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*************************************************************************
*****        G A M M A   S P E C T R U M   A N A L Y S I S        *****
*************************************************************************


Filename: ERT01,C:\GENIE2K\CAMFILES\SMP-HTC-A01-S001-0612-01.CNF

Report Generated On              : 6/6/2017    4:38:58 PM

Sample Title                     : HTC-A01-S001-0612-01
Sample Description               : 450 cc Soil
Sample Identification            :
Sample Type                      :
Sample Geometry                  :

Peak Locate Threshold            :  3.00
Peak Locate Range (in channels)  :   100 -  8192
Peak Area Range (in channels)    :   100 -  8192
Identification Energy Tolerance  :    1.000 keV

Sample Size                      :  9.095E+002 GWET

Sample Taken On                  : 5/13/2017   1:33:00 PM
Acquisition Started              : 6/6/2017    2:38:26 PM

Live Time                        :     7200.0 seconds
Real Time                        :     7230.1 seconds

Dead Time                        :   0.42 %


            Energy Calibration Used Done On       : 5/10/2017
            Efficiency Calibration Used Done On   : 12/14/2016
            Efficiency ID                         : ERT0101
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****
***** P E A K A N A L Y S I S R E P O R T *****
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Detector Name: ERT01
Sample Title: HTC-A01-S001-0612-01
Peak Analysis Performed on: 6/6/2017 4:38:58 PM
Peak Analysis From Channel: 100
Peak Analysis To Channel: 8192

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
M	1	249-	265	254.78	63.56	0.70	5.24E+002	87.48	9.23E+003
m	2	249-	265	261.60	65.27	0.71	2.03E+002	77.26	9.68E+003
M	3	285-	320	300.06	74.88	1.01	1.05E+004	143.59	1.53E+004
m	4	285-	320	309.13	77.14	1.01	1.68E+004	168.27	1.51E+004
M	5	329-	387	338.00	84.36	1.25	2.57E+003	116.16	1.87E+004
m	6	329-	387	349.60	87.26	1.25	8.11E+003	145.16	1.82E+004
m	7	329-	387	360.46	89.97	1.26	6.31E+003	131.87	1.78E+004
m	8	329-	387	373.47	93.22	1.26	7.82E+003	138.95	1.83E+004
	9	388-	410	398.86	99.57	1.23	1.78E+003	310.01	2.43E+004
	10	413-	429	422.37	105.45	1.43	2.02E+003	245.55	1.86E+004
	11	456-	467	461.51	115.23	0.71	6.53E+002	184.18	1.33E+004
	12	509-	523	517.02	129.10	0.99	2.95E+003	235.77	1.83E+004
	13	569-	588	576.60	143.99	0.96	5.41E+002	277.17	2.18E+004
	14	612-	622	616.73	154.02	0.81	1.41E+003	169.03	1.14E+004
	15	662-	670	665.42	166.19	0.68	1.60E+002	136.24	8.60E+003
	16	736-	753	744.60	185.98	1.28	4.93E+003	239.50	1.61E+004
	17	793-	803	798.63	199.48	0.90	3.42E+002	152.05	9.55E+003
	18	831-	845	837.60	209.22	1.13	6.28E+003	204.56	1.23E+004
	19	855-	872	863.97	215.81	0.48	4.92E+002	213.67	1.39E+004
M	20	946-	977	954.96	238.55	1.10	7.25E+004	284.35	9.49E+003
m	21	946-	977	965.44	241.17	1.10	8.71E+003	115.75	8.08E+003
	22	1007-	1019	1010.75	252.49	0.93	2.78E+002	130.02	6.30E+003
	23	1033-	1040	1036.11	258.83	0.78	9.22E+001	88.45	3.83E+003
	24	1072-	1091	1081.21	270.10	1.19	5.34E+003	190.37	8.81E+003
	25	1098-	1128	1109.90	277.27	1.12	3.06E+003	263.22	1.35E+004
	26	1148-	1159	1152.64	287.95	1.33	4.38E+002	113.12	4.91E+003
	27	1171-	1192	1181.12	295.07	1.12	9.70E+003	202.74	8.35E+003
	28	1194-	1212	1200.83	300.00	1.20	4.80E+003	169.93	7.02E+003
	29	1277-	1293	1287.44	321.64	0.75	8.58E+001	137.86	6.03E+003
	30	1306-	1324	1312.25	327.84	1.28	3.69E+003	165.74	6.91E+003
M	31	1344-	1370	1353.51	338.16	1.16	1.52E+004	139.06	4.67E+003
m	32	1344-	1370	1363.70	340.70	1.17	5.18E+002	55.74	4.45E+003
	33	1395-	1415	1407.93	351.76	1.20	1.69E+004	198.15	6.05E+003
M	34	1615-	1643	1620.81	404.96	1.14	7.00E+001	25.03	3.37E+003
m	35	1615-	1643	1637.87	409.22	1.15	2.00E+003	43.99	3.40E+003
	36	1805-	1816	1811.01	452.49	0.80	2.36E+002	79.56	2.43E+003
	37	1841-	1864	1852.15	462.77	1.24	4.79E+003	148.84	4.33E+003
M	38	1909-	1928	1914.44	478.34	0.59	1.36E+002	32.72	1.41E+003
m	39	1909-	1928	1922.66	480.40	0.59	1.19E+002	31.50	1.37E+003
	40	1940-	1953	1948.24	486.79	0.46	1.00E+002	82.63	2.44E+003
	41	2006-	2025	2015.30	503.55	0.47	2.52E+002	108.50	3.29E+003
	42	2025-	2057	2043.06	510.49	1.34	9.14E+003	195.83	5.70E+003

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
	43	2192-	2203	2198.85	549.42	0.37	9.05E+001	68.74	1.85E+003
	44	2242-	2260	2250.14	562.24	1.33	7.44E+002	103.40	2.93E+003
	45	2324-	2345	2332.69	582.87	1.35	2.67E+004	197.84	3.27E+003
	46	2423-	2450	2437.24	609.00	1.38	1.37E+004	169.79	3.36E+003
	47	2655-	2668	2661.65	665.08	1.44	2.89E+002	71.18	1.73E+003
	48	2893-	2920	2909.18	726.95	1.39	6.05E+003	136.32	2.76E+003
	49	3009-	3027	3021.38	754.99	1.36	8.04E+002	81.86	1.75E+003
M	50	3042-	3101	3053.60	763.04	1.51	4.87E+002	39.71	1.75E+003
m	51	3042-	3101	3073.48	768.01	1.52	1.31E+003	49.77	1.63E+003
m	52	3042-	3101	3089.03	771.89	1.52	1.23E+003	48.63	1.61E+003
M	53	3117-	3154	3128.52	781.76	1.39	3.87E+002	34.58	1.25E+003
m	54	3117-	3154	3142.62	785.29	1.39	1.03E+003	45.98	1.28E+003
	55	3167-	3193	3179.80	794.58	1.37	3.14E+003	106.49	1.87E+003
	56	3211-	3234	3225.17	805.92	1.25	3.87E+002	80.43	1.52E+003
M	57	3310-	3372	3322.22	830.17	1.65	4.41E+002	35.05	1.23E+003
m	58	3310-	3372	3343.02	835.37	1.65	1.21E+003	46.00	1.15E+003
m	59	3310-	3372	3361.08	839.89	1.65	7.56E+002	39.72	1.13E+003
	60	3428-	3453	3442.52	860.24	1.52	3.32E+003	95.46	1.36E+003
	61	3566-	3581	3573.24	892.91	1.60	1.25E+002	52.50	8.76E+002
	62	3607-	3633	3617.02	903.85	1.13	4.37E+002	81.93	1.42E+003
	63	3633-	3659	3645.09	910.87	1.52	1.94E+004	156.57	1.16E+003
	64	3726-	3747	3736.97	933.83	1.20	6.40E+002	63.71	9.11E+002
	65	3769-	3782	3776.94	943.82	0.45	7.51E+001	39.79	5.47E+002
	66	3801-	3817	3808.17	951.62	0.86	4.85E+001	46.44	6.72E+002
M	67	3820-	3894	3834.19	958.12	1.58	2.01E+002	25.72	7.56E+002
m	68	3820-	3894	3859.52	964.45	1.58	3.70E+003	65.80	7.16E+002
m	69	3820-	3894	3876.38	968.67	1.59	1.14E+004	109.66	6.12E+002
	70	3946-	3962	3954.39	988.16	0.59	1.15E+002	41.30	5.07E+002
	71	3994-	4014	4004.95	1000.80	0.89	1.43E+002	55.47	8.09E+002
	72	4125-	4140	4133.46	1032.92	1.25	1.53E+002	40.33	4.89E+002
	73	4252-	4271	4261.15	1064.83	0.72	1.45E+002	47.40	5.99E+002
	74	4309-	4329	4315.71	1078.47	1.00	2.78E+002	50.13	6.12E+002
	75	4367-	4390	4376.39	1093.63	0.97	3.13E+002	56.02	7.03E+002
	76	4429-	4452	4443.71	1110.45	1.63	2.91E+002	54.42	6.66E+002
	77	4469-	4497	4482.13	1120.06	1.60	3.11E+003	82.47	8.01E+002
	78	4607-	4631	4621.96	1155.00	1.74	3.81E+002	57.70	7.13E+002
	79	4725-	4738	4732.13	1182.54	0.50	5.57E+001	33.07	3.75E+002
	80	4942-	4966	4954.32	1238.07	1.68	1.16E+003	63.00	6.82E+002
	81	4985-	5001	4990.69	1247.16	1.03	1.24E+002	44.55	5.89E+002
	82	5113-	5137	5126.12	1281.00	1.46	2.53E+002	53.49	6.31E+002
M	83	5491-	5525	5497.77	1373.88	1.83	1.01E+002	20.65	4.40E+002
m	84	5491-	5525	5512.92	1377.67	1.83	7.86E+002	36.21	5.71E+002
	85	5532-	5550	5544.74	1385.63	1.16	2.28E+002	38.98	3.80E+002
M	86	5593-	5645	5608.49	1401.56	2.15	2.61E+002	24.91	5.43E+002
m	87	5593-	5645	5634.06	1407.95	2.16	4.93E+002	29.85	4.60E+002
	88	5830-	5856	5842.30	1459.99	3.10	9.67E+002	55.36	4.80E+002
M	89	5975-	6068	5986.94	1496.14	1.90	5.31E+002	29.51	4.54E+002
m	90	5975-	6068	6010.30	1501.98	1.90	3.26E+002	24.52	4.20E+002
m	91	5975-	6068	6040.07	1509.42	1.90	3.81E+002	25.40	3.83E+002
m	92	5975-	6068	6054.04	1512.91	1.90	2.38E+002	21.79	3.63E+002

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
93	6170-	6185	6176.44	1543.50	1.20	8.99E+001	28.86	2.47E+002
94	6222-	6237	6230.29	1556.96	0.68	4.24E+001	29.79	2.81E+002
95	6313-	6333	6325.69	1580.80	1.87	2.54E+002	41.73	4.09E+002
M 96	6344-	6410	6356.43	1588.48	1.82	1.60E+003	44.69	4.71E+002
m 97	6344-	6410	6374.08	1592.89	1.82	8.74E+002	34.27	3.94E+002
m 98	6344-	6410	6402.08	1599.89	1.82	8.14E+001	17.10	3.03E+002
M 99	6471-	6538	6486.82	1621.07	1.92	7.98E+002	32.72	3.36E+002
m100	6471-	6538	6503.64	1625.27	1.92	1.48E+002	18.70	3.42E+002
m101	6471-	6538	6526.52	1630.99	1.92	8.37E+002	33.69	3.64E+002
102	6549-	6567	6557.93	1638.84	1.03	2.06E+002	35.13	3.04E+002
M103	6641-	6679	6649.25	1661.66	1.75	1.82E+002	20.33	2.56E+002
m104	6641-	6679	6670.38	1666.94	1.75	8.38E+001	17.16	3.08E+002
105	6768-	6781	6774.69	1693.01	0.36	5.59E+001	22.80	1.67E+002
106	6911-	6931	6923.09	1730.10	1.81	5.56E+002	40.32	2.94E+002
107	7048-	7077	7063.25	1765.13	1.83	2.67E+003	65.77	3.49E+002
108	7382-	7406	7395.65	1848.20	1.60	3.37E+002	40.81	3.22E+002

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.000 sigma

****
***** N U C L I D E M D A R E P O R T *****
****

Detector Name: ERT01
Sample Geometry:
Sample Title: HTC-A01-S001-0612-01
Nuclide Library Used: C:\GENIE2K\CAMFILES\ERT_LIBRARY_LMDA.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GWET)	Nuclide MDA (pCi/GWET)	Activity (pCi/GWET)
+	K-40	1460.82*	10.55	1.4900E+000	1.49E+000	6.5249E+000
	Co-60	1173.23	99.85	1.5632E-001	1.56E-001	3.6405E-004
		1332.49	99.98	1.6543E-001		7.8812E-002
>		2505.71	0.10	0.0000E+000		0.0000E+000
	Cs-137	32.06	5.54	1.5090E+004	2.28E-001	-5.9899E+003
		661.66	84.99	2.2757E-001		3.1264E-003
+	Tl-208	72.80	2.02	2.7196E+001	2.33E-001	-7.7865E-001
		74.97*	3.41	9.0008E+000		1.1622E+002
		84.90*	1.51	1.6697E+001		4.7673E+001
		277.36*	6.31	4.8130E+000		1.2270E+001
		510.77*	22.60	1.2387E+000		1.3889E+001
		583.19*	84.50	2.3335E-001		1.1931E+001
		763.13*	1.81	6.9165E+000		1.2128E+001
		860.56*	12.42	1.4158E+000		1.3165E+001
+	Bi-212	39.86	1.06	2.8123E+003	3.39E+000	2.5216E+002
		727.33*	6.74	3.3852E+000		3.9163E+001
		785.37*	1.11	9.8554E+000		4.2900E+001
		1620.74*	1.51	6.4355E+000		4.1695E+001
		1806.00	0.09	1.6750E+002		3.3099E+001
+	Pb-212	74.81*	10.40	2.9512E+000	3.47E-001	3.8108E+001
		77.11*	17.50	1.6030E+000		3.3213E+001
		87.30*	7.81	2.9859E+000		2.7225E+001
		115.18*	0.59	2.8074E+001		2.1540E+001
		238.63*	43.30	3.4749E-001		3.9089E+001
		300.09*	3.28	5.8306E+000		3.8627E+001
+	Bi-214	76.86*	0.43	6.4300E+001	4.79E-001	1.3323E+003
		89.81*	0.24	8.7507E+001		6.2799E+002
		386.77	0.30	6.2795E+001		1.4521E+001
		454.77	0.29	6.3991E+001		5.2697E+001
		609.31*	45.49	4.7879E-001		1.1411E+001
		665.45*	1.53	8.4940E+000		7.5732E+000
		703.11	0.48	4.1781E+001		4.2417E+001
		719.86	0.39	4.9512E+001		3.5877E+000
		768.36*	4.89	2.4281E+000		1.1876E+001
		786.10*	0.31	3.4457E+001		1.4999E+002
		806.17*	1.26	1.3270E+001		1.4064E+001
		934.06*	3.10	4.5455E+000		1.0602E+001
		964.08*	0.36	2.5921E+001		5.3741E+002
		1051.96	0.31	4.6906E+001		2.3270E+001
		1120.29*	14.91	1.1381E+000		1.2381E+001

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GWET)	Nuclide MDA (pCi/GWET)	Activity (pCi/GWET)
+	Bi-214	1133.66	0.25	5.9029E+001	4.79E-001	2.3432E+001
		1155.19*	1.63	9.5080E+000		1.4182E+001
		1207.68	0.45	3.4815E+001		3.1049E+001
		1238.11*	5.79	2.7713E+000		1.2841E+001
		1280.96*	1.43	1.1102E+001		1.1690E+001
		1377.67*	4.00	2.7871E+000		1.3697E+001
		1385.31*	0.76	1.5704E+001		2.1048E+001
		1401.50*	1.27	8.6664E+000		1.4494E+001
		1407.98*	2.15	4.7317E+000		1.6218E+001
		1509.23*	2.11	4.6170E+000		1.3385E+001
		1538.50	0.38	4.4258E+001		1.7647E+001
		1543.32*	0.20	4.8585E+001		3.3751E+001
		1583.22	0.69	4.0013E+001		4.5984E+001
		1594.73	0.25	1.1856E+002		5.9628E+002
		1599.31*	0.23	3.8962E+001		2.7068E+001
		1661.28*	1.15	7.3103E+000		1.2312E+001
		1683.99	0.22	7.2296E+001		5.4645E+001
		1729.59*	2.92	4.1985E+000		1.5082E+001
		1764.49*	15.40	9.9616E-001		1.3794E+001
		1847.42*	2.11	6.5796E+000		1.2893E+001
		1873.16	0.22	7.1903E+001		6.0212E+001
>		2118.55	1.14	0.0000E+000		0.0000E+000
>		2204.21	5.08	0.0000E+000		0.0000E+000
+	Pb-214	53.28	1.20	1.4787E+002	5.21E-001	-9.4136E+001
		74.81*	6.44	4.6536E+000		6.0090E+001
		77.11*	10.80	2.5363E+000		5.2550E+001
		87.30*	4.84	4.7047E+000		4.2896E+001
		242.00*	7.43	1.8339E+000		2.6907E+001
		258.87*	0.52	1.8717E+001		4.1915E+000
		274.80	0.47	4.6390E+001		-1.1284E+000
		295.22*	19.30	1.0949E+000		1.2853E+001
		351.93*	37.60	5.2091E-001		1.2574E+001
		462.00*	0.22	9.0134E+001		7.0115E+002
		533.66	0.19	9.7757E+001		5.1402E+001
		785.96*	1.07	9.9829E+000		4.3455E+001
		839.04*	0.59	1.7989E+001		6.0876E+001
+	Ra-224	81.07	0.13	2.6876E+002	3.40E+000	7.3473E+001
		83.78*	0.22	1.1619E+002		3.3173E+002
		240.99*	4.10	3.4036E+000		4.9937E+001
+	Ra-226	81.07	0.20	1.7451E+002	5.99E+000	4.7707E+001
		83.78*	0.33	7.5056E+001		2.1430E+002
		94.90	0.15	1.8633E+002		8.5251E+002
		186.21*	3.59	5.9936E+000		2.7371E+001
+	Ac-228	99.50*	1.26	2.4693E+001	5.63E-001	3.0707E+001
		129.07*	2.50	8.1098E+000		2.2385E+001
		209.25*	3.97	4.8357E+000		3.4511E+001
		270.24*	3.55	5.7699E+000		3.7536E+001
		328.00*	3.04	6.5522E+000		3.3571E+001
		338.32*	11.40	1.1150E+000		3.7618E+001
		409.46*	2.02	5.9405E+000		3.0723E+001

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GWET)	Nuclide MDA (pCi/GWET)	Activity (pCi/GWET)
+	Ac-228	463.00*	4.45	4.5843E+000	5.63E-001	3.5661E+001
		755.31*	1.03	1.5636E+001		3.4951E+001
		772.29*	1.52	7.9761E+000		3.6806E+001
		794.94*	4.31	4.5685E+000		3.3908E+001
		835.70*	1.70	6.3947E+000		3.4279E+001
		911.20*	26.20	6.5933E-001		3.8185E+001
		964.79*	4.99	1.9311E+000		4.0037E+001
		968.96*	15.90	5.6304E-001		3.8946E+001
		1588.20*	3.06	3.7118E+000		4.0865E+001
		1630.62*	1.52	6.6686E+000		4.3576E+001
+	Th-228	84.37*	1.26	2.0010E+001	2.00E+001	5.7132E+001
		131.61	0.13	1.8473E+002		3.7818E+001
		166.41*	0.10	1.2051E+002		3.0513E+001
		215.98*	0.25	8.6484E+001		4.2904E+001
+	Pa-234m	258.23*	0.07	1.3289E+002	1.63E+001	2.9760E+001
		742.81	0.09	2.0284E+002		-5.5629E+001
		766.36	0.32	7.2340E+001		-9.4856E+001
		786.27*	0.05	1.9928E+002		8.6746E+002
		1001.03*	0.85	1.6322E+001		8.9134E+000
		1737.77	0.02	7.3651E+002		-9.7302E+002
+	Th-234	63.30*	3.75	1.1561E+001	4.75E+000	8.9055E+000
		92.59*	4.33	4.7503E+000		4.1180E+001
		112.81	0.22	9.9830E+001		-9.0632E+001

+ = Nuclide identified during the nuclide identification
* = Energy line found in the spectrum
> = Calculated MDA is zero due to zero counts in the region, or the region is outside the spectrum, or has not been calculated
@ = Half-life too short to be able to perform the decay correction

****
***** N U C L I D E I D E N T I F I C A T I O N R E P O R T *****
****

Sample Title: HTC-A01-S001-0612-01
Nuclide Library Used: C:\GENIE2K\CAMFILES\ERT_LIBRARY_LMDA.NLB

..... IDENTIFIED NUCLIDES .....

Nuclide Name	Id Confidence	Energy (keV)	Yield (%)	Activity (pCi/GWET)	Activity Uncertainty
Be-7	0.916	477.60*	10.44	5.88535E-001	1.42680E-001
K-40	0.895	1460.82*	10.55	6.52493E+000	4.19889E-001
Ce-139	0.982	165.86*	79.89	4.36178E-002	3.70701E-002
Eu-152m	0.997	89.85*	69.90	2.19948E+000	7.62680E-002
Tl-208	0.963	72.80 @	2.02		
		74.97* @	3.41	1.16223E+002	3.84833E+000
		84.90* @	1.51	4.76728E+001	2.52980E+000
		277.36*	6.31	1.22703E+001	1.14128E+000
		510.77* @	22.60	1.38889E+001	5.37316E-001
		583.19*	84.50	1.19306E+001	3.82076E-001
		763.13* @	1.81	1.21284E+001	1.03369E+000
		860.56*	12.42	1.31652E+001	4.96800E-001
TL-208e	0.979	1592.53*	99.16	6.89143E-001	5.01845E-002
Bi-211	0.919	351.03*	13.00	3.64444E+001	1.38301E+000
Bi-212	0.949	39.86 @	1.06		
		727.33*	6.74	3.91630E+001	1.50531E+000
		785.37*	1.11	4.29003E+001	2.20481E+000
		1620.74*	1.51	4.16952E+001	2.19464E+000
		1806.00 @	0.09		
Pb-212	0.999	74.81*	10.40	3.81076E+001	1.67348E+000
		77.11*	17.50	3.32134E+001	1.40935E+000
		87.30*	7.81	2.72250E+001	1.24068E+000
		115.18* @	0.59	2.15395E+001	6.10367E+000
		238.63*	43.30	3.90886E+001	1.29505E+000
		300.09*	3.28	3.86272E+001	1.88974E+000
Bi-214	0.927	76.86* @	0.43	1.33225E+003	5.83081E+001
		89.81* @	0.24	6.27994E+002	3.13320E+001
		386.77 @	0.30		
		454.77 @	0.29		
		609.31*	45.49	1.14113E+001	3.65366E-001
		665.45* @	1.53	7.57321E+000	1.87722E+000
		703.11 @	0.48		
		719.86 @	0.39		
		768.36*	4.89	1.18755E+001	5.37549E-001
		786.10* @	0.31	1.49992E+002	2.53547E+001
		806.17* @	1.26	1.40644E+001	2.94123E+000
		934.06*	3.10	1.06020E+001	1.08250E+000
		964.08* @	0.36	5.37413E+002	2.36202E+001
		1051.96 @	0.31		
		1120.29*	14.91	1.23815E+001	4.45667E-001
		1133.66 @	0.25		

Nuclide Name	Id Confidence	Energy (keV)		Yield (%)	Activity (pCi/GWET)	Activity Uncertainty
Bi-214	0.927	1155.19*	@	1.63	1.41824E+001	2.17845E+000
		1207.68	@	0.45		
		1238.11*		5.79	1.28411E+001	7.90822E-001
		1280.96*	@	1.43	1.16902E+001	2.49527E+000
		1377.67*		4.00	1.36965E+001	7.48247E-001
		1385.31*	@	0.76	2.10477E+001	3.67724E+000
		1401.50*	@	1.27	1.44944E+001	1.45016E+000
		1407.98*	@	2.15	1.62180E+001	1.12872E+000
		1509.23*	@	2.11	1.33847E+001	9.86362E-001
		1538.50	@	0.38		
		1543.32*	@	0.20	3.37509E+001	1.37563E+001
		1583.22	@	0.69		
		1594.73	@	0.25		
		1599.31*	@	0.23	2.70676E+001	9.09464E+000
		1661.28*	@	1.15	1.23123E+001	1.45458E+000
		1683.99	@	0.22		
		1729.59*	@	2.92	1.50822E+001	1.20455E+000
		1764.49*		15.40	1.37944E+001	5.92635E-001
		1847.42*	@	2.11	1.28935E+001	1.65004E+000
		1873.16	@	0.22		
		2118.55	@	1.14		
		2204.21	@	5.08		
Pb-214	0.966	53.28	@	1.20		
		74.81*		6.44	6.00902E+001	2.79256E+000
		77.11*		10.80	5.25500E+001	2.55070E+000
		87.30*		4.84	4.28962E+001	2.11683E+000
		242.00*		7.43	2.69069E+001	1.00533E+000
		258.87*	@	0.52	4.19150E+000	4.02569E+000
		274.80	@	0.47		
		295.22*		19.30	1.28529E+001	5.13403E-001
		351.93*		37.60	1.25744E+001	4.60239E-001
		462.00*	@	0.22	7.01146E+002	4.26370E+001
		533.66	@	0.19		
		785.96*	@	1.07	4.34555E+001	3.92309E+000
		839.04*	@	0.59	6.08760E+001	3.64863E+000
Rn-220	0.985	549.73*		0.11	2.89583E+001	2.24419E+001
Ra-224	0.951	81.07	@	0.13		
		83.78*	@	0.22	3.31733E+002	2.14350E+001
		240.99*		4.10	4.99372E+001	1.81813E+000
Ra-226	0.872	81.07	@	0.20		
		83.78*	@	0.33	2.14299E+002	1.38127E+001
		94.90	@	0.15		
		186.21*		3.59	2.73711E+001	1.63356E+000
Ac-228	0.988	99.50*	@	1.26	3.07065E+001	5.48829E+000
		129.07*	@	2.50	2.23855E+001	1.96709E+000
		209.25*		3.97	3.45106E+001	1.91462E+000
		270.24*		3.55	3.75361E+001	2.08906E+000
		328.00*		3.04	3.35712E+001	2.22786E+000
		338.32*		11.40	3.76176E+001	1.84119E+000
		409.46*	@	2.02	3.07227E+001	1.52582E+000

Nuclide Name	Id Confidence	Energy (keV)		Yield (%)	Activity (pCi/GWET)	Activity Uncertainty
Ac-228	0.988	463.00*		4.45	3.56607E+001	2.50849E+000
		755.31*	@	1.03	3.49508E+001	3.90537E+000
		772.29*	@	1.52	3.68060E+001	2.24446E+000
		794.94*		4.31	3.39085E+001	1.78657E+000
		835.70*	@	1.70	3.42789E+001	2.08163E+000
		911.20*		26.20	3.81850E+001	1.48703E+000
		964.79*		4.99	4.00372E+001	1.79032E+000
		968.96*		15.90	3.89460E+001	1.56027E+000
		1588.20*		3.06	4.08645E+001	2.23069E+000
		1630.62*	@	1.52	4.35760E+001	2.71643E+000
Th-228	0.860	84.37*		1.26	5.71317E+001	3.16447E+000
		131.61	@	0.13		
		166.41*	@	0.10	3.05129E+001	2.59362E+001
		215.98*		0.25	4.29045E+001	1.87026E+001
Pa-234m	0.473	258.23*	@	0.07	2.97599E+001	2.85777E+001
		742.81	@	0.09		
		766.36		0.32		
		786.27*	@	0.05	8.67464E+002	4.53304E+001
		1001.03*		0.85	8.91337E+000	3.56090E+000
		1737.77	@	0.02		
Th-234	0.906	63.30*		3.75	8.90551E+000	1.63045E+000
		92.59*		4.33	4.11797E+001	2.21604E+000
		112.81	@	0.22		

* = Energy line found in the spectrum.
@ = Energy line not used for Weighted Mean Activity
Energy Tolerance : 1.000 keV
Nuclide confidence index threshold = 0.45
Errors quoted at 1.000 sigma

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***** I N T E R F E R E N C E C O R R E C T E D R E P O R T *****
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	Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/GWET)	Wt mean Activity Uncertainty
	Be-7		0.916	5.885348E-001	1.426798E-001
	K-40		0.895	6.524930E+000	4.198895E-001
X	Mn-54		0.956		
X	Cd-109		0.908		
	Ce-139		0.982	4.731064E-004	3.732657E-002
	Eu-152m		0.997	2.156620E+000	7.389773E-002
X	Eu-155		0.928		
X	Tm-170		0.998		
	Tl-208	@	0.963	1.236716E+001	2.836081E-001
	TL-208e		0.979	6.891432E-001	5.018451E-002
	Bi-211		0.919	5.392642E+000	1.868112E+000
	Bi-212	@	0.949	3.752736E+001	9.974174E-001
	Pb-212	@	0.999	2.756398E+001	5.619827E-001
	Bi-214	@	0.927	1.223726E+001	2.051066E-001
	Pb-214	@	0.966	1.071379E+001	4.706664E-001
	Rn-220		0.985	2.895835E+001	2.244187E+001
	Ra-224	@	0.951	3.003480E+001	1.922672E+000
	Ra-226	@	0.872	2.734726E+001	1.567814E+000
	Ac-228	@	0.988	3.748776E+001	4.112058E-001
	Th-228	@	0.860	3.018195E+001	3.055451E+000
X	Th-231		0.835		
	Pa-234m	@	0.473	7.704925E+000	3.551012E+000
	Th-234	@	0.906	2.024043E+001	1.313286E+000

? = Nuclide is part of an undetermined solution
X = Nuclide rejected by the interference analysis
@ = Nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 1.000 sigma

********** U N I D E N T I F I E D P E A K S **********

Peak Locate Performed on: 6/6/2017 4:38:58 PM
Peak Locate From Channel: 100
Peak Locate To Channel: 8192

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty	Peak Type	Tol. Nuclide
m 2	65.27	2.8183E-002	38.08	Tol.	Se-75
10	105.45	2.8107E-001	12.13	Tol.	Te-129m
13	143.99	7.3956E-002	52.05	Tol.	Ra-223
14	154.02	1.9514E-001	12.03	Sum	
17	199.48	4.7525E-002	44.44	Sum	
22	252.49	3.8594E-002	46.79	Sum	
26	287.95	6.0797E-002	25.84	Tol.	Pm-148x Ra-223
29	321.64	1.1917E-002	160.67	Sum	
m 32	340.70	7.1966E-002	10.76	Sum	
M 34	404.96	9.7201E-003	35.76	Sum	
36	452.49	3.2716E-002	33.78	Sum	
m 39	480.40	1.6564E-002	26.41	Sum	
40	486.79	1.3929E-002	82.39	D-Esc.	
41	503.55	3.4976E-002	43.08	Sum	
44	562.24	1.0333E-001	13.90	Sum	
M 53	781.76	5.3816E-002	8.93	Tol.	Sb-127
M 57	830.17	6.1265E-002	7.95	Sum	
61	892.91	1.7387E-002	41.94	Sum	
62	903.85	6.0754E-002	18.73	Sum	
65	943.82	1.0434E-002	52.96	Sum	
66	951.62	6.7371E-003	95.73	Sum	
M 67	958.12	2.7914E-002	12.80	Sum	
70	988.16	1.5976E-002	35.90	Sum	
72	1032.92	2.1214E-002	26.40	S-Esc.	
73	1064.83	2.0088E-002	32.77	Sum	
74	1078.47	3.8676E-002	18.00	S-Esc.	
75	1093.63	4.3493E-002	17.89	Sum	
76	1110.45	4.0375E-002	18.72	S-Esc.	
79	1182.54	7.7336E-003	59.39		
81	1247.16	1.7286E-002	35.79	Sum	
M 83	1373.88	1.3969E-002	20.53	Sum	
M 89	1496.14	7.3817E-002	5.55	Sum	
m 90	1501.98	4.5241E-002	7.53	Sum	
m 92	1512.91	3.3025E-002	9.16	Sum	
94	1556.96	5.8851E-003	70.31	Sum	
95	1580.80	3.5324E-002	16.41	Sum	
m100	1625.27	2.0545E-002	12.64	Sum	
102	1638.84	2.8576E-002	17.08	Sum	
m104	1666.94	1.1637E-002	20.48	Sum	
105	1693.01	7.7706E-003	40.76	Sum	

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at 1.000 sigma