARAGON | Alpha | U-238 | 0.47 | 0.12 | 0.03 | |
| 0179-B-DUP | FD | PARAGON | LSC | Pu-241 | -0.3 | 2.8 | 4.7 | U |
| 0179-B-DUP | FD | PARAGON | Gamma | Am-241 | 0.23 | 0.47 | 0.8 | U |

## Survey Unit 08 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0179-B-DUP | FD | PARAGON | Gamma | Th-232 | 0.58 | 0.41 | 0.56 | J |
| 0179-B-DUP | FD | PARAGON | Gamma | U-235 | -0.19 | 0.27 | 0.54 | U |
| 0179-B-DUP | FD | PARAGON | Alpha | Am-241 | 0.013 | 0.012 | 0.016 | U |
| 0179-B-DUP | FD | PARAGON | Alpha | Pu-238 | -0.004 | 0.018 | 0.027 | U |
| 0179-B-DUP | FD | PARAGON | Alpha | Pu-239/240 | 0.018 | 0.022 | 0.034 | U |
| 0179-B-DUP | FD | PARAGON | Alpha | Pu-242 | 0.0053 | 0.0089 | 0.0138 | U |
| 0179-B-DUP | FD | PARAGON | Alpha | Th-230 | 0.52 | 0.11 | 0.04 | |
| 0179-B-DUP | FD | PARAGON | Alpha | Th-232 | 0.54 | 0.11 | 0.01 | |
| 0179-B-DUP | FD | PARAGON | Alpha | U-233/234 | 1.05 | 0.23 | 0.04 | |
| 0179-B-DUP | FD | PARAGON | Alpha | U-235 | 0.061 | 0.042 | 0.034 | |
| 0179-B-DUP | FD | PARAGON | Alpha | U-238 | 0.49 | 0.13 | 0.03 | |
| 0179-B-DUP | LR | PARAGON | LSC | Pu-241 | -2.2 | 2.4 | 4.2 | U |
| 0179-B-DUP | LR | PARAGON | Alpha | Pu-242 | 0.016 | 0.012 | 0.012 | |
| 0179-B-DUP | LR | PARAGON | Alpha | Th-230 | 0.436 | 0.092 | 0.041 | R |
| 0179-B-DUP | LR | PARAGON | Alpha | Th-232 | 0.51 | 0.1 | 0.02 | |
| 0179-C | FS | NFS | Gamma | Am-241 | -0.6093 | -0.3445 | 0.5924 | U |
| 0179-C | FS | NFS | Gamma | Th-232 | 1.531 | 0.2713 | 0.4293 | |
| 0179-C | FS | NFS | Gamma | U-235 | 0.0592 | 0.0821 | 0.1143 | U |
| 0179-C | FS | NFS | Gamma | U-238 | 4.86 | 6.613 | 11.15 | U |
| 0179-D | FS | NFS | Gamma | Am-241 | -0.0318 | -0.3037 | 0.515 | U |
| 0179-D | FS | NFS | Gamma | Th-232 | 1.712 | 0.2752 | 0.4352 | |
| 0179-D | FS | NFS | Gamma | U-235 | 0.0091 | 0.0575 | 0.0964 | U |
| 0179-D | FS | NFS | Gamma | U-238 | 9.759 | 4.913 | 8.111 | |
| 0179-E | FS | NFS | Gamma | Am-241 | -0.7901 | -0.3571 | 0.6149 | U |
| 0179-E | FS | NFS | Gamma | Th-232 | 1.248 | 0.2618 | 0.412 | |
| 0179-E | FS | NFS | Gamma | U-235 | 0.1517 | 0.0648 | 0.1072 | |
| 0179-E | FS | NFS | Gamma | U-238 | 4.949 | 7.738 | 11.73 | U |
| 0179-F | FS | NFS | Gamma | Am-241 | -0.1373 | -0.2711 | 0.4613 | U |
| 0179-F | FS | NFS | Gamma | Th-232 | 1.024 | 0.2526 | 0.4095 | |
| 0179-F | FS | NFS | Gamma | U-235 | 0.0233 | 0.0537 | 0.0906 | U |
| 0179-F | FS | NFS | Gamma | U-238 | -4.36 | -5.454 | 9.396 | U |
| 0180-A | FS | NFS | Gamma | Am-241 | -0.0499 | -0.375 | 0.6373 | U |
| 0180-A | FS | NFS | Gamma | Th-232 | 1.8 | 0.28 | 0.4345 | |
| 0180-A | FS | NFS | Gamma | U-235 | 0.2095 | 0.0719 | 0.1173 | |
| 0180-A | FS | NFS | Gamma | U-238 | -5.633 | -7.806 | 13.4 | U |
| 0180-B | FS | NFS | Gamma | Am-241 | 0.051 | 0.3125 | 0.529 | U |
| 0180-B | FS | NFS | Gamma | Th-232 | 1.655 | 0.272 | 0.4303 | |
| 0180-B | FS | NFS | Gamma | U-235 | 0.0919 | 0.0578 | 0.0968 | U |
| 0180-B | FS | NFS | Gamma | U-238 | -1.533 | -6.555 | 10.01 | U |
| 0180-B-DUP | FD | NFS | Gamma | Am-241 | -0.9318 | -0.4389 | 0.7551 | U |
| 0180-B-DUP | FD | NFS | Gamma | Th-232 | 1.733 | 0.303 | 0.481 | |
| 0180-B-DUP | FD | NFS | Gamma | U-235 | 0.1587 | 0.071 | 0.1183 | |
| 0180-B-DUP | FD | NFS | Gamma | U-238 | -16.49 | -25.18 | 13.56 | U |
| 0180-C | FS | NFS | Gamma | Am-241 | 0.0639 | 0.3197 | 0.5409 | U |
| 0180-C | FS | NFS | Gamma | Th-232 | 2.457 | 0.2588 | 0.3837 | |
| 0180-C | FS | NFS | Gamma | U-235 | 0.1355 | 0.0611 | 0.1017 | |
| 0180-C | FS | NFS | Gamma | U-238 | 0.9117 | 6.365 | 10.81 | U |
| 0180-D | FS | NFS | Gamma | Am-241 | -0.2051 | -0.361 | 0.6158 | U |
| 0180-D | FS | NFS | Gamma | Th-232 | 1.744 | 0.2528 | 0.3895 | |
| 0180-D | FS | NFS | Gamma | U-235 | 0.1484 | 0.065 | 0.107 | |
| 0180-D | FS | NFS | Gamma | U-238 | 6.05 | 6.736 | 11.33 | U |
| 0180-E | FS | NFS | Gamma | Am-241 | 0.1064 | 0.279 | 0.4715 | U |
| 0180-E | FS | NFS | Gamma | Th-232 | 0.7731 | 0.2605 | 0.4341 | |

## Survey Unit 08 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0180-E | FS | NFS | Gamma | U-235 | 0.0341 | 0.0489 | 0.0825 | U |
| 0180-E | FS | NFS | Gamma | U-238 | -9.234 | -5.875 | 10.19 | U |
| 0181-A | FS | PARAGON | LSC | Tc-99 | 1.8 | 1.1 | 1.8 | |
| 0181-A | FS | PARAGON | LSC | Pu-241 | 3.5 | 3.2 | 5.2 | U |
| 0181-A | FS | PARAGON | Gamma | Am-241 | 0.64 | 0.18 | 0.2 | J |
| 0181-A | FS | PARAGON | Gamma | Th-232 | 2.06 | 0.53 | 0.68 | |
| 0181-A | FS | PARAGON | Gamma | U-235 | 0.76 | 0.37 | 0.76 | |
| 0181-A | FS | PARAGON | Alpha | Am-241 | 0.64 | 0.17 | 0.07 | |
| 0181-A | FS | PARAGON | Alpha | Pu-238 | 0.115 | 0.066 | 0.056 | |
| 0181-A | FS | PARAGON | Alpha | Pu-239/240 | 2.24 | 0.44 | 0.02 | J |
| 0181-A | FS | PARAGON | Alpha | Pu-242 | 0.005 | 0.014 | 0.028 | U |
| 0181-A | FS | PARAGON | Alpha | Th-230 | 1.34 | 0.35 | 0.25 | |
| 0181-A | FS | PARAGON | Alpha | Th-232 | 1.71 | 0.39 | 0.07 | |
| 0181-A | FS | PARAGON | Alpha | U-233/234 | 32.2 | 5.6 | 0.2 | |
| 0181-A | FS | PARAGON | Alpha | U-235 | 1.1 | 0.4 | 0.15 | |
| 0181-A | FS | PARAGON | Alpha | U-238 | 4.1 | 0.93 | 0.19 | |
| 0181-A | FS | NFS | Gamma | Am-241 | 1.017 | 0.4482 | 0.7431 | |
| 0181-A | FS | NFS | Gamma | Th-232 | 2.759 | 0.3062 | 0.4696 | |
| 0181-A | FS | NFS | Gamma | U-235 | 1.242 | 0.0774 | 0.1124 | |
| 0181-A | FS | NFS | Gamma | U-238 | 4.588 | 5.762 | 9.708 | U |
| 0181-B | FS | NFS | Gamma | Am-241 | 0.0247 | 0.3815 | 0.647 | U |
| 0181-B | FS | NFS | Gamma | Th-232 | 0.7484 | 0.2572 | 0.4161 | |
| 0181-B | FS | NFS | Gamma | U-235 | 0.4157 | 0.0541 | 0.085 | |
| 0181-B | FS | NFS | Gamma | U-238 | -1.538 | -5.968 | 10.21 | U |
| 0181-B-DUP | FD | NFS | Gamma | Am-241 | 0.1904 | 0.3626 | 0.6121 | U |
| 0181-B-DUP | FD | NFS | Gamma | Th-232 | 1.11 | 0.23 | 0.3653 | |
| 0181-B-DUP | FD | NFS | Gamma | U-235 | 0.2762 | 0.0544 | 0.0875 | |
| 0181-B-DUP | FD | NFS | Gamma | U-238 | -2.627 | -5.611 | 9.63 | U |
| 0181-C | FS | NFS | Gamma | Am-241 | -0.4222 | -0.4526 | 0.7722 | U |
| 0181-C | FS | NFS | Gamma | Th-232 | 2.726 | 0.2996 | 0.4492 | |
| 0181-C | FS | NFS | Gamma | U-235 | 0.1556 | 0.066 | 0.1097 | |
| 0181-C | FS | NFS | Gamma | U-238 | 6.65 | 6.247 | 10.48 | U |
| 0181-D | FS | NFS | Gamma | Am-241 | -0.1997 | -0.4361 | 0.7421 | U |
| 0181-D | FS | NFS | Gamma | Th-232 | 1.784 | 0.2692 | 0.4142 | |
| 0181-D | FS | NFS | Gamma | U-235 | 0.1774 | 0.0558 | 0.0906 | |
| 0181-D | FS | NFS | Gamma | U-238 | -0.0523 | -5.842 | 9.957 | U |
| 0181-E | FS | NFS | Gamma | Am-241 | 0.4197 | 0.3534 | 0.604 | U |
| 0181-E | FS | NFS | Gamma | Th-232 | 1.585 | 0.26 | 0.4092 | |
| 0181-E | FS | NFS | Gamma | U-235 | 0.0314 | 0.0545 | 0.0919 | U |
| 0181-E | FS | NFS | Gamma | U-238 | 2.952 | 5.34 | 8.6 | U |
| 0182-A | FS | NFS | Gamma | Am-241 | 0.138 | 0.4156 | 0.7029 | U |
| 0182-A | FS | NFS | Gamma | Th-232 | 1.638 | 0.2908 | 0.4615 | |
| 0182-A | FS | NFS | Gamma | U-235 | 0.4418 | 0.0775 | 0.1236 | |
| 0182-A | FS | NFS | Gamma | U-238 | 9.711 | 7.377 | 12.34 | U |
| 0182-B | FS | NFS | Gamma | Am-241 | -0.5043 | -0.393 | 0.6695 | U |
| 0182-B | FS | NFS | Gamma | Th-232 | 4.954 | 0.363 | 0.5377 | |
| 0182-B | FS | NFS | Gamma | U-235 | 0.2149 | 0.0731 | 0.1212 | |
| 0182-B | FS | NFS | Gamma | U-238 | -2.123 | -6.999 | 12.15 | U |
| 0182-C | FS | NFS | Gamma | Am-241 | -0.5289 | -0.4164 | 0.7119 | U |
| 0182-C | FS | NFS | Gamma | Th-232 | 3.149 | 0.2904 | 0.4338 | |
| 0182-C | FS | NFS | Gamma | U-235 | 0.2125 | 0.0707 | 0.1154 | |
| 0182-C | FS | NFS | Gamma | U-238 | 12.2 | 6.298 | 10.29 | |
| 0182-D | FS | NFS | Gamma | Am-241 | -0.3768 | -0.2984 | 0.5102 | U |

## Survey Unit 08 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0182-D | FS | NFS | Gamma | Th-232 | 1.13 | 0.2591 | 0.4189 | |
| 0182-D | FS | NFS | Gamma | U-235 | -0.0294 | -0.0546 | 0.0929 | U |
| 0182-D | FS | NFS | Gamma | U-238 | -2.821 | -16.88 | 10.5 | U |
| 0182-E | FS | PARAGON | LSC | Tc-99 | 0.58 | 0.9 | 1.49 | U |
| 0182-E | FS | PARAGON | LSC | Pu-241 | -0.1 | 2.4 | 4.1 | U |
| 0182-E | FS | PARAGON | Gamma | Am-241 | -0.29 | 0.5 | 0.96 | U |
| 0182-E | FS | PARAGON | Gamma | Th-232 | 2.18 | 0.54 | 0.72 | |
| 0182-E | FS | PARAGON | Gamma | U-235 | 0.04 | 0.37 | 0.66 | U |
| 0182-E | FS | PARAGON | Alpha | Am-241 | 0.004 | 0.011 | 0.016 | U |
| 0182-E | FS | PARAGON | Alpha | Pu-238 | 0 | 0.01 | 0.006 | U |
| 0182-E | FS | PARAGON | Alpha | Pu-239/240 | 0.002 | 0.0099 | 0.0055 | U |
| 0182-E | FS | PARAGON | Alpha | Pu-242 | 0.0068 | 0.0084 | 0.0127 | U |
| 0182-E | FS | PARAGON | Alpha | Th-230 | 1.05 | 0.19 | 0.04 | |
| 0182-E | FS | PARAGON | Alpha | Th-232 | 1.81 | 0.32 | 0.02 | |
| 0182-E | FS | PARAGON | Alpha | U-233/234 | 4.19 | 0.73 | 0.04 | |
| 0182-E | FS | PARAGON | Alpha | U-235 | 0.165 | 0.068 | 0.038 | |
| 0182-E | FS | PARAGON | Alpha | U-238 | 1.07 | 0.23 | 0.04 | |
| 0182-E | FS | NFS | Gamma | Am-241 | -0.8827 | -0.4006 | 0.6879 | U |
| 0182-E | FS | NFS | Gamma | Th-232 | 2.445 | 0.2808 | 0.4334 | |
| 0182-E | FS | NFS | Gamma | U-235 | 0.2913 | 0.0688 | 0.1114 | |
| 0182-E | FS | NFS | Gamma | U-238 | 11.67 | 6.126 | 10.14 | |
| 0182-E | LR | PARAGON | Gamma | Am-241 | 0.22 | 0.58 | 1 | U |
| 0182-E | LR | PARAGON | Gamma | Th-232 | 2 | 0.47 | 0.71 | J |
| 0182-E | LR | PARAGON | Gamma | U-235 | 0.26 | 0.38 | 0.64 | U |
| 0182-F | FS | NFS | Gamma | Am-241 | -0.1498 | -0.2921 | 0.4969 | U |
| 0182-F | FS | NFS | Gamma | Th-232 | 1.045 | 0.2974 | 0.4861 | |
| 0182-F | FS | NFS | Gamma | U-235 | 0.0158 | 0.0553 | 0.0936 | U |
| 0182-F | FS | NFS | Gamma | U-238 | 2.767 | 5.293 | 8.856 | U |
| 0183-A | FS | NFS | Gamma | Am-241 | 0.0689 | 0.4175 | 0.7069 | U |
| 0183-A | FS | NFS | Gamma | Th-232 | 1.591 | 0.2799 | 0.4461 | |
| 0183-A | FS | NFS | Gamma | U-235 | 0.5207 | 0.0588 | 0.092 | |
| 0183-A | FS | NFS | Gamma | U-238 | 9.901 | 4.882 | 8.26 | |
| 0183-B | FS | NFS | Gamma | Am-241 | 0.9062 | 0.3853 | 0.6364 | |
| 0183-B | FS | NFS | Gamma | Th-232 | 1.466 | 0.2472 | 0.3903 | |
| 0183-B | FS | NFS | Gamma | U-235 | 0.3983 | 0.0576 | 0.0915 | |
| 0183-B | FS | NFS | Gamma | U-238 | 0.776 | 5.869 | 11.01 | U |
| 0183-C | FS | NFS | Gamma | Am-241 | 0.1276 | 0.2991 | 0.5053 | U |
| 0183-C | FS | NFS | Gamma | Th-232 | 1.478 | 0.2681 | 0.4269 | |
| 0183-C | FS | NFS | Gamma | U-235 | 0.0982 | 0.055 | 0.0909 | |
| 0183-C | FS | NFS | Gamma | U-238 | 9.457 | 5.011 | 8.26 | |
| 0183-D | FS | NFS | Gamma | Am-241 | 0.3308 | 0.3873 | 0.6519 | U |
| 0183-D | FS | NFS | Gamma | Th-232 | 1.235 | 0.2407 | 0.3855 | |
| 0183-D | FS | NFS | Gamma | U-235 | 0.1044 | 0.0529 | 0.0884 | |
| 0183-D | FS | NFS | Gamma | U-238 | -5.727 | -5.596 | 9.657 | U |
| 0183-E | FS | NFS | Gamma | Am-241 | -0.3581 | -0.628 | 0.5777 | U |
| 0183-E | FS | NFS | Gamma | Th-232 | 0.9899 | 0.2275 | 0.3636 | |
| 0183-E | FS | NFS | Gamma | U-235 | 0.0809 | 0.0532 | 0.0873 | U |
| 0183-E | FS | NFS | Gamma | U-238 | 3.021 | 4.979 | 8.418 | U |
| 0184-A | FS | NFS | Gamma | Am-241 | 0.0937 | 0.2773 | 0.4687 | U |
| 0184-A | FS | NFS | Gamma | Th-232 | 1.036 | 0.2609 | 0.4244 | |
| 0184-A | FS | NFS | Gamma | U-235 | 0.6355 | 0.0575 | 0.0887 | |
| 0184-A | FS | NFS | Gamma | U-238 | 4.568 | 4.48 | 7.612 | U |
| 0184-B | FS | NFS | Gamma | Am-241 | 0.0128 | 0.3752 | 0.6362 | U |

## Survey Unit 08 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0184-B | FS | NFS | Gamma | Th-232 | 1.352 | 0.2421 | 0.3848 | |
| 0184-B | FS | NFS | Gamma | U-235 | 0.479 | 0.0573 | 0.0891 | |
| 0184-B | FS | NFS | Gamma | U-238 | 5.474 | 4.621 | 7.732 | U |
| 0184-C | FS | PARAGON | LSC | Tc-99 | 0.1 | 1 | 1.7 | U |
| 0184-C | FS | NFS | Gamma | Am-241 | -0.2239 | -0.3011 | 0.5127 | U |
| 0184-C | FS | NFS | Gamma | Th-232 | 2.219 | 0.2781 | 0.4317 | |
| 0184-C | FS | NFS | Gamma | U-235 | 0.3601 | 0.0605 | 0.0978 | |
| 0184-C | FS | NFS | Gamma | U-238 | 2.184 | 7.343 | 9.35 | U |
| 0184-C-DUP | FD | NFS | Gamma | Am-241 | -0.4568 | -0.4224 | 0.7213 | U |
| 0184-C-DUP | FD | NFS | Gamma | Th-232 | 1.769 | 0.2637 | 0.4131 | |
| 0184-C-DUP | FD | NFS | Gamma | U-235 | 0.3733 | 0.061 | 0.0969 | |
| 0184-C-DUP | FD | NFS | Gamma | U-238 | -5.299 | -2.682 | 10.95 | U |
| 0184-D | FS | NFS | Gamma | Am-241 | -0.3288 | -0.2916 | 0.4978 | U |
| 0184-D | FS | NFS | Gamma | Th-232 | 2.118 | 0.2809 | 0.4398 | |
| 0184-D | FS | NFS | Gamma | U-235 | 0.064 | 0.0607 | 0.1019 | U |
| 0184-D | FS | NFS | Gamma | U-238 | -4.429 | -6.049 | 10.38 | U |
| 0184-E | FS | NFS | Gamma | Am-241 | -0.3057 | -0.362 | 0.6179 | U |
| 0184-E | FS | NFS | Gamma | Th-232 | 1.759 | 0.259 | 0.4019 | |
| 0184-E | FS | NFS | Gamma | U-235 | 0.0473 | 0.0653 | 0.1002 | U |
| 0184-E | FS | NFS | Gamma | U-238 | -10.36 | -5.793 | 10.11 | U |
| 0185-A | FS | NFS | Gamma | Am-241 | 8.729 | 0.6921 | 0.9276 | |
| 0185-A | FS | NFS | Gamma | Th-232 | 4.192 | 0.3141 | 0.4521 | |
| 0185-A | FS | NFS | Gamma | U-235 | 3.156 | 0.1039 | 0.1301 | |
| 0185-A | FS | NFS | Gamma | U-238 | 8.106 | 6.006 | 9.89 | U |
| 0185-B | FS | PARAGON | LSC | Tc-99 | 0.12 | 0.9 | 1.52 | U |
| 0185-B | FS | PARAGON | LSC | Pu-241 | 1.3 | 2.7 | 4.5 | U |
| 0185-B | FS | PARAGON | Gamma | Am-241 | 0.17 | 0.1 | 0.15 | |
| 0185-B | FS | PARAGON | Gamma | Th-232 | 0.6 | 0.27 | 0.42 | J |
| 0185-B | FS | PARAGON | Gamma | U-235 | 0.24 | 0.24 | 0.38 | U |
| 0185-B | FS | PARAGON | Alpha | Am-241 | 0.171 | 0.047 | 0.015 | |
| 0185-B | FS | PARAGON | Alpha | Pu-238 | 0.031 | 0.02 | 0.021 | |
| 0185-B | FS | PARAGON | Alpha | Pu-239/240 | 0.422 | 0.091 | 0.006 | |
| 0185-B | FS | PARAGON | Alpha | Pu-242 | 0.012 | 0.011 | 0.016 | U |
| 0185-B | FS | PARAGON | Alpha | Th-230 | 0.405 | 0.091 | 0.045 | J |
| 0185-B | FS | PARAGON | Alpha | Th-232 | 0.63 | 0.13 | 0.02 | |
| 0185-B | FS | PARAGON | Alpha | U-233/234 | 5.9 | 1 | 0 | |
| 0185-B | FS | PARAGON | Alpha | U-235 | 0.177 | 0.072 | 0.047 | |
| 0185-B | FS | PARAGON | Alpha | U-238 | 0.53 | 0.13 | 0.04 | |
| 0185-B | FS | NFS | Gamma | Am-241 | 0.4067 | 0.2392 | 0.3992 | |
| 0185-B | FS | NFS | Gamma | Th-232 | 0.3933 | 0.1884 | 0.3111 | |
| 0185-B | FS | NFS | Gamma | U-235 | 0.2181 | 0.0523 | 0.0856 | |
| 0185-B | FS | NFS | Gamma | U-238 | 10.42 | 5.201 | 8.603 | |
| 0185-B | LR | PARAGON | LSC | Tc-99 | 0 | 0.92 | 1.54 | U |
| 0185-C | FS | NFS | Gamma | Am-241 | 0.5992 | 0.322 | 0.535 | |
| 0185-C | FS | NFS | Gamma | Th-232 | 1.287 | 0.2559 | 0.4056 | |
| 0185-C | FS | NFS | Gamma | U-235 | 0.2591 | 0.0584 | 0.0953 | |
| 0185-C | FS | NFS | Gamma | U-238 | 0.4298 | 4.404 | 9.506 | U |
| 0185-C-DUP | FD | NFS | Gamma | Am-241 | 0.2389 | 0.2751 | 0.4629 | U |
| 0185-C-DUP | FD | NFS | Gamma | Th-232 | 1.241 | 0.2426 | 0.3879 | |
| 0185-C-DUP | FD | NFS | Gamma | U-235 | 0.1128 | 0.0534 | 0.0891 | |
| 0185-C-DUP | FD | NFS | Gamma | U-238 | 1.105 | 4.984 | 8.474 | U |
| 0185-D | FS | NFS | Gamma | Am-241 | -0.3594 | -0.384 | 0.6555 | U |
| 0185-D | FS | NFS | Gamma | Th-232 | 1.308 | 0.2307 | 0.3593 | |

## Survey Unit 08 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0185-D | FS | NFS | Gamma | U-235 | 0.0987 | 0.0524 | 0.0874 | |
| 0185-D | FS | NFS | Gamma | U-238 | 10.85 | 4.43 | 7.09 | |
| 0185-E | FS | NFS | Gamma | Am-241 | 0.2794 | 0.2559 | 0.4299 | U |
| 0185-E | FS | NFS | Gamma | Th-232 | 1.09 | 0.2449 | 0.3934 | |
| 0185-E | FS | NFS | Gamma | U-235 | 0.04 | 0.0526 | 0.0884 | U |
| 0185-E | FS | NFS | Gamma | U-238 | -2.475 | -5.844 | 10.01 | U |
| 0186-A | FS | NFS | Gamma | Am-241 | -0.2887 | -0.3936 | 0.6724 | U |
| 0186-A | FS | NFS | Gamma | Th-232 | 1.161 | 0.2886 | 0.4677 | |
| 0186-A | FS | NFS | Gamma | U-235 | 0.3416 | 0.0706 | 0.115 | |
| 0186-A | FS | NFS | Gamma | U-238 | 0.6367 | 5.834 | 14.24 | U |
| 0186-A-DUP | FD | NFS | Gamma | Am-241 | 0.1368 | 0.3279 | 0.554 | U |
| 0186-A-DUP | FD | NFS | Gamma | Th-232 | 1.19 | 0.3191 | 0.5186 | |
| 0186-A-DUP | FD | NFS | Gamma | U-235 | 0.1872 | 0.0618 | 0.1022 | |
| 0186-A-DUP | FD | NFS | Gamma | U-238 | 0.2026 | 5.845 | 9.98 | U |
| 0186-B | FS | NFS | Gamma | Am-241 | -0.17 | -0.3436 | 0.5508 | U |
| 0186-B | FS | NFS | Gamma | Th-232 | 0.9575 | 0.2447 | 0.3882 | |
| 0186-B | FS | NFS | Gamma | U-235 | 0.0419 | 0.0667 | 0.1023 | U |
| 0186-B | FS | NFS | Gamma | U-238 | 1.229 | 6.627 | 11.25 | U |
| 0186-C | FS | NFS | Gamma | Am-241 | 0.0614 | 0.2648 | 0.5107 | U |
| 0186-C | FS | NFS | Gamma | Th-232 | 1.573 | 0.2599 | 0.4123 | |
| 0186-C | FS | NFS | Gamma | U-235 | 0.1646 | 0.0536 | 0.0886 | |
| 0186-C | FS | NFS | Gamma | U-238 | -2.887 | -2.858 | 9.882 | U |
| 0186-D | FS | NFS | Gamma | Am-241 | 0.5151 | 0.3688 | 0.6166 | U |
| 0186-D | FS | NFS | Gamma | Th-232 | 0.968 | 0.2726 | 0.4402 | |
| 0186-D | FS | NFS | Gamma | U-235 | 0.1269 | 0.0713 | 0.1189 | |
| 0186-D | FS | NFS | Gamma | U-238 | -1.534 | -21.72 | 9.714 | U |
| 0186-E | FS | NFS | Gamma | Am-241 | -0.0488 | -0.2677 | 0.4544 | U |
| 0186-E | FS | NFS | Gamma | Th-232 | 0.8106 | 0.2425 | 0.3993 | |
| 0186-E | FS | NFS | Gamma | U-235 | 0.0481 | 0.0527 | 0.0883 | U |
| 0186-E | FS | NFS | Gamma | U-238 | 1.289 | 5.345 | 8.118 | U |
| 0186-F | FS | NFS | Gamma | Am-241 | -0.115 | -0.3804 | 0.6475 | U |
| 0186-F | FS | NFS | Gamma | Th-232 | 0.8298 | 0.2631 | 0.4308 | |
| 0186-F | FS | NFS | Gamma | U-235 | 0.1162 | 0.0733 | 0.1192 | U |
| 0186-F | FS | NFS | Gamma | U-238 | -3.942 | -6.313 | 10.86 | U |
| 0187-A | FS | NFS | Gamma | Am-241 | -0.491 | -0.3342 | 0.5098 | U |
| 0187-A | FS | NFS | Gamma | Th-232 | 1.389 | 0.2365 | 0.3699 | |
| 0187-A | FS | NFS | Gamma | U-235 | 0.1406 | 0.0584 | 0.0971 | |
| 0187-A | FS | NFS | Gamma | U-238 | -6.627 | -5.908 | 10.23 | U |
| 0187-B | FS | PARAGON | LSC | Tc-99 | -0.27 | 0.9 | 1.52 | U |
| 0187-B | FS | PARAGON | LSC | Pu-241 | 1 | 2.9 | 4.8 | U |
| 0187-B | FS | PARAGON | Gamma | Am-241 | -0.41 | 0.55 | 1.07 | U |
| 0187-B | FS | PARAGON | Gamma | Th-232 | 0.82 | 0.36 | 0.48 | J |
| 0187-B | FS | PARAGON | Gamma | U-235 | 0.13 | 0.33 | 0.57 | U |
| 0187-B | FS | PARAGON | Alpha | Am-241 | 0.0114 | 0.0095 | 0.0052 | |
| 0187-B | FS | PARAGON | Alpha | Pu-238 | 0.007 | 0.011 | 0.006 | J |
| 0187-B | FS | PARAGON | Alpha | Pu-239/240 | 0 | 0.011 | 0.021 | U |
| 0187-B | FS | PARAGON | Alpha | Pu-242 | 0.0034 | 0.0099 | 0.0155 | U |
| 0187-B | FS | PARAGON | Alpha | Th-230 | 0.6 | 0.12 | 0.05 | |
| 0187-B | FS | PARAGON | Alpha | Th-232 | 0.85 | 0.16 | 0.01 | |
| 0187-B | FS | PARAGON | Alpha | U-233/234 | 1.22 | 0.25 | 0.04 | |
| 0187-B | FS | PARAGON | Alpha | U-235 | 0.04 | 0.033 | 0.032 | |
| 0187-B | FS | PARAGON | Alpha | U-238 | 0.79 | 0.18 | 0.04 | |
| 0187-B | FS | NFS | Gamma | Am-241 | -0.3208 | -0.3811 | 0.6506 | U |

## Survey Unit 08 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0187-B | FS | NFS | Gamma | Th-232 | 1.121 | 0.2722 | 0.4321 | |
| 0187-B | FS | NFS | Gamma | U-235 | 0.1638 | 0.0682 | 0.1136 | |
| 0187-B | FS | NFS | Gamma | U-238 | 6.661 | 5.412 | 9.055 | U |
| 0187-C | FS | NFS | Gamma | Am-241 | 0.1914 | 0.2843 | 0.4792 | U |
| 0187-C | FS | NFS | Gamma | Th-232 | 1.197 | 0.2681 | 0.4333 | |
| 0187-C | FS | NFS | Gamma | U-235 | 0.0477 | 0.0563 | 0.0948 | U |
| 0187-C | FS | NFS | Gamma | U-238 | -6.488 | -5.705 | 9.861 | U |
| 0187-D | FS | NFS | Gamma | Am-241 | 0.237 | 0.3122 | 0.5818 | U |
| 0187-D | FS | NFS | Gamma | Th-232 | 1.531 | 0.2107 | 0.3242 | |
| 0187-D | FS | NFS | Gamma | U-235 | 0.1133 | 0.0671 | 0.1121 | |
| 0187-D | FS | NFS | Gamma | U-238 | -2.004 | -3.106 | 9.656 | U |
| 0187-E | FS | NFS | Gamma | Am-241 | -0.2572 | -0.3083 | 0.5253 | U |
| 0187-E | FS | NFS | Gamma | Th-232 | 1.25 | 0.2568 | 0.4127 | |
| 0187-E | FS | NFS | Gamma | U-235 | 0.0728 | 0.055 | 0.0921 | U |
| 0187-E | FS | NFS | Gamma | U-238 | -0.3633 | -5.139 | 8.77 | U |
| 0187-E-DUP | FD | NFS | Gamma | Am-241 | 0.2092 | 0.3652 | 0.6161 | U |
| 0187-E-DUP | FD | NFS | Gamma | Th-232 | 1.504 | 0.259 | 0.4112 | |
| 0187-E-DUP | FD | NFS | Gamma | U-235 | 0.0737 | 0.0714 | 0.12 | U |
| 0187-E-DUP | FD | NFS | Gamma | U-238 | -4.732 | -5.806 | 10 | U |
| 0187-F | FS | NFS | Gamma | Am-241 | 0.4134 | 0.259 | 0.4328 | U |
| 0187-F | FS | NFS | Gamma | Th-232 | 0.6351 | 0.2334 | 0.3867 | |
| 0187-F | FS | NFS | Gamma | U-235 | 0.0975 | 0.0497 | 0.0831 | |
| 0187-F | FS | NFS | Gamma | U-238 | -0.9752 | -4.907 | 8.396 | U |
| 0188-A | FS | NFS | Gamma | Am-241 | 0.6239 | 0.3503 | 0.583 | |
| 0188-A | FS | NFS | Gamma | Th-232 | 0.9917 | 0.2695 | 0.4372 | |
| 0188-A | FS | NFS | Gamma | U-235 | 0.2143 | 0.0739 | 0.1202 | |
| 0188-A | FS | NFS | Gamma | U-238 | 1.176 | 5.172 | 8.799 | U |
| 0188-B | FS | NFS | Gamma | Am-241 | -0.0442 | -0.2463 | 0.4186 | U |
| 0188-B | FS | NFS | Gamma | Th-232 | 0.5438 | 0.1988 | 0.3267 | |
| 0188-B | FS | NFS | Gamma | U-235 | 0.0369 | 0.0472 | 0.0795 | U |
| 0188-B | FS | NFS | Gamma | U-238 | 0.3888 | 4.242 | 6.953 | U |
| 0188-C | FS | NFS | Gamma | Am-241 | 0.1331 | 0.3279 | 0.5544 | U |
| 0188-C | FS | NFS | Gamma | Th-232 | 0.9224 | 0.2164 | 0.348 | |
| 0188-C | FS | NFS | Gamma | U-235 | 0.0538 | 0.0656 | 0.1105 | U |
| 0188-C | FS | NFS | Gamma | U-238 | 0.7031 | 5.202 | 8.619 | U |
| 0188-D | FS | NFS | Gamma | Am-241 | 0.2256 | 0.2648 | 0.4457 | U |
| 0188-D | FS | NFS | Gamma | Th-232 | 1.242 | 0.2204 | 0.3483 | |
| 0188-D | FS | NFS | Gamma | U-235 | 0.1263 | 0.0514 | 0.0855 | |
| 0188-D | FS | NFS | Gamma | U-238 | -0.7107 | -5.078 | 8.67 | U |
| 0188-E | FS | NFS | Gamma | Am-241 | -0.2834 | -1.853 | 0.6076 | U |
| 0188-E | FS | NFS | Gamma | Th-232 | 0.5488 | 0.2825 | 0.4469 | |
| 0188-E | FS | NFS | Gamma | U-235 | 0.1656 | 0.0667 | 0.111 | |
| 0188-E | FS | NFS | Gamma | U-238 | -1.573 | -5.407 | 9.263 | U |
| 0188-F | FS | NFS | Gamma | Am-241 | -0.0152 | -0.2627 | 0.4456 | U |
| 0188-F | FS | NFS | Gamma | Th-232 | 1.091 | 0.1964 | 0.3095 | |
| 0188-F | FS | NFS | Gamma | U-235 | 0.0532 | 0.0476 | 0.0798 | U |
| 0188-F | FS | NFS | Gamma | U-238 | -2.033 | -4.519 | 7.758 | U |
| 0189-A | FS | PARAGON | LSC | Tc-99 | 0.48 | 0.97 | 1.61 | U |
| 0189-A | FS | PARAGON | LSC | Pu-241 | -1.1 | 2.3 | 4 | U |
| 0189-A | FS | PARAGON | Gamma | Am-241 | -0.3 | 1.1 | 1.9 | U |
| 0189-A | FS | PARAGON | Gamma | Th-232 | 0.88 | 0.29 | 0.49 | J |
| 0189-A | FS | PARAGON | Gamma | U-235 | -0.21 | 0.39 | 0.69 | U |
| 0189-A | FS | PARAGON | Alpha | Am-241 | 0.071 | 0.025 | 0.005 | |

## Survey Unit 08 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0189-A | FS | PARAGON | Alpha | Pu-238 | 0.0039 | 0.0095 | 0.0143 | U |
| 0189-A | FS | PARAGON | Alpha | Pu-239/240 | 0.164 | 0.044 | 0.014 | |
| 0189-A | FS | PARAGON | Alpha | Pu-242 | 0.007 | 0.0089 | 0.0144 | U |
| 0189-A | FS | PARAGON | Alpha | Th-230 | 0.98 | 0.18 | 0.05 | |
| 0189-A | FS | PARAGON | Alpha | Th-232 | 1.05 | 0.2 | 0.02 | |
| 0189-A | FS | PARAGON | Alpha | U-233/234 | 3.06 | 0.57 | 0.05 | |
| 0189-A | FS | PARAGON | Alpha | U-235 | 0.118 | 0.061 | 0.044 | |
| 0189-A | FS | PARAGON | Alpha | U-238 | 1.2 | 0.26 | 0.04 | |
| 0189-A | FS | NFS | Gamma | Am-241 | 0.2311 | 0.4833 | 0.8162 | U |
| 0189-A | FS | NFS | Gamma | Th-232 | 1.391 | 0.3692 | 0.5546 | |
| 0189-A | FS | NFS | Gamma | U-235 | 0.196 | 0.0861 | 0.1435 | |
| 0189-A | FS | NFS | Gamma | U-238 | 0.5113 | 7.941 | 12.04 | U |
| 0189-B | FS | NFS | Gamma | Am-241 | -0.2389 | -0.2595 | 0.4433 | U |
| 0189-B | FS | NFS | Gamma | Th-232 | 0.6683 | 0.1861 | 0.3004 | |
| 0189-B | FS | NFS | Gamma | U-235 | -0.0124 | -0.0482 | 0.0815 | U |
| 0189-B | FS | NFS | Gamma | U-238 | -0.9333 | -4.083 | 7.007 | U |
| 0189-C | FS | NFS | Gamma | Am-241 | 0.3232 | 0.3553 | 0.5974 | U |
| 0189-C | FS | NFS | Gamma | Th-232 | 0.8237 | 0.2276 | 0.3705 | |
| 0189-C | FS | NFS | Gamma | U-235 | 0.1434 | 0.0622 | 0.1036 | |
| 0189-C | FS | NFS | Gamma | U-238 | -3.767 | -7.399 | 9.355 | U |
| 0189-C-DUP | FD | NFS | Gamma | Am-241 | -0.0534 | -0.2559 | 0.4346 | U |
| 0189-C-DUP | FD | NFS | Gamma | Th-232 | 0.8126 | 0.2207 | 0.3629 | |
| 0189-C-DUP | FD | NFS | Gamma | U-235 | 0.041 | 0.0495 | 0.0834 | U |
| 0189-C-DUP | FD | NFS | Gamma | U-238 | 2.104 | 4.197 | 6.984 | U |
| 0189-D | FS | NFS | Gamma | Am-241 | 0.2405 | 0.3827 | 0.6455 | U |
| 0189-D | FS | NFS | Gamma | Th-232 | 1.086 | 0.2793 | 0.4537 | |
| 0189-D | FS | NFS | Gamma | U-235 | 0.1464 | 0.0767 | 0.1267 | |
| 0189-D | FS | NFS | Gamma | U-238 | 8.189 | 6.087 | 10.17 | U |
| 0189-E | FS | NFS | Gamma | Am-241 | -0.2783 | -0.2877 | 0.4911 | U |
| 0189-E | FS | NFS | Gamma | Th-232 | 0.9601 | 0.2261 | 0.3676 | |
| 0189-E | FS | NFS | Gamma | U-235 | 0.1502 | 0.0581 | 0.0966 | |
| 0189-E | FS | NFS | Gamma | U-238 | 4.553 | 5.605 | 9.204 | U |
| 0189-F | FS | NFS | Gamma | Am-241 | 0.0962 | 0.2544 | 0.4301 | U |
| 0189-F | FS | NFS | Gamma | Th-232 | 0.5916 | 0.2226 | 0.3658 | |
| 0189-F | FS | NFS | Gamma | U-235 | 0.1205 | 0.0533 | 0.0887 | |
| 0189-F | FS | NFS | Gamma | U-238 | -0.3829 | -5.007 | 8.552 | U |
| 0190-A | FS | NFS | Gamma | Am-241 | -0.0302 | -0.3835 | 0.6511 | U |
| 0190-A | FS | NFS | Gamma | Th-232 | 0.9587 | 0.2492 | 0.3954 | |
| 0190-A | FS | NFS | Gamma | U-235 | 0.1761 | 0.0487 | 0.0794 | |
| 0190-A | FS | NFS | Gamma | U-238 | 6.332 | 4.977 | 8.316 | U |
| 0190-B | FS | NFS | Gamma | Am-241 | 0.0096 | 0.2252 | 0.3819 | U |
| 0190-B | FS | NFS | Gamma | Th-232 | 0.2347 | 0.2172 | 0.372 | U |
| 0190-B | FS | NFS | Gamma | U-235 | -0.0763 | -0.0479 | 0.0822 | U |
| 0190-B | FS | NFS | Gamma | U-238 | -1.167 | -5.084 | 8.268 | U |
| 0190-C | FS | NFS | Gamma | Am-241 | -0.757 | -0.435 | 0.745 | U |
| 0190-C | FS | NFS | Gamma | Th-232 | 1.368 | 0.2411 | 0.3756 | |
| 0190-C | FS | NFS | Gamma | U-235 | 0.0557 | 0.05 | 0.0822 | U |
| 0190-C | FS | NFS | Gamma | U-238 | 5.564 | 7.68 | 8.754 | U |
| 0190-D | FS | NFS | Gamma | Am-241 | 0.3672 | 0.2176 | 0.3629 | |
| 0190-D | FS | NFS | Gamma | Th-232 | 0.4687 | 0.2213 | 0.3667 | |
| 0190-D | FS | NFS | Gamma | U-235 | -0.0141 | -0.0467 | 0.0794 | U |
| 0190-D | FS | NFS | Gamma | U-238 | -0.2791 | -4.693 | 8.014 | U |
| 0190-E | FS | PARAGON | LSC | Tc-99 | -0.11 | 0.93 | 1.57 | U |

## Survey Unit 08 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0190-E | FS | PARAGON | LSC | Pu-241 | 0.8 | 4 | 6.8 | U |
| 0190-E | FS | PARAGON | Gamma | Am-241 | -0.001 | 0.081 | 0.143 | U |
| 0190-E | FS | PARAGON | Gamma | Th-232 | 1.09 | 0.38 | 0.65 | J |
| 0190-E | FS | PARAGON | Gamma | U-235 | -0.2 | 0.28 | 0.52 | U |
| 0190-E | FS | PARAGON | Alpha | Am-241 | 0.004 | 0.0099 | 0.0148 | U |
| 0190-E | FS | PARAGON | Alpha | Pu-238 | 0.002 | 0.011 | 0.006 | U |
| 0190-E | FS | PARAGON | Alpha | Pu-239/240 | 0 | 0.014 | 0.028 | U |
| 0190-E | FS | PARAGON | Alpha | Pu-242 | 0.012 | 0.012 | 0.008 | J |
| 0190-E | FS | PARAGON | Alpha | Th-230 | 0.59 | 0.13 | 0.06 | J |
| 0190-E | FS | PARAGON | Alpha | Th-232 | 0.89 | 0.18 | 0.01 | |
| 0190-E | FS | PARAGON | Alpha | U-233/234 | 0.74 | 0.17 | 0.06 | |
| 0190-E | FS | PARAGON | Alpha | U-235 | 0.038 | 0.032 | 0.039 | U |
| 0190-E | FS | PARAGON | Alpha | U-238 | 0.61 | 0.15 | 0.05 | |
| 0190-E | FS | NFS | Gamma | Am-241 | 0.6274 | 0.3594 | 0.5985 | |
| 0190-E | FS | NFS | Gamma | Th-232 | 1.37 | 0.2238 | 0.3507 | |
| 0190-E | FS | NFS | Gamma | U-235 | -0.075 | -0.0549 | 0.0941 | U |
| 0190-E | FS | NFS | Gamma | U-238 | 4.979 | 5.12 | 9.08 | U |
| 0190-F | FS | NFS | Gamma | Am-241 | -0.1751 | -0.242 | 0.4129 | U |
| 0190-F | FS | NFS | Gamma | Th-232 | 0.5595 | 0.2304 | 0.3802 | |
| 0190-F | FS | NFS | Gamma | U-235 | 0.003 | 0.0486 | 0.0824 | U |
| 0190-F | FS | NFS | Gamma | U-238 | -3.264 | -5.26 | 9.045 | U |
| 0191-A | FS | NFS | Gamma | Am-241 | 0.483 | 0.3086 | 0.5163 | U |
| 0191-A | FS | NFS | Gamma | Th-232 | 1.425 | 0.2917 | 0.4667 | |
| 0191-A | FS | NFS | Gamma | U-235 | 0.6158 | 0.0672 | 0.1059 | |
| 0191-A | FS | NFS | Gamma | U-238 | 5.685 | 6.096 | 9.802 | U |
| 0191-B | FS | NFS | Gamma | Am-241 | -0.4014 | -0.5429 | 0.4322 | U |
| 0191-B | FS | NFS | Gamma | Th-232 | 0.4584 | 0.2029 | 0.3343 | |
| 0191-B | FS | NFS | Gamma | U-235 | 0.2545 | 0.0476 | 0.0766 | |
| 0191-B | FS | NFS | Gamma | U-238 | -3.619 | -7.653 | 8.788 | U |
| 0191-C | FS | NFS | Gamma | Am-241 | -0.3637 | -0.3036 | 0.5189 | U |
| 0191-C | FS | NFS | Gamma | Th-232 | 1.487 | 0.2663 | 0.4219 | |
| 0191-C | FS | NFS | Gamma | U-235 | 0.2163 | 0.0603 | 0.0994 | |
| 0191-C | FS | NFS | Gamma | U-238 | -3.214 | -6.202 | 10.64 | U |
| 0191-D | FS | NFS | Gamma | Am-241 | 0.2153 | 0.3446 | 0.581 | U |
| 0191-D | FS | NFS | Gamma | Th-232 | 3.053 | 0.3098 | 0.4663 | |
| 0191-D | FS | NFS | Gamma | U-235 | 0.1225 | 0.0689 | 0.1156 | |
| 0191-D | FS | NFS | Gamma | U-238 | -4.233 | -5.502 | 11.73 | U |
| 0191-E | FS | PARAGON | LSC | Tc-99 | -0.58 | 0.97 | 1.65 | U |
| 0191-E | FS | PARAGON | LSC | Pu-241 | 0.2 | 2.6 | 4.3 | U |
| 0191-E | FS | PARAGON | Gamma | Am-241 | -0.31 | 0.53 | 1.02 | U |
| 0191-E | FS | PARAGON | Gamma | Th-232 | 1.53 | 0.42 | 0.65 | |
| 0191-E | FS | PARAGON | Gamma | U-235 | 0.13 | 0.35 | 0.6 | U |
| 0191-E | FS | PARAGON | Alpha | Am-241 | 0.0053 | 0.0088 | 0.0131 | U |
| 0191-E | FS | PARAGON | Alpha | Pu-238 | -0.007 | 0.011 | 0.026 | U |
| 0191-E | FS | PARAGON | Alpha | Pu-239/240 | 0.015 | 0.015 | 0.02 | U |
| 0191-E | FS | PARAGON | Alpha | Pu-242 | 0.024 | 0.016 | 0.016 | |
| 0191-E | FS | PARAGON | Alpha | Th-230 | 1 | 0.19 | 0.05 | |
| 0191-E | FS | PARAGON | Alpha | Th-232 | 1.47 | 0.27 | 0.01 | |
| 0191-E | FS | PARAGON | Alpha | U-233/234 | 1.39 | 0.29 | 0.04 | |
| 0191-E | FS | PARAGON | Alpha | U-235 | 0.066 | 0.045 | 0.037 | |
| 0191-E | FS | PARAGON | Alpha | U-238 | 0.9 | 0.21 | 0.03 | |
| 0191-E | FS | NFS | Gamma | Am-241 | 0.1725 | 0.3932 | 0.6643 | U |
| 0191-E | FS | NFS | Gamma | Th-232 | 1.758 | 0.2551 | 0.3985 | |

## Survey Unit 08 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0191-E | FS | NFS | Gamma | U-235 | 0.0961 | 0.0615 | 0.1027 | U |
| 0191-E | FS | NFS | Gamma | U-238 | -2.273 | -5.293 | 9.084 | U |
| 0191-F | FS | NFS | Gamma | Am-241 | -0.0149 | -0.2876 | 0.4874 | U |
| 0191-F | FS | NFS | Gamma | Th-232 | 2.048 | 0.2578 | 0.3992 | |
| 0191-F | FS | NFS | Gamma | U-235 | 0.0528 | 0.0577 | 0.0972 | U |
| 0191-F | FS | NFS | Gamma | U-238 | 2.995 | 5.365 | 9.077 | U |
| 0192-A | FS | NFS | Gamma | Am-241 | 0.1664 | 0.4128 | 0.6976 | U |
| 0192-A | FS | NFS | Gamma | Th-232 | 1.669 | 0.2754 | 0.4324 | |
| 0192-A | FS | NFS | Gamma | U-235 | 0.3959 | 0.0649 | 0.1045 | |
| 0192-A | FS | NFS | Gamma | U-238 | -5.845 | -5.399 | 9.374 | U |
| 0192-A-DUP | FD | NFS | Gamma | Am-241 | 0.8656 | 0.281 | 0.4633 | |
| 0192-A-DUP | FD | NFS | Gamma | Th-232 | 1.355 | 0.2421 | 0.3831 | |
| 0192-A-DUP | FD | NFS | Gamma | U-235 | 0.3287 | 0.0574 | 0.093 | |
| 0192-A-DUP | FD | NFS | Gamma | U-238 | 10.41 | 4.901 | 7.931 | |
| 0192-B | FS | NFS | Gamma | Am-241 | 0.3836 | 0.3738 | 0.6278 | U |
| 0192-B | FS | NFS | Gamma | Th-232 | 1.028 | 0.2122 | 0.3376 | |
| 0192-B | FS | NFS | Gamma | U-235 | 0.8794 | 0.0633 | 0.0938 | |
| 0192-B | FS | NFS | Gamma | U-238 | 1.279 | 4.388 | 7.467 | U |
| 0192-C | FS | NFS | Gamma | Am-241 | 0.0687 | 0.3232 | 0.5468 | U |
| 0192-C | FS | NFS | Gamma | Th-232 | 1.715 | 0.3184 | 0.5106 | |
| 0192-C | FS | NFS | Gamma | U-235 | 0.2873 | 0.062 | 0.1014 | |
| 0192-C | FS | NFS | Gamma | U-238 | 1.61 | 14.37 | 11.08 | U |
| 0192-D | FS | PARAGON | LSC | Tc-99 | -0.31 | 0.92 | 1.57 | UJ |
| 0192-D | FS | PARAGON | LSC | Pu-241 | -0.7 | 2.6 | 4.5 | U |
| 0192-D | FS | PARAGON | Gamma | Am-241 | -0.34 | 0.56 | 1.07 | U |
| 0192-D | FS | PARAGON | Gamma | Th-232 | 1.15 | 0.41 | 0.59 | J |
| 0192-D | FS | PARAGON | Gamma | U-235 | 0.08 | 0.36 | 0.64 | U |
| 0192-D | FS | PARAGON | Alpha | Am-241 | 0.014 | 0.018 | 0.028 | U |
| 0192-D | FS | PARAGON | Alpha | Pu-238 | 0.006 | 0.011 | 0.02 | U |
| 0192-D | FS | PARAGON | Alpha | Pu-239/240 | 0.011 | 0.013 | 0.02 | U |
| 0192-D | FS | PARAGON | Alpha | Pu-242 | 0.031 | 0.019 | 0.021 | |
| 0192-D | FS | PARAGON | Alpha | Th-230 | 0.89 | 0.17 | 0.04 | |
| 0192-D | FS | PARAGON | Alpha | Th-232 | 1.28 | 0.23 | 0.01 | |
| 0192-D | FS | PARAGON | Alpha | U-233/234 | 1.18 | 0.25 | 0.05 | |
| 0192-D | FS | PARAGON | Alpha | U-235 | 0.034 | 0.035 | 0.05 | U |
| 0192-D | FS | PARAGON | Alpha | U-238 | 0.86 | 0.2 | 0.05 | |
| 0192-D | FS | NFS | Gamma | Am-241 | 0.9067 | 0.4068 | 0.6737 | |
| 0192-D | FS | NFS | Gamma | Th-232 | 2.066 | 0.2783 | 0.4329 | |
| 0192-D | FS | NFS | Gamma | U-235 | 0.0813 | 0.0647 | 0.1086 | U |
| 0192-D | FS | NFS | Gamma | U-238 | -0.5349 | -6.114 | 8.639 | U |
| 0192-E | FS | NFS | Gamma | Am-241 | 0.3277 | 0.2754 | 0.4623 | U |
| 0192-E | FS | NFS | Gamma | Th-232 | 1.509 | 0.2467 | 0.3887 | |
| 0192-E | FS | NFS | Gamma | U-235 | 0.1341 | 0.0537 | 0.0889 | |
| 0192-E | FS | NFS | Gamma | U-238 | 2.333 | 5.428 | 8.799 | U |
| 0192-F | FS | NFS | Gamma | Am-241 | 0.4719 | 0.3569 | 0.5971 | U |
| 0192-F | FS | NFS | Gamma | Th-232 | 0.8524 | 0.2502 | 0.4091 | |
| 0192-F | FS | NFS | Gamma | U-235 | 0.0524 | 0.0583 | 0.0969 | U |
| 0192-F | FS | NFS | Gamma | U-238 | 0.3883 | 4.406 | 7.523 | U |
| 0193-A | FS | PARAGON | LSC | Tc-99 | 3.1 | 1.2 | 1.7 | |
| 0193-A | FS | PARAGON | LSC | Pu-241 | 14.6 | 8.7 | 13.1 | |
| 0193-A | FS | PARAGON | Gamma | Am-241 | 2.9 | 1.1 | 1.5 | |
| 0193-A | FS | PARAGON | Gamma | Th-232 | 2.39 | 0.58 | 0.74 | |
| 0193-A | FS | PARAGON | Gamma | U-235 | 1.85 | 0.56 | 0.89 | |

## Survey Unit 08 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0193-A | FS | PARAGON | Alpha | Am-241 | 2.53 | 0.45 | 0.04 | |
| 0193-A | FS | PARAGON | Alpha | Pu-238 | 0.54 | 0.12 | 0.03 | |
| 0193-A | FS | PARAGON | Alpha | Pu-239/240 | 7.6 | 1.2 | 0 | |
| 0193-A | FS | PARAGON | Alpha | Pu-242 | 0.23 | 0.089 | 0.047 | R |
| 0193-A | FS | PARAGON | Alpha | Th-230 | 1.54 | 0.32 | 0.13 | |
| 0193-A | FS | PARAGON | Alpha | Th-232 | 2.58 | 0.48 | 0.06 | |
| 0193-A | FS | PARAGON | Alpha | U-233/234 | 57.5 | 9.4 | 0.1 | |
| 0193-A | FS | PARAGON | Alpha | U-235 | 2.17 | 0.47 | 0.06 | |
| 0193-A | FS | PARAGON | Alpha | U-238 | 2.64 | 0.54 | 0.08 | |
| 0193-A | FS | NFS | Gamma | Am-241 | 2.734 | 0.4168 | 0.666 | |
| 0193-A | FS | NFS | Gamma | Th-232 | 3.309 | 0.3269 | 0.4916 | |
| 0193-A | FS | NFS | Gamma | U-235 | 2.212 | 0.0868 | 0.1204 | |
| 0193-A | FS | NFS | Gamma | U-238 | -1.397 | -4.569 | 12.08 | U |
| 0193-B | FS | NFS | Gamma | Am-241 | 0.4063 | 0.3967 | 0.6664 | U |
| 0193-B | FS | NFS | Gamma | Th-232 | 2.071 | 0.2606 | 0.3984 | |
| 0193-B | FS | NFS | Gamma | U-235 | 0.2585 | 0.0647 | 0.1032 | |
| 0193-B | FS | NFS | Gamma | U-238 | 2.442 | 5.946 | 10.79 | U |
| 0193-C | FS | NFS | Gamma | Am-241 | 0.1276 | 0.3044 | 0.5142 | U |
| 0193-C | FS | NFS | Gamma | Th-232 | 1.849 | 0.2562 | 0.3986 | |
| 0193-C | FS | NFS | Gamma | U-235 | 0.0814 | 0.0576 | 0.0966 | U |
| 0193-C | FS | NFS | Gamma | U-238 | 2.591 | 5.711 | 9.668 | U |
| 0193-D | FS | NFS | Gamma | Am-241 | -0.3952 | -0.4035 | 0.6894 | U |
| 0193-D | FS | NFS | Gamma | Th-232 | 1.415 | 0.2207 | 0.344 | |
| 0193-D | FS | NFS | Gamma | U-235 | 0.0973 | 0.0572 | 0.0905 | |
| 0193-D | FS | NFS | Gamma | U-238 | 3.657 | 5.58 | 9.335 | U |
| 0193-E | FS | NFS | Gamma | Am-241 | 0.6231 | 0.2801 | 0.4564 | |
| 0193-E | FS | NFS | Gamma | Th-232 | 0.6712 | 0.2954 | 0.4928 | |
| 0193-E | FS | NFS | Gamma | U-235 | 0.0748 | 0.0571 | 0.0952 | U |
| 0193-E | FS | NFS | Gamma | U-238 | 6.654 | 5.554 | 9.251 | U |
| 0193-E-DUP | FD | NFS | Gamma | Am-241 | -0.2729 | -0.3619 | 0.6185 | U |
| 0193-E-DUP | FD | NFS | Gamma | Th-232 | 0.4998 | 0.2288 | 0.3765 | |
| 0193-E-DUP | FD | NFS | Gamma | U-235 | 0.0793 | 0.0541 | 0.0866 | U |
| 0193-E-DUP | FD | NFS | Gamma | U-238 | 2.77 | 5.523 | 9.351 | U |
| 0194-A | FS | NFS | Gamma | Am-241 | -0.9066 | -0.5707 | 0.9777 | U |
| 0194-A | FS | NFS | Gamma | Th-232 | 2.366 | 0.3365 | 0.5199 | |
| 0194-A | FS | NFS | Gamma | U-235 | 0.2452 | 0.0693 | 0.1136 | |
| 0194-A | FS | NFS | Gamma | U-238 | -1.171 | -9.039 | 15.43 | U |
| 0194-B | FS | NFS | Gamma | Am-241 | 1.868 | 0.3094 | 0.496 | |
| 0194-B | FS | NFS | Gamma | Th-232 | 1.61 | 0.2219 | 0.3414 | |
| 0194-B | FS | NFS | Gamma | U-235 | 0.424 | 0.0572 | 0.0913 | |
| 0194-B | FS | NFS | Gamma | U-238 | 16.04 | 5.097 | 8.281 | |
| 0194-B-DUP | FD | NFS | Gamma | Am-241 | 2.557 | 0.4332 | 0.6766 | |
| 0194-B-DUP | FD | NFS | Gamma | Th-232 | 1.55 | 0.2477 | 0.388 | |
| 0194-B-DUP | FD | NFS | Gamma | U-235 | 0.46 | 0.0605 | 0.096 | |
| 0194-B-DUP | FD | NFS | Gamma | U-238 | -4.762 | -3.257 | 9.783 | U |
| 0194-C | FS | NFS | Gamma | Am-241 | 1.409 | 0.3126 | 0.5127 | |
| 0194-C | FS | NFS | Gamma | Th-232 | 1.39 | 0.264 | 0.4205 | |
| 0194-C | FS | NFS | Gamma | U-235 | 0.2279 | 0.0565 | 0.0923 | |
| 0194-C | FS | NFS | Gamma | U-238 | 3.288 | 5.371 | 11.9 | U |
| 0194-D | FS | NFS | Gamma | Am-241 | 2.436 | 0.184 | 1.559 | |
| 0194-D | FS | NFS | Gamma | Th-232 | 2.495 | 0.426 | 0.6572 | |
| 0194-D | FS | NFS | Gamma | U-235 | 0.3915 | 0.1959 | 0.2888 | |
| 0194-D | FS | NFS | Gamma | U-238 | -4.143 | -8.823 | 15.04 | U |

## Survey Unit 08 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0194-E | FS | PARAGON | LSC | Tc-99 | -0.41 | 0.95 | 1.62 | U |
| 0194-E | FS | PARAGON | LSC | Pu-241 | -1.2 | 3.3 | 5.6 | U |
| 0194-E | FS | PARAGON | Gamma | Am-241 | 0.163 | 0.095 | 0.142 | |
| 0194-E | FS | PARAGON | Gamma | Th-232 | 1.29 | 0.36 | 0.61 | |
| 0194-E | FS | PARAGON | Gamma | U-235 | 0.09 | 0.25 | 0.5 | U |
| 0194-E | FS | PARAGON | Alpha | Am-241 | 0.139 | 0.044 | 0.029 | |
| 0194-E | FS | PARAGON | Alpha | Pu-238 | 0.009 | 0.012 | 0.006 | J |
| 0194-E | FS | PARAGON | Alpha | Pu-239/240 | 0.107 | 0.037 | 0.022 | |
| 0194-E | FS | PARAGON | Alpha | Pu-242 | 0.021 | 0.018 | 0.024 | U |
| 0194-E | FS | PARAGON | Alpha | Th-230 | 0.64 | 0.14 | 0.05 | J |
| 0194-E | FS | PARAGON | Alpha | Th-232 | 1.15 | 0.23 | 0.02 | |
| 0194-E | FS | PARAGON | Alpha | U-233/234 | 1.87 | 0.36 | 0.03 | |
| 0194-E | FS | PARAGON | Alpha | U-235 | 0.03 | 0.029 | 0.035 | U |
| 0194-E | FS | PARAGON | Alpha | U-238 | 0.66 | 0.16 | 0.03 | |
| 0194-E | FS | NFS | Gamma | Am-241 | 0.5395 | 0.2886 | 0.4815 | |
| 0194-E | FS | NFS | Gamma | Th-232 | 1.495 | 0.2378 | 0.3736 | |
| 0194-E | FS | NFS | Gamma | U-235 | 0.0747 | 0.0556 | 0.0933 | U |
| 0194-E | FS | NFS | Gamma | U-238 | 3.853 | 1.989 | 11.4 | U |
| 0195-A | FS | NFS | Gamma | Am-241 | 9.425 | 0.8216 | 1.132 | |
| 0195-A | FS | NFS | Gamma | Th-232 | 5.556 | 0.4106 | 0.5908 | |
| 0195-A | FS | NFS | Gamma | U-235 | 3.269 | 0.1123 | 0.1434 | |
| 0195-A | FS | NFS | Gamma | U-238 | 19.91 | 7.523 | 12.3 | |
| 0195-B | FS | NFS | Gamma | Am-241 | 0.1752 | 0.2481 | 0.4181 | U |
| 0195-B | FS | NFS | Gamma | Th-232 | 0.382 | 0.1988 | 0.3292 | |
| 0195-B | FS | NFS | Gamma | U-235 | 0.2093 | 0.0476 | 0.0774 | |
| 0195-B | FS | NFS | Gamma | U-238 | -2.68 | -6.975 | 8.241 | U |
| 0195-C | FS | NFS | Gamma | Am-241 | 1.129 | 0.3696 | 0.6036 | |
| 0195-C | FS | NFS | Gamma | Th-232 | 1.816 | 0.2764 | 0.435 | |
| 0195-C | FS | NFS | Gamma | U-235 | 0.344 | 0.0628 | 0.0985 | |
| 0195-C | FS | NFS | Gamma | U-238 | 12.03 | 4.906 | 8.017 | |
| 0195-D | FS | NFS | Gamma | Am-241 | 0.0568 | 0.2825 | 0.478 | U |
| 0195-D | FS | NFS | Gamma | Th-232 | 1.226 | 0.2391 | 0.382 | |
| 0195-D | FS | NFS | Gamma | U-235 | 0.1328 | 0.0544 | 0.0895 | |
| 0195-D | FS | NFS | Gamma | U-238 | 2.032 | 4.886 | 8.281 | U |
| 0195-E | FS | NFS | Gamma | Am-241 | 0.0722 | 0.27 | 0.4566 | U |
| 0195-E | FS | NFS | Gamma | Th-232 | 0.9916 | 0.2317 | 0.375 | |
| 0195-E | FS | NFS | Gamma | U-235 | 0.1622 | 0.0525 | 0.0868 | |
| 0195-E | FS | NFS | Gamma | U-238 | 0.9131 | 4.308 | 7.331 | U |
| 0195-F | FS | NFS | Gamma | Am-241 | 0.1491 | 7.104 | 0.6105 | U |
| 0195-F | FS | NFS | Gamma | Th-232 | 0.3703 | 0.2559 | 0.428 | U |
| 0195-F | FS | NFS | Gamma | U-235 | 0.0702 | 0.0513 | 0.0812 | U |
| 0195-F | FS | NFS | Gamma | U-238 | 13.56 | 5.281 | 8.685 | |
| 0195-F-DUP | FD | NFS | Gamma | Am-241 | 0.0734 | 0.2475 | 0.4188 | U |
| 0195-F-DUP | FD | NFS | Gamma | Th-232 | 0.7678 | 0.2058 | 0.3324 | |
| 0195-F-DUP | FD | NFS | Gamma | U-235 | 0.0166 | 0.052 | 0.0879 | U |
| 0195-F-DUP | FD | NFS | Gamma | U-238 | -9.343 | -5.59 | 9.728 | U |
| 0196-A | FS | NFS | Gamma | Am-241 | 0.0247 | 0.4164 | 0.7062 | U |
| 0196-A | FS | NFS | Gamma | Th-232 | 0.5556 | 0.3286 | 0.5413 | |
| 0196-A | FS | NFS | Gamma | U-235 | 0.1759 | 0.0568 | 0.0937 | |
| 0196-A | FS | NFS | Gamma | U-238 | 3.899 | 6.928 | 11.71 | U |
| 0196-B | FS | NFS | Gamma | Am-241 | -0.1304 | -0.2455 | 0.4181 | U |
| 0196-B | FS | NFS | Gamma | Th-232 | 0.4551 | 0.2173 | 0.3596 | |
| 0196-B | FS | NFS | Gamma | U-235 | -0.0171 | -0.0513 | 0.0871 | U |

## Survey Unit 08 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0196-B | FS | NFS | Gamma | U-238 | 3.079 | 3.731 | 6.283 | U |
| 0196-C | FS | NFS | Gamma | Am-241 | -0.5733 | -0.3948 | 0.6762 | U |
| 0196-C | FS | NFS | Gamma | Th-232 | 1.453 | 0.2724 | 0.4297 | |
| 0196-C | FS | NFS | Gamma | U-235 | 0.1617 | 0.057 | 0.0927 | |
| 0196-C | FS | NFS | Gamma | U-238 | 11.35 | 5.921 | 9.815 | |
| 0196-D | FS | PARAGON | LSC | Tc-99 | 0.9 | 1.3 | 2.2 | U |
| 0196-D | FS | PARAGON | LSC | Pu-241 | 0.2 | 2.8 | 4.8 | U |
| 0196-D | FS | PARAGON | Gamma | Am-241 | 0.3 | 0.66 | 1.12 | U |
| 0196-D | FS | PARAGON | Gamma | Th-232 | 1.01 | 0.4 | 0.59 | J |
| 0196-D | FS | PARAGON | Gamma | U-235 | 0.12 | 0.33 | 0.57 | U |
| 0196-D | FS | PARAGON | Alpha | Am-241 | 0.01 | 0.011 | 0.015 | U |
| 0196-D | FS | PARAGON | Alpha | Pu-238 | 0.007 | 0.011 | 0.016 | U |
| 0196-D | FS | PARAGON | Alpha | Pu-239/240 | 0.022 | 0.014 | 0.006 | U |
| 0196-D | FS | PARAGON | Alpha | Pu-242 | 0.0018 | 0.0093 | 0.0179 | U |
| 0196-D | FS | PARAGON | Alpha | Th-230 | 0.85 | 0.17 | 0.05 | |
| 0196-D | FS | PARAGON | Alpha | Th-232 | 1.18 | 0.22 | 0.03 | |
| 0196-D | FS | PARAGON | Alpha | U-233/234 | 1.37 | 0.28 | 0.06 | |
| 0196-D | FS | PARAGON | Alpha | U-235 | 0.037 | 0.033 | 0.035 | |
| 0196-D | FS | PARAGON | Alpha | U-238 | 0.93 | 0.21 | 0.05 | |
| 0196-D | FS | NFS | Gamma | Am-241 | 0.1593 | 0.2944 | 0.4969 | U |
| 0196-D | FS | NFS | Gamma | Th-232 | 1.436 | 0.249 | 0.3923 | |
| 0196-D | FS | NFS | Gamma | U-235 | 0.1191 | 0.0572 | 0.0955 | |
| 0196-D | FS | NFS | Gamma | U-238 | -9.433 | -6.059 | 10.54 | U |
| 0196-D | LR | PARAGON | LSC | Tc-99 | 0.96 | 0.9 | 1.45 | U |
| 0196-D | LR | PARAGON | Gamma | Am-241 | -0.09 | 0.56 | 1.03 | U |
| 0196-D | LR | PARAGON | Gamma | Th-232 | 1.12 | 0.36 | 0.51 | |
| 0196-D | LR | PARAGON | Gamma | U-235 | 0.07 | 0.33 | 0.58 | U |
| 0196-D-DUP | FD | PARAGON | LSC | Tc-99 | -0.39 | 0.99 | 1.68 | U |
| 0196-E | FS | NFS | Gamma | Am-241 | 0.3221 | 0.3831 | 0.6447 | U |
| 0196-E | FS | NFS | Gamma | Th-232 | 2.173 | 0.2255 | 0.3311 | |
| 0196-E | FS | NFS | Gamma | U-235 | 0.0057 | 0.0677 | 0.0968 | U |
| 0196-E | FS | NFS | Gamma | U-238 | 7.801 | 6.292 | 10.54 | U |
| 0196-F | FS | NFS | Gamma | Am-241 | -0.1305 | -0.2662 | 0.4533 | U |
| 0196-F | FS | NFS | Gamma | Th-232 | 0.8304 | 0.2076 | 0.3332 | |
| 0196-F | FS | NFS | Gamma | U-235 | 0.082 | 0.0514 | 0.086 | U |
| 0196-F | FS | NFS | Gamma | U-238 | -5.189 | -9.893 | 9.054 | U |
| 0197-A | FS | PARAGON | LSC | Tc-99 | 0.3 | 1 | 1.7 | U |
| 0197-A | FS | PARAGON | LSC | Pu-241 | 0.4 | 2.6 | 4.4 | U |
| 0197-A | FS | PARAGON | Gamma | Am-241 | 0.5 | 1 | 1.7 | U |
| 0197-A | FS | PARAGON | Gamma | Th-232 | 1.33 | 0.35 | 0.58 | J |
| 0197-A | FS | PARAGON | Gamma | U-235 | 0.2 | 0.36 | 0.59 | U |
| 0197-A | FS | PARAGON | Alpha | Am-241 | 0.065 | 0.026 | 0.006 | |
| 0197-A | FS | PARAGON | Alpha | Pu-238 | 0.01 | 0.0099 | 0.0054 | J |
| 0197-A | FS | PARAGON | Alpha | Pu-239/240 | 0.146 | 0.042 | 0.015 | |
| 0197-A | FS | PARAGON | Alpha | Pu-242 | 0.015 | 0.013 | 0.017 | U |
| 0197-A | FS | PARAGON | Alpha | Th-230 | 1.21 | 0.23 | 0.05 | |
| 0197-A | FS | PARAGON | Alpha | Th-232 | 1.48 | 0.27 | 0.03 | |
| 0197-A | FS | PARAGON | Alpha | U-233/234 | 4.03 | 0.71 | 0.04 | |
| 0197-A | FS | PARAGON | Alpha | U-235 | 0.098 | 0.051 | 0.017 | |
| 0197-A | FS | PARAGON | Alpha | U-238 | 1.26 | 0.26 | 0.05 | |
| 0197-A | FS | NFS | Gamma | Am-241 | 0.1249 | 0.4201 | 0.7109 | U |
| 0197-A | FS | NFS | Gamma | Th-232 | 1.917 | 0.2629 | 0.402 | |
| 0197-A | FS | NFS | Gamma | U-235 | 0.2566 | 0.0671 | 0.1061 | |

## Survey Unit 08 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0197-A | FS | NFS | Gamma | U-238 | 17.76 | 6.797 | 11.13 | |
| 0197-B | FS | NFS | Gamma | Am-241 | 0.2288 | 0.2512 | 0.4226 | U |
| 0197-B | FS | NFS | Gamma | Th-232 | 0.5955 | 0.1783 | 0.2876 | |
| 0197-B | FS | NFS | Gamma | U-235 | 0.0889 | 0.0481 | 0.0802 | |
| 0197-B | FS | NFS | Gamma | U-238 | -0.8737 | -4.577 | 7.842 | U |
| 0197-C | FS | NFS | Gamma | Am-241 | -0.6179 | -0.302 | 0.5217 | U |
| 0197-C | FS | NFS | Gamma | Th-232 | 0.9868 | 0.2209 | 0.3503 | |
| 0197-C | FS | NFS | Gamma | U-235 | 0.1517 | 0.0528 | 0.0873 | |
| 0197-C | FS | NFS | Gamma | U-238 | -7.175 | -8.554 | 10.43 | U |
| 0197-D | FS | NFS | Gamma | Am-241 | 0.0632 | 0.2758 | 0.4667 | U |
| 0197-D | FS | NFS | Gamma | Th-232 | 0.8608 | 0.2196 | 0.3542 | |
| 0197-D | FS | NFS | Gamma | U-235 | -0.0319 | -0.0544 | 0.0928 | U |
| 0197-D | FS | NFS | Gamma | U-238 | -15.82 | -6.688 | 11.67 | U |
| 0197-D-DUP | FD | NFS | Gamma | Am-241 | -0.2857 | -0.3202 | 0.5484 | U |
| 0197-D-DUP | FD | NFS | Gamma | Th-232 | 1.384 | 0.1887 | 0.2819 | |
| 0197-D-DUP | FD | NFS | Gamma | U-235 | 0.0745 | 0.059 | 0.0911 | U |
| 0197-D-DUP | FD | NFS | Gamma | U-238 | -0.3456 | -5.373 | 9.174 | U |
| 0197-E | FS | NFS | Gamma | Am-241 | 0.1204 | 0.2754 | 0.4651 | U |
| 0197-E | FS | NFS | Gamma | Th-232 | 1.073 | 0.2114 | 0.3365 | |
| 0197-E | FS | NFS | Gamma | U-235 | 0.0838 | 0.0546 | 0.0915 | U |
| 0197-E | FS | NFS | Gamma | U-238 | -1.597 | -5.429 | 9.292 | U |
| 0197-F | FS | NFS | Gamma | Am-241 | 0.3116 | 0.281 | 0.4712 | U |
| 0197-F | FS | NFS | Gamma | Th-232 | 0.8603 | 0.2286 | 0.3699 | |
| 0197-F | FS | NFS | Gamma | U-235 | 0.1563 | 0.0589 | 0.0944 | |
| 0197-F | FS | NFS | Gamma | U-238 | -1.128 | -5.834 | 9.977 | U |
| 0198-A | FS | NFS | Gamma | Am-241 | 0.4383 | 0.2696 | 0.4506 | U |
| 0198-A | FS | NFS | Gamma | Th-232 | 0.0916 | 0.2198 | 0.3764 | U |
| 0198-A | FS | NFS | Gamma | U-235 | 0.1086 | 0.0538 | 0.0897 | |
| 0198-A | FS | NFS | Gamma | U-238 | -2.673 | -5.471 | 9.109 | U |
| 0198-B | FS | NFS | Gamma | Am-241 | 0.1227 | 0.2428 | 0.4106 | U |
| 0198-B | FS | NFS | Gamma | Th-232 | 0.5481 | 0.1815 | 0.2916 | |
| 0198-B | FS | NFS | Gamma | U-235 | 0.1311 | 0.048 | 0.0793 | |
| 0198-B | FS | NFS | Gamma | U-238 | -3.327 | -5.068 | 8.736 | U |
| 0198-C | FS | NFS | Gamma | Am-241 | 0.5178 | 0.2764 | 0.4608 | |
| 0198-C | FS | NFS | Gamma | Th-232 | 0.8103 | 0.228 | 0.3701 | |
| 0198-C | FS | NFS | Gamma | U-235 | 0.0779 | 0.0518 | 0.0866 | U |
| 0198-C | FS | NFS | Gamma | U-238 | -1.133 | -4.856 | 8.32 | U |
| 0198-D | FS | NFS | Gamma | Am-241 | -0.007 | -0.2809 | 0.4778 | U |
| 0198-D | FS | NFS | Gamma | Th-232 | 0.6196 | 0.2226 | 0.3526 | |
| 0198-D | FS | NFS | Gamma | U-235 | 0.0541 | 0.0564 | 0.0918 | U |
| 0198-D | FS | NFS | Gamma | U-238 | 5.4 | 5.074 | 7.877 | U |
| 0198-E | FS | NFS | Gamma | Am-241 | 0.2472 | 0.2674 | 0.4499 | U |
| 0198-E | FS | NFS | Gamma | Th-232 | 1.087 | 0.2495 | 0.4024 | |
| 0198-E | FS | NFS | Gamma | U-235 | -0.0522 | -0.0568 | 0.0967 | U |
| 0198-E | FS | NFS | Gamma | U-238 | -5.654 | -5.822 | 10.04 | U |
| 0198-F | FS | NFS | Gamma | Am-241 | -0.3646 | -0.3245 | 0.5569 | U |
| 0198-F | FS | NFS | Gamma | Th-232 | 0.6749 | 0.2072 | 0.3365 | |
| 0198-F | FS | NFS | Gamma | U-235 | 0.0678 | 0.0462 | 0.077 | U |
| 0198-F | FS | NFS | Gamma | U-238 | 1.766 | 5.717 | 8.703 | U |
| 0199-A | FS | NFS | Gamma | Am-241 | -0.2553 | -0.2937 | 0.501 | U |
| 0199-A | FS | NFS | Gamma | Th-232 | 0.775 | 0.2142 | 0.3448 | |
| 0199-A | FS | NFS | Gamma | U-235 | 0.1966 | 0.059 | 0.0978 | |
| 0199-A | FS | NFS | Gamma | U-238 | -7.179 | -19.13 | 9.824 | U |

## Survey Unit 08 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0199-A-DUP | FD | NFS | Gamma | Am-241 | 0.1969 | 0.3745 | 0.6324 | U |
| 0199-A-DUP | FD | NFS | Gamma | Th-232 | 0.9276 | 0.2632 | 0.4256 | |
| 0199-A-DUP | FD | NFS | Gamma | U-235 | 0.1448 | 0.0602 | 0.0998 | |
| 0199-A-DUP | FD | NFS | Gamma | U-238 | 3.563 | 6.213 | 10.51 | U |
| 0199-B | FS | NFS | Gamma | Am-241 | 0.3121 | 0.2521 | 0.4229 | U |
| 0199-B | FS | NFS | Gamma | Th-232 | 0.683 | 0.1933 | 0.3116 | |
| 0199-B | FS | NFS | Gamma | U-235 | 0.06921 | 0.0522 | 0.0878 | U |
| 0199-B | FS | NFS | Gamma | U-238 | -4.161 | -4.93 | 8.535 | U |
| 0199-C | FS | PARAGON | LSC | Tc-99 | -0.66 | 0.88 | 1.5 | U |
| 0199-C | FS | PARAGON | LSC | Pu-241 | 0.5 | 2.4 | 4 | U |
| 0199-C | FS | PARAGON | Gamma | Am-241 | -0.2 | 0.38 | 0.74 | U |
| 0199-C | FS | PARAGON | Gamma | Th-232 | 0.32 | 0.38 | 0.61 | U |
| 0199-C | FS | PARAGON | Gamma | U-235 | -0.31 | 0.29 | 0.56 | U |
| 0199-C | FS | PARAGON | Alpha | Am-241 | 0.014 | 0.01 | 0.005 | |
| 0199-C | FS | PARAGON | Alpha | Pu-238 | -0.0019 | 0.0099 | 0.0225 | U |
| 0199-C | FS | PARAGON | Alpha | Pu-239/240 | 0.019 | 0.014 | 0.017 | U |
| 0199-C | FS | PARAGON | Alpha | Pu-242 | 0.0015 | 0.0077 | 0.0149 | U |
| 0199-C | FS | PARAGON | Alpha | Th-230 | 0.62 | 0.12 | 0.04 | |
| 0199-C | FS | PARAGON | Alpha | Th-232 | 0.66 | 0.13 | 0.02 | |
| 0199-C | FS | PARAGON | Alpha | U-233/234 | 0.95 | 0.21 | 0.04 | |
| 0199-C | FS | PARAGON | Alpha | U-235 | 0.022 | 0.027 | 0.043 | U |
| 0199-C | FS | PARAGON | Alpha | U-238 | 0.55 | 0.14 | 0.03 | |
| 0199-C | FS | NFS | Gamma | Am-241 | 0.0198 | 0.3344 | 0.5672 | U |
| 0199-C | FS | NFS | Gamma | Th-232 | 1.211 | 0.2 | 0.3108 | |
| 0199-C | FS | NFS | Gamma | U-235 | 0.0079 | 0.0609 | 0.0856 | U |
| 0199-C | FS | NFS | Gamma | U-238 | 1.999 | 5.669 | 9.273 | U |
| 0199-C | LR | PARAGON | LSC | Pu-241 | 1 | 2.5 | 4.2 | U |
| 0199-C | LR | PARAGON | Alpha | Am-241 | 0.009 | 0.014 | 0.023 | U |
| 0199-C | LR | PARAGON | Alpha | Pu-238 | 0.0075 | 0.0092 | 0.0138 | U |
| 0199-C | LR | PARAGON | Alpha | Pu-239/240 | 0.022 | 0.013 | 0.005 | U |
| 0199-C | LR | PARAGON | Alpha | Pu-242 | 0.01 | 0.01 | 0.016 | U |
| 0199-C | LR | PARAGON | Alpha | Th-230 | 0.63 | 0.12 | 0.04 | |
| 0199-C | LR | PARAGON | Alpha | Th-232 | 0.64 | 0.12 | 0.02 | |
| 0199-C | LR | PARAGON | Alpha | U-233/234 | 0.94 | 0.2 | 0.04 | |
| 0199-C | LR | PARAGON | Alpha | U-235 | 0.034 | 0.03 | 0.032 | |
| 0199-C | LR | PARAGON | Alpha | U-238 | 0.49 | 0.13 | 0.03 | |
| 0199-D | FS | NFS | Gamma | Am-241 | -0.1576 | -0.2865 | 0.4874 | U |
| 0199-D | FS | NFS | Gamma | Th-232 | 1.412 | 0.2129 | 0.3302 | |
| 0199-D | FS | NFS | Gamma | U-235 | 0.0585 | 0.0543 | 0.0908 | U |
| 0199-D | FS | NFS | Gamma | U-238 | 3.664 | 4.535 | 7.64 | U |
| 0199-E | FS | NFS | Gamma | Am-241 | -0.2101 | -0.3333 | 0.5688 | U |
| 0199-E | FS | NFS | Gamma | Th-232 | 0.7467 | 0.2599 | 0.4281 | |
| 0199-E | FS | NFS | Gamma | U-235 | 0.0502 | 0.0523 | 0.0879 | U |
| 0199-E | FS | NFS | Gamma | U-238 | 0.9375 | 5.548 | 9.165 | U |
| 0199-F | FS | NFS | Gamma | Am-241 | 0.535 | 0.2576 | 0.4282 | |
| 0199-F | FS | NFS | Gamma | Th-232 | 0.2542 | 0.248 | 0.4166 | U |
| 0199-F | FS | NFS | Gamma | U-235 | 0.1362 | 0.0545 | 0.0904 | |
| 0199-F | FS | NFS | Gamma | U-238 | -0.6711 | -5.432 | 9.288 | U |
| 0199-F-DUP | FD | NFS | Gamma | Am-241 | -0.0465 | -0.359 | 0.6103 | U |
| 0199-F-DUP | FD | NFS | Gamma | Th-232 | 0.7467 | 0.2496 | 0.4085 | |
| 0199-F-DUP | FD | NFS | Gamma | U-235 | 0.0541 | 0.0561 | 0.0931 | U |
| 0199-F-DUP | FD | NFS | Gamma | U-238 | 3.458 | 5.451 | 9.211 | U |
| 0200-A | FS | NFS | Gamma | Am-241 | 0.062 | 0.3181 | 0.5382 | U |

## Survey Unit 08 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0200-A | FS | NFS | Gamma | Th-232 | 1.541 | 0.2916 | 0.4683 | |
| 0200-A | FS | NFS | Gamma | U-235 | 0.3831 | 0.0641 | 0.1037 | |
| 0200-A | FS | NFS | Gamma | U-238 | -0.3007 | -6.438 | 10.98 | U |
| 0200-B | FS | NFS | Gamma | Am-241 | 0.5271 | 0.3652 | 0.6101 | U |
| 0200-B | FS | NFS | Gamma | Th-232 | 0.6625 | 0.2403 | 0.3832 | |
| 0200-B | FS | NFS | Gamma | U-235 | 0.3471 | 0.054 | 0.0849 | |
| 0200-B | FS | NFS | Gamma | U-238 | 1.974 | 5.666 | 9.613 | U |
| 0200-C | FS | NFS | Gamma | Am-241 | -0.1033 | -0.3455 | 0.5863 | U |
| 0200-C | FS | NFS | Gamma | Th-232 | 2.834 | 0.2865 | 0.4312 | |
| 0200-C | FS | NFS | Gamma | U-235 | 0.2657 | 0.0657 | 0.1082 | |
| 0200-C | FS | NFS | Gamma | U-238 | -11.89 | -7.129 | 12.35 | U |
| 0200-D | FS | NFS | Gamma | Am-241 | 0.5056 | 0.3845 | 0.6437 | U |
| 0200-D | FS | NFS | Gamma | Th-232 | 1.261 | 0.2663 | 0.4281 | |
| 0200-D | FS | NFS | Gamma | U-235 | 0.3059 | 0.0598 | 0.0969 | |
| 0200-D | FS | NFS | Gamma | U-238 | 6.48 | 5.403 | 9.415 | U |
| 0200-E | FS | NFS | Gamma | Am-241 | 0.3037 | 0.3083 | 0.5286 | U |
| 0200-E | FS | NFS | Gamma | Th-232 | 1.788 | 0.2518 | 0.3884 | |
| 0200-E | FS | NFS | Gamma | U-235 | 0.2295 | 0.0576 | 0.0945 | |
| 0200-E | FS | NFS | Gamma | U-238 | 6.271 | 5.321 | 9.01 | U |
| 0201-A | FS | PARAGON | LSC | Tc-99 | 0.8 | 1 | 1.7 | UJ |
| 0201-A | FS | PARAGON | LSC | Pu-241 | 0.3 | 2.4 | 4 | U |
| 0201-A | FS | PARAGON | Gamma | Am-241 | -0.5 | 1.1 | 1.9 | U |
| 0201-A | FS | PARAGON | Gamma | Th-232 | 1.01 | 0.35 | 0.47 | J |
| 0201-A | FS | PARAGON | Gamma | U-235 | 0.46 | 0.37 | 0.58 | U |
| 0201-A | FS | PARAGON | Alpha | Am-241 | 0.193 | 0.049 | 0.014 | |
| 0201-A | FS | PARAGON | Alpha | Pu-238 | 0.018 | 0.018 | 0.027 | U |
| 0201-A | FS | PARAGON | Alpha | Pu-239/240 | 0.439 | 0.094 | 0.017 | |
| 0201-A | FS | PARAGON | Alpha | Pu-242 | 0.025 | 0.016 | 0.017 | |
| 0201-A | FS | PARAGON | Alpha | Th-230 | 0.83 | 0.16 | 0.05 | |
| 0201-A | FS | PARAGON | Alpha | Th-232 | 0.82 | 0.16 | 0.02 | |
| 0201-A | FS | PARAGON | Alpha | U-233/234 | 6.7 | 1.1 | 0 | |
| 0201-A | FS | PARAGON | Alpha | U-235 | 0.195 | 0.078 | 0.046 | |
| 0201-A | FS | PARAGON | Alpha | U-238 | 1.19 | 0.25 | 0.05 | |
| 0201-A | FS | NFS | Gamma | Am-241 | 0.3188 | 0.3719 | 0.6258 | U |
| 0201-A | FS | NFS | Gamma | Th-232 | 0.8664 | 0.2425 | 0.3866 | |
| 0201-A | FS | NFS | Gamma | U-235 | 0.3055 | 0.0601 | 0.0958 | |
| 0201-A | FS | NFS | Gamma | U-238 | 7.265 | 5.86 | 9.801 | U |
| 0201-B | FS | NFS | Gamma | Am-241 | 0.8248 | 0.271 | 0.4464 | |
| 0201-B | FS | NFS | Gamma | Th-232 | 0.7548 | 0.2222 | 0.3604 | |
| 0201-B | FS | NFS | Gamma | U-235 | 0.3909 | 0.0559 | 0.0891 | |
| 0201-B | FS | NFS | Gamma | U-238 | 1.541 | 5.309 | 9.017 | U |
| 0201-C | FS | NFS | Gamma | Am-241 | -0.3177 | -0.4446 | 0.7579 | U |
| 0201-C | FS | NFS | Gamma | Th-232 | 1.745 | 0.2891 | 0.4563 | |
| 0201-C | FS | NFS | Gamma | U-235 | 0.2249 | 0.0679 | 0.1121 | |
| 0201-C | FS | NFS | Gamma | U-238 | 11.65 | 6.155 | 9.772 | |
| 0201-D | FS | NFS | Gamma | Am-241 | 0.4085 | 0.2903 | 0.4864 | U |
| 0201-D | FS | NFS | Gamma | Th-232 | 1.76 | 0.2835 | 0.449 | |
| 0201-D | FS | NFS | Gamma | U-235 | 0.1493 | 0.0564 | 0.0937 | |
| 0201-D | FS | NFS | Gamma | U-238 | 5.873 | 5.69 | 9.261 | U |
| 0201-E | FS | NFS | Gamma | Am-241 | -0.6956 | -0.3952 | 0.6774 | U |
| 0201-E | FS | NFS | Gamma | Th-232 | 1.672 | 0.2298 | 0.3544 | |
| 0201-E | FS | NFS | Gamma | U-235 | 0.062 | 0.0562 | 0.0945 | U |
| 0201-E | FS | NFS | Gamma | U-238 | 9.605 | 5.448 | 9.045 | |

## Survey Unit 08 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0201-E-DUP | FD | NFS | Gamma | Am-241 | 0.6449 | 0.2822 | 0.4686 | |
| 0201-E-DUP | FD | NFS | Gamma | Th-232 | 1.88 | 0.2578 | 0.4024 | |
| 0201-E-DUP | FD | NFS | Gamma | U-235 | 0.0706 | 0.0576 | 0.0964 | U |
| 0201-E-DUP | FD | NFS | Gamma | U-238 | 5.739 | 5.235 | 8.782 | U |
| 0201-F | FS | NFS | Gamma | Am-241 | 0.2869 | 0.387 | 0.6519 | U |
| 0201-F | FS | NFS | Gamma | Th-232 | 1.673 | 0.2696 | 0.428 | |
| 0201-F | FS | NFS | Gamma | U-235 | 0.1306 | 0.0592 | 0.0952 | |
| 0201-F | FS | NFS | Gamma | U-238 | 4.592 | 5.687 | 9.196 | U |
| 0202-A | FS | NFS | Gamma | Am-241 | 0.4584 | 0.2745 | 0.4587 | U |
| 0202-A | FS | NFS | Gamma | Th-232 | 0.6169 | 0.2224 | 0.3647 | |
| 0202-A | FS | NFS | Gamma | U-235 | 0.3709 | 0.0518 | 0.0823 | |
| 0202-A | FS | NFS | Gamma | U-238 | -3.927 | -6.083 | 9.309 | U |
| 0202-B | FS | NFS | Gamma | Am-241 | 0.0187 | 0.3563 | 0.6044 | U |
| 0202-B | FS | NFS | Gamma | Th-232 | 0.9777 | 0.2391 | 0.3832 | |
| 0202-B | FS | NFS | Gamma | U-235 | 0.1605 | 0.0549 | 0.0907 | |
| 0202-B | FS | NFS | Gamma | U-238 | 6.899 | 5.466 | 9.14 | U |
| 0202-C | FS | NFS | Gamma | Am-241 | -0.1053 | -0.3104 | 0.527 | U |
| 0202-C | FS | NFS | Gamma | Th-232 | 1.987 | 0.2477 | 0.3798 | |
| 0202-C | FS | NFS | Gamma | U-235 | 0.1815 | 0.0581 | 0.0957 | |
| 0202-C | FS | NFS | Gamma | U-238 | -0.5479 | -5.251 | 10.02 | U |
| 0202-D | FS | NFS | Gamma | Am-241 | 0.1753 | 0.3859 | 0.6519 | U |
| 0202-D | FS | NFS | Gamma | Th-232 | 1.742 | 0.2492 | 0.386 | |
| 0202-D | FS | NFS | Gamma | U-235 | 0.1598 | 0.0576 | 0.095 | |
| 0202-D | FS | NFS | Gamma | U-238 | 14.89 | 4.811 | 7.783 | |
| 0202-E | FS | NFS | Gamma | Am-241 | 0.208 | 0.2875 | 0.4845 | U |
| 0202-E | FS | NFS | Gamma | Th-232 | 1.975 | 0.247 | 0.3781 | |
| 0202-E | FS | NFS | Gamma | U-235 | 0.0793 | 0.0603 | 0.1012 | U |
| 0202-E | FS | NFS | Gamma | U-238 | 12.47 | 6.429 | 10.67 | |
| 0203-A | FS | NFS | Gamma | Am-241 | 0.2396 | 0.4701 | 0.7936 | U |
| 0203-A | FS | NFS | Gamma | Th-232 | 1.785 | 0.3145 | 0.4976 | |
| 0203-A | FS | NFS | Gamma | U-235 | 0.6574 | 0.0717 | 0.1108 | |
| 0203-A | FS | NFS | Gamma | U-238 | -5.336 | -6.091 | 11.63 | U |
| 0203-B | FS | NFS | Gamma | Am-241 | 0.2561 | 0.2798 | 0.4397 | U |
| 0203-B | FS | NFS | Gamma | Th-232 | 0.9092 | 0.2024 | 0.3223 | |
| 0203-B | FS | NFS | Gamma | U-235 | 0.1671 | 0.0541 | 0.0892 | |
| 0203-B | FS | NFS | Gamma | U-238 | -1.305 | -6.474 | 11.04 | U |
| 0203-C | FS | NFS | Gamma | Am-241 | 0.0873 | 0.3881 | 0.657 | U |
| 0203-C | FS | NFS | Gamma | Th-232 | 2.136 | 0.2373 | 0.3551 | |
| 0203-C | FS | NFS | Gamma | U-235 | 0.058 | 0.0572 | 0.0958 | U |
| 0203-C | FS | NFS | Gamma | U-238 | -1.063 | -4.97 | 8.728 | U |
| 0203-D | FS | PARAGON | LSC | Tc-99 | -0.11 | 0.94 | 1.6 | U |
| 0203-D | FS | PARAGON | LSC | Pu-241 | 0.1 | 2.5 | 4.2 | U |
| 0203-D | FS | PARAGON | Gamma | Am-241 | -0.05 | 0.5 | 0.9 | U |
| 0203-D | FS | PARAGON | Gamma | Th-232 | 0.77 | 0.37 | 0.71 | J |
| 0203-D | FS | PARAGON | Gamma | U-235 | -0.11 | 0.3 | 0.57 | U |
| 0203-D | FS | PARAGON | Alpha | Am-241 | 0.017 | 0.016 | 0.023 | U |
| 0203-D | FS | PARAGON | Alpha | Pu-238 | 0 | 0.013 | 0.024 | U |
| 0203-D | FS | PARAGON | Alpha | Pu-239/240 | 0.059 | 0.026 | 0.007 | U |
| 0203-D | FS | PARAGON | Alpha | Pu-242 | 0.01 | 0.011 | 0.016 | U |
| 0203-D | FS | PARAGON | Alpha | Th-230 | 0.67 | 0.14 | 0.05 | |
| 0203-D | FS | PARAGON | Alpha | Th-232 | 1.14 | 0.22 | 0.02 | |
| 0203-D | FS | PARAGON | Alpha | U-233/234 | 1.33 | 0.28 | 0.03 | |
| 0203-D | FS | PARAGON | Alpha | U-235 | 0.047 | 0.037 | 0.018 | |

## Survey Unit 08 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0203-D | FS | PARAGON | Alpha | U-238 | 0.64 | 0.16 | 0.03 | |
| 0203-D | FS | NFS | Gamma | Am-241 | -0.0846 | -0.2815 | 0.4781 | U |
| 0203-D | FS | NFS | Gamma | Th-232 | 1.112 | 0.2445 | 0.3944 | |
| 0203-D | FS | NFS | Gamma | U-235 | 0.0207 | 0.0557 | 0.094 | U |
| 0203-D | FS | NFS | Gamma | U-238 | 8.973 | 5.883 | 10.15 | U |
| 0203-E | FS | PARAGON | LSC | Pu-241 | 0.5 | 3 | 5 | U |
| 0203-E | FS | PARAGON | Gamma | Am-241 | 0.44 | 0.95 | 1.6 | U |
| 0203-E | FS | PARAGON | Gamma | Th-232 | 0.63 | 0.24 | 0.42 | |
| 0203-E | FS | PARAGON | Gamma | U-235 | -0.09 | 0.33 | 0.59 | U |
| 0203-E | FS | PARAGON | Alpha | Am-241 | 0.0071 | 0.0088 | 0.0131 | U |
| 0203-E | FS | PARAGON | Alpha | Pu-238 | 0 | 0.011 | 0.017 | U |
| 0203-E | FS | PARAGON | Alpha | Pu-239/240 | 0.014 | 0.013 | 0.017 | U |
| 0203-E | FS | PARAGON | Alpha | Pu-242 | 0.032 | 0.021 | 0.027 | |
| 0203-E | FS | PARAGON | Alpha | Th-230 | 0.5 | 0.11 | 0.05 | |
| 0203-E | FS | PARAGON | Alpha | Th-232 | 0.76 | 0.15 | 0.01 | |
| 0203-E | FS | PARAGON | Alpha | U-233/234 | 1.27 | 0.27 | 0.05 | |
| 0203-E | FS | PARAGON | Alpha | U-235 | -0.007 | 0.025 | 0.05 | U |
| 0203-E | FS | PARAGON | Alpha | U-238 | 0.45 | 0.13 | 0.04 | |
| 0203-E | FS | NFS | Gamma | Am-241 | -0.179 | -0.345 | 0.5877 | U |
| 0203-E | FS | NFS | Gamma | Th-232 | 1.357 | 0.197 | 0.3021 | |
| 0203-E | FS | NFS | Gamma | U-235 | 0.0164 | 0.0512 | 0.0867 | U |
| 0203-E | FS | NFS | Gamma | U-238 | -6.883 | -2.353 | 8.415 | U |
| 0203-E-DUP | FD | NFS | Gamma | Am-241 | -0.37 | -0.2669 | 0.4567 | U |
| 0203-E-DUP | FD | NFS | Gamma | Th-232 | 1.081 | 0.2283 | 0.3658 | |
| 0203-E-DUP | FD | NFS | Gamma | U-235 | 0.033 | 0.0523 | 0.0876 | U |
| 0203-E-DUP | FD | NFS | Gamma | U-238 | 6.148 | 6.051 | 10.17 | U |
| 0203-F | FS | NFS | Gamma | Am-241 | 0.1562 | 0.379 | 0.6407 | U |
| 0203-F | FS | NFS | Gamma | Th-232 | 0.91 | 0.2547 | 0.415 | |
| 0203-F | FS | NFS | Gamma | U-235 | -0.0006 | -0.0514 | 0.0879 | U |
| 0203-F | FS | NFS | Gamma | U-238 | -5.76 | -4.553 | 9.681 | U |
| 0204-A | FS | NFS | Gamma | Am-241 | 1.118 | 0.2907 | 0.477 | |
| 0204-A | FS | NFS | Gamma | Th-232 | 1.196 | 0.2244 | 0.3572 | |
| 0204-A | FS | NFS | Gamma | U-235 | 0.388 | 0.0568 | 0.091 | |
| 0204-A | FS | NFS | Gamma | U-238 | -7.122 | -7.367 | 12.64 | U |
| 0204-B | FS | PARAGON | LSC | Tc-99 | -0.17 | 0.78 | 1.33 | UJ |
| 0204-B | FS | PARAGON | LSC | Pu-241 | -0.5 | 2.5 | 4.3 | U |
| 0204-B | FS | PARAGON | Gamma | Am-241 | 0.27 | 0.44 | 0.74 | U |
| 0204-B | FS | PARAGON | Gamma | Th-232 | 0.67 | 0.31 | 0.53 | J |
| 0204-B | FS | PARAGON | Gamma | U-235 | -0.13 | 0.3 | 0.57 | U |
| 0204-B | FS | PARAGON | Alpha | Am-241 | 0.017 | 0.012 | 0.005 | |
| 0204-B | FS | PARAGON | Alpha | Pu-238 | 0.002 | 0.01 | 0.015 | U |
| 0204-B | FS | PARAGON | Alpha | Pu-239/240 | 0.019 | 0.017 | 0.025 | U |
| 0204-B | FS | PARAGON | Alpha | Pu-242 | 0.021 | 0.014 | 0.013 | |
| 0204-B | FS | PARAGON | Alpha | Th-230 | 0.365 | 0.083 | 0.044 | |
| 0204-B | FS | PARAGON | Alpha | Th-232 | 0.49 | 0.1 | 0.01 | |
| 0204-B | FS | PARAGON | Alpha | U-233/234 | 0.74 | 0.18 | 0.04 | |
| 0204-B | FS | PARAGON | Alpha | U-235 | 0.009 | 0.024 | 0.042 | U |
| 0204-B | FS | PARAGON | Alpha | U-238 | 0.46 | 0.13 | 0.04 | |
| 0204-B | FS | NFS | Gamma | Am-241 | -0.1171 | -0.3316 | 0.5649 | U |
| 0204-B | FS | NFS | Gamma | Th-232 | 0.7309 | 0.2078 | 0.3362 | |
| 0204-B | FS | NFS | Gamma | U-235 | -0.0288 | -0.0468 | 0.0799 | U |
| 0204-B | FS | NFS | Gamma | U-238 | -3.587 | -4.541 | 7.748 | U |
| 0204-B | LR | PARAGON | LSC | Tc-99 | -0.06 | 0.85 | 1.44 | U |

## Survey Unit 08 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0204-B-DUP | FD | PARAGON | LSC | Tc-99 | 0.11 | 0.8 | 1.34 | UJ |
| 0204-C | FS | NFS | Gamma | Am-241 | -0.5904 | -0.302 | 0.5179 | U |
| 0204-C | FS | NFS | Gamma | Th-232 | 1.89 | 0.2558 | 0.3949 | |
| 0204-C | FS | NFS | Gamma | U-235 | 0.1206 | 0.0582 | 0.0971 | |
| 0204-C | FS | NFS | Gamma | U-238 | 8.942 | 6.724 | 11.39 | U |
| 0204-D | FS | NFS | Gamma | Am-241 | 0.1416 | 0.3459 | 0.5848 | U |
| 0204-D | FS | NFS | Gamma | Th-232 | 0.5155 | 0.2331 | 0.3828 | |
| 0204-D | FS | NFS | Gamma | U-235 | 0.0997 | 0.0483 | 0.0779 | |
| 0204-D | FS | NFS | Gamma | U-238 | -7.774 | -2.927 | 8.748 | U |
| 0204-E | FS | NFS | Gamma | Am-241 | -0.2256 | -0.2835 | 0.4833 | U |
| 0204-E | FS | NFS | Gamma | Th-232 | 0.9542 | 0.2452 | 0.3967 | |
| 0204-E | FS | NFS | Gamma | U-235 | 0.0672 | 0.0551 | 0.0926 | U |
| 0204-E | FS | NFS | Gamma | U-238 | 3.302 | 6.761 | 11.43 | U |
| 0204-F | FS | NFS | Gamma | Am-241 | -0.3869 | -0.3584 | 0.6131 | U |
| 0204-F | FS | NFS | Gamma | Th-232 | 0.8346 | 0.2288 | 0.3722 | |
| 0204-F | FS | NFS | Gamma | U-235 | 0.0653 | 0.0493 | 0.0804 | U |
| 0204-F | FS | NFS | Gamma | U-238 | -4.05 | -4.478 | 7.973 | U |
| 0205-A | FS | PARAGON | LSC | Tc-99 | -0.39 | 0.98 | 1.67 | U |
| 0205-A | FS | PARAGON | LSC | Pu-241 | 1.7 | 2.8 | 4.6 | U |
| 0205-A | FS | PARAGON | Gamma | Am-241 | -0.03 | 0.67 | 1.2 | U |
| 0205-A | FS | PARAGON | Gamma | Th-232 | 1.19 | 0.42 | 0.94 | J |
| 0205-A | FS | PARAGON | Gamma | U-235 | 0.16 | 0.41 | 0.7 | U |
| 0205-A | FS | PARAGON | Alpha | Am-241 | 0.016 | 0.013 | 0.015 | |
| 0205-A | FS | PARAGON | Alpha | Pu-238 | 0.004 | 0.0097 | 0.0054 | U |
| 0205-A | FS | PARAGON | Alpha | Pu-239/240 | 0.036 | 0.018 | 0.005 | U |
| 0205-A | FS | PARAGON | Alpha | Pu-242 | 0.022 | 0.016 | 0.019 | |
| 0205-A | FS | PARAGON | Alpha | Th-230 | 1.79 | 0.33 | 0.05 | |
| 0205-A | FS | PARAGON | Alpha | Th-232 | 1.34 | 0.25 | 0.02 | |
| 0205-A | FS | PARAGON | Alpha | U-233/234 | 1.87 | 0.36 | 0.03 | |
| 0205-A | FS | PARAGON | Alpha | U-235 | 0.073 | 0.045 | 0.034 | |
| 0205-A | FS | PARAGON | Alpha | U-238 | 1.68 | 0.33 | 0.03 | |
| 0205-A | FS | NFS | Gamma | Am-241 | -0.0537 | -0.3637 | 0.6172 | U |
| 0205-A | FS | NFS | Gamma | Th-232 | 1.703 | 0.3299 | 0.5229 | |
| 0205-A | FS | NFS | Gamma | U-235 | 0.2015 | 0.0789 | 0.1312 | |
| 0205-A | FS | NFS | Gamma | U-238 | 19.8 | 8.924 | 14.75 | |
| 0205-B | FS | NFS | Gamma | Am-241 | 0.1318 | 0.3785 | 0.6402 | U |
| 0205-B | FS | NFS | Gamma | Th-232 | 1.269 | 0.26 | 0.4124 | |
| 0205-B | FS | NFS | Gamma | U-235 | 0.1278 | 0.0558 | 0.0927 | |
| 0205-B | FS | NFS | Gamma | U-238 | -1.408 | -4.991 | 8.663 | U |
| 0205-B-DUP | FD | NFS | Gamma | Am-241 | 0.1251 | 0.2877 | 0.486 | U |
| 0205-B-DUP | FD | NFS | Gamma | Th-232 | 0.8751 | 0.2735 | 0.4474 | |
| 0205-B-DUP | FD | NFS | Gamma | U-235 | 0.1195 | 0.058 | 0.0966 | |
| 0205-B-DUP | FD | NFS | Gamma | U-238 | 7.441 | 6.885 | 11.56 | U |
| 0205-C | FS | NFS | Gamma | Am-241 | -0.1244 | -0.4979 | 0.8454 | U |
| 0205-C | FS | NFS | Gamma | Th-232 | 2.841 | 0.3014 | 0.4545 | |
| 0205-C | FS | NFS | Gamma | U-235 | 0.1215 | 0.0624 | 0.1042 | |
| 0205-C | FS | NFS | Gamma | U-238 | -2.04 | -5.483 | 9.424 | U |
| 0205-D | FS | NFS | Gamma | Am-241 | 0.1205 | 0.2719 | 0.4592 | U |
| 0205-D | FS | NFS | Gamma | Th-232 | 1.002 | 0.2379 | 0.3912 | |
| 0205-D | FS | NFS | Gamma | U-235 | 0.0645 | 0.055 | 0.0921 | U |
| 0205-D | FS | NFS | Gamma | U-238 | -2.797 | -6.417 | 10.98 | U |
| 0205-E | FS | NFS | Gamma | Am-241 | 0.0476 | 0.3724 | 0.6312 | U |
| 0205-E | FS | NFS | Gamma | Th-232 | 1.436 | 0.2555 | 0.4054 | |

## Survey Unit 08 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0205-E | FS | NFS | Gamma | U-235 | -0.0093 | -0.0546 | 0.0927 | U |
| 0205-E | FS | NFS | Gamma | U-238 | -4.873 | -5.136 | 8.908 | U |
| 0205-F | FS | NFS | Gamma | Am-241 | 0.1455 | 0.3852 | 0.6513 | U |
| 0205-F | FS | NFS | Gamma | Th-232 | 1.084 | 0.2557 | 0.4113 | |
| 0205-F | FS | NFS | Gamma | U-235 | 0.0635 | 0.0568 | 0.0945 | U |
| 0205-F | FS | NFS | Gamma | U-238 | -12.81 | -6.205 | 10.89 | U |
| 0206-A | FS | NFS | Gamma | Am-241 | 0.0727 | 0.4178 | 0.7075 | U |
| 0206-A | FS | NFS | Gamma | Th-232 | 1.251 | 0.2378 | 0.3771 | |
| 0206-A | FS | NFS | Gamma | U-235 | 0.1738 | 0.0594 | 0.0983 | |
| 0206-A | FS | NFS | Gamma | U-238 | -6.338 | -5.793 | 10.04 | U |
| 0206-B | FS | NFS | Gamma | Am-241 | 0.5323 | 0.2488 | 0.4132 | |
| 0206-B | FS | NFS | Gamma | Th-232 | 0.5646 | 0.1856 | 0.302 | |
| 0206-B | FS | NFS | Gamma | U-235 | 0.0933 | 0.0481 | 0.0801 | |
| 0206-B | FS | NFS | Gamma | U-238 | 9.593 | 5.353 | 8.481 | |
| 0206-C | FS | NFS | Gamma | Am-241 | 0.8152 | 0.438 | 0.7289 | |
| 0206-C | FS | NFS | Gamma | Th-232 | 2.072 | 0.2793 | 0.4312 | |
| 0206-C | FS | NFS | Gamma | U-235 | 0.1766 | 0.0635 | 0.1037 | |
| 0206-C | FS | NFS | Gamma | U-238 | 3.52 | 6.323 | 10.04 | U |
| 0206-D | FS | NFS | Gamma | Am-241 | 0.0505 | 0.2911 | 0.4927 | U |
| 0206-D | FS | NFS | Gamma | Th-232 | 1.653 | 0.202 | 0.3018 | |
| 0206-D | FS | NFS | Gamma | U-235 | 0.0604 | 0.0539 | 0.0906 | U |
| 0206-D | FS | NFS | Gamma | U-238 | 6.167 | 5.885 | 9.882 | U |
| 0206-E | FS | NFS | Gamma | Am-241 | 0.5333 | 0.3641 | 0.6086 | U |
| 0206-E | FS | NFS | Gamma | Th-232 | 1.57 | 0.2394 | 0.3743 | |
| 0206-E | FS | NFS | Gamma | U-235 | 0.0945 | 0.0561 | 0.0924 | |
| 0206-E | FS | NFS | Gamma | U-238 | -2.508 | -23.73 | 9.097 | U |
| 0206-F | FS | NFS | Gamma | Am-241 | 0.1873 | 0.2441 | 0.4112 | U |
| 0206-F | FS | NFS | Gamma | Th-232 | 0.246 | 0.256 | 0.4403 | U |
| 0206-F | FS | NFS | Gamma | U-235 | 0.0925 | 0.0562 | 0.0939 | U |
| 0206-F | FS | NFS | Gamma | U-238 | 4.274 | 7.916 | 10.06 | U |
| 0207-A | FS | NFS | Gamma | Am-241 | 0.4324 | 0.3412 | 0.5714 | U |
| 0207-A | FS | NFS | Gamma | Th-232 | 0.9217 | 0.2514 | 0.4073 | |
| 0207-A | FS | NFS | Gamma | U-235 | 0.1495 | 0.0525 | 0.084 | |
| 0207-A | FS | NFS | Gamma | U-238 | -3.278 | -8.943 | 9.922 | U |
| 0207-A-DUP | FD | NFS | Gamma | Am-241 | -0.2265 | -0.27 | 0.4609 | U |
| 0207-A-DUP | FD | NFS | Gamma | Th-232 | 0.9869 | 0.2188 | 0.3477 | |
| 0207-A-DUP | FD | NFS | Gamma | U-235 | 0.105 | 0.0574 | 0.0959 | |
| 0207-A-DUP | FD | NFS | Gamma | U-238 | 2.863 | 5.671 | 9.598 | U |
| 0207-B | FS | NFS | Gamma | Am-241 | 0.251 | 0.3422 | 0.5765 | U |
| 0207-B | FS | NFS | Gamma | Th-232 | 0.8309 | 0.211 | 0.3401 | |
| 0207-B | FS | NFS | Gamma | U-235 | 0.0468 | 0.0501 | 0.0843 | U |
| 0207-B | FS | NFS | Gamma | U-238 | 3.994 | 4.204 | 7.063 | U |
| 0207-C | FS | NFS | Gamma | Am-241 | -0.0418 | -0.1833 | 0.4555 | U |
| 0207-C | FS | NFS | Gamma | Th-232 | 0.9167 | 0.2341 | 0.3772 | |
| 0207-C | FS | NFS | Gamma | U-235 | 0.1394 | 0.0532 | 0.0876 | |
| 0207-C | FS | NFS | Gamma | U-238 | 3.088 | 5.805 | 9.38 | U |
| 0207-D | FS | NFS | Gamma | Am-241 | 0.249 | 0.4125 | 0.6957 | U |
| 0207-D | FS | NFS | Gamma | Th-232 | 2.362 | 0.2801 | 0.4294 | |
| 0207-D | FS | NFS | Gamma | U-235 | 0.0104 | 0.0643 | 0.1089 | U |
| 0207-D | FS | NFS | Gamma | U-238 | 4.025 | 5.716 | 9.647 | U |
| 0207-E | FS | NFS | Gamma | Am-241 | -0.0413 | -0.2565 | 0.4356 | U |
| 0207-E | FS | NFS | Gamma | Th-232 | 1.174 | 0.2047 | 0.3197 | |
| 0207-E | FS | NFS | Gamma | U-235 | 0.1448 | 0.0544 | 0.0904 | |

## Survey Unit 08 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0207-E | FS | NFS | Gamma | U-238 | 2.718 | 5.369 | 9.085 | U |
| 0207-F | FS | NFS | Gamma | Am-241 | -0.1033 | -0.4139 | 0.7032 | U |
| 0207-F | FS | NFS | Gamma | Th-232 | 2.332 | 0.2359 | 0.3484 | |
| 0207-F | FS | NFS | Gamma | U-235 | 0.151 | 0.0573 | 0.0951 | |
| 0207-F | FS | NFS | Gamma | U-238 | 4.886 | 4.906 | 8.238 | U |
| 0208-A | FS | NFS | Gamma | Am-241 | -0.5656 | -0.3045 | 0.5228 | U |
| 0208-A | FS | NFS | Gamma | Th-232 | 1.36 | 0.2425 | 0.38 | |
| 0208-A | FS | NFS | Gamma | U-235 | 0.0588 | 0.0652 | 0.1098 | U |
| 0208-A | FS | NFS | Gamma | U-238 | 0.3254 | 20.1 | 12.81 | U |
| 0208-B | FS | PARAGON | LSC | Tc-99 | 0.12 | 0.94 | 1.58 | U |
| 0208-B | FS | NFS | Gamma | Am-241 | -0.0548 | -0.4366 | 0.7415 | U |
| 0208-B | FS | NFS | Gamma | Th-232 | 1.484 | 0.3113 | 0.4895 | |
| 0208-B | FS | NFS | Gamma | U-235 | 0.165 | 0.0676 | 0.1125 | |
| 0208-B | FS | NFS | Gamma | U-238 | 4.933 | 8.32 | 11.32 | U |
| 0208-C | FS | NFS | Gamma | Am-241 | -0.1995 | -0.3577 | 0.6099 | U |
| 0208-C | FS | NFS | Gamma | Th-232 | 1.161 | 0.1695 | 0.2538 | |
| 0208-C | FS | NFS | Gamma | U-235 | 0.1935 | 0.0505 | 0.0827 | |
| 0208-C | FS | NFS | Gamma | U-238 | -0.2149 | -5.527 | 9.427 | U |
| 0208-D | FS | NFS | Gamma | Am-241 | -0.2349 | -0.2562 | 0.4373 | U |
| 0208-D | FS | NFS | Gamma | Th-232 | 1.292 | 0.2297 | 0.3649 | |
| 0208-D | FS | NFS | Gamma | U-235 | 0.0734 | 0.0527 | 0.0881 | U |
| 0208-D | FS | NFS | Gamma | U-238 | 5.446 | 5.318 | 8.526 | U |
| 0208-E | FS | NFS | Gamma | Am-241 | -0.1571 | -0.3768 | 0.6417 | U |
| 0208-E | FS | NFS | Gamma | Th-232 | 1.181 | 0.2071 | 0.3238 | |
| 0208-E | FS | NFS | Gamma | U-235 | 0.0297 | 0.0629 | 0.0988 | U |
| 0208-E | FS | NFS | Gamma | U-238 | -2.902 | -4.47 | 10.9 | U |
| 0208-E-DUP | FD | NFS | Gamma | Am-241 | -0.3428 | -0.2516 | 0.431 | U |
| 0208-E-DUP | FD | NFS | Gamma | Th-232 | 0.8826 | 0.2391 | 0.3883 | |
| 0208-E-DUP | FD | NFS | Gamma | U-235 | -0.0312 | -0.0555 | 0.0945 | U |
| 0208-E-DUP | FD | NFS | Gamma | U-238 | -5.012 | -6.315 | 10.85 | U |
| 0208-F | FS | NFS | Gamma | Am-241 | 0.0489 | 0.3384 | 0.5734 | U |
| 0208-F | FS | NFS | Gamma | Th-232 | 1.848 | 0.1537 | 0.1989 | |
| 0208-F | FS | NFS | Gamma | U-235 | 0.0209 | 0.0559 | 0.0944 | U |
| 0208-F | FS | NFS | Gamma | U-238 | -9.704 | -6.751 | 11.49 | U |
| EB-08 | EB | PARAGON | LSC | Pu-241 | -0.4 | 4.5 | 7.7 | U |
| EB-08 | EB | PARAGON | LSC | Tc-99 | 0.1 | 6.4 | 10.8 | U |
| EB-08 | EB | PARAGON | Gamma | Am-241 | 9 | 28 | 48 | U |
| EB-08 | EB | PARAGON | Gamma | Th-232 | -10 | 31 | 56 | U |
| EB-08 | EB | PARAGON | Gamma | U-235 | -10 | 31 | 54 | U |
| EB-08 | EB | PARAGON | Alpha | Am-241 | 0.007 | 0.026 | 0.019 | U |
| EB-08 | EB | PARAGON | Alpha | Pu-238 | -0.002 | 0.028 | 0.04 | U |
| EB-08 | EB | PARAGON | Alpha | Pu-239/240 | 0.016 | 0.028 | 0.055 | U |
| EB-08 | EB | PARAGON | Alpha | Pu-242 | 0.045 | 0.041 | 0.059 | U |
| EB-08 | EB | PARAGON | Alpha | Th-230 | 0.152 | 0.075 | 0.109 | LT |
| EB-08 | EB | PARAGON | Alpha | Th-232 | 0.014 | 0.026 | 0.051 | U |
| EB-08 | EB | PARAGON | Alpha | U-233/234 | 0.119 | 0.082 | 0.077 | LT |
| EB-08 | EB | PARAGON | Alpha | U-235 | 0.042 | 0.052 | 0.069 | U |
| EB-08 | EB | PARAGON | Alpha | U-238 | 0.001 | 0.044 | 0.089 | U |
| EB-08 | LR | PARAGON | LSC | Tc-99 | -0.4 | 6.2 | 10.5 | U |
| EB-08 | LR | PARAGON | Gamma | Am-241 | 2.1 | 6.1 | 10.2 | U |
| EB-08 | LR | PARAGON | Gamma | Th-232 | 12 | 26 | 44 | U |
| EB-08 | LR | PARAGON | Gamma | U-235 | -5 | 24 | 41 | U |

# Appendix G.3

# Radiological Dataset, Survey Unit 9

## Survey Unit 09 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0209-A | FS | PARAGON | LSC | Tc-99 | -0.24 | 0.82 | 1.4 | U |
| 0209-A | FS | PARAGON | LSC | Pu-241 | -0.3 | 2.3 | 3.9 | U |
| 0209-A | FS | PARAGON | Gamma | Am-241 | 0.42 | 0.61 | 1.01 | U |
| 0209-A | FS | PARAGON | Gamma | Th-232 | 0.53 | 0.33 | 0.45 | J |
| 0209-A | FS | PARAGON | Gamma | U-235 | 0.29 | 0.28 | 0.44 | U |
| 0209-A | FS | PARAGON | Alpha | Am-241 | 0.022 | 0.014 | 0.014 | |
| 0209-A | FS | PARAGON | Alpha | Pu-238 | 0.0053 | 0.0088 | 0.0048 | J |
| 0209-A | FS | PARAGON | Alpha | Pu-239/240 | 0.073 | 0.027 | 0.019 | |
| 0209-A | FS | PARAGON | Alpha | Pu-242 | 0.011 | 0.0079 | 0.0093 | |
| 0209-A | FS | PARAGON | Alpha | Th-230 | 0.426 | 0.093 | 0.046 | |
| 0209-A | FS | PARAGON | Alpha | Th-232 | 0.53 | 0.11 | 0.02 | |
| 0209-A | FS | PARAGON | Alpha | U-233/234 | 6.6 | 1.1 | 0 | |
| 0209-A | FS | PARAGON | Alpha | U-235 | 0.172 | .07 | 0.017 | |
| 0209-A | FS | PARAGON | Alpha | U-238 | 0.6 | 0.15 | 0.03 | |
| 0209-A | FS | NFS | Gamma | Am-241 | 0.1977 | 0.309 | 0.5212 | U |
| 0209-A | FS | NFS | Gamma | Th-232 | 0.7022 | 0.1994 | 0.3222 | |
| 0209-A | FS | NFS | Gamma | U-235 | 0.2301 | 0.0515 | 0.0837 | |
| 0209-A | FS | NFS | Gamma | U-238 | 0.2684 | 4.739 | 8.097 | U |
| 0209-B | FS | NFS | Gamma | Am-241 | -0.2129 | -0.2602 | 0.4443 | U |
| 0209-B | FS | NFS | Gamma | Th-232 | 0.4876 | 0.2083 | 0.3433 | |
| 0209-B | FS | NFS | Gamma | U-235 | 0.2387 | 0.0529 | 0.0862 | |
| 0209-B | FS | NFS | Gamma | U-238 | -1.805 | -7.823 | 13.32 | U |
| 0209-C | FS | NFS | Gamma | Am-241 | 0.161 | 0.3956 | 0.6688 | U |
| 0209-C | FS | NFS | Gamma | Th-232 | 1.492 | 0.2403 | 0.3752 | |
| 0209-C | FS | NFS | Gamma | U-235 | 0.2221 | 0.0588 | 0.0951 | |
| 0209-C | FS | NFS | Gamma | U-238 | 0.2837 | 5.468 | 9.332 | U |
| 0209-D | FS | NFS | Gamma | Am-241 | 0.367 | 0.2905 | 0.4872 | U |
| 0209-D | FS | NFS | Gamma | Th-232 | 1.173 | 0.2207 | 0.3445 | |
| 0209-D | FS | NFS | Gamma | U-235 | 0.1703 | 0.0588 | 0.0969 | |
| 0209-D | FS | NFS | Gamma | U-238 | -2.407 | -9.38 | 17.24 | U |
| 0209-E | FS | NFS | Gamma | Am-241 | 0.288 | 0.371 | 0.6248 | U |
| 0209-E | FS | NFS | Gamma | Th-232 | 1.198 | 0.2712 | 0.4374 | |
| 0209-E | FS | NFS | Gamma | U-235 | 0.1026 | 0.0597 | 0.0998 | |
| 0209-E | FS | NFS | Gamma | U-238 | 0.7951 | 13.31 | 11.66 | U |
| 0210-A | FS | NFS | Gamma | Am-241 | 0.3028 | 0.261 | 0.438 | U |
| 0210-A | FS | NFS | Gamma | Th-232 | 0.8888 | 0.1902 | 0.3011 | |
| 0210-A | FS | NFS | Gamma | U-235 | 0.1829 | 0.0522 | 0.0856 | |
| 0210-A | FS | NFS | Gamma | U-238 | 9.215 | 8.467 | 14.23 | U |
| 0210-B | FS | NFS | Gamma | Am-241 | -0.2989 | -0.4359 | 0.7439 | U |
| 0210-B | FS | NFS | Gamma | Th-232 | 1.638 | 0.313 | 0.4985 | |
| 0210-B | FS | NFS | Gamma | U-235 | 0.1599 | 0.0704 | 0.1118 | |
| 0210-B | FS | NFS | Gamma | U-238 | 10.95 | 6.474 | 10.8 | |
| 0210-C | FS | NFS | Gamma | Am-241 | 0.0874 | 0.3039 | 0.514 | U |
| 0210-C | FS | NFS | Gamma | Th-232 | 0.9279 | 0.2653 | 0.4361 | |
| 0210-C | FS | NFS | Gamma | U-235 | 0.1304 | 0.0602 | 0.1003 | |
| 0210-C | FS | NFS | Gamma | U-238 | 11.63 | 10.32 | 17.29 | U |
| 0210-D | FS | NFS | Gamma | Am-241 | -0.0385 | -0.3877 | 0.6583 | U |
| 0210-D | FS | NFS | Gamma | Th-232 | 1.889 | 0.2508 | 0.385 | |
| 0210-D | FS | NFS | Gamma | U-235 | 0.1646 | 0.0631 | 0.1013 | |
| 0210-D | FS | NFS | Gamma | U-238 | -2.499 | -6.949 | 11.89 | U |
| 0210-E | FS | NFS | Gamma | Am-241 | -0.1409 | -0.2731 | 0.4647 | U |
| 0210-E | FS | NFS | Gamma | Th-232 | 0.7254 | 0.2358 | 0.3859 | |
| 0210-E | FS | NFS | Gamma | U-235 | 0.1084 | 0.0536 | 0.0894 | |

## Survey Unit 09 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0210-E | FS | NFS | Gamma | U-238 | -0.6588 | -9.599 | 16.28 | U |
| 0210-E-DUP | FD | NFS | Gamma | Am-241 | 0.4515 | 0.3696 | 0.6192 | U |
| 0210-E-DUP | FD | NFS | Gamma | Th-232 | 1.164 | 0.2576 | 0.4103 | |
| 0210-E-DUP | FD | NFS | Gamma | U-235 | 0.1443 | 0.0562 | 0.0927 | |
| 0210-E-DUP | FD | NFS | Gamma | U-238 | 0.8402 | 7.598 | 10.44 | U |
| 0210-F | FS | NFS | Gamma | Am-241 | 0.2602 | 0.3456 | 0.5823 | U |
| 0210-F | FS | NFS | Gamma | Th-232 | 1.252 | 0.3178 | 0.5175 | |
| 0210-F | FS | NFS | Gamma | U-235 | 0.0352 | 0.0699 | 0.1181 | U |
| 0210-F | FS | NFS | Gamma | U-238 | 3.807 | 7.541 | 12.91 | U |
| 0211-A | FS | NFS | Gamma | Am-241 | 0.1392 | 0.3453 | 0.5839 | U |
| 0211-A | FS | NFS | Gamma | Th-232 | 0.7233 | 0.2048 | 0.3313 | |
| 0211-A | FS | NFS | Gamma | U-235 | 0.1443 | 0.0507 | 0.0838 | |
| 0211-A | FS | NFS | Gamma | U-238 | -7.847 | -6.489 | 11.23 | U |
| 0211-B | FS | NFS | Gamma | Am-241 | 0.4993 | 0.2949 | 0.4926 | |
| 0211-B | FS | NFS | Gamma | Th-232 | 1.598 | 0.2442 | 0.3773 | |
| 0211-B | FS | NFS | Gamma | U-235 | 0.1378 | 0.0566 | 0.0941 | |
| 0211-B | FS | NFS | Gamma | U-238 | -5.028 | -6.052 | 10.45 | U |
| 0211-C | FS | NFS | Gamma | Am-241 | -0.2595 | -0.4069 | 0.6943 | U |
| 0211-C | FS | NFS | Gamma | Th-232 | 1.295 | 0.2466 | 0.3854 | |
| 0211-C | FS | NFS | Gamma | U-235 | 0.1104 | 0.0607 | 0.0959 | |
| 0211-C | FS | NFS | Gamma | U-238 | 4.81 | 5.942 | 10.01 | U |
| 0211-D | FS | NFS | Gamma | Am-241 | 0.2519 | 0.3035 | 0.5109 | U |
| 0211-D | FS | NFS | Gamma | Th-232 | 1.599 | 0.2552 | 0.4032 | |
| 0211-D | FS | NFS | Gamma | U-235 | 0.1506 | 0.0539 | 0.0886 | |
| 0211-D | FS | NFS | Gamma | U-238 | 1.717 | 5.345 | 9.074 | U |
| 0211-E | FS | NFS | Gamma | Am-241 | 0.7551 | 0.378 | 0.6272 | |
| 0211-E | FS | NFS | Gamma | Th-232 | 0.7987 | 0.282 | 0.453 | |
| 0211-E | FS | NFS | Gamma | U-235 | 0.1207 | 0.0601 | 0.1003 | |
| 0211-E | FS | NFS | Gamma | U-238 | 3.669 | 6.796 | 11.49 | U |
| 0211-F | FS | NFS | Gamma | Am-241 | 0.1565 | 0.4033 | 0.6817 | U |
| 0211-F | FS | NFS | Gamma | Th-232 | 0.9503 | 0.4071 | 0.6775 | |
| 0211-F | FS | NFS | Gamma | U-235 | 0.0969 | 0.0775 | 0.1294 | U |
| 0211-F | FS | NFS | Gamma | U-238 | 16.37 | 7.596 | 12.48 | |
| 0212-A | FS | NFS | Gamma | Am-241 | -0.0582 | -0.3119 | 0.5303 | U |
| 0212-A | FS | NFS | Gamma | Th-232 | 0.3519 | 0.2223 | 0.3664 | U |
| 0212-A | FS | NFS | Gamma | U-235 | 0.5582 | 0.0532 | 0.0808 | |
| 0212-A | FS | NFS | Gamma | U-238 | -3.302 | -5.603 | 9.629 | U |
| 0212-B | FS | NFS | Gamma | Am-241 | -0.0789 | -0.3066 | 0.5208 | U |
| 0212-B | FS | NFS | Gamma | Th-232 | 1.873 | 0.2602 | 0.4015 | |
| 0212-B | FS | NFS | Gamma | U-235 | 0.0975 | 0.0625 | 0.1039 | U |
| 0212-B | FS | NFS | Gamma | U-238 | 5.198 | 5.373 | 9.028 | U |
| 0212-C | FS | PARAGON | LSC | Tc-99 | -0.63 | 0.97 | 1.66 | U |
| 0212-C | FS | PARAGON | LSC | Pu-241 | -1 | 3.1 | 5.3 | U |
| 0212-C | FS | PARAGON | Gamma | Am-241 | -0.15 | 0.43 | 0.79 | U |
| 0212-C | FS | PARAGON | Gamma | Th-232 | 0.95 | 0.33 | 0.49 | J |
| 0212-C | FS | PARAGON | Gamma | U-235 | 0.29 | 0.28 | 0.44 | U |
| 0212-C | FS | PARAGON | Alpha | Am-241 | 0 | 0.0089 | 0.0049 | U |
| 0212-C | FS | PARAGON | Alpha | Pu-238 | 0.0019 | 0.0092 | 0.0138 | U |
| 0212-C | FS | PARAGON | Alpha | Pu-239/240 | -0.0038 | 0.0092 | 0.0226 | U |
| 0212-C | FS | PARAGON | Alpha | Pu-242 | 0.022 | 0.014 | 0.015 | |
| 0212-C | FS | PARAGON | Alpha | Th-230 | 0.88 | 0.17 | 0.05 | |
| 0212-C | FS | PARAGON | Alpha | Th-232 | 1.19 | 0.21 | 0.03 | |
| 0212-C | FS | PARAGON | Alpha | U-233/234 | 1.11 | 0.24 | 0.01 | |

## Survey Unit 09 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0212-C | FS | PARAGON | Alpha | U-235 | 0.049 | 0.036 | 0.017 | |
| 0212-C | FS | PARAGON | Alpha | U-238 | 0.67 | 0.16 | 0.04 | |
| 0212-C | FS | NFS | Gamma | Am-241 | 0.1625 | 0.4064 | 0.6871 | U |
| 0212-C | FS | NFS | Gamma | Th-232 | 1.615 | 0.2523 | 0.3896 | |
| 0212-C | FS | NFS | Gamma | U-235 | 0.0861 | 0.0536 | 0.0868 | U |
| 0212-C | FS | NFS | Gamma | U-238 | 3.983 | 5.296 | 8.93 | U |
| 0212-C | LR | PARAGON | Alpha | Am-241 | 0.0054 | 0.0089 | 0.0049 | J |
| 0212-C | LR | PARAGON | Alpha | Pu-238 | 0 | 0.0087 | 0.0138 | U |
| 0212-C | LR | PARAGON | Alpha | Pu-239/240 | 0 | 0.0087 | 0.0226 | U |
| 0212-C | LR | PARAGON | Alpha | U-233/234 | 1.36 | 0.28 | 0.01 | |
| 0212-C | LR | PARAGON | Alpha | U-235 | 0.093 | 0.05 | 0.017 | |
| 0212-C | LR | PARAGON | Alpha | U-238 | 1.22 | 0.25 | 0.04 | |
| 0212-C-DUP | FD | NFS | Gamma | Am-241 | -0.3129 | -0.2964 | 0.5065 | U |
| 0212-C-DUP | FD | NFS | Gamma | Th-232 | 1.03 | 0.2805 | 0.4511 | |
| 0212-C-DUP | FD | NFS | Gamma | U-235 | 0.0912 | 0.0598 | 0.0999 | U |
| 0212-C-DUP | FD | NFS | Gamma | U-238 | -1.594 | -6.692 | 10.59 | U |
| 0212-D | FS | NFS | Gamma | Am-241 | 0.0604 | 0.422 | 0.7152 | U |
| 0212-D | FS | NFS | Gamma | Th-232 | 1.002 | 0.3061 | 0.4846 | |
| 0212-D | FS | NFS | Gamma | U-235 | 0.0348 | 0.066 | 0.1069 | U |
| 0212-D | FS | NFS | Gamma | U-238 | -7.404 | -8.07 | 13.9 | U |
| 0213-A | FS | NFS | Gamma | Am-241 | 0.1473 | 0.276 | 0.4825 | U |
| 0213-A | FS | NFS | Gamma | Th-232 | 0.6521 | 0.4689 | 0.4911 | |
| 0213-A | FS | NFS | Gamma | U-235 | 0.8543 | 0.0599 | 0.0884 | |
| 0213-A | FS | NFS | Gamma | U-238 | -3.481 | -5.638 | 9.715 | U |
| 0213-B | FS | NFS | Gamma | Am-241 | 0.2724 | 0.321 | 0.5402 | U |
| 0213-B | FS | NFS | Gamma | Th-232 | 0.565 | 0.2415 | 0.3947 | |
| 0213-B | FS | NFS | Gamma | U-235 | 0.22 | 0.0498 | 0.0809 | |
| 0213-B | FS | NFS | Gamma | U-238 | -6.54 | -6.231 | 10.77 | U |
| 0213-C | FS | NFS | Gamma | Am-241 | 0.0618 | 0.4118 | 0.6978 | U |
| 0213-C | FS | NFS | Gamma | Th-232 | 1.377 | 0.2499 | 0.3933 | |
| 0213-C | FS | NFS | Gamma | U-235 | 0.0645 | 0.0585 | 0.0967 | U |
| 0213-C | FS | NFS | Gamma | U-238 | 8.745 | 5.468 | 9.08 | U |
| 0213-D | FS | PARAGON | LSC | Tc-99 | -0.38 | 0.96 | 1.64 | U |
| 0213-D | FS | PARAGON | LSC | Pu-241 | -2.5 | 2.8 | 4.8 | U |
| 0213-D | FS | PARAGON | Gamma | Am-241 | -0.18 | 0.96 | 1.73 | U |
| 0213-D | FS | PARAGON | Gamma | Th-232 | 0.77 | 0.29 | 0.53 | |
| 0213-D | FS | PARAGON | Gamma | U-235 | -0.23 | 0.34 | 0.64 | U |
| 0213-D | FS | PARAGON | Alpha | Am-241 | 0.0087 | 0.0086 | 0.0047 | J |
| 0213-D | FS | PARAGON | Alpha | Pu-238 | 0.005 | 0.012 | 0.007 | U |
| 0213-D | FS | PARAGON | Alpha | Pu-239/240 | 0.002 | 0.012 | 0.023 | U |
| 0213-D | FS | PARAGON | Alpha | Pu-242 | 0.032 | 0.015 | 0.014 | |
| 0213-D | FS | PARAGON | Alpha | Th-230 | 0.58 | 0.12 | 0.05 | |
| 0213-D | FS | PARAGON | Alpha | Th-232 | 1.03 | 0.19 | 0.02 | |
| 0213-D | FS | PARAGON | Alpha | U-233/234 | 0.91 | 0.2 | 0.03 | |
| 0213-D | FS | PARAGON | Alpha | U-235 | 0.04 | 0.034 | 0.039 | |
| 0213-D | FS | PARAGON | Alpha | U-238 | 0.64 | 0.16 | 0.04 | |
| 0213-D | FS | NFS | Gamma | Am-241 | 0.4381 | 0.7993 | 1.35 | U |
| 0213-D | FS | NFS | Gamma | Th-232 | 1.833 | 0.395 | 0.6103 | |
| 0213-D | FS | NFS | Gamma | U-235 | 0.2553 | 0.15 | 0.2397 | |
| 0213-D | FS | NFS | Gamma | U-238 | 21.48 | 7.824 | 12.73 | |
| 0213-D-DUP | FD | PARAGON | LSC | Tc-99 | -0.66 | 0.92 | 1.57 | U |
| 0213-E | FS | NFS | Gamma | Am-241 | -0.0652 | -0.2907 | 0.4935 | U |
| 0213-E | FS | NFS | Gamma | Th-232 | 0.8969 | 0.258 | 0.4199 | |

## Survey Unit 09 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0213-E | FS | NFS | Gamma | U-235 | 0.0678 | 0.0576 | 0.0968 | U |
| 0213-E | FS | NFS | Gamma | U-238 | -5.343 | -6.747 | 11.6 | U |
| 0214-A | FS | NFS | Gamma | Am-241 | 0.1026 | 0.3405 | 0.5765 | U |
| 0214-A | FS | NFS | Gamma | Th-232 | 0.3017 | 0.2126 | 0.3423 | U |
| 0214-A | FS | NFS | Gamma | U-235 | 0.056 | 0.0521 | 0.0875 | U |
| 0214-A | FS | NFS | Gamma | U-238 | 1.996 | 4.969 | 8.436 | U |
| 0214-B | FS | NFS | Gamma | Am-241 | 0.2225 | 0.2366 | 0.3979 | U |
| 0214-B | FS | NFS | Gamma | Th-232 | 0.4112 | 0.1986 | 0.3305 | |
| 0214-B | FS | NFS | Gamma | U-235 | 0.1575 | 0.0506 | 0.0836 | |
| 0214-B | FS | NFS | Gamma | U-238 | -11.14 | -5.825 | 10.18 | U |
| 0214-C | FS | NFS | Gamma | Am-241 | 0.3226 | 0.3919 | 0.6597 | U |
| 0214-C | FS | NFS | Gamma | Th-232 | 0.7782 | 0.2339 | 0.3803 | |
| 0214-C | FS | NFS | Gamma | U-235 | 0.0915 | 0.0576 | 0.0946 | U |
| 0214-C | FS | NFS | Gamma | U-238 | -7.689 | -6.796 | 11.76 | U |
| 0214-D | FS | NFS | Gamma | Am-241 | 0.0707 | 0.2625 | 0.444 | U |
| 0214-D | FS | NFS | Gamma | Th-232 | 0.8157 | 0.2402 | 0.3916 | |
| 0214-D | FS | NFS | Gamma | U-235 | 0.091 | 0.0543 | 0.0907 | |
| 0214-D | FS | NFS | Gamma | U-238 | -14.04 | -6.438 | 11.23 | U |
| 0214-D-DUP | FD | NFS | Gamma | Am-241 | 0.6486 | 0.3634 | 0.6047 | |
| 0214-D-DUP | FD | NFS | Gamma | Th-232 | 1.23 | 0.2224 | 0.3446 | |
| 0214-D-DUP | FD | NFS | Gamma | U-235 | 0.1114 | 0.0528 | 0.0872 | |
| 0214-D-DUP | FD | NFS | Gamma | U-238 | -3.513 | -5.861 | 10.07 | U |
| 0215-A | FS | NFS | Gamma | Am-241 | -0.1631 | -0.2483 | 0.4232 | U |
| 0215-A | FS | NFS | Gamma | Th-232 | 0.2295 | 0.2314 | 0.3888 | U |
| 0215-A | FS | NFS | Gamma | U-235 | 0.4186 | 0.0549 | 0.0869 | |
| 0215-A | FS | NFS | Gamma | U-238 | -8.586 | -5.588 | 9.736 | U |
| 0215-B | FS | NFS | Gamma | Am-241 | -0.0608 | -0.3872 | 0.6579 | U |
| 0215-B | FS | NFS | Gamma | Th-232 | 0.6993 | 0.2354 | 0.3847 | |
| 0215-B | FS | NFS | Gamma | U-235 | 0.3698 | 0.0575 | 0.0895 | |
| 0215-B | FS | NFS | Gamma | U-238 | -8.226 | -6.214 | 10.81 | U |
| 0215-C | FS | NFS | Gamma | Am-241 | 0.2666 | 0.2728 | 0.4587 | U |
| 0215-C | FS | NFS | Gamma | Th-232 | 1.221 | 0.2029 | 0.3148 | |
| 0215-C | FS | NFS | Gamma | U-235 | 0.0376 | 0.0612 | 0.103 | U |
| 0215-C | FS | NFS | Gamma | U-238 | -5.422 | -6.011 | 10.37 | U |
| 0215-D | FS | NFS | Gamma | Am-241 | 0.1064 | 0.2642 | 0.4696 | U |
| 0215-D | FS | NFS | Gamma | Th-232 | 0.9934 | 0.2717 | 0.4428 | |
| 0215-D | FS | NFS | Gamma | U-235 | 0.1739 | 0.053 | 0.0874 | |
| 0215-D | FS | NFS | Gamma | U-238 | -7.865 | -6.658 | 11.49 | U |
| 0216-A | FS | NFS | Gamma | Am-241 | 0.4815 | 0.3379 | 0.5645 | U |
| 0216-A | FS | NFS | Gamma | Th-232 | 0.2557 | 0.208 | 0.3467 | U |
| 0216-A | FS | NFS | Gamma | U-235 | 0.4256 | 0.0614 | 0.0958 | |
| 0216-A | FS | NFS | Gamma | U-238 | -2.784 | -4.219 | 9 | U |
| 0216-B | FS | PARAGON | LSC | Tc-99 | 0.29 | 0.98 | 1.64 | U |
| 0216-B | FS | PARAGON | LSC | Pu-241 | -1.4 | 2.6 | 4.4 | U |
| 0216-B | FS | PARAGON | Gamma | Am-241 | 0.036 | 0.091 | 0.155 | U |
| 0216-B | FS | PARAGON | Gamma | Th-232 | 0.67 | 0.3 | 0.57 | J |
| 0216-B | FS | PARAGON | Gamma | U-235 | 0.27 | 0.23 | 0.35 | U |
| 0216-B | FS | PARAGON | Alpha | Am-241 | 0.015 | 0.012 | 0.006 | |
| 0216-B | FS | PARAGON | Alpha | Pu-238 | 0 | 0.0089 | 0.0049 | U |
| 0216-B | FS | PARAGON | Alpha | Pu-239/240 | 0.02 | 0.014 | 0.017 | |
| 0216-B | FS | PARAGON | Alpha | Pu-242 | 0.031 | 0.013 | 0.003 | |
| 0216-B | FS | PARAGON | Alpha | Th-230 | 0.51 | 0.1 | 0.04 | |
| 0216-B | FS | PARAGON | Alpha | Th-232 | 0.65 | 0.12 | 0.01 | |

## Survey Unit 09 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0216-B | FS | PARAGON | Alpha | U-233/234 | 10.4 | 1.8 | 0 | |
| 0216-B | FS | PARAGON | Alpha | U-235 | 0.36 | 0.12 | 0.04 | |
| 0216-B | FS | PARAGON | Alpha | U-238 | 0.93 | 0.22 | 0.04 | |
| 0216-B | FS | NFS | Gamma | Am-241 | -0.0139 | -0.256 | 0.4345 | U |
| 0216-B | FS | NFS | Gamma | Th-232 | 0.6932 | 0.2388 | 0.3918 | |
| 0216-B | FS | NFS | Gamma | U-235 | 0.3932 | 0.0523 | 0.0829 | |
| 0216-B | FS | NFS | Gamma | U-238 | 3.575 | 6.327 | 8.958 | U |
| 0216-B-DUP | FD | PARAGON | LSC | Pu-241 | -0.3 | 2.7 | 4.5 | U |
| 0216-B-DUP | FD | PARAGON | Gamma | Am-241 | 0.05 | 0.72 | 1.28 | U |
| 0216-B-DUP | FD | PARAGON | Gamma | Th-232 | 0.73 | 0.28 | 0.39 | J |
| 0216-B-DUP | FD | PARAGON | Gamma | U-235 | 0.37 | 0.3 | 0.46 | U |
| 0216-B-DUP | FD | PARAGON | Alpha | Am-241 | 0.016 | 0.012 | 0.013 | |
| 0216-B-DUP | FD | PARAGON | Alpha | Pu-238 | 0.0091 | 0.0091 | 0.005 | J |
| 0216-B-DUP | FD | PARAGON | Alpha | Pu-239/240 | 0.035 | 0.019 | 0.02 | |
| 0216-B-DUP | FD | PARAGON | Alpha | Pu-242 | 0.03 | 0.013 | 0.003 | |
| 0216-B-DUP | FD | PARAGON | Alpha | Th-230 | 0.59 | 0.11 | 0.04 | |
| 0216-B-DUP | FD | PARAGON | Alpha | Th-232 | 0.75 | 0.14 | 0.01 | |
| 0216-B-DUP | FD | PARAGON | Alpha | U-233/234 | 10.1 | 1.7 | 0 | |
| 0216-B-DUP | FD | PARAGON | Alpha | U-235 | 0.5 | 0.14 | 0.03 | |
| 0216-B-DUP | FD | PARAGON | Alpha | U-238 | 0.92 | 0.21 | 0.05 | |
| 0216-C | FS | NFS | Gamma | Am-241 | 0.6893 | 0.3862 | 0.6431 | |
| 0216-C | FS | NFS | Gamma | Th-232 | 1.75 | 0.2787 | 0.4382 | |
| 0216-C | FS | NFS | Gamma | U-235 | 0.0802 | 0.0669 | 0.1123 | U |
| 0216-C | FS | NFS | Gamma | U-238 | 3.485 | 8.557 | 10.35 | U |
| 0216-D | FS | NFS | Gamma | Am-241 | -0.1445 | -0.2727 | 0.4641 | U |
| 0216-D | FS | NFS | Gamma | Th-232 | 1.334 | 0.2335 | 0.3691 | |
| 0216-D | FS | NFS | Gamma | U-235 | 0.2803 | 0.0562 | 0.0913 | |
| 0216-D | FS | NFS | Gamma | U-238 | -1.022 | -6.061 | 10.08 | U |
| 0216-E | FS | NFS | Gamma | Am-241 | 0.3165 | 0.4172 | 0.7028 | U |
| 0216-E | FS | NFS | Gamma | Th-232 | 1.274 | 0.2864 | 0.4544 | |
| 0216-E | FS | NFS | Gamma | U-235 | 0.1464 | 0.0643 | 0.106 | |
| 0216-E | FS | NFS | Gamma | U-238 | 0.6847 | 9.858 | 10.76 | U |
| 0216-E-DUP | FD | NFS | Gamma | Am-241 | -0.288 | -0.3045 | 0.5199 | U |
| 0216-E-DUP | FD | NFS | Gamma | Th-232 | 1.389 | 0.2898 | 0.4689 | |
| 0216-E-DUP | FD | NFS | Gamma | U-235 | 0.1623 | 0.0629 | 0.1045 | |
| 0216-E-DUP | FD | NFS | Gamma | U-238 | -4.918 | -7.412 | 12.71 | U |
| 0217-A | FS | PARAGON | LSC | Tc-99 | 0.31 | 0.93 | 1.54 | U |
| 0217-A | FS | PARAGON | LSC | Pu-241 | 1.8 | 2.9 | 4.8 | U |
| 0217-A | FS | PARAGON | Gamma | Am-241 | -1.04 | 0.83 | 1.54 | U |
| 0217-A | FS | PARAGON | Gamma | Th-232 | 0.68 | 0.22 | 0.46 | |
| 0217-A | FS | PARAGON | Gamma | U-235 | 0.4 | 0.25 | 0.37 | |
| 0217-A | FS | PARAGON | Alpha | Am-241 | 0.05 | 0.021 | 0.005 | J |
| 0217-A | FS | PARAGON | Alpha | Pu-238 | 0.01 | 0.012 | 0.02 | U |
| 0217-A | FS | PARAGON | Alpha | Pu-239/240 | 0.19 | 0.046 | 0.004 | |
| 0217-A | FS | PARAGON | Alpha | Pu-242 | 0.015 | 0.011 | 0.006 | |
| 0217-A | FS | PARAGON | Alpha | Th-230 | 0.55 | 0.11 | 0.05 | |
| 0217-A | FS | PARAGON | Alpha | Th-232 | 0.65 | 0.13 | 0.02 | |
| 0217-A | FS | PARAGON | Alpha | U-233/234 | 14 | 2.4 | 0 | |
| 0217-A | FS | PARAGON | Alpha | U-235 | 0.57 | 0.16 | 0.04 | |
| 0217-A | FS | PARAGON | Alpha | U-238 | 1.28 | 0.27 | 0.04 | |
| 0217-A | FS | NFS | Gamma | Am-241 | -0.1658 | -0.3349 | 0.5709 | U |
| 0217-A | FS | NFS | Gamma | Th-232 | 0.8808 | 0.2017 | 0.3226 | |
| 0217-A | FS | NFS | Gamma | U-235 | 0.5081 | 0.0527 | 0.0806 | |

## Survey Unit 09 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0217-A | FS | NFS | Gamma | U-238 | -1.379 | -5.458 | 9.344 | U |
| 0217-B | FS | NFS | Gamma | Am-241 | 0.4585 | 0.2526 | 0.4212 | |
| 0217-B | FS | NFS | Gamma | Th-232 | 0.7628 | 0.2596 | 0.434 | |
| 0217-B | FS | NFS | Gamma | U-235 | 0.1488 | 0.0525 | 0.0864 | |
| 0217-B | FS | NFS | Gamma | U-238 | -8.052 | -18.12 | 10.53 | U |
| 0217-C | FS | NFS | Gamma | Am-241 | 0.0765 | 0.3453 | 0.5849 | U |
| 0217-C | FS | NFS | Gamma | Th-232 | 1.157 | 0.2389 | 0.3815 | |
| 0217-C | FS | NFS | Gamma | U-235 | 0.0548 | 0.0585 | 0.0984 | U |
| 0217-C | FS | NFS | Gamma | U-238 | 8.945 | 5.309 | 8.803 | |
| 0217-D | FS | NFS | Gamma | Am-241 | 0.1537 | 0.2863 | 0.4833 | U |
| 0217-D | FS | NFS | Gamma | Th-232 | 1.31 | 0.2943 | 0.4765 | |
| 0217-D | FS | NFS | Gamma | U-235 | 0.1151 | 0.0557 | 0.0928 | |
| 0217-D | FS | NFS | Gamma | U-238 | 1.877 | 5.9 | 10.01 | U |
| 0217-E | FS | NFS | Gamma | Am-241 | -0.0558 | -0.3606 | 0.6125 | U |
| 0217-E | FS | NFS | Gamma | Th-232 | 1.035 | 0.2757 | 0.4469 | |
| 0217-E | FS | NFS | Gamma | U-235 | 0.0477 | 0.0578 | 0.0952 | U |
| 0217-E | FS | NFS | Gamma | U-238 | 2.743 | 5.295 | 8.961 | U |
| 0218-A | FS | NFS | Gamma | Am-241 | 0.1283 | 0.2926 | 0.4942 | U |
| 0218-A | FS | NFS | Gamma | Th-232 | 1.141 | 0.2593 | 0.418 | |
| 0218-A | FS | NFS | Gamma | U-235 | 0.5854 | 0.0592 | 0.0922 | |
| 0218-A | FS | NFS | Gamma | U-238 | 1.632 | 6.294 | 10.68 | U |
| 0218-B | FS | NFS | Gamma | Am-241 | -0.1606 | -0.3645 | 0.6212 | U |
| 0218-B | FS | NFS | Gamma | Th-232 | 0.7467 | 0.2562 | 0.4229 | |
| 0218-B | FS | NFS | Gamma | U-235 | 0.0858 | 0.0538 | 0.0898 | U |
| 0218-B | FS | NFS | Gamma | U-238 | 7.254 | 5.727 | 9.477 | U |
| 0218-C | FS | NFS | Gamma | Am-241 | 0.0702 | 0.2619 | 0.4431 | U |
| 0218-C | FS | NFS | Gamma | Th-232 | 1.907 | 0.2333 | 0.3565 | |
| 0218-C | FS | NFS | Gamma | U-235 | 0.1534 | 0.055 | 0.0908 | |
| 0218-C | FS | NFS | Gamma | U-238 | 7.451 | 5.202 | 8.454 | U |
| 0218-D | FS | NFS | Gamma | Am-241 | -0.4019 | -0.3878 | 0.6632 | U |
| 0218-D | FS | NFS | Gamma | Th-232 | 0.8768 | 0.2465 | 0.4027 | |
| 0218-D | FS | NFS | Gamma | U-235 | 0.1567 | 0.0543 | 0.0898 | |
| 0218-D | FS | NFS | Gamma | U-238 | 0.6291 | 5.542 | 9.437 | U |
| 0218-E | FS | NFS | Gamma | Am-241 | 0.1641 | 0.2489 | 0.4198 | U |
| 0218-E | FS | NFS | Gamma | Th-232 | 1.359 | 0.225 | 0.3533 | |
| 0218-E | FS | NFS | Gamma | U-235 | 0.0587 | 0.0522 | 0.0877 | U |
| 0218-E | FS | NFS | Gamma | U-238 | -6.158 | -7.174 | 12.31 | U |
| 0218-E-DUP | FD | NFS | Gamma | Am-241 | -0.0312 | -0.3599 | 0.6112 | U |
| 0218-E-DUP | FD | NFS | Gamma | Th-232 | 0.7633 | 0.2556 | 0.42 | |
| 0218-E-DUP | FD | NFS | Gamma | U-235 | 0.1364 | 0.0527 | 0.0873 | |
| 0218-E-DUP | FD | NFS | Gamma | U-238 | 3.133 | 4.597 | 10.54 | U |
| 0218-F | FS | NFS | Gamma | Am-241 | -0.3113 | -0.3378 | 0.5773 | U |
| 0218-F | FS | NFS | Gamma | Th-232 | 1.308 | 0.33 | 0.5337 | |
| 0218-F | FS | NFS | Gamma | U-235 | 0.0739 | 0.0713 | 0.1196 | U |
| 0218-F | FS | NFS | Gamma | U-238 | 6.346 | 9.847 | 16.58 | U |
| 0219-A | FS | NFS | Gamma | Am-241 | 0.2165 | 0.3543 | 0.5977 | U |
| 0219-A | FS | NFS | Gamma | Th-232 | 0.8564 | 0.2113 | 0.3356 | |
| 0219-A | FS | NFS | Gamma | U-235 | 0.2783 | 0.0507 | 0.081 | |
| 0219-A | FS | NFS | Gamma | U-238 | 0.1978 | 6.084 | 10.36 | U |
| 0219-B | FS | NFS | Gamma | Am-241 | -0.0226 | -0.2641 | 0.4483 | U |
| 0219-B | FS | NFS | Gamma | Th-232 | 1.599 | 0.2378 | 0.3673 | |
| 0219-B | FS | NFS | Gamma | U-235 | 0.0334 | 0.0566 | 0.0956 | U |
| 0219-B | FS | NFS | Gamma | U-238 | 2.643 | 6.764 | 11.46 | U |

## Survey Unit 09 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0219-C | FS | PARAGON | LSC | Tc-99 | 0.2 | 1 | 1.7 | U |
| 0219-C | FS | PARAGON | LSC | Pu-241 | 0.5 | 3 | 5 | U |
| 0219-C | FS | PARAGON | Gamma | Am-241 | -0.07 | 0.11 | 0.2 | U |
| 0219-C | FS | PARAGON | Gamma | Th-232 | 0.87 | 0.5 | 0.64 | J |
| 0219-C | FS | PARAGON | Gamma | U-235 | -0.03 | 0.33 | 0.6 | U |
| 0219-C | FS | PARAGON | Alpha | Am-241 | 0.008 | 0.016 | 0.029 | U |
| 0219-C | FS | PARAGON | Alpha | Pu-238 | 0.002 | 0.011 | 0.006 | U |
| 0219-C | FS | PARAGON | Alpha | Pu-239/240 | 0.007 | 0.011 | 0.006 | J |
| 0219-C | FS | PARAGON | Alpha | Pu-242 | 0 | 0.0099 | 0.0243 | U |
| 0219-C | FS | PARAGON | Alpha | Th-230 | 0.5 | 0.11 | 0.05 | |
| 0219-C | FS | PARAGON | Alpha | Th-232 | 0.77 | 0.15 | 0.02 | |
| 0219-C | FS | PARAGON | Alpha | U-233/234 | 1.59 | 0.32 | 0.04 | |
| 0219-C | FS | PARAGON | Alpha | U-235 | 0.039 | 0.034 | 0.036 | |
| 0219-C | FS | PARAGON | Alpha | U-238 | 0.59 | 0.15 | 0.03 | |
| 0219-C | FS | NFS | Gamma | Am-241 | 0.6347 | 0.3452 | 0.5739 | |
| 0219-C | FS | NFS | Gamma | Th-232 | 0.8699 | 0.2639 | 0.413 | |
| 0219-C | FS | NFS | Gamma | U-235 | 0.0587 | 0.0552 | 0.0927 | U |
| 0219-C | FS | NFS | Gamma | U-238 | 6.671 | 5.728 | 10.16 | U |
| 0219-D | FS | NFS | Gamma | Am-241 | -0.1852 | -0.2286 | 0.464 | U |
| 0219-D | FS | NFS | Gamma | Th-232 | 0.9614 | 0.3183 | 0.524 | |
| 0219-D | FS | NFS | Gamma | U-235 | -0.0377 | -0.0589 | 0.1003 | U |
| 0219-D | FS | NFS | Gamma | U-238 | 2.287 | 7.254 | 12.29 | U |
| 0219-E | FS | NFS | Gamma | Am-241 | -0.1813 | -0.3738 | 0.6368 | U |
| 0219-E | FS | NFS | Gamma | Th-232 | 1.14 | 0.2392 | 0.3757 | |
| 0219-E | FS | NFS | Gamma | U-235 | 0.1679 | 0.0551 | 0.0904 | |
| 0219-E | FS | NFS | Gamma | U-238 | -10.07 | -40.07 | 11.77 | U |
| 0220-A | FS | NFS | Gamma | Am-241 | -0.2313 | -0.2455 | 0.4196 | U |
| 0220-A | FS | NFS | Gamma | Th-232 | 0.7466 | 0.23 | 0.3784 | |
| 0220-A | FS | NFS | Gamma | U-235 | 0.439 | 0.0561 | 0.0894 | |
| 0220-A | FS | NFS | Gamma | U-238 | 0.0702 | 6.768 | 11.52 | U |
| 0220-B | FS | NFS | Gamma | Am-241 | 0.4876 | 0.3161 | 0.5275 | U |
| 0220-B | FS | NFS | Gamma | Th-232 | 0.7827 | 0.2119 | 0.3344 | |
| 0220-B | FS | NFS | Gamma | U-235 | -0.0035 | -0.0514 | 0.0873 | U |
| 0220-B | FS | NFS | Gamma | U-238 | 1.81 | 5.977 | 10.14 | U |
| 0220-C | FS | NFS | Gamma | Am-241 | 0.4617 | 0.3546 | 0.5999 | U |
| 0220-C | FS | NFS | Gamma | Th-232 | 1.92 | 0.4441 | 0.7319 | |
| 0220-C | FS | NFS | Gamma | U-235 | 0.0311 | 0.0571 | 0.0963 | U |
| 0220-C | FS | NFS | Gamma | U-238 | 3.766 | 5.429 | 8.871 | U |
| 0220-D | FS | NFS | Gamma | Am-241 | 0.2502 | 0.3797 | 0.6402 | U |
| 0220-D | FS | NFS | Gamma | Th-232 | 2.018 | 0.2185 | 0.3236 | |
| 0220-D | FS | NFS | Gamma | U-235 | 0.0962 | 0.0553 | 0.0924 | |
| 0220-D | FS | NFS | Gamma | U-238 | 0.3018 | 5.112 | 8.718 | U |
| 0220-D-DUP | FD | NFS | Gamma | Am-241 | -0.0021 | -0.389 | 0.6583 | U |
| 0220-D-DUP | FD | NFS | Gamma | Th-232 | 1.849 | 0.458 | 0.7555 | |
| 0220-D-DUP | FD | NFS | Gamma | U-235 | 0.0921 | 0.0588 | 0.097 | U |
| 0220-D-DUP | FD | NFS | Gamma | U-238 | -13.43 | -38.22 | 10.18 | U |
| 0220-E | FS | NFS | Gamma | Am-241 | -0.7219 | 0.4123 | 0.7082 | U |
| 0220-E | FS | NFS | Gamma | Th-232 | 1.182 | 0.2974 | 0.473 | |
| 0220-E | FS | NFS | Gamma | U-235 | 0.0516 | 0.0546 | 0.0918 | U |
| 0220-E | FS | NFS | Gamma | U-238 | -8.854 | -7.169 | 12.41 | U |
| 0221-A | FS | PARAGON | LSC | Tc-99 | 1.6 | 1.3 | 2 | U |
| 0221-A | FS | PARAGON | LSC | Pu-241 | 1.9 | 2.7 | 4.4 | U |
| 0221-A | FS | PARAGON | Gamma | Am-241 | 0.68 | 0.94 | 1.55 | U |

## Survey Unit 09 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0221-A | FS | PARAGON | Gamma | Th-232 | 0.67 | 0.38 | 0.59 | J |
| 0221-A | FS | PARAGON | Gamma | U-235 | 0.73 | 0.43 | 0.6 | J |
| 0221-A | FS | PARAGON | Alpha | Am-241 | 0.174 | 0.047 | 0.015 | |
| 0221-A | FS | PARAGON | Alpha | Pu-238 | 0.023 | 0.014 | 0.005 | J |
| 0221-A | FS | PARAGON | Alpha | Pu-239/240 | 0.57 | 0.11 | 0.01 | |
| 0221-A | FS | PARAGON | Alpha | Pu-242 | 0.018 | 0.012 | 0.013 | J |
| 0221-A | FS | PARAGON | Alpha | Th-230 | 0.58 | 0.12 | 0.05 | |
| 0221-A | FS | PARAGON | Alpha | Th-232 | 0.85 | 0.16 | 0.01 | |
| 0221-A | FS | PARAGON | Alpha | U-233/234 | 10.2 | 1.8 | 0 | |
| 0221-A | FS | PARAGON | Alpha | U-235 | 0.43 | 0.14 | 0.02 | |
| 0221-A | FS | PARAGON | Alpha | U-238 | 1.3 | 0.29 | 0.02 | |
| 0221-A | FS | NFS | Gamma | Am-241 | 0.677 | 0.3452 | 0.5763 | |
| 0221-A | FS | NFS | Gamma | Th-232 | 1.344 | 0.4325 | 0.7189 | |
| 0221-A | FS | NFS | Gamma | U-235 | 0.3373 | 0.0541 | 0.087 | |
| 0221-A | FS | NFS | Gamma | U-238 | 1.315 | 4.969 | 8.443 | U |
| 0221-A | LR | PARAGON | LSC | Tc-99 | 2.1 | 1.3 | 2 | |
| 0221-B | FS | NFS | Gamma | Am-241 | 0.2462 | 0.331 | 0.5577 | U |
| 0221-B | FS | NFS | Gamma | Th-232 | 1.367 | 0.2019 | 0.3087 | |
| 0221-B | FS | NFS | Gamma | U-235 | 0.1491 | 0.0566 | 0.0888 | |
| 0221-B | FS | NFS | Gamma | U-238 | -4.093 | -5.735 | 9.888 | U |
| 0221-C | FS | NFS | Gamma | Am-241 | 0.0863 | 0.3462 | 0.5851 | U |
| 0221-C | FS | NFS | Gamma | Th-232 | 1.812 | 0.4262 | 0.7013 | |
| 0221-C | FS | NFS | Gamma | U-235 | 0.0929 | 0.0528 | 0.0879 | |
| 0221-C | FS | NFS | Gamma | U-238 | 1.797 | 4.976 | 8.44 | U |
| 0221-D | FS | NFS | Gamma | Am-241 | 0.2212 | 0.636 | 0.6093 | U |
| 0221-D | FS | NFS | Gamma | Th-232 | 1.304 | 0.2359 | 0.3743 | |
| 0221-D | FS | NFS | Gamma | U-235 | 0.002 | 0.0545 | 0.0924 | U |
| 0221-D | FS | NFS | Gamma | U-238 | -0.0947 | -9.649 | 9.513 | U |
| 0221-E | FS | NFS | Gamma | Am-241 | -0.0855 | -0.3995 | 0.6769 | U |
| 0221-E | FS | NFS | Gamma | Th-232 | 1.609 | 0.5068 | 0.8407 | |
| 0221-E | FS | NFS | Gamma | U-235 | 0.044 | 0.0618 | 0.1039 | U |
| 0221-E | FS | NFS | Gamma | U-238 | 0.6169 | 6.193 | 10.54 | U |
| 0222-A | FS | NFS | Gamma | Am-241 | -0.1876 | -0.3673 | 0.6266 | U |
| 0222-A | FS | NFS | Gamma | Th-232 | 1.127 | 0.2078 | 0.3221 | |
| 0222-A | FS | NFS | Gamma | U-235 | 0.2377 | 0.0489 | 0.0779 | |
| 0222-A | FS | NFS | Gamma | U-238 | 1.319 | 4.851 | 8.419 | U |
| 0222-B | FS | NFS | Gamma | Am-241 | -0.1923 | -0.2579 | 0.4397 | U |
| 0222-B | FS | NFS | Gamma | Th-232 | 1.031 | 0.2165 | 0.3447 | |
| 0222-B | FS | NFS | Gamma | U-235 | 0.1956 | 0.0553 | 0.0908 | |
| 0222-B | FS | NFS | Gamma | U-238 | 4.505 | 6.02 | 9.481 | U |
| 0222-C | FS | NFS | Gamma | Am-241 | -0.1809 | -0.7817 | 1.329 | U |
| 0222-C | FS | NFS | Gamma | Th-232 | 1.979 | 0.4073 | 0.6477 | |
| 0222-C | FS | NFS | Gamma | U-235 | 0.4629 | 0.1481 | 0.2447 | |
| 0222-C | FS | NFS | Gamma | U-238 | 2.591 | 6.516 | 14.76 | U |
| 0222-D | FS | NFS | Gamma | Am-241 | -0.1948 | -0.2617 | 0.4459 | U |
| 0222-D | FS | NFS | Gamma | Th-232 | 0.9873 | 0.2339 | 0.3791 | |
| 0222-D | FS | NFS | Gamma | U-235 | 0.1 | 0.0536 | 0.0895 | |
| 0222-D | FS | NFS | Gamma | U-238 | -1.805 | -5.606 | 9.587 | U |
| 0222-D-DUP | FD | NFS | Gamma | Am-241 | -0.5367 | -0.3697 | 0.6337 | U |
| 0222-D-DUP | FD | NFS | Gamma | Th-232 | 1.314 | 0.2476 | 0.3951 | |
| 0222-D-DUP | FD | NFS | Gamma | U-235 | 0.1383 | 0.0523 | 0.0867 | |
| 0222-D-DUP | FD | NFS | Gamma | U-238 | 0.2317 | 8.48 | 9.476 | U |
| 0222-E | FS | NFS | Gamma | Am-241 | -0.4553 | -0.2718 | 0.4659 | U |

## Survey Unit 09 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0222-E | FS | NFS | Gamma | Th-232 | 1.065 | 0.2291 | 0.3668 | |
| 0222-E | FS | NFS | Gamma | U-235 | 0.1295 | 0.0533 | 0.0884 | |
| 0222-E | FS | NFS | Gamma | U-238 | -0.7048 | -5.868 | 10 | U |
| 0223-A | FS | NFS | Gamma | Am-241 | -0.5719 | -0.3273 | 0.5639 | U |
| 0223-A | FS | NFS | Gamma | Th-232 | 0.7225 | 0.2237 | 0.3649 | |
| 0223-A | FS | NFS | Gamma | U-235 | 0.3864 | 0.0522 | 0.082 | |
| 0223-A | FS | NFS | Gamma | U-238 | 7.535 | 4.367 | 7.219 | |
| 0223-B | FS | NFS | Gamma | Am-241 | 0.0988 | 0.2547 | 0.4306 | U |
| 0223-B | FS | NFS | Gamma | Th-232 | 0.9062 | 0.236 | 0.3805 | |
| 0223-B | FS | NFS | Gamma | U-235 | 0.1324 | 0.0523 | 0.0869 | |
| 0223-B | FS | NFS | Gamma | U-238 | 6.671 | 5.361 | 8.973 | U |
| 0223-C | FS | NFS | Gamma | Am-241 | -0.5445 | -0.3626 | 0.622 | U |
| 0223-C | FS | NFS | Gamma | Th-232 | 1.373 | 0.2486 | 0.3886 | |
| 0223-C | FS | NFS | Gamma | U-235 | 0.0993 | 0.0597 | 0.0932 | |
| 0223-C | FS | NFS | Gamma | U-238 | -4.06 | -6.112 | 10.51 | U |
| 0223-D | FS | NFS | Gamma | Am-241 | -0.085 | -0.4961 | 0.4389 | U |
| 0223-D | FS | NFS | Gamma | Th-232 | 1.359 | 0.2092 | 0.3249 | |
| 0223-D | FS | NFS | Gamma | U-235 | 0.164 | 0.0524 | 0.0865 | |
| 0223-D | FS | NFS | Gamma | U-238 | 0.5352 | 5.214 | 9.623 | U |
| 0224-A | FS | NFS | Gamma | Am-241 | -0.0093 | -0.3464 | 0.5884 | U |
| 0224-A | FS | NFS | Gamma | Th-232 | 0.7595 | 0.2286 | 0.369 | |
| 0224-A | FS | NFS | Gamma | U-235 | 0.2958 | 0.0513 | 0.0806 | |
| 0224-A | FS | NFS | Gamma | U-238 | -2.032 | -5.078 | 8.728 | U |
| 0224-B | FS | NFS | Gamma | Am-241 | -0.4075 | -0.2526 | 0.4336 | U |
| 0224-B | FS | NFS | Gamma | Th-232 | 0.5759 | 0.2148 | 0.3489 | |
| 0224-B | FS | NFS | Gamma | U-235 | 0.1591 | 0.0516 | 0.0844 | |
| 0224-B | FS | NFS | Gamma | U-238 | 1.546 | 5.112 | 8.681 | U |
| 0224-C | FS | PARAGON | LSC | Tc-99 | 0.7 | 1.1 | 1.8 | U |
| 0224-C | FS | PARAGON | LSC | Pu-241 | -0.5 | 3 | 5.1 | U |
| 0224-C | FS | PARAGON | Gamma | Am-241 | -0.73 | 0.65 | 1.15 | U |
| 0224-C | FS | PARAGON | Gamma | Th-232 | 0.91 | 0.33 | 0.62 | |
| 0224-C | FS | PARAGON | Gamma | U-235 | -0.4 | 0.42 | 1.07 | U |
| 0224-C | FS | PARAGON | Alpha | Am-241 | 0 | 0.016 | 0.009 | U |
| 0224-C | FS | PARAGON | Alpha | Pu-238 | 0.006 | 0.011 | 0.019 | U |
| 0224-C | FS | PARAGON | Alpha | Pu-239/240 | 0.01 | 0.011 | 0.015 | U |
| 0224-C | FS | PARAGON | Alpha | Pu-242 | 0.008 | 0.016 | 0.03 | U |
| 0224-C | FS | PARAGON | Alpha | Th-230 | 0.71 | 0.14 | 0.04 | |
| 0224-C | FS | PARAGON | Alpha | Th-232 | 1.11 | 0.2 | 0.01 | |
| 0224-C | FS | PARAGON | Alpha | U-233/234 | 1.5 | 0.31 | 0.06 | |
| 0224-C | FS | PARAGON | Alpha | U-235 | 0.106 | 0.058 | 0.043 | J |
| 0224-C | FS | PARAGON | Alpha | U-238 | 0.72 | 0.18 | 0.04 | |
| 0224-C | FS | NFS | Gamma | Am-241 | 0.0313 | 0.3468 | 0.5979 | U |
| 0224-C | FS | NFS | Gamma | Th-232 | 1.777 | 0.2585 | 0.3956 | |
| 0224-C | FS | NFS | Gamma | U-235 | 0.1384 | 0.0553 | 0.0917 | |
| 0224-C | FS | NFS | Gamma | U-238 | -3.275 | -5.899 | 10.14 | U |
| 0224-D | FS | NFS | Gamma | Am-241 | -0.5096 | -0.2842 | 0.4869 | U |
| 0224-D | FS | NFS | Gamma | Th-232 | 1.735 | 0.2414 | 0.3769 | |
| 0224-D | FS | NFS | Gamma | U-235 | 0.0853 | 0.0534 | 0.0895 | U |
| 0224-D | FS | NFS | Gamma | U-238 | -1.72 | -4.56 | 11.66 | U |
| 0224-E | FS | NFS | Gamma | Am-241 | -0.1496 | -0.4073 | 0.693 | U |
| 0224-E | FS | NFS | Gamma | Th-232 | 1.049 | 0.2735 | 0.4408 | |
| 0224-E | FS | NFS | Gamma | U-235 | 0.0962 | 0.0667 | 0.1118 | U |
| 0224-E | FS | NFS | Gamma | U-238 | 6.132 | 5.383 | 9.016 | U |

## Survey Unit 09 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0224-E-DUP | FD | NFS | Gamma | Am-241 | -0.1786 | -0.292 | 0.4972 | U |
| 0224-E-DUP | FD | NFS | Gamma | Th-232 | 1.167 | 0.2908 | 0.4721 | |
| 0224-E-DUP | FD | NFS | Gamma | U-235 | 0.0238 | 0.0587 | 0.0987 | U |
| 0224-E-DUP | FD | NFS | Gamma | U-238 | -2.092 | -7.806 | 13.3 | U |
| 0225-A | FS | PARAGON | LSC | Tc-99 | 0.3 | 1.2 | 1.9 | U |
| 0225-A | FS | PARAGON | LSC | Pu-241 | 0.3 | 2.6 | 4.4 | U |
| 0225-A | FS | PARAGON | Gamma | Am-241 | 0.1 | 0.51 | 0.9 | U |
| 0225-A | FS | PARAGON | Gamma | Th-232 | 0.96 | 0.52 | 0.6 | J |
| 0225-A | FS | PARAGON | Gamma | U-235 | 0.4 | 0.4 | 0.64 | U |
| 0225-A | FS | PARAGON | Alpha | Am-241 | 0.031 | 0.017 | 0.014 | |
| 0225-A | FS | PARAGON | Alpha | Pu-238 | 0.0052 | 0.0086 | 0.0047 | J |
| 0225-A | FS | PARAGON | Alpha | Pu-239/240 | 0.047 | 0.02 | 0.013 | |
| 0225-A | FS | PARAGON | Alpha | Pu-242 | 0.007 | 0.01 | 0.018 | U |
| 0225-A | FS | PARAGON | Alpha | Th-230 | 0.319 | 0.073 | 0.043 | |
| 0225-A | FS | PARAGON | Alpha | Th-232 | 0.56 | 0.11 | 0.01 | |
| 0225-A | FS | PARAGON | Alpha | U-233/234 | 7.9 | 1.5 | 0.1 | |
| 0225-A | FS | PARAGON | Alpha | U-235 | 0.22 | 0.11 | 0.03 | |
| 0225-A | FS | PARAGON | Alpha | U-238 | 1.05 | 0.28 | 0.05 | |
| 0225-A | FS | NFS | Gamma | Am-241 | 0.108 | 0.3793 | 0.6419 | U |
| 0225-A | FS | NFS | Gamma | Th-232 | 0.6541 | 0.247 | 0.4072 | |
| 0225-A | FS | NFS | Gamma | U-235 | 0.4403 | 0.0621 | 0.0986 | |
| 0225-A | FS | NFS | Gamma | U-238 | -0.9265 | -5.64 | 7.941 | U |
| 0225-A | LR | PARAGON | Gamma | Am-241 | 0.06 | 0.13 | 0.22 | U |
| 0225-A | LR | PARAGON | Gamma | Th-232 | 0.82 | 0.36 | 0.62 | J |
| 0225-A | LR | PARAGON | Gamma | U-235 | 0.41 | 0.41 | 0.65 | U |
| 0225-A | LR | PARAGON | Alpha | Am-241 | 0.04 | 0.021 | 0.02 | |
| 0225-A | LR | PARAGON | Alpha | Pu-238 | -0.0019 | 0.0092 | 0.0137 | U |
| 0225-A | LR | PARAGON | Alpha | Pu-239/240 | 0.052 | 0.021 | 0.005 | |
| 0225-A | LR | PARAGON | Alpha | U-233/234 | 6.7 | 1.2 | 0.1 | |
| 0225-A | LR | PARAGON | Alpha | U-235 | 0.191 | 0.086 | 0.057 | |
| 0225-A | LR | PARAGON | Alpha | U-238 | 0.8 | 0.2 | 0.05 | |
| 0225-B | FS | NFS | Gamma | Am-241 | -0.506 | -0.2585 | 0.4441 | U |
| 0225-B | FS | NFS | Gamma | Th-232 | 1.015 | 0.2046 | 0.324 | |
| 0225-B | FS | NFS | Gamma | U-235 | 0.3547 | 0.0513 | 0.082 | |
| 0225-B | FS | NFS | Gamma | U-238 | 2.462 | 6.303 | 10.5 | U |
| 0225-C | FS | NFS | Gamma | Am-241 | 0.554 | 0.3851 | 0.6436 | U |
| 0225-C | FS | NFS | Gamma | Th-232 | 1.528 | 0.256 | 0.401 | |
| 0225-C | FS | NFS | Gamma | U-235 | 0.0692 | 0.0714 | 0.117 | U |
| 0225-C | FS | NFS | Gamma | U-238 | -2.848 | -5.865 | 10.09 | U |
| 0225-D | FS | NFS | Gamma | Am-241 | -0.0785 | -0.2815 | 0.4782 | U |
| 0225-D | FS | NFS | Gamma | Th-232 | 1.004 | 0.2356 | 0.3804 | |
| 0225-D | FS | NFS | Gamma | U-235 | 0.1334 | 0.0529 | 0.0878 | |
| 0225-D | FS | NFS | Gamma | U-238 | 2.62 | 6.534 | 11.06 | U |
| 0225-E | FS | NFS | Gamma | Am-241 | -0.4223 | -0.3626 | 0.6206 | U |
| 0225-E | FS | NFS | Gamma | Th-232 | 0.9097 | 0.2572 | 0.4179 | |
| 0225-E | FS | NFS | Gamma | U-235 | 0.1098 | 0.0621 | 0.1039 | |
| 0225-E | FS | NFS | Gamma | U-238 | -5.517 | -5.456 | 9.448 | U |
| 0226-A | FS | NFS | Gamma | Am-241 | 0.3052 | 0.243 | 0.4074 | U |
| 0226-A | FS | NFS | Gamma | Th-232 | 0.5481 | 0.2013 | 0.3295 | |
| 0226-A | FS | NFS | Gamma | U-235 | 0.0977 | 0.0478 | 0.0795 | |
| 0226-A | FS | NFS | Gamma | U-238 | -0.7531 | -6.427 | 10.95 | U |
| 0226-B | FS | NFS | Gamma | Am-241 | 0.1267 | 0.3369 | 0.5697 | U |
| 0226-B | FS | NFS | Gamma | Th-232 | 0.993 | 0.1866 | 0.2936 | |

## Survey Unit 09 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0226-B | FS | NFS | Gamma | U-235 | 0.1439 | 0.055 | 0.0913 | |
| 0226-B | FS | NFS | Gamma | U-238 | 3.723 | 4.168 | 6.942 | U |
| 0226-C | FS | NFS | Gamma | Am-241 | -0.0087 | -0.3088 | 0.5235 | U |
| 0226-C | FS | NFS | Gamma | Th-232 | 1.644 | 0.2828 | 0.4546 | |
| 0226-C | FS | NFS | Gamma | U-235 | 0.121 | 0.062 | 0.1033 | |
| 0226-C | FS | NFS | Gamma | U-238 | -1.712 | -6.415 | 14.32 | U |
| 0226-D | FS | NFS | Gamma | Am-241 | 0.0121 | 0.3651 | 0.6192 | U |
| 0226-D | FS | NFS | Gamma | Th-232 | 1.004 | 0.2383 | 0.3789 | |
| 0226-D | FS | NFS | Gamma | U-235 | 0.142 | 0.0644 | 0.1053 | |
| 0226-D | FS | NFS | Gamma | U-238 | -0.9062 | -5.071 | 8.688 | U |
| 0226-E | FS | NFS | Gamma | Am-241 | -0.2019 | -0.2755 | 0.4694 | U |
| 0226-E | FS | NFS | Gamma | Th-232 | 1.542 | 0.2129 | 0.3278 | |
| 0226-E | FS | NFS | Gamma | U-235 | 0.0363 | 0.0548 | 0.0922 | U |
| 0226-E | FS | NFS | Gamma | U-238 | 4.595 | 6.248 | 10.37 | U |
| 0226-E-DUP | FD | NFS | Gamma | Am-241 | -0.1873 | -0.355 | 0.6048 | U |
| 0226-E-DUP | FD | NFS | Gamma | Th-232 | 1.387 | 0.2336 | 0.369 | |
| 0226-E-DUP | FD | NFS | Gamma | U-235 | 0.1389 | 0.0642 | 0.105 | |
| 0226-E-DUP | FD | NFS | Gamma | U-238 | -1.346 | -7.197 | 8.754 | U |
| 0226-F | FS | NFS | Gamma | Am-241 | -0.3206 | -0.2944 | 0.5033 | U |
| 0226-F | FS | NFS | Gamma | Th-232 | 1.099 | 0.3001 | 0.4885 | |
| 0226-F | FS | NFS | Gamma | U-235 | -0.0155 | -0.0618 | 0.1055 | U |
| 0226-F | FS | NFS | Gamma | U-238 | 0.5042 | 8.22 | 13.96 | U |
| 0226-F-DUP | FD | NFS | Gamma | Am-241 | 0.101 | 0.3878 | 0.6566 | U |
| 0226-F-DUP | FD | NFS | Gamma | Th-232 | 1.033 | 0.2832 | 0.4604 | |
| 0226-F-DUP | FD | NFS | Gamma | U-235 | 0.1595 | 0.0726 | 0.1175 | |
| 0226-F-DUP | FD | NFS | Gamma | U-238 | -1.767 | -7.459 | 10.94 | U |
| 0227-A | FS | NFS | Gamma | Am-241 | 0.2818 | 0.2791 | 0.4693 | U |
| 0227-A | FS | NFS | Gamma | Th-232 | 0.763 | 0.2173 | 0.3518 | |
| 0227-A | FS | NFS | Gamma | U-235 | 0.2223 | 0.0517 | 0.0844 | |
| 0227-A | FS | NFS | Gamma | U-238 | -3.48 | -5.316 | 9.158 | U |
| 0227-B | FS | PARAGON | LSC | Tc-99 | -0.12 | 0.96 | 1.63 | U |
| 0227-B | FS | PARAGON | LSC | Pu-241 | -0.4 | 2.6 | 4.4 | U |
| 0227-B | FS | PARAGON | Gamma | Am-241 | 0.1 | 0.71 | 1.29 | U |
| 0227-B | FS | PARAGON | Gamma | Th-232 | 0.76 | 0.47 | 0.64 | J |
| 0227-B | FS | PARAGON | Gamma | U-235 | 0.22 | 0.31 | 0.51 | U |
| 0227-B | FS | PARAGON | Alpha | Am-241 | 0.008 | 0.01 | 0.006 | J |
| 0227-B | FS | PARAGON | Alpha | Pu-238 | -0.004 | 0.0097 | 0.0183 | U |
| 0227-B | FS | PARAGON | Alpha | Pu-239/240 | 0 | 0.011 | 0.024 | U |
| 0227-B | FS | PARAGON | Alpha | Pu-242 | 0.0028 | 0.0093 | 0.0205 | U |
| 0227-B | FS | PARAGON | Alpha | Th-230 | 0.464 | 0.098 | 0.042 | |
| 0227-B | FS | PARAGON | Alpha | Th-232 | 0.61 | 0.12 | 0.02 | |
| 0227-B | FS | PARAGON | Alpha | U-233/234 | 0.6 | 0.15 | 0.05 | |
| 0227-B | FS | PARAGON | Alpha | U-235 | 0.043 | 0.036 | 0.042 | |
| 0227-B | FS | PARAGON | Alpha | U-238 | 0.35 | 0.11 | 0.02 | |
| 0227-B | FS | NFS | Gamma | Am-241 | 0.1795 | 0.3189 | 0.5384 | U |
| 0227-B | FS | NFS | Gamma | Th-232 | 1.027 | 0.2017 | 0.3181 | |
| 0227-B | FS | NFS | Gamma | U-235 | 0.0351 | 0.061 | 0.088 | U |
| 0227-B | FS | NFS | Gamma | U-238 | 1.705 | 5.359 | 9.101 | U |
| 0227-B | LR | PARAGON | LSC | Pu-241 | 0.5 | 3 | 5 | U |
| 0227-B | LR | PARAGON | Alpha | Pu-242 | 0.0077 | 0.0095 | 0.0143 | U |
| 0227-B | LR | PARAGON | Alpha | Th-230 | 0.457 | 0.097 | 0.044 | R |
| 0227-B | LR | PARAGON | Alpha | Th-232 | 0.59 | 0.12 | 0.02 | |
| 0227-C | FS | NFS | Gamma | Am-241 | -0.2376 | -0.3205 | 0.5454 | U |

## Survey Unit 09 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0227-C | FS | NFS | Gamma | Th-232 | 1.309 | 0.2678 | 0.4313 | |
| 0227-C | FS | NFS | Gamma | U-235 | 0.095 | 0.0557 | 0.0931 | |
| 0227-C | FS | NFS | Gamma | U-238 | 5.543 | 5.334 | 8.954 | U |
| 0227-D | FS | NFS | Gamma | Am-241 | 0.4716 | 0.362 | 0.6063 | U |
| 0227-D | FS | NFS | Gamma | Th-232 | 1.876 | 0.2605 | 0.4032 | |
| 0227-D | FS | NFS | Gamma | U-235 | 0.168 | 0.0607 | 0.0979 | |
| 0227-D | FS | NFS | Gamma | U-238 | 3.289 | 6.392 | 10.11 | U |
| 0227-E | FS | NFS | Gamma | Am-241 | 0.4283 | 0.3078 | 0.5163 | U |
| 0227-E | FS | NFS | Gamma | Th-232 | 1.484 | 0.2765 | 0.4424 | |
| 0227-E | FS | NFS | Gamma | U-235 | 0.1137 | 0.0568 | 0.0947 | |
| 0227-E | FS | NFS | Gamma | U-238 | -2.087 | -6.232 | 10.65 | U |
| 0228-A | FS | NFS | Gamma | Am-241 | -0.4077 | -0.3326 | 0.571 | U |
| 0228-A | FS | NFS | Gamma | Th-232 | 0.6082 | 0.2219 | 0.3638 | |
| 0228-A | FS | NFS | Gamma | U-235 | 0.3163 | 0.0515 | 0.0815 | |
| 0228-A | FS | NFS | Gamma | U-238 | 0.9567 | 5.541 | 9.433 | U |
| 0228-B | FS | NFS | Gamma | Am-241 | 0.0885 | 0.3197 | 0.5406 | U |
| 0228-B | FS | NFS | Gamma | Th-232 | 1.184 | 0.2668 | 0.4286 | |
| 0228-B | FS | NFS | Gamma | U-235 | 0.1825 | 0.0586 | 0.0968 | |
| 0228-B | FS | NFS | Gamma | U-238 | 5.389 | 5.505 | 9.249 | U |
| 0228-C | FS | NFS | Gamma | Am-241 | 0.2341 | 0.3484 | 0.5873 | U |
| 0228-C | FS | NFS | Gamma | Th-232 | 0.8059 | 0.2387 | 0.3845 | |
| 0228-C | FS | NFS | Gamma | U-235 | 0.2564 | 0.0518 | 0.0822 | |
| 0228-C | FS | NFS | Gamma | U-238 | -2.825 | -6.108 | 10.47 | U |
| 0228-D | FS | NFS | Gamma | Am-241 | 0.0807 | 0.3087 | 0.522 | U |
| 0228-D | FS | NFS | Gamma | Th-232 | 1.595 | 0.2418 | 0.3792 | |
| 0228-D | FS | NFS | Gamma | U-235 | 0.1112 | 0.0534 | 0.0889 | |
| 0228-D | FS | NFS | Gamma | U-238 | 2.021 | 7.563 | 9.165 | U |
| 0228-E | FS | NFS | Gamma | Am-241 | 0.3814 | 0.3701 | 0.6215 | U |
| 0228-E | FS | NFS | Gamma | Th-232 | 1.357 | 0.2264 | 0.3536 | |
| 0228-E | FS | NFS | Gamma | U-235 | 0.1461 | 0.0523 | 0.0866 | |
| 0228-E | FS | NFS | Gamma | U-238 | 1.765 | 6.008 | 10.19 | U |
| 0228-E-DUP | FD | NFS | Gamma | Am-241 | 0.0938 | 0.3246 | 0.5486 | U |
| 0228-E-DUP | FD | NFS | Gamma | Th-232 | 0.8094 | 0.2872 | 0.4736 | |
| 0228-E-DUP | FD | NFS | Gamma | U-235 | 0.1619 | 0.0557 | 0.0922 | |
| 0228-E-DUP | FD | NFS | Gamma | U-238 | 3.8 | 5.311 | 8.934 | U |
| 0229-A | FS | PARAGON | LSC | Tc-99 | 0.37 | 0.96 | 1.6 | U |
| 0229-A | FS | PARAGON | LSC | Pu-241 | -0.5 | 2.7 | 4.5 | U |
| 0229-A | FS | PARAGON | Gamma | Am-241 | 0.02 | 0.58 | 0.99 | U |
| 0229-A | FS | PARAGON | Gamma | Th-232 | 0.64 | 0.26 | 0.51 | |
| 0229-A | FS | PARAGON | Gamma | U-235 | -0.15 | 0.36 | 0.64 | U |
| 0229-A | FS | PARAGON | Alpha | Am-241 | 0.065 | 0.025 | 0.006 | |
| 0229-A | FS | PARAGON | Alpha | Pu-238 | 0.007 | 0.0086 | 0.0047 | J |
| 0229-A | FS | PARAGON | Alpha | Pu-239/240 | 0.139 | 0.038 | 0.013 | |
| 0229-A | FS | PARAGON | Alpha | Pu-242 | 0.023 | 0.015 | 0.015 | |
| 0229-A | FS | PARAGON | Alpha | Th-230 | 0.56 | 0.11 | 0.04 | |
| 0229-A | FS | PARAGON | Alpha | Th-232 | 0.73 | 0.14 | 0.01 | |
| 0229-A | FS | PARAGON | Alpha | U-233/234 | 7.1 | 1.2 | 0 | |
| 0229-A | FS | PARAGON | Alpha | U-235 | 0.203 | 0.08 | 0.04 | |
| 0229-A | FS | PARAGON | Alpha | U-238 | 0.83 | 0.19 | 0.04 | |
| 0229-A | FS | NFS | Gamma | Am-241 | 0.1568 | 0.3129 | 0.5286 | U |
| 0229-A | FS | NFS | Gamma | Th-232 | 0.9328 | 0.2186 | 0.3464 | |
| 0229-A | FS | NFS | Gamma | U-235 | 0.2017 | 0.0545 | 0.0892 | |
| 0229-A | FS | NFS | Gamma | U-238 | 1.689 | 5.309 | 9.015 | U |

## Survey Unit 09 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0229-A-DUP | FD | PARAGON | LSC | Tc-99 | -0.36 | 0.9 | 1.53 | U |
| 0229-A-DUP | FD | PARAGON | LSC | Pu-241 | 2.4 | 2.8 | 4.5 | U |
| 0229-A-DUP | FD | PARAGON | Gamma | Am-241 | 0 | 0.4 | 0.74 | U |
| 0229-A-DUP | FD | PARAGON | Gamma | Th-232 | 0.59 | 0.48 | 0.69 | U |
| 0229-A-DUP | FD | PARAGON | Gamma | U-235 | 0.23 | 0.36 | 0.59 | U |
| 0229-A-DUP | FD | PARAGON | Alpha | Am-241 | 0.06 | 0.024 | 0.014 | |
| 0229-A-DUP | FD | PARAGON | Alpha | Pu-238 | 0.0097 | 0.0096 | 0.0053 | J |
| 0229-A-DUP | FD | PARAGON | Alpha | Pu-239/240 | 0.169 | 0.046 | 0.018 | |
| 0229-A-DUP | FD | PARAGON | Alpha | Pu-242 | 0.018 | 0.015 | 0.022 | U |
| 0229-A-DUP | FD | PARAGON | Alpha | Th-230 | 0.5 | 0.1 | 0.04 | |
| 0229-A-DUP | FD | PARAGON | Alpha | Th-232 | 0.62 | 0.12 | 0.01 | |
| 0229-A-DUP | FD | PARAGON | Alpha | U-233/234 | 7.4 | 1.3 | 0 | |
| 0229-A-DUP | FD | PARAGON | Alpha | U-235 | 0.238 | 0.09 | 0.036 | |
| 0229-A-DUP | FD | PARAGON | Alpha | U-238 | 0.9 | 0.21 | 0.04 | |
| 0229-B | FS | NFS | Gamma | Am-241 | 0.2713 | 0.2945 | 0.4955 | U |
| 0229-B | FS | NFS | Gamma | Th-232 | 1.256 | 0.2275 | 0.3585 | |
| 0229-B | FS | NFS | Gamma | U-235 | 0.2072 | 0.0535 | 0.0879 | |
| 0229-B | FS | NFS | Gamma | U-238 | 2.72 | 5.557 | 9.17 | U |
| 0229-C | FS | NFS | Gamma | Am-241 | -0.2974 | -0.3909 | 0.6673 | U |
| 0229-C | FS | NFS | Gamma | Th-232 | 1.547 | 0.25 | 0.3932 | |
| 0229-C | FS | NFS | Gamma | U-235 | 0.0654 | 0.0578 | 0.0971 | U |
| 0229-C | FS | NFS | Gamma | U-238 | 1.092 | 6.41 | 10.89 | U |
| 0229-D | FS | NFS | Gamma | Am-241 | 0.1412 | 0.3009 | 0.508 | U |
| 0229-D | FS | NFS | Gamma | Th-232 | 1.143 | 0.2404 | 0.3863 | |
| 0229-D | FS | NFS | Gamma | U-235 | 0.0296 | 0.052 | 0.0877 | U |
| 0229-D | FS | NFS | Gamma | U-238 | -4.322 | -5.808 | 9.98 | U |
| 0229-E | FS | NFS | Gamma | Am-241 | 0.2562 | 0.3658 | 0.6166 | U |
| 0229-E | FS | NFS | Gamma | Th-232 | 0.66 | 0.2309 | 0.3776 | |
| 0229-E | FS | NFS | Gamma | U-235 | 0.117 | 0.0549 | 0.0886 | |
| 0229-E | FS | NFS | Gamma | U-238 | 0.1242 | 6.211 | 11.52 | U |
| 0230-A | FS | NFS | Gamma | Am-241 | 0.2394 | 0.2696 | 0.4795 | U |
| 0230-A | FS | NFS | Gamma | Th-232 | 0.6396 | 0.2648 | 0.4378 | |
| 0230-A | FS | NFS | Gamma | U-235 | 0.2196 | 0.0513 | 0.0839 | |
| 0230-A | FS | NFS | Gamma | U-238 | -3.241 | -5.226 | 9.702 | U |
| 0230-B | FS | NFS | Gamma | Am-241 | 0.7568 | 0.379 | 0.6294 | |
| 0230-B | FS | NFS | Gamma | Th-232 | 1.371 | 0.3077 | 0.4837 | |
| 0230-B | FS | NFS | Gamma | U-235 | 0.0241 | 0.0644 | 0.1089 | U |
| 0230-B | FS | NFS | Gamma | U-238 | 1.124 | 6.854 | 11.66 | U |
| 0230-C | FS | NFS | Gamma | Am-241 | 0.7607 | 0.29 | 0.4803 | |
| 0230-C | FS | NFS | Gamma | Th-232 | 1.065 | 0.2526 | 0.4084 | |
| 0230-C | FS | NFS | Gamma | U-235 | 0.0902 | 0.0549 | 0.0918 | U |
| 0230-C | FS | NFS | Gamma | U-238 | -0.1946 | -7.077 | 9.782 | U |
| 0230-D | FS | NFS | Gamma | Am-241 | -0.2738 | -0.3472 | 0.5922 | U |
| 0230-D | FS | NFS | Gamma | Th-232 | 1.328 | 0.2518 | 0.4019 | |
| 0230-D | FS | NFS | Gamma | U-235 | 0.1276 | 0.0538 | 0.0895 | |
| 0230-D | FS | NFS | Gamma | U-238 | -8.85 | -6.502 | 11.23 | U |
| 0230-D-DUP | FD | NFS | Gamma | Am-241 | 0.2093 | 0.2988 | 0.5036 | U |
| 0230-D-DUP | FD | NFS | Gamma | Th-232 | 1.058 | 0.2631 | 0.4283 | |
| 0230-D-DUP | FD | NFS | Gamma | U-235 | 0.0198 | 0.0548 | 0.0924 | U |
| 0230-D-DUP | FD | NFS | Gamma | U-238 | 0.8215 | 5.278 | 8.971 | U |
| 0230-E | FS | NFS | Gamma | Am-241 | 0.2742 | 0.3755 | 0.6327 | U |
| 0230-E | FS | NFS | Gamma | Th-232 | 0.7071 | 0.2742 | 0.442 | |
| 0230-E | FS | NFS | Gamma | U-235 | 0.1443 | 0.0579 | 0.095 | |

## Survey Unit 09 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0230-E | FS | NFS | Gamma | U-238 | 8.479 | 5.848 | 9.75 | U |
| 0231-A | FS | NFS | Gamma | Am-241 | -0.1345 | -0.2642 | 0.4499 | U |
| 0231-A | FS | NFS | Gamma | Th-232 | 1.138 | 0.2063 | 0.324 | |
| 0231-A | FS | NFS | Gamma | U-235 | 0.6144 | 0.0548 | 0.0839 | |
| 0231-A | FS | NFS | Gamma | U-238 | -1.07 | -8.338 | 8.603 | U |
| 0231-B | FS | NFS | Gamma | Am-241 | -0.1117 | -0.3358 | 0.5721 | U |
| 0231-B | FS | NFS | Gamma | Th-232 | 0.421 | 0.2345 | 0.3861 | |
| 0231-B | FS | NFS | Gamma | U-235 | 0.5333 | 0.0572 | 0.087 | |
| 0231-B | FS | NFS | Gamma | U-238 | 1.134 | 5.2 | 9.572 | U |
| 0231-D | FS | NFS | Gamma | Am-241 | -0.2733 | -0.2782 | 0.4755 | U |
| 0231-D | FS | NFS | Gamma | Th-232 | 1.049 | 0.2634 | 0.424 | |
| 0231-D | FS | NFS | Gamma | U-235 | 0.2135 | 0.0567 | 0.0929 | |
| 0231-D | FS | NFS | Gamma | U-238 | -2.079 | -5.305 | 9.957 | U |
| 0231-E | FS | NFS | Gamma | Am-241 | -0.9184 | -0.3591 | 0.6196 | U |
| 0231-E | FS | NFS | Gamma | Th-232 | 1.163 | 0.2715 | 0.4358 | |
| 0231-E | FS | NFS | Gamma | U-235 | 0.1226 | 0.0579 | 0.0928 | |
| 0231-E | FS | NFS | Gamma | U-238 | -0.8548 | -6.886 | 9.448 | U |
| 0232-A | FS | NFS | Gamma | Am-241 | -0.3669 | -0.2606 | 0.4469 | U |
| 0232-A | FS | NFS | Gamma | Th-232 | 0.5239 | 0.2359 | 0.3903 | |
| 0232-A | FS | NFS | Gamma | U-235 | 0.2979 | 0.0526 | 0.0848 | |
| 0232-A | FS | NFS | Gamma | U-238 | -4.41 | -5.258 | 9.074 | U |
| 0232-B | FS | NFS | Gamma | Am-241 | -0.1076 | -0.3549 | 0.605 | U |
| 0232-B | FS | NFS | Gamma | Th-232 | 0.9062 | 0.246 | 0.3986 | |
| 0232-B | FS | NFS | Gamma | U-235 | 0.0856 | 0.0566 | 0.0947 | U |
| 0232-B | FS | NFS | Gamma | U-238 | 2.052 | 5.127 | 8.705 | U |
| 0232-C | FS | PARAGON | LSC | Tc-99 | -0.4 | 1 | 1.7 | U |
| 0232-C | FS | PARAGON | LSC | Pu-241 | 0 | 2.7 | 4.6 | U |
| 0232-C | FS | PARAGON | Gamma | Am-241 | 0.04 | 0.12 | 0.21 | U |
| 0232-C | FS | PARAGON | Gamma | Th-232 | 1.34 | 0.48 | 0.84 | J |
| 0232-C | FS | PARAGON | Gamma | U-235 | -0.15 | 0.42 | 0.79 | U |
| 0232-C | FS | PARAGON | Alpha | Am-241 | -0.003 | 0.014 | 0.026 | U |
| 0232-C | FS | PARAGON | Alpha | Pu-238 | 0.011 | 0.012 | 0.016 | U |
| 0232-C | FS | PARAGON | Alpha | Pu-239/240 | 0.015 | 0.013 | 0.016 | U |
| 0232-C | FS | PARAGON | Alpha | Pu-242 | 0.019 | 0.015 | 0.019 | |
| 0232-C | FS | PARAGON | Alpha | Th-230 | 1.02 | 0.2 | 0.05 | |
| 0232-C | FS | PARAGON | Alpha | Th-232 | 1.4 | 0.26 | 0.02 | |
| 0232-C | FS | PARAGON | Alpha | U-233/234 | 1.37 | 0.29 | 0.05 | |
| 0232-C | FS | PARAGON | Alpha | U-235 | 0.031 | 0.031 | 0.035 | U |
| 0232-C | FS | PARAGON | Alpha | U-238 | 0.81 | 0.19 | 0.05 | |
| 0232-C | FS | NFS | Gamma | Am-241 | -0.3746 | -0.3245 | 0.5545 | U |
| 0232-C | FS | NFS | Gamma | Th-232 | 1.789 | 0.2812 | 0.4466 | |
| 0232-C | FS | NFS | Gamma | U-235 | 0.0705 | 0.0602 | 0.1011 | U |
| 0232-C | FS | NFS | Gamma | U-238 | -1.282 | -8.369 | 11.1 | U |
| 0232-D | FS | NFS | Gamma | Am-241 | -0.4943 | -0.3556 | 0.6105 | U |
| 0232-D | FS | NFS | Gamma | Th-232 | 1.305 | 0.2766 | 0.4444 | |
| 0232-D | FS | NFS | Gamma | U-235 | 0.0719 | 0.0635 | 0.102 | U |
| 0232-D | FS | NFS | Gamma | U-238 | -2.184 | -7.847 | 9.904 | U |
| 0232-E | FS | NFS | Gamma | Am-241 | -0.6377 | -0.3257 | 0.5598 | U |
| 0232-E | FS | NFS | Gamma | Th-232 | 1.075 | 0.3187 | 0.5227 | |
| 0232-E | FS | NFS | Gamma | U-235 | 0.1029 | 0.0617 | 0.1033 | U |
| 0232-E | FS | NFS | Gamma | U-238 | 10.8 | 5.714 | 9.45 | |
| 0232-E-DUP | FD | NFS | Gamma | Am-241 | -0.2535 | -0.3838 | 0.6557 | U |
| 0232-E-DUP | FD | NFS | Gamma | Th-232 | 1.463 | 0.3116 | 0.4954 | |

## Survey Unit 09 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0232-E-DUP | FD | NFS | Gamma | U-235 | 0.0292 | 0.071 | 0.12 | U |
| 0232-E-DUP | FD | NFS | Gamma | U-238 | 0.7503 | 9.14 | 12.32 | U |
| 0233-A | FS | PARAGON | LSC | Tc-99 | 0.35 | 0.83 | 1.39 | UJ |
| 0233-A | FS | PARAGON | LSC | Pu-241 | 1 | 3 | 5 | U |
| 0233-A | FS | PARAGON | Gamma | Am-241 | 0.02 | 0.55 | 0.97 | U |
| 0233-A | FS | PARAGON | Gamma | Th-232 | 0.6 | 0.3 | 0.57 | J |
| 0233-A | FS | PARAGON | Gamma | U-235 | 0.17 | 0.26 | 0.44 | U |
| 0233-A | FS | PARAGON | Alpha | Am-241 | 0.022 | 0.016 | 0.018 | |
| 0233-A | FS | PARAGON | Alpha | Pu-238 | 0.0018 | 0.009 | 0.017 | U |
| 0233-A | FS | PARAGON | Alpha | Pu-239/240 | 0.035 | 0.02 | 0.022 | |
| 0233-A | FS | PARAGON | Alpha | Pu-242 | 0.023 | 0.015 | 0.006 | |
| 0233-A | FS | PARAGON | Alpha | Th-230 | 0.52 | 0.11 | 0.04 | |
| 0233-A | FS | PARAGON | Alpha | Th-232 | 0.59 | 0.12 | 0.02 | |
| 0233-A | FS | PARAGON | Alpha | U-233/234 | 3.39 | 0.62 | 0.06 | |
| 0233-A | FS | PARAGON | Alpha | U-235 | 0.105 | 0.056 | 0.035 | |
| 0233-A | FS | PARAGON | Alpha | U-238 | 0.66 | 0.16 | 0.04 | |
| 0233-A | FS | NFS | Gamma | Am-241 | -0.8833 | -0.2758 | 0.4778 | U |
| 0233-A | FS | NFS | Gamma | Th-232 | 0.6743 | 0.2702 | 0.4463 | |
| 0233-A | FS | NFS | Gamma | U-235 | 0.1102 | 0.0537 | 0.089 | |
| 0233-A | FS | NFS | Gamma | U-238 | -4.735 | -5.39 | 9.314 | U |
| 0233-A | LR | PARAGON | LSC | Tc-99 | 1.02 | 0.91 | 1.45 | U |
| 0233-B | FS | NFS | Gamma | Am-241 | -0.702 | -0.3859 | 0.6646 | U |
| 0233-B | FS | NFS | Gamma | Th-232 | 1.228 | 0.2831 | 0.4517 | |
| 0233-B | FS | NFS | Gamma | U-235 | 0.0806 | 0.0637 | 0.1059 | U |
| 0233-B | FS | NFS | Gamma | U-238 | 6.883 | 5.371 | 9.297 | U |
| 0233-C | FS | NFS | Gamma | Am-241 | 0.4311 | 0.311 | 0.5338 | U |
| 0233-C | FS | NFS | Gamma | Th-232 | 2.096 | 0.3041 | 0.4769 | |
| 0233-C | FS | NFS | Gamma | U-235 | 0.0859 | 0.0666 | 0.1119 | U |
| 0233-C | FS | NFS | Gamma | U-238 | 7.679 | 6.744 | 14.8 | U |
| 0233-D | FS | NFS | Gamma | Am-241 | -0.6084 | -0.4018 | 0.6886 | U |
| 0233-D | FS | NFS | Gamma | Th-232 | 1.303 | 0.2871 | 0.4547 | |
| 0233-D | FS | NFS | Gamma | U-235 | 0.1443 | 0.0569 | 0.0943 | |
| 0233-D | FS | NFS | Gamma | U-238 | -0.6142 | -5.671 | 9.689 | U |
| 0233-E | FS | NFS | Gamma | Am-241 | -0.0079 | -0.278 | 0.4713 | U |
| 0233-E | FS | NFS | Gamma | Th-232 | 1.416 | 0.2318 | 0.3638 | |
| 0233-E | FS | NFS | Gamma | U-235 | 0.0619 | 0.0534 | 0.0897 | U |
| 0233-E | FS | NFS | Gamma | U-238 | 3.246 | 7.368 | 12.46 | U |
| 0233-F | FS | NFS | Gamma | Am-241 | -0.7246 | -0.4207 | 0.7225 | U |
| 0233-F | FS | NFS | Gamma | Th-232 | 1.325 | 0.2844 | 0.4532 | |
| 0233-F | FS | NFS | Gamma | U-235 | 0.1134 | 0.0614 | 0.1024 | |
| 0233-F | FS | NFS | Gamma | U-238 | 4.203 | 5.795 | 9.777 | U |
| 0234-A | FS | NFS | Gamma | Am-241 | 0.2322 | 0.2661 | 0.4479 | U |
| 0234-A | FS | NFS | Gamma | Th-232 | 1.143 | 0.2588 | 0.4172 | |
| 0234-A | FS | NFS | Gamma | U-235 | 0.3066 | 0.0546 | 0.0884 | |
| 0234-A | FS | NFS | Gamma | U-238 | 4.846 | 7.54 | 12.72 | U |
| 0234-B | FS | NFS | Gamma | Am-241 | -0.6808 | -0.371 | 0.6375 | U |
| 0234-B | FS | NFS | Gamma | Th-232 | 1.489 | 0.2494 | 0.3934 | |
| 0234-B | FS | NFS | Gamma | U-235 | 0.3924 | 0.0597 | 0.0948 | |
| 0234-B | FS | NFS | Gamma | U-238 | 4.921 | 5.924 | 8.116 | U |
| 0234-C | FS | NFS | Gamma | Am-241 | -0.1106 | -0.2893 | 0.4916 | U |
| 0234-C | FS | NFS | Gamma | Th-232 | 1.835 | 0.2429 | 0.3746 | |
| 0234-C | FS | NFS | Gamma | U-235 | 0.1811 | 0.0542 | 0.0895 | |
| 0234-C | FS | NFS | Gamma | U-238 | 14.72 | 6.607 | 10.94 | |

## Survey Unit 09 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0234-D | FS | NFS | Gamma | Am-241 | -0.5433 | -0.3975 | 0.6802 | U |
| 0234-D | FS | NFS | Gamma | Th-232 | 1.584 | 0.2647 | 0.4127 | |
| 0234-D | FS | NFS | Gamma | U-235 | 0.2431 | 0.0566 | 0.0918 | |
| 0234-D | FS | NFS | Gamma | U-238 | 1.238 | 1.949 | 9.196 | U |
| 0234-D-DUP | FD | NFS | Gamma | Am-241 | -0.1018 | -0.2658 | 0.4517 | U |
| 0234-D-DUP | FD | NFS | Gamma | Th-232 | 2 | 0.2311 | 0.3502 | |
| 0234-D-DUP | FD | NFS | Gamma | U-235 | 0.0902 | 0.0549 | 0.0918 | U |
| 0234-D-DUP | FD | NFS | Gamma | U-238 | 4.598 | 5.229 | 11.91 | U |
| 0234-E | FS | NFS | Gamma | Am-241 | -0.4884 | -0.3623 | 0.6204 | U |
| 0234-E | FS | NFS | Gamma | Th-232 | 1.652 | 0.2113 | 0.3224 | |
| 0234-E | FS | NFS | Gamma | U-235 | 0.146 | 0.052 | 0.0854 | |
| 0234-E | FS | NFS | Gamma | U-238 | -0.9291 | -5.266 | 9.004 | U |
| 0234-F | FS | NFS | Gamma | Am-241 | 0.2743 | 0.4808 | 0.8113 | U |
| 0234-F | FS | NFS | Gamma | Th-232 | 1.275 | 0.3528 | 0.5657 | |
| 0234-F | FS | NFS | Gamma | U-235 | 0.0896 | 0.0686 | 0.115 | U |
| 0234-F | FS | NFS | Gamma | U-238 | 6.214 | 6.569 | 11.04 | U |
| 0235-A | FS | NFS | Gamma | Am-241 | 0.4669 | 0.2789 | 0.4661 | |
| 0235-A | FS | NFS | Gamma | Th-232 | 1.366 | 0.2934 | 0.4733 | |
| 0235-A | FS | NFS | Gamma | U-235 | 0.2815 | 0.0565 | 0.092 | |
| 0235-A | FS | NFS | Gamma | U-238 | -5.666 | -5.414 | 9.38 | U |
| 0235-B | FS | NFS | Gamma | Am-241 | -0.1318 | -0.3925 | 0.6674 | U |
| 0235-B | FS | NFS | Gamma | Th-232 | 1.528 | 0.2606 | 0.4137 | |
| 0235-B | FS | NFS | Gamma | U-235 | 0.146 | 0.0513 | 0.0845 | |
| 0235-B | FS | NFS | Gamma | U-238 | -1.975 | -4.826 | 8.307 | U |
| 0235-C | FS | NFS | Gamma | Am-241 | -0.0594 | -0.298 | 0.5057 | U |
| 0235-C | FS | NFS | Gamma | Th-232 | 2.264 | 0.2579 | 0.3909 | |
| 0235-C | FS | NFS | Gamma | U-235 | 0.0627 | 0.0606 | 0.1025 | U |
| 0235-C | FS | NFS | Gamma | U-238 | -3.632 | -5.429 | 9.348 | U |
| 0235-D | FS | NFS | Gamma | Am-241 | -0.1006 | -0.3787 | 0.6438 | U |
| 0235-D | FS | NFS | Gamma | Th-232 | 1.411 | 0.2717 | 0.4349 | |
| 0235-D | FS | NFS | Gamma | U-235 | 0.1034 | 0.0521 | 0.0869 | |
| 0235-D | FS | NFS | Gamma | U-238 | -13.39 | -5.975 | 10.47 | U |
| 0236-A | FS | NFS | Gamma | Am-241 | 0.0842 | 0.2641 | 0.4465 | U |
| 0236-A | FS | NFS | Gamma | Th-232 | 1.508 | 0.2539 | 0.4036 | |
| 0236-A | FS | NFS | Gamma | U-235 | 0.2103 | 0.0542 | 0.089 | |
| 0236-A | FS | NFS | Gamma | U-238 | -5.583 | -3.121 | 9.73 | U |
| 0236-B | FS | PARAGON | LSC | Tc-99 | 0.2 | 1.1 | 1.8 | U |
| 0236-B | FS | PARAGON | LSC | Pu-241 | 0.3 | 3 | 5 | U |
| 0236-B | FS | PARAGON | Gamma | Am-241 | 0.11 | 0.5 | 0.89 | U |
| 0236-B | FS | PARAGON | Gamma | Th-232 | 0.97 | 0.36 | 0.63 | |
| 0236-B | FS | PARAGON | Gamma | U-235 | -0.01 | 0.33 | 0.61 | U |
| 0236-B | FS | PARAGON | Alpha | Am-241 | 0.011 | 0.011 | 0.006 | J |
| 0236-B | FS | PARAGON | Alpha | Pu-238 | -0.003 | 0.014 | 0.022 | U |
| 0236-B | FS | PARAGON | Alpha | Pu-239/240 | 0.015 | 0.02 | 0.032 | U |
| 0236-B | FS | PARAGON | Alpha | Pu-242 | 0.008 | 0.01 | 0.015 | U |
| 0236-B | FS | PARAGON | Alpha | Th-230 | 0.78 | 0.16 | 0.06 | |
| 0236-B | FS | PARAGON | Alpha | Th-232 | 1.21 | 0.23 | 0.02 | |
| 0236-B | FS | PARAGON | Alpha | U-233/234 | 1.99 | 0.41 | 0.1 | |
| 0236-B | FS | PARAGON | Alpha | U-235 | 0.096 | 0.062 | 0.063 | |
| 0236-B | FS | PARAGON | Alpha | U-238 | 0.93 | 0.22 | 0.06 | |
| 0236-B | FS | NFS | Gamma | Am-241 | -0.2179 | -0.4027 | 0.6862 | U |
| 0236-B | FS | NFS | Gamma | Th-232 | 1.124 | 0.2862 | 0.4653 | |
| 0236-B | FS | NFS | Gamma | U-235 | 0.1227 | 0.055 | 0.0909 | |

## Survey Unit 09 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0236-B | FS | NFS | Gamma | U-238 | -4.144 | -7.47 | 9.816 | U |
| 0236-B | LR | PARAGON | Gamma | Am-241 | 0.04 | 0.11 | 0.18 | U |
| 0236-B | LR | PARAGON | Gamma | Th-232 | 0.83 | 0.37 | 0.59 | J |
| 0236-B | LR | PARAGON | Gamma | U-235 | -0.37 | 0.33 | 0.67 | U |
| 0236-C | FS | NFS | Gamma | Am-241 | -0.1131 | -0.3013 | 0.5118 | U |
| 0236-C | FS | NFS | Gamma | Th-232 | 2.575 | 0.288 | 0.4429 | |
| 0236-C | FS | NFS | Gamma | U-235 | 0.0983 | 0.0592 | 0.0991 | U |
| 0236-C | FS | NFS | Gamma | U-238 | -4.053 | -5.661 | 9.737 | U |
| 0236-D | FS | NFS | Gamma | Am-241 | 0.1628 | 0.3675 | 0.6209 | U |
| 0236-D | FS | NFS | Gamma | Th-232 | 1.454 | 0.2529 | 0.4016 | |
| 0236-D | FS | NFS | Gamma | U-235 | 0.1325 | 0.0484 | 0.08 | |
| 0236-D | FS | NFS | Gamma | U-238 | 0.1223 | 5.274 | 8.994 | U |
| 0236-D-DUP | FD | NFS | Gamma | Am-241 | -0.1399 | -0.2872 | 0.4884 | U |
| 0236-D-DUP | FD | NFS | Gamma | Th-232 | 1.867 | 0.2445 | 0.3781 | |
| 0236-D-DUP | FD | NFS | Gamma | U-235 | 0.0366 | 0.054 | 0.0906 | U |
| 0236-D-DUP | FD | NFS | Gamma | U-238 | -4.811 | -5.23 | 9.026 | U |
| 0236-E | FS | NFS | Gamma | Am-241 | -0.1711 | -0.3554 | 0.6052 | U |
| 0236-E | FS | NFS | Gamma | Th-232 | 1.437 | 0.2244 | 0.3519 | |
| 0236-E | FS | NFS | Gamma | U-235 | 0.013 | 0.0492 | 0.0821 | U |
| 0236-E | FS | NFS | Gamma | U-238 | -3.926 | -4.916 | 8.496 | U |
| 0236-F | FS | NFS | Gamma | Am-241 | 0.0583 | 0.2971 | 0.5028 | U |
| 0236-F | FS | NFS | Gamma | Th-232 | 1.191 | 0.2995 | 0.4852 | |
| 0236-F | FS | NFS | Gamma | U-235 | 0.1552 | 0.0616 | 0.1024 | |
| 0236-F | FS | NFS | Gamma | U-238 | -17.35 | -7.024 | 12.3 | U |
| 0237-A | FS | PARAGON | LSC | Tc-99 | -0.1 | 1 | 1.7 | U |
| 0237-A | FS | PARAGON | LSC | Pu-241 | 0.3 | 2.6 | 4.4 | U |
| 0237-A | FS | PARAGON | Gamma | Am-241 | -0.01 | 0.87 | 1.6 | U |
| 0237-A | FS | PARAGON | Gamma | Th-232 | 0.8 | 0.51 | 0.69 | J |
| 0237-A | FS | PARAGON | Gamma | U-235 | 0.3 | 0.38 | 0.62 | U |
| 0237-A | FS | PARAGON | Alpha | Am-241 | 0.056 | 0.023 | 0.014 | |
| 0237-A | FS | PARAGON | Alpha | Pu-238 | 0.0039 | 0.0097 | 0.0053 | U |
| 0237-A | FS | PARAGON | Alpha | Pu-239/240 | 0.112 | 0.035 | 0.005 | |
| 0237-A | FS | PARAGON | Alpha | Pu-242 | 0.0074 | 0.0094 | 0.0152 | U |
| 0237-A | FS | PARAGON | Alpha | Th-230 | 0.5 | 0.1 | 0.05 | |
| 0237-A | FS | PARAGON | Alpha | Th-232 | 0.64 | 0.12 | 0.02 | |
| 0237-A | FS | PARAGON | Alpha | U-233/234 | 6.9 | 1.2 | 0.1 | |
| 0237-A | FS | PARAGON | Alpha | U-235 | 0.203 | 0.086 | 0.065 | |
| 0237-A | FS | PARAGON | Alpha | U-238 | 0.78 | 0.19 | 0.06 | |
| 0237-A | FS | NFS | Gamma | Am-241 | 0.4941 | 0.3232 | 0.5447 | U |
| 0237-A | FS | NFS | Gamma | Th-232 | 1.089 | 0.2474 | 0.3923 | |
| 0237-A | FS | NFS | Gamma | U-235 | 0.26 | 0.0518 | 0.0834 | |
| 0237-A | FS | NFS | Gamma | U-238 | -5.206 | -3.795 | 8.999 | U |
| 0237-B | FS | NFS | Gamma | Am-241 | -0.1019 | -0.2914 | 0.4953 | U |
| 0237-B | FS | NFS | Gamma | Th-232 | 1.719 | 0.2758 | 0.4333 | |
| 0237-B | FS | NFS | Gamma | U-235 | 0.0406 | 0.0618 | 0.1034 | U |
| 0237-B | FS | NFS | Gamma | U-238 | -0.3199 | -6.771 | 11.53 | U |
| 0237-C | FS | NFS | Gamma | Am-241 | -0.2107 | -0.3634 | 0.6195 | U |
| 0237-C | FS | NFS | Gamma | Th-232 | 0.8574 | 0.2625 | 0.407 | |
| 0237-C | FS | NFS | Gamma | U-235 | 0.0782 | 0.0495 | 0.0823 | U |
| 0237-C | FS | NFS | Gamma | U-238 | 6.787 | 5.393 | 8.52 | U |
| 0237-D | FS | NFS | Gamma | Am-241 | 0.123 | 0.2565 | 0.4332 | U |
| 0237-D | FS | NFS | Gamma | Th-232 | 1.505 | 0.2531 | 0.4009 | |
| 0237-D | FS | NFS | Gamma | U-235 | 0.0169 | 0.0546 | 0.0922 | U |

## Survey Unit 09 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0237-D | FS | NFS | Gamma | U-238 | 0.4766 | 6.112 | 10.39 | U |
| 0237-E | FS | NFS | Gamma | Am-241 | -0.4175 | -0.3861 | 0.6604 | U |
| 0237-E | FS | NFS | Gamma | Th-232 | 1.178 | 0.2321 | 0.3682 | |
| 0237-E | FS | NFS | Gamma | U-235 | 0.085 | 0.0536 | 0.0896 | U |
| 0237-E | FS | NFS | Gamma | U-238 | -1.353 | -4.349 | 10.2 | U |
| 0238-A | FS | NFS | Gamma | Am-241 | -0.4968 | -0.2606 | 0.4478 | U |
| 0238-A | FS | NFS | Gamma | Th-232 | 1.01 | 0.2708 | 0.4436 | |
| 0238-A | FS | NFS | Gamma | U-235 | 0.1545 | 0.053 | 0.0876 | |
| 0238-A | FS | NFS | Gamma | U-238 | -6.69 | -7.839 | 10.81 | U |
| 0238-B | FS | NFS | Gamma | Am-241 | 0.0605 | 0.3861 | 0.6543 | U |
| 0238-B | FS | NFS | Gamma | Th-232 | 0.9673 | 0.2839 | 0.4556 | |
| 0238-B | FS | NFS | Gamma | U-235 | 0.1946 | 0.0601 | 0.0973 | |
| 0238-B | FS | NFS | Gamma | U-238 | 5.112 | 5.876 | 9.89 | U |
| 0238-C | FS | NFS | Gamma | Am-241 | 0.1271 | 0.2549 | 0.4297 | U |
| 0238-C | FS | NFS | Gamma | Th-232 | 1.175 | 0.258 | 0.4212 | |
| 0238-C | FS | NFS | Gamma | U-235 | 0.0904 | 0.0525 | 0.0877 | |
| 0238-C | FS | NFS | Gamma | U-238 | -13.93 | -12.23 | 11.65 | U |
| 0238-C-DUP | FD | NFS | Gamma | Am-241 | -0.463 | -0.3952 | 0.6766 | U |
| 0238-C-DUP | FD | NFS | Gamma | Th-232 | 1.001 | 0.2389 | 0.3851 | |
| 0238-C-DUP | FD | NFS | Gamma | U-235 | 0.05 | 0.0545 | 0.0901 | U |
| 0238-C-DUP | FD | NFS | Gamma | U-238 | 4.334 | 5.177 | 8.717 | U |
| 0238-D | FS | NFS | Gamma | Am-241 | 0.0966 | 0.2808 | 0.4747 | U |
| 0238-D | FS | NFS | Gamma | Th-232 | 1.562 | 0.276 | 0.439 | |
| 0238-D | FS | NFS | Gamma | U-235 | 0.1872 | 0.0573 | 0.0945 | |
| 0238-D | FS | NFS | Gamma | U-238 | -16.5 | -11.64 | 12.17 | U |
| 0238-E | FS | NFS | Gamma | Am-241 | -0.0481 | -0.379 | 0.6437 | U |
| 0238-E | FS | NFS | Gamma | Th-232 | 1.419 | 0.2445 | 0.387 | |
| 0238-E | FS | NFS | Gamma | U-235 | 0.0224 | 0.0575 | 0.0968 | U |
| 0238-E | FS | NFS | Gamma | U-238 | -6.643 | -6.178 | 10.68 | U |
| 0239-A | FS | NFS | Gamma | Am-241 | -0.2106 | -0.2458 | 0.4199 | U |
| 0239-A | FS | NFS | Gamma | Th-232 | 1.329 | 0.2199 | 0.3415 | |
| 0239-A | FS | NFS | Gamma | U-235 | 0.1051 | 0.0552 | 0.0919 | |
| 0239-A | FS | NFS | Gamma | U-238 | -1.971 | -6.175 | 10.56 | U |
| 0239-B | FS | NFS | Gamma | Am-241 | 0.2189 | 0.3486 | 0.588 | U |
| 0239-B | FS | NFS | Gamma | Th-232 | 0.8156 | 0.2595 | 0.3884 | |
| 0239-B | FS | NFS | Gamma | U-235 | 0.0465 | 0.0572 | 0.0963 | U |
| 0239-B | FS | NFS | Gamma | U-238 | 6.003 | 5.281 | 8.847 | U |
| 0239-C | FS | NFS | Gamma | Am-241 | 0.0613 | 0.268 | 0.4537 | U |
| 0239-C | FS | NFS | Gamma | Th-232 | 1.732 | 0.2537 | 0.3951 | |
| 0239-C | FS | NFS | Gamma | U-235 | 0.0723 | 0.0582 | 0.0978 | U |
| 0239-C | FS | NFS | Gamma | U-238 | -6.479 | -6.976 | 11.99 | U |
| 0239-D | FS | NFS | Gamma | Am-241 | -0.5482 | -0.4409 | 0.754 | U |
| 0239-D | FS | NFS | Gamma | Th-232 | 1.458 | 0.2961 | 0.4669 | |
| 0239-D | FS | NFS | Gamma | U-235 | 0.0809 | 0.068 | 0.1041 | U |
| 0239-D | FS | NFS | Gamma | U-238 | -2.156 | -6.232 | 10.67 | U |
| 0239-E | FS | NFS | Gamma | Am-241 | 0.0123 | 0.2594 | 0.4397 | U |
| 0239-E | FS | NFS | Gamma | Th-232 | 1.17 | 0.262 | 0.4234 | |
| 0239-E | FS | NFS | Gamma | U-235 | 0.0306 | 0.0525 | 0.0885 | U |
| 0239-E | FS | NFS | Gamma | U-238 | 3.636 | 5.645 | 9.519 | U |
| 0240-A | FS | NFS | Gamma | Am-241 | -0.0939 | -0.3627 | 0.6171 | U |
| 0240-A | FS | NFS | Gamma | Th-232 | 0.7013 | 0.2344 | 0.3837 | |
| 0240-A | FS | NFS | Gamma | U-235 | 0.0472 | 0.0603 | 0.0978 | U |
| 0240-A | FS | NFS | Gamma | U-238 | -2.617 | -5.279 | 9.09 | U |

## Survey Unit 09 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0240-B | FS | NFS | Gamma | Am-241 | 0.3247 | 0.2909 | 0.4885 | U |
| 0240-B | FS | NFS | Gamma | Th-232 | 1.966 | 0.2949 | 0.4624 | |
| 0240-B | FS | NFS | Gamma | U-235 | 0.0692 | 0.0604 | 0.1015 | U |
| 0240-B | FS | NFS | Gamma | U-238 | -3.592 | -7.25 | 12.41 | U |
| 0240-C | FS | NFS | Gamma | Am-241 | -0.2145 | -0.3788 | 0.6453 | U |
| 0240-C | FS | NFS | Gamma | Th-232 | 1.582 | 0.2674 | 0.4185 | |
| 0240-C | FS | NFS | Gamma | U-235 | 0.1954 | 0.0604 | 0.0955 | |
| 0240-C | FS | NFS | Gamma | U-238 | 1.465 | 6.032 | 10.02 | U |
| 0240-C-DUP | FD | NFS | Gamma | Am-241 | 0.1976 | 0.27 | 0.455 | U |
| 0240-C-DUP | FD | NFS | Gamma | Th-232 | 1.753 | 0.274 | 0.434 | |
| 0240-C-DUP | FD | NFS | Gamma | U-235 | 0.0275 | 0.0581 | 0.097 | U |
| 0240-C-DUP | FD | NFS | Gamma | U-238 | 5.16 | 6.003 | 10.03 | U |
| 0240-D | FS | NFS | Gamma | Am-241 | -0.1251 | -0.3727 | 0.6337 | U |
| 0240-D | FS | NFS | Gamma | Th-232 | 2.135 | 0.2227 | 0.3299 | |
| 0240-D | FS | NFS | Gamma | U-235 | 0.0732 | 0.055 | 0.0922 | U |
| 0240-D | FS | NFS | Gamma | U-238 | 3.33 | 5.815 | 9.309 | U |
| 0240-E | FS | NFS | Gamma | Am-241 | 0.0853 | 0.2478 | 0.4191 | U |
| 0240-E | FS | NFS | Gamma | Th-232 | 1.039 | 0.2275 | 0.3655 | |
| 0240-E | FS | NFS | Gamma | U-235 | 0.0506 | 0.0492 | 0.0824 | U |
| 0240-E | FS | NFS | Gamma | U-238 | -1.42 | -5.598 | 9.56 | U |
| 0241-A | FS | PARAGON | LSC | Tc-99 | -0.62 | 0.92 | 1.58 | U |
| 0241-A | FS | PARAGON | LSC | Pu-241 | 0.7 | 2.5 | 4.3 | U |
| 0241-A | FS | PARAGON | Gamma | Am-241 | -0.1 | 0.44 | 0.74 | U |
| 0241-A | FS | PARAGON | Gamma | Th-232 | 0.72 | 0.21 | 0.42 | |
| 0241-A | FS | PARAGON | Gamma | U-235 | -0.09 | 0.27 | 0.48 | U |
| 0241-A | FS | PARAGON | Alpha | Am-241 | 0.019 | 0.013 | 0.006 | |
| 0241-A | FS | PARAGON | Alpha | Pu-238 | -0.0017 | 0.0085 | 0.0161 | U |
| 0241-A | FS | PARAGON | Alpha | Pu-239/240 | 0.036 | 0.017 | 0.005 | |
| 0241-A | FS | PARAGON | Alpha | Pu-242 | 0.0058 | 0.0091 | 0.0163 | U |
| 0241-A | FS | PARAGON | Alpha | Th-230 | 0.63 | 0.13 | 0.05 | |
| 0241-A | FS | PARAGON | Alpha | Th-232 | 0.76 | 0.15 | 0.02 | |
| 0241-A | FS | PARAGON | Alpha | U-233/234 | 3.28 | 0.6 | 0.04 | |
| 0241-A | FS | PARAGON | Alpha | U-235 | 0.084 | 0.05 | 0.019 | |
| 0241-A | FS | PARAGON | Alpha | U-238 | 0.68 | 0.17 | 0.02 | |
| 0241-A | FS | NFS | Gamma | Am-241 | -0.1218 | -0.3566 | 0.607 | U |
| 0241-A | FS | NFS | Gamma | Th-232 | 1.211 | 0.2248 | 0.3531 | |
| 0241-A | FS | NFS | Gamma | U-235 | 0.0842 | 0.0537 | 0.0899 | U |
| 0241-A | FS | NFS | Gamma | U-238 | 7.605 | 4.684 | 7.55 | |
| 0241-A | LR | PARAGON | Alpha | Am-241 | 0.009 | 0.013 | 0.022 | U |
| 0241-A | LR | PARAGON | Alpha | Pu-238 | 0.0117 | 0.0097 | 0.0053 | |
| 0241-A | LR | PARAGON | Alpha | Pu-239/240 | 0.043 | 0.022 | 0.021 | |
| 0241-A | LR | PARAGON | Alpha | U-233/234 | 3.28 | 0.6 | 0.04 | |
| 0241-A | LR | PARAGON | Alpha | U-235 | 0.106 | 0.059 | 0.05 | |
| 0241-A | LR | PARAGON | Alpha | U-238 | 0.53 | 0.14 | 0.02 | |
| 0241-B | FS | NFS | Gamma | Am-241 | 0.1311 | 0.2973 | 0.5021 | U |
| 0241-B | FS | NFS | Gamma | Th-232 | 1.119 | 0.2165 | 0.3436 | |
| 0241-B | FS | NFS | Gamma | U-235 | 0.0571 | 0.0554 | 0.0928 | U |
| 0241-B | FS | NFS | Gamma | U-238 | 7.148 | 5.013 | 11.68 | U |
| 0241-C | FS | NFS | Gamma | Am-241 | -0.8005 | -0.431 | 0.7385 | U |
| 0241-C | FS | NFS | Gamma | Th-232 | 1.752 | 0.2574 | 0.4005 | |
| 0241-C | FS | NFS | Gamma | U-235 | 0.0262 | 0.0548 | 0.0926 | U |
| 0241-C | FS | NFS | Gamma | U-238 | -3.677 | -5.068 | 8.748 | U |
| 0241-D | FS | NFS | Gamma | Am-241 | 0.2348 | 0.3115 | 0.5247 | U |

## Survey Unit 09 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0241-D | FS | NFS | Gamma | Th-232 | 1.615 | 0.2228 | 0.3422 | |
| 0241-D | FS | NFS | Gamma | U-235 | 0.0078 | 0.0564 | 0.0944 | U |
| 0241-D | FS | NFS | Gamma | U-238 | 14.07 | 6.067 | 10.02 | |
| 0241-E | FS | NFS | Gamma | Am-241 | -0.0964 | -0.356 | 0.6058 | U |
| 0241-E | FS | NFS | Gamma | Th-232 | 0.6111 | 0.285 | 0.4568 | |
| 0241-E | FS | NFS | Gamma | U-235 | 0.1526 | 0.0511 | 0.0831 | |
| 0241-E | FS | NFS | Gamma | U-238 | 0.8628 | 79 | 7.937 | U |
| 0242-A | FS | NFS | Gamma | Am-241 | 0.2586 | 0.2706 | 0.4552 | U |
| 0242-A | FS | NFS | Gamma | Th-232 | 0.8693 | 0.2016 | 0.3226 | |
| 0242-A | FS | NFS | Gamma | U-235 | 0.2845 | 0.0511 | 0.0825 | |
| 0242-A | FS | NFS | Gamma | U-238 | 8.638 | 6.074 | 10.15 | U |
| 0242-B | FS | NFS | Gamma | Am-241 | 0.4625 | 0.3599 | 0.5997 | U |
| 0242-B | FS | NFS | Gamma | Th-232 | 1.117 | 0.2724 | 0.4362 | |
| 0242-B | FS | NFS | Gamma | U-235 | 0.1758 | 0.0559 | 0.0904 | |
| 0242-B | FS | NFS | Gamma | U-238 | 11.87 | 3.637 | 5.734 | |
| 0242-C | FS | NFS | Gamma | Am-241 | 0.0368 | 0.2822 | 0.4779 | U |
| 0242-C | FS | NFS | Gamma | Th-232 | 0.1442 | 0.2485 | 0.43 | U |
| 0242-C | FS | NFS | Gamma | U-235 | 0.0661 | 0.0479 | 0.0803 | U |
| 0242-C | FS | NFS | Gamma | U-238 | 13.31 | 5.899 | 9.727 | |
| 0242-C-DUP | FD | NFS | Gamma | Am-241 | 0.0554 | 0.3242 | 0.5497 | U |
| 0242-C-DUP | FD | NFS | Gamma | Th-232 | 0.7865 | 0.2334 | 0.3792 | |
| 0242-C-DUP | FD | NFS | Gamma | U-235 | 0.1212 | 0.0499 | 0.0826 | |
| 0242-C-DUP | FD | NFS | Gamma | U-238 | 1.653 | 3.714 | 6.313 | U |
| 0242-D | FS | PARAGON | LSC | Tc-99 | -0.1 | 1 | 1.7 | U |
| 0242-D | FS | NFS | Gamma | Am-241 | -0.0015 | -0.2963 | 0.5021 | U |
| 0242-D | FS | NFS | Gamma | Th-232 | 0.9239 | 0.2243 | 0.3619 | |
| 0242-D | FS | NFS | Gamma | U-235 | 0.0303 | 0.0511 | 0.0861 | U |
| 0242-D | FS | NFS | Gamma | U-238 | 8.556 | 6.476 | 10.84 | U |
| 0242-E | FS | NFS | Gamma | Am-241 | -0.2307 | -0.3837 | 0.6543 | U |
| 0242-E | FS | NFS | Gamma | Th-232 | 1.27 | 0.2797 | 0.4522 | |
| 0242-E | FS | NFS | Gamma | U-235 | -0.0272 | -0.06 | 0.1021 | U |
| 0242-E | FS | NFS | Gamma | U-238 | 2.33 | 5.456 | 8.027 | U |
| 0242-F | FS | NFS | Gamma | Am-241 | 0.0369 | 0.3098 | 0.5244 | U |
| 0242-F | FS | NFS | Gamma | Th-232 | 1.149 | 0.2286 | 0.362 | |
| 0242-F | FS | NFS | Gamma | U-235 | 0.0611 | 0.0553 | 0.0929 | U |
| 0242-F | FS | NFS | Gamma | U-238 | 10.01 | 6.933 | 11.52 | U |
| 0243-A | FS | NFS | Gamma | Am-241 | -0.3366 | -0.3676 | 0.6289 | U |
| 0243-A | FS | NFS | Gamma | Th-232 | 0.8314 | 0.2421 | 0.3916 | |
| 0243-A | FS | NFS | Gamma | U-235 | 0.0674 | 0.0515 | 0.0864 | U |
| 0243-A | FS | NFS | Gamma | U-238 | 9.404 | 3.82 | 6.172 | |
| 0243-B | FS | NFS | Gamma | Am-241 | -0.2383 | -0.3094 | 0.5271 | U |
| 0243-B | FS | NFS | Gamma | Th-232 | 1.018 | 0.228 | 0.3631 | |
| 0243-B | FS | NFS | Gamma | U-235 | -0.0456 | -0.0522 | 0.0891 | U |
| 0243-B | FS | NFS | Gamma | U-238 | 3.743 | 6.939 | 11.73 | U |
| 0243-C | FS | PARAGON | LSC | Tc-99 | -0.58 | 0.99 | 1.7 | U |
| 0243-C | FS | PARAGON | LSC | Pu-241 | 0 | 2.9 | 4.9 | U |
| 0243-C | FS | PARAGON | Gamma | Am-241 | -0.16 | 0.44 | 0.74 | U |
| 0243-C | FS | PARAGON | Gamma | Th-232 | 1.09 | 0.24 | 0.39 | |
| 0243-C | FS | PARAGON | Gamma | U-235 | 0.1 | 0.3 | 0.51 | U |
| 0243-C | FS | PARAGON | Alpha | Am-241 | 0.007 | 0.015 | 0.027 | U |
| 0243-C | FS | PARAGON | Alpha | Pu-238 | -0.007 | 0.012 | 0.03 | U |
| 0243-C | FS | PARAGON | Alpha | Pu-239/240 | 0.002 | 0.011 | 0.017 | U |
| 0243-C | FS | PARAGON | Alpha | Pu-242 | 0.0057 | 0.0096 | 0.0149 | U |

## Survey Unit 09 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0243-C | FS | PARAGON | Alpha | Th-230 | 0.67 | 0.14 | 0.05 | |
| 0243-C | FS | PARAGON | Alpha | Th-232 | 1.01 | 0.19 | 0.01 | |
| 0243-C | FS | PARAGON | Alpha | U-233/234 | 1.07 | 0.24 | 0.06 | |
| 0243-C | FS | PARAGON | Alpha | U-235 | 0.035 | 0.032 | 0.019 | |
| 0243-C | FS | PARAGON | Alpha | U-238 | 0.67 | 0.17 | 0.04 | |
| 0243-C | FS | NFS | Gamma | Am-241 | -0.6446 | -0.3989 | 0.6842 | U |
| 0243-C | FS | NFS | Gamma | Th-232 | 1.27 | 0.2851 | 0.4571 | |
| 0243-C | FS | NFS | Gamma | U-235 | -0.0444 | -0.058 | 0.099 | U |
| 0243-C | FS | NFS | Gamma | U-238 | -4.143 | -5.464 | 9.437 | U |
| 0243-C | LR | PARAGON | LSC | Pu-241 | -0.6 | 2.7 | 4.7 | U |
| 0243-C | LR | PARAGON | Alpha | Pu-242 | 0.0025 | 0.0085 | 0.0188 | U |
| 0243-C | LR | PARAGON | Alpha | Th-230 | 0.77 | 0.16 | 0.05 | R |
| 0243-C | LR | PARAGON | Alpha | Th-232 | 1.17 | 0.22 | 0.01 | |
| 0243-D | FS | NFS | Gamma | Am-241 | -0.2138 | -0.3171 | 0.5394 | U |
| 0243-D | FS | NFS | Gamma | Th-232 | 1.589 | 0.2218 | 0.3411 | |
| 0243-D | FS | NFS | Gamma | U-235 | -0.0003 | -0.0551 | 0.0926 | U |
| 0243-D | FS | NFS | Gamma | U-238 | 5.868 | 6.806 | 11.46 | U |
| 0243-E | FS | NFS | Gamma | Am-241 | 0.0988 | 0.3435 | 0.5815 | U |
| 0243-E | FS | NFS | Gamma | Th-232 | 1.115 | 0.2326 | 0.3696 | |
| 0243-E | FS | NFS | Gamma | U-235 | 0.0018 | 0.0564 | 0.0909 | U |
| 0243-E | FS | NFS | Gamma | U-238 | 1.638 | 4.385 | 7.451 | U |
| 0243-F | FS | NFS | Gamma | Am-241 | -0.068 | -0.4108 | 0.6968 | U |
| 0243-F | FS | NFS | Gamma | Th-232 | 1.271 | 0.3318 | 0.5372 | |
| 0243-F | FS | NFS | Gamma | U-235 | 0.1198 | 0.0737 | 0.1233 | U |
| 0243-F | FS | NFS | Gamma | U-238 | 17.14 | 9.248 | 15.69 | |
| 0244-A | FS | NFS | Gamma | Am-241 | 0.0472 | 0.3519 | 0.5966 | U |
| 0244-A | FS | NFS | Gamma | Th-232 | 1.015 | 0.2785 | 0.4516 | |
| 0244-A | FS | NFS | Gamma | U-235 | 0.2706 | 0.0552 | 0.0886 | |
| 0244-A | FS | NFS | Gamma | U-238 | 8.771 | 3.839 | 6.216 | |
| 0244-A-DUP | FD | NFS | Gamma | Am-241 | -0.1444 | -0.3132 | 0.5323 | U |
| 0244-A-DUP | FD | NFS | Gamma | Th-232 | 1.305 | 0.2036 | 0.3139 | |
| 0244-A-DUP | FD | NFS | Gamma | U-235 | 0.1476 | 0.0555 | 0.0922 | |
| 0244-A-DUP | FD | NFS | Gamma | U-238 | 16.89 | 5.652 | 9.226 | |
| 0244-B | FS | NFS | Gamma | Am-241 | 0.0568 | 0.3698 | 0.6267 | U |
| 0244-B | FS | NFS | Gamma | Th-232 | 1.23 | 0.2787 | 0.4441 | |
| 0244-B | FS | NFS | Gamma | U-235 | 0.1053 | 0.0569 | 0.0929 | |
| 0244-B | FS | NFS | Gamma | U-238 | 2.474 | 19.26 | 8.324 | U |
| 0244-C | FS | NFS | Gamma | Am-241 | -0.4919 | -0.3327 | 0.5686 | U |
| 0244-C | FS | NFS | Gamma | Th-232 | 1.408 | 0.2419 | 0.3802 | |
| 0244-C | FS | NFS | Gamma | U-235 | 0.0657 | 0.0587 | 0.0987 | U |
| 0244-C | FS | NFS | Gamma | U-238 | 6.223 | 7.414 | 12.49 | U |
| 0244-D | FS | NFS | Gamma | Am-241 | 0.4705 | 0.3694 | 0.6187 | U |
| 0244-D | FS | NFS | Gamma | Th-232 | 1.294 | 0.3234 | 0.5045 | |
| 0244-D | FS | NFS | Gamma | U-235 | 0.1086 | 0.0592 | 0.0974 | |
| 0244-D | FS | NFS | Gamma | U-238 | -1.242 | -3.041 | 9.216 | U |
| 0245-A | FS | PARAGON | LSC | Tc-99 | 0.2 | 1 | 1.8 | U |
| 0245-A | FS | PARAGON | LSC | Pu-241 | -4.3 | 5.3 | 9.3 | U |
| 0245-A | FS | PARAGON | Gamma | Am-241 | -0.4 | 1 | 1.9 | U |
| 0245-A | FS | PARAGON | Gamma | Th-232 | 0.93 | 0.31 | 0.58 | |
| 0245-A | FS | PARAGON | Gamma | U-235 | 0.15 | 0.41 | 0.7 | U |
| 0245-A | FS | PARAGON | Alpha | Am-241 | 0.009 | 0.016 | 0.028 | U |
| 0245-A | FS | PARAGON | Alpha | Pu-238 | -0.003 | 0.018 | 0.041 | U |
| 0245-A | FS | PARAGON | Alpha | Pu-239/240 | 0.064 | 0.031 | 0.009 | |

## Survey Unit 09 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0245-A | FS | PARAGON | Alpha | Pu-242 | 0.003 | 0.016 | 0.031 | U |
| 0245-A | FS | PARAGON | Alpha | Th-230 | 0.74 | 0.14 | 0.04 | |
| 0245-A | FS | PARAGON | Alpha | Th-232 | 1.09 | 0.2 | 0.01 | |
| 0245-A | FS | PARAGON | Alpha | U-233/234 | 3.62 | 0.66 | 0.06 | |
| 0245-A | FS | PARAGON | Alpha | U-235 | 0.148 | 0.069 | 0.019 | |
| 0245-A | FS | PARAGON | Alpha | U-238 | 0.81 | 0.19 | 0.04 | |
| 0245-A | FS | NFS | Gamma | Am-241 | -0.4184 | -0.2744 | 0.4703 | U |
| 0245-A | FS | NFS | Gamma | Th-232 | 1.116 | 0.2379 | 0.3818 | |
| 0245-A | FS | NFS | Gamma | U-235 | 0.163 | 0.0566 | 0.0934 | |
| 0245-A | FS | NFS | Gamma | U-238 | 1.756 | 5.669 | 9.622 | U |
| 0245-B | FS | NFS | Gamma | Am-241 | -0.7615 | -0.385 | 0.6624 | U |
| 0245-B | FS | NFS | Gamma | Th-232 | 1.103 | 0.2519 | 0.4001 | |
| 0245-B | FS | NFS | Gamma | U-235 | 0.0813 | 0.0578 | 0.0945 | U |
| 0245-B | FS | NFS | Gamma | U-238 | 9.226 | 6.765 | 11.31 | U |
| 0245-C | FS | NFS | Gamma | Am-241 | 0.23 | 0.2808 | 0.4728 | U |
| 0245-C | FS | NFS | Gamma | Th-232 | 1.727 | 0.2622 | 0.4099 | |
| 0245-C | FS | NFS | Gamma | U-235 | 0.1348 | 0.0585 | 0.0959 | |
| 0245-C | FS | NFS | Gamma | U-238 | -3.964 | -6.288 | 10.79 | U |
| 0245-D | FS | NFS | Gamma | Am-241 | -1.121 | -0.4109 | 0.7063 | U |
| 0245-D | FS | NFS | Gamma | Th-232 | 1.4 | 0.252 | 0.4017 | |
| 0245-D | FS | NFS | Gamma | U-235 | 0.113 | 0.0551 | 0.092 | |
| 0245-D | FS | NFS | Gamma | U-238 | 16.77 | 6.081 | 9.921 | |
| 0245-E | FS | NFS | Gamma | Am-241 | -0.1289 | -0.245 | 0.4176 | U |
| 0245-E | FS | NFS | Gamma | Th-232 | 0.216 | 0.2357 | 0.3964 | U |
| 0245-E | FS | NFS | Gamma | U-235 | -0.0187 | -0.0548 | 0.0924 | U |
| 0245-E | FS | NFS | Gamma | U-238 | 2.277 | 4.931 | 9.007 | U |
| 0246-A | FS | NFS | Gamma | Am-241 | 0.4371 | 0.339 | 0.5679 | U |
| 0246-A | FS | NFS | Gamma | Th-232 | 0.7548 | 0.2133 | 0.3458 | |
| 0246-A | FS | NFS | Gamma | U-235 | 0.3217 | 0.0509 | 0.08 | |
| 0246-A | FS | NFS | Gamma | U-238 | 7.371 | 6.218 | 10.42 | U |
| 0246-B | FS | NFS | Gamma | Am-241 | 0.297 | 0.2457 | 0.4121 | U |
| 0246-B | FS | NFS | Gamma | Th-232 | 0.9477 | 0.1981 | 0.3146 | |
| 0246-B | FS | NFS | Gamma | U-235 | 0.0583 | 0.0539 | 0.0905 | U |
| 0246-B | FS | NFS | Gamma | U-238 | -7.687 | -5.841 | 10.12 | U |
| 0246-B-DUP | FD | NFS | Gamma | Am-241 | -0.8423 | -0.4049 | 0.6958 | U |
| 0246-B-DUP | FD | NFS | Gamma | Th-232 | 1.322 | 0.2199 | 0.3441 | |
| 0246-B-DUP | FD | NFS | Gamma | U-235 | 0.0421 | 0.0542 | 0.0899 | U |
| 0246-B-DUP | FD | NFS | Gamma | U-238 | 7.962 | 6.305 | 10.56 | U |
| 0246-C | FS | NFS | Gamma | Am-241 | 0.0048 | 0.2808 | 0.4759 | U |
| 0246-C | FS | NFS | Gamma | Th-232 | 1.092 | 0.2593 | 0.4187 | |
| 0246-C | FS | NFS | Gamma | U-235 | 0.012 | 0.0596 | 0.1002 | U |
| 0246-C | FS | NFS | Gamma | U-238 | 1.885 | 5.859 | 9.938 | U |
| 0246-D | FS | PARAGON | LSC | Tc-99 | -0.8 | 0.87 | 1.5 | U |
| 0246-D | FS | PARAGON | LSC | Pu-241 | -1 | 3.1 | 5.3 | U |
| 0246-D | FS | PARAGON | Gamma | Am-241 | -0.17 | 0.49 | 0.83 | U |
| 0246-D | FS | PARAGON | Gamma | Th-232 | 1.17 | 0.28 | 0.47 | |
| 0246-D | FS | PARAGON | Gamma | U-235 | 0.15 | 0.31 | 0.52 | U |
| 0246-D | FS | PARAGON | Alpha | Am-241 | 0.021 | 0.016 | 0.008 | |
| 0246-D | FS | PARAGON | Alpha | Pu-238 | 0 | 0.013 | 0.028 | U |
| 0246-D | FS | PARAGON | Alpha | Pu-239/240 | 0.023 | 0.017 | 0.017 | |
| 0246-D | FS | PARAGON | Alpha | Pu-242 | 0.014 | 0.013 | 0.018 | U |
| 0246-D | FS | PARAGON | Alpha | Th-230 | 0.53 | 0.11 | 0.05 | |
| 0246-D | FS | PARAGON | Alpha | Th-232 | 0.91 | 0.17 | 0.02 | |

## Survey Unit 09 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0246-D | FS | PARAGON | Alpha | U-233/234 | 0.71 | 0.2 | 0.08 | |
| 0246-D | FS | PARAGON | Alpha | U-235 | 0.036 | 0.044 | 0.068 | U |
| 0246-D | FS | PARAGON | Alpha | U-238 | 0.61 | 0.18 | 0.06 | |
| 0246-D | FS | NFS | Gamma | Am-241 | -0.5754 | -0.3766 | 0.6453 | U |
| 0246-D | FS | NFS | Gamma | Th-232 | 1.271 | 0.2647 | 0.4244 | |
| 0246-D | FS | NFS | Gamma | U-235 | 0.1848 | 0.0527 | 0.0866 | |
| 0246-D | FS | NFS | Gamma | U-238 | 5.542 | 6.78 | 11.42 | U |
| 0246-D | LR | PARAGON | LSC | Tc-99 | -0.14 | 0.89 | 1.51 | U |
| 0246-E | FS | NFS | Gamma | Am-241 | -0.2371 | -0.2735 | 0.4669 | U |
| 0246-E | FS | NFS | Gamma | Th-232 | 1.257 | 0.2726 | 0.4382 | |
| 0246-E | FS | NFS | Gamma | U-235 | 0.007 | 0.0578 | 0.0976 | U |
| 0246-E | FS | NFS | Gamma | U-238 | -0.515 | -8.039 | 10.85 | U |
| 0247-A | FS | NFS | Gamma | Am-241 | 0.2062 | 0.5564 | 0.6098 | U |
| 0247-A | FS | NFS | Gamma | Th-232 | 1.317 | 0.2412 | 0.3803 | |
| 0247-A | FS | NFS | Gamma | U-235 | 0.242 | 0.0573 | 0.0925 | |
| 0247-A | FS | NFS | Gamma | U-238 | 2.101 | 4.771 | 8.095 | U |
| 0247-B | FS | NFS | Gamma | Am-241 | -0.4015 | -0.2518 | 0.4323 | U |
| 0247-B | FS | NFS | Gamma | Th-232 | 1.295 | 0.2322 | 0.3658 | |
| 0247-B | FS | NFS | Gamma | U-235 | 0.1118 | 0.0552 | 0.0922 | |
| 0247-B | FS | NFS | Gamma | U-238 | -6.879 | -5.788 | 10.02 | U |
| 0247-C | FS | NFS | Gamma | Am-241 | -0.2405 | -0.3968 | 0.676 | U |
| 0247-C | FS | NFS | Gamma | Th-232 | 1.61 | 0.2881 | 0.4591 | |
| 0247-C | FS | NFS | Gamma | U-235 | 0.0133 | 0.0637 | 0.1077 | U |
| 0247-C | FS | NFS | Gamma | U-238 | -1.301 | -5.453 | 9.339 | U |
| 0247-D | FS | NFS | Gamma | Am-241 | 0.2913 | 0.2623 | 0.4406 | U |
| 0247-D | FS | NFS | Gamma | Th-232 | 1.221 | 0.241 | 0.3835 | |
| 0247-D | FS | NFS | Gamma | U-235 | 0.1103 | 0.0549 | 0.0916 | |
| 0247-D | FS | NFS | Gamma | U-238 | 0.6089 | 5.926 | 10.08 | U |
| 0247-E | FS | NFS | Gamma | Am-241 | -0.6067 | -0.3571 | 0.6131 | U |
| 0247-E | FS | NFS | Gamma | Th-232 | 1.123 | 0.2342 | 0.3694 | |
| 0247-E | FS | NFS | Gamma | U-235 | 0.1158 | 0.0562 | 0.0936 | |
| 0247-E | FS | NFS | Gamma | U-238 | 3.849 | 5.388 | 9.091 | U |
| 0247-F | FS | NFS | Gamma | Am-241 | 0.00399 | 0.2677 | 0.4539 | U |
| 0247-F | FS | NFS | Gamma | Th-232 | 1.04 | 0.2215 | 0.3534 | |
| 0247-F | FS | NFS | Gamma | U-235 | -0.0368 | -0.0561 | 0.0955 | U |
| 0247-F | FS | NFS | Gamma | U-238 | 2.216 | 5.292 | 8.967 | U |
| 0248-A | FS | PARAGON | LSC | Tc-99 | -0.02 | 0.9 | 1.52 | UJ |
| 0248-A | FS | PARAGON | LSC | Pu-241 | 1.7 | 2.7 | 4.4 | U |
| 0248-A | FS | PARAGON | Gamma | Am-241 | -0.33 | 0.49 | 0.97 | U |
| 0248-A | FS | PARAGON | Gamma | Th-232 | 0.84 | 0.4 | 0.65 | J |
| 0248-A | FS | PARAGON | Gamma | U-235 | 0 | 0.35 | 0.63 | U |
| 0248-A | FS | PARAGON | Alpha | Am-241 | 0.036 | 0.021 | 0.021 | |
| 0248-A | FS | PARAGON | Alpha | Pu-238 | 0.0057 | 0.0094 | 0.0141 | U |
| 0248-A | FS | PARAGON | Alpha | Pu-239/240 | 0.061 | 0.024 | 0.014 | |
| 0248-A | FS | PARAGON | Alpha | Pu-242 | 0.038 | 0.019 | 0.016 | R |
| 0248-A | FS | PARAGON | Alpha | Th-230 | 0.61 | 0.13 | 0.05 | |
| 0248-A | FS | PARAGON | Alpha | Th-232 | 0.76 | 0.15 | 0.02 | |
| 0248-A | FS | PARAGON | Alpha | U-233/234 | 4.06 | 0.8 | 0.05 | |
| 0248-A | FS | PARAGON | Alpha | U-235 | 0.114 | 0.074 | 0.06 | |
| 0248-A | FS | PARAGON | Alpha | U-238 | 0.55 | 0.17 | 0.06 | |
| 0248-A | FS | NFS | Gamma | Am-241 | -0.0932 | -0.3526 | 0.5998 | U |
| 0248-A | FS | NFS | Gamma | Th-232 | 0.661 | 0.2274 | 0.3724 | |
| 0248-A | FS | NFS | Gamma | U-235 | 0.1348 | 0.0581 | 0.0944 | |

## Survey Unit 09 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0248-A | FS | NFS | Gamma | U-238 | 6.179 | 4.83 | 8.065 | U |
| 0248-A | LR | PARAGON | LSC | Pu-241 | 0.3 | 2.5 | 4.2 | U |
| 0248-A | LR | PARAGON | Alpha | Pu-242 | 0.042 | 0.02 | 0.013 | |
| 0248-A | LR | PARAGON | Alpha | Th-230 | 0.68 | 0.13 | 0.05 | R |
| 0248-A | LR | PARAGON | Alpha | Th-232 | 0.64 | 0.13 | 0.02 | |
| 0248-A-DUP | FD | PARAGON | LSC | Tc-99 | 0.07 | 0.91 | 1.53 | U |
| 0248-B | FS | NFS | Gamma | Am-241 | -0.3746 | -0.2893 | 0.4948 | U |
| 0248-B | FS | NFS | Gamma | Th-232 | 1.046 | 0.2798 | 0.4704 | |
| 0248-B | FS | NFS | Gamma | U-235 | 0.0247 | 0.0584 | 0.0986 | U |
| 0248-B | FS | NFS | Gamma | U-238 | 2.562 | 5.72 | 9.688 | U |
| 0248-C | FS | NFS | Gamma | Am-241 | -0.5109 | -0.4231 | 0.7234 | U |
| 0248-C | FS | NFS | Gamma | Th-232 | 1.701 | 0.2801 | 0.4423 | |
| 0248-C | FS | NFS | Gamma | U-235 | 0.1008 | 0.0645 | 0.1081 | U |
| 0248-C | FS | NFS | Gamma | U-238 | 1.529 | 5.138 | 9.69 | U |
| 0248-D | FS | NFS | Gamma | Am-241 | -0.0989 | -0.2767 | 0.4702 | U |
| 0248-D | FS | NFS | Gamma | Th-232 | 1.676 | 0.2516 | 0.3939 | |
| 0248-D | FS | NFS | Gamma | U-235 | -0.0399 | -0.0578 | 0.0985 | U |
| 0248-D | FS | NFS | Gamma | U-238 | -0.595 | -3.948 | 9.648 | U |
| 0248-D-DUP | FD | NFS | Gamma | Am-241 | 0.2822 | 0.3798 | 0.6398 | U |
| 0248-D-DUP | FD | NFS | Gamma | Th-232 | 1.453 | 0.2317 | 0.3625 | |
| 0248-D-DUP | FD | NFS | Gamma | U-235 | 0.1918 | 0.0546 | 0.0883 | |
| 0248-D-DUP | FD | NFS | Gamma | U-238 | 0.4812 | 5.472 | 9.321 | U |
| 0248-E | FS | NFS | Gamma | Am-241 | -0.1296 | -0.1591 | 0.4693 | U |
| 0248-E | FS | NFS | Gamma | Th-232 | 0.5826 | 0.2659 | 0.4401 | |
| 0248-E | FS | NFS | Gamma | U-235 | 0.0451 | 0.0557 | 0.0934 | U |
| 0248-E | FS | NFS | Gamma | U-238 | -8.826 | -6.607 | 11.45 | U |
| 0249-A | FS | PARAGON | LSC | Tc-99 | -0.06 | 0.81 | 1.38 | U |
| 0249-A | FS | PARAGON | LSC | Pu-241 | 1.3 | 2.6 | 4.3 | U |
| 0249-A | FS | PARAGON | Gamma | Am-241 | 0.01 | 0.37 | 0.69 | U |
| 0249-A | FS | PARAGON | Gamma | Th-232 | 0.75 | 0.34 | 0.54 | J |
| 0249-A | FS | PARAGON | Gamma | U-235 | 0 | 0.3 | 0.54 | U |
| 0249-A | FS | PARAGON | Alpha | Am-241 | 0.072 | 0.031 | 0.008 | |
| 0249-A | FS | PARAGON | Alpha | Pu-238 | 0.006 | 0.015 | 0.023 | U |
| 0249-A | FS | PARAGON | Alpha | Pu-239/240 | 0.181 | 0.057 | 0.023 | |
| 0249-A | FS | PARAGON | Alpha | Pu-242 | 0.035 | 0.019 | 0.018 | |
| 0249-A | FS | PARAGON | Alpha | Th-230 | 0.54 | 0.11 | 0.04 | |
| 0249-A | FS | PARAGON | Alpha | Th-232 | 0.75 | 0.14 | 0.01 | |
| 0249-A | FS | PARAGON | Alpha | U-233/234 | 8.6 | 1.5 | 0 | |
| 0249-A | FS | PARAGON | Alpha | U-235 | 0.284 | 0.099 | 0.018 | |
| 0249-A | FS | PARAGON | Alpha | U-238 | 0.99 | 0.22 | 0.04 | |
| 0249-A | FS | NFS | Gamma | Am-241 | 0.026 | 0.3332 | 0.5652 | U |
| 0249-A | FS | NFS | Gamma | Th-232 | 0.6766 | 0.2261 | 0.3683 | |
| 0249-A | FS | NFS | Gamma | U-235 | 0.3579 | 0.0557 | 0.0875 | |
| 0249-A | FS | NFS | Gamma | U-238 | -5.804 | -5.56 | 9.642 | U |
| 0249-B | FS | NFS | Gamma | Am-241 | 0.2569 | 0.2765 | 0.4651 | U |
| 0249-B | FS | NFS | Gamma | Th-232 | 1.725 | 0.2447 | 0.3782 | |
| 0249-B | FS | NFS | Gamma | U-235 | 0.2654 | 0.0573 | 0.0938 | |
| 0249-B | FS | NFS | Gamma | U-238 | -7.487 | -16.63 | 10.13 | U |
| 0249-C | FS | NFS | Gamma | Am-241 | -0.0051 | -0.3693 | 0.6266 | U |
| 0249-C | FS | NFS | Gamma | Th-232 | 1.922 | 0.2392 | 0.3535 | |
| 0249-C | FS | NFS | Gamma | U-235 | 0.1094 | 0.0577 | 0.0947 | |
| 0249-C | FS | NFS | Gamma | U-238 | 3.156 | 6.705 | 11.35 | U |
| 0249-D | FS | NFS | Gamma | Am-241 | 0.4718 | 0.2825 | 0.4677 | |

## Survey Unit 09 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0249-D | FS | NFS | Gamma | Th-232 | 2.102 | 0.265 | 0.4074 | |
| 0249-D | FS | NFS | Gamma | U-235 | 0.1357 | 0.0628 | 0.1053 | |
| 0249-D | FS | NFS | Gamma | U-238 | -13.34 | -6.809 | 11.85 | U |
| 0249-E | FS | NFS | Gamma | Am-241 | -0.5412 | -0.3436 | 0.5903 | U |
| 0249-E | FS | NFS | Gamma | Th-232 | 1.443 | 0.2152 | 0.3168 | |
| 0249-E | FS | NFS | Gamma | U-235 | 0.0279 | 0.06 | 0.0965 | U |
| 0249-E | FS | NFS | Gamma | U-238 | 6.736 | 6.016 | 10.09 | U |
| 0250-A | FS | NFS | Gamma | Am-241 | 0.7705 | 0.2556 | 0.4208 | |
| 0250-A | FS | NFS | Gamma | Th-232 | 1.222 | 0.2391 | 0.3787 | |
| 0250-A | FS | NFS | Gamma | U-235 | 0.3963 | 0.0588 | 0.0947 | |
| 0250-A | FS | NFS | Gamma | U-238 | -10.65 | -6.198 | 10.8 | U |
| 0250-B | FS | NFS | Gamma | Am-241 | -0.3319 | -0.371 | 0.6348 | U |
| 0250-B | FS | NFS | Gamma | Th-232 | 0.9225 | 0.2292 | 0.3646 | |
| 0250-B | FS | NFS | Gamma | U-235 | 0.3959 | 0.0565 | 0.0892 | |
| 0250-B | FS | NFS | Gamma | U-238 | 13.49 | 5.999 | 9.865 | |
| 0250-C | FS | NFS | Gamma | Am-241 | 0.4393 | 0.2689 | 0.4494 | U |
| 0250-C | FS | NFS | Gamma | Th-232 | 1.046 | 0.2937 | 0.4796 | |
| 0250-C | FS | NFS | Gamma | U-235 | 0.2788 | 0.0585 | 0.0959 | |
| 0250-C | FS | NFS | Gamma | U-238 | -8.048 | -6.196 | 10.74 | U |
| 0250-D | FS | NFS | Gamma | Am-241 | 0.2818 | 0.3671 | 0.6181 | U |
| 0250-D | FS | NFS | Gamma | Th-232 | 1.604 | 0.1914 | 0.2849 | |
| 0250-D | FS | NFS | Gamma | U-235 | 0.1602 | 0.0592 | 0.0933 | |
| 0250-D | FS | NFS | Gamma | U-238 | 12.5 | 5.479 | 8.972 | |
| 0250-E | FS | NFS | Gamma | Am-241 | 0.2112 | 0.2679 | 0.4512 | U |
| 0250-E | FS | NFS | Gamma | Th-232 | 0.8361 | 0.2745 | 0.4509 | |
| 0250-E | FS | NFS | Gamma | U-235 | 0.1759 | 0.0534 | 0.0881 | |
| 0250-E | FS | NFS | Gamma | U-238 | -10.51 | -5.924 | 10.32 | U |
| 0250-E-DUP | FD | NFS | Gamma | Am-241 | -0.2397 | -3.429 | 0.5917 | U |
| 0250-E-DUP | FD | NFS | Gamma | Th-232 | 1.446 | 0.1736 | 0.2528 | |
| 0250-E-DUP | FD | NFS | Gamma | U-235 | 0.0487 | 0.054 | 0.0904 | U |
| 0250-E-DUP | FD | NFS | Gamma | U-238 | 6.909 | 6.019 | 10.09 | U |
| EB-09 | EB | PARAGON | LSC | Pu-241 | 1 | 3.9 | 6.5 | U |
| EB-09 | EB | PARAGON | LSC | Tc-99 | 0.9 | 6.2 | 10.4 | U |
| EB-09 | EB | PARAGON | Gamma | Am-241 | -1.9 | 7.6 | 13.5 | U |
| EB-09 | EB | PARAGON | Gamma | Th-232 | 24 | 27 | 43 | U |
| EB-09 | EB | PARAGON | Gamma | U-235 | 26 | 25 | 40 | U |
| EB-09 | EB | PARAGON | Alpha | Am-241 | -0.003 | 0.033 | 0.049 | U |
| EB-09 | EB | PARAGON | Alpha | Pu-238 | 0 | 0.022 | 0.017 | U |
| EB-09 | EB | PARAGON | Alpha | Pu-239/240 | 0.004 | 0.022 | 0.033 | U |
| EB-09 | EB | PARAGON | Alpha | Pu-242 | 0.016 | 0.027 | 0.053 | U |
| EB-09 | EB | PARAGON | Alpha | Th-230 | 0.027 | 0.058 | 0.117 | U |
| EB-09 | EB | PARAGON | Alpha | Th-232 | 0.003 | 0.019 | 0.029 | U |
| EB-09 | EB | PARAGON | Alpha | U-233/234 | 0.035 | 0.041 | 0.062 | U |
| EB-09 | EB | PARAGON | Alpha | U-235 | 0.008 | 0.042 | 0.065 | U |
| EB-09 | EB | PARAGON | Alpha | U-238 | 0.043 | 0.046 | 0.067 | U |
| EB-09 | LR | PARAGON | LSC | Tc-99 | 0 | 6.1 | 10.3 | U |

# Appendix G.4

# Radiological Dataset, Survey Unit 19

## Survey Unit 19 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0710-A | FS | NFS | Gamma | Am-241 | 0.0617 | 0.306 | 0.5177 | UH |
| 0710-A | FS | NFS | Gamma | Th-232 | 2.303 | 0.3081 | 0.4809 | JH |
| 0710-A | FS | NFS | Gamma | U-235 | 0.1709 | 0.0589 | 0.0974 | JH |
| 0710-A | FS | NFS | Gamma | U-238 | 9.781 | 6.227 | 10.37 | UH |
| 0710-A-DUP | FD | NFS | Gamma | Am-241 | -1.057 | -0.4194 | 0.7208 | UH |
| 0710-A-DUP | FD | NFS | Gamma | Th-232 | 1.57 | 0.2829 | 0.4489 | JH |
| 0710-A-DUP | FD | NFS | Gamma | U-235 | 0.1557 | 0.0667 | 0.1043 | JH |
| 0710-A-DUP | FD | NFS | Gamma | U-238 | -0.1187 | -4.873 | 9.744 | UH |
| 0710-B | FS | NFS | Gamma | Am-241 | -0.2158 | -0.4077 | 0.6941 | UH |
| 0710-B | FS | NFS | Gamma | Th-232 | 1.604 | 0.2405 | 0.3759 | JH |
| 0710-B | FS | NFS | Gamma | U-235 | 0.1878 | 0.0607 | 0.0965 | JH |
| 0710-B | FS | NFS | Gamma | U-238 | 0.8105 | 5.84 | 9.931 | UH |
| 0710-C | FS | NFS | Gamma | Am-241 | 0.4159 | 0.3706 | 0.6217 | UH |
| 0710-C | FS | NFS | Gamma | Th-232 | 2.056 | 0.2045 | 0.2961 | JH |
| 0710-C | FS | NFS | Gamma | U-235 | 0.1318 | 0.0546 | 0.0899 | JH |
| 0710-C | FS | NFS | Gamma | U-238 | 0.0504 | 5.623 | 9.584 | UH |
| 0710-D | FS | NFS | Gamma | Am-241 | -0.4385 | -0.4468 | 0.7637 | UH |
| 0710-D | FS | NFS | Gamma | Th-232 | 0.5917 | 0.3294 | 0.5428 | JH |
| 0710-D | FS | NFS | Gamma | U-235 | 0.0685 | 0.0599 | 0.099 | UH |
| 0710-D | FS | NFS | Gamma | U-238 | -0.7775 | -6.86 | 11.72 | UH |
| 0710-E | FS | NFS | Gamma | Am-241 | -0.0475 | -0.3886 | 0.6605 | UH |
| 0710-E | FS | NFS | Gamma | Th-232 | 0.1447 | 0.2884 | 0.4648 | UH |
| 0710-E | FS | NFS | Gamma | U-235 | 0.0586 | 0.0556 | 0.0935 | UH |
| 0710-E | FS | NFS | Gamma | U-238 | 0.5875 | 6.535 | 11.13 | UH |
| 0711-A | FS | PARAGON | LSC | Tc-99 | -0.3 | 1.1 | 1.9 | U |
| 0711-A | FS | PARAGON | LSC | Pu-241 | 2.7 | 2.6 | 4.1 | U |
| 0711-A | FS | PARAGON | Gamma | Am-241 | 0.16 | 0.61 | 1.07 | U |
| 0711-A | FS | PARAGON | Gamma | Th-232 | 1.41 | 0.45 | 0.85 | |
| 0711-A | FS | PARAGON | Gamma | U-235 | 0.04 | 0.34 | 0.62 | U |
| 0711-A | FS | PARAGON | Alpha | Am-241 | 0.021 | 0.021 | 0.031 | U |
| 0711-A | FS | PARAGON | Alpha | Pu-238 | 0.002 | 0.012 | 0.006 | U |
| 0711-A | FS | PARAGON | Alpha | Pu-239/240 | 0.033 | 0.019 | 0.006 | |
| 0711-A | FS | PARAGON | Alpha | Pu-242 | 0.01 | 0.01 | 0.014 | U |
| 0711-A | FS | PARAGON | Alpha | Th-230 | 0.92 | 0.18 | 0.06 | |
| 0711-A | FS | PARAGON | Alpha | Th-232 | 1.44 | 0.26 | 0.04 | |
| 0711-A | FS | PARAGON | Alpha | U-233/234 | 3.56 | 0.63 | 0.08 | |
| 0711-A | FS | PARAGON | Alpha | U-235 | 0.065 | 0.046 | 0.057 | |
| 0711-A | FS | PARAGON | Alpha | U-238 | 0.89 | 0.2 | 0.06 | |
| 0711-A | FS | NFS | Gamma | Am-241 | -0.4462 | -0.2928 | 0.5011 | UH |
| 0711-A | FS | NFS | Gamma | Th-232 | 2.13 | 0.247 | 0.371 | JH |
| 0711-A | FS | NFS | Gamma | U-235 | 0.4055 | 0.0596 | 0.0957 | JH |
| 0711-A | FS | NFS | Gamma | U-238 | 1.136 | 5.496 | 9.344 | UH |
| 0711-A | LR | PARAGON | LSC | Tc-99 | -0.43 | 0.86 | 1.47 | U |
| 0711-B | FS | NFS | Gamma | Am-241 | 0.2705 | 0.3534 | 0.5952 | UH |
| 0711-B | FS | NFS | Gamma | Th-232 | 1.708 | 0.2311 | 0.3567 | JH |
| 0711-B | FS | NFS | Gamma | U-235 | 0.0619 | 0.0513 | 0.086 | UH |
| 0711-B | FS | NFS | Gamma | U-238 | 13.41 | 22.3 | 9.032 | JH |
| 0711-C | FS | NFS | Gamma | Am-241 | -0.2127 | -0.2545 | 0.4342 | UH |
| 0711-C | FS | NFS | Gamma | Th-232 | 0.9136 | 0.2478 | 0.4047 | JH |
| 0711-C | FS | NFS | Gamma | U-235 | 0.1655 | 0.0511 | 0.0836 | JH |
| 0711-C | FS | NFS | Gamma | U-238 | -10.24 | -6.201 | 10.75 | UH |
| 0711-D | FS | NFS | Gamma | Am-241 | 0.2973 | 0.3476 | 0.5849 | UH |
| 0711-D | FS | NFS | Gamma | Th-232 | 0.7992 | 0.2594 | 0.4262 | JH |

## Survey Unit 19 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0711-D | FS | NFS | Gamma | U-235 | 0.0151 | 0.051 | 0.0862 | UH |
| 0711-D | FS | NFS | Gamma | U-238 | -0.7262 | -4.99 | 8.537 | UH |
| 0711-E | FS | PARAGON | LSC | Tc-99 | -0.84 | 0.86 | 1.47 | U |
| 0711-E | FS | PARAGON | LSC | Pu-241 | 2.8 | 2.6 | 4.2 | U |
| 0711-E | FS | PARAGON | Gamma | Am-241 | 0.1 | 0.47 | 0.82 | U |
| 0711-E | FS | PARAGON | Gamma | Th-232 | 1.31 | 0.47 | 0.72 | J |
| 0711-E | FS | PARAGON | Gamma | U-235 | 0.03 | 0.35 | 0.63 | U |
| 0711-E | FS | PARAGON | Alpha | Am-241 | 0.0052 | 0.0086 | 0.0047 | J |
| 0711-E | FS | PARAGON | Alpha | Pu-238 | 0 | 0.011 | 0.016 | U |
| 0711-E | FS | PARAGON | Alpha | Pu-239/240 | 0.002 | 0.011 | 0.016 | U |
| 0711-E | FS | PARAGON | Alpha | Pu-242 | 0.0027 | 0.0097 | 0.0207 | U |
| 0711-E | FS | PARAGON | Alpha | Th-230 | 0.72 | 0.15 | 0.06 | |
| 0711-E | FS | PARAGON | Alpha | Th-232 | 1.09 | 0.21 | 0.02 | |
| 0711-E | FS | PARAGON | Alpha | U-233/234 | 0.76 | 0.17 | 0.05 | |
| 0711-E | FS | PARAGON | Alpha | U-235 | 0.037 | 0.032 | 0.039 | U |
| 0711-E | FS | PARAGON | Alpha | U-238 | 0.49 | 0.13 | 0.05 | |
| 0711-E | FS | NFS | Gamma | Am-241 | -0.0986 | -0.2639 | 0.4488 | UH |
| 0711-E | FS | NFS | Gamma | Th-232 | 1.548 | 0.234 | 0.3657 | JH |
| 0711-E | FS | NFS | Gamma | U-235 | 0.0932 | 0.0514 | 0.0859 | JH |
| 0711-E | FS | NFS | Gamma | U-238 | 2.375 | 4.993 | 8.454 | UH |
| 0711-E | LR | PARAGON | LSC | Pu-241 | 3.7 | 2.9 | 4.6 | U |
| 0711-E | LR | PARAGON | Alpha | Pu-242 | 0.008 | 0.011 | 0.018 | U |
| 0711-E | LR | PARAGON | Alpha | Th-230 | 0.72 | 0.15 | 0.05 | J |
| 0711-E | LR | PARAGON | Alpha | Th-232 | 1.15 | 0.22 | 0.03 | |
| 0711-E-DUP | FD | PARAGON | LSC | Tc-99 | -0.94 | 0.82 | 1.41 | UJ |
| 0711-F | FS | NFS | Gamma | Am-241 | -0.1325 | -0.3795 | 0.6458 | UH |
| 0711-F | FS | NFS | Gamma | Th-232 | 1.202 | 0.2116 | 0.3284 | JH |
| 0711-F | FS | NFS | Gamma | U-235 | 0.0596 | 0.0472 | 0.0782 | UH |
| 0711-F | FS | NFS | Gamma | U-238 | 5.843 | 4.356 | 7.213 | UH |
| 0711-G | FS | NFS | Gamma | Am-241 | 0.1514 | 0.2853 | 0.4814 | UH |
| 0711-G | FS | NFS | Gamma | Th-232 | 1.795 | 0.3074 | 0.4898 | JH |
| 0711-G | FS | NFS | Gamma | U-235 | 0.0453 | 0.0609 | 0.102 | UH |
| 0711-G | FS | NFS | Gamma | U-238 | 2.63 | 6.049 | 10.24 | UH |
| 0711-H | FS | NFS | Gamma | Am-241 | -0.3341 | -0.2863 | 0.489 | UH |
| 0711-H | FS | NFS | Gamma | Th-232 | 1.256 | 0.2529 | 0.4033 | JH |
| 0711-H | FS | NFS | Gamma | U-235 | 0.1567 | 0.054 | 0.0895 | JH |
| 0711-H | FS | NFS | Gamma | U-238 | 0.5337 | 5.959 | 9.835 | UH |
| 0711-H-DUP | FD | NFS | Gamma | Am-241 | 0.1575 | 0.3715 | 0.6277 | UH |
| 0711-H-DUP | FD | NFS | Gamma | Th-232 | 1.656 | 0.268 | 0.4242 | JH |
| 0711-H-DUP | FD | NFS | Gamma | U-235 | 0.1192 | 0.0599 | 0.0975 | JH |
| 0711-H-DUP | FD | NFS | Gamma | U-238 | 3.627 | 5.436 | 9.178 | UH |
| 0712-A | FS | NFS | Gamma | Am-241 | 0.1682 | 0.3445 | 0.6865 | UH |
| 0712-A | FS | NFS | Gamma | Th-232 | 1.762 | 0.2614 | 0.4055 | JH |
| 0712-A | FS | NFS | Gamma | U-235 | 0.1574 | 0.0598 | 0.0992 | JH |
| 0712-A | FS | NFS | Gamma | U-238 | -4.231 | -5.925 | 10.2 | UH |
| 0712-B | FS | PARAGON | LSC | Tc-99 | -0.43 | 0.96 | 1.64 | U |
| 0712-B | FS | PARAGON | LSC | Pu-241 | 0.9 | 2.6 | 4.4 | U |
| 0712-B | FS | PARAGON | Gamma | Am-241 | -0.11 | 0.13 | 0.24 | U |
| 0712-B | FS | PARAGON | Gamma | Th-232 | 1.21 | 0.47 | 0.78 | J |
| 0712-B | FS | PARAGON | Gamma | U-235 | 0.08 | 0.36 | 0.63 | U |
| 0712-B | FS | PARAGON | Alpha | Am-241 | 0.033 | 0.018 | 0.006 | |
| 0712-B | FS | PARAGON | Alpha | Pu-238 | 0 | 0.0091 | 0.0199 | U |
| 0712-B | FS | PARAGON | Alpha | Pu-239/240 | 0.076 | 0.028 | 0.02 | |

## Survey Unit 19 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0712-B | FS | PARAGON | Alpha | Pu-242 | 0.021 | 0.016 | 0.02 | |
| 0712-B | FS | PARAGON | Alpha | Th-230 | 0.65 | 0.13 | 0.04 | J |
| 0712-B | FS | PARAGON | Alpha | Th-232 | 1.01 | 0.18 | 0.02 | |
| 0712-B | FS | PARAGON | Alpha | U-233/234 | 2.53 | 0.42 | 0.03 | |
| 0712-B | FS | PARAGON | Alpha | U-235 | 0.062 | 0.031 | 0.03 | |
| 0712-B | FS | PARAGON | Alpha | U-238 | 0.66 | 0.13 | 0.01 | |
| 0712-B | FS | NFS | Gamma | Am-241 | 0.0566 | 0.2722 | 0.4606 | UH |
| 0712-B | FS | NFS | Gamma | Th-232 | 1.242 | 0.2678 | 0.433 | JH |
| 0712-B | FS | NFS | Gamma | U-235 | 0.1075 | 0.0542 | 0.09 | JH |
| 0712-B | FS | NFS | Gamma | U-238 | 3.39 | 4.267 | 10.75 | UH |
| 0712-C | FS | NFS | Gamma | Am-241 | -0.407 | -0.3936 | 0.673 | UH |
| 0712-C | FS | NFS | Gamma | Th-232 | 0.8968 | 0.2526 | 0.4121 | JH |
| 0712-C | FS | NFS | Gamma | U-235 | 0.0315 | 0.0525 | 0.0872 | UH |
| 0712-C | FS | NFS | Gamma | U-238 | -5.298 | -5.841 | 10.08 | UH |
| 0712-D | FS | NFS | Gamma | Am-241 | 0.1249 | 0.3703 | 0.4338 | UH |
| 0712-D | FS | NFS | Gamma | Th-232 | 0.6443 | 0.2734 | 0.4526 | JH |
| 0712-D | FS | NFS | Gamma | U-235 | 0.0815 | 0.0524 | 0.0877 | UH |
| 0712-D | FS | NFS | Gamma | U-238 | 11.56 | 5.356 | 8.844 | JH |
| 0712-E | FS | NFS | Gamma | Am-241 | -0.0152 | -0.3963 | 0.6724 | UH |
| 0712-E | FS | NFS | Gamma | Th-232 | 1.01 | 0.2589 | 0.4079 | JH |
| 0712-E | FS | NFS | Gamma | U-235 | 0.1295 | 0.0555 | 0.0916 | JH |
| 0712-E | FS | NFS | Gamma | U-238 | -13.28 | -7.259 | 12.61 | UH |
| 0712-F | FS | NFS | Gamma | Am-241 | 0.297 | 0.3084 | 0.5186 | UH |
| 0712-F | FS | NFS | Gamma | Th-232 | 0.4946 | 0.182 | 0.3006 | JH |
| 0712-F | FS | NFS | Gamma | U-235 | 0.1229 | 0.0545 | 0.0907 | JH |
| 0712-F | FS | NFS | Gamma | U-238 | -1.099 | -5.076 | 6.243 | UH |
| 0713-A | FS | NFS | Gamma | Am-241 | -0.1661 | -0.2851 | 0.485 | UH |
| 0713-A | FS | NFS | Gamma | Th-232 | 2.492 | 0.2887 | 0.445 | JH |
| 0713-A | FS | NFS | Gamma | U-235 | 0.2082 | 0.0593 | 0.0979 | JH |
| 0713-A | FS | NFS | Gamma | U-238 | 5.142 | 5.104 | 8.572 | UH |
| 0713-A-DUP | FD | NFS | Gamma | Am-241 | -0.3816 | -0.4268 | 0.7281 | UH |
| 0713-A-DUP | FD | NFS | Gamma | Th-232 | 2.241 | 0.3029 | 0.47 | JH |
| 0713-A-DUP | FD | NFS | Gamma | U-235 | 0.0634 | 0.0613 | 0.1035 | UH |
| 0713-A-DUP | FD | NFS | Gamma | U-238 | -2.643 | -8.545 | 10.31 | UH |
| 0713-B | FS | PARAGON | LSC | Tc-99 | -0.27 | 0.95 | 1.61 | U |
| 0713-B | FS | PARAGON | LSC | Pu-241 | 2.5 | 2.7 | 4.4 | U |
| 0713-B | FS | PARAGON | Gamma | Am-241 | -0.4 | 1.1 | 1.9 | U |
| 0713-B | FS | PARAGON | Gamma | Th-232 | 1.09 | 0.29 | 0.48 | |
| 0713-B | FS | PARAGON | Gamma | U-235 | -0.29 | 0.33 | 0.61 | U |
| 0713-B | FS | PARAGON | Alpha | Am-241 | 0.007 | 0.012 | 0.02 | U |
| 0713-B | FS | PARAGON | Alpha | Pu-238 | -0.003 | 0.016 | 0.023 | U |
| 0713-B | FS | PARAGON | Alpha | Pu-239/240 | 0.003 | 0.016 | 0.009 | U |
| 0713-B | FS | PARAGON | Alpha | Pu-242 | 0.004 | 0.01 | 0.021 | U |
| 0713-B | FS | PARAGON | Alpha | Th-230 | 0.63 | 0.15 | 0.06 | |
| 0713-B | FS | PARAGON | Alpha | Th-232 | 0.94 | 0.2 | 0.03 | |
| 0713-B | FS | PARAGON | Alpha | U-233/234 | 0.95 | 0.21 | 0.06 | |
| 0713-B | FS | PARAGON | Alpha | U-235 | 0.04 | 0.034 | 0.043 | U |
| 0713-B | FS | PARAGON | Alpha | U-238 | 0.66 | 0.16 | 0.03 | |
| 0713-B | FS | NFS | Gamma | Am-241 | -0.1788 | -0.251 | 0.4279 | UH |
| 0713-B | FS | NFS | Gamma | Th-232 | 1.071 | 0.2414 | 0.3956 | JH |
| 0713-B | FS | NFS | Gamma | U-235 | 0.185 | 0.0523 | 0.0861 | JH |
| 0713-B | FS | NFS | Gamma | U-238 | -11.47 | -6.468 | 11.23 | UH |
| 0713-B | LR | PARAGON | Gamma | Am-241 | 0.81 | 0.98 | 1.6 | U |

## Survey Unit 19 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0713-B | LR | PARAGON | Gamma | Th-232 | 0.88 | 0.29 | 0.51 | |
| 0713-B | LR | PARAGON | Gamma | U-235 | -0.06 | 0.34 | 0.6 | U |
| 0713-B | LR | PARAGON | Alpha | Am-241 | 0 | 0.0087 | 0.0048 | U |
| 0713-B | LR | PARAGON | Alpha | Pu-238 | 0.005 | 0.012 | 0.007 | U |
| 0713-B | LR | PARAGON | Alpha | Pu-239/240 | 0.007 | 0.012 | 0.007 | J |
| 0713-B | LR | PARAGON | Alpha | U-233/234 | 0.89 | 0.19 | 0.05 | |
| 0713-B | LR | PARAGON | Alpha | U-235 | 0.028 | 0.025 | 0.015 | |
| 0713-B | LR | PARAGON | Alpha | U-238 | 0.67 | 0.16 | 0.05 | |
| 0713-C | FS | NFS | Gamma | Am-241 | -0.1399 | -0.3131 | 0.5336 | UH |
| 0713-C | FS | NFS | Gamma | Th-232 | 0.5507 | 0.2509 | 0.3946 | JH |
| 0713-C | FS | NFS | Gamma | U-235 | 0.0726 | 0.0494 | 0.0827 | UH |
| 0713-C | FS | NFS | Gamma | U-238 | -0.488 | -4.301 | 8.97 | UH |
| 0713-D | FS | NFS | Gamma | Am-241 | 0.2105 | 0.2966 | 0.4234 | UH |
| 0713-D | FS | NFS | Gamma | Th-232 | 1.398 | 0.2115 | 0.3277 | JH |
| 0713-D | FS | NFS | Gamma | U-235 | 0.0476 | 0.0501 | 0.0842 | UH |
| 0713-D | FS | NFS | Gamma | U-238 | 0.8436 | 5.612 | 8.557 | UH |
| 0713-E | FS | NFS | Gamma | Am-241 | -0.5764 | -0.4199 | 0.7183 | UH |
| 0713-E | FS | NFS | Gamma | Th-232 | 1.875 | 0.2327 | 0.3557 | JH |
| 0713-E | FS | NFS | Gamma | U-235 | 0.0638 | 0.0543 | 0.0901 | UH |
| 0713-E | FS | NFS | Gamma | U-238 | -10.96 | -4.796 | 9.204 | UH |
| 0713-F | FS | NFS | Gamma | Am-241 | 0.3614 | 0.2875 | 0.4822 | UH |
| 0713-F | FS | NFS | Gamma | Th-232 | 1.661 | 0.2174 | 0.329 | JH |
| 0713-F | FS | NFS | Gamma | U-235 | -0.0071 | -0.054 | 0.0917 | UH |
| 0713-F | FS | NFS | Gamma | U-238 | -0.2136 | -5.46 | 9.319 | UH |
| 0713-G | FS | NFS | Gamma | Am-241 | -0.0221 | -1.444 | 2.437 | UH |
| 0713-G | FS | NFS | Gamma | Th-232 | 1.311 | 0.2684 | 0.4252 | JH |
| 0713-G | FS | NFS | Gamma | U-235 | 0.0513 | 0.0543 | 0.0913 | UH |
| 0713-G | FS | NFS | Gamma | U-238 | -3.43 | -6.117 | 10.5 | UH |
| 0713-H | FS | NFS | Gamma | Am-241 | -0.1873 | -0.2713 | 0.4623 | UH |
| 0713-H | FS | NFS | Gamma | Th-232 | 1.379 | 0.2364 | 0.371 | JH |
| 0713-H | FS | NFS | Gamma | U-235 | -0.000003 | -0.0547 | 0.0928 | UH |
| 0713-H | FS | NFS | Gamma | U-238 | -8.816 | -5.94 | 10.31 | UH |
| 0713-I | FS | NFS | Gamma | Am-241 | 0.0863 | 0.2584 | 0.4369 | UH |
| 0713-I | FS | NFS | Gamma | Th-232 | 0.9552 | 0.2921 | 0.4791 | JH |
| 0713-I | FS | NFS | Gamma | U-235 | -0.0273 | -0.0546 | 0.0925 | UH |
| 0713-I | FS | NFS | Gamma | U-238 | -2.943 | -16.23 | 9.424 | UH |
| 0713-J | FS | NFS | Gamma | Am-241 | -0.1647 | -0.267 | 0.4548 | UH |
| 0713-J | FS | NFS | Gamma | Th-232 | 1.42 | 0.287 | 0.462 | JH |
| 0713-J | FS | NFS | Gamma | U-235 | 0.0939 | 0.0562 | 0.0941 | UH |
| 0713-J | FS | NFS | Gamma | U-238 | -1.227 | -5.184 | 8.882 | UH |
| 0714-A | FS | NFS | Gamma | Am-241 | -0.3436 | -0.3943 | 0.6733 | UH |
| 0714-A | FS | NFS | Gamma | Th-232 | 1.558 | 0.2437 | 0.3797 | JH |
| 0714-A | FS | NFS | Gamma | U-235 | 0.0526 | 0.0598 | 0.099 | UH |
| 0714-A | FS | NFS | Gamma | U-238 | -2.995 | -5.619 | 8.266 | UH |
| 0714-B | FS | NFS | Gamma | Am-241 | -0.0018 | -0.2775 | 0.4703 | UH |
| 0714-B | FS | NFS | Gamma | Th-232 | 1.847 | 0.2018 | 0.2955 | JH |
| 0714-B | FS | NFS | Gamma | U-235 | 0.09 | 0.0521 | 0.0871 | JH |
| 0714-B | FS | NFS | Gamma | U-238 | 1.465 | 4.632 | 7.866 | UH |
| 0714-C | FS | PARAGON | LSC | Tc-99 | -0.53 | 0.95 | 1.62 | U |
| 0714-C | FS | PARAGON | LSC | Pu-241 | 5 | 4.4 | 6.9 | U |
| 0714-C | FS | PARAGON | Gamma | Am-241 | -0.03 | 0.56 | 1.01 | U |
| 0714-C | FS | PARAGON | Gamma | Th-232 | 1.33 | 0.43 | 0.75 | |
| 0714-C | FS | PARAGON | Gamma | U-235 | -0.35 | 0.48 | 0.9 | U |

## Survey Unit 19 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0714-C | FS | PARAGON | Alpha | Am-241 | 0.0079 | 0.0097 | 0.0145 | U |
| 0714-C | FS | PARAGON | Alpha | Pu-238 | -0.002 | 0.012 | 0.018 | U |
| 0714-C | FS | PARAGON | Alpha | Pu-239/240 | -0.002 | 0.012 | 0.018 | U |
| 0714-C | FS | PARAGON | Alpha | Pu-242 | 0 | 0.014 | 0.009 | U |
| 0714-C | FS | PARAGON | Alpha | Th-230 | 1.07 | 0.21 | 0.05 | |
| 0714-C | FS | PARAGON | Alpha | Th-232 | 1.49 | 0.28 | 0.03 | |
| 0714-C | FS | PARAGON | Alpha | U-233/234 | 1.29 | 0.26 | 0.05 | |
| 0714-C | FS | PARAGON | Alpha | U-235 | 0.036 | 0.03 | 0.016 | |
| 0714-C | FS | PARAGON | Alpha | U-238 | 0.77 | 0.18 | 0.04 | |
| 0714-C | FS | NFS | Gamma | Am-241 | -0.0597 | -0.389 | 0.6606 | UH |
| 0714-C | FS | NFS | Gamma | Th-232 | 1.657 | 0.2535 | 0.3976 | JH |
| 0714-C | FS | NFS | Gamma | U-235 | 0.0758 | 0.06 | 0.1006 | UH |
| 0714-C | FS | NFS | Gamma | U-238 | -7.324 | -5.003 | 8.748 | UH |
| 0714-D | FS | NFS | Gamma | Am-241 | 0.2387 | 0.7375 | 0.4449 | UH |
| 0714-D | FS | NFS | Gamma | Th-232 | 1.142 | 0.2183 | 0.3447 | JH |
| 0714-D | FS | NFS | Gamma | U-235 | 0.016 | 0.0512 | 0.0863 | UH |
| 0714-D | FS | NFS | Gamma | U-238 | -3.043 | -28.84 | 9.719 | UH |
| 0714-E | FS | NFS | Gamma | Am-241 | 0.1187 | 0.3619 | 0.6121 | UH |
| 0714-E | FS | NFS | Gamma | Th-232 | 1.37 | 0.2153 | 0.3358 | JH |
| 0714-E | FS | NFS | Gamma | U-235 | 0.1154 | 0.0512 | 0.085 | JH |
| 0714-E | FS | NFS | Gamma | U-238 | -1.296 | -4.703 | 8.07 | UH |
| 0714-E-DUP | FD | NFS | Gamma | Am-241 | 0.2458 | 0.257 | 0.4321 | UH |
| 0714-E-DUP | FD | NFS | Gamma | Th-232 | 1.427 | 0.1886 | 0.2836 | JH |
| 0714-E-DUP | FD | NFS | Gamma | U-235 | 0.133 | 0.0484 | 0.0801 | JH |
| 0714-E-DUP | FD | NFS | Gamma | U-238 | -5.907 | -5.059 | 9.438 | UH |
| 0714-F | FS | NFS | Gamma | Am-241 | -0.1848 | -0.369 | 0.6287 | UH |
| 0714-F | FS | NFS | Gamma | Th-232 | 1.105 | 0.2105 | 0.3324 | JH |
| 0714-F | FS | NFS | Gamma | U-235 | 0.0174 | 0.0536 | 0.0907 | UH |
| 0714-F | FS | NFS | Gamma | U-238 | -8.986 | -4.868 | 8.566 | UH |
| 0714-G | FS | NFS | Gamma | Am-241 | -0.5353 | -0.2807 | 0.4816 | UH |
| 0714-G | FS | NFS | Gamma | Th-232 | 0.6978 | 0.2399 | 0.3936 | JH |
| 0714-G | FS | NFS | Gamma | U-235 | -0.0186 | -0.054 | 0.0916 | UH |
| 0714-G | FS | NFS | Gamma | U-238 | -8.028 | -5.98 | 10.35 | UH |
| 0715-A | FS | PARAGON | LSC | Tc-99 | -0.35 | 0.87 | 1.48 | U |
| 0715-A | FS | PARAGON | LSC | Pu-241 | 2.8 | 2.8 | 4.4 | U |
| 0715-A | FS | PARAGON | Gamma | Am-241 | 0.49 | 0.52 | 0.84 | U |
| 0715-A | FS | PARAGON | Gamma | Th-232 | 0.95 | 0.53 | 0.73 | J |
| 0715-A | FS | PARAGON | Gamma | U-235 | 0.07 | 0.31 | 0.54 | U |
| 0715-A | FS | PARAGON | Alpha | Am-241 | 0.133 | 0.041 | 0.006 | |
| 0715-A | FS | PARAGON | Alpha | Pu-238 | 0.014 | 0.011 | 0.005 | |
| 0715-A | FS | PARAGON | Alpha | Pu-239/240 | 0.362 | 0.078 | 0.014 | |
| 0715-A | FS | PARAGON | Alpha | Pu-242 | 0.011 | 0.011 | 0.013 | U |
| 0715-A | FS | PARAGON | Alpha | Th-230 | 0.71 | 0.13 | 0.04 | J |
| 0715-A | FS | PARAGON | Alpha | Th-232 | 0.82 | 0.15 | 0.03 | |
| 0715-A | FS | PARAGON | Alpha | U-233/234 | 5.17 | 0.82 | 0.02 | |
| 0715-A | FS | PARAGON | Alpha | U-235 | 0.126 | 0.042 | 0.019 | |
| 0715-A | FS | PARAGON | Alpha | U-238 | 0.91 | 0.17 | 0.02 | |
| 0715-A | FS | NFS | Gamma | Am-241 | 0.1816 | 1.277 | 2.154 | UH |
| 0715-A | FS | NFS | Gamma | Th-232 | 0.9875 | 0.2836 | 0.4633 | JH |
| 0715-A | FS | NFS | Gamma | U-235 | 0.1972 | 0.0552 | 0.0899 | JH |
| 0715-A | FS | NFS | Gamma | U-238 | -9.203 | -6.608 | 11.47 | UH |
| 0715-B | FS | NFS | Gamma | Am-241 | 0.1739 | 0.2827 | 0.4769 | UH |
| 0715-B | FS | NFS | Gamma | Th-232 | 0.6522 | 0.1688 | 0.2664 | JH |

## Survey Unit 19 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0715-B | FS | NFS | Gamma | U-235 | 0.086 | 0.0523 | 0.0875 | UH |
| 0715-B | FS | NFS | Gamma | U-238 | 3.143 | 3.345 | 5.624 | UH |
| 0715-C | FS | NFS | Gamma | Am-241 | -0.5887 | -1.177 | 1.989 | UH |
| 0715-C | FS | NFS | Gamma | Th-232 | 1.178 | 0.2587 | 0.4154 | JH |
| 0715-C | FS | NFS | Gamma | U-235 | 0.0043 | 0.0556 | 0.0928 | UH |
| 0715-C | FS | NFS | Gamma | U-238 | -3.672 | -3.572 | 9.991 | UH |
| 0715-D | FS | NFS | Gamma | Am-241 | 0.1123 | 1.223 | 2.064 | UH |
| 0715-D | FS | NFS | Gamma | Th-232 | 1.216 | 0.2735 | 0.4432 | JH |
| 0715-D | FS | NFS | Gamma | U-235 | 0.0956 | 0.0537 | 0.0865 | JH |
| 0715-D | FS | NFS | Gamma | U-238 | -1.943 | -7.253 | 9.34 | UH |
| 0715-D-DUP | FD | NFS | Gamma | Am-241 | 0.3041 | 0.2873 | 0.4825 | UH |
| 0715-D-DUP | FD | NFS | Gamma | Th-232 | 0.5907 | 0.1639 | 0.25 | JH |
| 0715-D-DUP | FD | NFS | Gamma | U-235 | 0.1721 | 0.047 | 0.0766 | JH |
| 0715-D-DUP | FD | NFS | Gamma | U-238 | 1.816 | 3.042 | 5.142 | UH |
| 0715-E | FS | NFS | Gamma | Am-241 | -0.0635 | -0.2815 | 0.4782 | UH |
| 0715-E | FS | NFS | Gamma | Th-232 | 0.8467 | 0.1663 | 0.2457 | JH |
| 0715-E | FS | NFS | Gamma | U-235 | 0.0487 | 0.0491 | 0.081 | UH |
| 0715-E | FS | NFS | Gamma | U-238 | -2.289 | -3.581 | 6.28 | UH |
| 0715-F | FS | NFS | Gamma | Am-241 | -0.327 | -1.23 | 2.077 | UH |
| 0715-F | FS | NFS | Gamma | Th-232 | 1.017 | 0.2575 | 0.4189 | JH |
| 0715-F | FS | NFS | Gamma | U-235 | 0.0194 | 0.0497 | 0.084 | UH |
| 0715-F | FS | NFS | Gamma | U-238 | -2.913 | -5.121 | 8.814 | UH |
| 0715-G | FS | NFS | Gamma | Am-241 | -0.3403 | -0.3779 | 0.6455 | UH |
| 0715-G | FS | NFS | Gamma | Th-232 | 1.436 | 0.2194 | 0.3395 | JH |
| 0715-G | FS | NFS | Gamma | U-235 | -0.0169 | -0.0553 | 0.0905 | UH |
| 0715-G | FS | NFS | Gamma | U-238 | -9.321 | -5.256 | 9.208 | UH |
| 0715-H | FS | NFS | Gamma | Am-241 | 0.0491 | 0.2715 | 0.4596 | UH |
| 0715-H | FS | NFS | Gamma | Th-232 | 1.465 | 0.2011 | 0.3038 | JH |
| 0715-H | FS | NFS | Gamma | U-235 | -0.0583 | -0.0548 | 0.0934 | UH |
| 0715-H | FS | NFS | Gamma | U-238 | 5.53 | 4.357 | 7.278 | UH |
| 0715-H-DUP | FD | NFS | Gamma | Am-241 | -0.0762 | -0.3408 | 0.5794 | UH |
| 0715-H-DUP | FD | NFS | Gamma | Th-232 | 0.9554 | 0.246 | 0.3947 | JH |
| 0715-H-DUP | FD | NFS | Gamma | U-235 | 0.0959 | 0.048 | 0.08 | JH |
| 0715-H-DUP | FD | NFS | Gamma | U-238 | -5.218 | -5.153 | 8.924 | UH |
| 0715-I | FS | NFS | Gamma | Am-241 | 0.0234 | 0.2584 | 0.4378 | UH |
| 0715-I | FS | NFS | Gamma | Th-232 | 1.152 | 0.1954 | 0.3026 | JH |
| 0715-I | FS | NFS | Gamma | U-235 | 0.1536 | 0.0538 | 0.089 | JH |
| 0715-I | FS | NFS | Gamma | U-238 | -2.193 | -5.021 | 8.619 | UH |
| 0715-J | FS | NFS | Gamma | Am-241 | 0.0028 | 0.2538 | 0.4304 | UH |
| 0715-J | FS | NFS | Gamma | Th-232 | 0.6127 | 0.2928 | 0.4866 | JH |
| 0715-J | FS | NFS | Gamma | U-235 | 0.1296 | 0.0508 | 0.0843 | JH |
| 0715-J | FS | NFS | Gamma | U-238 | 6.275 | 5.371 | 9.222 | UH |
| 0716-A | FS | NFS | Gamma | Am-241 | -0.2622 | -0.2581 | 0.4409 | UH |
| 0716-A | FS | NFS | Gamma | Th-232 | 1.739 | 0.2301 | 0.3488 | JH |
| 0716-A | FS | NFS | Gamma | U-235 | 0.1256 | 0.0547 | 0.0908 | JH |
| 0716-A | FS | NFS | Gamma | U-238 | 0.5508 | 3.881 | 11.3 | UH |
| 0716-B | FS | NFS | Gamma | Am-241 | -0.1844 | -0.3616 | 0.6163 | UH |
| 0716-B | FS | NFS | Gamma | Th-232 | 1.271 | 0.2488 | 0.3975 | JH |
| 0716-B | FS | NFS | Gamma | U-235 | 0.0335 | 0.0531 | 0.0877 | UH |
| 0716-B | FS | NFS | Gamma | U-238 | 11.72 | 4.937 | 8.003 | JH |
| 0716-C | FS | NFS | Gamma | Am-241 | -0.4376 | -0.3007 | 0.5141 | UH |
| 0716-C | FS | NFS | Gamma | Th-232 | 2.736 | 0.2835 | 0.4269 | JH |
| 0716-C | FS | NFS | Gamma | U-235 | 0.0094 | 0.0616 | 0.1041 | UH |

## Survey Unit 19 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0716-C | FS | NFS | Gamma | U-238 | 4.648 | 6.264 | 10.56 | UH |
| 0716-D | FS | NFS | Gamma | Am-241 | -0.0873 | -0.3512 | 0.5972 | UH |
| 0716-D | FS | NFS | Gamma | Th-232 | 1.468 | 0.2137 | 0.3312 | JH |
| 0716-D | FS | NFS | Gamma | U-235 | 0.1066 | 0.0566 | 0.0887 | JH |
| 0716-D | FS | NFS | Gamma | U-238 | 3.515 | 5.141 | 8.677 | UH |
| 0716-E | FS | NFS | Gamma | Am-241 | -0.185 | -0.2897 | 0.4714 | UH |
| 0716-E | FS | NFS | Gamma | Th-232 | 1.671 | 0.2542 | 0.3959 | JH |
| 0716-E | FS | NFS | Gamma | U-235 | -0.0251 | -0.0573 | 0.0968 | UH |
| 0716-E | FS | NFS | Gamma | U-238 | 6.14 | 5.373 | 10.1 | UH |
| 0716-F | FS | NFS | Gamma | Am-241 | -0.9387 | -0.4086 | 0.7019 | UH |
| 0716-F | FS | NFS | Gamma | Th-232 | 1.175 | 0.2645 | 0.4218 | JH |
| 0716-F | FS | NFS | Gamma | U-235 | 0.0702 | 0.0567 | 0.0905 | UH |
| 0716-F | FS | NFS | Gamma | U-238 | -3.21 | -6.293 | 10.78 | UH |
| 0716-G | FS | NFS | Gamma | Am-241 | 0.4015 | 0.4384 | 0.7373 | UH |
| 0716-G | FS | NFS | Gamma | Th-232 | 1.881 | 0.3193 | 0.5061 | JH |
| 0716-G | FS | NFS | Gamma | U-235 | 0.1758 | 0.0648 | 0.1074 | JH |
| 0716-G | FS | NFS | Gamma | U-238 | -7.93 | -7.495 | 12.94 | UH |
| 0716-H | FS | NFS | Gamma | Am-241 | 0.1081 | 0.4124 | 0.6979 | UH |
| 0716-H | FS | NFS | Gamma | Th-232 | 1.32 | 0.3269 | 0.5311 | JH |
| 0716-H | FS | NFS | Gamma | U-235 | -0.0091 | -0.0711 | 0.1168 | UH |
| 0716-H | FS | NFS | Gamma | U-238 | -0.4718 | -6.864 | 12.24 | UH |
| 0716-I | FS | NFS | Gamma | Am-241 | 0.571 | 0.4432 | 0.7424 | UH |
| 0716-I | FS | NFS | Gamma | Th-232 | 1.283 | 0.3508 | 0.5713 | JH |
| 0716-I | FS | NFS | Gamma | U-235 | 0.2286 | 0.0674 | 0.1095 | JH |
| 0716-I | FS | NFS | Gamma | U-238 | -4.115 | -138.1 | 12.84 | UH |
| 0716-J | FS | NFS | Gamma | Am-241 | 0.1223 | 0.3877 | 0.6562 | UH |
| 0716-J | FS | NFS | Gamma | Th-232 | 2.01 | 0.3263 | 0.5079 | JH |
| 0716-J | FS | NFS | Gamma | U-235 | 0.1373 | 0.0718 | 0.1199 | JH |
| 0716-J | FS | NFS | Gamma | U-238 | 1.38 | 7.904 | 13.43 | UH |
| 0717-A | FS | PARAGON | LSC | Tc-99 | -0.2 | 0.88 | 1.5 | U |
| 0717-A | FS | PARAGON | LSC | Pu-241 | 1.6 | 2.5 | 4.1 | U |
| 0717-A | FS | PARAGON | Gamma | Am-241 | 0.02 | 0.13 | 0.22 | U |
| 0717-A | FS | PARAGON | Gamma | Th-232 | 1.32 | 0.44 | 0.56 | J |
| 0717-A | FS | PARAGON | Gamma | U-235 | 0.11 | 0.35 | 0.61 | U |
| 0717-A | FS | PARAGON | Alpha | Am-241 | 0.002 | 0.012 | 0.018 | U |
| 0717-A | FS | PARAGON | Alpha | Pu-238 | 0 | 0.013 | 0.02 | U |
| 0717-A | FS | PARAGON | Alpha | Pu-239/240 | 0.014 | 0.014 | 0.007 | J |
| 0717-A | FS | PARAGON | Alpha | Pu-242 | 0.0129 | 0.0099 | 0.012 | |
| 0717-A | FS | PARAGON | Alpha | Th-230 | 0.63 | 0.13 | 0.05 | |
| 0717-A | FS | PARAGON | Alpha | Th-232 | 0.92 | 0.18 | 0.01 | |
| 0717-A | FS | PARAGON | Alpha | U-233/234 | 1.19 | 0.26 | 0.04 | |
| 0717-A | FS | PARAGON | Alpha | U-235 | 0.069 | 0.045 | 0.019 | |
| 0717-A | FS | PARAGON | Alpha | U-238 | 0.86 | 0.2 | 0.03 | |
| 0717-A | FS | NFS | Gamma | Am-241 | -0.2418 | -0.2713 | 0.4628 | UH |
| 0717-A | FS | NFS | Gamma | Th-232 | 1.74 | 0.2603 | 0.4065 | JH |
| 0717-A | FS | NFS | Gamma | U-235 | 0.0333 | 0.0533 | 0.0894 | UH |
| 0717-A | FS | NFS | Gamma | U-238 | 2.726 | 4.514 | 10.21 | UH |
| 0717-B | FS | NFS | Gamma | Am-241 | -0.4764 | -0.3881 | 0.6645 | UH |
| 0717-B | FS | NFS | Gamma | Th-232 | 1.248 | 0.2415 | 0.3846 | JH |
| 0717-B | FS | NFS | Gamma | U-235 | 0.1333 | 0.0524 | 0.0869 | JH |
| 0717-B | FS | NFS | Gamma | U-238 | 3.277 | 5.737 | 9.699 | UH |
| 0717-C | FS | NFS | Gamma | Am-241 | -0.7479 | -0.2798 | 0.482 | UH |
| 0717-C | FS | NFS | Gamma | Th-232 | 1.109 | 0.2643 | 0.4274 | JH |

## Survey Unit 19 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0717-C | FS | NFS | Gamma | U-235 | 0.0142 | 0.0525 | 0.0875 | UH |
| 0717-C | FS | NFS | Gamma | U-238 | 4.587 | 5.704 | 9.61 | UH |
| 0717-C-DUP | FD | NFS | Gamma | Am-241 | 0.3406 | 0.3837 | 0.6453 | UH |
| 0717-C-DUP | FD | NFS | Gamma | Th-232 | 1.33 | 0.2395 | 0.3784 | JH |
| 0717-C-DUP | FD | NFS | Gamma | U-235 | 0.0779 | 0.052 | 0.087 | UH |
| 0717-C-DUP | FD | NFS | Gamma | U-238 | 4.524 | 5.579 | 8.921 | UH |
| 0717-D | FS | NFS | Gamma | Am-241 | 0.2857 | 0.2516 | 0.4224 | UH |
| 0717-D | FS | NFS | Gamma | Th-232 | 0.8083 | 0.2528 | 0.4131 | JH |
| 0717-D | FS | NFS | Gamma | U-235 | 0.0555 | 0.0554 | 0.093 | UH |
| 0717-D | FS | NFS | Gamma | U-238 | 0.6678 | 4.74 | 8.45 | UH |
| 0717-E | FS | NFS | Gamma | Am-241 | -0.1891 | -0.3574 | 0.6091 | UH |
| 0717-E | FS | NFS | Gamma | Th-232 | 0.8859 | 0.2358 | 0.3826 | JH |
| 0717-E | FS | NFS | Gamma | U-235 | 0.0486 | 0.0533 | 0.0896 | UH |
| 0717-E | FS | NFS | Gamma | U-238 | 0.7427 | 5.615 | 9.556 | UH |
| 0717-F | FS | NFS | Gamma | Am-241 | 0.2443 | 0.2839 | 0.4778 | UH |
| 0717-F | FS | NFS | Gamma | Th-232 | 0.8078 | 0.2683 | 0.4395 | JH |
| 0717-F | FS | NFS | Gamma | U-235 | 0.2431 | 0.0599 | 0.0984 | JH |
| 0717-F | FS | NFS | Gamma | U-238 | -3.222 | -6.8 | 11.34 | UH |
| 0717-G | FS | NFS | Gamma | Am-241 | 0.0089 | 0.2556 | 0.4333 | UH |
| 0717-G | FS | NFS | Gamma | Th-232 | 0.4987 | 0.2187 | 0.3609 | JH |
| 0717-G | FS | NFS | Gamma | U-235 | -0.0217 | -0.0513 | 0.0868 | UH |
| 0717-G | FS | NFS | Gamma | U-238 | -4.014 | -5.433 | 9.355 | UH |
| 0717-H | FS | NFS | Gamma | Am-241 | -0.2118 | -0.2652 | 0.4522 | UH |
| 0717-H | FS | NFS | Gamma | Th-232 | 1.257 | 0.2457 | 0.3914 | JH |
| 0717-H | FS | NFS | Gamma | U-235 | 0.0385 | 0.0503 | 0.0846 | UH |
| 0717-H | FS | NFS | Gamma | U-238 | 5.126 | 5.422 | 8.964 | UH |
| 0718-A | FS | NFS | Gamma | Am-241 | 0.0084 | 0.3453 | 0.5851 | UH |
| 0718-A | FS | NFS | Gamma | Th-232 | 0.9732 | 0.2312 | 0.3524 | JH |
| 0718-A | FS | NFS | Gamma | U-235 | 0.1621 | 0.0604 | 0.0999 | JH |
| 0718-A | FS | NFS | Gamma | U-238 | -3.73 | -4.489 | 7.715 | UH |
| 0718-B | FS | NFS | Gamma | Am-241 | -0.116 | -1.293 | 2.183 | UH |
| 0718-B | FS | NFS | Gamma | Th-232 | 1.299 | 0.2857 | 0.4564 | JH |
| 0718-B | FS | NFS | Gamma | U-235 | 0.1436 | 0.0592 | 0.0983 | JH |
| 0718-B | FS | NFS | Gamma | U-238 | 7.408 | 5.337 | 8.895 | UH |
| 0718-C | FS | NFS | Gamma | Am-241 | -0.016 | -0.2814 | 0.4772 | UH |
| 0718-C | FS | NFS | Gamma | Th-232 | 1.252 | 0.2794 | 0.4484 | JH |
| 0718-C | FS | NFS | Gamma | U-235 | 0.0276 | 0.0565 | 0.0949 | UH |
| 0718-C | FS | NFS | Gamma | U-238 | 6.385 | 5.744 | 9.727 | UH |
| 0718-D | FS | PARAGON | LSC | Tc-99 | -0.5 | 1.3 | 2.1 | U |
| 0718-D | FS | PARAGON | LSC | Pu-241 | 1.2 | 3.5 | 5.8 | U |
| 0718-D | FS | PARAGON | Gamma | Am-241 | -0.1 | 1.1 | 1.9 | U |
| 0718-D | FS | PARAGON | Gamma | Th-232 | 1.15 | 0.37 | 0.47 | J |
| 0718-D | FS | PARAGON | Gamma | U-235 | -0.04 | 0.36 | 0.65 | U |
| 0718-D | FS | PARAGON | Alpha | Am-241 | 0.004 | 0.01 | 0.015 | U |
| 0718-D | FS | PARAGON | Alpha | Pu-238 | 0.002 | 0.0096 | 0.0053 | U |
| 0718-D | FS | PARAGON | Alpha | Pu-239/240 | 0.02 | 0.013 | 0.005 | |
| 0718-D | FS | PARAGON | Alpha | Pu-242 | 0.014 | 0.014 | 0.017 | U |
| 0718-D | FS | PARAGON | Alpha | Th-230 | 0.84 | 0.15 | 0.04 | J |
| 0718-D | FS | PARAGON | Alpha | Th-232 | 0.9 | 0.16 | 0.02 | |
| 0718-D | FS | PARAGON | Alpha | U-233/234 | 1.27 | 0.22 | 0.03 | |
| 0718-D | FS | PARAGON | Alpha | U-235 | 0.034 | 0.021 | 0.019 | |
| 0718-D | FS | PARAGON | Alpha | U-238 | 0.79 | 0.15 | 0.02 | |
| 0718-D | FS | NFS | Gamma | Am-241 | -0.3546 | -0.3709 | 0.6338 | UH |

## Survey Unit 19 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0718-D | FS | NFS | Gamma | Th-232 | 1.418 | 0.248 | 0.3902 | JH |
| 0718-D | FS | NFS | Gamma | U-235 | 0.128 | 0.0554 | 0.092 | JH |
| 0718-D | FS | NFS | Gamma | U-238 | 2.61 | 7.153 | 9.93 | UH |
| 0718-D | LR | PARAGON | Gamma | Am-241 | -0.09 | 0.37 | 0.7 | U |
| 0718-D | LR | PARAGON | Gamma | Th-232 | 0.88 | 0.4 | 0.6 | J |
| 0718-D | LR | PARAGON | Gamma | U-235 | -0.05 | 0.3 | 0.55 | U |
| 0718-D | LR | PARAGON | Alpha | Am-241 | 0.008 | 0.014 | 0.008 | J |
| 0718-D | LR | PARAGON | Alpha | Pu-238 | 0.007 | 0.011 | 0.006 | J |
| 0718-D | LR | PARAGON | Alpha | Pu-239/240 | 0.013 | 0.013 | 0.017 | U |
| 0718-D | LR | PARAGON | Alpha | U-233/234 | 1.39 | 0.24 | 0.01 | |
| 0718-D | LR | PARAGON | Alpha | U-235 | 0.04 | 0.022 | 0.008 | |
| 0718-D | LR | PARAGON | Alpha | U-238 | 0.79 | 0.15 | 0.01 | |
| 0718-D-DUP | FD | PARAGON | LSC | Pu-241 | 0.1 | 2.1 | 3.5 | U |
| 0718-D-DUP | FD | PARAGON | Gamma | Am-241 | 0 | 0.1 | 0.19 | U |
| 0718-D-DUP | FD | PARAGON | Gamma | Th-232 | 1.06 | 0.44 | 0.82 | J |
| 0718-D-DUP | FD | PARAGON | Gamma | U-235 | -0.04 | 0.33 | 0.6 | U |
| 0718-D-DUP | FD | PARAGON | Alpha | Am-241 | 0.006 | 0.011 | 0.016 | U |
| 0718-D-DUP | FD | PARAGON | Alpha | Pu-238 | -0.0039 | 0.0095 | 0.018 | U |
| 0718-D-DUP | FD | PARAGON | Alpha | Pu-239/240 | 0.019 | 0.015 | 0.018 | |
| 0718-D-DUP | FD | PARAGON | Alpha | Pu-242 | 0.013 | 0.013 | 0.02 | U |
| 0718-D-DUP | FD | PARAGON | Alpha | Th-230 | 0.93 | 0.17 | 0.04 | J |
| 0718-D-DUP | FD | PARAGON | Alpha | Th-232 | 1.11 | 0.2 | 0.02 | |
| 0718-D-DUP | FD | PARAGON | Alpha | U-233/234 | 1.3 | 0.23 | 0.03 | |
| 0718-D-DUP | FD | PARAGON | Alpha | U-235 | 0.036 | 0.02 | 0.007 | |
| 0718-D-DUP | FD | PARAGON | Alpha | U-238 | 0.82 | 0.15 | 0.02 | |
| 0718-D-DUP | LR | PARAGON | LSC | Pu-241 | -0.1 | 2.8 | 4.8 | U |
| 0718-D-DUP | LR | PARAGON | Alpha | Pu-242 | 0.018 | 0.015 | 0.016 | |
| 0718-D-DUP | LR | PARAGON | Alpha | Th-230 | 0.73 | 0.13 | 0.04 | R |
| 0718-D-DUP | LR | PARAGON | Alpha | Th-232 | 1.06 | 0.19 | 0.02 | |
| 0718-E | FS | NFS | Gamma | Am-241 | -0.1888 | -0.276 | 0.47 | UH |
| 0718-E | FS | NFS | Gamma | Th-232 | 0.9691 | 0.2546 | 0.4142 | JH |
| 0718-E | FS | NFS | Gamma | U-235 | 0.0858 | 0.0552 | 0.0916 | UH |
| 0718-E | FS | NFS | Gamma | U-238 | 3.143 | 5.589 | 9.447 | UH |
| 0718-F | FS | NFS | Gamma | Am-241 | -1.02 | -0.3884 | 0.6675 | UH |
| 0718-F | FS | NFS | Gamma | Th-232 | 1.326 | 0.2314 | 0.3667 | JH |
| 0718-F | FS | NFS | Gamma | U-235 | 0.1248 | 0.0567 | 0.0876 | JH |
| 0718-F | FS | NFS | Gamma | U-238 | 7.199 | 4.957 | 8.265 | UH |
| 0718-G | FS | NFS | Gamma | Am-241 | 0.1222 | 0.2664 | 0.45 | UH |
| 0718-G | FS | NFS | Gamma | Th-232 | 1.163 | 0.2166 | 0.3418 | JH |
| 0718-G | FS | NFS | Gamma | U-235 | -0.0638 | -0.0521 | 0.0891 | UH |
| 0718-G | FS | NFS | Gamma | U-238 | -0.5022 | -4.625 | 7.908 | UH |
| 0718-H | FS | NFS | Gamma | Am-241 | -0.0239 | -0.3842 | 0.6517 | UH |
| 0718-H | FS | NFS | Gamma | Th-232 | 1.51 | 0.3263 | 0.5159 | JH |
| 0718-H | FS | NFS | Gamma | U-235 | 0.2333 | 0.0785 | 0.1295 | JH |
| 0718-H | FS | NFS | Gamma | U-238 | -3.251 | -8.64 | 14.82 | UH |
| 0719-A | FS | NFS | Gamma | Am-241 | -0.6387 | -0.3888 | 0.6666 | UH |
| 0719-A | FS | NFS | Gamma | Th-232 | 0.8234 | 0.2217 | 0.3569 | JH |
| 0719-A | FS | NFS | Gamma | U-235 | 0.1552 | 0.0527 | 0.0865 | JH |
| 0719-A | FS | NFS | Gamma | U-238 | 3.594 | 4.85 | 8.712 | UH |
| 0719-B | FS | PARAGON | LSC | Tc-99 | 0.21 | 0.96 | 1.6 | U |
| 0719-B | FS | PARAGON | LSC | Pu-241 | -2.2 | 3.4 | 5.9 | U |
| 0719-B | FS | PARAGON | Gamma | Am-241 | 0.07 | 0.14 | 0.23 | U |
| 0719-B | FS | PARAGON | Gamma | Th-232 | 1.11 | 0.39 | 0.73 | |

## Survey Unit 19 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0719-B | FS | PARAGON | Gamma | U-235 | 0.14 | 0.36 | 0.63 | U |
| 0719-B | FS | PARAGON | Alpha | Am-241 | 0.011 | 0.012 | 0.017 | U |
| 0719-B | FS | PARAGON | Alpha | Pu-238 | 0.016 | 0.013 | 0.007 | |
| 0719-B | FS | PARAGON | Alpha | Pu-239/240 | 0.003 | 0.013 | 0.02 | U |
| 0719-B | FS | PARAGON | Alpha | Pu-242 | -0.002 | 0.012 | 0.018 | U |
| 0719-B | FS | PARAGON | Alpha | Th-230 | 0.66 | 0.14 | 0.05 | |
| 0719-B | FS | PARAGON | Alpha | Th-232 | 0.99 | 0.19 | 0.02 | |
| 0719-B | FS | PARAGON | Alpha | U-233/234 | 1.46 | 0.26 | 0.03 | |
| 0719-B | FS | PARAGON | Alpha | U-235 | 0.061 | 0.032 | 0.028 | |
| 0719-B | FS | PARAGON | Alpha | U-238 | 0.6 | 0.13 | 0.03 | |
| 0719-B | FS | NFS | Gamma | Am-241 | -0.009 | -0.2816 | 0.4773 | U |
| 0719-B | FS | NFS | Gamma | Th-232 | 1.314 | 0.2535 | 0.4083 | |
| 0719-B | FS | NFS | Gamma | U-235 | 0.0173 | 0.0539 | 0.0908 | U |
| 0719-B | FS | NFS | Gamma | U-238 | 2.034 | 4.329 | 11.85 | U |
| 0719-B | LR | PARAGON | Gamma | Am-241 | 0.04 | 0.13 | 0.22 | U |
| 0719-B | LR | PARAGON | Gamma | Th-232 | 1.17 | 0.46 | 0.7 | J |
| 0719-B | LR | PARAGON | Gamma | U-235 | 0.1 | 0.39 | 0.68 | U |
| 0719-C | FS | NFS | Gamma | Am-241 | 0.0431 | 0.3178 | 0.4387 | UH |
| 0719-C | FS | NFS | Gamma | Th-232 | 0.8106 | 0.2494 | 0.4074 | JH |
| 0719-C | FS | NFS | Gamma | U-235 | 0.0298 | 0.0524 | 0.0884 | UH |
| 0719-C | FS | NFS | Gamma | U-238 | -0.657 | -5.365 | 9.162 | UH |
| 0719-D | FS | NFS | Gamma | Am-241 | 0.3834 | 0.401 | 0.6739 | UH |
| 0719-D | FS | NFS | Gamma | Th-232 | 1.502 | 0.2586 | 0.4042 | JH |
| 0719-D | FS | NFS | Gamma | U-235 | -0.0414 | -0.553 | 0.0945 | UH |
| 0719-D | FS | NFS | Gamma | U-238 | 5.457 | 9.35 | 9.675 | UH |
| 0719-E | FS | NFS | Gamma | Am-241 | 0.2955 | 0.2847 | 0.4785 | UH |
| 0719-E | FS | NFS | Gamma | Th-232 | 0.6516 | 0.3191 | 0.5362 | JH |
| 0719-E | FS | NFS | Gamma | U-235 | 0.0885 | 0.0567 | 0.0945 | UH |
| 0719-E | FS | NFS | Gamma | U-238 | -2.691 | -6.069 | 10.41 | UH |
| 0719-F | FS | NFS | Gamma | Am-241 | -0.1073 | -0.3904 | 0.6639 | UH |
| 0719-F | FS | NFS | Gamma | Th-232 | 1.49 | 0.2668 | 0.4198 | JH |
| 0719-F | FS | NFS | Gamma | U-235 | -0.0231 | -0.0598 | 0.1016 | UH |
| 0719-F | FS | NFS | Gamma | U-238 | -3.287 | -7.072 | 12.12 | UH |
| 0719-G | FS | NFS | Gamma | Am-241 | -0.7763 | -1.689 | 0.6252 | UH |
| 0719-G | FS | NFS | Gamma | Th-232 | 1.372 | 0.2492 | 0.3955 | JH |
| 0719-G | FS | NFS | Gamma | U-235 | 0.0484 | 0.0554 | 0.0932 | UH |
| 0719-G | FS | NFS | Gamma | U-238 | -4.89 | -6.164 | 10.62 | UH |
| 0719-H | FS | NFS | Gamma | Am-241 | -0.0226 | -0.3468 | 0.5891 | UH |
| 0719-H | FS | NFS | Gamma | Th-232 | 0.6508 | 0.2356 | 0.3865 | JH |
| 0719-H | FS | NFS | Gamma | U-235 | 0.0486 | 0.0567 | 0.0954 | UH |
| 0719-H | FS | NFS | Gamma | U-238 | -4.248 | -5.605 | 9.683 | UH |
| 0719-I | FS | NFS | Gamma | Am-241 | -0.0437 | -0.2546 | 0.4323 | UH |
| 0719-I | FS | NFS | Gamma | Th-232 | 0.9544 | 0.3029 | 0.4975 | JH |
| 0719-I | FS | NFS | Gamma | U-235 | 0.1306 | 0.0526 | 0.0874 | JH |
| 0719-I | FS | NFS | Gamma | U-238 | 4.204 | 5.175 | 8.717 | UH |
| 0719-J | FS | NFS | Gamma | Am-241 | 0.2592 | 0.3268 | 0.5504 | UH |
| 0719-J | FS | NFS | Gamma | Th-232 | 1.816 | 0.3474 | 0.5546 | JH |
| 0719-J | FS | NFS | Gamma | U-235 | 0.1012 | 0.0672 | 0.1122 | UH |
| 0719-J | FS | NFS | Gamma | U-238 | 5.835 | 6.542 | 11.01 | UH |
| 0720-A | FS | NFS | Gamma | Am-241 | -0.0542 | -0.331 | 0.5615 | UH |
| 0720-A | FS | NFS | Gamma | Th-232 | 1.136 | 0.3856 | 0.6363 | JH |
| 0720-A | FS | NFS | Gamma | U-235 | 0.2186 | 0.0692 | 0.1147 | JH |
| 0720-A | FS | NFS | Gamma | U-238 | -10.35 | -8.606 | 14.81 | UH |

## Survey Unit 19 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0720-A-DUP | FD | NFS | Gamma | Am-241 | -0.357 | -0.4522 | 0.7712 | UH |
| 0720-A-DUP | FD | NFS | Gamma | Th-232 | 2.087 | 0.3127 | 0.486 | JH |
| 0720-A-DUP | FD | NFS | Gamma | U-235 | 0.2577 | 0.0675 | 0.1074 | JH |
| 0720-A-DUP | FD | NFS | Gamma | U-238 | 2.324 | 7.272 | 11.91 | UH |
| 0720-B | FS | NFS | Gamma | Am-241 | 0.0764 | 0.2688 | 0.4546 | UH |
| 0720-B | FS | NFS | Gamma | Th-232 | 1.326 | 0.274 | 0.4414 | JH |
| 0720-B | FS | NFS | Gamma | U-235 | -0.0486 | -0.0588 | 0.1002 | UH |
| 0720-B | FS | NFS | Gamma | U-238 | 4.812 | 6.187 | 10.21 | UH |
| 0720-C | FS | NFS | Gamma | Am-241 | -0.4251 | -0.3823 | 0.654 | UH |
| 0720-C | FS | NFS | Gamma | Th-232 | 1.406 | 0.245 | 0.3877 | JH |
| 0720-C | FS | NFS | Gamma | U-235 | 0.1139 | 0.053 | 0.0871 | JH |
| 0720-C | FS | NFS | Gamma | U-238 | -3.529 | -6.424 | 10.28 | UH |
| 0720-D | FS | NFS | Gamma | Am-241 | 0.3572 | 0.2552 | 0.4274 | UH |
| 0720-D | FS | NFS | Gamma | Th-232 | 0.9706 | 0.2504 | 0.4062 | JH |
| 0720-D | FS | NFS | Gamma | U-235 | 0.0272 | 0.0523 | 0.0884 | UH |
| 0720-D | FS | NFS | Gamma | U-238 | -4.231 | -6.235 | 10.7 | UH |
| 0720-E | FS | NFS | Gamma | Am-241 | 0.0499 | 0.2706 | 0.6321 | UH |
| 0720-E | FS | NFS | Gamma | Th-232 | 0.8014 | 0.2697 | 0.4419 | JH |
| 0720-E | FS | NFS | Gamma | U-235 | 0.1 | 0.0569 | 0.0943 | JH |
| 0720-E | FS | NFS | Gamma | U-238 | 9.574 | 5.756 | 9.552 | JH |
| 0721-A | FS | NFS | Gamma | Am-241 | -1.765 | -0.4674 | 0.8012 | UH |
| 0721-A | FS | NFS | Gamma | Th-232 | 1.942 | 0.2452 | 0.3771 | JH |
| 0721-A | FS | NFS | Gamma | U-235 | 2.216 | 0.0802 | 0.1001 | JH |
| 0721-A | FS | NFS | Gamma | U-238 | 11.71 | 5.789 | 9.58 | JH |
| 0721-B | FS | PARAGON | LSC | Tc-99 | 0.61 | 0.89 | 1.45 | U |
| 0721-B | FS | PARAGON | LSC | Pu-241 | 0.6 | 10 | 17.4 | U |
| 0721-B | FS | PARAGON | Gamma | Am-241 | -0.29 | 0.91 | 1.61 | U |
| 0721-B | FS | PARAGON | Gamma | Th-232 | 1.88 | 0.43 | 0.66 | |
| 0721-B | FS | PARAGON | Gamma | U-235 | 2.49 | 0.53 | 0.73 | |
| 0721-B | FS | PARAGON | Alpha | Am-241 | 0.048 | 0.04 | 0.021 | |
| 0721-B | FS | PARAGON | Alpha | Pu-238 | 0.004 | 0.0098 | 0.0054 | U |
| 0721-B | FS | PARAGON | Alpha | Pu-239/240 | 0.006 | 0.011 | 0.018 | U |
| 0721-B | FS | PARAGON | Alpha | Pu-242 | 0.008 | 0.037 | 0.056 | U |
| 0721-B | FS | PARAGON | Alpha | Th-230 | 0.97 | 0.3 | 0.26 | |
| 0721-B | FS | PARAGON | Alpha | Th-232 | 1.49 | 0.37 | 0.12 | |
| 0721-B | FS | PARAGON | Alpha | U-233/234 | 56 | 9.2 | 0.2 | |
| 0721-B | FS | PARAGON | Alpha | U-235 | 2.95 | 0.7 | 0.15 | |
| 0721-B | FS | PARAGON | Alpha | U-238 | 12.2 | 2.2 | 0.1 | |
| 0721-B | FS | NFS | Gamma | Am-241 | -0.2693 | -0.3507 | 0.596 | UH |
| 0721-B | FS | NFS | Gamma | Th-232 | 2.296 | 0.2668 | 0.4044 | JH |
| 0721-B | FS | NFS | Gamma | U-235 | 2.658 | 0.0845 | 0.11 | JH |
| 0721-B | FS | NFS | Gamma | U-238 | 15.24 | 6.928 | 11.5 | JH |
| 0721-B | LR | PARAGON | Alpha | Pu-238 | -0.004 | 0.0098 | 0.0216 | U |
| 0721-B | LR | PARAGON | Alpha | Pu-239/240 | 0.002 | 0.0098 | 0.0185 | U |
| 0721-C | FS | NFS | Gamma | Am-241 | -1.422 | -0.4878 | 0.8371 | UH |
| 0721-C | FS | NFS | Gamma | Th-232 | 1.677 | 0.2706 | 0.4192 | JH |
| 0721-C | FS | NFS | Gamma | U-235 | 1.66 | 0.0778 | 0.1064 | JH |
| 0721-C | FS | NFS | Gamma | U-238 | 8.764 | 6.223 | 10.7 | UH |
| 0721-D | FS | NFS | Gamma | Am-241 | 0.2695 | 0.2953 | 0.4969 | UH |
| 0721-D | FS | NFS | Gamma | Th-232 | 1.621 | 0.2275 | 0.3492 | JH |
| 0721-D | FS | NFS | Gamma | U-235 | 0.7339 | 0.0622 | 0.0958 | JH |
| 0721-D | FS | NFS | Gamma | U-238 | 0.1802 | 7.401 | 12.58 | UH |
| 0721-E | FS | NFS | Gamma | Am-241 | -0.4335 | -0.4288 | 0.7316 | UH |

## Survey Unit 19 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0721-E | FS | NFS | Gamma | Th-232 | 1.69 | 0.2579 | 0.4028 | JH |
| 0721-E | FS | NFS | Gamma | U-235 | 0.9524 | 0.0663 | 0.0975 | JH |
| 0721-E | FS | NFS | Gamma | U-238 | 6.644 | 5.696 | 9.545 | UH |
| 0721-F | FS | NFS | Gamma | Am-241 | -0.8119 | -0.3329 | 0.571 | UH |
| 0721-F | FS | NFS | Gamma | Th-232 | 1.238 | 0.2589 | 0.4173 | JH |
| 0721-F | FS | NFS | Gamma | U-235 | 1.061 | 0.0621 | 0.0908 | JH |
| 0721-F | FS | NFS | Gamma | U-238 | 2.993 | 4.531 | 7.573 | UH |
| 0721-G | FS | NFS | Gamma | Am-241 | 0.1214 | 0.2764 | 0.4668 | UH |
| 0721-G | FS | NFS | Gamma | Th-232 | 1.137 | 0.2653 | 0.4278 | JH |
| 0721-G | FS | NFS | Gamma | U-235 | 0.4011 | 0.0565 | 0.0906 | JH |
| 0721-G | FS | NFS | Gamma | U-238 | 3.473 | 5.885 | 9.945 | UH |
| 0721-H | FS | NFS | Gamma | Am-241 | 0.1732 | 0.3123 | 0.6433 | UH |
| 0721-H | FS | NFS | Gamma | Th-232 | 1.319 | 0.2306 | 0.3575 | JH |
| 0721-H | FS | NFS | Gamma | U-235 | 0.3816 | 0.0541 | 0.0856 | JH |
| 0721-H | FS | NFS | Gamma | U-238 | 5.433 | 5.511 | 9.266 | UH |
| 0721-I | FS | NFS | Gamma | Am-241 | 0.0339 | 0.2867 | 0.4853 | UH |
| 0721-I | FS | NFS | Gamma | Th-232 | 1.201 | 0.3117 | 0.5087 | JH |
| 0721-I | FS | NFS | Gamma | U-235 | 0.4374 | 0.0589 | 0.094 | JH |
| 0721-I | FS | NFS | Gamma | U-238 | -8.843 | -6.756 | 11.67 | UH |
| 0721-J | FS | NFS | Gamma | Am-241 | 0.3449 | 0.6383 | 1.073 | UH |
| 0721-J | FS | NFS | Gamma | Th-232 | 1.584 | 0.358 | 0.5773 | JH |
| 0721-J | FS | NFS | Gamma | U-235 | 0.0988 | 0.0691 | 0.1157 | UH |
| 0721-J | FS | NFS | Gamma | U-238 | 11.55 | 8.36 | 13.64 | UH |
| 0722-A | FS | NFS | Gamma | Am-241 | -0.022 | -0.2684 | 0.455 | UH |
| 0722-A | FS | NFS | Gamma | Th-232 | 1.159 | 0.2365 | 0.3824 | JH |
| 0722-A | FS | NFS | Gamma | U-235 | 0.1048 | 0.0553 | 0.0925 | JH |
| 0722-A | FS | NFS | Gamma | U-238 | -1.82 | -5.004 | 9.305 | UH |
| 0722-A-DUP | FD | NFS | Gamma | Am-241 | 0.3287 | 0.3731 | 0.6275 | UH |
| 0722-A-DUP | FD | NFS | Gamma | Th-232 | 1.129 | 0.2299 | 0.3661 | JH |
| 0722-A-DUP | FD | NFS | Gamma | U-235 | 0.0596 | 0.0518 | 0.0871 | UH |
| 0722-A-DUP | FD | NFS | Gamma | U-238 | 2.421 | 5.488 | 9.295 | UH |
| 0722-B | FS | PARAGON | LSC | Tc-99 | -0.47 | 0.94 | 1.6 | U |
| 0722-B | FS | PARAGON | LSC | Pu-241 | 1.3 | 2.5 | 4.2 | U |
| 0722-B | FS | PARAGON | Gamma | Am-241 | 0.05 | 0.11 | 0.19 | U |
| 0722-B | FS | PARAGON | Gamma | Th-232 | 1.04 | 0.47 | 0.82 | J |
| 0722-B | FS | PARAGON | Gamma | U-235 | 0.25 | 0.45 | 0.76 | U |
| 0722-B | FS | PARAGON | Alpha | Am-241 | 0.002 | 0.0097 | 0.0183 | U |
| 0722-B | FS | PARAGON | Alpha | Pu-238 | -0.005 | 0.011 | 0.025 | U |
| 0722-B | FS | PARAGON | Alpha | Pu-239/240 | 0.007 | 0.011 | 0.006 | J |
| 0722-B | FS | PARAGON | Alpha | Pu-242 | 0.007 | 0.0089 | 0.0136 | U |
| 0722-B | FS | PARAGON | Alpha | Th-230 | 0.81 | 0.17 | 0.05 | |
| 0722-B | FS | PARAGON | Alpha | Th-232 | 1.2 | 0.24 | 0.03 | |
| 0722-B | FS | PARAGON | Alpha | U-233/234 | 1.49 | 0.3 | 0.04 | |
| 0722-B | FS | PARAGON | Alpha | U-235 | 0.055 | 0.039 | 0.04 | |
| 0722-B | FS | PARAGON | Alpha | U-238 | 0.8 | 0.18 | 0.05 | |
| 0722-B | FS | NFS | Gamma | Am-241 | -0.2276 | -0.2764 | 0.4711 | UH |
| 0722-B | FS | NFS | Gamma | Th-232 | 1.439 | 0.2311 | 0.3602 | JH |
| 0722-B | FS | NFS | Gamma | U-235 | 0.055 | 0.0537 | 0.0903 | UH |
| 0722-B | FS | NFS | Gamma | U-238 | -6.878 | -3.863 | 10.39 | UH |
| 0722-C | FS | NFS | Gamma | Am-241 | 0.2601 | 0.3637 | 0.6128 | UH |
| 0722-C | FS | NFS | Gamma | Th-232 | 0.7552 | 0.241 | 0.3957 | JH |
| 0722-C | FS | NFS | Gamma | U-235 | -0.046 | -0.0477 | 0.0833 | UH |
| 0722-C | FS | NFS | Gamma | U-238 | -4.735 | -5.791 | 9.968 | UH |

## Survey Unit 19 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0722-D | FS | NFS | Gamma | Am-241 | 0.4264 | 0.2442 | 0.4075 | JH |
| 0722-D | FS | NFS | Gamma | Th-232 | 1.072 | 0.259 | 0.4194 | JH |
| 0722-D | FS | NFS | Gamma | U-235 | -0.0488 | -0.0537 | 0.0916 | UH |
| 0722-D | FS | NFS | Gamma | U-238 | 3.804 | 5.983 | 10.1 | UH |
| 0722-E | FS | NFS | Gamma | Am-241 | 0.3844 | 0.3522 | 0.591 | UH |
| 0722-E | FS | NFS | Gamma | Th-232 | 0.8393 | 0.2389 | 0.3725 | JH |
| 0722-E | FS | NFS | Gamma | U-235 | -0.0782 | -0.0499 | 0.085 | UH |
| 0722-E | FS | NFS | Gamma | U-238 | 2.323 | 5.598 | 9.162 | UH |
| 0722-F | FS | NFS | Gamma | Am-241 | 0.0625 | 0.2572 | 0.5988 | UH |
| 0722-F | FS | NFS | Gamma | Th-232 | 0.9396 | 0.2412 | 0.3909 | JH |
| 0722-F | FS | NFS | Gamma | U-235 | 0.15 | 0.0566 | 0.0904 | JH |
| 0722-F | FS | NFS | Gamma | U-238 | 1.276 | 4.31 | 10.14 | UH |
| 0722-G | FS | NFS | Gamma | Am-241 | -0.0026 | -0.2745 | 0.4654 | UH |
| 0722-G | FS | NFS | Gamma | Th-232 | 1.321 | 0.2206 | 0.3431 | JH |
| 0722-G | FS | NFS | Gamma | U-235 | 0.0311 | 0.0564 | 0.0949 | UH |
| 0722-G | FS | NFS | Gamma | U-238 | 0.0869 | 5.283 | 9.008 | UH |
| 0722-H | FS | NFS | Gamma | Am-241 | 0.1595 | 0.2603 | 0.4391 | UH |
| 0722-H | FS | NFS | Gamma | Th-232 | 1.187 | 0.2713 | 0.4383 | JH |
| 0722-H | FS | NFS | Gamma | U-235 | -0.0147 | -0.0527 | 0.089 | UH |
| 0722-H | FS | NFS | Gamma | U-238 | -0.4359 | -5.89 | 10.04 | UH |
| 0722-I | FS | NFS | Gamma | Am-241 | 0.5201 | 0.3398 | 0.5673 | UH |
| 0722-I | FS | NFS | Gamma | Th-232 | 1.735 | 0.2102 | 0.3149 | JH |
| 0722-I | FS | NFS | Gamma | U-235 | 0.0754 | 0.0633 | 0.0943 | UH |
| 0722-I | FS | NFS | Gamma | U-238 | -2.495 | -5.03 | 8.653 | UH |
| 0722-I-DUP | FD | NFS | Gamma | Am-241 | 0.0453 | 0.2722 | 0.4608 | UH |
| 0722-I-DUP | FD | NFS | Gamma | Th-232 | 1.299 | 0.277 | 0.4456 | JH |
| 0722-I-DUP | FD | NFS | Gamma | U-235 | 0.1391 | 0.0516 | 0.0855 | JH |
| 0722-I-DUP | FD | NFS | Gamma | U-238 | -4.726 | -6.158 | 10.59 | UH |
| 0722-J | FS | NFS | Gamma | Am-241 | -0.6803 | -0.3165 | 0.5469 | UH |
| 0722-J | FS | NFS | Gamma | Th-232 | 1.358 | 0.2457 | 0.3898 | JH |
| 0722-J | FS | NFS | Gamma | U-235 | 0.1097 | 0.0521 | 0.0867 | JH |
| 0722-J | FS | NFS | Gamma | U-238 | -7.444 | -5.63 | 9.773 | UH |
| 0723-A | FS | NFS | Gamma | Am-241 | -0.6871 | -0.3167 | 0.542 | UH |
| 0723-A | FS | NFS | Gamma | Th-232 | 1.39 | 0.2388 | 0.3782 | JH |
| 0723-A | FS | NFS | Gamma | U-235 | 1.816 | 0.0685 | 0.0912 | JH |
| 0723-A | FS | NFS | Gamma | U-238 | 12.53 | 5.732 | 9.479 | JH |
| 0723-B | FS | NFS | Gamma | Am-241 | -0.3038 | -0.3459 | 0.5884 | UH |
| 0723-B | FS | NFS | Gamma | Th-232 | 2.014 | 0.281 | 0.4387 | JH |
| 0723-B | FS | NFS | Gamma | U-235 | 2.719 | 0.0826 | 0.1048 | JH |
| 0723-B | FS | NFS | Gamma | U-238 | 18.95 | 6.192 | 10.12 | JH |
| 0723-C | FS | PARAGON | LSC | Tc-99 | 6.5 | 1.5 | 1.5 | |
| 0723-C | FS | PARAGON | LSC | Pu-241 | -3.8 | 4.3 | 7.4 | U |
| 0723-C | FS | PARAGON | Gamma | Am-241 | 0.09 | 0.18 | 0.31 | U |
| 0723-C | FS | PARAGON | Gamma | Th-232 | 1.81 | 0.51 | 0.77 | |
| 0723-C | FS | PARAGON | Gamma | U-235 | 3.56 | 0.71 | 0.81 | |
| 0723-C | FS | PARAGON | Alpha | Am-241 | 0.036 | 0.019 | 0.006 | |
| 0723-C | FS | PARAGON | Alpha | Pu-238 | 0.033 | 0.019 | 0.007 | |
| 0723-C | FS | PARAGON | Alpha | Pu-239/240 | 0.056 | 0.027 | 0.019 | |
| 0723-C | FS | PARAGON | Alpha | Pu-242 | -0.002 | 0.015 | 0.024 | U |
| 0723-C | FS | PARAGON | Alpha | Th-230 | 0.69 | 0.14 | 0.05 | |
| 0723-C | FS | PARAGON | Alpha | Th-232 | 1.27 | 0.23 | 0.02 | |
| 0723-C | FS | PARAGON | Alpha | U-233/234 | 73 | 11 | 0 | |
| 0723-C | FS | PARAGON | Alpha | U-235 | 3.67 | 0.61 | 0.01 | |

## Survey Unit 19 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0723-C | FS | PARAGON | Alpha | U-238 | 12.7 | 2 | 0 | |
| 0723-C | FS | NFS | Gamma | Am-241 | -0.89 | -0.495 | 0.8458 | U |
| 0723-C | FS | NFS | Gamma | Th-232 | 2.589 | 0.2803 | 0.4254 | |
| 0723-C | FS | NFS | Gamma | U-235 | 3.709 | 0.1023 | 0.1121 | |
| 0723-C | FS | NFS | Gamma | U-238 | 17.82 | 6.081 | 9.87 | |
| 0723-D | FS | NFS | Gamma | Am-241 | -0.8536 | -0.5885 | 1.003 | UH |
| 0723-D | FS | NFS | Gamma | Th-232 | 2.694 | 0.3191 | 0.4933 | JH |
| 0723-D | FS | NFS | Gamma | U-235 | 3.685 | 0.1061 | 0.1209 | JH |
| 0723-D | FS | NFS | Gamma | U-238 | 17.85 | 5.907 | 9.721 | JH |
| 0723-E | FS | NFS | Gamma | Am-241 | -0.1573 | -0.3671 | 0.6231 | UH |
| 0723-E | FS | NFS | Gamma | Th-232 | 1.926 | 0.3716 | 0.5992 | JH |
| 0723-E | FS | NFS | Gamma | U-235 | 2.263 | 0.0857 | 0.1172 | JH |
| 0723-E | FS | NFS | Gamma | U-238 | 18.01 | 7.253 | 11.84 | JH |
| 0723-F | FS | NFS | Gamma | Am-241 | -0.2295 | -0.44 | 0.7488 | UH |
| 0723-F | FS | NFS | Gamma | Th-232 | 1.863 | 0.312 | 0.4967 | JH |
| 0723-F | FS | NFS | Gamma | U-235 | 0.2615 | 0.0709 | 0.1169 | JH |
| 0723-F | FS | NFS | Gamma | U-238 | 3.276 | 6.769 | 11.45 | UH |
| 0723-G | FS | NFS | Gamma | Am-241 | 0.1343 | 0.3953 | 0.6685 | UH |
| 0723-G | FS | NFS | Gamma | Th-232 | 1.004 | 0.3268 | 0.5386 | JH |
| 0723-G | FS | NFS | Gamma | U-235 | 0.2722 | 0.0625 | 0.1009 | JH |
| 0723-G | FS | NFS | Gamma | U-238 | 8.415 | 5.347 | 8.889 | UH |
| 0723-H | FS | NFS | Gamma | Am-241 | 0.0688 | 0.3958 | 0.6705 | UH |
| 0723-H | FS | NFS | Gamma | Th-232 | 1.196 | 0.2675 | 0.4276 | JH |
| 0723-H | FS | NFS | Gamma | U-235 | 0.2089 | 0.0636 | 0.1005 | JH |
| 0723-H | FS | NFS | Gamma | U-238 | -1.317 | -5.296 | 9.757 | UH |
| 0723-I | FS | NFS | Gamma | Am-241 | 0.3817 | 0.3623 | 0.6012 | UH |
| 0723-I | FS | NFS | Gamma | Th-232 | 1.108 | 0.2729 | 0.4383 | JH |
| 0723-I | FS | NFS | Gamma | U-235 | 0.2216 | 0.0552 | 0.0902 | JH |
| 0723-I | FS | NFS | Gamma | U-238 | 0.9331 | 5.518 | 8.799 | UH |
| 0724-A | FS | NFS | Gamma | Am-241 | -0.3731 | -0.3578 | 0.6121 | UH |
| 0724-A | FS | NFS | Gamma | Th-232 | 1.235 | 0.2583 | 0.4099 | JH |
| 0724-A | FS | NFS | Gamma | U-235 | 0.0337 | 0.0552 | 0.0916 | UH |
| 0724-A | FS | NFS | Gamma | U-238 | -11.77 | -4.065 | 9.474 | UH |
| 0724-B | FS | NFS | Gamma | Am-241 | 0.2798 | 0.2425 | 0.407 | UH |
| 0724-B | FS | NFS | Gamma | Th-232 | 0.9371 | 0.2054 | 0.3304 | JH |
| 0724-B | FS | NFS | Gamma | U-235 | 0.0499 | 0.0454 | 0.0763 | UH |
| 0724-B | FS | NFS | Gamma | U-238 | -4.101 | -4.16 | 7.367 | UH |
| 0724-C | FS | NFS | Gamma | Am-241 | 0.3608 | 0.3617 | 0.6075 | UH |
| 0724-C | FS | NFS | Gamma | Th-232 | 1.024 | 0.2665 | 0.4336 | JH |
| 0724-C | FS | NFS | Gamma | U-235 | 0.0087 | 0.053 | 0.0897 | UH |
| 0724-C | FS | NFS | Gamma | U-238 | -5.153 | -4.833 | 8.411 | UH |
| 0724-D | FS | NFS | Gamma | Am-241 | 0.0733 | 0.2573 | 0.4352 | UH |
| 0724-D | FS | NFS | Gamma | Th-232 | 1.001 | 0.2297 | 0.3706 | JH |
| 0724-D | FS | NFS | Gamma | U-235 | 0.0697 | 0.0498 | 0.0834 | UH |
| 0724-D | FS | NFS | Gamma | U-238 | 1.842 | 3.926 | 6.6 | UH |
| 0724-D-DUP | FD | NFS | Gamma | Am-241 | 0.0419 | 0.3304 | 0.5601 | UH |
| 0724-D-DUP | FD | NFS | Gamma | Th-232 | 0.9939 | 0.2647 | 0.4319 | JH |
| 0724-D-DUP | FD | NFS | Gamma | U-235 | 0.0025 | 0.051 | 0.0864 | UH |
| 0724-D-DUP | FD | NFS | Gamma | U-238 | -6.414 | -4.786 | 8.353 | UH |
| 0724-E | FS | NFS | Gamma | Am-241 | 0.1954 | 0.2681 | 0.4518 | UH |
| 0724-E | FS | NFS | Gamma | Th-232 | 0.9715 | 0.2431 | 0.3942 | JH |
| 0724-E | FS | NFS | Gamma | U-235 | -0.0474 | -0.0537 | 0.0916 | UH |
| 0724-E | FS | NFS | Gamma | U-238 | -1.586 | -4.031 | 6.912 | UH |

## Survey Unit 19 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0724-F | FS | NFS | Gamma | Am-241 | -0.3292 | -0.3655 | 0.6252 | UH |
| 0724-F | FS | NFS | Gamma | Th-232 | 1.167 | 0.2973 | 0.4812 | JH |
| 0724-F | FS | NFS | Gamma | U-235 | -0.0207 | -0.0561 | 0.0955 | UH |
| 0724-F | FS | NFS | Gamma | U-238 | -16.84 | -6.311 | 11.15 | UH |
| 0724-G | FS | NFS | Gamma | Am-241 | 0.0157 | 0.2389 | 0.4049 | UH |
| 0724-G | FS | NFS | Gamma | Th-232 | 1.114 | 0.258 | 0.4168 | JH |
| 0724-G | FS | NFS | Gamma | U-235 | 0.1033 | 0.0524 | 0.0874 | JH |
| 0724-G | FS | NFS | Gamma | U-238 | -2.137 | -5.816 | 9.955 | UH |
| 0724-H | FS | NFS | Gamma | Am-241 | 0.1333 | 0.2401 | 0.4883 | UH |
| 0724-H | FS | NFS | Gamma | Th-232 | 1.143 | 0.3124 | 0.5128 | JH |
| 0724-H | FS | NFS | Gamma | U-235 | 0.1376 | 0.0593 | 0.0975 | JH |
| 0724-H | FS | NFS | Gamma | U-238 | -7.947 | -7.508 | 12.91 | UH |
| 0725-A | FS | PARAGON | LSC | Tc-99 | -0.53 | 0.96 | 1.65 | U |
| 0725-A | FS | PARAGON | LSC | Pu-241 | 0.7 | 3.1 | 5.2 | U |
| 0725-A | FS | PARAGON | Gamma | Am-241 | 0.03 | 0.13 | 0.23 | U |
| 0725-A | FS | PARAGON | Gamma | Th-232 | 2.23 | 0.59 | 0.79 | |
| 0725-A | FS | PARAGON | Gamma | U-235 | 0.25 | 0.44 | 0.74 | U |
| 0725-A | FS | PARAGON | Alpha | Am-241 | 0 | 0.017 | 0.034 | U |
| 0725-A | FS | PARAGON | Alpha | Pu-238 | 0.003 | 0.013 | 0.019 | U |
| 0725-A | FS | PARAGON | Alpha | Pu-239/240 | 0.036 | 0.02 | 0.007 | |
| 0725-A | FS | PARAGON | Alpha | Pu-242 | 0.0069 | 0.0094 | 0.0062 | J |
| 0725-A | FS | PARAGON | Alpha | Th-230 | 1.05 | 0.2 | 0.05 | |
| 0725-A | FS | PARAGON | Alpha | Th-232 | 1.68 | 0.3 | 0.02 | |
| 0725-A | FS | PARAGON | Alpha | U-233/234 | 3.74 | 0.63 | 0.1 | |
| 0725-A | FS | PARAGON | Alpha | U-235 | 0.152 | 0.061 | 0.035 | |
| 0725-A | FS | PARAGON | Alpha | U-238 | 1.32 | 0.25 | 0.06 | |
| 0725-A | FS | NFS | Gamma | Am-241 | 0.2555 | 0.3063 | 0.5156 | U |
| 0725-A | FS | NFS | Gamma | Th-232 | 2.328 | 0.2685 | 0.4098 | |
| 0725-A | FS | NFS | Gamma | U-235 | 0.1811 | 0.0602 | 0.0997 | |
| 0725-A | FS | NFS | Gamma | U-238 | 2.816 | 9.346 | 16.04 | U |
| 0725-B | FS | NFS | Gamma | Am-241 | -0.6007 | -0.4036 | 0.6891 | UH |
| 0725-B | FS | NFS | Gamma | Th-232 | 3.734 | 0.3061 | 0.4492 | JH |
| 0725-B | FS | NFS | Gamma | U-235 | 0.1694 | 0.0709 | 0.118 | JH |
| 0725-B | FS | NFS | Gamma | U-238 | -10.35 | -6.052 | 10.54 | UH |
| 0725-C | FS | NFS | Gamma | Am-241 | 0.0468 | 0.3553 | 0.6022 | UH |
| 0725-C | FS | NFS | Gamma | Th-232 | 0.6756 | 0.3099 | 0.5103 | JH |
| 0725-C | FS | NFS | Gamma | U-235 | 0.0211 | 0.0529 | 0.0894 | UH |
| 0725-C | FS | NFS | Gamma | U-238 | -4.25 | -5.132 | 8.882 | UH |
| 0725-D | FS | NFS | Gamma | Am-241 | -0.32 | -0.4004 | 0.6835 | UH |
| 0725-D | FS | NFS | Gamma | Th-232 | 1.187 | 0.2605 | 0.4199 | JH |
| 0725-D | FS | NFS | Gamma | U-235 | -0.0244 | -0.0632 | 0.0994 | UH |
| 0725-D | FS | NFS | Gamma | U-238 | -3.187 | -5.451 | 9.384 | UH |
| 0725-E | FS | NFS | Gamma | Am-241 | -0.2621 | -0.2873 | 0.4903 | UH |
| 0725-E | FS | NFS | Gamma | Th-232 | 0.9451 | 0.252 | 0.4077 | JH |
| 0725-E | FS | NFS | Gamma | U-235 | 0.0029 | 0.0576 | 0.0974 | UH |
| 0725-E | FS | NFS | Gamma | U-238 | -7.992 | -6.821 | 11.78 | UH |
| 0725-F | FS | NFS | Gamma | Am-241 | 0.0045 | 0.3681 | 0.6247 | UH |
| 0725-F | FS | NFS | Gamma | Th-232 | 1.591 | 0.2862 | 0.453 | JH |
| 0725-F | FS | NFS | Gamma | U-235 | 0.0937 | 0.0567 | 0.0921 | JH |
| 0725-F | FS | NFS | Gamma | U-238 | -4.904 | -5.346 | 9.268 | UH |
| 0725-G | FS | NFS | Gamma | Am-241 | -0.0107 | -0.3897 | 0.6613 | UH |
| 0725-G | FS | NFS | Gamma | Th-232 | 1.711 | 0.2872 | 0.4539 | JH |
| 0725-G | FS | NFS | Gamma | U-235 | 0.1343 | 0.0586 | 0.0953 | JH |

## Survey Unit 19 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0725-G | FS | NFS | Gamma | U-238 | -7.578 | -7.819 | 10.78 | UH |
| 0725-H | FS | NFS | Gamma | Am-241 | -0.2679 | -0.4095 | 0.698 | UH |
| 0725-H | FS | NFS | Gamma | Th-232 | 2.038 | 0.2141 | 0.3087 | JH |
| 0725-H | FS | NFS | Gamma | U-235 | 0.0758 | 0.0614 | 0.0965 | UH |
| 0725-H | FS | NFS | Gamma | U-238 | 1.493 | 5.962 | 9.702 | UH |
| 0725-I | FS | NFS | Gamma | Am-241 | 0.0309 | 0.3712 | 0.6291 | UH |
| 0725-I | FS | NFS | Gamma | Th-232 | 1.764 | 0.2126 | 0.3171 | JH |
| 0725-I | FS | NFS | Gamma | U-235 | 0.0464 | 0.0552 | 0.093 | UH |
| 0725-I | FS | NFS | Gamma | U-238 | -5.264 | -5.961 | 10.27 | UH |
| 0725-J | FS | NFS | Gamma | Am-241 | 0.1952 | 0.2767 | 0.4664 | UH |
| 0725-J | FS | NFS | Gamma | Th-232 | 0.9744 | 0.273 | 0.4457 | JH |
| 0725-J | FS | NFS | Gamma | U-235 | -0.009 | -0.058 | 0.0984 | UH |
| 0725-J | FS | NFS | Gamma | U-238 | 2.812 | 7.099 | 12.02 | UH |
| 0726-A | FS | NFS | Gamma | Am-241 | -0.1239 | -0.2394 | 0.4078 | UH |
| 0726-A | FS | NFS | Gamma | Th-232 | 0.8407 | 0.2057 | 0.3285 | JH |
| 0726-A | FS | NFS | Gamma | U-235 | 0.0617 | 0.0487 | 0.0817 | UH |
| 0726-A | FS | NFS | Gamma | U-238 | 7.301 | 7.264 | 10.13 | UH |
| 0726-B | FS | NFS | Gamma | Am-241 | -0.2143 | -0.389 | 0.6629 | UH |
| 0726-B | FS | NFS | Gamma | Th-232 | 1.716 | 0.2852 | 0.4412 | JH |
| 0726-B | FS | NFS | Gamma | U-235 | 0.1916 | 0.0657 | 0.1075 | JH |
| 0726-B | FS | NFS | Gamma | U-238 | 6.858 | 5.153 | 8.66 | UH |
| 0726-C | FS | NFS | Gamma | Am-241 | 0.2014 | 0.2536 | 0.4271 | UH |
| 0726-C | FS | NFS | Gamma | Th-232 | 1.26 | 0.226 | 0.3573 | JH |
| 0726-C | FS | NFS | Gamma | U-235 | 0.1175 | 0.0515 | 0.0853 | JH |
| 0726-C | FS | NFS | Gamma | U-238 | 11.36 | 6.003 | 9.962 | JH |
| 0726-D | FS | NFS | Gamma | Am-241 | -0.2139 | -0.3938 | 0.6712 | UH |
| 0726-D | FS | NFS | Gamma | Th-232 | 1.271 | 0.2392 | 0.3789 | JH |
| 0726-D | FS | NFS | Gamma | U-235 | 0.012 | 0.0658 | 0.1027 | UH |
| 0726-D | FS | NFS | Gamma | U-238 | 4.08 | 5.269 | 8.881 | UH |
| 0726-E | FS | NFS | Gamma | Am-241 | -0.1599 | -0.2618 | 0.4459 | UH |
| 0726-E | FS | NFS | Gamma | Th-232 | 1.372 | 0.2526 | 0.3991 | JH |
| 0726-E | FS | NFS | Gamma | U-235 | 0.0206 | 0.0557 | 0.0938 | UH |
| 0726-E | FS | NFS | Gamma | U-238 | 2.328 | 6.846 | 11.6 | UH |
| 0726-E-DUP | FD | NFS | Gamma | Am-241 | -0.482 | -0.3767 | 0.6455 | UH |
| 0726-E-DUP | FD | NFS | Gamma | Th-232 | 1.215 | 0.2496 | 0.3996 | JH |
| 0726-E-DUP | FD | NFS | Gamma | U-235 | 0.1677 | 0.0541 | 0.0881 | JH |
| 0726-E-DUP | FD | NFS | Gamma | U-238 | -4.076 | -4.888 | 9.954 | UH |
| 0726-F | FS | PARAGON | LSC | Tc-99 | -0.3 | 0.84 | 1.43 | U |
| 0726-F | FS | PARAGON | LSC | Pu-241 | -0.8 | 2.7 | 4.5 | U |
| 0726-F | FS | PARAGON | Gamma | Am-241 | -0.06 | 0.12 | 0.22 | U |
| 0726-F | FS | PARAGON | Gamma | Th-232 | 1.67 | 0.49 | 0.63 | J |
| 0726-F | FS | PARAGON | Gamma | U-235 | -0.01 | 0.37 | 0.67 | U |
| 0726-F | FS | PARAGON | Alpha | Am-241 | 0.013 | 0.011 | 0.006 | |
| 0726-F | FS | PARAGON | Alpha | Pu-238 | 0 | 0.01 | 0.015 | U |
| 0726-F | FS | PARAGON | Alpha | Pu-239/240 | 0.004 | 0.01 | 0.015 | U |
| 0726-F | FS | PARAGON | Alpha | Pu-242 | 0.0048 | 0.0085 | 0.0133 | U |
| 0726-F | FS | PARAGON | Alpha | Th-230 | 0.417 | 0.084 | 0.038 | J |
| 0726-F | FS | PARAGON | Alpha | Th-232 | 0.74 | 0.13 | 0 | |
| 0726-F | FS | PARAGON | Alpha | U-233/234 | 0.64 | 0.13 | 0.04 | |
| 0726-F | FS | PARAGON | Alpha | U-235 | 0.044 | 0.026 | 0.029 | |
| 0726-F | FS | PARAGON | Alpha | U-238 | 0.54 | 0.11 | 0.03 | |
| 0726-F | FS | NFS | Gamma | Am-241 | 0.1207 | 0.2536 | 0.4284 | UH |
| 0726-F | FS | NFS | Gamma | Th-232 | 1.077 | 0.2582 | 0.416 | JH |

## Survey Unit 19 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0726-F | FS | NFS | Gamma | U-235 | 0.0748 | 0.0517 | 0.0866 | UH |
| 0726-F | FS | NFS | Gamma | U-238 | 9.013 | 6.53 | 10.92 | UH |
| 0726-G | FS | NFS | Gamma | Am-241 | 0.5986 | 0.3546 | 0.5903 | JH |
| 0726-G | FS | NFS | Gamma | Th-232 | 0.7586 | 0.2418 | 0.3955 | JH |
| 0726-G | FS | NFS | Gamma | U-235 | -0.0644 | -0.0538 | 0.0898 | UH |
| 0726-G | FS | NFS | Gamma | U-238 | -13.23 | -5.736 | 10.11 | UH |
| 0726-H | FS | NFS | Gamma | Am-241 | 0.4631 | 0.3664 | 0.6136 | UH |
| 0726-H | FS | NFS | Gamma | Th-232 | 1.065 | 0.2294 | 0.3652 | JH |
| 0726-H | FS | NFS | Gamma | U-235 | 0.086 | 0.054 | 0.0893 | UH |
| 0726-H | FS | NFS | Gamma | U-238 | -11.97 | -6.286 | 11.01 | UH |
| 0726-I | FS | NFS | Gamma | Am-241 | -0.0477 | -0.3325 | 0.5652 | UH |
| 0726-I | FS | NFS | Gamma | Th-232 | 0.749 | 0.2399 | 0.3933 | JH |
| 0726-I | FS | NFS | Gamma | U-235 | 0.0084 | 0.0488 | 0.0827 | UH |
| 0726-I | FS | NFS | Gamma | U-238 | -3.467 | -5.613 | 9.647 | UH |
| 0726-J | FS | NFS | Gamma | Am-241 | 0.4109 | 0.3609 | 0.6052 | UH |
| 0726-J | FS | NFS | Gamma | Th-232 | 1.277 | 0.2459 | 0.3892 | JH |
| 0726-J | FS | NFS | Gamma | U-235 | 0.0576 | 0.0568 | 0.0955 | UH |
| 0726-J | FS | NFS | Gamma | U-238 | -11.86 | -10.55 | 11.26 | UH |
| 0726-J-DUP | FD | NFS | Gamma | Am-241 | 0.0461 | 0.3007 | 0.509 | UH |
| 0726-J-DUP | FD | NFS | Gamma | Th-232 | 1.276 | 0.3173 | 0.5244 | JH |
| 0726-J-DUP | FD | NFS | Gamma | U-235 | 0.0495 | 0.0609 | 0.1025 | UH |
| 0726-J-DUP | FD | NFS | Gamma | U-238 | 2.189 | 16.74 | 13 | UH |
| 0727-A | FS | PARAGON | LSC | Tc-99 | -0.37 | 0.94 | 1.6 | UJ |
| 0727-A | FS | PARAGON | LSC | Pu-241 | -0.2 | 2.6 | 4.4 | U |
| 0727-A | FS | PARAGON | Gamma | Am-241 | 0.11 | 0.5 | 0.88 | U |
| 0727-A | FS | PARAGON | Gamma | Th-232 | 0.36 | 0.39 | 0.6 | U |
| 0727-A | FS | PARAGON | Gamma | U-235 | 0.2 | 0.26 | 0.42 | U |
| 0727-A | FS | PARAGON | Alpha | Am-241 | 0.002 | 0.012 | 0.024 | U |
| 0727-A | FS | PARAGON | Alpha | Pu-238 | 0 | 0.012 | 0.007 | U |
| 0727-A | FS | PARAGON | Alpha | Pu-239/240 | 0.005 | 0.012 | 0.006 | U |
| 0727-A | FS | PARAGON | Alpha | Pu-242 | 0 | 0.009 | 0.02 | U |
| 0727-A | FS | PARAGON | Alpha | Th-230 | 0.343 | 0.071 | 0.034 | J |
| 0727-A | FS | PARAGON | Alpha | Th-232 | 0.505 | 0.095 | 0.016 | |
| 0727-A | FS | PARAGON | Alpha | U-233/234 | 0.345 | 0.081 | 0.052 | |
| 0727-A | FS | PARAGON | Alpha | U-235 | 0.03 | 0.02 | 0.018 | |
| 0727-A | FS | PARAGON | Alpha | U-238 | 0.395 | 0.087 | 0.033 | |
| 0727-A | FS | NFS | Gamma | Am-241 | -0.09 | -0.3315 | 0.5645 | UH |
| 0727-A | FS | NFS | Gamma | Th-232 | 0.5831 | 0.2371 | 0.3898 | JH |
| 0727-A | FS | NFS | Gamma | U-235 | 0.0702 | 0.0515 | 0.0863 | UH |
| 0727-A | FS | NFS | Gamma | U-238 | 2.48 | 4.402 | 7.532 | UH |
| 0727-A | LR | PARAGON | LSC | Tc-99 | 0.5 | 1 | 1.7 | U |
| 0727-B | FS | NFS | Gamma | Am-241 | 0.0581 | 0.2509 | 0.4247 | UH |
| 0727-B | FS | NFS | Gamma | Th-232 | 0.6339 | 0.2607 | 0.4278 | JH |
| 0727-B | FS | NFS | Gamma | U-235 | 0.0957 | 0.0552 | 0.0919 | JH |
| 0727-B | FS | NFS | Gamma | U-238 | 5.907 | 6.503 | 10.94 | UH |
| 0727-C | FS | NFS | Gamma | Am-241 | -0.3621 | -0.429 | 0.7327 | UH |
| 0727-C | FS | NFS | Gamma | Th-232 | 1.671 | 0.324 | 0.5197 | JH |
| 0727-C | FS | NFS | Gamma | U-235 | 0.189 | 0.0693 | 0.1129 | JH |
| 0727-C | FS | NFS | Gamma | U-238 | 10.15 | 5.435 | 8.972 | JH |
| 0727-D | FS | NFS | Gamma | Am-241 | -0.0492 | -0.2902 | 0.4925 | UH |
| 0727-D | FS | NFS | Gamma | Th-232 | 1.357 | 0.2699 | 0.4339 | JH |
| 0727-D | FS | NFS | Gamma | U-235 | -0.0407 | -0.0583 | 0.0985 | UH |
| 0727-D | FS | NFS | Gamma | U-238 | 2.213 | 3.893 | 8.33 | UH |

## Survey Unit 19 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0727-E | FS | NFS | Gamma | Am-241 | 0.6177 | 0.3399 | 0.5648 | JH |
| 0727-E | FS | NFS | Gamma | Th-232 | 1.059 | 0.2311 | 0.3679 | JH |
| 0727-E | FS | NFS | Gamma | U-235 | 0.0657 | 0.0497 | 0.0816 | UH |
| 0727-E | FS | NFS | Gamma | U-238 | -8.083 | -5.431 | 8.971 | UH |
| 0727-F | FS | NFS | Gamma | Am-241 | -0.4327 | -0.3254 | 0.5565 | UH |
| 0727-F | FS | NFS | Gamma | Th-232 | 0.9868 | 0.3165 | 0.5318 | JH |
| 0727-F | FS | NFS | Gamma | U-235 | 0.1472 | 0.0621 | 0.1033 | JH |
| 0727-F | FS | NFS | Gamma | U-238 | 8.288 | 5.215 | 8.659 | UH |
| EB-19 | EB | PARAGON | LSC | Pu-241 | -0.7 | 3.9 | 6.6 | U |
| EB-19 | EB | PARAGON | LSC | Tc-99 | -2.1 | 6.2 | 10.5 | U |
| EB-19 | EB | PARAGON | Gamma | Am-241 | -7.6 | 8.5 | 15 | U |
| EB-19 | EB | PARAGON | Gamma | Th-232 | 12 | 30 | 50 | U |
| EB-19 | EB | PARAGON | Gamma | U-235 | -7 | 23 | 40 | U |
| EB-19 | EB | PARAGON | Alpha | Am-241 | 0.013 | 0.024 | 0.018 | U |
| EB-19 | EB | PARAGON | Alpha | Pu-238 | 0 | 0.023 | 0.017 | U |
| EB-19 | EB | PARAGON | Alpha | Pu-239/240 | 0.011 | 0.023 | 0.034 | U |
| EB-19 | EB | PARAGON | Alpha | Pu-242 | 0.012 | 0.025 | 0.053 | U |
| EB-19 | EB | PARAGON | Alpha | Th-230 | 0.042 | 0.059 | 0.113 | U |
| EB-19 | EB | PARAGON | Alpha | Th-232 | 0.021 | 0.021 | 0.026 | U |
| EB-19 | EB | PARAGON | Alpha | U-233/234 | 0.074 | 0.064 | 0.087 | U |
| EB-19 | EB | PARAGON | Alpha | U-235 | 0.051 | 0.052 | 0.035 | LT |
| EB-19 | EB | PARAGON | Alpha | U-238 | 0.003 | 0.038 | 0.073 | U |
| EB-19 | LR | PARAGON | LSC | Tc-99 | -7.4 | 6.9 | 11.8 | U |
| EB-19 | LR | PARAGON | Gamma | Am-241 | -18 | 29 | 50 | U |
| EB-19 | LR | PARAGON | Gamma | Th-232 | 11 | 18 | 41 | U |
| EB-19 | LR | PARAGON | Gamma | U-235 | -19 | 33 | 55 | U |

# Appendix G.5

# Radiological Dataset, Survey Unit 20

## Survey Unit 20 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0728-A | FS | NFS | Gamma | Am-241 | 0.4648 | 0.4747 | 0.7985 | U |
| 0728-A | FS | NFS | Gamma | Th-232 | 6.637 | 0.4759 | 0.719 | |
| 0728-A | FS | NFS | Gamma | U-235 | 3.598 | 0.1073 | 0.1438 | |
| 0728-A | FS | NFS | Gamma | U-238 | 11.67 | 7.814 | 13.06 | U |
| 0728-B | FS | NFS | Gamma | Am-241 | -0.5614 | -0.3329 | 0.5685 | U |
| 0728-B | FS | NFS | Gamma | Th-232 | 3.133 | 0.285 | 0.4262 | |
| 0728-B | FS | NFS | Gamma | U-235 | 0.6721 | 0.0695 | 0.1099 | |
| 0728-B | FS | NFS | Gamma | U-238 | 2.055 | 6.202 | 9.692 | U |
| 0728-C | FS | PARAGON | LSC | Tc-99 | -0.2 | 1.1 | 1.9 | U |
| 0728-C | FS | PARAGON | LSC | Pu-241 | -1.2 | 3.4 | 5.8 | U |
| 0728-C | FS | PARAGON | Gamma | Am-241 | -0.13 | 0.11 | 0.2 | U |
| 0728-C | FS | PARAGON | Gamma | Th-232 | 0.84 | 0.32 | 0.69 | J |
| 0728-C | FS | PARAGON | Gamma | U-235 | 0.26 | 0.33 | 0.54 | U |
| 0728-C | FS | PARAGON | Alpha | Am-241 | 0.012 | 0.012 | 0.007 | J |
| 0728-C | FS | PARAGON | Alpha | Pu-238 | 0 | 0.011 | 0.017 | U |
| 0728-C | FS | PARAGON | Alpha | Pu-239/240 | 0.002 | 0.011 | 0.006 | U |
| 0728-C | FS | PARAGON | Alpha | Pu-242 | 0.025 | 0.018 | 0.008 | U |
| 0728-C | FS | PARAGON | Alpha | Th-230 | 1.2 | 0.24 | 0.06 | |
| 0728-C | FS | PARAGON | Alpha | Th-232 | 1.15 | 0.23 | 0.02 | |
| 0728-C | FS | PARAGON | Alpha | U-233/234 | 1.01 | 0.24 | 0.05 | |
| 0728-C | FS | PARAGON | Alpha | U-235 | 0.021 | 0.032 | 0.055 | U |
| 0728-C | FS | PARAGON | Alpha | U-238 | 1.03 | 0.25 | 0.06 | |
| 0728-C | FS | NFS | Gamma | Am-241 | 0.0458 | 0.3606 | 0.565 | U |
| 0728-C | FS | NFS | Gamma | Th-232 | 0.4612 | 0.3539 | 0.5924 | U |
| 0728-C | FS | NFS | Gamma | U-235 | 0.1873 | 0.0706 | 0.1169 | |
| 0728-C | FS | NFS | Gamma | U-238 | 9.116 | 9.395 | 14.98 | U |
| 0728-C | LR | PARAGON | Gamma | Am-241 | -0.01 | 0.59 | 1.04 | U |
| 0728-C | LR | PARAGON | Gamma | Th-232 | 1.1 | 0.51 | 0.65 | J |
| 0728-C | LR | PARAGON | Gamma | U-235 | 0.06 | 0.35 | 0.6 | U |
| 0729-A | FS | NFS | Gamma | Am-241 | -0.2919 | -0.3615 | 0.6185 | U |
| 0729-A | FS | NFS | Gamma | Th-232 | 0.4574 | 0.265 | 0.4429 | |
| 0729-A | FS | NFS | Gamma | U-235 | 0.1505 | 0.0502 | 0.0822 | |
| 0729-A | FS | NFS | Gamma | U-238 | 1.572 | 4.551 | 10.71 | U |
| 0730-A | FS | NFS | Gamma | Am-241 | -0.309 | -0.2673 | 0.457 | U |
| 0730-A | FS | NFS | Gamma | Th-232 | 0.9311 | 0.2423 | 0.3923 | |
| 0730-A | FS | NFS | Gamma | U-235 | 0.8236 | 0.0592 | 0.0885 | |
| 0730-A | FS | NFS | Gamma | U-238 | -3.709 | -5.272 | 9.809 | U |
| 0730-B | FS | NFS | Gamma | Am-241 | -0.1689 | -0.357 | 0.6083 | U |
| 0730-B | FS | NFS | Gamma | Th-232 | 0.8997 | 0.2525 | 0.4106 | |
| 0730-B | FS | NFS | Gamma | U-235 | 0.2227 | 0.049 | 0.079 | |
| 0730-B | FS | NFS | Gamma | U-238 | 1.136 | 3.766 | 10.57 | U |
| 0730-C | FS | NFS | Gamma | Am-241 | 0.2029 | 0.2957 | 0.4984 | U |
| 0730-C | FS | NFS | Gamma | Th-232 | 1.621 | 0.2881 | 0.4557 | |
| 0730-C | FS | NFS | Gamma | U-235 | 0.1617 | 0.0627 | 0.103 | |
| 0730-C | FS | NFS | Gamma | U-238 | 3.234 | 6.355 | 10.75 | U |
| 0731-A | FS | NFS | Gamma | Am-241 | -0.1397 | -0.2705 | 0.4602 | UH |
| 0731-A | FS | NFS | Gamma | Th-232 | 1.081 | 0.2495 | 0.404 | JH |
| 0731-A | FS | NFS | Gamma | U-235 | 0.3226 | 0.0561 | 0.0908 | JH |
| 0731-A | FS | NFS | Gamma | U-238 | 0.1054 | 5.803 | 9.633 | UH |
| 0731-B | FS | NFS | Gamma | Am-241 | -0.0022 | -0.3347 | 0.568 | UH |
| 0731-B | FS | NFS | Gamma | Th-232 | 1.188 | 0.2758 | 0.4477 | JH |
| 0731-B | FS | NFS | Gamma | U-235 | 0.0929 | 0.0556 | 0.0907 | JH |
| 0731-B | FS | NFS | Gamma | U-238 | -1.033 | -4.583 | 7.868 | UH |

## Survey Unit 20 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0731-C | FS | NFS | Gamma | Am-241 | -0.0482 | -0.2874 | 0.4881 | UH |
| 0731-C | FS | NFS | Gamma | Th-232 | 0.8813 | 0.281 | 0.4616 | JH |
| 0731-C | FS | NFS | Gamma | U-235 | 0.1139 | 0.0621 | 0.1036 | JH |
| 0731-C | FS | NFS | Gamma | U-238 | 2.211 | 5.74 | 9.741 | UH |
| 0731-C-DUP | FD | NFS | Gamma | Am-241 | -0.4495 | -0.4157 | 0.7112 | UH |
| 0731-C-DUP | FD | NFS | Gamma | Th-232 | 1.592 | 0.3232 | 0.5205 | JH |
| 0731-C-DUP | FD | NFS | Gamma | U-235 | 0.1748 | 0.0619 | 0.1025 | JH |
| 0731-C-DUP | FD | NFS | Gamma | U-238 | -2.586 | -5.374 | 9.267 | UH |
| 0732-A | FS | NFS | Gamma | Am-241 | -0.0516 | -0.3395 | 0.5762 | UH |
| 0732-A | FS | NFS | Gamma | Th-232 | 0.9671 | 0.2857 | 0.4638 | JH |
| 0732-A | FS | NFS | Gamma | U-235 | 0.3083 | 0.0664 | 0.108 | JH |
| 0732-A | FS | NFS | Gamma | U-238 | -5.113 | -6.929 | 11.94 | UH |
| 0732-B | FS | PARAGON | LSC | Tc-99 | 0 | 0.98 | 1.65 | U |
| 0732-B | FS | PARAGON | LSC | Pu-241 | -0.5 | 4.9 | 8.4 | U |
| 0732-B | FS | PARAGON | Gamma | Am-241 | 0.08 | 0.11 | 0.19 | U |
| 0732-B | FS | PARAGON | Gamma | Th-232 | 0.8 | 0.46 | 0.71 | J |
| 0732-B | FS | PARAGON | Gamma | U-235 | 0.31 | 0.43 | 0.7 | U |
| 0732-B | FS | PARAGON | Alpha | Am-241 | 0.015 | 0.012 | 0.007 | |
| 0732-B | FS | PARAGON | Alpha | Pu-238 | 0.003 | 0.013 | 0.019 | U |
| 0732-B | FS | PARAGON | Alpha | Pu-239/240 | 0.018 | 0.016 | 0.019 | U |
| 0732-B | FS | PARAGON | Alpha | Pu-242 | 0.021 | 0.021 | 0.029 | U |
| 0732-B | FS | PARAGON | Alpha | Th-230 | 1.46 | 0.3 | 0.07 | |
| 0732-B | FS | PARAGON | Alpha | Th-232 | 0.77 | 0.17 | 0.05 | |
| 0732-B | FS | PARAGON | Alpha | U-233/234 | 5.39 | 0.88 | 0.03 | |
| 0732-B | FS | PARAGON | Alpha | U-235 | 0.135 | 0.051 | 0.034 | |
| 0732-B | FS | PARAGON | Alpha | U-238 | 1.37 | 0.25 | 0.03 | |
| 0732-B | FS | NFS | Gamma | Am-241 | -0.9321 | -0.4363 | 0.7517 | U |
| 0732-B | FS | NFS | Gamma | Th-232 | 1.477 | 0.2904 | 0.4634 | |
| 0732-B | FS | NFS | Gamma | U-235 | 0.3544 | 0.0685 | 0.1102 | |
| 0732-B | FS | NFS | Gamma | U-238 | 12.02 | 6.285 | 10.51 | |
| 0732-B | LR | PARAGON | Alpha | Am-241 | 0.03 | 0.019 | 0.017 | |
| 0732-B | LR | PARAGON | Alpha | Pu-238 | 0.007 | 0.017 | 0.009 | U |
| 0732-B | LR | PARAGON | Alpha | Pu-239/240 | 0.014 | 0.022 | 0.037 | U |
| 0732-B | LR | PARAGON | Alpha | U-233/234 | 5.86 | 0.96 | 0.04 | |
| 0732-B | LR | PARAGON | Alpha | U-235 | 0.128 | 0.054 | 0.046 | |
| 0732-B | LR | PARAGON | Alpha | U-238 | 1.67 | 0.3 | 0.04 | |
| 0732-C | FS | NFS | Gamma | Am-241 | -0.3729 | -0.4519 | 0.7719 | UH |
| 0732-C | FS | NFS | Gamma | Th-232 | 1.867 | 0.3949 | 0.6395 | JH |
| 0732-C | FS | NFS | Gamma | U-235 | 0.1558 | 0.0726 | 0.1208 | JH |
| 0732-C | FS | NFS | Gamma | U-238 | 0.072 | 8.539 | 12.44 | UH |
| 0733-A | FS | NFS | Gamma | Am-241 | 0.0866 | 0.254 | 0.4295 | UH |
| 0733-A | FS | NFS | Gamma | Th-232 | 1.037 | 0.2398 | 0.387 | JH |
| 0733-A | FS | NFS | Gamma | U-235 | 0.1942 | 0.0547 | 0.09 | JH |
| 0733-A | FS | NFS | Gamma | U-238 | -15.07 | -6.637 | 11.6 | UH |
| 0733-B | FS | NFS | Gamma | Am-241 | -0.0982 | -0.3886 | 0.6604 | UH |
| 0733-B | FS | NFS | Gamma | Th-232 | 2.066 | 0.2752 | 0.4262 | JH |
| 0733-B | FS | NFS | Gamma | U-235 | 0.2218 | 0.0604 | 0.0993 | JH |
| 0733-B | FS | NFS | Gamma | U-238 | -2.783 | -5.368 | 8.511 | UH |
| 0733-C | FS | PARAGON | LSC | Tc-99 | -0.57 | 0.97 | 1.66 | U |
| 0733-C | FS | PARAGON | LSC | Pu-241 | 1.4 | 3.5 | 5.9 | U |
| 0733-C | FS | PARAGON | Gamma | Am-241 | 0.05 | 0.14 | 0.25 | U |
| 0733-C | FS | PARAGON | Gamma | Th-232 | 1.19 | 0.5 | 0.92 | J |
| 0733-C | FS | PARAGON | Gamma | U-235 | -0.33 | 0.43 | 0.84 | U |

## Survey Unit 20 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0733-C | FS | PARAGON | Alpha | Am-241 | 0.019 | 0.015 | 0.007 | |
| 0733-C | FS | PARAGON | Alpha | Pu-238 | 0.002 | 0.012 | 0.006 | U |
| 0733-C | FS | PARAGON | Alpha | Pu-239/240 | 0.005 | 0.012 | 0.017 | U |
| 0733-C | FS | PARAGON | Alpha | Pu-242 | 0.003 | 0.011 | 0.007 | U |
| 0733-C | FS | PARAGON | Alpha | Th-230 | 0.77 | 0.15 | 0.04 | |
| 0733-C | FS | PARAGON | Alpha | Th-232 | 1.16 | 0.21 | 0.02 | |
| 0733-C | FS | PARAGON | Alpha | U-233/234 | 1.39 | 0.26 | 0.05 | |
| 0733-C | FS | PARAGON | Alpha | U-235 | 0.056 | 0.035 | 0.014 | |
| 0733-C | FS | PARAGON | Alpha | U-238 | 0.88 | 0.18 | 0.04 | |
| 0733-C | FS | NFS | Gamma | Am-241 | 0.2909 | 0.2812 | 0.4726 | U |
| 0733-C | FS | NFS | Gamma | Th-232 | 1.15 | 0.29 | 0.4747 | |
| 0733-C | FS | NFS | Gamma | U-235 | 0.0737 | 0.0593 | 0.0993 | U |
| 0733-C | FS | NFS | Gamma | U-238 | 10.3 | 9.522 | 15.99 | U |
| 0733-C | LR | PARAGON | LSC | Pu-241 | 1.4 | 3.7 | 6.2 | U |
| 0733-C | LR | PARAGON | Alpha | Pu-242 | 0.006 | 0.011 | 0.018 | U |
| 0733-C | LR | PARAGON | Alpha | Th-230 | 0.75 | 0.17 | 0.06 | |
| 0733-C | LR | PARAGON | Alpha | Th-232 | 1.11 | 0.23 | 0.04 | |
| 0733-C | LR | PARAGON | Alpha | U-233/234 | 1.53 | 0.29 | 0.06 | |
| 0733-C | LR | PARAGON | Alpha | U-235 | 0.032 | 0.038 | 0.06 | U |
| 0733-C | LR | PARAGON | Alpha | U-238 | 0.72 | 0.16 | 0.06 | |
| 0733-D | FS | NFS | Gamma | Am-241 | 0.0738 | 0.2613 | 0.4419 | UH |
| 0733-D | FS | NFS | Gamma | Th-232 | 0.8347 | 0.3148 | 0.5215 | JH |
| 0733-D | FS | NFS | Gamma | U-235 | 0.1335 | 0.0601 | 0.1 | JH |
| 0733-D | FS | NFS | Gamma | U-238 | -0.5264 | -56.3 | 90.06 | UH |
| 0734-A | FS | NFS | Gamma | Am-241 | -0.5782 | 0.268 | 0.4607 | U |
| 0734-A | FS | NFS | Gamma | Th-232 | 1.159 | 0.2491 | 0.3996 | |
| 0734-A | FS | NFS | Gamma | U-235 | 0.2129 | 0.0573 | 0.0941 | |
| 0734-A | FS | NFS | Gamma | U-238 | -5.25 | -6.324 | 10.88 | U |
| 0734-B | FS | NFS | Gamma | Am-241 | -0.2333 | -0.326 | 0.5576 | U |
| 0734-B | FS | NFS | Gamma | Th-232 | 0.6759 | 0.2358 | 0.3792 | |
| 0734-B | FS | NFS | Gamma | U-235 | 0.1475 | 0.0582 | 0.0966 | |
| 0734-B | FS | NFS | Gamma | U-238 | -5.991 | -6.501 | 11.2 | U |
| 0734-C | FS | NFS | Gamma | Am-241 | -0.0638 | -1.383 | 0.4937 | U |
| 0734-C | FS | NFS | Gamma | Th-232 | 1.331 | 0.2415 | 0.3819 | |
| 0734-C | FS | NFS | Gamma | U-235 | 0.3025 | 0.0579 | 0.0937 | |
| 0734-C | FS | NFS | Gamma | U-238 | 2.469 | 5.773 | 10.09 | U |
| 0734-D | FS | NFS | Gamma | Am-241 | -0.8185 | -1.049 | 1.776 | U |
| 0734-D | FS | NFS | Gamma | Th-232 | 1.014 | 0.2778 | 0.453 | |
| 0734-D | FS | NFS | Gamma | U-235 | 0.3918 | 0.0654 | 0.1031 | |
| 0734-D | FS | NFS | Gamma | U-238 | -0.4403 | -6.517 | 11.34 | U |
| 0734-E | FS | NFS | Gamma | Am-241 | 0.1578 | 0.3458 | 0.5841 | U |
| 0734-E | FS | NFS | Gamma | Th-232 | 1.318 | 0.3187 | 0.5183 | |
| 0734-E | FS | NFS | Gamma | U-235 | 0.1962 | 0.0688 | 0.1127 | |
| 0734-E | FS | NFS | Gamma | U-238 | 7.965 | 7.925 | 13.5 | U |
| 0734-F | FS | NFS | Gamma | Am-241 | 0.3911 | 1.047 | 1.765 | U |
| 0734-F | FS | NFS | Gamma | Th-232 | 0.7674 | 0.3123 | 0.5113 | |
| 0734-F | FS | NFS | Gamma | U-235 | 0.0863 | 0.0713 | 0.1197 | U |
| 0734-F | FS | NFS | Gamma | U-238 | -2.485 | -9.057 | 14.64 | U |
| 0734-G | FS | NFS | Gamma | Am-241 | 0.4518 | 0.4638 | 0.7794 | U |
| 0734-G | FS | NFS | Gamma | Th-232 | 1.153 | 0.3541 | 0.5789 | |
| 0734-G | FS | NFS | Gamma | U-235 | 0.1894 | 0.0694 | 0.1139 | |
| 0734-G | FS | NFS | Gamma | U-238 | -1.405 | -10.22 | 17.41 | U |
| 0735-A | FS | NFS | Gamma | Am-241 | -0.3776 | -0.4078 | 0.696 | UH |

## Survey Unit 20 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0735-A | FS | NFS | Gamma | Th-232 | 0.9263 | 0.2238 | 0.3563 | JH |
| 0735-A | FS | NFS | Gamma | U-235 | 0.996 | 0.0628 | 0.0905 | JH |
| 0735-A | FS | NFS | Gamma | U-238 | -0.4194 | -5.73 | 9.777 | UH |
| 0735-B | FS | PARAGON | LSC | Tc-99 | 2.3 | 1.2 | 1.8 | |
| 0735-B | FS | PARAGON | LSC | Pu-241 | 3.9 | 8.3 | 13.8 | U |
| 0735-B | FS | PARAGON | Gamma | Am-241 | -0.31 | 0.7 | 1.3 | U |
| 0735-B | FS | PARAGON | Gamma | Th-232 | 1.27 | 0.49 | 0.8 | J |
| 0735-B | FS | PARAGON | Gamma | U-235 | 0.46 | 0.38 | 0.58 | U |
| 0735-B | FS | PARAGON | Alpha | Am-241 | 0.032 | 0.023 | 0.011 | |
| 0735-B | FS | PARAGON | Alpha | Pu-238 | 0.005 | 0.023 | 0.013 | U |
| 0735-B | FS | PARAGON | Alpha | Pu-239/240 | 0 | 0.023 | 0.05 | U |
| 0735-B | FS | PARAGON | Alpha | Pu-242 | 0.007 | 0.029 | 0.019 | U |
| 0735-B | FS | PARAGON | Alpha | Th-230 | 0.75 | 0.19 | 0.14 | |
| 0735-B | FS | PARAGON | Alpha | Th-232 | 1.01 | 0.23 | 0.05 | |
| 0735-B | FS | PARAGON | Alpha | U-233/234 | 19.1 | 3.2 | 0.1 | |
| 0735-B | FS | PARAGON | Alpha | U-235 | 0.85 | 0.24 | 0.12 | |
| 0735-B | FS | PARAGON | Alpha | U-238 | 4.1 | 0.76 | 0.11 | |
| 0735-B | FS | NFS | Gamma | Am-241 | -0.3439 | -0.2834 | 0.4838 | UH |
| 0735-B | FS | NFS | Gamma | Th-232 | 1.233 | 0.2549 | 0.408 | JH |
| 0735-B | FS | NFS | Gamma | U-235 | 0.9681 | 0.0633 | 0.0943 | JH |
| 0735-B | FS | NFS | Gamma | U-238 | -10.56 | -6.406 | 11.12 | UH |
| 0735-B-DUP | FD | PARAGON | LSC | Pu-241 | 2.1 | 3 | 4.9 | U |
| 0735-B-DUP | FD | PARAGON | Gamma | Am-241 | -0.03 | 0.54 | 0.99 | U |
| 0735-B-DUP | FD | PARAGON | Gamma | Th-232 | 1.33 | 0.5 | 0.72 | J |
| 0735-B-DUP | FD | PARAGON | Gamma | U-235 | 0.79 | 0.35 | 0.55 | |
| 0735-B-DUP | FD | PARAGON | Alpha | Am-241 | 0.021 | 0.013 | 0.005 | |
| 0735-B-DUP | FD | PARAGON | Alpha | Pu-238 | 0.003 | 0.013 | 0.007 | U |
| 0735-B-DUP | FD | PARAGON | Alpha | Pu-239/240 | 0.031 | 0.02 | 0.019 | |
| 0735-B-DUP | FD | PARAGON | Alpha | Pu-242 | 0.012 | 0.014 | 0.023 | U |
| 0735-B-DUP | FD | PARAGON | Alpha | Th-230 | 0.96 | 0.2 | 0.06 | |
| 0735-B-DUP | FD | PARAGON | Alpha | Th-232 | 1.05 | 0.21 | 0.04 | |
| 0735-B-DUP | FD | PARAGON | Alpha | U-233/234 | 23.3 | 3.8 | 0 | |
| 0735-B-DUP | FD | PARAGON | Alpha | U-235 | 1.13 | 0.24 | 0.04 | |
| 0735-B-DUP | FD | PARAGON | Alpha | U-238 | 4.79 | 0.83 | 0.05 | |
| 0735-C | FS | NFS | Gamma | Am-241 | 0.163 | 0.3921 | 0.6627 | UH |
| 0735-C | FS | NFS | Gamma | Th-232 | 1.034 | 0.2133 | 0.3378 | JH |
| 0735-C | FS | NFS | Gamma | U-235 | 0.4605 | 0.0576 | 0.0909 | JH |
| 0735-C | FS | NFS | Gamma | U-238 | 10.59 | 4.895 | 8.035 | JH |
| 0735-D | FS | NFS | Gamma | Am-241 | -0.0803 | -0.2917 | 0.4955 | UH |
| 0735-D | FS | NFS | Gamma | Th-232 | 1.159 | 0.2863 | 0.4644 | JH |
| 0735-D | FS | NFS | Gamma | U-235 | 0.198 | 0.058 | 0.0956 | JH |
| 0735-D | FS | NFS | Gamma | U-238 | 2.439 | 5.771 | 9.764 | UH |
| 0735-D-DUP | FD | NFS | Gamma | Am-241 | -0.0719 | -0.4176 | 0.7094 | UH |
| 0735-D-DUP | FD | NFS | Gamma | Th-232 | 1.122 | 0.2516 | 0.4035 | JH |
| 0735-D-DUP | FD | NFS | Gamma | U-235 | 0.2092 | 0.06 | 0.0986 | JH |
| 0735-D-DUP | FD | NFS | Gamma | U-238 | 6.05 | 5.484 | 9.192 | UH |
| 0735-E | FS | NFS | Gamma | Am-241 | -0.1714 | -0.3083 | 0.5246 | UH |
| 0735-E | FS | NFS | Gamma | Th-232 | 2.028 | 0.2984 | 0.4642 | JH |
| 0735-E | FS | NFS | Gamma | U-235 | 0.13 | 0.0592 | 0.0986 | JH |
| 0735-E | FS | NFS | Gamma | U-238 | -6.849 | -7.891 | 13.57 | UH |
| 0735-F | FS | NFS | Gamma | Am-241 | 0.4065 | 0.4621 | 0.7772 | UH |
| 0735-F | FS | NFS | Gamma | Th-232 | 0.5179 | 0.3188 | 0.5249 | UH |
| 0735-F | FS | NFS | Gamma | U-235 | 0.0267 | 0.0656 | 0.1058 | UH |

## Survey Unit 20 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0735-F | FS | NFS | Gamma | U-238 | -1.102 | -7.166 | 12.25 | UH |
| 0736-A | FS | NFS | Gamma | Am-241 | -0.0896 | -0.3556 | 0.6048 | U |
| 0736-A | FS | NFS | Gamma | Th-232 | 1.209 | 0.1997 | 0.3063 | |
| 0736-A | FS | NFS | Gamma | U-235 | 0.2637 | 0.0536 | 0.0869 | |
| 0736-A | FS | NFS | Gamma | U-238 | -1.191 | -5.133 | 8.792 | U |
| 0736-B | FS | NFS | Gamma | Am-241 | 0.2182 | 0.2674 | 0.4502 | U |
| 0736-B | FS | NFS | Gamma | Th-232 | 0.7582 | 0.2474 | 0.4052 | |
| 0736-B | FS | NFS | Gamma | U-235 | 0.1959 | 0.0504 | 0.0824 | |
| 0736-B | FS | NFS | Gamma | U-238 | 5.358 | 5.101 | 8.561 | U |
| 0736-C | FS | NFS | Gamma | Am-241 | -0.5245 | -0.4308 | 0.7369 | U |
| 0736-C | FS | NFS | Gamma | Th-232 | 1.419 | 0.2716 | 0.4326 | |
| 0736-C | FS | NFS | Gamma | U-235 | 0.1464 | 0.0625 | 0.1035 | |
| 0736-C | FS | NFS | Gamma | U-238 | 4.385 | 5.47 | 9.216 | U |
| 0736-C-DUP | FD | NFS | Gamma | Am-241 | 0.3404 | 0.3158 | 0.5306 | U |
| 0736-C-DUP | FD | NFS | Gamma | Th-232 | 2.016 | 0.309 | 0.4856 | |
| 0736-C-DUP | FD | NFS | Gamma | U-235 | 0.1395 | 0.0619 | 0.1032 | |
| 0736-C-DUP | FD | NFS | Gamma | U-238 | 5.225 | 5.723 | 9.625 | U |
| 0736-D | FS | PARAGON | LSC | Tc-99 | -0.4 | 1 | 1.7 | U |
| 0736-D | FS | NFS | Gamma | Am-241 | 0.1046 | 0.2104 | 0.6649 | U |
| 0736-D | FS | NFS | Gamma | Th-232 | 0.7951 | 0.2683 | 0.4338 | |
| 0736-D | FS | NFS | Gamma | U-235 | 0.1349 | 0.0546 | 0.0906 | |
| 0736-D | FS | NFS | Gamma | U-238 | 7.993 | 4.822 | 7.995 | U |
| 0736-E | FS | NFS | Gamma | Am-241 | -0.2824 | -0.2782 | 0.475 | U |
| 0736-E | FS | NFS | Gamma | Th-232 | 1.679 | 0.2478 | 0.3833 | |
| 0736-E | FS | NFS | Gamma | U-235 | 0.1336 | 0.0562 | 0.0935 | |
| 0736-E | FS | NFS | Gamma | U-238 | -4.574 | -6.032 | 10.37 | U |
| 0736-F | FS | NFS | Gamma | Am-241 | -0.1968 | -0.4115 | 0.7014 | U |
| 0736-F | FS | NFS | Gamma | Th-232 | 0.664 | 0.2666 | 0.4396 | |
| 0736-F | FS | NFS | Gamma | U-235 | 0.0298 | 0.0574 | 0.0968 | U |
| 0736-F | FS | NFS | Gamma | U-238 | -0.1374 | -5.646 | 10.35 | U |
| 0736-G | FS | NFS | Gamma | Am-241 | -0.4372 | -0.2364 | 0.4073 | U |
| 0736-G | FS | NFS | Gamma | Th-232 | 0.5629 | 0.2072 | 0.3381 | |
| 0736-G | FS | NFS | Gamma | U-235 | 0.0227 | 0.051 | 0.0855 | U |
| 0736-G | FS | NFS | Gamma | U-238 | 5.978 | 6.383 | 9.312 | U |
| 0737-A | FS | NFS | Gamma | Am-241 | 0.1899 | 0.2701 | 0.4552 | U |
| 0737-A | FS | NFS | Gamma | Th-232 | 0.6704 | 0.255 | 0.4246 | |
| 0737-A | FS | NFS | Gamma | U-235 | 0.0722 | 0.0538 | 0.0889 | U |
| 0737-A | FS | NFS | Gamma | U-238 | 0.6812 | 5.841 | 9.931 | U |
| 0737-B | FS | NFS | Gamma | Am-241 | -0.3788 | -0.923 | 1.561 | U |
| 0737-B | FS | NFS | Gamma | Th-232 | 1.606 | 0.258 | 0.4053 | |
| 0737-B | FS | NFS | Gamma | U-235 | 0.0984 | 0.0611 | 0.1024 | U |
| 0737-B | FS | NFS | Gamma | U-238 | 3.845 | 5.754 | 9.734 | U |
| 0737-C | FS | NFS | Gamma | Am-241 | 0.6008 | 0.2807 | 0.4665 | |
| 0737-C | FS | NFS | Gamma | Th-232 | 1.517 | 0.274 | 0.4351 | |
| 0737-C | FS | NFS | Gamma | U-235 | 0.1205 | 0.0572 | 0.095 | |
| 0737-C | FS | NFS | Gamma | U-238 | -1.752 | -6.79 | 11.59 | U |
| 0737-D | FS | NFS | Gamma | Am-241 | 0.1878 | 0.9107 | 1.537 | U |
| 0737-D | FS | NFS | Gamma | Th-232 | 1.694 | 0.2455 | 0.3795 | |
| 0737-D | FS | NFS | Gamma | U-235 | 0.0575 | 0.0618 | 0.1006 | U |
| 0737-D | FS | NFS | Gamma | U-238 | -0.0098 | -5.398 | 9.207 | U |
| 0737-D-DUP | FD | NFS | Gamma | Am-241 | 0.3197 | 0.2798 | 0.4696 | U |
| 0737-D-DUP | FD | NFS | Gamma | Th-232 | 1.257 | 0.2709 | 0.4395 | |
| 0737-D-DUP | FD | NFS | Gamma | U-235 | 0.0181 | 0.0555 | 0.0944 | U |

## Survey Unit 20 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0737-D-DUP | FD | NFS | Gamma | U-238 | 3.401 | 5.561 | 9.531 | U |
| 0737-E | FS | NFS | Gamma | Am-241 | -0.3824 | -0.9379 | 1.587 | U |
| 0737-E | FS | NFS | Gamma | Th-232 | 1.178 | 0.2193 | 0.3458 | |
| 0737-E | FS | NFS | Gamma | U-235 | 0.0768 | 0.0556 | 0.0931 | U |
| 0737-E | FS | NFS | Gamma | U-238 | 2.432 | 6.33 | 10.03 | U |
| 0737-F | FS | NFS | Gamma | Am-241 | 0.264 | 0.2882 | 0.4849 | U |
| 0737-F | FS | NFS | Gamma | Th-232 | 0.8295 | 0.2998 | 0.4937 | |
| 0737-F | FS | NFS | Gamma | U-235 | 0.0524 | 0.0584 | 0.0984 | U |
| 0737-F | FS | NFS | Gamma | U-238 | 4.046 | 6.547 | 11.06 | U |
| 0738-A | FS | NFS | Gamma | Am-241 | 0.3352 | 0.4022 | 0.6768 | U |
| 0738-A | FS | NFS | Gamma | Th-232 | 2.148 | 0.2948 | 0.4629 | |
| 0738-A | FS | NFS | Gamma | U-235 | 0.2219 | 0.0603 | 0.0993 | |
| 0738-A | FS | NFS | Gamma | U-238 | 8.221 | 6.278 | 10.09 | U |
| 0738-B | FS | PARAGON | LSC | Tc-99 | -0.13 | 0.85 | 1.44 | U |
| 0738-B | FS | PARAGON | LSC | Pu-241 | -0.2 | 2.7 | 4.6 | U |
| 0738-B | FS | PARAGON | Gamma | Am-241 | -0.019 | 0.092 | 0.162 | U |
| 0738-B | FS | PARAGON | Gamma | Th-232 | 1.4 | 0.36 | 0.58 | |
| 0738-B | FS | PARAGON | Gamma | U-235 | -0.11 | 0.27 | 0.49 | U |
| 0738-B | FS | PARAGON | Alpha | Am-241 | 0 | 0.011 | 0.016 | U |
| 0738-B | FS | PARAGON | Alpha | Pu-238 | -0.005 | 0.013 | 0.029 | U |
| 0738-B | FS | PARAGON | Alpha | Pu-239/240 | 0.003 | 0.014 | 0.029 | U |
| 0738-B | FS | PARAGON | Alpha | Pu-242 | 0.007 | 0.011 | 0.02 | U |
| 0738-B | FS | PARAGON | Alpha | Th-230 | 0.72 | 0.15 | 0.06 | |
| 0738-B | FS | PARAGON | Alpha | Th-232 | 1.37 | 0.26 | 0.02 | |
| 0738-B | FS | PARAGON | Alpha | U-233/234 | 1.02 | 0.23 | 0.05 | |
| 0738-B | FS | PARAGON | Alpha | U-235 | 0.069 | 0.047 | 0.021 | |
| 0738-B | FS | PARAGON | Alpha | U-238 | 0.67 | 0.17 | 0.05 | |
| 0738-B | FS | NFS | Gamma | Am-241 | -0.1841 | -0.2982 | 0.5075 | U |
| 0738-B | FS | NFS | Gamma | Th-232 | 1.429 | 0.2906 | 0.4655 | |
| 0738-B | FS | NFS | Gamma | U-235 | -0.0161 | -0.0605 | 0.1029 | U |
| 0738-B | FS | NFS | Gamma | U-238 | -10.69 | -6.993 | 12.12 | U |
| 0738-B | LR | PARAGON | Alpha | Am-241 | 0.005 | 0.011 | 0.006 | U |
| 0738-B | LR | PARAGON | Alpha | Pu-238 | 0.002 | 0.011 | 0.006 | U |
| 0738-B | LR | PARAGON | Alpha | Pu-239/240 | 0 | 0.011 | 0.017 | U |
| 0738-B | LR | PARAGON | Alpha | U-233/234 | 0.92 | 0.22 | 0.03 | |
| 0738-B | LR | PARAGON | Alpha | U-235 | 0.008 | 0.028 | 0.021 | U |
| 0738-B | LR | PARAGON | Alpha | U-238 | 0.76 | 0.19 | 0.02 | |
| 0738-C | FS | NFS | Gamma | Am-241 | -0.3538 | -0.4187 | 0.7145 | U |
| 0738-C | FS | NFS | Gamma | Th-232 | 1.605 | 0.262 | 0.4151 | |
| 0738-C | FS | NFS | Gamma | U-235 | 0.0677 | 0.0512 | 0.0858 | U |
| 0738-C | FS | NFS | Gamma | U-238 | 2.625 | 6.044 | 10.23 | U |
| 0738-D | FS | NFS | Gamma | Am-241 | 0.2579 | 0.2661 | 0.4474 | U |
| 0738-D | FS | NFS | Gamma | Th-232 | 0.8744 | 0.233 | 0.3808 | |
| 0738-D | FS | NFS | Gamma | U-235 | 0.0055 | 0.0536 | 0.0906 | U |
| 0738-D | FS | NFS | Gamma | U-238 | 5.45 | 5.253 | 8.818 | U |
| 0738-E | FS | NFS | Gamma | Am-241 | 0.1245 | 0.5147 | 0.8709 | U |
| 0738-E | FS | NFS | Gamma | Th-232 | 2.009 | 0.3991 | 0.6413 | |
| 0738-E | FS | NFS | Gamma | U-235 | 0.1408 | 0.0713 | 0.1187 | |
| 0738-E | FS | NFS | Gamma | U-238 | 15.3 | 8.904 | 14.83 | |
| 0739-A | FS | PARAGON | LSC | Tc-99 | 0.7 | 1 | 1.6 | U |
| 0739-A | FS | PARAGON | LSC | Pu-241 | 4 | 7.2 | 11.8 | U |
| 0739-A | FS | PARAGON | Gamma | Am-241 | -0.96 | 0.78 | 1.47 | U |
| 0739-A | FS | PARAGON | Gamma | Th-232 | 1.64 | 0.4 | 0.61 | |

## Survey Unit 20 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0739-A | FS | PARAGON | Gamma | U-235 | 1.03 | 0.36 | 0.54 | |
| 0739-A | FS | PARAGON | Alpha | Am-241 | 0.031 | 0.027 | 0.033 | U |
| 0739-A | FS | PARAGON | Alpha | Pu-238 | 0.005 | 0.022 | 0.033 | U |
| 0739-A | FS | PARAGON | Alpha | Pu-239/240 | 0.032 | 0.031 | 0.042 | U |
| 0739-A | FS | PARAGON | Alpha | Pu-242 | 0.044 | 0.03 | 0.013 | U |
| 0739-A | FS | PARAGON | Alpha | Th-230 | 0.86 | 0.21 | 0.14 | |
| 0739-A | FS | PARAGON | Alpha | Th-232 | 1.3 | 0.28 | 0.09 | |
| 0739-A | FS | PARAGON | Alpha | U-233/234 | 27.9 | 4.7 | 0.1 | |
| 0739-A | FS | PARAGON | Alpha | U-235 | 1.2 | 0.33 | 0.08 | |
| 0739-A | FS | PARAGON | Alpha | U-238 | 5.19 | 0.99 | 0.09 | |
| 0739-A | FS | NFS | Gamma | Am-241 | 0.386 | 0.3293 | 0.5529 | U |
| 0739-A | FS | NFS | Gamma | Th-232 | 1.853 | 0.2967 | 0.4698 | |
| 0739-A | FS | NFS | Gamma | U-235 | 1.154 | 0.0691 | 0.1031 | |
| 0739-A | FS | NFS | Gamma | U-238 | 5.368 | 6.607 | 11.13 | U |
| 0739-B | FS | NFS | Gamma | Am-241 | 0.2341 | 0.4141 | 0.6988 | U |
| 0739-B | FS | NFS | Gamma | Th-232 | 1.838 | 0.3076 | 0.4873 | |
| 0739-B | FS | NFS | Gamma | U-235 | 0.3715 | 0.0599 | 0.0958 | |
| 0739-B | FS | NFS | Gamma | U-238 | 7.696 | 5.786 | 9.668 | U |
| 0739-C | FS | NFS | Gamma | Am-241 | -0.2786 | -0.3045 | 0.5187 | U |
| 0739-C | FS | NFS | Gamma | Th-232 | 1.13 | 0.2512 | 0.4032 | |
| 0739-C | FS | NFS | Gamma | U-235 | 0.7187 | 0.0644 | 0.1004 | |
| 0739-C | FS | NFS | Gamma | U-238 | 15.42 | 4.438 | 7.097 | |
| 0739-C-DUP | FD | NFS | Gamma | Am-241 | -0.6666 | -0.42 | 0.7192 | U |
| 0739-C-DUP | FD | NFS | Gamma | Th-232 | 1.347 | 0.3071 | 0.4918 | |
| 0739-C-DUP | FD | NFS | Gamma | U-235 | 0.8371 | 0.0661 | 0.0975 | |
| 0739-C-DUP | FD | NFS | Gamma | U-238 | 11.91 | 5.639 | 9.197 | |
| 0739-D | FS | NFS | Gamma | Am-241 | 0.545 | 0.3766 | 0.6445 | U |
| 0739-D | FS | NFS | Gamma | Th-232 | 1.214 | 0.2959 | 0.4755 | |
| 0739-D | FS | NFS | Gamma | U-235 | 0.2169 | 0.0595 | 0.0972 | |
| 0739-D | FS | NFS | Gamma | U-238 | -1.08 | -5.736 | 9.817 | U |
| 0739-E | FS | NFS | Gamma | Am-241 | 0.2393 | 0.2964 | 0.4991 | U |
| 0739-E | FS | NFS | Gamma | Th-232 | 1.639 | 0.2868 | 0.4597 | |
| 0739-E | FS | NFS | Gamma | U-235 | 0.1506 | 0.059 | 0.0979 | |
| 0739-E | FS | NFS | Gamma | U-238 | -8.158 | -8.505 | 11.29 | U |
| 0740-A | FS | NFS | Gamma | Am-241 | 0.1571 | 0.429 | 0.725 | UH |
| 0740-A | FS | NFS | Gamma | Th-232 | 1.872 | 0.2904 | 0.4526 | JH |
| 0740-A | FS | NFS | Gamma | U-235 | 0.1284 | 0.0651 | 0.1087 | JH |
| 0740-A | FS | NFS | Gamma | U-238 | 1.987 | 5.949 | 9.335 | UH |
| 0740-B | FS | NFS | Gamma | Am-241 | 0.1571 | 0.4656 | 0.7871 | UH |
| 0740-B | FS | NFS | Gamma | Th-232 | 2.45 | 0.2728 | 0.4113 | JH |
| 0740-B | FS | NFS | Gamma | U-235 | 0.1291 | 0.0632 | 0.1055 | JH |
| 0740-B | FS | NFS | Gamma | U-238 | 13.52 | 4.804 | 7.795 | JH |
| 0740-C | FS | NFS | Gamma | Am-241 | -0.3522 | -0.2943 | 0.5022 | UH |
| 0740-C | FS | NFS | Gamma | Th-232 | 2.067 | 0.2917 | 0.4569 | JH |
| 0740-C | FS | NFS | Gamma | U-235 | 0.138 | 0.055 | 0.0911 | JH |
| 0740-C | FS | NFS | Gamma | U-238 | -41.33 | -23.13 | 12.56 | UH |
| 0740-D | FS | NFS | Gamma | Am-241 | 0.6703 | 0.3958 | 0.6596 | JH |
| 0740-D | FS | NFS | Gamma | Th-232 | 1.19 | 0.2601 | 0.409 | JH |
| 0740-D | FS | NFS | Gamma | U-235 | 0.1333 | 0.0543 | 0.0901 | JH |
| 0740-D | FS | NFS | Gamma | U-238 | -4.293 | -4.002 | 10.22 | UH |
| 0740-E | FS | NFS | Gamma | Am-241 | 0.0598 | 0.1571 | 0.4862 | UH |
| 0740-E | FS | NFS | Gamma | Th-232 | 1.024 | 0.2907 | 0.4746 | JH |
| 0740-E | FS | NFS | Gamma | U-235 | 0.1695 | 0.0526 | 0.0868 | JH |

## Survey Unit 20 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0740-E | FS | NFS | Gamma | U-238 | -3.065 | -6.297 | 10.79 | UH |
| 0740-F | FS | NFS | Gamma | Am-241 | 0.1424 | 0.3821 | 0.6462 | UH |
| 0740-F | FS | NFS | Gamma | Th-232 | 0.8082 | 0.2567 | 0.4058 | JH |
| 0740-F | FS | NFS | Gamma | U-235 | 0.1402 | 0.0583 | 0.0967 | JH |
| 0740-F | FS | NFS | Gamma | U-238 | -2.144 | -5.958 | 10.22 | UH |
| 0740-G | FS | NFS | Gamma | Am-241 | -0.1721 | -0.2981 | 0.508 | UH |
| 0740-G | FS | NFS | Gamma | Th-232 | 0.7274 | 0.3148 | 0.5202 | JH |
| 0740-G | FS | NFS | Gamma | U-235 | 0.0883 | 0.0602 | 0.1005 | UH |
| 0740-G | FS | NFS | Gamma | U-238 | -16.46 | -8.663 | 15.06 | UH |
| 0741-A | FS | NFS | Gamma | Am-241 | -0.1359 | -0.3624 | 0.6167 | U |
| 0741-A | FS | NFS | Gamma | Th-232 | 1.492 | 0.2242 | 0.3478 | |
| 0741-A | FS | NFS | Gamma | U-235 | 0.2142 | 0.0538 | 0.0853 | |
| 0741-A | FS | NFS | Gamma | U-238 | -0.7786 | -5.202 | 8.9 | U |
| 0741-B | FS | NFS | Gamma | Am-241 | -0.1168 | -0.2948 | 0.5012 | U |
| 0741-B | FS | NFS | Gamma | Th-232 | 1.701 | 0.2535 | 0.3965 | |
| 0741-B | FS | NFS | Gamma | U-235 | 0.2493 | 0.054 | 0.0877 | |
| 0741-B | FS | NFS | Gamma | U-238 | -0.1842 | -4.91 | 8.38 | U |
| 0741-C | FS | NFS | Gamma | Am-241 | 0.0796 | 0.3698 | 0.6262 | U |
| 0741-C | FS | NFS | Gamma | Th-232 | 1.571 | 0.2284 | 0.3525 | |
| 0741-C | FS | NFS | Gamma | U-235 | 0.1427 | 0.0553 | 0.0916 | |
| 0741-C | FS | NFS | Gamma | U-238 | -11.51 | -6.198 | 10.83 | U |
| 0741-D | FS | NFS | Gamma | Am-241 | 0.2501 | 0.3036 | 0.5112 | U |
| 0741-D | FS | NFS | Gamma | Th-232 | 1.602 | 0.264 | 0.4157 | |
| 0741-D | FS | NFS | Gamma | U-235 | -0.0248 | -0.059 | 0.0987 | U |
| 0741-D | FS | NFS | Gamma | U-238 | 0.7794 | 5.653 | 9.616 | U |
| 0741-E | FS | NFS | Gamma | Am-241 | 0.6834 | 0.4009 | 0.6684 | |
| 0741-E | FS | NFS | Gamma | Th-232 | 1.74 | 0.2997 | 0.4752 | |
| 0741-E | FS | NFS | Gamma | U-235 | 0.1172 | 0.0687 | 0.1115 | |
| 0741-E | FS | NFS | Gamma | U-238 | 2.182 | 6.505 | 10.95 | U |
| 0742-A | FS | NFS | Gamma | Am-241 | -0.0327 | -0.2926 | 0.4962 | UH |
| 0742-A | FS | NFS | Gamma | Th-232 | 1.77 | 0.2902 | 0.4622 | JH |
| 0742-A | FS | NFS | Gamma | U-235 | 0.5083 | 0.0586 | 0.0926 | JH |
| 0742-A | FS | NFS | Gamma | U-238 | -1.987 | -5.13 | 10.28 | UH |
| 0742-B | FS | NFS | Gamma | Am-241 | 0.174 | 0.3329 | 0.5621 | UH |
| 0742-B | FS | NFS | Gamma | Th-232 | 1.361 | 0.2054 | 0.3148 | JH |
| 0742-B | FS | NFS | Gamma | U-235 | 0.1111 | 0.0549 | 0.0915 | JH |
| 0742-B | FS | NFS | Gamma | U-238 | 0.3945 | 5.731 | 8.426 | UH |
| 0742-B-DUP | FD | NFS | Gamma | Am-241 | 0.0624 | 0.2807 | 0.4749 | UH |
| 0742-B-DUP | FD | NFS | Gamma | Th-232 | 0.8595 | 0.3061 | 0.5153 | JH |
| 0742-B-DUP | FD | NFS | Gamma | U-235 | -0.0364 | -0.0572 | 0.0977 | UH |
| 0742-B-DUP | FD | NFS | Gamma | U-238 | -2.342 | -5.881 | 10.07 | UH |
| 0742-C | FS | NFS | Gamma | Am-241 | 0.4176 | 0.3903 | 0.6555 | UH |
| 0742-C | FS | NFS | Gamma | Th-232 | 1.973 | 0.2374 | 0.3597 | JH |
| 0742-C | FS | NFS | Gamma | U-235 | 0.1285 | 0.0616 | 0.1027 | JH |
| 0742-C | FS | NFS | Gamma | U-238 | -0.4752 | -5.258 | 8.991 | UH |
| 0742-D | FS | PARAGON | LSC | Tc-99 | -0.55 | 0.89 | 1.52 | U |
| 0742-D | FS | PARAGON | LSC | Pu-241 | 0.7 | 2.5 | 4.3 | U |
| 0742-D | FS | PARAGON | Gamma | Am-241 | 0.02 | 0.13 | 0.23 | U |
| 0742-D | FS | PARAGON | Gamma | Th-232 | 1.36 | 0.43 | 0.71 | |
| 0742-D | FS | PARAGON | Gamma | U-235 | 0.08 | 0.4 | 0.7 | U |
| 0742-D | FS | PARAGON | Alpha | Am-241 | 0.018 | 0.014 | 0.018 | U |
| 0742-D | FS | PARAGON | Alpha | Pu-238 | 0.002 | 0.012 | 0.018 | U |
| 0742-D | FS | PARAGON | Alpha | Pu-239/240 | 0.002 | 0.012 | 0.018 | U |

## Survey Unit 20 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0742-D | FS | PARAGON | Alpha | Pu-242 | 0.0046 | 0.0082 | 0.0128 | U |
| 0742-D | FS | PARAGON | Alpha | Th-230 | 0.73 | 0.16 | 0.05 | |
| 0742-D | FS | PARAGON | Alpha | Th-232 | 1.05 | 0.21 | 0.02 | |
| 0742-D | FS | PARAGON | Alpha | U-233/234 | 0.87 | 0.19 | 0.05 | |
| 0742-D | FS | PARAGON | Alpha | U-235 | 0 | 0.02 | 0.041 | U |
| 0742-D | FS | PARAGON | Alpha | U-238 | 0.55 | 0.13 | 0.03 | |
| 0742-D | FS | NFS | Gamma | Am-241 | -0.1689 | -0.2626 | 0.4473 | UH |
| 0742-D | FS | NFS | Gamma | Th-232 | 1.575 | 0.2804 | 0.4466 | JH |
| 0742-D | FS | NFS | Gamma | U-235 | 0.0446 | 0.0551 | 0.0927 | UH |
| 0742-D | FS | NFS | Gamma | U-238 | 4.877 | 7.337 | 12.38 | UH |
| 0742-D | LR | PARAGON | LSC | Pu-241 | -0.4 | 2.8 | 4.7 | U |
| 0742-D | LR | PARAGON | Gamma | Am-241 | -0.4 | 1 | 1.8 | U |
| 0742-D | LR | PARAGON | Gamma | Th-232 | 0.98 | 0.27 | 0.42 | |
| 0742-D | LR | PARAGON | Gamma | U-235 | 0.18 | 0.3 | 0.49 | U |
| 0742-D | LR | PARAGON | Alpha | Pu-242 | -0.0045 | 0.0094 | 0.0208 | U |
| 0742-D | LR | PARAGON | Alpha | Th-230 | 0.58 | 0.12 | 0.05 | J |
| 0742-D | LR | PARAGON | Alpha | Th-232 | 1.01 | 0.2 | 0.02 | |
| 0742-D-DUP | FD | PARAGON | LSC | Tc-99 | -0.75 | 0.9 | 1.54 | U |
| 0742-E | FS | NFS | Gamma | Am-241 | -0.2341 | -0.392 | 0.6686 | UH |
| 0742-E | FS | NFS | Gamma | Th-232 | 1.069 | 0.3002 | 0.4798 | JH |
| 0742-E | FS | NFS | Gamma | U-235 | 0.0197 | 0.0617 | 0.1031 | UH |
| 0742-E | FS | NFS | Gamma | U-238 | 3.436 | 6.602 | 11.46 | UH |
| 0742-F | FS | NFS | Gamma | Am-241 | -0.5452 | -0.3014 | 0.5167 | UH |
| 0742-F | FS | NFS | Gamma | Th-232 | 1.814 | 0.2829 | 0.4486 | JH |
| 0742-F | FS | NFS | Gamma | U-235 | 0.1075 | 0.057 | 0.095 | JH |
| 0742-F | FS | NFS | Gamma | U-238 | 2.959 | 7.915 | 13.39 | UH |
| 0742-G | FS | NFS | Gamma | Am-241 | -0.4526 | -0.419 | 0.7165 | UH |
| 0742-G | FS | NFS | Gamma | Th-232 | 1.48 | 0.2982 | 0.475 | JH |
| 0742-G | FS | NFS | Gamma | U-235 | 0.1243 | 0.0607 | 0.1012 | JH |
| 0742-G | FS | NFS | Gamma | U-238 | 0.5835 | 6.404 | 10.9 | UH |
| 0743-A | FS | NFS | Gamma | Am-241 | -0.7325 | -0.3602 | 0.6153 | U |
| 0743-A | FS | NFS | Gamma | Th-232 | 2.743 | 0.2577 | 0.3771 | |
| 0743-A | FS | NFS | Gamma | U-235 | 2.626 | 0.0866 | 0.1144 | |
| 0743-A | FS | NFS | Gamma | U-238 | -0.5371 | -6.465 | 11.01 | U |
| 0743-B | FS | PARAGON | LSC | Tc-99 | 0.63 | 0.94 | 1.55 | U |
| 0743-B | FS | PARAGON | LSC | Pu-241 | 2.2 | 7.8 | 13.1 | U |
| 0743-B | FS | PARAGON | Gamma | Am-241 | -0.1 | 0.38 | 0.67 | U |
| 0743-B | FS | PARAGON | Gamma | Th-232 | 1.7 | 0.37 | 0.5 | |
| 0743-B | FS | PARAGON | Gamma | U-235 | 1.84 | 0.39 | 0.48 | |
| 0743-B | FS | PARAGON | Alpha | Am-241 | 0.033 | 0.026 | 0.013 | |
| 0743-B | FS | PARAGON | Alpha | Pu-238 | 0.014 | 0.026 | 0.045 | U |
| 0743-B | FS | PARAGON | Alpha | Pu-239/240 | 0.067 | 0.042 | 0.045 | |
| 0743-B | FS | PARAGON | Alpha | Pu-242 | 0.024 | 0.029 | 0.044 | U |
| 0743-B | FS | PARAGON | Alpha | Th-230 | 0.91 | 0.22 | 0.14 | |
| 0743-B | FS | PARAGON | Alpha | Th-232 | 1.15 | 0.25 | 0.09 | |
| 0743-B | FS | PARAGON | Alpha | U-233/234 | 37.5 | 6.3 | 0.1 | |
| 0743-B | FS | PARAGON | Alpha | U-235 | 1.7 | 0.42 | 0.09 | |
| 0743-B | FS | PARAGON | Alpha | U-238 | 6 | 1.1 | 0.1 | |
| 0743-B | FS | NFS | Gamma | Am-241 | -0.3312 | -0.4601 | 0.7831 | U |
| 0743-B | FS | NFS | Gamma | Th-232 | 2.67 | 0.2617 | 0.3897 | |
| 0743-B | FS | NFS | Gamma | U-235 | 1.859 | 0.0782 | 0.1011 | |
| 0743-B | FS | NFS | Gamma | U-238 | -4.906 | -5.922 | 10.21 | U |
| 0743-C | FS | NFS | Gamma | Am-241 | -0.0294 | -0.3065 | 0.5195 | U |

## Survey Unit 20 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0743-C | FS | NFS | Gamma | Th-232 | 1.343 | 0.3027 | 0.4899 | |
| 0743-C | FS | NFS | Gamma | U-235 | 0.3495 | 0.0636 | 0.1034 | |
| 0743-C | FS | NFS | Gamma | U-238 | -2.933 | -6.36 | 10.89 | U |
| 0743-D | FS | NFS | Gamma | Am-241 | 0.1575 | 0.3633 | 0.6139 | U |
| 0743-D | FS | NFS | Gamma | Th-232 | 1.46 | 0.2211 | 0.3438 | |
| 0743-D | FS | NFS | Gamma | U-235 | 0.0673 | 0.0537 | 0.0902 | U |
| 0743-D | FS | NFS | Gamma | U-238 | -8.883 | -5.019 | 8.802 | U |
| 0743-E | FS | NFS | Gamma | Am-241 | -0.11 | -0.2752 | 0.4677 | U |
| 0743-E | FS | NFS | Gamma | Th-232 | 0.9656 | 0.2978 | 0.4859 | |
| 0743-E | FS | NFS | Gamma | U-235 | 0.1547 | 0.0562 | 0.0919 | |
| 0743-E | FS | NFS | Gamma | U-238 | -0.947 | -5.773 | 9.86 | U |
| 0743-F | FS | NFS | Gamma | Am-241 | -0.0985 | -1.249 | 0.6651 | U |
| 0743-F | FS | NFS | Gamma | Th-232 | 1.213 | 0.2665 | 0.4288 | |
| 0743-F | FS | NFS | Gamma | U-235 | 0.1158 | 0.053 | 0.0882 | |
| 0743-F | FS | NFS | Gamma | U-238 | -5.243 | -5.266 | 9.144 | U |
| 0743-G | FS | NFS | Gamma | Am-241 | -0.6687 | -0.4273 | 0.7346 | U |
| 0743-G | FS | NFS | Gamma | Th-232 | 1.142 | 0.3032 | 0.4827 | |
| 0743-G | FS | NFS | Gamma | U-235 | 0.1098 | 0.073 | 0.1223 | U |
| 0743-G | FS | NFS | Gamma | U-238 | -1.746 | -5.196 | 16.17 | U |
| 0744-A | FS | NFS | Gamma | Am-241 | -1.384 | -0.526 | 0.8993 | UH |
| 0744-A | FS | NFS | Gamma | Th-232 | 1.609 | 0.2643 | 0.4182 | JH |
| 0744-A | FS | NFS | Gamma | U-235 | 2.842 | 0.0918 | 0.1078 | JH |
| 0744-A | FS | NFS | Gamma | U-238 | 13.43 | 5.905 | 9.778 | JH |
| 0744-B | FS | PARAGON | LSC | Tc-99 | 2.5 | 1.2 | 1.8 | |
| 0744-B | FS | PARAGON | LSC | Pu-241 | -0.9 | 3.9 | 6.7 | U |
| 0744-B | FS | PARAGON | Gamma | Am-241 | 0.15 | 0.18 | 0.3 | U |
| 0744-B | FS | PARAGON | Gamma | Th-232 | 1.4 | 0.57 | 0.98 | J |
| 0744-B | FS | PARAGON | Gamma | U-235 | 1.12 | 0.55 | 0.84 | J |
| 0744-B | FS | PARAGON | Alpha | Am-241 | 0.027 | 0.018 | 0.007 | |
| 0744-B | FS | PARAGON | Alpha | Pu-238 | 0.012 | 0.015 | 0.008 | J |
| 0744-B | FS | PARAGON | Alpha | Pu-239/240 | 0.028 | 0.021 | 0.023 | |
| 0744-B | FS | PARAGON | Alpha | Pu-242 | 0.008 | 0.013 | 0.021 | U |
| 0744-B | FS | PARAGON | Alpha | Th-230 | 1.07 | 0.21 | 0.05 | |
| 0744-B | FS | PARAGON | Alpha | Th-232 | 1.59 | 0.29 | 0.02 | |
| 0744-B | FS | PARAGON | Alpha | U-233/234 | 24.8 | 3.9 | 0 | |
| 0744-B | FS | PARAGON | Alpha | U-235 | 1.1 | 0.21 | 0.01 | |
| 0744-B | FS | PARAGON | Alpha | U-238 | 5.06 | 0.82 | 0.02 | |
| 0744-B | FS | NFS | Gamma | Am-241 | -1.056 | -0.5123 | 0.8795 | U |
| 0744-B | FS | NFS | Gamma | Th-232 | 2.136 | 0.3522 | 0.5535 | |
| 0744-B | FS | NFS | Gamma | U-235 | 1.437 | 0.0807 | 0.1143 | |
| 0744-B | FS | NFS | Gamma | U-238 | 16.68 | 6.579 | 10.8 | |
| 0744-B | LR | PARAGON | LSC | Tc-99 | 3.2 | 1.3 | 1.9 | |
| 0744-C | FS | NFS | Gamma | Am-241 | -0.6605 | -0.3514 | 0.6015 | UH |
| 0744-C | FS | NFS | Gamma | Th-232 | 2.482 | 0.3197 | 0.4972 | JH |
| 0744-C | FS | NFS | Gamma | U-235 | 1.275 | 0.0739 | 0.1095 | JH |
| 0744-C | FS | NFS | Gamma | U-238 | 2.105 | 9.19 | 15.57 | UH |
| 0744-D | FS | NFS | Gamma | Am-241 | -0.4469 | -0.3222 | 0.5506 | UH |
| 0744-D | FS | NFS | Gamma | Th-232 | 1.652 | 0.2592 | 0.4046 | JH |
| 0744-D | FS | NFS | Gamma | U-235 | 1.045 | 0.0698 | 0.1048 | JH |
| 0744-D | FS | NFS | Gamma | U-238 | 12.52 | 6.981 | 12.15 | JH |
| 0744-E | FS | NFS | Gamma | Am-241 | -0.3338 | -0.3006 | 0.513 | UH |
| 0744-E | FS | NFS | Gamma | Th-232 | 1.728 | 0.3008 | 0.4818 | JH |
| 0744-E | FS | NFS | Gamma | U-235 | 1.009 | 0.0664 | 0.0994 | JH |

## Survey Unit 20 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0744-E | FS | NFS | Gamma | U-238 | 13.98 | 7.366 | 12.31 | JH |
| 0744-F | FS | NFS | Gamma | Am-241 | 0.0815 | 0.3833 | 0.6492 | UH |
| 0744-F | FS | NFS | Gamma | Th-232 | 1.096 | 0.4485 | 0.747 | JH |
| 0744-F | FS | NFS | Gamma | U-235 | 0.5339 | 0.0615 | 0.0962 | JH |
| 0744-F | FS | NFS | Gamma | U-238 | 13.27 | 6.802 | 10.64 | JH |
| 0744-G | FS | NFS | Gamma | Am-241 | 0.1456 | 0.2962 | 0.5002 | UH |
| 0744-G | FS | NFS | Gamma | Th-232 | 1.682 | 0.2676 | 0.4183 | JH |
| 0744-G | FS | NFS | Gamma | U-235 | 0.2221 | 0.0618 | 0.1017 | JH |
| 0744-G | FS | NFS | Gamma | U-238 | -10.27 | -7.801 | 13.45 | UH |
| 0744-H | FS | NFS | Gamma | Am-241 | -0.3502 | -0.3683 | 0.628 | UH |
| 0744-H | FS | NFS | Gamma | Th-232 | 1.499 | 0.3961 | 0.6463 | JH |
| 0744-H | FS | NFS | Gamma | U-235 | 0.3063 | 0.0696 | 0.1139 | JH |
| 0744-H | FS | NFS | Gamma | U-238 | -6.977 | -10.19 | 17.43 | UH |
| 0744-I | FS | NFS | Gamma | Am-241 | 0.1664 | 0.2768 | 0.4668 | UH |
| 0744-I | FS | NFS | Gamma | Th-232 | 0.9472 | 0.2577 | 0.4222 | JH |
| 0744-I | FS | NFS | Gamma | U-235 | 0.1451 | 0.0547 | 0.0904 | JH |
| 0744-I | FS | NFS | Gamma | U-238 | 6.485 | 6.307 | 10.6 | UH |
| 0744-I-DUP | FD | NFS | Gamma | Am-241 | -0.6074 | -0.4939 | 0.842 | UH |
| 0744-I-DUP | FD | NFS | Gamma | Th-232 | 1.493 | 0.2706 | 0.4269 | JH |
| 0744-I-DUP | FD | NFS | Gamma | U-235 | 0.2266 | 0.0582 | 0.0955 | JH |
| 0744-I-DUP | FD | NFS | Gamma | U-238 | 1.67 | 6.829 | 10.07 | UH |
| 0744-J | FS | NFS | Gamma | Am-241 | -0.1369 | -0.4925 | 0.8357 | UH |
| 0744-J | FS | NFS | Gamma | Th-232 | 1.445 | 0.2607 | 0.4143 | JH |
| 0744-J | FS | NFS | Gamma | U-235 | 0.1263 | 0.0564 | 0.0935 | JH |
| 0744-J | FS | NFS | Gamma | U-238 | -3.909 | -7.736 | 10.96 | UH |
| 0745-A | FS | NFS | Gamma | Am-241 | -0.2516 | -0.2663 | 0.4545 | UH |
| 0745-A | FS | NFS | Gamma | Th-232 | 1.528 | 0.265 | 0.4193 | JH |
| 0745-A | FS | NFS | Gamma | U-235 | 0.1452 | 0.0536 | 0.0888 | JH |
| 0745-A | FS | NFS | Gamma | U-238 | 0.1792 | 7.431 | 12.77 | UH |
| 0745-A-DUP | FD | NFS | Gamma | Am-241 | -0.1544 | -0.2596 | 0.4422 | UH |
| 0745-A-DUP | FD | NFS | Gamma | Th-232 | 0.9566 | 0.2372 | 0.3827 | JH |
| 0745-A-DUP | FD | NFS | Gamma | U-235 | 0.1109 | 0.0531 | 0.0882 | JH |
| 0745-A-DUP | FD | NFS | Gamma | U-238 | 12.11 | 6.338 | 10.37 | JH |
| 0745-B | FS | NFS | Gamma | Am-241 | -0.0845 | -0.3523 | 0.5997 | UH |
| 0745-B | FS | NFS | Gamma | Th-232 | 1.152 | 0.3992 | 0.6597 | JH |
| 0745-B | FS | NFS | Gamma | U-235 | 0.0534 | 0.0495 | 0.0832 | UH |
| 0745-B | FS | NFS | Gamma | U-238 | 8.354 | 6.216 | 10.39 | UH |
| 0745-C | FS | NFS | Gamma | Am-241 | -0.1182 | -0.2805 | 0.4771 | UH |
| 0745-C | FS | NFS | Gamma | Th-232 | 1.054 | 0.2467 | 0.3939 | JH |
| 0745-C | FS | NFS | Gamma | U-235 | 0.0954 | 0.0569 | 0.0951 | JH |
| 0745-C | FS | NFS | Gamma | U-238 | 9.76 | 6.94 | 11.6 | UH |
| 0745-D | FS | NFS | Gamma | Am-241 | -0.5805 | -0.3647 | 0.6259 | UH |
| 0745-D | FS | NFS | Gamma | Th-232 | 1.465 | 0.4058 | 0.6697 | JH |
| 0745-D | FS | NFS | Gamma | U-235 | 0.1326 | 0.055 | 0.0907 | JH |
| 0745-D | FS | NFS | Gamma | U-238 | 13.77 | 6.195 | 10.23 | JH |
| 0745-E | FS | PARAGON | LSC | Tc-99 | 4.8 | 1.4 | 1.8 | |
| 0745-E | FS | PARAGON | LSC | Pu-241 | 1.9 | 2.5 | 4.2 | U |
| 0745-E | FS | PARAGON | Gamma | Am-241 | -0.4 | 1.1 | 1.9 | U |
| 0745-E | FS | PARAGON | Gamma | Th-232 | 1.52 | 0.35 | 0.58 | |
| 0745-E | FS | PARAGON | Gamma | U-235 | -0.16 | 0.34 | 0.61 | U |
| 0745-E | FS | PARAGON | Alpha | Am-241 | 0 | 0.0094 | 0.0052 | U |
| 0745-E | FS | PARAGON | Alpha | Pu-238 | 0.005 | 0.013 | 0.019 | U |
| 0745-E | FS | PARAGON | Alpha | Pu-239/240 | 0.001 | 0.013 | 0.019 | U |

## Survey Unit 20 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0745-E | FS | PARAGON | Alpha | Pu-242 | 0.0007 | 0.0086 | 0.0203 | U |
| 0745-E | FS | PARAGON | Alpha | Th-230 | 0.68 | 0.14 | 0.05 | |
| 0745-E | FS | PARAGON | Alpha | Th-232 | 1.38 | 0.25 | 0.01 | |
| 0745-E | FS | PARAGON | Alpha | U-233/234 | 0.82 | 0.19 | 0.05 | |
| 0745-E | FS | PARAGON | Alpha | U-235 | 0.036 | 0.03 | 0.016 | |
| 0745-E | FS | PARAGON | Alpha | U-238 | 0.74 | 0.17 | 0.05 | |
| 0745-E | FS | NFS | Gamma | Am-241 | 0.0621 | 0.2977 | 0.5036 | UH |
| 0745-E | FS | NFS | Gamma | Th-232 | 1.862 | 0.2564 | 0.3913 | JH |
| 0745-E | FS | NFS | Gamma | U-235 | 0.0748 | 0.0605 | 0.0991 | UH |
| 0745-E | FS | NFS | Gamma | U-238 | 2.788 | 7.356 | 12.45 | UH |
| 0745-E | LR | PARAGON | Alpha | Am-241 | 0.0076 | 0.0094 | 0.014 | U |
| 0745-E | LR | PARAGON | Alpha | Pu-238 | 0.002 | 0.012 | 0.007 | U |
| 0745-E | LR | PARAGON | Alpha | Pu-239/240 | 0.005 | 0.012 | 0.018 | U |
| 0745-E | LR | PARAGON | Alpha | U-233/234 | 0.9 | 0.2 | 0.06 | |
| 0745-E | LR | PARAGON | Alpha | U-235 | 0.032 | 0.029 | 0.017 | |
| 0745-E | LR | PARAGON | Alpha | U-238 | 0.74 | 0.17 | 0.04 | |
| 0745-F | FS | NFS | Gamma | Am-241 | -0.1535 | -0.3996 | 0.6803 | UH |
| 0745-F | FS | NFS | Gamma | Th-232 | 1.576 | 0.4595 | 0.7524 | JH |
| 0745-F | FS | NFS | Gamma | U-235 | 0.0909 | 0.0626 | 0.1005 | UH |
| 0745-F | FS | NFS | Gamma | U-238 | 15.56 | 6.695 | 11.04 | JH |
| 0745-G | FS | NFS | Gamma | Am-241 | -0.243 | -0.3699 | 0.6309 | UH |
| 0745-G | FS | NFS | Gamma | Th-232 | 1.371 | 0.2652 | 0.4221 | JH |
| 0745-G | FS | NFS | Gamma | U-235 | 0.0976 | 0.0542 | 0.0904 | JH |
| 0745-G | FS | NFS | Gamma | U-238 | 1.923 | 5.418 | 9.192 | UH |
| 0745-H | FS | NFS | Gamma | Am-241 | -0.2832 | -0.3987 | 0.68 | UH |
| 0745-H | FS | NFS | Gamma | Th-232 | 0.9923 | 0.2609 | 0.4062 | JH |
| 0745-H | FS | NFS | Gamma | U-235 | 0.0561 | 0.0589 | 0.0991 | UH |
| 0745-H | FS | NFS | Gamma | U-238 | -1.159 | -8.122 | 11.33 | UH |
| 0746-A | FS | NFS | Gamma | Am-241 | -0.0496 | -0.3371 | 0.4613 | UH |
| 0746-A | FS | NFS | Gamma | Th-232 | 1.402 | 0.2008 | 0.3023 | JH |
| 0746-A | FS | NFS | Gamma | U-235 | 0.2604 | 0.0555 | 0.0905 | JH |
| 0746-A | FS | NFS | Gamma | U-238 | 11.14 | 6.428 | 10.7 | JH |
| 0746-B | FS | NFS | Gamma | Am-241 | -0.2955 | -0.3815 | 0.6512 | UH |
| 0746-B | FS | NFS | Gamma | Th-232 | 2.181 | 0.4021 | 0.6536 | JH |
| 0746-B | FS | NFS | Gamma | U-235 | 0.5028 | 0.0627 | 0.0978 | JH |
| 0746-B | FS | NFS | Gamma | U-238 | 12.68 | 6.074 | 9.714 | JH |
| 0746-C | FS | NFS | Gamma | Am-241 | 0.0679 | 0.2891 | 0.4889 | UH |
| 0746-C | FS | NFS | Gamma | Th-232 | 1.927 | 0.3153 | 0.5011 | JH |
| 0746-C | FS | NFS | Gamma | U-235 | 0.2534 | 0.0592 | 0.0973 | JH |
| 0746-C | FS | NFS | Gamma | U-238 | -1.328 | -7.001 | 11.94 | UH |
| 0746-D | FS | PARAGON | LSC | Tc-99 | 0.6 | 1 | 1.7 | U |
| 0746-D | FS | PARAGON | LSC | Tc-99 | 0.6 | 1 | 1.7 | U |
| 0746-D | FS | PARAGON | LSC | Pu-241 | -2.1 | 3.6 | 6.2 | U |
| 0746-D | FS | PARAGON | Gamma | Am-241 | 0.12 | 0.12 | 0.19 | U |
| 0746-D | FS | PARAGON | Gamma | Th-232 | 1.51 | 0.47 | 0.73 | J |
| 0746-D | FS | PARAGON | Gamma | U-235 | -0.03 | 0.34 | 0.62 | U |
| 0746-D | FS | PARAGON | Alpha | Am-241 | 0.005 | 0.011 | 0.006 | U |
| 0746-D | FS | PARAGON | Alpha | Pu-238 | 0.003 | 0.013 | 0.007 | U |
| 0746-D | FS | PARAGON | Alpha | Pu-239/240 | 0.005 | 0.013 | 0.019 | U |
| 0746-D | FS | PARAGON | Alpha | Pu-242 | 0.002 | 0.014 | 0.031 | U |
| 0746-D | FS | PARAGON | Alpha | Th-230 | 0.81 | 0.18 | 0.07 | |
| 0746-D | FS | PARAGON | Alpha | Th-232 | 1.12 | 0.23 | 0.02 | |
| 0746-D | FS | PARAGON | Alpha | U-233/234 | 1.9 | 0.33 | 0.03 | |

## Survey Unit 20 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0746-D | FS | PARAGON | Alpha | U-235 | 0.075 | 0.035 | 0.023 | |
| 0746-D | FS | PARAGON | Alpha | U-238 | 0.79 | 0.16 | 0.03 | |
| 0746-D | FS | NFS | Gamma | Am-241 | 0.3469 | 0.2966 | 0.4978 | U |
| 0746-D | FS | NFS | Gamma | Th-232 | 1.975 | 0.2735 | 0.4234 | |
| 0746-D | FS | NFS | Gamma | U-235 | 0.1497 | 0.059 | 0.0977 | |
| 0746-D | FS | NFS | Gamma | U-238 | 6.386 | 10.19 | 17.18 | U |
| 0746-D | LR | PARAGON | LSC | Tc-99 | 0.3 | 1 | 1.7 | U |
| 0746-E | FS | NFS | Gamma | Am-241 | 0.1972 | 0.4229 | 0.7143 | UH |
| 0746-E | FS | NFS | Gamma | Th-232 | 1.481 | 0.296 | 0.4744 | JH |
| 0746-E | FS | NFS | Gamma | U-235 | 0.1992 | 0.0606 | 0.0987 | JH |
| 0746-E | FS | NFS | Gamma | U-238 | -2.44 | -6.891 | 11.78 | UH |
| 0747-A | FS | NFS | Gamma | Am-241 | -0.4794 | -0.3755 | 0.6393 | UH |
| 0747-A | FS | NFS | Gamma | Th-232 | 2.757 | 0.3584 | 0.5644 | JH |
| 0747-A | FS | NFS | Gamma | U-235 | 2.43 | 0.0869 | 0.1195 | JH |
| 0747-A | FS | NFS | Gamma | U-238 | 23.25 | 5.911 | 9.501 | JH |
| 0747-A-DUP | FD | NFS | Gamma | Am-241 | -0.0555 | -0.5586 | 0.9461 | UH |
| 0747-A-DUP | FD | NFS | Gamma | Th-232 | 3.527 | 0.3167 | 0.478 | JH |
| 0747-A-DUP | FD | NFS | Gamma | U-235 | 2.704 | 0.0993 | 0.1293 | JH |
| 0747-A-DUP | FD | NFS | Gamma | U-238 | 8.603 | 5.843 | 9.861 | UH |
| 0747-B | FS | NFS | Gamma | Am-241 | -0.0013 | -0.396 | 0.6701 | UH |
| 0747-B | FS | NFS | Gamma | Th-232 | 2.766 | 0.3357 | 0.521 | JH |
| 0747-B | FS | NFS | Gamma | U-235 | 3.572 | 0.0969 | 0.1224 | JH |
| 0747-B | FS | NFS | Gamma | U-238 | 20.11 | 6.586 | 10.74 | JH |
| 0747-C | FS | NFS | Gamma | Am-241 | -1.548 | -0.6148 | 1.048 | UH |
| 0747-C | FS | NFS | Gamma | Th-232 | 2.709 | 0.302 | 0.4652 | JH |
| 0747-C | FS | NFS | Gamma | U-235 | 5.495 | 0.1281 | 0.1243 | JH |
| 0747-C | FS | NFS | Gamma | U-238 | 15.2 | 6.427 | 10.6 | JH |
| 0747-D | FS | NFS | Gamma | Am-241 | -0.5917 | -0.3795 | 0.6466 | UH |
| 0747-D | FS | NFS | Gamma | Th-232 | 1.809 | 0.3194 | 0.5117 | JH |
| 0747-D | FS | NFS | Gamma | U-235 | 4.512 | 0.1007 | 0.1125 | JH |
| 0747-D | FS | NFS | Gamma | U-238 | 18.23 | 6.838 | 11.26 | JH |
| 0747-E | FS | NFS | Gamma | Am-241 | -1.52 | -0.5366 | 0.9191 | UH |
| 0747-E | FS | NFS | Gamma | Th-232 | 2.051 | 0.3049 | 0.4783 | JH |
| 0747-E | FS | NFS | Gamma | U-235 | 3.241 | 0.1021 | 0.1258 | JH |
| 0747-E | FS | NFS | Gamma | U-238 | 9.688 | 6.884 | 11.5 | UH |
| 0747-F | FS | NFS | Gamma | Am-241 | -0.4164 | -0.337 | 0.5747 | UH |
| 0747-F | FS | NFS | Gamma | Th-232 | 1.591 | 0.2729 | 0.4324 | JH |
| 0747-F | FS | NFS | Gamma | U-235 | 2.381 | 0.0806 | 0.1062 | JH |
| 0747-F | FS | NFS | Gamma | U-238 | 9.947 | 6.291 | 10.72 | UH |
| 0747-G | FS | NFS | Gamma | Am-241 | -0.7532 | -0.3277 | 0.5617 | UH |
| 0747-G | FS | NFS | Gamma | Th-232 | 1.055 | 0.304 | 0.498 | JH |
| 0747-G | FS | NFS | Gamma | U-235 | 2.209 | 0.0759 | 0.0997 | JH |
| 0747-G | FS | NFS | Gamma | U-238 | -0.1478 | -6.351 | 10.93 | UH |
| 0747-H | FS | NFS | Gamma | Am-241 | -0.7438 | -0.3681 | 0.6306 | UH |
| 0747-H | FS | NFS | Gamma | Th-232 | 1.562 | 0.3469 | 0.5608 | JH |
| 0747-H | FS | NFS | Gamma | U-235 | 1.044 | 0.0717 | 0.108 | JH |
| 0747-H | FS | NFS | Gamma | U-238 | -6.324 | -50.78 | 14.91 | UH |
| 0748-A | FS | NFS | Gamma | Am-241 | 0.2784 | 0.3842 | 0.6472 | UH |
| 0748-A | FS | NFS | Gamma | Th-232 | 1.513 | 0.2809 | 0.4495 | JH |
| 0748-A | FS | NFS | Gamma | U-235 | 0.2157 | 0.0677 | 0.1086 | JH |
| 0748-A | FS | NFS | Gamma | U-238 | -1.958 | -4.938 | 8.488 | UH |
| 0748-B | FS | NFS | Gamma | Am-241 | -0.2675 | -0.2746 | 0.4688 | UH |
| 0748-B | FS | NFS | Gamma | Th-232 | 1.573 | 0.2643 | 0.4242 | JH |

## Survey Unit 20 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0748-B | FS | NFS | Gamma | U-235 | 0.1031 | 0.0548 | 0.0913 | JH |
| 0748-B | FS | NFS | Gamma | U-238 | -1.407 | -5.918 | 10.12 | UH |
| 0748-C | FS | NFS | Gamma | Am-241 | 0.4652 | 0.3717 | 0.6227 | UH |
| 0748-C | FS | NFS | Gamma | Th-232 | 1.575 | 0.2454 | 0.3853 | JH |
| 0748-C | FS | NFS | Gamma | U-235 | 0.0632 | 0.0615 | 0.1033 | UH |
| 0748-C | FS | NFS | Gamma | U-238 | -1.507 | -5.396 | 9.242 | UH |
| 0748-D | FS | NFS | Gamma | Am-241 | -0.155 | -0.2904 | 0.4939 | UH |
| 0748-D | FS | NFS | Gamma | Th-232 | 2.002 | 0.2956 | 0.4649 | JH |
| 0748-D | FS | NFS | Gamma | U-235 | 0.0786 | 0.0596 | 0.1002 | UH |
| 0748-D | FS | NFS | Gamma | U-238 | -9.914 | -6.844 | 11.84 | UH |
| 0748-E | FS | NFS | Gamma | Am-241 | -0.0177 | -0.4388 | 0.7442 | UH |
| 0748-E | FS | NFS | Gamma | Th-232 | 2.052 | 0.312 | 0.4926 | JH |
| 0748-E | FS | NFS | Gamma | U-235 | 0.0942 | 0.0737 | 0.1238 | UH |
| 0748-E | FS | NFS | Gamma | U-238 | 7.634 | 6.838 | 11.47 | UH |
| 0748-E-DUP | FD | NFS | Gamma | Am-241 | -0.5212 | -0.3314 | 0.5671 | UH |
| 0748-E-DUP | FD | NFS | Gamma | Th-232 | 1.514 | 0.3725 | 0.6071 | JH |
| 0748-E-DUP | FD | NFS | Gamma | U-235 | 0.0696 | 0.0656 | 0.1094 | UH |
| 0748-E-DUP | FD | NFS | Gamma | U-238 | -1.18 | -8.102 | 13.8 | UH |
| 0748-F | FS | NFS | Gamma | Am-241 | 0.3557 | 0.4024 | 0.677 | UH |
| 0748-F | FS | NFS | Gamma | Th-232 | 1.697 | 0.2819 | 0.446 | JH |
| 0748-F | FS | NFS | Gamma | U-235 | 0.1483 | 0.0638 | 0.106 | JH |
| 0748-F | FS | NFS | Gamma | U-238 | 2.286 | 5.531 | 9.379 | UH |
| 0748-G | FS | NFS | Gamma | Am-241 | 0.3167 | 0.405 | 0.6819 | UH |
| 0748-G | FS | NFS | Gamma | Th-232 | 1.769 | 0.2879 | 0.4548 | JH |
| 0748-G | FS | NFS | Gamma | U-235 | 0.1627 | 0.0586 | 0.0971 | JH |
| 0748-G | FS | NFS | Gamma | U-238 | 5.699 | 5.552 | 9.321 | UH |
| 0748-G-DUP | FD | NFS | Gamma | Am-241 | 0.5025 | 0.2885 | 0.4817 | JH |
| 0748-G-DUP | FD | NFS | Gamma | Th-232 | 1.75 | 0.298 | 0.473 | JH |
| 0748-G-DUP | FD | NFS | Gamma | U-235 | 0.2095 | 0.0587 | 0.0968 | JH |
| 0748-G-DUP | FD | NFS | Gamma | U-238 | -2.815 | -3.801 | 11.76 | UH |
| 0748-H | FS | PARAGON | LSC | Tc-99 | -0.01 | 0.84 | 1.42 | UJ |
| 0748-H | FS | PARAGON | LSC | Pu-241 | 0.8 | 2.5 | 4.2 | U |
| 0748-H | FS | PARAGON | Gamma | Am-241 | -0.2 | 1.1 | 2 | U |
| 0748-H | FS | PARAGON | Gamma | Th-232 | 1.09 | 0.3 | 0.52 | |
| 0748-H | FS | PARAGON | Gamma | U-235 | 0.05 | 0.36 | 0.62 | U |
| 0748-H | FS | PARAGON | Alpha | Am-241 | 0.0036 | 0.0088 | 0.0132 | U |
| 0748-H | FS | PARAGON | Alpha | Pu-238 | 0.002 | 0.011 | 0.017 | U |
| 0748-H | FS | PARAGON | Alpha | Pu-239/240 | 0.016 | 0.014 | 0.017 | U |
| 0748-H | FS | PARAGON | Alpha | Pu-242 | 0.018 | 0.013 | 0.014 | U |
| 0748-H | FS | PARAGON | Alpha | Th-230 | 0.75 | 0.15 | 0.05 | |
| 0748-H | FS | PARAGON | Alpha | Th-232 | 1.01 | 0.19 | 0.03 | |
| 0748-H | FS | PARAGON | Alpha | U-233/234 | 2.11 | 0.4 | 0.04 | |
| 0748-H | FS | PARAGON | Alpha | U-235 | 0.092 | 0.05 | 0.017 | |
| 0748-H | FS | PARAGON | Alpha | U-238 | 0.72 | 0.17 | 0.03 | |
| 0748-H | FS | NFS | Gamma | Am-241 | -0.3375 | -0.3962 | 0.6765 | UH |
| 0748-H | FS | NFS | Gamma | Th-232 | 1.61 | 0.2037 | 0.3028 | JH |
| 0748-H | FS | NFS | Gamma | U-235 | 0.0915 | 0.057 | 0.0954 | UH |
| 0748-H | FS | NFS | Gamma | U-238 | 2.036 | 6.035 | 10.19 | UH |
| 0748-I | FS | NFS | Gamma | Am-241 | 0.5702 | 0.2659 | 0.4421 | JH |
| 0748-I | FS | NFS | Gamma | Th-232 | 1.486 | 0.2724 | 0.4336 | JH |
| 0748-I | FS | NFS | Gamma | U-235 | 0.0939 | 0.056 | 0.0933 | JH |
| 0748-I | FS | NFS | Gamma | U-238 | 7.949 | 5.969 | 9.984 | UH |
| 0748-J | FS | NFS | Gamma | Am-241 | 0.1308 | 0.2729 | 0.4609 | UH |

## Survey Unit 20 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0748-J | FS | NFS | Gamma | Th-232 | 0.7993 | 0.2576 | 0.4265 | JH |
| 0748-J | FS | NFS | Gamma | U-235 | -0.0007 | -0.0533 | 0.0903 | UH |
| 0748-J | FS | NFS | Gamma | U-238 | 14.21 | 6.179 | 10.19 | JH |
| 0748-J-DUP | FD | NFS | Gamma | Am-241 | -0.3261 | -0.4914 | 0.8357 | UH |
| 0748-J-DUP | FD | NFS | Gamma | Th-232 | 1.3 | 0.2941 | 0.4719 | JH |
| 0748-J-DUP | FD | NFS | Gamma | U-235 | 0.0699 | 0.0569 | 0.0954 | UH |
| 0748-J-DUP | FD | NFS | Gamma | U-238 | 9.114 | 5.191 | 8.616 | JH |
| 0749-A | FS | NFS | Gamma | Am-241 | -0.3324 | -0.4385 | 0.7438 | UH |
| 0749-A | FS | NFS | Gamma | Th-232 | 2.366 | 0.3047 | 0.4739 | JH |
| 0749-A | FS | NFS | Gamma | U-235 | 7.88 | 0.1332 | 0.1285 | JH |
| 0749-A | FS | NFS | Gamma | U-238 | 22.8 | 6.138 | 9.935 | JH |
| 0749-B | FS | NFS | Gamma | Am-241 | -2.653 | -0.6644 | 1.129 | UH |
| 0749-B | FS | NFS | Gamma | Th-232 | 1.626 | 0.2372 | 0.368 | JH |
| 0749-B | FS | NFS | Gamma | U-235 | 9.837 | 0.1815 | 0.1246 | JH |
| 0749-B | FS | NFS | Gamma | U-238 | 46.51 | 6.442 | 9.849 | JH |
| 0749-C | FS | NFS | Gamma | Am-241 | -0.3082 | -0.3798 | 0.6455 | UH |
| 0749-C | FS | NFS | Gamma | Th-232 | 1.754 | 0.3325 | 0.544 | JH |
| 0749-C | FS | NFS | Gamma | U-235 | 2.996 | 0.0915 | 0.1195 | JH |
| 0749-C | FS | NFS | Gamma | U-238 | 0.8412 | 6.324 | 10.76 | UH |
| 0749-C-DUP | FD | NFS | Gamma | Am-241 | -0.5002 | -0.5785 | 0.9841 | UH |
| 0749-C-DUP | FD | NFS | Gamma | Th-232 | 3.003 | 0.305 | 0.4599 | JH |
| 0749-C-DUP | FD | NFS | Gamma | U-235 | 3.452 | 0.098 | 0.1111 | JH |
| 0749-C-DUP | FD | NFS | Gamma | U-238 | 15.23 | 7.305 | 11.71 | JH |
| 0749-D | FS | NFS | Gamma | Am-241 | -0.2826 | -0.4338 | 0.7358 | UH |
| 0749-D | FS | NFS | Gamma | Th-232 | 2.771 | 0.3171 | 0.4858 | JH |
| 0749-D | FS | NFS | Gamma | U-235 | 6.652 | 0.128 | 0.136 | JH |
| 0749-D | FS | NFS | Gamma | U-238 | 11.28 | 7.441 | 12.43 | UH |
| 0749-E | FS | NFS | Gamma | Am-241 | -0.6248 | -0.4655 | 0.7953 | UH |
| 0749-E | FS | NFS | Gamma | Th-232 | 1.414 | 0.302 | 0.4823 | JH |
| 0749-E | FS | NFS | Gamma | U-235 | 1.822 | 0.0781 | 0.1025 | JH |
| 0749-E | FS | NFS | Gamma | U-238 | 12.86 | 6.81 | 11.31 | JH |
| 0749-F | FS | NFS | Gamma | Am-241 | 0.3276 | 0.3451 | 0.5804 | UH |
| 0749-F | FS | NFS | Gamma | Th-232 | 1.677 | 0.3466 | 0.5577 | JH |
| 0749-F | FS | NFS | Gamma | U-235 | 0.5379 | 0.0668 | 0.1061 | JH |
| 0749-F | FS | NFS | Gamma | U-238 | -0.3124 | -7.671 | 12.89 | UH |
| 0749-G | FS | NFS | Gamma | Am-241 | -0.188 | -0.3779 | 0.6409 | UH |
| 0749-G | FS | NFS | Gamma | Th-232 | 1.969 | 0.2723 | 0.4233 | JH |
| 0749-G | FS | NFS | Gamma | U-235 | 4.208 | 0.1009 | 0.118 | JH |
| 0749-G | FS | NFS | Gamma | U-238 | 6.623 | 5.703 | 9.559 | UH |
| 0749-H | FS | NFS | Gamma | Am-241 | -1.053 | -0.4344 | 0.7454 | UH |
| 0749-H | FS | NFS | Gamma | Th-232 | 1.583 | 0.2565 | 0.4038 | JH |
| 0749-H | FS | NFS | Gamma | U-235 | 1.661 | 0.075 | 0.0992 | JH |
| 0749-H | FS | NFS | Gamma | U-238 | 11.56 | 6.049 | 10.02 | JH |
| 0749-I | FS | NFS | Gamma | Am-241 | -0.3148 | -0.3551 | 0.6039 | UH |
| 0749-I | FS | NFS | Gamma | Th-232 | 1.476 | 0.2901 | 0.47 | JH |
| 0749-I | FS | NFS | Gamma | U-235 | 2.43 | 0.0791 | 0.1023 | JH |
| 0749-I | FS | NFS | Gamma | U-238 | 13.41 | 6.43 | 10.66 | JH |
| 0749-J | FS | NFS | Gamma | Am-241 | -0.6183 | -0.4655 | 0.7961 | UH |
| 0749-J | FS | NFS | Gamma | Th-232 | 1.574 | 0.2884 | 0.4568 | JH |
| 0749-J | FS | NFS | Gamma | U-235 | 1.184 | 0.0725 | 0.1045 | JH |
| 0749-J | FS | NFS | Gamma | U-238 | 4.318 | 6.356 | 10.61 | UH |
| 0749-J-DUP | FD | NFS | Gamma | Am-241 | 0.1579 | 0.3252 | 0.549 | UH |
| 0749-J-DUP | FD | NFS | Gamma | Th-232 | 1.604 | 0.3142 | 0.5022 | JH |

## Survey Unit 20 Radiological Dataset

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | | Qualifier[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC | |
| 0749-J-DUP | FD | NFS | Gamma | U-235 | 1.303 | 0.0744 | 0.1088 | JH |
| 0749-J-DUP | FD | NFS | Gamma | U-238 | 5.287 | 8.023 | 13.54 | UH |
| EB-20 | EB | PARAGON | LSC | Pu-241 | 1.3 | 4.5 | 7.6 | U |
| EB-20 | EB | PARAGON | LSC | Tc-99 | -4.8 | 6.3 | 10.8 | U |
| EB-20 | EB | PARAGON | Gamma | Am-241 | 0 | 27 | 45 | U |
| EB-20 | EB | PARAGON | Gamma | Th-232 | 14.6 | 9.4 | 14.6 | LT,TI |
| EB-20 | EB | PARAGON | Gamma | U-235 | 10 | 12 | 26 | U |
| EB-20 | EB | PARAGON | Alpha | Am-241 | 0.01 | 0.035 | 0.026 | U |
| EB-20 | EB | PARAGON | Alpha | Pu-238 | -0.002 | 0.024 | 0.034 | U |
| EB-20 | EB | PARAGON | Alpha | Pu-239/240 | 0.012 | 0.024 | 0.051 | U |
| EB-20 | EB | PARAGON | Alpha | Pu-242 | 0.127 | 0.065 | 0.038 | |
| EB-20 | EB | PARAGON | Alpha | Th-230 | 0.26 | 0.11 | 0.14 | |
| EB-20 | EB | PARAGON | Alpha | Th-232 | 0.002 | 0.026 | 0.068 | U |
| EB-20 | EB | PARAGON | Alpha | U-233/234 | 0.084 | 0.065 | 0.069 | LT |
| EB-20 | EB | PARAGON | Alpha | U-235 | 0.001 | 0.046 | 0.094 | U |
| EB-20 | EB | PARAGON | Alpha | U-238 | 0.008 | 0.039 | 0.089 | U |
| EB-20 | LR | PARAGON | LSC | Tc-99 | -8.7 | 6.5 | 11.1 | U |
| EB-20 | LR | PARAGON | Gamma | Am-241 | -6 | 21 | 35 | U |
| EB-20 | LR | PARAGON | Gamma | Th-232 | 13.2 | 9.8 | 20.6 | U |
| EB-20 | LR | PARAGON | Gamma | U-235 | 0 | 19 | 31 | U |

# APPENDIX H

# SURVEY UNIT 2 SUPPLEMENTAL CHARACTERIZATION

## H.1.1 Background

As described in Section 2.6 of this FSS Report, the density, placement, and the number of coreholes for Survey Unit 2 was determined prior to beginning field sampling operations for the survey unit. Corehole drilling operations were conducted in Survey Unit 2 from October 2 through October 8, 2007. Analytical data was subsequently received following sample analysis. FSS analytical results were well below the SSDCGL criteria, except for a single elevated sample; 0020-C. Sample results of 0020-C are presented in Table H-1.

*Table H-1 Analytical Results for 0020-C*

| Sample ID | QC Code | Laboratory | Analysis Method | Isotope | pCi/g | | |
|---|---|---|---|---|---|---|---|
| | | | | | Analytical Result | Error (2-sigma) | MDC |
| 0020-C | FS | NFS | Gamma | Am-241 | 5.228 | 0.5959 | 0.9418 |
| 0020-C | FS | NFS | Gamma | Th-232 | 11.37 | 0.4678 | 0.632 |
| 0020-C | FS | NFS | Gamma | U-235 | 2.125 | 0.1048 | 0.1576 |

Note the analytical result for Th-232 is 11.37 pCi/g, which is slightly elevated. Inserting the analytical results of sample 0020-C into the SSDCGL calculators causes the survey unit to fail some of the required FSS criteria ($DCGL_{LAA}$ and $DCGL_{EMC}$) in a localized area around cell B-2-C. Because of the relatively large corehole spacing in Survey Unit 2 (one corehole every 199m$^2$), NFS decided to perform additional remediation in accordance with Section 5, Appendix B of the DP (NFS 2006). The DP states that "Additional investigation may be performed by collecting four additional samples within the suspect cell and around the original sample location" (NFS 2006). Following the guidelines from the DP, additional radiological data was needed in the vicinity of Corehole 0020 to better characterize the area to determine the extent of contamination.

## H.1.2 Supplemental Characterization

The proposed design of a supplemental characterization included the placement of four additional coreholes in the vicinity of Corehole 0020 as shown in Figure H-1.

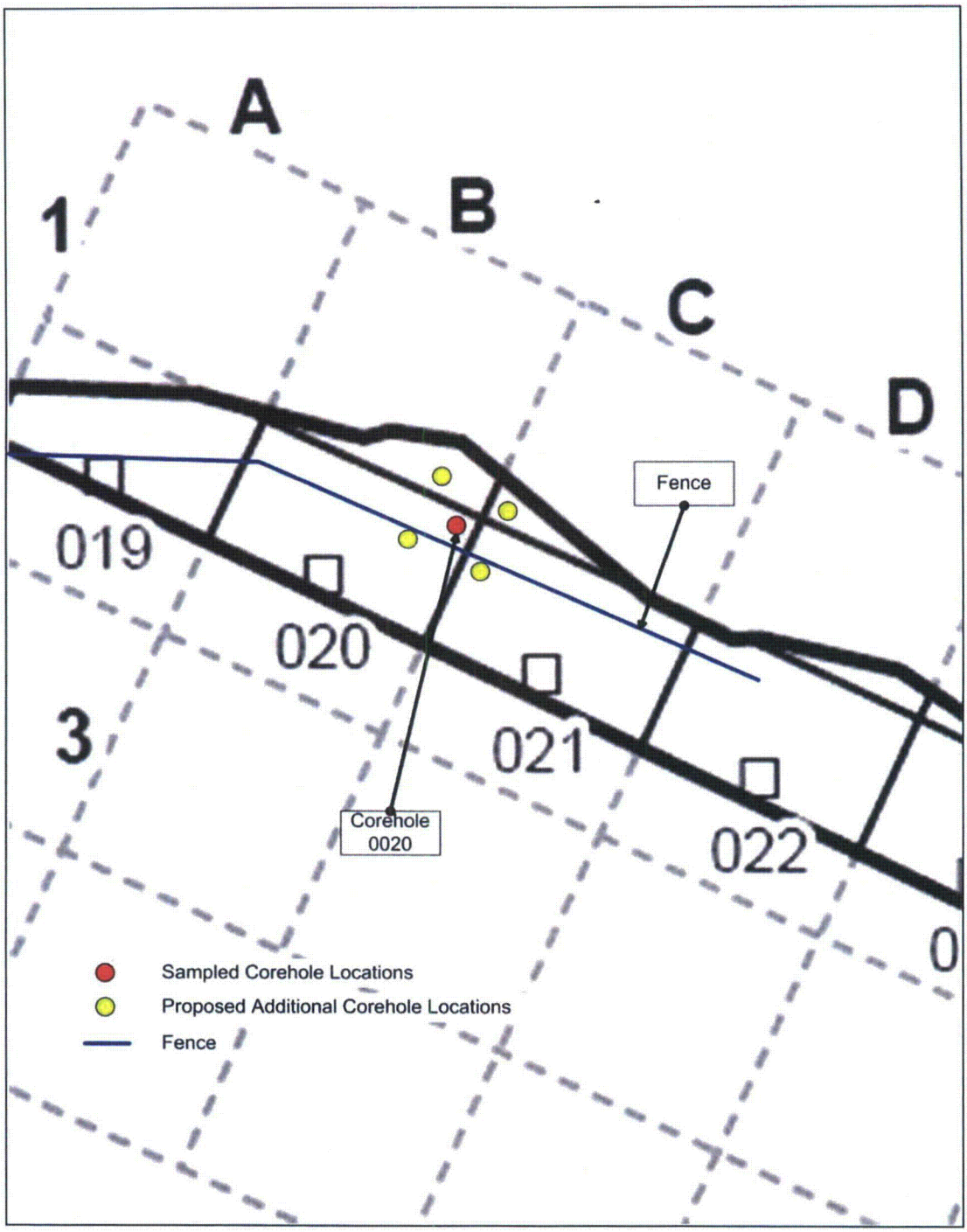


*Figure H-1 Proposed Additional Corehole Locations, Northwest Corner of Survey Unit 2*

The proposed corehole locations were selected to accommodate previous corehole relocations and to provide beneficial information regarding the extent of contamination in the vicinity of Corehole 0020. Due to physical impediments, the actual sampled location

of Corehole 0020 is in the northeast corner of grid cell B-2 as shown in Figure H-1. All of the proposed locations of the four additional coreholes in the vicinity of Corehole 0020 do not fall within grid cell B-2, however, the locations were selected to provide the most beneficial data to help delineate the extent of contamination.

Supplemental characterization field activities occurred on October 23 and October 24, 2008. Four additional coreholes were drilled (Figure H-2):

- Corehole 2020 was drilled in cell B-1, where originally no corehole was planned, to serve as an extent of contamination towards the north
- Corehole 2021 was drilled in cell C-1, where originally no corehole was planned, to serve as an extent of contamination in the northeast direction
- Corehole 1020 was drilled in cell B-2 to serve as an extent of contamination in the southwest direction, and
- Corehole 1021 was drilled in cell C-2, (the same grid cell as Corehole 0021), to serve as an extent of contamination in the east direction.

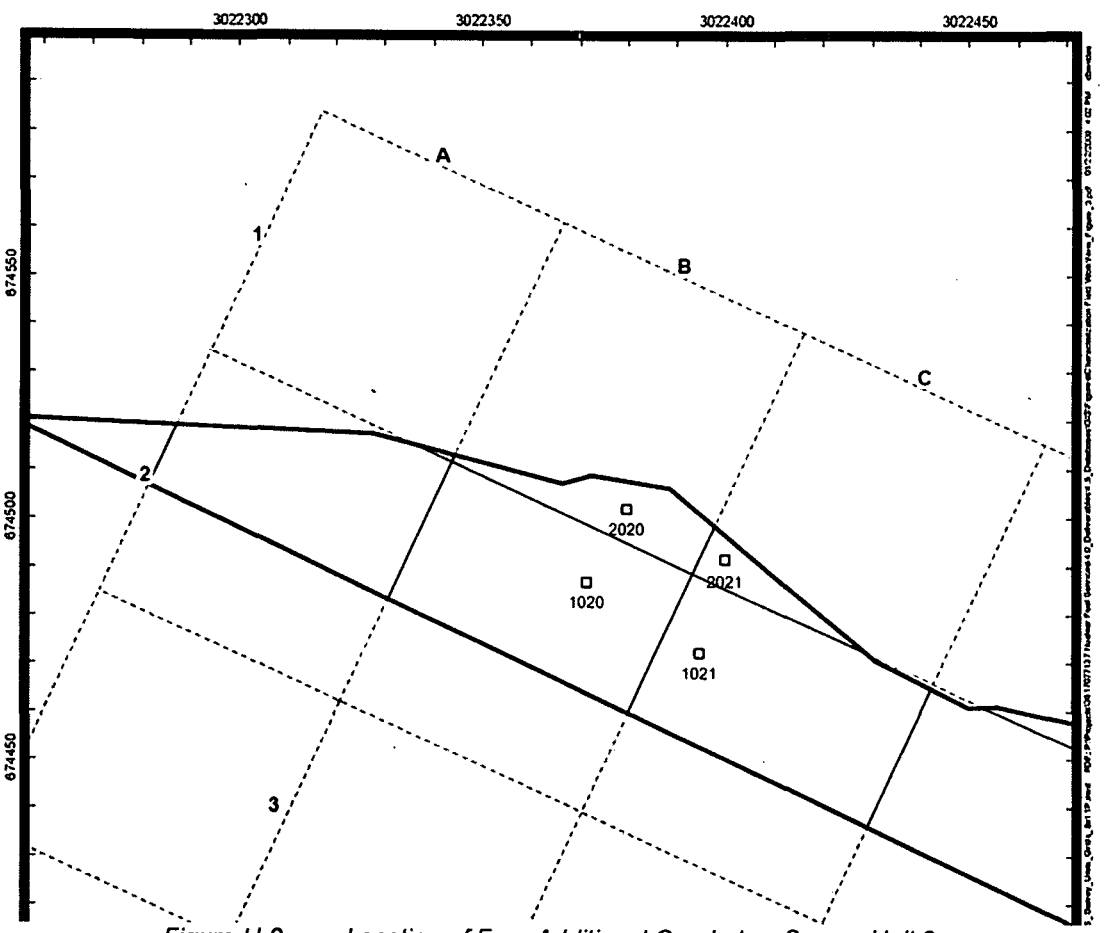


*Figure H-2 Location of Four Additional Coreholes, Survey Unit 2*

### H.1.3 Supplemental Characterization, Corehole 019

During the initial field sampling effort of Survey Unit 2 (performed in 2007), Corehole 0019 had to be relocated due to physical impediments which made drilling Corehole 0019 at its planned location virtually impossible. When the Banner Springs Branch was relocated, a large concrete structure was buried in cell A-2. Consequently, Corehole 0019 was relocated outside of its original grid cell (A-2) and into grid cell B-2 (originally containing only Corehole 0020) as shown in Figure H-3.

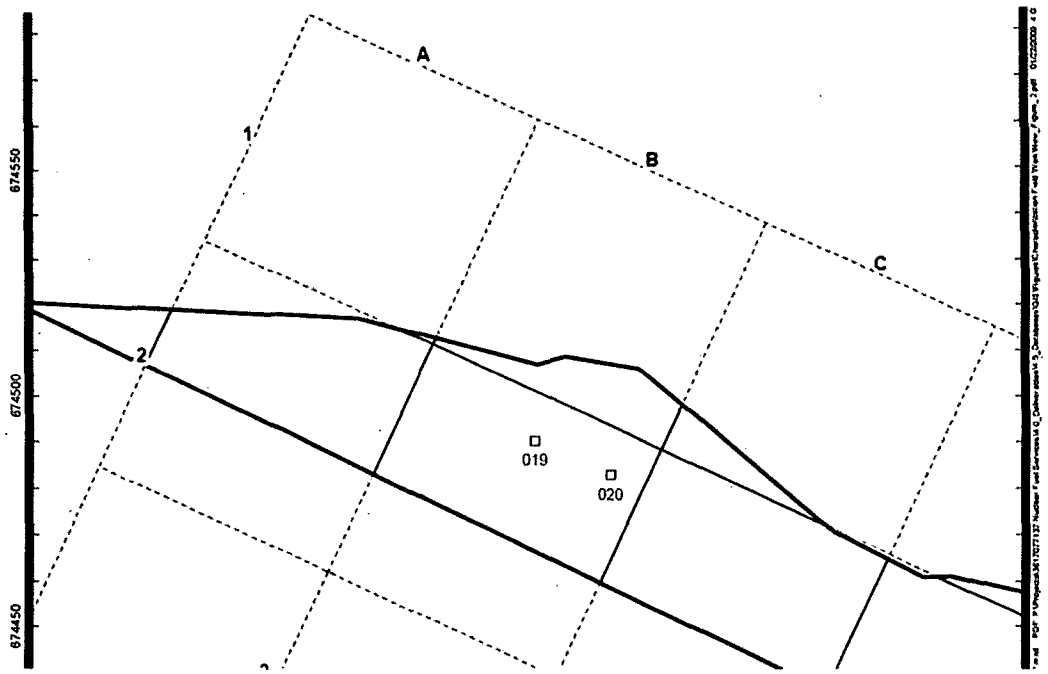


*Figure H-3 Surveyed Location of Coreholes 0019 and 0020, Survey Unit 2*

During the supplemental characterization effort of 2008, MACTEC made a second attempt to drill a corehole in grid cell A-2. The concrete culvert located in grid cell A-2 prevented drilling a corehole directly in grid cell A-2, however, a corehole (numbered Corehole 1019) was drilled as close as safely possible to the south border of grid cell A-2 (Figure H-4).

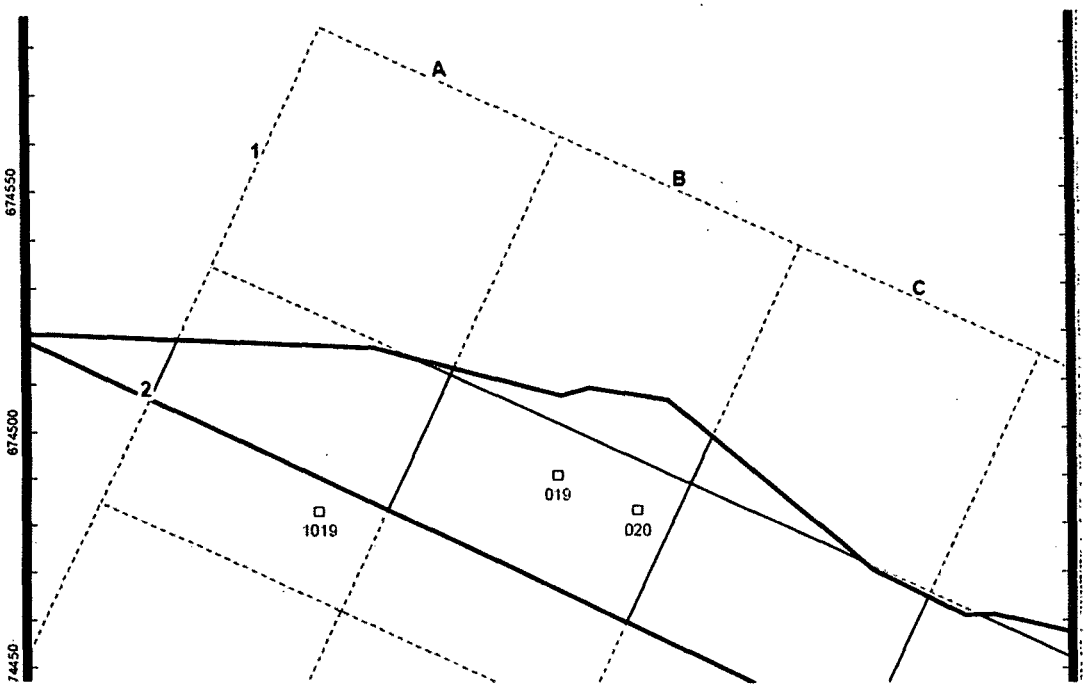


*Figure H-4 Surveyed Locations of Coreholes 1019, 0019, and 0020, Survey Unit 2*

Due to the close proximity to grid cell A-2, and the fact that the majority of grid cell A-2 was excavated during the relocation of the Banner Springs Branch, data from Corehole 1019 will represent grid cell A-2 (originally Corehole 0019).

### H.1.4 Supplemental Characterization Results

Analytical results obtained by NFS gamma spec of the five additional coreholes are presented in Table H-2. The full radiological dataset (including results of Paragon full-suite analyses) are included in the Survey Unit 2 FSS Dataset located in Appendix G.

*Table H-2 NFS Analytical Results for Additional Coreholes, Survey Unit 2*

| Grid Cell | Sample ID | Laboratory | Analysis Method | U-235 RAW DATA (pCi/g) | | | Th-232 RAW DATA (pCi/g) | | | Am-241 RAW DATA (pCi/g) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | RESULT | ERROR | MDC | RESULT | ERROR | MDC | RESULT | ERROR | MDC |
| B-2 | 1020-A | NFS | Gamma | 0.1524 | 0.0663 | 0.1104 | 2.016 | 0.3339 | 0.5302 | -0.2779 | -0.3512 | 0.5981 |
| | 1020-B | NFS | Gamma | 0.1287 | 0.0614 | 0.1024 | 1.288 | 0.2677 | 0.429 | -0.0522 | -0.3943 | 0.6697 |
| | 1020-C | NFS | Gamma | 0.1217 | 0.0529 | 0.0861 | 0.707 | 0.2585 | 0.4237 | -0.2913 | -0.3533 | 0.6036 |
| | 1020-D | NFS | Gamma | 0.1141 | 0.0578 | 0.0898 | 1.331 | 0.2448 | 0.3873 | 0.1178 | 0.3604 | 0.6097 |
| | 1020-E | NFS | Gamma | 0.1069 | 0.062 | 0.1037 | 0.8196 | 0.3179 | 0.5253 | 0.0133 | 0.2942 | 0.4985 |
| | 1020-F | NFS | Gamma | 0.1329 | 0.0501 | 0.081 | 0.2912 | 0.2448 | 0.4105 | 0.4521 | 0.3711 | 0.6216 |
| | 1020-F-D | NFS | Gamma | 0.1149 | 0.0515 | 0.0857 | 0.9888 | 0.2109 | 0.3342 | -0.0108 | -0.261 | 0.4428 |
| B-1 | 2020-A | NFS | Gamma | 0.1607 | 0.0645 | 0.1053 | 1.338 | 0.2909 | 0.4684 | 0.3997 | 0.4049 | 0.6805 |
| | 2020-B | NFS | Gamma | 0.1102 | 0.0535 | 0.0892 | 0.3918 | 0.2657 | 0.444 | 0.183 | 0.2471 | 0.4163 |
| | 2020-C | NFS | Gamma | 0.0491 | 0.0567 | 0.0946 | 1.161 | 0.2443 | 0.3828 | -0.0528 | -0.3612 | 0.6135 |
| | 2020-D | NFS | Gamma | 0.0972 | 0.0535 | 0.0893 | 1.104 | 0.2487 | 0.3994 | 0.371 | 0.2617 | 0.4382 |
| | 2020-E | NFS | Gamma | 0.0583 | 0.0527 | 0.0858 | 1.068 | 0.216 | 0.3437 | 0.2476 | 0.3826 | 0.645 |
| C-2 | 1021-A | NFS | Gamma | 0.3205 | 0.0662 | 0.108 | 1.474 | 0.3507 | 0.5686 | 0.0326 | 0.3316 | 0.5615 |
| | 1021-B | NFS | Gamma | -0.0234 | -0.0575 | 0.0979 | 1.113 | 0.2241 | 0.3517 | 0.3555 | 0.2973 | 0.5825 |
| | 1021-C | NFS | Gamma | 0.1114 | 0.0486 | 0.0808 | 0.4426 | 0.2108 | 0.3484 | 0.2109 | 0.2421 | 0.4074 |
| | 1021-D | NFS | Gamma | 0.0869 | 0.055 | 0.089 | 1.108 | 0.2016 | 0.3126 | 0.4266 | 0.3401 | 0.5697 |
| | 1021-E | NFS | Gamma | 0.0545 | 0.0507 | 0.0849 | 1.275 | 0.2308 | 0.3651 | -0.4264 | -0.2634 | 0.4516 |
| | 1021-E-D | NFS | Gamma | 0.0348 | 0.0528 | 0.0878 | 1.045 | 0.2505 | 0.3974 | 0.0226 | 0.2627 | 0.4452 |
| | 1021-F | NFS | Gamma | 0.041 | 0.0551 | 0.0925 | 0.5443 | 0.2714 | 0.4502 | -0.3283 | -0.2748 | 0.4703 |
| A-2 | 1019-A | NFS | Gamma | 0.146 | 0.0635 | 0.1057 | 1.688 | 0.2791 | 0.438 | -0.2241 | -0.3246 | 0.5529 |
| | 1019-B | NFS | Gamma | 0.084 | 0.0588 | 0.0971 | 1.636 | 0.2456 | 0.3829 | -0.3627 | -0.3986 | 0.6809 |
| | 1019-B-D | NFS | Gamma | 0.2187 | 0.0582 | 0.095 | 1.908 | 0.2697 | 0.4206 | 0.1397 | 0.2783 | 0.4699 |
| | 1019-C | NFS | Gamma | 0.1202 | 0.0494 | 0.0817 | 0.7012 | 0.2338 | 0.3813 | 0.064 | 0.3178 | 0.5383 |
| | 1019-D | NFS | Gamma | 0.0531 | 0.0533 | 0.0896 | 1.636 | 0.2639 | 0.4156 | -0.1324 | -0.2912 | 0.495 |
| | 1019-E | NFS | Gamma | 0.0792 | 0.0525 | 0.0873 | 1.42 | 0.3226 | 0.523 | 0.1906 | 0.3544 | 0.5981 |
| | 1019-F | NFS | Gamma | 0.0459 | 0.051 | 0.0858 | 1.29 | 0.2454 | 0.3912 | 0.2481 | 0.2579 | 0.4336 |
| C-1 | 2021-A | NFS | Gamma | 0.0438 | 0.0495 | 0.0814 | 0.9782 | 0.2818 | 0.4608 | 0.1182 | 0.3105 | 0.5252 |
| | 2021-B | NFS | Gamma | 0.1055 | 0.0489 | 0.0812 | 1.389 | 0.2411 | 0.3802 | -0.4257 | -0.2824 | 0.4837 |
| | 2021-C | NFS | Gamma | 0.1417 | 0.0541 | 0.0896 | 1.425 | 0.3391 | 0.5509 | 0.3282 | 0.3919 | 0.6595 |
| | 2021-D | NFS | Gamma | 0.0475 | 0.0532 | 0.0896 | 1.036 | 0.263 | 0.4262 | -0.0603 | -0.284 | 0.4821 |
| | 2021-D-D | NFS | Gamma | -0.033 | -0.053 | 0.0904 | 0.8626 | 0.3094 | 0.5096 | -0.1674 | -0.3448 | 0.5878 |
| | 2021-E | NFS | Gamma | 0.0874 | 0.0539 | 0.0883 | 1.4 | 0.3336 | 0.5447 | 0.1695 | 0.3645 | 0.6158 |

NFS QC/QA protocol was implemented during the supplemental characterization field activities. Field duplicate samples were collected as required by the NFS workplan. SWMU chemical samples were prepared and analyzed but are not discussed in this FSS Report.

Each sample collected from the supplemental characterization effort of Survey Unit 2 yielded analytical results at or below background levels of radioactivity. Together with the data from Corehole 0019 (located in grid cell B-2) it is evident that the slightly elevated Th-232 result of sample 0020-CX is only impacting a small lateral area, and a small vertical area (considering analytical results from samples 0020-BX and 0020-DX are at or below background levels of radioactivity).

### H.1.5 Grid Cell Averaging

It is inappropriate to consider only one of these coreholes as the representative sample for that particular grid cell. The NFS DP states "If the average of all five SOFs is within the permissible range (depending upon which compliance test is being performed) then, compliance is demonstrated" (NFS 2006). Therefore, samples collected within each grid cell are averaged together to yield a single, composited value for each grid cell and at each increment. Including the supplemental characterization, a total of three coreholes, (0019, 0020, and 1020), have been drilled and sampled in grid cell B-2, and two coreholes (0021, and 1021) have been drilled and sampled in grid cell C-2. While the DP does state that the average should be taken of all five SOFs, only coreholes located within a grid cell were averaged together. This is a conservative calculation, considering three coreholes are averaged (instead of five) for grid cell B-2, and two coreholes are averaged (instead of five) for grid cell C-2.

For example, the single composited value for 0020-A consists of an average of 0019-A, 0020-A, and 1020-A. The single composited value for Corehole 0021-A consists of an average of 0021-A and 1021-A. Table H-3 presents the composited values of coreholes 0020 and 0021.

*Table H-3 Composited Values for Coreholes 0020 and 0021*

| | Corehole #20 (Average of 019, 020, 1020) | | | Corehole #21 (Average of 021, 1021) | | |
|---|---|---|---|---|---|---|
| Increment | U-235 | Th-232 | Am-241 | U-235 | Th-232 | Am-241 |
| A | 0.147933 | 1.657667 | 0.3428 | 0.26655 | 1.3 | -0.17885 |
| B | 0.2122 | 1.527667 | 0.717 | 0.0164 | 0.56465 | 0.2337 |
| C | 0.785767 | 4.222533 | 1.689067 | 0.0918 | 0.5637 | 0.2738 |
| D | 0.0703 | 1.184267 | -0.05993 | 0.12005 | 1.186 | 0.57105 |
| E | 0.182467 | 1.751533 | -0.1596 | 0.09355 | 1.4255 | -0.33885 |
| F | 0.12145 | 0.7606 | 0.16235 | 0.041 | 0.5443 | -0.3283 |

The composited results presented in Table H-3 were utilized to populate the SSDCGL Calculators as appropriate.

Additional acquisition of data in grid cells B-1 (Corehole 2020) and C-1 (Corehole 2021) required the modification of the SSDCGL calculators to accommodate the additional cells not planned in the original survey unit design. Therefore, the total number of grid cells in Survey Unit 2 was increased from 18 to 20 (Figure H-5). See Section 4.0 through 6.0 of this FSS Report for results and analysis of the Survey Unit 2 FSS radiological dataset.

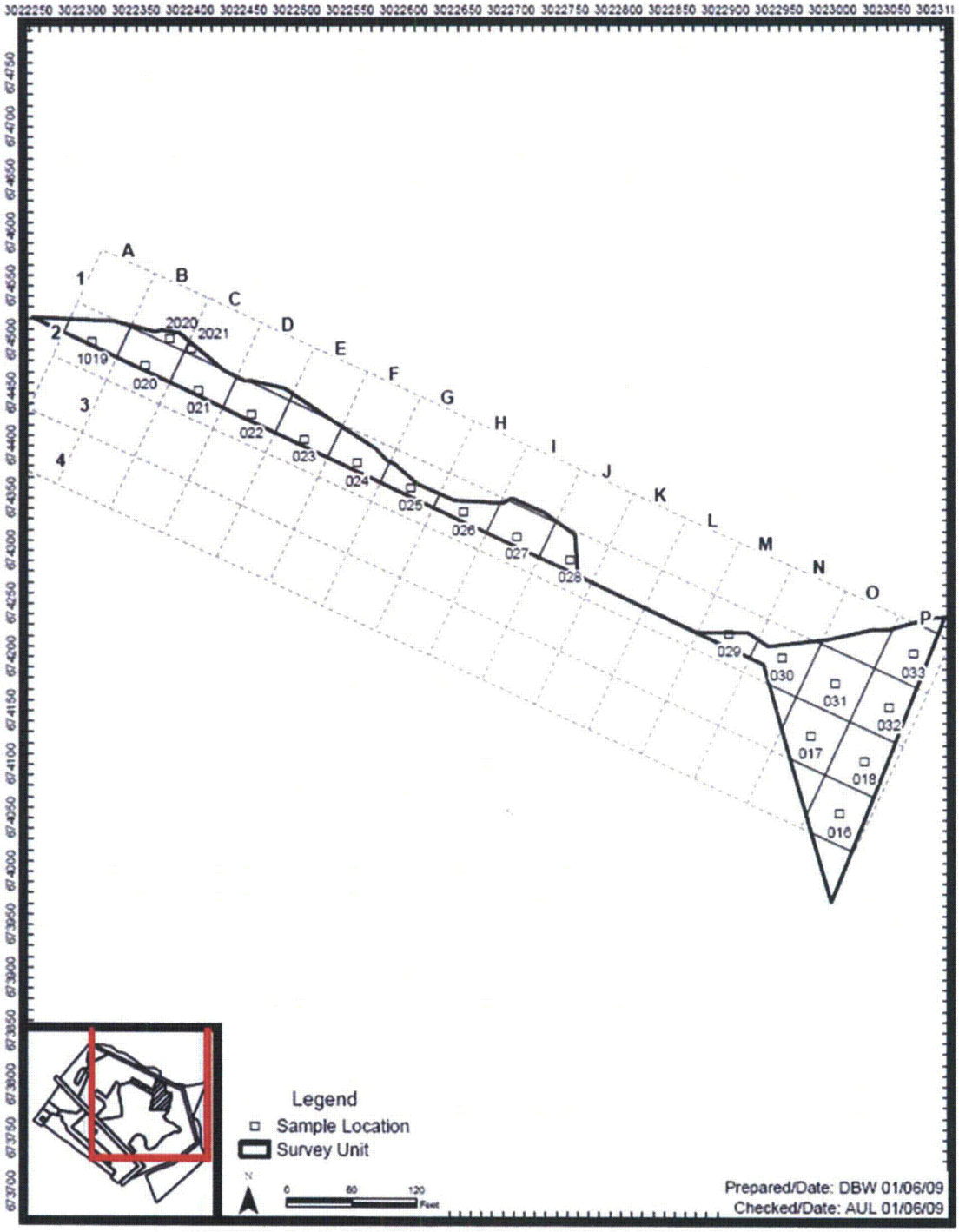


*Figure H-5 Final Sample Design Following Supplemental Characterization, Survey Unit 2*