Table 1: DRAFT Un-Validated Soil Analytical Results Summary Table - Radioisotopes
Property P005
Holy Trinity Site, Lewiston , New York
August 2016

	Location No.	P005-SS001												P005-SS002															P005-SS003		
	RST 3 Sample No.	P005-SS001-0208-01			P005-SS001-0814-01			P005-SS001-1420-01			P005-SS001-2026-01			P005-SS002-0006-01			P005-SS002-0006-02			P005-SS002-0612-01			P005-SS002-1218-01			P005-SS002-1824-01			P005-SS003-0006-01		
	Sample Depth (inches)	2-8			8-14			14-20			20-26			0-6			0-6			6-12			12-18			18-24			0-6		
	Sample Matrix	Soil			Soil			Soil			Soil			Soil			Soil			Soil			Soil			Soil			Soil		
	Sample Date	8/18/2016			8/18/2016			8/18/2016			8/18/2016			8/18/2016			8/18/2016			8/18/2016			8/18/2016			8/18/2016			8/18/2016		
	Sample Result	Value (pCi/g)	Qualifier	Total Uncertainty	Value (pCi/g)	Qualifier	Total Uncertainty	Value (pCi/g)	Qualifier	Total Uncertainty	Value (pCi/g)	Qualifier	Total Uncertainty	Value (pCi/g)	Qualifier	Total Uncertainty	Value (pCi/g)	Qualifier	Total Uncertainty	Value (pCi/g)	Qualifier	Total Uncertainty	Value (pCi/g)	Qualifier	Total Uncertainty	Value (pCi/g)	Qualifier	Total Uncertainty	Value (pCi/g)	Qualifier	Total Uncertainty
Radioisotope	[1]**EPA SSAL**																														
Bismuth-212 (Bi-212)	10,400,000	1.505		1.139	3.097		2.182	3.043		1.666	2.2371	J	1.873	1.3772	J	2.128	1.7929	J	2.424	1.698		1.519	2.12		1.569	1.92		1.372	1.5174	J	2.99
Cesium-137 (Cs-137)	18	0	U	0.021	0.03905	U	0.149	0.0667	J	0.111	-0.0144	U	0.188	0.17665	J	0.179	0.06983	U	0.238	0.02535	U	0.118	0.03549	U	0.171	0	U	0.049	0.03889	U	0.187
Lead-212 (Pb-212)	1,060,000	0.407		0.151	1.269		0.361	1.461		0.347	1.783		0.391	1.147		0.287	1.261		0.303	1.188		0.265	1.388		0.328	1.265		0.27	1.098		0.301
Potassium-40 (K-40)	43	6.686		1.666	20.859		5.019	27.012		4.915	33.255		6.313	20.467		3.985	21.131		4.683	22.475		3.849	24.512		4.912	24.902		4.284	21.394		4.599
Radium-226 (Ra-226)	4.06	0.668		0.246	1.644		0.429	1.539		0.368	1.612		0.421	1.269		0.342	1.777		0.355	1.212		0.227	1.404		0.346	1.198		0.26	1.468		0.361
Radium-228 (Ra-228)	26.3	0.661		0.285	1.75		0.551	1.871		0.543	2.15		0.541	1.443		0.498	1.915		0.535	1.444		0.372	1.227		0.519	1.608		0.428	1.251		0.522
Thallium-208 (Tl-208)	5,470,000	0.133		0.122	0.524		0.187	0.57		0.189	0.562		0.175	0.322		0.158	0.513		0.157	0.474		0.164	0.512		0.158	0.516		0.135	0.516		0.183
Thorium-234 (Th-234)	76,700	1.0049	U	1.477	2.7135	J	2.443	1.9142	U	1.695	2.1863	J	1.537	2.2488	J	4.656	2.4856	J	1.981	2.8148	J	3.821	2.694		1.83	0.23273	U	4.341	1.4501	J	2.723
Uranium-235 (U-235)	60.9	0.165		0.147	0.00728	U	0.185	0.243		0.291	0.14533	J	0.189	0.14867	J	0.179	0.09707	J	0.166	0.201		0.123	0.12326	J	0.153	0.219		0.114	0.1891	J	0.157
Thorium-228 (Th-228)	31,000	0.397		0.175	0.963		0.315	1.19		0.349	1.08		0.337	0.85		0.295	0.932		0.298	1.12		0.338	1.23		0.356	1.14		0.376	1.18		0.349
Thorium-230 (Th-230)	6,160	0.795		0.251	1.31		0.367	1.17		0.338	0.784		0.283	0.634		0.238	0.992		0.298	0.836		0.283	0.745		0.262	0.644		0.273	0.904		0.29
Thorium-232 Th-232)	6,260	0.235		0.123	0.797		0.266	1.07		0.318	1.11		0.329	0.81		0.27	0.768		0.253	0.703		0.247	0.885		0.282	0.654		0.262	0.772		0.26
Uranium-233/234 (U-233/234)	10,300	1		0.28	0.952		0.289	0.839		0.266	0.576		0.208	0.638		0.22	0.676		0.228	0.82		0.271	0.822		0.258	0.858		0.257	0.806		0.279
Uranium-235/236 (U-235/236)	60.9	0.009		0.064	0.092		0.091	0.048		0.069	0.059		0.072	0.075		0.079	0.075		0.074	0.067		0.081	0.098		0.092	0.036		0.065	0.065		0.085
Uranium-238 (U-238)	11,700	0.701		0.221	1.06		0.309	0.663		0.22	0.855		0.26	0.738		0.238	0.695		0.224	0.815		0.266	0.767		0.246	0.797		0.24	0.536		0.211

	Location No.	P005-SS003												P005-SS004												P005-SS005					
	RST 3 Sample No.	P005-SS003-0006-02			P005-SS003-0612-01			P005-SS003-1218-01			P005-SS003-1824-01			P005-SS004-0006-01			P005-SS004-0612-01			P005-SS004-1218-01			P005-SS004-1824-01			P005-SS005-0006-01			P005-SS005-0612-01		
	Sample Depth (inches)	0-6			42-48			0-6			18-24			0-6			6-12			12-18			18-24			0-6			6-12		
	Sample Matrix	Soil			Soil			Soil			Soil			Soil			Soil			Soil			Soil			Soil			Soil		
	Sample Date	8/18/2016			8/18/2016			8/18/2016			8/18/2016			8/18/2016			8/18/2016			8/18/2016			8/18/2016			8/18/2016			8/18/2016		
	Sample Result	Value (pCi/g)	Qualifier	Total Uncertainty	Value (pCi/g)	Qualifier	Total Uncertainty	Value (pCi/g)	Qualifier	Total Uncertainty	Value (pCi/g)	Qualifier	Total Uncertainty	Value (pCi/g)	Qualifier	Total Uncertainty	Value (pCi/g)	Qualifier	Total Uncertainty	Value (pCi/g)	Qualifier	Total Uncertainty	Value (pCi/g)	Qualifier	Total Uncertainty	Value (pCi/g)	Qualifier	Total Uncertainty	Value (pCi/g)	Qualifier	Total Uncertainty
Radioisotope	[1]**EPA SSAL**																														
Bismuth-212 (Bi-212)	10,400,000	0.099	U	2.237	1.3712	J	1.383	1.8209	J	1.119	3.555		1.564	0.37883	U	1.894	0.80598	J	1.803	1.4092	J	1.686	1.2467	J	2.105	1.8444	J	1.761	3		1.471
Cesium-137 (Cs-137)	18	0	U	0.054	0	U	0.052	0.09142	J	0.13	0	U	0.028	0.253		0.1	0.05032	U	0.159	0.09674	J	0.142	0.128		0.104	0.15819	J	0.151	0.00599	U	0.113
Lead-212 (Pb-212)	1,060,000	1.143		0.268	1.246		0.305	1.179		0.265	1.455		0.322	1.229		0.277	1.284		0.299	1.528		0.351	1.432		0.304	1.568		0.358	1.38		0.326
Potassium-40 (K-40)	43	21.479		3.737	20.364		4.114	18.032		3.636	18.796		4.126	21.555		3.967	22.364		4.489	23.794		4.91	25.344		4.746	22.033		4.957	25.913		4.518
Radium-226 (Ra-226)	4.06	1.187		0.294	1.386		0.297	1.218		0.329	1.36		0.357	1.206		0.272	1.157		0.287	1.451		0.345	1.339		0.38	1.551		0.339	1.48		0.353
Radium-228 (Ra-228)	26.3	1.281		0.324	1.577		0.453	1.442		0.452	1.371		0.467	1.339		0.361	1.453		0.461	1.995		0.737	1.725		0.467	1.676		0.585	2.124		0.547
Thallium-208 (Tl-208)	5,470,000	0.392		0.121	0.594		0.161	0.388		0.121	0.607		0.19	0.468		0.128	0.596		0.166	0.511		0.183	0.225		0.188	0.526		0.165	0.553		0.149
Thorium-234 (Th-234)	76,700	2.3756	J	3.727	4.096		2.5	1.6947	J	3.753	2.1999	J	1.863	2.5626	J	2.51	1.3547	J	2.29	5.67		2.248	3.6129	J	4.196	2.4858	J	2.228	1.5107	U	4.737
Uranium-235 (U-235)	60.9	0.261		0.143	0.07945	J	0.144	0.224		0.116	0.271		0.165	0.168		0.138	0.227		0.211	0.24		0.154	0.26		0.285	0.10416	J	0.175	0.352		0.156
Thorium-228 (Th-228)	31,000	1.14		0.346	0.828		0.303	0.842		0.259	1.05		0.312	0.732		0.284	0.834		0.269	1.07		0.34	1.03		0.316	1.33		0.414	1		0.311
Thorium-230 (Th-230)	6,160	0.834		0.289	0.793		0.281	0.902		0.266	0.753		0.247	0.898		0.302	0.789		0.26	0.798		0.269	0.764		0.264	0.928		0.334	0.966		0.297
Thorium-232 Th-232)	6,260	0.807		0.267	0.842		0.286	0.577		0.2	1.01		0.294	0.873		0.296	0.939		0.282	0.985		0.306	1.06		0.313	0.878		0.312	0.995		0.299
Uranium-233/234 (U-233/234)	10,300	0.66		0.224	0.615		0.238	0.745		0.235	0.695		0.224	0.825		0.261	0.665		0.225	1.04		0.304	0.889		0.259	0.697		0.26	1.45		0.402
Uranium-235/236 (U-235/236)	60.9	0.075		0.08	0.011		0.077	0.11		0.09	0.014		0.066	0.052		0.075	0.071		0.081	0.095		0.095	0.051		0.066	0.147		0.12	0.167		0.129
Uranium-238 (U-238)	11,700	0.964		0.281	1.05		0.307	0.569		0.197	0.735		0.23	0.771		0.249	0.735		0.24	0.937		0.283	0.852		0.251	0.904		0.285	1		0.315

Notes:

RST 3 - Removal Support Team 3.

**Background sampling location.

No. - Number, NA - Not applicable.

Radium-226* analyzed via 21 days ingrowth.

Uranium 235 analyzed by gamma spectroscopy via EPA 901.1 modified Uranium 235/236 analyzed by alpha spectroscopy via HSL-300.

pCi/g - picocuries per gram.

[1]U.S. Environmental Protection Agency (EPA) Site-Specific Action Level (SSAL) values are presented in pCi/g.

Values in red equal or exceed the EPA SSAL for the respective radioisotope.

Table 1: DRAFT Un-Validated Soil Analytical Results Summary Table - Radioisotopes
Property P005
Holy Trinity Site, Lewiston , New York
August 2016

	Location No.	P005-SS005						P005-SS006												**P005-SS007											
	RST 3 Sample No.	P005-SS005-1218-01			P005-SS005-1824-01			P005-SS006-0006-01			P005-SS006-0612-01			P005-SS006-1218-01			P005-SS006-1824-01			P005-SS007-0006-01			P005-SS007-0612-01			P005-SS007-1218-01			P005-SS007-1824-01		
	Sample Depth (inches)	12-18			18-24			0-6			6-12			12-18			18-24			0-6			6-12			12-18			18-24		
	Sample Matrix	Soil			Soil			Soil			Soil			Soil			Soil			Soil			Soil			Soil			Soil		
	Sample Date	8/18/2016			8/18/2016			8/18/2016			8/18/2016			8/18/2016			8/18/2016			8/18/2016			8/18/2016			8/18/2016			8/18/2016		
	Sample Result	Value (pCi/g)	Qualifier	Total Uncertainty	Value (pCi/g)	Qualifier	Total Uncertainty	Value (pCi/g)	Qualifier	Total Uncertainty	Value (pCi/g)	Qualifier	Total Uncertainty	Value (pCi/g)	Qualifier	Total Uncertainty	Value (pCi/g)	Qualifier	Total Uncertainty	Value (pCi/g)	Qualifier	Total Uncertainty	Value (pCi/g)	Qualifier	Total Uncertainty	Value (pCi/g)	Qualifier	Total Uncertainty	Value (pCi/g)	Qualifier	Total Uncertainty
Radioisotope	**[1]EPA SSAL**																														
Bismuth-212 (Bi-212)	10,400,000	1.1717	J	2.462	2.599		1.338	1.318		0.907	0.39446	U	1.972	1.0268	J	2.44	1.5923	J	2.047	2.804		1.769	2.815		1.035	2.0101	J	3.1	1.6099	J	1.593
Cesium-137 (Cs-137)	18	0.05344	J	0.131	0.06814	J	0.117	0.259		0.133	0	U	0.064	0.10336	J	0.138	0	U	0.067	0.239		0.157	0.281		0.127	-0.0721	U	0.269	0.00839	U	0.119
Lead-212 (Pb-212)	1,060,000	1.649		0.371	1.464		0.326	1.222		0.297	1.202		0.275	1.413		0.331	1.373		0.305	1.423		0.324	1.072		0.263	1.455		0.347	1.448		0.324
Potassium-40 (K-40)	43	29.557		5.674	24.938		4.593	20.149		4.266	20.164		3.936	22.406		4.659	28.338		4.825	18.684		4.092	20.707		3.725	23.316		4.906	28.051		4.793
Radium-226 (Ra-226)	4.06	1.576		0.433	1.13		0.28	1.259		0.349	1.25		0.271	1.526		0.347	1.252		0.306	1.527		0.314	1.419		0.319	1.55		0.459	1.495		0.346
Radium-228 (Ra-228)	26.3	2.025		0.58	2.01		0.582	1.868		0.52	1.326		0.451	2.026		0.653	1.647		0.505	1.571		0.453	1.254		0.427	1.316		0.49	1.595		0.438
Thallium-208 (Tl-208)	5,470,000	0.66		0.185	0.453		0.147	0.288		0.247	0.31		0.12	0.548		0.166	0.573		0.137	0.463		0.15	0.541		0.146	0.582		0.178	0.663		0.152
Thorium-234 (Th-234)	76,700	2.3278	J	2.228	0.38256	U	5.225	0.02148	U	2.627	3.4645	J	3.882	0	U	1.832	2.8896	J	2.955	1.4548	J	1.695	0	U	2.165	2.3051	J	2.459	1.7972	U	2.159
Uranium-235 (U-235)	60.9	0.10117	J	0.195	0.212		0.175	0.225		0.223	0.04212	U	0.17	0.1829	J	0.246	0.267		0.257	0.3		0.228	0.219		0.132	0.262		0.272	0.224		0.152
Thorium-228 (Th-228)	31,000	1.31		0.389	1.45		0.399	0.942		0.316	1.24		0.363	1.09		0.321	0.796		0.266	0.924		0.303	0.987		0.306	0.86		0.317	1.12		0.356
Thorium-230 (Th-230)	6,160	0.808		0.277	1.02		0.311	0.669		0.263	0.791		0.267	0.898		0.28	0.879		0.275	0.772		0.26	1.07		0.321	0.89		0.303	0.65		0.243
Thorium-232 Th-232)	6,260	0.837		0.281	1.04		0.314	0.85		0.281	1.13		0.33	0.86		0.27	0.889		0.274	0.894		0.283	0.77		0.256	0.846		0.29	0.641		0.24
Uranium-233/234 (U-233/234)	10,300	1.06		0.31	1.27		0.375	0.822		0.26	0.796		0.254	0.726		0.251	0.963		0.288	0.943		0.279	0.735		0.27	0.708		0.248	0.836		0.267
Uranium-235/236 (U-235/236)	60.9	0.06		0.078	0.198		0.15	0.099		0.096	0.019		0.07	0.022		0.08	0.082		0.086	0.115		0.094	0.091		0.097	0.089		0.088	0.054		0.077
Uranium-238 (U-238)	11,700	1.12		0.32	0.882		0.298	0.878		0.272	0.812		0.25	0.839		0.269	0.808		0.257	1.01		0.285	0.812		0.274	1.01		0.302	0.908		0.278

Notes:

RST 3 - Removal Support Team 3.

**Background sampling location.

No. - Number, NA - Not applicable.

Radium-226* analyzed via 21 days ingrowth.

Uranium 235 analyzed by gamma spectroscopy via EPA 901.1 modified Uranium 235/236 analyzed by alpha spectroscopy via HSL-300.

pCi/g - picocuries per gram.

[1]U.S. Environmental Protection Agency (EPA) Site-Specific Action Level (SSAL) values are presented in pCi/g.

Values in red equal or exceed the EPA SSAL for the respective radioisotope.