**Table 1**
**DRAFT Un-Validated Soil Analytical Results Summary Table - Radioisotopes**
**Niagara Falls Boulevard Radiological Site**
**Niagara Falls Boulevard, Niagara Falls, New York**
**March 2016**

| | Location No. | N002-A01-S001 | | | | N002-A01-S001 | | | | N002-A01-S001 | | | | N002-A05-S001 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | RST 3 Sample No. | **N002-A01-S001-0006-01** | | | | **N002-A01-S001-0006-01b** | | | | **N002-A01-S001-0612-01** | | | | **N002-A05-S001-0006-01** | | | |
| | Sample Depth (inches) | 0 to 6 inches | | | | 0 to 6 inches | | | | 6 to 12 inches | | | | 0 to 6 inches | | | |
| | Sample Matrix | Soil | | | | Soil | | | | Soil | | | | Soil | | | |
| | Sample Date | 10/14/2016 | | | | 10/14/2016 | | | | 10/14/2016 | | | | 10/12/2016 | | | |
| | Sample Result | Value (pCi/g) | Qualifier | Total Uncertainty (±) | GE Value (pCi/g) | Value (pCi/g) | Qualifier | Total Uncertainty (±) | GE Value (pCi/g) | Value (pCi/g) | Qualifier | Total Uncertainty (±) | GE Value (pCi/g) | Value (pCi/g) | Qualifier | Total Uncertainty (±) | GE Value (pCi/g) |
| **Radioisotope** | **[1]EPA SSAL** | | | | | | | | | | | | | | | | |
| Bismuth-212 (Bi-212) | 6,330,000 | 392.16 | | 45.458 | | 525.62 | | 70.843 | | 20.271 | | 4.736 | | 2.38 | | 2.174 | |
| Cesium-137 (Cs-137) | 11 | 0.146 | | 0.863 | | 0 | | 0.318 | | 0.012 | | 0.259 | | 0.187 | | 0.127 | |
| Lead-212 (Pb-212) | 661,000 | 323.13 | | 38.139 | 130.66 | 484.3 | | 68.188 | 204.47 | 14.671 | | 2.099 | 34.52 | 1.954 | | 0.394 | 26.06 |
| Potassium-40 (K-40) | 25.9 | 20.153 | | 8.143 | | **27.47** | | 8.218 | | 14.031 | | 3.582 | | 12.061 | | 2.869 | 29.64* |
| Radium-226* (Ra-226) | 2.48 | **91.805** | | 10.175 | **166.17** | **125.78** | | 16.854 | **249.36** | **8.615** | | 1.307 | **39.84** | **2.699** | | 0.553 | **29.64** |
| Radium-228 (Ra-228) | 15.9 | **341.26** | | 36.934 | **315.99** | **498.54** | | 66.037 | **652.82** | 14.361 | | 2.198 | **64.3** | 1.835 | | 0.509 | 70.53* |
| Thallium-208 (Tl-208) | 2,430,000 | 112.16 | | 12.337 | 105.33 | 163.63 | | 21.877 | 217.6* | 4.905 | | 0.809 | 21.4* | 0.765 | | 0.207 | |
| Thorium-234 Th-234) | 47,900 | 49.122 | | 10.75 | 104.28 | 68.54 | | 22.278 | 249.36* | 6.004 | | 4.043 | 26.19 | 3.326 | | 1.669 | 29.64* |
| Uranium-235 (U-235) | 39.2 | 5.49 | | 3.63 | | 6.94 | | 5.42 | | 0.97 | | 3.54 | | 0.77 | | 1.015 | |
| Thorium-228 (Th-228) | 14,100 | 109 | N2 | 19.2 | 206.18 | 120 | N2 | 22.3 | 218.58 | 9.69 | N2 | 2.09 | 39.44 | 1.82 | | 0.586 | 27.13* |
| Thorium-230 (Th-230) | 2,090 | 40.6 | N2 | 8.17 | 166.17* | 34.7 | N2 | 8.31 | 249.36* | 5.59 | N2 | 1.39 | 26.19* | 1.57 | | 0.554 | 29.64* |
| Thorium-232 Th-232) | 5.01 | **115** | N2 | 20.1 | 206.18* | **110** | N2 | 20.7 | 218.58* | **10.3** | N2 | 2.18 | 39.44* | 0.954 | | 0.385 | 27.13* |
| Uranium-233/234 (U-233/234) | NS | 117 | N2 | 23.3 | 104.28* | 121 | N2 | 26.2 | 249.36* | 5.61 | N2 | 1.06 | 26.19* | 1.74 | | 0.404 | 29.64* |
| Uranium-235/236 (U-235/236) | NS | 7.53 | N2 | 2.02 | | 7.02 | N2 | 2.13 | | 0.253 | N2 | 0.155 | | 0.304 | | 0.152 | |
| Uranium-238 (U-238) | 3,720 | 126 | N2 | 25 | 104.28* | 124 | N2 | 27 | 249.36* | 6 | N2 | 1.12 | 26.19* | 1.99 | | 0.445 | 29.64* |

| | Location No. | N002-A05-S001 | | | | N002-A05-S001 | | | | N002-A05-S002 | | | | N002-A05-S002 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | RST 3 Sample No. | **N002-A05-S001-1218-01** | | | | **N002-A05-S001-1218-02** | | | | **N002-A05-S002-0006-01** | | | | **N002-A05-S002-0612-01** | | | |
| | Sample Depth (inches) | 12 to 18 inches | | | | 12 to 18 inches | | | | 0 to 6 inches | | | | 6 to 12 inches | | | |
| | Sample Matrix | Soil | | | | Soil | | | | Soil | | | | Soil | | | |
| | Sample Date | 10/12/2016 | | | | 10/12/2016 | | | | 10/12/2016 | | | | 10/12/2016 | | | |
| | Sample Result | Value (pCi/g) | Qualifier | Total Uncertainty (±) | GE Value (pCi/g) | Value (pCi/g) | Qualifier | Total Uncertainty (±) | GE Value (pCi/g) | Value (pCi/g) | Qualifier | Total Uncertainty (±) | GE Value (pCi/g) | Value (pCi/g) | Qualifier | Total Uncertainty (±) | GE Value (pCi/g) |
| **Radioisotope** | **[1]EPA SSAL** | | | | | | | | | | | | | | | | |
| Bismuth-212 (Bi-212) | 6,330,000 | 3.327 | | 1.47 | | 2.733 | | 2.363 | | 11.02 | | 3.109 | | 1.657 | | 2.62 | |
| Cesium-137 (Cs-137) | 11 | -0.042 | | 0.197 | | 0.042 | | 0.102 | | 0.261 | | 0.245 | | 0.044 | | 0.155 | |
| Lead-212 (Pb-212) | 661,000 | 1.21 | | 0.308 | 0.8352 | 1.536 | | 0.33 | 0.8676 | 8.536 | | 1.287 | 81.29 | 2.893 | | 0.493 | 17.36 |
| Potassium-40 (K-40) | 25.9 | 21.567 | | 4.538 | | 19.729 | | 3.834 | | 16.14 | | 3.501 | | 16.192 | | 3.026 | |
| Radium-226* (Ra-226) | 2.48 | 1.46 | | 0.327 | 1.34 | 1.565 | | 0.382 | 1.7 | **4.468** | | 0.803 | **79.66** | **2.524** | | 0.473 | **23.81** |
| Radium-228 (Ra-228) | 15.9 | 1.927 | | 0.572 | 0.8352* | 1.94 | | 0.449 | 0.9495* | 8.187 | | 1.442 | 189.58* | 2.938 | | 0.605 | 53.04* |
| Thallium-208 (Tl-208) | 2,430,000 | 0.639 | | 0.182 | 0.446666667 | 0.601 | | 0.179 | 0.566666667 | 2.615 | | 0.477 | 63* | 0.983 | | 0.243 | |
| Thorium-234 Th-234) | 47,900 | 1.521 | | 2.351 | 1.34* | 2.326 | | 4.135 | 1.7* | 3.016 | | 4.14 | 93.34 | 2.776 | | 4.923 | 23.81* |
| Uranium-235 (U-235) | 39.2 | 1.271 | | 1.657 | | 0.937 | | 0.965 | | 4.315 | | 2.201 | | 0.066 | | 1.853 | |
| Thorium-228 (Th-228) | 14,100 | 0.91 | | 0.378 | 0.3583* | 1.63 | | 0.493 | 0.9495* | 6.85 | | 1.4 | 119.88 | 2.31 | N2 | 0.75 | 7.44 |
| Thorium-230 (Th-230) | 2,090 | 0.677 | | 0.293 | 1.34* | 1.33 | | 0.421 | 1.7* | 3.26 | | 0.803 | 93.34* | 1.32 | N2 | 0.518 | 23.81* |
| Thorium-232 Th-232) | 5.01 | 0.843 | | 0.325 | 0.8352* | 1.01 | | 0.356 | 0.9495* | **6.52** | | 1.34 | 119.88* | 2.18 | N2 | 0.682 | 7.44* |
| Uranium-233/234 (U-233/234) | NS | 1.06 | | 0.298 | 1.34* | 1.33 | | 0.367 | 1.7* | 2.65 | | 0.581 | 79.66* | 1.57 | N2 | 0.375 | 23.81* |
| Uranium-235/236 (U-235/236) | NS | 0.034 | | 0.07 | | 0.052 | | 0.082 | | 0.144 | | 0.113 | | 0.067 | N2 | 0.071 | |
| Uranium-238 (U-238) | 3,720 | 0.951 | | 0.275 | 0.8352* | 1.11 | | 0.324 | 0.9495* | 2.49 | | 0.552 | 93.34* | 1.41 | N2 | 0.348 | 23.81* |

| | Location No. | N002-A05-S002 | | | | N002-A05-S002 | | | | N002-A05-S003 | | | | N002-A05-S003 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | RST 3 Sample No. | **N002-A05-S002-1218-01** | | | | **N002-A05-S002-1824-01** | | | | **N002-A05-S003-0006-01** | | | | **N002-A05-S003-0006-02** | | | |
| | Sample Depth (inches) | 12 to 18 inches | | | | 18 to 24 inches | | | | 0 to 6 inches | | | | 0 to 6 inches | | | |
| | Sample Matrix | Soil | | | | Soil | | | | Soil | | | | Soil | | | |
| | Sample Date | 10/12/2016 | | | | 10/12/2016 | | | | 10/12/2016 | | | | 10/12/2016 | | | |
| | Sample Result | Value (pCi/g) | Qualifier | Total Uncertainty (±) | GE Value (pCi/g) | Value (pCi/g) | Qualifier | Total Uncertainty (±) | GE Value (pCi/g) | Value (pCi/g) | Qualifier | Total Uncertainty (±) | GE Value (pCi/g) | Value (pCi/g) | Qualifier | Total Uncertainty (±) | GE Value (pCi/g) |
| **Radioisotope** | **[1]EPA SSAL** | | | | | | | | | | | | | | | | |
| Bismuth-212 (Bi-212) | 6,330,000 | 5.562 | | 2.116 | | 2.499 | | 1.961 | | 7.405 | | 3.091 | | 8.709 | | 2.755 | |
| Cesium-137 (Cs-137) | 11 | -0.009 | | 0.191 | | 0.204 | | 0.149 | | 0.268 | | 0.221 | | 0.232 | | 0.127 | |
| Lead-212 (Pb-212) | 661,000 | 3.735 | | 0.64 | 40.72 | 1.731 | | 0.361 | 0.9648 | 5.241 | | 0.848 | 9.03 | 5.16 | | 0.811 | 4.24 |
| Potassium-40 (K-40) | 25.9 | 17.545 | | 3.814 | | 19.854 | | 3.675 | | 17.31 | | 3.809 | | 16.537 | | 3.297 | |
| Radium-226* (Ra-226) | 2.48 | 2.419 | | 0.508 | **41.22** | 1.543 | | 0.332 | 1.58 | **3.649** | | 0.681 | **7.64** | **3.467** | | 0.552 | **5.31** |
| Radium-228 (Ra-228) | 15.9 | 3.977 | | 0.913 | 81.53* | 1.854 | | 0.509 | 0.8794* | 5.45 | | 1.001 | 11.9* | 5.288 | | 0.991 | 4.27* |
| Thallium-208 (Tl-208) | 2,430,000 | 1.214 | | 0.329 | 27.16666667 | 0.604 | | 0.185 | 0.2931* | 1.948 | | 0.404 | 4.3* | 1.867 | | 0.343 | 1.42* |
| Thorium-234 Th-234) | 47,900 | 4.42 | | 1.839 | 33.45 | 3.024 | | 3.298 | 1.58* | 2.411 | | 2.466 | 7.64* | 8.099 | | 3.997 | 5.31* |
| Uranium-235 (U-235) | 39.2 | 1.343 | | 1.168 | | 0 | | 0.636 | | 4.07 | | 2.14 | | 3.54 | | 2.655 | |
| Thorium-228 (Th-228) | 14,100 | 2.64 | N2 | 0.835 | 49.11 | 1.53 | N2 | 0.465 | 1.37 | 3.57 | N2 | 1.02 | 9.01 | 4.04 | N2 | 1.08 | 3.65* |
| Thorium-230 (Th-230) | 2,090 | 1.71 | N2 | 0.62 | 33.45* | 1.06 | N2 | 0.366 | 1.58* | 1.5 | N2 | 0.607 | 7.64* | 2.14 | N2 | 0.696 | 5.31* |
| Thorium-232 Th-232) | 5.01 | 2.84 | N2 | 0.833 | 49.11* | 1.45 | N2 | 0.434 | 1.37* | 3.3 | N2 | 0.953 | 9.01* | 3.32 | N2 | 0.915 | 3.65* |
| Uranium-233/234 (U-233/234) | NS | 1.59 | N2 | 0.387 | 33.45* | 1.19 | N2 | 0.338 | 1.58* | 1.29 | N2 | 0.322 | 7.64* | 1.5 | N2 | 0.373 | 5.31* |
| Uranium-235/236 (U-235/236) | NS | 0.13 | N2 | 0.102 | | 0.047 | N2 | 0.074 | | 0.063 | N2 | 0.067 | | 0.112 | N2 | 0.095 | |
| Uranium-238 (U-238) | 3,720 | 1.66 | N2 | 0.399 | 33.45* | 1.31 | N2 | 0.35 | 1.58* | 1.67 | N2 | 0.384 | 7.64* | 1.62 | N2 | 0.393 | 5.31* |

**Table 1**
**DRAFT Un-Validated Soil Analytical Results Summary Table - Radioisotopes**
**Niagara Falls Boulevard Radiological Site**
**Niagara Falls Boulevard, Niagara Falls, New York**
**March 2016**

| | Location No. | N002-A05-S003 | | | | N002-A05-SS007 | | | | N002-A05-S007 | | | | N002-A05-S007 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | RST 3 Sample No. | **N002-A05-S003-0612-01** | | | | **N002-A05-S007-0006-01** | | | | **N002-A05-S007-0612-01** | | | | **N002-A05-S007-1218-01** | | | |
| | Sample Depth (inches) | 6 to 12 inches | | | | 0 to 6 inches | | | | 6 to 12 inches | | | | 12 to 18 inches | | | |
| | Sample Matrix | Soil | | | | Soil | | | | Soil | | | | Soil | | | |
| | Sample Date | 10/12/2016 | | | | 10/12/2016 | | | | 10/12/2016 | | | | 10/12/2016 | | | |
| | Sample Result | Value (pCi/g) | Qualifier | Total Uncertainty (±) | GE Value (pCi/g) | Value (pCi/g) | Qualifier | Total Uncertainty (±) | GE Value (pCi/g) | Value (pCi/g) | Qualifier | Total Uncertainty (±) | GE Value (pCi/g) | Value (pCi/g) | Qualifier | Total Uncertainty (±) | GE Value (pCi/g) |
| **Radioisotope** | **[1]EPA SSAL** | | | | | | | | | | | | | | | | |
| Bismuth-212 (Bi-212) | 6,330,000 | 8.4 | | 2.951 | | 3 | | 2 | | 2.791 | | 1.937 | | 3.014 | | 2.565 | |
| Cesium-137 (Cs-137) | 11 | -0.028 | | 0.283 | | 0.048 | | 0.17 | | 0.206 | | 0.168 | | 0.067 | | 0.131 | |
| Lead-212 (Pb-212) | 661,000 | 4.924 | | 0.824 | 18.62 | 2.078 | | 0.403 | 2.44 | 1.845 | | 0.372 | 1.42 | 2.576 | | 0.459 | 64.01 |
| Potassium-40 (K-40) | 25.9 | 14.674 | | 3.445 | | 15.683 | | 3.589 | | 15.075 | | 3.36 | | 19.449 | | 3.433 | |
| Radium-226* (Ra-226) | 2.48 | **3.719** | | 0.66 | **16.73** | 1.783 | | 0.353 | **3.28** | 1.735 | | 0.386 | **2.85** | 2.055 | | 0.346 | **62.73** |
| Radium-228 (Ra-228) | 15.9 | 5.678 | | 1.065 | 33.47* | 2.259 | | 0.502 | 3.16* | 2.171 | | 0.551 | 1.66* | 2.899 | | 0.667 | 163.19* |
| Thallium-208 (Tl-208) | 2,430,000 | 1.661 | | 0.359 | 11.16* | 0.829 | | 0.206 | 1.05* | 0.68 | | 0.194 | 0.55* | 0.851 | | 0.221 | |
| Thorium-234 Th-234) | 47,900 | 4.345 | | 1.921 | 16.73* | 2.967 | | 2.738 | 3.28* | 2.868 | | 1.729 | 2.85* | 1.906 | | 2.396 | 73.35 |
| Uranium-235 (U-235) | 39.2 | 2.24 | | 1.76 | | 0.106 | | 1.926 | | 0.153 | | 1.671 | | 0.243 | | 1.776 | |
| Thorium-228 (Th-228) | 14,100 | 2.82 | N2 | 0.883 | 22.98 | 1.39 | N2 | 0.499 | 3.3 | 1.68 | N2 | 0.684 | 1.06* | 1.34 | N2 | 0.714 | 59.25 |
| Thorium-230 (Th-230) | 2,090 | 1.16 | N2 | 0.505 | 16.73* | 1.01 | N2 | 0.386 | 3.28* | 2.15 | N2 | 0.746 | 2.85* | 2.31 | N2 | 0.969 | 73.35* |
| Thorium-232 Th-232) | 5.01 | 2.85 | N2 | 0.851 | 22.98* | 1.48 | N2 | 0.479 | 3.3* | 0.914 | N2 | 0.458 | 1.06* | 1.4 | N2 | 0.692 | 59.25* |
| Uranium-233/234 (U-233/234) | NS | 1.69 | N2 | 0.407 | 16.73* | 1.64 | N2 | 0.392 | 3.28* | 1.07 | N2 | 0.293 | 2.85* | 1.56 | N2 | 0.391 | 73.35* |
| Uranium-235/236 (U-235/236) | NS | 0.117 | N2 | 0.095 | | 0.219 | N2 | 0.131 | | 0.075 | N2 | 0.074 | | 0.138 | N2 | 0.105 | |
| Uranium-238 (U-238) | 3,720 | 2.02 | N2 | 0.46 | 16.73* | 1.54 | N2 | 0.374 | 3.28* | 1.02 | N2 | 0.285 | 2.85* | 1.27 | N2 | 0.335 | 73.35* |

| | Location No. | N002-A05-S007 | | | | N002-A05-S008 | | | | N002-A05-S008 | | | | N002-A05-S009 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | RST 3 Sample No. | **N002-A05-S007-1824-01** | | | | **N002-A05-S008-0006-01** | | | | **N002-A05-S008-0612-01** | | | | **N002-A05-S009-0612-01** | | | |
| | Sample Depth (inches) | 18 to 24 inches | | | | 0 to 6 inches | | | | 6 to 12 inches | | | | 6 to 12 inches | | | |
| | Sample Matrix | Soil | | | | Soil | | | | Soil | | | | Soil | | | |
| | Sample Date | 10/12/2016 | | | | 10/12/2016 | | | | 10/12/2016 | | | | 10/12/2016 | | | |
| | Sample Result | Value (pCi/g) | Qualifier | Total Uncertainty (±) | GE Value (pCi/g) | Value (pCi/g) | Qualifier | Total Uncertainty (±) | GE Value (pCi/g) | Value (pCi/g) | Qualifier | Total Uncertainty (±) | GE Value (pCi/g) | Value (pCi/g) | Qualifier | Total Uncertainty (±) | GE Value (pCi/g) |
| **Radioisotope** | **[1]EPA SSAL** | | | | | | | | | | | | | | | | |
| Bismuth-212 (Bi-212) | 6,330,000 | 4.283 | | 2.667 | | 4.333 | | 1.376 | | 3.761 | | 2.809 | | 2.437 | | 2.253 | |
| Cesium-137 (Cs-137) | 11 | 0.324 | | 0.15 | | 0.105 | | 0.121 | | 0.112 | | 0.166 | | -0.017 | | 0.136 | |
| Lead-212 (Pb-212) | 661,000 | 3.662 | | 0.628 | 1.64 | 2.107 | | 0.389 | 1.23 | 2.524 | | 0.471 | 4.14 | 2.391 | | 0.451 | 103.58 |
| Potassium-40 (K-40) | 25.9 | 14.889 | | 3.756 | | 17.233 | | 3.247 | | 17.92 | | 4.136 | | 17.173 | | 3.179 | |
| Radium-226* (Ra-226) | 2.48 | 2.051 | | 0.435 | 2.13 | 1.7 | | 0.352 | **24.25** | 2.142 | | 0.446 | **20.14** | 1.995 | | 0.434 | **118.1** |
| Radium-228 (Ra-228) | 15.9 | 3.581 | | 0.75 | 1.76* | 2.302 | | 0.534 | 1.32 | 1.871 | | 0.586 | 7.94* | 2.74 | | 0.631 | 229.84* |
| Thallium-208 (Tl-208) | 2,430,000 | 1.143 | | 0.262 | 0.587 | 0.76 | | 0.193 | | 0.953 | | 0.251 | 2.65* | 0.834 | | 0.177 | |
| Thorium-234 Th-234) | 47,900 | 3.868 | | 3.14 | 2.48 | 1.599 | | 1.718 | 15.7 | 1.953 | | 1.913 | 10.42 | 1.152 | | 4.879 | 83.02 |
| Uranium-235 (U-235) | 39.2 | 1.78 | | 1.546 | | 0 | | 0.929 | | 0.699 | | 0.699 | | 0 | | 0.792 | |
| Thorium-228 (Th-228) | 14,100 | 2.06 | N2 | 0.69 | 1.62* | 1.72 | N2 | 0.588 | | 2.11 | N2 | 0.74 | 1.22 | 1.92 | N2 | 0.825 | 196.25* |
| Thorium-230 (Th-230) | 2,090 | 2.55 | N2 | 0.751 | 2.48* | 0.954 | N2 | 0.437 | 24.25* | 1.05 | N2 | 0.473 | 10.42* | 0.929 | N2 | 0.509 | 83.02* |
| Thorium-232 Th-232) | 5.01 | 1.6 | N2 | 0.554 | 1.62* | 1.08 | N2 | 0.427 | 1.32* | 1.51 | N2 | 0.571 | 1.22* | 1.86 | N2 | 0.738 | 196.25* |
| Uranium-233/234 (U-233/234) | NS | 1.55 | N2 | 0.398 | 2.48* | 1.13 | N2 | 0.304 | 15.7* | 1.26 | N2 | 0.332 | 10.42* | 1.07 | N2 | 0.285 | |
| Uranium-235/236 (U-235/236) | NS | 0.054 | N2 | 0.078 | | 0.072 | N2 | 0.076 | | 0.053 | N2 | 0.069 | | 0.082 | N2 | 0.077 | |
| Uranium-238 (U-238) | 3,720 | 1.59 | N2 | 0.402 | 2.48* | 1.32 | N2 | 0.329 | 15.7* | 1.26 | N2 | 0.331 | 10.42* | 1.11 | N2 | 0.292 | 83.02* |

| | Location No. | N002-A05-S010 | | | | N002-A05-S011 | | | | N002-A05-S011 | | | | N002-A05-S011 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | RST 3 Sample No. | **N002-A05-S010-0612-01** | | | | **N002-A05-S011-0006-01** | | | | **N002-A05-S011-0612-01** | | | | **N002-A05-S011-1218-01** | | | |
| | Sample Depth (inches) | 6 to 12 inches | | | | 0 to 6 inches | | | | 6 to 12 inches | | | | 12 to 18 inches | | | |
| | Sample Matrix | Soil | | | | Soil | | | | Soil | | | | Soil | | | |
| | Sample Date | 10/12/2016 | | | | 10/12/2016 | | | | 10/12/2016 | | | | 10/12/2016 | | | |
| | Sample Result | Value (pCi/g) | Qualifier | Total Uncertainty (±) | GE Value (pCi/g) | Value (pCi/g) | Qualifier | Total Uncertainty (±) | GE Value (pCi/g) | Value (pCi/g) | Qualifier | Total Uncertainty (±) | GE Value (pCi/g) | Value (pCi/g) | Qualifier | Total Uncertainty (±) | GE Value (pCi/g) |
| **Radioisotope** | **[1]EPA SSAL** | | | | | | | | | | | | | | | | |
| Bismuth-212 (Bi-212) | 6,330,000 | 4.407 | | 1.407 | | 8.843 | | 2.842 | | 8.849 | | 2.496 | | 14.452 | | 3.737 | |
| Cesium-137 (Cs-137) | 11 | 0.533 | | 0.236 | | 0.134 | | 0.237 | | 0.451 | | 0.158 | | -0.023 | | 0.306 | |
| Lead-212 (Pb-212) | 661,000 | 3.46 | | 0.575 | 31.06 | 7.161 | | 1.087 | 12.48 | 6.956 | | 1.046 | | 10.546 | | 1.558 | 32.85 |
| Potassium-40 (K-40) | 25.9 | 11.008 | | 2.289 | | 13.904 | | 3.132 | | 12.264 | | 2.836 | 8.8 | 15.694 | | 3.637 | |
| Radium-226* (Ra-226) | 2.48 | **2.886** | | 0.537 | **37.62** | **4.311** | | 0.724 | **18.26** | **4.37** | | 0.733 | **8.95** | **5.588** | | 0.94 | **23.03** |
| Radium-228 (Ra-228) | 15.9 | 3.491 | | 0.727 | 102.26* | 6.695 | | 1.166 | 46.10* | 7.737 | | 1.323 | 10.31* | 11.669 | | 1.9 | **57.81** |
| Thallium-208 (Tl-208) | 2,430,000 | 1.354 | | 0.267 | 34.09* | 2.088 | | 0.409 | 15.37 | 2.397 | | 0.414 | 3.44* | 4.127 | | 0.684 | 19.27* |
| Thorium-234 Th-234) | 47,900 | 1.957 | | 5.501 | 78.41 | 4.1 | | 3.991 | 18.26* | 2.007 | | 6.656 | 11.73 | 1.777 | | 4.963 | 23.03* |
| Uranium-235 (U-235) | 39.2 | 3.453 | | 1.899 | | 1.212 | | 1.371 | | 0 | | 1.785 | | 6.048 | | 2.961 | |
| Thorium-228 (Th-228) | 14,100 | 2.8 | N2 | 0.732 | 34.28 | 5.31 | N2 | 1.16 | 11.81 | 5.55 | N2 | 1.34 | 12.69 | 6.74 | | 1.48 | 47.17* |
| Thorium-230 (Th-230) | 2,090 | 0.89 | N2 | 0.389 | 78.41* | 2.15 | N2 | 0.601 | 18.26* | 1.9 | N2 | 0.653 | 11.73* | 3.06 | | 0.828 | 23.03* |
| Thorium-232 Th-232) | 5.01 | 1.37 | N2 | 0.451 | 34.28* | 4.66 | N2 | 1.03 | 11.81* | 4.78 | N2 | 1.18 | 12.69* | **5.49** | | 1.25 | 47.17* |
| Uranium-233/234 (U-233/234) | NS | 2.35 | N2 | 0.521 | 78.41* | 2.23 | N2 | 0.515 | 18.26* | 2.25 | N2 | 0.487 | 11.73* | 2.96 | | 0.606 | 23.03* |
| Uranium-235/236 (U-235/236) | NS | 0.3 | N2 | 0.157 | | 0.148 | N2 | 0.117 | | 0.124 | N2 | 0.094 | | 0.105 | | 0.089 | |
| Uranium-238 (U-238) | 3,720 | 2.32 | N2 | 0.509 | 78.41* | 1.94 | N2 | 0.467 | 18.26* | 2.39 | N2 | 0.509 | 11.73* | 2.47 | | 0.526 | 23.03* |

**Table 1**
**DRAFT Un-Validated Soil Analytical Results Summary Table - Radioisotopes**
**Niagara Falls Boulevard Radiological Site**
**Niagara Falls Boulevard, Niagara Falls, New York**
**March 2016**

| | Location No. | N002-A05-S011 | | | | N002-A05-S011 | | | | N002-A05-S011 | | | | N002-A07-S001 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | RST 3 Sample No. | **N002-A05-S011-1824-01** | | | | **N002-A05-S011-2430-01** | | | | **N002-A05-S011-3036-01** | | | | **N002-A07-S001-0006-01** | | | |
| | Sample Depth (inches) | 18 to 24 inches | | | | 24 to 30 inches | | | | 30 to 36 inches | | | | 0 to 6 inches | | | |
| | Sample Matrix | Soil | | | | Soil | | | | Soil | | | | Soil | | | |
| | Sample Date | 10/12/2016 | | | | 10/12/2016 | | | | 10/12/2016 | | | | 10/14/2016 | | | |
| | Sample Result | Value (pCi/g) | Qualifier | Total Uncertainty (±) | GE Value (pCi/g) | Value (pCi/g) | Qualifier | Total Uncertainty (±) | GE Value (pCi/g) | Value (pCi/g) | Qualifier | Total Uncertainty (±) | GE Value (pCi/g) | Value (pCi/g) | Qualifier | Total Uncertainty (±) | GE Value (pCi/g) |
| **Radioisotope** | **[1]EPA SSAL** | | | | | | | | | | | | | | | | |
| Bismuth-212 (Bi-212) | 6,330,000 | 5.293 | | 1.556 | | 3.461 | | 2.745 | | 2.811 | | 3.274 | | 325.88 | | 44.16 | |
| Cesium-137 (Cs-137) | 11 | 0.17 | | 0.124 | | 0.042 | | 0.173 | | 0.102 | | 0.19 | | -0.248 | | 0.65 | |
| Lead-212 (Pb-212) | 661,000 | 3.984 | | 0.653 | 27.2 | 2.617 | | 0.486 | 17.12 | 4.557 | | 0.758 | 22.8 | 293.73 | | 41.371 | 127.1 |
| Potassium-40 (K-40) | 25.9 | 17.917 | | 3.252 | | 17.414 | | 3.76 | | 18.471 | | 3.878 | | 6.18 | | 3.331 | |
| Radium-226* (Ra-226) | 2.48 | **2.637** | | 0.55 | **34.54** | 2.214 | | 0.455 | **13.14** | **3.529** | | 0.676 | **27.77** | **64.579** | | 8.7 | **143.09** |
| Radium-228 (Ra-228) | 15.9 | 3.674 | | 0.695 | 69.67* | 3.207 | | 0.89 | 24.84* | 5.244 | | 0.975 | 41.49* | **295.15** | | 39.144 | **322.58** |
| Thallium-208 (Tl-208) | 2,430,000 | 1.277 | | 0.263 | 23.22* | 0.862 | | 0.232 | | 1.608 | | 0.339 | 13.83 | 95.977 | | 12.858 | 107.52 |
| Thorium-234 Th-234) | 47,900 | 1.729 | | 2.199 | 34.54* | 3.463 | | 2.839 | 23.08 | 7.274 | | 3.015 | 36.71 | 28.418 | | 16.47 | 118.77 |
| Uranium-235 (U-235) | 39.2 | 0 | | 1.383 | | 1.125 | | 1.376 | | 1.283 | | 1.892 | | 0 | | 5.2 | |
| Thorium-228 (Th-228) | 14,100 | 3.32 | N2 | 0.983 | 34.11 | 1.49 | N2 | 0.493 | 19.9* | 5.28 | N2 | 1.28 | 28.41* | 20.2 | N2 | 3.62 | 154.77 |
| Thorium-230 (Th-230) | 2,090 | 1.91 | N2 | 0.674 | 34.54* | 0.955 | N2 | 0.388 | 23.08* | 2.01 | N2 | 0.665 | 36.71* | 6.95 | N2 | 1.46 | 118.77* |
| Thorium-232 Th-232) | 5.01 | 2.89 | N2 | 0.872 | 34.11* | 1.15 | N2 | 0.411 | 19.9* | 4.18 | N2 | 1.06 | 28.41* | **16.6** | N2 | 3.02 | 154.77* |
| Uranium-233/234 (U-233/234) | NS | 1.99 | N2 | 0.47 | 34.54* | 1.52 | N2 | 0.388 | 23.08* | 1.92 | N2 | 0.456 | 36.71* | 7.27 | N2 | 1.31 | 143.09* |
| Uranium-235/236 (U-235/236) | NS | 0.17 | N2 | 0.121 | | 0.12 | N2 | 0.098 | | 0.07 | N2 | 0.082 | | 0.365 | N2 | 0.18 | |
| Uranium-238 (U-238) | 3,720 | 2.08 | N2 | 0.486 | 34.54* | 1.86 | N2 | 0.44 | 23.08* | 1.93 | N2 | 0.455 | 36.71* | 7.58 | N2 | 1.36 | 143.09* |

| | Location No. | N002-OF-AJ01 | | | | N002-OF-AN02 | | | |
|---|---|---|---|---|---|---|---|---|---|
| | RST 3 Sample No. | **N002-OF-AJ01-01-01** | | | | **N002-OF-AN02-01-01** | | | |
| | Sample Depth (inches) | 0 to 6 inches | | | | 0 to 6 inches | | | |
| | Sample Matrix | Soil | | | | Soil | | | |
| | Sample Date | 10/5/2016 | | | | 10/5/2016 | | | |
| | Sample Result | Value (pCi/g) | Qualifier | Total Uncertainty (±) | GE Value (pCi/g) | Value (pCi/g) | Qualifier | Total Uncertainty (±) | GE Value (pCi/g) |
| **Radioisotope** | **[1]EPA SSAL** | | | | | | | | |
| Bismuth-212 (Bi-212) | 6,330,000 | 3.246 | | 1.205 | | 2.44 | | 1.465 | |
| Cesium-137 (Cs-137) | 11 | 0 | | 0.026 | | 0 | | 0.027 | |
| Lead-212 (Pb-212) | 661,000 | 1.564 | | 0.32 | 0.7261 | 1.567 | | 0.355 | 0.7421 |
| Potassium-40 (K-40) | 25.9 | **27.103** | | 4.775 | | 25.564 | | 4.719 | |
| Radium-226* (Ra-226) | 2.48 | 1.561 | | 0.36 | 1.1 | 1.581 | | 0.375 | 1.21 |
| Radium-228 (Ra-228) | 15.9 | 1.978 | | 0.486 | 0.8067* | 2.162 | | 0.523 | 0.8469* |
| Thallium-208 (Tl-208) | 2,430,000 | 0.503 | | 0.167 | 0.2689* | 0.652 | | 0.177 | 0.2823 |
| Thorium-234 Th-234) | 47,900 | 2.159 | | 1.14 | 1.1* | 2.122 | | 5.297 | 1.21* |
| Uranium-235 (U-235) | 39.2 | 1.403 | | 0.932 | | 0.075 | | 1.975 | |
| Thorium-228 (Th-228) | 14,100 | 1.19 | N2 | 0.493 | 0.5165* | 1.43 | N2 | 0.738 | |
| Thorium-230 (Th-230) | 2,090 | 0.591 | N2 | 0.334 | 1.1* | 1.63 | N2 | 0.78 | 1.21* |
| Thorium-232 Th-232) | 5.01 | 0.634 | N2 | 0.32 | 0.5165* | 0.853 | N2 | 0.522 | |
| Uranium-233/234 (U-233/234) | NS | 0.874 | N2 | 0.258 | 1.1* | 1.03 | N2 | 0.3 | 1.21* |
| Uranium-235/236 (U-235/236) | NS | 0.027 | N2 | 0.065 | | 0.05 | N2 | 0.072 | |
| Uranium-238 (U-238) | 3,720 | 1.09 | N2 | 0.292 | 1.1* | 1.2 | N2 | 0.325 | 1.21* |

**Notes:**
RST 3 - Removal Support Team 3.
No. - Number; ND - Not detected.
N2 - The laboratory does not hold The NELAC Institute (TNI) accreditation for this parameter.
pCi/g - picocuries per gram; µg/L - micrograms per liter.
[1]U.S. Environmental Protection Agency (EPA) Site-Specific Action Level (SSAL) values are presented in pCi/g.
**Values in red highlighted in yellow equal or exceed the EPA SSAL for the respective radioisotope.**
Radium-226* (21-day ingrowth) analyzed by gamma spectroscopy via EPA 901.1 modified (soil only).