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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        *****
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Filename: ERT01,C:\GENIE2K\CAMFILES\SMP-A02-S002-SLAG.CNF

Report Generated On	: 7/13/2017 12:39:58 PM
Sample Title	: NFB-A02-S002-SLAG
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	: 7.870E+002 GWET
Sample Taken On	: 5/9/2017 1:30:00 PM
Acquisition Started	: 7/13/2017 10:39:31 AM
Live Time	: 7200.0 seconds
Real Time	: 7225.2 seconds
Dead Time	: 0.35 %

Energy Calibration Used Done On	: 5/10/2017
Efficiency Calibration Used Done On	: 12/14/2016
Efficiency ID	: ERT0101

****
***** 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: NFB-A02-S002-SLAG
Peak Analysis Performed on: 7/13/2017 12:39:59 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
	1	230-	238	232.43	57.97	0.65	2.10E+002	119.56	6.57E+003
	2	250-	257	253.98	63.36	0.96	6.89E+002	116.16	6.35E+003
M	3	285-	321	300.12	74.89	1.04	7.06E+003	117.78	1.19E+004
m	4	285-	321	309.16	77.15	1.04	1.11E+004	138.01	1.21E+004
m	5	285-	321	318.04	79.37	1.04	1.53E+002	80.89	9.62E+003
M	6	331-	387	337.49	84.23	1.31	1.99E+003	102.47	1.29E+004
m	7	331-	387	349.57	87.25	1.31	5.84E+003	122.99	1.45E+004
m	8	331-	387	360.53	89.99	1.32	4.11E+003	112.47	1.43E+004
m	9	331-	387	372.58	93.00	1.32	6.75E+003	129.26	1.41E+004
	10	388-	404	399.49	99.73	1.17	1.04E+003	212.59	1.41E+004
	11	415-	429	423.29	105.68	1.05	9.59E+002	196.17	1.30E+004
	12	457-	466	460.95	115.09	0.81	5.00E+002	141.44	8.63E+003
	13	510-	524	517.22	129.15	1.07	1.71E+003	205.03	1.40E+004
M	14	558-	588	560.97	140.08	1.09	2.06E+002	79.64	8.92E+003
m	15	558-	588	576.13	143.87	1.10	8.43E+002	101.86	1.24E+004
	16	612-	625	616.64	154.00	1.14	1.06E+003	186.74	1.22E+004
	17	650-	657	653.43	163.19	0.43	1.86E+002	114.76	6.44E+003
	18	736-	752	744.81	186.03	1.14	7.15E+003	219.88	1.32E+004
	19	792-	805	797.81	199.27	0.83	3.05E+002	168.46	1.02E+004
	20	831-	843	837.78	209.26	1.02	4.01E+003	165.27	8.87E+003
	21	860-	875	865.53	216.20	0.76	2.70E+002	174.91	1.01E+004
M	22	938-	981	944.77	236.00	1.12	6.65E+002	74.94	8.25E+003
m	23	938-	981	955.15	238.60	1.12	4.76E+004	232.48	7.47E+003
m	24	938-	981	967.56	241.70	1.12	9.31E+003	116.49	6.95E+003
M	25	1006-	1040	1011.96	252.79	0.79	1.60E+002	52.37	4.35E+003
m	26	1006-	1040	1025.44	256.16	0.79	2.90E+002	54.84	4.69E+003
m	27	1006-	1040	1035.90	258.78	0.79	3.47E+002	58.41	4.20E+003
	28	1068-	1092	1081.25	270.11	1.27	4.12E+003	210.50	9.74E+003
	29	1103-	1124	1109.95	277.28	0.83	2.09E+003	185.77	8.60E+003
	30	1174-	1191	1181.41	295.14	1.14	1.63E+004	191.50	6.20E+003
	31	1191-	1213	1201.02	300.05	1.12	3.03E+003	179.86	7.55E+003
	32	1278-	1292	1286.77	321.48	0.25	9.93E+001	114.96	4.54E+003
M	33	1307-	1345	1312.48	327.90	1.11	2.63E+003	79.15	4.05E+003
m	34	1307-	1345	1330.65	332.44	1.11	1.83E+002	51.51	4.73E+003
	35	1346-	1361	1353.78	338.22	1.14	9.78E+003	156.51	4.89E+003
	36	1393-	1418	1408.18	351.82	1.20	2.92E+004	240.28	6.62E+003
	37	1551-	1570	1556.85	388.97	0.32	9.28E+001	127.47	4.61E+003
M	38	1601-	1651	1607.61	401.66	1.10	5.13E+001	36.07	3.30E+003
m	39	1601-	1651	1621.84	405.21	1.10	1.73E+002	35.33	3.14E+003
m	40	1601-	1651	1638.38	409.35	1.10	1.38E+003	55.44	2.94E+003
M	41	1791-	1816	1795.69	448.66	0.76	3.37E+001	41.29	1.70E+003
m	42	1791-	1816	1811.87	452.71	0.77	8.07E+001	98.28	1.78E+003

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
	43	1844	1864	1852.41	462.84	1.22	3.12E+003	124.83	3.40E+003
	44	1918	1930	1922.95	480.47	0.60	6.45E+001	73.49	2.02E+003
	45	1943	1961	1949.55	487.12	1.06	2.64E+002	97.88	2.76E+003
	46	2010	2024	2017.80	504.17	0.86	1.37E+002	77.05	2.01E+003
	47	2025	2065	2043.35	510.56	1.41	7.30E+003	204.55	5.61E+003
	48	2129	2142	2136.15	533.75	0.55	1.89E+002	71.60	1.79E+003
	49	2180	2189	2184.41	545.81	0.34	3.75E+001	56.58	1.40E+003
	50	2244	2258	2250.54	562.34	1.23	5.05E+002	76.68	1.86E+003
	51	2325	2348	2333.21	583.00	1.37	1.84E+004	177.10	3.13E+003
	52	2428	2449	2437.73	609.12	1.36	2.27E+004	178.06	2.38E+003
	53	2476	2486	2481.11	619.96	0.57	5.68E+001	51.24	1.08E+003
	54	2651	2672	2662.47	665.29	1.36	5.65E+002	94.34	2.22E+003
	55	2827	2837	2831.40	707.51	0.52	1.01E+002	51.77	1.08E+003
	56	2871	2885	2880.16	719.70	1.03	1.94E+002	62.15	1.27E+003
	57	2896	2921	2909.70	727.08	1.50	4.04E+003	114.66	2.14E+003
	58	3007	3032	3021.97	755.14	1.46	6.99E+002	93.77	1.90E+003
M	59	3046	3101	3054.54	763.28	1.60	3.35E+002	34.96	1.37E+003
m	60	3046	3101	3073.97	768.13	1.60	2.17E+003	57.40	1.37E+003
m	61	3046	3101	3090.20	772.19	1.60	8.41E+002	41.61	1.30E+003
M	62	3123	3153	3129.22	781.94	1.48	3.72E+002	32.94	9.84E+002
m	63	3123	3153	3143.38	785.48	1.48	1.10E+003	45.81	1.22E+003
	64	3172	3189	3180.44	794.74	1.33	2.25E+003	76.43	1.10E+003
	65	3217	3236	3225.38	805.97	1.15	4.66E+002	66.46	1.13E+003
M	66	3314	3378	3323.91	830.60	1.90	3.10E+002	33.08	1.18E+003
m	67	3314	3378	3343.80	835.57	1.91	9.84E+002	43.28	1.24E+003
m	68	3314	3378	3360.46	839.73	1.91	7.25E+002	39.54	1.14E+003
	69	3430	3453	3443.14	860.39	1.49	2.15E+003	84.80	1.26E+003
	70	3565	3582	3574.59	893.25	0.76	1.52E+002	56.42	9.32E+002
	71	3610	3628	3618.16	904.13	1.59	4.25E+002	58.34	8.79E+002
M	72	3632	3676	3645.86	911.06	1.53	1.33E+004	116.76	9.12E+002
m	73	3632	3676	3671.16	917.38	1.53	4.08E+001	22.54	6.82E+002
	74	3727	3749	3737.30	933.91	1.42	1.18E+003	67.82	8.82E+002
M	75	3826	3892	3836.31	958.65	1.59	1.54E+002	24.10	6.95E+002
m	76	3826	3892	3860.15	964.61	1.60	2.49E+003	54.98	6.97E+002
m	77	3826	3892	3877.10	968.85	1.60	7.86E+003	92.25	7.02E+002
	78	3999	4016	4005.65	1000.98	1.28	4.04E+002	48.56	5.92E+002
	79	4129	4142	4135.11	1033.33	0.93	3.79E+001	36.97	4.81E+002
M	80	4256	4288	4263.84	1065.50	1.21	5.66E+001	19.27	5.24E+002
m	81	4256	4288	4281.91	1070.02	1.21	9.71E+001	21.27	4.46E+002
	82	4309	4330	4316.83	1078.75	1.11	2.26E+002	50.57	6.19E+002
	83	4372	4389	4378.46	1094.15	0.86	1.28E+002	44.53	5.68E+002
	84	4433	4457	4444.17	1110.57	0.98	2.25E+002	54.81	6.73E+002
	85	4471	4497	4483.15	1120.31	1.64	5.29E+003	92.62	7.49E+002
	86	4609	4632	4622.96	1155.25	0.97	6.38E+002	57.21	6.59E+002
	87	4825	4842	4833.90	1207.97	1.35	1.34E+002	39.81	4.46E+002
	88	4945	4969	4955.29	1238.31	1.77	1.84E+003	66.86	6.29E+002
	89	4974	5006	4991.41	1247.34	1.30	3.01E+002	66.83	8.13E+002
	90	5066	5079	5072.90	1267.70	0.72	4.63E+001	30.41	3.19E+002
	91	5118	5139	5127.06	1281.24	1.90	5.04E+002	51.18	5.61E+002
	92	5498	5526	5514.36	1378.03	1.61	1.40E+003	66.72	6.58E+002

Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
93	5533-	5559	5545.05	1385.70	0.48	3.23E+002	52.70	5.60E+002
M 94	5600-	5648	5609.81	1401.89	1.70	3.83E+002	27.05	4.90E+002
m 95	5600-	5648	5635.72	1408.36	1.70	6.23E+002	32.14	4.82E+002
96	5826-	5857	5844.69	1460.59	2.75	7.34E+002	60.21	5.77E+002
M 97	5978-	6020	5987.39	1496.25	1.82	2.70E+002	25.73	4.54E+002
m 98	5978-	6020	6010.54	1502.04	1.82	1.47E+002	22.01	4.89E+002
M 99	6032-	6065	6041.36	1509.74	1.77	5.58E+002	31.70	4.66E+002
m100	6032-	6065	6055.89	1513.37	1.77	8.90E+001	19.47	4.55E+002
M101	6149-	6186	6158.90	1539.11	1.59	1.15E+002	19.59	3.80E+002
m102	6149-	6186	6177.76	1543.83	1.59	1.12E+002	18.97	3.29E+002
M103	6310-	6412	6326.67	1581.04	1.86	2.13E+002	21.71	3.60E+002
m104	6310-	6412	6337.70	1583.80	1.86	1.76E+002	20.05	3.58E+002
m105	6310-	6412	6357.75	1588.81	1.86	1.31E+003	42.43	3.52E+002
m106	6310-	6412	6375.66	1593.29	1.86	6.15E+002	29.69	3.45E+002
m107	6310-	6412	6403.88	1600.34	1.86	8.17E+001	17.30	3.11E+002
M108	6476-	6568	6488.04	1621.37	1.95	5.57E+002	28.51	3.27E+002
m109	6476-	6568	6506.05	1625.87	1.95	1.12E+002	17.43	3.15E+002
m110	6476-	6568	6527.92	1631.34	1.96	6.33E+002	29.74	3.02E+002
m111	6476-	6568	6558.13	1638.89	1.96	1.62E+002	18.71	2.74E+002
112	6640-	6662	6651.75	1662.29	1.47	2.59E+002	39.78	3.41E+002
113	6912-	6937	6924.77	1730.52	1.61	9.31E+002	44.70	2.51E+002
114	7050-	7077	7064.77	1765.51	2.00	4.36E+003	75.88	3.10E+002
115	7348-	7368	7359.66	1839.21	0.41	9.92E+001	30.60	2.31E+002
116	7383-	7407	7397.32	1848.62	1.72	6.29E+002	41.38	2.62E+002
117	7493-	7509	7501.34	1874.62	0.52	2.80E+001	25.00	1.91E+002

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

Errors quoted at 1.000 sigma

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***** N U C L I D E M D A R E P O R T *****
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Detector Name: ERT01
Sample Geometry:
Sample Title: NFB-A02-S002-SLAG
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	2.0174E+000	2.02E+000	5.6961E+000
	Co-60	1173.23	99.85	1.8314E-001	1.83E-001	7.6552E-002
		1332.49	99.98	1.9055E-001		-2.8682E-002
>		2505.71	0.10	0.0000E+000		0.0000E+000
	Cs-137	32.06	5.54	1.5504E+004	2.47E-001	4.6750E+003
		661.66	84.99	2.4684E-001		3.6075E-002
+	Tl-208	72.80	2.02	2.7557E+001	2.87E-001	-5.8570E+000
		74.97*	3.41	9.5454E+000		9.3744E+001
		84.90*	1.51	1.6764E+001		4.4544E+001
		277.36*	6.31	4.0563E+000		1.0093E+001
		510.77*	22.60	1.6201E+000		1.3277E+001
		583.19*	84.50	2.8664E-001		9.8975E+000
		763.13*	1.81	7.3777E+000		1.0058E+001
		860.56*	12.42	1.5906E+000		1.0267E+001
+	Bi-212	39.86	1.06	3.0152E+003	3.48E+000	7.2393E+002
		727.33*	6.74	3.4756E+000		3.1492E+001
		785.37*	1.11	1.1589E+001		5.4881E+001
		1620.74*	1.51	7.6447E+000		3.5041E+001
		1806.00	0.09	1.7813E+002		1.9572E+001
+	Pb-212	74.81*	10.40	3.1298E+000	3.71E-001	3.0737E+001
		77.11*	17.50	1.7249E+000		2.6288E+001
		87.30*	7.81	3.2050E+000		2.3609E+001
		115.18*	0.59	2.5914E+001		1.9850E+001
		238.63*	43.30	3.7128E-001		3.0912E+001
		300.09*	3.28	7.7423E+000		2.9315E+001
+	Bi-214	76.86*	0.43	6.6444E+001	4.26E-001	1.0126E+003
		89.81*	0.24	9.0680E+001		4.7295E+002
		386.77	0.30	6.9242E+001		1.4720E+001
		454.77	0.29	6.8041E+001		-2.4101E+001
		609.31*	45.49	4.2643E-001		2.1908E+001
		665.45*	1.53	1.2940E+001		1.7110E+001
		703.11	0.48	4.4238E+001		2.0636E+001
		719.86*	0.39	3.5350E+001		2.4088E+001
		768.36*	4.89	2.5700E+000		2.2696E+001
		786.10*	0.31	3.8909E+001		1.8426E+002
		806.17*	1.26	1.2387E+001		1.9565E+001
		934.06*	3.10	5.2552E+000		2.2543E+001
		964.08*	0.36	2.9575E+001		4.1693E+002
		1051.96	0.31	5.4314E+001		2.5902E+000
		1120.29*	14.91	1.2402E+000		2.4395E+001

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GWET)	Nuclide MDA (pCi/GWET)	Activity (pCi/GWET)
+	Bi-214	1133.66	0.25	6.9779E+001	4.26E-001	4.0157E+001
		1155.19*	1.63	1.0392E+001		2.7489E+001
		1207.68*	0.45	2.9091E+001		2.1731E+001
		1238.11*	5.79	3.1018E+000		2.3602E+001
		1280.96*	1.43	1.1571E+001		2.6929E+001
		1377.67*	4.00	5.2324E+000		2.8260E+001
		1385.31*	0.76	2.4897E+001		3.4519E+001
		1401.50*	1.27	9.5223E+000		2.4568E+001
		1407.98*	2.15	5.6019E+000		2.3727E+001
		1509.23*	2.11	5.8689E+000		2.2630E+001
		1538.50*	0.38	3.0156E+001		2.6399E+001
		1543.32*	0.20	5.2889E+001		4.8444E+001
		1583.22*	0.69	1.6205E+001		2.2454E+001
		1594.73	0.25	1.2382E+002		5.8333E+002
		1599.31	0.23	1.0199E+002		-9.0107E+000
		1661.28	1.15	1.7135E+001		2.6146E+001
		1683.99	0.22	7.6060E+001		3.7352E+001
		1729.59*	2.92	4.8430E+000		2.9187E+001
		1764.49	15.40	2.8071E+000		2.6013E+001
		1847.42	2.11	1.0714E+001		2.4665E+001
		1873.16	0.22	7.7176E+001		2.4216E+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	1.5162E+002	6.79E-001	-6.4577E+001
		74.81*	6.44	4.7394E+000		4.6545E+001
		77.11*	10.80	2.6208E+000		3.9942E+001
		87.30*	4.84	4.8494E+000		3.5722E+001
		242.00*	7.43	1.9694E+000		3.3282E+001
		258.87*	0.52	2.2534E+001		1.8233E+001
		274.80	0.47	4.9781E+001		3.6593E+000
		295.22*	19.30	1.0190E+000		2.4991E+001
		351.93*	37.60	6.7902E-001		2.5167E+001
		462.00*	0.22	8.8357E+001		5.2779E+002
		533.66*	0.19	7.1717E+001		4.1093E+001
		785.96*	1.07	1.1273E+001		5.3385E+001
		839.04*	0.59	2.0960E+001		6.7507E+001
+	Ra-224	81.07	0.13	2.8265E+002	3.81E+000	-2.9089E+001
		83.78*	0.22	1.1665E+002		3.0996E+002
		240.99*	4.10	3.8062E+000		6.4321E+001
+	Ra-226	81.07	0.20	1.7625E+002	6.14E+000	-1.8138E+001
		83.78*	0.33	7.2365E+001		1.9229E+002
		94.90	0.15	1.9195E+002		8.4541E+002
		186.21*	3.59	6.1423E+000		4.6019E+001
+	Ac-228	99.50*	1.26	2.0310E+001	4.78E-001	2.1626E+001
		129.07*	2.50	8.5462E+000		1.5595E+001
		209.25*	3.97	4.7133E+000		2.6549E+001
		270.24*	3.55	7.9142E+000		3.4853E+001
		328.00*	3.04	4.6143E+000		2.8790E+001
		338.32*	11.40	1.6829E+000		2.9020E+001
		409.46*	2.02	6.6463E+000		2.5528E+001

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GWET)	Nuclide MDA (pCi/GWET)	Activity (pCi/GWET)
+	Ac-228	463.00*	4.45	4.6795E+000	4.78E-001	2.7952E+001
		755.31*	1.03	2.2037E+001		3.6562E+001
		772.29*	1.52	8.6301E+000		3.0301E+001
		794.94*	4.31	3.6501E+000		2.9211E+001
		835.70*	1.70	8.0016E+000		3.3578E+001
		911.20*	26.20	4.7790E-001		3.1571E+001
		964.79*	4.99	2.2943E+000		3.2344E+001
		968.96*	15.90	7.2458E-001		3.2206E+001
		1588.20*	3.06	3.8726E+000		4.0149E+001
		1630.62*	1.52	7.3256E+000		3.9686E+001
+	Th-228	84.37*	1.26	2.0090E+001	2.01E+001	5.3382E+001
		131.61	0.13	1.9405E+002		-2.0380E+001
		166.41	0.10	2.3149E+002		-7.7836E+001
		215.98*	0.25	8.5401E+001		2.8421E+001
+	Pa-234m	258.23*	0.07	1.5998E+002	1.54E+001	1.2945E+002
		742.81	0.09	2.1531E+002		1.8002E+002
		766.36	0.32	8.1159E+001		1.2262E-001
		786.27*	0.05	2.2502E+002		1.0656E+003
		1001.03*	0.85	1.5446E+001		2.9576E+001
		1737.77	0.02	9.6147E+002		5.0498E+002
+	Th-234	63.30*	3.75	1.1317E+001	4.84E+000	1.3966E+001
		92.59*	4.33	4.8365E+000		4.1129E+001
		112.81	0.22	1.0205E+002		-5.6798E+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 *****
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Sample Title: NFB-A02-S002-SLAG
Nuclide Library Used: C:\GENIE2K\CAMFILES\ERT_LIBRARY_LMDA.NLB

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

Nuclide Name	Id Confidence	Energy (keV)	Yield (%)	Activity (pCi/GWET)	Activity Uncertainty
K-40	0.991	1460.82*	10.55	5.69612E+000	5.03391E-001
Mn-54	0.918	834.84*	99.97	6.18409E-001	3.07953E-002
Eu-152m	0.997	89.85*	69.90	1.66590E+000	6.48047E-002
Tl-208	0.971	72.80 @	2.02		
		74.97* @	3.41	9.37443E+001	3.23181E+000
		84.90* @	1.51	4.45437E+001	2.60751E+000
		277.36*	6.31	1.00925E+001	9.64965E-001
		510.77* @	22.60	1.32772E+001	5.70214E-001
		583.19*	84.50	9.89751E+000	3.22719E-001
		763.13* @	1.81	1.00585E+001	1.07746E+000
		860.56*	12.42	1.02675E+001	4.76411E-001
TL-208e	0.913	1592.53*	99.16	5.83613E-001	4.55688E-002
Bi-211	0.906	351.03*	13.00	7.31993E+001	2.70911E+000
Bi-212	0.950	39.86 @	1.06		
		727.33*	6.74	3.14921E+001	1.32633E+000
		785.37*	1.11	5.48806E+001	2.68959E+000
		1620.74*	1.51	3.50411E+001	2.13370E+000
		1806.00 @	0.09		
Pb-212	1.000	74.81*	10.40	3.07373E+001	1.38168E+000
		77.11*	17.50	2.62881E+001	1.13254E+000
		87.30*	7.81	2.36086E+001	1.10724E+000
		115.18* @	0.59	1.98498E+001	5.64500E+000
		238.63*	43.30	3.09124E+001	1.02813E+000
		300.09*	3.28	2.93148E+001	2.00413E+000
Bi-214	0.763	76.86* @	0.43	1.01262E+003	4.49559E+001
		89.81* @	0.24	4.72954E+002	2.50269E+001
		386.77 @	0.30		
		454.77 @	0.29		
		609.31*	45.49	2.19079E+001	6.69012E-001
		665.45* @	1.53	1.71096E+001	2.89661E+000
		703.11 @	0.48		
		719.86* @	0.39	2.40881E+001	7.77501E+000
		768.36*	4.89	2.26956E+001	8.21666E-001
		786.10* @	0.31	1.84263E+002	3.10172E+001
		806.17* @	1.26	1.95646E+001	2.83060E+000
		934.06*	3.10	2.25430E+001	1.39732E+000
		964.08* @	0.36	4.16929E+002	1.91299E+001
		1051.96 @	0.31		
		1120.29*	14.91	2.43953E+001	7.30380E-001
		1133.66 @	0.25		
		1155.19* @	1.63	2.74887E+001	2.55642E+000

Nuclide Name	Id Confidence	Energy (keV)	Yield (%)	Activity (pCi/GWET)	Activity Uncertainty
Bi-214	0.763	1207.68* @	0.45	2.17314E+001	6.50931E+000
		1238.11*	5.79	2.36022E+001	1.09319E+000
		1280.96* @	1.43	2.69286E+001	2.84256E+000
		1377.67*	4.00	2.82600E+001	1.58005E+000
		1385.31* @	0.76	3.45189E+001	5.75524E+000
		1401.50* @	1.27	2.45679E+001	1.88360E+000
		1407.98* @	2.15	2.37270E+001	1.46911E+000
		1509.23* @	2.11	2.26299E+001	1.46990E+000
		1538.50* @	0.38	2.63990E+001	4.66547E+000
		1543.32* @	0.20	4.84441E+001	1.46910E+001
		1583.22* @	0.69	2.24542E+001	2.65965E+000
		1594.73 @	0.25		
		1599.31 @	0.23		
		1661.28 @	1.15		
		1683.99 @	0.22		
		1729.59* @	2.92	2.91873E+001	1.70802E+000
		1764.49	15.40		
		1847.42 @	2.11		
		1873.16 @	0.22		
		2118.55 @	1.14		
		2204.21 @	5.08		
Pb-214	0.979	53.28 @	1.20		
		74.81*	6.44	4.65450E+001	2.20872E+000
		77.11*	10.80	3.99423E+001	1.96143E+000
		87.30*	4.84	3.57219E+001	1.80671E+000
		242.00*	7.43	3.32819E+001	1.23489E+000
		258.87* @	0.52	1.82326E+001	3.14879E+000
		274.80 @	0.47		
		295.22*	19.30	2.49909E+001	8.99900E-001
		351.93*	37.60	2.51675E+001	8.96649E-001
		462.00* @	0.22	5.27786E+002	3.47496E+001
		533.66* @	0.19	4.10935E+001	1.57650E+001
		785.96* @	1.07	5.33847E+001	4.74813E+000
		839.04* @	0.59	6.75067E+001	4.16329E+000
Ra-224	0.885	81.07 @	0.13		
		83.78* @	0.22	3.09959E+002	2.14429E+001
		240.99*	4.10	6.43212E+001	2.32470E+000
Ra-226	0.877	81.07 @	0.20		
		83.78* @	0.33	1.92287E+002	1.32736E+001
		94.90 @	0.15		
		186.21*	3.59	4.60192E+001	2.11429E+000
Ac-228	0.994	99.50* @	1.26	2.16259E+001	4.49030E+000
		129.07* @	2.50	1.55949E+001	1.95641E+000
		209.25*	3.97	2.65495E+001	1.61756E+000
		270.24*	3.55	3.48525E+001	2.32189E+000
		328.00*	3.04	2.87903E+001	1.65153E+000
		338.32*	11.40	2.90204E+001	1.47085E+000
		409.46* @	2.02	2.55279E+001	1.53099E+000
		463.00*	4.45	2.79521E+001	2.08898E+000
		755.31* @	1.03	3.65619E+001	5.18880E+000

Nuclide Name	Id Confidence	Energy (keV)	Yield (%)	Activity (pCi/GWET)	Activity Uncertainty
Ac-228	0.994	772.29* @	1.52	3.03008E+001	2.05555E+000
		794.94*	4.31	2.92111E+001	1.54059E+000
		835.70* @	1.70	3.35784E+001	2.16972E+000
		911.20*	26.20	3.15710E+001	1.23416E+000
		964.79*	4.99	3.23439E+001	1.50775E+000
		968.96*	15.90	3.22057E+001	1.30853E+000
		1588.20*	3.06	4.01490E+001	2.29048E+000
		1630.62* @	1.52	3.96859E+001	2.65368E+000
Th-228	0.750	84.37*	1.26	5.33817E+001	3.23772E+000
		131.61 @	0.13		
		166.41 @	0.10		
		215.98*	0.25	2.84210E+001	1.84101E+001
Pa-234m	0.480	258.23* @	0.07	1.29446E+002	2.22341E+001
		742.81 @	0.09		
		766.36	0.32		
		786.27* @	0.05	1.06562E+003	5.31871E+001
		1001.03*	0.85	2.95761E+001	3.67185E+000
		1737.77 @	0.02		
Th-234	0.930	63.30*	3.75	1.39665E+001	2.53448E+000
		92.59*	4.33	4.11291E+001	2.23482E+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
	K-40		0.991	5.696122E+000	5.033908E-001
	Mn-54		0.918	5.248740E-002	3.148800E-002
X	Cd-109		0.906		
	Eu-152m		0.997	1.583946E+000	6.322043E-002
X	Eu-155		0.922		
X	Tm-170		0.999		
	Tl-208	@	0.971	9.979688E+000	2.500994E-001
	TL-208e		0.913	5.836130E-001	4.556883E-002
	Bi-211		0.906	2.409607E+001	3.264819E+000
	Bi-212	@	0.950	3.198077E+001	9.672201E-001
	Pb-212	@	1.000	1.826762E+001	5.704543E-001
	Bi-214	@	0.763	2.326665E+001	3.643568E-001
	Pb-214	@	0.979	1.688274E+001	7.264589E-001
	Ra-224	@	0.885	3.168092E+001	2.599323E+000
	Ra-226	@	0.877	4.600305E+001	1.968594E+000
	Ac-228	@	0.994	3.072841E+001	3.566499E-001
	Th-228	@	0.750	2.334105E+001	3.169906E+000
X	Th-231		0.838		
	Pa-234m	@	0.480	2.929026E+001	3.653726E+000
	Th-234	@	0.930	2.924774E+001	1.676239E+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: 7/13/2017 12:39:59 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
1	57.97	2.9107E-002	57.05		
m 5	79.37	2.1264E-002	52.83	Tol.	Ag-108m I-131 Ba-133 Rn-219 Th-227
11	105.68	1.3317E-001	20.46		
M 14	140.08	2.7520E-002	40.20	Sum	
m 15	143.87	1.1582E-001	12.22	Tol.	Ra-223
16	154.00	1.4658E-001	17.69	Sum	
17	163.19	2.5817E-002	61.74	Sum	
19	199.27	4.0012E-002	58.50	Sum	
M 22	236.00	9.2360E-002	11.27	Tol.	Th-227
M 25	252.79	2.2236E-002	32.71	Tol.	Sb-127
m 26	256.16	4.0237E-002	18.93	Tol.	Th-227
32	321.48	1.3789E-002	115.80	Sum	
m 34	332.44	2.5368E-002	28.20	Sum	
37	388.97	1.2890E-002	137.35	Sum	
M 38	401.66	7.1220E-003	70.35	Sum	
m 39	405.21	2.4079E-002	20.38	Sum	
M 41	448.66	4.6816E-003	122.49	Sum	
m 42	452.71	1.1205E-002	121.83	Sum	
44	480.47	8.9551E-003	113.97	Sum	
45	487.12	3.6616E-002	37.13	D-Esc.	
46	504.17	1.9057E-002	56.16	Sum	
49	545.81	5.2065E-003	150.94		
50	562.34	7.0171E-002	15.18	D-Esc.	
53	619.96	7.8937E-003	90.16	Tol.	Ag-110m
55	707.51	1.4042E-002	51.21	Tol.	Ag-110m
M 62	781.94	5.1701E-002	8.85	Tol.	Sb-127
M 66	830.60	4.3082E-002	10.66	Sum	
70	893.25	2.1081E-002	37.17	Sum	
71	904.13	5.9062E-002	13.72	Sum	
m 73	917.38	5.6727E-003	55.18	Sum	
M 75	958.65	2.1365E-002	15.67	Sum	
79	1033.33	5.2641E-003	97.55	S-Esc.	
M 80	1065.50	7.8612E-003	34.04	Sum	
m 81	1070.02	1.3484E-002	21.91	Sum	
82	1078.75	3.1365E-002	22.39	S-Esc.	
83	1094.15	1.7749E-002	34.85	Sum	
84	1110.57	3.1215E-002	24.39	S-Esc.	
89	1247.34	4.1865E-002	22.17	Sum	
90	1267.70	6.4256E-003	65.74		
M 97	1496.25	3.7496E-002	9.53	Sum	

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty	Peak Type	Tol. Nuclide
m 98	1502.04	2.0395E-002	14.99	Sum	
m100	1513.37	1.2355E-002	21.89	Sum	
M103	1581.04	2.9652E-002	10.17	Sum	
m107	1600.34	1.1353E-002	21.17	Sum	
m109	1625.87	1.5510E-002	15.61	Sum	
m111	1638.89	2.2486E-002	11.56	Sum	
112	1662.29	3.5942E-002	15.37	Sum	
114	1765.51	6.0536E-001	1.74		
115	1839.21	1.3784E-002	30.84	Sum	
116	1848.62	8.7348E-002	6.58	Sum	
117	1874.62	3.8932E-003	89.19	Sum	

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

Errors quoted at 1.000 sigma