HPGE QC

1. STANDARD 6HOURS 11DEC2016 – 9:38:08
2. EZ450STANDARD 20161209 – 11:55:31
3. EZ450STANDARD 20161209 – 12:52:31
4. TEST QC120916
5. STANDARD-2HR-161208 – 5:53:59 PM

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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-STANDARD-6HR-161211.CNF

Report Generated On	: 12/12/2016 9:38:08 AM
Sample Title	: STANDARD 6HOURS 11DEC2016
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	: 1.000E+000 GWET
Sample Taken On	: 4/1/2015 12:00:00 PM
Acquisition Started	: 12/11/2016 5:09:53 PM
Live Time	: 21600.0 seconds
Real Time	: 21708.4 seconds
Dead Time	: 0.50 %

Energy Calibration Used Done On	: 12/10/2016
Efficiency Calibration Used Done On	: 9/27/2016
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: STANDARD 6HOURS 11DEC2016
Peak Analysis Performed on: 12/12/2016 9:38:08 AM
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	173-	193	186.82	46.73	0.96	2.70E+004	538.32	7.24E+004
2	224-	246	238.87	59.75	0.96	1.26E+005	675.36	8.32E+004
3	338-	366	352.76	88.22	0.98	2.33E+005	870.59	1.14E+005
4	481-	496	488.85	122.24	0.99	8.99E+004	474.96	4.53E+004
5	538-	555	546.42	136.64	1.01	1.15E+004	392.41	4.37E+004
6	657-	670	663.83	165.99	1.01	2.77E+004	331.08	2.97E+004
7	795-	802	798.83	199.74	0.36	1.63E+002	182.03	1.64E+004
8	1010-	1029	1020.74	255.22	0.94	9.14E+002	341.07	3.29E+004
9	1405-	1412	1408.13	352.07	0.55	2.95E+002	138.20	9.32E+003
10	1556-	1577	1566.49	391.66	1.22	1.34E+004	322.75	2.42E+004
11	2050-	2064	2055.42	513.90	0.86	7.94E+002	191.76	1.25E+004
12	2633-	2656	2645.80	661.50	1.39	2.47E+005	552.56	1.44E+004
13	2801-	2813	2808.79	702.25	0.44	4.54E+001	134.92	6.90E+003
14	3580-	3606	3591.35	897.90	1.56	1.39E+004	304.61	1.79E+004
15	4674-	4719	4692.79	1173.27	1.69	2.59E+005	578.35	1.11E+004
16	5314-	5355	5330.49	1332.70	1.77	2.38E+005	504.34	2.74E+003
17	6510-	6521	6515.15	1628.88	0.48	1.78E+001	28.45	3.15E+002
18	7332-	7364	7347.76	1837.04	1.90	9.11E+003	109.00	5.38E+002
19	7570-	7583	7576.85	1894.31	1.04	1.64E+001	22.90	1.81E+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 *****
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Detector Name: ERT01
Sample Geometry:
Sample Title: STANDARD 6HOURS 11DEC2016
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	5.9329E+002	5.93E+002	6.6545E+002
+	Co-60	1173.23*	99.85	2.9728E+002	1.53E+002	6.0295E+004
		1332.49*	99.98	1.5336E+002		6.0153E+004
>		2505.71	0.10	0.0000E+000		0.0000E+000
+	Cs-137	32.06	5.54	2.2006E+006	1.72E+002	8.6584E+005
		661.66*	84.99	1.7176E+002		3.7830E+004
	Tl-208	72.80	2.02	2.3128E+004	2.62E+002	7.6124E+003
		74.97	3.41	1.2453E+004		-5.1522E+003
		84.90	1.51	2.6648E+004		-7.4105E+003
		277.36	6.31	2.8187E+003		-4.0310E+002
		510.77	22.60	1.0090E+003		6.6278E+001
		583.19	84.50	2.6247E+002		7.8832E+001
		763.13	1.81	1.3926E+004		7.1539E+003
		860.56	12.42	2.4631E+003		-9.7073E+002
	Bi-212	39.86	1.06	2.0420E+006	3.57E+003	-2.1089E+006
		727.33	6.74	3.5653E+003		2.5365E+003
		785.37	1.11	2.3394E+004		-1.3256E+004
		1620.74	1.51	7.6753E+003		7.0190E+003
		1806.00	0.09	1.0646E+005		8.5854E+004
	Pb-212	74.81	10.40	4.1142E+003	4.30E+002	-1.7021E+003
		77.11	17.50	2.3415E+003		-4.3558E+002
		87.30	7.81	6.6866E+003		4.1132E+005
		115.18	0.59	3.3070E+004		-3.0303E+003
		238.63	43.30	4.2975E+002		1.0622E+002
		300.09	3.28	5.4382E+003		-2.1514E+003
	Bi-214	76.86	0.43	5.2418E+004	2.70E+002	-3.7109E+004
		89.81	0.24	1.0518E+005		-7.4361E+001
		386.77	0.30	3.7789E+004		1.9338E+004
		454.77	0.29	4.2899E+004		7.5685E+003
		609.31	45.49	2.7011E+002		1.1092E+002
		665.45	1.53	2.7934E+004		-1.4292E+004
		703.11	0.48	2.6568E+004		3.9237E+002
		719.86	0.39	3.2886E+004		1.7668E+004
		768.36	4.89	2.7987E+003		-1.6382E+002
		786.10	0.31	4.5371E+004		5.9280E+002
		806.17	1.26	1.1446E+004		-2.0637E+003
		934.06	3.10	6.2071E+003		-1.7241E+003
		964.08	0.36	5.2411E+004		1.2433E+004
		1051.96	0.31	5.6386E+004		-5.2266E+004
		1120.29	14.91	1.1391E+003		2.4913E+002

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GWET)	Nuclide MDA (pCi/GWET)	Activity (pCi/GWET)
	Bi-214	1133.66	0.25	6.0592E+004	2.70E+002	-2.1340E+003
		1155.19	1.63	9.1352E+003		6.1160E+002
		1207.68	0.45	2.4095E+004		-1.3336E+004
		1238.11	5.79	1.6631E+003		9.4465E+002
		1280.96	1.43	6.0015E+003		-2.4716E+003
		1377.67	4.00	1.4860E+003		-2.9493E+002
		1385.31	0.76	7.7613E+003		-5.7889E+003
		1401.50	1.27	4.7518E+003		-8.2726E+001
		1407.98	2.15	2.8143E+003		1.2256E+003
		1509.23	2.11	2.9659E+003		-1.8993E+003
		1538.50	0.38	1.6924E+004		-6.2472E+001
		1543.32	0.20	3.2341E+004		-6.1631E+003
		1583.22	0.69	9.7255E+003		-5.7636E+003
		1594.73	0.25	2.7151E+004		-2.9826E+004
		1599.31	0.23	2.9916E+004		-5.2719E+003
		1661.28	1.15	5.0529E+003		-4.8557E+002
		1683.99	0.22	2.6288E+004		1.2919E+004
		1729.59	2.92	1.8429E+003		-7.8123E+002
		1764.49	15.40	3.4884E+002		-1.2750E+001
		1847.42	2.11	2.3972E+003		-2.4898E+002
		1873.16	0.22	2.2677E+004		7.9528E+003
>		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	1.0405E+005	2.83E+002	-1.9683E+005
		74.81	6.44	3.5920E+003		-1.4861E+003
		77.11	10.80	2.0512E+003		-3.8159E+002
		87.30	4.84	5.8334E+003		3.5884E+005
		242.00	7.43	1.3450E+003		2.0897E+002
		258.87	0.52	1.8596E+004		-6.5719E+003
		274.80	0.47	2.0339E+004		3.9378E+003
		295.22	19.30	5.0203E+002		2.5369E+002
		351.93	37.60	2.8310E+002		1.0781E+002
		462.00	0.22	5.6500E+004		2.0769E+004
		533.66	0.19	6.3838E+004		-1.4036E+003
		785.96	1.07	1.3128E+004		-7.5525E+003
		839.04	0.59	2.7231E+004		1.4102E+004
	Ra-224	81.07	0.13	2.8136E+005	4.52E+003	-3.6960E+005
		83.78	0.22	1.6285E+005		-1.1982E+005
		240.99	4.10	4.5154E+003		1.0371E+003
	Ra-226	81.07	0.20	1.0115E+005	2.61E+003	-1.3288E+005
		83.78	0.33	5.8249E+004		-4.2858E+004
		94.90	0.15	7.5932E+004		-5.5180E+003
		186.21	3.59	2.6096E+003		2.1556E+003
	Ac-228	99.50	1.26	1.5751E+004	1.29E+003	-9.0033E+003
		129.07	2.50	6.9725E+003		-8.3516E+002
		209.25	3.97	4.4710E+003		-1.7590E+003
		270.24	3.55	5.0354E+003		5.6281E+001
		328.00	3.04	6.1533E+003		3.3217E+003
		338.32	11.40	1.6451E+003		7.8812E+002
		409.46	2.02	1.0321E+004		2.4068E+003

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/GWET)	Nuclide MDA (pCi/GWET)	Activity (pCi/GWET)
Ac-228	463.00	4.45	5.1850E+003	1.29E+003	-2.0873E+003
	755.31	1.03	2.4308E+004		1.1562E+004
	772.29	1.52	1.6727E+004		2.1801E+003
	794.94	4.31	6.0720E+003		2.6489E+003
	835.70	1.70	1.7243E+004		4.0390E+003
	911.20	26.20	1.2867E+003		-8.1217E+002
	964.79	4.99	7.0140E+003		8.5096E+002
	968.96	15.90	2.1360E+003		-1.0212E+003
	1588.20	3.06	4.0905E+003		-1.8967E+002
	1630.62	1.52	7.3433E+003		1.8635E+001
Th-228	84.37	1.26	2.8256E+004	2.83E+004	-1.1169E+004
	131.61	0.13	1.3281E+005		-1.4232E+004
	166.41	0.10	1.9708E+005		2.8304E+006
	215.98	0.25	7.2410E+004		7.7614E+003
Pa-234m	258.23	0.07	1.3220E+005	2.08E+004	-1.4460E+004
	742.81	0.09	1.4092E+005		2.5960E+004
	766.36	0.32	4.2198E+004		-1.1810E+004
	786.27	0.05	2.6225E+005		3.4265E+003
	1001.03	0.85	2.0788E+004		-4.6213E+003
	1737.77	0.02	2.5193E+005		-1.4421E+005
Th-234	63.30	3.75	1.1434E+004	2.72E+003	-3.0707E+004
	92.59	4.33	2.7195E+003		4.4400E+002
	112.81	0.22	4.8637E+004		7.3089E+003

+ = 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

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***** 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: STANDARD 6HOURS 11DEC2016
Nuclide Library Used: C:\GENIE2K\CAMFILES\ERT_LIBRARY_LMDA.NLB

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

Nuclide Name	Id Confidence	Energy (keV)		Yield (%)	Activity (pCi/GWET)	Activity Uncertainty
Co-57	0.969	122.06*		85.51	2.97481E+004	1.09123E+003
		136.47*		10.71	2.94365E+004	1.38039E+003
Co-60	0.996	1173.23*		99.85	6.02946E+004	1.50086E+003
		1332.49*		99.98	6.01526E+004	1.49909E+003
		2505.71	@	0.10		
Kr-85	0.998	514.00*		0.44	2.12007E+004	5.19567E+003
Sr-85	0.632	514.00*		98.50	6.35984E+004	1.55196E+004
Y-88	0.779	898.04*		93.90	1.29358E+005	4.14918E+003
		1836.05*		99.32	1.31635E+005	5.20880E+003
		2734.07	@	0.61		
Cd-109	0.986	88.03*		3.63	1.17836E+006	3.99687E+004
Sn-113	0.865	255.13*		2.11	1.18410E+005	4.47193E+004
		391.70*		64.97	7.39112E+004	3.27552E+003
Cs-137	0.992	32.06	@	5.54		
		661.66*		84.99	3.78299E+004	1.07698E+003
Ce-139	0.901	165.86*		79.89	4.42576E+004	1.83494E+003
Pb-210	0.994	46.54*		4.25	1.11419E+006	5.76005E+004
Am-241	0.991	26.34	@	2.31		
		59.54*		35.92	1.12606E+005	3.29140E+003

* = 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
	Co-57		0.969	2.962824E+004	8.560724E+002
	Co-60	@	0.996	6.022353E+004	1.060644E+003
?	Kr-85		0.998	2.120067E+004	5.195671E+003
?	Sr-85		0.632	6.359842E+004	1.551962E+004
	Y-88	@	0.779	1.302417E+005	3.246173E+003
	Cd-109		0.986	1.178361E+006	3.996869E+004
	Sn-113		0.865	7.414855E+004	3.266783E+003
	Cs-137	@	0.992	3.782991E+004	1.076976E+003
	Ce-139		0.901	4.425759E+004	1.834938E+003
X	Tl-207		0.997		
	Pb-210		0.994	1.114185E+006	5.760049E+004
	Am-241	@	0.991	1.126060E+005	3.291404E+003

? = 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: 12/12/2016 9:38:08 AM
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
7	199.74	7.5295E-003	111.93		
9	352.07	1.2715E-002	50.43	Tol.	Pb-214
13	702.25	2.1004E-003	297.39	Tol.	Rh-106
					Bi-214
17	1628.88	8.2235E-004	160.15		
19	1894.31	7.6025E-004	139.46		

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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*************************************************************************
*****        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\EZ450STANARD_20161210.CNF

Report Generated On	: 12/10/2016 11:55:31 AM
Sample Title	: EZ450STANARD 20161209
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	: 1.000E+000 STD
Sample Taken On	: 4/1/2015 12:00:00 PM
Acquisition Started	: 12/9/2016 10:51:53 AM
Live Time	: 7200.0 seconds
Real Time	: 7236.1 seconds
Dead Time	: 0.50 %

Energy Calibration Used Done On	: 12/10/2016
Efficiency Calibration Used Done On	: 9/27/2016
Efficiency ID	: ERT0101

****
***** P E A K A N A L Y S I S R E P O R T *****
****

Detector Name: ERT01
Sample Title: EZ450STANARD 20161209
Peak Analysis Performed on: 12/10/2016 11:55:31 AM
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	175-	193	186.84	46.74	0.94	8.43E+003	287.97	2.21E+004
2	224-	246	238.87	59.75	0.94	4.24E+004	389.77	2.76E+004
3	338-	366	352.75	88.22	0.98	7.72E+004	504.92	3.85E+004
4	482-	497	488.83	122.24	0.98	2.96E+004	275.24	1.53E+004
5	538-	553	546.32	136.61	1.05	3.66E+003	207.83	1.32E+004
6	655-	670	663.82	165.99	1.04	9.64E+003	210.11	1.15E+004
7	1477-	1485	1481.30	370.37	0.85	3.95E+001	84.93	3.36E+003
8	1556-	1576	1566.42	391.65	1.25	4.49E+003	179.19	7.61E+003
9	2050-	2063	2055.29	513.87	1.21	4.13E+002	103.99	3.77E+003
10	2298-	2310	2303.12	575.83	0.61	1.42E+002	86.05	2.76E+003
11	2632-	2658	2645.72	661.48	1.41	8.26E+004	326.34	5.47E+003
12	3439-	3451	3446.06	861.57	0.73	1.13E+001	84.46	2.71E+003
13	3582-	3603	3591.25	897.87	1.41	4.56E+003	151.56	4.90E+003
14	4677-	4709	4692.67	1173.24	1.69	8.59E+004	317.16	2.87E+003
15	5314-	5351	5330.37	1332.67	1.76	7.95E+004	290.55	8.79E+002
16	7334-	7361	7347.42	1836.95	1.75	3.06E+003	62.01	1.75E+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: EZ450STANARD 20161209
Nuclide Library Used: C:\GENIE2K\CAMFILES\ERT_LIBRARY_LMDA.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/STD)	Nuclide MDA (pCi/STD)	Activity (pCi/STD)
	K-40	1460.82	10.55	1.0013E+003	1.00E+003	-1.3763E+002
+	Co-60	1173.23*	99.85	3.9505E+002	2.49E+002	5.9873E+004
		1332.49*	99.98	2.4912E+002		6.0360E+004
>		2505.71	0.10	0.0000E+000		0.0000E+000
+	Cs-137	32.06	5.54	3.8020E+006	3.31E+002	9.7198E+005
		661.66*	84.99	3.3136E+002		3.7882E+004
	Tl-208	72.80	2.02	3.9976E+004	4.55E+002	-1.2841E+003
		74.97	3.41	2.1579E+004		-6.6489E+002
		84.90	1.51	4.6060E+004		-3.2388E+003
		277.36	6.31	4.9068E+003		-8.3517E+002
		510.77	22.60	1.7637E+003		5.9949E+002
		583.19	84.50	4.5508E+002		-1.7744E+002
		763.13	1.81	2.4214E+004		2.7762E+002
		860.56	12.42	4.2765E+003		2.7157E+002
	Bi-212	39.86	1.06	3.5472E+006	6.24E+003	-8.7256E+005
		727.33	6.74	6.2384E+003		3.1157E+003
		785.37	1.11	3.9989E+004		-6.4160E+003
		1620.74	1.51	1.2974E+004		3.7947E+003
		1806.00	0.09	1.8172E+005		-5.4019E+004
	Pb-212	74.81	10.40	7.1292E+003	7.45E+002	-2.1966E+002
		77.11	17.50	4.0626E+003		-1.4777E+003
		87.30	7.81	1.1562E+004		4.0630E+005
		115.18	0.59	5.6816E+004		-2.9639E+004
		238.63	43.30	7.4529E+002		5.6120E+002
		300.09	3.28	9.4128E+003		-3.8083E+003
	Bi-214	76.86	0.43	9.1191E+004	4.68E+002	-3.5617E+004
		89.81	0.24	1.8246E+005		6.4238E+003
		386.77	0.30	6.5227E+004		1.6013E+004
		454.77	0.29	7.3854E+004		-3.0621E+003
		609.31	45.49	4.6818E+002		-3.1293E+001
		665.45	1.53	4.8430E+004		-3.0329E+002
		703.11	0.48	4.6328E+004		2.9983E+004
		719.86	0.39	5.7346E+004		4.6859E+004
		768.36	4.89	4.8336E+003		-2.9052E+003
		786.10	0.31	7.7616E+004		1.3785E+004
		806.17	1.26	1.9828E+004		-1.8884E+003
		934.06	3.10	1.0717E+004		-4.9231E+003
		964.08	0.36	9.0557E+004		-4.2698E+002
		1051.96	0.31	9.7514E+004		-2.0176E+004
		1120.29	14.91	1.9882E+003		-7.9135E+002

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/STD)	Nuclide MDA (pCi/STD)	Activity (pCi/STD)
	Bi-214	1133.66	0.25	1.0501E+005	4.68E+002	1.2945E+003
		1155.19	1.63	1.5590E+004		-3.5164E+003
		1207.68	0.45	4.2792E+004		2.3676E+004
		1238.11	5.79	2.8811E+003		1.3350E+003
		1280.96	1.43	1.0702E+004		3.5490E+003
		1377.67	4.00	2.6187E+003		-2.4456E+003
		1385.31	0.76	1.4261E+004		1.1698E+003
		1401.50	1.27	8.3584E+003		2.8465E+002
		1407.98	2.15	4.8759E+003		2.1461E+003
		1509.23	2.11	5.0099E+003		-2.2745E+002
		1538.50	0.38	2.9391E+004		2.0681E+004
		1543.32	0.20	5.5914E+004		-2.6467E+003
		1583.22	0.69	1.7018E+004		-4.0282E+003
		1594.73	0.25	4.6965E+004		-2.3559E+004
		1599.31	0.23	5.2261E+004		-1.3966E+003
		1661.28	1.15	8.8256E+003		1.7260E+003
		1683.99	0.22	4.5041E+004		3.7295E+003
		1729.59	2.92	3.2604E+003		3.6402E+002
		1764.49	15.40	5.9557E+002		2.2771E+002
		1847.42	2.11	4.2238E+003		9.6405E+002
		1873.16	0.22	3.9403E+004		5.8380E+003
>		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	1.8079E+005	4.96E+002	-1.7534E+005
		74.81	6.44	6.2384E+003		-1.9221E+002
		77.11	10.80	3.5670E+003		-1.2975E+003
		87.30	4.84	1.0109E+004		3.5526E+005
		242.00	7.43	2.3326E+003		-8.4013E+001
		258.87	0.52	3.2325E+004		-1.9231E+004
		274.80	0.47	3.5295E+004		-3.7240E+003
		295.22	19.30	8.6644E+002		1.7628E+002
		351.93	37.60	4.9598E+002		3.8883E+002
		462.00	0.22	9.8308E+004		-2.0191E+004
		533.66	0.19	1.1072E+005		-2.9576E+004
		785.96	1.07	2.2454E+004		-3.7403E+003
		839.04	0.59	4.6880E+004		2.4017E+004
	Ra-224	81.07	0.13	4.8767E+005	7.82E+003	-2.6788E+005
		83.78	0.22	2.8148E+005		-1.5473E+005
		240.99	4.10	7.8164E+003		-2.7193E+003
	Ra-226	81.07	0.20	1.7572E+005	4.53E+003	-9.6522E+004
		83.78	0.33	1.0090E+005		-5.5470E+004
		94.90	0.15	1.3196E+005		1.0514E+004
		186.21	3.59	4.5253E+003		6.9898E+002
	Ac-228	99.50	1.26	2.7333E+004	2.24E+003	6.2614E+003
		129.07	2.50	1.2137E+004		-4.1831E+003
		209.25	3.97	7.7375E+003		-1.2157E+003
		270.24	3.55	8.7188E+003		2.4804E+003
		328.00	3.04	1.0686E+004		-5.0137E+003
		338.32	11.40	2.8702E+003		-5.4395E+002
		409.46	2.02	1.7937E+004		-4.8683E+002

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/STD)	Nuclide MDA (pCi/STD)	Activity (pCi/STD)
Ac-228	463.00	4.45	9.0303E+003	2.24E+003	3.6097E+003
	755.31	1.03	4.2191E+004		1.9414E+004
	772.29	1.52	2.8756E+004		8.4855E+003
	794.94	4.31	1.0561E+004		4.2729E+003
	835.70	1.70	2.9899E+004		8.9321E+003
	911.20	26.20	2.2405E+003		2.6733E+002
	964.79	4.99	1.2132E+004		3.5298E+003
	968.96	15.90	3.6924E+003		-1.5334E+003
	1588.20	3.06	7.0580E+003		-1.4993E+003
	1630.62	1.52	1.2452E+004		1.5263E+003
Th-228	84.37	1.26	4.8785E+004	4.88E+004	-1.5160E+004
	131.61	0.13	2.3047E+005		-2.9210E+004
	166.41	0.10	3.4408E+005		2.7972E+006
	215.98	0.25	1.2514E+005		6.2792E+004
Pa-234m	258.23	0.07	2.3033E+005	3.64E+004	4.7115E+004
	742.81	0.09	2.4445E+005		4.4809E+004
	766.36	0.32	7.3257E+004		2.4581E+004
	786.27	0.05	4.4864E+005		7.9681E+004
	1001.03	0.85	3.6408E+004		1.2564E+004
	1737.77	0.02	4.5300E+005		-1.8212E+005
Th-234	63.30	3.75	1.9903E+004	4.73E+003	-2.7378E+004
	92.59	4.33	4.7289E+003		1.0747E+003
	112.81	0.22	8.4070E+004		-9.3947E+003

+ = 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: EZ450STANARD 20161209
Nuclide Library Used: C:\GENIE2K\CAMFILES\ERT_LIBRARY_LMDA.NLB

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

Nuclide Name	Id Confidence	Energy (keV)		Yield (%)	Activity (pCi/STD)	Activity Uncertainty
Co-57	0.970	122.06*		85.51	2.92475E+004	1.09614E+003
		136.47*		10.71	2.79279E+004	1.82366E+003
Co-60	0.997	1173.23*		99.85	5.98727E+004	1.50073E+003
		1332.49*		99.98	6.03603E+004	1.51495E+003
		2505.71	@	0.10		
Kr-85	0.997	514.00*		0.44	3.30674E+004	8.43945E+003
Sr-85	0.633	514.00*		98.50	9.67786E+004	2.46026E+004
Y-88	0.790	898.04*		93.90	1.25402E+005	5.09797E+003
		1836.05*		99.32	1.30607E+005	5.59129E+003
		2734.07	@	0.61		
Cd-109	0.986	88.03*		3.63	1.16640E+006	4.00566E+004
Sn-113	0.816	255.13		2.11		
		391.70*		64.97	7.34343E+004	4.00428E+003
Cs-137	0.991	32.06	@	5.54		
		661.66*		84.99	3.78821E+004	1.08554E+003
Ce-139	0.902	165.86*		79.89	4.56409E+004	2.06697E+003
Pb-210	0.994	46.54*		4.25	1.04185E+006	6.11257E+004
Am-241	0.991	26.34	@	2.31		
		59.54*		35.92	1.13388E+005	3.42112E+003

* = 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 *****
****

	Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/STD)	Wt mean Activity Uncertainty
	Co-57		0.970	2.889730E+004	9.395034E+002
	Co-60	@	0.997	6.011422E+004	1.066168E+003
?	Kr-85		0.997	3.306741E+004	8.439453E+003
?	Sr-85		0.633	9.677862E+004	2.460263E+004
	Y-88	@	0.790	1.277646E+005	3.767842E+003
	Cd-109		0.986	1.166401E+006	4.005657E+004
	Sn-113		0.816	7.343432E+004	4.004284E+003
	Cs-137	@	0.991	3.788207E+004	1.085539E+003
	Ce-139		0.902	4.564095E+004	2.066972E+003
X	Tl-207		0.998		
	Pb-210		0.994	1.041853E+006	6.112572E+004
	Am-241	@	0.991	1.133879E+005	3.421122E+003

? = 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: 12/10/2016 11:55:31 AM
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
7	370.37	5.4911E-003	214.81	Tol.	Pa-234
10	575.83	1.9680E-002	60.73	Tol.	Bi-206
12	861.57	1.5701E-003	747.16		

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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*************************************************************************
*****        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\EZ450STANARD_20161209.CNF

Report Generated On              : 12/9/2016  12:52:31 PM

Sample Title                     : EZ450STANARD 20161209
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                      :  1.000E+000 STD

Sample Taken On                  : 4/1/2015   12:00:00 PM
Acquisition Started              : 12/9/2016  10:51:53 AM

Live Time                        :     7200.0 seconds
Real Time                        :     7236.1 seconds

Dead Time                        :   0.50 %


            Energy Calibration Used Done On       : 10/24/2016
            Efficiency Calibration Used Done On   : 9/27/2016
            Efficiency ID                         : ERT0101
```

****
***** P E A K A N A L Y S I S R E P O R T *****
****

Detector Name: ERT01
Sample Title: EZ450STANARD 20161209
Peak Analysis Performed on: 12/9/2016 12:52:31 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	175-	193	186.83	46.66	0.94	8.43E+003	287.97	2.21E+004
2	224-	246	238.88	59.68	0.94	4.24E+004	389.77	2.76E+004
3	337-	366	352.76	88.15	0.98	7.72E+004	517.64	4.01E+004
4	482-	497	488.84	122.17	0.98	2.96E+004	275.24	1.53E+004
5	538-	553	546.31	136.54	1.05	3.66E+003	207.83	1.32E+004
6	655-	670	663.83	165.92	1.04	9.64E+003	210.11	1.15E+004
7	1477-	1485	1481.31	370.31	0.85	3.95E+001	84.93	3.36E+003
8	1556-	1576	1566.42	391.59	1.25	4.49E+003	179.19	7.61E+003
9	2050-	2063	2055.30	513.82	1.21	4.13E+002	103.99	3.77E+003
10	2298-	2310	2303.14	575.79	0.61	1.42E+002	86.05	2.76E+003
11	2632-	2658	2645.73	661.44	1.41	8.26E+004	326.34	5.47E+003
12	3439-	3451	3446.07	861.54	0.73	1.13E+001	84.46	2.71E+003
13	3582-	3603	3591.25	897.84	1.41	4.56E+003	151.56	4.90E+003
14	4677-	4709	4692.67	1173.22	1.69	8.59E+004	317.16	2.87E+003
15	5314-	5351	5330.37	1332.66	1.76	7.95E+004	290.55	8.79E+002
16	7334-	7361	7347.42	1836.96	1.75	3.06E+003	62.01	1.75E+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: EZ450STANARD 20161209
Nuclide Library Used: C:\GENIE2K\CAMFILES\ERT_LIBRARY_LMDA.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/STD)	Nuclide MDA (pCi/STD)	Activity (pCi/STD)
	K-40	1460.82	10.55	1.0013E+003	1.00E+003	-1.3763E+002
+	Co-60	1173.23*	99.85	3.9504E+002	2.49E+002	5.9872E+004
		1332.49*	99.98	2.4912E+002		6.0359E+004
>		2505.71	0.10	0.0000E+000		0.0000E+000
+	Cs-137	32.06	5.54	3.9750E+006	3.31E+002	-1.6512E+005
		661.66*	84.99	3.3135E+002		3.7881E+004
	Tl-208	72.80	2.02	4.1609E+004	4.55E+002	-2.9270E+004
		74.97	3.41	2.2533E+004		-1.4849E+003
		84.90	1.51	4.6060E+004		1.5992E+003
		277.36	6.31	5.0675E+003		3.1474E+002
		510.77	22.60	1.8072E+003		5.9949E+002
		583.19	84.50	4.5508E+002		-1.7744E+002
		763.13	1.81	2.4214E+004		2.7762E+002
		860.56	12.42	4.2765E+003		2.7157E+002
	Bi-212	39.86	1.06	3.7143E+006	6.24E+003	-1.3100E+006
		727.33	6.74	6.2384E+003		3.1157E+003
		785.37	1.11	3.9989E+004		-6.4160E+003
		1620.74	1.51	1.2974E+004		3.7947E+003
		1806.00	0.09	1.8172E+005		-5.4019E+004
	Pb-212	74.81	10.40	7.4329E+003	7.45E+002	1.3026E+003
		77.11	17.50	4.0626E+003		-1.4777E+003
		87.30	7.81	1.1562E+004		4.0630E+005
		115.18	0.59	5.6816E+004		-2.9639E+004
		238.63	43.30	7.4529E+002		5.6120E+002
		300.09	3.28	9.7244E+003		-4.5294E+003
	Bi-214	76.86	0.43	9.1191E+004	4.80E+002	-3.5617E+004
		89.81	0.24	1.8246E+005		6.4238E+003
		386.77	0.30	6.6286E+004		3.4948E+002
		454.77	0.29	7.5981E+004		7.1516E+003
		609.31	45.49	4.7971E+002		-1.9132E+002
		665.45	1.53	4.8430E+004		-3.0329E+002
		703.11	0.48	4.6328E+004		2.9983E+004
		719.86	0.39	5.7346E+004		4.6859E+004
		768.36	4.89	4.8336E+003		-2.9052E+003
		786.10	0.31	8.1390E+004		1.4448E+004
		806.17	1.26	2.0764E+004		-1.4629E+003
		934.06	3.10	1.0721E+004		-7.2760E+003
		964.08	0.36	9.0557E+004		-4.2698E+002
		1051.96	0.31	9.7514E+004		-2.0176E+004
		1120.29	14.91	1.9882E+003		-7.9135E+002

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/STD)	Nuclide MDA (pCi/STD)	Activity (pCi/STD)
	Bi-214	1133.66	0.25	1.0501E+005	4.80E+002	1.2945E+003
		1155.19	1.63	1.5590E+004		-3.5164E+003
		1207.68	0.45	4.2792E+004		2.3676E+004
		1238.11	5.79	2.8811E+003		1.3350E+003
		1280.96	1.43	1.0702E+004		3.5490E+003
		1377.67	4.00	2.6187E+003		-2.4456E+003
		1385.31	0.76	1.4261E+004		1.1698E+003
		1401.50	1.27	8.3584E+003		2.8465E+002
		1407.98	2.15	4.8759E+003		2.1461E+003
		1509.23	2.11	5.0099E+003		-2.2745E+002
		1538.50	0.38	2.9391E+004		2.0681E+004
		1543.32	0.20	5.5914E+004		-2.6467E+003
		1583.22	0.69	1.7018E+004		-4.0282E+003
		1594.73	0.25	4.6965E+004		-2.3559E+004
		1599.31	0.23	5.2261E+004		-1.3966E+003
		1661.28	1.15	8.8256E+003		1.7260E+003
		1683.99	0.22	4.5041E+004		3.7295E+003
		1729.59	2.92	3.2006E+003		6.6685E+002
		1764.49	15.40	5.9557E+002		2.2771E+002
		1847.42	2.11	4.2238E+003		9.6405E+002
		1873.16	0.22	3.9403E+004		5.8380E+003
>		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	1.8159E+005	4.96E+002	-1.5500E+005
		74.81	6.44	6.5041E+003		1.1398E+003
		77.11	10.80	3.5670E+003		-1.2975E+003
		87.30	4.84	1.0109E+004		3.5526E+005
		242.00	7.43	2.3319E+003		1.2831E+001
		258.87	0.52	3.2325E+004		-1.9231E+004
		274.80	0.47	3.5295E+004		-3.7240E+003
		295.22	19.30	8.9458E+002		5.4241E+002
		351.93	37.60	4.9598E+002		3.8883E+002
		462.00	0.22	1.0112E+005		1.4390E+004
		533.66	0.19	1.1072E+005		-2.9576E+004
		785.96	1.07	2.3593E+004		5.8006E+003
		839.04	0.59	4.6901E+004		2.2470E+004
	Ra-224	81.07	0.13	4.8767E+005	7.82E+003	-2.6788E+005
		83.78	0.22	2.8148E+005		-1.0402E+005
		240.99	4.10	7.8196E+003		-2.7116E+002
	Ra-226	81.07	0.20	1.7572E+005	4.53E+003	-9.6522E+004
		83.78	0.33	1.0090E+005		-3.7290E+004
		94.90	0.15	1.3196E+005		1.0514E+004
		186.21	3.59	4.5253E+003		6.9898E+002
	Ac-228	99.50	1.26	2.7376E+004	2.24E+003	1.3857E+004
		129.07	2.50	1.3085E+004		-6.2123E+002
		209.25	3.97	8.0038E+003		-8.3551E+002
		270.24	3.55	8.7213E+003		2.4670E+003
		328.00	3.04	1.1014E+004		4.5567E+002
		338.32	11.40	2.9542E+003		-1.5280E+002
		409.46	2.02	1.7937E+004		-4.8683E+002

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/STD)	Nuclide MDA (pCi/STD)	Activity (pCi/STD)
Ac-228	463.00	4.45	9.2693E+003	2.24E+003	1.3214E+003
	755.31	1.03	4.2191E+004		1.9414E+004
	772.29	1.52	2.8713E+004		-6.4493E+003
	794.94	4.31	1.1051E+004		7.1110E+003
	835.70	1.70	2.9899E+004		8.9321E+003
	911.20	26.20	2.2405E+003		2.6733E+002
	964.79	4.99	1.2101E+004		3.6784E+003
	968.96	15.90	3.6924E+003		-1.5334E+003
	1588.20	3.06	7.0580E+003		-1.4993E+003
	1630.62	1.52	1.2452E+004		1.5263E+003
Th-228	84.37	1.26	4.8785E+004	4.88E+004	-7.9197E+003
	131.61	0.13	2.4799E+005		-3.2150E+004
	166.41	0.10	3.4408E+005		2.7972E+006
	215.98	0.25	1.2921E+005		3.8327E+004
Pa-234m	258.23	0.07	2.2995E+005	3.72E+004	-4.7255E+003
	742.81	0.09	2.4445E+005		4.4809E+004
	766.36	0.32	7.3257E+004		2.4581E+004
	786.27	0.05	4.7002E+005		-1.0407E+004
	1001.03	0.85	3.7215E+004		2.1642E+004
	1737.77	0.02	4.4610E+005		-1.0083E+005
Th-234	63.30	3.75	2.2201E+004	4.73E+003	-2.5187E+004
	92.59	4.33	4.7289E+003		1.0747E+003
	112.81	0.22	8.4070E+004		-9.3947E+003

+ = 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: EZ450STANARD 20161209
Nuclide Library Used: C:\GENIE2K\CAMFILES\ERT_LIBRARY_LMDA.NLB

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

Nuclide Name	Id Confidence	Energy (keV)	Yield (%)	Activity (pCi/STD)	Activity Uncertainty
Co-57	0.973	122.06*	85.51	2.92532E+004	1.09890E+003
		136.47*	10.71	2.79304E+004	1.82370E+003
Co-60	0.997	1173.23*	99.85	5.98716E+004	1.50070E+003
		1332.49*	99.98	6.03589E+004	1.51491E+003
		2505.71 @	0.10		
Kr-85	0.995	514.00*	0.44	3.30655E+004	8.43897E+003
Sr-85	0.632	514.00*	98.50	9.67729E+004	2.46012E+004
Y-88	0.788	898.04*	93.90	1.25400E+005	5.09792E+003
		1836.05*	99.32	1.30609E+005	5.59144E+003
		2734.07 @	0.61		
Cd-109	0.989	88.03*	3.63	1.16949E+006	4.02233E+004
Sn-113	0.814	255.13	2.11		
		391.70*	64.97	7.34251E+004	4.00384E+003
Cs-137	0.988	32.06 @	5.54		
		661.66*	84.99	3.78812E+004	1.08557E+003
Ce-139	0.904	165.86*	79.89	4.56393E+004	2.06610E+003
Pb-210	0.998	46.54*	4.25	1.05489E+006	6.21309E+004
Am-241	0.995	26.34 @	2.31		
		59.54*	35.92	1.14136E+005	3.44120E+003

* = 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

****
***** INTERFERENCE CORRECTED REPORT *****
****

	Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/STD)	Wt mean Activity Uncertainty
	Co-57		0.973	2.890083E+004	9.412488E+002
	Co-60	@	0.997	6.011298E+004	1.066145E+003
?	Kr-85		0.995	3.306548E+004	8.438965E+003
?	Sr-85		0.632	9.677294E+004	2.460120E+004
	Y-88	@	0.788	1.277644E+005	3.767866E+003
	Cd-109		0.989	1.169495E+006	4.022334E+004
	Sn-113		0.814	7.342511E+004	4.003844E+003
	Cs-137	@	0.988	3.788117E+004	1.085574E+003
	Ce-139		0.904	4.563931E+004	2.066101E+003
X	Tl-207		0.999		
	Pb-210		0.998	1.054889E+006	6.213088E+004
	Am-241	@	0.995	1.141364E+005	3.441196E+003

? = 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

********** UNIDENTIFIED PEAKS **********

Peak Locate Performed on: 12/9/2016 12:52:31 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
7	370.31	5.4911E-003	214.81	Tol.	Pa-234
10	575.79	1.9680E-002	60.73	Tol.	Bi-206
12	861.54	1.5701E-003	747.16	Tol.	Tl-208

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

Errors quoted at 1.000 sigma

```
*************************************************************************
*****        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\TEST_QC161209.CNF

Report Generated On              : 12/9/2016  10:35:47 AM

Sample Title                     : TEST QC120916
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                      :  1.000E+000 STD

Sample Taken On                  : 4/1/2015   12:00:00 PM
Acquisition Started              : 12/9/2016   8:17:28 AM

Live Time                        :      900.0 seconds
Real Time                        :      904.6 seconds

Dead Time                        :   0.51 %


            Energy Calibration Used Done On       : 10/24/2016
            Efficiency Calibration Used Done On   : 9/27/2016
            Efficiency ID                         : ERT0101
```

****
***** P E A K A N A L Y S I S R E P O R T *****
****

Detector Name: ERT01
Sample Title: TEST QC120916
Peak Analysis Performed on: 12/9/2016 10:35:47 AM
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	174-	194	186.98	46.70	0.96	9.75E+002	110.46	3.09E+003
	2	227-	248	238.94	59.69	0.93	5.09E+003	133.45	3.38E+003
	3	340-	360	352.84	88.17	0.96	9.54E+003	154.50	3.82E+003
M	4	473-	497	477.98	119.46	0.98	8.11E+001	31.62	1.39E+003
m	5	473-	497	488.89	122.18	0.99	3.84E+003	71.73	1.55E+003
	6	537-	552	546.55	136.60	0.77	5.20E+002	74.27	1.66E+003
	7	655-	672	663.90	165.94	1.13	1.25E+003	80.41	1.61E+003
	8	915-	925	921.17	230.26	0.72	9.22E+000	47.09	9.23E+002
	9	963-	975	971.13	242.75	0.40	8.58E+001	51.03	9.56E+002
	10	1214-	1221	1217.20	304.28	0.53	3.88E-001	29.27	4.23E+002
	11	1558-	1575	1566.84	391.69	0.90	4.75E+002	56.83	8.47E+002
	12	2634-	2655	2646.05	661.52	1.40	1.03E+004	111.90	5.76E+002
	13	3307-	3316	3311.39	827.87	0.70	1.16E+001	23.86	2.46E+002
	14	3577-	3605	3591.80	897.98	1.25	7.38E+002	64.68	7.44E+002
	15	3807-	3818	3812.38	953.13	0.30	3.44E+001	31.47	3.81E+002
	16	4679-	4706	4693.26	1173.37	1.67	1.09E+004	110.42	2.91E+002
	17	5316-	5345	5331.02	1332.82	1.78	1.02E+004	103.57	1.16E+002
	18	7337-	7361	7348.56	1837.25	2.23	3.87E+002	21.20	1.54E+001

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: TEST QC120916
Nuclide Library Used: C:\GENIE2K\CAMFILES\ERT_LIBRARY_LMDA.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/STD)	Nuclide MDA (pCi/STD)	Activity (pCi/STD)
	K-40	1460.82	10.55	2.8327E+003	2.83E+003	9.1127E+002
+	Co-60	1173.23*	99.85	9.5479E+002	6.80E+002	6.0682E+004
		1332.49*	99.98	6.7959E+002		6.1789E+004
>		2505.71	0.10	0.0000E+000		0.0000E+000
+	Cs-137	32.06	5.54	1.1519E+007	8.07E+002	6.2317E+006
		661.66*	84.99	8.0699E+002		3.7959E+004
	Tl-208	72.80	2.02	1.1849E+005	1.30E+003	-3.8156E+004
		74.97	3.41	6.4210E+004		-1.1420E+004
		84.90	1.51	1.2992E+005		-2.8383E+004
		277.36	6.31	1.4422E+004		-8.1166E+003
		510.77	22.60	5.1806E+003		3.1201E+003
		583.19	84.50	1.3020E+003		5.4520E+002
		763.13	1.81	6.8527E+004		1.8453E+004
		860.56	12.42	1.2048E+004		-1.4733E+003
	Bi-212	39.86	1.06	1.0476E+007	1.82E+004	-3.1472E+006
		727.33	6.74	1.8186E+004		-5.4486E+003
		785.37	1.11	1.1395E+005		-2.1934E+004
		1620.74	1.51	4.1905E+004		3.8991E+003
		1806.00	0.09	5.4778E+005		-1.7620E+004
	Pb-212	74.81	10.40	2.1162E+004	2.12E+003	-2.0417E+003
		77.11	17.50	1.1640E+004		-1.7126E+003
		87.30	7.81	3.2871E+004		4.1311E+005
		115.18	0.59	1.6125E+005		2.0118E+004
		238.63	43.30	2.1211E+003		1.8700E+002
		300.09	3.28	2.7862E+004		1.2281E+004
	Bi-214	76.86	0.43	2.6132E+005	1.40E+003	7.0217E+004
		89.81	0.24	5.1882E+005		-5.1360E+003
		386.77	0.30	1.9045E+005		2.1202E+004
		454.77	0.29	2.1786E+005		-5.6897E+004
		609.31	45.49	1.3960E+003		3.7179E+002
		665.45	1.53	1.3765E+005		-5.3896E+004
		703.11	0.48	1.3201E+005		2.6709E+004
		719.86	0.39	1.6632E+005		6.5556E+003
		768.36	4.89	1.3687E+004		-1.9554E+003
		786.10	0.31	2.3236E+005		1.6470E+004
		806.17	1.26	5.9595E+004		1.9296E+004
		934.06	3.10	3.0036E+004		-1.4830E+004
		964.08	0.36	2.5496E+005		-1.1157E+005
		1051.96	0.31	2.7714E+005		1.3281E+005
		1120.29	14.91	5.7716E+003		3.9606E+001

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/STD)	Nuclide MDA (pCi/STD)	Activity (pCi/STD)
	Bi-214	1133.66	0.25	3.0345E+005	1.40E+003	1.4244E+005
		1155.19	1.63	4.4659E+004		-1.9801E+004
		1207.68	0.45	1.1782E+005		-8.0195E+004
		1238.11	5.79	8.4917E+003		3.9524E+003
		1280.96	1.43	3.1534E+004		1.3319E+004
		1377.67	4.00	7.6076E+003		-3.8931E+003
		1385.31	0.76	3.9362E+004		-9.4016E+003
		1401.50	1.27	2.2884E+004		-1.0137E+004
		1407.98	2.15	1.4279E+004		3.4693E+003
		1509.23	2.11	1.5361E+004		2.8160E+003
		1538.50	0.38	8.1905E+004		2.2996E+004
		1543.32	0.20	1.5325E+005		5.3238E+003
		1583.22	0.69	4.5856E+004		-1.5228E+004
		1594.73	0.25	1.3063E+005		4.2615E+004
		1599.31	0.23	1.4943E+005		-1.7613E+004
		1661.28	1.15	2.2359E+004		7.7631E+003
		1683.99	0.22	1.2287E+005		-6.5639E+004
		1729.59	2.92	8.6510E+003		-3.0979E+003
		1764.49	15.40	1.6230E+003		-8.0827E+002
		1847.42	2.11	1.0904E+004		-7.1589E+003
		1873.16	0.22	1.2089E+005		-3.6280E+004
>		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	5.1906E+005	1.41E+003	-7.4490E+004
		74.81	6.44	1.8520E+004		-1.7867E+003
		77.11	10.80	1.0221E+004		-1.5038E+003
		87.30	4.84	2.8744E+004		3.6124E+005
		242.00	7.43	6.6770E+003		1.1603E+003
		258.87	0.52	9.3060E+004		3.0892E+004
		274.80	0.47	1.0172E+005		-1.4985E+004
		295.22	19.30	2.5462E+003		-3.8216E+002
		351.93	37.60	1.4109E+003		1.1472E+002
		462.00	0.22	2.8675E+005		8.0552E+004
		533.66	0.19	3.1469E+005		1.4258E+005
		785.96	1.07	6.7345E+004		5.0234E+003
		839.04	0.59	1.3282E+005		7.3842E+004
	Ra-224	81.07	0.13	1.3889E+006	2.24E+004	-6.1355E+005
		83.78	0.22	8.0557E+005		-7.3812E+004
		240.99	4.10	2.2373E+004		-4.7123E+003
	Ra-226	81.07	0.20	5.0051E+005	1.29E+004	-2.2110E+005
		83.78	0.33	2.8882E+005		-2.6463E+004
		94.90	0.15	3.7375E+005		-8.2304E+004
		186.21	3.59	1.2941E+004		-1.5752E+002
	Ac-228	99.50	1.26	7.6336E+004	6.43E+003	-3.6532E+004
		129.07	2.50	3.6949E+004		-7.2569E+003
		209.25	3.97	2.2681E+004		-4.6392E+003
		270.24	3.55	2.5017E+004		4.3796E+003
		328.00	3.04	3.1817E+004		6.6399E+002
		338.32	11.40	8.3585E+003		8.2731E+002
		409.46	2.02	5.1185E+004		-4.7893E+003

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/STD)	Nuclide MDA (pCi/STD)	Activity (pCi/STD)
Ac-228	463.00	4.45	2.6087E+004	6.43E+003	-5.3917E+003
	755.31	1.03	1.1764E+005		-2.6840E+004
	772.29	1.52	8.1104E+004		5.1340E+004
	794.94	4.31	3.1417E+004		5.5772E+003
	835.70	1.70	8.4981E+004		3.2996E+004
	911.20	26.20	6.4266E+003		-1.6157E+003
	964.79	4.99	3.3869E+004		-7.1894E+003
	968.96	15.90	1.0337E+004		-8.1365E+003
	1588.20	3.06	1.9881E+004		4.6523E+003
	1630.62	1.52	3.8405E+004		-1.1036E+004
Th-228	84.37	1.26	1.3855E+005	1.39E+005	-2.8229E+004
	131.61	0.13	7.0739E+005		1.4406E+005
	166.41	0.10	9.8490E+005		2.9527E+006
	215.98	0.25	3.6913E+005		5.7351E+004
Pa-234m	258.23	0.07	6.5680E+005	1.04E+005	-2.2460E+005
	742.81	0.09	7.0671E+005		-1.3354E+005
	766.36	0.32	2.0878E+005		5.1701E+004
	786.27	0.05	1.3431E+006		-2.9561E+005
	1001.03	0.85	1.0396E+005		-1.0102E+004
	1737.77	0.02	1.1690E+006		-6.6389E+004
Th-234	63.30	3.75	6.3603E+004	1.35E+004	-1.8320E+004
	92.59	4.33	1.3471E+004		-8.9032E+003
	112.81	0.22	2.4119E+005		1.3632E+005

+ = 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: TEST QC120916
Nuclide Library Used: C:\GENIE2K\CAMFILES\ERT_LIBRARY_LMDA.NLB

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

Nuclide Name	Id Confidence	Energy (keV)		Yield (%)	Activity (pCi/STD)	Activity Uncertainty
Co-57	0.972	122.06*		85.51	3.02982E+004	1.23930E+003
		136.47*		10.71	3.17364E+004	4.64993E+003
Co-60	0.989	1173.23*		99.85	6.06820E+004	1.62563E+003
		1332.49*		99.98	6.17890E+004	1.65816E+003
		2505.71	@	0.10		
Cd-109	0.988	88.03*		3.63	1.15457E+006	4.31995E+004
Sn-113	0.816	255.13		2.11		
		391.70*		64.97	6.20521E+004	7.77832E+003
Cs-137	0.992	32.06	@	5.54		
		661.66*		84.99	3.79590E+004	1.15294E+003
Ce-139	0.903	165.86*		79.89	4.71127E+004	3.57054E+003
Tl-207	0.993	897.77*		0.26	1.11368E+006	1.08097E+005
Pb-210	0.996	46.54*		4.25	9.70372E+005	1.19279E+005
Am-241	0.994	26.34	@	2.31		
		59.54*		35.92	1.09582E+005	4.25975E+003

* = 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

****
***** 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 *****
****

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/STD)	Wt mean Activity Uncertainty
Co-57		0.972	3.039357E+004	1.197504E+003
Co-60	@	0.989	6.122452E+004	1.160823E+003
Cd-109		0.988	1.154570E+006	4.319949E+004
Sn-113		0.816	6.205206E+004	7.778321E+003
Cs-137	@	0.992	3.795897E+004	1.152945E+003
Ce-139		0.903	4.711274E+004	3.570537E+003
Tl-207		0.993	1.113685E+006	1.080966E+005
Pb-210		0.996	9.703718E+005	1.192791E+005
Am-241	@	0.994	1.095815E+005	4.259746E+003

? = 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: 12/9/2016 10:35:47 AM
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	4	119.46	9.0153E-002	38.97	Sum	
	8	230.26	1.0242E-002	510.90	Tol.	Ta-182
	9	242.75	9.5317E-002	59.49	Tol.	Pb-214
	10	304.28	4.3077E-004	7550.33	Tol.	Ba-140 Th-227
	13	827.87	1.2895E-002	205.61	Sum	
	15	953.13	3.8258E-002	91.41		
	18	1837.25	4.2958E-001	5.48		

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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*************************************************************************
*****        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-STANDARD-2HR-161208.CNF

Report Generated On              : 12/8/2016   5:53:59 PM

Sample Title                     : STANDARD-2HR-161208
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                      :  1.000E+000 STD

Sample Taken On                  : 4/1/2015   12:00:00 PM
Acquisition Started              : 12/8/2016   3:53:19 PM

Live Time                        :     7200.0 seconds
Real Time                        :     7236.1 seconds

Dead Time                        :   0.50 %


            Energy Calibration Used Done On        : 10/24/2016
            Efficiency Calibration Used Done On    : 12/8/2016
            Efficiency ID                          : ERT0101
```

****
***** P E A K A N A L Y S I S R E P O R T *****
****

Detector Name: ERT01
Sample Title: STANDARD-2HR-161208
Peak Analysis Performed on: 12/8/2016 5:53:59 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	176-	192	186.91	46.68	0.94	8.51E+003	263.96	1.95E+004
2	224-	245	238.89	59.68	0.96	4.23E+004	381.93	2.67E+004
3	337-	364	352.78	88.15	0.98	7.82E+004	499.18	3.76E+004
4	479-	499	488.85	122.17	1.01	3.01E+004	319.12	1.98E+004
5	539-	555	546.43	136.57	1.01	3.96E+003	218.12	1.39E+004
6	650-	671	663.88	165.94	1.06	9.58E+003	262.50	1.58E+004
7	1560-	1575	1566.42	391.59	1.17	4.74E+003	149.47	5.80E+003
8	1714-	1723	1718.22	429.54	0.39	1.04E+002	89.54	3.49E+003
9	2051-	2060	2055.92	513.98	1.00	2.07E+002	80.73	2.79E+003
10	2635-	2662	2645.91	661.48	1.39	8.26E+004	327.67	5.40E+003
11	3276-	3295	3282.20	820.57	1.34	3.90E+002	115.74	3.71E+003
12	3574-	3605	3591.38	897.87	1.53	4.74E+003	199.04	6.98E+003
13	3875-	3891	3880.94	970.27	0.76	5.78E+001	104.83	3.49E+003
14	4515-	4534	4524.95	1131.28	0.75	1.52E+002	90.11	2.27E+003
15	4676-	4706	4692.93	1173.28	1.67	8.64E+004	316.32	2.77E+003
16	5312-	5349	5330.65	1332.73	1.79	7.98E+004	291.05	8.62E+002
17	7333-	7363	7347.95	1837.09	1.99	2.98E+003	63.83	2.26E+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: STANDARD-2HR-161208
Nuclide Library Used: C:\GENIE2K\CAMFILES\ERT_LIBRARY_LMDA.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/STD)	Nuclide MDA (pCi/STD)	Activity (pCi/STD)
	K-40	1460.82	10.55	1.0744E+003	1.07E+003	3.5506E+002
+	Co-60	1173.23*	99.85	3.8051E+002	2.53E+002	6.0085E+004
		1332.49*	99.98	2.5276E+002		6.1263E+004
>		2505.71	0.10	0.0000E+000		0.0000E+000
+	Cs-137	32.06	5.54	1.8579E+007	3.25E+002	4.3015E+005
		661.66*	84.99	3.2516E+002		3.6624E+004
	Tl-208	72.80	2.02	4.0057E+004	4.43E+002	4.0080E+003
		74.97	3.41	2.1964E+004		-1.4913E+004
		84.90	1.51	4.7611E+004		4.5922E+002
		277.36	6.31	5.6219E+003		2.0913E+003
		510.77	22.60	1.8035E+003		3.1316E+003
		583.19	84.50	4.4323E+002		-1.8273E+002
		763.13	1.81	2.3072E+004		6.0684E+003
		860.56	12.42	4.1017E+003		5.3771E+002
	Bi-212	39.86	1.06	5.5370E+006	5.97E+003	-2.7803E+006
		727.33	6.74	5.9658E+003		4.3117E+003
		785.37	1.11	3.8821E+004		-1.0951E+004
		1620.74	1.51	1.3053E+004		5.2311E+002
		1806.00	0.09	1.7702E+005		4.7806E+004
	Pb-212	74.81	10.40	7.2375E+003	8.25E+002	-2.2216E+003
		77.11	17.50	4.0274E+003		2.5471E+002
		87.30	7.81	1.2098E+004		4.2929E+005
		115.18	0.59	5.6843E+004		-2.8568E+003
		238.63	43.30	8.2543E+002		-1.0232E+002
		300.09	3.28	1.0726E+004		-2.1874E+003
	Bi-214	76.86	0.43	9.0305E+004	4.72E+002	-8.8109E+003
		89.81	0.24	1.9275E+005		1.2638E+004
		386.77	0.30	7.0169E+004		-1.4592E+005
		454.77	0.29	7.8140E+004		9.6909E+003
		609.31	45.49	4.7160E+002		-2.4226E+001
		665.45	1.53	4.6810E+004		8.6952E+002
		703.11	0.48	4.4242E+004		2.2627E+004
		719.86	0.39	5.4933E+004		-1.2421E+004
		768.36	4.89	4.6436E+003		9.2412E+002
		786.10	0.31	7.9161E+004		-3.8321E+003
		806.17	1.26	2.0142E+004		-9.7931E+002
		934.06	3.10	1.0514E+004		5.7544E+003
		964.08	0.36	8.7954E+004		3.7972E+004
		1051.96	0.31	9.6328E+004		4.4634E+004
		1120.29	14.91	1.9399E+003		-1.4373E+003

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/STD)	Nuclide MDA (pCi/STD)	Activity (pCi/STD)
	Bi-214	1133.66	0.25	1.0472E+005	4.72E+002	-1.2857E+004
		1155.19	1.63	1.5768E+004		-8.6035E+003
		1207.68	0.45	4.2172E+004		2.4081E+004
		1238.11	5.79	2.8523E+003		-3.3197E+002
		1280.96	1.43	1.0500E+004		-3.6522E+002
		1377.67	4.00	2.6501E+003		1.3923E+003
		1385.31	0.76	1.3867E+004		-2.5315E+003
		1401.50	1.27	8.3253E+003		1.0968E+003
		1407.98	2.15	5.0135E+003		2.3372E+003
		1509.23	2.11	5.1529E+003		-2.7437E+003
		1538.50	0.38	3.0122E+004		4.5925E+003
		1543.32	0.20	5.7137E+004		4.0259E+004
		1583.22	0.69	1.7304E+004		-4.0413E+003
		1594.73	0.25	4.7199E+004		7.4033E+002
		1599.31	0.23	5.0508E+004		-2.8680E+004
		1661.28	1.15	9.0957E+003		3.0320E+003
		1683.99	0.22	4.5994E+004		6.4343E+003
		1729.59	2.92	3.1255E+003		-8.4658E+002
		1764.49	15.40	6.0605E+002		-2.1220E+001
		1847.42	2.11	4.0861E+003		-1.8291E+003
		1873.16	0.22	3.7537E+004		1.5141E+004
>		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	1.6370E+005	5.26E+002	-2.1221E+005
		74.81	6.44	6.3381E+003		-1.9455E+003
		77.11	10.80	3.5388E+003		2.2381E+002
		87.30	4.84	1.0587E+004		3.7565E+005
		242.00	7.43	2.6031E+003		1.1189E+003
		258.87	0.52	3.5969E+004		-9.5934E+003
		274.80	0.47	3.9147E+004		-8.0693E+003
		295.22	19.30	9.9746E+002		3.2452E+002
		351.93	37.60	5.2638E+002		4.2138E+000
		462.00	0.22	1.0323E+005		6.4204E+003
		533.66	0.19	1.1075E+005		1.9558E+004
		785.96	1.07	2.2923E+004		1.1877E+003
		839.04	0.59	4.5356E+004		-4.3189E+003
	Ra-224	81.07	0.13	4.9486E+005	8.70E+003	-2.6299E+005
		83.78	0.22	2.8916E+005		-8.2871E+004
		240.99	4.10	8.7021E+003		2.9767E+003
	Ra-226	81.07	0.20	1.7845E+005	4.84E+003	-9.4834E+004
		83.78	0.33	1.0374E+005		-2.9731E+004
		94.90	0.15	1.4107E+005		1.1466E+005
		186.21	3.59	4.8432E+003		4.6027E+002
	Ac-228	99.50	1.26	2.9061E+004	2.16E+003	8.5638E+003
		129.07	2.50	1.2904E+004		1.8266E+003
		209.25	3.97	8.8027E+003		2.7303E+002
		270.24	3.55	9.6738E+003		1.8695E+003
		328.00	3.04	1.1958E+004		-2.7180E+003
		338.32	11.40	3.1873E+003		-1.2263E+003
		409.46	2.02	1.8859E+004		2.7750E+002

Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/STD)	Nuclide MDA (pCi/STD)	Activity (pCi/STD)
Ac-228	463.00	4.45	9.4600E+003	2.16E+003	-3.5709E+003
	755.31	1.03	4.0172E+004		3.7897E+002
	772.29	1.52	2.7541E+004		-7.3788E+003
	794.94	4.31	1.0586E+004		3.5658E+002
	835.70	1.70	2.8788E+004		1.2206E+004
	911.20	26.20	2.1618E+003		4.5100E+002
	964.79	4.99	1.1759E+004		2.8286E+003
	968.96	15.90	3.5674E+003		-7.1276E+002
	1588.20	3.06	7.2228E+003		2.5729E+003
	1630.62	1.52	1.3114E+004		4.1608E+003
Th-228	84.37	1.26	5.0324E+004	5.03E+004	-4.2566E+003
	131.61	0.13	2.4597E+005		-3.0554E+004
	166.41	0.10	3.6017E+005		3.0192E+003
	215.98	0.25	1.4196E+005		-1.4470E+004
Pa-234m	258.23	0.07	2.5665E+005	3.59E+004	9.6979E+004
	742.81	0.09	2.3476E+005		-2.8595E+004
	766.36	0.32	6.9876E+004		-2.9837E+004
	786.27	0.05	4.5699E+005		-3.5986E+004
	1001.03	0.85	3.5855E+004		-3.5840E+004
	1737.77	0.02	4.2403E+005		-2.5292E+004
Th-234	63.30	3.75	1.9914E+004	5.02E+003	-9.9269E+004
	92.59	4.33	5.0207E+003		3.5142E+001
	112.81	0.22	8.4866E+004		-9.9773E+003

+ = 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: STANDARD-2HR-161208
Nuclide Library Used: C:\GENIE2K\CAMFILES\ERT_LIBRARY_LMDA.NLB

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

Nuclide Name	Id Confidence	Energy (keV)		Yield (%)	Activity (pCi/STD)	Activity Uncertainty
Co-57	0.973	122.06*		85.51	2.88713E+004	7.62339E+002
		136.47*		10.71	3.00633E+004	1.87908E+003
Co-60	0.995	1173.23*		99.85	6.00853E+004	1.55374E+003
		1332.49*		99.98	6.12629E+004	1.61413E+003
		2505.71	@	0.10		
Kr-85	1.000	514.00*		0.44	1.65823E+004	6.51394E+003
Sr-85	0.636	514.00*		98.50	4.81299E+004	1.88752E+004
Cd-109	0.989	88.03*		3.63	1.24022E+006	3.61459E+004
Sn-113	0.816	255.13		2.11		
		391.70*		64.97	8.15981E+004	3.97827E+003
Cs-137	0.993	32.06	@	5.54		
		661.66*		84.99	3.66240E+004	1.11528E+003
Ce-139	0.903	165.86*		79.89	4.73116E+004	1.92555E+003
Tl-207	0.998	897.77*		0.26	8.64540E+005	5.14934E+004
Pb-210	0.997	46.54*		4.25	1.08513E+006	6.20280E+004
Am-241	0.997	26.34	@	2.31		
		59.54*		35.92	1.00981E+005	3.12092E+003

* = 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

****
***** INTERFERENCE CORRECTED REPORT *****
****

	Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/STD)	Wt mean Activity Uncertainty
	Co-57		0.973	2.903975E+004	7.064301E+002
	Co-60	@	0.995	6.065165E+004	1.119401E+003
?	Kr-85		1.000	1.658234E+004	6.513940E+003
?	Sr-85		0.636	4.812993E+004	1.887523E+004
	Cd-109		0.989	1.240220E+006	3.614595E+004
	Sn-113		0.816	8.159805E+004	3.978272E+003
	Cs-137	@	0.993	3.662403E+004	1.115281E+003
	Ce-139		0.903	4.731164E+004	1.925552E+003
	Tl-207		0.998	8.645400E+005	5.149338E+004
	Pb-210		0.997	1.085128E+006	6.202804E+004
	Am-241	@	0.997	1.009810E+005	3.120917E+003

? = 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

********** UNIDENTIFIED PEAKS **********

Peak Locate Performed on: 12/8/2016 5:53:59 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
8	429.54	1.4407E-002	86.32	Tol.	Rh-106
11	820.57	5.4135E-002	29.69		
13	970.27	8.0223E-003	181.50		
14	1131.28	2.1085E-002	59.36		
17	1837.09	4.1341E-001	2.14		

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

Errors quoted at 1.000 sigma